

GROUNDWATER MONITORING REPORT

RCRA CORRECTIVE ACTION PROGRAM BOEING RENTON FACILITY PROJECT # PS20203450.2023

Prepared for:

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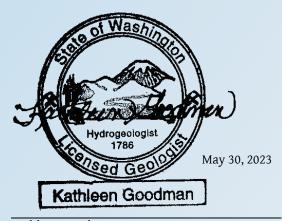
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LIST OF ACRONYMS

μg/L micrograms per liter

AOC area of concern

Boeing The Boeing Company
CAP Cleanup Action Plan
cis-1,2-DCE cis-1,2-dichloroethene

CMP Compliance Monitoring Plan

COC constituent of concern

CPOC conditional point of compliance

CUL cleanup level

DO dissolved oxygen

Ecology Washington State Department of Ecology

EDR Engineering Design Report

ERD enhanced reductive dechlorination

Facility Boeing Renton facility

MA monitored attenuation

MCL maximum contaminant level

mg/L milligrams per liter

MNA monitored natural attenuation

MTCA Model Toxics Control Act
Order Agreed Order No. 8191

ORP oxidation/reduction potential

PCE tetrachloroethene

RCRA Resource Conservation and Recovery Act

SVE soil vapor extraction

SWMU solid waste management unit

TCE trichloroethene

TOC total organic carbon

TPH total petroleum hydrocarbons

VC vinyl chloride

VOCs volatile organic compounds

1 INTRODUCTION

This report provides progress reporting in conformance with Section VII.B.1 of Agreed Order No. 8191 (Order) and summarizes cleanup actions and monitoring conducted during the wet season of 2022 at The Boeing Company (Boeing) Renton facility (the Facility) (Figure 1). This work is required under the Resource Conservation and Recovery Act (RCRA) Corrective Action Program being performed at the Facility. Corrective action activities are performed for those solid waste management units (SWMUs), areas of concern (AOCs), and other areas where cleanup actions are ongoing. Monitoring, cleanup activities, and reporting are being conducted as part of the final remedy implementation described in the Engineering Design Report (EDR) (AMEC, 2014).

As approved by the Washington State Department of Ecology (Ecology) in a letter dated July 31, 2020, progress reporting is conducted on a semiannual basis in conjunction with monitoring, operations, and maintenance activities conducted pursuant to the Order and as outlined in the EDR.

The following documents summarize ongoing compliance activities conducted at the Facility:

- The original monitoring plan presented in Appendix D of the EDR (AMEC, 2014) was superseded by the Compliance Monitoring Plan (CMP) (Amec Foster Wheeler, 2016a), which was subsequently revised in the Addendum to the CMP (CMP Addendum #1) (Amec Foster Wheeler, 2017).
- The groundwater monitoring program was further revised in the second Addendum to the CMP (CMP Addendum #2) (Wood, 2019), which removed selected areas or wells from the sampling program. These changes were approved by Ecology.
- Boeing submitted a third Addendum to the CMP (CMP Addendum #3) (CALIBRE, 2020) to Ecology on June 30, 2020. This addendum recommended further modifications to the groundwater monitoring program at the Facility and was approved by Ecology in July 2020.

Groundwater monitoring and cleanup actions are being conducted at the following areas (the ongoing remedies for each of these areas are noted in parentheses):

- SWMU-168: (monitored natural attenuation [MNA]);
- SWMU-172 and SWMU-174: (bioremediation and monitored attenuation [MA]; the soil vapor extraction [SVE] system has been shut down pending approval for decommissioning from Ecology);
- Building 4-78/79 SWMU/AOC Group: (bioremediation and MA; SVE has been discontinued per Ecology's approval of the system decommissioning during the first quarter of 2019);
- Former Fuel Farm AOC Group: (MNA);
- AOC-001 and AOC-002 (to be determined after Apron R construction completion, estimated by mid to late 2023);
- AOC-003: (MA);
- AOC-004: (MA);
- AOC-060: (bioremediation and MA);
- AOC-090: (MA); and
- Apron A: (bioremediation and MA).

The background and investigation history for each affected unit or group of units is described in the Cleanup Action Plan (CAP) (AMEC, 2012) and/or EDR (AMEC, 2014).

Although Apron A was not included in the CAP or EDR, this report includes monitoring results for Apron A. Semiannual monitoring began in Apron A starting in the fourth quarter 2016 (Amec Foster Wheeler, 2016b).

The goals for cleanup of groundwater at the Facility, as described in the CAP, include protection of groundwater for drinking water beneficial use at all areas of the site, and demonstration of protection of surface water beneficial uses at the conditional points of compliance (CPOCs) for each SWMU and AOC. Cleanup goals and

comparison with specific criteria are discussed in this report for each SWMU and AOC. Concentrations for protection of groundwater for beneficial use for each constituent of concern (COC) are based on site-specific cleanup levels (CULs) specified in the CAP. Ecology has made multiple clarifications and changes to the CULs in the Model Toxics Control Act (MTCA) regulations since the draft CAP (AMEC, 2012) was prepared that are relevant to the Facility CULs. Boeing submitted proposed updates to the CULs (CALIBRE, 2021) to Ecology that are currently under review. The measured COC concentrations in groundwater presented in this report are compared to the CULs specified in the CAP.

This semiannual report:

- Describes work completed during the reporting period;
- Describes any deviations from corrective action tasks required under the Order and/or CAP;
- Describes revisions to the corrective action schedule;
- Describes work projected to occur during the next semiannual sampling event, including any planned deviation from the CAP;
- Discusses remediation operation and maintenance activities conducted at the Facility during the reporting period;
- Documents monitoring activities conducted during the reporting period;
- Describes and discusses trends in monitoring data;
- Assesses remediation at each area; and
- Assesses attainment of CULs at the CPOCs.

This report presents information based on monitoring activities conducted during the wet season 2023 for the period from November 1, 2022, through April 31, 2023. In accordance with the requirements of the Order, corrective action activities were conducted at the Facility as described in this report.

1.1 CHANGES IN KEY PERSONNEL

Wood Environment & Infrastructure Solutions, Inc ("Wood") was acquired by WSP on September 21, 2022. Due to the acquisition, we have changed our name to WSP USA Environment & Infrastructure Inc. ("WSP"). No other aspects of our legal entity or capabilities have changed for this project. Beginning with this report, WSP will prepare semi-annual groundwater monitoring reports for the Boeing Renton Facility.

WSP has also been awarded the groundwater sampling work and will begin conducting the on-facility sampling for the dry season 2023 and future sampling events.

1.2 WORK COMPLETED IN THE WET SEASON OF 2023

The following work was completed during the wet season of 2023 (the period from November 2022 through April 2023):

- Boeing submitted the dry season 2022 Groundwater Monitoring Report to Ecology and City of Renton on November 30, 2022.
- Seven monitoring wells in the area of construction at Apron R (DWL-2, GW052, GW051, GW050, GW213, GW215, GW214) were decommissioned in November and December 2022. These wells were historically part of the AOC-001/002 monitoring network.
- Landau Associates completed the 2023 site-wide wet season sampling from February 6 through 9, 2023.
- Boeing submitted the Sub-Slab Vapor Sampling Plan for SWMU-172/174 (CALIBRE, 2022a) on
 December 2, 2022. Ecology approved the plan for implementation by email on February 8, 2023.

1.3 DEVIATIONS FROM REQUIRED TASKS

No deviations from tasks required in the Order occurred during this activity period.

1.4 DEVIATIONS FROM CAP

One deviation from the CMP Addendum #3 occurred during this monitoring event in AOC-003. Groundwater monitoring wells GW247S was not sampled because it could not be located. More details are provided in Section 3.6.2. No other deviations from the CAP or CMP occurred this period.

1.5 SCHEDULE OF MONITORING

Ecology approved the modifications to the monitoring plan in CMP Addendum #3 (CALIBRE, 2020) on July 31, 2020, changing to a sitewide semiannual sampling program with sampling events to occur during the wet and dry seasons (in February and August, respectively). The revised monitoring plan is detailed in Appendix A, Table A-1. This revised sampling schedule began in August 2020 and will continue until another CMP addendum is approved.

1.6 WORK PROJECTED FOR THE NEXT REPORTING PERIOD

The following work is projected for the upcoming 2023 dry season (May 1, 2023, to October 31, 2023):

- Boeing recommended discontinuation of the SVE system at SWMU 172/174 based on the discontinuation criteria in the EDR and CMP, and Ecology approved discontinuation of the SVE system subject to the results of sub-slab vapor verification sampling and other criteria. The sub-slab vapor sampling at SWMU-172/174 is anticipated to take place during May/June 2023. As requested, Ecology was notified in advance of this work.
- Apron R construction schedule delays were incurred due to a lengthy concrete workers strike. Based on the most current schedule provided by the Boeing Facilities Group, ongoing Apron R construction activities at the Boeing Renton site are planned for completion in summer 2023. Upon completion of this construction work, the Apron R wells that were a part of the CMP Addendum #1 sampling program area (AOC-001 and -002) will be replaced and sampled during summer 2023. Upon receipt of the sample results, Boeing will consult with Ecology to evaluate whether continued enhanced reductive dechlorination (ERD) treatment is needed for volatile organic compounds (VOCs) in groundwater in AOC 001/002. The Apron R well abandonment memo (Wood, 2021) provides more details and a comprehensive list of the plan of wells to be decommissioned and/or replaced.
- A technical memorandum recommending decommissioning of wells that are no longer required for investigative, bioremediation, or compliance monitoring purposes was submitted to Ecology on January 5, 2022 (CALIBRE, 2022b). Ecology approved the well decommissioning plan on January 18, 2022, and the decommissioning activities began in May 2022. A large set of wells approved for decommissioning within the Boeing Facility were closed by October 2022 (Phases 1 and 2, with 57 of 89 wells decommissioned). Wells in the City's Cedar River Trail Park and on the Renton Municipal Airport side of the Cedar River have not yet been closed due to delays completing the City of Renton License Agreement. The remaining wells (Phase 3) are planned to be decommissioned during June/July 2023.
- Based on evaluation of the semi-annual monitoring data in this report, the following areas are planned for continued ERD treatment of VOCs in groundwater: SWMU-172/174, Building 4-78/4-79 SWMU/AOC Group, AOC-90, and AOC-060. Pursuant to the CAP, AOC-003 is planned to transition from the ERD program to MA.
- Reporting will be completed in accordance with the Order, CAP, EDR, and changes approved by Ecology, including those modifications proposed in CMP Addendum #3 (CALIBRE, 2020).

2 GROUNDWATER SAMPLING METHODOLOGY

Groundwater was sampled and analyzed as described in Appendix A. These procedures are in accordance with the methods specified in the CMP (Amec Foster Wheeler, 2016a) and CMP Addendum #3 (CALIBRE, 2020). Table A-1 summarizes the current groundwater monitoring program and COCs specified in the CAP and revised in CMP Addendum #1 (Amec Foster Wheeler, 2017), CMP Addendum #2 (Wood, 2019) and CMP Addendum #3 (CALIBRE, 2020) for all Facility corrective action areas. Table A-2 summarizes the current groundwater monitoring program for the corrective action areas that include MNA or MA as part of the cleanup remedy specified in the CAP. Tables A-1 and A-2 also specify monitoring requirements for Apron A, which was not included in the CAP. Any changes or exceptions to the sampling or analytical methods cited in Appendix A during the event is described in the applicable subsections in Section 3. The field data sheets, which document the groundwater sample collection and field parameter monitoring for each well sampled during this event, are included in Appendix B.

The analytical methods, field duplicate, lab duplicate, and matrix spike/matrix spike duplicate frequencies are specified in the Quality Assurance Project Plan (Amec Foster Wheeler, 2016c). The full analytical reports provided by the laboratory are provided separately on a secure online storage application, OneDrive. The data validation memoranda are included in Appendix C.

3 CORRECTIVE ACTION ACTIVITIES COMPLETED DURING THE REPORTING PERIOD

This section describes the corrective action activities conducted at the Facility during the wet season of 2023. Operation of the SVE system at SWMU-172/174 was discontinued during the last dry season, as discussed in Section 3.2.1.2. Compliance monitoring was conducted in accordance with the CMP (Amec Foster Wheeler, 2016a) and CMP Addendum #3 (CALIBRE, 2020).

3.1 SWMU-168

This section describes corrective action activities conducted at this SWMU. Figure 2 shows the locations of the groundwater monitoring wells at SWMU-168 for which sampling was required under CMP Addendum #3 (CALIBRE, 2020) and the groundwater elevation at the remaining well measured during this monitoring event. The cleanup remedy for SWMU-168 is MNA; therefore, cleanup activities consist of monitoring only.

3.1.1 CLEANUP ACTION ACTIVITIES

No installation/construction activities were conducted for this cleanup action area during this monitoring period.

3.1.2 COMPLIANCE MONITORING PLAN DEVIATIONS

No deviations from the CMP occurred for this area during this monitoring period. The well monitored in this group and the COC remained the same.

3.1.3 WATER LEVELS

The groundwater elevation measured during this groundwater monitoring event at SWMU 168 is summarized in Table 1 and shown on Figure 2. Groundwater elevation contours are not shown since only one well, GW230I, is currently monitored in this group. The general direction of groundwater flow depicted on Figure 2 is based on historical information.

3.1.4 GROUNDWATER MONITORING RESULTS

Results for primary geochemical indicators are presented in Table 2; the result for the single SWMU-168 COC, vinyl chloride (VC), is presented in Table 3; and COC results for sampling events in recent years are presented in Appendix D.

3.1.4.1 Natural Attenuation/Geochemical Indicators

The geochemical indicator results are presented in Table 2. Data from the CPOC area well indicate that conditions are conducive to natural attenuation of VC in this SWMU. The pH value measured was slightly acidic at 6.32. The CPOC well showed reducing conditions, with low dissolved oxygen (DO) and a low but positive oxidation/reduction potential (ORP) reading. Reducing conditions are present in well GW230I, indicating conditions favorable for dechlorination of VOCs.

3.1.4.2 COC Results for Source Area

Groundwater samples were not collected from the source area well, GW228S, for SWMU-168 per CMP Addendum #3 (CALIBRE, 2020).

3.1.4.3 COC Results for Conditional Point of Compliance Area

Table 3 lists the analytical result for the SWMU-168 area. The concentration of VC in the groundwater from CPOC area well GW230I was slightly above the CUL of 0.11 micrograms per liter (μ g/L), at 0.146 μ g/L; this detection is below the maximum contaminant level (MCL) for VC (2.0 μ g/L) and the MTCA criterion for potable water supply (0.29 μ g/L). The MTCA criteria for potable water supply values were proposed in the five-year review cleanup memo (CALIBRE, 2021), which is currently pending Ecology response. Historical trends for VC in GW230I are shown in Appendix D and depicted on Figure 3. VC concentrations show an apparent seasonal pattern with higher concentrations in the dry season; the recent wet season concentration decreased since the last monitoring event, in keeping with the trend.

3.2 SWMU-172 AND SWMU-174

This section describes corrective action activities conducted at these two SWMUs. The cleanup remedy for SWMU-172 and SWMU-174 is a combination of bioremediation and MA. SVE was used from 2015 through 2022. The SVE system has been shut down and is pending Ecology approval for decommissioning. Figure 4 shows the layout of the groundwater monitoring wells for which sampling is required under CMP Addendum #3 (CALIBRE, 2020) and the remediation system for these SWMUs.

3.2.1 CLEANUP ACTION ACTIVITIES

3.2.1.1 Installation/Construction Activities

No installation/construction activities were conducted for these SWMUs during this monitoring period.

3.2.1.2 Soil Vapor Extraction and Bioremediation Operations

The SVE system was in operation between April 17, 2015, and October 24, 2022. SVE was discontinued on October 24, 2022, as approved by Ecology (Valerie Cramer, personal communication). Permanent discontinuation and decommissioning is pending results of the sub slab vapor sampling, anticipated to take place during May/June 2023. The last bioremediation injection was completed in June 2022, including ERD treatments. All of the SVE system equipment and infrastructure has been retained pending future discussions with Ecology regarding permanent discontinuation and removal.

3.2.2 COMPLIANCE MONITORING PLAN DEVIATIONS

No deviations from the CMP occurred for this area during this monitoring period. The wells monitored in this group and the COCs remained the same.

3.2.3 WATER LEVELS

The groundwater elevations measured during this groundwater monitoring event at SWMU-172 and SWMU-174 are summarized in Table 4 and shown on Figure 4. The groundwater elevation data show a flow direction generally to the northeast, toward the Cedar River Waterway; however, the sheet pile wall to the east of this area prevents a direct groundwater connection to the river, as depicted by the groundwater contours on Figure 4.

3.2.4 GROUNDWATER MONITORING RESULTS

Groundwater at this area is monitored following the analysis protocol presented in Tables A-1 and A-2 in Appendix A. Results for primary geochemical indicators are presented in Table 5; results for the SWMU 172 and SWMU-174 area COCs are presented in Table 6.

3.2.4.1 Monitored Attenuation/Geochemical Indicators

The geochemical indicator results are presented in Table 5. Specific conductivity ranged between 142.6 and 809.0 microsiemens per centimeter across the area, which are normal observed values for the groundwater in this SWMU. pH was slightly acidic across SWMU-172 and SWMU-174. ORP was positive in wells GW153S, GW232S, and GW236S, and negative for all other wells; DO and ORP results indicate reducing conditions in the area and other natural attenuation parameter results were generally uniform across this area. Total organic carbon (TOC) concentrations ranged from 1.00 to 9.87 milligrams per liter (mg/L) for all SWMU-172 and SWMU-174 monitoring wells.

3.2.4.2 COC Results for Source and Downgradient Plume Areas

Table 6 lists the analytical results for the SWMU-172 and SWMU-174 COCs. Historical trend plots for tetrachloroethene (PCE), trichloroethene (TCE), VC, and cis-1,2-dichloroethene (cis-1,2-DCE) in source area wells GW152S and GW153S are shown on Figure 5, in downgradient plume area wells GW172S and GW173S on Figure 6, and in downgradient plume area well GW226S on Figure 7. Groundwater flows generally from the vicinity of source area well GW152S to downgradient plume area well GW172S; groundwater from source area well GW153S is also expected to generally flow toward the downgradient plume area. PCE and TCE are the chlorinated solvents that were used at the Facility, and cis-1,2-DCE and VC are breakdown products resulting from biodegradation processes.

As shown in Figures 5 through 7, the concentrations of VOCs in groundwater from source area wells and downgradient plume area wells have generally remained stable or decreased over time.

Arsenic was detected above the CUL in the groundwater from all source area and downgradient plume area wells in this SWMU area. As shown on Figure 8, the arsenic concentrations in groundwater from source and downgradient plume area wells have generally remained stable over the past two years, with the exception of source area well GW152S. The observed range of arsenic in groundwater is within the naturally occurring background arsenic range reported by Ecology for Washington State (Ecology 2022).

Source area groundwater CUL exceedances (Table 6) consisted of:

- GW152S: cis-1,2-DCE, PCE, TCE, VC, arsenic, copper, and lead; and
- GW153S: cis-1,2-DCE, VC, and arsenic.

Downgradient plume area groundwater site-specific CUL exceedances (Table 6) consisted of:

- GW172S: cis-1,2-DCE, VC, arsenic, copper, and lead;
- GW173S: cis-1,2-DCE, PCE, TCE, VC, and arsenic; and
- GW226S: cis-1,2-DCE and arsenic.

The detected concentrations of cis-1,2-DCE, PCE, and TCE are below both the MCLs and the MTCA criteria for potable water supply in both the source area and downgradient plume area. The detected concentrations of VC are below the MCL in all wells; however, they are above the MTCA criteria for potable water supply in GW172S and GW 232S.

3.2.4.3 COC Results for Conditional Point of Compliance Area

As shown in Table 6, cis-1,2-DCE was detected above the CUL in the groundwater from all CPOC area wells; TCE was detected above the CUL in the groundwater from GW235I; and VC was detected above the CUL in the groundwater from GW232S. VC was also detected in GW234S and GW235I, but below the CUL. Trend charts for cis-1,2-DCE, TCE, and VC for all CPOC area wells are presented in Figure 9. Figure 9 shows that the COCs in the CPOC

area have primarily decreased since the previous sampling event, in keeping with the historical patterns of higher concentrations detected during the dry season events.

Arsenic, copper, and lead were detected in the groundwater from all CPOC area wells. Arsenic concentrations exceeded the CUL in wells GW234S, GW234S, and GW236S. Copper concentrations exceeded the CUL in well GW234S. Lead concentrations exceeded the CUL in wells GW234S and GW236S. Figure 10 shows arsenic, copper, and lead concentration trends in groundwater from the CPOC area wells since the beginning of compliance monitoring. As shown in Figure 10, these COCs have remained within a stable range or decreased since the last monitoring event, with the exception of GW234S, which showed an increase in all three metals since the dry season 2022 event.

3.3 BUILDING 4-78/79 SWMU/AOC GROUP

This section describes corrective action activities conducted at the Building 4-78/79 SWMU/AOC Group. The cleanup remedy for this SMWU/AOC group is bioremediation and MA as well as excavation of soils contaminated with total petroleum hydrocarbons (TPH); discontinuation of SVE was approved by Ecology on November 1, 2018, and the system was decommissioned during the first quarter of 2019. Figure 11 shows the location of the September 2021 TPH source area soil excavation, groundwater monitoring wells for which sampling is required under CMP Addendum #3 (CALIBRE, 2020), extraction wells, decommissioned wells, horizontal SVE wells, and bioremediation injection wells for this area.

3.3.1 CLEANUP ACTION ACTIVITIES

3.3.1.1 Installation/Construction Activities

No installation or construction activities were conducted in this area during this monitoring period.

3.3.1.2 Soil Vapor Extraction and Bioremediation Activities

SVE operations were discontinued in late 2018; the current remediation method is anaerobic biodegradation of benzene by nitrate/sulfate injections. Certain bioremediation injection wells are still sampled to monitor the status of COCs. Trend charts for cis-1,2-DCE and benzene in nitrate/sulfate injection wells are presented in Figure 12, and trend charts for TCE and VC in the injection wells are presented in Figure 13. No injections occurred during this monitoring period.

3.3.2 COMPLIANCE MONITORING PLAN DEVIATIONS

No deviations from the CMP occurred for this area during this monitoring period. The wells monitored in this group and the COCs remained the same.

3.3.3 WATER LEVELS

The groundwater elevations measured during this groundwater monitoring event at Building 4-78/79 SWMU/AOC group are summarized in Table 7 and shown on Figure 11. The observed direction of groundwater flow from the source area during August was generally radially toward Building 4-79 and a piezometric low area.

3.3.4 GROUNDWATER MONITORING RESULTS

Groundwater in this area is monitored following the analysis protocol presented in Tables A-1 and A-2 in Appendix A. Results for primary geochemical indicators are presented in Table 8; results for Building 4-78/79 SWMU/AOC Group COCs are presented in Table 9.

