

Naval Facilities Engineering Systems Command Hawaii

**Quarterly Release Response Report,
Red Hill Bulk Fuel Storage Facility
JBPHH, O‘ahu, Hawai‘i**

DOH Facility ID No. 9-102271

DOH UST Release ID Nos. 990051, 010011, 140010, 210012

DOH HEER Release Incident Case Nos. 20210507-0852,
20211120-2330

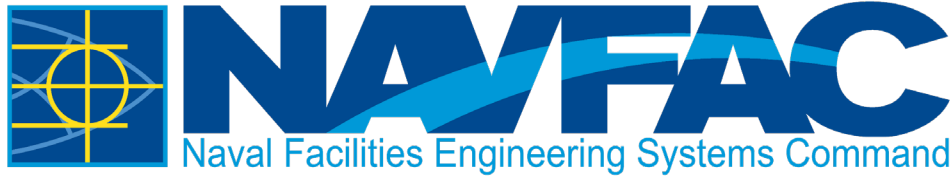
September 11, 2024

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Executive Summary

This Quarterly Release Response Report covering the reporting period April 11 to July 10, 2024, was prepared for Naval Facilities Engineering Systems Command, Hawaii by AECOM Technical Services, Inc. for the Red Hill Bulk Fuel Storage Facility (Facility) in accordance with the State of Hawai'i Department of Health (DOH) Technical Guidance Manual for the Implementation of the Hawaii State Contingency Plan (DOH 2023). It presents results of soil vapor and groundwater monitoring conducted in accordance with the Red Hill Consolidated Groundwater Sampling Program (DON 2023a). The groundwater data reporting also includes laboratory data for samples collected prior to this period that were finalized (validated) during this period.

This Quarterly Release Response Report also summarizes release response activities conducted pursuant to Hawai'i Administrative Rules Section 11-280.1 and DOH Notices of Interest for fuel releases from the Facility in January 2014, May 2021, and November 2021. This report also discusses activities and data previously presented in quarterly groundwater Long-Term Monitoring Reports that were prepared pursuant to the Red Hill Groundwater Protection Plan (DON 2014a). In addition to documenting monitoring results, this report presents a plan for future release response actions to be taken.

Site characterization, removal, and remedial efforts conducted during this reporting period include:

- Continued soil vapor monitoring in the Facility tank farm and in the Adit 3 and Pearl Harbor Tunnels
- Continued gauging of light nonaqueous-phase liquid (LNAPL) and collection of headspace measurements, purge water natural chemistry parameters, and sample from groundwater monitoring wells for analysis of chemicals of potential concern (COPCs), natural attenuation, and general chemistry parameters
- Continued expansion of the groundwater monitoring network
- Continued operation of the granular activated carbon (GAC) pump and treat system at Red Hill Shaft
- Site characterization planning activities for the Collection, Holding, and Transfer (CHT) Tank
- Remediation pilot test planning and installation activities

Results from this reporting period indicate the following:

- Soil vapor impacts associated with the January 2014, May 2021, and November 2021 Releases are decreasing over time, consistent with natural attenuation of LNAPL in the environment.
- Groundwater concentrations for all contaminants appear to be declining or stable over time. All data collected to date demonstrate that groundwater impacts are undergoing natural attenuation, including biodegradation. Groundwater analytical detections and exceedances are summarized in Table ES-1.

Table ES-1: Summary of Analytical Detections and Exceedances in Groundwater, Current Reporting Period

Monitoring Location	COPC, Fuel Additive, or Lead Scavenger Detection Below Screening Criterion	Analyte Concentration Exceeding Screening Criterion
RHMW2254-01	None	None
RHSF-PUMP	None	None
RHMW01R	TPH-DRO (detected after SGC)	None
RHMW02	TPH-ORO (lower after SGC) 1-Methylnaphthalene 2-Methylnaphthalene Naphthalene	TPH-DRO: 1,927; 1,430; 1,767; 1,550; 1,810; 2,030; 2,760; 3,060; 1,770; 1,810 µg/L (screening criterion: 400 µg/L) (below SSRBL: 4,500 µg/L)
RHMW03	TPH-DRO (ND after SGC) TPH-ORO (ND after SGC) Phenanthrene	None
RHMW04	None	None
RHMW05	None	None
RHMW06	TPH-DRO (lower after SGC)	None
RHMW08	TPH-DRO (lower after SGC) TPH-ORO (ND after SGC)	None
RHMW09	None	None
RHMW10	None	None
RHMW11-05	None	None
RHMW12A	None	None
RHMW13-04	None	None
RHMW14-03	None	None
RHMW15-05	None	TPH-DRO: 1,379 µg/L (screening criterion: 400 µg/L) TPH-ORO: 570.5 µg/L (screening criterion: 500 µg/L)
RHMW16	None	None
RHMW17	Chrysene	Benzo(a)anthracene: 0.041 J µg/L (screening criterion: 0.029 µg/L)
RHMW18	None	None
RHMW19	None	None
RHMW20	None	None
HDMW2253-01	None	None
RHP01	None	None
RHP02	None	None
RHP03	None	None
RHP04A	None	None
RHP04B	TPH-DRO (ND after SGC) TPH-ORO (ND after SGC)	None

Monitoring Location	COPC, Fuel Additive, or Lead Scavenger Detection Below Screening Criterion	Analyte Concentration Exceeding Screening Criterion
RHP04C	TPH-DRO (ND after SGC)	None
RHP05	None	None
RHP06	None	None
RHP07	None	None
RHP08	None	None
NMW24	None	None
NMW25	None	None
NMW26	TPH-DRO (ND after SGC) TPH-ORO (ND after SGC)	None
NMW30	None	None
NMW32	TPH-ORO (detected after SGC)	None
NMW33	None	None
NMW34	TPH-DRO (ND after SGC) TPH-ORO (ND after SGC)	None
OWDFMW03A	None	None
OWDFMW08A	None	None

Notes: EAL screening criteria are not intended to represent mandatory cleanup levels. Exceedance of an action level does not necessarily indicate that an adverse health risk is present, but rather that additional action is warranted (DOH 2024, pg. 1-8).

µg/L micrograms per liter
 COPC chemical of potential concern
 DRO diesel range organics
 ND non-detect
 ORO residual oil range organics
 SGC silica gel cleanup
 SSRBL Site-Specific Risk-Based Level

In addition to the site characterization activities described in this report, the Navy has conducted fuel recovery efforts since December 2021, including use of absorbent materials, skimmers, direct recovery from piping, soil excavation, and operation of the GAC treatment system.

Planned future actions include:

- Continued soil vapor monitoring at sampling locations within the Facility tank farm, and in the Adit 3 and Pearl Harbor Tunnels near Red Hill Shaft
- Continued groundwater sampling from the Red Hill monitoring well network in accordance with the Consolidated Groundwater Sampling Program (DON 2023a)
- Continued installation of new groundwater monitoring wells
- Continued operation of the GAC pump and treat system at Red Hill Shaft
- Continued site characterization activities at the CHT Tank and in the Adit 3 and Pearl Harbor Tunnels near Red Hill Shaft
- Conducting a remediation pilot test in the Adit 3 and Pearl Harbor Tunnels near Red Hill Shaft

The Navy continues to expand the groundwater monitoring well network, both on-site and off-site, including establishing new well locations to monitor groundwater quality between Red Hill and offsite water supply wells, including additional offsite sentinel wells and additional plume delineation wells within the Facility boundaries to provide early warning of offsite contaminant migration. New sentinel well locations are being installed to monitor groundwater quality between Red Hill and offsite water supply wells. Activities and sampling of the JBPHH Water Distribution System (regulated by the DOH Safe Drinking Water Branch) and the November 29, 2022, aqueous film-forming foam release outside Adit 6 (being investigated separately) are not addressed in this Quarterly Release Response Report.

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Acronyms and Abbreviations

%	percent
%D	percent difference
%R	percent recovery
%RSD	percent relative standard deviation
°C	degree Celsius
µg/L	micrograms per liter
µg/m ³	micrograms per cubic meter
1MN	1-methylnaphthalene
2-2-MEE	2-(2-methoxyethoxy)-ethanol
2MN	2-methylnaphthalene
AOC	Administrative Order on Consent
AS	air sparging
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
BWS	Board of Water Supply, City and County of Honolulu
CAS	Chemical Abstracts Service
CCV	continuing calibration verification
CF&T	contaminant fate and transport
CHT	collection, holding, and transfer
COPC	chemical of potential concern
CSM	conceptual site model
DEET	n,n-diethyl-3-methylbenzamide
DLA	Defense Logistics Agency
DO	dissolved oxygen
DOC	dissolved organic carbon
DoD	Department of Defense
DOH	Department of Health, State of Hawai'i
DQI	data quality indicator
DRO	diesel range organics
EAL	Environmental Action Level
EB	equipment blank
EDMS	Environmental Data Management System
Energy	Energy Laboratories, Inc.
EPA	Environmental Protection Agency, United States
Facility	Red Hill Bulk Fuel Storage Facility
FB	field blank
FD	field duplicate
ft	foot/feet
GAC	granular activated carbon
GRO	gasoline range organics
GW LTM	groundwater long-term monitoring
GWPP	Groundwater Protection Plan
H ₂ SO ₄	sulfuric acid
HCl	hydrochloric acid
HDPE	high-density polyethylene
HEER	Hazard Evaluation and Emergency Response
HNO ₃	nitric acid
ICV	initial calibration verification
ID	identification

JBPHH	Joint Base Pearl Harbor-Hickam
JP	Jet Fuel Propellant
L	liter
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LNAPL	light nonaqueous-phase liquid
LOD	limit of detection
LOQ	limit of quantitation
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mL	milliliter
MS	matrix spike
MSD	matrix spike duplicate
msl	mean sea level
N	naphthalene
N/A	not applicable
NAP	natural attenuation parameter
NAVFAC	Naval Facilities Engineering Systems Command
Navy	Department of the Navy, United States
ND	not detected
no.	number
NOI	Notice of Interest
NSZD	natural source-zone depletion
NVDOC	non-volatile dissolved organic carbon
ORO	residual oil range organics
OU	Operable Unit
oz.	ounce
PAH	polynuclear aromatic hydrocarbon
PFAS	per- and polyfluoroalkyl substances
PID	photoionization detector
ppbv	parts per billion by volume
ppm	parts per million
ppmv	parts per million by volume
PVC	polyvinyl chloride
QC	quality control
RI	remedial investigation
ROV	remotely operated vehicle
RPD	relative percent difference
RRF	relative response factor
RRR	release response report
SDG	sample delivery group
SGC	silica gel cleanup
SIM	selected ion monitoring
SOP	standard operating procedure
SSRBL	Site-Specific Risk-Based Level
SVE	soil vapor extraction
SVMP	soil vapor monitoring point
SVOC	semivolatile organic compound
TGM	Technical Guidance Manual for the Implementation of the Hawaii State Contingency Plan
THM	trihalomethane

TMB	trimethylbenzene
TOC	total organic carbon
TPH	total petroleum hydrocarbons
U.S.	United States
UST	underground storage tank
VOA	volatile organic analysis
VOC	volatile organic compound
WP	work plan

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1.0 Introduction and Purpose

This Quarterly Release Response Report (RRR) presents the results of groundwater and soil vapor sampling and analyses conducted during the current reporting period of April 11 to July 10, 2024 for monitoring locations at the Red Hill Bulk Fuel Storage Facility (“Facility”), Joint Base Pearl Harbor-Hickam, O‘ahu, Hawai‘i. Since the Quarterly Groundwater Monitoring reports have been discontinued, the Quarterly RRR includes data evaluation for the quarterly long-term monitoring that were previously reported in the Quarterly Groundwater Monitoring reports formerly prepared pursuant to the Red Hill *Groundwater Protection Plan* [GWPP] (DON 2014a).

Release response efforts documented herein were conducted due to the following petroleum releases to the environment at the Facility (release locations are shown on Figure 1):

- **January 2014 Release:** On January 23, 2014, the Navy reported to the State of Hawai‘i Department of Health (DOH) a release of an estimated 27,000 gallons of Jet Fuel Propellant (JP)-8 from one of the Facility’s underground fuel storage tanks (Tank 5). The release occurred when placing the tank back in service following a 3-year inspection and refurbishment process completed in December 2013.
- **May 2021 Release:** On May 6, 2021, a JP-5 pipeline near Facility Tanks 18 and 20 was damaged during a fuel transfer procedure. Fuel was released to the lower access tunnel floor. It was later determined that some of the fuel entered soil vapor monitoring boreholes, which are in contact with the surrounding basalt, and some of the fuel was pumped from a fire suppression system sump in the access tunnel into the fire suppression system retention line. The fuel remained contained in the fire suppression system retention line until it was damaged on November 20, 2021.
- **November 2021 Release:** On November 20, 2021, fuel in the fire suppression recovery drain line was released into the Adit 3 Tunnel, traveled on the concrete tunnel floor toward the adit portal, and collected in a sump (Adit 3 Sump) and a sanitary sewer sump near the Adit 3 entranceway. Fuel that entered the Adit 3 Sump was either recovered, released to the subsurface adjacent to the sump, or pumped from the sump to an underground Holding Tank and Leach Tank system outside the Adit 3 portal, where it was released to the subsurface. Fuel that entered the sanitary sewer sump was pumped to an aboveground Collection, Holding, and Transfer (CHT) Tank system outside the Adit 3 portal, which overflowed during heavy rains to the surrounding asphalt-covered work area in January 2022. The remainder of the fuel entered the subsurface (soil or volcanic bedrock) near United States (U.S.) Department of the Navy (Navy) Well 2254-01 (Red Hill Shaft). Some of the fuel entered the Joint Base Pearl Harbor-Hickam (JBPHH) Water Distribution System. Red Hill Shaft ceased pumping on November 28, 2021, and was isolated from the JBPHH Water Distribution System. Release response activities are ongoing.

This report includes laboratory data that were finalized (validated) during this period, not necessarily from samples collected during this period, due to the lag between sample collection and validation. Specifically, as required by Hawai‘i Administrative Rules Section 11-280.1-65.2(b), this report describes:

- All response actions (investigation, removal, and remediation activities) taken during the current quarterly reporting period
- A plan for future release response actions to be taken

This report summarizes the following activities conducted during this reporting period:

- Continued soil vapor monitoring in the Facility tank farm, and in the Adit 3 and Pearl Harbor Tunnels
- Continued gauging of light nonaqueous-phase liquid (LNAPL) and collection of headspace measurements and purge water natural chemistry parameters in groundwater monitoring wells
- Continued groundwater sampling and analysis and expansion of the groundwater monitoring network
- Continued operation of the granular activated carbon (GAC) pump and treat system at Red Hill Shaft
- Continued Adit 3 and Pearl Harbor Tunnel site characterization activities
- Continued CHT Tank site characterization investigation planning activities
- Continued remediation and treatability study pilot test planning activities

This report presents field observations and final analytical results available through this reporting period, including:

- Results from soil vapor field measurements using photoionization detectors (PIDs)
- Results from a fixed-based laboratory for soil vapor passivated canister samples
- Results from monitoring well LNAPL gauging and measurements of headspace, water levels, and groundwater parameters
- Validated laboratory results for groundwater samples

Separate reporting has been provided to the Regulatory Agencies (DOH and the U.S. Environmental Protection Agency [EPA]) for investigations conducted at the Adit 3 and Pearl Harbor Tunnel area, the Holding Tank and Leach Tank area, and the CHT Tank area, as summarized in Section 3.0.

In addition to the activities described in this report, the Navy has conducted fuel recovery efforts since December 2021 and is continuing operation of the GAC pump and treat system at Red Hill Shaft, which began in January 2022. Fuel recovery efforts include the use of sorbent materials, skimmers, direct recovery from piping, and soil excavation. In addition, the GAC pump and treat system for Red Hill Shaft groundwater will continue to remove any dissolved constituents that are captured by pumping in the vicinity of Red Hill Shaft, as described in the Red Hill Shaft Recovery and Monitoring Plan (IDWST 2022).

Activities and sampling of the JBPHH Water Distribution System (regulated by the DOH Safe Drinking Water Branch) and the November 29, 2022, aqueous film-forming foam release outside Adit 6 (being investigated separately) are not addressed in this report.

(b) (3)

Figure 1
Location of Releases and
Groundwater Monitoring Wells
Consolidated Quarterly Monitoring Report
Red Hill Bulk Fuel Storage Facility
JBPHH, O'ahu, Hawai'i

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1.1 Statement of Purpose

Quarterly groundwater monitoring was conducted pursuant to the Red Hill *Groundwater Protection Plan* [GWPP] (DON 2014a) and in response to the Notices of Interest (NOIs) issued by DOH for the January 2014, May 2021, and November 2021 Releases. Groundwater sampling was conducted in accordance with the May 2023 memorandum *Consolidation and Optimization of the Groundwater Sampling Programs, Red Hill Bulk Fuel Storage Facility* memorandum (DON 2023a), which unified multiple groundwater monitoring efforts at Red Hill under a single Consolidated Groundwater Sampling Program beginning in June 2023.

The purpose of the groundwater monitoring is to evaluate the condition of groundwater beneath the Facility and to document that the United States Department of the Navy remains in compliance with DOH Underground Storage Tank release response requirements as described in Hawai'i Administrative Rules Chapter 11-280.1, Subchapter 6, Release Response Action.

The Facility has a network of soil vapor monitoring points (SVMPs) that are monitored in accordance with the Red Hill GWPP (DON 2014a) and Long-Term Monitoring Work Plan/Sampling and Analysis Plan (DON 2015b) using the existing boreholes beneath 18 of 20 tanks in the Facility to support leak detection. In response to the NOIs issued by DOH for the May 2021, and November 2021 Releases, additional subsurface SVMPs were installed into petroleum-impacted segments of the Adit 3 and Pearl Harbor Tunnels.

This report provides activities and results from groundwater and soil vapor sampling from the vadose zone to monitor and evaluate potential risks to human health and the environment.

DOH Identification (ID) and case numbers (nos.) for the Facility fuel releases are as follows:

- DOH Facility ID No. is 9-102271.
- DOH Release ID Nos. are 990051, 010011, 020028, 140010, and 210012.
- DOH Hazard Evaluation and Emergency Response (HEER) Release Incident Case Nos. are 20210507-0852 (May 10, 2021) (DOH 2021a) and 20211120-2330 (November 24, 2021) (DOH 2021b).

1.2 Previous Reports

Documentation of previous Red Hill environmental investigations is presented in Section 2.5, and release response-related reports are listed in Section 1.2, Previous Reports, within the Quarterly RRRs from December 2023 and prior.

2.0 Background

Groundwater Protection Plan (GWPP). The Red Hill GWPP (DON 2008b; 2014a) presents an integrated strategy to manage risks by implementing release detection, characterization, and response measures. The Navy first developed the GWPP in 2008 at DOH's request after previous environmental investigations (DON 1999; 2002; 2007) showed impact to the environment by petroleum hydrocarbons. Its provisions include conducting soil vapor monitoring under the former fuel storage tanks and groundwater long-term monitoring (GW LTM). Soil vapor concentrations have been measured monthly since 2008, and groundwater samples have been collected and analyzed at least quarterly since 2005; results have been reported to DOH on a quarterly basis.

Generally, the GWPP is slated for updating every 5 years. An update specific to tank defueling activities was published in September 2023 (DON 2023f).

January 2014 Release. During Tank 5 refilling operations in January 2014 following a routine 3-year tank inspection and refurbishment process, a release of approximately 27,000 gallons of JP-8 fuel was confirmed and reported to DOH on January 23, 2014 (Figure 1). During that month, a fuel hydrocarbon seep was observed on a tunnel wall below Tank 5, and SVMPs installed beneath Tank 5 exhibited a sharp increase in hydrocarbon vapor concentrations. Subsequent analyses indicated that the causes of the release were defective workmanship in welding by the tank refurbishment contractor, poor inspection, and ineffective quality control (QC). The release resulted in EPA, DOH, the Navy, and Defense Logistics Agency (DLA) agreeing to the Red Hill AOC in September 2015 (EPA Region 9 and DOH 2015). The AOC provides for the performance by the Navy of a release assessment, response(s) to release(s), and actions to minimize the threat of future releases in connection with the then-active field-constructed bulk fuel underground fuel storage tanks, surge tanks, pumps, and associated piping, and on any property that may be affected now or in the future by petroleum or other substances released from the Facility.

May 2021 Release. On May 6, 2021, Navy personnel responded to a reported release of fuel from a distribution pipeline inside the Facility in the vicinity of Tanks 18 and 20 (Figure 1). The Navy notified DOH of the release within 24 hours and provided DOH preliminary findings of the ongoing investigation on October 1, 2021, indicating that JP-5 fuel was released during a fuel transfer and that there were no leaks from any fuel tanks. The Navy recovered JP-5 fuel from the tunnel drain system and then performed a complete wash down of the area with fresh water on May 7, 2021 (DON 2021e). It was later determined that some SVMP vaults on the tunnel floor near the May 2021 Release and a fire suppression drain line were impacted by fuel, and the below-tank SVMPs exhibited elevated organic vapor concentrations on field instruments (PIDs).

November 2021 Release. On November 20, 2021, a release of JP-5 fuel occurred in the Adit 3 Tunnel of the Facility (Figure 1). Some of the JP-5 fuel that was first released on May 6, 2021 was released from an overhead 14-inch polyvinyl chloride (PVC) fire suppression recovery drain line at a location approximately (b) (3) of the Red Hill Shaft water supply pumping station and approximately (b) (3) east of the junction with the Pearl Harbor Tunnel. The access tunnel floor near the release point is at an elevation of approximately 102 feet (ft) above mean sea level (msl), and is in proximity to the supply well's underlying water development tunnel that extends greater than (b) (3) of the pumping station at an elevation of approximately 0–20 ft msl.

Released fuel flowed westward along the Adit 3 Tunnel floor past the junction with the Pearl Harbor Tunnel and Red Hill Shaft. Fuel accumulated in two sumps (Adit 3 Sump and a sanitary sewer sump) approximately (b) (3) of the November 2021 Release point (Figure 2). JP-5 fuel was recovered from the Adit 3 Sump, connected piping, the fire suppression recovery drain line, and the Holding Tank/Leach Tank area including subsurface soil. JP-5 fuel was also recovered from the sanitary sewer sump, the CHT Tank (which was fed by a pump in the sanitary sewer sump), and the ground surface surrounding the CHT Tank.

The November 2021 incident released fuel to the environment via manmade penetrations and a permeable concrete tunnel floor, and from fuel that accumulated in the Adit 3 Sump and fuel that was inadvertently pumped from the Adit 3 Sump and sanitary sewer sump to the Holding Tank and Leach Tank, the Hume line, and the CHT Tank. Fuel was subsequently observed at the groundwater surface in the water development tunnel of Red Hill Shaft. Upon confirmation that a fuel-like odor was present in drinking water in homes served by Red Hill Shaft, the supply well was shut off and isolated from the JBPHH Water Distribution System on November 28, 2021, which remains the case to this date.

(b) (3)



Figure 2: Adit 3 and Pearl Harbor Tunnel Layout Map

2.1 Site Description

The 144-acre underground fuel storage Facility is located in south-central O‘ahu approximately 2–3 miles east of Pearl Harbor, within the Red Hill ridge that divides South Hālawā Valley from Moanalua Valley on the southwest flank of O‘ahu’s Ko‘olau mountain range (Figure 1). The Facility’s (b) (3) tanks were formerly used to store and supply fuel for military operations in Hawai‘i and throughout the Pacific. The tank bottoms and associated fuel lines, and tank access tunnels are situated approximately 104 ft - 137 ft above an underlying basal aquifer that is a major municipal and military drinking water source.

2.1.1 Climate

Climatological conditions in the vicinity of the Facility consist of warm to moderate temperatures and low to moderate rainfall. The average annual precipitation is approximately 40 inches, which occurs mainly between November and April (Giambelluca, Nullet, and Schroeder 1986). Average temperatures range from the low 60s to high 80s (degrees Fahrenheit) (Juvik and Juvik 1998).

2.1.2 Soils and Geology

The Facility is located within the Ko‘olau Volcanic series. The Ko‘olau formation at Red Hill consists of basaltic lava flows that erupted from a fissure line approaching 30 miles in length and trending in a northwest rift zone (Wentworth and Macdonald 1953). Pāhoehoe and a‘ā lava flows are present in the Ko‘olau formation. The valleys on either side of the Red Hill ridge were formed as a result of fluvial erosion and are filled with sedimentary deposits (alluvium and colluvium), also known as valley fill, underlain by weathered basalt, also known as saprolite. Saprolite zones in Hawai‘i are typically around 75 ft thick but can be 300 ft thick or greater beneath the valley floors or in areas of high precipitation (Hunt Jr. 1996;

Macdonald, Abbott, and Peterson 1983) The results of a recently conducted seismic survey in North and South Hālawā Valleys, Red Hill, and Moanalua Valley (DON 2018e) found that valley fill and saprolite extend much deeper in the valleys surrounding Red Hill, particularly in the center of the valleys and below the streambeds.

Soils in the vicinity of the Facility are mapped as Helemano-Wahiawā association consisting of well drained, moderately fine-textured and fine-textured soils (USDA SCS 1972). The surfaces of the basaltic flows have been weathered to form reddish-brown clayey silt, which is the basis for the local name “Red Hill.” These soils typically range from nearly level to moderately sloping and occur in broad areas dissected by very steep gulches. They formed in material weathered from basalt to a depth of approximately 10 ft below ground surface (bgs). Along the slopes, the basaltic bedrock is covered with approximately 10–30 ft of Ko‘olau residuum. These soils were derived from weathering of the underlying basalt bedrock or were deposited as alluvium/colluvium. The younger alluvium/colluvium deposits were derived from fractured basalts and tuff. Beneath the surficial soils, alternating layers of clay and basalts are encountered at depth. The northwestern slope of Red Hill is generally barren of soil and consists of outcropping basalt lava flows to the valley floor.

2.1.3 Surface Water

Surface water features in the general vicinity of the Facility include South Hālawā Stream (an ephemeral stream approximately (b) (3) of the tanks), North Hālawā Stream (approximately (b) (3) of the tanks), and Moanalua Stream (approximately (b) (3) of the tanks). Potential recharge (run-on and operational water use) from the Hālawā Quarry north of the Facility may also impact groundwater flow in this area. Groundwater that flows beneath the Facility does not intercept surface water inland of the ocean shoreline (DON 2007). Both South Hālawā Stream and Moanalua Stream (to the north and south of the Red Hill ridge, respectively) are located approximately 170 ft or more above the basal water table in the vicinity of the tanks. The bottoms of the Facility’s former fuel storage tanks are located at least 50 ft below the bottom of these streams. In the vicinity of Adit 3 and the November 2021 Release, South Hālawā Stream may be fed by the perched water system during the rainy season, although this has not been confirmed.

2.1.4 Groundwater

In the vicinity of Red Hill, the basal aquifer water table lies between 15 and 20 ft above msl. Regionally, groundwater flows toward Pearl Harbor (mauka to makai) (Hunt Jr. 1996; Izuka and Rotzoll 2023), although potential exists for variability in localized flow directions depending on geologic formations and other factors. In Hālawā Valley, streamflow may contribute water to or receive water from perched groundwater within alluvial material (valley fill), but South Hālawā Stream probably is not recharged by the basal aquifer. The majority of the precipitation in the area percolates to the subsurface and does not maintain base flows in the streams (Izuka 1992).

The Facility is located at the administrative boundary between the Waimalu Aquifer System of the Pearl Harbor Aquifer Sector and the Moanalua Aquifer System of the Honolulu Aquifer Sector. The underlying aquifer is classified as a basal, unconfined, flank-type aquifer and is listed as currently used as a drinking water source.

The Facility is located upgradient of the Hawaii State Underground Injection Control Line, which separates potable groundwater from non-potable groundwater. The drinking water supply well closest to the Red Hill tank farm is Navy Well 2254-01 (Red Hill Shaft), located (b) (3) approximately (b) (3) of the nearest fuel storage tank. Red Hill Shaft and Navy Well 2255-32 (Navy ‘Aiea Hālawā Shaft, located approximately (b) (3) of the nearest former fuel storage tank) formerly provided potable water to the JBPHH Water Distribution System, which serves approximately 65,200 military

customers; the potable water is now supplied by Waiawa Shaft, located approximately (b) (3) of the Facility. Naval Facilities Engineering Systems Command (NAVFAC), Hawaii, Utilities Management Division operates the drinking water system. The nearest Honolulu Board of Water Supply (BWS) public drinking water supply well (BWS Hālawā Shaft Well 2354-01; currently inactive) is located hydraulically cross-gradient of the Facility approximately 4,400 ft northwest of the former fuel storage tanks, within the basal aquifer.

2.2 Historical Land Use

Prior to construction of the tank farm, the surface of Red Hill supported sugar cane and pineapple agriculture. Navy archive images show that the Red Hill ground surface was exposed and modified during construction of the tank farm beginning in 1940. A 1952 aerial photograph shows unmaintained land on the Red Hill ridge and agriculture on the lower reaches of Red Hill north of the Moanalua Golf Course (DON 2019a).

2.3 Current Land Use

The Facility is located on land zoned by the City and County of Honolulu as a mix of F-1 Federal and Military and P-1 Restricted Preservation districts. All major structures at the Facility are located underground. Populated areas closest to the Facility are ‘Aiea to the west and Honolulu to the south and east. Honolulu is heavily urbanized and densely populated.

Preservation land is located east and northeast of the Facility boundary. To the southeast are residential single-family homes in Moanalua Valley; a high cliff face with a 100–200 ft elevation difference exists between the Facility and this residential area. Southwest of the tank farm area on the lower southwest flank of Red Hill are the public Red Hill Elementary School and residential apartments, and further west is U.S. Army Housing on F-1 Military land. North of the western segment of the Facility boundary in South Hālawā Valley is the State Animal Quarantine Station, private businesses in Hālawā Industrial Park, and the State-operated Hālawā Correctional Facility. To the north of the Correctional Facility at the lower reaches of an inter-valley ridge that forms the north wall of South Hālawā Valley is the open-pit Hālawā Quarry operated by the Hawaiian Cement Company.

As shown on Figure 1, the H-201 Moanalua Freeway transits approximately 350–700 ft beyond the Facility’s southwest boundary and intersects with the H-1 and H-3 Freeways at the Hālawā Interchange, approximately 1,800 ft west of the Facility. The H-3 Freeway transits northeast from the interchange through North Hālawā Valley and on to O‘ahu’s windward side.

2.4 Conceptual Site Model

2.4.1 Facility Construction and Operations

The Facility’s (b) (3) underground tanks were field-constructed of steel-lined concrete in the early 1940s. They were connected to a fuel pumping station at Pearl Harbor via a tunnel system. The Facility was operated by Naval Supply Systems Command Fleet Logistics Center Pearl Harbor (formerly Fleet and Industrial Supply Center). Each tank has a total capacity of approximately (b) (3) gallons. The 14 most recently active tanks stored either JP-5, North Atlantic Treaty Organization-grade F-24 jet fuel, or F-76 marine diesel fuel.

All tanks have been defueled as of March 2024, while remaining sludge and piping will be removed during Facility closure operations under command of the Navy Closure Task Force – Red Hill.¹

¹ Details available at: <https://www.navyclosuretaskforce.navy.mil/>

2.4.2 Subsurface Conditions

The Facility's underground storage tanks are surrounded by rock in the vadose (i.e., unsaturated) zone, which consists primarily of basalt flows in complex, alternating layers. These heterogeneous layers vary from extremely high to extremely low permeability, with a corresponding ability to transmit and hold liquid petroleum hydrocarbon fuels (LNAPL; i.e., free product) depending on the layer's rock type and micro-pore structure (i.e., high transmissivity in highly permeable a'ā, thin pāhoehoe flows, and a'ā clinker zones; low transmissivity in massive a'ā and massive pāhoehoe flows). Geologic and water saturation characteristics in the rock surrounding the tanks could cause LNAPL to spread as it moves through the rock. As LNAPL moves through the larger pore spaces, some of it could be trapped in poorly connected fractures and blocked by nearby low-permeability regions or by surface tension and capillary forces of moisture, including water held in the smaller pores. The potential presence of intact lava tubes might serve as preferential pathways and conduits for LNAPL migration.

Hawaiian volcanic rocks vary in porosity and permeability depending on the emplacement process, lava type, genesis, flow thickness, flow rate, extent, cooling rate, and weathering. Permeability is typically highest in the relatively thick, unweathered, rubbly a'ā clinker zones and intensely fractured zones or lava tubes of pāhoehoe flows. Permeability is much lower in the interior portions of massive flows, weathered interflows, intrusive rocks (dikes and sills), ash beds, and weathered rocks (saprolite) and soil horizons, which can impede both vertical and horizontal flows across valleys. Generally, the bulk vertical permeability of the basalt is orders of magnitude lower than the bulk horizontal permeability. Horizontal permeability is generally higher in the direction that the lava flowed than in the transverse direction.

Groundwater flow and solute transport are controlled by both the hydraulic conditions (e.g., gradients) and the physical properties of the hydrogeologic units, including hydraulic conductivity, effective porosity, specific yield, specific storage, anisotropy, and dispersivity, all of which can vary significantly under the highly heterogeneous conditions present at the site.

Fresh groundwater inflow originates as deep infiltration of precipitation and seepage from surface water features. According to the U.S. Geological Survey, estimates of recharge for O'ahu for recent conditions (2010 land cover and 1978–2007 rainfall) differ from predevelopment recharge values by only a few percent (Izuka et al. 2018). Spatial distribution of recharge mimics the orographic rainfall pattern; recharge is highest on windward slopes and mountain peaks below the top of the tradewind inversion.

Groundwater outflow includes withdrawals from wells and natural groundwater discharge to springs, streams, wetlands, and submarine seeps. Data collected by the U.S. Geological Survey for groundwater levels, saltwater/freshwater interface, spring flow, and stream base-flow indicate an overall reduction in aquifer storage for most areas where groundwater has been extracted; this has caused groundwater levels to decline (Izuka et al. 2018).

Regional groundwater levels decrease from areas of recharge in the higher elevation rainforest (mauka) to areas of discharge along the coast (makai) (Hunt Jr. 1996). Locally, water level gradients are extremely low and are influenced by geologic conditions, as well as by variability in local pumping stresses from water development shafts and wells.

2.4.3 Exposure Model

Potentially contaminated media are indoor air within the Facility tunnels; surface and near-surface soil and related materials associated with the CHT Tank and Holding Tank/Leach Tank; unconsolidated materials, volcanic rock, and subsurface vapor surrounding the tanks and tunnel; perched and basal groundwater beneath the Facility, which has the potential to migrate off site; and offsite surface water where groundwater may discharge. Human receptors that may potentially contact onsite or offsite Facility-impacted media are

Facility occupational workers, construction workers, visitors, and offsite residents. Among the potentially complete exposure pathways identified, the primary pathway of concern for offsite human receptors is exposure to impacted tap water via direct ingestion and dermal contact, and inhalation while showering and bathing. Animals and vegetation may also be exposed to tap water as pets or from irrigation. Exposure by ecological receptors is considered incomplete or insignificant (DON 2019a). However, at the CHT Tank area of concern, where fuel may have been released to the ground surface, animals and vegetation may be exposed via direct contact. A CHT Tank Investigation is currently in the planning stages (Section 3.4).

2.5 Previous Facility Investigations

Previous environmental investigations at the Facility are summarized in Table 2-1.

Table 2-1: Summary of Previous Red Hill Environmental Investigations

Investigation Report	Summary
<i>Remedial Investigation Phase I and II, Red Hill Oily Waste Disposal Facility</i> (DON 1996; 2000)	A two-phase RI was initiated in the early 1990s at the Red Hill Oily Waste Disposal Facility. No contaminants were detected in the basal aquifer beneath the site, and DOH issued a concurrence letter for a No Further Action determination in 2005 (DOH 2005).
<i>Facility Site Characterization and Investigation</i> (DON 1999, 2002)	A two-phase investigation initiated in 1998 evaluated the presence of petroleum constituents at the Facility. DOH requested the Navy to conduct quarterly groundwater monitoring, conduct a Tier 3 risk assessment, and develop a contingency plan.
<i>Quarterly Groundwater Monitoring Reports</i> (DON 2005 to present)	Sampling and analysis of Red Hill network groundwater monitoring wells were initiated in 2005 and incorporated into the Red Hill GWPP (DON 2008b; 2014a); results are reported to DOH.
<i>Technical Report</i> (DON 2007)	An environmental investigation and risk assessment initiated in 2004 included installation of SVMPs in angle borings under the active fuel storage tanks, three additional groundwater monitoring wells in the lower access tunnel, a three-dimensional groundwater model, and a Tier 3 human health risk assessment.
<i>Tank 17 Removal Action Report</i> (DON 2008c)	Documented results of a limited removal action and site characterization investigation conducted in June 2008 in response to a 4-gallon release of JP-5 fuel from tunnel piping; the report's Environmental Hazard Analysis determined that the release posed no further significant environmental hazards.
<i>Type 1 Letter Report</i> (DON 2010)	A 2010 investigation re-evaluated the DON (2007) groundwater model assumptions and results, as well as the Tier 3 risk assessment results.
<i>Monthly Soil Vapor Monitoring Reports</i> (DON 2008a)	Soil vapor PID measurements are collected monthly under the Facility's fuel storage tanks with SVMPs in accordance with the Red Hill GWPP (DON 2008a; 2014b); results are reported to DOH.

Investigation Report	Summary
<i>Tank 5 Initial and Quarterly Release Response Reports</i> (DON 2014a to December 2022)	Documented the results of release response efforts for the Tank 5 January 2014 Release.
<i>Seismic Profiling to Map Hydrostratigraphy in the Red Hill Area</i> (DON 2018e)	Presented results and evaluation of nine seismic profiling transects conducted at Red Hill and in North and South Hālawā Valleys and Moanalua Valley to improve understanding of subsurface conditions that affect groundwater flow and CF&T.
<i>Groundwater Protection and Evaluation Considerations for the Red Hill Bulk Fuel Storage Facility</i> (DON 2018d)	Presented an interim analysis of environmental data and potential environmental risks; interim results of the groundwater flow model; and an evaluation of hypothetical release scenarios.
<i>Conceptual Site Model</i> (DON 2018a; 2019a)	Established a basis for evaluating contaminant transport pathways and potential for exposure of human receptors to potentially impacted drinking water.
<i>Groundwater Flow Model Report</i> (DON 2020b)	Refined the previous groundwater flow model to improve understanding of the direction and rate of groundwater flow within the aquifers around the Facility.
<i>Investigation and Remediation of Releases Report</i> (DON 2020c)	Documented the response to the January 2014 Tank 5 release and evaluated potential remedial alternatives for that release and any potential future release.
<i>Evaluation of Chromatograms for Understanding TPH Detections in Monitoring Wells</i> (DON 2020a)	Provided an evaluation of TPH detections in monitoring wells to determine whether those detections are indicative of potential fuel impacts from the Facility.
<i>Initial and Quarterly Release Response Reports, Pipeline Breach in Tunnel and Fire Suppression Drain Line</i> (DON 2021c; 2021b; 2021d; 2022d; 2022f; 2022g; 2022h)	Documented the quarterly results of release response efforts for the May 6, 2021, Tunnel Pipeline Breach and the November 20, 2021, Fire Suppression Recovery Drain Line releases.
<i>Phase 1 and Phase 2 Technical Memoranda, Holding Tank and Leach Tank Characterization, November 2021 Pipeline Release</i> (DON 2022k; 2023d)	Presented preliminary results of a two-phase site characterization effort at the Holding Tank and Leach Tank area outside Adit 3.
<i>Quarterly Release Response Reports, Red Hill Bulk Fuel Storage Facility</i> (DON 2022i; 2023g; 2023h; 2023i; 2023j; 2024f)	Documented the combined quarterly results of release response efforts for the January 2014, May 2021, and November 2021 releases.
<i>Final Closure Report Concrete Tank Removal</i> (DON 2023b)	Documented the field activities associated with removal of the Holding Tank, Leach Tank, and contaminated soil outside Adit 3 in 2022.

Investigation Report	Summary
<i>Technical Memorandum: In-Progress Data Report, Adit 3 Site Characterization</i> (DON 2023l)	Presented in-progress results of the Adit 3 site characterization effort.
<i>Draft Site Characterization Report, November 2021 JP-5 Release in Adit 3, Operable Unit 1</i> (DON 2023k); revised August 2024	Presented draft results of the Adit 3 site characterization effort for the shallow vadose zone (Operable Unit 1 [OU-1]).
<i>Final Report of Findings, Red Hill Shaft Flow Optimization Study</i> (DON 2023c)	Presented results of a study to determine optimized pumping rates of Red Hill Shaft groundwater through the GAC system installed outside Adit 3.
<i>Groundwater Protection Plan Defueling Summary Report</i> (DON 2024d)	Presented results of groundwater protection measures implemented at the Facility during tank defueling operations in 2023–2024.
<i>Tank Closure Plan, Supplement 3: Phase 1 Site Assessment</i> (DON 2024a)	Presented the draft work plan and sampling and analysis plan for a site assessment of the Facility pursuant to closure of the underground storage tank (UST) system.

CF&T contaminant fate and transport
 RI remedial investigation
 TPH total petroleum hydrocarbons

3.0 Summary of Investigation History

Investigation activities associated with the January 2014 Release began in 2014 and have continued under the AOC since it was signed in 2015.

Investigation activities in response to the May 2021 Release began on May 10, 2021, and included soil vapor, groundwater, and drinking water monitoring and LNAPL gauging and headspace measurements. Following the November 2021 Release, site characterization and investigation efforts were expanded to include investigations of the Adit 3 and Pearl Harbor Tunnels, the Holding Tank and Leach Tank area and the CHT Tank area outside Adit 3, video inspection of the Red Hill Shaft water development tunnel, single-event groundwater sampling at two non-network monitoring wells on the Moanalua Valley side of Red Hill, and pilot tests currently being planned to evaluate potential technologies for remediating the November 2021 Release, as described below.

3.1 Release Response Actions

Continuing release response activities for the January 2014 Release at Tank 5 under the Red Hill AOC include soil vapor and groundwater sampling, analysis, evaluation, and reporting; installation of additional groundwater monitoring wells; geologic mapping; forensic analyses; and groundwater modeling. Investigation activities in response to the May 2021 Release began on May 10, 2021, with a site assessment that included soil vapor PID field measurements. In response to the November 2021 Release, the Navy took appropriate response actions to investigate and mitigate the release. Groundwater and/or product samples were collected and analyzed from the groundwater sump, RHS water development tunnel, and fire suppression system to characterize and quantitate the extent and magnitude of fuel impacts from the November 2021 Release.

Continuing release response activities for the January 2014 Release at Tank 5 and the May and November 2021 Releases include soil vapor and groundwater sampling, analysis, evaluation, and reporting; LNAPL gauging and headspace measurements in groundwater monitoring wells; installation of additional groundwater monitoring wells; geologic mapping; forensic analyses; and groundwater modeling. Additional release response actions for the Adit 3 Site Characterization, Holding Tank and Leach Tank Site Characterization, and CHT Tanks Site Characterization are detailed in Sections 3.2, 3.3, and 3.4, respectively.

Soil Vapor Monitoring. Soil vapor monitoring currently includes weekly collection of soil vapor PID readings from probes at Tanks 2 through 18 and Tank 20 (Figure 3). Passivated canister samples for laboratory analysis are collected at least monthly at SVMPs SV15S, SV15D, SV17S, SV17D, SV18S, SV18D, SV20M, and SV20D.

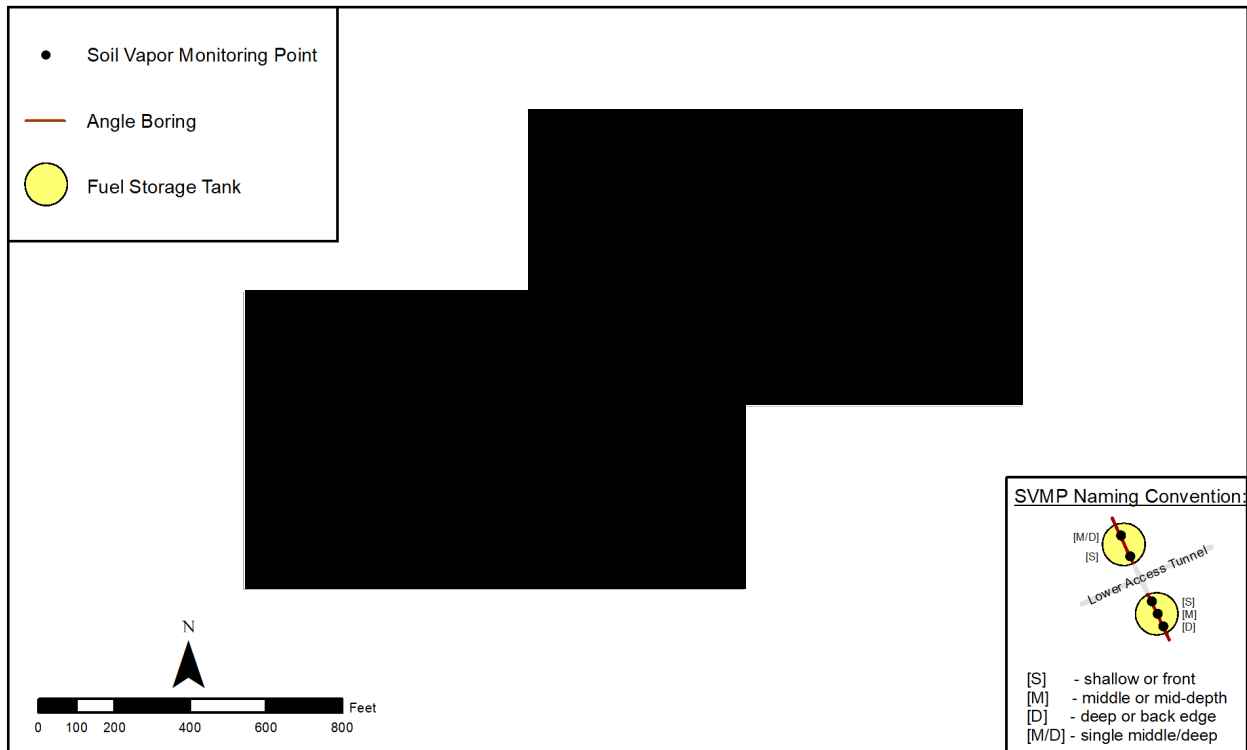


Figure 3: Soil Vapor Monitoring Network Below the Red Hill Fuel Storage Tanks

Soil vapor monitoring in the Adit 3 Tunnel has been conducted periodically since December 17, 2021. Fifty-four SVMPs were installed through the Adit 3 Tunnel floor in response to the November 20, 2021, JP-5 release and are currently monitored with handheld PIDs monthly and twice within 10 days when a rain event exceeds 1 inch per 24 hours at an adjacent National Oceanic and Atmospheric Administration weather station (Section 3.2).

LNAPL Gauging and Headspace Measurements. LNAPL gauging and headspace measurements were collected as part of the prior NOI and current Consolidated Groundwater Sampling Program (DON 2023a). LNAPL has never been detected in any monitoring well other than Red Hill Shaft and temporary wells screened in the shallow perched water zone beneath the Adit 3 Tunnel floor adjacent to the shaft.

Groundwater Monitoring. Additional groundwater samples beyond those normally collected for quarterly GW LTM were initially collected at RHMW01R, RHMW02, and RHMW03 beginning in May 2021 (Figure 1). The collection of drinking water samples at the Red Hill Shaft Pump sampling point (sometimes referred to as the pre-chlorination spigot) in conjunction with enhanced groundwater sampling began in June 2021. The number of groundwater sampling locations was increased to include RHMW05 and RHMW2254-01 in September 2021 following the detection of diesel range organics (DRO) and residual oil range organics (ORO) in the Red Hill Shaft pre-chlorination samples, including the first-ever detections of ORO above the DOH Environmental Action Level (EAL) that occurred in August and September 2021.

Following the November 2021 Release, the December 2021 NOI *Groundwater Sampling Plan* was prepared (IDWST 2022, Exhibit C), and the number of groundwater sampling locations was further expanded in December 2021 and January 2022 to include weekly sampling at additional existing groundwater monitoring wells identified in the plan, along with sump water sampling from the Adit 3 Sump. Installations of RHMW17, RHMW18, and RHMW20 were completed in June 2022, December 2023, and June 2023, respectively. In addition, the drilling of RHMW21 commenced in May 2024.

Delineation Wells. Ten “RHP” delineation wells were installed during 2022–2023 at locations shown on Figure 1 to evaluate groundwater conditions in the vicinity of Red Hill Shaft and delineate the extent of contamination extending from the November 2021 Release in the Adit 3 Tunnel. In addition, these wells are used to evaluate groundwater flow and the effect of pumping Red Hill Shaft on the local hydraulic gradient. The delineation wells are screened across the basal aquifer water table except for RHP04B and RHP04C, which have deeper screens (approximately -140 ft msl and -340 ft msl, respectively) designed to monitor chloride concentrations that may be associated with the saltwater/freshwater interface. New delineation wells RHP08B and RHP08C with screens below the water table are pending installation in 2024.

Sentinel Wells. Installation of “NMW” sentinel wells continues as part of expanding the groundwater monitoring network following the November 2021 Release, with completion and sampling of NMW24 in 2022; NMW25, NMW26, NMW30, NMW32, and NMW33 in 2023; and NMW34 in 2024 (Figure 1). NMW27 is currently being drilled.

The Navy provided a *Draft Monitoring Well Installation Work Plan* to the Regulatory Agencies for review on January 31, 2024, that documented the current proposed approach for installing new groundwater monitoring wells within and in the vicinity of the Facility (DON 2024e).

Details on well installation and construction and water quality data are uploaded to the JBPHH Red Hill Bulk Fuel Storage Facility Environmental Data Management System (EDMS) (Appendix E – Groundwater Monitoring Well Installation Data) and are reported as they are acquired.

Drinking Water Sampling. Drinking water sampling was conducted at Red Hill Shaft and in the JBPHH Water Distribution System as part of the release response effort for the November 2021 Release until December 2021, when Red Hill Shaft was disconnected from the JBPHH Water Distribution System. Ongoing drinking water sampling and analyses continue under a separate program not related to environmental conditions and are therefore not described in this Quarterly RRR.

Changes to Groundwater Sampling Program. The Navy initially described modifications to the Red Hill groundwater sampling and analysis program to the Regulatory Agencies in a May 18, 2023, memorandum titled *Consolidation and Optimization of the Groundwater Sampling Programs, Red Hill Bulk Fuel Storage Facility* (DON 2023a). This memorandum integrated all Red Hill groundwater sampling programs into a single program, revised the analyte list, optimized the sampling frequency, specified LNAPL gauging and PID headspace measurements, and standardized sample collection methodology to low-flow purging.

Monthly sampling under the Consolidated Groundwater Sampling Program began in June 2023 (DON 2023a).

Groundwater monitoring locations in the current Consolidated Well Network are listed in Table 3-1, and monitoring zones for each of the four multilevel wells are described in Table 3-2.

Table 3-1: Current Red Hill Monitoring Well Network, Consolidated Groundwater Sampling Program

Location ID	Type	Location	Year Installed	Approximate Closest Distance to South Hālawā Stream (meters)
RHMW2254-01 ^a	Sampling Point	Inside Facility boundary	2005	(b) (3)
RHMW01R	Single Screen	Inside Facility boundary	2021	(b) (3)
RHMW02	Single Screen	Inside Facility boundary	2005	(b) (3)
RHMW03	Single Screen	Inside Facility boundary	2005	(b) (3)
RHMW04	Single Screen	Inside Facility boundary	2005	(b) (3)
RHMW05	Single Screen	Inside Facility boundary	2009	(b) (3)
RHMW06	Single Screen	Inside Facility boundary	2014	(b) (3)
RHMW08	Single Screen	Inside Facility boundary	2016	(b) (3)
RHMW09	Single Screen	Inside Facility boundary	2016	(b) (3)
RHMW10	Single Screen	Inside Facility boundary	2017	(b) (3)
RHMW11	Multilevel	Hālawā Correctional Facility	2017	(b) (3) c
RHMW12A	Single Screen	Hālawā Correctional Facility	2021	(b) (3)
RHMW13	Multilevel	Inside Facility boundary	2019	(b) (3)
RHMW14	Multilevel	Hālawā Correctional Facility	2019	(b) (3) c
RHMW15	Multilevel	Inside Facility boundary	2019	(b) (3)
RHMW16	Single Screen	Inside Facility boundary	2020	(b) (3)
RHMW17	Single Screen	Inside Facility boundary	2022	(b) (3)
RHMW18	Single Screen	Inside Facility boundary	2023	(b) (3)
RHMW19	Single Screen	Inside Facility boundary	2020	(b) (3)
RHMW20	Single Screen	Inside Facility boundary	2023	(b) (3)
HDMW2253-03 ^b	Deep Monitoring Well	Hālawā Correctional Facility	2000	(b) (3)
RHP01	Single Screen	Inside Facility boundary	2022	(b) (3)
RHP02	Single Screen	Inside Facility boundary	2022	(b) (3)
RHP03	Single Screen	Inside Facility boundary	2022	(b) (3)
RHP04A	Single Screen	Inside Facility boundary	2022	(b) (3)
RHP04B	Deep Monitoring Well	Inside Facility boundary	2022	(b) (3)

Location ID	Type	Location	Year Installed	Approximate Closest Distance to South Hālawā Stream (meters)
RHP04C	Deep Monitoring Well	Inside Facility boundary	2023	(b) (3)
RHP05	Single Screen	South of Facility boundary	2022	(b) (3)
RHP06	Single Screen	South of Facility boundary	2023	(b) (3)
RHP07	Single Screen	Inside Facility boundary	2023	(b) (3)
RHP08	Single Screen	South of Facility boundary	2023	(b) (3)
NMW24	Single Screen	Northwest of Facility boundary	2022	(b) (3)
NMW25	Single Screen	South of Facility boundary	2023	(b) (3)
NMW26	Single Screen	North of Facility boundary	2024	(b) (3)
NMW30	Single Screen	South of Facility boundary	2023	(b) (3)
NMW32	Single Screen	West of Facility boundary	2023	(b) (3)
NMW33	Single Screen	Southwest of Facility boundary	2023	(b) (3)
NMW34	Single Screen	Northwest of Facility boundary	2024	(b) (3)
OWDFMW03A	Single Screen	Inside Facility boundary	2021	(b) (3)
OWDFMW08A	Single Screen	Inside Facility boundary	2021	(b) (3)
RHSF-PUMP	Sampling Point	Inside Facility boundary	—	(b) (3)

Notes:

Single screen: Well screened across the groundwater surface in unconfined locations or below confining units in zones that are in hydraulic communication with the basal aquifer.

Deep monitoring well: Well screen or chase tube opening installed at depths deeper than single-screen wells.

^a Sampling point located inside the shaft of Navy Supply Well 2254-01.

^b Installed by State of Hawai‘i Department of Land and Natural Resources with a solid casing to approximately 50 ft below the water table.

^c RHMW11 and RHMW14 are located adjacent to the concrete-lined portion of South Hālawā Stream.

Table 3-2: Description of Multilevel Monitoring Zones

Well	Number of Zones	Description	Zone(s) Currently Monitored	Zones Not Currently Monitored
RHMW11	8	<ul style="list-style-type: none"> Zone 8 is completed at an elevation near the regional basal aquifer potentiometric surface, with the zone’s sampling port located in saprolite. Zones 6 and 7 are completed at elevations below the regional basal aquifer potentiometric surface, with sampling ports located in saprolite. Zones 1 through 5 are completed deeper, with sampling ports within the basalt in the basal aquifer. 	Zone 5	Zones 1 to 4 ^a Zones 6 to 8 ^b
RHMW13	5	All zones are located within high-hydraulic-conductivity portions of unweathered basalt: <ul style="list-style-type: none"> Zone 5 is completed at an elevation near the regional basal aquifer potentiometric surface. Zones 1 through 4 are completed deeper. 	Zone 5	Zones 1 to 4 ^a
RHMW14	8	<ul style="list-style-type: none"> Zone 8 is completed above the elevation of the piezometric surface of the regional basal aquifer with the zone’s sampling port located in saprolite. Zone 7 is completed across the regional basal aquifer potentiometric surface, with the sampling port in basalt with lower hydraulic conductivity. Zones 4 to 6 are below the elevation of the piezometric surface of the regional basal aquifer, with sampling ports within basalt with relatively lower hydraulic conductivity. Zones 1 to 3 are located deeper, with sampling ports within the relatively higher-hydraulic-conductivity portions of the unweathered basalt in the basal aquifer. 	Zone 3	Zones 1 to 2 ^a Zones 4 to 8 ^b
RHMW15	5	All zones are located within high-hydraulic-conductivity portions of unweathered basalt: <ul style="list-style-type: none"> Zone 5 is completed at an elevation near the regional basal aquifer potentiometric surface. Zones 1 through 4 are completed deeper. 	Zone 5	Zones 1 to 4 ^a

^a Not monitored due to lack of detections of COPCs in previous GW LTM events.

^b Not monitored due to low hydraulic conductivity.

3.2 Adit 3 Site Characterization

Investigation and sampling activities in response to the November 2021 Release began on November 29, 2021. Characterization results for the shallow vadose zone are presented in a *Draft Site Characterization Report, November 2021 JP-5 Release in Adit 3, Operable Unit 1*, submitted to the Regulatory Agencies for review on May 19, 2023 (DON 2023k). The Navy is currently responding to DOH review comments on the report provided in July 2024.

Site characterization activities of the perched water zone continue at Adit 3, and an Operable Unit (OU) 2 report that will evaluate the deep vadose zone will be forthcoming. Site characterization sampling locations included six deep nested SVMPs installed in the Adit 3 and Pearl Harbor Tunnels. Two additional deep nested SVMPs are planned for installation in the latter part of calendar year 2024. Characterization data are uploaded to EDMS (Appendix E – Characterization and Remediation Data, Characterization and Remediation Analytical Laboratory Reports, and Environmental Data Report Tables). Characterization included gauging of water levels, product levels (where applicable), and headspace VOC readings in boreholes and temporary wells. During the reporting period, continuous pressure transducer data was collected at temporary wells. In addition, soil vapor VOCs, oxygen, carbon dioxide, and methane gases were monitored from subslab SVMPs and deep nested SVMPs during this reporting period, as reported in Section 5.1.2.

3.3 Holding Tank and Leach Tank Site Characterization

A multi-phase subsurface site characterization and removal action of contaminated soil at the Holding Tank and Leach Tank area outside Adit 3 (Figure 2) was initiated in January 2022. Phase 1 and 2 sampling locations are shown on Figure 4.

During Phase 1, 21 soil borings were drilled and sampled in January 2022 using a direct-push rig. The investigation was unable to delineate the extent of contamination in the perched aquifer due to encountering shallow refusal, as documented in a *Technical Memorandum Holding Tank and Leach Tank Characterization, February 2022* (DON 2022k).

Following consultation with the Regulatory Agencies, the Navy conducted Phase 2 field work during March 9–17, 2022, to complete vertical delineation of the petroleum in subsurface soil and to characterize petroleum impacts in the shallow perched water body located at approximately 30 ft bgs in the study area. Subsurface soil samples and organic vapor headspace readings were collected at eight soil borings from data gap locations, and groundwater grab samples were collected at three temporary monitoring wells within the perched groundwater zone. The chemical constituents evaluated were GRO, DRO, and ORO; benzene, toluene, ethylbenzene, and total xylenes (BTEX); and naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene (N, 1MN, and 2MN, respectively). Details and results were presented to the Regulatory Agencies in a *Draft Final Technical Memorandum, Phase 2 Holding Tank and Leach Tank Characterization, November 2021 Pipeline Release* (DON 2023d) on July 13, 2023. In addition, a *Draft Closure Report, Concrete Tank Removal* was provided to the Regulatory Agencies in June 2023 (DON 2023b). The Navy is currently responding to DOH review comments on both documents provided in June 2024.

The Phase 2 findings led to excavation and removal of both tanks and approximately 97 tons of soil in May 2022. Waste characterization soil samples were collected and analyzed for GRO, DRO, and ORO prior to the excavation event, and the excavated soil was properly disposed of at a permitted landfill. Removal activities continued with a second soil removal action in September–October 2022 that removed approximately 1,000 cubic yards (1,712 tons) of additional petroleum-contaminated soil. Soil samples were collected using multi-increment sampling methods. After sampling, all excavated soil was properly disposed of at a permitted landfill.

Once the removal action confirmation sampling results have been evaluated, the Navy will develop site-specific risk-based action levels following the DOH HEER Environmental Hazard Evaluation process and may, if necessary, develop and implement an Environmental Hazard Management Plan in accordance with HEER guidelines.

3.4 CHT Tank Site Characterization

Site characterization activities are being planned to characterize the nature and lateral extent of petroleum hydrocarbon impacts in near-surface soil around the CHT Tank located outside Adit 3 (Figure 2). Activities will include characterizing and estimating the quantity of recovered material (i.e., LNAPL, petroleum-contaminated water, and petroleum-impacted sludge) stored in four fractionation (frac) tanks near Adit 1 at Pearl Harbor. Site characterization plans were presented to the Regulatory Agencies for comment in a revised *Site Characterization Plan Addendum – Collection, Hold, and Transfer Tank Overflow Site Characterization, November 2021 Release* in March 2024 (DON 2024g), and the Regulatory Agencies conditionally approved the plan on April 12, 2024.

3.5 Inspection of Water Development Tunnel

Inspections of the Red Hill Shaft water development tunnel were conducted using a submersible remotely operated vehicle (ROV) to better understand the extent of impact in the tunnel and to potentially identify areas of fluid infiltration. Cameras on the cable-controlled ROV recorded downward, forward, and upward video of the first 515 ft of the tunnel, which investigators then reviewed and evaluated. An initial inspection conducted on January 13, 2022 (DON 2022c) was followed by a second June 14–15, 2022, inspection; the results were reported in a *Findings from ROV Inspection #2 Video Review of Red Hill Water Development Tunnel* technical memorandum (DON 2022b).

3.6 Single-Event Groundwater Sampling at DH-43 and BWS2253J1 Well

In a single sampling event in October 2022, the Navy collected split samples with BWS at monitoring wells DH-43 (State Well ID No. 3-2253-02), located adjacent to Red Hill in Moanalua Valley, and BWS2253J1 Well (State Well ID No. 3-2253-006), located beside an aboveground BWS water tank southwest of the Red Hill fuel storage tanks adjacent to the Facility boundary near RHMW09. The split sampling was conducted to obtain data to further evaluate potential impacts to groundwater southeast and south of the Facility. The Navy's samples were analyzed for the parameters identified in Section 6.3.2. Details and analytical results were reported in the December 21, 2022, Quarterly RRR (DON 2022i).

3.7 Remediation Pilot Test at Adit 3

Following completion of a bench-scale test, a shallow zone pilot test commenced in April 2024 to evaluate potential technologies for remediating fuel released to the environment in the vicinity of Adit 3 by the November 2021 Release. The objectives are to assess the technologies' effectiveness in heterogeneous volcanic lithologies, assess the constructability of the technologies, and identify design parameters prior to potential full-scale implementation.

The ongoing field pilot testing consists of short-duration soil vapor extraction (SVE) and potential air sparging (AS) pilot tests (pending regulatory approval), a 4-month Shallow SVE pilot test, and a 24-month natural source-zone depletion (NSZD) study. A laboratory JP-5 weathering treatability study was completed, and a report was prepared (DON 2024b). Following the shallow pilot testing period, the Navy will prepare a pilot study report. The Navy plans to resume drilling of deep SVE wells and deep SVMPs in August 2024. Following completion of the deep drilling, operation of the AS/Shallow SVE and Deep SVE systems are planned. The Navy provided to the Regulatory Agencies a *Final Shallow SVE/AS Work Plan* on May 31, 2024 (DON 2024c).

In April 2023, the Navy authorized installation of components of the Shallow SVE/AS and the Deep SVE study. Components consisted of AS points, shallow and deep SVMPs, a shallow SVE well, and a Hume line SVE point. Deep SVE wells are also planned for installation starting in August 2024 following completion of in-tunnel monitoring well RHMW21.

(b) (3)

Figure 4
Holding Tank and Leach Tank
Sampling Location Map
Quarterly Release Response Report
Red Hill Bulk Fuel Storage Facility
JBPHH, O'ahu, Hawai'i

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4.0 Site Investigation Objectives

Sampling activities in response to the three fuel releases include routine sampling and other investigation activities associated with soil vapor and groundwater monitoring and site characterization, as described below.

4.1 Soil Vapor

Soil Vapor Sampling at the Tank Farm. The Navy installed SVMPs below each of the then-active Red Hill fuel storage tanks in the mid-2000s to collect data that provide additional layers of protection to screen for potential releases (Figure 3) (DON 2007). These SVMPs have been monitored monthly since 2008 for total volatile organic compound (VOC) vapors as a release detection screening tool that operated in conjunction with other leak detection systems used at the Facility. More frequent (e.g., weekly) monitoring of some or all of the below-tank SVMPs has been conducted since the May 2021 Release to further characterize the specific VOCs associated with the May 2021 Release and to evaluate the extent of weathering that has occurred. The data are available in EDMS (Appendix E – Soil Vapor Data – Below-Tank Sampling Locations).

Adit 3 Soil Vapor Monitoring. Routine monitoring of the SVMPs installed in the tunnel floor near Adit 3 and in the Pearl Harbor Tunnel using handheld PIDs has been conducted to further characterize the nature and extent and fate of impacts from the November 2021 Release near Adit 3. Results have been used to identify initial hotspots and to direct additional subsurface soil, LNAPL, and groundwater studies to develop a complete conceptual site model (CSM) for development of the current remedial pilot studies and future feasibility studies and remedial designs. The SVMPs are monitored monthly and following rain events that exceed 1 inch per 24 hours. The data are available in EDMS (Appendix E – Characterization and Remediation Data, Characterization and Remediation Analytical Laboratory Reports, and Environmental Data Report Tables).

The six deep nested SVMPs installed in the Adit 3 and Pearl Harbor Tunnels will be used to provide estimates of radius of influence for the SVE pilot study (Section 3.7) as well as site characterization data during the installation phase. Two additional deep nested SVMPs are planned for installation in the latter part of calendar year 2024 (DoD 2022).

4.2 LNAPL Gauging and Monitoring Well Headspace Measurements

Oil/Water Interface Measurements. The Navy continues to collect monthly oil/water interface measurements to evaluate whether LNAPL has reached groundwater for monitoring well locations with screens that bracket the water table and wells installed in unconfined conditions, in response to the January 2014 Release.

Gauging, Headspace, and Water Level Measurements. The objectives of the LNAPL gauging and groundwater monitoring well headspace measurements are to evaluate whether there are any indications that LNAPL may have reached groundwater at monitoring wells installed in unconfined conditions with screens that bracket the water table. Red Hill Shaft is also monitored for the presence of LNAPL. In-well pressure transducers have been collecting water level data from seven temporary wells located in the Adit 3 Tunnel, west of the train track wye, where shallow perched water has been observed. These results are expected to inform on the fate and transport of LNAPL from the November 2021 Release within this section of the tunnel.

4.3 Groundwater

The objective of groundwater sample collection and analysis from monitoring wells underneath the tank farm and in the vicinity of Red Hill Shaft is to evaluate the nature and extent of impacts of the 2014 and

2021 Releases to the basal groundwater aquifer. LNAPL gauging and headspace measurements are also conducted during groundwater sampling activities, as described in Section 5.2.

Groundwater sample collection from June 5, 2023, onward has been consolidated to include NOI, GW LTM, delineation, and sentinel groundwater sampling programs into one comprehensive, optimized groundwater sampling program (DON 2023a). This program optimizes the sampling programs for targeted sampling for faster laboratory turnaround times and more efficient data analyses. Sections 5.3 and 6.3 provide details of the Consolidated Groundwater Sampling Program (DON 2023a).

4.4 Data Usability

The usability of data collected depends on its quality, which in turn depends on a variety of factors. Adhering to proper sample collection techniques, observing and documenting chain of custody procedures, and using Department of Defense (DoD)-accredited laboratories and approved analytical methods ensure that the quality of data generated meets site characterization objectives.

The DOH document *Evaluation of Environmental Hazards at Sites with Contaminated Soil and Groundwater* provides guidance on characterizing petroleum-impacted soil and groundwater (“Soil, Soil Vapor and Groundwater Action Levels for TPH”) and is summarized as follows:

- Petroleum is a complex mixture that degrades into petroleum hydrocarbon-related metabolites.
- Non-specific aliphatic and aromatic compounds and related degradation compounds compose the majority of the mass collectively referred to as TPH.
- Risk to human health and the environment posed by petroleum releases is evaluated in terms of both TPH and individual “indicator” compounds such as BTEX as well as N, 1MN, and 2MN and other targeted polynuclear aromatic hydrocarbons (PAHs). The latter compose only a small percentage of the total mass in fuels and in vapors but can pose a significant risk due to their higher toxicity and can be important for evaluating risk.
- For risk evaluation, samples are evaluated for additives known or suspected to have been pre-blended into the fuel. Such additives can potentially include antioxidants, biocides, and fuel system ice inhibitors.

Petroleum-related target analytes identified in the above guidance are listed in Table 4-1. The 2017 EALs were in effect during this reporting period and were used to identify and analyze consolidated groundwater sampling detections and exceedances. However, results generated during investigation and remediation activities will be evaluated against the current (July 10, 2024) DOH EALs.

Table 4-1: Target Analytes for Middle-Distillate Contaminated Media

Petroleum Product	Media	Recommended Target Analytes
Middle Distillates (e.g., diesel, kerosene, Stoddard solvents, heating fuels, jet fuels)	Soil Vapor	TPH, BTEX, N, and methane
	Groundwater	TPH, BTEX, N, 1MN, and 2MN

Source: DOH (2017, Volume 2, Table 6-1).

5.0 Field Activities

Field activities performed during this reporting period to characterize soil vapor and groundwater are described below. Summaries of site characterization activities associated with the Adit 3 and Pearl Harbor

Tunnel and the Holding Tank and Leach Tank area are included below. As noted in Section 3.0, the data for these two investigations are documented in separate reports (DON 2023k; 2022a).

Analytical methods for the samples collected are identified in Section 6.3, and analytical results are presented in Section 9.0.

5.1 Soil Vapor Monitoring

5.1.1 Below-Tank SVMPs

Total VOC concentrations at below-tank SVMPs were measured weekly in the field using hand-held PIDs at all SVMPs below Tanks 2 through 18 and 20. SVMP locations are shown on Figure 3.

5.1.2 Adit 3 and Pearl Harbor Tunnel SVMPs

Eight SVMP monitoring events were conducted during this reporting period, as part of implementing the *Preliminary Site Characterization Plan* (DON 2022e) and *LNAPL Site Characterization Plan* (DON 2022j) (Section 3.2) including both planned monthly SVMP monitoring events and out-of-frequency events conducted in response to rainfall events. Figure 5A shows the organic vapor concentrations measured during the reporting period, and Figure 5B shows boring and temporary well locations. No laboratory soil vapor testing was conducted at SVMPs within the Adit 3 or Pearl Harbor Tunnels during the current reporting period.

5.1.3 SVE/NSZD Pilot Project at Adit 3

Field work conducted for the Shallow SVE and NSZD pilot project at Adit 3 (Section 3.7) during this reporting period includes:

- Regular operation and maintenance of the shallow SVE system

5.2 LNAPL Gauging and Monitoring Well Headspace Measurements

LNAPL gauging and PID headspace measurements were conducted twice monthly as part of the Consolidated Groundwater Sampling Program (DON 2023a) (Section 3.1):

- LNAPL gauging was conducted at the groundwater monitoring wells listed in Section 5.3 using a clear bailer in addition to an oil/water interface probe. An ultraviolet light was also used at Red Hill Shaft (RHMW2254-01) to check for the presence of LNAPL.
- Headspace PID measurements were collected from inside the well casing immediately after well cap removal.

Due to confined aquifer conditions, RHMW12A and RHMW16 have submerged well screens, and therefore LNAPL gauging was not appropriate. Similarly, HDMW2253-03 is a deep monitoring well installed by the State of Hawai'i Department of Land and Natural Resources with a solid casing to approximately 50 ft below the water table. Multilevel wells RHMW11, RHMW13, RHMW14, and RHMW15 are closed systems with sampling ports below the water level surface, and as a result LNAPL would likely not be able to enter these wells.

Adit 3 Gauging and Measurements. During the reporting period, LNAPL gauging, organic vapor headspace, and water level measurements were collected weekly at 15 boreholes and seven temporary wells located within Adit 3. In addition, continuous water level measurements were collected at the temporary wells using in-well pressure transducers.

5.3 Groundwater Sampling

Beginning in May 2024, groundwater sampling was conducted twice monthly in accordance with the Consolidated Groundwater Sampling Program (DON 2023a). The following locations were monitored during this reporting period (Figure 1):

- Groundwater sampling point RHMW2254-01 at Red Hill Shaft and RHSF-Pump, a sampling port located within the RHS Pump Station; in-tunnel monitoring wells RHMW01R, RHMW02, RHMW03, and RHMW05; and the following wells external to the lower access tunnel:
 - RHMW04, RHMW06, RHMW08, RHMW13-05, RHMW15-05, RHMW16, RHMW17, RHMW18, and RHMW20, located within the Facility boundary along its northern border
 - RHMW09, RHMW10, and RHMW19, located within the Facility boundary along its southern border
 - RHMW11-05, RHMW12A, RHMW14-03, and HDMW2253-03, located north of the Facility boundary on the grounds of the Hālawā Correctional Facility
- Delineation wells RHP01, RHP02, RHP03, RHP04A/04B/04C, and RHP07, located within the Facility boundary in a cluster surrounding Red Hill Shaft, and RHP05, RHP06, and RHP08, located just outside the Facility boundary south of Red Hill Shaft
- Sentinel wells at locations north (NMW26), northwest (NMW24 and NMW34), south (NMW25 and NMW30), and southwest (NMW32 and NMW33) of the Facility boundary
- Oily Waste Disposal Facility (OWDF) wells OWDFMW03A and OWDFMW08A, to provide information about the quality of groundwater migrating off the northwestern boundary of the Facility.

All samples were collected using low-flow sample collection methodology in accordance with the Consolidated Groundwater Sampling Program (DON 2023a).

5.3.1 Single-Screen Monitoring Well Sampling

Prior to collecting groundwater samples, the single-screen monitoring wells were purged of standing water in the well casings. These monitoring locations each contain a dedicated bladder pump, which was used to purge the well and collect samples. The groundwater monitoring wells were purged using low-flow sampling methodology at flow rates of approximately 0.10–0.30 liter per minute or less to minimize VOC loss and drawdown.

To operate the pump, a portable air compressor with an in-line air filter was connected to a QED Environmental Systems MicroPurge MP10 Controller, which was then connected to the pump. The compressor was turned on to power the pump, and the controller was adjusted to achieve a flow rate of approximately 0.10–0.30 liter per minute or less. Compressed nitrogen gas was used to purge and sample these single-screen monitoring wells.

Event No	Date	A3+300	A3+250	A3+200	A3+150	A3+100	A3+050	A3a+000	A3b+000	A3-025	A3a-050	A3b-050	A3-075	A3-100	A3-125	A3a-150	A3b-150	A3-175	A3a-200	A3b-200	A3-225	A3-250	A3-275	A3a-300	A3b-300	A3-325	A3a-350	A3b-350	A3-375	A3-375-05.0	A3-400	A3-425	A3-450
77	4/16/2024*	1	1	0	1	1	1	1	1	1	1	1	Tight	1	1	1	1	1	2	2	Tight	17	22	1	1	6	3	8	1	1	0	0	0
78	4/23/2024*	2	1	1	1	1	1	1	1	1	1	1	Tight	1	1	1	1	1	2	2	Tight	10	11	1	2	4	3	4	1	1	0	1	0
79	4/29/2024*	1	1	1	1	1	1	1	1	1	1	1	Tight	1	1	1	1	1	2	2	Tight	9	11	2	2	5	2	6	1	1	0	0	0
80	5/6/2024*	3	1	0	2	0	0	1	2	1	0	1	Tight	1	1	0	0	0	1	2	Tight	2	2	2	2	1	0	10	0	0	0	0	
81	5/17/2024*	3	1	1	0	0	0	0	0	0	0	0	Tight	0	1	0	0	0	1	1	Tight	23	40	1	1	10	5	8	2	1	1	1	1
82	5/24/2024*	NA	1	1	2	0	1	0	1	1	2	1	Tight	1	2	1	1	1	2	3	Tight	20	27	3	4	10	9	12	4	4	2	2	2
83	6/11/2024	1	1	1	1	0	1	0	1	1	1	1	Tight	1	1	1	1	1	1	2	Tight	9	14	1	1	3	3	6	1	1	0	0	0
84	7/9/2024	0	0	0	1	0	1	1	1	1	0	0	Tight	1	1	0	0	0	1	1	Tight	6	10	1	1	2	2	3	1	1	0	0	0

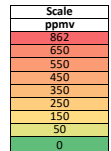
(b) (3)

Event No.	Date	A3+500	A3+475	A3+450	A3+425	A3+400	A3a+375	A3b+375
77	4/16/2024*	1	1	1	1	0	0	1
78	4/23/2024*	1	1	1	1	1	1	1
79	4/29/2024*	1	1	1	1	1	1	1
80	5/6/2024*	0	0	0	2	2	1	0
81	5/17/2024*	1	1	1	1	1	1	1
82	5/24/2024*	1	1	1	0	0	0	0
83	6/11/2024	1	1	15	0	0	0	1
84	7/9/2024	0	0	0	0	0	0	0

Date	25+300	25+275	25+250	25+225	25+200	25+175	25+150	25+125	25+100	15+038	15+068	25+075	25+075-05.0	25+050	25+025
4/16/2024*	1	1	0	0	2	1	1	2	21	1	1	18	3	1	1
4/23/2024*	1	1	1	1	1	1	2	4	12	1	2	10	3	1	1
4/29/2024*	1	1	1	1	1	2	2	4	10	2	2	10	3	1	2
5/6/2024*	1	1	1	1	1	1	1	2	1	1	1	2	2	1	1
5/17/2024*	0	0	0	0	0	0	1	1	4	0	1	NA	NA	NA	0
5/24/2024*	2	2	2	2	3	3	3	5	23	3	3	20	NA	NA	2
6/11/2024	1	1	1	1	1	1	1	2	13	1	2	NA	2	NA	NA
7/9/2024	0	0	0	0	1	1	1	1	9	1	1	6	2	1	1

**Figure 5A. Soil Vapor Monitoring Point Results
April 16, 2024 - July 9, 2024
Adit 3 Tunnel and Pearl Harbor Tunnel**

Notes
* denotes out-of-frequency sampling events that were conducted in response to a significant rain event that exceeded 1 inch in 24 hours. An additional follow-up sampling event is conducted 7 days after the initial event.
"Tight" refers to the sampling equipment being unable to collect a sample due to no vapor flow resulting from low permeability in the subsurface material.



(b) (3)

Figure 5B
Adit 3 Boring and Temporary Well Locations
Quarterly Release Response Report
Red Hill Bulk Fuel Storage Facility
JBPHH, O'ahu, Hawai'i

Water quality parameters were monitored on a periodic basis during well purging using an In-Situ Inc. smarTROLL multiparameter handheld water quality meter to automate data entry of the parameters into a digitized format. Parameters measured included total dissolved solids, pH, temperature, specific conductivity, dissolved oxygen (DO), turbidity, oxidation-reduction potential (ORP), and salinity. The water quality parameters were used to evaluate whether the natural characteristics of the aquifer formation water were present within the monitoring wells before the samples were collected. A minimum of six readings were collected at each well during the purging process. When feasible depending on the well's inside diameter allowing space for both the bladder pump tubing and calibrated tape, water level measurements were collected and recorded during purging to detect indications of drawdown; if drawdown approaching 0.2 ft was detected, the rate of low-flow purging was reduced. Purging was considered complete when at least three consecutive water quality measurements stabilized within the specified range for each parameter noted in groundwater sampling logs and in accordance with NAVFAC Pacific Environmental Restoration Program Project Procedure I-C-3, *Monitoring Well Sampling* (DON 2015a). The readings were recorded in the groundwater sampling logs. Sampling logs can be furnished upon request.

Once water quality parameters stabilized, groundwater samples were immediately collected from the wells using the bladder pumps. Groundwater samples for all single-screen monitoring wells were collected no more than 2.5 hours after purging was completed. Groundwater samples were collected in sample containers that were pre-preserved (as necessary) and provided by the analytical laboratory. Samples collected for ferrous iron and non-volatile dissolved organic carbon (NVDOC) analyses were filtered in the field using new 0.45-micron and 0.20-micron filters, respectively, attached at the end of the pump/probe discharge tubing.

5.3.2 *Multilevel Monitoring Well Sampling*

Due to the multilevel design of monitoring wells RHMW11, RHMW13, RHMW14, and RHMW15, purging was not required immediately prior to collecting groundwater from the sampled monitoring zone, because the sampling ports extend into the surrounding formation and there is no filter pack. Groundwater was collected using sampling probes from the following multilevel monitoring zones: RHMW11 Zone 5, RHMW13 Zone 5, RHMW14 Zone 3, and RHMW15 Zone 5.

A string of four sealed 250-mL sample containers was connected to the sampling probe, which was lowered to each monitoring zone, and the containers filled with groundwater from the formation through a sampling port in the central casing of the well. Once sample containers were filled, the sampling port was closed, and the probe and container string were brought to the surface. The groundwater was then transferred to the appropriate laboratory-supplied containers. For collection of groundwater quality parameters, the sample containers were flushed with nitrogen to remove air from within the containers prior to collection of groundwater. The nitrogen flush was performed to minimize DO enrichment due to high water pressure in the formation, which would otherwise have forced air in the sample containers to mix into the groundwater collected. Groundwater quality parameters were collected at least three times during the sampling of each multilevel monitoring well zone and recorded in the groundwater sampling logs. Sampling logs can be furnished upon request.

Groundwater samples were collected in sample containers that were pre-preserved (as necessary) and provided by the analytical laboratory. Samples collected for ferrous iron and NVDOC were filtered in the field using new, single-use 0.45-micron and 0.20-micron filters, respectively, attached at the end of the pump/probe discharge tubing.

Groundwater sampling at multilevel monitoring well zones requires a few hours for each zone due to the limited volume (1 liter) collected from each deployment of the sample container string. During the Second

Quarter 2019 GW LTM event, a one-time evaluation was conducted to determine whether the groundwater geochemistry changes during sampling. Three additional aliquots of groundwater (from run #2, run #7, and run #13) were collected at RHMW11-05 and analyzed for anions and alkalinity. The results indicated that the groundwater geochemistry is consistent during the 4-hour sampling duration at RHMW11-05. Data related to these samples were presented in the *Second Quarter 2019 Groundwater Monitoring Report* (DON 2019b).

5.4 Decontamination

Decontamination activities were performed in accordance with NAVFAC Pacific Environmental Restoration Program Project Procedure I-F, *Equipment Decontamination* (DON 2015a). A staging and decontamination area was established near each well location. Non-disposable sampling equipment (e.g., water level meter, oil/water interface probe, and multilevel monitoring well sample container string) was decontaminated at the beginning of each day and after purging and sampling each well. The decontamination process included washing and scrubbing the equipment with stiff-bristled nylon brushes and a non-phosphate detergent (e.g., Alconox) solution, followed by rinsing once with isopropyl alcohol and twice with distilled water. Liquid wastes generated during decontamination activities were captured and containerized in properly labeled, U.S. Department of Transportation-approved 55-gallon drums or other suitable temporary containers and managed as investigation-derived waste (IDW).

5.5 Investigation-Derived Waste Management

IDW generated during the monitoring events consisted of purged groundwater from the monitoring wells and decontamination water. The IDW was handled, accumulated, and labeled in accordance with NAVFAC Pacific Environmental Restoration Program Project Procedure I-A-6, *Investigation-Derived Waste Management* (DON 2015a). All IDW was containerized in clearly labeled, 55-gallon-capacity drums, covered with a tarp, and accumulated on site in an area designated by the Navy pending disposal. Disposable personal protective equipment and sampling equipment and supplies were collected in plastic trash bags and disposed of as municipal waste.

6.0 Sample Control Procedures

Prior to sampling, the field team inspected all supplies and consumables to ensure that they were acceptable for use. Sampling and sample handling procedures were designed to ensure that samples were consistently collected, labeled, preserved, and transported in a manner that maintained their integrity for their intended purposes.

6.1 Sample Containers and Preservation

Sample container, preservative, and holding time requirements for soil vapor and groundwater are listed in Table 6-1. The samples were preserved as indicated and analyzed within the required holding times. The containers, preservatives, and holding times are specified in the respective EPA or SW-846 methods.

Table 6-1: Sample Containers, Preservatives, and Holding Times

Parameter	Number and Type of Containers per Sample	Preservative	Holding Time
Soil Vapor			
Total VOCs, GRO, BTEX, N, 1MN, and 2MN; oxygen, carbon dioxide, methane, and helium	1 × passivated canister	N/A	30 days
Groundwater			
<i>VOCs</i>			
BTEX	2 × 40-mL vials, Teflon-lined septum caps	No headspace, cool to ≤6°C and adjust to pH <2 with HCl	Maximum holding time is 7 days if pH >2 or 14 days if pH <2
<i>TPH</i>			
GRO	2 × 40-mL vials, Teflon-lined septum caps	No headspace, cool to ≤6°C and adjust to pH <2 with HCl	Maximum holding time is 7 days if pH >2 or 14 days if pH <2
DRO, ORO (without and with SGC)	2 × 1-L amber glass (Energy Laboratories), Teflon-lined lid or 2 × 250-mL amber glass (SGS-Orlando), Teflon-lined lid	Cool to ≤6°C and adjust to pH <2 with H ₂ SO ₄ or cool to ≤6°C if unpreserved	Maximum holding time is 7 days if pH >2 or 14 days if pH <2/40 days ^a
<i>SVOCs, PAHs</i>			
SVOCs (phenol)	2 × 1-L amber glass, Teflon-lined lid	Cool to ≤6°C	7 days/40 days ^a
Full suite PAHs including N, 1MN, and 2MN	2 × 250-mL glass amber glass, Teflon-lined lid	Cool to ≤6°C	7 days/40 days ^a
SVOCs (2-(2-methoxyethoxy)-ethanol)	2 × 250-mL glass amber glass, Teflon-lined lid	Cool to ≤6°C	7 days/40 days ^a
<i>Lead Scavengers</i>			
1,2-Dibromoethane	2 × 40-mL vials, Teflon-lined septum caps	No headspace, cool to ≤6°C, and adjust to pH <2 with HCl	Maximum holding time is 7 days if pH >2 or 14 days if pH <2
1,2-Dichloroethane	2 × 40-mL vials, Teflon-lined septum caps	No headspace, cool to ≤6°C, and adjust to pH <2 with HCl	Maximum holding time is 7 days if pH >2 or 14 days if pH <2
<i>Natural Attenuation Parameters</i>			
Methane	2 × 40-mL vials, Teflon-lined septum caps	No headspace, cool to ≤6°C, and adjust to pH <2 with HCl	Maximum holding time is 7 days if pH >2 or 14 days if pH <2

Parameter	Number and Type of Containers per Sample	Preservative	Holding Time
Ferrous Iron	1 × 250-mL brown plastic	Cool to ≤6°C, and adjust to pH <2 with HCl	7 days
Nitrate	1 × 250 mL plastic	Cool to ≤6°C	48 hours
Alkalinity (total, bicarbonate, carbonate)	1 × 250 mL plastic	Cool to ≤6°C	14 days
Nitrate-nitrite	1 × 250 mL plastic	Cool to ≤6°C and adjust to pH <2 with H ₂ SO ₄	28 days
<i>Non-Volatile Dissolved and Total Organic Carbon</i>			
NVDOC, TOC	2 × 40-mL amber VOA vials, Teflon-lined lid	Cool to ≤6°C and adjust to pH <2 with HCl	28 days
DOC	2 × 40-mL amber VOA vials, Teflon-lined lid	Cool to ≤6°C and adjust to pH <2 with HCl	28 days
<i>Groundwater Chemistry</i>			
Total Silica, Bromide, chloride, fluoride, sulfate	1 × 250 mL plastic	Cool to ≤6°C	28 days
Dissolved Silica	1 × 250 mL plastic	Field filtered, cool to ≤6°C	28 days
Total calcium, total magnesium, total manganese, total potassium, total sodium	1 × 250 mL plastic	Cool to ≤6°C and adjust to pH <2 with HNO ₃	6 months

- °C degree Celsius
- 1-MN 1-methylnaphthalene
- 2-MN 2-methylnaphthalene
- DOC dissolved organic carbon
- H₂SO₄ sulfuric acid
- HCl hydrochloric acid
- HDPE high-density polyethylene
- HNO₃ nitric acid
- L liter
- mL milliliter
- N naphthalene
- N/A not applicable (holding times not provided)
- NVDOC non-volatile dissolved organic carbon
- SGC silica gel cleanup
- SVOC semivolatile organic compound
- TOC total organic carbon
- VOA volatile organic analysis

^a x days/y days = x days from sample collection to extraction/y days for analysis of extracts following extraction.

6.2 Sample Handling and Chain of Custody

The samples were labeled and logged in accordance with NAVFAC Pacific Environmental Restoration Program Project Procedure III-E, *Record Keeping, Sample Labeling, and Chain-of-Custody Procedures* (DON 2015a). Immediately after collection, all samples were labeled, logged in the field logbooks, custody-sealed, sealed with tape, and placed in a resealable plastic bag. To meet the recommended holding time for nitrate analysis, efforts were made to ship samples to the laboratory on the day of collection. Samples not shipped on the day of collection were stored in secure and controlled cold storage overnight and shipped the following day.

Prior to shipping, the samples were logged in a chain-of-custody form and loaded into a cooler with double-bagged wet ice. Packed coolers were sent by field personnel via express-courier overnight shipping in custody-sealed coolers to the following subcontractor laboratories: Eurofins (located in Seattle, Washington and Denver, Colorado), SGS Orlando (Orlando, Florida), SGS Anchorage (Anchorage, Alaska), Agriculture & Priority Pollutants Laboratories, Inc. (Clovis, California), and Energy Laboratories, Inc. (Billings, Montana).

Chain-of-custody documentation was maintained for samples during all phases of sample collection, transport, and receipt and internal transfer within the laboratory. Sample transport and custody details are provided in the chain-of-custody records in the laboratory reports indexed in Appendix C (soil vapor) and Appendix D (groundwater).

6.3 Laboratory Analyses

The analytical methods, analytes, and applicable screening criteria for the soil vapor and groundwater samples are identified below.

6.3.1 Soil Vapor Analyses

Passivated canister samples collected from SVMPs in borings below the tanks in the Red Hill tank farm were analyzed for VOCs by Method TO-15; total VOCs (C5–C12) by Method TO-3; and oxygen, carbon dioxide, and methane by ASTM D1946.

6.3.2 Groundwater Analyses

First implemented in June 2023, the Consolidated Groundwater Sampling Program (DON 2023a) is an integration of the various prior groundwater monitoring programs (NOI, GW LTM, delineation well, and sentinel well sampling) into one overall program based on the substantial amount of laboratory results, DOH guidance, and the composition of the fuels stored at the Facility.

The following ten primary COPCs were established in February 2016 (EPA Region 9 and DOH 2016) for the GW LTM program and remain the same for the Consolidated Groundwater Sampling Program:

- GRO, DRO, and ORO
- N, 1MN, and 2MN
- BTEX

Additional PAHs analyzed for sampling also continue as part of the Consolidated Groundwater Sampling Program, since some PAHs are potentially associated with jet fuels at low concentrations. NVDOC has also been added to the natural attenuation parameter (NAP) list for monthly sampling.

Table 6-2 summarizes the analytical list for the Consolidated Groundwater Sampling Program, which includes monthly analytes, analytical methods, and screening criteria.

Table 6-2: Consolidated Groundwater Sampling Program – Monthly

Parameter	Analytical Method	Analyte	Groundwater Screening Criterion (DOH EAL) (µg/L)
TPH	EPA 8015	GRO	300
	EPA 8015	DRO	400
		ORO	500
Total TPH	—	Reported as a non-overlapping sum of GRO/DRO/ORO with BTEX, 1MN, 2MN, N subtracted	—
TPH with SGC	EPA 8015/DEP FL PRO	DRO	—
		ORO	—
VOCs	EPA 8260	Benzene	5
		Ethyl Benzene	30
		Toluene	40
		Total Xylenes	20
GW LTM PAHs	EPA 8270 SIM	1-MN	10
		2-MN	10
		Naphthalene	17
Additional PAHs	EPA 8270 SIM	Acenaphthene	20
		Acenaphthylene	240
		Anthracene	0.18
		Benzo(a)anthracene	0.029
		Benzo(a)pyrene	0.2
		Benzo(b)fluoranthene	0.22
		Benzo(g,h,i)perylene	0.13
		Benzo(k)fluoranthene	0.4
		Chrysene	1
		Dibenzo(a,h)anthracene	0.022
		Fluoranthene	13
		Fluorene	240
		Indeno(1,2,3-cd)pyrene	0.095
		Phenanthrene	210
Pyrene	68		

Parameter	Analytical Method	Analyte	Groundwater Screening Criterion (DOH EAL) (µg/L)
Fuel Additives	EPA 8270	Phenol	300
Lead Scavengers ^a	EPA 8011	1,2-Dibromoethane	0.04
	EPA 8260	1,2-Dichloroethane	5
NAPs	RSK 175M	Methane	—
	EPA 9060A	TOC	—
	EPA 9060A	NVDOC	—

Source: DON (2023a).

— not applicable

^a Discontinued if 1 year of sampling at newly constructed wells shows levels are below DOH EALs.

TPH and PAH Method Optimization. Performance testing results documented in detail in the *Third Quarter 2018 Groundwater Monitoring Report* (DON 2018c) showed that the EPA Region 9 laboratory had higher DRO and PAH recoveries than the Navy-contracted laboratory for analytes present in groundwater samples at high concentrations (EPA Region 9 and DOH 2017a, 2018; DON 2018b). The differences in recoveries were due to the EPA Region 9 laboratory protocols being more effective at recovering higher DRO and PAH concentrations, especially for samples with higher concentrations of polar hydrocarbons and metabolites. To optimize sample recoveries, the extraction methodologies from EPA Method 3510C (separatory funnel liquid-liquid extraction) was switched to EPA Method 3520C (continuous liquid-liquid extraction); using a rotary evaporator for extract condensation; and reducing the field-collected sample volume for optimal extraction within the liquid-liquid extractor vessel. After the method optimizations, there were no significant differences in the TPH and PAH concentration trends between EPA Region 9 laboratory and Navy-contracted laboratory results.

7.0 Field Observations During Sampling

Field observations recorded during the soil vapor and groundwater sampling activities this reporting period are described below.

7.1 Soil Vapor Monitoring Observations

During this reporting period, soil vapor monitoring was conducted weekly at the below-tank SVMPs. Soil vapor monitoring was also conducted monthly (plus additional out-of-frequency monitoring) at the subslab and shallow SVMPs installed in the tunnel system by Adit 3 near Red Hill Shaft. Historical soil vapor monitoring observations are presented in the December 11, 2023, Quarterly RRR (DON 2023j).

Two Adit 3 subslab SVMPs (A3-075 and A3-225) have been consistently poor vapor producers, with sampling results designated as “tight” to indicate vacuum is pulled when sampling and readings could not be obtained potentially due to low-permeability soil directly underneath the tunnel floor.

7.2 LNAPL Gauging and Monitoring Well Headspace Observations

A summary of LNAPL gauging and groundwater monitoring well headspace measurements collected during the Consolidated Groundwater Sampling Program is provided in Appendix B.2.1. Historical LNAPL gauging and groundwater monitoring well headspace measurements are presented in the December 11, 2023, Quarterly RRR (DON 2023j). Except for LNAPL observed in temporary monitoring wells screened in the shallow perched water located beneath the Adit 3 tunnel floor, no LNAPL was observed during the

reporting period in any groundwater monitoring well during any sampling event, regardless of the detection method used (i.e., oil/water interface probe, bailer, or UV light), including in samples collected at the multilevel wells RHMW11, RHMW13, RHMW14, and RHMW15 equipped with closed sampling ports.

Groundwater monitoring well headspace concentrations were generally low. Readings were 0.8 part per million by volume (ppmv) or less and, with the exception of RHMW03, concentrations above 0.0 ppmv occurred only occasionally throughout this reporting period. RHMW03 had a reading of 1.7 ppmv on July 2, 2024, but TPH results in groundwater were non-detect. All other headspace readings at RHMW03 were 0.2 ppmv or less.

At Adit 3, all borehole and temporary well locations had LNAPL thicknesses ranging from not observed to 0.07 ft (at A3+015-TW, A3-010-TW, and A3-100-BH) during this reporting period, consistent with previous quarters.

7.3 Groundwater Level Measurements

Depths to groundwater were gauged from the notched and surveyed top of casing using calibrated water level measuring tapes at single-screen monitoring well locations prior to sampling. The measuring tape correction factors were updated as described in a December 14, 2022, letter from the U.S. Geological Survey and are included in Appendix B.2.2. Additionally, a Heron or Solinst oil/water interface probe was used to detect LNAPL, which was measured if present.

The oil/water interface probe and water level measuring tapes were decontaminated between well measurements by washing with a non-phosphate detergent solution and rinsing with isopropyl alcohol and distilled water to prevent cross-contamination. Measuring points for all single-screen monitoring wells are detailed in three well elevation survey reports. The measuring point elevations have been updated to reflect the well elevation survey report revised on January 7, 2022, (DON 2018f; 2018g; 2019c) and to include recent elevations surveyed from July 2022 to present, all presented in Appendix B.2.2. Historical groundwater level measurements can be found in the December 11, 2023, Quarterly RRR (DON 2023j) and the Third Quarter 2023 GW LTM Report (DON 2023e).

During this reporting period, basal groundwater elevations beneath and near the site ranged from 15.48 to 18.71 ft above msl except for NMW33, where elevations ranged from 12.95 to 13.24 ft above msl. Groundwater elevations are presented in Appendix B.2.2. Since the previous quarterly reporting period, minor fluctuations in groundwater elevations from single-screen wells have generally increased.

Additionally, due to the design of the multilevel monitoring wells, depths to groundwater cannot be measured in the monitoring zones of RHMW11, RHMW13, RHMW14, and RHMW15. Instead, transducers are used in these wells to measure potentiometric elevations. Cumulative results of water pressure, temperature, and elevation for multilevel monitoring wells were last presented in Appendix D of the *Fourth Quarter 2020 Groundwater Monitoring Report* (DON 2021a).

7.4 Groundwater Sampling Observations

The following observations were noted during groundwater sampling field activities this reporting period:

- A slight hydrocarbon odor was observed during all sampling events at RHMW11.
- Particulates were observed intermittently in the water collected at HDMW2253-03, NMW26, NMW32, and RHP08.
- Organic or sulfurous odors were observed intermittently at RHMW02. An organic odor was also observed during one sampling event at both RHMW01R and RHMW08.

8.0 Data Quality

Field and laboratory QC measures implemented during this reporting period are described below. When applicable, corrective actions were implemented when control limits for field or laboratory QC measurements were not met. Results are reported in the associated laboratory and data validation reports (indexed in Appendix C and Appendix D).

8.1 Laboratory Quality Control

The following laboratory QC samples were collected and analyzed.

8.1.1 Soil Vapor Samples

Laboratory QC samples included method blank, laboratory control sample (LCS), and laboratory control sample duplicate (LCSD) analyses.

8.1.2 Groundwater Samples

Laboratory QC samples included method blanks, LCSs/LCSDs, matrix spikes/matrix spike duplicates (MSs/MSDs), and duplicates, as described in the DoD *Quality Systems Manual Version 5.4* (DoD and DOE 2021) and the AOC *Red Hill Sampling and Analysis Plan Addendum 01* (DON 2017a).

8.2 Field Quality Control

8.2.1 Soil Vapor Samples

Analytical soil vapor samples from the SVMPs beneath the Red Hill tanks were collected by Element Environmental, LLC. Field QC samples were not collected.

Soil vapor samples collected monthly and out-of-frequency from the subslab SVMPs in the Adit 3 and Pearl Harbor Tunnel floors were collected with field PIDs that were calibrated before the sampling event with 100 ppmv isobutylene gas and zero span gas for a two-point calibration, then bump-tested with the 100 ppmv isobutylene between 6 and 12 times per sampling event, to ensure that instruments remained calibrated. If bump test results did not meet QC criteria, the equipment was recalibrated or returned to the shop for maintenance if the recalibration failed to meet the criteria.

8.2.2 Groundwater Samples

Field QC samples for groundwater including trip blanks and equipment rinsates were collected according to procedures described in NAVFAC Pacific Environmental Restoration Program Project Procedure III-B, *Field QC Samples* (Water, Soil) (DON 2015a). Field QC samples are listed in Table 8-1.

Table 8-1: Measurement Performance Criteria – Field QC Samples

QC Sample	Analytical Group ^a	Frequency	DQI	Measurement Performance Criterion
Field duplicate	VOCs, GRO, DRO, ORO, PAHs, SVOCs	10% of primary samples collected per matrix per analytical method	Field sampling precision	RPD \leq 50% water ^b
Field blank	VOCs, GRO, DRO, ORO, PAHs, SVOCs	Once per source of decontamination water per sampling event	Adequacy of the decontamination water quality or potential for contamination due to field conditions	\leq 1/2 of LOQ
Equipment blank	VOCs, GRO, DRO, ORO, PAHs, SVOCs	5% of primary samples collected per matrix per analytical method	Adequacy of the decontamination process	\leq 1/2 of LOQ
Trip blank	VOCs, GRO, methane, lead scavengers	At minimum, one per cooler per analytical method containing VOCs, GRO, methane, or lead scavenger samples	Contamination during sample transport	\leq 1/2 of LOQ

% percent

DQI data quality indicator

LOQ limit of quantitation

RPD relative percent difference

^a See Table 6-1 for the list of analytes within analytical groups.

^b Per Project Procedures Manual Section II, *Data Validation Procedures* (DON 2015a).

In addition, because unexpected detections of phthalate and PAH compounds had previously been observed in the data set, collection of extra field blanks and equipment blanks was added for PAHs and SVOCs beginning the week of March 7, 2022. Field blanks were collected by pouring decontamination water directly into the sample bottles, and equipment blanks were collected by pouring decontamination water over the water level indicator and collecting the rinsate into sample bottles.

8.2.3 Sample Control Procedures

Field instruments were calibrated each morning prior to starting field activities. The PID was calibrated with 100 parts per million (ppm) isobutylene calibration gas. The multi-gas monitor was calibrated with 100 ppm isobutylene calibration gas and a multi-gas monitor calibration gas composed of 50 ppm carbon monoxide, 25 ppm dihydrogen sulfide, 19 percent oxygen, and 50 percent of the lower explosive limit of methane. The water quality meter was calibrated with an auto-calibration solution prior to recording measurements.

To assess the effectiveness of the equipment decontamination process, one equipment blank sample was collected from the reusable sample container used during the multilevel monitoring well zone sampling. The equipment blank sample was collected onsite by pouring distilled water onto the decontaminated multilevel monitoring well sample container string and then into the sample containers. A field blank sample was also collected to assess the quality of the locally sourced Menehune Water Company distilled water used to collect the equipment blank. The field blank was collected by pouring distilled water directly into sample containers. The field blank and equipment blank samples were analyzed for the same COPCs as the groundwater samples.

Because all single-screen monitoring locations have dedicated bladder pumps installed, no field or equipment blanks were collected at single-screen monitoring locations.

To help assess the precision of the data collection activity, including sampling and analysis, field duplicates were collected at the same approximate time as their respective primary samples. During the current sampling period, one field duplicate was collected at NMW32, RHMW08, RHMW10, RHMW16, and RHP06.

One trip blank was used for each sampling location for VOCs (GRO, BTEX, methane, and lead scavengers) to evaluate the condition of the samples in each shipment. The hermetically sealed trip blank samples were prepared by the field team using laboratory-provided VOC-free water immediately prior to the sampling event and kept chilled until the sampling day. Trip blanks remained with the associated groundwater samples in the cooler during the field event and during sample shipment to the laboratory.

8.3 Data Quality Assessment

The objective of data validation is to provide data of known quality for project decisions. Data quality is judged in terms of precision, accuracy, representativeness, comparability, completeness, and sensitivity. The analytical laboratory data for the groundwater sampling events were submitted to a third-party data validator, ESI (Environmental Standards, Inc.) or EDS (Environmental Data Services, Ltd.), for data validation and assessment. The following summary includes results provided during this reporting period that completed full data validation. Samples not meeting the acceptance criteria were qualified with a flag indicating a deficiency in the data. Groundwater data with validation qualifiers and reason codes are available in the Red Hill EDMS (Appendix E – Data Validation Qualifier Tables).

8.3.1 Precision

Precision is defined as the reproducibility of replicate measurements. Precision is evaluated by the RPD of field duplicates (FDs), laboratory control sample/laboratory control sample duplicate (LCS/LCSD), matrix spike/matrix spike duplicate (MS/MSD), and laboratory duplicate results. Field duplicate and MS/MSD samples were collected at a rate of approximately 10 percent of primary samples. Field duplicates were sent to the laboratory along with the primary samples.

An RPD outside the numerical QC limit in MS/MSD samples, LCS/LCSDs, or FDs indicates poor precision. Thus, the actual analyte concentration has a larger potential variance from the measured value than recommended in the Project Quality Assurance Project Plan. Possible causes of poor precision include sample matrix interference, improper sample collection or handling, inconsistent sample preparation, and poor instrument stability.

The following exceptions to the groundwater RPD performance criterion of $\leq 20\%$ for QC samples and field duplicates were reported during data validation:

- Two nitrate-nitrite (as N) samples were qualified as estimated due to MS duplicate imprecision.

Primary and field duplicate RPDs are presented in Table 8-2 for duplicate pairs in which the COPC was detected in one or both samples. When COPCs are not detected in the primary and field duplicate samples, the RPD is within control limits. RPDs could not be calculated when a primary or duplicate sample is not detected.

Table 8-2: Field Duplicate Analyte RPDs

Analyte	Screening Criterion (µg/L)	Sample ID	Concentration (µg/L)	RPD ^{a,b}
RHMW01R				
DRO	400	RHMW01R-WGN01LF-2404	131.3 J	2.9%
		RHMW01R-WGFD01LF-2404	127.5 J	
		RHMW01R-WGN01LF-2404	112 J	14%
		RHMW01R-WGFD01LF-2404	129 J	
		RHMW01R-WGN01LF-2405A	118 J	35%
		RHMW01R-WGFD01LF-2405A	168 J	
		RHMW01R-WGN01LF-2405B	113 J	3.6%
		RHMW01R-WGFD01LF-2405B	109 J	
		RHMW01R-WGN01LF-2406A	151 J	20%
		RHMW01R-WGFD01LF-2406A	123 J	
DRO SGC	—	RHMW01R-WGN01LF-2404	101 J	4.2%
		RHMW01R-WGFD01LF-2404	96.8 J	
		RHMW01R-WGN01LF-2405A	156 J	22%
		RHMW01R-WGFD01LF-2405A	125 J	
		RHMW01R-WGN01LF-2405B	83.3 J	8.1%
		RHMW01R-WGFD01LF-2405B	90.3 J	
		RHMW01R-WGN01LF-2406A	85.6 J	0.6%
		RHMW01R-WGFD01LF-2406A	86.1 J	
RHMW02				
DRO	400	RHMW02-WGN01LF-2404	1,927	8.7%
		RHMW02-WGFD01LF-2404	1,767	
		RHMW02-WGN01LF-2404	1,430	8.1%
		RHMW02-WGFD01LF-2404	1,550	
		RHMW02-WGN01LF-2405A	1,810	11%
		RHMW02-WGFD01LF-2405A	2,030	
		RHMW02-WGN01LF-2405B	2,760	10%
		RHMW02-WGFD01LF-2405B	3,060	
		RHMW02-WGN01LF-2406A	1,770	2.2%
		RHMW02-WGFD01LF-2406A	1,810	

Analyte	Screening Criterion (µg/L)	Sample ID	Concentration (µg/L)	RPD ^{a,b}
DRO SGC	—	RHMW02-WGN01LF-2404	163.5	24%
		RHMW02-WGFD01LF-2404	128.8	
		RHMW02-WGN01LF-2404	1,210	3.3%
		RHMW02-WGFD01LF-2404	1,250	
		RHMW02-WGN01LF-2405A	1,760	2.9%
		RHMW02-WGFD01LF-2405A	1,710	
		RHMW02-WGN01LF-2405B	2,270	8.0%
		RHMW02-WGFD01LF-2405B	2,460	
		RHMW02-WGN01LF-2406A	1,360	2.2%
		RHMW02-WGFD01LF-2406A	1,390	
ORO	500	RHMW02-WGN01LF-2404	220.1	11%
		RHMW02-WGFD01LF-2404	197	
		RHMW02-WGN01LF-2404	121 J	12%
		RHMW02-WGFD01LF-2404	137 J	
		RHMW02-WGN01LF-2405A	105 J	16%
		RHMW02-WGFD01LF-2405A	123 J	
		RHMW02-WGN01LF-2405B	154 J	16%
		RHMW02-WGFD01LF-2405B	181 J	
		RHMW02-WGN01LF-2406A	134 J	2.2%
		RHMW02-WGFD01LF-2406A	137 J	
ORO SGC	—	RHMW02-WGN01LF-2404	80 J	7.3%
		RHMW02-WGFD01LF-2404	86.1 J	
		RHMW02-WGN01LF-2405A	96.2 J	—
		RHMW02-WGFD01LF-2405A	170 U	
		RHMW02-WGN01LF-2405B	111 J	9.4%
		RHMW02-WGFD01LF-2405B	122 J	
		RHMW02-WGN01LF-2406A	91.9 J	0.3%
		RHMW02-WGFD01LF-2406A	92.2 J	
1MN	10	RHMW02-WGN01LF-2404	1.4	25%
		RHMW02-WGFD01LF-2404	1.8	
		RHMW02-WGN01LF-2405A	0.82 J	6.3%
		RHMW02-WGFD01LF-2405A	0.77 J	
		RHMW02-WGN01LF-2405B	2.2	4.4%
		RHMW02-WGFD01LF-2405B	2.3	
		RHMW02-WGN01LF-2406A	0.39 J	5.3%
		RHMW02-WGFD01LF-2406A	0.37 J	

Analyte	Screening Criterion (µg/L)	Sample ID	Concentration (µg/L)	RPD ^{a,b}
2MN	10	RHMW02-WGN01LF-2404	0.77 J	35%
		RHMW02-WGFD01LF-2404	1.1	
		RHMW02-WGN01LF-2405B	0.67 J	0%
		RHMW02-WGFD01LF-2405B	0.67 J	
N	17	RHMW02-WGN01LF-2404	3.4	19%
		RHMW02-WGFD01LF-2404	4.1	
		RHMW02-WGN01LF-2405A	1.5	22%
		RHMW02-WGFD01LF-2405A	1.2	
		RHMW02-WGN01LF-2405B	2.3	0%
		RHMW02-WGFD01LF-2405B	2.3	
		RHMW02-WGN01LF-2406A	0.67 J	3.0%
		RHMW02-WGFD01LF-2406A	0.65 J	
RHMW17				
Benzo(a)-anthracene	0.029	RHMW17-WGN01LF-2405A	0.041 J	—
		RHMW17-WGFD01LF-2405A	0.042 U	
Chrysene	1	RHMW17-WGN01LF-2405A	0.039 J	—
		RHMW17-WGFD01LF-2405A	0.083 U	

— not calculable
 % percent
 J estimated value
 J- estimated low
 N/A not applicable
 U non-detect value
 UJ non-detect estimate value

^a Field duplicate RPD measurement performance criterion for groundwater is 50 percent in accordance with the criteria presented in Table 5-1 of the SAP (DON 2017b, 2018c) and Table 3-2 of the SAP addenda (DON 2017d, 2018g).

^b $RPD = \frac{|(x2 - x1)|}{((x2+x1)/2)}$

No other precision concerns were identified for data validated during the reporting period.

8.3.2 Accuracy

Accuracy is defined as the degree of conformity of a measurement to a standard or true value. Accuracy is evaluated through measurement of the percent recovery (%R) of an analyte in a reference standard or spiked sample. Accuracy also encompasses the percent difference (%D) between the initial calibration verification (ICV) and the continuing calibration verification (CCV). Accuracy limits for internal standards, surrogates, LCS, MS, and MSD samples are either prescribed by the DoD or established by the individual laboratory.

Initial and continuing calibration results provide a means of evaluating accuracy within a particular sample delivery group (SDG). Relative response factor (RRF), percent relative standard deviation (%RSD), and percent difference (%D) are the three major parameters used to measure the effectiveness of instrument calibration. RRF is a measure of the relative spectral response of an analyte compared to its internal

standard. %RSD is an expression of the linearity of instrument response. %D is a comparison of a continuing calibration instrumental response with its initial response. %RSD and %D exceedances suggest routine instrumental anomalies, which typically impact all sample results for the affected compounds.

The acceptance criteria for accuracy are dependent on the analytical method and based on historical laboratory or DoD data.

The following groundwater data validated during the reporting period deviated from the established QC criteria and have been qualified as estimated (J), estimated biased low (J-), estimated biased high (J+), or not-detected estimated (UJ). Not-detected results are at the limit of detection (LOD):

- Nine primary and one field duplicate not-detected results for VOCs were qualified as UJ because the %D for the initial or closing CCV exceeded control limits.
- One primary not-detected result for VOCs was qualified as UJ because of QC samples recovering outside the acceptance limit.
- PAHs were not detected in 112 primary and 14 field duplicate samples and were qualified as UJ due to high %RSDs (%RSD >15%).
- Sixty primary and four field duplicate not-detected results, and one detected result for PAHs, were qualified as UJ and J respectively because the %D for the initial and closing CCV exceeded control limits.
- 2-(2-methoxyethoxy)-ethanol (2-2-MEE) was not detected in one primary sample; it was qualified as UJ because of QC sample recovery outside the acceptance limit.
- Chloride was detected in six primary samples and was qualified as J- because of QC sample recovery outside the acceptance limit.
- Nitrate-nitrite (as N) was detected in six primary samples and was qualified as J-, and one primary sample was qualified as J+, because of QC sample recovery outside the acceptance limit.

No rejected data occurred this period due to significant deficiencies in meeting the published method and project QC criteria, as described in Section 8.3.4.

8.3.3 Representativeness

Representativeness is the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness can be supported by using regulator-approved, industry-standard sampling and analysis protocols that were developed to address a specific data quality objective of the sampled medium.

During the sampling rounds for this reporting period:

- Groundwater samples for the Consolidated Groundwater Sampling Program were collected in accordance with procedures described in the DOH-approved AOC Statement of Work Sections 6 and 7, Work Plan/Scope of Work (DON 2017d) and the associated project Sampling and Analysis Plan and addenda (DON 2017c; 2017b; 2017a), including standardized sample collection methods identified in NAVFAC Pacific Environmental Restoration Program Project Procedure I-C-3, Monitoring Well Sampling (DON 2015a):
 - This procedure outlines collection of groundwater samples from a specific depth directly beneath the water table using a low-flow pumping strategy. Samples consist generally of

- dissolved constituents within the aquifer; the samples will not collect LNAPL or compounds in the LNAPL/groundwater interface (if one existed).
- Results from these samples represent groundwater from one depth, below the water table.
 - Prior to the Consolidated Groundwater Sampling Program (DON 2023a), groundwater samples from wells that are screened across the water table were collected with a bailer, based on DOH's request:²
 - Sampling with a bailer was requested to collect water at the groundwater/air interface along with any potential LNAPL that may be present. Sampling with a bailer may introduce air and turbulence to the sample, which may volatilize VOCs in the groundwater matrix. The bailer technique is also less repeatable and therefore adds a degree of variability into the results, which may be less representative of actual conditions at the water table.
 - In addition, DOH requested no purging be associated with this method; therefore, the methodology is likely to be affected by any localized equilibrium within the well and filter pack, and the results may not represent water flowing through the aquifer.
 - This methodology is contrary to the DOH Technical Guidance Manual for the Implementation of the Hawaii State Contingency Plan (TGM) (DOH 2023), which “recommends that low-flow purging and sampling approaches be utilized whenever feasible in order to improve the representativeness of the sample data.”

Representativeness is evaluated through compliance with the method-specific recommended sample holding time, method-specific sample preservation and through the analysis of blank samples, including method blank, equipment blank, field blank, and trip blank samples (DoD 2021). All sample holding times, sample preservation, and any impacts of associated blank contamination have been evaluated in accordance with EPA SW-846 method recommendations and DoD *Quality Systems Manual Version 5.4* (DoD and DOE 2021) during validation.

The following detected sampling results for the groundwater data were reported below the LOD and were qualified as not detected (U) at the LOD due to field, equipment, laboratory, instrument, or trip blank contamination:

- Two nitrate-nitrite as nitrogen, 17 NVDOC, and 36 TOC sample results that were detected in the laboratory were qualified not detected (U) due to contamination in field, equipment, laboratory, instrument, or trip blanks.

The following results reported above the LOD and less than or equal to five times the blank contamination were flagged due to field, equipment, instrument, laboratory, or trip blank contamination:

- Four PAH results were flagged as J+ due to contamination in the laboratory blank.
- Seven nitrate-nitrite as nitrogen results were flagged as J+ due to contamination in the instrument blank.
- Thirty NVDOC results were flagged as J+ due to contamination in the laboratory or instrument blank.
- Twenty-four TOC results were flagged as J+ due to contamination in the laboratory or instrument blank.

² Email from L. Galvez, DOH-HEER, to S. Eng, Navy Region Hawaii; May 28, 2021.

Pending validation, detections in the field blanks and equipment blanks are summarized to aid in discussion of the analytical results. Field blank and equipment blank detections with final results are available in the data validation table available through the Red Hill EDMS (Appendix E – Data Validation Qualifier Tables).

- One TPH-DRO not-detected result was flagged as UJ due to sample preparation occurring beyond the method-recommended holding time.
- Four PAH not-detected results were flagged as UJ due to sample preparation occurring beyond the method-recommended holding time.
- Eleven 2-2-MEE not-detected results were flagged as UJ due to sample preparation occurring beyond the method-recommended holding time.
- Eight 2-2-MEE not-detected results were flagged as UJ due to cooler temperature received outside of control limits.
- Eight ferrous iron not-detected results were flagged as UJ due to cooler temperature received outside of control limits.
- Two nitrate-nitrite as nitrogen not-detected results and three detected results were flagged as UJ and J-, respectively, due to negative laboratory blank results.
- Seven nitrate as nitrogen detected results were flagged as J- due to sample analysis occurring beyond the method-recommended holding time.
- Three ferrous iron detected results were flagged as J- due to cooler temperature received outside of control limits.

No other representativeness concerns were identified during validation of the sample results.

8.3.4 Completeness

Completeness is defined as the overall percentage of valid analytical results (including estimated results) compared to the total number of analytical results reported by the analytical laboratory.

Rejected data (R) occurred due to significant deficiencies in meeting the published method and project QC criteria. The presence or absence of the compound cannot be supported by the data provided and is excluded for data usability and assessment. Based on the frequency of sampling and the quantity of data collected, the loss of these data points does not constitute a significant data gap for the sampling events.

Validated data provided during the reporting period were not rejected; all validated data reported were included for data usability and assessment. The completeness of the data (100 percent) met the 90 percent completeness goal.

8.3.5 Comparability

Comparability expresses the confidence with which one data set can be compared to another. Comparability can be related to accuracy and precision because these quantities are measures of data reliability. Data with acceptable precision and accuracy are considered comparable if collection techniques, analytical procedures, methods, and reporting are equivalent.

The laboratories used standard analytical methods for all analyses. In all cases, the detection limits and LODs attained were below the specified LOQs. Target analytes detected below the LOQs flagged (J) by

the laboratory are considered estimated. The data presented can be compared to and evaluated against regulatory standards as required for this report.

8.3.6 Sensitivity

The LOQs are established by the laboratory based on the LODs or instrument detection limits and limits established for the various methods. The LOQs and LODs for samples may require adjustment by the laboratory due to matrix interference or when high levels of target analytes necessitate dilution before analysis. Matrix interference and sample dilutions decrease sensitivity and increase the LOQs/LODs. No results in this data set had increased LOQs or LODs that impacted sensitivity and data usability.

8.4 Data Quality Assessment Conclusions

The precision, accuracy, representativeness, comparability, completeness, and sensitivity criteria were evaluated by Environmental Standards, Inc. in Valley Forge, Pennsylvania, and Environmental Data Services, Ltd. in Pittsburgh, Pennsylvania, the project third-party data validators for groundwater samples. Complete validation reports received to date are listed in Appendix D.

Groundwater sample analysis and third-party data validation are ongoing and pending completion for a number of samples collected during this reporting period. These pending sample results will be included in the next Quarterly RRR. Laboratory and field data quality will be fully assessed pending availability of additional laboratory and third-party data validation reports.

The third-party data assessment for the provided data concluded that 100 percent of the data generated during the sampling events reported herein are usable for the intended purpose with the limitations described above.

9.0 Analytical Results

Analytical results for soil vapor and groundwater samples collected during this reporting period are presented below, along with the results of LNAPL gauging and headspace measurements performed as part of the Consolidated Groundwater Sampling Program (DON 2023a). No soil samples associated with monitoring well installation were collected during this reporting period.

9.1 Soil Vapor Analytical Results

9.1.1 Below-Tank Sampling Locations

Soil vapor measurements of total VOCs collected below the fuel storage tanks since January 2014 are provided in EDMS (Appendix E – Soil Vapor Measurements Below Tanks) and the DOH Red Hill Technical Documents web pages.³ Soil vapor PID measurements of total VOCs for Tanks 2 through 18 and 20 are presented in Appendix A.1; and chromatograms for passivated canister samples collected below Tanks 15, 17, 18, and 20 for laboratory reports validated during this reporting period are presented in Appendix A.2. Soil vapor analytical data reports for passivated canister samples collected below the fuel storage tanks are indexed in Appendix C and available in EDMS (Appendix E – Soil Vapor Analytical Laboratory Reports).

Laboratory results for below-tank SVMPs during this reporting period are consistent with recent monitoring periods. The cumulative results are consistent with natural attenuation and weathering of LNAPL in the environment, indicating that the vapor impacts from the May 2021 Release have attenuated.

³ <https://health.hawaii.gov/ust/ust-home-test/ust-red-hill-project-main/#technical-docs>

9.1.2 Adit 3 Tunnel Sampling Locations

During this reporting period, SVMPs in the Adit 3 Tunnel were monitored monthly, as well as an additional 6 out-of-frequency monitoring events due to significant rainfall. Figure 5A shows the results of soil vapor monitoring from subslab and shallow SVMPs installed in the floor of the Adit 3 and Pearl Harbor Tunnels during the reporting period. As shown on the figure, the results showed fluctuations over time. An overall decrease in concentrations has been observed since the commencement of monitoring in December 2021 and shallow SVE Pilot Test in April 2024, which continued during the current reporting period.

Historical soil vapor monitoring observations are presented in the December 11, 2023, Quarterly RRR (DON 2023j).

9.2 LNAPL Gauging and Monitoring Well Headspace Measurements

LNAPL gauging results and headspace measurements collected during the reporting period are presented in Section 5.2 and Appendix B.2.1. LNAPL was not detected at any monitoring location other than the Adit 3 Tunnel, as discussed in Section 7.2.

9.3 Groundwater Analytical Results

Groundwater samples were analyzed for the parameters and methods described in Section 6.0.

Appendix B.1 summarizes samples collected, laboratory analytical methods, and status of SDG reports. The sampling events covered in this report include data that have been validated within this reporting period. Appendix B.3.1 provides groundwater monitoring well results compared to the EALs for each analyte group. TPH and PAH groundwater results collected during this reporting period are graphically displayed over time in Appendix B.3.2. Appendix B.4 provides chromatograms of detections and exceedances observed during the current period. Appendix B.5 presents NAP analytical results. Final Level II and IV analytical reports and data validation reports are indexed in Appendix D. Historical analytical results are presented in the December 11, 2023, Quarterly RRR (DON 2023j) and the Third Quarter 2023 GW LTM Report (DON 2023e).

Analytical results for the current reporting period are summarized in Table 9-1. Summary statistics for all sample results validated during this reporting period are presented in Table 9-2. TPH and PAH groundwater analytical results are depicted on Figure 6 through Figure 11.

Table 9-1: Summary of Groundwater Analytical Results, Current Reporting Period

Monitoring Location	COPC, Fuel Additive, or Lead Scavenger Detection Below Screening Criterion	Analyte Concentration Exceeding Screening Criterion
RHMW2254-01	None	None
RHSF-PUMP	None	None
RHMW01R	TPH-DRO (detected after SGC)	None
RHMW02	TPH-ORO (lower after SGC) 1-Methylnaphthalene 2-Methylnaphthalene Naphthalene	TPH-DRO: 1,927; 1,430; 1,767; 1,550; 1,810; 2,030; 2,760; 3,060; 1,770; 1,810 µg/L (screening criterion: 400 µg/L) (below SSRBL: 4,500 µg/L)
RHMW03	TPH-DRO (ND after SGC) TPH-ORO (ND after SGC) Phenanthrene	None
RHMW04	None	None
RHMW05	None	None
RHMW06	TPH-DRO (lower after SGC)	None
RHMW08	TPH-DRO (lower after SGC) TPH-ORO (ND after SGC)	None
RHMW09	None	None
RHMW10	None	None
RHMW11-05	None	None
RHMW12A	None	None
RHMW13-04	None	None
RHMW14-03	None	None
RHMW15-05	None	TPH-DRO: 1,379 µg/L (screening criterion: 400 µg/L) TPH-ORO: 570.5 µg/L (screening criterion: 500 µg/L)
RHMW16	None	None
RHMW17	Chrysene	Benzo(a)anthracene: 0.041 J µg/L (screening criterion: 0.029 µg/L)
RHMW18	None	None
RHMW19	None	None
RHMW20	None	None
HDMW2253-01	None	None
RHP01	None	None
RHP02	None	None
RHP03	None	None
RHP04A	None	None
RHP04B	TPH-DRO (ND after SGC) TPH-ORO (ND after SGC)	None
RHP04C	TPH-DRO (ND after SGC)	None

Monitoring Location	COPC, Fuel Additive, or Lead Scavenger Detection Below Screening Criterion	Analyte Concentration Exceeding Screening Criterion
RHP05	None	None
RHP06	None	None
RHP07	None	None
RHP08	None	None
NMW24	None	None
NMW25	None	None
NMW26	TPH-DRO (ND after SGC) TPH-ORO (ND after SGC)	None
NMW30	None	None
NMW32	TPH-ORO (detected after SGC)	None
NMW33	None	None
NMW34	TPH-DRO (ND after SGC) TPH-ORO (ND after SGC)	None
OWDFMW03A	None	None
OWDFMW08A	None	None

Notes: EAL screening criteria are not intended to represent mandatory cleanup levels. Exceedance of an action level does not necessarily indicate that an adverse health risk is present, but rather that additional action is warranted (DOH 2024, pg. 1-8).

µg/L micrograms per liter
 COPC chemical of potential concern
 ND non-detect
 SGC silica gel cleanup
 SSRBL Site-Specific Risk-Based Level
 DRO diesel range organics
 ORO residual oil range organics

Table 9-2. Summary of Analytical Groundwater Results Received During the Current Reporting Period (4/11/2024 through 7/10/2024)

Chemical of Concern	CAS	Method	Units	Number of Samples ^{a,b,c}	Number of Non-Detects	Number of Detects	Detection Frequency	Minimum Detected Value		Maximum Detected Value		Location of Maximum Detect	Project Screening Criteria		
								Value ¹	Qualifier	Value ¹	Qualifier		Criteria	Number of Exceedances ^d	Exceedance Frequency ^d
TPH and Fuel Related Compounds															
TPH-g (C6-C12) Energy	PHCC6C10	8015	µg/L	0	0	0	—	—	—	—	—	0	300	—	—
TPH-d (Energy Lab)	PHCC10C24	8015	µg/L	43	31	12	27.9%	40.41	J	1927		RHMW02	400	3	7.0%
TPH-d (Energy Labs) with Silica Gel Cleanup	PHCC10C24SGC	8015	µg/L	15	11	4	26.7%	128.8	J	176	J	RHMW08	—	—	—
TPH-o (Energy Labs)	PHCC24C40	8015	µg/L	43	35	8	18.6%	107.1	J	570.5		RHMW15-05	500	1	2.3%
TPH-o (Energy Labs) with Silica Gel Cleanup	PHCC24C40SGC	8015	µg/L	15	15	0	0.0%	ND		ND		—	—	—	—
TPH-g (SGS Labs)	PHCC6C10	8015	µg/L	198	198	0	0.0%	ND		ND		—	300	0	0.0%
TPH-d (SGS Labs)	PHCC10C24	8015	µg/L	198	181	17	8.6%	109	J	3060		RHMW02	400	8	4.0%
TPH-d (SGS Labs) with Silica Gel Cleanup	PHCC10C24SGC	8015	µg/L	18	2	16	88.9%	83.3	J	2460		RHMW02	—	—	—
TPH-o (SGS Labs)	PHCC24C40	8015	µg/L	198	189	9	4.5%	105	J	181	J	RHMW02	500	0	0.0%
TPH-o (SGS Labs) with Silica Gel Cleanup	PHCC24C40SGC	8015	µg/L	18	10	8	44.4%	80	J	189	J	NMW32	—	—	—
TPH-g	PHCC6C10	8015	µg/L	198	198	0	0.0%	ND		ND		—	300	0	0.0%
TPH-d	PHCC10C24	8015	µg/L	241	212	29	12.0%	40.41	J	3060		RHMW02	400	11	4.6%
TPH-d with Silica Gel Cleanup	PHCC10C24SGC	8015	µg/L	33	13	20	60.6%	83.3	J	2460		RHMW02	—	—	—
TPH-o	PHCC24C40	8015	µg/L	241	224	17	7.1%	105	J	570.5		RHMW15-05	500	1	0.4%
TPH-o with Silica Gel Cleanup	PHCC24C40SGC	8015	µg/L	33	25	8	24.2%	ND		189	J	NMW32	—	—	—
VOCs															
Benzene	71-43-2	8260	µg/L	297	297	0	0.0%	ND		ND		—	5	0	0.0%
Ethylbenzene	100-41-4	8260	µg/L	297	297	0	0.0%	ND		ND		—	30	0	0.0%
Toluene	108-88-3	8260	µg/L	297	297	0	0.0%	ND		ND		—	40	0	0.0%
Xylenes	1330-20-7	8260	µg/L	297	297	0	0.0%	ND		ND		—	20	0	0.0%
1,2,4-Trimethylbenzene	95-63-6	SW8260	µg/L	237	237	0	0.0%	ND		ND		—	—	—	—
1,3,5-Trimethylbenzene	108-67-8	SW8260	µg/L	237	237	0	0.0%	ND		ND		—	—	—	—
Lead Scavengers															
1,2-Dibromoethane	106-93-4	8011	µg/L	159	159	0	0.0%	ND		ND		—	0.04	0	0.0%
1,2-Dichloroethane	107-06-2	8260	µg/L	274	274	0	0.0%	ND		ND		—	5	0	0.0%
Fuel Additives															
Phenol	108-95-2	SW8270	µg/L	198	198	0	0.0%	ND		ND		—	300	0	0.0%
2-(2-Methoxyethoxy)-ethanol	111-77-3	8270	µg/L	42	42	0	0.0%	ND		ND		—	—	—	—
AOC / Groundwater LTM PAHs															
1-Methylnaphthalene	90-12-0	8270 SIM	µg/L	198	190	8	4.0%	0.37	J	2.3		RHMW02	10	0	0.0%
2-Methylnaphthalene	91-57-6	8270 SIM	µg/L	198	194	4	2.0%	0.67	J	1.1		RHMW02	10	0	0.0%
Naphthalene	91-20-3	8270 SIM	µg/L	198	190	8	4.0%	0.65	J	4.1		RHMW02	17	0	0.0%

Table 9-2. Summary of Analytical Groundwater Results Received During the Current Reporting Period (4/11/2024 through 7/10/2024)

Chemical of Concern	CAS	Method	Units	Number of Samples ^{a,b,c}	Number of Non-Detects	Number of Detects	Detection Frequency	Minimum Detected Value		Maximum Detected Value		Location of Maximum Detect	Project Screening Criteria		
								Value ¹	Qualifier	Value ¹	Qualifier		Criteria	Number of Exceedances ^d	Exceedance Frequency ^d
PAHs															
Acenaphthene (SIM)	83-32-9	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	20	0	0.0%
Acenaphthylene (SIM)	208-96-8	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	240	0	0.0%
Anthracene (SIM)	120-12-7	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	0.18	0	0.0%
Benzo(a)anthracene (SIM)	56-55-3	8270SIM	µg/L	198	197	1	0.5%	0.041	J	0.041	J	RHMW17	0.029	1	0.5%
Benzo(a)pyrene (SIM)	50-32-8	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	0.2	0	0.0%
Benzo(b)fluoranthene (SIM)	205-99-2	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	0.22	0	0.0%
Benzo(g,h,i)perylene (SIM)	191-24-2	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	0.13	0	0.0%
Benzo(k)fluoranthene (SIM)	207-08-9	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	0.4	0	0.0%
Chrysene (SIM)	218-01-9	8270SIM	µg/L	198	197	1	0.5%	0.039	J	0.039	J	RHMW17	1	0	0.0%
Dibenzo(a,h)anthracene (SIM)	53-70-3	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	0.022	0	0.0%
Fluoranthene (SIM)	206-44-0	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	13	0	0.0%
Fluorene (SIM)	86-73-7	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	240	0	0.0%
Indeno(1,2,3-cd)pyrene (SIM)	193-39-5	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	0.095	0	0.0%
Phenanthrene (SIM)	85-01-8	8270SIM	µg/L	198	197	1	0.5%	0.22	J	0.22	J	RHMW03	210	0	0.0%
Pyrene (SIM)	129-00-0	8270SIM	µg/L	198	198	0	0.0%	ND		ND		—	68	0	0.0%
Natural Attenuation Parameters															
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	188	0	188	100.0%	18		310		RHMW03	—	—	—
Alkalinity, Carbonate (as CO3)	ALKC	2320B	mg/L	188	0	188	100.0%	62		83		RHMW18	—	—	—
Alkalinity, Total (as CaCO3)	ALK	2320B	mg/L	188	184	4	2.1%	18		310		RHMW03	—	—	—
Chloride (as Cl)	16887-00-6	300	mg/L	188	0	188	100.0%	30		500		RHMW20	—	—	—
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	184	169	15	8.2%	0.33	J	2		RHMW02	—	—	—
Methane	74-82-8	SW8015	µg/L	178	125	53	29.8%	0.17	J	2920		RHMW02	—	—	—
Nitrate (as N)	14797-55-8	300	mg/L	188	24	164	87.2%	0.086	J	5.8		NW25	—	—	—
Nitrate (as NO3 anion)	NO3NO2N	—	mg/L	188	21	167	88.8%	0.068	J	5.9		NW25	—	—	—
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	188	21	167	88.8%	0.068	J	5.9		NW25	—	—	—
NV Dissolved Organic Carbon	DOC	9060	µg/L	180	18	162	90.0%	344	J	7880		RHMW02	—	—	—
Sulfate (as SO4)	14808-79-8	300	mg/L	188	0	188	100.0%	4.1		160		NW25	—	—	—
Total Organic Carbon	TOC	9060	µg/L	180	48	132	73.3%	253	J	9970		RHMW02	—	—	—

Note¹: The minimum and maximum detected values are given for each analyte. If the analyte was not detected in any sample, "ND" is shown for minimum or maximum detected values.

Note²: If the minimum or maximum result value occurs at more than one location only the location of the first occurrence is given.

^a Includes normal and field duplicate samples.

^b Does not include sample results rejected by validation.

^c Wells sampled during this reporting period include the following: HDMW2253-03, NMW24, NMW25, NMW30, NMW32, NMW33, NMW34, OWDFMW03A, OWDFMW08A, RHMW01R, RHMW02, RHMW03, RHMW04, RHMW05, RHMW06, RHMW08, RHMW09, RHMW10, RHMW11-05, RHMW12A, RHMW13-04, RHMW14-03, RHMW15-05, RHMW16, RHMW17, RHMW19, RHMW20, RHMW2254-01, RHSF-PUMP, RHP01, RHP02, RHP03, RHP04A, RHP04B, RHP04C, RHP05, RHP06, RHP07, and RHP08.

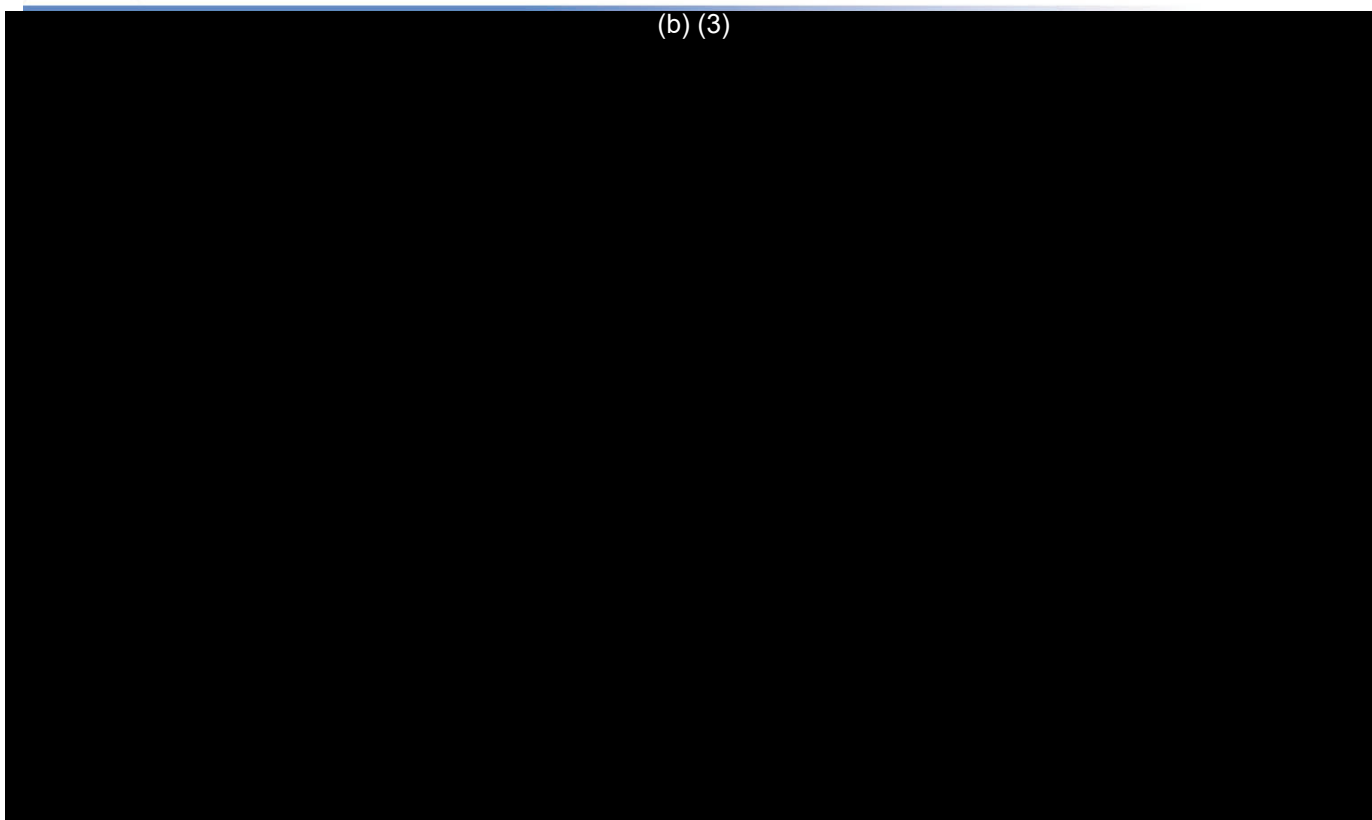
^d Exceedances are based on the 2017 Department of Health Tier 1 EAL.

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GRO Sample Results – Red Hill Monitoring Wells



(b) (3)

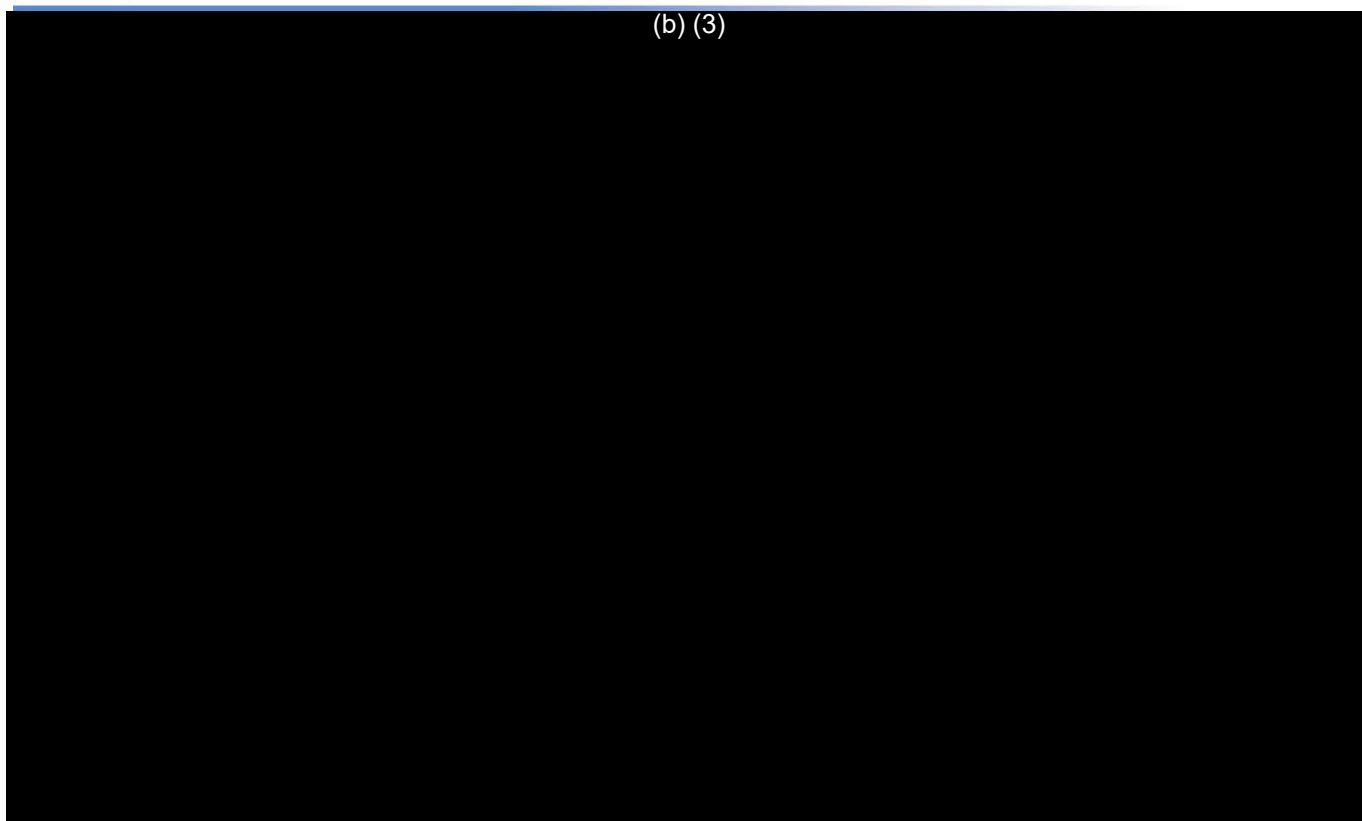


7

GRO Sample Results – Plume Delineation Wells



(b) (3)



8

GRO Sample Results – Sentinel Wells



(b) (3)



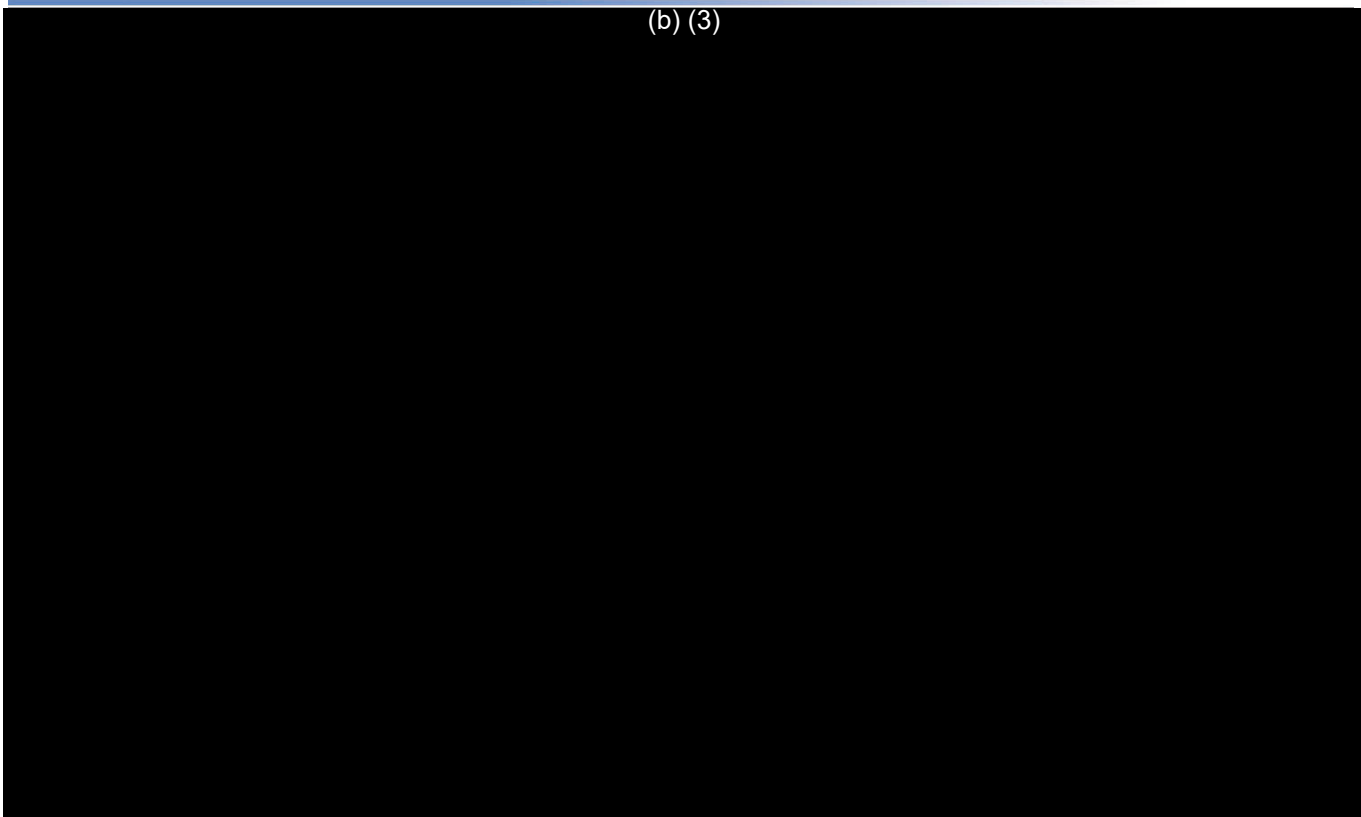
9

Figure 6: GRO Groundwater Analytical Results Summary

DRO Sample Results – Red Hill Monitoring Wells



(b) (3)

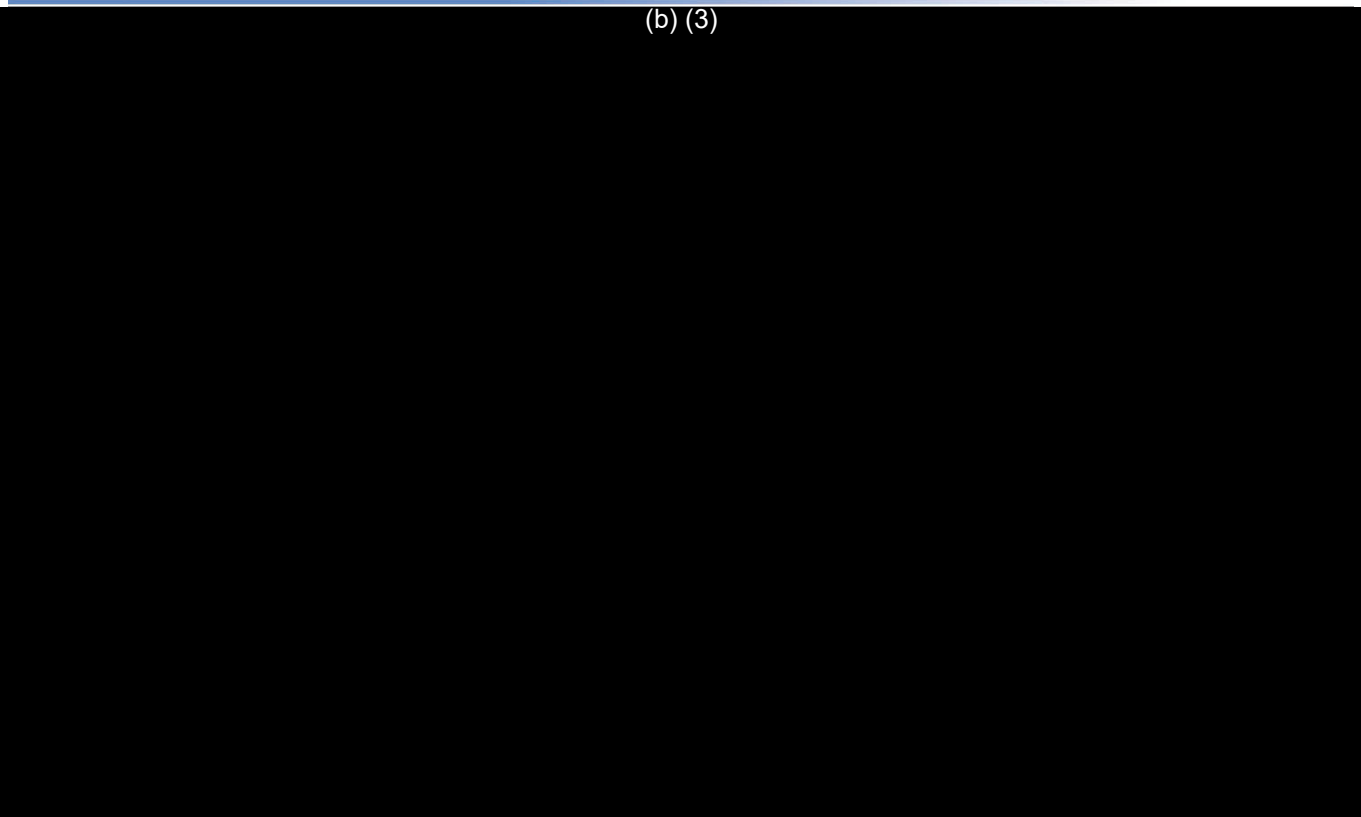


1

DRO Sample Results – Plume Delineation Wells



(b) (3)

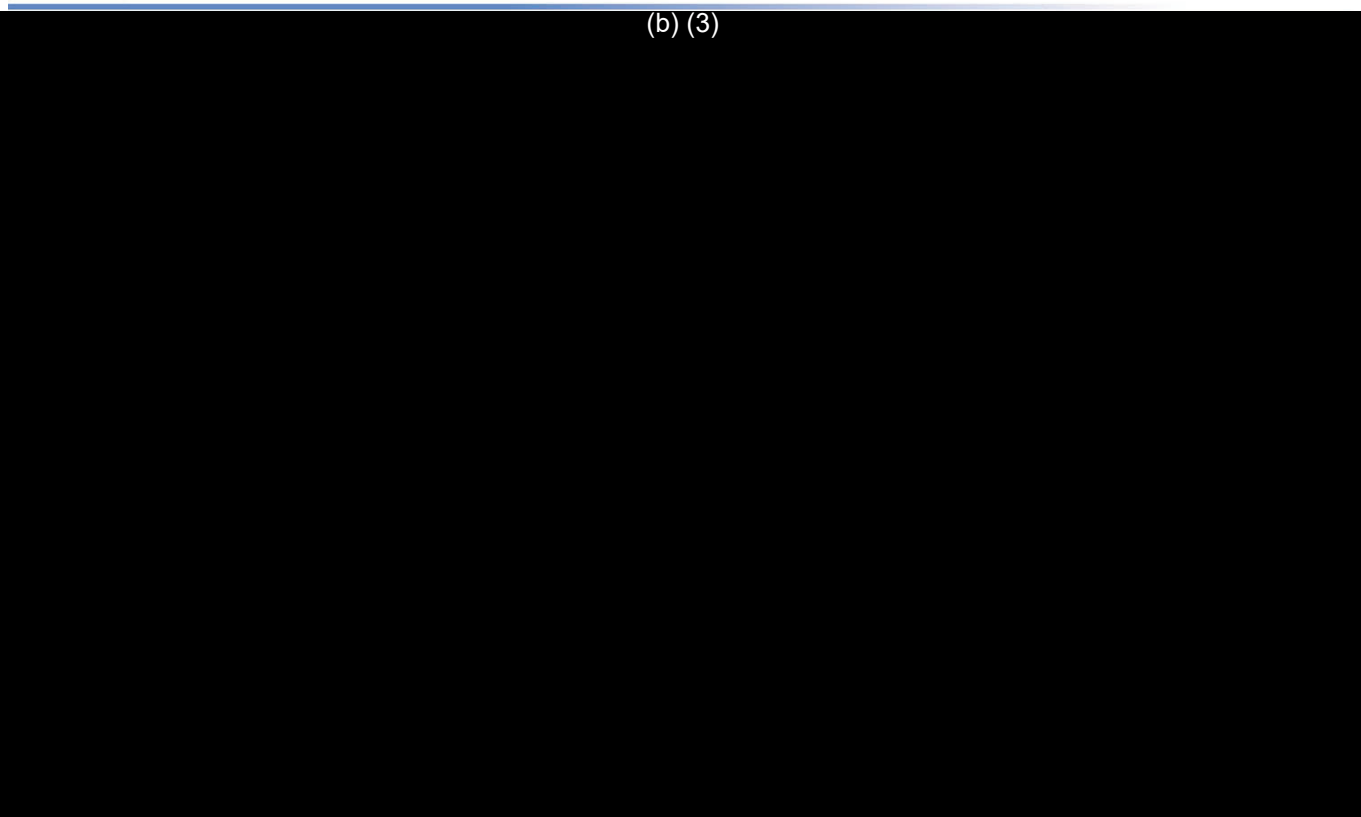


2

DRO Sample Results – Sentinel Wells



(b) (3)



3

Figure 7: DRO Groundwater Analytical Results Summary

ORO Sample Results – Red Hill Monitoring Wells



(b) (3)



4

ORO Sample Results – Plume Delineation Wells



(b) (3)



5

ORO Sample Results – Sentinel Wells



(b) (3)



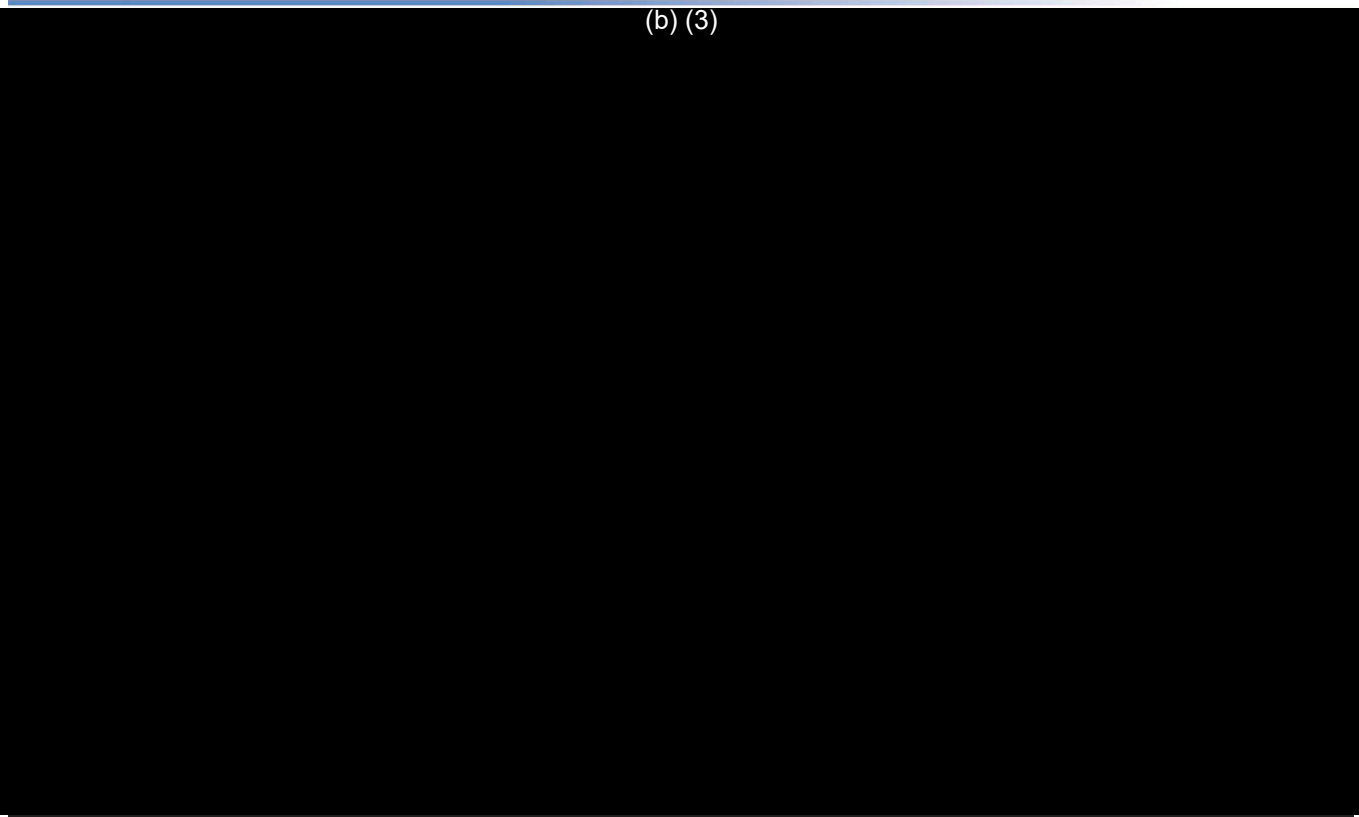
6

Figure 8: ORO Groundwater Analytical Results Summary

Naphthalene Sample Results – Red Hill Monitoring Wells



(b) (3)

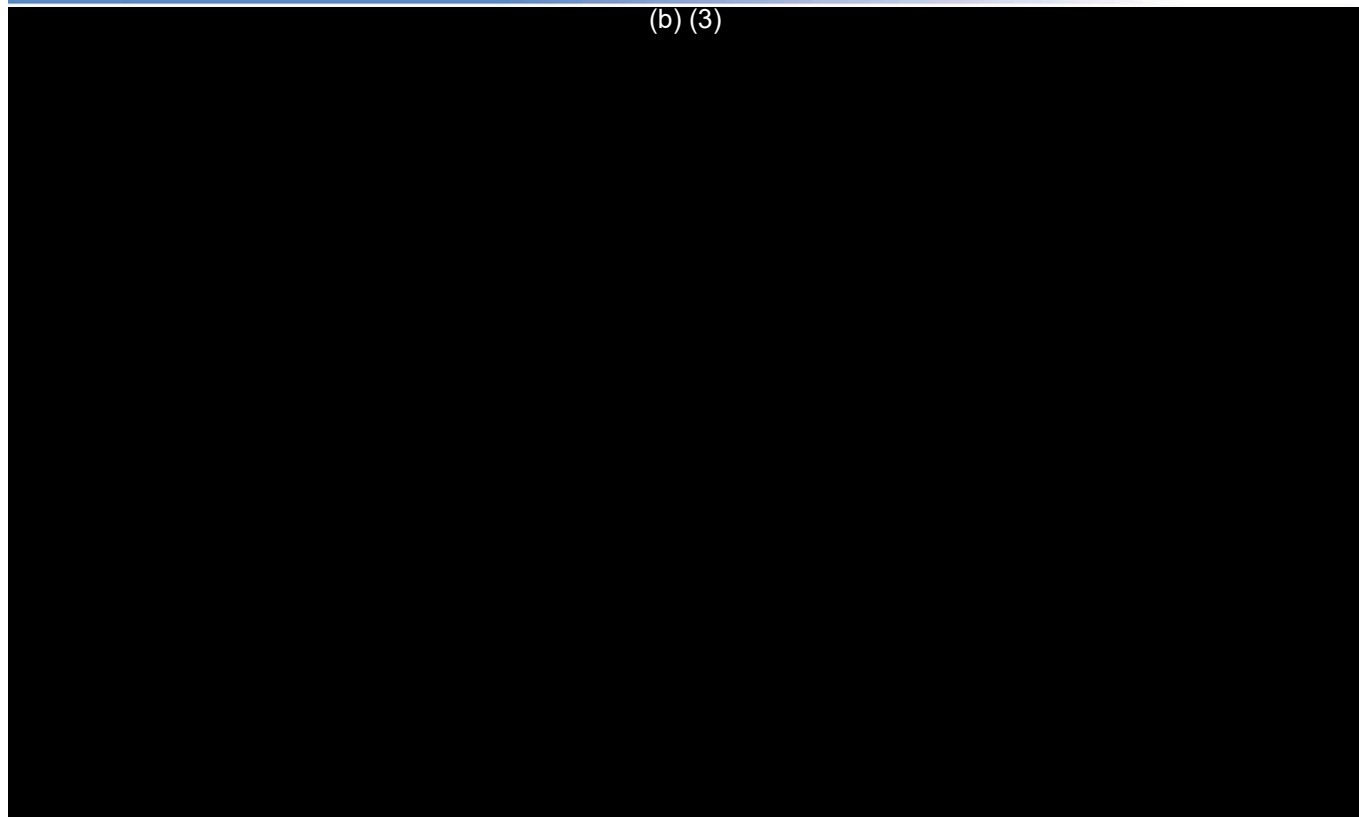


1

Naphthalene Sample Results – Plume Delineation Wells



(b) (3)

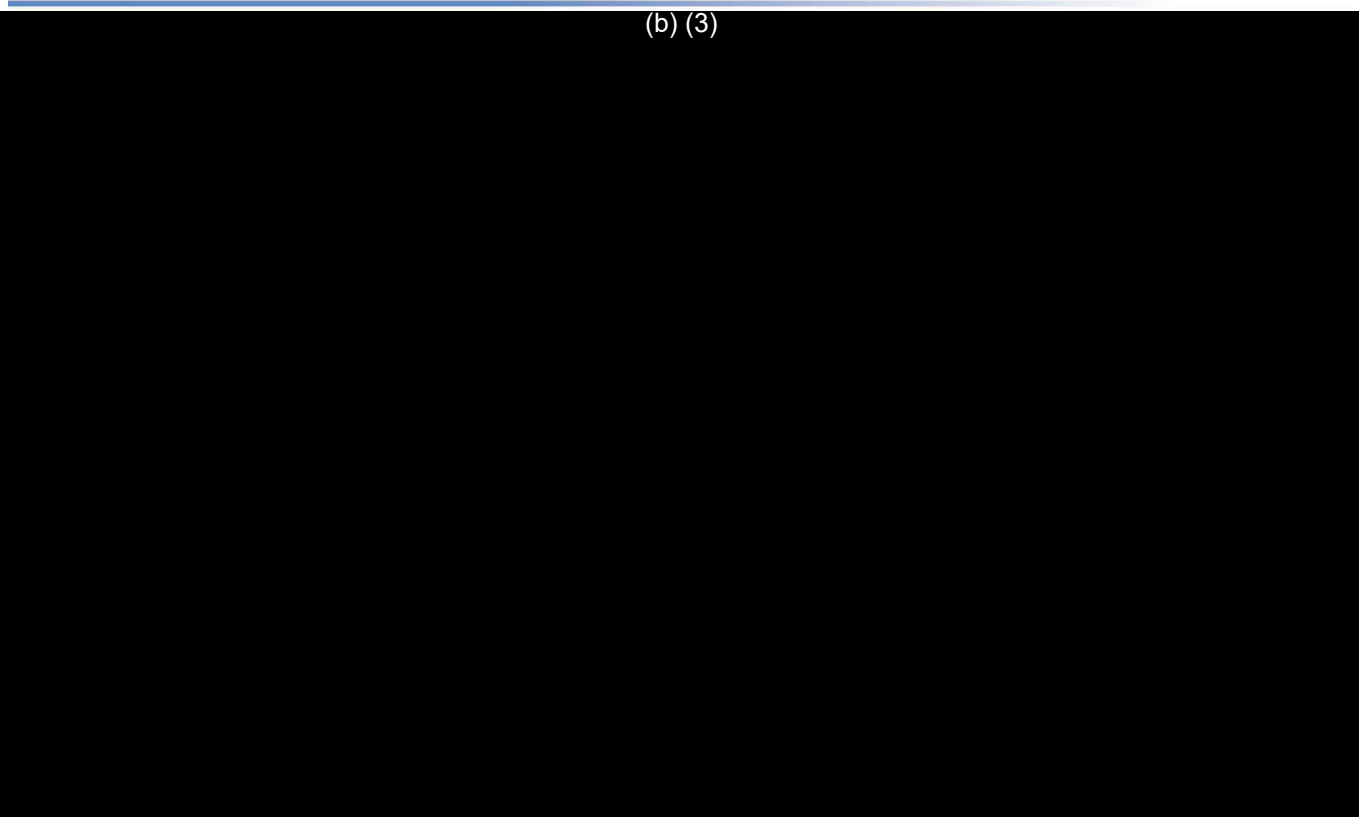


2

Naphthalene Sample Results – Sentinel Wells



(b) (3)



3

Figure 9: Naphthalene Groundwater Analytical Results Summary

1-Methylnaphthalene Sample Results – Red Hill Monitoring Wells



(b) (3)



4

1-Methylnaphthalene Sample Results – Plume Delineation Wells



(b) (3)



5

1-Methylnaphthalene Sample Results – Sentinel Wells



(b) (3)



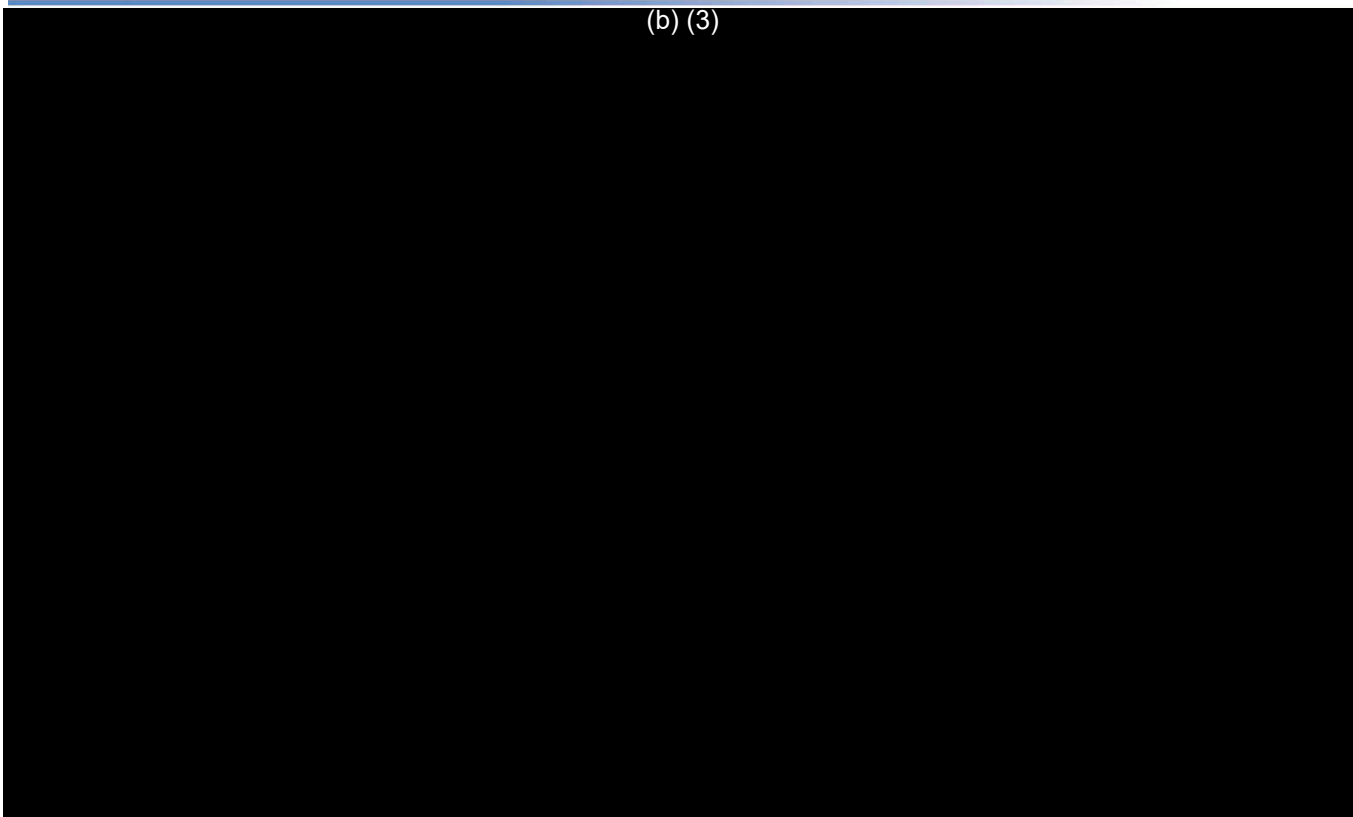
6

Figure 10: 1-Methylnaphthalene Groundwater Analytical Results Summary

2-Methylnaphthalene Sample Results – Red Hill Monitoring Wells



(b) (3)

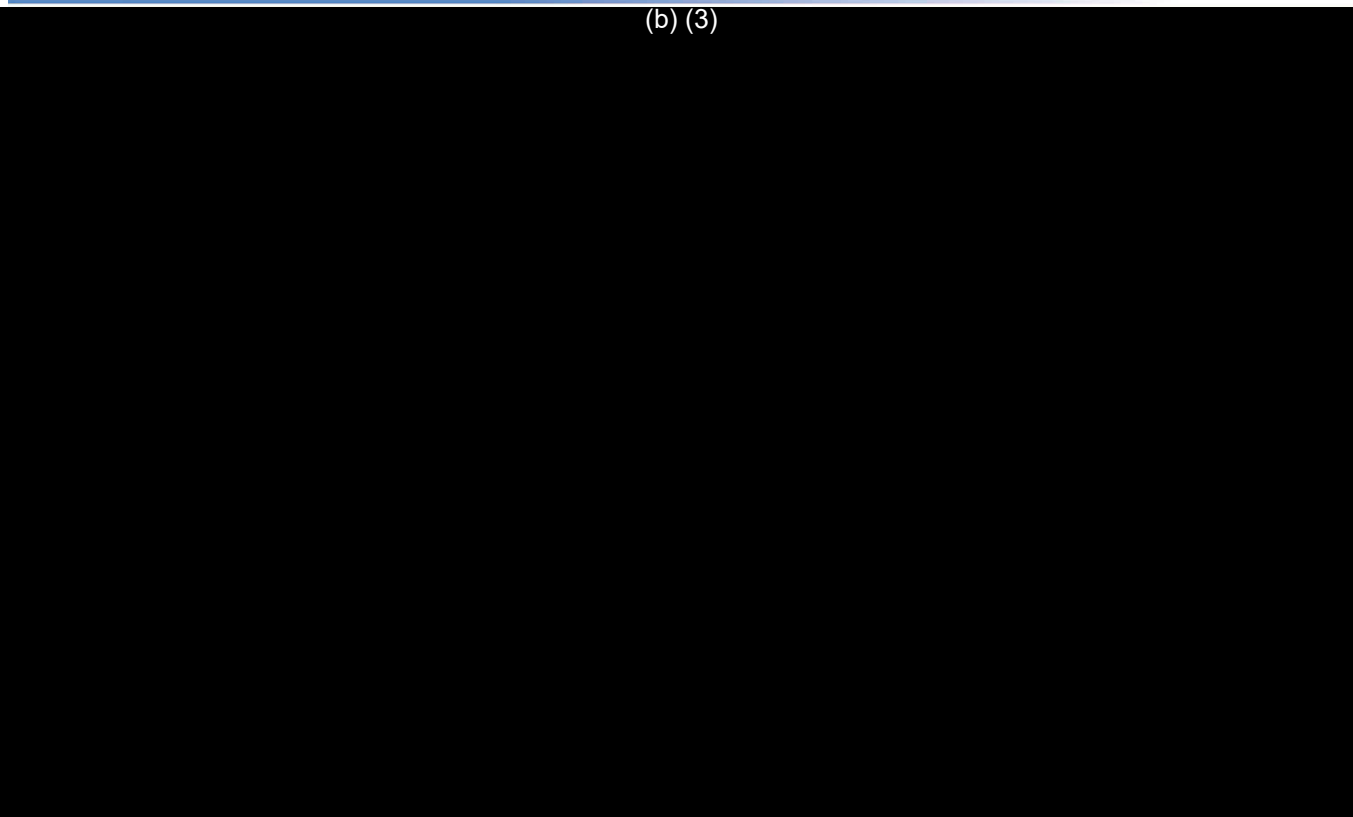


7

2-Methylnaphthalene Sample Results – Plume Delineation Wells



(b) (3)

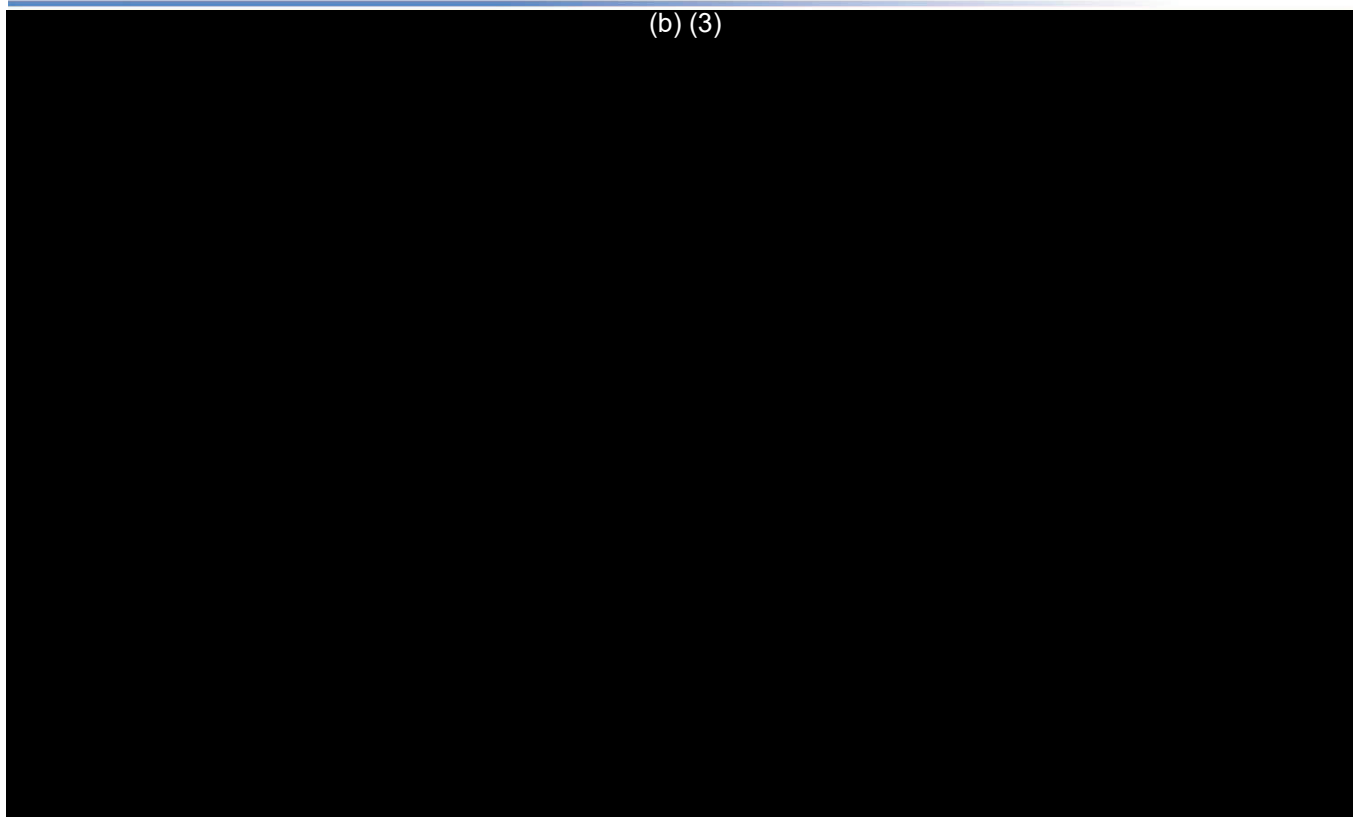


8

2-Methylnaphthalene Sample Results – Sentinel Wells



(b) (3)



9

Figure 11: 2-Methylnaphthalene Groundwater Analytical Results Summary

Detected sample concentrations for data validated during the current reporting period are described by analyte below. The extent and magnitude of groundwater contamination are further evaluated in Section 10.1.

9.3.1 *TPH Range Organics*

Total petroleum hydrocarbon (TPH) organics were measured using analytical methods that do not discriminate between petroleum hydrocarbons and many other organic compounds that may be detected within the specific carbon ranges of the methods. The numerical results provided in the text below, and in the referenced figures and tables can measure a larger set of organic compounds including petroleum hydrocarbons, naturally occurring hydrocarbons, or other organic compounds that may be introduced to the sample after it was removed from the groundwater. Determining the potential source of the organics measured in the sample requires additional qualitative review by a trained chemist and possible additional analysis. The results presented below include:

- GRO: Organic compounds that fall in the gasoline range (C6–C10)
- DRO: Organic compounds that fall in the middle distillate range, including diesel and jet fuel (C10–C24)
- ORO: Organic compounds that fall in the residual oil range, including motor oil (C24–C40)

9.3.1.1 *GRO*

As shown on Figure 6, TPH GRO was not detected at any in-tunnel, outlying, delineation, or sentinel wells.

9.3.1.2 *DRO*

Screening Level Exceedances. All TPH-DRO results from in-tunnel well RHMW02 exceeded the 400 µg/L EAL during the reporting period (which is consistent with historical results), and one sample at outlying well RHMW15-05 exceeded the 400 µg/L EAL during the April 1, 2024, sampling event. The maximum DRO concentration at the in-tunnel wells was 3,060 µg/L in a sample collected at RHMW02.

As depicted in Appendix B.4, the sample exceedances from RHMW02 exhibited chromatographic profiles with peaks spanning the carbon range (C10–C24) characteristic of some dissolved components of jet fuel and a “hump” in the DRO range consistent with metabolites from JP-5/JP-8 and degraded jet fuels in general. The corresponding SGC chromatograms for samples from RHMW02 have been typical of dissolved aromatic hydrocarbons expected from jet fuel.

The DRO exceedance in a sample collected at RHMW15-05 is the first exceedance in samples collected at this location. The chromatogram is not characteristic of fuel, water-soluble components of fuel, or fuel metabolites and has several early eluting wide, large peaks and an unresolved, messy baseline which extends into the C40 range (Appendix B.4). In addition, there were no detects in the SGC extract. The sample results for the subsequent sampling events were not detected. Other fuel-related COPCs (PAHs and BTEX) were not detected. The RHMW15-05 sample exceedance was extracted using EPA Method 3520C, which results in typically higher detections than EPA Method 3510C. DRO was not detected in the split sample that was extracted by EPA Method 3510C. This inconsistency indicates that the exceedance is due not to petroleum but to other organic compounds that are detected in the DRO range.

No other TPH-DRO exceedances were reported for the other sampling locations.

Detections Below Screening Levels. As shown on Figure 7, detections below the screening level were present for samples collected at in-tunnel well RHMW01R and RHMW03, outlying wells RHMW06 and

RHMW08, delineation wells RHP04B and RHP04C, and sentinel wells NMW26 and NMW34. Sporadic, unconnected, and inconsistent detections below the EAL for samples collected at the offsite wells suggest that there is no evidence of an expanding plume. There were no detections at any of the delineation wells or sentinel wells for samples analyzed by SGS; detections were reported for samples analyzed by Energy. Sentinel wells NMW26 and NMW34 are newly constructed wells. The detected concentration for NMW26 are most likely attributable to a lubricant or grease introduced during drilling and NMW34 may be attributed to laboratory artifacts, as evidenced by concentrations continuing to decline over time.

Detected TPH-DRO concentrations from monitored wells for data validated during the current reporting period are summarized as follows:

- Detections for samples collected at in-tunnel wells appear to be stable or decreasing, with RHMW02 exhibiting consistent EAL exceedances attributed to some dissolved components of jet fuel. The chromatographic fingerprints for samples collected at RHMW01R are consistent with being impacted by potential metabolites from JP-5 or JP-8 and degraded jet fuels in general that are mostly removed by SGC. Because RHMW01R is situated in proximity to RHMW02, it may be impacted by natural attenuation processes occurring near RHMW02. No detections were reported in the data validated during this reporting period in samples collected at in-tunnel wells RHMW05 and RHP07.
- Low-level detections for samples collected at in-tunnel well RHMW03, delineation, and sentinel wells appear to be sporadic for samples analyzed by Energy, with no detections reported in the corresponding split samples analyzed by SGS. Inconsistent detections indicate that the exceedance is not due to petroleum but other organic compounds that are detected in the DRO range.
- Concentrations for samples collected at outlying well RHMW06 and RHMW08 and delineation wells RHP04B and RHP04C have been stable or decreasing since the inception of monitoring. Sentinel wells NMW26 and NMW34 are newly constructed wells, and the detections are most likely attributable to a lubricant or grease introduced during drilling or due to laboratory artifacts, as evidenced by detections continuing to decline over time.
- The sample chromatograms for outlying wells RHMW06 and RHMW08 may possibly be degraded fuel since it is in the retention time range of soluble components and metabolites of degraded fuel. Additional 8270 GCMS + TIC analysis for both samples indicated non-dissolved aliphatic hydrocarbons associated with middle distillate fuels and may also be present in organic matter. The aliphatic hydrocarbons are characteristic of the degradable n-alkanes that are around the carbon range C12–C19. However, these compounds are not water soluble, so if these compounds are present, they are not dissolved. In addition, there were no aromatics detected which are water soluble and would appear in dissolved fuel. DRO detections are rare as evidenced by historical results. Additionally, the corresponding split samples analyzed by SGS were not detected for DRO.
- The sample chromatograms for all other delineation and sentinel wells are not characteristic of fuel, water-soluble components of fuel, or fuel metabolites. Chromatograms either exhibited a few relatively large discrete peaks in the C10–C24 range or short, broad peaks along the baseline from the ~C22–C40 range and beyond. SGC resulted in complete removal of the peaks.
- Detections for samples collected at RHMW2254-01 (Red Hill Shaft) consistently exceeded the EAL immediately following the November 2021 Release, but have not exceeded the EAL since March 2022, with no detections reported for data validated during this reporting period.

9.3.1.3 ORO

Screening Level Exceedances. The only reported ORO exceedance during this period was a sample from RHMW15-05 collected on April 1, 2024, and analyzed by Energy Labs, which exceeded the ORO EAL

(500 µg/L). As depicted in Appendix B.4, the chromatographic pattern for the ORO exceedance for the sample collected at RHMW15-05 shows a continuum of bumps along the baseline from the ~C22 to C40 ORO range and beyond. The chromatographic profile is not typical or consistent with fuels, dissolved fuel components, or fuel metabolites. In addition, ORO was not detected following SGC, suggesting the detection is from polar constituents. No ORO exceedances were reported for the other sampling locations.

Detections Below Screening Levels. As shown on Figure 8, ORO was detected below the EAL for samples collected at in-tunnel wells RHMW02 and RHMW03, outlying well RHMW08, delineation well RHP04B, and sentinel wells NMW26, NMW32, and NMW34.

Samples with detected concentrations of ORO that were validated during the current reporting period are summarized as follows:

- RHMW02 had detections in every sampling event during the reporting period. The detections for samples collected at RHMW02 are attributed to some dissolved components of the jet fuel “hump” from the C10–C24 range.
- Low-level detections for samples collected at in-tunnel well RHMW03, delineation, and most sentinel wells appear to be sporadic for samples analyzed by Energy, with no detections reported in the corresponding split samples analyzed by SGS. Inconsistent detections indicate that the exceedance is not due to petroleum but other organic compounds that are detected in the ORO range.
- The chromatograms for samples collected at in-tunnel well RHMW03, the outlying, delineation, and the sentinel wells for detections in the ORO range are not characteristic of fuel, water-soluble components of fuel, or fuel metabolites. In addition, ORO was removed by SGC for the samples collected at the in-tunnel and outlying wells, delineation and majority of the sentinel wells except for NMW32, which indicates that the bulk of the detections are from polar compounds. Although polar compounds can be a byproduct from petroleum degradation, without the presence of LNAPL and with the chromatographic profile inconsistent to fuel, water-soluble components of fuel, or fuel metabolites, the polar material may also be composed of naturally occurring organic compounds that are polar. In addition, subsequent sampling events for these wells were not detected.
- Samples that were collected at RHMW2254-01 (Red Hill Shaft) had consistent detections with sporadic exceedances immediately following the November 2021 Release, have not had exceedances since November 2022, and had only two detections throughout 2023. No detections have been reported for data validated during this reporting period.

Table 9-3 presents a comparison of DRO and ORO concentrations with and without SGC for wells validated during the reporting period.

Table 9-3. Comparison of TPH Concentrations Without and With Silica Gel Cleanup

Location	Lab ^a	SDG	Sample ID	Sampling Date	Type	TPH-DRO Result (µg/L)		TPH-DRO with SGC Result (µg/L)		Percent of Polar Compounds (SGC Result) in Non-SGC TPH-DRO Result	TPH-ORO Result (µg/L)		TPH-ORO with SGC Result (µg/L)		Percent of Polar Compounds (SGC Result) in Non-SGC TPH-ORO Result
RHMW01R	Energy	B24040475	RHMW01R-WGN01LF-2404	4/4/2024	Primary	131.3	J	<140	U	100%	<187	U	<187	U	—
RHMW01R	SGS Orlando	FC14605	RHMW01R-WGN01LF-2404	4/4/2024	Primary	112	J	101	J	10%	<170	U	<170	U	—
RHMW01R	Energy	B24040475	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	127.5	J	<140	U	100%	<187	U	<187	U	—
RHMW01R	SGS Orlando	FC14605	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	129	J	96.8	J	25%	<170	U	<170	U	—
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGN01LF-2405A	5/9/2024	Primary	118	J	156	J	— ^b	<170	U	<170	U	—
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGFD01LF-2405A	5/9/2024	Field Duplicate	168	J	125	J	26%	<170	U	<170	U	—
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGN01LF-2405B	5/23/2024	Primary	113	J	83.3	J	26%	<170	U	<170	U	—
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGFD01LF-2405B	5/23/2024	Field Duplicate	109	J	90.3	J	17%	<170	U	<170	U	—
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGN01LF-2406A	6/3/2024	Primary	151	J	85.6	J	43%	<160	U	<160	U	—
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGFD01LF-2406A	6/3/2024	Field Duplicate	123	J	86.1	J	30%	<160	U	<160	U	—
RHMW02	Energy	B24040475	RHMW02-WGN01LF-2404	4/4/2024	Primary	1927	J	163.5	J	92%	220.1	J	<187	U	100%
RHMW02	SGS Orlando	FC14605	RHMW02-WGN01LF-2404	4/4/2024	Primary	1430	J	1210	J	15%	121	J	80	J	34%
RHMW02	Energy	B24040475	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	1767	J	128.8	J	93%	197	J	<187	U	100%
RHMW02	SGS Orlando	FC14605	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	1550	J	1250	J	19%	137	J	86.1	J	37%
RHMW02	SGS Orlando	FC15585	RHMW02-WGN01LF-2405A	5/9/2024	Primary	1810	J	1760	J	3%	105	J	96.2	J	8%
RHMW02	SGS Orlando	FC15585	RHMW02-WGFD01LF-2405A	5/9/2024	Field Duplicate	2030	J	1710	J	16%	123	J	<170	U	100%
RHMW02	SGS Orlando	FC15936	RHMW02-WGN01LF-2405B	5/23/2024	Primary	2760	J	2270	J	18%	154	J	111	J	28%
RHMW02	SGS Orlando	FC15936	RHMW02-WGFD01LF-2405B	5/23/2024	Field Duplicate	3060	J	2460	J	20%	181	J	122	J	33%
RHMW02	SGS Orlando	FC16127	RHMW02-WGN01LF-2406A	6/3/2024	Primary	1770	J	1360	J	23%	134	J	91.9	J	31%
RHMW02	SGS Orlando	FC16127	RHMW02-WGFD01LF-2406A	6/3/2024	Field Duplicate	1810	J	1390	J	23%	137	J	92.2	J	33%
RHMW03	Energy	B24040475	RHMW03-WGN01LF-2404	4/4/2024	Primary	64.13	J	<140	U	100%	148.2	J	<187	U	100%
RHMW06	Energy	B24040140	RHMW06-WGN01LF-2404	4/1/2024	Primary	208.4	J	164.4	J	21%	<143	U	<143	U	—
RHMW08	Energy	B24040140	RHMW08-WGN01LF-2404	4/1/2024	Primary	259.4	J	176	J	32%	209.5	J	<141	U	100%
RHMW08	SGS Orlando	FC16127	RHMW08-WGN01LF-2406A	6/3/2024	Primary	110	J	<100	U	100%	<170	U	<170	U	—
RHMW15-05	Energy	B24040140	RHMW15-05-WGN01G-2404	4/1/2024	Primary	1379	J	<141	U	100%	570.5	J	<141	U	100%
RHP04B	Energy	B24040771	RHP04B-WGN01LF-2404	4/9/2024	Primary	78.74	J	<144	U	100%	107.1	J	<144	U	100%
RHP04C	Energy	B24040771	RHP04C-WGN01LF-2404	4/9/2024	Primary	40.41	J	<141	U	100%	<141	U	<141	U	—
NMW26	Energy	B24040771	NMW26-WGN01LF-2404	4/9/2024	Primary	171.5	J	<143	U	100%	173.3	J	<143	U	100%
NMW32	SGS Orlando	FC14303	NMW32-WGN01LF-2403	3/21/2024	Primary	<100	U	<100	U	—	145	J	189	J	— ^b
NMW34	Energy	B24031285	NMW34-WGN01LF-2403	3/19/2024	Primary	57.54	J	<141	U	100%	158.1	J	<189	U	100%

Notes:

Non-bold text indicates non-detected value.

Bold text indicates detected value, but below the 2017 Department of Health Tier 1 EAL.

Bold and orange shaded text indicates exceeds the 2017 Department of Health Tier 1 EAL.

Specific EPA method revision used for analyses vary by lab and compound. The lab report associated with a sample specifies the exact method revision used.

— = not analyzed or not applicable

µg/L = microgram per liter (same as parts per billion)

^a = SGS uses 3510 extraction method for Consolidated-Monthly. Energy uses 3520 extraction method for Consolidated-Quarterly.

^b = Percent polars not calculable, SGC results higher than non-SGC results.

J = estimated value

J- = estimated value, low bias

J+ = estimated value, high bias

U = nondetect value

SGC = Silica Gel Cleanup

TPH-DRO = total petroleum hydrocarbons-diesel range organics

TPH-ORO = total petroleum hydrocarbons-residual range

9.3.2 Lead Scavengers

1,2-Dibromoethane and 1,2-dichloroethane were not detected at any sampling location for data validated during this reporting period.

9.3.3 BTEX

BTEX were not detected at any sampling location for data validated during this reporting period.

9.3.4 SVOCs

Phenol and 2-2-MEE were monitored in accordance with the Consolidated Groundwater Sampling Program (DON 2023a). Phenol and 2-2-MEE were not detected in any monitoring well.

9.3.5 PAHs

PAHs can be divided into two different categories: non-pyrogenic and pyrogenic. Non-pyrogenic PAHs are commonly found in petroleum, including middle distillates such as JP-5. Non-pyrogenic PAHs that are present in kerosene or jet fuels include 1MN, 2MN, N, and, to lesser extents, acenaphthene, acenaphthylene, and fluorene.

PAHs that are heavier than naphthalenes, acenaphthene, acenaphthylene, and fluorene are removed from jet fuel sources during the distillation process. Pyrogenic PAHs, or heavy PAHs, are not found in fuels, but are commonly associated with combusted materials. Pyrogenic PAHs are fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-c,d)anthracene, and benzo(g,h,i)perylene.

Consistent with historical data, N, 1MN, and 2MN were detected in samples at in-tunnel well RHMW02 below the EALs, as shown on Figure 9, Figure 10, and Figure 11, respectively. PAH COPCs were previously detected in samples from RHMW01R; however, they were not detected for data validated during this reporting period.

Pyrogenic PAHs benzo(a)anthracene and chrysene were detected once in a sample collected at RHMW17, and benzo(a)anthracene exceeded the EAL (0.029 µg/L). Phenanthrene was also detected once in a sample collected at RHMW03. DRO and ORO were not detected in these samples, and PAHs were not detected in other samples from these wells, which suggests that these PAHs did not represent the groundwater from the well and may have been from cross-contamination. They were also not detected in prior or subsequent sampling events. Other pyrogenic PAHs were not detected in groundwater sampled from wells validated during this reporting period.

Pyrogenic PAHs, or heavy PAHs, are not found in fuels, but are commonly associated with combustion products and associated atmospheric deposition and urban run-off.

9.3.6 Natural Attenuation Parameters

As described in the Red Hill CSM report (DON 2019a, Section 7.3), the natural attenuation evaluation uses the following lines of evidence:

- Use of current and historical groundwater primary indicators (COPC data) to demonstrate contaminant concentration over time.

- Use of secondary lines of evidence (general groundwater chemistry parameters and NAPs) to evaluate whether natural attenuation processes are active at the site and the rate at which such processes can reduce contaminant concentrations to below screening levels.
- Comparison of DRO and ORO with and without SGC to evaluate the degree of weathering of dissolved fuel hydrocarbons based on the fraction of polar-weathered hydrocarbons and total recoverable hydrocarbons.

NAP measurements collected during groundwater monitoring field activities this reporting period are representative of electron donors used in microbial respiration, including DO, nitrate, and sulfate; direct microbial byproducts including soluble ferrous iron, soluble manganese and methane; and geochemical indicators of microbial processes, including ORP and alkalinity.

9.3.6.1 *DISSOLVED OXYGEN AND OXIDATION-REDUCTION POTENTIAL*

DO is beneficially consumed by microorganisms first while aerobically metabolizing the hydrocarbon plume. Oxygen provides the greatest amount of energy to the petroleum-degrading microorganisms. Groundwater flow with a continuous source of DO maintains the aerobic biodegradation process. DO concentrations greater than 1 milligram per liter (mg/L) are considered aerobic, while DO concentrations less than 1 mg/L are considered anaerobic. Oxygen depleted water travels faster than the plume and may be used to confirm groundwater flow direction. However, naturally occurring groundwater is expected to be saturated at approximately 8 mg/L in a normal steady state equilibrium without biodegradation occurring.

ORP is the measure of the tendency of a chemical species to acquire electrons (reduction) or lose electrons (oxidation) in a solution. ORP trends downward as oxygen is consumed (e.g., ORP values will be lower in a hydrocarbon plume undergoing aerobic biodegradation). Negative ORP values are characteristic of a strongly reducing environment favorable for anaerobic biodegradation.

DO concentrations and ORP values for the current quarterly events were consistent with previous measurements. Measurement and distribution of DO from the current monitoring event confirms that the aquifer is naturally aerobic, with concentrations at 32 of 40 sample locations ranging from 1.30 mg/L to 8.80 mg/L. Typical oxygen-saturated groundwater has oxygen levels ranging between 8 and 9 mg/L.

During the current monitoring event, anaerobic conditions (DO <1 mg/L) were consistently detected at eight locations, including wells with current detections of dissolved TPH (RHMW01R and RHMW02) and wells with recent detections of TPH via EPA Method 3520 extraction (RHMW03, RHP04B, RHP04C and NMW26). Offsite wells NMW30 and HDMW2253-03 also exhibited DO <1 mg/L.

Highly reducing conditions (negative ORP) favorable for lower-energy anaerobic biodegradation via methanogenesis, sulfate reduction, and iron reduction were measured at three onsite wells (RHMW01R, RHMW02 and RHP04B), all of which either consistently or intermittently exhibited the presence of dissolved TPH. In addition, RHMW11-05, located spatially between the tank farm release locations and Red Hill Shaft and with historical detections of TPH, exhibited negative ORP readings, thereby potentially indicating ground water flow from the tank release locations to Red Hill Shaft.

Dissolved oxygen and ORP have trended upwards at recently installed offsite wells NMW26 and NMW30 potentially indicating improved hydraulic communication with the aquifer. Consistent with previous RRRs, additional monitoring is required to confirm the geochemistry at these locations.

9.3.6.2 *TEMPERATURE*

Temperature is known to influence metabolic rates for microorganisms, with temperatures between 5°C and 45°C (optimally >15°C) being favored for biodegradation of petroleum products. Further, increases in

temperature may indicate active biologic zones. Review of data collected during the current period indicates groundwater temperature ranges from 21.0°C to 29.7°C, residing in the optimal range for biodegradation.

9.3.6.3 *NITRATE*

Following oxygen depletion, denitrification (conversion of nitrate to nitrogen) or nitrate reduction (conversion of nitrate to nitrite to ammonia) is the preferred path for anaerobic biodegradation, with denitrification preferred over nitrate reduction.

Similar to oxygen, nitrate was not detected (<0.12 mg/L) in wells with current or recent quarterly detections of dissolved TPH (RHMW01R, RHMW02 and RHP04B). Non-detect nitrate concentrations were also evident at onsite well RHMW11-05, located between release locations and Red Hill Shaft and recently installed offsite well NMW26. Additional monitoring is required to confirm geochemical conditions at recently installed and offsite wells RHMW18 and NMW26.

Remaining wells had nitrate concentrations similar to or greater than historical background nitrate levels for the site, with the highest concentrations being detected at offsite wells NMW25, NMW32, NMW33, and NMW34.

9.3.6.4 *MANGANESE*

Following depletion of nitrate, insoluble manganese (Mn+4) is reduced to soluble manganese (Mn+2) in support of anaerobic biodegradation of petroleum compounds, resulting in a higher soluble manganese concentration within the plume. During the current reporting period, soluble manganese was sampled only at newly installed NMW34, where it was detected at a concentration of 8.3 J µg/L.

9.3.6.5 *FERROUS IRON*

Ferrous iron is a metabolic byproduct of biodegradation of hydrocarbons, resulting from reduction of insoluble ferric iron by anaerobic microorganisms to dissolved ferrous iron. During anaerobic degradation, the concentrations of ferrous iron will increase within the plume to concentrations above background.

Ferrous iron was detected in wells RHMW01R and RHMW02, which exhibit consistent detections of dissolved hydrocarbons, DO concentrations less than 1 mg/L, and negative ORP results, indicating likely anaerobic biodegradation supported by iron reduction at these wells. Ferrous iron oxidizes back to ferric iron in the presence of oxygen. Ferrous iron was also detected at HDMW2253-03 in the presence of low DO but positive ORP. Concentrations ranged from 0.33 J mg/L (RHMW11-05) to 1.7 mg/L (RHMW02). All other locations were below detection limits, coincident with DO levels greater than 1 mg/L.

9.3.6.6 *SULFATE*

At a lower energy level, sulfate reduction follows ferric iron reduction in the petroleum biodegradation process. As sulfate is consumed by anaerobic microbial activity within a hydrocarbon plume, a corresponding increase of sulfide is expected.

The lowest sulfate concentrations observed were at RHMW02 and RHMW01R at 4.1 and 5.7 mg/L, respectively (both wells consistently exhibit elevated dissolved hydrocarbons). The highest detected concentration was 160 mg/L at offsite well NMW25. Reduced sulfate concentrations in RHMW01R and RHMW02 suggest that sulfate-reducing biodegradation of hydrocarbons may be occurring at those locations.

9.3.6.7 *METHANE*

Methanogenesis (reduction of carbon dioxide and generation of methane as a metabolic byproduct) follows sulfate reduction. During anaerobic biodegradation, the concentration of methane will increase to levels above background within and downgradient of the plume. Increases of methane in groundwater may be indicative of anaerobic degradation at the corresponding location or upgradient. Methane was consistently detected in the samples from RHMW01R, RHMW02, RHP04B, RHP08 and NMW30 at concentrations greater than 1 µg/L.

The methane concentration at RHMW02 were significantly elevated over the other wells, with detected concentrations ranging from 2,500 to 2,920 µg/L. Elevated methane concentrations at the referenced wells, especially RHMW02 suggest that methanogenic biodegradation is occurring in proximity to this well. NMW30 is a newly installed offsite well, and additional monitoring is needed to confirm geochemical conditions at this well.

9.3.6.8 *ALKALINITY*

Alkalinity is the measure of the aquifers ability to buffer changes in pH, including changes resulting from biologically generated acids. Additionally, increased alkalinity may be an indication of microbial activity, which results in an increase in carbon dioxide. However, carbon dioxide is also consumed by methanogenic processes.

The greatest levels of alkalinity are measured at recently installed offsite wells NMW25, NMW32, and NMW33 and at source area well RHMW03. Elevated alkalinity at RHMW03 may be attributable to the presence of carbon dioxide produced by biodegradation processes occurring at these locations, which is underscored by historical detections of TPH. Elevated alkalinity at the other monitoring locations may be attributable to aquifer geochemistry.

9.3.6.9 *NAP CONCENTRATIONS*

Graphs of groundwater NAP results are presented in Appendix B.5. Evaluation of NAP data from the Fourth Quarter 2016 GW LTM event (DON 2016) onward indicates that there is no evidence that seasonal variations (i.e., wet- and dry-season effects) influence NAP concentrations, and thus influence biodegradation in groundwater at the Red Hill monitoring well network. Multiple NAP parameter observations, including a decrease in electron acceptors and an increase in metabolic by products compared to background concentrations, indicate that active biodegradation is occurring at Red Hill.

At wells RHMW01R and RHMW02, which exhibit consistent detections of dissolved hydrocarbons, DO levels <1 mg/L and negative ORPs indicate that aerobic respiration of oxygen as a primary source of energy for petroleum-degrading microorganisms is occurring. With continued groundwater pumping at Red Hill Shaft, an influx of groundwater with higher concentrations of DO should continue to provide oxygen for continued aerobic biodegradation of the hydrocarbon plume.

In conjunction with reducing conditions at the wells noted above, evidence of subsequent anaerobic biodegradation facilitated by nitrate, iron, sulfate, and carbon dioxide reduction is provided by lower concentrations of terminal electron acceptors (nitrate and sulfate) and increased concentrations of metabolic byproducts (dissolved ferrous iron and methane).

Additionally, Table 9-3 illustrates weathering of non-polar petroleum fractions to weathered polar fractions, again supporting natural attenuation processes.

While variability exists in the comprehensive data sets, sufficient evidence is realized to conclude that natural attenuation via biodegradation and other natural attenuation processes is occurring in proximity to

documented release points and will continue to occur given the geochemical conditions evident in the aquifer.

Additional evaluation of natural source-zone depletion and natural attenuation at the Facility is discussed in the AOC Statement of Work Sections 6 and 7 CSM report (DON 2019a) and Investigation and Remediation of Releases Report (DON 2020c).

10.0 Summary of Results and Extent and Magnitude of Contamination

The reporting period's analytical results presented in Section 9.0 are summarized below, and historical context is provided for evaluating the impacts of prior releases.

10.1 Soil Vapor Impacts

PID results for SVMPs at Tanks 17, 18, and 20 since the May 2021 Release are charted on Figure 12, which shows that PID readings under those tanks have declined significantly since the May 2021 Release. The passivated canister results, with low to non-detect concentrations of petroleum vapors, are also consistent with continued long-term biodegradation and weathering of the May 2021 Release.

Following the November 20, 2021, release of JP-5 in the Adit 3 tunnel, 54 SVMPs were installed through the Adit 3 and Pearl Harbor Tunnel floors to monitor organic vapors in the subfloor. Concentrations have decreased significantly from their original maximum of 525 ppmv collected on December 20, 2021, to the recent maximum of 40 ppmv detected on May 17, 2024.

10.2 Groundwater Impacts

Summary statistics include all groundwater samples completing validation during this reporting period regardless of sample collection date.

Table 9-2 presents summary statistics for all groundwater sampling results presented in Section 9.3. Table 10-1 presents the summary of groundwater concentrations detected above the DOH EALs as distilled from the summary statistics.

In general, contaminant concentrations are either declining or stable near the tank farm with no sustained evidence of contamination elsewhere. Groundwater impacts primarily include elevated concentrations of DRO and low-level ORO at in-tunnel sampling location RHMW02 and to a much lesser extent at in-tunnel well RHMW01R.

The following compounds were not detected in any samples included in this reporting period:

- Benzene, toluene, ethylbenzene and xylenes
- Lead scavengers: 1,2-dibromomethane and 1,2-dichloroethane
- Fuel additives: phenol and 2-2-MEE
- PAHs (except for COPCs N, 1MN and 2MN in samples from RHMW02, benzo(a)anthracene and chrysene in a sample from RHMW17, and phenanthrene in a sample from RHMW03)

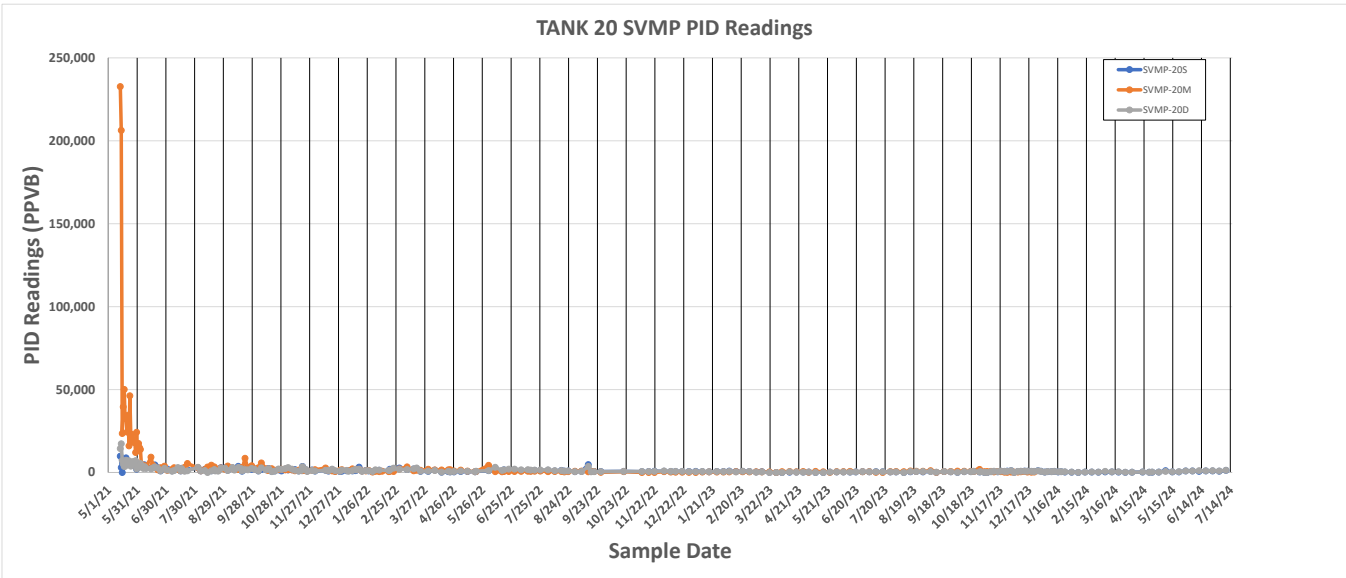
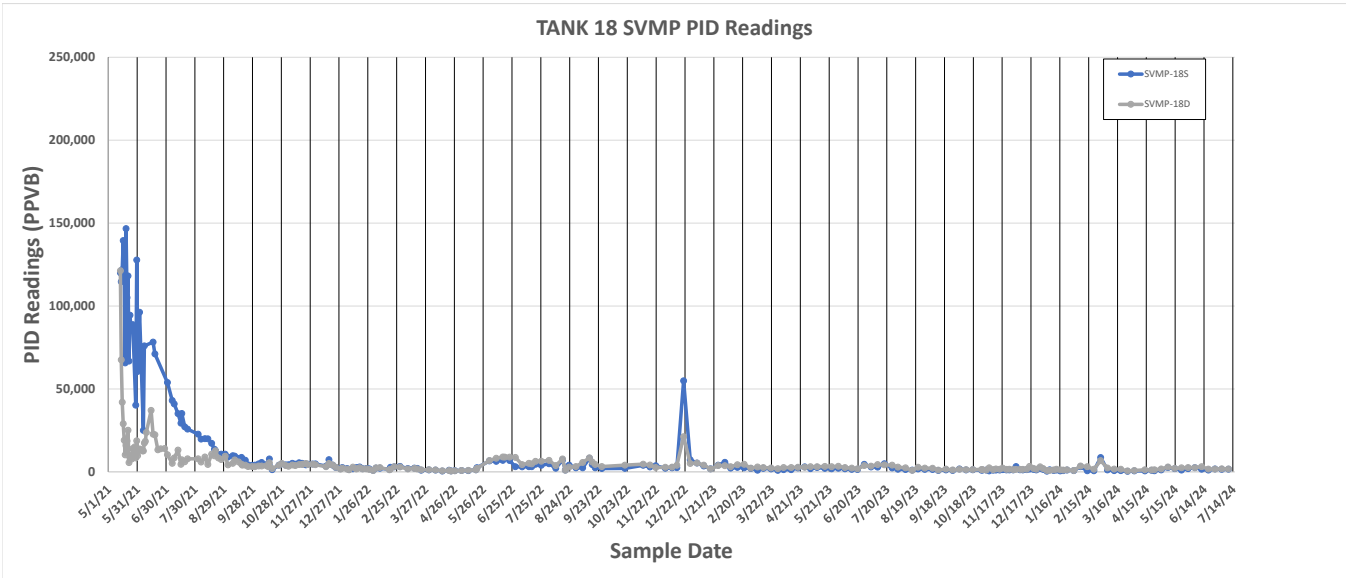
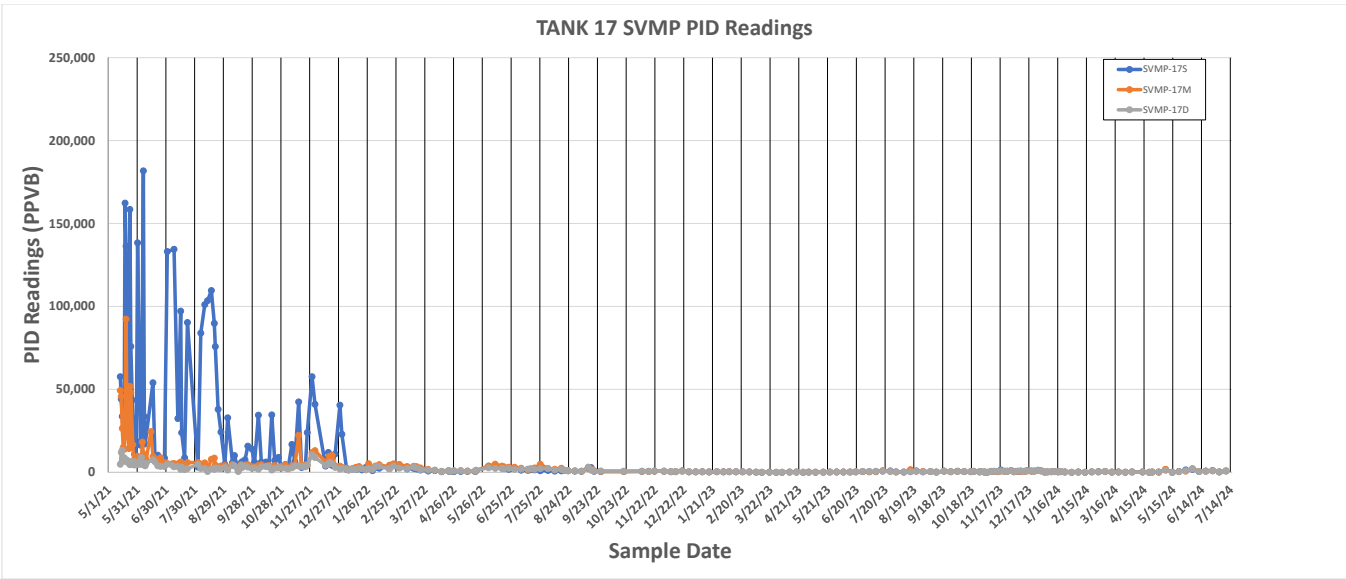


Figure 12: SVM PID Readings for Tanks 17, 18, and 20

DRO was detected most often at in-tunnel sampling locations and appears to be stable. Naphthalenes were detected only at in-tunnel well RHMW02.

All samples from RHMW02 exceeded the DRO EAL of 400 µg/L during this reporting period, which is consistent with historical values and indicates the presence of soluble fuel components and fuel metabolites. DRO and ORO were exceeded (no detection after SGC) during this reporting period in a sample from RHMW15-05. Evaluation of the chromatogram showed no evidence of fuel components or fuel metabolites. It is the first exceedance at this location and the split sample for this event analyzed by another laboratory (SGS) did not have any DRO or ORO detected. This inconsistency indicates that the exceedance is not due to petroleum hydrocarbons but to other organic compounds or contaminants introduced during sampling and/or analysis that are detected as DRO and ORO. There were no detections in the subsequent sampling events from RHMW15-05.

No other exceedances were reported for the other sampling locations.

One exceedance of benzo(a)anthracene was reported in a sample collected at outlying well RHMW17. No other exceedances for any other target compound were reported in any groundwater samples this reporting period.

For samples collected at groundwater monitoring wells other than in-tunnel wells RHMW02 and RHMW01R, chromatographic profiles for DRO and ORO during this reporting period are distinctly different from what is expected from fuels, dissolved fuel components, or metabolites.

Additional details are summarized below for Red Hill network wells, delineation wells, and sentinel wells.

10.2.1 Red Hill Network Wells

Sample concentrations collected at the in-tunnel and outlying wells appear to be stable over time for DRO and, to a lesser extent, ORO, most often detected in samples collected at in-tunnel sampling locations.

DRO exceeded the EAL for all sampling events from RHMW02. Detections for samples from this well are due to soluble fuel components and fuel metabolites. Exceedances of DRO for samples from RHMW02 are consistent with historical results. DRO and ORO were exceeded (no detection after SGC) during this reporting period in a sample from RHMW15-05. It is the first exceedance at this location, and the split sample for this event analyzed by another laboratory did not have any DRO and ORO detected. This inconsistency indicates that the exceedance is not due to petroleum hydrocarbons but to other organic compounds or contaminants introduced during sampling or analysis that are detected as DRO and ORO. There were no detections of DRO in the subsequent sampling events from RHMW15-05.

No other exceedances were reported for the other sampling locations. No DRO exceedances were reported for any other sampling locations for these types of wells.

Low-level detections of DRO below the EAL were reported in all samples collected at in-tunnel well RHMW01R and in one sample of RHMW03 (not confirmed by analysis of the RHMW03 split sample from the same event). These low-level detections for samples from RHMW01R are consistent with historical results; because RHMW01R is situated in proximity to RHMW02, it may be impacted by natural attenuation processes occurring at RHMW02. Very low-level detections were reported outlying wells RHMW06 (once) and RHMW08 (twice). These detections were reported by one laboratory and not the other laboratory of the two laboratories that analyzed two sets of split samples from these wells.

Table 10–1: Summary of Groundwater Screening Level Exceedances

						Analyte	TPH-d	TPH-o	Benzo(a)anthracene (SIM)
						CAS No.	PHCC10C24	PHCC24C40	56-55-3
						Method	8015	8015	8270SIM
						2017 DOH Tier 1 EAL	400	500	0.027
						Units	µg/L	µg/L	µg/L
Location	Sampling Method	Lab	Sample ID	Sampling Date	Type	Result	Result	Result	
RHMW02	Low-Flow	SGS Orlando	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	1550	—	—	
RHMW02	Low-Flow	SGS Orlando	RHMW02-WGN01LF-2404	4/4/2024	Primary	1430	—	—	
RHMW02	Low-Flow	Energy	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	1767	—	—	
RHMW02	Low-Flow	Energy	RHMW02-WGN01LF-2404	4/4/2024	Primary	1927	—	—	
RHMW02	Low-Flow	SGS Orlando	RHMW02-WGFD01LF-2405A	5/9/2024	Field Duplicate	2030	—	—	
RHMW02	Low-Flow	SGS Orlando	RHMW02-WGN01LF-2405A	5/9/2024	Primary	1810	—	—	
RHMW02	Low-Flow	SGS Orlando	RHMW02-WGFD01LF-2405B	5/23/2024	Field Duplicate	3060	—	—	
RHMW02	Low-Flow	SGS Orlando	RHMW02-WGN01LF-2405B	5/23/2024	Primary	2760	—	—	
RHMW02	Low-Flow	SGS Orlando	RHMW02-WGFD01LF-2406A	6/3/2024	Field Duplicate	1810	—	—	
RHMW02	Low-Flow	SGS Orlando	RHMW02-WGN01LF-2406A	6/3/2024	Primary	1770	—	—	
RHMW15-05	Westbay	Energy	RHMW15-05-WGN01G-2404	4/1/2024	Primary	1379	570.5	—	
RHMW17	Low-Flow	SGS Orlando	RHMW17-WGN01LF-2405A	5/13/2024	Primary	—	—	0.041 J	

Acronyms and Footnotes:

CAS-Chemical Abstracts Service

J-estimated: the analyte was positively identified; the quantitation is an estimation

ND-not detected

V-results have been validated

µg/L-microgram per Liter

%-percent

Bold and orange shaded text indicates exceeds the 2017 Department of Health Tier 1 EAL.

Green text indicates results have completed third-party validation.

The only ORO exceedance was reported in the one sample from RHMW15-05 during this reporting period. As discussed above for DRO, this result is likely suspect as it was not confirmed in the split sample from this well, not detected after SGC and not detected in subsequent samples. ORO was detected at low levels below the EAL in samples collected at in-tunnel wells RHMW02 and one sample from RHMW03 and outlying well RHMW8. Samples with detections by Energy from all well locations (except for samples from RHMW02) had no detections in the split samples analyzed by SGS.

PAH COPCs (N, 1MN, and 2MN) were consistently detected only for the samples collected at in-tunnel well RHMW02 (as expected from historical data for this well). Benzo(a)anthracene (exceeding EAL) and chrysene were detected in one sample collected at outlying well RHMW17 and phenanthrene was detected in in-tunnel well RHMW03.

No other compounds were detected in any of these samples during this reporting period.

In summary, samples from in-tunnel wells RHMW01R and RHMW02 are stable, with consistent detections of DRO in both wells and N, 1MN, 2MN and, with less frequency, ORO in RHMW02. The chromatograms are consistent with dissolved fuel compounds in RHMW02 and fuel metabolites in both wells. Samples collected at the outlying wells are also stable, with infrequent low-level detections of DRO and ORO inconsistent with fuel sources.

10.2.2 Delineation Wells

Samples from RHP04B and RHP04C analyzed by Energy with low-level detections of DRO, and one very low-level detection of ORO in RHP04B, were not detected in the split samples that were also analyzed at SGS. Due to the inconsistent results, there is no evidence that would support an expanding plume. These results are not representative of the groundwater at these locations and are likely due to random sample or analysis artifacts or cross contamination.

10.2.3 Sentinel Wells

Samples from sentinel wells had very low-level detections of DRO and ORO in a sample from NMW26 and in a sample from NMW34. There were no detections in split samples from these two wells analyzed by SGS. One sample from NMW32 had a very low-level detection of ORO (no split sample for this event). Sentinel wells NMW26 and NMW34 are newly constructed wells. The detected concentrations in these sentinel wells may be attributable to lubricant or grease introduced during drilling and or from random sampling or analysis artifacts and/or contamination. Inconsistent very low-level detections below the EAL and near reporting limits for samples collected at these wells and typically not confirmed by split samples support that there is no evidence of an expanding plume.

11.0 Conclusions and Recommendations

11.1 Conclusions

Soil Vapor Impacts. The magnitude of soil vapor impacts associated with the fuel releases continues to decrease over time, consistent with natural attenuation and weathering of LNAPL in the environment.

Groundwater Impacts. In general, contaminant concentrations appear to be either declining or stable near the tank farm over time with no sustained evidence of contamination elsewhere. Groundwater impacts primarily include elevated concentrations of DRO and low-level ORO for samples collected at in-tunnel wells RHMW02 and, to a much lesser extent, RHMW01R. Sample concentrations of all formerly elevated COPCs near Red Hill Shaft have decreased considerably since operation of skimmers, sorbents, and the Red Hill Shaft GAC treatment system, with most results below the detection limit.

Chromatographic profiles for the DRO and ORO detections for samples validated during this reporting period for the Red Hill network wells, delineation wells, and sentinel wells are distinctly different from what is expected from fuels, dissolved fuel components, or metabolites except for samples from RHMW02 and RHMW01R (consistent with historical results for these two wells). Inconsistent, very low-level detections of DRO and ORO below the EAL and near reporting limits are generally not confirmed by split samples. There is no evidence of an extensive or expanding plume.

11.2 Recommendations and Planned Future Actions

The Navy recommends continuing the following activities:

- Soil vapor and groundwater sampling
- Site characterization at Adit 3, including installation of additional deep SVMPs and SVE points for the remedial pilot study
- Initial site characterization activities at the CHT Tank area outside Adit 3
- Data gathering and associated analyses

The Navy also continues to expand the groundwater monitoring well network to monitor groundwater quality at the Facility and in the region.

Extensive sampling and monitoring activities in response to the fuel releases are ongoing. Associated data evaluation will continue to be performed to support evaluation of:

- Impact and extent of the releases to the environment
- Effectiveness of the Red Hill Shaft GAC pump and treat system in containing impacted groundwater and preventing additional migration of contaminants
- Potential future migration of contaminants and potential impacts to offsite receptors including existing and newly installed Navy wells
- Remedial alternatives and future remediation strategies
- Pilot testing for remediation effectiveness and optimization

The Navy is currently finalizing the following reports based on comments received from DOH in June and July 2024:

- Technical Memorandum, Phase 2 Holding Tank and Leach Tank Characterization, November 2021 Pipeline Release; and Closure Report, Concrete Tank Removal
- Site Characterization Report, November 2021 JP-5 Release in Adit 3, OU-1

The comprehensive data set for the Adit 3 OU-2 saturated zone investigation will be provided to the Regulatory Agencies in a format similar to and complementary to the OU-1 vadose zone report once all laboratory analyses and reports are finalized.

The Navy will continue site characterization efforts and implement pilot projects once the Regulatory Agencies review and approve the following WPs:

- Draft Natural Source-Zone Depletion Work Plan (February 23, 2023)

- Draft Deep Soil Vapor Extraction Work Plan (February 27, 2023)
- Site Characterization Plan Addendum, Additional Nested Deep Soil Vapor Monitoring Points in Adit 3 Tunnel (March 8, 2023)
- Draft Tank Closure Plan, Supplement 3: Phase 1 Site Assessment (June 2024)

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Appendix A – Soil Vapor Monitoring Results, Current Reporting Period

Appendix A.1 – Soil Vapor PID Concentrations

Appendix A.2 – Soil Vapor Chromatograms

Appendix A.1 – Soil Vapor PID Concentrations

Appendix A.1: Average Soil Vapor PID Concentration Readings at Tanks 2-18 and 20 (ppbv) – Weekly and Monthly Events

Date	SVMP																																																		
	02D	02M	02S	03D	03M	03S	04D	04M	04S	05D	05M	05S	06M	06S	07D	07M	07S	08D	08M	08S	09D	09M	09S	10M-D*	10S	11M-D*	11S	12D	12M	12S	13D	13M	13S	14D	14M	14S	15D	15M	15S	16D	16M	16S	17D	17M	17S	18D	18S	20D	20M	20S	
4/13/2024	0	0	0	0	0	0	0	0	0	391	1432	178	155	3170	106	28	150	0	48	0	79	151	88	99	98	43	23	74	107	68	162	174	159	142	144	123	218	NC2	164	192	266	NC	210	186	193	1255	579	306	276	257	
4/20/2024	0	0	0	0	0	0	0	0	0	205	370	147	637	3950	208	160	111	118	62	71	27	0	0	25	15	43	31	147	159	145	103	84	54	112	77	70	10	NC2	17	68	45	NC	54	3	19	1211	916	173	135	104	
4/23/2024	0	0	0	0	11	0	0	0	0	64	386	427	612	3218	115	46	45	82	54	30	45	56	76	94	202	8	25	14	21	27	51	28	28	26	24	19	21	NC2	21	47	34	NC	129	127	154	1219	670	194	138	124	
4/30/2024	1	5	0	71	79	19	40	44	53	205	768	495	554	4961	230	197	129	147	113	107	144	156	146	158	149	126	154	165	175	169	207	172	156	202	215	251	143	NC2	128	205	181	NC	137	102	117	1754	1146	270	255	198	
5/7/2024	0	0	0	0	0	0	161	0	0	632	637	3266	1410	6790	0	0	0	0	0	0	0	362	539	542	543	466	445	380	627	520	634	640	925	569	907	756	543	815	NC2	1168	1403	1130	NC	1172	1798	1613	2961	2640	641	783	1050
5/14/2024	0	0	0	0	0	0	0	0	0	1039	1725	879	5048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NC2	0	0	0	NC	0	0	0	2069	1894	427	280	281
5/21/2024	0	20	0	0	0	0	0	0	0	1	301	313	1019	4579	220	70	0	55	13	0	0	0	0	0	0	0	0	12	0	0	0	247	128	28	248	0	0	143	NC2	162	418	159	NC	354	375	522	2447	1072	503	425	334
5/28/2024	0	0	0	0	0	0	69	0	0	492	1853	1555	637	6306	311	0	3	0	0	0	640	554	304	450	496	394	322	255	345	388	599	600	547	379	521	635	726	NC2	279	641	755	NC	930	641	1400	2625	1893	911	836	891	
6/4/2024	0	0	0	0	0	0	40	0	0	804	2017	742	4875	166	351	342	165	941	984	1087	362	344	376	193	160	289	257	253	338	369	581	575	537	458	661	750	720	NC2	294	961	738	NC	2148	2202	1789	2525	2554	904	833	912	
6/11/2024	398	526	256	490	340	322	489	468	619	731	1271	846	1540	5664	338	106	131	330	74	12	633	651	677	563	324	595	641	595	670	490	667	541	577	563	506	451	423	NC2	352	756	416	NC	516	540	525	3090	1636	1063	788	612	
6/18/2024	4	0	1	51	76	103	92	108	134	188	228	244	511	1396	153	50	36	123	124	100	56	53	63	53	55	100	156	0	0	0	337	172	83	272	223	156	549	NC2	640	396	519	NC	632	636	757	1686	1083	970	943	925	
6/25/2024	107	45	44	244	250	185	215	235	232	895	941	958	933	6359	339	82	29	0	0	0	578	533	500	478	434	689	586	626	699	727	882	838	732	1010	685	765	1134	NC2	1177	1138	1316	NC	932	878	1103	1655	1726	1110	1056	946	
7/2/2024	151	290	518	352	329	400	437	411	461	986	899	1305	1948	4488	619	360	410	1598	1282	1526	512	270	227	206	188	330	368	263	340	315	443	367	325	269	384	397	297	NC2	354	376	370	NC	309	217	182	1875	1541	896	1160	761	
7/9/2024	333	330	347	718	613	504	668	785	964	629	579	521	1,445	5,414	0	0	0	1,540	1,060	1,193	623	674	687	763	847	478	510	506	532	526	909	880	1,022	766	843	868	794	NC2	672	911	879	NC	869	865	772	1,791	1,556	1,337	1,297	1,252	

Notes:
 Soil vapor concentration readings are reported in parts per billion by volume (ppbv).
 Tank readings are background ambient air conditions.
 Soil vapor readings on October 24, 2023 were collected only from SVMP-02 through SVMP-11; readings from SVMP-12 through SVMP-20 were collected on October 26, 2023.
 * - SVMP-10M/D, SVMP-11M/D - "M/D" monitoring points were constructed to screen both middle & deep depth intervals along the respective underground storage tank.

Legend:
 AOC - Administrative Order on Consent
 GWPP - Groundwater Protection Plan
 NC - Not collected
 NC1 - Not collected due to tank maintenance
 NC2 - Not collected due to obstruction in vapor line
 NC3 - Not collected - monitoring vault potentially compromised by release. Replacing tubing and cleaning valves. Sampling to begin 14 May
 NC4 - Not collected due to a broken valve/fitting. A replacement valve is being pursued.
 NC5 - Not collected - not required by the DOH Transition Plan.
 NC6 - ppmv PID experienced unanticipated malfunction as indicated by a failed calibration check. PID result based on a second ppbv PID suggests the value is between 50 ppm - 150 ppm.
 ppbv - parts per billion by volume
 ppmv - parts per million by volume
 SVMP - soil vapor monitoring point

Appendix A.1: Background Tunnel Air Soil Vapor PID Concentration Readings (ppbv)

Date	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6	Tank 7	Tank 8	Tank 9	Tank 10	Tank 11	Tank 12	Tank 13	Tank 14	Tank 15	Tank 16	Tank 17	Tank 18	Tank 20
4/13/2024	0	0	0	30	200	43	7	168	211	75	95	229	185	219	315	319	399	460
4/20/2024	25	32	8	23	58	191	42	38	63	81	192	65	124	74	82	136	194	290
4/23/2024	90	165	104	519	277	293	391	122	365	179	256	161	101	105	128	332	342	331
4/30/2024	129	213	265	251	341	313	308	460	456	420	260	446	497	410	420	291	565	388
5/7/2024	3	0	53	331	153	0	0	170	194	178	186	229	345	306	578	1512	863	372
5/14/2024	0	0	0	340	0	0	0	0	0	0	0	0	0	0	0	253	1084	644
5/21/2024	28	30	274	253	48	0	123	0	15	198	197	278	55	218	384	592	424	529
5/28/2024	85	366	728	378	800	251	151	677	780	837	635	1163	864	854	796	964	989	853
6/4/2024	0	226	355	415	521	602	1495	673	499	437	584	988	368	684	463	550	898	774
6/11/2024	733	574	658	769	655	1157	328	882	1048	816	658	718	595	455	969	960	1381	1140
6/18/2024	215	161	163	204	129	109	158	85	52	189	181	325	148	625	463	1187	971	1078
6/25/2024	338	478	513	880	1056	320	138	812	819	1000	887	1244	1188	1422	1609	1338	1533	1313
7/2/2024	2280	720	812	854	1068	971	2934	500	690	531	476	647	498	588	626	499	1387	929
7/9/2024	743	850	1,020	566	370	46	1,538	913	1,082	609	632	939	737	887	817	1,755	1,162	853

Notes:

Soil vapor concentration readings are reported in parts per billion by volume (ppbv).

Tank readings are background ambient air conditions.

Soil vapor readings on October 24, 2023 were collected only from SVMP-02 through SVMP-11; readings from SVMP-12 through SVMP-20 were collected on October 26, 2023.

¹ - SVMP-10M/D, SVMP-11M/D - "M/D" monitoring points were constructed to screen both middle & deep depth intervals along the respective underground storage tank.

Legend:

AOC - Administrative Order on Consent

GWPP - Groundwater Protection Plan

NC - Not collected

NC1 - Not collected due to tank maintenance

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NC3 - Not collected - monitoring vault potentially compromised by release. Replacing tubing and cleaning valves. Sampling to begin 14 May

NC4 - Not collected due to a broken valve/fitting. A replacement valve is being pursued.

NC5 - Not collected - not required by the DOH Transition Plan.

NC6 - ppmv PID experienced unanticipated malfunction as indicated by a failed calibration check. PID result based on a second ppbv PID suggests the value is between 50 ppm - 150 ppm.

ppbv - parts per billion by volume

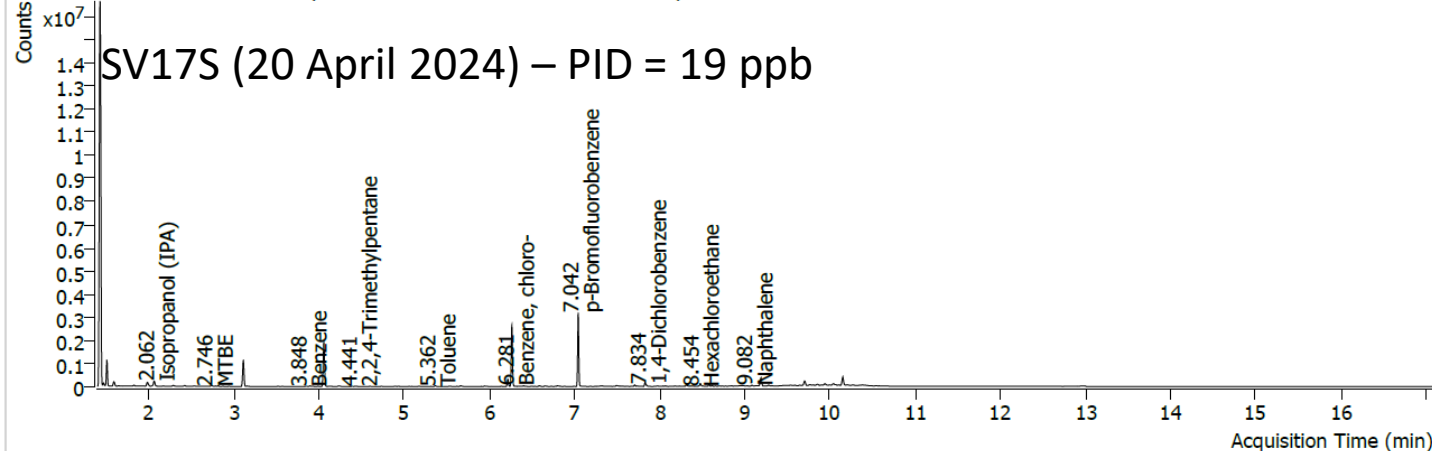
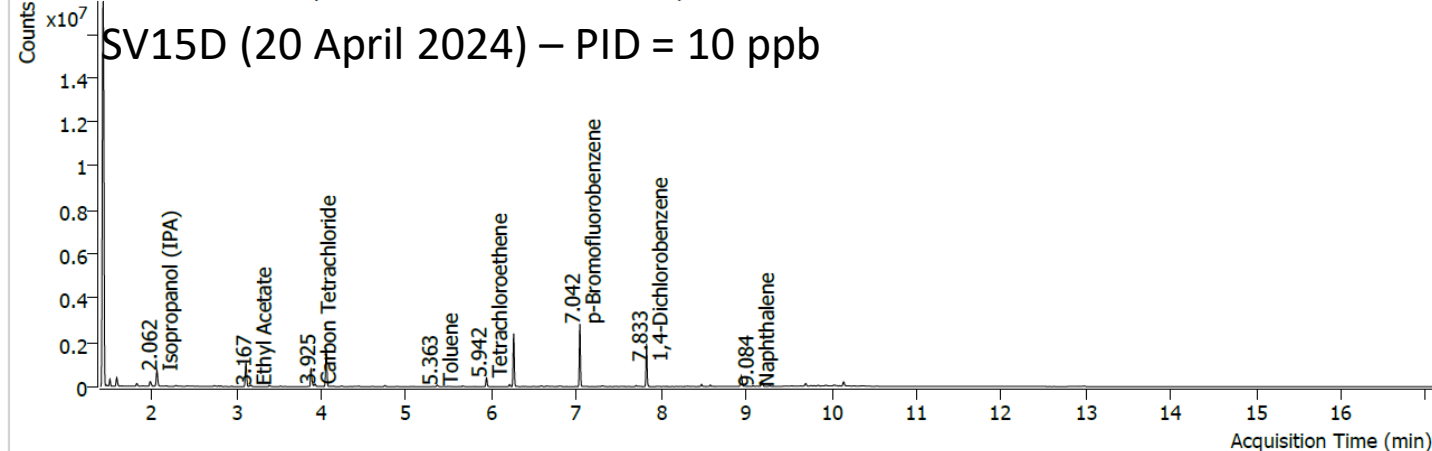
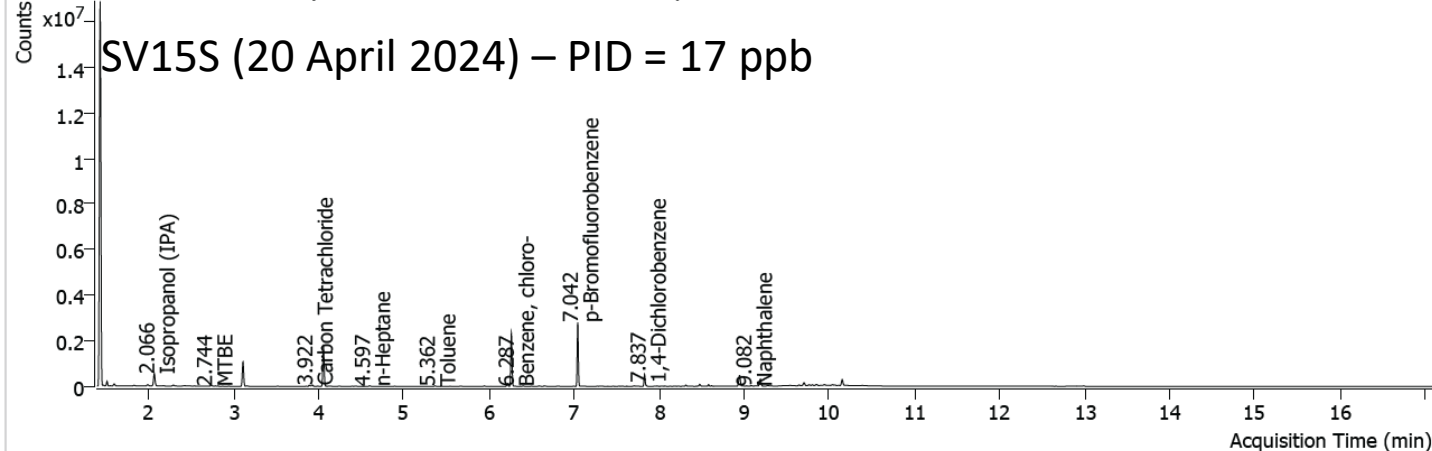
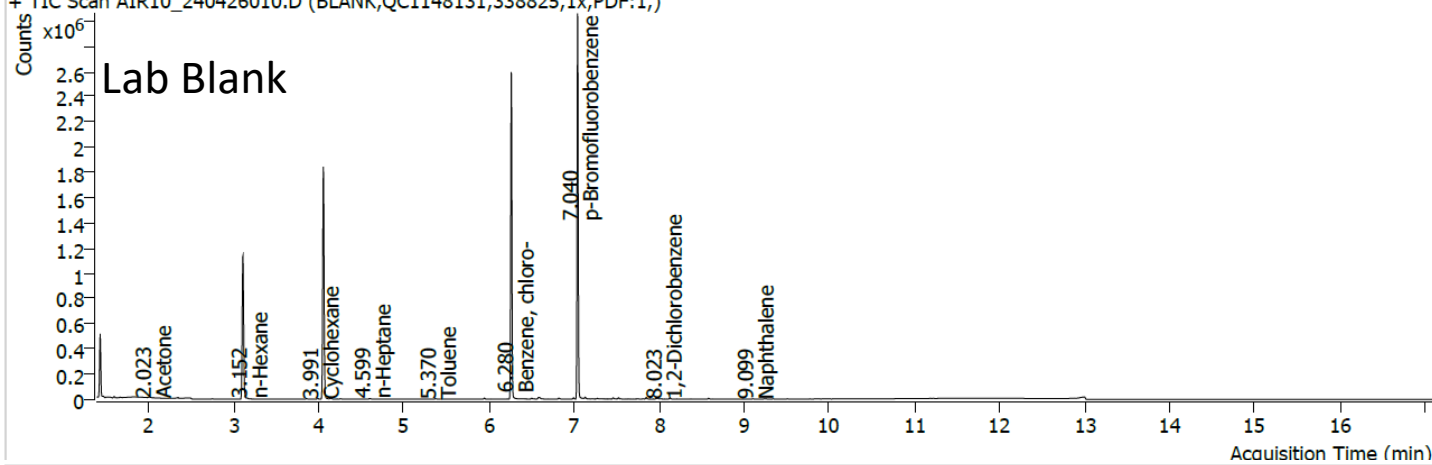
ppmv - parts per million by volume

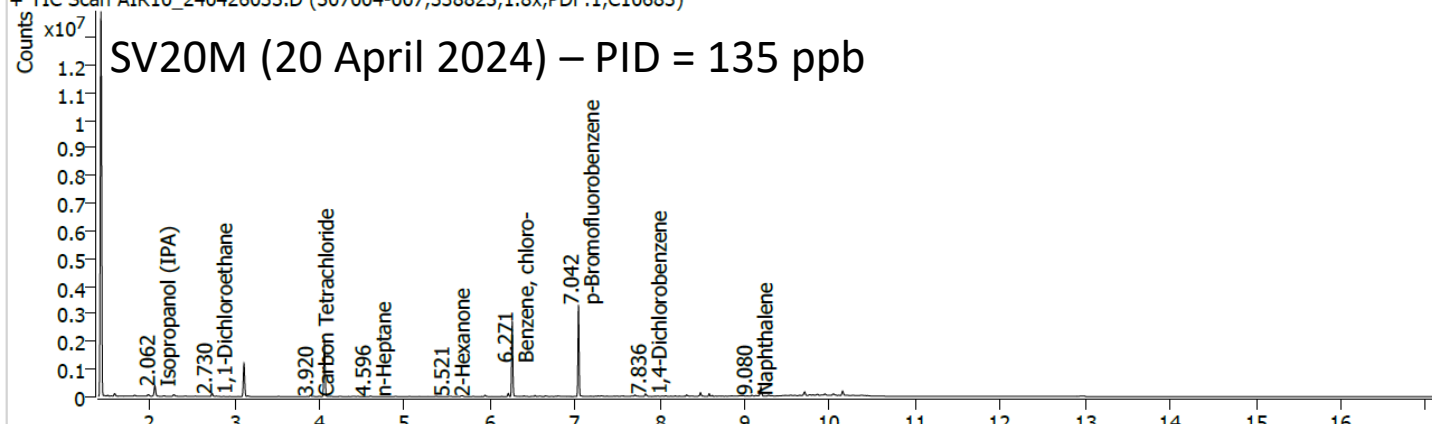
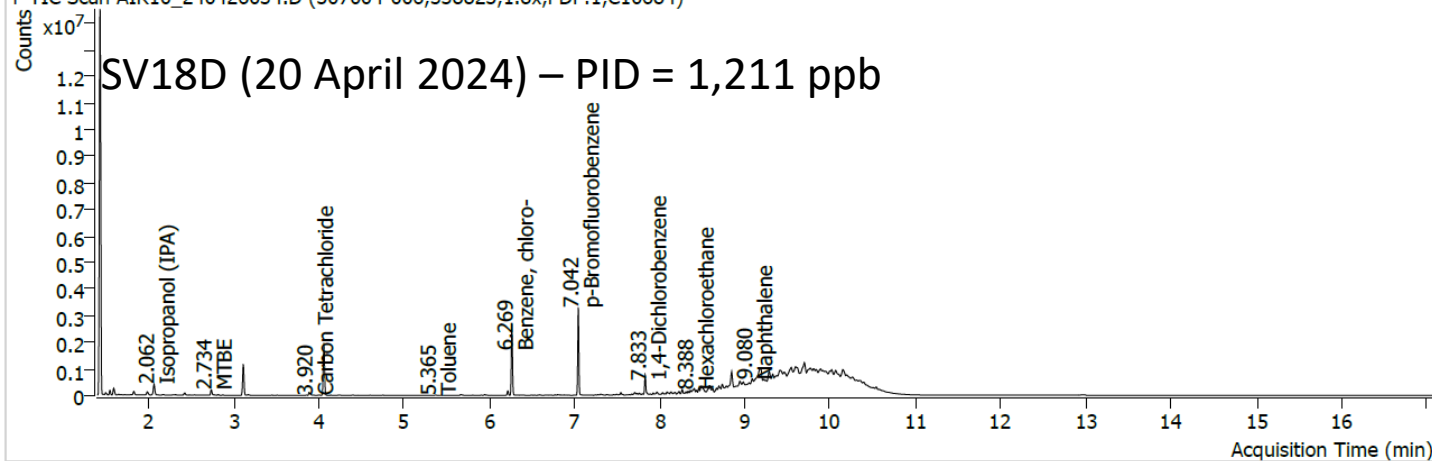
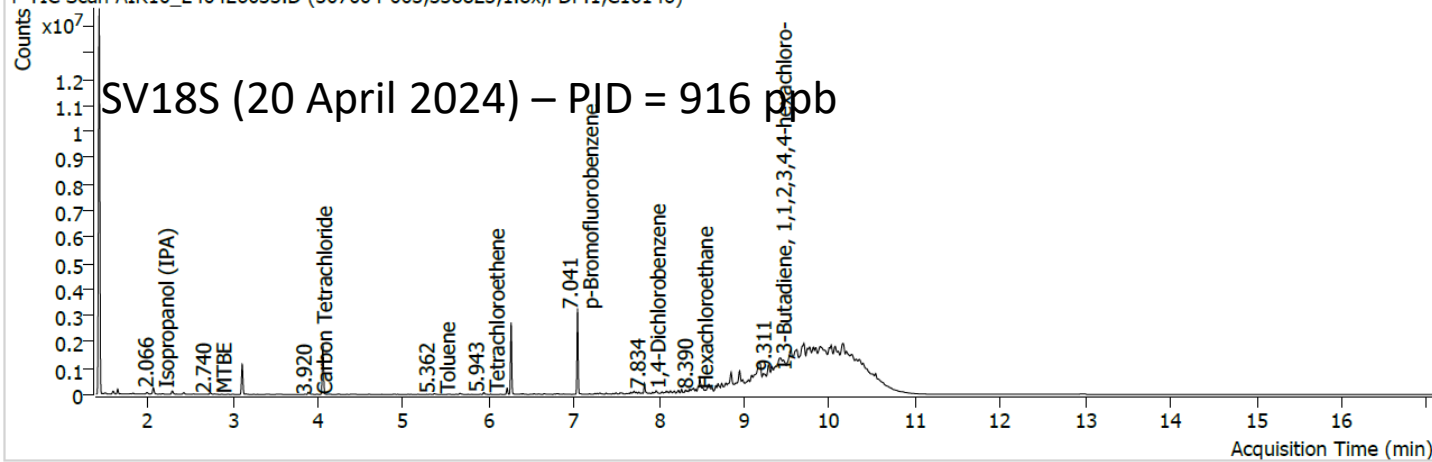
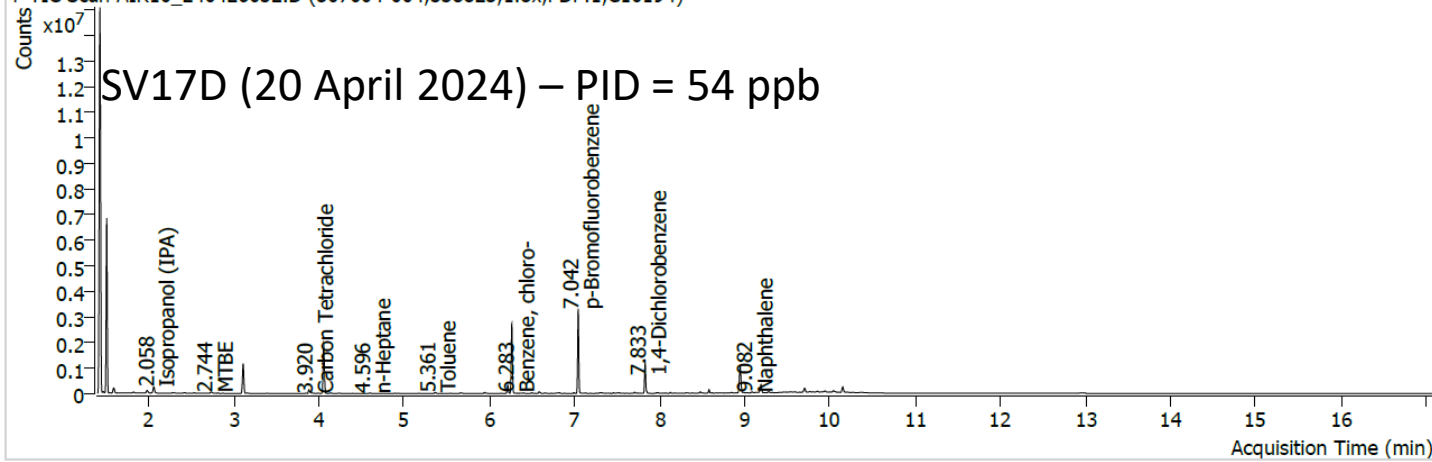
SVMP - soil vapor monitoring point

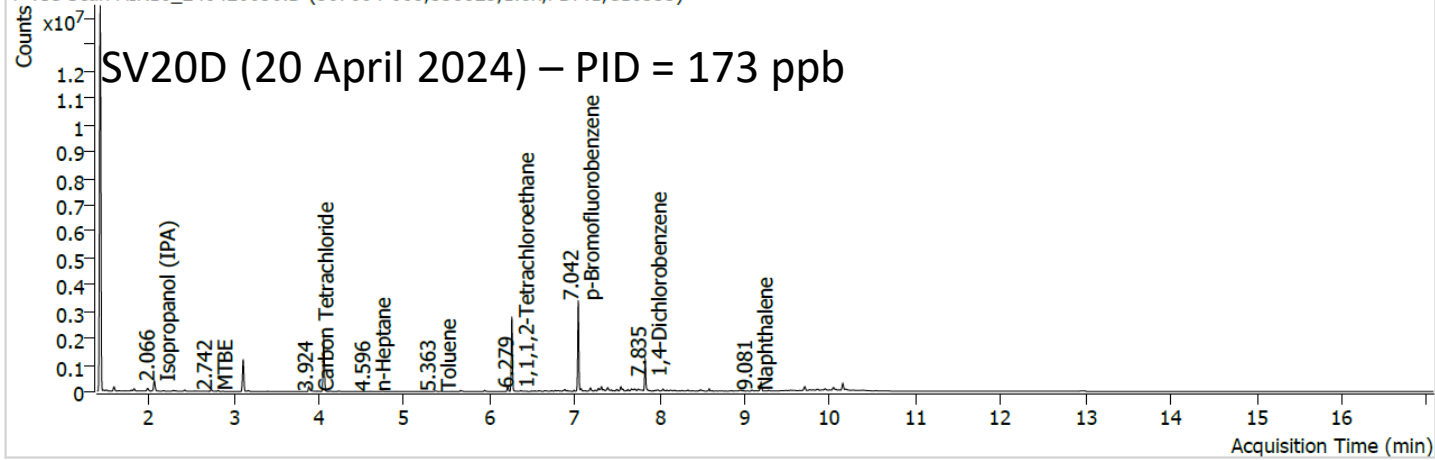
Appendix A.2 – Soil Vapor Chromatograms

April 2024
Soil Vapor Samples

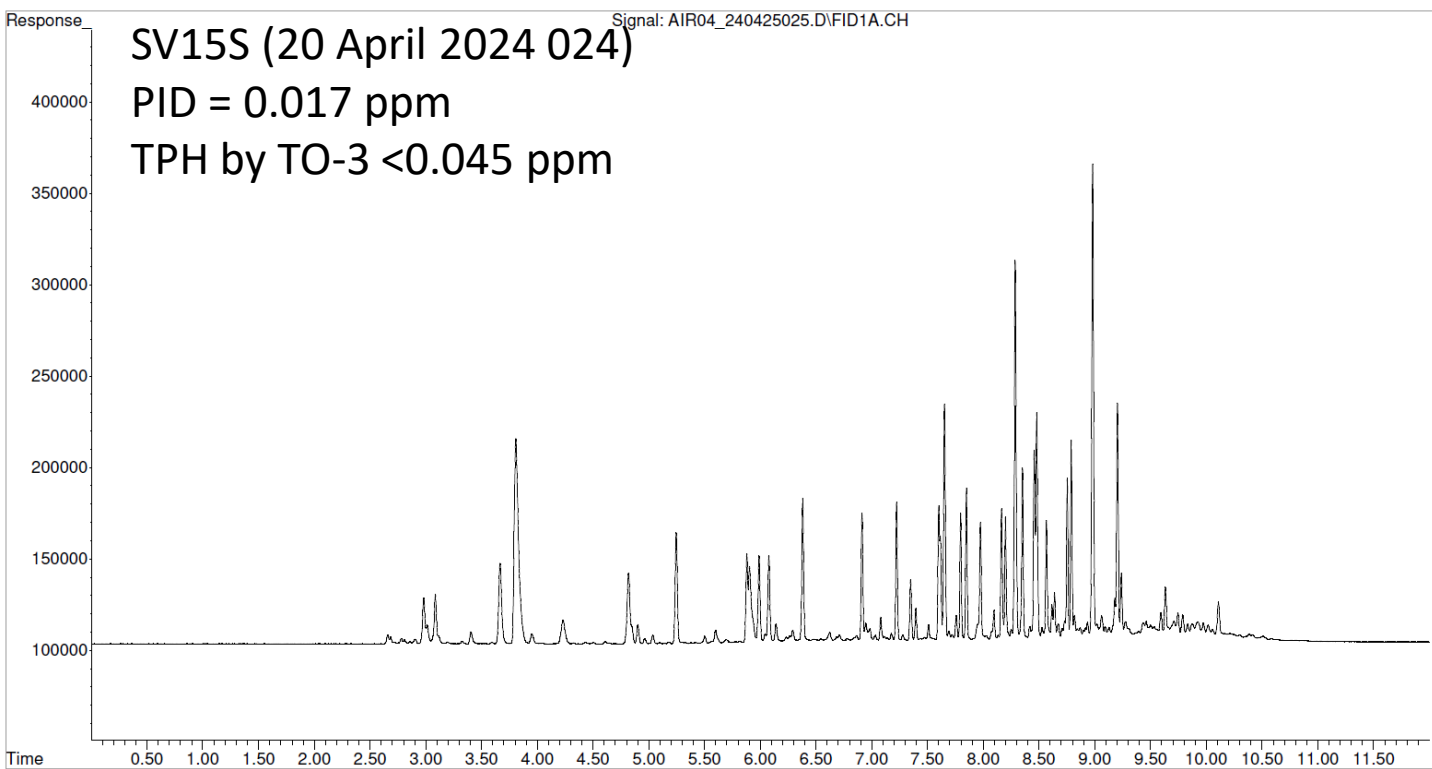
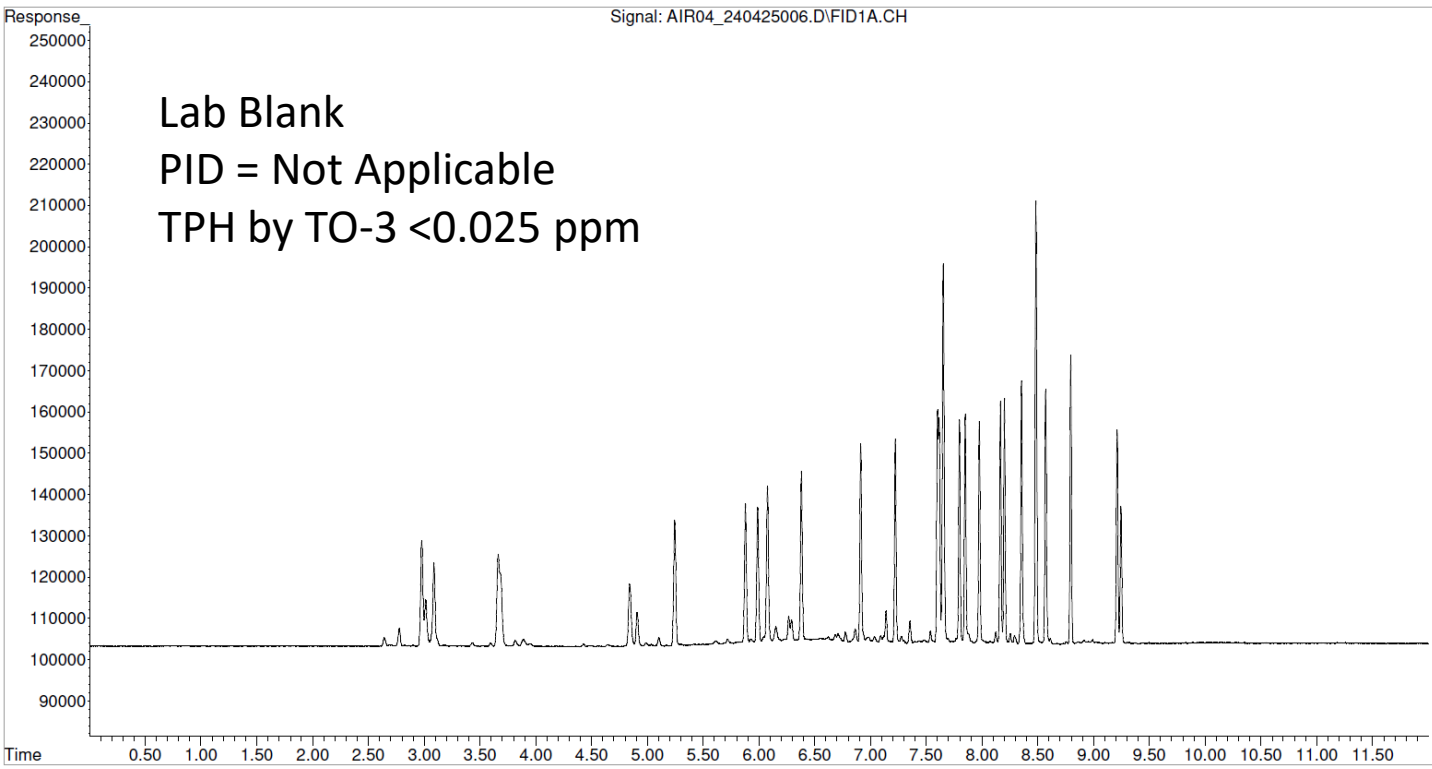
Mass Spec Chromatograms

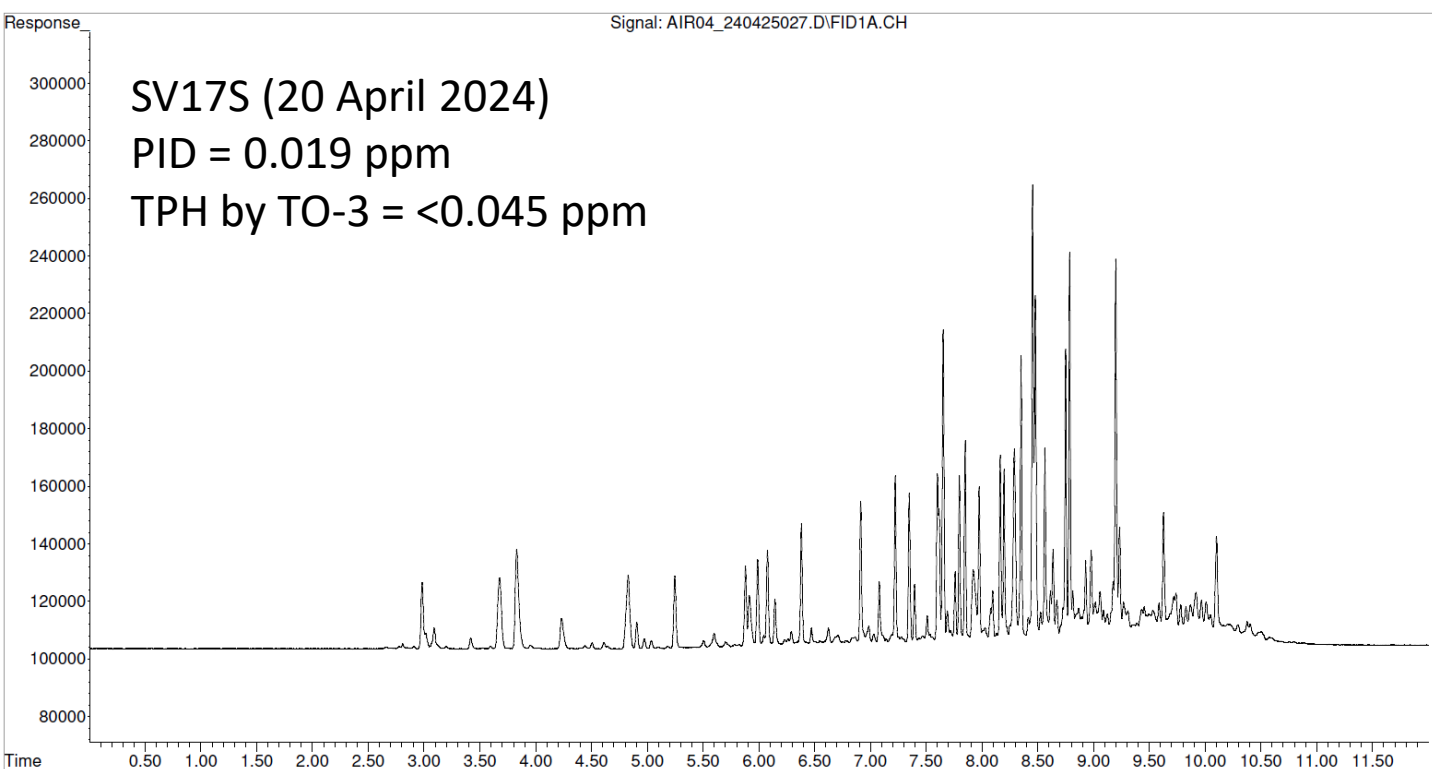
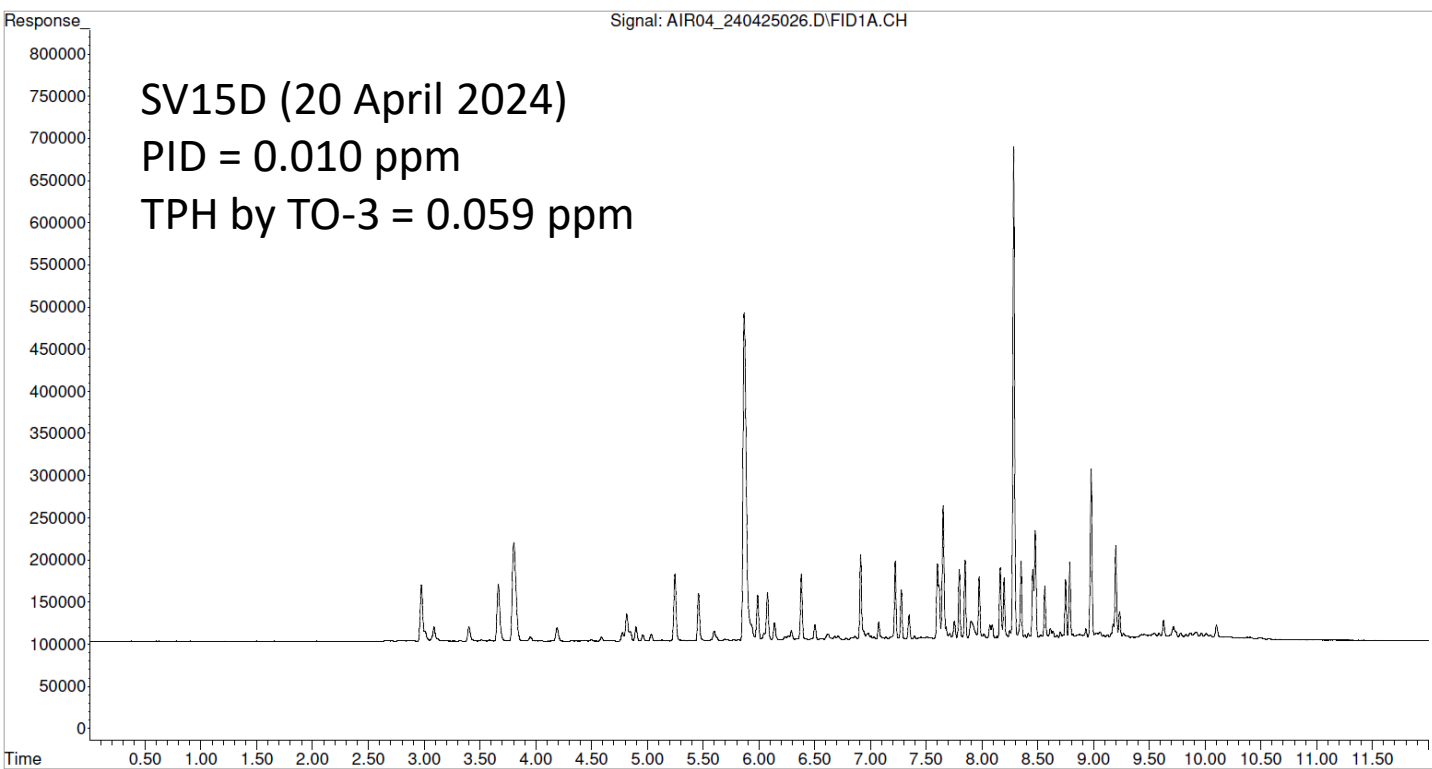


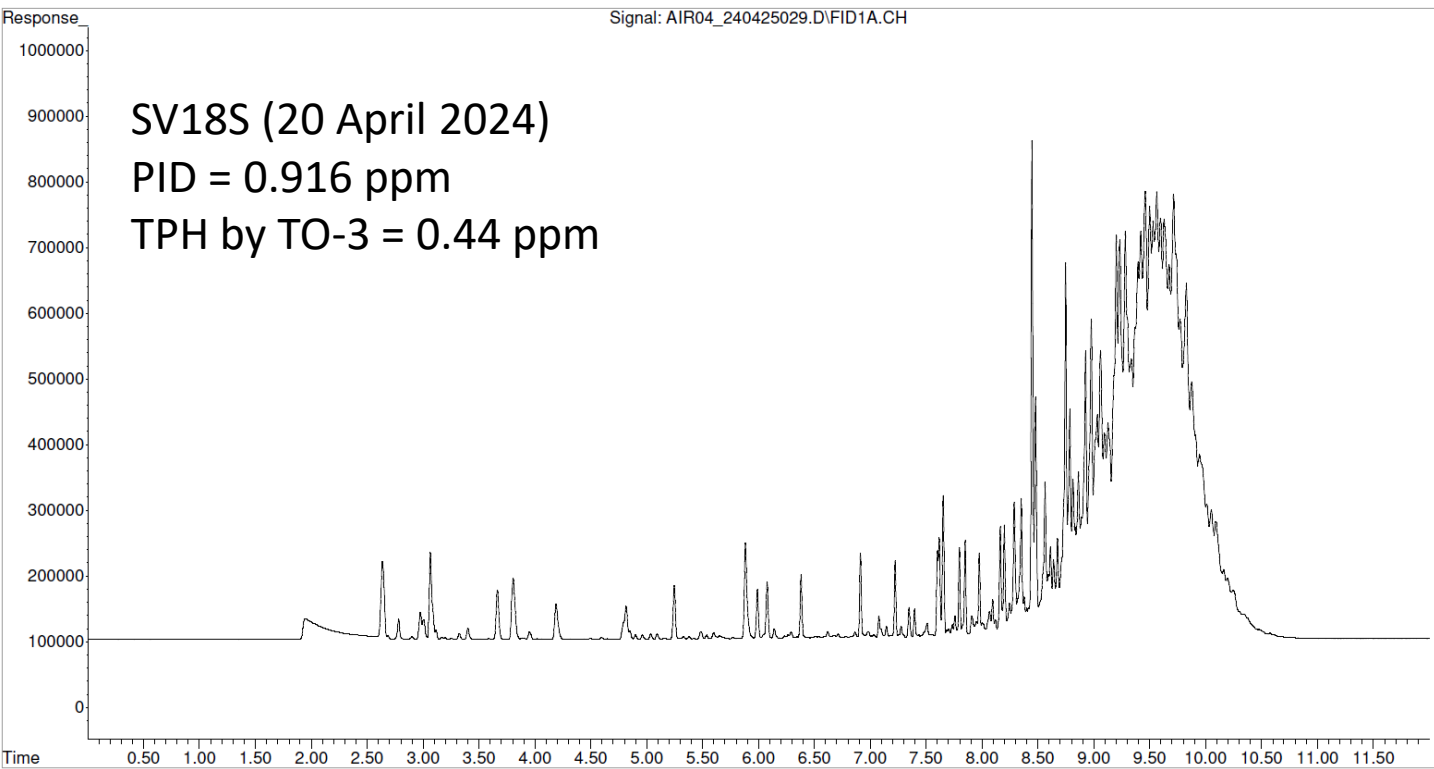
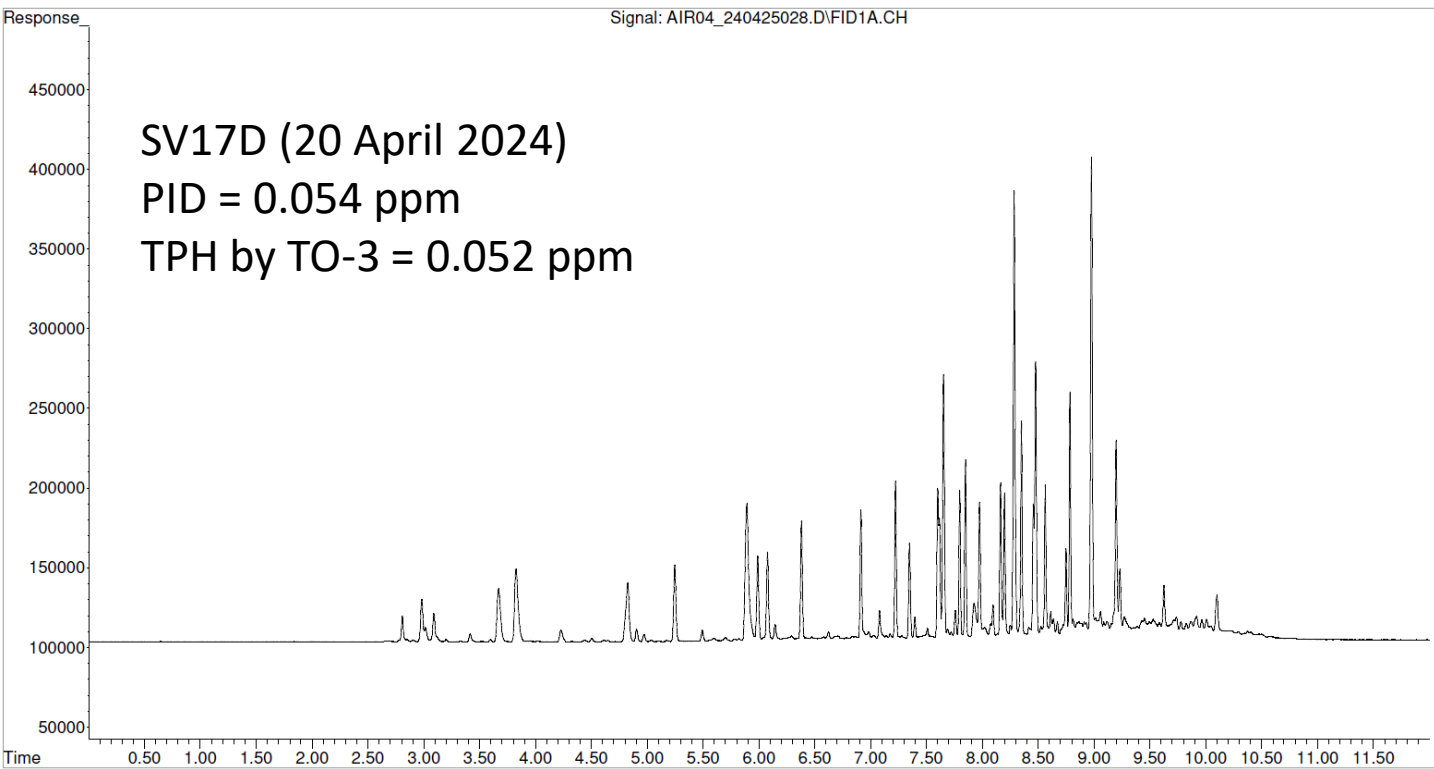