3.3.4.1 Natural Attenuation/Geochemical Indicators

The geochemical indicator results are presented in Table 8. In general, source area and CPOC area wells had low levels of DO and moderate to high specific conductivity. The pH was slightly acidic, ranging between 6.27 and 6.63 standard units in all wells. ORP was negative in all wells except GW237S. The source area wells showed reducing conditions favorable for dechlorination of VOCs. Results for the other primary geochemical indicators were generally consistent in all wells. TOC concentrations in source area wells ranged from 8.35 to 14.9 mg/L.

3.3.4.2 COC Results for Source Area

Table 9 lists the analytical results for Building 4-78/79 SWMU/AOC Group COCs. Figures 14 and 15 are trend charts showing historical trends for COCs for the source area wells.

VC was detected above the CUL in all the source area wells. GW034S had CUL exceedances for benzene and cis-1,2-DCE. All cis-1,2-DCE detection are below both the MCLs and the MTCA criteria for potable water supply. TCE was not detected above the CUL in any of the source area wells. The detected concentrations of VC in the source area wells are below the MCL and MTCA criteria for potable water, with the exception of GW034S (which exceeds both MTCA and the MCL) and GW244S-R, which was above the MTCA criteria for potable water but below the MCL. TPH as gasoline was not detected above the CUL in any source area wells; This shows a trend of consistently lower TPH levels since 2021, likely a result of the removal of TPH-contaminated soil which took place in September 2021.

Figure 14 shows trends for VOCs in source area wells GW031S and GW033S. COCs in GW031S appear to be stabilizing over the past three monitoring events, while in GW033S COC concentrations appear to be exhibiting a downward trend.

Figure 15 shows trends for VOCs in source area wells GW034S and GW244S. Concentrations of COCs in GW034S appear to be departing from the trend of general stability, with a significant increase in all COCs (except TCE) since the last monitoring event. Concentrations of COCs in GW244S appear to be stabilizing over the last four monitoring events for which samples were collected from this location (samples were not collected during wet season/February 2022).

3.3.4.3 COC Results for Conditional Point of Compliance Area

As shown in Table 9, benzene, VC, and TPH as gasoline were detected above their respective CULs in groundwater from GW237S. Other detections consisted of cis-1,2-DCE and VC, all are below CULs. Trend charts for CPOC area wells are shown in Figures 16 through 18.

Figure 16 shows that benzene and cis-1,2-DCE have been sporadically detected above the CUL in CPOC area wells GW237S and GW143S, respectively. Benzene was detected in GW237S above the CUL during this monitoring period, and cis-1,2-DCE was detected in GW143S below the CUL.

Figure 17 shows that TCE has not been detected in the CPOC area for four consecutive events, with the exception of GW143S during the wet season 2022 sampling event. VC was detected in all CPOC wells during this event, with a CUL exceedance in GW237S, which has shown the highest levels of VC of the three wells for the last several monitoring events. Figure 18 shows that TPH as gasoline has been detected only in GW237S since monitoring began and had been steadily decreasing before this monitoring event, when there was a detection slightly above the CUL for the first time in six monitoring events.

In the downgradient CPOC wells the measured concentrations of benzene, cis-1,2-DCE, TCE, and VC are below both the MCLs and MTCA criteria for potable water supply.

3.4 FORMER FUEL FARM AOC GROUP

This section describes corrective action activities conducted at the Former Fuel Farm AOC Group. Figure 19 shows the layout of the groundwater monitoring wells for which sampling is required under CMP Addendum #3 (CALIBRE, 2020). The final remedy for the Former Fuel Farm is MNA.

3.4.1 CLEANUP ACTION ACTIVITIES

No installation/construction activities were conducted for this cleanup action area during this monitoring period.

3.4.2 COMPLIANCE MONITORING PLAN DEVIATIONS

No deviations from the CMP occurred for this area during this monitoring period. The wells monitored and the COCs remained the same for this group.

3.4.3 WATER LEVELS

The groundwater elevations measured during this groundwater monitoring event at the Former Fuel Farm AOC group are summarized in Table 10 and shown on Figure 19. Groundwater elevation contours are not shown since only three wells are monitored in this group and data are too limited to produce accurate contours. Groundwater flow direction to the northeast is based on historical information from this AOC.

3.4.4 GROUNDWATER MONITORING RESULTS

Results for primary geochemical indicators are presented in Table 11; results for the Former Fuel Farm AOC Group COCs are presented in Table 12.

3.4.4.1 Monitored Natural Attenuation Indicators

The geochemical indicator results are presented in Table 11. Results in Table 11 indicate that geochemical conditions are generally consistent throughout the Former Fuel Farm AOC Group. Specific conductivity was moderate for groundwater. Slightly acidic pH was observed in CPOC area wells ranging from 6.02 to 6.41 standard units. Low to moderate DO and low ORP was observed in all monitored wells. The geochemical indicators indicate natural attenuation of the COCs for the Former Fuel Farm AOC Group is occurring.

3.4.4.2 COC Results for Source Area

The single source area well for this group was removed from the monitoring plan with Ecology's acceptance of CMP Addendum #3 (CALIBRE, 2020).

3.4.4.3 COC Results for Conditional Point of Compliance Area

Table 12 lists the analytical results for the Former Fuel Farm AOC group COCs. Figure 20 shows trend data for CPOC area wells GW211S, GW221S, and GW224S. Figure 20 shows that the wet season event results for these wells are consistent with the historical monitoring results since late 2013. Samples were analyzed for TPH as diesel, as motor oil, and Jet A. TPH as diesel was detected above the CUL in GW221S and GW224S (and its duplicate sample). TPH as motor oil was not detected above the CUL in any of the CPOC area wells. Jet A was detected above the CUL in GW221S, GW224S, and its associated duplicate sample. None of the COCs were detected above the CUL in GW211S. It is worth noting that both TPH-D and Jet-A have been below the CUL in GW211S for the previous ten monitoring events. COC concentrations in GW221S remain in a stable range with a slight increase this monitoring period. Concentrations of COCs in GW224S appear to be stabilizing for the past six monitoring events.

3.5 AOC-001/002

This section describes corrective action activities conducted at AOC-001/002. The monitoring and future/continued cleanup actions (if necessary) for this AOC will be determined after construction of Apron R, currently estimated for mid-late 2023. Figure 21 shows the layout of the groundwater monitoring wells. Per CMP Addendum #3 (CALIBRE, 2020), Apron R construction activities are in progress and many monitoring wells at AOC-001/002 were decommissioned. Only one monitoring well was sampled during this period to initiate assessment of area conditions as Apron R construction activities near completion. Monitoring wells are planned to be replaced

following Apron R construction completion during the dry season 2023. Wells to be replaced are GW185S, GW190S, GW191D, GW192S, GW193S, GW195S, GW196D, GW197S, GW213S, GW214S, GW215S, GW245S, and GW246S. The new wells will be developed following installation and sampled with the other wells at the facility for the dry season 2023 event. IPR1 and IPR2 are horizontal injection wells that will also be replaced.

3.5.1 CLEANUP ACTION ACTIVITIES

No installation/construction activities were conducted for this cleanup action area during this monitoring period. Fifteen monitoring wells in the area of construction at Apron R were decommissioned in November 2019, three wells were decommissioned in October 2022, and seven wells (DWL-2, GW052, GW051, GW050, GW213, GW215, GW214) were decommissioned during this period in November and December 2022. Horizontal injection wells IPR1 and IPR2 were decommissioned and replaced in May 2023. Fifteen wells are planned to be replaced by the end of 2023.

3.5.2 COMPLIANCE MONITORING PLAN DEVIATIONS

No deviations from the CMP occurred for this area during this monitoring period.

3.5.3 WATER LEVELS

The groundwater elevations measured during this groundwater monitoring event at AOC-001 and AOC-002 are summarized in Table 13.

3.5.4 GROUNDWATER MONITORING RESULTS

Results for geochemical indicators are presented in Table 14; results for the AOC-001 and 002 COCs are presented in Table 15.

3.5.4.1 Monitored Attenuation/Geochemical Indicators

The geochemical indicator results are presented in Table 14. High specific conductivity, negative ORP, and low DO were observed during this monitoring event, and pH readings were slightly acidic. TOC was measured at 6.08 mg/L. Based on the geochemical indicators, reducing conditions are occurring in this area.

3.5.4.2 COC Results for Source Area

Table 15 lists the analytical results for the AOC-001 and AOC-002 COCs. GW193S was the only well monitored in this group, exclusively for VC. VC was detected at 0.334 μ g/L, which exceeds the CUL and MTCA criteria for potable water, but is below the MCL for potable water.

3.6 AOC-003

This section describes corrective action activities conducted at AOC-003. The cleanup remedy for this AOC is MA. Figure 22 shows the location of groundwater monitoring wells for which sampling is required under CMP Addendum #3 (CALIBRE, 2020) and bioremediation wells, as well as the groundwater elevations measured during this monitoring event.

3.6.1 CLEANUP ACTION ACTIVITIES

No installation/construction activities were conducted for this cleanup action area during this monitoring period.

3.6.2 COMPLIANCE MONITORING PLAN DEVIATIONS

One deviation from CMP Addendum #3 occurred during this monitoring event: GW247S was not sampled because it could not be located. Repaving activities related to the nearby construction in Apron R resulted in accidental destruction of GW247S. Reinstallation is schedule for July 2023. GW247S will be sampled in the dry season 2023 event. No other deviations from the CMP occurred this period.

3.6.3 WATER LEVELS

The groundwater elevations measured during this groundwater monitoring event at AOC-003 are summarized in Table 13 and shown on Figure 22. Groundwater elevations measured during this event are consistent with historical groundwater flow patterns to the northwest.

3.6.4 GROUNDWATER MONITORING RESULTS

Results for geochemical indicators are presented in Table 14; results for the AOC-003 COCs are presented in Table 15.

3.6.4.1 Monitored Attenuation/Geochemical Indicators

The geochemical indicator results are presented in Table 14. Results in Table 14 indicate that geochemical conditions are generally consistent throughout this AOC. High specific conductivity, negative ORP, and low to moderate DO were observed during this monitoring event, and pH readings were near neutral for all wells in this area. TOC concentrations ranged from 8.79 to 14.7 mg/L. Based on the geochemical indicators, reducing conditions are occurring in this area.

3.6.4.2 COC Results for Source Area and Downgradient Plume Area

Table 15 lists the analytical results for the AOC-003 COCs. Samples from wells in this group were analyzed for VC. VC was detected below CULs in both the source area and downgradient plume area wells. The VC levels detected were below the MCL and the MTCA criteria for potable water supply. Figure 23 shows the historical trends for VC in source area well GW249S and downgradient plume area well GW188S.

3.6.4.3 COC Results for Conditional Point of Compliance Area

VC was detected above the CUL in CPOC area well GW248I (Table 15). Figure 24 shows the historical trends for VC in CPOC area wells GW247S and GW248I. VC concentrations in GW248I appear to be increasing slightly, with annual fluctuations. The VC levels detected in CPOC wells were all below the MCL but remain above the MTCA criteria for potable water supply.

3.7 AOC-004

This section describes corrective action activities conducted at AOC-004. The cleanup remedy for this AOC is MA. Figure 25 shows the location of the groundwater monitoring well for which sampling is required under CMP Addendum #3 (CALIBRE, 2020) and bioremediation wells, as well as the groundwater elevation measured during this monitoring event.

3.7.1 CLEANUP ACTION ACTIVITIES

No installation/construction activities were conducted for this cleanup action area during this monitoring period.

3.7.2 COMPLIANCE MONITORING PLAN DEVIATIONS

No deviations from the CMP occurred for this area during this monitoring period and COCs remained the same for this AOC.

3.7.3 WATER LEVELS

The groundwater elevation measured during this groundwater monitoring event at AOC-004 is summarized in Table 16 and shown on Figure 25. Groundwater contouring and flow direction cannot be determined from the single groundwater elevation measurement, but a general direction of groundwater flow based on historical information is shown on Figure 25.

3.7.4 GROUNDWATER MONITORING RESULTS

Results for geochemical indicators are presented in Table 17; the result for the AOC-004 COC (lead) is presented in Table 18.

3.7.4.1 Monitored Attenuation/Geochemical Indicators

The geochemical indicator results are presented in Table 17. The pH reading was near neutral at 6.78 standard units. Moderate specific conductivity, negative ORP, and low DO readings were observed during this monitoring event.

3.7.4.2 COC Results for Source Area

Table 18 lists the analytical result for the AOC-004 COC. Lead was detected in the source area at 0.820 μ g/L, below the CUL of 1 μ g/L. Figure 26 shows the historical trend chart for lead in GW250S.

3.8 AOC-060

This section describes corrective action activities conducted at AOC-060. The cleanup remedy for this AOC is bioremediation and MA. Figure 27 shows the location of groundwater monitoring wells for which sampling is required under CMP Addendum #3 (CALIBRE, 2020) and bioremediation wells, as well as the groundwater elevations measured during this monitoring event.

3.8.1 CLEANUP ACTION ACTIVITIES

No installation/construction activities were conducted for this cleanup action area during this monitoring period.

3.8.2 COMPLIANCE MONITORING PLAN DEVIATIONS

No deviations from the CMP occurred for this area during this monitoring period. The well monitored and COC remained the same for this AOC.

3.8.3 WATER LEVELS

The groundwater elevations measured during this groundwater monitoring event at AOC-060 are summarized in Table 19 and shown on Figure 27. Groundwater flow direction is generally to the west-southwest, toward the Cedar River Waterway.

3.8.4 GROUNDWATER MONITORING RESULTS

Results for geochemical indicators are presented in Table 20; results for the AOC-060 COCs are presented in Table 21.

3.8.4.1 Monitored Attenuation/Geochemical Indicators

The geochemical indicator results are presented in Table 20. Results during this monitoring event are consistent across the area, with the exception of specific conductivity, which ranged from 204.2 to 1,274 μ S/cm. The pH ranged between near neutral and somewhat acidic in this AOC, between 5.80 and 6.54 standard units. TOC results from all wells varied greatly, with a range from 3.82 to 43.1 mg/L.

3.8.4.2 COC Results for Source and Downgradient Plume Areas

Table 21 lists the analytical results for the AOC-060 COCs. Wells in this group were analyzed for cis-1,2-DCE, TCE, and VC. Groundwater from source area well GW009S and downgradient plume area well GW012S exceeded the CULs for all three COCs. TCE concentrations also exceeded the CUL in downgradient plume area wells GW014S (and its field duplicate) and GW147S. The detected concentrations of cis-1,2-DCE, TCE, and VC in the source and downgradient plume area wells are below the MCLs. Wells GW009S and GW012S were above the MTCA criteria for potable water supply for VC; all other detections were below their respective MTCA levels.

Figure 28 shows historical trends for COCs in source area well GW009S, which have been stable since monitoring began. Figures 28 and 29 show historical trends for COCs in downgradient plume area wells. COC results in GW014S have been generally stable since monitoring began, but GW012S and GW147S exhibit more fluctuation in COC concentrations, possibly due to seasonal groundwater flow variations. TCE in GW012S appears to have increasing fluctuation over the last four monitoring events, departing from its stabilization over the past several monitoring events, but concentrations remain within the historical range for TCE concentrations in this well.

3.8.4.3 COC Results for Conditional Point of Compliance Area

As shown in Table 21, cis-1,2-DCE exceeded the CUL in groundwater from both CPOC area wells. VC was detected in groundwater from both CPOC area wells but did not exceed the CUL. TCE was not detected in either well. The measured concentrations of cis-1,2-DCE, TCE, and VC in the CPOC area wells are below both the MCLs and MTCA criteria for potable water supply. Figure 30 shows historical trends for COCs in CPOC area wells GW150S and GW253I. Considerable fluctuation is still present for cis-1,2-DCE and VC, but TCE appears to be stabilizing in both CPOC area wells.

3.9 AOC-090

This section describes corrective action activities conducted at AOC-090. The cleanup remedy for this AOC is MA. Figure 31 shows the location of groundwater monitoring wells for which sampling is required under CMP Addendum #3 (CALIBRE, 2020) and bioremediation wells, as well as the groundwater elevations measured during this monitoring event.

3.9.1 CLEANUP ACTION ACTIVITIES

No installation/construction activities were conducted for this cleanup action area during this monitoring period.

3.9.2 COMPLIANCE MONITORING PLAN DEVIATIONS

No deviations from the CMP occurred for this area during this monitoring period. The wells monitored and COCs remained the same for this AOC.

3.9.3 WATER LEVELS

The groundwater elevations measured during this groundwater monitoring event at AOC-090 are summarized in Table 22 and shown on Figure 31. Groundwater flow direction is to the west, toward the Cedar River Waterway; however, the sheet pile wall to the west of this area prevents a direct groundwater connection to the river, as depicted by the contours.

3.9.4 GROUNDWATER MONITORING RESULTS

Results for geochemical indicators are presented in Table 23; results for the AOC-090 COCs are presented in Table 24.

3.9.4.1 Monitored Attenuation/Geochemical Indicators

The geochemical indicator results are presented in Table 23. Results showed moderate specific conductivity and low DO values across the area. The pH ranged from slightly acidic to moderately basic in this AOC, with all wells ranging between 6.16 and 8.33 standard units. TOC was measured at 2.56 mg/L in source area well GW189S. The trend plot for TOC in GW189S (Figure 32) shows TOC has decreased significantly since the last substrate injection in 2017.

3.9.4.2 COC Results for Source and Downgradient Plume Areas

Table 24 lists the analytical results for the AOC-090 COCs. Groundwater from source area well GW189S exceeded the CUL for TPH as diesel and TPH as motor oil. Historical trends for GW189S show chlorinated VOCs have been trending downward since the start of monitoring (Figure 32). Downgradient plume area well GW176S exceeded the CUL for VC. The measured concentrations of PCE and TCE in the source area and downgradient plume area wells are below both the MCLs and MTCA criteria for potable water supply. VC is below the MCL in all wells (source area, downgradient plume area, and CPOC wells) but remains above the MTCA criteria for potable water supply in well GW176S.

3.9.4.3 COC Results for Conditional Point of Compliance Area

VC was detected in two of the three CPOC area wells (GW178S and GW208S) and exceeded the CUL for VC in both (Table 24). The detected concentrations in wells GW178S and GW208S are above the MTCA criteria for potable water supply and below the MCL.

3.10 APRON A AREA

This section describes corrective action activities conducted at the Apron A area. The cleanup remedy proposed for the Apron A area is bioremediation and MA. Figure 33 shows the locations of the groundwater monitoring wells in the Apron A area for which sampling is required under CMP Addendum #3 (CALIBRE, 2020).

3.10.1 CLEANUP ACTION ACTIVITIES

No construction or operations work was conducted in the Apron A area during this monitoring period.

3.10.2 COMPLIANCE MONITORING PLAN DEVIATIONS

No deviations from the CMP occurred for this area during this monitoring period. The wells monitored in this group and COCs remained the same.

3.10.3 WATER LEVELS

The groundwater elevation measurement from this groundwater monitoring event at Apron A is in Table 25 and shown on Figure 33. Groundwater flow direction is estimated based on historical information and an expected flow east toward the Cedar River Waterway.

3.10.4 GROUNDWATER MONITORING RESULTS

Results for primary geochemical indicators presented in Table 26; results for the Apron A area COCs are presented in Table 27.

3.10.4.1 Monitored Attenuation/Geochemical Indicators

The geochemical indicator results are presented in Table 26. Observations included high specific conductivity, high DO, slightly acidic pH, and a low ORP reading. TOC was detected in GW264S at a concentration of 42.96 mg/L.

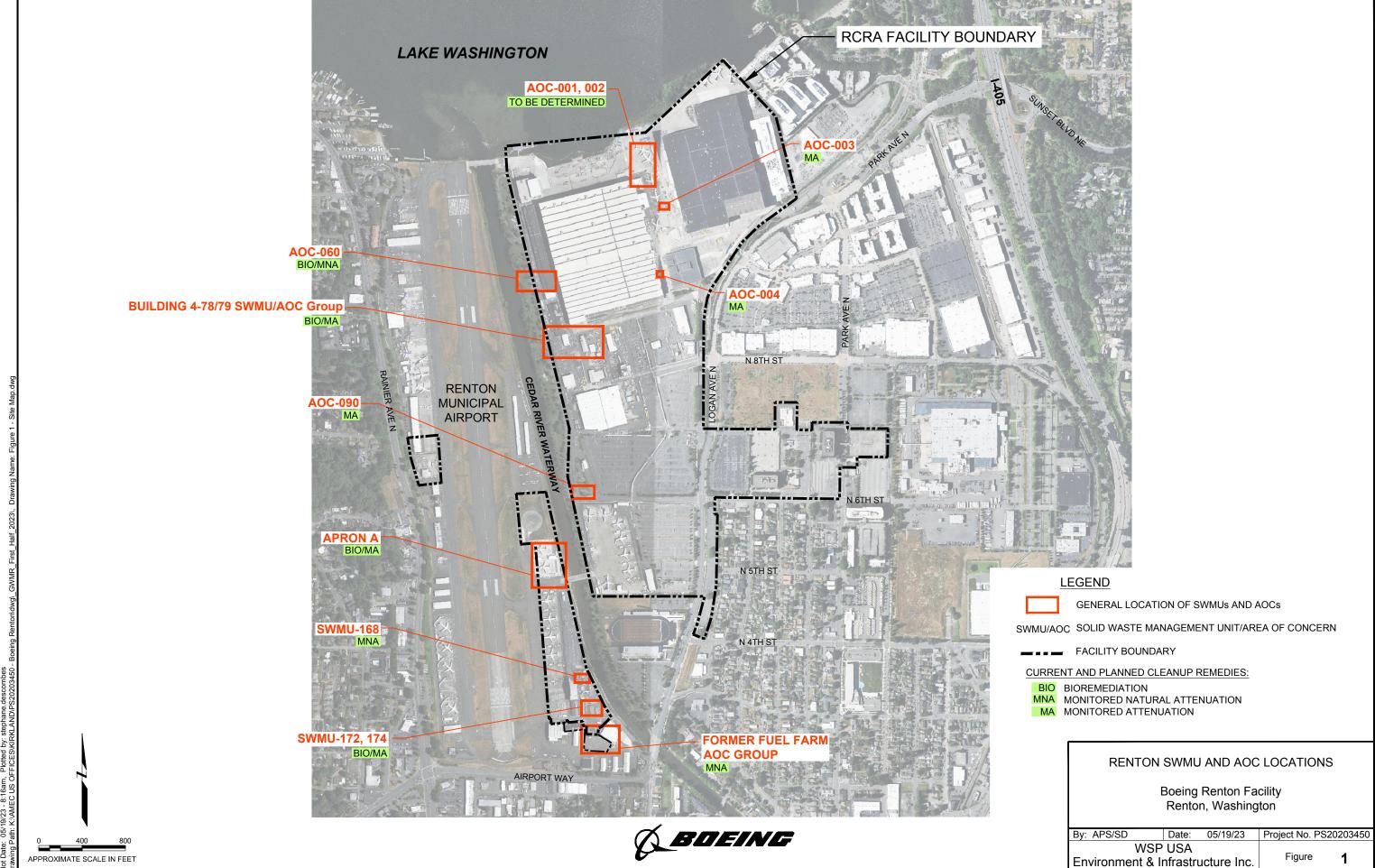
3.10.4.2 COC Results

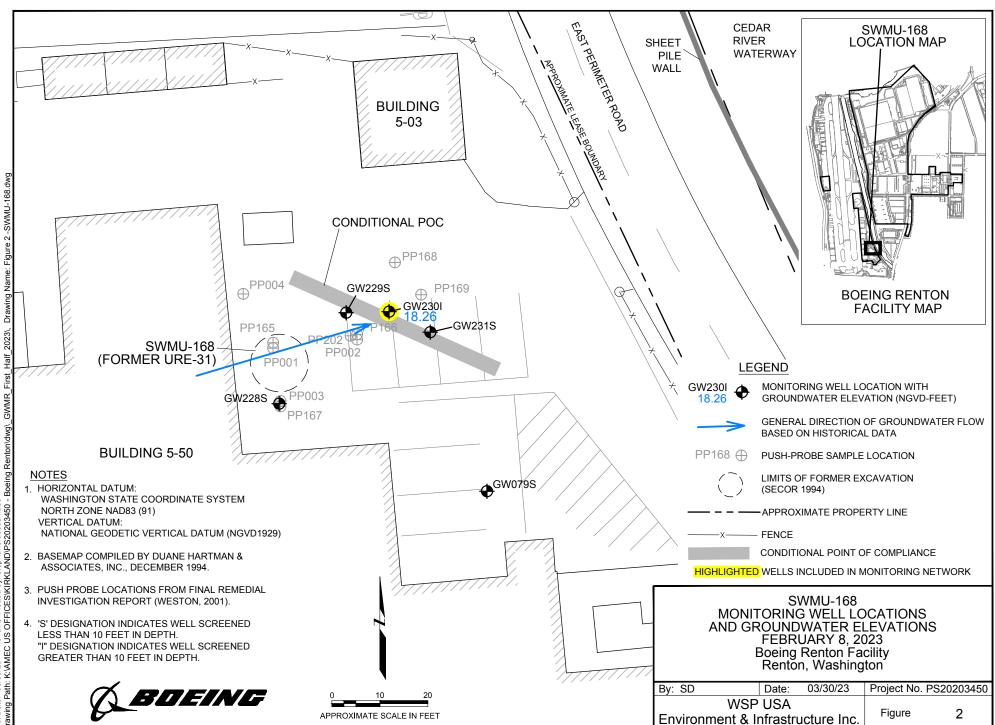
Table 27 lists the analytical results for the Apron A area COCs (cis-1,2-DCE and VC) and both analytes are reported as non-detect (< $2.0~\mu g/L$). Analytes from Apron A samples do not have established CULs because they were added to the monitoring program after the CMP (Amec Foster Wheeler, 2016a) was in place. Additional monitoring of the soil and groundwater in Apron A was completed in 2016 and included installation of the monitoring wells in this area (Amec Foster Wheeler, 2016b). Neither cis-1,2-DCE nor VC were detected in the groundwater from well GW264S. The trend plot for COCs in GW264S is shown in Figure 34. Cis-1,2-DCE has not been detected for five consecutive monitoring periods, but VC still appears to fluctuate with the current VC results (February 2023) as non-detect.