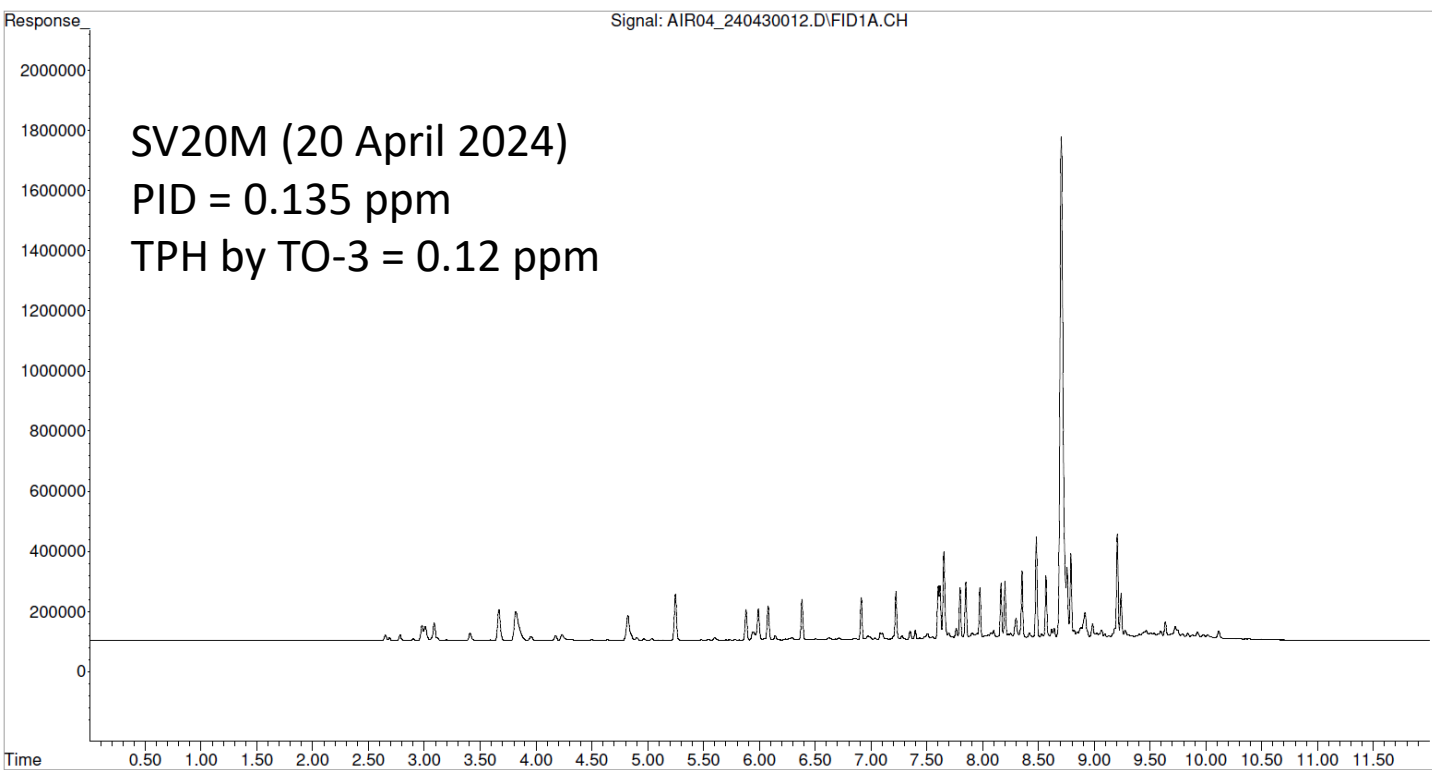
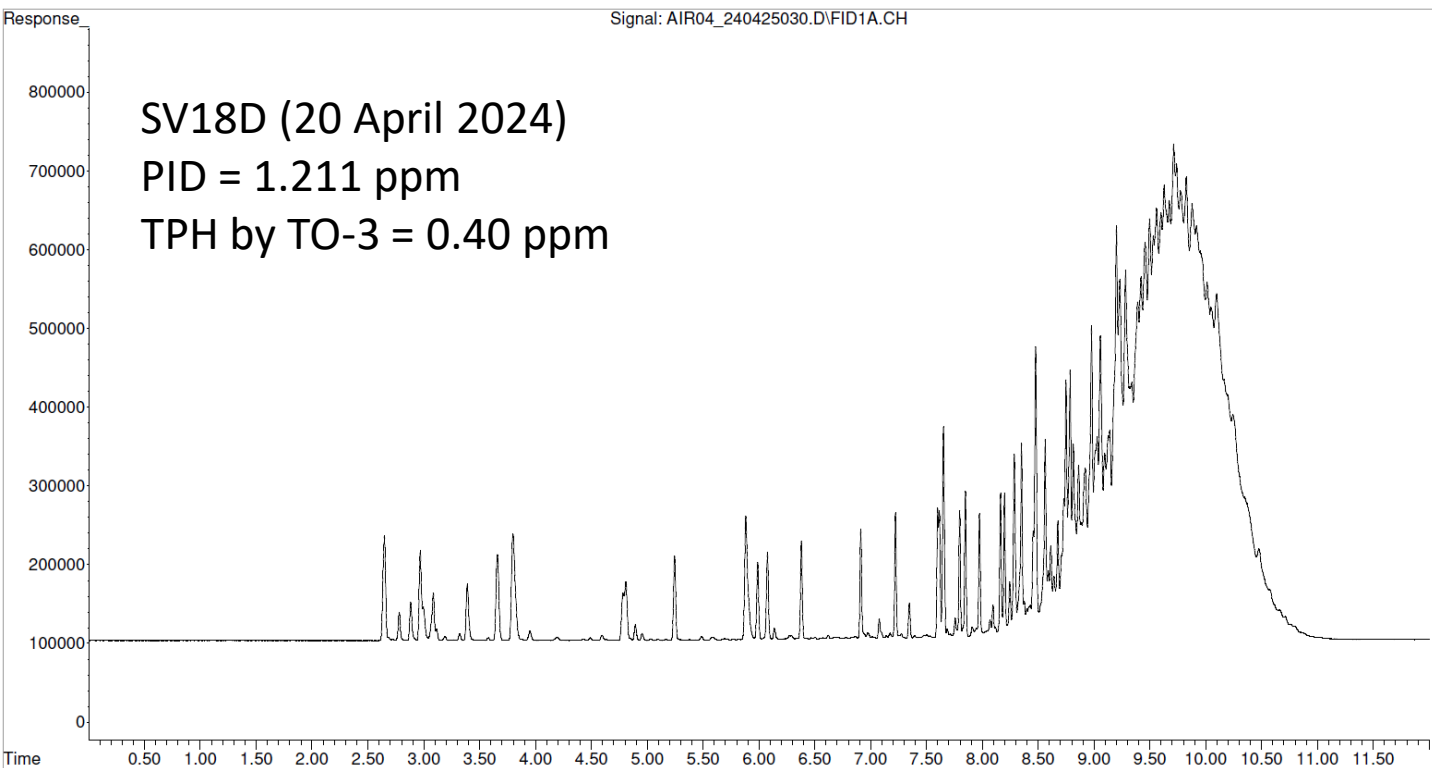


April 2024
Soil Vapor Samples
FID Chromatograms



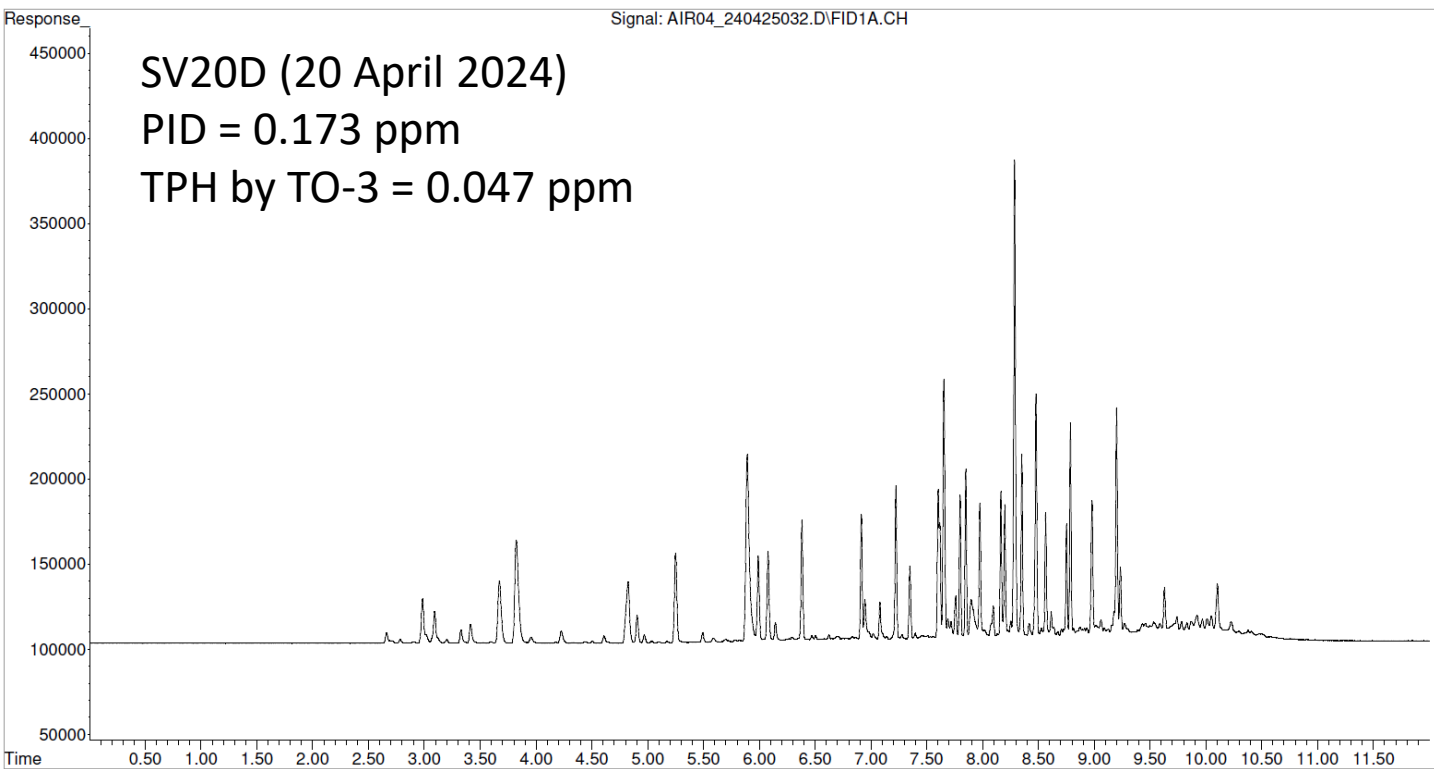






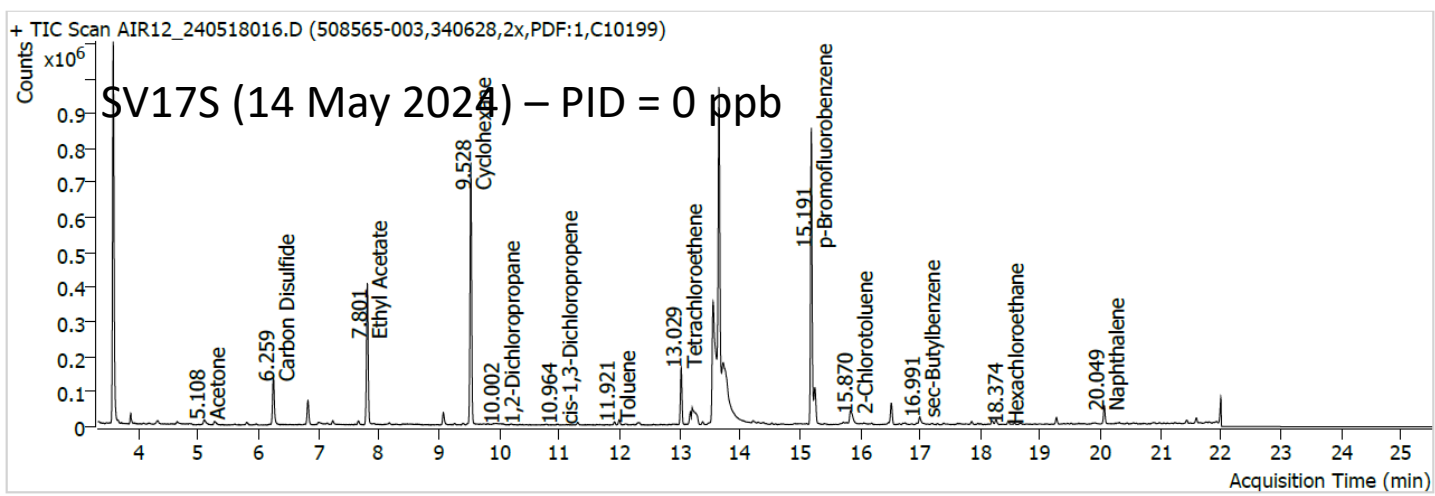
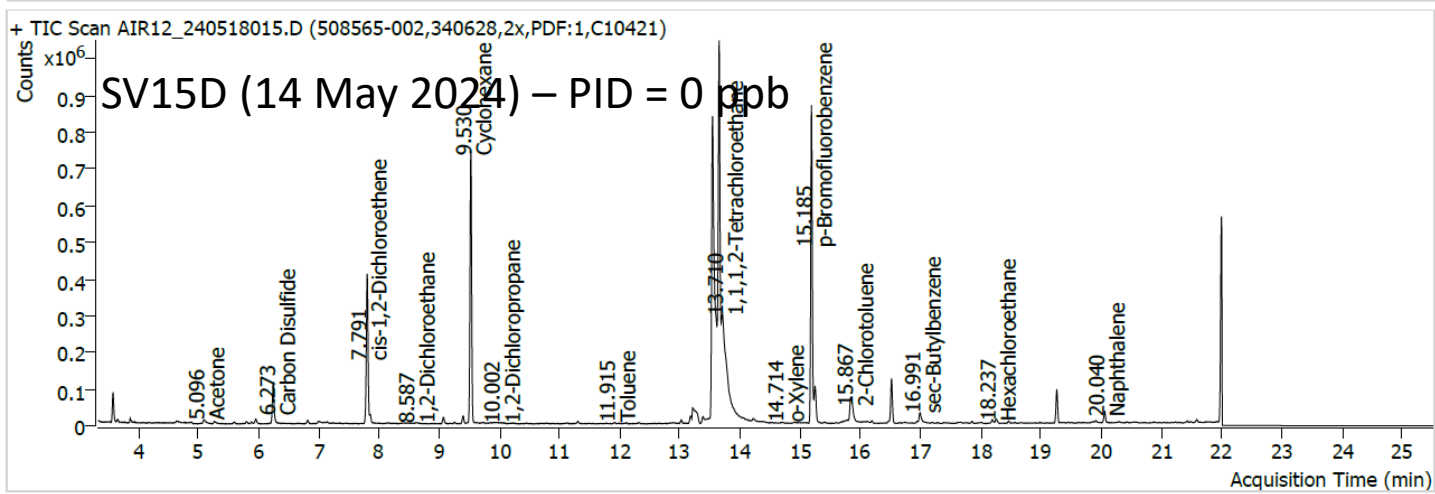
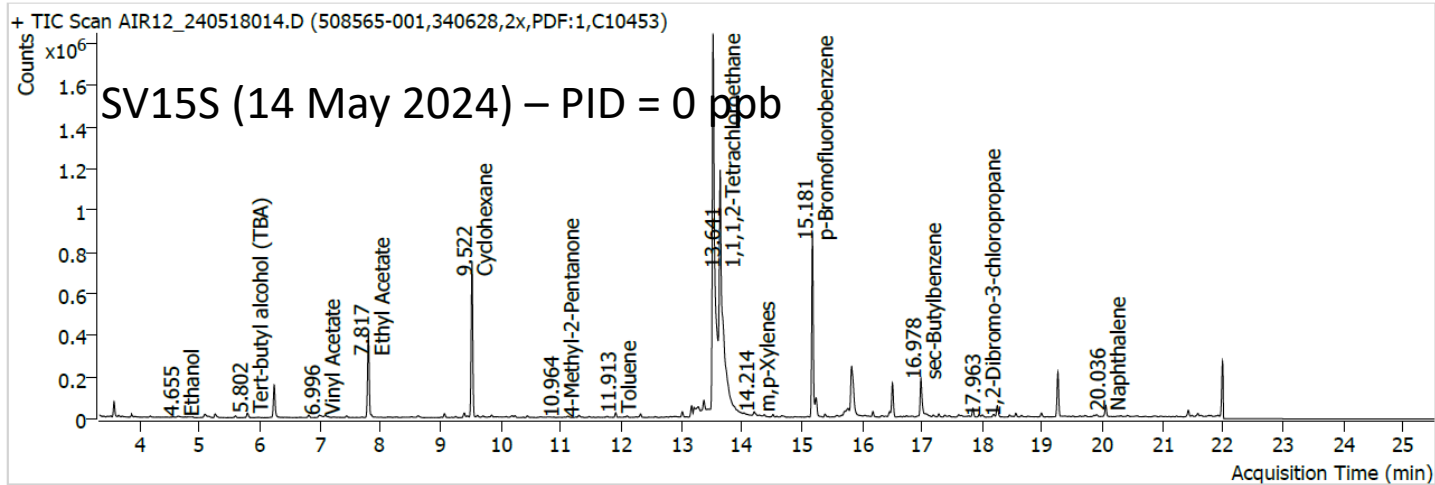
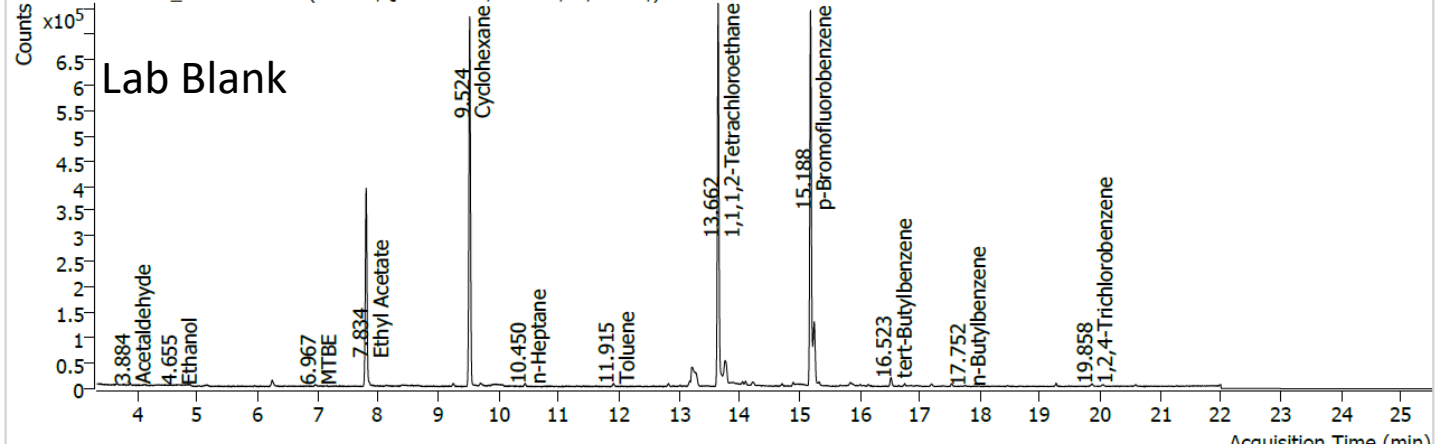
Signal: AIR04_240425032.D\FID1A.CH

SV20D (20 April 2024)
PID = 0.173 ppm
TPH by TO-3 = 0.047 ppm

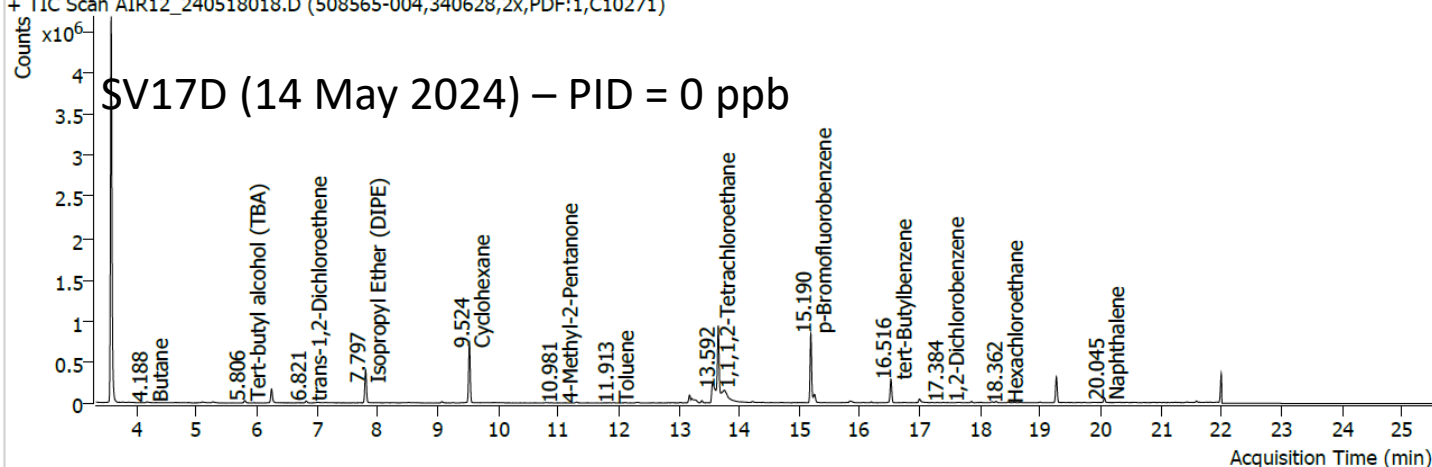


May 2024
Soil Vapor Samples

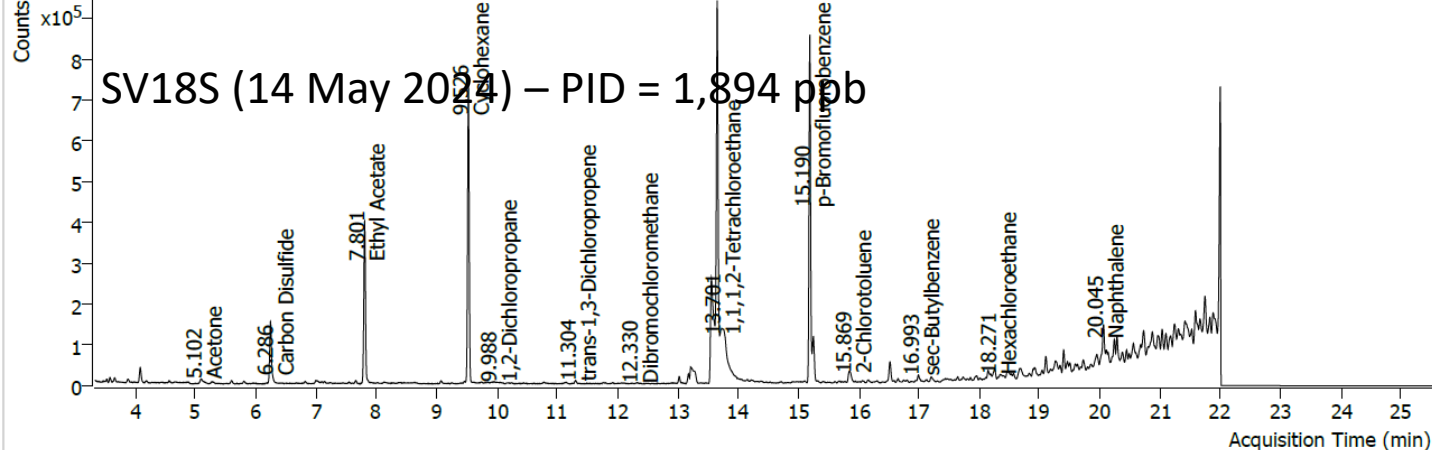
Mass Spec Chromatograms



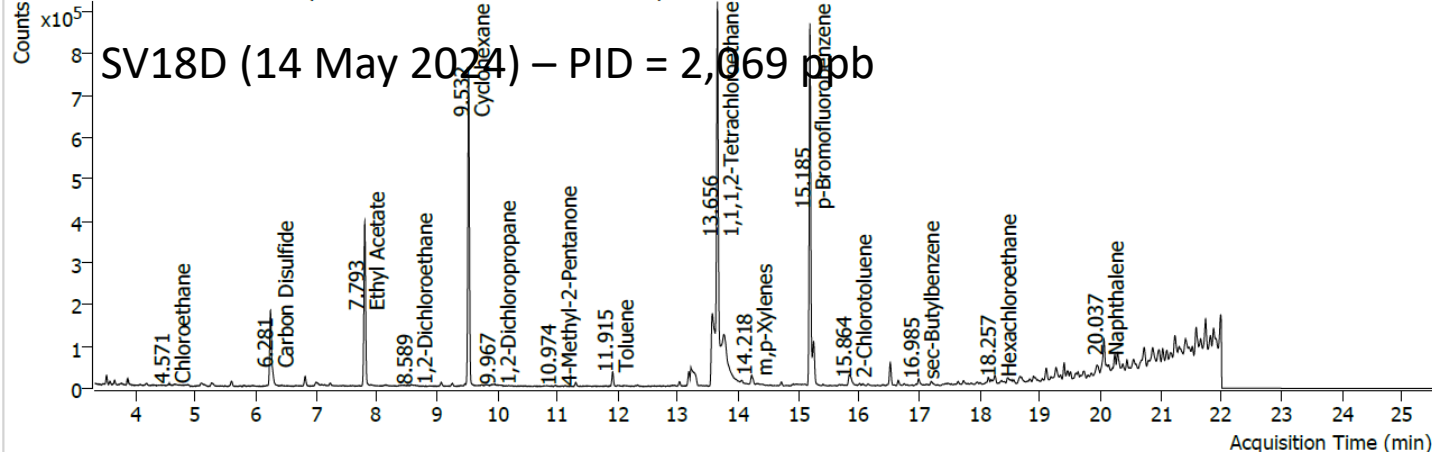
SV17D (14 May 2024) – PID = 0 ppb



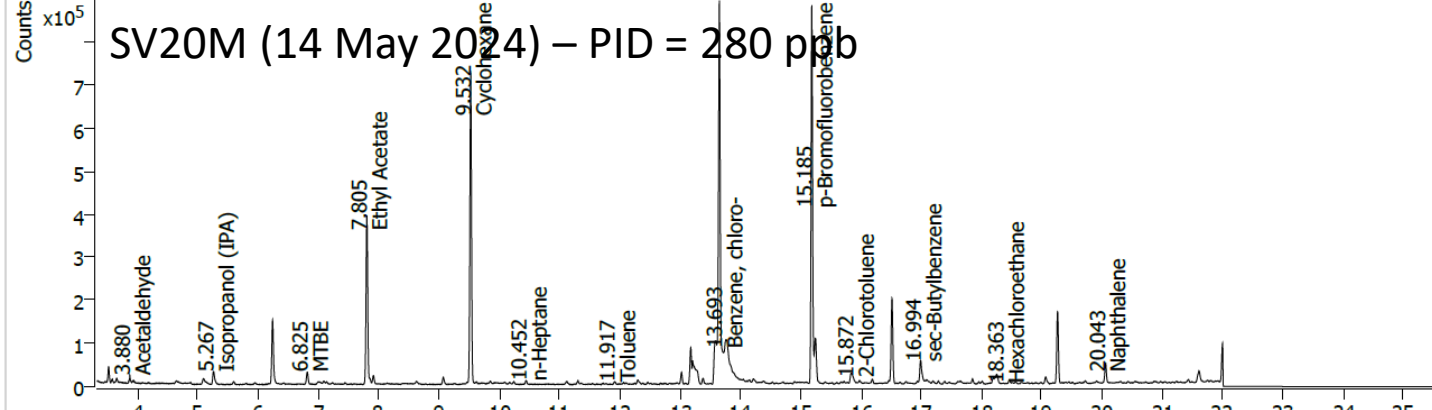
SV18S (14 May 2024) – PID = 1,894 ppb



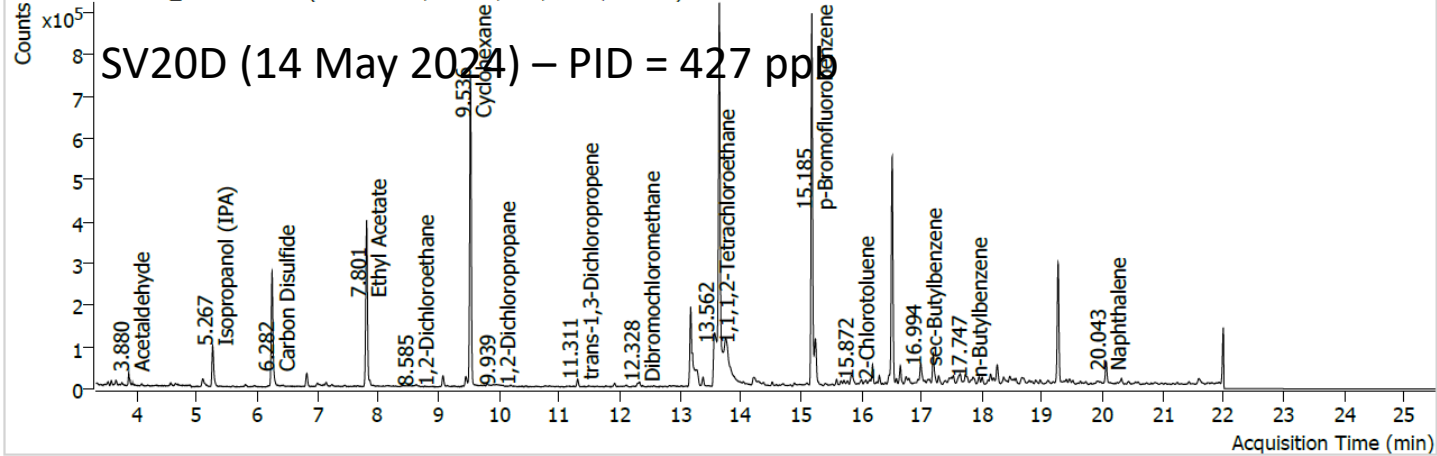
SV18D (14 May 2024) – PID = 2,069 ppb



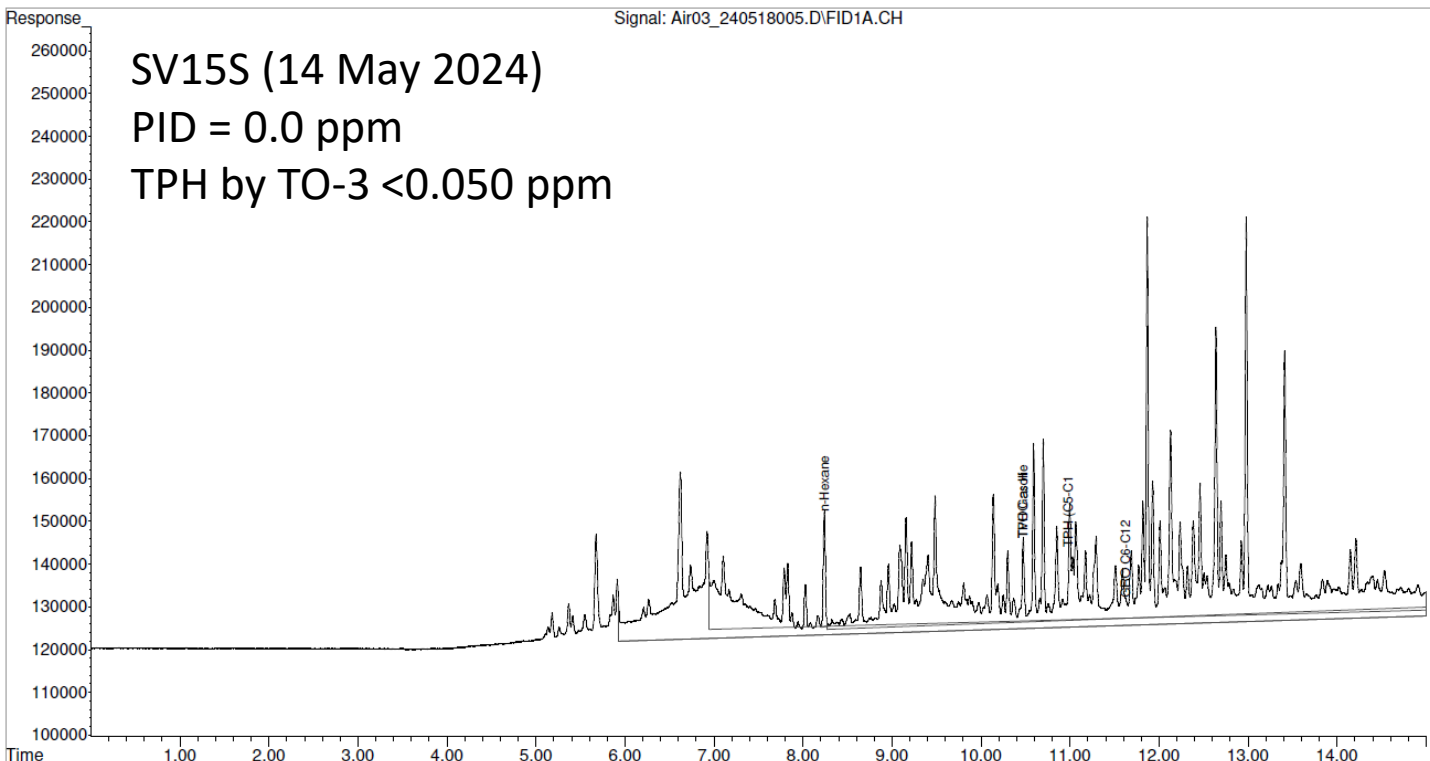
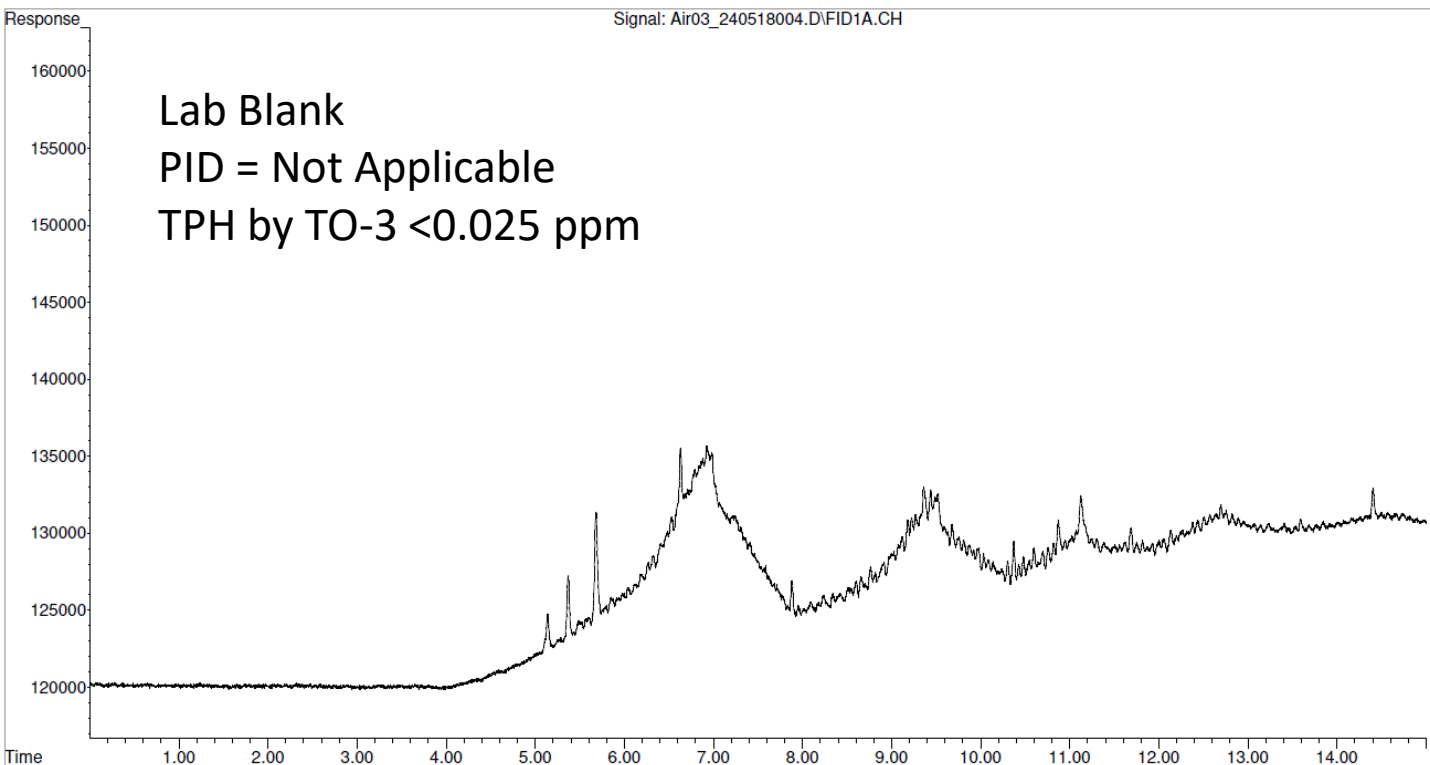
SV20M (14 May 2024) – PID = 280 ppb

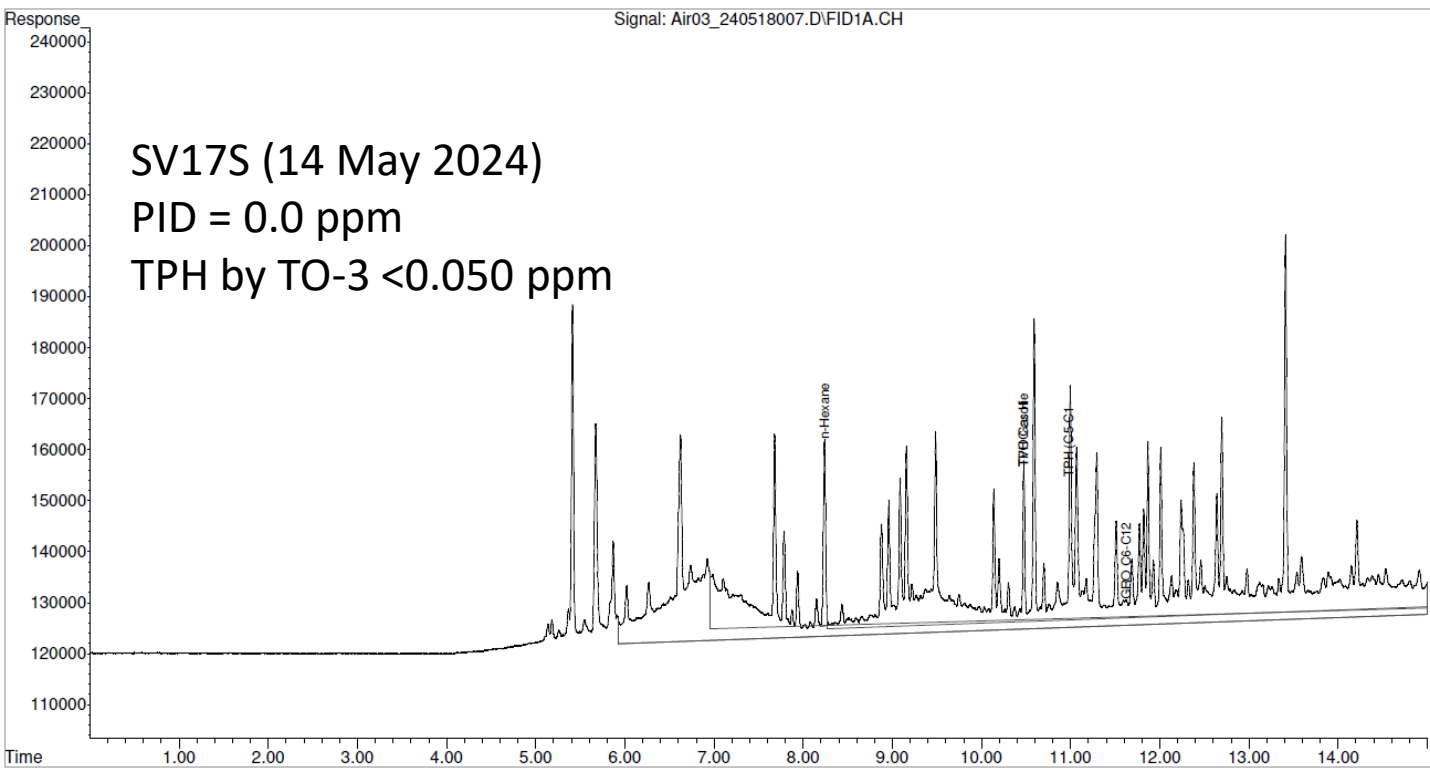
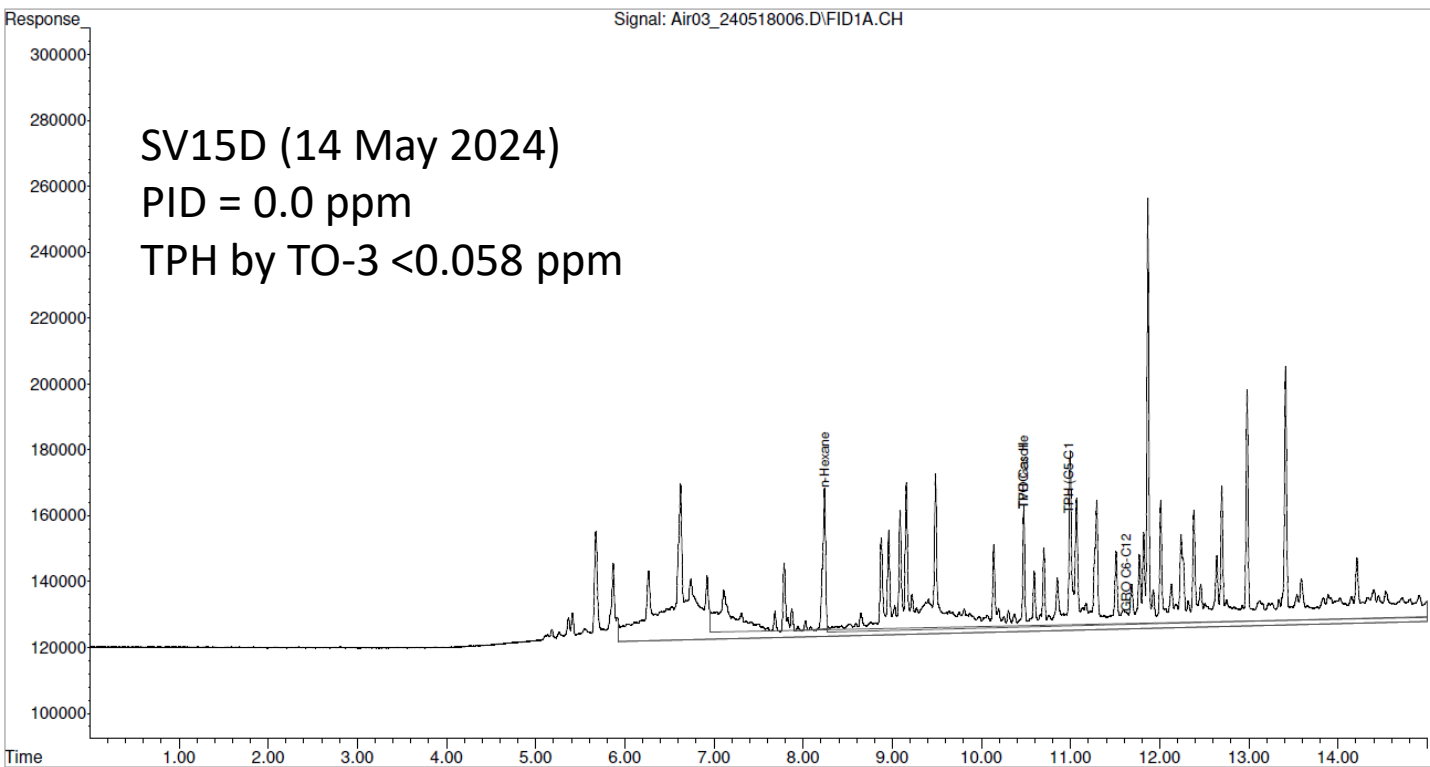


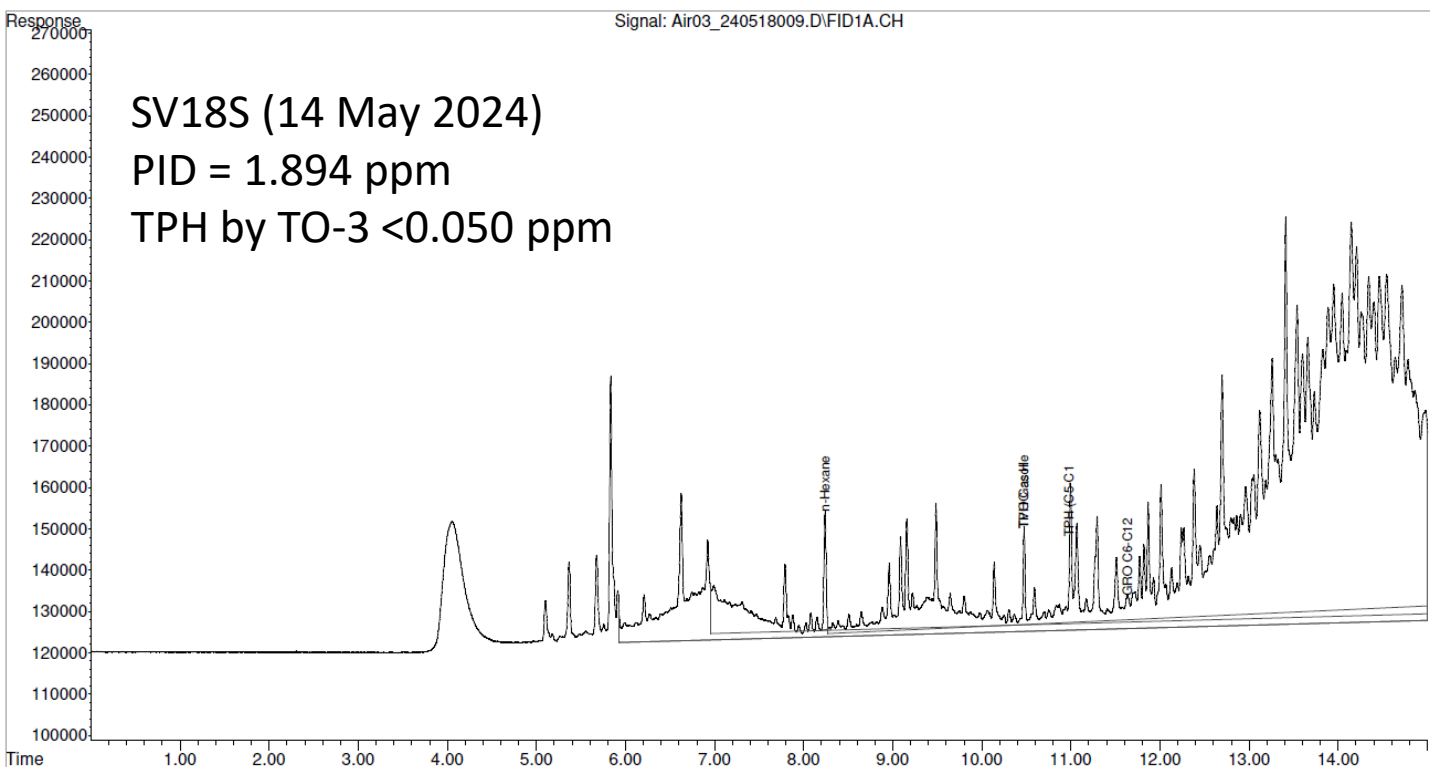
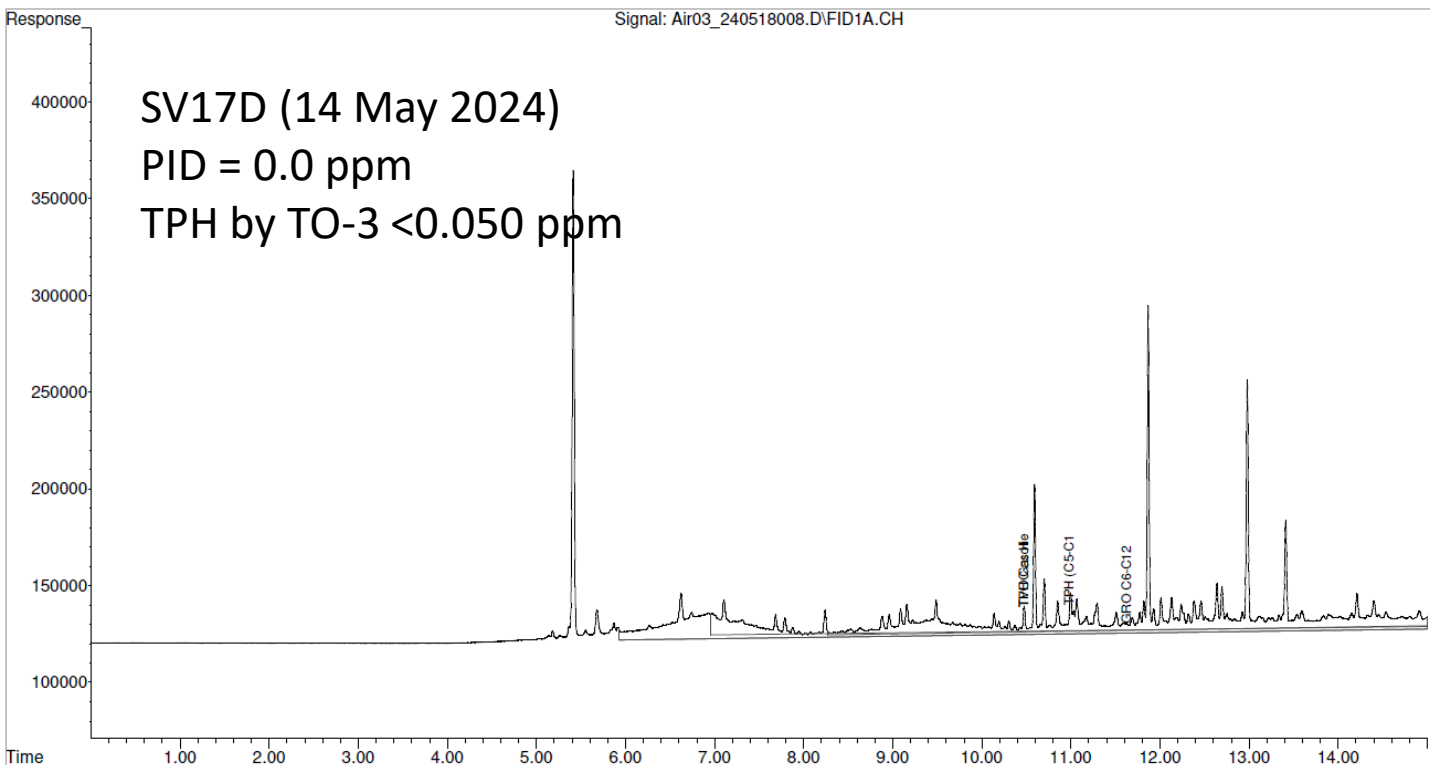
+ TIC Scan AIR12_240518026.D (508565-008,340628,1.8x,PDF:1,C10227)

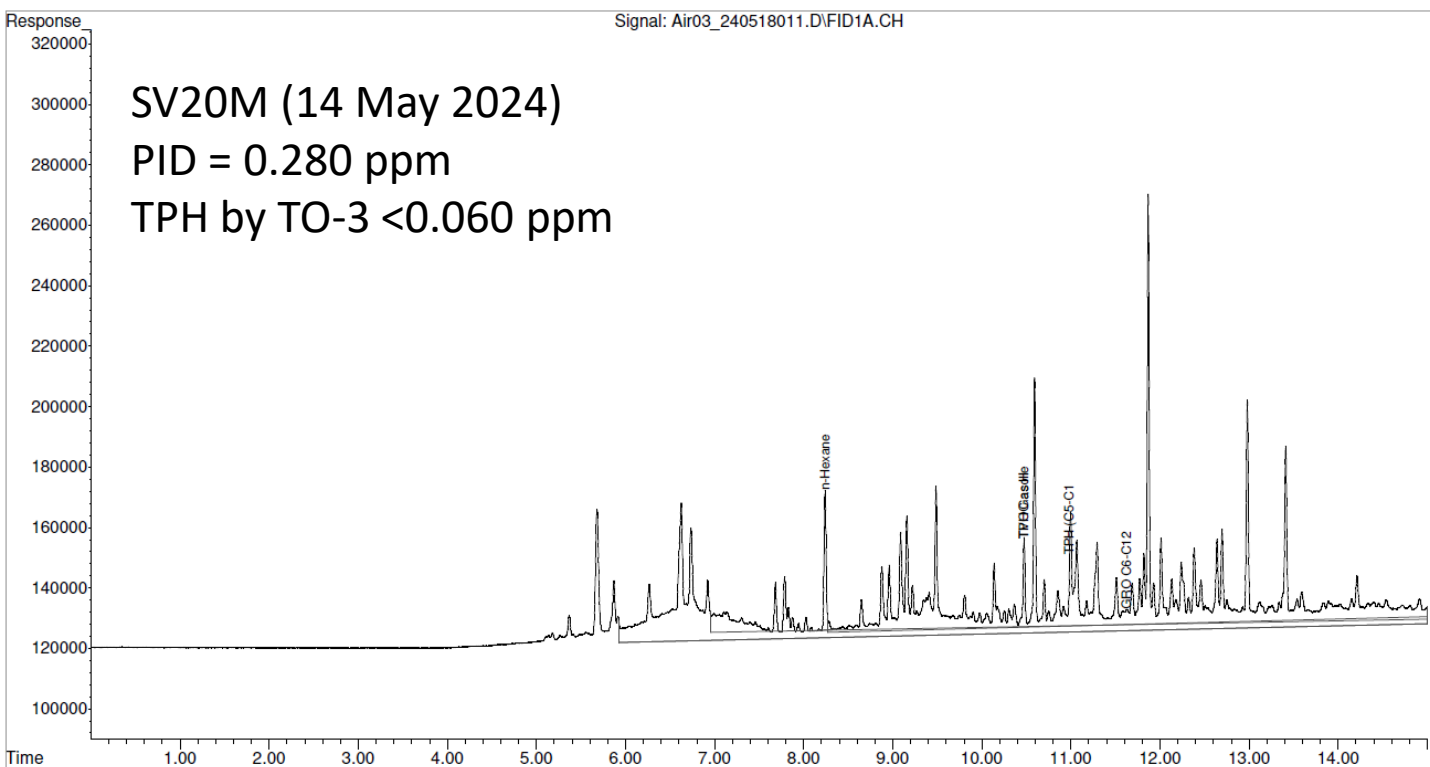
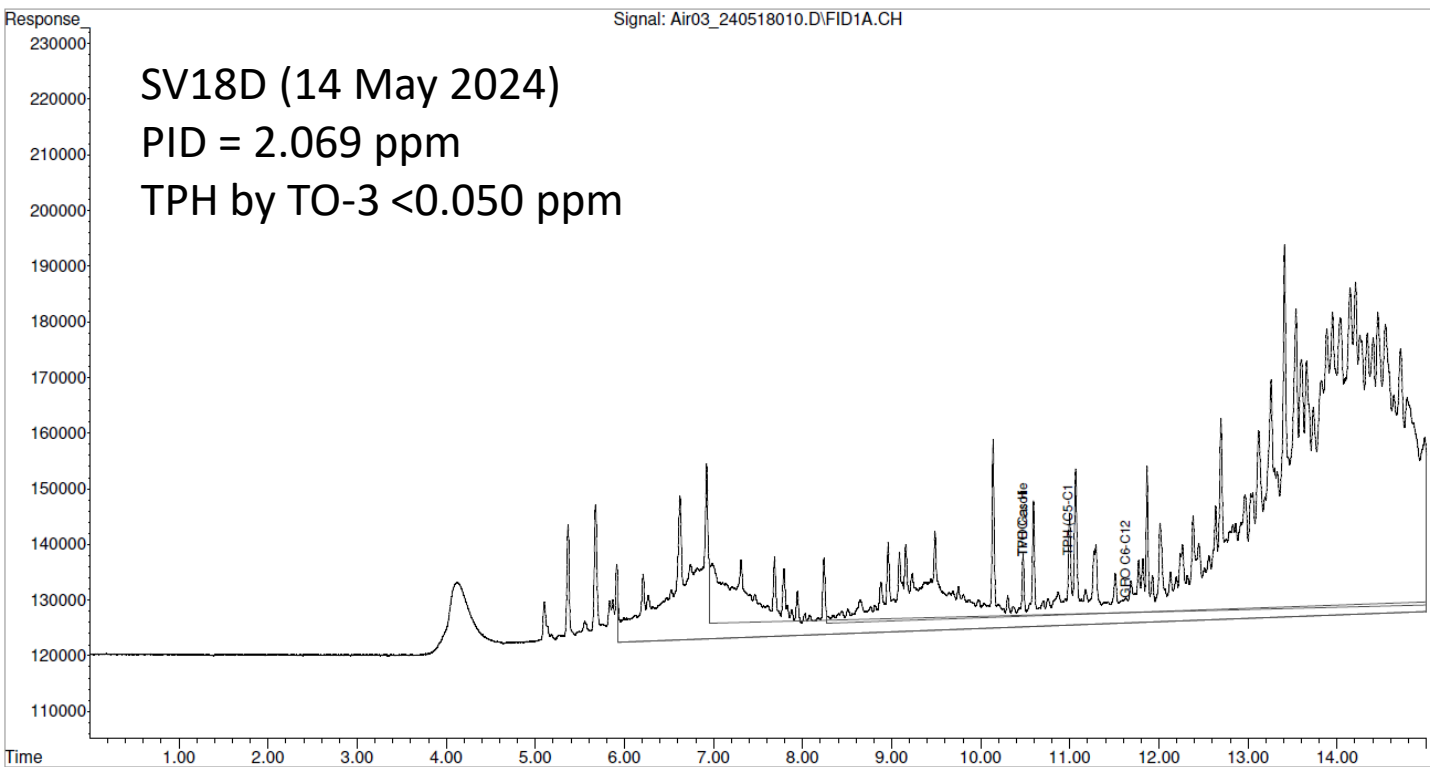


May 2024
Soil Vapor Samples
FID Chromatograms







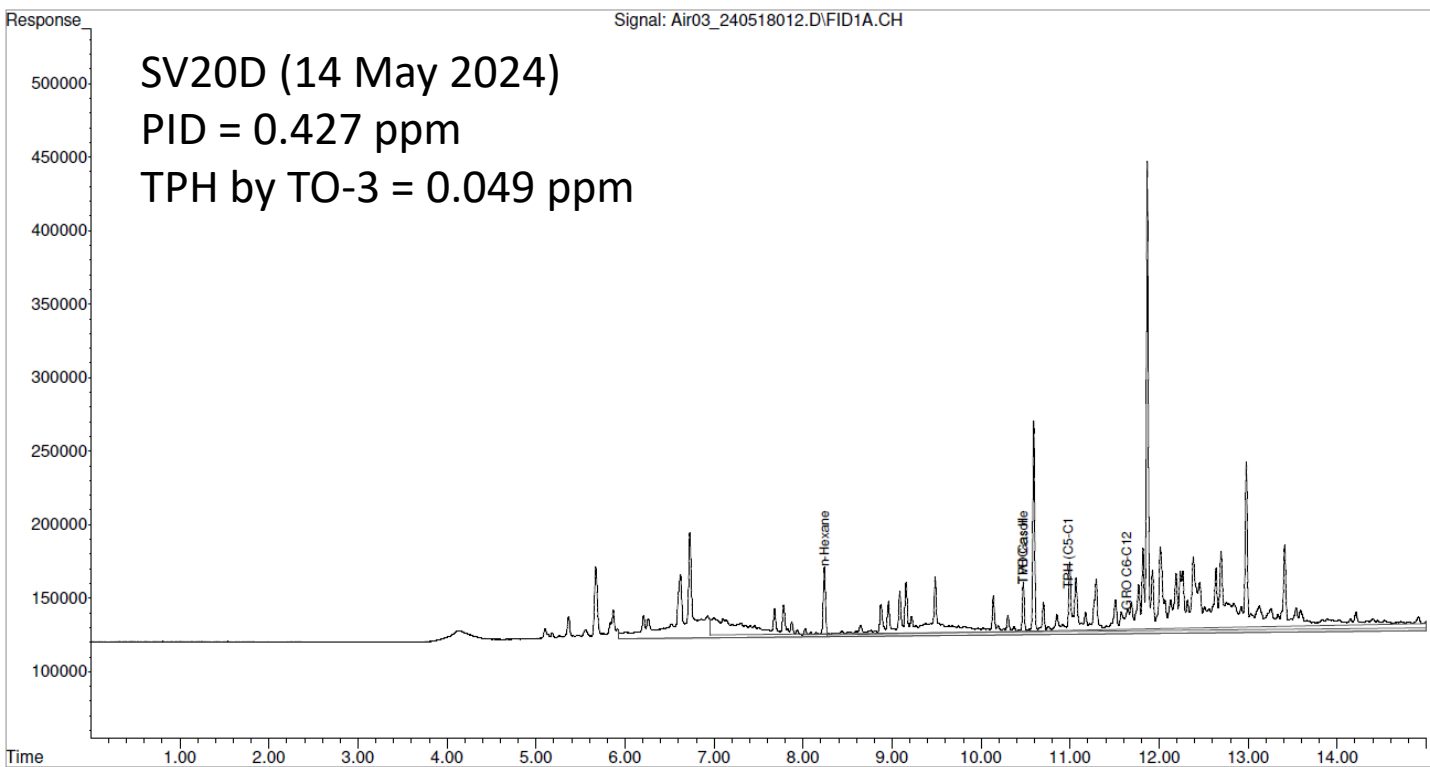


Signal: Air03_240518012.D\FID1A.CH

SV20D (14 May 2024)

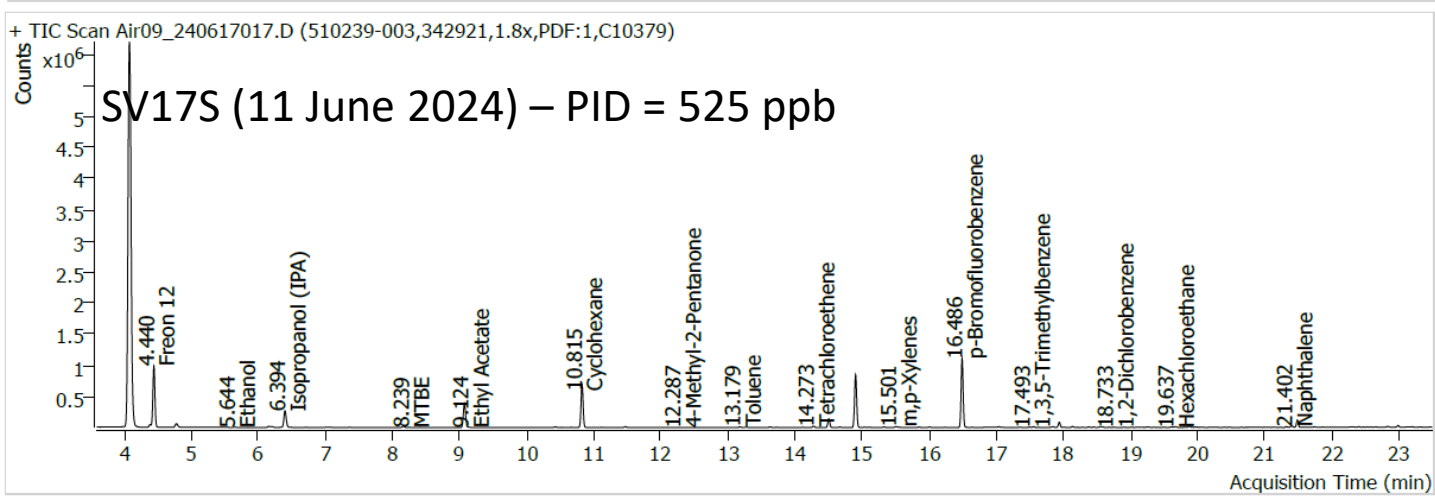
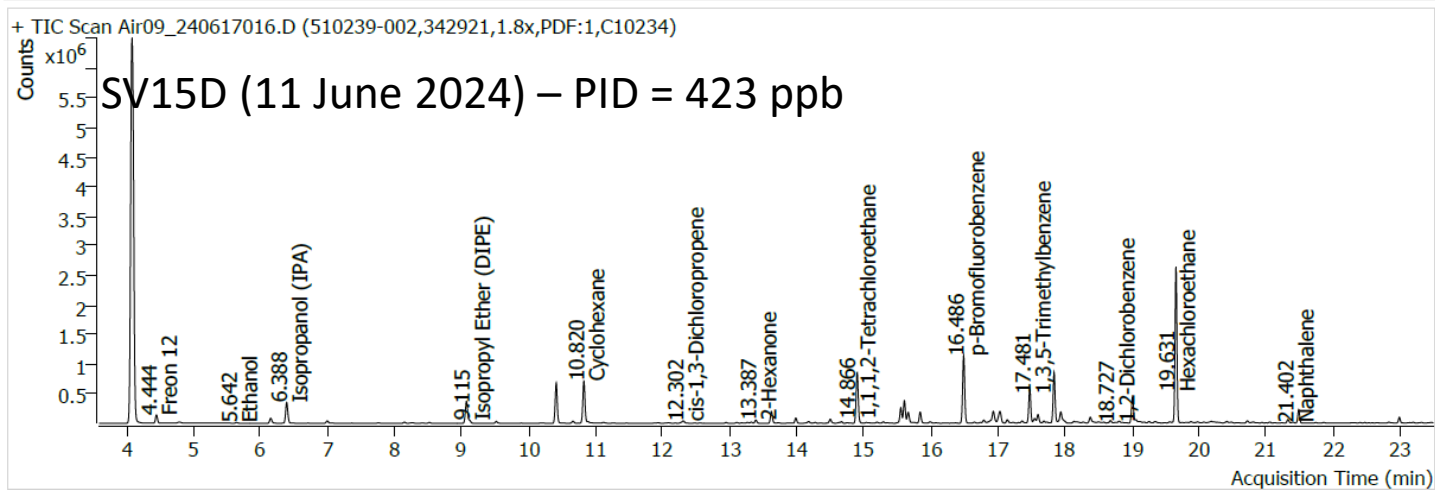
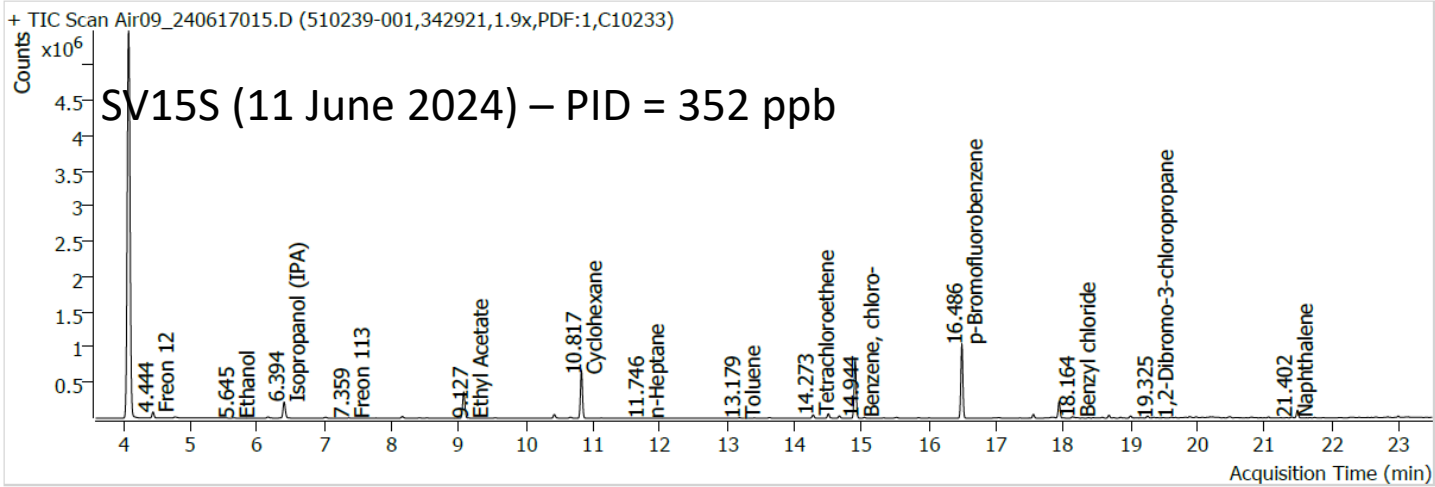
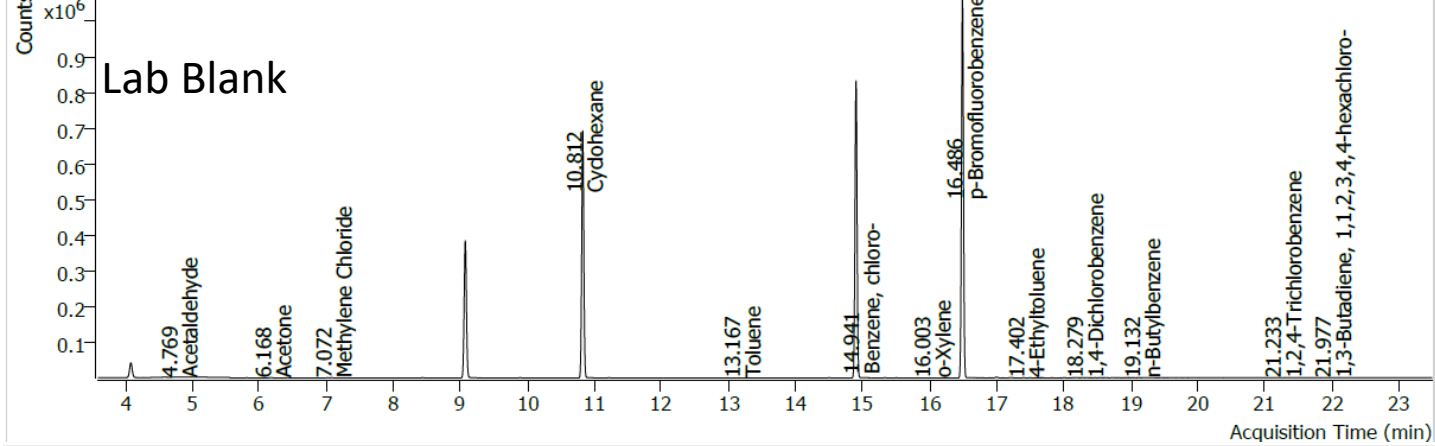
PID = 0.427 ppm

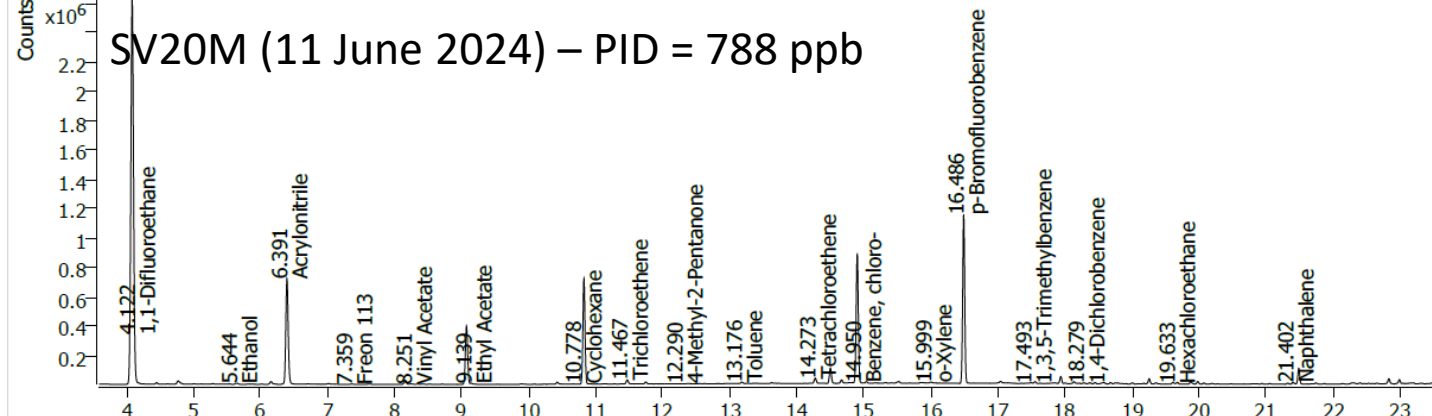
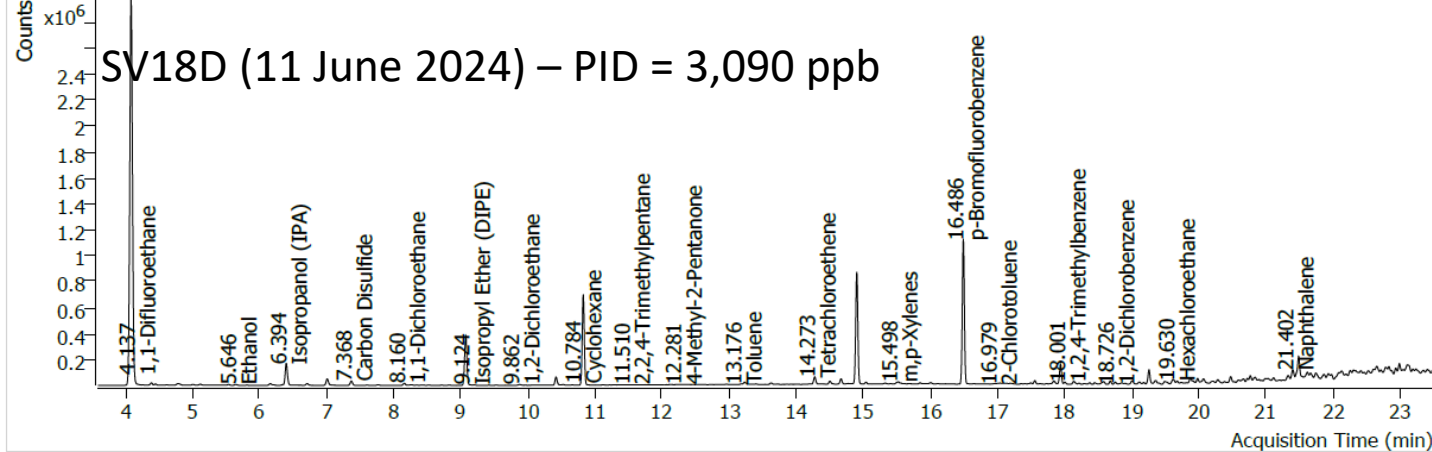
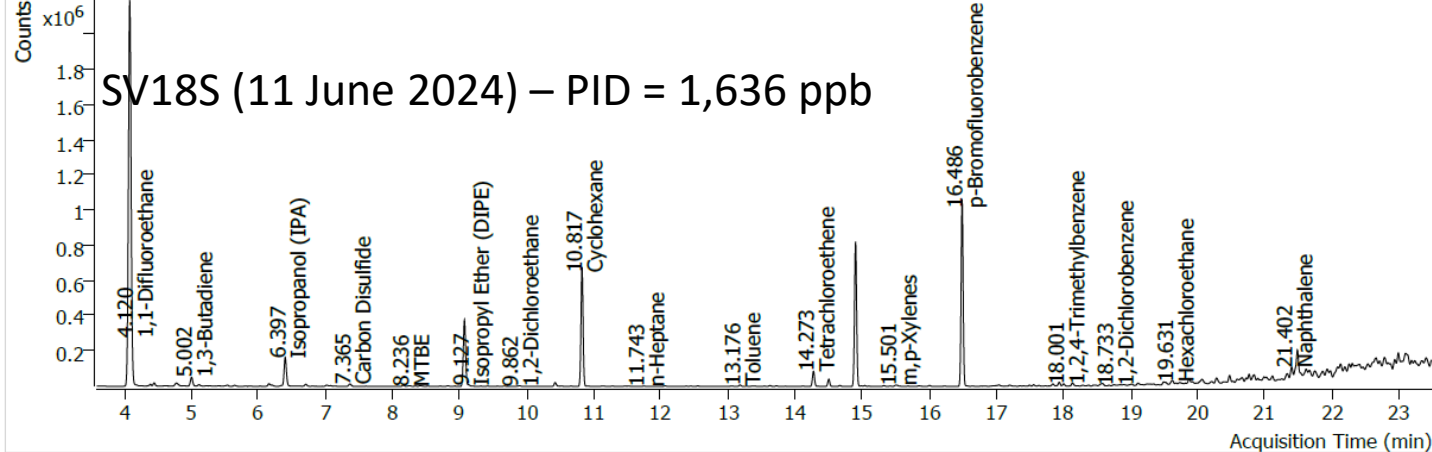
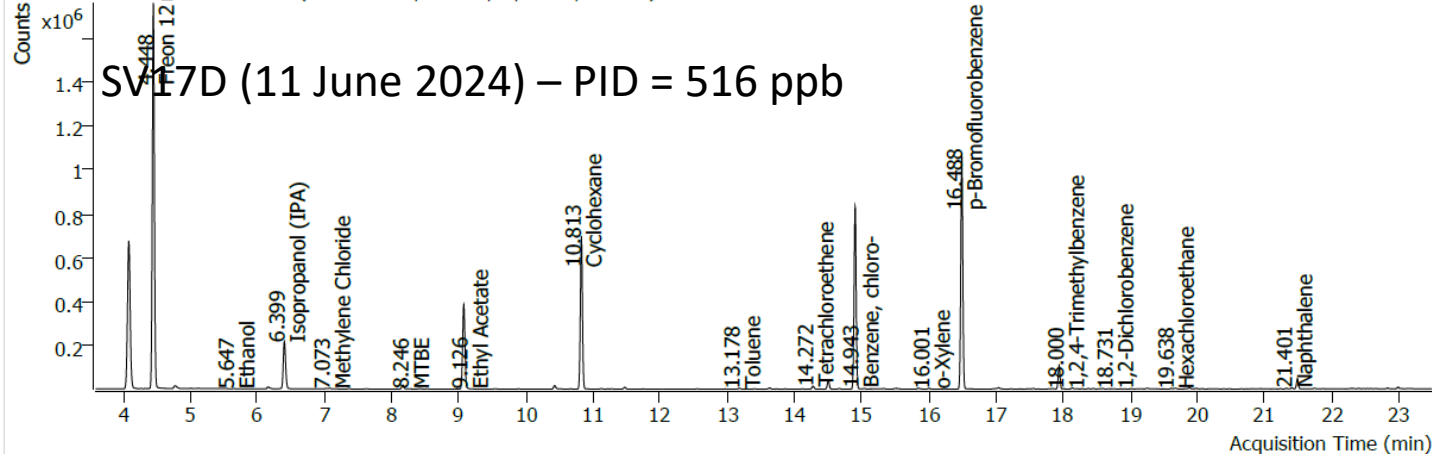
TPH by TO-3 = 0.049 ppm



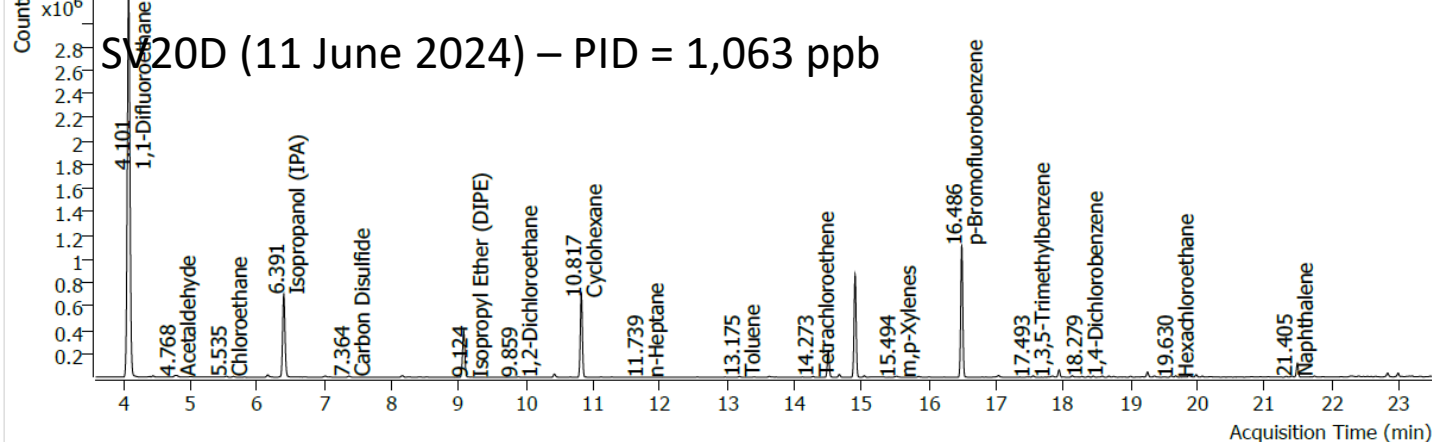
June 2024
Soil Vapor Samples

Mass Spec Chromatograms



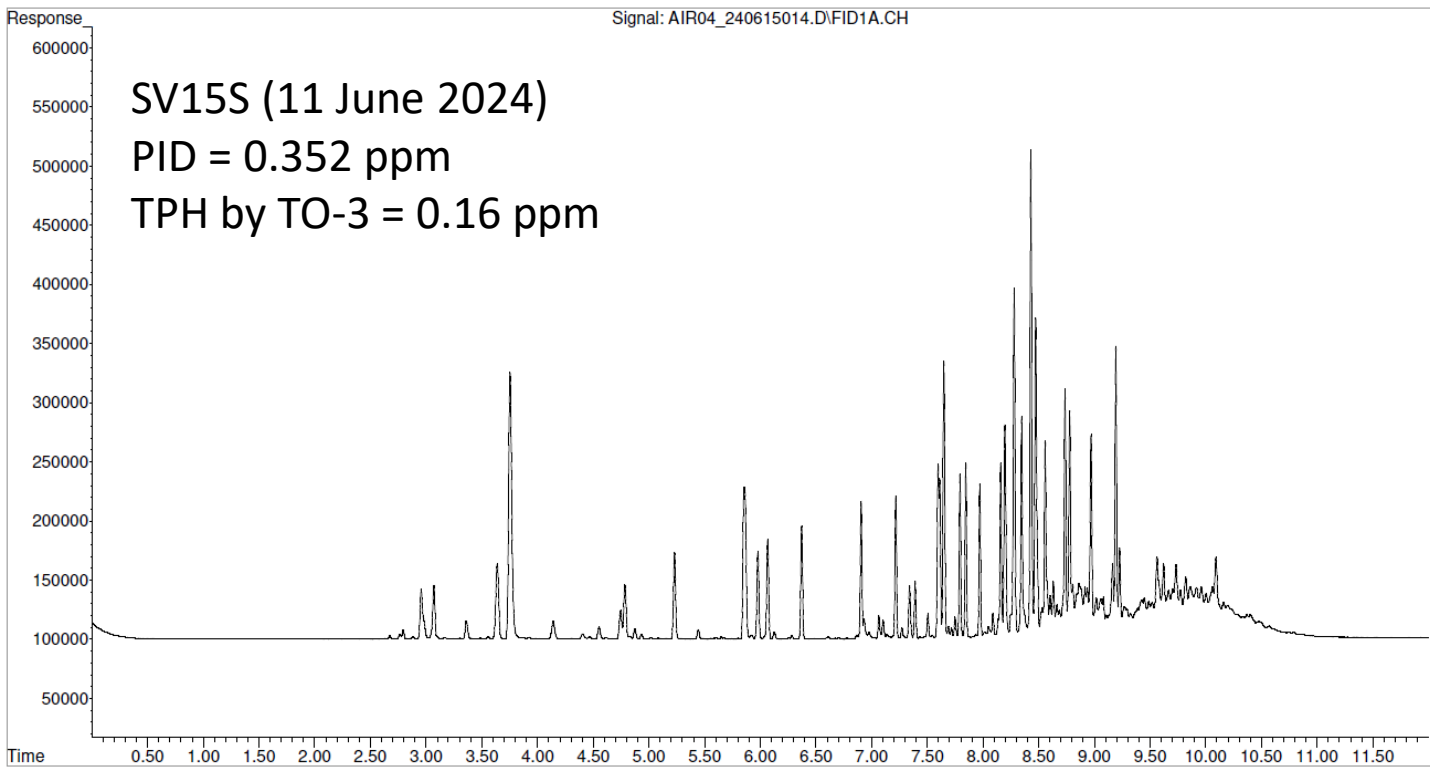
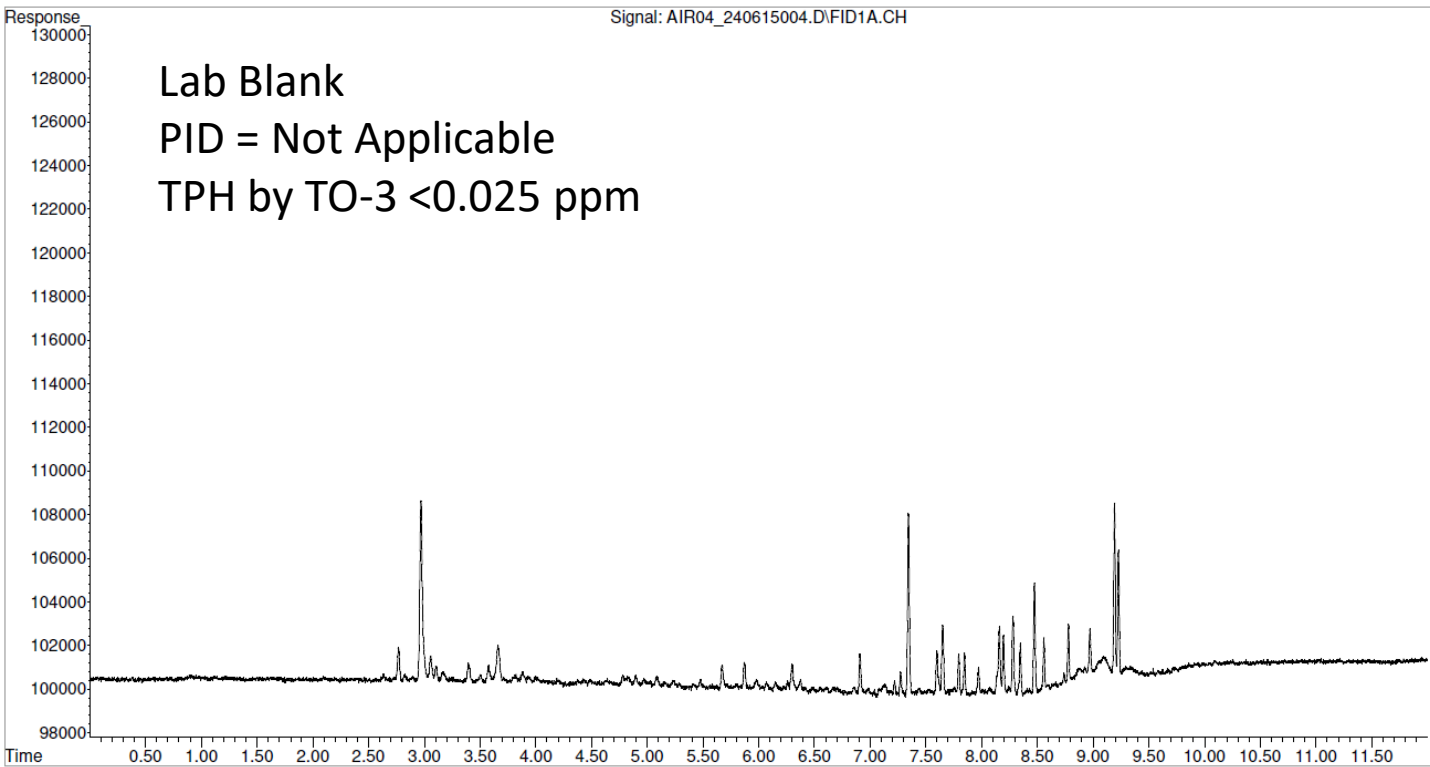


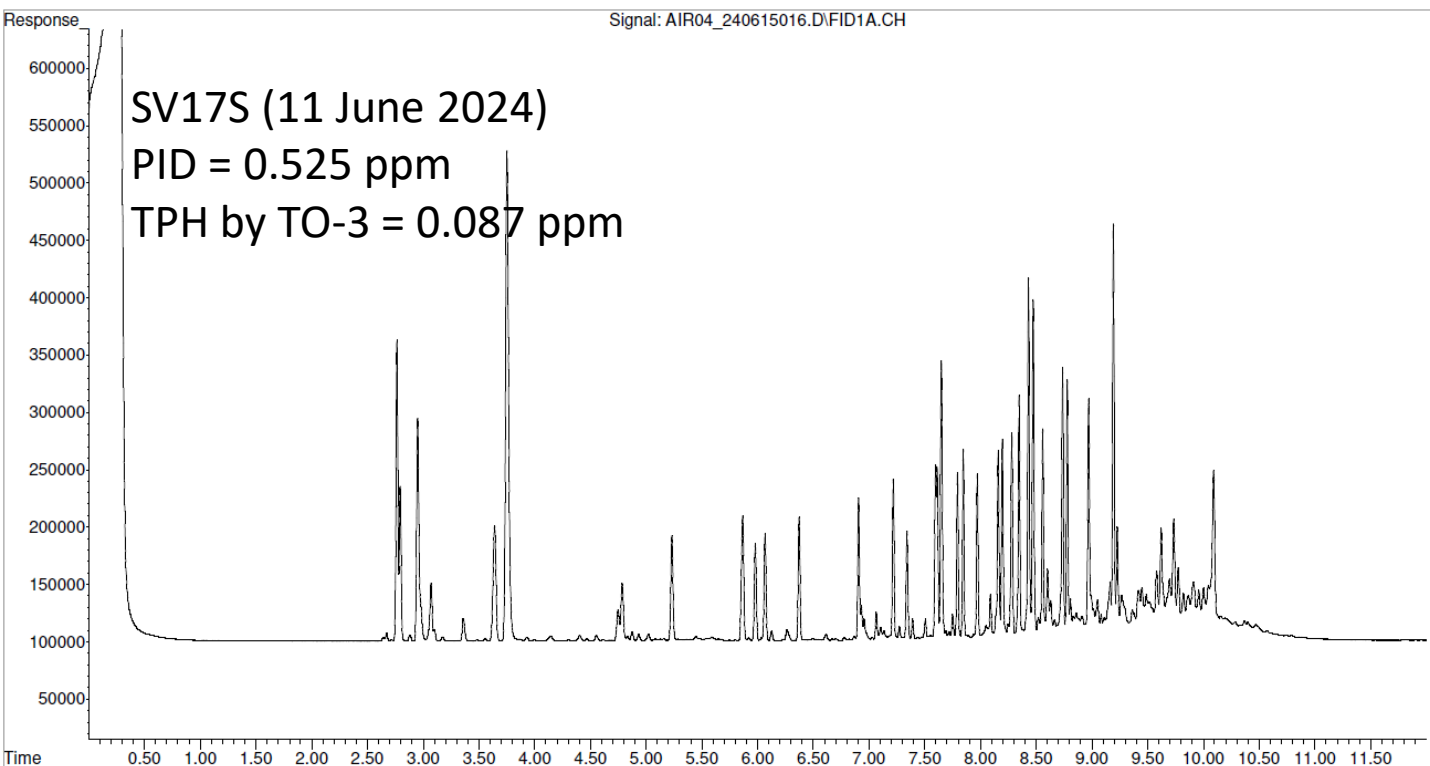
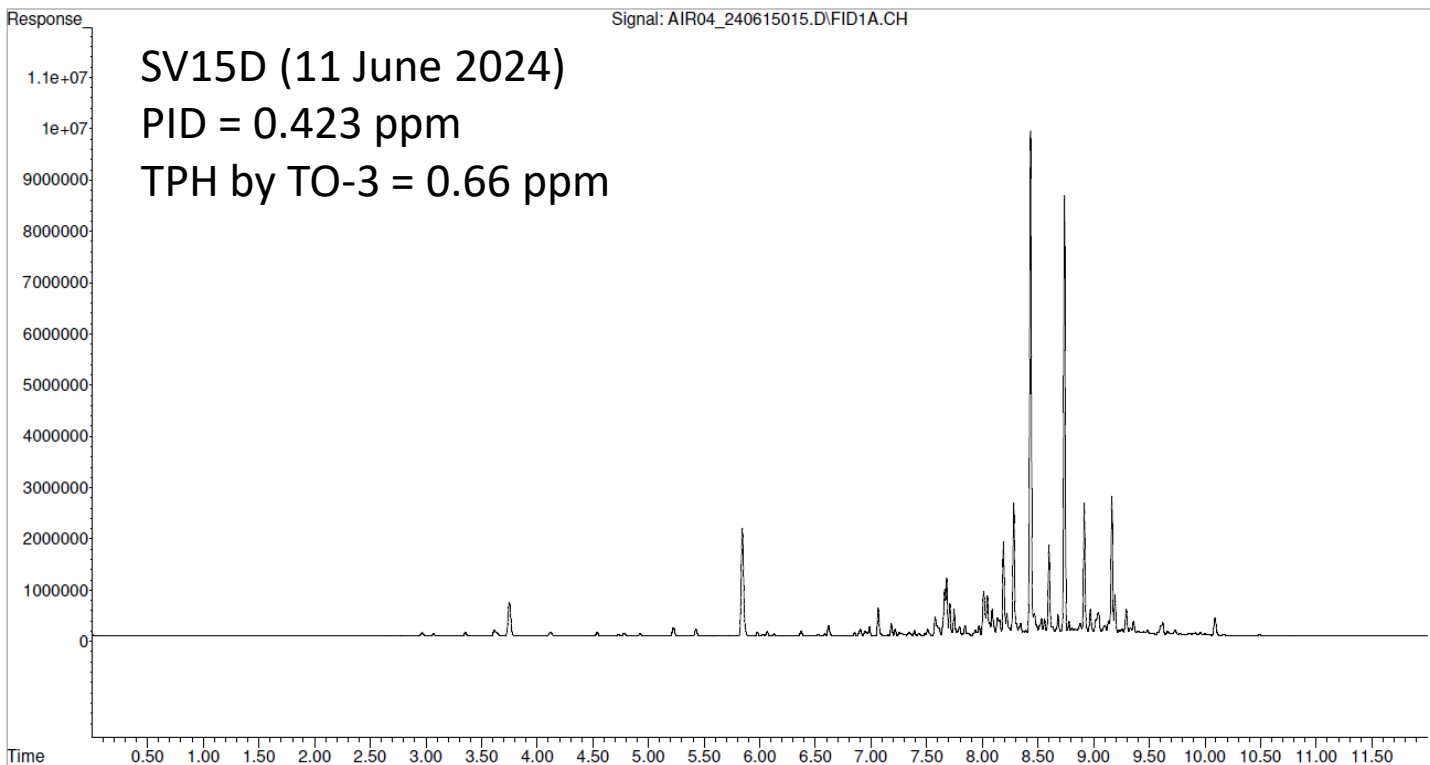
+ TIC Scan Air09_240618011.D (510239-008,343016,1.8x,PDF:1,C10724)

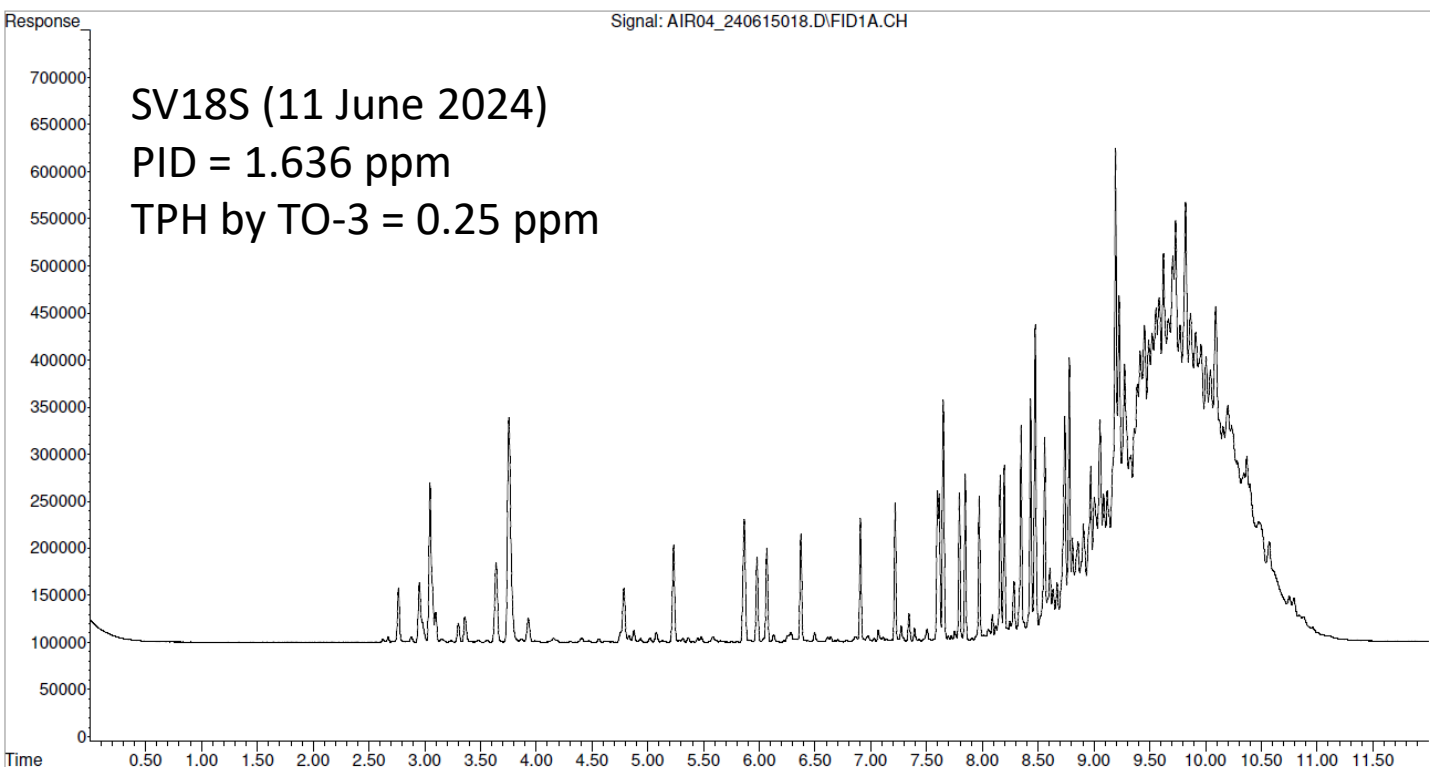
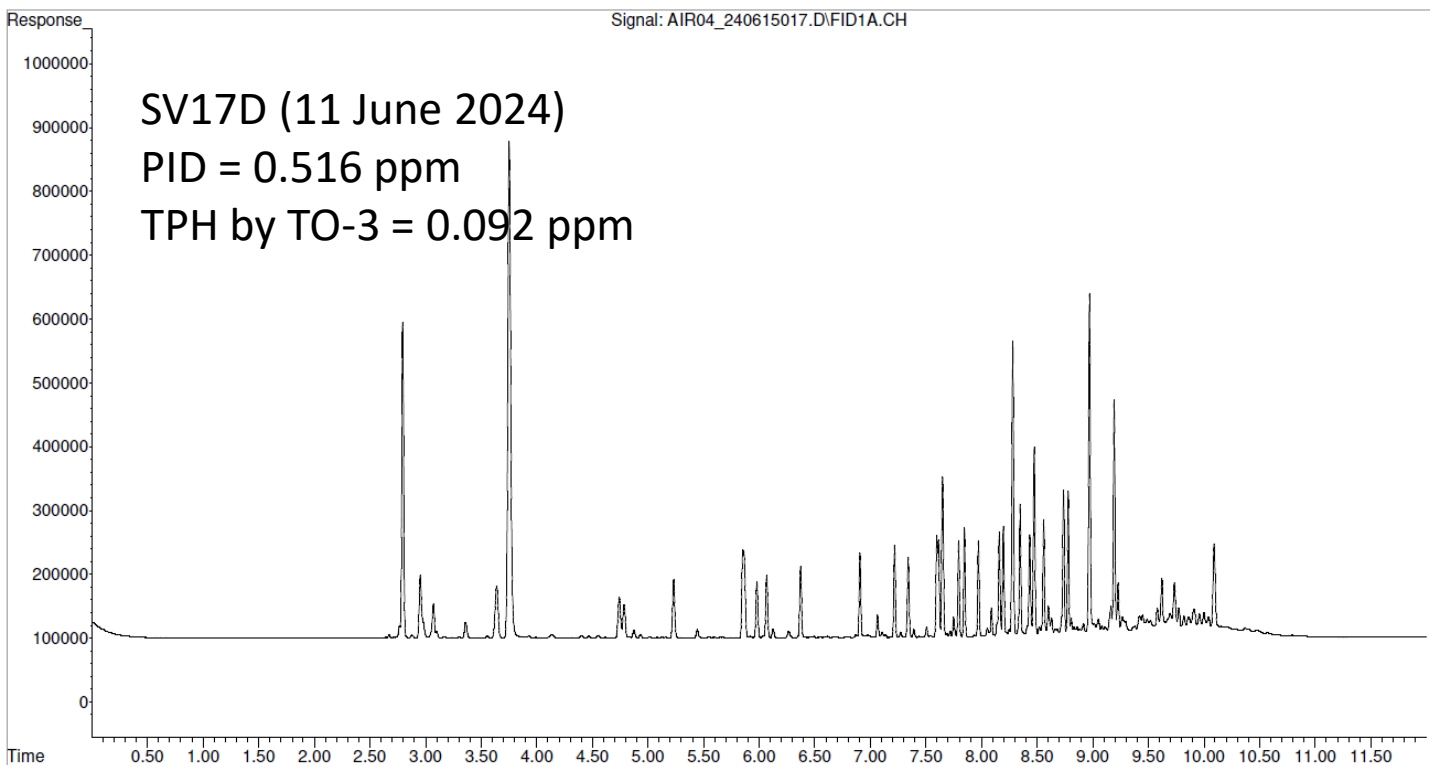


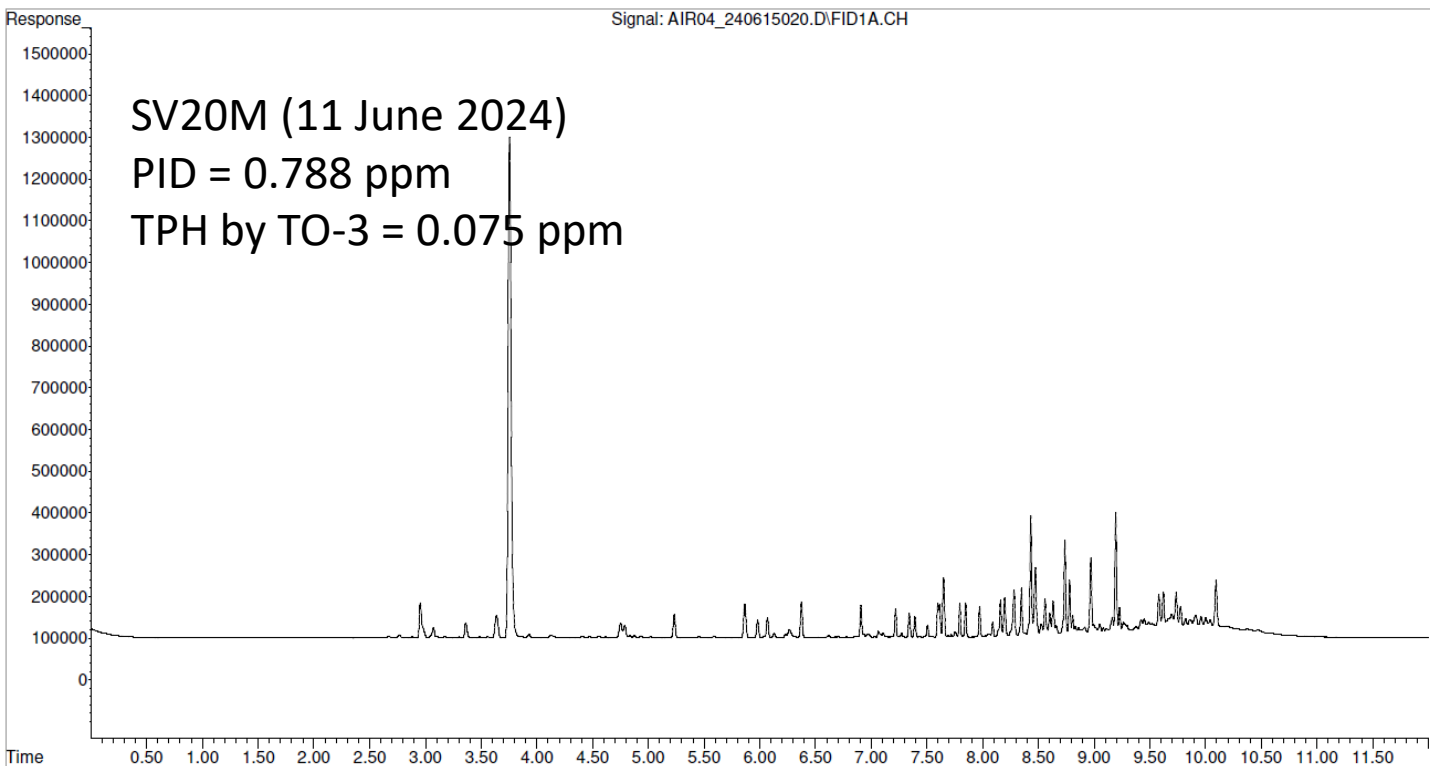
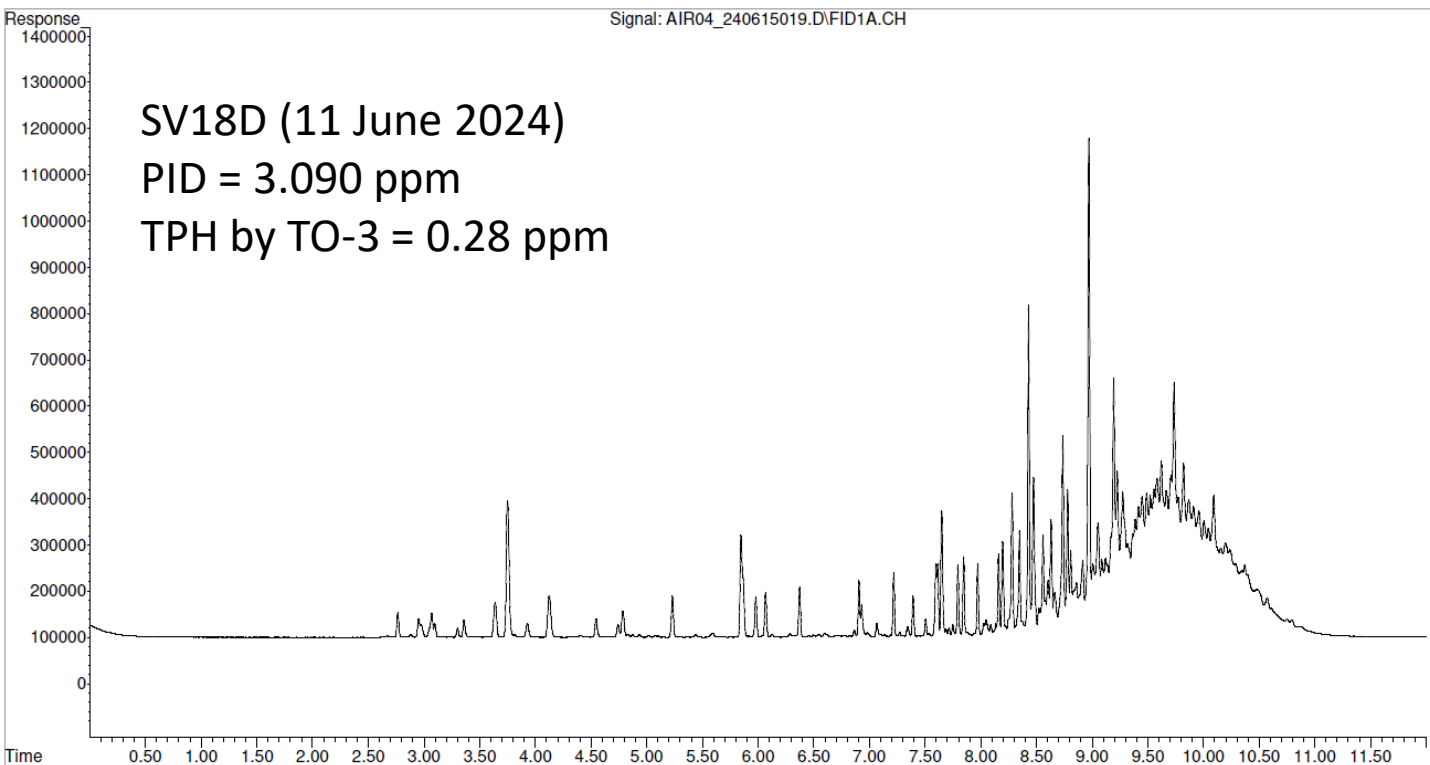
SV20D (11 June 2024) – PID = 1,063 ppb

June 2024
Soil Vapor Samples
FID Chromatograms



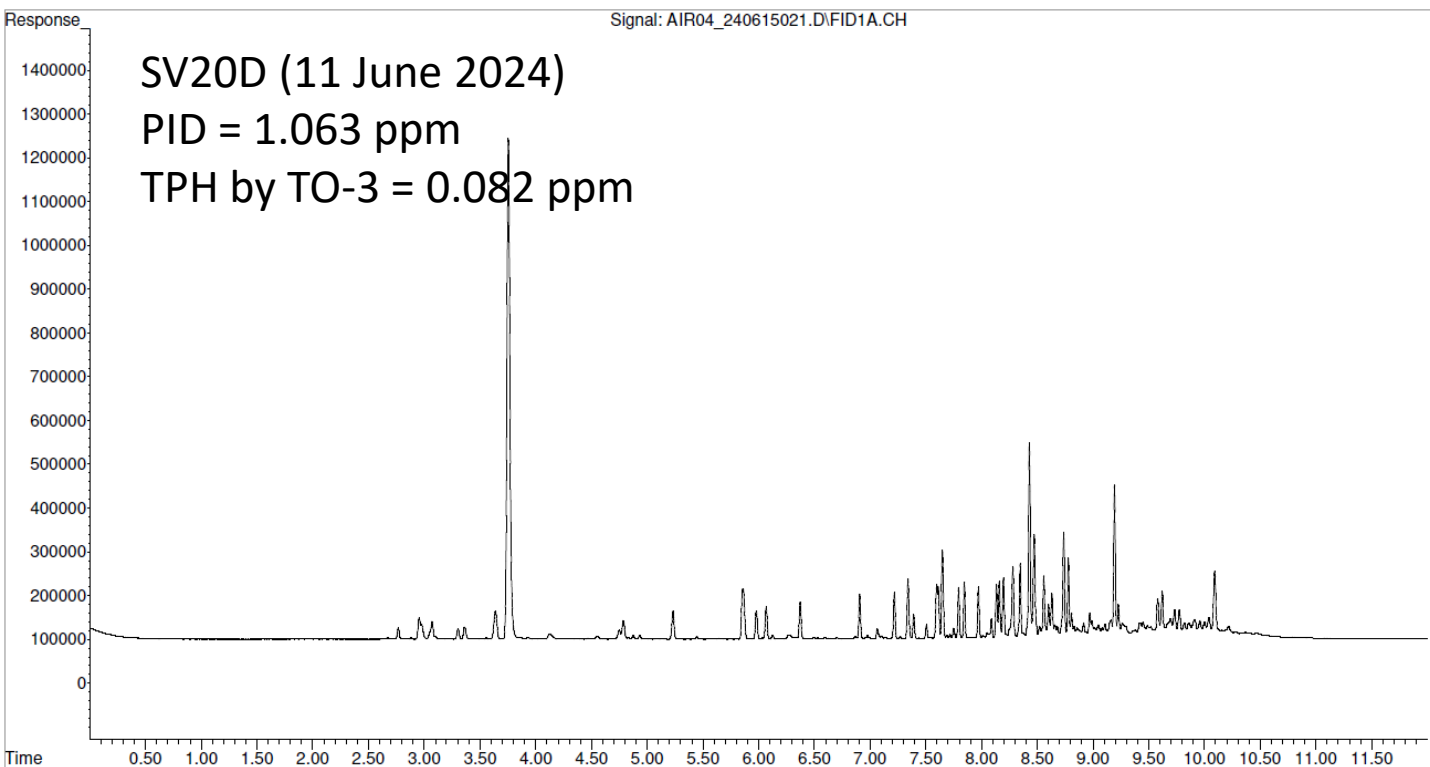






Signal: AIR04_240615021.D\FID1A.CH

SV20D (11 June 2024)
PID = 1.063 ppm
TPH by TO-3 = 0.082 ppm



Appendix B – Groundwater Monitoring Results, Current Reporting Period

Appendix B.1 – Analytical Program for Groundwater Samples Collected During Current Reporting Period

Appendix B.2 – Monitoring Well Measurements

Appendix B.2.1 – LNAPL Gauging, Monitoring Well Headspace Measurements, and General Chemistry Parameters

Appendix B.2.2 – Monitoring Well Water Level Measurements

Appendix B.3 – Summary of Groundwater Analytical Results

Appendix B.3.1 – Groundwater Analytical Results

Appendix B.3.2 – Groundwater TPH and PAH Analytical Charts

Appendix B.3.3 – Consolidated Groundwater COPC Trend Analysis

Appendix B.4 – Chromatograms for Groundwater Detections and Exceedances

Appendix B.5 – Natural Attenuation Parameter

Appendix B.1 – Analytical Program for Groundwater Samples Collected During Current Reporting Period

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 March and Q1 GW LTM

Event ID: 2151

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	22MEE (SW8270D)	Alkalinity (A2320B)	Anions SO4 Cl Br F N (E300)	BNA SIM SGS 18 Analytes (GNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Metals Ca Na Mg Mn K (SW6010D)	Methane (RSK175)	Nitrate Nitrite (E353.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	Silica (A4500D)	TOC (SW9060A)	TPH Diesel and Oil Energy (SW8015C)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel Energy (M8015D)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX and 12DCA SGS (SW8260D)	VOCs BTEX SGS (SW8260D)																		
Total Location Count																					1	1	1	7	3	1	1	5	1	38	7	1	38	1	7	1	7	7	3	4																			

Note: This event has missing samples in Event Management that are Field QC ONLY. Please refer to the Unplanned Field Samples report to view these samples.

Status	Color	Matrix Name	Matrix	Sampling Method	Code	Laboratory Name	Laboratory Code	Location Type	Code
Status Not Determined		Ground Water	WG	Grab	G	Agriculture & Priority Pollutants Laboratories, Inc.	APPL	Well	WL
Scheduled for Analysis; Awaiting Field Data				Low-Flow (Slow Purge) Groundwater Pumping	LF	Energy Lab, Inc., Billings, MT	ENRB		
Chain of Custody Data Loaded and Certified; Awaiting Lab Data						Eurofins Environment Testing TestAmerica, Tacoma, WA	EUT2		
Laboratory Data Loaded and Certified; Awaiting Validation						SGS North America, Inc., Anchorage, AK	SGSA		
Validation Qualifiers Finalized; Awaiting Approval						SGS North America, Inc., Orlando, FL	SGSO		
Approval Complete; Data In Production									

Event Status Report
RH Consolidated Groundwater Program
RHS CGW UFP-QAPP

Event Name: Monthly 2024 April and Q2 GW LTM
Event ID: 2154

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Number	Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	22MEE (SW8270D)	Alkalinity (A2320B)	Anions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	Ferrous Iron (A3500E)	Methane (RSK175)	Nitrate Nitrite (E353.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil Energy (SW8015C)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel Energy (M8015D)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX SGS (SW8260D)						
RHMW2254-01	WL	RHMW2254-01-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-02 11:05 AM	24Q2AK19	ALASKA CARGO	027-32116825	4/2/2024	4/3/2024	SGSA	1241314	7	7	S2BVEM	Sampled																								
RHP01	WL	RHP01-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-01 08:45 AM	24Q2AP15	UNITED CARGO	016-38913910	4/1/2024	4/2/2024	APPL	24D0013	7	7	S4VEM	Sampled																								
RHP01	WL	RHP01-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-01 08:45 AM	24Q2EU21	ALASKA CARGO	027-31511060	4/1/2024	4/2/2024	EUT2	580-138359-1	7	7	S2BVEM	Sampled																								
RHP01	WL	RHP01-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-01 08:45 AM	24Q2AK21	ALASKA CARGO	027-31511060	4/1/2024	4/2/2024	SGSA	1241292	7	7	S4VEM	Sampled																								
RHP02	WL	RHP02-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 01:05 PM	24Q2AP16	UNITED CARGO	016-39505550	4/4/2024	4/5/2024	APPL	24D0041	7	7	S2BVEM	Sampled																								
RHP02	WL	RHP02-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 01:05 PM	24Q2EU22	ALASKA CARGO	027-31511001	4/4/2024	4/5/2024	EUT2	580-138530-1	7	7	S2BVEM	Sampled																								
RHP02	WL	RHP02-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 01:05 PM	24Q2AK22	ALASKA CARGO	027-32116840	4/4/2024	4/5/2024	SGSA	1241370	7	7	S2BVEM	Sampled																								
RHP03	WL	RHP03-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 11:15 AM	24Q2AP17	UNITED CARGO	016-39505550	4/4/2024	4/5/2024	APPL	24D0041	7	7	S2BVEM	Sampled																								
RHP03	WL	RHP03-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 11:15 AM	24Q2EU23	ALASKA CARGO	027-31511001	4/4/2024	4/5/2024	EUT2	580-138530-1	7	7	S2BVEM	Sampled																								
RHP03	WL	RHP03-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 11:15 AM	24Q2AK23	ALASKA CARGO	027-32116840	4/4/2024	4/5/2024	SGSA	1241370	7	7	S2BVEM	Sampled																								
RHP04A	WL	RHP04A-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 08:10 AM	24Q2AP22	UNITED CARGO	016-39505550	4/4/2024	4/5/2024	APPL	24D0041	7	7	S2BVEM	Sampled																								
RHP04A	WL	RHP04A-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 08:10 AM	24Q2EN24	UNITED CARGO	016-39018895	4/4/2024	4/5/2024	ENRB	B24040475	7	7	S2BVEM	Sampled																								
RHP04A	WL	RHP04A-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 08:10 AM	24Q2EU24	ALASKA CARGO	027-31511001	4/4/2024	4/5/2024	EUT2	580-138530-1	7	7	S2BVEM	Sampled																								
RHP04A	WL	RHP04A-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-04 08:10 AM	24Q2AK24	ALASKA CARGO	027-32116840	4/4/2024	4/5/2024	SGSA	1241370	7	7	S2BVEM	Sampled																								
RHP04B	WL	RHP04B-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-09 09:03 AM	24Q2AP30	UNITED CARGO	016-39762962	4/9/2024	4/10/2024	APPL	24D0071	7	7	S2BVEM	Sampled																								
RHP04B	WL	RHP04B-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-09 09:03 AM	24Q2EN25	UNITED CARGO	016-92611411	4/9/2024	4/10/2024	ENRB	B24040771	7	7	S4VEM	Sampled																								
RHP04B	WL	RHP04B-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-09 09:03 AM	24Q2EU25	ALASKA CARGO	027-32116836	4/9/2024	4/10/2024	EUT2	580-138651-1	7	7	S2BVEM	Sampled																								
RHP04B	WL	RHP04B-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-09 09:03 AM	24Q2AK25	ALASKA CARGO	027-32116884	4/9/2024	4/10/2024	SGSA	1241439	7	7	S2BVEM	Sampled																								
RHP04C	WL	RHP04C-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-09 12:50 PM	24Q2AP31	UNITED CARGO	016-39762962	4/9/2024	4/10/2024	APPL	24D0071	7	7	S2BVEM	Sampled																								
RHP04C	WL	RHP04C-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-09 12:50 PM	24Q2EN26	UNITED CARGO	016-92611411	4/9/2024	4/10/2024	ENRB	B24040771	7	7	S4VEM	Sampled																								
RHP04C	WL	RHP04C-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-09 12:50 PM	24Q2EU26	ALASKA CARGO	027-32116836	4/9/2024	4/10/2024	EUT2	580-138651-1	7	7	S2BVEM	Sampled																								
RHP04C	WL	RHP04C-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-09 12:50 PM	24Q2AK26	ALASKA CARGO	027-32116884	4/9/2024	4/10/2024	SGSA	1241439	7	7	S2BVEM	Sampled																								
RHP05	WL	RHP05-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-05 11:45 AM	24Q2AP05	FEDEX	273078095844	4/5/2024	4/6/2024	APPL	24D0044	7	7	S2BVEM	Sampled																								
RHP05	WL	RHP05-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-05 11:45 AM	24Q2EU27	ALASKA CARGO	027-31511045	4/5/2024	4/6/2024	EUT2	580-138570-1	7	7	S4VEM	Sampled																								
RHP05	WL	RHP05-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-05 11:45 AM	24Q2AK27	ALASKA CARGO	027-31511130	4/8/2024	4/9/2024	SGSA	1241402	7	7	S2BVEM	Sampled																								
RHP06	WL	RHP06-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-05 08:35 AM	24Q2AP19	FEDEX	273078095844	4/5/2024	4/6/2024	APPL	24D0044	7	7	S2BVEM	Sampled																								
RHP06	WL	RHP06-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-05 08:35 AM	24Q2EN30	UNITED CARGO	016-39035021	4/5/2024	4/6/2024	ENRB	B24040510	7	7	S2BVEM	Sampled																								
RHP06	WL	RHP06-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-05 08:35 AM	24Q2EU30	ALASKA CARGO	027-31511045	4/5/2024	4/6/2024	EUT2	580-138570-1	7	7	S4VEM	Sampled																								
RHP06	WL	RHP06-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-05 08:35 AM	24Q2AK30	ALASKA CARGO	027-31511130	4/8/2024	4/9/2024	SGSA	1241402	7	7	S2BVEM	Sampled																								
RHP07	WL	RHP07-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-02 01:35 PM	24Q2AP08	FEDEX	272985039903	4/3/2024	4/4/2024	APPL	24D0030	7	7	S2BVEM	Sampled																								
RHP07	WL	RHP07-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-02 01:35 PM	24Q2EU28	ALASKA CARGO	027-31511023	4/2/2024	4/3/2024	EUT2	580-138413-1	7	7	S2BVEM	Sampled																								
RHP07	WL	RHP07-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-02 01:35 PM	24Q2AK28	ALASKA CARGO	027-32116825	4/2/2024	4/3/2024	SGSA	1241314	7	7	S2BVEM	Sampled																								
RHP08	WL	RHP08-WGFD01LF-2404	0	0	WG	FD	1	LF	2024-04-05 11:20 AM	24Q2AP14	FEDEX	273078095844	4/5/2024	4/6/2024	APPL	24D0044	7	7	S2BVEM	Sampled																								
RHP08	WL	RHP08-WGN01LF-2404	0	0	WG	N	1	LF	2024-04-05 11:20 AM	24Q2AP14	FEDEX	273078095844	4/5/2024	4/6/2024	APPL	24D0044	7	7	S2BVEM	Sampled																								
RHP08	WL	RHP08-WGN01LF-2404	0	0	WG	N																																						

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 May and Q2 GW LTM

Event ID: 2159

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Anions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E353.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)																					
Area	NMW24	WL	NMW24-WGN01B-2405A	0	0	WG	N	1	B	2024-05-15 08:30 AM	2405SG20A	UNITED CARGO	016-43102146	5/15/2024	5/17/2024	SGSO	FC15761			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01B-2405B	0	0	WG	N	1	B	2024-05-29 09:05 AM	2405SG20B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:10 AM	2405AP32A	FEDEX	274722590882	5/15/2024	5/16/2024	APPL	24E0109			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:10 AM	2405EU20A	ALASKA CARGO	027-32116954	5/15/2024	5/16/2024	EUT2	580-140063-1			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:10 AM	2405AK20A	ALASKA CARGO	027-32587096	5/15/2024	5/16/2024	SGSA	1242148			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:10 AM	2405SG20A	UNITED CARGO	016-43102146	5/15/2024	5/17/2024	SGSO	FC15761			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:10 AM	2405SG20A	UNITED CARGO	016-43102146	5/15/2024	5/17/2024	SGSO	FC15761			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-29 09:30 AM	2405AP32B	FEDEX	275325117302	5/30/2024		APPL	24E0241			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-29 09:30 AM	2405EU20B	ALASKA CARGO	027-32587144	5/29/2024	5/30/2024	EUT2	580-140567-1			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-29 09:30 AM	2405AK24B	ALASKA CARGO	027-32587262	5/29/2024	6/4/2024	SGSA	1242530			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-29 09:30 AM	2405SG20B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021			S2BVEM	Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-29 09:30 AM	2405SG20B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021			S2BVEM	Sampled																																			
																						S2BVEM Count	1	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4
																					No Review Type	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
																					Site Location Count	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4
Halawa Correctional Facility	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 09:00 AM	2405AP23A	FEDEX	274815957863	5/17/2024	5/18/2024	APPL	24E0129			S2BVEM	Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 09:00 AM	2405EU29A	ALASKA CARGO	027-32587085	5/17/2024	5/18/2024	EUT2	580-140166-1			S2BVEM	Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 09:00 AM	2405AK29A	ALASKA CARGO	027-32587155	5/20/2024	5/21/2024	SGSA	1242257			S2BVEM	Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 09:00 AM	2405SG29A	UNITED CARGO	016-42804635	5/17/2024	5/18/2024	SGSO	FC15795			S2BVEM	Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 09:00 AM	2405SG29A	UNITED CARGO	016-42804635	5/17/2024	5/18/2024	SGSO	FC15795			S2BVEM	Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 09:30 AM	2405AP23B	FEDEX	275275761958	5/29/2024	5/30/2024	APPL	24E0221			S2BVEM	Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 09:30 AM	2405EU29B	ALASKA CARGO	027-32587203	5/28/2024	5/29/2024	EUT2	580-140534-1			S2BVEM	Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 09:30 AM	2405AK29B	ALASKA CARGO	027-32587240	5/28/2024	5/29/2024	SGSA	1242381			S2BVEM	Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 09:30 AM	2405SG29B	UNITED CARGO	016-87130923	5/28/2024		SGSO	FC15983			S2BVEM	Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 09:30 AM	2405SG29B	UNITED CARGO	016-87130923	5/28/2024		SGSO	FC15983			S2BVEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-08 11:30 AM	2405AP11A	FEDEX	274485753397	5/9/2024	5/10/2024	APPL	24E0073			S2BVEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-08 11:30 AM	2405EU10A	ALASKA CARGO	027-32116910	5/8/2024	5/9/2024	EUT2	580-139842-1			S2BVEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-08 11:30 AM	2405AK10A	ALASKA CARGO	027-32116991	5/8/2024	5/9/2024	SGSA	1242002			S4VEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-08 11:30 AM	2405SG10A	UNITED CARGO	016-42335355	5/8/2024	5/10/2024	SGSO	FC15560			S2BVEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-08 11:30 AM	2405SG10A	UNITED CARGO	016-42335355	5/8/2024	5/10/2024	SGSO	FC15560			S2BVEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-22 12:30 PM	2405AP11B	FEDEX	275008065491	5/22/2024	5/23/2024	APPL	24E0175			S2BVEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-22 12:30 PM	2405EU10B	ALASKA CARGO	027-32587074	5/22/2024	5/23/2024	EUT2	580-140370-1			S2BVEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-22 12:30 PM	2405AK10B	ALASKA CARGO	027-32587181	5/22/2024	5/23/2024	SGSA	1242309			S2BVEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-22 12:30 PM	2405SG10B	UNITED CARGO	016-43101030	5/22/2024	5/24/2024	SGSO	FC15907			S4VEM	Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-22 12:30 PM	2405SG10B	UNITED CARGO	016-43101030	5/22/2024	5/24/2024	SGSO	FC15907			S2BVEM	Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 01:15 PM	2405AP25A	FEDEX	274722590882	5/15/2024	5/16/2024	APPL	24E0109			S2BVEM	Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 01:15 PM	2405EU11A	ALASKA CARGO	027-32116943	5/14/2024	5/15/2024	EUT2	580-140016-1			S4VEM	Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 01:15 PM	2405AK11A	ALASKA CARGO	027-32116943	5/14/2024	5/15/2024	SGSA	1242107			S2BVEM	Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 01:15 PM	2405SG11A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685			S2BVEM	Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 01:15 PM	2405SG11A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685			S2BVEM	Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-29 01:05 PM	2405AP25B	FEDEX	275325117302	5/30/2024		APPL	24E0241			S2BVEM	Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-29 01:05 PM	2405EU11B	ALASKA CARGO	027-32587144	5/29/2024	5/30/2024	EUT2	580-140567-1			S2BVEM	Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-29 01:05 PM	24																																													

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 May and Q2 GW LTM

Event ID: 2159

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Anions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E355.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)			
NMW32		WL	NMW32-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 09:55 AM	2405AP36B	FEDEX	275371174640	5/31/2024	6/3/2024	APPL	24F0010				S2BVEM	Sampled																
NMW32		WL	NMW32-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 09:55 AM	2405EU31B	ALASKA CARGO	027-32117050	5/30/2024	5/31/2024	EUT2	580-140617-1				S2BVEM	Sampled	*	*														
NMW32		WL	NMW32-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 09:55 AM	2405AK32B	ALASKA CARGO	027-32587284	5/30/2024	5/31/2024	SGSA	1242434				S2BVEM	Sampled																
NMW32		WL	NMW32-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 09:55 AM	2405SG32B	UNITED CARGO	016-87130901	5/30/2024	6/1/2024	SGSO	FC16061				S2BVEM	Sampled																
NMW32		WL	NMW32-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 09:55 AM	2405SG32B	UNITED CARGO	016-87130901	5/30/2024	6/1/2024	SGSO	FC16061				Sampled																	
NMW33		WL	NMW33-WGN01B-2405A	0	0	WG	N	1	B	2024-05-16 08:30 AM	2405SG34A	UNITED CARGO	016-42307635	5/16/2024	5/18/2024	SGSO	FC15783				S2BVEM	Sampled																
NMW33		WL	NMW33-WGN01B-2405B	0	0	WG	N	1	B	2024-05-30 11:15 AM	2405SG34B	UNITED CARGO	016-87130901	5/30/2024	6/1/2024	SGSO	FC16061				S2BVEM	Sampled																
NMW33		WL	NMW33-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 09:00 AM	2405AP37A	FEDEX	274815957863	5/17/2024	5/18/2024	APPL	24E0129				S2BVEM	Sampled				*												
NMW33		WL	NMW33-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 09:00 AM	2405EU34A	ALASKA CARGO	027-32117061	5/16/2024	5/17/2024	EUT2	580-140100-1				S2BVEM	Sampled	*	*														
NMW33		WL	NMW33-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 09:00 AM	2405AK34A	ALASKA CARGO	027-32117024	5/16/2024	5/17/2024	SGSA	1242184				S2BVEM	Sampled																
NMW33		WL	NMW33-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 09:00 AM	2405SG34A	UNITED CARGO	016-42307635	5/16/2024	5/18/2024	SGSO	FC15783				S2BVEM	Sampled		*	*													
NMW33		WL	NMW33-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 09:00 AM	2405SG34A	UNITED CARGO	016-42307635	5/16/2024	5/18/2024	SGSO	FC15783				Sampled																	
NMW33		WL	NMW33-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 11:50 AM	2405AP37B	FEDEX	275371174640	5/31/2024	6/3/2024	APPL	24F0010				S2BVEM	Sampled				*												
NMW33		WL	NMW33-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 11:50 AM	2405EU34B	ALASKA CARGO	027-32117050	5/30/2024	5/31/2024	EUT2	580-140617-1				S2BVEM	Sampled	*	*														
NMW33		WL	NMW33-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 11:50 AM	2405AK34B	ALASKA CARGO	027-32587284	5/30/2024	5/31/2024	SGSA	1242434				S2BVEM	Sampled																
NMW33		WL	NMW33-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 11:50 AM	2405SG34B	UNITED CARGO	016-87130901	5/30/2024	6/1/2024	SGSO	FC16061				S2BVEM	Sampled		*	*													
NMW33		WL	NMW33-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 11:50 AM	2405SG34B	UNITED CARGO	016-87130901	5/30/2024	6/1/2024	SGSO	FC16061				Sampled																	
NMW34		WL	NMW34-WGN01B-2405A	0	0	WG	N	1	B	2024-05-14 09:25 AM	2405SG39A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685				S2BVEM	Sampled																
NMW34		WL	NMW34-WGN01B-2405B	0	0	WG	N	1	B	2024-05-28 01:00 PM	2405SG39B	UNITED CARGO	016-87130923	5/28/2024	5/30/2024	SGSO	FC15983				S2BVEM	Sampled																
NMW34		WL	NMW34-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 10:15 AM	2405AP39A	FEDEX	274722590882	5/15/2024	5/16/2024	APPL	24E0109				S2BVEM	Sampled				*												
NMW34		WL	NMW34-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 10:15 AM	2405EU39A	ALASKA CARGO	027-32116943	5/14/2024	5/15/2024	EUT2	580-140016-1				S4VEM	Sampled	*	*														
NMW34		WL	NMW34-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 10:15 AM	2405AK39A	ALASKA CARGO	027-32116943	5/14/2024	5/15/2024	SGSA	1242107				S2BVEM	Sampled																
NMW34		WL	NMW34-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 10:15 AM	2405SG39A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685				S2BVEM	Sampled		*	*													
NMW34		WL	NMW34-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 10:15 AM	2405SG39A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685				Sampled																	
NMW34		WL	NMW34-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 01:30 PM	2405AP39B	FEDEX	275275761958	5/29/2024	5/30/2024	APPL	24E0221				S2BVEM	Sampled				*												
NMW34		WL	NMW34-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 01:30 PM	2405EU39B	ALASKA CARGO	027-32587203	5/28/2024	5/29/2024	EUT2	580-140534-1				S2BVEM	Sampled	*	*														
NMW34		WL	NMW34-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 01:30 PM	2405AK39B	ALASKA CARGO	027-32587240	5/28/2024	5/29/2024	SGSA	1242381				S2BVEM	Sampled																
NMW34		WL	NMW34-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 01:30 PM	2405SG39B	UNITED CARGO	016-87130923	5/28/2024	5/30/2024	SGSO	FC15983				S2BVEM	Sampled		*	*													
NMW34		WL	NMW34-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 01:30 PM	2405SG39B	UNITED CARGO	016-87130923	5/28/2024	5/30/2024	SGSO	FC15983				Sampled																	
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:15 AM	2405AP40A	FEDEX	274722590882	5/15/2024	5/16/2024	APPL	24E0109				S2BVEM	Sampled				*												
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:15 AM	2405EU40A	ALASKA CARGO	027-32116954	5/15/2024	5/16/2024	EUT2	580-140063-1				S2BVEM	Sampled	*	*														
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:15 AM	2405AK40A	ALASKA CARGO	027-32587096	5/15/2024	5/16/2024	SGSA	1242148				S2BVEM	Sampled																
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:15 AM	2405SG40A	UNITED CARGO	016-43102146	5/15/2024	5/17/2024	SGSO	FC15761				S2BVEM	Sampled		*	*													
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 09:15 AM	2405SG40A	UNITED CARGO	016-43102146	5/15/2024	5/17/2024	SGSO	FC15761				Sampled																	
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 12:00 PM	2405AP40B	FEDEX	275371174640	5/31/2024	6/3/2024	APPL	24F0010				S2BVEM	Sampled				*												
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 12:00 PM	2405EU40B	ALASKA CARGO	027-32587214	5/31/2024	6/1/2024	EUT2	580-140668-1				S2BVEM	Sampled	*	*														
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 12:00 PM	2405AK40B	ALASKA CARGO	027-32587273	6/3/2024	6/4/2024	SGSA	1242520				S4VEM	Sampled																
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 12:00 PM	2405SG40B	UNITED CARGO	016-27371503	5/31/2024	6/1/2024	SGSO	FC16070				S4VEM	Sampled		*	*													
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 12:00 PM	2405SG40B	UNITED CARGO	016-27371503	5/31/2024	6/1/2024	SGSO	FC16070				Sampled																	
OWDFMW03A		WL	OWDFMW03A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 12:00 PM	2405SG40B	UNITED CARGO	016-27371503	5/31/2024	6/1/2024	SGSO	FC16070				Sampled																	
OWDFMW08A		WL	OWDFMW08A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 11:07 AM	2405AP41A	FEDEX	274722590882	5/15/2024	5/16/2024	APPL	24E0109				S2BVEM	Sampled				*												
OWDFMW08A		WL	OWDFMW08A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 11:07 AM	2405EU41A	ALASKA CARGO	027-32116954	5/15/2024	5/16/2024	EUT2	580-140063-1				S2BVEM	Sampled	*	*														
OWDFMW08A		WL	OWDFMW08A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-15 11:07 AM	2405AK41A	ALASKA CARGO	027-32587096	5/15/2024	5/16/2024	SGSA	1242148				S2BVEM																	

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 May and Q2 GW LTM

Event ID: 2159

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Amions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E355.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)
RHMW01R	WL	RHMW01R-WGFD01LF-2405B	0	0	WG	FD	1	LF	2024-05-23 09:45 AM	2405SG01B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01B-2405A	0	0	WG	N	1	B	2024-05-09 09:20 AM	2405SG01A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01B-2405B	0	0	WG	N	1	B	2024-05-23 09:05 AM	2405SG01B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 09:50 AM	2405AP20A	FEDEX	274532137658	5/10/2024	5/11/2024	APPL	24E0078				S2BVEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 09:50 AM	2405EU01A	ALASKA CARGO	027-32117035	5/9/2024	5/10/2024	EUT2	580-139898-1				S2BVEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 09:50 AM	2405AK01A	ALASKA CARGO	027-32117013	5/9/2024	5/10/2024	SGSA	1242031				S2BVEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 09:50 AM	2405SG01A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 09:45 AM	2405AP20B	FEDEX	275101528076	5/24/2024	5/25/2024	APPL	24E0200				S4VEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 09:45 AM	2405EU01B	ALASKA CARGO	027-32587122	5/23/2024	5/24/2024	EUT2	580-140419-1				S2BVEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 09:45 AM	2405AK01B	ALASKA CARGO	027-32587192	5/23/2024	5/24/2024	SGSA	1242340				S2BVEM	Sampled														
RHMW01R	WL	RHMW01R-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 09:45 AM	2405SG01B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGFD01B-2405A	0	0	WG	FD	1	B	2024-05-09 11:00 AM	2405SG02A	UNITED CARGO	016-39924146	5/9/2024		SGSO	FC15585				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGFD01B-2405B	0	0	WG	FD	1	B	2024-05-23 10:45 AM	2405SG02B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGFD01LF-2405A	0	0	WG	FD	1	LF	2024-05-09 11:30 AM	2405SG02A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGFD01LF-2405B	0	0	WG	FD	1	LF	2024-05-23 11:30 AM	2405SG02B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01B-2405A	0	0	WG	N	1	B	2024-05-09 11:00 AM	2405SG02A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01B-2405B	0	0	WG	N	1	B	2024-05-23 10:45 AM	2405SG02B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 11:30 AM	2405AP21A	FEDEX	274532137658	5/10/2024	5/11/2024	APPL	24E0078				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 11:30 AM	2405EU02A	ALASKA CARGO	027-32117035	5/9/2024	5/10/2024	EUT2	580-139898-1				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 11:30 AM	2405AK02A	ALASKA CARGO	027-32117013	5/9/2024	5/10/2024	SGSA	1242031				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 11:30 AM	2405SG02A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 11:30 AM	2405AP21B	FEDEX	275101528076	5/24/2024	5/25/2024	APPL	24E0200				S4VEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 11:30 AM	2405EU02B	ALASKA CARGO	027-32587122	5/23/2024	5/24/2024	EUT2	580-140419-1				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 11:30 AM	2405AK02B	ALASKA CARGO	027-32587192	5/23/2024	5/24/2024	SGSA	1242340				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 11:30 AM	2405SG02B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01B-2405A	0	0	WG	N	1	B	2024-05-07 09:00 AM	2405SG03A	UNITED CARGO	016-39800110	5/7/2024		SGSO	FC15505				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01B-2405B	0	0	WG	N	1	B	2024-05-23 12:20 PM	2405SG03B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:30 AM	2405AP05A	FEDEX	27434371946	5/8/2024	5/9/2024	APPL	24E0064				S4VEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:30 AM	2405EU03A	ALASKA CARGO	027-32117002	5/7/2024	5/8/2024	EUT2	580-139789-1				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:30 AM	2405AK03A	ALASKA CARGO	027-32116976	5/7/2024	5/8/2024	SGSA	1241961				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:30 AM	2405SG03A	UNITED CARGO	016-39800110	5/7/2024		SGSO	FC15505				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:30 AM	2405SG03A	UNITED CARGO	016-39800110	5/7/2024		SGSO				Sampled																
RHMW03	WL	RHMW03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 12:45 PM	2405AP05B	FEDEX	275101528076	5/24/2024	5/25/2024	APPL	24E0200				S4VEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 12:45 PM	2405EU03B	ALASKA CARGO	027-32587122	5/23/2024	5/24/2024	EUT2	580-140419-1				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 12:45 PM	2405AK03B	ALASKA CARGO	027-32587192	5/23/2024	5/24/2024	SGSA	1242340				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 12:45 PM	2405SG03B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 12:45 PM	2405SG03B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				Sampled															
RHMW04	WL	RHMW04-WGN01B-2405A	0	0	WG	N	1	B	2024-05-14 08:15 AM	2405SG04A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01B-2405B	0	0	WG	N	1	B	2024-05-31 08:20 AM	2405SG04B	UNITED CARGO	016-27371503	5/31/2024	6/1/2024	SGSO	FC16070				S4VEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 09:05 AM	2405AP24A	FEDEX	274722590882	5/15/2024	5/16/2024	APPL	24E0109				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 09:05 AM	2405EU04A	ALASKA CARGO	027-32116943	5/14/2024	5/15/2024	EUT2	580-140016-1				S4VEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 09:05 AM	2405AK04A	ALASKA CARGO	027-32116943	5/14/2024	5/15/2024	SGSA	1242107				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 09:05 AM	2405SG04A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 09:05 AM	2405SG04A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685				Sampled															
RHMW04	WL	RHMW04-WGN01LF-2405B	0																																

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 May and Q2 GW LTM

Event ID: 2159

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Anions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E355.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)		
RHMW05	WL	RHMW05-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-08 10:45 AM	2405EU05A	ALASKA CARGO	027-32116910	5/8/2024	5/9/2024	EUT2	580-139842-1				S2BVEM	Sampled																
RHMW05	WL	RHMW05-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-08 10:45 AM	2405AK05A	ALASKA CARGO	027-32116991	5/8/2024		SGSA	1242002				S4VEM	Sampled																
RHMW05	WL	RHMW05-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-08 10:45 AM	2405SG05A	UNITED CARGO	016-42335355	5/8/2024	5/10/2024	SGSO	FC15560				S2BVEM	Sampled																
RHMW05	WL	RHMW05-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-08 10:45 AM	2405SG05A	UNITED CARGO	016-42335355	5/8/2024	5/10/2024	SGSO	FC15560				Sampled																	
RHMW05	WL	RHMW05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-22 11:00 AM	2405AP06B	FEDEX	275008065491	5/22/2024	5/23/2024	APPL	24E0175				S2BVEM	Sampled																
RHMW05	WL	RHMW05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-22 11:00 AM	2405EU05B	ALASKA CARGO	027-32587074	5/22/2024	5/23/2024	EUT2	580-140370-1				S2BVEM	Sampled																
RHMW05	WL	RHMW05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-22 11:00 AM	2405AK05B	ALASKA CARGO	027-32587181	5/22/2024	5/23/2024	SGSA	1242309				S2BVEM	Sampled																
RHMW05	WL	RHMW05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-22 11:00 AM	2405SG05B	UNITED CARGO	016-43101030	5/22/2024	5/24/2024	SGSO	FC15907				S4VEM	Sampled																
RHMW05	WL	RHMW05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-22 11:00 AM	2405SG05B	UNITED CARGO	016-43101030	5/22/2024	5/24/2024	SGSO	FC15907				Sampled																	
RHMW06	WL	RHMW06-WGN01B-2405A	0	0	WG	N	1	B	2024-05-06 10:45 AM	2405SG06A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01B-2405B	0	0	WG	N	1	B	2024-05-20 01:30 PM	2405SG06B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 11:30 AM	2405AP01A	UNITED CARGO	016-39924161	5/6/2024	5/7/2024	APPL	24E0050				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 11:30 AM	2405EU06A	ALASKA CARGO	027-31511141	5/6/2024	5/8/2024	EUT2	580-139741-1				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 11:30 AM	2405AK06A	ALASKA CARGO	027-32116895	5/6/2024	5/7/2024	SGSA	1241914				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 11:30 AM	2405SG06A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 11:30 AM	2405SG06A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				Sampled																	
RHMW06	WL	RHMW06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:10 PM	2405AP01B	FEDEX	274959360270	5/21/2024	5/22/2024	APPL	24E0156				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:10 PM	2405EU06B	ALASKA CARGO	027-32587111	5/20/2024	5/21/2024	EUT2	580-140194-1				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:10 PM	2405AK06B	ALASKA CARGO	027-32587155	5/20/2024	5/21/2024	SGSA	1242257				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:10 PM	2405SG06B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				S2BVEM	Sampled																
RHMW06	WL	RHMW06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:10 PM	2405SG06B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				Sampled																	
RHMW08	WL	RHMW08-WGN01B-2405A	0	0	WG	N	1	B	2024-05-06 08:15 AM	2405SG07A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01B-2405B	0	0	WG	N	1	B	2024-05-20 08:55 AM	2405SG07B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 09:35 AM	2405AP02A	UNITED CARGO	016-39924161	5/6/2024	5/7/2024	APPL	24E0050				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 09:35 AM	2405EU07A	ALASKA CARGO	027-31511141	5/6/2024	5/8/2024	EUT2	580-139741-1				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 09:35 AM	2405AK07A	ALASKA CARGO	027-32116895	5/6/2024	5/7/2024	SGSA	1241914				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 09:35 AM	2405SG07A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 09:35 AM	2405SG07A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				Sampled																	
RHMW08	WL	RHMW08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 10:00 AM	2405AP02B	FEDEX	274959360270	5/21/2024	5/22/2024	APPL	24E0156				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 10:00 AM	2405EU07B	ALASKA CARGO	027-32587111	5/20/2024	5/21/2024	EUT2	580-140194-1				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 10:00 AM	2405AK07B	ALASKA CARGO	027-32587155	5/20/2024	5/21/2024	SGSA	1242257				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 10:00 AM	2405SG07B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				S2BVEM	Sampled																
RHMW08	WL	RHMW08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 10:00 AM	2405SG07B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				Sampled																	
RHMW09	WL	RHMW09-WGN01B-2405A	0	0	WG	N	1	B	2024-05-07 08:20 AM	2405SG08A	UNITED CARGO	016-39800110	5/7/2024		SGSO	FC15505				S2BVEM	Sampled																
RHMW09	WL	RHMW09-WGN01B-2405B	0	0	WG	N	1	B	2024-05-21 08:40 AM	2405SG08B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				S2BVEM	Sampled																
RHMW09	WL	RHMW09-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:20 AM	2405AP09A	FEDEX	27434371946	5/8/2024	5/9/2024	APPL	24E0064				S4VEM	Sampled																
RHMW09	WL	RHMW09-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:20 AM	2405EU08A	ALASKA CARGO	027-32117002	5/7/2024	5/8/2024	EUT2	580-139789-1				S2BVEM	Sampled																
RHMW09	WL	RHMW09-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:20 AM	2405AK08A	ALASKA CARGO	027-32116976	5/7/2024	5/8/2024	SGSA	1241961				S2BVEM	Sampled																
RHMW09	WL	RHMW09-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:20 AM	2405SG08A	UNITED CARGO	016-39800110	5/7/2024		SGSO	FC15505				S2BVEM	Sampled																
RHMW09	WL	RHMW09-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 09:20 AM	2405SG08A	UNITED CARGO	016-39800110	5/7/2024		SGSO	FC15505				Sampled																	
RHMW09	WL	RHMW09-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 09:35 AM	2405AP09B	FEDEX	274959360270	5/21/2024	5/22/2024	APPL	24E0156				S2BVEM	Sampled																
RHMW09	WL	RHMW09-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 09:35 AM	2405EU08B	ALASKA CARGO	027-32116965	5/21/2024	5/22/2024	EUT2	580-140294-1				S2BVEM	Sampled																
RHMW09	WL	RHMW09-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 09:35 AM	2405AK08B	ALASKA CARGO	027-32117083	5/21/2024	5/22/2024	SGSA	1242287				S4VEM	Sampled																
RHMW09	WL	RHMW09-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 09:35 AM	2405SG08B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024																							

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 May and Q2 GW LTM

Event ID: 2159

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Ammonia N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E355.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)	
RHMW10	WL	RHMW10-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 12:35 PM	2405AP10B	FEDEX	275220940889	5/28/2024	5/29/2024	APPL	24E0211				S2BVEM	Sampled															
RHMW10	WL	RHMW10-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 12:35 PM	2405EU09B	ALASKA CARGO	027-32587133	5/24/2024	5/25/2024	EUT2	580-140469-1				S4VEM	Sampled	*	*													
RHMW10	WL	RHMW10-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 12:35 PM	2405AK09B	ALASKA CARGO	027-32587240	5/28/2024	5/29/2024	SGSA	1242381				S2BVEM	Sampled															
RHMW10	WL	RHMW10-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 12:35 PM	2405SG09B	UNITED CARGO	016-84595604	5/24/2024	5/25/2024	SGSO	FC15949				S2BVEM	Sampled			*	*											
RHMW10	WL	RHMW10-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 12:35 PM	2405SG09B	UNITED CARGO	016-84595604	5/24/2024	5/25/2024	SGSO	FC15949					Sampled															
RHMW13-04	WL	RHMW13-04-WGN01G-2405A	0	0	WG	N	1	G	2024-05-13 10:00 AM	2405AP27A	FEDEX	274672722154	5/14/2024	5/15/2024	APPL	24E0097				S2BVEM	Sampled					*										
RHMW13-04	WL	RHMW13-04-WGN01G-2405A	0	0	WG	N	1	G	2024-05-13 10:00 AM	2405EU12A	ALASKA CARGO	027-31511126	5/13/2024	5/14/2024	EUT2	580-139966-1				S2BVEM	Sampled	*	*													
RHMW13-04	WL	RHMW13-04-WGN01G-2405A	0	0	WG	N	1	G	2024-05-13 10:00 AM	2405AK12A	ALASKA CARGO	027-31511126	5/13/2024	5/14/2024	SGSA	1242083				S2BVEM	Sampled							*								
RHMW13-04	WL	RHMW13-04-WGN01G-2405A	0	0	WG	N	1	G	2024-05-13 10:00 AM	2405SG12A	UNITED CARGO	016-42307576	5/13/2024	5/15/2024	SGSO	FC15654				S4VEM	Sampled			*	*			*								
RHMW13-04	WL	RHMW13-04-WGN01G-2405A	0	0	WG	N	1	G	2024-05-13 10:00 AM	2405SG12A	UNITED CARGO	016-42307576	5/13/2024	5/15/2024	SGSO	FC15654					Sampled												*			
RHMW13-04	WL	RHMW13-04-WGN01G-2405B	0	0	WG	N	1	G	2024-05-29 10:00 AM	2405AP27B	FEDEX	275325117302	5/30/2024		APPL	24E0241				S2BVEM	Sampled					*										
RHMW13-04	WL	RHMW13-04-WGN01G-2405B	0	0	WG	N	1	G	2024-05-29 10:00 AM	2405EU12B	ALASKA CARGO	027-32587144	5/29/2024	5/30/2024	EUT2	580-140567-1					Sampled		*	*												
RHMW13-04	WL	RHMW13-04-WGN01G-2405B	0	0	WG	N	1	G	2024-05-29 10:00 AM	2405AK12B	ALASKA CARGO	027-32587262	5/29/2024	6/4/2024	SGSA	1242530				S2BVEM	Sampled							*								
RHMW13-04	WL	RHMW13-04-WGN01G-2405B	0	0	WG	N	1	G	2024-05-29 10:00 AM	2405SG12B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021				S2BVEM	Sampled			*	*			*								
RHMW13-04	WL	RHMW13-04-WGN01G-2405B	0	0	WG	N	1	G	2024-05-29 10:00 AM	2405SG12B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021					Sampled												*			
RHMW15-05	WL	RHMW15-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-06 09:15 AM	2405AP03A	UNITED CARGO	016-39924161	5/6/2024	5/7/2024	APPL	24E0050				S2BVEM	Sampled					*										
RHMW15-05	WL	RHMW15-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-06 09:15 AM	2405EU14A	ALASKA CARGO	027-31511141	5/6/2024	5/8/2024	EUT2	580-139741-1				S2BVEM	Sampled	*	*													
RHMW15-05	WL	RHMW15-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-06 09:15 AM	2405AK14A	ALASKA CARGO	027-32116895	5/6/2024	5/7/2024	SGSA	1241914				S2BVEM	Sampled					*										
RHMW15-05	WL	RHMW15-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-06 09:15 AM	2405SG14A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				S2BVEM	Sampled			*	*			*								
RHMW15-05	WL	RHMW15-05-WGN01G-2405A	0	0	WG	N	1	G	2024-05-06 09:15 AM	2405SG14A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498					Sampled												*			
RHMW15-05	WL	RHMW15-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-20 09:45 AM	2405AP03B	FEDEX	274959360270	5/21/2024	5/22/2024	APPL	24E0156				S2BVEM	Sampled					*										
RHMW15-05	WL	RHMW15-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-20 09:45 AM	2405EU14B	ALASKA CARGO	027-32587111	5/20/2024	5/21/2024	EUT2	580-140194-1				S2BVEM	Sampled	*	*													
RHMW15-05	WL	RHMW15-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-20 09:45 AM	2405AK14B	ALASKA CARGO	027-32587155	5/20/2024	5/21/2024	SGSA	1242257				S2BVEM	Sampled					*										
RHMW15-05	WL	RHMW15-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-20 09:45 AM	2405SG14B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				S2BVEM	Sampled			*	*			*								
RHMW15-05	WL	RHMW15-05-WGN01G-2405B	0	0	WG	N	1	G	2024-05-20 09:45 AM	2405SG14B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837					Sampled												*			
RHMW16	WL	RHMW16-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 01:35 PM	2405AP04A	UNITED CARGO	016-39924161	5/6/2024	5/7/2024	APPL	24E0050				S2BVEM	Sampled					*										
RHMW16	WL	RHMW16-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 01:35 PM	2405EU15A	ALASKA CARGO	027-31511141	5/6/2024	5/8/2024	EUT2	580-139741-1				S2BVEM	Sampled	*	*													
RHMW16	WL	RHMW16-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 01:35 PM	2405AK15A	ALASKA CARGO	027-32116895	5/6/2024	5/7/2024	SGSA	1241914				S2BVEM	Sampled					*										
RHMW16	WL	RHMW16-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 01:35 PM	2405SG15A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				S2BVEM	Sampled			*	*			*								
RHMW16	WL	RHMW16-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 01:35 PM	2405SG15A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498					Sampled												*			
RHMW16	WL	RHMW16-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 12:10 PM	2405AP04B	FEDEX	274959360270	5/21/2024	5/22/2024	APPL	24E0156				S2BVEM	Sampled					*										
RHMW16	WL	RHMW16-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 12:10 PM	2405EU15B	ALASKA CARGO	027-32587111	5/20/2024	5/21/2024	EUT2	580-140194-1				S2BVEM	Sampled	*	*													
RHMW16	WL	RHMW16-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 12:10 PM	2405AK15B	ALASKA CARGO	027-32587155	5/20/2024	5/21/2024	SGSA	1242257				S2BVEM	Sampled					*										
RHMW16	WL	RHMW16-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 12:10 PM	2405SG15B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				S2BVEM	Sampled			*	*			*								
RHMW16	WL	RHMW16-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 12:10 PM	2405SG15B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837					Sampled												*			
RHMW17	WL	RHMW17-WGFD01B-2405A	0	0	WG	FD	1	B	2024-05-13 08:45 AM	2405SG16A	UNITED CARGO	016-42307576	5/13/2024	5/15/2024	SGSO	FC15654				S4VEM	Sampled															
RHMW17	WL	RHMW17-WGFD01B-2405B	0	0	WG	FD	1	B	2024-05-29 08:34 AM	2405SG16B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021				S2BVEM	Sampled															
RHMW17	WL	RHMW17-WGFD01LF-2405A	0	0	WG	FD	1	LF	2024-05-13 09:23 AM	2405SG16A	UNITED CARGO	016-42307576	5/13/2024	5/15/2024	SGSO	FC15654				S4VEM	Sampled			*	*			*								
RHMW17	WL	RHMW17-WGFD01LF-2405A	0	0	WG	FD	1	LF	2024-05-13 09:23 AM	2405SG16A	UNITED CARGO	016-42307576	5/13/2024	5/15/2024	SGSO	FC15654					Sampled											*				
RHMW17	WL	RHMW17-WGFD01LF-2405B	0	0	WG	FD	1	LF	2024-05-29 09:30 AM	2405SG16B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021				S2BVEM	Sampled			*	*			*								
RHMW17	WL	RHMW17-WGFD01LF-2405B	0	0	WG	FD	1	LF	2024-05-29 09:30 AM	2405SG16B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021					Sampled											*				
RHMW17	WL	RHMW17-WGN01B-2405A	0	0	WG	N	1	B	2024-05-13 08:45 AM	2405SG16A	UNITED CARGO	016-42307576	5/13/2024	5/15/2024	SGSO	FC15654				S4VEM	Sampled					*										
RHMW17	WL	RHMW17-WGN01B-2405B	0	0	WG	N	1	B	2024-05-29 08:34 AM	2405SG16B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021				S2BVEM	Sampled					*										
RHMW17	WL	RHMW17-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-13 09:23 AM	2405AP28A	FEDEX	274672722154	5/14/2024	5/15/2024	APPL	24E0097				S2BVEM	Sampled															

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 May and Q2 GW LTM

Event ID: 2159

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Anions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E355.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)	
RHMW17	WL	RHMW17-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-29 09:30 AM	2405SG16B	UNITED CARGO	016-87130912	5/29/2024	5/31/2024	SGSO	FC16021				Sampled																
RHMW18	WL	RHMW18-WGN01B-2405A	0	0	WG	N	1	B	2024-05-17 12:20 PM	2405SG36A	UNITED CARGO	016-42804635	5/17/2024	5/18/2024	SGSO	FC15795				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01B-2405B	0	0	WG	N	1	B	2024-05-30 02:20 PM	2405SG36B	UNITED CARGO	016-87130901	5/30/2024	6/1/2024	SGSO	FC16061				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 01:35 PM	2405AP26A	FEDEX	274815957863	5/17/2024	5/18/2024	APPL	24E0129				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 01:35 PM	2405EU36A	ALASKA CARGO	027-32587085	5/17/2024	5/18/2024	EUT2	580-140166-1				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 01:35 PM	2405AK36A	ALASKA CARGO	027-32587155	5/20/2024	5/21/2024	SGSA	1242257				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 01:35 PM	2405SG36A	UNITED CARGO	016-42804635	5/17/2024	5/18/2024	SGSO	FC15795				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-17 01:35 PM	2405SG36A	UNITED CARGO	016-42804635	5/17/2024	5/18/2024	SGSO	FC15795				Sampled																
RHMW18	WL	RHMW18-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 03:20 PM	2405AP26B	FEDEX	275371174640	5/31/2024	6/3/2024	APPL	24F0010				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 03:20 PM	2405EU36B	ALASKA CARGO	027-32117050	5/30/2024	5/31/2024	EUT2	580-140617-1				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 03:20 PM	2405AK36B	ALASKA CARGO	027-32587284	5/30/2024	5/31/2024	SGSA	1242434				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 03:20 PM	2405SG36B	UNITED CARGO	016-87130901	5/30/2024	6/1/2024	SGSO	FC16061				S2BVEM	Sampled															
RHMW18	WL	RHMW18-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-30 03:20 PM	2405SG36B	UNITED CARGO	016-87130901	5/30/2024	6/1/2024	SGSO	FC16061				Sampled																
RHMW19	WL	RHMW19-WGN01B-2405A	0	0	WG	N	1	B	2024-05-07 10:25 AM	2405SG17A	UNITED CARGO	016-39800110	5/7/2024		SGSO	FC15505				S2BVEM	Sampled															
RHMW19	WL	RHMW19-WGN01B-2405B	0	0	WG	N	1	B	2024-05-21 10:50 AM	2405SG17B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				S2BVEM	Sampled															
RHMW19	WL	RHMW19-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:30 AM	2405AP13A	FEDEX	27434371946	5/8/2024	5/9/2024	APPL	24E0064				S4VEM	Sampled															
RHMW19	WL	RHMW19-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:30 AM	2405EU17A	ALASKA CARGO	027-32117002	5/7/2024	5/8/2024	EUT2	580-139789-1				S2BVEM	Sampled															
RHMW19	WL	RHMW19-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:30 AM	2405AK17A	ALASKA CARGO	027-32116976	5/7/2024	5/8/2024	SGSA	1241961				S2BVEM	Sampled															
RHMW19	WL	RHMW19-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:30 AM	2405SG17A	UNITED CARGO	016-39800110	5/7/2024		SGSO	FC15505				S2BVEM	Sampled															
RHMW19	WL	RHMW19-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:30 AM	2405SG17A	UNITED CARGO	016-39800110	5/7/2024		SGSO				Sampled																	
RHMW19	WL	RHMW19-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:40 AM	2405AP13B	FEDEX	274959360270	5/21/2024	5/22/2024	APPL	24E0156				S2BVEM	Sampled															
RHMW19	WL	RHMW19-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:40 AM	2405EU17B	ALASKA CARGO	027-32116965	5/21/2024	5/22/2024	EUT2	580-140294-1				S2BVEM	Sampled															
RHMW19	WL	RHMW19-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:40 AM	2405AK17B	ALASKA CARGO	027-32117083	5/21/2024	5/22/2024	SGSA	1242287				S4VEM	Sampled															
RHMW19	WL	RHMW19-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:40 AM	2405SG17B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				S2BVEM	Sampled															
RHMW19	WL	RHMW19-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:40 AM	2405SG17B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				Sampled																
RHMW20	WL	RHMW20-WGN01B-2405A	0	0	WG	N	1	B	2024-05-16 11:40 AM	2405SG18A	UNITED CARGO	016-42307635	5/16/2024	5/18/2024	SGSO	FC15783				S2BVEM	Sampled															
RHMW20	WL	RHMW20-WGN01B-2405B	0	0	WG	N	1	B	2024-05-31 10:10 AM	2405SG18B	UNITED CARGO	016-27371503	5/31/2024	6/1/2024	SGSO	FC16070				S4VEM	Sampled															
RHMW20	WL	RHMW20-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 12:10 PM	2405AP29A	FEDEX	274815957863	5/17/2024	5/18/2024	APPL	24E0129				S2BVEM	Sampled															
RHMW20	WL	RHMW20-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 12:10 PM	2405EU18A	ALASKA CARGO	027-32117061	5/16/2024	5/17/2024	EUT2	580-140100-1				S2BVEM	Sampled															
RHMW20	WL	RHMW20-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 12:10 PM	2405AK18A	ALASKA CARGO	027-32117024	5/16/2024	5/17/2024	SGSA	1242184				S2BVEM	Sampled															
RHMW20	WL	RHMW20-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 12:10 PM	2405SG18A	UNITED CARGO	016-42307635	5/16/2024	5/18/2024	SGSO	FC15783				S2BVEM	Sampled															
RHMW20	WL	RHMW20-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-16 12:10 PM	2405SG18A	UNITED CARGO	016-42307635	5/16/2024	5/18/2024	SGSO	FC15783				Sampled																
RHMW20	WL	RHMW20-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 10:50 AM	2405AP29B	FEDEX	275371174640	5/31/2024	6/3/2024	APPL	24F0010				S2BVEM	Sampled															
RHMW20	WL	RHMW20-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 10:50 AM	2405EU18B	ALASKA CARGO	027-32587214	5/31/2024	6/1/2024	EUT2	580-140668-1				S2BVEM	Sampled															
RHMW20	WL	RHMW20-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 10:50 AM	2405AK18B	ALASKA CARGO	027-32587273	6/3/2024	6/4/2024	SGSA	1242520				S4VEM	Sampled															
RHMW20	WL	RHMW20-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 10:50 AM	2405SG18B	UNITED CARGO	016-27371503	5/31/2024	6/1/2024	SGSO	FC16070				S4VEM	Sampled															
RHMW20	WL	RHMW20-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-31 10:50 AM	2405SG18B	UNITED CARGO	016-27371503	5/31/2024	6/1/2024	SGSO	FC16070				Sampled																
RHMW2254-01	WL	RHMW2254-01-WGN01B-2405A	0	0	WG	N	1	B	2024-05-07 11:20 AM	2405SG19A	UNITED CARGO	016-39800110	5/7/2024		SGSO	FC15505				S2BVEM	Sampled															
RHMW2254-01	WL	RHMW2254-01-WGN01B-2405B	0	0	WG	N	1	B	2024-05-24 09:30 AM	2405SG19B	UNITED CARGO	016-84595604	5/24/2024	5/25/2024	SGSO	FC15949				S2BVEM	Sampled															
RHMW2254-01	WL	RHMW2254-01-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:35 AM	2405AP07A	FEDEX	27434371946	5/8/2024	5/9/2024	APPL	24E0064				S4VEM	Sampled															
RHMW2254-01	WL	RHMW2254-01-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:35 AM	2405EU19A	ALASKA CARGO	027-32117002	5/7/2024	5/8/2024	EUT2	580-139789-1				S2BVEM	Sampled															
RHMW2254-01	WL	RHMW2254-01-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:35 AM	2405AK19A	ALASKA CARGO	027-32116976	5/7/2024	5/8/2024	SGSA	1241961				S2BVEM	Sampled															
RHMW2254-01	WL	RHMW2254-01-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:35 AM	2405SG19A	UNITED CARGO	016-39800110	5/7/2024		SGSO	FC15505				S2BVEM	Sampled															
RHMW2254-01	WL	RHMW2254-01-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-07 11:35 AM	2405SG19A	UNITED CARGO	016-39800110	5/7/2024		SGSO				Sampled																	
RHMW2254-01	WL	RHMW2254-01-WGN01LF-2405B	0	0	WG</																															

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 May and Q2 GW LTM

Event ID: 2159

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Anions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E355.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)	
RHP01	WL	RHP01-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 12:55 PM	2405EU21A	ALASKA CARGO	027-31511141	5/6/2024	5/8/2024	EUT2	580-139741-1				S2BVEM	Sampled															
RHP01	WL	RHP01-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 12:55 PM	2405AK21A	ALASKA CARGO	027-32116895	5/6/2024	5/7/2024	SGSA	1241914				S2BVEM	Sampled															
RHP01	WL	RHP01-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 12:55 PM	2405SG21A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				S2BVEM	Sampled															
RHP01	WL	RHP01-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-06 12:55 PM	2405SG21A	UNITED CARGO	016-39789396	5/6/2024	5/8/2024	SGSO	FC15498				S2BVEM	Sampled															
RHP01	WL	RHP01-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:30 PM	2405AP15B	FEDEX	274959360270	5/21/2024	5/22/2024	APPL	24E0156				S2BVEM	Sampled															
RHP01	WL	RHP01-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:30 PM	2405EU21B	ALASKA CARGO	027-32587111	5/20/2024	5/21/2024	EUT2	580-140194-1				S2BVEM	Sampled															
RHP01	WL	RHP01-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:30 PM	2405AK21B	ALASKA CARGO	027-32587155	5/20/2024	5/21/2024	SGSA	1242257				S2BVEM	Sampled															
RHP01	WL	RHP01-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:30 PM	2405SG21B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				S2BVEM	Sampled															
RHP01	WL	RHP01-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-20 02:30 PM	2405SG21B	UNITED CARGO	016-43101026	5/20/2024	5/22/2024	SGSO	FC15837				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01B-2405A	0	0	WG	N	1	B	2024-05-09 12:20 PM	2405SG22A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01B-2405B	0	0	WG	N	1	B	2024-05-23 08:15 AM	2405SG22B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 01:00 PM	2405AP16A	FEDEX	274532137658	5/10/2024	5/11/2024	APPL	24E0078				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 01:00 PM	2405EU22A	ALASKA CARGO	027-32117035	5/9/2024	5/10/2024	EUT2	580-139898-1				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 01:00 PM	2405AK22A	ALASKA CARGO	027-32117013	5/9/2024	5/10/2024	SGSA	1242031				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 01:00 PM	2405SG22A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 01:00 PM	2405SG22A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 09:15 AM	2405AP16B	FEDEX	275101528076	5/24/2024	5/25/2024	APPL	24E0200				S4VEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 09:15 AM	2405EU22B	ALASKA CARGO	027-32587122	5/23/2024	5/24/2024	EUT2	580-140419-1				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 09:15 AM	2405AK22B	ALASKA CARGO	027-32587192	5/23/2024	5/24/2024	SGSA	1242340				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 09:15 AM	2405SG22B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled															
RHP02	WL	RHP02-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 09:15 AM	2405SG22B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01B-2405A	0	0	WG	N	1	B	2024-05-09 10:25 AM	2405SG23A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01B-2405B	0	0	WG	N	1	B	2024-05-23 10:22 AM	2405SG23B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 11:25 AM	2405AP17A	FEDEX	274532137658	5/10/2024	5/11/2024	APPL	24E0078				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 11:25 AM	2405EU23A	ALASKA CARGO	027-32117035	5/9/2024	5/10/2024	EUT2	580-139898-1				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 11:25 AM	2405AK23A	ALASKA CARGO	027-32117013	5/9/2024	5/10/2024	SGSA	1242031				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 11:25 AM	2405SG23A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 11:25 AM	2405SG23A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 11:07 AM	2405AP17B	FEDEX	275101528076	5/24/2024	5/25/2024	APPL	24E0200				S4VEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 11:07 AM	2405EU23B	ALASKA CARGO	027-32587122	5/23/2024	5/24/2024	EUT2	580-140419-1				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 11:07 AM	2405AK23B	ALASKA CARGO	027-32587192	5/23/2024	5/24/2024	SGSA	1242340				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 11:07 AM	2405SG23B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled															
RHP03	WL	RHP03-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 11:07 AM	2405SG23B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01B-2405A	0	0	WG	N	1	B	2024-05-09 07:50 AM	2405SG24A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01B-2405B	0	0	WG	N	1	B	2024-05-23 12:05 PM	2405SG24B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 09:00 AM	2405AP22A	FEDEX	274532137658	5/10/2024	5/11/2024	APPL	24E0078				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 09:00 AM	2405EU24A	ALASKA CARGO	027-32117035	5/9/2024	5/10/2024	EUT2	580-139898-1				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 09:00 AM	2405AK24A	ALASKA CARGO	027-32117013	5/9/2024	5/10/2024	SGSA	1242031				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 09:00 AM	2405SG24A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-09 09:00 AM	2405SG24A	UNITED CARGO	016-39924146	5/9/2024	5/11/2024	SGSO	FC15585				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 01:10 PM	2405AP22B	FEDEX	275220940889	5/28/2024	5/29/2024	APPL	24E0211				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 01:10 PM	2405EU24B	ALASKA CARGO	027-32587122	5/23/2024	5/24/2024	EUT2	580-140419-1				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 01:10 PM	2405AK24B	ALASKA CARGO	027-32587192	5/23/2024	5/24/2024	SGSA	1242340				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-23 01:10 PM	2405SG24B	UNITED CARGO	016-43250023	5/23/2024	5/24/2024	SGSO	FC15936				S2BVEM	Sampled															
RHP04A	WL	RHP04A-WGN01LF-2405B	0	0	WG	N	1																													

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 May and Q2 GW LTM

Event ID: 2159

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Anions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E355.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)		
RHP04B	WL	RHP04B-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 11:40 AM	2405AK25B	ALASKA CARGO	027-32587240	5/28/2024	5/29/2024	SGSA	1242381				S2BVEM	Sampled																
RHP04B	WL	RHP04B-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 11:40 AM	2405SG25B	UNITED CARGO	016-87130923	5/28/2024	5/30/2024	SGSO	FC15983				S2BVEM	Sampled																
RHP04B	WL	RHP04B-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 11:40 AM	2405SG25B	UNITED CARGO	016-87130923	5/28/2024	5/30/2024	SGSO	FC15983				S2BVEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 11:05 AM	2405AP31A	FEDEX	274722590882	5/15/2024	5/16/2024	APPL	24E0109				S2BVEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 11:05 AM	2405EU26A	ALASKA CARGO	027-32116943	5/14/2024	5/15/2024	EUT2	580-140016-1				S4VEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 11:05 AM	2405AK26A	ALASKA CARGO	027-32116943	5/14/2024	5/15/2024	SGSA	1242107				S2BVEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 11:05 AM	2405SG26A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685				S2BVEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-14 11:05 AM	2405SG26A	UNITED CARGO	016-42307591	5/14/2024	5/16/2024	SGSO	FC15685				S2BVEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 02:40 PM	2405AP31B	FEDEX	275275761958	5/29/2024	5/30/2024	APPL	24E0221				S2BVEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 02:40 PM	2405EU26B	ALASKA CARGO	027-32587203	5/28/2024	5/29/2024	EUT2	580-140534-1				S2BVEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 02:40 PM	2405AK26B	ALASKA CARGO	027-32587240	5/28/2024	5/29/2024	SGSA	1242381				S2BVEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 02:40 PM	2405SG26B	UNITED CARGO	016-87130923	5/28/2024	5/30/2024	SGSO	FC15983				S2BVEM	Sampled																
RHP04C	WL	RHP04C-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-28 02:40 PM	2405SG26B	UNITED CARGO	016-87130923	5/28/2024	5/30/2024	SGSO	FC15983				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01B-2405A	0	0	WG	N	1	B	2024-05-10 07:50 AM	2405SG27A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01B-2405B	0	0	WG	N	1	B	2024-05-24 08:20 AM	2405SG27B	UNITED CARGO	016-84595604	5/24/2024	5/25/2024	SGSO	FC15949				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:30 AM	2405AP18A	FEDEX	274532137658	5/10/2024	5/11/2024	APPL	24E0078				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:30 AM	2405EU27A	ALASKA CARGO	027-32117046	5/10/2024	5/11/2024	EUT2	580-139943-1				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:30 AM	2405AK27A	ALASKA CARGO	027-31511126	5/13/2024	5/14/2024	SGSA	1242083				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:30 AM	2405SG27A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:30 AM	2405SG27A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 09:30 AM	2405AP18B	FEDEX	275220940889	5/28/2024	5/29/2024	APPL	24E0211				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 09:30 AM	2405EU27B	ALASKA CARGO	027-32587133	5/24/2024	5/25/2024	EUT2	580-140469-1				S4VEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 09:30 AM	2405AK27B	ALASKA CARGO	027-32587240	5/28/2024	5/29/2024	SGSA	1242381				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 09:30 AM	2405SG27B	UNITED CARGO	016-84595604	5/24/2024	5/25/2024	SGSO	FC15949				S2BVEM	Sampled																
RHP05	WL	RHP05-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-24 09:30 AM	2405SG27B	UNITED CARGO	016-84595604	5/24/2024	5/25/2024	SGSO	FC15949				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01B-2405A	0	0	WG	N	1	B	2024-05-10 07:30 AM	2405SG30A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01B-2405B	0	0	WG	N	1	B	2024-05-21 10:30 AM	2405SG30B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:22 AM	2405AP19A	FEDEX	274532137658	5/10/2024	5/11/2024	APPL	24E0078				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:22 AM	2405EU30A	ALASKA CARGO	027-32117046	5/10/2024	5/11/2024	EUT2	580-139943-1				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:22 AM	2405AK30A	ALASKA CARGO	027-31511126	5/13/2024	5/14/2024	SGSA	1242083				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:22 AM	2405SG30A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 08:22 AM	2405SG30A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:15 AM	2405AP19B	FEDEX	274959360270	5/21/2024	5/22/2024	APPL	24E0156				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:15 AM	2405EU30B	ALASKA CARGO	027-32116965	5/21/2024	5/22/2024	EUT2	580-140294-1				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:15 AM	2405AK30B	ALASKA CARGO	027-32117083	5/21/2024	5/22/2024	SGSA	1242287				S4VEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:15 AM	2405SG30B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				S2BVEM	Sampled																
RHP06	WL	RHP06-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 11:15 AM	2405SG30B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				S2BVEM	Sampled																
RHP07	WL	RHP07-WGN01B-2405A	0	0	WG	N	1	B	2024-05-08 09:00 AM	2405SG28A	UNITED CARGO	016-42335355	5/8/2024	5/10/2024	SGSO	FC15560				S2BVEM	Sampled																
RHP07	WL	RHP07-WGN01B-2405B	0	0	WG	N	1	B	2024-05-22 09:00 AM	2405SG28B	UNITED CARGO	016-43101030	5/22/2024	5/24/2024	SGSO	FC15907				S4VEM	Sampled																
RHP07	WL	RHP07-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-08 09:20 AM	2405AP08A	FEDEX	274485753397	5/9/2024	5/10/2024	APPL	24E0073				S2BVEM	Sampled																
RHP07	WL	RHP07-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-08 09:20 AM	2405EU28A	ALASKA CARGO	027-32116910	5/8/2024	5/9/2024	EUT2	580-139842-1				S2BVEM	Sampled																
RHP07	WL	RHP07-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-08 09:20 AM	2405AK28A	ALASKA CARGO	027-32116991	5/8/2024	5/9/2024	SGSA	1242002				S4VEM	Sampled																
RHP07	WL	RHP07-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-08 09:20 AM	2405SG28A	UNITED CARGO	016-42335355	5/8/2024	5/10/2024	SGSO	FC15560				S2BVEM	Sampled																
RHP07	WL	RHP07-WGN01LF-24																																			

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 May and Q2 GW LTM
 Event ID: 2159

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Anions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E353.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)									
RHP08	WL		RHP08-WGFD01LF-2405A	0	0	WG	FD	1	LF	2024-05-10 10:45 AM	2405SG33A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				Sampled																							
RHP08	WL		RHP08-WGFD01LF-2405B	0	0	WG	FD	1	LF	2024-05-21 09:10 AM	2405SG33B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				S2BVEM	Sampled		*						*		*	*	*	*									
RHP08	WL		RHP08-WGFD01LF-2405B	0	0	WG	FD	1	LF	2024-05-21 09:10 AM	2405SG33B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				Sampled												*	*	*									
RHP08	WL		RHP08-WGN01B-2405A	0	0	WG	N	1	B	2024-05-10 09:50 AM	2405SG33A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				S2BVEM	Sampled													*									
RHP08	WL		RHP08-WGN01B-2405B	0	0	WG	N	1	B	2024-05-21 08:30 AM	2405SG33B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				S2BVEM	Sampled													*									
RHP08	WL		RHP08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 10:45 AM	2405AP14A	FEDEX	274532137658	5/10/2024	5/11/2024	APPL	24E0078				S2BVEM	Sampled				*																		
RHP08	WL		RHP08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 10:45 AM	2405EU33A	ALASKA CARGO	027-32117046	5/10/2024	5/11/2024	EUT2	580-139943-1				S2BVEM	Sampled	*	*			*																	
RHP08	WL		RHP08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 10:45 AM	2405AK33A	ALASKA CARGO	027-31511126	5/13/2024	5/14/2024	SGSA	1242083				S2BVEM	Sampled						*	*	*	*	*	*	*	*	*								
RHP08	WL		RHP08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 10:45 AM	2405SG33A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				S2BVEM	Sampled		*	*		*		*	*	*	*	*	*	*	*								
RHP08	WL		RHP08-WGN01LF-2405A	0	0	WG	N	1	LF	2024-05-10 10:45 AM	2405SG33A	UNITED CARGO	016-39705643	5/10/2024	5/11/2024	SGSO	FC15602				Sampled													*	*	*								
RHP08	WL		RHP08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 09:10 AM	2405AP14B	FEDEX	274959360270	5/21/2024	5/22/2024	APPL	24E0156				S2BVEM	Sampled				*										*								
RHP08	WL		RHP08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 09:10 AM	2405EU33B	ALASKA CARGO	027-32116965	5/21/2024	5/22/2024	EUT2	580-140294-1				S2BVEM	Sampled	*	*			*																	
RHP08	WL		RHP08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 09:10 AM	2405AK33B	ALASKA CARGO	027-32117083	5/21/2024	5/22/2024	SGSA	1242287				S4VEM	Sampled					*	*	*	*	*	*	*	*	*	*								
RHP08	WL		RHP08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 09:10 AM	2405SG33B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				S2BVEM	Sampled		*	*		*		*	*	*	*	*	*	*	*								
RHP08	WL		RHP08-WGN01LF-2405B	0	0	WG	N	1	LF	2024-05-21 09:10 AM	2405SG33B	UNITED CARGO	016-43102150	5/21/2024	5/23/2024	SGSO	FC15885				Sampled													*	*	*								
																					S2BVEM Count	60	60	68	61	61	61	60	60	68	60	68	60	68	60	68	60	68	60	68	8	68	125	
																					No Review Type	3	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0
																					S4VEM Count	7	7	10	9	9	9	7	10	10	10	10	10	10	10	10	10	10	10	10	0	10	17	
																					Site Location Count	70	70	78	70	70	70	70	70	78	70	78	70	78	70	78	70	78	70	78	78	78	142	
																					Total Location Count	80	80	88	80	80	80	80	80	88	80	88	80	88	80	88	80	88	80	88	88	88	154	

Note: This event has missing samples in Event Management that are Field QC ONLY. Please refer to the Unplanned Field Samples report to view these samples.

Status	Color	Matrix Name	Matrix	Sampling Method	Code	Laboratory Name	Laboratory Code	Location Type	Code
Status Not Determined		Ground Water	WG	Bailer	B	Agriculture & Priority Pollutants Laboratories, Inc.	APPL	Well	WL
Scheduled for Analysis; Awaiting Field Data				Grab	G	Eurotins Environment Testing TestAmerica, Tacoma, WA	EUT2		
Chain of Custody Data Loaded and Certified; Awaiting Lab Data				Low-Flow (Slow Purge) Groundwater Pumping	LF	SGS North America, Inc., Anchorage, AK	SGSA		
Laboratory Data Loaded and Certified; Awaiting Validation						SGS North America, Inc., Orlando, FL	SGSO		
Validation Qualifiers Finalized; Awaiting Approval									
Approval Complete; Data In Production									

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 June and Q2 GW LTM

Event ID: 2163

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Amions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E353.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)																					
Area	NMW24	WL	NMW24-WGN01B-2406A	0	0	WG	N	1	B	2024-06-12 08:25 AM	2406SG20A	UNITED CARGO	016-44037884	6/12/2024	6/14/2024	SGSO	FC16422			S4VEM	Sampled																																			
	NMW24	WL	NMW24-WGN01B-2406B	0	0	WG	N	1	B	2024-06-26 08:40 AM	2406SG20B	UNITED CARGO	016-70711163	6/26/2024	6/28/2024	SGSO	FC16817				Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-12 08:55 AM	2406AP20A	FEDEX	275850813837	6/12/2024	6/13/2024	APPL	24F0156				Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-12 08:55 AM	2406EU20A	ALASKA CARGO	027-32862373	6/12/2024	6/13/2024	EUT2	580-141075-1				Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-12 08:55 AM	2406AK20A	ALASKA CARGO	027-32862454	6/12/2024	6/13/2024	SGSA	1242802				Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-12 08:55 AM	2406SG20A	UNITED CARGO	016-44037884	6/12/2024	6/14/2024	SGSO	FC16422				Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-12 08:55 AM	2406SG20A	UNITED CARGO	016-44037884	6/12/2024	6/14/2024	SGSO	FC16422				Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-26 09:25 AM	2406AP20B	FEDEX	276400045533	6/26/2024	6/27/2024	APPL	24F0261				Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-26 09:25 AM	2406EU20B	ALASKA CARGO	027-32862583	6/26/2024	6/27/2024	EUT2	580-141527-1				Sampled																																			
	NMW24	WL	NMW24-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-26 09:25 AM	2406AK20B	ALASKA CARGO	027-33149675	6/26/2024	6/27/2024	SGSA	1243149				Sampled																																			
NMW24	WL	NMW24-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-26 09:25 AM	2406SG20B	UNITED CARGO	016-70711163	6/26/2024	6/28/2024	SGSO	FC16817				Sampled																																				
																					S2BVEM Count	2	2	0	0	1	0	2	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
																					S4VEM Count	0	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2	1	2												
																					No Review Type	0	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	0	1	1	2	1	2												
																					Site Location Count	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	
Halawa Correctional Facility	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-14 09:20 AM	2406AP29A	FEDEX	275941891704	6/14/2024	6/18/2024	APPL	24F0206				Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-14 09:20 AM	2406EU29A	ALASKA CARGO	027-32587321	6/14/2024	6/15/2024	EUT2	580-141164-1				Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-14 09:20 AM	2406AK29A	ALASKA CARGO	027-33149631	6/17/2024	6/18/2024	SGSA	1242926				Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-14 09:20 AM	2406SG29A	UNITED CARGO	016-38943214	6/14/2024	6/15/2024	SGSO	FC16476				Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-14 09:20 AM	2406SG29A	UNITED CARGO	016-38943214	6/14/2024	6/15/2024	SGSO	FC16476				Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-28 10:20 AM	2406AP29B	FEDEX	276489086663	6/28/2024	6/29/2024	APPL	24F0295				Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-28 10:20 AM	2406EU29B	ALASKA CARGO	027-33149664	6/28/2024	6/29/2024	EUT2	580-141637-1				Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-28 10:20 AM	2406AK29B	ALASKA CARGO	027-33149686	7/1/2024			1243279				Sampled																																			
	HDMW2253-03	WL	HDMW2253-03-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-28 10:20 AM	2406SG29B	UNITED CARGO	016-70781410	6/28/2024	6/29/2024	SGSO	FC16877				Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2406A	0	0	WG	N	1	G	2024-06-05 01:50 PM	2406AP11A	FEDEX	275615510340	6/6/2024	6/7/2024	APPL	24F0065				Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2406A	0	0	WG	N	1	G	2024-06-05 01:50 PM	2406EU10A	ALASKA CARGO	027-32587236	6/5/2024	6/6/2024	EUT2	580-140839-1				Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2406A	0	0	WG	N	1	G	2024-06-05 01:50 PM	2406AK10A	ALASKA CARGO	027-32587295	6/5/2024	6/6/2024	SGSA	1242588				Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2406A	0	0	WG	N	1	G	2024-06-05 01:50 PM	2406SG10A	UNITED CARGO	016-27371536	6/5/2024	6/7/2024	SGSO	FC16201				Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2406A	0	0	WG	N	1	G	2024-06-05 01:50 PM	2406SG10A	UNITED CARGO	016-27371536	6/5/2024	6/7/2024	SGSO	FC16201				Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2406B	0	0	WG	N	1	G	2024-06-19 01:40 PM	2406AP11B	FEDEX	276171059409	6/20/2024	6/21/2024	APPL	24F0221				Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2406B	0	0	WG	N	1	G	2024-06-19 01:40 PM	2406EU10B	ALASKA CARGO	027-32862476	6/19/2024	6/20/2024	EUT2	580-141313-1				Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2406B	0	0	WG	N	1	G	2024-06-19 01:40 PM	2406AK10B	ALASKA CARGO	027-33149653	6/19/2024	6/20/2024	SGSA	1242971				Sampled																																			
	RHMW11-05	WL	RHMW11-05-WGN01G-2406B	0	0	WG	N	1	G	2024-06-19 01:40 PM	2406SG10B	UNITED CARGO	016-68717390	6/19/2024	6/21/2024	SGSO	FC16624				Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 11:30 AM	2406AP11A	FEDEX	275802475980	6/11/2024	6/12/2024	APPL	24F0089				Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 11:30 AM	2406EU11A	ALASKA CARGO	027-32587251	6/11/2024	6/12/2024	EUT2	580-141030-1				Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 11:30 AM	2406AK11A	ALASKA CARGO	027-32862410	6/11/2024	6/12/2024	SGSA	1242775				Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 11:30 AM	2406SG11A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347				Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 11:30 AM	2406SG11A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347				Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-25 10:40 AM	2406AP11B	FEDEX	276353107124	6/25/2024	6/26/2024	APPL	24F0252				Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-25 10:40 AM	2406EU11B	ALASKA CARGO	027-32862546	6/25/2024	6/26/2024	EUT2	580-141495-1				Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-25 10:40 AM	2406AK11B	ALASKA CARGO	027-32862513	6/25/2024	6/26/2024	SGSA	1243133				Sampled																																			
	RHMW12A	WL	RHMW12A-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-25 10:40 AM	2406SG11B	UNITED CARGO	016-70710194	6/25/2024	6/27/2024	SGSO	FC16768				Sampled																																			
	RHMW14-03	WL	RHMW14-03-WGN01G-2406A	0	0	WG	N	1	G	2024-06-05 10:20 AM	2406AP14A	FEDEX	275615510340	6/6/2024	6/7/2024	APPL	24F0065				Sampled																																			
	RHMW14-03	WL	RHMW14-03-WGN01G-2406A	0</																																																				

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 June and Q2 GW LTM

Event ID: 2163

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Ammonia (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E355.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)
RHMW02	WL	RHMW02-WGFD01B-2406B	0	0	WG	FD	1	B	2024-06-17 11:50 AM	2406SG02B	UNITED CARGO	016-92119705	6/17/2024	6/19/2024	SGSO	FC16545				Sampled															
RHMW02	WL	RHMW02-WGFD01LF-2406A	0	0	WG	FD	1	LF	2024-06-03 12:30 PM	2406SG02A	UNITED CARGO	016-27371514	6/3/2024	6/5/2024	SGSO	FC16127				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGFD01LF-2406B	0	0	WG	FD	1	LF	2024-06-17 12:20 PM	2406SG02B	UNITED CARGO	016-92119705	6/17/2024	6/19/2024	SGSO	FC16545				Sampled															
RHMW02	WL	RHMW02-WGN01B-2406A	0	0	WG	N	1	B	2024-06-03 12:00 PM	2406SG02A	UNITED CARGO	016-27371514	6/3/2024	6/5/2024	SGSO	FC16127				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01B-2406B	0	0	WG	N	1	B	2024-06-17 11:50 AM	2406SG02B	UNITED CARGO	016-92119705	6/17/2024	6/19/2024	SGSO	FC16545				Sampled															
RHMW02	WL	RHMW02-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-03 12:30 PM	2406AP21A	FEDEX	275516587756	6/4/2024	6/5/2024	APPL	24F0036				S4VEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-03 12:30 PM	2406EU02A	ALASKA CARGO	027-32862340	6/3/2024	6/4/2024	EUT2	580-140728-1				S4VEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-03 12:30 PM	2406AK02A	ALASKA CARGO	027-32587273	6/3/2024	6/4/2024	SGSA	1242688				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-03 12:30 PM	2406SG02A	UNITED CARGO	016-27371514	6/3/2024	6/5/2024	SGSO	FC16127				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-17 12:20 PM	2406AP02B	FEDEX	276080579314	6/18/2024	6/19/2024	APPL	24F0209				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-17 12:20 PM	2406EU02B	ALASKA CARGO	027-32862406	6/17/2024	6/18/2024	EUT2	580-141196-1				S4VEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-17 12:20 PM	2406AK02B	ALASKA CARGO	027-33149631	6/17/2024	6/18/2024	SGSA	1242926				S2BVEM	Sampled														
RHMW02	WL	RHMW02-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-17 12:20 PM	2406SG02B	UNITED CARGO	016-92119705	6/17/2024	6/19/2024	SGSO	FC16545				Sampled															
RHMW03	WL	RHMW03-WGN01B-2406A	0	0	WG	N	1	B	2024-06-04 10:00 AM	2406SG03A	UNITED CARGO	016-27371525	6/4/2024	6/6/2024	SGSO	FC16178				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01B-2406B	0	0	WG	N	1	B	2024-06-19 08:55 AM	2406SG03B	UNITED CARGO	016-68717390	6/19/2024	6/21/2024	SGSO	FC16624				Sampled															
RHMW03	WL	RHMW03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 10:40 AM	2406AP05A	FEDEX	275516587756	6/4/2024	6/5/2024	APPL	24F0036				S4VEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 10:40 AM	2406EU03A	ALASKA CARGO	027-32587225	6/4/2024	6/5/2024	EUT2	580-140777-1				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 10:40 AM	2406AK03A	ALASKA CARGO	027-32862395	6/4/2024	6/5/2024	SGSA	1242587				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 10:40 AM	2406SG03A	UNITED CARGO	016-27371525	6/4/2024	6/6/2024	SGSO	FC16178				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 10:40 AM	2406SG03A	UNITED CARGO	016-27371525	6/4/2024	6/6/2024	SGSO	FC16178				Sampled															
RHMW03	WL	RHMW03-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-19 09:15 AM	2406AP05B	FEDEX	276171059409	6/20/2024	6/21/2024	APPL	24F0221				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-19 09:15 AM	2406EU03B	ALASKA CARGO	027-32862476	6/19/2024	6/20/2024	EUT2	580-141313-1				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-19 09:15 AM	2406AK03B	ALASKA CARGO	027-33149653	6/19/2024	6/20/2024	SGSA	1242971				S2BVEM	Sampled														
RHMW03	WL	RHMW03-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-19 09:15 AM	2406SG03B	UNITED CARGO	016-68717390	6/19/2024	6/21/2024	SGSO	FC16624				Sampled															
RHMW04	WL	RHMW04-WGN01B-2406A	0	0	WG	N	1	B	2024-06-11 08:40 AM	2406SG04A	UNITED CARGO	016-38943170	6/11/2024		SGSO	FC16347				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01B-2406B	0	0	WG	N	1	B	2024-06-25 12:40 PM	2406SG04B	UNITED CARGO	016-70710194	6/25/2024	6/27/2024	SGSO	FC16768				Sampled															
RHMW04	WL	RHMW04-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 09:30 AM	2406AP04A	FEDEX	275802475980	6/11/2024	6/12/2024	APPL	24F0089				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 09:30 AM	2406EU04A	ALASKA CARGO	027-32587251	6/11/2024	6/12/2024	EUT2	580-141030-1				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 09:30 AM	2406AK04A	ALASKA CARGO	027-32862410	6/11/2024	6/12/2024	SGSA	1242775				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 09:30 AM	2406SG04A	UNITED CARGO	016-38943170	6/11/2024		SGSO	FC16347				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-11 09:30 AM	2406SG04A	UNITED CARGO	016-38943170	6/11/2024		SGSO				Sampled																
RHMW04	WL	RHMW04-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-25 01:25 PM	2406AP04B	FEDEX	276353107124	6/25/2024	6/26/2024	APPL	24F0252				Sampled															
RHMW04	WL	RHMW04-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-25 01:25 PM	2406EU04B	ALASKA CARGO	027-32862546	6/25/2024	6/26/2024	EUT2	580-141495-1				Sampled															
RHMW04	WL	RHMW04-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-25 01:25 PM	2406AK04B	ALASKA CARGO	027-32862513	6/25/2024	6/26/2024	SGSA	1243133				S2BVEM	Sampled														
RHMW04	WL	RHMW04-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-25 01:25 PM	2406SG04B	UNITED CARGO	016-70710194	6/25/2024	6/27/2024	SGSO	FC16768				Sampled															
RHMW05	WL	RHMW05-WGN01B-2406A	0	0	WG	N	1	B	2024-06-05 10:50 AM	2406SG05A	UNITED CARGO	016-27371536	6/5/2024	6/7/2024	SGSO	FC16201				S2BVEM	Sampled														
RHMW05	WL	RHMW05-WGN01B-2406B	0	0	WG	N	1	B	2024-06-18 10:25 AM	2406SG05B	UNITED CARGO	016-68716642	6/18/2024	6/20/2024	SGSO	FC16584				Sampled															
RHMW05	WL	RHMW05-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-05 11:30 AM	2406AP06A	FEDEX	275615510340	6/6/2024	6/7/2024	APPL	24F0065				S2BVEM	Sampled														
RHMW05	WL	RHMW05-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-05 11:30 AM	2406EU05A	ALASKA CARGO	027-32587236	6/5/2024	6/6/2024	EUT2	580-140839-1				S2BVEM	Sampled														
RHMW05	WL	RHMW05-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-05 11:30 AM	2406AK05A	ALASKA CARGO	027-32587295	6/5/2024	6/6/2024	SGSA	1242588				S4VEM	Sampled														
RHMW05	WL	RHMW05-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-05 11:30 AM	2406SG05A	UNITED CARGO	016-27371536	6/5/2024	6/7/2024	SGSO	FC16201				S2BVEM	Sampled														
RHMW05	WL	RHMW05-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-05 11:30 AM	2406SG05A	UNITED CARGO	016-27371536	6/5/2024	6/7/2024	SGSO	FC16201				Sampled															
RHMW05	WL	RHMW05-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-18 10:50 AM	2406AP05B	FEDEX	276080579314	6/18/2024	6/19/2024	APPL	24F0209				S2BVEM	Sampled														
RHMW05	WL	RHMW05-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-18 10:50 AM	2406EU05B	ALASKA CARGO	027-32862443	6/18/2024	6/19/2024	EUT2	580-141257-1				S2BVEM	Sampled														
RHMW05	WL	RHMW05-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-18 10:50 AM	2406AK05B	ALASKA CARGO																								

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 June and Q2 GW LTM

Event ID: 2163

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Ammonia (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E353.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)
RHMW06	WL	RHMW06-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-06 12:05 PM	2406SG06A	UNITED CARGO	016-29594062	6/6/2024	6/8/2024	SGSO	FC16242				Sampled															
RHMW06	WL	RHMW06-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-20 12:25 PM	2406AP06B	FEDEX	276171059409	6/20/2024	6/21/2024	APPL	24F0221				S2BVEM	Sampled														
RHMW06	WL	RHMW06-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-20 12:25 PM	2406EU06B	ALASKA CARGO	027-32862480	6/20/2024	6/21/2024	EUT2	580-141360-1				S2BVEM	Sampled	*	*												
RHMW06	WL	RHMW06-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-20 12:25 PM	2406AK06B	ALASKA CARGO	027-32862535	6/20/2024	6/21/2024	SGSA	1242997				S2BVEM	Sampled														
RHMW06	WL	RHMW06-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-20 12:25 PM	2406SG06B	UNITED CARGO	016-68717644	6/20/2024	6/22/2024	SGSO	FC16667				Sampled			*	*											
RHMW08	WL	RHMW08-WGN01B-2406A	0	0	WG	N	1	B	2024-06-03 01:55 PM	2406SG07A	UNITED CARGO	016-27371514	6/3/2024	6/5/2024	SGSO	FC16127				S2BVEM	Sampled														
RHMW08	WL	RHMW08-WGN01B-2406B	0	0	WG	N	1	B	2024-06-17 02:15 PM	2406SG07B	UNITED CARGO	016-92119705	6/17/2024	6/19/2024	SGSO	FC16545				Sampled															
RHMW08	WL	RHMW08-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-03 03:05 PM	2406AP02A	FEDEX	275516587756	6/4/2024	6/5/2024	APPL	24F0036				S4VEM	Sampled														
RHMW08	WL	RHMW08-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-03 03:05 PM	2406EU07A	ALASKA CARGO	027-32862340	6/3/2024	6/4/2024	EUT2	580-140728-1				S4VEM	Sampled	*	*												
RHMW08	WL	RHMW08-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-03 03:05 PM	2406AK07A	ALASKA CARGO	027-32587273	6/3/2024	6/4/2024	SGSA	1242688				S2BVEM	Sampled														
RHMW08	WL	RHMW08-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-03 03:05 PM	2406SG07A	UNITED CARGO	016-27371514	6/3/2024	6/5/2024	SGSO	FC16127				S2BVEM	Sampled		*	*											
RHMW08	WL	RHMW08-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-17 03:45 PM	2406AP07B	FEDEX	276080579314	6/18/2024	6/19/2024	APPL	24F0209				S2BVEM	Sampled														
RHMW08	WL	RHMW08-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-17 03:45 PM	2406EU07B	ALASKA CARGO	027-32862406	6/17/2024	6/18/2024	EUT2	580-141196-1				S4VEM	Sampled	*	*												
RHMW08	WL	RHMW08-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-17 03:45 PM	2406AK07B	ALASKA CARGO	027-33149631	6/17/2024	6/18/2024	SGSA	1242926				S2BVEM	Sampled														
RHMW08	WL	RHMW08-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-17 03:45 PM	2406SG07B	UNITED CARGO	016-92119705	6/17/2024	6/19/2024	SGSO	FC16545				Sampled			*	*											
RHMW09	WL	RHMW09-WGN01B-2406A	0	0	WG	N	1	B	2024-06-04 11:10 AM	2406SG08A	UNITED CARGO	016-27371525	6/4/2024	6/6/2024	SGSO	FC16178				S2BVEM	Sampled														
RHMW09	WL	RHMW09-WGN01B-2406B	0	0	WG	N	1	B	2024-06-18 10:35 AM	2406SG08B	UNITED CARGO	016-68716642	6/18/2024	6/20/2024	SGSO	FC16584				Sampled															
RHMW09	WL	RHMW09-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 12:05 PM	2406AP09A	FEDEX	275516587756	6/4/2024	6/5/2024	APPL	24F0036				S4VEM	Sampled														
RHMW09	WL	RHMW09-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 12:05 PM	2406EU08A	ALASKA CARGO	027-32587225	6/4/2024	6/5/2024	EUT2	580-140777-1				S2BVEM	Sampled	*	*												
RHMW09	WL	RHMW09-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 12:05 PM	2406AK08A	ALASKA CARGO	027-32862395	6/4/2024	6/5/2024	SGSA	1242587				S2BVEM	Sampled														
RHMW09	WL	RHMW09-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 12:05 PM	2406SG08A	UNITED CARGO	016-27371525	6/4/2024	6/6/2024	SGSO	FC16178				S2BVEM	Sampled		*	*											
RHMW09	WL	RHMW09-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 12:05 PM	2406SG08A	UNITED CARGO	016-27371525	6/4/2024	6/6/2024	SGSO	FC16178				Sampled															
RHMW09	WL	RHMW09-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-18 11:15 AM	2406AP08B	FEDEX	276080579314	6/18/2024	6/19/2024	APPL	24F0209				S2BVEM	Sampled														
RHMW09	WL	RHMW09-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-18 11:15 AM	2406EU08B	ALASKA CARGO	027-32862443	6/18/2024	6/19/2024	EUT2	580-141257-1				S2BVEM	Sampled	*	*												
RHMW09	WL	RHMW09-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-18 11:15 AM	2406AK08B	ALASKA CARGO	027-32862502	6/18/2024	6/20/2024	SGSA	1242970				S4VEM	Sampled														
RHMW09	WL	RHMW09-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-18 11:15 AM	2406SG08B	UNITED CARGO	016-68716642	6/18/2024	6/20/2024	SGSO	FC16584				Sampled			*	*											
RHMW10	WL	RHMW10-WGN01B-2406A	0	0	WG	N	1	B	2024-06-07 11:10 AM	2406SG09A	UNITED CARGO	016-43149993	6/7/2024	6/10/2024	SGSO	FC16262				S2BVEM	Sampled														
RHMW10	WL	RHMW10-WGN01B-2406B	0	0	WG	N	1	B	2024-06-21 10:15 AM	2406SG09B	UNITED CARGO	016-68718112	6/21/2024	6/22/2024	SGSO	FC16682				Sampled															
RHMW10	WL	RHMW10-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-07 12:07 PM	2406AP10A	FEDEX	275661788569	6/7/2024	6/8/2024	APPL	24F0071				S2BVEM	Sampled														
RHMW10	WL	RHMW10-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-07 12:07 PM	2406EU09A	ALASKA CARGO	027-32862362	6/7/2024	6/8/2024	EUT2	580-140943-1				S2BVEM	Sampled	*	*												
RHMW10	WL	RHMW10-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-07 12:07 PM	2406AK09A	ALASKA CARGO	027-32587343	6/10/2024	6/11/2024	SGSA	1242723				S2BVEM	Sampled														
RHMW10	WL	RHMW10-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-07 12:07 PM	2406SG09A	UNITED CARGO	016-43149993	6/7/2024	6/10/2024	SGSO	FC16262				S2BVEM	Sampled		*	*											
RHMW10	WL	RHMW10-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-07 12:07 PM	2406SG09A	UNITED CARGO	016-43149993	6/7/2024	6/10/2024	SGSO	FC16262				Sampled															
RHMW10	WL	RHMW10-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-21 11:05 AM	2406AP09B	NA	NA	6/21/2024	6/22/2024	APPL	24F0234				S4VEM	Sampled														
RHMW10	WL	RHMW10-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-21 11:05 AM	2406EU09B	ALASKA CARGO	027-32862491	6/21/2024	6/22/2024	EUT2	580-141405-1				S2BVEM	Sampled	*	*												
RHMW10	WL	RHMW10-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-21 11:05 AM	2406AK09B	ALASKA CARGO	027-33149642	6/24/2024	6/25/2024	SGSA	1243112				S2BVEM	Sampled														
RHMW10	WL	RHMW10-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-21 11:05 AM	2406SG09B	UNITED CARGO	016-68718112	6/21/2024	6/22/2024	SGSO	FC16682				Sampled			*	*											
RHMW13-04	WL	RHMW13-04-WGN01G-2406A	0	0	WG	N	1	G	2024-06-10 10:45 AM	2406AP12A	FEDEX	275802475980	6/11/2024	6/12/2024	APPL	24F0089				S2BVEM	Sampled														
RHMW13-04	WL	RHMW13-04-WGN01G-2406A	0	0	WG	N	1	G	2024-06-10 10:45 AM	2406EU12A	ALASKA CARGO	027-32587310	6/10/2024	6/11/2024	EUT2	580-140995-1				S2BVEM	Sampled	*	*												
RHMW13-04	WL	RHMW13-04-WGN01G-2406A	0	0	WG	N	1	G	2024-06-10 10:45 AM	2406AK12A	ALASKA CARGO	027-32587343	6/10/2024	6/11/2024	SGSA	1242723				S2BVEM	Sampled														
RHMW13-04	WL	RHMW13-04-WGN01G-2406A	0	0	WG	N	1	G	2024-06-10 10:45 AM	2406SG12A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347				S2BVEM	Sampled		*	*											
RHMW13-04	WL	RHMW13-04-WGN01G-2406A	0	0	WG	N	1	G	2024-06-10 10:45 AM	2406SG12A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347				Sampled															
RHMW13-04	WL	RHMW13-04-WGN01G-2406B	0	0	WG	N	1	G	2024-06-24 11:40 AM	2406AP12B	FEDEX	276353107124	6/25/2024	6/26/2024	APPL	24F0252				Sampled															
RHMW13-04	WL	RHMW13-04-WGN01G-2406B	0	0	WG	N	1	G	2024-06-24 11:40 AM	2406EU12B	ALASKA CARGO	027-32862572	6/24/2024	6/25/2024	EUT2	580-141461-1				S2BVEM	Sampled	*	*												
RHMW13-04	WL	RHMW13-04-WGN01G-2406B	0	0	WG	N	1	G	2024-06-24 11:40 AM	2406AK12B	ALASKA CARGO	027-33149642	6/24/2024	6/25/2024	SGSA	1243112				S2BVEM	Sampled	</													

Event Status Report
 RH Consolidated Groundwater Program
 RHS CGW UFP-QAPP

Event Name: Monthly 2024 June and Q2 GW LTM

Event ID: 2163

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Anions SO4 Cl N (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E353.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)				
RHMW15-05	WL	RHMW15-05-WGN01G-2406B	0	0	WG	N	1	G	2024-06-17 10:00 AM	2406EU14B	ALASKA CARGO	027-32862406	6/17/2024	6/18/2024	EUT2	580-141196-1				S4VEM	Sampled																		
RHMW15-05	WL	RHMW15-05-WGN01G-2406B	0	0	WG	N	1	G	2024-06-17 10:00 AM	2406AK14B	ALASKA CARGO	027-33149631	6/17/2024	6/18/2024	SGSA	1242926				S2BVEM	Sampled																		
RHMW15-05	WL	RHMW15-05-WGN01G-2406B	0	0	WG	N	1	G	2024-06-17 10:00 AM	2406SG14B	UNITED CARGO	016-92119705	6/17/2024	6/19/2024	SGSO	FC16545					Sampled																		
RHMW16	WL	RHMW16-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-06 10:30 AM	2406AP04A	FEDEX	275615510340	6/6/2024	6/7/2024	APPL	24F0065				S2BVEM	Sampled																		
RHMW16	WL	RHMW16-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-06 10:30 AM	2406EU15A	ALASKA CARGO	027-32862351	6/6/2024	6/7/2024	EUT2	580-140889-1				S2BVEM	Sampled																		
RHMW16	WL	RHMW16-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-06 10:30 AM	2406AK15A	ALASKA CARGO	027-32587306	6/6/2024	6/7/2024	SGSA	1242639				S2BVEM	Sampled																		
RHMW16	WL	RHMW16-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-06 10:30 AM	2406SG15A	UNITED CARGO	016-29594062	6/6/2024	6/8/2024	SGSO	FC16242				S2BVEM	Sampled																		
RHMW16	WL	RHMW16-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-06 10:30 AM	2406SG15A	UNITED CARGO	016-29594062	6/6/2024	6/8/2024	SGSO	FC16242					Sampled																		
RHMW16	WL	RHMW16-WGFD01B-2406B	0	0	WG	N	1	LF	2024-06-20 10:55 AM	2406AP15B	FEDEX	276171059409	6/20/2024	6/21/2024	APPL	24F0221				S2BVEM	Sampled																		
RHMW16	WL	RHMW16-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-20 10:55 AM	2406EU15B	ALASKA CARGO	027-32862480	6/20/2024	6/21/2024	EUT2	580-141360-1				S2BVEM	Sampled																		
RHMW16	WL	RHMW16-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-20 10:55 AM	2406AK15B	ALASKA CARGO	027-32862535	6/20/2024	6/21/2024	SGSA	1242997				S2BVEM	Sampled																		
RHMW16	WL	RHMW16-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-20 10:55 AM	2406SG15B	UNITED CARGO	016-68717644	6/20/2024	6/22/2024	SGSO	FC16667					Sampled																		
RHMW17	WL	RHMW17-WGFD01B-2406A	0	0	WG	FD	1	B	2024-06-10 02:20 PM	2406SG16A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347				S2BVEM	Sampled																		
RHMW17	WL	RHMW17-WGFD01B-2406B	0	0	WG	FD	1	B	2024-06-24 08:45 AM	2406SG16B	UNITED CARGO	016-70710076	6/24/2024	6/26/2024	SGSO	FC16725					Sampled																		
RHMW17	WL	RHMW17-WGFD01LF-2406A	0	0	WG	FD	1	LF	2024-06-10 03:20 PM	2406SG16A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347				S2BVEM	Sampled																		
RHMW17	WL	RHMW17-WGFD01LF-2406A	0	0	WG	FD	1	LF	2024-06-10 03:20 PM	2406SG16A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347					Sampled																		
RHMW17	WL	RHMW17-WGFD01LF-2406B	0	0	WG	FD	1	LF	2024-06-24 09:25 AM	2406SG16B	UNITED CARGO	016-70710076	6/24/2024	6/26/2024	SGSO	FC16725					Sampled																		
RHMW17	WL	RHMW17-WGN01B-2406A	0	0	WG	N	1	B	2024-06-10 02:20 PM	2406SG16A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347				S2BVEM	Sampled																		
RHMW17	WL	RHMW17-WGN01B-2406B	0	0	WG	N	1	B	2024-06-24 08:45 AM	2406SG16B	UNITED CARGO	016-70710076	6/24/2024	6/26/2024	SGSO	FC16725					Sampled																		
RHMW17	WL	RHMW17-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-10 03:20 PM	2406AP16A	FEDEX	275802475980	6/11/2024	6/12/2024	APPL	24F0089				S2BVEM	Sampled																		
RHMW17	WL	RHMW17-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-10 03:20 PM	2406EU16A	ALASKA CARGO	027-32587310	6/10/2024	6/11/2024	EUT2	580-140995-1				S2BVEM	Sampled																		
RHMW17	WL	RHMW17-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-10 03:20 PM	2406AK16A	ALASKA CARGO	027-32587343	6/10/2024	6/11/2024	SGSA	1242723				S2BVEM	Sampled																		
RHMW17	WL	RHMW17-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-10 03:20 PM	2406SG16A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347				S2BVEM	Sampled																		
RHMW17	WL	RHMW17-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-10 03:20 PM	2406SG16A	UNITED CARGO	016-38943170	6/11/2024	6/12/2024	SGSO	FC16347					Sampled																		
RHMW17	WL	RHMW17-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-24 09:25 AM	2406AP16B	FEDEX	276353107124	6/25/2024	6/26/2024	APPL	24F0252					Sampled																		
RHMW17	WL	RHMW17-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-24 09:25 AM	2406EU16B	ALASKA CARGO	027-32862572	6/24/2024	6/25/2024	EUT2	580-141461-1				S2BVEM	Sampled																		
RHMW17	WL	RHMW17-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-24 09:25 AM	2406AK16B	ALASKA CARGO	027-33149642	6/24/2024	6/25/2024	SGSA	1243112				S2BVEM	Sampled																		
RHMW17	WL	RHMW17-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-24 09:25 AM	2406SG16B	UNITED CARGO	016-70710076	6/24/2024	6/26/2024	SGSO	FC16725					Sampled																		
RHMW18	WL	RHMW18-WGN01B-2406A	0	0	WG	N	1	B	2024-06-13 12:30 PM	2406SG36A	UNITED CARGO	016-44037895	6/13/2024	6/15/2024	SGSO	FC16461				S2BVEM	Sampled																		
RHMW18	WL	RHMW18-WGN01B-2406B	0	0	WG	N	1	B	2024-06-27 09:10 AM	2406SG36B	UNITED CARGO	016-70712703	6/27/2024	6/29/2024	SGSO	FC16872					Sampled																		
RHMW18	WL	RHMW18-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-13 01:50 PM	2406AP26A	FEDEX	275898289494	6/13/2024	6/14/2024	APPL	24F0171				S2BVEM	Sampled																		
RHMW18	WL	RHMW18-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-13 01:50 PM	2406EU36A	ALASKA CARGO	027-32862384	6/13/2024	6/14/2024	EUT2	580-141104-1				S2BVEM	Sampled																		
RHMW18	WL	RHMW18-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-13 01:50 PM	2406AK36A	ALASKA CARGO	027-32862432	6/13/2024	6/14/2024	SGSA	1242832				S2BVEM	Sampled																		
RHMW18	WL	RHMW18-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-13 01:50 PM	2406SG36A	UNITED CARGO	016-44037895	6/13/2024	6/15/2024	SGSO	FC16461				S2BVEM	Sampled																		
RHMW18	WL	RHMW18-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-13 01:50 PM	2406SG36A	UNITED CARGO	016-44037895	6/13/2024	6/15/2024	SGSO	FC16461					Sampled																		
RHMW18	WL	RHMW18-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-27 10:30 AM	2406AP36B	FEDEX	276445789114	6/27/2024	6/28/2024	APPL	24F0281					Sampled																		
RHMW18	WL	RHMW18-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-27 10:30 AM	2406EU36B	ALASKA CARGO	027-32862524	6/27/2024	6/28/2024	EUT2	580-141582-1					Sampled																		
RHMW18	WL	RHMW18-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-27 10:30 AM	2406AK36B	ALASKA CARGO	027-32862561	6/27/2024	6/28/2024	SGSA	1243190					Sampled																		
RHMW18	WL	RHMW18-WGN01LF-2406B	0	0	WG	N	1	LF	2024-06-27 10:30 AM	2406SG36B	UNITED CARGO	016-70712703	6/27/2024	6/29/2024	SGSO	FC16872					Sampled																		
RHMW19	WL	RHMW19-WGN01B-2406A	0	0	WG	N	1	B	2024-06-04 08:45 AM	2406SG17A	UNITED CARGO	016-27371525	6/4/2024	6/6/2024	SGSO	FC16178				S2BVEM	Sampled																		
RHMW19	WL	RHMW19-WGN01B-2406B	0	0	WG	N	1	B	2024-06-18 08:25 AM	2406SG17B	UNITED CARGO	016-68716642	6/18/2024	6/20/2024	SGSO	FC16584					Sampled																		
RHMW19	WL	RHMW19-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 09:45 AM	2406AP13A	FEDEX	275516587756	6/4/2024	6/5/2024	APPL	24F0036				S4VEM	Sampled																		
RHMW19	WL	RHMW19-WGN01LF-2406A	0	0	WG	N	1	LF	2024-06-04 09:45 AM	2406EU17A	ALASKA CARGO	027-32587225	6/4/2024	6/																									

Event Status Report
RH Consolidated Groundwater Program
RHS CGW UFP-QAPP

Event Name: Monthly 2024 July and Q3 GW LTM

Event ID: 2164

Site	Location	Location Type	Field Sample ID	Begin Depth	End Depth	Matrix	Sample Type	Sample No.	Samp. Method	Sampling Date	Chain of Custody	Shipping Method	Shipment Number	Tracking Number	Laboratory Shipped Date	Laboratory Receipt Date	Lab	SDG	TAT (Days)	Validation TAT (Days)	Review Type	Sampling Status	Alkalinity (A2320B)	Ammonia SC4 CIN (E300)	BNA SIM SGS 18 Analytes (BNASIME)	EDB SGS (SW8011)	Ferrous Iron (A3500B)	Methane (RSK175)	Nitrate Nitrite (E353.2)	NPOC (SW9060A)	Phenol SGS (SW8270)	TOC (SW9060A)	TPH Diesel and Oil SGS (SW8015C)	TPH Diesel and Oil Silica Gel EU SGS (M8015D)	TPH Gasoline SGS (M8015V)	VOCs BTEX DCA12 TMBs SGS (SW8260D)			
RHP03	WL	WL	RHP03-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 08:40 AM	2407AP23A	FEDEX	276731735470		7/5/2024	7/6/2024	APPL	24G0029				Sampled																	
RHP03	WL	WL	RHP03-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 08:40 AM	2407EU23A	ALASKA CARGO	027-32862594		7/3/2024	7/4/2024	EUT2	580-141789-1				Sampled	*	*															
RHP03	WL	WL	RHP03-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 08:40 AM	2407AK23A	ALASKA CARGO	027-33482002		7/8/2024		SGSA					Sampled							*	*									
RHP03	WL	WL	RHP03-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 08:40 AM	2407SG23A	UNITED CARGO	016-43265843		7/3/2024	7/5/2024	SGSO	FC16969				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
RHP04A	WL	WL	RHP04A-WGN01B-2407A	0	0	WG	N	1	B	2024-07-03 09:40 AM	2407SG24A	UNITED CARGO	016-43265843		7/3/2024	7/5/2024	SGSO	FC16969				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
RHP04A	WL	WL	RHP04A-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 10:20 AM	2407AP24A	FEDEX	276731735470		7/5/2024	7/6/2024	APPL	24G0029				Sampled				*													*
RHP04A	WL	WL	RHP04A-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 10:20 AM	2407EU24A	ALASKA CARGO	027-32862594		7/3/2024	7/4/2024	EUT2	580-141789-1				Sampled	*	*				*											
RHP04A	WL	WL	RHP04A-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 10:20 AM	2407AK24A	ALASKA CARGO	027-33482002		7/8/2024		SGSA					Sampled							*	*									
RHP04A	WL	WL	RHP04A-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 10:20 AM	2407SG24A	UNITED CARGO	016-43265843		7/3/2024	7/5/2024	SGSO	FC16969				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
RHP05	WL	WL	RHP05-WGN01B-2407A	0	0	WG	N	1	B	2024-07-03 12:05 PM	2407SG27A	UNITED CARGO	016-43265843		7/3/2024	7/5/2024	SGSO	FC16969				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
RHP05	WL	WL	RHP05-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 12:50 PM	2407AP27A	FEDEX	276731735470		7/5/2024	7/6/2024	APPL	24G0029				Sampled				*													*
RHP05	WL	WL	RHP05-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 12:50 PM	2407EU27A	ALASKA CARGO	027-32862594		7/3/2024	7/4/2024	EUT2	580-141789-1				Sampled	*	*				*											
RHP05	WL	WL	RHP05-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 12:50 PM	2407AK27A	ALASKA CARGO	027-33482002		7/8/2024		SGSA					Sampled						*	*										
RHP05	WL	WL	RHP05-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 12:50 PM	2407SG27A	UNITED CARGO	016-43265843		7/3/2024	7/5/2024	SGSO	FC16969				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
RHP06	WL	WL	RHP06-WGN01B-2407A	0	0	WG	N	1	B	2024-07-05 08:30 AM	2407SG30A	UNITED CARGO	016-43339811		7/5/2024	7/6/2024	SGSO	FC16987				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
RHP06	WL	WL	RHP06-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-05 09:05 AM	2407AP30A	FEDEX	276731735470		7/5/2024	7/6/2024	APPL	24G0029				Sampled				*													*
RHP06	WL	WL	RHP06-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-05 09:05 AM	2407EU30A	ALASKA CARGO	027-32862605		7/5/2024	7/6/2024	EUT2	580-141818-1				Sampled	*	*				*											
RHP06	WL	WL	RHP06-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-05 09:05 AM	2407AK30A	ALASKA CARGO	027-33482002		7/8/2024		SGSA					Sampled						*	*										
RHP06	WL	WL	RHP06-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-05 09:05 AM	2407SG30A	UNITED CARGO	016-43339811		7/5/2024	7/6/2024	SGSO	FC16987				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
RHP07	WL	WL	RHP07-WGN01B-2407A	0	0	WG	N	1	B	2024-07-03 08:47 AM	2407SG28A	UNITED CARGO	016-43265843		7/3/2024	7/5/2024	SGSO	FC16969				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
RHP07	WL	WL	RHP07-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 09:20 AM	2407AP28A	FEDEX	276731735470		7/5/2024	7/6/2024	APPL	24G0029				Sampled				*													*
RHP07	WL	WL	RHP07-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 09:20 AM	2407EU28A	ALASKA CARGO	027-32862594		7/3/2024	7/4/2024	EUT2	580-141789-1				Sampled	*	*				*											
RHP07	WL	WL	RHP07-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 09:20 AM	2407AK28A	ALASKA CARGO	027-33482002		7/8/2024		SGSA					Sampled						*	*										
RHP07	WL	WL	RHP07-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-03 09:20 AM	2407SG28A	UNITED CARGO	016-43265843		7/3/2024	7/5/2024	SGSO	FC16969				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
RHP08	WL	WL	RHP08-WGFD01B-2407A	0	0	WG	FD	1	B	2024-07-05 11:10 AM	2407SG33A	UNITED CARGO	016-43339811		7/5/2024	7/6/2024	SGSO	FC16987				Sampled		*															*
RHP08	WL	WL	RHP08-WGFD01LF-2407A	0	0	WG	FD	1	LF	2024-07-05 12:00 PM	2407SG33A	UNITED CARGO	016-43339811		7/5/2024	7/6/2024	SGSO	FC16987				Sampled		*															*
RHP08	WL	WL	RHP08-WGN01B-2407A	0	0	WG	N	1	B	2024-07-05 11:10 AM	2407SG33A	UNITED CARGO	016-43339811		7/5/2024	7/6/2024	SGSO	FC16987				Sampled		*															*
RHP08	WL	WL	RHP08-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-05 12:00 PM	2407AP33A	FEDEX	276731735470		7/5/2024	7/6/2024	APPL	24G0029				Sampled				*													*
RHP08	WL	WL	RHP08-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-05 12:00 PM	2407EU33A	ALASKA CARGO	027-32862605		7/5/2024	7/6/2024	EUT2	580-141818-1				Sampled	*	*				*											
RHP08	WL	WL	RHP08-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-05 12:00 PM	2407AK33A	ALASKA CARGO	027-33482002		7/8/2024		SGSA					Sampled						*	*										
RHP08	WL	WL	RHP08-WGN01LF-2407A	0	0	WG	N	1	LF	2024-07-05 12:00 PM	2407SG33A	UNITED CARGO	016-43339811		7/5/2024	7/6/2024	SGSO	FC16987				Sampled		*	*		*		*	*	*	*	*	*	*	*	*	*	
No Review Type																						23	23	28	23	23	23	23	23	27	23	27	27	27	27	51			
Site Location Count																						23	23	28	23	23	23	23	23	27	23	27	27	27	27	51			
Total Location Count																						25	25	30	25	25	25	25	25	29	25	29	29	29	29	53			

Note: This event has missing samples in Event Management. Please refer to the Unplanned Field Samples report to identify the remaining samples that have not been planned yet.

Status	Color	Matrix Name	Matrix	Sampling Method	Code	Laboratory Name	Laboratory Code	Location Type	Code
Status Not Determined		Ground Water	WG	Bailer	B	Agriculture & Priority Pollutants Laboratories, Inc.	APPL	Well	WL
Scheduled for Analysis; Awaiting Field Data				Grab	G	Eurofins Environment Testing TestAmerica, Tacoma, WA	EUT2		
Chain of Custody Data Loaded and Certified; Awaiting Lab Data				Low-Flow (Slow Purge) Groundwater Pumping	LF	SGS North America, Inc., Anchorage, AK	SGSA		
Laboratory Data Loaded and Certified; Awaiting Validation						SGS North America, Inc., Orlando, FL	SGSO		
Validation Qualifiers Finalized; Awaiting Approval									
Approval Complete; Data In Production									

Appendix B.2 – Monitoring Well Measurements

Appendix B.2.1 – LNAPL Gauging, Monitoring Well Headspace Measurements, and General Chemistry Parameters

Red Hill Bulk Fuel Storage Facility
Notice of Interest 20210507-0852 (6 May 2021 Event)
Notice of Interest 20211120-2330 (20 Nov 2021 Event)
Headspace, Fuel Product Gauging, and Parameters

HDMW2253-03 Headspace and Product Gauging							HDMW2253-03 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
04/08/2024	04/12/2024	0.0	0.0	208.28	No	-	307.32	6.44	0.47	0.36	28.88	23.24	62.8	0.23
05/13/2024	05/17/2024	0.0	0.0	207.98	No	-	269.95	6.40	0.42	0.46	16.60	23.33	115.6	0.20
05/27/2024	05/28/2024	0.0	0.0	207.77	No	-	296.89	6.45	0.46	0.42	17.59	23.67	118.3	0.22
06/10/2024	06/14/2024	0.0	0.0	207.82	No	-	305.42	6.43	0.47	0.34	25.35	23.30	114.2	0.23
06/24/2024	06/28/2024	0.0	0.0	207.78	No	-	270.58	6.43	0.42	0.29	26.63	23.64	105.2	0.20
NMW24 Headspace and Product Gauging							NMW24 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/15/2024	0.0	0.0	90.69	No	-	437.90	7.25	0.67	5.37	0.00	25.56	296.5	0.30
05/27/2024	05/29/2024	0.0	0.0	90.48	No	-	396.00	7.04	0.61	5.73	0.02	25.81	254.8	0.30
06/10/2024	06/12/2024	0.0	0.0	90.54	No	-	406.90	7.00	0.60	5.60	0.00	25.70	219.3	0.31
06/24/2024	06/26/2024	0.0	0.0	90.56	No	-	415.20	7.00	0.60	5.50	0.80	25.20	267.5	0.30
07/08/2024	07/10/2024	0.0	0.0	90.55	No	-	421.60	7.10	0.70	5.40	0.00	25.90	231.8	0.30
NMW25 Headspace and Product Gauging							NMW25 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/15/2024	0.0	0.0	190.41	No	-	957.60	7.04	1.47	7.74	0.20	26.70	312.1	0.75
05/27/2024	05/29/2024	0.0	0.0	190.24	No	-	904.60	6.99	1.39	7.96	0.20	26.90	269.6	0.71
06/10/2024	06/12/2024	0.0	0.0	190.33	No	-	900.12	7.00	1.40	7.80	0.20	27.00	210.5	0.70
06/24/2024	06/26/2024	0.0	0.0	190.34	No	-	914.66	6.91	1.40	7.80	0.70	27.29	277.7	0.70
07/08/2024	07/10/2024	0.0	0.0	190.33	No	-	895.20	7.00	1.40	8.20	0.10	26.93	244.5	0.70
NMW26 Headspace and Product Gauging							NMW26 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/13/2024	0.0	0.0	750	No	-	217.83	7.63	0.34	0.67	2.70	24.80	298.5	0.20
05/27/2024	05/28/2024	0.0	0.0	749.75	No	-	227.01	7.55	0.35	0.55	0.20	24.90	92.9	0.20
06/10/2024	06/10/2024	0.0	0.0	749.9	No	-	224.00	8.00	0.30	1.30	12.62	26.30	102.2	0.20
06/24/2024	06/24/2024	0.0	0.0	749.95	No	-	238.40	7.60	0.40	0.80	10.80	24.80	172.6	0.20
07/08/2024	07/08/2024	0.0	0.0	749.94	No	-	225.70	7.40	0.35	0.80	0.30	25.30	29.4	0.20

Red Hill Bulk Fuel Storage Facility
Notice of Interest 20210507-0852 (6 May 2021 Event)
Notice of Interest 20211120-2330 (20 Nov 2021 Event)
Headspace, Fuel Product Gauging, and Parameters

NMW30 Headspace and Product Gauging							NMW30 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
04/08/2024	04/11/2024	0.0	0.0	291.45	No	-	415.80	7.40	0.64	0.47	2.88	25.04	59.6	0.30
05/13/2024	05/16/2024	0.0	0.0	291	No	-	458.60	7.50	0.71	0.54	0.28	24.90	152.1	0.40
05/27/2024	05/30/2024	0.0	0.0	291.45	No	-	441.80	7.52	0.68	0.50	10.75	25.50	117.9	0.30
06/10/2024	06/13/2024	0.0	0.0	290.97	No	-	403.29	7.35	0.60	0.80	0.00	25.60	100.5	0.30
06/24/2024	06/27/2024	0.0	0.0	290.91	No	-	425.70	7.40	0.70	1.50	0.19	25.50	212.9	0.30

NMW32 Headspace and Product Gauging							NMW32 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
04/08/2024	04/11/2024	0.0	0.0	170.64	No	-	683.24	7.19	1.05	5.99	0.44	26.20	232.6	0.50
05/13/2024	05/16/2024	0.0	0.0	170.24	No	-	749.10	7.29	1.15	5.66	0.40	25.95	288.9	0.58
05/27/2024	05/30/2024	0.0	0.0	170.21	No	-	699.30	7.27	1.08	4.43	0.30	26.62	217.3	0.54
06/10/2024	06/13/2024	0.0	0.0	170.2	No	-	736.00	7.30	1.10	4.90	0.40	26.73	282.3	0.57
06/24/2024	06/27/2024	0.0	0.0	170.17	No	-	737.90	7.30	1.10	5.06	0.26	27.20	288.0	0.60

NMW33 Headspace and Product Gauging							NMW33 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
04/08/2024	04/11/2024	0.0	0.0	117.8	No	-	914.70	7.50	1.41	6.60	0.60	25.72	230.8	0.71
05/13/2024	05/16/2024	0.0	0.0	117.88	No	-	896.60	7.60	1.38	6.58	0.00	24.90	272.6	0.70
05/27/2024	05/30/2024	0.0	0.0	117.79	No	-	920.06	7.55	1.42	6.68	4.50	26.50	238.5	0.70
06/10/2024	06/13/2024	0.0	0.0	117.74	No	-	964.70	7.60	1.50	6.50	1.40	25.70	269.4	0.80
06/24/2024	06/25/2024	0.0	0.0	117.59	No	-	905.70	7.70	1.40	6.40	0.40	26.60	242.5	0.70

NMW34 Headspace and Product Gauging							NMW34 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
4/8/2024	4/10/2024	0	0	66.22	No	-	451.05	6.66	0.69	5.56	0.41	25.37	290.8	0.34
05/13/2024	05/14/2024	0.3	0.3	65.08	No	-	465.79	6.74	0.72	5.35	0.00	25.90	307.0	0.40
05/27/2024	05/28/2024	0.0	0.0	64.8	No	-	455.84	6.64	0.70	5.38	0.13	26.08	273.5	0.40
06/10/2024	06/11/2024	0.0	0.0	64.85	No	-	485.50	6.70	0.80	5.30	1.39	25.74	308.1	0.40
06/24/2024	06/25/2024	0.0	0.0	64.88	No	-	417.40	6.70	0.60	5.27	0.02	25.78	277.2	0.30
07/08/2024	07/09/2024	0.4	0.0	64.87	No	-	472.00	6.41	0.73	5.80	0.50	25.90	190.1	0.40

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OWDFMW03A Headspace and Product Gauging							OWDFMW03A Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/15/2024	0.0	0.4	-	No	-	241.20	7.99	0.37	2.00	1.35	25.53	182.0	0.20
05/27/2024	05/31/2024	0.0	0.0	-	No	-	264.90	8.20	0.41	2.08	0.54	25.88	217.9	0.20
06/10/2024	06/14/2024	0.0	0.0	-	No	-	241.70	7.95	0.40	1.30	6.30	25.90	131.1	0.20
06/24/2024	06/26/2024	0.0	0.0	-	No	-	280.70	8.20	0.40	0.80	0.20	25.80	166.0	0.20
07/08/2024	07/10/2024	0.0	0.0	-	No	-	250.40	8.30	0.40	1.40	0.30	26.00	191.7	0.20
OWDFMW08A Headspace and Product Gauging							OWDFMW08A Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/15/2024	0.0	0.2	115.8	No	-	674.70	7.04	1.04	4.68	0.90	25.50	144.3	0.52
05/27/2024	05/31/2024	0.0	0.0	115.71	No	-	715.60	7.09	1.10	4.99	7.80	25.50	273.0	0.55
06/10/2024	06/12/2024	0.0	0.0	115.78	No	-	722.40	7.00	1.10	4.90	1.52	25.45	285.2	0.60
06/24/2024	06/26/2024	0.0	0.0	115.79	No	-	744.10	7.00	1.10	5.00	0.50	25.80	291.6	0.57
07/08/2024	07/10/2024	0.0	0.0	115.72	No	-	673.20	7.10	1.00	4.90	0.90	25.80	115.8	0.52
RHMW01R Headspace and Product Gauging							RHMW01R Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/09/2024	0.0	0.3	83.79	No	-	189.15	6.96	0.29	0.23	0.19	23.54	-45.1	0.14
05/20/2024	05/23/2024	0.0	0.0	83.61	No	-	212.30	7.01	0.33	0.15	0.00	23.48	10.8	0.16
06/03/2024	06/03/2024	0.0	0.0	83.47	No	-	198.77	6.84	0.31	0.21	0.00	23.62	-55.5	0.15
06/17/2024	06/17/2024	1.5	0.0	83.5	No	-	205.53	7.01	0.32	0.12	0.00	23.44	-10.6	0.15
07/01/2024	07/01/2024	0.0	0.0	83.5	No	-	195.01	6.89	0.30	0.20	0.04	23.65	-41.7	0.14
RHMW02 Headspace and Product Gauging							RHMW02 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/09/2024	0.0	0.5	86.71	No	-	315.60	6.69	0.49	0.08	0.30	24.50	-114.2	0.20
05/20/2024	05/23/2024	0.0	0.0	86.53	No	-	368.00	6.69	0.57	0.02	0.80	24.50	-176.7	0.30
06/03/2024	06/03/2024	0.0	0.0	86.38	No	-	324.10	6.70	0.50	0.10	0.00	24.50	-126.5	0.24
06/17/2024	06/17/2024	0.0	0.0	86.42	No	-	331.00	6.80	0.50	0.00	0.00	24.50	-76.7	0.30
07/01/2024	07/01/2024	0.0	0.0	86.45	No	-	318.50	6.70	0.50	0.10	0.10	24.50	-136.6	0.20

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RHMW03 Headspace and Product Gauging							RHMW03 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/07/2024	0.0	0.0	103.03	No	-	525.00	6.86	0.81	0.53	0.10	27.10	203.7	0.40
05/20/2024	05/23/2024	0.0	0.0	102.76	No	-	545.00	6.84	0.84	0.49	0.00	27.20	159.1	0.40
06/03/2024	06/04/2024	0.0	0.0	102.63	No	-	480.73	6.80	0.70	0.60	0.30	27.30	250.6	0.40
06/17/2024	06/19/2024	0.0	0.2	102.73	No	-	486.10	6.79	0.75	0.60	0.80	27.20	229.8	0.40
07/01/2024	07/02/2024	0.0	1.7	102.78	No	-	514.70	6.80	0.80	0.60	0.40	27.10	203.3	0.39
RHMW04 Headspace and Product Gauging							RHMW04 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/14/2024	0.0	0.1	294.27	No	-	264.27	7.33	0.41	8.77	0.30	22.80	289.7	0.20
05/27/2024	05/31/2024	0.0	0.0	294.04	No	-	264.04	7.32	0.41	8.69	0.28	23.20	272.9	0.20
06/10/2024	06/11/2024	0.0	0.0	294.08	No	-	259.40	7.59	0.40	8.80	0.00	23.30	253.3	0.20
06/24/2024	06/25/2024	0.0	0.0	294.5	No	-	287.48	7.36	0.40	8.60	0.00	24.20	288.9	0.20
07/08/2024	07/09/2024	0.0	0.0	294.05	No	-	287.07	7.42	0.40	8.80	0.00	23.30	346.4	0.20
RHMW05 Headspace and Product Gauging							RHMW05 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/08/2024	0.0	0.0	83.45	No	-	193.20	7.38	0.30	7.59	0.30	23.00	246.1	0.10
05/20/2024	05/22/2024	0.0	0.0	83.16	No	-	218.60	7.43	0.34	7.65	0.40	23.10	333.5	0.20
06/03/2024	06/05/2024	0.0	0.0	83.23	No	-	198.90	7.30	0.30	7.60	0.22	23.20	249.0	0.20
06/17/2024	06/18/2024	0.1	0.0	83.11	No	-	198.30	7.70	0.30	7.60	0.20	23.00	200.8	0.20
07/01/2024	07/03/2024	0.0	0.0	83.3	No	-	205.19	7.30	0.30	7.60	0.00	23.10	304.9	0.20
RHMW06 Headspace and Product Gauging							RHMW06 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/06/2024	0.1	0.1	241.2	No	-	1055.40	6.88	1.62	6.86	0.30	24.70	219.3	0.83
05/20/2024	05/20/2024	0.0	0.0	240.93	No	-	1027.80	7.09	1.58	6.61	0.14	25.70	330.3	0.80
06/03/2024	06/06/2024	0.0	0.0	241.03	No	-	1002.43	6.77	1.50	6.80	0.50	25.80	265.8	0.80
06/17/2024	06/20/2024	0.0	0.0	241.03	No	-	1009.80	6.90	1.60	6.50	0.80	25.19	295.6	0.80
07/01/2024	07/01/2024	0.0	0.0	240.96	No	-	1076.10	6.90	1.70	6.60	0.00	25.30	300.3	0.90

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RHMW08 Headspace and Product Gauging							RHMW08 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/06/2024	0.0	0.0	292.61	No	-	417.52	8.01	0.64	4.00	0.70	25.00	112.0	0.30
05/20/2024	05/20/2024	0.0	0.0	292.37	No	-	427.70	8.02	0.66	3.68	0.00	24.97	250.9	0.30
06/03/2024	06/03/2024	0.0	0.1	292.29	No	-	451.70	7.90	0.70	2.40	0.00	25.63	195.6	0.34
06/17/2024	06/17/2024	0.0	0.0	292.32	No	-	417.90	8.00	0.60	0.40	0.00	25.14	-188.8	0.30
07/01/2024	07/01/2024	0.0	0.0	292.35	No	-	453.30	7.80	0.70	0.80	0.00	24.90	171.2	0.30
RHMW09 Headspace and Product Gauging							RHMW09 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/07/2024	0.0	0.0	377.88	No	-	205.47	7.50	0.32	8.64	0.20	23.90	271.9	0.20
05/20/2024	05/21/2024	0.0	0.0	377.49	No	-	199.90	7.32	0.31	8.63	0.00	24.00	338.4	0.15
06/03/2024	06/04/2024	0.0	0.0	377.47	No	-	211.60	7.00	0.30	8.60	0.30	25.00	259.4	0.20
06/17/2024	06/18/2024	0.0	0.0	377.55	No	-	221.70	7.60	0.30	8.40	0.10	24.40	266.5	0.20
07/01/2024	07/02/2024	0.0	0.0	377.66	No	-	201.70	7.63	0.30	8.50	0.10	25.00	252.3	0.20
RHMW10 Headspace and Product Gauging							RHMW10 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/10/2024	0.0	0.0	477.75	No	-	185.80	7.37	0.29	8.57	0.80	24.40	304.0	0.10
05/20/2024	05/24/2024	0.0	0.0	477.65	No	-	177.20	6.90	0.27	8.55	0.40	25.00	252.2	0.13
06/03/2024	06/07/2024	0.0	0.0	477.6	No	-	193.20	7.30	0.30	8.24	0.47	25.13	309.0	0.10
06/17/2024	06/21/2024	0.0	0.0	477.63	No	-	175.30	7.30	0.30	8.40	0.00	24.56	303.3	0.10
07/01/2024	07/05/2024	0.0	0.0	477.57	No	-	200.10	7.40	0.30	8.43	0.01	24.20	254.6	0.20
RHMW11-05 Headspace and Product Gauging							RHMW11-05 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/08/2024	0.0	0.0	-	No	-	271.90	8.01	0.42	1.56	0.51	25.89	36.6	0.20
05/20/2024	05/22/2024	0.0	0.0	-	No	-	238.60	8.00	0.37	2.10	1.00	26.50	-57.0	0.20
06/03/2024	06/05/2024	0.0	0.2	-	No	-	268.80	8.03	0.40	0.80	0.80	27.80	45.8	0.20
06/17/2024	06/19/2024	0.0	0.0	-	No	-	258.60	8.20	0.40	1.60	0.70	27.30	-16.0	0.20
07/01/2024	07/03/2024	0.0	0.0	-	No	-	258.50	8.20	0.40	0.80	0.00	25.30	-49.1	0.20

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RHMW12A Headspace and Product Gauging							RHMW12A Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/14/2024	0.0	0.0	220.73	No	-	210.50	8.38	0.32	7.07	0.06	25.26	250.8	0.20
05/27/2024	05/29/2024	0.0	0.0	220.45	No	-	195.40	8.28	0.30	7.27	0.10	25.30	229.8	0.10
06/10/2024	06/11/2024	0.0	0.0	220.51	No	-	215.10	8.40	0.33	7.01	0.06	25.40	247.9	0.20
06/24/2024	06/25/2024	0.0	0.0	220.52	No	-	189.08	8.60	0.30	7.10	0.10	25.20	213.3	0.10
RHMW13-04 Headspace and Product Gauging							RHMW13-04 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/13/2024	0.0	0.0	-	No	-	204.70	7.46	0.31	3.90	0.71	24.93	227.4	0.20
05/27/2024	05/29/2024	0.0	0.0	-	No	-	224.00	7.77	0.34	2.75	8.91	26.08	243.1	0.20
06/10/2024	06/10/2024	0.0	0.0	-	No	-	214.60	7.90	0.33	4.70	0.70	27.70	174.4	0.16
06/24/2024	06/24/2024	0.0	0.0	-	No	-	204.70	8.20	0.30	2.30	0.20	25.21	185.0	0.15
07/08/2024	07/08/2024	0.0	0.0	-	No	-	237.70	8.00	0.40	1.70	0.30	24.50	192.7	0.20
RHMW14-03 Headspace and Product Gauging							RHMW14-03 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/08/2024	0.0	0.0	-	No	-	190.77	7.90	0.29	3.02	0.50	25.70	208.2	0.10
05/20/2024	05/22/2024	0.0	0.0	-	No	-	166.20	8.04	0.26	2.67	1.10	25.60	181.9	0.10
06/03/2024	06/05/2024	0.0	0.0	-	No	-	194.40	7.90	0.30	1.90	0.66	26.94	204.6	0.10
06/17/2024	06/19/2024	0.0	0.0	-	No	-	179.80	8.10	0.30	4.40	0.40	25.40	187.7	0.10
07/01/2024	07/03/2024	0.0	0.0	-	No	-	178.90	8.00	0.30	1.50	0.00	24.10	214.7	0.10
RHMW15-05 Headspace and Product Gauging							RHMW15-05 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/06/2024	0.0	0.0	-	No	-	215.80	7.69	0.33	2.79	0.30	25.60	201.5	0.20
05/20/2024	05/20/2024	0.0	0.0	-	No	-	215.40	7.88	0.33	2.22	0.70	28.10	222.4	0.20
06/03/2024	06/03/2024	0.0	0.0	-	No	-	224.40	7.73	0.40	2.80	0.10	29.70	220.4	0.20
06/17/2024	06/17/2024	0.0	0.0	-	No	-	198.71	7.81	0.31	4.10	0.40	27.40	37.4	0.20
07/01/2024	07/01/2024	0.0	0.0	-	No	-	201.70	7.70	0.31	4.06	0.80	29.90	201.4	0.20

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RHMW16 Headspace and Product Gauging							RHMW16 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/06/2024	0.0	0.0	201.93	No	-	227.01	7.94	0.35	8.61	0.30	25.20	199.6	0.20
05/20/2024	05/20/2024	0.0	0.0	201.7	No	-	231.91	8.06	0.36	8.43	0.10	25.80	287.3	0.20
06/03/2024	06/06/2024	0.0	0.0	201.75	No	-	235.70	7.90	0.36	8.68	0.16	25.30	228.1	0.20
06/17/2024	06/20/2024	0.0	0.0	201.79	No	-	226.70	7.93	0.40	8.80	0.80	24.90	271.1	0.20
07/01/2024	07/02/2024	0.0	0.0	201.85	No	-	258.10	8.00	0.40	8.60	0.00	24.80	284.7	0.20
RHMW17 Headspace and Product Gauging							RHMW17 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/13/2024	0.0	0.0	234.48	No	-	244.10	7.49	0.38	4.06	0.40	24.20	241.7	0.18
05/27/2024	05/29/2024	0.1	0.0	234.3	No	-	267.70	7.59	0.41	3.88	5.10	23.80	230.2	0.20
06/10/2024	06/10/2024	0.0	0.0	234.23	No	-	245.66	7.00	0.40	3.31	0.20	25.30	260.9	0.18
06/24/2024	06/24/2024	0.0	0.0	234.35	No	-	236.90	7.60	0.40	4.22	0.83	23.90	252.7	0.20
07/08/2024	07/08/2024	0.0	0.0	234.25	No	-	277.60	7.70	0.40	3.56	0.00	25.00	232.8	0.20
RHMW18 Headspace and Product Gauging							RHMW18 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
04/08/2024	04/11/2024	0.0	0.0	604.67	No	-	220.60	9.10	0.34	0.69	0.15	24.47	164.4	0.16
05/13/2024	05/17/2024	0.0	0.0	604.32	No	-	214.94	9.37	0.33	1.43	0.20	24.40	135.3	0.20
05/27/2024	05/30/2024	0.0	0.0	604.1	No	-	239.71	9.28	0.37	7.34	0.00	25.40	167.2	0.20
06/10/2024	06/13/2024	0.0	0.0	604.25	No	-	230.80	9.00	0.40	1.30	0.00	24.90	82.7	0.17
06/24/2024	06/27/2024	0.0	0.0	604.29	No	-	221.10	9.50	0.30	1.10	0.00	24.90	96.1	0.20
RHMW19 Headspace and Product Gauging							RHMW19 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/07/2024	0.0	0.0	426.7	No	-	176.90	7.65	0.27	8.65	0.40	24.70	216.9	0.13
05/20/2024	05/21/2024	0.0	0.0	426.46	No	-	172.60	7.60	0.27	8.62	0.00	24.85	333.2	0.10
06/03/2024	06/04/2024	0.0	0.0	426.41	No	-	181.30	7.60	0.28	8.70	0.10	24.90	214.7	0.13
06/17/2024	06/18/2024	0.0	0.0	426.54	No	-	190.50	7.70	0.30	8.50	0.10	24.10	222.1	0.14
07/01/2024	07/02/2024	0.0	0.0	426.54	No	-	172.50	7.70	0.30	8.70	0.00	24.60	248.4	0.10

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RHMW20 Headspace and Product Gauging							RHMW20 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
04/08/2024	04/12/2024	0.0	0.0	238.1	No	-	1236.70	7.10	1.90	5.96	0.00	24.40	127.8	1.00
05/13/2024	05/16/2024	0.0	0.0	237.73	No	-	1129.30	7.14	1.74	6.10	0.01	23.80	306.5	0.90
05/27/2024	05/31/2024	0.0	0.0	237.64	No	-	1175.10	7.08	1.81	6.07	0.12	24.30	269.8	0.90
06/10/2024	06/14/2024	0.0	0.0	237.66	No	-	1232.41	7.11	1.90	6.20	0.00	24.70	281.2	1.00
06/24/2024	06/26/2024	0.0	0.0	237.63	No	-	1278.03	7.11	1.97	6.10	0.20	25.20	303.3	1.00
07/08/2024	07/09/2024	0.0	0.0	237.6	No	-	1269.00	6.90	2.00	6.70	0.60	25.30	233.6	1.00
RHMW2254-01 Headspace and Product Gauging							RHMW2254-01 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/07/2024	0.0	0.0	88.55	No	-	392.28	7.62	0.60	8.49	0.00	22.00	273.7	0.30
05/20/2024	05/24/2024	0.0	0.0	88.22	No	-	351.10	7.75	0.54	8.68	0.09	22.10	373.2	0.30
06/03/2024	06/04/2024	0.0	0.0	87.94	No	-	359.80	7.60	0.60	8.18	0.00	22.30	275.3	0.27
06/17/2024	06/19/2024	0.0	0.0	88.23	No	-	335.78	7.24	0.50	8.70	0.40	22.40	301.4	0.25
07/01/2024	07/02/2024	0.0	0.0	88.25	No	-	351.60	7.40	0.50	8.60	0.00	22.30	298.3	0.26
RHP01 Headspace and Product Gauging							RHP01 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/06/2024	0.0	0.0	139.29	No	-	434.82	6.98	0.67	6.86	0.01	24.92	297.0	0.30
05/20/2024	05/20/2024	0.0	0.0	138.46	No	-	433.10	6.86	0.67	6.92	0.20	24.30	336.6	0.30
06/03/2024	06/06/2024	0.0	0.0	139.2	No	-	426.30	6.80	0.70	6.90	0.10	24.90	243.3	0.32
06/17/2024	06/20/2024	0.0	0.0	139.22	No	-	411.20	6.90	0.60	7.00	0.50	24.50	303.0	0.30
07/01/2024	07/01/2024	0.0	0.0	139.03	No	-	443.04	6.90	0.70	7.00	0.00	25.70	313.1	0.30
RHP02 Headspace and Product Gauging							RHP02 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/09/2024	0.0	0.0	121.73	No	-	490.00	6.92	0.75	7.71	0.30	24.50	315.3	0.37
05/20/2024	05/23/2024	0.0	0.0	121.6	No	-	460.20	6.84	0.71	7.67	0.50	26.30	248.2	0.40
06/03/2024	06/06/2024	0.1	0.1	121.53	No	-	491.82	6.78	0.80	7.70	0.80	26.70	324.5	0.40
06/17/2024	06/20/2024	0.0	0.0	121.64	No	-	457.90	7.20	0.70	7.69	0.18	25.60	294.4	0.40
07/01/2024	07/02/2024	0.0	0.0	122	No	-	526.50	6.90	0.81	7.70	0.00	25.40	342.5	0.40

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RHP03 Headspace and Product Gauging							RHP03 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/09/2024	0.0	0.0	118.91	No	-	704.70	7.36	1.08	4.61	0.40	24.40	260.2	0.50
05/20/2024	05/23/2024	0.0	0.1	118.8	No	-	662.10	7.14	1.02	4.35	0.55	25.80	247.2	0.50
06/03/2024	06/06/2024	0.1	0.1	118.81	No	-	709.20	7.40	1.10	4.00	0.74	26.95	257.7	0.60
06/17/2024	06/20/2024	0.0	0.0	118.89	No	-	660.90	7.40	1.00	3.70	0.10	25.63	245.5	0.50
07/01/2024	07/03/2024	0.0	0.0	118.87	No	-	720.20	7.40	1.10	3.70	0.00	24.60	292.9	0.60
RHP04A Headspace and Product Gauging							RHP04A Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/09/2024	0.6	0.6	139.87	No	-	631.70	7.37	0.97	3.89	0.40	25.30	260.3	0.50
05/20/2024	05/23/2024	0.0	0.0	139.77	No	-	589.00	7.05	0.91	3.81	0.70	27.10	199.3	0.50
06/03/2024	06/06/2024	0.0	0.1	139.77	No	-	622.70	7.40	1.00	3.60	4.50	26.70	251.0	0.50
06/17/2024	06/20/2024	0.0	0.0	139.87	No	-	580.90	7.40	0.89	3.70	0.00	25.70	267.4	0.40
07/01/2024	07/03/2024	0.0	0.0	139.82	No	-	646.10	7.30	0.99	3.90	0.00	26.00	308.2	0.50
RHP04B Headspace and Product Gauging							RHP04B Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/14/2024	0.0	0.1	139.37	No	-	353.40	7.93	0.54	0.20	0.73	25.83	-92.3	0.30
05/27/2024	05/28/2024	0.0	0.0	138.69	No	-	371.40	7.97	0.57	0.14	0.14	26.00	-97.4	0.28
06/10/2024	06/11/2024	0.0	0.0	138.88	No	-	343.50	8.00	0.50	0.20	0.14	26.36	-129.6	0.30
06/24/2024	06/25/2024	0.0	0.0	138.91	No	-	375.40	8.00	0.58	0.20	0.00	25.50	-43.6	0.28
07/08/2024	07/09/2024	0.0	0.0	138.89	No	-	350.80	8.00	0.50	0.30	0.00	26.62	-101.4	0.26
RHP04C Headspace and Product Gauging							RHP04C Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/13/2024	05/14/2024	0.0	0.2	138.37	No	-	883.90	7.40	1.36	0.60	0.60	25.80	111.5	0.69
05/27/2024	05/28/2024	0.1	0.0	138.01	No	-	908.20	7.46	1.40	0.72	0.40	26.60	142.6	0.71
06/10/2024	06/11/2024	0.0	0.0	138.2	No	-	871.70	7.40	1.30	0.80	0.40	26.20	151.8	0.70
06/24/2024	06/25/2024	0.0	0.0	138.22	No	-	924.10	7.40	1.40	0.84	0.20	27.80	186.0	0.70
07/08/2024	07/09/2024	0.0	0.0	138.2	No	-	914.30	7.50	1.40	0.60	0.00	25.90	164.5	0.71

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RHP05 Headspace and Product Gauging							RHP05 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/10/2024	0.0	0.0	212.58	No	-	636.70	7.14	0.98	6.19	0.40	25.30	293.2	0.50
05/20/2024	05/24/2024	0.0	0.0	212.53	No	-	59.70	7.16	0.92	6.30	0.50	26.70	232.0	0.46
06/03/2024	06/07/2024	0.0	0.0	212.42	No	-	636.90	7.20	0.98	6.20	0.40	26.80	282.1	0.49
06/17/2024	06/21/2024	0.0	0.0	212.47	No	-	594.90	7.14	0.90	6.40	0.00	26.31	273.3	0.50
07/01/2024	07/03/2024	0.0	0.0	212.52	No	-	650.50	7.20	1.00	6.40	0.00	27.26	333.6	0.50
RHP06 Headspace and Product Gauging							RHP06 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/10/2024	1.2	0.8	253.53	No	-	600.30	7.04	0.92	6.79	1.63	25.38	215.7	0.50
05/20/2024	05/21/2024	0.0	0.0	252.79	No	-	577.20	7.02	0.89	6.60	0.00	25.80	319.8	0.44
06/03/2024	06/07/2024	0.0	0.0	252.87	No	-	582.20	7.00	0.90	6.80	0.90	26.20	280.4	0.50
06/17/2024	06/21/2024	0.0	0.0	252.87	No	-	597.90	6.90	0.90	7.60	0.50	26.00	301.5	0.50
07/01/2024	07/05/2024	0.0	0.0	252.9	No	-	580.90	7.00	0.90	6.90	0.00	25.50	274.5	0.40
RHP07 Headspace and Product Gauging							RHP07 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/08/2024	0.0	0.1	82.95	No	-	375.30	7.26	0.58	8.01	0.80	23.30	232.3	0.30
05/20/2024	05/22/2024	0.0	0.0	82.18	No	-	413.70	7.31	0.64	8.26	1.20	23.30	324.7	0.30
06/03/2024	06/05/2024	0.0	0.0	82.66	No	-	386.60	7.20	0.59	8.17	3.10	23.26	257.3	0.30
06/17/2024	06/18/2024	0.2	0.0	82.06	No	-	384.94	7.40	0.60	8.20	0.00	23.27	211.7	0.30
07/01/2024	07/03/2024	0.0	0.0	82.8	No	-	396.30	7.30	0.60	8.30	0.00	23.30	291.4	0.30
RHP08 Headspace and Product Gauging							RHP08 Parameter Readings							
WEEK	DATE	AMBIENT	HEADSPACE	Raw DTW	PRODUCT?	THICKNESS	TDS	pH	Sp. Cond.	D.O.	Turbidity	TEMP	ORP	SAL
		(ppmv)	(ppmv)	(ft btoc)	(Yes/No)	(ft)	(ppm)		(mS/cm)	(mg/L)	(NTU)	(°C)	(Mv)	(psu)
05/06/2024	05/10/2024	0.0	0.0	285.26	No	-	466.00	7.51	0.72	6.93	2.99	25.70	202.5	0.40
05/20/2024	05/21/2024	0.0	0.0	284.96	No	-	497.10	7.52	0.76	7.32	2.90	25.10	296.9	0.38
06/03/2024	06/07/2024	0.0	0.0	284.99	No	-	458.90	7.50	0.70	7.20	1.80	25.30	243.4	0.40
06/17/2024	06/21/2024	0.0	0.0	285.02	No	-	453.60	7.50	0.70	8.00	0.30	25.10	279.8	0.30
07/01/2024	07/05/2024	0.0	0.4	285.13	No	-	417.36	8.11	0.60	6.70	0.30	25.60	220.6	0.30

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Notes:

NM = No measurement taken, due to equipment installed in well.

DTW = Depth-to-water

ft = feet

ft btoc = feet below top of casing

- = Not applicable / no data available

ppmv = parts-per-million by volume

Depth to water measurements correction factors for Solinst groundwater-level measuring tapes N-1 through N-6 using the USGS calibration results are published in letters titled "Results from Calibration of Groundwater-Level Measuring Tapes" dated January 24, 2020 (N-1 and N-2) and December 14, 2022 (N 1, N-2, N-3, N-4, N 5 and N-6). Depth to water measurements correction factors for horizontal well displacement are derived from gyroscopic survey results for wells RHMW01R through RHMW19, OWDFMW01 through OWDFMW08A, HDMW2253-03, NMW24, RHP01 through RHP04A, RHP04C, and RHP07 and are pending results for wells RHMW20, RHP04B, and RHP05. Groundwater-level measuring tape and horizontal displacement correction factors for N-1 through N-6 for all wells are shown on "Correction Factor Tables".

All Westbay Wells - Westbay is a closed system and the sample port is not located at the water's surface, therefore free product will not be captured or observed. Headspace is measured from Westbay wells for almost all canister pulls. The highest reading measured for each sample is shown in this spreadsheet. Samples collected from Westbay wells are observed for free product during collection and will be noted.

Table includes all wells sampled during the reporting period, including wells with data that has not yet been validated.

RHP01 - 06/16/2023: Well added as part of the consolidated groundwater sampling program

RHP02 - 06/16/2023: Well added as part of the consolidated groundwater sampling program

RHP03 - 06/16/2023: Well added as part of the consolidated groundwater sampling program

RHP04A - 06/14/2023: Well added as part of the consolidated groundwater sampling program

RHP04B - 06/14/2023: Well added as part of the consolidated groundwater sampling program

RHP04C - 06/16/2023: Well added as part of the consolidated groundwater sampling program

RHP05 - 06/16/2023: Well added as part of the consolidated groundwater sampling program

RHP06 - 07/24/2023: Well added as part of the consolidated groundwater sampling program

RHP07 - 06/15/2023: Well added as part of the consolidated groundwater sampling program

RHP08 - 09/11/2023: Well added as part of the consolidated groundwater sampling program

NMW24 - 06/07/2023: Well added as part of the consolidated groundwater sampling program

NMW25 - 07/26/2023: Well added as part of the consolidated groundwater sampling program

NMW32 - 08/29/2023: Well added as part of the consolidated groundwater sampling program

RHMW03 - 09/07/2023: AquaTroll turbidity sensor wiper not turned on or missing causing bubbles to accumulate on the turbidity sensor and affecting parameter accuracy.

RHMW10 - 06/12/2023: Well added as part of the consolidated groundwater sampling program

RHMW10- 12/13/2023: AquaTroll specific conductivity/TDS/salinity sensor malfunction resulting in loss of recordable data. Parameter stabilization criteria met prior to sampling.

RHMW13 Zone 5 - 09/05/2023: Temperature reading higher than expected due to issue with temperature sensor.

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RHMW12A - All readings: Well screen is submerged and does not span the water's surface, therefore free product will not be captured or observed. Wells with submerged screens have a one-time bailer sample collected to verify no free product at the water's surface.

RHMW16 - All readings: Well screen is submerged and does not span the water's surface, therefore free product will not be captured or observed. Wells with submerged screens have a one-time bailer sample collected to verify no free product at the water's surface.

RHMW20 - 06/14/2023: Well added as part of the consolidated groundwater sampling program

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Tape Correction

Serial Number	Calibration Date	Beginning Depth (ft)	End Depth (ft)	Correction (ft)
N-1	2017	0.00	6.41	0.00
N-1	2017	6.42	14.02	0.00
N-1	2017	14.03	52.17	-0.01
N-1	2017	52.18	90.33	-0.02
N-1	2017	90.34	128.49	-0.03
N-1	2017	128.50	166.64	-0.04
N-1	2017	166.65	204.80	-0.05
N-1	2017	204.81	242.96	-0.06
N-1	2017	242.97	392.45	-0.07
N-1	2017	392.46	500.00	-0.07
N-2	2017	0.00	6.40	0.01
N-2	2017	6.41	8.23	0.01
N-2	2017	8.24	80.71	0.00
N-2	2017	80.72	161.31	-0.01
N-2	2017	161.32	253.61	-0.02
N-2	2017	253.62	364.91	-0.03
N-2	2017	364.92	516.53	-0.04
N-2	2017	516.54	593.17	-0.05
N-2	2017	593.18	764.02	-0.05
N-2	2017	764.03	1000.00	-0.06
N-1	2019	0.00	6.30	0.00
N-1	2019	6.31	29.17	0.00
N-1	2019	29.18	108.72	-0.01
N-1	2019	108.73	188.27	-0.02
N-1	2019	188.28	267.83	-0.03
N-1	2019	267.84	347.38	-0.04
N-1	2019	347.39	392.07	-0.05
N-1	2019	392.08	426.93	-0.05
N-1	2019	426.94	500.00	-0.06
N-2	2019	0.00	6.29	0.00
N-2	2019	6.30	48.47	0.00

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N-2	2019	48.48	113.38	-0.01
N-2	2019	113.39	181.28	-0.02
N-2	2019	181.29	252.63	-0.03
N-2	2019	252.64	328.02	-0.04
N-2	2019	328.03	408.23	-0.05
N-2	2019	408.24	494.31	-0.06
N-2	2019	494.32	587.79	-0.07
N-2	2019	587.80	592.86	-0.08
N-2	2019	592.87	690.98	-0.08
N-2	2019	690.99	807.72	-0.09
N-2	2019	807.73	945.40	-0.10
N-2	2019	945.41	1000.00	-0.11
N-1	2022	0.00	18.17	0.01
N-1	2022	18.18	24.44	0.01
N-1	2022	24.45	49.50	0.00
N-1	2022	49.51	74.57	-0.01
N-1	2022	74.58	99.64	-0.02
N-1	2022	99.65	124.71	-0.03
N-1	2022	124.72	149.78	-0.04
N-1	2022	149.79	174.84	-0.05
N-1	2022	174.85	199.91	-0.06
N-1	2022	199.92	224.98	-0.07
N-1	2022	224.99	250.05	-0.08
N-1	2022	250.06	275.11	-0.09
N-1	2022	275.12	393.17	-0.10
N-1	2022	393.18	500.00	-0.10
N-2	2022	0.00	7.39	-0.01
N-2	2022	7.40	18.18	-0.02
N-2	2022	18.19	28.82	-0.02
N-2	2022	28.83	51.17	-0.03
N-2	2022	51.18	74.58	-0.04
N-2	2022	74.59	99.21	-0.05
N-2	2022	99.22	125.27	-0.06

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N-2	2022	125.28	153.06	-0.07
N-2	2022	153.07	182.96	-0.08
N-2	2022	182.97	215.55	-0.09
N-2	2022	215.56	251.71	-0.10
N-2	2022	251.72	292.97	-0.11
N-2	2022	292.98	342.39	-0.12
N-2	2022	342.40	408.44	-0.13
N-2	2022	408.45	685.51	-0.14
N-2	2022	685.52	751.56	-0.13
N-2	2022	751.57	800.98	-0.12
N-2	2022	800.99	831.56	-0.11
N-2	2022	831.57	842.44	-0.11
N-2	2022	842.45	882.26	-0.10
N-2	2022	882.27	922.08	-0.09
N-2	2022	922.09	961.90	-0.08
N-2	2022	961.91	1000.00	-0.07
N-3	2022	0.00	7.03	0.00
N-3	2022	7.04	18.18	-0.01
N-3	2022	18.19	20.83	-0.01
N-3	2022	20.84	35.47	-0.02
N-3	2022	35.48	51.15	-0.03
N-3	2022	51.16	68.11	-0.04
N-3	2022	68.12	86.74	-0.05
N-3	2022	86.75	107.64	-0.06
N-3	2022	107.65	131.96	-0.07
N-3	2022	131.97	162.22	-0.08
N-3	2022	162.23	208.21	-0.09
N-3	2022	208.22	308.99	-0.10
N-3	2022	309.00	354.98	-0.09
N-3	2022	354.99	385.24	-0.08
N-3	2022	385.25	393.15	-0.07
N-3	2022	393.16	410.56	-0.07
N-3	2022	410.57	435.64	-0.06

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N-3	2022	435.65	460.72	-0.05
N-3	2022	460.73	485.80	-0.04
N-3	2022	485.81	500.00	-0.03
N-4	2022	0.00	0.48	-0.01
N-4	2022	0.49	11.83	-0.02
N-4	2022	11.84	18.19	-0.03
N-4	2022	18.20	23.66	-0.03
N-4	2022	23.67	36.04	-0.04
N-4	2022	36.05	49.06	-0.05
N-4	2022	49.07	62.83	-0.06
N-4	2022	62.84	77.49	-0.07
N-4	2022	77.50	93.25	-0.08
N-4	2022	93.26	110.39	-0.09
N-4	2022	110.40	129.36	-0.10
N-4	2022	129.37	150.90	-0.11
N-4	2022	150.91	176.49	-0.12
N-4	2022	176.50	209.96	-0.13
N-4	2022	209.97	368.42	-0.14
N-4	2022	368.43	393.21	-0.13
N-4	2022	393.22	402.24	-0.13
N-4	2022	402.25	433.12	-0.12
N-4	2022	433.13	463.99	-0.11
N-4	2022	464.00	494.86	-0.10
N-4	2022	494.87	500.00	-0.09
N-5	2022	0.00	3.66	0.03
N-5	2022	3.67	18.14	0.02
N-5	2022	18.15	32.69	0.02
N-5	2022	32.70	64.83	0.01
N-5	2022	64.84	101.37	0.00
N-5	2022	101.38	144.83	-0.01
N-5	2022	144.84	201.87	-0.02
N-5	2022	201.88	393.11	-0.03
N-5	2022	393.12	500.00	-0.03

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N-6	2022	0.00	6.02	-0.03
N-6	2022	6.03	18.20	-0.04
N-6	2022	18.21	37.84	-0.04
N-6	2022	37.85	72.83	-0.05
N-6	2022	72.84	112.18	-0.06
N-6	2022	112.19	158.10	-0.07
N-6	2022	158.11	215.65	-0.08
N-6	2022	215.66	305.93	-0.09
N-6	2022	305.94	393.17	-0.10
N-6	2022	393.18	750.00	-0.10

Tape calibration conducted by USGS on: September 13 - 15, 2017; September 11 - 13, 2019; and September 20 - 22, 2022

Tape Correction for Week of September 19, 2022

Well	Rental Oil/Water Interface Probe SN	Rental Oil/Water Interface Probe DTW (ft)	Reference Oil/Water Interface Probe SN	Reference Oil/Water Interface Probe DTW (ft)	Oil/Water Interface Probe Offset (ft)
RHMW01R	01-8854	83.80	N-3	83.78	-0.02
RHMW02	01-8854	86.70	N-3	86.69	-0.01
RHMW03	01-8854	102.93	N-3	102.90	-0.03
RHMW04	01-8854	294.30	N-5	294.10	-0.20
RHMW05	01-8854	83.40	N-3	83.40	0.00
RHMW06	01-8854	241.25	N-5	241.09	-0.16
RHMW08	01-8854	292.81	N-5	292.61	-0.20
RHMW09	01-8607	378.09	N-3	377.77	-0.32
RHMW12A	01-8854	220.85	N-4	220.81	-0.04
RHMW16	01-8854	202.07	N-4	202.01	-0.06
RHMW17	01-8854	234.51	N-3	234.41	-0.10
RHMW19	01-8607	427.27	N-3	426.90	-0.37
RHMW2254-01	01-8859	88.45	N-3	88.51	0.06
OWDFMW01	287303	120.49	N-3	120.38	-0.11
OWDFMW04A	25142	149.17	N-4	149.16	-0.01
OWDFMW05A	25142	100.98	N-4	100.98	0.00
OWDFMW07A	25142	101.77	N-4	101.77	0.00
OWDFMW08A	25142	115.93	N-4	115.93	0.00

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Monitoring Well Horizontal Displacement

Well	Horizontal Displacement Correction (ft)
RHMW01	None
RHMW01R	-0.06
RHMW02	-0.06
RHMW03	-0.04
RHMW04	-0.02
RHMW05	-0.01
RHMW06	-0.01
RHMW07	-0.01
RHMW08	-0.03
RHMW09	-0.24
RHMW10	-0.09
RHMW12A	-0.06
RHMW16	-0.90
RHMW17	-0.01
RHMW19	-0.21
RHMW20	pending
RHMW2254-01	NA
OWDFMW01	-0.03
OWDFMW04A	-0.03
OWDFMW05A	-0.03
OWDFMW07A	-0.08
OWDFMW08A	-0.08
HDMW2253-03	-0.01
NMW24	-0.06
NMW25	pending
NMW32	pending
NMW33	pending
NMW30	pending
RHP01	-0.04
RHP02	-0.02

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RHP03	-0.02
RHP04A	-0.04
RHP04B	pending
RHP04C	-0.02
RHP05	pending
RHP06	pending
RHP07	0.00
RHP08	pending

Not all wells currently have horizontal displacement correction factors. Horizontal displacement corrections will be updated once available. Horizontal displacement cannot be calculated for RHMW01. RHMW01 is a 1-inch well, which is too narrow for the gyroscopic survey tool.