4 REFERENCES

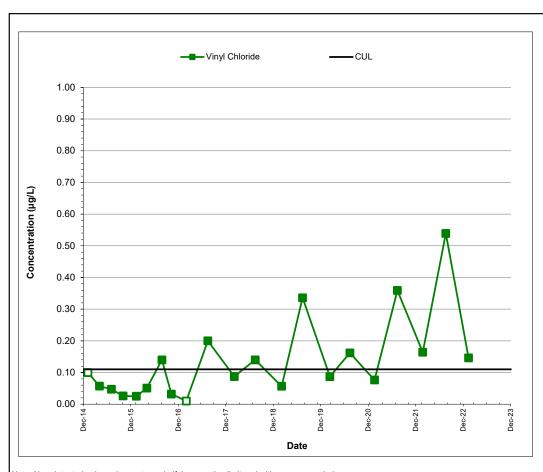
- AMEC Environment & Infrastructure, Inc. (AMEC), 2012, Draft Cleanup Action Plan, Boeing Renton Facility, Renton, Washington, Prepared for The Boeing Company, September.
- ———, 2014, Draft Engineering Design Report, Boeing Renton Cleanup Plan Implementation, Boeing Renton Facility, Renton, Washington, Prepared for The Boeing Company, July.
- Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016a, Compliance Monitoring Plan (CMP), Boeing Renton Facility, Renton, Washington, Prepared for The Boeing Company, February.
- ———, 2016b, Apron A Investigation Results, Renton Municipal Airport—Boeing Apron A, Renton, Washington, June.
- ——, 2016c, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington, Prepared for The Boeing Company, February.
- ———, 2017, Addendum to the Compliance Monitoring Plan, Boeing Renton Facility, Renton, Washington, Prepared for The Boeing Company, February.
- CALIBRE Systems, Inc. (CALIBRE), 2020, Evaluation of Recent Groundwater Sampling at the Boeing Renton Facility, Recommendation for Modifications to Compliance Monitoring Plan as Addendum #3 to CMP, June 30.
- ——, 2021, Remedial Progress Review and Evaluation of Groundwater Cleanup Levels at the Boeing Renton Plant, May.
- ——, 2022a, Sub-Slab Soil Vapor Sampling Plan, SWMU 172/174, Boeing Renton Facility, Renton, Washington: Prepared for The Boeing Company, December 2.
- ——, 2022b, Boeing Renton Decommissioning of Groundwater Wells, Technical Memorandum, Rev.1, January 5.
- Cramer, Valerie, Environmental Engineer, Washington State Department of Ecology, email to Nick Garson, Remediation Project Manager, The Boeing Company, September 20, 2022.
- Washington State Department of Ecology (Ecology), 2022, Natural Background Groundwater Arsenic Concentrations in WA State, Study Results, Publication No. 14-09-044, January.
- Wood Environment & Infrastructure Solutions, Inc. (Wood), 2019, Addendum to the Compliance Monitoring Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, April.
- ——, 2021, Apron R Well Abandonment and Replacement: AOC-001 and AOC-002, Boeing Renton Corrective Action Program, Renton, Washington: Prepared for the Boeing Company, November 11.

FIGURES





Plot Date: 03/30/23 - 11:31am, Plotted by: stephane.descombes Drawing Path: K:AMEC US OFFICESIKIRKLANDIPS220203450 - Boeing Rentonlo

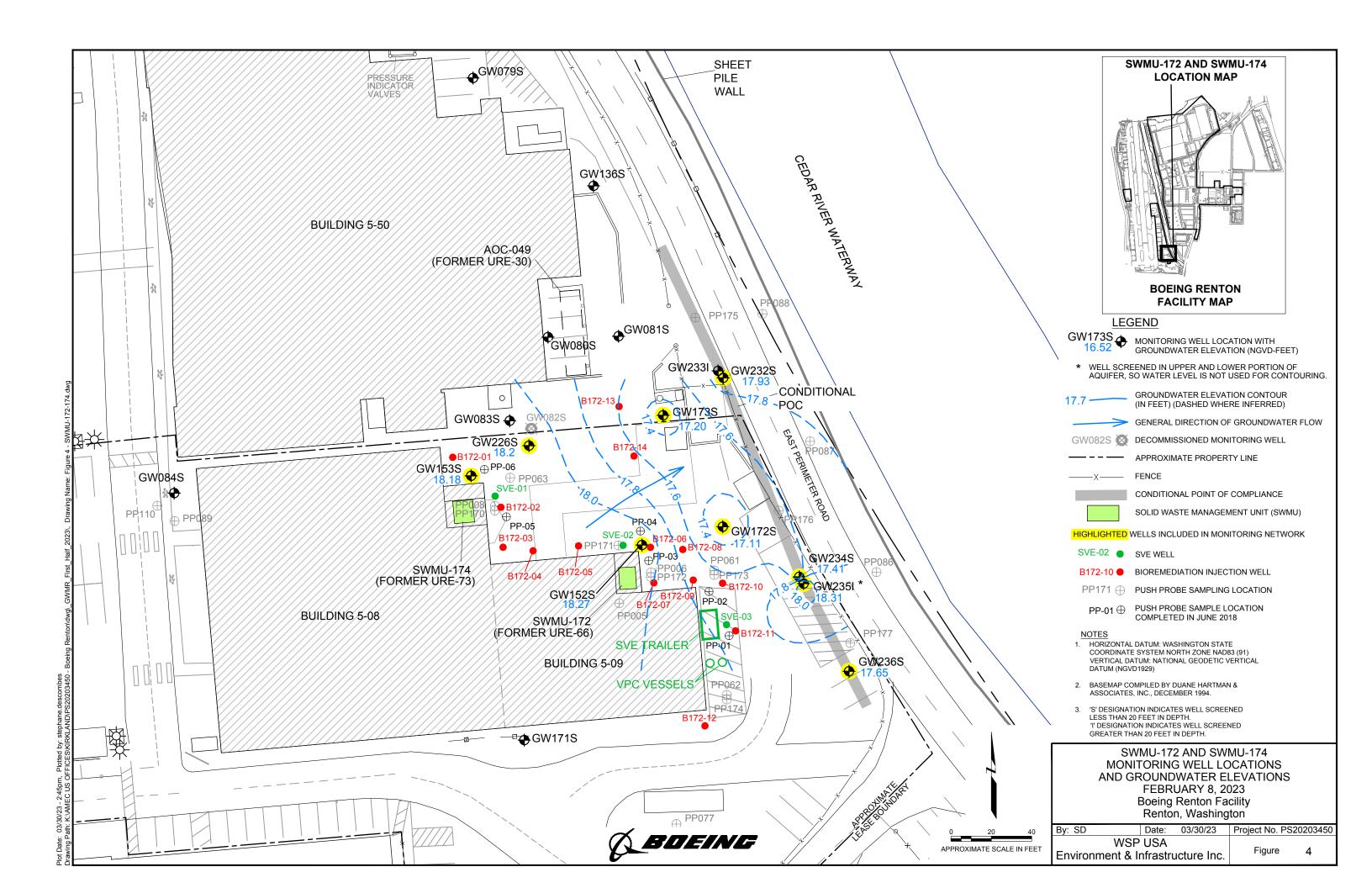


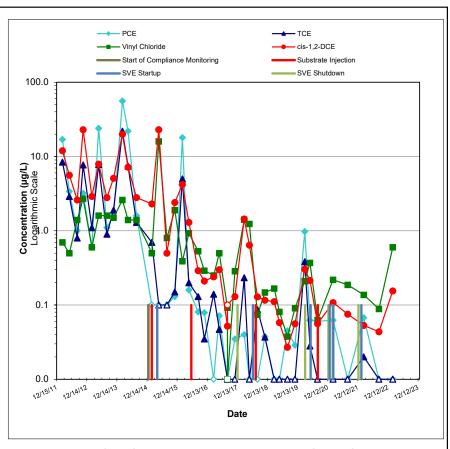
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CPOC AREA WELL GW230I

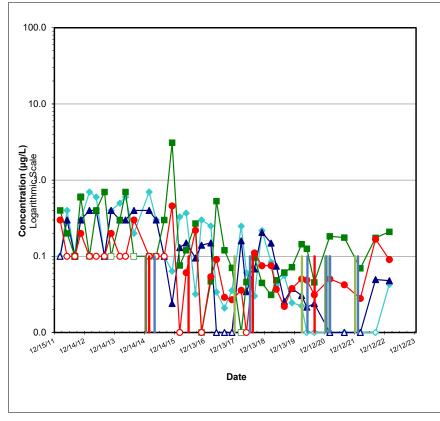
\\text{\woodplc.net\\Wood\US\SEA\SEA2-FS1-Archive\\8888.000 Boeing Renton\\261\Figure\\Boeing_Renton_Charts (3-34)\text{\text{x}\sm)}Figure 30

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DOWNGRADIENT PLUME AREA WELL GW172S



DOWNGRADIENT PLUME AREA WELL GW173S

Note: Non-detected values shown at one-half the reporting limit and with an open symbol.



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SWMU-172 AND SWMU-174 TREND PLOTS FOR DOWNGRADIENT PLUME AREA WELLS GW172S AND GW173S Boeing Renton Facility, Renton, Washington

Project No.

PS20203450

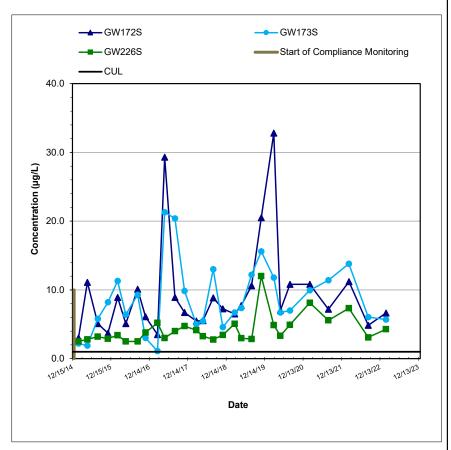
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DOWNGRADIENT PLUME AREA WELL GW226S

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wsp

TOTAL ARSENIC IN SOURCE AREA WELLS



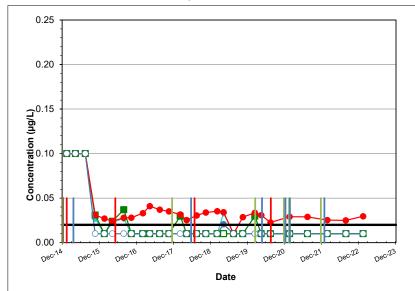
TOTAL ARSENIC IN DOWNGRADIENT PLUME AREA WELLS

Note: Non-detected values shown at one-half the reporting limit and with an open symbol.

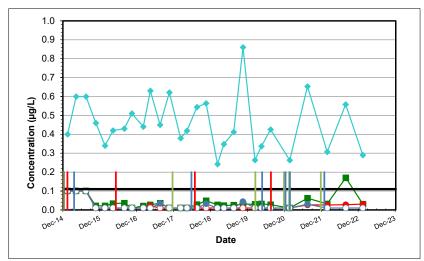


SWMU-172 AND SWMU-174 TREND PLOTS FOR ARSENIC IN SELECT SOURCE AREA AND DOWNGRADIENT PLUME AREA WELLS Boeing Renton Facility, Renton, Washington Project No. PS20203450

> Figure 8



Trichloroethene



Vinyl Chloride

Note: Non-detected values shown at one-half the reporting limit and with an open symbol.



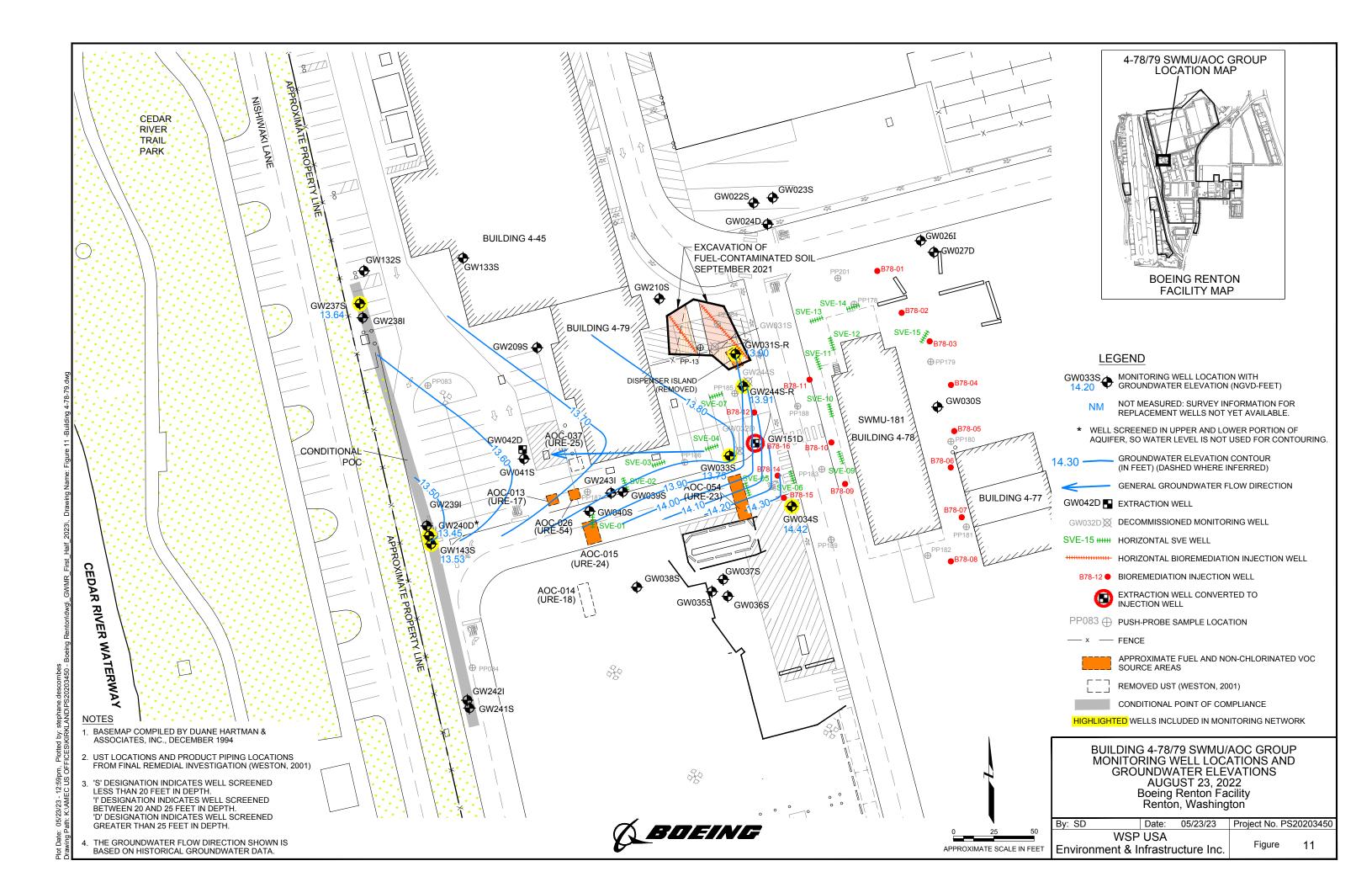
SWMU-172 AND SWMU-174 TREND PLOTS FOR CIS-1,2-DICHLROETHENE, TRICHLOROETHENE, AND VINYL CHLORIDE IN CPOC AREA WELLS Boeing Renton Facility, Renton, Washington

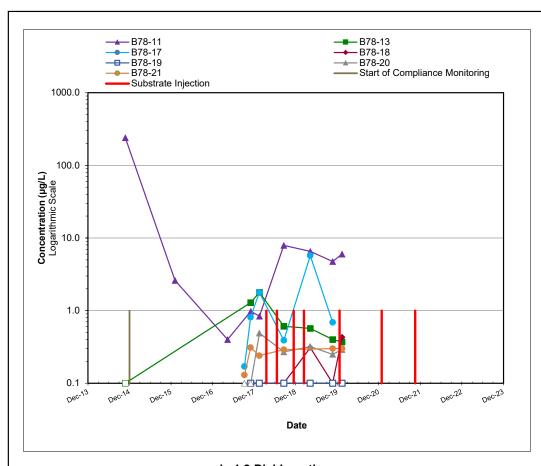
Project No. PS2020345

> Figure 9

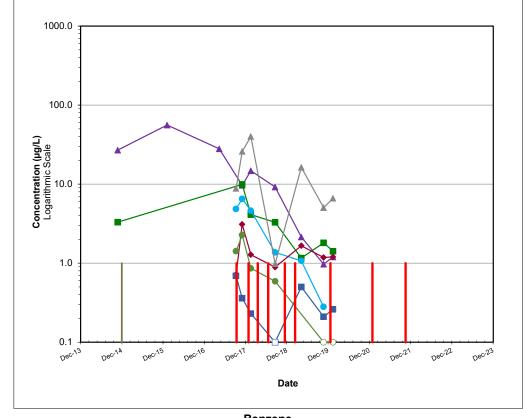
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cis-1,2-Dichloroethene

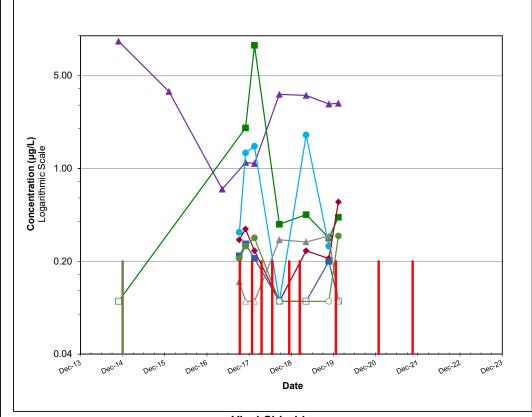


Benzene

 $\underline{\text{Note:}} \ \text{Non-detected values shown at one-half the reporting limit and with an open symbol.}$



Trichloroethene



Vinyl Chloride

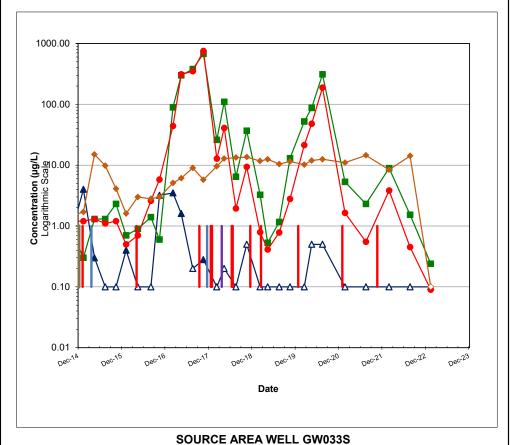
Note: Non-detected values shown at one-half the reporting limit and with an open symbol.



BUILDING 4-78/79 SWMU/AOC GROUP TREND PLOTS FOR TRICHLOROETHENE AND VINYL CHLORIDE IN INJECTION WELLS
Boeing Renton Facility, Renton, Washington

Project No. PS20203450

SOURCE AREA WELL GW031S



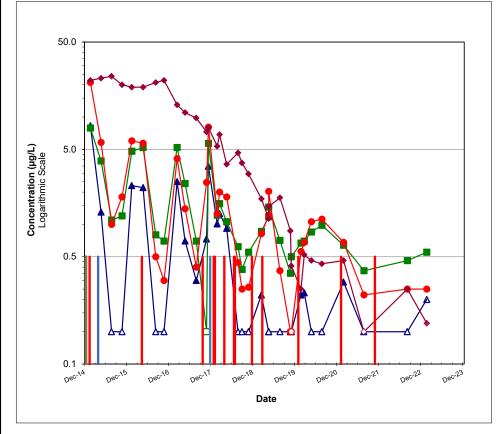


Note: Non-detected values shown at one-half the reporting limit and with an open symbol.



BUILDING 4-78/79 SWMU/AOC GROUP TREND PLOTS FOR SOURCE AREA WELLS GW031S AND GW033S Boeing Renton Facility, Renton, Washington Project No. PS20203450

SOURCE AREA WELL GW034S



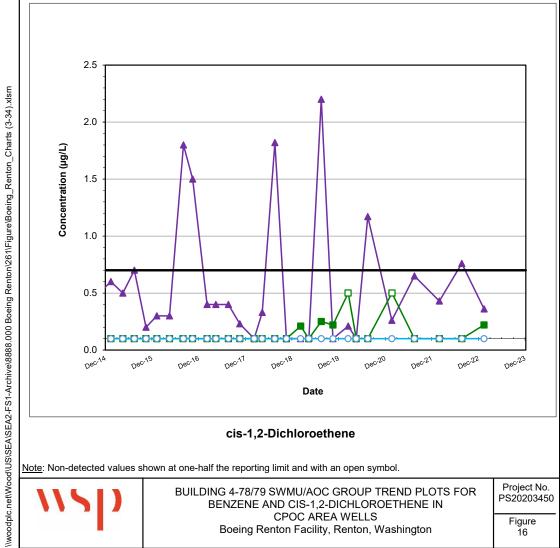
SOURCE AREA WELL GW244S

Note: Non-detected values shown at one-half the reporting limit and with an open symbol.



BLDG 4-78/79 SWMU/AOC GROUP TREND PLOTS FOR SOURCE AREA WELLS GW034S AND GW244S Boeing Renton Facility, Renton, Washington Project No. PS20203450

Benzene



cis-1,2-Dichloroethene

Note: Non-detected values shown at one-half the reporting limit and with an open symbol.

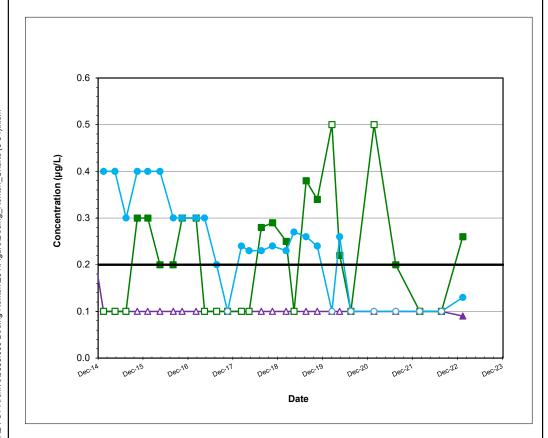


CPOC AREA WELLS

Project No.

PS20203450

Trichloroethene



Vinyl Chloride

Note: Non-detected values shown at one-half the reporting limit and with an open symbol.



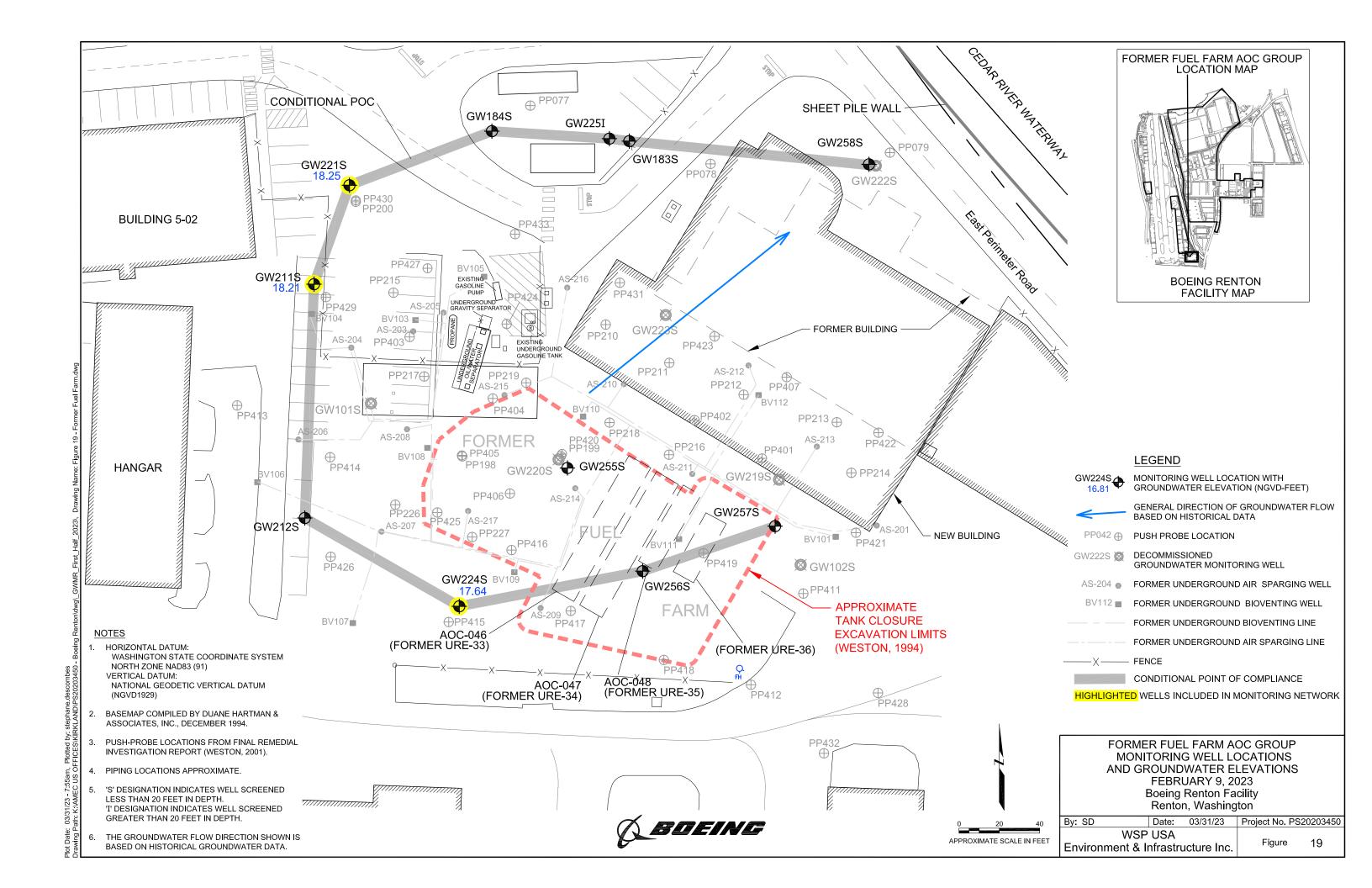
BUILDING 4-78/79 SWMU/AOC GROUP TREND PLOTS FOR TRICHLOROETHENE AND VINYL CHLORIDE IN CPOC AREA WELLS

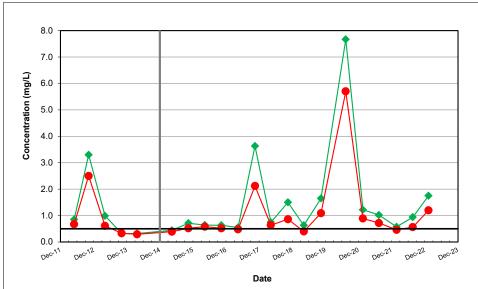
Boeing Renton Facility, Renton, Washington

Project No. PS20203450

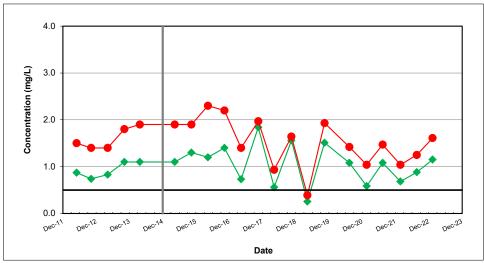
 $\underline{\text{Note}}\text{: Non-detected values shown at one-half the reporting limit and with an open symbol.}$







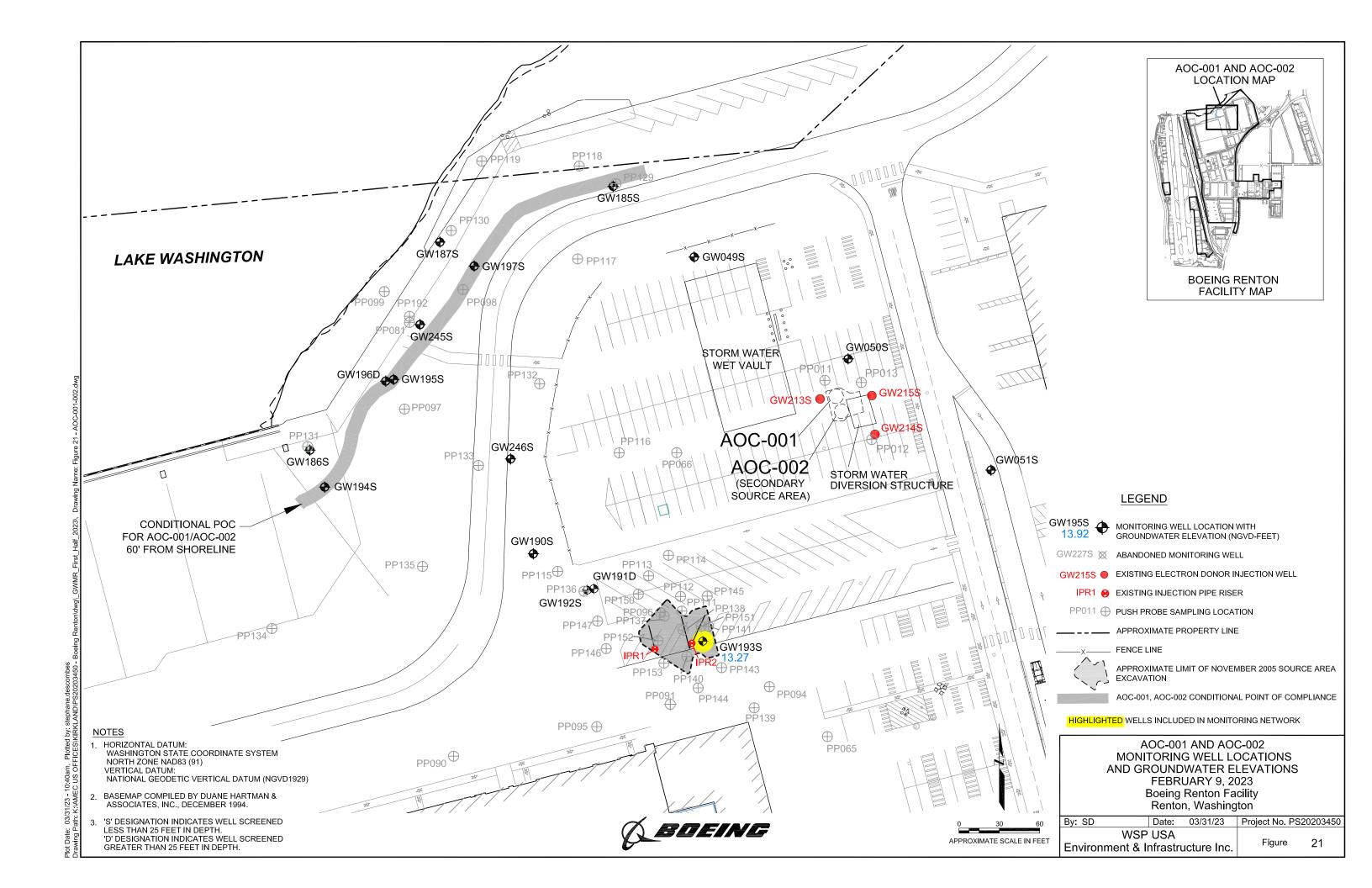
CPOC WELL GW221S

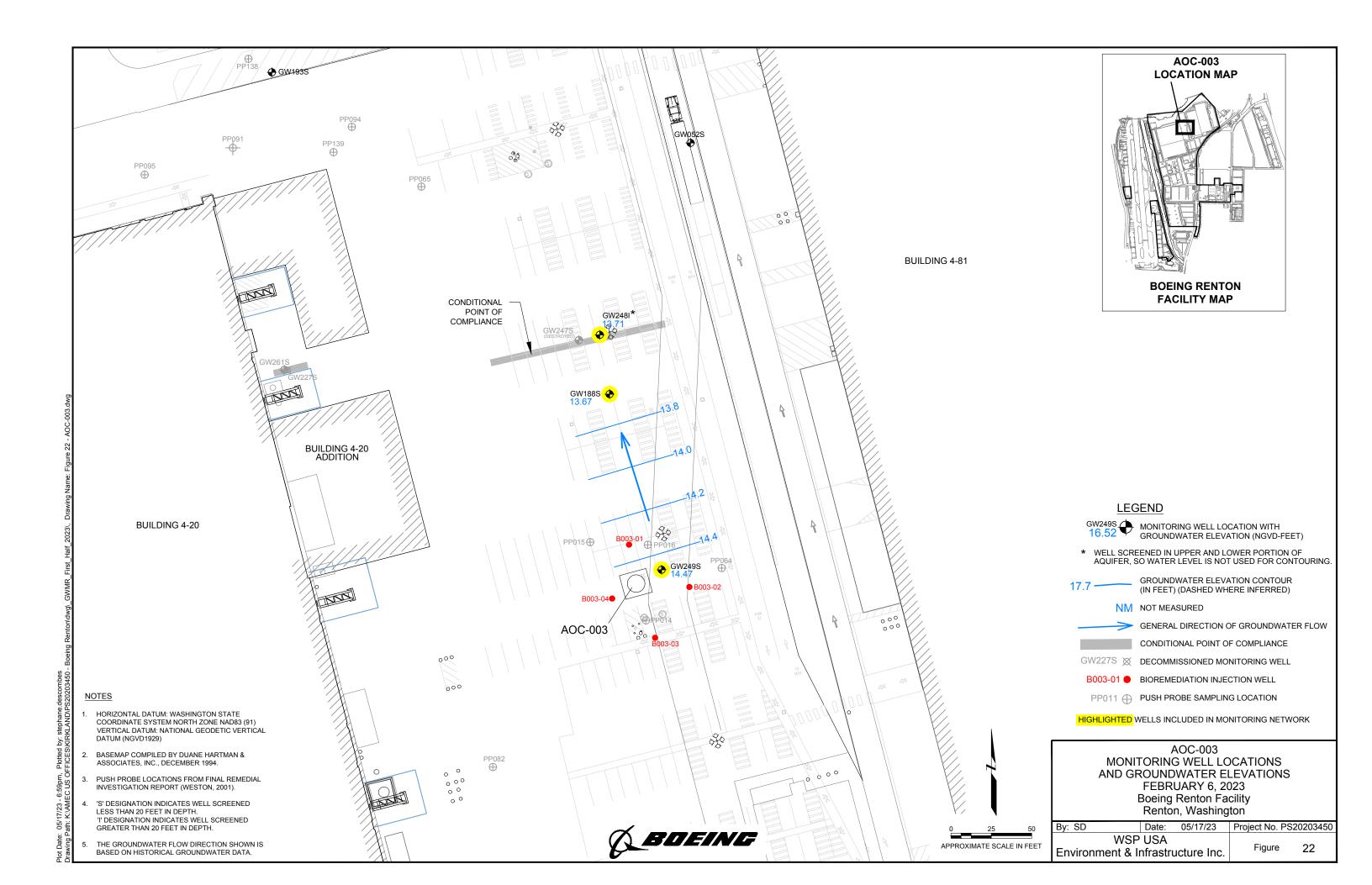


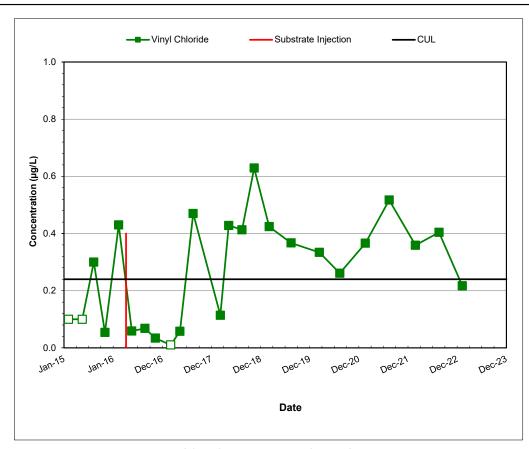
CPOC WELL GW224S

Note: Non-detected values shown at one-half the reporting limit and with an open symbol. Reporting limits were elevated for February 2022 results in GW211S.

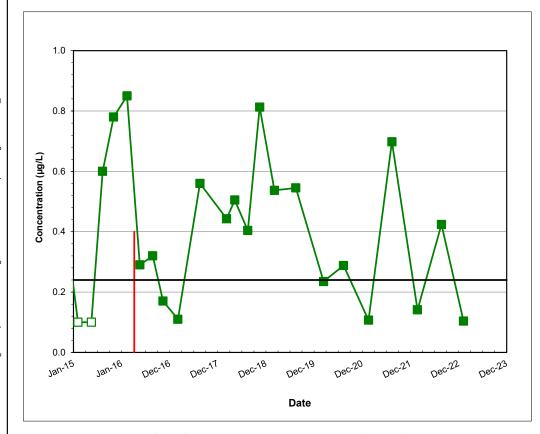








SOURCE AREA WELL GW249S

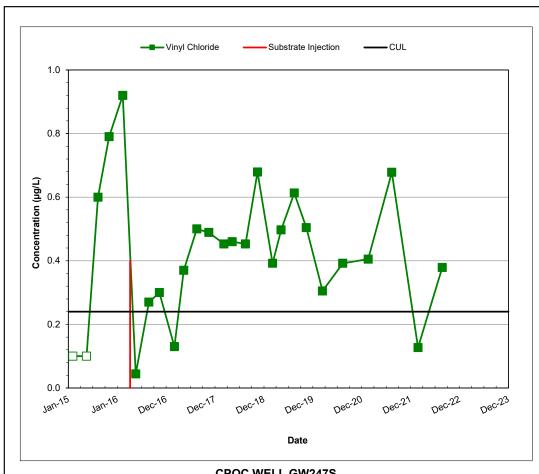


DOWNGRADIENT PLUME AREA WELL GW188S

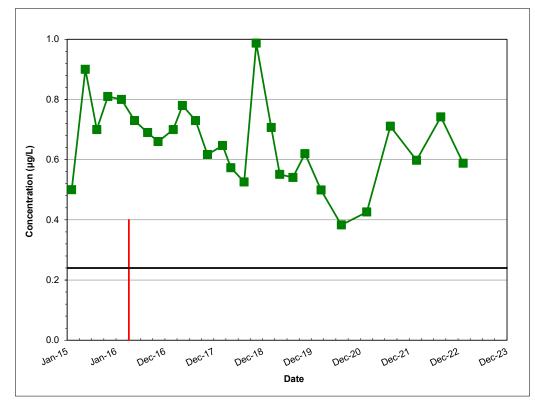
Note: Non-detected values shown at one-half the reporting limit and with an open symbol



AOC-003 TREND PLOTS FOR SOURCE AREA WELL GW249S AND DOWNGRADIENT PLUME AREA WELL GW188S Boeing Renton Facility, Renton, Washington Project No. PS20203450



CPOC WELL GW247S



CPOC WELL GW248I

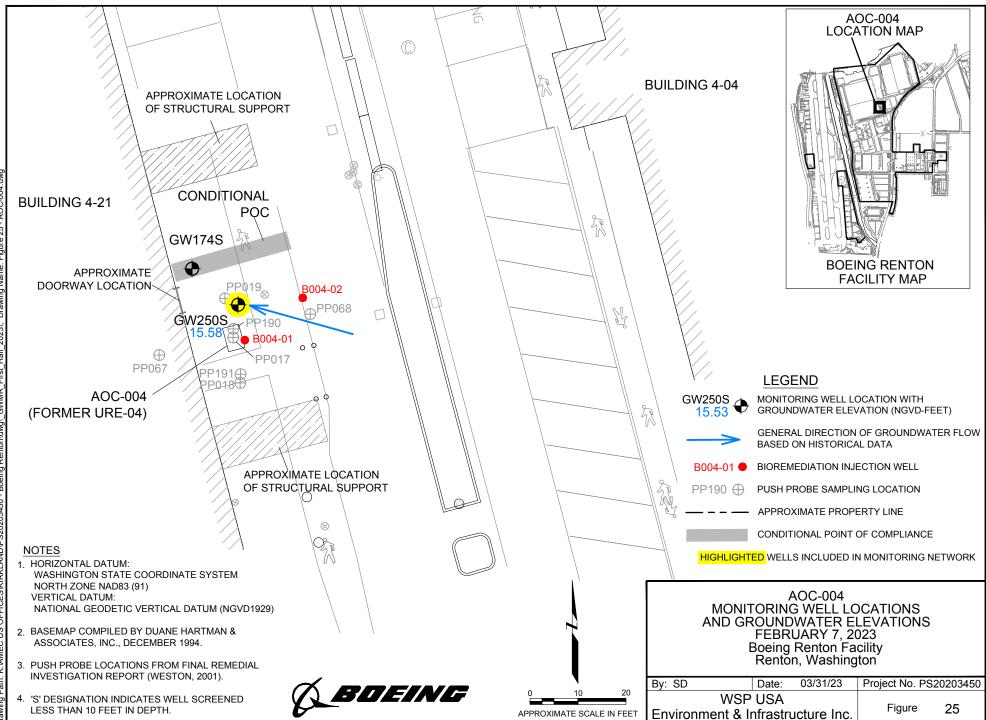
Note: Non-detected values shown at one-half the reporting limit and with an open symbol



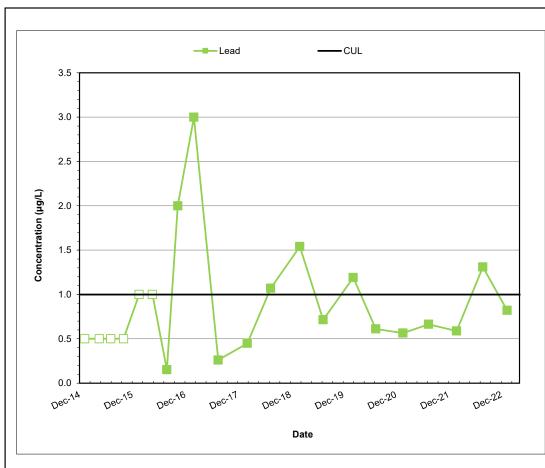
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AOC-003 TREND PLOTS FOR CPOC WELLS GW247S AND GW248I Boeing Renton Facility, Renton, Washington