Appendix B.2.2 – Monitoring Well Water Level Measurements

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
HDMW2253-03	09/05/2023	226.68	208.30	18.38	-0.08 [N-6]	—	208.22	18.46
	10/03/2023	226.68	208.37	18.31	-0.08 [N-6]	—	208.29	18.39
	11/07/2023	226.68	208.51	18.17	-0.13 [N-4]	—	208.38	18.3
	12/08/2023	226.68	208.33	18.35	-0.03 [N-5]	—	208.30	18.38
	12/15/2023	226.68	208.33	18.35	-0.03 [N-5]	—	208.30	18.38
	01/05/2024	226.68	208.29	18.39	-0.08 [N-6]	—	208.21	18.47
	02/09/2024	226.68	208.05	18.63	-0.08 [N-6]	—	207.97	18.71
	03/15/2024	226.68	208.13	18.55	-0.03 [N-5]	—	208.10	18.58
	04/12/2024	226.68	208.28	18.40	-0.13 [N-4]	—	208.15	18.53
	05/17/2024	226.68	207.98	18.42	-0.09 [N-2]	—	207.89	18.79
	05/28/2024	226.68	207.77	18.41	-0.09 [N-3]	—	207.68	19
	06/14/2024	226.68	207.82	18.44	-0.13 [N-4]	—	207.69	18.99
	06/28/2024	226.68	207.78	18.43	-0.13 [N-4]	—	207.65	19.03
	NMW24	09/08/2023	107.18	91.07	16.11	-0.08 [N-4]	-0.06	90.93
10/02/2023		107.18	91.06	16.12	0.00 [N-5]	-0.06	91.00	16.18
10/13/2023		107.18	91.13	16.05	0.00 [N-5]	-0.06	91.07	16.11
11/09/2023		107.18	91.17	16.01	-0.06 [N-3]	-0.06	91.05	16.13
12/08/2023		107.18	90.97	16.21	-0.06 [N-6]	-0.06	90.85	16.33
01/04/2024		107.18	90.93	16.25	-0.06 [N-3]	-0.06	90.81	16.37
02/14/2024		107.18	90.78	16.40	-0.08 [N-4]	-0.06	90.64	16.54
03/20/2024		107.18	90.85	16.33	-0.08 [N-4]	-0.06	90.71	16.47
04/10/2024		107.18	90.84	16.34	0.00 [N-5]	-0.06	90.78	16.4
05/15/2024		107.18	90.69	16.49	0.00 [N-5]	-0.06	90.63	16.55
05/29/2024		107.18	90.48	16.7	0.00 [N-5]	-0.06	90.42	16.76
06/12/2024		107.18	90.54	16.64	0.00 [N-5]	-0.06	90.48	16.7
06/26/2024		107.18	90.56	16.62	0.00 [N-5]	-0.06	90.50	16.68
07/10/2024		107.18	90.55	16.63	-0.06 [N-3]	-0.06	90.43	16.75
NMW25	09/07/2023	208.43	190.84	17.59	-0.08 [N-6]	—	190.76	17.67
	10/02/2023	208.43	190.89	17.54	-0.02 [N-5]	—	190.87	17.56
	10/13/2023	208.43	190.94	17.49	-0.02 [N-5]	—	190.92	17.51
	11/09/2023	208.43	190.99	17.44	-0.08 [N-6]	—	190.91	17.52
	12/07/2023	208.43	190.85	17.58	-0.09 [N-3]	—	190.76	17.67
	01/04/2024	208.43	190.73	17.70	-0.09 [N-3]	—	190.64	17.79
	02/14/2024	208.43	190.66	17.77	-0.13 [N-4]	—	190.53	17.9
	03/20/2024	208.43	190.72	17.71	-0.13 [N-4]	—	190.59	17.84
	04/10/2024	208.43	190.71	17.72	-0.02 [N-5]	—	190.69	17.74
	05/15/2024	208.43	190.41	18.02	-0.02 [N-5]	—	190.39	18.04
	05/29/2024	208.43	190.24	18.19	-0.02 [N-5]	—	190.22	18.21
	06/12/2024	208.43	190.33	18.1	-0.02 [N-5]	—	190.31	18.12
	06/26/2024	208.43	190.34	18.09	-0.02 [N-5]	—	190.32	18.11
	07/10/2024	208.43	190.33	18.1	-0.09 [N-3]	—	190.24	18.19
NMW26	05/13/2024	766.18	750.00	16.18	-0.13 [N-2]	—	749.87	16.31
	05/28/2024	766.18	749.75	16.43	-0.13 [N-2]	—	749.62	16.56
	06/10/2024	766.18	749.90	16.28	[N-7] ^a	—	749.9	16.28
	06/24/2024	766.18	749.95	16.23	[N-7] ^a	—	749.95	16.23
	07/08/2024	766.18	749.94	16.24	[N-7] ^a	—	749.94	16.24
NMW30	10/19/2023	308.85	291.65	17.20	-0.03 [N-5]	—	291.62	17.23
	11/09/2023	308.85	291.71	17.14	-0.03 [N-5]	—	291.68	17.17
	12/07/2023	308.85	291.54	17.31	-0.10 [N-3]	—	291.44	17.41
	01/04/2024	308.85	291.45	17.40	-0.03 [N-5]	—	291.42	17.43
	02/15/2024	308.85	291.35	17.50	-0.09 [N-6]	—	291.26	17.59
	03/20/2024	308.85	291.43	17.42	-0.11 [N-2]	—	291.32	17.53
	04/11/2024	308.85	291.45	17.40	-0.09 [N-6]	—	291.36	17.49
	05/16/2024	308.85	291.00	17.85	-0.03 [N-5]	—	290.97	17.88
	05/30/2024	308.85	291.45	17.4	-0.11 [N-2]	—	291.34	17.51
	06/27/2024	308.85	290.91	17.94	-0.10 [N-3]	—	290.81	18.04
06/13/2024	308.85	290.97	17.88	[N-7] ^a	—	290.97	17.88	
NMW32	09/13/2023	188.27	170.68	17.59	-0.02 [N-5]	—	170.66	17.61
	10/10/2023	188.27	170.88	17.39	-0.09 [N-3]	—	170.79	17.48
	10/03/2023	188.27	170.79	17.48	-0.02 [N-5]	—	170.77	17.5
	11/10/2023	188.27	170.90	17.37	-0.02 [N-5]	—	170.88	17.39
	12/08/2023	188.27	170.77	17.50	-0.08 [N-6]	—	170.69	17.58
	01/04/2024	188.27	170.66	17.61	-0.02 [N-5]	—	170.64	17.63
	02/15/2024	188.27	170.53	17.74	-0.02 [N-5]	—	170.51	17.76
	03/21/2024	188.27	170.67	17.60	-0.12 [N-4]	—	170.55	17.72
	04/11/2024	188.27	170.64	17.63	-0.02 [N-5]	—	170.62	17.65
	05/16/2024	188.27	170.24	18.03	-0.02 [N-5]	—	170.22	18.05
	05/30/2024	188.27	170.21	18.06	-0.02 [N-5]	—	170.19	18.08
	06/13/2024	188.27	170.20	18.07	-0.12 [N-4]	—	170.08	18.19
06/27/2024	188.27	170.17	18.1	-0.09 [N-3]	—	170.08	18.19	
NMW33	10/03/2023	130.76	118.92	11.84	-0.01 [N-5]	—	118.91	11.85
	10/09/2023	130.76	119.00	11.76	-0.07 [N-3]	—	118.93	11.83
	11/10/2023	130.76	117.32	13.44	-0.01 [N-5]	—	117.31	13.45
	12/08/2023	130.76	117.41	13.35	-0.01 [N-5]	—	117.40	13.36
	01/05/2024	130.76	117.57	13.19	-0.01 [N-5]	—	117.56	13.2
02/15/2024	130.76	117.69	13.07	-0.01 [N-5]	—	117.68	13.08	

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
	03/21/2024	130.76	117.84	12.92	-0.10 [N-4]	—	117.74	13.02
	04/11/2024	130.76	117.80	12.96	-0.01 [N-5]	—	117.79	12.97
	05/16/2024	130.76	117.88	12.88	-0.07 [N-6]	—	117.81	12.95
	05/30/2024	130.76	117.79	12.97	-0.01 [N-5]	—	117.78	12.98
	06/13/2024	130.76	117.74	13.02	-0.10 [N-4]	—	117.64	13.12
	06/25/2024	130.76	117.59	13.17	-0.07 [N-3]	—	117.52	13.24
NMW34	03/19/2024	81.63	65.10	16.53	0.0 [N-5]	—	65.10	16.53
	04/10/2024	81.63	66.22	15.41	-0.07 [N-4]	—	66.15	15.48
	05/14/2024	81.63	65.08	16.55	-0.05 [N-6]	—	65.03	16.6
	05/28/2024	81.63	64.80	16.83	-0.04 [N-2]	—	64.76	16.87
	06/11/2024	81.63	64.85	16.78	0.0 [N-5]	—	64.85	16.78
	06/25/2024	81.63	64.88	16.75	-0.04 [N-3]	—	64.84	16.79
	07/09/2024	81.63	64.87	16.76	-0.04 [N-3]	—	64.83	16.8
OWDFMW03A	05/15/2024	118.64	100.69	17.95	-0.06 [N-6]	-0.07	100.56	18.08
	05/31/2024	118.64	100.56	18.08	0.00 [N-5]	-0.07	100.49	18.15
	06/14/2024	118.64	100.50	18.14	-0.06 [N-3]	-0.07	100.37	18.27
	06/26/2024	118.64	100.70	17.94	-0.06 [N-3]	-0.07	100.57	18.07
	07/10/2024	118.64	100.63	18.01	-0.09 [N-4]	-0.07	100.47	18.17
OWDFMW08A	05/15/2024	133.73	115.80	17.93	-0.07 [N-6]	-0.08	115.65	18.08
	05/31/2024	133.73	115.71	18.02	-0.01 [N-5]	-0.08	115.62	18.11
	06/12/2024	133.73	115.78	17.95	-0.11 [N-4]	-0.08	115.59	18.14
	06/26/2024	133.73	115.79	17.94	-0.07 [N-3]	-0.08	115.64	18.09
	07/10/2024	133.73	115.72	18.01	-0.11 [N-4]	-0.08	115.53	18.2
RHMW01R	06/15/2023	101.76	83.72	18.04	-0.05 [N-3]	-0.06	83.61	18.15
	09/05/2023	101.76	84.16	17.60	-0.08 [N-4]	-0.06	84.02	17.74
	10/04/2023	101.76	83.28	18.48	-0.08 [N-4]	-0.06	83.14	18.62
	10/12/2023	101.76	84.33	17.43	-0.08 [N-4]	-0.06	84.19	17.57
	10/17/2023	101.76	83.34	18.42	-0.08 [N-4]	-0.06	83.20	18.56
	10/24/2023	101.76	84.35	17.41	-0.08 [N-4]	-0.06	84.21	17.55
	11/07/2023	101.76	84.34	17.42	0.00 [N-5]	-0.06	84.28	17.48
	10/31/2023	101.76	84.31	17.45	-0.06 [N-6]	-0.06	84.19	17.57
	11/06/2023	101.76	84.39	17.37	-0.08 [N-4]	-0.06	84.25	17.51
	11/07/2023	101.76	84.34	17.42	0.00 [N-5]	-0.06	84.28	17.48
	11/13/2023	101.76	84.34	17.42	-0.05 [N-3]	-0.06	84.23	17.53
	11/24/2023	101.76	84.31	17.45	0.00 [N-5]	-0.06	84.25	17.51
	12/01/2023	101.76	84.31	17.45	-0.08 [N-4]	-0.06	84.17	17.59
	12/08/2023	101.76	84.21	17.55	-0.08 [N-4]	-0.06	84.07	17.69
	12/15/2023	101.76	84.19	17.57	-0.05 [N-3]	-0.06	84.08	17.68
	12/19/2023	101.76	84.19	17.57	0.00 [N-5]	-0.06	84.13	17.63
	12/26/2023	101.76	84.12	17.64	0.00 [N-5]	-0.06	84.06	17.7
	01/05/2024	101.76	84.15	17.61	-0.08 [N-4]	-0.06	84.01	17.75
	01/12/2024	101.76	84.08	17.68	-0.05 [N-3]	-0.06	83.97	17.79
	01/19/2024	101.76	84.07	17.69	-0.08 [N-4]	-0.06	83.93	17.83
	02/16/2024	101.76	83.99	17.77	0.00 [N-5]	-0.06	83.93	17.83
	03/13/2024	101.76	83.98	17.78	0.00 [N-5]	-0.06	83.92	17.84
	04/04/2024	101.76	84.06	17.70	0.00 [N-5]	-0.06	84.00	17.76
	05/09/2024	101.76	83.79	17.97	-0.08 [N-4]	-0.06	83.65	18.11
	05/23/2024	101.76	83.61	18.15	0.00 [N-5]	-0.06	83.55	18.21
	06/03/2024	101.76	83.47	18.29	0.00 [N-5]	-0.06	83.41	18.35
	06/17/2024	101.76	83.50	18.26	-0.08 [N-4]	-0.06	83.36	18.4
	07/01/2024	101.76	83.50	18.26	-0.05 [N-3]	-0.06	83.39	18.37
RHMW02	06/15/2023	104.60	86.59	18.01	-0.05 [N-3]	-0.06	86.48	18.12
	09/07/2023	104.60	87.08	17.52	-0.08 [N-4]	-0.06	86.94	17.66
	10/06/2023	104.60	87.22	17.38	-0.08 [N-4]	-0.06	87.08	17.52
	10/09/2023	104.60	87.22	17.38	-0.08 [N-4]	-0.06	87.08	17.52
	10/20/2023	104.60	87.23	17.37	-0.08 [N-4]	-0.06	87.09	17.51
	10/27/2023	104.60	87.26	17.34	-0.08 [N-4]	-0.06	87.12	17.48
	11/03/2023	104.60	87.27	17.33	-0.08 [N-4]	-0.06	87.13	17.47
	11/07/2023	104.60	87.22	17.38	0.00 [N-5]	-0.06	87.16	17.44
	11/17/2023	104.60	87.25	17.35	-0.08 [N-4]	-0.06	87.11	17.49
	11/21/2023	104.60	87.29	17.31	-0.05 [N-3]	-0.06	87.18	17.42
	12/01/2023	104.60	87.19	17.41	-0.08 [N-4]	-0.06	87.05	17.55
	12/08/2023	104.60	87.08	17.52	-0.08 [N-4]	-0.06	86.94	17.66
	12/15/2023	104.60	87.08	17.52	-0.05 [N-3]	-0.06	86.97	17.63
	12/19/2023	104.60	87.19	17.41	0.00 [N-5]	-0.06	87.13	17.47
	12/26/2023	104.60	87.02	17.58	0.00 [N-5]	-0.06	86.96	17.64
	01/05/2024	104.60	87.05	17.55	-0.08 [N-4]	-0.06	86.91	17.69
	01/12/2024	104.60	86.95	17.65	-0.05 [N-3]	-0.06	86.84	17.76
	01/19/2024	104.60	86.98	17.62	-0.08 [N-4]	-0.06	86.84	17.76
	02/13/2024	104.60	86.89	17.71	-0.08 [N-4]	-0.06	86.75	17.85
	03/15/2024	104.60	86.91	17.69	-0.08 [N-4]	-0.06	86.77	17.83
	04/04/2024	104.60	86.96	17.64	0.00 [N-5]	-0.06	86.90	17.7
	05/09/2024	104.60	86.71	17.89	-0.08 [N-4]	-0.06	86.57	18.03
	05/23/2024	104.60	86.53	18.07	0.00 [N-5]	-0.06	86.47	18.13
	06/03/2024	104.60	86.38	18.22	0.00 [N-5]	-0.06	86.32	18.28
	06/17/2024	104.60	86.42	18.18	-0.08 [N-4]	-0.06	86.28	18.32

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)	
RHMW03	07/01/2024	104.60	86.45	18.15	-0.05 [N-3]	-0.06	86.34	18.26	
	06/14/2023	120.90	102.78	18.12	-0.06 [N-3]	-0.04	102.68	18.22	
	09/07/2023	120.90	103.31	17.59	-0.09 [N-4]	-0.04	103.18	17.72	
	10/06/2023	120.90	103.43	17.47	-0.09 [N-4]	-0.04	103.30	17.6	
	10/09/2023	120.9	103.45	17.45	-0.09 [N-4]	-0.04	103.32	17.58	
	10/20/2023	120.90	103.44	17.46	-0.09 [N-4]	-0.04	103.31	17.59	
	10/27/2023	120.90	103.48	17.42	-0.09 [N-4]	-0.04	103.35	17.55	
	11/03/2023	120.90	103.5	17.4	-0.09 [N-4]	-0.04	103.37	17.53	
	11/10/2023	120.90	103.47	17.43	-0.09 [N-4]	-0.04	103.34	17.56	
	11/17/2023	120.90	103.44	17.46	-0.01 [N-5]	-0.04	103.39	17.51	
	11/21/2023	120.90	103.48	17.42	-0.06 [N-3]	-0.04	103.38	17.52	
	11/28/2023	120.90	103.4	17.5	-0.01 [N-5]	-0.04	103.35	17.55	
	12/08/2023	120.90	103.29	17.61	-0.09 [N-4]	-0.04	103.16	17.74	
	12/12/2023	120.90	103.33	17.57	-0.06 [N-6]	-0.04	103.23	17.67	
	12/26/2023	120.90	103.29	17.61	-0.09 [N-4]	-0.04	103.16	17.74	
	01/02/2024	120.90	103.28	17.62	-0.01 [N-5]	-0.04	103.23	17.67	
	01/09/2024	120.90	103.19	17.71	-0.01 [N-5]	-0.04	103.14	17.76	
	01/16/2024	120.90	103.17	17.73	-0.09 [N-4]	-0.04	103.04	17.86	
	02/06/2024	120.90	103.18	17.72	-0.09 [N-4]	-0.04	103.05	17.85	
	03/13/2024	120.90	103.10	17.8	-0.01 [N-5]	-0.04	103.05	17.85	
	04/04/2024	120.90	103.20	17.7	-0.01 [N-5]	-0.04	103.15	17.75	
	05/07/2024	120.90	103.03	17.87	-0.09 [N-4]	-0.04	102.90	18	
	05/23/2024	120.90	102.76	18.14	-0.01 [N-5]	-0.04	102.71	18.19	
	06/04/2024	120.90	102.63	18.27	-0.09 [N-4]	-0.04	102.50	18.4	
	06/19/2024	120.90	102.73	18.17	-0.06 [N-3]	-0.04	102.63	18.27	
	07/02/2024	120.90	102.78	18.12	-0.01 [N-5]	-0.04	102.73	18.17	
	RHMW04	06/14/2023	312.11	294.14	17.97	-0.14 [N-4]	-0.02	293.98	18.13
		09/08/2023	312.11	294.58	17.53	-0.03 [N-5]	-0.02	294.53	17.58
		10/06/2023	312.11	294.71	17.4	-0.09 [N-6]	-0.02	294.60	17.51
		10/13/2023	312.11	294.74	17.37	-0.14 [N-4]	-0.02	294.58	17.53
		11/07/2023	312.11	294.76	17.35	-0.09 [N-6]	-0.02	294.65	17.46
11/13/2023		312.11	294.81	17.3	-0.14 [N-4]	-0.02	294.65	17.46	
11/20/2023		312.11	294.76	17.35	-0.03 [N-5]	-0.02	294.71	17.4	
12/05/2023		312.11	294.71	17.4	-0.14 [N-4]	-0.02	294.55	17.56	
12/11/2023		312.11	294.64	17.47	-0.14 [N-4]	-0.02	294.48	17.63	
12/18/2023		312.11	294.65	17.46	-0.14 [N-4]	-0.02	294.49	17.62	
12/27/2023		312.11	294.54	17.57	-0.09 [N-6]	-0.02	294.43	17.68	
01/02/2024		312.11	294.51	17.6	-0.10 [N-3]	-0.02	294.39	17.72	
01/08/2024		312.11	294.45	17.66	-0.10 [N-3]	-0.02	294.33	17.78	
01/15/2024		312.11	294.42	17.69	-0.03 [N-5]	-0.02	294.37	17.74	
02/12/2024		312.11	294.40	17.71	-0.14 [N-4]	-0.02	294.24	17.87	
03/22/2024		312.11	294.48	17.63	-0.14 [N-4]	-0.02	294.32	17.79	
04/08/2024		312.11	294.48	17.63	-0.09 [N-6]	-0.02	294.37	17.74	
05/14/2024		312.11	294.27	17.84	-0.03 [N-5]	-0.02	294.22	17.89	
05/31/2024		312.11	294.04	18.07	-0.10 [N-3]	-0.02	293.92	18.19	
06/11/2024		312.11	294.08	18.03	-0.14 [N-4]	-0.02	293.92	18.19	
06/25/2024	312.11	294.50	17.61	-0.14 [N-4]	-0.02	294.34	17.77		
07/09/2024	312.11	294.05	18.06	-0.03 [N-5]	-0.02	294.00	18.11		
RHMW05	06/15/2023	101.31	83.29	18.02	-0.08 [N-4]	-0.01	83.20	18.11	
	09/05/2023	101.31	83.74	17.57	-0.08 [N-4]	-0.01	83.65	17.66	
	10/04/2023	101.31	83.90	17.41	-0.08 [N-4]	-0.01	83.81	17.5	
	10/10/2023	101.31	83.95	17.36	-0.08 [N-4]	-0.01	83.86	17.45	
	10/17/2023	101.31	83.88	17.43	0.00 [N-5]	-0.01	83.87	17.44	
	10/24/2023	101.31	83.91	17.4	-0.05 [N-3]	-0.01	83.85	17.46	
	10/31/2023	101.31	83.91	17.4	-0.08 [N-4]	-0.01	83.82	17.49	
	11/10/2023	101.31	83.93	17.38	-0.05 [N-3]	-0.01	83.87	17.44	
	11/14/2023	101.31	83.92	17.39	0.00 [N-5]	-0.01	83.91	17.4	
	11/21/2023	101.31	83.99	17.32	-0.08 [N-4]	-0.01	83.90	17.41	
	11/28/2023	101.31	83.9	17.41	-0.08 [N-4]	-0.01	83.81	17.5	
	12/05/2023	101.31	83.80	17.51	0.00 [N-5]	-0.01	83.79	17.52	
	12/12/2023	101.31	83.77	17.54	-0.05 [N-3]	-0.01	83.71	17.6	
	12/22/2023	101.31	83.75	17.56	-0.08 [N-4]	-0.01	83.66	17.65	
	12/29/2023	101.31	83.73	17.58	-0.08 [N-4]	-0.01	83.64	17.67	
	01/02/2024	101.31	83.74	17.57	0.00 [N-5]	-0.01	83.73	17.58	
	01/09/2024	101.31	83.64	17.67	0.00 [N-5]	-0.01	83.63	17.68	
	01/16/2024	101.31	83.61	17.7	0.00 [N-5]	-0.01	83.60	17.71	
	02/16/2024	101.31	83.58	17.73	0.00 [N-5]	-0.01	83.57	17.74	
	03/12/2024	101.31	83.59	17.72	0.00 [N-5]	-0.01	83.58	17.73	
04/03/2024	101.31	83.69	17.62	0.00 [N-5]	-0.01	83.68	17.63		
05/08/2024	101.31	83.45	17.86	0.00 [N-5]	-0.01	83.44	17.87		
05/22/2024	101.31	83.16	18.15	-0.05 [N-3]	-0.01	83.10	18.21		
06/05/2024	101.31	83.23	18.08	-0.08 [N-4]	-0.01	83.14	18.17		
06/18/2024	101.31	83.11	18.2	-0.08 [N-4]	-0.01	83.02	18.29		
07/03/2024	101.31	83.30	18.01	-0.08 [N-4]	-0.01	83.21	18.1		
RHMW06	06/14/2023	259.09	241.12	17.97	-0.14 [N-4]	-0.01	240.97	18.12	
	09/08/2023	259.09	241.53	17.56	-0.03 [N-5]	-0.01	241.49	17.6	

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
	10/06/2023	259.09	241.63	17.46	-0.09 [N-6]	-0.01	241.53	17.56
	10/13/2023	259.09	241.70	17.39	-0.14 [N-4]	-0.01	241.55	17.54
	10/23/2023	259.09	241.66	17.43	-0.10 [N-3]	-0.01	241.55	17.54
	10/30/2023	259.09	241.71	17.38	-0.09 [N-6]	-0.01	241.61	17.48
	11/07/2023	259.09	241.69	17.4	-0.09 [N-6]	-0.01	241.59	17.5
	11/13/2023	259.09	241.75	17.34	-0.14 [N-4]	-0.01	241.60	17.49
	11/20/2023	259.09	241.67	17.42	-0.03 [N-5]	-0.01	241.63	17.46
	11/27/2023	259.09	241.68	17.41	-0.09 [N-6]	-0.01	241.58	17.51
	12/05/2023	259.09	241.61	17.48	-0.14 [N-4]	-0.01	241.46	17.63
	12/11/2023	259.09	241.59	17.5	-0.14 [N-4]	-0.01	241.44	17.65
	12/18/2023	259.09	241.58	17.51	-0.14 [N-4]	-0.01	241.43	17.66
	12/27/2023	259.09	241.47	17.62	-0.09 [N-6]	-0.01	241.37	17.72
	01/02/2024	259.09	241.43	17.66	-0.10 [N-3]	-0.01	241.32	17.77
	01/08/2024	259.09	241.4	17.69	-0.10 [N-3]	-0.01	241.29	17.8
	01/15/2024	259.09	241.38	17.71	-0.03 [N-5]	-0.01	241.34	17.75
	02/05/2024	259.09	241.39	17.7	-0.09 [N-6]	-0.01	241.29	17.8
	03/11/2024	259.09	241.39	17.7	-0.09 [N-6]	-0.01	241.29	17.8
	04/01/2024	259.09	241.41	17.68	-0.09 [N-6]	-0.01	241.31	17.78
	05/06/2024	259.09	241.20	17.89	-0.03 [N-5]	-0.01	241.16	17.93
	05/20/2024	259.09	240.93	18.16	-0.10 [N-3]	-0.01	240.82	18.27
	06/06/2024	259.09	241.03	18.06	-0.14 [N-4]	-0.01	240.88	18.21
	06/20/2024	259.09	241.03	18.06	-0.10 [N-3]	-0.01	240.92	18.17
	07/01/2024	259.09	240.96	18.13	-0.03 [N-5]	-0.01	240.92	18.17
RHMW08	09/06/2023	310.43	293.03	17.4	-0.03 [N-5]	-0.03	292.97	17.46
	10/04/2023	310.43	293.09	17.34	-0.09 [N-6]	-0.03	292.97	17.46
	10/11/2023	310.43	293.18	17.25	-0.14 [N-4]	-0.03	293.01	17.42
	10/18/2023	310.43	293.17	17.26	-0.14 [N-4]	-0.03	293.00	17.43
	10/25/2023	310.43	293.12	17.31	-0.10 [N-3]	-0.03	292.99	17.44
	11/01/2023	310.43	293.16	17.27	-0.14 [N-4]	-0.03	292.99	17.44
	11/10/2023	310.43	293.18	17.25	-0.09 [N-6]	-0.03	293.06	17.37
	11/14/2023	310.43	293.14	17.29	-0.10 [N-3]	-0.03	293.01	17.42
	11/20/2023	310.43	293.23	17.2	-0.14 [N-4]	-0.03	293.06	17.37
	11/28/2023	310.43	293.14	17.29	-0.09 [N-6]	-0.03	293.02	17.41
	12/04/2023	310.43	293.05	17.38	-0.03 [N-5]	-0.03	292.99	17.44
	12/11/2023	310.43	293.02	17.41	-0.03 [N-5]	-0.03	292.96	17.47
	12/18/2023	310.43	293.02	17.41	-0.03 [N-5]	-0.03	292.96	17.47
	12/26/2023	310.43	292.99	17.44	-0.09 [N-6]	-0.03	292.87	17.56
	01/03/2024	310.43	292.86	17.57	-0.09 [N-6]	-0.03	292.74	17.69
	01/08/2024	310.43	292.88	17.55	-0.03 [N-5]	-0.03	292.82	17.61
	01/15/2024	310.43	292.84	17.59	-0.10 [N-3]	-0.03	292.71	17.72
	02/05/2024	310.43	292.87	17.56	-0.09 [N-6]	-0.03	292.75	17.68
	03/11/2024	310.43	292.89	17.54	-0.09 [N-6]	-0.03	292.77	17.66
	04/01/2024	310.43	292.91	17.52	-0.09 [N-6]	-0.03	292.79	17.64
	05/06/2024	310.43	292.61	17.82	-0.03 [N-5]	-0.03	292.55	17.88
	05/20/2024	310.43	292.37	18.06	-0.10 [N-3]	-0.03	292.24	18.19
	06/03/2024	310.43	292.29	18.14	-0.10 [N-3]	-0.03	292.16	18.27
	06/17/2024	310.43	292.32	18.11	-0.03 [N-5]	-0.03	292.26	18.17
	07/01/2024	310.43	292.35	18.08	-0.03 [N-5]	-0.03	292.29	18.14

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)	
RHMW09	06/13/2023	395.37	377.55	17.82	-0.10 [N-6]	-0.24	377.21	18.16	
	09/05/2023	395.37	378.09	17.28	-0.03 [N-5]	-0.24	377.82	17.55	
	10/05/2023	395.37	378.23	17.14	-0.10 [N-6]	-0.24	377.89	17.48	
	10/12/2023	395.37	378.25	17.12	-0.10 [N-6]	-0.24	377.91	17.46	
	10/24/2023	395.37	378.31	17.06	-0.10 [N-6]	-0.24	377.97	17.4	
	10/30/2023	395.37	378.3	17.07	-0.13 [N-4]	-0.24	377.93	17.44	
	11/06/2023	395.37	378.34	17.03	-0.10 [N-6]	-0.24	378.00	17.37	
	11/14/2023	395.37	378.30	17.07	-0.10 [N-6]	-0.24	377.96	17.41	
	11/20/2023	395.37	378.32	17.05	-0.08 [N-3]	-0.24	378.00	17.37	
	11/27/2023	395.37	378.23	17.14	-0.03 [N-5]	-0.24	377.96	17.41	
	12/04/2023	395.37	378.23	17.14	-0.13 [N-4]	-0.24	377.86	17.51	
	12/12/2023	395.37	378.18	17.19	-0.13 [N-4]	-0.24	377.81	17.56	
	12/19/2023	395.37	378.18	17.19	-0.10 [N-6]	-0.24	377.84	17.53	
	12/27/2023	395.37	378.1	17.27	-0.13 [N-4]	-0.24	377.73	17.64	
	01/04/2024	395.37	378.09	17.28	-0.13 [N-4]	-0.24	377.72	17.65	
	01/09/2024	395.37	378.05	17.32	-0.13 [N-4]	-0.24	377.68	17.69	
	01/16/2024	395.37	377.94	17.43	-0.03 [N-5]	-0.24	377.67	17.7	
	02/07/2024	395.37	378.02	17.35	-0.13 [N-4]	-0.24	377.65	17.72	
	03/12/2024	395.37	377.98	17.39	-0.10 [N-6]	-0.24	377.64	17.73	
	04/02/2024	395.37	378.02	17.35	-0.10 [N-6]	-0.24	377.68	17.69	
	05/07/2024	395.37	377.88	17.49	-0.03 [N-5]	-0.24	377.61	17.76	
	05/21/2024	395.37	377.49	17.88	-0.03 [N-5]	-0.24	377.22	18.15	
	06/04/2024	395.37	377.47	17.9	-0.08 [N-3]	-0.24	377.15	18.22	
	06/18/2024	395.37	377.55	17.82	-0.08 [N-3]	-0.24	377.23	18.14	
	07/02/2024	395.37	377.66	17.71	-0.08 [N-3]	-0.24	377.34	18.03	
	RHMW10	06/14/2023	495.59	477.69	17.9	-0.10 [N-6]	-0.09	477.50	18.09
		09/05/2023	495.59	478.13	17.46	-0.10 [N-6]	-0.09	477.94	17.65
10/05/2023		495.59	478.20	17.39	-0.04 [N-3]	-0.09	478.07	17.52	
10/10/2023		495.59	478.23	17.36	-0.04 [N-3]	-0.09	478.10	17.49	
10/26/2023		495.59	478.34	17.25	-0.10 [N-4]	-0.09	478.15	17.44	
10/31/2023		495.59	478.32	17.27	-0.10 [N-6]	-0.09	478.13	17.46	
11/10/2023		495.59	478.34	17.25	-0.10 [N-6]	-0.09	478.15	17.44	
11/13/2023		495.59	478.35	17.24	-0.10 [N-6]	-0.09	478.16	17.43	
11/21/2023		495.59	478.26	17.33	-0.10 [N-6]	-0.09	478.07	17.52	
11/29/2023		495.59	478.21	17.38	-0.04 [N-3]	-0.09	478.08	17.51	
12/05/2023		495.59	478.20	17.39	-0.10 [N-6]	-0.09	478.01	17.58	
12/13/2023		495.59	478.20	17.39	-0.10 [N-6]	-0.09	478.01	17.58	
12/20/2023		495.59	478.16	17.43	-0.10 [N-6]	-0.09	477.97	17.62	
01/02/2024		495.59	478.19	17.4	-0.10 [N-4]	-0.09	478.00	17.59	
01/10/2024		495.59	478.05	17.54	-0.10 [N-6]	-0.09	477.86	17.73	
01/17/2024		495.59	478	17.59	-0.10 [N-6]	-0.09	477.81	17.78	
02/07/2024		495.59	477.97	17.62	-0.03 [N-5]	-0.09	477.85	17.74	
03/15/2024		495.59	477.96	17.63	-0.03 [N-5]	-0.09	477.84	17.75	
04/05/2024		495.59	478.08	17.51	-0.10 [N-6]	-0.09	477.89	17.7	
05/10/2024		495.59	477.75	17.84	-0.03 [N-5]	-0.09	477.63	17.96	
05/24/2024		495.59	477.65	17.94	-0.04 [N-3]	-0.09	477.52	18.07	
06/07/2024		495.59	477.60	17.99	-0.10 [N-4]	-0.09	477.41	18.18	
06/21/2024		495.59	477.63	17.96	-0.10 [N-4]	-0.09	477.44	18.15	
07/05/2024		495.59	477.57	18.02	-0.03 [N-5]	-0.09	477.45	18.14	

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
RHMW11-05	10/02/2023	210.38	192.72	17.66	—	-0.09	192.63	17.75
	10/09/2023	210.38	193.87	16.51	—	-0.09	193.78	16.60
	10/24/2023	210.38	193.00	17.38	—	-0.09	192.91	17.47
	10/30/2023	210.38	192.93	17.45	—	-0.09	192.84	17.54
	11/06/2023	210.38	193.74	16.64	—	-0.09	193.65	16.73
	11/15/2023	210.38	192.84	17.54	—	-0.09	192.75	17.63
	11/22/2023	210.38	192.79	17.59	—	-0.09	192.70	17.68
	11/27/2023	210.38	192.95	17.43	—	-0.09	192.86	17.52
	12/04/2023	210.38	192.72	17.66	—	-0.09	192.63	17.75
	12/13/2023	210.38	192.67	17.71	—	-0.09	192.58	17.80
	12/20/2023	210.38	192.65	17.73	—	-0.09	192.56	17.82
	12/28/2023	210.38	192.63	17.75	—	-0.09	192.54	17.84
	01/04/2024	210.38	192.56	17.82	—	-0.09	192.47	17.91
	01/10/2024	210.38	192.56	17.82	—	-0.09	192.47	17.91
	01/17/2024	210.38	192.51	17.87	—	-0.09	192.42	17.96
	02/07/2024	210.38	192.49	17.89	—	-0.09	192.40	17.98
	03/13/2024	210.38	192.47	17.91	—	-0.09	192.38	18.00
	04/03/2024	210.38	192.51	17.87	—	-0.09	192.42	17.96
	05/08/2024	210.38	192.40	17.98	—	-0.09	192.31	18.07
	05/22/2024	210.38	192.10	18.28	—	-0.09	192.01	18.37
	06/05/2024	210.38	192.10	18.28	—	-0.09	192.01	18.37
	06/19/2024	210.38	192.14	18.24	—	-0.09	192.05	18.33
	07/03/2024	210.38	192.19	18.19	—	-0.09	192.10	18.28
	RHMW12A	09/07/2023	238.43	221.04	17.39	-0.03 [N-5]	-0.06	220.95
10/03/2024		238.43	221.09	17.34	-0.09 [N-6]	-0.06	220.94	17.49
10/12/2023		238.43	221.14	17.29	-0.10 [N-3]	-0.06	220.98	17.45
11/09/2023		238.43	221.22	17.21	-0.03 [N-5]	-0.06	221.13	17.30
12/07/2023		238.43	221.09	17.34	-0.14 [N-4]	-0.06	220.89	17.54
01/05/2024		238.43	221.03	17.40	-0.09 [N-6]	-0.06	220.88	17.55
02/12/2024		238.43	220.89	17.54	-0.14 [N-4]	-0.06	220.69	17.74
03/18/2024		238.43	220.87	17.56	-0.09 [N-6]	-0.06	220.72	17.71
04/08/2024		238.43	220.95	17.48	-0.03 [N-5]	-0.06	220.86	17.57
05/14/2024		238.43	220.73	17.7	-0.03 [N-5]	-0.06	220.64	17.79
05/29/2024		238.43	220.45	17.98	-0.09 [N-6]	-0.06	220.30	18.13
06/11/2024		238.43	220.73	17.7	-0.03 [N-5]	-0.06	220.64	17.79
06/25/2024		238.43	220.51	17.92	-0.10 [N-3]	-0.06	220.35	18.08
RHMW13-04		09/05/2023	248.41	230.89	17.52	—	—	230.89
	10/05/2023	248.41	231.03	17.38	—	—	231.03	17.38
	10/10/2023	248.41	231.10	17.31	—	—	231.10	17.31
	10/13/2023	248.41	231.10	17.31	—	—	231.10	17.31
	10/25/2023	248.41	231.10	17.31	—	—	231.10	17.31
	10/31/2023	248.41	230.75	17.66	—	—	230.75	17.66
	11/09/2023	248.41	231.44	16.97	—	—	231.44	16.97
	11/14/2023	248.41	230.98	17.43	—	—	230.98	17.43
	11/20/2023	248.41	231.07	17.34	—	—	231.07	17.34
	11/28/2023	248.41	230.98	17.43	—	—	230.98	17.43
	12/07/2023	248.41	230.84	17.57	—	—	230.84	17.57
	12/12/2023	248.41	231.05	17.36	—	—	231.05	17.36
	12/19/2023	248.41	230.89	17.52	—	—	230.89	17.52
	12/27/2023	248.41	230.80	17.61	—	—	230.80	17.61
	01/03/2024	248.41	230.84	17.57	—	—	230.84	17.57
	01/09/2024	248.41	230.80	17.61	—	—	230.80	17.61
	01/16/2024	248.41	231.26	17.15	—	—	231.26	17.15
	02/16/2024	248.41	230.75	17.66	—	—	230.75	17.66
	03/18/2024	248.41	232.32	16.09	—	—	232.32	16.09
	04/08/2024	248.41	230.75	17.66	—	—	230.75	17.66
	05/13/2024	248.41	230.59	17.82	—	—	230.59	17.82
	05/29/2024	248.41	230.20	18.21	—	—	230.20	18.21
	06/10/2024	248.41	230.20	18.21	—	—	230.20	18.21
06/24/2024	248.41	230.31	18.10	—	—	230.31	18.10	
07/08/2024	248.41	230.10	18.31	—	—	230.10	18.31	
RHMW13-05	09/05/2023	248.41	230.83	17.58	—	—	230.83	17.58
	10/05/2023	248.41	231.02	17.39	—	—	231.02	17.39
	10/10/2023	248.41	231.02	17.39	—	—	231.02	17.39
	10/13/2023	248.41	231.02	17.39	—	—	231.02	17.39
	10/25/2023	248.41	231.07	17.34	—	—	231.07	17.34
	10/31/2023	248.41	230.70	17.71	—	—	230.70	17.71
	11/09/2023	248.41	231.39	17.02	—	—	231.39	17.02
RHMW14-03	10/02/2023	179.78	162.58	17.20	—	—	162.58	17.20
	10/09/2023	179.78	162.58	17.20	—	—	162.58	17.20
	10/24/2023	179.78	162.99	16.79	—	—	162.99	16.79
	10/30/2023	179.78	163.20	16.58	—	—	163.20	16.58
	11/06/2023	179.78	163.39	16.39	—	—	163.39	16.39
	11/15/2023	179.78	162.72	17.06	—	—	162.72	17.06
	11/22/2023	179.78	162.72	17.06	—	—	162.72	17.06
11/27/2023	179.78	162.69	17.09	—	—	162.69	17.09	

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
	12/04/2023	179.78	162.58	17.20	—	—	162.58	17.20
	12/13/2023	179.78	162.58	17.20	—	—	162.58	17.20
	12/20/2023	179.78	162.53	17.25	—	—	162.53	17.25
	12/28/2023	179.78	164.79	14.99	—	—	164.79	14.99
	01/04/2024	179.78	162.44	17.34	—	—	162.44	17.34
	01/10/2024	179.78	162.44	17.34	—	—	162.44	17.34
	01/17/2024	179.78	162.39	17.39	—	—	162.39	17.39
	02/07/2024	179.78	162.39	17.39	—	—	162.39	17.39
	03/13/2024	179.78	162.32	17.46	—	—	162.32	17.46
	04/03/2024	179.78	162.42	17.36	—	—	162.42	17.36
	05/08/2024	179.78	162.37	17.41	—	—	162.37	17.41
	05/22/2024	179.78	162.02	17.76	—	—	162.02	17.76
	06/05/2024	179.78	162.00	17.78	—	—	162.00	17.78
	06/19/2024	179.78	162.02	17.76	—	—	162.02	17.76
	07/03/2024	179.78	162.09	17.69	—	—	162.09	17.69
RHMW15-05	09/07/2023	310.00	292.12	17.88	—	—	292.12	17.88
	10/04/2023	310.00	291.96	18.04	—	—	291.96	18.04
	10/11/2023	310.00	292.6084	17.39	—	—	292.61	17.39
	10/23/2023	310.00	292.8856	17.11	—	—	292.89	17.11
	11/01/2023	310.00	293.0704	16.93	—	—	293.07	16.93
	11/08/2023	310.00	292.7008	17.30	—	—	292.70	17.30
	11/13/2023	310.00	292.3312	17.67	—	—	292.33	17.67
	11/21/2023	310.00	292.3543	17.65	—	—	292.35	17.65
	11/29/2023	310.00	292.285	17.72	—	—	292.29	17.72
	12/06/2023	310.00	292.2388	17.76	—	—	292.24	17.76
	12/11/2023	310.00	292.1695	17.83	—	—	292.17	17.83
	12/18/2023	310.00	292.2157	17.78	—	—	292.22	17.78
	12/29/2023	310.00	292.1002	17.90	—	—	292.10	17.90
	01/05/2024	310.00	292.0771	17.92	—	—	292.08	17.92
	01/08/2024	310.00	292.0771	17.92	—	—	292.08	17.92
	01/15/2024	310.00	291.8894	18.11	—	—	291.89	18.11
	02/05/2024	310.00	291.8663	18.13	—	—	291.87	18.13
	03/11/2024	310.00	291.8663	18.13	—	—	291.87	18.13
	04/01/2024	310.00	291.9587	18.04	—	—	291.96	18.04
	05/06/2024	310.00	291.797	18.20	—	—	291.80	18.20
	05/20/2024	310.00	291.3812	18.62	—	—	291.38	18.62
	06/03/2024	310.00	291.2426	18.76	—	—	291.24	18.76
	06/17/2024	310.00	291.335	18.67	—	—	291.34	18.67
	07/01/2024	310.00	291.3812	18.62	—	—	291.38	18.62
RHMW16	09/07/2023	218.94	202.25	16.69	-0.08 [N-6]	-0.90	201.27	17.67
	10/05/2023	218.94	202.29	16.65	-0.09 [N-3]	-0.90	201.30	17.64
	10/12/2023	218.94	202.35	16.59	-0.09 [N-3]	-0.90	201.36	17.58
	10/26/2023	218.94	202.47	16.47	-0.13 [N-4]	-0.90	201.44	17.50
	10/31/2023	218.94	202.39	16.55	-0.08 [N-6]	-0.90	201.41	17.53
	11/06/2023	218.94	202.48	16.46	-0.13 [N-4]	-0.90	201.45	17.49
	11/13/2023	218.94	202.45	16.49	-0.08 [N-6]	-0.90	201.47	17.47
	11/20/2023	218.94	202.39	16.55	-0.03 [N-5]	-0.90	201.46	17.48
	11/28/2023	218.94	202.41	16.53	-0.08 [N-6]	-0.90	201.43	17.51
	12/04/2023	218.94	202.32	16.62	-0.03 [N-5]	-0.90	201.39	17.55
	12/11/2023	218.94	202.28	16.66	-0.03 [N-5]	-0.90	201.35	17.59
	12/18/2023	218.94	202.3	16.64	-0.03 [N-5]	-0.90	201.37	17.57
	12/26/2023	218.94	202.24	16.7	-0.08 [N-6]	-0.90	201.26	17.68
	01/03/2024	218.94	202.20	16.74	-0.09 [N-3]	-0.90	201.21	17.73
	01/08/2024	218.94	202.14	16.8	-0.09 [N-3]	-0.90	201.15	17.79
	01/15/2024	218.94	202.09	16.85	-0.03 [N-5]	-0.90	201.16	17.78
	02/05/2024	218.94	202.13	16.81	-0.08 [N-6]	-0.90	201.15	17.79
	03/11/2024	218.94	202.10	16.84	-0.08 [N-6]	-0.90	201.12	17.82
	04/01/2024	218.94	202.11	16.83	-0.08 [N-6]	-0.90	201.13	17.81
	05/06/2024	218.94	201.93	17.01	-0.03 [N-5]	-0.90	201.00	17.94
	05/20/2024	218.94	201.70	17.24	-0.09 [N-3]	-0.90	200.71	18.23
	06/06/2024	218.94	201.75	17.19	-0.13 [N-4]	-0.90	200.72	18.22
	06/20/2024	218.94	201.79	17.15	-0.09 [N-3]	-0.90	200.80	18.14
	07/02/2024	218.94	201.85	17.09	-0.13 [N-4]	-0.90	200.82	18.12
RHMW17	06/15/2023	252.34	234.40	17.94	-0.08 [N-1]	-0.01	234.31	18.03
	09/08/2023	252.34	234.84	17.5	-0.09 [N-6]	-0.01	234.74	17.60
	10/04/2023	252.34	234.86	17.48	-0.09 [N-6]	-0.01	234.76	17.58
	10/11/2023	252.34	234.94	17.4	-0.10 [N-3]	-0.01	234.83	17.51
	10/25/2023	252.34	235.06	17.28	-0.14 [N-4]	-0.01	234.91	17.43
	11/02/2023	252.34	234.99	17.35	-0.09 [N-6]	-0.01	234.89	17.45
	11/08/2023	252.34	235.02	17.32	-0.10 [N-3]	-0.01	234.91	17.43
	11/15/2023	252.34	235.02	17.32	-0.10 [N-3]	-0.01	234.91	17.43
	11/22/2023	252.34	234.98	17.36	-0.03 [N-5]	-0.01	234.94	17.40
	11/28/2023	252.34	234.9	17.44	-0.03 [N-5]	-0.01	234.86	17.48
	12/06/2023	252.34	234.85	17.49	-0.03 [N-5]	-0.01	234.81	17.53
	12/12/2023	252.34	234.86	17.48	-0.03 [N-5]	-0.01	234.82	17.52
	12/19/2023	252.34	234.85	17.49	-0.10 [N-3]	-0.01	234.74	17.60

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
	12/27/2023	252.34	234.81	17.53	-0.03 [N-5]	-0.01	234.77	17.57
	01/03/2024	252.34	234.85	17.49	-0.14 [N-4]	-0.01	234.70	17.64
	01/09/2024	252.34	234.75	17.59	-0.09 [N-6]	-0.01	234.65	17.69
	01/16/2024	252.34	234.73	17.61	-0.14 [N-4]	-0.01	234.58	17.76
	02/09/2024	252.34	234.69	17.65	-0.14 [N-4]	-0.01	234.54	17.80
	03/18/2024	252.34	234.72	17.62	-0.14 [N-4]	-0.01	234.57	17.77
	04/10/2024	252.34	234.77	17.57	-0.14 [N-4]	-0.01	234.62	17.72
	05/13/2024	252.34	234.48	17.86	-0.03 [N-5]	-0.01	234.44	17.90
	05/29/2024	252.34	234.30	18.04	-0.10 [N-3]	-0.01	234.19	18.15
	06/10/2024	252.34	234.23	18.11	-0.03 [N-5]	-0.01	234.19	18.15
	06/24/2024	252.34	234.35	17.99	-0.14 [N-4]	-0.01	234.20	18.14
	07/08/2024	252.34	234.25	18.09	-0.03 [N-5]	-0.01	234.21	18.13

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
RHMW18	04/11/2024	624.68	604.10	20.58	-0.10 [N-6]	—	604.00	20.68
	05/17/2024	624.68	604.67	20.01	-0.12 [N-2]	—	604.55	20.13
	05/30/2024	624.68	604.32	20.36	-0.12 [N-2]	—	604.20	20.48
	06/13/2024	624.68	604.25	20.43	[N-7] ^a	—	604.25	20.43
	06/27/2024	624.68	604.29	20.39	[N-7] ^a	—	604.29	20.39
RHMW19	06/13/2023	444.82	426.50	18.32	-0.10 [N-6]	-0.21	426.19	18.63
	09/05/2023	444.82	427.09	17.73	-0.03 [N-5]	-0.21	426.85	17.97
	10/12/2023	444.82	427.21	17.61	-0.10 [N-6]	-0.21	426.90	17.92
	10/05/2023	444.82	427.19	17.63	-0.10 [N-6]	-0.21	426.88	17.94
	10/24/2023	444.82	427.26	17.56	-0.10 [N-6]	-0.21	426.95	17.87
	10/30/2023	444.82	427.27	17.55	-0.12 [N-4]	-0.21	426.94	17.88
	11/06/2023	444.82	427.29	17.53	-0.10 [N-6]	-0.21	426.98	17.84
	11/14/2023	444.82	427.30	17.52	-0.10 [N-6]	-0.21	426.99	17.83
	11/20/2023	444.82	427.24	17.58	-0.06 [N-3]	-0.21	426.97	17.85
	11/27/2023	444.82	427.2	17.62	-0.03 [N-5]	-0.21	426.96	17.86
	12/04/2023	444.82	427.21	17.61	-0.12 [N-4]	-0.21	426.88	17.94
	12/12/2023	444.82	427.15	17.67	-0.12 [N-4]	-0.21	426.82	18.00
	12/19/2023	444.82	427.14	17.68	-0.10 [N-6]	-0.21	426.83	17.99
	12/27/2023	444.82	427.03	17.79	-0.12 [N-4]	-0.21	426.70	18.12
	01/04/2024	444.82	427.03	17.79	-0.12 [N-4]	-0.21	426.70	18.12
	01/09/2024	444.82	427.02	17.8	-0.12 [N-4]	-0.21	426.69	18.13
	01/16/2024	444.82	426.91	17.91	-0.03 [N-5]	-0.21	426.67	18.15
	02/07/2024	444.82	426.97	17.85	-0.12 [N-4]	-0.21	426.64	18.18
	03/12/2024	444.82	426.93	17.89	-0.10 [N-6]	-0.21	426.62	18.20
	04/02/2024	444.82	426.99	17.83	-0.10 [N-6]	-0.21	426.68	18.14
05/07/2024	444.82	426.70	18.12	-0.03 [N-5]	-0.21	426.46	18.36	
05/21/2024	444.82	426.46	18.36	-0.03 [N-5]	-0.21	426.22	18.60	
06/04/2024	444.82	426.41	18.41	-0.06 [N-3]	-0.21	426.14	18.68	
06/18/2024	444.82	426.54	18.28	-0.06 [N-3]	-0.21	426.27	18.55	
07/02/2024	444.82	426.54	18.28	-0.06 [N-3]	-0.21	426.27	18.55	
RHMW20	06/14/2023	255.87	237.61	18.26	-0.09 [N-3]	—	237.52	18.35
	09/06/2023	255.87	238.19	17.68	-0.03 [N-5]	—	238.16	17.71
	10/05/2023	255.87	238.18	17.69	-0.09 [N-6]	—	238.09	17.78
	10/10/2023	255.87	238.32	17.55	-0.09 [N-6]	—	238.23	17.64
	10/23/2023	255.87	238.24	17.63	-0.09 [N-3]	—	238.15	17.72
	11/02/2023	255.87	238.31	17.56	-0.09 [N-6]	—	238.22	17.65
	11/09/2023	255.87	238.36	17.51	-0.09 [N-3]	—	238.27	17.60
	11/14/2023	255.87	238.45	17.42	-0.14 [N-4]	—	238.31	17.56
	11/21/2023	255.87	238.35	17.52	-0.03 [N-5]	—	238.32	17.55
	11/29/2023	255.87	238.26	17.61	-0.03 [N-5]	—	238.23	17.64
	12/07/2023	255.87	238.22	17.65	-0.14 [N-4]	—	238.08	17.79
	12/13/2023	255.87	238.24	17.63	-0.10 [N-3]	—	238.14	17.73
	12/20/2023	255.87	238.24	17.63	-0.14 [N-4]	—	238.10	17.77
	12/28/2023	255.87	238.16	17.71	-0.10 [N-3]	—	238.06	17.81
	01/03/2024	255.87	238.12	17.75	-0.10 [N-3]	—	238.02	17.85
	01/10/2024	255.87	238.15	17.72	-0.14 [N-4]	—	238.01	17.86
	01/17/2024	255.87	238.07	17.8	-0.03 [N-5]	—	238.04	17.83
	02/09/2024	255.87	238.02	17.85	-0.14 [N-4]	—	237.88	17.99
	03/22/2024	255.87	238.15	17.72	-0.14 [N-4]	—	238.01	17.86
	04/12/2024	255.87	238.10	17.77	-0.14 [N-4]	—	237.96	17.91
05/16/2024	255.87	237.73	18.14	-0.10 [N-3]	—	237.63	18.24	
05/31/2024	255.87	237.64	18.23	-0.10 [N-3]	—	237.54	18.33	
06/26/2024	255.87	237.63	18.24	-0.10 [N-3]	—	237.53	18.34	
06/14/2024	255.87	237.66	18.21	-0.14 [N-4]	—	237.52	18.35	
07/09/2024	255.87	237.60	18.27	-0.10 [N-3]	—	237.50	18.37	

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)	
RHMW2254-01	09/06/2023	105.51	88.72	16.79	-0.08 [N-4]	—	88.64	16.87	
	10/05/2023	105.51	88.13	17.38	-0.08 [N-4]	—	88.05	17.46	
	10/12/2023	105.51	NC	NC	NC	—	—	—	
	10/17/2023	105.51	88.83	16.68	-0.08 [N-4]	—	88.75	16.76	
	10/24/2023	105.51	88.84	16.67	-0.08 [N-4]	—	88.76	16.75	
	10/31/2023	105.51	88.77	16.74	-0.05 [N-3]	—	88.72	16.79	
	11/07/2023	105.51	89.01	16.5	-0.08 [N-4]	—	88.93	16.58	
	11/14/2023	105.51	88.82	16.69	-0.05 [N-3]	—	88.77	16.74	
	11/21/2023	105.51	88.9	16.61	0.00 [N-5]	—	88.90	16.61	
	11/28/2023	105.51	88.75	16.76	0.00 [N-5]	—	88.75	16.76	
	12/05/2023	105.51	88.68	16.83	0.00 [N-5]	—	88.68	16.83	
	12/12/2023	105.51	88.85	16.66	-0.06 [N-6]	—	88.79	16.72	
	12/19/2023	105.51	88.73	16.78	-0.08 [N-4]	—	88.65	16.86	
	12/26/2023	105.51	88.69	16.82	-0.08 [N-4]	—	88.61	16.90	
	01/02/2024	105.51	88.61	16.9	0.00 [N-5]	—	88.61	16.90	
	01/09/2024	105.51	88.54	16.97	0.00 [N-5]	—	88.54	16.97	
	01/16/2024	105.51	88.57	16.94	-0.08 [N-4]	—	88.49	17.02	
	02/13/2024	105.51	88.47	17.04	-0.08 [N-4]	—	88.39	17.12	
	03/15/2024	105.51	88.58	16.93	-0.08 [N-4]	—	88.50	17.01	
	04/02/2024	105.51	88.78	16.73	0.00 [N-5]	—	88.78	16.73	
	05/07/2024	105.51	88.55	16.96	-0.08 [N-4]	—	88.47	17.04	
	05/24/2024	105.51	88.22	17.29	0.00 [N-5]	—	88.22	17.29	
	06/04/2024	105.51	87.94	17.57	0.00 [N-5]	—	87.94	17.57	
	06/19/2024	105.51	88.23	17.28	-0.05 [N-3]	—	88.18	17.33	
	07/02/2024	105.51	88.25	17.26	0.00 [N-5]	—	88.25	17.26	
	RHP01	09/06/2023	156.79	139.66	17.13	-0.07 [N-6]	-0.04	139.55	17.24
		10/04/2023	156.79	139.66	17.13	-0.01 [N-5]	-0.04	139.61	17.18
10/09/2023		156.79	139.73	17.06	-0.08 [N-3]	-0.04	139.61	17.18	
10/25/2023		156.79	139.81	16.98	-0.07 [N-6]	-0.04	139.70	17.09	
11/01/2023		156.79	139.74	17.05	-0.08 [N-3]	-0.04	139.62	17.17	
11/06/2023		156.79	139.83	16.96	-0.11 [N-4]	-0.04	139.68	17.11	
11/13/2023		156.79	139.81	16.98	-0.08 [N-3]	-0.04	139.69	17.10	
11/20/2023		156.79	139.81	16.98	-0.11 [N-4]	-0.04	139.66	17.13	
12/04/2023		156.79	139.63	17.16	-0.07 [N-6]	-0.04	139.52	17.27	
12/11/2023		156.79	139.68	17.11	-0.11 [N-4]	-0.04	139.53	17.26	
12/18/2023		156.79	139.69	17.1	-0.08 [N-3]	-0.04	139.57	17.22	
12/26/2023		156.79	139.57	17.22	-0.08 [N-3]	-0.04	139.45	17.34	
01/02/2024		156.79	139.60	17.19	-0.08 [N-3]	-0.04	139.48	17.31	
01/08/2024		156.79	139.58	17.21	-0.11 [N-4]	-0.04	139.43	17.36	
01/15/2024		156.79	139.53	17.26	-0.11 [N-4]	-0.04	139.38	17.41	
02/08/2024		156.79	139.44	17.35	-0.01 [N-5]	-0.04	139.39	17.40	
03/11/2024		156.79	139.49	17.3	-0.01 [N-5]	-0.04	139.44	17.35	
04/01/2024		156.79	139.54	17.25	-0.01 [N-5]	-0.04	139.49	17.30	
05/06/2024		156.79	139.29	17.5	-0.07 [N-6]	-0.04	139.18	17.61	
05/20/2024		156.79	138.46	18.33	-0.01 [N-5]	-0.04	138.41	18.38	
06/06/2024		156.79	139.20	17.59	-0.11 [N-4]	-0.04	139.05	17.74	
06/20/2024	156.79	139.22	17.57	-0.08 [N-3]	-0.04	139.10	17.69		
07/01/2024	156.79	139.03	17.76	-0.01 [N-5]	-0.04	138.98	17.81		
RHP02	09/06/2023	140.36	122.65	17.71	-0.07 [N-6]	-0.02	122.56	17.80	
	10/06/2023	140.36	122.66	17.7	-0.07 [N-6]	-0.02	122.57	17.79	
	10/13/2023	140.36	122.75	17.61	-0.07 [N-6]	-0.02	122.66	17.70	
	11/08/2023	140.36	122.73	17.63	-0.01 [N-5]	-0.02	122.70	17.66	
	11/14/2023	140.36	122.78	17.58	-0.10 [N-4]	-0.02	122.66	17.70	
	11/22/2023	140.36	122.78	17.58	-0.01 [N-5]	-0.02	122.75	17.61	
	11/27/2023	140.36	122.73	17.63	-0.07 [N-3]	-0.02	122.64	17.72	
	12/06/2023	140.36	122.58	17.78	-0.07 [N-3]	-0.02	122.49	17.87	
	12/11/2023	140.36	122.56	17.8	-0.07 [N-3]	-0.02	122.47	17.89	
	12/18/2023	140.36	122.57	17.79	-0.07 [N-3]	-0.02	122.48	17.88	
	12/26/2023	140.36	122.46	17.9	-0.07 [N-3]	-0.02	122.37	17.99	
	01/02/2024	140.36	122.49	17.87	-0.07 [N-3]	-0.02	122.40	17.96	
	01/08/2024	140.36	122.37	17.99	-0.07 [N-6]	-0.02	122.28	18.08	
	01/15/2024	140.36	122.37	17.99	-0.10 [N-4]	-0.02	122.25	18.11	
	02/08/2024	140.36	122.33	18.03	-0.10 [N-4]	-0.02	122.21	18.15	
	03/14/2024	140.36	122.30	18.06	-0.01 [N-5]	-0.02	122.27	18.09	
	04/04/2024	140.36	122.41	17.95	-0.07 [N-6]	-0.02	122.32	18.04	
	05/09/2024	140.36	121.73	18.63	-0.01 [N-5]	-0.02	121.70	18.66	
05/23/2024	140.36	121.60	18.76	-0.07 [N-3]	-0.02	121.51	18.85		
06/06/2024	140.36	121.53	18.83	-0.01 [N-5]	-0.02	121.50	18.86		
06/20/2024	140.36	121.64	18.72	-0.10 [N-4]	-0.02	121.52	18.84		
07/02/2024	140.36	122.00	18.36	-0.10 [N-4]	-0.02	121.88	18.48		

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
RHP03	09/08/2023	136.78	119.33	17.45	-0.07 [N-3]	-0.02	119.24	17.54
	10/06/2023	136.78	119.39	17.39	-0.07 [N-3]	-0.02	119.30	17.48
	10/13/2023	136.78	119.43	17.35	-0.07 [N-3]	-0.02	119.34	17.44
	10/26/2023	136.78	119.45	17.33	-0.07 [N-3]	-0.02	119.36	17.42
	11/02/2023	136.78	119.43	17.35	-0.07 [N-3]	-0.02	119.34	17.44
	11/08/2023	136.78	119.46	17.32	-0.01 [N-5]	-0.02	119.43	17.35
	11/14/2023	136.78	119.52	17.26	-0.10 [N-4]	-0.02	119.40	17.38
	11/22/2023	136.78	119.48	17.3	-0.01 [N-5]	-0.02	119.45	17.33
	11/27/2023	136.78	119.44	17.34	-0.07 [N-3]	-0.02	119.35	17.43
	12/06/2023	136.78	119.34	17.44	-0.07 [N-3]	-0.02	119.25	17.53
	12/11/2023	136.78	119.32	17.46	-0.07 [N-3]	-0.02	119.23	17.55
	01/02/2024	136.78	119.28	17.5	-0.01 [N-5]	-0.02	119.25	17.53
	01/08/2024	136.78	119.24	17.54	-0.10 [N-4]	-0.02	119.12	17.66
	01/15/2024	136.78	119.17	17.61	-0.10 [N-4]	-0.04	119.03	17.75
	02/08/2024	136.78	119.13	17.65	-0.01 [N-5]	-0.02	119.10	17.68
	03/14/2024	136.78	119.13	17.65	-0.01 [N-5]	-0.02	119.10	17.68
	04/04/2024	136.78	119.22	17.56	-0.07 [N-6]	-0.02	119.13	17.65
	05/09/2024	136.78	118.91	17.87	-0.07 [N-3]	-0.02	118.82	17.96
	05/23/2024	136.78	118.80	17.98	-0.01 [N-5]	-0.02	118.77	18.01
	06/06/2024	136.78	118.81	17.97	-0.01 [N-5]	-0.02	118.78	18.00
	06/20/2024	136.78	118.89	17.89	-0.10 [N-4]	-0.02	118.77	18.01
	07/03/2024	136.78	118.87	17.91	-0.01 [N-5]	-0.02	118.84	17.94
RHP04A	06/14/2023	157.70	139.83	17.87	-0.07 [N-6]	-0.04	139.72	17.98
	09/11/2023	157.70	140.33	17.37	-0.07 [N-6]	-0.04	140.22	17.48
	10/06/2023	157.70	140.34	17.36	-0.01 [N-5]	-0.04	140.29	17.41
	10/12/2023	157.70	140.37	17.33	-0.01 [N-5]	-0.04	140.32	17.38
	11/07/2023	157.70	140.40	17.3	-0.08 [N-3]	-0.04	140.28	17.42
	11/15/2023	157.70	140.43	17.27	-0.07 [N-6]	-0.04	140.32	17.38
	11/22/2023	157.70	140.41	17.29	-0.08 [N-3]	-0.04	140.29	17.41
	11/28/2023	157.70	140.36	17.34	-0.08 [N-3]	-0.04	140.24	17.46
	12/05/2023	157.70	140.27	17.43	-0.08 [N-3]	-0.04	140.15	17.55
	12/12/2023	157.70	140.26	17.44	-0.08 [N-3]	-0.04	140.14	17.56
	12/19/2023	157.70	140.29	17.41	-0.08 [N-3]	-0.04	140.17	17.53
	12/27/2023	157.70	140.16	17.54	-0.08 [N-3]	-0.04	140.04	17.66
	01/03/2024	157.70	140.17	17.53	-0.01 [N-5]	-0.04	140.12	17.58
	01/09/2024	157.70	140.1	17.6	-0.08 [N-3]	-0.04	139.98	17.72
	01/16/2024	157.70	140.08	17.62	-0.07 [N-6]	-0.04	139.97	17.73
	02/09/2024	157.70	140.10	17.6	-0.07 [N-6]	-0.04	139.99	17.71
	03/14/2024	157.70	140.09	17.61	-0.01 [N-5]	-0.04	140.04	17.66
	04/04/2024	157.70	140.17	17.53	-0.07 [N-6]	-0.04	140.06	17.64
	05/09/2024	157.70	139.87	17.83	-0.01 [N-5]	-0.04	139.82	17.88
	05/23/2024	157.70	139.77	17.93	-0.08 [N-3]	-0.04	139.65	18.05
	06/06/2024	157.70	139.77	17.93	-0.01 [N-5]	-0.04	139.72	17.98
	06/20/2024	157.70	139.87	17.83	-0.11 [N-4]	-0.04	139.72	17.98
	07/03/2024	157.70	139.82	17.88	-0.01 [N-5]	-0.04	139.77	17.93
RHP04B	06/14/2023	156.81	138.95	17.86	-0.07 [N-6]	—	138.88	17.93
	09/11/2023	156.81	139.45	17.36	-0.07 [N-6]	—	139.38	17.43
	10/06/2023	156.81	139.48	17.33	-0.01 [N-5]	—	139.47	17.34
	10/12/2023	156.81	139.40	17.41	-0.01 [N-5]	—	139.39	17.42
	10/23/2023	156.81	139.57	17.24	-0.07 [N-6]	—	139.50	17.31
	11/03/2023	156.81	139.5	17.31	-0.08 [N-3]	—	139.42	17.39
	11/07/2023	156.81	139.52	17.29	-0.08 [N-3]	—	139.44	17.37
	11/15/2023	156.81	139.57	17.24	-0.07 [N-6]	—	139.50	17.31
	11/22/2023	156.81	139.54	17.27	-0.08 [N-3]	—	139.46	17.35
	11/28/2023	156.81	139.43	17.38	-0.08 [N-3]	—	139.35	17.46
	12/05/2023	156.81	139.40	17.41	-0.08 [N-3]	—	139.32	17.49
	12/12/2023	156.81	139.34	17.47	-0.08 [N-3]	—	139.26	17.55
	12/19/2023	156.81	139.36	17.45	-0.08 [N-3]	—	139.28	17.53
	12/27/2023	156.81	139.27	17.54	-0.08 [N-3]	—	139.19	17.62
	01/03/2024	156.81	139.29	17.52	-0.01 [N-5]	—	139.28	17.53
	01/09/2024	156.81	139.23	17.58	-0.08 [N-3]	—	139.15	17.66
	01/16/2024	156.81	139.19	17.62	-0.08 [N-3]	—	139.11	17.70
	02/14/2024	156.81	139.11	17.7	-0.01 [N-5]	—	139.10	17.71
	03/19/2024	156.81	139.23	17.58	-0.11 [N-4]	—	139.12	17.69
	04/09/2024	156.81	139.26	17.55	-0.07 [N-6]	—	139.19	17.62
	05/14/2024	156.81	139.37	17.44	-0.01 [N-5]	—	139.36	17.45
	05/28/2024	156.81	138.69	18.12	-0.08 [N-3]	—	138.61	18.20
	06/11/2024	156.81	138.88	17.93	-0.08 [N-3]	—	138.80	18.01
	06/25/2024	156.81	138.91	17.9	-0.11 [N-4]	—	138.80	18.01
	07/09/2024	156.81	138.89	17.92	-0.01 [N-5]	—	138.88	17.93
RHP04C	09/08/2023	156.08	138.66	17.42	-0.08 [N-3]	-0.02	138.56	17.52
	10/06/2023	156.08	138.73	17.35	-0.08 [N-3]	-0.02	138.63	17.45
	10/13/2023	156.08	138.81	17.27	-0.07 [N-6]	-0.02	138.72	17.36
	10/25/2023	156.08	138.79	17.29	-0.08 [N-3]	-0.02	138.69	17.39
	11/01/2023	156.08	138.8	17.28	-0.11 [N-4]	-0.02	138.67	17.41
	11/06/2023	156.08	138.83	17.25	-0.08 [N-3]	-0.02	138.73	17.35

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
	11/15/2023	156.08	138.81	17.27	-0.08 [N-3]	-0.02	138.71	17.37
	11/20/2023	156.08	138.87	17.21	-0.11 [N-4]	-0.02	138.74	17.34
	11/29/2023	156.08	138.72	17.36	-0.01 [N-5]	-0.02	138.69	17.39
	12/04/2023	156.08	138.73	17.35	-0.07 [N-6]	-0.02	138.64	17.44
	12/13/2023	156.08	138.69	17.39	-0.08 [N-3]	-0.02	138.59	17.49
	12/20/2023	156.08	138.69	17.39	-0.11 [N-4]	-0.02	138.56	17.52
	12/28/2023	156.08	138.57	17.51	-0.08 [N-3]	-0.02	138.47	17.61
	01/05/2024	156.08	138.58	17.5	-0.01 [N-5]	-0.02	138.55	17.53
	01/10/2024	156.08	138.57	17.51	-0.11 [N-4]	-0.02	138.44	17.64
	01/17/2024	156.08	138.48	17.6	-0.01 [N-5]	-0.02	138.45	17.63
	02/14/2024	156.08	138.42	17.66	-0.01 [N-5]	-0.02	138.39	17.69
	03/19/2024	156.08	138.51	17.57	-0.11 [N-4]	-0.02	138.38	17.70
	04/09/2024	156.08	138.57	17.51	-0.07 [N-6]	-0.02	138.48	17.60
	05/14/2024	156.08	138.37	17.71	-0.01 [N-5]	-0.02	138.34	17.74
	05/28/2024	156.08	138.01	18.07	-0.08 [N-3]	-0.02	137.91	18.17
	06/11/2024	156.08	138.20	17.88	-0.11 [N-4]	-0.02	138.07	18.01
	06/25/2024	156.08	138.22	17.86	-0.11 [N-4]	-0.02	138.09	17.99
	07/09/2024	156.08	138.20	17.88	-0.11 [N-4]	-0.02	138.07	18.01
RHP05	09/08/2023	230.28	213.09	17.19	-0.14 [N-4]	—	212.95	17.33
	10/02/2023	230.28	213.15	17.13	-0.14 [N-4]	—	213.01	17.27
	10/13/2023	230.28	213.17	17.11	-0.10 [N-3]	—	213.07	17.21
	10/26/2023	230.28	213.18	17.1	-0.10 [N-3]	—	213.08	17.20
	11/02/2023	230.28	213.17	17.11	-0.10 [N-3]	—	213.07	17.21
	11/08/2023	230.28	213.26	17.02	-0.14 [N-4]	—	213.12	17.16
	11/15/2023	230.28	213.21	17.07	-0.03 [N-5]	—	213.18	17.10
	11/22/2023	230.28	213.25	17.03	-0.08 [N-6]	—	213.17	17.11
	11/29/2023	230.28	213.15	17.13	-0.08 [N-6]	—	213.07	17.21
	12/06/2023	230.28	213.11	17.17	-0.14 [N-4]	—	212.97	17.31
	12/13/2023	230.28	213.11	17.17	-0.14 [N-4]	—	212.97	17.31
	12/20/2023	230.28	213.04	17.24	-0.03 [N-5]	—	213.01	17.27
	12/28/2023	230.28	212.97	17.31	-0.03 [N-5]	—	212.94	17.34
	01/03/2024	230.28	212.90	17.38	-0.10 [N-3]	—	212.80	17.48
	01/10/2024	230.28	212.9	17.38	-0.08 [N-6]	—	212.82	17.46
	01/17/2024	230.28	212.94	17.34	-0.08 [N-6]	—	212.86	17.42
	02/08/2024	230.28	212.87	17.41	-0.08 [N-6]	—	212.79	17.49
	03/14/2024	230.28	212.86	17.42	-0.03 [N-5]	—	212.83	17.45
	04/05/2024	230.28	212.95	17.33	-0.03 [N-5]	—	212.92	17.36
	05/10/2024	230.28	212.58	17.7	-0.03 [N-5]	—	212.55	17.73
	05/24/2024	230.28	212.53	17.75	-0.10 [N-3]	—	212.43	17.85
	06/07/2024	230.28	212.42	17.86	-0.14 [N-4]	—	212.28	18.00
	06/21/2024	230.28	212.47	17.81	-0.14 [N-4]	—	212.33	17.95
	07/03/2024	230.28	212.52	17.76	-0.03 [N-5]	—	212.49	17.79
RHP06	09/07/2023	270.84	253.55	17.29	-0.09 [N-6]	—	253.46	17.38
	10/02/2023	270.84	253.61	17.23	-0.14 [N-4]	—	253.47	17.37
	10/11/2023	270.84	253.60	17.24	-0.10 [N-3]	—	253.50	17.34
	10/27/2023	270.84	253.6	17.24	-0.10 [N-3]	—	253.50	17.34
	11/02/2023	270.84	253.66	17.18	-0.14 [N-4]	—	253.52	17.32
	11/08/2023	270.84	253.69	17.15	-0.14 [N-4]	—	253.55	17.29
	11/15/2023	270.84	253.65	17.19	-0.03 [N-5]	—	253.62	17.22
	11/22/2023	270.84	253.69	17.15	-0.09 [N-6]	—	253.60	17.24
	11/29/2023	270.84	253.61	17.23	-0.09 [N-6]	—	253.52	17.32
	12/06/2023	270.84	253.59	17.25	-0.14 [N-4]	—	253.45	17.39
	12/13/2023	270.84	253.56	17.28	-0.14 [N-4]	—	253.42	17.42
	12/20/2023	270.84	253.43	17.41	-0.03 [N-5]	—	253.40	17.44
	12/28/2023	270.84	253.43	17.41	-0.03 [N-5]	—	253.40	17.44
	01/02/2024	270.84	253.40	17.44	-0.10 [N-3]	—	253.30	17.54
	01/08/2024	270.84	253.39	17.45	-0.03 [N-5]	—	253.36	17.48
	01/17/2024	270.84	253.39	17.45	-0.09 [N-6]	—	253.30	17.54
	02/08/2024	270.84	253.35	17.49	-0.09 [N-6]	—	253.26	17.58
	03/14/2024	270.84	253.30	17.54	-0.03 [N-5]	—	253.27	17.57
	04/05/2024	270.84	253.40	17.44	-0.03 [N-5]	—	253.37	17.47
	05/10/2024	270.84	253.53	17.31	-0.14 [N-4]	—	253.39	17.45
	05/21/2024	270.84	252.79	18.05	-0.10 [N-3]	—	252.69	18.15
	06/07/2024	270.84	252.87	17.97	-0.03 [N-5]	—	252.84	18.00
	06/21/2024	270.84	252.87	17.97	-0.03 [N-5]	—	252.84	18.00
	07/05/2024	270.84	252.90	17.94	-0.14 [N-4]	—	252.76	18.08
RHP07	06/15/2023	100.83	82.37	18.46	-0.08 [N-4]	0.0	82.29	18.54
	09/06/2023	100.83	83.36	17.47	-0.08 [N-4]	0.0	83.28	17.55
	10/05/2023	100.83	83.56	17.27	-0.08 [N-4]	0.0	83.48	17.35
	10/10/2023	100.83	83.64	17.19	-0.08 [N-4]	0.0	83.56	17.27
	10/17/2023	100.83	83.54	17.29	0.00 [N-5]	0.0	83.54	17.29
	10/24/2023	100.83	83.55	17.28	-0.05 [N-3]	0.0	83.50	17.33
	10/31/2023	100.83	83.54	17.29	-0.08 [N-4]	0.0	83.46	17.37
	11/10/2023	100.83	83.59	17.24	-0.05 [N-3]	0.0	83.54	17.29
	11/14/2023	100.83	83.86	16.97	0.00 [N-5]	0.0	83.86	16.97
	11/21/2023	100.83	83.67	17.16	-0.08 [N-4]	0.0	83.59	17.24

Appendix B.2.2 Groundwater Elevation Data, Current Reporting Period (cont'd)

Location	Measurement Date	Measuring Point Elevation*	Depth to Water from TOC (Feet BMP)	Groundwater Elevation*	Measuring Tape Correction Factor [Tape ID] (ft)	Well Displacement Correction Factor (ft)	Corrected Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
	11/28/2023	100.83	83.53	17.3	-0.08 [N-4]	0.0	83.45	17.38
	12/05/2023	100.83	83.43	17.4	0.00 [N-5]	0.0	83.43	17.40
	12/12/2023	100.83	83.40	17.43	-0.05 [N-3]	0.0	83.35	17.48
	12/22/2023	100.83	83.33	17.5	-0.08 [N-4]	0.0	83.25	17.58
	12/29/2023	100.83	83.32	17.51	-0.08 [N-4]	0.0	83.24	17.59
	01/02/2024	100.83	83.33	17.5	0.00 [N-5]	0.0	83.33	17.50
	01/09/2024	100.83	83.22	17.61	0.00 [N-5]	0.0	83.22	17.61
	01/16/2024	100.83	83.12	17.71	-0.06 [N-6]	0.0	83.06	17.77
	02/06/2024	100.83	83.17	17.66	0.00 [N-5]	0.0	83.17	17.66
	03/12/2024	100.83	83.14	17.69	0.00 [N-5]	0.0	83.14	17.69
	04/02/2024	100.83	83.21	17.62	0.00 [N-5]	0.0	83.21	17.62
	05/08/2024	100.83	82.95	17.88	0.00 [N-5]	0.0	82.95	17.88
	05/22/2024	100.83	82.18	18.65	-0.05 [N-3]	0.0	82.13	18.70
	06/18/2024	100.83	82.06	18.77	-0.08 [N-4]	0.0	81.98	18.85
	06/05/2024	100.83	82.66	18.17	-0.08 [N-4]	0.0	82.58	18.25
	07/03/2024	100.83	82.80	18.03	-0.08 [N-4]	0.0	82.72	18.11
RHP08	09/11/2023	302.96	285.70	17.26	-0.14 [N-4]	—	285.56	17.40
	10/03/2023	302.96	285.76	17.2	-0.14 [N-4]	—	285.62	17.34
	10/11/2023	302.96	285.84	17.12	-0.14 [N-4]	—	285.70	17.26
	10/27/2023	302.96	285.79	17.17	-0.10 [N-3]	—	285.69	17.27
	11/02/2023	302.96	285.82	17.14	-0.14 [N-4]	—	285.68	17.28
	11/06/2023	302.96	285.82	17.14	-0.10 [N-3]	—	285.72	17.24
	11/13/2023	302.96	285.86	17.1	-0.09 [N-6]	—	285.77	17.19
	11/21/2023	302.96	285.86	17.1	-0.09 [N-6]	—	285.77	17.19
	11/29/2023	302.96	285.73	17.23	-0.10 [N-3]	—	285.63	17.33
	12/05/2023	302.96	285.72	17.24	-0.09 [N-6]	—	285.63	17.33
	12/13/2023	302.96	285.70	17.26	-0.09 [N-6]	—	285.61	17.35
	12/20/2023	302.96	285.67	17.29	-0.09 [N-6]	—	285.58	17.38
	12/28/2023	302.96	285.64	17.32	-0.14 [N-4]	—	285.50	17.46
	01/02/2024	302.96	285.69	17.27	-0.14 [N-4]	—	285.55	17.41
	01/10/2024	302.96	285.52	17.44	-0.09 [N-6]	—	285.43	17.53
	01/15/2024	302.96	285.48	17.48	-0.10 [N-3]	—	285.38	17.58
	02/07/2024	302.96	285.51	17.45	-0.03 [N-5]	—	285.48	17.48
	03/18/2024	302.96	285.53	17.43	-0.09 [N-6]	—	285.44	17.52
	04/05/2024	302.96	285.60	17.36	-0.09 [N-6]	—	285.51	17.45
	05/10/2024	302.96	285.26	17.7	-0.14 [N-4]	—	285.12	17.84
	05/21/2024	302.96	284.96	18	-0.10 [N-3]	—	284.86	18.10
	06/07/2024	302.96	284.99	17.97	-0.03 [N-5]	—	284.96	18.00
	06/21/2024	302.96	285.02	17.94	-0.03 [N-5]	—	284.99	17.97
	07/05/2024	302.96	285.13	17.83	-0.14 [N-4]	—	284.99	17.97

* All Elevations are reported in feet relative to NAVD88 vertical datum.

^a Water Level meter is not yet calibrated, therefore, no correction factor is available at this time. Correction factor will be included and updated after calibration.

If NAPL is present, the Groundwater Elevation needs to be corrected for NAPL d

MPE = Measuring Point Elevation

BMP = below measuring point

BGS = below ground surface

NC = not collected

Appendix B.3 – Summary of Groundwater Analytical Results

Appendix B.3.1 – Groundwater Analytical Results

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
Consolidated Sampling Program

Groundwater Sampling: Data Legend

Non-bold text indicates non-detected value

Bold text indicates detected value, but below the Environmental Action Level (EAL).

Bold and orange shaded text indicates exceeds the 2017 Department of Health Tier 1 EAL.

Black text indicates preliminary laboratory results.

Blue text indicates results are laboratory final and undergoing third-party validation.

Green text indicates results have completed third-party validation.

Specific EPA method revision used for analyses vary by lab and compound. The lab report associated with a sample specifies the exact method revision used.

— = not analyzed or not applicable

µg/L = microgram per liter (same as parts per billion)

B = Analyte detected in associated method blank

CAS = Chemical Abstracts Service

^a = Collected monthly during 4.3-mgd pumping and twice per month during reduced pumping at the Red Hill Shaft

^b = Uses 3510 extraction method for Consolidated. Additional 3520 for Quarterly

^c = Discontinued if one year's worth of sampling show levels are below DOH EALS

D = Limit of Quantitation (LOQ) increased due to sample matrix.

J = estimated value

J- = estimated value, low bias

J+ = estimated value, high bias

J1 = estimated value due to discrepancies in meeting analyte-specific quality control criteria.

JM = estimated value, manually integrated

JMQ = estimated value, manually integrated with one or more quality control outside acceptance criteria

JQ = estimated value with one or more quality control outside of acceptance criteria

mg/L = milligram per liter

M = manually integrated

no. = number

Q = one or more quality control outside of acceptance criteria

QC = quality control

U = nondetect value

UM = nondetect value, manually integrated

UMQ = nondetect value, manually integrated with one or more quality control outside acceptance criteria

UQ = nondetect value with one or more quality control outside of acceptance criteria

S = A documented laboratory error occurred during extraction, which contributed to low surrogate recovery. The sample was re-extracted; extraction prep hold time was exceeded by 4.83 days

O = Diluted out

-O = The oil range hydrocarbons (SGT-C24-C40) result is not available as the analyte was diluted out due to the high concentration of DRO range analytes present in the sample

T = Analyte detected in the associated trip blank

TB = trip blank. Do not count for total sample number. Only done for quality control purposes.

TPH-g = total petroleum hydrocarbons-gasoline range organics

TPH-d = total petroleum hydrocarbons-diesel range organics

TPH-o = total petroleum hydrocarbons-residual range

R = Exclusion of data recommended. The sample result was affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria.

H = Sample was prepped or analyzed beyond the specified holding time

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW24

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM		
Analyte						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene
CAS No.						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3
Method						8260	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM
2017 DOH Tier 1 EAL						300	400	500	—	—	5	30	40	20	—	—	10	10	17
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
NMW24	SGS Orlando	FC14254	NMW24-WGN01LF-2403	3/20/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—
NMW24	APPL	24D0084	NMW24-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW24	Energy	B24040931	NMW24-WGN01LF-2404	4/10/2024	Primary	—	—	<140	U	<187	U	—	—	—	—	—	—	—	—
NMW24	SGS Anchorage	1241477	NMW24-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW24	SGS Orlando	FC14756	NMW24-WGN01LF-2404	4/10/2024	Primary	<50	U	<100	U	<160	U	—	—	—	—	—	—	—	—
NMW24	SGS Anchorage	1242148	NMW24-WGN01LF-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW24	SGS Orlando	FC15761	NMW24-WGN01LF-2405A	5/15/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—
NMW24	SGS Orlando	FC15761	NMW24-WGN01B-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW24	SGS Anchorage	1242530	NMW24-WGN01LF-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW24	SGS Orlando	FC16021	NMW24-WGN01B-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW24	SGS Orlando	FC16021	NMW24-WGN01LF-2405B	5/29/2024	Primary	<50	U	<100	U	<160	U	—	—	—	—	—	—	—	—
NMW24	SGS Anchorage	1242802	NMW24-WGN01LF-2406A	6/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW24	SGS Orlando	FC16422	NMW24-WGN01LF-2406A	6/12/2024	Primary	<50	U	<100	U	<160	U	—	—	—	—	—	—	—	—
NMW24	SGS Orlando	FC16422	NMW24-WGN01B-2406A	6/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW24

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
NMW24	SGS Orlando	FC14254	NMW24-WGN01F-2403	3/20/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.063	U	<0.042	U
NMW24	APPL	24D0084	NMW24-WGN01F-2404	4/10/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW24	Energy	B24040931	NMW24-WGN01F-2404	4/10/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW24	SGS Anchorage	1241477	NMW24-WGN01F-2404	4/10/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW24	SGS Orlando	FC14756	NMW24-WGN01F-2404	4/10/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	UJ	<0.042	U	<0.042	U	<0.063	U	<0.042	U
NMW24	SGS Anchorage	1242148	NMW24-WGN01F-2405A	5/15/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW24	SGS Orlando	FC15761	NMW24-WGN01F-2405A	5/15/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	UJ	<0.042	U	<0.042	U	<0.063	U	<0.042	U
NMW24	SGS Orlando	FC15761	NMW24-WGN01B-2405A	5/15/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW24	SGS Anchorage	1242530	NMW24-WGN01F-2405B	5/29/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW24	SGS Orlando	FC16021	NMW24-WGN01B-2405B	5/29/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW24	SGS Orlando	FC16021	NMW24-WGN01F-2405B	5/29/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	UJ	<0.06	U	<0.04	U
NMW24	SGS Anchorage	1242802	NMW24-WGN01F-2406A	6/12/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW24	SGS Orlando	FC16422	NMW24-WGN01F-2406A	6/12/2024	Primary	<0.38	U	<0.38	U	<0.38	U	<0.038	U	<0.038	U	<0.038	U	<0.038	UJ	<0.077	U	<0.038	U
NMW24	SGS Orlando	FC16422	NMW24-WGN01B-2406A	6/12/2024	Primary	-		-		-		-		-		-		-		-		-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW24

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	270	427
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1390	1980
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
NMW24	SGS Orlando	FC14254	NMW24-WGN01LF-2403	3/20/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.015 U	<0.5 U	<0.25 U	—	—	—
NMW24	APPL	24D0084	NMW24-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
NMW24	Energy	B24040931	NMW24-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
NMW24	SGS Anchorage	1241477	NMW24-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	1390	978	J+
NMW24	SGS Orlando	FC14756	NMW24-WGN01LF-2404	4/10/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
NMW24	SGS Anchorage	1242148	NMW24-WGN01LF-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	—	—	666	J	1980
NMW24	SGS Orlando	FC15761	NMW24-WGN01LF-2405A	5/15/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
NMW24	SGS Orlando	FC15761	NMW24-WGN01B-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
NMW24	SGS Anchorage	1242530	NMW24-WGN01LF-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	270	J	575
NMW24	SGS Orlando	FC16021	NMW24-WGN01B-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
NMW24	SGS Orlando	FC16021	NMW24-WGN01LF-2405B	5/29/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
NMW24	SGS Anchorage	1242802	NMW24-WGN01LF-2406A	6/12/2024	Primary	—	—	—	—	—	—	—	—	—	280	J	427
NMW24	SGS Orlando	FC16422	NMW24-WGN01LF-2406A	6/12/2024	Primary	<0.38 U	<0.38 U	<0.038 U	<0.38 U	<0.38 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
NMW24	SGS Orlando	FC16422	NMW24-WGN01B-2406A	6/12/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW25

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM								
Analyte						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene						
CAS No.						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3						
Method						8260	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM						
2017 DOH Tier 1 EAL						300	400	500	—	—	5	30	40	20	—	—	10	10	17						
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L						
Minimum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND						
Maximum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND						
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result						
NMW25	SGS Orlando	FC14254	NMW25-WGN01LF-2403	3/20/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	<0.42	U	<0.42	U	<0.42	U	
NMW25	APPL	24D0084	NMW25-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NMW25	Energy	B24040931	NMW25-WGN01LF-2404	4/10/2024	Primary	—	—	<140	U	<187	U	—	—	—	—	—	—	—	—	—	—	—	—		
NMW25	SGS Anchorage	1241477	NMW25-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NMW25	SGS Orlando	FC14756	NMW25-WGN01LF-2404	4/10/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—	<0.4	U	<0.4	U	<0.4	U
NMW25	SGS Anchorage	1242148	NMW25-WGN01LF-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NMW25	SGS Orlando	FC15761	NMW25-WGN01B-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NMW25	SGS Orlando	FC15761	NMW25-WGN01LF-2405A	5/15/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—	<0.42	U	<0.42	U	<0.42	U
NMW25	SGS Anchorage	1242530	NMW25-WGN01LF-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NMW25	SGS Orlando	FC16021	NMW25-WGN01B-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NMW25	SGS Orlando	FC16021	NMW25-WGN01LF-2405B	5/29/2024	Primary	<50	U	<100	U	<160	U	—	—	—	—	—	—	—	—	<0.4	U	<0.4	U	<0.4	U
NMW25	SGS Anchorage	1242802	NMW25-WGN01LF-2406A	6/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NMW25	SGS Orlando	FC16422	NMW25-WGN01LF-2406A	6/12/2024	Primary	<50	U	<100	U	<160	U	—	—	—	—	—	—	—	—	<0.38	U	<0.38	U	<0.38	U
NMW25	SGS Orlando	FC16422	NMW25-WGN01B-2406A	6/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW25

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
NMW25	SGS Orlando	FC14254	NMW25-WGN01F-2403	3/20/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW25	APPL	24D0084	NMW25-WGN01F-2404	4/10/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW25	Energy	B24040931	NMW25-WGN01F-2404	4/10/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW25	SGS Anchorage	1241477	NMW25-WGN01F-2404	4/10/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW25	SGS Orlando	FC14756	NMW25-WGN01F-2404	4/10/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
NMW25	SGS Anchorage	1242148	NMW25-WGN01F-2405A	5/15/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW25	SGS Orlando	FC15761	NMW25-WGN01B-2405A	5/15/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW25	SGS Orlando	FC15761	NMW25-WGN01F-2405A	5/15/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW25	SGS Anchorage	1242530	NMW25-WGN01F-2405B	5/29/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW25	SGS Orlando	FC16021	NMW25-WGN01B-2405B	5/29/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW25	SGS Orlando	FC16021	NMW25-WGN01F-2405B	5/29/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
NMW25	SGS Anchorage	1242802	NMW25-WGN01F-2406A	6/12/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW25	SGS Orlando	FC16422	NMW25-WGN01F-2406A	6/12/2024	Primary	<0.38	U	<0.38	U	<0.38	U	<0.038	U	<0.038	U	<0.038	U	<0.038	U	<0.077	U	<0.038	U
NMW25	SGS Orlando	FC16422	NMW25-WGN01B-2406A	6/12/2024	Primary	--		--		--		--		--		--		--		--		--	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW25

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	774	790
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.27	2930	2150
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
NMW25	SGS Orlando	FC14254	NMW25-WGN01F-2403	3/20/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<80 UJ	<1.9 U	<0.015 U	<0.5 U	0.27 J	—	—
NMW25	APPL	24D0084	NMW25-WGN01F-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
NMW25	Energy	B24040931	NMW25-WGN01F-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
NMW25	SGS Anchorage	1241477	NMW25-WGN01F-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	1400	2010	—
NMW25	SGS Orlando	FC14756	NMW25-WGN01F-2404	4/10/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	—	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—
NMW25	SGS Anchorage	1242148	NMW25-WGN01F-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	—	—	2930	2150	—
NMW25	SGS Orlando	FC15761	NMW25-WGN01B-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	—	<0.5 U	—	—	—
NMW25	SGS Orlando	FC15761	NMW25-WGN01F-2405A	5/15/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	—	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—
NMW25	SGS Anchorage	1242530	NMW25-WGN01F-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	—	824 J	934 J
NMW25	SGS Orlando	FC16021	NMW25-WGN01B-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	<0.5 U	—	—	—
NMW25	SGS Orlando	FC16021	NMW25-WGN01F-2405B	5/29/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	—	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—
NMW25	SGS Anchorage	1242802	NMW25-WGN01F-2406A	6/12/2024	Primary	—	—	—	—	—	—	—	—	—	774 J	790 J	—
NMW25	SGS Orlando	FC16422	NMW25-WGN01F-2406A	6/12/2024	Primary	<0.38 U	<0.38 U	<0.038 U	<0.38 U	<0.38 U	—	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—
NMW25	SGS Orlando	FC16422	NMW25-WGN01B-2406A	6/12/2024	Primary	—	—	—	—	—	—	—	—	<0.5 U	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW26

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM												
Analyte						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene										
CAS No.						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3										
Method						8260	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM										
2017 DOH Tier 1 EAL						300	400	500	—	—	5	30	40	20	—	—	10	10	17										
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L										
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Maximum						ND	171.5	173.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
NMW26	SGS Orlando	FC14307	NMW26-WGN01LF-2403	3/23/2024	Primary	<50	U	<100	U	<170	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	—	—	<0.42	U	<0.42	U	<0.42	U
NMW26	APPL	24D0071	NMW26-WGN01LF-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW26	Energy	B24040771	NMW26-WGN01LF-2404	4/9/2024	Primary	—	—	171.5	J	173.3	J	<143	U	<143	U	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW26	SGS Anchorage	1241439	NMW26-WGN01LF-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW26	SGS Orlando	FC14704	NMW26-WGN01LF-2404	4/9/2024	Primary	<50	U	<100	U	<170	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	—	—	<0.42	U	<0.42	U	<0.42	U
NMW26	SGS Anchorage	1242083	NMW26-WGN01LF-2405A	5/13/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW26	SGS Orlando	FC15654	NMW26-WGN01B-2405A	5/13/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	—	—	
NMW26	SGS Orlando	FC15654	NMW26-WGN01LF-2405A	5/13/2024	Primary	<50	U	<100	U	<170	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	<0.42	U	<0.42	U
NMW26	SGS Anchorage	1242381	NMW26-WGN01LF-2405B	5/28/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW26	SGS Orlando	FC15983	NMW26-WGN01B-2405B	5/28/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	—	—	
NMW26	SGS Orlando	FC15983	NMW26-WGN01LF-2405B	5/28/2024	Primary	<50	U	<100	U	<160	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	<0.4	U	<0.4	U
NMW26	SGS Anchorage	1242723	NMW26-WGN01LF-2406A	6/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW26	SGS Orlando	FC16347	NMW26-WGN01LF-2406A	6/10/2024	Primary	<50	U	<100	U	<170	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	<0.4	U	<0.4	U
NMW26	SGS Orlando	FC16347	NMW26-WGN01B-2406A	6/10/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	—	—	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW26

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
NMW26	SGS Orlando	FC14307	NMW26-WGN01F-2403	3/23/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW26	APPL	24D0071	NMW26-WGN01F-2404	4/9/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW26	Energy	B24040771	NMW26-WGN01F-2404	4/9/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW26	SGS Anchorage	1241439	NMW26-WGN01F-2404	4/9/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW26	SGS Orlando	FC14704	NMW26-WGN01F-2404	4/9/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW26	SGS Anchorage	1242083	NMW26-WGN01F-2405A	5/13/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW26	SGS Orlando	FC15654	NMW26-WGN01B-2405A	5/13/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW26	SGS Orlando	FC15654	NMW26-WGN01F-2405A	5/13/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW26	SGS Anchorage	1242381	NMW26-WGN01F-2405B	5/28/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW26	SGS Orlando	FC15983	NMW26-WGN01B-2405B	5/28/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW26	SGS Orlando	FC15983	NMW26-WGN01F-2405B	5/28/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
NMW26	SGS Anchorage	1242723	NMW26-WGN01F-2406A	6/10/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW26	SGS Orlando	FC16347	NMW26-WGN01F-2406A	6/10/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
NMW26	SGS Orlando	FC16347	NMW26-WGN01B-2406A	6/10/2024	Primary	-		-		-		-		-		-		-		-		-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW26

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	1650	1530
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.35	2780	2610
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
NMW26	SGS Orlando	FC14307	NMW26-WGN01F-2403	3/23/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	0.35 J	—	—	—
NMW26	APPL	24D0071	NMW26-WGN01F-2404	4/9/2024	Primary	—	—	—	—	—	<80 U	—	—	—	—	—	—
NMW26	Energy	B24040771	NMW26-WGN01F-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
NMW26	SGS Anchorage	1241439	NMW26-WGN01F-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	2320	2230	—
NMW26	SGS Orlando	FC14704	NMW26-WGN01F-2404	4/9/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	0.25 J	—	—	—
NMW26	SGS Anchorage	1242083	NMW26-WGN01F-2405A	5/13/2024	Primary	—	—	—	—	—	—	—	—	—	2780	2610	—
NMW26	SGS Orlando	FC15654	NMW26-WGN01B-2405A	5/13/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
NMW26	SGS Orlando	FC15654	NMW26-WGN01F-2405A	5/13/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	0.17 J	—	—	—
NMW26	SGS Anchorage	1242381	NMW26-WGN01F-2405B	5/28/2024	Primary	—	—	—	—	—	—	—	—	—	1650	1530	—
NMW26	SGS Orlando	FC15983	NMW26-WGN01B-2405B	5/28/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
NMW26	SGS Orlando	FC15983	NMW26-WGN01F-2405B	5/28/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	<0.014 U	<0.5 U	0.19 J	—	—	—
NMW26	SGS Anchorage	1242723	NMW26-WGN01F-2406A	6/10/2024	Primary	—	—	—	—	—	—	—	—	—	1670	2050	—
NMW26	SGS Orlando	FC16347	NMW26-WGN01F-2406A	6/10/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	<0.014 U	<0.5 U	0.31 J	—	—	—
NMW26	SGS Orlando	FC16347	NMW26-WGN01B-2406A	6/10/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW30

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM														
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene												
						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3												
						Method	8260	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM												
						2017 DOH Tier 1 EAL	300	400	500	—	5	30	40	20	—	—	10	10	17												
						Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L												
						Minimum	ND	ND	ND	—	ND	ND	ND	ND	ND	ND	ND	ND	ND												
						Maximum	ND	ND	ND	—	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result												
NMW30	SGS Orlando	FC14254	NMW30-WGN01LF-2403	3/20/2024	Primary	<50	U	<100	U	<170	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	—	—	<0.42	U	<0.42	U	<0.42	U		
NMW30	APPL	24D0092	NMW30-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NMW30	Energy	B24041006	NMW30-WGN01LF-2404	4/11/2024	Primary	—	—	<140	U	<187	U	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NMW30	SGS Anchorage	1241497	NMW30-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NMW30	SGS Orlando	FC14797	NMW30-WGN01LF-2404	4/11/2024	Primary	<50	U	<100	U	<160	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	—	—	<0.42	U	<0.42	U	<0.42	U		
NMW30	SGS Anchorage	1242184	NMW30-WGN01LF-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NMW30	SGS Orlando	FC15783	NMW30-WGN01LF-2405A	5/16/2024	Primary	<50	U	<100	U	<170	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	<0.42	U	<0.42	U	<0.42	U
NMW30	SGS Orlando	FC15783	NMW30-WGN01B-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	—	—	—		
NMW30	SGS Anchorage	1242434	NMW30-WGN01LF-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NMW30	SGS Orlando	FC16061	NMW30-WGN01LF-2405B	5/30/2024	Primary	<50	U	<100	U	<160	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	<0.4	U	<0.4	U	<0.4	U
NMW30	SGS Orlando	FC16061	NMW30-WGN01B-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	—	—	—		
NMW30	SGS Anchorage	1242832	NMW30-WGN01LF-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NMW30	SGS Orlando	FC16461	NMW30-WGN01LF-2406A	6/13/2024	Primary	<50	U	<96	U	<150	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	<0.38	U	<0.38	U	<0.38	U
NMW30	SGS Orlando	FC16461	NMW30-WGN01B-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	—	—	—		

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW30

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
NMW30	SGS Orlando	FC14254	NMW30-WGN01F-2403	3/20/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW30	APPL	24D0092	NMW30-WGN01F-2404	4/11/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW30	Energy	B24041006	NMW30-WGN01F-2404	4/11/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW30	SGS Anchorage	1241497	NMW30-WGN01F-2404	4/11/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW30	SGS Orlando	FC14797	NMW30-WGN01F-2404	4/11/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	UJ	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW30	SGS Anchorage	1242184	NMW30-WGN01F-2405A	5/16/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW30	SGS Orlando	FC15783	NMW30-WGN01F-2405A	5/16/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	UJ	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW30	SGS Orlando	FC15783	NMW30-WGN01B-2405A	5/16/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW30	SGS Anchorage	1242434	NMW30-WGN01F-2405B	5/30/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW30	SGS Orlando	FC16061	NMW30-WGN01F-2405B	5/30/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	UJ	<0.08	U	<0.04	U
NMW30	SGS Orlando	FC16061	NMW30-WGN01B-2405B	5/30/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW30	SGS Anchorage	1242832	NMW30-WGN01F-2406A	6/13/2024	Primary	-		-		-		-		-		-		-		-		-	
NMW30	SGS Orlando	FC16461	NMW30-WGN01F-2406A	6/13/2024	Primary	<0.38	U	<0.38	U	<0.38	U	<0.038	UJ	<0.038	UJ	<0.038	U	<0.038	UJ	<0.077	U	<0.038	U
NMW30	SGS Orlando	FC16461	NMW30-WGN01B-2406A	6/13/2024	Primary	-		-		-		-		-		-		-		-		-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW30

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d						Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon	
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—	
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060	
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—	
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	59.8	529	552	
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	183	1600	1590	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
NMW30	SGS Orlando	FC14254	NMW30-WGN01LF-2403	3/20/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	183	—	—	—	
NMW30	APPL	24D0092	NMW30-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	<80 UJ	—	—	—	—	—	—	—	
NMW30	Energy	B24041006	NMW30-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	
NMW30	SGS Anchorage	1241497	NMW30-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	784 J+	1180 J+	—	
NMW30	SGS Orlando	FC14797	NMW30-WGN01LF-2404	4/11/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	123	—	—	—	
NMW30	SGS Anchorage	1242184	NMW30-WGN01LF-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	—	1600	1590	—	
NMW30	SGS Orlando	FC15783	NMW30-WGN01LF-2405A	5/16/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	82.9	—	—	—	
NMW30	SGS Orlando	FC15783	NMW30-WGN01B-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—	
NMW30	SGS Anchorage	1242434	NMW30-WGN01LF-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	—	730 J	837 J	—	
NMW30	SGS Orlando	FC16061	NMW30-WGN01LF-2405B	5/30/2024	Primary	<0.4 U	<0.4 UJ	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	59.8	—	—	—	
NMW30	SGS Orlando	FC16061	NMW30-WGN01B-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—	
NMW30	SGS Anchorage	1242832	NMW30-WGN01LF-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	—	529 J	552 J	—	
NMW30	SGS Orlando	FC16461	NMW30-WGN01LF-2406A	6/13/2024	Primary	<0.38 U	<0.38 U	<0.038 UJ	<0.38 U	<0.38 U	<1.9 U	<0.014 U	<0.5 U	75.4	—	—	—	
NMW30	SGS Orlando	FC16461	NMW30-WGN01B-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW32

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM																
Analyte						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene														
CAS No.						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3														
Method						8260	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM														
2017 DOH Tier 1 EAL						300	400	500	—	—	5	30	40	20	—	—	10	10	17														
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L														
Minimum						ND	ND	ND	ND	189	ND	ND	ND	ND	ND	ND	ND	ND	ND														
Maximum						ND	ND	145	ND	189	ND	ND	ND	ND	ND	ND	ND	ND	ND														
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result														
NMW32	SGS Orlando	FC14303	NMW32-WGN01LF-2403	3/21/2024	Primary	<50	U	<100	U	145	J	<100	U	189	J	<0.5	U	<0.5	U	<0.5	U	<1.5	U	—	—	—	—	<0.42	U	<0.42	U	<0.42	U
NMW32	APPL	24D0092	NMW32-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW32	Energy	B24041006	NMW32-WGN01LF-2404	4/11/2024	Primary	—	—	<143	U	<190	U	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW32	SGS Anchorage	1241497	NMW32-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW32	SGS Orlando	FC14797	NMW32-WGN01LF-2404	4/11/2024	Primary	<50	U	<100	U	<170	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	—	—	—	—	—	<0.42	U	<0.42	U	<0.42	U	
NMW32	SGS Anchorage	1242184	NMW32-WGN01LF-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW32	SGS Orlando	FC15783	NMW32-WGN01B-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	—	—	—	—	—	—	
NMW32	SGS Orlando	FC15783	NMW32-WGN01LF-2405A	5/16/2024	Primary	<50	U	<100	U	<170	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	<0.42	U	<0.42	U	<0.42	U	
NMW32	SGS Anchorage	1242434	NMW32-WGN01LF-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW32	SGS Orlando	FC16061	NMW32-WGN01B-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	—	—	—	—	—	—	
NMW32	SGS Orlando	FC16061	NMW32-WGN01LF-2405B	5/30/2024	Primary	<50	U	<96	U	<150	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	<0.4	U	<0.4	U	<0.4	U	
NMW32	SGS Anchorage	1242832	NMW32-WGN01LF-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NMW32	SGS Orlando	FC16461	NMW32-WGN01LF-2406A	6/13/2024	Primary	<50	U	<100	U	<160	U	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	<0.4	U	<0.4	U	<0.4	U	
NMW32	SGS Orlando	FC16461	NMW32-WGN01B-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	—	—	—	—	—	—	—	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW32

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
NMW32	SGS Orlando	FC14303	NMW32-WGN01F-2403	3/21/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW32	APPL	24D0092	NMW32-WGN01F-2404	4/11/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW32	Energy	B24041006	NMW32-WGN01F-2404	4/11/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW32	SGS Anchorage	1241497	NMW32-WGN01F-2404	4/11/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW32	SGS Orlando	FC14797	NMW32-WGN01F-2404	4/11/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW32	SGS Anchorage	1242184	NMW32-WGN01F-2405A	5/16/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW32	SGS Orlando	FC15783	NMW32-WGN01B-2405A	5/16/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW32	SGS Orlando	FC15783	NMW32-WGN01F-2405A	5/16/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW32	SGS Anchorage	1242434	NMW32-WGN01F-2405B	5/30/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW32	SGS Orlando	FC16061	NMW32-WGN01B-2405B	5/30/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW32	SGS Orlando	FC16061	NMW32-WGN01F-2405B	5/30/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
NMW32	SGS Anchorage	1242832	NMW32-WGN01F-2406A	6/13/2024	Primary	--		--		--		--		--		--		--		--		--	
NMW32	SGS Orlando	FC16461	NMW32-WGN01F-2406A	6/13/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
NMW32	SGS Orlando	FC16461	NMW32-WGN01B-2406A	6/13/2024	Primary	--		--		--		--		--		--		--		--		--	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW32

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	728	1050
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	2740	3300
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
NMW32	SGS Orlando	FC14303	NMW32-WGN01F-2403	3/21/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.015 U	<0.5 U	0.33 J	—	—	—
NMW32	APPL	24D0092	NMW32-WGN01F-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
NMW32	Energy	B24041006	NMW32-WGN01F-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
NMW32	SGS Anchorage	1241497	NMW32-WGN01F-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	1080 J+	3300	—
NMW32	SGS Orlando	FC14797	NMW32-WGN01F-2404	4/11/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	0.74	—	—	—
NMW32	SGS Anchorage	1242184	NMW32-WGN01F-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	—	2740	2680	—
NMW32	SGS Orlando	FC15783	NMW32-WGN01B-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
NMW32	SGS Orlando	FC15783	NMW32-WGN01F-2405A	5/16/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
NMW32	SGS Anchorage	1242434	NMW32-WGN01F-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	—	835 J	1050	—
NMW32	SGS Orlando	FC16061	NMW32-WGN01B-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
NMW32	SGS Orlando	FC16061	NMW32-WGN01F-2405B	5/30/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	1.3	—	—	—
NMW32	SGS Anchorage	1242832	NMW32-WGN01F-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	—	728 J	1320	—
NMW32	SGS Orlando	FC16461	NMW32-WGN01F-2406A	6/13/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	0.18 J	—	—	—
NMW32	SGS Orlando	FC16461	NMW32-WGN01B-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW33

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
NMW33	SGS Orlando	FC14303	NMW33-WGN01LF-2403	3/21/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.42 U	<0.42 U	<0.42 U
NMW33	APPL	24D0092	NMW33-WGN01LF-2404	4/11/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NMW33	Energy	B24041006	NMW33-WGN01LF-2404	4/11/2024	Primary	-	<140 U	<187 U	-	-	-	-	-	-	-	-	-	-	-	-	-
NMW33	SGS Anchorage	1241497	NMW33-WGN01LF-2404	4/11/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NMW33	SGS Orlando	FC14797	NMW33-WGN01LF-2404	4/11/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.4 U	<0.4 U	<0.4 U
NMW33	SGS Anchorage	1242184	NMW33-WGN01LF-2405A	5/16/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NMW33	SGS Orlando	FC15783	NMW33-WGN01LF-2405A	5/16/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	
NMW33	SGS Orlando	FC15783	NMW33-WGN01B-2405A	5/16/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	
NMW33	SGS Anchorage	1242434	NMW33-WGN01LF-2405B	5/30/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW33	SGS Orlando	FC16061	NMW33-WGN01LF-2405B	5/30/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	
NMW33	SGS Orlando	FC16061	NMW33-WGN01B-2405B	5/30/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	
NMW33	SGS Anchorage	1242832	NMW33-WGN01LF-2406A	6/13/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW33	SGS Orlando	FC16461	NMW33-WGN01LF-2406A	6/13/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	
NMW33	SGS Orlando	FC16461	NMW33-WGN01B-2406A	6/13/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW33

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																			
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)										
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3										
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM										
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022										
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L										
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
NMW33	SGS Orlando	FC14303	NMW33-WGN01F-2403	3/21/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U		
NMW33	APPL	24D0092	NMW33-WGN01F-2404	4/11/2024	Primary	-		-		-		-		-		-		-		-		-			
NMW33	Energy	B24041006	NMW33-WGN01F-2404	4/11/2024	Primary	-		-		-		-		-		-		-		-		-			
NMW33	SGS Anchorage	1241497	NMW33-WGN01F-2404	4/11/2024	Primary	-		-		-		-		-		-		-		-		-			
NMW33	SGS Orlando	FC14797	NMW33-WGN01F-2404	4/11/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	UJ	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
NMW33	SGS Anchorage	1242184	NMW33-WGN01F-2405A	5/16/2024	Primary	-		-		-		-		-		-		-		-		-		-	
NMW33	SGS Orlando	FC15783	NMW33-WGN01F-2405A	5/16/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	UJ	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW33	SGS Orlando	FC15783	NMW33-WGN01B-2405A	5/16/2024	Primary	-		-		-		-		-		-		-		-		-		-	
NMW33	SGS Anchorage	1242434	NMW33-WGN01F-2405B	5/30/2024	Primary	-		-		-		-		-		-		-		-		-		-	
NMW33	SGS Orlando	FC16061	NMW33-WGN01F-2405B	5/30/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	UJ	<0.08	U	<0.04	U
NMW33	SGS Orlando	FC16061	NMW33-WGN01B-2405B	5/30/2024	Primary	-		-		-		-		-		-		-		-		-		-	
NMW33	SGS Anchorage	1242832	NMW33-WGN01F-2406A	6/13/2024	Primary	-		-		-		-		-		-		-		-		-		-	
NMW33	SGS Orlando	FC16461	NMW33-WGN01F-2406A	6/13/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	UJ	<0.04	UJ	<0.04	U	<0.04	UJ	<0.04	U	<0.08	U	<0.04	U
NMW33	SGS Orlando	FC16461	NMW33-WGN01B-2406A	6/13/2024	Primary	-		-		-		-		-		-		-		-		-		-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW33

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d										Fuel Additive		Lead Scavengers		Natural Attenuation Parameters							
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon										
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—										
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060										
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—										
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L										
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	392	501										
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2720	2250										
Maximum						Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
NMW33	SGS Orlando	FC14303	NMW33-WGN01LF-2403	3/21/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	—	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	—
NMW33	APPL	24D0092	NMW33-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	<80	UJ	—	—	—	—	—	—	—	—	—	—
NMW33	Energy	B24041006	NMW33-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW33	SGS Anchorage	1241497	NMW33-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	763	J+	1440	—	
NMW33	SGS Orlando	FC14797	NMW33-WGN01LF-2404	4/11/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	—	<2	U	<0.014	U	<0.5	U	<0.25	U	—	—	—
NMW33	SGS Anchorage	1242184	NMW33-WGN01LF-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2720	—	2250	
NMW33	SGS Orlando	FC15783	NMW33-WGN01LF-2405A	5/16/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	—	<2	U	<0.014	U	<0.5	U	<0.25	U	—	—	—
NMW33	SGS Orlando	FC15783	NMW33-WGN01B-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW33	SGS Anchorage	1242434	NMW33-WGN01LF-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	536	J	672	J
NMW33	SGS Orlando	FC16061	NMW33-WGN01LF-2405B	5/30/2024	Primary	<0.4	U	<0.4	UJ	<0.04	U	<0.4	U	<0.4	U	—	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	—
NMW33	SGS Orlando	FC16061	NMW33-WGN01B-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NMW33	SGS Anchorage	1242832	NMW33-WGN01LF-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	392	J	501	J
NMW33	SGS Orlando	FC16461	NMW33-WGN01LF-2406A	6/13/2024	Primary	<0.4	U	<0.4	U	<0.04	UJ	<0.4	U	<0.4	U	—	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	—
NMW33	SGS Orlando	FC16461	NMW33-WGN01B-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW34

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM		
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene
Analyte	CAS No.	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3				
Method	2017 DOH Tier 1 EAL	300	400	500	—	—	5	30	40	20	—	—	10	10	17				
Units	Minimum	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L				
Maximum	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result				
NMW34	Energy	B24031285	NMW34-WGN01F-2403	3/19/2024	Primary	—	57.54 J	158.1 J	<141 U	<189 U	—	—	—	—	—				
NMW34	SGS Orlando	FC14214	NMW34-WGN01F-2403	3/19/2024	Primary	<50 U	<100 U	<160 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.4 U				
NMW34	APPL	24D0084	NMW34-WGN01F-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—				
NMW34	Energy	B24040931	NMW34-WGN01F-2404	4/10/2024	Primary	—	<140 U	<187 U	—	—	—	—	—	—	—				
NMW34	SGS Anchorage	1241477	NMW34-WGN01F-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—				
NMW34	SGS Orlando	FC14756	NMW34-WGN01F-2404	4/10/2024	Primary	<50 U	<100 U	<170 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.42 U				
NMW34	SGS Anchorage	1242107	NMW34-WGN01F-2405A	5/14/2024	Primary	—	—	—	—	—	—	—	—	—	—				
NMW34	SGS Orlando	FC15685	NMW34-WGN01B-2405A	5/14/2024	Primary	—	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U				
NMW34	SGS Orlando	FC15685	NMW34-WGN01F-2405A	5/14/2024	Primary	<50 U	<100 U	<170 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.42 U				
NMW34	SGS Anchorage	1242381	NMW34-WGN01F-2405B	5/28/2024	Primary	—	—	—	—	—	—	—	—	—	—				
NMW34	SGS Orlando	FC15983	NMW34-WGN01F-2405B	5/28/2024	Primary	<50 U	<100 U	<160 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.4 U				
NMW34	SGS Orlando	FC15983	NMW34-WGN01B-2405B	5/28/2024	Primary	—	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U				
NMW34	SGS Anchorage	1242775	NMW34-WGN01F-2406A	6/11/2024	Primary	—	—	—	—	—	—	—	—	—	—				
NMW34	SGS Orlando	FC16347	NMW34-WGN01F-2406A	6/11/2024	Primary	<50 U	<100 U	<160 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.42 U				
NMW34	SGS Orlando	FC16347	NMW34-WGN01B-2406A	6/11/2024	Primary	—	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U				

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW34

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI															
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)						
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3						
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM						
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022						
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L						
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result						
NMW34	Energy	B24031285	NMW34-WGN01F-2403	3/19/2024	Primary	-	-	-	-	-	-	-	-	-	-						
NMW34	SGS Orlando	FC14214	NMW34-WGN01F-2403	3/19/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U		
NMW34	APPL	24D0084	NMW34-WGN01F-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-						
NMW34	Energy	B24040931	NMW34-WGN01F-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-						
NMW34	SGS Anchorage	1241477	NMW34-WGN01F-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-						
NMW34	SGS Orlando	FC14756	NMW34-WGN01F-2404	4/10/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW34	SGS Anchorage	1242107	NMW34-WGN01F-2405A	5/14/2024	Primary	-	-	-	-	-	-	-	-	-	-						
NMW34	SGS Orlando	FC15685	NMW34-WGN01B-2405A	5/14/2024	Primary	-	-	-	-	-	-	-	-	-	-						
NMW34	SGS Orlando	FC15685	NMW34-WGN01F-2405A	5/14/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW34	SGS Anchorage	1242381	NMW34-WGN01F-2405B	5/28/2024	Primary	-	-	-	-	-	-	-	-	-	-						
NMW34	SGS Orlando	FC15983	NMW34-WGN01F-2405B	5/28/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
NMW34	SGS Orlando	FC15983	NMW34-WGN01B-2405B	5/28/2024	Primary	-	-	-	-	-	-	-	-	-	-						
NMW34	SGS Anchorage	1242775	NMW34-WGN01F-2406A	6/11/2024	Primary	-	-	-	-	-	-	-	-	-	-						
NMW34	SGS Orlando	FC16347	NMW34-WGN01F-2406A	6/11/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
NMW34	SGS Orlando	FC16347	NMW34-WGN01B-2406A	6/11/2024	Primary	-	-	-	-	-	-	-	-	-	-						

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: NMW34

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d						Fuel Additive		Lead Scavengers		Natural Attenuation Parameters			
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
	206-44-0	8270SIM	13	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	86-73-7	8270SIM	240	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	193-39-5	8270SIM	0.095	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	85-01-8	8270SIM	210	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	129-00-0	8270SIM	68	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	111-77-3	8270D	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	108-95-2	SW8270	300	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	106-93-4	8011	0.04	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	107-06-2	8260	5	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	74-82-8	RSK 175	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	—	—	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	—	—	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
	—	—	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
NMW34	Energy	B24031285	NMW34-WGN01F-2403	3/19/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW34	SGS Orlando	FC14214	NMW34-WGN01F-2403	3/19/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U	<0.25	U
NMW34	APPL	24D0084	NMW34-WGN01F-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW34	Energy	B24040931	NMW34-WGN01F-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW34	SGS Anchorage	1241477	NMW34-WGN01F-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW34	SGS Orlando	FC14756	NMW34-WGN01F-2404	4/10/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.42	U	<0.25	U
NMW34	SGS Anchorage	1242107	NMW34-WGN01F-2405A	5/14/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW34	SGS Orlando	FC15685	NMW34-WGN01B-2405A	5/14/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW34	SGS Orlando	FC15685	NMW34-WGN01F-2405A	5/14/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.42	U	<0.25	U
NMW34	SGS Anchorage	1242381	NMW34-WGN01F-2405B	5/28/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW34	SGS Orlando	FC15983	NMW34-WGN01F-2405B	5/28/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U	<0.25	U
NMW34	SGS Orlando	FC15983	NMW34-WGN01B-2405B	5/28/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW34	SGS Anchorage	1242775	NMW34-WGN01F-2406A	6/11/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	
NMW34	SGS Orlando	FC16347	NMW34-WGN01F-2406A	6/11/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.42	U	<0.25	U
NMW34	SGS Orlando	FC16347	NMW34-WGN01B-2406A	6/11/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: OWDFMW03A

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM					
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene			
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	8270 SIM	8270 SIM	8270 SIM	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
OWDFMW03A	SGS Anchorage	1242148	OWDFMW03A-WGN01LF-2405A	5/15/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OWDFMW03A	SGS Orlando	FC15761	OWDFMW03A-WGN01LF-2405A	5/15/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
OWDFMW03A	SGS Anchorage	1242520	OWDFMW03A-WGN01LF-2405B	5/31/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OWDFMW03A	SGS Orlando	FC16070	OWDFMW03A-WGN01LF-2405B	5/31/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
OWDFMW03A	SGS Anchorage	1242926	OWDFMW03A-WGN01LF-2406A	6/14/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OWDFMW03A	SGS Orlando	FC16476	OWDFMW03A-WGN01LF-2406A	6/14/2024	Primary	<50 U	<96 U	<150 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: OWDFMW03A

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
OWDFMW03A	SGS Anchorage	1242148	OWDFMW03A-WGN01LF-2405A	5/15/2024	Primary	-	-	-	-	-	-	-	-	-	-
OWDFMW03A	SGS Orlando	FC15761	OWDFMW03A-WGN01LF-2405A	5/15/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
OWDFMW03A	SGS Anchorage	1242520	OWDFMW03A-WGN01LF-2405B	5/31/2024	Primary	-	-	-	-	-	-	-	-	-	-
OWDFMW03A	SGS Orlando	FC16070	OWDFMW03A-WGN01LF-2405B	5/31/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U
OWDFMW03A	SGS Anchorage	1242926	OWDFMW03A-WGN01LF-2406A	6/14/2024	Primary	-	-	-	-	-	-	-	-	-	-
OWDFMW03A	SGS Orlando	FC16476	OWDFMW03A-WGN01LF-2406A	6/14/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: OWDFMW03A

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cnd					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters			
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon	
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—	
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060	
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—	
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Units						ND	ND	ND	ND	ND	—	ND	ND	ND	ND	ND	ND	
Minimum						ND	ND	ND	ND	ND	—	ND	ND	ND	ND	ND	344	
Maximum						ND	ND	ND	ND	ND	—	ND	ND	ND	ND	1140	883	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
OWDFMW03A	SGS Anchorage	1242148	OWDFMW03A-WGN01LF-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	—	—	1140	—	883	J
OWDFMW03A	SGS Orlando	FC15761	OWDFMW03A-WGN01LF-2405A	5/15/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—	—
OWDFMW03A	SGS Anchorage	1242520	OWDFMW03A-WGN01LF-2405B	5/31/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	669	J
OWDFMW03A	SGS Orlando	FC16070	OWDFMW03A-WGN01LF-2405B	5/31/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—	—
OWDFMW03A	SGS Anchorage	1242926	OWDFMW03A-WGN01LF-2406A	6/14/2024	Primary	—	—	—	—	—	—	—	—	—	352	J	344	J
OWDFMW03A	SGS Orlando	FC16476	OWDFMW03A-WGN01LF-2406A	6/14/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: OWDFMW08A

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM								
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene						
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
	PHCC06C10	8260	300	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	PHCC10C24	8015	400	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	PHCC24C40	8015	500	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	PHCC10C24SGC	8015	-	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	PHCC24C40SGC	8015	-	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
							71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3										
							8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260	8260
							5	30	40	20	-	-	10	10	17										
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
OWDFMW08A	SGS Anchorage	1242148	OWDFMW08A-WGN01LF-2405A	5/15/2024	Primary		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
OWDFMW08A	SGS Orlando	FC15761	OWDFMW08A-WGN01LF-2405A	5/15/2024	Primary		<50 U	<100 U	<170 U	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U	
OWDFMW08A	SGS Anchorage	1242520	OWDFMW08A-WGN01LF-2405B	5/31/2024	Primary		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
OWDFMW08A	SGS Orlando	FC16070	OWDFMW08A-WGN01LF-2405B	5/31/2024	Primary		<50 U	<100 U	<160 U	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	
OWDFMW08A	SGS Anchorage	1242802	OWDFMW08A-WGN01LF-2406A	6/12/2024	Primary		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
OWDFMW08A	SGS Orlando	FC16422	OWDFMW08A-WGN01LF-2406A	6/12/2024	Primary		<50 U	<100 U	<170 U	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: OWDFMW08A

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI														
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)					
Analyte																				
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3					
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM					
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022					
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L					
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
OWDFMW08A	SGS Anchorage	1242148	OWDFMW08A-WGN01LF-2405A	5/15/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
OWDFMW08A	SGS Orlando	FC15761	OWDFMW08A-WGN01LF-2405A	5/15/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U	
OWDFMW08A	SGS Anchorage	1242520	OWDFMW08A-WGN01LF-2405B	5/31/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
OWDFMW08A	SGS Orlando	FC16070	OWDFMW08A-WGN01LF-2405B	5/31/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U	
OWDFMW08A	SGS Anchorage	1242802	OWDFMW08A-WGN01LF-2406A	6/12/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
OWDFMW08A	SGS Orlando	FC16422	OWDFMW08A-WGN01LF-2406A	6/12/2024	Primary	<0.43 U	<0.43 U	<0.43 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.087 U	<0.043 U	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: OWDFMW08A

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	—	ND	ND	ND	ND	278	503
Minimum						ND	ND	ND	ND	ND	—	ND	ND	ND	ND	1310	1450
Maximum						ND	ND	ND	ND	ND	—	ND	ND	ND	ND	1310	1450
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
OWDFMW08A	SGS Anchorage	1242148	OWDFMW08A-WGN01LF-2405A	5/15/2024	Primary	—	—	—	—	—	—	—	—	—	1310	—	1450
OWDFMW08A	SGS Orlando	FC15761	OWDFMW08A-WGN01LF-2405A	5/15/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
OWDFMW08A	SGS Anchorage	1242520	OWDFMW08A-WGN01LF-2405B	5/31/2024	Primary	—	—	—	—	—	—	—	—	—	682	J	603 J
OWDFMW08A	SGS Orlando	FC16070	OWDFMW08A-WGN01LF-2405B	5/31/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
OWDFMW08A	SGS Anchorage	1242802	OWDFMW08A-WGN01LF-2406A	6/12/2024	Primary	—	—	—	—	—	—	—	—	—	278	J	574 J
OWDFMW08A	SGS Orlando	FC16422	OWDFMW08A-WGN01LF-2406A	6/12/2024	Primary	<0.43 U	<0.43 U	<0.043 U	<0.43 U	<0.43 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: HDMW2253-01

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM		
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene
Analyte	PHCC6C10		PHCC10C24		PHCC24C40		PHCC10C24SGC		PHCC24C40SGC		71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3
CAS No.	8260		8015		8015		8015		8015		8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM
Method	300		400		500		—		—		5	30	40	20	—	—	10	10	17
2017 DOH Tier 1 EAL	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units	ND		ND		ND		—		—		ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum	ND		ND		ND		—		—		ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum	ND		ND		ND		—		—		ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
HDMW2253-03	APPL	24D0094	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HDMW2253-03	Energy	B24041040	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	—	<143 U	<143 U	—	—	—	—	—	—	—	—	—	—	—
HDMW2253-03	SGS Anchorage	1241534	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HDMW2253-03	SGS Orlando	FC14810	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	<50 U	<100 U	<170 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	—	—	<0.42 U	<0.42 U	<0.42 U
HDMW2253-03	SGS Anchorage	1242257	HDMW2253-03-WGN01LF-2405A	5/17/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HDMW2253-03	SGS Orlando	FC15795	HDMW2253-03-WGN01LF-2405A	5/17/2024	Primary	<50 U	<100 U	<170 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U
HDMW2253-03	SGS Anchorage	1242381	HDMW2253-03-WGN01LF-2405B	5/28/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HDMW2253-03	SGS Orlando	FC15983	HDMW2253-03-WGN01LF-2405B	5/28/2024	Primary	<50 U	<100 U	<160 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U
HDMW2253-03	SGS Anchorage	1242926	HDMW2253-03-WGN01LF-2406A	6/14/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HDMW2253-03	SGS Orlando	FC16476	HDMW2253-03-WGN01LF-2406A	6/14/2024	Primary	<50 U	<100 U	<160 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: HDMW2253-01

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
HDMW2253-03	APPL	24D0094	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	-	-	-	-	-	-	-	-	-	-
HDMW2253-03	Energy	B24041040	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	-	-	-	-	-	-	-	-	-	-
HDMW2253-03	SGS Anchorage	1241534	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	-	-	-	-	-	-	-	-	-	-
HDMW2253-03	SGS Orlando	FC14810	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
HDMW2253-03	SGS Anchorage	1242257	HDMW2253-03-WGN01LF-2405A	5/17/2024	Primary	-	-	-	-	-	-	-	-	-	-
HDMW2253-03	SGS Orlando	FC15795	HDMW2253-03-WGN01LF-2405A	5/17/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
HDMW2253-03	SGS Anchorage	1242381	HDMW2253-03-WGN01LF-2405B	5/28/2024	Primary	-	-	-	-	-	-	-	-	-	-
HDMW2253-03	SGS Orlando	FC15983	HDMW2253-03-WGN01LF-2405B	5/28/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U
HDMW2253-03	SGS Anchorage	1242926	HDMW2253-03-WGN01LF-2406A	6/14/2024	Primary	-	-	-	-	-	-	-	-	-	-
HDMW2253-03	SGS Orlando	FC16476	HDMW2253-03-WGN01LF-2406A	6/14/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: HDMW2253-01

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.37	ND	ND
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	819	1170
Maximum						Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
HDMW2253-03	APPL	24D0094	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	<80	UJ	—	—	—	—	—
HDMW2253-03	Energy	B24041040	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
HDMW2253-03	SGS Anchorage	1241534	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	<750
HDMW2253-03	SGS Orlando	FC14810	HDMW2253-03-WGN01LF-2404	4/12/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.42	U
HDMW2253-03	SGS Anchorage	1242257	HDMW2253-03-WGN01LF-2405A	5/17/2024	Primary	—	—	—	—	—	—	—	—	—	—	819	J
HDMW2253-03	SGS Orlando	FC15795	HDMW2253-03-WGN01LF-2405A	5/17/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.42	U
HDMW2253-03	SGS Anchorage	1242381	HDMW2253-03-WGN01LF-2405B	5/28/2024	Primary	—	—	—	—	—	—	—	—	—	—	<750	U
HDMW2253-03	SGS Orlando	FC15983	HDMW2253-03-WGN01LF-2405B	5/28/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	1	—
HDMW2253-03	SGS Anchorage	1242926	HDMW2253-03-WGN01LF-2406A	6/14/2024	Primary	—	—	—	—	—	—	—	—	—	—	293	J
HDMW2253-03	SGS Orlando	FC16476	HDMW2253-03-WGN01LF-2406A	6/14/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	1.4	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW01R

						Total Petroleum Hydrocarbons					Volatile Organic Compounds					Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM					
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW01R	APPL	24D0041	RHMW01R-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW01R	Energy	B24040475	RHMW01R-WGN01LF-2404	4/4/2024	Primary	-	131.3 J	<187 U	<140 U	<187 U	-	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Anchorage	1241370	RHMW01R-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC14605	RHMW01R-WGN01LF-2404	4/4/2024	Primary	<50 U	112 J	<170 U	101 J	<170 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.4 U	<0.4 U	<0.4 U	-
RHMW01R	APPL	24D0041	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW01R	Energy	B24040475	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	-	127.5 J	<187 U	<140 U	<187 U	-	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC14605	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	<50 U	129 J	<170 U	96.8 J	<170 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.42 U	<0.42 U	<0.42 U	-
RHMW01R	SGS Anchorage	1242031	RHMW01R-WGN01LF-2405A	5/9/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGN01LF-2405A	5/9/2024	Primary	<50 U	118 J	<170 U	156 J	<170 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	-
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGN01B-2405A	5/9/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGFD01B-2405A	5/9/2024	Field Duplicate	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGFD01LF-2405A	5/9/2024	Field Duplicate	<50 U	168 J	<170 U	125 J	<170 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	-	-
RHMW01R	SGS Anchorage	1242340	RHMW01R-WGN01LF-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGN01LF-2405B	5/23/2024	Primary	<50 U	113 J	<170 U	83.3 J	<170 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	-	-
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGN01B-2405B	5/23/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGFD01B-2405B	5/23/2024	Field Duplicate	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGFD01LF-2405B	5/23/2024	Field Duplicate	<50 U	109 J	<170 U	90.3 J	<170 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	-	-
RHMW01R	SGS Anchorage	1242888	RHMW01R-WGN01LF-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGN01B-2406A	6/3/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGN01LF-2406A	6/3/2024	Primary	<50 U	151 J	<160 U	85.6 J	<160 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.38 U	<0.38 U	<0.38 U	-	-
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGFD01B-2406A	6/3/2024	Field Duplicate	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGFD01LF-2406A	6/3/2024	Field Duplicate	<50 U	123 J	<160 U	86.1 J	<160 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	-	-
RHMW01R	SGS Anchorage	1242926	RHMW01R-WGN01LF-2406B	6/17/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW01R	APPL	24D0041	RHMW01R-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW01R	Energy	B24040475	RHMW01R-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Anchorage	1241370	RHMW01R-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC14605	RHMW01R-WGN01LF-2404	4/4/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW01R	APPL	24D0041	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW01R	Energy	B24040475	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC14605	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U
RHMW01R	SGS Anchorage	1242031	RHMW01R-WGN01LF-2405A	5/9/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGN01LF-2405A	5/9/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.083	U
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGN01B-2405A	5/9/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGFD01B-2405A	5/9/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGFD01LF-2405A	5/9/2024	Field Duplicate	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.08	U
RHMW01R	SGS Anchorage	1242340	RHMW01R-WGN01LF-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGN01LF-2405B	5/23/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.083	U
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGN01B-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGFD01B-2405B	5/23/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGFD01LF-2405B	5/23/2024	Field Duplicate	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.083	U
RHMW01R	SGS Anchorage	1242688	RHMW01R-WGN01LF-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGN01B-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGN01LF-2406A	6/3/2024	Primary	<0.38	U	<0.38	U	<0.038	U	<0.038	U	<0.077	U
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGFD01B-2406A	6/3/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGFD01LF-2406A	6/3/2024	Field Duplicate	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.08	U
RHMW01R	SGS Anchorage	1242926	RHMW01R-WGN01LF-2406B	6/17/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW01R

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte	CAS No.	206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	9060				
Method	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060				
2017 DOH Tier 1 EAL	13	240	0.095	210	68	—	300	0.04	5	—	—	—	—				
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L				
Minimum	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	296	ND	700				
Maximum	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	342	850	1140				
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result				
RHMW01R	APPL	24D0041	RHMW01R-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—				
RHMW01R	Energy	B24040475	RHMW01R-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—				
RHMW01R	SGS Anchorage	1241370	RHMW01R-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	<750	1060				
RHMW01R	SGS Orlando	FC14605	RHMW01R-WGN01LF-2404	4/4/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U				
RHMW01R	APPL	24D0041	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	—	—	—	—	—	—	—	—				
RHMW01R	Energy	B24040475	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC14605	RHMW01R-WGFD01LF-2404	4/4/2024	Field Duplicate	<0.42	U	<0.42	U	<0.042	U	<0.42	U				
RHMW01R	SGS Anchorage	1242031	RHMW01R-WGN01LF-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGN01LF-2405A	5/9/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U				
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGN01B-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGFD01B-2405A	5/9/2024	Field Duplicate	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC15585	RHMW01R-WGFD01LF-2405A	5/9/2024	Field Duplicate	<0.4	U	<0.4	U	<0.04	U	<0.4	U				
RHMW01R	SGS Anchorage	1242340	RHMW01R-WGN01LF-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGN01LF-2405B	5/23/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U				
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGN01B-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGFD01B-2405B	5/23/2024	Field Duplicate	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC15936	RHMW01R-WGFD01LF-2405B	5/23/2024	Field Duplicate	<0.42	U	<0.42	U	<0.042	U	<0.42	U				
RHMW01R	SGS Anchorage	1242688	RHMW01R-WGN01LF-2406A	6/3/2024	Primary	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGN01B-2406A	6/3/2024	Primary	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGN01LF-2406A	6/3/2024	Primary	<0.38	U	<0.38	U	<0.038	U	<0.38	U				
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGFD01B-2406A	6/3/2024	Field Duplicate	—	—	—	—	—	—	—	—				
RHMW01R	SGS Orlando	FC16127	RHMW01R-WGFD01LF-2406A	6/3/2024	Field Duplicate	<0.4	U	<0.4	U	<0.04	U	<0.4	U				
RHMW01R	SGS Anchorage	1242926	RHMW01R-WGN01LF-2406B	6/17/2024	Primary	—	—	—	—	—	—	—	—				

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW02

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM																
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene														
Analyte	CAS No.	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3																		
Method	8260	8015	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM																		
2017 DOH Tier 1 EAL	300	400	500	—	—	—	5	30	40	20	—	—	10	10	17																		
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L																		
Minimum	ND	1430	105	128.8	ND	ND	ND	ND	ND	ND	ND	ND	0.37	ND	0.65																		
Maximum	ND	3060	220.1	2460	122	ND	ND	ND	ND	ND	ND	ND	2.3	1.1	4.1																		
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result																	
RHMW02	APPL	24D0041	RHMW02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—																	
RHMW02	Energy	B24040475	RHMW02-WGN01LF-2404	4/4/2024	Primary	—	1927	220.1	J	163.5	J	<187	U	—	—	—																	
RHMW02	SGS Anchorage	1241370	RHMW02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—																	
RHMW02	SGS Orlando	FC14605	RHMW02-WGN01LF-2404	4/4/2024	Primary	<50	U	1430	—	121	J	1210	—	80	J	<0.5	U	<0.5	U	<0.5	U	<1.5	U	—	—	1.4	—	0.77	J	3.4			
RHMW02	APPL	24D0041	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
RHMW02	Energy	B24040475	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	—	—	1767	—	197	J	128.8	J	<187	U	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
RHMW02	SGS Orlando	FC14605	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	<50	U	1550	—	137	J	1250	—	86.1	J	<0.5	U	<0.5	U	<0.5	U	<1.5	U	—	—	—	1.8	—	1.1	—	4.1		
RHMW02	SGS Anchorage	1242031	RHMW02-WGN01LF-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
RHMW02	SGS Orlando	FC15585	RHMW02-WGN01B-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
RHMW02	SGS Orlando	FC15585	RHMW02-WGN01LF-2405A	5/9/2024	Primary	<50	U	1810	—	105	J	1760	—	96.2	J	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	0.82	J	<0.42	U	1.5	
RHMW02	SGS Orlando	FC15585	RHMW02-WGFD01LF-2405A	5/9/2024	Field Duplicate	<50	U	2030	—	123	J	1710	—	<170	U	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	0.77	J	<0.42	U	1.2	
RHMW02	SGS Orlando	FC15585	RHMW02-WGFD01LF-2405A	5/9/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
RHMW02	SGS Anchorage	1242340	RHMW02-WGN01LF-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHMW02	SGS Orlando	FC15936	RHMW02-WGN01B-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHMW02	SGS Orlando	FC15936	RHMW02-WGN01LF-2405B	5/23/2024	Primary	<50	U	2760	—	154	J	2270	—	111	J	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	2.2	—	0.67	J	2.3	
RHMW02	SGS Orlando	FC15936	RHMW02-WGFD01B-2405B	5/23/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHMW02	SGS Orlando	FC15936	RHMW02-WGFD01LF-2405B	5/23/2024	Field Duplicate	<50	U	3060	—	181	J	2460	—	122	J	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	2.3	—	0.67	J	2.3	
RHMW02	SGS Anchorage	1242688	RHMW02-WGN01LF-2406A	6/3/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHMW02	SGS Orlando	FC16127	RHMW02-WGN01LF-2406A	6/3/2024	Primary	<50	U	1770	—	134	J	1360	—	91.9	J	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	0.39	J	<0.4	U	0.67	J
RHMW02	SGS Orlando	FC16127	RHMW02-WGN01B-2406A	6/3/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHMW02	SGS Orlando	FC16127	RHMW02-WGFD01B-2406A	6/3/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW02	SGS Orlando	FC16127	RHMW02-WGFD01LF-2406A	6/3/2024	Field Duplicate	<50	U	1810	—	137	J	1390	—	92.2	J	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	0.37	J	<0.4	U	0.65	J
RHMW02	SGS Anchorage	1242926	RHMW02-WGN01LF-2406B	6/17/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Notes:
 See Data Legend

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW02	APPL	24D0041	RHMW02-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW02	Energy	B24040475	RHMW02-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Anchorage	1241370	RHMW02-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC14605	RHMW02-WGN01LF-2404	4/4/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW02	APPL	24D0041	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW02	Energy	B24040475	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC14605	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW02	SGS Anchorage	1242031	RHMW02-WGN01LF-2405A	5/9/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC15585	RHMW02-WGN01B-2405A	5/9/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC15585	RHMW02-WGN01LF-2405A	5/9/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.083	U
RHMW02	SGS Orlando	FC15585	RHMW02-WGFD01LF-2405A	5/9/2024	Field Duplicate	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.083	U
RHMW02	SGS Orlando	FC15585	RHMW02-WGFD01B-2405A	5/9/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Anchorage	1242340	RHMW02-WGN01LF-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC15936	RHMW02-WGN01B-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC15936	RHMW02-WGN01LF-2405B	5/23/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.083	U
RHMW02	SGS Orlando	FC15936	RHMW02-WGFD01B-2405B	5/23/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC15936	RHMW02-WGFD01LF-2405B	5/23/2024	Field Duplicate	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.083	U
RHMW02	SGS Anchorage	1242888	RHMW02-WGN01LF-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC16127	RHMW02-WGN01LF-2406A	6/3/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW02	SGS Orlando	FC16127	RHMW02-WGN01B-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC16127	RHMW02-WGFD01B-2406A	6/3/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-
RHMW02	SGS Orlando	FC16127	RHMW02-WGFD01LF-2406A	6/3/2024	Field Duplicate	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW02	SGS Anchorage	1242926	RHMW02-WGN01LF-2406B	6/17/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	2500	4510	3890
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	2920	9970	7880
Maximum						Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW02	APPL	24D0041	RHMW02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	<80 U	—	—	—	—	—	—
RHMW02	Energy	B24040475	RHMW02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW02	SGS Anchorage	1241370	RHMW02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	4510	—	3890
RHMW02	SGS Orlando	FC14605	RHMW02-WGN01LF-2404	4/4/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	—	—	—	2730	—	—
RHMW02	APPL	24D0041	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	—	—	—	—	—	<80 U	—	—	—	—	—	—
RHMW02	Energy	B24040475	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	—	—	—
RHMW02	SGS Orlando	FC14605	RHMW02-WGFD01LF-2404	4/4/2024	Field Duplicate	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	—	—	—	—	—	—
RHMW02	SGS Anchorage	1242031	RHMW02-WGN01LF-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	7580	6790
RHMW02	SGS Orlando	FC15585	RHMW02-WGN01B-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW02	SGS Orlando	FC15585	RHMW02-WGN01LF-2405A	5/9/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	—	2670	—	—
RHMW02	SGS Orlando	FC15585	RHMW02-WGFD01LF-2405A	5/9/2024	Field Duplicate	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	—	—	—	—
RHMW02	SGS Orlando	FC15585	RHMW02-WGFD01B-2405A	5/9/2024	Field Duplicate	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW02	SGS Anchorage	1242340	RHMW02-WGN01LF-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	9970	—	7880
RHMW02	SGS Orlando	FC15936	RHMW02-WGN01B-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW02	SGS Orlando	FC15936	RHMW02-WGN01LF-2405B	5/23/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	—	2920	—	—
RHMW02	SGS Orlando	FC15936	RHMW02-WGFD01B-2405B	5/23/2024	Field Duplicate	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW02	SGS Orlando	FC15936	RHMW02-WGFD01LF-2405B	5/23/2024	Field Duplicate	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	—	—	—	—
RHMW02	SGS Anchorage	1242888	RHMW02-WGN01LF-2406A	6/3/2024	Primary	—	—	—	—	—	—	—	—	—	—	6210	6210
RHMW02	SGS Orlando	FC16127	RHMW02-WGN01LF-2406A	6/3/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.015 U	<0.5 U	—	2500	—	—
RHMW02	SGS Orlando	FC16127	RHMW02-WGN01B-2406A	6/3/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW02	SGS Orlando	FC16127	RHMW02-WGFD01B-2406A	6/3/2024	Field Duplicate	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW02	SGS Orlando	FC16127	RHMW02-WGFD01LF-2406A	6/3/2024	Field Duplicate	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.015 U	<0.5 U	—	—	—	—
RHMW02	SGS Anchorage	1242926	RHMW02-WGN01LF-2406B	6/17/2024	Primary	—	—	—	—	—	—	—	—	—	6880	—	6340

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW03

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW03	APPL	24D0041	RHMW03-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW03	Energy	B24040475	RHMW03-WGN01LF-2404	4/4/2024	Primary	-	64.13 J	148.2 J	<140 U	<187 U	-	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Anchorage	1241370	RHMW03-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Orlando	FC14605	RHMW03-WGN01LF-2404	4/4/2024	Primary	<50 U	<100 U	<160 U	-	-	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW03	SGS Anchorage	1241961	RHMW03-WGN01LF-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Orlando	FC15505	RHMW03-WGN01B-2405A	5/7/2024	Primary	-	-	-	-	-	<0.5 UJ	<0.5 UJ	<0.5 UJ	<1.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	-	-	-	-
RHMW03	SGS Orlando	FC15505	RHMW03-WGN01LF-2405A	5/7/2024	Primary	<50 U	<100 U	<160 U	-	-	<0.5 UJ	<0.5 UJ	<0.5 UJ	<1.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.4 UJ	<0.4 UJ	<0.4 UJ	<0.4 UJ
RHMW03	SGS Anchorage	1242340	RHMW03-WGN01LF-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Orlando	FC15936	RHMW03-WGN01LF-2405B	5/23/2024	Primary	<50 U	<100 U	<170 U	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW03	SGS Orlando	FC15936	RHMW03-WGN01B-2405B	5/23/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW03	SGS Anchorage	1242587	RHMW03-WGN01LF-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Orlando	FC16178	RHMW03-WGN01LF-2406A	6/4/2024	Primary	<50 U	<100 U	<160 U	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	<0.43 UJ	<0.43 UJ	<0.43 UJ	<0.43 UJ
RHMW03	SGS Orlando	FC16178	RHMW03-WGN01B-2406A	6/4/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW03	SGS Anchorage	1242971	RHMW03-WGN01LF-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW03

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW03	APPL	24D0041	RHMW03-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW03	Energy	B24040475	RHMW03-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Anchorage	1241370	RHMW03-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Orlando	FC14605	RHMW03-WGN01LF-2404	4/4/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW03	SGS Anchorage	1241961	RHMW03-WGN01LF-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Orlando	FC15505	RHMW03-WGN01B-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Orlando	FC15505	RHMW03-WGN01LF-2405A	5/7/2024	Primary	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.08	UJ
RHMW03	SGS Anchorage	1242340	RHMW03-WGN01LF-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Orlando	FC15936	RHMW03-WGN01LF-2405B	5/23/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.083	U
RHMW03	SGS Orlando	FC15936	RHMW03-WGN01B-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Anchorage	1242587	RHMW03-WGN01LF-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Orlando	FC16178	RHMW03-WGN01LF-2406A	6/4/2024	Primary	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.043	UJ	<0.087	UJ
RHMW03	SGS Orlando	FC16178	RHMW03-WGN01B-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Anchorage	1242971	RHMW03-WGN01LF-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW03

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW03	APPL	24D0041	RHMW03-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	<80 U	-	-	-	-	-	-
RHMW03	Energy	B24040475	RHMW03-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW03	SGS Anchorage	1241370	RHMW03-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	1310	J+
RHMW03	SGS Orlando	FC14605	RHMW03-WGN01LF-2404	4/4/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	-	-	-	<0.25 U	-	-
RHMW03	SGS Anchorage	1241961	RHMW03-WGN01LF-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-	2210	2110
RHMW03	SGS Orlando	FC15505	RHMW03-WGN01B-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	<0.5 UJ	-	-	-	-
RHMW03	SGS Orlando	FC15505	RHMW03-WGN01LF-2405A	5/7/2024	Primary	<0.4 UJ	<0.4 UJ	<0.04 UJ	0.22 J	<0.4 UJ	-	<1.9 U	<0.014 U	<0.5 UJ	<0.25 U	-	1220
RHMW03	SGS Anchorage	1242340	RHMW03-WGN01LF-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	1520
RHMW03	SGS Orlando	FC15936	RHMW03-WGN01LF-2405B	5/23/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	-	<1.9 U	<0.014 U	<0.5 U	<0.25 U	-	-
RHMW03	SGS Orlando	FC15936	RHMW03-WGN01B-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	<0.5 U	-	-	-
RHMW03	SGS Anchorage	1242587	RHMW03-WGN01LF-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	1250	1420
RHMW03	SGS Orlando	FC16178	RHMW03-WGN01LF-2406A	6/4/2024	Primary	<0.43 UJ	<0.43 UJ	<0.043 UJ	<0.43 UJ	<0.43 UJ	-	<2 U	<0.014 U	<0.5 U	<0.25 U	-	-
RHMW03	SGS Orlando	FC16178	RHMW03-WGN01B-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	<0.5 U	-	-	-
RHMW03	SGS Anchorage	1242971	RHMW03-WGN01LF-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-	1350	J+

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW04

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM			
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW04	SGS Orlando	FC14306	RHMW04-WGN01LF-2403	3/22/2024	Primary	<50	<100	<170	-	-	-	<0.5	<0.5	<0.5	<1.5	-	-	<0.42	<0.42	<0.42
RHMW04	APPL	24D0051	RHMW04-WGN01LF-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW04	Energy	B24040654	RHMW04-WGN01LF-2404	4/8/2024	Primary	-	<141	<141	-	-	-	-	-	-	-	-	-	-	-	-
RHMW04	SGS Anchorage	1241402	RHMW04-WGN01LF-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW04	SGS Orlando	FC14686	RHMW04-WGN01LF-2404	4/8/2024	Primary	<50	<100	<170	-	-	-	<0.5	<0.5	<0.5	<1.5	-	-	<0.42	<0.42	<0.42
RHMW04	SGS Anchorage	1242107	RHMW04-WGN01LF-2405A	5/14/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW04	SGS Orlando	FC15685	RHMW04-WGN01B-2405A	5/14/2024	Primary	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	-	-	-
RHMW04	SGS Orlando	FC15685	RHMW04-WGN01LF-2405A	5/14/2024	Primary	<50	<100	<170	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.42	<0.42	<0.42
RHMW04	SGS Anchorage	1242520	RHMW04-WGN01LF-2405B	5/31/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW04	SGS Orlando	FC16070	RHMW04-WGN01LF-2405B	5/31/2024	Primary	<50	<100	<160	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.4	<0.4	<0.4
RHMW04	SGS Orlando	FC16070	RHMW04-WGN01B-2405B	5/31/2024	Primary	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	-	-	-
RHMW04	SGS Anchorage	1242775	RHMW04-WGN01LF-2406A	6/11/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW04	SGS Orlando	FC16347	RHMW04-WGN01LF-2406A	6/11/2024	Primary	<50	<100	<160	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.4	<0.4	<0.4
RHMW04	SGS Orlando	FC16347	RHMW04-WGN01B-2406A	6/11/2024	Primary	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW04

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
RHMW04	SGS Orlando	FC14306	RHMW04-WGN01LF-2403	3/22/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHMW04	APPL	24D0051	RHMW04-WGN01LF-2404	4/8/2024	Primary	--		--		--		--		--		--		--		--		--	
RHMW04	Energy	B24040654	RHMW04-WGN01LF-2404	4/8/2024	Primary	--		--		--		--		--		--		--		--		--	
RHMW04	SGS Anchorage	1241402	RHMW04-WGN01LF-2404	4/8/2024	Primary	--		--		--		--		--		--		--		--		--	
RHMW04	SGS Orlando	FC14686	RHMW04-WGN01LF-2404	4/8/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHMW04	SGS Anchorage	1242107	RHMW04-WGN01LF-2405A	5/14/2024	Primary	--		--		--		--		--		--		--		--		--	
RHMW04	SGS Orlando	FC15685	RHMW04-WGN01B-2405A	5/14/2024	Primary	--		--		--		--		--		--		--		--		--	
RHMW04	SGS Orlando	FC15685	RHMW04-WGN01LF-2405A	5/14/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHMW04	SGS Anchorage	1242520	RHMW04-WGN01LF-2405B	5/31/2024	Primary	--		--		--		--		--		--		--		--		--	
RHMW04	SGS Orlando	FC16070	RHMW04-WGN01LF-2405B	5/31/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
RHMW04	SGS Orlando	FC16070	RHMW04-WGN01B-2405B	5/31/2024	Primary	--		--		--		--		--		--		--		--		--	
RHMW04	SGS Anchorage	1242775	RHMW04-WGN01LF-2406A	6/11/2024	Primary	--		--		--		--		--		--		--		--		--	
RHMW04	SGS Orlando	FC16347	RHMW04-WGN01LF-2406A	6/11/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
RHMW04	SGS Orlando	FC16347	RHMW04-WGN01B-2406A	6/11/2024	Primary	--		--		--		--		--		--		--		--		--	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW04

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	682
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	596	2420
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW04	SGS Orlando	FC14306	RHMW04-WGN01LF-2403	3/22/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	—	—	<0.25 U	—	—	—
RHMW04	APPL	24D0051	RHMW04-WGN01LF-2404	4/8/2024	Primary	—	—	—	—	—	<80 UJ	—	—	—	—	—	—
RHMW04	Energy	B24040654	RHMW04-WGN01LF-2404	4/8/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW04	SGS Anchorage	1241402	RHMW04-WGN01LF-2404	4/8/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	2360	—
RHMW04	SGS Orlando	FC14686	RHMW04-WGN01LF-2404	4/8/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	—	—	<0.25 U	—	—	—
RHMW04	SGS Anchorage	1242107	RHMW04-WGN01LF-2405A	5/14/2024	Primary	—	—	—	—	—	—	—	—	—	596 J	828 J	—
RHMW04	SGS Orlando	FC15685	RHMW04-WGN01B-2405A	5/14/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW04	SGS Orlando	FC15685	RHMW04-WGN01LF-2405A	5/14/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW04	SGS Anchorage	1242520	RHMW04-WGN01LF-2405B	5/31/2024	Primary	—	—	—	—	—	—	—	—	—	409 J	2420	—
RHMW04	SGS Orlando	FC16070	RHMW04-WGN01LF-2405B	5/31/2024	Primary	<0.4 U	<0.4 UJ	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW04	SGS Orlando	FC16070	RHMW04-WGN01B-2405B	5/31/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW04	SGS Anchorage	1242775	RHMW04-WGN01LF-2406A	6/11/2024	Primary	—	—	—	—	—	—	—	—	—	264 J	682 J	—
RHMW04	SGS Orlando	FC16347	RHMW04-WGN01LF-2406A	6/11/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW04	SGS Orlando	FC16347	RHMW04-WGN01B-2406A	6/11/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW05

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW05	APPL	24D0030	RHMW05-WGN01LF-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW05	Energy	B24040373	RHMW05-WGN01LF-2404	4/3/2024	Primary	-	<140 U	<187 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Anchorage	1241340	RHMW05-WGN01LF-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC14597	RHMW05-WGN01LF-2404	4/3/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW05	SGS Anchorage	1242002	RHMW05-WGN01LF-2405A	5/8/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC15560	RHMW05-WGN01B-2405A	5/8/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW05	SGS Orlando	FC15560	RHMW05-WGN01LF-2405A	5/8/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW05	SGS Anchorage	1242339	RHMW05-WGN01LF-2405B	5/22/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC15907	RHMW05-WGN01B-2405B	5/22/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW05	SGS Orlando	FC15907	RHMW05-WGN01LF-2405B	5/22/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW05	SGS Anchorage	1242588	RHMW05-WGN01LF-2406A	6/5/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC16201	RHMW05-WGN01LF-2406A	6/5/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U
RHMW05	SGS Orlando	FC16201	RHMW05-WGN01B-2406A	6/5/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW05	SGS Anchorage	1242970	RHMW05-WGN01LF-2406B	6/18/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW05

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW05	APPL	24D0030	RHMW05-WGN01LF-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW05	Energy	B24040373	RHMW05-WGN01LF-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Anchorage	1241340	RHMW05-WGN01LF-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC14597	RHMW05-WGN01LF-2404	4/3/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW05	SGS Anchorage	1242002	RHMW05-WGN01LF-2405A	5/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC15560	RHMW05-WGN01B-2405A	5/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC15560	RHMW05-WGN01LF-2405A	5/8/2024	Primary	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.08	UJ
RHMW05	SGS Anchorage	1242309	RHMW05-WGN01LF-2405B	5/22/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC15607	RHMW05-WGN01B-2405B	5/22/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC15607	RHMW05-WGN01LF-2405B	5/22/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.083	U
RHMW05	SGS Anchorage	1242588	RHMW05-WGN01LF-2406A	6/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Orlando	FC16201	RHMW05-WGN01LF-2406A	6/5/2024	Primary	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.087	UJ
RHMW05	SGS Orlando	FC16201	RHMW05-WGN01B-2406A	6/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW05	SGS Anchorage	1242970	RHMW05-WGN01LF-2406B	6/18/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW05

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	292	850
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW05	APPL	24D0030	RHMW05-WGN01LF-2404	4/3/2024	Primary	—	—	—	—	—	<80 U	—	—	—	—	—	—
RHMW05	Energy	B24040373	RHMW05-WGN01LF-2404	4/3/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW05	SGS Anchorage	1241340	RHMW05-WGN01LF-2404	4/3/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	<750 U	—
RHMW05	SGS Orlando	FC14597	RHMW05-WGN01LF-2404	4/3/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	—	—	<0.25 U	—	—	—
RHMW05	SGS Anchorage	1242002	RHMW05-WGN01LF-2405A	5/8/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	850 J+	—
RHMW05	SGS Orlando	FC15560	RHMW05-WGN01B-2405A	5/8/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW05	SGS Orlando	FC15560	RHMW05-WGN01LF-2405A	5/8/2024	Primary	<0.4 UJ	<0.4 UJ	<0.04 UJ	<0.4 UJ	<0.4 UJ	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW05	SGS Anchorage	1242309	RHMW05-WGN01LF-2405B	5/22/2024	Primary	—	—	—	—	—	—	—	—	—	285 J	541 J	—
RHMW05	SGS Orlando	FC15607	RHMW05-WGN01B-2405B	5/22/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW05	SGS Orlando	FC15607	RHMW05-WGN01LF-2405B	5/22/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW05	SGS Anchorage	1242588	RHMW05-WGN01LF-2406A	6/5/2024	Primary	—	—	—	—	—	—	—	—	—	292 J	636 J	—
RHMW05	SGS Orlando	FC16201	RHMW05-WGN01LF-2406A	6/5/2024	Primary	<0.43 UJ	<0.43 UJ	<0.043 UJ	<0.43 UJ	<0.43 UJ	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW05	SGS Orlando	FC16201	RHMW05-WGN01B-2406A	6/5/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW05	SGS Anchorage	1242970	RHMW05-WGN01LF-2406B	6/18/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	<750 U	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW06

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW06	APPL	24D0013	RHMW06-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW06	Energy	B24040140	RHMW06-WGN01LF-2404	4/1/2024	Primary	-	208.4 J	<143 U	164.4 J	<143 U	-	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Anchorage	1241292	RHMW06-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Orlando	FC14504	RHMW06-WGN01LF-2404	4/1/2024	Primary	<50 U	<100 U	<170 U	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.42 U	<0.42 U	<0.42 U	-
RHMW06	SGS Anchorage	1241914	RHMW06-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Orlando	FC15498	RHMW06-WGN01LF-2405A	5/6/2024	Primary	<50 U	<100 U	<160 U	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	-
RHMW06	SGS Orlando	FC15498	RHMW06-WGN01B-2405A	5/6/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW06	SGS Anchorage	1242257	RHMW06-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Orlando	FC15837	RHMW06-WGN01B-2405B	5/20/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW06	SGS Orlando	FC15837	RHMW06-WGN01LF-2405B	5/20/2024	Primary	<50 U	<110 U	<170 U	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	-
RHMW06	SGS Anchorage	1242639	RHMW06-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Orlando	FC16242	RHMW06-WGN01B-2406A	6/6/2024	Primary	<50 U	<100 U	<160 U	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	-
RHMW06	SGS Orlando	FC16242	RHMW06-WGN01B-2406A	6/6/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW06	SGS Anchorage	1242997	RHMW06-WGN01LF-2406B	6/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW06

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW06	APPL	24D0013	RHMW06-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW06	Energy	B24040140	RHMW06-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Anchorage	1241292	RHMW06-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Orlando	FC14504	RHMW06-WGN01LF-2404	4/1/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.083	U
RHMW06	SGS Anchorage	1241914	RHMW06-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Orlando	FC15498	RHMW06-WGN01LF-2405A	5/6/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW06	SGS Orlando	FC15498	RHMW06-WGN01B-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Anchorage	1242257	RHMW06-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Orlando	FC15837	RHMW06-WGN01B-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Orlando	FC15837	RHMW06-WGN01LF-2405B	5/20/2024	Primary	<0.43	U	<0.43	U	<0.43	U	<0.43	U	<0.087	U
RHMW06	SGS Anchorage	1242639	RHMW06-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Orlando	FC16242	RHMW06-WGN01LF-2406A	6/6/2024	Primary	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.087	UJ
RHMW06	SGS Orlando	FC16242	RHMW06-WGN01B-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW06	SGS Anchorage	1242997	RHMW06-WGN01LF-2406B	6/20/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW06

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	687
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1740	1840
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW06	APPL	24D0013	RHMW06-WGN01LF-2404	4/1/2024	Primary	—	—	—	—	—	<80 UJ	—	—	—	—	—	—
RHMW06	Energy	B24040140	RHMW06-WGN01LF-2404	4/1/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW06	SGS Anchorage	1241292	RHMW06-WGN01LF-2404	4/1/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	898	J+
RHMW06	SGS Orlando	FC14504	RHMW06-WGN01LF-2404	4/1/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	—	—	<0.25 U	—	—	—
RHMW06	SGS Anchorage	1241914	RHMW06-WGN01LF-2405A	5/6/2024	Primary	—	—	—	—	—	—	—	—	—	1590 J+	941	J+
RHMW06	SGS Orlando	FC15498	RHMW06-WGN01LF-2405A	5/6/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW06	SGS Orlando	FC15498	RHMW06-WGN01B-2405A	5/6/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW06	SGS Anchorage	1242257	RHMW06-WGN01LF-2405B	5/20/2024	Primary	—	—	—	—	—	—	—	—	—	1740	1840	—
RHMW06	SGS Orlando	FC15837	RHMW06-WGN01B-2405B	5/20/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW06	SGS Orlando	FC15837	RHMW06-WGN01LF-2405B	5/20/2024	Primary	<0.43 U	<0.43 U	<0.043 U	<0.43 U	<0.43 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW06	SGS Anchorage	1242639	RHMW06-WGN01LF-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	572 J	813	J
RHMW06	SGS Orlando	FC16242	RHMW06-WGN01LF-2406A	6/6/2024	Primary	<0.43 UJ	<0.43 UJ	<0.043 UJ	<0.43 UJ	<0.43 UJ	—	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—
RHMW06	SGS Orlando	FC16242	RHMW06-WGN01B-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	<0.5 U	—	—	—
RHMW06	SGS Anchorage	1242997	RHMW06-WGN01LF-2406B	6/20/2024	Primary	—	—	—	—	—	—	—	—	—	280 J	687	J

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW08

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW08	APPL	24D0013	RHMW08-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	Energy	B24040140	RHMW08-WGN01LF-2404	4/1/2024	Primary	-	259.4 J	209.5 J	176 J	<141 U	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Anchorage	1241292	RHMW08-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC14504	RHMW08-WGN01LF-2404	4/1/2024	Primary	<50 U	<100 U	<170 U	-	-	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW08	SGS Anchorage	1241914	RHMW08-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC15498	RHMW08-WGN01LF-2405A	5/6/2024	Primary	<50 U	<100 U	<160 U	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW08	SGS Orlando	FC15498	RHMW08-WGN01B-2405A	5/6/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW08	SGS Anchorage	1242257	RHMW08-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC15837	RHMW08-WGN01LF-2405B	5/20/2024	Primary	<50 U	<100 U	<160 U	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U
RHMW08	SGS Orlando	FC15837	RHMW08-WGN01B-2405B	5/20/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW08	SGS Anchorage	1242688	RHMW08-WGN01LF-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC16127	RHMW08-WGN01B-2406A	6/3/2024	Primary	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-	-
RHMW08	SGS Orlando	FC16127	RHMW08-WGN01LF-2406A	6/3/2024	Primary	<50 U	110 J	<170 U	<100 U	<170 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW08	SGS Anchorage	1242926	RHMW08-WGN01LF-2406B	6/17/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW08

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW08	APPL	24D0013	RHMW08-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW08	Energy	B24040140	RHMW08-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Anchorage	1241292	RHMW08-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC14504	RHMW08-WGN01LF-2404	4/1/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW08	SGS Anchorage	1241914	RHMW08-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC15498	RHMW08-WGN01LF-2405A	5/6/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW08	SGS Orlando	FC15498	RHMW08-WGN01B-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Anchorage	1242257	RHMW08-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC15837	RHMW08-WGN01LF-2405B	5/20/2024	Primary	<0.43	U	<0.43	U	<0.43	U	<0.43	U	<0.087	U
RHMW08	SGS Orlando	FC15837	RHMW08-WGN01B-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Anchorage	1242688	RHMW08-WGN01LF-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC16127	RHMW08-WGN01B-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC16127	RHMW08-WGN01LF-2406A	6/3/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW08	SGS Anchorage	1242926	RHMW08-WGN01LF-2406B	6/17/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW08

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	206-44-0	8270SIM	13	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	86-73-7	8270SIM	240	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	193-39-5	8270SIM	0.095	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	85-01-8	8270SIM	210	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	129-00-0	8270SIM	68	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	111-77-3	8270D	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	108-95-2	SW8270	300	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	106-93-4	8011	0.04	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	107-06-2	8260	5	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	74-82-8	RSK 175	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	—	—	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	—	—	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	—	—	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW08	APPL	24D0013	RHMW08-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	Energy	B24040140	RHMW08-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Anchorage	1241292	RHMW08-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC14504	RHMW08-WGN01LF-2404	4/1/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U
RHMW08	SGS Anchorage	1241914	RHMW08-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC15498	RHMW08-WGN01LF-2405A	5/6/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U
RHMW08	SGS Orlando	FC15498	RHMW08-WGN01B-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Anchorage	1242257	RHMW08-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC15837	RHMW08-WGN01LF-2405B	5/20/2024	Primary	<0.43	U	<0.43	U	<0.043	U	<0.43	U	<0.43	U	<0.43	U
RHMW08	SGS Orlando	FC15837	RHMW08-WGN01B-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Anchorage	1242688	RHMW08-WGN01LF-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC16127	RHMW08-WGN01B-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHMW08	SGS Orlando	FC16127	RHMW08-WGN01LF-2406A	6/3/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U
RHMW08	SGS Anchorage	1242926	RHMW08-WGN01LF-2406B	6/17/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW09

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW09	APPL	24D0030	RHMW09-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW09	Energy	B24040256	RHMW09-WGN01LF-2404	4/2/2024	Primary	-	<141 U	<141 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Anchorage	1241314	RHMW09-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Orlando	FC14542	RHMW09-WGN01LF-2404	4/2/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.42 U	<0.42 U	<0.42 U
RHMW09	SGS Anchorage	1241961	RHMW09-WGN01LF-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Orlando	FC15505	RHMW09-WGN01LF-2405A	5/7/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW09	SGS Orlando	FC15505	RHMW09-WGN01B-2405A	5/7/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW09	SGS Anchorage	1242287	RHMW09-WGN01LF-2405B	5/21/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Orlando	FC15885	RHMW09-WGN01LF-2405B	5/21/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW09	SGS Orlando	FC15885	RHMW09-WGN01B-2405B	5/21/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW09	SGS Anchorage	1242587	RHMW09-WGN01LF-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Orlando	FC16178	RHMW09-WGN01LF-2406A	6/4/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U
RHMW09	SGS Orlando	FC16178	RHMW09-WGN01B-2406A	6/4/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW09	SGS Anchorage	1242970	RHMW09-WGN01LF-2406B	6/18/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW09

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW09	APPL	24D0030	RHMW09-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW09	Energy	B24040256	RHMW09-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Anchorage	1241314	RHMW09-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Orlando	FC14542	RHMW09-WGN01LF-2404	4/2/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.083	U
RHMW09	SGS Anchorage	1241961	RHMW09-WGN01LF-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Orlando	FC15505	RHMW09-WGN01LF-2405A	5/7/2024	Primary	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.08	UJ
RHMW09	SGS Orlando	FC15505	RHMW09-WGN01B-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Anchorage	1242287	RHMW09-WGN01LF-2405B	5/21/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Orlando	FC15885	RHMW09-WGN01LF-2405B	5/21/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHMW09	SGS Orlando	FC15885	RHMW09-WGN01B-2405B	5/21/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Anchorage	1242587	RHMW09-WGN01LF-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Orlando	FC16178	RHMW09-WGN01LF-2406A	6/4/2024	Primary	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.087	UJ
RHMW09	SGS Orlando	FC16178	RHMW09-WGN01B-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW09	SGS Anchorage	1242970	RHMW09-WGN01LF-2406B	6/18/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW09

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	266	894
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW09	APPL	24D0030	RHMW09-WGN01LF-2404	4/2/2024	Primary	—	—	—	—	—	<80 U	—	—	—	—	—	—
RHMW09	Energy	B24040256	RHMW09-WGN01LF-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW09	SGS Anchorage	1241314	RHMW09-WGN01LF-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	894	J+
RHMW09	SGS Orlando	FC14542	RHMW09-WGN01LF-2404	4/2/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	—	—	<0.25 U	—	—	—
RHMW09	SGS Anchorage	1241961	RHMW09-WGN01LF-2405A	5/7/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	<750 U	U
RHMW09	SGS Orlando	FC15505	RHMW09-WGN01LF-2405A	5/7/2024	Primary	<0.4 UJ	<0.4 UJ	<0.04 UJ	<0.4 UJ	<0.4 UJ	<1.9 U	<0.014 U	<0.5 UJ	<0.25 U	—	—	—
RHMW09	SGS Orlando	FC15505	RHMW09-WGN01B-2405A	5/7/2024	Primary	—	—	—	—	—	—	—	<0.5 UJ	—	—	—	—
RHMW09	SGS Anchorage	1242287	RHMW09-WGN01LF-2405B	5/21/2024	Primary	—	—	—	—	—	—	—	—	—	266	J	370 J
RHMW09	SGS Orlando	FC15885	RHMW09-WGN01LF-2405B	5/21/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW09	SGS Orlando	FC15885	RHMW09-WGN01B-2405B	5/21/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW09	SGS Anchorage	1242587	RHMW09-WGN01LF-2406A	6/4/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	U	371 J
RHMW09	SGS Orlando	FC16178	RHMW09-WGN01LF-2406A	6/4/2024	Primary	<0.43 UJ	<0.43 UJ	<0.043 UJ	<0.43 UJ	<0.43 UJ	—	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—
RHMW09	SGS Orlando	FC16178	RHMW09-WGN01B-2406A	6/4/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW09	SGS Anchorage	1242970	RHMW09-WGN01LF-2406B	6/18/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	U	784 J+

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW10

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW10	APPL	24D0044	RHMW10-WGN01LF-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW10	Energy	B24040510	RHMW10-WGN01LF-2404	4/5/2024	Primary	-	<141 U	<141 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Anchorage	1241402	RHMW10-WGN01LF-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC14629	RHMW10-WGN01LF-2404	4/5/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW10	SGS Anchorage	1242083	RHMW10-WGN01LF-2405A	5/10/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC15602	RHMW10-WGN01LF-2405A	5/10/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW10	SGS Orlando	FC15602	RHMW10-WGN01B-2405A	5/10/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW10	SGS Anchorage	1242381	RHMW10-WGN01LF-2405B	5/24/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC15949	RHMW10-WGN01B-2405B	5/24/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW10	SGS Orlando	FC15949	RHMW10-WGN01LF-2405B	5/24/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW10	SGS Anchorage	1242723	RHMW10-WGN01LF-2406A	6/7/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC16262	RHMW10-WGN01B-2406A	6/7/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW10	SGS Orlando	FC16262	RHMW10-WGN01LF-2406A	6/7/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW10

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW10	APPL	24D0044	RHMW10-WGN01LF-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW10	Energy	B24040510	RHMW10-WGN01LF-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Anchorage	1241402	RHMW10-WGN01LF-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC14629	RHMW10-WGN01LF-2404	4/5/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHMW10	SGS Anchorage	1242083	RHMW10-WGN01LF-2405A	5/10/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC15602	RHMW10-WGN01LF-2405A	5/10/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHMW10	SGS Orlando	FC15602	RHMW10-WGN01B-2405A	5/10/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Anchorage	1242381	RHMW10-WGN01LF-2405B	5/24/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC15649	RHMW10-WGN01B-2405B	5/24/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC15649	RHMW10-WGN01LF-2405B	5/24/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHMW10	SGS Anchorage	1242723	RHMW10-WGN01LF-2406A	6/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC16262	RHMW10-WGN01B-2406A	6/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW10	SGS Orlando	FC16262	RHMW10-WGN01LF-2406A	6/7/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW10

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters			
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon	
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—	
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060	
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—	
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.33	ND	1200	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
RHMW10	APPL	24D0044	RHMW10-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	<80	U	—	—	—	—	—	
RHMW10	Energy	B24040510	RHMW10-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	
RHMW10	SGS Anchorage	1241402	RHMW10-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	<750	
RHMW10	SGS Orlando	FC14629	RHMW10-WGN01LF-2404	4/5/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.25	U	—
RHMW10	SGS Anchorage	1242083	RHMW10-WGN01LF-2405A	5/10/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	1200	
RHMW10	SGS Orlando	FC15602	RHMW10-WGN01LF-2405A	5/10/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.25	U	—
RHMW10	SGS Orlando	FC15602	RHMW10-WGN01B-2405A	5/10/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	—	—	
RHMW10	SGS Anchorage	1242381	RHMW10-WGN01LF-2405B	5/24/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	700	
RHMW10	SGS Orlando	FC15649	RHMW10-WGN01B-2405B	5/24/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	—	—	
RHMW10	SGS Orlando	FC15649	RHMW10-WGN01LF-2405B	5/24/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.25	U	—
RHMW10	SGS Anchorage	1242723	RHMW10-WGN01LF-2406A	6/7/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	664	
RHMW10	SGS Orlando	FC16262	RHMW10-WGN01B-2406A	6/7/2024	Primary	—	—	—	—	—	—	—	—	<0.5	U	—	—	
RHMW10	SGS Orlando	FC16262	RHMW10-WGN01LF-2406A	6/7/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	0.33	J	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW11-05

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM					
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene			
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	8270 SIM	8270 SIM	8270 SIM	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW11-05	APPL	24D0030	RHMW11-05-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW11-05	Energy	B24040373	RHMW11-05-WGN01G-2404	4/3/2024	Primary	-	<141 U	<189 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Anchorage	1241340	RHMW11-05-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Orlando	FC14597	RHMW11-05-WGN01G-2404	4/3/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW11-05	SGS Anchorage	1242002	RHMW11-05-WGN01G-2405A	5/8/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Orlando	FC15560	RHMW11-05-WGN01G-2405A	5/8/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW11-05	SGS Anchorage	1242309	RHMW11-05-WGN01G-2405B	5/22/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Orlando	FC15907	RHMW11-05-WGN01G-2405B	5/22/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW11-05	SGS Anchorage	1242588	RHMW11-05-WGN01G-2406A	6/5/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Orlando	FC16201	RHMW11-05-WGN01G-2406A	6/5/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U
RHMW11-05	SGS Anchorage	1242971	RHMW11-05-WGN01G-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW11-05

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum						Result	Result	Result	Result	Result	Result	Result	Result	Result	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW11-05	APPL	24D0030	RHMW11-05-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW11-05	Energy	B24040373	RHMW11-05-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Anchorage	1241340	RHMW11-05-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Orlando	FC14597	RHMW11-05-WGN01G-2404	4/3/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHMW11-05	SGS Anchorage	1242002	RHMW11-05-WGN01G-2405A	5/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Orlando	FC15560	RHMW11-05-WGN01G-2405A	5/8/2024	Primary	<0.4 UJ	<0.4 UJ	<0.4 UJ	<0.04 UJ	<0.04 UJ	<0.04 UJ	<0.04 UJ	<0.04 UJ	<0.08 UJ	<0.04 UJ
RHMW11-05	SGS Anchorage	1242309	RHMW11-05-WGN01G-2405B	5/22/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Orlando	FC15907	RHMW11-05-WGN01G-2405B	5/22/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHMW11-05	SGS Anchorage	1242588	RHMW11-05-WGN01G-2406A	6/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW11-05	SGS Orlando	FC16201	RHMW11-05-WGN01G-2406A	6/5/2024	Primary	<0.43 UJ	<0.43 UJ	<0.43 UJ	<0.043 UJ	<0.043 UJ	<0.043 UJ	<0.043 UJ	<0.043 UJ	<0.087 UJ	<0.043 UJ
RHMW11-05	SGS Anchorage	1242971	RHMW11-05-WGN01G-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW11-05

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters			
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon	
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—	
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060	
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—	
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	906	
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.79	517	3160
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
RHMW11-05	APPL	24D0030	RHMW11-05-WGN01G-2404	4/3/2024	Primary	—	—	—	—	—	<80 U	—	—	—	—	—	—	
RHMW11-05	Energy	B24040373	RHMW11-05-WGN01G-2404	4/3/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	
RHMW11-05	SGS Anchorage	1241340	RHMW11-05-WGN01G-2404	4/3/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	1640	J+	
RHMW11-05	SGS Orlando	FC14597	RHMW11-05-WGN01G-2404	4/3/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2.2 U	—	—	—	0.67	—	—	
RHMW11-05	SGS Anchorage	1242002	RHMW11-05-WGN01G-2405A	5/8/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	1710	—	
RHMW11-05	SGS Orlando	FC15560	RHMW11-05-WGN01G-2405A	5/8/2024	Primary	<0.4 UJ	<0.4 UJ	<0.04 UJ	<0.4 UJ	<0.4 UJ	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—	
RHMW11-05	SGS Anchorage	1242309	RHMW11-05-WGN01G-2405B	5/22/2024	Primary	—	—	—	—	—	—	—	—	—	437	J	906	
RHMW11-05	SGS Orlando	FC15907	RHMW11-05-WGN01G-2405B	5/22/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	0.17	J	—	—	
RHMW11-05	SGS Anchorage	1242588	RHMW11-05-WGN01G-2406A	6/5/2024	Primary	—	—	—	—	—	—	—	—	—	517	J	3160	
RHMW11-05	SGS Orlando	FC16201	RHMW11-05-WGN01G-2406A	6/5/2024	Primary	<0.43 UJ	<0.43 UJ	<0.043 UJ	<0.43 UJ	<0.43 UJ	<2 U	<0.014 U	<0.5 U	0.79	—	—	—	
RHMW11-05	SGS Anchorage	1242971	RHMW11-05-WGN01G-2406B	6/19/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	1280	J+	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW12A

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW12A	APPL	24D0051	RHMW12A-WGN01LF-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW12A	Energy	B24040654	RHMW12A-WGN01LF-2404	4/8/2024	Primary	-	<141 U	<141 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Anchorage	1241402	RHMW12A-WGN01LF-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Orlando	FC14686	RHMW12A-WGN01LF-2404	4/8/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW12A	SGS Anchorage	1242107	RHMW12A-WGN01LF-2405A	5/14/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Orlando	FC15685	RHMW12A-WGN01LF-2405A	5/14/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW12A	SGS Anchorage	1242530	RHMW12A-WGN01LF-2405B	5/29/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Orlando	FC16021	RHMW12A-WGN01LF-2405B	5/29/2024	Primary	<50 U	<100 U	<180 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW12A	SGS Anchorage	1242775	RHMW12A-WGN01LF-2406A	6/11/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Orlando	FC16347	RHMW12A-WGN01LF-2406A	6/11/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW12A

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW12A	APPL	24D0051	RHMW12A-WGN01LF-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW12A	Energy	B24040654	RHMW12A-WGN01LF-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Anchorage	1241402	RHMW12A-WGN01LF-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Orlando	FC14686	RHMW12A-WGN01LF-2404	4/8/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U
RHMW12A	SGS Anchorage	1242107	RHMW12A-WGN01LF-2405A	5/14/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Orlando	FC15685	RHMW12A-WGN01LF-2405A	5/14/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U
RHMW12A	SGS Anchorage	1242530	RHMW12A-WGN01LF-2405B	5/29/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Orlando	FC16021	RHMW12A-WGN01LF-2405B	5/29/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U
RHMW12A	SGS Anchorage	1242775	RHMW12A-WGN01LF-2406A	6/11/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW12A	SGS Orlando	FC16347	RHMW12A-WGN01LF-2406A	6/11/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW12A

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	577	568
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW12A	APPL	24D0051	RHMW12A-WGN01LF-2404	4/8/2024	Primary	—	—	—	—	—	<80	UJ	—	—	—	—	—
RHMW12A	Energy	B24040654	RHMW12A-WGN01LF-2404	4/8/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW12A	SGS Anchorage	1241402	RHMW12A-WGN01LF-2404	4/8/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	<750
RHMW12A	SGS Orlando	FC14686	RHMW12A-WGN01LF-2404	4/8/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.25	U
RHMW12A	SGS Anchorage	1242107	RHMW12A-WGN01LF-2405A	5/14/2024	Primary	—	—	—	—	—	—	—	—	—	—	577	J
RHMW12A	SGS Orlando	FC15685	RHMW12A-WGN01LF-2405A	5/14/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.25	U
RHMW12A	SGS Anchorage	1242530	RHMW12A-WGN01LF-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	—	<750	U
RHMW12A	SGS Orlando	FC16021	RHMW12A-WGN01LF-2405B	5/29/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.25	U
RHMW12A	SGS Anchorage	1242775	RHMW12A-WGN01LF-2406A	6/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	<750	U
RHMW12A	SGS Orlando	FC16347	RHMW12A-WGN01LF-2406A	6/11/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.25	U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW13

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW13-04	APPL	24D0051	RHMW13-04-WGN01G-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW13-04	Energy	B24040654	RHMW13-04-WGN01G-2404	4/8/2024	Primary	-	<141 U	<141 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Anchorage	1241402	RHMW13-04-WGN01G-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Orlando	FC14686	RHMW13-04-WGN01G-2404	4/8/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW13-04	SGS Anchorage	1242083	RHMW13-04-WGN01G-2405A	5/13/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Orlando	FC15654	RHMW13-04-WGN01G-2405A	5/13/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW13-04	SGS Anchorage	1242530	RHMW13-04-WGN01G-2405B	5/29/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Orlando	FC16021	RHMW13-04-WGN01G-2405B	5/29/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW13-04	SGS Anchorage	1242723	RHMW13-04-WGN01G-2406A	6/10/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Orlando	FC16347	RHMW13-04-WGN01G-2406A	6/10/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW13

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW13-04	APPL	24D0051	RHMW13-04-WGN01G-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW13-04	Energy	B24040654	RHMW13-04-WGN01G-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Anchorage	1241402	RHMW13-04-WGN01G-2404	4/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Orlando	FC14686	RHMW13-04-WGN01G-2404	4/8/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 UJ	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHMW13-04	SGS Anchorage	1242083	RHMW13-04-WGN01G-2405A	5/13/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Orlando	FC15654	RHMW13-04-WGN01G-2405A	5/13/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 UJ	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHMW13-04	SGS Anchorage	1242530	RHMW13-04-WGN01G-2405B	5/29/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Orlando	FC16021	RHMW13-04-WGN01G-2405B	5/29/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 UJ	<0.08 U	<0.04 U
RHMW13-04	SGS Anchorage	1242723	RHMW13-04-WGN01G-2406A	6/10/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW13-04	SGS Orlando	FC16347	RHMW13-04-WGN01G-2406A	6/10/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 UJ	<0.08 U	<0.04 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW13

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters										
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon								
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—								
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060								
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—								
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	570								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	847	4130								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
RHMW13-04	APPL	24D0051	RHMW13-04-WGN01G-2404	4/8/2024	Primary	—	—	—	—	—	<80	UJ	—	—	—	—	—								
RHMW13-04	Energy	B24040654	RHMW13-04-WGN01G-2404	4/8/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—								
RHMW13-04	SGS Anchorage	1241402	RHMW13-04-WGN01G-2404	4/8/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	1660								
RHMW13-04	SGS Orlando	FC14686	RHMW13-04-WGN01G-2404	4/8/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<2	U	—							
RHMW13-04	SGS Anchorage	1242083	RHMW13-04-WGN01G-2405A	5/13/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	847	J+	4130						
RHMW13-04	SGS Orlando	FC15654	RHMW13-04-WGN01G-2405A	5/13/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—
RHMW13-04	SGS Anchorage	1242530	RHMW13-04-WGN01G-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	340	J	1740					
RHMW13-04	SGS Orlando	FC16021	RHMW13-04-WGN01G-2405B	5/29/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<2	U	<0.014	U	<0.5	U	<0.25	U	—	—
RHMW13-04	SGS Anchorage	1242723	RHMW13-04-WGN01G-2406A	6/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	577	J	570	J			
RHMW13-04	SGS Orlando	FC16347	RHMW13-04-WGN01G-2406A	6/10/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<2	U	<0.014	U	<0.5	U	<0.25	U	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW14-03

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM					
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene			
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	8270 SIM	8270 SIM	8270 SIM	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW14-03	APPL	24D0030	RHMW14-03-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW14-03	Energy	B24040373	RHMW14-03-WGN01G-2404	4/3/2024	Primary	-	<142 U	<190 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Anchorage	1241340	RHMW14-03-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Orlando	FC14597	RHMW14-03-WGN01G-2404	4/3/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW14-03	SGS Anchorage	1242002	RHMW14-03-WGN01G-2405A	5/8/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Orlando	FC15560	RHMW14-03-WGN01G-2405A	5/8/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW14-03	SGS Anchorage	1242309	RHMW14-03-WGN01G-2405B	5/22/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Orlando	FC15987	RHMW14-03-WGN01G-2405B	5/22/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW14-03	SGS Anchorage	1242588	RHMW14-03-WGN01G-2405A	6/5/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Orlando	FC16201	RHMW14-03-WGN01G-2406A	6/5/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U
RHMW14-03	SGS Anchorage	1242971	RHMW14-03-WGN01G-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW14-03

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW14-03	APPL	24D0030	RHMW14-03-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW14-03	Energy	B24040373	RHMW14-03-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Anchorage	1241340	RHMW14-03-WGN01G-2404	4/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Orlando	FC14597	RHMW14-03-WGN01G-2404	4/3/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.06	U
RHMW14-03	SGS Anchorage	1242002	RHMW14-03-WGN01G-2405A	5/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Orlando	FC15560	RHMW14-03-WGN01G-2405A	5/8/2024	Primary	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.06	UJ
RHMW14-03	SGS Anchorage	1242309	RHMW14-03-WGN01G-2405B	5/22/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Orlando	FC15907	RHMW14-03-WGN01G-2405B	5/22/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.083	U
RHMW14-03	SGS Anchorage	1242588	RHMW14-03-WGN01G-2405A	6/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW14-03	SGS Orlando	FC16201	RHMW14-03-WGN01G-2406A	6/5/2024	Primary	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.087	UJ
RHMW14-03	SGS Anchorage	1242971	RHMW14-03-WGN01G-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW14-03

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	739	6510
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	739	6510
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW14-03	APPL	24D0030	RHMW14-03-WGN01G-2404	4/3/2024	Primary	—	—	—	—	—	<80	U	—	—	—	—	—
RHMW14-03	Energy	B24040373	RHMW14-03-WGN01G-2404	4/3/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW14-03	SGS Anchorage	1241340	RHMW14-03-WGN01G-2404	4/3/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	<750
RHMW14-03	SGS Orlando	FC14597	RHMW14-03-WGN01G-2404	4/3/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<2	U
RHMW14-03	SGS Anchorage	1242002	RHMW14-03-WGN01G-2405A	5/8/2024	Primary	—	—	—	—	—	—	—	—	—	<0.25	U	—
RHMW14-03	SGS Orlando	FC15560	RHMW14-03-WGN01G-2405A	5/8/2024	Primary	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.4	UJ	<0.4	UJ	<1.9	U
RHMW14-03	SGS Anchorage	1242309	RHMW14-03-WGN01G-2405B	5/22/2024	Primary	—	—	—	—	—	—	—	—	—	<0.014	U	<0.5
RHMW14-03	SGS Orlando	FC15907	RHMW14-03-WGN01G-2405B	5/22/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<2	U
RHMW14-03	SGS Anchorage	1242588	RHMW14-03-WGN01G-2405A	6/5/2024	Primary	—	—	—	—	—	—	—	—	—	<0.014	U	<0.5
RHMW14-03	SGS Orlando	FC16201	RHMW14-03-WGN01G-2406A	6/5/2024	Primary	<0.43	UJ	<0.43	UJ	<0.043	UJ	<0.43	UJ	<0.43	UJ	<2	U
RHMW14-03	SGS Anchorage	1242971	RHMW14-03-WGN01G-2406B	6/19/2024	Primary	—	—	—	—	—	—	—	—	—	<0.014	U	<0.5

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW15-05

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW15-05	APPL	24D0013	RHMW15-05-WGN01G-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW15-05	Energy	B24040140	RHMW15-05-WGN01G-2404	4/1/2024	Primary	-	1379	570.5	<141	U	<141	U	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Anchorage	1241292	RHMW15-05-WGN01G-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Orlando	FC14504	RHMW15-05-WGN01G-2404	4/1/2024	Primary	<50	U	<100	U	<170	U	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Anchorage	1241914	RHMW15-05-WGN01G-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Orlando	FC15498	RHMW15-05-WGN01G-2405A	5/6/2024	Primary	<50	U	<100	U	<160	U	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Anchorage	1242257	RHMW15-05-WGN01G-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Orlando	FC15837	RHMW15-05-WGN01G-2405B	5/20/2024	Primary	<50	U	<110	U	<170	U	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Anchorage	1242688	RHMW15-05-WGN01G-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Orlando	FC16127	RHMW15-05-WGN01G-2406A	6/3/2024	Primary	<50	U	<100	U	<170	U	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Anchorage	1242626	RHMW15-05-WGN01G-2406B	6/17/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW15-05

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW15-05	APPL	24D0013	RHMW15-05-WGN01G-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW15-05	Energy	B24040140	RHMW15-05-WGN01G-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Anchorage	1241292	RHMW15-05-WGN01G-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Orlando	FC14504	RHMW15-05-WGN01G-2404	4/1/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHMW15-05	SGS Anchorage	1241914	RHMW15-05-WGN01G-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Orlando	FC15498	RHMW15-05-WGN01G-2405A	5/6/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U
RHMW15-05	SGS Anchorage	1242257	RHMW15-05-WGN01G-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Orlando	FC15837	RHMW15-05-WGN01G-2405B	5/20/2024	Primary	<0.43 U	<0.43 U	<0.43 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.087 U	<0.043 U
RHMW15-05	SGS Anchorage	1242688	RHMW15-05-WGN01G-2406A	6/3/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW15-05	SGS Orlando	FC16127	RHMW15-05-WGN01G-2406A	6/3/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U
RHMW15-05	SGS Anchorage	1242626	RHMW15-05-WGN01G-2406B	6/17/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW15-05

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1360
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	528	4550
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW15-05	APPL	24D0013	RHMW15-05-WGN01G-2404	4/1/2024	Primary	—	—	—	—	—	<80	UJ	—	—	—	—	—
RHMW15-05	Energy	B24040140	RHMW15-05-WGN01G-2404	4/1/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW15-05	SGS Anchorage	1241292	RHMW15-05-WGN01G-2404	4/1/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	2380
RHMW15-05	SGS Orlando	FC14504	RHMW15-05-WGN01G-2404	4/1/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	—	—
RHMW15-05	SGS Anchorage	1241914	RHMW15-05-WGN01G-2405A	5/6/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	2150
RHMW15-05	SGS Orlando	FC15498	RHMW15-05-WGN01G-2405A	5/6/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	—	—
RHMW15-05	SGS Anchorage	1242257	RHMW15-05-WGN01G-2405B	5/20/2024	Primary	—	—	—	—	—	—	<1.9	U	<0.014	U	<0.25	U
RHMW15-05	SGS Orlando	FC15637	RHMW15-05-WGN01G-2405B	5/20/2024	Primary	—	—	—	—	—	—	—	—	—	—	528	J
RHMW15-05	SGS Orlando	FC15637	RHMW15-05-WGN01G-2405B	5/20/2024	Primary	<0.43	U	<0.43	U	<0.043	U	<0.43	U	<0.43	U	—	—
RHMW15-05	SGS Anchorage	1242688	RHMW15-05-WGN01G-2406A	6/3/2024	Primary	—	—	—	—	—	—	<2	U	<0.014	U	<0.5	U
RHMW15-05	SGS Orlando	FC16127	RHMW15-05-WGN01G-2406A	6/3/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.25	U
RHMW15-05	SGS Anchorage	1242626	RHMW15-05-WGN01G-2406B	6/17/2024	Primary	—	—	—	—	—	—	—	—	—	—	264	J
RHMW15-05	SGS Anchorage	1242626	RHMW15-05-WGN01G-2406B	6/17/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	1360

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW16

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW16	APPL	24D0013	RHMW16-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW16	Energy	B24040140	RHMW16-WGN01LF-2404	4/1/2024	Primary	-	<141 U	<141 U	<141 U	<141 U	-	-	-	-	-	-	-	-	-	-	-
RHMW16	SGS Anchorage	1241292	RHMW16-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW16	SGS Orlando	FC14504	RHMW16-WGN01LF-2404	4/1/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW16	SGS Anchorage	1241914	RHMW16-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW16	SGS Orlando	FC15498	RHMW16-WGN01LF-2405A	5/6/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.38 U	<0.38 U	<0.38 U	<0.38 U
RHMW16	SGS Anchorage	1242257	RHMW16-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW16	SGS Orlando	FC15837	RHMW16-WGN01LF-2405B	5/20/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW16	SGS Anchorage	1242639	RHMW16-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW16	SGS Orlando	FC16242	RHMW16-WGN01LF-2406A	6/6/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW16	SGS Anchorage	1242997	RHMW16-WGN01LF-2406B	6/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW16

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW16	APPL	24D0013	RHMW16-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW16	Energy	B24040140	RHMW16-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW16	SGS Anchorage	1241292	RHMW16-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW16	SGS Orlando	FC14504	RHMW16-WGN01LF-2404	4/1/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U	
RHMW16	SGS Anchorage	1241914	RHMW16-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	
RHMW16	SGS Orlando	FC15498	RHMW16-WGN01LF-2405A	5/6/2024	Primary	<0.38 U	<0.38 U	<0.38 U	<0.038 U	<0.038 U	<0.038 U	<0.038 U	<0.077 U	<0.038 U	
RHMW16	SGS Anchorage	1242257	RHMW16-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	
RHMW16	SGS Orlando	FC15837	RHMW16-WGN01LF-2405B	5/20/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U	
RHMW16	SGS Anchorage	1242639	RHMW16-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	
RHMW16	SGS Orlando	FC16242	RHMW16-WGN01LF-2406A	6/6/2024	Primary	<0.4 UJ	<0.4 UJ	<0.4 UJ	<0.04 UJ	<0.04 UJ	<0.04 UJ	<0.04 UJ	<0.08 UJ	<0.04 UJ	
RHMW16	SGS Anchorage	1242997	RHMW16-WGN01LF-2406B	6/20/2024	Primary	-	-	-	-	-	-	-	-	-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW16

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	375
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	773	960
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW16	APPL	24D0013	RHMW16-WGN01LF-2404	4/1/2024	Primary	—	—	—	—	—	<80	UJ	—	—	—	—	—
RHMW16	Energy	B24040140	RHMW16-WGN01LF-2404	4/1/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW16	SGS Anchorage	1241292	RHMW16-WGN01LF-2404	4/1/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	960
RHMW16	SGS Orlando	FC14504	RHMW16-WGN01LF-2404	4/1/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	—	—
RHMW16	SGS Anchorage	1241914	RHMW16-WGN01LF-2405A	5/6/2024	Primary	—	—	—	—	—	—	—	—	—	773	J+	945
RHMW16	SGS Orlando	FC15498	RHMW16-WGN01LF-2405A	5/6/2024	Primary	<0.38	U	<0.38	U	<0.038	U	<0.38	U	<0.38	U	—	—
RHMW16	SGS Anchorage	1242257	RHMW16-WGN01LF-2405B	5/20/2024	Primary	—	—	—	—	—	—	—	—	—	554	J	865
RHMW16	SGS Orlando	FC15837	RHMW16-WGN01LF-2405B	5/20/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	—	—
RHMW16	SGS Anchorage	1242639	RHMW16-WGN01LF-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	375
RHMW16	SGS Orlando	FC16242	RHMW16-WGN01LF-2406A	6/6/2024	Primary	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.4	UJ	<0.4	UJ	—	—
RHMW16	SGS Anchorage	1242997	RHMW16-WGN01LF-2406B	6/20/2024	Primary	—	—	—	—	—	—	—	—	—	255	J	468

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW17

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW17	APPL	24D0084	RHMW17-WGN01LF-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW17	Energy	B24040931	RHMW17-WGN01LF-2404	4/10/2024	Primary	-	<141 U	<189 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW17	SGS Anchorage	1241477	RHMW17-WGN01LF-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW17	SGS Orlando	FC14756	RHMW17-WGN01LF-2404	4/10/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW17	APPL	24D0084	RHMW17-WGFD01LF-2404	4/10/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW17	Energy	B24040931	RHMW17-WGFD01LF-2404	4/10/2024	Field Duplicate	-	<141 U	<189 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW17	SGS Orlando	FC14756	RHMW17-WGFD01LF-2404	4/10/2024	Field Duplicate	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW17	SGS Anchorage	1242053	RHMW17-WGN01LF-2405A	5/13/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW17	SGS Orlando	FC15654	RHMW17-WGN01LF-2405A	5/13/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW17	SGS Orlando	FC15654	RHMW17-WGN01B-2405A	5/13/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW17	SGS Orlando	FC15654	RHMW17-WGFD01LF-2405A	5/13/2024	Field Duplicate	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHMW17	SGS Orlando	FC15654	RHMW17-WGFD01B-2405A	5/13/2024	Field Duplicate	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW17	SGS Anchorage	1242530	RHMW17-WGN01LF-2405B	5/29/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW17	SGS Orlando	FC16021	RHMW17-WGN01B-2405B	5/29/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW17	SGS Orlando	FC16021	RHMW17-WGN01LF-2405B	5/29/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.38 U	<0.38 U	<0.38 U	<0.38 U
RHMW17	SGS Orlando	FC16021	RHMW17-WGFD01LF-2405B	5/29/2024	Field Duplicate	<50 U	<96 U	<150 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW17	SGS Orlando	FC16021	RHMW17-WGFD01B-2405B	5/29/2024	Field Duplicate	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW17	SGS Anchorage	1242723	RHMW17-WGN01LF-2406A	6/10/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW17	SGS Orlando	FC16347	RHMW17-WGN01B-2406A	6/10/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW17	SGS Orlando	FC16347	RHMW17-WGN01LF-2406A	6/10/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW17	SGS Orlando	FC16347	RHMW17-WGFD01LF-2406A	6/10/2024	Field Duplicate	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHMW17	SGS Orlando	FC16347	RHMW17-WGFD01B-2406A	6/10/2024	Field Duplicate	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW17

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Minimum						ND	ND	ND	0.041	ND	ND	ND	ND	0.039	ND								
Maximum						Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
RHMW17	APPL	24D0084	RHMW17-WGN01LF-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-								
RHMW17	Energy	B24040931	RHMW17-WGN01LF-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Anchorage	1241477	RHMW17-WGN01LF-2404	4/10/2024	Primary	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Orlando	FC14756	RHMW17-WGN01LF-2404	4/10/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	UJ	<0.042	U	<0.083	U	<0.042	U				
RHMW17	APPL	24D0084	RHMW17-WGFD01LF-2404	4/10/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-								
RHMW17	Energy	B24040931	RHMW17-WGFD01LF-2404	4/10/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Orlando	FC14756	RHMW17-WGFD01LF-2404	4/10/2024	Field Duplicate	<0.42	U	<0.42	U	<0.42	U	<0.042	UJ	<0.042	U	<0.042	U	<0.083	U	<0.042	U		
RHMW17	SGS Anchorage	1242083	RHMW17-WGN01LF-2405A	5/13/2024	Primary	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Orlando	FC15654	RHMW17-WGN01LF-2405A	5/13/2024	Primary	<0.42	U	<0.42	U	<0.42	U	0.041	J	<0.042	U	<0.042	UJ	<0.042	U	<0.042	U		
RHMW17	SGS Orlando	FC15654	RHMW17-WGN01B-2405A	5/13/2024	Primary	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Orlando	FC15654	RHMW17-WGFD01LF-2405A	5/13/2024	Field Duplicate	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	UJ	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHMW17	SGS Orlando	FC15654	RHMW17-WGFD01B-2405A	5/13/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Anchorage	1242530	RHMW17-WGN01LF-2405B	5/29/2024	Primary	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Orlando	FC16021	RHMW17-WGN01B-2405B	5/29/2024	Primary	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Orlando	FC16021	RHMW17-WGN01LF-2405B	5/29/2024	Primary	<0.38	U	<0.38	U	<0.38	U	<0.038	U	<0.038	U	<0.038	UJ	<0.038	U	<0.077	U	<0.038	U
RHMW17	SGS Orlando	FC16021	RHMW17-WGFD01LF-2405B	5/29/2024	Field Duplicate	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	UJ	<0.04	U	<0.08	U	<0.04	U
RHMW17	SGS Orlando	FC16021	RHMW17-WGFD01B-2405B	5/29/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Anchorage	1242723	RHMW17-WGN01LF-2406A	6/10/2024	Primary	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Orlando	FC16347	RHMW17-WGN01B-2406A	6/10/2024	Primary	-	-	-	-	-	-	-	-	-	-								
RHMW17	SGS Orlando	FC16347	RHMW17-WGN01LF-2406A	6/10/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	UJ	<0.04	U	<0.08	U	<0.04	U
RHMW17	SGS Orlando	FC16347	RHMW17-WGFD01LF-2406A	6/10/2024	Field Duplicate	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	UJ	<0.04	U	<0.08	U	<0.04	U
RHMW17	SGS Orlando	FC16347	RHMW17-WGFD01B-2406A	6/10/2024	Field Duplicate	-	-	-	-	-	-	-	-	-	-								

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW17

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1180	1400
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	1180	1400
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW17	APPL	24D0084	RHMW17-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	<80	UJ	—	—	—	—	—
RHMW17	Energy	B24040931	RHMW17-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW17	SGS Anchorage	1241477	RHMW17-WGN01LF-2404	4/10/2024	Primary	—	—	—	—	—	—	—	—	—	<750	U	<750
RHMW17	SGS Orlando	FC14756	RHMW17-WGN01LF-2404	4/10/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<2	U
RHMW17	APPL	24D0084	RHMW17-WGFD01LF-2404	4/10/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	—	—	—
RHMW17	Energy	B24040931	RHMW17-WGFD01LF-2404	4/10/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	—	—	—
RHMW17	SGS Orlando	FC14756	RHMW17-WGFD01LF-2404	4/10/2024	Field Duplicate	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<2	U
RHMW17	SGS Anchorage	1242083	RHMW17-WGN01LF-2405A	5/13/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW17	SGS Orlando	FC15654	RHMW17-WGN01LF-2405A	5/13/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<1.9	U
RHMW17	SGS Orlando	FC15654	RHMW17-WGN01B-2405A	5/13/2024	Primary	—	—	—	—	—	—	—	—	—	<0.5	U	—
RHMW17	SGS Orlando	FC15654	RHMW17-WGFD01LF-2405A	5/13/2024	Field Duplicate	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<1.9	U
RHMW17	SGS Orlando	FC15654	RHMW17-WGFD01B-2405A	5/13/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	<0.5	U	—
RHMW17	SGS Anchorage	1242530	RHMW17-WGN01B-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW17	SGS Orlando	FC16021	RHMW17-WGN01B-2405B	5/29/2024	Primary	—	—	—	—	—	—	—	—	—	<0.5	U	—
RHMW17	SGS Orlando	FC16021	RHMW17-WGN01LF-2405B	5/29/2024	Primary	<0.38	U	<0.38	U	<0.038	U	<0.38	U	<0.38	U	<0.17	J
RHMW17	SGS Orlando	FC16021	RHMW17-WGFD01LF-2405B	5/29/2024	Field Duplicate	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<2	U
RHMW17	SGS Orlando	FC16021	RHMW17-WGFD01B-2405B	5/29/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	<0.5	U	—
RHMW17	SGS Anchorage	1242723	RHMW17-WGN01LF-2406A	6/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW17	SGS Orlando	FC16347	RHMW17-WGN01B-2406A	6/10/2024	Primary	—	—	—	—	—	—	—	—	—	<0.5	U	—
RHMW17	SGS Orlando	FC16347	RHMW17-WGN01LF-2406A	6/10/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<2	U
RHMW17	SGS Orlando	FC16347	RHMW17-WGFD01LF-2406A	6/10/2024	Field Duplicate	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<2	U
RHMW17	SGS Orlando	FC16347	RHMW17-WGFD01B-2406A	6/10/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	<0.5	U	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW18

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM		
Analyte						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene
CAS No.						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3
Method						8260	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM
2017 DOH Tier 1 EAL						300	400	500	—	—	5	30	40	20	—	—	10	10	17
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW18	SGS Orlando	FC14303	RHMW18-WGN01LF-2403	3/21/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—
RHMW18	APPL	24D0092	RHMW18-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW18	Energy	B24041006	RHMW18-WGN01LF-2404	4/11/2024	Primary	—	—	<140	U	<187	U	—	—	—	—	—	—	—	—
RHMW18	SGS Anchorage	1241497	RHMW18-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW18	SGS Orlando	FC14797	RHMW18-WGN01LF-2404	4/11/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—
RHMW18	SGS Anchorage	1242257	RHMW18-WGN01LF-2405A	5/17/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW18	SGS Orlando	FC15795	RHMW18-WGN01LF-2405A	5/17/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—
RHMW18	SGS Orlando	FC15795	RHMW18-WGN01B-2406A	5/17/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW18	SGS Anchorage	1242434	RHMW18-WGN01LF-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW18	SGS Orlando	FC16061	RHMW18-WGN01B-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW18	SGS Orlando	FC16061	RHMW18-WGN01LF-2405B	5/30/2024	Primary	<50	U	<100	U	<160	U	—	—	—	—	—	—	—	—
RHMW18	SGS Anchorage	1242832	RHMW18-WGN01LF-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW18	SGS Orlando	FC16461	RHMW18-WGN01LF-2406A	6/13/2024	Primary	<50	U	<96	U	<150	U	—	—	—	—	—	—	—	—
RHMW18	SGS Orlando	FC16461	RHMW18-WGN01B-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW18

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI															
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)						
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3						
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM						
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022						
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L						
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result						
RHMW18	SGS Orlando	FC14303	RHMW18-WGN01LF-2403	3/21/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHMW18	APPL	24D0092	RHMW18-WGN01LF-2404	4/11/2024	Primary	-		-		-		-		-		-		-		-	
RHMW18	Energy	B24041006	RHMW18-WGN01LF-2404	4/11/2024	Primary	-		-		-		-		-		-		-		-	
RHMW18	SGS Anchorage	1241497	RHMW18-WGN01LF-2404	4/11/2024	Primary	-		-		-		-		-		-		-		-	
RHMW18	SGS Orlando	FC14797	RHMW18-WGN01LF-2404	4/11/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
RHMW18	SGS Anchorage	1242257	RHMW18-WGN01LF-2405A	5/17/2024	Primary	-		-		-		-		-		-		-		-	
RHMW18	SGS Orlando	FC15795	RHMW18-WGN01LF-2405A	5/17/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHMW18	SGS Orlando	FC15795	RHMW18-WGN01B-2405A	5/17/2024	Primary	-		-		-		-		-		-		-		-	
RHMW18	SGS Anchorage	1242434	RHMW18-WGN01LF-2405B	5/30/2024	Primary	-		-		-		-		-		-		-		-	
RHMW18	SGS Orlando	FC16061	RHMW18-WGN01B-2405B	5/30/2024	Primary	-		-		-		-		-		-		-		-	
RHMW18	SGS Orlando	FC16061	RHMW18-WGN01LF-2405B	5/30/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
RHMW18	SGS Anchorage	1242832	RHMW18-WGN01LF-2406A	6/13/2024	Primary	-		-		-		-		-		-		-		-	
RHMW18	SGS Orlando	FC16461	RHMW18-WGN01LF-2406A	6/13/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHMW18	SGS Orlando	FC16461	RHMW18-WGN01B-2406A	6/13/2024	Primary	-		-		-		-		-		-		-		-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW18

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	382	510
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.23	1300	1070
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW18	SGS Orlando	FC14303	RHMW18-WGN01LF-2403	3/21/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	—	<1.9 U	<0.014 U	<0.5 U	0.22 J	—	—
RHMW18	APPL	24D0092	RHMW18-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	<80 UJ	—	—	—	—	—	—
RHMW18	Energy	B24041006	RHMW18-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW18	SGS Anchorage	1241497	RHMW18-WGN01LF-2404	4/11/2024	Primary	—	—	—	—	—	—	—	—	—	797 J+	951 J+	—
RHMW18	SGS Orlando	FC14797	RHMW18-WGN01LF-2404	4/11/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	—	<2 U	<0.014 U	<0.5 U	0.23 J	—	—
RHMW18	SGS Anchorage	1242257	RHMW18-WGN01LF-2405A	5/17/2024	Primary	—	—	—	—	—	—	—	—	—	1300	1070	—
RHMW18	SGS Orlando	FC15795	RHMW18-WGN01LF-2405A	5/17/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	—	<2 U	<0.014 U	<0.5 U	0.2 J	—	—
RHMW18	SGS Orlando	FC15795	RHMW18-WGN01B-2405A	5/17/2024	Primary	—	—	—	—	—	—	—	—	<0.5 U	—	—	—
RHMW18	SGS Anchorage	1242434	RHMW18-WGN01LF-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	—	566 J	1030	—
RHMW18	SGS Orlando	FC16061	RHMW18-WGN01B-2405B	5/30/2024	Primary	—	—	—	—	—	—	—	—	<0.5 U	—	—	—
RHMW18	SGS Orlando	FC16061	RHMW18-WGN01LF-2405B	5/30/2024	Primary	<0.4 U	<0.4 UJ	<0.04 U	<0.4 U	<0.4 U	—	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—
RHMW18	SGS Anchorage	1242832	RHMW18-WGN01LF-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	—	382 J	510 J	—
RHMW18	SGS Orlando	FC16461	RHMW18-WGN01LF-2406A	6/13/2024	Primary	<0.42 U	<0.42 U	<0.042 UJ	<0.42 U	<0.42 U	—	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—
RHMW18	SGS Orlando	FC16461	RHMW18-WGN01B-2406A	6/13/2024	Primary	—	—	—	—	—	—	—	—	<0.5 U	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW19

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW19	APPL	24D0030	RHMW19-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW19	Energy	B24040256	RHMW19-WGN01LF-2404	4/2/2024	Primary	-	<143 U	<143 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Anchorage	1241314	RHMW19-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC14542	RHMW19-WGN01LF-2404	4/2/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.42 U	<0.42 U	<0.42 U	-
RHMW19	SGS Anchorage	1241961	RHMW19-WGN01LF-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC15505	RHMW19-WGN01B-2405A	5/7/2024	Primary	-	-	-	-	-	-	<0.5 UJ	<0.5 UJ	<0.5 UJ	<1.5 UJ	<0.5 UJ	<0.5 UJ	-	-	-	-
RHMW19	SGS Orlando	FC15505	RHMW19-WGN01LF-2405A	5/7/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 UJ	<0.5 UJ	<0.5 UJ	<1.5 UJ	<0.5 UJ	<0.5 UJ	<0.4 UJ	<0.4 UJ	<0.4 UJ	-
RHMW19	SGS Anchorage	1242287	RHMW19-WGN01LF-2405B	5/21/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC15885	RHMW19-WGN01B-2405B	5/21/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW19	SGS Orlando	FC15885	RHMW19-WGN01LF-2405B	5/21/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	-
RHMW19	SGS Anchorage	1242587	RHMW19-WGN01LF-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC16178	RHMW19-WGN01LF-2406A	6/4/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.38 UJ	<0.38 UJ	<0.38 UJ	-
RHMW19	SGS Orlando	FC16178	RHMW19-WGN01B-2406A	6/4/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHMW19	SGS Anchorage	1242970	RHMW19-WGN01LF-2406B	6/18/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW19

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW19	APPL	24D0030	RHMW19-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW19	Energy	B24040256	RHMW19-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Anchorage	1241314	RHMW19-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC14542	RHMW19-WGN01LF-2404	4/2/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U
RHMW19	SGS Anchorage	1241961	RHMW19-WGN01LF-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC15505	RHMW19-WGN01B-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC15505	RHMW19-WGN01LF-2405A	5/7/2024	Primary	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.04	UJ	<0.04	UJ
RHMW19	SGS Anchorage	1242287	RHMW19-WGN01LF-2405B	5/21/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC15885	RHMW19-WGN01B-2405B	5/21/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC15885	RHMW19-WGN01LF-2405B	5/21/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U
RHMW19	SGS Anchorage	1242587	RHMW19-WGN01LF-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Orlando	FC16178	RHMW19-WGN01LF-2406A	6/4/2024	Primary	<0.38	UJ	<0.38	UJ	<0.038	UJ	<0.038	UJ	<0.038	UJ
RHMW19	SGS Orlando	FC16178	RHMW19-WGN01B-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW19	SGS Anchorage	1242970	RHMW19-WGN01LF-2406B	6/18/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW19

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1080	1060
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW19	APPL	24D0030	RHMW19-WGN01LF-2404	4/2/2024	Primary	—	—	—	—	—	<80 U	—	—	—	—	—	—
RHMW19	Energy	B24040256	RHMW19-WGN01LF-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW19	SGS Anchorage	1241314	RHMW19-WGN01LF-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	<750 U	—
RHMW19	SGS Orlando	FC14542	RHMW19-WGN01LF-2404	4/2/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	—	—	<0.25 U	—	—
RHMW19	SGS Anchorage	1241961	RHMW19-WGN01LF-2405A	5/7/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	<750 U	—
RHMW19	SGS Orlando	FC15505	RHMW19-WGN01B-2405A	5/7/2024	Primary	—	—	—	—	—	—	—	<0.5 UJ	—	—	—	—
RHMW19	SGS Orlando	FC15505	RHMW19-WGN01LF-2405A	5/7/2024	Primary	<0.4 UJ	<0.4 UJ	<0.04 UJ	<0.4 UJ	<0.4 UJ	<1.9 U	<0.014 U	<0.5 UJ	<0.25 U	—	—	—
RHMW19	SGS Anchorage	1242287	RHMW19-WGN01LF-2405B	5/21/2024	Primary	—	—	—	—	—	—	—	—	—	1080	1060	—
RHMW19	SGS Orlando	FC15885	RHMW19-WGN01B-2405B	5/21/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW19	SGS Orlando	FC15885	RHMW19-WGN01LF-2405B	5/21/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW19	SGS Anchorage	1242587	RHMW19-WGN01LF-2406A	6/4/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	362 J	—
RHMW19	SGS Orlando	FC16178	RHMW19-WGN01LF-2406A	6/4/2024	Primary	<0.38 UJ	<0.38 UJ	<0.038 UJ	<0.38 UJ	<0.38 UJ	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW19	SGS Orlando	FC16178	RHMW19-WGN01B-2406A	6/4/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW19	SGS Anchorage	1242970	RHMW19-WGN01LF-2406B	6/18/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	<750 U	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW20

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM		
Analyte						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene
CAS No.						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3
Method						8260	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM
2017 DOH Tier 1 EAL						300	400	500	—	—	5	30	40	20	—	—	10	10	17
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW20	SGS Orlando	FC14306	RHMW20-WGN01LF-2403	3/22/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—
RHMW20	APPL	24D0094	RHMW20-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW20	Energy	B24041040	RHMW20-WGN01LF-2404	4/12/2024	Primary	—	—	<141	U	<141	U	—	—	—	—	—	—	—	—
RHMW20	SGS Anchorage	1241534	RHMW20-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW20	SGS Orlando	FC14810	RHMW20-WGN01LF-2404	4/12/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—
RHMW20	SGS Anchorage	1242184	RHMW20-WGN01LF-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW20	SGS Orlando	FC15783	RHMW20-WGN01LF-2405A	5/16/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—
RHMW20	SGS Orlando	FC15783	RHMW20-WGN01B-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW20	SGS Anchorage	1242520	RHMW20-WGN01LF-2405B	5/31/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW20	SGS Orlando	FC16070	RHMW20-WGN01B-2405B	5/31/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW20	SGS Orlando	FC16070	RHMW20-WGN01LF-2405B	5/31/2024	Primary	<50	U	<100	U	<160	U	—	—	—	—	—	—	—	—
RHMW20	SGS Anchorage	1242926	RHMW20-WGN01LF-2406A	6/14/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW20	SGS Orlando	FC16476	RHMW20-WGN01B-2406A	6/14/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHMW20	SGS Orlando	FC16476	RHMW20-WGN01LF-2406A	6/14/2024	Primary	<50	U	<96	U	<150	U	—	—	—	—	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW20

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
RHMW20	SGS Orlando	FC14306	RHMW20-WGN01LF-2403	3/22/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.063	U	<0.042	U
RHMW20	APPL	24D0094	RHMW20-WGN01LF-2404	4/12/2024	Primary	-		-		-		-		-		-		-		-		-	
RHMW20	Energy	B24041040	RHMW20-WGN01LF-2404	4/12/2024	Primary	-		-		-		-		-		-		-		-		-	
RHMW20	SGS Anchorage	1241534	RHMW20-WGN01LF-2404	4/12/2024	Primary	-		-		-		-		-		-		-		-		-	
RHMW20	SGS Orlando	FC14810	RHMW20-WGN01LF-2404	4/12/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.063	U	<0.042	U
RHMW20	SGS Anchorage	1242184	RHMW20-WGN01LF-2405A	5/16/2024	Primary	-		-		-		-		-		-		-		-		-	
RHMW20	SGS Orlando	FC15783	RHMW20-WGN01LF-2405A	5/16/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.063	U	<0.042	U
RHMW20	SGS Orlando	FC15783	RHMW20-WGN01B-2405A	5/16/2024	Primary	-		-		-		-		-		-		-		-		-	
RHMW20	SGS Anchorage	1242520	RHMW20-WGN01LF-2405B	5/31/2024	Primary	-		-		-		-		-		-		-		-		-	
RHMW20	SGS Orlando	FC16070	RHMW20-WGN01B-2405B	5/31/2024	Primary	-		-		-		-		-		-		-		-		-	
RHMW20	SGS Orlando	FC16070	RHMW20-WGN01LF-2405B	5/31/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.06	U	<0.04	U
RHMW20	SGS Anchorage	1242926	RHMW20-WGN01LF-2406A	6/14/2024	Primary	-		-		-		-		-		-		-		-		-	
RHMW20	SGS Orlando	FC16476	RHMW20-WGN01B-2406A	6/14/2024	Primary	-		-		-		-		-		-		-		-		-	
RHMW20	SGS Orlando	FC16476	RHMW20-WGN01LF-2406A	6/14/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.06	U	<0.04	U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW20

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	620
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31	776	1020
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW20	SGS Orlando	FC14306	RHMW20-WGN01LF-2403	3/22/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.015 U	<0.5 U	0.31 J	—	—	—
RHMW20	APPL	24D0094	RHMW20-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	<80 UJ	—	—	—	—	—	—
RHMW20	Energy	B24041040	RHMW20-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW20	SGS Anchorage	1241534	RHMW20-WGN01LF-2404	4/12/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	1020 J+	—
RHMW20	SGS Orlando	FC14810	RHMW20-WGN01LF-2404	4/12/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW20	SGS Anchorage	1242184	RHMW20-WGN01LF-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	—	—	776 J	777 J	—
RHMW20	SGS Orlando	FC15783	RHMW20-WGN01LF-2405A	5/16/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	0.21 J	—	—	—
RHMW20	SGS Orlando	FC15783	RHMW20-WGN01B-2405A	5/16/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW20	SGS Anchorage	1242520	RHMW20-WGN01LF-2405B	5/31/2024	Primary	—	—	—	—	—	—	—	—	—	318 J	924 J	—
RHMW20	SGS Orlando	FC16070	RHMW20-WGN01B-2405B	5/31/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW20	SGS Orlando	FC16070	RHMW20-WGN01LF-2405B	5/31/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW20	SGS Anchorage	1242926	RHMW20-WGN01LF-2406A	6/14/2024	Primary	—	—	—	—	—	—	—	—	—	385 J	620 J	—
RHMW20	SGS Orlando	FC16476	RHMW20-WGN01B-2406A	6/14/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW20	SGS Orlando	FC16476	RHMW20-WGN01LF-2406A	6/14/2024	Primary	<0.4 U	<0.4 U	<0.04 UJ	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW2254-01

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW2254-01	APPL	24D0030	RHMW2254-01-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	Energy	B24040256	RHMW2254-01-WGN01LF-2404	4/2/2024	Primary	-	<143 U	<143 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Anchorage	1241314	RHMW2254-01-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Orlando	FC14542	RHMW2254-01-WGN01LF-2404	4/2/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.42 U	<0.42 U	<0.42 U
RHMW2254-01	SGS Anchorage	1241961	RHMW2254-01-WGN01LF-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Orlando	FC15505	RHMW2254-01-WGN01LF-2405A	5/7/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 UJ	<0.5 UJ	<0.5 UJ	<1.5 UJ	<0.5 UJ	<0.5 UJ	<0.42 UJ	<0.42 UJ	<0.42 UJ	
RHMW2254-01	SGS Orlando	FC15505	RHMW2254-01-WGN01B-2405A	5/7/2024	Primary	-	-	-	-	-	-	<0.5 UJ	<0.5 UJ	<0.5 UJ	<1.5 UJ	<0.5 UJ	<0.5 UJ	-	-	-	
RHMW2254-01	SGS Anchorage	1242381	RHMW2254-01-WGN01LF-2405B	5/24/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Orlando	FC15949	RHMW2254-01-WGN01B-2405B	5/24/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	
RHMW2254-01	SGS Orlando	FC15949	RHMW2254-01-WGN01LF-2405B	5/24/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	
RHMW2254-01	SGS Anchorage	1242587	RHMW2254-01-WGN01LF-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Orlando	FC16178	RHMW2254-01-WGN01LF-2406A	6/4/2024	Primary	<50 U	<96 U	<150 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.43 UJ	<0.43 UJ	<0.43 UJ	
RHMW2254-01	SGS Orlando	FC16178	RHMW2254-01-WGN01B-2406A	6/4/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	
RHMW2254-01	SGS Anchorage	1242971	RHMW2254-01-WGN01LF-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW2254-01

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW2254-01	APPL	24D0030	RHMW2254-01-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	Energy	B24040256	RHMW2254-01-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Anchorage	1241314	RHMW2254-01-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Orlando	FC14542	RHMW2254-01-WGN01LF-2404	4/2/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U
RHMW2254-01	SGS Anchorage	1241961	RHMW2254-01-WGN01LF-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Orlando	FC15505	RHMW2254-01-WGN01LF-2405A	5/7/2024	Primary	<0.42	UJ	<0.42	UJ	<0.42	UJ	<0.042	UJ	<0.042	UJ
RHMW2254-01	SGS Orlando	FC15505	RHMW2254-01-WGN01B-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Anchorage	1242381	RHMW2254-01-WGN01LF-2405B	5/24/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Orlando	FC15949	RHMW2254-01-WGN01B-2405B	5/24/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Orlando	FC15949	RHMW2254-01-WGN01LF-2405B	5/24/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U
RHMW2254-01	SGS Anchorage	1242587	RHMW2254-01-WGN01LF-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Orlando	FC16178	RHMW2254-01-WGN01LF-2406A	6/4/2024	Primary	<0.43	UJ	<0.43	UJ	<0.43	UJ	<0.043	UJ	<0.043	UJ
RHMW2254-01	SGS Orlando	FC16178	RHMW2254-01-WGN01B-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHMW2254-01	SGS Anchorage	1242971	RHMW2254-01-WGN01LF-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHMW2254-01

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.93	260	627
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHMW2254-01	APPL	24D0030	RHMW2254-01-WGN01F-2404	4/2/2024	Primary	—	—	—	—	—	<80 U	—	—	—	—	—	—
RHMW2254-01	Energy	B24040256	RHMW2254-01-WGN01F-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHMW2254-01	SGS Anchorage	1241314	RHMW2254-01-WGN01F-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	<750 U	—
RHMW2254-01	SGS Orlando	FC14542	RHMW2254-01-WGN01F-2404	4/2/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	—	—	—	<0.25 U	—	—
RHMW2254-01	SGS Anchorage	1241961	RHMW2254-01-WGN01F-2405A	5/7/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	<750 U	—
RHMW2254-01	SGS Orlando	FC15505	RHMW2254-01-WGN01F-2405A	5/7/2024	Primary	<0.42 UJ	<0.42 UJ	<0.042 UJ	<0.42 UJ	<0.42 UJ	<1.9 U	<0.014 U	<0.5 UJ	<0.25 U	—	—	—
RHMW2254-01	SGS Orlando	FC15505	RHMW2254-01-WGN01B-2405A	5/7/2024	Primary	—	—	—	—	—	—	—	<0.5 UJ	—	—	—	—
RHMW2254-01	SGS Anchorage	1242381	RHMW2254-01-WGN01F-2405B	5/24/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	417 J	—
RHMW2254-01	SGS Orlando	FC15949	RHMW2254-01-WGN01B-2405B	5/24/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHMW2254-01	SGS Orlando	FC15949	RHMW2254-01-WGN01F-2405B	5/24/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHMW2254-01	SGS Anchorage	1242587	RHMW2254-01-WGN01F-2406A	6/4/2024	Primary	—	—	—	—	—	—	—	—	—	260 J	627 J	—
RHMW2254-01	SGS Orlando	FC16178	RHMW2254-01-WGN01F-2406A	6/4/2024	Primary	<0.43 UJ	<0.43 UJ	<0.043 UJ	<0.43 UJ	<0.43 UJ	—	<2 U	<0.014 U	<0.5 U	0.93	—	—
RHMW2254-01	SGS Orlando	FC16178	RHMW2254-01-WGN01B-2406A	6/4/2024	Primary	—	—	—	—	—	—	—	—	<0.5 U	—	—	—
RHMW2254-01	SGS Anchorage	1242971	RHMW2254-01-WGN01F-2406B	6/19/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	<750 U	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHSF-PUMP

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHSF-PUMP	SGS Anchorage	1241961	RHSF-PUMP-WGN01G-2405A	5/7/2024	Primary	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RHSF-PUMP	SGS Orlando	FC15505	RHSF-PUMP-WGN01G-2405A	5/7/2024	Primary	<50 U	<100 U	<170 U	U	--	--	<0.5 UJ	<0.5 UJ	<0.5 UJ	<1.5 UJ	<0.5 UJ	<0.5 UJ	<0.4 UJ	<0.4 UJ	<0.4 UJ	<0.4 UJ
RHSF-PUMP	SGS Orlando	FC15505	RHSF-PUMP-WGFD01G-2405A	5/7/2024	Field Duplicate	<50 U	<100 U	<170 U	U	--	--	<0.5 UJ	<0.5 UJ	<0.5 UJ	<1.5 UJ	<0.5 UJ	<0.5 UJ	<0.4 UJ	<0.4 UJ	<0.4 UJ	<0.4 UJ
RHSF-PUMP	SGS Anchorage	1242381	RHSF-PUMP-WGN01G-2405B	5/24/2024	Primary	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RHSF-PUMP	SGS Orlando	FC15949	RHSF-PUMP-WGN01G-2405B	5/24/2024	Primary	<50 U	<100 U	<170 U	U	--	--	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHSF-PUMP	SGS Orlando	FC15949	RHSF-PUMP-WGFD01G-2405B	5/24/2024	Field Duplicate	<50 U	<100 U	<170 U	U	--	--	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	<0.42 U
RHSF-PUMP	SGS Anchorage	1242587	RHSF-PUMP-WGN01G-2406A	6/4/2024	Primary	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RHSF-PUMP	SGS Orlando	FC16178	RHSF-PUMP-WGN01G-2406A	6/4/2024	Primary	<50 U	<100 U	<180 U	U	--	--	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 UJ	<0.42 UJ	<0.42 UJ	<0.42 UJ
RHSF-PUMP	SGS Orlando	FC16178	RHSF-PUMP-WGFD01G-2406A	6/4/2024	Field Duplicate	<50 U	<96 U	<150 U	U	--	--	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.38 UJ	<0.38 UJ	<0.38 UJ	<0.38 UJ
RHSF-PUMP	SGS Anchorage	1242971	RHSF-PUMP-WGN01G-2406B	6/19/2024	Primary	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHSF-PUMP

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHSF-PUMP	SGS Anchorage	1241961	RHSF-PUMP-WGN01G-2405A	5/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHSF-PUMP	SGS Orlando	FC15505	RHSF-PUMP-WGN01G-2405A	5/7/2024	Primary	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ
RHSF-PUMP	SGS Orlando	FC15505	RHSF-PUMP-WGFD01G-2405A	5/7/2024	Field Duplicate	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ
RHSF-PUMP	SGS Anchorage	1242381	RHSF-PUMP-WGN01G-2405B	5/24/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHSF-PUMP	SGS Orlando	FC15949	RHSF-PUMP-WGN01G-2405B	5/24/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.42	U
RHSF-PUMP	SGS Orlando	FC15949	RHSF-PUMP-WGFD01G-2405B	5/24/2024	Field Duplicate	<0.42	U	<0.42	U	<0.42	U	<0.42	U	<0.42	U
RHSF-PUMP	SGS Anchorage	1242587	RHSF-PUMP-WGN01G-2406A	6/4/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHSF-PUMP	SGS Orlando	FC16178	RHSF-PUMP-WGN01G-2406A	6/4/2024	Primary	<0.42	UJ	<0.42	UJ	<0.42	UJ	<0.42	UJ	<0.42	UJ
RHSF-PUMP	SGS Orlando	FC16178	RHSF-PUMP-WGFD01G-2406A	6/4/2024	Field Duplicate	<0.38	UJ	<0.38	UJ	<0.38	UJ	<0.38	UJ	<0.38	UJ
RHSF-PUMP	SGS Anchorage	1242971	RHSF-PUMP-WGN01G-2406B	6/19/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHSF-PUMP

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters					
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon			
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—			
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060			
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—			
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
Minimum						ND	ND	ND	ND	ND	—	ND	ND	ND	ND	ND	ND			
Maximum						ND	ND	ND	ND	ND	—	ND	ND	ND	0.38	253	754			
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result			
RHSF-PUMP	SGS Anchorage	1241961	RHSF-PUMP-WGN01G-2405A	5/7/2024	Primary	—	—	—	—	—	—	—	—	—	—	<750	U	<750	U	
RHSF-PUMP	SGS Orlando	FC15505	RHSF-PUMP-WGN01G-2405A	5/7/2024	Primary	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.25	U	—
RHSF-PUMP	SGS Orlando	FC15505	RHSF-PUMP-WGFD01G-2405A	5/7/2024	Field Duplicate	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.25	U	—
RHSF-PUMP	SGS Anchorage	1242381	RHSF-PUMP-WGN01G-2405B	5/24/2024	Primary	—	—	—	—	—	—	—	—	—	—	<750	U	386	J	
RHSF-PUMP	SGS Orlando	FC15949	RHSF-PUMP-WGN01G-2405B	5/24/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.42	U	<0.25	U	—
RHSF-PUMP	SGS Orlando	FC15949	RHSF-PUMP-WGFD01G-2405B	5/24/2024	Field Duplicate	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.42	U	<0.25	U	—
RHSF-PUMP	SGS Anchorage	1242587	RHSF-PUMP-WGN01G-2406A	6/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHSF-PUMP	SGS Orlando	FC16178	RHSF-PUMP-WGN01G-2406A	6/4/2024	Primary	<0.42	UJ	<0.42	UJ	<0.042	UJ	<0.42	UJ	<0.42	UJ	<0.42	UJ	0.38	J	429
RHSF-PUMP	SGS Orlando	FC16178	RHSF-PUMP-WGFD01G-2406A	6/4/2024	Field Duplicate	<0.38	UJ	<0.38	UJ	<0.038	UJ	<0.38	UJ	<0.38	UJ	<0.38	UJ	—	—	—
RHSF-PUMP	SGS Anchorage	1242971	RHSF-PUMP-WGN01G-2406B	6/19/2024	Primary	—	—	—	—	—	—	—	—	—	—	<750	U	754	J+	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP01

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP01	APPL	24D0013	RHP01-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	Energy	B24040140	RHP01-WGN01LF-2404	4/1/2024	Primary	-	<141 U	<141 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Anchorage	1241292	RHP01-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC14504	RHP01-WGN01LF-2404	4/1/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHP01	SGS Anchorage	1241914	RHP01-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC15498	RHP01-WGN01B-2405A	5/6/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP01	SGS Orlando	FC15498	RHP01-WGN01LF-2405A	5/6/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHP01	SGS Anchorage	1242257	RHP01-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC15837	RHP01-WGN01LF-2405B	5/20/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U
RHP01	SGS Orlando	FC15837	RHP01-WGN01B-2405B	5/20/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP01	SGS Anchorage	1242639	RHP01-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC16242	RHP01-WGN01B-2406A	6/6/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP01	SGS Orlando	FC16242	RHP01-WGN01LF-2406A	6/6/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U
RHP01	SGS Anchorage	1242997	RHP01-WGN01LF-2406B	6/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP01

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP01	APPL	24D0013	RHP01-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP01	Energy	B24040140	RHP01-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Anchorage	1241292	RHP01-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC14504	RHP01-WGN01LF-2404	4/1/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHP01	SGS Anchorage	1241914	RHP01-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC15498	RHP01-WGN01B-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC15498	RHP01-WGN01LF-2405A	5/6/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.08	U
RHP01	SGS Anchorage	1242257	RHP01-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC15837	RHP01-WGN01LF-2405B	5/20/2024	Primary	<0.43	U	<0.43	U	<0.43	U	<0.43	U	<0.087	U
RHP01	SGS Orlando	FC15837	RHP01-WGN01B-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Anchorage	1242639	RHP01-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC16242	RHP01-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC16242	RHP01-WGN01LF-2406A	6/6/2024	Primary	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.08	UJ
RHP01	SGS Anchorage	1242997	RHP01-WGN01LF-2406B	6/20/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP01

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
	206-44-0	8270SIM	13	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	86-73-7	8270SIM	240	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	193-39-5	8270SIM	0.095	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	85-01-8	8270SIM	210	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	129-00-0	8270SIM	68	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	111-77-3	8270D	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	108-95-2	SW8270	300	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	106-93-4	8011	0.04	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	107-06-2	8260	5	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	74-82-8	RSK 175	—	µg/L	ND	ND	-	-	-	-	-	-	-	-	-	-	-
	9060	9060	9060	µg/L	2080	2080	-	-	-	-	-	-	-	-	-	-	-
	9060	9060	9060	µg/L	2680	2680	-	-	-	-	-	-	-	-	-	-	-
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP01	APPL	24D0013	RHP01-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	Energy	B24040140	RHP01-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Anchorage	1241292	RHP01-WGN01LF-2404	4/1/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC14504	RHP01-WGN01LF-2404	4/1/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U
RHP01	SGS Anchorage	1241914	RHP01-WGN01LF-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC15498	RHP01-WGN01B-2405A	5/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC15498	RHP01-WGN01LF-2405A	5/6/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U
RHP01	SGS Anchorage	1242257	RHP01-WGN01LF-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC15837	RHP01-WGN01LF-2405B	5/20/2024	Primary	<0.43	U	<0.43	U	<0.043	U	<0.43	U	<0.43	U	<0.43	U
RHP01	SGS Orlando	FC15837	RHP01-WGN01B-2405B	5/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Anchorage	1242639	RHP01-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC16242	RHP01-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-
RHP01	SGS Orlando	FC16242	RHP01-WGN01LF-2406A	6/6/2024	Primary	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.4	UJ	<0.4	UJ	<0.4	UJ
RHP01	SGS Anchorage	1242997	RHP01-WGN01LF-2406B	6/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP02

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM			
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	
						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
						Method	8260	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM	
						2017 DOH Tier 1 EAL	300	400	500	—	5	30	40	20	—	—	10	10	17	
						Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
						Minimum	ND	ND	ND	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	
						Maximum	ND	ND	ND	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
RHP02	SGS Orlando	FC14115	RHP02-WGN01LF-2403	3/14/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—	—
RHP02	SGS Orlando	FC14115	RHP02-WGFD01LF-2403	3/14/2024	Field Duplicate	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—	—
RHP02	APPL	24D0041	RHP02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP02	Energy	B24040475	RHP02-WGN01LF-2404	4/4/2024	Primary	—	—	<140	U	<187	U	—	—	—	—	—	—	—	—	—
RHP02	SGS Anchorage	1241370	RHP02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP02	SGS Orlando	FC14605	RHP02-WGN01LF-2404	4/4/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—	—
RHP02	SGS Anchorage	1242031	RHP02-WGN01LF-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP02	SGS Orlando	FC15585	RHP02-WGN01LF-2405A	5/9/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—	—
RHP02	SGS Orlando	FC15585	RHP02-WGN01B-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP02	SGS Anchorage	1242340	RHP02-WGN01LF-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP02	SGS Orlando	FC15936	RHP02-WGN01B-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP02	SGS Orlando	FC15936	RHP02-WGN01LF-2405B	5/23/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	—	—	—
RHP02	SGS Anchorage	1242639	RHP02-WGN01LF-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP02	SGS Orlando	FC16242	RHP02-WGN01LF-2406A	6/6/2024	Primary	<50	U	<100	U	<160	U	—	—	—	—	—	—	—	—	—
RHP02	SGS Orlando	FC16242	RHP02-WGN01B-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP02	SGS Anchorage	1242997	RHP02-WGN01LF-2406B	6/20/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP02

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
RHP02	SGS Orlando	FC14115	RHP02-WGN01LF-2403	3/14/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP02	SGS Orlando	FC14115	RHP02-WGFD01LF-2403	3/14/2024	Field Duplicate	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP02	APPL	24D0041	RHP02-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP02	Energy	B24040475	RHP02-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP02	SGS Anchorage	1241370	RHP02-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP02	SGS Orlando	FC14605	RHP02-WGN01LF-2404	4/4/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP02	SGS Anchorage	1242031	RHP02-WGN01LF-2405A	5/9/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP02	SGS Orlando	FC15585	RHP02-WGN01LF-2405A	5/9/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP02	SGS Orlando	FC15585	RHP02-WGN01B-2405A	5/9/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP02	SGS Anchorage	1242340	RHP02-WGN01LF-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP02	SGS Orlando	FC15936	RHP02-WGN01B-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP02	SGS Orlando	FC15936	RHP02-WGN01LF-2405B	5/23/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP02	SGS Anchorage	1242639	RHP02-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP02	SGS Orlando	FC16242	RHP02-WGN01B-2406A	6/6/2024	Primary	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.04	UJ	<0.04	UJ	<0.04	UJ	<0.08	UJ	<0.04	UJ
RHP02	SGS Orlando	FC16242	RHP02-WGN01B-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP02	SGS Anchorage	1242997	RHP02-WGN01LF-2406B	6/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP02

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	787	905
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1360	1270
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP02	SGS Orlando	FC14115	RHP02-WGN01LF-2403	3/14/2024	Primary	<0.42 U	<0.42 U	<0.042 UJ	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP02	SGS Orlando	FC14115	RHP02-WGFD01LF-2403	3/14/2024	Field Duplicate	<0.42 U	<0.42 U	<0.042 UJ	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP02	APPL	24D0041	RHP02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	<80 U	—	—	—	—	—	—	—
RHP02	Energy	B24040475	RHP02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHP02	SGS Anchorage	1241370	RHP02-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	847	J+	1040 J+
RHP02	SGS Orlando	FC14605	RHP02-WGN01LF-2404	4/4/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP02	SGS Anchorage	1242031	RHP02-WGN01LF-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	1360	—	1270
RHP02	SGS Orlando	FC15585	RHP02-WGN01LF-2405A	5/9/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP02	SGS Orlando	FC15585	RHP02-WGN01B-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP02	SGS Anchorage	1242340	RHP02-WGN01LF-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	787	J	927 J
RHP02	SGS Orlando	FC15936	RHP02-WGN01B-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP02	SGS Orlando	FC15936	RHP02-WGN01LF-2405B	5/23/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP02	SGS Anchorage	1242639	RHP02-WGN01LF-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	829	J	905 J
RHP02	SGS Orlando	FC16242	RHP02-WGN01LF-2406A	6/6/2024	Primary	<0.4 UJ	<0.4 UJ	<0.04 UJ	<0.4 UJ	<0.4 UJ	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP02	SGS Orlando	FC16242	RHP02-WGN01B-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP02	SGS Anchorage	1242997	RHP02-WGN01LF-2406B	6/20/2024	Primary	—	—	—	—	—	—	—	—	—	787	J	1070

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP03

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM						
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene				
Analyte						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3				
CAS No.						8260	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM				
Method						2017 DOH Tier 1 EAL	300	400	500	—	5	30	40	20	—	—	10	10	17				
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L				
Minimum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Maximum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result				
RHP03	SGS Orlando	FC14115	RHP03-WGN01LF-2403	3/14/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	<0.4	U	<0.4	U	<0.4	U
RHP03	APPL	24D0041	RHP03-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP03	Energy	B24040475	RHP03-WGN01LF-2404	4/4/2024	Primary	—	—	<145	U	<193	U	—	—	—	—	—	—	—	—	—	—	—	—
RHP03	SGS Anchorage	1241370	RHP03-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP03	SGS Orlando	FC14605	RHP03-WGN01LF-2404	4/4/2024	Primary	<50	U	<100	U	<160	U	—	—	—	—	—	—	<0.42	U	<0.42	U	<0.42	U
RHP03	SGS Anchorage	1242031	RHP03-WGN01LF-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP03	SGS Orlando	FC15585	RHP03-WGN01LF-2405A	5/9/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	<0.42	U	<0.42	U	<0.42	U
RHP03	SGS Orlando	FC15585	RHP03-WGN01B-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP03	SGS Anchorage	1242340	RHP03-WGN01LF-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP03	SGS Orlando	FC15936	RHP03-WGN01B-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP03	SGS Orlando	FC15936	RHP03-WGN01LF-2405B	5/23/2024	Primary	<50	U	<100	U	<170	U	—	—	—	—	—	—	<0.42	U	<0.42	U	<0.42	U
RHP03	SGS Anchorage	1242639	RHP03-WGN01LF-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP03	SGS Anchorage	1242642	RHP03-WGN01B-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP03	SGS Orlando	FC16242	RHP03-WGN01LF-2406A	6/6/2024	Primary	<50	U	<96	U	<150	U	—	—	—	—	—	—	<0.4	U	<0.4	U	<0.4	U
RHP03	SGS Orlando	FC16242	RHP03-WGN01LF-2406A	6/6/2024	Primary	<50	U	<96	U	<150	U	—	—	—	—	—	—	<0.4	U	<0.4	U	<0.4	U
RHP03	SGS Anchorage	1242997	RHP03-WGN01LF-2406B	6/20/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP03

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
RHP03	SGS Orlando	FC14115	RHP03-WGN01LF-2403	3/14/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
RHP03	APPL	24D0041	RHP03-WGN01LF-2404	4/4/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP03	Energy	B24040475	RHP03-WGN01LF-2404	4/4/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP03	SGS Anchorage	1241370	RHP03-WGN01LF-2404	4/4/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP03	SGS Orlando	FC14605	RHP03-WGN01LF-2404	4/4/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP03	SGS Anchorage	1242031	RHP03-WGN01LF-2405A	5/9/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP03	SGS Orlando	FC15585	RHP03-WGN01LF-2405A	5/9/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	UJ	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP03	SGS Orlando	FC15585	RHP03-WGN01B-2405A	5/9/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP03	SGS Anchorage	1242340	RHP03-WGN01LF-2405B	5/23/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP03	SGS Orlando	FC15936	RHP03-WGN01B-2405B	5/23/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP03	SGS Orlando	FC15936	RHP03-WGN01LF-2405B	5/23/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	UJ	<0.083	U	<0.042	U
RHP03	SGS Anchorage	1242639	RHP03-WGN01LF-2406A	6/6/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP03	SGS Orlando	FC16242	RHP03-WGN01B-2406A	6/6/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP03	SGS Orlando	FC16242	RHP03-WGN01LF-2406A	6/6/2024	Primary	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.04	UJ	<0.04	UJ	<0.04	UJ	<0.08	UJ	<0.04	UJ
RHP03	SGS Anchorage	1242997	RHP03-WGN01LF-2406B	6/20/2024	Primary	-		-		-		-		-		-		-		-		-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP03

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters												
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon										
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—										
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060										
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—										
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L										
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	649										
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	849	1710										
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
RHP03	SGS Orlando	FC14115	RHP03-WGN01LF-2403	3/14/2024	Primary	<0.4	U	<0.4	U	<0.04	UJ	<0.4	U	<0.4	U	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	—	
RHP03	APPL	24D0041	RHP03-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
RHP03	Energy	B24040475	RHP03-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
RHP03	SGS Anchorage	1241370	RHP03-WGN01LF-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<750	U	823	J+	
RHP03	SGS Orlando	FC14605	RHP03-WGN01LF-2404	4/4/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<2	U	<0.014	U	<0.5	U	<0.25	U	—	—	—	
RHP03	SGS Anchorage	1242031	RHP03-WGN01LF-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	849	J+	1710	—	
RHP03	SGS Orlando	FC15585	RHP03-WGN01LF-2405A	5/9/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	—	
RHP03	SGS Orlando	FC15585	RHP03-WGN01B-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP03	SGS Anchorage	1242340	RHP03-WGN01LF-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	451	J	649	J
RHP03	SGS Orlando	FC15936	RHP03-WGN01B-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP03	SGS Orlando	FC15936	RHP03-WGN01LF-2405B	5/23/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	—	
RHP03	SGS Anchorage	1242639	RHP03-WGN01LF-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	479	J	960	J	
RHP03	SGS Orlando	FC16242	RHP03-WGN01B-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP03	SGS Orlando	FC16242	RHP03-WGN01LF-2406A	6/6/2024	Primary	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.4	UJ	<0.4	UJ	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	—	
RHP03	SGS Anchorage	1242997	RHP03-WGN01LF-2406B	6/20/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	474	J	720	J

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP04A

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP04A	SGS Orlando	FC14115	RHP04A-WGN01LF-2403	3/14/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.42 U	<0.42 U	<0.42 U	-
RHP04A	APPL	24D0041	RHP04A-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04A	Energy	B24040475	RHP04A-WGN01LF-2404	4/4/2024	Primary	-	<140 U	<187 U	<140 U	<187 U	-	-	-	-	-	-	-	-	-	-	-
RHP04A	SGS Anchorage	1241370	RHP04A-WGN01LF-2404	4/4/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04A	SGS Orlando	FC14605	RHP04A-WGN01LF-2404	4/4/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.4 U	<0.4 U	<0.4 U	-
RHP04A	SGS Anchorage	1242031	RHP04A-WGN01LF-2405A	5/9/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04A	SGS Orlando	FC15585	RHP04A-WGN01B-2405A	5/9/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP04A	SGS Orlando	FC15585	RHP04A-WGN01LF-2405A	5/9/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	-
RHP04A	SGS Anchorage	1242340	RHP04A-WGN01LF-2405B	5/23/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04A	SGS Orlando	FC15936	RHP04A-WGN01LF-2405B	5/23/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	-
RHP04A	SGS Orlando	FC15936	RHP04A-WGN01B-2405B	5/23/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP04A	SGS Anchorage	1242639	RHP04A-WGN01LF-2406A	6/6/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04A	SGS Orlando	FC16242	RHP04A-WGN01LF-2406A	6/6/2024	Primary	<50 U	<96 U	<150 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.43 U	<0.43 U	<0.43 U	-
RHP04A	SGS Orlando	FC16242	RHP04A-WGN01B-2406A	6/6/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP04A	SGS Anchorage	1242997	RHP04A-WGN01LF-2406B	6/20/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP04A

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
Analyte						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
Method						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
RHP04A	SGS Orlando	FC14115	RHP04A-WGN01F-2403	3/14/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP04A	APPL	24D0041	RHP04A-WGN01F-2404	4/4/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP04A	Energy	B24040475	RHP04A-WGN01F-2404	4/4/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP04A	SGS Anchorage	1241370	RHP04A-WGN01F-2404	4/4/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP04A	SGS Orlando	FC14605	RHP04A-WGN01F-2404	4/4/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U
RHP04A	SGS Anchorage	1242031	RHP04A-WGN01F-2405A	5/9/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP04A	SGS Orlando	FC15585	RHP04A-WGN01B-2405A	5/9/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP04A	SGS Orlando	FC15585	RHP04A-WGN01F-2405A	5/9/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP04A	SGS Anchorage	1242340	RHP04A-WGN01F-2405B	5/23/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP04A	SGS Orlando	FC15936	RHP04A-WGN01F-2405B	5/23/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP04A	SGS Orlando	FC15936	RHP04A-WGN01B-2405B	5/23/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP04A	SGS Anchorage	1242639	RHP04A-WGN01F-2406A	6/6/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP04A	SGS Orlando	FC16242	RHP04A-WGN01F-2406A	6/6/2024	Primary	<0.43	U	<0.43	U	<0.43	U	<0.043	U	<0.043	U	<0.043	U	<0.043	U	<0.087	U	<0.043	U
RHP04A	SGS Orlando	FC16242	RHP04A-WGN01B-2406A	6/6/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP04A	SGS Anchorage	1242997	RHP04A-WGN01F-2406B	6/20/2024	Primary	-		-		-		-		-		-		-		-		-	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP04A

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d						Fuel Additive		Lead Scavengers		Natural Attenuation Parameters											
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon										
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—										
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060										
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—										
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L										
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	690										
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1060	1400										
Maximum						Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
RHP04A	SGS Orlando	FC14115	RHP04A-WGN01F-2403	3/14/2024	Primary	<0.42	U	<0.42	U	<0.042	UJ	<0.42	U	<0.42	U	—	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	—
RHP04A	APPL	24D0041	RHP04A-WGN01F-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP04A	Energy	B24040475	RHP04A-WGN01F-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP04A	SGS Anchorage	1241370	RHP04A-WGN01F-2404	4/4/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<750	U	1400	J+	
RHP04A	SGS Orlando	FC14605	RHP04A-WGN01F-2404	4/4/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	—	<2	U	<0.014	U	<0.5	U	<0.25	U	—	—	
RHP04A	SGS Anchorage	1242031	RHP04A-WGN01F-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	815	J+	941	J
RHP04A	SGS Orlando	FC15585	RHP04A-WGN01B-2405A	5/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP04A	SGS Orlando	FC15585	RHP04A-WGN01F-2405A	5/9/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	—	<1.9	U	<0.014	U	<0.5	UJ	<0.25	U	—	—	
RHP04A	SGS Anchorage	1242340	RHP04A-WGN01F-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	465	J	690	J
RHP04A	SGS Orlando	FC15936	RHP04A-WGN01F-2405B	5/23/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	—	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	
RHP04A	SGS Orlando	FC15936	RHP04A-WGN01B-2405B	5/23/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP04A	SGS Anchorage	1242639	RHP04A-WGN01F-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	515	J	872	J
RHP04A	SGS Orlando	FC16242	RHP04A-WGN01F-2406A	6/6/2024	Primary	<0.43	UJ	<0.43	UJ	<0.043	UJ	<0.43	UJ	<0.43	UJ	—	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—	
RHP04A	SGS Orlando	FC16242	RHP04A-WGN01B-2406A	6/6/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP04A	SGS Anchorage	1242997	RHP04A-WGN01F-2406B	6/20/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1060	—	1050	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP04B

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM																
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene														
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	8270 SIM	8270 SIM	8270 SIM												
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result											
RHP04B	SGS Orlando	FC14213	RHP04B-WGN01LF-2403	3/19/2024	Primary	<50	U	<100	U	<160	U	-	-	-	-	<0.5	U	<0.5	U	<0.5	U	<1.5	U	-	-	-	<0.4	U	<0.4	U	<0.4	U	
RHP04B	APPL	24D0071	RHP04B-WGN01LF-2404	4/9/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
RHP04B	Energy	B24040771	RHP04B-WGN01LF-2404	4/9/2024	Primary	-	-	78.74	J	107.1	J	<144	U	<144	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
RHP04B	SGS Anchorage	1241439	RHP04B-WGN01LF-2404	4/9/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
RHP04B	SGS Orlando	FC14704	RHP04B-WGN01LF-2404	4/9/2024	Primary	<50	U	<100	U	<170	U	-	-	-	-	<0.5	U	<0.5	U	<0.5	U	<1.5	U	-	-	-	<0.42	U	<0.42	U	<0.42	U	
RHP04B	SGS Anchorage	1242107	RHP04B-WGN01LF-2405A	5/14/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
RHP04B	SGS Orlando	FC15685	RHP04B-WGN01LF-2405A	5/14/2024	Primary	<50	U	<100	U	<170	U	-	-	-	-	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	<0.42	U	<0.42	U	<0.42	U
RHP04B	SGS Anchorage	1242381	RHP04B-WGN01LF-2405B	5/28/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RHP04B	SGS Orlando	FC15683	RHP04B-WGN01LF-2405B	5/28/2024	Primary	<50	U	<100	U	<160	U	-	-	-	-	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	<0.4	U	<0.4	U	<0.4	U
RHP04B	SGS Anchorage	1242775	RHP04B-WGN01LF-2406A	6/11/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RHP04B	SGS Orlando	FC16347	RHP04B-WGN01LF-2406A	6/11/2024	Primary	<50	U	<100	U	<160	U	-	-	-	-	<0.5	U	<0.5	U	<0.5	U	<1.5	U	<0.5	U	<0.5	U	<0.4	U	<0.4	U	<0.4	U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP04B

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																			
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)										
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3										
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM										
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022										
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L										
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
RHP04B	SGS Orlando	FC14213	RHP04B-WGN01LF-2403	3/19/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U		
RHP04B	APPL	24D0071	RHP04B-WGN01LF-2404	4/9/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04B	Energy	B24040771	RHP04B-WGN01LF-2404	4/9/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04B	SGS Anchorage	1241439	RHP04B-WGN01LF-2404	4/9/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04B	SGS Orlando	FC14704	RHP04B-WGN01LF-2404	4/9/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.063	U	<0.042	U
RHP04B	SGS Anchorage	1242107	RHP04B-WGN01LF-2405A	5/14/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04B	SGS Orlando	FC15685	RHP04B-WGN01LF-2405A	5/14/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.063	U	<0.042	U
RHP04B	SGS Anchorage	1242381	RHP04B-WGN01LF-2405B	5/28/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04B	SGS Orlando	FC15683	RHP04B-WGN01LF-2405B	5/28/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.06	U	<0.04	U
RHP04B	SGS Anchorage	1242775	RHP04B-WGN01LF-2406A	6/11/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04B	SGS Orlando	FC16347	RHP04B-WGN01LF-2406A	6/11/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.06	U	<0.04	U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP04B

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters								
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon						
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—						
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060						
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—						
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L						
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8	2490	2760						
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	2.4	3700	3250						
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result						
RHP04B	SGS Orlando	FC14213	RHP04B-WGN01LF-2403	3/19/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.015	U	<0.5	U	2.2	—	—	
RHP04B	APPL	24D0071	RHP04B-WGN01LF-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP04B	Energy	B24040771	RHP04B-WGN01LF-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP04B	SGS Anchorage	1241439	RHP04B-WGN01LF-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2690	—	2820	
RHP04B	SGS Orlando	FC14704	RHP04B-WGN01LF-2404	4/9/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.015	U	<0.5	U	2.4	—	—	
RHP04B	SGS Anchorage	1242107	RHP04B-WGN01LF-2405A	5/14/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3700	—	3250	
RHP04B	SGS Orlando	FC15685	RHP04B-WGN01LF-2405A	5/14/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.014	U	<0.5	U	1.8	—	—	
RHP04B	SGS Anchorage	1242381	RHP04B-WGN01LF-2405B	5/28/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2870	—	2760
RHP04B	SGS Orlando	FC15683	RHP04B-WGN01LF-2405B	5/28/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.014	U	<0.5	U	2.1	—	—	
RHP04B	SGS Anchorage	1242775	RHP04B-WGN01LF-2406A	6/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2490	—	2950
RHP04B	SGS Orlando	FC16347	RHP04B-WGN01LF-2406A	6/11/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.014	U	<0.5	U	1.9	—	—	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP04C

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP04C	SGS Orlando	FC14213	RHP04C-WGN01LF-2403	3/19/2024	Primary	<50	<100	<160	-	-	-	<0.5	<0.5	<0.5	<1.5	-	-	<0.4	<0.4	<0.4	-
RHP04C	APPL	24D0071	RHP04C-WGN01LF-2404	4/9/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04C	Energy	B24040771	RHP04C-WGN01LF-2404	4/9/2024	Primary	-	40.41	<141	<141	<141	-	-	-	-	-	-	-	-	-	-	-
RHP04C	SGS Anchorage	1241439	RHP04C-WGN01LF-2404	4/9/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04C	SGS Orlando	FC14704	RHP04C-WGN01LF-2404	4/9/2024	Primary	<50	<100	<170	-	-	-	<0.5	<0.5	<0.5	<1.5	-	-	<0.42	<0.42	<0.42	-
RHP04C	SGS Anchorage	1242107	RHP04C-WGN01LF-2405A	5/14/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04C	SGS Orlando	FC15685	RHP04C-WGN01LF-2405A	5/14/2024	Primary	<50	<100	<170	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.42	<0.42	<0.42	-
RHP04C	SGS Anchorage	1242381	RHP04C-WGN01LF-2405B	5/28/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04C	SGS Orlando	FC15683	RHP04C-WGN01LF-2405B	5/28/2024	Primary	<50	<100	<160	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.4	<0.4	<0.4	-
RHP04C	SGS Anchorage	1242775	RHP04C-WGN01LF-2406A	6/11/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP04C	SGS Orlando	FC16347	RHP04C-WGN01LF-2406A	6/11/2024	Primary	<50	<100	<160	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.4	<0.4	<0.4	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP04C

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																			
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)										
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3										
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM										
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022										
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L										
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
RHP04C	SGS Orlando	FC14213	RHP04C-WGN01LF-2403	3/19/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U		
RHP04C	APPL	24D0071	RHP04C-WGN01LF-2404	4/9/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04C	Energy	B24040771	RHP04C-WGN01LF-2404	4/9/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04C	SGS Anchorage	1241439	RHP04C-WGN01LF-2404	4/9/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04C	SGS Orlando	FC14704	RHP04C-WGN01LF-2404	4/9/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.063	U	<0.042	U
RHP04C	SGS Anchorage	1242107	RHP04C-WGN01LF-2405A	5/14/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04C	SGS Orlando	FC15685	RHP04C-WGN01LF-2405A	5/14/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.063	U	<0.042	U
RHP04C	SGS Anchorage	1242381	RHP04C-WGN01LF-2405B	5/28/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04C	SGS Orlando	FC15683	RHP04C-WGN01LF-2405B	5/28/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.06	U	<0.04	U
RHP04C	SGS Anchorage	1242775	RHP04C-WGN01LF-2406A	6/11/2024	Primary	--		--		--		--		--		--		--		--		--			
RHP04C	SGS Orlando	FC16347	RHP04C-WGN01LF-2406A	6/11/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.06	U	<0.04	U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP04C

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters									
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon							
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—							
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060							
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—							
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L							
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.23	973	1100							
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.65	1490	1960							
Maximum						Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result							
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result							
RHP04C	SGS Orlando	FC14213	RHP04C-WGN01LF-2403	3/19/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.014	U	<0.5	U	0.65	J	—	—	
RHP04C	APPL	24D0071	RHP04C-WGN01LF-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP04C	Energy	B24040771	RHP04C-WGN01LF-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP04C	SGS Anchorage	1241439	RHP04C-WGN01LF-2404	4/9/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1100	J+	1240	J+
RHP04C	SGS Orlando	FC14704	RHP04C-WGN01LF-2404	4/9/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.014	U	<0.5	U	0.41	J	—	—	
RHP04C	SGS Anchorage	1242107	RHP04C-WGN01LF-2405A	5/14/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1490	—	1960	
RHP04C	SGS Orlando	FC15685	RHP04C-WGN01LF-2405A	5/14/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.014	U	<0.5	U	0.28	J	—	—	
RHP04C	SGS Anchorage	1242381	RHP04C-WGN01LF-2405B	5/28/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1030	—	1410	
RHP04C	SGS Orlando	FC15683	RHP04C-WGN01LF-2405B	5/28/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.014	U	<0.5	U	0.24	J	—	—	
RHP04C	SGS Anchorage	1242775	RHP04C-WGN01LF-2406A	6/11/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	973	J	1100	
RHP04C	SGS Orlando	FC16347	RHP04C-WGN01LF-2406A	6/11/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.014	U	<0.5	U	0.23	J	—	—	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP05

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP05	SGS Orlando	FC14115	RHP05-WGN01LF-2403	3/14/2024	Primary	<50 U	<110 UJ	<170 UJ	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.42 U	<0.42 U	<0.42 U
RHP05	APPL	24D0044	RHP05-WGN01LF-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP05	Energy	B24040510	RHP05-WGN01LF-2404	4/5/2024	Primary	-	<141 U	<141 U	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP05	SGS Anchorage	1241402	RHP05-WGN01LF-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP05	SGS Orlando	FC14629	RHP05-WGN01LF-2404	4/5/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	-	<0.42 U	<0.42 U	<0.42 U
RHP05	SGS Anchorage	1242083	RHP05-WGN01LF-2405A	5/10/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP05	SGS Orlando	FC15602	RHP05-WGN01B-2405A	5/10/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP05	SGS Orlando	FC15602	RHP05-WGN01LF-2405A	5/10/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	<0.42 U	<0.42 U	<0.42 U
RHP05	SGS Anchorage	1242381	RHP05-WGN01LF-2405B	5/24/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP05	SGS Orlando	FC15949	RHP05-WGN01LF-2405B	5/24/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	<0.42 U	<0.42 U	<0.42 U
RHP05	SGS Orlando	FC15949	RHP05-WGN01B-2405B	5/24/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP05	SGS Anchorage	1242723	RHP05-WGN01LF-2406A	6/7/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP05	SGS Orlando	FC16262	RHP05-WGN01B-2406A	6/7/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP05	SGS Orlando	FC16262	RHP05-WGN01LF-2406A	6/7/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	<0.4 U	<0.4 U	<0.4 U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP05

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI																	
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)								
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3								
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM								
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022								
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L								
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result								
RHP05	SGS Orlando	FC14115	RHP05-WGN01LF-2403	3/14/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP05	APPL	24D0044	RHP05-WGN01LF-2404	4/5/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP05	Energy	B24040510	RHP05-WGN01LF-2404	4/5/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP05	SGS Anchorage	1241402	RHP05-WGN01LF-2404	4/5/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP05	SGS Orlando	FC14629	RHP05-WGN01LF-2404	4/5/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP05	SGS Anchorage	1242083	RHP05-WGN01LF-2405A	5/10/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP05	SGS Orlando	FC15602	RHP05-WGN01B-2405A	5/10/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP05	SGS Orlando	FC15602	RHP05-WGN01LF-2405A	5/10/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP05	SGS Anchorage	1242381	RHP05-WGN01LF-2405B	5/24/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP05	SGS Orlando	FC15949	RHP05-WGN01LF-2405B	5/24/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U	<0.042	U	<0.042	U	<0.083	U	<0.042	U
RHP05	SGS Orlando	FC15949	RHP05-WGN01B-2405B	5/24/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP05	SGS Anchorage	1242723	RHP05-WGN01LF-2406A	6/7/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP05	SGS Orlando	FC16262	RHP05-WGN01B-2406A	6/7/2024	Primary	-		-		-		-		-		-		-		-		-	
RHP05	SGS Orlando	FC16262	RHP05-WGN01LF-2406A	6/7/2024	Primary	<0.4	U	<0.4	U	<0.4	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.08	U	<0.04	U

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP05

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	708
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.19	1760	1670
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP05	SGS Orlando	FC14115	RHP05-WGN01LF-2403	3/14/2024	Primary	<0.42 U	<0.42 U	<0.042 UJ	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP05	APPL	24D0044	RHP05-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	<80 U	—	—	—	—	—	—	—
RHP05	Energy	B24040510	RHP05-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHP05	SGS Anchorage	1241402	RHP05-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	<750 U	928	J+
RHP05	SGS Orlando	FC14629	RHP05-WGN01LF-2404	4/5/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	<0.014 U	<0.5 U	0.19 J	—	—	—
RHP05	SGS Anchorage	1242083	RHP05-WGN01LF-2405A	5/10/2024	Primary	—	—	—	—	—	—	—	—	—	1760	1670	—
RHP05	SGS Orlando	FC15602	RHP05-WGN01B-2405A	5/10/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP05	SGS Orlando	FC15602	RHP05-WGN01LF-2405A	5/10/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP05	SGS Anchorage	1242381	RHP05-WGN01LF-2405B	5/24/2024	Primary	—	—	—	—	—	—	—	—	—	920	J	1050
RHP05	SGS Orlando	FC15949	RHP05-WGN01LF-2405B	5/24/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP05	SGS Orlando	FC15949	RHP05-WGN01B-2405B	5/24/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP05	SGS Anchorage	1242723	RHP05-WGN01LF-2406A	6/7/2024	Primary	—	—	—	—	—	—	—	—	—	425	J	708
RHP05	SGS Orlando	FC16262	RHP05-WGN01B-2406A	6/7/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP05	SGS Orlando	FC16262	RHP05-WGN01LF-2406A	6/7/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—

Notes:
See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP06

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) - AOC/LTM				
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene		
Analyte	CAS No.	Method	2017 DOH Tier 1 EAL	Units	Minimum	Maximum	PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3	
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP06	SGS Orlando	FC14115	RHP06-WGN01LF-2403	3/14/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.4 U	<0.4 U	<0.4 U
RHP06	APPL	24D0044	RHP06-WGN01LF-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP06	Energy	B24040510	RHP06-WGN01LF-2404	4/5/2024	Primary	-	<141 U	<141 U	<141 U	<141 U	-	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Anchorage	1241402	RHP06-WGN01LF-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Orlando	FC14629	RHP06-WGN01LF-2404	4/5/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	-	-	<0.4 U	<0.4 U	<0.4 U	-
RHP06	SGS Anchorage	1242083	RHP06-WGN01LF-2405A	5/10/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Orlando	FC15602	RHP06-WGN01LF-2405A	5/10/2024	Primary	<50 U	<100 U	<170 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	-
RHP06	SGS Orlando	FC15602	RHP06-WGN01B-2405A	5/10/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP06	SGS Anchorage	1242287	RHP06-WGN01LF-2405B	5/21/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Orlando	FC15885	RHP06-WGN01B-2405B	5/21/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-
RHP06	SGS Orlando	FC15885	RHP06-WGN01LF-2405B	5/21/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	-
RHP06	SGS Anchorage	1242723	RHP06-WGN01LF-2406A	6/7/2024	Primary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Orlando	FC16262	RHP06-WGN01LF-2406A	6/7/2024	Primary	<50 U	<100 U	<160 U	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	-
RHP06	SGS Orlando	FC16262	RHP06-WGN01B-2406A	6/7/2024	Primary	-	-	-	-	-	-	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP06

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP06	SGS Orlando	FC14115	RHP06-WGN01F-2403	3/14/2024	Primary	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.08	<0.04
RHP06	APPL	24D0044	RHP06-WGN01F-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP06	Energy	B24040510	RHP06-WGN01F-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Anchorage	1241402	RHP06-WGN01F-2404	4/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Orlando	FC14629	RHP06-WGN01F-2404	4/5/2024	Primary	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.08	<0.04
RHP06	SGS Anchorage	1242083	RHP06-WGN01F-2405A	5/10/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Orlando	FC15602	RHP06-WGN01F-2405A	5/10/2024	Primary	<0.42	<0.42	<0.42	<0.042	<0.042	UJ	<0.042	<0.042	<0.083	<0.042
RHP06	SGS Orlando	FC15602	RHP06-WGN01B-2405A	5/10/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Anchorage	1242287	RHP06-WGN01F-2405B	5/21/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Orlando	FC15885	RHP06-WGN01B-2405B	5/21/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Orlando	FC15885	RHP06-WGN01F-2405B	5/21/2024	Primary	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.08	<0.04
RHP06	SGS Anchorage	1242723	RHP06-WGN01F-2406A	6/7/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP06	SGS Orlando	FC16262	RHP06-WGN01F-2406A	6/7/2024	Primary	<0.4	<0.4	<0.4	<0.04	<0.04	<0.04	<0.04	<0.04	<0.08	<0.04
RHP06	SGS Orlando	FC16262	RHP06-WGN01B-2406A	6/7/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP06

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters												
Analyte						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon										
CAS No.						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—										
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060										
2017 DOH Tier 1 EAL						13	240	0.095	210	68	—	300	0.04	5	—	—	—										
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L										
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	792	1360										
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1640	1810										
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result										
RHP06	SGS Orlando	FC14115	RHP06-WGN01LF-2403	3/14/2024	Primary	<0.4	U	<0.4	U	<0.04	UJ	<0.4	U	<0.4	U	<0.4	U	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—
RHP06	APPL	24D0044	RHP06-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP06	Energy	B24040510	RHP06-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP06	SGS Anchorage	1241402	RHP06-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	792	J+	1800	
RHP06	SGS Orlando	FC14629	RHP06-WGN01LF-2404	4/5/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U	<2	U	<0.014	U	<0.5	U	<0.25	U	—	—
RHP06	SGS Anchorage	1242083	RHP06-WGN01LF-2405A	5/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1640	1810	
RHP06	SGS Orlando	FC15602	RHP06-WGN01LF-2405A	5/10/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.42	U	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—
RHP06	SGS Orlando	FC15602	RHP06-WGN01B-2405A	5/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP06	SGS Anchorage	1242287	RHP06-WGN01LF-2405B	5/21/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1550	1700	
RHP06	SGS Orlando	FC15885	RHP06-WGN01B-2405B	5/21/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP06	SGS Orlando	FC15885	RHP06-WGN01LF-2405B	5/21/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U	<2	U	<0.014	U	<0.5	U	<0.25	U	—	—
RHP06	SGS Anchorage	1242723	RHP06-WGN01LF-2406A	6/7/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1040	1360	
RHP06	SGS Orlando	FC16262	RHP06-WGN01LF-2406A	6/7/2024	Primary	<0.4	U	<0.4	U	<0.04	U	<0.4	U	<0.4	U	<0.4	U	<1.9	U	<0.014	U	<0.5	U	<0.25	U	—	—
RHP06	SGS Orlando	FC16262	RHP06-WGN01B-2406A	6/7/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP07

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM		
Analyte						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene
CAS No.						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3
Method						8260	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM
2017 DOH Tier 1 EAL						300	400	500	—	—	5	30	40	20	—	—	10	10	17
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP07	APPL	24D0030	RHP07-WGN01F-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP07	Energy	B24040256	RHP07-WGN01F-2404	4/2/2024	Primary	—	<144 U	<144 U	—	—	—	—	—	—	—	—	—	—	—
RHP07	SGS Anchorage	1241314	RHP07-WGN01F-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP07	SGS Orlando	FC14542	RHP07-WGN01F-2404	4/2/2024	Primary	<50 U	<100 U	<160 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	—	—	<0.42 U	<0.42 U	<0.42 U
RHP07	SGS Anchorage	1242002	RHP07-WGN01F-2405A	5/8/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP07	SGS Orlando	FC15560	RHP07-WGN01B-2405A	5/8/2024	Primary	—	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	—	—	—
RHP07	SGS Orlando	FC15560	RHP07-WGN01F-2405A	5/8/2024	Primary	<50 U	<100 U	<160 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U
RHP07	SGS Anchorage	1242339	RHP07-WGN01F-2405B	5/22/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP07	SGS Orlando	FC15907	RHP07-WGN01F-2405B	5/22/2024	Primary	<50 U	<100 U	<160 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U
RHP07	SGS Orlando	FC15907	RHP07-WGN01B-2405B	5/22/2024	Primary	—	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	—	—	—
RHP07	SGS Anchorage	1242588	RHP07-WGN01F-2406A	6/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP07	SGS Orlando	FC16201	RHP07-WGN01F-2406A	6/5/2024	Primary	<50 U	<100 U	<160 U	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.38 U	<0.38 U	<0.38 U
RHP07	SGS Orlando	FC16201	RHP07-WGN01B-2406A	6/5/2024	Primary	—	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	—	—	—
RHP07	SGS Anchorage	1242970	RHP07-WGN01F-2406B	6/18/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP07

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP07	APPL	24D0030	RHP07-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP07	Energy	B24040256	RHP07-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP07	SGS Anchorage	1241314	RHP07-WGN01LF-2404	4/2/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP07	SGS Orlando	FC14542	RHP07-WGN01LF-2404	4/2/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U
RHP07	SGS Anchorage	1242002	RHP07-WGN01LF-2405A	5/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP07	SGS Orlando	FC15560	RHP07-WGN01B-2405A	5/8/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP07	SGS Orlando	FC15560	RHP07-WGN01LF-2405A	5/8/2024	Primary	<0.4	UJ	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.04	UJ
RHP07	SGS Anchorage	1242309	RHP07-WGN01LF-2405B	5/22/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP07	SGS Orlando	FC15907	RHP07-WGN01LF-2405B	5/22/2024	Primary	<0.42	U	<0.42	U	<0.42	U	<0.042	U	<0.042	U
RHP07	SGS Orlando	FC15907	RHP07-WGN01B-2405B	5/22/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP07	SGS Anchorage	1242588	RHP07-WGN01LF-2406A	6/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP07	SGS Orlando	FC16201	RHP07-WGN01LF-2406A	6/5/2024	Primary	<0.38	UJ	<0.38	UJ	<0.38	UJ	<0.038	UJ	<0.038	UJ
RHP07	SGS Orlando	FC16201	RHP07-WGN01B-2406A	6/5/2024	Primary	-	-	-	-	-	-	-	-	-	-
RHP07	SGS Anchorage	1242970	RHP07-WGN01LF-2406B	6/18/2024	Primary	-	-	-	-	-	-	-	-	-	-

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP07

						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr/d					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
Method						13	240	0.095	210	68	—	300	0.04	5	—	—	—
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	755	798
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1230	1140
Maximum						Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP07	APPL	24D0030	RHP07-WGN01F-2404	4/2/2024	Primary	—	—	—	—	—	<80	U	—	—	—	—	—
RHP07	Energy	B24040256	RHP07-WGN01F-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHP07	SGS Anchorage	1241314	RHP07-WGN01F-2404	4/2/2024	Primary	—	—	—	—	—	—	—	—	—	783	J+	798
RHP07	SGS Orlando	FC14542	RHP07-WGN01F-2404	4/2/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.25	U
RHP07	SGS Anchorage	1242002	RHP07-WGN01F-2405A	5/8/2024	Primary	—	—	—	—	—	—	—	—	—	1230	J+	1140
RHP07	SGS Orlando	FC15560	RHP07-WGN01B-2405A	5/8/2024	Primary	—	—	—	—	—	—	—	<0.5	U	—	—	—
RHP07	SGS Orlando	FC15560	RHP07-WGN01F-2405A	5/8/2024	Primary	<0.4	UJ	<0.4	UJ	<0.04	UJ	<0.4	UJ	<0.4	UJ	<0.25	U
RHP07	SGS Anchorage	1242309	RHP07-WGN01F-2405B	5/22/2024	Primary	—	—	—	—	—	—	—	—	—	765	J	1020
RHP07	SGS Orlando	FC15907	RHP07-WGN01F-2405B	5/22/2024	Primary	<0.42	U	<0.42	U	<0.042	U	<0.42	U	<0.42	U	<0.25	U
RHP07	SGS Orlando	FC15907	RHP07-WGN01B-2405B	5/22/2024	Primary	—	—	—	—	—	—	—	<2	U	<0.014	U	<0.5
RHP07	SGS Anchorage	1242588	RHP07-WGN01F-2406A	6/5/2024	Primary	—	—	—	—	—	—	—	—	—	755	J	877
RHP07	SGS Orlando	FC16201	RHP07-WGN01F-2406A	6/5/2024	Primary	<0.38	UJ	<0.38	UJ	<0.038	UJ	<0.38	UJ	<0.38	UJ	<0.25	U
RHP07	SGS Orlando	FC16201	RHP07-WGN01B-2406A	6/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHP07	SGS Anchorage	1242970	RHP07-WGN01F-2406B	6/18/2024	Primary	—	—	—	—	—	—	—	—	—	1130	J+	1130

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP08

						Total Petroleum Hydrocarbons					Volatile Organic Compounds						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM		
						TPH-g	TPH-d	TPH-o	TPH-d with Silica Gel Cleanup	TPH-o with Silica Gel Cleanup	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene
Analyte						PHCC6C10	PHCC10C24	PHCC24C40	PHCC10C24SGC	PHCC24C40SGC	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	90-12-0	91-57-6	91-20-3
CAS No.						8260	8015	8015	8015	8015	8260	8260	8260	8260	8260	8260	8270 SIM	8270 SIM	8270 SIM
Method						300	400	500	—	—	5	30	40	20	—	—	10	10	17
2017 DOH Tier 1 EAL						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Units						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Minimum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum						ND	ND	ND	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP08	APPL	24D0044	RHP08-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP08	Energy	B24040510	RHP08-WGN01LF-2404	4/5/2024	Primary	—	<141 U	<141 U	—	—	—	—	—	—	—	—	—	—	—
RHP08	SGS Anchorage	1241402	RHP08-WGN01LF-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RHP08	SGS Orlando	FC14629	RHP08-WGN01LF-2404	4/5/2024	Primary	<50 U	<100 U	<160 U	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	—	—	<0.43 U	<0.43 U	<0.43 U	
RHP08	APPL	24D0044	RHP08-WGFD01LF-2404	4/5/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP08	Energy	B24040510	RHP08-WGFD01LF-2404	4/5/2024	Field Duplicate	—	<141 U	<141 U	—	—	—	—	—	—	—	—	—	—	
RHP08	SGS Orlando	FC14629	RHP08-WGFD01LF-2404	4/5/2024	Field Duplicate	<50 U	<100 U	<160 U	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	—	—	<0.42 U	<0.42 U	<0.42 U	
RHP08	SGS Anchorage	1242083	RHP08-WGN01LF-2405A	5/10/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP08	SGS Orlando	FC15602	RHP08-WGN01LF-2405A	5/10/2024	Primary	<50 U	<100 U	<170 U	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	
RHP08	SGS Orlando	FC15602	RHP08-WGN01B-2405A	5/10/2024	Primary	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	—	—	—	
RHP08	SGS Orlando	FC15602	RHP08-WGFD01B-2405A	5/10/2024	Field Duplicate	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	—	—	—	
RHP08	SGS Orlando	FC15602	RHP08-WGFD01LF-2405A	5/10/2024	Field Duplicate	<50 U	<100 U	<170 U	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.42 U	<0.42 U	<0.42 U	
RHP08	SGS Anchorage	1242287	RHP08-WGN01LF-2405B	5/21/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP08	SGS Orlando	FC15885	RHP08-WGN01B-2405B	5/21/2024	Primary	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	—	—	—	
RHP08	SGS Orlando	FC15885	RHP08-WGN01LF-2405B	5/21/2024	Primary	<50 U	<96 U	<150 U	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	
RHP08	SGS Orlando	FC15885	RHP08-WGFD01LF-2405B	5/21/2024	Field Duplicate	<50 U	<100 U	<160 U	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	
RHP08	SGS Orlando	FC15885	RHP08-WGFD01B-2405B	5/21/2024	Field Duplicate	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	—	—	—	
RHP08	SGS Anchorage	1242723	RHP08-WGN01LF-2406A	6/7/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—	—	
RHP08	SGS Orlando	FC16262	RHP08-WGN01B-2406A	6/7/2024	Primary	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	—	—	—	
RHP08	SGS Orlando	FC16262	RHP08-WGN01LF-2406A	6/7/2024	Primary	<50 U	<100 U	<160 U	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	
RHP08	SGS Orlando	FC16262	RHP08-WGFD01LF-2406A	6/7/2024	Field Duplicate	<50 U	<100 U	<160 U	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	<0.4 U	<0.4 U	<0.4 U	
RHP08	SGS Orlando	FC16262	RHP08-WGFD01B-2406A	6/7/2024	Field Duplicate	—	—	—	—	<0.5 U	<0.5 U	<0.5 U	<1.5 U	<0.5 U	<0.5 U	—	—	—	

Notes:
 See Data Legend

App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP08

						Polycyclic Aromatic Hydrocarbons (PAHs) – NOI									
Analyte						Acenaphthene (SIM)	Acenaphthylene (SIM)	Anthracene (SIM)	Benzo(a)anthracene (SIM)	Benzo(a)pyrene (SIM)	Benzo(b)fluoranthene (SIM)	Benzo(g,h,i)perylene (SIM)	Benzo(k)fluoranthene (SIM)	Chrysene (SIM)	Dibenzo(a,h)anthracene (SIM)
CAS No.						83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3
Method						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270SIM
2017 DOH Tier 1 EAL						20	240	0.18	0.029	0.2	0.22	0.13	0.4	1	0.022
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP08	APPL	24D0044	RHP08-WGN01LF-2404	4/5/2024	Primary	--	--	--	--	--	--	--	--	--	--
RHP08	Energy	B24040510	RHP08-WGN01LF-2404	4/5/2024	Primary	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Anchorage	1241402	RHP08-WGN01LF-2404	4/5/2024	Primary	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Orlando	FC14629	RHP08-WGN01LF-2404	4/5/2024	Primary	<0.43 U	<0.43 U	<0.43 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.043 U	<0.087 U	<0.043 U
RHP08	APPL	24D0044	RHP08-WGFD01LF-2404	4/5/2024	Field Duplicate	--	--	--	--	--	--	--	--	--	--
RHP08	Energy	B24040510	RHP08-WGFD01LF-2404	4/5/2024	Field Duplicate	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Orlando	FC14629	RHP08-WGFD01LF-2404	4/5/2024	Field Duplicate	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHP08	SGS Anchorage	1242083	RHP08-WGN01LF-2405A	5/10/2024	Primary	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Orlando	FC15602	RHP08-WGN01LF-2405A	5/10/2024	Primary	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHP08	SGS Orlando	FC15602	RHP08-WGN01B-2405A	5/10/2024	Primary	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Orlando	FC15602	RHP08-WGFD01B-2405A	5/10/2024	Field Duplicate	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Orlando	FC15602	RHP08-WGFD01LF-2405A	5/10/2024	Field Duplicate	<0.42 U	<0.42 U	<0.42 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.042 U	<0.083 U	<0.042 U
RHP08	SGS Anchorage	1242287	RHP08-WGN01LF-2405B	5/21/2024	Primary	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Orlando	FC15885	RHP08-WGN01B-2405B	5/21/2024	Primary	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Orlando	FC15885	RHP08-WGN01LF-2405B	5/21/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U
RHP08	SGS Orlando	FC15885	RHP08-WGFD01LF-2405B	5/21/2024	Field Duplicate	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U
RHP08	SGS Orlando	FC15885	RHP08-WGFD01B-2405B	5/21/2024	Field Duplicate	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Anchorage	1242723	RHP08-WGN01LF-2406A	6/7/2024	Primary	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Orlando	FC16262	RHP08-WGN01B-2406A	6/7/2024	Primary	--	--	--	--	--	--	--	--	--	--
RHP08	SGS Orlando	FC16262	RHP08-WGN01LF-2406A	6/7/2024	Primary	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U
RHP08	SGS Orlando	FC16262	RHP08-WGFD01LF-2406A	6/7/2024	Field Duplicate	<0.4 U	<0.4 U	<0.4 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.08 U	<0.04 U
RHP08	SGS Orlando	FC16262	RHP08-WGFD01B-2406A	6/7/2024	Field Duplicate	--	--	--	--	--	--	--	--	--	--

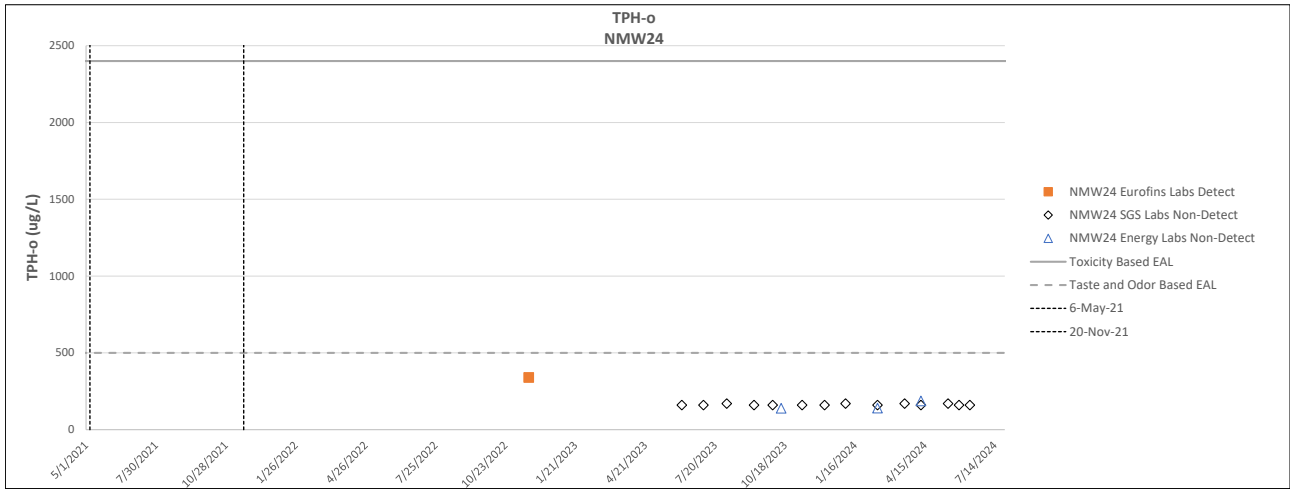
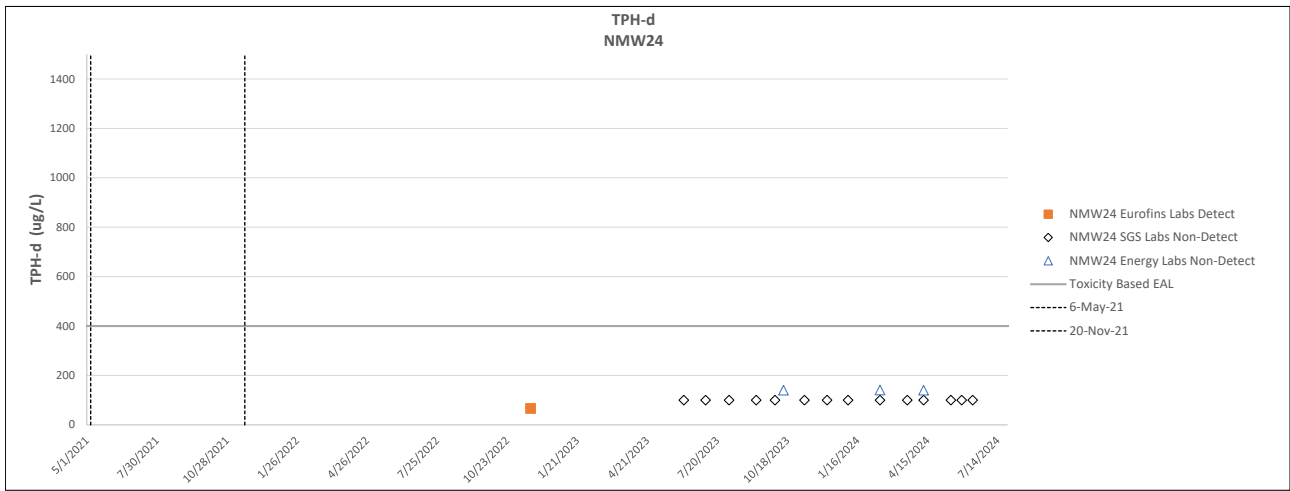
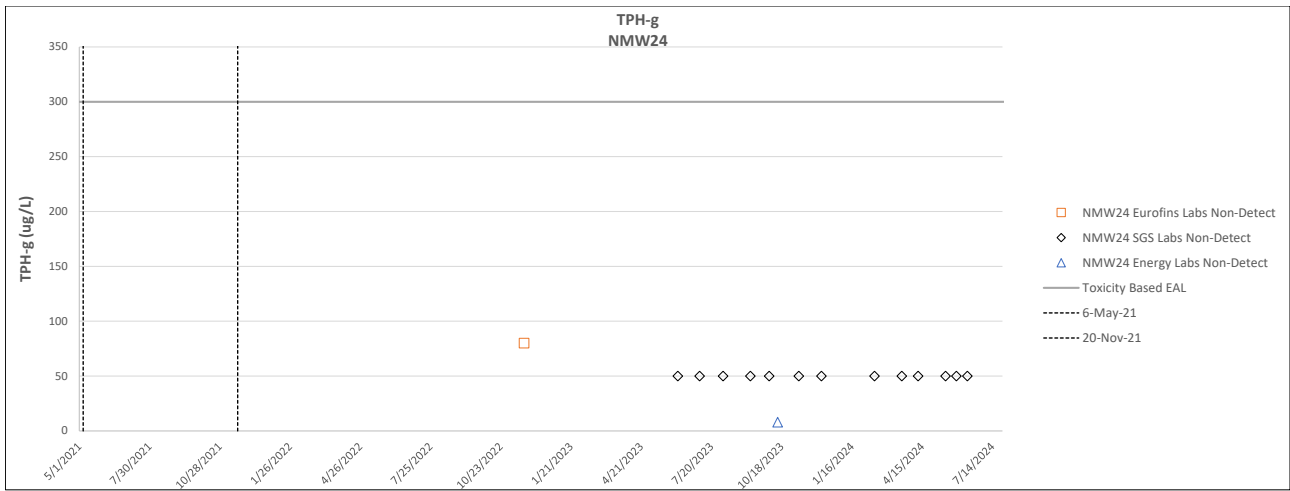
Notes:
 See Data Legend

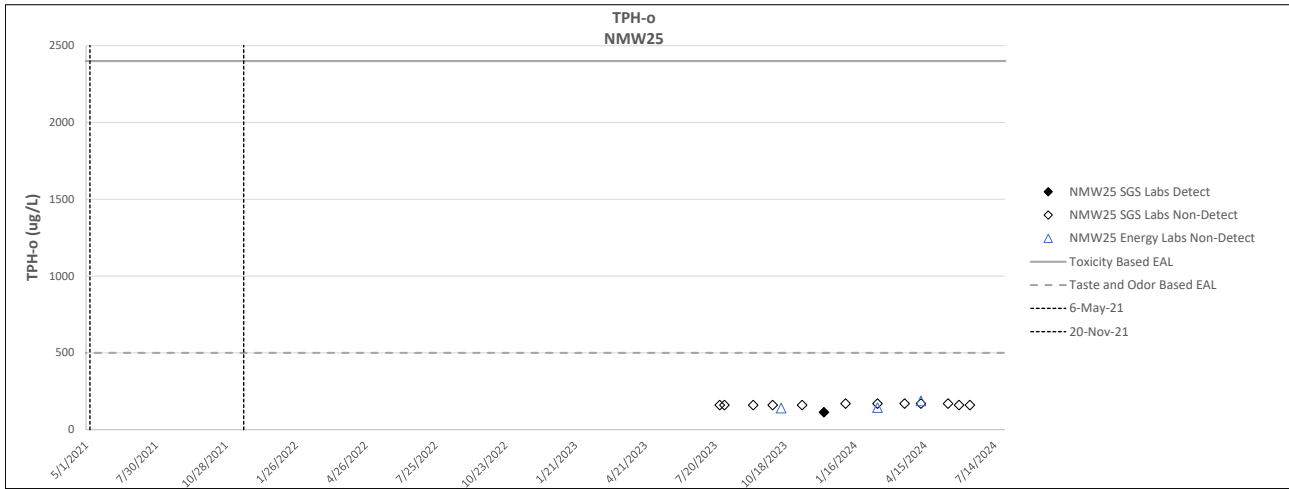
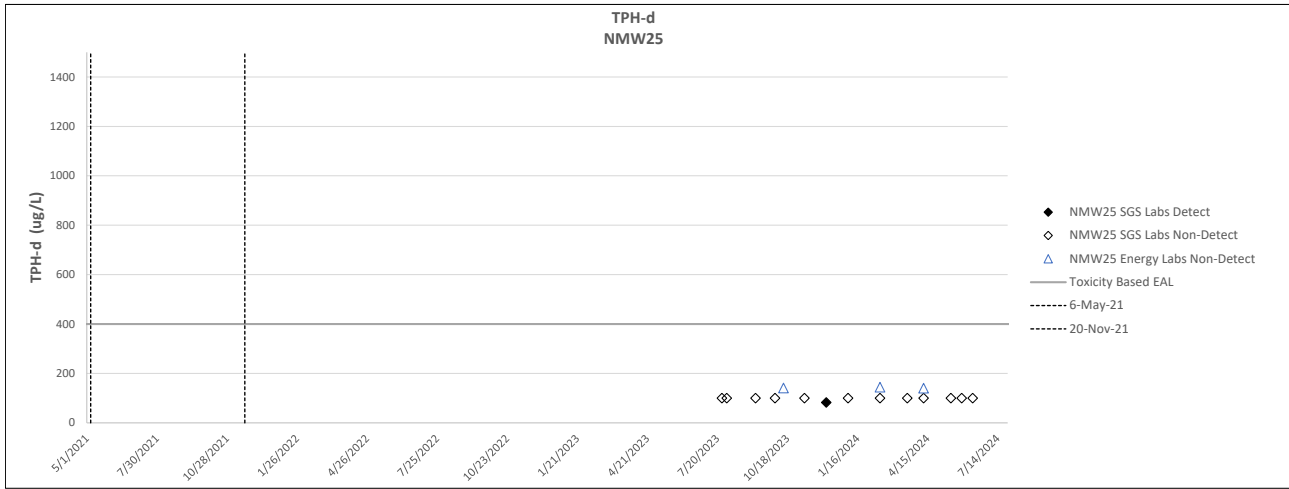
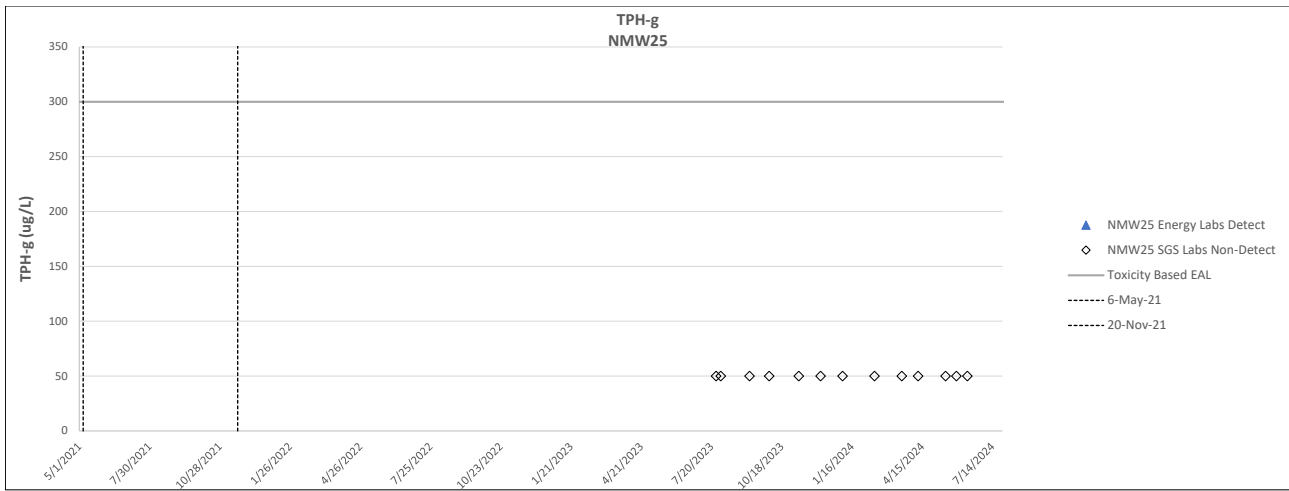
App. B.3.1 Groundwater Analytical Data: Red Hill Bulk Fuel Storage Facility
 Consolidated Sampling Program
 Groundwater Sampling: RHP08

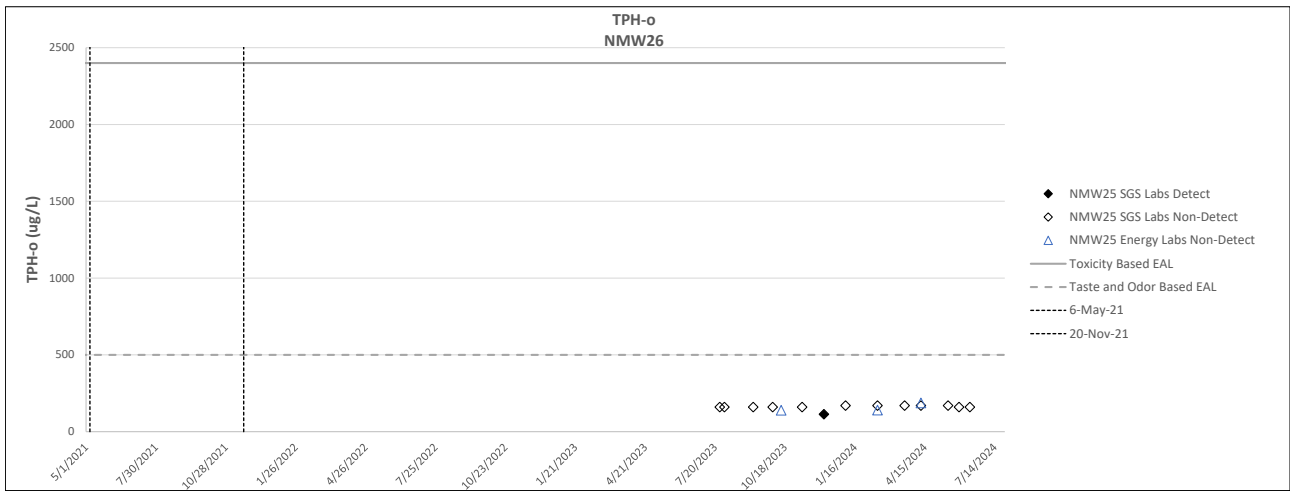
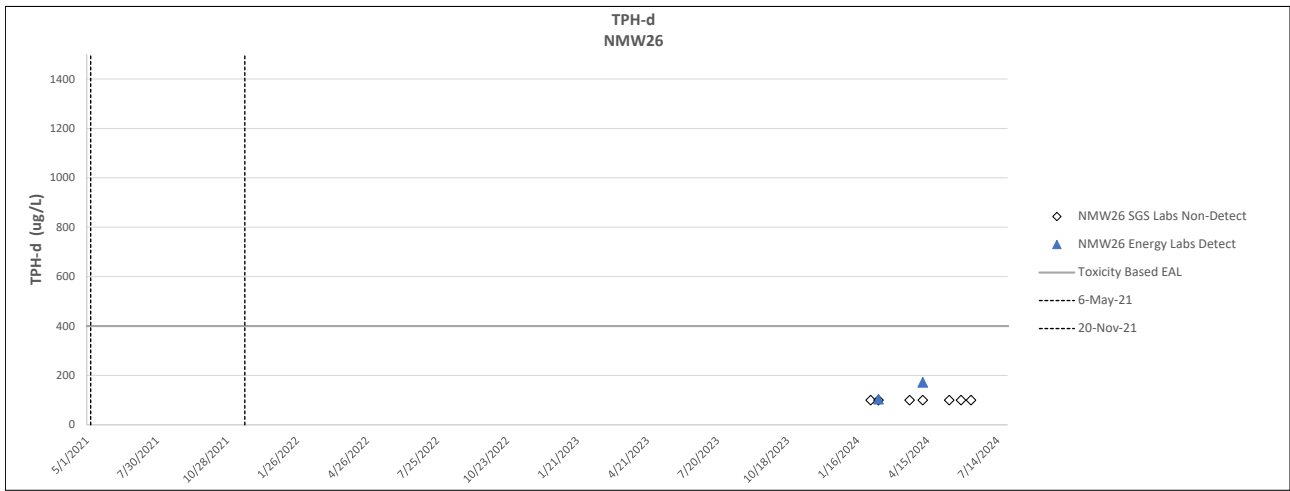
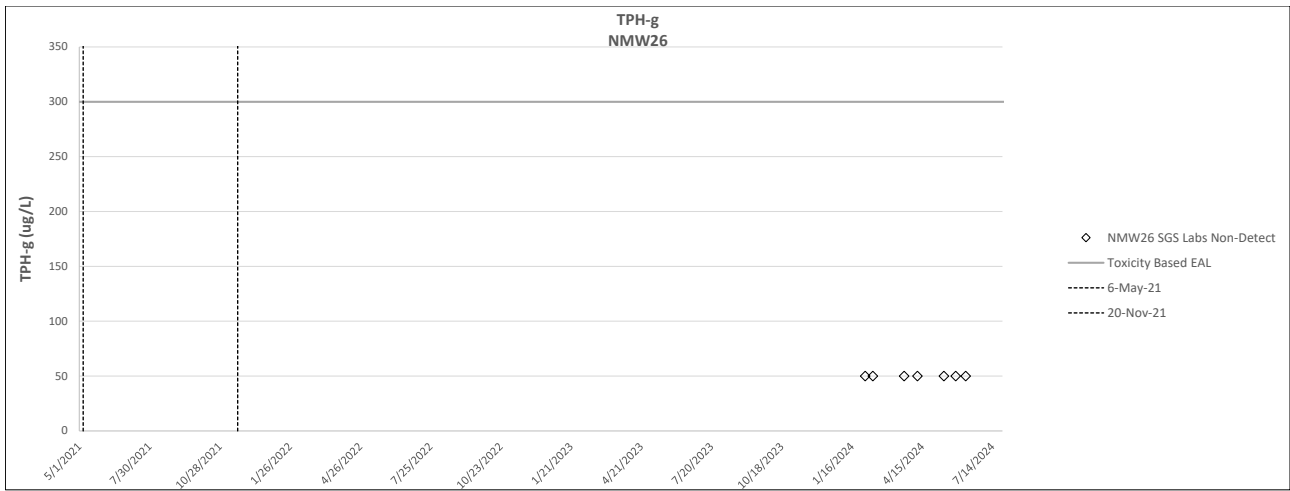
						Polycyclic Aromatic Hydrocarbons (PAHs) – AOC/LTM cr'd					Fuel Additive		Lead Scavengers		Natural Attenuation Parameters		
						Fluoranthene (SIM)	Fluorene (SIM)	Indeno(1,2,3-cd)pyrene (SIM)	Phenanthrene (SIM)	Pyrene (SIM)	2-(2-Methoxyethoxy)-ethanol	Phenol	1,2-Dibromoethane	1,2-Dichloroethane	Methane	Total Organic Carbon	NV Dissolved Organic Carbon
Analyte						206-44-0	86-73-7	193-39-5	85-01-8	129-00-0	111-77-3	108-95-2	106-93-4	107-06-2	74-82-8	TOC	—
CAS No.						8270SIM	8270SIM	8270SIM	8270SIM	8270SIM	8270D	SW8270	8011	8260	RSK 175	9060	9060
Method						2017 DOH Tier 1 EAL	13	240	0.095	210	68	—	300	0.04	5	—	—
Units						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Minimum						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	458	462
Maximum						ND	ND	ND	ND	ND	ND	ND	ND	ND	4.9	1020	2420
Location	Lab	SDG	Sample ID	Sampling Date	Type	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
RHP08	APPL	24D0044	RHP08-WGN01F-2404	4/5/2024	Primary	—	—	—	—	—	<80 U	—	—	—	—	—	—
RHP08	Energy	B24040510	RHP08-WGN01F-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	—	—	—
RHP08	SGS Anchorage	1241402	RHP08-WGN01F-2404	4/5/2024	Primary	—	—	—	—	—	—	—	—	—	1020	J+	2420
RHP08	SGS Orlando	FC14629	RHP08-WGN01F-2404	4/5/2024	Primary	<0.43 U	<0.43 U	<0.043 U	<0.43 U	<0.43 U	<2 U	<0.014 U	<0.5 U	4.9	—	—	—
RHP08	APPL	24D0044	RHP08-WGFD01F-2404	4/5/2024	Field Duplicate	—	—	—	—	—	<80 U	—	—	—	—	—	—
RHP08	Energy	B24040510	RHP08-WGFD01F-2404	4/5/2024	Field Duplicate	—	—	—	—	—	—	—	—	—	—	—	—
RHP08	SGS Orlando	FC14629	RHP08-WGFD01F-2404	4/5/2024	Field Duplicate	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	—	<0.5 U	—	—	—	—
RHP08	SGS Anchorage	1242083	RHP08-WGN01F-2405A	5/10/2024	Primary	—	—	—	—	—	—	—	—	—	953	J+	1010 J+
RHP08	SGS Orlando	FC15602	RHP08-WGN01F-2405A	5/10/2024	Primary	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP08	SGS Orlando	FC15602	RHP08-WGN01B-2405A	5/10/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP08	SGS Orlando	FC15602	RHP08-WGFD01B-2405A	5/10/2024	Field Duplicate	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP08	SGS Orlando	FC15602	RHP08-WGFD01F-2405A	5/10/2024	Field Duplicate	<0.42 U	<0.42 U	<0.042 U	<0.42 U	<0.42 U	<2 U	—	<0.5 U	—	—	—	—
RHP08	SGS Anchorage	1242287	RHP08-WGN01F-2405B	5/21/2024	Primary	—	—	—	—	—	—	—	—	—	624	J	462 J
RHP08	SGS Orlando	FC15885	RHP08-WGN01B-2405B	5/21/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP08	SGS Orlando	FC15885	RHP08-WGN01F-2405B	5/21/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP08	SGS Orlando	FC15885	RHP08-WGFD01F-2405B	5/21/2024	Field Duplicate	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<2 U	—	<0.5 U	—	—	—	—
RHP08	SGS Orlando	FC15885	RHP08-WGFD01B-2405B	5/21/2024	Field Duplicate	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP08	SGS Anchorage	1242723	RHP08-WGN01F-2406A	6/7/2024	Primary	—	—	—	—	—	—	—	—	—	458	J	546 J
RHP08	SGS Orlando	FC16262	RHP08-WGN01B-2406A	6/7/2024	Primary	—	—	—	—	—	—	—	<0.5 U	—	—	—	—
RHP08	SGS Orlando	FC16262	RHP08-WGN01F-2406A	6/7/2024	Primary	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	<0.014 U	<0.5 U	<0.25 U	—	—	—
RHP08	SGS Orlando	FC16262	RHP08-WGFD01F-2406A	6/7/2024	Field Duplicate	<0.4 U	<0.4 U	<0.04 U	<0.4 U	<0.4 U	<1.9 U	—	<0.5 U	—	—	—	—
RHP08	SGS Orlando	FC16262	RHP08-WGFD01B-2406A	6/7/2024	Field Duplicate	—	—	—	—	—	—	—	<0.5 U	—	—	—	—

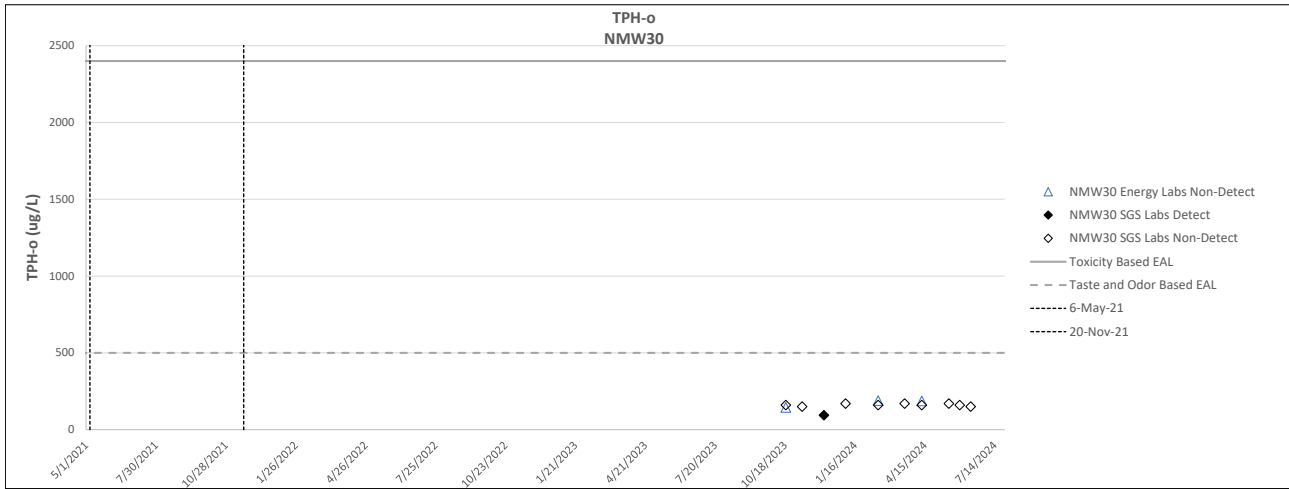
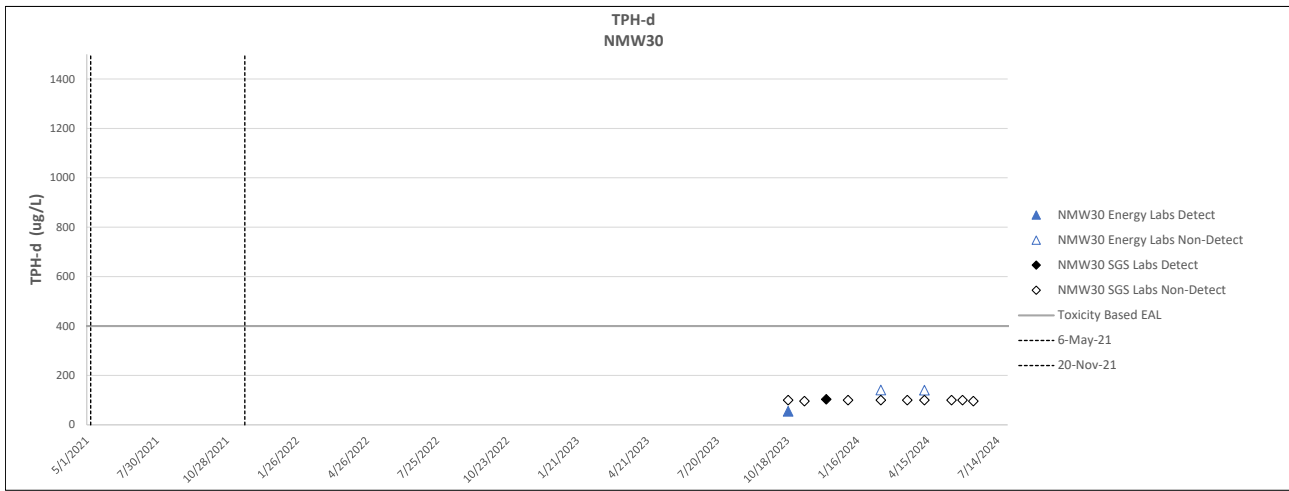
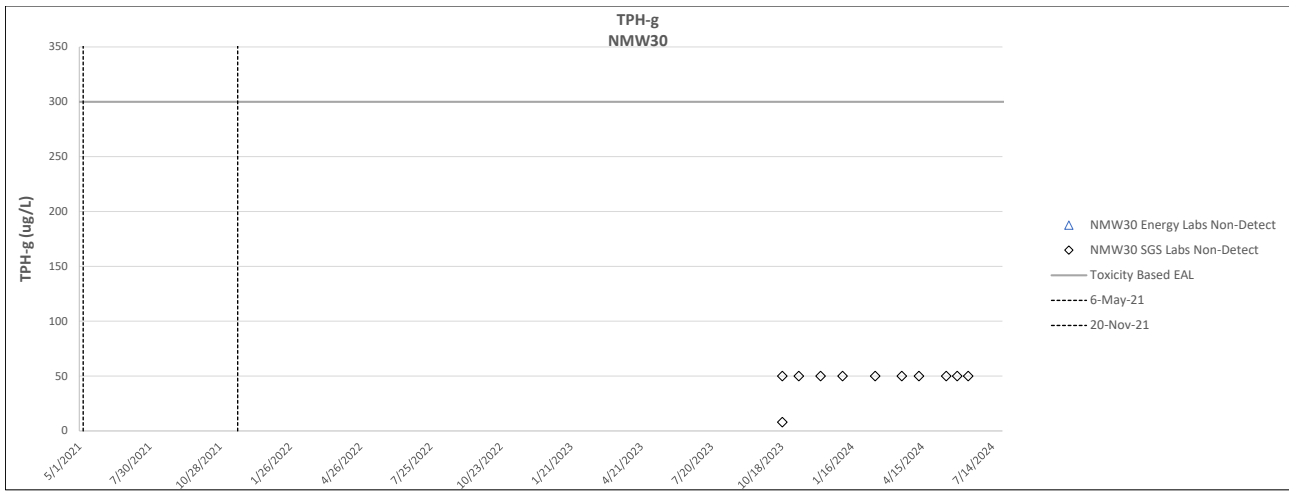
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 See Data Legend

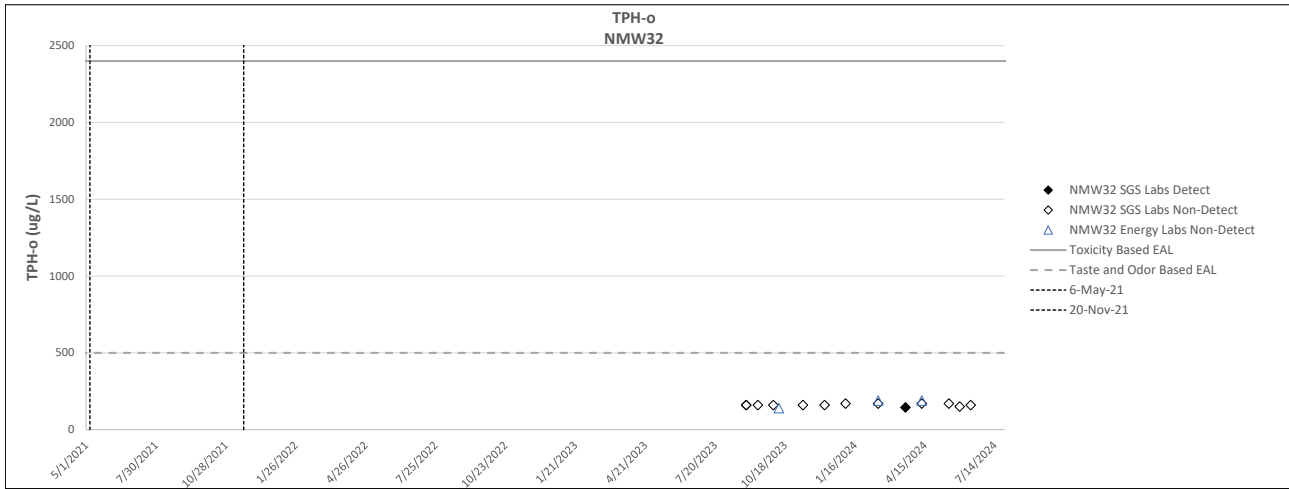
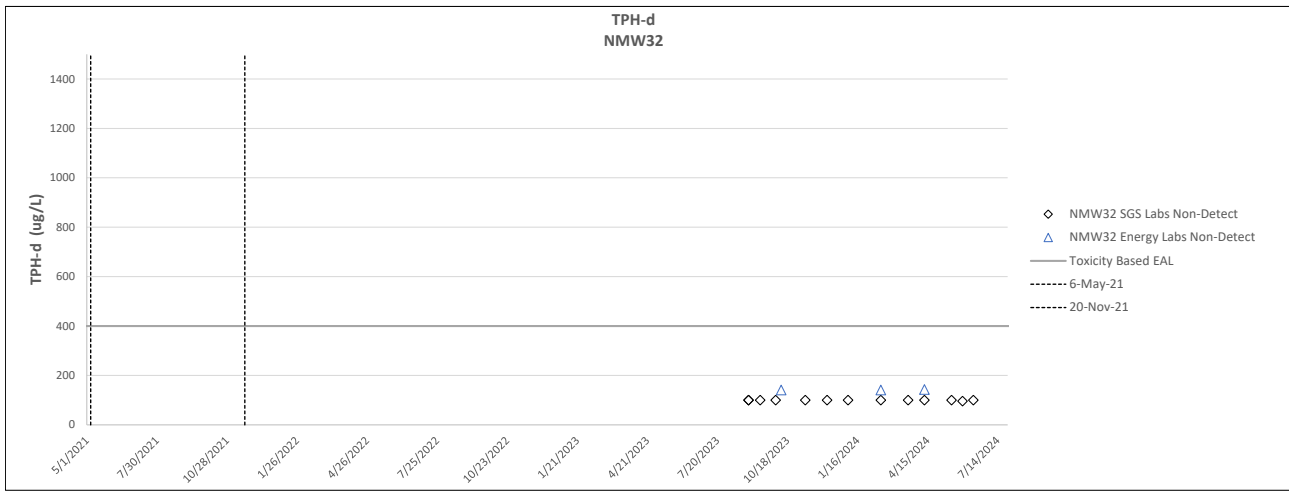
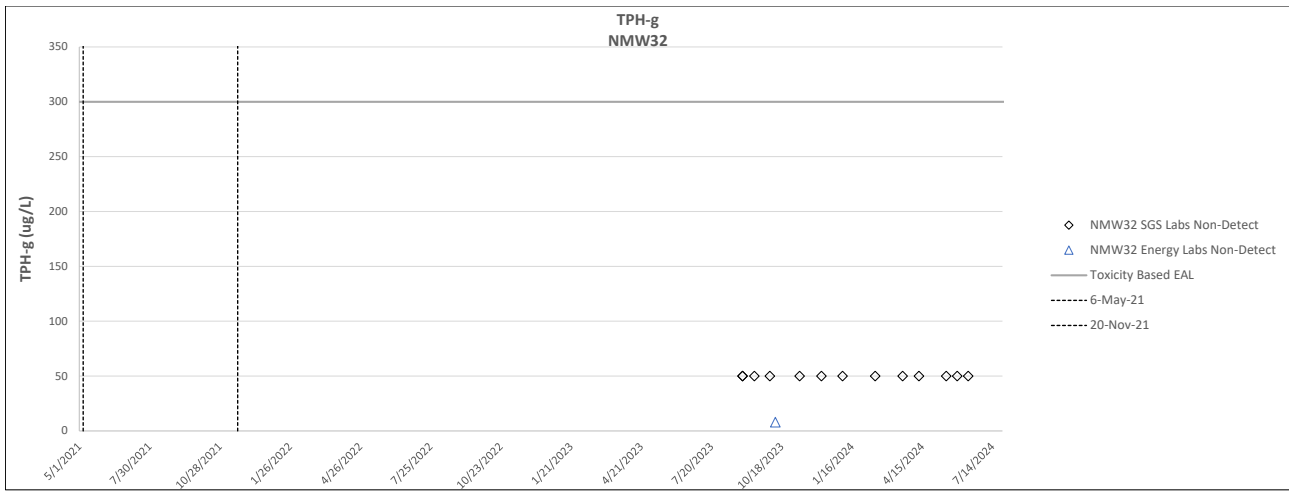
Appendix B.3.2 – Groundwater TPH and PAH Analytical Charts

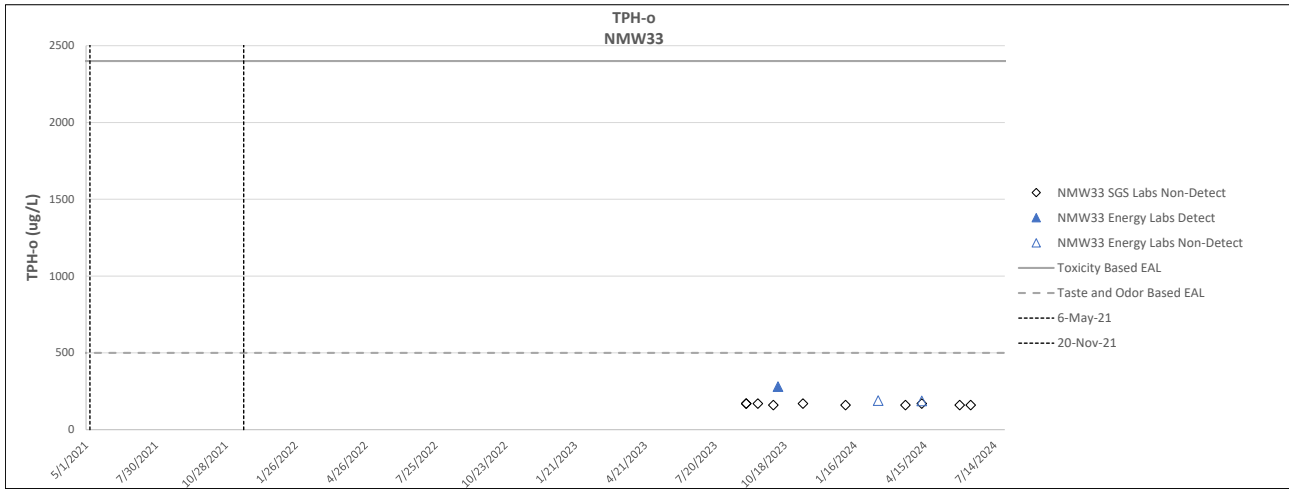
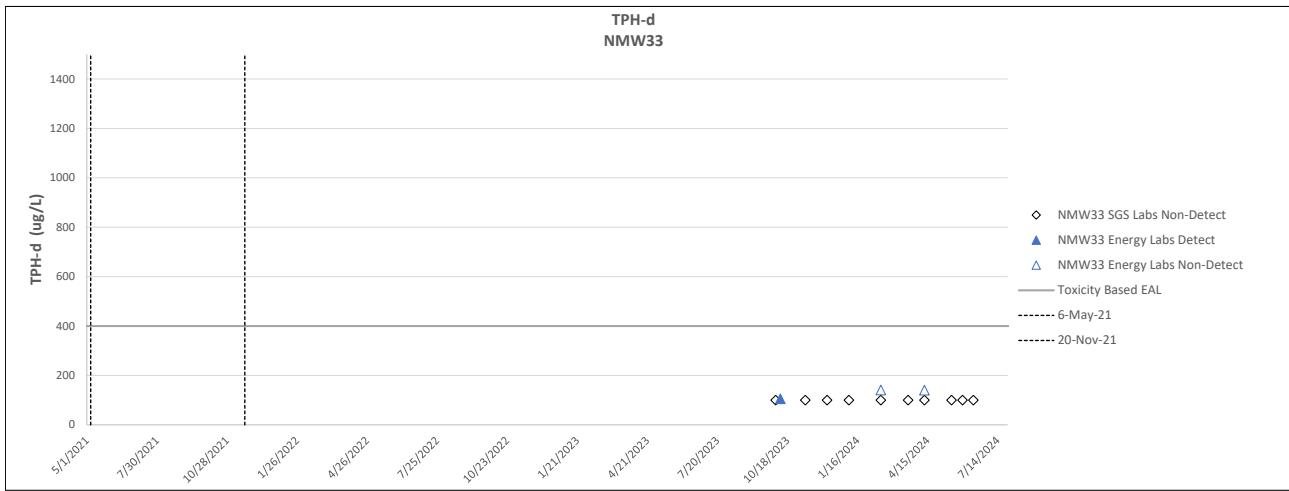
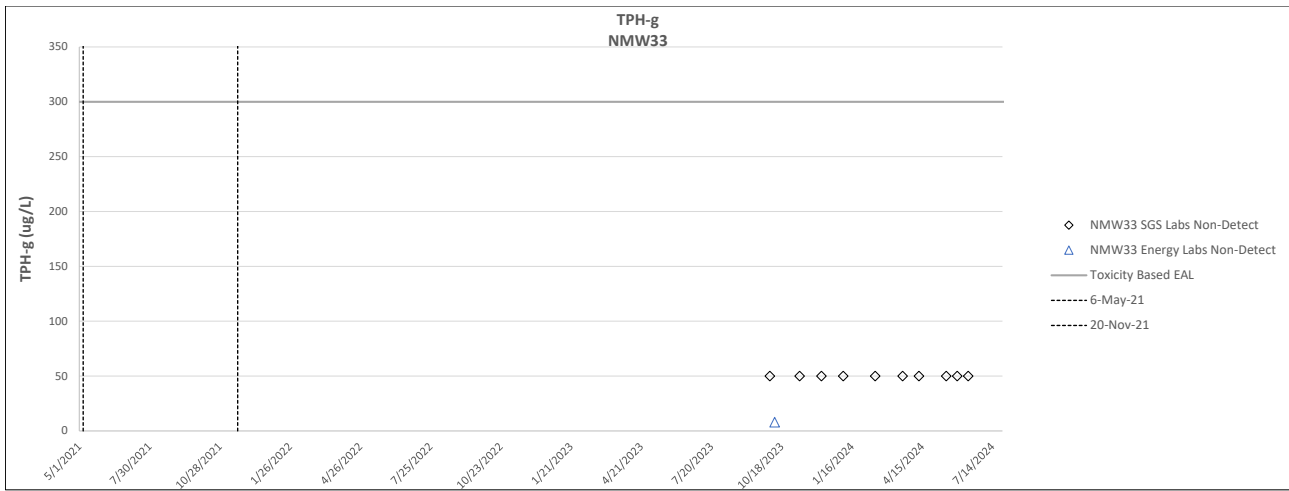


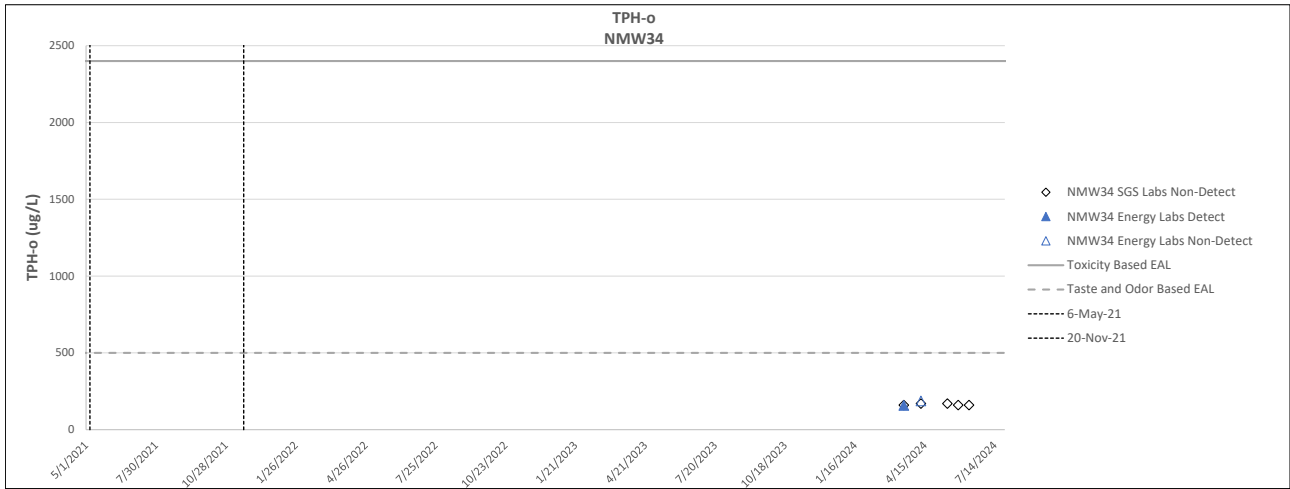
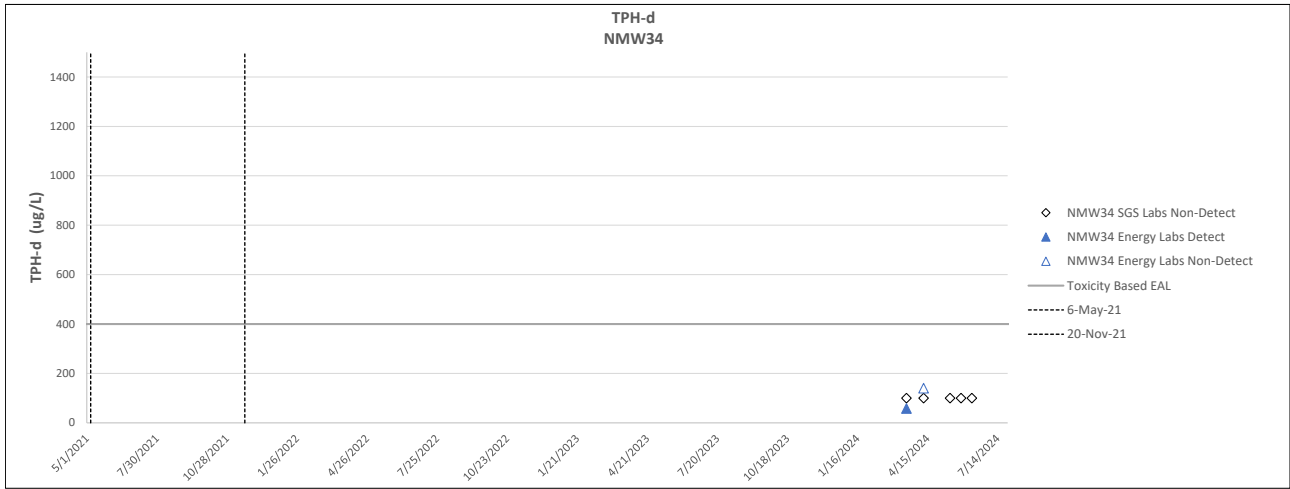
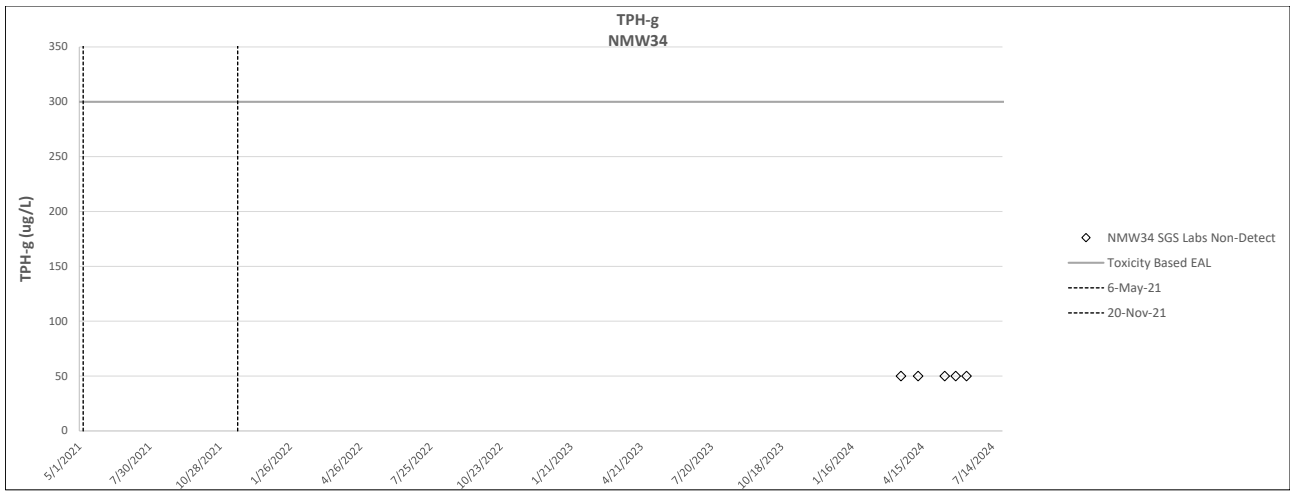


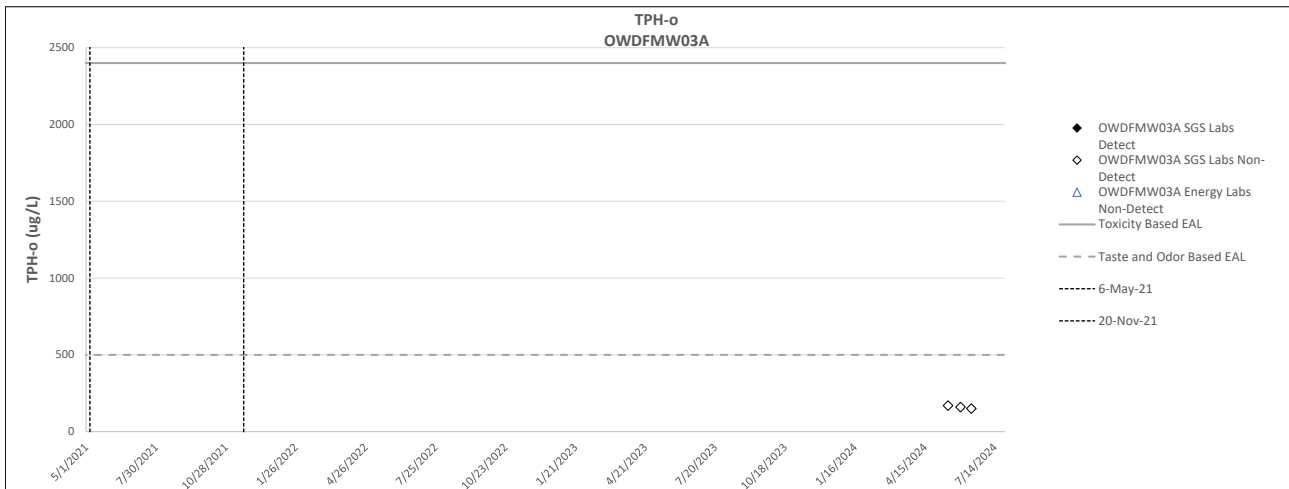
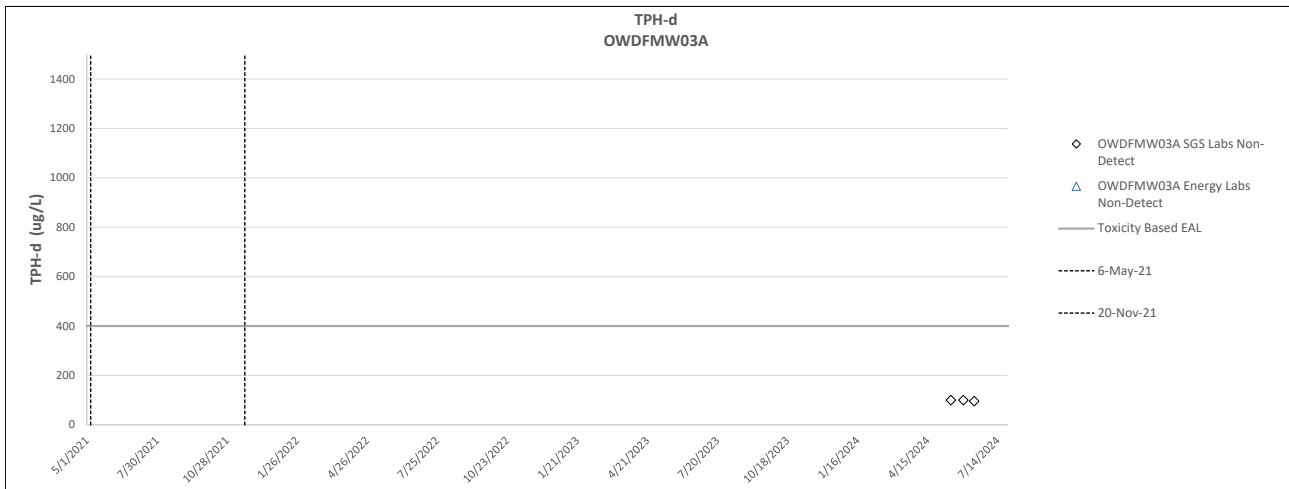
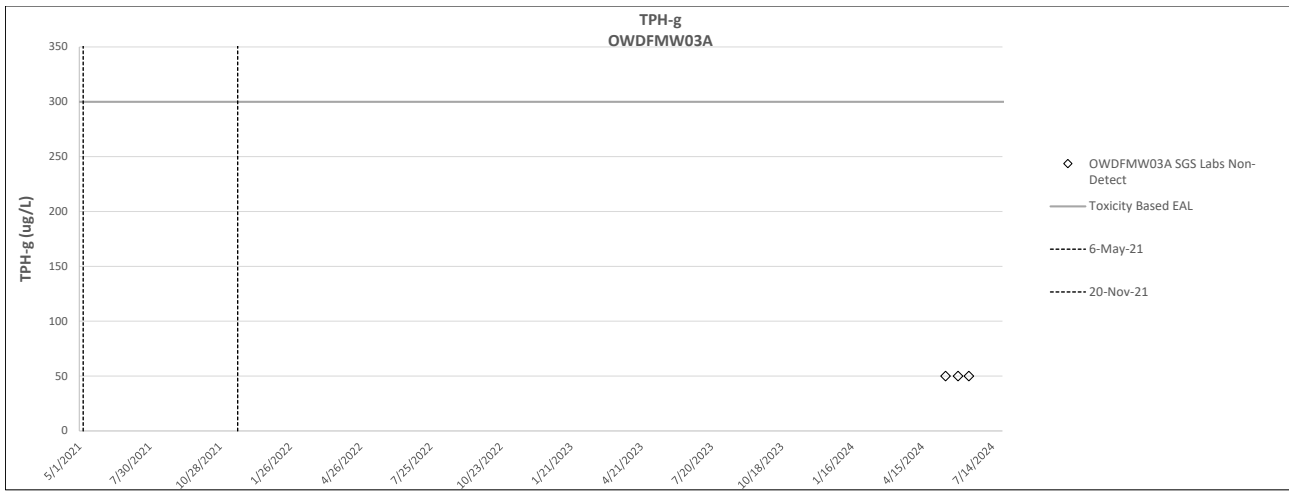


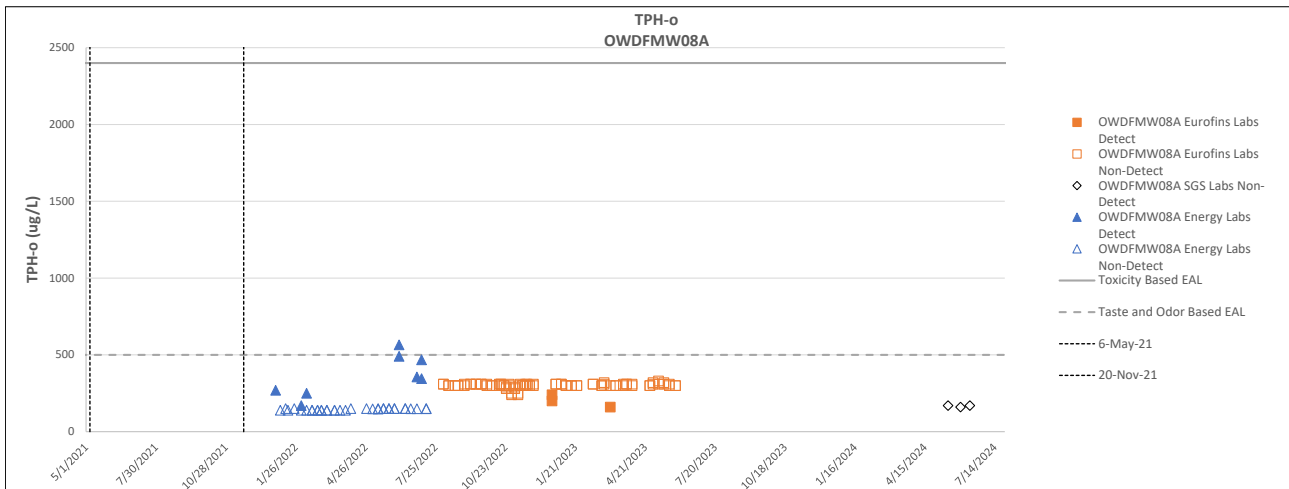
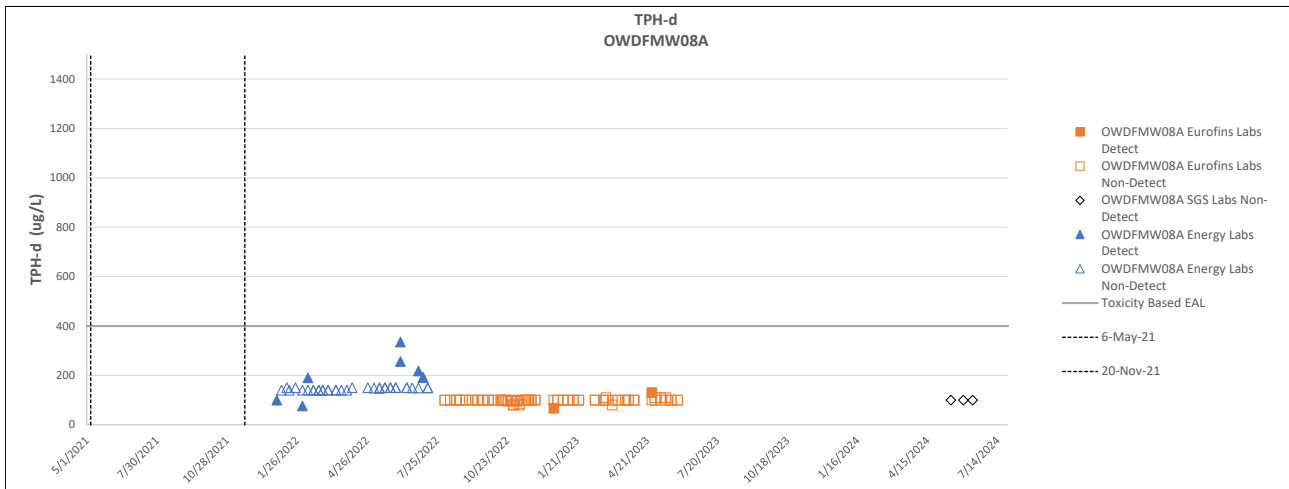
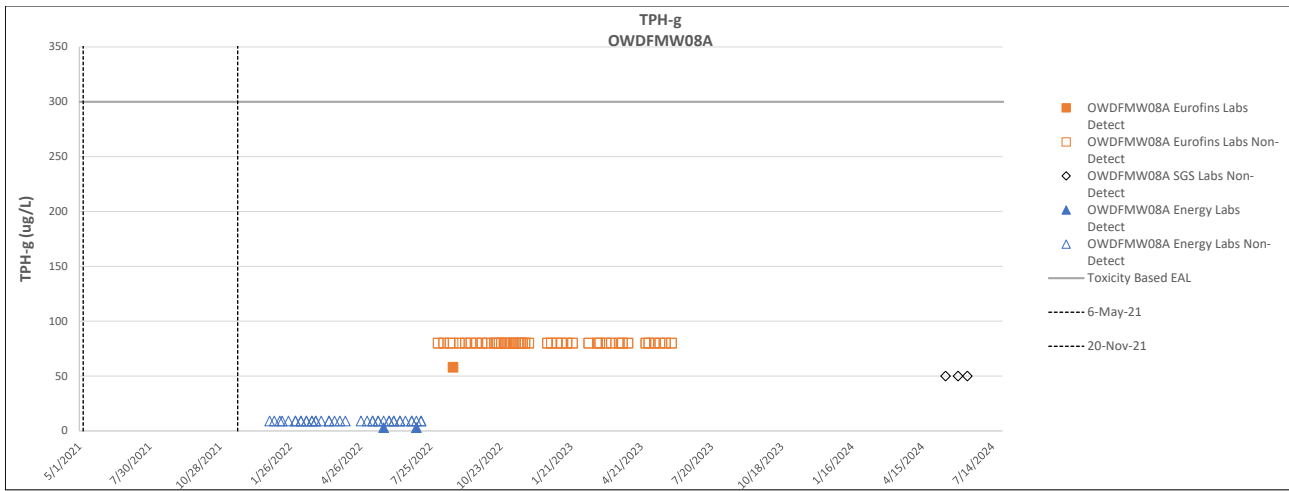


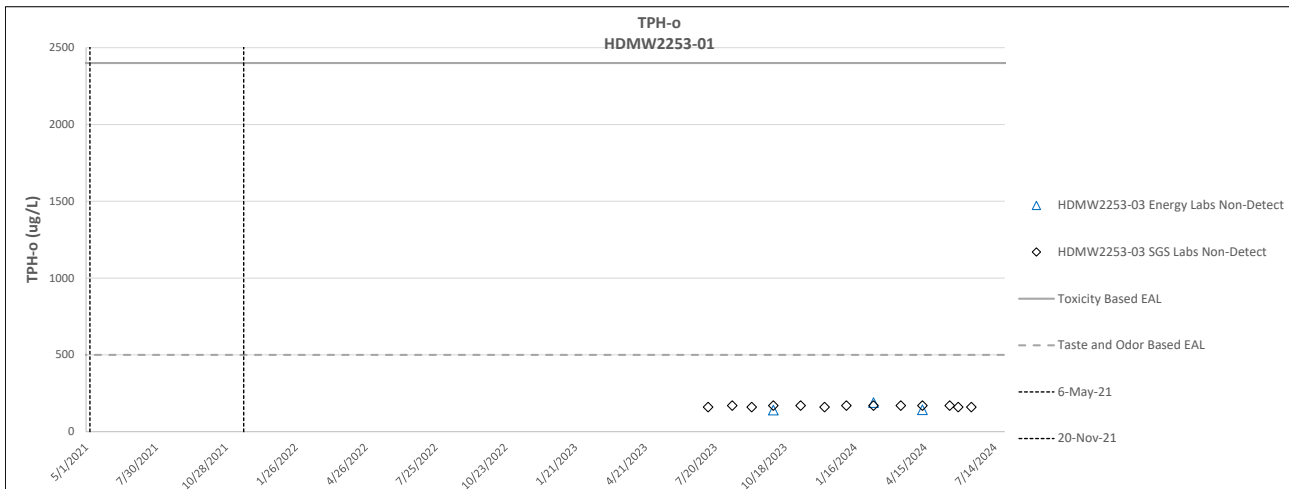
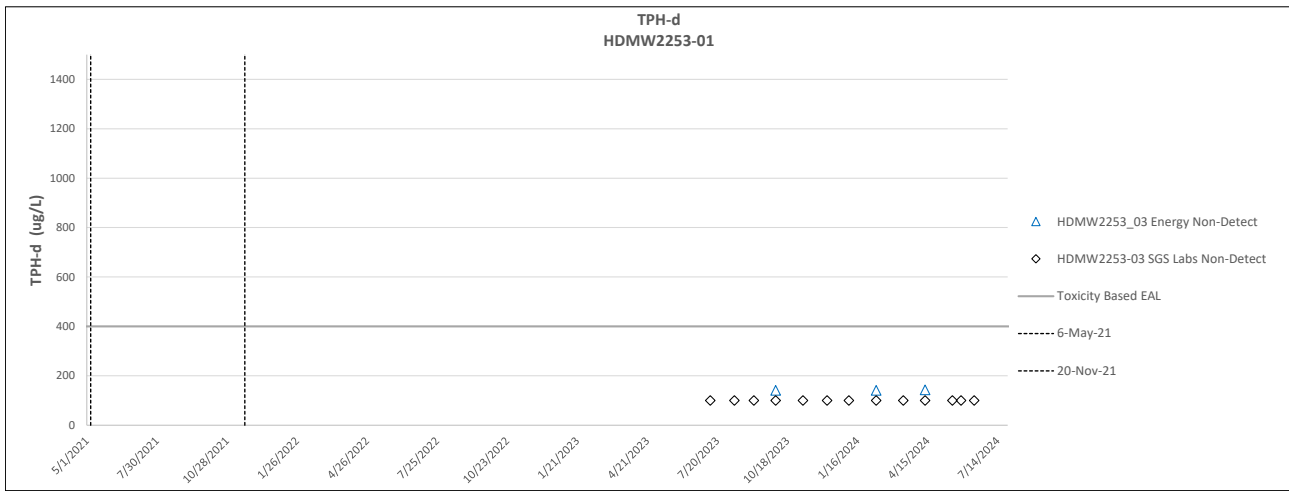
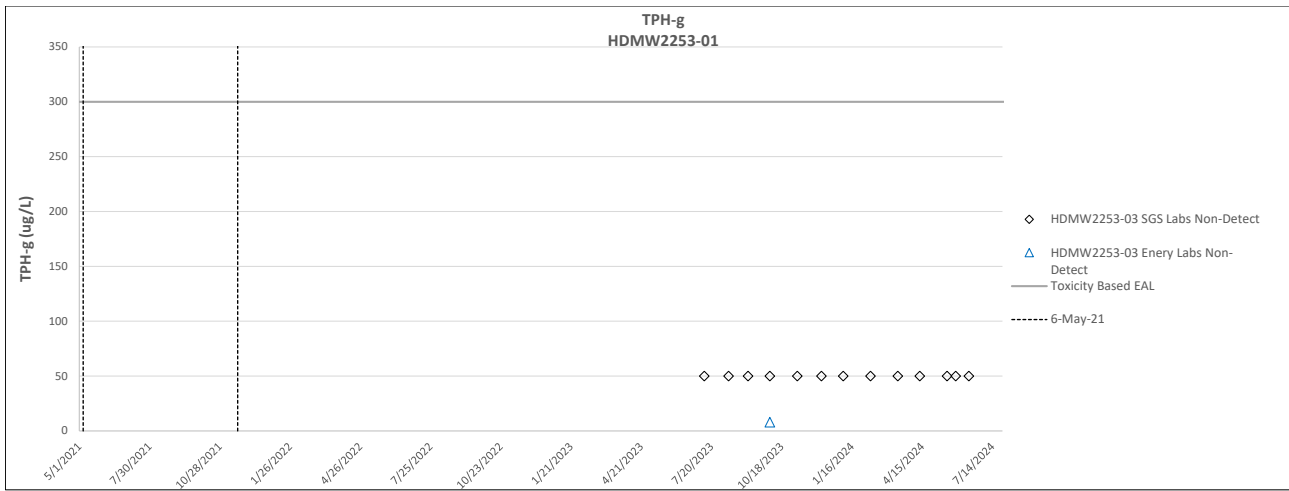


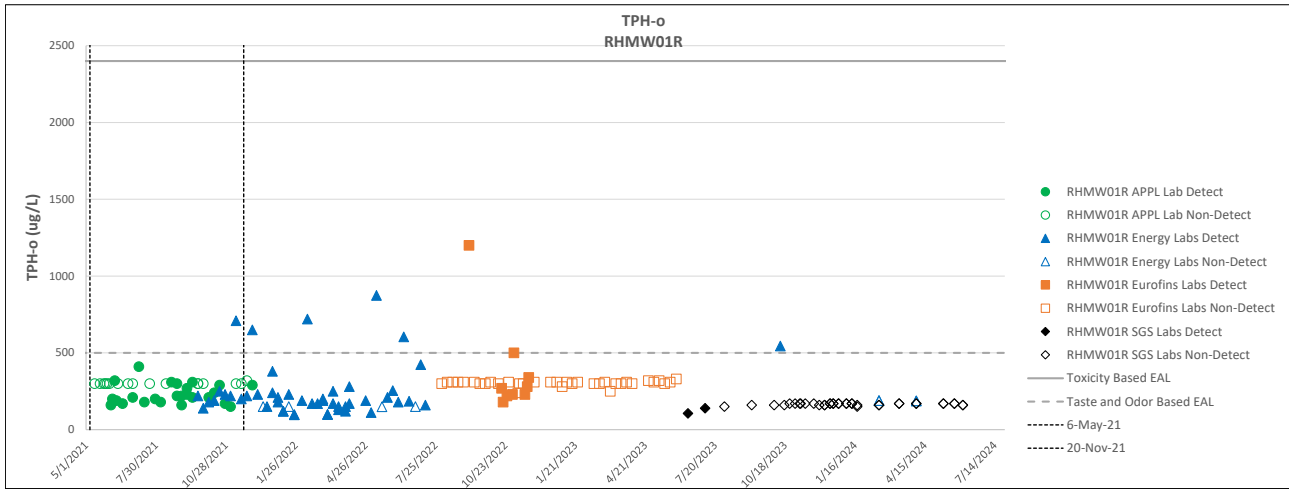
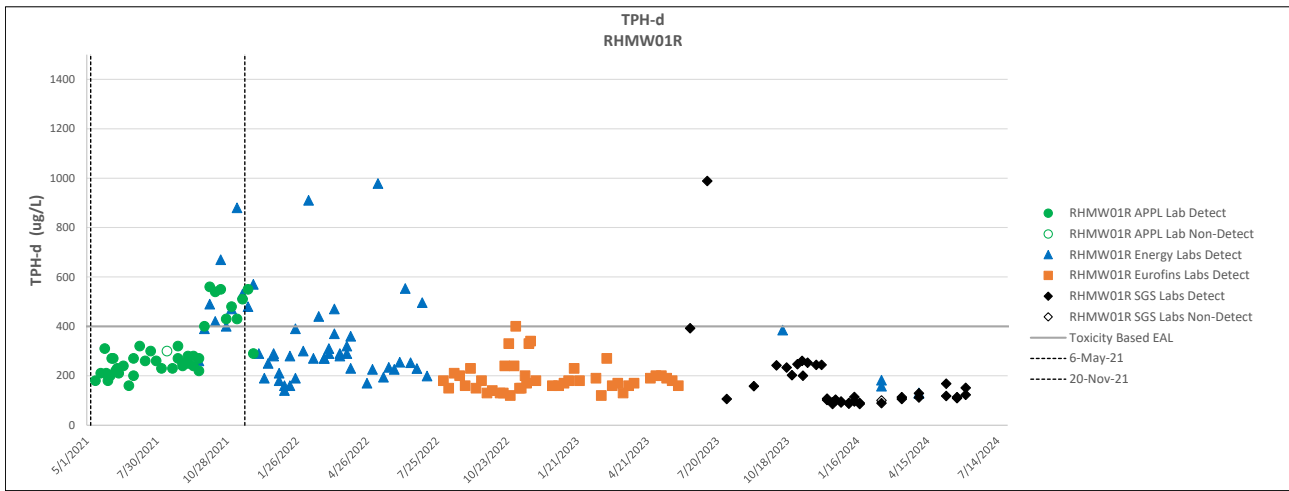
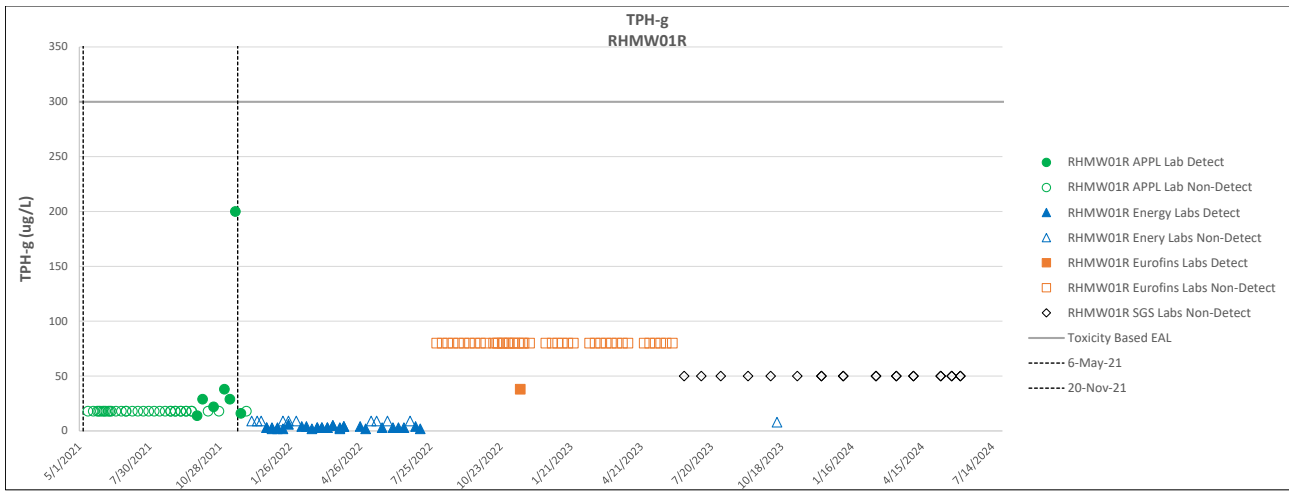




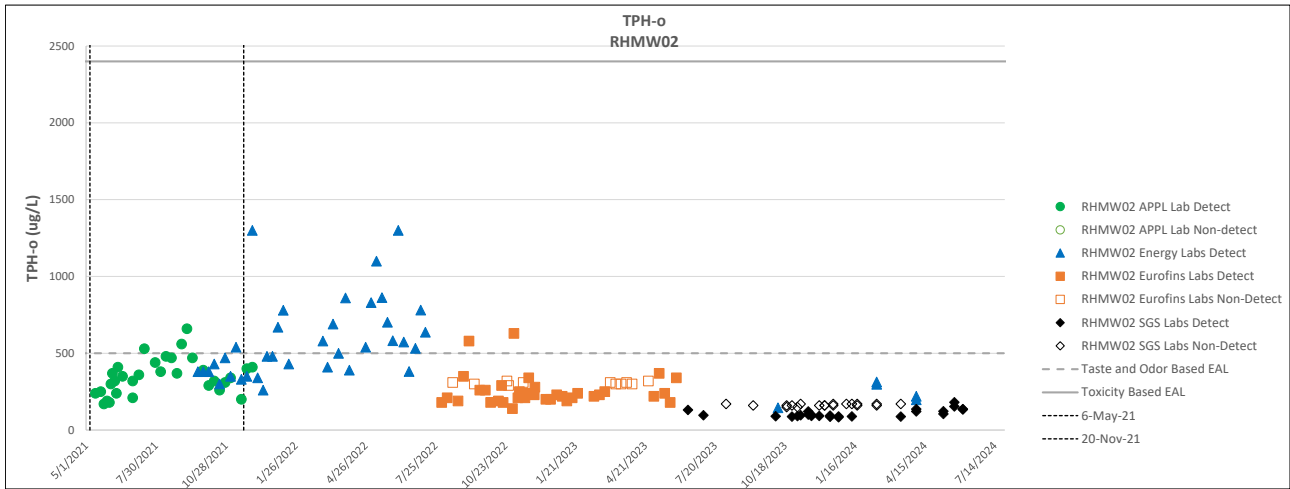
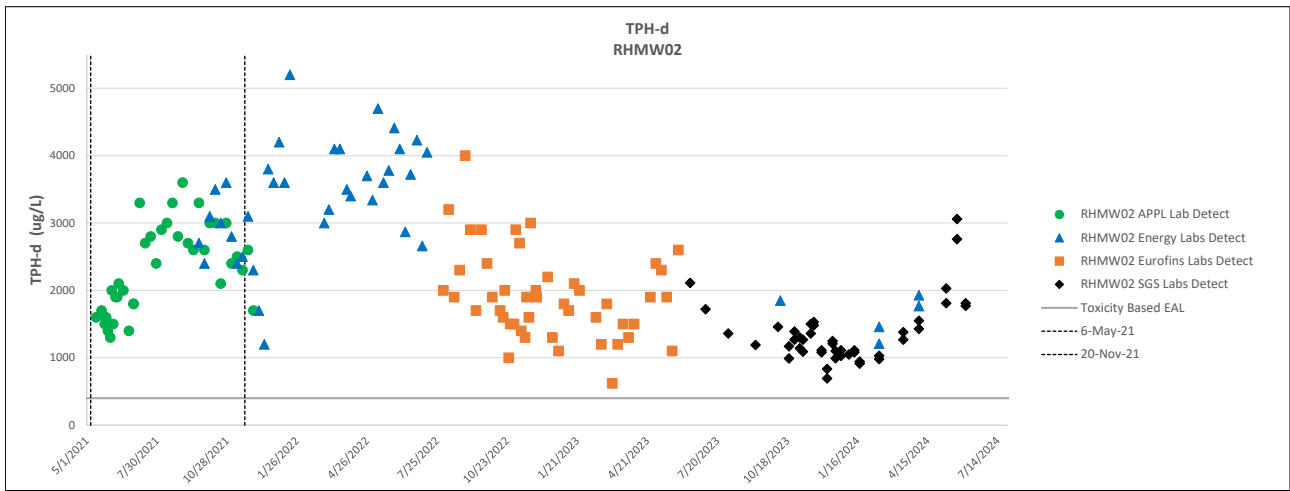
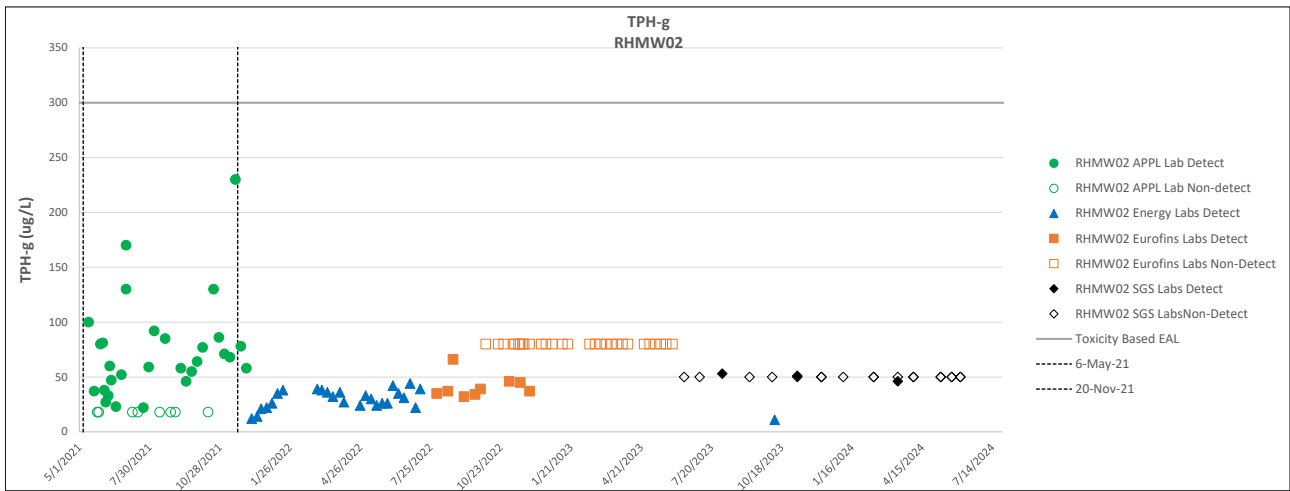


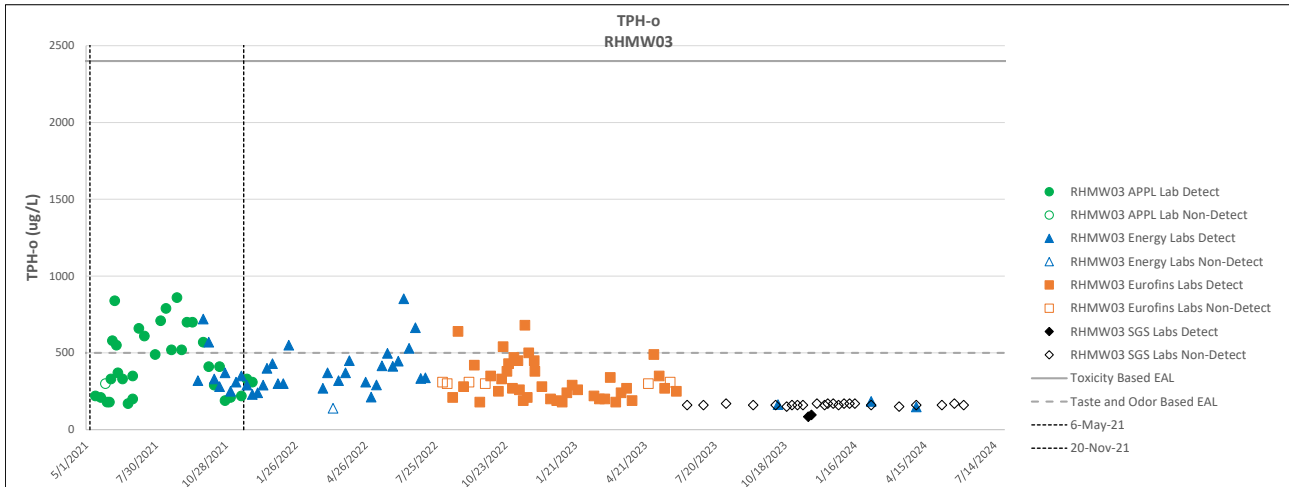
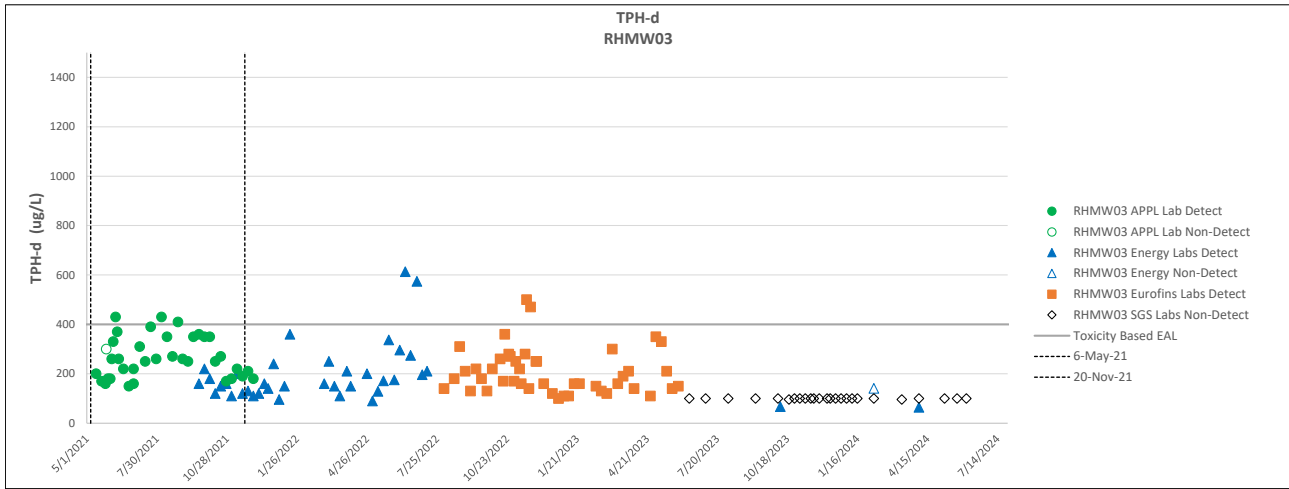
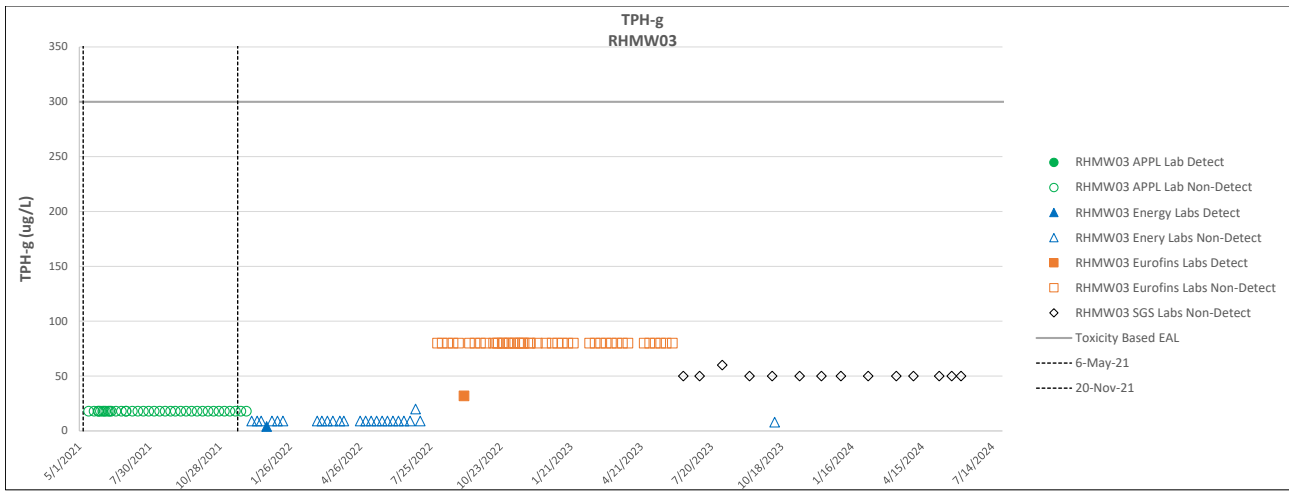


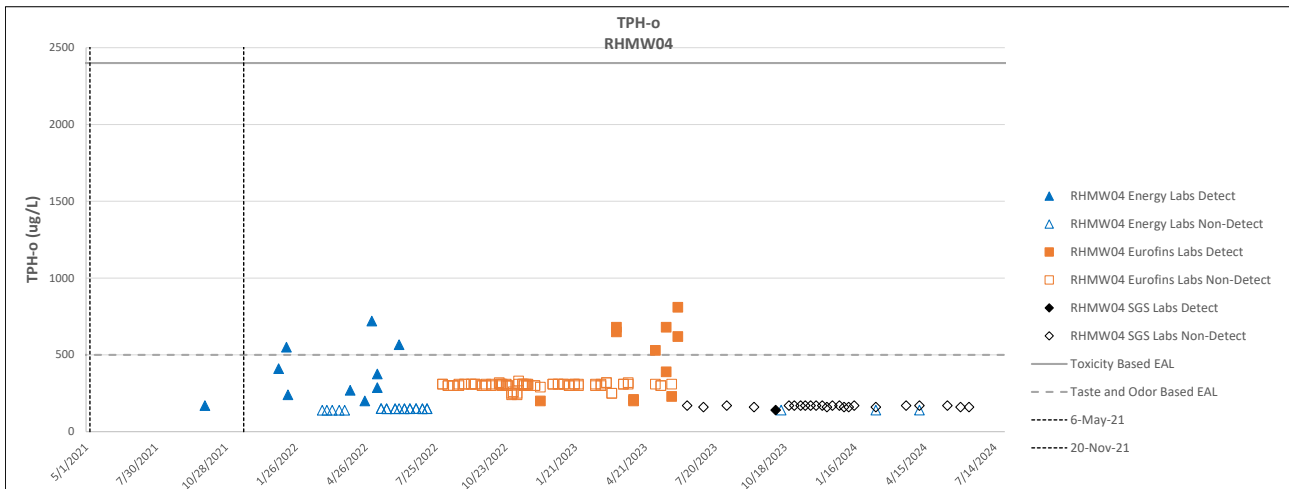
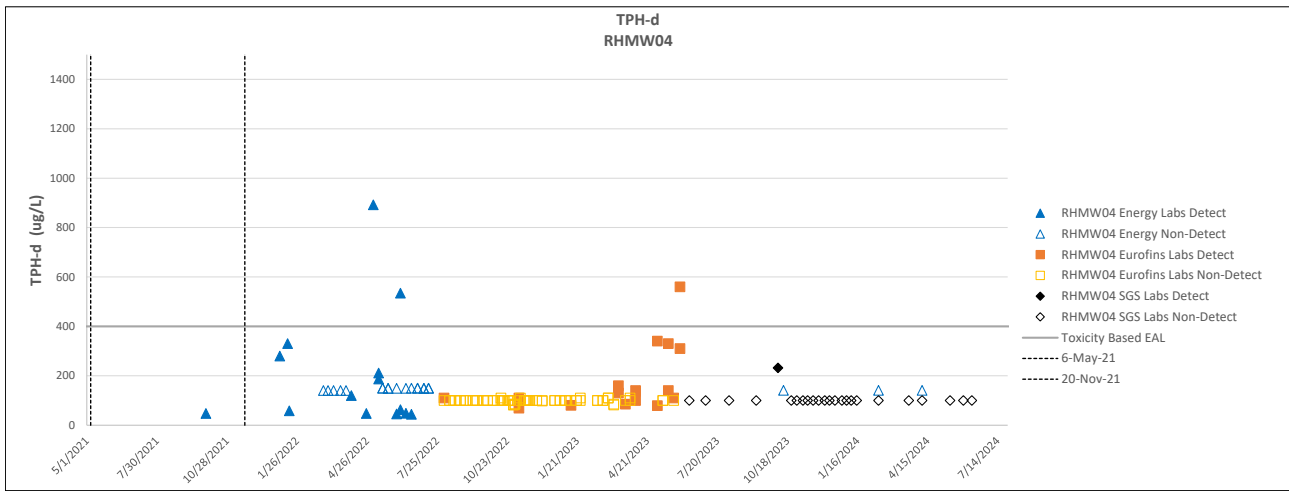
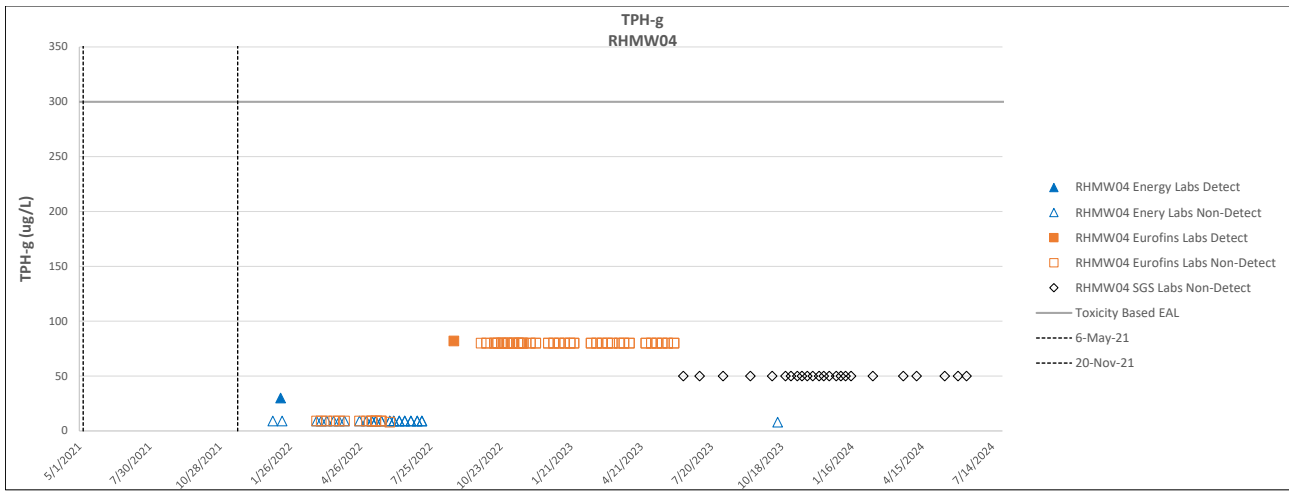


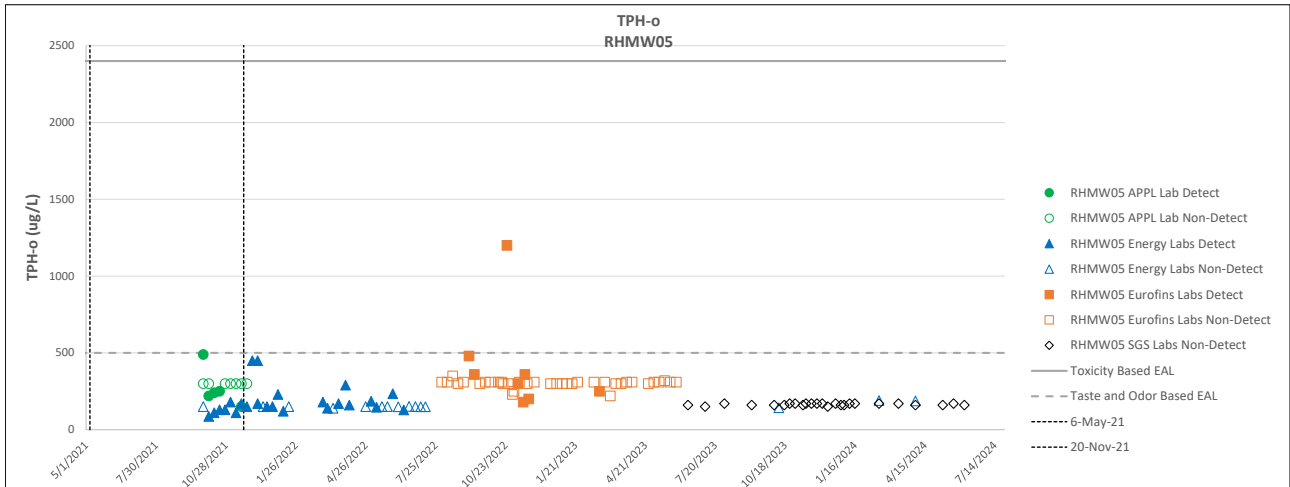
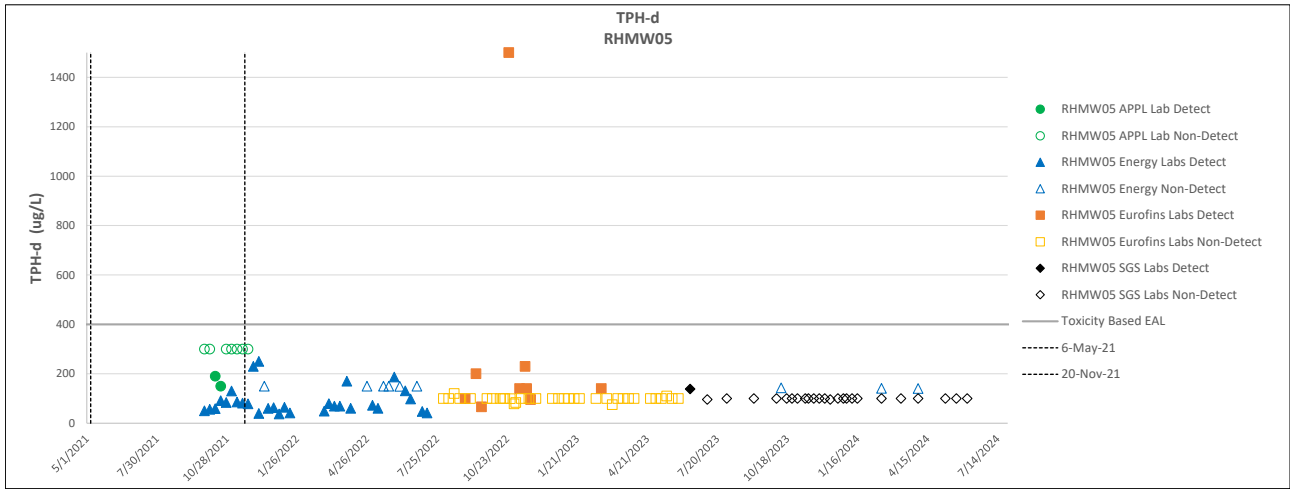
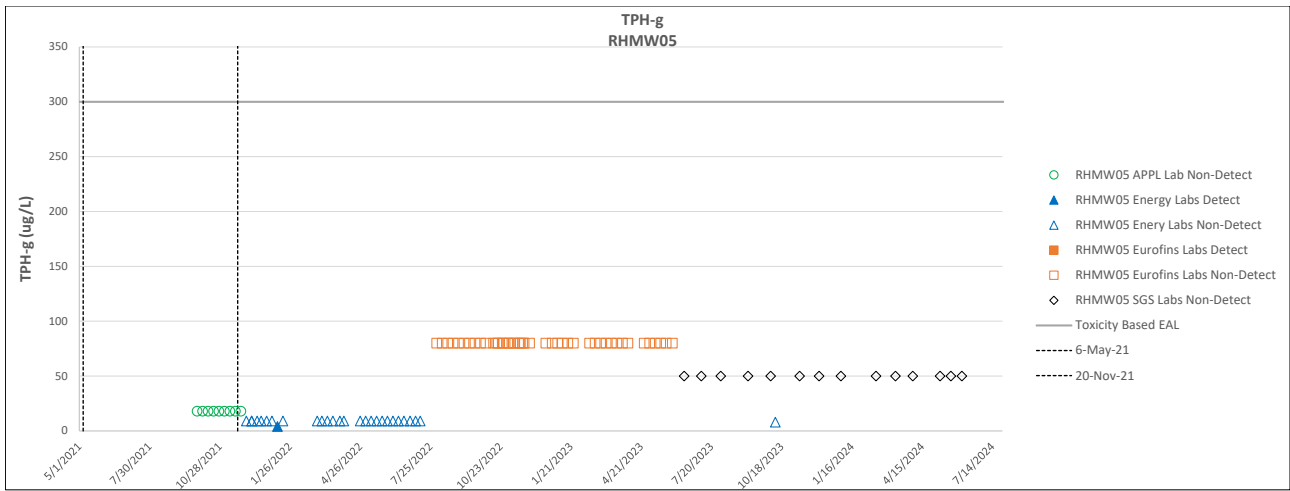


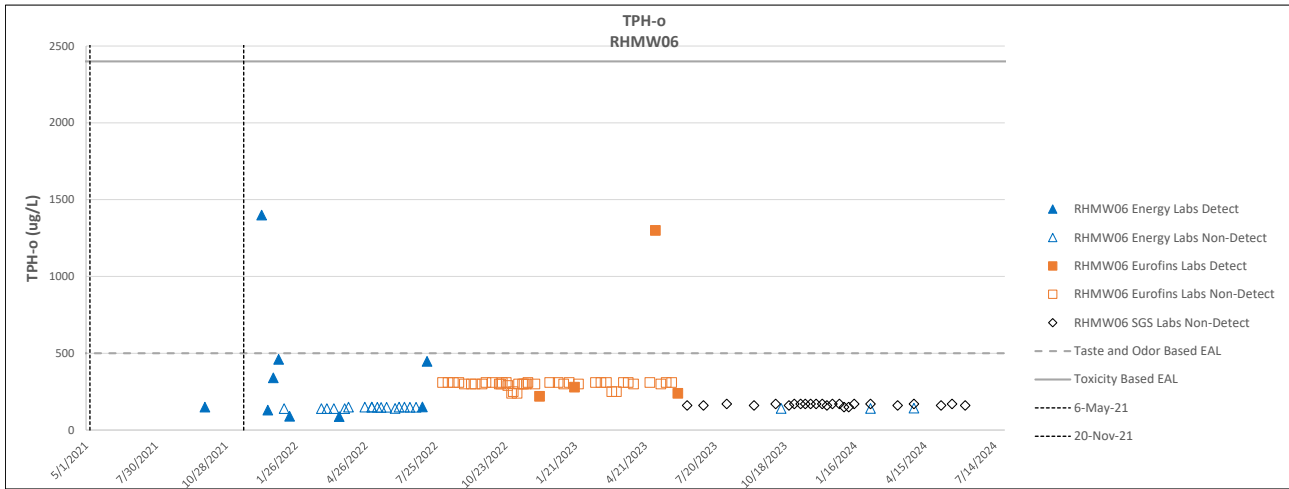
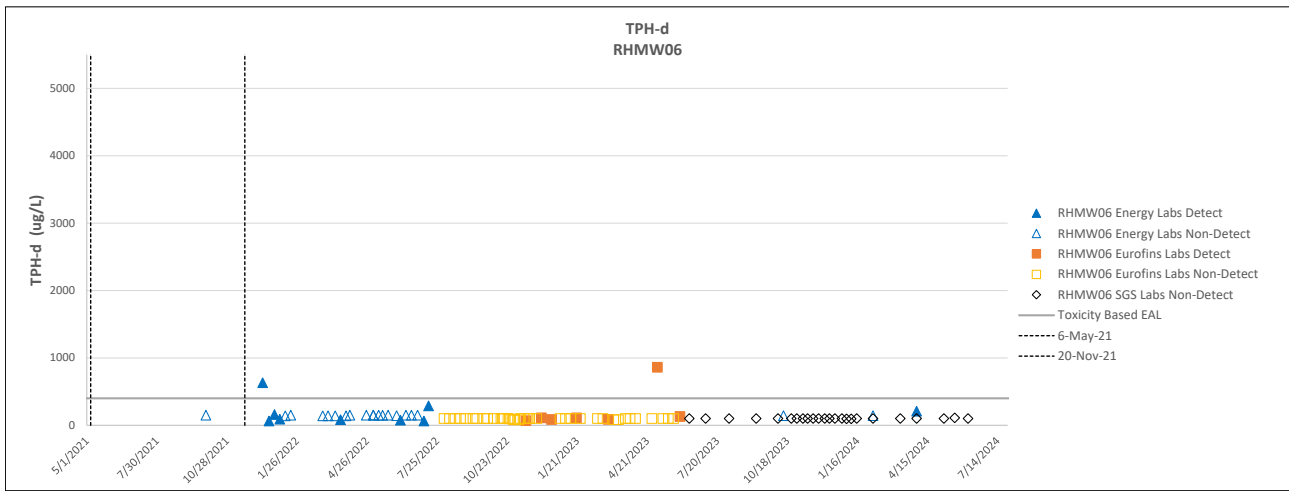
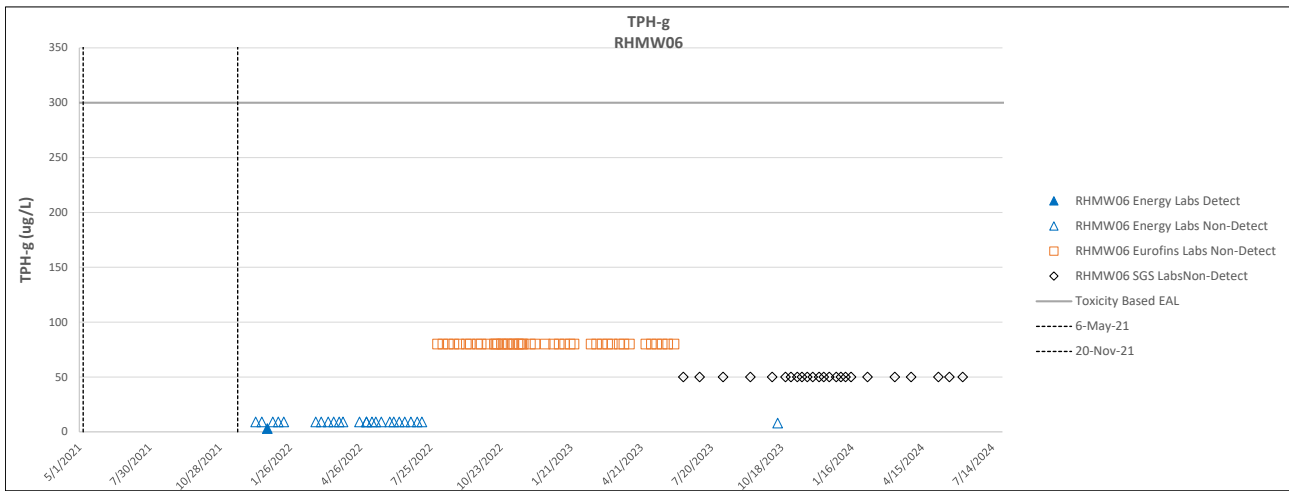
Notes:
¹ Sample collected on 12/20/2021 was reanalyzed due to inconsistency with historic trend and suspected container switch. Reanalysis results reported.

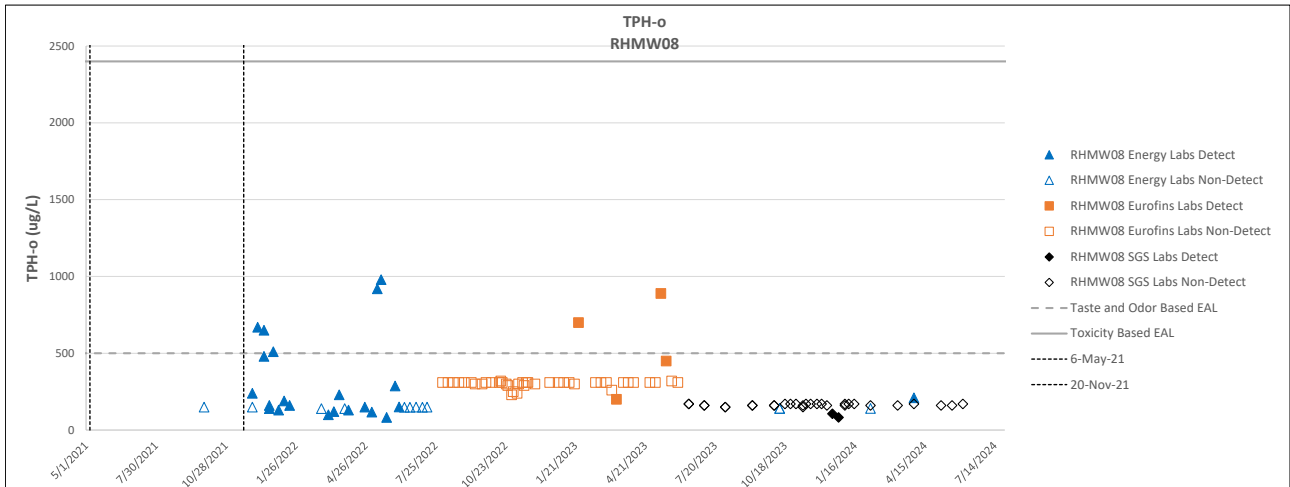
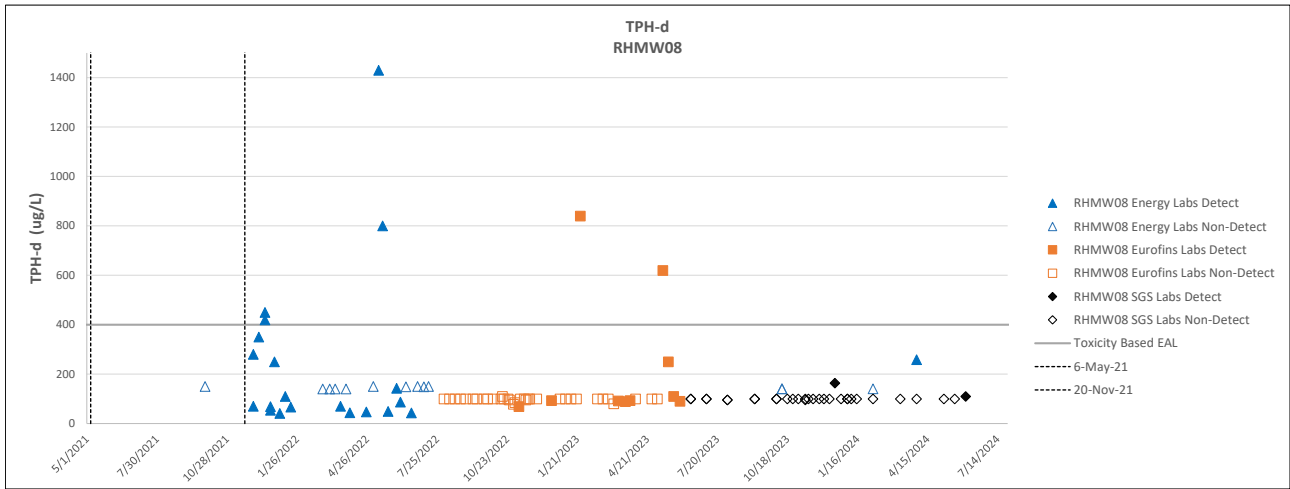
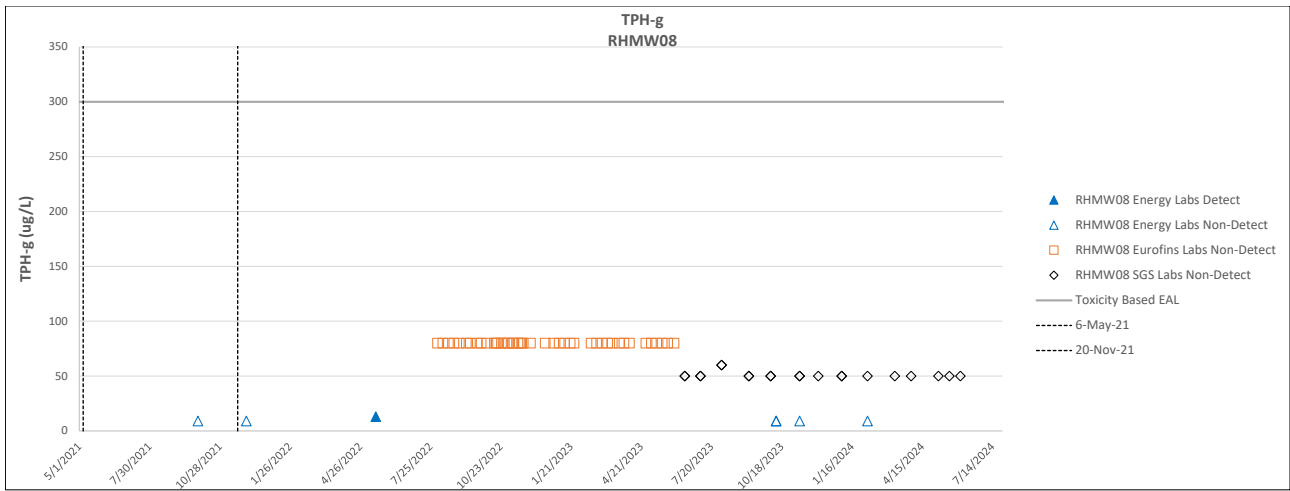


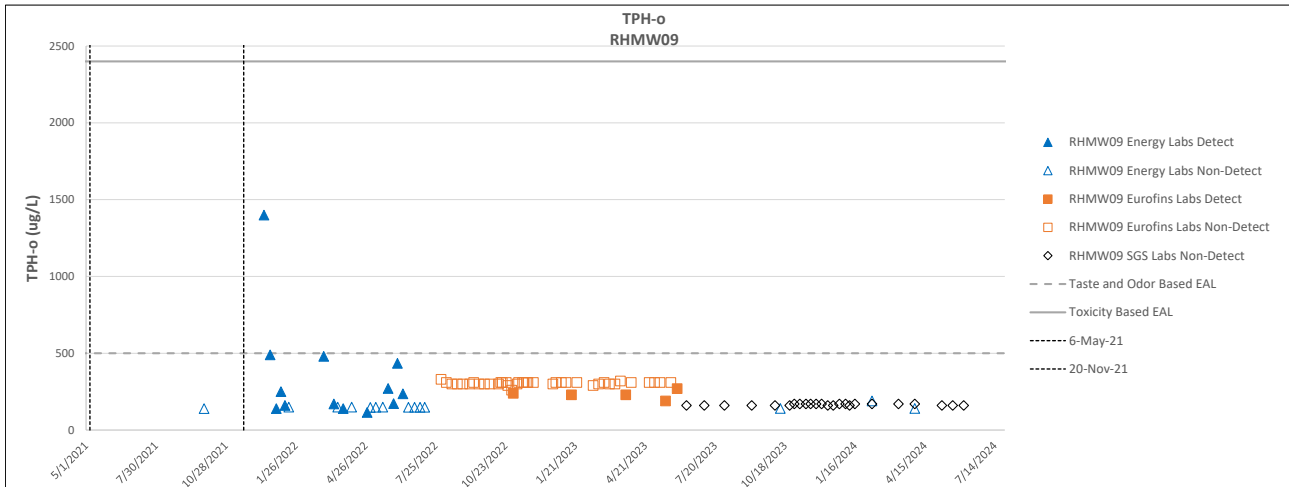
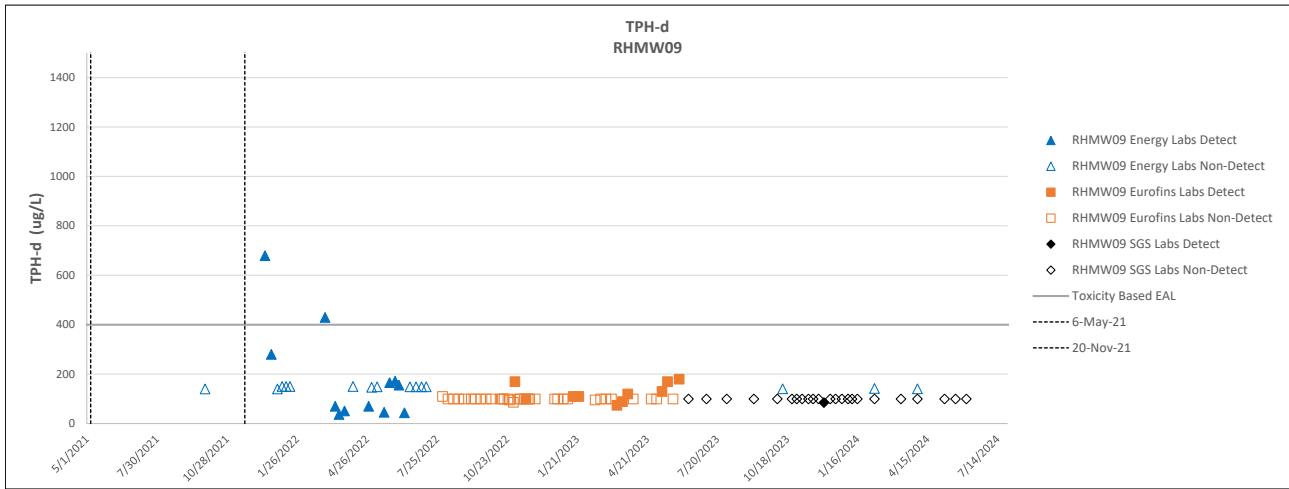
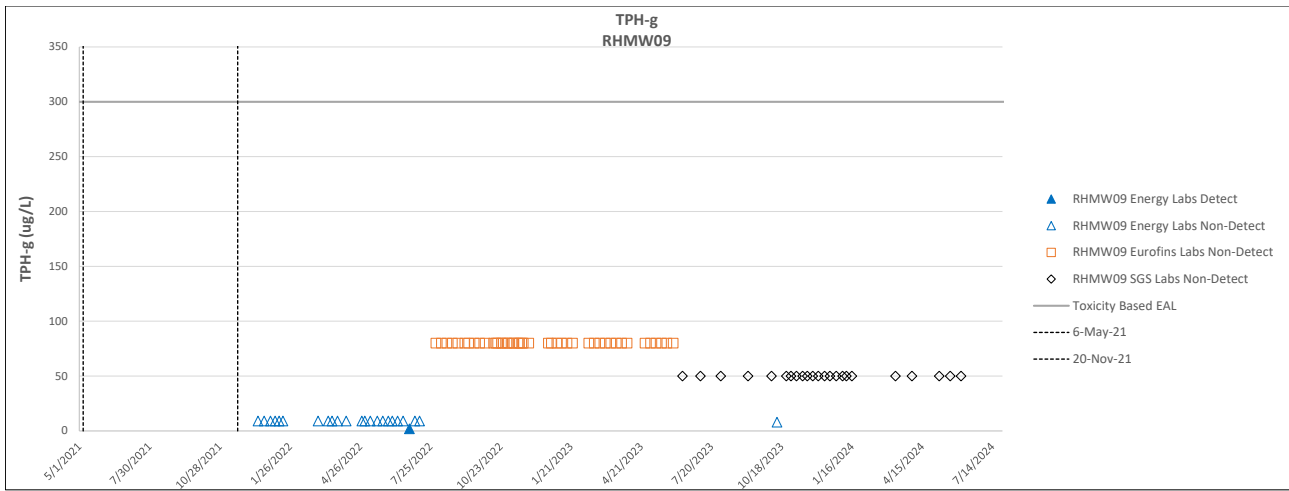


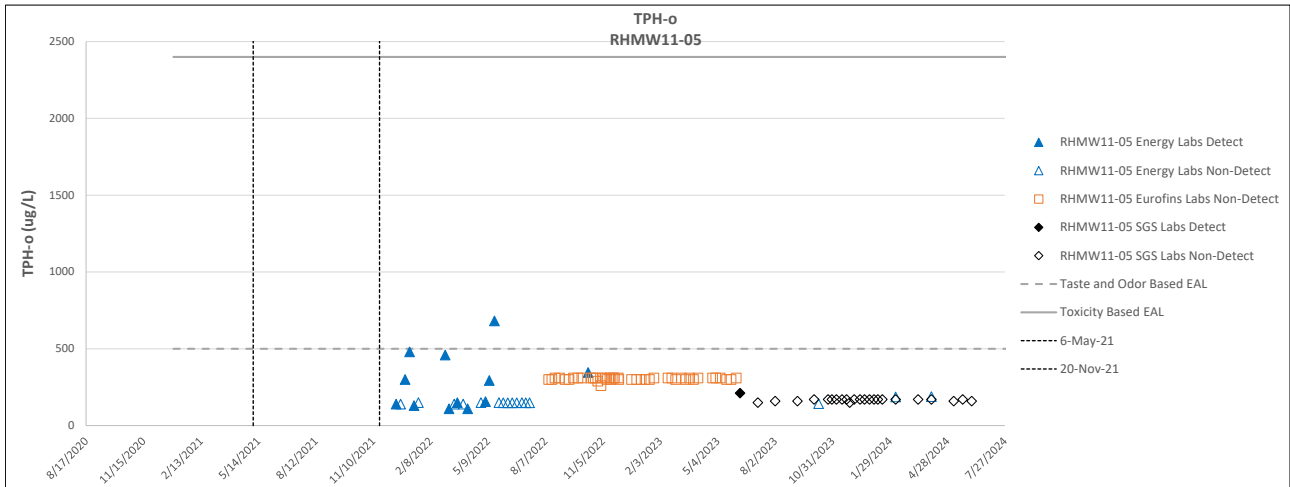
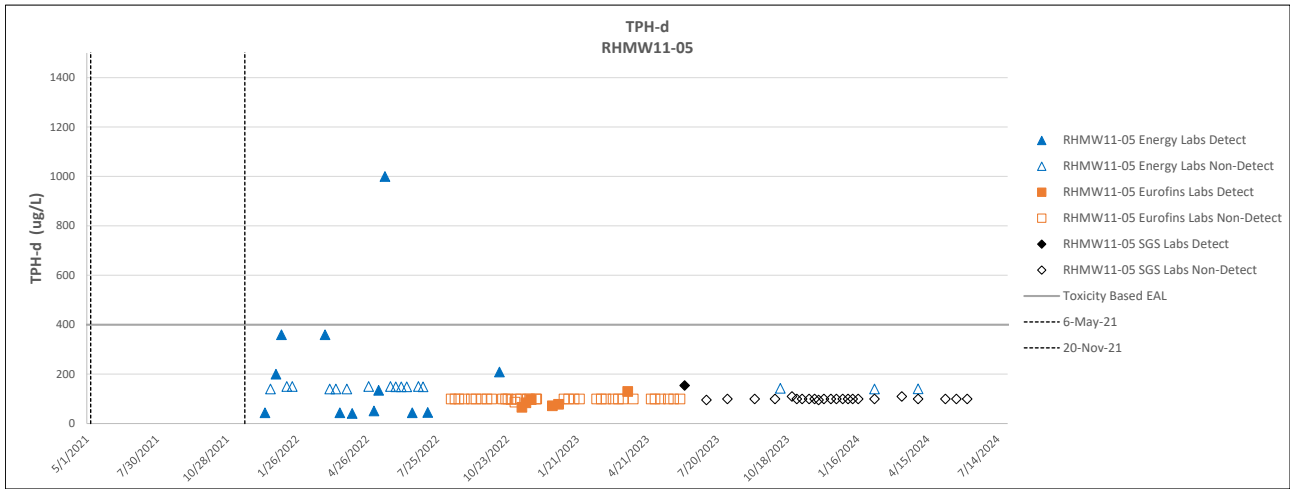
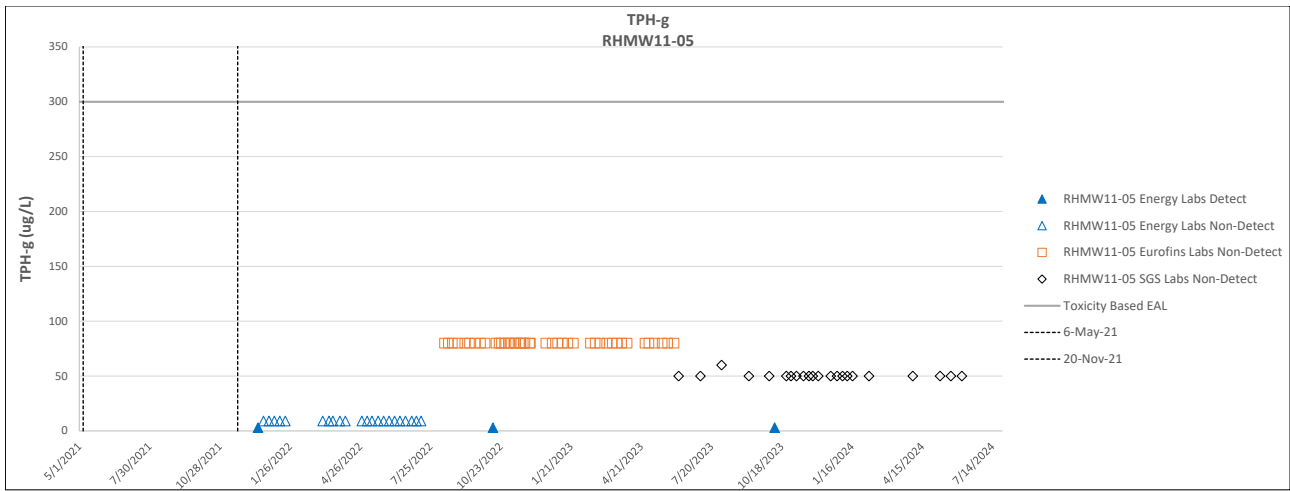


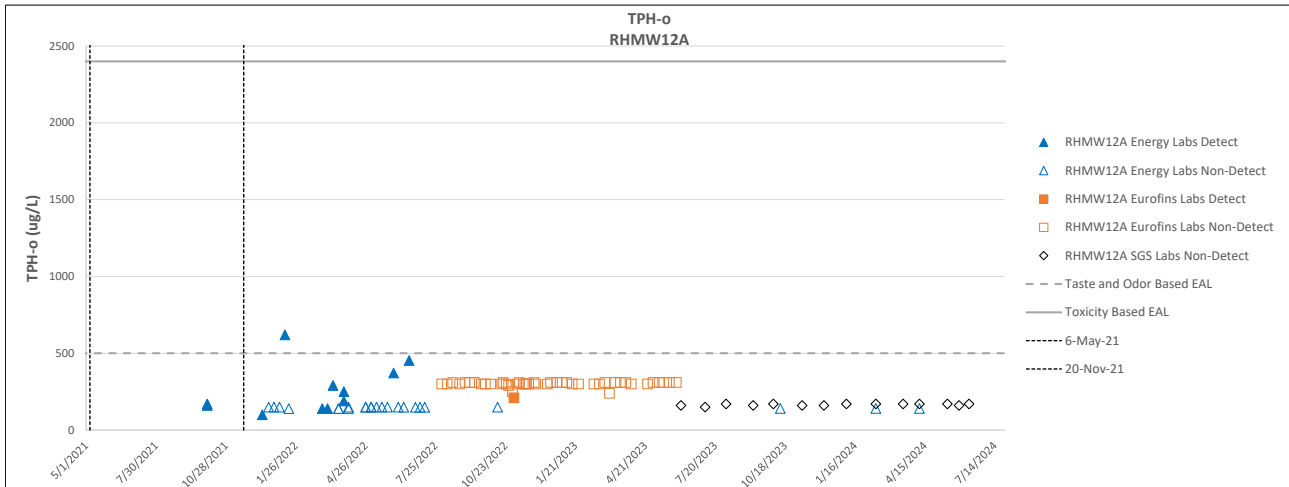
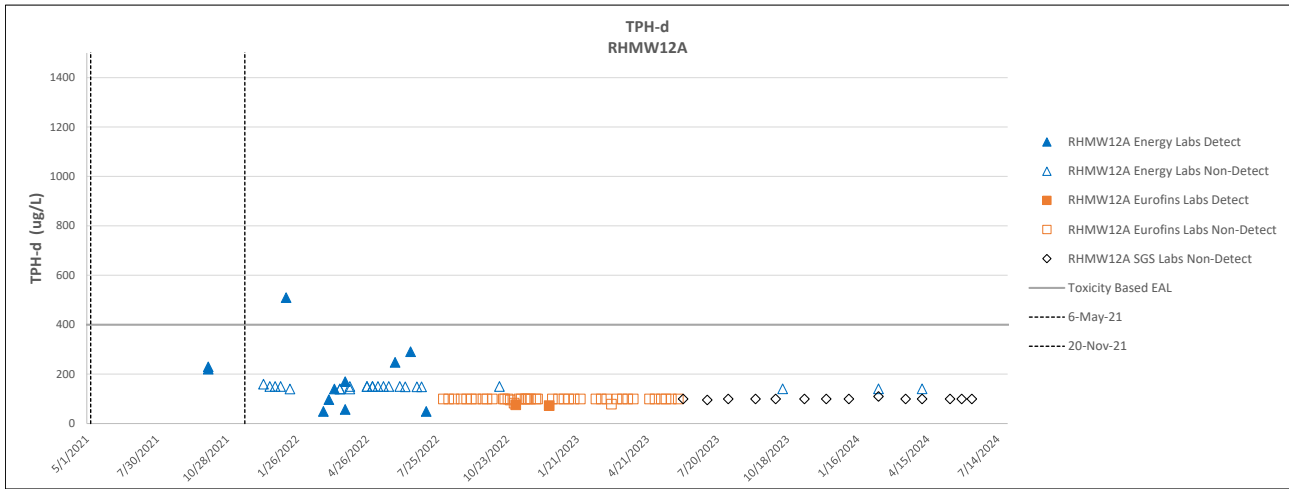
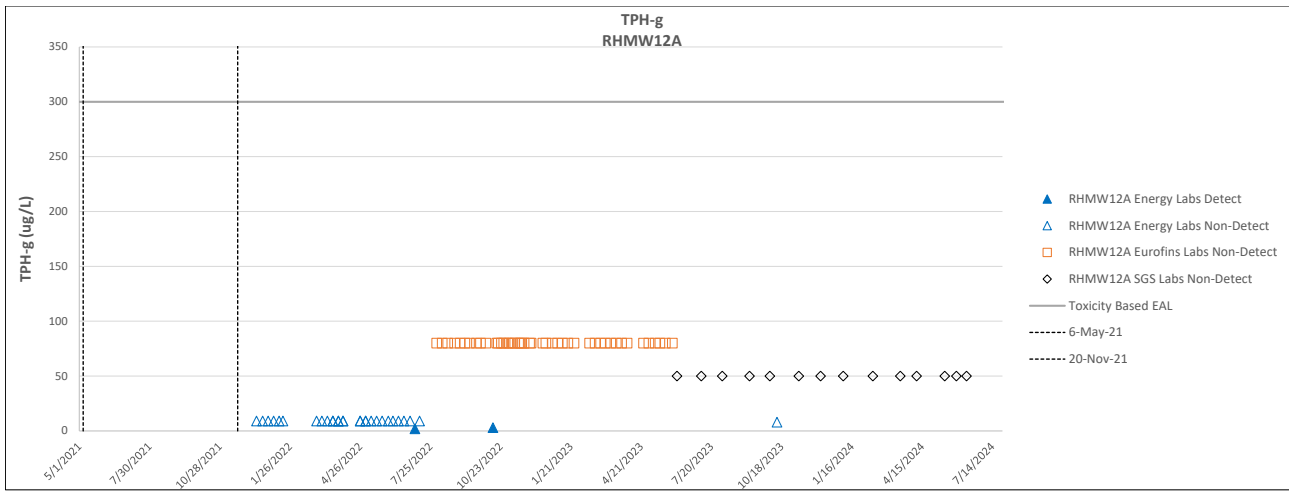


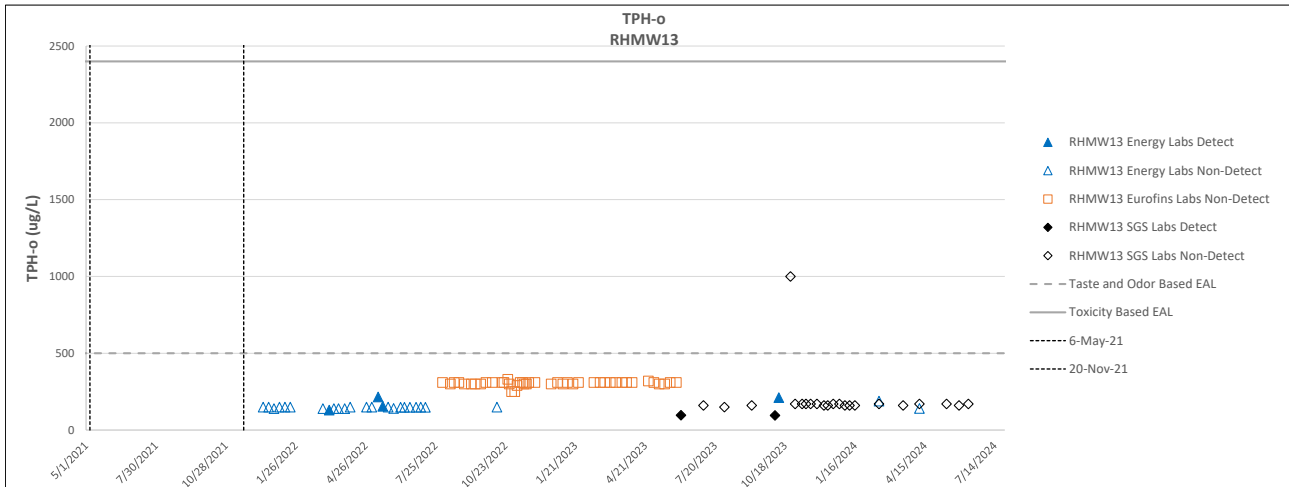
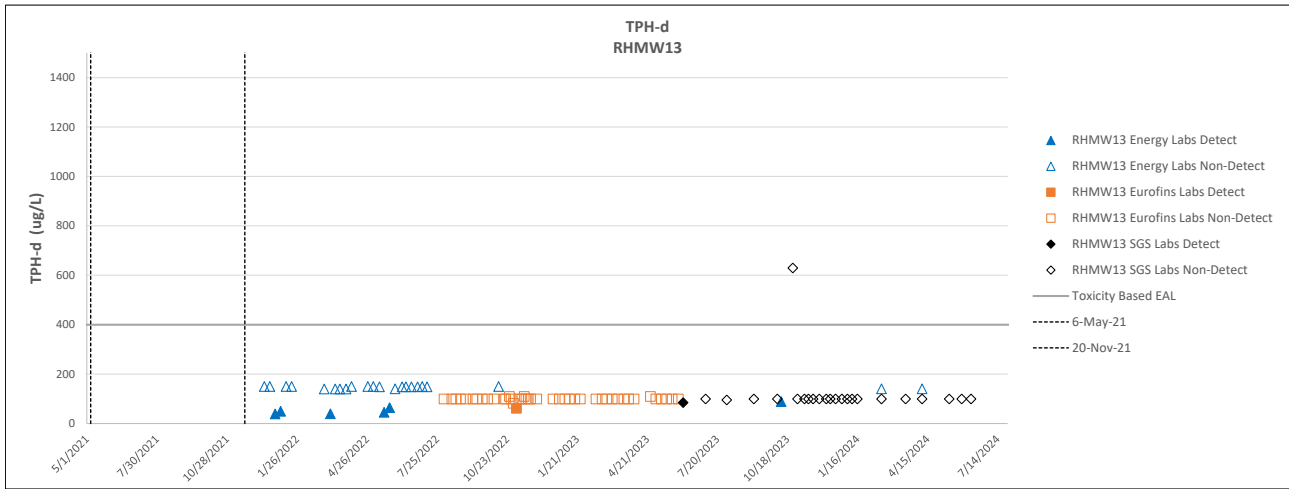
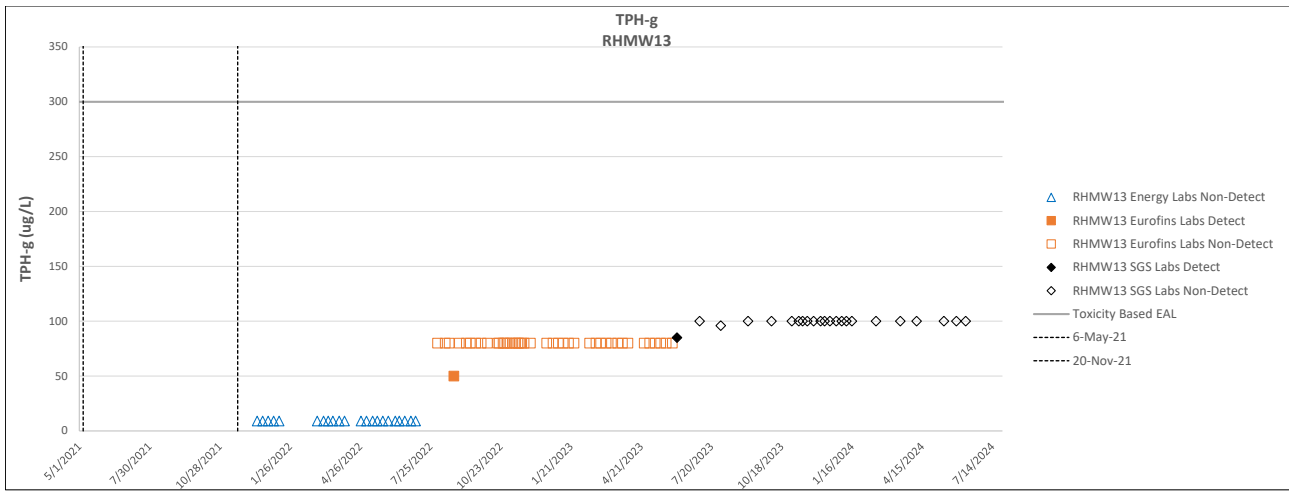




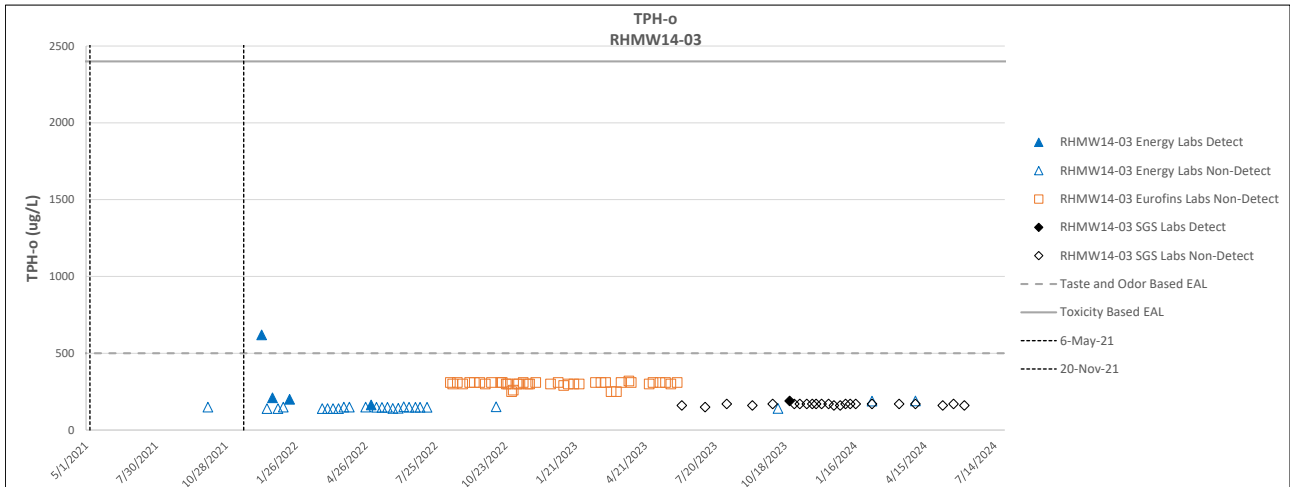
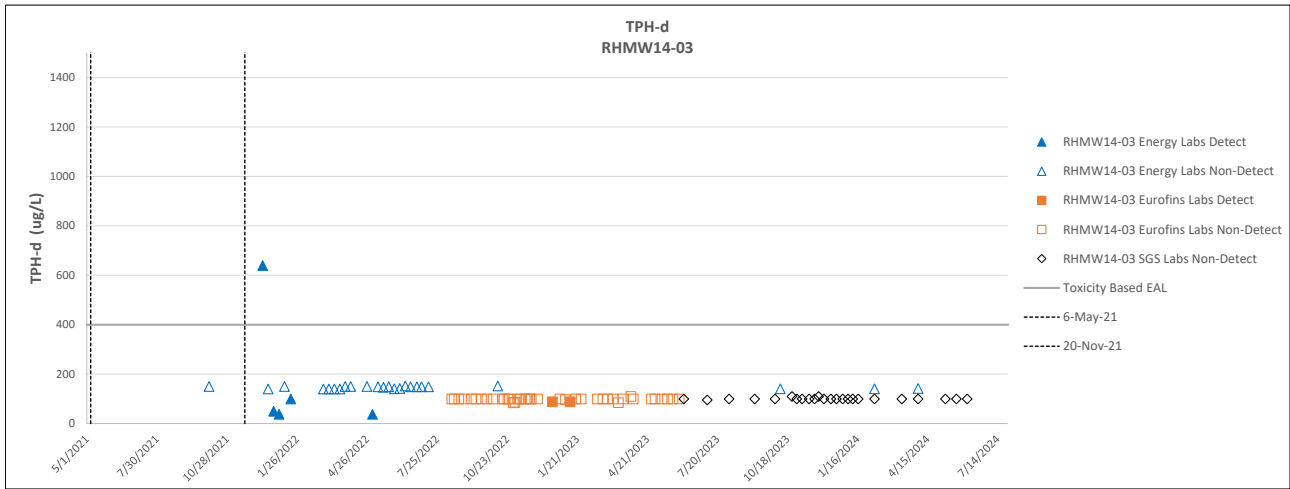
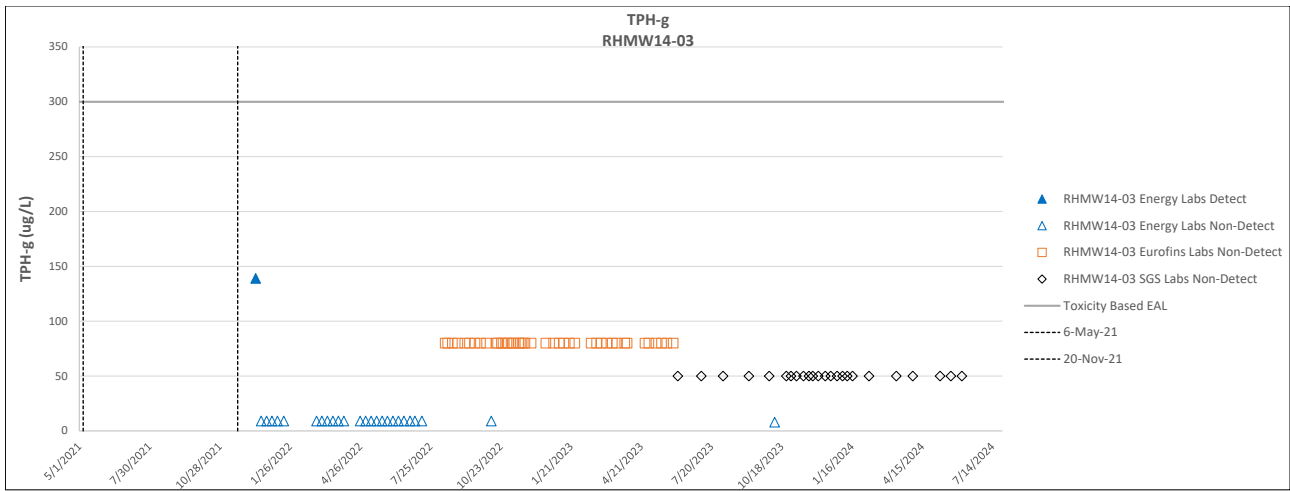


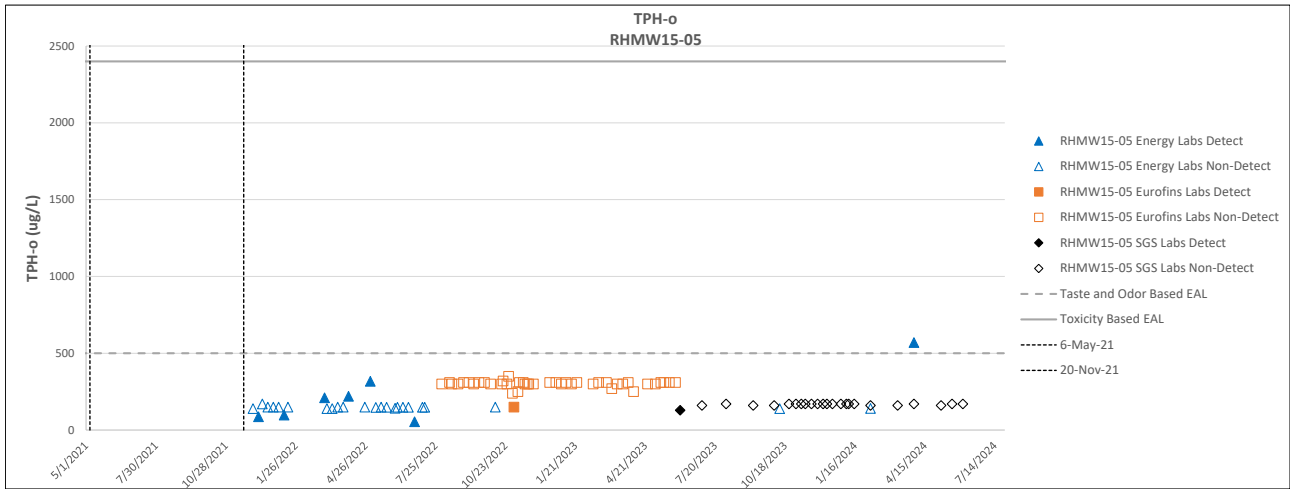
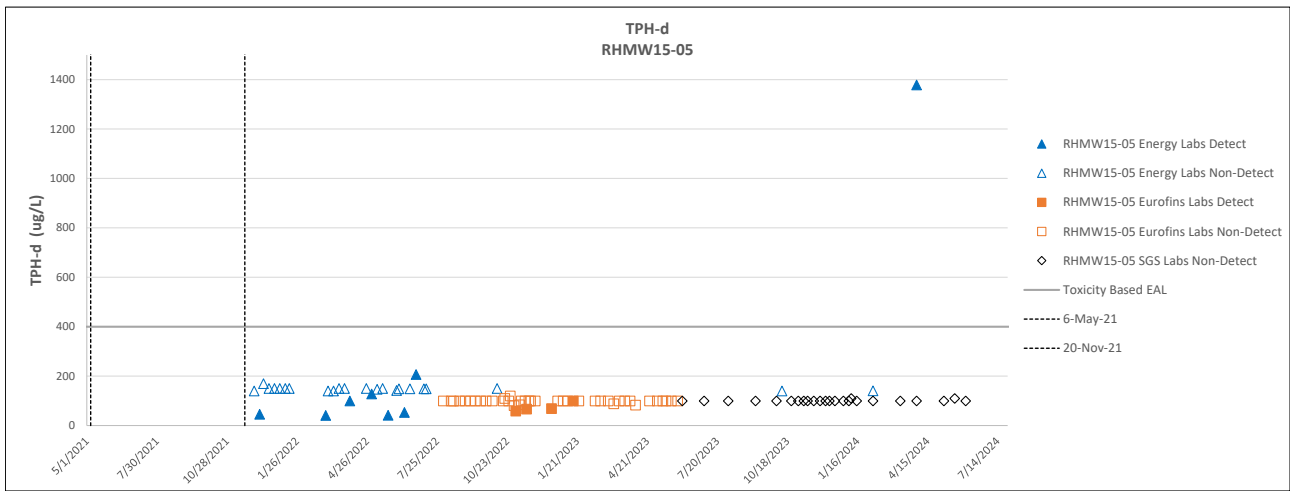
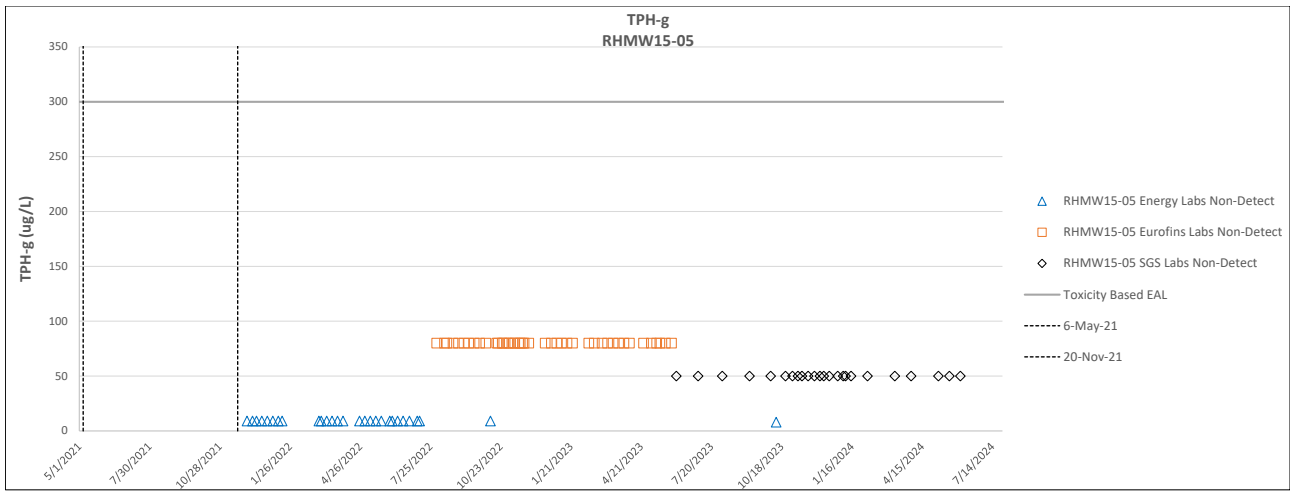


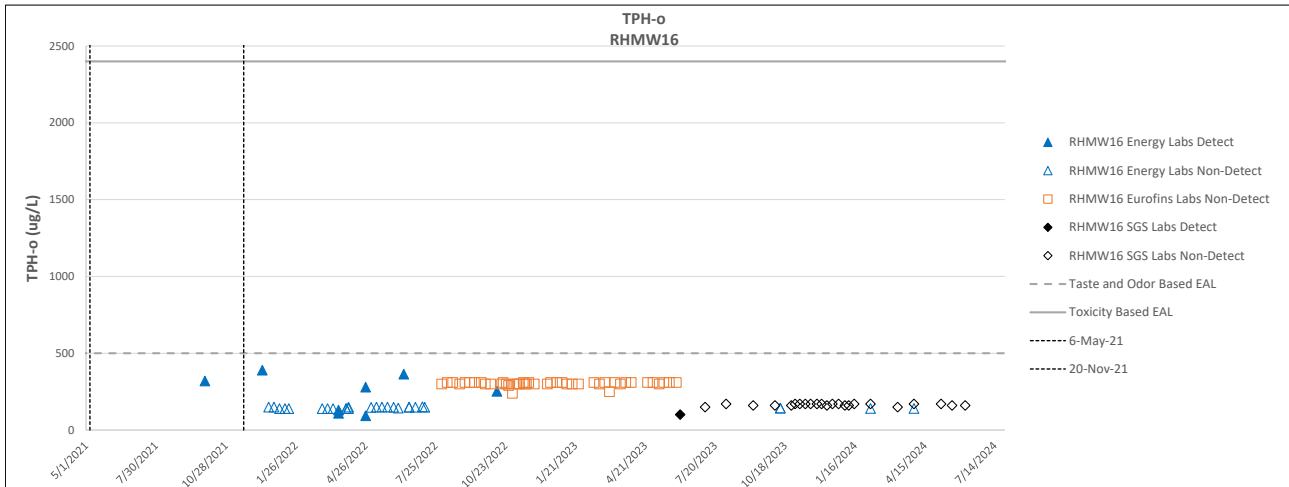
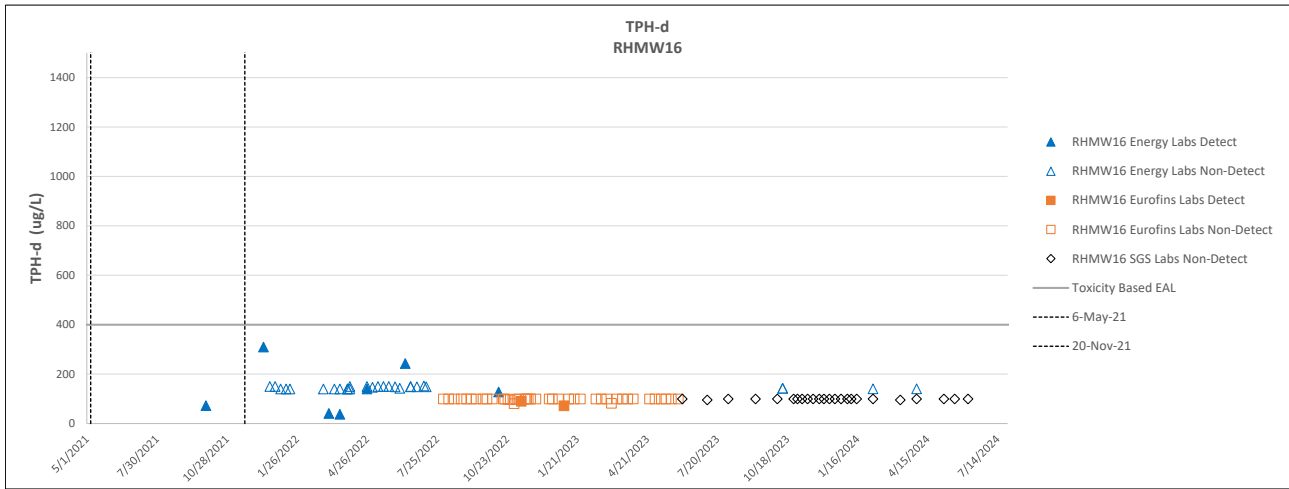
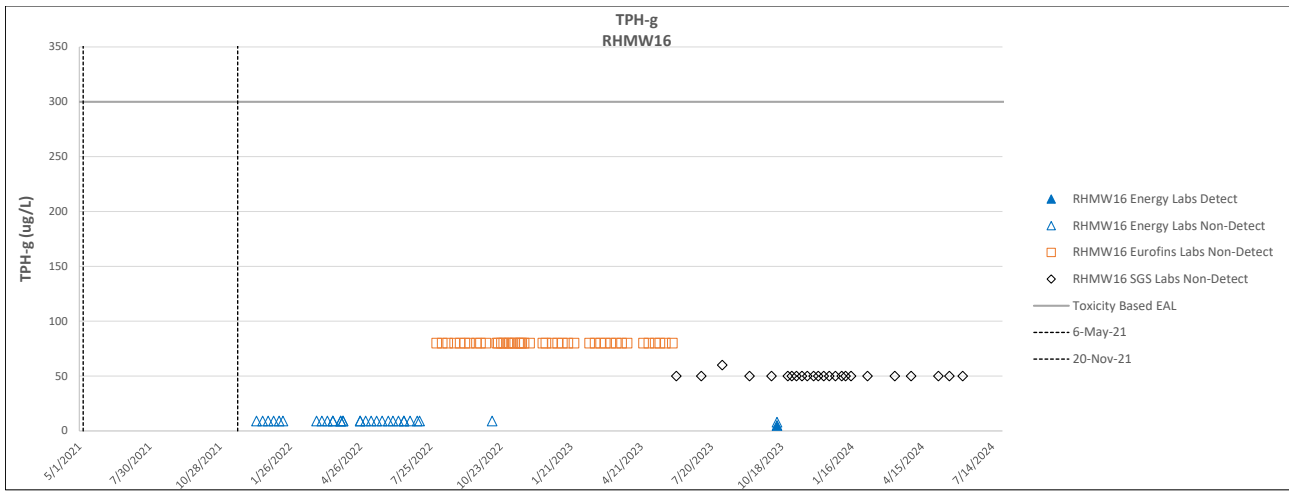


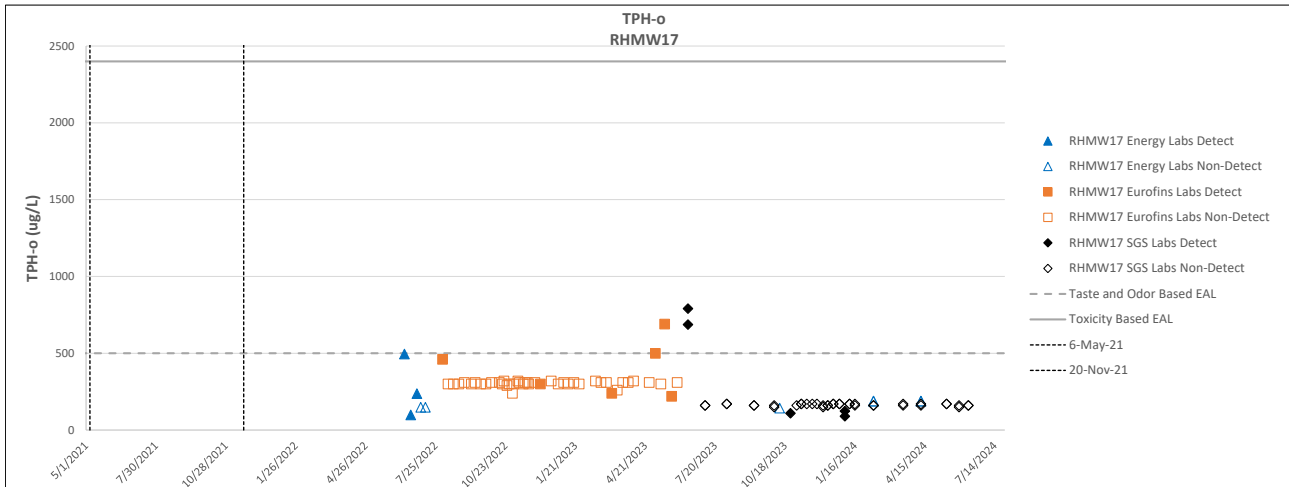
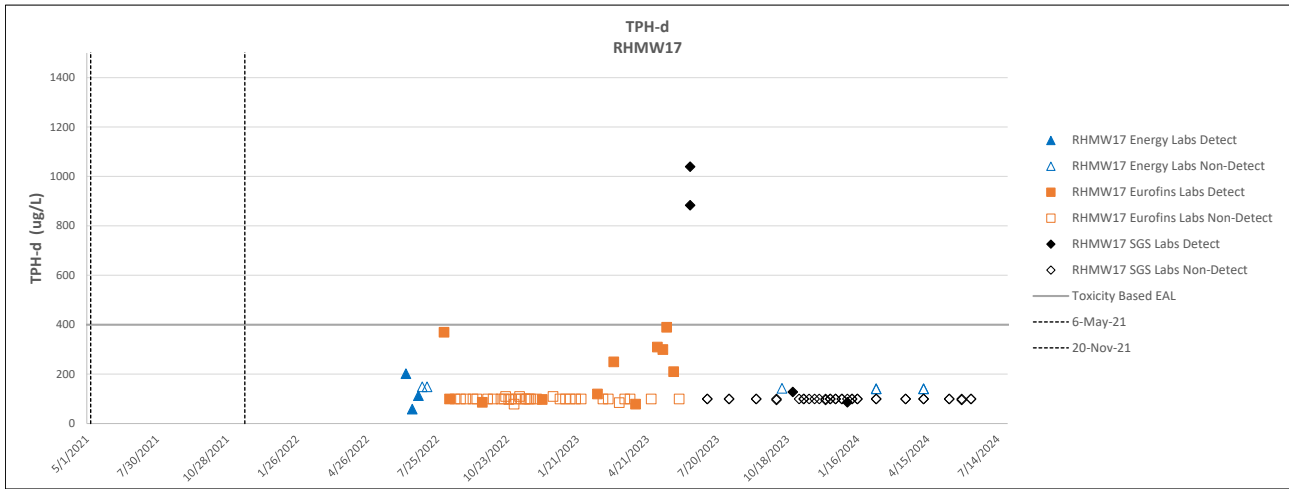
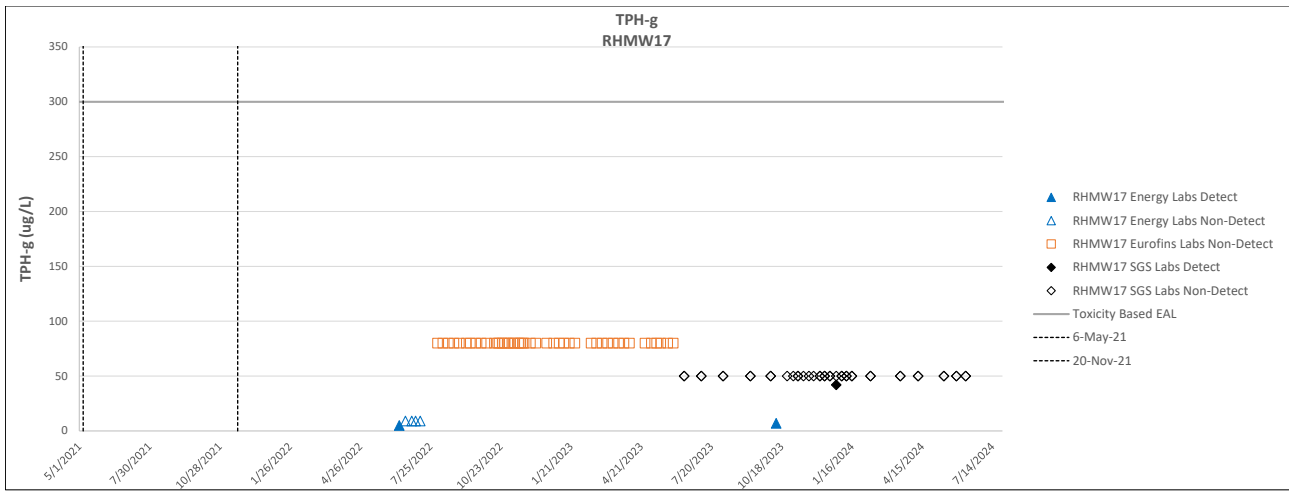


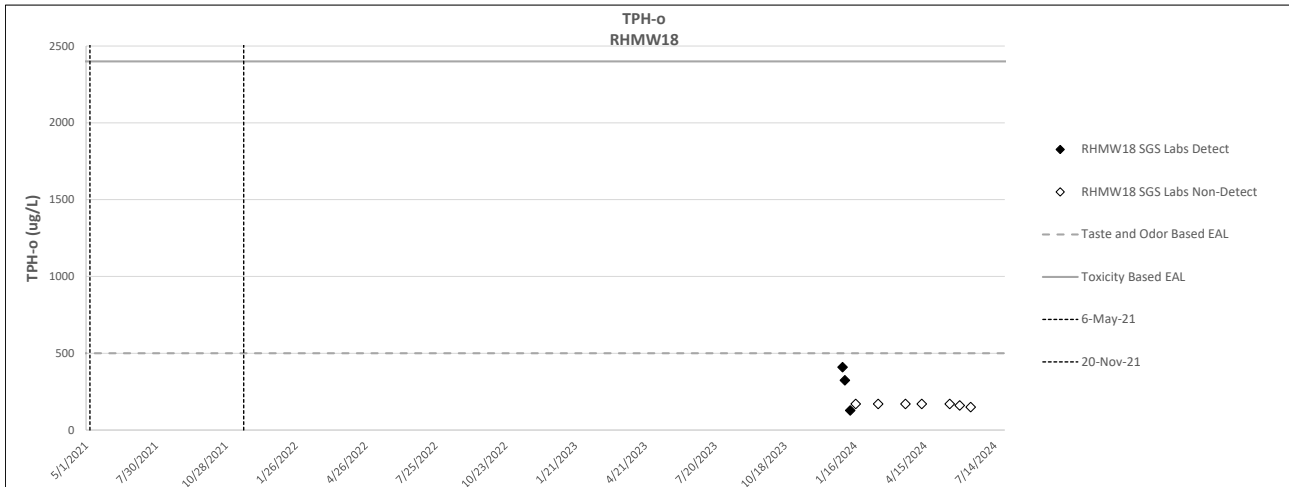
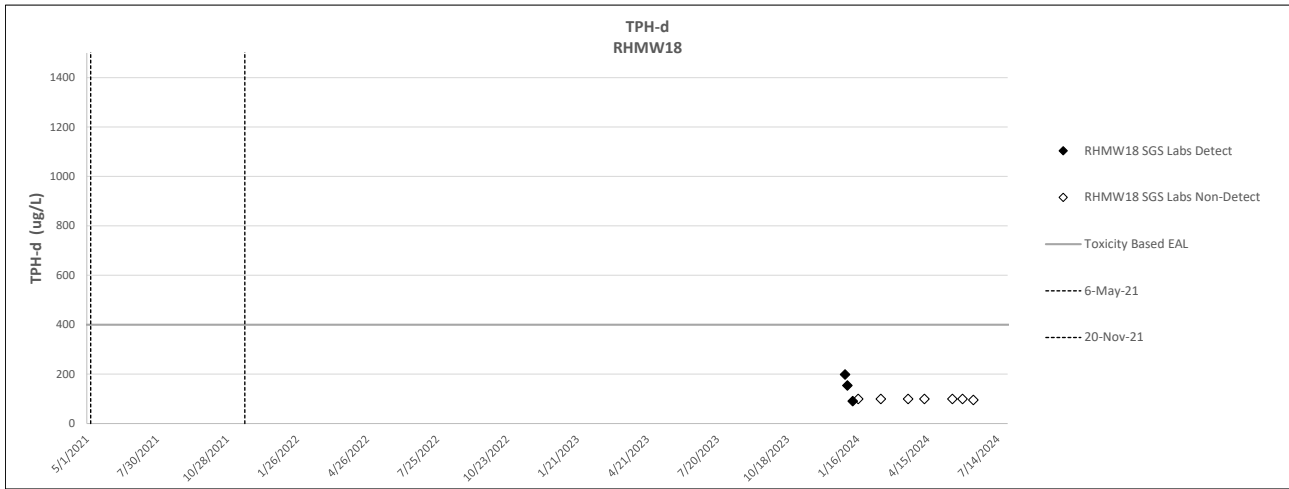
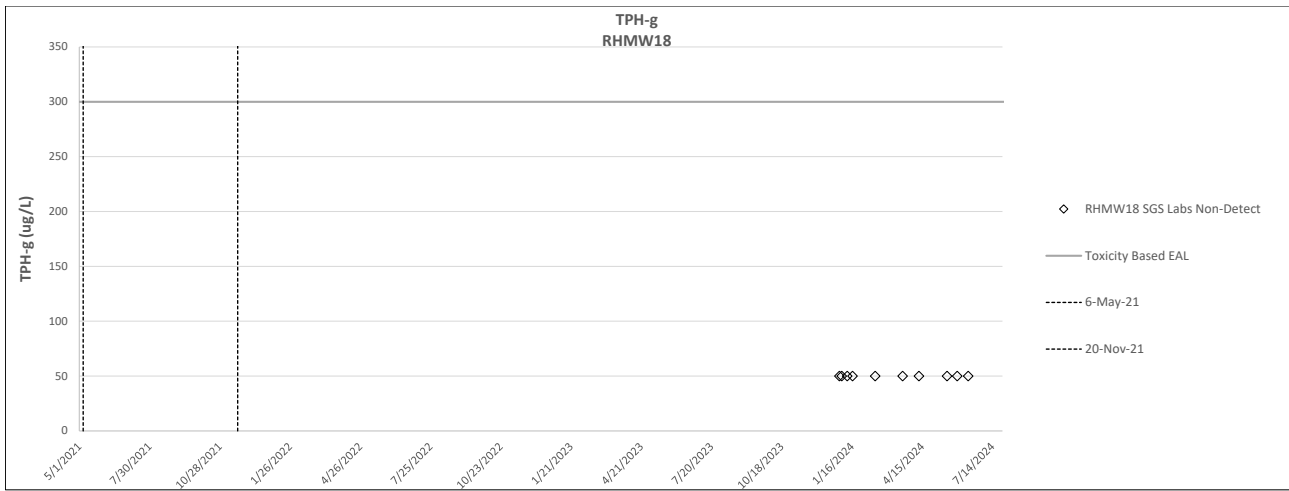
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¹ Sampling points include RHMW13-05, and RHMW13-04.

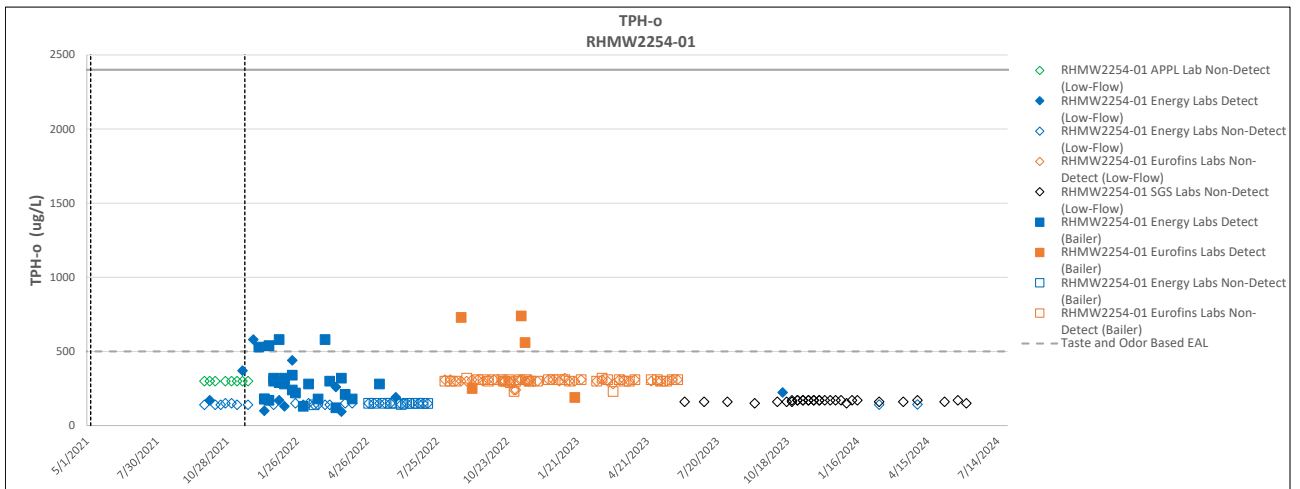
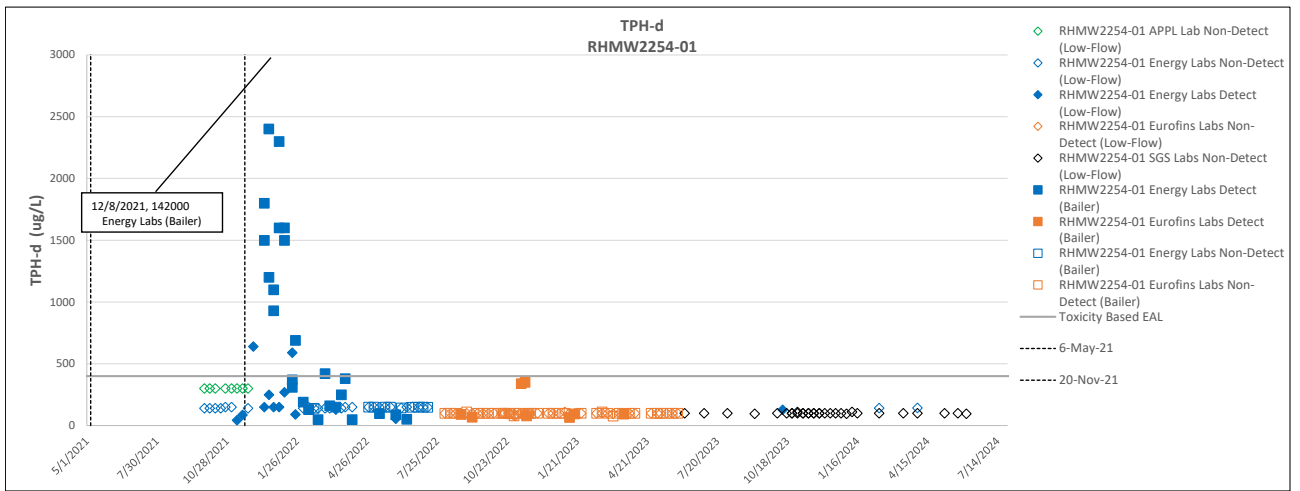
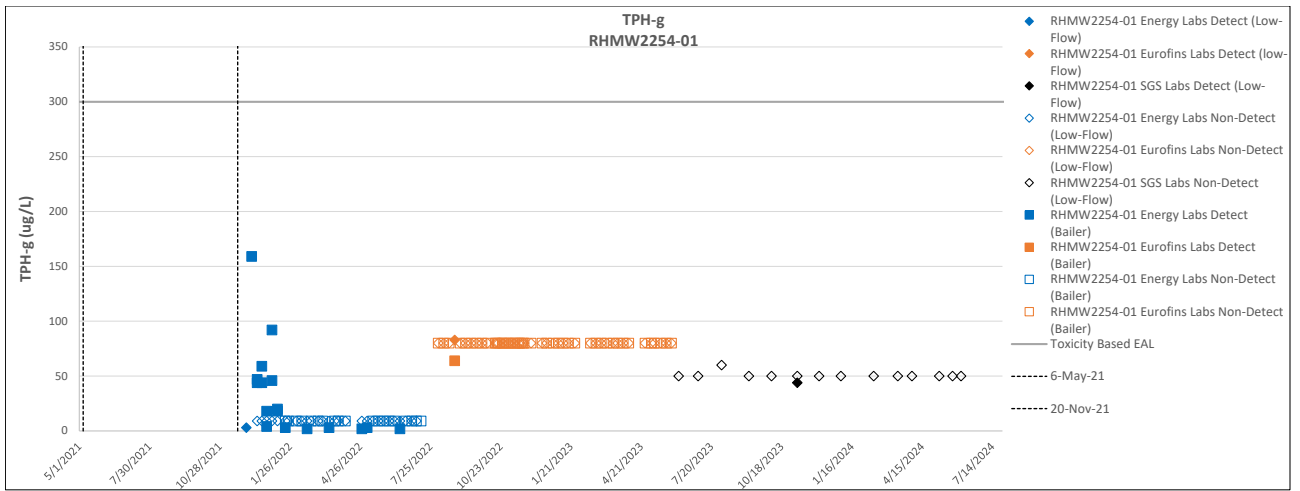


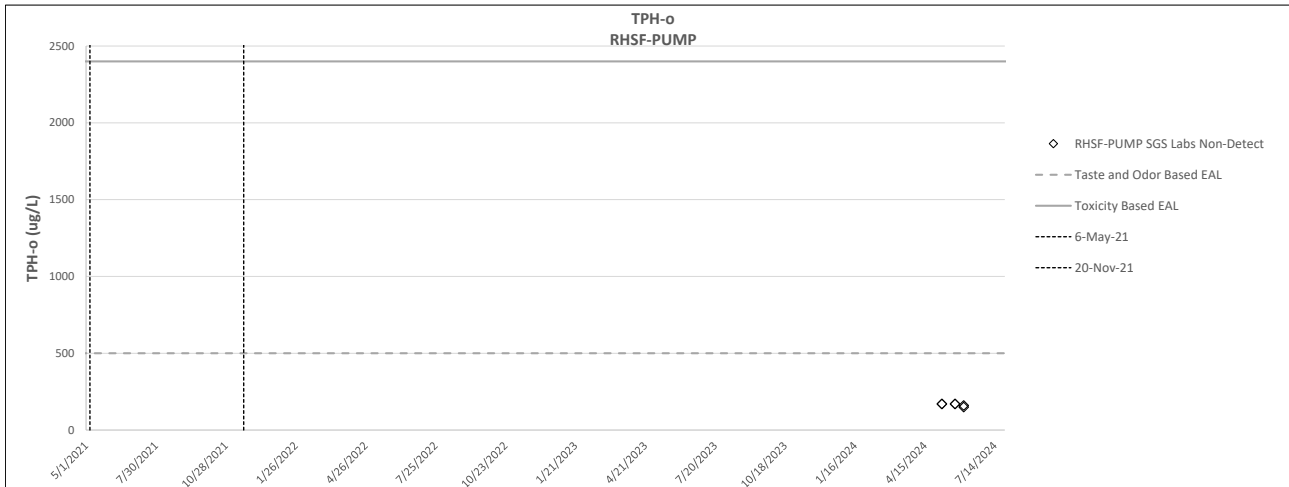
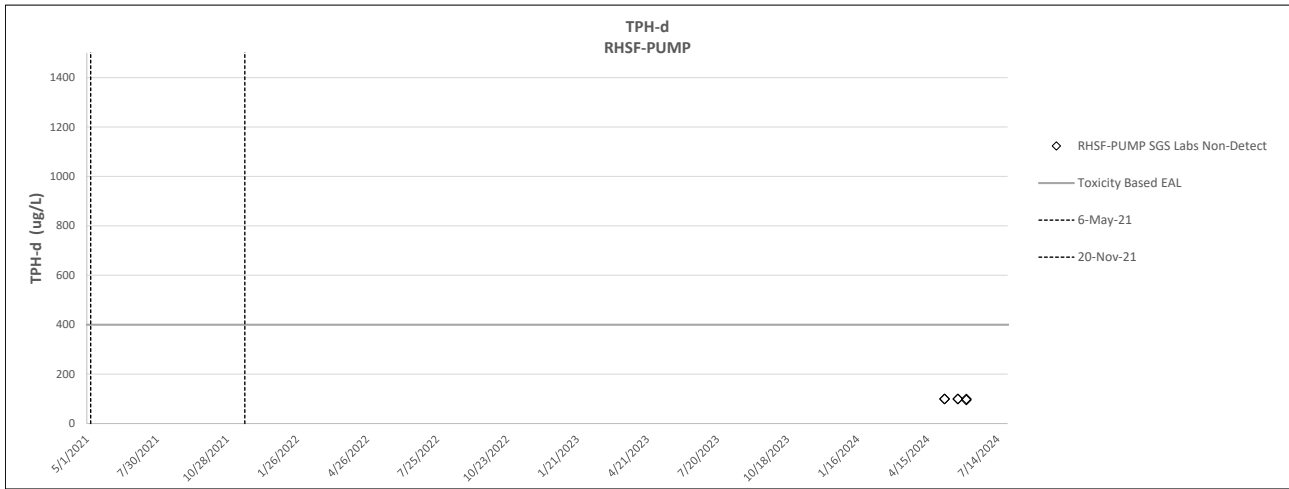
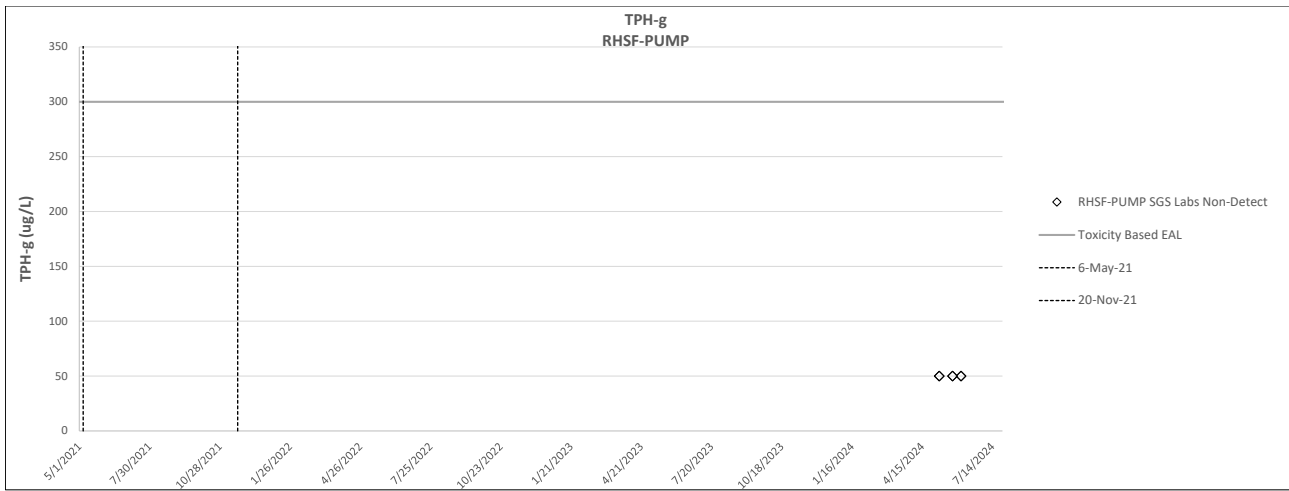


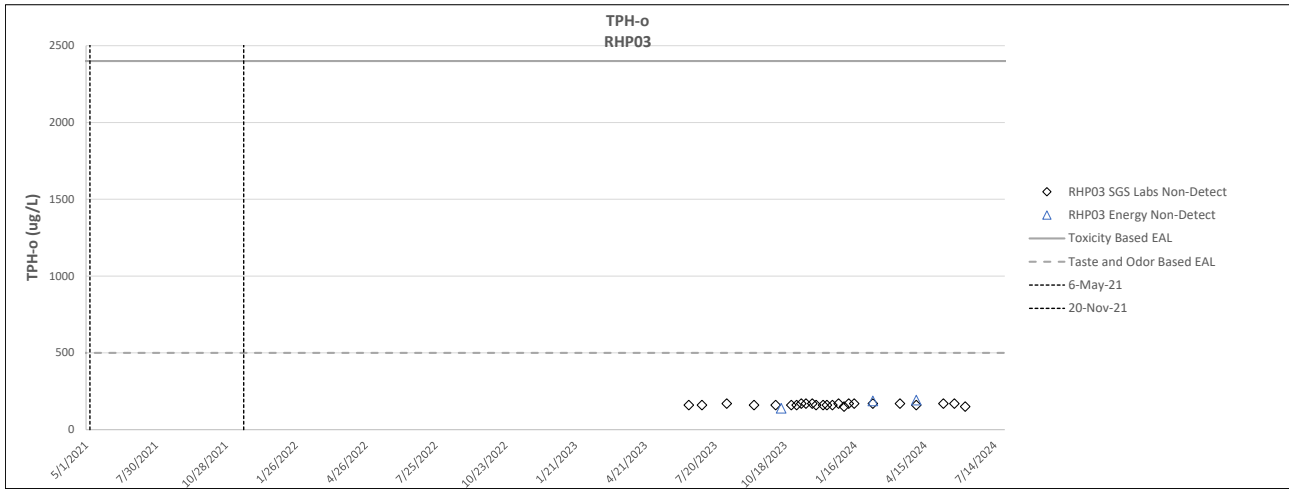
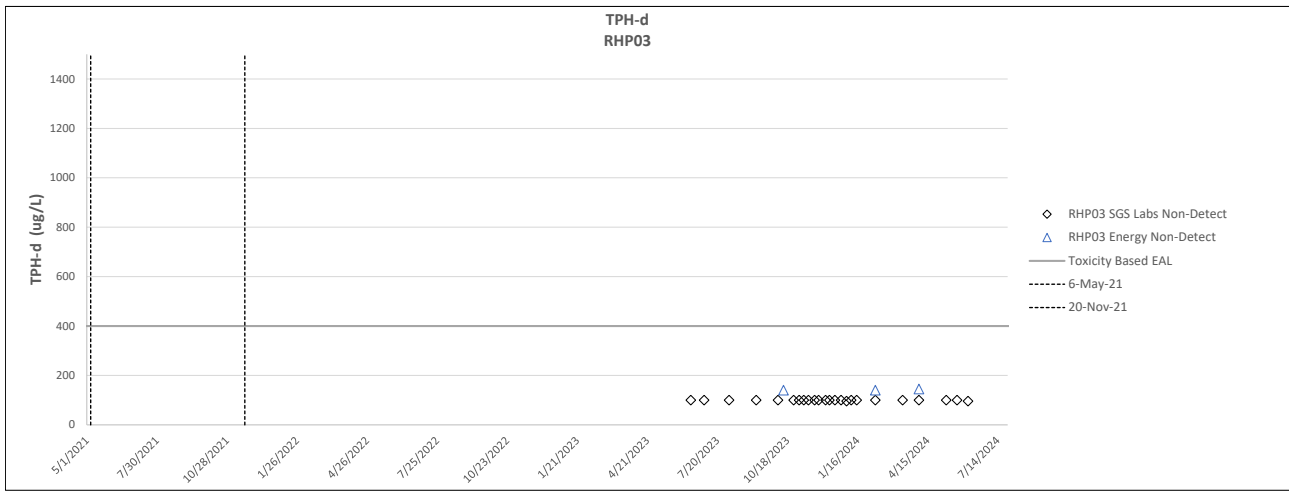
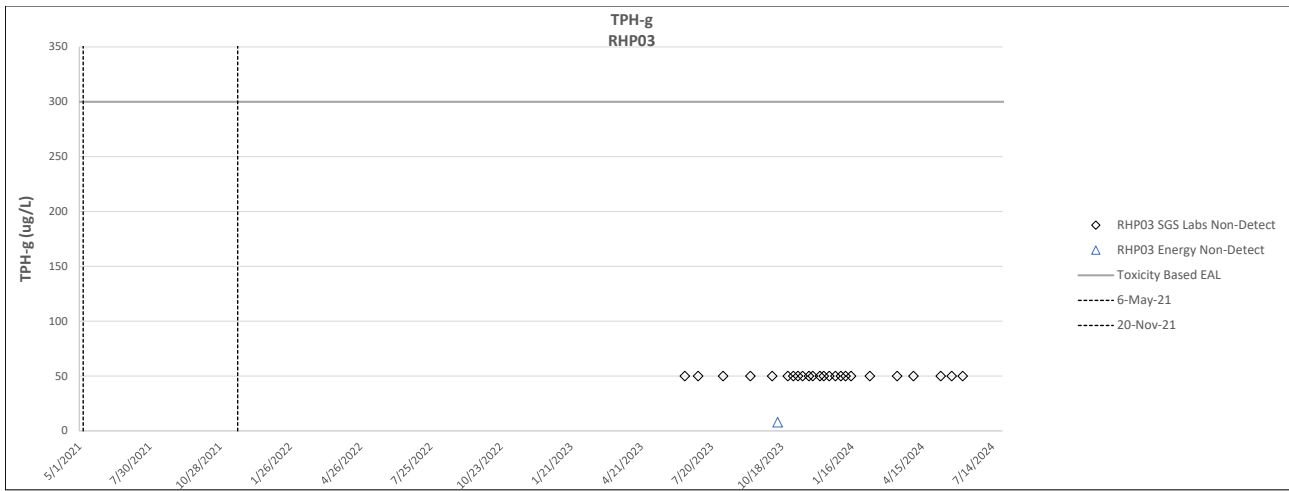


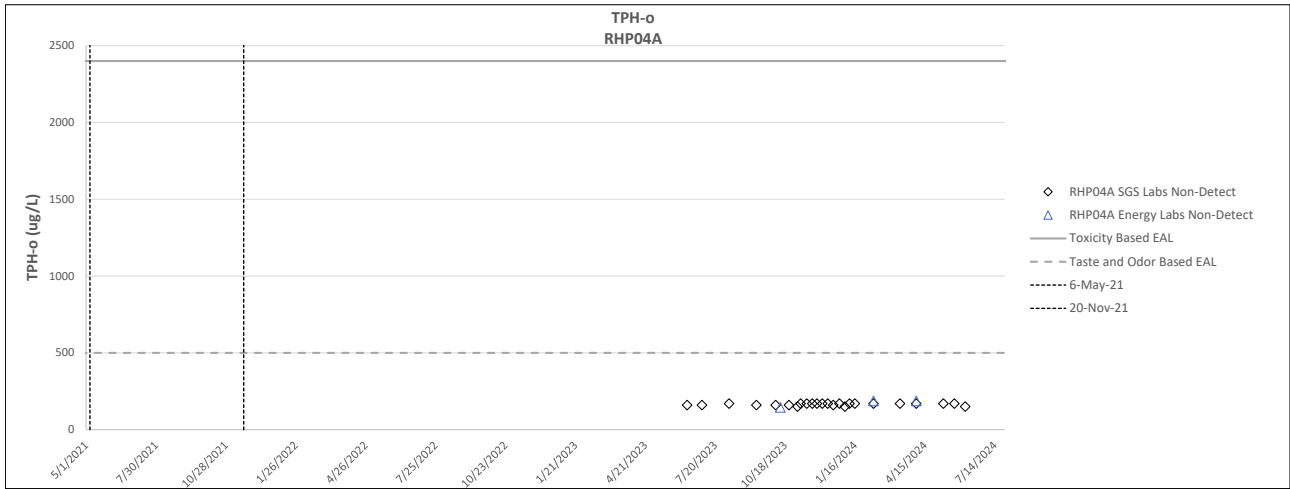
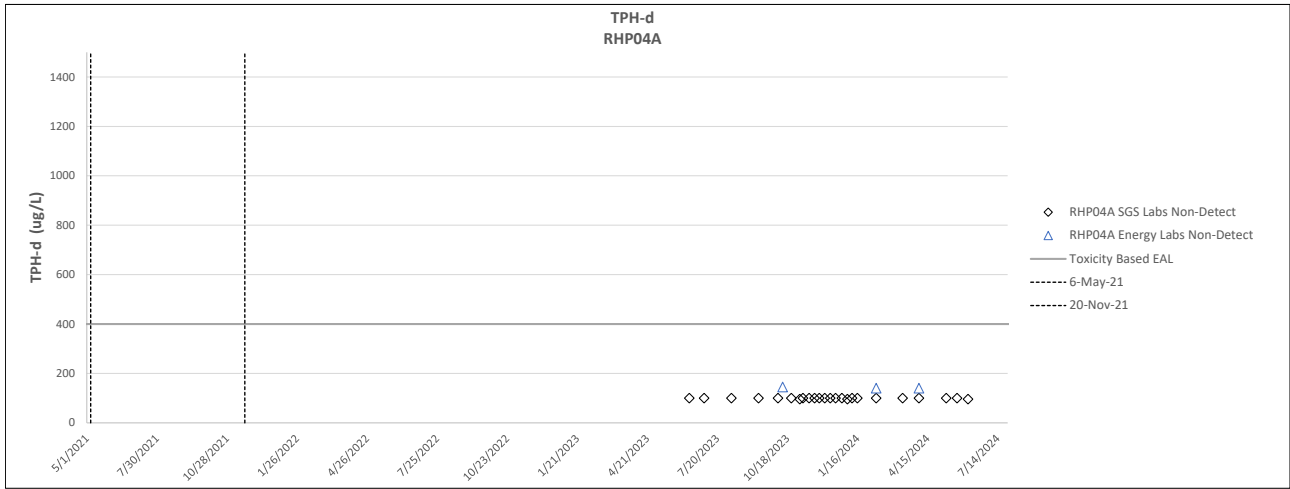
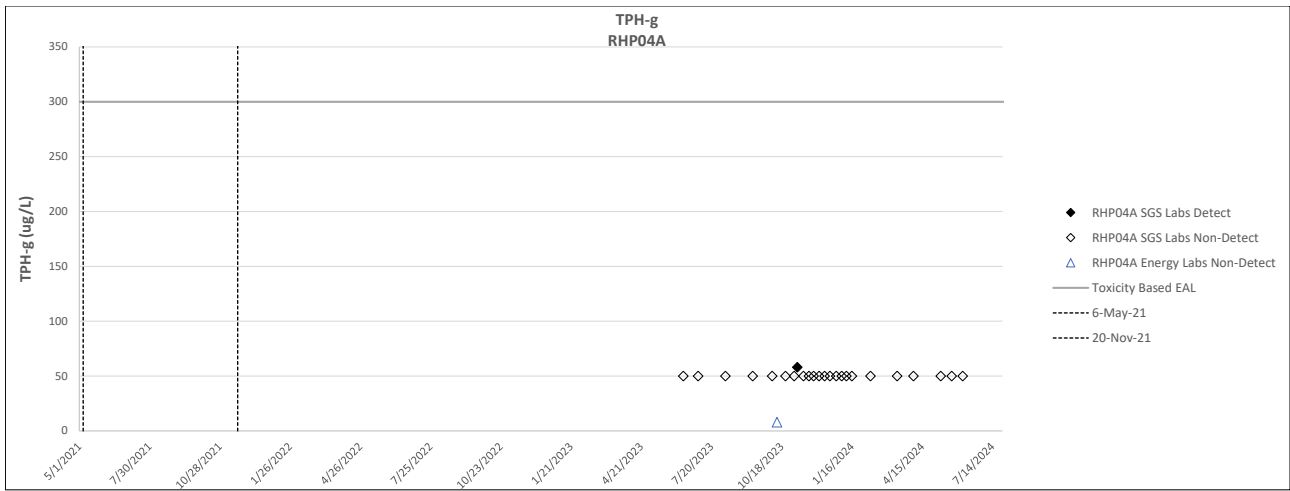


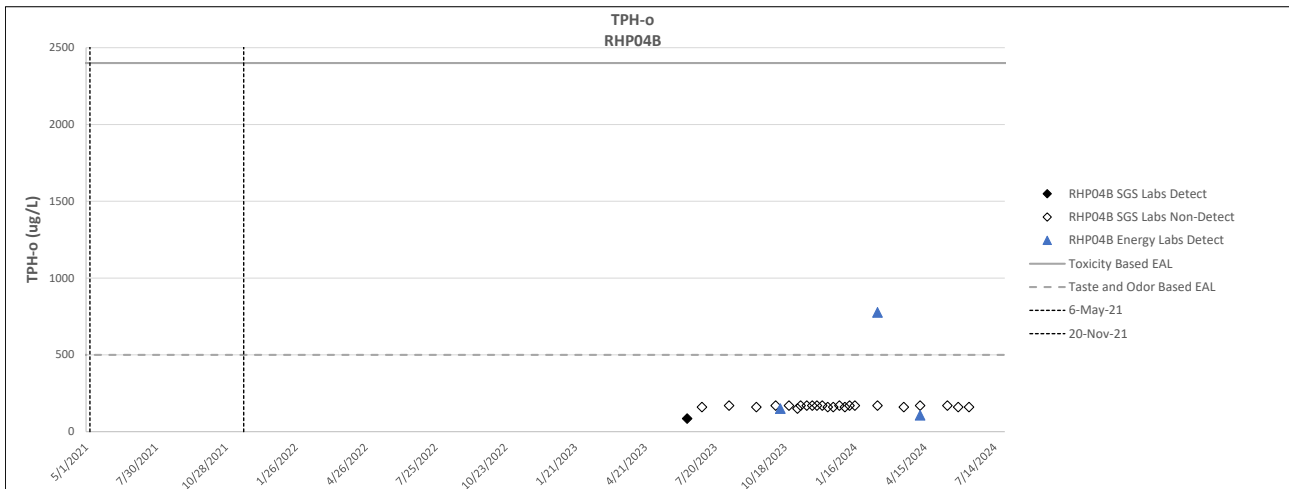
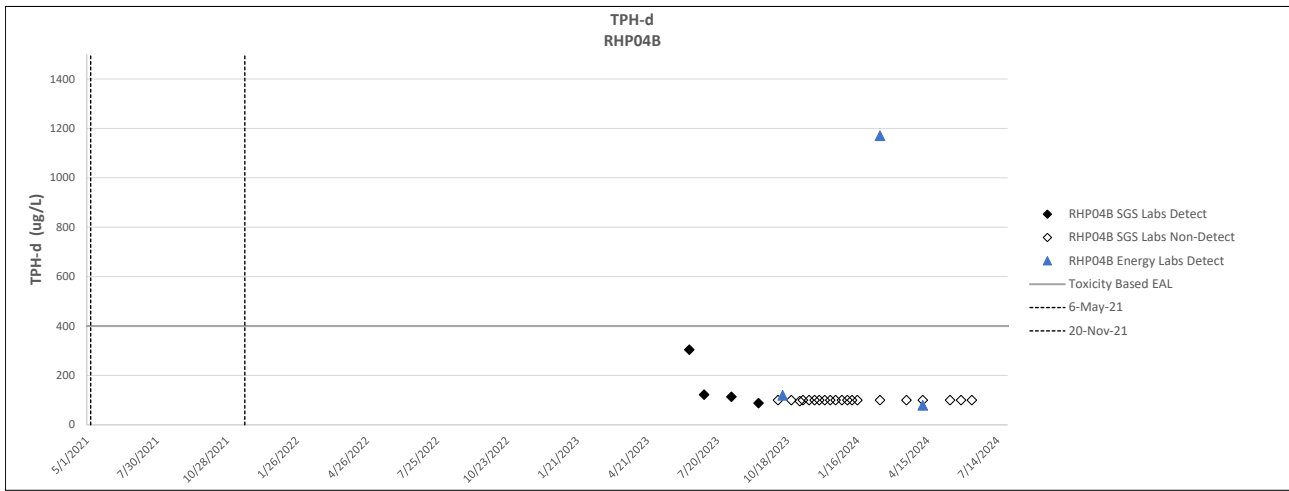
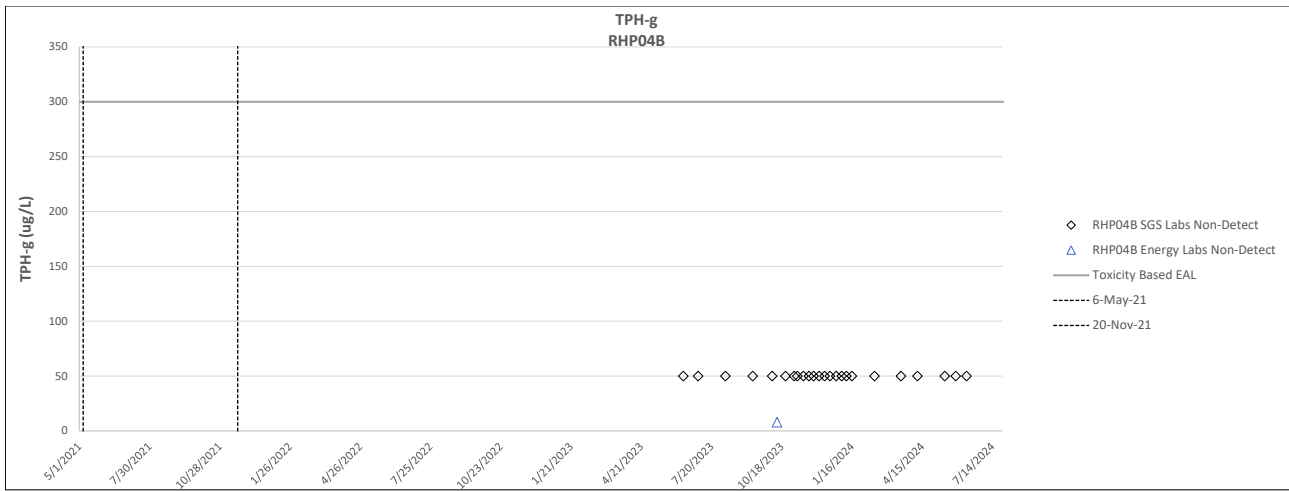


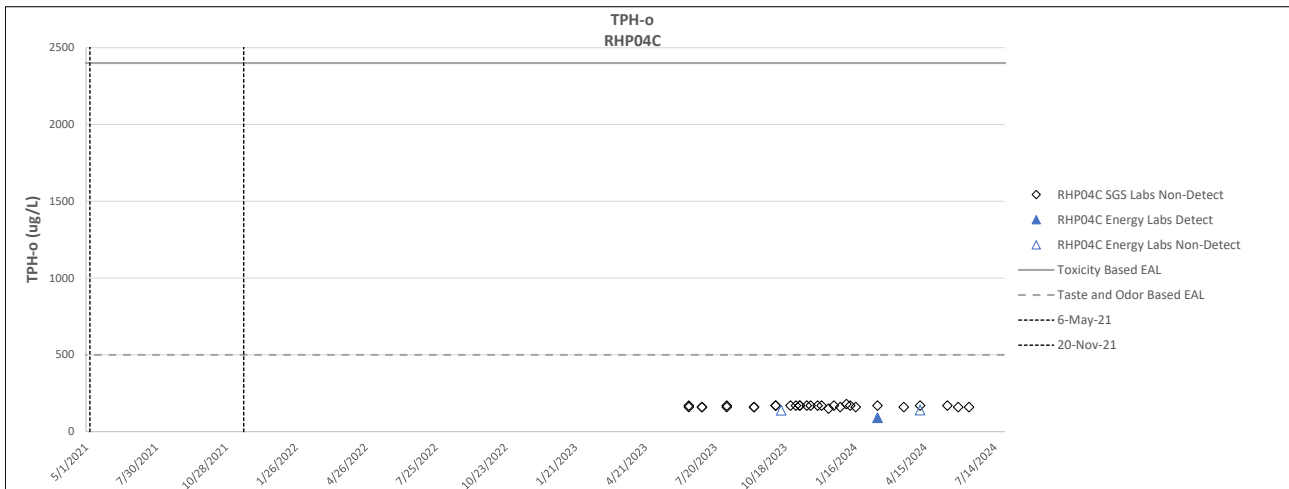
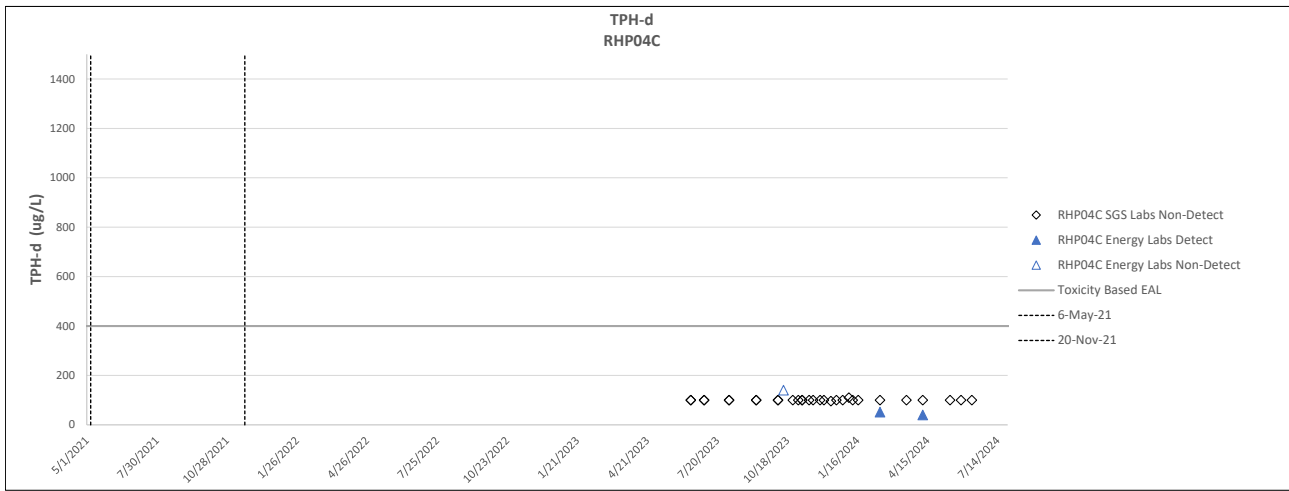
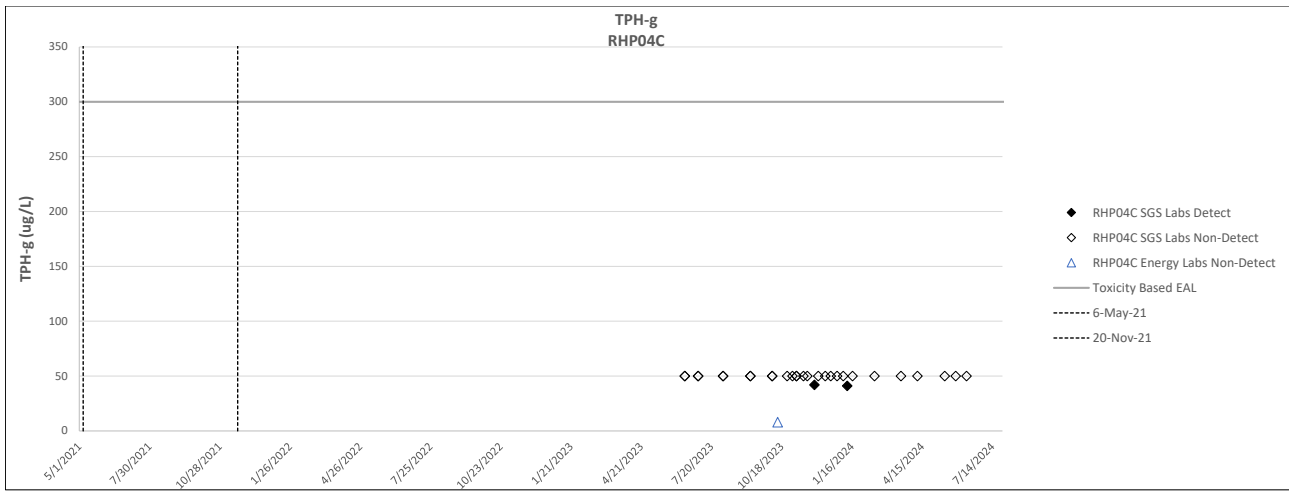


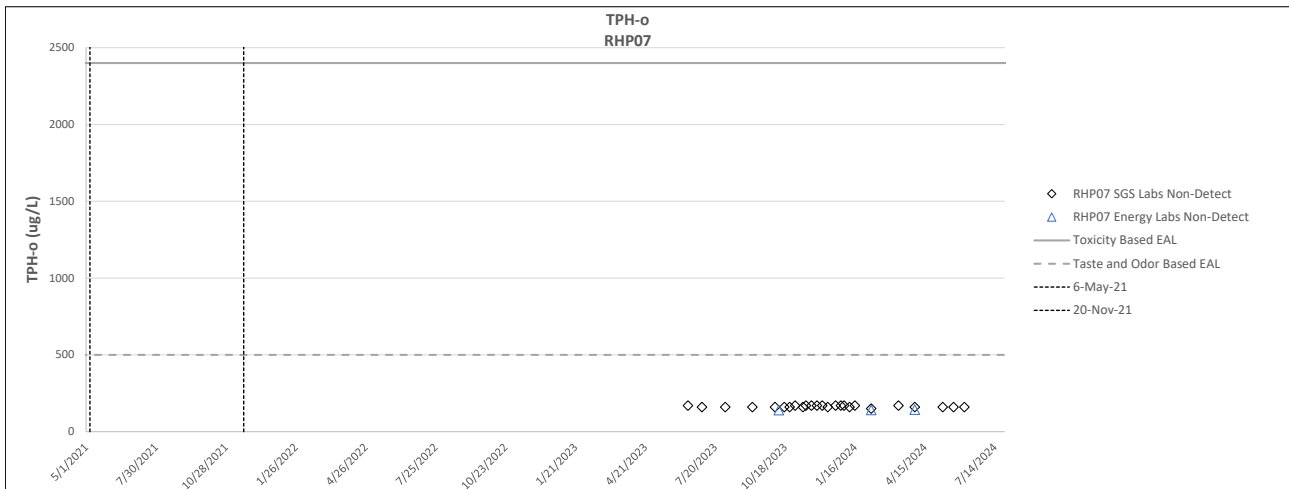
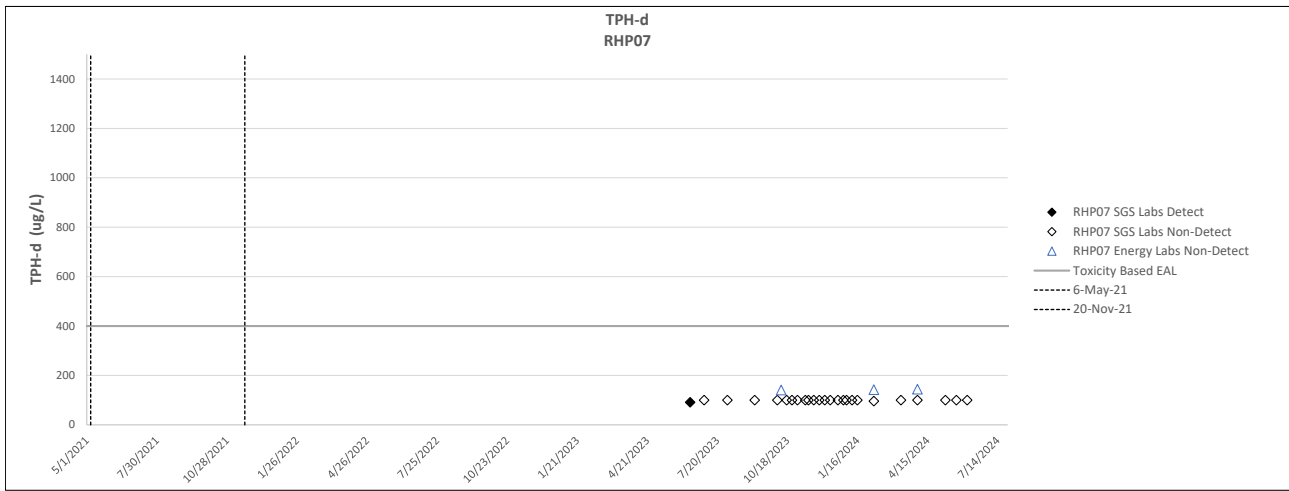
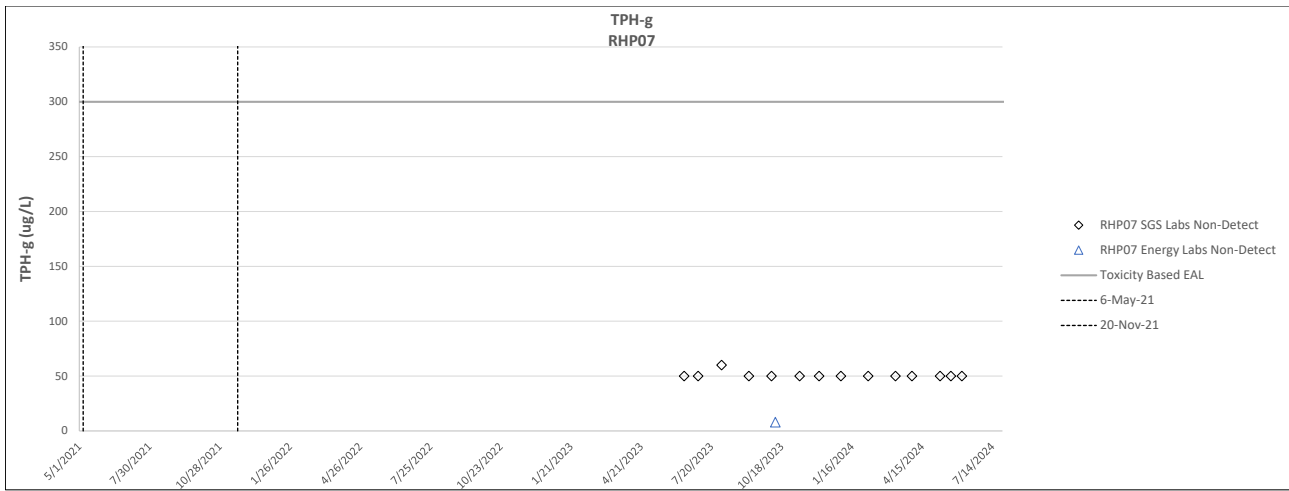


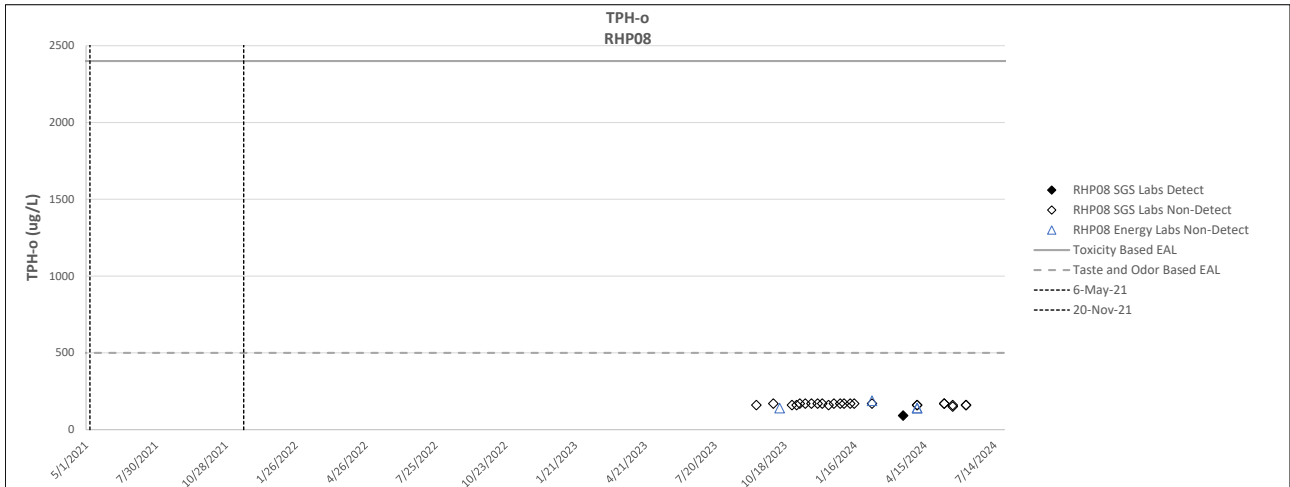
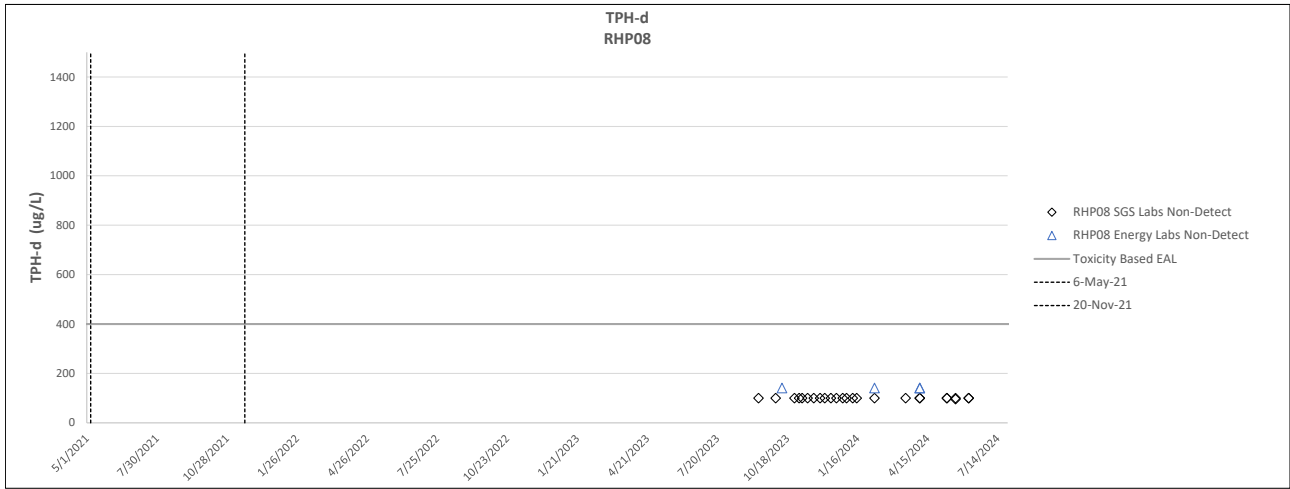
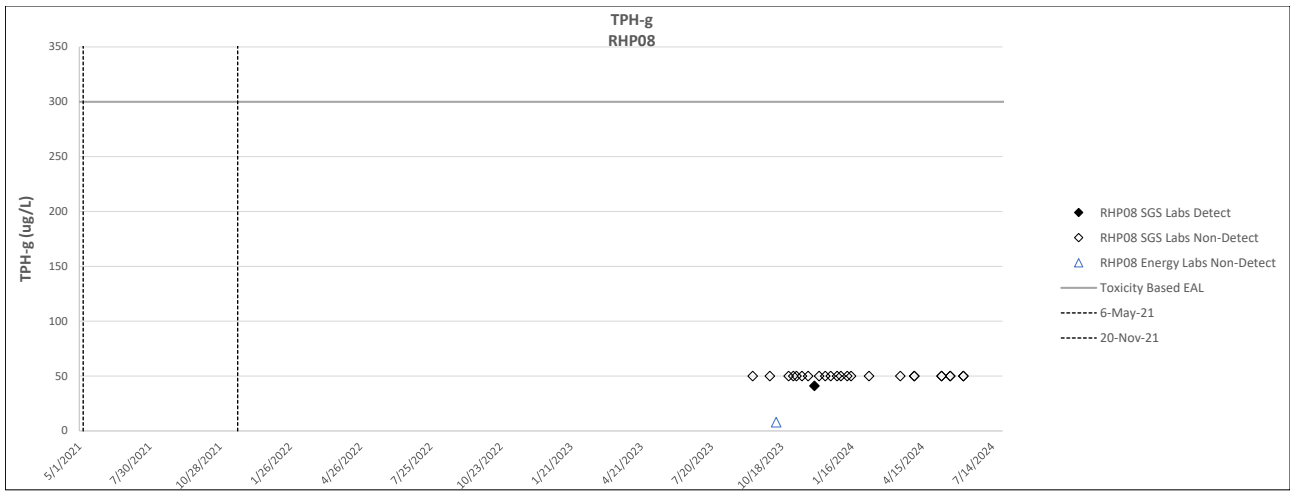


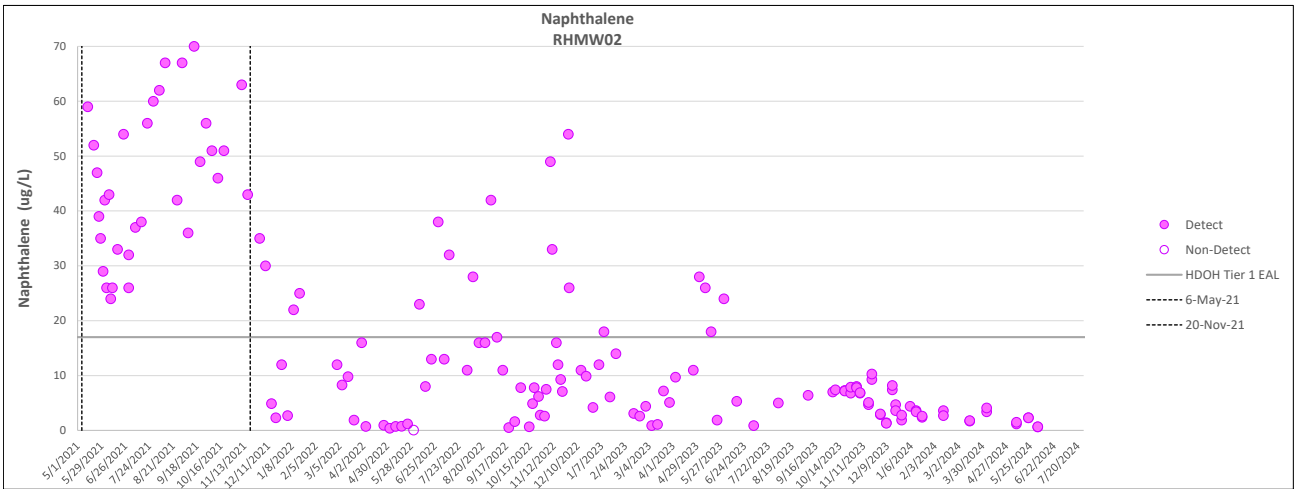
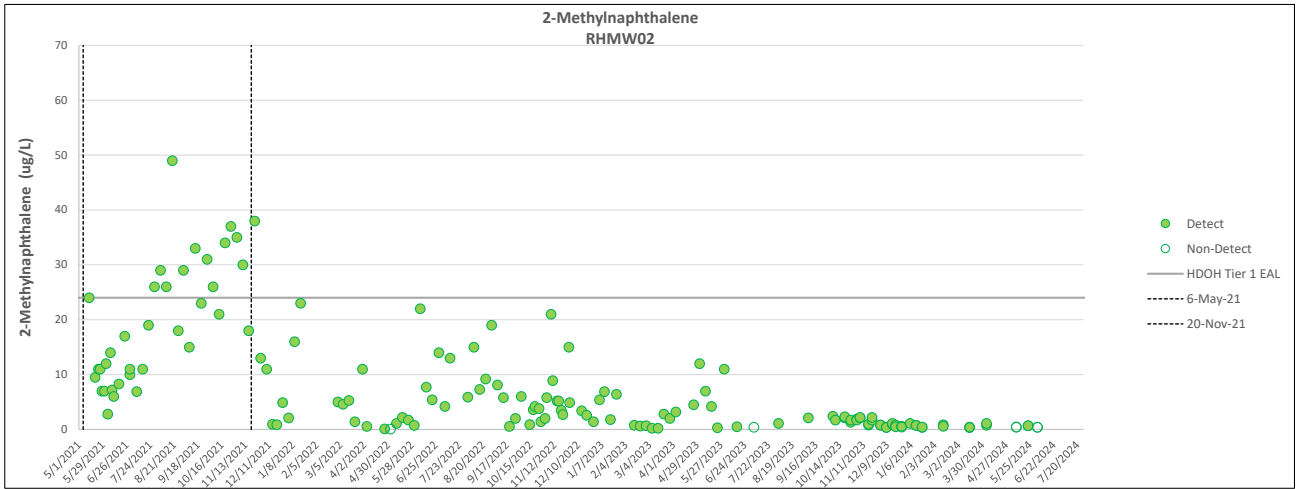
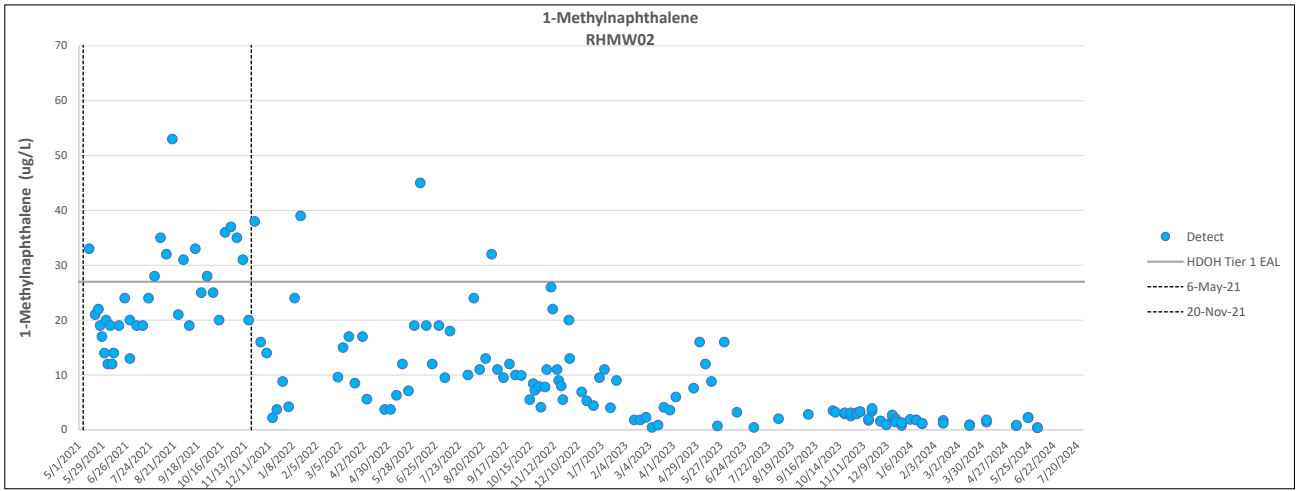












Appendix B.3.3 – Consolidated Groundwater COPC Trend Analysis

Consolidation and Optimization of the Groundwater Sampling Programs, Red Hill Bulk Fuel Storage Facility

COPC Trend Analysis

Data Legend

Footnotes

Charts include validated and unvalidated data which is subject to change. Unvalidated data is not plotted separately.

Detects are generally displayed as closed markers with color infill. Non-Detects are displayed as open markers without color infill.

The Baseline period includes results from samples collected between September 1, 2023 and April 28, 2024

Averages and Standard Deviations are computed for wells with detections during the baseline. Non-detected samples are included in the calculations using the lab reported Limit of Detection as the result.

For wells without detections during the Baseline period, no averages or standard deviations are calculated.

Plotted values include Normal and Field Duplicate sample types.

RHMW13 data includes samples collected at Westbay sampling ports RHMW13-04 and RHMW13-05

All results are reported in ug/L

N – Normal Sample

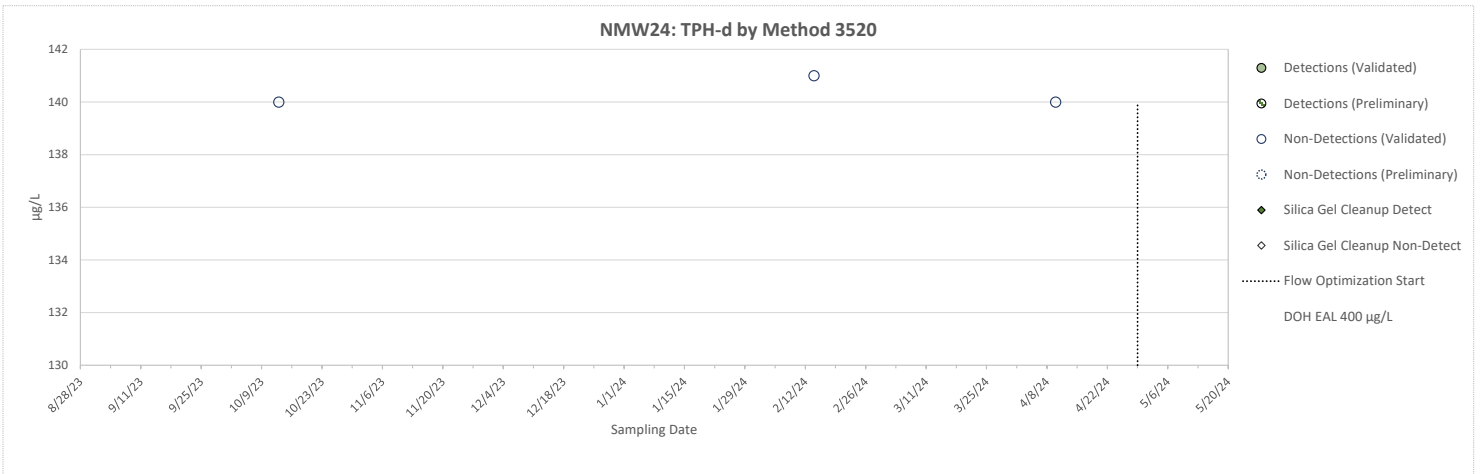
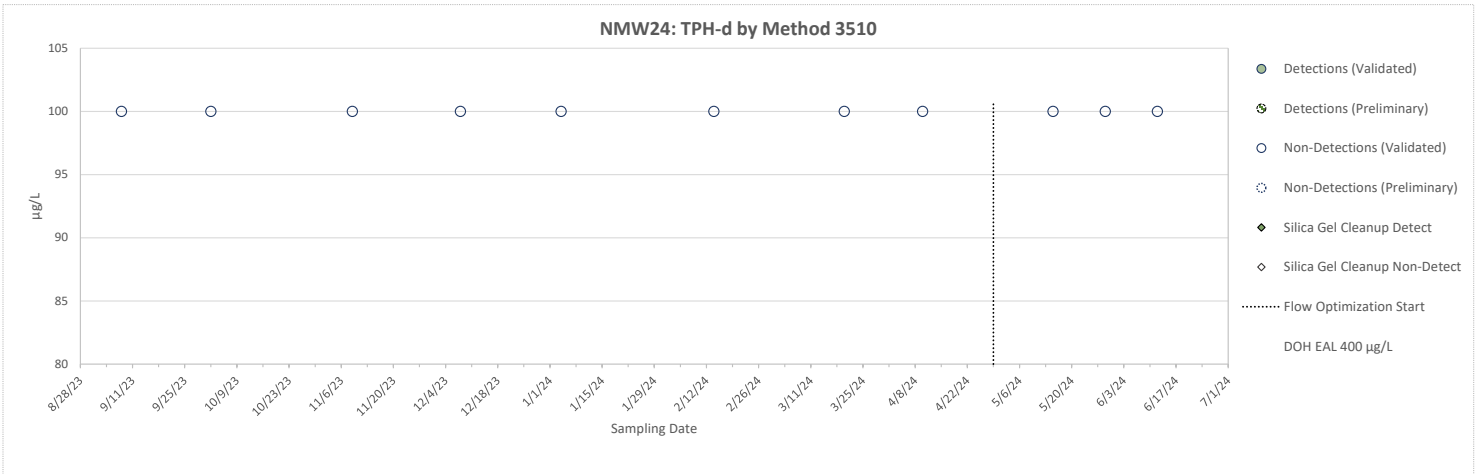
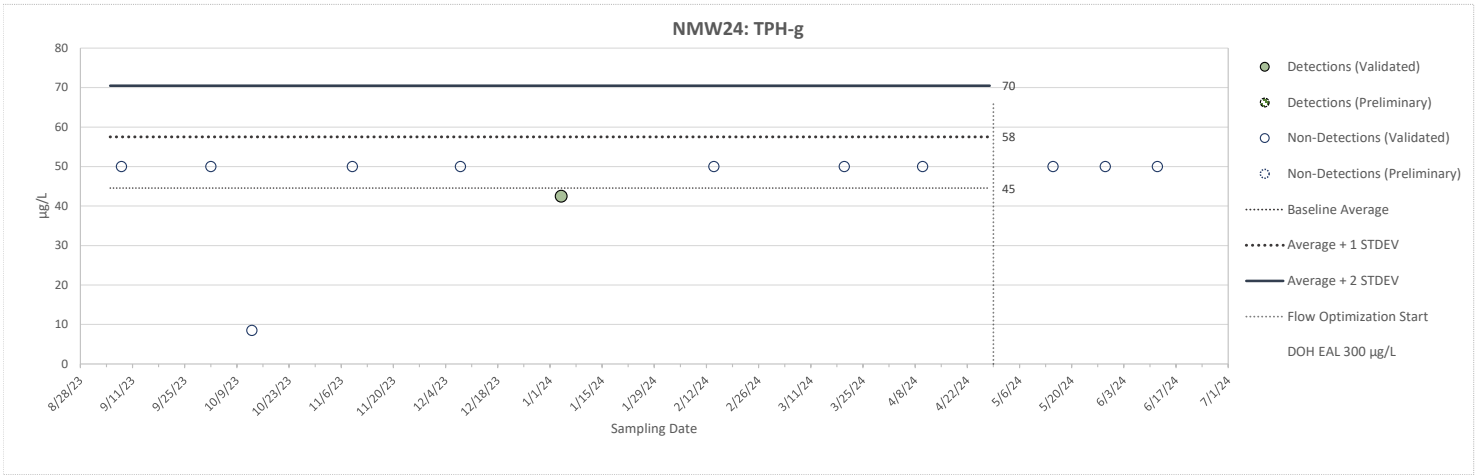
FD – Field Duplicate

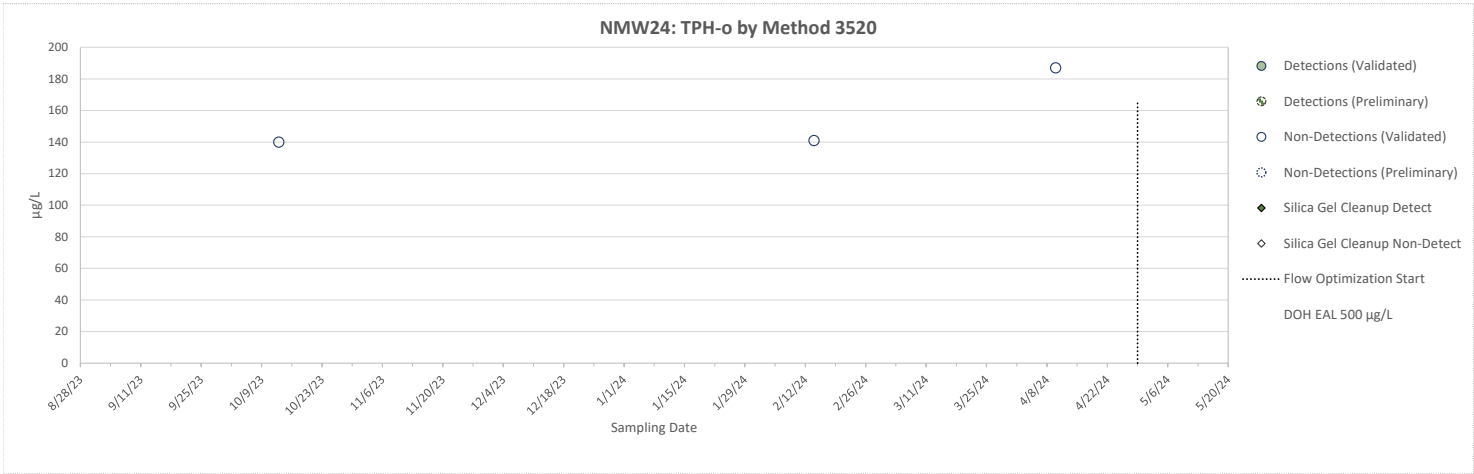
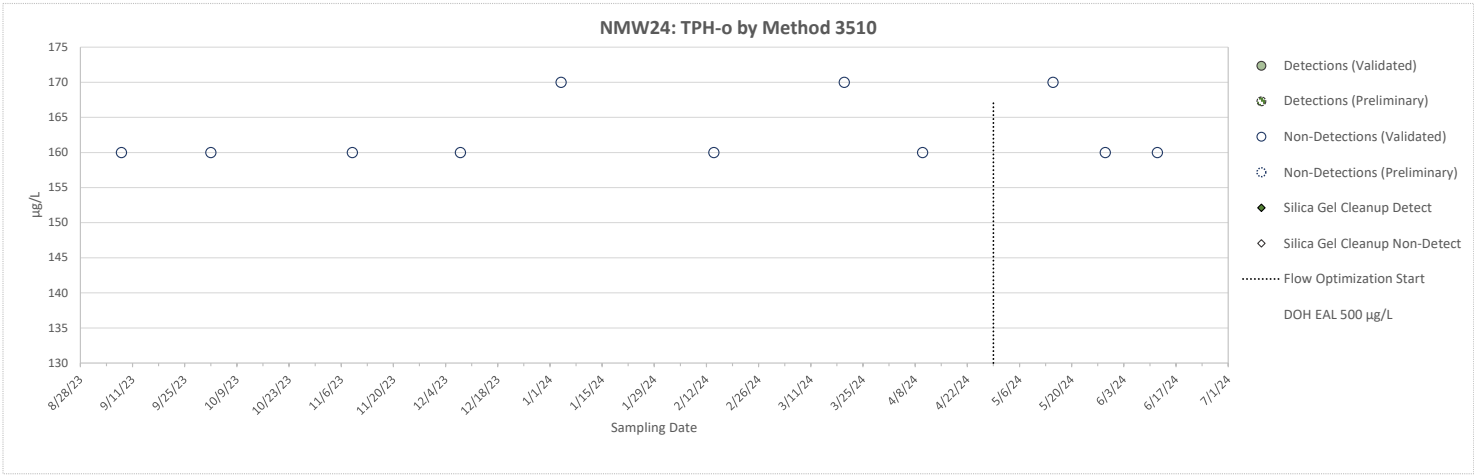
SGC – Silica Gel Cleanup

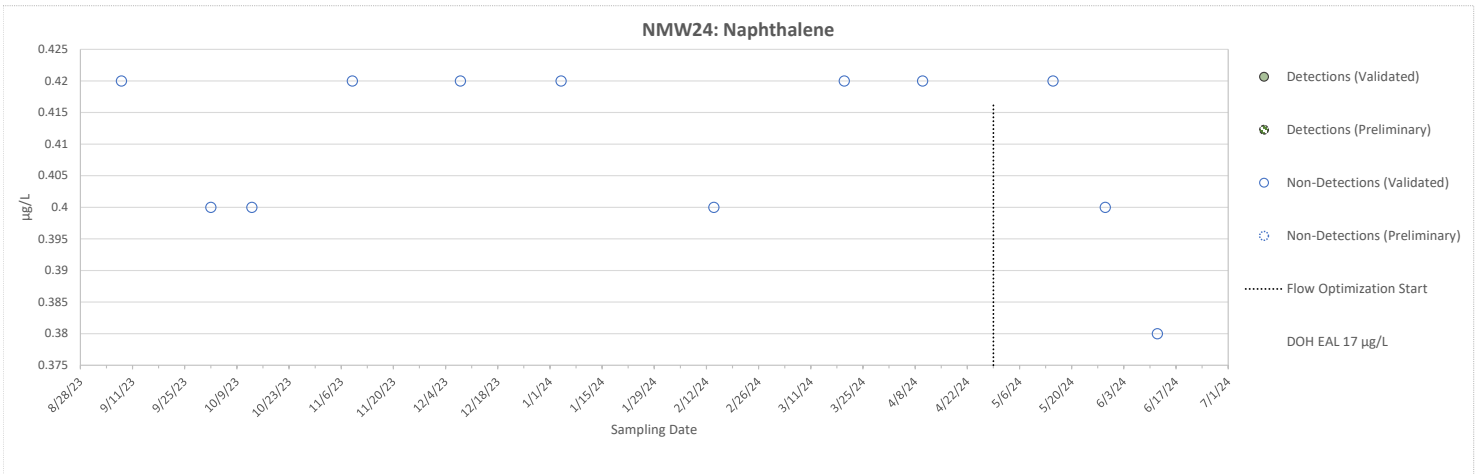
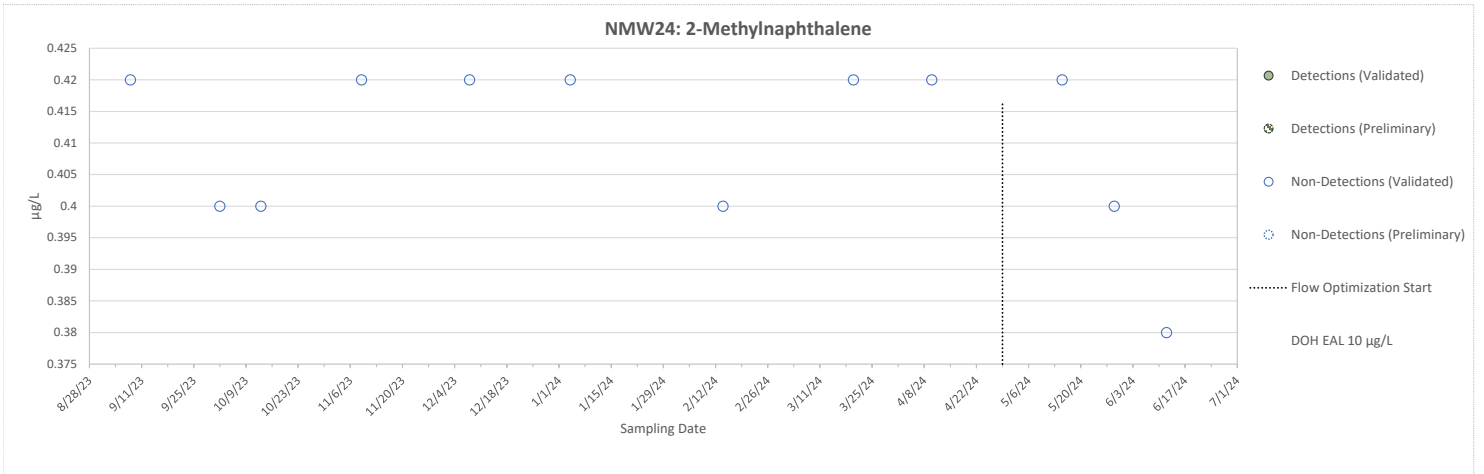
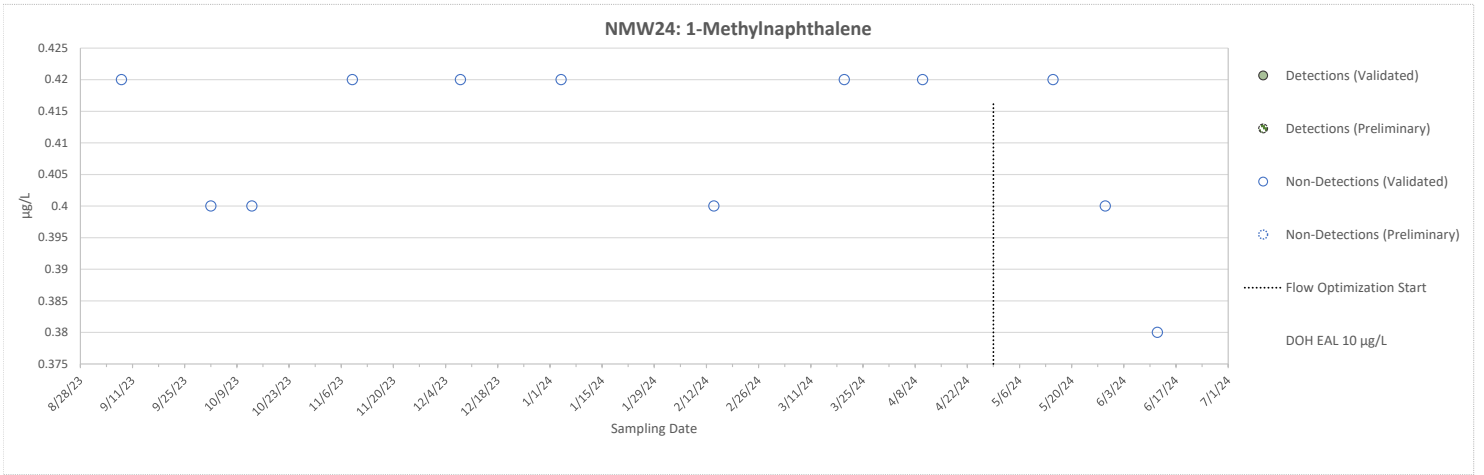
TPH – Total Petroleum Hydrocarbons

Units

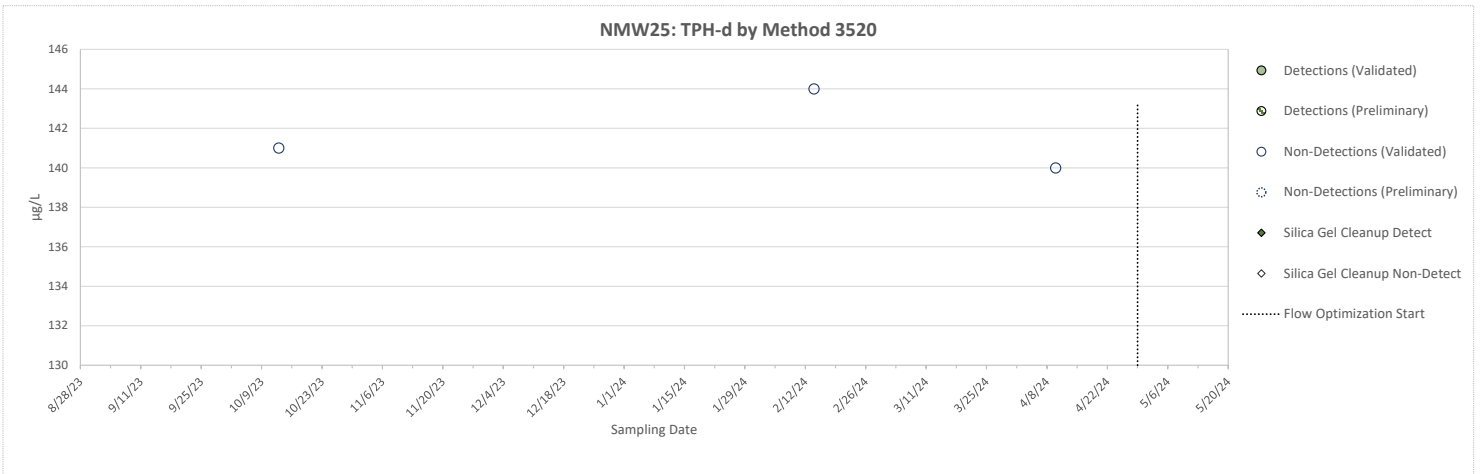
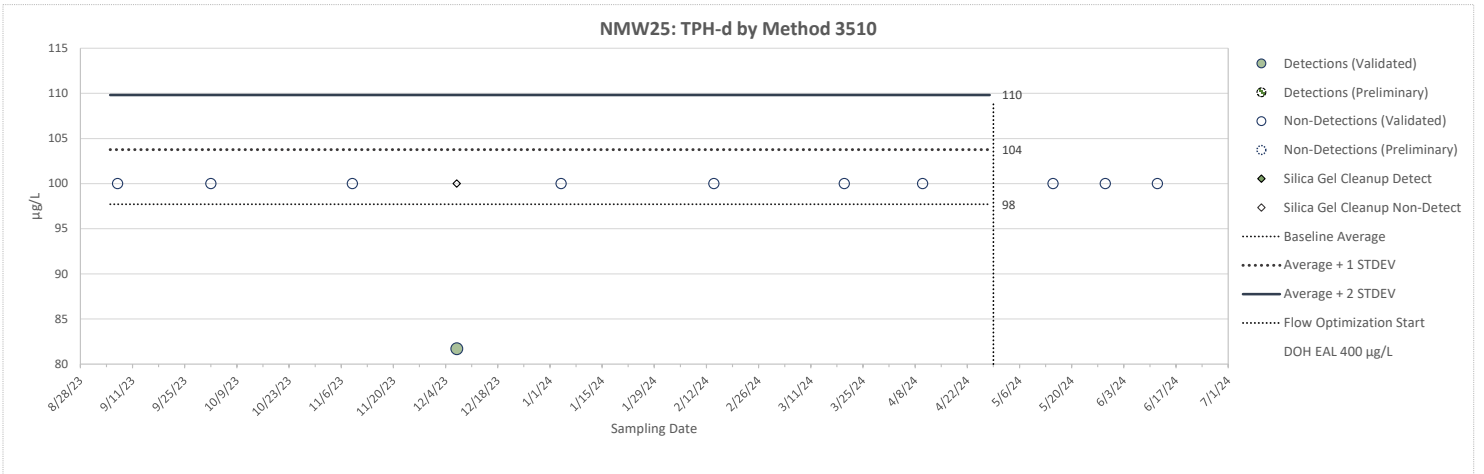
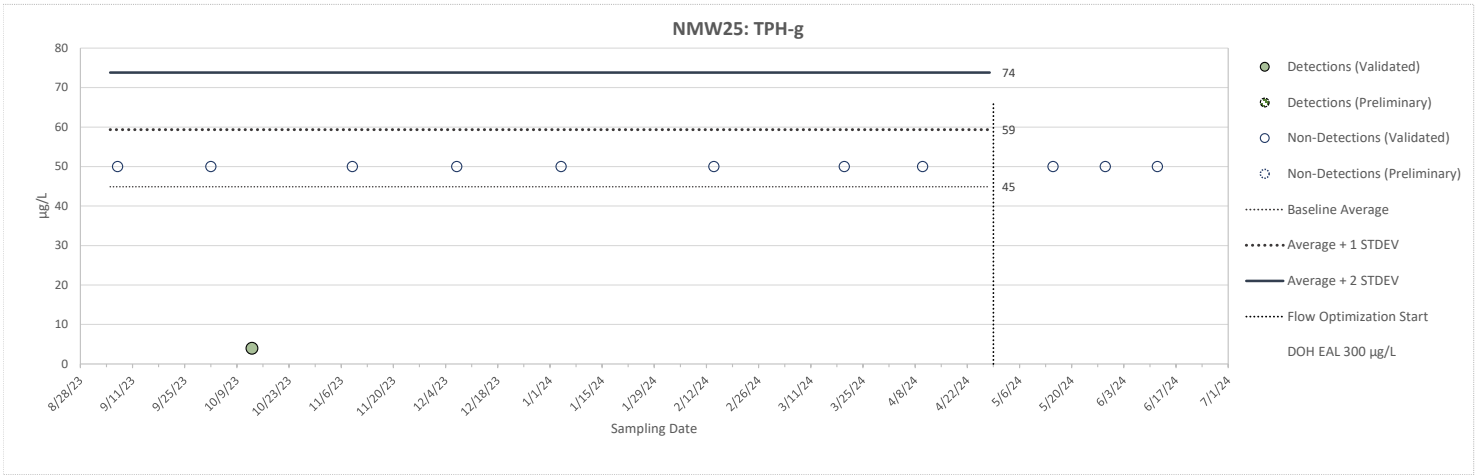
µg/L – Micrograms per Liter

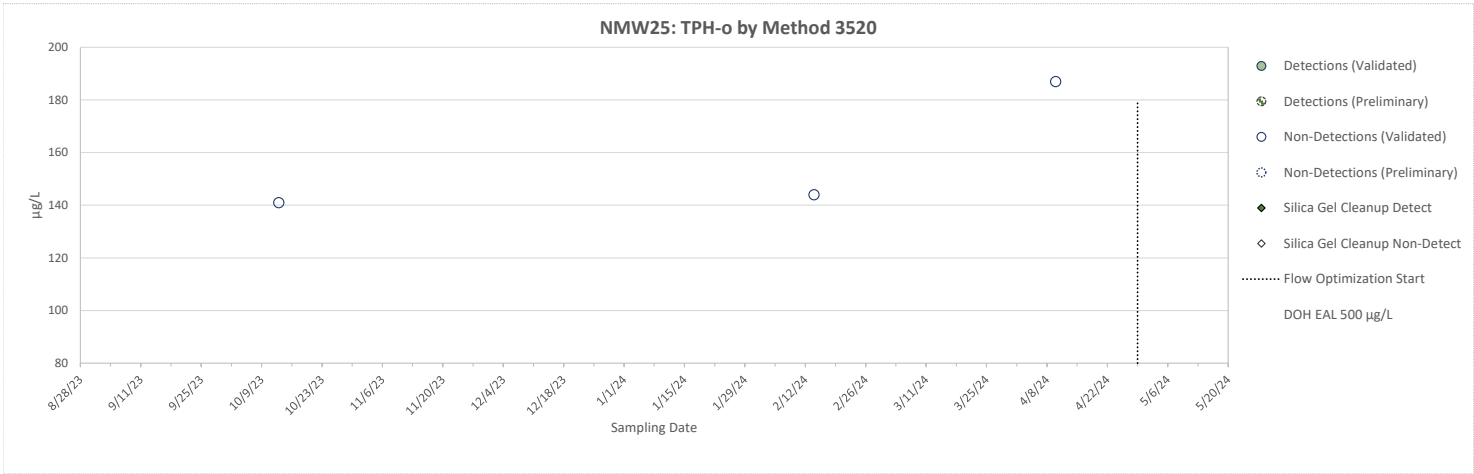
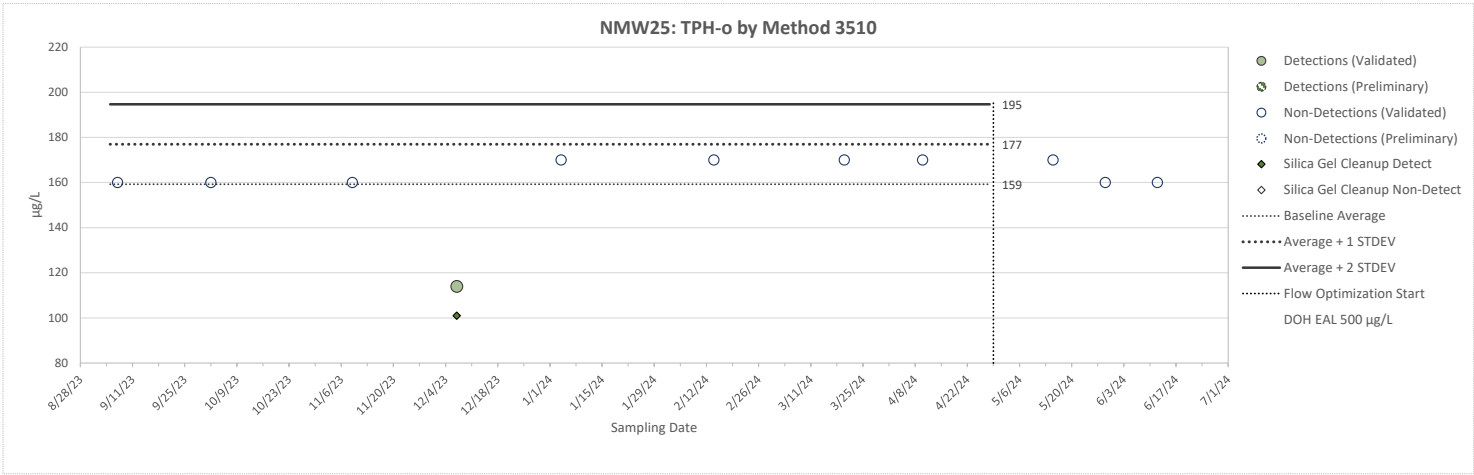


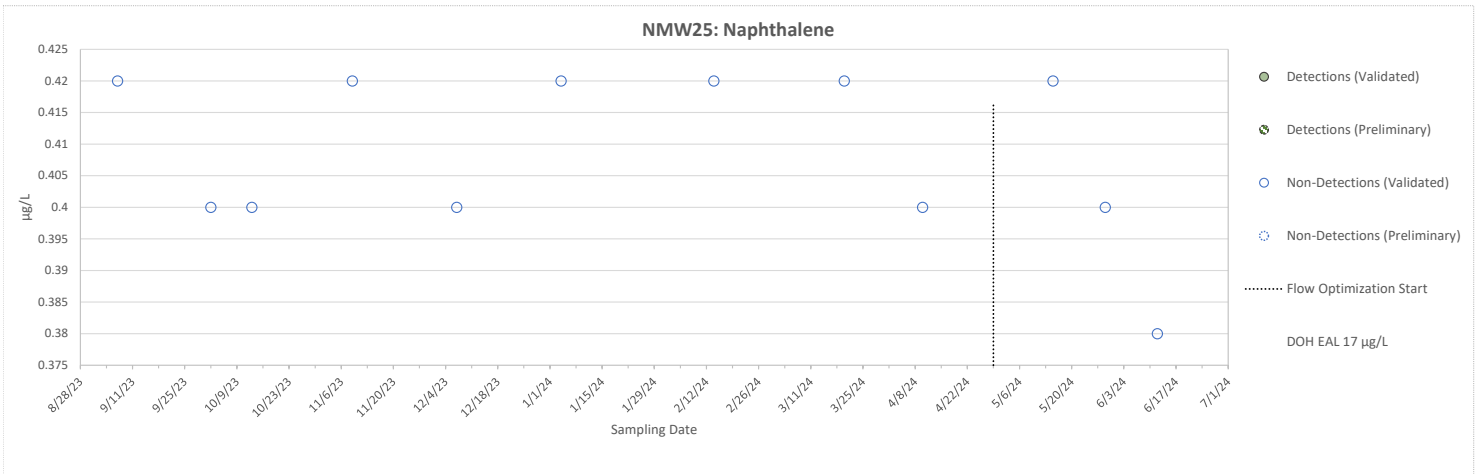
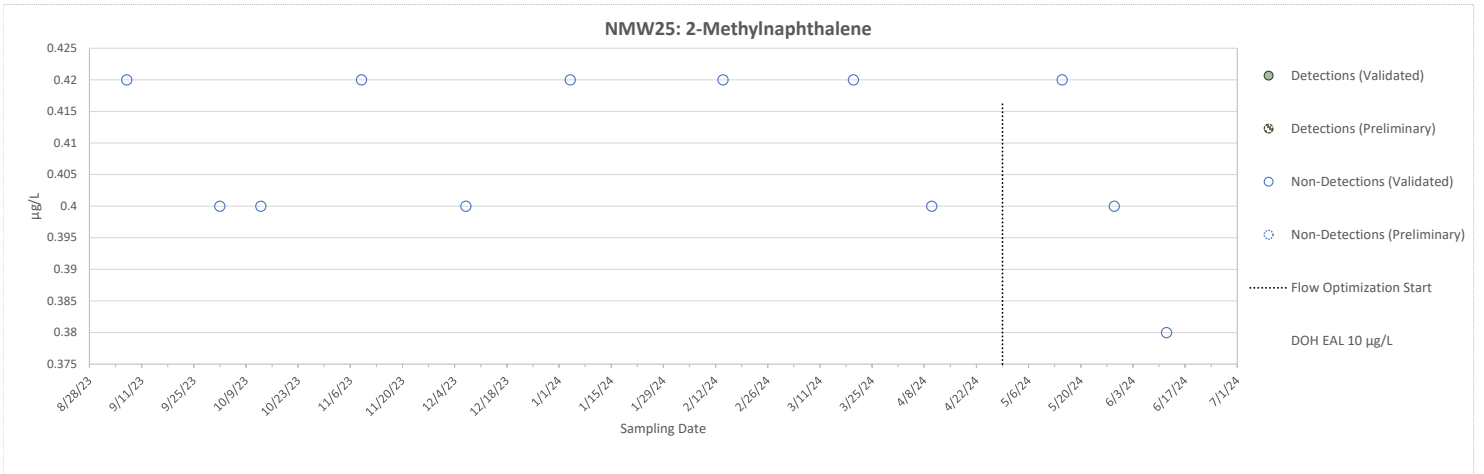
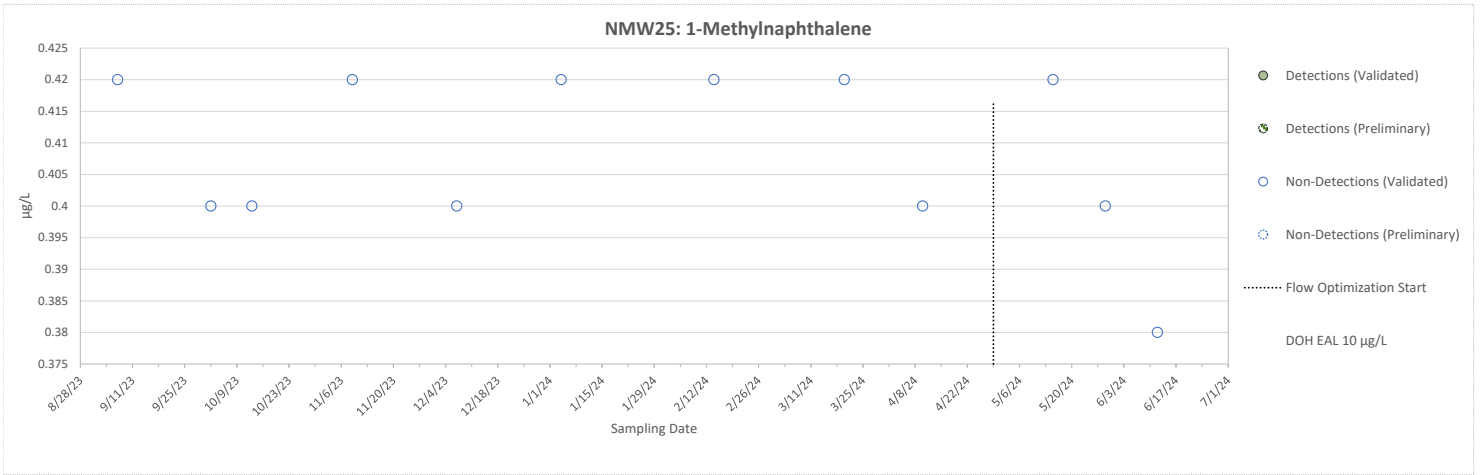




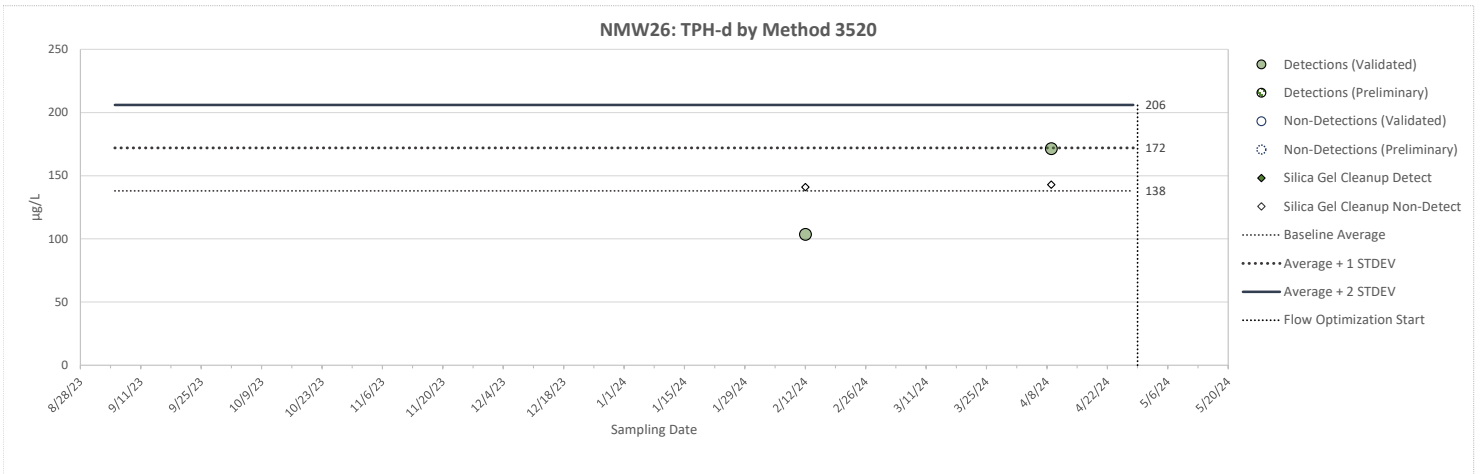
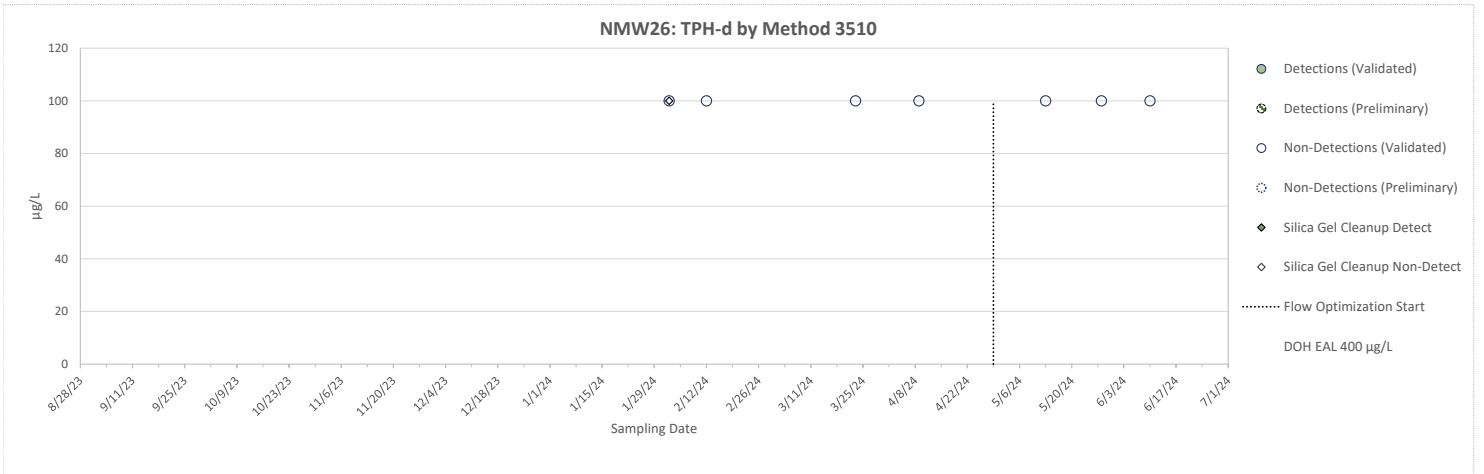
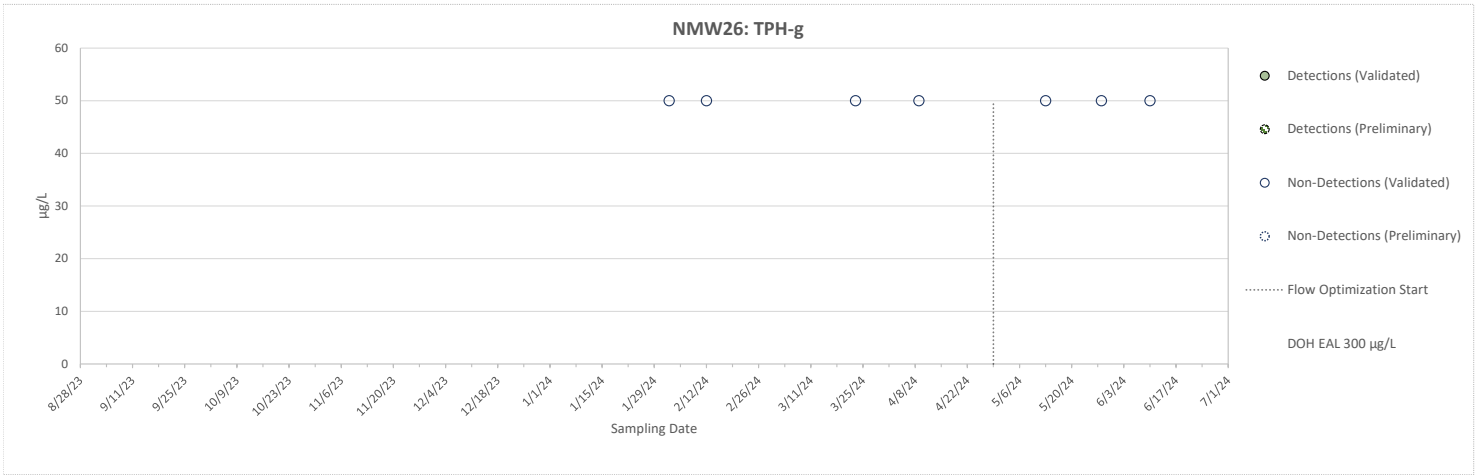
Note: See Data Legend

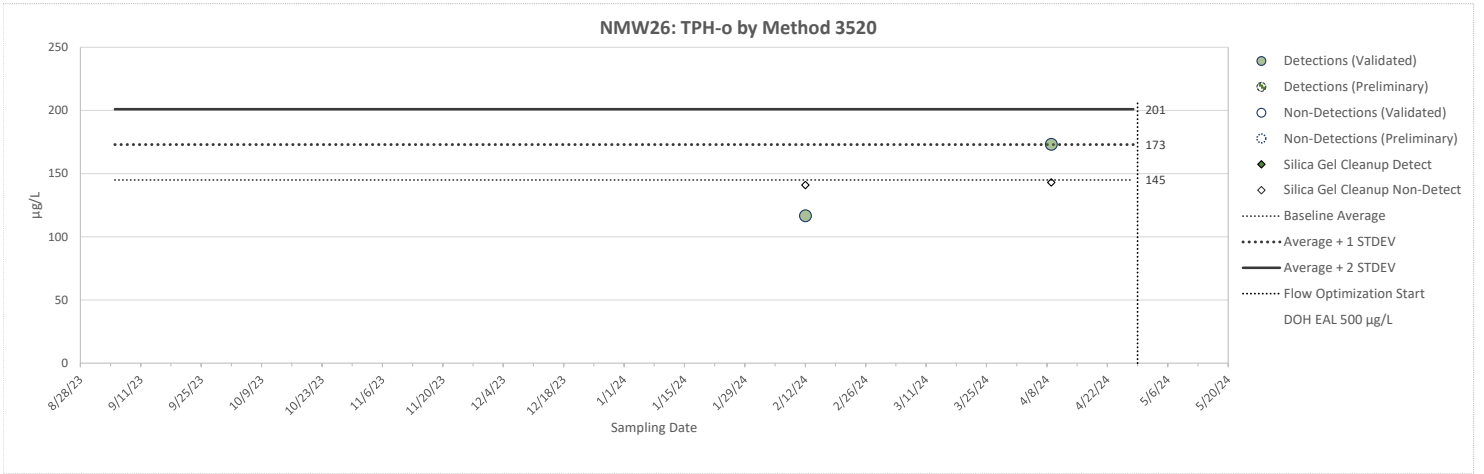
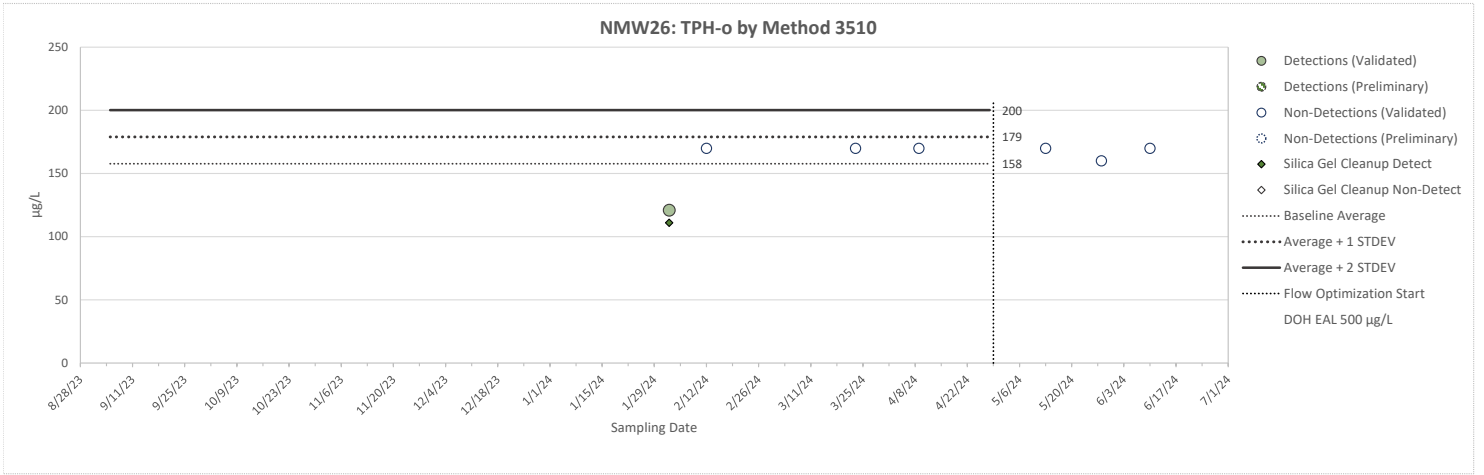