Project No. PS20203450



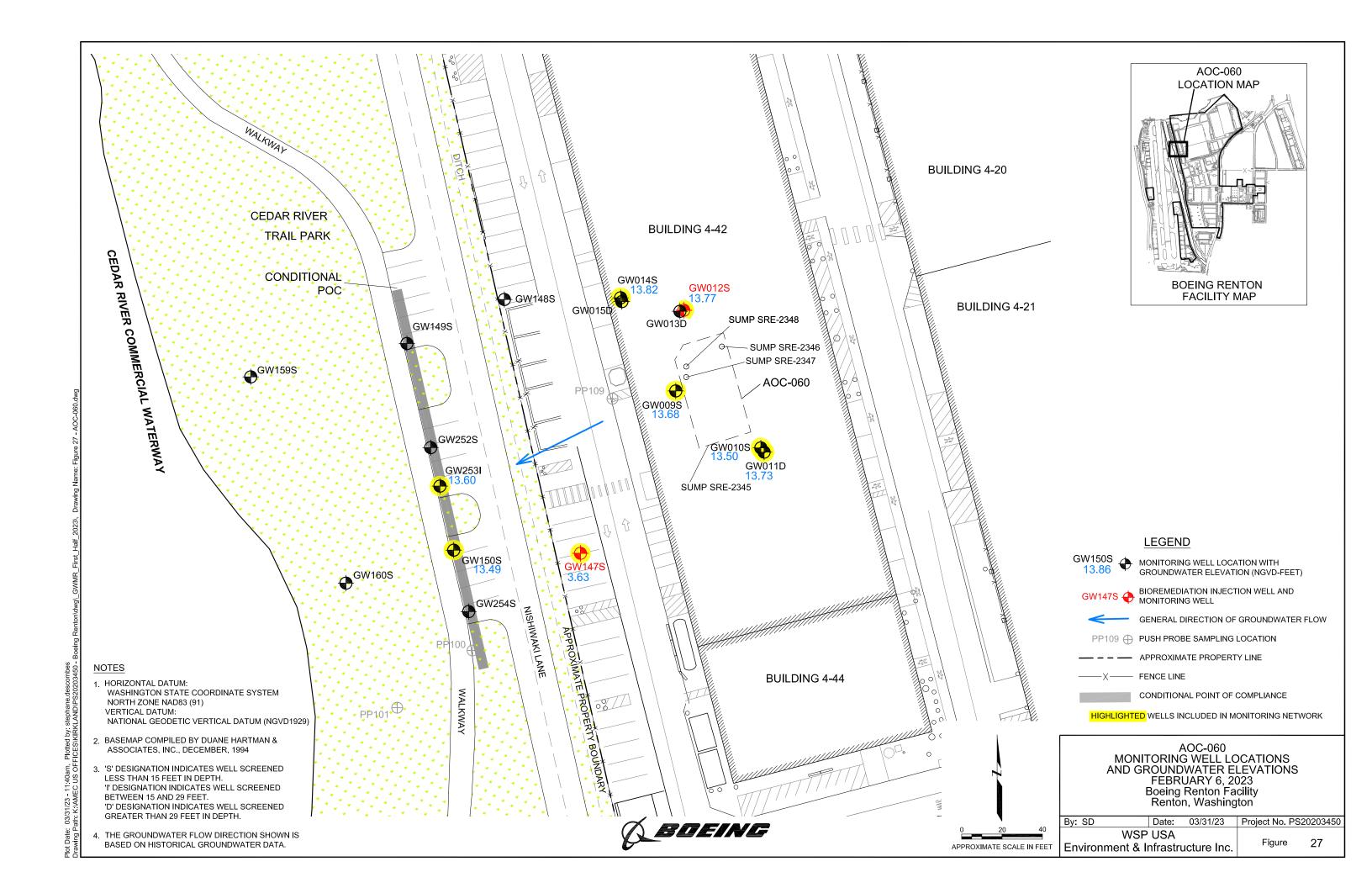


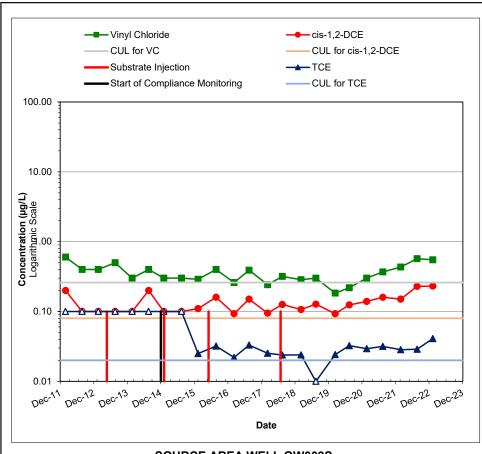


SOURCE AREA WELL GW250S

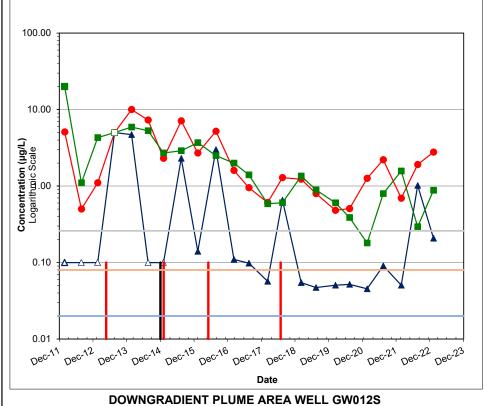
Note: Non-detected values shown at one-half the reporting limit and with an open symbol







SOURCE AREA WELL GW009S



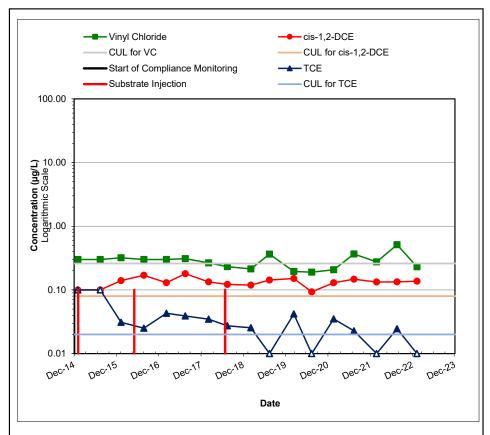
DOWNGRADIENT I LOWE AREA WELL OW

 $\underline{\text{Note:}} \ \text{Non-detected values shown at one-half the reporting limit and with an open symbol.}$

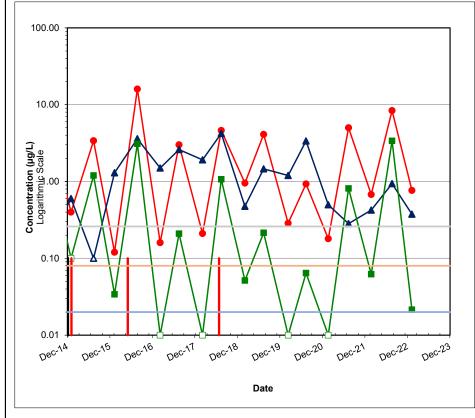


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AOC-060 TREND PLOTS FOR SOURCE AREA WELL GW009S AND DOWNGRADIENT PLUME AREA WELL GW012S Boeing Renton Facility, Renton, Washington Project No. PS2020345



DOWNGRADIENT PLUME AREA WELL GW014S

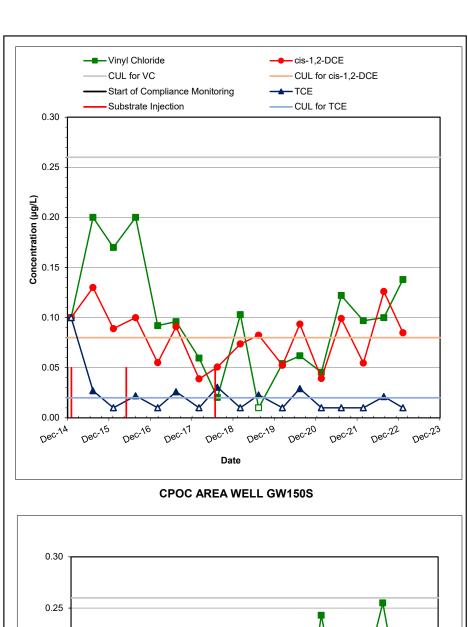


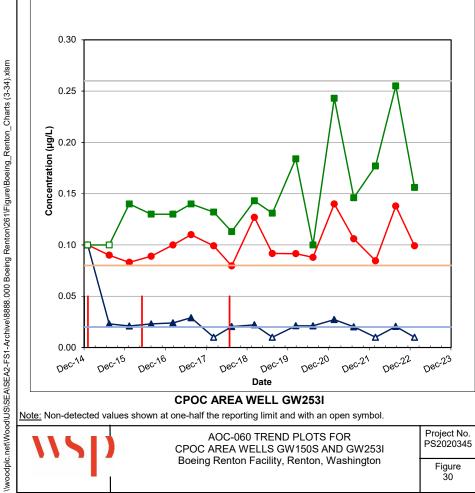
DOWNGRADIENT PLUME AREA WELL GW147S

<u>Note:</u> Non-detected values shown at one-half the reporting limit and with an open symbol.



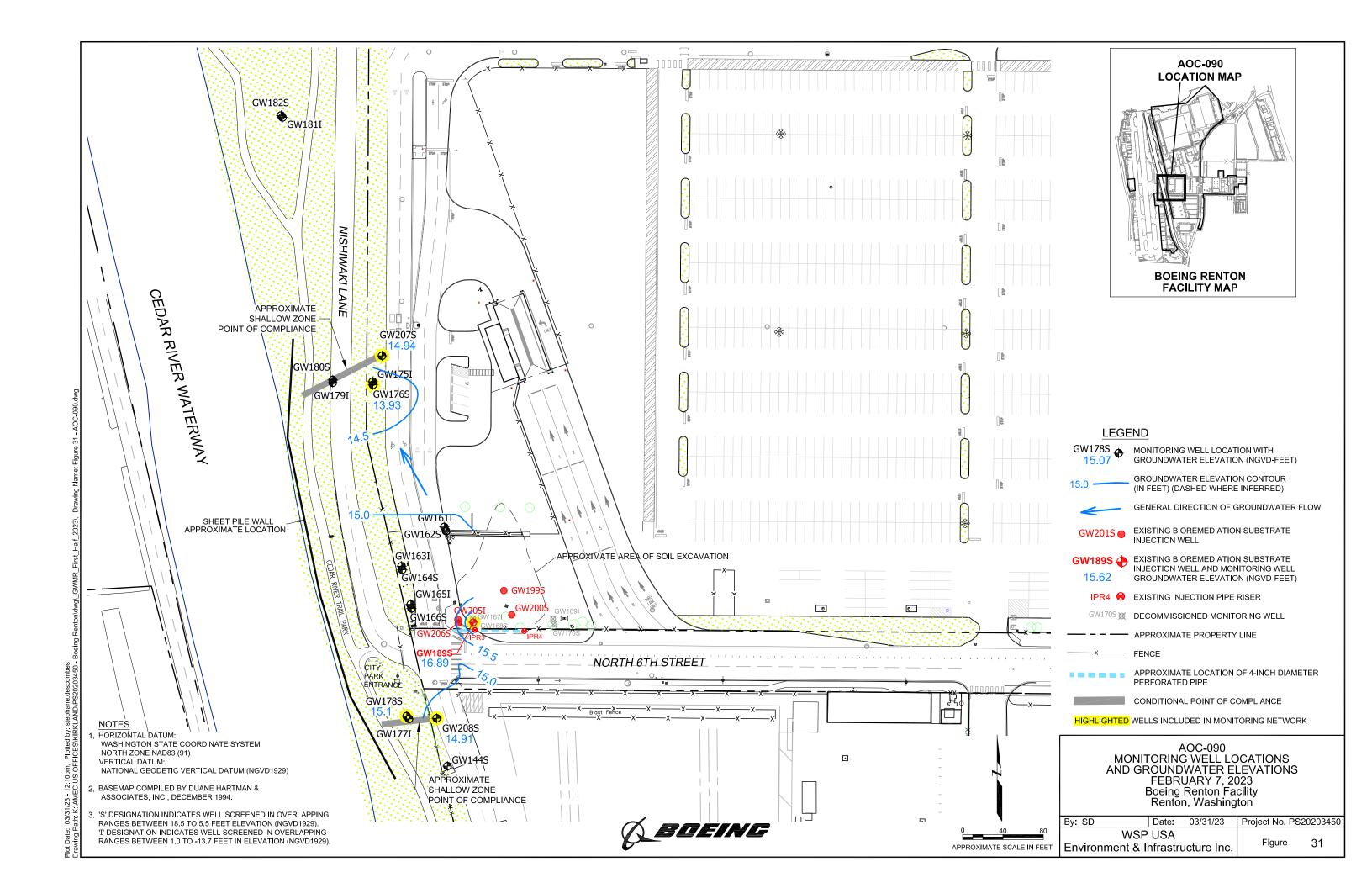
AOC-060 TREND PLOTS FOR DOWNGRADIENT PLUME AREA WELLS GW014S AND GW147S Boeing Renton Facility, Renton, Washington Project No. PS2020345

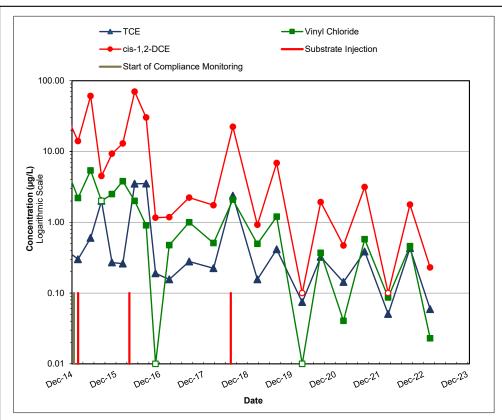




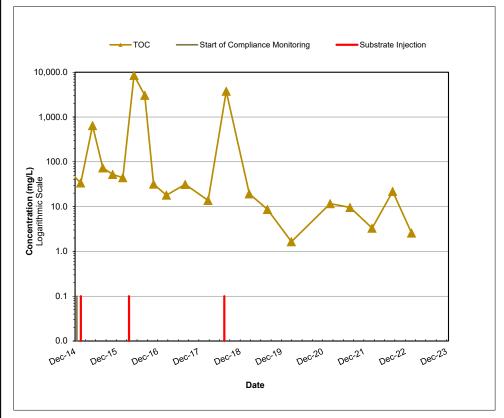
AOC-060 TREND PLOTS FOR CPOC AREA WELLS GW150S AND GW253I Boeing Renton Facility, Renton, Washington

Project No. PS2020345





SOURCE AREA WELL GW189S



Note: Non-detected values shown at one-half the reporting limit and with an open symbol.



AOC-090 TREND PLOTS FOR SOURCE AREA WELL GW189S Boeing Renton Facility, Renton, Washington Project No. PS20203450

> Figure 32

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Note: Non-detected values shown at one-half the reporting limit and with an open symbol.



TABLES

Table 1: SWMU-168 Groundwater Elevation Data

Feburary 9, 2023

Boeing Renton Facility, Renton, Washington

	Screen Interval Depth	TOC Elevation	Depth to Groundwater	Groundwater Elevation
Well ID ¹	(feet bgs)	(feet) ²	(feet below TOC)	(feet) ²
GW230I	4 to 14	24.86	6.60	18.26

Notes:

- 1. I = intermediate well.
- 2. Elevations in feet relative to National Geodetic Vertical Datum of 1929.

Abbreviations:

bgs = below ground surface SWMU = solid waste management unit TOC = top of casing

Table 2: SWMU-168 Primary Geochemical Indicators¹ February 9, 2023

Boeing Renton Facility, Renton, Washington

	Well ID ²
	CPOC Area
Parameter	GW230I
Temperature (degrees C)	11.8
Specific Conductivity (µS/cm)	273.9
Dissolved Oxygen (mg/L)	0.37
pH (standard units)	6.32
Oxidation/Reduction Potential (mV)	22.8

Notes:

- 1. Primary geochemical indicators are measured in the field.
- 2. I = intermediate well.

Abbreviations:

μS/cm = microsiemens per centimeter
CPOC = conditional point of compliance
degrees C = degrees Celsius
mg/L = milligrams per liter
mV = millivolts
SWMU = solid waste management unit

Table 3: SWMU-168 Concentrations of Constituents of Concern^{1, 2} February 8, 2023

Boeing Renton Facility, Renton, Washington

		Well ID ⁴
		CPOC Area
Analyte	Cleanup Level ³	GW230I
Volatile Organic Compounds (μg/L)		
Vinyl Chloride	0.11	0.146

Notes:

- 1. Data qualifiers are as follows:
 - J = the value is estimated.
- 2. **Bolded** values exceed the cleanup levels.
- 3. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.
- 4. I = intermediate well.

Abbreviations:

μg/L = micrograms per liter

CPOC = conditional point of compliance

SWMU = solid waste management unit

Table 4: SWMU-172 and SWMU-174 Group Groundwater Elevation Data February 8, 2023

Boeing Renton Facility, Renton, Washington

Well ID ¹	Screen Interval Depth (feet bgs)	TOC Elevation (feet) ³	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet) ³
GW152S	5 to 20 ²	26.98	8.71	18.27
GW153S	5 to 20 ²	27.47	9.29	18.18
GW172S	8 to 18 ²	26.44	9.33	17.11
GW173S	8 to 18 ²	26.51	9.31	17.20
GW226S	5 to 20 ²	26.86	8.66	18.2
GW232S	4 to 14	24.45	6.52	17.93
GW234S	3 to 13	24.95	7.54	17.41
GW235I	15 to 25	24.90	6.59	18.31
GW236S	5 to 15	24.36	6.71	17.65

Notes:

- 1. S = shallow well; I = intermediate well.
- 2. Screen intervals are approximate and based on database listings of the screen interval depths for these wells.
- 3. Elevations in feet relative to National Geodetic Vertical Datum of 1929.

Abbreviations:

bgs = below ground surface SWMU = solid waste management unit TOC = top of casing

Table 5: SWMU-172 and SWMU-174 Group Primary Geochemical Indicators¹ February 8 & 9, 2023
Boeing Renton Facility, Renton, Washington

		Well ID ²										
		Source Area		Downg	Downgradient Plume Area			CPOC Area				
Parameter	GW152S	GW152S (field dup.)	GW153S	GW172S	GW173S	GW226S	GW232S	GW234S	GW235I	GW236S		
Temperature (degrees C)	9.9	NA	10.9	12.1	11.3	14.5	11.0	9.8	9.8	10.7		
Specific Conductivity (μS/cm)	809.0	NA	211.9	257.9	266.8	260.3	365.7	164.1	142.6	245.5		
Dissolved Oxygen (mg/L)	0.70	NA	1.13	1.90	3.63	3.82	4.22	3.53	0.45	3.62		
pH (standard units)	6.55	NA	6.49	6.68	6.64	6.49	6.38	6.53	6.79	6.67		
Oxidation/Reduction Potential (mV)	-50.5	NA	26.6	-47.0	-87.6	-81.1	2.0	-17.4	-8.1	4.6		
Total Organic Carbon (mg/L) ³	3.57 J	3.67 J	9.87 J	4.62 J	5.42 J	9.38 J	8.20 J	3.00 J	1.00 J	2.25 J		

<u>Notes</u>

- 1. Primary geochemical indicators are measured in the field, with the exception of total organic carbon, which is measured in the laboratory.
- 2. S = shallow well; I = intermediate well.
- 3. Data qualifiers are as follows:

J = the value is estimated.

Abbreviations

μS/cm = microsiemens per centimeter
CPOC = conditional point of compliance
degrees C = degrees Celsius
field dup. = field duplicate
mg/L = milligrams per liter
mV = millivolts
SWMU = solid waste management unit

Table 6: SWMU-172 and SWMU-174 Group Concentrations of Constituents of Concern^{1, 2} February 8 & 9, 2023
Boeing Renton Facility, Renton, Washington

			Well ID ³								
			Source Area		Downg	radient Plum	e Area	CPOC Area			
	Cleanup		GW152S								
Analyte	Level ⁴	GW152S	(field dup.)	GW153S	GW172S	GW173S	GW226S	GW232S	GW234S	GW235I	GW236S
Volatile Organic Compounds (μg/L)											
cis -1,2-Dichloroethene	0.03	3.16 J	3.27 J	0.0569 J	0.155 J	0.0909 J	0.0431 J	0.206 J	0.0581 J	0.235 J	0.0364 J
Tetrachloroethene	0.02	0.234 J	0.219 J	0.0200 UJ	0.0200 UJ	0.0429 J	0.0200 UJ				
Trichloroethene	0.02	0.101 J	0.104 J	0.0200 UJ	0.0200 UJ	0.0479 J	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.0296 J	0.0200 UJ
Vinyl Chloride	0.11	0.195 J	0.197 J	0.148 J	0.601 J	0.210 J	0.0734 J	0.290 J	0.0304 J	0.0310 J	0.0200 UJ
Total Metals (μg/L)											
Arsenic	1.0	6.92	7.02	4.76	6.64	5.69	4.28	3.51	5.90	0.283	1.64
Copper	3.5	6.61	5.82	1.14	6.17	2.98	0.500 U	0.915	16.6	1.23	2.07
Lead	1.0	4.24 J	3.06 J	0.256	3.80	0.752	0.100 U	0.124	6.75	0.332	1.38

Notes:

- 1. Data qualifiers are as follows:
 - U = The analyte was not detected at the reporting limit indicated.
 - J = the value is estimated.
- UJ = The analyte was not detected at the estimated reporting limit indicated.
- 2. **Bolded** values exceed the cleanup levels.
- 3. S = shallow well; I = intermediate well.
- 4. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.

Abbreviations:

μg/L = micrograms per liter

CPOC = conditional point of compliance

SWMU = solid waste management unit

Table 7: Building 4-78/79 SWMU/AOC Group Groundwater Elevation Data February 7, 2023

Boeing Renton Facility, Renton, Washington

Well ID ¹	Screen Interval Depth (feet bgs)	TOC Elevation (feet) ²	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet) ²
GW031S-R	5 to 25	19.59	5.69	13.90
GW033S	5 to 25	19.49	5.74	13.75
GW034S	5 to 25	19.65	5.67	14.42
GW143S	10 to 15	19.81	6.28	13.53
GW237S	5 to 15	18.85	5.21	13.64
GW240D	22 to 27	19.81	6.36	13.45
GW244S-R	5 to 15	19.42	5.51	13.91

Notes:

- 1. S = shallow well; D = deep well; R = replaced.
- 2. Elevations in feet relative to National Geodetic Vertical Datum of 1929.

Abbreviations:

AOC = area of concern

bgs = below ground surface

NA = not available

SWMU = solid waste management unit

TOC = top of casing

Table 8: Building 4-78/79 SWMU/AOC Group Primary Geochemical Indicators¹ February 6–8, 2023

Boeing Renton Facility, Renton, Washington

		Well ID ²									
			Source Area			CPOC Area					
			GW033S								
Parameter	GW031S-R	GW033S	(field dup.)	GW034S	GW244S-R	GW143S	GW237S	GW240D			
Temperature (degrees C)	11.8	9.6	NA	13.5	13.2	9.6	9.4	9.6			
Specific Conductivity (µS/cm)	290.6	258.5	NA	376.5	371.7	279.1	170.5	226.6			
Dissolved Oxygen (mg/L)	2.82	1.17	NA	0.46	3.05	2.72	0.63	1.39			
pH (standard units)	6.35	6.54	NA	6.27	6.41	6.48	6.36	6.63			
Oxidation/Reduction Potential (mV)	-47.6	-59.7	NA	-17.8	-59.5	-31.3	29.3	-56.3			
Total Organic Carbon (mg/L) ³	12.0	8.35 J	8.72 J	12.9	14.9	10.1	10.0	5.35 J			

Notes

- 1. Primary geochemical indicators are measured in the field, with the exception of total organic carbon, which is measured in the laboratory.
- 2. S = shallow well; D = deep well.
- 3. Data qualifiers are as follows:
 - J = the value is estimated.

Abbreviations

μS/cm = microsiemens per centimeter

AOC = area of concern

CPOC = conditional point of compliance

degrees C = degrees Celsius

field dup. = field duplicate

mg/L = milligrams per liter

mV = millivolts

NA = not analyzed

SWMU = solid waste management unit

Table 9: Building 4-78/79 SWMU/AOC Group Concentrations of Constituents of Concern^{1, 2} February 6–8, 2023

Boeing Renton Facility, Renton, Washington

			Well ID ³								
				Source Area			CPOC Area				
	Cleanup			GW033S							
Analyte	Level ⁴	GW031S-R	GW033S	(field dup.)	GW034S	GW244S-R	GW143S	GW237S	GW240D		
Volatile Organic Compounds (με	g/L)										
Benzene	0.80	0.20 U	0.20 U	0.20 U	9.62	0.12 J	0.20 U	4.18	0.20 U		
cis -1,2-Dichloroethene	0.70	0.18 J	0.09 J	0.20 U	0.74	0.25	0.36	0.22	0.20 U		
Trichloroethene	0.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 J	0.20 U	0.20 U		
Vinyl Chloride	0.20	0.26	0.24	0.21	4.12	0.55	0.09 J	0.26	0.13 J		
Total Petroleum Hydrocarbons	(μg/L)										
TPH-G (C7-C12)	800	100 U	100 U	100 U	350	100 U	100 U	805	100 U		

Notes:

1. Data qualifiers are as follows:

U = The analyte was not detected at the reporting limit indicated.

J = the value is estimated.

- 2. **Bolded** values exceed the cleanup levels.
- 3. S = shallow well; D = deep well.
- 4. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.

Abbreviations:

μg/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

field dup. = field duplicate

SWMU = solid waste management unit

TPH-G = total petroleum hydrocarbons as gasoline

Table 10: Former Fuel Farm Groundwater Elevation Data February 9, 2023

Boeing Renton Facility, Renton, Washington

Well ID ¹	Screen Interval Depth (feet bgs)	TOC Elevation (feet) ²	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet) ²
GW211S	4.8 to 14.7	27.77	9.56	18.21
GW221S	5 to 15	27.93	9.68	18.25
GW224S	5 to 15	27.98	10.34	17.64

Notes

- 1. S = shallow well
- 2. Elevations in feet relative to National Geodetic Vertical Datum of 1929.

Abbreviations

bgs = below ground surface TOC = top of casing

Table 11: Former Fuel Farm Primary Geochemical Indicators¹ February 9, 2023

Boeing Renton Facility, Renton, Washington

		Well ID ²						
		CPOC Area						
Parameter	GW211S	GW221S	GW224S					
Temperature (degrees C)	10.1	8.1	11.5					
Specific Conductivity (µS/cm)	128	158	143.6					
Dissolved Oxygen (mg/L)	2.40	2.17	4.03					
pH (standard units)	6.41	6.02	6.24					
Oxidation/Reduction Potential (mV)	-43.4	54.5	22.0					

Notes

- 1. Primary geochemical indicators are measured in the field.
- 2. S = shallow well.

Abbreviations

 μ S/cm = microsiemens per centimeter CPOC = conditional point of compliance degrees C = degrees Celsius mg/L = milligrams per liter mV = millivolts

Table 12: Former Fuel Farm Concentrations of Constituents of Concern^{1, 2} February 9, 2023

Boeing Renton Facility, Renton, Washington

		Well ID ³ CPOC Area GW224S GW211S GW221S GW224S (field dup.)						
Analyte	Cleanup Level ⁴							
Total Petroleum Hydrocarbons (n	ng/L)							
TPH-D (C12-C24)	0.5	0.100 U	1.75	1.15	1.11			
TPH-O (C24-C38)	NE	0.200 U	0.200 U	0.200 U	0.200 U			
Jet A (C10-C18)	0.5	0.100 U 1.20 1.61 1.36						

Notes

- 1. Data qualifiers are as follows:
 - U = The analyte was not detected at the reporting limit indicated.
- 2. Bolded values exceed the cleanup levels.
- 3. S = shallow well.
- 4. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.

Abbreviations

CPOC = conditional point of compliance

field dup. = field duplicate

mg/L = milligrams per liter

NE = not established

TPH-D = total petroleum hydrocarbons as diesel

TPH-O = total petroleum hydrocarbons as motor oil

Table 13: AOC-001, -002 and -003 Groundwater Elevation Data Feburary 6 & 9, 2023

Boeing Renton Facility, Renton, Washington

Well ID ¹	Screen Interval Depth (feet bgs)	TOC Elevation (feet) ²	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet) ²
GW188S	3.5 to 13.5	18.78	5.11	13.67
GW247S	4 to 14	18.91	NM	NA
GW248I	10 to 20	18.78	5.07	13.71
GW249S	4 to 14	18.85	4.38	14.47
GW193S	3 to 12.8	18.67	5.40	13.27

Notes:

- 1. S = shallow well; I = intermediate well.
- 2. Elevations in feet relative to National Geodetic Vertical Datum of 1929.

Abbreviations:

AOC = area of concern

bgs = below ground surface

NA = not applicable

NM = not measured

TOC = top of casing

Table 14: AOC-001, -002, and -003 Primary Geochemical Indicators¹ February 6, 2023
Boeing Renton Facility, Renton, Washington

		Well ID ²					
			AOC-003				
	AOC-001 /	AOC-003	Downgradient	AOC	-003		
	AOC-002	Source Area	Plume Area	СРОС	Area		
Parameter	GW193S	GW249S	GW188S	GW247S	GW248I		
Temperature (degrees C)	10.8	12.1	10.3	NA	9.1		
Specific Conductivity (μS/cm)	266.3	308.7	418	NA	377		
Dissolved Oxygen (mg/L)	1.71	4.91	3.45	NA	1.16		
pH (standard units)	6.33	6.32	6.51	NA	6.45		
Oxidation/Reduction Potential (mV)	-18.3	-73.5	-64.5	NA	-46.8		
Total Organic Carbon (mg/L) ³	6.08 J	14.7	8.79 J	NA	13.8		

Notes

- 1. Primary geochemical indicators are measured in the field, with the exception of total organic carbon, which is measured in the laboratory.
- 2. S = shallow well; I = intermediate well.
- 3. Data qualifiers are as follows:
 - J = the value is estimated.

Abbreviations

 $\mu \text{S/cm}$ = microsiemens per centimeter

AOC = area of concern

CPOC = conditional point of compliance

degrees C = degrees Celsius

mg/L = milligrams per liter

mV = millivolts

NA = not analyzed

Table 15: AOC -001, -002, and -003 Concentrations of Constituents of Concern¹ February 6, 2023

Boeing Renton Facility, Renton, Washington

		Well ID ²					
		AOC-001 /	AOC-003 Source Area	AOC-003			
				Downgradient			
	Cleanup			Plume Area	AOC-003 (CPOC Area	
Analyte	Level ³	GW193S	GW249S	GW188S	GW247S	GW248I	
Volatile Organic Compounds (μg/L)							
Vinyl Chloride	0.24	0.334	0.217	0.104	NA	0.588	

Notes:

- 1. Bolded values exceed the cleanup levels.
- 2. S = shallow well; I = intermediate well.
- 4. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.

Abbreviations:

μg/L = micrograms per liter
AOC = area of concern
CPOC = conditional point of compliance
NA = not analyzed

Table 16: AOC-004 Groundwater Elevation Data

Feburary 7, 2023

Boeing Renton Facility, Renton, Washington

	Screen Interval Depth	TOC Elevation	Depth to Groundwater	Groundwater Elevation
Well ID ¹	(feet bgs)	(feet) ²	(feet below TOC)	(feet) ²
GW250S	4 to 14	19.31	3.73	15.58

Notes:

- 1. S = shallow well.
- 2. Elevations in feet relative to National Geodetic Vertical Datum of 1929.

Abbreviations:

AOC = area of concern

bgs = below ground surface

TOC = top of casing

Table 17: AOC-004 Primary Geochemical Indicators¹ February 7, 2023 Boeing Renton Facility, Renton, Washington

Parameter	Well ID ² Source Area GW250S
Temperature (degrees C)	11.9
Specific Conductivity (μS/cm)	112.8
Dissolved Oxygen (mg/L)	0.53
pH (standard units)	6.78
Oxidation/Reduction Potential (mV)	-26.3

Notes:

- 1. Primary geochemical indicators are measured in the field.
- 2. S = shallow well.

Abbreviations:

μS/cm = microsiemens per centimeter
AOC = area of concern
degrees C = degrees Celsius
mg/L = milligrams per liter
mV = millivolts

Table 18: AOC-004 Concentrations of Constituents of Concern February 7, 2023

Boeing Renton Facility, Renton, Washington

		Well ID ¹
		Source Area
Analyte	Cleanup Level ²	GW250S
Metals (μg/L)		
Lead	1	0.820

Notes:

- 1. S = shallow well.
- 2. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.

Abbreviations:

AOC = area of concern

μg/L = micrograms per liter

Table 19: AOC-060 Groundwater Elevation Data February 6, 2023

Boeing Renton Facility, Renton, Washington

Well ID ¹	Screen Interval Depth (feet bgs)	TOC Elevation (feet) ²	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet) ²
GW009S	4.5 to 14.5	19.36	5.68	13.68
GW010S	4.5 to 14.5	19.47	5.97	13.50
GW011D	29 to 39	19.49	5.76	13.73
GW012S	4.5 to 14.5	19.11	5.34	13.77
GW014S	4.5 to 14.5	19.24	5.42	13.82
GW147S	5 to 15	18.73	15.10	5.1
GW150S	5 to 15	19.10	5.61	13.49
GW253I	10 to 20	19.02	5.42	13.60

Notes:

- 1. S = shallow well; D = deep well; I = intermediate well.
- 2. Elevations in feet relative to National Geodetic Vertical Datum of 1929.

Abbreviations:

AOC = area of concern bgs = below ground surface

TOC = top of casing

Table 20: AOC-060 Primary Geochemical Indicators¹ February 6, 2023
Boeing Renton Facility, Renton, Washington

		Well ID ²							
	Source Area		Downgradier	nt Plume Area		CPOC Area			
				GW014S					
Parameter	GW009S	GW012S	GW014S	(field dup.)	GW147S	GW150S	GW253I		
Temperature (degrees C)	20.7	21.0	17.3	NA	11.0	9.8	10.7		
Specific Conductivity (μS/cm)	291.5	1,274	468	NA	75.0	204.2	279.2		
Dissolved Oxygen (mg/L)	0.28	0.28	1.19	NA	0.51	0.53	0.69		
pH (standard units)	6.37	6.27	6.30	NA	5.80	6.54	6.47		
Oxidation/Reduction Potential (mV)	-6.5	-76.2	20.9	NA	51.8	-10.4	-14.9		
Total Organic Carbon (mg/L)	9.14	43.1	3.82	4.09	6.31	4.50	4.87		

Notes:

- 1. Primary geochemical indicators are measured in the field, with the exception of total organic carbon, which is measured in the laboratory.
- 2. S = shallow well; I = intermediate well.

Abbreviations:

μS/cm = microsiemens per centimeter

AOC = area of concern

CPOC = conditional point of compliance

degrees C = degrees Celsius

field dup. = field duplicate mg/L = milligrams per liter

mV = millivolts

Table 21: AOC-060 Concentrations of Constituents of Concern^{1, 2} February 6, 2023
Boeing Renton Facility, Renton, Washington

			Well ID ³					
		Source Area	ea Downgradient Plume Area			СРОС	Area	
	Cleanup				GW014S			
Analyte	Levels 4	GW009S	GW012S	GW014S	(field dup.)	GW147S	GW150S	GW253I
Volatile Organic Compounds (μg	;/L)							
cis -1,2-Dichloroethene	0.08	0.231	2.78	0.137	0.134	0.766	0.0849	0.0991
Trichloroethene	0.02	0.0409	0.208	0.0200 U	0.0200 U	0.376	0.0200 U	0.0200 U
Vinyl Chloride	0.26	0.550	0.881	0.231	0.230	0.0215	0.138	0.156

Notes:

- 1. Data qualifiers are as follows:
 - U = The analyte was not detected at the reporting limit indicated.
- 2. **Bolded** values exceed the cleanup levels.
- 3. S = shallow well; I = intermediate well.
- 4. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.

Abbreviations:

μg/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

field dup. = field duplicate

Table 22: AOC-090 Groundwater Elevation Data February 7, 2023

Boeing Renton Facility, Renton, Washington

Well ID ¹	Screen Interval Depth (feet bgs)	TOC Elevation (feet) ²	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet) ²
GW176S	10 to 14.3	20.15	6.22	13.93
GW178S	11.2 to 15.5	22.73	7.63	15.1
GW189S	4 to 14	22.01	5.12	16.89
GW207S	7.3 to 12	21.12	6.18	14.94
GW208S	6.3 to 11	22.45	7.54	14.91

Notes:

- 1. S = shallow well.
- 2. Elevations in feet relative to National Geodetic Vertical Datum of 1929.

Abbreviations:

AOC = area of concern

bgs = below ground surface

TOC = top of casing

Table 23: AOC-090 Primary Geochemical Indicators¹ February 7, 2023

Boeing Renton Facility, Renton, Washington

	Well ID ²					
		Downgradient				
	Source Area	Plume Area	Shallow	Zone CPOC A	rea	
Parameter	GW189S ³	GW176S	GW178S	GW207S	GW208S	
Temperature (degrees C)	11.2	12.4	11.6	12.2	12.1	
Specific Conductivity (μS/cm)	165.3	399.8	289.4	256.5	393.4	
Dissolved Oxygen (mg/L)	1.92	0.35	0.31	0.39	0.71	
pH (standard units)	6.16	7.18	7.77	8.33	7.47	
Oxidation/Reduction Potential (mV)	-4.8	-22.9	-15.4	-24.2	-32.1	
Total Organic Carbon (mg/L)	2.56	NA	NA	NA	NA	

Notes

- 1. Primary geochemical indicators are measured in the field, with the exception of total organic carbon, which is measured in the laboratory.
- 2. S = shallow well.
- 3. GW189S is the replacement well for GW168S.

Abbreviations:

 μ S/cm = microsiemens per centimeter AOC = area of concern CPOC = conditional point of compliance

degrees C = degrees Celsius

mg/L = milligrams per liter mV = millivolts NA = not analyzed

Table 24: AOC-090 Concentrations of Constituents of Concern^{1, 2} February 7, 2023
Boeing Renton Facility, Renton, Washington

		Well ID ³					
	Cleanup	Source Area	Downgradient Plume Area	Shallow Zone CPOC Area		: Area	
Analyte	Levels ⁴	GW189S ⁵	GW176S	GW178S	GW207S	GW208S	
Chlorinated Volatile Organic Compounds (µg/L							
1,1,2,2-Tetrachloroethane	0.17	0.153	NA	NA	NA	NA	
1,1,2-Trichloroethane	0.2	0.200 U	NA	NA	NA	NA	
1,1-Dichloroethene	0.057	0.0200 U	NA	NA	NA	NA	
Acetone	300	5.00 U	NA	NA	NA	NA	
Benzene	0.8	0.200 U	NA	NA	NA	NA	
Carbon Tetrachloride	0.23	0.200 U	NA	NA	NA	NA	
Chloroform	2	0.200 U	NA	NA	NA	NA	
cis-1,2-Dichloroethene	2.4	0.230	NA	NA	NA	NA	
Methylene Chloride	2	1.00 U	NA	NA	NA	NA	
Toluene	75	0.690 J	NA	NA	NA	NA	
trans-1,2-Dichloroethene	53.9	0.200 U	NA	NA	NA	NA	
Tetrachloroethene	0.05	0.0200 U	NA	NA	NA	NA	
Trichloroethene	0.08	0.0593	NA	NA	NA	NA	
Vinyl Chloride	0.13	0.0230	0.349	0.531	0.0200 U	0.419	
Total Petroleum Hydrocarbons (με	g/L)						
TPH-G (C7-C12)	800	246	NA	NA	NA	NA	
TPH-D (C12-C24)	500	648 J	NA	NA	NA	NA	
TPH-O (C24-C40)	500	1,120	NA	NA	NA	NA	

Notes:

- 1. Data qualifiers are as follows:
 - U = The analyte was not detected at the reporting limit indicated.
 - J = the value is estimated.
- $\label{eq:continuous_problem} \textbf{2. Bolded} \ \text{values exceed the cleanup levels.}$
- 3. S = shallow well.
- 4. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.
- 5. GW189S is the replacement well for GW168S.

Abbreviations:

 μ g/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

NA = not analyzed

TPH-D = total petroleum hydrocarbons as diesel

TPH-G = total petroleum hydrocarbons as gasoline

TPH-O = total petroleum hydrocarbons as motor oil

Table 25: Apron A Groundwater Elevation Data February 8, 2023

Boeing Renton Facility, Renton, Washington

	Screen Interval		Depth to	Groundwater
	Depth	TOC Elevation	Groundwater	Elevation
Well ID ¹	(feet bgs)	(feet)	(feet below TOC)	(feet)
GW264S	8 to 18	21.55	5.10	16.45

<u>Notes</u>

1. S = shallow well.

Abbreviations

bgs = below ground surface

NA = not available

TOC = top of casing

Table 26: Apron A Primary Geochemical Indicators¹ February 8, 2023
Boeing Renton Facility, Renton, Washington

	Well ID ²
	Source Area
Parameter	GW264S
Temperature (degrees C)	12.7
Specific Conductivity (μS/cm)	1,065
Dissolved Oxygen (mg/L)	9.44
pH (standard units)	6.25
Oxidation/Reduction Potential (mV)	-73.4
Total Organic Carbon (mg/L)	42.96

<u>Notes</u>

- 1. Primary geochemical indicators are measured in the field, with the exception of total organic carbon, which is measured in the laboratory.
- 2. S = shallow well.

Abbreviations

 μ S/cm = microsiemens per centimeter degrees C = degrees Celsius mg/L = milligrams per liter mV = millivolts

Table 27: Apron A Concentrations of Constituents of Concern¹ February 8, 2023

Boeing Renton Facility, Renton, Washington

		Well ID ²
Analyte	Cleanup Levels	GW264S
Volatile Organic Compounds (µg/L)		
cis- 1,2-Dichloroethene	NE	2.00 U
Vinyl Chloride	NE	2.00 U

<u>Notes</u>

- 1. Data qualifiers are as follows:
 - U = The analyte was not detected at the reporting limit indicated.
- 2. S = shallow well.

Abbreviations

 μ g/L = micrograms per liter

NE = not established

APPENDIX A

SUMMARY OF GROUNDWATER SAMPLING METHODOLOGY

TABLE A-1: GROUNDWATER COMPLIANCE MONITORING PLAN

Boeing Renton Facility, Renton, Washington

		Monitoring W				
Cleanup Action				Additional Water Level		
Area	Source Area Wells	Downgradient Plume Wells	CPOC Wells	Monitoring Wells ³	Constituents of Concern ⁴	Analyses ⁵
SWMU-168	NA	NA	GW230I	NA	VC	SW8260D SIM
SWMU-172/SWMU-174	GW152S and GW153S	GW172S, GW173S,	GW232S, GW234S,	NA	cis -1,2-DCE, PCE, TCE, VC	SW8260D SIM ⁸
		and GW226S	GW235I, and GW236S		Arsenic, copper, and lead	EPA 6020A
Building 4-78/79	GW031S, GW033S, GW034S,	NA	GW143S, GW237S, and	NA	VC, TCE, cis -1,2-DCE, benzene	SW8260D
SWMU/AOC Group	and GW244S	, w	GW240D	10.	TPH-gasoline	NWTPH-Gx
Former Fuel Farm SWMU/AOC Group	NA	NA	NA	TPH-jet fuel, TPH-diesel	NWTPH-Dx	
AOC-001/AOC-002 ^{6, 7}		All walls aloned with the store	Benzene	SW8260D		
AOC-001/AOC-002**		All wells closed with the start of	of Aprofi & Construction.		TCE, cis -1,2-DCE, 1,1-dichloroethene, VC	SW8260D SIM ⁸
AOC-003	GW249S	GW188S	GW247S and GW248I NA		VC	SW8260D
AOC-004	GW250S	NA	NA	NA	Lead	EPA 6020A
AOC-060	GW009S	GW012S, GW014S, and GW147S	GW150S and GW253I	GW010S and GW011D	VC, TCE, cis-1,2-DCE	SW8260D SIM ⁸
					1,1,2-Trichloroethane, acetone, benzene, toluene, carbon tetrachloride, chloroform, <i>cis</i> -1,2-DCE, <i>trans</i> - 1,2-DCE, methylene chloride	SW8260D
AOC-090 ⁹	GW189S	GW176S	GW178S, GW207S, and GW208S	NA	1,1-Dichloroethene, 1,1,2,2-tetrachloroethane, VC, PCE, TCE	SW8260D SIM ⁸
					TPH-gasoline	NWPTH-Gx
					TPH-diesel, TPH-motor oil	NWTPH-Dx
Apron A	GW264S	NA	NA	GW263S	cis -1,2-DCE and VC	SW8260D

Notes:

- 1. The EDR presents the groundwater monitoring frequency for each SWMU/AOC. All sites are monitored on a semi-annual basis with sampling events occurring in February and August.
- $2. \ \ Groundwater\ monitoring\ wells\ are\ also\ monitored\ for\ groundwater\ levels.$
- 3. Additional wells are monitored for groundwater levels only.
- 4. In addition to COCs, primary geochemical indicators will be monitored during each regular monitoring event. Geochemical indicators are listed in Table A-2.
- 5. Details of analytical methods are specified in the Quality Assurance Project Plan, which is Appendix E to the Cleanup Action Plan (AMEC, 2012).
- 6. Monitoring wells were abandoned on 11/25/2019 prior to Apron R construction and will be replaced upon completion of construction.
- 7. Groundwater monitoring and sampling will be suspended until completion of construction.
- 8. SIM methods will be used if the cleanup level is lower than the reporting limit achieved by the conventional 8021, 8260, or 8270 method. If cleanup levels become higher or if the conventional 8021, 8260, or 8270 methods are updated and able to achieve reporting limits below the cleanup levels, then the conventional method rather than the SIM method will be used.
- 9. GW189S will be sampled for CVOCs and TPH, all other wells will only be sampled for VC.