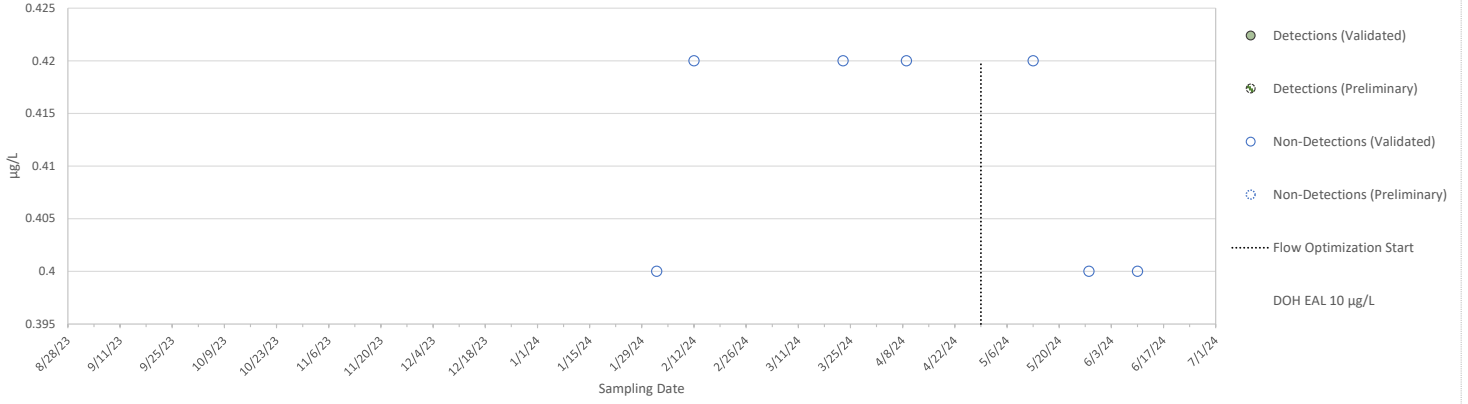


Note: See Data Legend

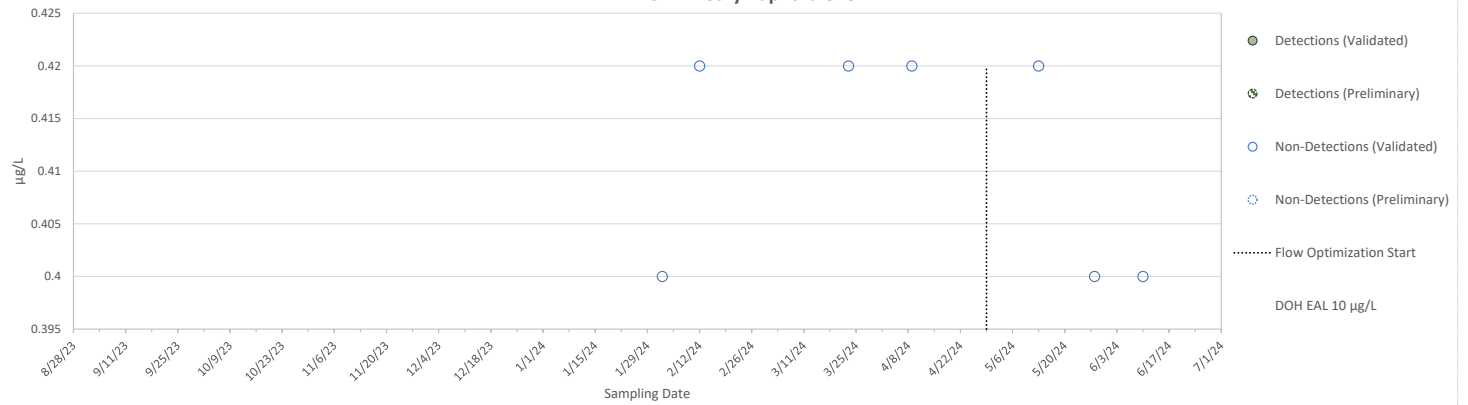




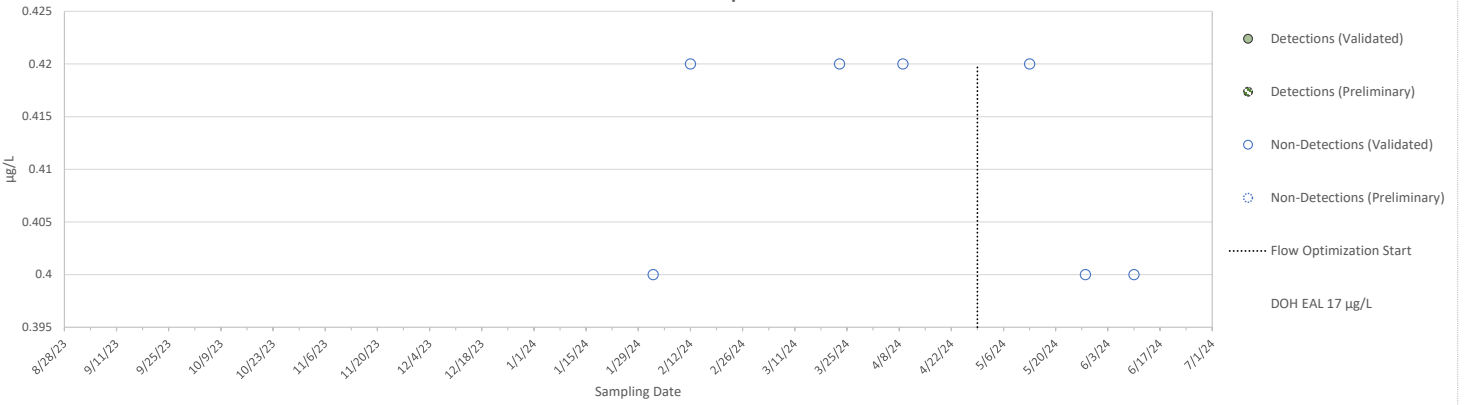
NMW26: 1-Methylnaphthalene



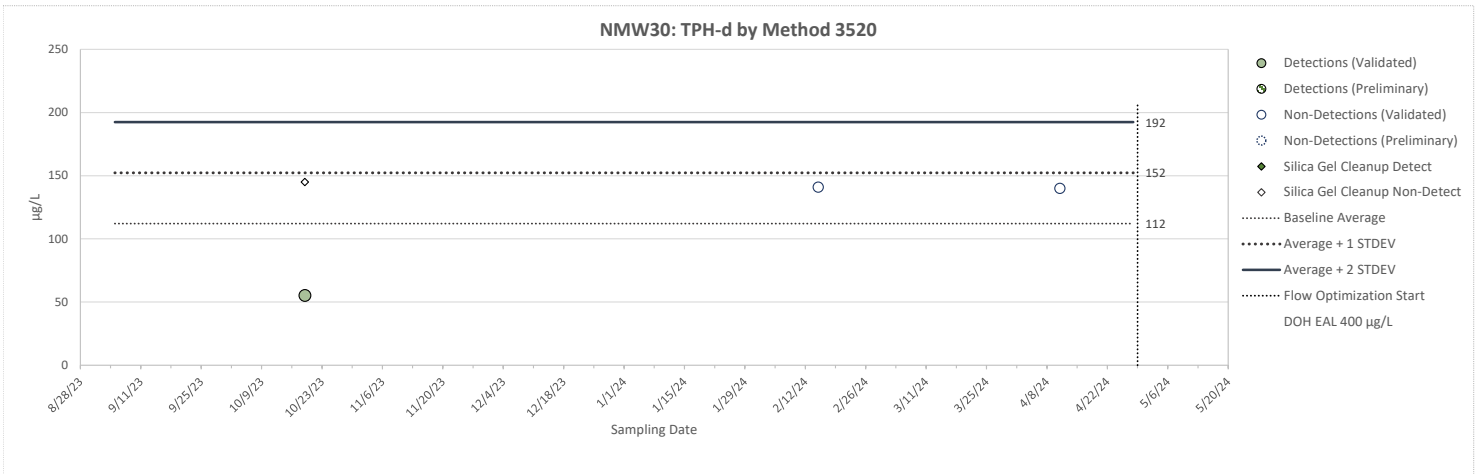
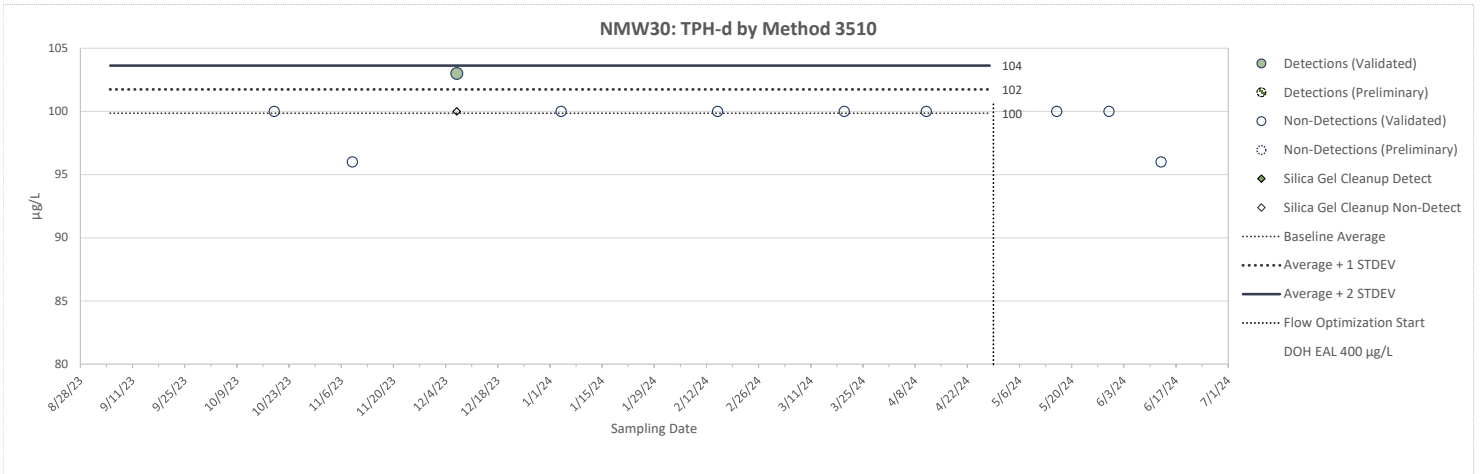
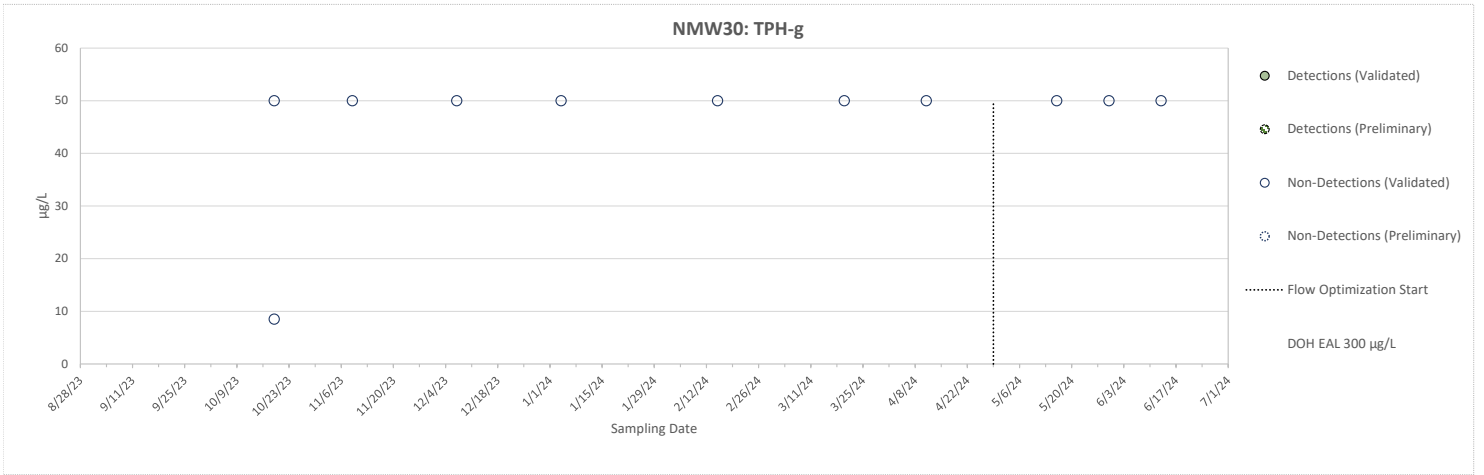
NMW26: 2-Methylnaphthalene

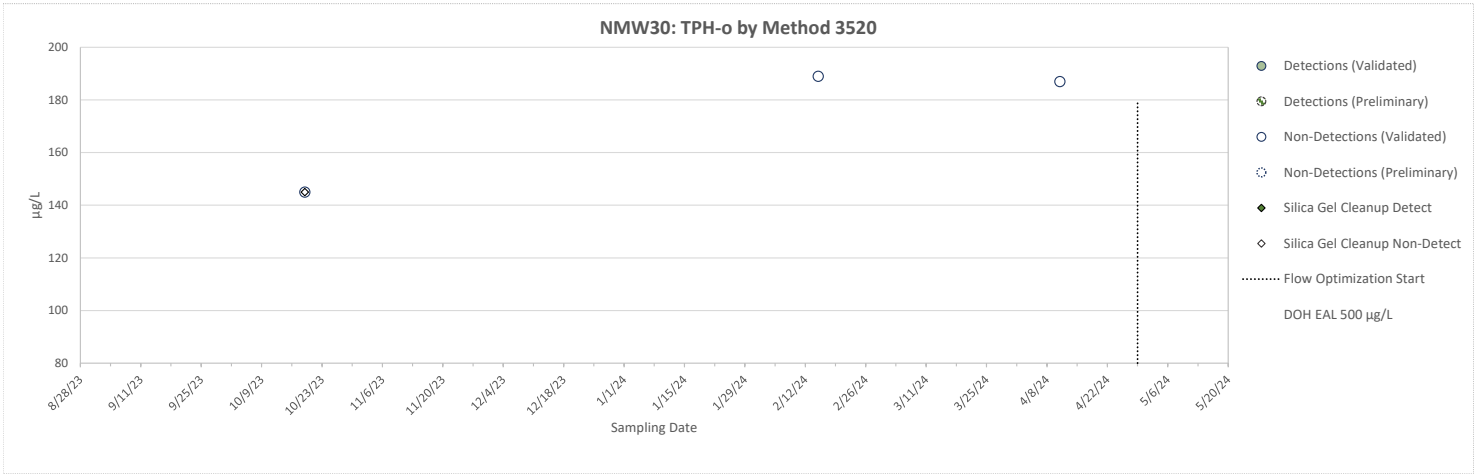
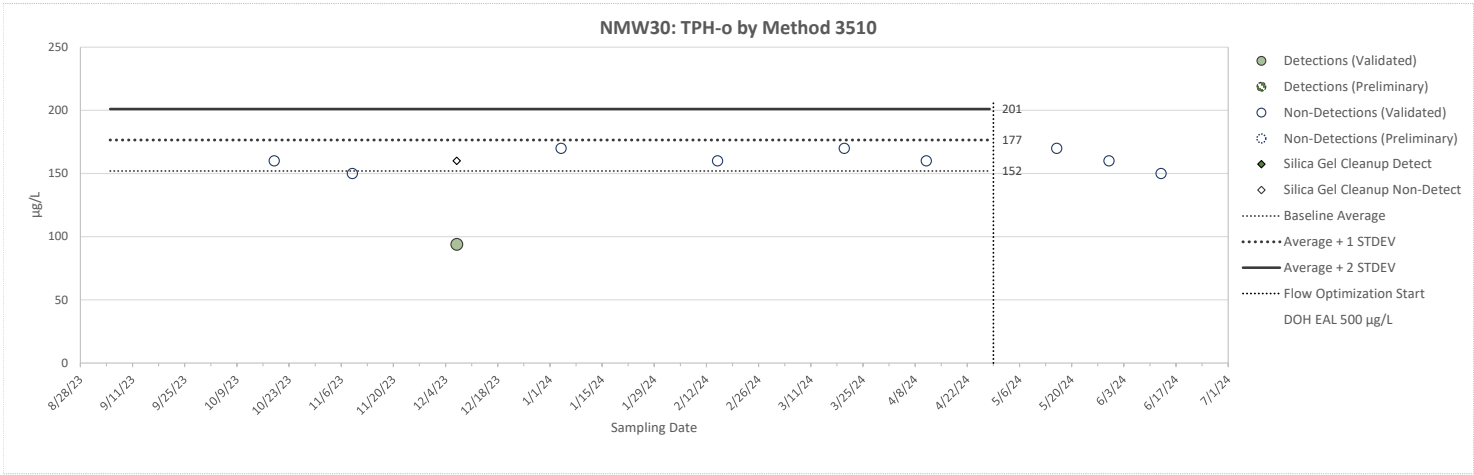


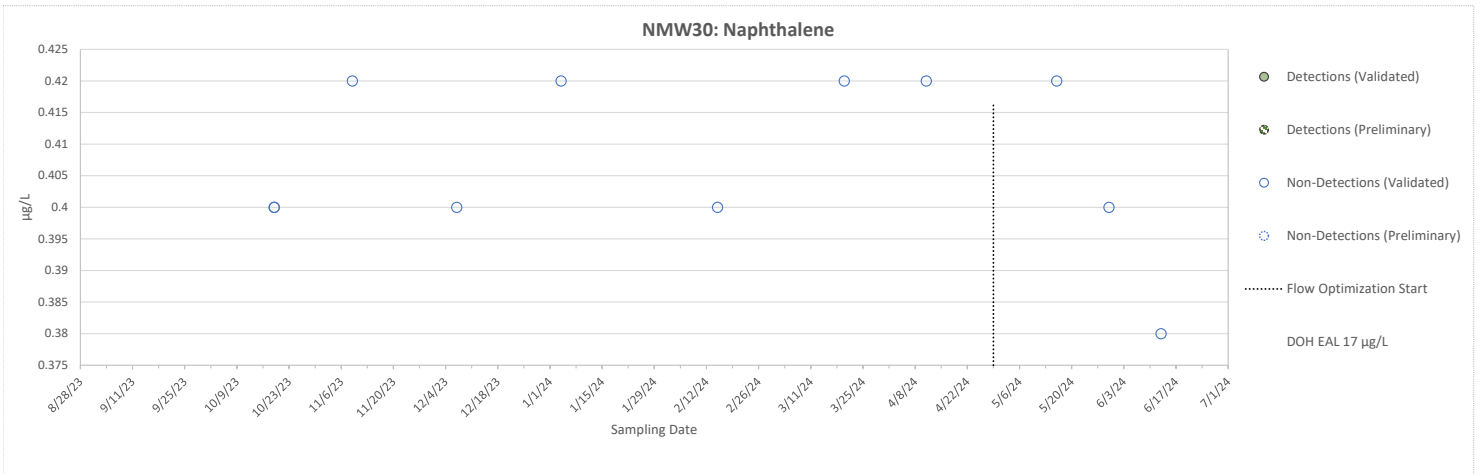
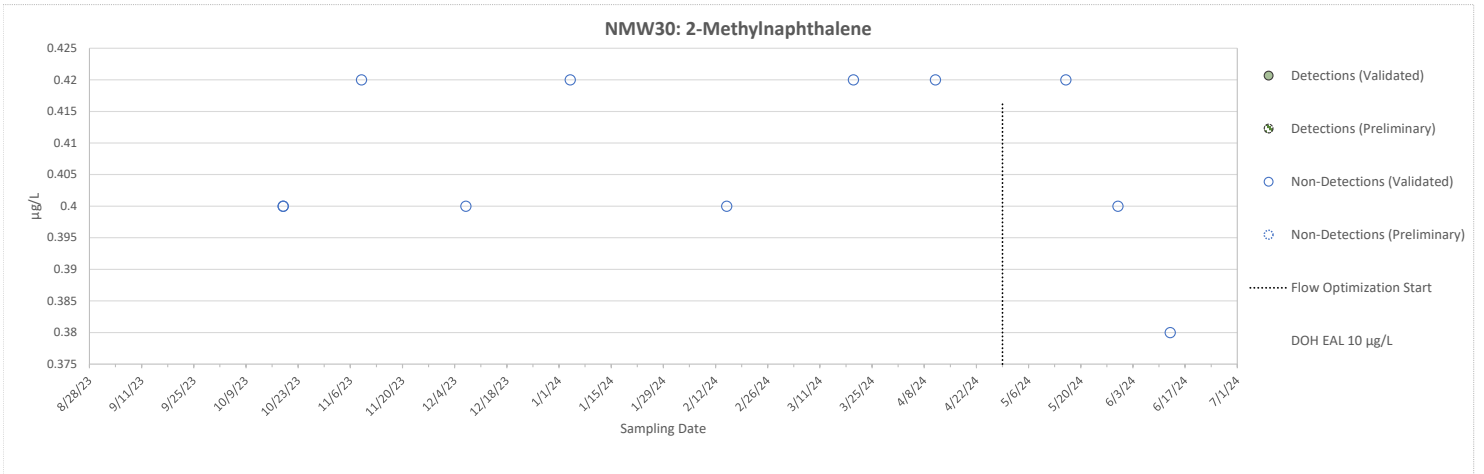
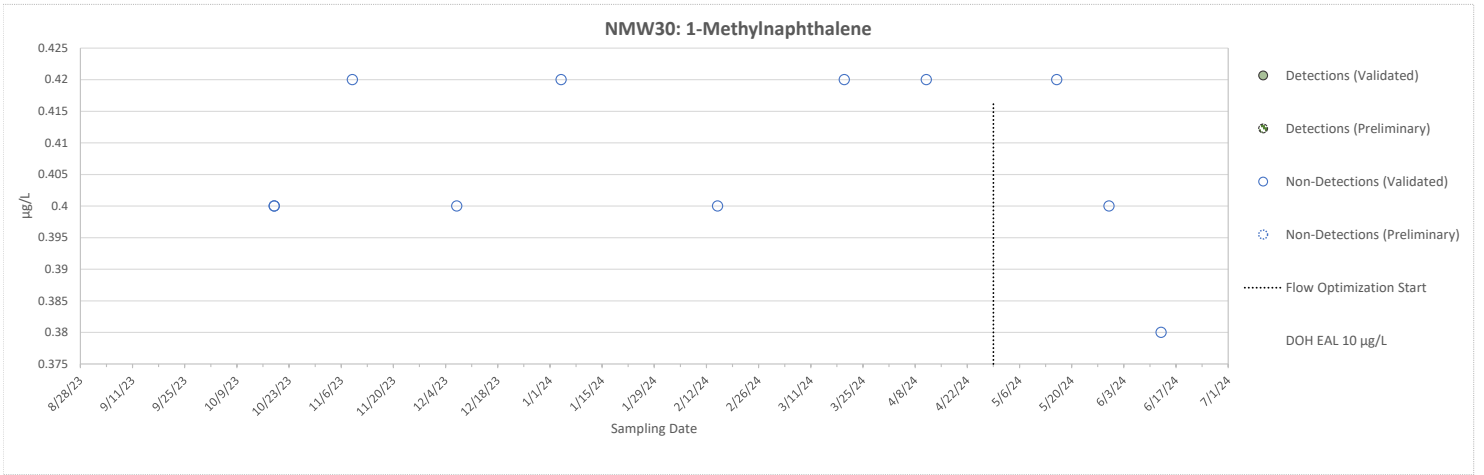
NMW26: Naphthalene



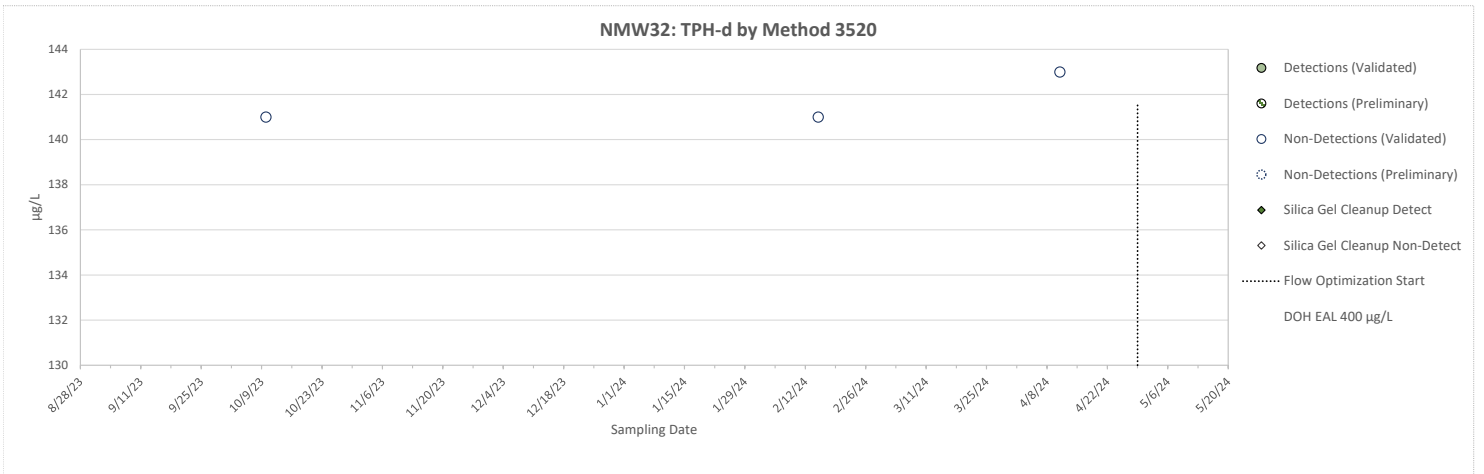
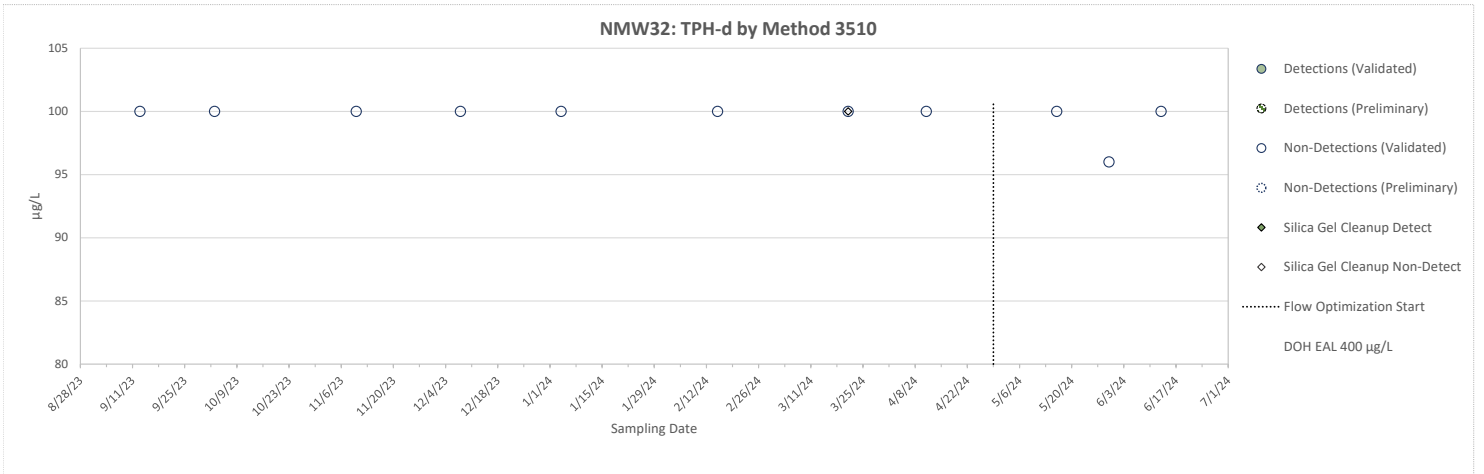
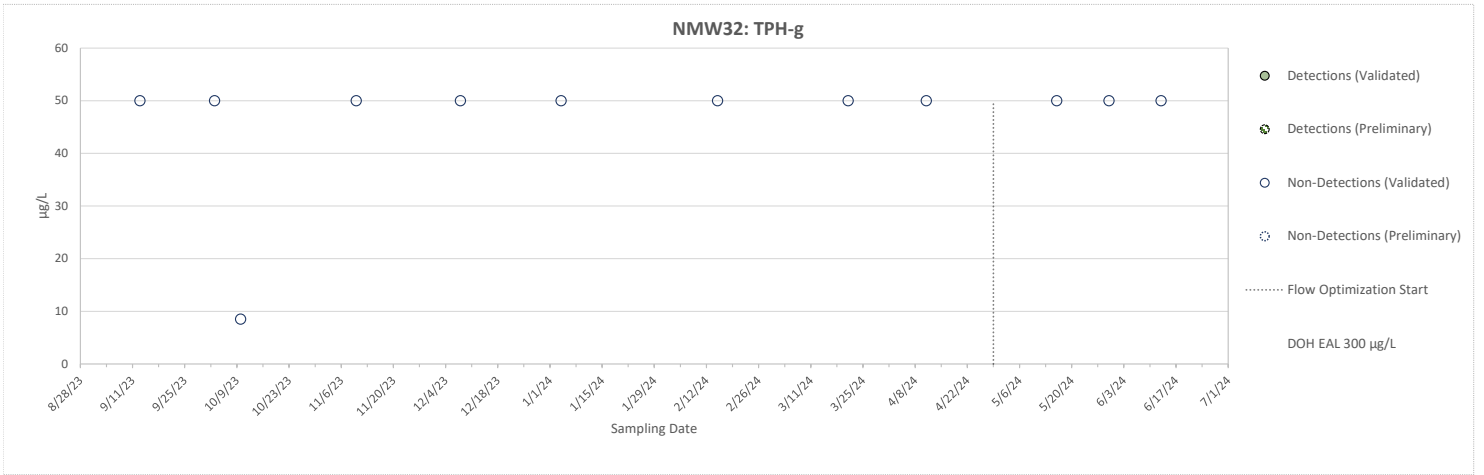
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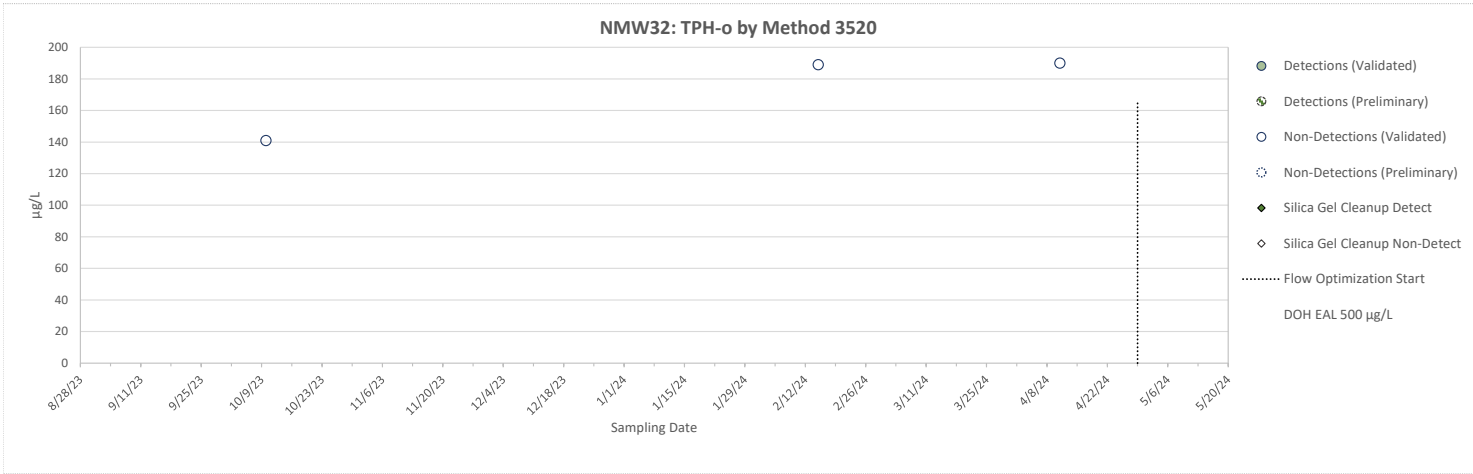
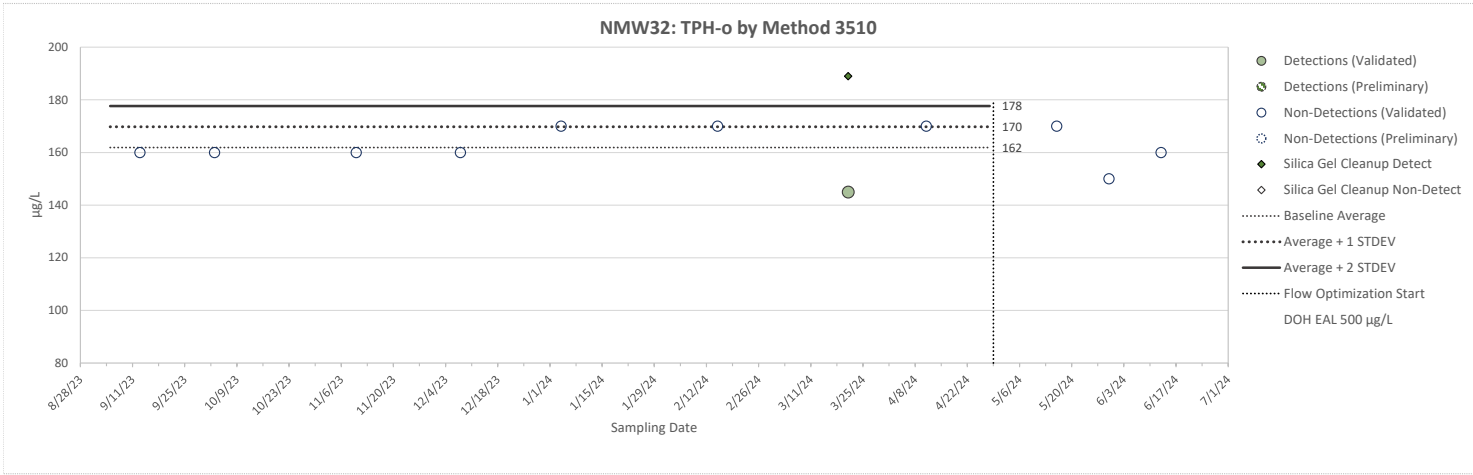


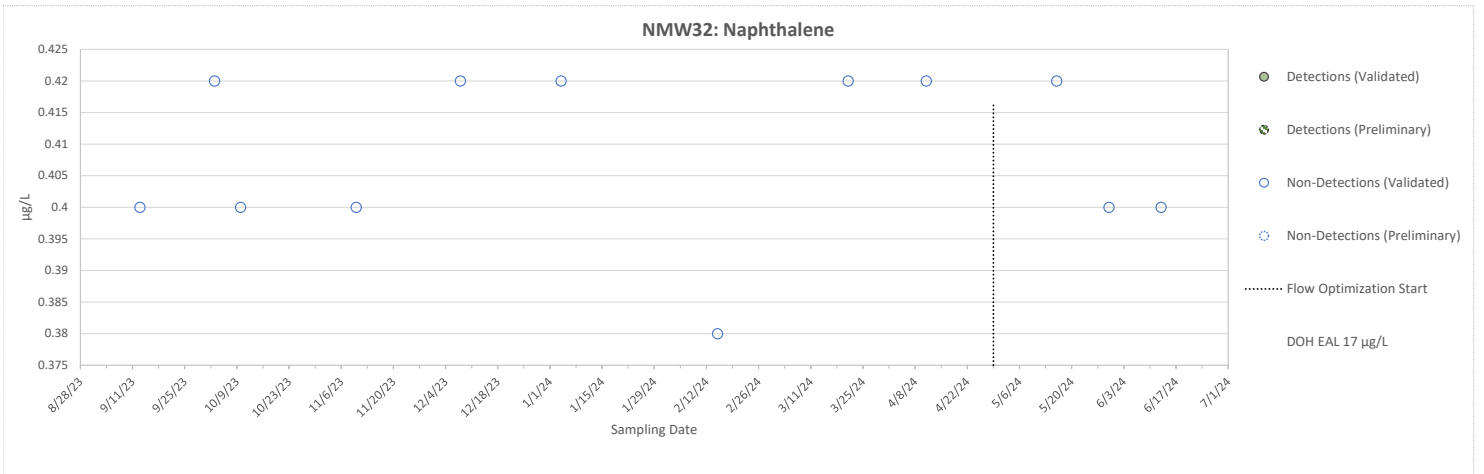
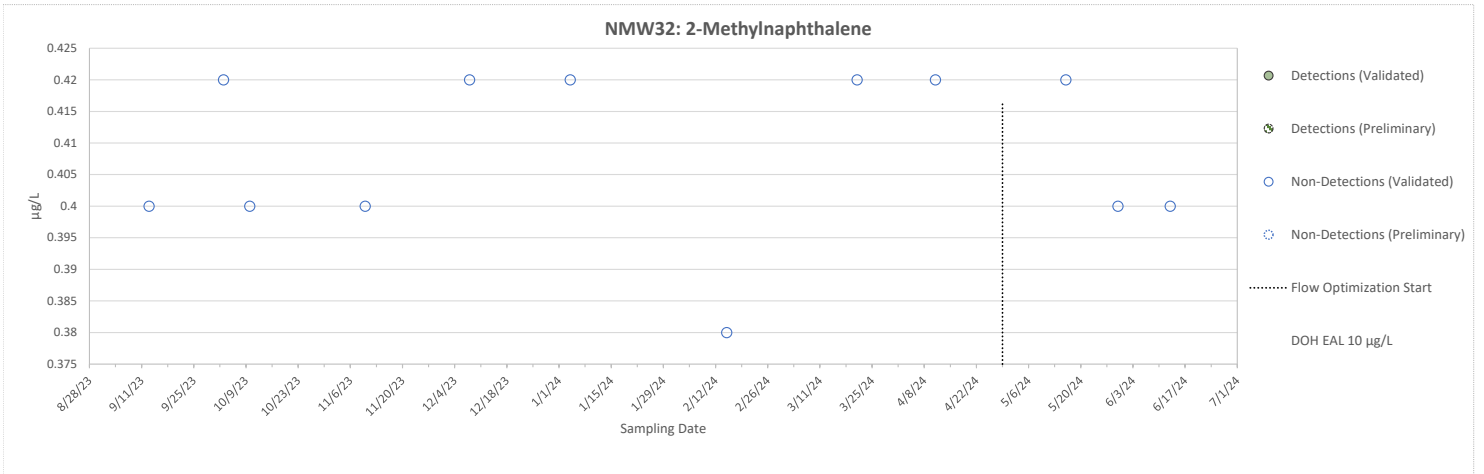
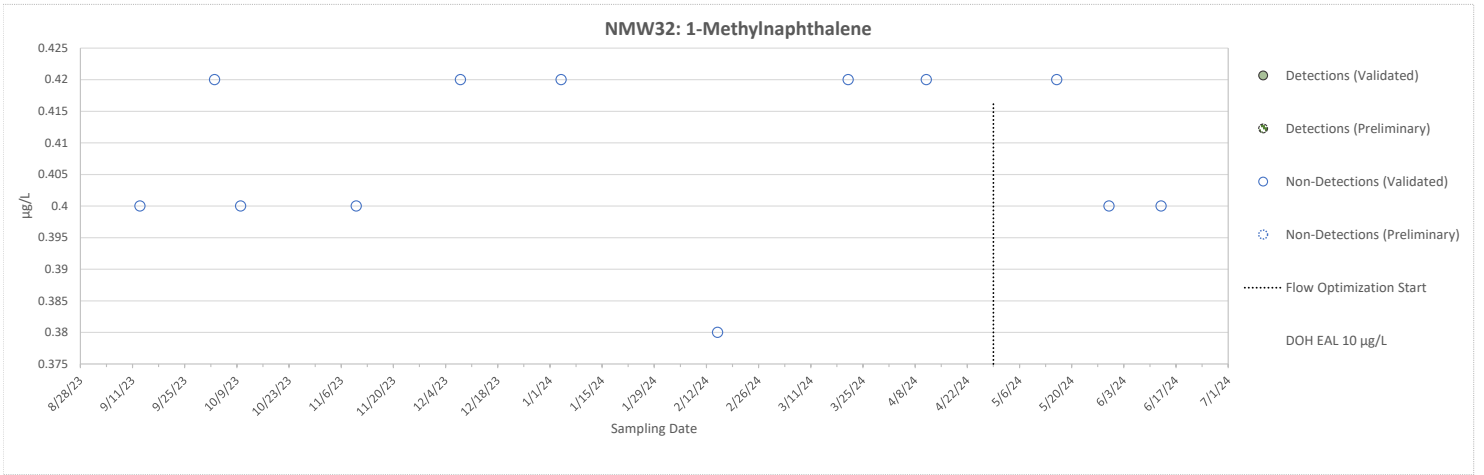




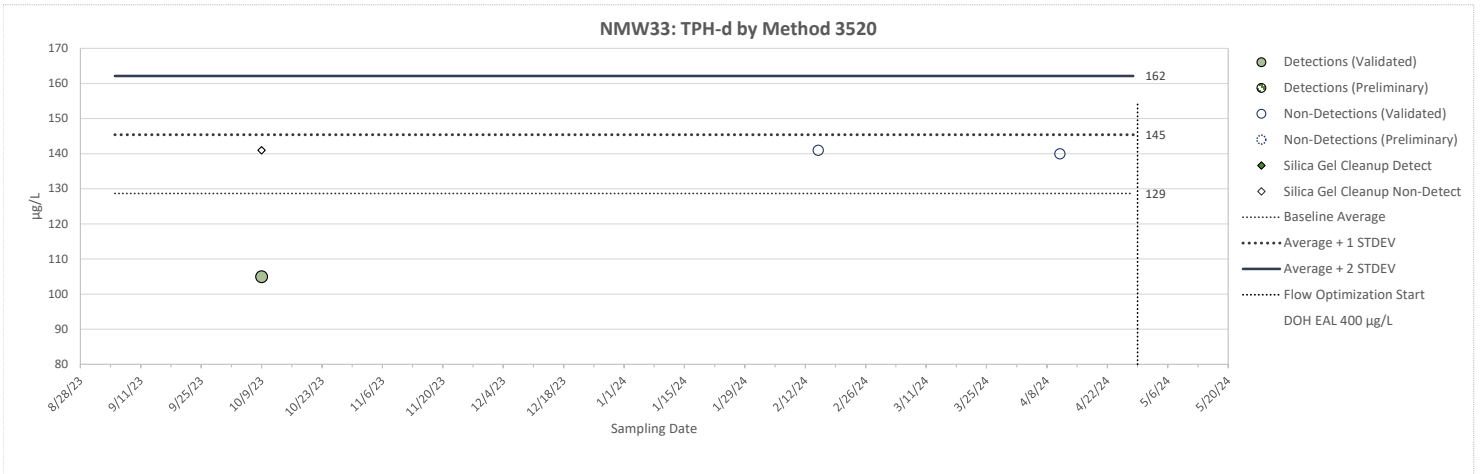
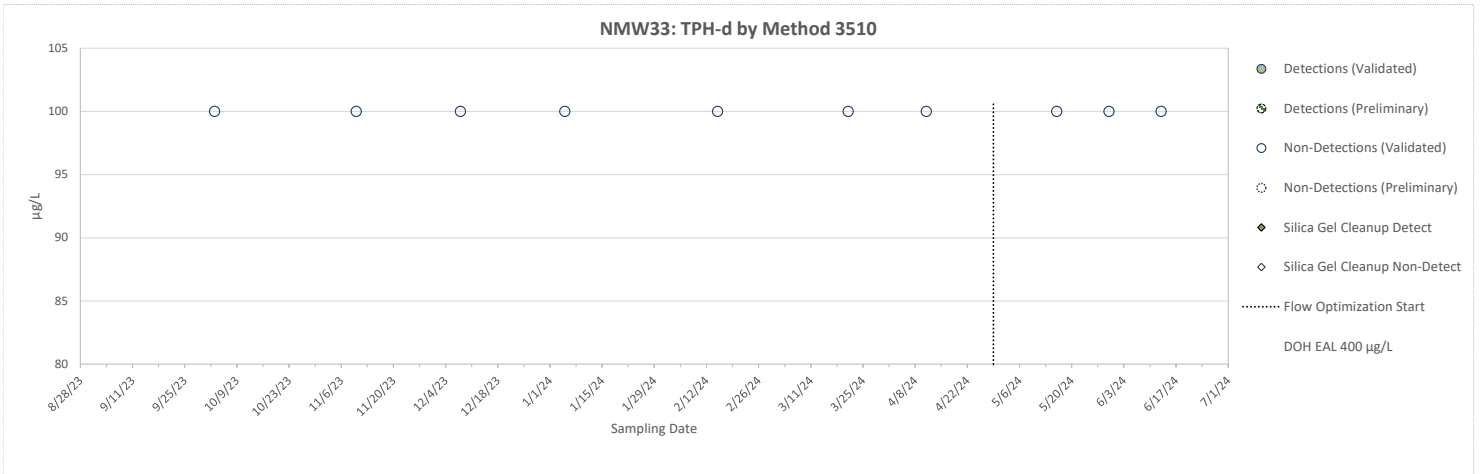
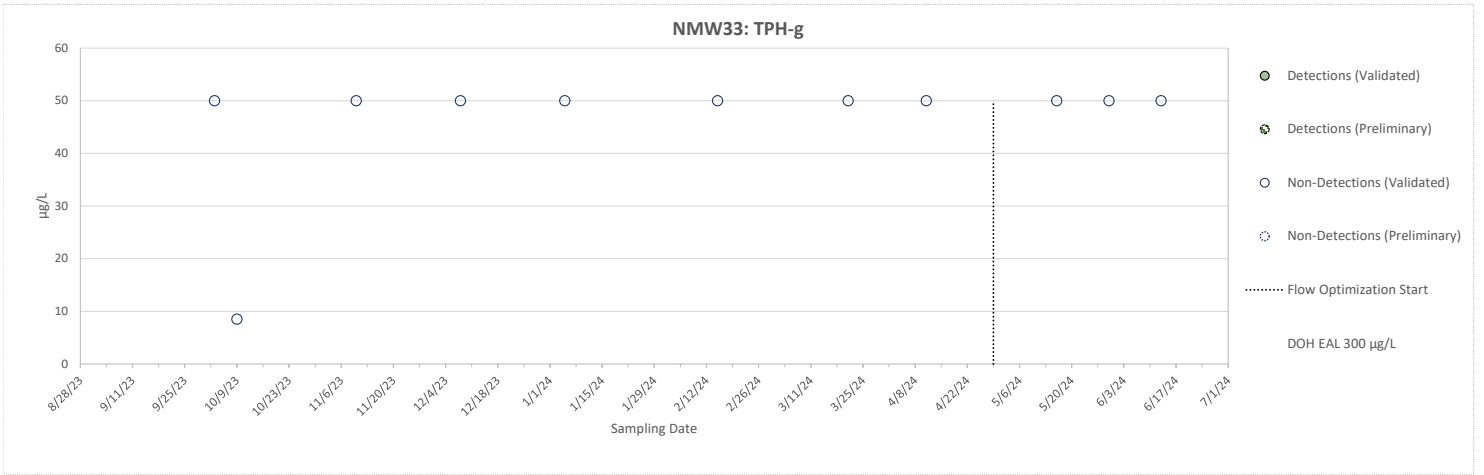
Note: See Data Legend

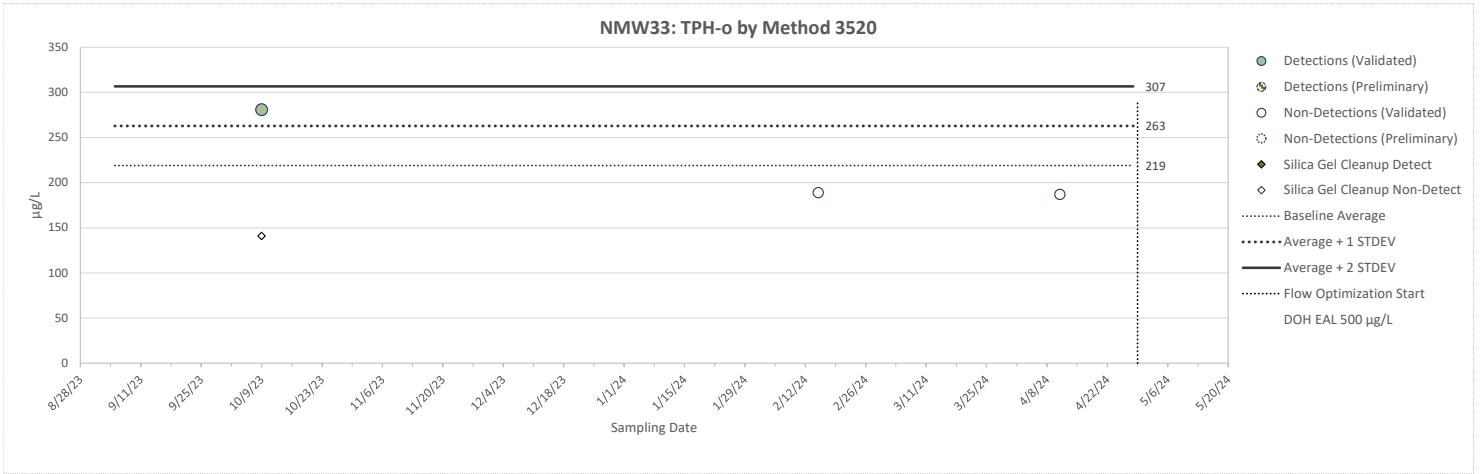
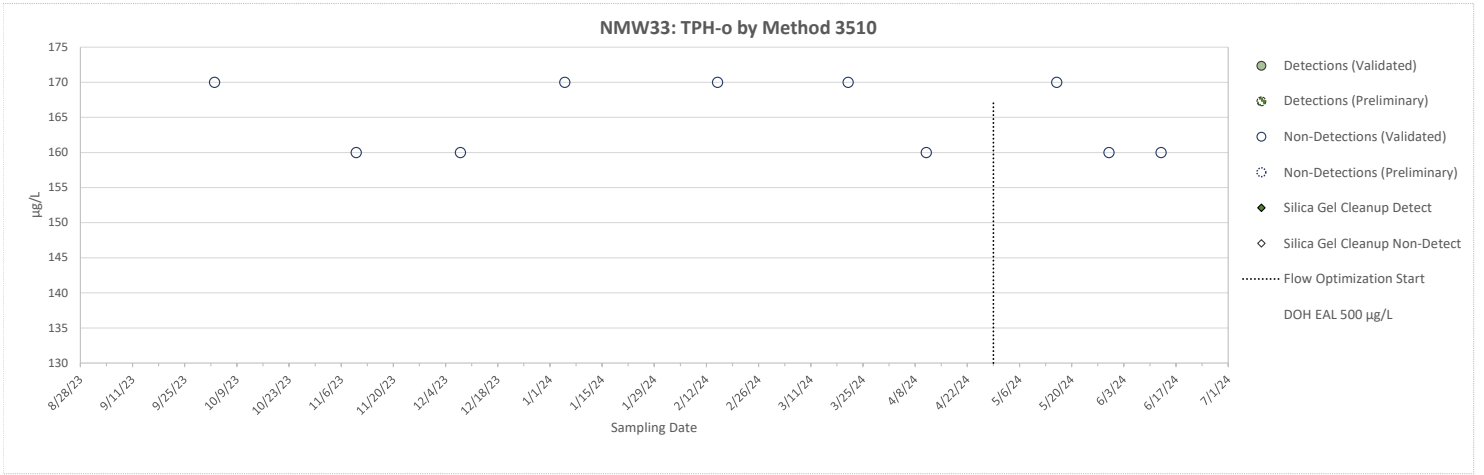


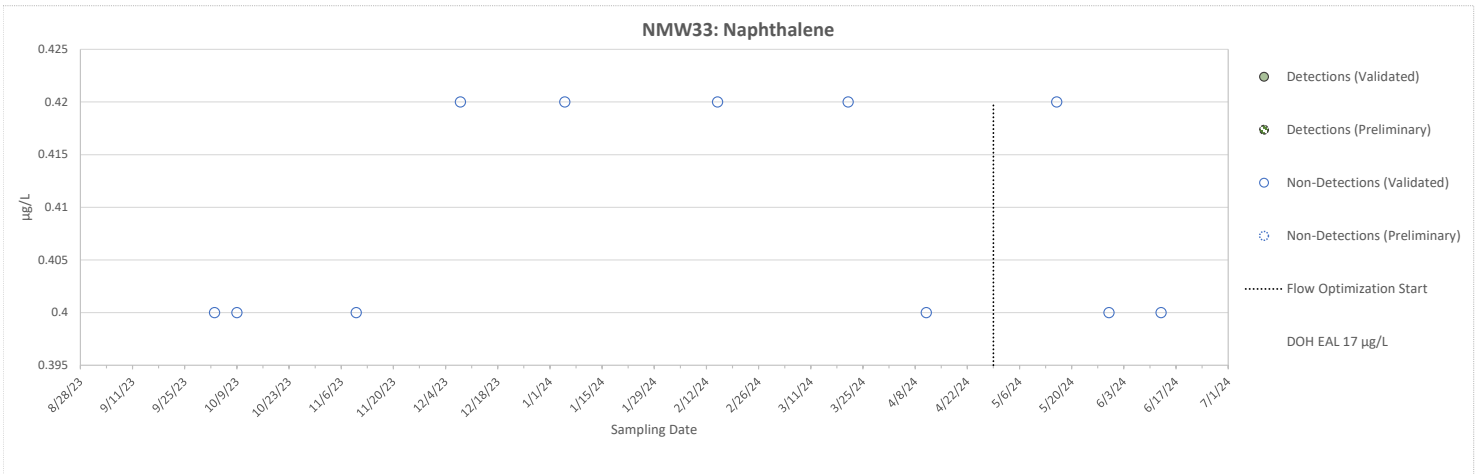
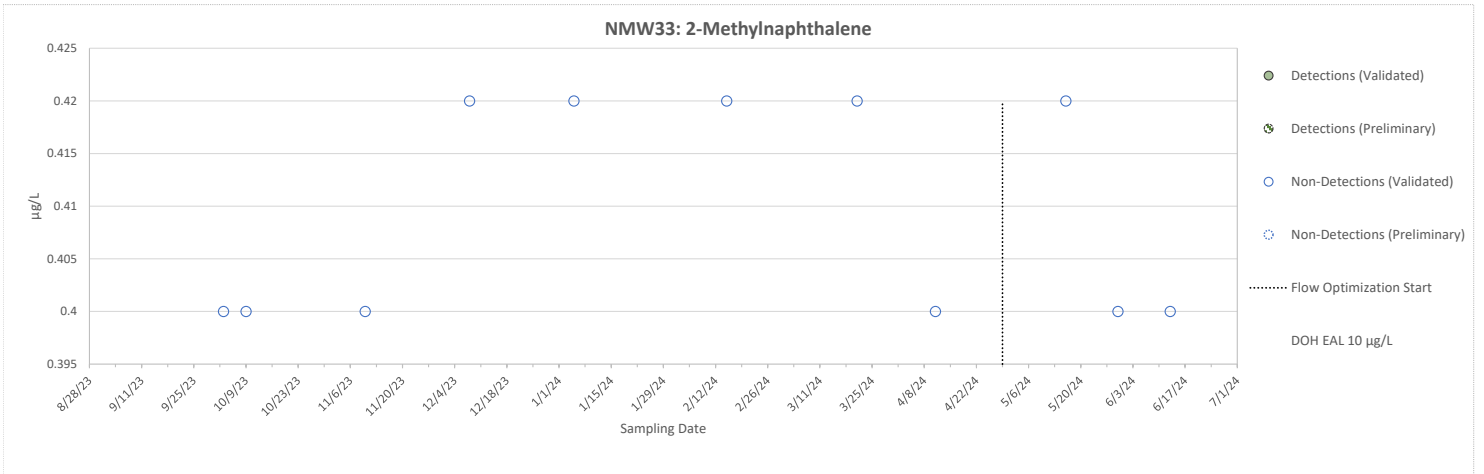
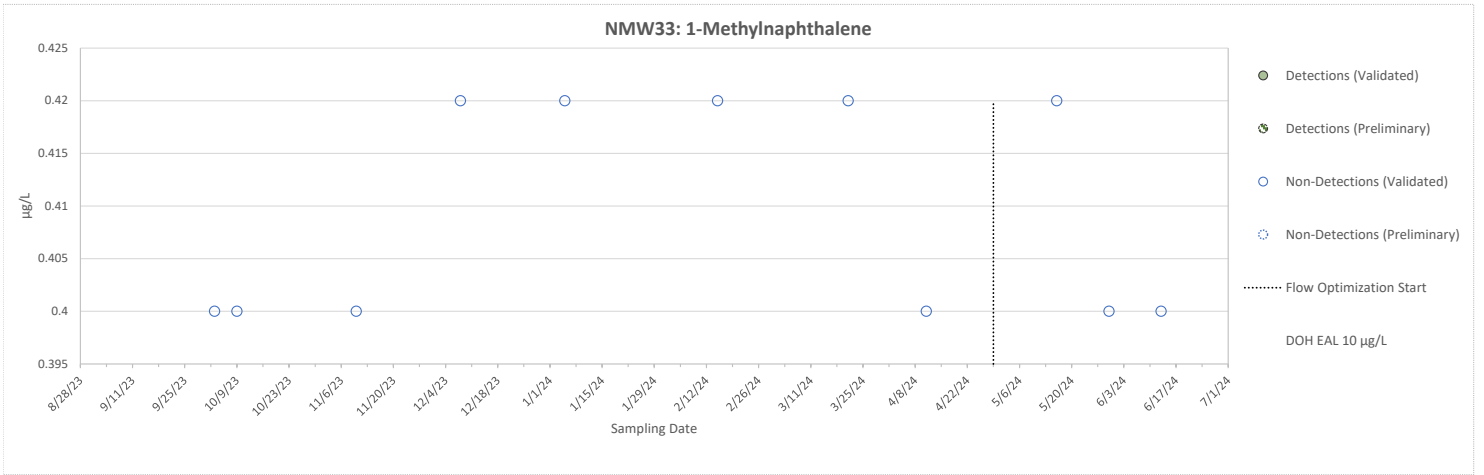




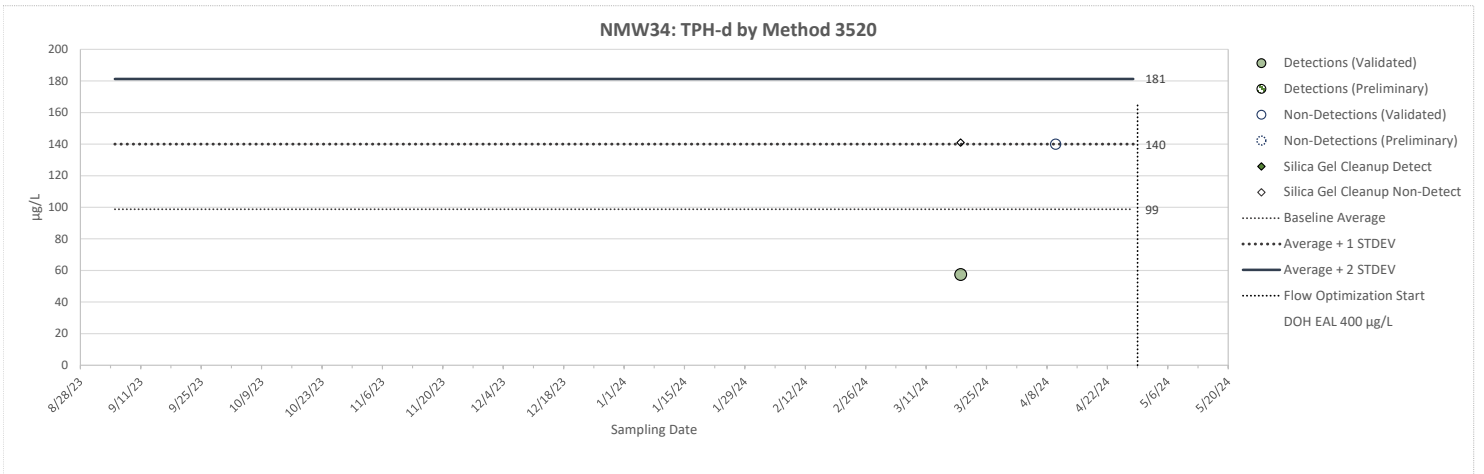
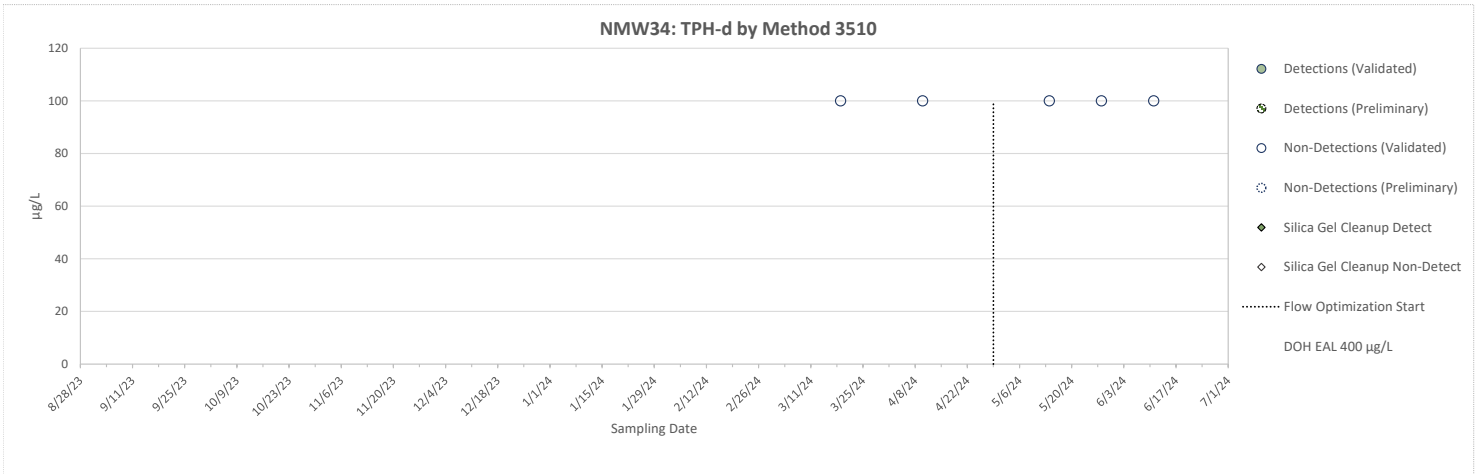
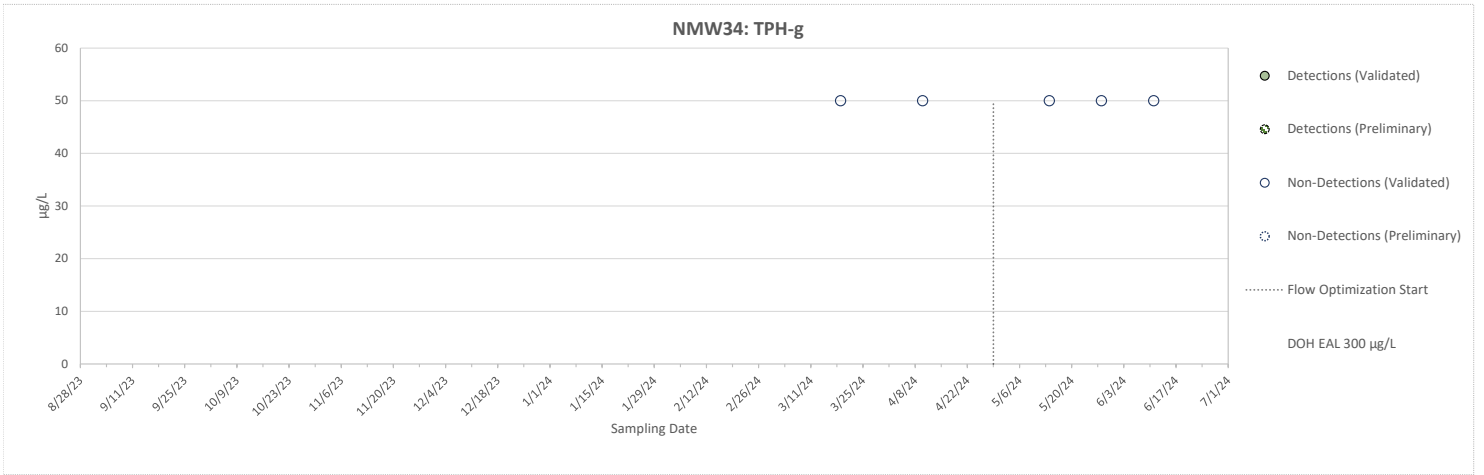
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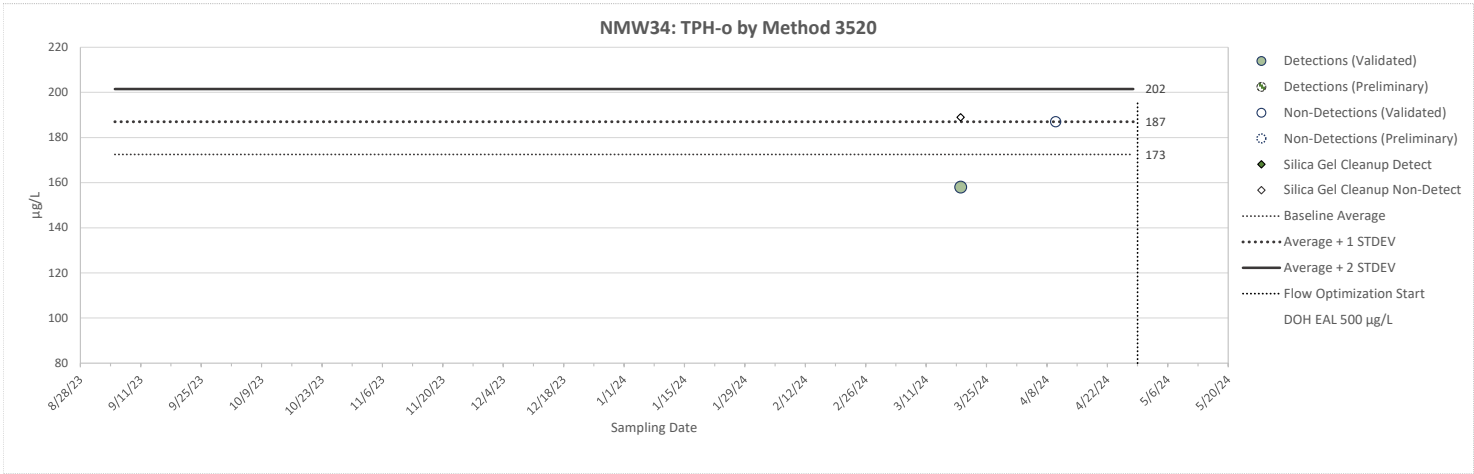
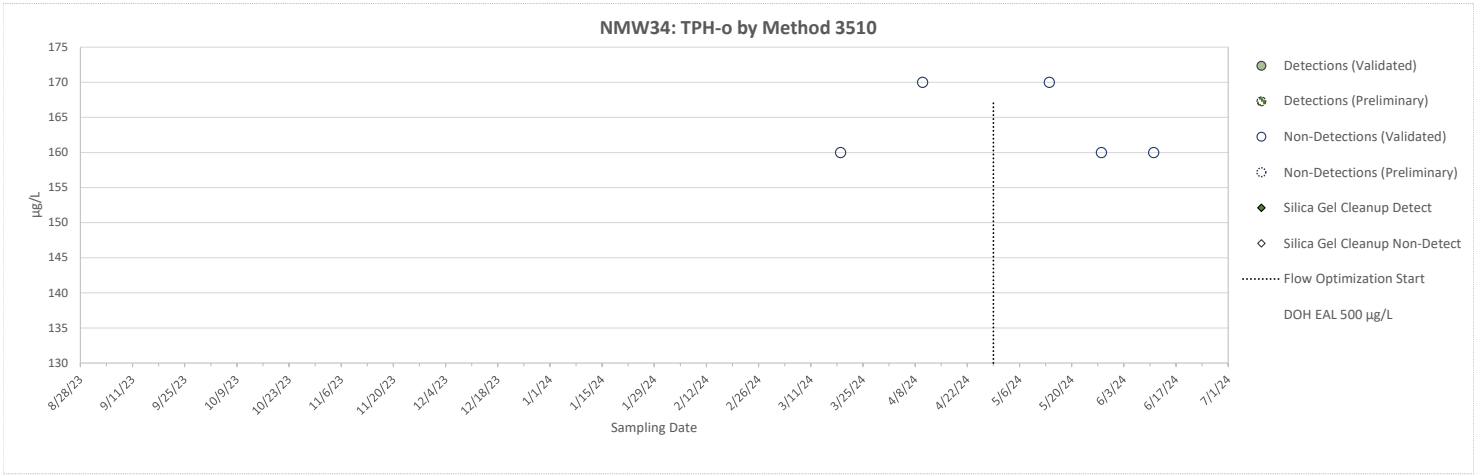


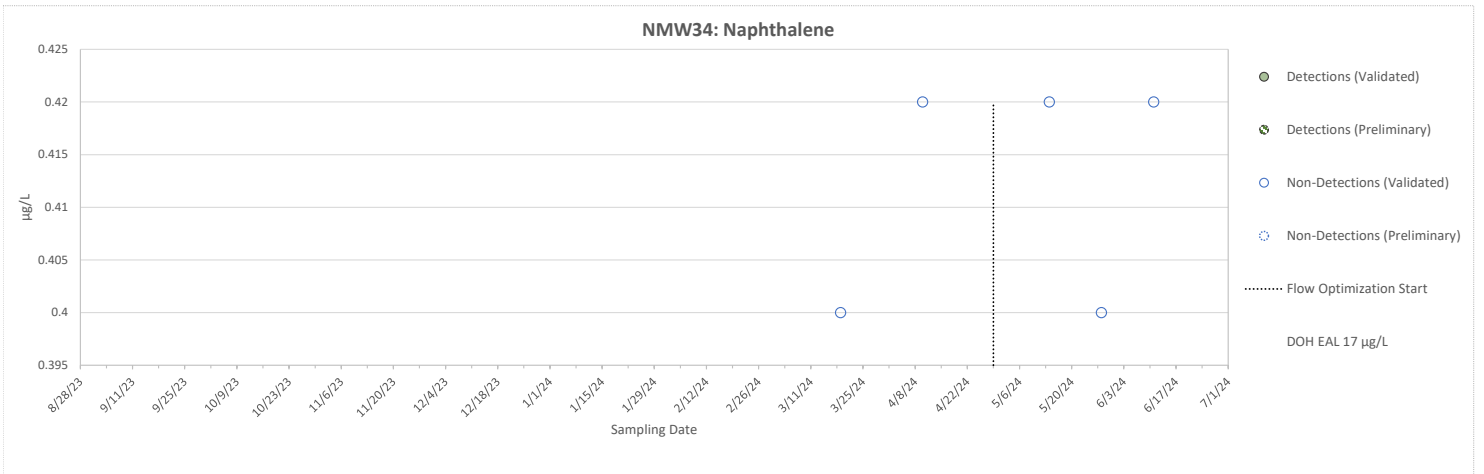
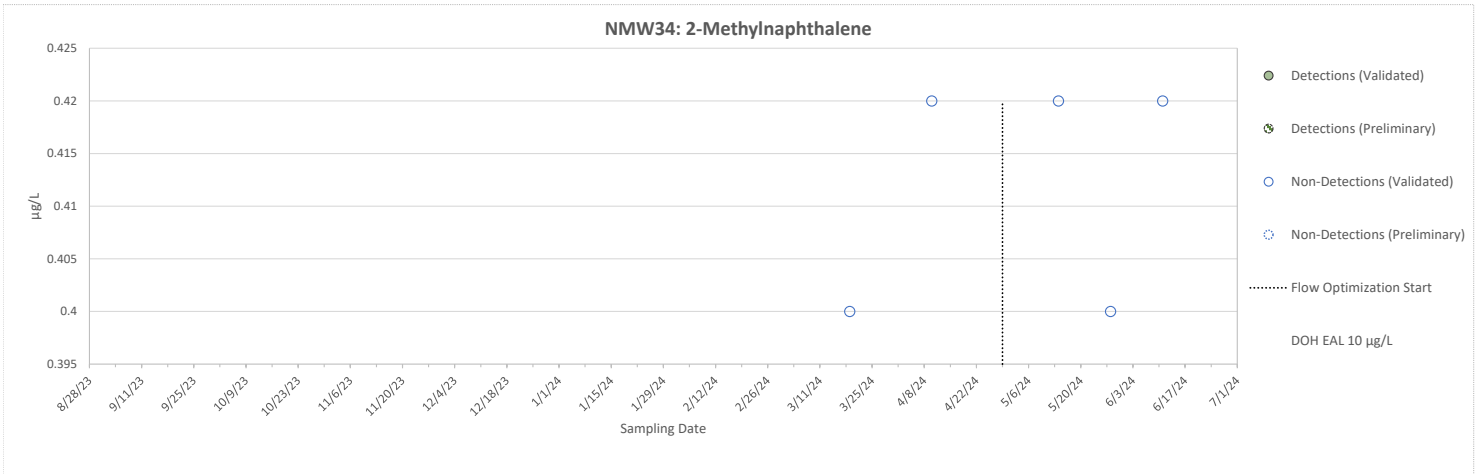
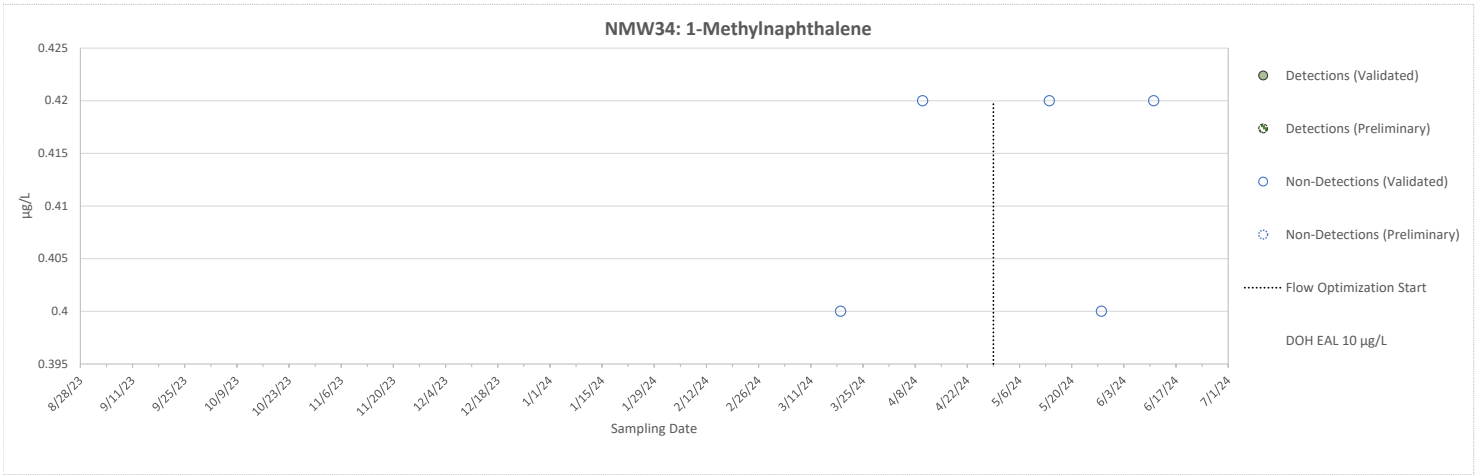




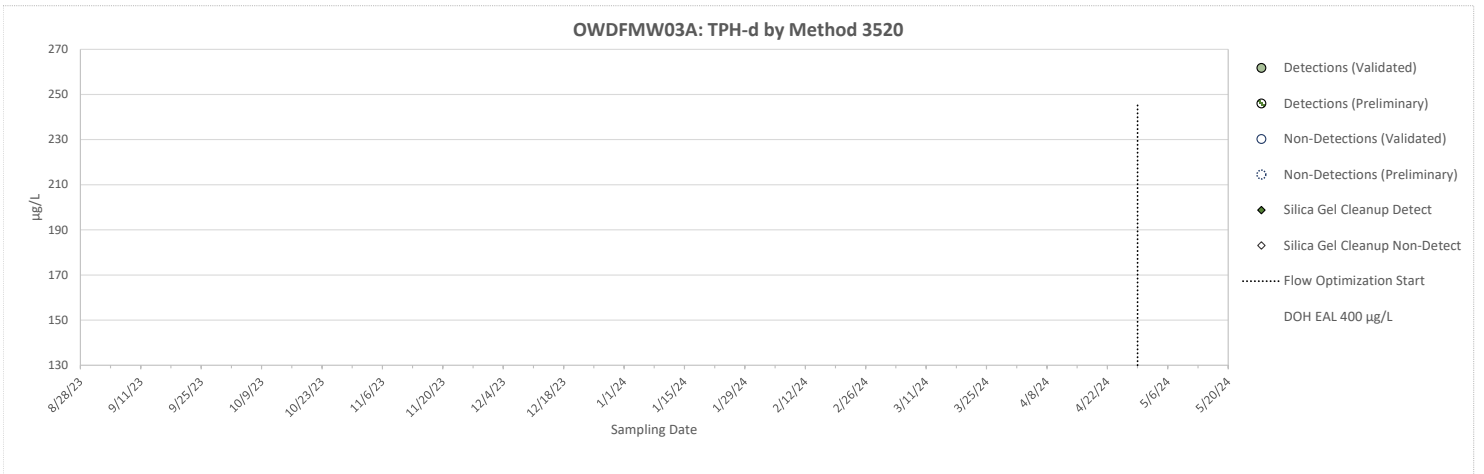
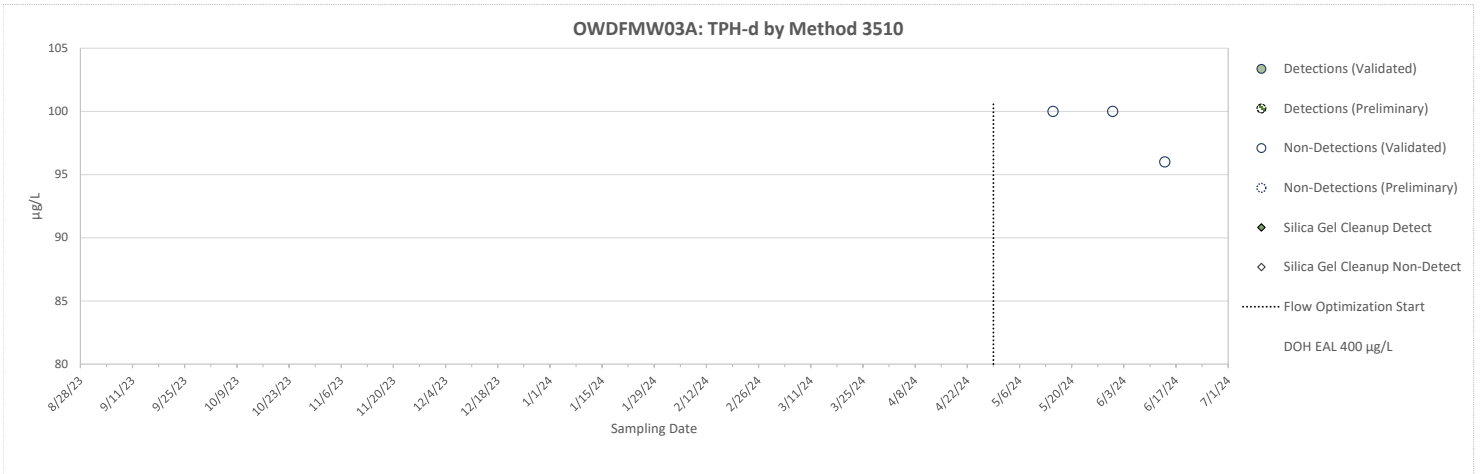
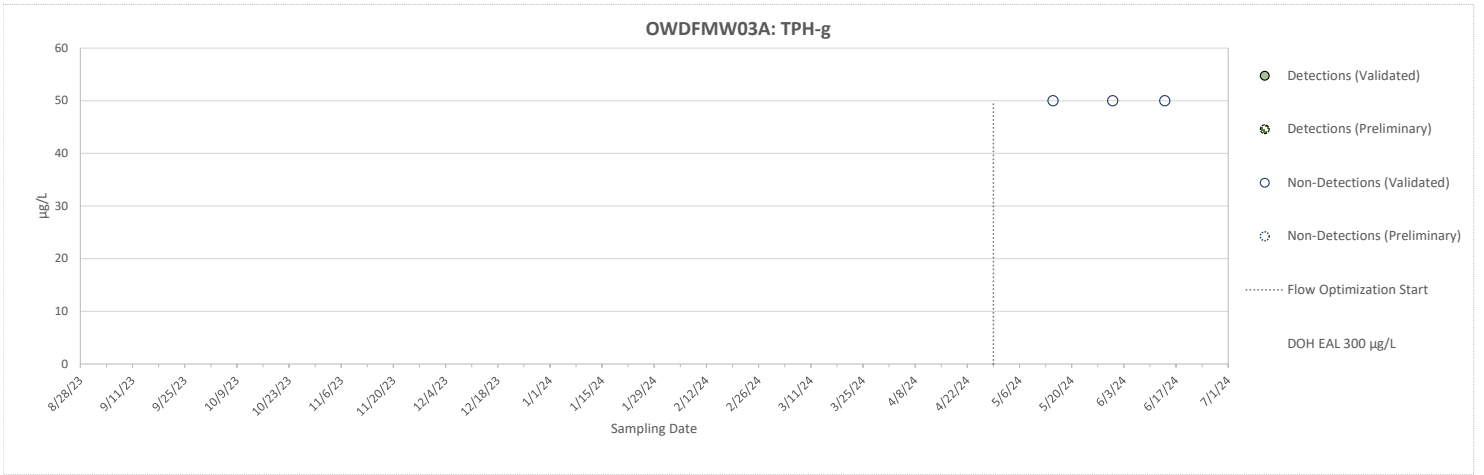
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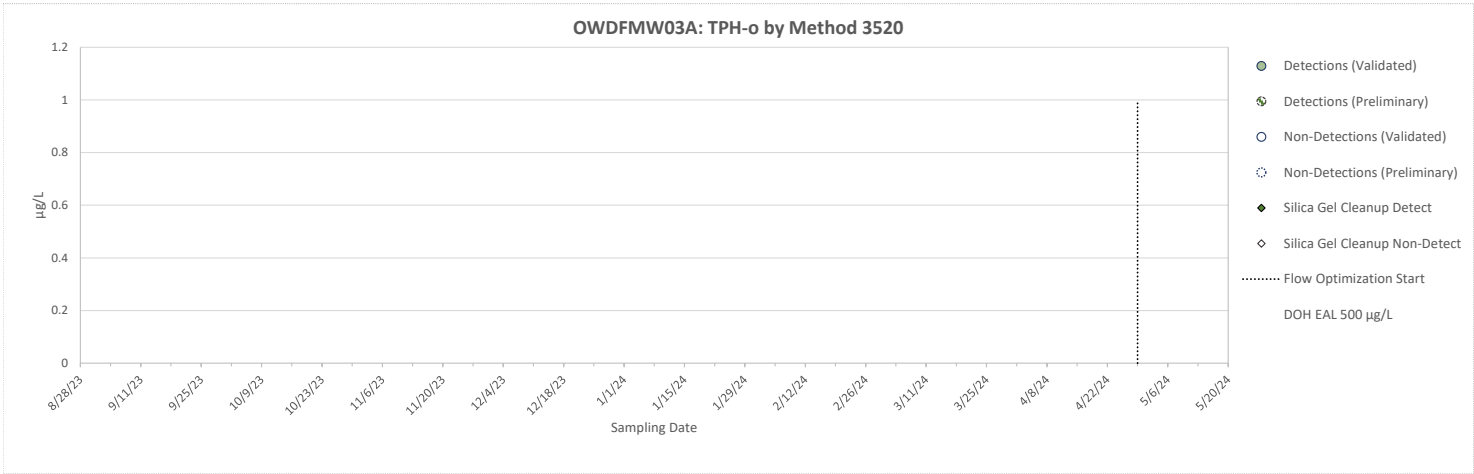
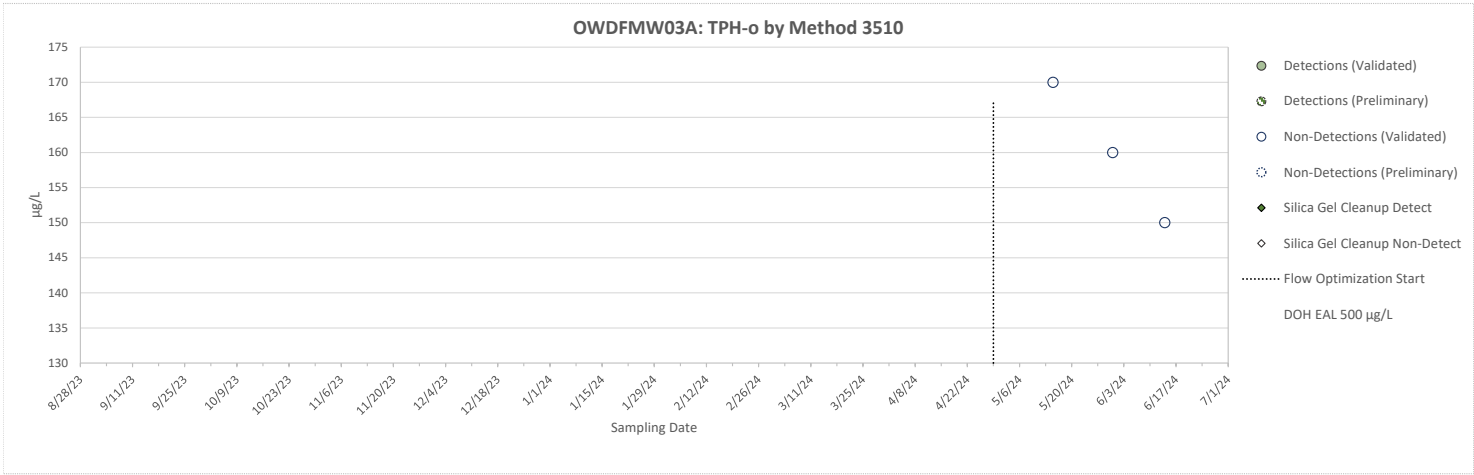


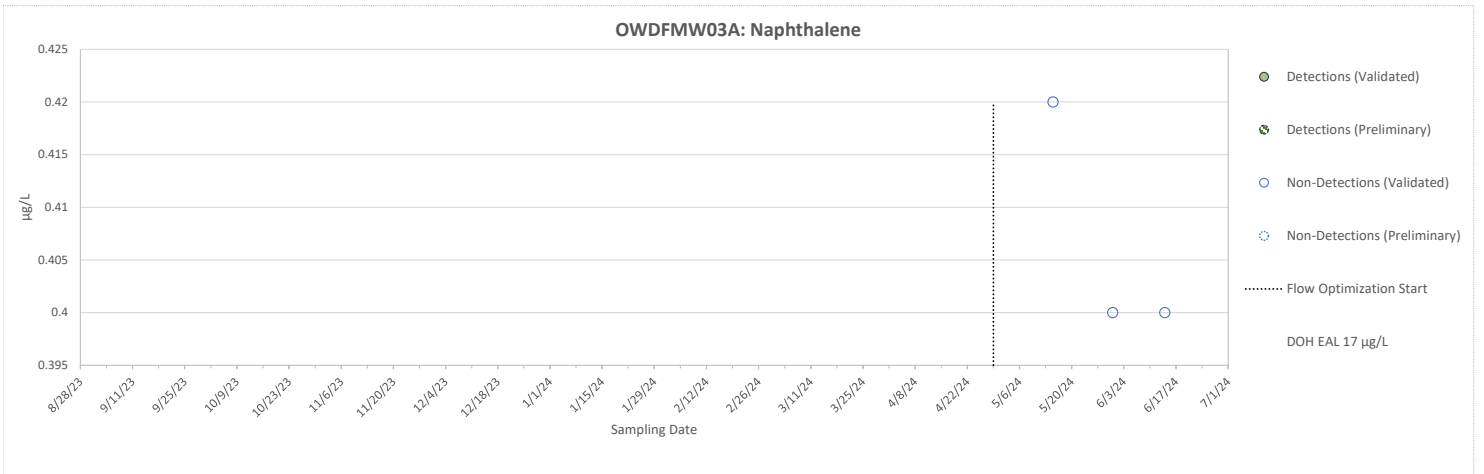
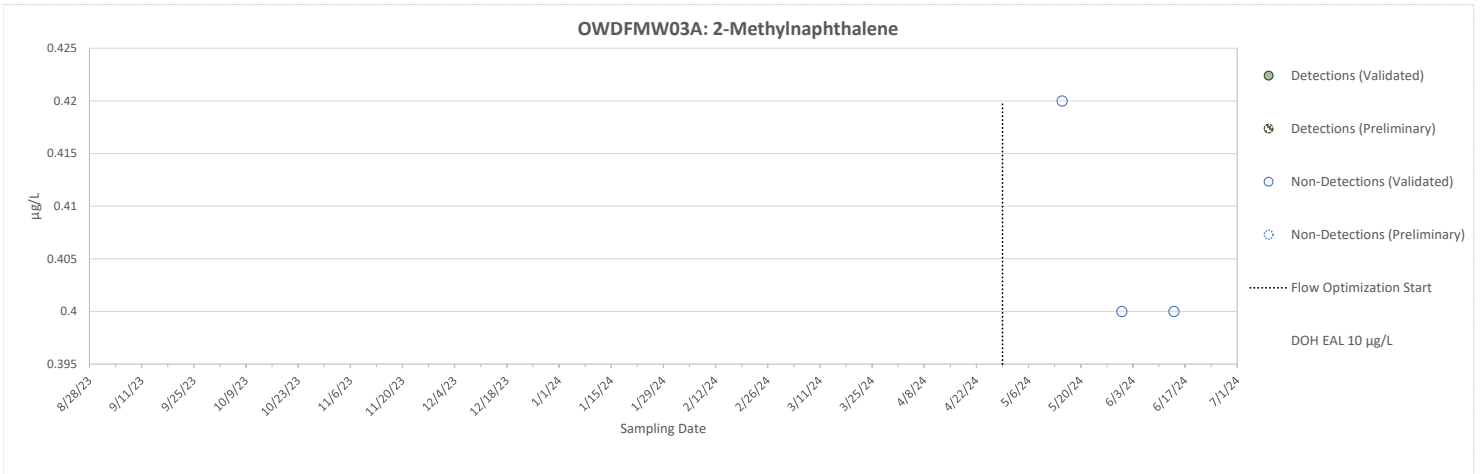
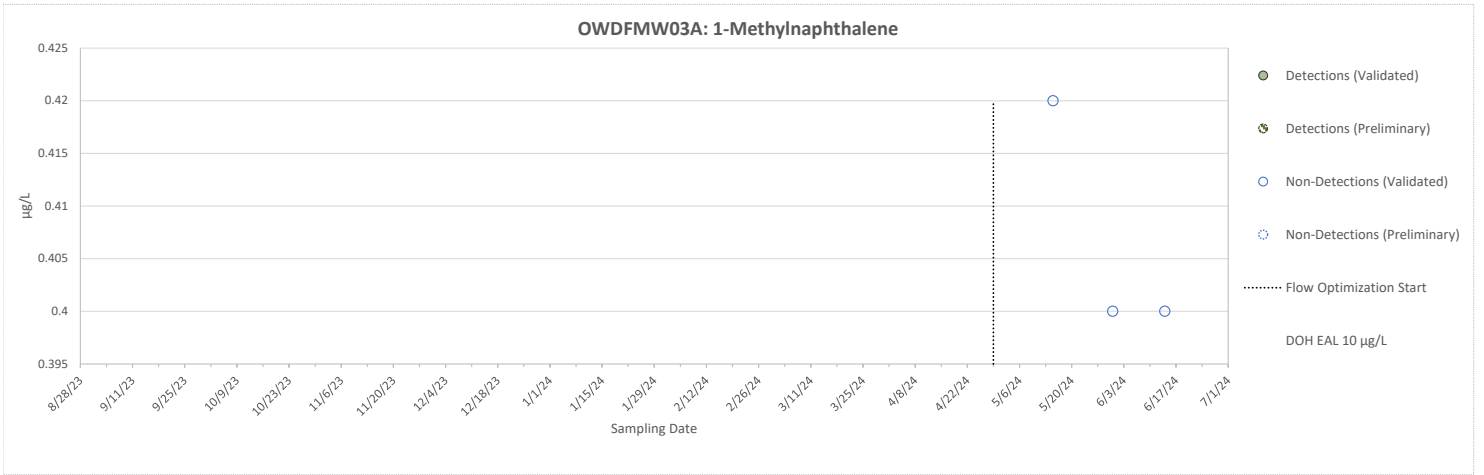




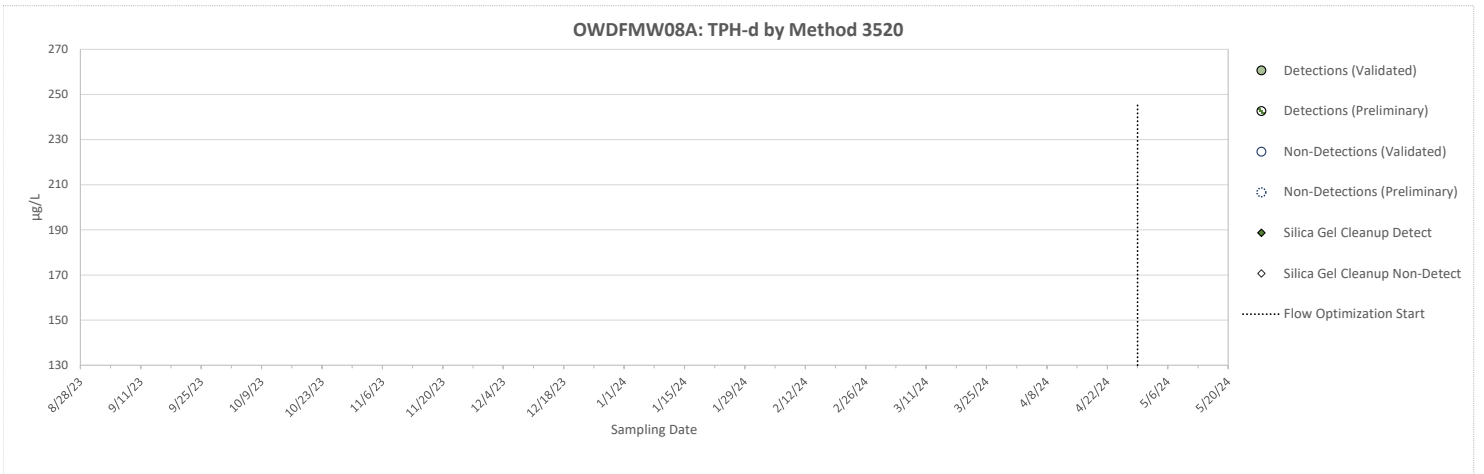
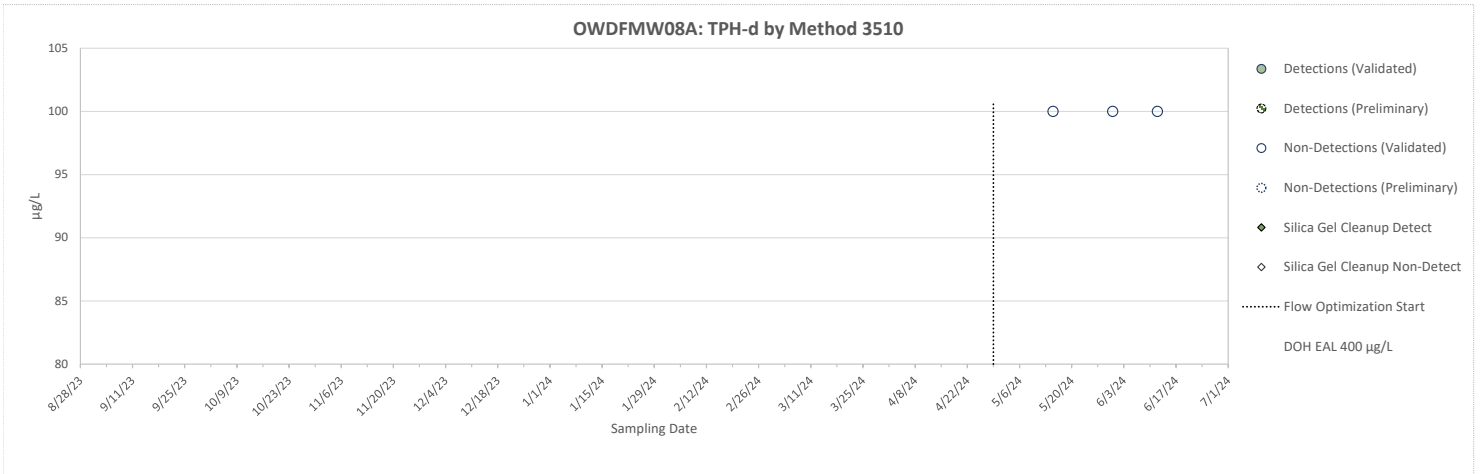
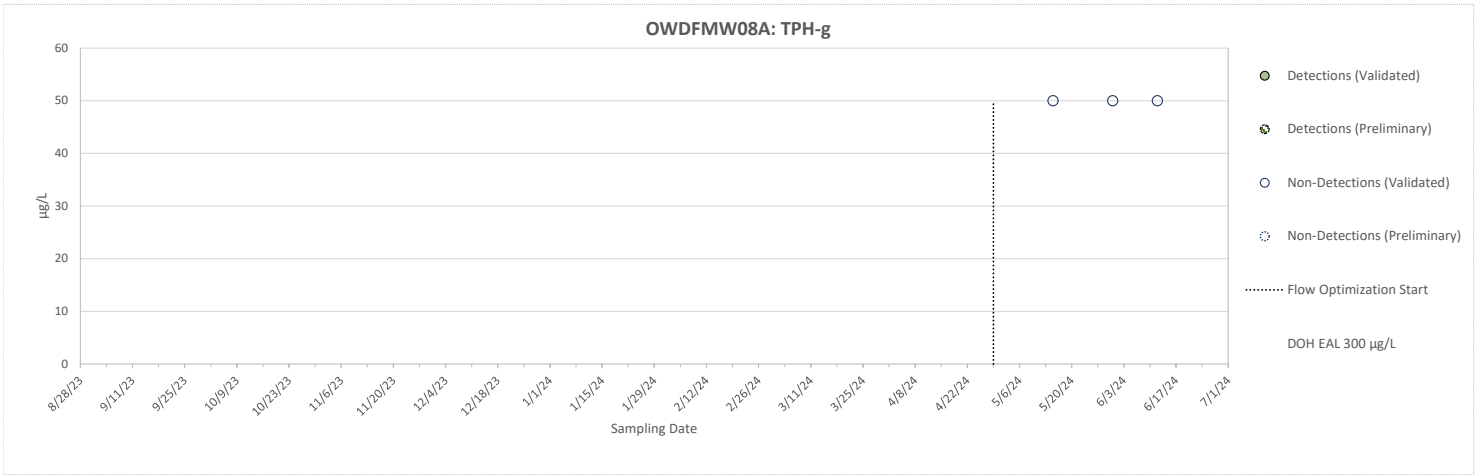
Note: See Data Legend



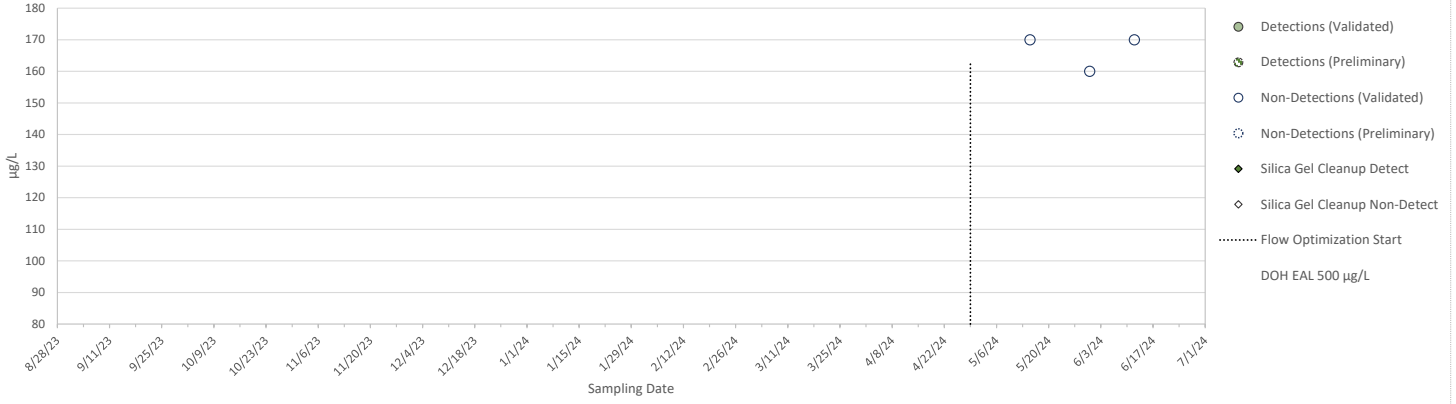




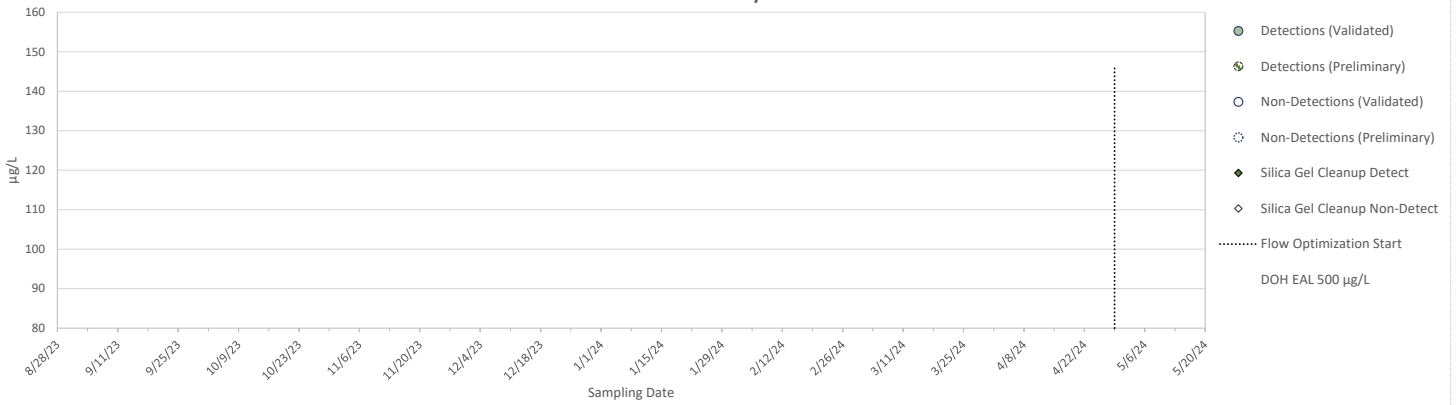
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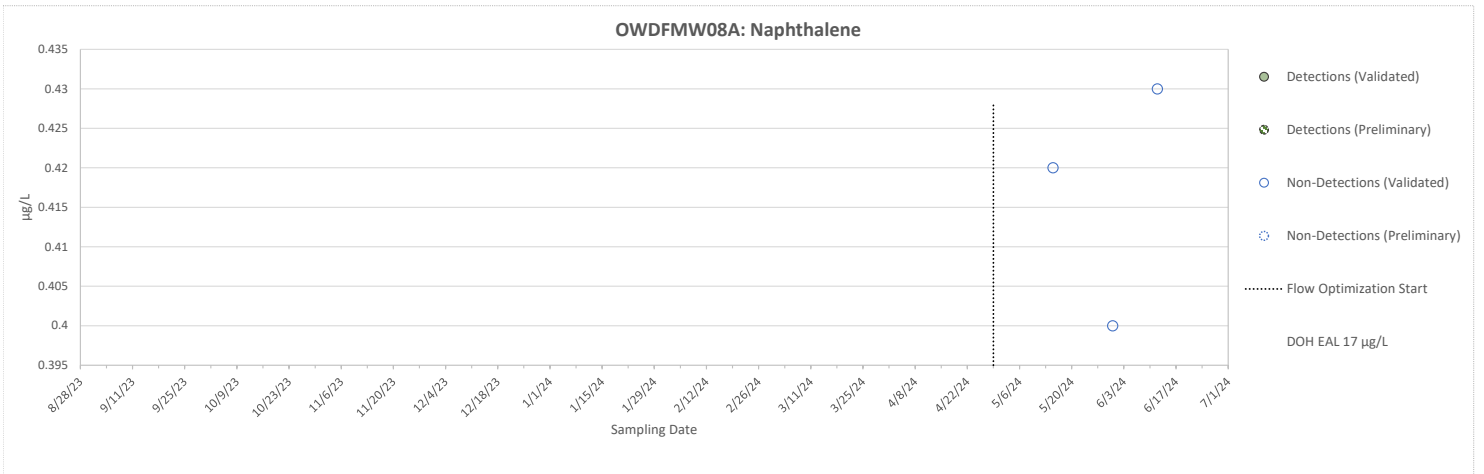
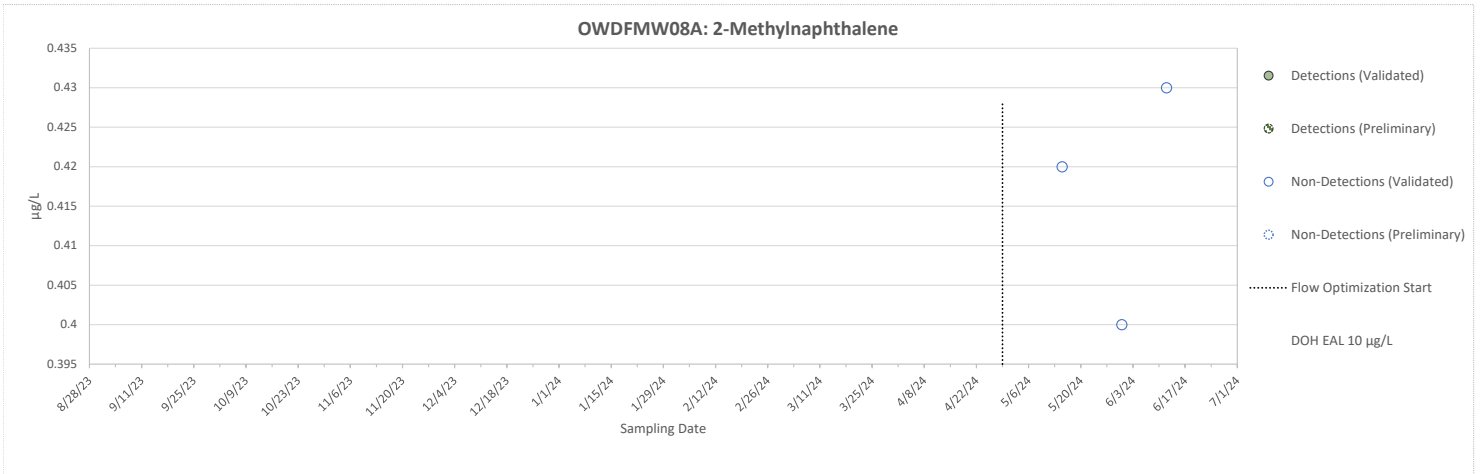
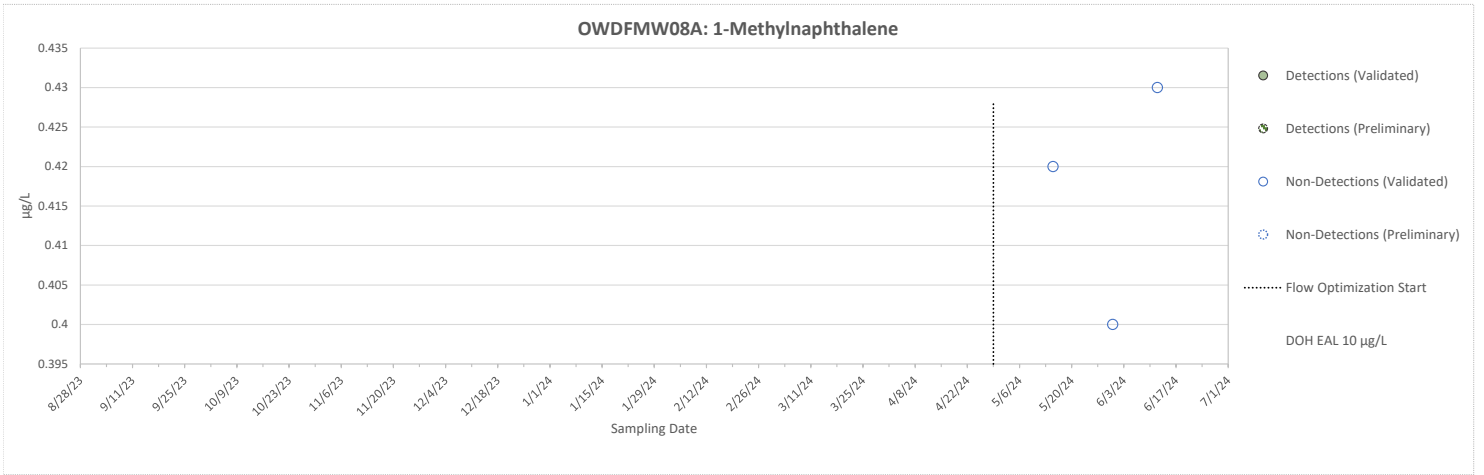


OWDFMW08A: TPH-o by Method 3510

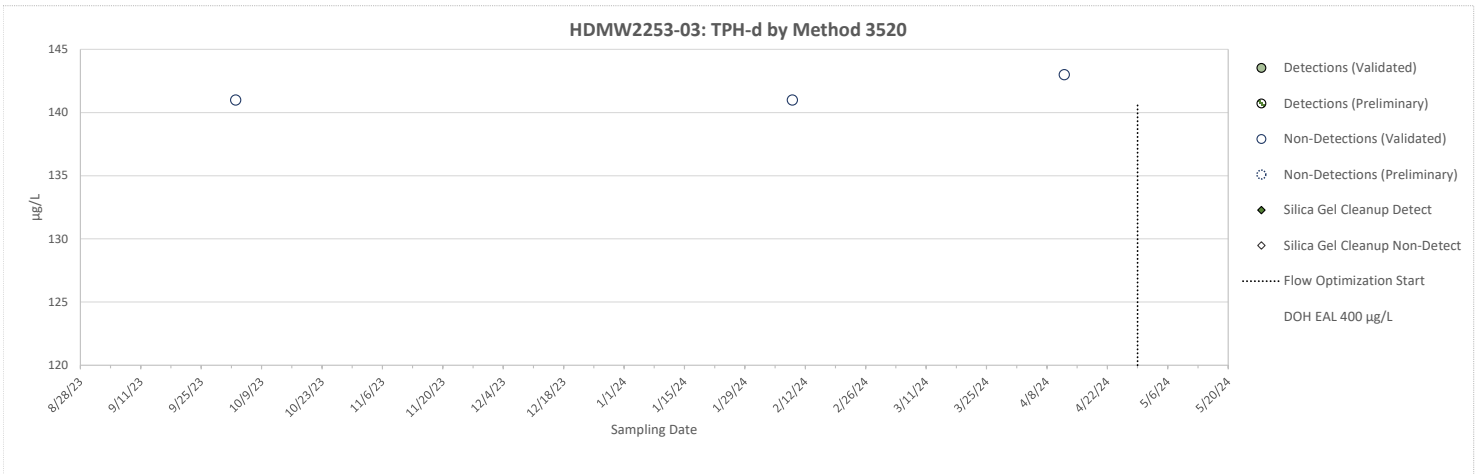
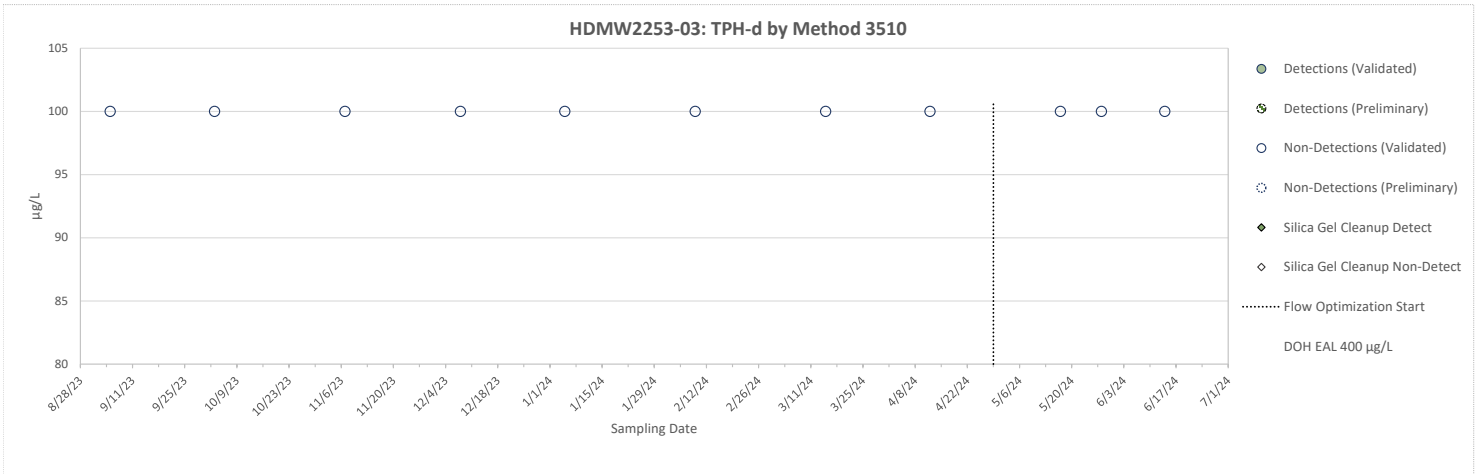
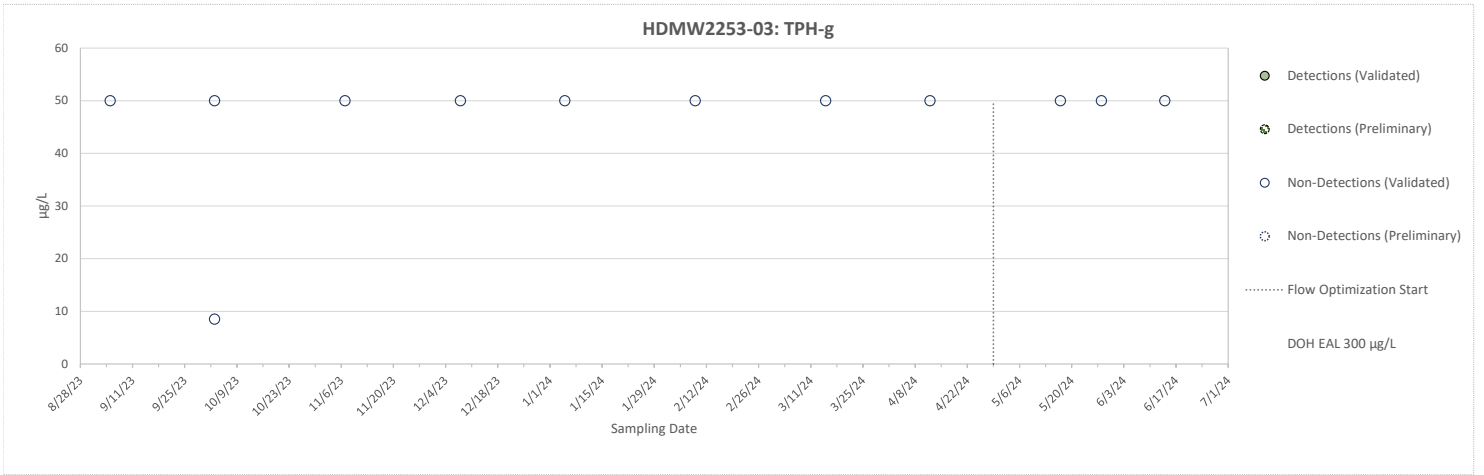


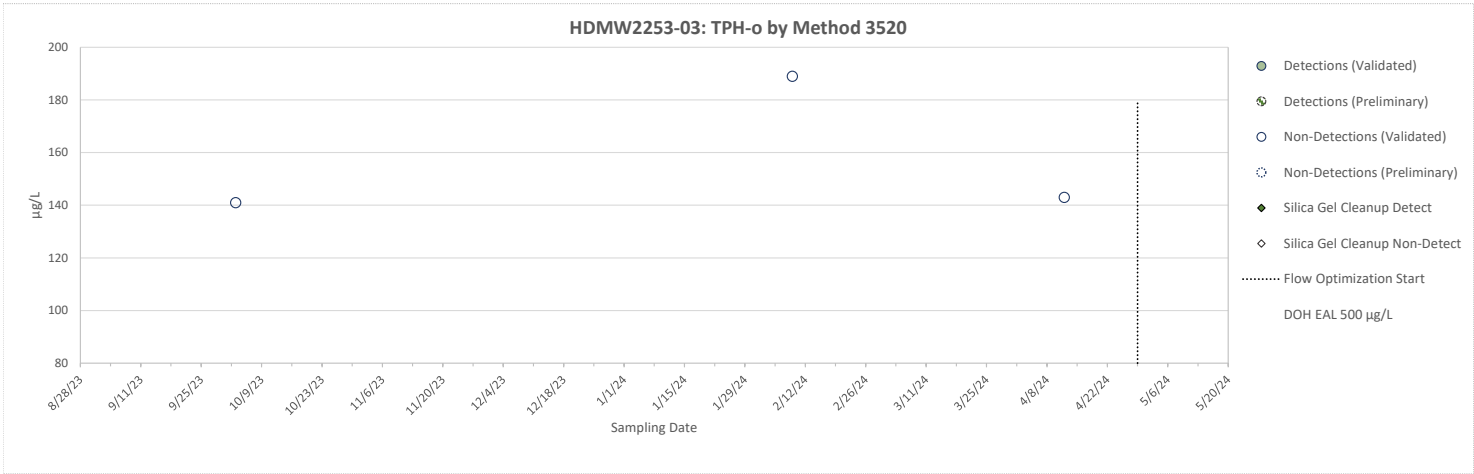
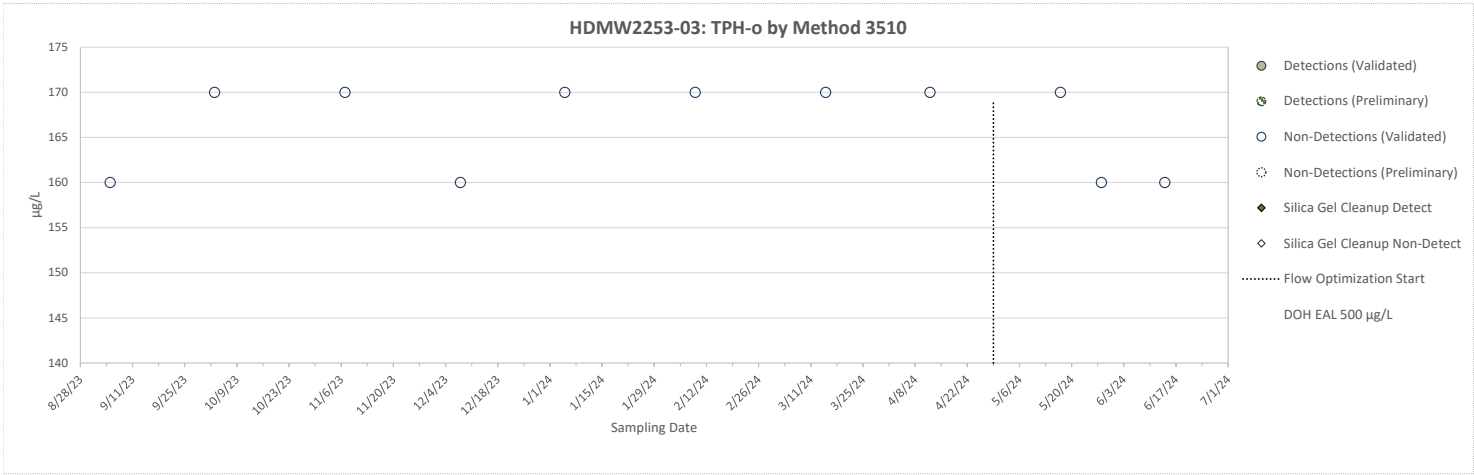
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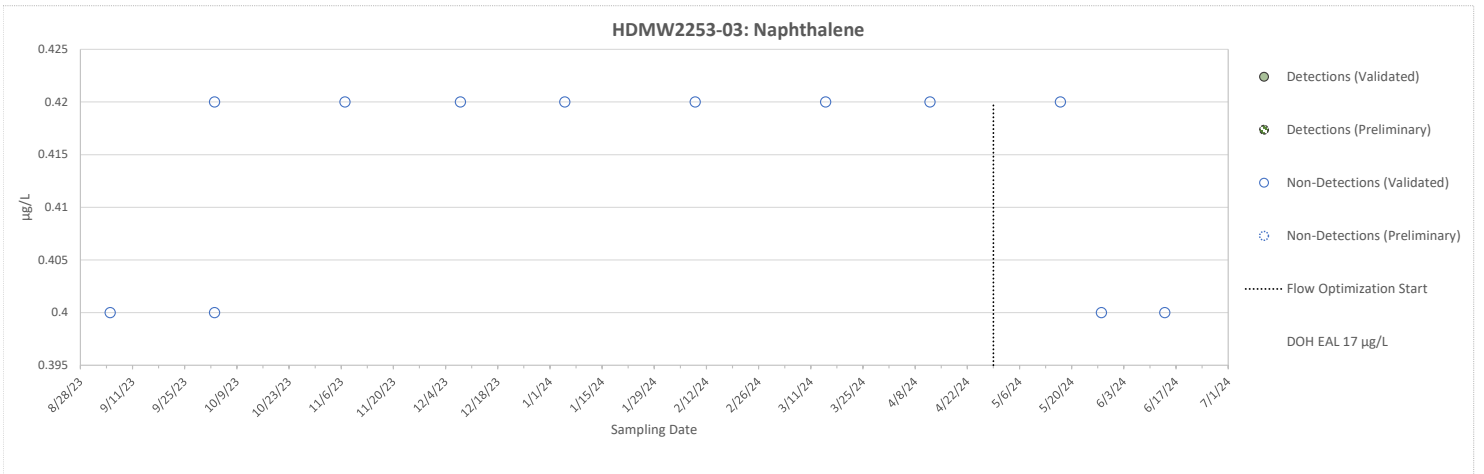
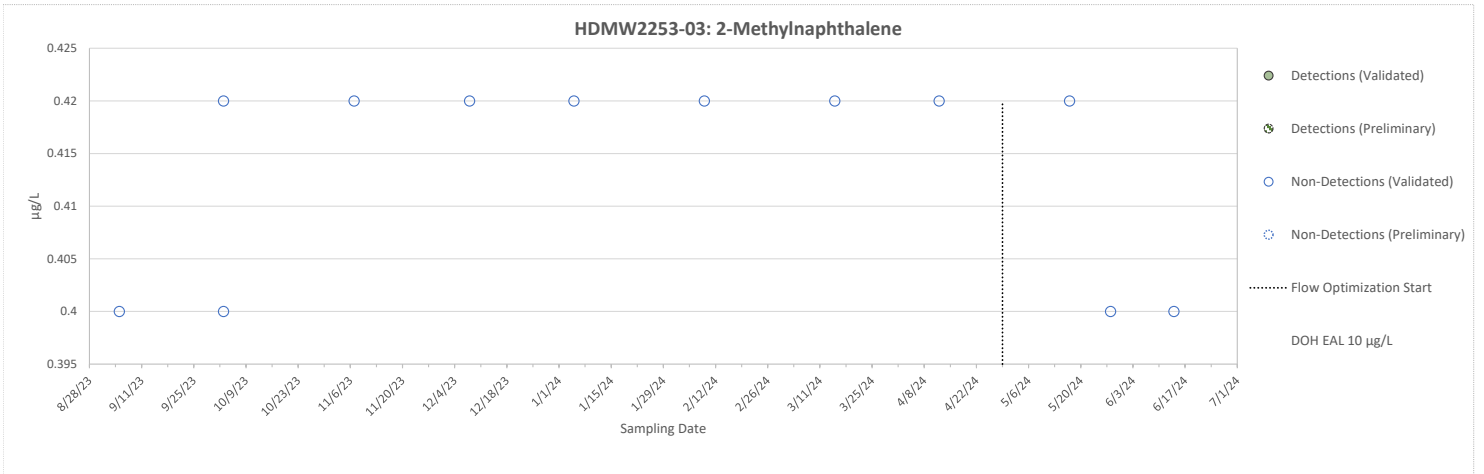
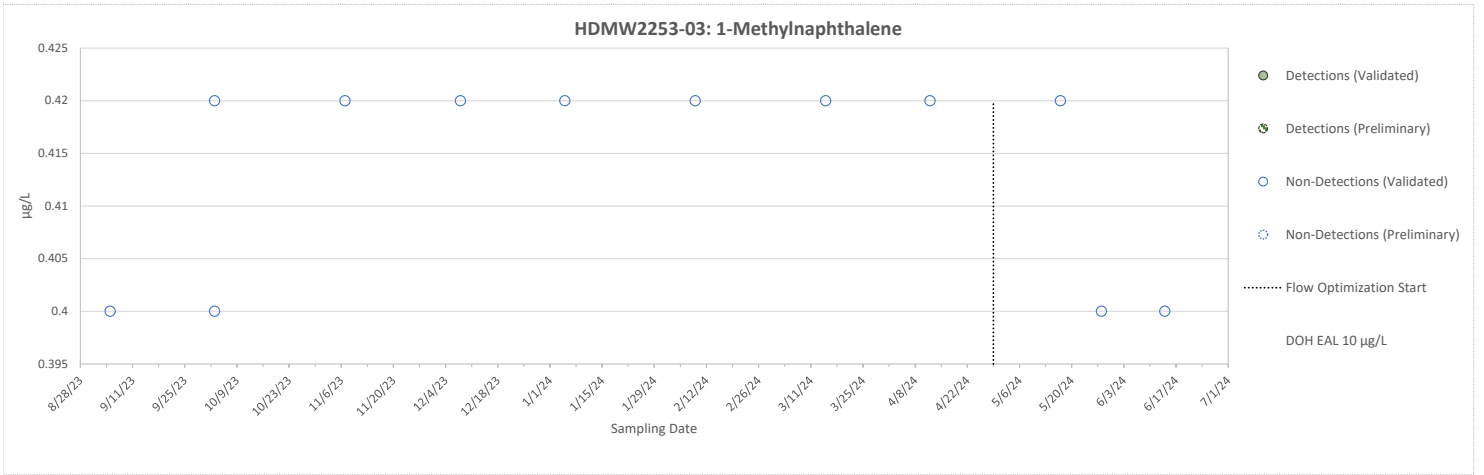




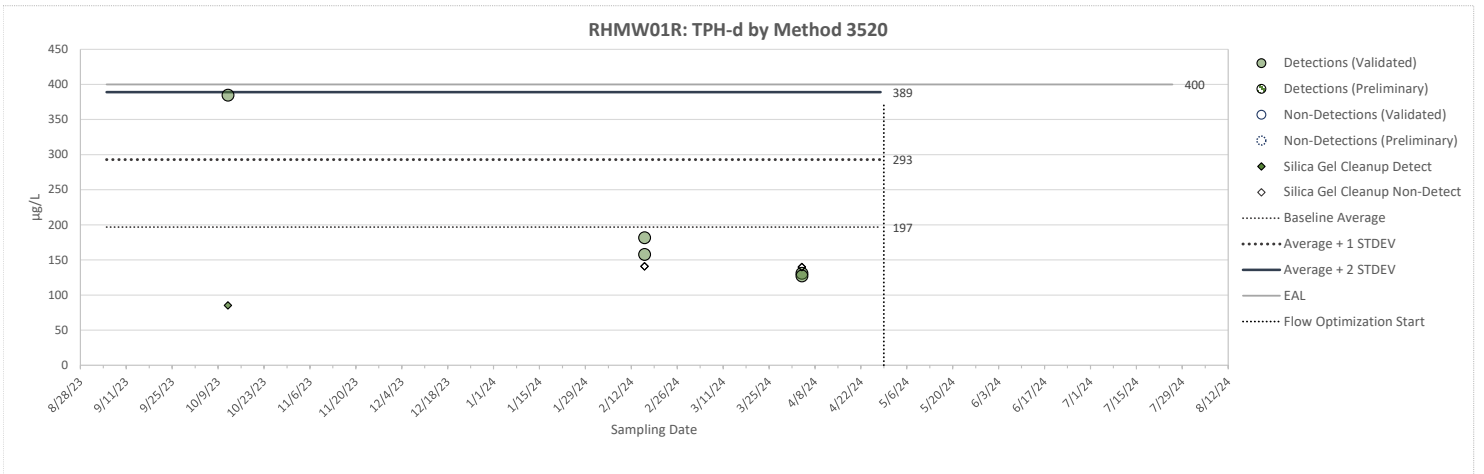
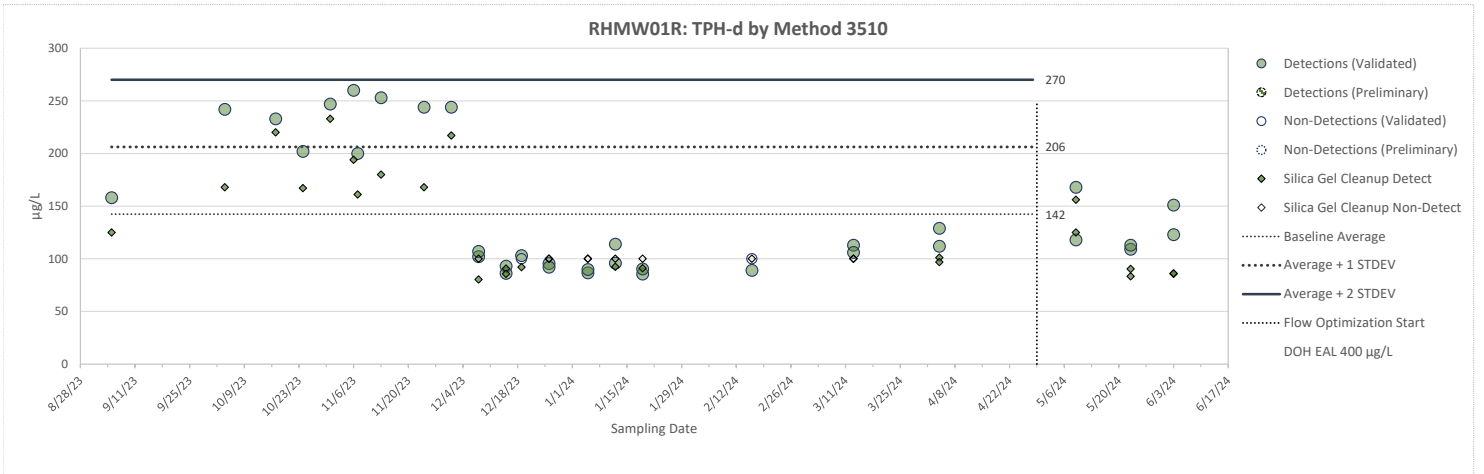
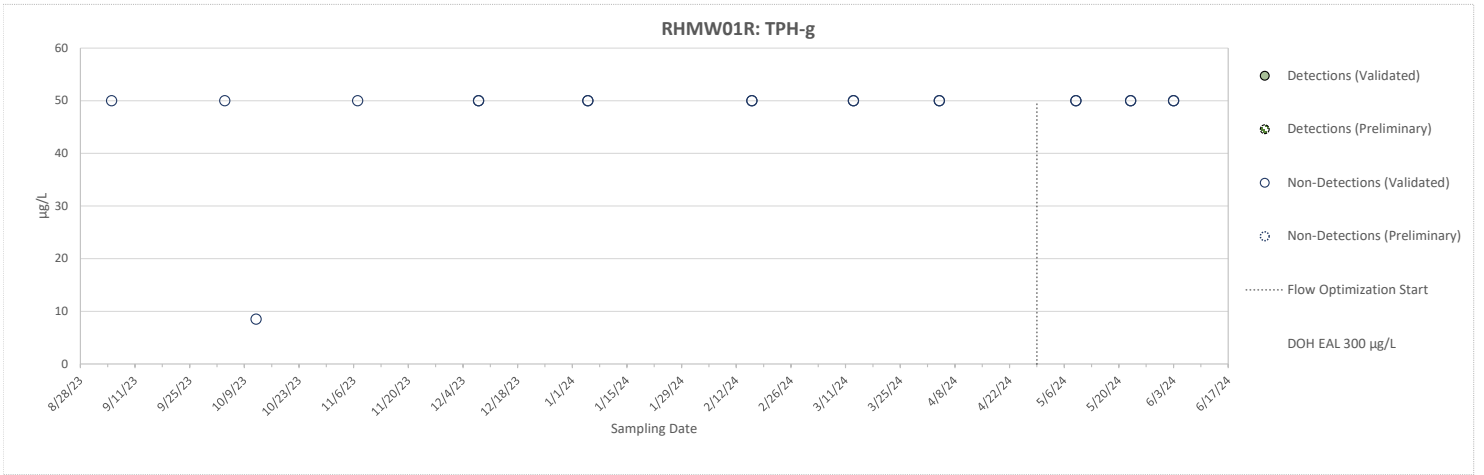
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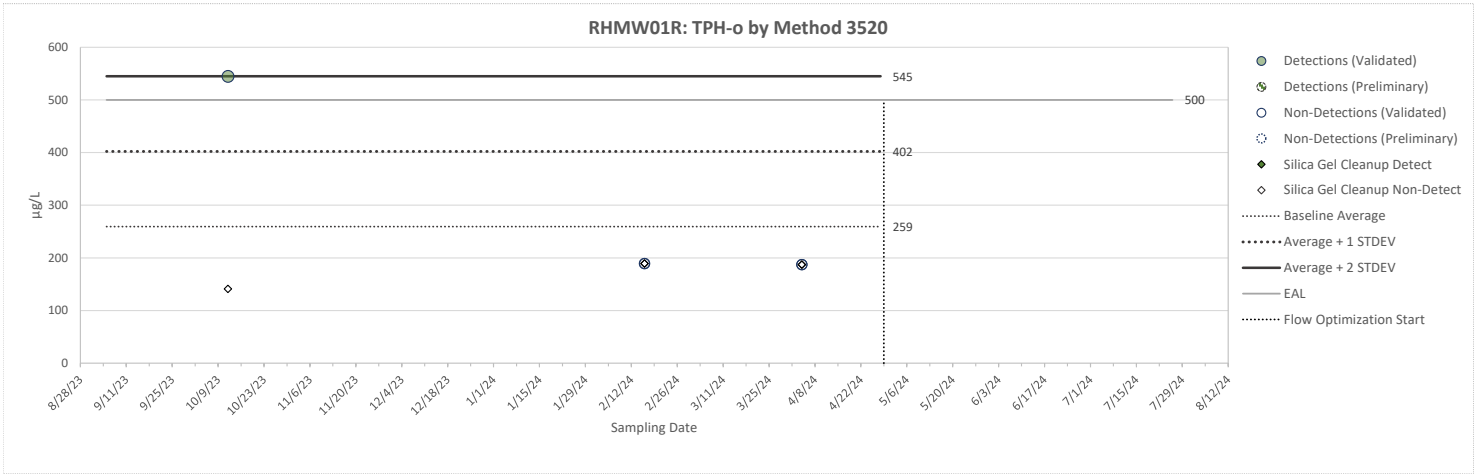
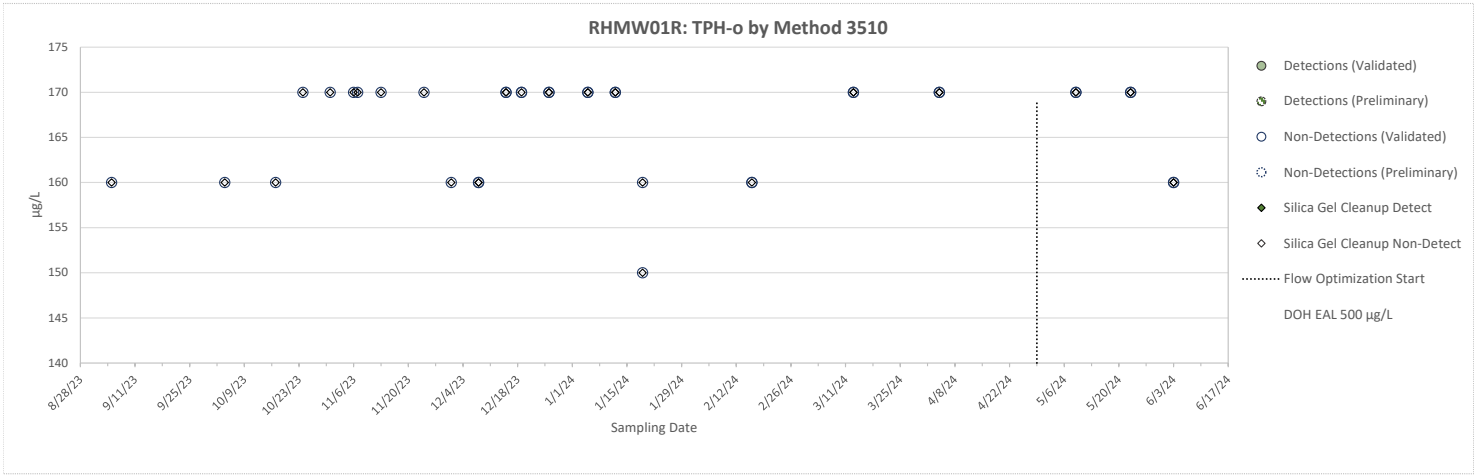


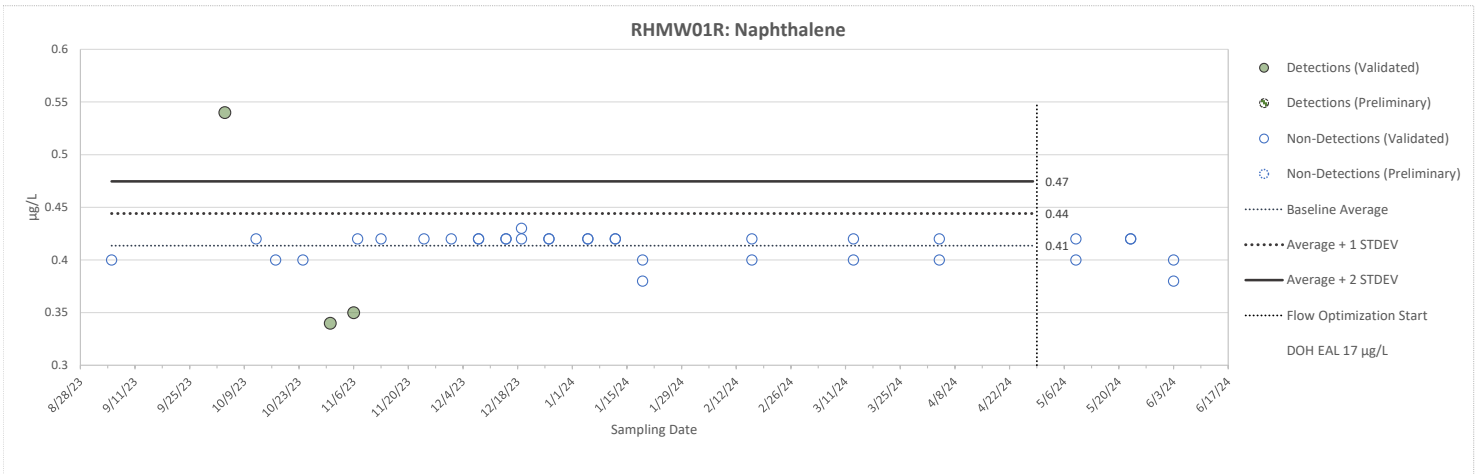
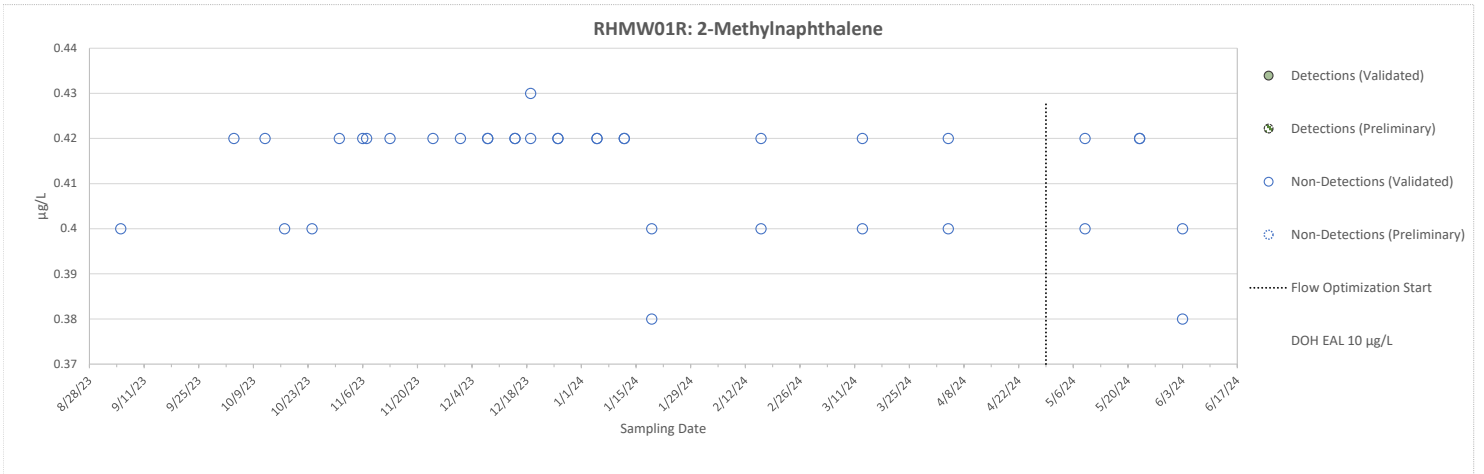
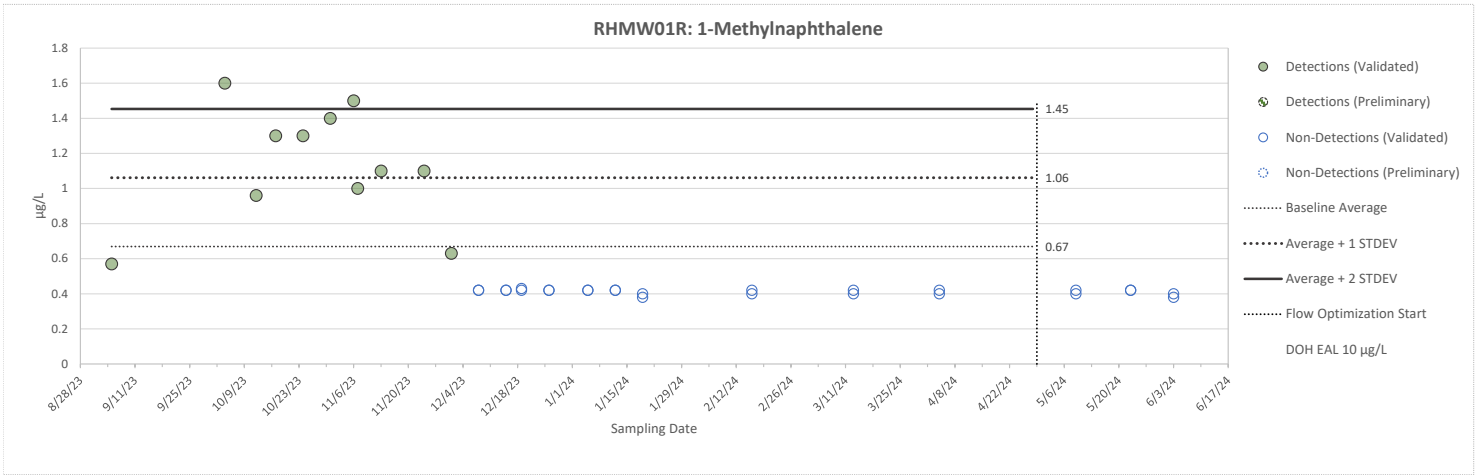




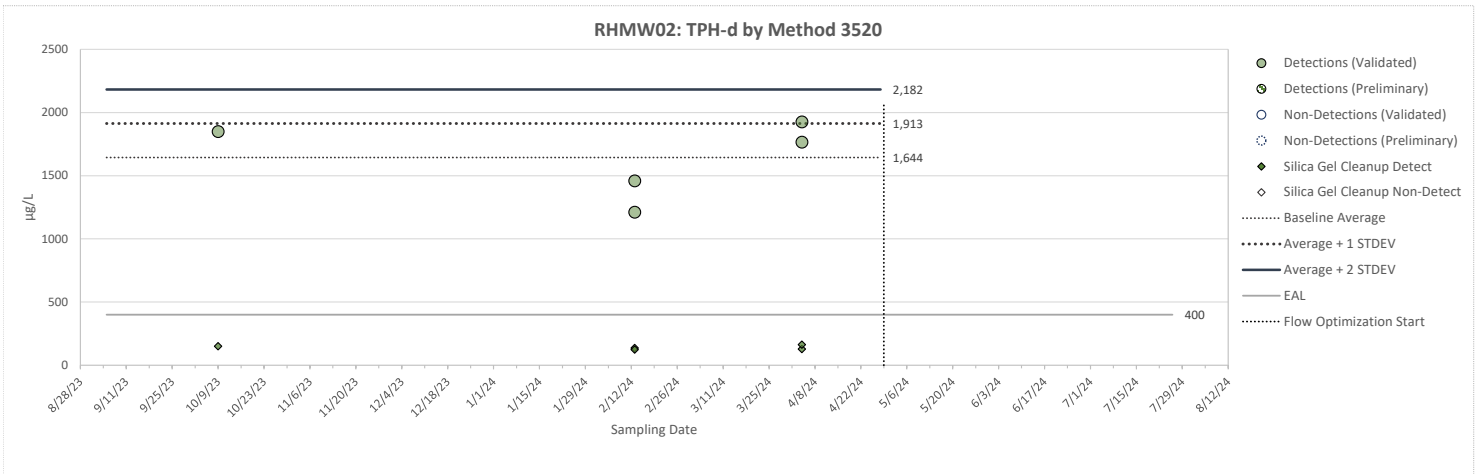
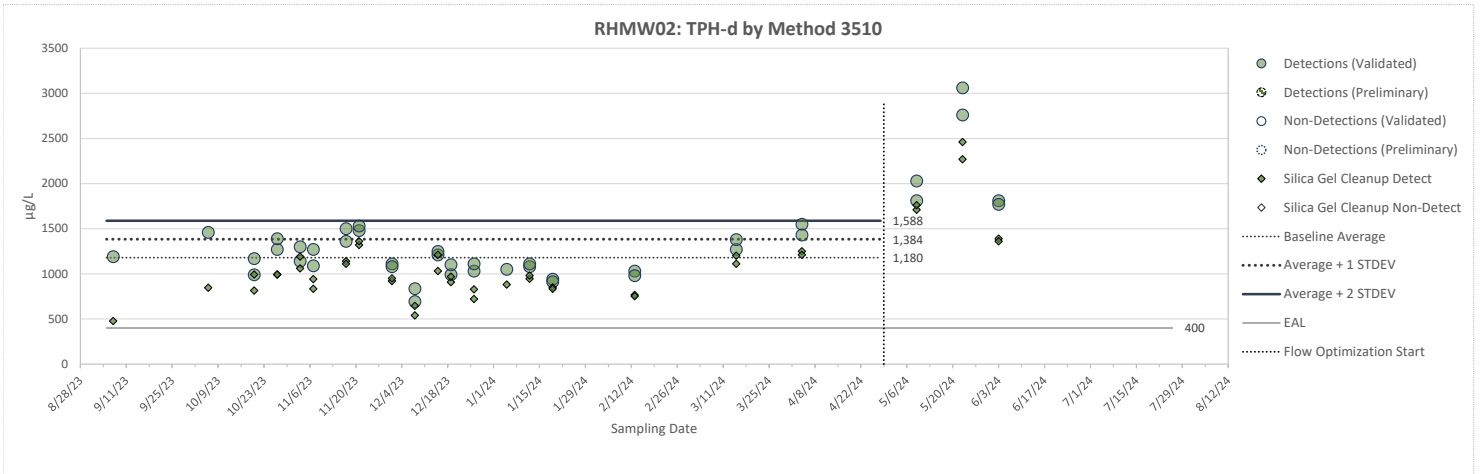
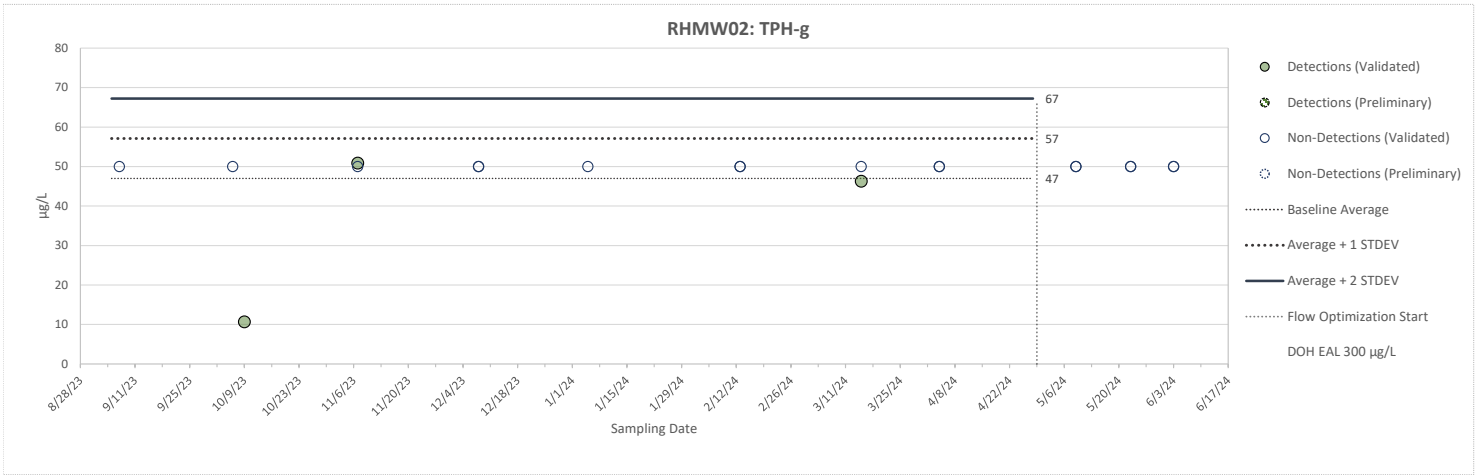
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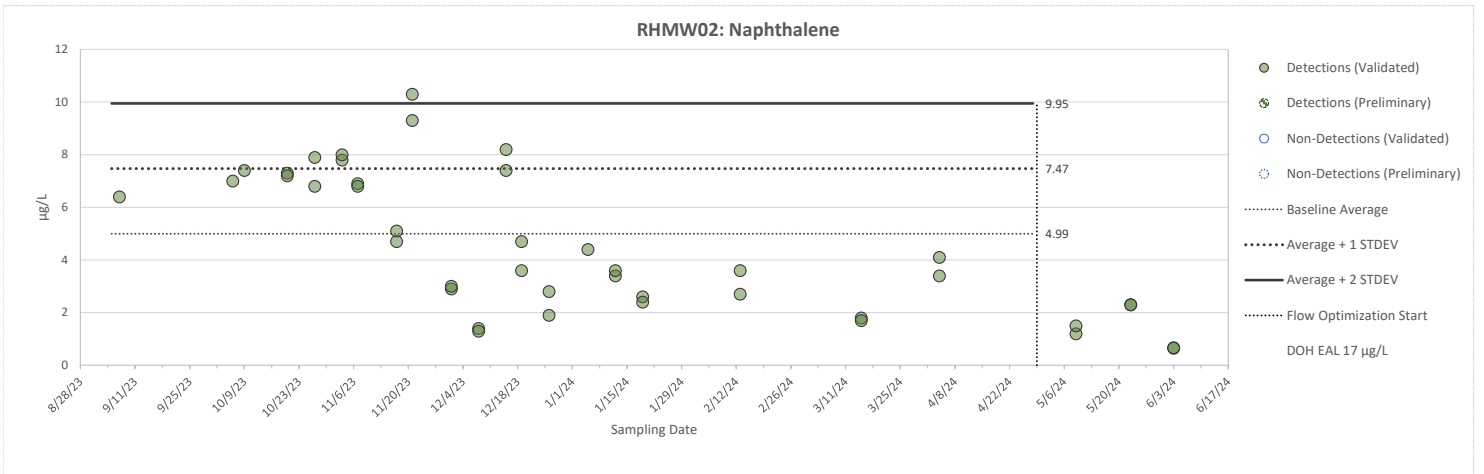
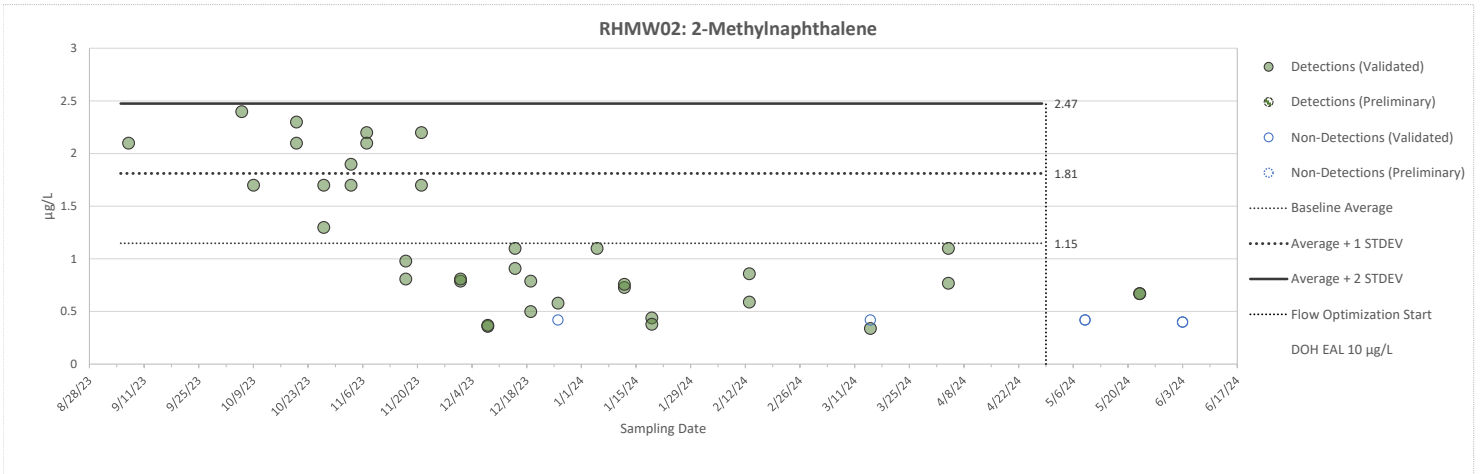
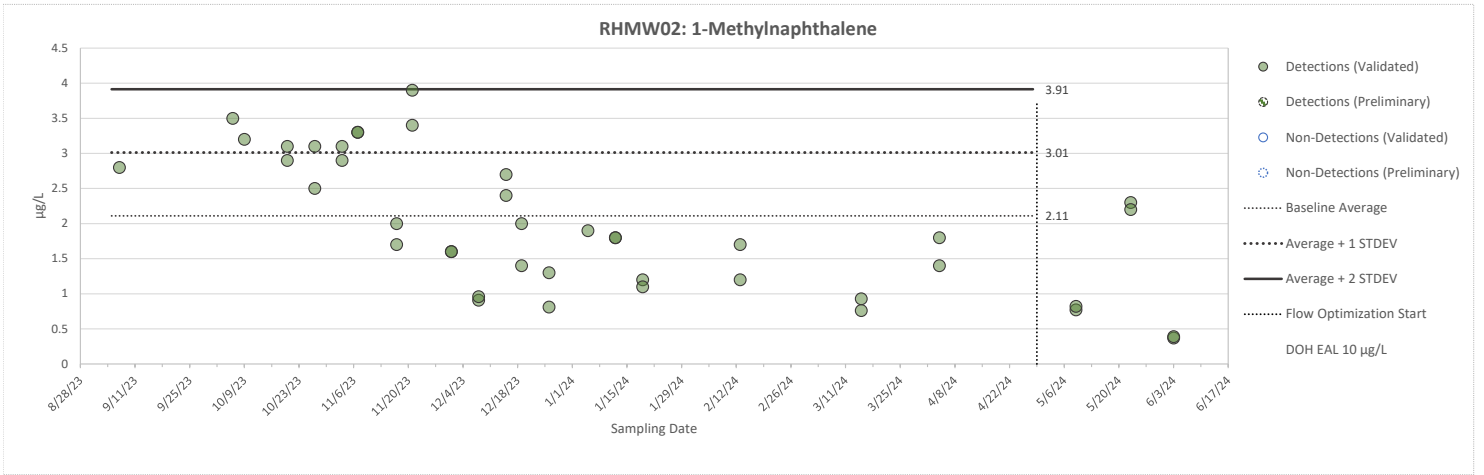




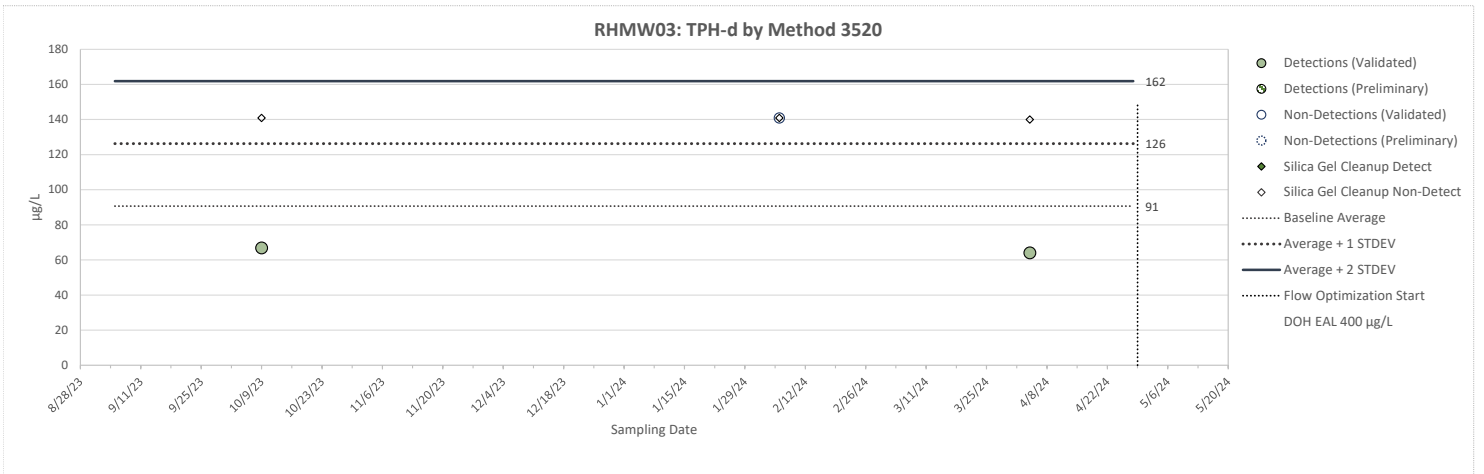
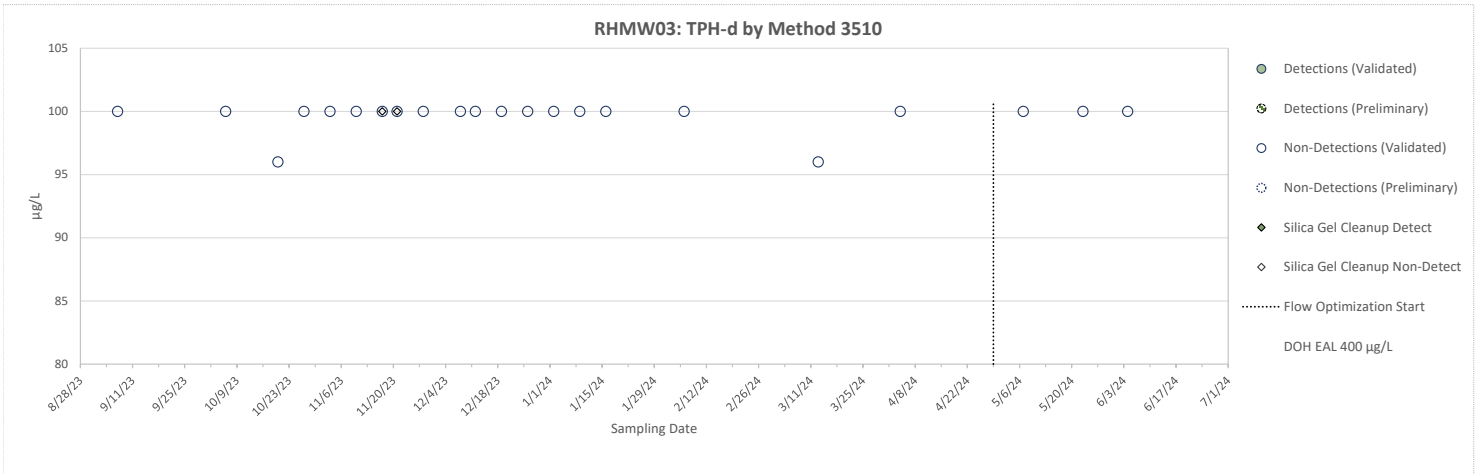
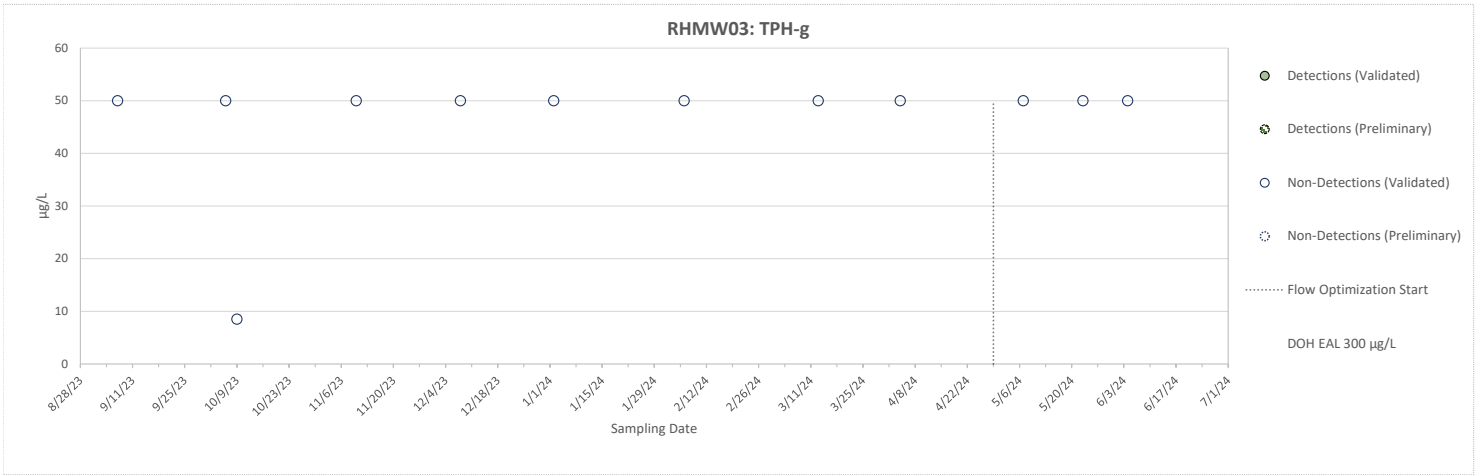


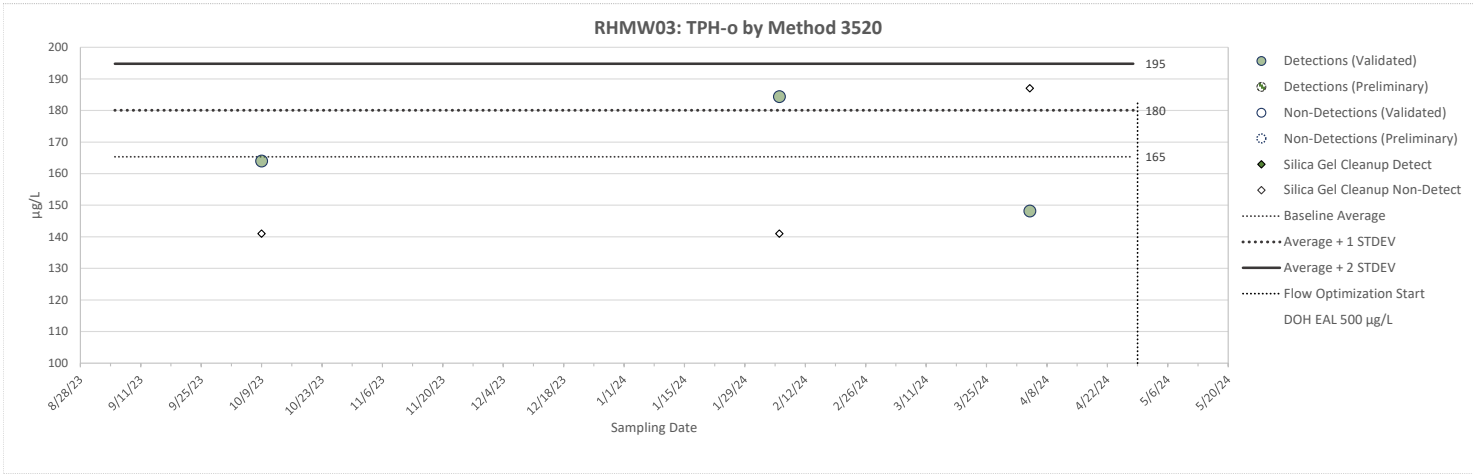
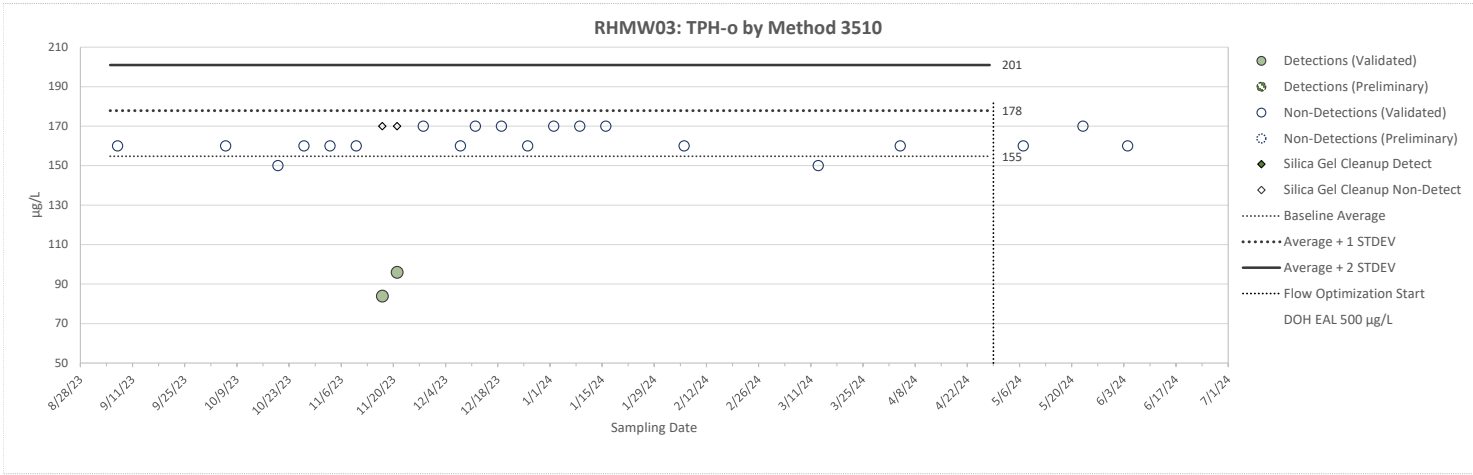
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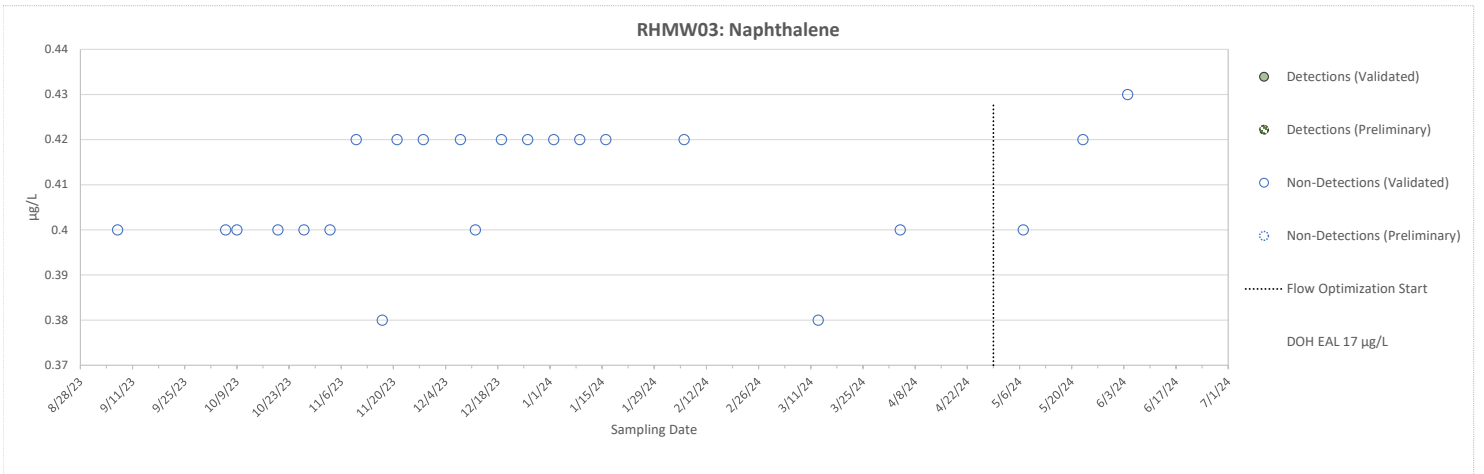
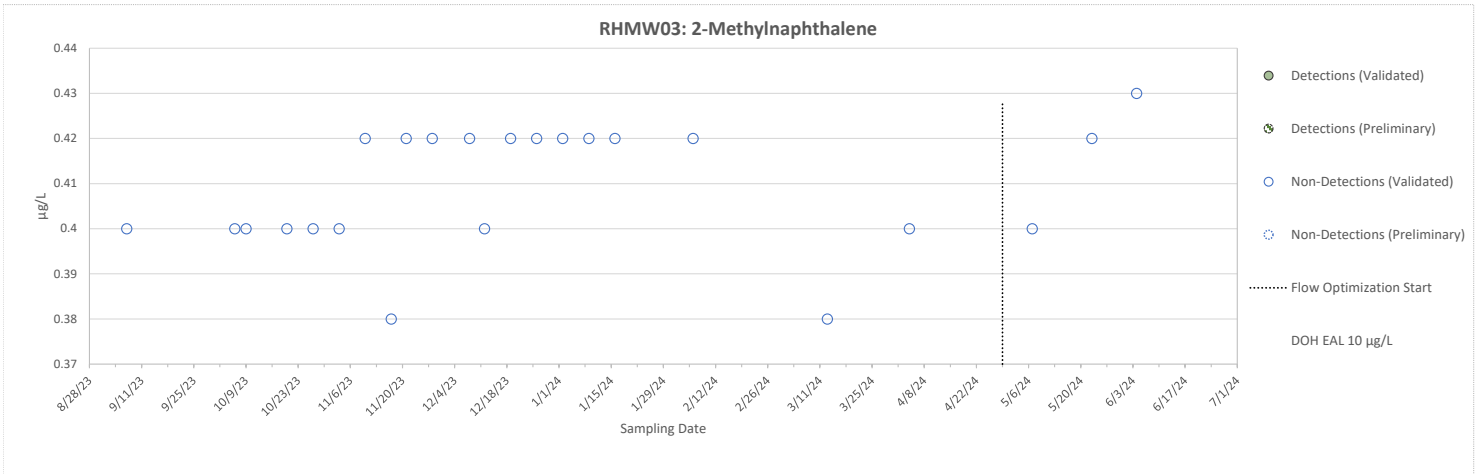
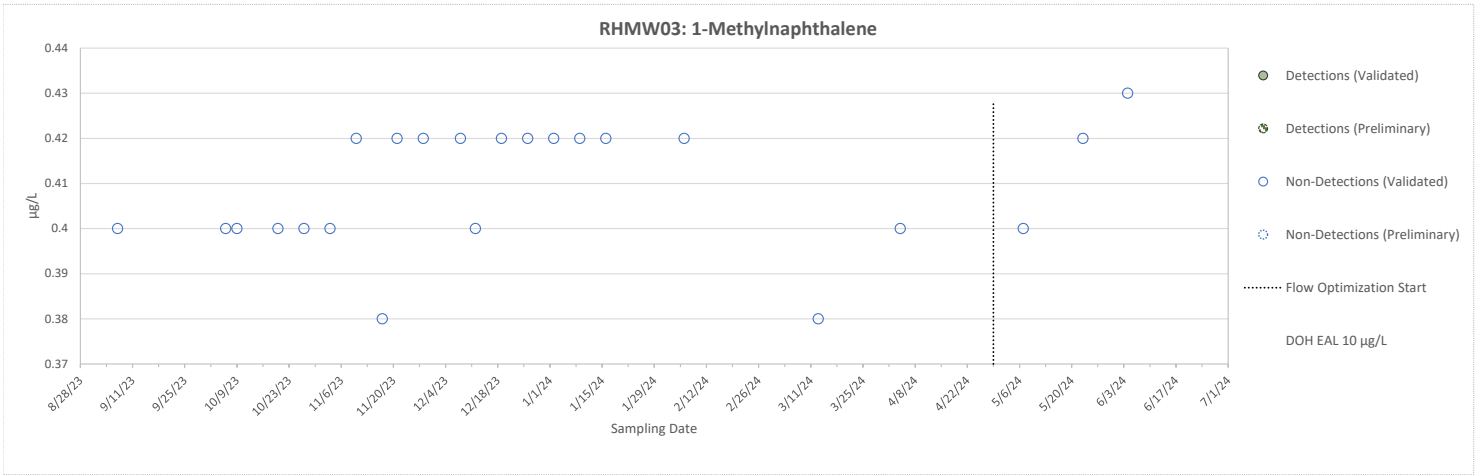




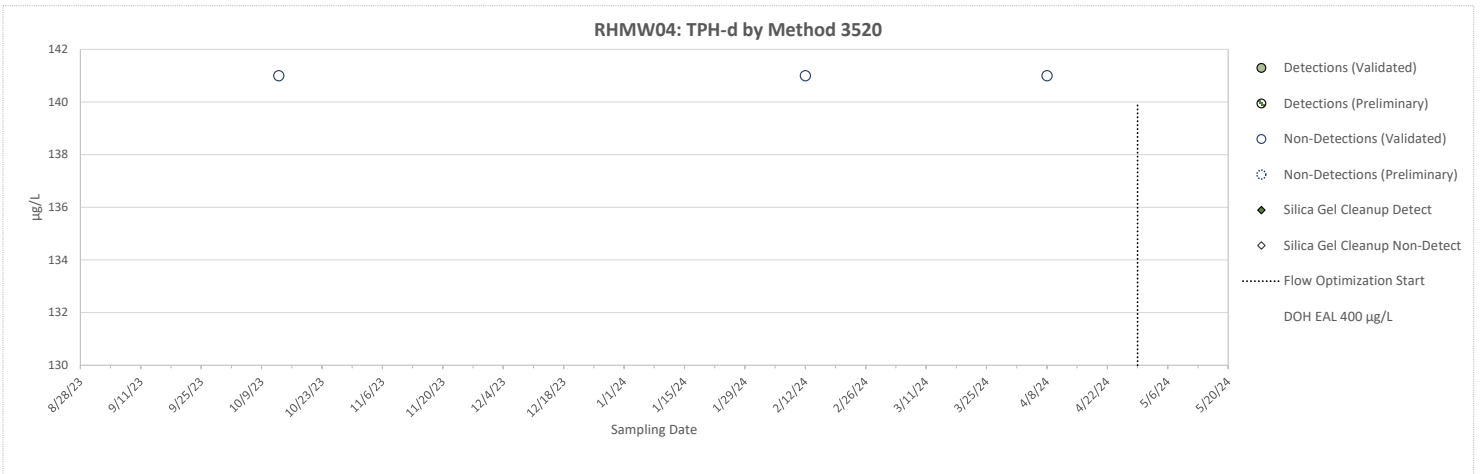
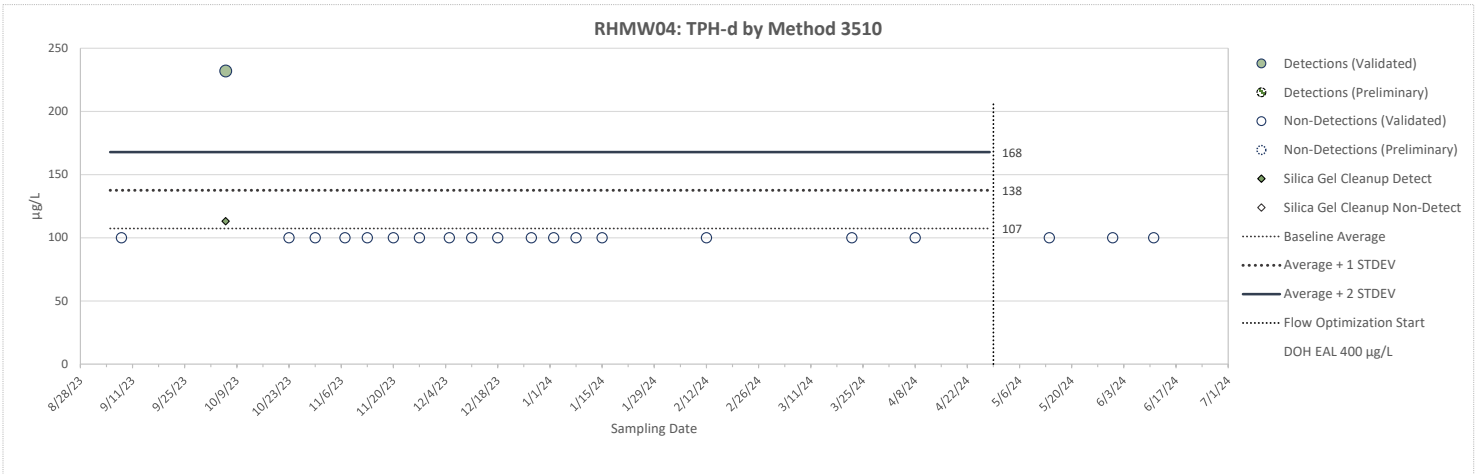
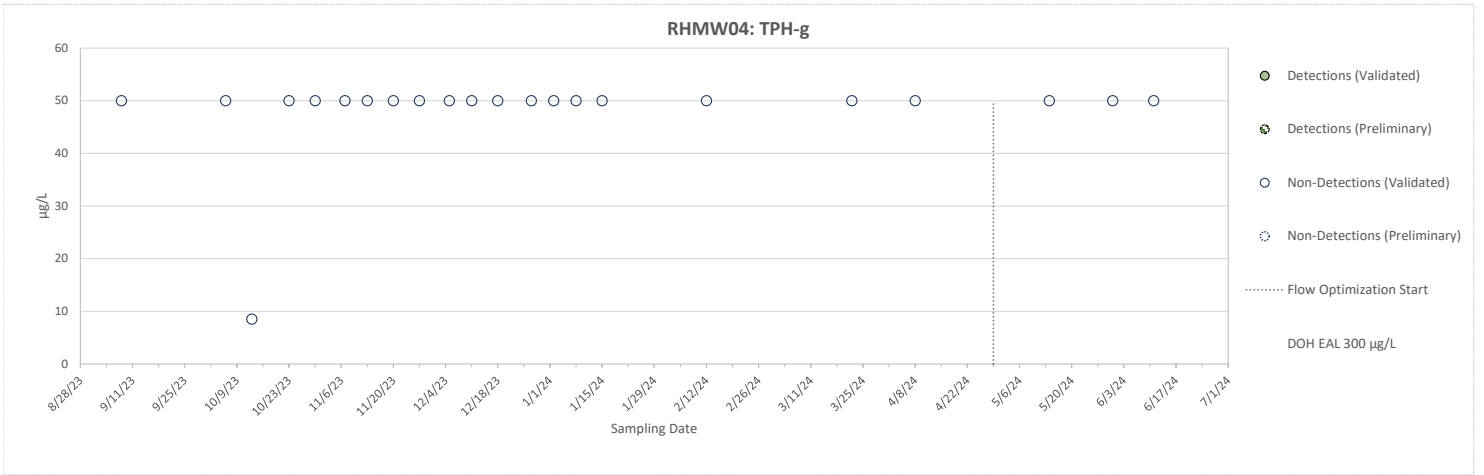
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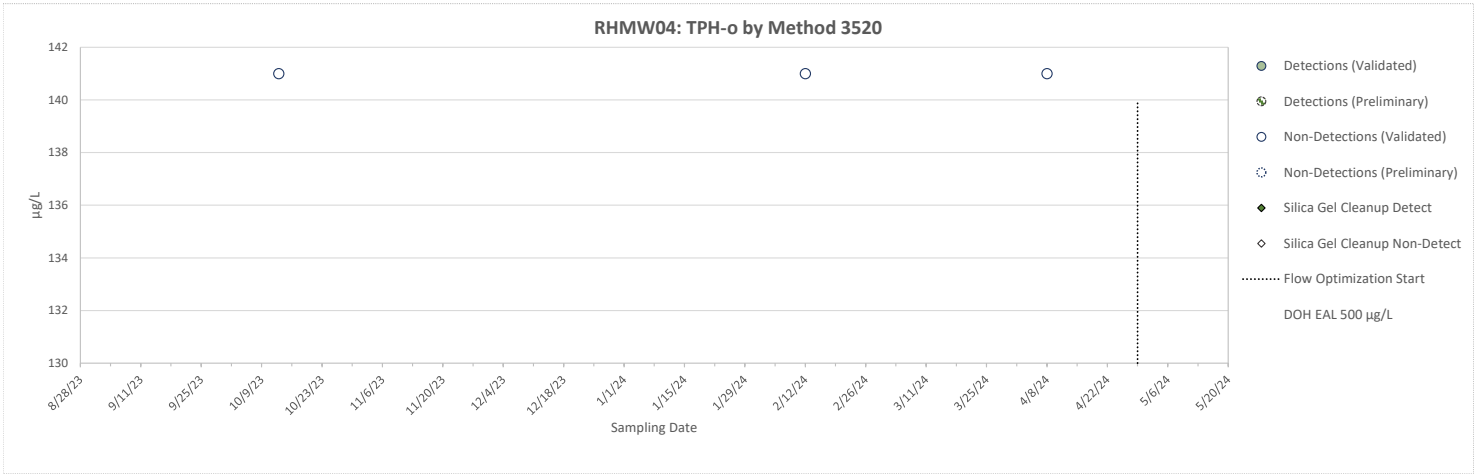
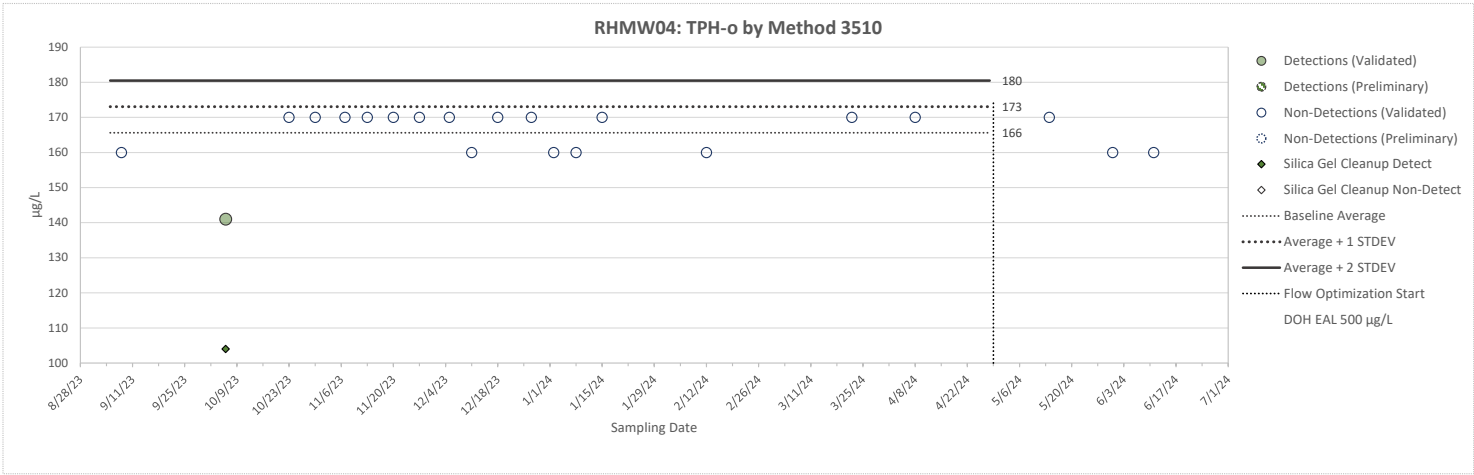


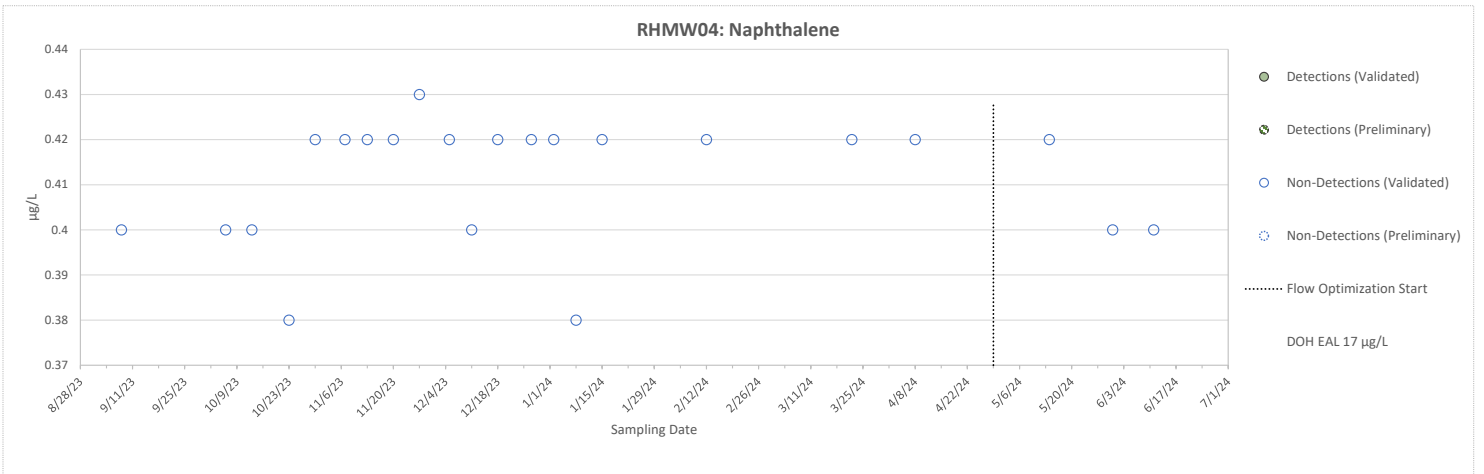
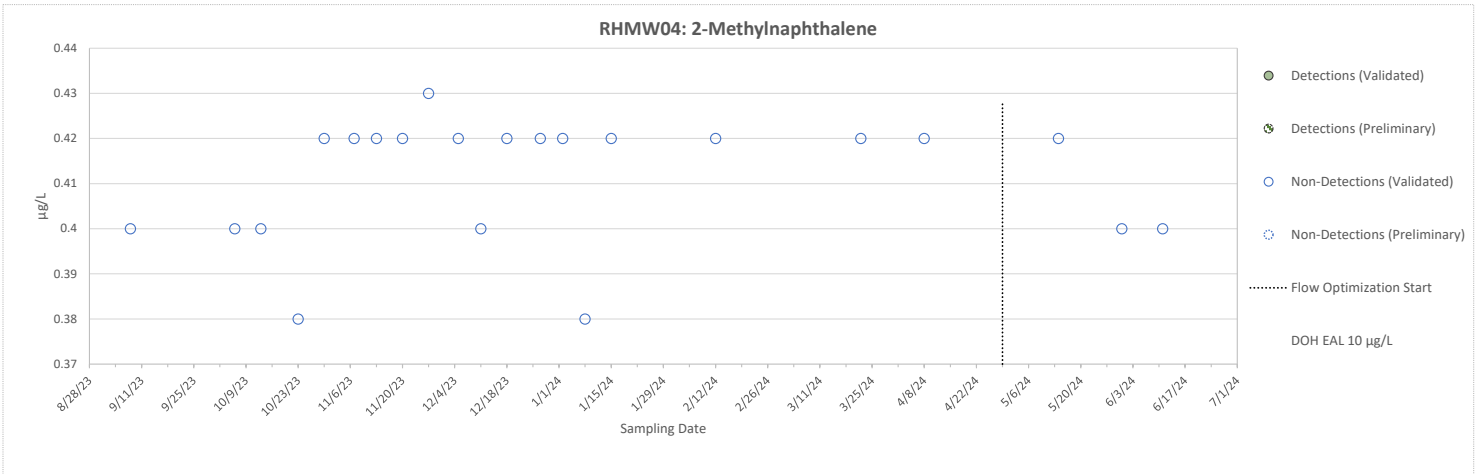
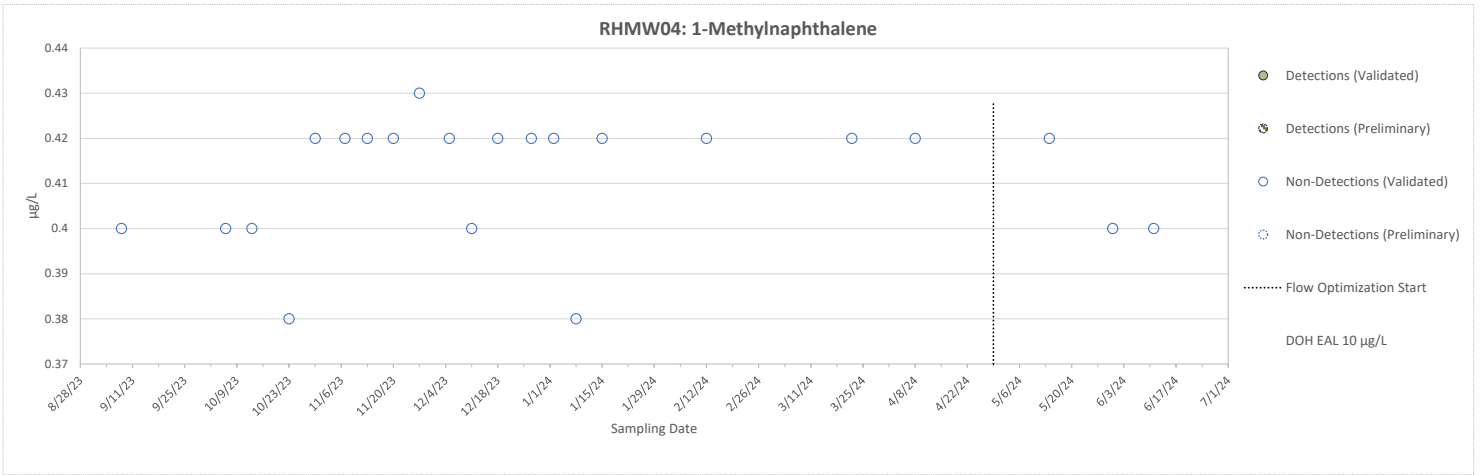




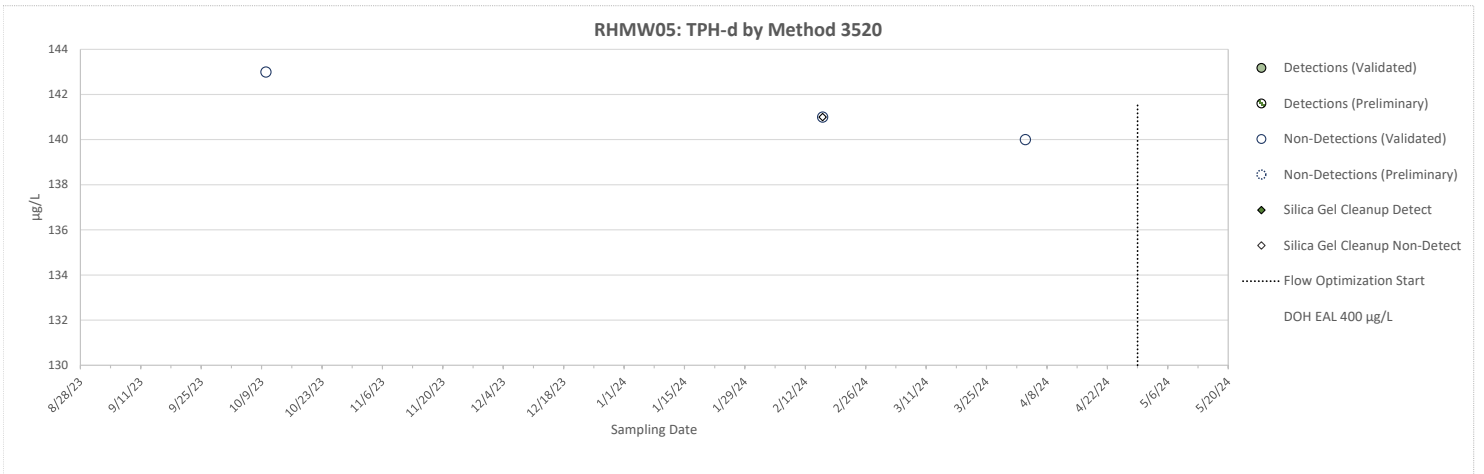
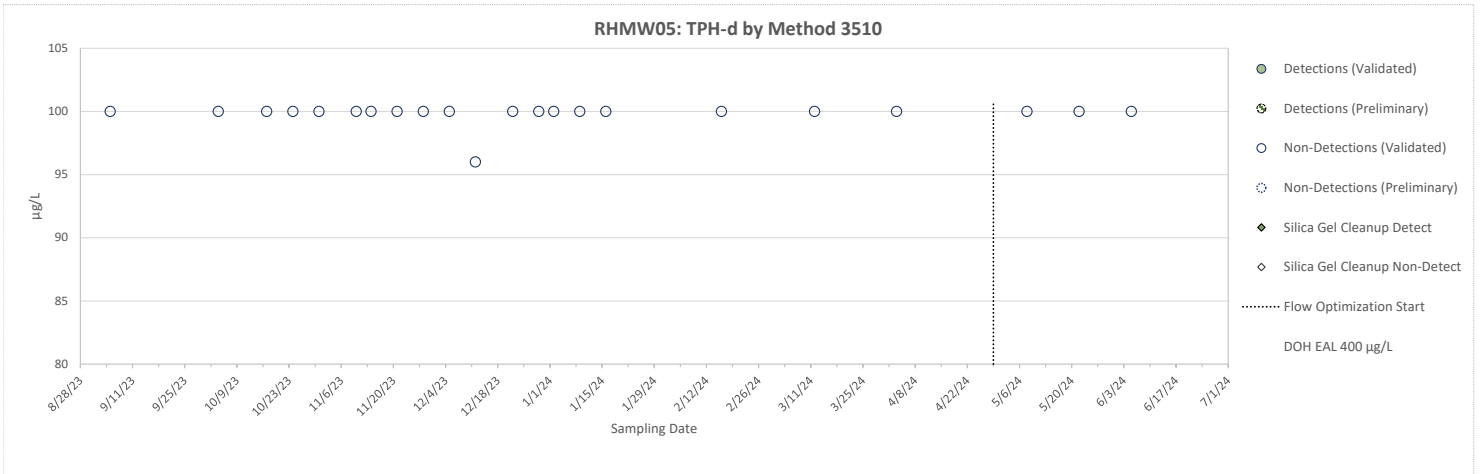
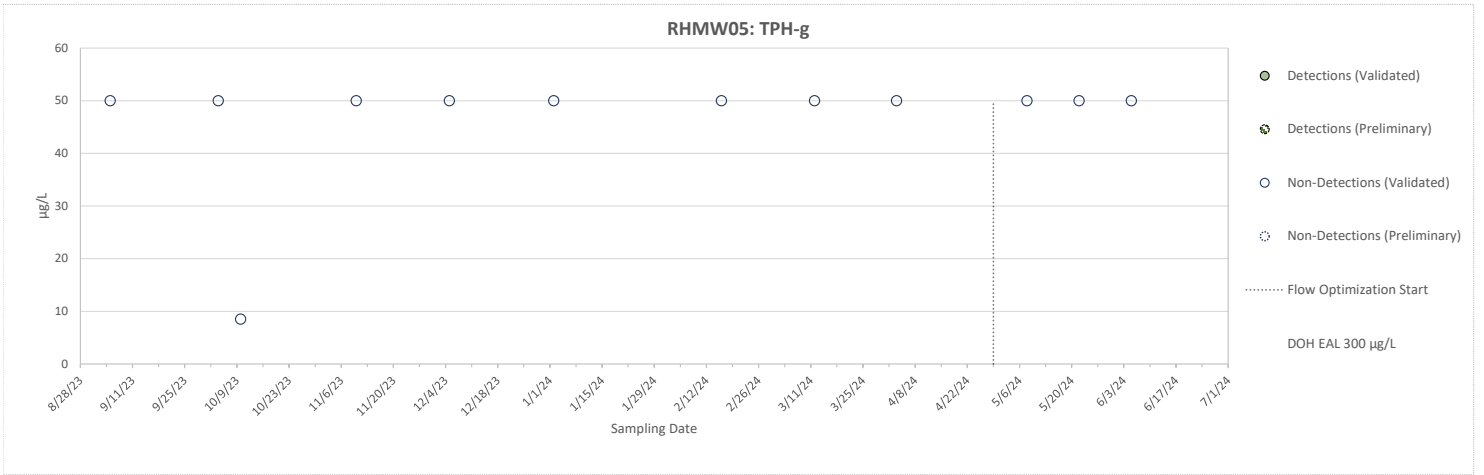
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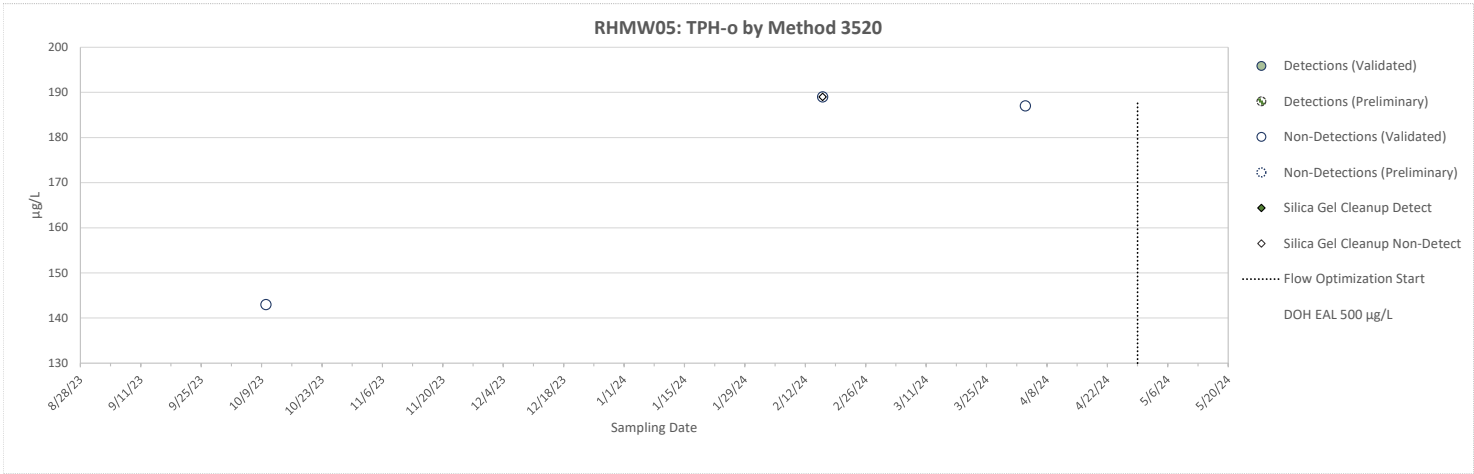
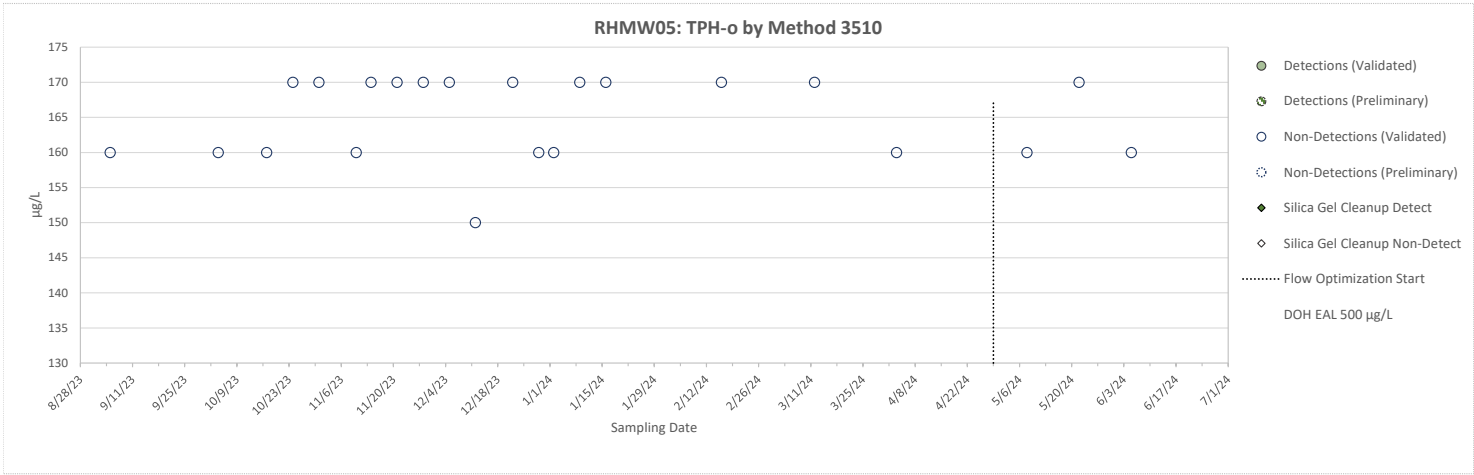


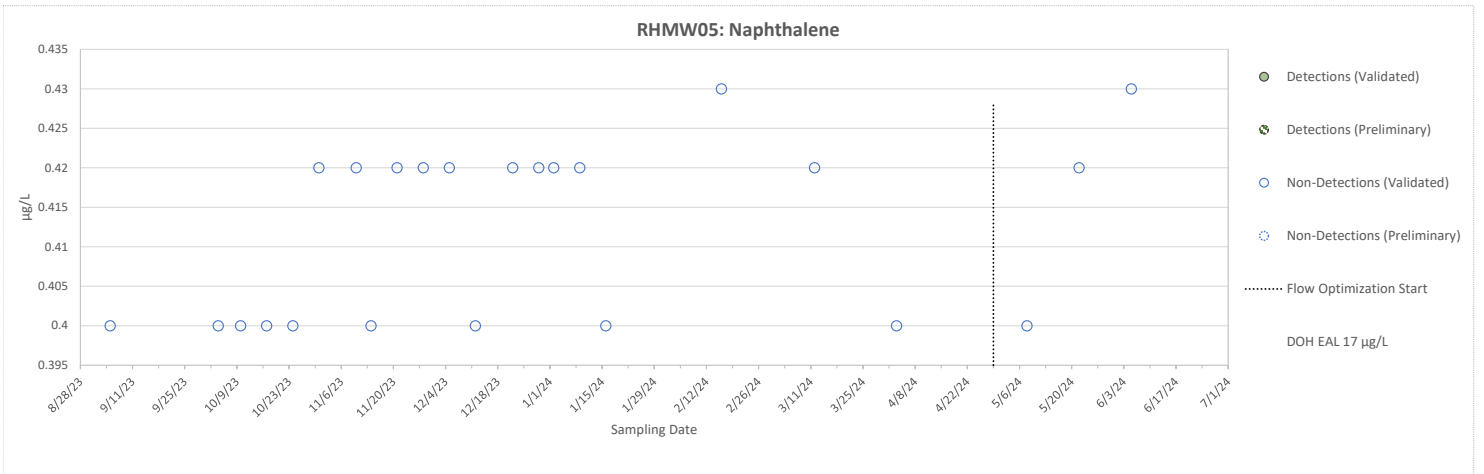
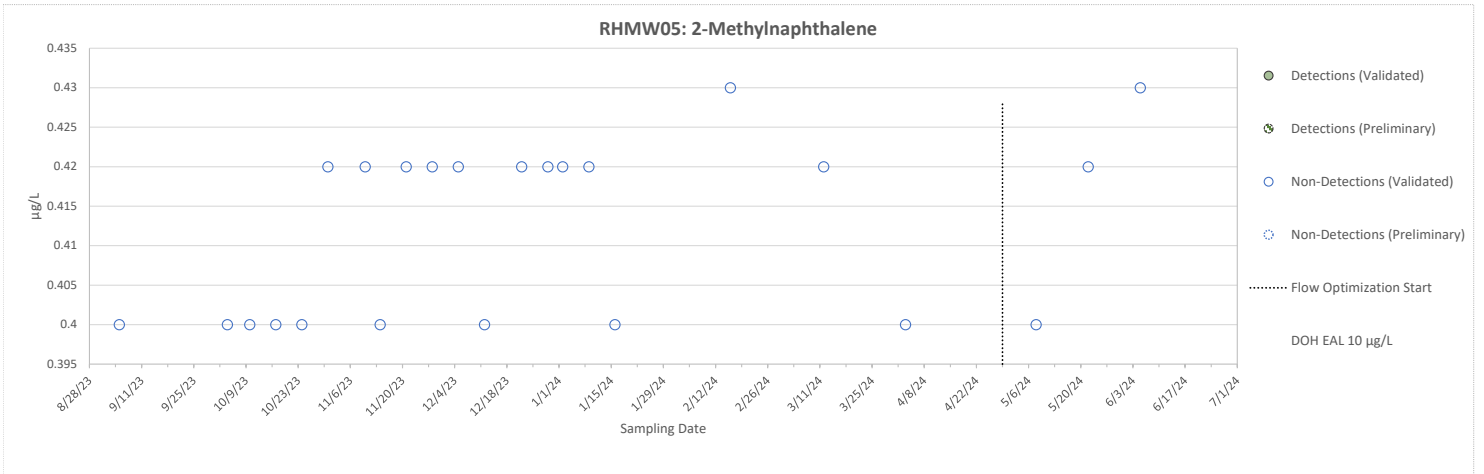
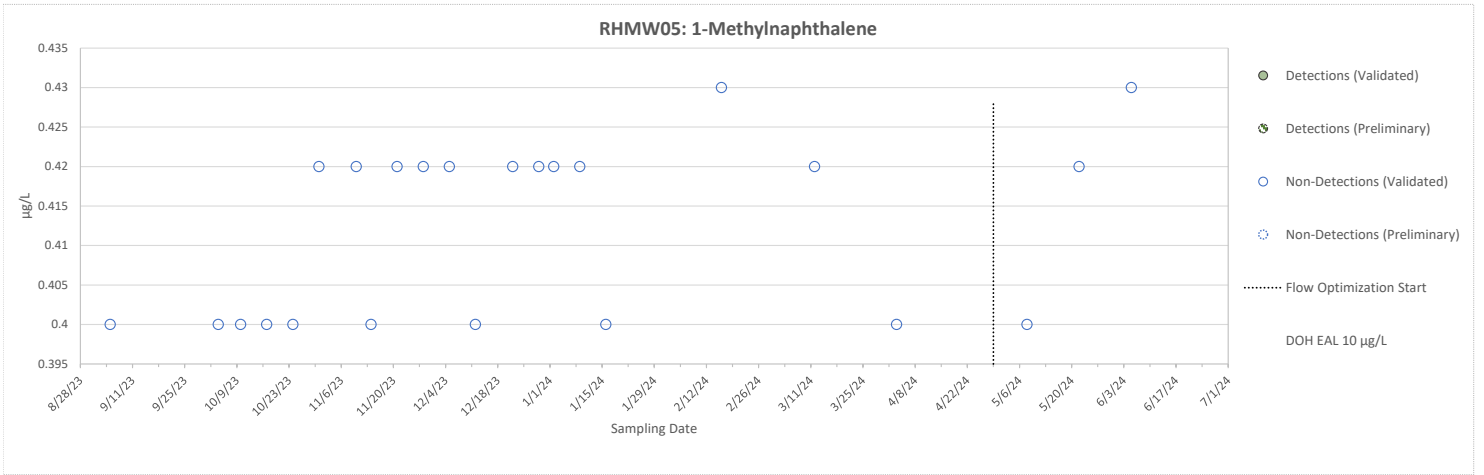




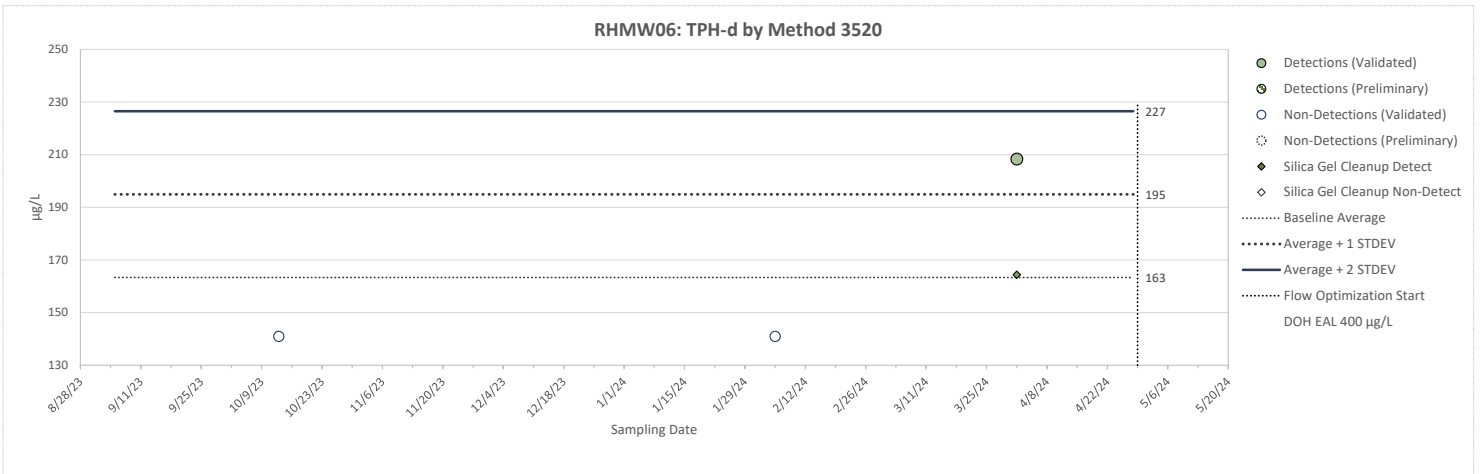
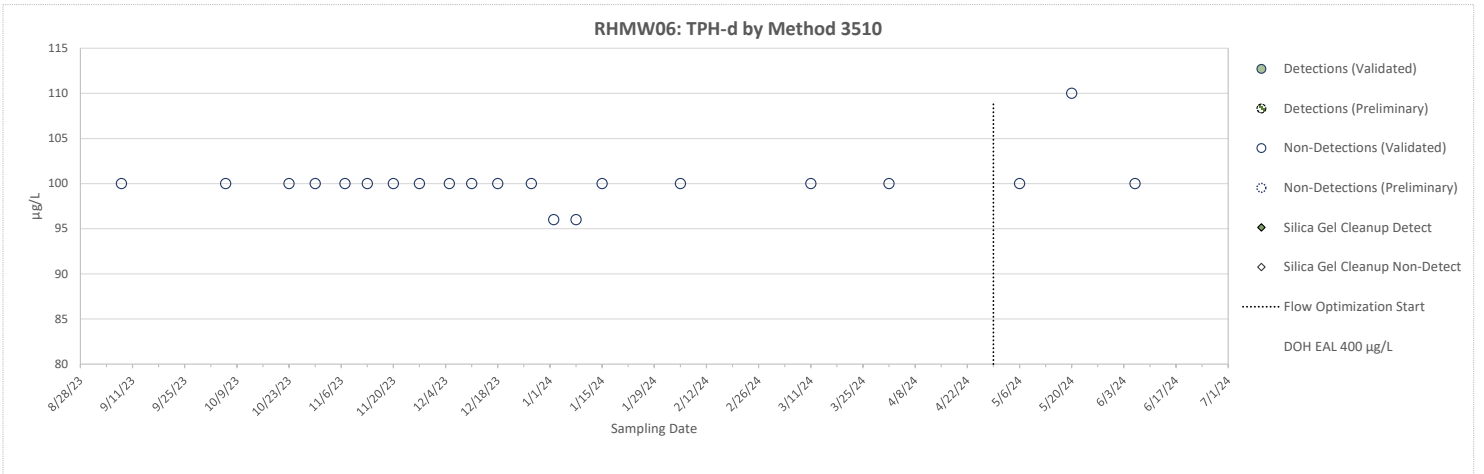
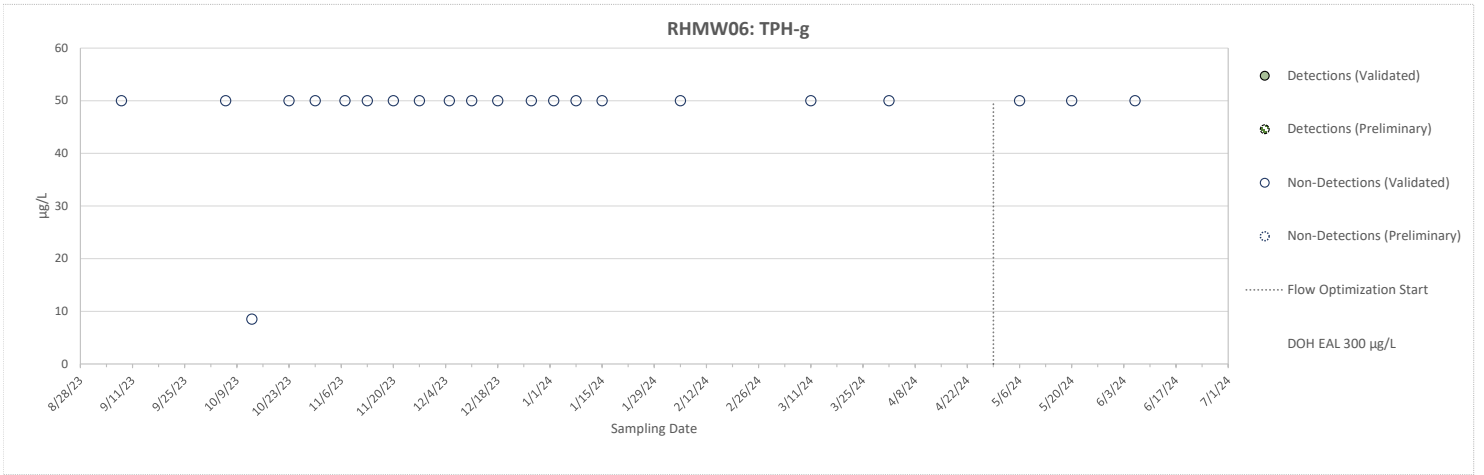
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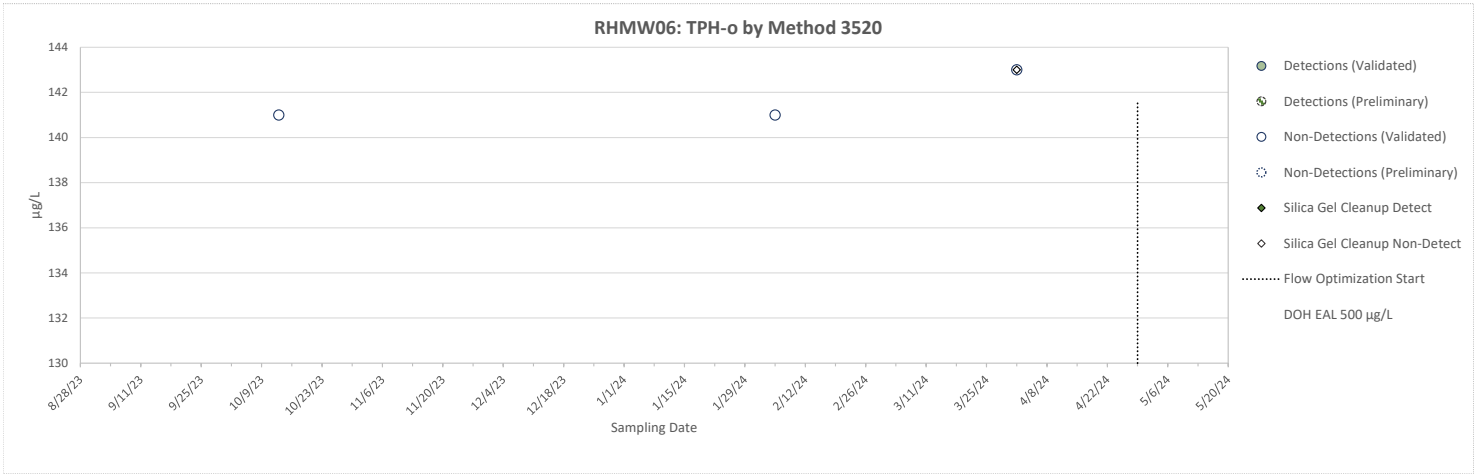
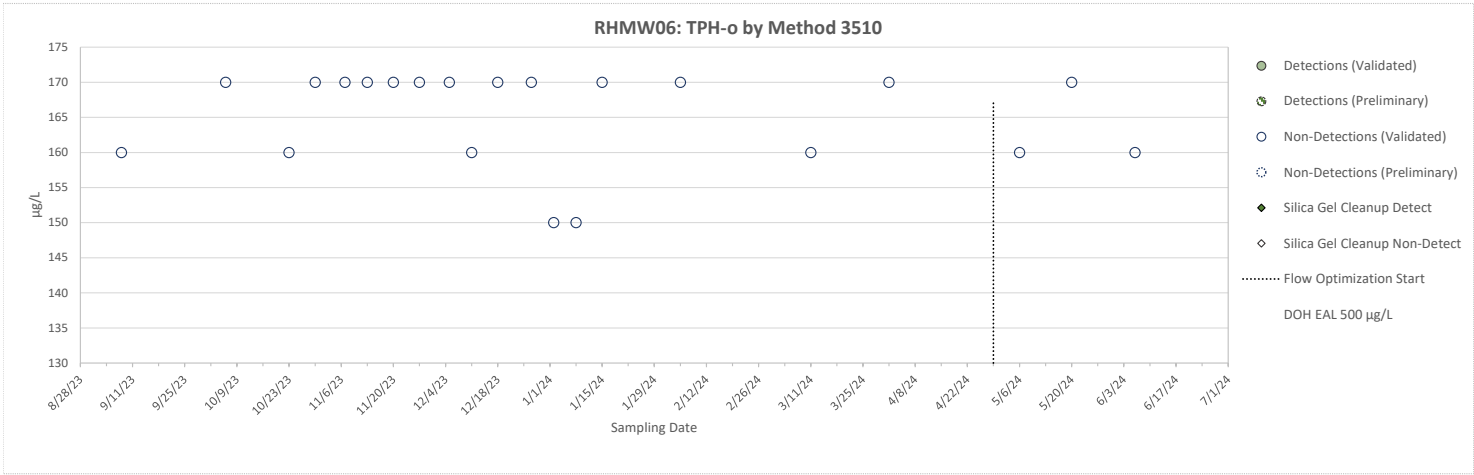


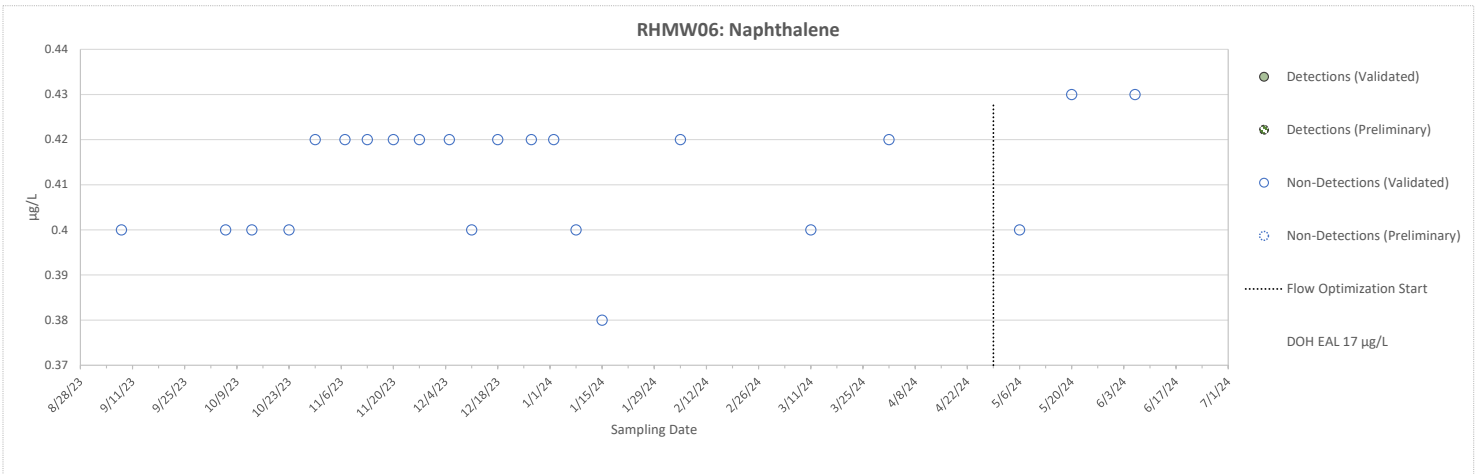
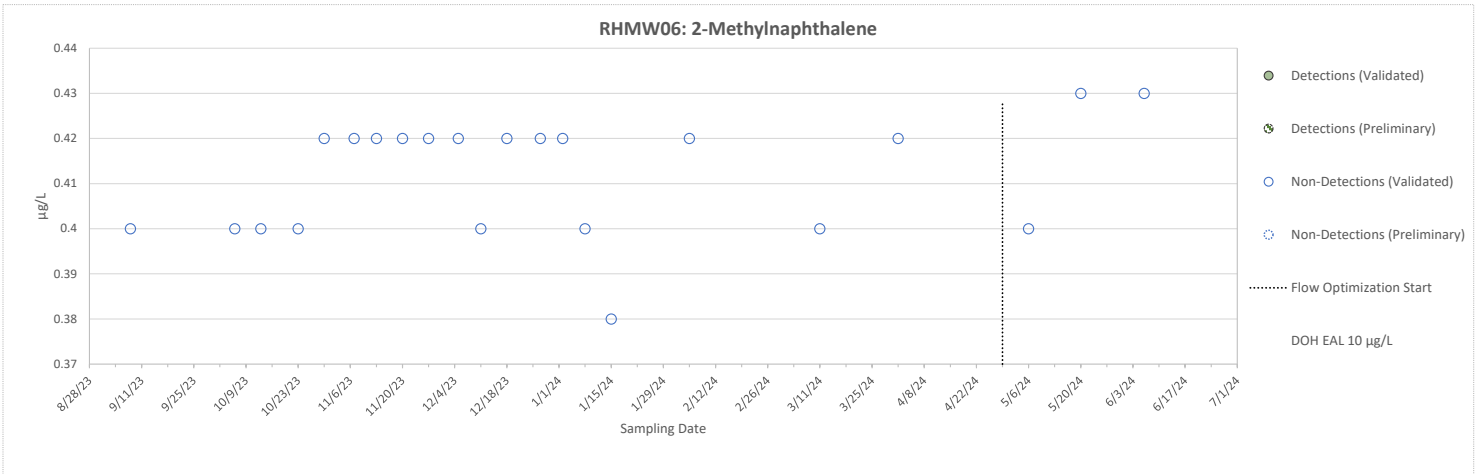
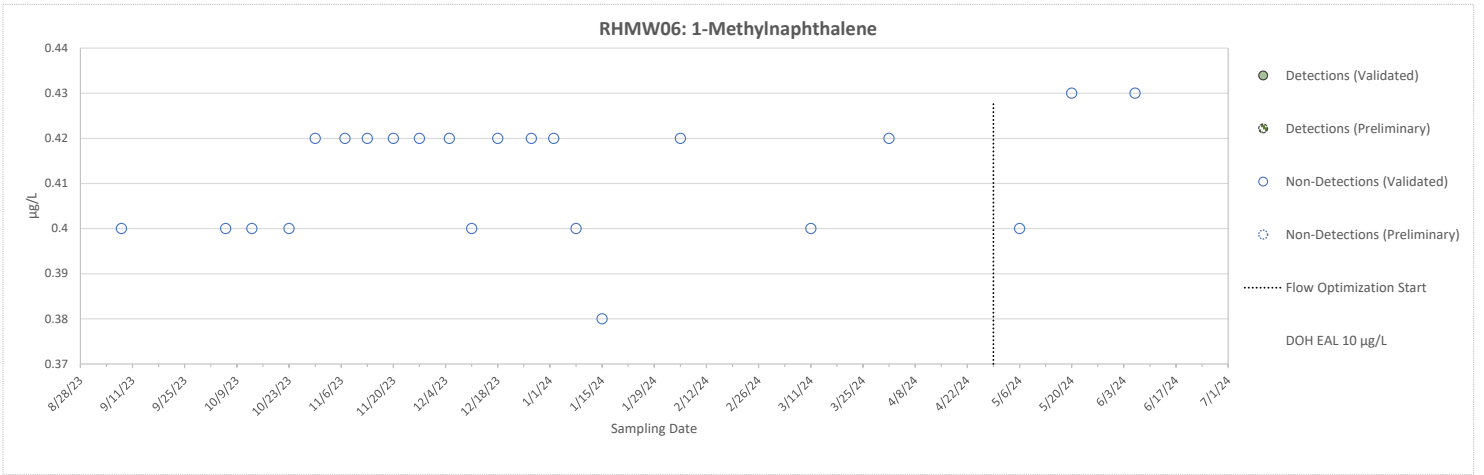




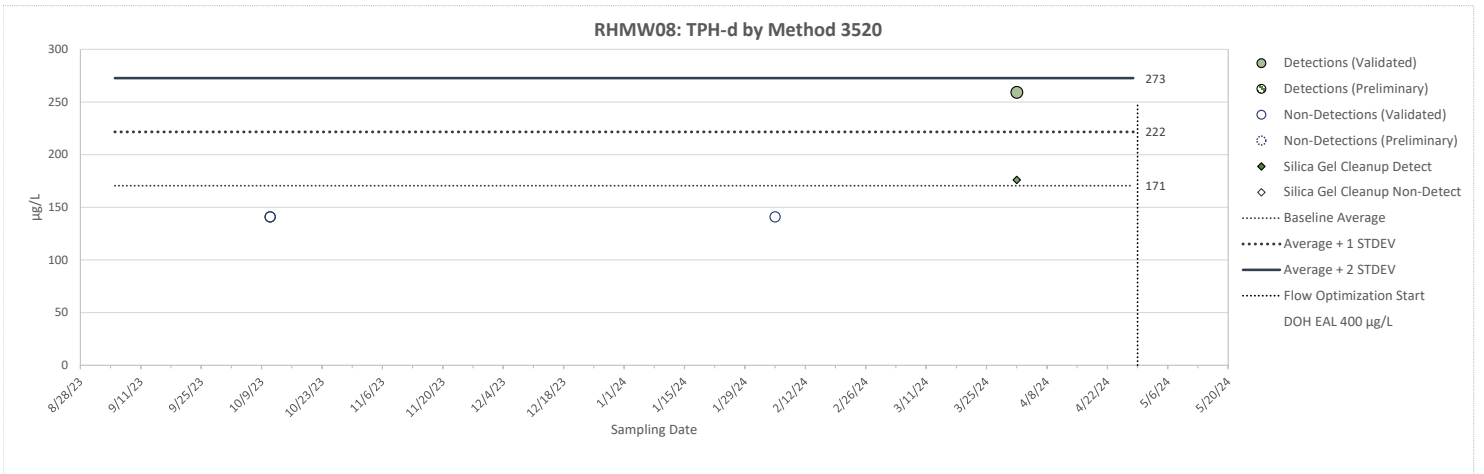
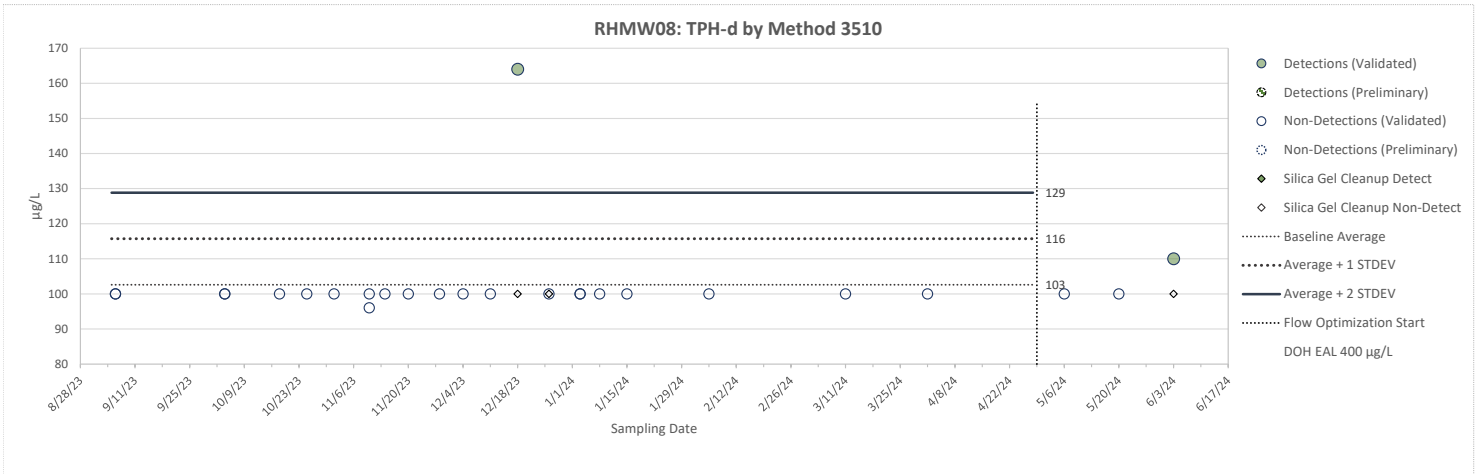
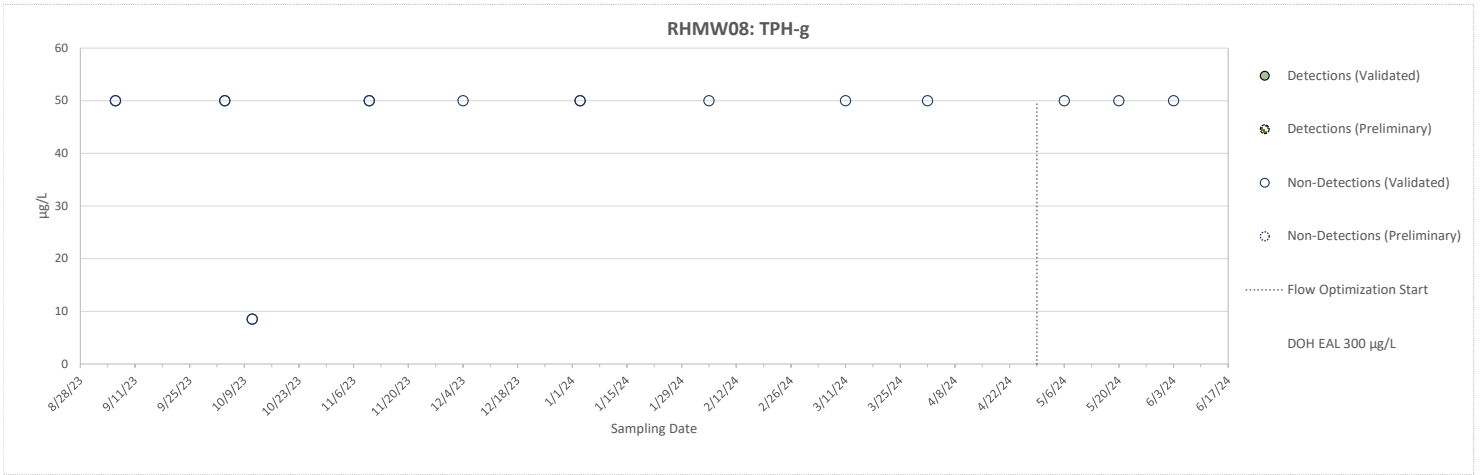
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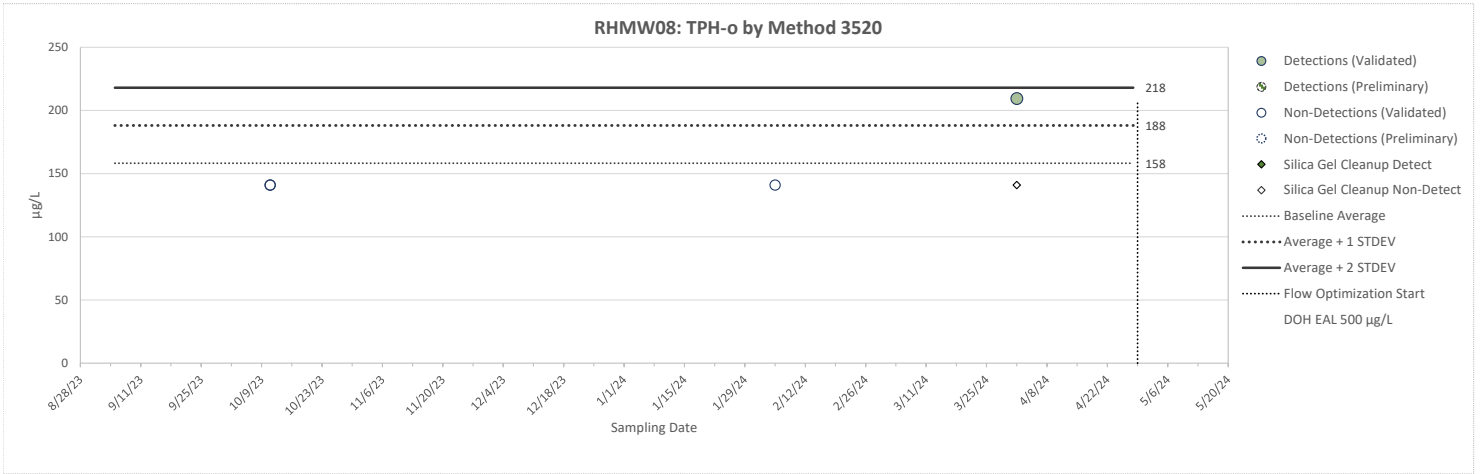
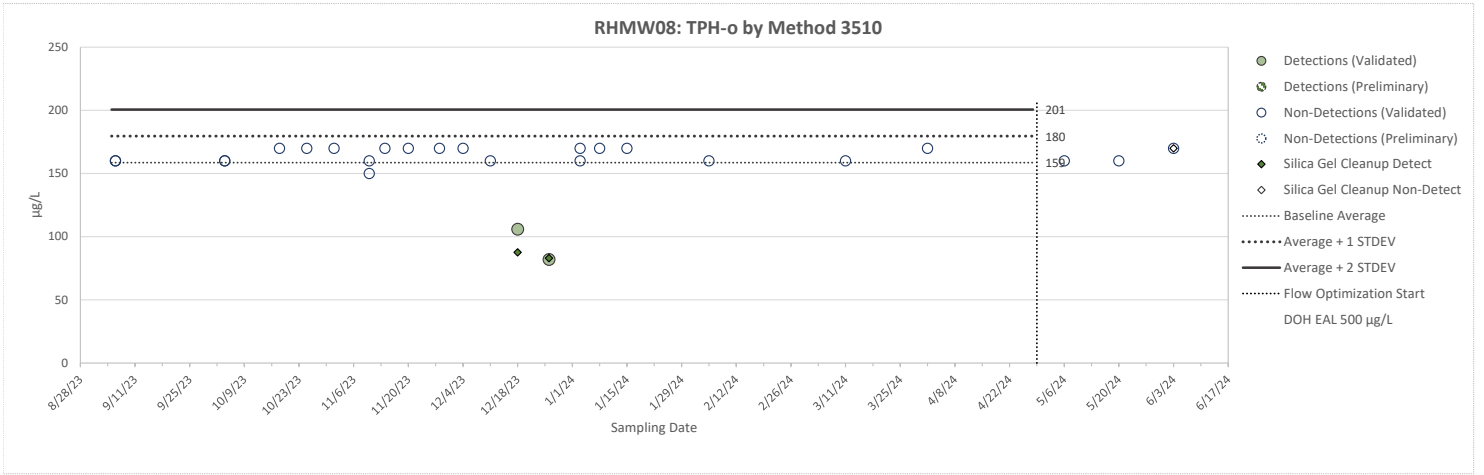


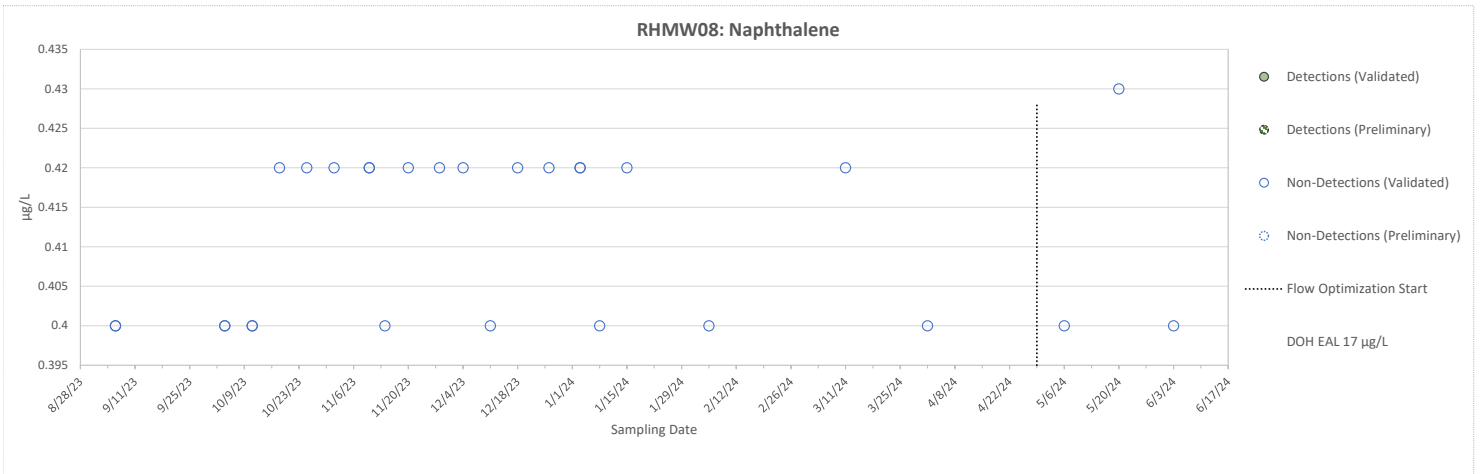
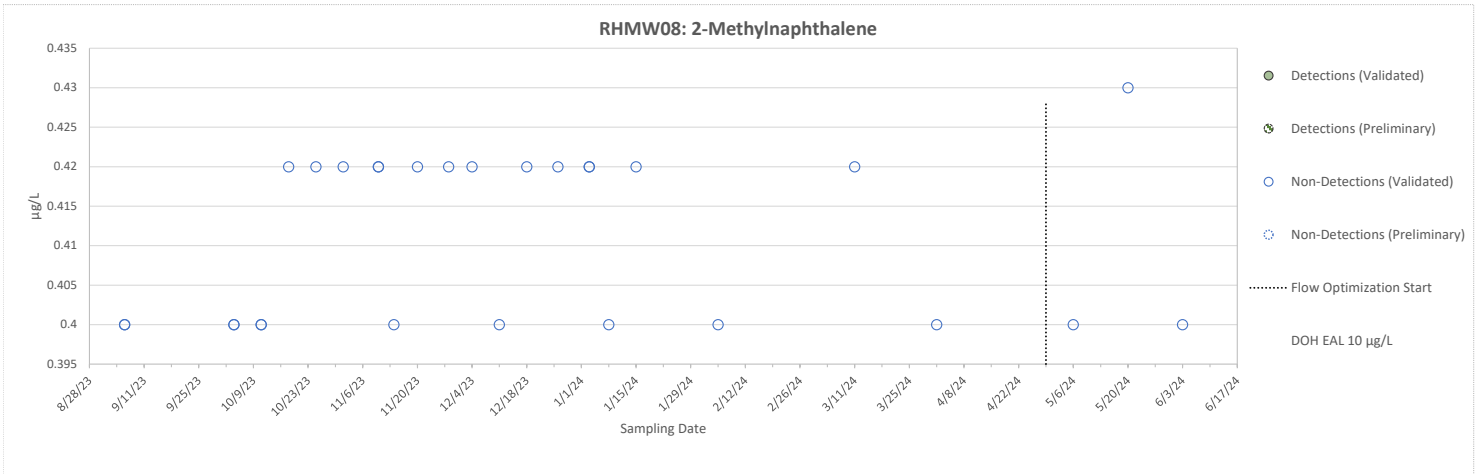
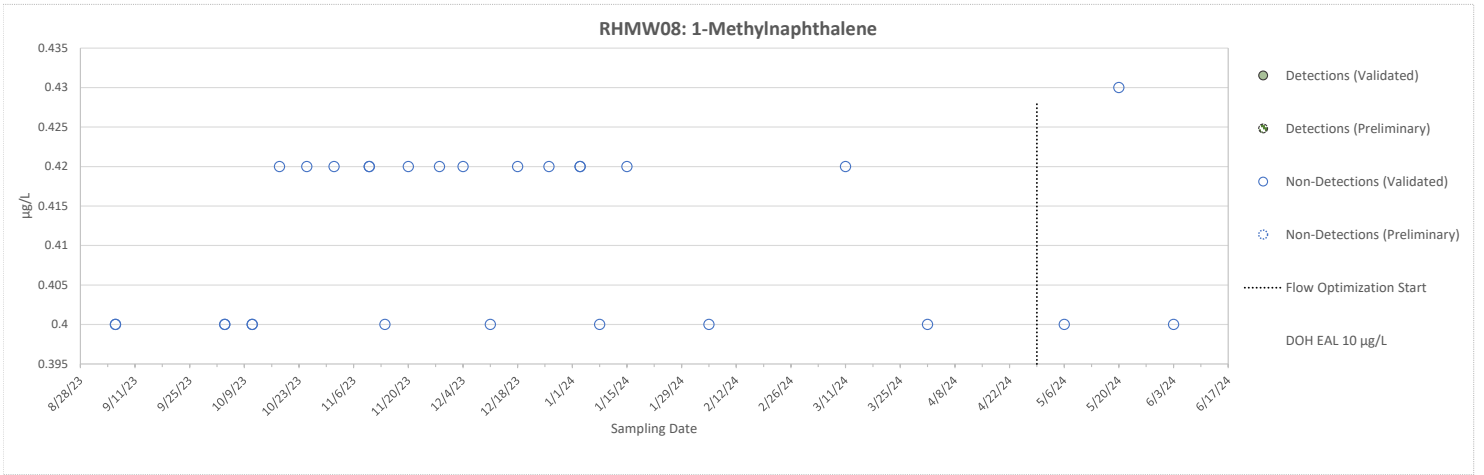




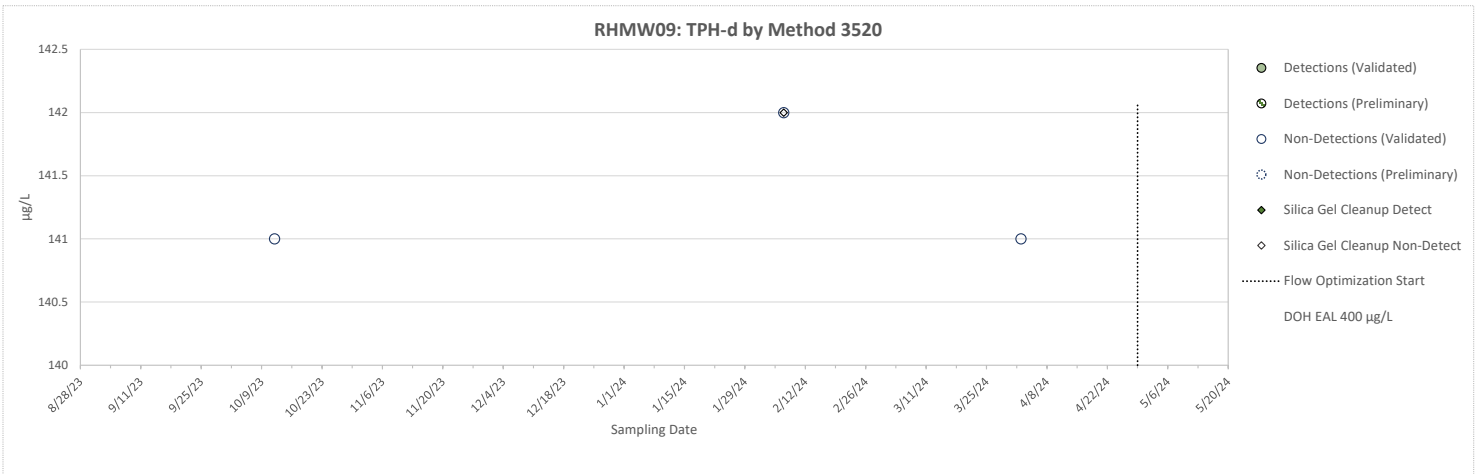
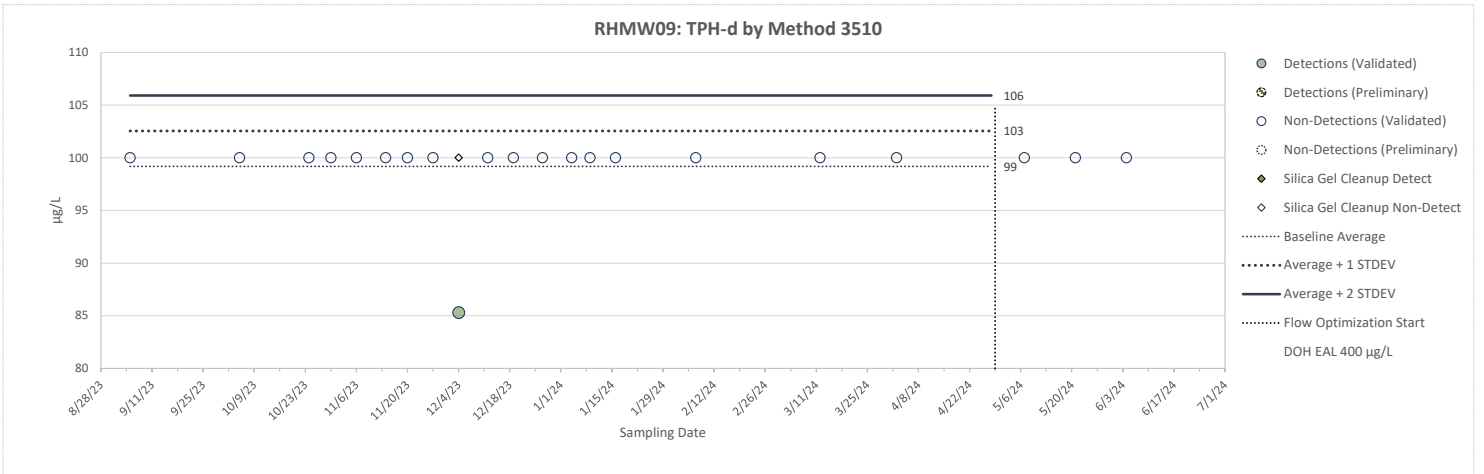
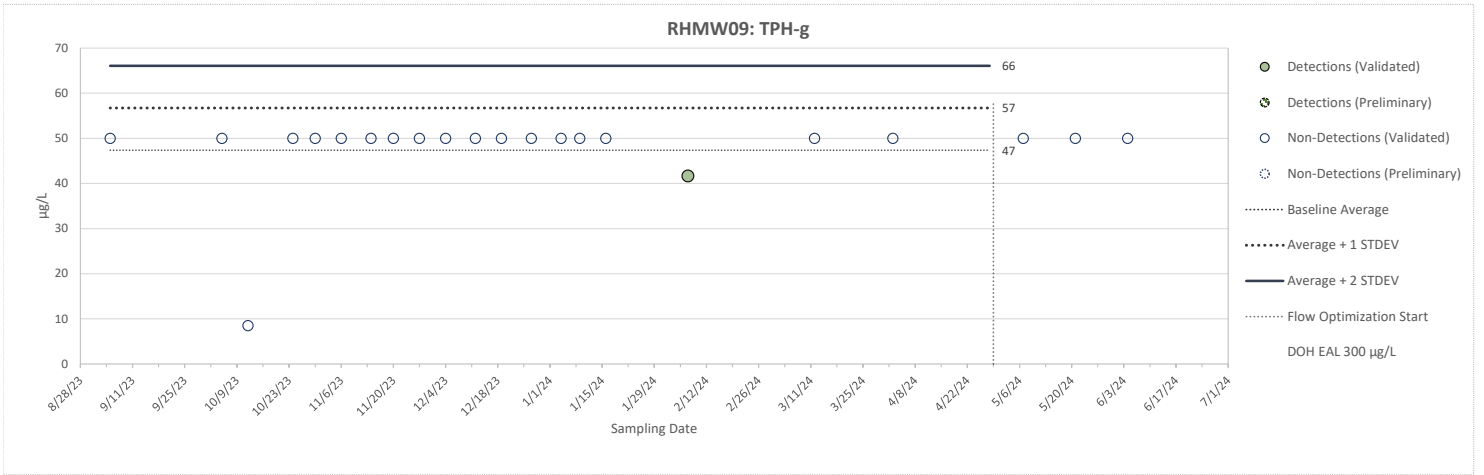
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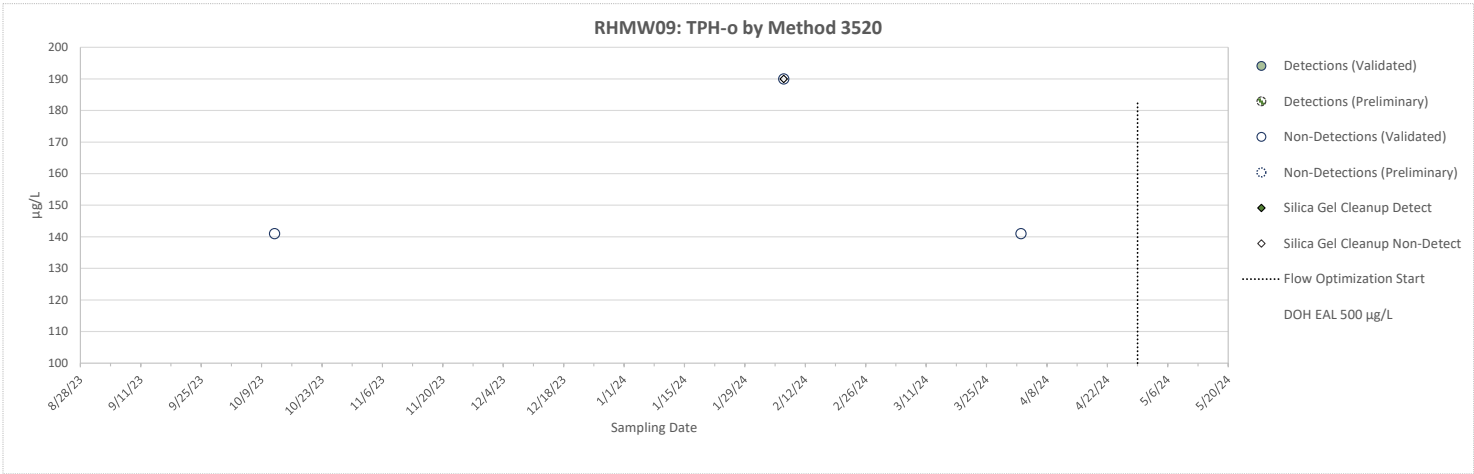
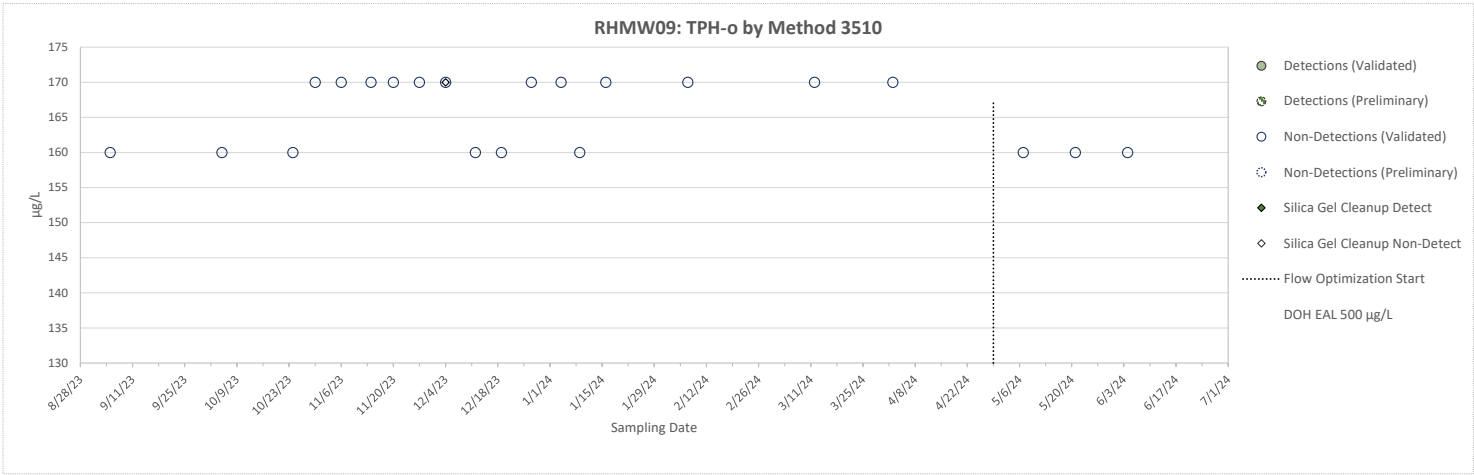


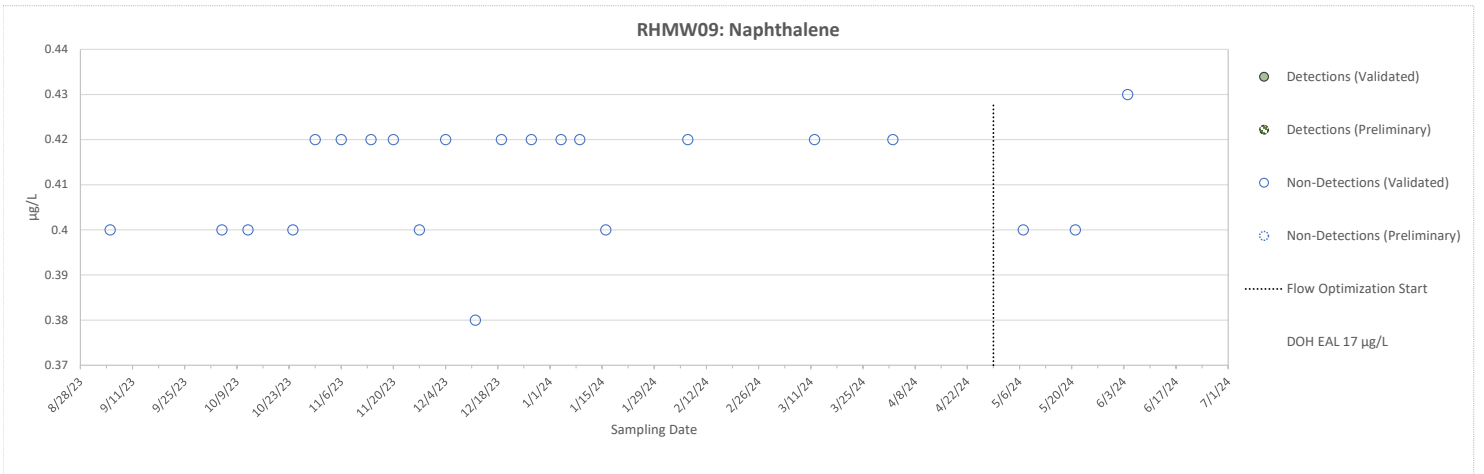
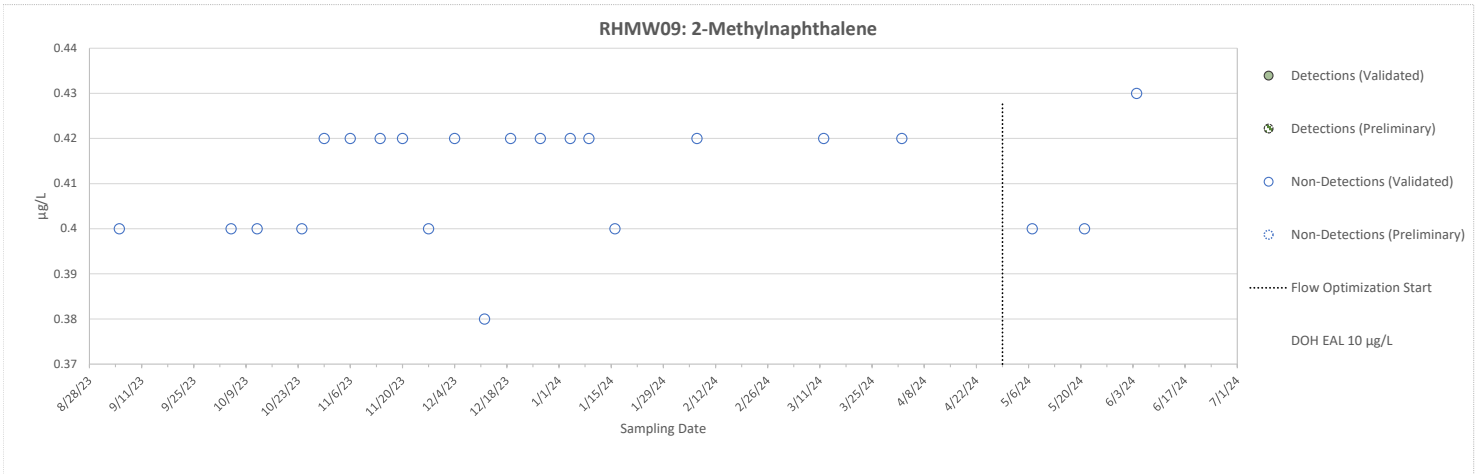
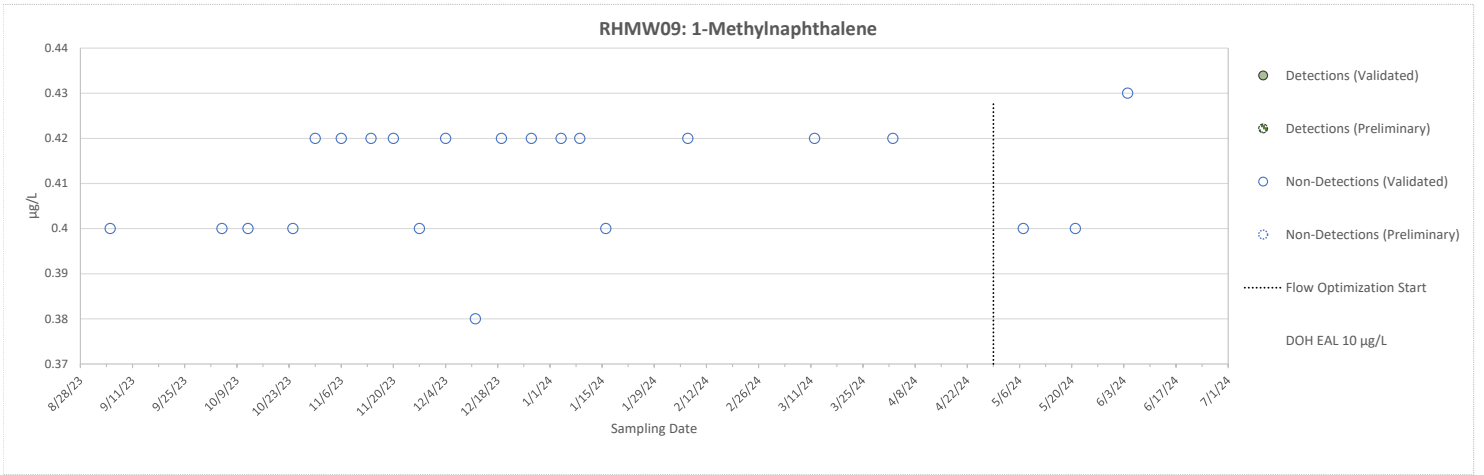




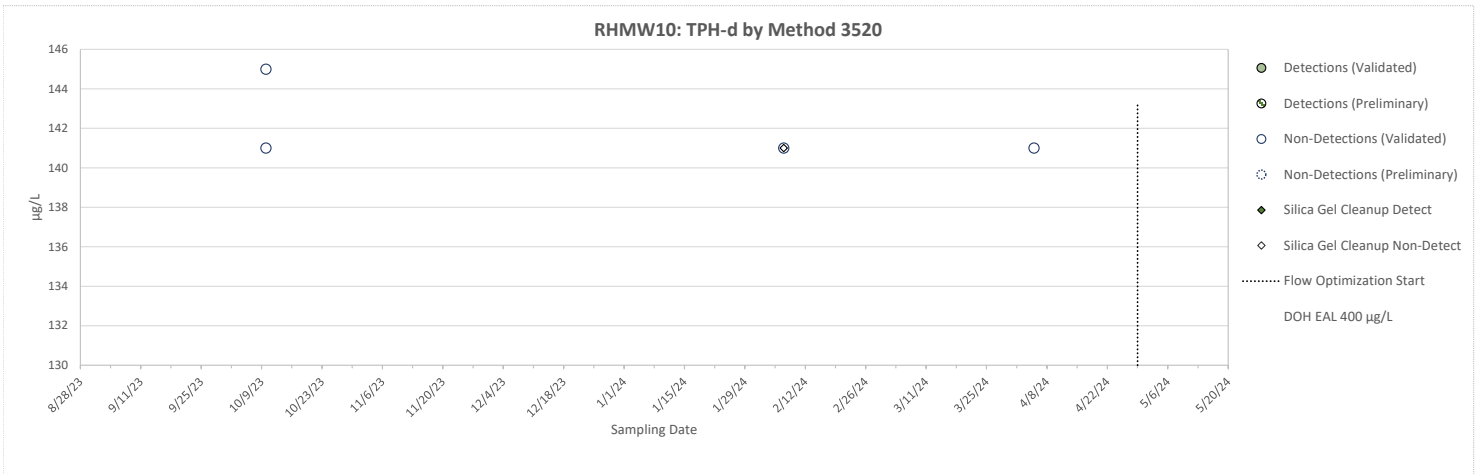
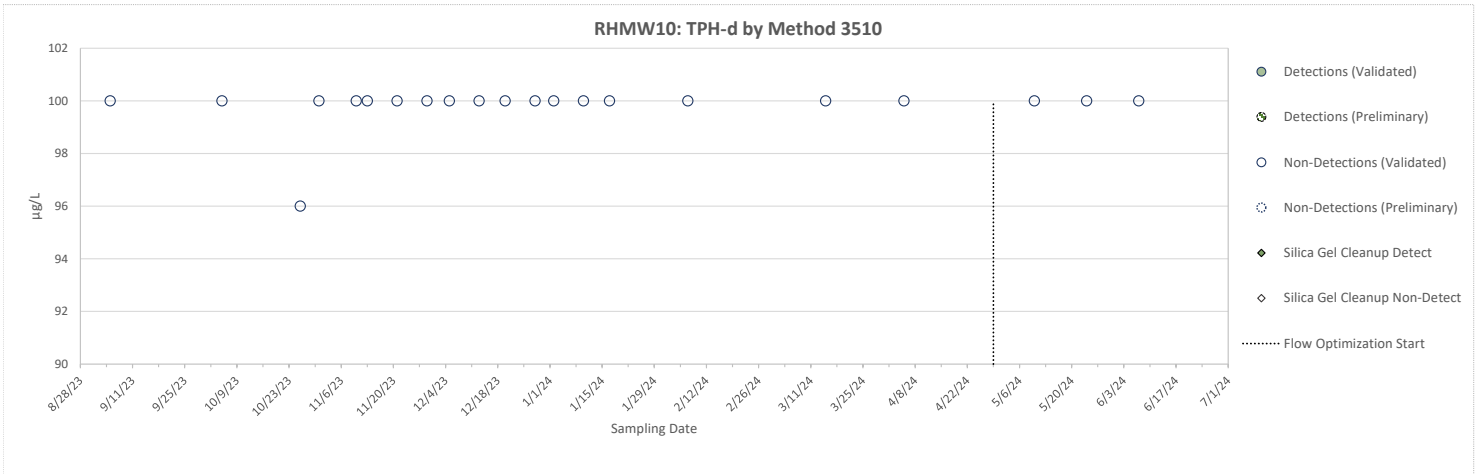
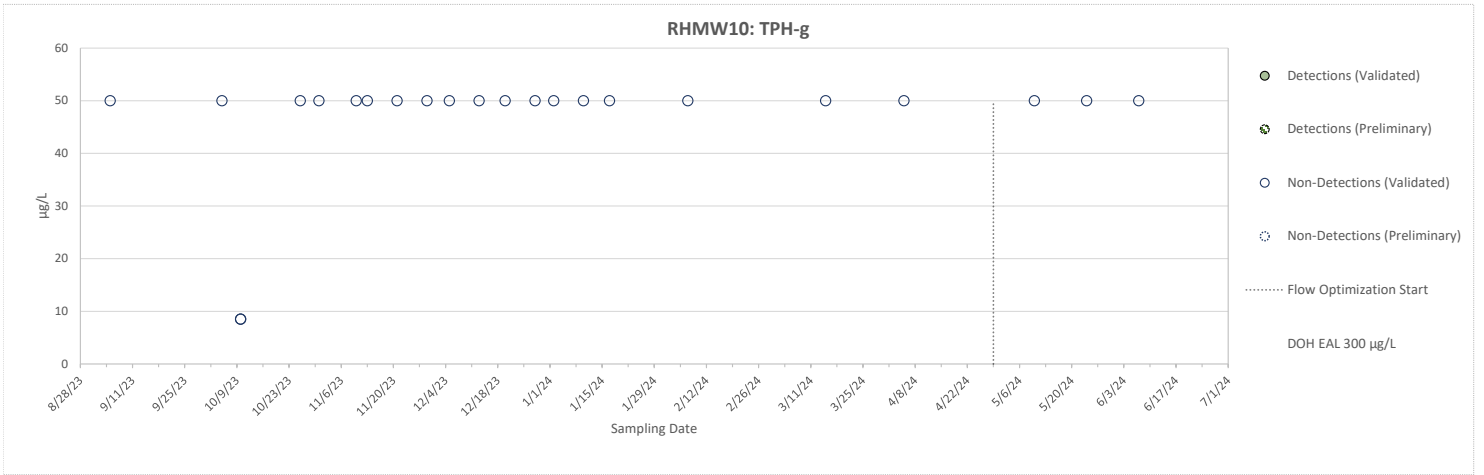
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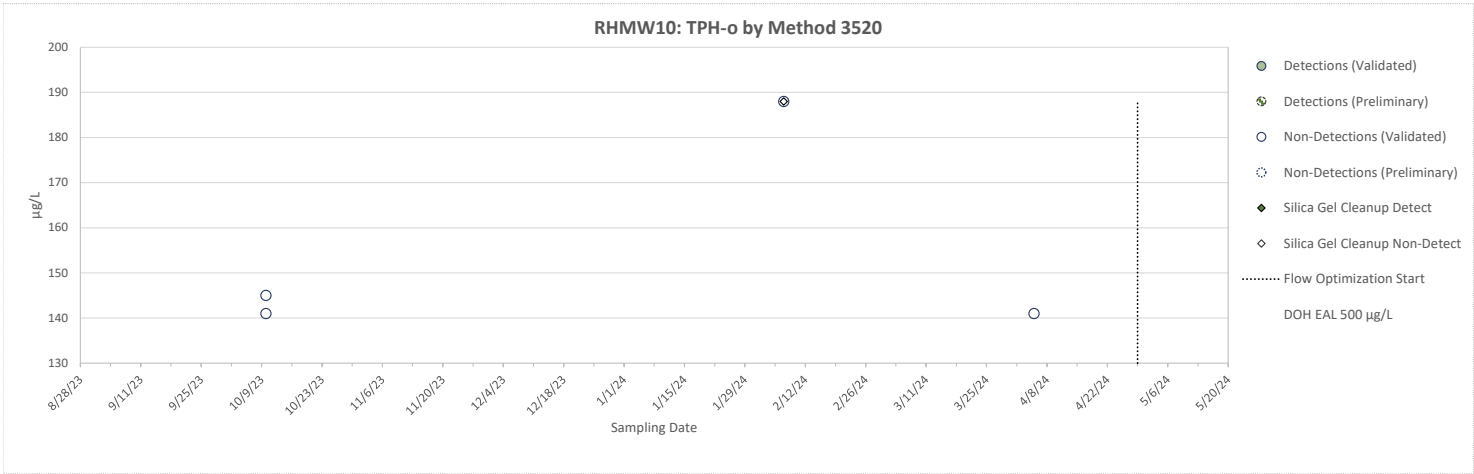
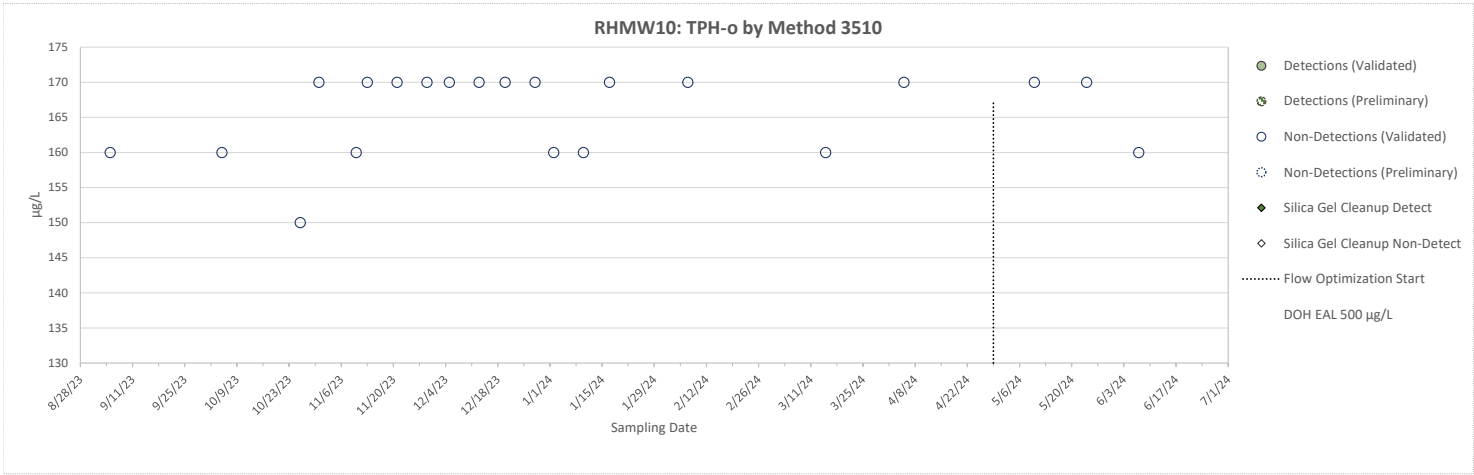


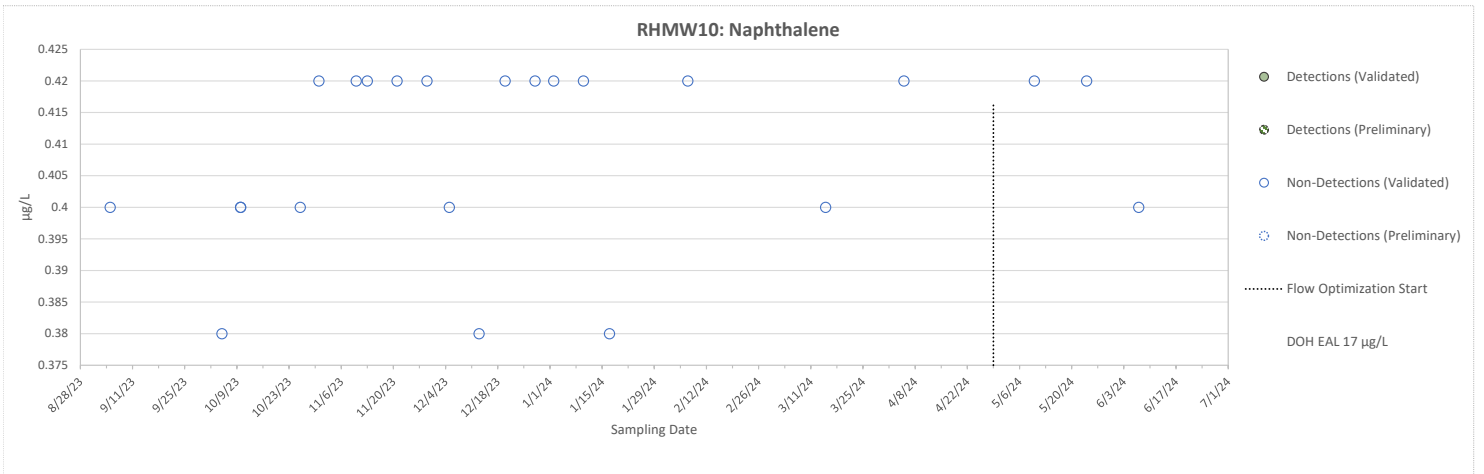
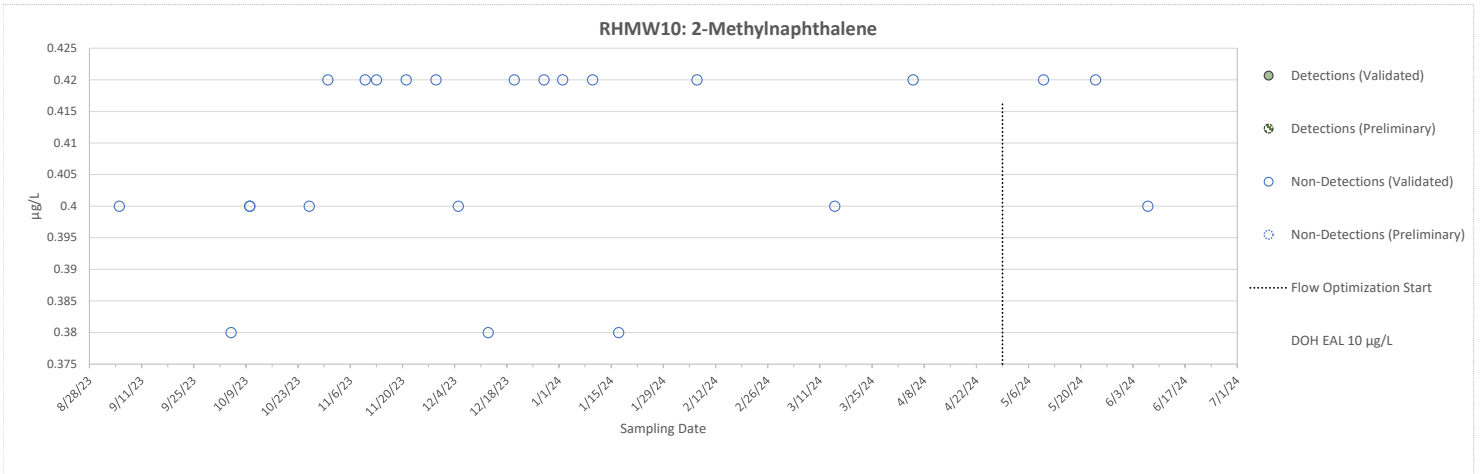
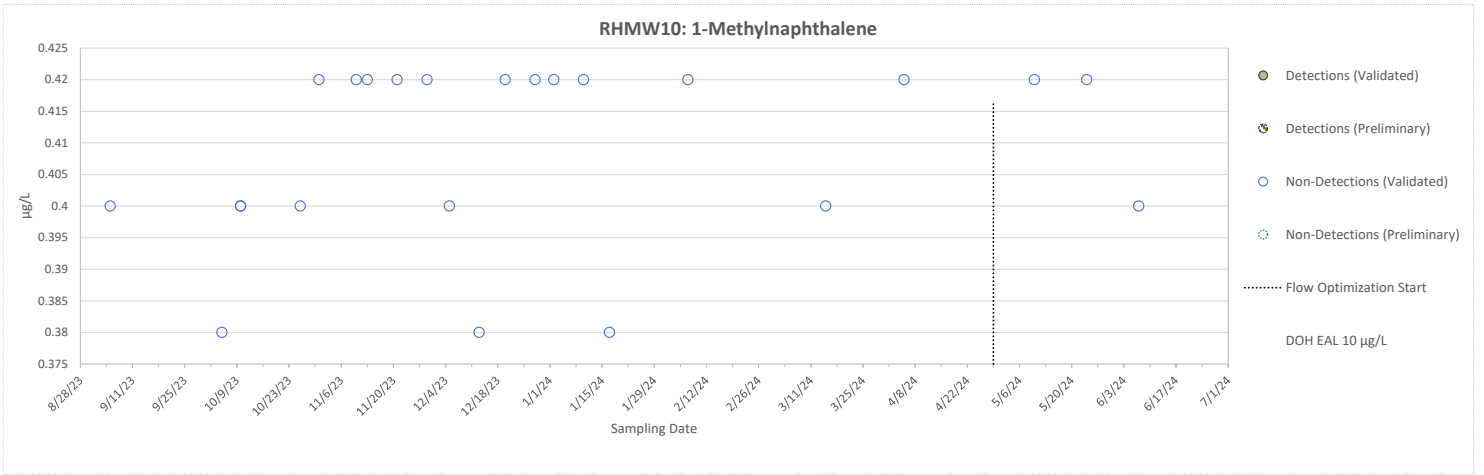