Abbreviations:

AOC = area of concern
cis-1,2-DCE = cis-1,2 dichloroethene
COCs = constituents of concern
CPOC = conditional point of compliance
CVOCs = chlorinated volatile organic compounds

EDR = Engineering Design Report EPA = Environmental Protection Agency NA = not applicable PCE = tetrachloroethene SIM = selected ion monitoring SWMU = solid waste management unit TCE = trichloroethene TPH = total petroleum hydrocarbons trans -1,2-DCE = trans -1,2 dichloroethene VC = vinyl chloride

TABLE A-2: MONITORED NATURAL ATTENUATION/MONITORED ATTENUATION PLAN

Boeing Renton Facility, Renton, Washington

		Groundwa	ter Monitoring Wells		Primary Geochemical Parameters ^{1, 2}
Cleanup Action Area	Cross-Gradient Wells	Source Area Wells	Downgradient Plume Wells	CPOC Wells	Indicators
SWMU-168	NA	NA	NA	GW230I	Dissolved oxygen, pH, ORP, temperature, specific conductance
SWMU-172/SWMU-174	NA	GW152S and GW153S GW172S, GW173S, GW232S, GW234S, and GW226S GW235I, and GW236S		GW232S, GW234S, GW235I, and GW236S	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC
Building 4-78/79 SWMU/AOC Group	NA	GW031S, GW033S, GW034S, and GW244S	NA	GW143S, GW237S, and GW240D	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC
Former Fuel Farm SWMU/AOC Group	NA	NA	NA	GW211S, GW221S, and GW224S	Dissolved oxygen, pH, ORP, temperature, specific conductance
AOC-001/AOC-002 ^{3, 4}	NA		All wells closed v	with the start of Apron R construction	n.
AOC-003	NA	GW249S	GW188S	GW247S and GW248I	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC
AOC-004	NA	GW250S	NA	NA	Dissolved oxygen, pH, ORP, temperature, specific conductance
AOC-060	GW012S and GW014S	GW009S	GW147S	GW150S and GW253I	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC
AOC-090	NA	GW189S	GW176S	GW178S, GW207S, and GW208S	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC ⁵
Apron A	NA	GW264S	NA	NA	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC

Notes:

- 1. In addition to COCs listed in Table A-1, primary geochemical indicators will be monitored during each regular monitoring event.
- 2. All primary geochemical indicators except TOC are monitored in the field during sampling. TOC is analyzed in the laboratory following methods specified in the Quality Assurance Project Plan, which is Appendix E to the Cleanup Action Plan (AMEC, 2012). The primary geochemical indicators differ slightly depending on whether the site is a fuel-related site or a solvent-related site. At a fuel-related site, TOC is not necessary; at a solvent-related site, TOC is a measure of how much electron donor remains present. All MNA parameters are measured semiannually in all wells on a wet season/dry season basis.
- 3. Monitoring wells were abandoned on 11/25/2019 prior to Apron R construction and will be replaced upon completion of construction.
- 4. Groundwater monitoring and sampling will be suspended until completion of construction.
- 5. TOC will only be analyzed in the groundwater from the source area well (GW189S).

Abbreviations:

AOC = area of concern

COCs = constituents of concern

CPOC = conditional point of compliance

MNA = monitored natural attenuation

NA = not applicable

ORP = oxidation reduction potential

SWMU = solid waste management unit

TOC = total organic carbon

APPENDIX BFIELD FORMS



Project Name	٥٠	Boeing Ren	ton		Project Numbe	r·	0025217.003.0	99 099	
Event:		Feb. 2023			Date/Time:	2/ 6/2023@	1503		
Sample Num				Weather:	indoor, overcast,				
Landau Repr	•	KVP / AT				, , , , , , , , , , , , , , , , , , , ,			
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio	n:	Secure (YES)	Damaged (N	IO)	Describe:	flush		
DTW Before l	Purging (ft)	5.68	Time:	1432	Flow through ce	ll vol.		GW Meter No.(s	WLM 9
Begin Purge:	Date/Time:	2/ 6 /2023 0	1434	End Purge:	Date/Time:	2/ 6 /2023 @	1457	Gallons Purged:	<1
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATME	ENT SYSTEM
Time						Turbidity (NTU) dings within the fo		Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
1.427	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1437	20.4	348.0	0.46	6.38	-3.20		5.61		
1440	20.5	326.8	0.42	6.38	-5.00		5.59		
1443	20.5	311.4	0.38	6.37	-6.00		5.60		
1446	20.6	303.5	0.32	6.37	-6.60				
1449	20.6	298.6	0.31	6.37	-6.80				
1452	20.6	294.3	0.30	6.37	-7.20				
1455	20.7	291.5	0.28	6.37	-6.50				
AMPLE CO	LLECTION I	DATA							
ample Collec			Bailer		Pump/Pump Type	e dedicated bladder			
lade of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🗖	Tap Rinse	DI Water	Dedicated	_	_	
By Numerica		Other		1					
ample Descr	iption (color,	turbidity, odor	, sheen, etc.):	clear, colorle	ess, no odor, no sl	neen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	(°F/°C)	(uS/cm)	(mg/L)	pii	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	20.7	291.3	0.27	6.37	-6.50				
2	20.6	290.8	0.27	6.37	-6.40				
3	20.7	290.8	0.27	6.37	-6.30				
4	20.7	290.1	0.27	6.37	-6.20				
Average:	20.7	290.1	0.27	6.37	-6.35				
		NALYSIS AI 0) (8020) (N			-	pplicable or write	non-standard a		OR 🗆
						(8141) (Oil & C	Trease)		OR \square
) (HCO3/CO3) (<u> </u>
1	*	• • • • • • • • • • • • • • • • • • • •			n) (NH3) (NO3		, (, (, (· · · - / (- /	
	(Total Cyanid	le) (WAD Cy	anide) (Free	Cyanide)					
	(Total Metals) (As) (Sb) (Ba) (Be) (C	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) $(Frac{1}{2})$	Ig) (K) (Na)
	(Dissolved M	tetals) (As) (St	b) (Ba) (Be) (Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (I	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K) ((Na) (Hardness) (
	VOC (Boein	,							
	Methane Eth	nane Ethene A	cetylene						
	others								
Ouplicate San	-								
Comments:	Mark Lorang	ger Desk. As y	ou walk into	office space,	take first right into	cubicle isle and it	is the last desk of	on the right under	a square carpet cut

Adam Torocsik



Project Nam	ne:	Boeing Ren	ton		Project Number	er:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 6/2023@			
Sample Nun	nber:	RGW010S-	230206		Weather:	indoor, overcast,	40s		
Landau Rep	resentative:	KVP / AT		-					
WATER LEV	VEL/WELL/PU	IRGE DATA							
Well Condition		Secure (YES)	Damaged (N	(O)	Describe:	flush		
DTW Before		5.97	Time:		Flow through ce			GW Meter No.(s	WLM 9
	Date/Time:		Time.	End Purge:	_	2/ /2023 @		Gallons Purged:	WENT >
Purge water of			55-gal Drum	Ě	Storage Tank	Ground	Other	SITE TREATMI	ENT SYSTEM
Turge water t	•	_			· ·	_		-	
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time		. ,		ters for three	. ,	dings within the fo		>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
	_								
	\mathbf{W}_{A}	ATER	LEV	EL O	NLY				
	-								
									
SAMPLE CO	DLLECTION E								
Sample Colle	ected With:		Bailer		Pump/Pump Typ	e			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	dure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other							
Sample Desc	ription (color,	turbidity, odor	, sheen, etc.)						
	TE.	- C 1	D.O.		OPP	m 1.11	DOM		
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	(, -,	(,			(' /	(/			
2							-		
3									
4									
Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LOWED P	ER BOTTLE	TYPE (Circle a	applicable or write	non-standard :	analysis below)	
· ·		0) (8020) (N				PP		wa 🗆	OR 🗆
	1) (8141) (Oil & C	Grease)	WA □	OR 🗆
	(pH) (Condu	activity) (TDS	S) (TSS) (I	3OD) (Turbi	dity) (Alkalinity	(HCO3/CO3)	Cl) (SO4) (N	O3) (NO2) (F)	
	(COD) (TO	C) (Total PO-	4) (Total Ki	edahl Nitroge	n) (NH3) (NO	3/NO2)			
	(Total Cyanid	le) (WAD Cy	anide) (Free	Cyanide)					
	`					(Pb) (Mg) (Mn)	· , · • • ,	. , , , , , ,	C, , , , ,
	`	, , , ,	o) (Ba) (Be) (Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein		1						
	Methane Eth	nane Ethene A	cetylene						
	1								
	others								
	outers								
Duplicate Sar	mple No(s):								
Comments:									
							2/6/2023		



Project Nam	ne:	Boeing Ren	ton		Project Number	er:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 6/2023@			
Sample Nun	nber:	RGW011D-	230206		Weather:	indoor, overcast,	40s		
Landau Rep	resentative:	KVP / AT							
WATER LEV	VEL/WELL/PU	IRGE DATA							
Well Condition		Secure (YES)	Damaged (N	(O)	Describe:			
DTW Before		5.76	Time:		Flow through ce			GW Meter No.(s	3)
	Date/Time:		Time.	End Purge:	_	2/ /2023 @		Gallons Purged:	·)
Purge water of			55-gal Drum	Ě	Storage Tank	Ground		SITE TREATMI	ENT SYSTEM
rurge water (•	_			· ·	_	<u> </u>		
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time		. ,		ters for three	. ,	dings within the fo		>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
	_								
	\mathbf{W}_{A}	ATER	LEV	EL O	NLY				
	-								
									
SAMPLE CO	DLLECTION I	DATA							
Sample Colle	ected With:		Bailer		Pump/Pump Typ	e			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	dure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other			=				
Sample Desc	ription (color,	turbidity, odor	, sheen, etc.):	:					
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/ Observations
	(F / C)	(us/cm)	(mg/L)		(mV)	(NTU)	(ft)	(Fe II)	Observations
1									
2									
3						·			
4									
Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
ON A NUMBER	TENTO LE L	NIA T TZOTO A T	I OWED D	ED DOTTEL E	TOTAL COLUMN				
QUANTITY		0) (8020) (N				pplicable or write	non-standard	WA	OR 🗆
) (8141) (Oil & C	rease)	WA 🗆	OR 🗆
	, , ,					(HCO3/CO3)			OK =
		• • • • • • • • • • • • • • • • • • • •			n) (NH3) (NO				
		le) (WAD Cy				,			
) (As) (Sb) (Ba) (Be) (C	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (I	Hg) (K) (Na)
	(Total Metals) (As) (SU) (a.) (a.) (a.)	(Cr) (Cu) (Fe) (I	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	,) (Ba) (Be) (Ca) (Ca) (Co,	() () () (
	,	etals) (As) (St	b) (Ba) (Be) (Ca) (Ca) (Co,					
	(Dissolved M VOC (Boein	etals) (As) (St		Ca) (Cd) (Co ₎					
	(Dissolved M VOC (Boein	etals) (As) (Stag short list)		Ca) (Cd) (Co,					
	(Dissolved M VOC (Boein Methane Eth	etals) (As) (Stag short list)		Ca) (Cd) (Co,					
	(Dissolved M VOC (Boein	etals) (As) (Stag short list)		Ca) (Cd) (Co,					
Duplicate Sai	(Dissolved M VOC (Boein Methane Eth	etals) (As) (Stag short list)		Ca) (Cd) (Co,					
Duplicate Sar Comments:	(Dissolved M VOC (Boein Methane Eth	etals) (As) (Stag short list)		(Ca) (Cd) (Co.					



Project Nam	ne:	Boeing Rent	ton		Project Number	:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 6/2023@	1349		
Sample Nun	nber:	RGW012S-	230206		Weather:	indoor, overcast,			
Landau Rep	_	KVP / AT			_	, , , , , , , , , , , , , , , , , , , ,			
WATEDIEV	/EL/WELL/PU	DCE DATA							
Well Condition		Secure (YES))	Damaged (N	O)	Describe:	flush		
DTW Before		5.34	Time:		Flow through cel			GW Meter No.(s	WLM 9
	Date/Time:		-	End Purge:	_	2/ 6 /2023 @	1343	Gallons Purged:	
Purge water of			55-gal Drum	Ě	Storage Tank	Ground		SITE TREATM	
range water (-	_	•		-	_	_		
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	. ,	. ,		ers for three		dings within the fo		>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1322	20.5	2799	0.26	4.68	62.9		5.62		
1325	20.6	2275	0.28	4.90	53.6		5.61		
1328	20.8	1797	0.29	5.25	19.0		5.62		
1331	20.9	1543	0.30	5.80	-23.5				
1334	20.9	1411	0.30	6.02	-51.9				
1337	21.0	1316	0.28	6.19	-71.6				
1340		1274	0.28	6.27	-76.2				
1540	21.0	1274	0.20	0.27	-70.2				
SAMPLE CO	DLLECTION D	ATA							
Sample Colle			Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
					DI Water				
Replicate	Temp	Cond.	D.O.	pH	ORP	icles, no odor, no sl	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	(Fe II)	Observations
1	21.0	1269	0.28	6.28	-76.2				
2	21.0	1265	0.28	6.28	-76.3				
3	21.0	1262	0.28	6.29	-78.6				
4	21.0	1259	0.28	6.29	-79.2				
Average:	21.0	1264	0.28	6.29	-77.6				
QUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	R BOTTLE	TYPE (Circle a	pplicable or write	non-standard	analysis below)	
3) (8020) (N						wa □	OR 🗆
	(8270D) (PA	H) (NWTPH	I-D) (NWTP	PH-Dx) (TP	H-HCID) (8081)	(8141) (Oil & G	rease)	wa 🗆	OR 🗆
						(HCO3/CO3) (O3) (NO2) (F)	
1	(COD) (TOO	C) (Total PO	4) (Total Kie	dahl Nitroge	n) (NH3) (NO3	/NO2)			
		e) (WAD Cy		•					
						(Pb) (Mg) (Mn)			
		etals) (As) (Sh) (Ba) (Be) (C	(Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (P	b) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (
	VOC (Boein	g short list)	octulone						
	VOC (Boein		cetylene						
	VOC (Boein	g short list)	eetylene						
	VOC (Boein Methane Eth	g short list)	cetylene						
	VOC (Boein Methane Eth others	g short list)	etylene						
-	VOC (Boein Methane Eth others mple No(s):	g short list) ane Ethene Ac							
Duplicate Sar Comments:	VOC (Boein Methane Eth others mple No(s):	g short list) ane Ethene Ac					2/6/2023		



Project Nam	e:	Boeing Renton			Project Numbe	r:	0025217.003.0	0025217.003.099.099		
Event:		Feb. 2023			Date/Time:	2/ 6 /2023@	1259			
Sample Num	nber:	RGW014S-	230206		Weather:	indoor, overcast,	40s			
Landau Repr	resentative:	KVP / AT								
WATER LEV	'EL/WELL/PU	JRGE DATA								
Well Condition	on:	Secure (YES	5)	Damaged (N	(O)	Describe:	flush			
DTW Before	Purging (ft)	5.42	Time:	1226	Flow through ce	ll vol.		GW Meter No.(s WLM 9	
Begin Purge:	Date/Time:	2/ 6/2023	1233	End Purge:	Date/Time:	2/ 6/2023@	1247	Gallons Purged:	<1	
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM	
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/	
Time	(°F/°C)	(uS/cm)	(mg/L)	pII	(mV)	(NTU)	(ft)	Volume (gal)	Observations	
						dings within the fo	0	>/= 1 flow		
	+/- 3%	+/- 3%		+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell		
1236	18.0	457.6	0.98	6.28	12.9		5.45			
1239	17.7	468.7	1.13	6.30	15.9		5.45			
1242	17.6	467.8	1.21	6.30	18.4		5.42			
1245	17.3	467.8	1.19	6.30	20.9					
SAMPLE CO	I I ECTION I									
Sample Colle			Bailer		Pumn/Pumn Tyne	dedicated bladder				
Made of:	-	Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated		
Decon Proced	lure:	Alconox Wa		Tap Rinse	DI Water	Dedicated				
(By Numerica		Other		Tup Tunio		Bearearea				
, ,	,		r. sheen. etc.):	clear, colorle	ess, slight sulfuric	odor, no sheen				
F	1 ,		, , , <u>.</u>	, , , , , , , , , , , , ,	,	,				
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations	
1	17.3	467.8	1.20	6.30	21.2					
2	17.3	467.8	1.20	6.30	21.2					
3	17.3	467.9	1.21	6.30	21.2					
4	17.3	468.1	1.22	6.30	21.3					
Average:	17.3	467.9	1.21	6.30	21.2					
						pplicable or write	non-standard			
3		0) (8020) (1				(0141) (01.0.6		WA 🗆	OR 🗆	
						(8141) (Oil & C) (HCO3/CO3) (WA []	OR ∐	
1		•			n) (NH3) (NO3		CI) (504) (14	03) (1102) (1)		
		le) (WAD C			, (, -, (,	· · · · · /				
				•	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)	
	(Dissolved M	etals) (As) (S	b) (Ba) (Be) (Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (F	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil	
	VOC (Boein	ng short list)								
	Methane Eth	nane Ethene A	cetylene							
	others									
Duplicate San	nple No(s):	Duplicate lo	cation (DUP4)							
•	-			•						
Comments:										



Project Nam	ne:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 6/2023@	1313		
Sample Nun	nber:	RGWDUP4	230206		Weather:	indoor, overcast	, 40s		
Landau Rep	resentative:	KVP / AT			-				
WATEDIE	VEL/WELL/PI	IIDCE DATA							
WATER LEV		Secure (YES)	Damaged (N	(O)	Describe:			
DTW Before		Secure (TES	Time:	Damaged (1	,			GW Meter No.(s)
	0 0 . ,	2/ /2023 @		End Purge:	Flow through ce	2/ /2023 @		Gallons Purged:	8)
Purge water of		2/ /2023 @	55-gal Drum	Ě	Storage Tank	Ground	Othor	SITE TREATM	ENIT CVCTEM
ruige water t	uisposeu to.		55-gai Diulii		Storage Talik	Щ Ground	Other	SHE IKEAIM	ENISISIEM
TD*	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goal	(uS/cm) ls: Stablization	(mg/L) n of Paramet	ters for three	(mV) consecutive rea	(NTU) dings within the f	(ft) following limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
	-	•							
		DUI	PLICA	ATE 1	O RGV	V014S			
	-					10115	-		
	_								
								· 	
SAMPLE CO	DLLECTION I						·		
Sample Colle			Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	dure:	Alconox Wa		Tap Rinse	DI Water	Dedicated			
(By Numerica		Other	sii 📋	rap Kilise	□ Di Water	Dedicated			
(Dy Ivamerica	ui Oruer)	II II Ouici							
Sample Dose	rintion (color	—	choon ata):	alaar aalark	os slight sulfurio	odor no shoon			
Sample Desc	eription (color,	—	, sheen, etc.):	clear, colorle	ess, slight sulfuric	odor, no sheen	•		
Sample Desc Replicate	ription (color,	—	D.O.	clear, colorle	ess, slight sulfuric	odor, no sheen Turbidity	DTW	Ferrous iron	Comments/
		turbidity, odor	·		-		DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
	Temp	turbidity, odor	D.O.		ORP	Turbidity			
Replicate	Temp (°F/°C)	turbidity, odor Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity			
Replicate 1 2	Temp (°F/°C) 17.3	Cond. (uS/cm) 467.8	D.O. (mg/L) 1.20	pH 6.30 6.30	ORP (mV) 21.2 21.2	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 17.3 17.3	Cond. (uS/cm) 467.8 468.0	D.O. (mg/L) 1.20 1.21	pH 6.30 6.30 6.30	ORP (mV) 21.2 21.2	Turbidity			
Replicate 1 2 3 4	Temp (°F/°C) 17.3 17.3 17.3	Cond. (uS/cm) 467.8 468.0 468.1	D.O. (mg/L) 1.20 1.21 1.21	pH 6.30 6.30 6.30 6.30	ORP (mV) 21.2 21.2 21.2 21.3	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 17.3 17.3	Cond. (uS/cm) 467.8 468.0	D.O. (mg/L) 1.20 1.21	pH 6.30 6.30 6.30	ORP (mV) 21.2 21.2	Turbidity			
Replicate 1 2 3 4 Average:	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3	Cond. (uS/cm) 467.8 467.8 468.1 467.9	D.O. (mg/L) 1.20 1.21 1.22 1.22	6.30 6.30 6.30 6.30 6.30	ORP (mV) 21.2 21.2 21.2 21.3 21.2	Turbidity	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3	Cond. (uS/cm) 467.8 467.8 468.1 467.9	D.O. (mg/L) 1.20 1.21 1.22 1.22 1.21	6.30 6.30 6.30 6.30 6.30 6.30	ORP (mV) 21.2 21.2 21.2 21.3 21.2 21.3	Turbidity (NTU)	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 (8260) (801) (8270D) (P.	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (NAH) (NWTPI	D.O. (mg/L) 1.20 1.21 1.21 1.22 1.21 LLOWED PI NWTPH-G) (NWTI	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081)	Turbidity (NTU) pplicable or write	(ft)	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 (8260) (801) (8270D) (PAC) (pH) (Conders)	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPH uctivity) (TD:	D.O. (mg/L) 1.20 1.21 1.21 1.22 1.21 LLOWED PINWTPH-G) (NWTPH-G) (NWTP	6.30 6.30 6.30 6.30 6.30 6.30 FER BOTTLE (NWTPH-GX PH-Dx) (TP	ORP (mV) 21.2 21.2 21.2 21.3 21.2 21.3 (Circle a a) (BTEX) H-HCID) (8081) dity) (Alkalinity	Turbidity (NTU) pplicable or write (8141) (Oil & C	(ft)	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (P. (pH) (Conduction) (COD) (TO	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI (0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO	D.O. (mg/L) 1.20 1.21 1.22 1.21 1.22 1.21 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kie	6.30 6.30 6.30 6.30 6.30 6.30 6.30 FER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitroge	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081)	Turbidity (NTU) pplicable or write (8141) (Oil & C	(ft)	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (Pd. (COD) (TO) (TO) (TO) (TO) (TO) (TO) (TO) (TO	Cond. (uS/cm) 467.8 467.8 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO-	D.O. (mg/L) 1.20 1.21 1.22 1.21 1.22 1.21 LLOWED PI (NWTPH-G) (NWTPH-	6.30 6.30 6.30 6.30 6.30 6.30 FER BOTTLE (NWTPH-Gx PH-Dx) (TPBOD) (Turbicedahl Nitroge	ORP (mV) 21.2 21.2 21.3 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (8/NO2)	non-standard	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (Particle) (Particle) (COD) (TO) (Total Metals)	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO de) (WAD Cy s) (As) (Sb) (D.O. (mg/L) 1.20 1.21 1.21 1.22 1.21 LLOWED PI (NWTPH-G) (NW	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitrogeneral Section 1988) EXAMPLE 1989 EXAMPLE 2089 EXA	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (n) (NH3) (NO2) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & O (HCO3/CO3) (B/NO2) (Pb) (Mg) (Mn)	r non-standard Grease) (Cl) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (P. (pH) (Condo) (COD) (TO (Total Cyanic) (Total Metals) (Dissolved M	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO- de) (WAD Cy s) (As) (Sb) (I letals) (As) (St)	D.O. (mg/L) 1.20 1.21 1.21 1.22 1.21 LLOWED PI (NWTPH-G) (NW	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitrogeneral Section 1988) EXAMPLE 1989 EXAMPLE 2089 EXA	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (n) (NH3) (NO2) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & O (HCO3/CO3) (B/NO2) (Pb) (Mg) (Mn)	r non-standard Grease) (Cl) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (Pz (pH) (Cond) (COD) (TO (Total Cyanic (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO de) (WAD Cy s) (As) (Sb) (Metals) (As) (Sb) ug short list)	D.O. (mg/L) 1.20 1.21 1.22 1.21 1.22 1.21 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kio ranide) (Free Ba) (Be) (C c) (Ba) (Be) (C	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitrogeneral Section 1988) EXAMPLE 1989 EXAMPLE 2089 EXA	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (n) (NH3) (NO2) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & O (HCO3/CO3) (B/NO2) (Pb) (Mg) (Mn)	r non-standard Grease) (Cl) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (Pz (pH) (Cond) (COD) (TO (Total Cyanic (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO- de) (WAD Cy s) (As) (Sb) (I letals) (As) (St)	D.O. (mg/L) 1.20 1.21 1.22 1.21 1.22 1.21 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kio ranide) (Free Ba) (Be) (C c) (Ba) (Be) (C	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitrogeneral Section 1988) EXAMPLE 1989 EXAMPLE 2089 EXA	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (n) (NH3) (NO2) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & O (HCO3/CO3) (B/NO2) (Pb) (Mg) (Mn)	r non-standard Grease) (Cl) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (Pz (pH) (Cond) (COD) (TO (Total Cyanic (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO de) (WAD Cy s) (As) (Sb) (Metals) (As) (Sb) ug short list)	D.O. (mg/L) 1.20 1.21 1.22 1.21 1.22 1.21 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kio ranide) (Free Ba) (Be) (C c) (Ba) (Be) (C	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitrogeneral Section 1988) EXAMPLE 1989 EXAMPLE 2089 EXA	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (n) (NH3) (NO2) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & O (HCO3/CO3) (B/NO2) (Pb) (Mg) (Mn)	r non-standard Grease) (Cl) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (Particle (COD) (TO) (Total Cyanical (COD) (Total Metals) (Dissolved Methane Ether)	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO de) (WAD Cy s) (As) (Sb) (Metals) (As) (Sb) ug short list)	D.O. (mg/L) 1.20 1.21 1.22 1.21 1.22 1.21 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kio ranide) (Free Ba) (Be) (C c) (Ba) (Be) (C	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitrogeneral Section 1988) EXAMPLE 1989 EXAMPLE 2089 EXA	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (n) (NH3) (NO2) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & O (HCO3/CO3) (B/NO2) (Pb) (Mg) (Mn)	r non-standard Grease) (Cl) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (Pz (pH) (Cond) (COD) (TO (Total Cyanic (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO de) (WAD Cy s) (As) (Sb) (Metals) (As) (Sb) ug short list)	D.O. (mg/L) 1.20 1.21 1.22 1.21 1.22 1.21 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kio ranide) (Free Ba) (Be) (C c) (Ba) (Be) (C	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitrogeneral Section 1988) EXAMPLE 1989 EXAMPLE 2089 EXA	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (n) (NH3) (NO2) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & O (HCO3/CO3) (B/NO2) (Pb) (Mg) (Mn)	r non-standard Grease) (Cl) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (Particle (COD) (Total Cyanica (Total Metals (Dissolved Methane Ether) others	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO de) (WAD Cy s) (As) (Sb) (Metals) (As) (Sb) ug short list)	D.O. (mg/L) 1.20 1.21 1.22 1.21 1.22 1.21 LLOWED PI (NWTPH-G) (NWTPH-	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitrogeneral Section 1988) EXAMPLE 1989 EXAMPLE 2089 EXA	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (n) (NH3) (NO2) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & O (HCO3/CO3) (B/NO2) (Pb) (Mg) (Mn)	r non-standard Grease) (Cl) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 17.3 17.3 17.3 17.3 17.3 17.3 (8260) (801 (8270D) (Particle (COD) (Total Cyanica (Total Metals (Dissolved Methane Ether) others	Cond. (uS/cm) 467.8 467.8 468.0 468.1 467.9 ANALYSIS AI 0) (8020) (N AH) (NWTPI uctivity) (TD: C) (Total PO- de) (WAD Cy s) (As) (Sb) (I letals) (As) (Sb) fing short list) hane Ethene Ac	D.O. (mg/L) 1.20 1.21 1.22 1.21 1.22 1.21 LLOWED PI (NWTPH-G) (NWTPH-	6.30 6.30 6.30 6.30 6.30 6.30 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitrogeneral Section 1988) EXAMPLE 1989 EXAMPLE 2089 EXA	ORP (mV) 21.2 21.2 21.2 21.3 21.2 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (n) (NH3) (NO2) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & O (HCO3/CO3) (B/NO2) (Pb) (Mg) (Mn)	r non-standard Grease) (Cl) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)