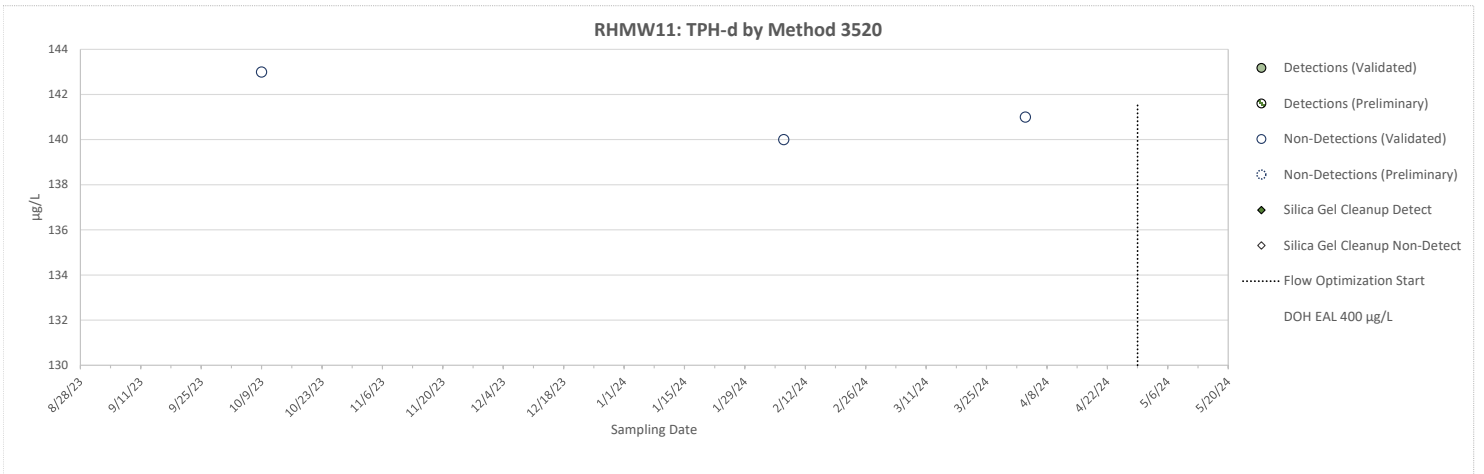
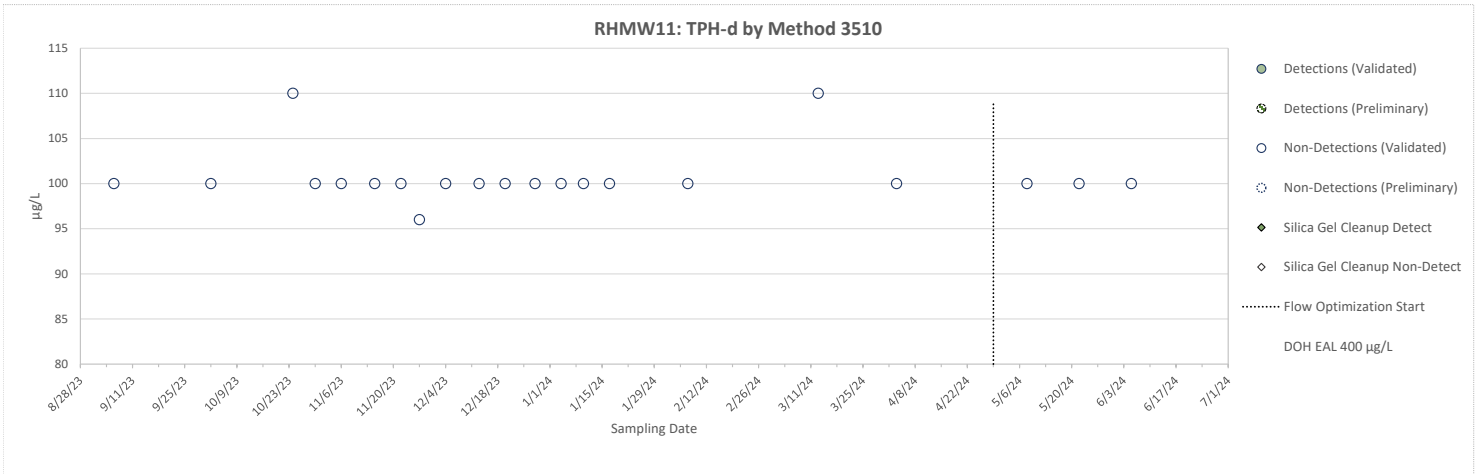
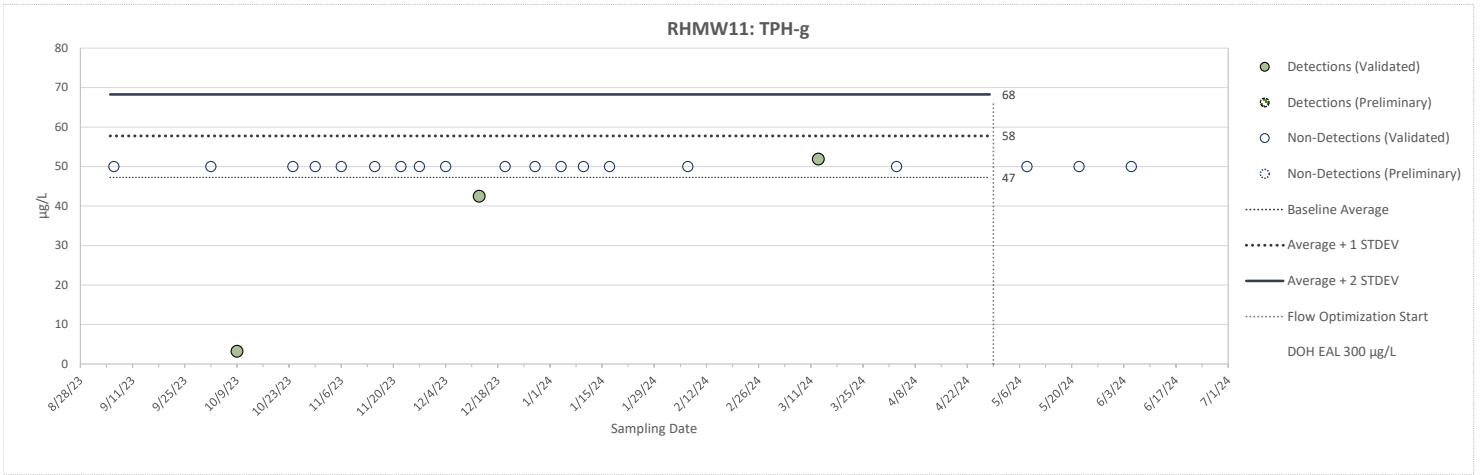
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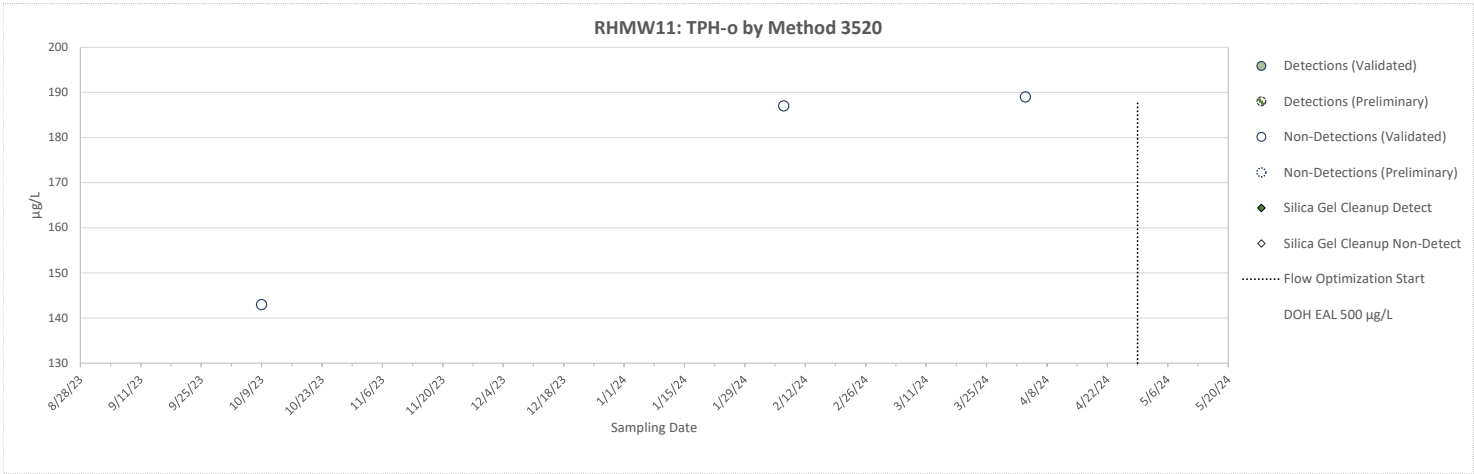
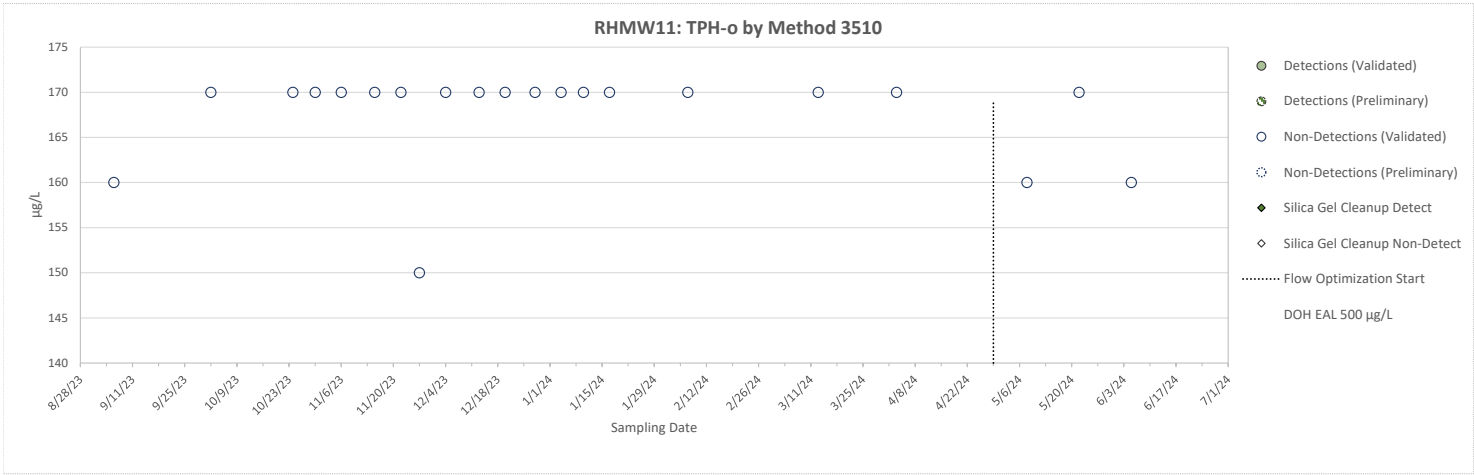


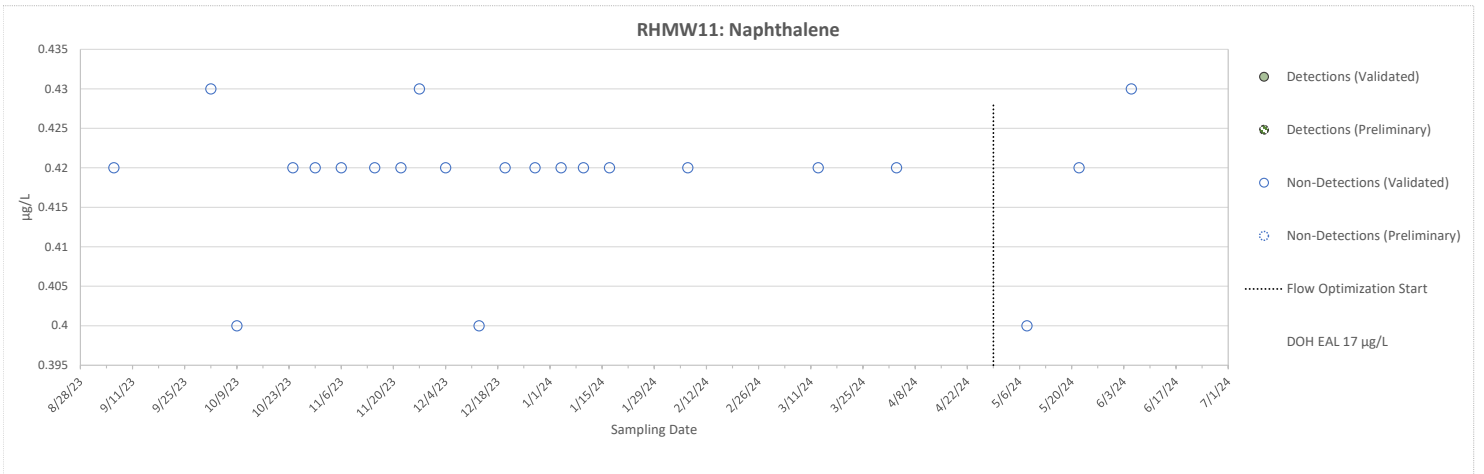
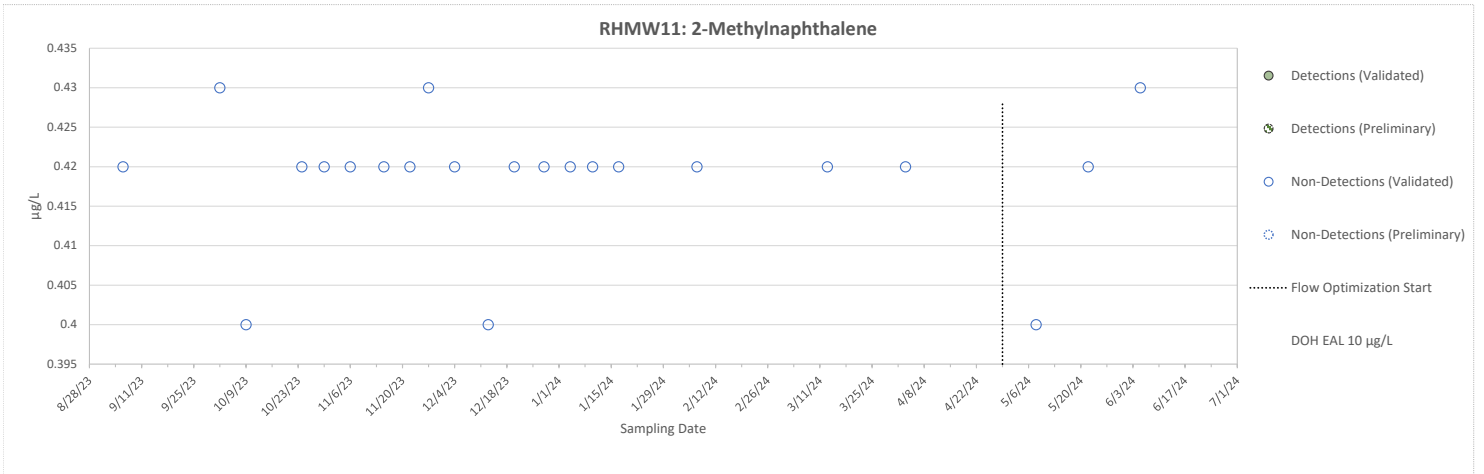
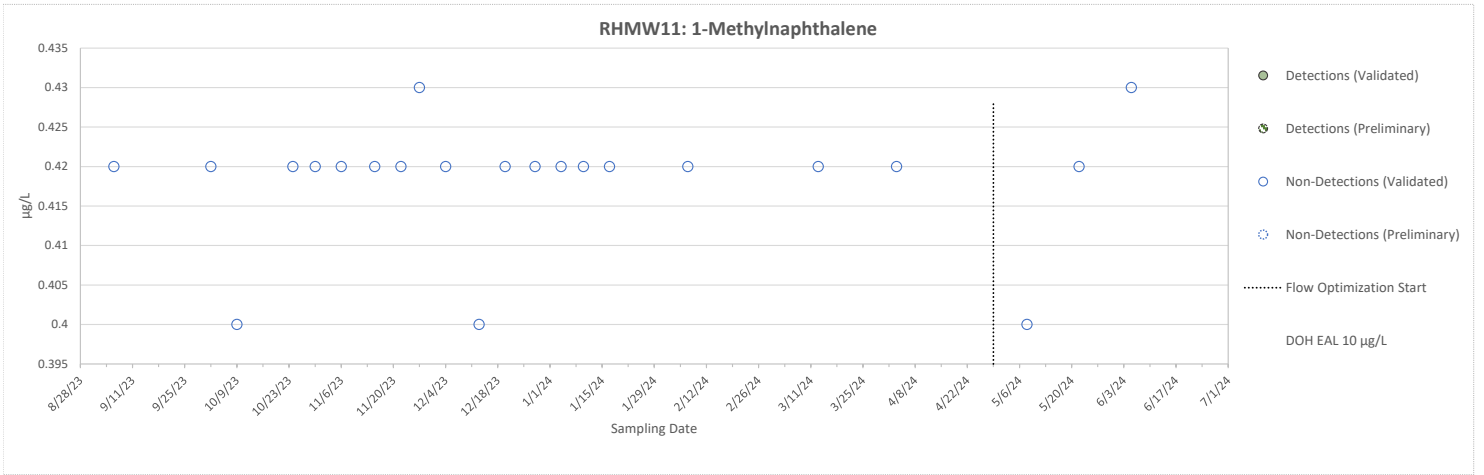




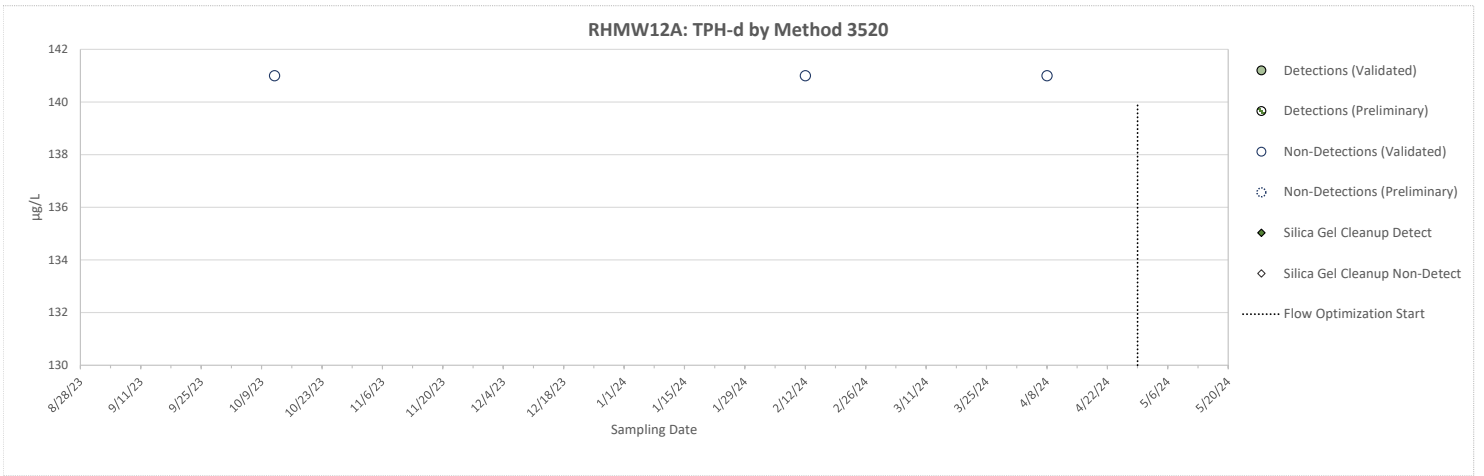
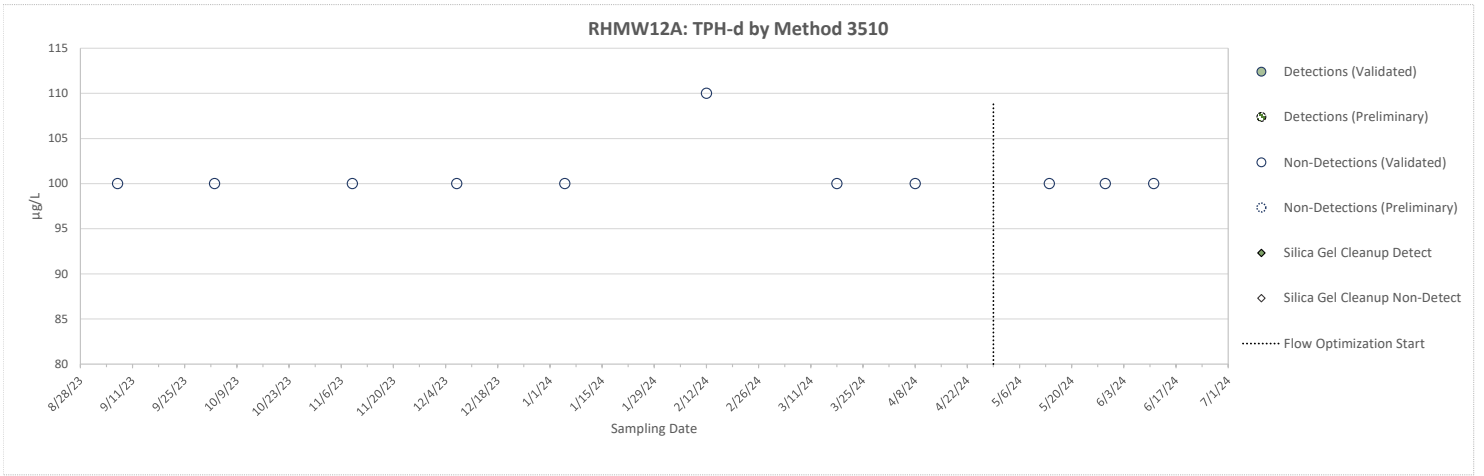
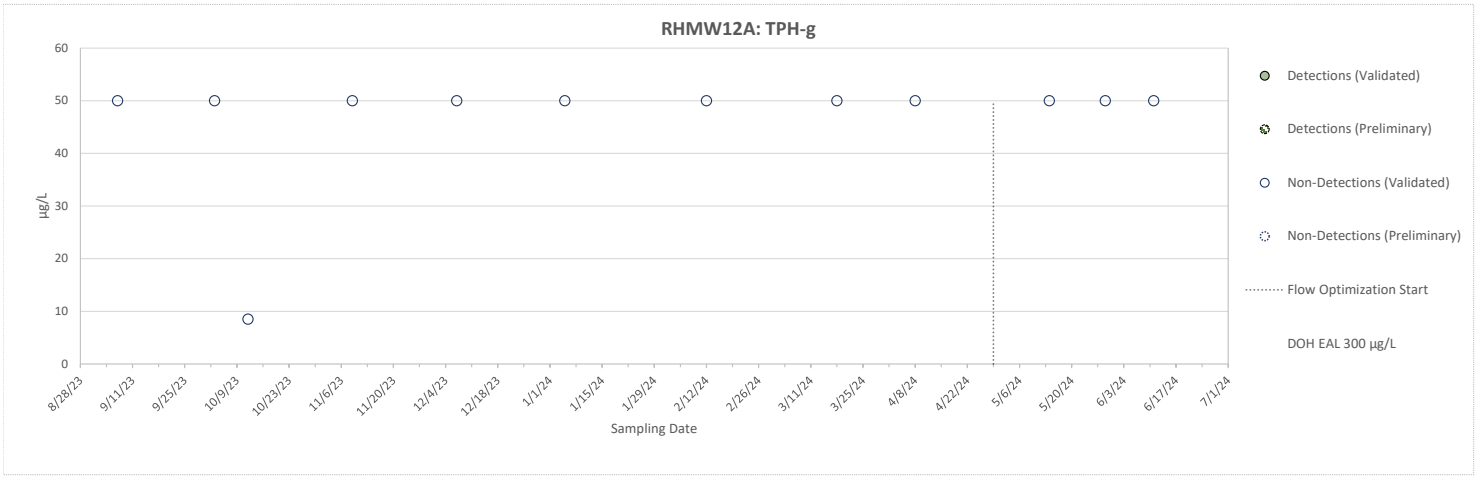
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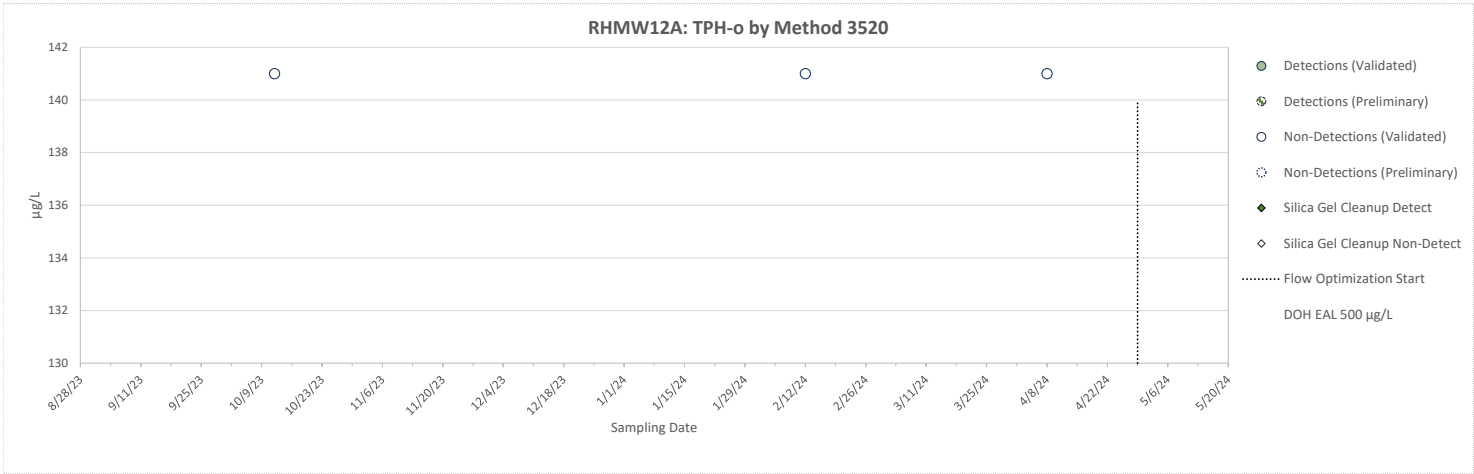
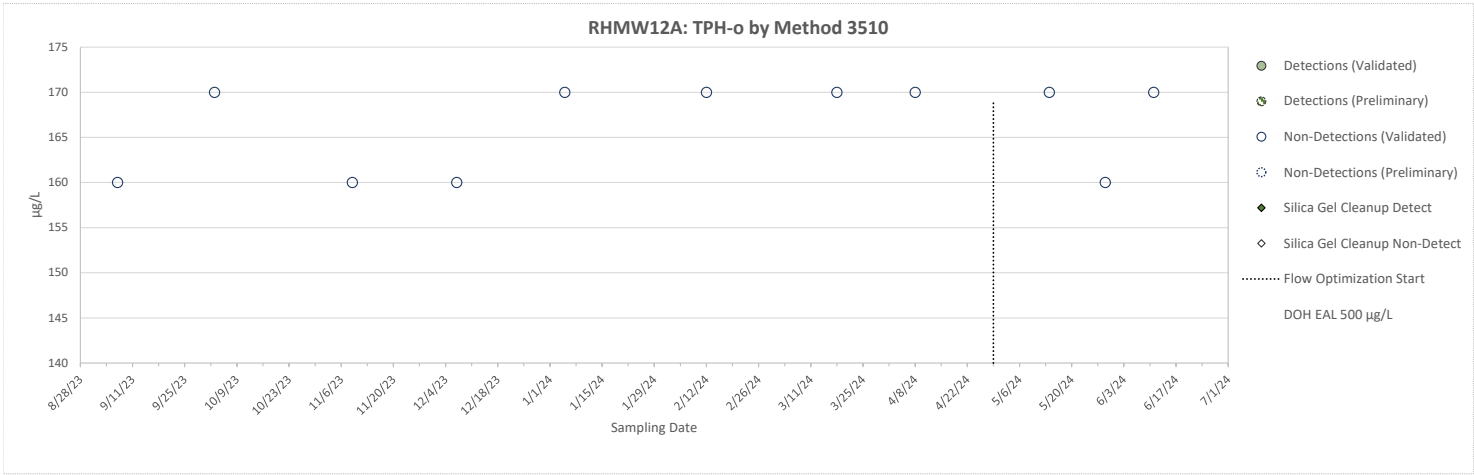


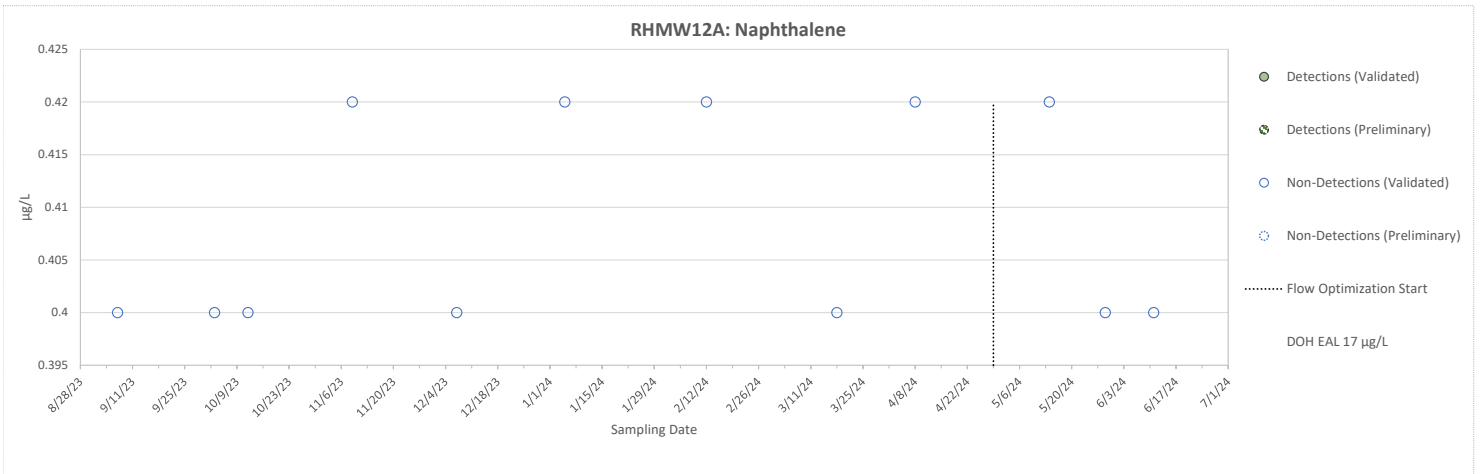
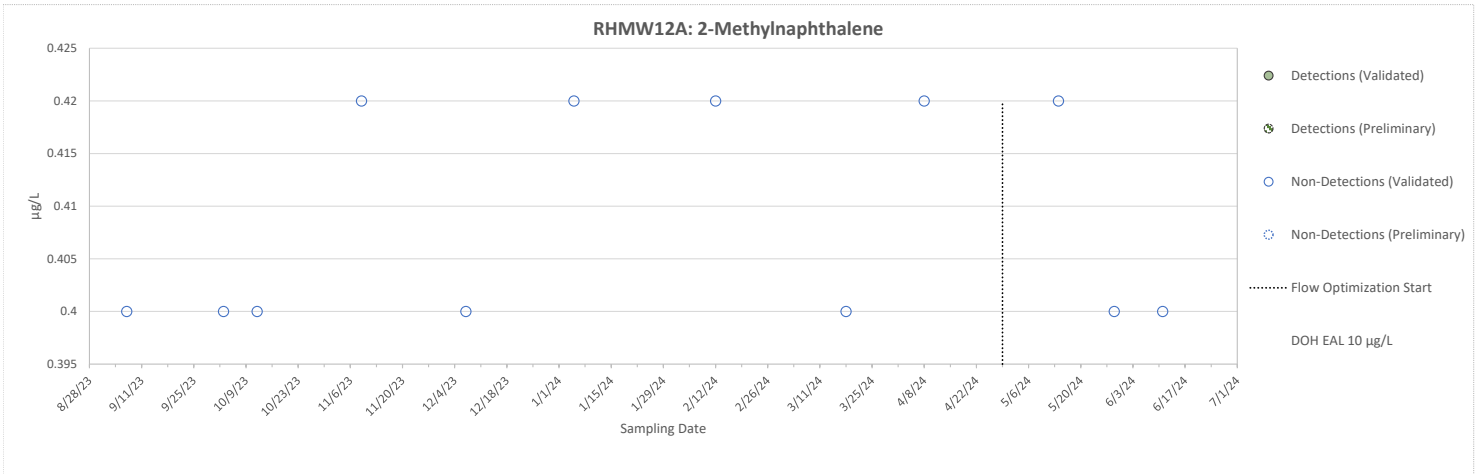
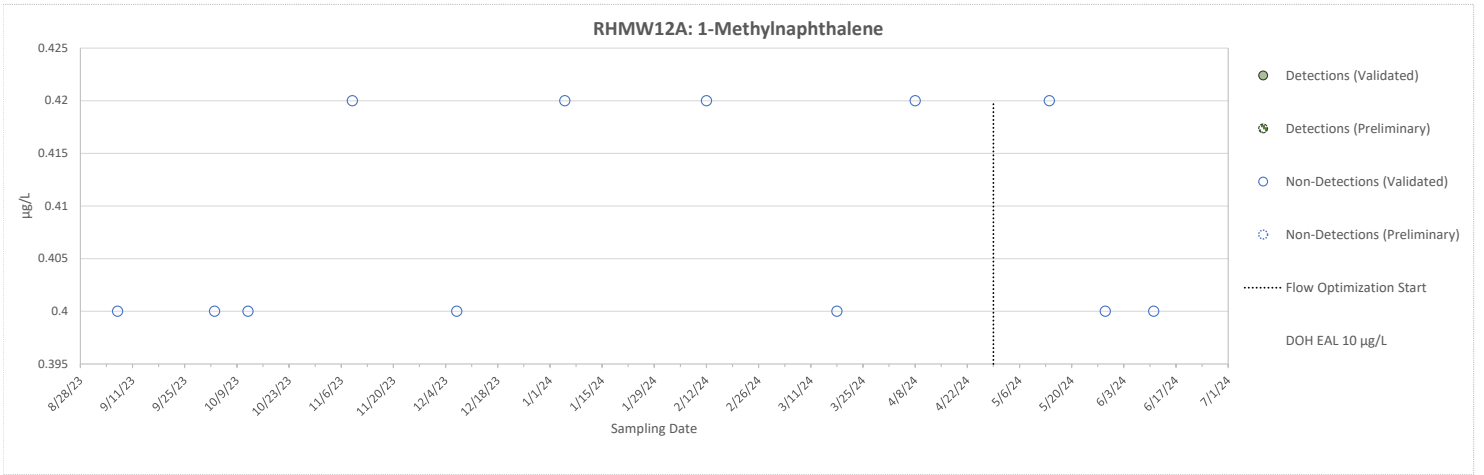




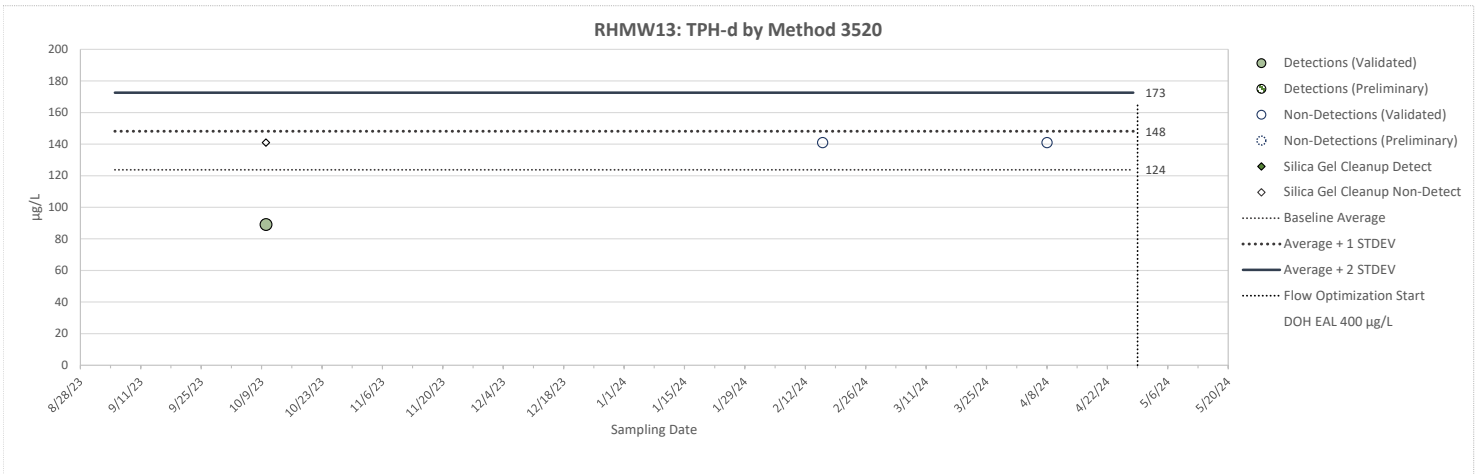
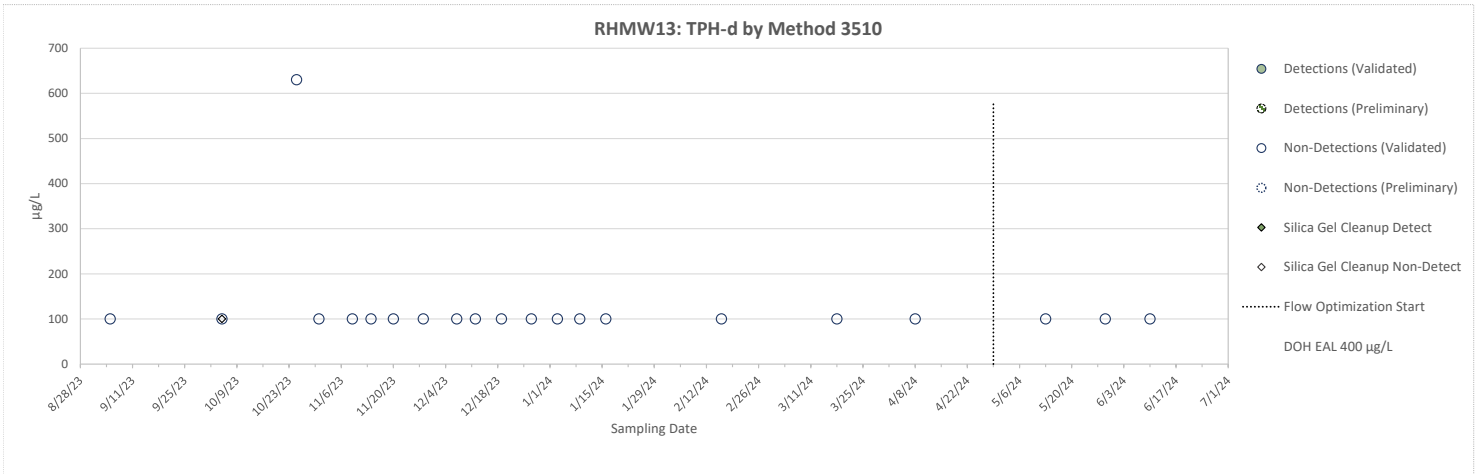
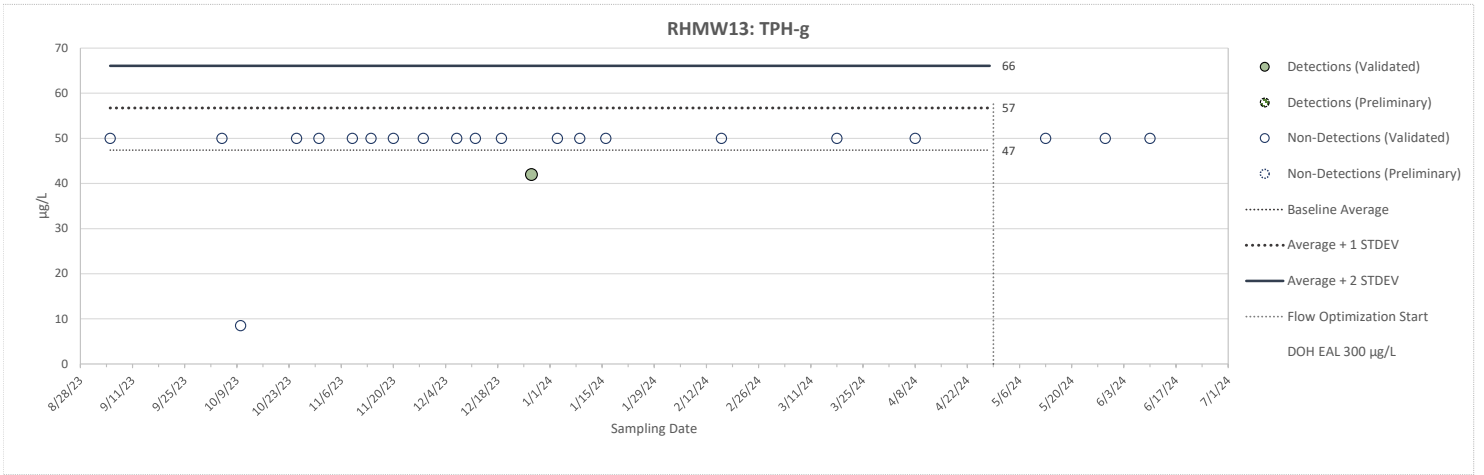
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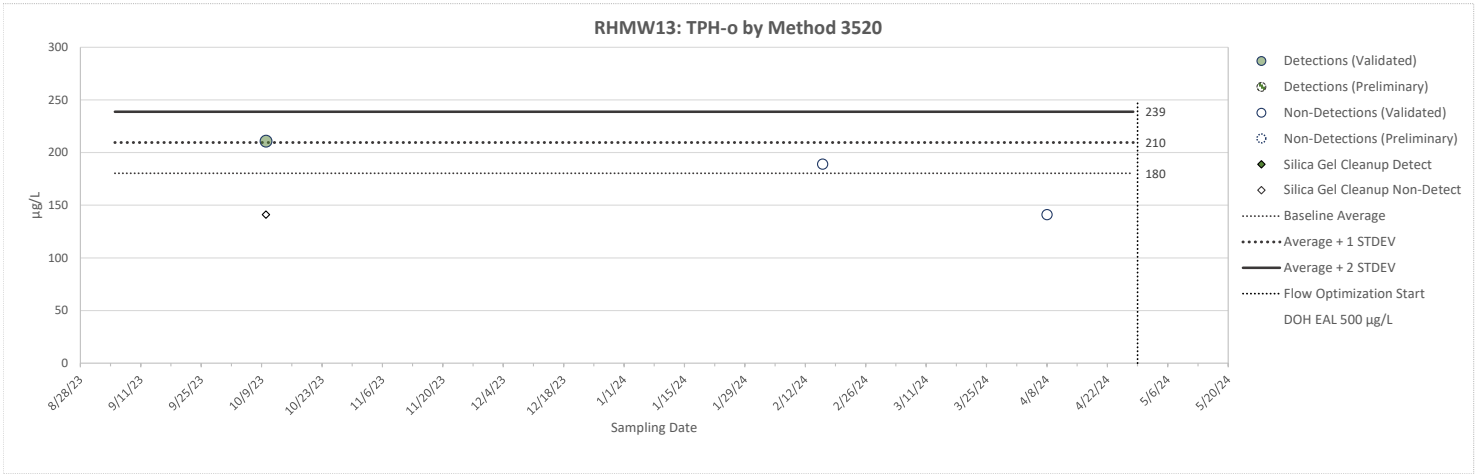
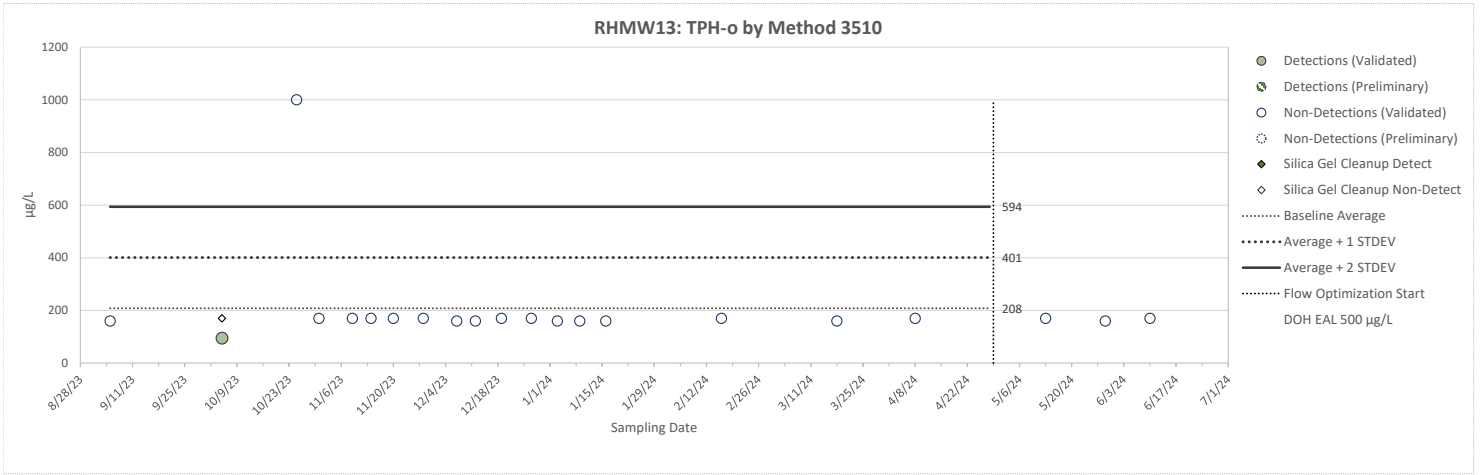


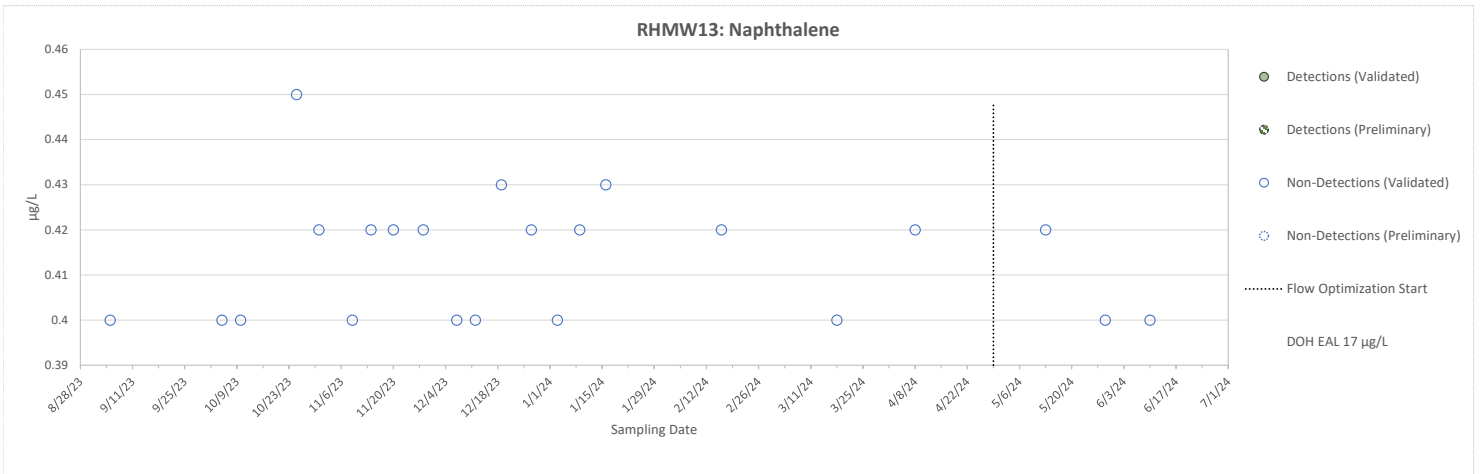
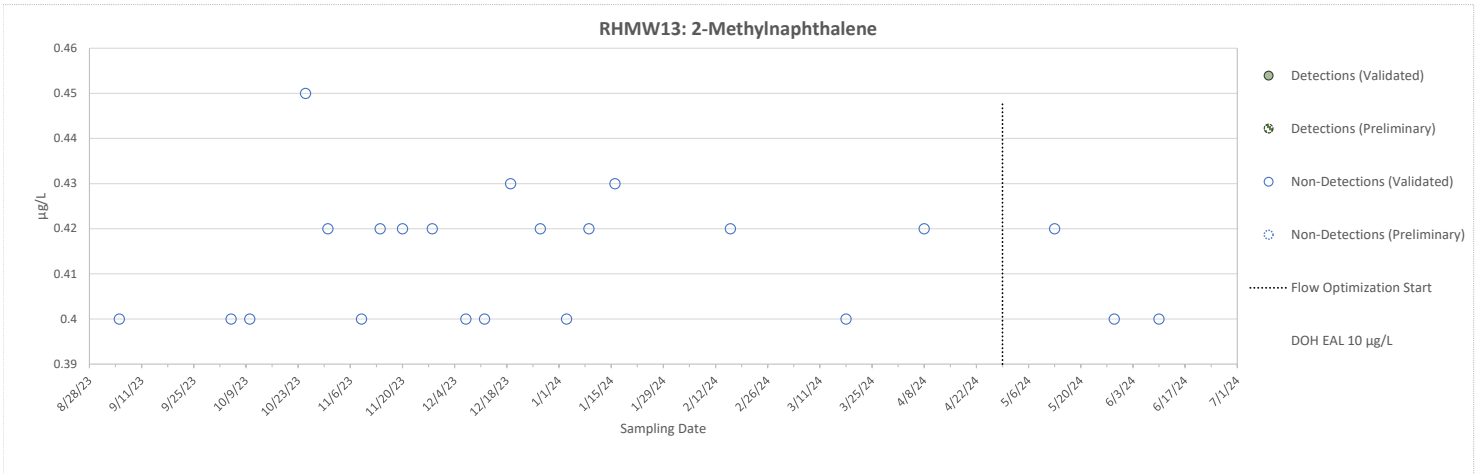
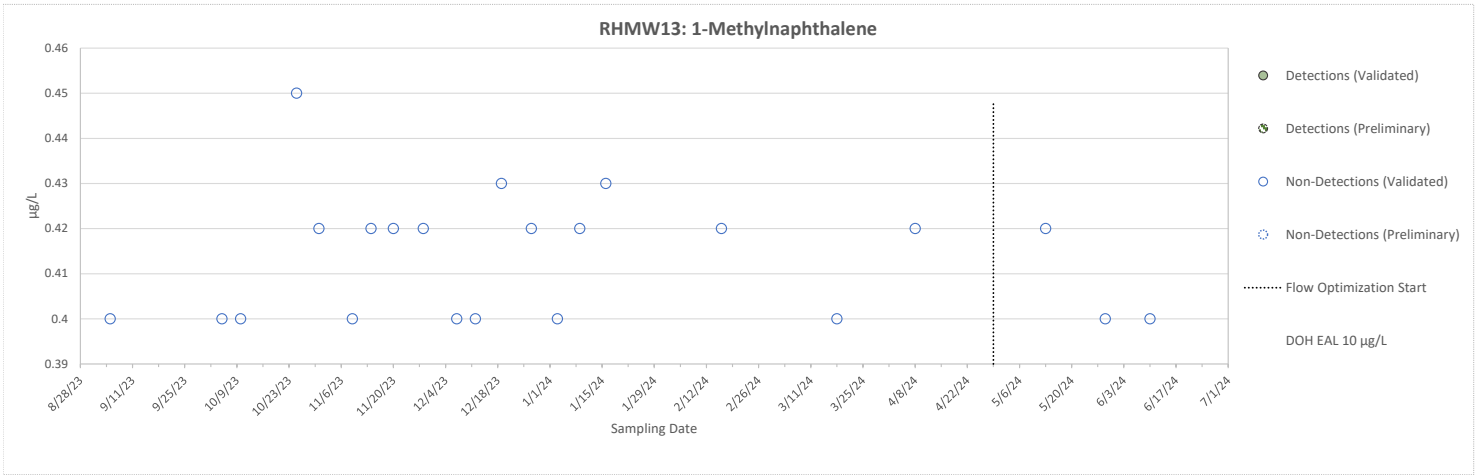




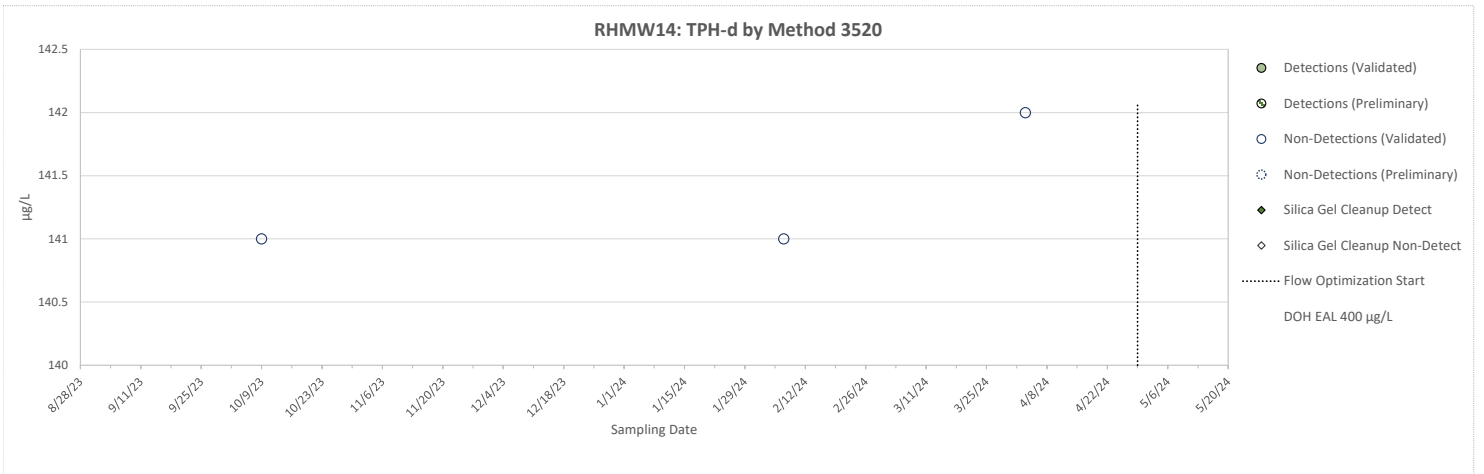
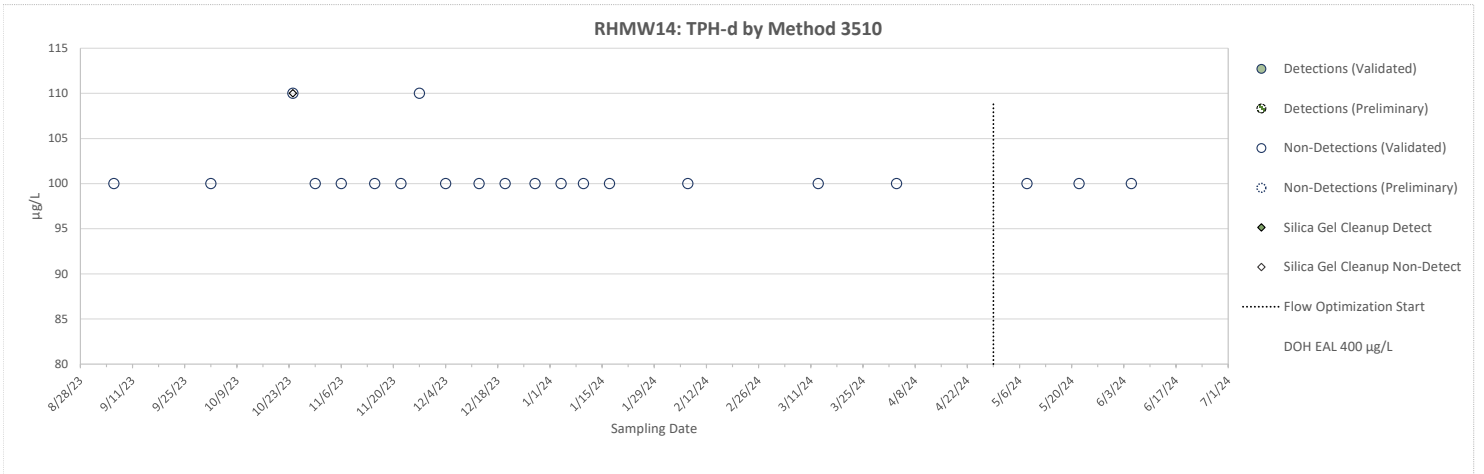
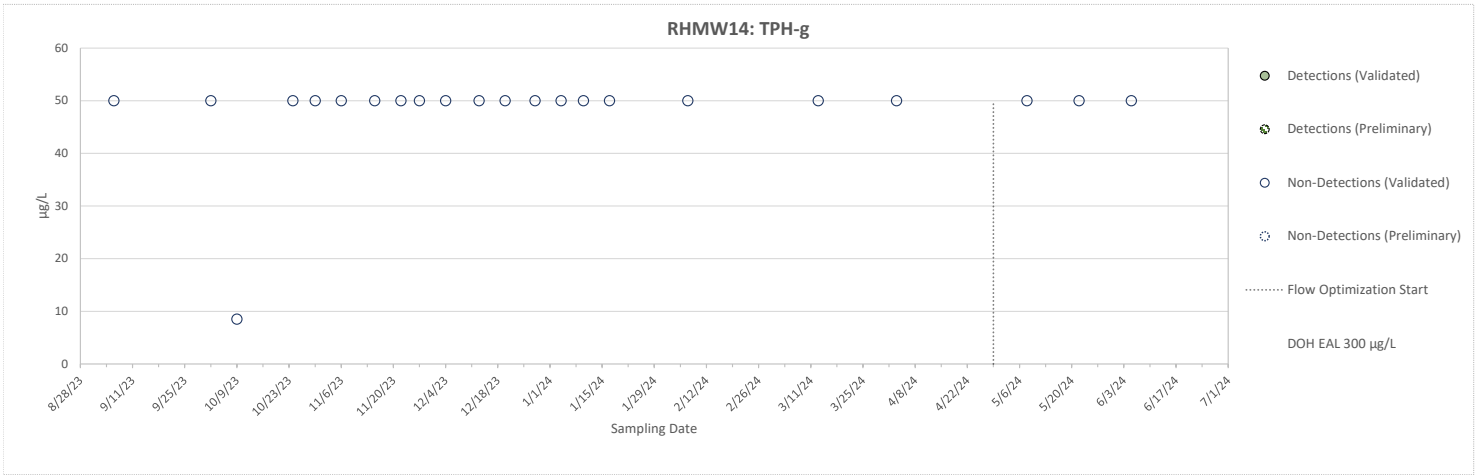
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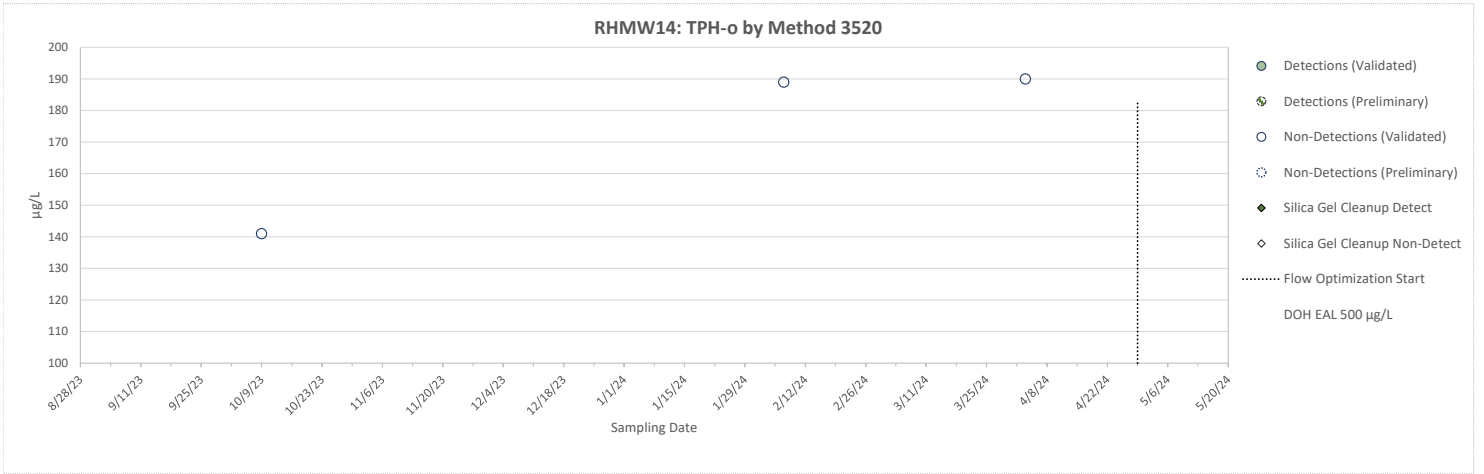
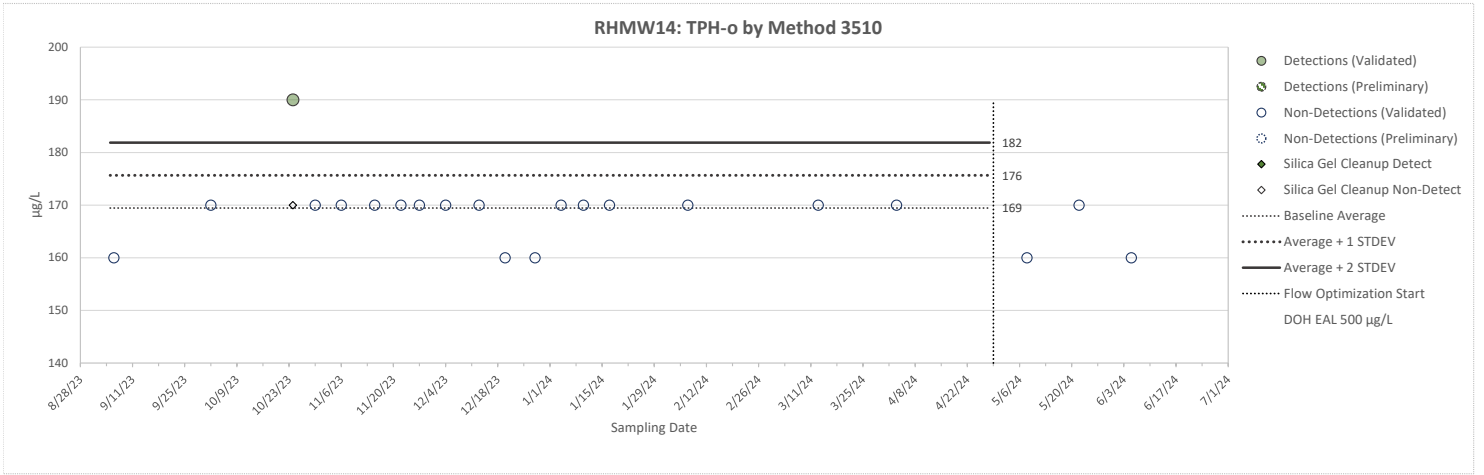


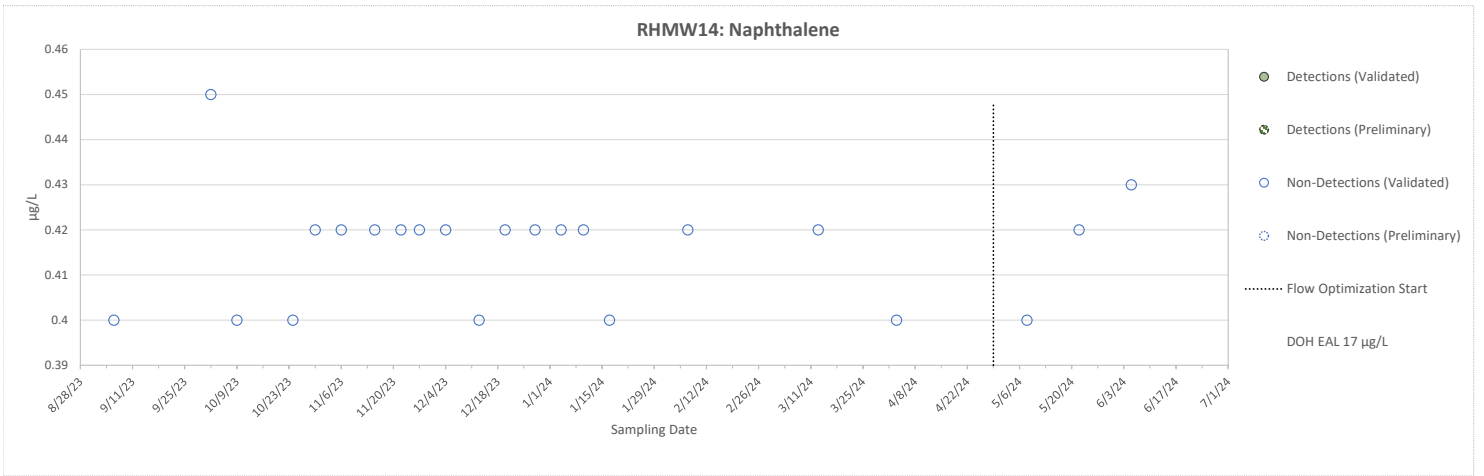
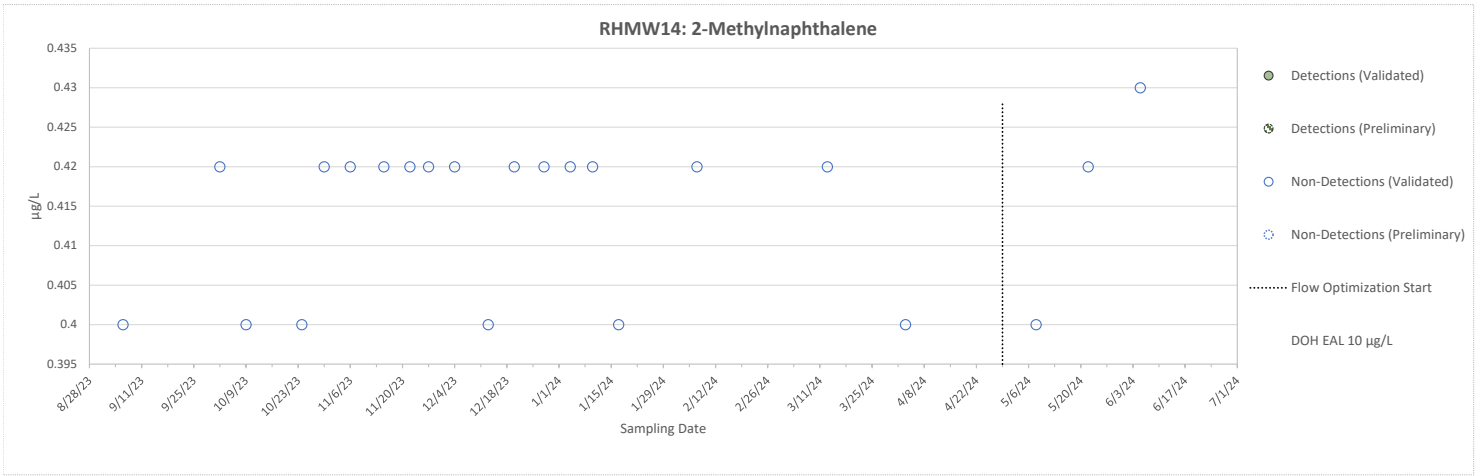
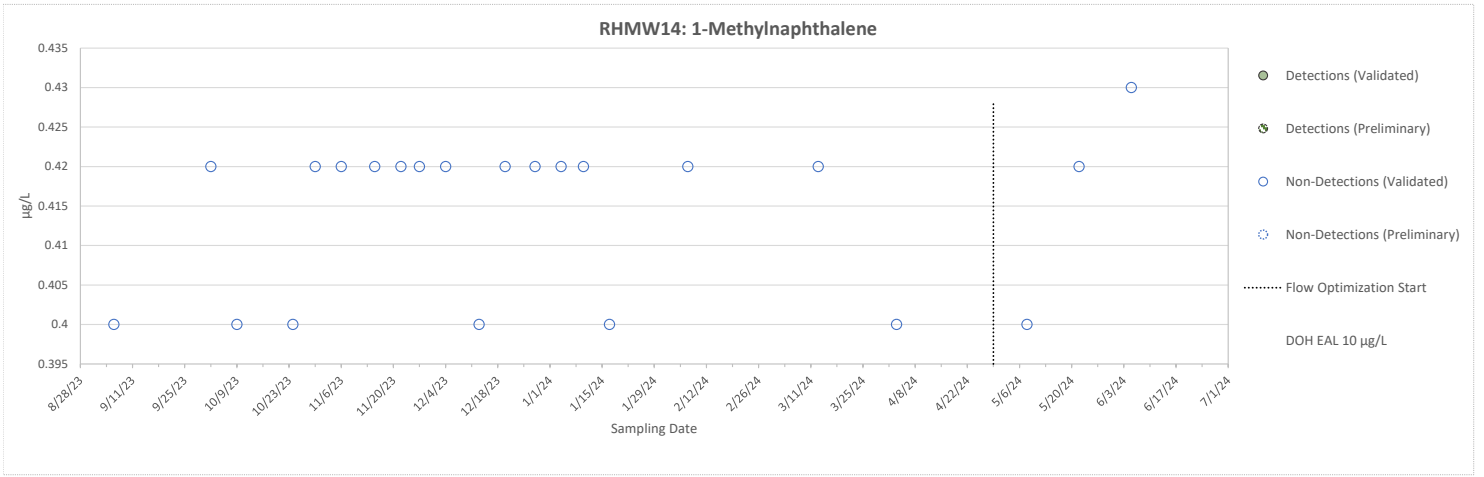




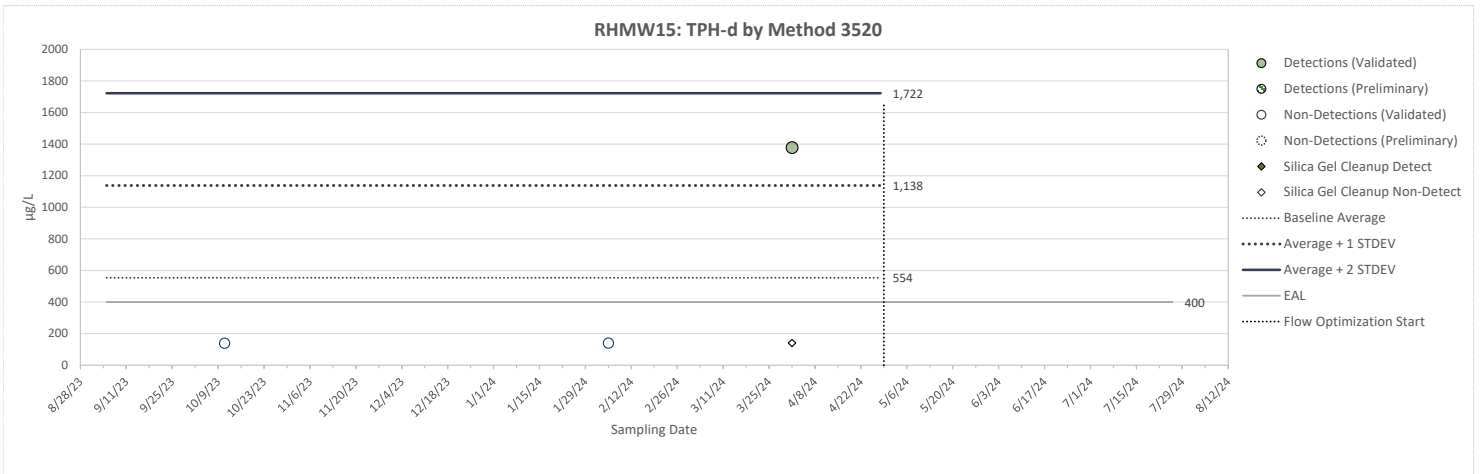
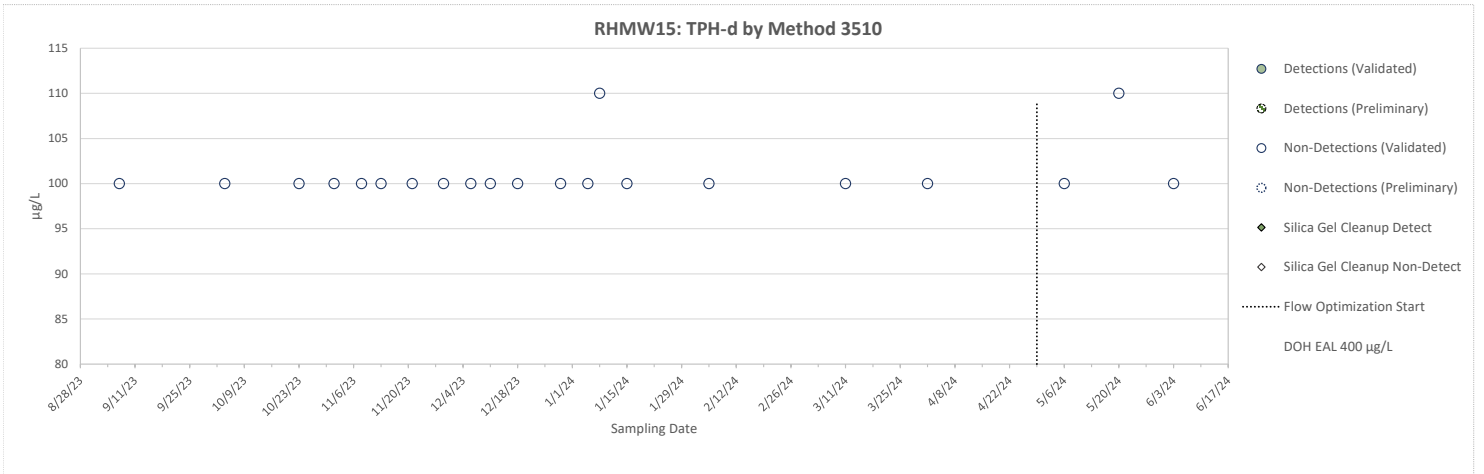
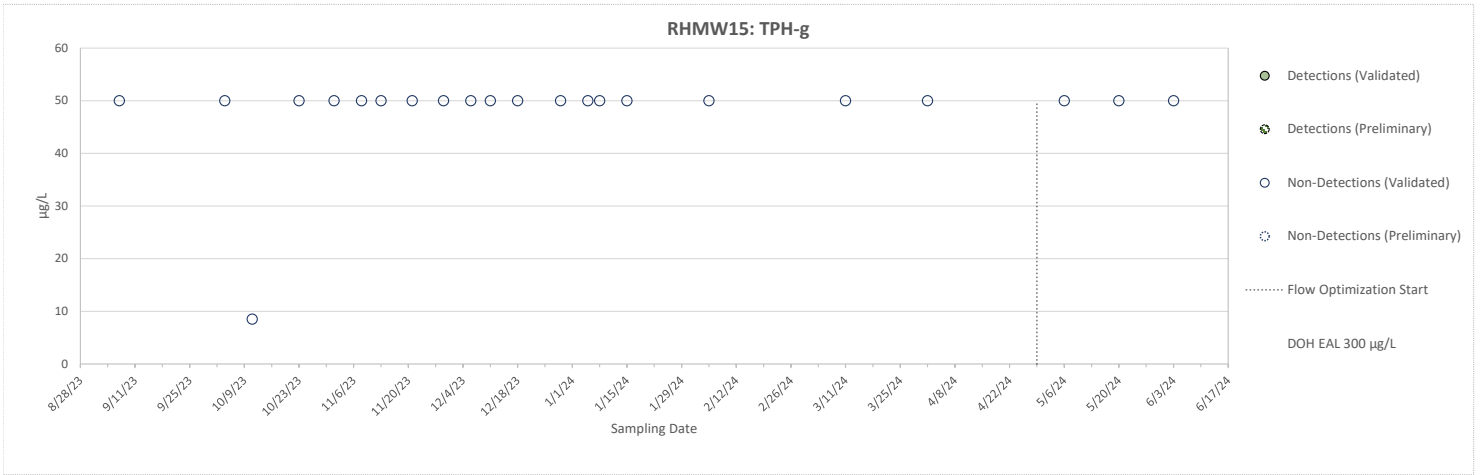
Note: See Data Legend

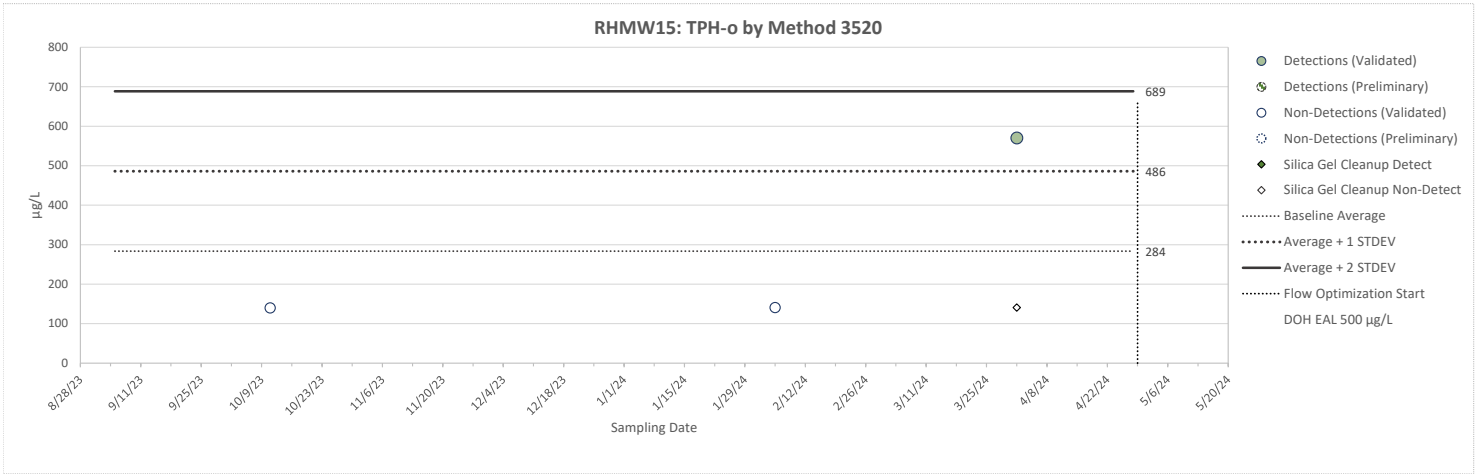
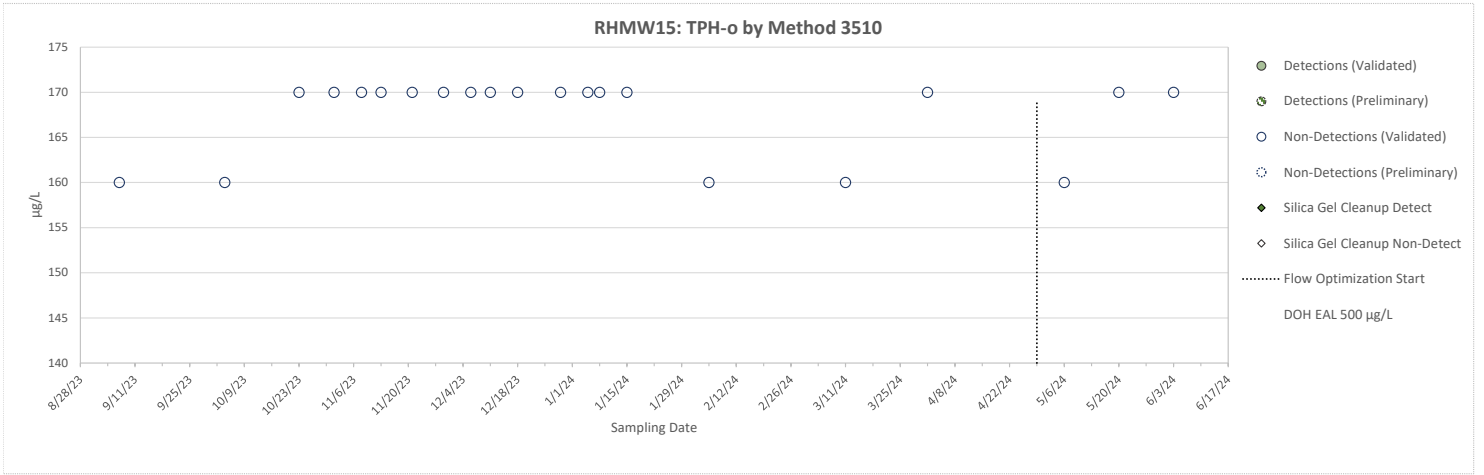


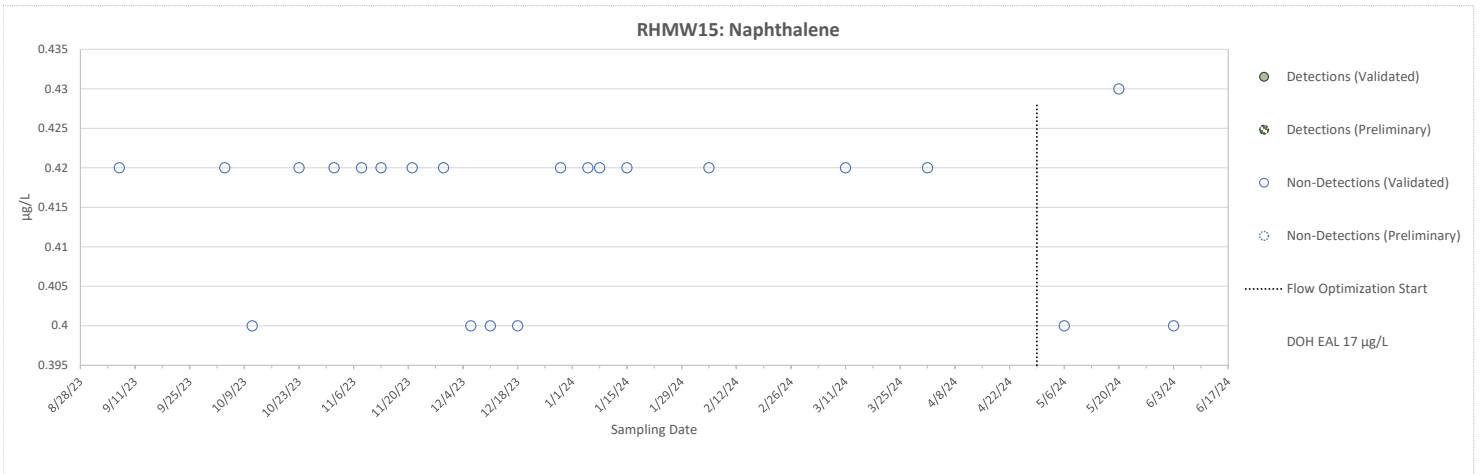
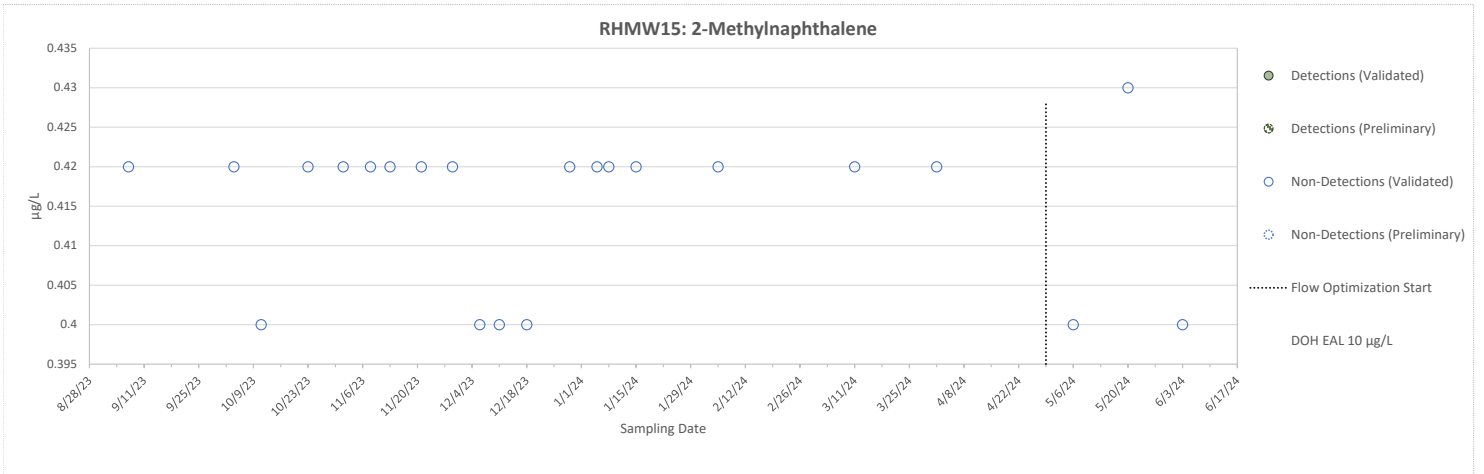
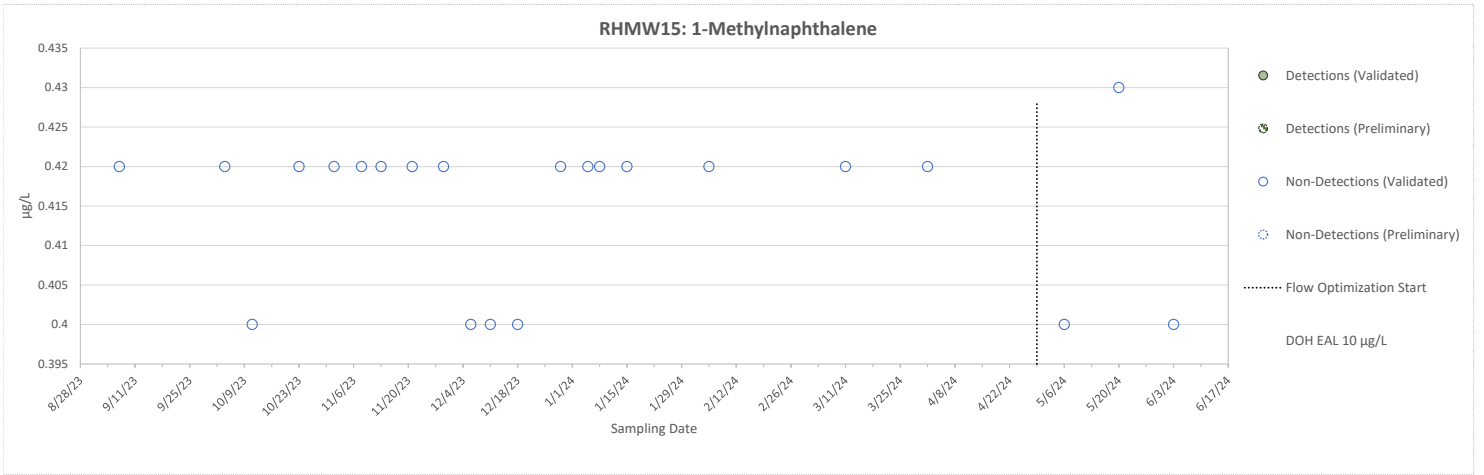




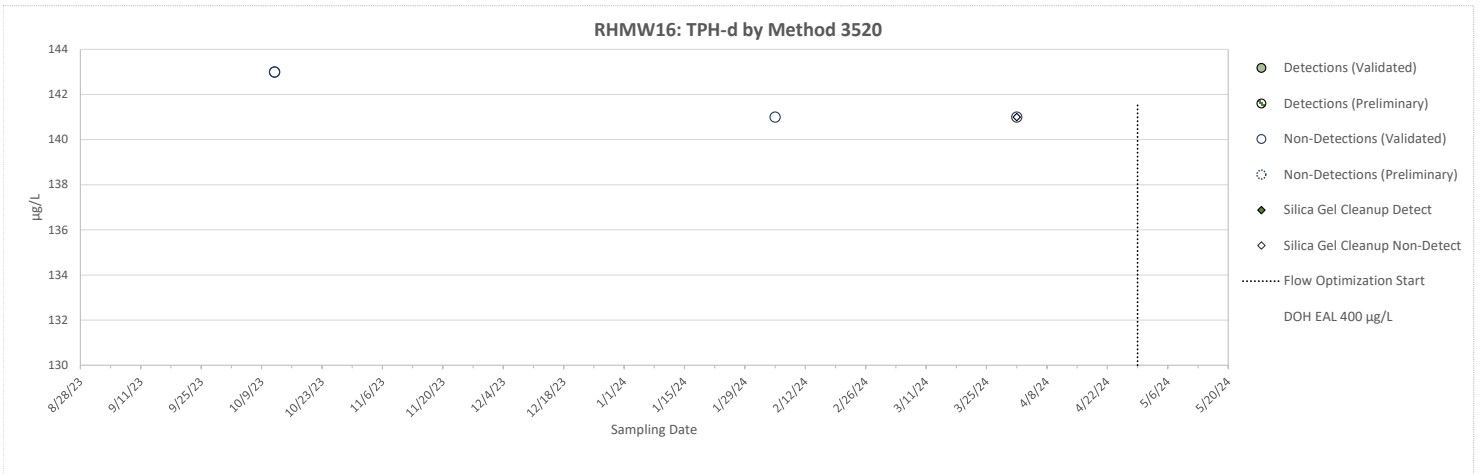
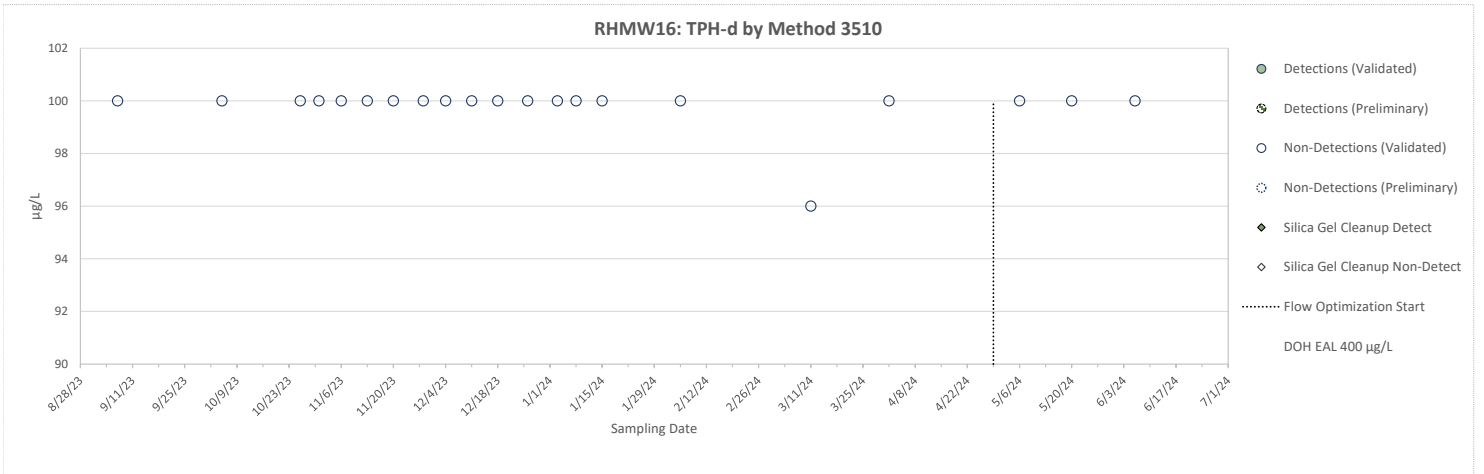
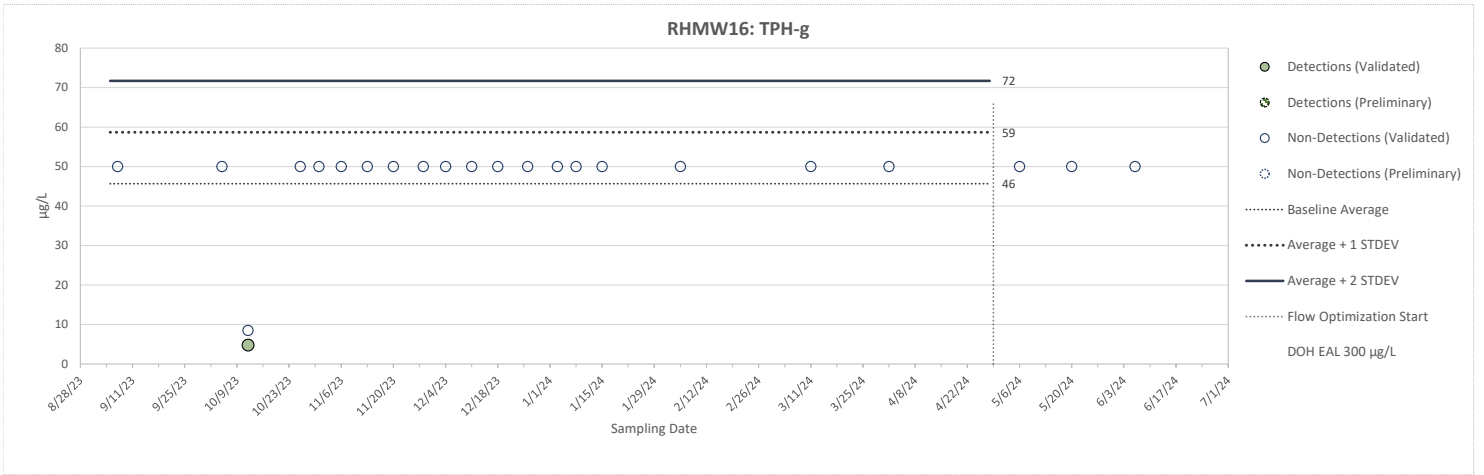
Note: See Data Legend

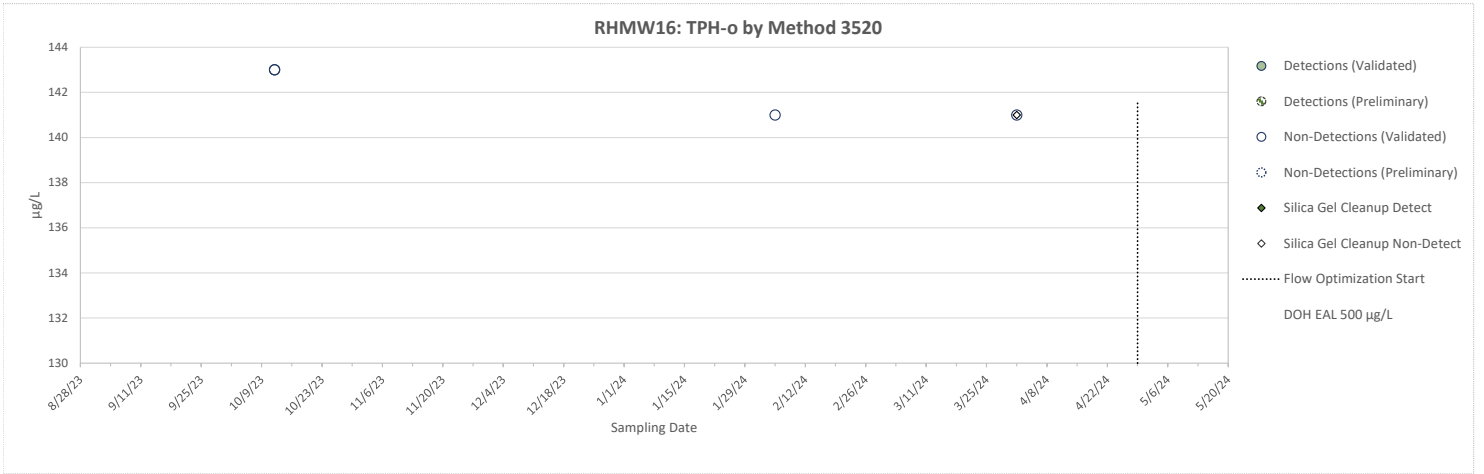
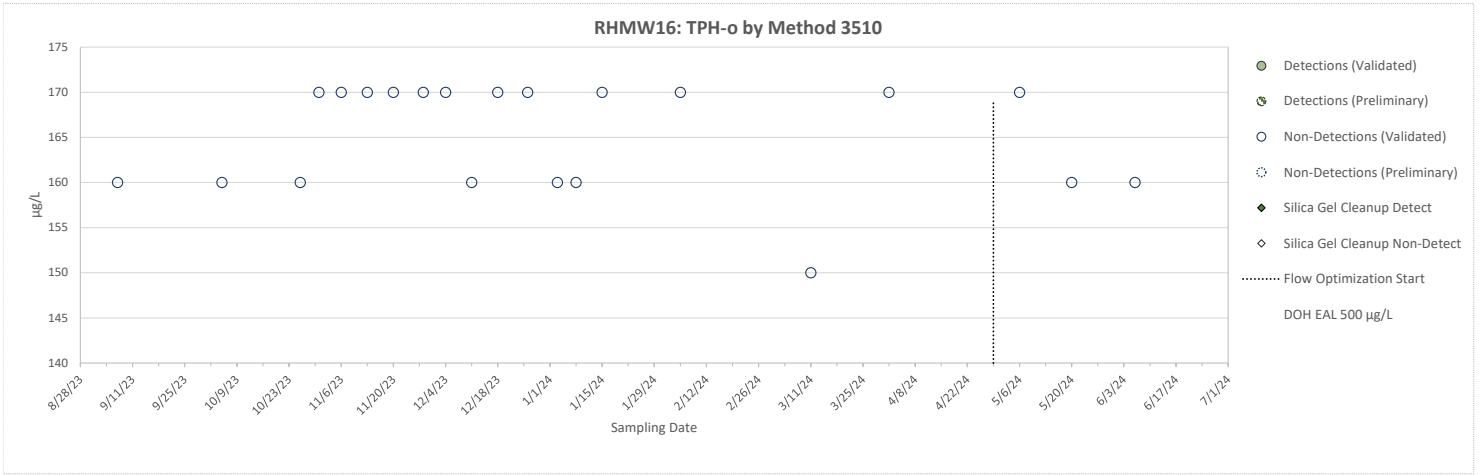


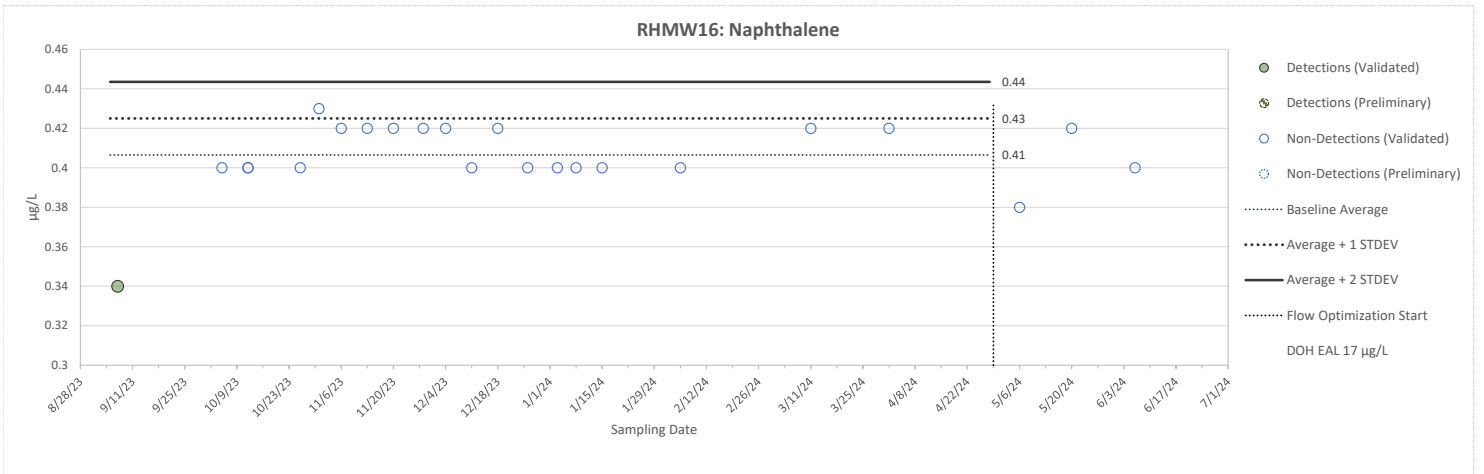
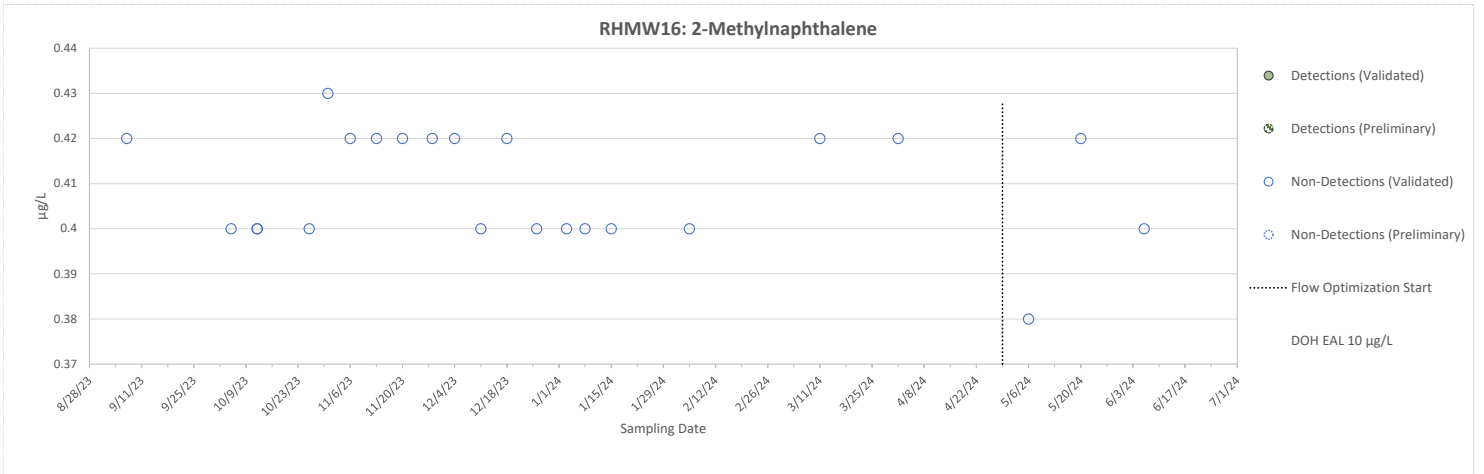
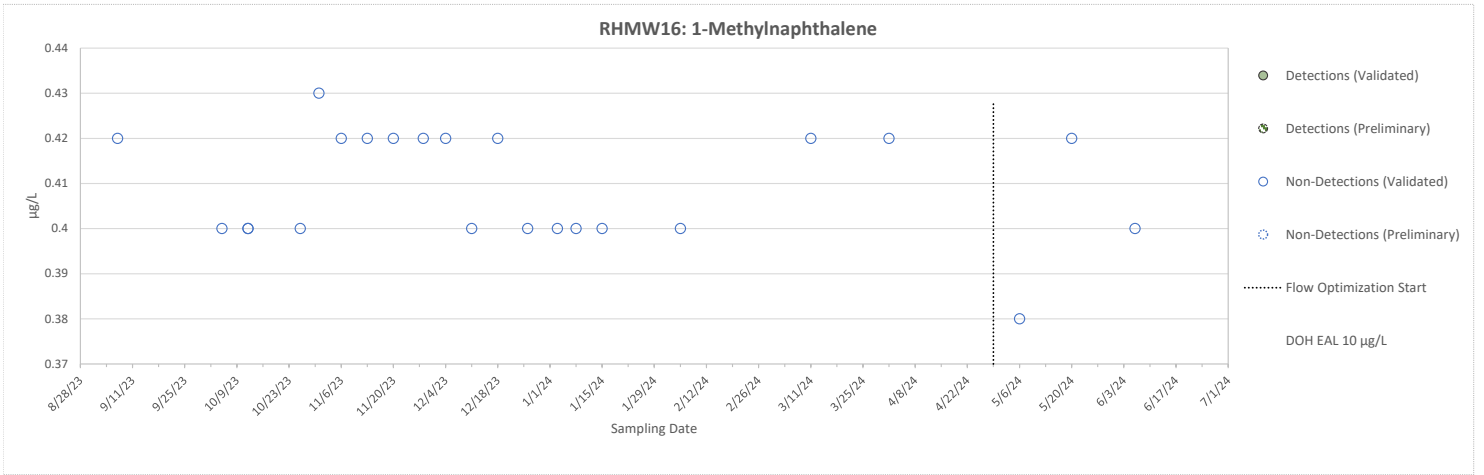




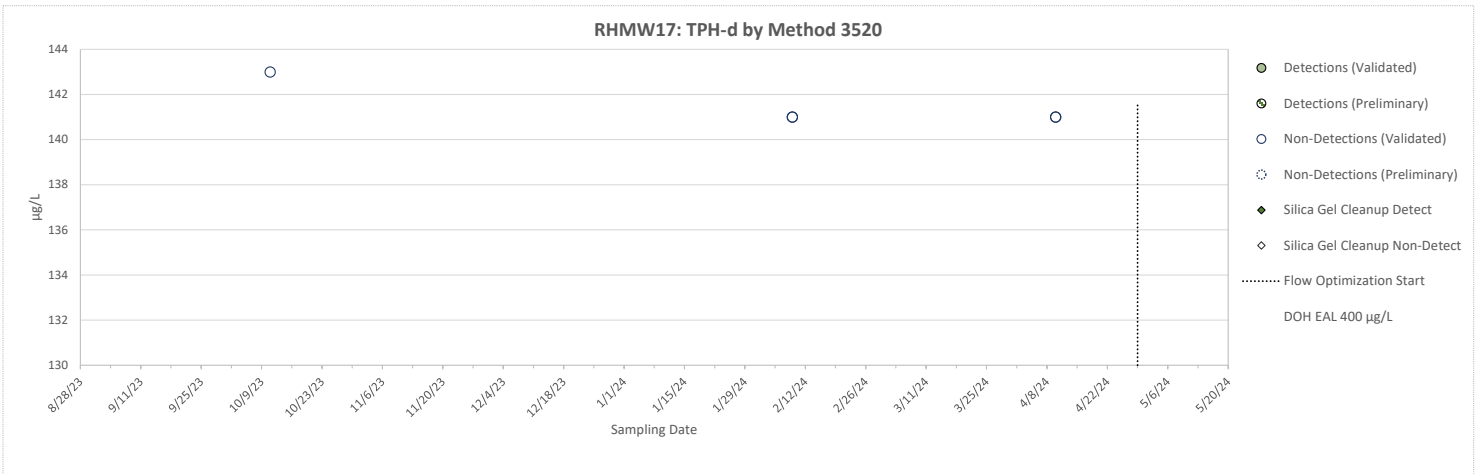
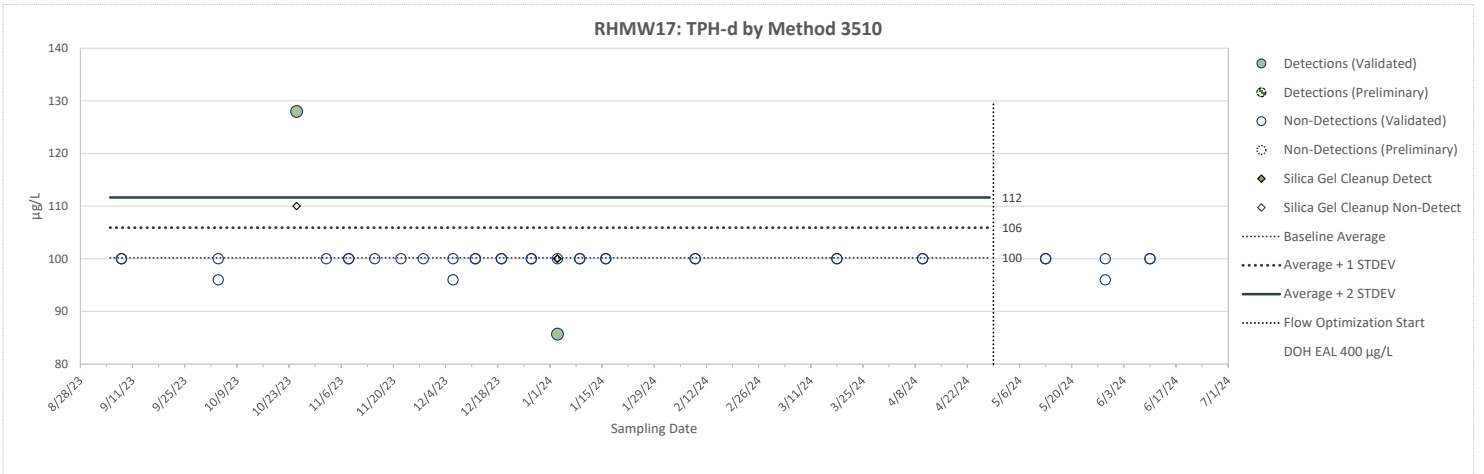
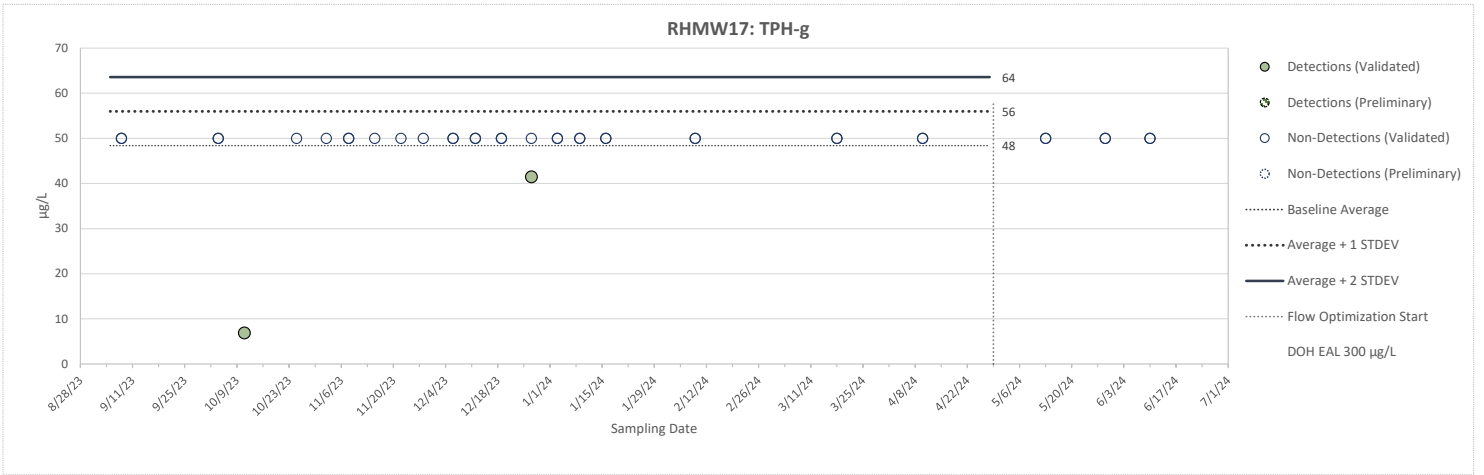
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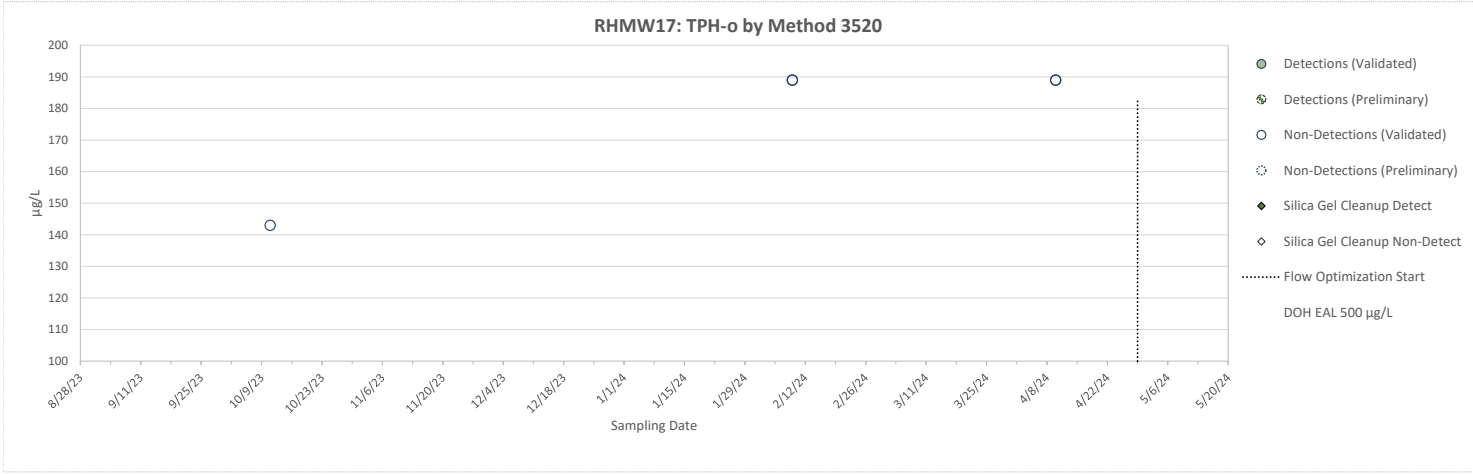
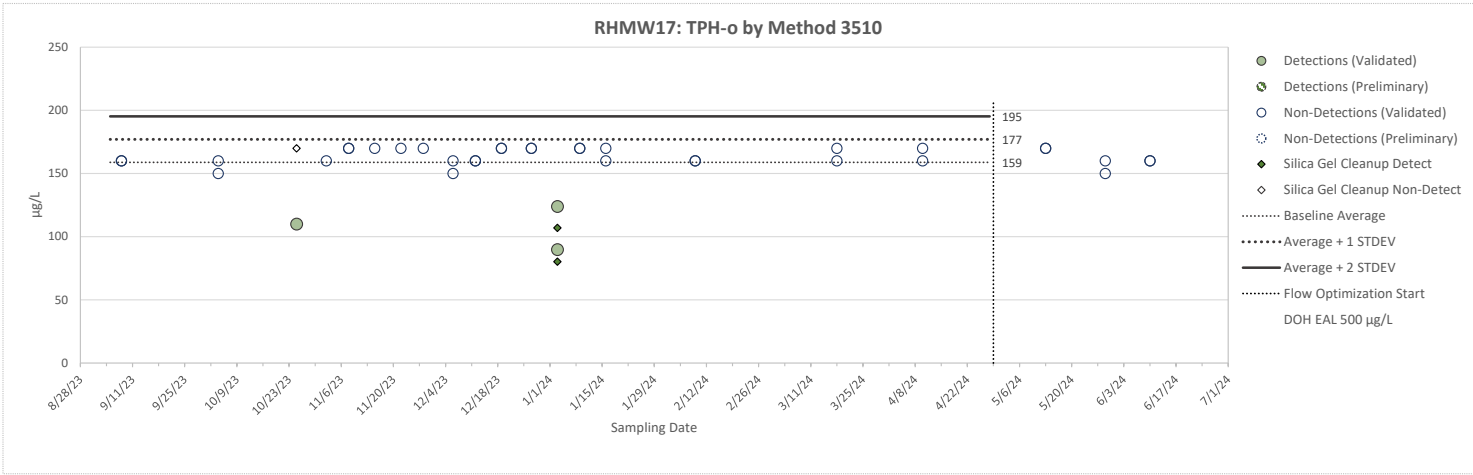


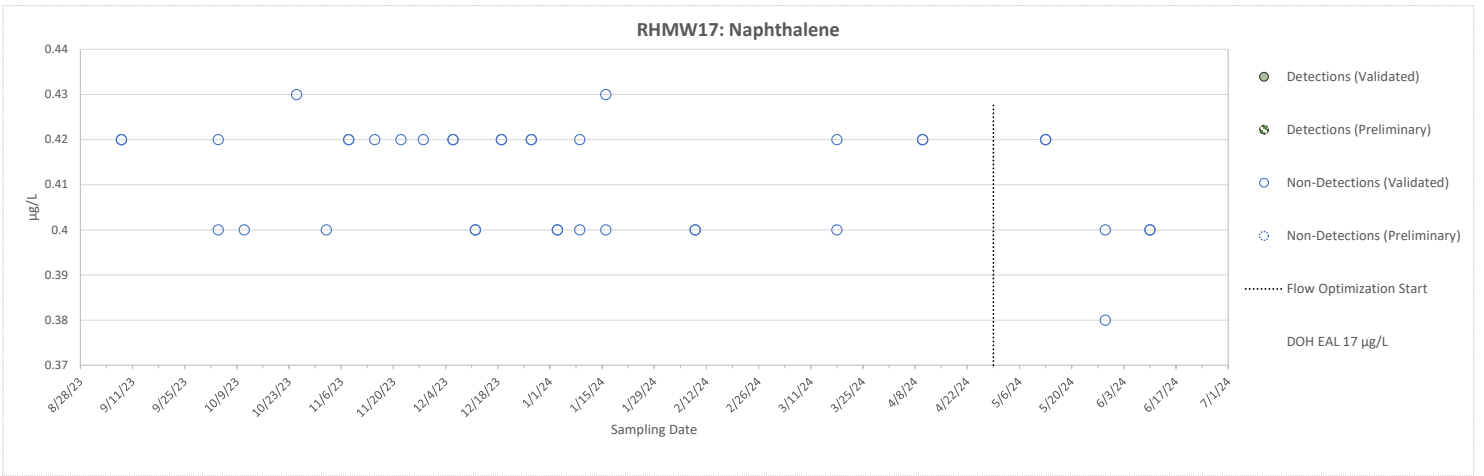
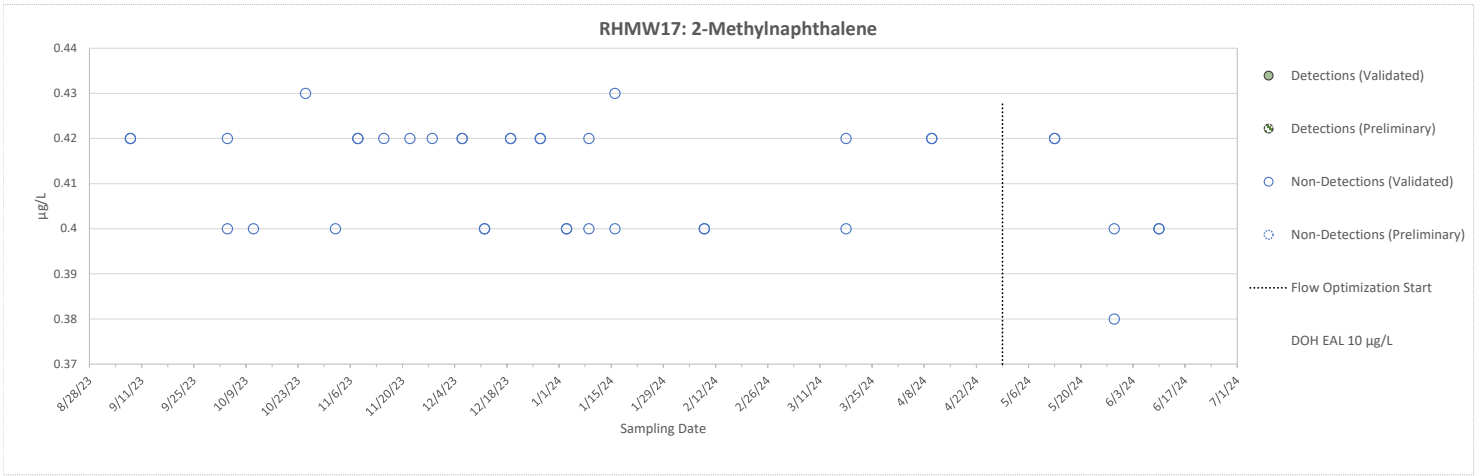
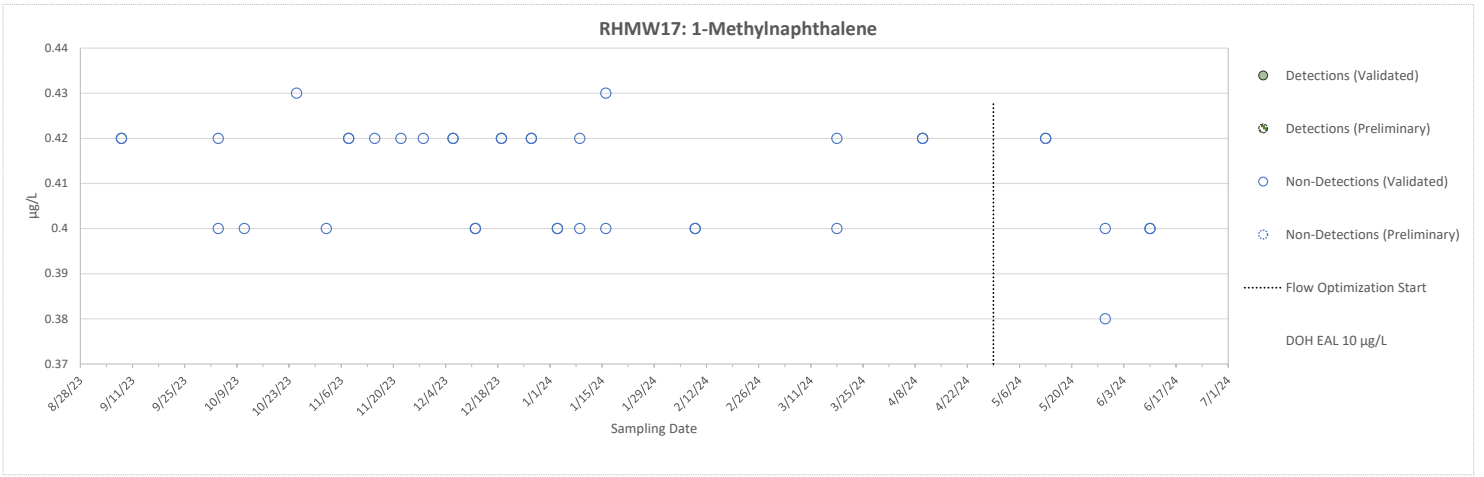




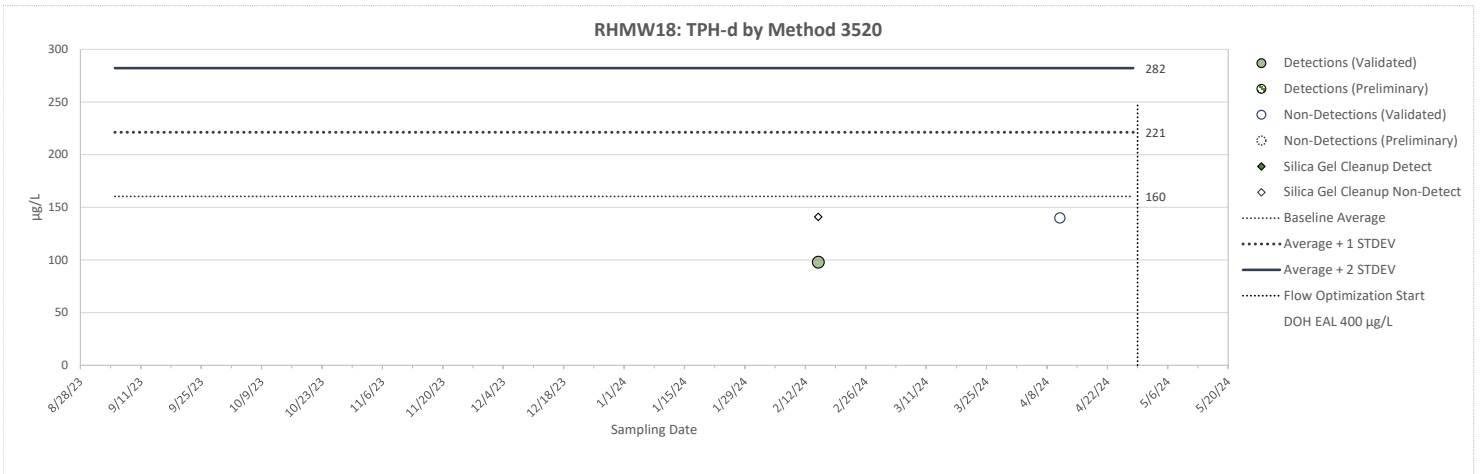
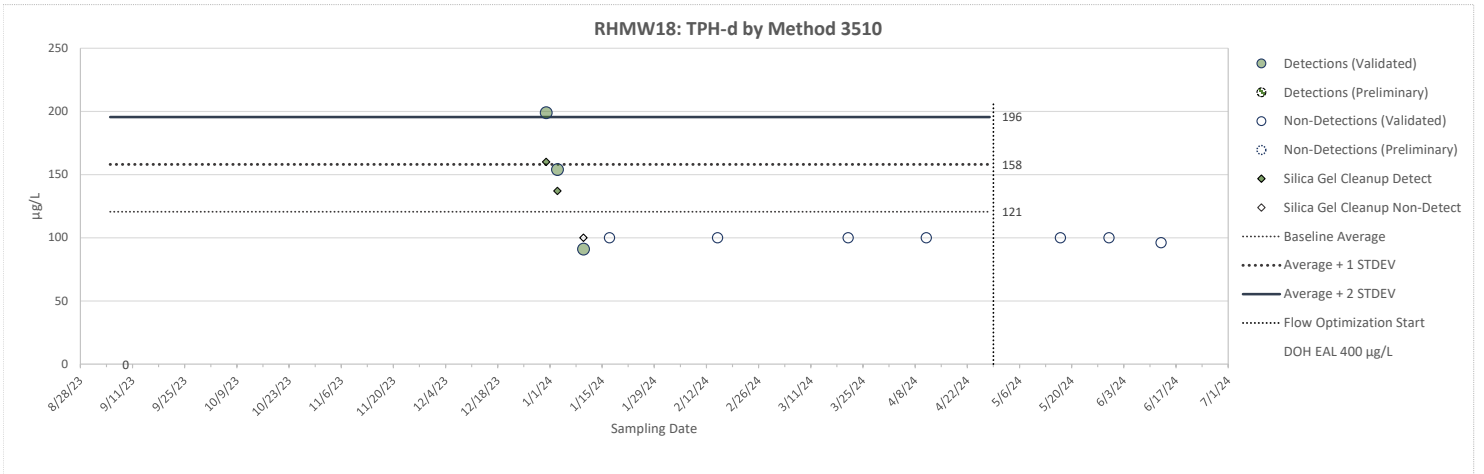
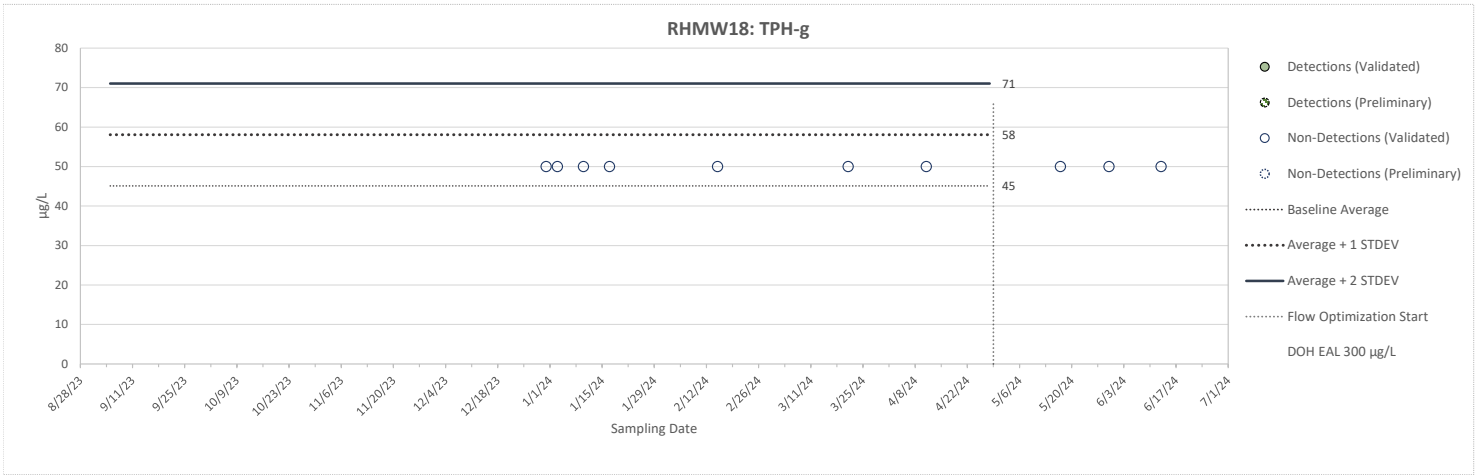
Note: See Data Legend

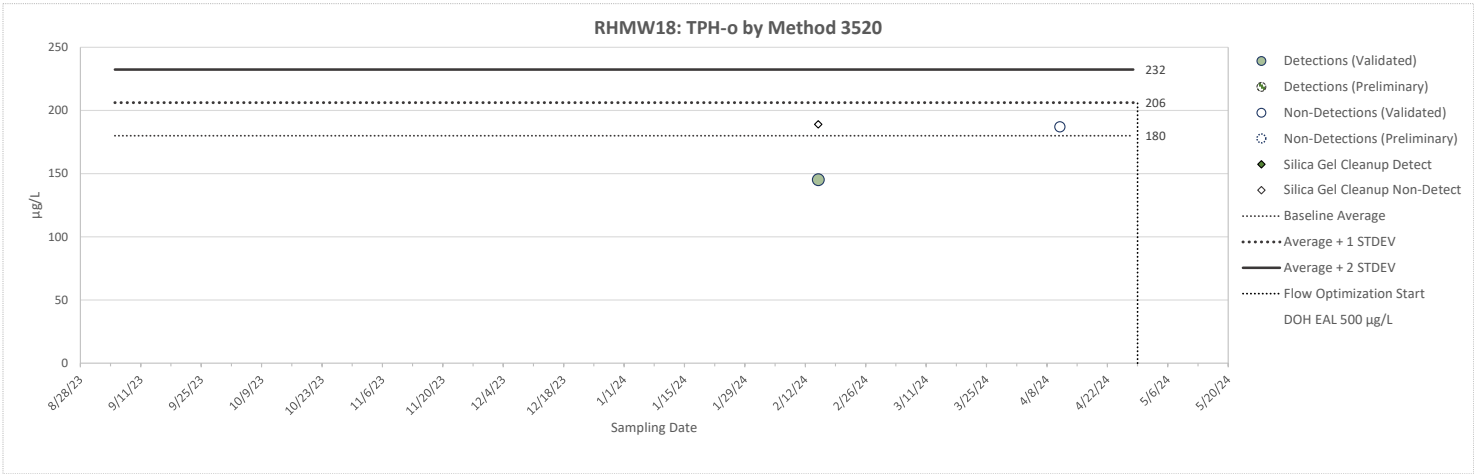
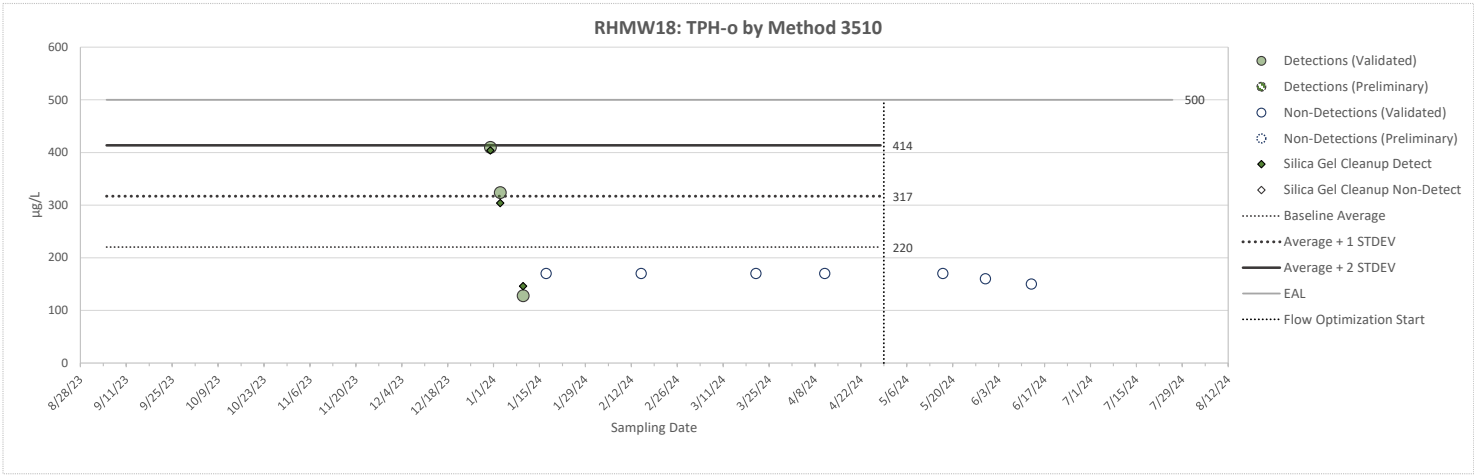


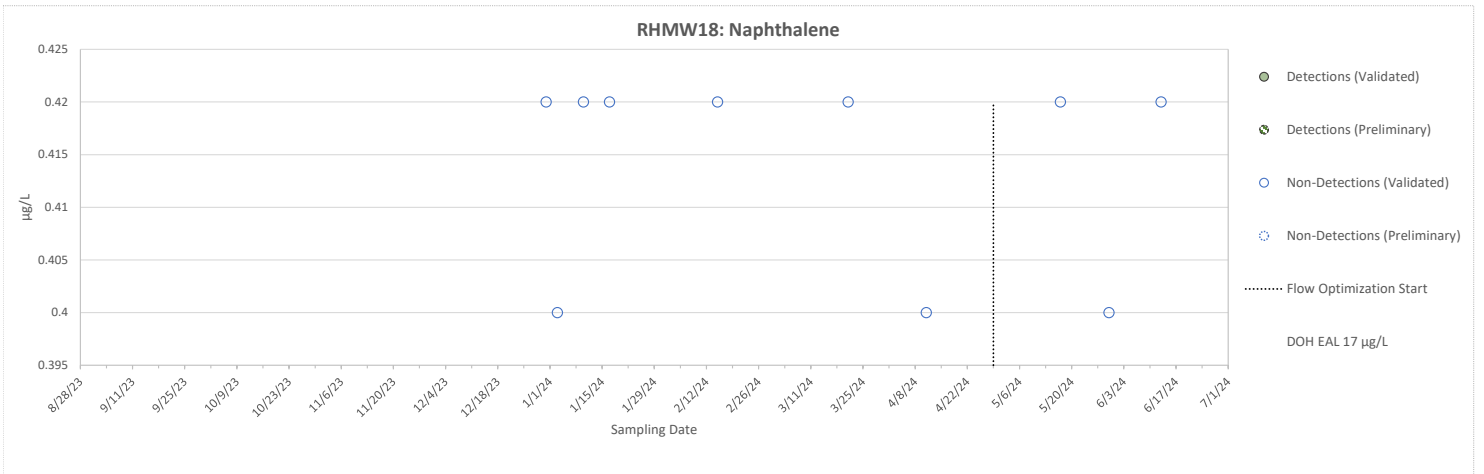
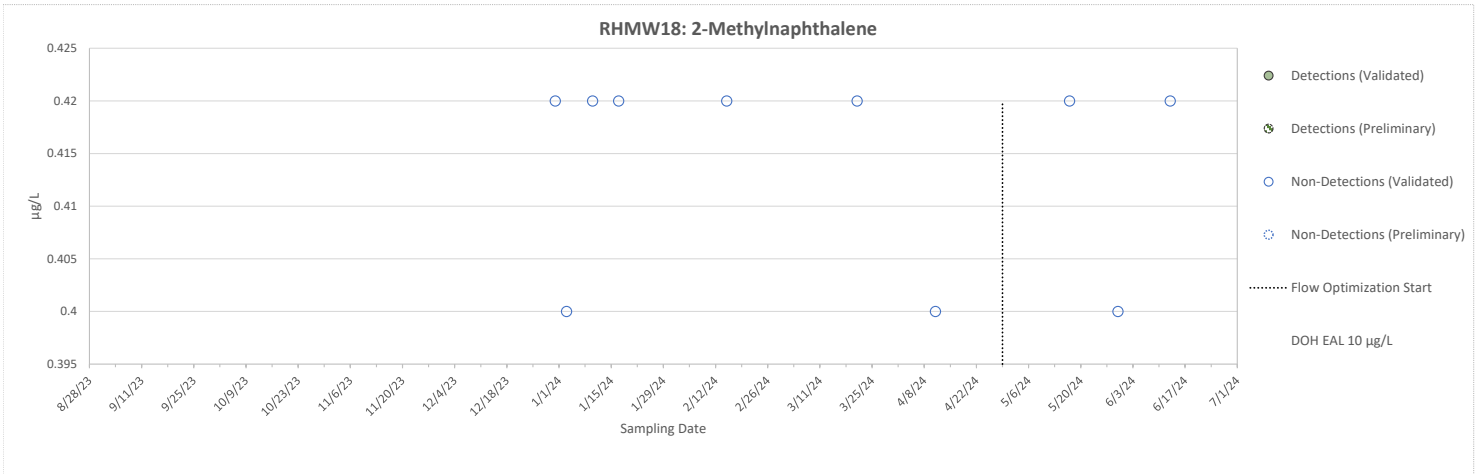
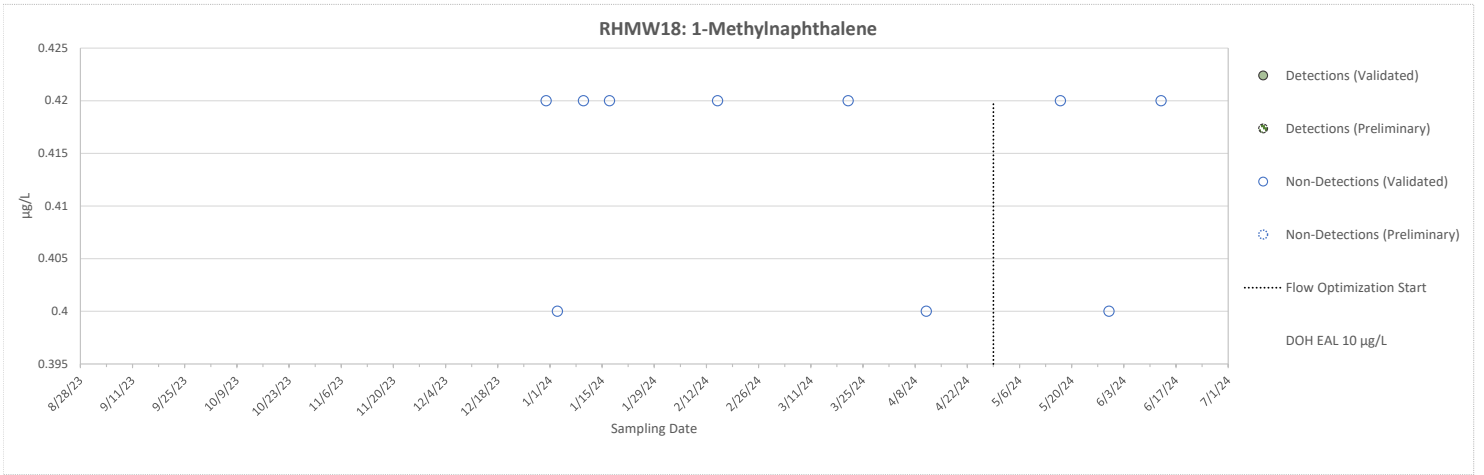




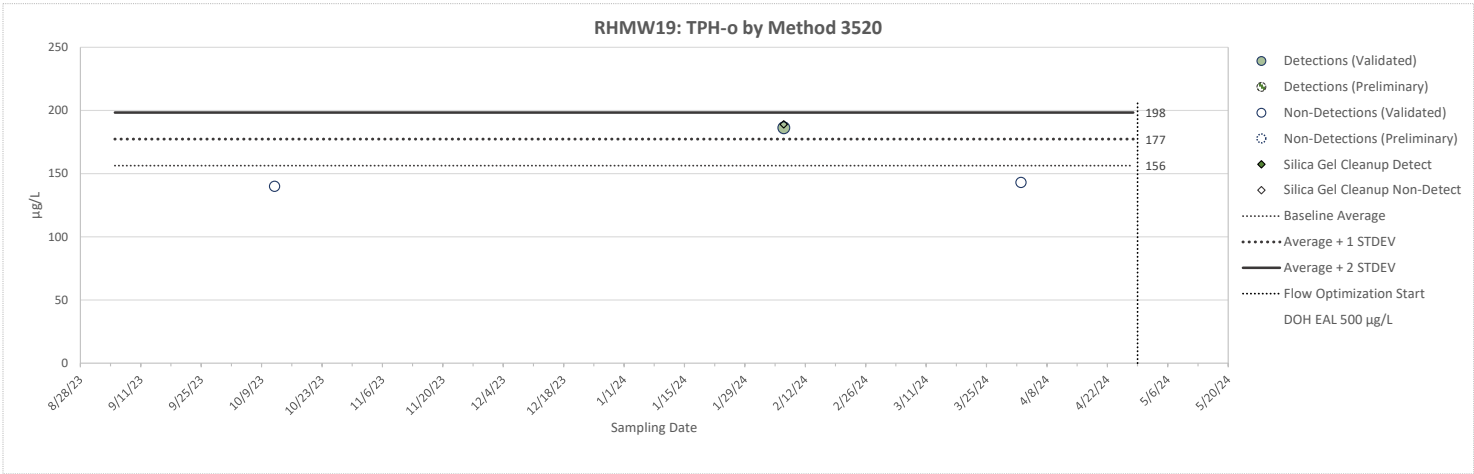
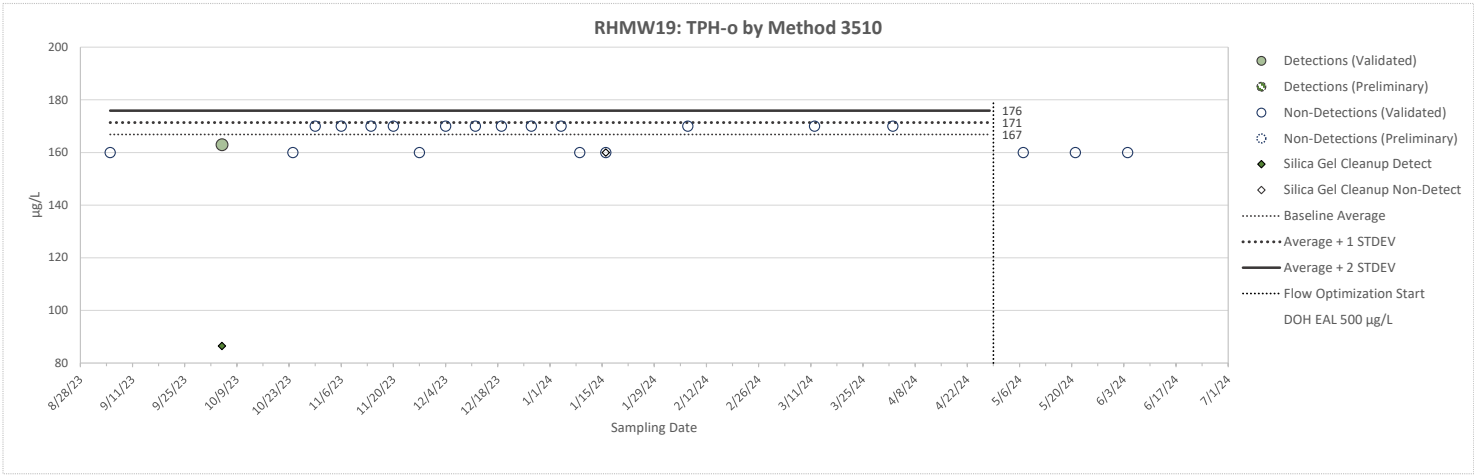
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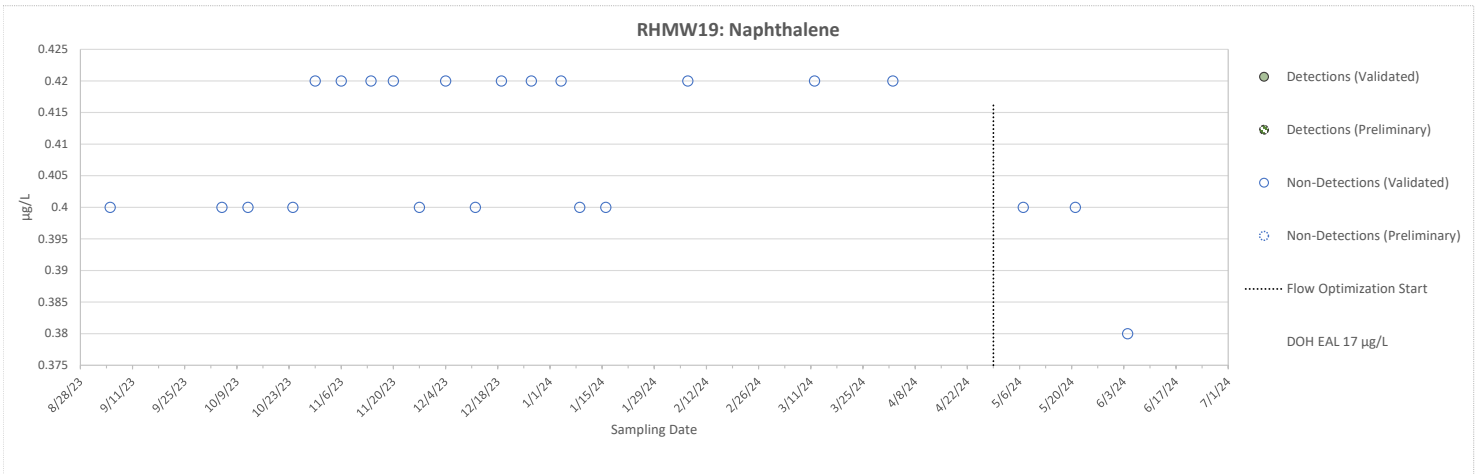
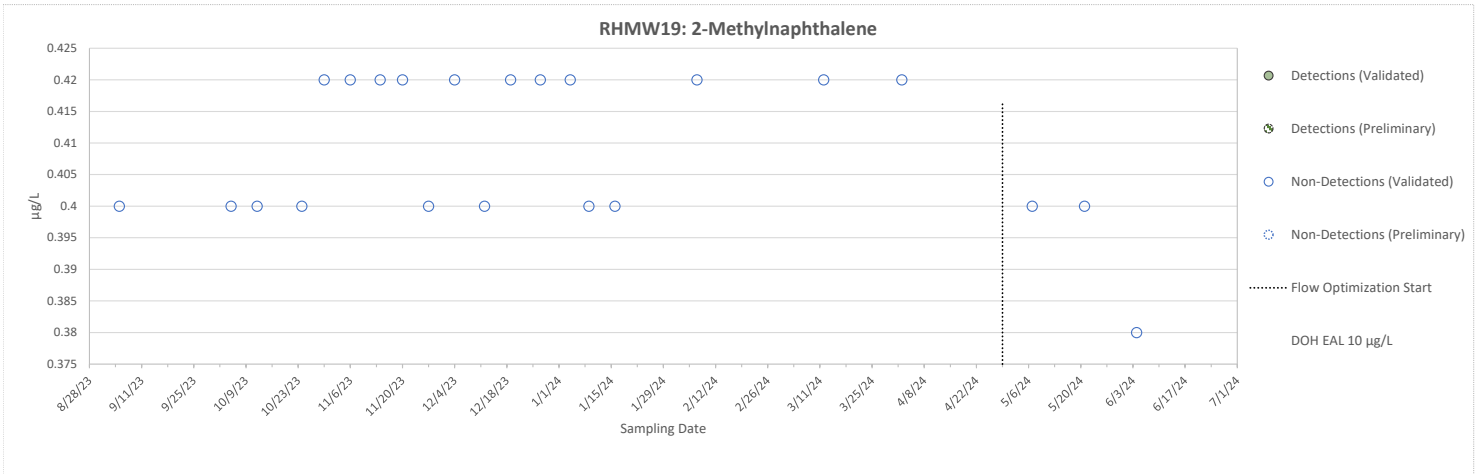
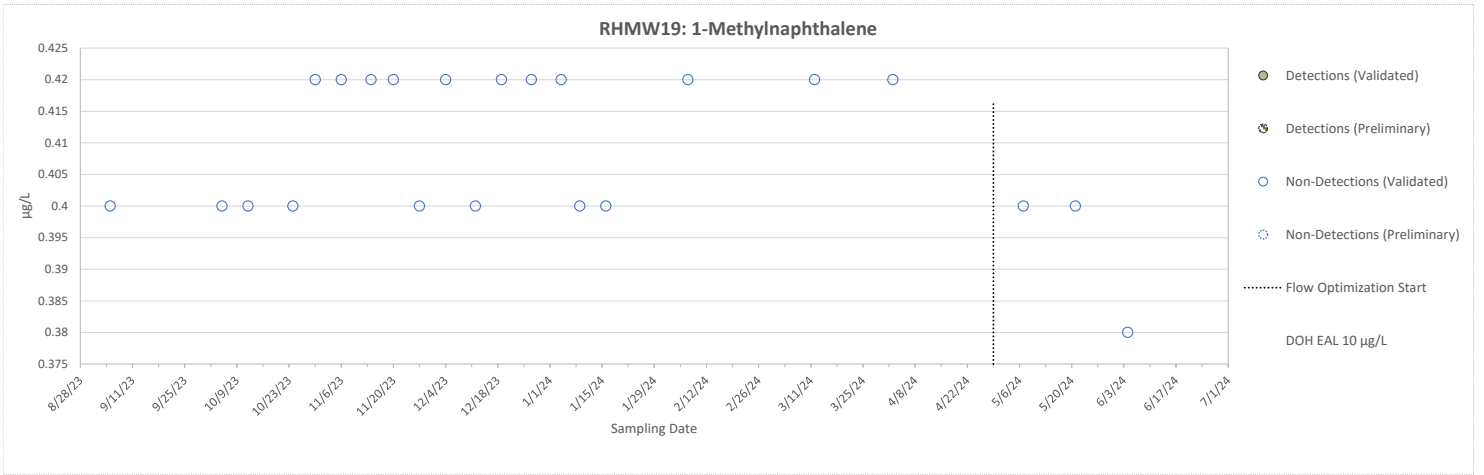




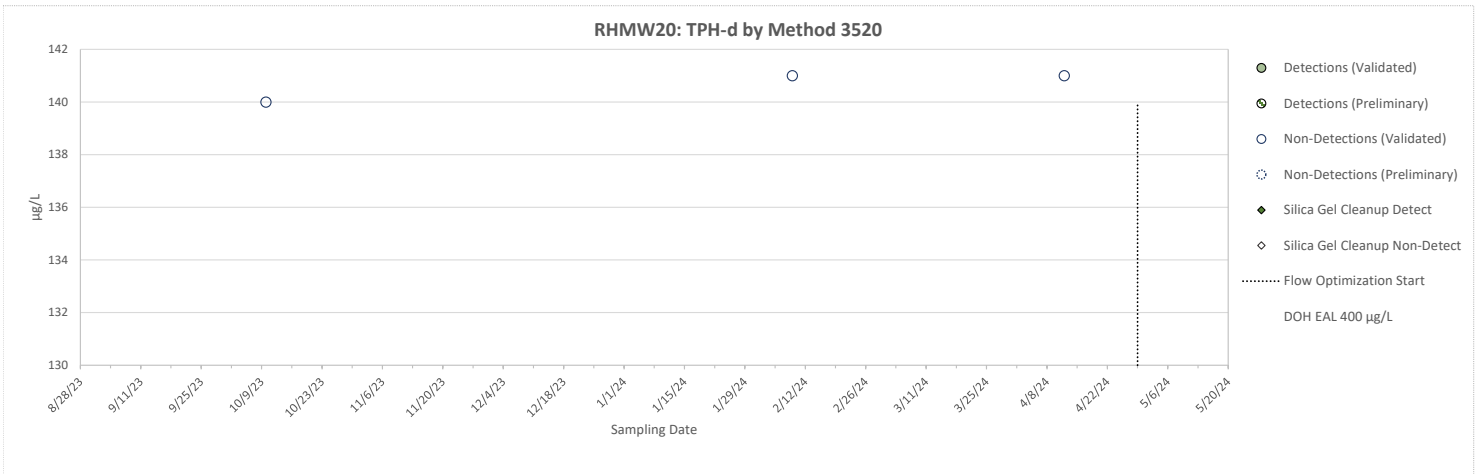
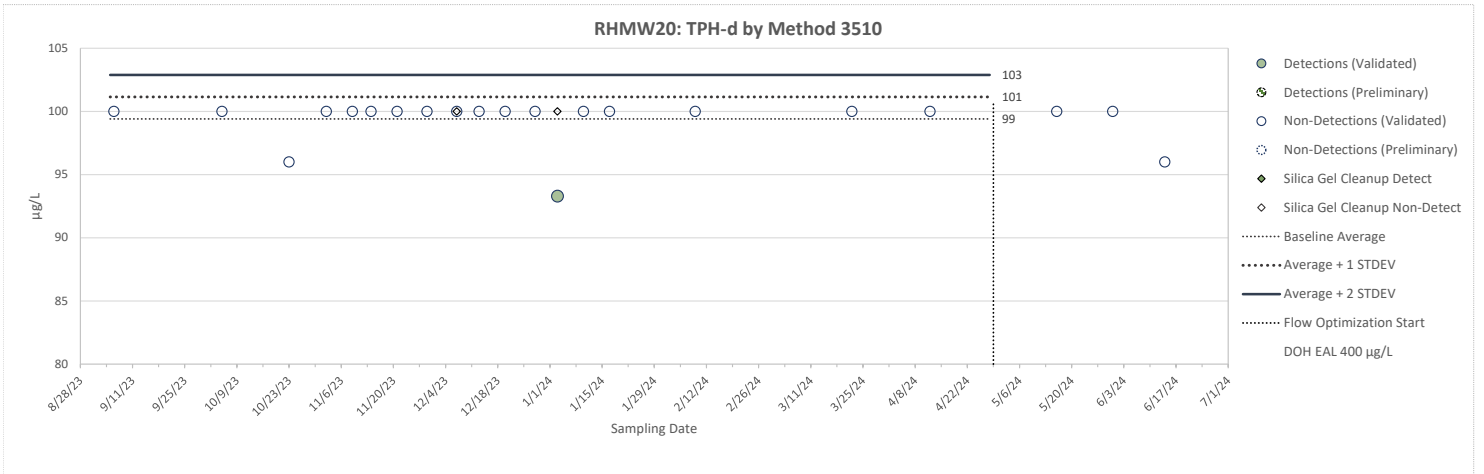
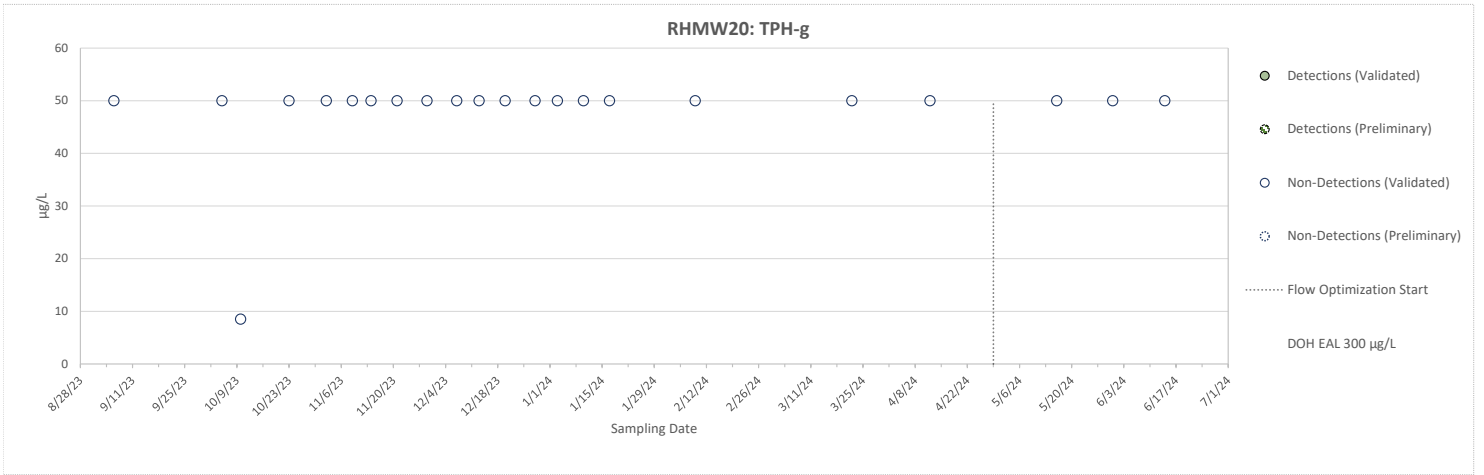


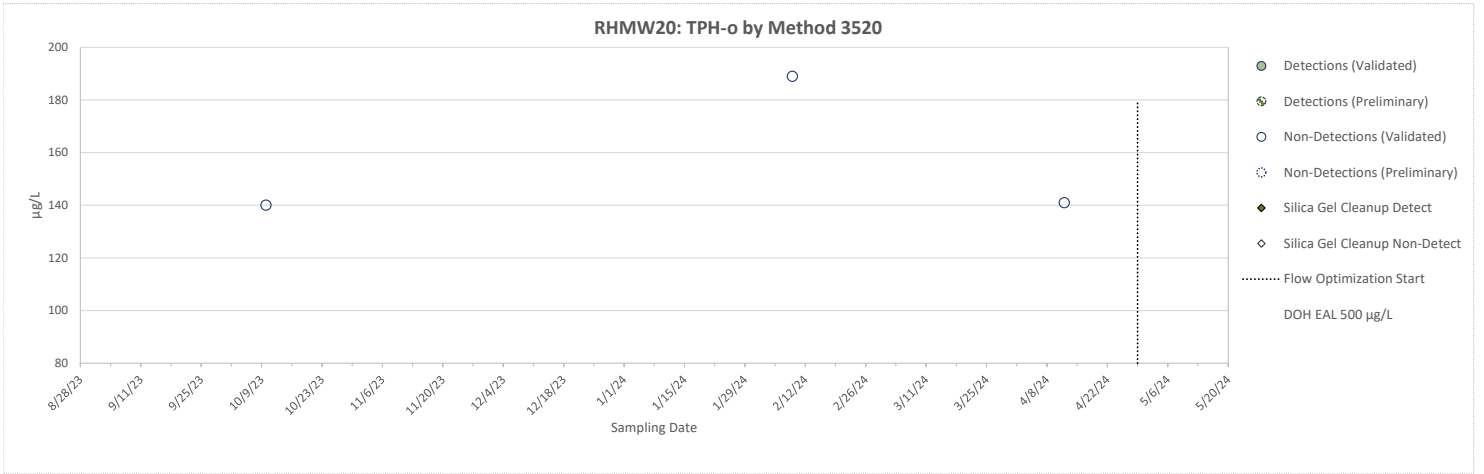
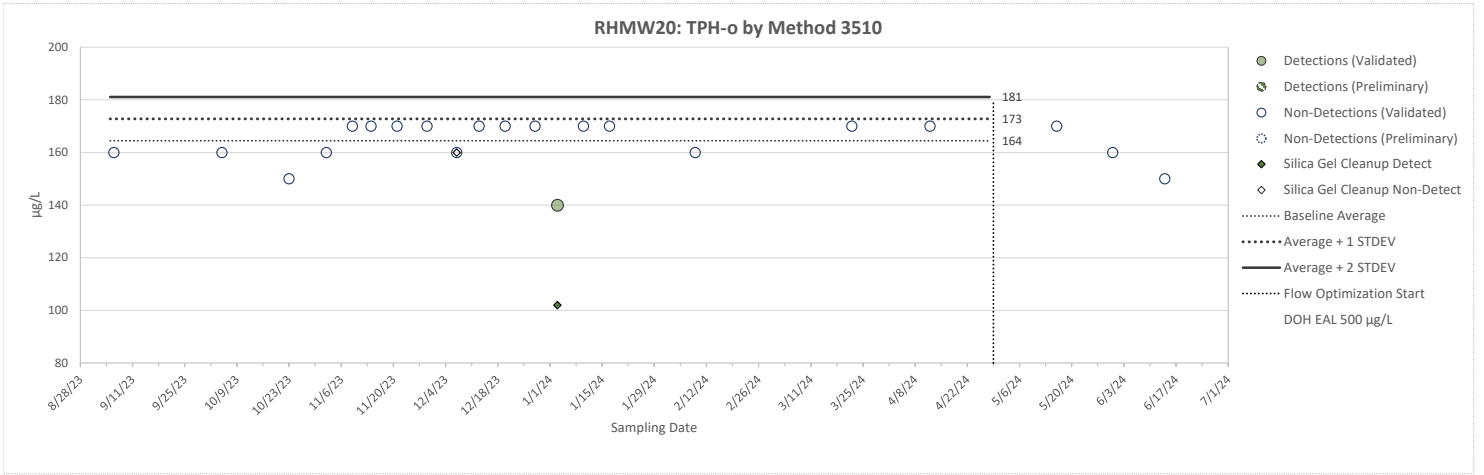
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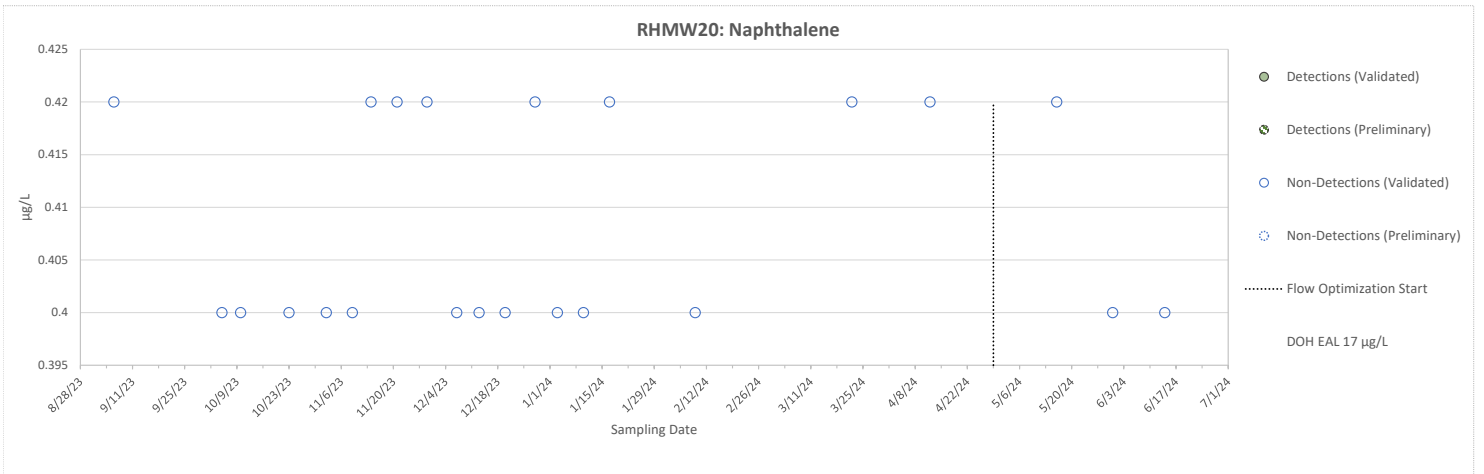
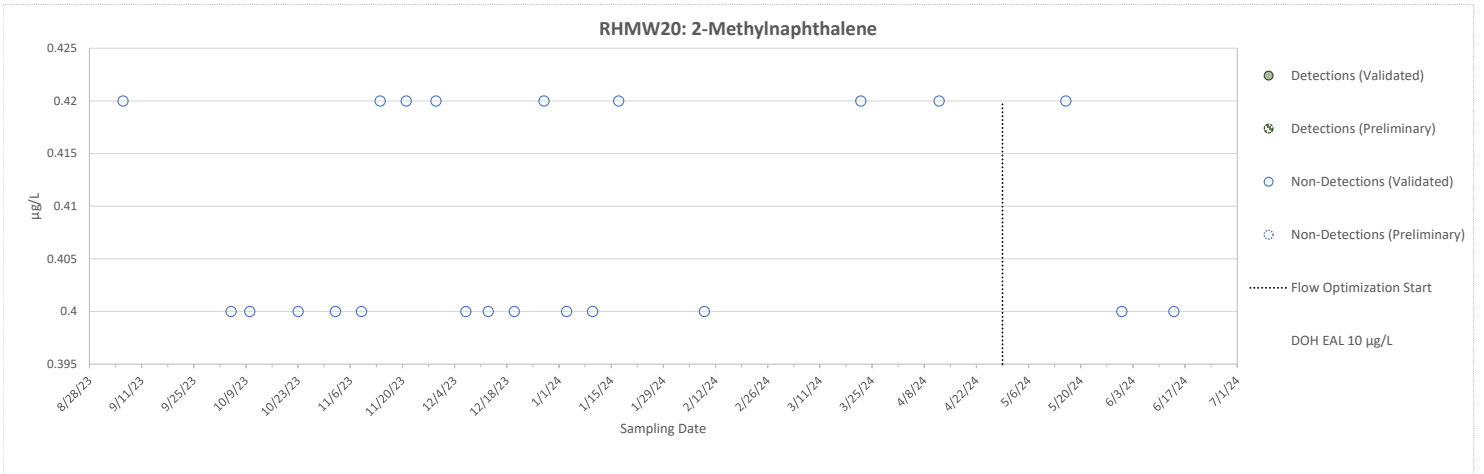
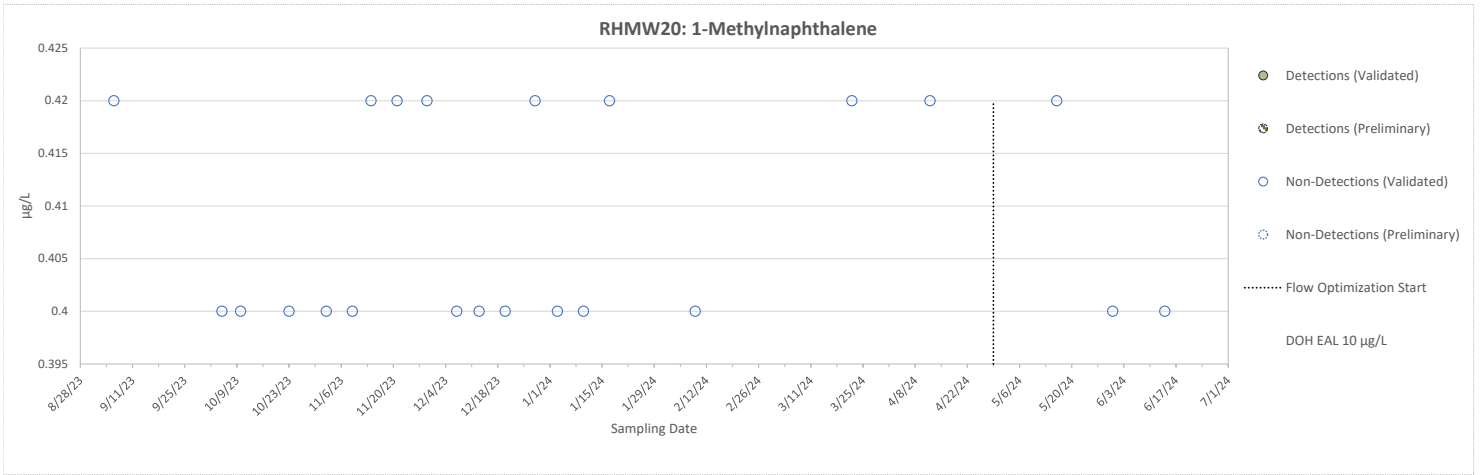




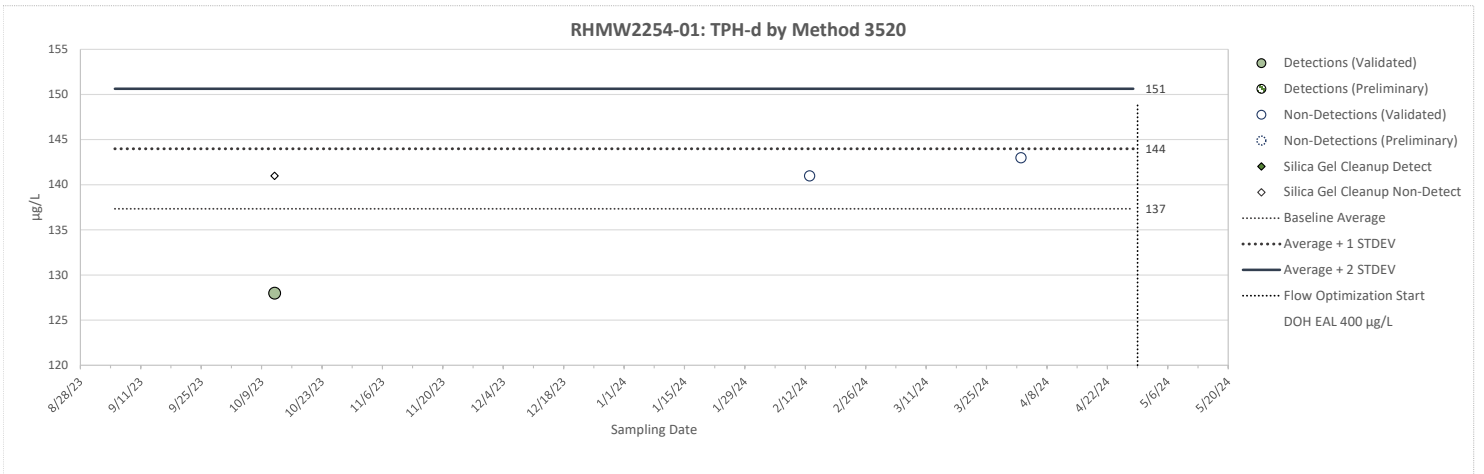
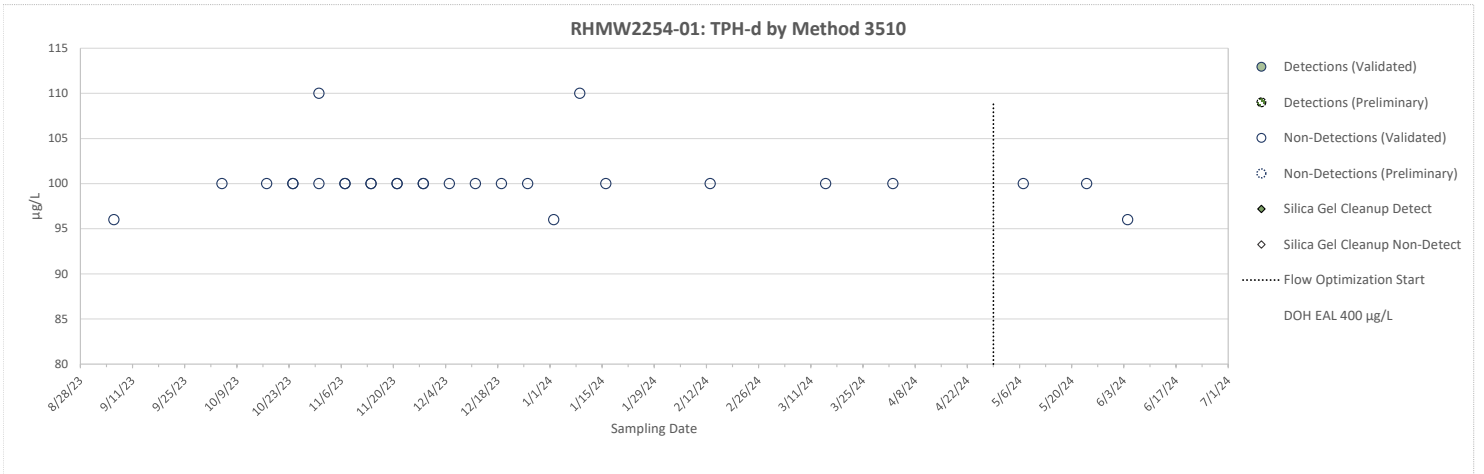
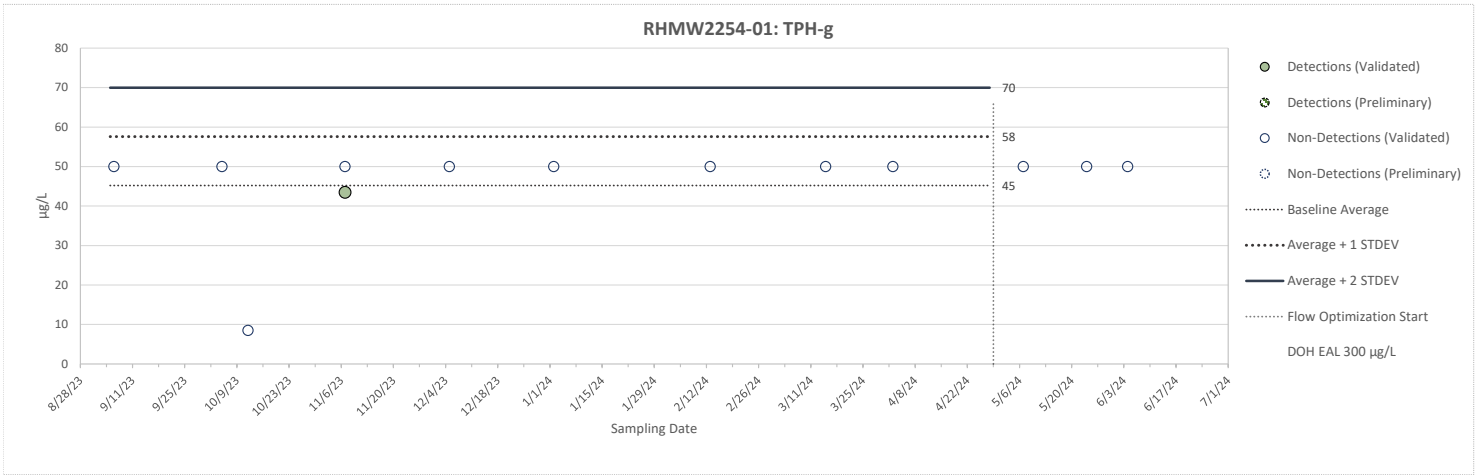
Note: See Data Legend

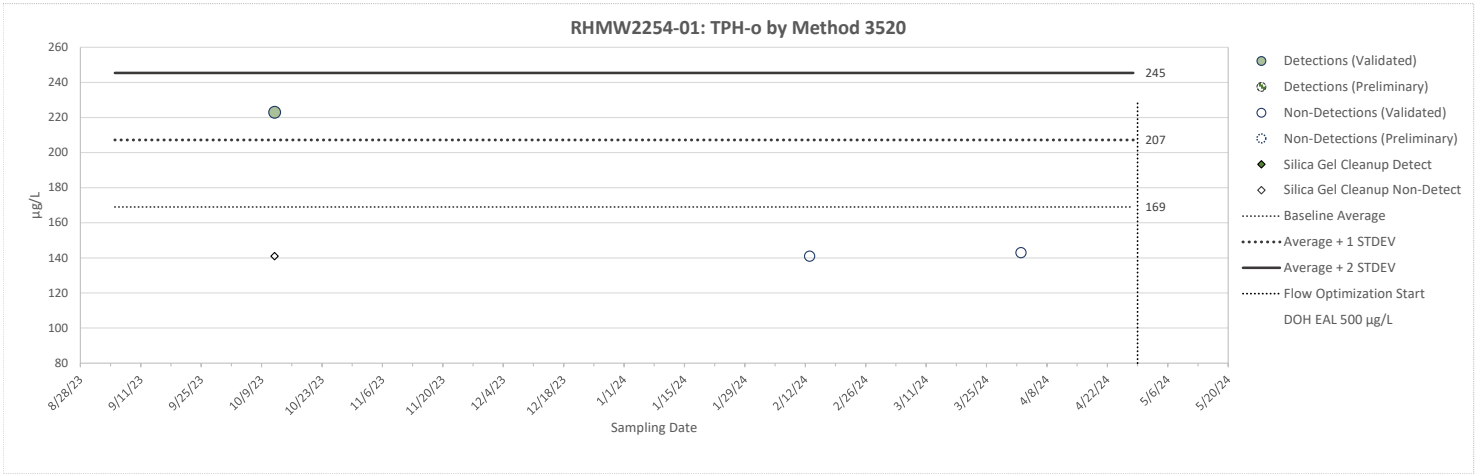
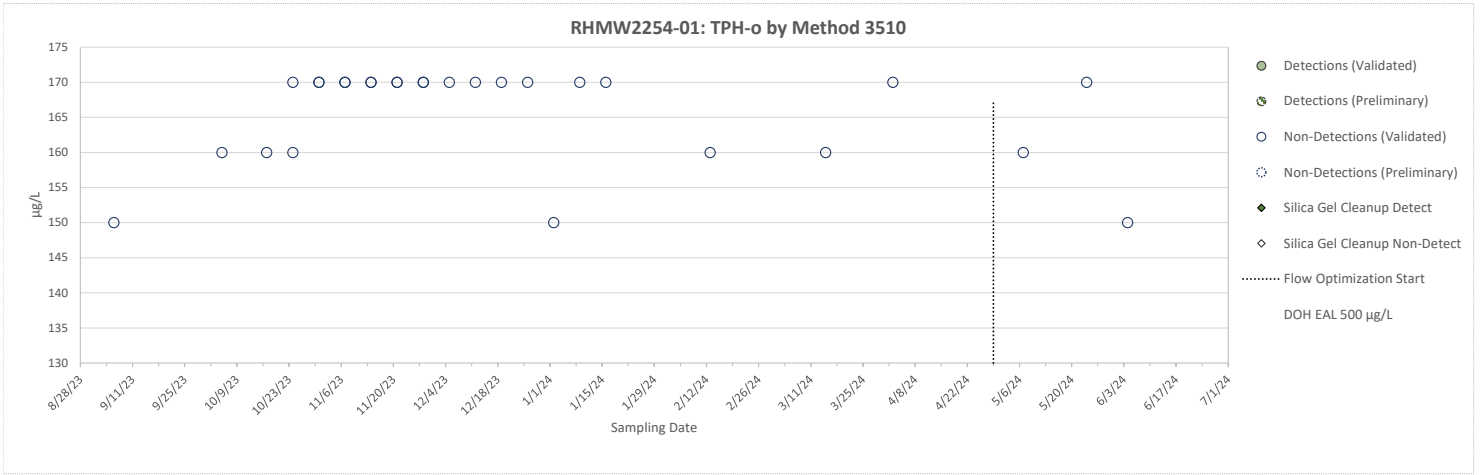


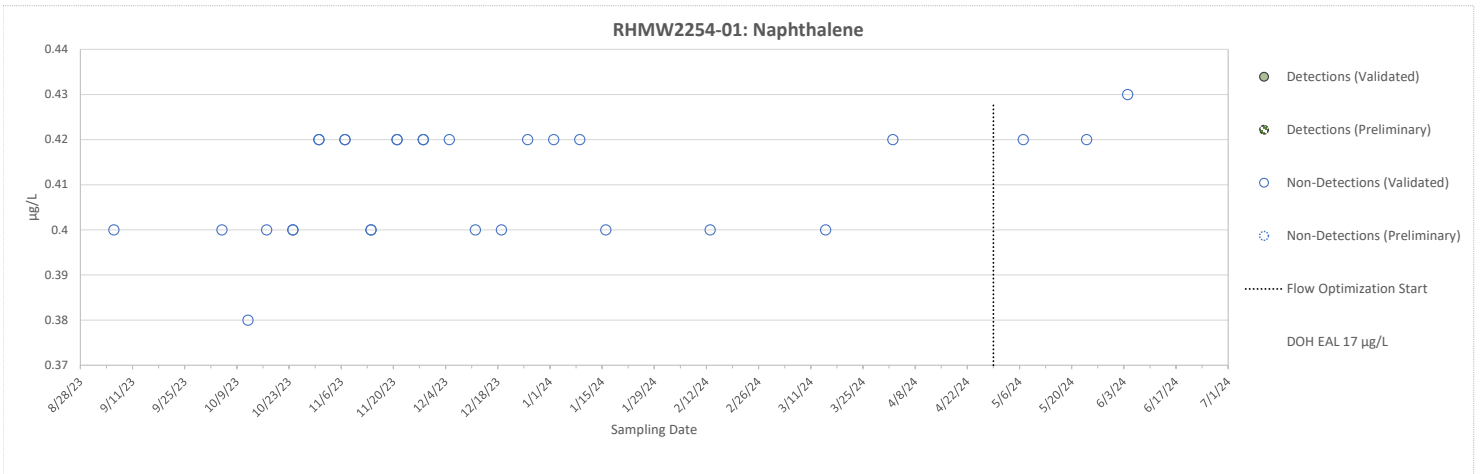
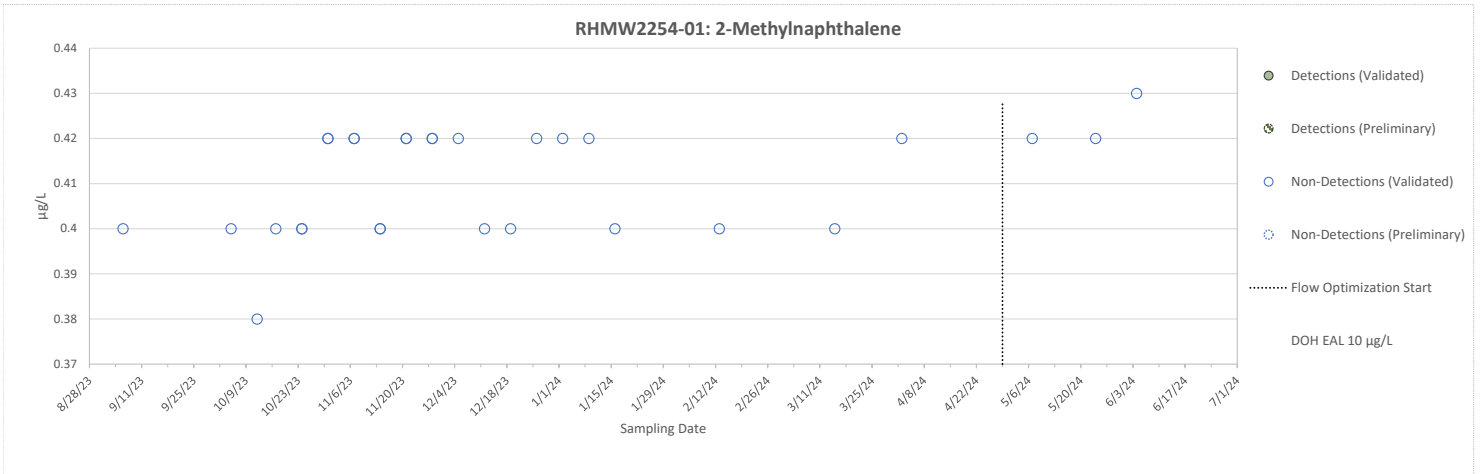
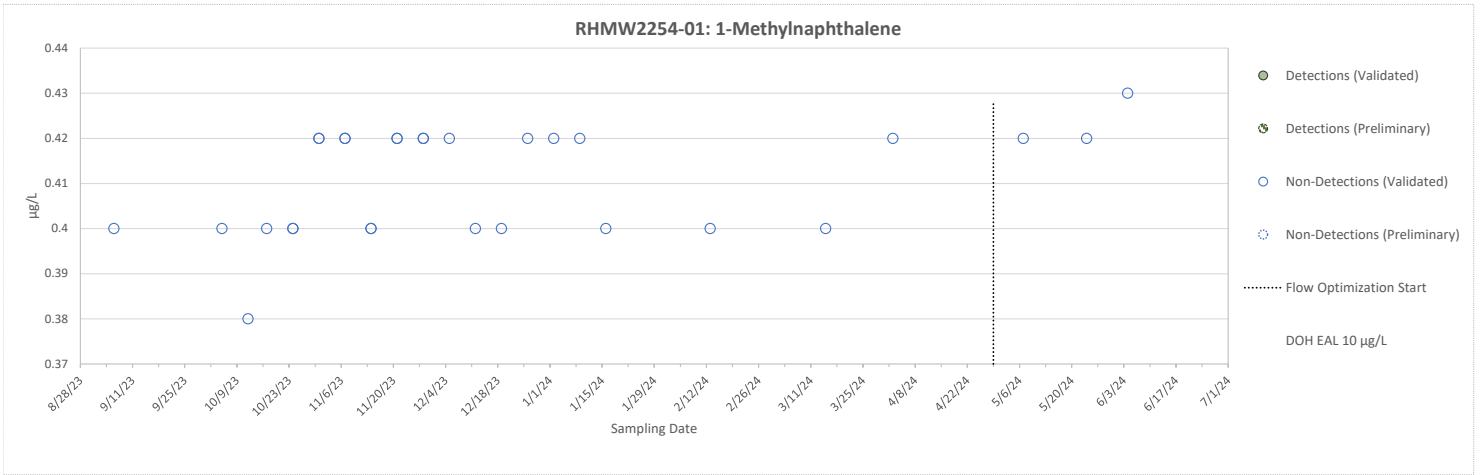




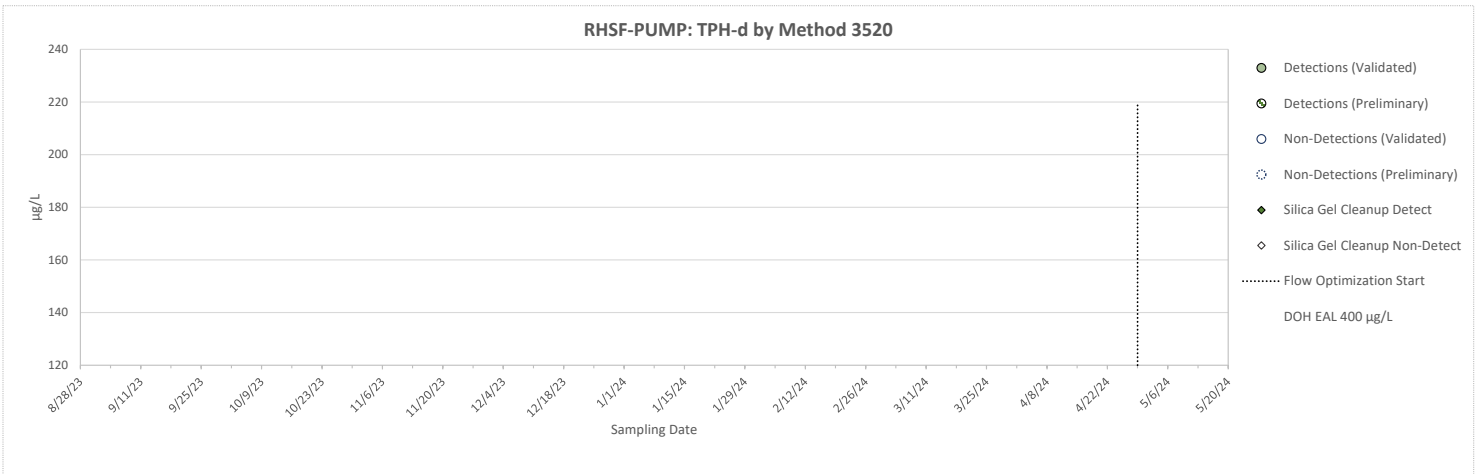
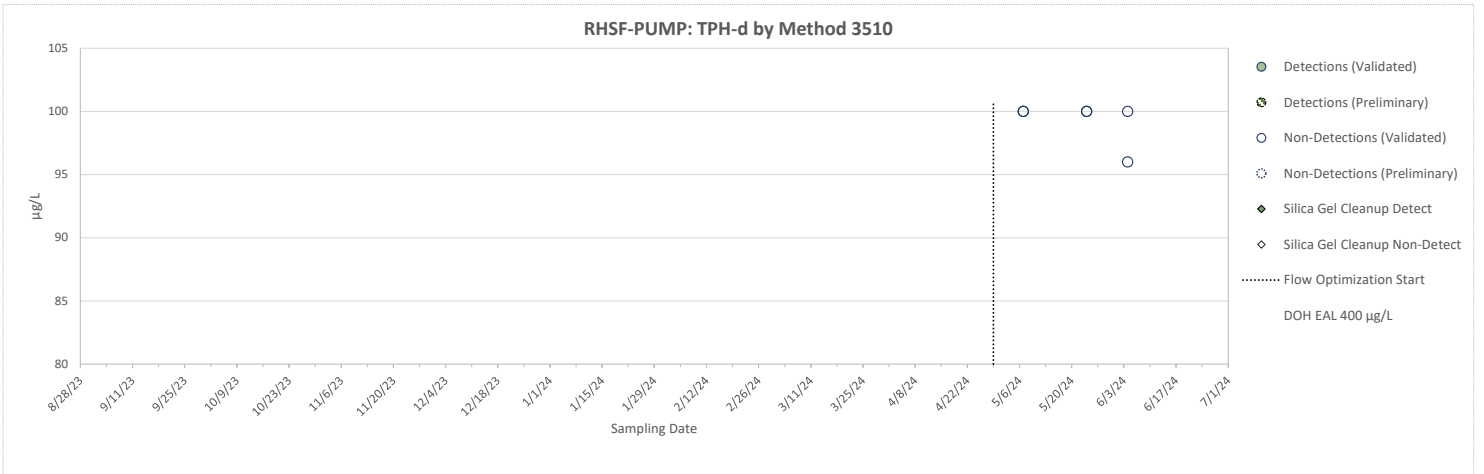
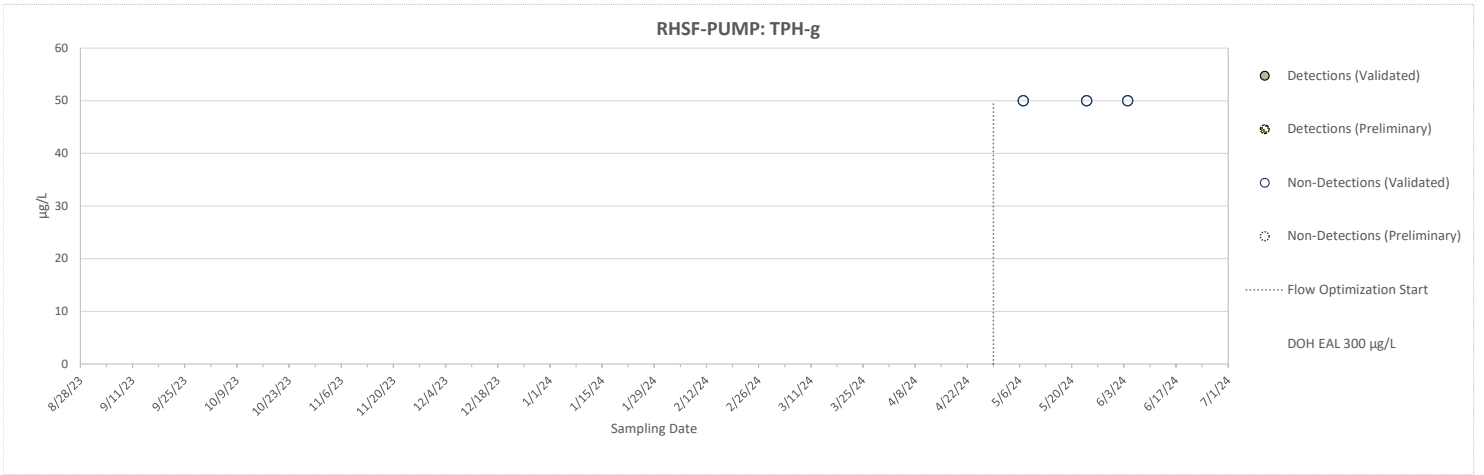
Note: See Data Legend



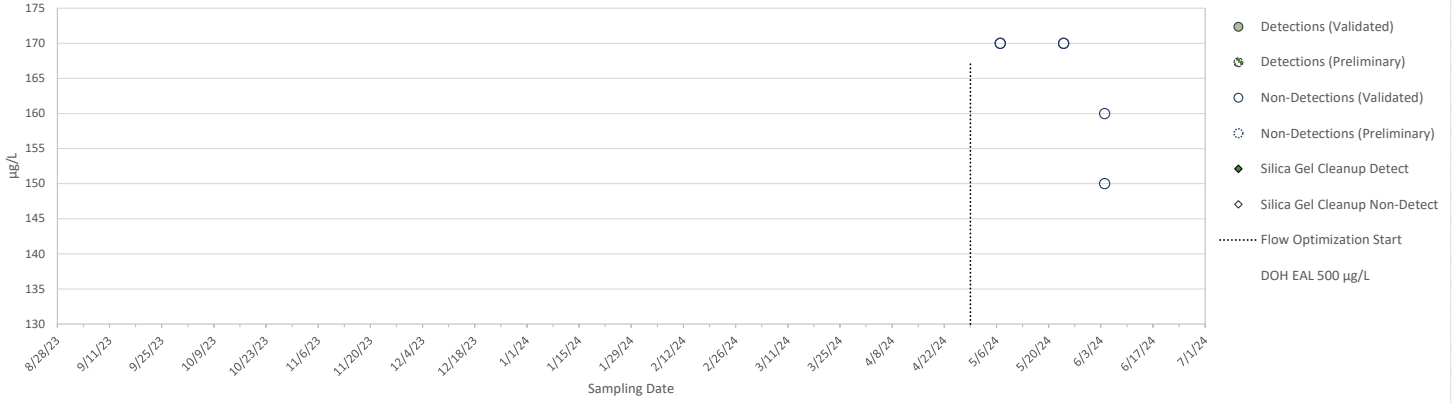




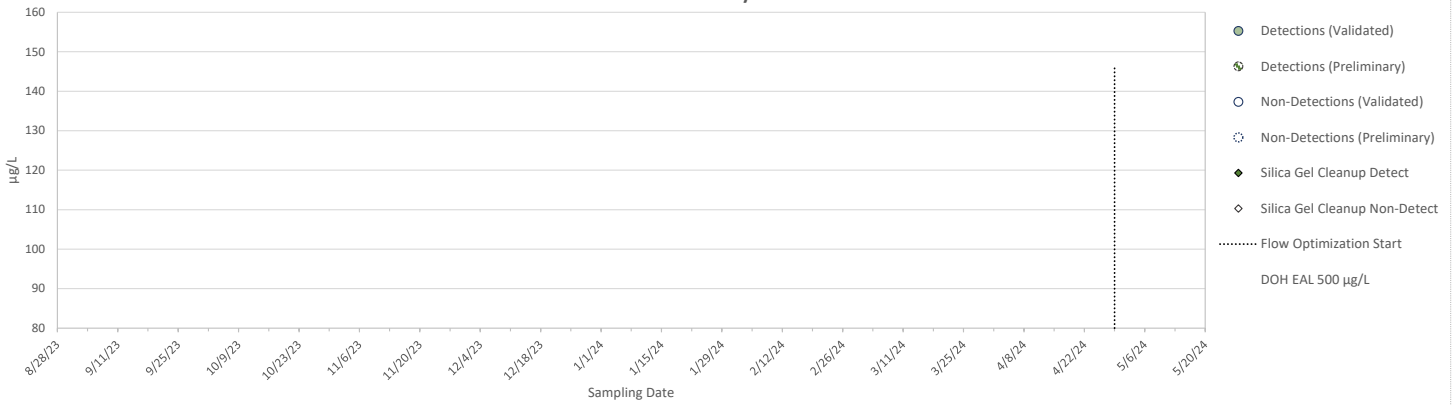
Note: See Data Legend

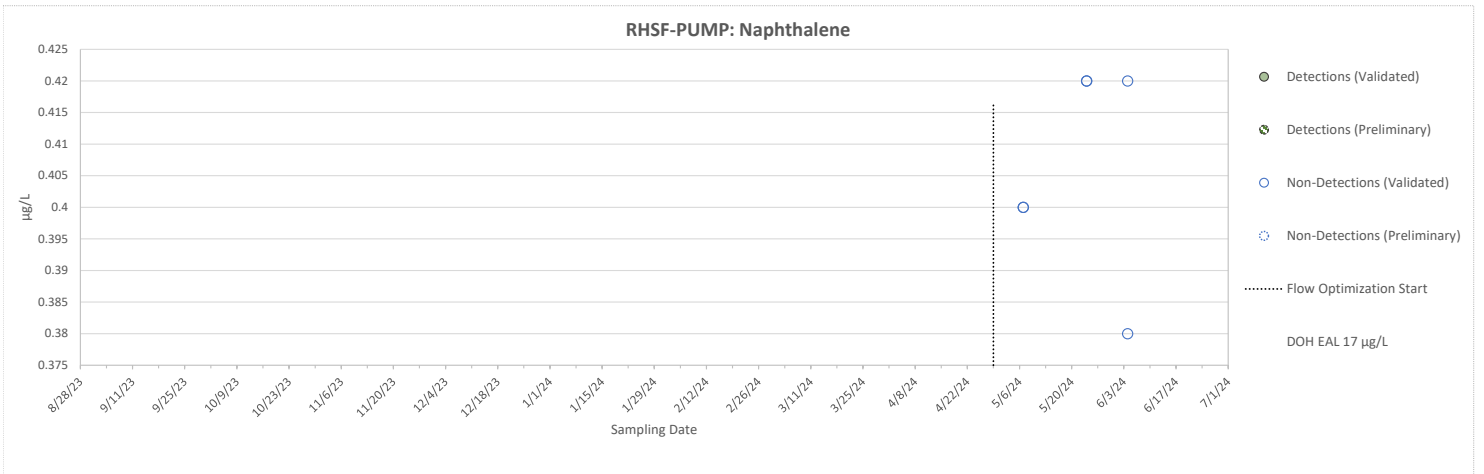
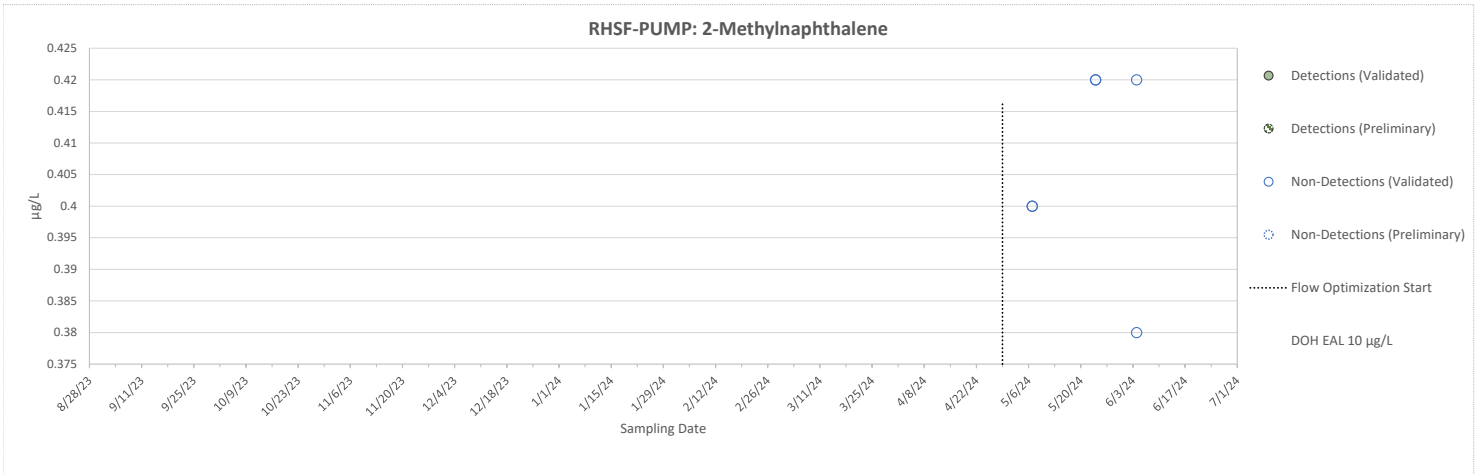
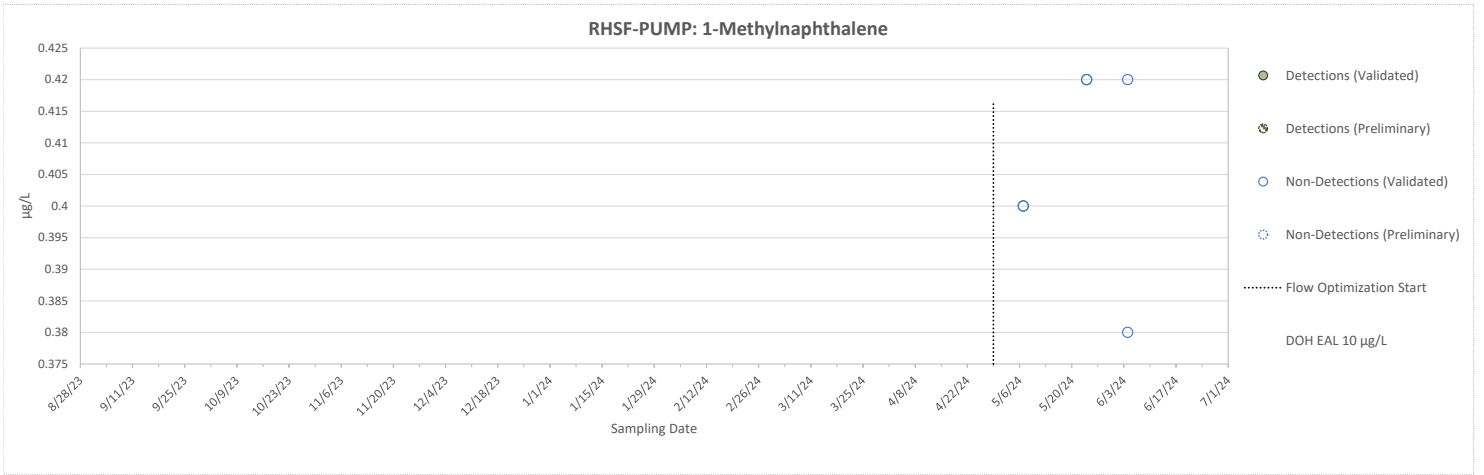


RHSF-PUMP: TPH-o by Method 3510

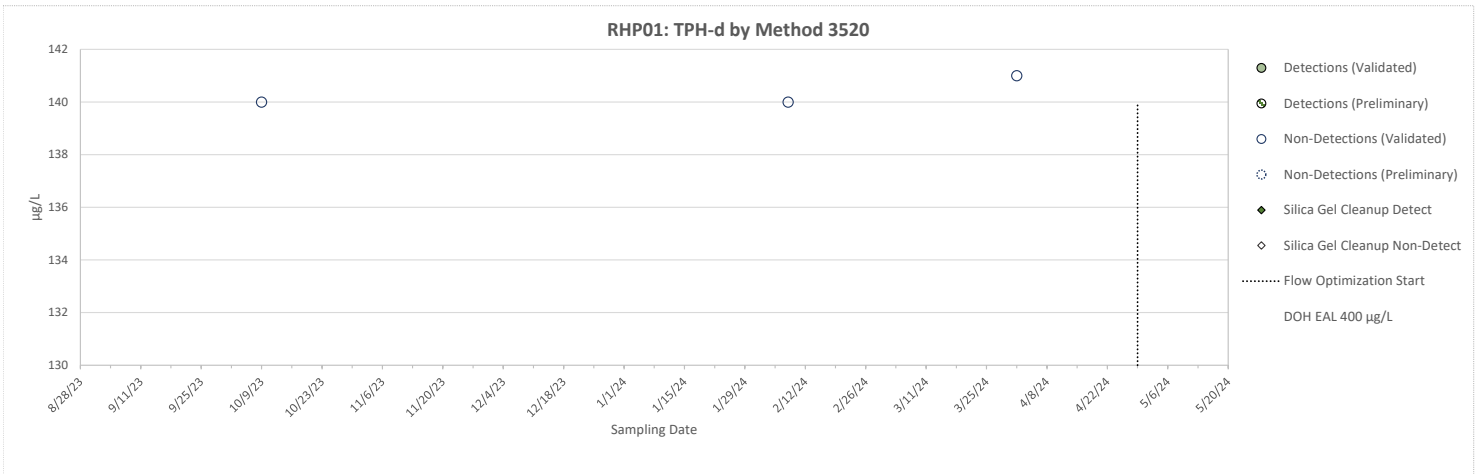
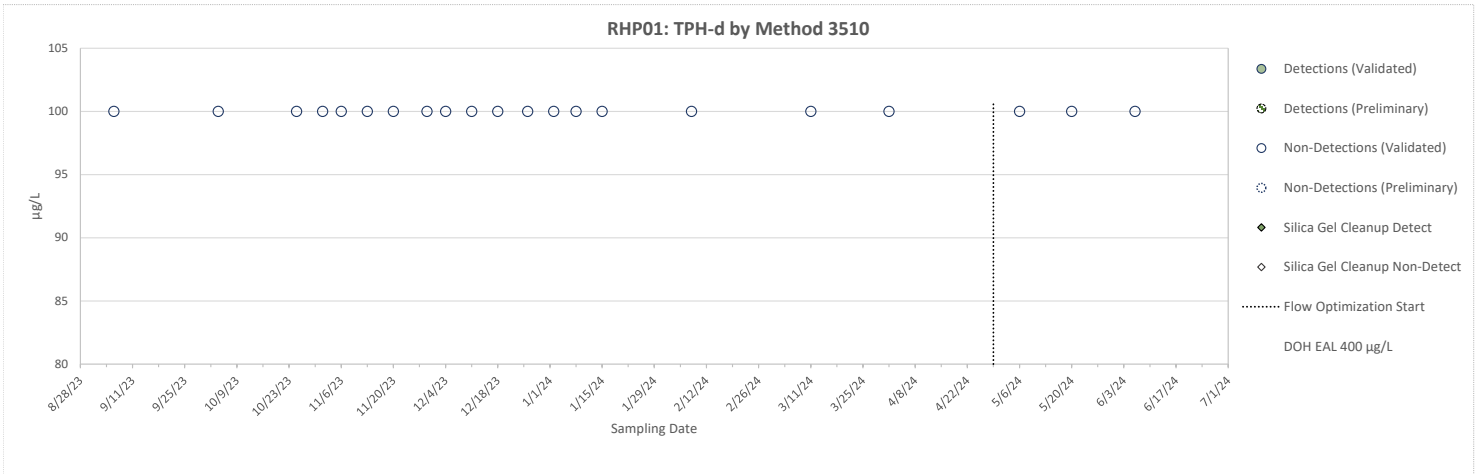
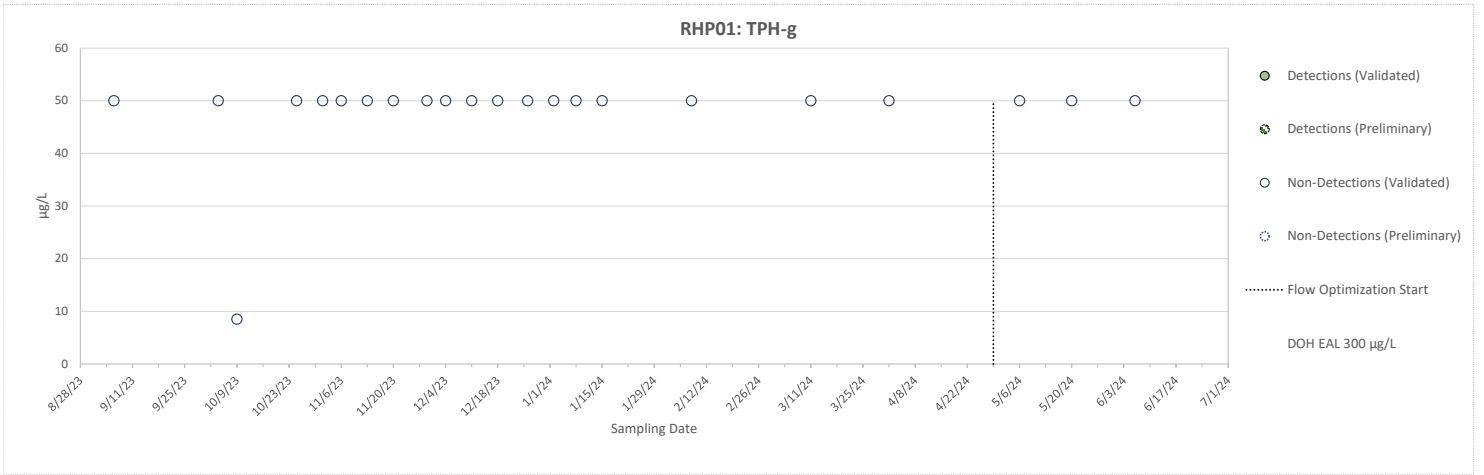


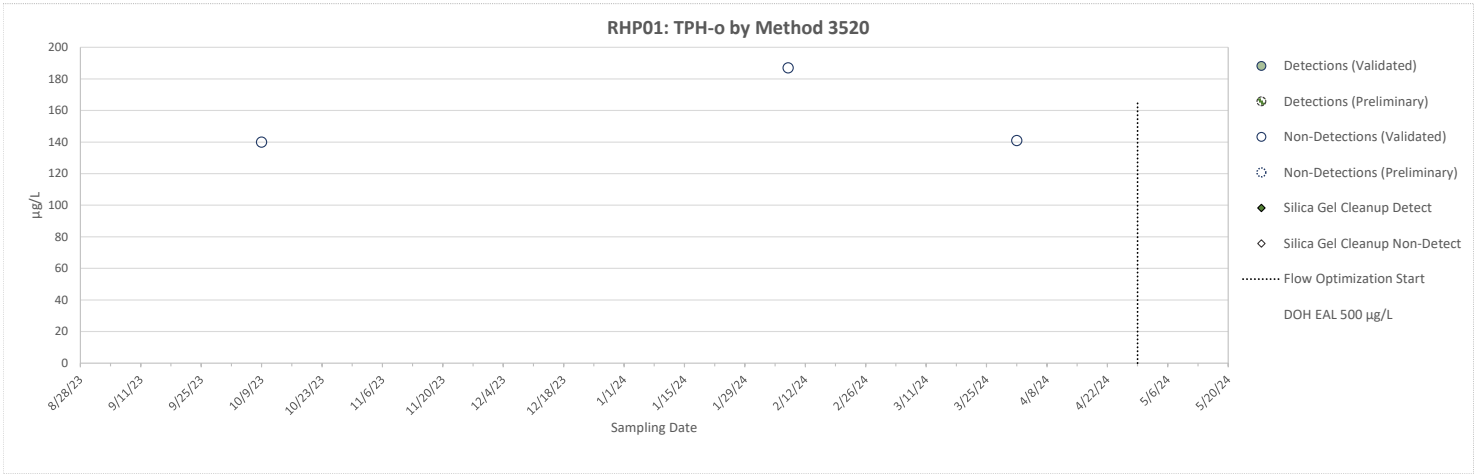
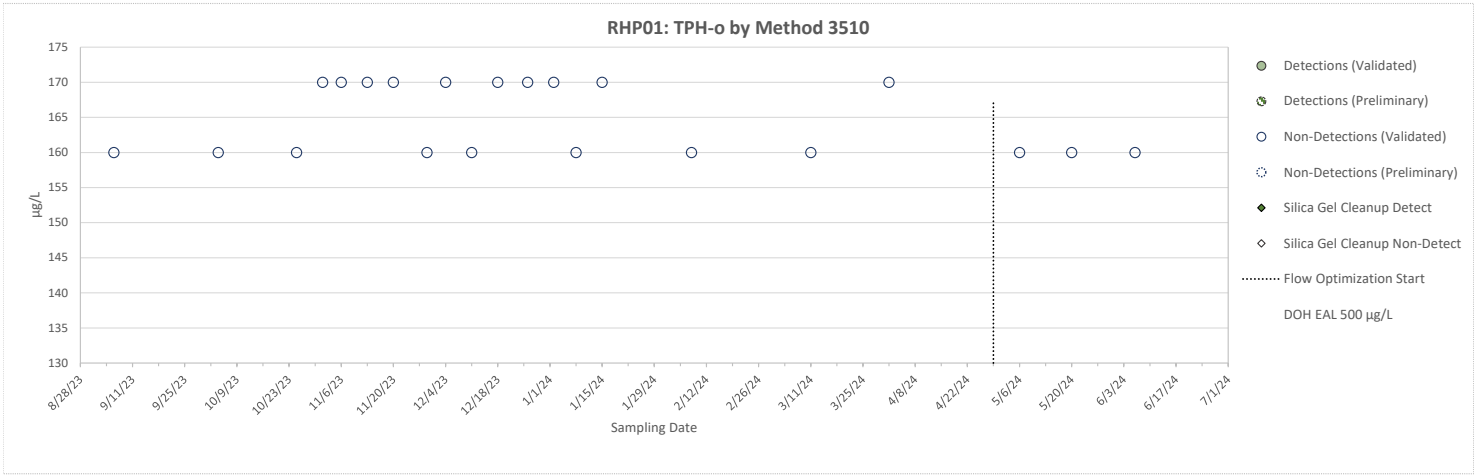
RHSF-PUMP: TPH-o by Method 3520

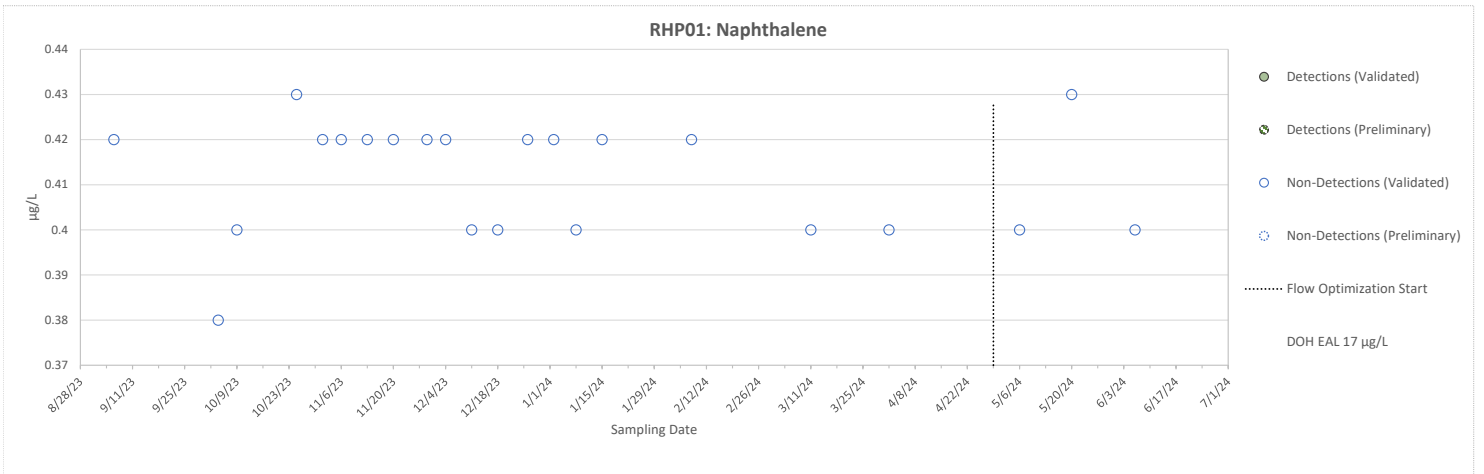
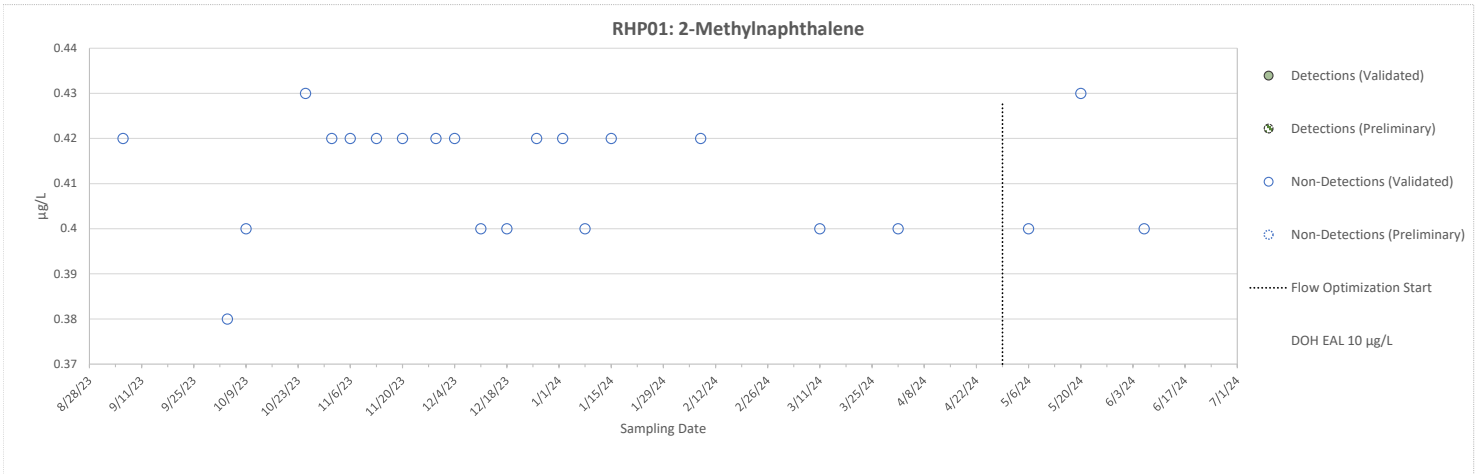
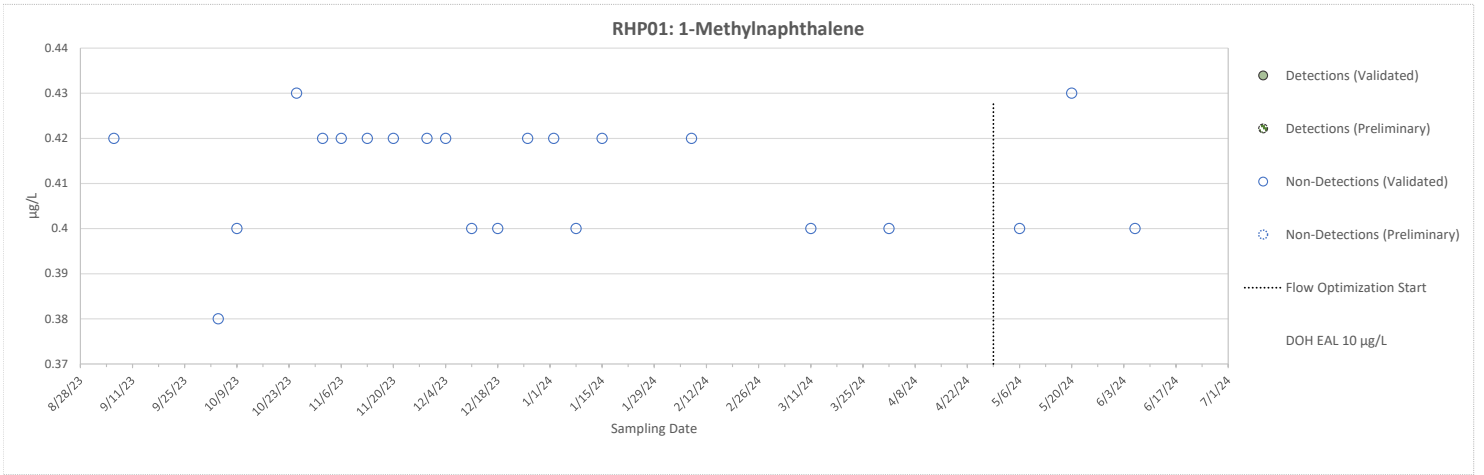




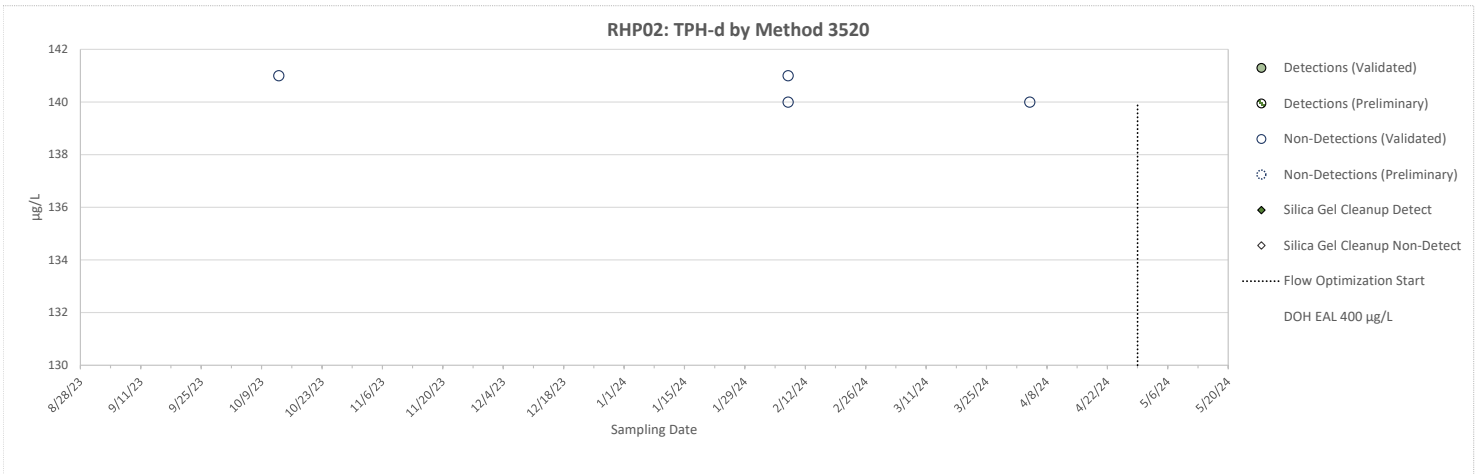
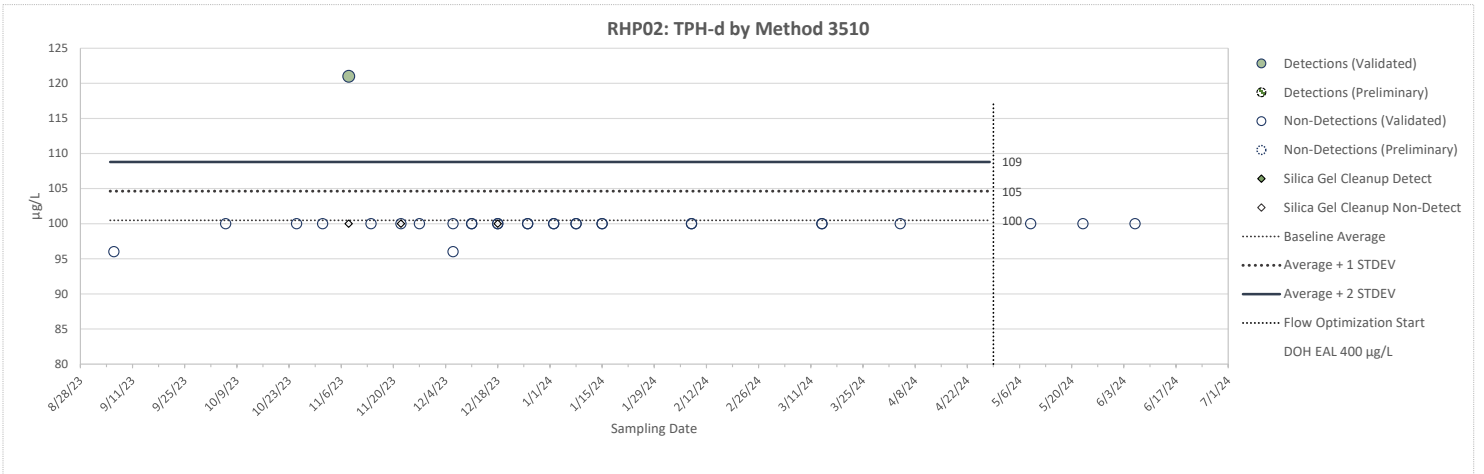
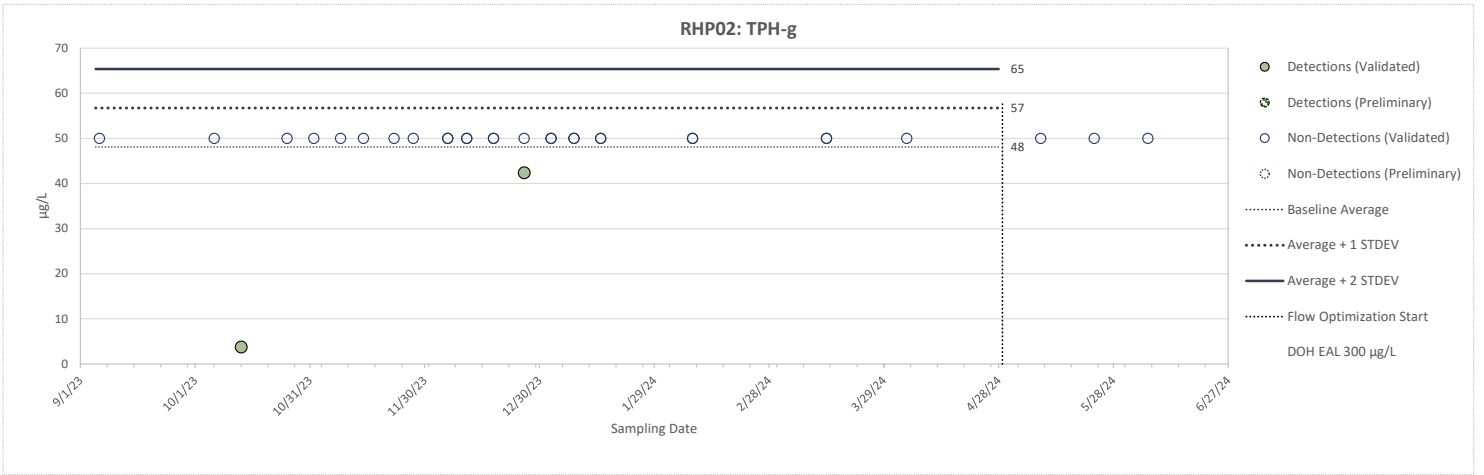
Note: See Data Legend

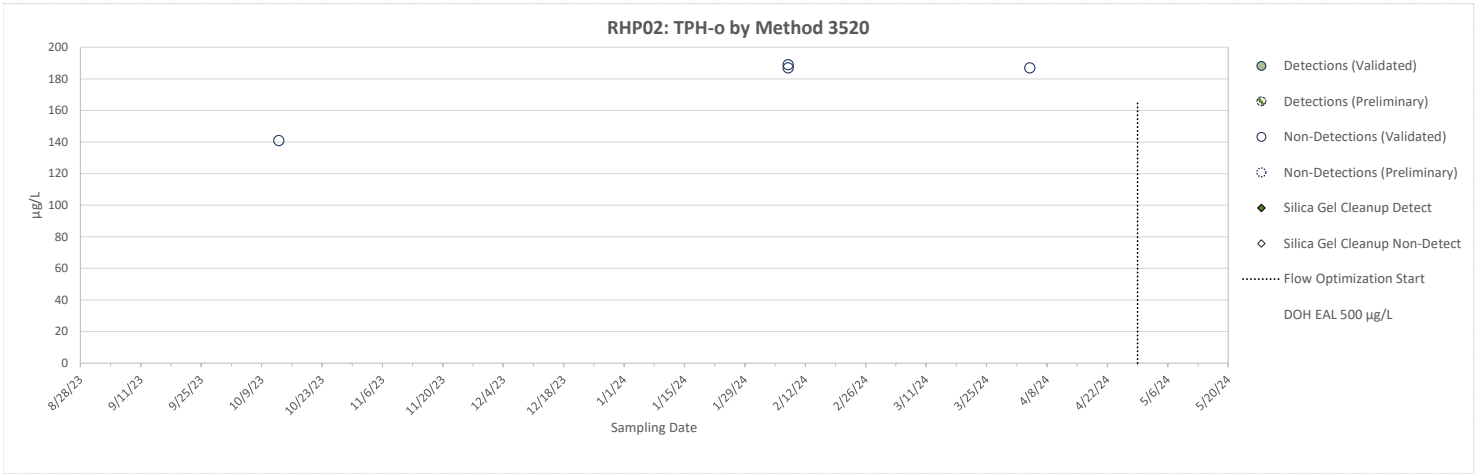
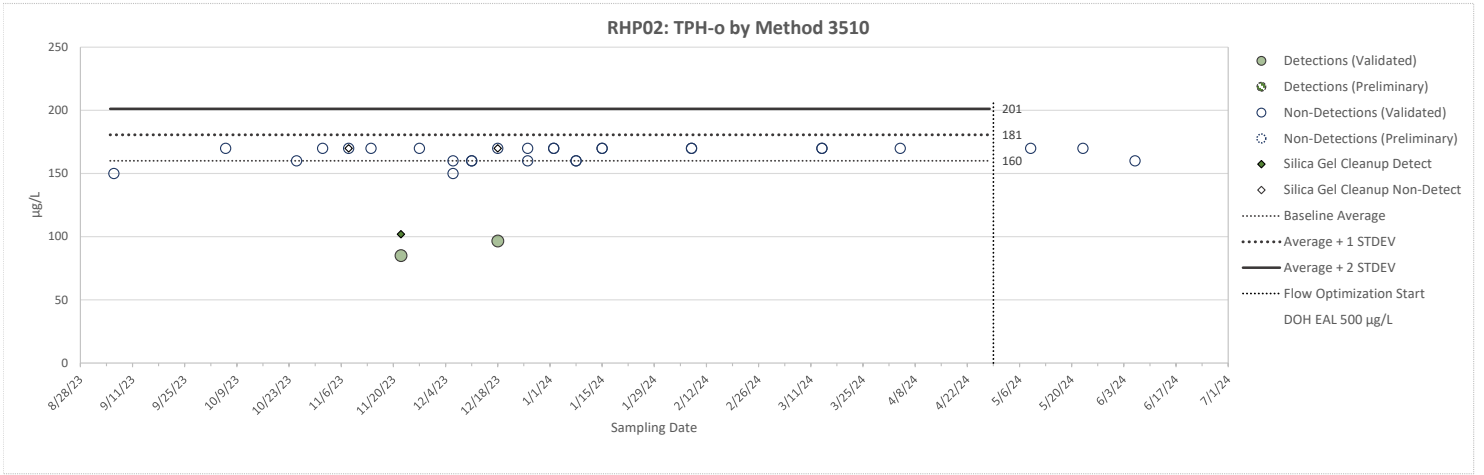


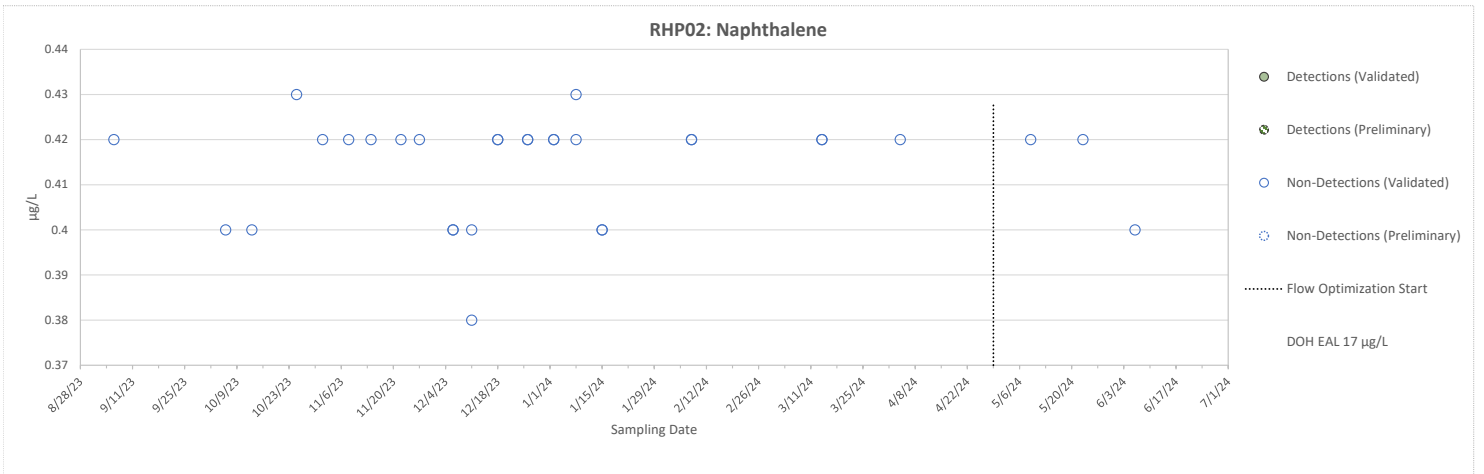
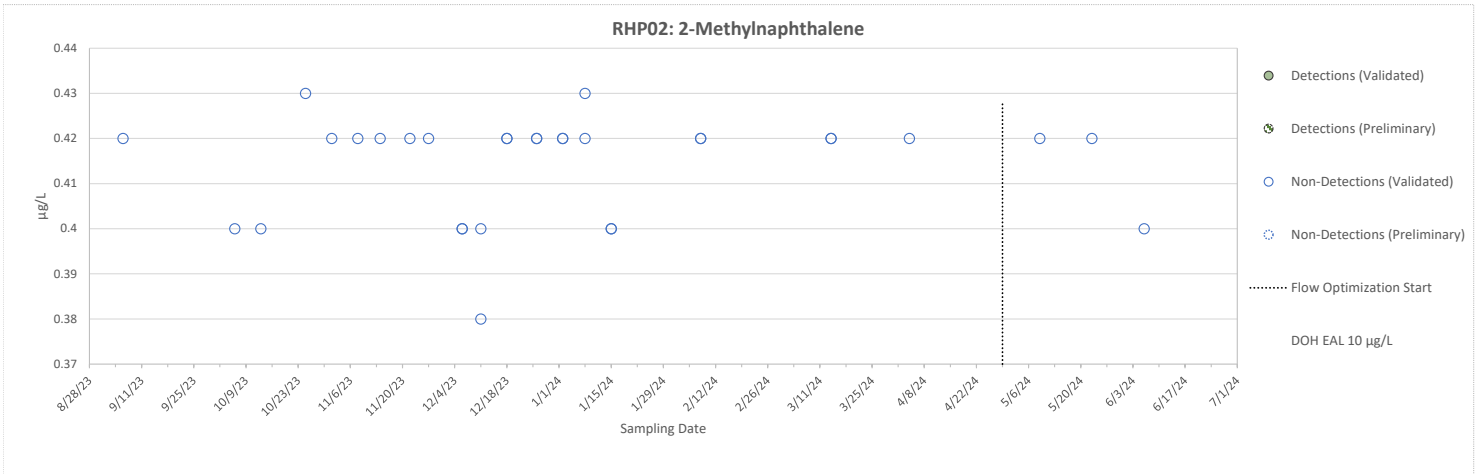
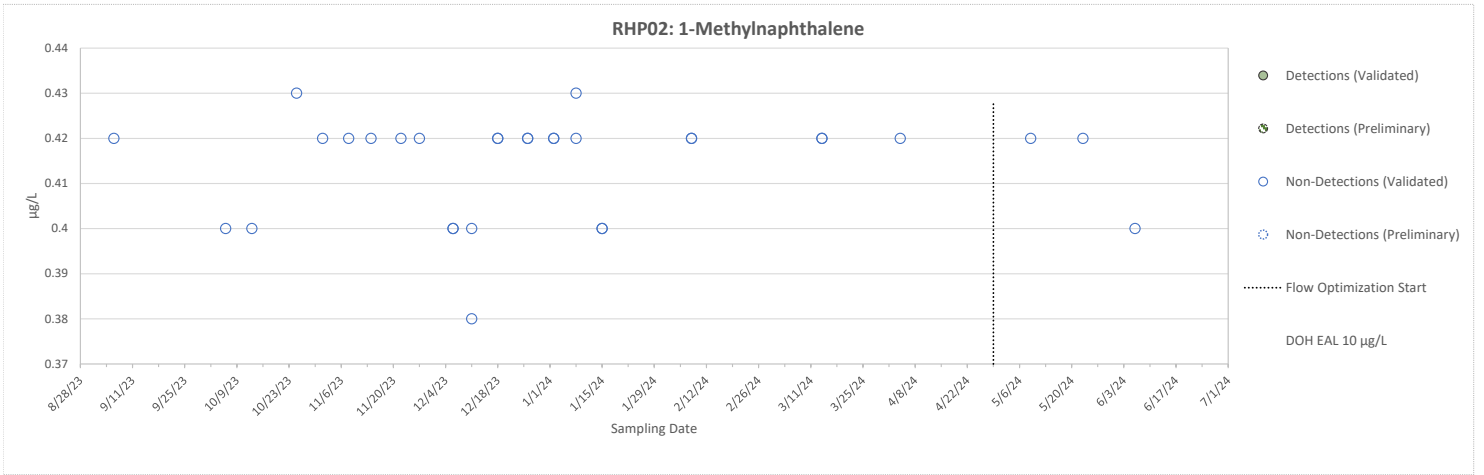




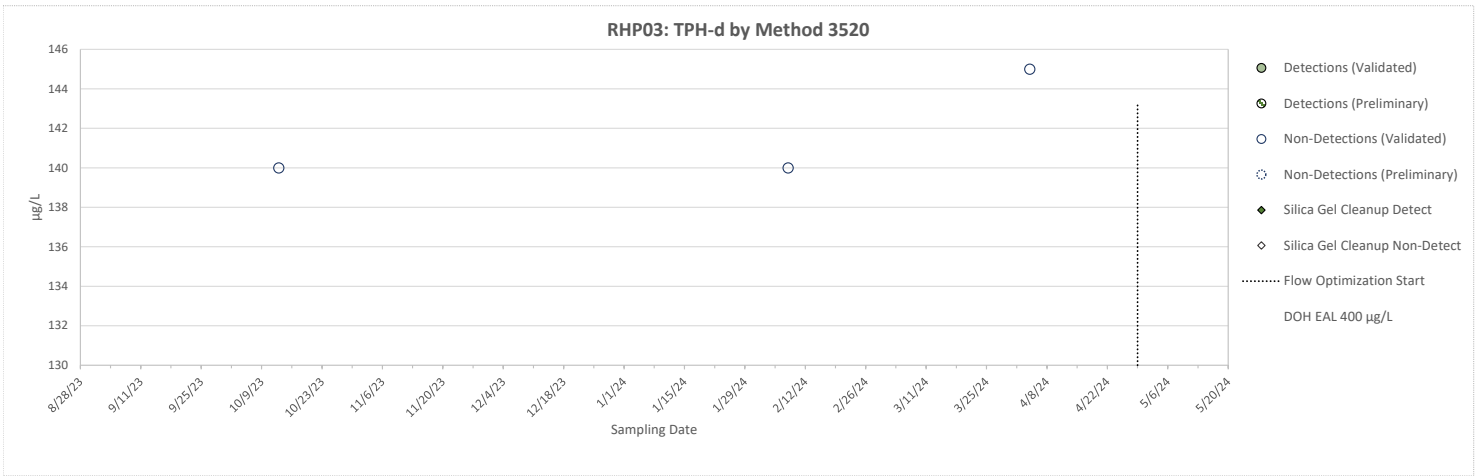
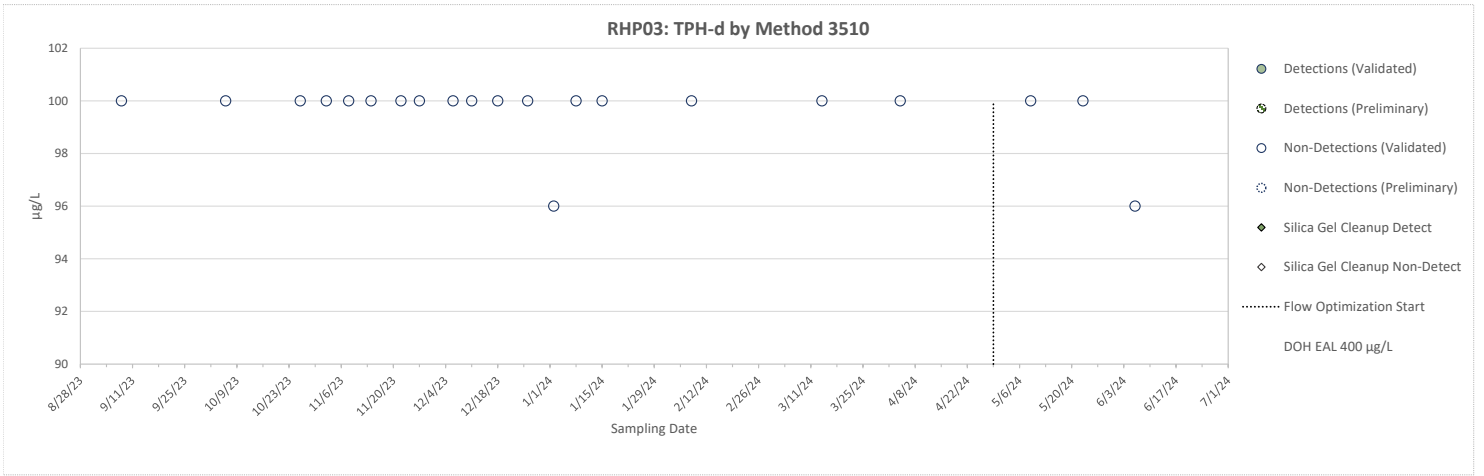
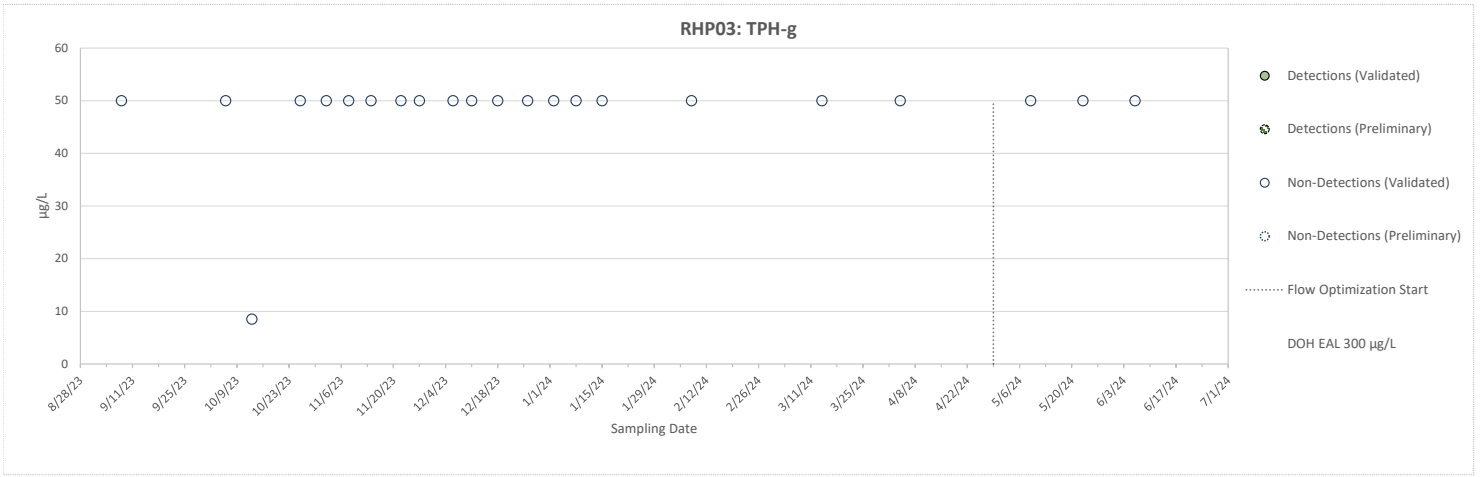
Note: See Data Legend

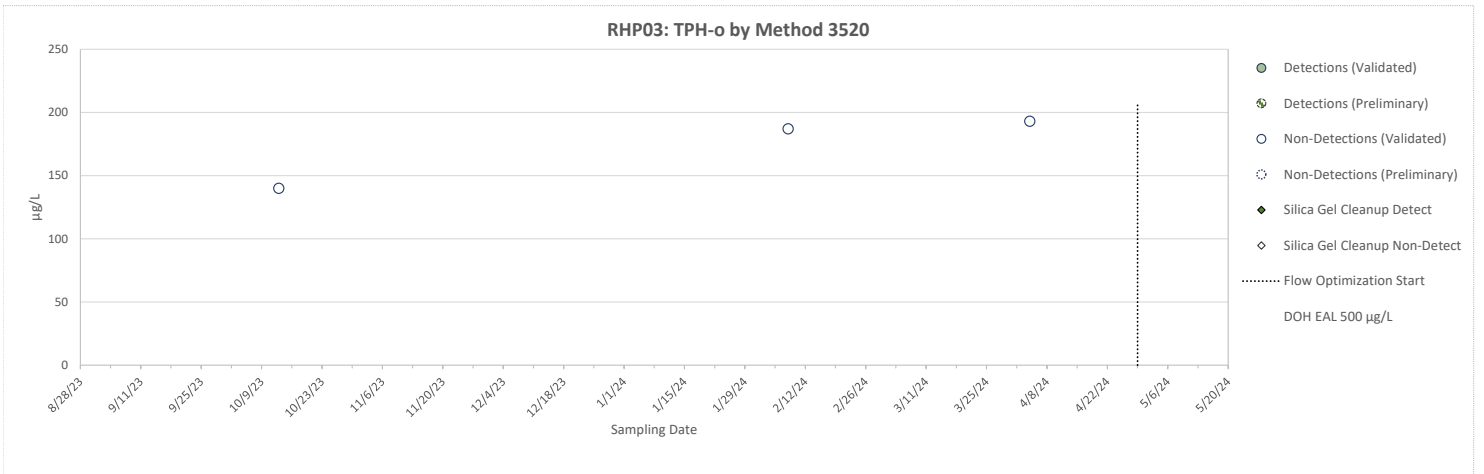
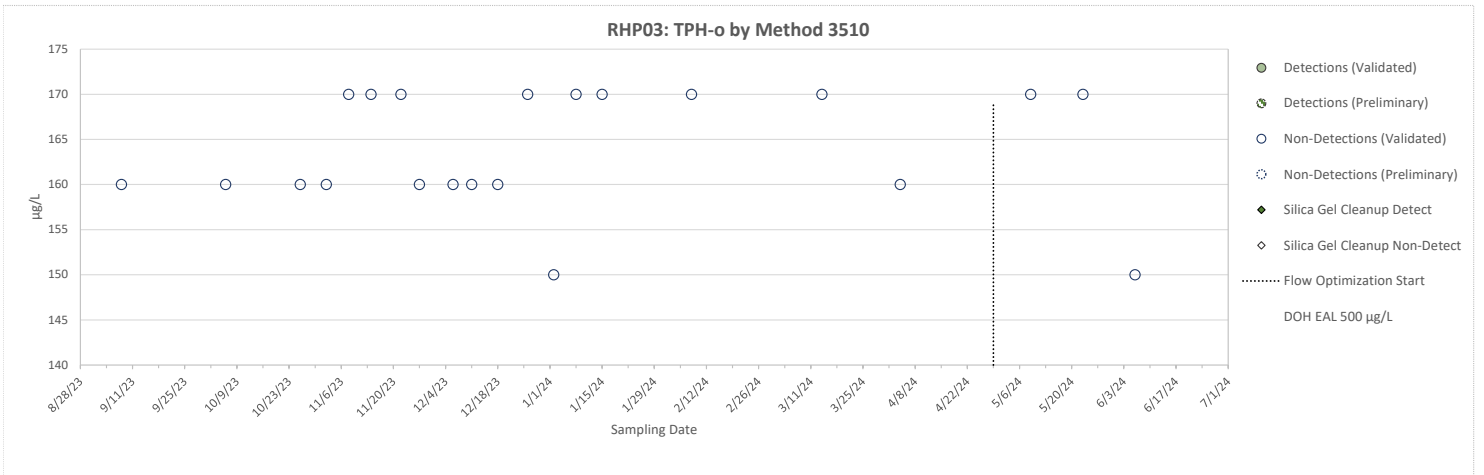


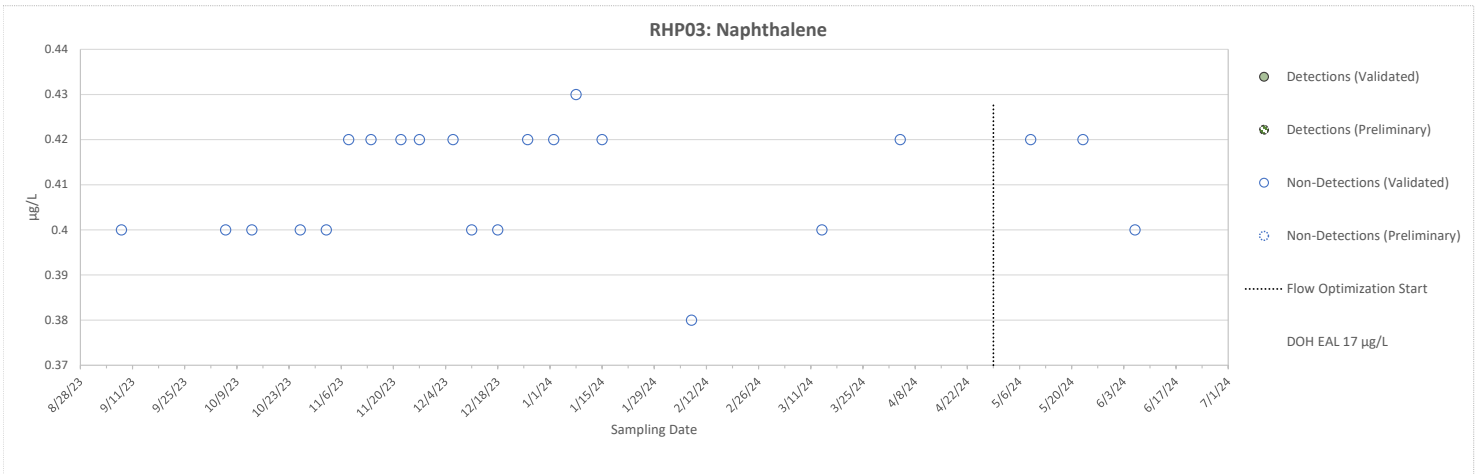
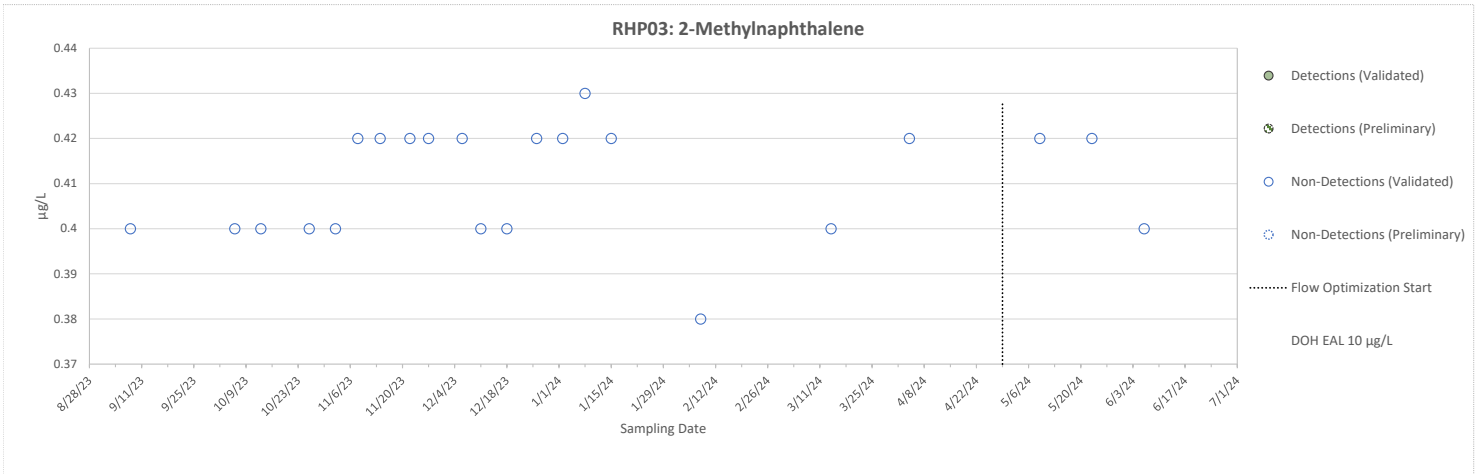
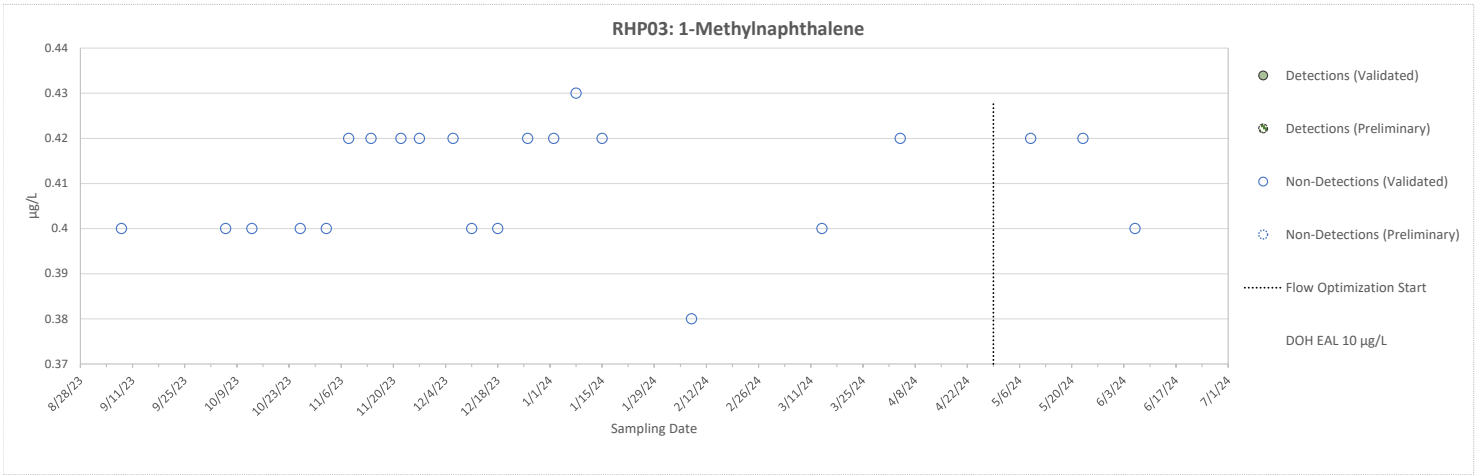




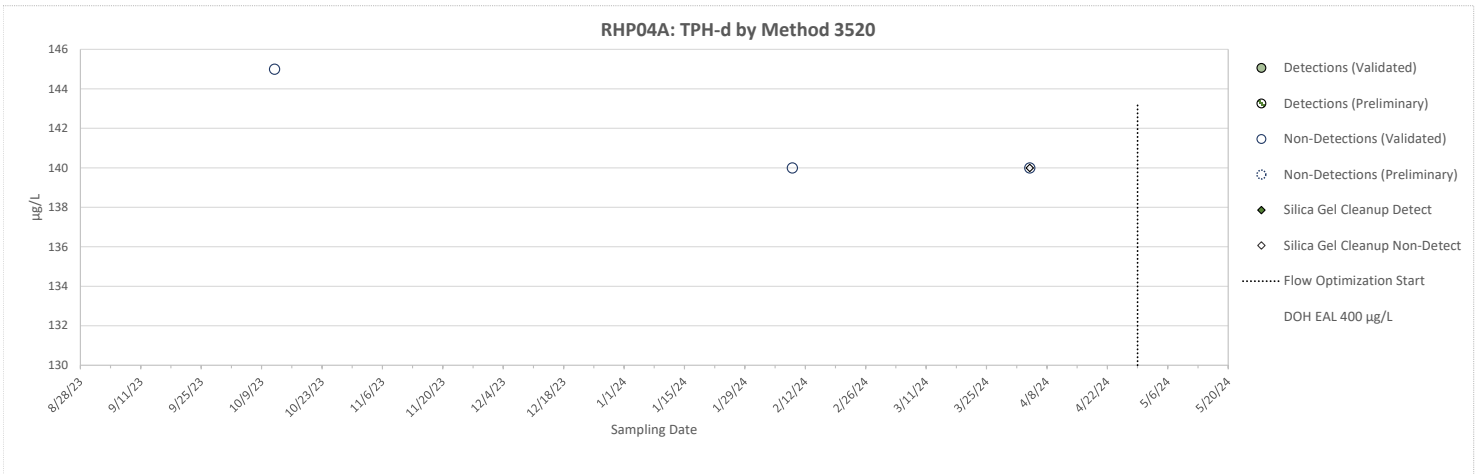
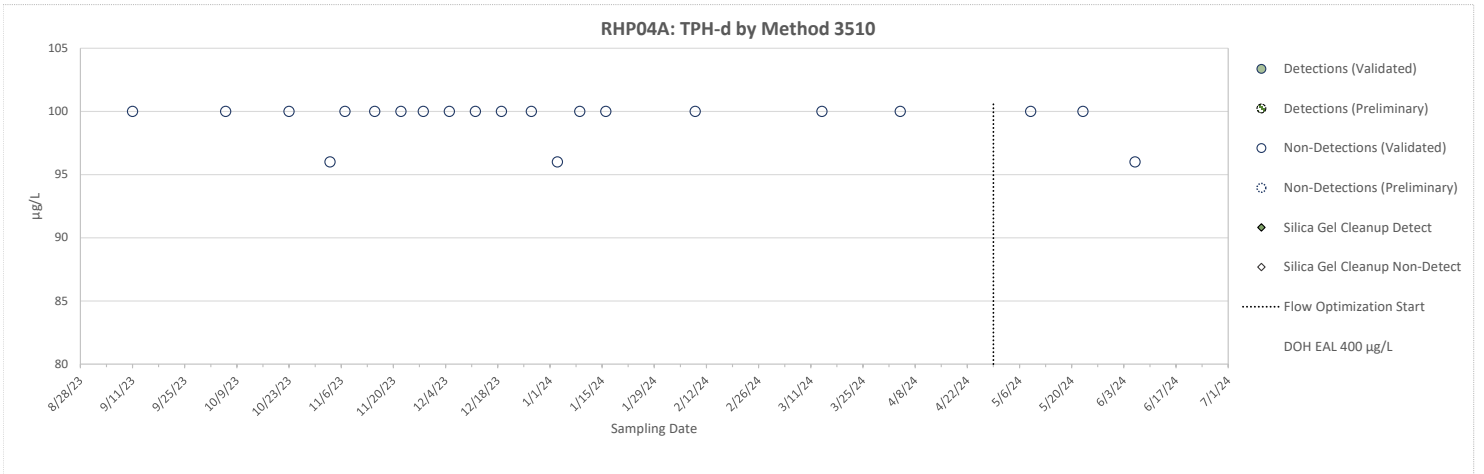
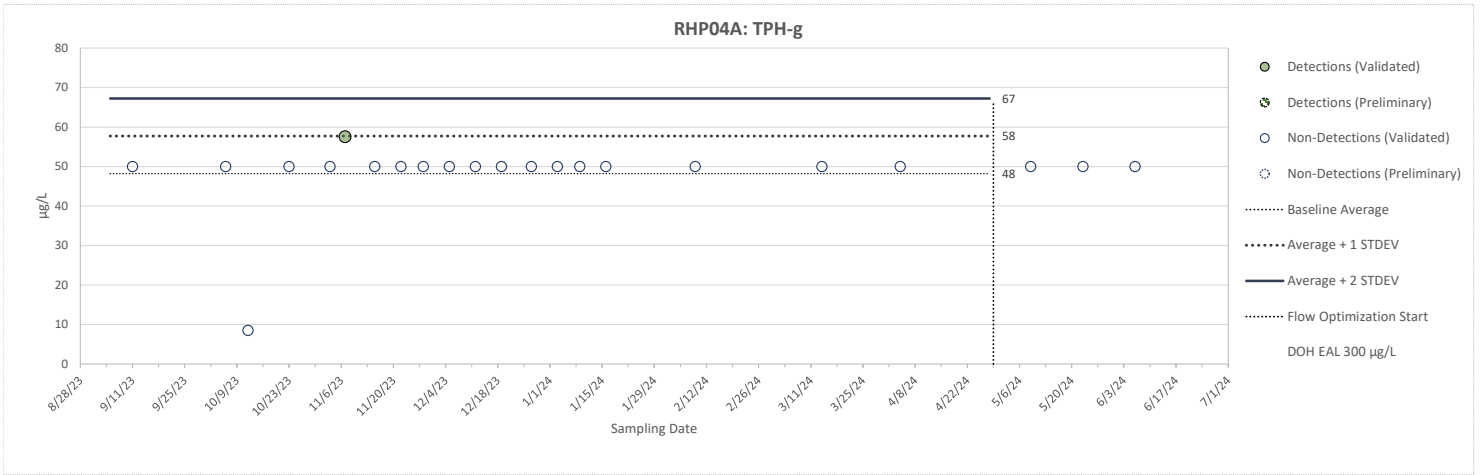
Note: See Data Legend

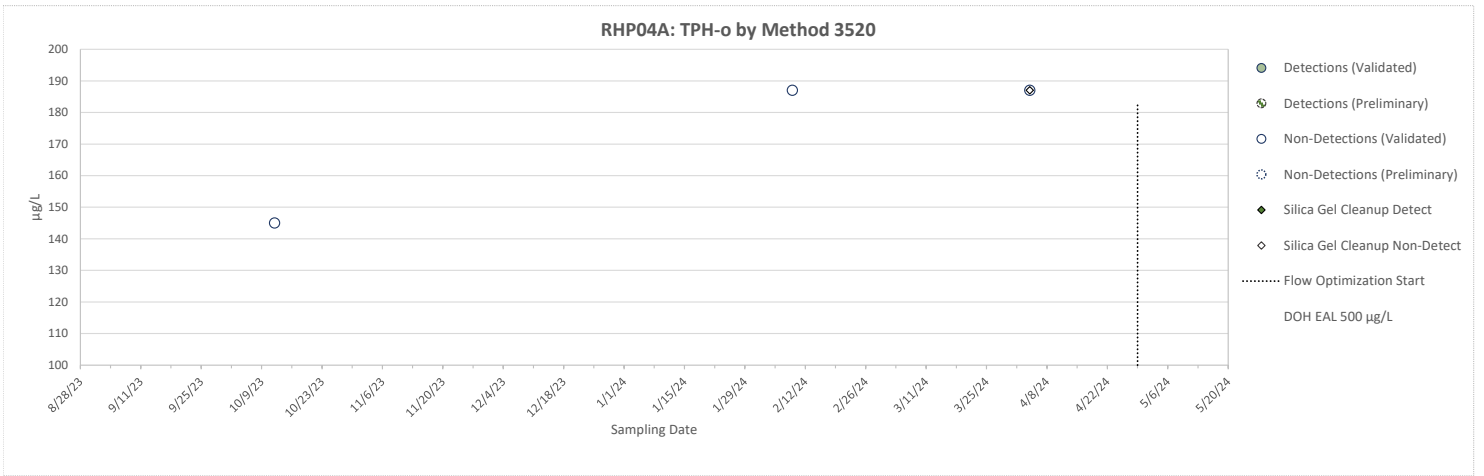
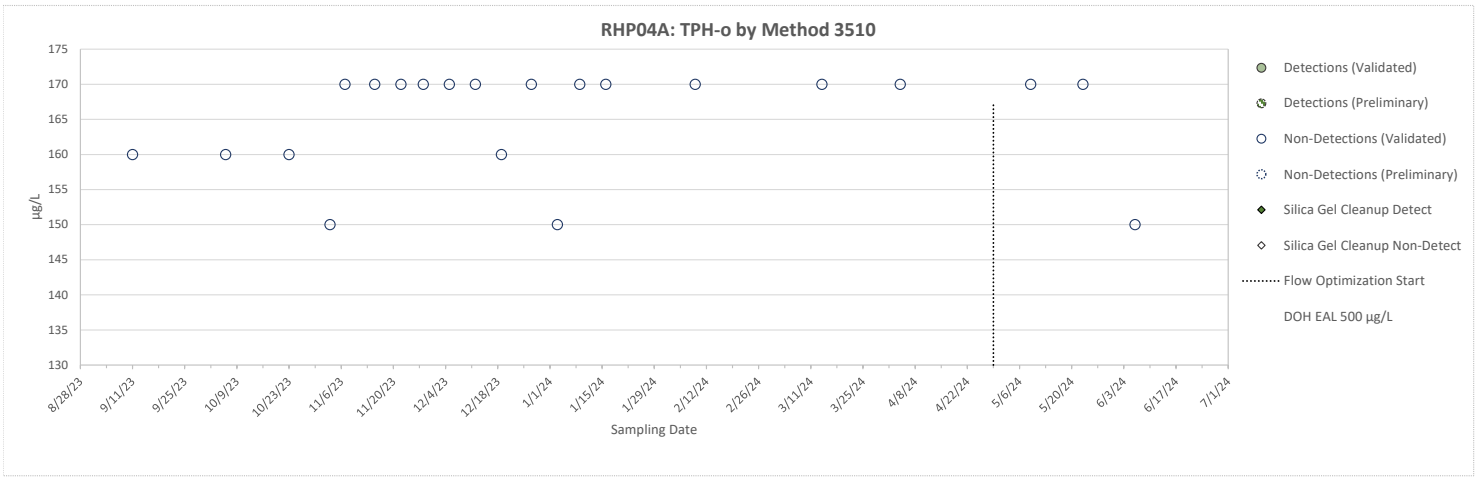


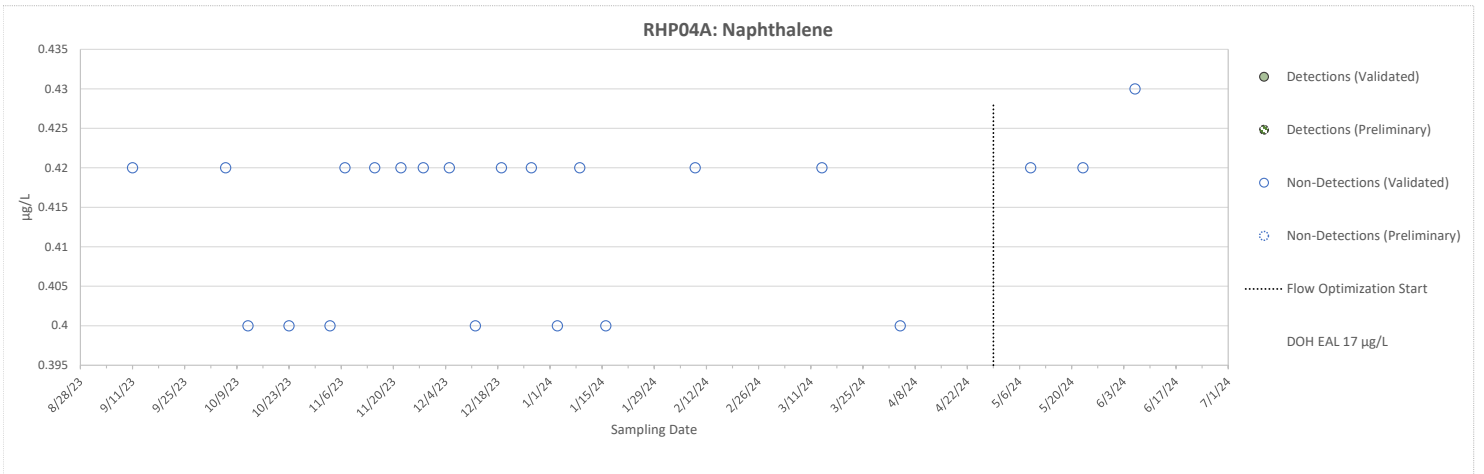
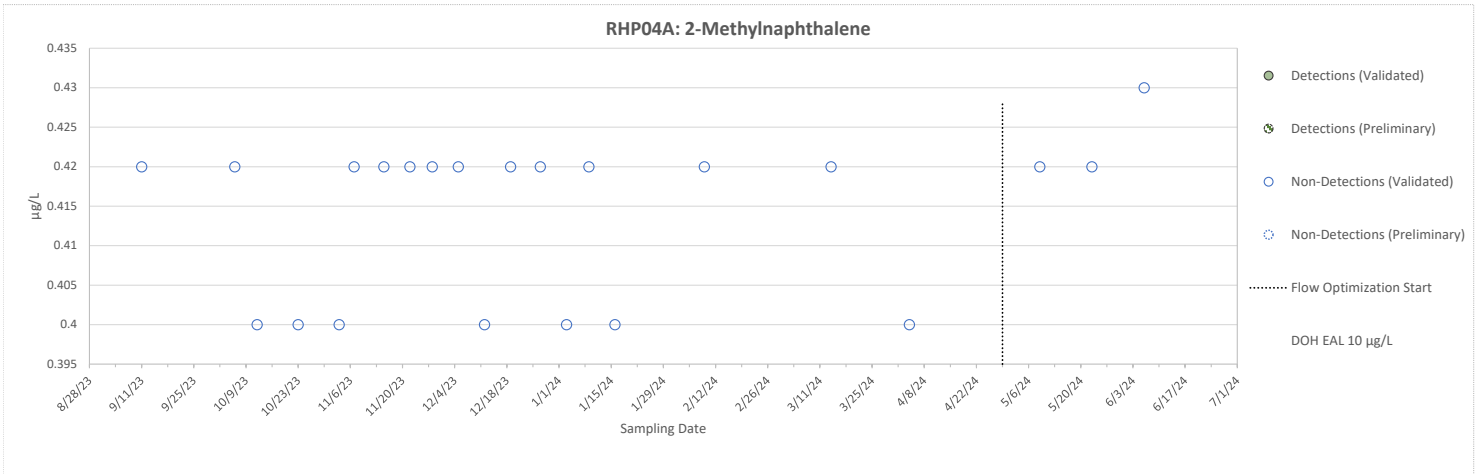
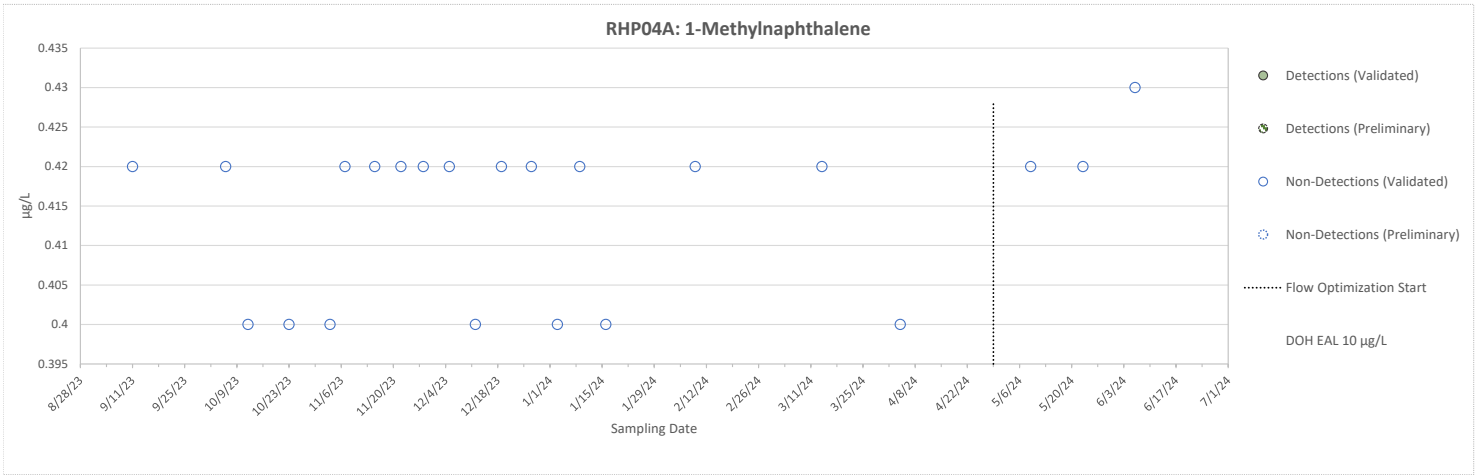




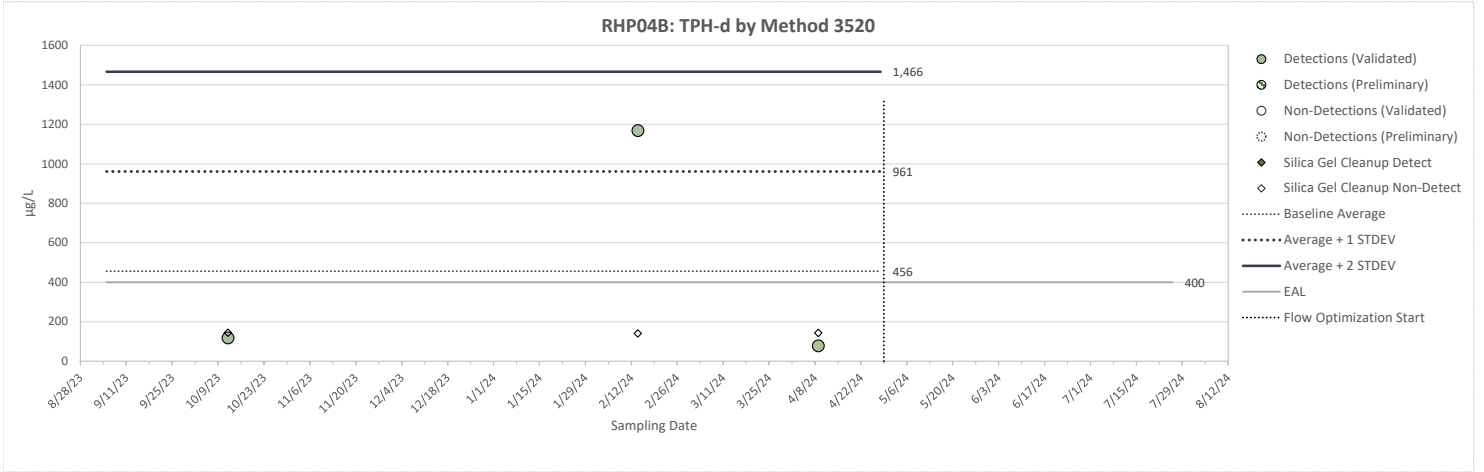
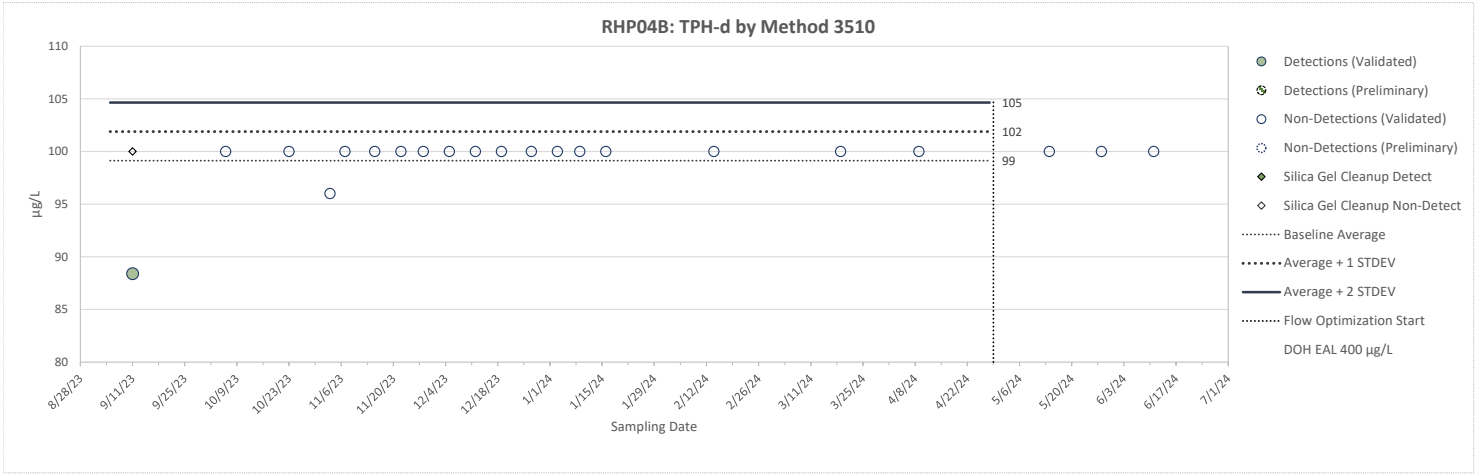
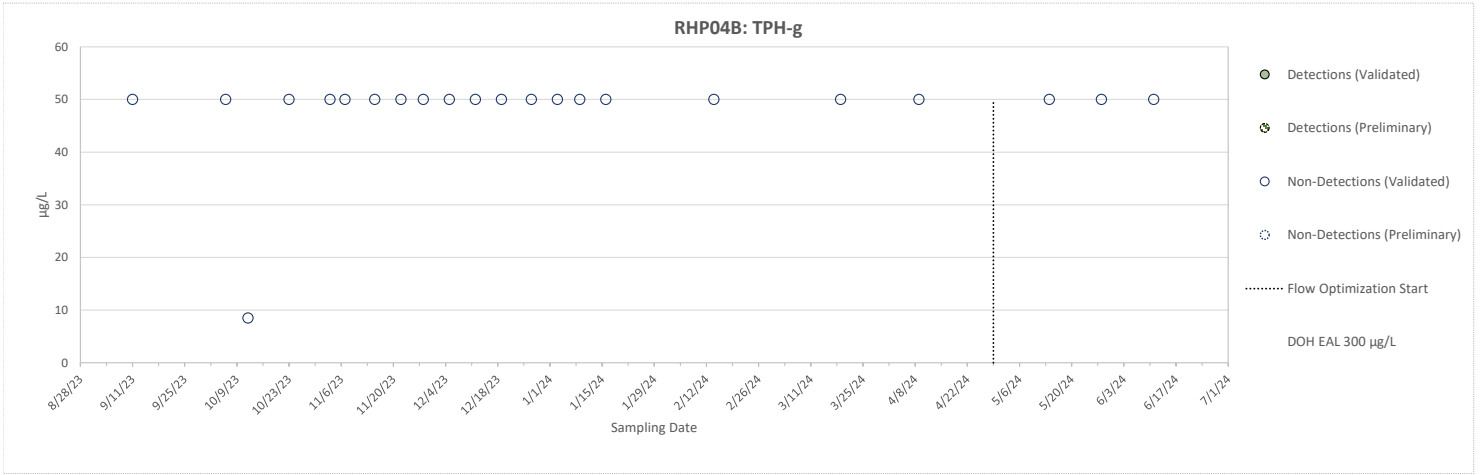
Note: See Data Legend

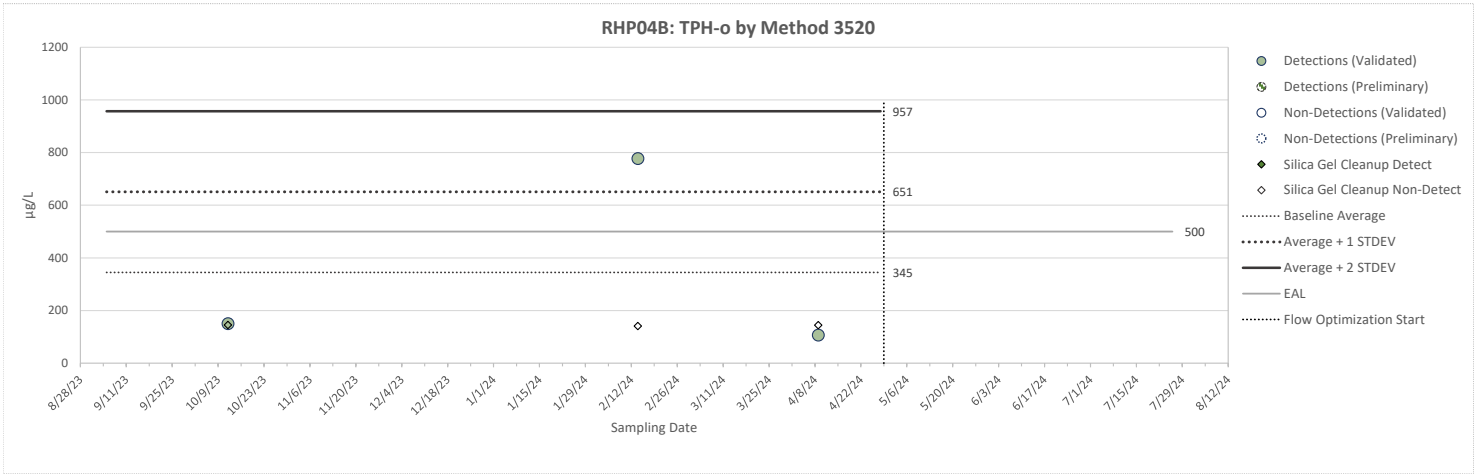
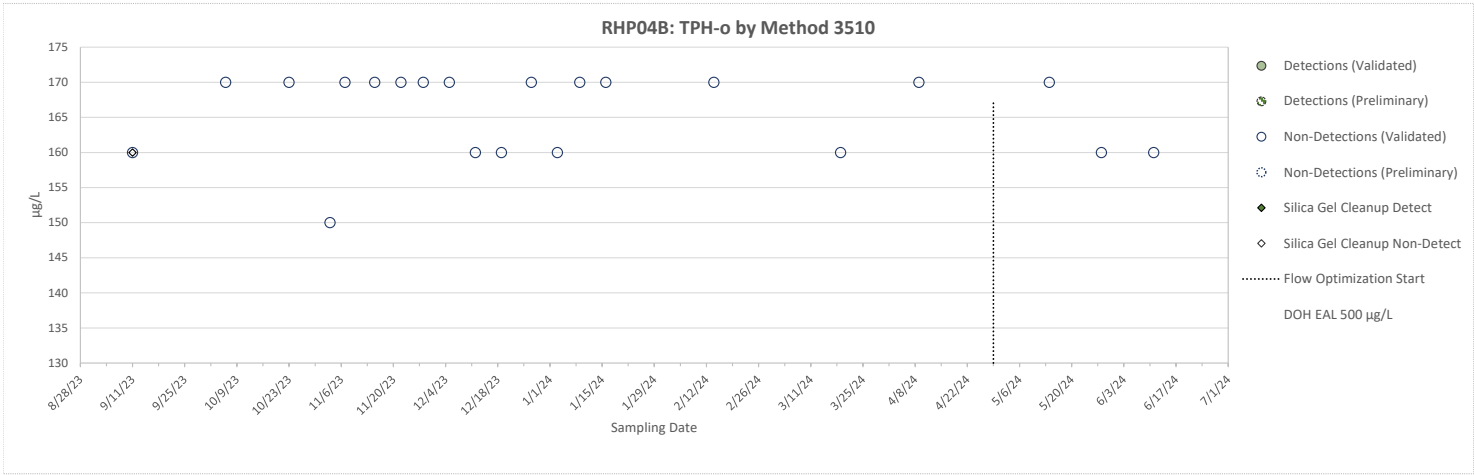


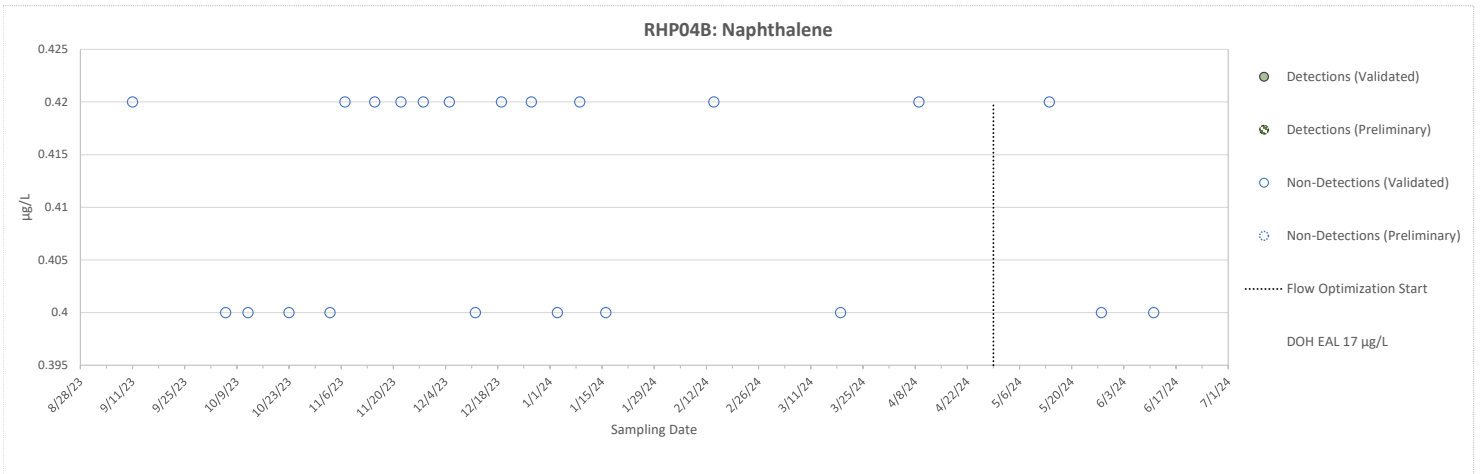
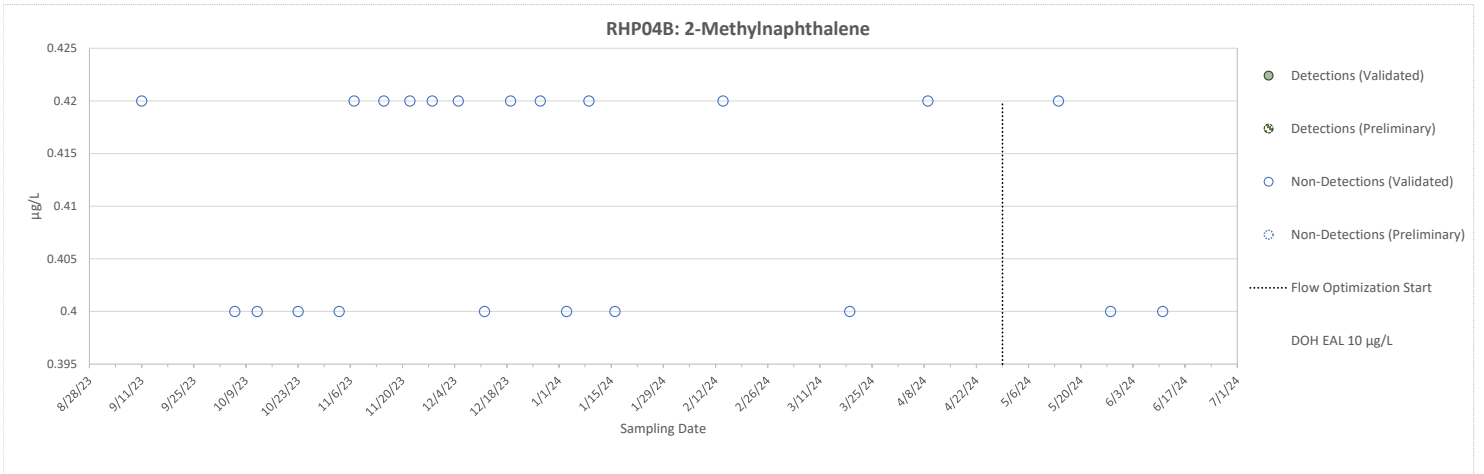
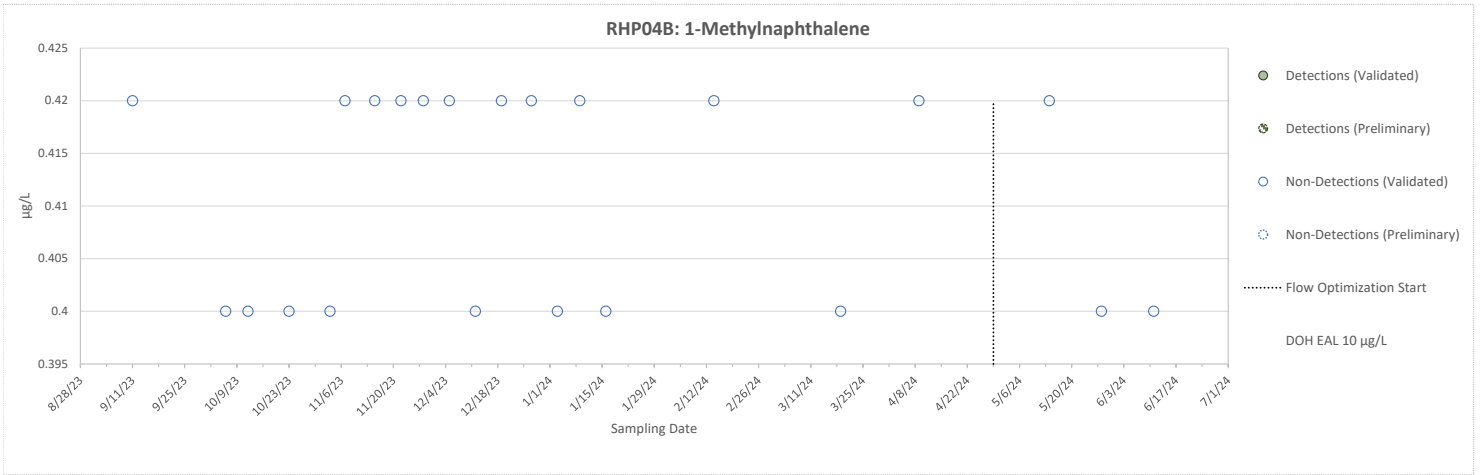




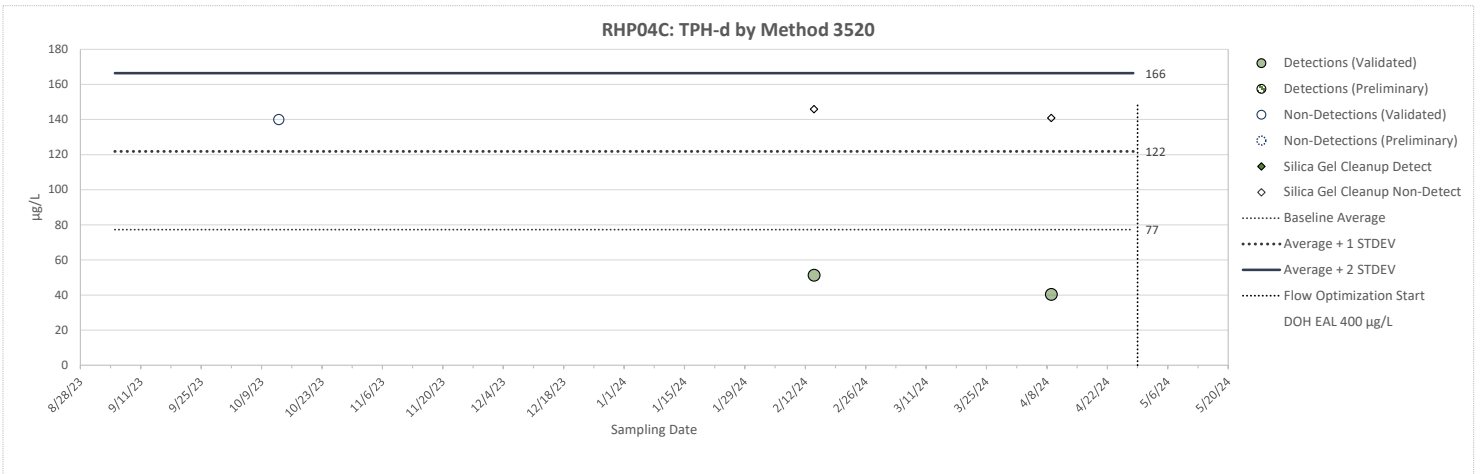
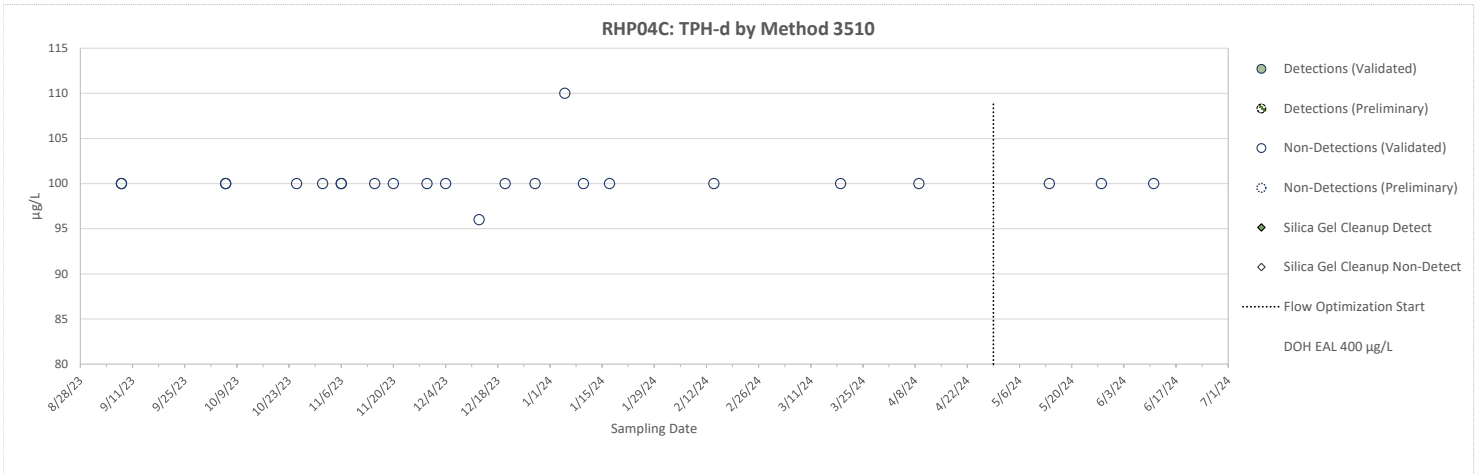
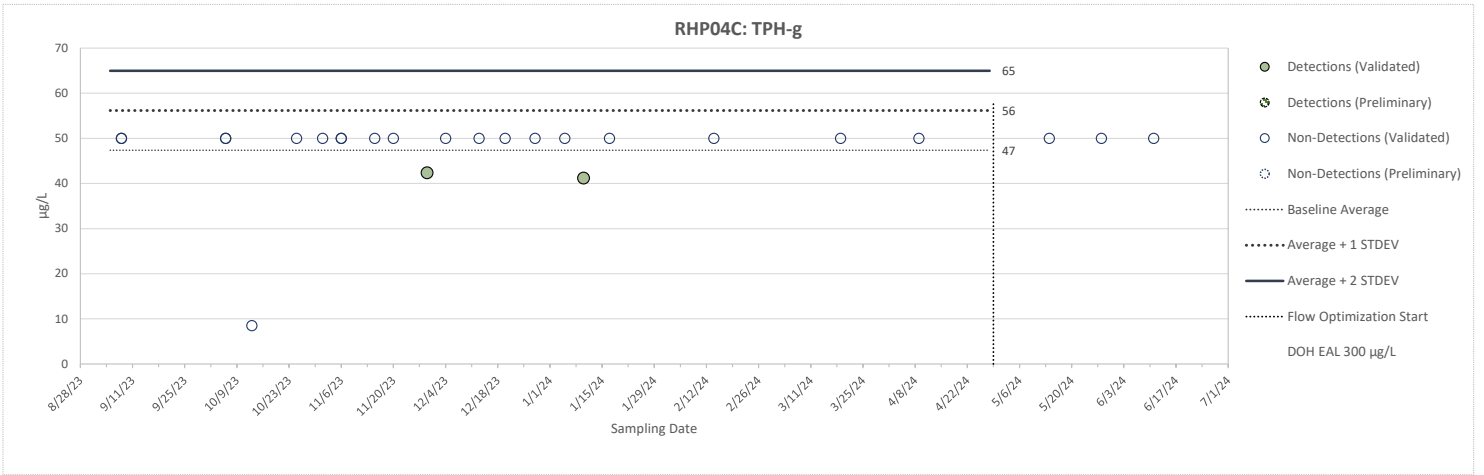
Note: See Data Legend

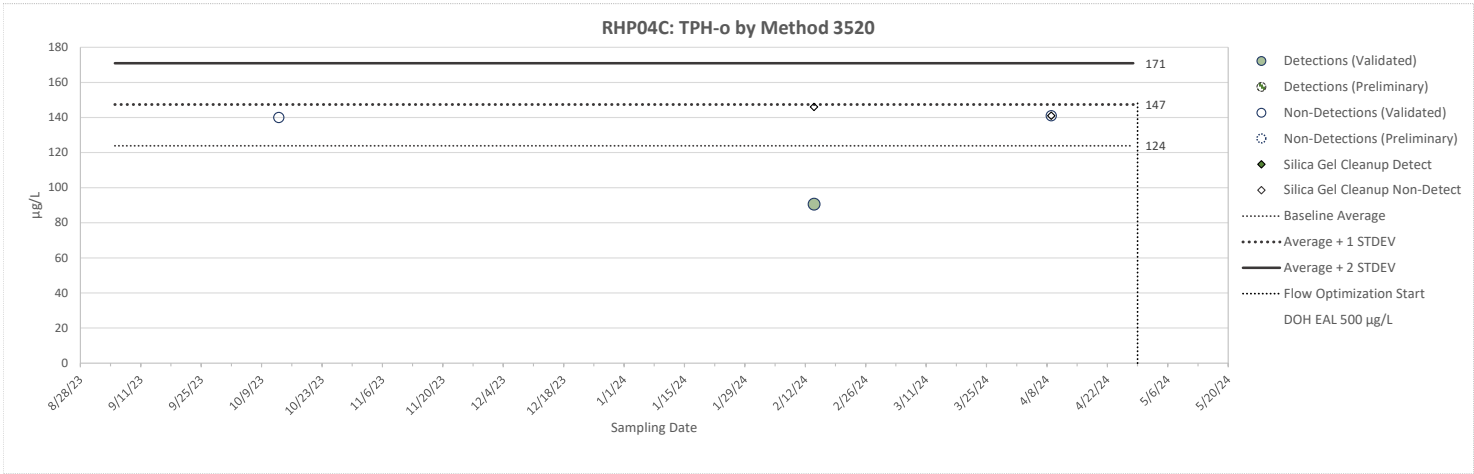
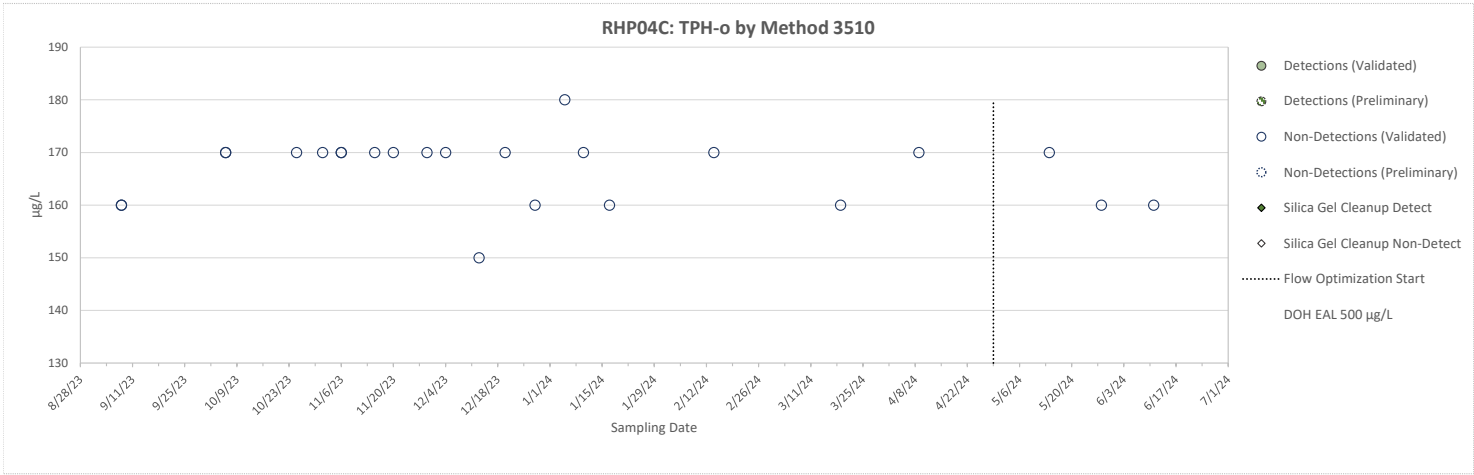


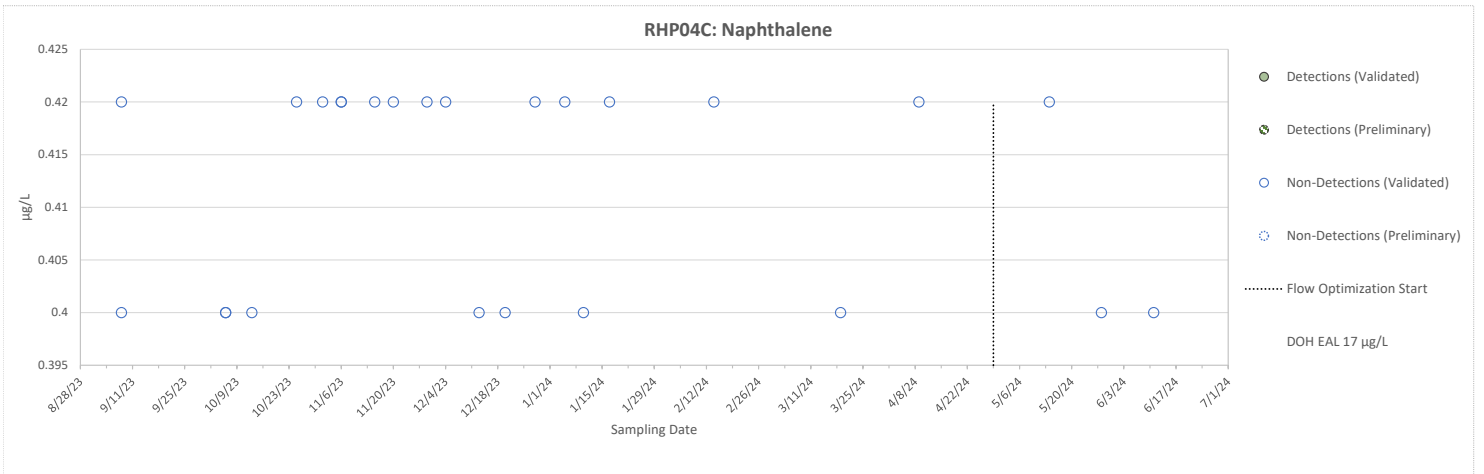
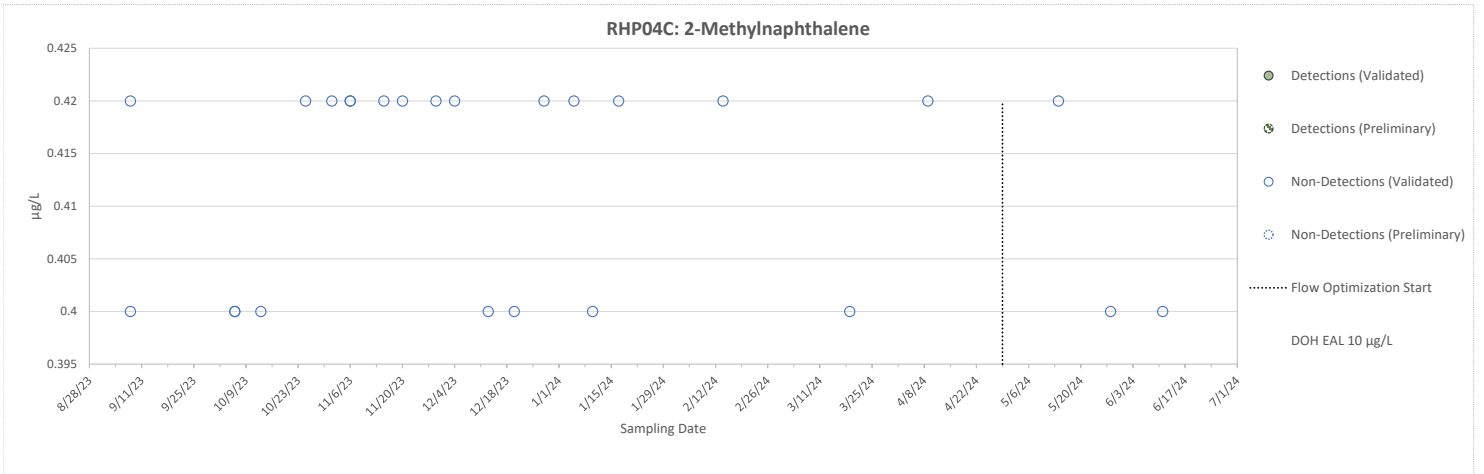
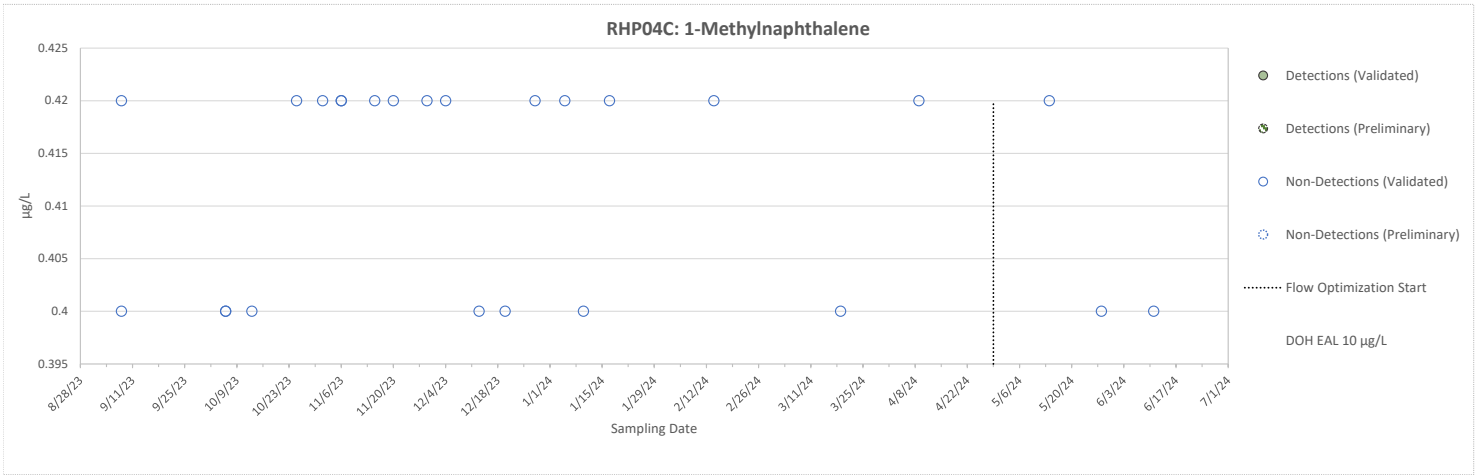




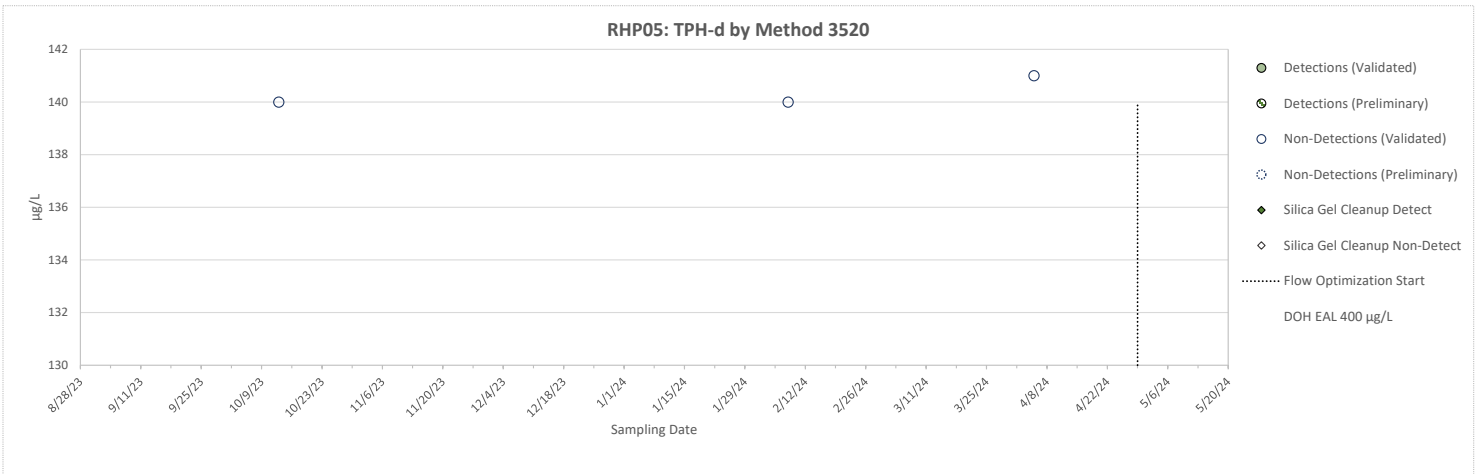
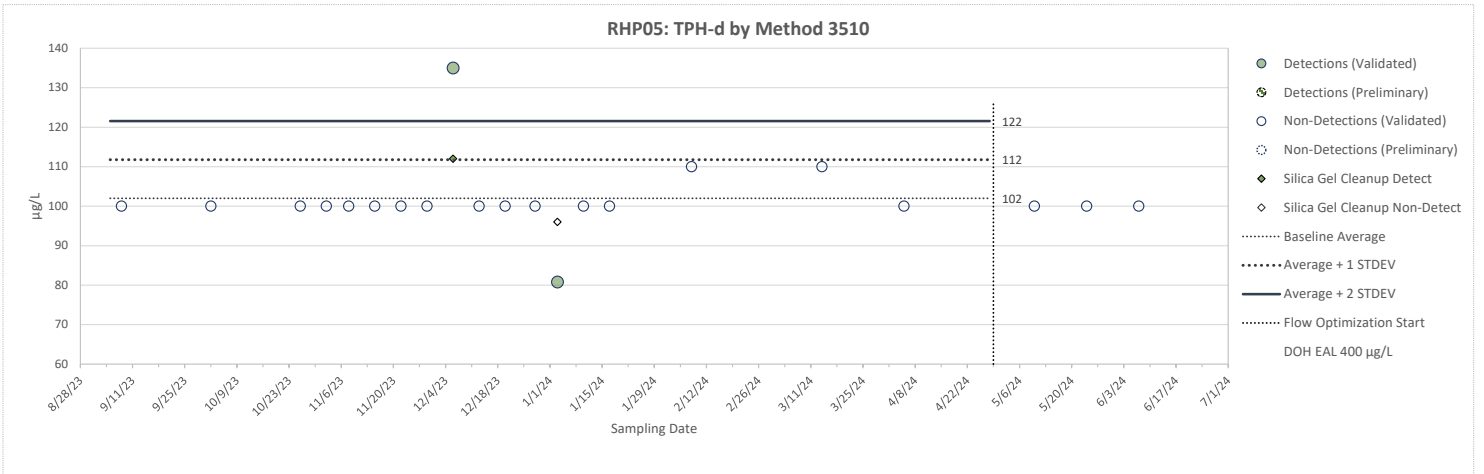
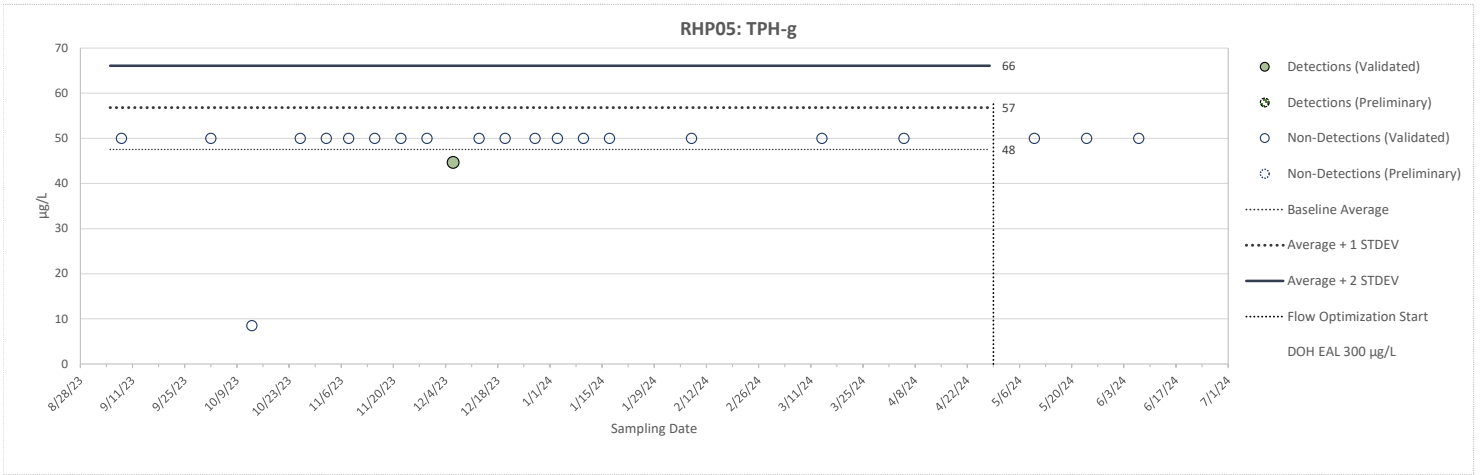
Note: See Data Legend

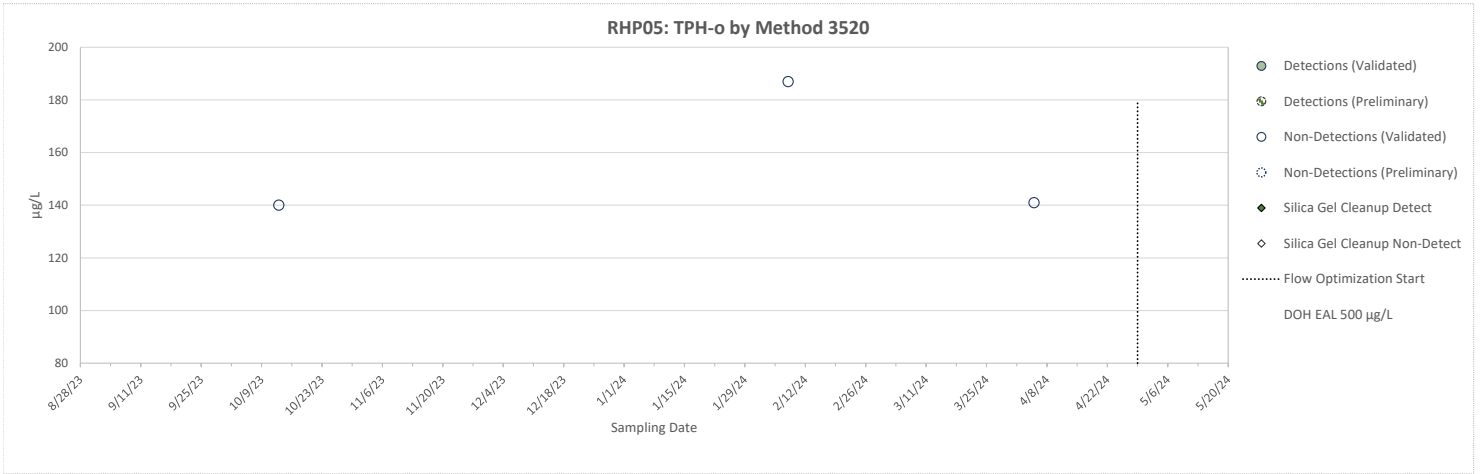
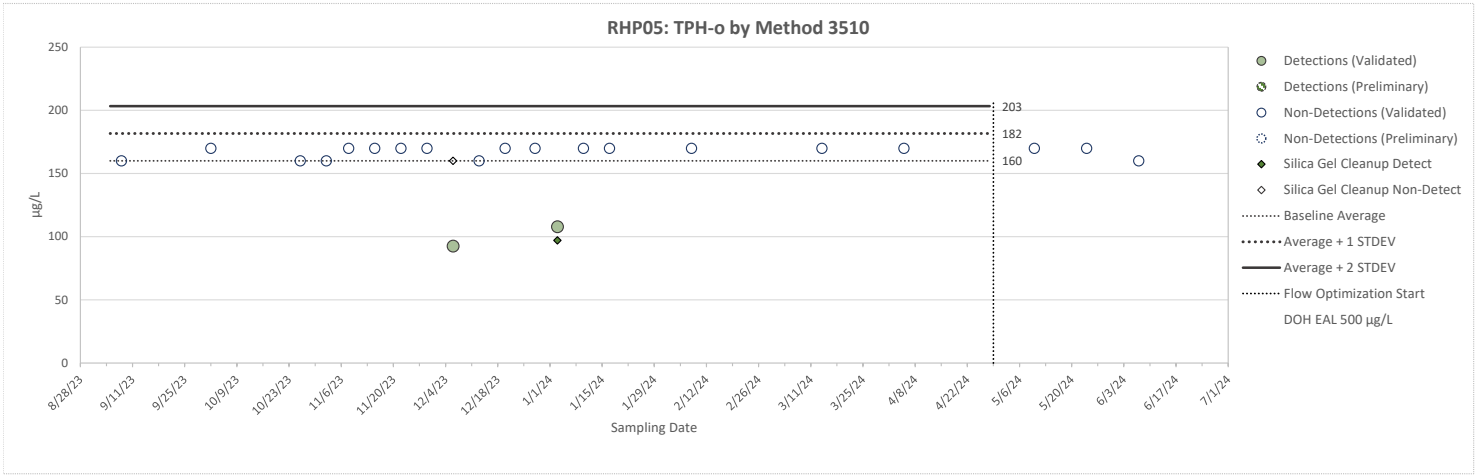


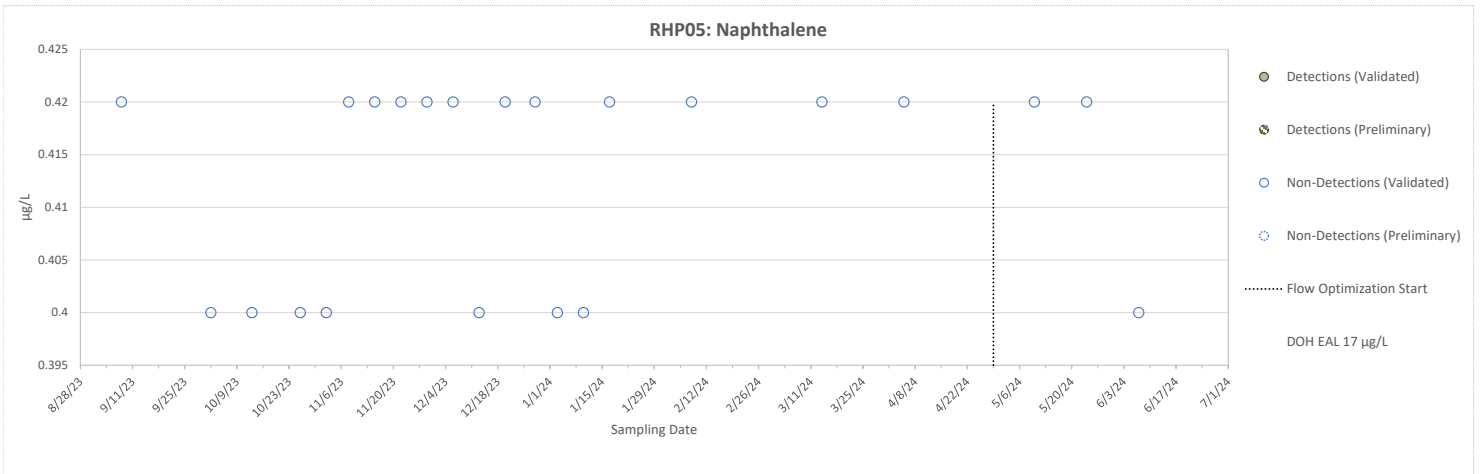
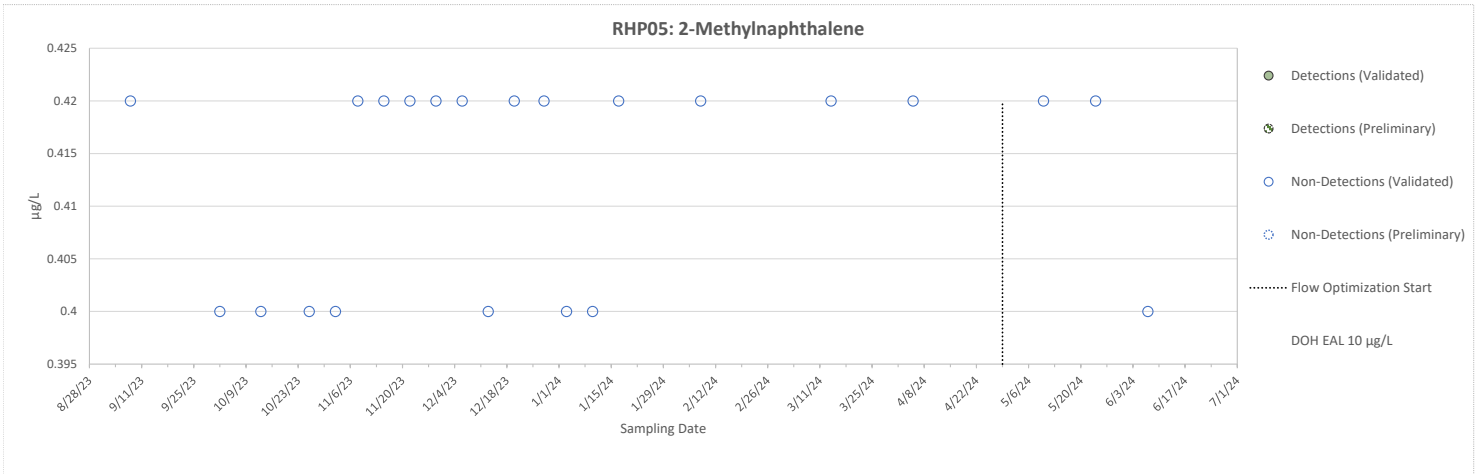
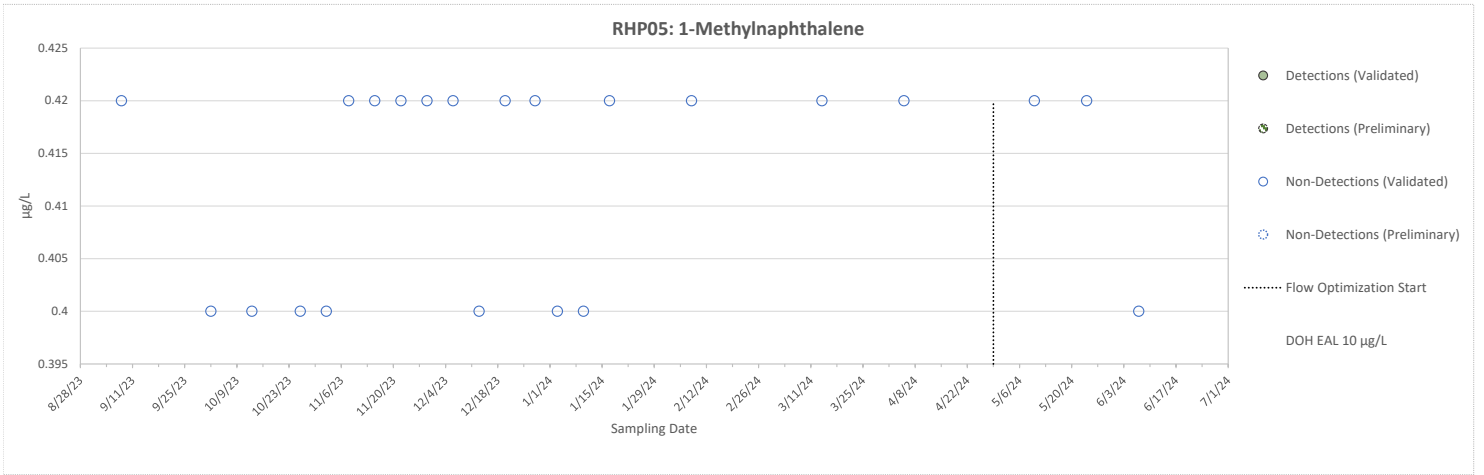




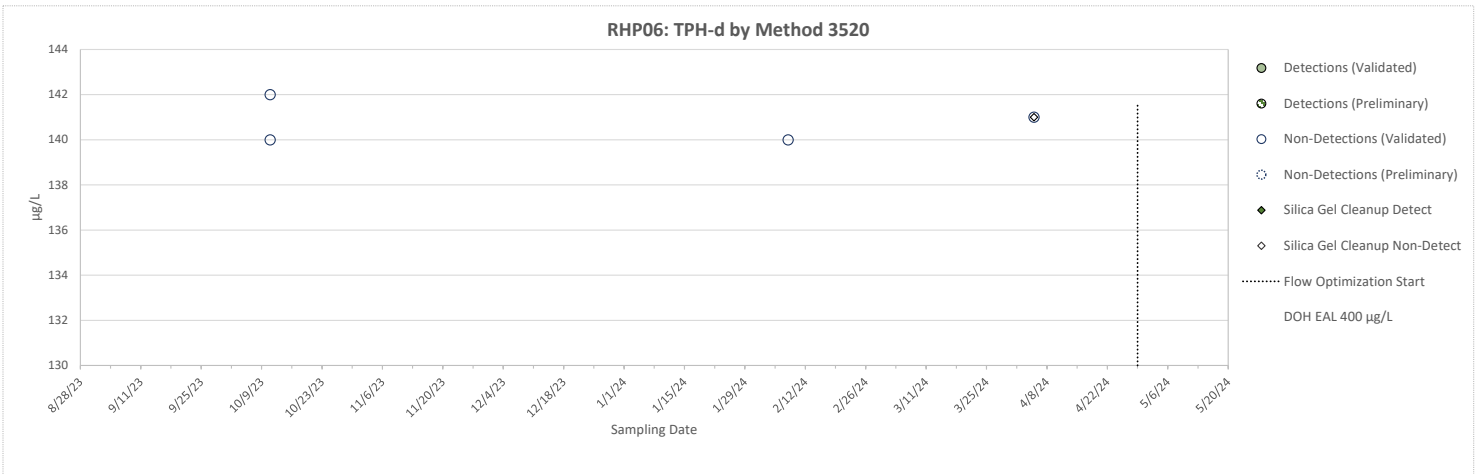
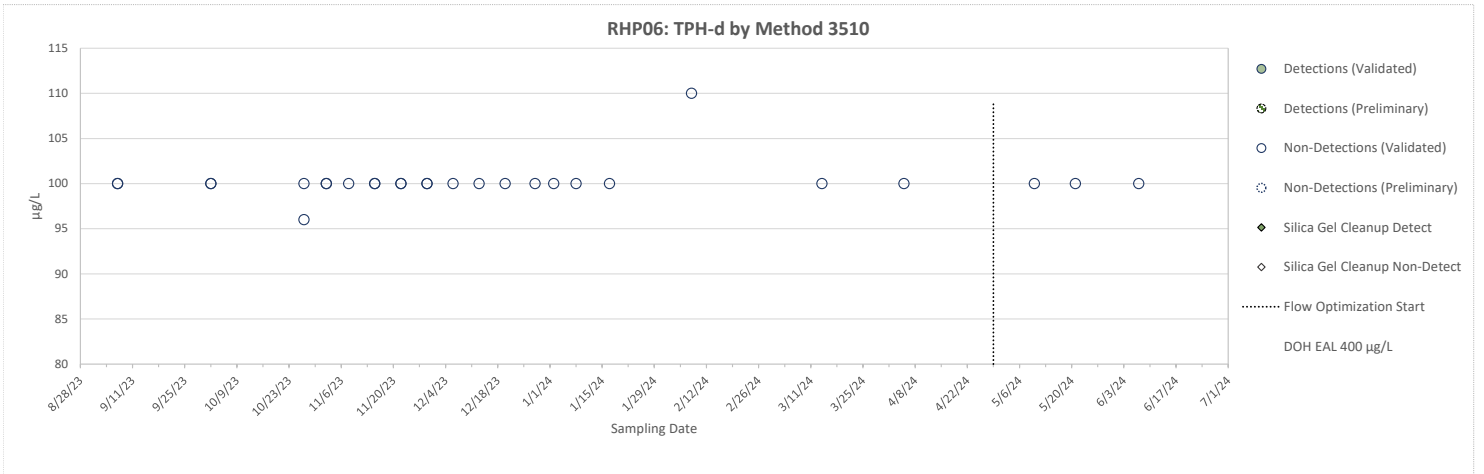
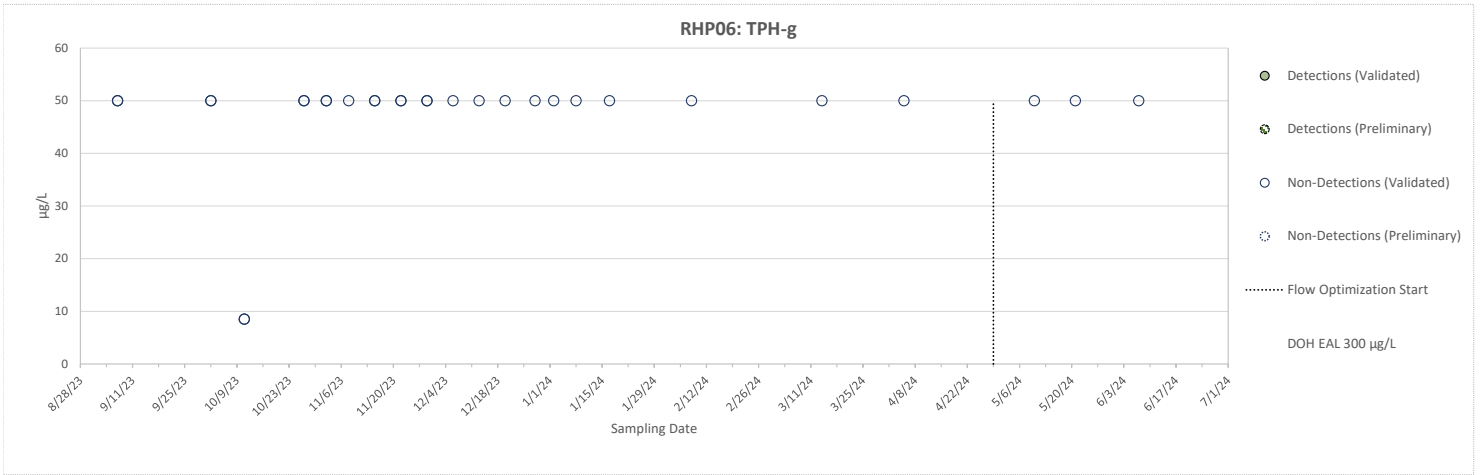
Note: See Data Legend

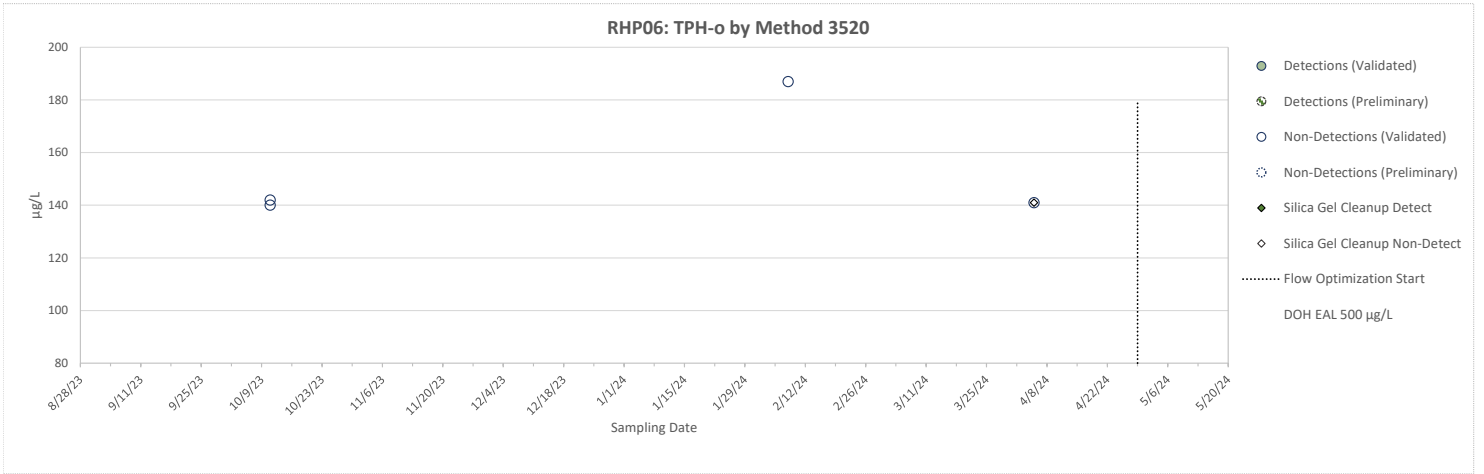
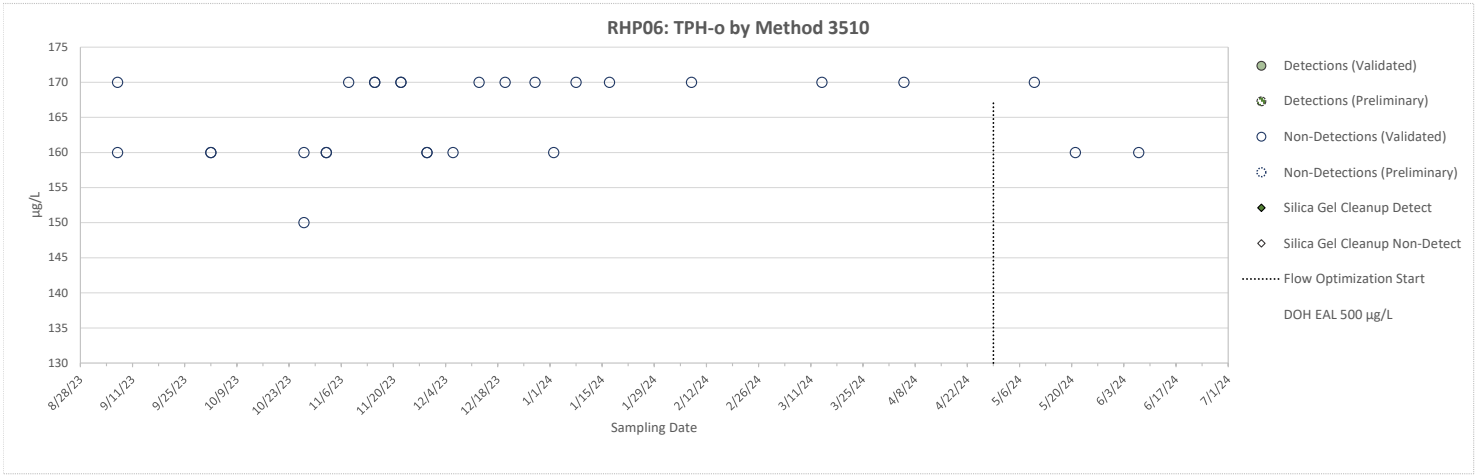


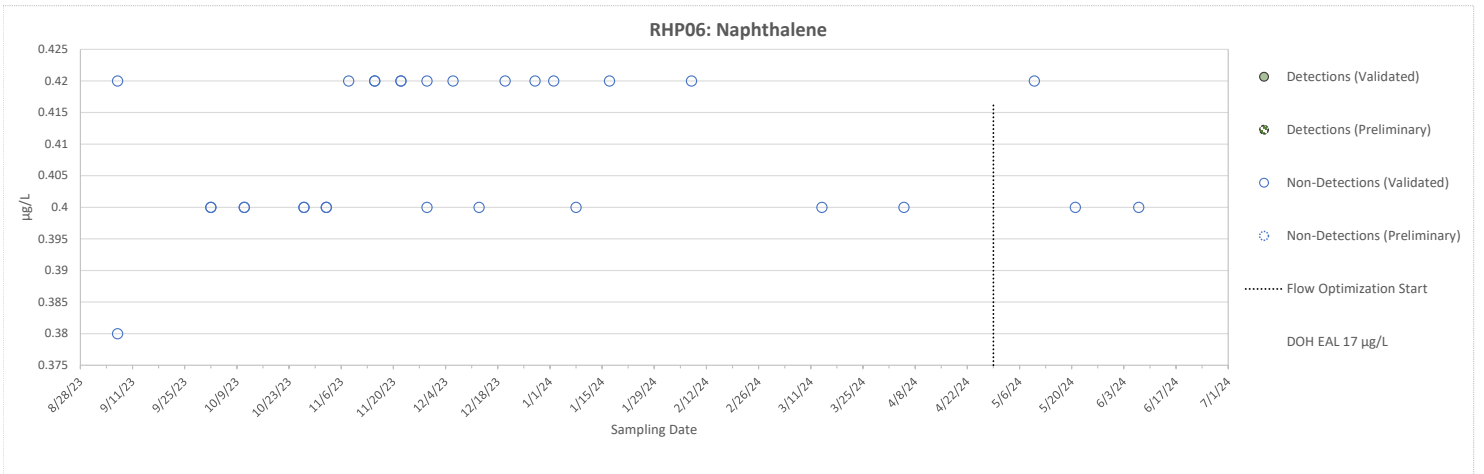
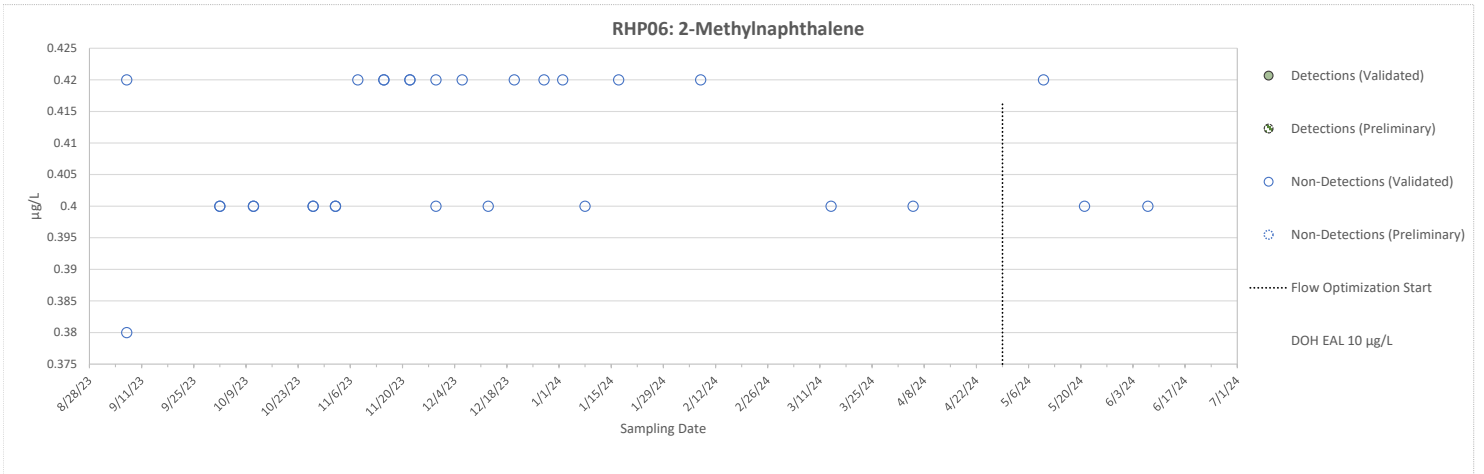
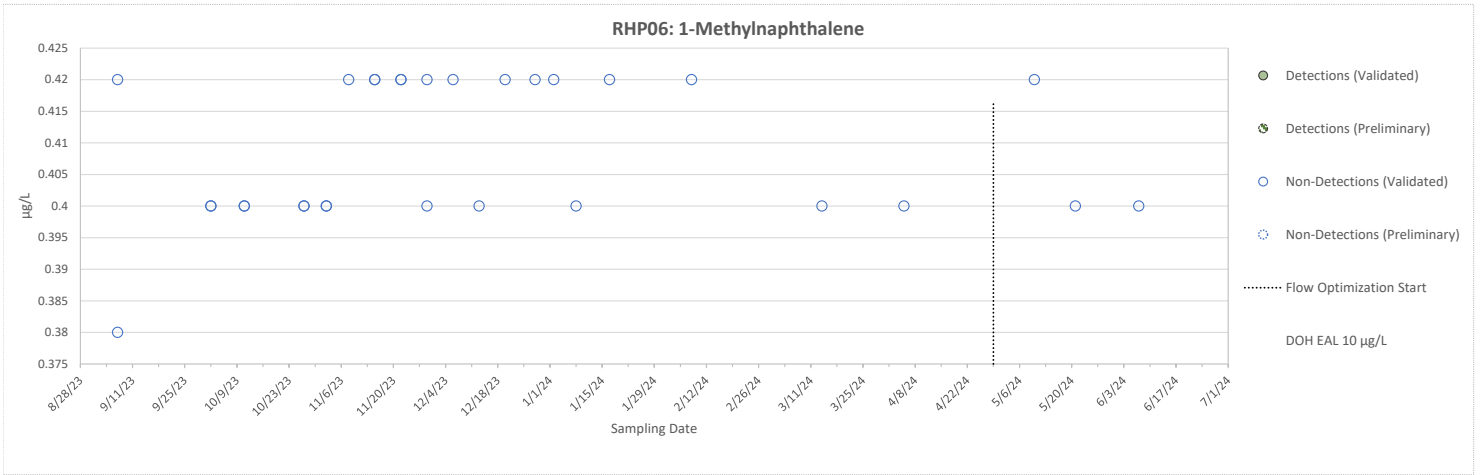




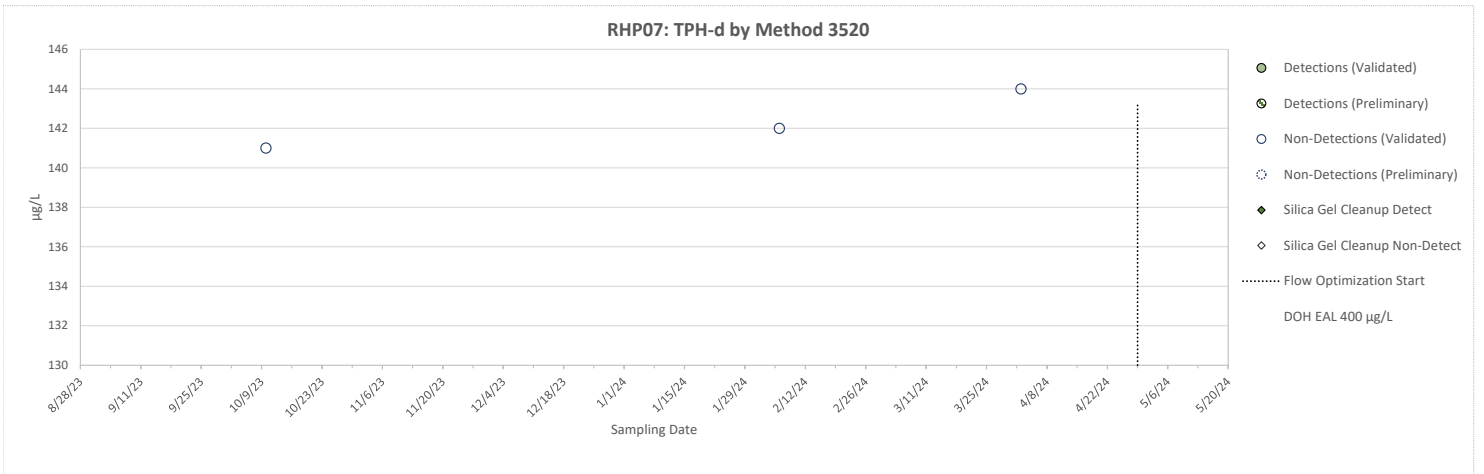
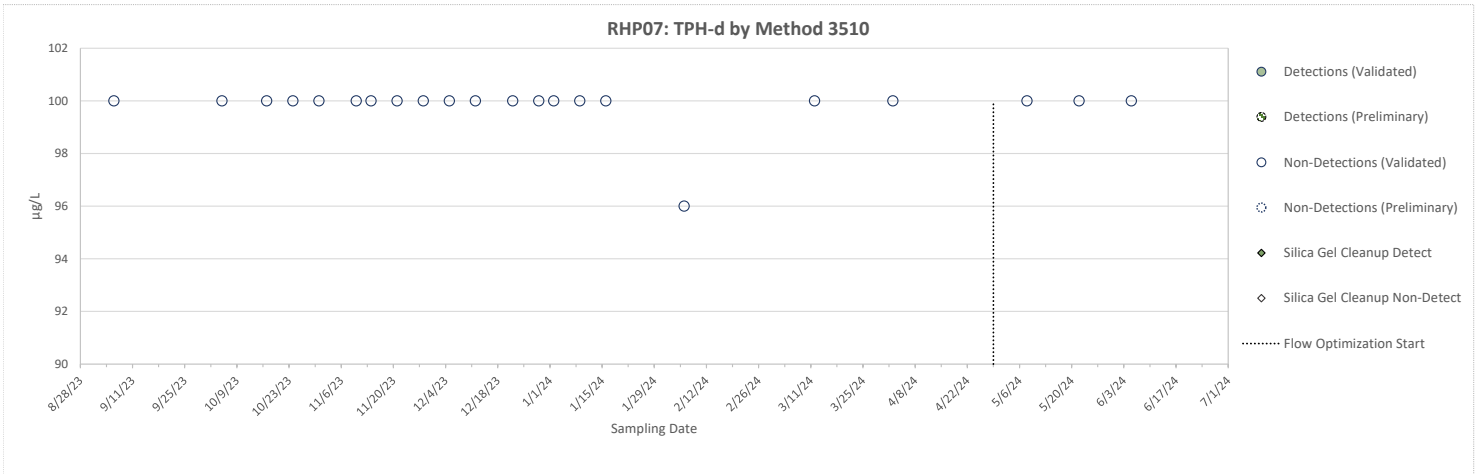
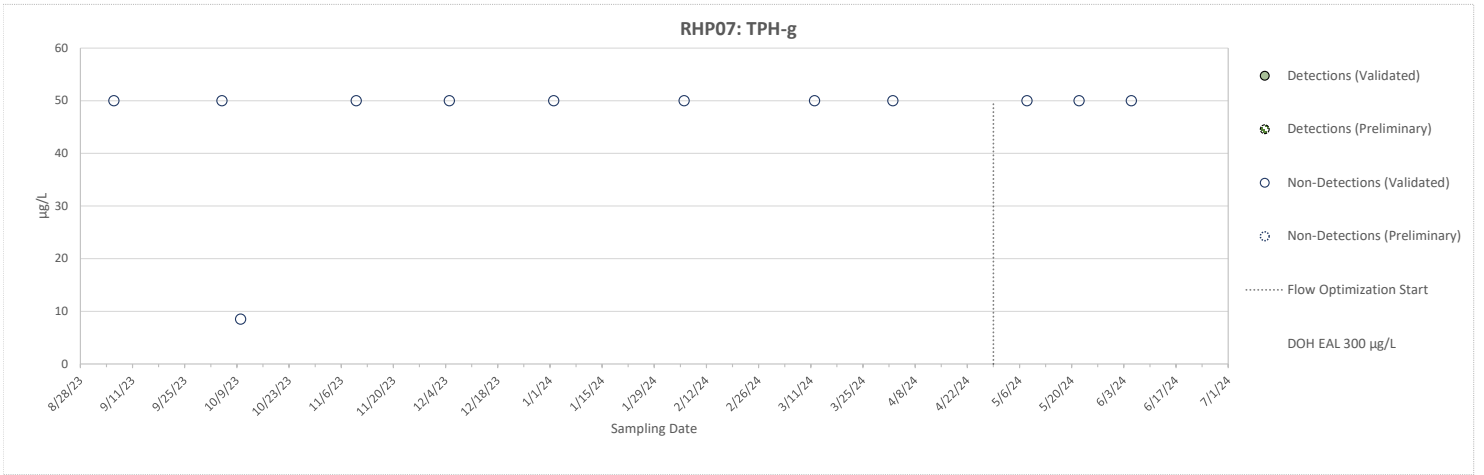
Note: See Data Legend

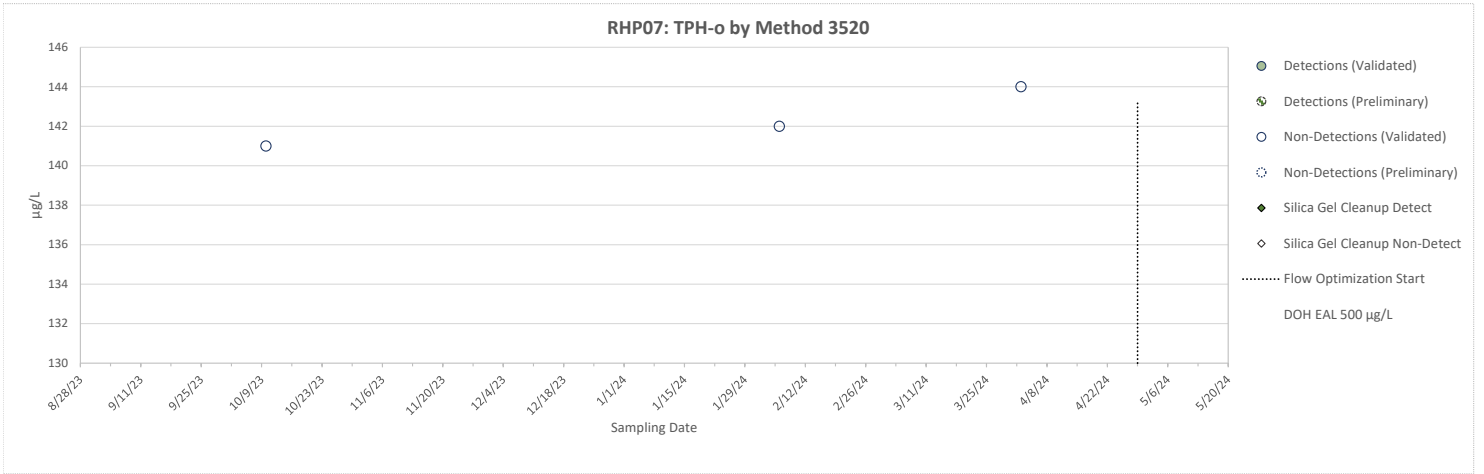
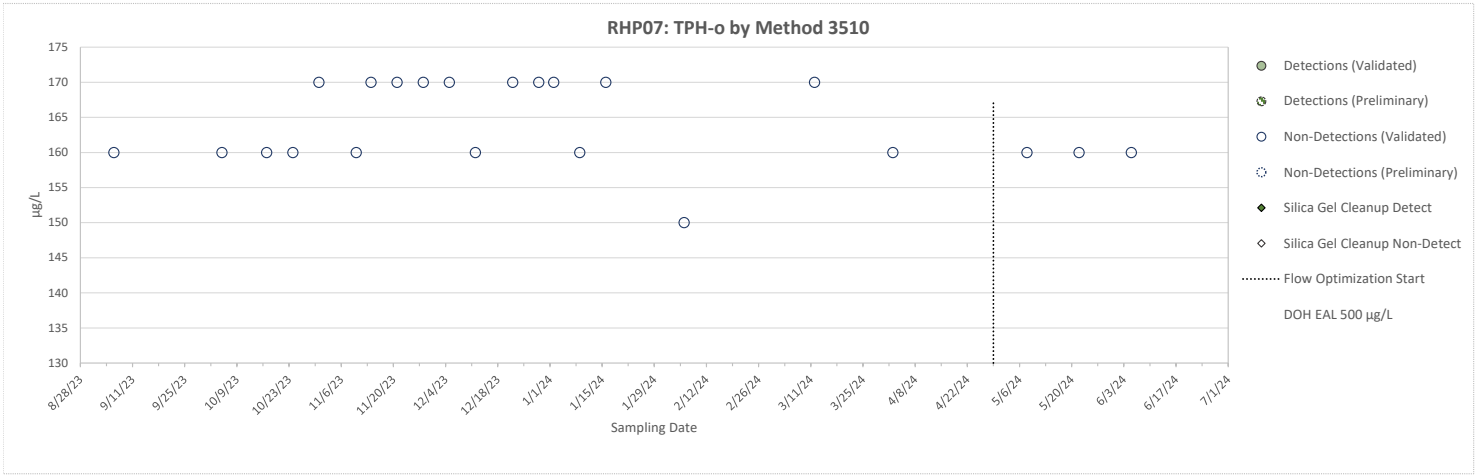


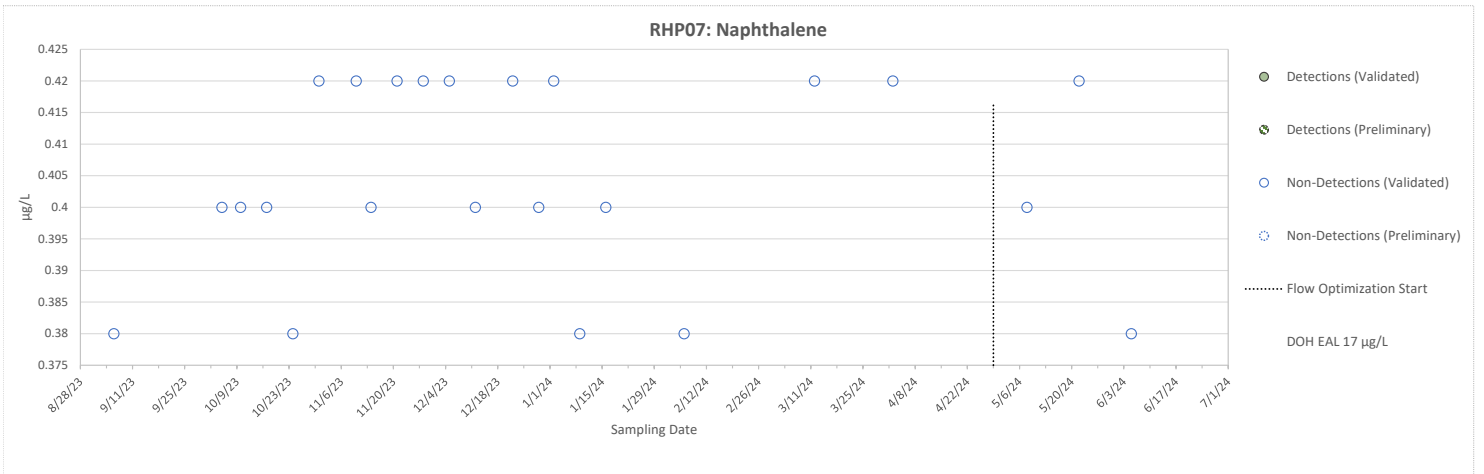
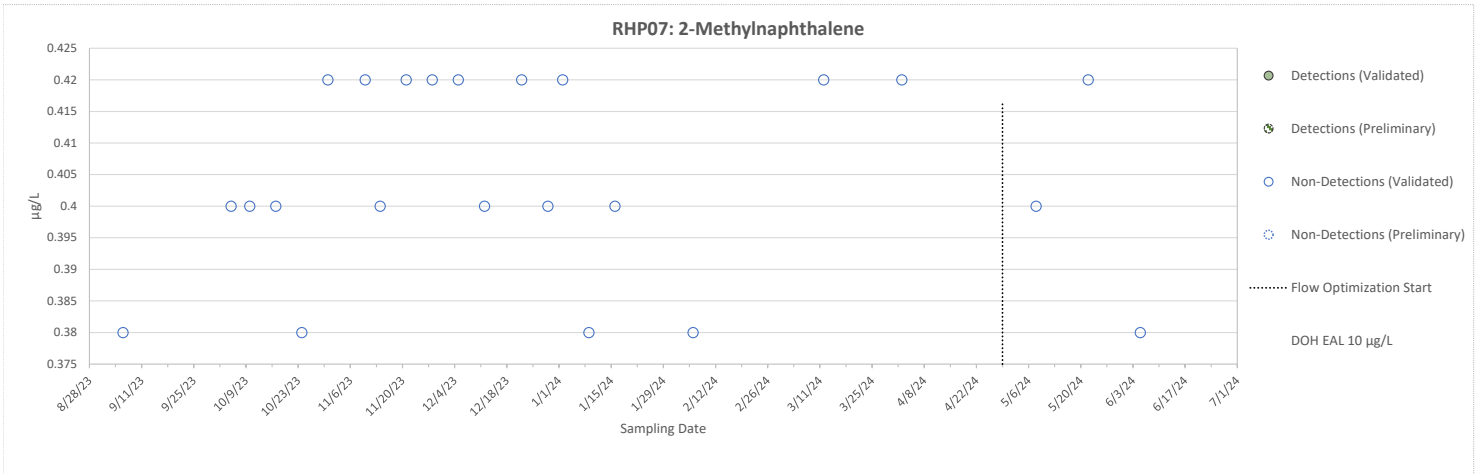
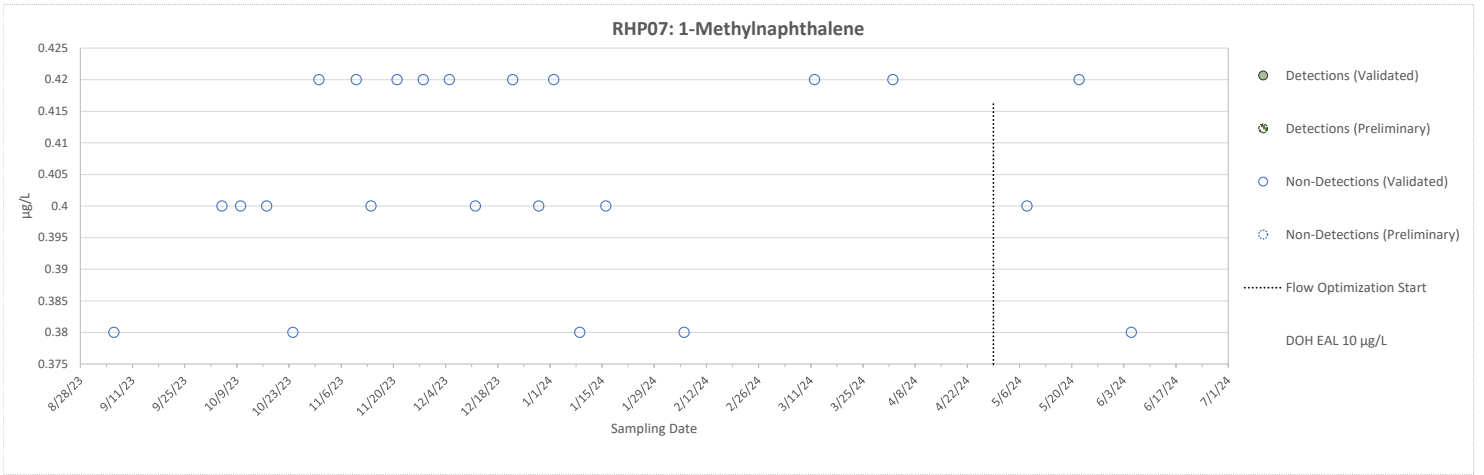




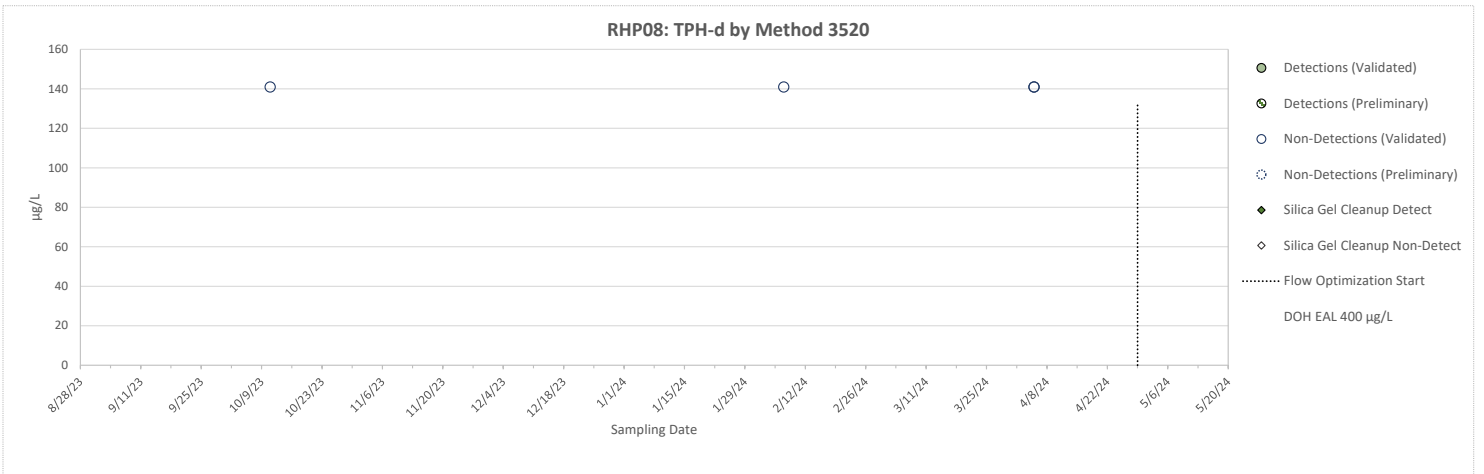
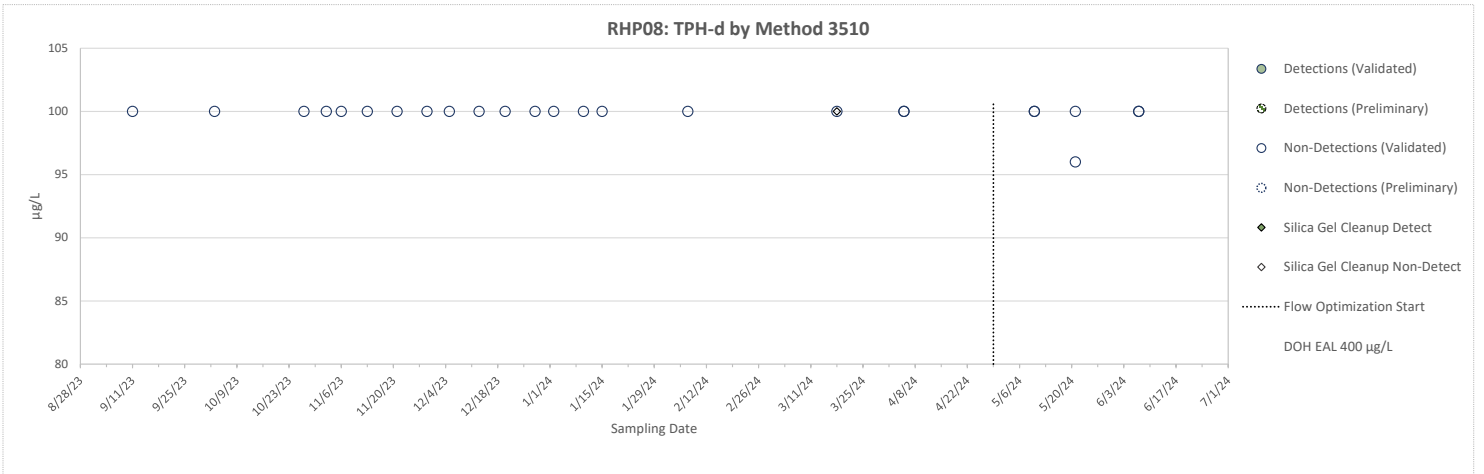
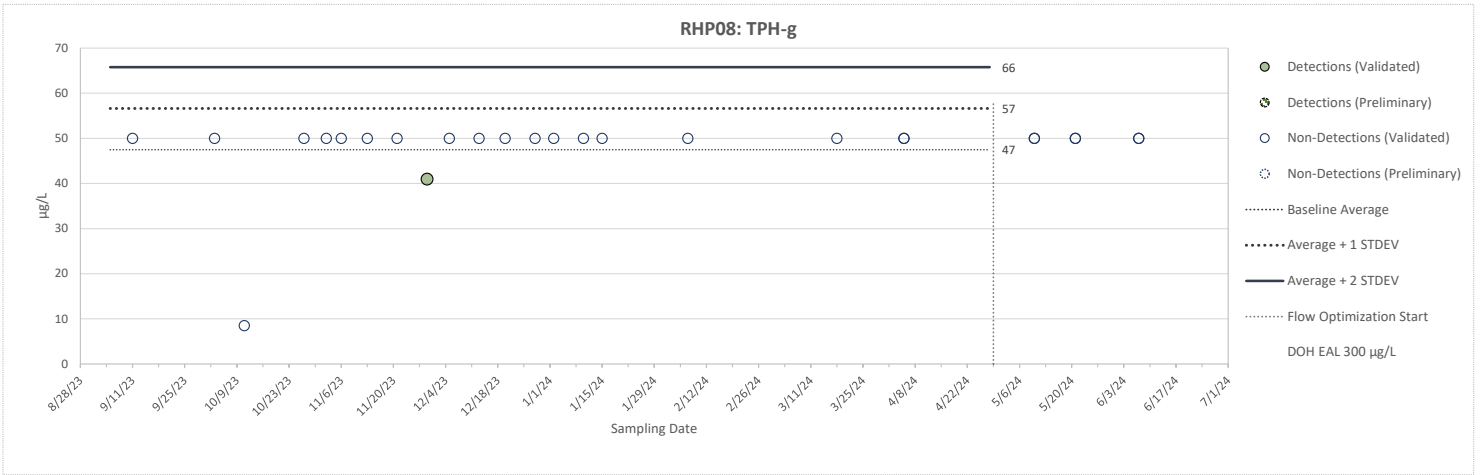
Note: See Data Legend

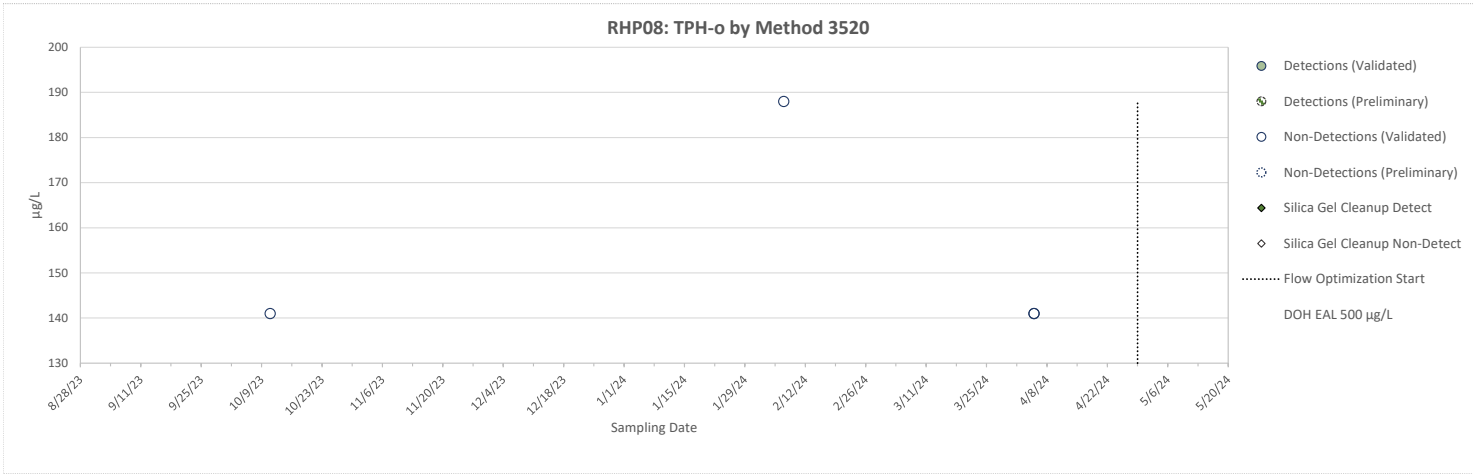
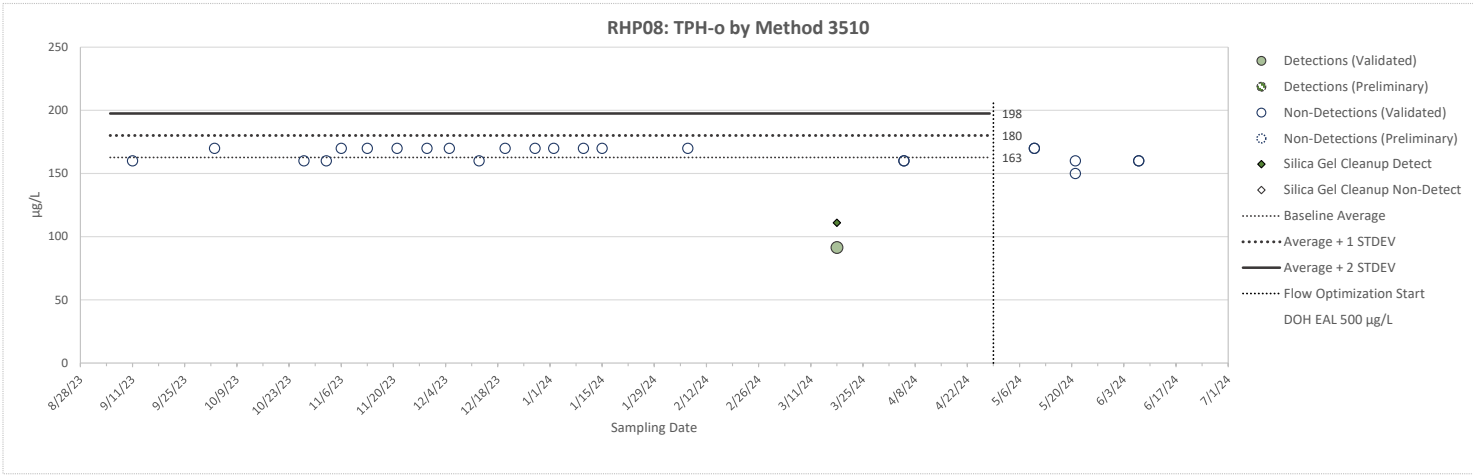


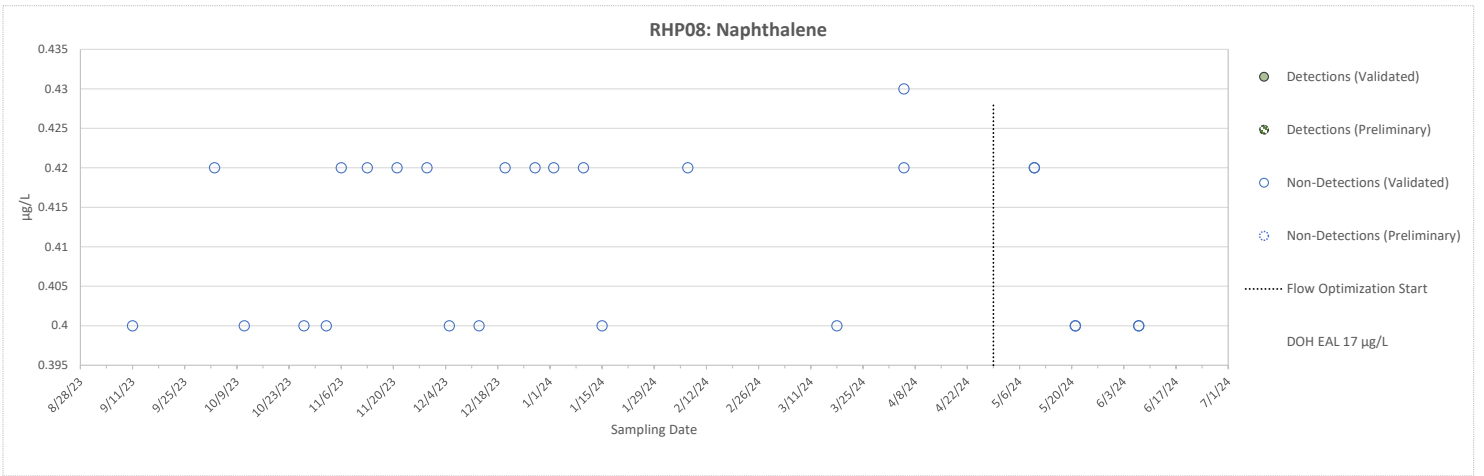
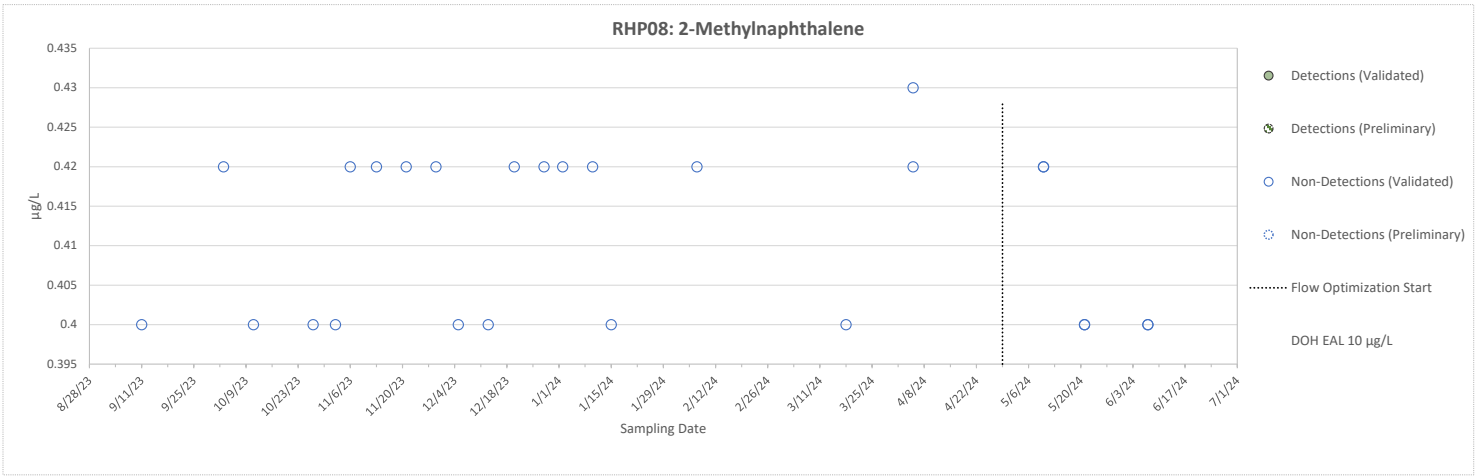
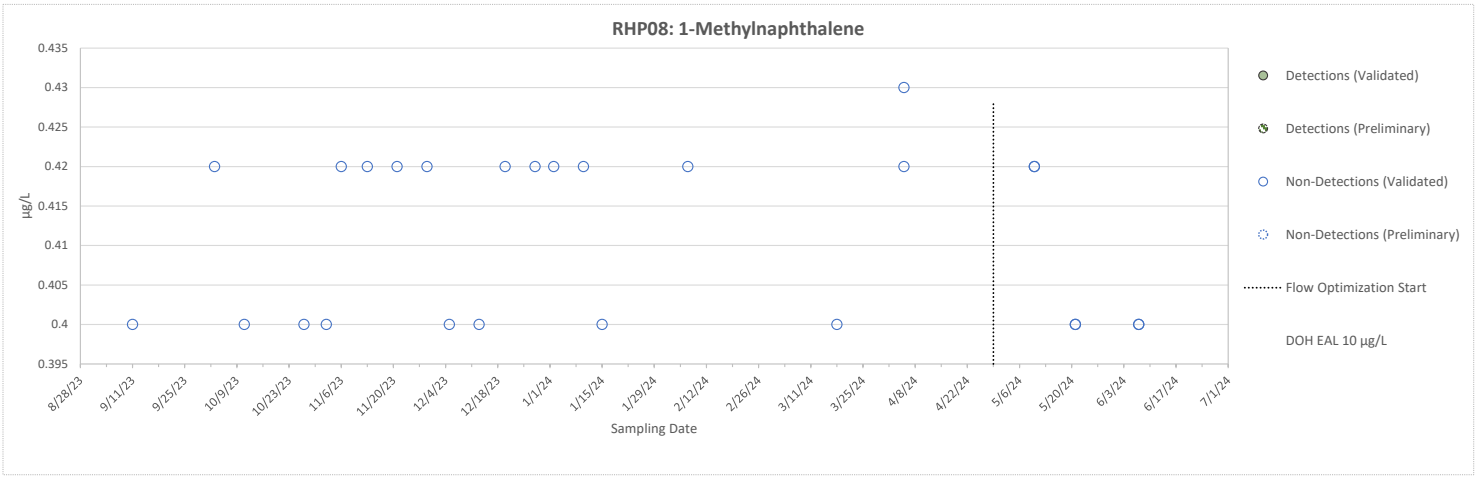




Note: See Data Legend







Note: See Data Legend

Appendix B.4 – Chromatograms for Groundwater Detections and Exceedances

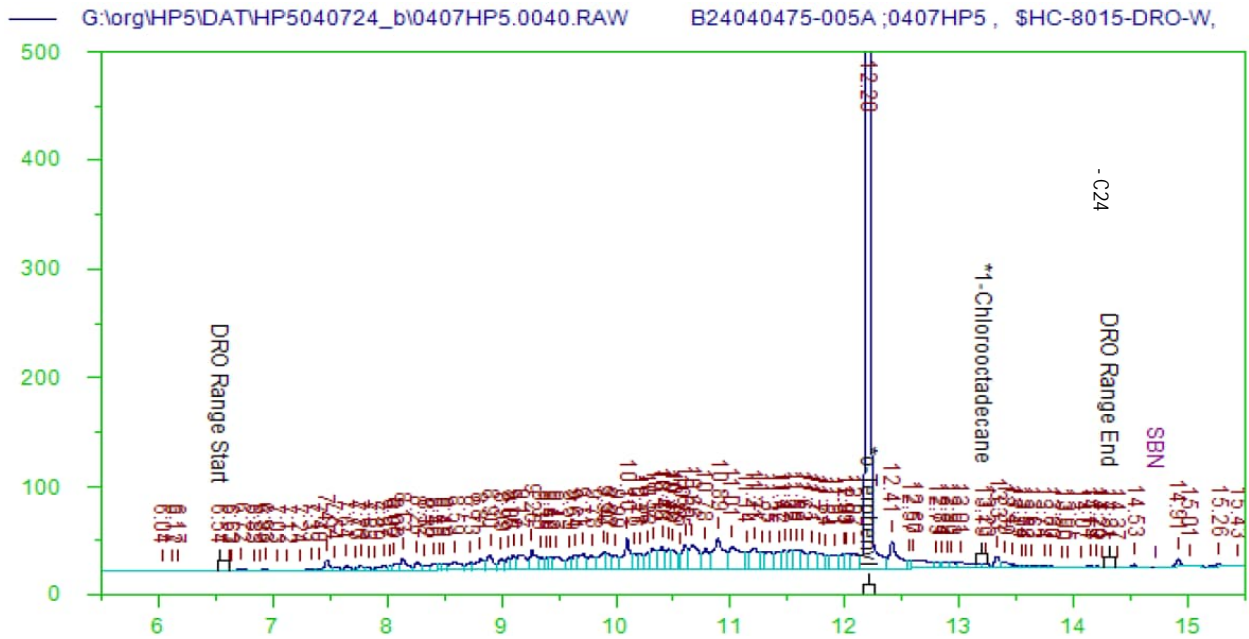
Location: RHMW01R Sample ID: RHMW01R-WGN01LF-2404

Sample Date: 4/4/2024

Lab: Energy

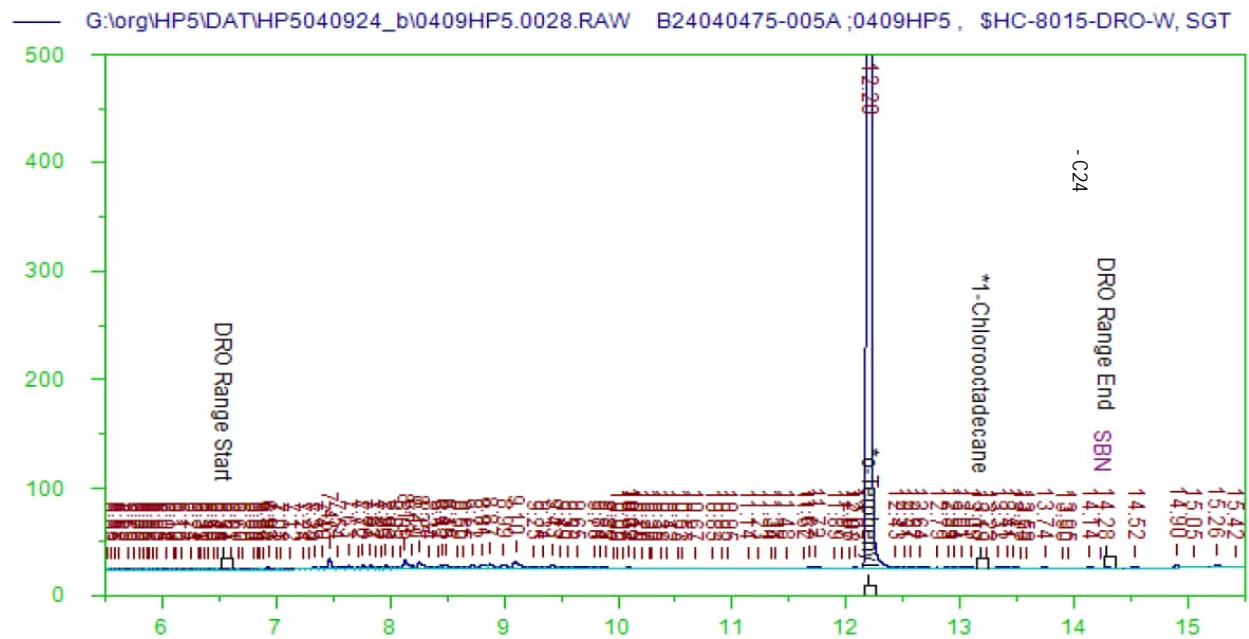
Results (ug/L): TPH-d (C10 to C24) 131.3 J

TPH-o (C24 to C40) <187 U



Results (ug/L): TPH-d SGC (C10 to C24) <140 U

TPH-o SGC (C24 to C40) <187 U

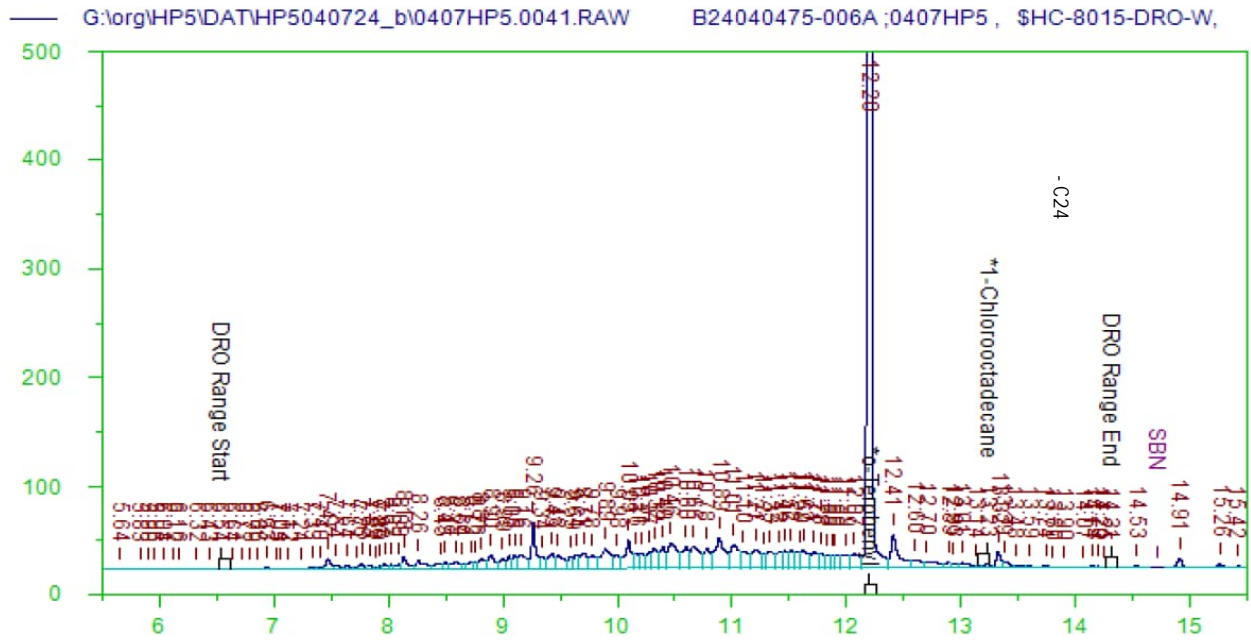


Location: RHMW01R Sample ID: RHMW01R-WGFD01LF-2404
Lab: Energy

Sample Date: 4/4/2024

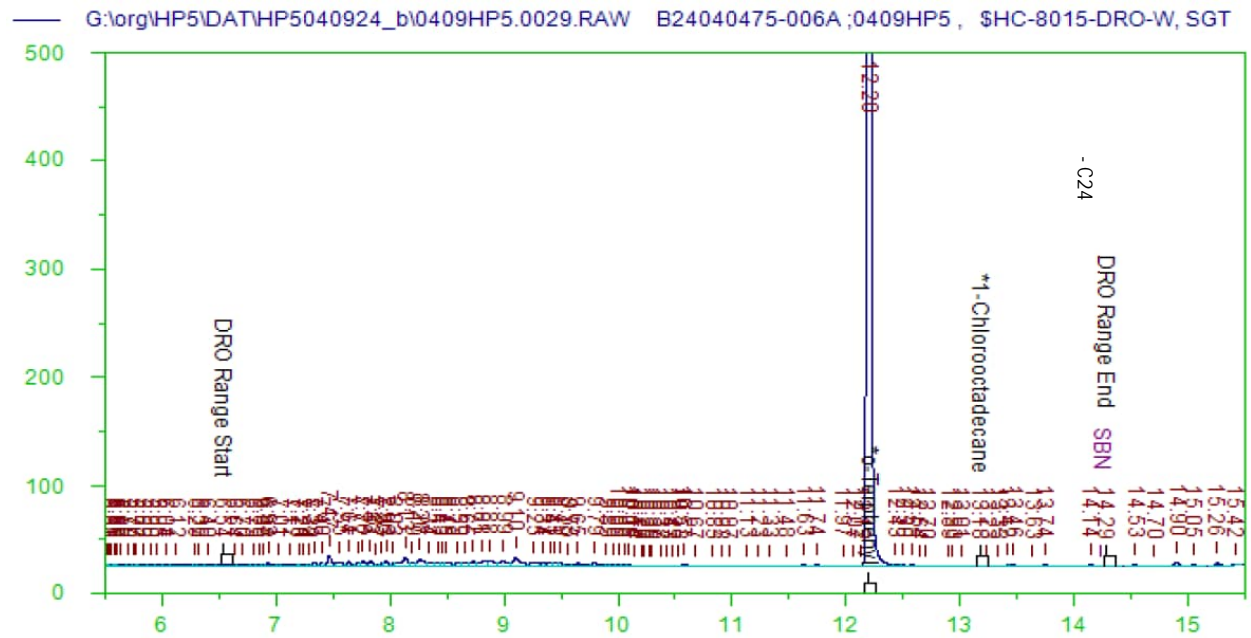
Results (ug/L): TPH-d (C10 to C24) 127.5 J

TPH-o (C24 to C40) <187 U



Results (ug/L): TPH-d SGC (C10 to C24) <140 U

TPH-o SGC (C24 to C40) <187 U



Location: RHMW01R Sample ID: RHMW01R-WGN01LF-2404

Sample Date: 4/4/2024

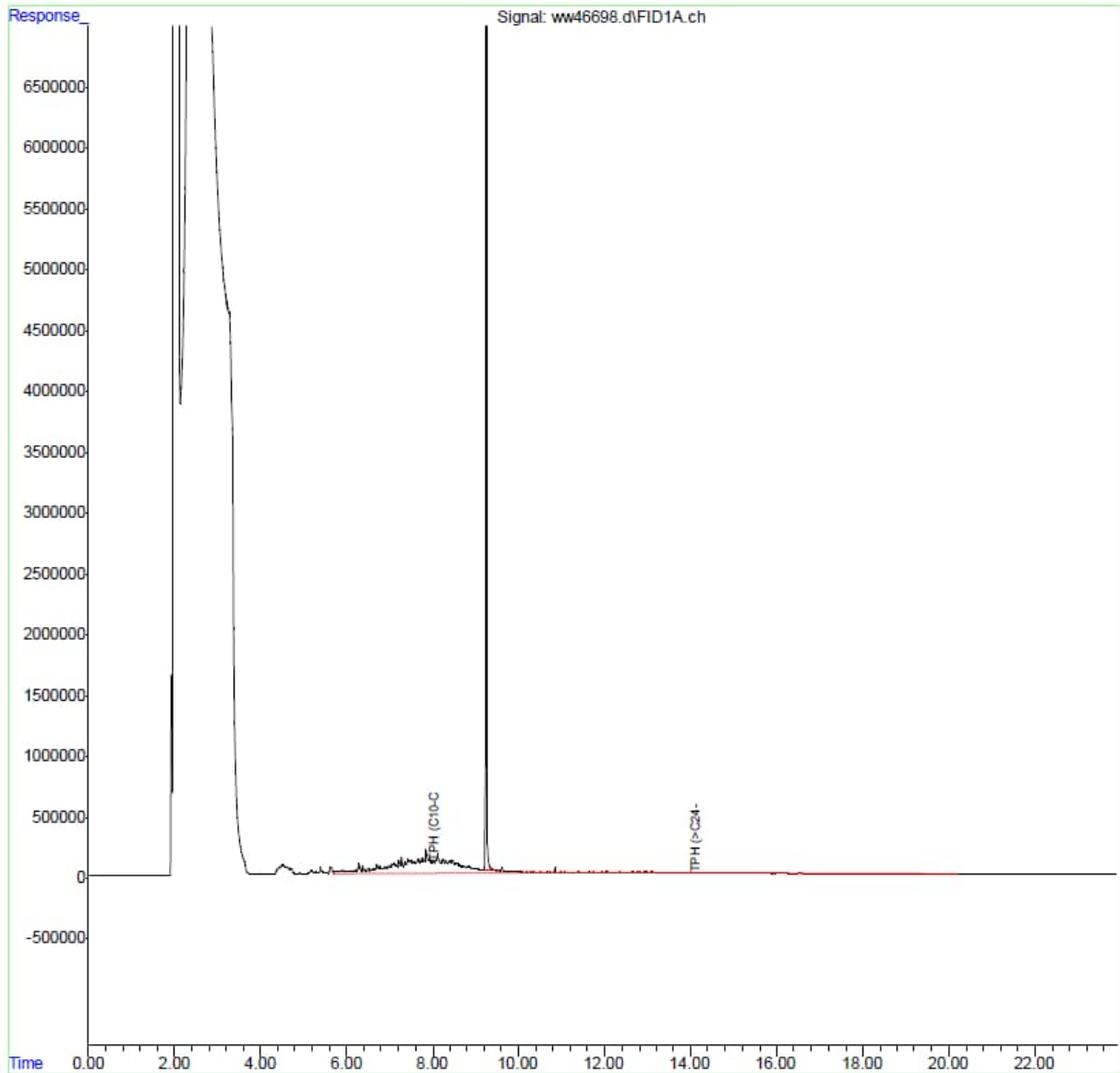
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 112 J

TPH-o (C24 to C40) <170 U

Quant Time: Apr 10 09:31:23 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

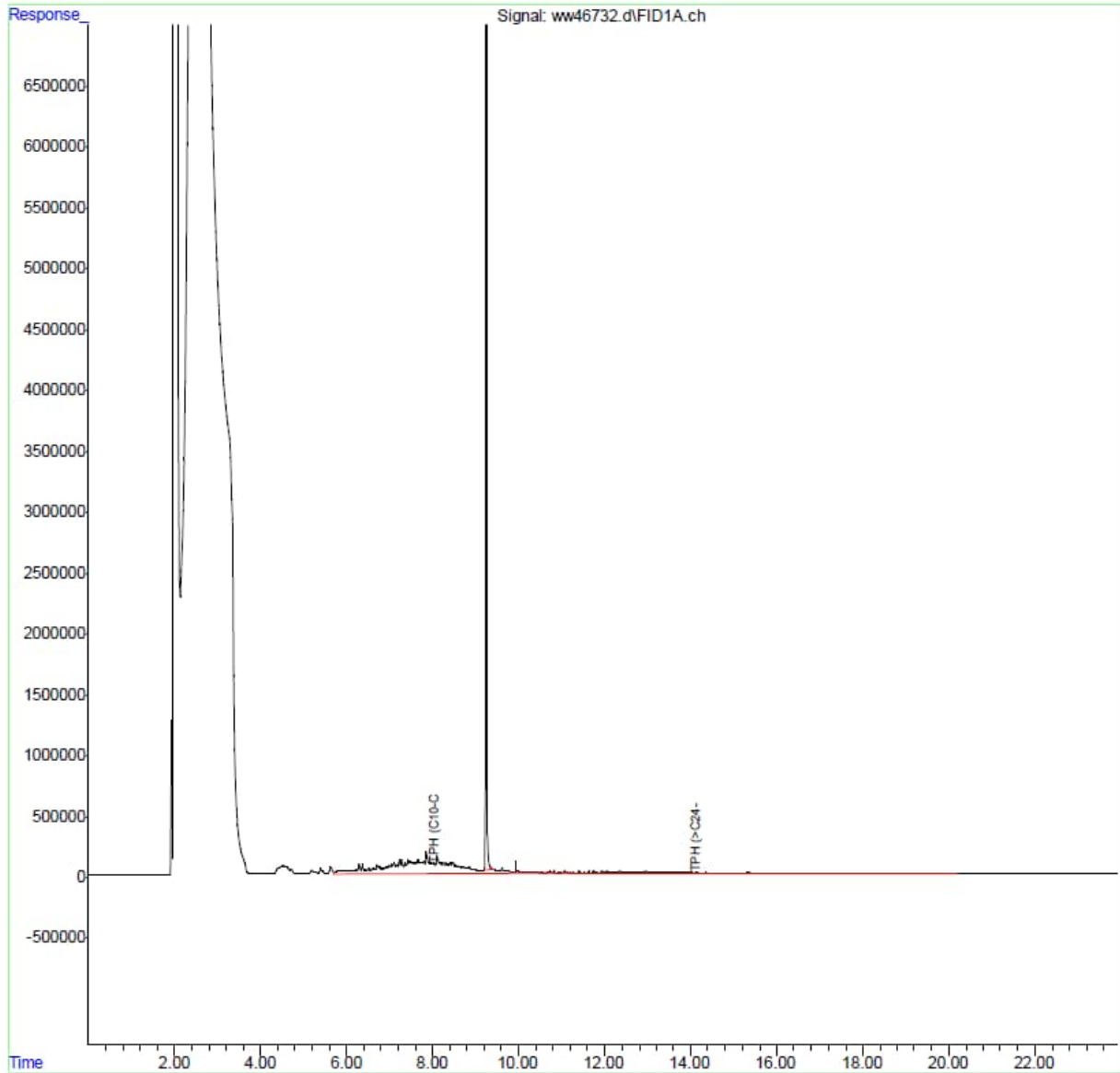


Results (ug/L): TPH-d SGC (C10 to C24) 101 J

TPH-o SGC (C24 to C40) <170 U

Quant Time: Apr 11 10:00:39 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW01R Sample RHMW01R-WGFD01LF-2404

Sample Date: 4/4/2024

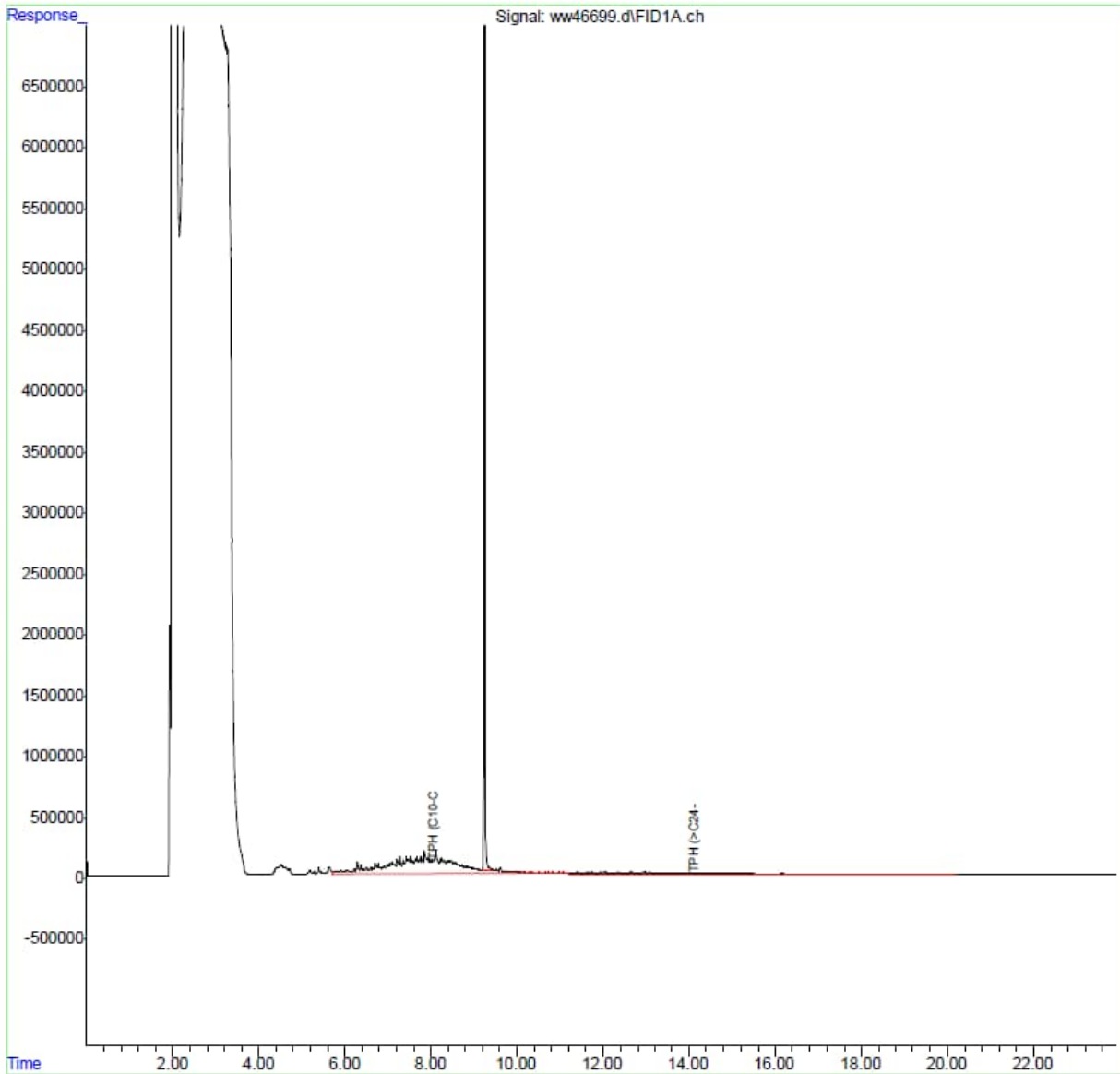
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 129 J

TPH-o (C24 to C40) <170 U

Quant Time: Apr 10 09:31:25 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

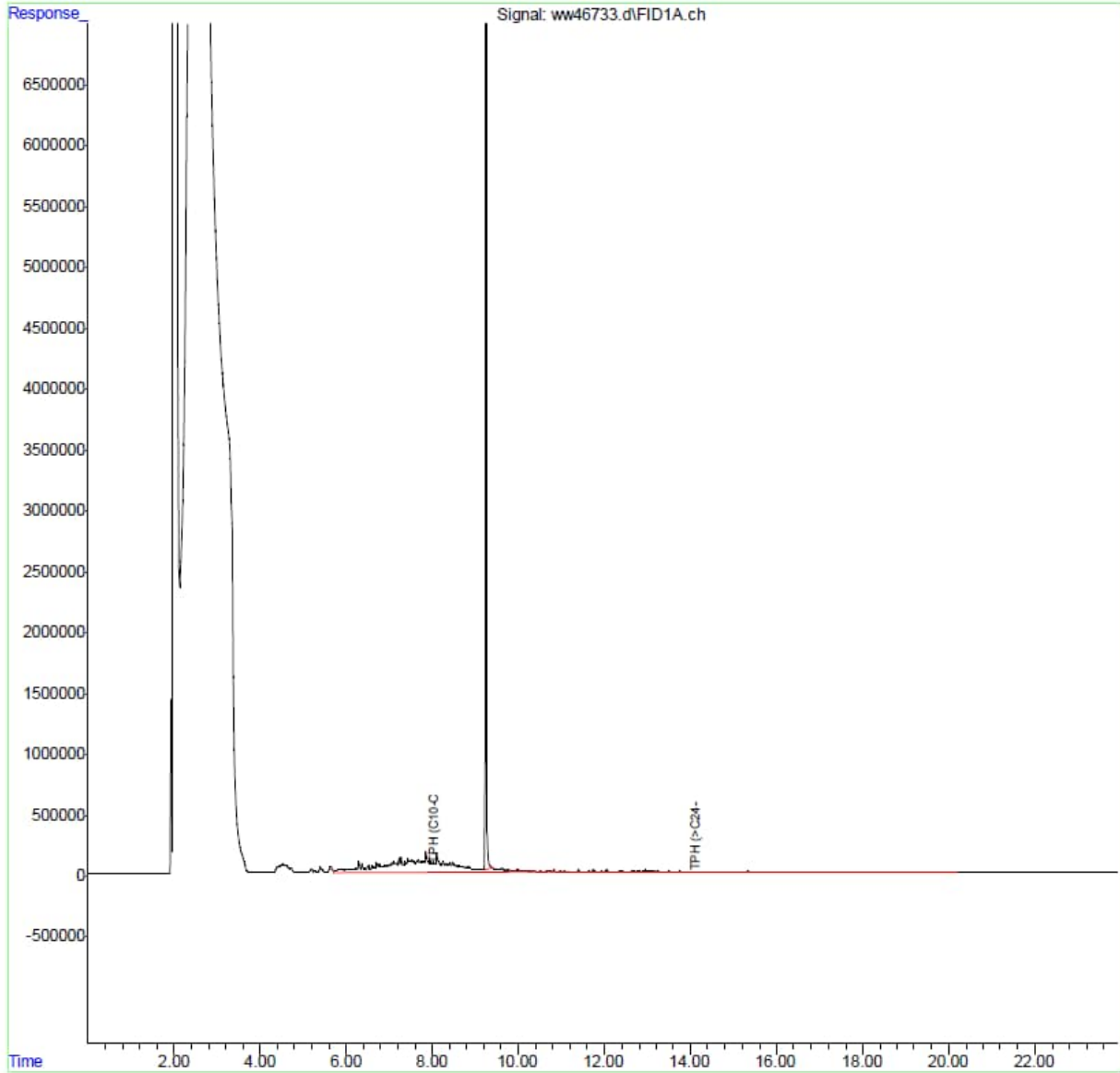


Results (ug/L): TPH-d SGC (C10 to C24) 96.8 J

TPH-o SGC (C24 to C40) <170 U

Quant Time: Apr 11 10:00:41 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW01R Sample ID: RHMW01R-WGN01LF-2405A

Sample Date: 5/9/2024

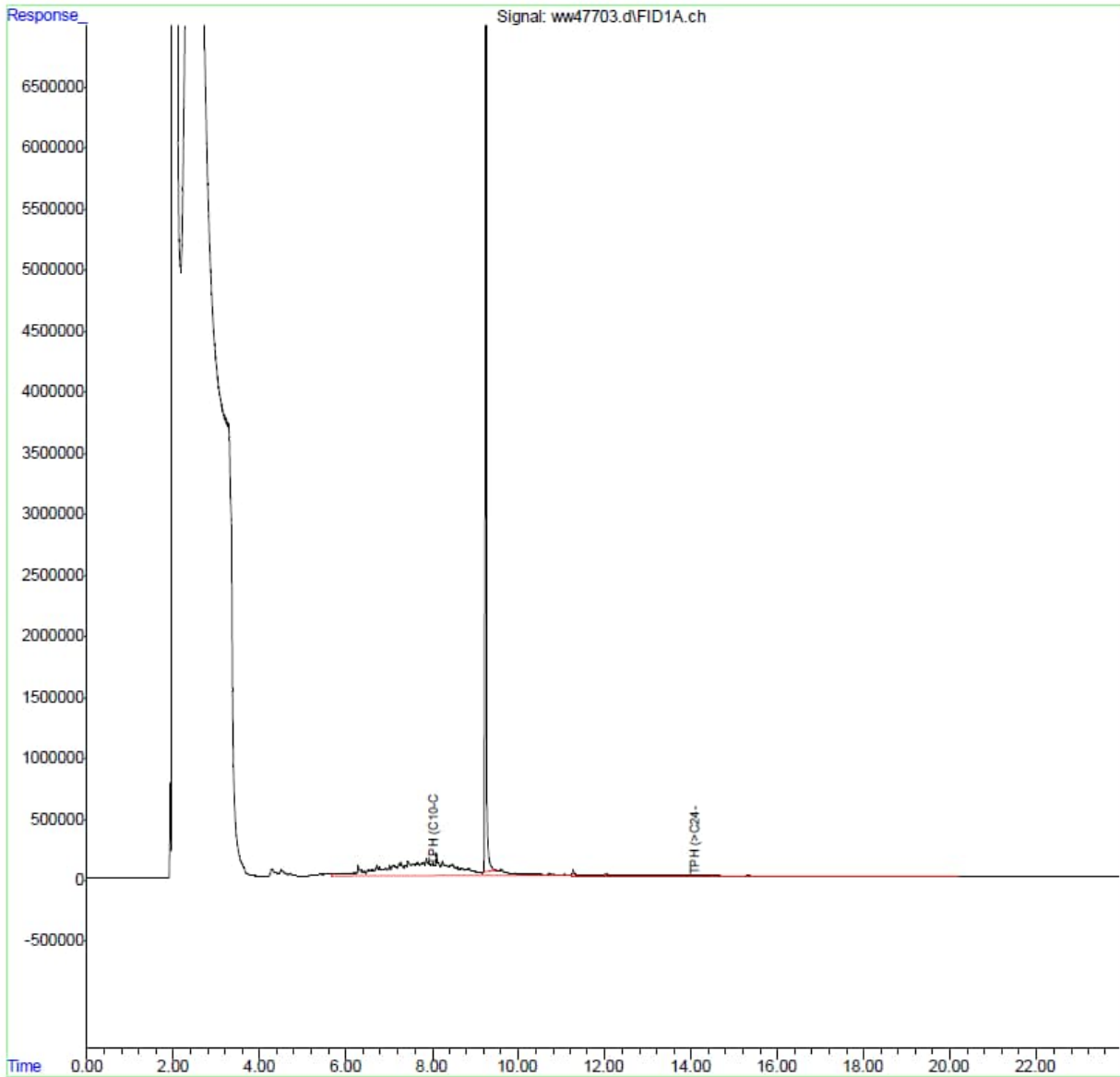
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 118 J

TPH-o (C24 to C40) <170 U

Quant Time: May 14 14:29:48 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

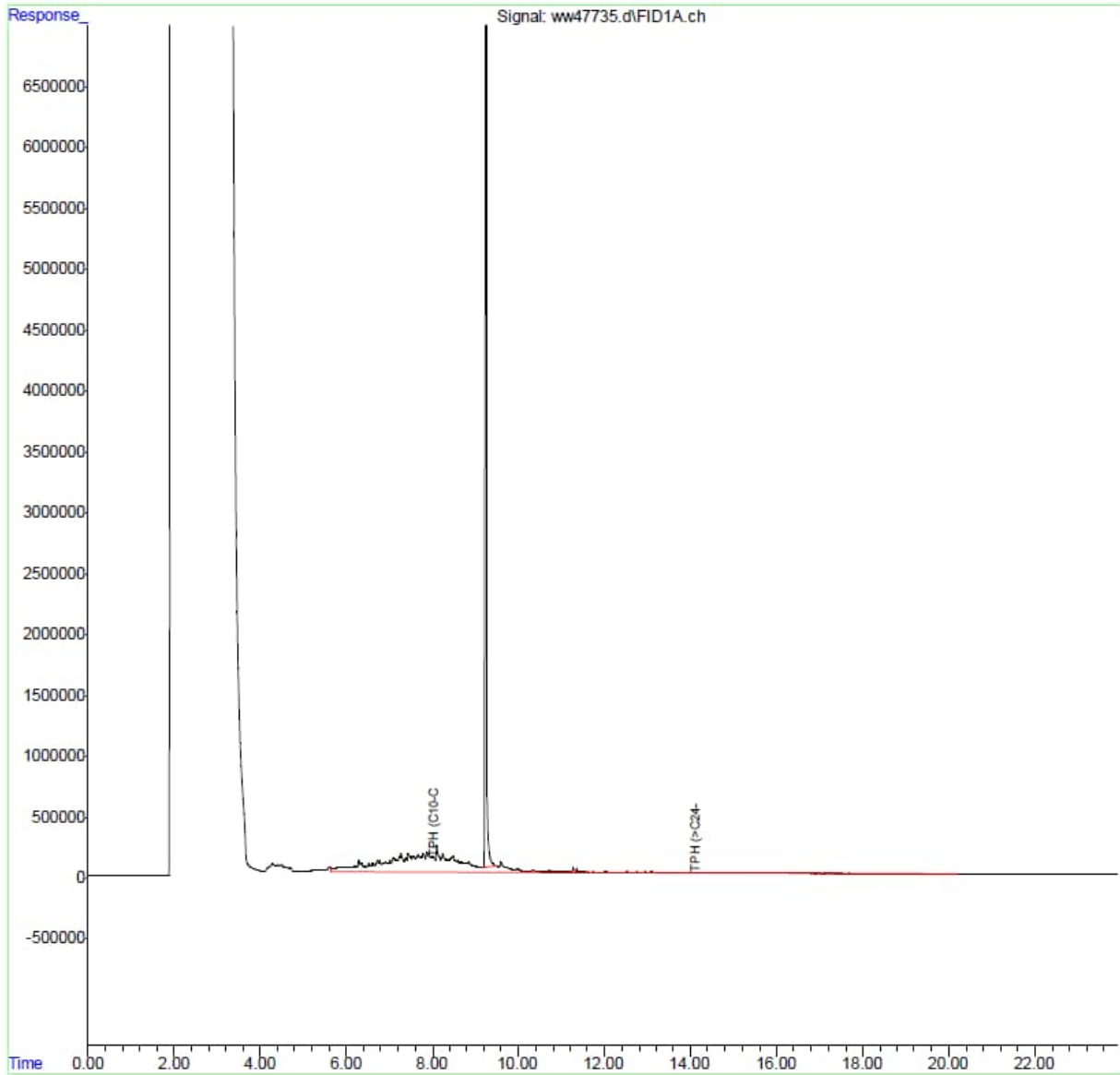


Results (ug/L): TPH-d SGC (C10 to C24) 156 J

TPH-o SGC (C24 to C40) <170 U

Quant Time: May 15 10:18:38 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW01R Sample ID: RHMW01R-WGFD01LF-2405A

Sample Date: 5/9/2024

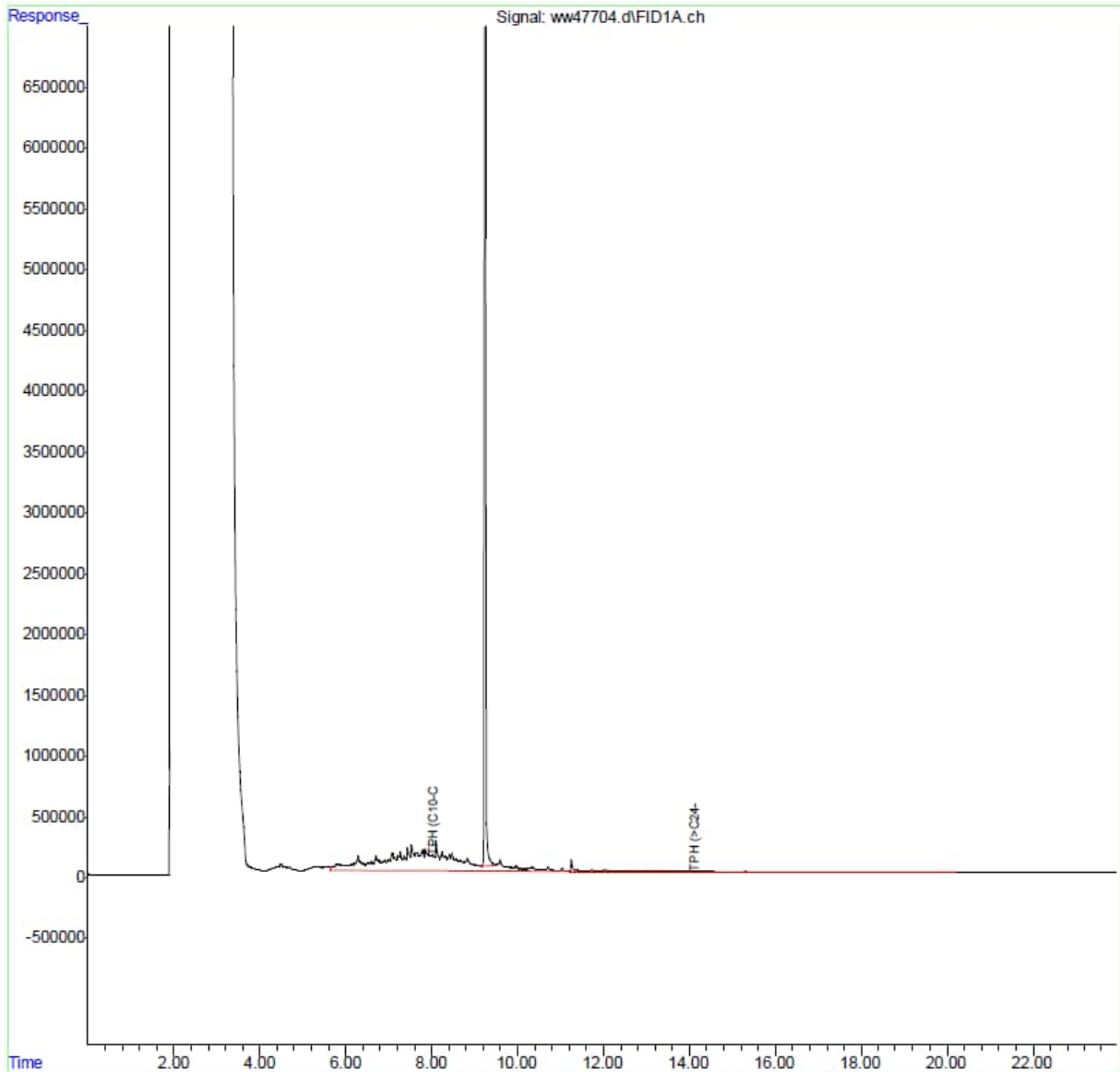
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 168 J

TPH-o (C24 to C40) <170 U

Quant Time: May 14 14:40:55 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

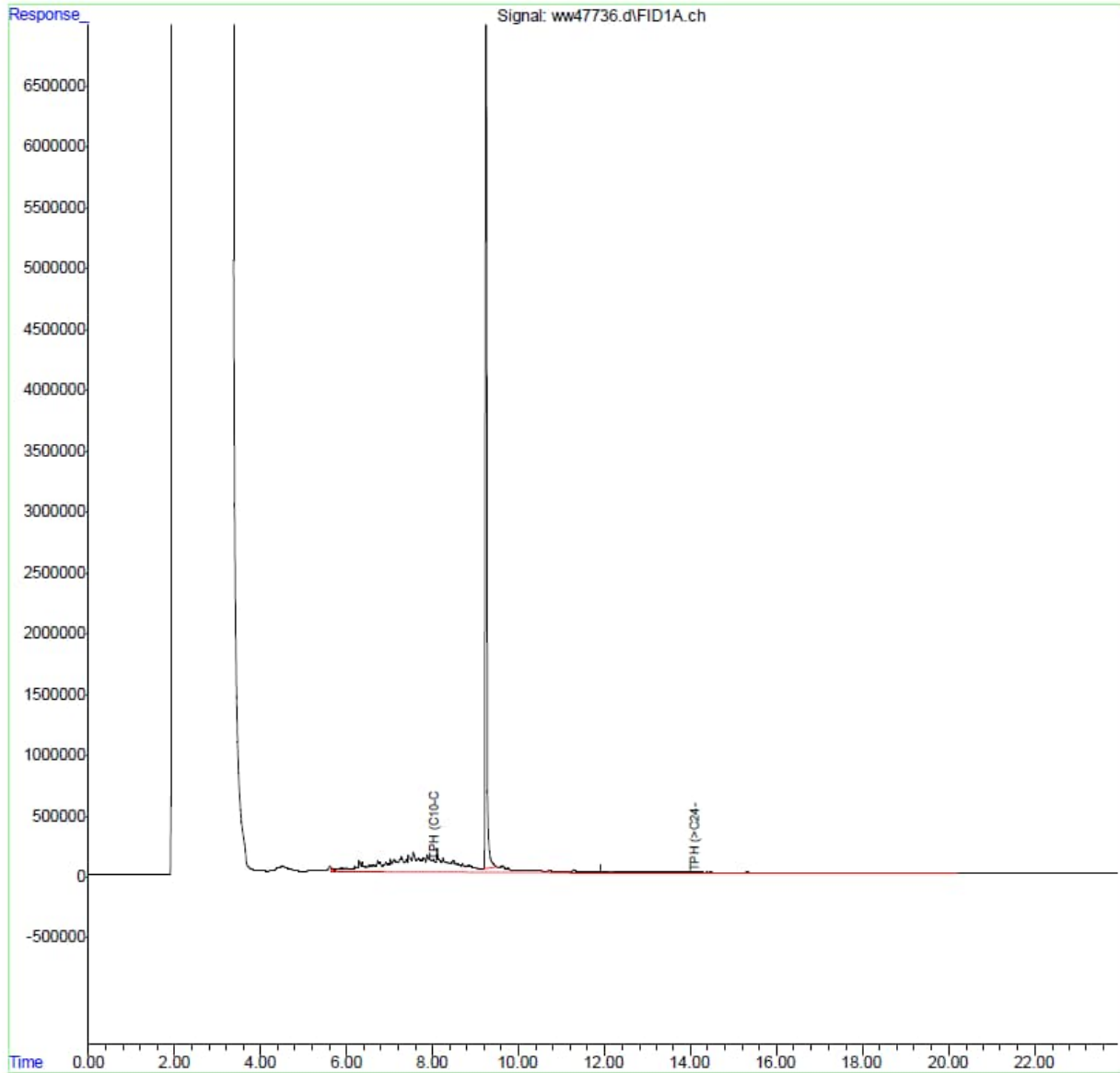


Results (ug/L): TPH-d SGC (C10 to C24) 125 J

TPH-o SGC (C24 to C40) <170 U

Quant Time: May 15 10:18:40 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



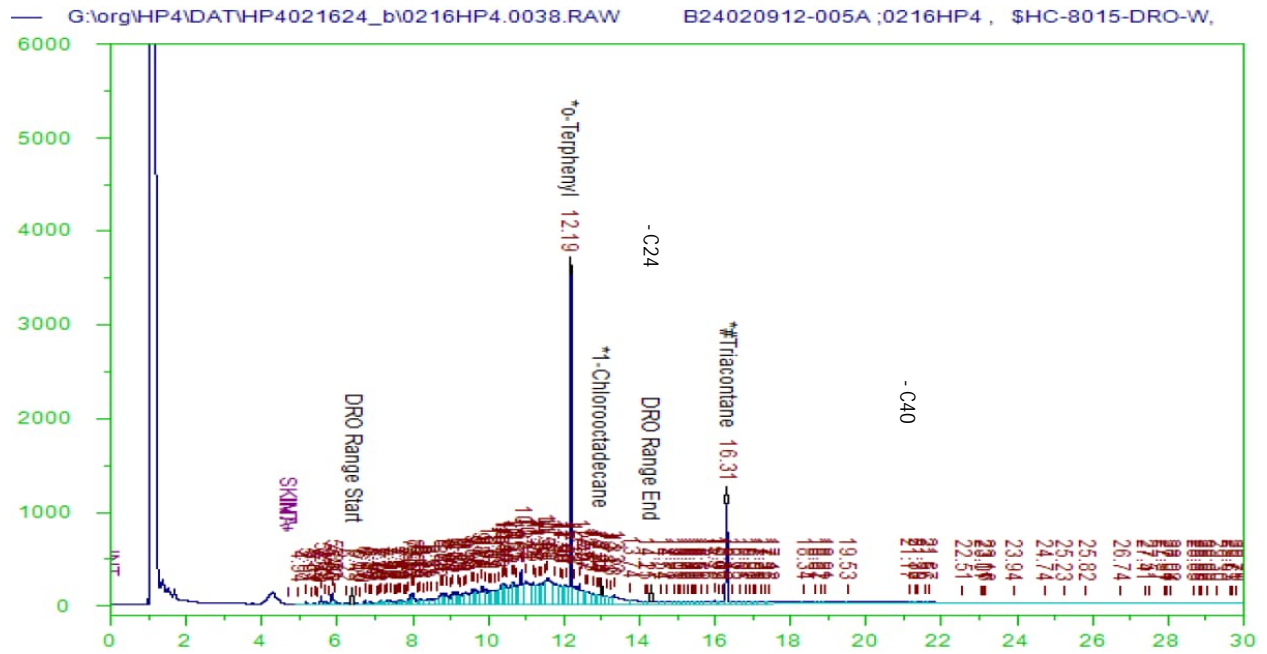
Location: RHMW01R Sample ID: RHMW01R-WGN01LF-2405B

Sample Date: 5/23/2024

Lab: Energy

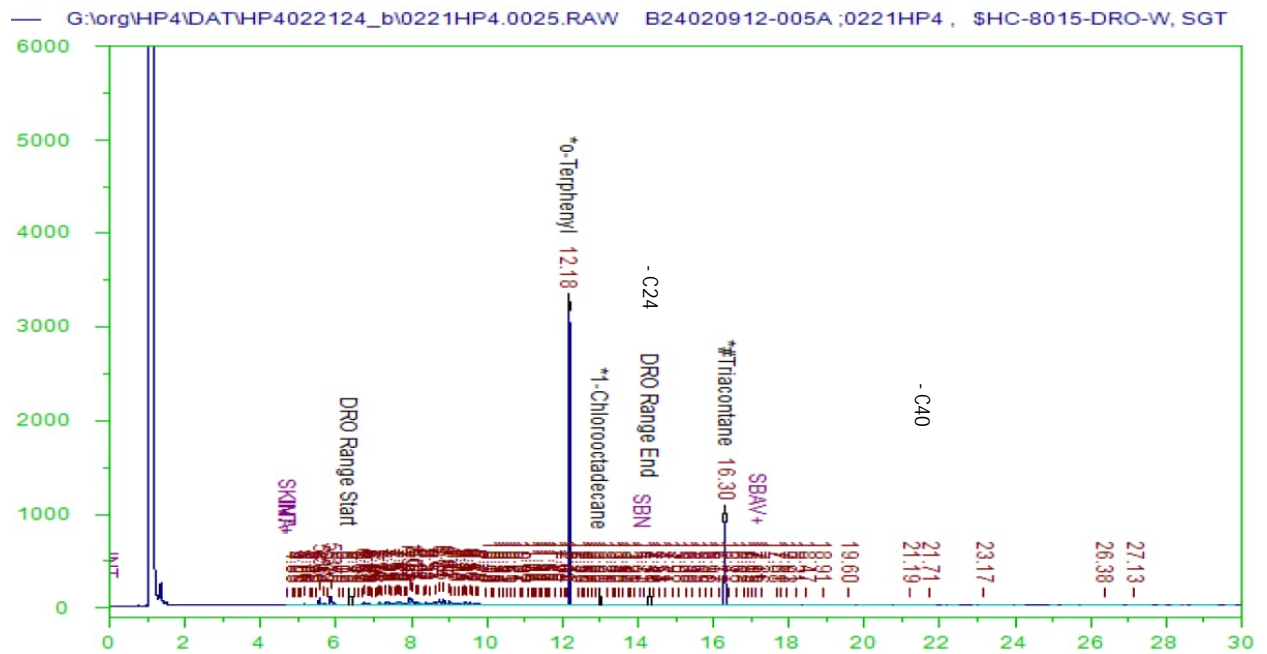
Results (ug/L): TPH-d (C10 to C24) 113 J

TPH-o (C24 to C40) <179 U



Results (ug/L): TPH-d SGC (C10 to C24) 83.3 J

TPH-o SGC (C24 to C40) <170 U



Location: RHMW01R Sample ID: RHMW01R-WGN01LF-2405B

Sample Date: 5/23/2024

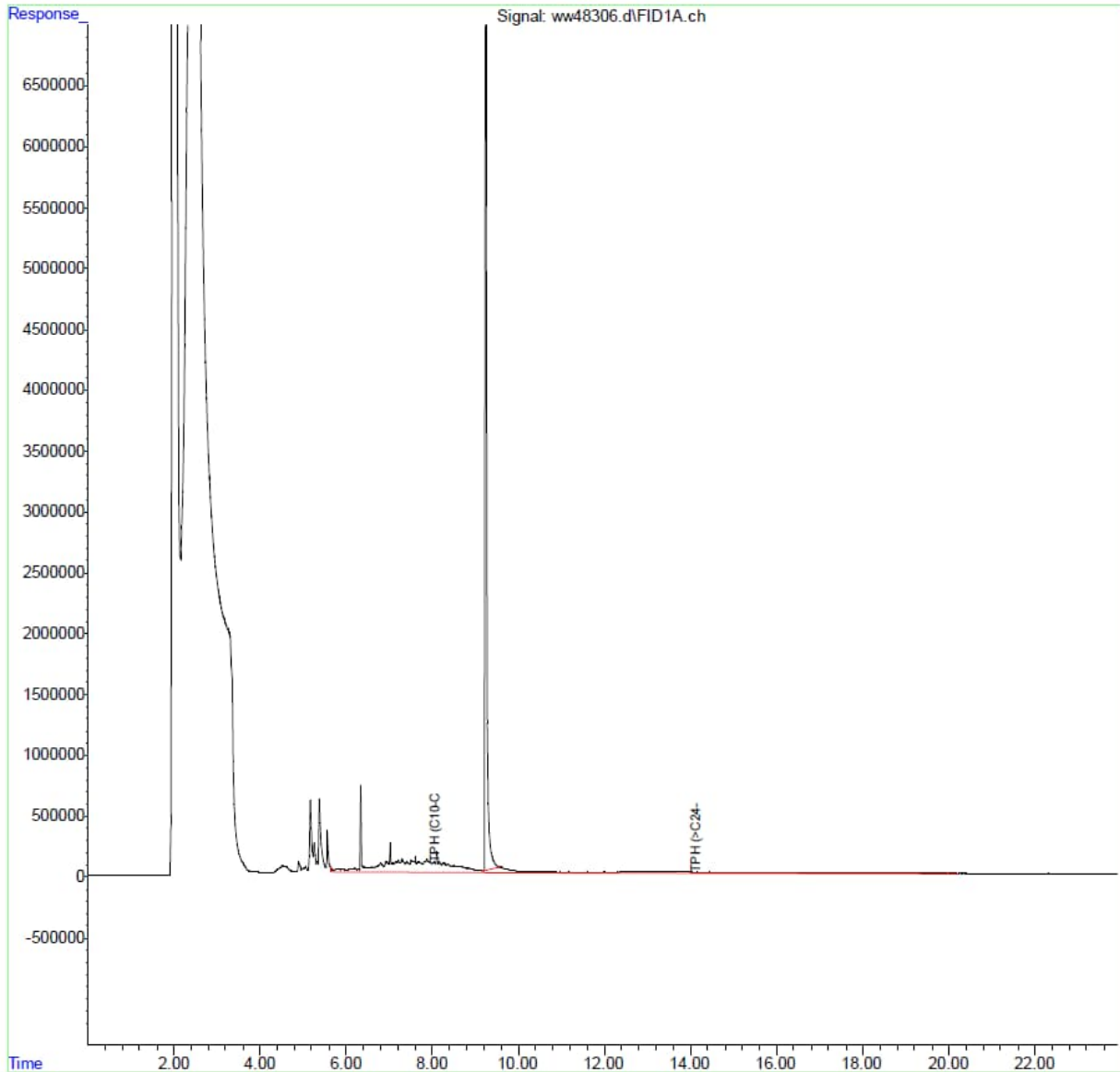
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 113 J

TPH-o (C24 to C40) <170 U

Quant Time: Jun 03 10:21:47 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

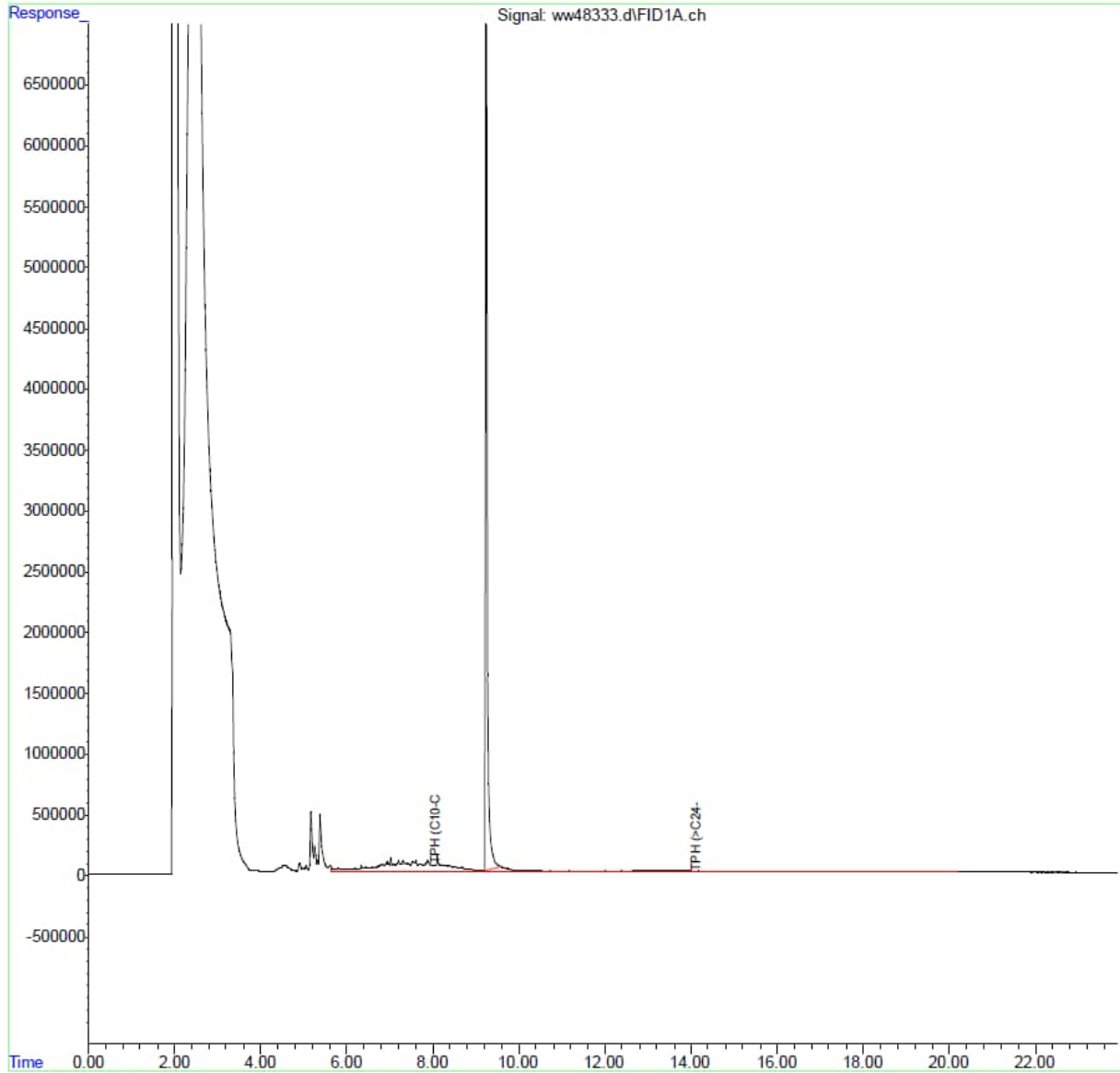


Results (ug/L): TPH-d SGC (C10 to C24) 83.3 J

TPH-o SGC (C24 to C40) <170 U

Quant Time: Jun 03 10:22:37 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW01R Sample ID: RHMW01R-WGFD01LF-2405B

Sample Date: 5/23/2024

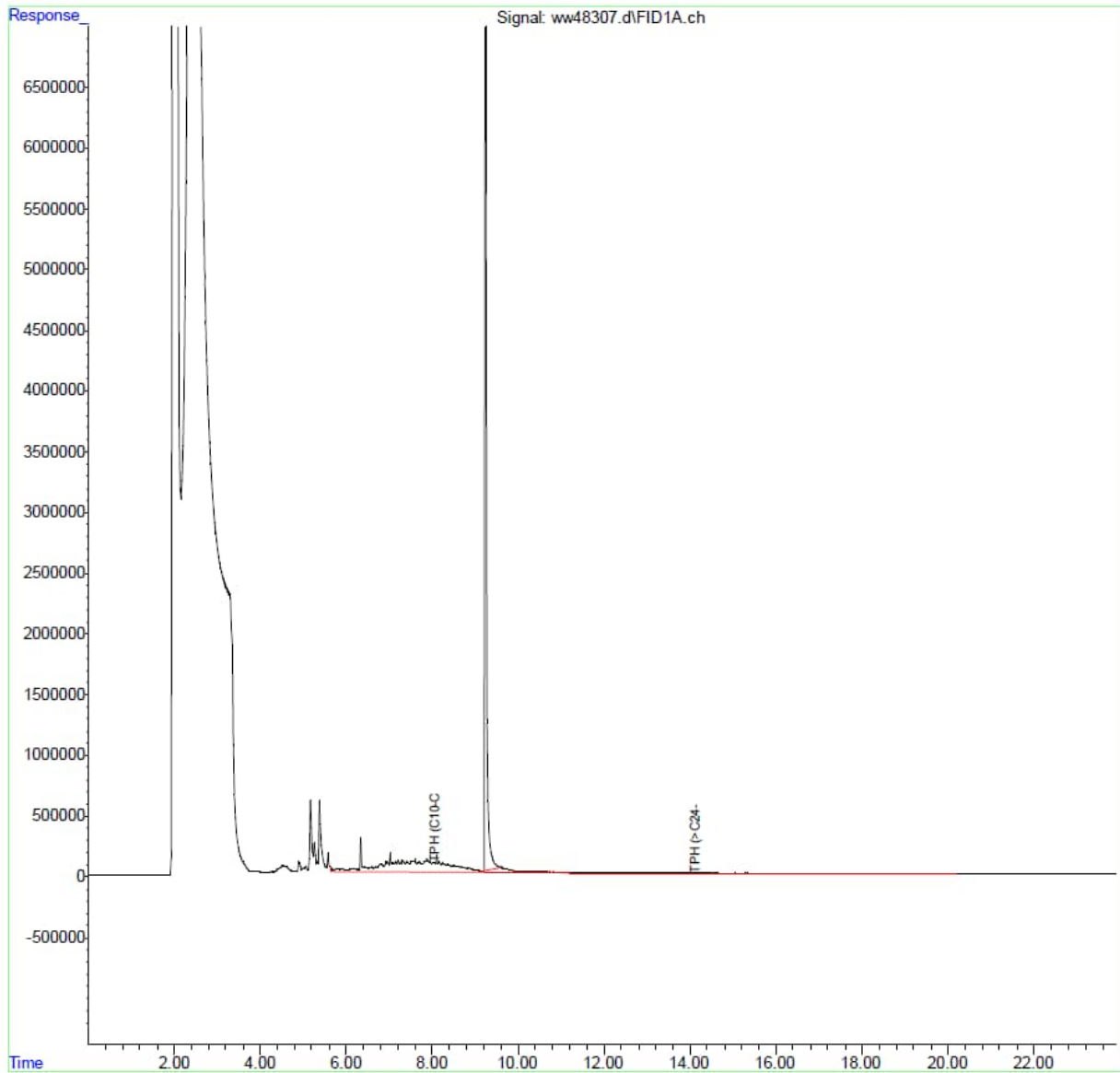
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 109 J

TPH-o (C24 to C40) <170 U

Quant Time: Jun 03 10:21:49 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

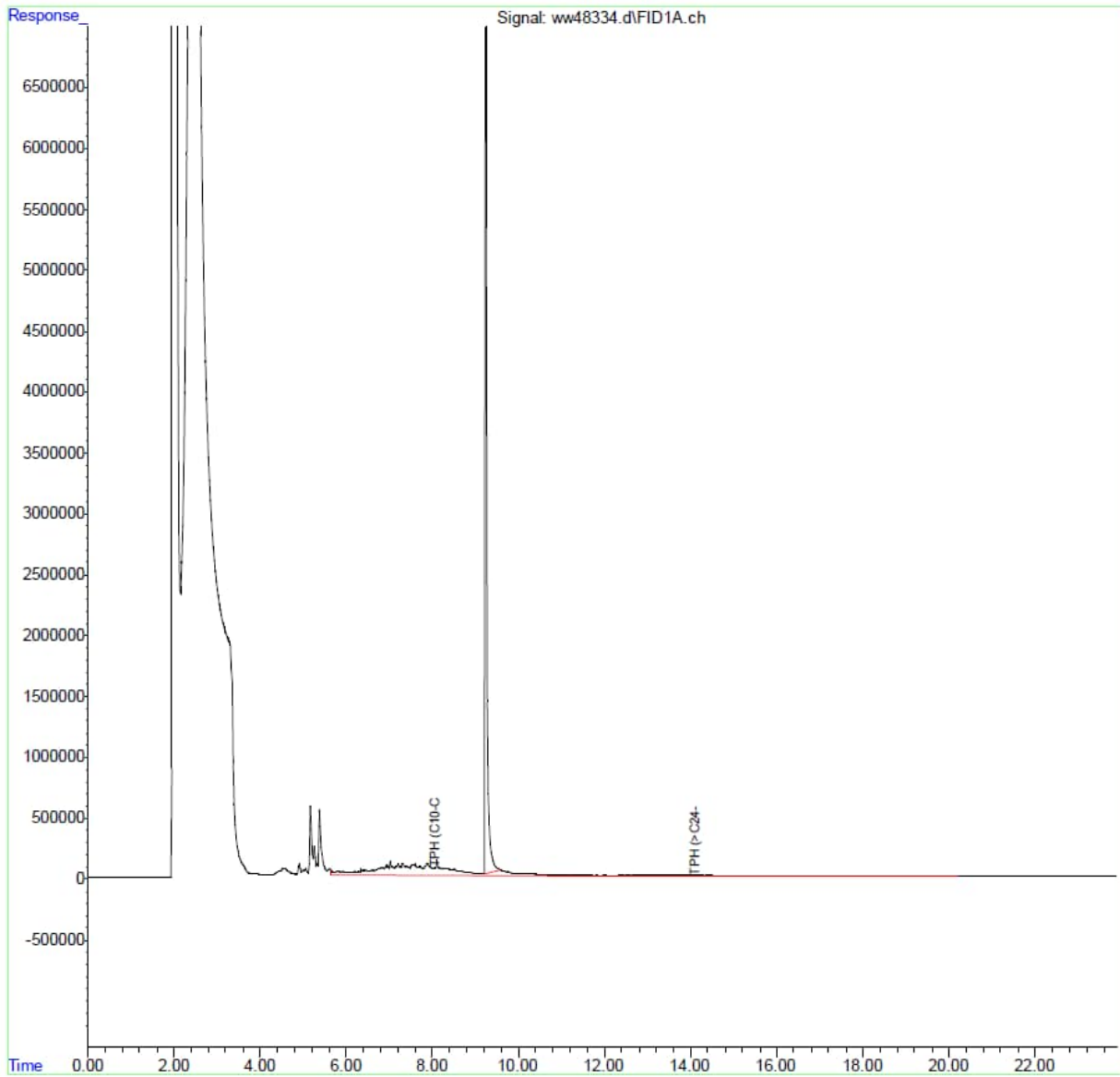


Results (ug/L): TPH-d SGC (C10 to C24) 90.3 J

TPH-o SGC (C24 to C40) <170 U

Quant Time: Jun 03 10:22:39 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW01R Sample ID: RHMW01R-WGN01LF-2406A

Sample Date: 6/3/2024

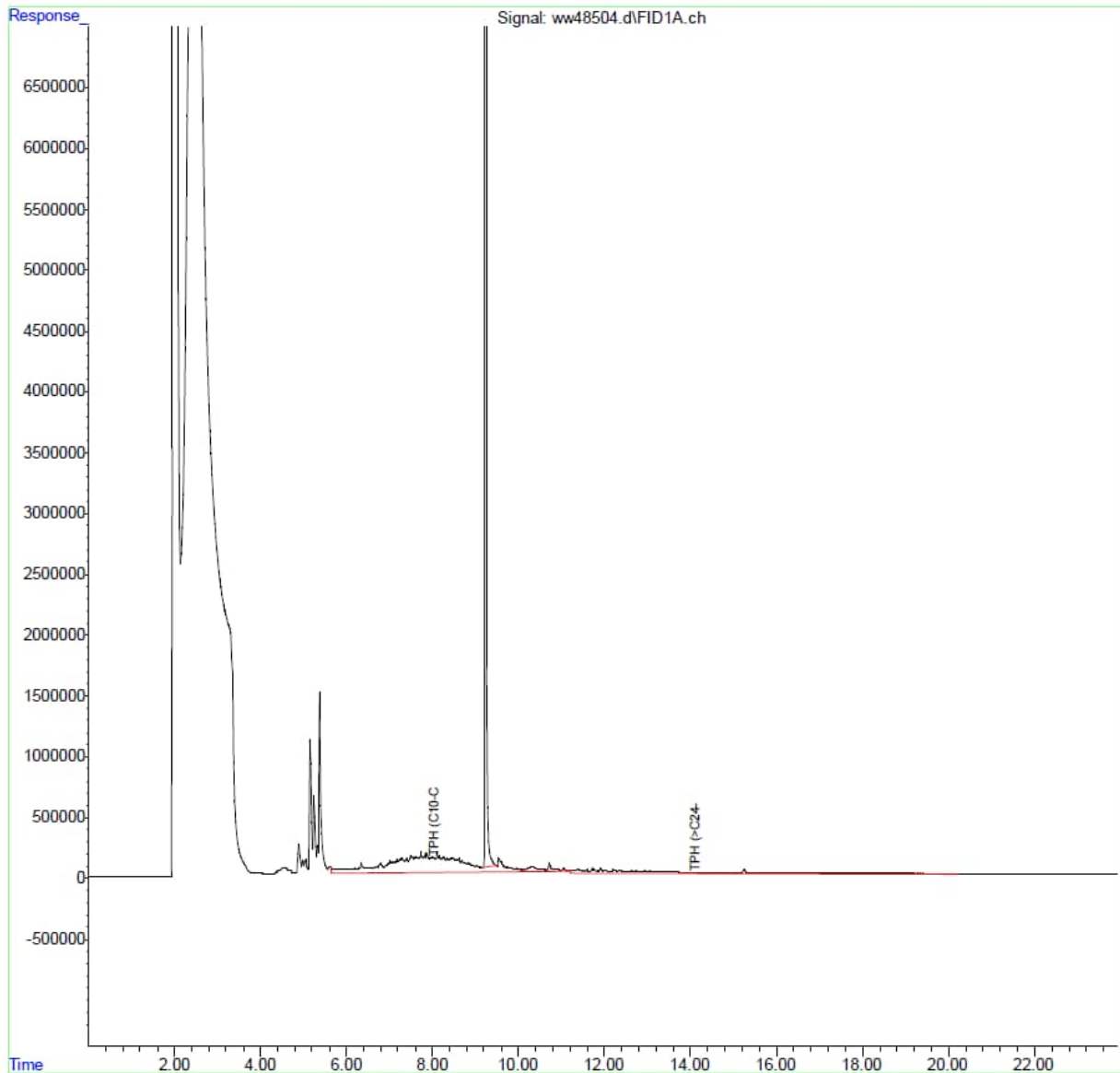
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 151 J

TPH-o (C24 to C40) <160 U

Quant Time: Jun 10 10:19:41 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

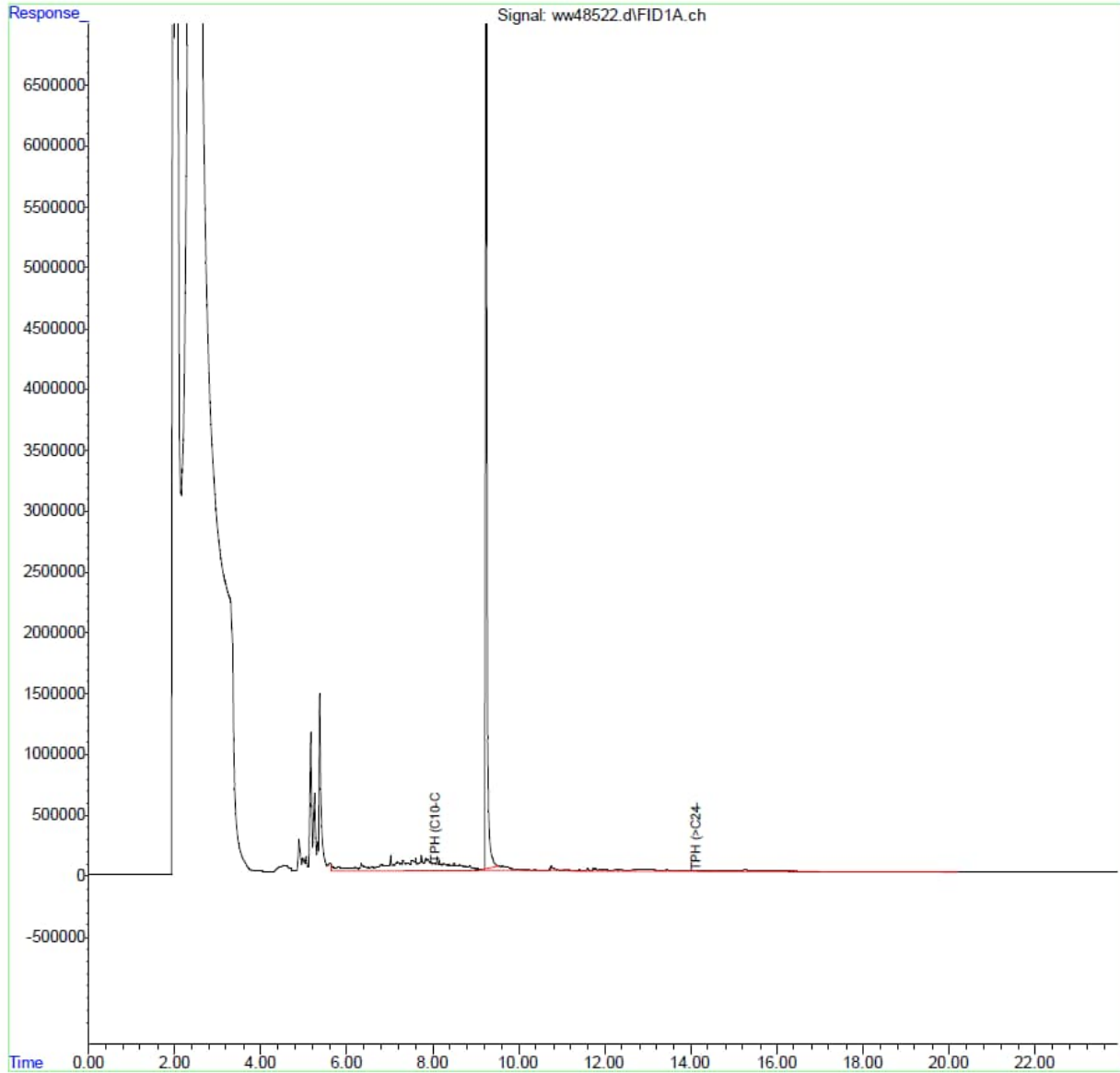


Results (ug/L): TPH-d SGC (C10 to C24) 85.6 J

TPH-o SGC (C24 to C40) <160 U

Quant Time: Jun 10 17:04:08 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW01R Sample ID: RHMW01R-WGFD01LF-2406A

Sample Date: 6/3/2024

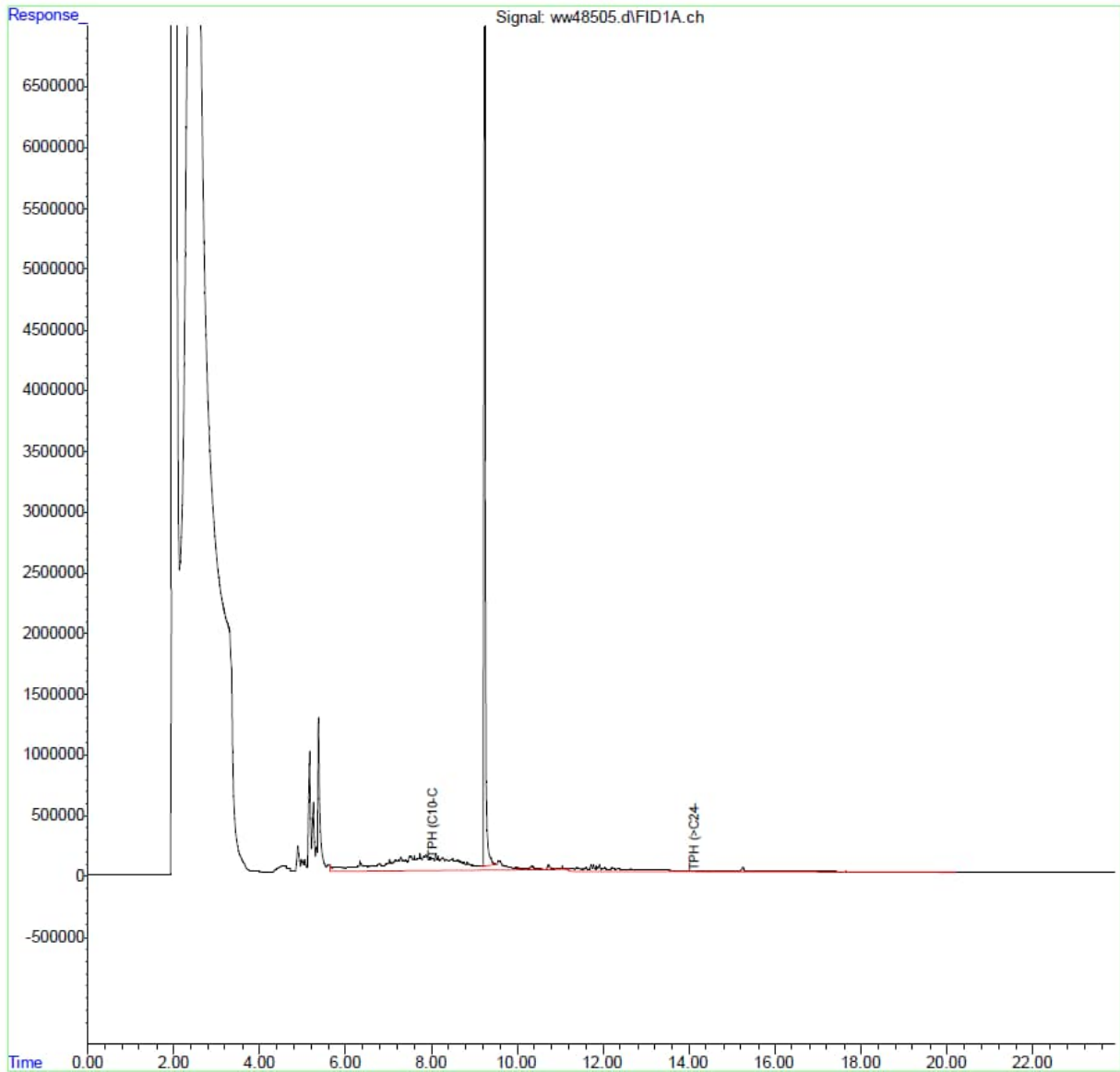
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 123 J

TPH-o (C24 to C40) <160 U

Quant Time: Jun 10 10:19:43 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

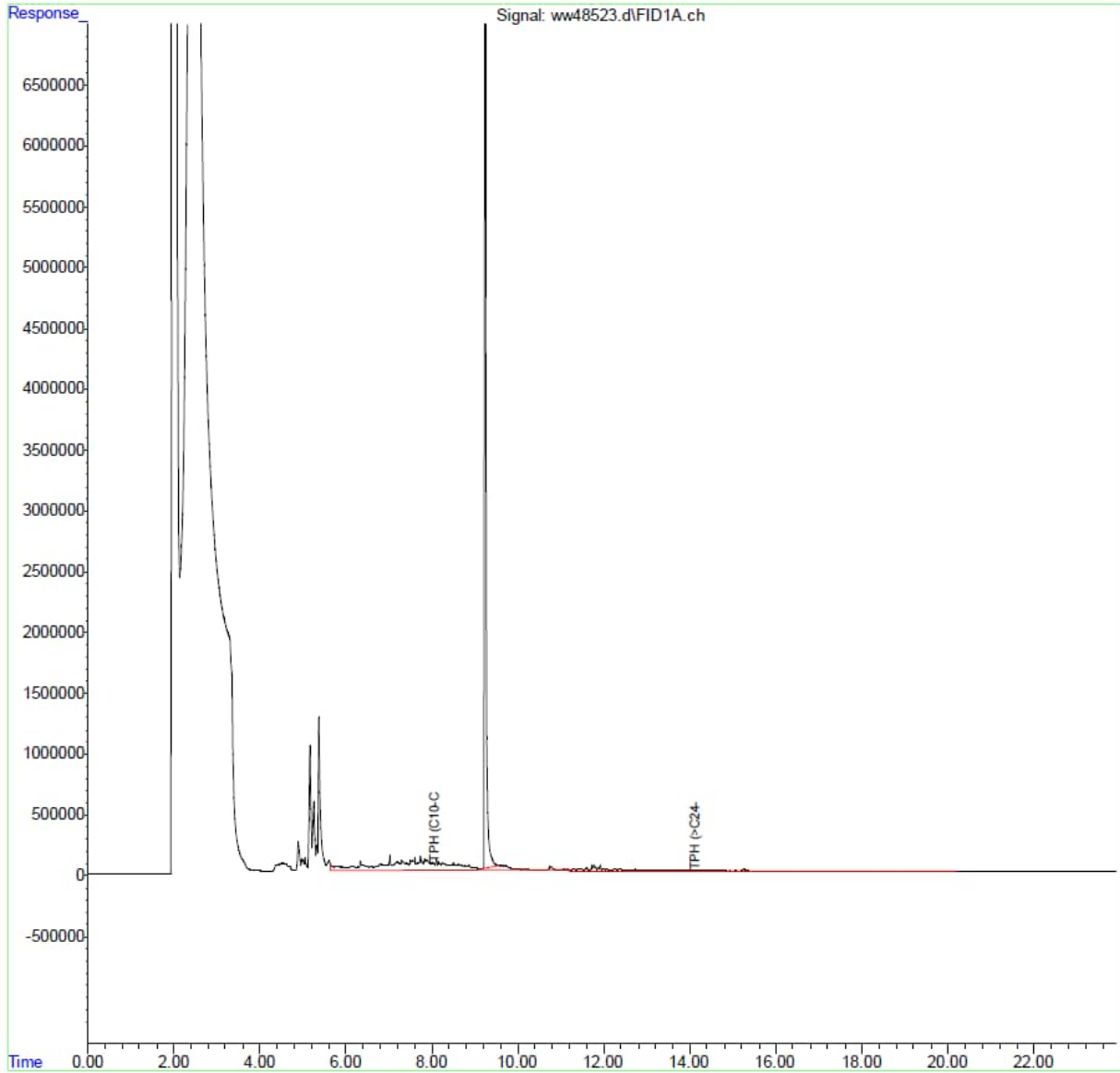


Results (ug/L): TPH-d SGC (C10 to C24) 86.1 J

TPH-o SGC (C24 to C40) <160 U

Quant Time: Jun 10 17:04:23 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

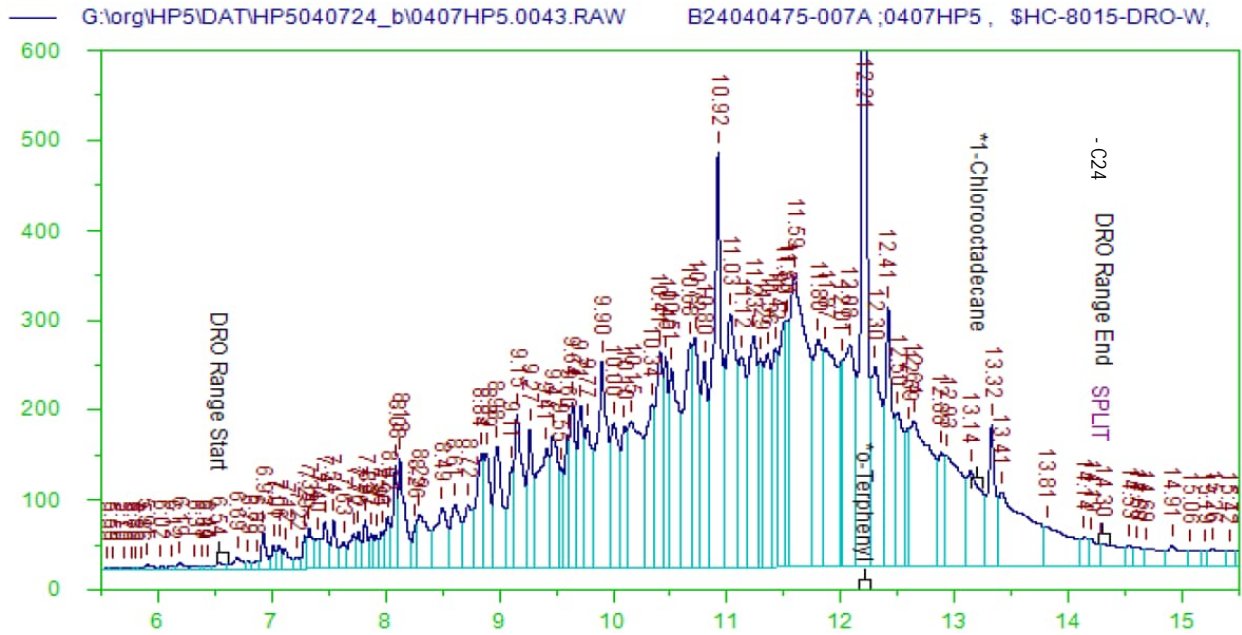


Location: RHMW02 Sample ID: RHMW02-WGN01LF-2404
Lab: Energy

Sample Date: 4/4/2024

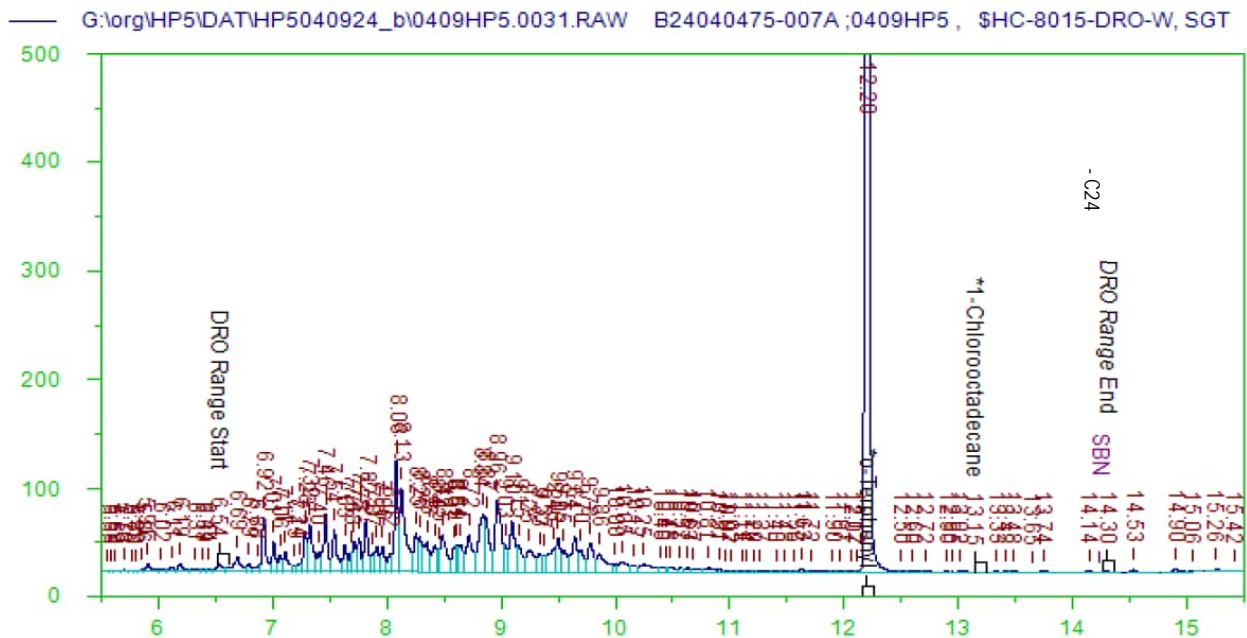
Results (ug/L): TPH-d (C10 to C24) 1927

TPH-o (C24 to C40) 220.1 J



Results (ug/L): TPH-d SGC (C10 to C24) 163.5 J

TPH-o SGC (C24 to C40) <187 U



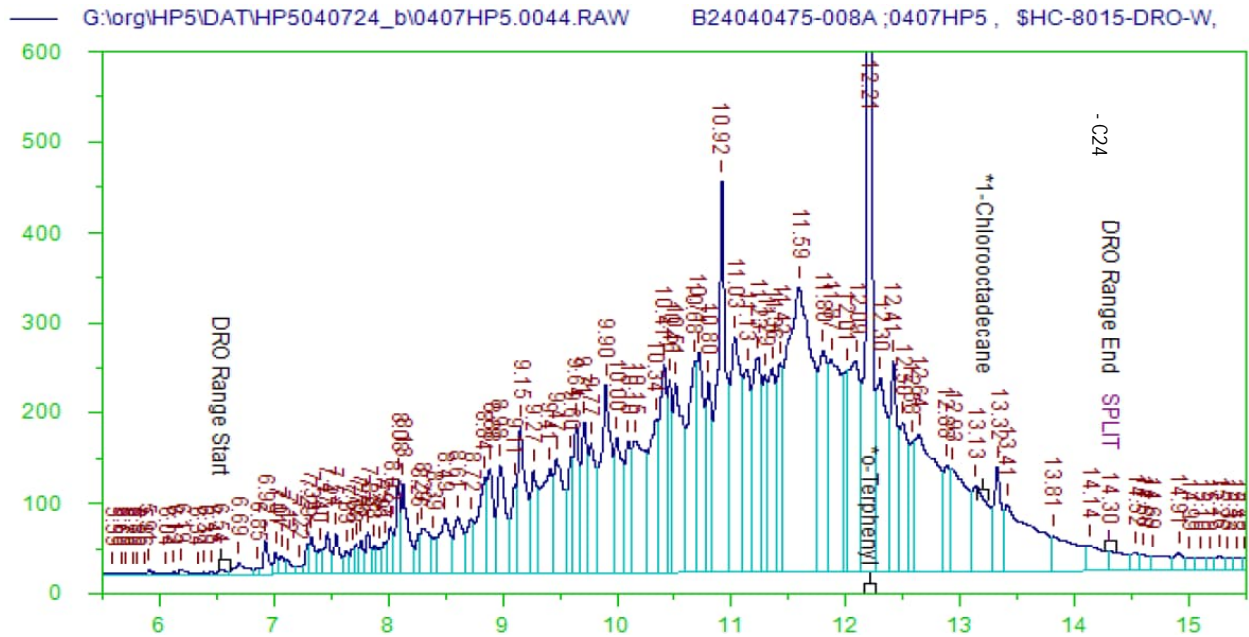
Location: RHMW02
Lab: Energy

Sample ID: RHMW02-WGFD01LF-2404

Sample Date: 4/4/2024

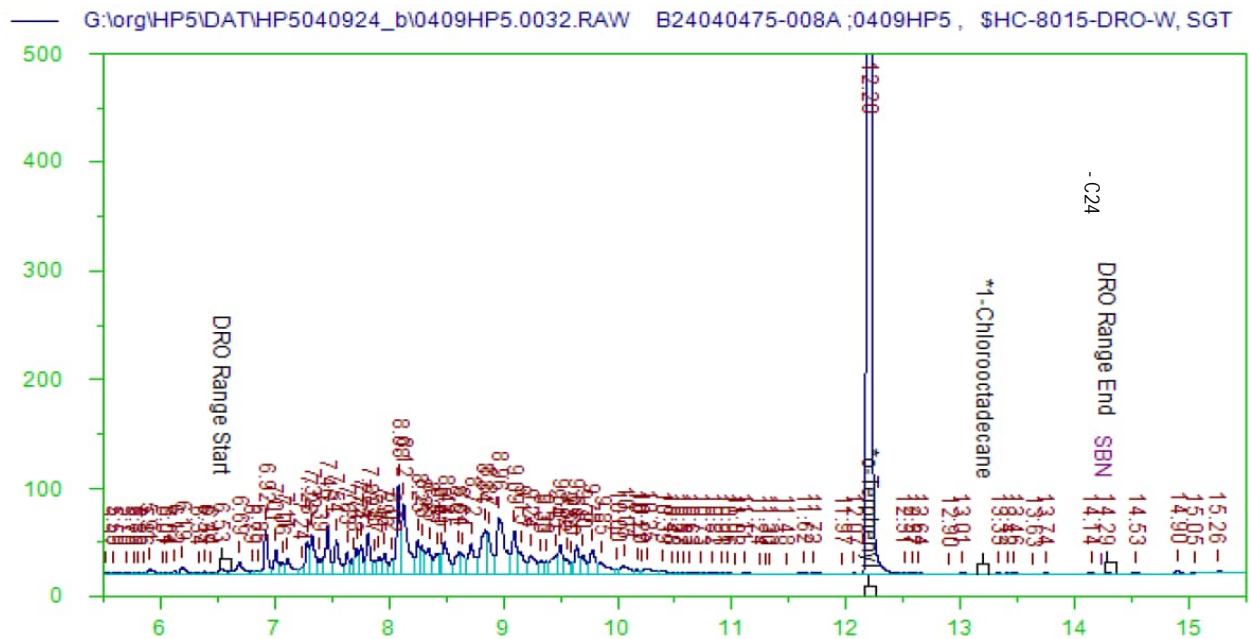
Results (ug/L): TPH-d (C10 to C24) 1767

TPH-o (C24 to C40) 197 J



Results (ug/L): TPH-d SGC (C10 to C24) 128.8 J

TPH-o SGC (C24 to C40) <187 U



Location: RHMW02 Sample ID: RHMW02-WGN01LF-2404
Lab: SGS

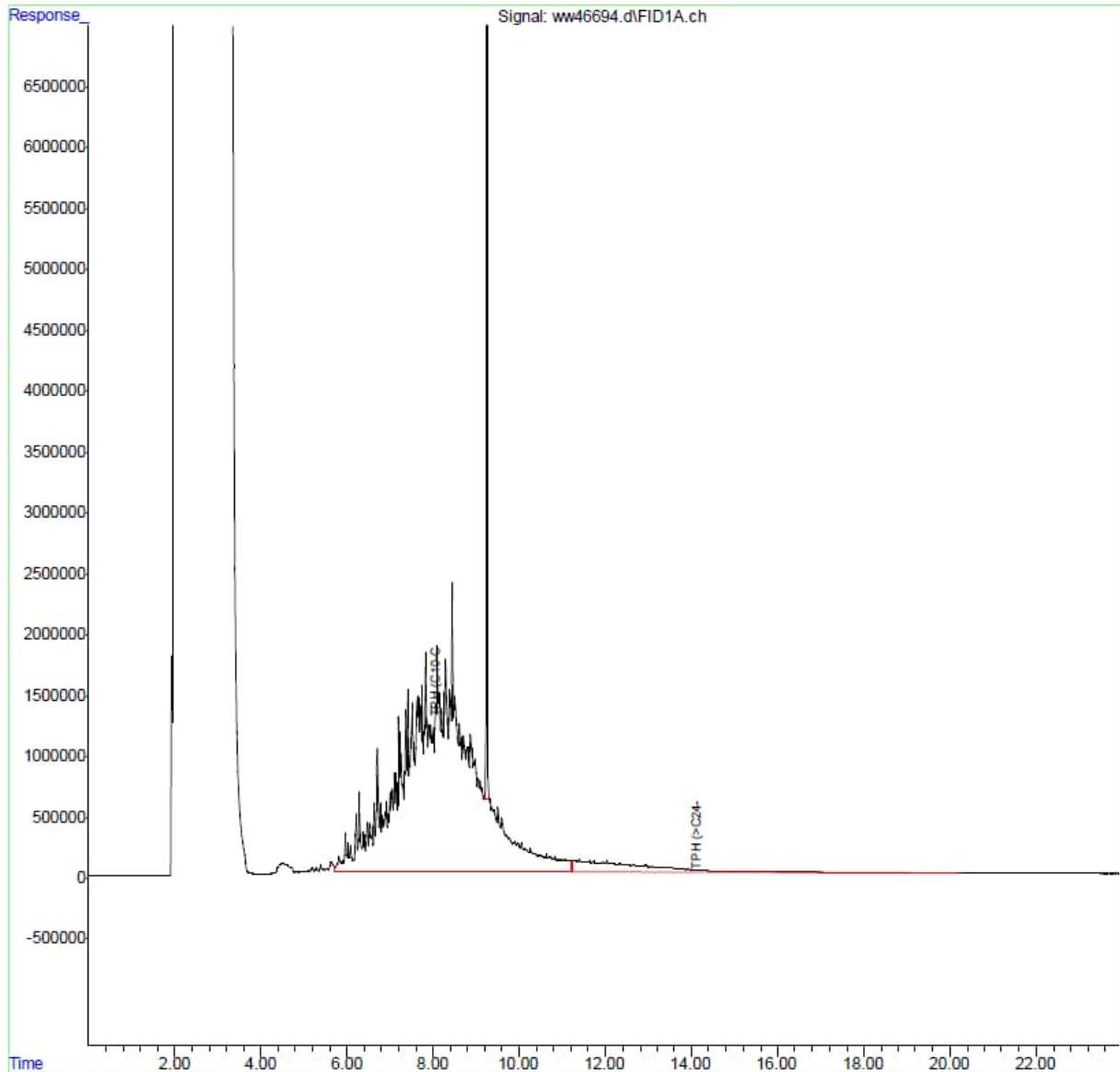
Sample Date: 4/4/2024

Results (ug/L): TPH-d (C10 to C24) 1430

TPH-o (C24 to C40) 121 J

Quant Time: Apr 10 10:18:32 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

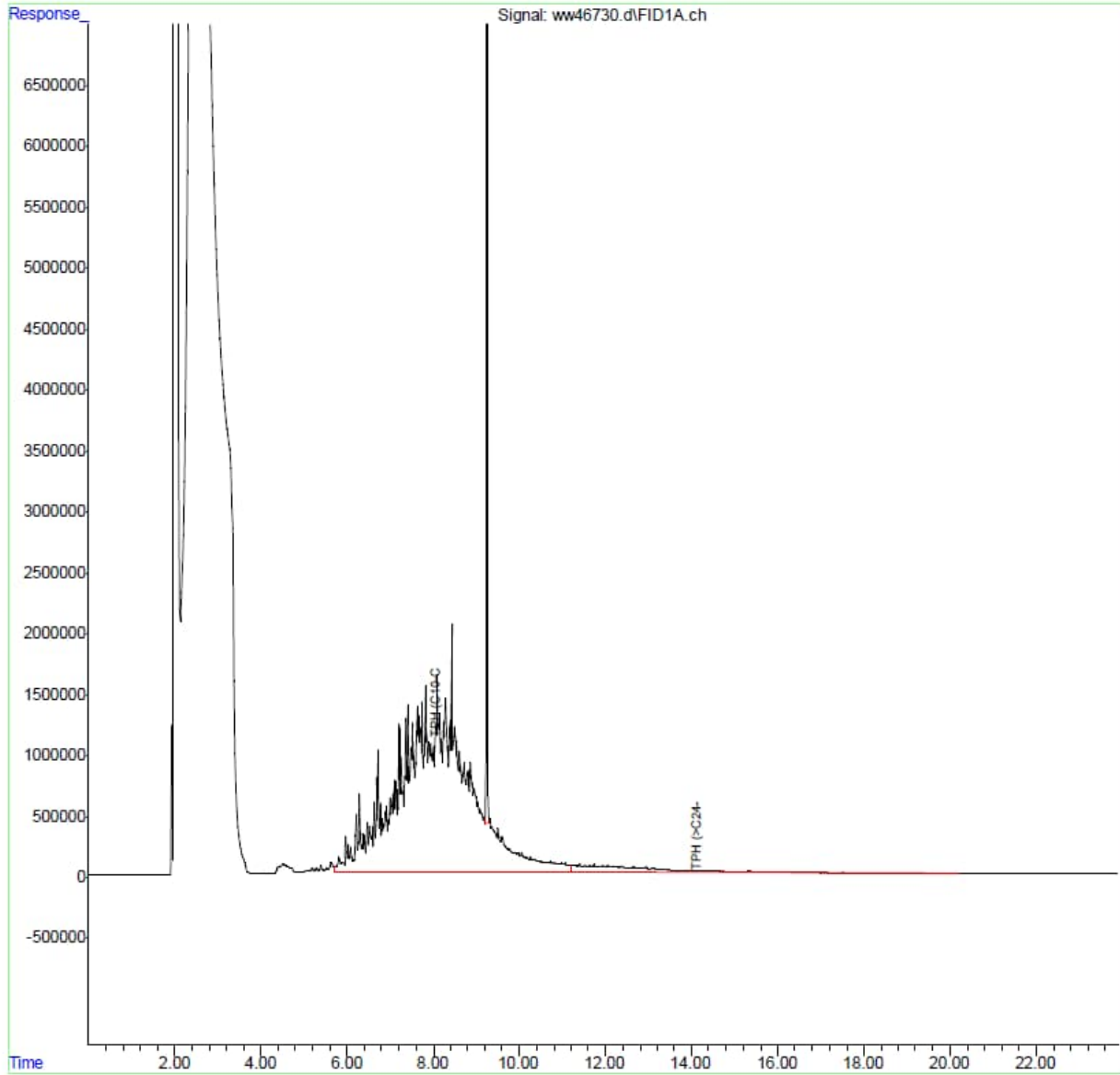


Results (ug/L): TPH-d SGC (C10 to C24) 1210

TPH-o SGC (C24 to C40) 80 J

Quant Time: Apr 11 10:30:28 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW02 Sample ID: RHMW02-WGFD01LF-2404
Lab: SGS

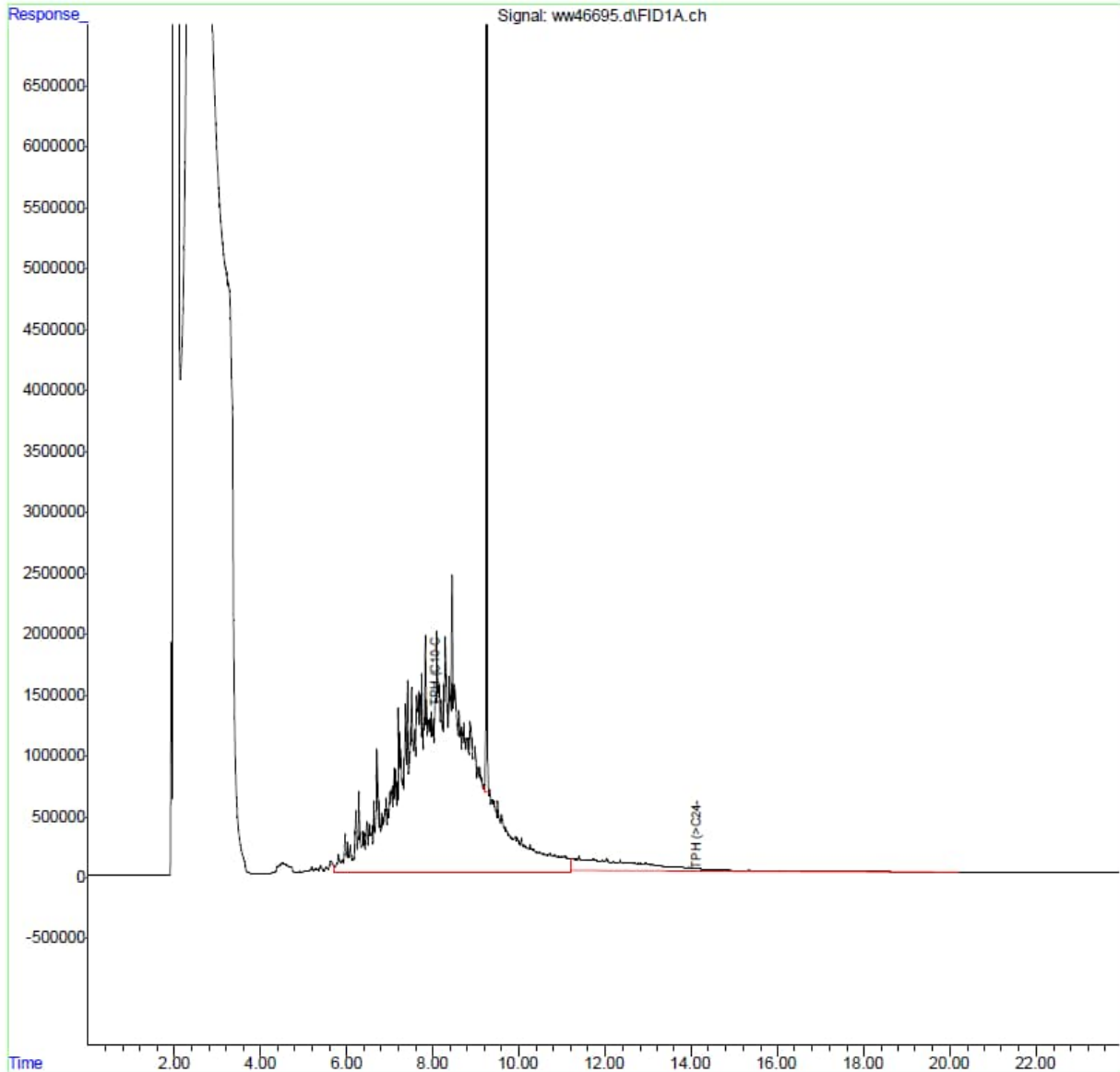
Sample Date: 4/4/2024

Results (ug/L): TPH-d (C10 to C24) 1550

TPH-o (C24 to C40) 137 J

Quant Time: Apr 10 09:41:50 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

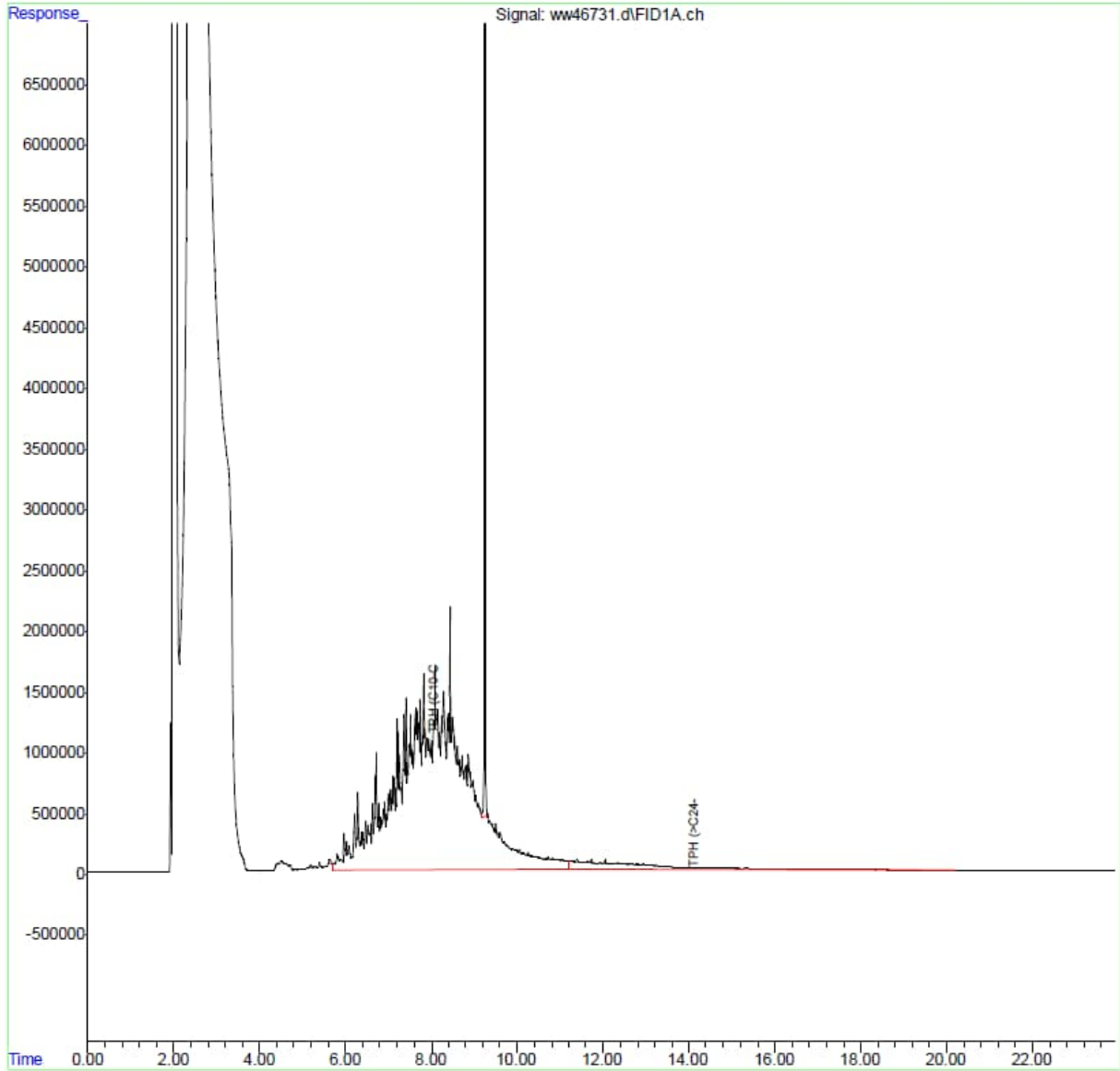


Results (ug/L): TPH-d SGC (C10 to C24) 1250

TPH-o SGC (C24 to C40) 86.1 J

Quant Time: Apr 11 10:31:31 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW02 Sample ID: RHMW02-WGN01LF-2405A
Lab: SGS

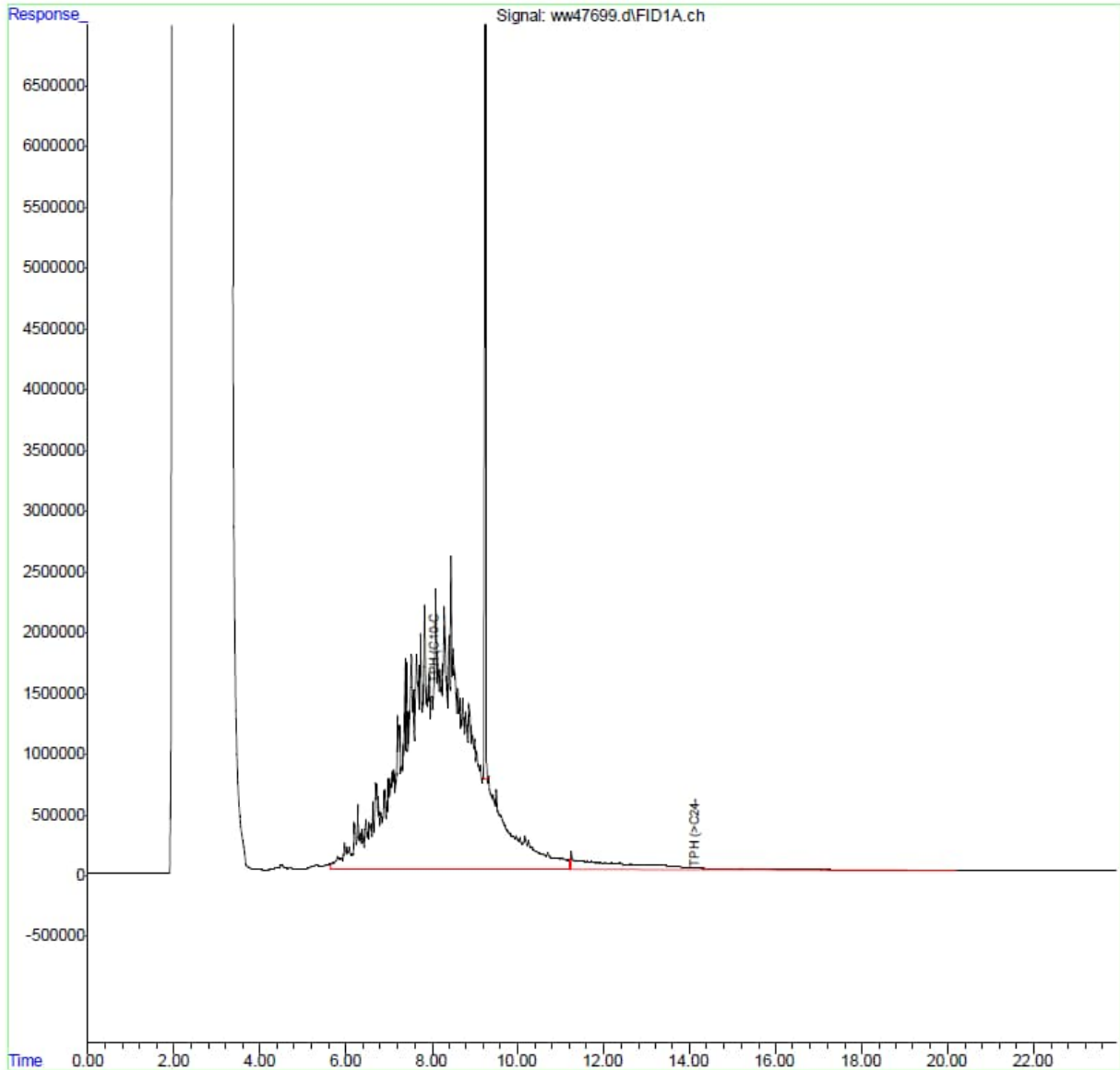
Sample Date: 5/9/2024

Results (ug/L): TPH-d (C10 to C24) 1810

TPH-o (C24 to C40) 105 J

Quant Time: May 15 11:26:28 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

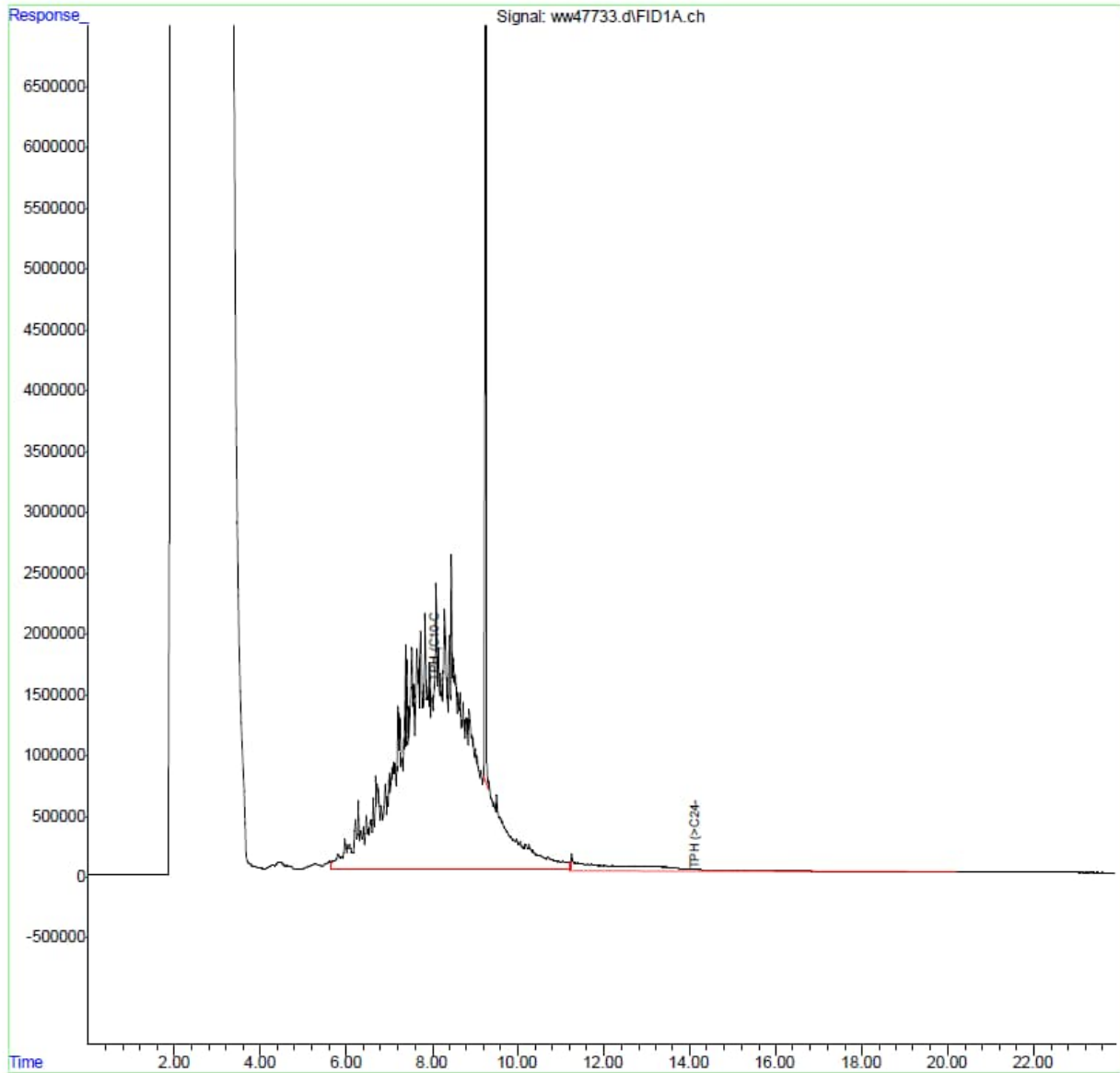


Results (ug/L): TPH-d SGC (C10 to C24) 1760

TPH-o SGC (C24 to C40) 96.2 J

Quant Time: May 15 10:46:27 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW02 Sample ID: RHMW02-WGFD01LF-2405A
Lab: SGS

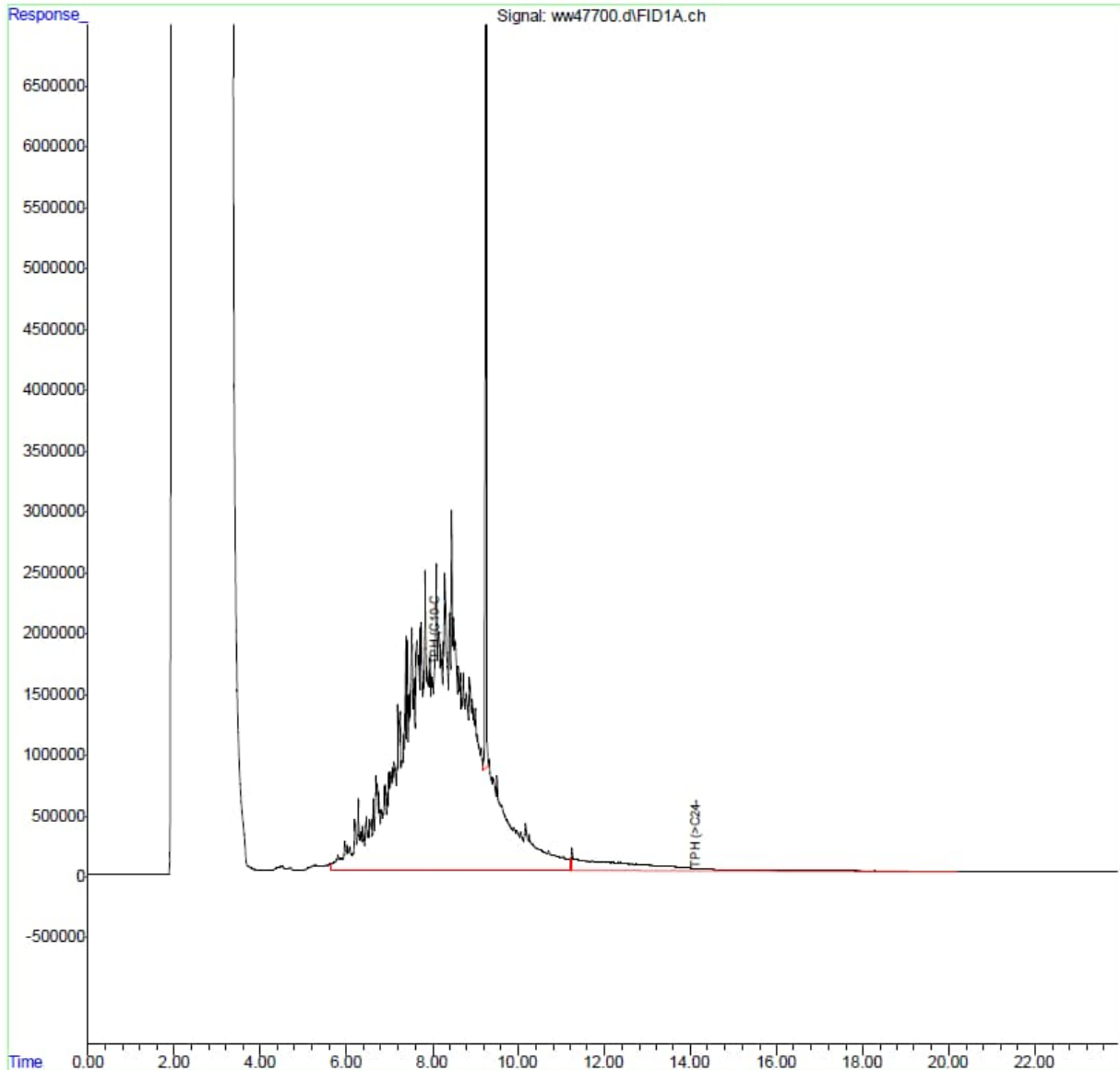
Sample Date: 5/9/2024

Results (ug/L): TPH-d (C10 to C24) 2030

TPH-o (C24 to C40) 123 J

Quant Time: May 14 14:28:56 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

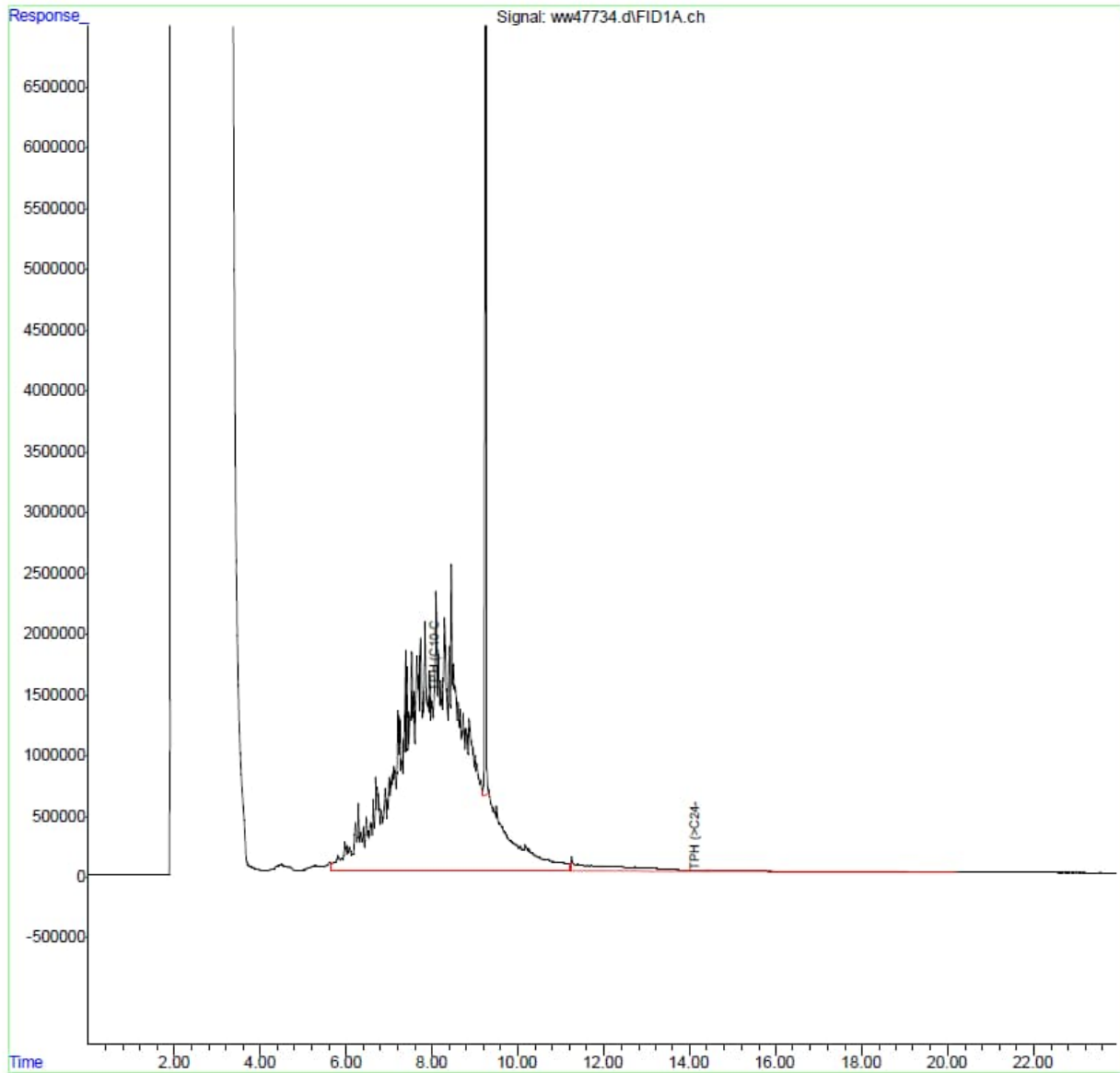


Results (ug/L): TPH-d SGC (C10 to C24) 1710

TPH-o SGC (C24 to C40) <170 U

Quant Time: May 15 10:47:05 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW02
Lab: SGS

Sample ID: RHMW02-WGN01LF-2405B

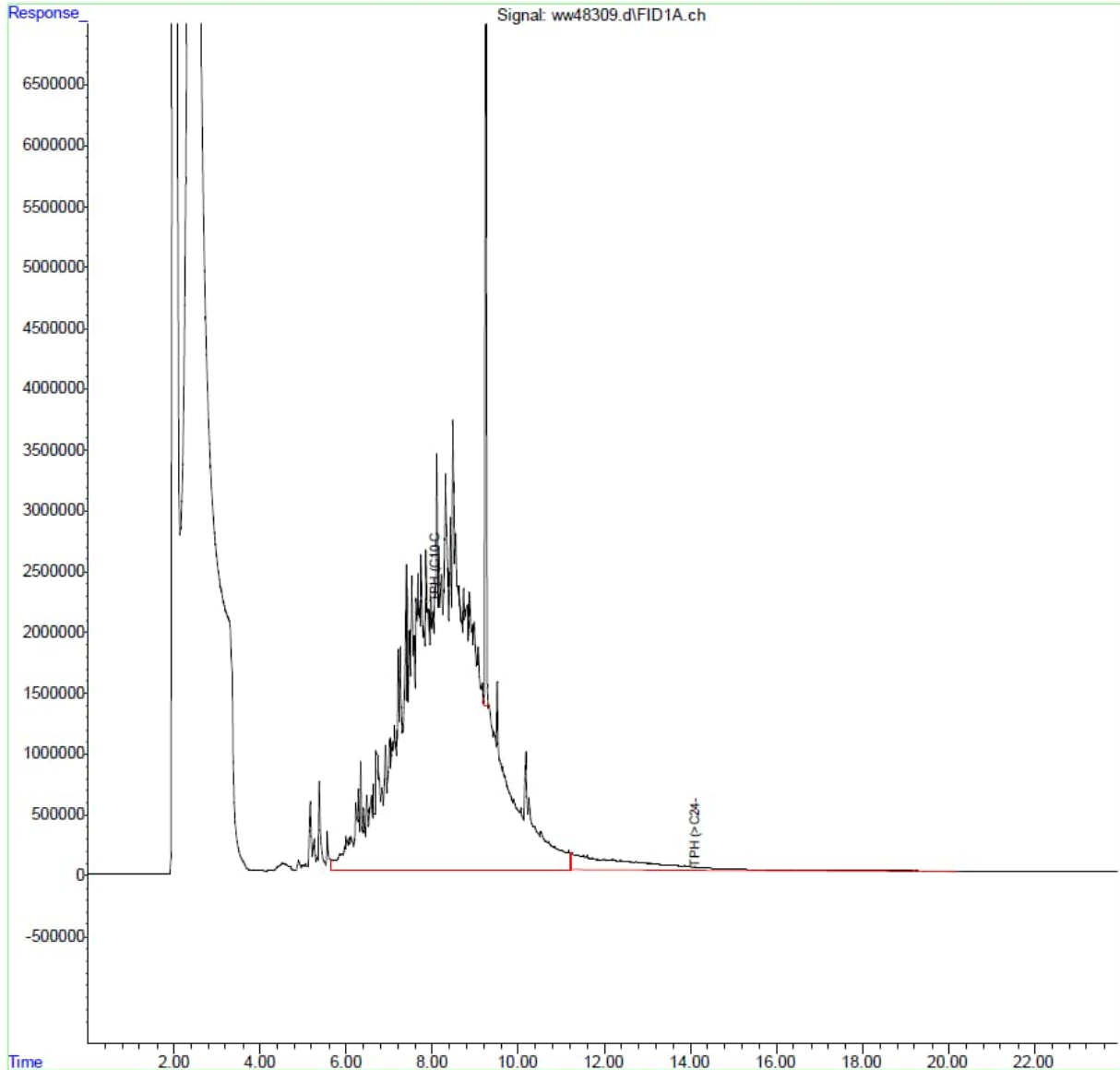
Sample Date: 5/23/2024

Results (ug/L): TPH-d (C10 to C24) 2760

TPH-o (C24 to C40) 154 J

Quant Time: Jun 03 10:30:52 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

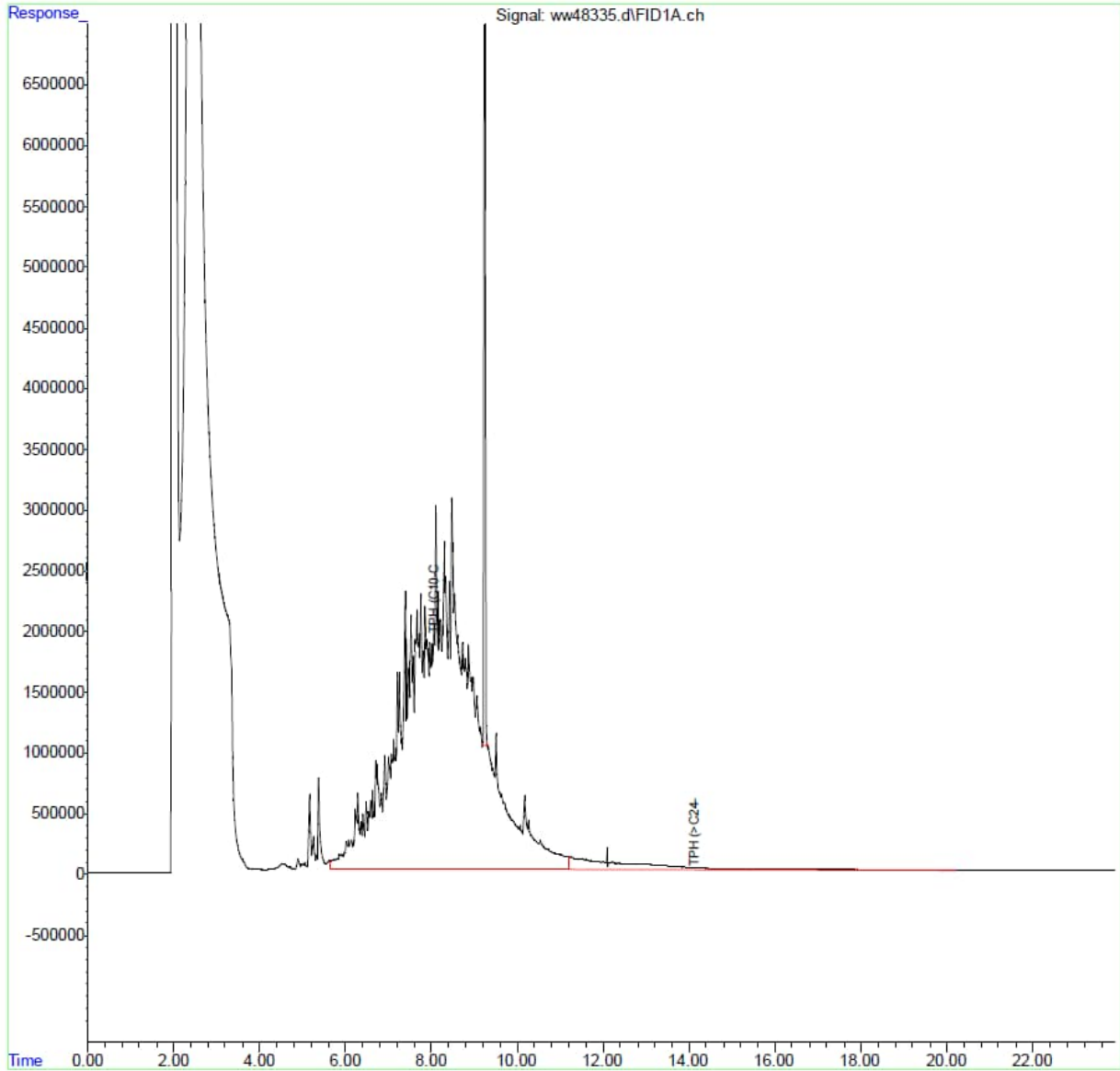


Results (ug/L): TPH-d SGC (C10 to C24) 2270

TPH-o SGC (C24 to C40) 111 J

Quant Time: Jun 03 10:57:34 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW02 Sample ID: RHMW02-WGFD01LF-2405B
Lab: SGS

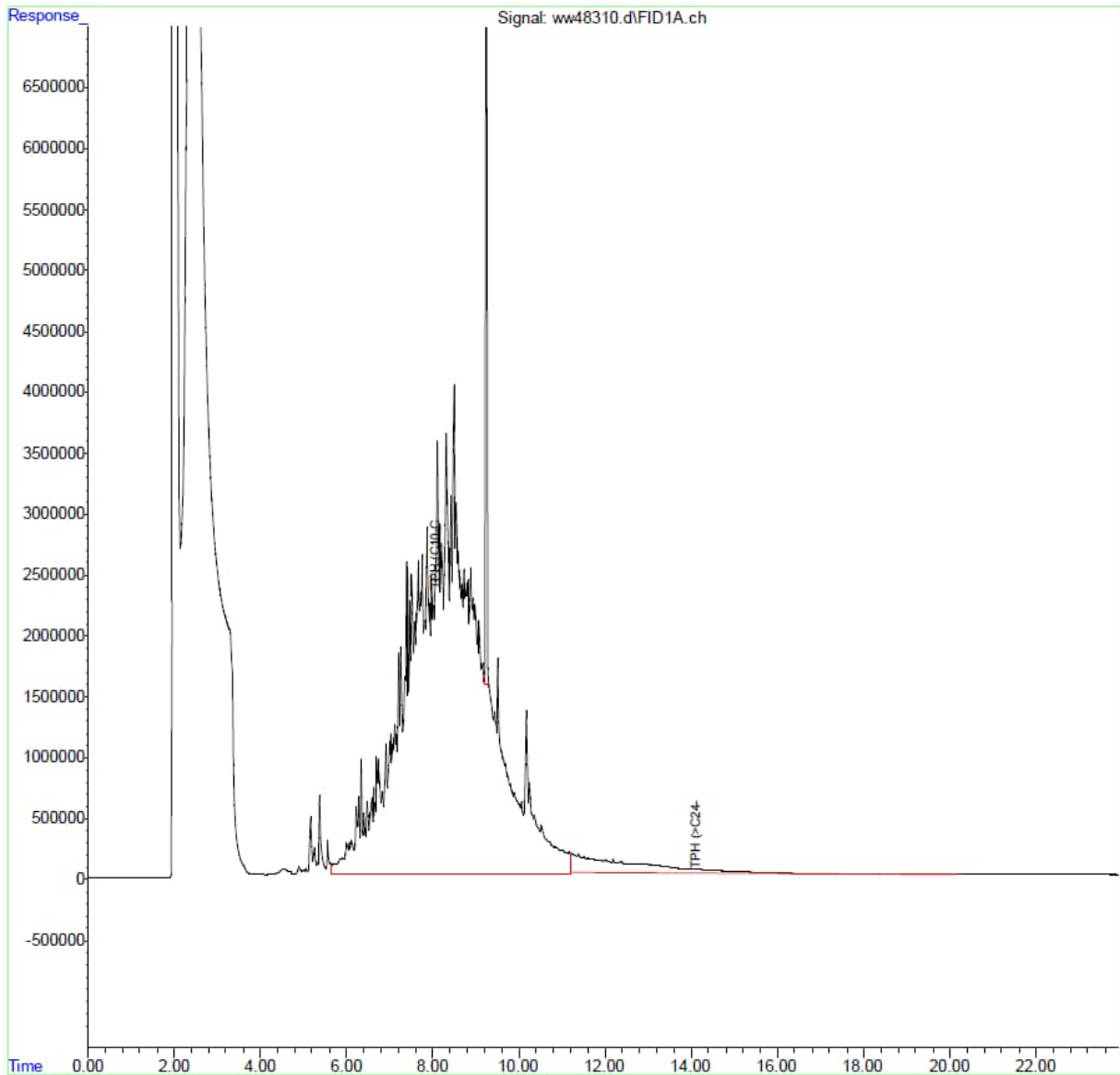
Sample Date: 5/23/2024

Results (ug/L): TPH-d (C10 to C24) 3060

TPH-o (C24 to C40) 181 J

Quant Time: Jun 03 10:32:06 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

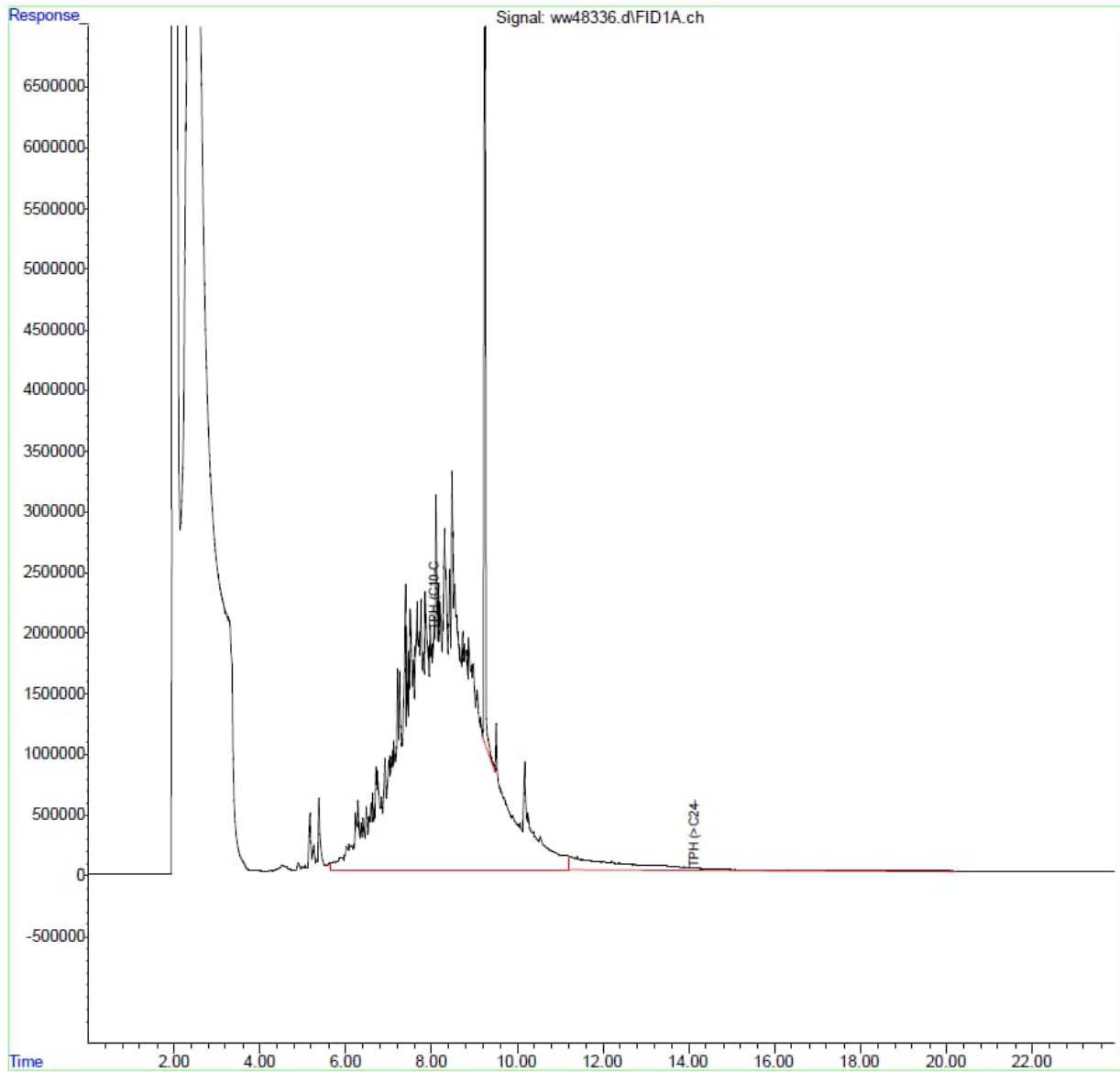


Results (ug/L): TPH-d SGC (C10 to C24) 2460

TPH-o SGC (C24 to C40) 122 J

Quant Time: Jun 03 10:58:04 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW02

Sample ID: RHMW02-WGN01LF-2406A

Sample Date: 6/3/2024

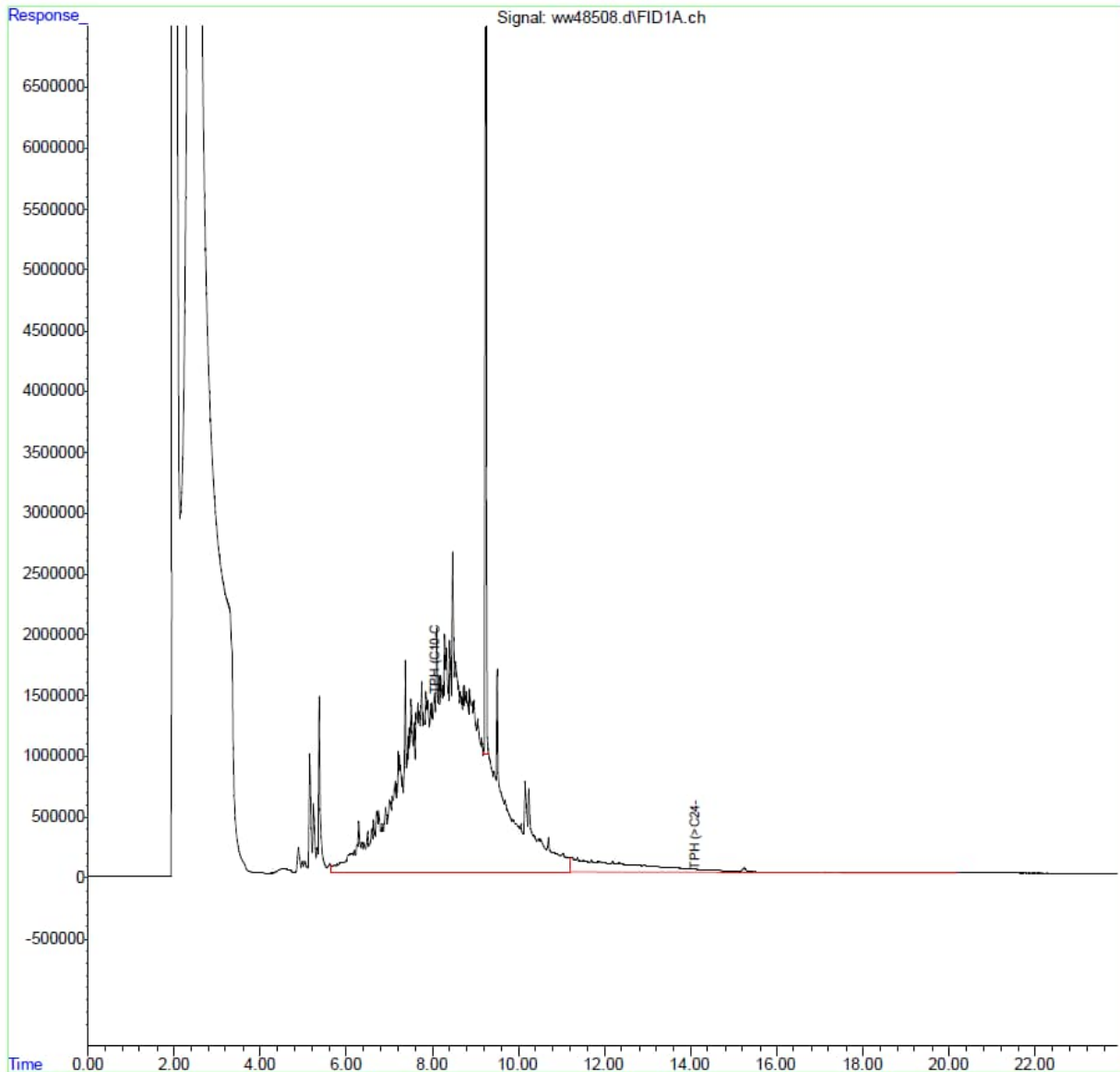
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 1770

TPH-o (C24 to C40) 134 J

Quant Time: Jun 10 10:32:32 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

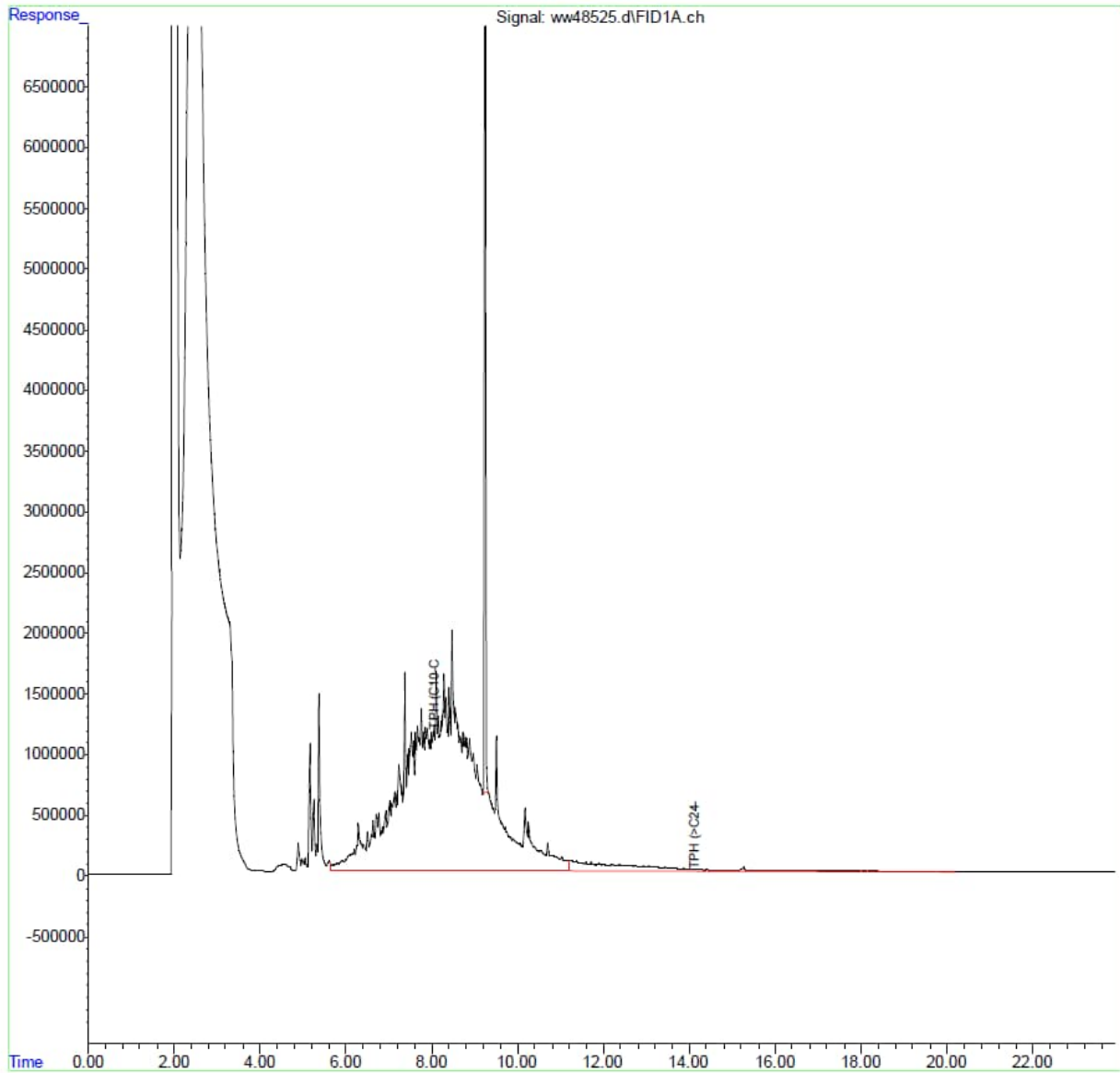


Results (ug/L): TPH-d SGC (C10 to C24) 1360

TPH-o SGC (C24 to C40) 91.9 J

Quant Time: Jun 11 09:57:45 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: RHMW02 Sample ID: RHMW02-WGFD01LF-2406A
Lab: SGS

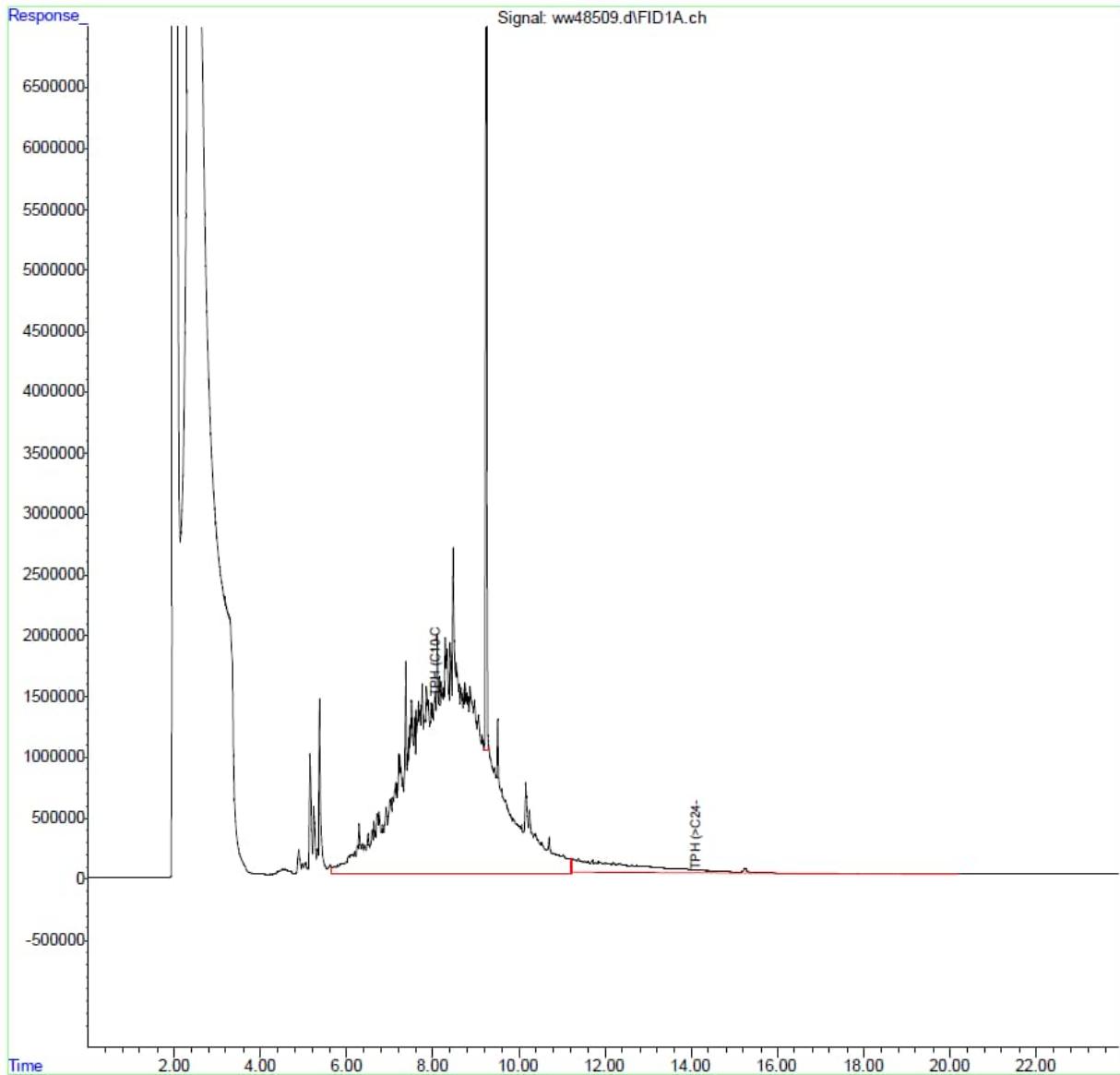
Sample Date: 6/3/2024

Results (ug/L): TPH-d (C10 to C24) 1810

TPH-o (C24 to C40) 137 J

Quant Time: Jun 10 10:33:07 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

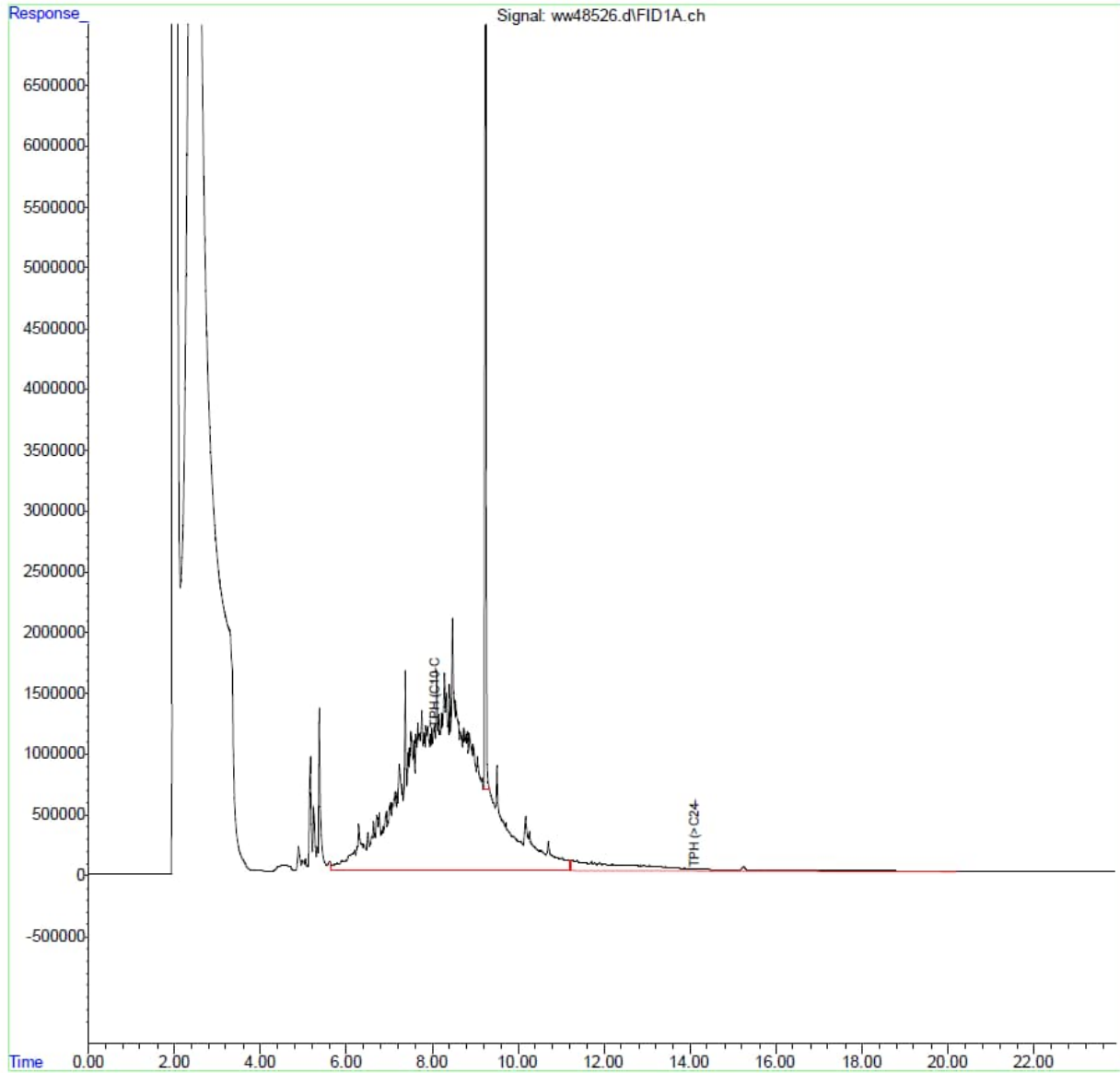


Results (ug/L): TPH-d SGC (C10 to C24) 1390

TPH-o SGC (C24 to C40) 92.2 J

Quant Time: Jun 11 09:58:26 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



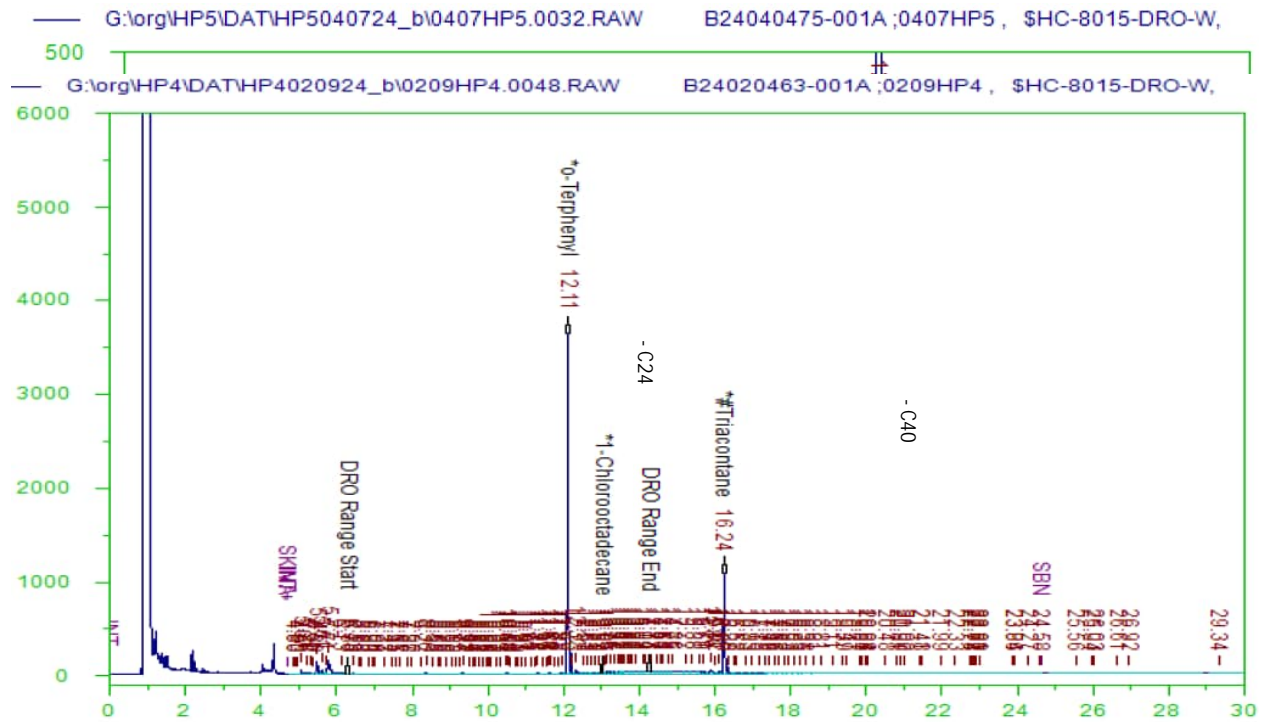
Location: RHMW03 Sample ID: RHMW03-WGN01LF-2404

Sample Date: 4/4/2024

Lab: Energy

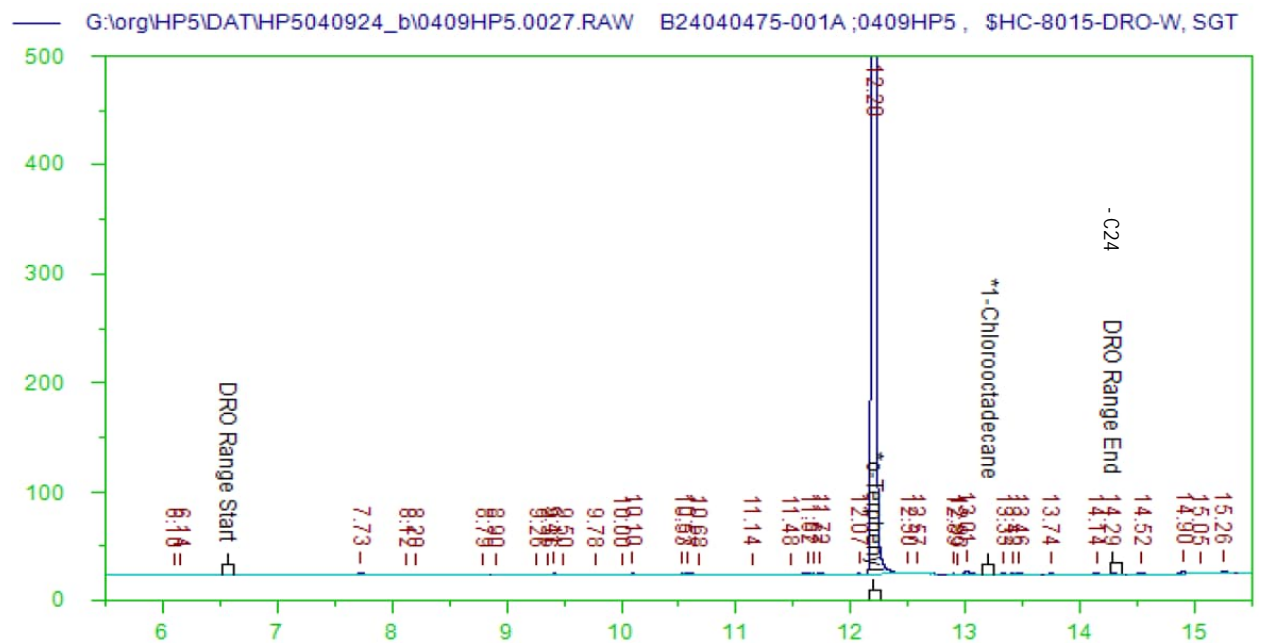
Results (ug/L): TPH-d (C10 to C24) 64.1 J

TPH-o (C24 to C40) 148.2 J



Results (ug/L): TPH-d SGC (C10 to C24) <140 U

TPH-o SGC (C24 to C40) <187 U



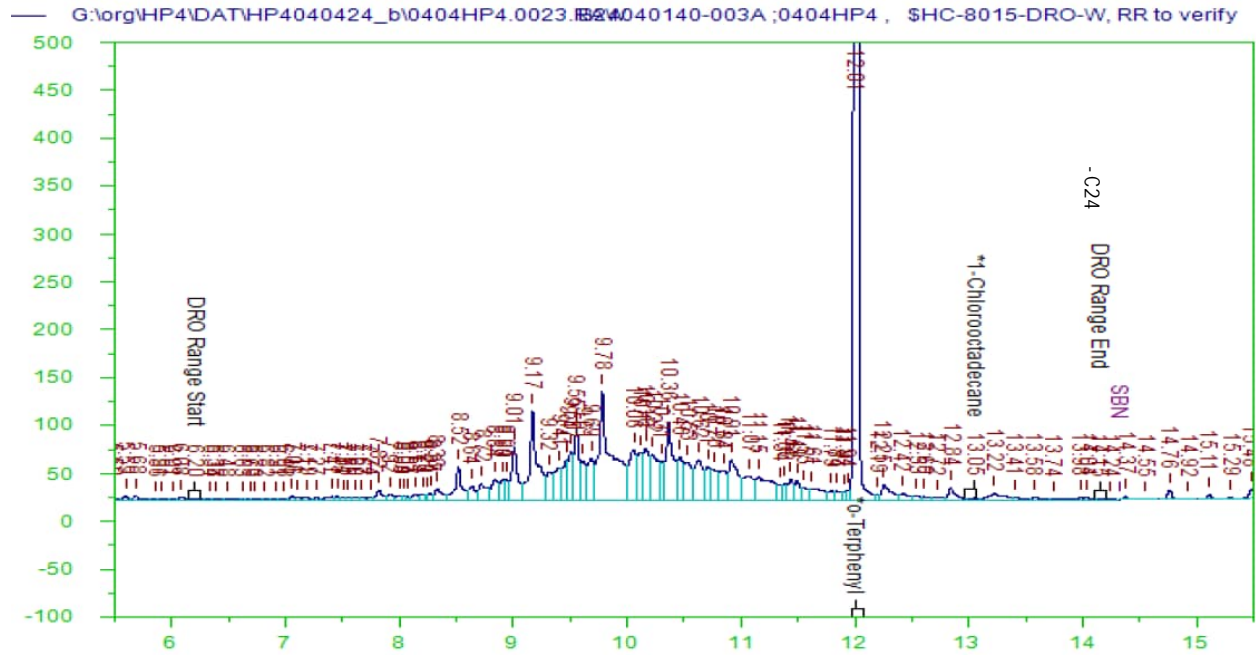
Location: RHMW06 Sample ID: RHMW06-WGN01LF-2404

Sample Date: 4/1/2024

Lab: Energy

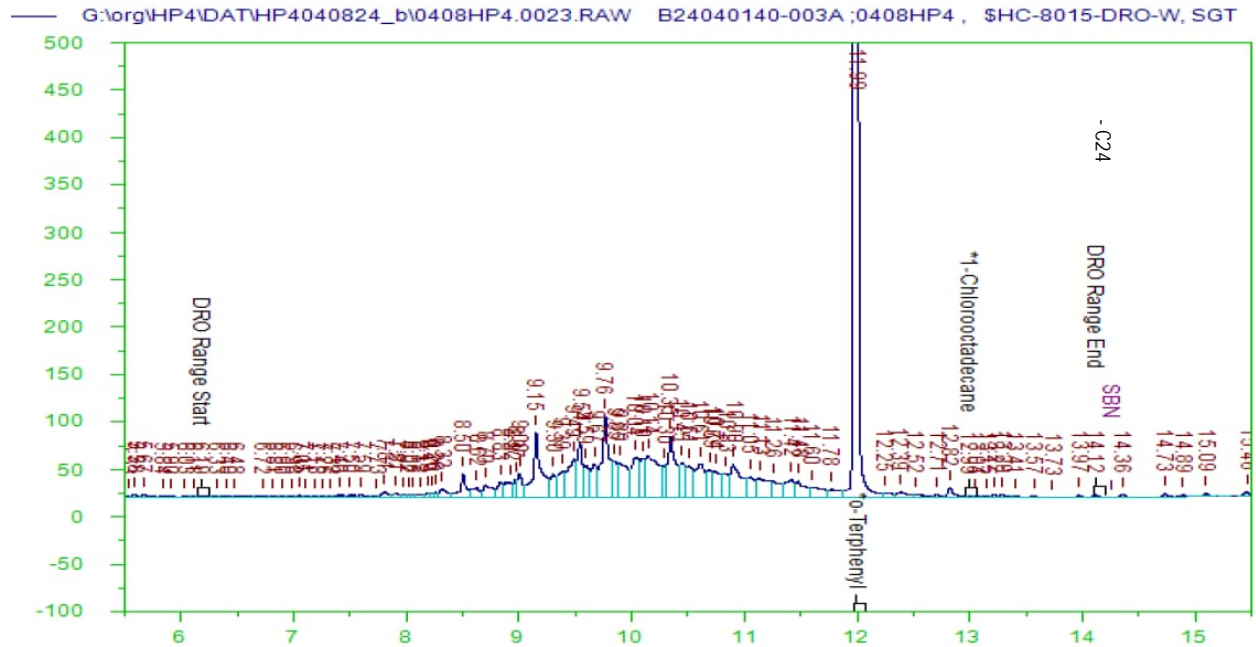
Results (ug/L): TPH-d (C10 to C24) 208.4 J

TPH-o (C24 to C40) <143 U



Results (ug/L): TPH-d SGC (C10 to C24) 164.4 J

TPH-o SGC (C24 to C40) <143 U



Location: RHMW08 Sample ID: RHMW08-GN01LF-2406A

Sample Date: 6/3/2024

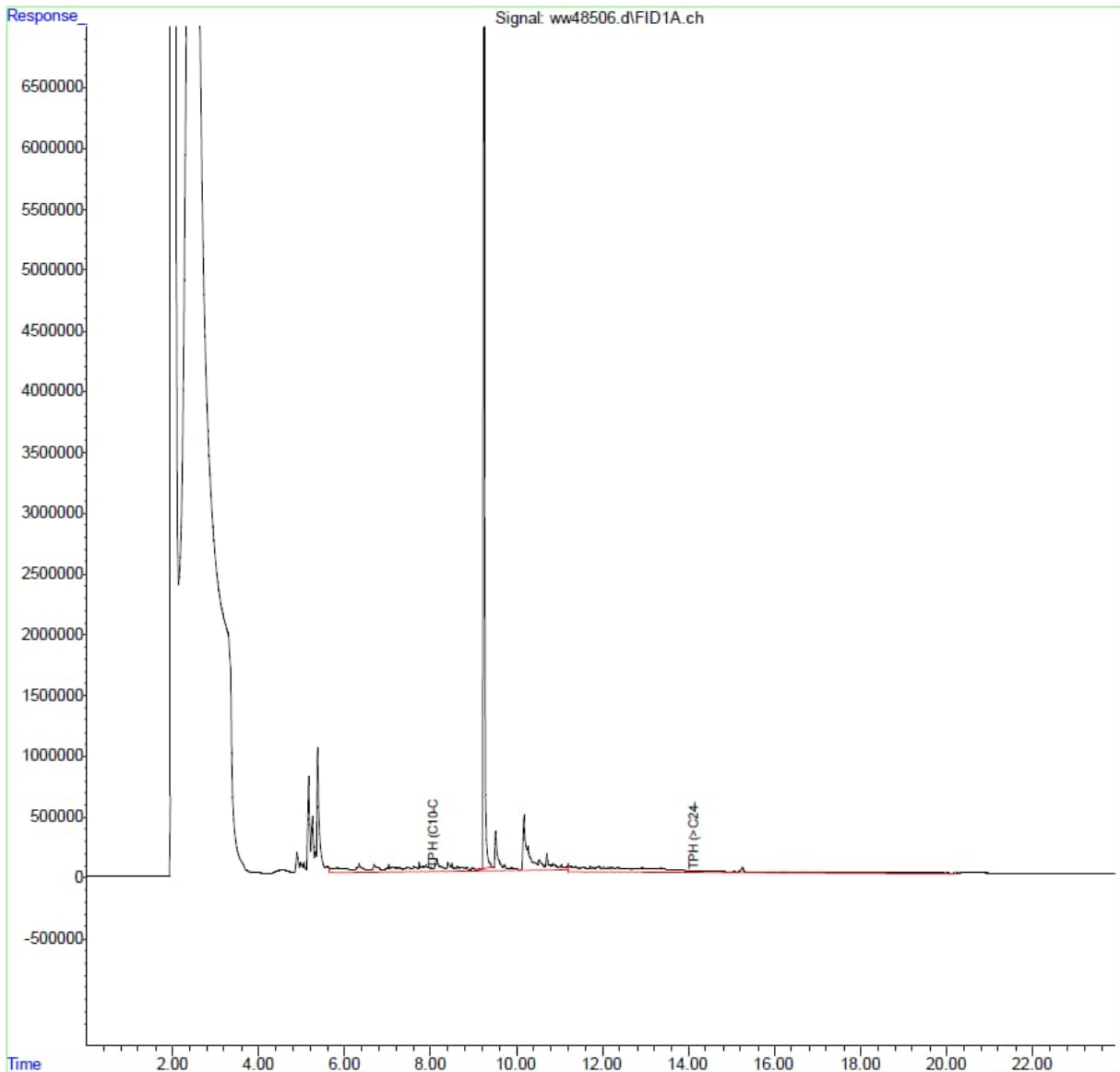
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) 110 J

TPH-o (C24 to C40) <170 U

Quant Time: Jun 10 10:19:46 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

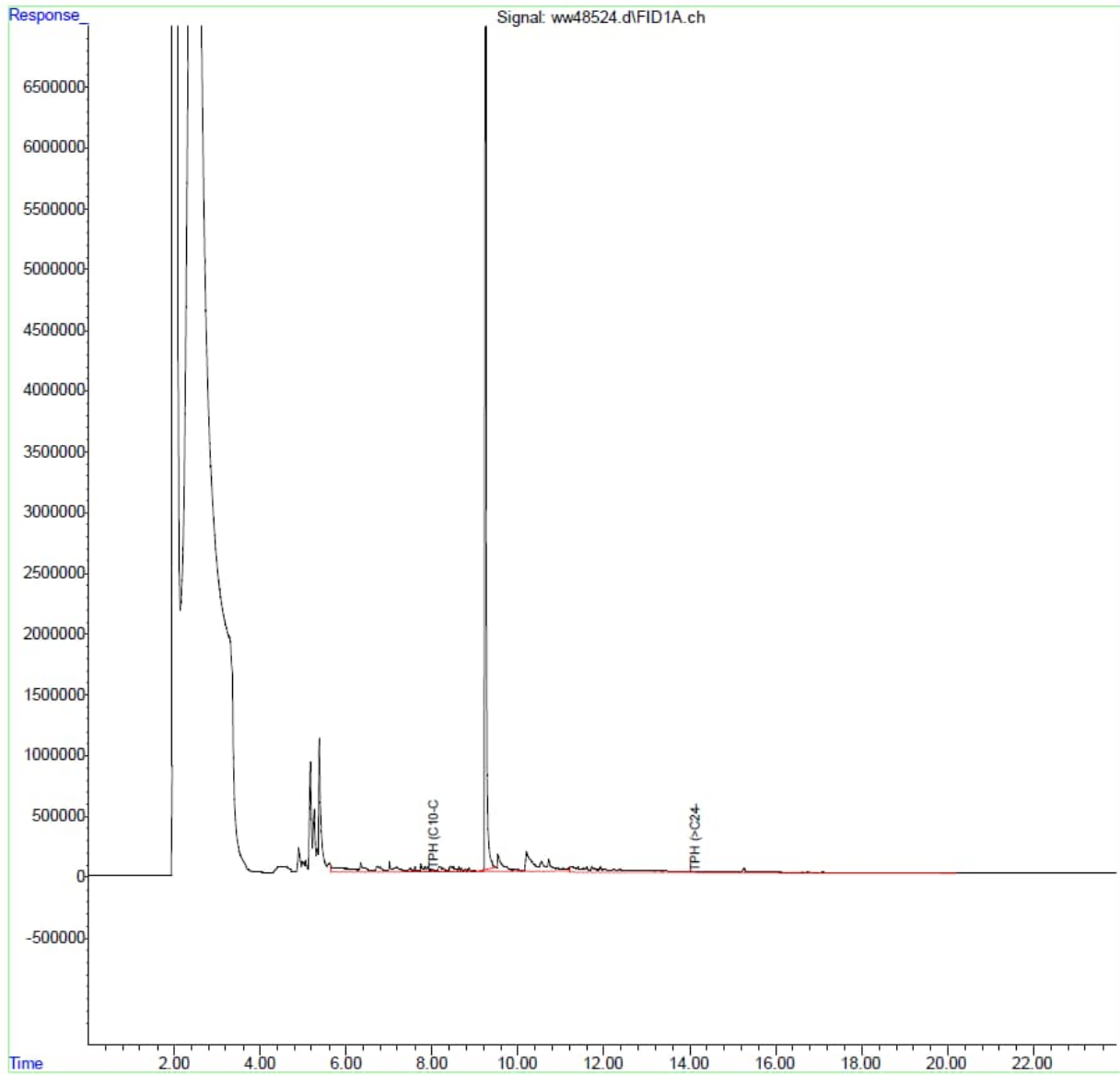


Results (ug/L): TPH-d SGC (C10 to C24) <100 U

TPH-o SGC (C24 to C40) <170 U

Quant Time: Jun 10 17:04:40 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



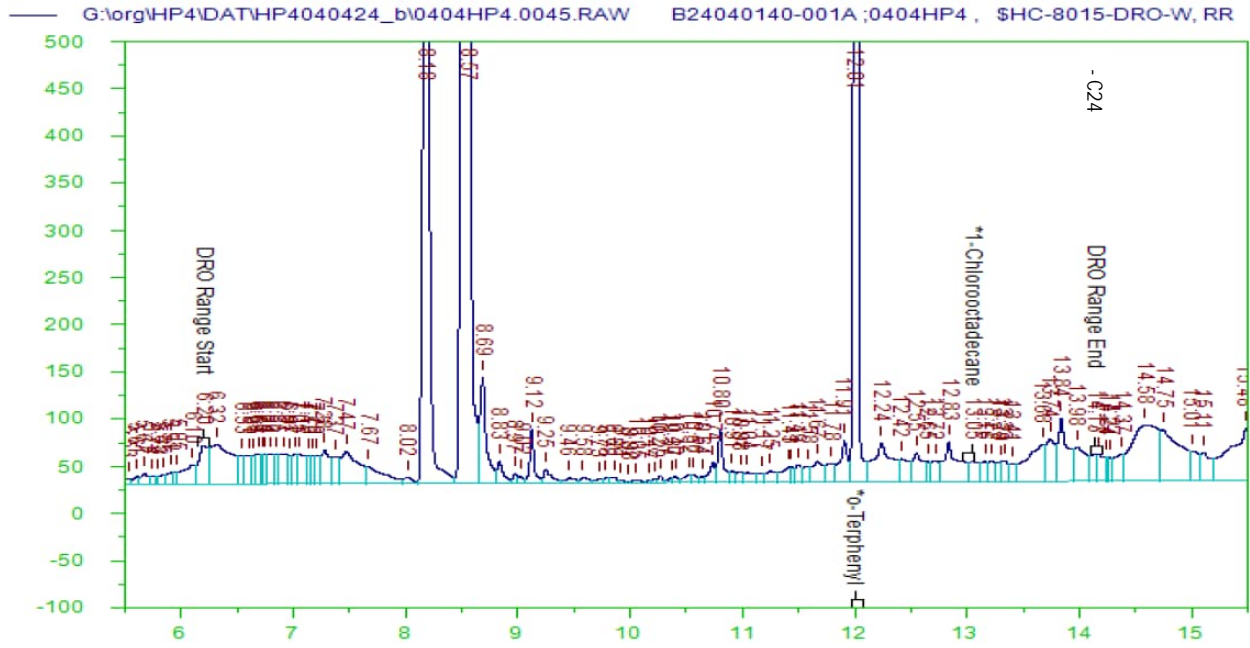
Location: RHMW15-05
Lab: Energy

Sample ID: RHMW15-05-WGN01G-2404

Sample Date: 4/1/2024

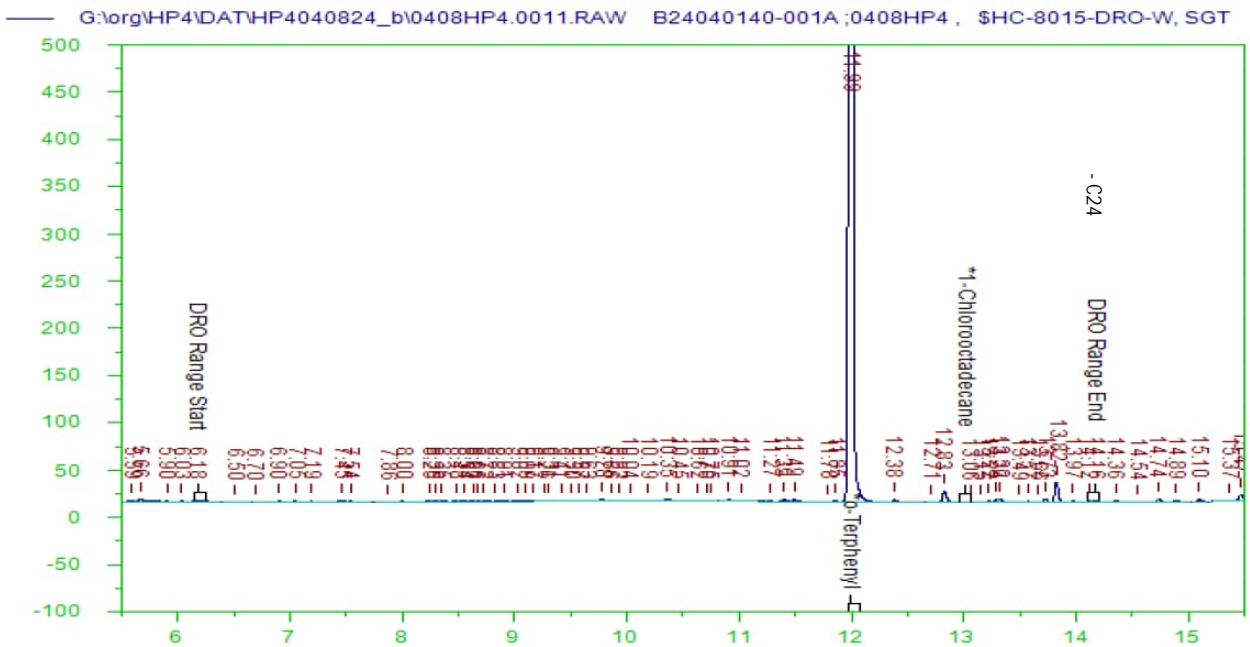
Results (ug/L): TPH-d (C10 to C24) 1379

TPH-o (C24 to C40) 570.5



Results (ug/L): TPH-d SGC (C10 to C24) <141 U

TPH-o SGC (C24 to C40) <141 U



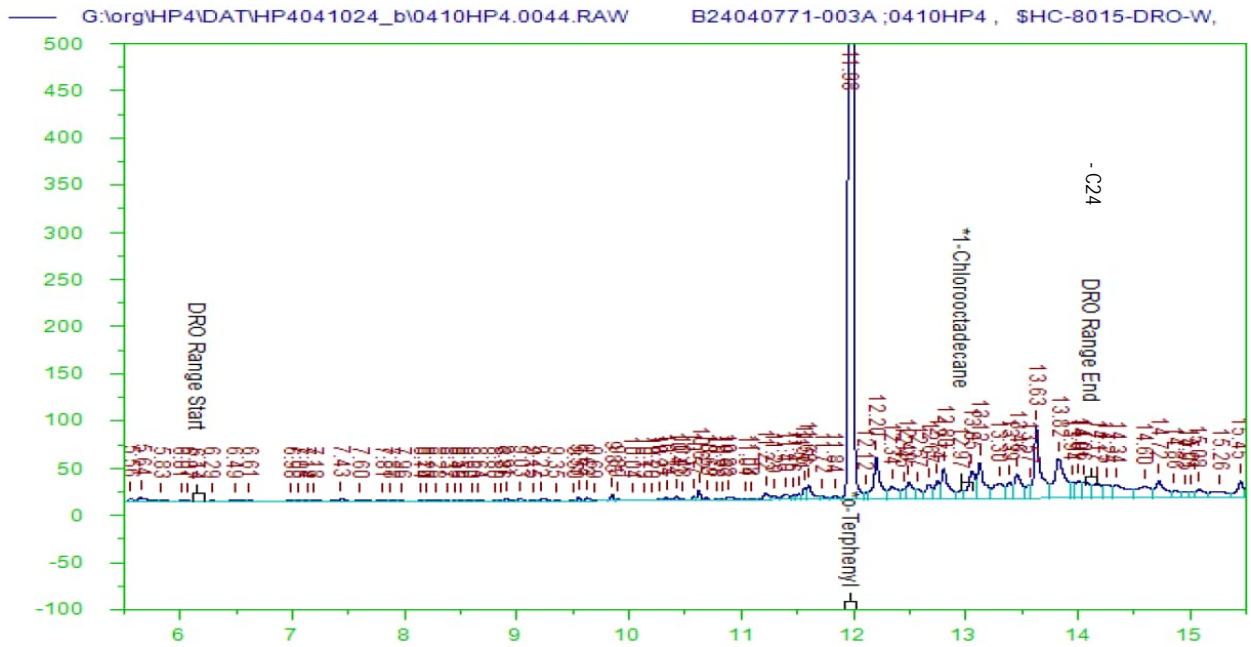
Location: RHP04B
Lab: Energy

Sample ID: RHP04B-WGN01LF-2404

Sample Date: 4/9/2024

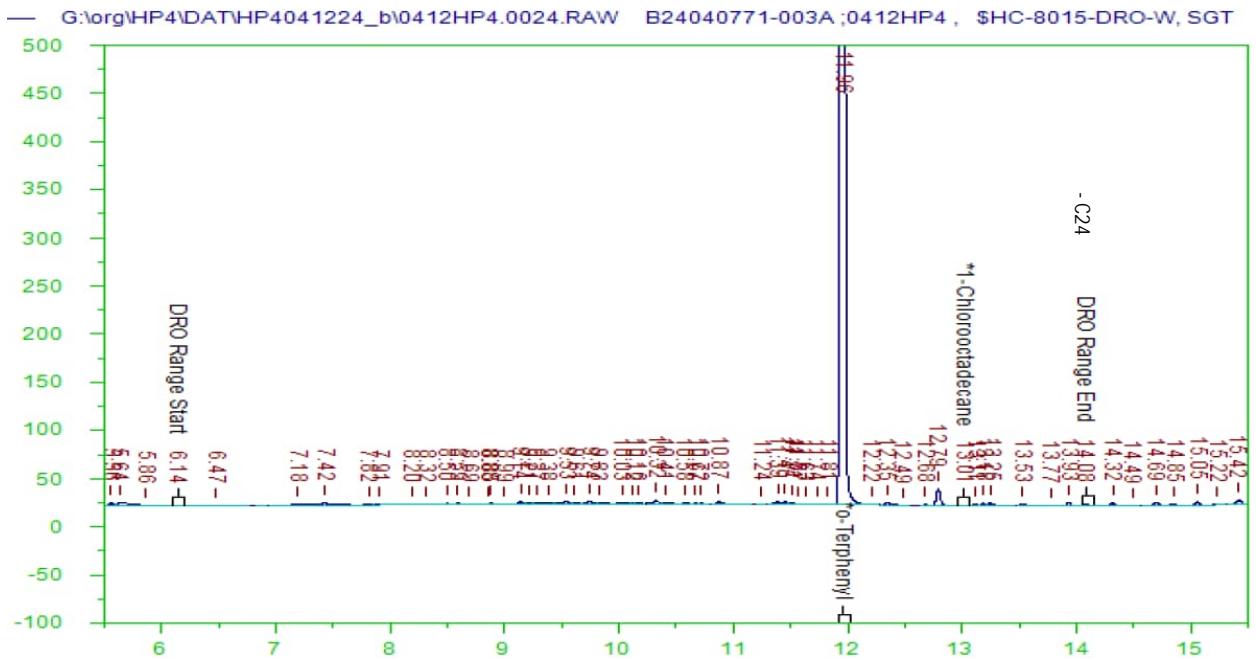
Results (ug/L): TPH-d (C10 to C24) 78.74 J

TPH-o (C24 to C40) 107.1 J



Results (ug/L): TPH-d SGC (C10 to C24) <144 U

TPH-o SGC (C24 to C40) <144 U



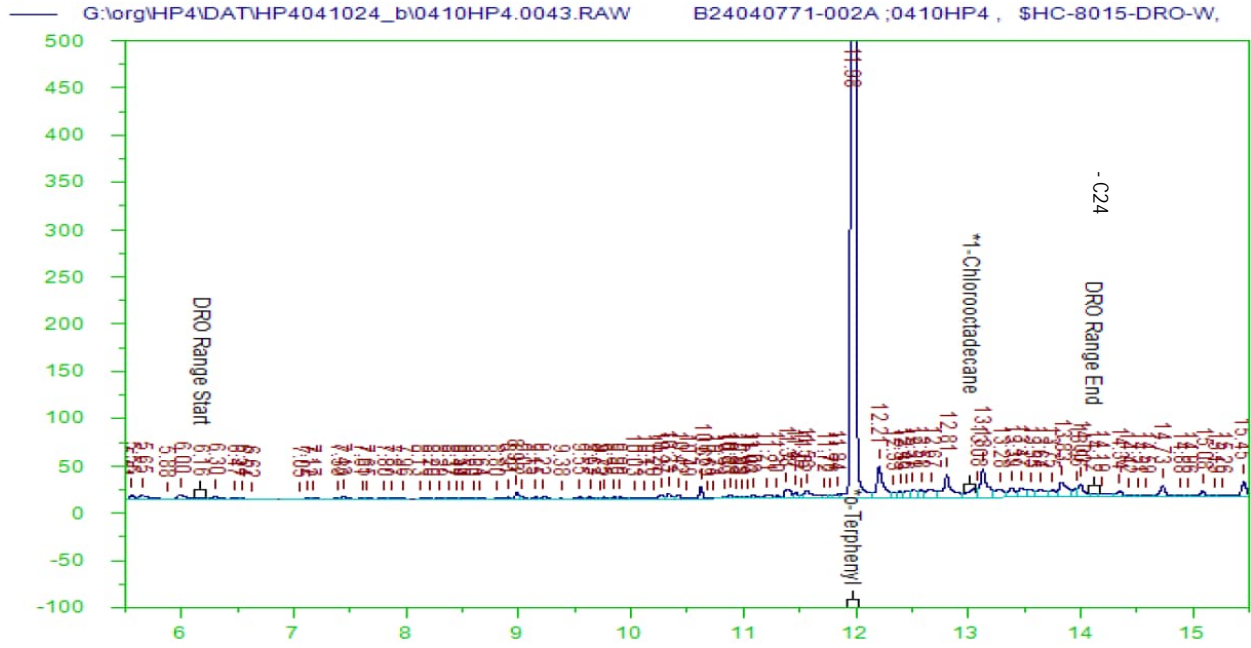
Location: RHP04C
Lab: Energy

Sample ID: RHP04C-WGN01LF-2404

Sample Date: 4/9/2024

Results (ug/L): TPH-d (C10 to C24) 40.41 J

TPH-o (C24 to C40) <141 U



Location: NMW26

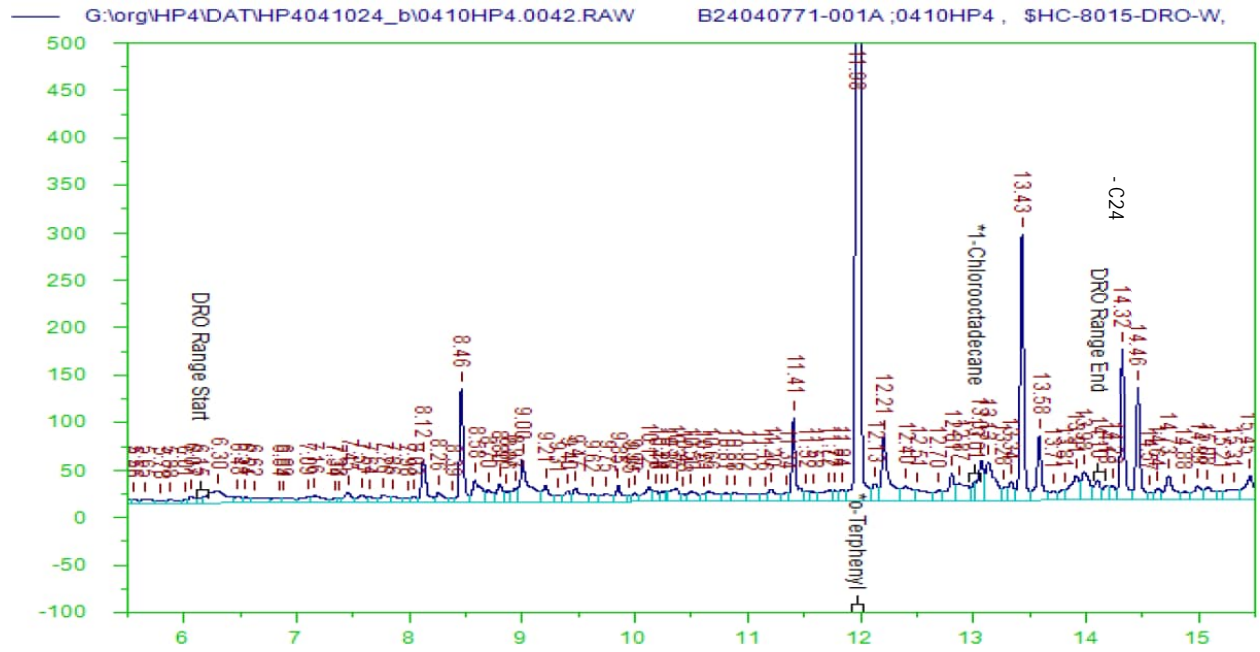
Sample ID: NMW26-WGN01LF-2404

Sample Date: 4/9/2024

Lab: Energy

Results (ug/L): TPH-d (C10 to C24) 171.5 J

TPH-o (C24 to C40) 173.3 J



Location: NMW32

Sample ID: NMW32-WGN01LF-2403

Sample Date: 3/21/2024

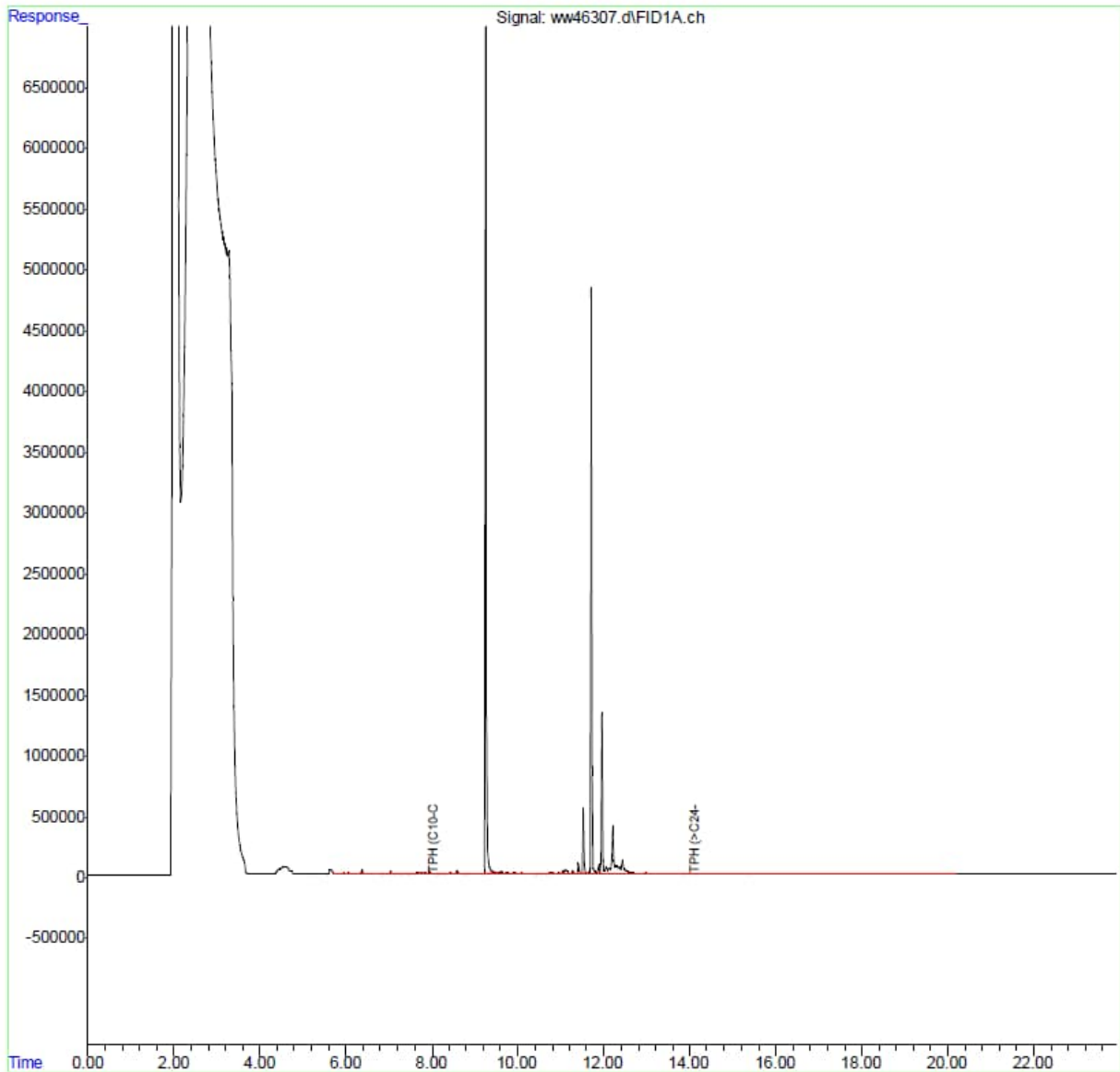
Lab: SGS

Results (ug/L): TPH-d (C10 to C24) <100 U

TPH-o (C24 to C40) 145 J

Quant Time: Mar 27 10:21:10 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

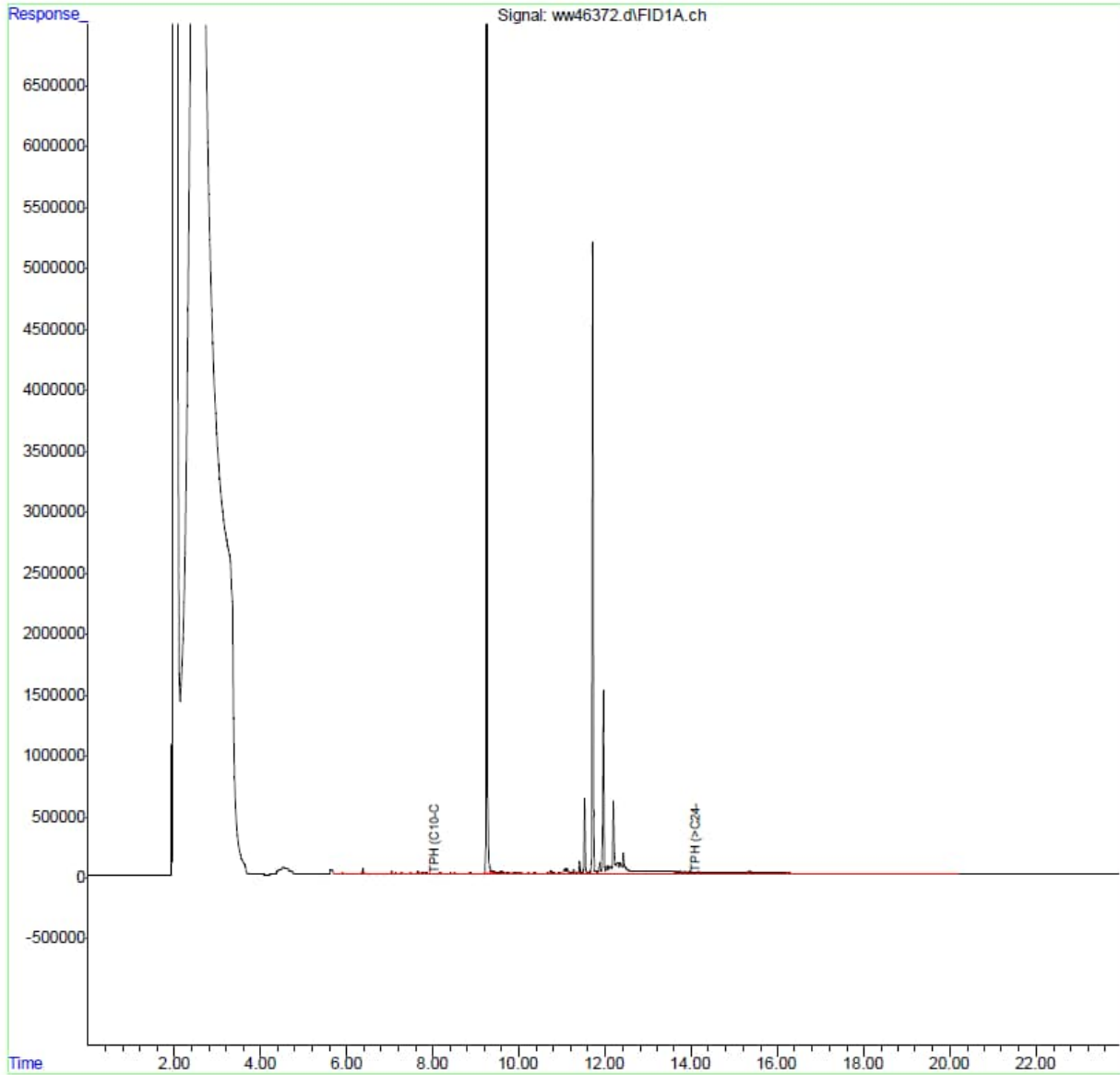


Results (ug/L): TPH-d SGC (C10 to C24) <100 U

TPH-o SGC (C24 to C40) 189 J

Quant Time: Mar 29 10:49:35 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Location: NMW34

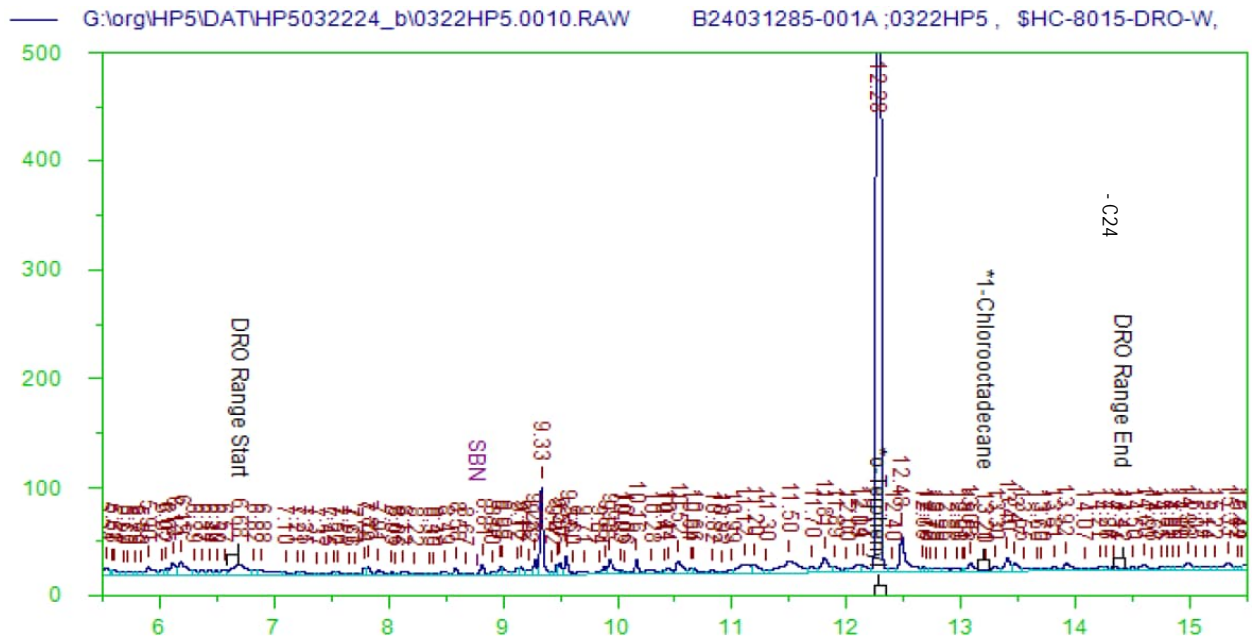
Sample ID: NMW34-WGN01LF-2403

Sample Date: 3/19/2024

Lab: Energy

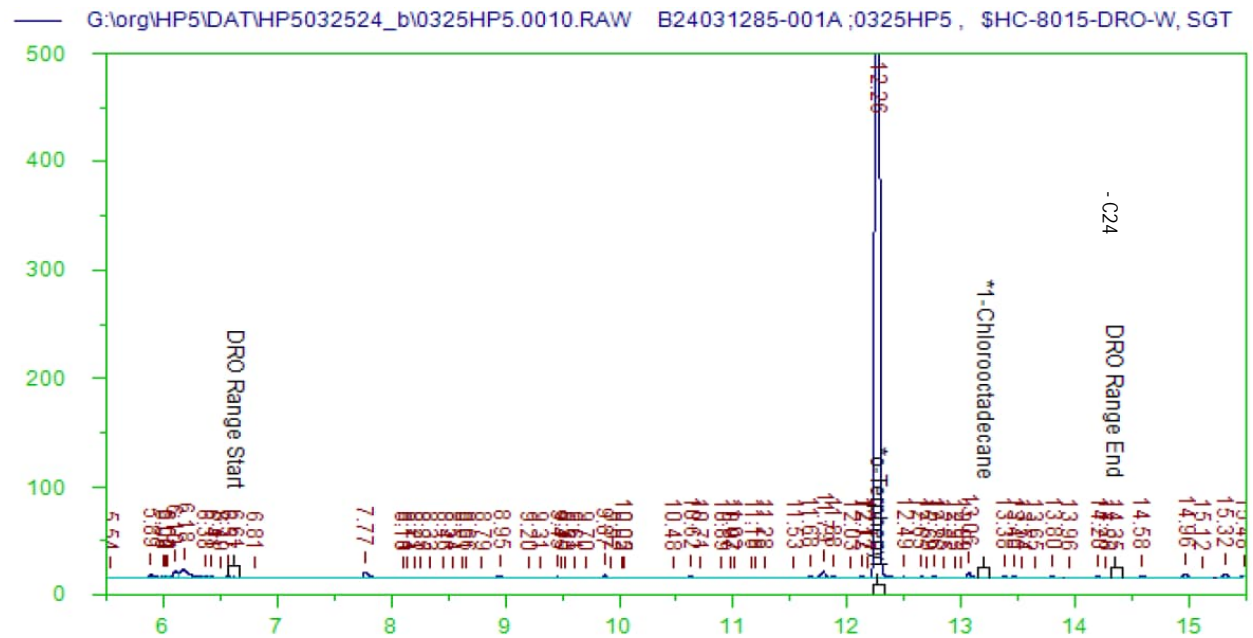
Results (ug/L): TPH-d (C10 to C24) 57.54 J

TPH-o (C24 to C40) 158.1 J



Results (ug/L): TPH-d SGC (C10 to C24) <141 U

TPH-o SGC (C24 to C40) <189 U

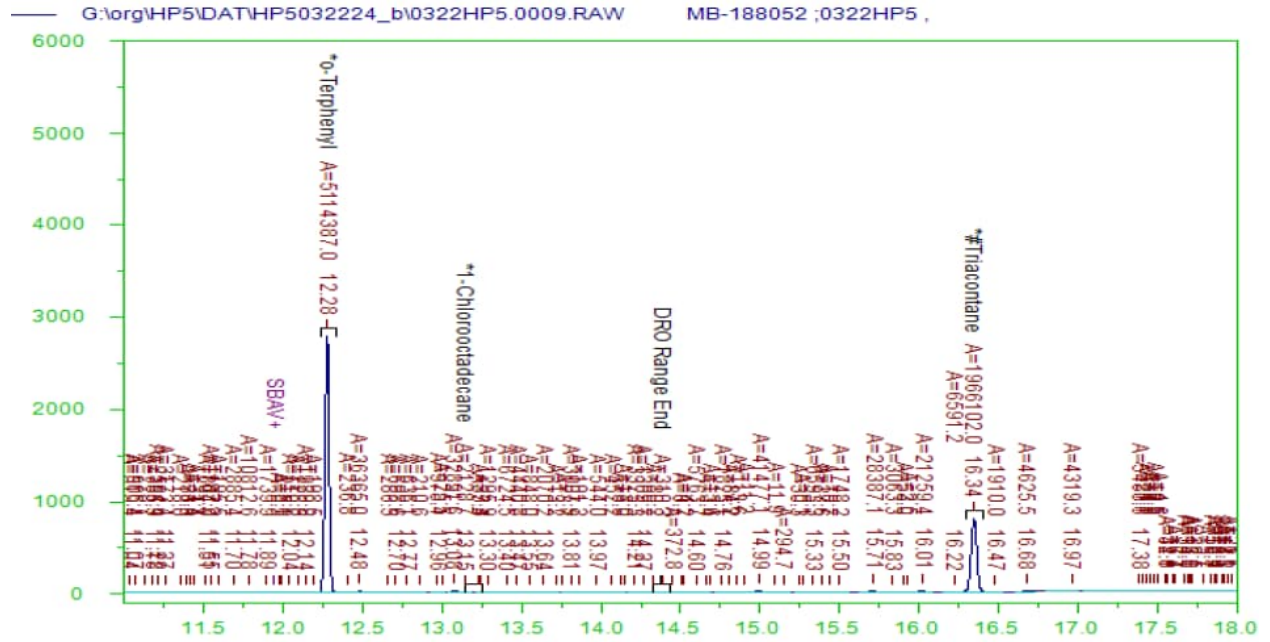


Method Blank Associated with SDG B24031285

Sample ID: NMW34-WGN01LF-2403

Sample Date: 3/19/2024

Lab: Energy



Method Blank Associated with SDG FC14303

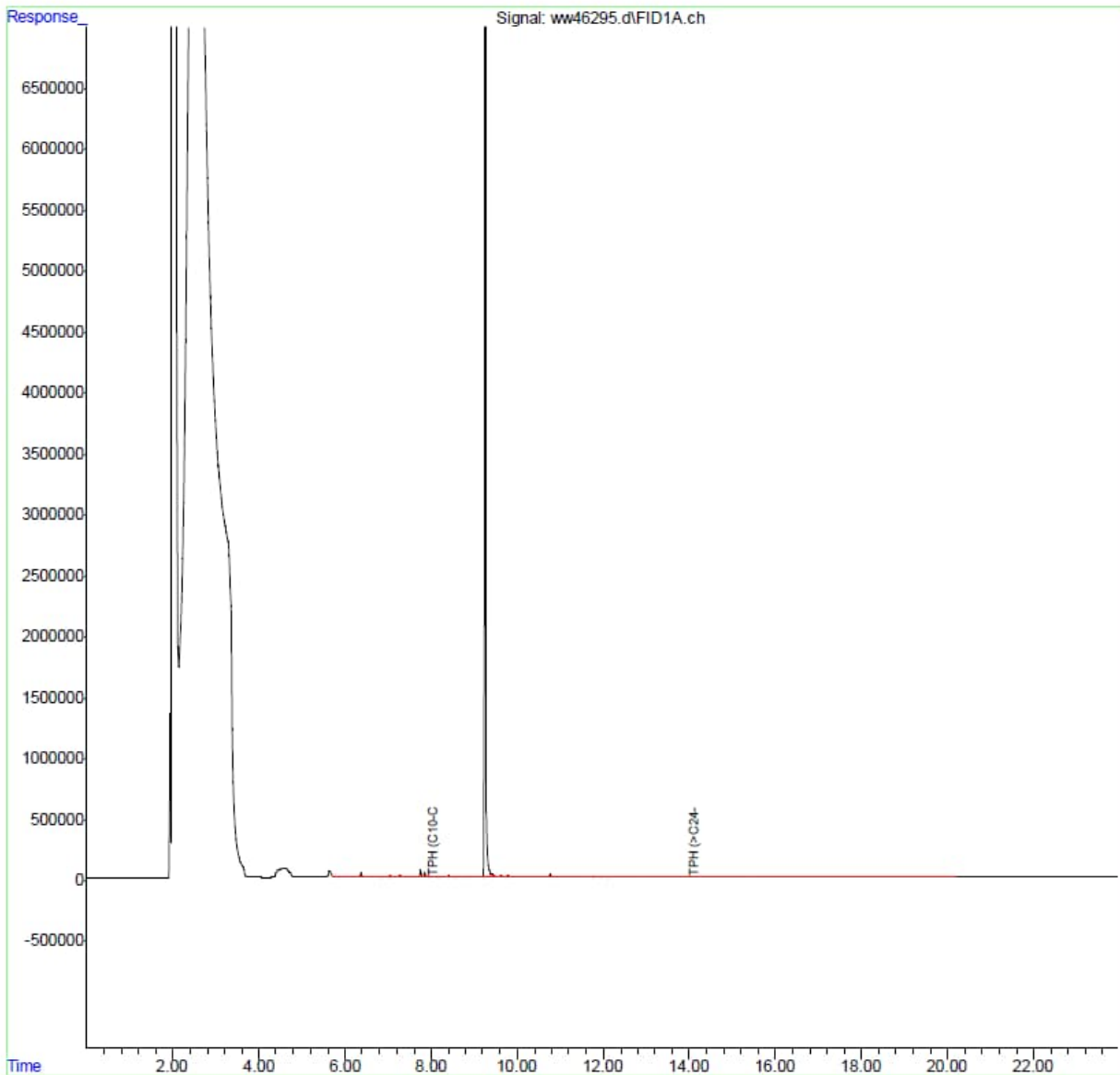
Sample ID: NMW32-WGN01LF-2403

Sample Date: 3/21/2024

Lab: SGS

Quant Time: Mar 27 10:20:47 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

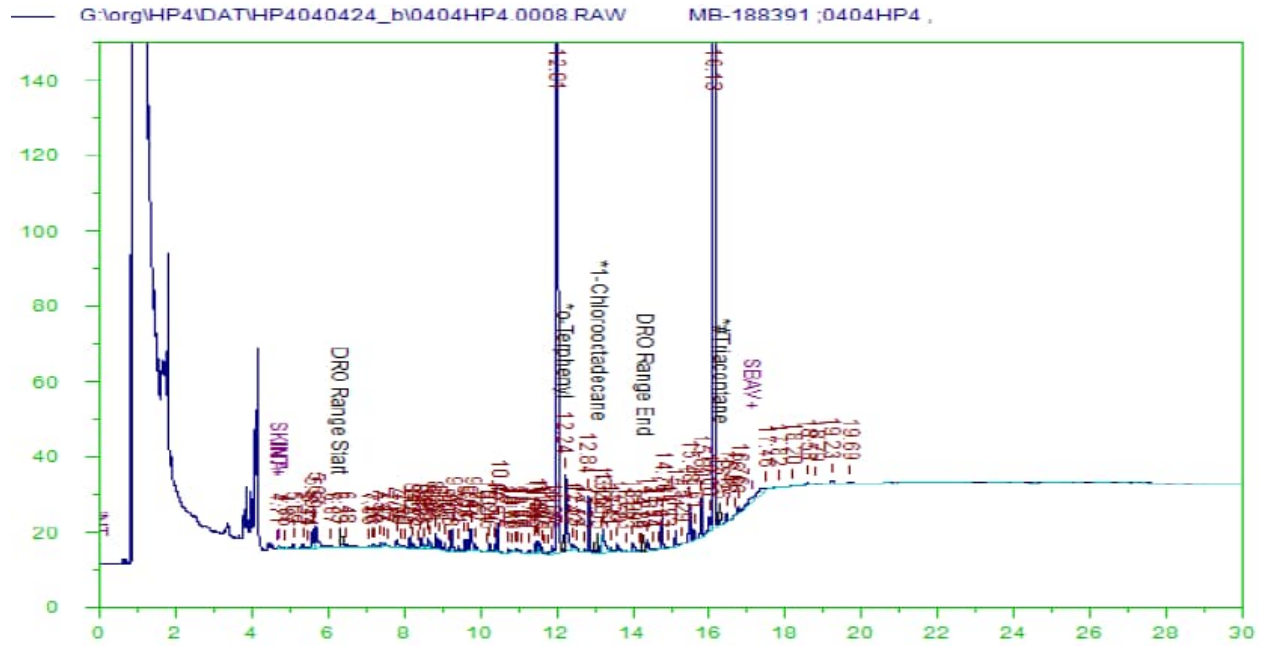


Method Blank Associated with SDG B24040140

Sample ID: RHMW06-WGN01LF-2404, RHMW08-WGN01LF-2404, RHMW15-05-WGN01G-2404

Sample Date: 4/1/2024

Lab: Energy

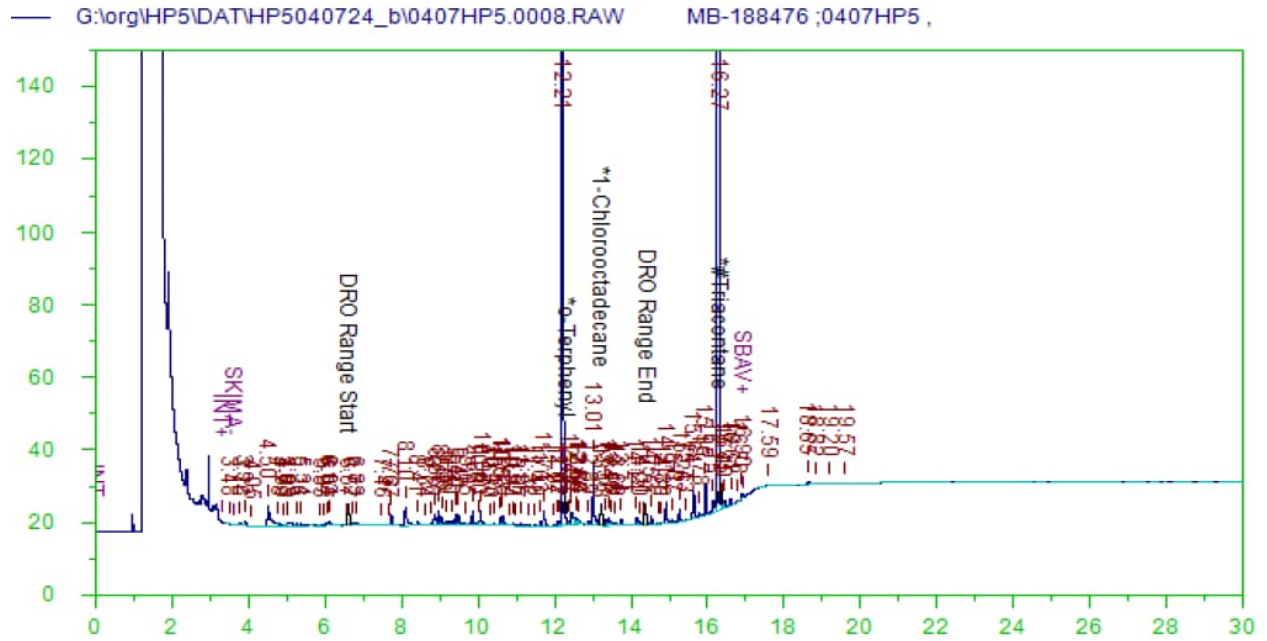


Method Blank Associated with SDG B24040475

Sample ID: RHMW01R-WGN01LF-2404, RHMW01R-WGFD01LF-2404, RHMW02-WGN01LF-2404, RHMW02-WGFD01LF-2404, RHMW03-WGN01LF-2404

Sample Date: 4/4/2024

Lab: Energy



Method Blank Associated with SDG FC14605

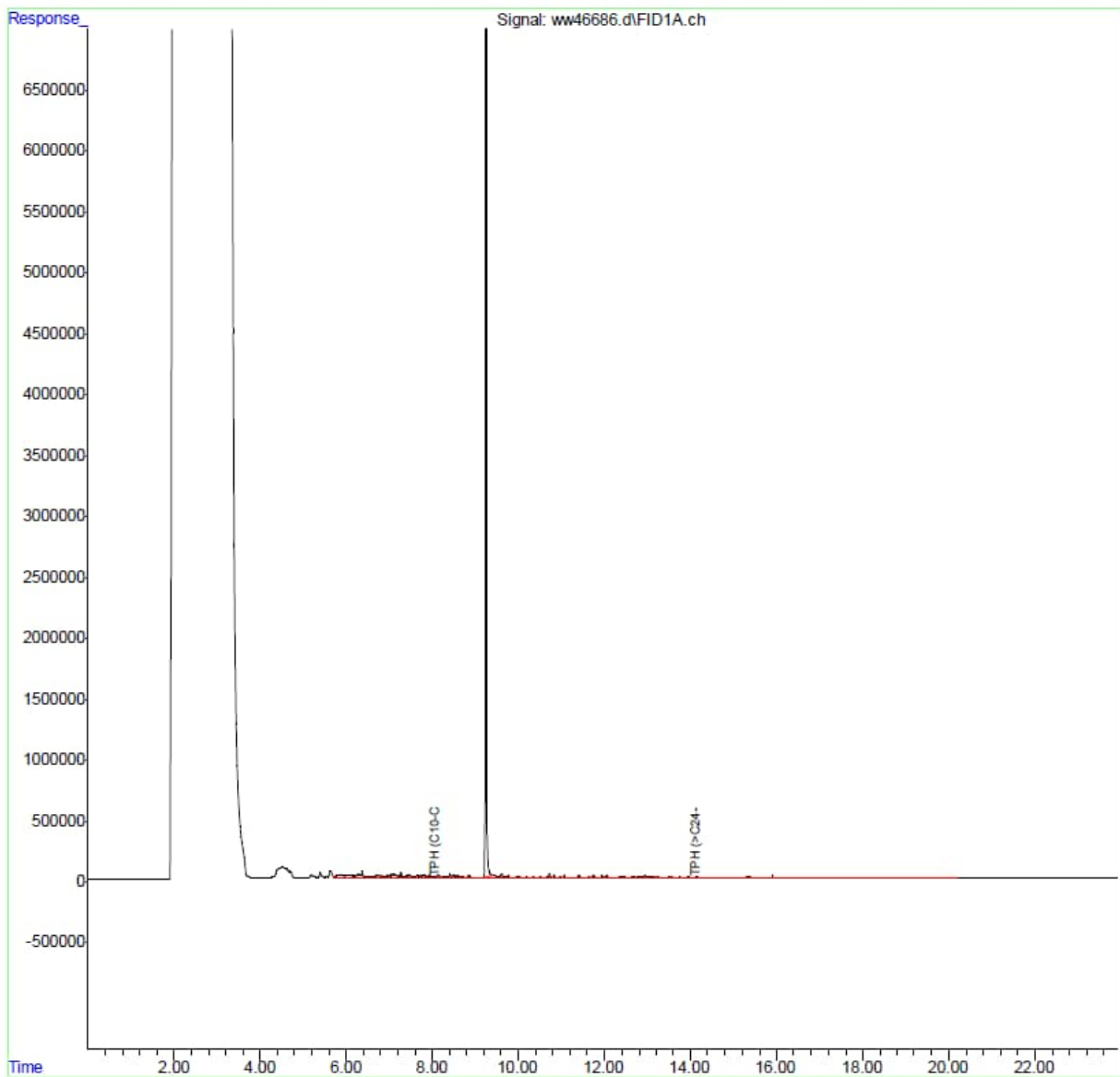
Sample ID: RHMW01R-WGN01LF-2404, RHMW01R-WGFD01LF-2404, RHMW02-WGN01LF-2404,
RHMW02-WGFD01LF-2404

Sample Date: 4/4/2024

Lab: SGS

Quant Time: Apr 10 09:31:01 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm

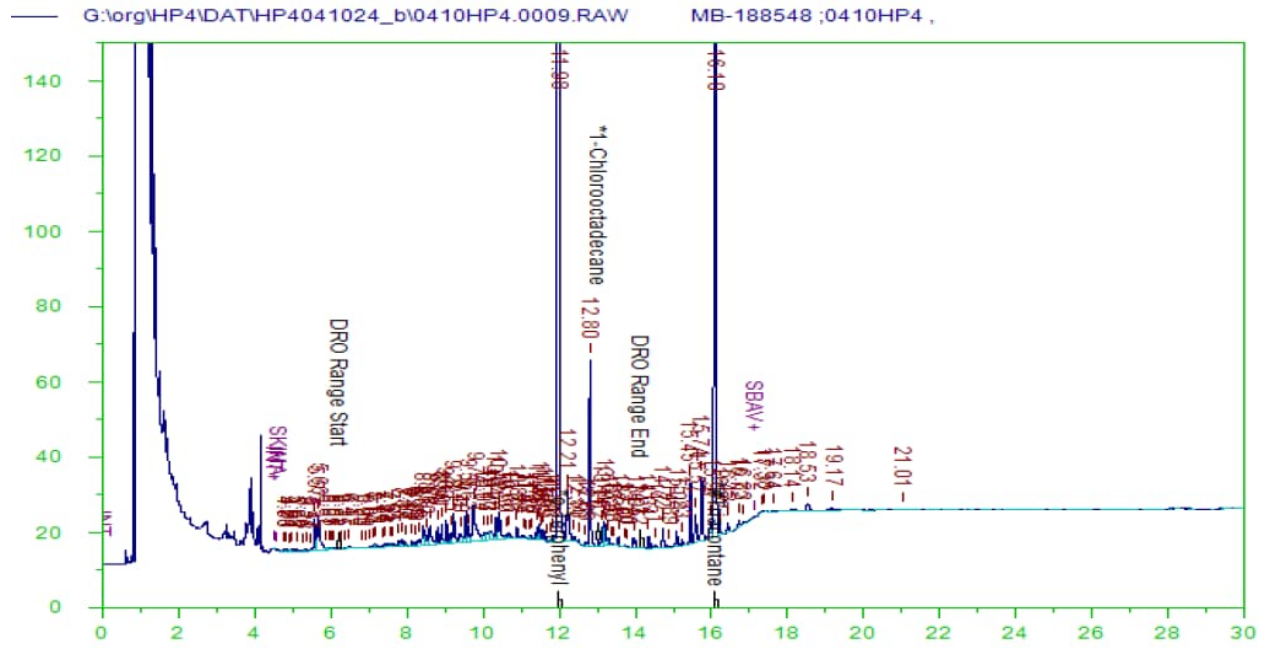


Method Blank Associated with SDG B24040771

Sample ID: NMW26-WGN01LF-2404, RHP04B-WGN01LF-2404, RHP04C-WGN01LF-2404

Sample Date: 4/9/2024

Lab: Energy



Method Blank Associated with SDG FC15585

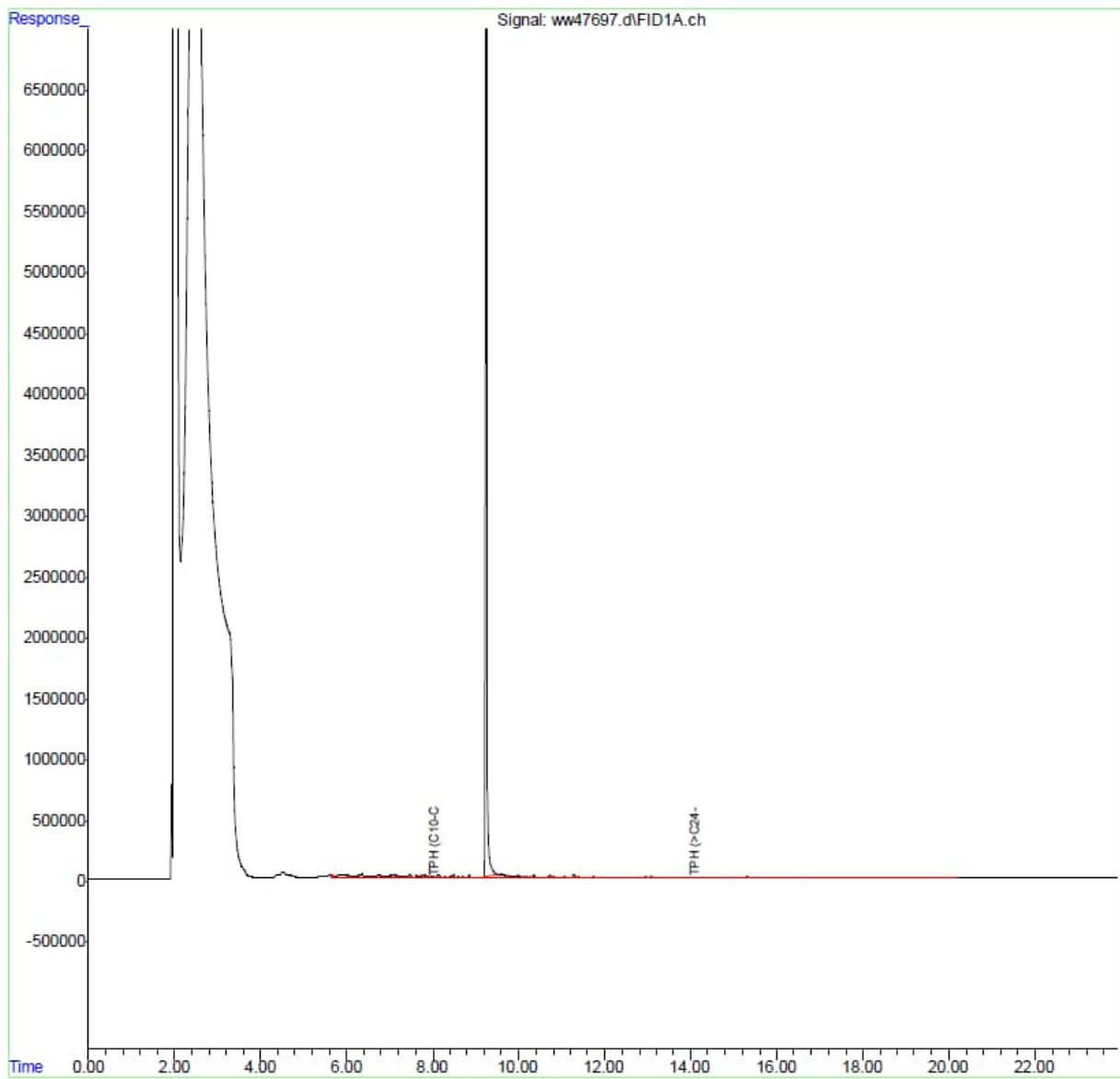
Sample ID: RHMW01R-WGN01LF-2405A, RHMW01R-WGFD01LF-2405A, RHMW02-WGN01LF-2405A, RHMW02-WGFD01LF-2405A

Sample Date: 5/9/2024

Lab: SGS

Quant Time: May 14 13:47:35 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Method Blank Associated with SDG FC15936

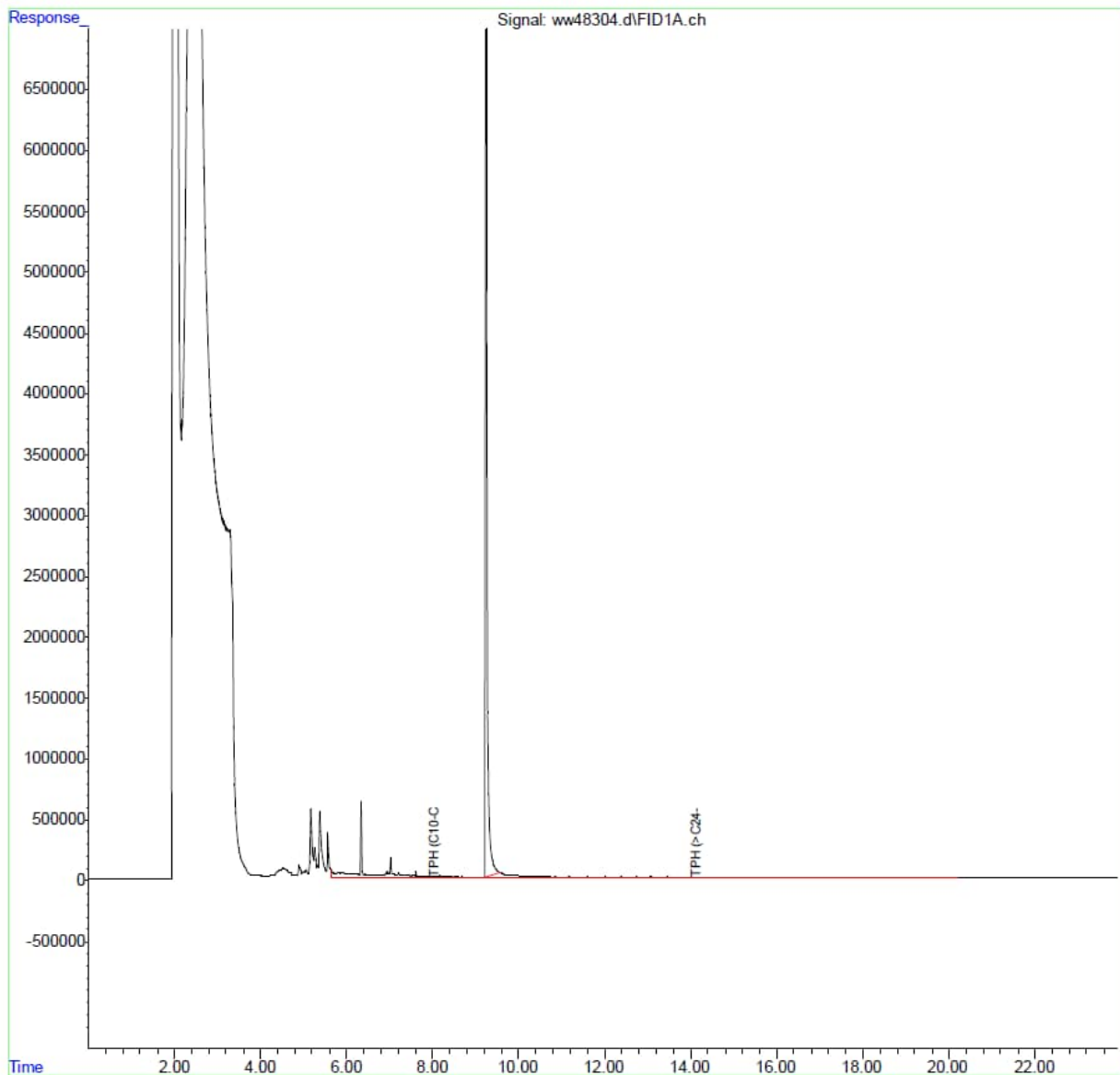
Sample ID: RHMW01R-WGN01LF-2405B, RHMW01R-WGFD01LF-2405B, RHMW02-WGN01LF-2405B,
RHMW02-WGFD01LF-2405B

Sample Date: 5/23/2024

Lab: SGS

Quant Time: Jun 03 10:21:43 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Method Blank Associated with SDG FC16127

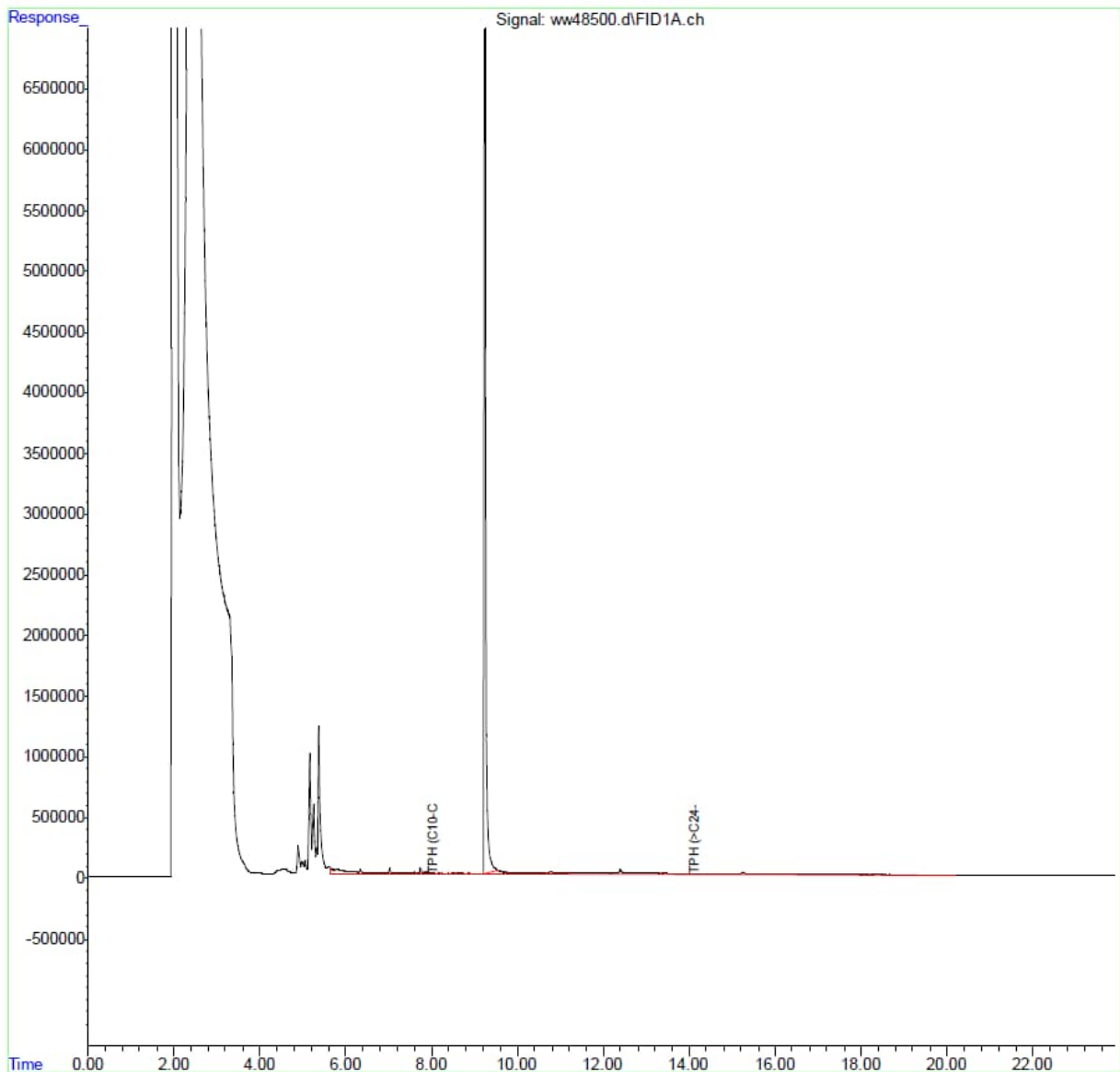
Sample ID: RHMW01R-WGN01LF-2406A, RHMW01R-WGFD01LF-2406A, RHMW02-WGN01LF-2406A,
RHMW02-WGFD01LF-2406A, RHMW08-WGN01LF-2406A

Sample Date: 6/3/2024

Lab: SGS

Quant Time: Jun 10 10:19:33 2024
Quant Method : C:\msdchem\2\methods\DRO_ORO2_091523_.M
Quant Title : TPH by SW846 8015C
QLast Update : Fri Sep 15 10:20:15 2023
Response via : Initial Calibration

Volume Inj. :
Signal Phase : DB-5
Signal Info : 0.25 mm



Appendix B.5 – Natural Attenuation Parameters

Appendix B.5.1: NAP Analytical Results

Location				HDMW2253-03	HDMW2253-03	HDMW2253-03	HDMW2253-03	NMW24	NMW24	NMW24	NMW24	NMW24	NMW25	NMW25
COC ID				HDMW2253-03-WGN01LF-2404	HDMW2253-03-WGN01LF-2405A	HDMW2253-03-WGN01LF-2405B	HDMW2253-03-WGN01LF-2406A	NMW24-WGN01LF-2403	NMW24-WGN01LF-2404	NMW24-WGN01LF-2405A	NMW24-WGN01LF-2405B	NMW24-WGN01LF-2406A	NMW25-WGN01LF-2403	NMW25-WGN01LF-2404
Collection Date				4/12/2024	5/17/2024	5/28/2024	6/14/2024	3/20/2024	4/10/2024	5/15/2024	5/29/2024	6/12/2024	3/20/2024	4/10/2024
Sample Type				N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters														
Methane	74-82-8	RSK175	µg/L	0.37 J	1.4	1	1.4	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	0.27 J	<0.25 U
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	0.86 J	0.53 J	0.52 J	1.1 J-	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	—	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	0.2 J-	0.23	0.23	0.23	—	0.88	1	1.1	1.1	—	5.8
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.24	0.28 J+	0.23 J+	0.25	—	0.95	1.1	0.94	1.2	—	5 J+
Sulfate (as SO ₄)	14808-79-8	300	mg/L	55	29	30	38	—	21	24	24	25	—	160
Chloride (as Cl)	16887-00-6	300	mg/L	86	86	86	86	—	80	90	88	91	—	220
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.24	0.28 J+	0.23 J+	0.25	—	0.95	1.1	0.94	1.2	—	5 J+
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	18	53	53	44	—	140	160	140	140	—	190
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	—	<7 U	<7 U	<7 U	<7 U	—	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	18	53	53	44	—	140	160	140	140	—	190
Total Organic Carbon	TOC	9060A	mg/L	<750 U	819 J	<750 U	293 J	—	1390	666 J	270 J	280 J	—	1400
Dissolved Organic Carbon	DOC	9060A	mg/L	<750 U	1170	<750 U	608 J	—	978 J+	1980	575 J	427 J	—	2010
General Chemistry														
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Field Parameters														
Total Dissolved Solids	—	—	ppm	307	270	297	305	378	379	438	396	407	948	917
pH	—	—	—	6.44	6.40	6.45	6.43	7.09	7.00	7.25	7.04	7.00	7.10	6.97
Specific Conductivity	—	—	mS/cm	0.470	0.420	0.460	0.470	0.580	0.580	0.670	0.610	0.600	1.46	1.41
Dissolved Oxygen	—	—	mg/L	0.360	0.460	0.420	0.340	5.94	5.95	5.37	5.73	5.60	7.82	7.92
Turbidity	—	—	NTU	28.9	16.6	17.6	25.4	0.400	0.700	0.00	0.0200	0.00	1.30	1.14
Temperature	—	—	°C	23.2	23.3	23.7	23.3	25.4	25.8	25.6	25.8	25.7	26.5	26.8
ORP	—	—	mV	62.8	116	118	114	263	247	296	255	219	255	261
Salinity	—	—	ppt	0.230	0.200	0.220	0.230	0.280	0.300	0.300	0.300	0.310	0.740	0.700

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppt = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				NMW25	NMW25	NMW25	NMW26	NMW26	NMW26	NMW26	NMW26	NMW26	NMW30	NMW30	NMW30
COC ID				NMW25-WGN01LF-2405A	NMW25-WGN01LF-2405B	NMW25-WGN01LF-2406A	NMW26-WGN01LF-2403	NMW26-WGN01LF-2404	NMW26-WGN01LF-2405A	NMW26-WGN01LF-2405B	NMW26-WGN01LF-2406A	NMW26-WGN01LF-2406B	NMW30-WGN01LF-2403	NMW30-WGN01LF-2404	NMW30-WGN01LF-2405A
Collection Date				5/15/2024	5/29/2024	6/12/2024	3/23/2024	4/9/2024	5/13/2024	5/28/2024	6/10/2024	6/24/2024	3/20/2024	4/11/2024	5/16/2024
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters															
Methane	74-82-8	RSK175	µg/L	<0.25 U	<0.25 U	<0.25 U	0.35 J	0.25 J	0.17 J	0.19 J	0.31 J	—	183	123	82.9
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	<0.32 U	<0.32 U	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	—	—	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	5.7	5.8	5.7	—	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 U	—	0.43	0.51
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	5.8	5.9	5.5	—	<0.12 U	0.23	<0.12 U	0.073 J	<0.12 U	—	0.39	0.5
Sulfate (as SO ₄)	14808-79-8	300	mg/L	97	97	96	—	17	16	18	18	17	—	26	29
Chloride (as Cl)	16887-00-6	300	mg/L	230	230	230	—	30	30	30	43	30	—	110	110
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	5.8	5.9	5.5	—	<0.12 U	0.23	<0.12 U	0.073 J	<0.12 U	—	0.39	0.5
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	230	230	220	—	150	110	110	98	120	—	120	120
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	—	<7 U	<7 U	<7 U	<7 U	<7 U	—	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	230	230	220	—	150	110	110	98	120	—	120	120
Total Organic Carbon	TOC	9060A	mg/L	2930	824 J	774 J	—	2320	2780	1650	2320	1670	—	784 J+	1600
Dissolved Organic Carbon	DOC	9060A	mg/L	2150	934 J	790 J	—	2230	2610	1530	2050	—	—	1180 J+	1590
General Chemistry															
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters															
Total Dissolved Solids	—	—	ppm	958	905	900	222	216	218	227	224	238	421	416	459
pH	—	—	—	7.04	6.99	7.00	7.62	7.58	7.63	7.55	8.00	7.60	7.46	7.40	7.50
Specific Conductivity	—	—	mS/cm	1.47	1.39	1.40	0.340	0.330	0.340	0.350	0.300	0.400	0.650	0.640	0.710
Dissolved Oxygen	—	—	mg/L	7.74	7.96	7.80	0.800	0.960	0.670	0.550	1.30	0.800	0.510	0.470	0.540
Turbidity	—	—	NTU	0.200	0.200	0.200	0.540	7.10	2.70	0.200	12.6	10.8	0.900	2.88	0.280
Temperature	—	—	°C	26.7	26.9	27.0	25.0	25.3	24.8	24.9	26.3	24.8	25.2	25.0	24.9
ORP	—	—	mV	312	270	211	74.2	246	299	92.9	102	173	42.0	59.6	152
Salinity	—	—	ppth	0.750	0.710	0.700	0.200	0.160	0.200	0.200	0.200	0.200	0.320	0.300	0.400

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				NMW30	NMW30	NMW32	NMW32	NMW32	NMW32	NMW32	NMW33	NMW33	NMW33	NMW33	NMW33
COC ID				NMW30-WGN01LF-2405B	NMW30-WGN01LF-2406A	NMW32-WGN01LF-2403	NMW32-WGN01LF-2404	NMW32-WGN01LF-2405A	NMW32-WGN01LF-2405B	NMW32-WGN01LF-2406A	NMW33-WGN01LF-2403	NMW33-WGN01LF-2404	NMW33-WGN01LF-2405A	NMW33-WGN01LF-2405B	NMW33-WGN01LF-2406A
Collection Date				5/30/2024	6/13/2024	3/21/2024	4/11/2024	5/16/2024	5/30/2024	6/13/2024	3/21/2024	4/11/2024	5/16/2024	5/30/2024	6/13/2024
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters															
Methane	74-82-8	RSK175	µg/L	59.8	75.4	0.33 J	0.74	<0.25 U	1.3	0.18 J	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	<0.32 U	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	0.55	0.64	—	2.8	3.1	2.5	2.9	—	4.9	4.9	5	5
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.51	0.66	—	2.9	3.2	2.6 J-	2.9	—	4.9	4.7	5	5
Sulfate (as SO ₄)	14808-79-8	300	mg/L	30	31	—	59	59	57	58	—	56	55	56	56
Chloride (as Cl)	16887-00-6	300	mg/L	110	100	—	160	160	160	160	—	260	260	260	260
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.51	0.66	—	2.9	3.2	2.6 J-	2.9	—	4.9	4.7	5	5
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	110	110	—	220	230	220	230	—	240	250	240	250
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	—	<7 U	<7 U	<7 U	<7 U	—	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	110	110	—	220	230	220	230	—	240	250	240	250
Total Organic Carbon	TOC	9060A	mg/L	730 J	529 J	—	1080 J+	2740	835 J	728 J	—	763 J+	2720	536 J	392 J
Dissolved Organic Carbon	DOC	9060A	mg/L	837 J	552 J	—	3300	2680	1050	1320	—	1440	2250	672 J	501 J
General Chemistry															
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters															
Total Dissolved Solids	—	—	ppm	442	403	686	683	749	699	736	917	915	897	920	965
pH	—	—	—	7.52	7.35	7.29	7.19	7.29	7.27	7.30	7.60	7.50	7.60	7.55	7.60
Specific Conductivity	—	—	mS/cm	0.680	0.600	1.06	1.05	1.15	1.08	1.10	1.41	1.41	1.38	1.42	1.50
Dissolved Oxygen	—	—	mg/L	0.500	0.800	5.95	5.99	5.66	4.43	4.90	6.57	6.60	6.58	6.68	6.50
Turbidity	—	—	NTU	10.8	0.00	0.980	0.440	0.400	0.300	0.400	0.810	0.600	0.00	4.50	1.40
Temperature	—	—	°C	25.5	25.6	25.8	26.2	26.0	26.6	26.7	25.7	25.7	24.9	26.5	25.7
ORP	—	—	mV	118	101	266	233	289	217	282	267	231	273	239	269
Salinity	—	—	ppth	0.300	0.300	0.500	0.500	0.580	0.540	0.570	0.700	0.710	0.700	0.700	0.800

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				NMW34	NMW34	NMW34	NMW34	NMW34	NMW34	OWDFMW03A	OWDFMW03A	OWDFMW03A	OWDFMW08A	OWDFMW08A	OWDFMW08A
COC ID				NMW34-WGN01LF-2403	NMW34-WGN01LF-2404	NMW34-WGN01LF-2405A	NMW34-WGN01LF-2405B	NMW34-WGN01LF-2406A	NMW34-WGN01LF-2405A	OWDFMW03A-WGN01LF-2405A	OWDFMW03A-WGN01LF-2405B	OWDFMW03A-WGN01LF-2406A	OWDFMW08A-WGN01LF-2405A	OWDFMW08A-WGN01LF-2405B	OWDFMW08A-WGN01LF-2406A
Collection Date				3/19/2024	4/10/2024	5/14/2024	5/28/2024	6/11/2024	5/15/2024	5/31/2024	6/14/2024	5/15/2024	5/31/2024	6/12/2024	
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters															
Methane	74-82-8	RSK175	µg/L	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	0.32 R	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	3.8	3.5	3.3	3.8	3.8	3.3	0.43	0.44	0.47	0.71	0.71	0.71
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.2	3.4	2.9	3.9	3.7	0.67	0.44	0.5	0.89	0.75	0.75	0.76
Sulfate (as SO ₄)	14808-79-8	300	mg/L	51	45	43	48	46	14	14	14	40	40	40	40
Chloride (as Cl)	16887-00-6	300	mg/L	110	96	91	94	91	48	49	48	240	250	250	250
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.2	3.4	2.9	3.9	3.7	0.67	0.44	0.5	0.89	0.75	0.75	0.76
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	140	150	140	130	140	110	100	110	89	83	83	87
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	140	150	140	130	140	110	100	110	89	83	83	87
Total Organic Carbon	TOC	9060A	mg/L	—	779 J+	2340	471 J	452 J	1140	<750 U	352 J	1310	582 J	278 J	278 J
Dissolved Organic Carbon	DOC	9060A	mg/L	—	1290 J+	1450	829 J	496 J	883 J	569 J	344 J	1450	503 J	503 J	574 J
General Chemistry															
Bromide	24959-67-9	300	mg/L	0.41 J	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	0.13 J	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	16000	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	19000	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	8.3 J	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	4900	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	93000	—	—	—	—	—	—	—	—	—	—	—
Field Parameters															
Total Dissolved Solids	—	—	ppm	490	451	466	456	486	241	265	242	675	716	716	722
pH	—	—	—	6.80	6.70	6.74	6.64	6.70	7.99	8.20	7.95	7.04	7.09	7.09	7.00
Specific Conductivity	—	—	mS/cm	0.750	0.690	0.720	0.700	0.800	0.370	0.410	0.400	1.04	1.10	1.10	1.10
Dissolved Oxygen	—	—	mg/L	5.76	5.56	5.35	5.38	5.30	2.00	2.08	1.30	4.68	4.99	4.99	4.90
Turbidity	—	—	NTU	0.600	0.400	0.00	0.130	1.39	1.35	0.540	6.30	0.900	7.80	7.80	1.52
Temperature	—	—	°C	25.6	25.4	25.9	26.1	25.7	25.5	25.9	25.9	25.5	25.5	25.5	25.5
ORP	—	—	mV	292	291	307	274	308	182	218	131	144	273	273	285
Salinity	—	—	ppth	0.370	0.340	0.400	0.400	0.400	0.200	0.200	0.200	0.520	0.550	0.550	0.600

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHMW01R	RHMW01R	RHMW01R	RHMW01R	RHMW01R	RHMW01R	RHMW02	RHMW02	RHMW02	RHMW02	RHMW02	RHMW03
COC ID				RHMW01R-WGN01LF-2404	RHMW01R-WGN01LF-2405A	RHMW01R-WGN01LF-2405B	RHMW01R-WGN01LF-2406A	RHMW01R-WGN01LF-2406B	RHMW02-WGN01LF-2404	RHMW02-WGN01LF-2405A	RHMW02-WGN01LF-2405B	RHMW02-WGN01LF-2406A	RHMW02-WGN01LF-2406B	RHMW02-WGN01LF-2406A	RHMW03-WGN01LF-2404
Collection Date				4/4/2024	5/9/2024	5/23/2024	6/3/2024	6/17/2024	4/4/2024	5/9/2024	5/23/2024	6/3/2024	6/17/2024	4/4/2024	
Sample Type				N	N	N	N	N	N	N	N	N	N	N	
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters															
Methane	74-82-8	RSK175	µg/L	315	335	296	342	—	2730	2670	2920	2500	—	<0.25 U	
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	0.46 J	0.42 J	0.42 J	0.43 J	0.44 J	1.6	1.4	2	1.6	1.7	<0.32 U	
Nitrate (as N)	14797-55-8	300.0	mg/L	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 U	1.1	
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 UJ	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 UJ	1.9	
Sulfate (as SO ₄)	14808-79-8	300	mg/L	5.8	5.7	6	6.2	5.8	4.1	6.2	13	11	7.9	51	
Chloride (as Cl)	16887-00-6	300	mg/L	42	42	42	42	42	41	41	41	41	42	47	
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 UJ	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.12 UJ	1.9	
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	84	79	82	81	82	190	170	170	160	170	270	
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	84	79	82	81	82	190	170	170	160	170	270	
Total Organic Carbon	TOC	9060A	mg/L	<750 U	850 J+	584 J	781 J	614 J	4510	7580	9970	6210	6880	1310 J+	
Dissolved Organic Carbon	DOC	9060A	mg/L	1060 J+	1140	781 J	700 J	814 J	3890	6790	7880	6210	6340	1680 J+	
General Chemistry															
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	
Field Parameters															
Total Dissolved Solids	—	—	ppm	185	189	212	199	206	298	316	368	324	331	486	
pH	—	—	—	6.91	6.96	7.01	6.84	7.01	6.60	6.69	6.69	6.70	6.80	6.73	
Specific Conductivity	—	—	mS/cm	0.290	0.290	0.330	0.310	0.320	0.460	0.490	0.570	0.500	0.500	0.750	
Dissolved Oxygen	—	—	mg/L	0.130	0.230	0.150	0.210	0.120	0.0800	0.0800	0.0200	0.100	0.00	0.500	
Turbidity	—	—	NTU	0.110	0.190	0.00	0.00	0.00	0.100	0.300	0.800	0.00	0.00	0.670	
Temperature	—	—	°C	23.4	23.5	23.5	23.6	23.4	24.5	24.5	24.5	24.5	24.5	27.0	
ORP	—	—	mV	-20.6	-45.1	10.8	-55.5	-10.6	-67.2	-114	-177	-126	-76.7	147	
Salinity	—	—	ppth	0.140	0.140	0.160	0.150	0.150	0.200	0.200	0.300	0.240	0.300	0.400	

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHMW03	RHMW03	RHMW03	RHMW03	RHMW04	RHMW04	RHMW04	RHMW04	RHMW04	RHMW05	RHMW05	RHMW05
COC ID				RHMW03-WGN01LF-2405A	RHMW03-WGN01LF-2405B	RHMW03-WGN01LF-2406A	RHMW03-WGN01LF-2406B	RHMW04-WGN01LF-2403	RHMW04-WGN01LF-2404	RHMW04-WGN01LF-2405A	RHMW04-WGN01LF-2405B	RHMW04-WGN01LF-2406A	RHMW05-WGN01LF-2404	RHMW05-WGN01LF-2405A	RHMW05-WGN01LF-2405B
Collection Date				5/7/2024	5/23/2024	6/4/2024	6/19/2024	3/22/2024	4/8/2024	5/14/2024	5/31/2024	6/11/2024	4/3/2024	5/8/2024	5/22/2024
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters															
Methane	74-82-8	RSK175	µg/L	<0.25 U	<0.25 U	<0.25 U	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	<0.32 U	<0.32 U	<0.32 U	—	<0.32 UJ	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	1.9	1.8	1.9	1.9	—	0.53	0.55	0.54	0.54	0.46	0.42	0.44
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	1.7	1.5	2	1.9	—	0.39	0.48	0.54	0.59	0.44	0.37	0.61
Sulfate (as SO ₄)	14808-79-8	300	mg/L	50	51	51	51	—	11	11	11	11	14	11	12
Chloride (as Cl)	16887-00-6	300	mg/L	47	47	47	47	—	75	75	75	75	59	54	55
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	1.7	1.5	2	1.9	—	0.39	0.48	0.54	0.59	0.44	0.37	0.61
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	280	250	280	310	—	84	85	77	78	66	72	68
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	—	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	280	250	280	310	—	84	85	77	78	66	72	68
Total Organic Carbon	TOC	9060A	mg/L	2210	1220	1250	1350 J+	—	<750 U	596 J	409 J	264 J	<750 U	<750 U	285 J
Dissolved Organic Carbon	DOC	9060A	mg/L	2110	1520	1420	1400	—	2360	828 J	2420	682 J	<750 U	850 J+	541 J
General Chemistry															
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters															
Total Dissolved Solids	—	—	ppm	525	545	481	486	286	266	264	264	259	209	193	219
pH	—	—	—	6.86	6.84	6.80	6.79	7.29	7.30	7.33	7.32	7.59	7.23	7.38	7.43
Specific Conductivity	—	—	mS/cm	0.810	0.840	0.700	0.750	0.440	0.410	0.410	0.410	0.400	0.320	0.300	0.340
Dissolved Oxygen	—	—	mg/L	0.530	0.490	0.600	0.600	8.68	8.68	8.77	8.69	8.80	7.76	7.59	7.65
Turbidity	—	—	NTU	0.100	0.00	0.300	0.800	0.00	0.200	0.300	0.280	0.00	0.100	0.300	0.400
Temperature	—	—	°C	27.1	27.2	27.3	27.2	22.6	22.4	22.8	23.2	23.3	22.6	23.0	23.1
ORP	—	—	mV	204	159	251	230	277	245	290	273	253	247	246	334
Salinity	—	—	ppth	0.400	0.400	0.400	0.400	0.210	0.200	0.200	0.200	0.200	0.150	0.100	0.200

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHMW05	RHMW05	RHMW06	RHMW06	RHMW06	RHMW06	RHMW06	RHMW06	RHMW08	RHMW08	RHMW08	RHMW08	RHMW08	
COC ID				RHMW05-WGN01LF-2406A	RHMW05-WGN01LF-2406B	RHMW06-WGN01LF-2404	RHMW06-WGN01LF-2405A	RHMW06-WGN01LF-2405B	RHMW06-WGN01LF-2406A	RHMW06-WGN01LF-2406B	RHMW06-WGN01LF-2406A	RHMW06-WGN01LF-2406B	RHMW08-WGN01LF-2404	RHMW08-WGN01LF-2405A	RHMW08-WGN01LF-2405B	RHMW08-WGN01LF-2406A	RHMW08-WGN01LF-2406B
Collection Date				6/5/2024	6/18/2024	4/1/2024	5/6/2024	5/20/2024	6/6/2024	6/20/2024	4/1/2024	5/6/2024	5/20/2024	6/3/2024	6/17/2024		
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters																	
Methane	74-82-8	RSK175	µg/L	<0.25 U	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	—	<0.25 U	<0.25 U	<0.25 U	0.31 J	1.2	—
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	0.47	0.46	0.57	0.61	0.59	0.58	0.58	0.58	1	1	1	0.98	1	0.1 J
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.52	0.49 J	0.52	0.51	0.65	0.6	0.61	0.9	0.94 J-	1	1	0.99	1	0.12 J
Sulfate (as SO ₄)	14808-79-8	300	mg/L	14	13	93	88	81	79	84	25	24	24	24	40	40	71
Chloride (as Cl)	16887-00-6	300	mg/L	59	58	420	410	380	380	400	120	120	110	110	110	110	110
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.52	0.49 J	0.52	0.51	0.65	0.6	0.61	0.9	0.94 J-	1	1	0.99	1	0.12 J
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	68	70	100	120	120	100	100	110	100	110	100	110	95	66
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	68	70	100	120	120	100	100	110	100	110	100	110	95	66
Total Organic Carbon	TOC	9060A	mg/L	292 J	<750 U	<750 U	1590 J+	1740	572 J	280 J	<750 U	1900	1790 J+	1320	1900	915 J	1320
Dissolved Organic Carbon	DOC	9060A	mg/L	636 J	<750 U	898 J+	941 J+	1840	813 J	687 J	<750 U	1520 J+	2100	1820	2100	1820	906 J
General Chemistry																	
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters																	
Total Dissolved Solids	—	—	ppm	199	198	1060	1060	1030	1000	1010	409	418	428	452	418	418	418
pH	—	—	—	7.30	7.70	7.00	6.88	7.09	6.77	6.90	7.96	8.01	8.02	7.90	8.00	8.00	8.00
Specific Conductivity	—	—	mS/cm	0.300	0.300	1.63	1.62	1.58	1.50	1.60	0.630	0.640	0.660	0.700	0.600	0.600	0.600
Dissolved Oxygen	—	—	mg/L	7.60	7.60	6.73	6.86	6.61	6.80	6.50	3.50	4.00	3.68	2.40	4.00	4.00	4.00
Turbidity	—	—	NTU	0.220	0.200	0.0800	0.300	0.140	0.500	0.800	0.570	0.700	0.00	0.00	0.00	0.00	0.00
Temperature	—	—	°C	23.2	23.0	24.9	24.7	25.7	25.8	25.2	24.8	25.0	25.0	25.0	25.6	25.1	25.1
ORP	—	—	mV	249	201	211	219	330	266	296	136	112	251	196	-189	-189	-189
Salinity	—	—	ppth	0.200	0.200	0.800	0.830	0.800	0.800	0.800	0.300	0.300	0.300	0.340	0.300	0.340	0.300

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHMW09	RHMW09	RHMW09	RHMW09	RHMW09	RHMW10	RHMW10	RHMW10	RHMW10	RHMW10	RHMW10-05	
COC ID				RHMW09-WGN01LF-2404	RHMW09-WGN01LF-2405A	RHMW09-WGN01LF-2405B	RHMW09-WGN01LF-2406A	RHMW09-WGN01LF-2406B	RHMW10-WGN01LF-2404	RHMW10-WGN01LF-2405A	RHMW10-WGN01LF-2405B	RHMW10-WGN01LF-2406A	RHMW10-WGN01LF-2406B	RHMW11-05-WGN01G-2404	
Collection Date				4/2/2024	5/7/2024	5/21/2024	6/4/2024	6/18/2024	4/5/2024	5/10/2024	5/24/2024	6/7/2024	6/21/2024	4/3/2024	
Sample Type				N	N	N	N	N	N	N	N	N	N	N	
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Natural Attenuation Parameters															
Methane	74-82-8	RSK175	µg/L	<0.25 U	<0.25 U	<0.25 U	<0.25 U	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	0.33 J	—	0.67
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	0.45	0.45	0.45	0.44	0.46	0.43	0.41	0.23 J-	0.41	0.42	0.23 J-	<0.12 U
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.44	0.54	0.61	0.45 J-	0.47	0.36	0.34	0.39 J-	0.44	0.44	0.44	<0.12 U
Sulfate (as SO ₄)	14808-79-8	300	mg/L	9.4	9.1	9.6	9.6	9.5	7.2	7.7	7.4	7.5	7.4	7.4	12
Chloride (as Cl)	16887-00-6	300	mg/L	55	56	56	55	56	42	42	43	42	43	43	55
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.44	0.54	0.61	0.45 J-	0.47	0.36	0.34	0.39 J-	0.44	0.44	0.44	<0.12 U
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	60	65	68	60	71	76	72	68	70	76	76	110
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	60	65	68	60	71	76	72	68	70	76	76	110
Total Organic Carbon	TOC	9060A	mg/L	<750 U	<750 U	266 J	<750 U	<750 U	<750 U	<750 U	<750 U	<750 U	<750 U	<750 U	<750 U
Dissolved Organic Carbon	DOC	9060A	mg/L	894 J+	<750 U	370 J	371 J	784 J+	<750 U	1200 J+	700 J	664 J	—	—	1640 J+
General Chemistry															
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters															
Total Dissolved Solids	—	—	ppm	198	205	200	212	222	206	186	177	193	175	284	
pH	—	—	—	7.40	7.50	7.32	7.00	7.60	7.40	7.37	6.90	7.30	7.30	8.10	
Specific Conductivity	—	—	mS/cm	0.300	0.320	0.310	0.300	0.300	0.320	0.290	0.270	0.300	0.300	0.440	
Dissolved Oxygen	—	—	mg/L	8.57	8.64	8.63	8.60	8.40	8.53	8.57	8.55	8.24	8.40	1.60	
Turbidity	—	—	NTU	0.110	0.200	0.00	0.300	0.100	0.00	0.800	0.400	0.470	0.00	0.300	
Temperature	—	—	°C	23.9	23.9	24.0	25.0	24.4	23.2	24.4	25.0	25.1	24.6	25.4	
ORP	—	—	mV	274	272	338	259	267	298	304	252	309	303	8.99	
Salinity	—	—	ppth	0.150	0.200	0.150	0.200	0.200	0.150	0.100	0.130	0.100	0.100	0.210	

Notes:

Bold text indicates detected value.

— = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.

µg/L = microgram per liter

CAS = Chemical Abstracts Service

COC = chain-of-custody

ID = identification

J = estimated value

J- = estimated value, low bias

J+ = estimated value, high bias

mg/L = milligram per liter

mV = millivolt

N = normal (primary) sample

no. = number

QC = quality control

U = non-detect value

R = Rejected

Nitrate result by a factor of 0.2259 (CalEPA 2011).

Field Parameters are not collected at RHSF-PUMP

Units

°C = Degrees Celsius

mg/L = Milligrams per Liter

mV = millivolt

mS/cm = Millisiemens per Centimeter

NTU = Nephelometric Turbidity Units

ppm = Parts per Million

ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHMW11-05	RHMW11-05	RHMW11-05	RHMW11-05	RHMW12A	RHMW12A	RHMW12A	RHMW12A	RHMW13-04	RHMW13-04	RHMW13-04
COC ID				RHMW11-05-WGN01G-2405A	RHMW11-05-WGN01G-2405B	RHMW11-05-WGN01G-2406A	RHMW11-05-WGN01G-2406B	RHMW12A-WGN01LF-2404	RHMW12A-WGN01LF-2405A	RHMW12A-WGN01LF-2405B	RHMW12A-WGN01LF-2406A	RHMW13-04-WGN01G-2404	RHMW13-04-WGN01G-2405A	RHMW13-04-WGN01G-2405B
Collection Date				5/8/2024	5/22/2024	6/5/2024	6/19/2024	4/8/2024	5/14/2024	5/29/2024	6/11/2024	4/8/2024	5/13/2024	5/29/2024
Sample Type				N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters														
Methane	74-82-8	RSK175	µg/L	<0.25 U	0.17 J	0.79	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	0.33 J	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	<0.12 U	<0.12 U	<0.12 U	<0.12 U	0.35	0.36	0.36	0.36	0.4	0.4	0.4
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	<0.12 U	<0.12 U	<0.12 U	<0.12 U	0.24	0.33	0.33	0.39	0.31	0.36	0.35
Sulfate (as SO ₄)	14808-79-8	300	mg/L	11	12	12	12	8.5	8.5	8.6	8.4	7.6	7.5	7.6
Chloride (as Cl)	16887-00-6	300	mg/L	54	55	54 J-	55	53	52 J-	52 J-	52	50	51	51
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	<0.12 U	<0.12 U	<0.12 U	<0.12 U	0.24	0.33	0.33	0.39	0.31	0.36	0.35
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	120	120	100	120	68	67	69	65	76	79	78
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	120	120	100	120	68	67	69	65	76	79	78
Total Organic Carbon	TOC	9060A	mg/L	<750 U	437 J	517 J	<750 U	<750 U	577 J	<750 U	<750 U	<750 U	847 J+	340 J
Dissolved Organic Carbon	DOC	9060A	mg/L	1710	906 J	3160	1280 J+	<750 U	568 J	527 J	425 J	1660	4130	1740
General Chemistry														
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—
Field Parameters														
Total Dissolved Solids	—	—	ppm	272	239	269	259	199	211	195	215	230	205	224
pH	—	—	—	8.01	8.00	8.03	8.20	8.30	8.38	8.28	8.40	7.70	7.46	7.77
Specific Conductivity	—	—	mS/cm	0.420	0.370	0.400	0.400	0.310	0.320	0.300	0.330	0.350	0.310	0.340
Dissolved Oxygen	—	—	mg/L	1.56	2.10	0.800	1.60	6.91	7.07	7.27	7.01	4.27	3.90	2.75
Turbidity	—	—	NTU	0.510	1.00	0.800	0.700	0.850	0.0600	0.100	0.0600	0.00	0.710	8.91
Temperature	—	—	°C	25.9	26.5	27.8	27.3	26.0	25.3	25.3	25.4	24.8	24.9	26.1
ORP	—	—	mV	36.6	-57.0	45.8	-16.0	192	251	230	248	207	227	243
Salinity	—	—	ppth	0.200	0.200	0.200	0.200	0.200	0.200	0.100	0.200	0.170	0.200	0.200

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHMW13-04	RHMW13-04	RHMW14-03	RHMW14-03	RHMW14-03	RHMW14-03	RHMW14-03	RHMW14-03	RHMW14-03	RHMW15-05	RHMW15-05	RHMW15-05	RHMW15-05
COC ID				RHMW13-04-WGN01G-2406A	RHMW13-04-WGN01G-2406B	RHMW14-03-WGN01G-2404	RHMW14-03-WGN01G-2405A	RHMW14-03-WGN01G-2405B	RHMW14-03-WGN01G-2406A	RHMW14-03-WGN01G-2406B	RHMW15-05-WGN01G-2404	RHMW15-05-WGN01G-2405A	RHMW15-05-WGN01G-2405B	RHMW15-05-WGN01G-2406A		
Collection Date				6/10/2024	6/24/2024	4/3/2024	5/8/2024	5/22/2024	6/5/2024	6/19/2024	4/1/2024	5/6/2024	5/20/2024	6/3/2024		
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters																
Methane	74-82-8	RSK175	µg/L	<0.25 U	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	0.42	0.39	0.43	0.44	0.44	0.44	0.44	0.4	0.37 J-	0.38	0.38	0.38	0.38
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.41	0.37	0.35	0.42	0.52	0.45	0.46	0.29	0.36 J+	0.53	0.53	0.41	0.41
Sulfate (as SO ₄)	14808-79-8	300	mg/L	7.8	7.6	8.1	7.8	8.3	8.1	8.3	9.2	8.7	9.2	9.2	9.4	9.4
Chloride (as Cl)	16887-00-6	300	mg/L	50	51	46	46	46	46	46	54	54 J-	54 J-	54 J-	54	54
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.41	0.37	0.35	0.42	0.52	0.45	0.46	0.29	0.36 J+	0.53	0.53	0.41	0.41
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	76	82	61	73	64	64	61	60	71	62	62	83	83
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	76	82	61	73	64	64	61	60	71	62	62	83	83
Total Organic Carbon	TOC	9060A	mg/L	577 J	—	<750 U	<750 U	739 J	358 J	<750 U	<750 U	<750 U	528 J	<750 U	310 J	310 J
Dissolved Organic Carbon	DOC	9060A	mg/L	570 J	—	<750 U	2210	6510	2520	<750 U	2380	2150 J+	4550		3610	
General Chemistry																
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters																
Total Dissolved Solids	—	—	ppm	215	205	199	191	166	194	180	216	216	215	224	224	224
pH	—	—	—	7.90	8.20	7.90	7.90	8.04	7.90	8.10	7.80	7.69	7.88	7.73	7.73	7.73
Specific Conductivity	—	—	mS/cm	0.330	0.300	0.310	0.290	0.260	0.300	0.300	0.330	0.330	0.330	0.400	0.400	0.400
Dissolved Oxygen	—	—	mg/L	4.70	2.30	2.78	3.02	2.67	1.90	4.40	1.92	2.79	2.22	2.80	2.80	2.80
Turbidity	—	—	NTU	0.700	0.200	0.140	0.500	1.10	0.660	0.400	0.700	0.300	0.700	0.100	0.100	0.100
Temperature	—	—	°C	27.7	25.2	24.9	25.7	25.6	26.9	25.4	28.7	25.6	28.1	29.7	29.7	29.7
ORP	—	—	mV	174	185	209	208	182	205	188	202	222	220	220	220	220
Salinity	—	—	ppth	0.160	0.150	0.200	0.100	0.100	0.100	0.160	0.200	0.200	0.200	0.200	0.200	0.200

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHMW15-05	RHMW16	RHMW16	RHMW16	RHMW16	RHMW16	RHMW16	RHMW16	RHMW17	RHMW17	RHMW17	RHMW17	RHMW17	RHMW18
COC ID				RHMW15-05-WGN01G-2406B	RHMW16-WGN01LF-2404	RHMW16-WGN01LF-2405A	RHMW16-WGN01LF-2405B	RHMW16-WGN01LF-2406A	RHMW16-WGN01LF-2406B	RHMW16-WGN01LF-2406B	RHMW17-WGN01LF-2404	RHMW17-WGN01LF-2405A	RHMW17-WGN01LF-2405B	RHMW17-WGN01LF-2406A	RHMW17-WGN01LF-2406B	RHMW18-WGN01LF-2403	
Collection Date				6/17/2024	4/1/2024	5/6/2024	5/20/2024	6/6/2024	6/20/2024	6/20/2024	4/10/2024	5/13/2024	5/29/2024	6/10/2024	6/24/2024	3/21/2024	
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N	N	
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Natural Attenuation Parameters																	
Methane	74-82-8	RSK175	µg/L	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	—	<0.25 U	<0.25 U	0.17 J	<0.25 U	—	0.22 J	
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	—	—	
Nitrate (as N)	14797-55-8	300.0	mg/L	0.38	0.36	0.35	0.33	0.34	0.35	0.33	0.14 J	0.19 J	0.21	0.16 J	0.17 J	—	
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.43	0.36	0.32 J+	0.43	0.33	0.36	0.19	0.19	0.19	0.18 J	0.22	0.2 J+	—	
Sulfate (as SO ₄)	14808-79-8	300	mg/L	9.4	11	9.7	9.8	10	10	14	15	15	15	15	15	—	
Chloride (as Cl)	16887-00-6	300	mg/L	55	71	71	69	70 J-	71	44	47	47	46	46	46	—	
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.43	0.36	0.32 J+	0.43	0.33	0.36	0.19	0.19	0.19	0.18 J	0.22	0.2 J+	—	
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	65	55	63	62	63	56	110	110	110	140	120	120	—	
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	—	
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	65	55	63	62	63	56	110	110	110	140	120	120	—	
Total Organic Carbon	TOC	9060A	mg/L	264 J	<750 U	773 J+	554 J	<750 U	255 J	554 J	<750 U	1180 J+	422 J	390 J	—	—	
Dissolved Organic Carbon	DOC	9060A	mg/L	1360	960 J+	945 J+	865 J	375 J	468 J	<750 U	1400	835 J	373 J	—	—	—	
General Chemistry																	
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	
Field Parameters																	
Total Dissolved Solids	—	—	ppm	199	223	227	232	236	227	230	244	268	246	237	240		
pH	—	—	—	7.81	8.00	7.94	8.06	7.90	7.93	7.40	7.49	7.59	7.00	7.60	9.20		
Specific Conductivity	—	—	mS/cm	0.310	0.340	0.350	0.360	0.360	0.400	0.350	0.380	0.410	0.400	0.400	0.370		
Dissolved Oxygen	—	—	mg/L	4.10	8.67	8.61	8.43	8.68	8.80	4.40	4.06	3.88	3.31	4.22	0.770		
Turbidity	—	—	NTU	0.400	0.220	0.300	0.100	0.160	0.800	0.290	0.400	5.10	0.200	0.830	1.07		
Temperature	—	—	°C	27.4	25.3	25.2	25.8	25.3	24.9	24.1	24.2	23.8	25.3	23.9	24.2		
ORP	—	—	mV	37.4	217	200	287	228	271	261	242	230	261	253	67.6		
Salinity	—	—	ppth	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.180	0.200	0.180	0.200	0.180		

Notes:

- Bold text indicates detected value.
- = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
- µg/L = microgram per liter
- CAS = Chemical Abstracts Service
- COC = chain-of-custody
- ID = identification
- J = estimated value
- J- = estimated value, low bias
- J+ = estimated value, high bias
- mg/L = milligram per liter
- mV = millivolt
- N = normal (primary) sample
- no. = number
- QC = quality control
- U = non-detect value
- R = Rejected
- Nitrate result by a factor of 0.2259 (CalEPA 2011).
- Field Parameters are not collected at RHSF-PUMP
- Units**
- °C = Degrees Celsius
- mg/L = Milligrams per Liter
- mV = millivolt
- mS/cm = Millisiemens per Centimeter
- NTU = Nephelometric Turbidity Units
- ppm = Parts per Million
- ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHMW18	RHMW18	RHMW18	RHMW18	RHMW19	RHMW19	RHMW19	RHMW19	RHMW19	RHMW20	RHMW20	RHMW20
COC ID				RHMW18-WGN01LF-2404	RHMW18-WGN01LF-2405A	RHMW18-WGN01LF-2405B	RHMW18-WGN01LF-2406A	RHMW19-WGN01LF-2404	RHMW19-WGN01LF-2405A	RHMW19-WGN01LF-2405B	RHMW19-WGN01LF-2406A	RHMW19-WGN01LF-2406B	RHMW20-WGN01LF-2403	RHMW20-WGN01LF-2404	RHMW20-WGN01LF-2405A
Collection Date				4/11/2024	5/17/2024	5/30/2024	6/13/2024	4/2/2024	5/7/2024	5/21/2024	6/4/2024	6/18/2024	3/22/2024	4/12/2024	5/16/2024
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters															
Methane	74-82-8	RSK175	µg/L	0.23 J	0.2 J	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	—	0.31 J	<0.25 U	0.21 J
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	—	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	0.16 J	0.31	0.27	0.23	0.4	0.4	0.39	0.38	0.4	—	0.41 J-	0.46
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.24	0.33 J-	0.26	0.25	0.33	0.39 J-	0.38	0.38 J+	0.41	—	0.47	0.65
Sulfate (as SO ₄)	14808-79-8	300	mg/L	11	8.5	8.2	9.8	7.2	23	7	7.2	7.2	—	60	60
Chloride (as Cl)	16887-00-6	300	mg/L	37	38	39	37	43	43	43	43	43	—	490	490
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.24	0.33 J-	0.26	0.25	0.33	0.39 J-	0.38	0.38 J+	0.41	—	0.47	0.65
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	59	32	35	39	67	61	67	65	73	—	95	100
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	62	83	76	81	<7 U	<7 U	<7 U	<7 U	<7 U	—	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	120	110	110	120	67	61	67	65	73	—	95	100
Total Organic Carbon	TOC	9060A	mg/L	797 J+	1300	566 J	382 J	<750 U	<750 U	382 J	<750 U	<750 U	—	<750 U	776 J
Dissolved Organic Carbon	DOC	9060A	mg/L	951 J+	1070	1030	510 J	<750 U	<750 U	1060	362 J	<750 U	—	1020 J+	777 J
General Chemistry															
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters															
Total Dissolved Solids	—	—	ppm	221	215	240	231	171	177	173	181	191	1220	1240	1130
pH	—	—	—	9.10	9.37	9.28	9.00	7.60	7.65	7.60	7.60	7.70	7.10	7.10	7.14
Specific Conductivity	—	—	mS/cm	0.340	0.330	0.370	0.400	0.260	0.270	0.270	0.280	0.300	1.88	1.90	1.74
Dissolved Oxygen	—	—	mg/L	0.690	1.43	7.34	1.30	8.62	8.65	8.62	8.70	8.50	5.95	5.96	6.10
Turbidity	—	—	NTU	0.150	0.200	0.00	0.00	0.890	0.400	0.00	0.100	0.100	0.830	0.00	0.0100
Temperature	—	—	°C	24.5	24.4	25.4	24.9	25.2	24.7	24.9	24.9	24.1	24.3	24.4	23.8
ORP	—	—	mV	164	135	167	82.7	253	217	333	215	222	247	128	307
Salinity	—	—	ppth	0.160	0.200	0.200	0.170	0.130	0.130	0.100	0.130	0.140	1.00	1.00	0.900

Notes:

- Bold text indicates detected value.
- = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
- µg/L = microgram per liter
- CAS = Chemical Abstracts Service
- COC = chain-of-custody
- ID = identification
- J = estimated value
- J- = estimated value, low bias
- J+ = estimated value, high bias
- mg/L = milligram per liter
- mV = millivolt
- N = normal (primary) sample
- no. = number
- QC = quality control
- U = non-detect value
- R = Rejected
- Nitrate result by a factor of 0.2259 (CalEPA 2011).
- Field Parameters are not collected at RHSF-PUMP
- Units**
- °C = Degrees Celsius
- mg/L = Milligrams per Liter
- mV = millivolt
- mS/cm = Millisiemens per Centimeter
- NTU = Nephelometric Turbidity Units
- ppm = Parts per Million
- ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHMW20	RHMW20	RHMW2254-01	RHMW2254-01	RHMW2254-01	RHMW2254-01	RHMW2254-01	RHMW2254-01	RHP01	RHP01	RHP01	RHP01
COC ID				RHMW20-WGN01LF-2405B	RHMW20-WGN01LF-2406A	RHMW2254-01-WGN01LF-2404	RHMW2254-01-WGN01LF-2405A	RHMW2254-01-WGN01LF-2405B	RHMW2254-01-WGN01LF-2406A	RHMW2254-01-WGN01LF-2406B	RHMW2254-01-WGN01LF-2406A	RHP01-WGN01LF-2404	RHP01-WGN01LF-2405A	RHP01-WGN01LF-2405B	RHP01-WGN01LF-2406A
Collection Date				5/31/2024	6/14/2024	4/2/2024	5/7/2024	5/24/2024	6/4/2024	6/19/2024	6/4/2024	4/1/2024	5/6/2024	5/20/2024	6/6/2024
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters															
Methane	74-82-8	RSK175	µg/L	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	0.93	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	0.32 R	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	0.46	0.45	0.61	0.62	0.56 J-	0.57	0.6	0.98	0.93	0.93	0.92	0.92
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.43	0.45	0.62	0.61	0.59 J-	0.58	0.59	0.95	0.83	0.83	1.1	0.94
Sulfate (as SO ₄)	14808-79-8	300	mg/L	61	61	21	19	19	19	19	18	63	61	62	62
Chloride (as Cl)	16887-00-6	300	mg/L	500	500	120	120	110	110	110	72	73	73	72	72
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.43	0.45	0.62	0.61	0.59 J-	0.58	0.59	0.95	0.83	0.83	1.1	0.94
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	88	98	62	69	65	66	69	140	160	160	160	170
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	88	98	62	69	65	66	69	140	160	160	160	170
Total Organic Carbon	TOC	9060A	mg/L	318 J	385 J	<750 U	<750 U	<750 U	260 J	<750 U	806 J+	1330 J+	2080	983 J	983 J
Dissolved Organic Carbon	DOC	9060A	mg/L	924 J	620 J	<750 U	<750 U	417 J	627 J	<750 U	1380	1480 J+	2680	960 J	960 J
General Chemistry															
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters															
Total Dissolved Solids	—	—	ppm	1180	1230	388	392	351	360	336	432	435	433	426	426
pH	—	—	—	7.08	7.11	7.50	7.62	7.75	7.60	7.24	6.90	6.98	6.86	6.80	6.80
Specific Conductivity	—	—	mS/cm	1.81	1.90	0.600	0.600	0.540	0.600	0.500	0.660	0.670	0.670	0.700	0.700
Dissolved Oxygen	—	—	mg/L	6.07	6.20	8.20	8.49	8.68	8.18	8.70	6.78	6.86	6.92	6.90	6.90
Turbidity	—	—	NTU	0.120	0.00	0.100	0.00	0.0900	0.00	0.400	0.0600	0.0100	0.200	0.100	0.100
Temperature	—	—	°C	24.3	24.7	22.2	22.0	22.1	22.3	22.4	24.0	24.9	24.3	24.9	24.9
ORP	—	—	mV	270	281	213	274	373	275	301	279	297	337	243	243
Salinity	—	—	ppth	0.900	1.00	0.300	0.300	0.300	0.270	0.250	0.300	0.300	0.300	0.300	0.320

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHP01	RHP02	RHP02	RHP02	RHP02	RHP02	RHP02	RHP02	RHP03	RHP03	RHP03	RHP03	RHP03
COC ID				RHP01-WGN01LF-2406B	RHP02-WGN01LF-2403	RHP02-WGN01LF-2404	RHP02-WGN01LF-2405A	RHP02-WGN01LF-2405B	RHP02-WGN01LF-2406A	RHP02-WGN01LF-2406B	RHP03-WGN01LF-2403	RHP03-WGN01LF-2404	RHP03-WGN01LF-2405A	RHP03-WGN01LF-2405B	RHP03-WGN01LF-2406A	RHP03-WGN01LF-2406B
Collection Date				6/20/2024	3/14/2024	4/4/2024	5/9/2024	5/23/2024	6/6/2024	6/20/2024	3/14/2024	4/4/2024	5/9/2024	5/23/2024	6/6/2024	6/20/2024
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters																
Methane	74-82-8	RSK175	µg/L	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	—
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	0.94	—	0.74	0.73	0.71	0.72	0.73	—	1	0.97	0.93	0.94	0.95
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.95	—	0.66	0.63	0.73	0.74	0.75	—	0.95	0.92	0.87	1	0.99
Sulfate (as SO ₄)	14808-79-8	300	mg/L	63	—	69	68	69	69	69	—	38	39	39	39	39
Chloride (as Cl)	16887-00-6	300	mg/L	73	—	78	78	78	79	79	—	200	220	210	210	210
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.95	—	0.66	0.63	0.73	0.74	0.75	—	0.95	0.92	0.87	1	0.99
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	150	—	180	180	180	170	190	—	140	140	130	170	160
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	—	<7 U	<7 U	<7 U	<7 U	<7 U	—	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	150	—	180	180	180	170	190	—	140	140	130	170	160
Total Organic Carbon	TOC	9060A	mg/L	690 J	—	847 J+	1360	787 J	829 J	787 J	—	<750 U	849 J+	451 J	479 J	474 J
Dissolved Organic Carbon	DOC	9060A	mg/L	753 J	—	1040 J+	1270	927 J	905 J	1070	—	823 J+	1710	649 J	960 J	720 J
General Chemistry																
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters																
Total Dissolved Solids	—	—	ppm	411	454	490	490	460	492	458	657	675	705	662	709	661
pH	—	—	—	6.90	6.90	6.90	6.92	6.84	6.78	7.20	7.29	7.30	7.36	7.14	7.40	7.40
Specific Conductivity	—	—	mS/cm	0.600	0.700	0.750	0.750	0.710	0.800	0.700	1.01	1.04	1.08	1.02	1.10	1.00
Dissolved Oxygen	—	—	mg/L	7.00	7.76	7.75	7.71	7.67	7.70	7.69	4.67	4.70	4.61	4.35	4.00	3.70
Turbidity	—	—	NTU	0.500	0.00	0.00	0.300	0.500	0.800	0.180	0.100	0.00	0.400	0.550	0.740	0.100
Temperature	—	—	°C	24.5	24.5	24.7	24.5	26.3	26.7	25.6	24.7	24.6	24.4	25.8	27.0	25.6
ORP	—	—	mV	303	299	302	315	248	325	294	271	256	260	247	258	246
Salinity	—	—	ppth	0.300	0.300	0.400	0.370	0.400	0.400	0.400	0.500	0.500	0.500	0.500	0.600	0.500

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHP04A	RHP04A	RHP04A	RHP04A	RHP04A	RHP04A	RHP04B	RHP04B	RHP04B	RHP04B	RHP04B	RHP04C
COC ID				RHP04A-WGN01LF-2403	RHP04A-WGN01LF-2404	RHP04A-WGN01LF-2405A	RHP04A-WGN01LF-2405B	RHP04A-WGN01LF-2406A	RHP04A-WGN01LF-2406B	RHP04B-WGN01LF-2403	RHP04B-WGN01LF-2404	RHP04B-WGN01LF-2405A	RHP04B-WGN01LF-2405B	RHP04B-WGN01LF-2406A	RHP04C-WGN01LF-2403
Collection Date				3/14/2024	4/4/2024	5/9/2024	5/23/2024	6/6/2024	6/20/2024	3/19/2024	4/9/2024	5/14/2024	5/28/2024	6/11/2024	3/19/2024
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters															
Methane	74-82-8	RSK175	µg/L	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	—	2.2	2.4	1.8	2.1	1.9	0.65
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	—
Nitrate (as N)	14797-55-8	300.0	mg/L	—	1	1	1	1	1	—	<0.12 U	<0.12 U	<0.12 U	<0.12 U	—
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	—	0.89	1.2	1	1 J-	1.1	—	0.08 J	<0.12 U	<0.12 U	<0.12 U	—
Sulfate (as SO ₄)	14808-79-8	300	mg/L	—	45	42	42	42	43	—	34	32	31	31	—
Chloride (as Cl)	16887-00-6	300	mg/L	—	180	180	180	180	180	—	90	90	90	90	—
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	—	0.89	1.2	1	1 J-	1.1	—	0.08 J	<0.12 U	<0.12 U	<0.12 U	—
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	—	130	130	120	130	130	—	100	100	99	97	—
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	—	<7 U	<7 U	<7 U	<7 U	<7 U	—	<7 U	<7 U	<7 U	<7 U	—
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	—	130	130	120	130	130	—	100	100	99	97	—
Total Organic Carbon	TOC	9060A	mg/L	—	<750 U	815 J+	465 J	515 J	1060	—	2690	3700	2670	2490	—
Dissolved Organic Carbon	DOC	9060A	mg/L	—	1400 J+	941 J	690 J	872 J	1050	—	2820	3250	2760	2950	—
General Chemistry															
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters															
Total Dissolved Solids	—	—	ppm	656	627	632	589	623	581	377	382	353	371	344	921
pH	—	—	—	7.16	7.30	7.37	7.05	7.40	7.40	7.97	7.90	7.93	7.97	8.00	7.51
Specific Conductivity	—	—	mS/cm	1.01	0.960	0.970	0.910	1.00	0.890	0.580	0.590	0.540	0.570	0.500	1.42
Dissolved Oxygen	—	—	mg/L	3.69	3.93	3.89	3.81	3.60	3.70	0.190	0.170	0.200	0.140	0.200	0.400
Turbidity	—	—	NTU	0.00	0.00	0.400	0.700	4.50	0.00	0.300	0.180	0.730	0.140	0.140	0.240
Temperature	—	—	°C	25.6	24.8	25.3	27.1	26.7	25.7	25.4	25.3	25.8	26.0	26.4	25.3
ORP	—	—	mV	227	246	260	199	251	267	-222	-125	-92.3	-97.4	-130	74.6
Salinity	—	—	ppth	0.500	0.500	0.500	0.500	0.500	0.400	0.300	0.300	0.300	0.280	0.300	0.700

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHP04C	?	RHP04C	RHP04C	RHP04C	RHP04C	RHP05	RHP05	RHP05	RHP05	RHP05	RHP05	RHP06	RHP06
COC ID				RHP04C-WGN01F-2404	RHP04C-WGN01LF-24042	RHP04C-WGN01LF-2405A	RHP04C-WGN01LF-2405B	RHP04C-WGN01LF-2406A	RHP05-WGN01LF-2403	RHP05-WGN01LF-2404	RHP05-WGN01LF-2405A	RHP05-WGN01LF-2405B	RHP05-WGN01LF-2406A	RHP05-WGN01LF-2406B	RHP05-WGN01LF-2406B	RHP06-WGN01LF-2403	RHP06-WGN01LF-2404
Collection Date				4/9/2024	?	5/14/2024	5/28/2024	6/11/2024	3/14/2024	4/5/2024	5/10/2024	5/24/2024	6/7/2024	6/21/2024	3/14/2024	4/5/2024	
Sample Type				N	?	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Natural Attenuation Parameters																	
Methane	74-82-8	RSK175	µg/L	0.41 J	—	0.26 J	0.24 J	0.23 J	<0.25 U	0.19 J	<0.25 U	<0.25 U	<0.25 U	—	<0.25 U	<0.25 U	<0.25 U
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	—	<0.32 U	<0.32 U	<0.32 U	—	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	0.086 J	—	0.13 J	0.15 J	0.15 J	—	1.9	1.9	1.8 J-	1.9	1.8	—	2	
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	0.068 J	—	0.14 J	0.15 J+	0.2	—	1.8	1.7	1.9	1.9	1.8	—	1.8	
Sulfate (as SO ₄)	14808-79-8	300	mg/L	110	—	78	76	76	—	43	46	42	44	43	—	89	
Chloride (as Cl)	16887-00-6	300	mg/L	340	—	340	340	340	—	180	190	180	180	190	—	190	
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	0.068 J	—	0.14 J	0.15 J+	0.2	—	1.8	1.7	1.9	1.9	1.8	—	1.8	
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	62	—	79	82	78	—	120	130	120	120	130	—	91	
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	—	<7 U	<7 U	<7 U	—	<7 U	<7 U	<7 U	<7 U	<7 U	—	<7 U	
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	62	—	79	82	78	—	120	130	120	120	130	—	91	
Total Organic Carbon	TOC	9060A	mg/L	1100 J+	—	1490	1030	973 J	—	< 750 U	1760	920 J	425 J	—	—	792 J+	
Dissolved Organic Carbon	DOC	9060A	mg/L	1240 J+	—	1960	1410	1100	—	928 J+	1670	1050	708 J	—	—	1800	
General Chemistry																	
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters																	
Total Dissolved Solids	—	—	ppm	937	—	884	908	872	608	593	637	59.7	637	595	641	617	
pH	—	—	—	7.50	—	7.40	7.46	7.40	7.20	7.13	7.14	7.16	7.20	7.14	7.10	6.90	
Specific Conductivity	—	—	mS/cm	1.44	—	1.36	1.40	1.30	0.940	0.910	0.980	0.920	0.980	0.900	0.990	0.950	
Dissolved Oxygen	—	—	mg/L	0.370	—	0.600	0.720	0.800	6.35	6.18	6.19	6.30	6.20	6.40	7.31	7.28	
Turbidity	—	—	NTU	0.260	—	0.600	0.400	0.400	1.12	0.800	0.400	0.500	0.400	0.00	1.10	0.600	
Temperature	—	—	°C	25.7	—	25.8	26.6	26.2	25.6	25.8	25.3	26.7	26.8	26.3	25.6	24.8	
ORP	—	—	mV	115	—	112	143	152	289	253	293	232	282	273	295	228	
Salinity	—	—	ppth	0.700	—	0.690	0.710	0.700	0.500	0.450	0.500	0.460	0.490	0.500	0.490	0.500	

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHP06	RHP06	RHP06	RHP06	RHP07	RHP07	RHP07	RHP07	RHP07	RHP08	RHP08	RHP08	RHP08	
COC ID				RHP06-WGN01LF-2405A	RHP06-WGN01LF-2405B	RHP06-WGN01LF-2406A	RHP06-WGN01LF-2406B	RHP07-WGN01LF-2404	RHP07-WGN01LF-2405A	RHP07-WGN01LF-2405B	RHP07-WGN01LF-2406A	RHP07-WGN01LF-2406B	RHP08-WGN01LF-2404	RHP08-WGN01LF-2405A	RHP08-WGN01LF-2405B	RHP08-WGN01LF-2406A	
Collection Date				5/10/2024	5/21/2024	6/7/2024	6/21/2024	4/2/2024	5/8/2024	5/22/2024	6/5/2024	6/18/2024	4/5/2024	5/10/2024	5/21/2024	6/7/2024	
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N	N	
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Natural Attenuation Parameters																	
Methane	74-82-8	RSK175	µg/L	<0.25 U	<0.25 U	<0.25 U	—	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	—	4.9	<0.25 U	<0.25 U	<0.25 U
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	1.6	1.3	1.6	1.7	1.1	1.1	1.1	1.1	1.3	1.2	1	0.94	1	1.1
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	1.5	1.3	1.7	1.8	0.99	1.4	1.3	1.3	1.4	1.2	0.92	0.85	1	0.96
Sulfate (as SO ₄)	14808-79-8	300	mg/L	87	82	89	88	42	39	39	39	40	41	29	36	34	34
Chloride (as Cl)	16887-00-6	300	mg/L	160	120	150	160	84	83	83	82	82	83	120	140	140	140
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	1.5	1.3	1.7	1.8	0.99	1.4	1.3	1.4	1.2	1.2	0.92	0.85	1	0.96
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	120	120	120	130	110	130	120	120	120	130	81	84	78	83
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	120	120	120	130	110	130	120	120	120	130	81	84	78	83
Total Organic Carbon	TOC	9060A	mg/L	1640	1550	1040	—	783 J+	1230 J+	765 J	755 J	755 J	1130 J+	1020 J+	953 J+	524 J	458 J
Dissolved Organic Carbon	DOC	9060A	mg/L	1810	1700	1360	—	798 J+	1140 J+	1020	877 J	877 J	1130 J+	2420	1010 J+	462 J	546 J
General Chemistry																	
Bromide	24959-67-9	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Field Parameters																	
Total Dissolved Solids	—	—	ppm	600	577	582	598	388	375	414	387	385	448	466	497	459	
pH	—	—	—	7.04	7.02	7.00	6.90	7.20	7.26	7.31	7.20	7.40	7.70	7.51	7.52	7.50	
Specific Conductivity	—	—	mS/cm	0.920	0.890	0.900	0.900	0.600	0.580	0.640	0.590	0.600	0.690	0.720	0.760	0.700	
Dissolved Oxygen	—	—	mg/L	6.79	6.60	6.80	7.60	7.76	8.01	8.26	8.17	8.20	6.65	6.93	7.32	7.20	
Turbidity	—	—	NTU	1.63	0.00	0.900	0.500	0.430	0.800	1.20	3.10	0.00	8.50	2.99	2.90	1.80	
Temperature	—	—	°C	25.4	25.8	26.2	26.0	23.1	23.3	23.3	23.3	23.3	25.2	25.7	25.1	25.3	
ORP	—	—	mV	216	320	280	302	237	232	325	257	212	264	203	297	243	
Salinity	—	—	ppth	0.500	0.440	0.500	0.500	0.300	0.300	0.300	0.300	0.300	0.300	0.400	0.380	0.400	

Notes:

- Bold text indicates detected value.
- = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
- µg/L = microgram per liter
- CAS = Chemical Abstracts Service
- COC = chain-of-custody
- ID = identification
- J = estimated value
- J- = estimated value, low bias
- J+ = estimated value, high bias
- mg/L = milligram per liter
- mV = millivolt
- N = normal (primary) sample
- no. = number
- QC = quality control
- U = non-detect value
- R = Rejected
- Nitrate result by a factor of 0.2259 (CalEPA 2011).
- Field Parameters are not collected at RHSF-PUMP
- Units**
- °C = Degrees Celsius
- mg/L = Milligrams per Liter
- mV = millivolt
- mS/cm = Millisiemens per Centimeter
- NTU = Nephelometric Turbidity Units
- ppm = Parts per Million
- ppth = Parts per Thousand

Appendix B.5.1: NAP Analytical Results (cont'd)

Location				RHP08	RHSF-PUMP	RHSF-PUMP	RHSF-PUMP	RHSF-PUMP
COC ID				RHP08-WGN01LF-2406B	RHSF-PUMP-WGN01G-2405A	RHSF-PUMP-WGN01G-2405B	RHSF-PUMP-WGN01G-2406A	RHSF-PUMP-WGN01G-2406B
Collection Date				6/21/2024	5/7/2024	5/24/2024	6/4/2024	6/19/2024
Sample Type				N	N	N	N	N
Analyte	CAS No.	Method	Unit	Result	Result	Result	Result	Result
Natural Attenuation Parameters								
Methane	74-82-8	RSK175	µg/L	—	<0.25 U	<0.25 U	0.38 J	—
Iron, Ferrous	15438-31-0	3500_FE_B	mg/L	<0.32 U	<0.32 U	<0.32 U	<0.32 U	<0.32 U
Nitrate (as N)	14797-55-8	300.0	mg/L	1.1	0.62	0.63 J-	0.55	0.61
Nitrate (as NO ₃ anion) ^c	NO3NO2N	—	mg/L	1	0.56	0.5 J-	0.55	0.67
Sulfate (as SO ₄)	14808-79-8	300	mg/L	34	19	19	18	19
Chloride (as Cl)	16887-00-6	300	mg/L	140	120	120	100	120
Nitrogen, Nitrate-Nitrite	NO3NO2N	353.2	mg/L	1	0.56	0.5 J-	0.55	0.67
Alkalinity, Bicarbonate	ALKB	2320B	mg/L	82	68	62	64	63
Alkalinity, Carbonate (as CO ₃)	ALKC	2320B	mg/L	<7 U	<7 U	<7 U	<7 U	<7 U
Alkalinity, Total (as CaCO ₃)	ALK	2320B	mg/L	82	68	62	64	63
Total Organic Carbon	TOC	9060A	mg/L	—	<750 U	<750 U	253 J	<750 U
Dissolved Organic Carbon	DOC	9060A	mg/L	—	<750 U	386 J	429 J	754 J+
General Chemistry								
Bromide	24959-67-9	300	mg/L	—	—	—	—	—
Fluoride	16984-48-8	300	mg/L	—	—	—	—	—
Total Calcium	7440-70-2	6010C	µg/L	—	—	—	—	—
Total Magnesium	7439-95-4	6010C	µg/L	—	—	—	—	—
Total Manganese	7439-96-5	6010C	µg/L	—	—	—	—	—
Total Potassium	7440-09-7	6010C	µg/L	—	—	—	—	—
Total Sodium	7440-23-5	6010C	µg/L	—	—	—	—	—
Field Parameters								
Total Dissolved Solids	—	—	ppm	454	—	—	—	—
pH	—	—	—	7.50	—	—	—	—
Specific Conductivity	—	—	mS/cm	0.700	—	—	—	—
Dissolved Oxygen	—	—	mg/L	8.00	—	—	—	—
Turbidity	—	—	NTU	0.300	—	—	—	—
Temperature	—	—	°C	25.1	—	—	—	—
ORP	—	—	mV	280	—	—	—	—
Salinity	—	—	ppth	0.300	—	—	—	—

Notes:

Bold text indicates detected value.
 — = not analyzed or not applicable as results were not available by the reporting period cutoff, or results were reported in a previous report.
 µg/L = microgram per liter
 CAS = Chemical Abstracts Service
 COC = chain-of-custody
 ID = identification
 J = estimated value
 J- = estimated value, low bias
 J+ = estimated value, high bias
 mg/L = milligram per liter
 mV = millivolt
 N = normal (primary) sample
 no. = number
 QC = quality control
 U = non-detect value
 R = Rejected
 Nitrate result by a factor of 0.2259 (CalEPA 2011).
 Field Parameters are not collected at RHSF-PUMP
Units
 °C = Degrees Celsius
 mg/L = Milligrams per Liter
 mV = millivolt
 mS/cm = Millisiemens per Centimeter
 NTU = Nephelometric Turbidity Units
 ppm = Parts per Million
 ppth = Parts per Thousand

Red Hill Bulk Fuel Storage Facility

Appendix B.5.2: Cumulative Natural Attenuation Parameter Graphs

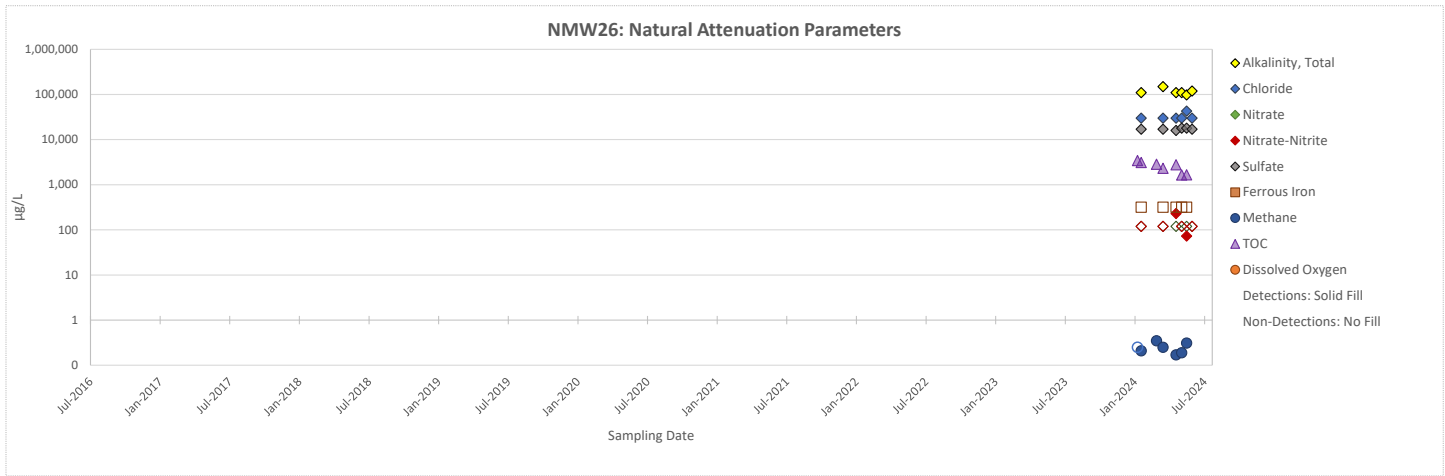
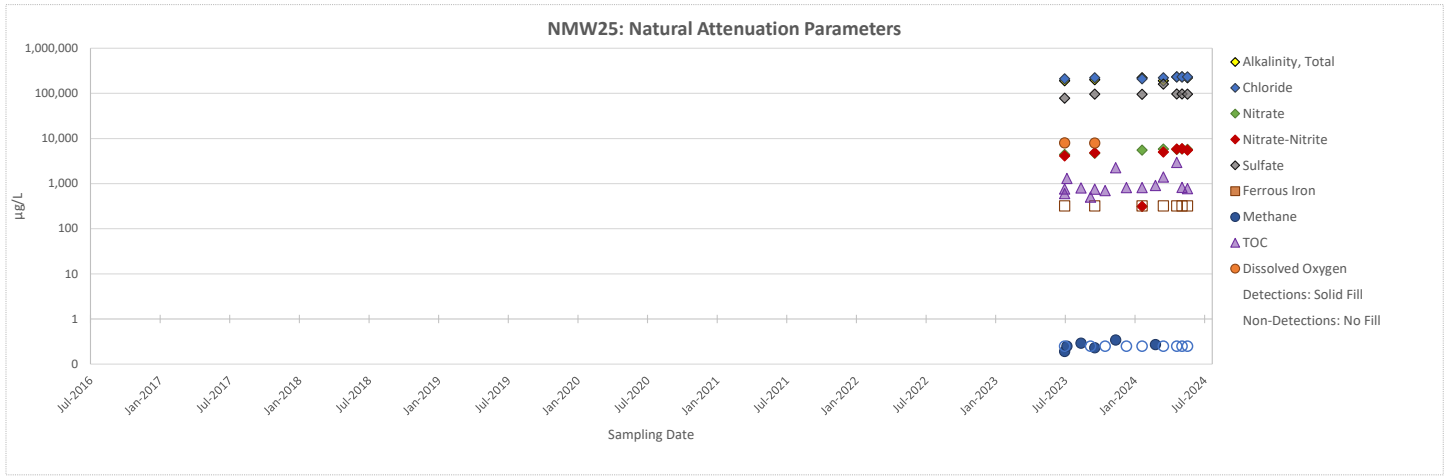
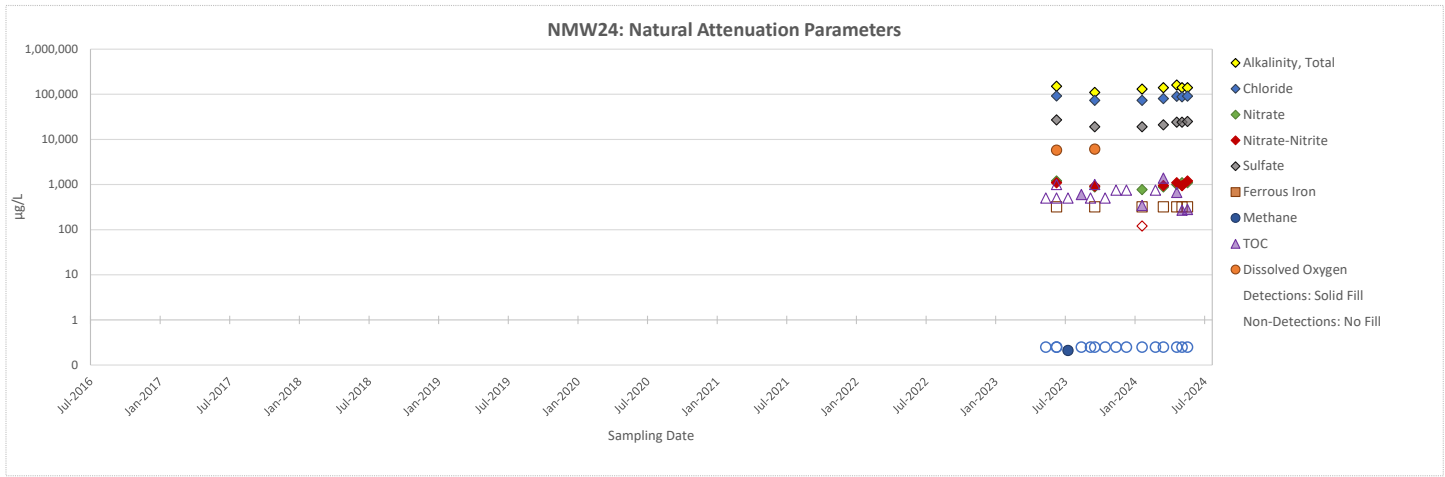
Data Legend

Footnotes

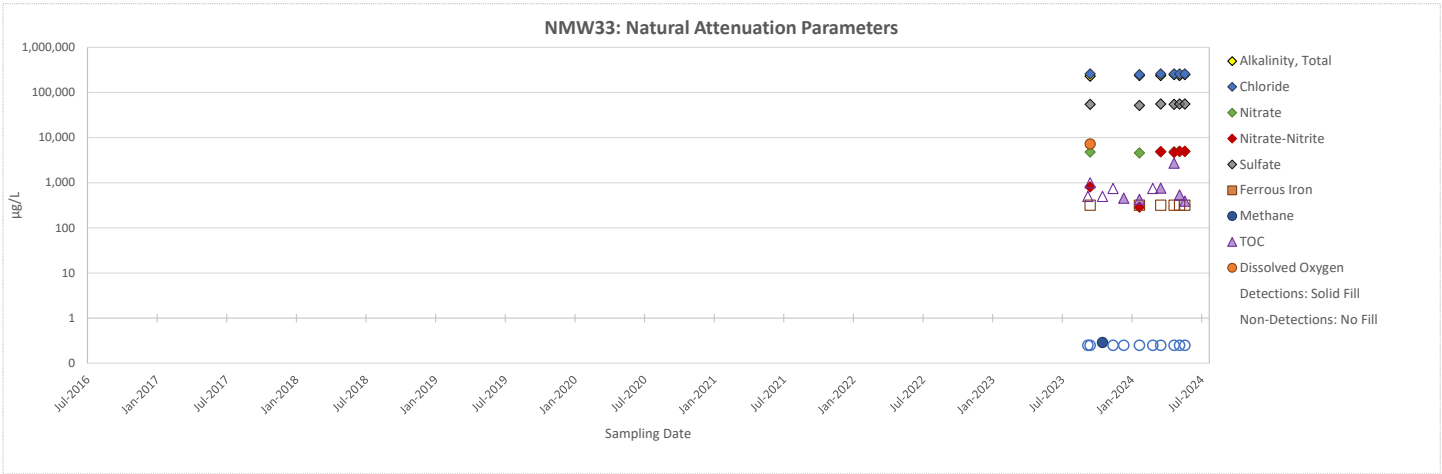
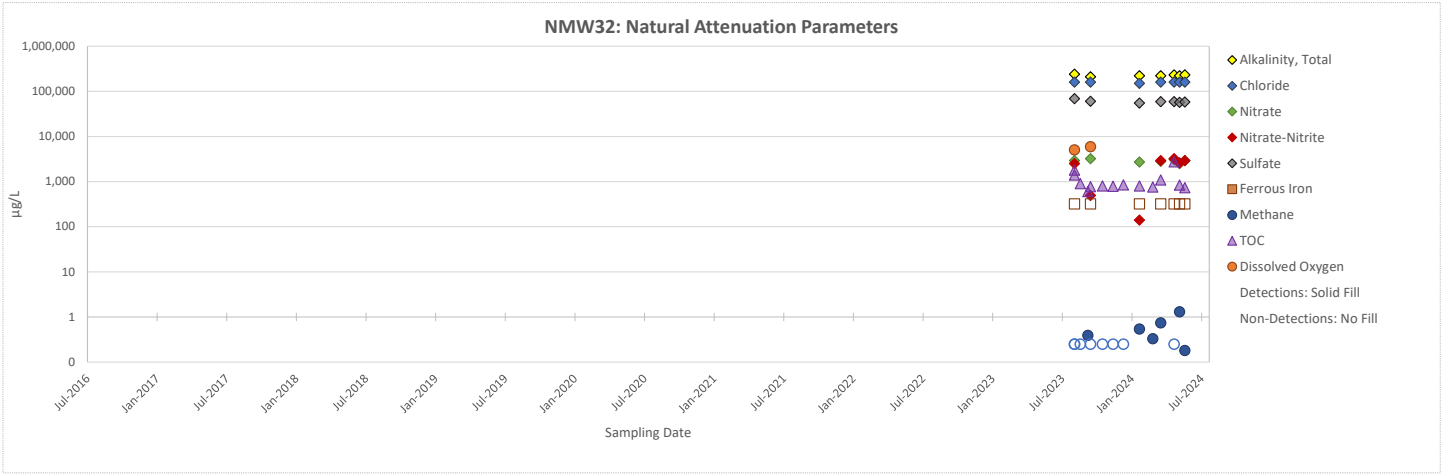
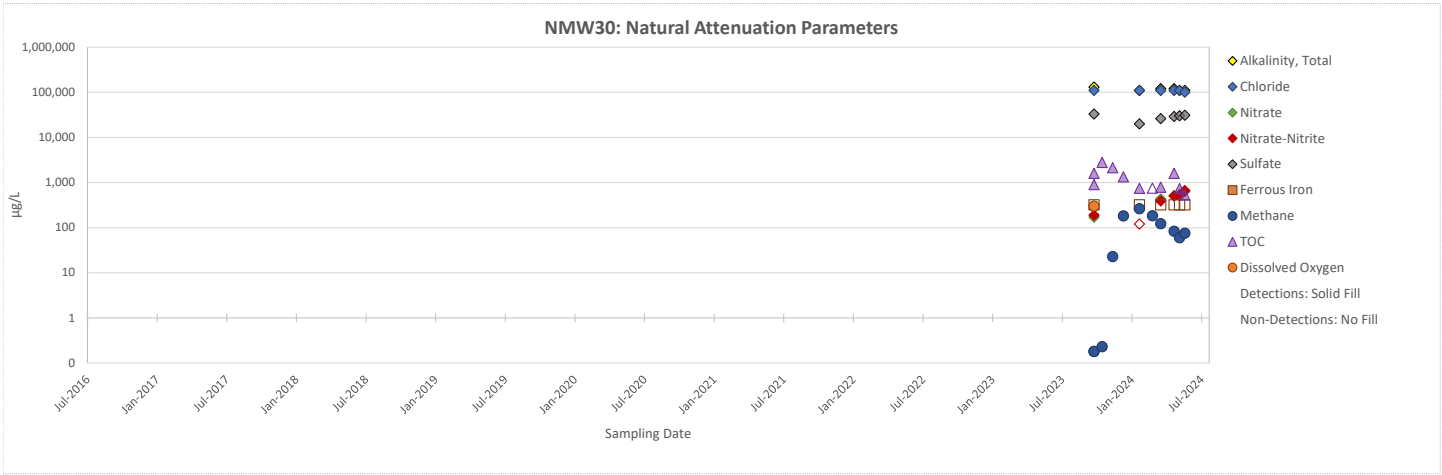
Detects are generally displayed as closed markers with color in fill. Non-detects are displayed without color in fill.

Plotted values include Normal and Field Duplicate sample types.

All results are reported in ug/L.

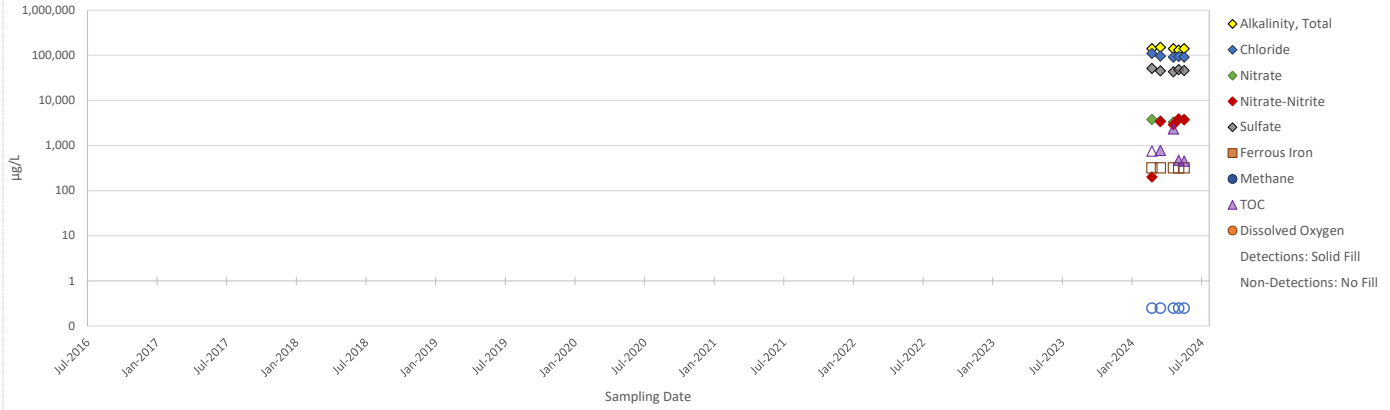


Note: See Data Legend

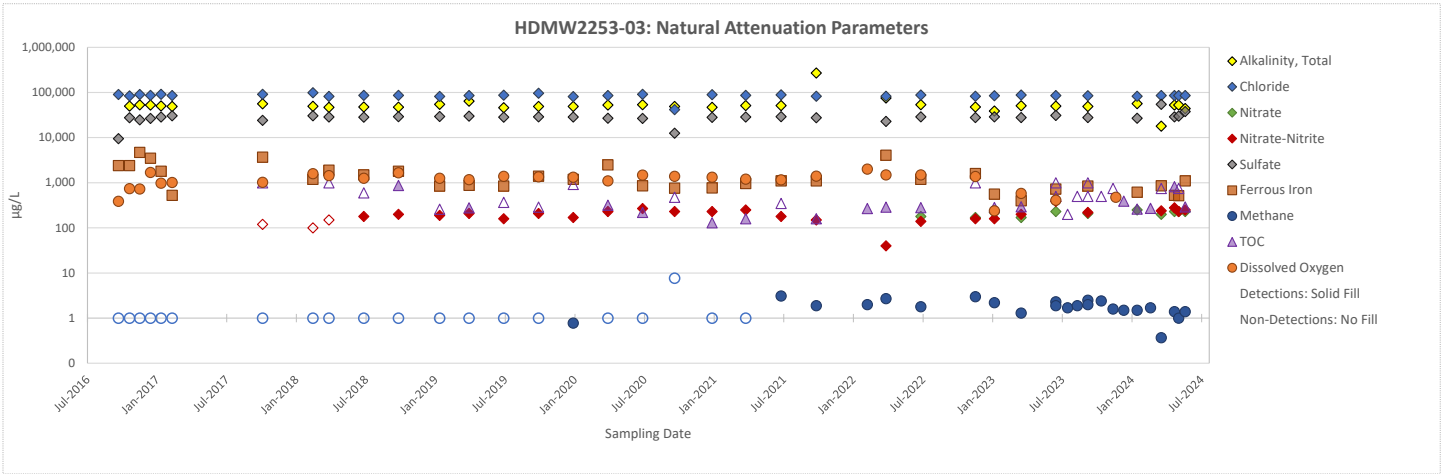
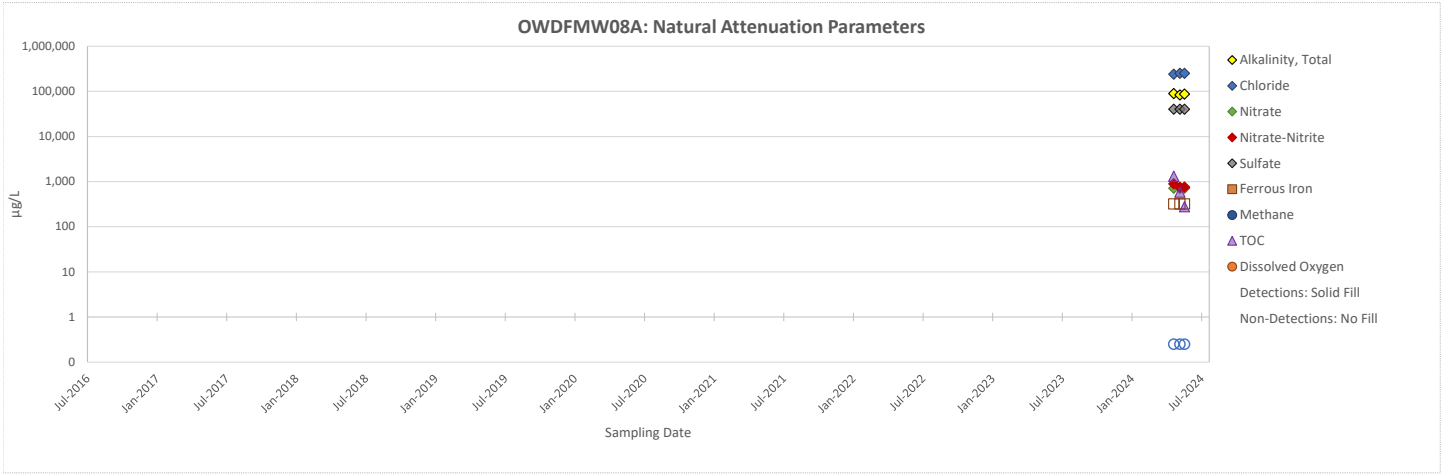
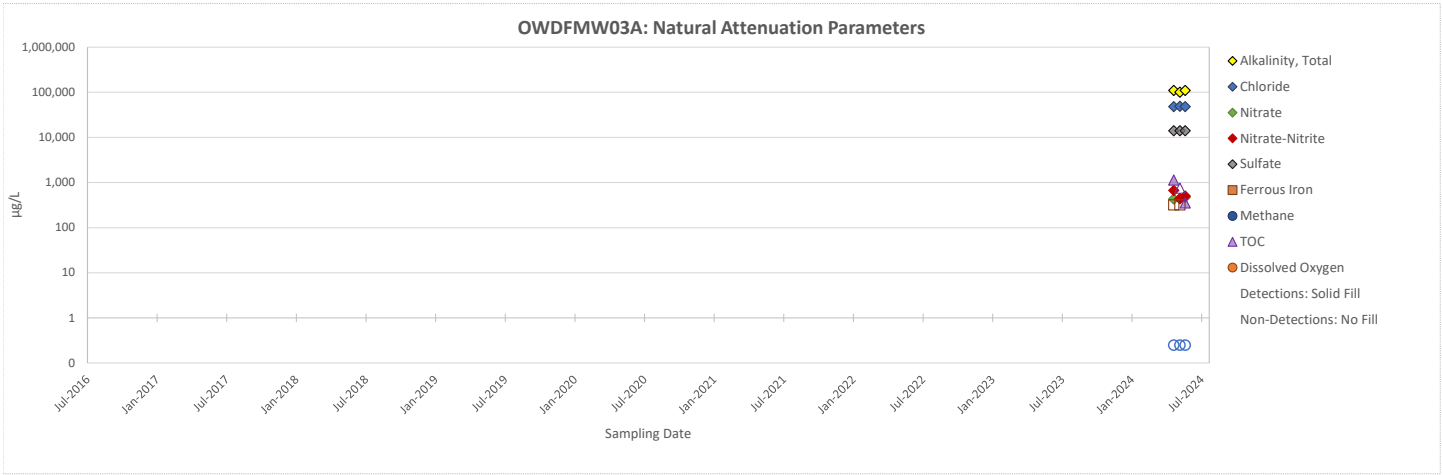


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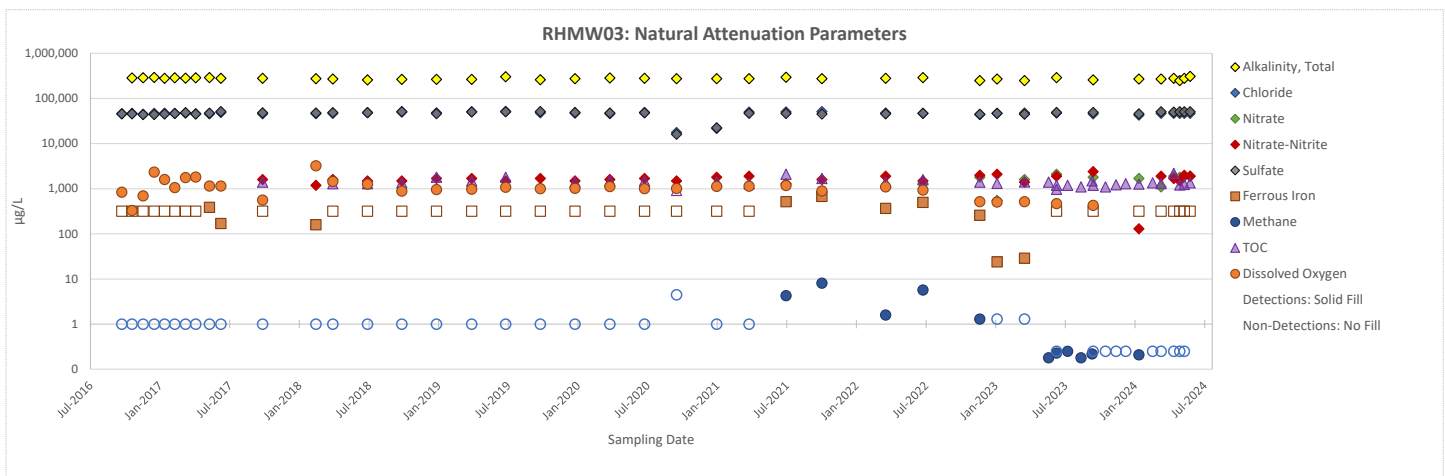
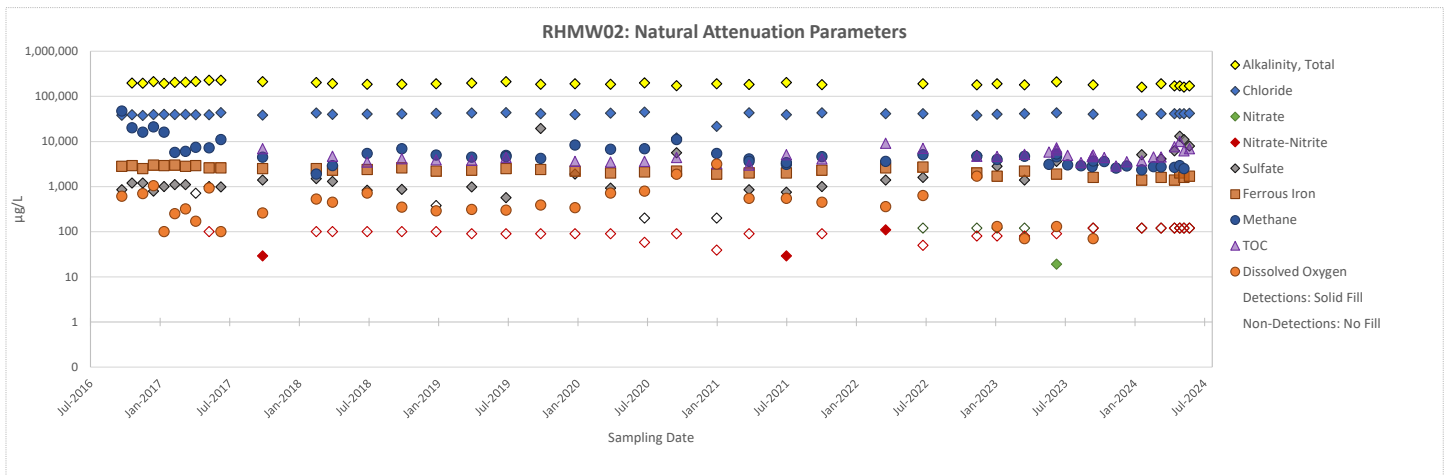
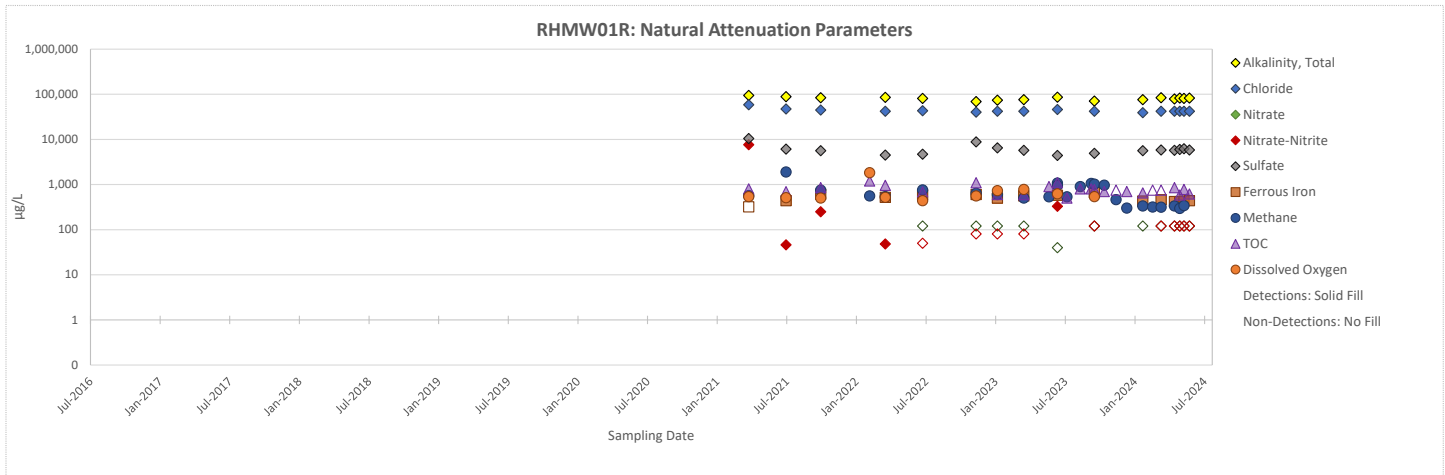
NMW34: Natural Attenuation Parameters



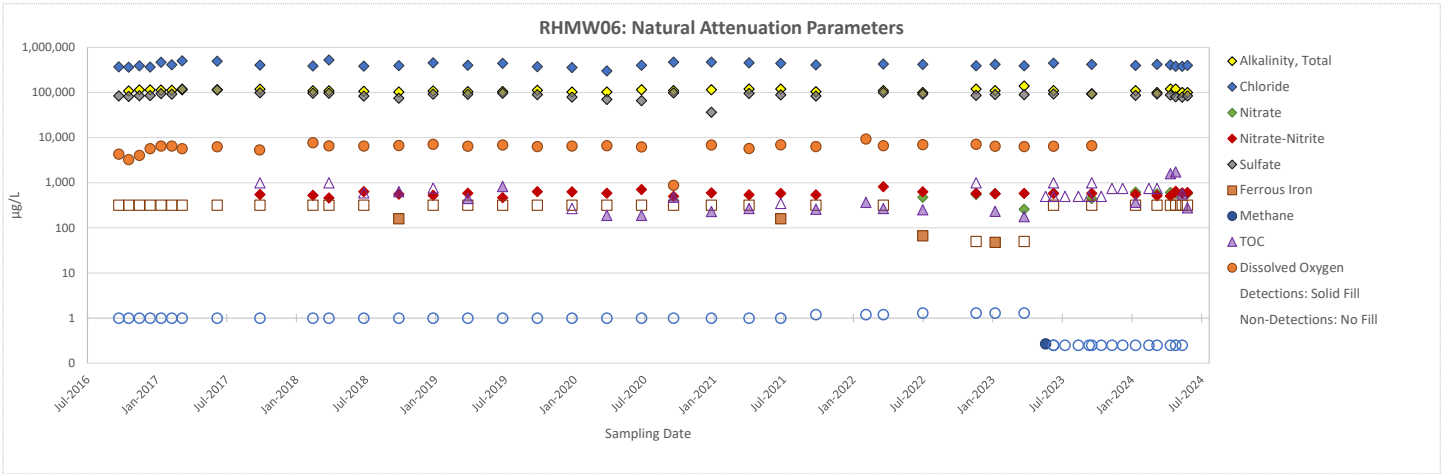
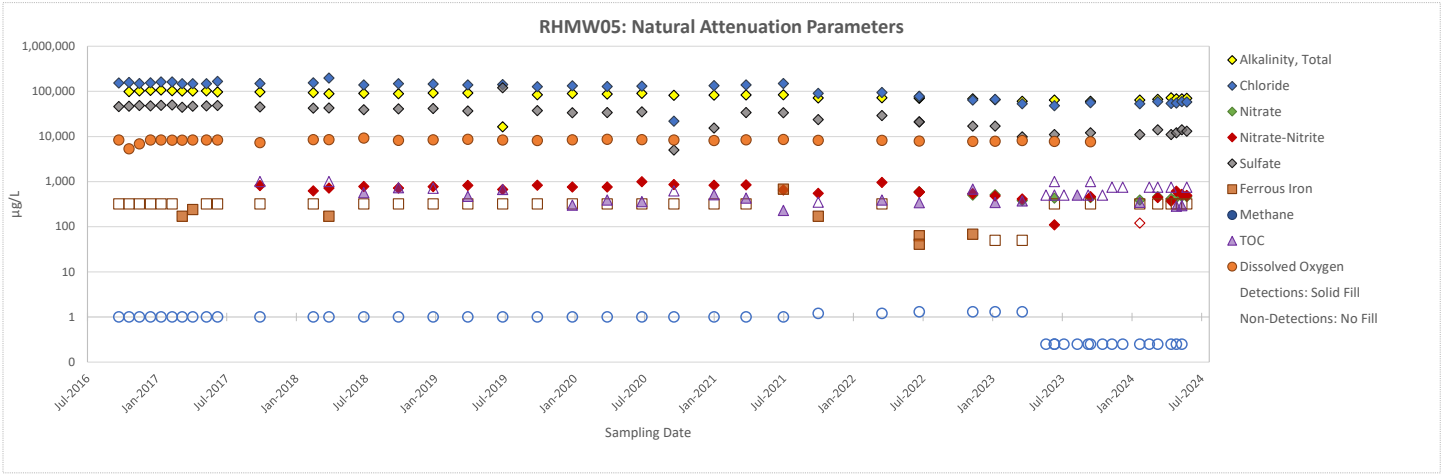
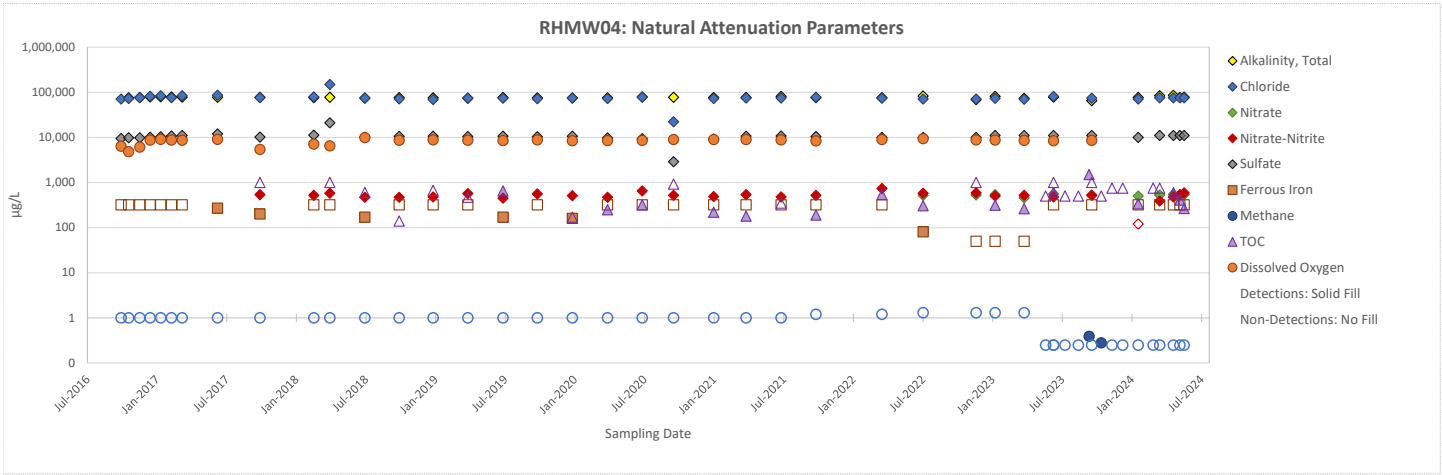
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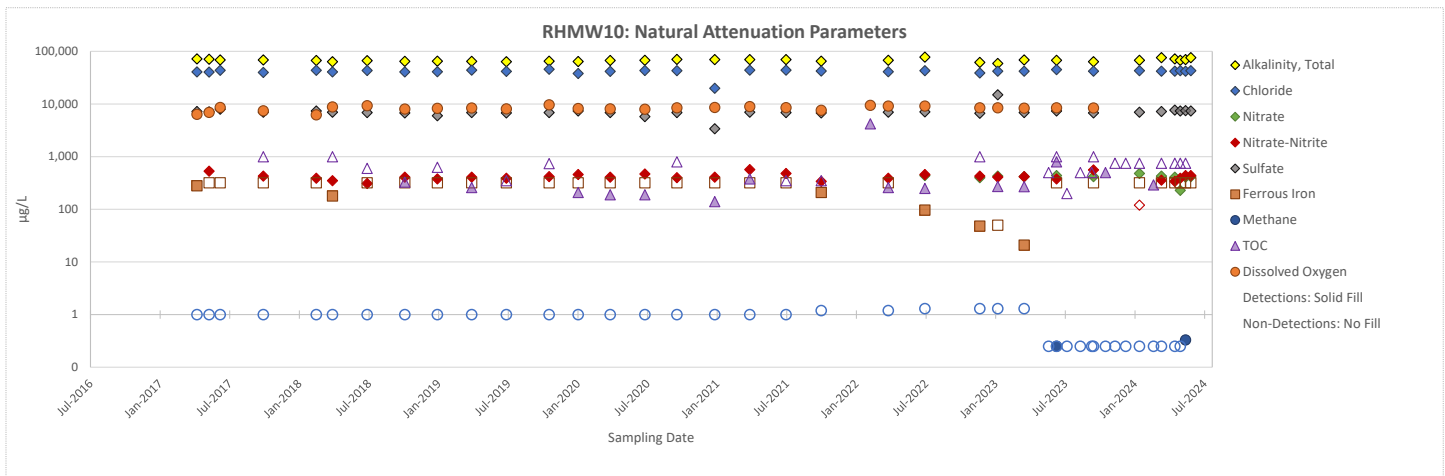
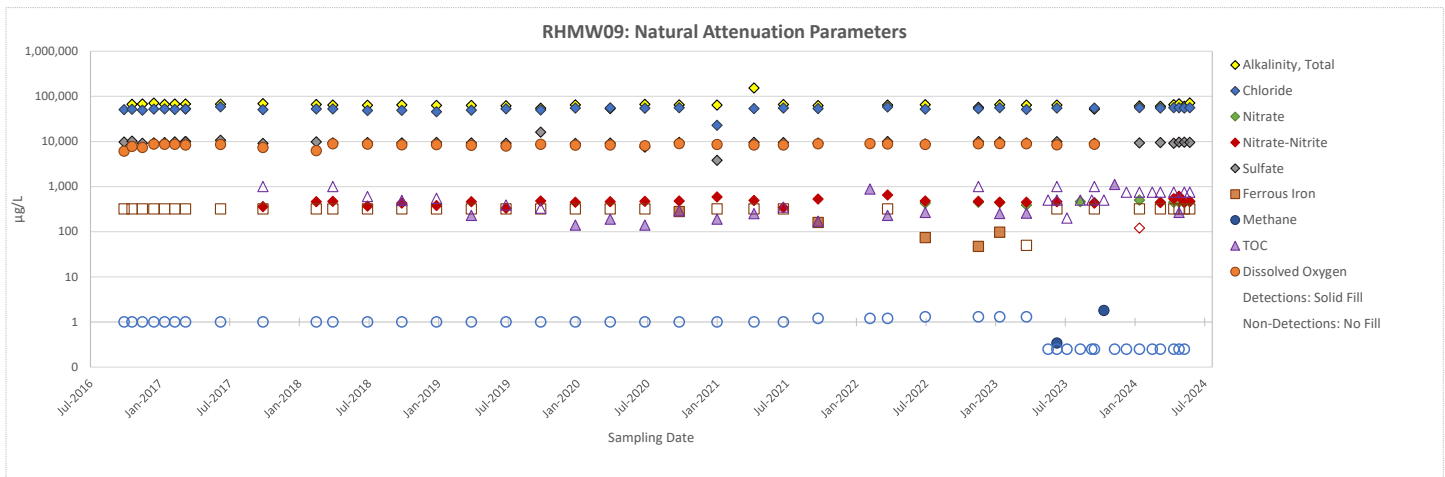
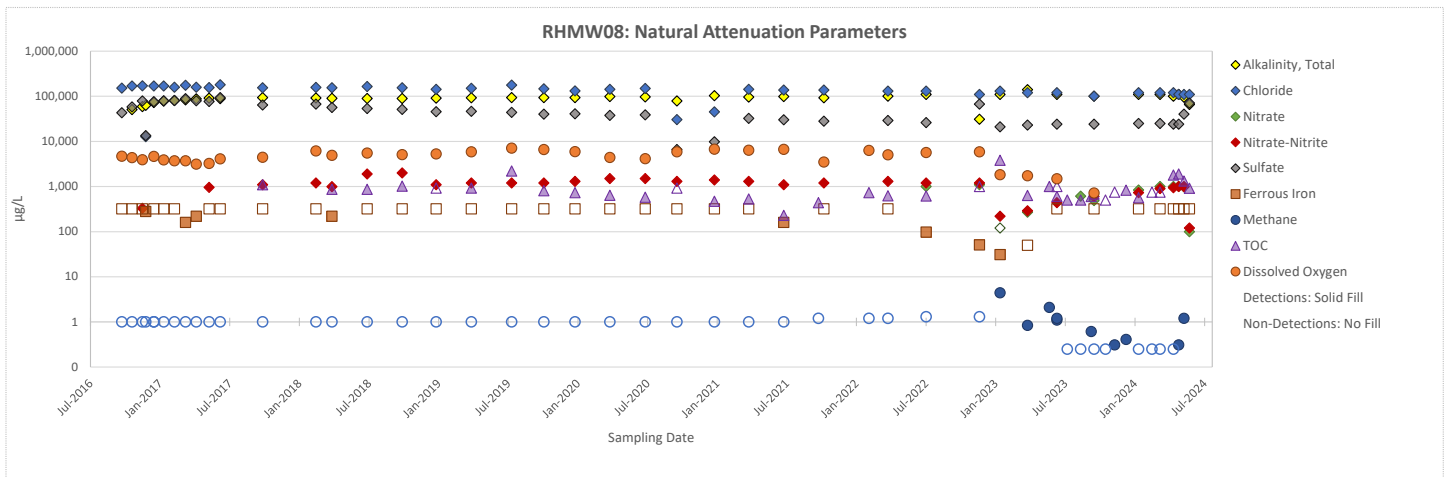
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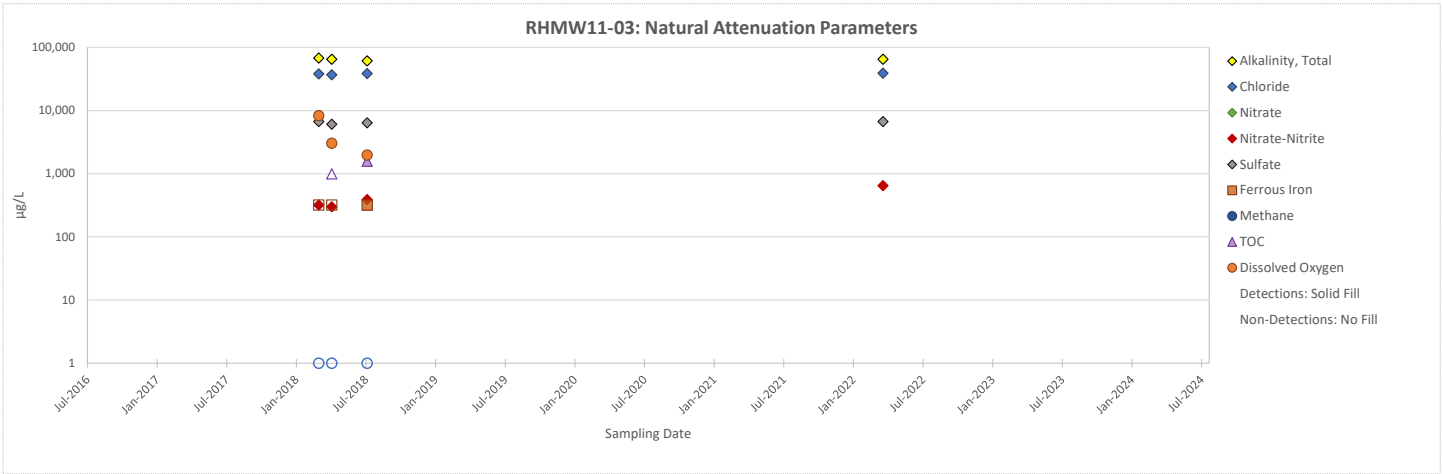
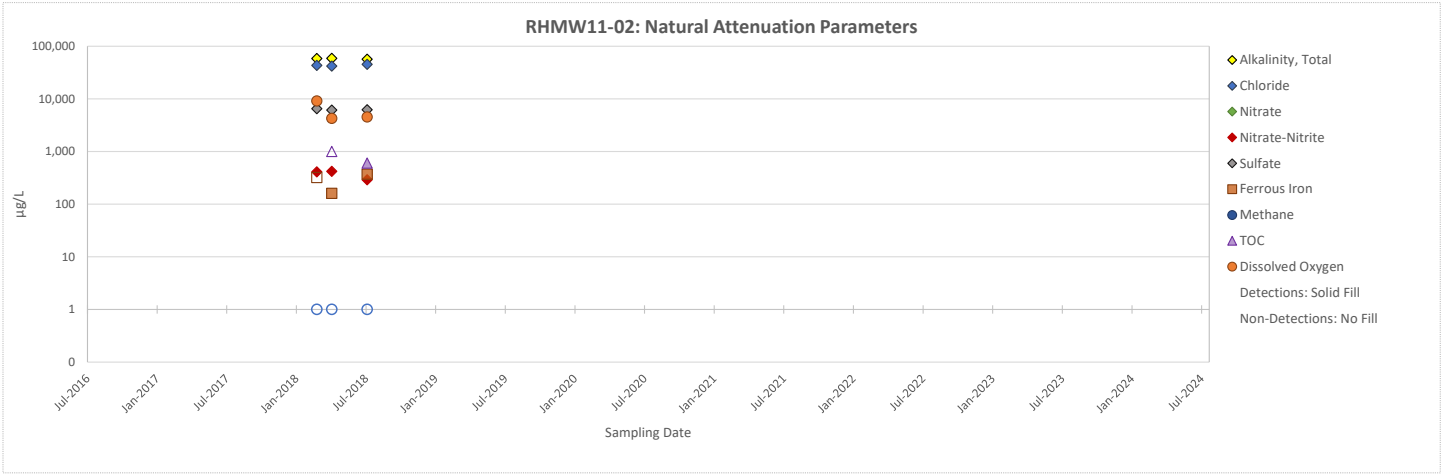
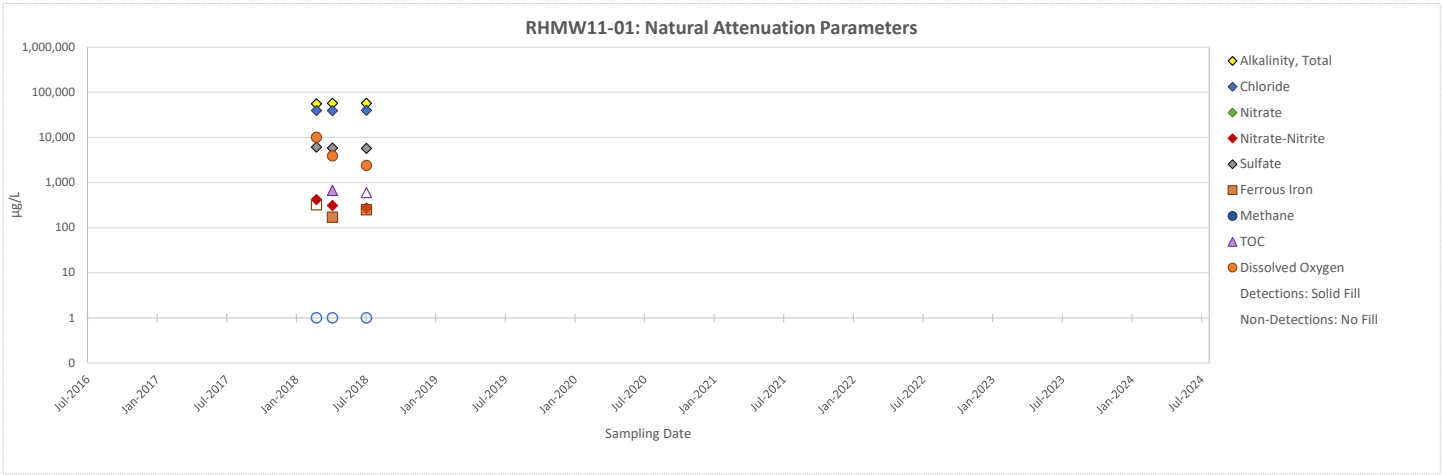
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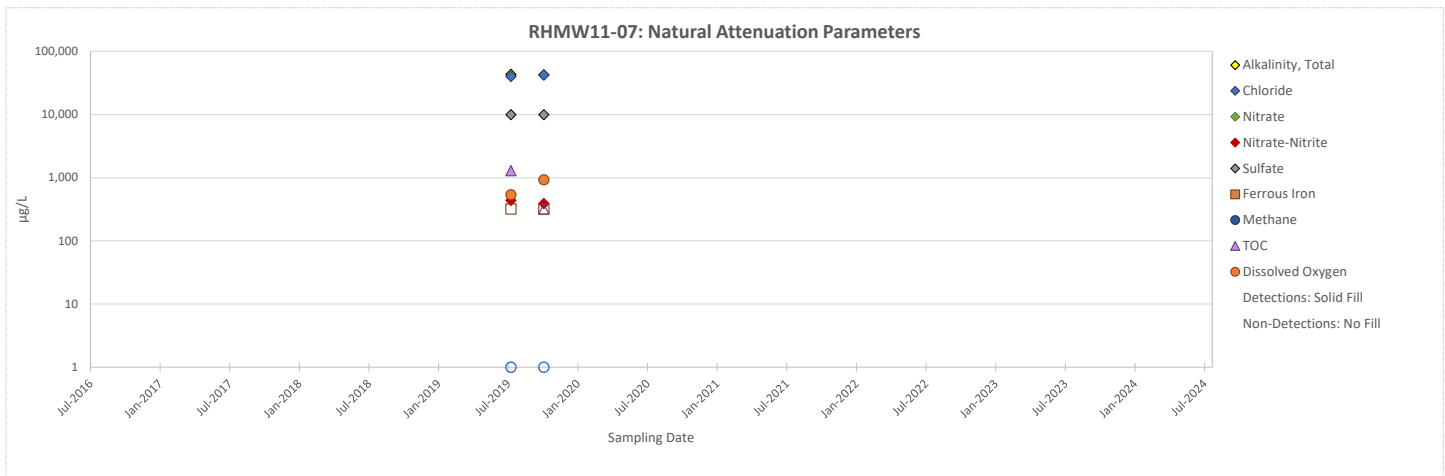
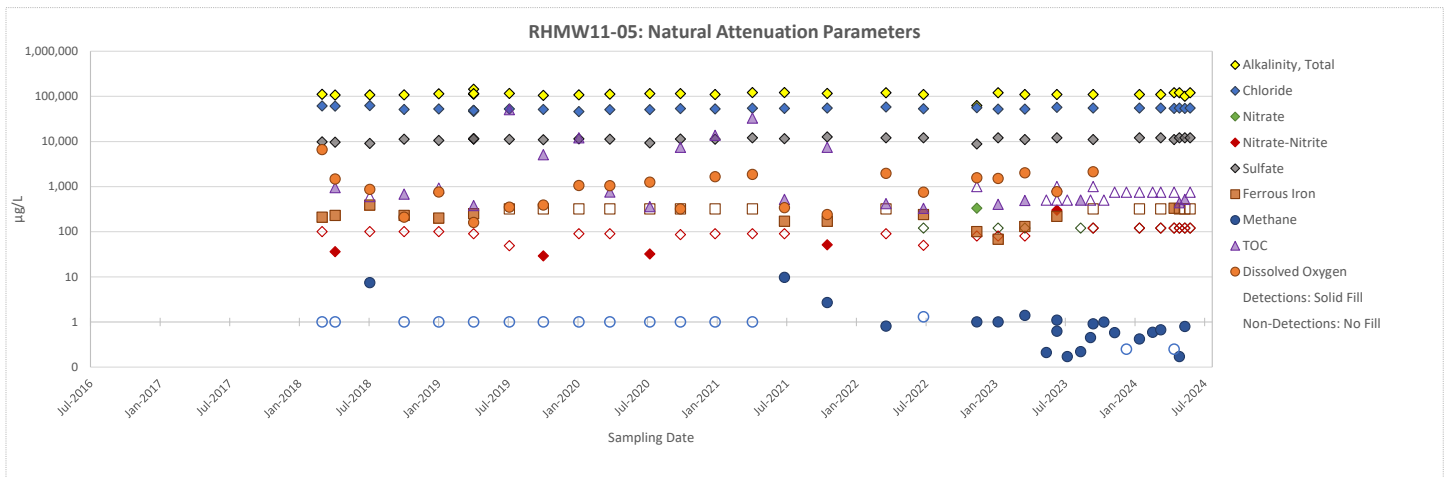
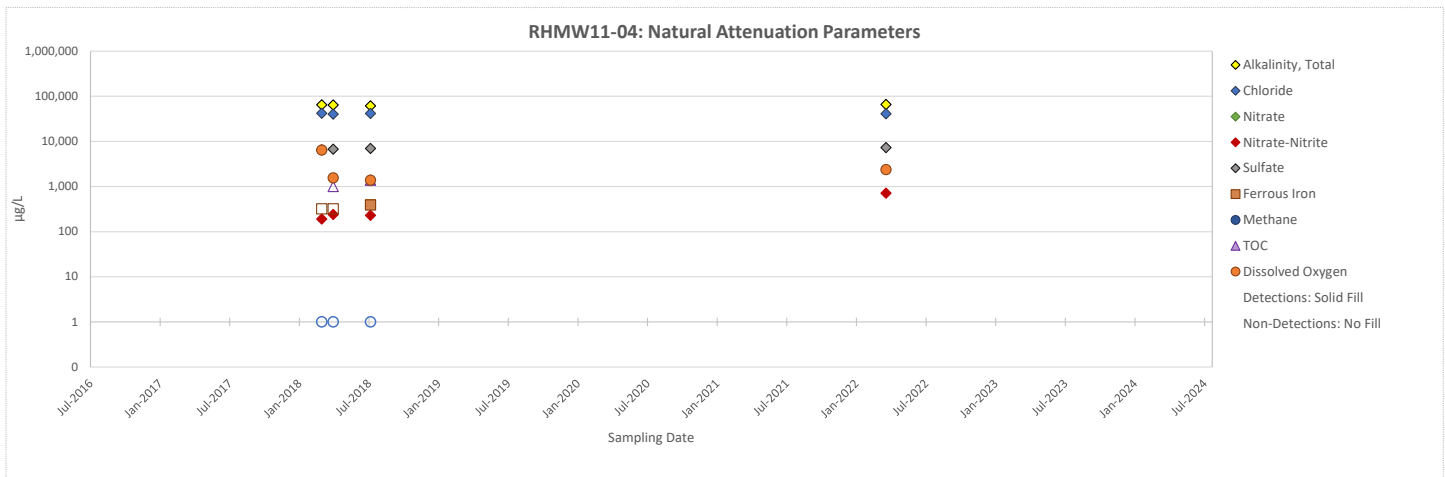
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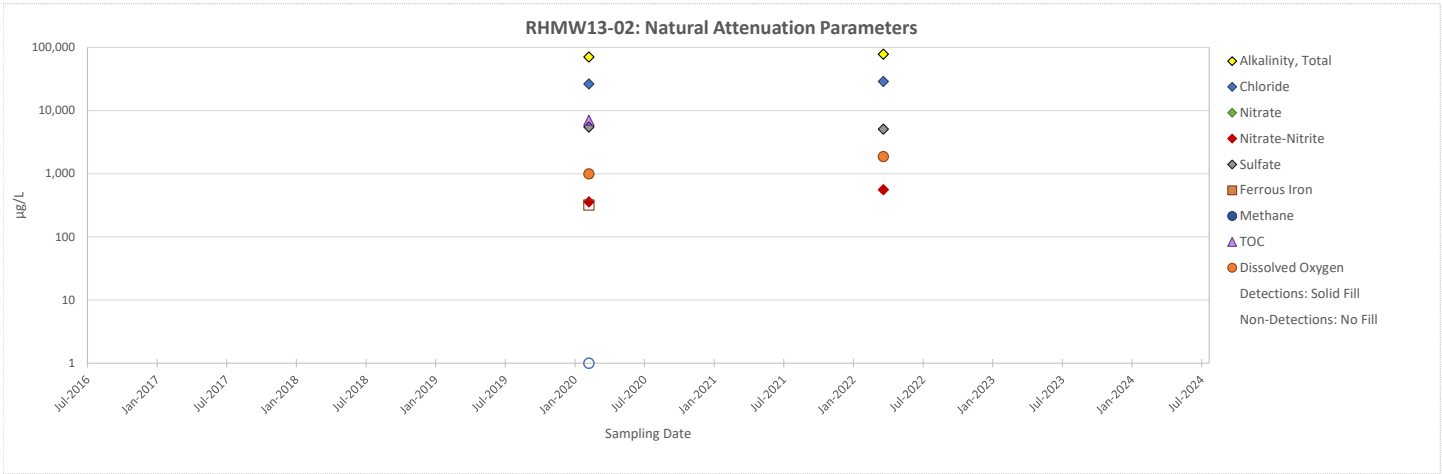
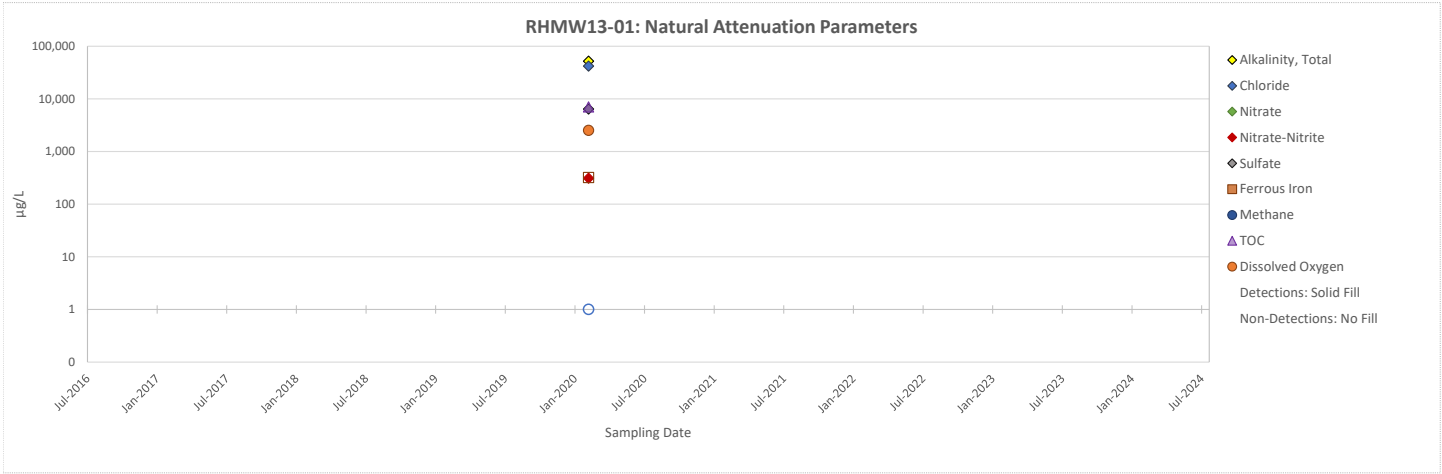
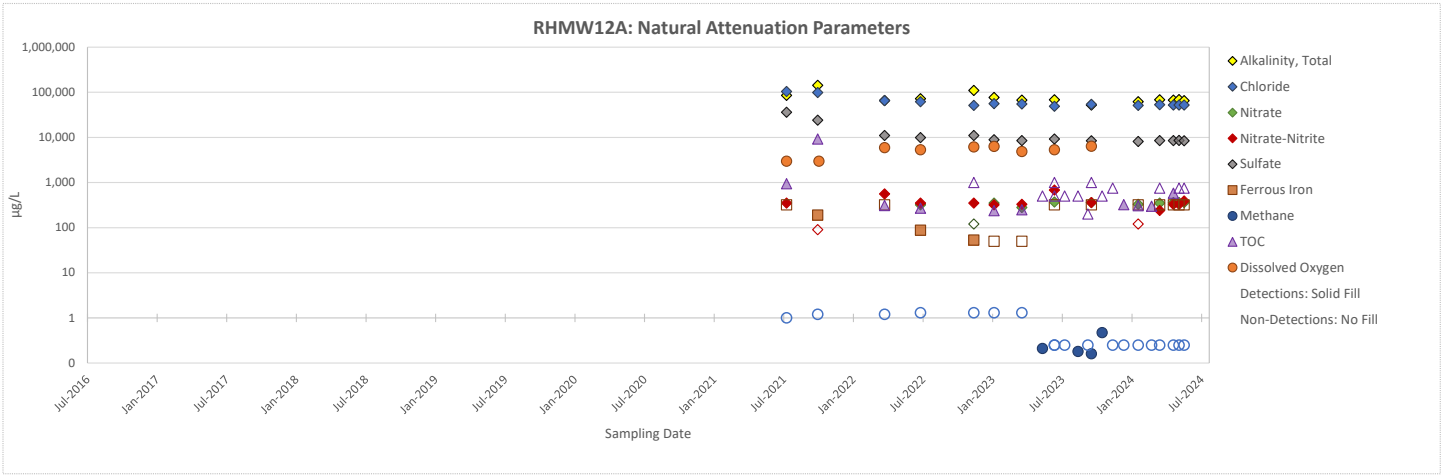
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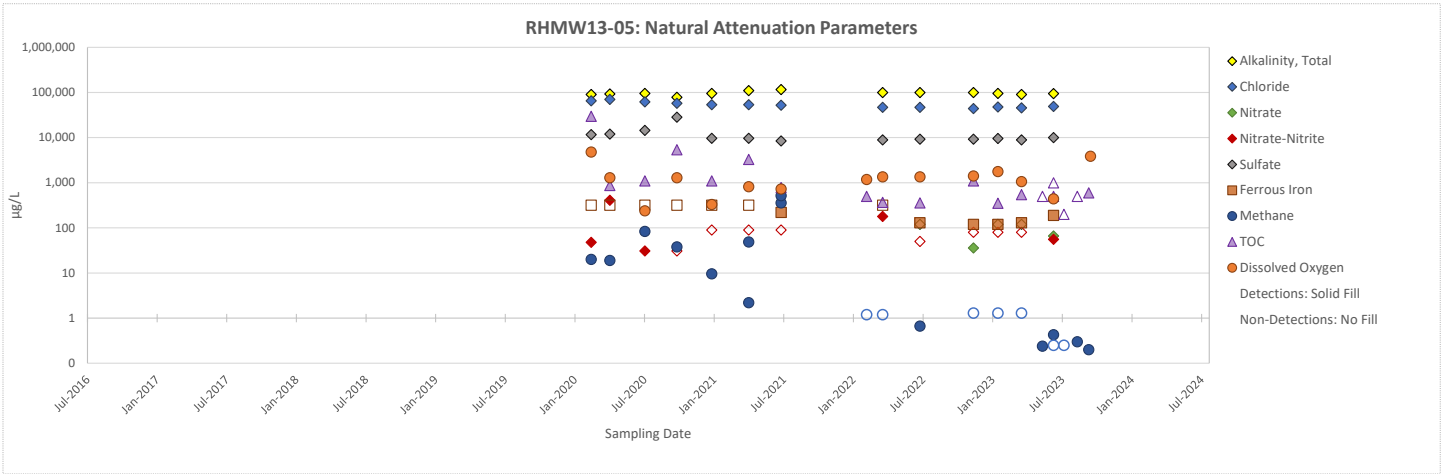
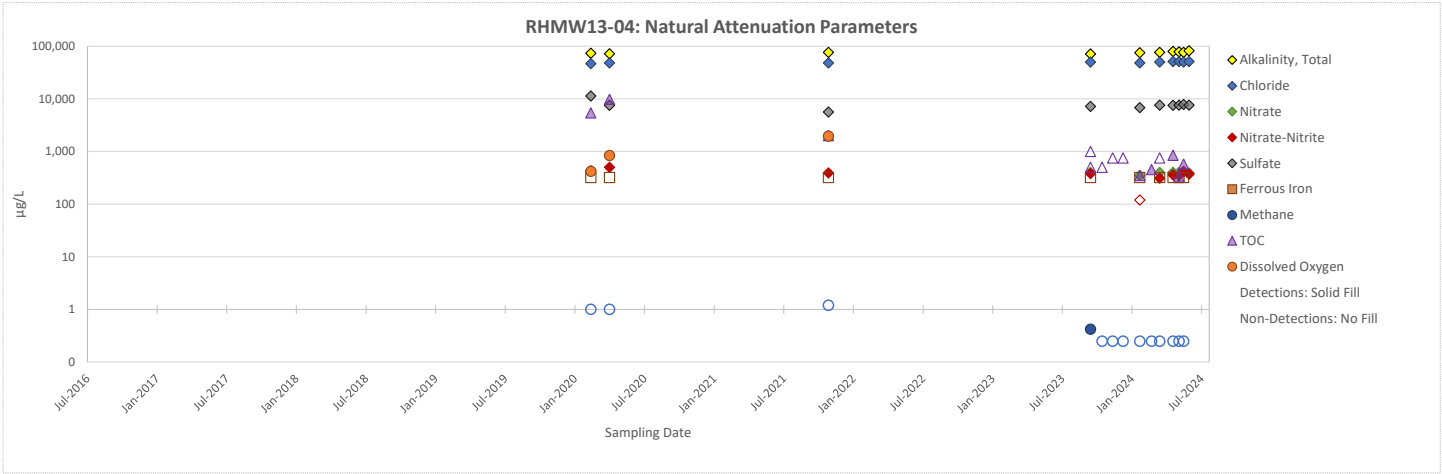
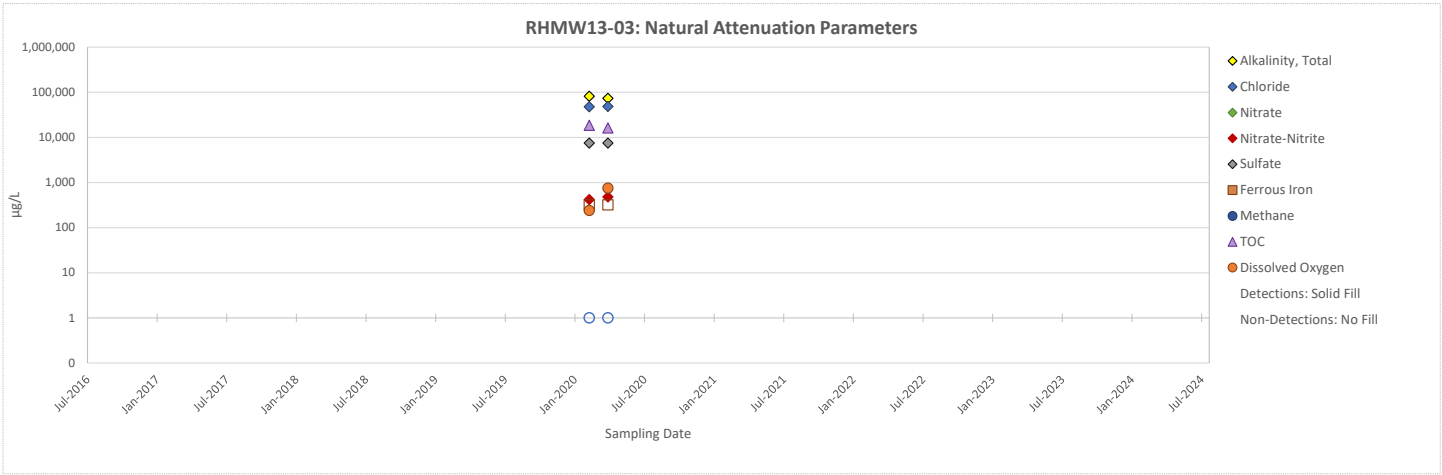
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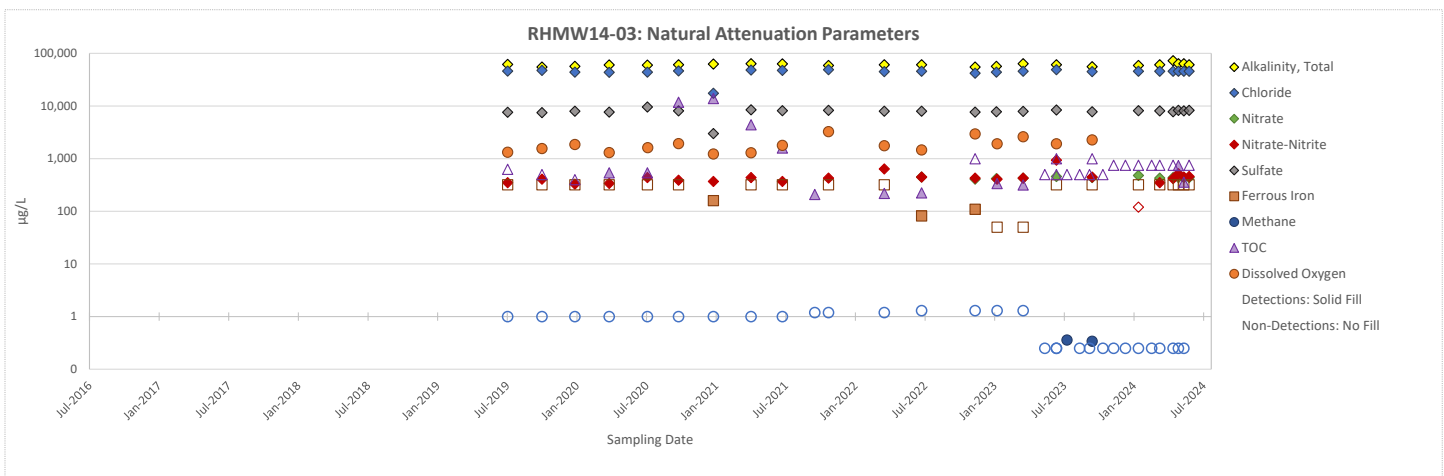
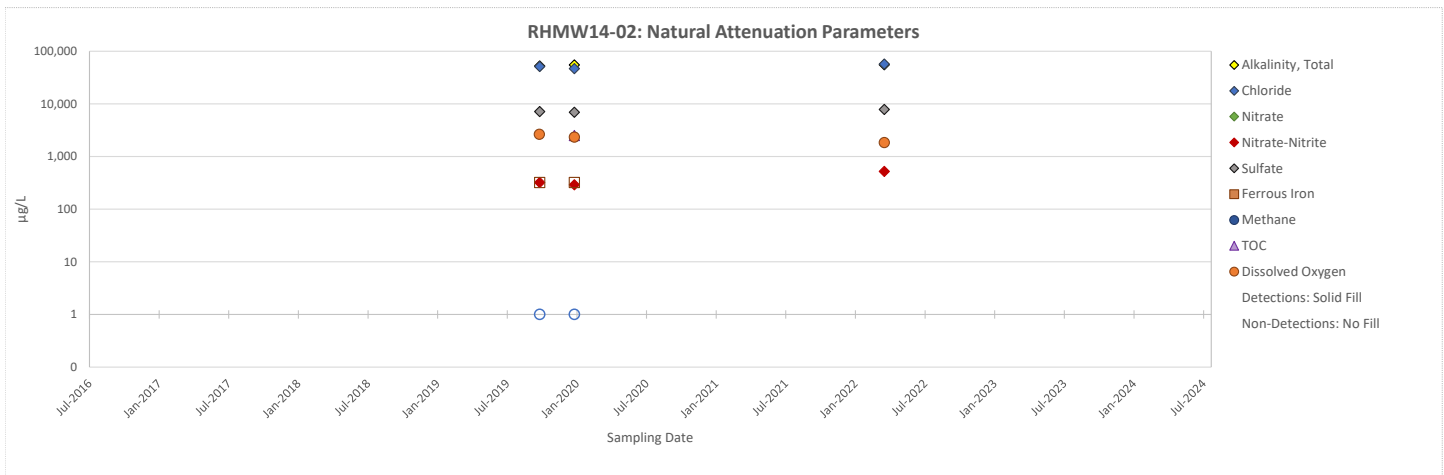
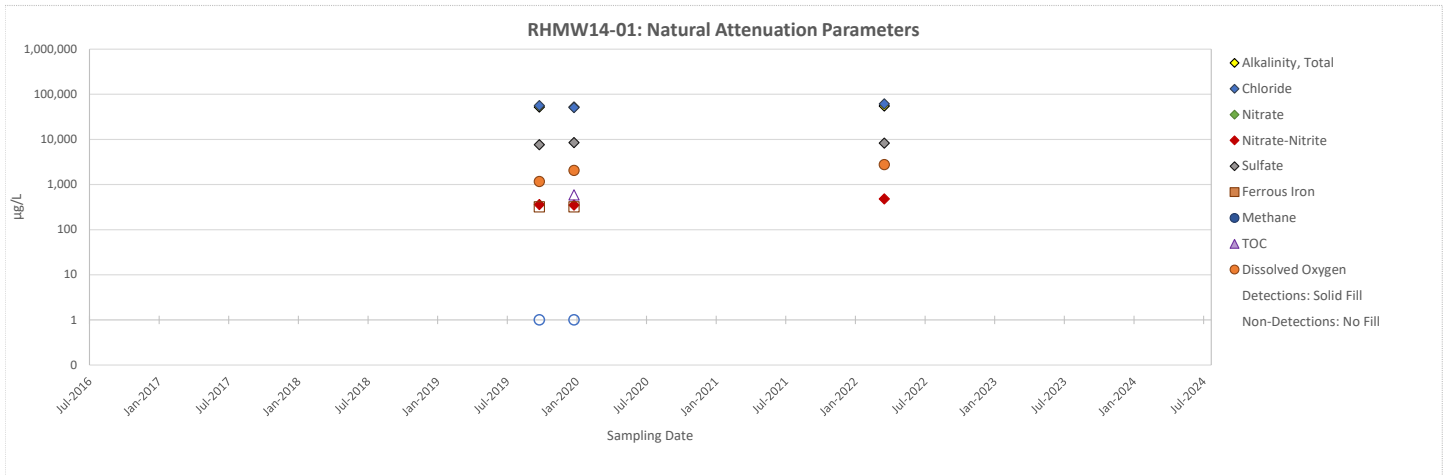
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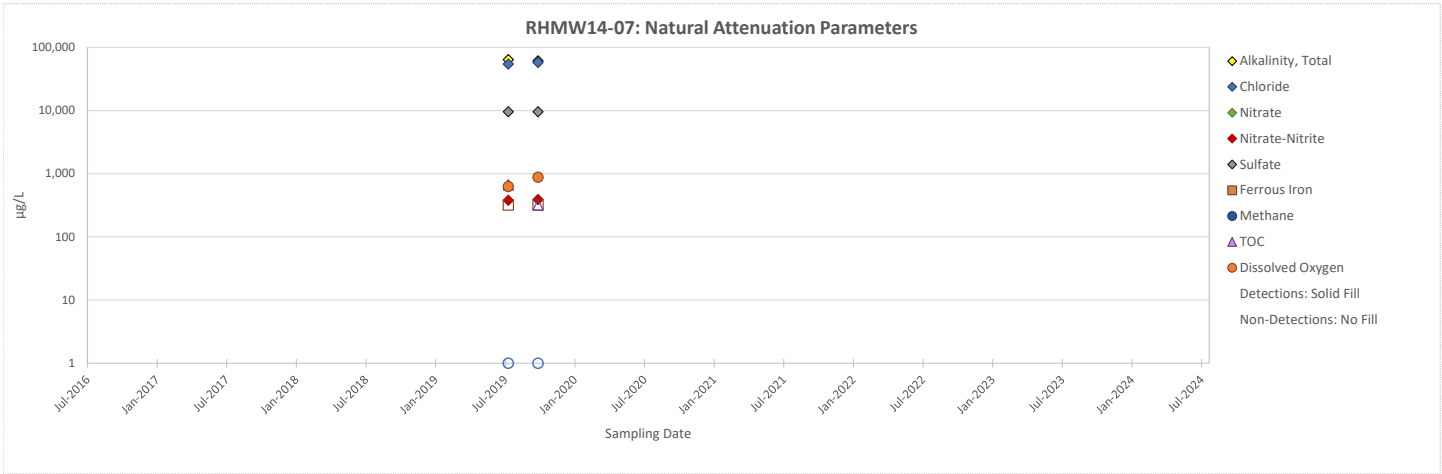
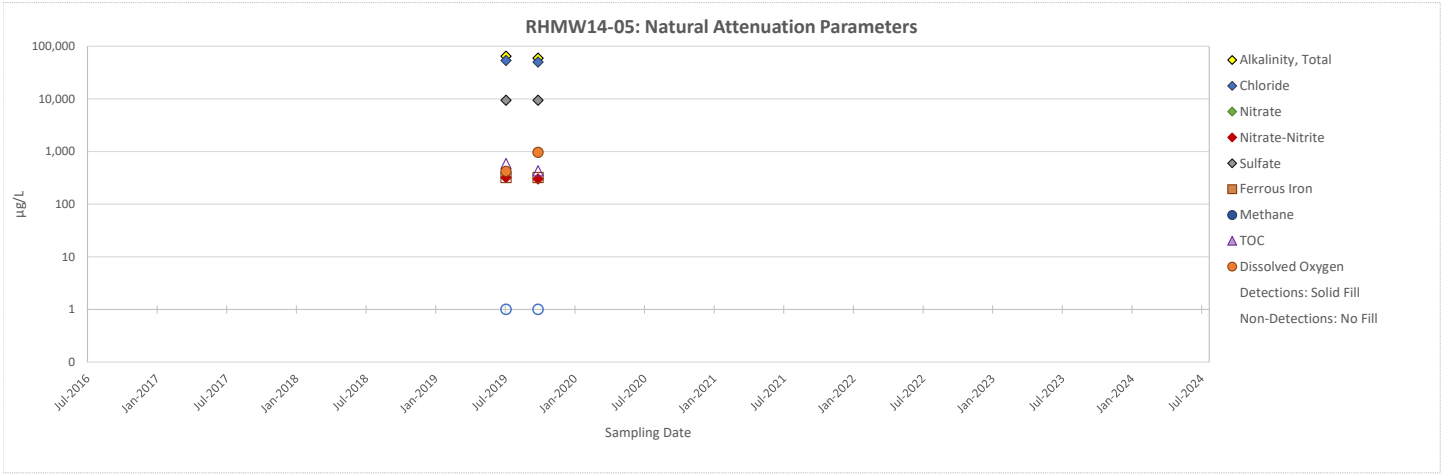
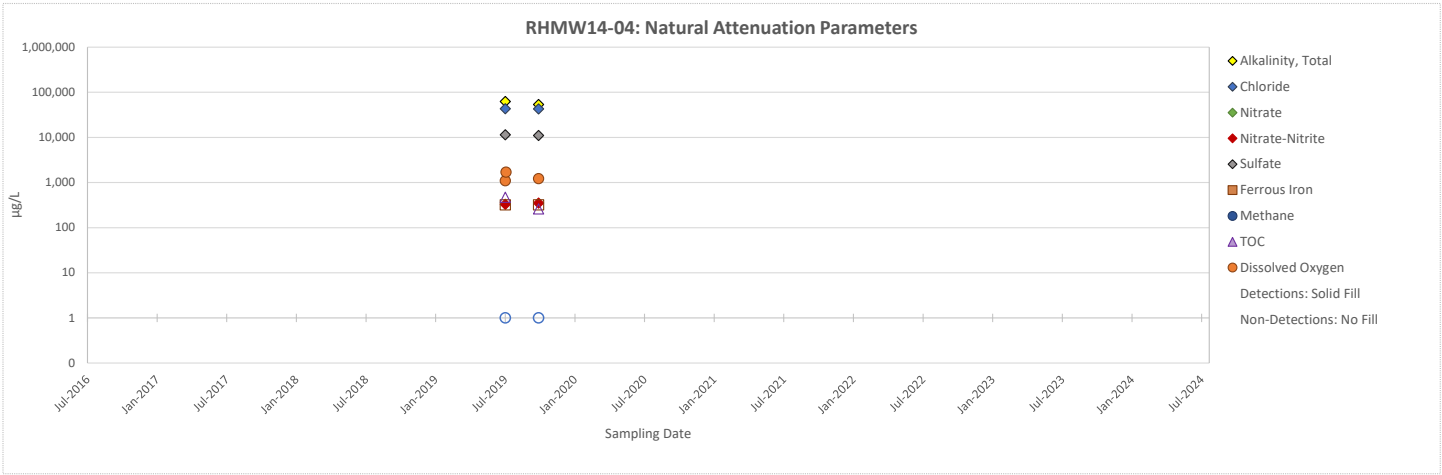
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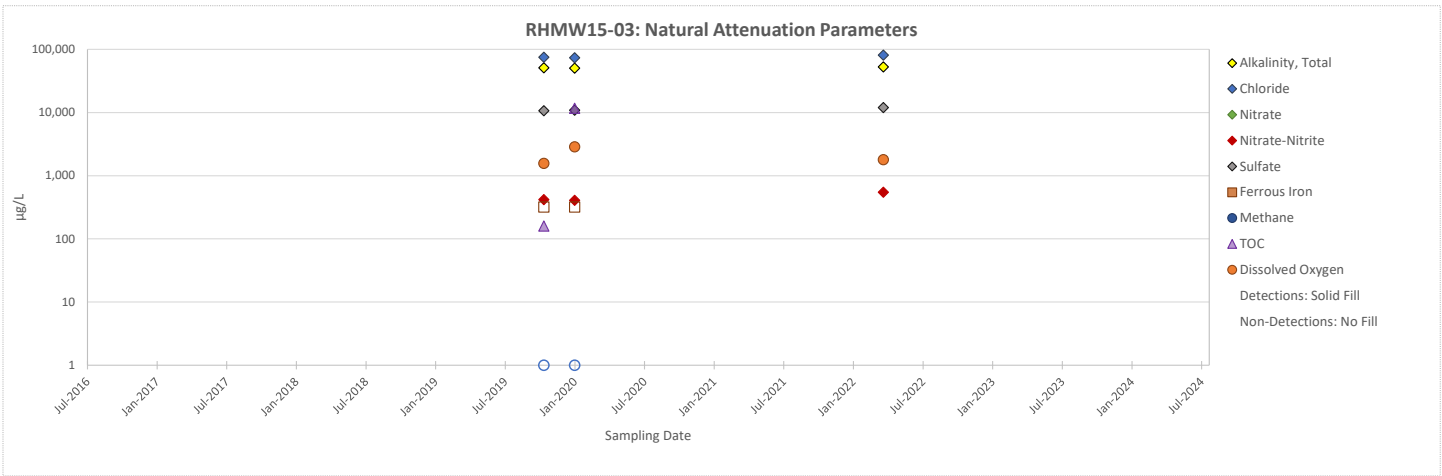
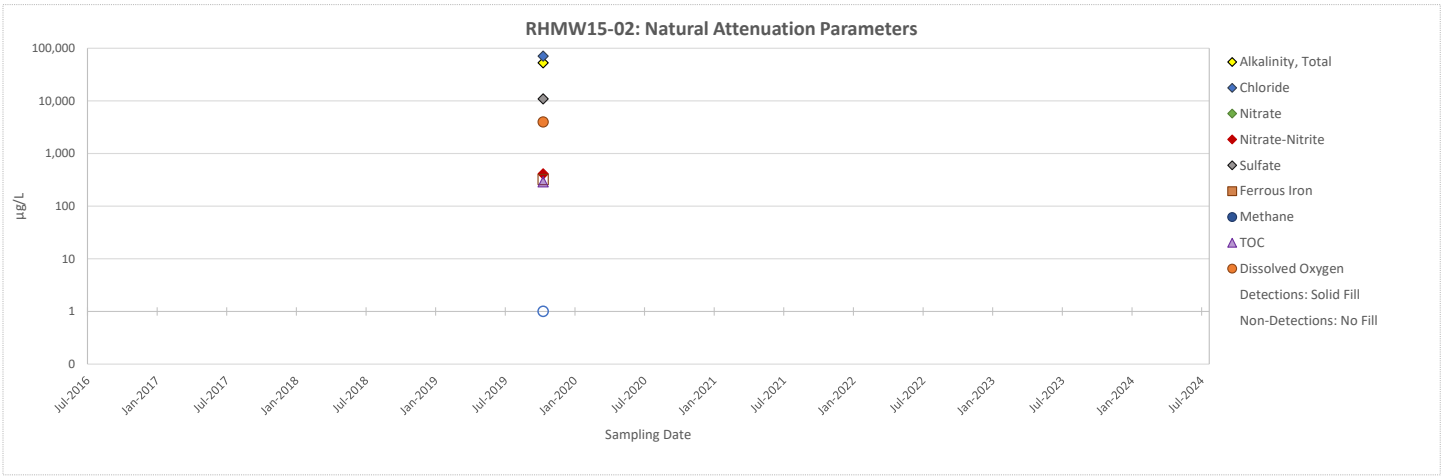
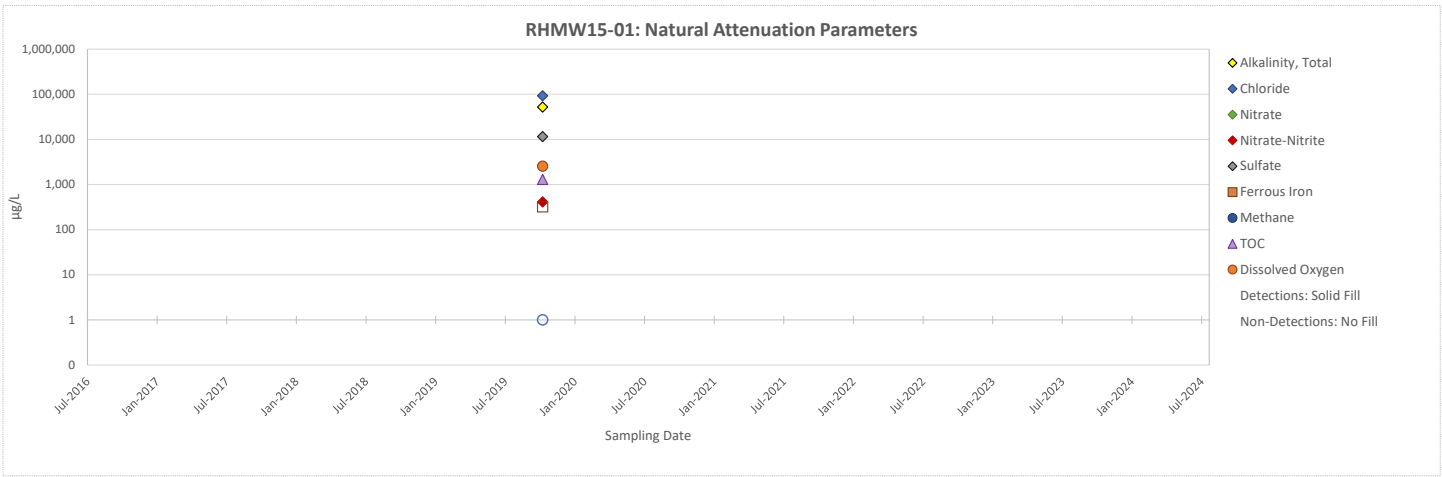
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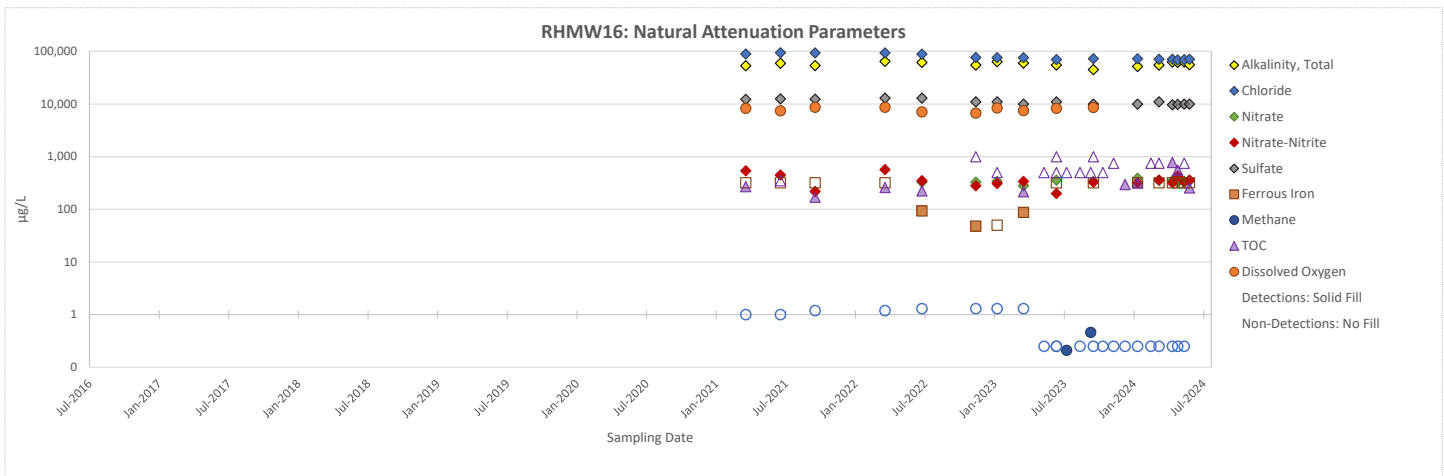
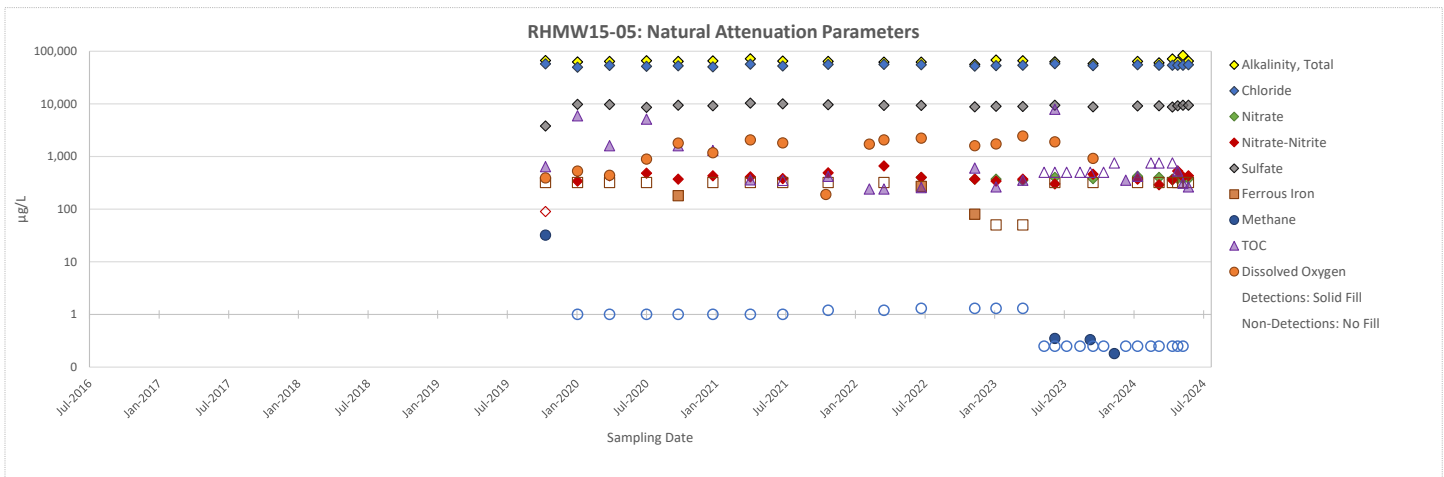
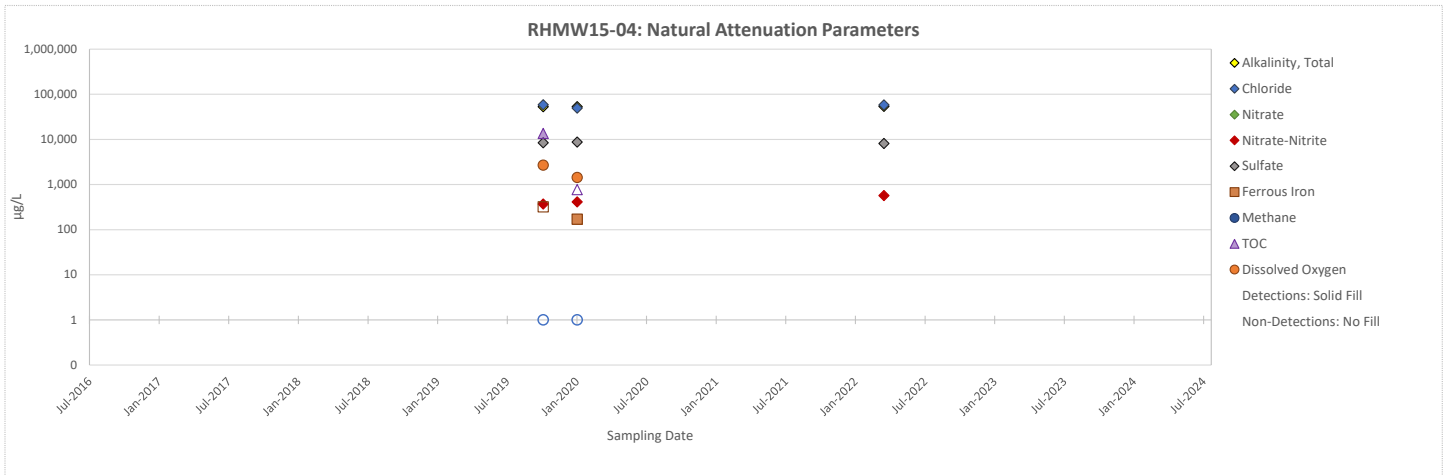
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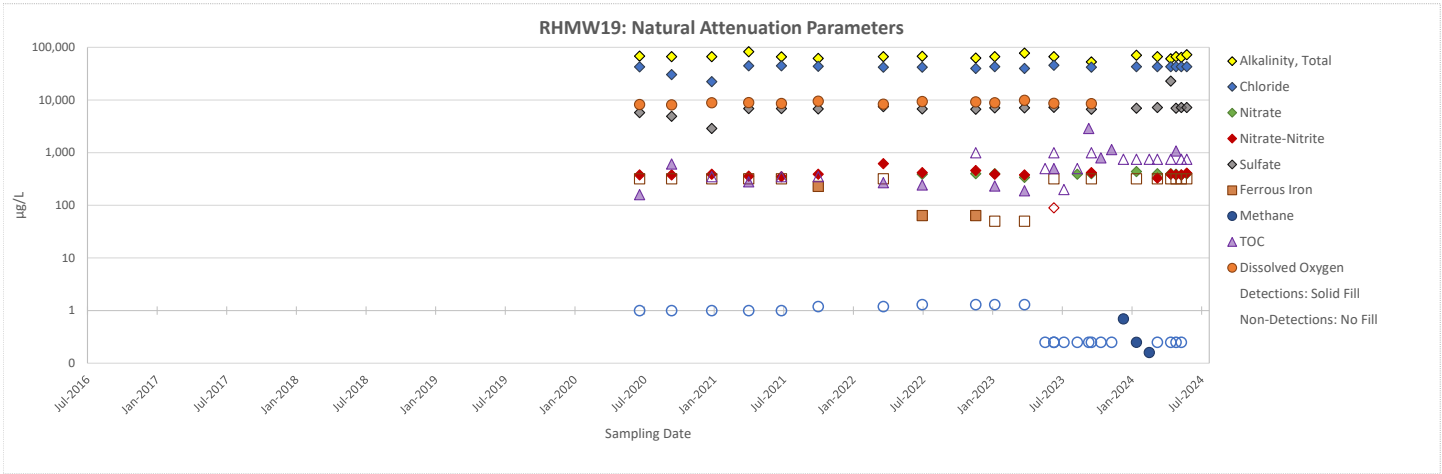
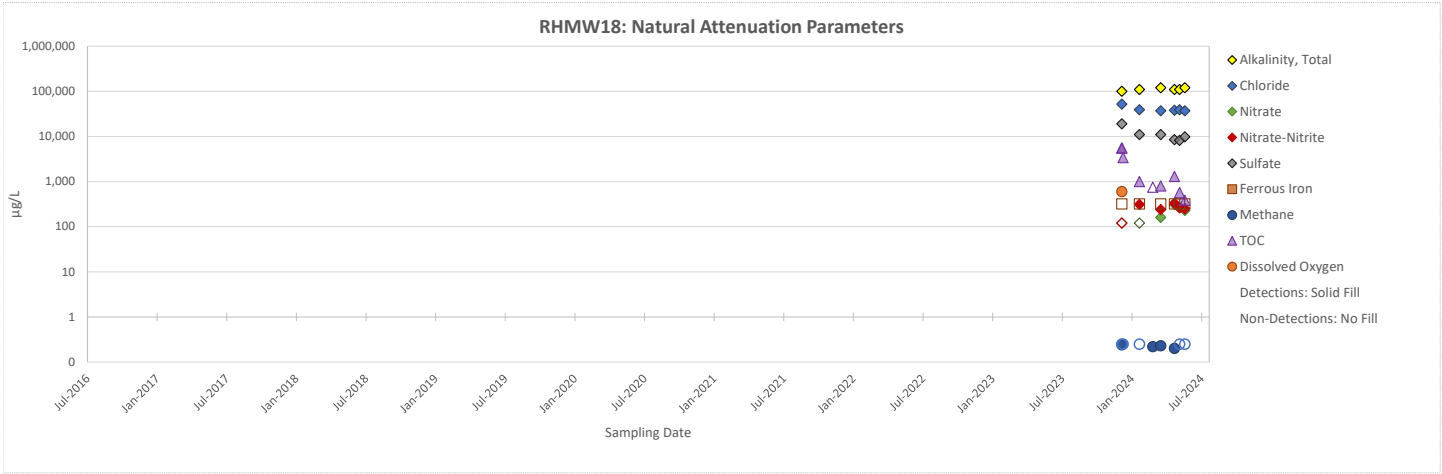
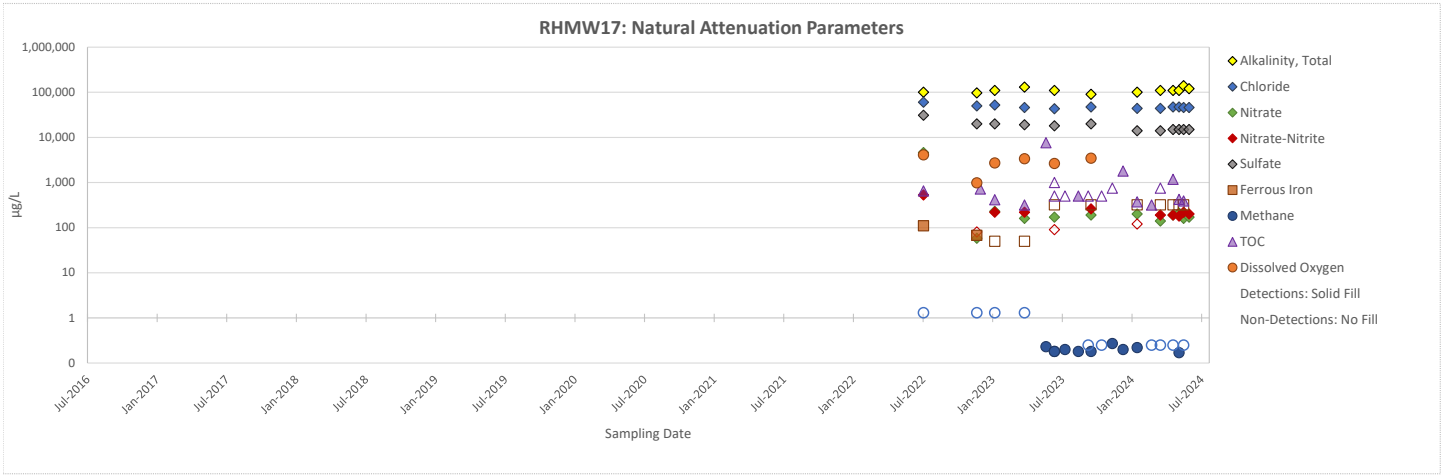
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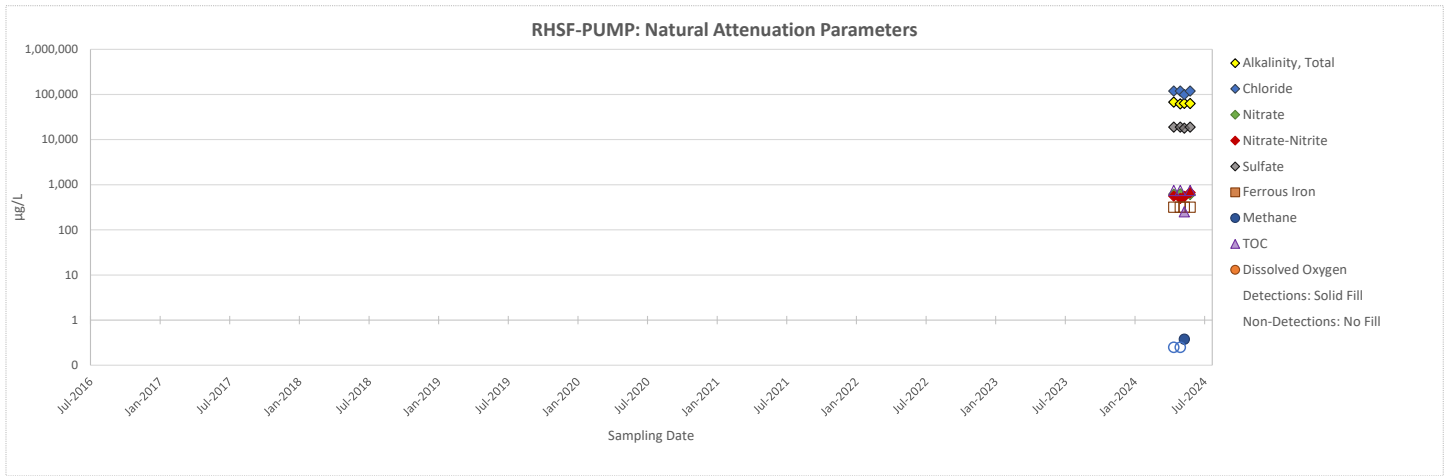
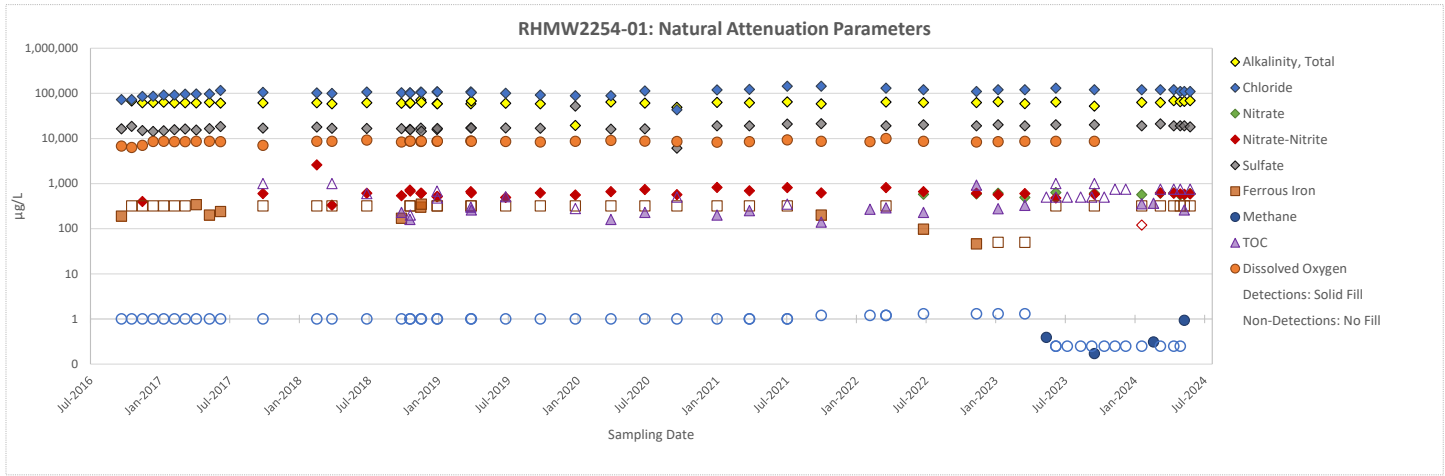
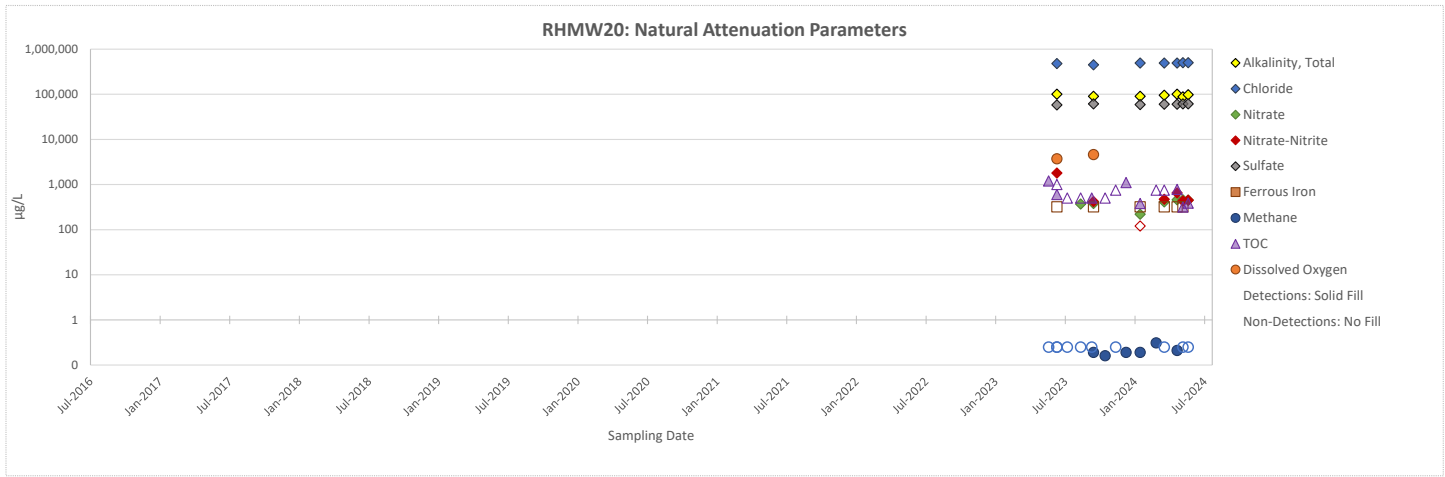
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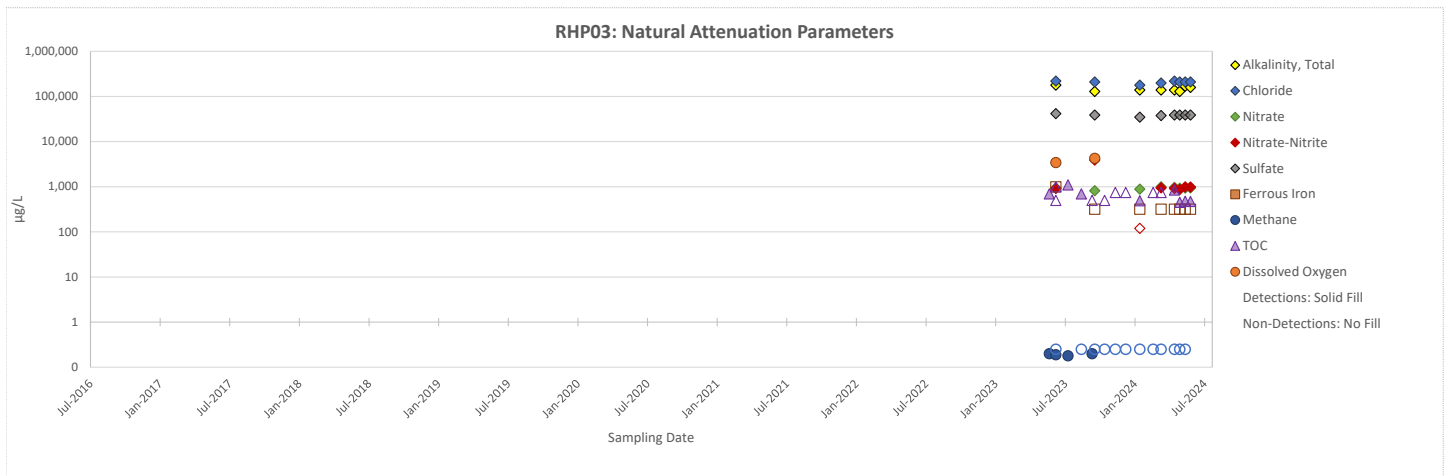
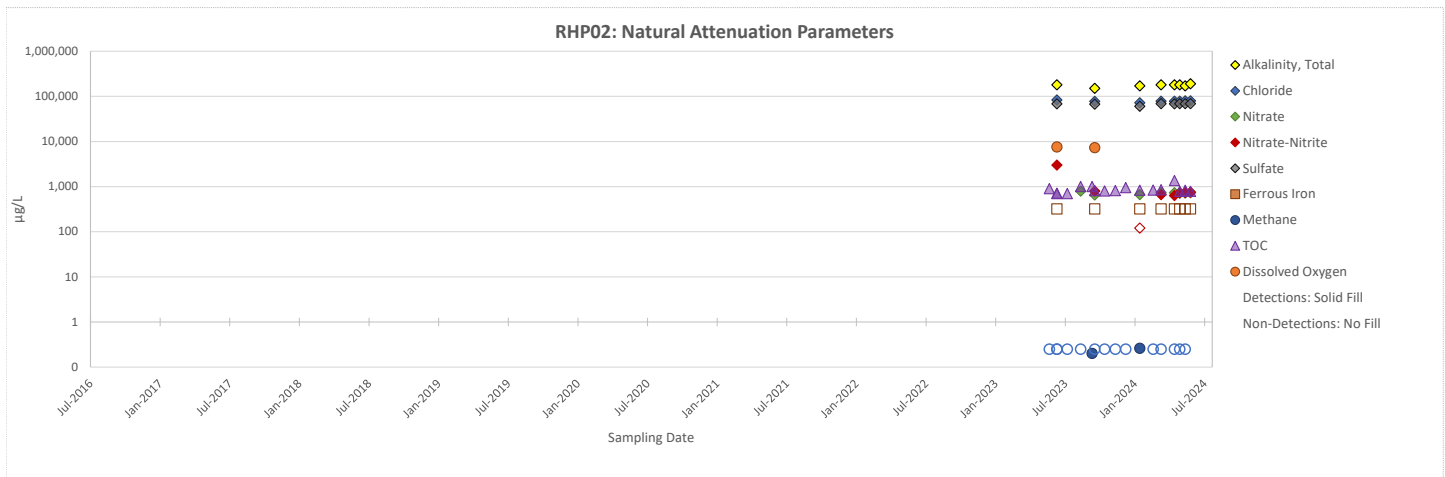
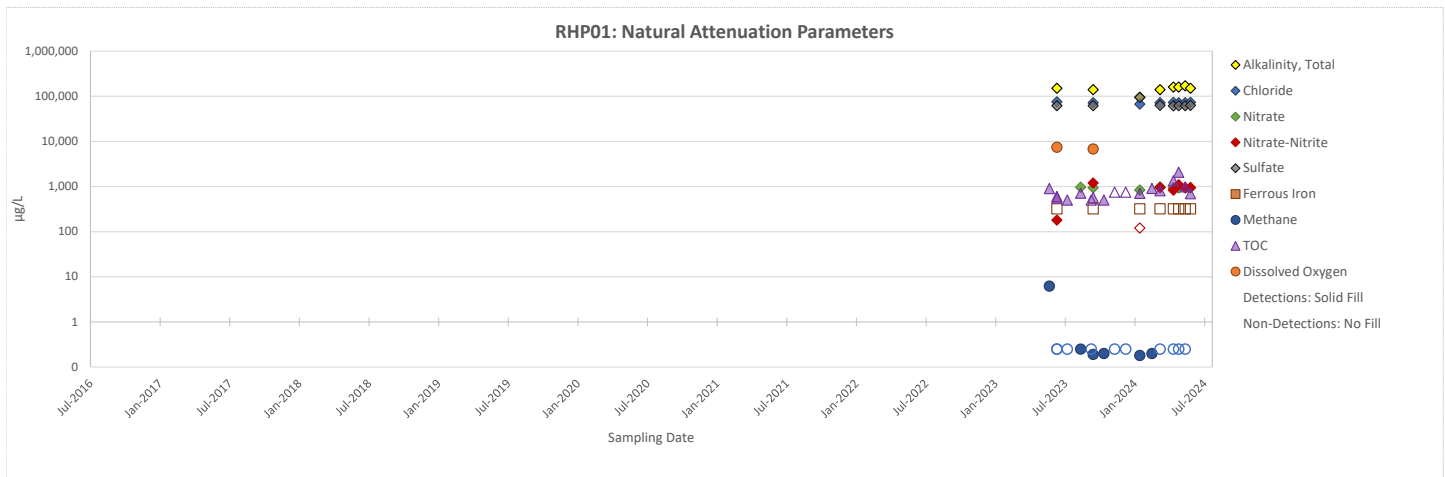
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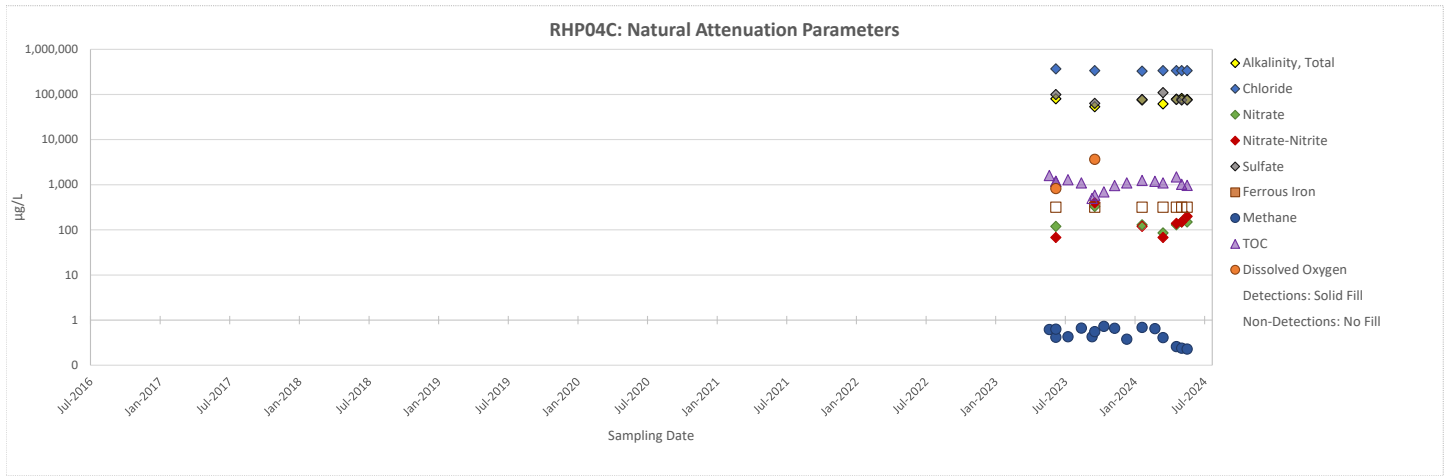
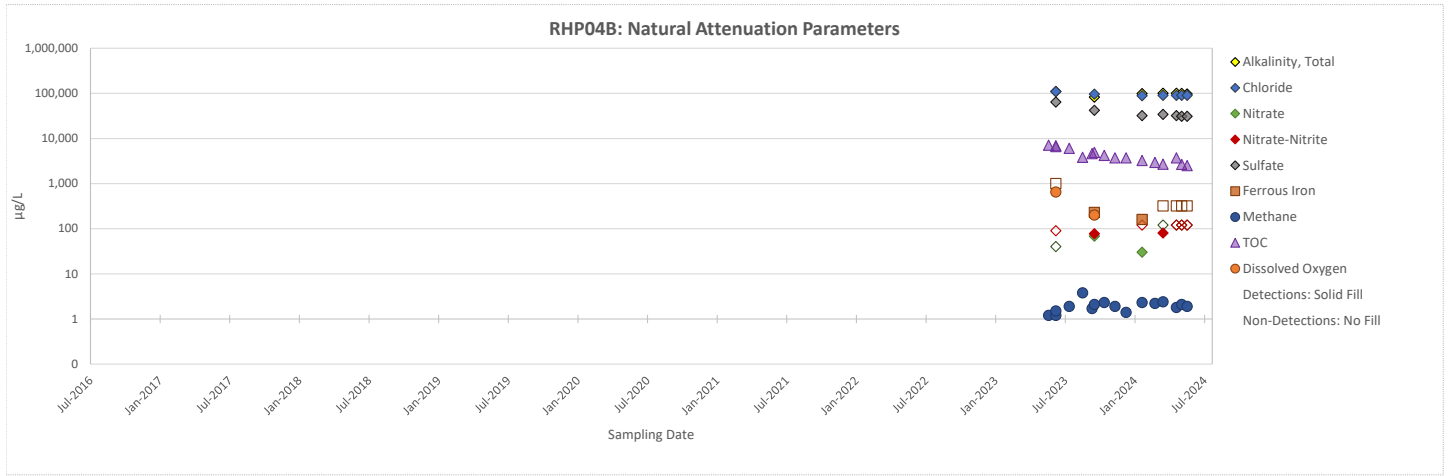
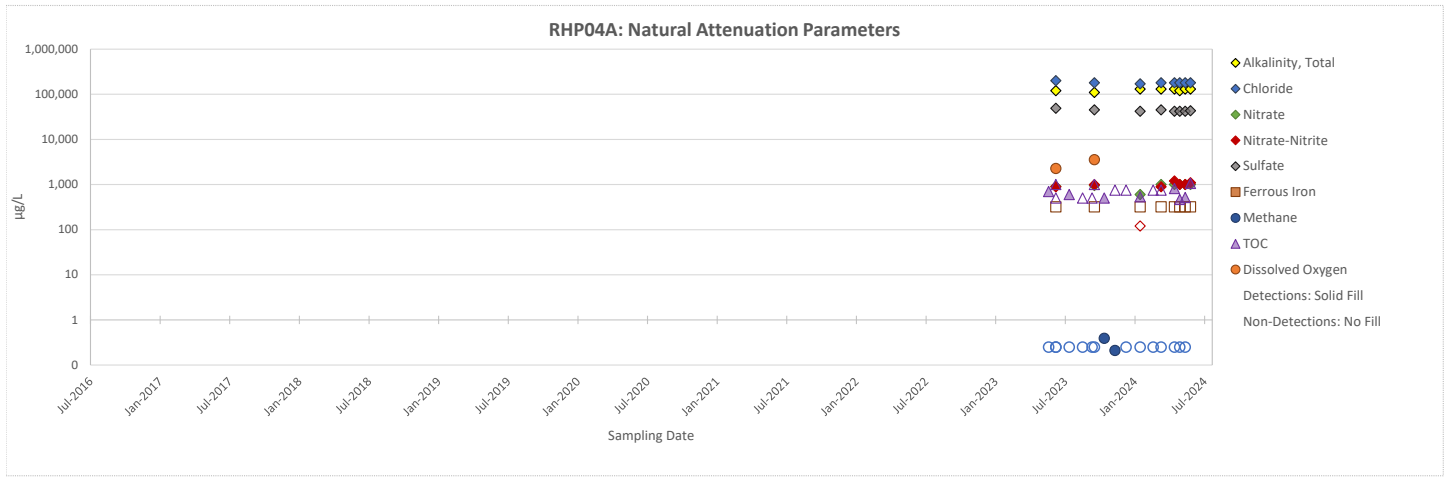
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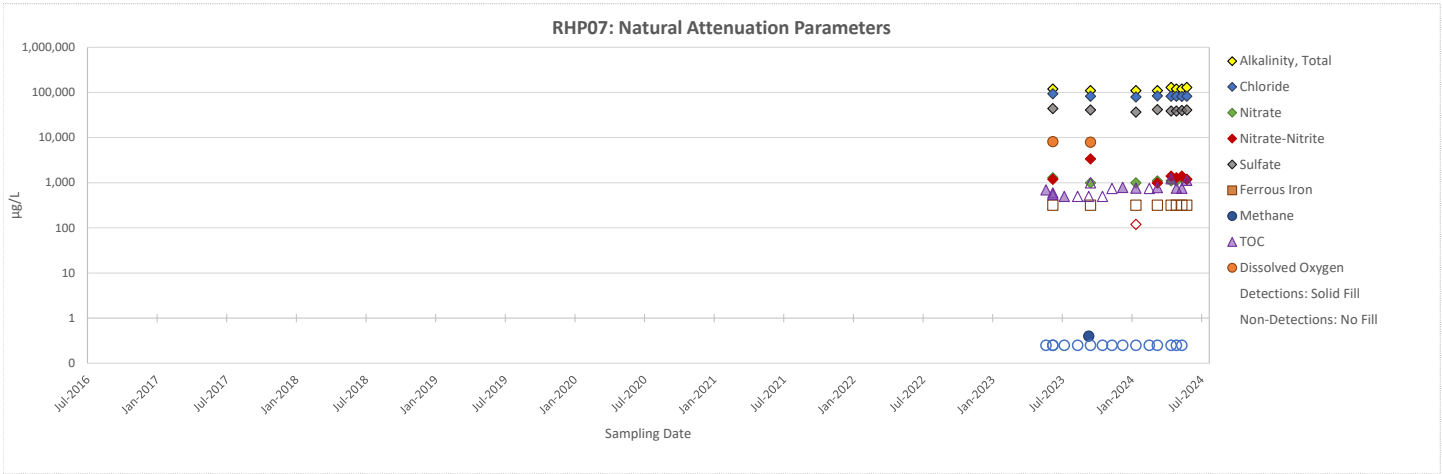
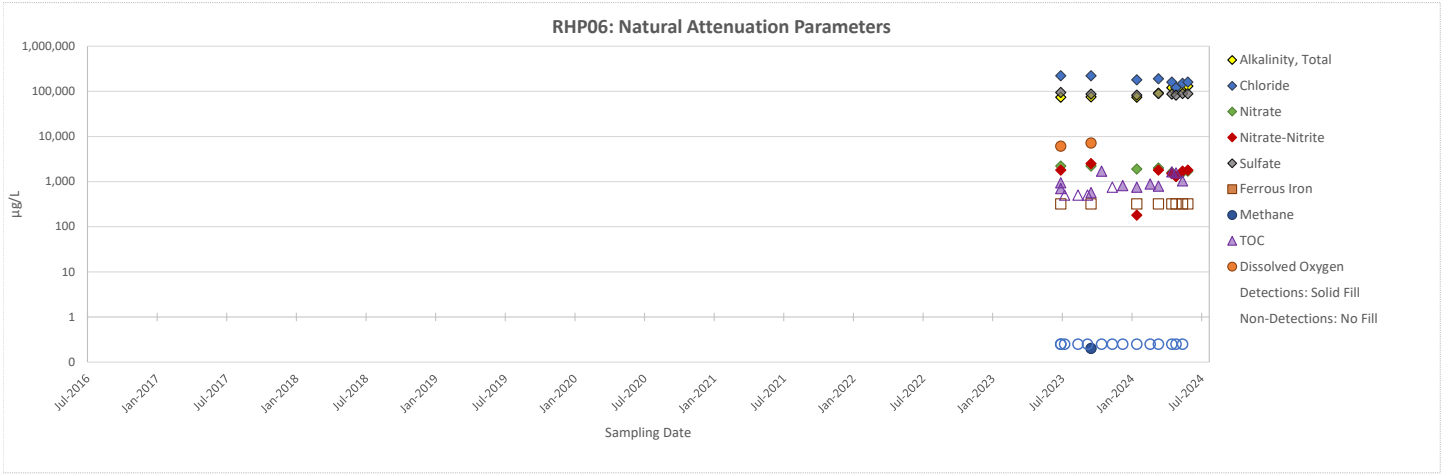
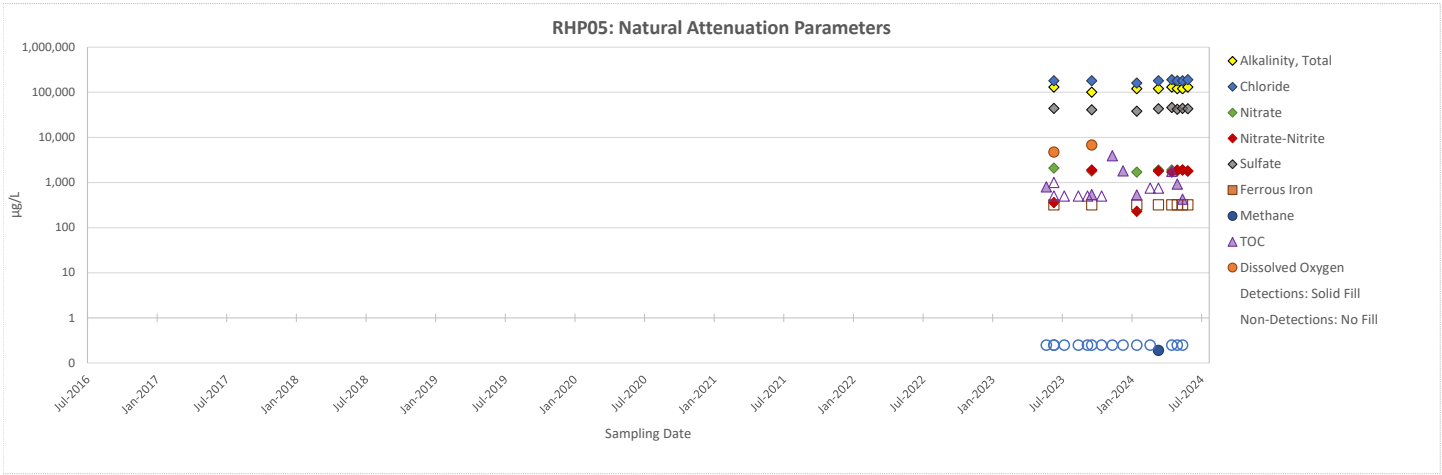
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Note: See Data Legend

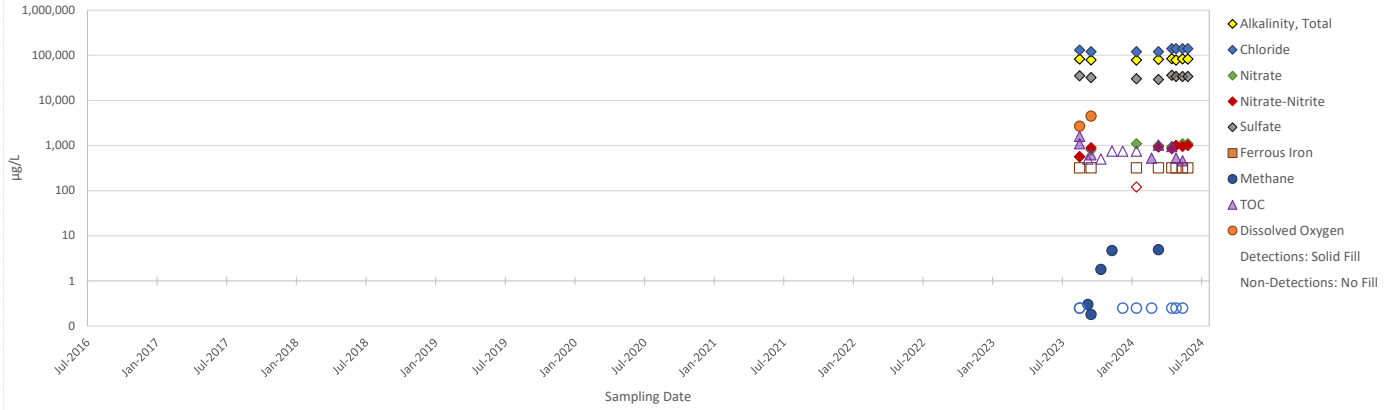


Note: See Data Legend



Note: See Data Legend

RHP08: Natural Attenuation Parameters



Note: See Data Legend

Appendix C – Index of Soil Vapor Analytical Data

Files listed in this appendix are available for download from the JBPHH Red Hill Bulk Fuel Storage Facility Environmental Data Management System (EDMS) at <https://synectics.net>. Appendix E provides database navigation tips.

Below-Tank Sampling Locations:

- Laboratory Report, SDG 507004, Level 4, March 2024
- Laboratory Report, SDG 508565, Level 4, April 2024
- Laboratory Report, SDG 510239, Level 4, June 2024

Appendix D – Index of Groundwater Analytical Data

Files listed in this appendix are available for download from the JBPHH Red Hill Bulk Fuel Storage Facility Environmental Data Management System (EDMS) at <https://synectics.net>. Appendix E provides database navigation tips.

- Table D-1: Index of Analytical Laboratory Reports and Data Validation Reports, by Sample Collection Date

Appendix E – EDMS Navigation

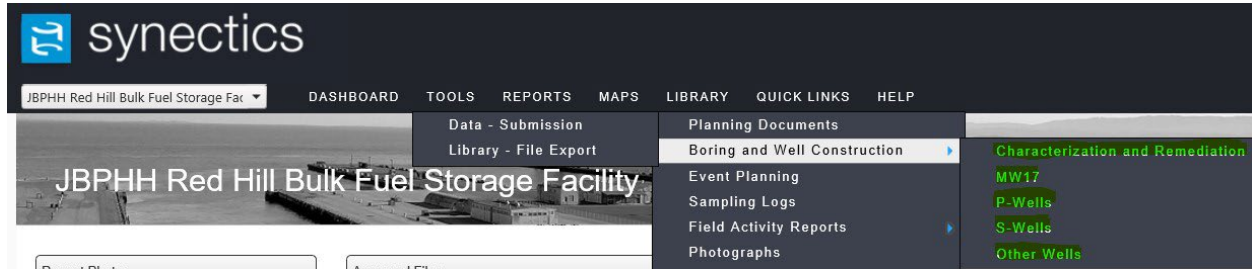
Detailed data referenced in this Quarterly Release Response Report are provided in the JBPHH Red Hill Bulk Fuel Storage Facility Environmental Data Management System (EDMS) at <https://synectics.net>.

Navigation tips for accessing the following data in EDMS are provided below:

- Boring and Well Construction Logs
- Groundwater Quality Parameter Data
- Characterization and Remediation Data
- Characterization and Remediation Analytical Laboratory Reports
- Soil Vapor Analytical Laboratory Reports – Below-Tank Sampling Locations
- Soil Vapor Data – Below-Tank Sampling Locations
- Soil Vapor Analytical Laboratory Reports – Adit 3 Tunnel Sampling Locations
- Groundwater Analytical Laboratory Reports
- Data Validation Reports
- Data Validation Qualifier Tables
- Environmental Data Report Tables

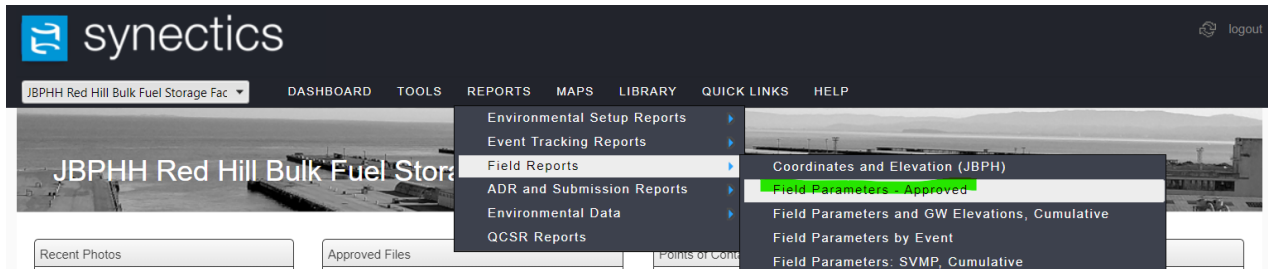
Boring and Well Construction Logs. Approved boring and well construction logs can be accessed through Library → Boring and Well Construction:

- Boring and Well Construction Subcategories: Characterization and Remediation, MW17 (RHMW17), P-Wells (Delineation), S-Wells (Sentinel), and Other Wells (NOI and GW LTM).

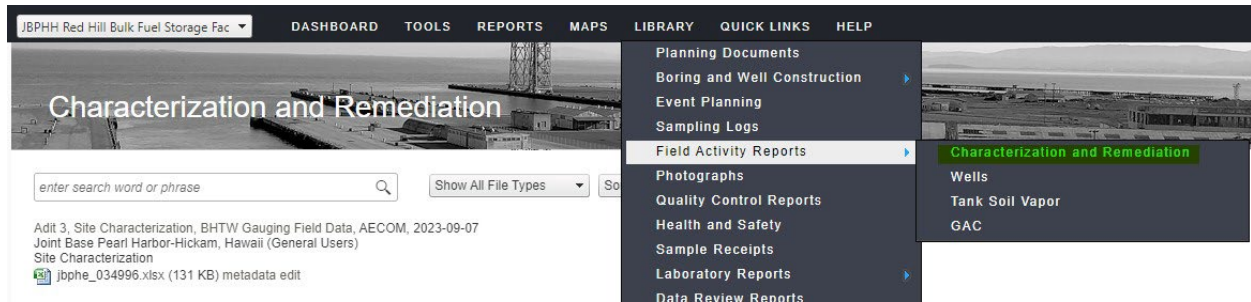


Groundwater Quality Parameter Data. Approved groundwater quality parameter data can be accessed through Reports → Field Reports → Field Parameters – Approved:

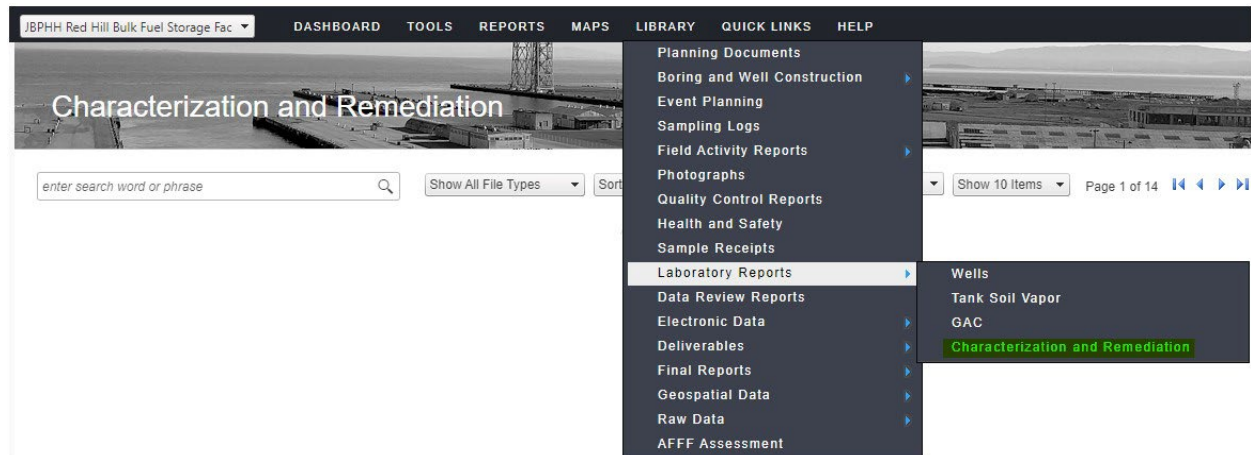
- NOI data are stored under RHS Recovery and Monitoring.
- Delineation and Sentinel Well data are stored under JBPHH Site Characterization.
- Consolidated Groundwater Program data are stored under RH Consolidated Groundwater Project.
- Long Term Groundwater Program data are stored under RH Long Term Groundwater Project.



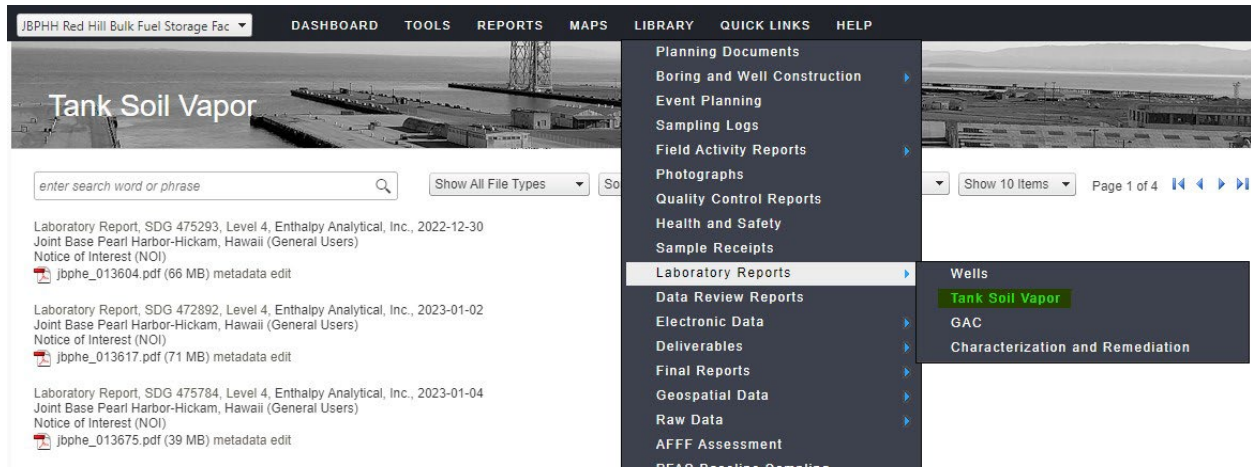
Characterization and Remediation Data. Approved characterization and remediation raw data can be accessed through Library → Field Activity Reports → Characterization and Remediation.



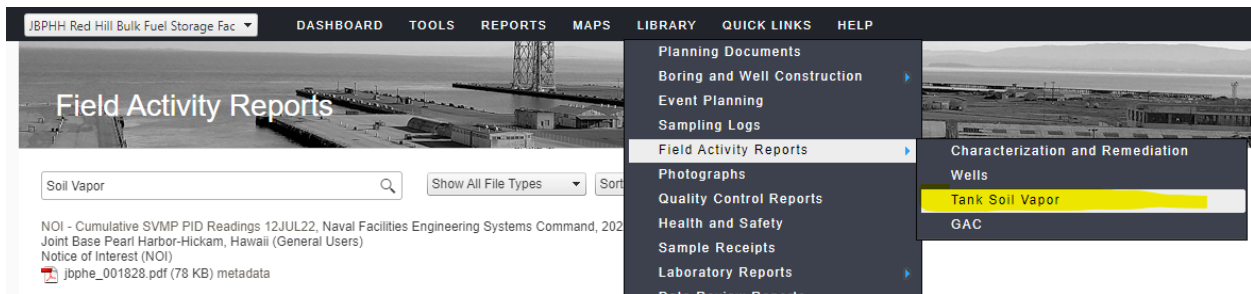
Characterization and Remediation Analytical Laboratory Reports. Approved characterization analytical laboratory reports can be accessed through Library → Laboratory Reports → Characterization and Remediation.



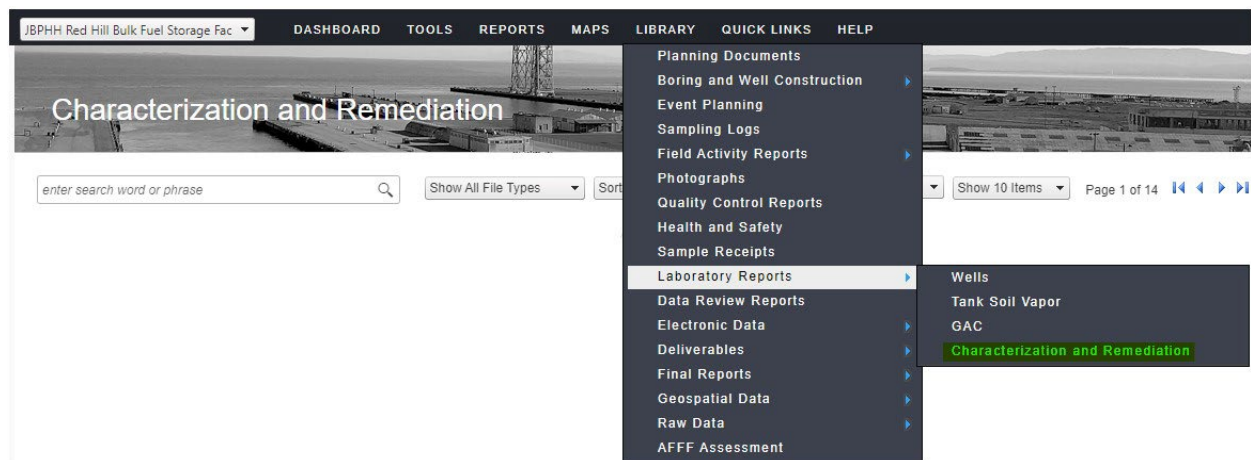
Soil Vapor Analytical Laboratory Reports – Below Tank Sampling Locations. Approved soil vapor monitoring analytical laboratory reports for below tank locations can be accessed through Library → Laboratory Reports → Tank Soil Vapor.



Soil Vapor Data– Below Tank Sampling Locations. Cumulative soil vapor data can be accessed through Library → Field Activity Reports → Tank Soil Vapor.

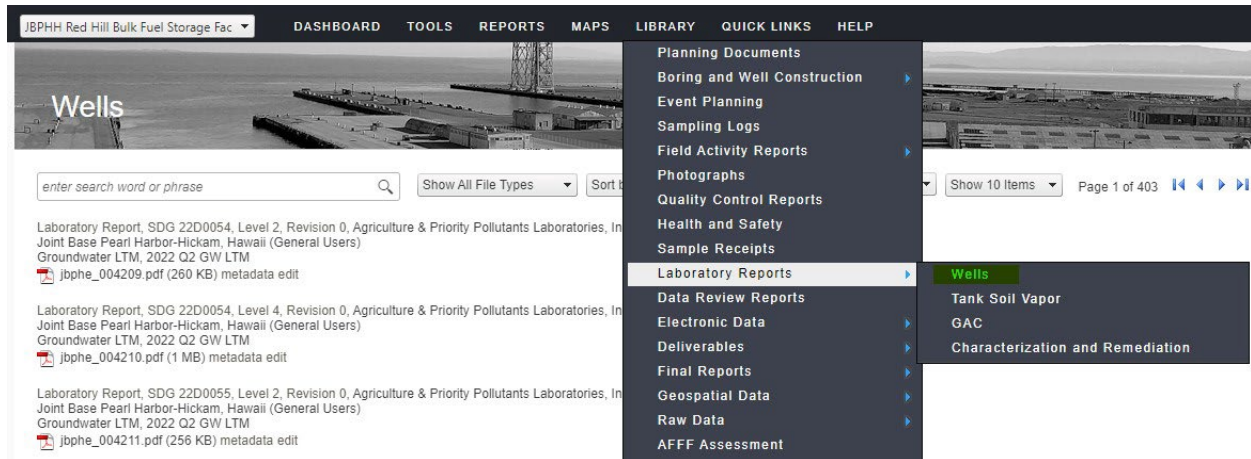


Soil Vapor Analytical Laboratory Reports – Adit 3 Tunnel Sampling Locations. Approved soil vapor monitoring analytical laboratory reports for Adit 3 Tunnel sampling locations can be accessed through Library → Laboratory Reports → Characterization and Remediation.



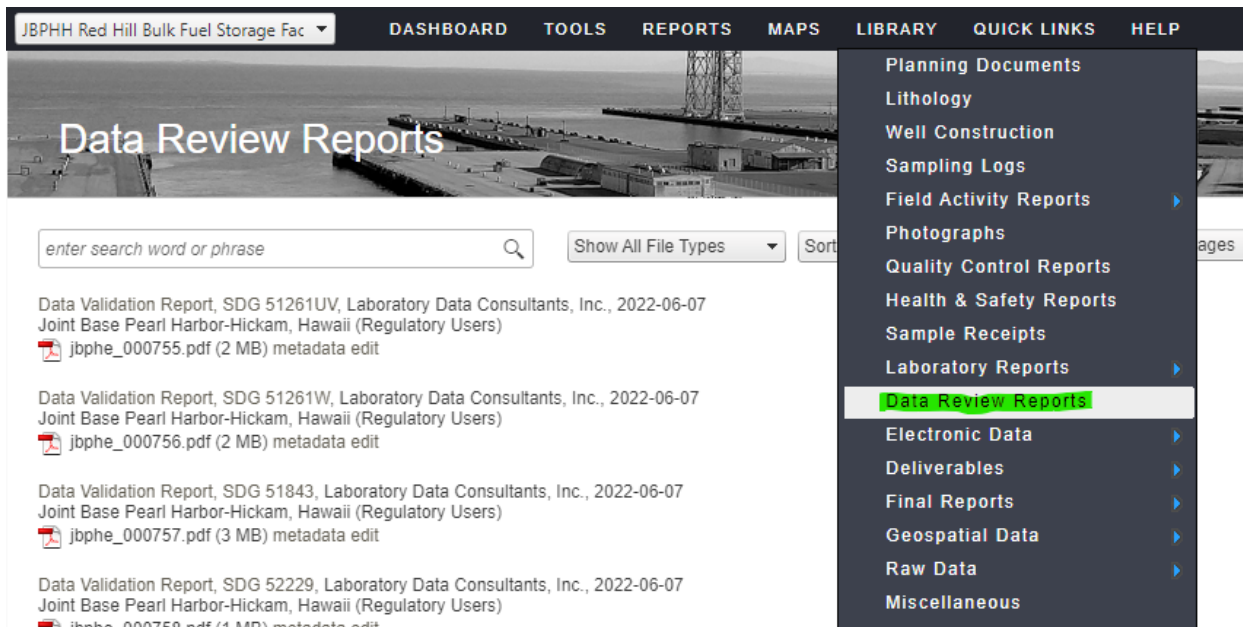
Groundwater Analytical Laboratory Reports. Approved groundwater monitoring analytical laboratory reports can be accessed through Library → Laboratory Reports:

- Laboratory Reports Subcategories: Wells → Coverage for Level 2 and Level 4 laboratory reports are Notice of Interest (NOI), P-Wells (Delineation), S-Wells (Sentinel), Groundwater LTM, and Consolidated Groundwater Program.



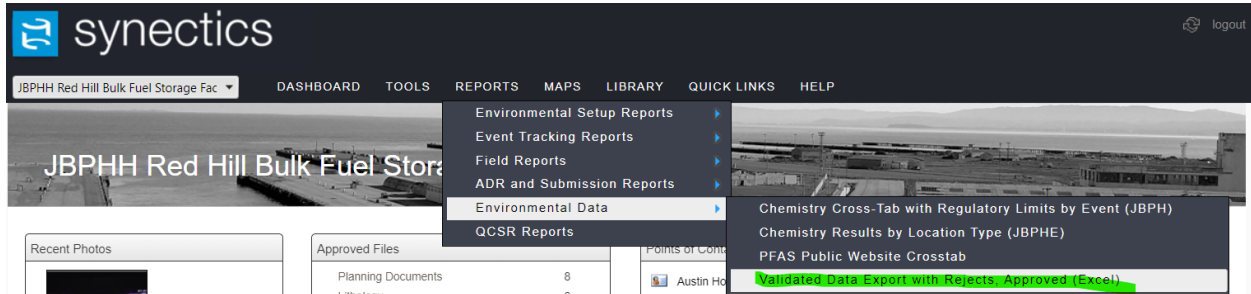
Data Validation Reports. Data validation reports can be accessed through Library → Data Review Reports:

- Coverage for data validation reports are Notice of Interest (NOI), P-Wells (Delineation), S-Wells (Sentinel), Groundwater LTM, and Consolidated Groundwater Program.



Data Validation Qualifier Tables. Qualified validation results for groundwater data for this reporting period can be accessed through Reports → Environmental Data → Validated Data Export with Rejects, Approved (Excel):

- NOI data are stored under RHS Recovery and Monitoring.
- Delineation and Sentinel Well data are stored under JBPHH Site Characterization.
- Consolidated Groundwater Program data are stored under RH Consolidated Groundwater Project.
- Long Term Groundwater Program data are stored under RH Long Term Groundwater Project.



Environmental Data Report Tables. Validated results for soil, groundwater, and soil vapor can be accessed through Reports → Environmental Data → Chemistry Cross-Tab with Regulatory Limits by Event (JBPH) or Chemistry Results by Location Type (JBPHE).

- Characterization and Remediation data are stored under JBPHH Site Characterization, and event(s) of interest can be selected from the drop-down menu.