Project Nam	e:	Boeing Renton			Project Number: 0025217.0			.003.099.099		
Event:		Feb. 2023			Date/Time:	2/ 7 /2023@	1239			
Sample Nun	nber:	RGW031S-	230207		Weather:	rain, 40s				
Landau Repr	resentative:	KVP / AT								
WATER LEV	EL/WELL/PU	JRGE DATA								
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	flush			
DTW Before	Purging (ft)	5.69	Time:	1212	Flow through ce	ll vol.		GW Meter No.(s WLM 9	
Begin Purge:	Date/Time:	2/ 7 /2023	1213	End Purge:	Date/Time:	2/ 7 /2023 @	1236	Gallons Purged:	<2	
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM	
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/	
Time	(°F/°C)	(uS/cm)	(mg/L)	pm	(mV)	(NTU)	(ft)	Volume (gal)	Observations	
				ters for three +/- 0.1 units		dings within the f		>/= 1 flow		
	+/- 3%	+/- 3%			+/- 10 mV	+/- 10%	< 0.3 ft	through cell		
1216	12.9	300.3	0.10	6.33	1.50	_	5.69			
1219	12.6	297.7	0.15	6.32	-15.4		5.69			
1222	12.3	294.9	0.43	6.34	-26.3		5.67			
1225	12.1	292.7	1.35	6.35	-35.3					
1228	12.1	292.7	1.75	6.35	-40.4					
1231	11.9	291.1	2.32	6.35	-43.6					
1234	11.8	290.6	2.82	6.35	-47.6					
SAMPLE CO	LLECTION I	DATA								
Sample Colle			Bailer		Pump/Pump Type	e dedicasted perista	ltic			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated		
Decon Proced	lure:	Alconox Wa	sh 🗖	Tap Rinse	DI Water	Dedicated	_	_		
(By Numerica	ıl Order)	Other		1		_				
Sample Descr	ription (color,	turbidity, odo	, sheen, etc.):	colorless, me	edium turbidity, n	o odor, no sheen				
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations	
1	11.8	290.5	2.86	6.37	-47.9					
2	11.8	290.3	2.89	6.37	-48.2					
3	11.8	290.1	2.92	6.36	-48.4					
4	11.8	289.9	2.95	6.36	-48.7					
Average:	11.8	290.2	2.91	6.37	-48.3		-			
						pplicable or write	non-standard		op []	
3		(8010) (8020				(0141) (01.8.6	7	WA L	OR 🗆	
						(8141) (Oil & O) (HCO3/CO3) (WA []	OR L	
1		•			Vitrogen) (NH3)		CI) (3O4) (IV	03) (1102) (1)		
		le) (WAD Cy				(
1					(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)	
	(Dissolved M	letals) (As) (Sl	o) (Ba) (Be) (Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (I	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil	
	VOC (Boein	ng short list)								
	Methane Eth	nane Ethene A	cetylene							
	a									
	others									
Duplicate Sar	nple No(s):									
Comments:										
Signature:	Adam Toroc	esik				Date:	2/7/2023			



Project Nam	ie.	Boeing Ren	ton		Project Numbe	r·	0025217.003.0	99 099	
Event:	<u> </u>	Feb. 2023	iton		Date/Time:	2/ 7 /2023@	1053	,,,	
Sample Nun	nher:	RGW033S-	230207	-	Weather:	rain, 40s	1033		
Landau Rep		KVP / AT	230201		Weather.	1411, 403			
1									
WATER LEV	/EL/WELL/PU	Secure (YES)	Damaged (N	(O)	Describe:	fluch		
		`					HUSH	CW Meter No. (мимо
DTW Before	Date/Time:	5.74	Time:	End Purge:	Flow through ce	2/ 7 /2023 @	1050	GW Meter No.(s	
		2/ / /2023		Ĕ		Ground		Gallons Purged:	
Purge water of	iisposeu to.		55-gal Drum	-	Storage Tank	El Gionna	Other	SITE TREATM	ENISISIEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O.	pН	ORP (mV)	Turbidity	DTW	Internal Purge	Comments/ Observations
Time			(mg/L) n of Paramet	ers for three	. ,	(NTU) dings within the fo	(ft) ollowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1030	11.0	249.9	0.33	6.53	-13.1		5.73		
1033	10.7	250.1	0.30	6.52	-31.4		5.72		
1036	10.5	249.5	0.32	6.52	-40.5		5.72		
1039	10.4	248.4	0.36	6.53	-47.4	-			
1042	·	251.9	0.60	6.52	-50.5				
	()							-	
1045		255.7	0.72	6.53	-55.5				
1048	9.60	258.5	1.17	6.54	-59.7				
	· 							·	
Sample Colle	OLLECTION I	DATA 🗔	Bailer		Dump/Dump Tune	dedicated bladder			
Made of:	cieu wiiii.	Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated	-
				Tap Rinse			- Ounce	Bedieuted	
Decon Proced		Alconox Wa	sn 📋	rap Kinse	DI Water	Dedicated			
(By Numerica		Other	14-)-	-111-					
Sample Desci	ripuon (color,	turbiuity, ouoi	, sneen, etc.) <u>.</u>	ciear, colorie	ess, no odor, no sł	icen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	(Fe II)	Observations
1	9.60	258.7	1.21	6.54	-60.0				
2	9.60	258.9	1.29	6.54	-60.5				
3	9.60	259.0	1.35	6.54	-61.0				
4	9.50	259.1	1.43	6.54	-61.6				
Average:	9.58	258.9	1.32	6.54	-60.8				
	TYPICAL			ED DOWNE E					
QUANTITY 5			NWTPH-G) (pplicable or write	non-standard	WA	OR 🗆
	, ,			`		(8141) (Oil & Gr	2252)	WA 🗆	OR \square
						(6141) (611 & 614) (HCO3/CO3) (OK I
1	· , ,				n) (NH3) (NO3			, (, (,	
			vanide) (Free						
	(Total Metals) (As) (Sb) ((Ba) (Be) (Ca	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
	(Dissolved M	etals) (As) (Sl	b) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Fe)	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein	<u> </u>							
	Methane Eth	ane Ethene A	cetylene						
	others								
	Juicis								
Duplicate Sar	mple No(s):								
Comments:									
Signature:	Adam Toroc	cik				Date:	2/7/2023		



Project Nam	ne:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 7/2023@	1119		
Sample Nun	nber:	RGWDUP2	230207		Weather:	rain, 40s			
Landau Rep	•	KVP / AT			•				
WATEDIE	/EL/WELL/PI	IDCE DATA							
Well Condition		Secure (YES)	Damaged (N	IO)	Describe:			
		Secure (TES		Damaged (1				CW Motor No. (2)
DTW Before	0 0 . ,	2/ /2022 @	Time:	F. 1D	Flow through ce	2/ /2023 @		GW Meter No.(s)
		2/ /2023 @		End Purge:				Gallons Purged:	ENTE CAZOTENA
Purge water of	nsposed to:	₩	55-gal Drum		Storage Tank	Ground	U Otner	SITE TREATM	ENI SYSIEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L) n of Paramet	ers for three	(mV)	(NTU) dings within the fo	(ft)	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
		DH	or ic /	TFI	O RGV	V0335			
					<u>O KO I</u>	10333			
									-
							-		
	LLECTION I	DATA	Dailan		D /D T				
Sample Colle	ctea with:	C4=:=1=== C4==	Bailer	PVC		dedicated bladder	D Other	Dadinstad	
Made of:	. =	Stainless Stee			Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 📋	Tap Rinse	DI Water	Dedicated			
(By Numerica		Other							
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.):	clear, colorle	ess, no odor, no sl	ieen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
rtopneate	(°F/°C)	(uS/cm)	(mg/L)	P	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	9.60	258.8	1.25	6.54	-60.3				
2	9.60	258.9	1.31	6.54	-60.8		-		
							-		
3	9.60	259.1	1.40	6.54	-61.3				
4	9.50	259.1	1.47	6.54	-61.0				
Average:	9.58	259.0	1.36	6.54	-60.9				
QUANTITY	TYPICAL A	NALYSIS AI	LLOWED PI	ER BOTTLE	TYPE (Circle a	pplicable or write	non-standard	analysis below)	
5		0) (8020) (N				••		wa □	OR 🗆
	(8270) (PAI	H) (NWTPH-	D) (NWTPI	H-Dx) (TPH	-HCID) (8081)	(8141) (Oil & Gr	ease)	WA □	OR 🗆
	(pH) (Condi	uctivity) (TD	S) (TSS) (E	BOD) (Turbi	dity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (N	O3) (NO2) (F)	
1	(COD) (TO	C) (Total PO	4) (Total Kie	edahl Nitroge	n) (NH3) (NO3	3/NO2)	·	· · · · · · · · · · · · · · · · · · ·	
	` .	le) (WAD Cy	, ,						_
	(Total Metals	(As) (Sb) (Ba) (Be) (C	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
	(Dissolved M	letals) (As) (St) (Ba) (Be) (Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (I	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein								
	Methane Eth	nane Ethene A	cetylene						
	others								
Duplicate Sar	mple No(s):	Duplicate to	RGW033S						
•									
Comments:									



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	_
Event:		Feb. 2023			Date/Time:	2/ 8/2023@	937		
Sample Num	ıber:	RGW034S-	230208		Weather:	overcast, 40s			
Landau Repr	resentative:	KVP / AT							
WATER LEV	'EL/WELL/PU	JRGE DATA							
Well Condition	n:	Secure (YES)	Damaged (N	O)	Describe:	flush		
DTW Before	Purging (ft)	5.67	Time:	905	Flow through ce	ll vol.		GW Meter No.(s WLM 9
Begin Purge:	Date/Time:	2/ 8/2023	909	End Purge:	Date/Time:	2/ 8/2023@	932	Gallons Purged:	<1
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goal +/- 3%	s: Stablization +/- 3%		ers for three +/- 0.1 units	consecutive rea +/- 10 mV	dings within the for +/- 10%	ollowing limits < 0.3 ft	>/= 1 flow through cell	
912	13.4	396.1	0.69	6.20	4.20	.,,,	5.71		
915	13.6	390.2	0.54	6.24	-5.10		5.69		
918	13.6	385.9	0.44	6.26	-12.8		5.69		
921	13.6	382.2	0.48	6.26	-13.8				
924	13.8	380.0	0.57	6.26	-15.8				
927	13.8	378.2	0.48	6.26	-17.0				
930	13.5	376.5	0.46	6.27	-17.8				
SAMPLE CO	LLECTION D	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	ıl Order)	Other							
Sample Descr	ription (color,	turbidity, odoi	, sheen, etc.):	clear, colorle	ss, no odor, no sh	neen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)	•	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	13.4					(1,10)	()	(1 0 11)	
	13.4	375.4	0.48	6.26	-17.8	(2120)			
2	13.4	375.4	0.48	6.26	-17.8 -17.8				
2									
	13.4	374.8	0.48	6.27	-17.8				
3	13.4	374.8	0.48	6.27	-17.8 -17.6				
3 4 Average:	13.4 13.3 13.2 13.3	374.8 374.1 373.4 374.4	0.48 0.48 0.48	6.27 6.26 6.26 6.26	-17.8 -17.6 -17.7 -17.7	pplicable or write			
3 4 Average:	13.4 13.3 13.2 13.3 TYPICAL A	374.8 374.1 373.4 374.4	0.48 0.48 0.48 0.48	6.27 6.26 6.26 6.26 ER BOTTLE	-17.8 -17.6 -17.7 -17.7 TYPE (Circle a				OR 🗆
3 4 Average:	13.4 13.3 13.2 13.3 TYPICAL A (8260) (8010	374.8 374.1 373.4 374.4 NALYSIS AI 0) (8020) (1	0.48 0.48 0.48 0.48	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-Gx	-17.8 -17.6 -17.7 -17.7 TYPE (Circle a) (BTEX)		non-standard	analysis below)	
3 4 Average:	13.4 13.3 13.2 13.3 TYPICAL A (8260) (801) (8270) (PAR	374.8 374.1 373.4 374.4 374.4 374.9 (8020) (1900) (0.48 0.48 0.48 0.48 0.48 LLOWED PI	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX	-17.8 -17.6 -17.7 -17.7 TYPE (Circle a) (BTEX) HCID) (8081)	pplicable or write	non-standard :	analysis below) WA WA WA	OR 🗆
3 4 Average:	13.4 13.3 13.2 13.3 TYPICAL A (8260) (8010 (8270) (PAF (pH) (Condu	374.8 374.1 373.4 374.4 374.4 NALYSIS AI 0) (8020) (1 H) (NWTPH- activity) (TD	0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (D) (NWTPH-SS) (TSS) (E 4) (Total Kie	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-Gx H-Dx) (TPH- BOD) (Turbi edahl Nitroge	-17.8 -17.6 -17.7 -17.7 TYPE (Circle a) (BTEX) HCID) (8081)	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (non-standard :	analysis below) WA WA WA	OR 🗆
3 4 Average: QUANTITY 5	13.4 13.3 13.2 13.3 TYPICAL A (8260) (801e (8270) (PAF (pH) (Condu (COD) (TOO (Total Cyanic	374.8 374.1 373.4 374.4 374.4 374.4 374.9 374.4 374.4 374.4 374.4 374.4 374.4 374.4 374.4 374.4 374.8 374.8 374.1 374.8 374.1 374.8 374.8 374.1 374.8	0.48 0.48 0.48 0.48 LLOWED PI WYTPH-G) (D) (NWTPH-S) (TSS) (ES) (TSS) (E4) (Total Kieranide) (Free	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-Gx H-Dx) (TPH- GOD) (Turbi edahl Nitroge Cyanide)	-17.8 -17.6 -17.7 -17.7 TYPE (Circle a) (BTEX) HCID) (8081) dity) (Alkalinity n) (NH3) (NO3	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2)	non-standard : ease) Cl) (SO4) (No	analysis below) WA WA O O O O O O O O O O O O O	OR OR
3 4 Average: QUANTITY 5	13.4 13.3 13.2 13.3 TYPICAL A (8260) (801) (8270) (PAF (pH) (Condu (COD) (Total Cyanic) (Total Metals)	374.8 374.1 373.4 374.4 374.4 NALYSIS AI (0) (8020) (I) (1) (NWTPH- (1) (TOtal PO (1) (Total PO (1) (As) (Sb) (0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (D) (NWTPH-S) (TSS) (E4) (Total Kie ranide) (Free Ba) (Be) (Ca	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX H-Dx) (TPH- BOD) (Turbi edahl Nitroge Cyanide) a) (Cd) (Co)	-17.8 -17.6 -17.7 -17.7 -17.7 -17.7 -17.9	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2) (Pb) (Mg) (Mn)	ease) Cl) (SO4) (No (Ni) (Ag) (Se)	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	OR OR Hg) (K) (Na)
3 4 Average: QUANTITY 5	13.4 13.3 13.2 13.3 TYPICAL A (8260) (8014 (8270) (PAH (pH) (Condu (COD) (Total Cyanic (Total Metals (Dissolved M	374.8 374.1 373.4 374.4 374.4 NALYSIS AI (0) (8020) (t) (1) (NWTPH-activity) (TD (C) (Total PO (de) (WAD Cy (detals) (As) (Sb) (Setals) (As) (Sb)	0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (D) (NWTPH-S) (TSS) (E4) (Total Kie ranide) (Free Ba) (Be) (Ca	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX H-Dx) (TPH- BOD) (Turbi edahl Nitroge Cyanide) a) (Cd) (Co)	-17.8 -17.6 -17.7 -17.7 -17.7 -17.7 -17.9	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2) (Pb) (Mg) (Mn)	ease) Cl) (SO4) (No (Ni) (Ag) (Se)	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	OR OR Hg) (K) (Na)
3 4 Average: QUANTITY 5	13.4 13.3 13.2 13.3 TYPICAL A (8260) (8010 (8270) (PAF (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	374.8 374.1 373.4 374.4 374.4 NALYSIS Al (0) (8020) (N H) (NWTPH- (1) (Total PO (2) (Total PO (3) (As) (Sb) ((1) (4) (As) (Sb) ((1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	0.48 0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (E) (Total Kid ranide) (Free (Fa) (Ba) (Be) (Ca) (Ca) (Ca) (Ca)	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX H-Dx) (TPH- BOD) (Turbi edahl Nitroge Cyanide) a) (Cd) (Co)	-17.8 -17.6 -17.7 -17.7 -17.7 -17.7 -17.9	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2) (Pb) (Mg) (Mn)	ease) Cl) (SO4) (No (Ni) (Ag) (Se)	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	OR OR
3 4 Average: QUANTITY 5	13.4 13.3 13.2 13.3 TYPICAL A (8260) (8010 (8270) (PAF (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	374.8 374.1 373.4 374.4 374.4 NALYSIS AI (0) (8020) (t) (1) (NWTPH-activity) (TD (C) (Total PO (de) (WAD Cy (detals) (As) (Sb) (Setals) (As) (Sb)	0.48 0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (E) (Total Kid ranide) (Free (Fa) (Ba) (Be) (Ca) (Ca) (Ca) (Ca)	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX H-Dx) (TPH- BOD) (Turbi edahl Nitroge Cyanide) a) (Cd) (Co)	-17.8 -17.6 -17.7 -17.7 -17.7 -17.7 -17.9	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2) (Pb) (Mg) (Mn)	ease) Cl) (SO4) (No (Ni) (Ag) (Se)	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	OR OR Hg) (K) (Na)
3 4 Average: QUANTITY 5	13.4 13.3 13.2 13.3 TYPICAL A (8260) (8010 (8270) (PAF (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	374.8 374.1 373.4 374.4 374.4 NALYSIS Al (0) (8020) (N H) (NWTPH- (1) (Total PO (2) (Total PO (3) (As) (Sb) ((1) (4) (As) (Sb) ((1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	0.48 0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (E) (Total Kid ranide) (Free (Fa) (Ba) (Be) (Ca) (Ca) (Ca) (Ca)	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX H-Dx) (TPH- BOD) (Turbi edahl Nitroge Cyanide) a) (Cd) (Co)	-17.8 -17.6 -17.7 -17.7 -17.7 -17.7 -17.9	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2) (Pb) (Mg) (Mn)	ease) Cl) (SO4) (No (Ni) (Ag) (Se)	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	OR OR Hg) (K) (Na)
3 4 Average: QUANTITY 5	13.4 13.3 13.2 13.3 TYPICAL A (8260) (8010 (8270) (PAF (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	374.8 374.1 373.4 374.4 374.4 NALYSIS Al (0) (8020) (N H) (NWTPH- (1) (Total PO (2) (Total PO (3) (As) (Sb) ((1) (4) (As) (Sb) ((1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	0.48 0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (E) (Total Kid ranide) (Free (Fa) (Ba) (Be) (Ca) (Ca) (Ca) (Ca)	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX H-Dx) (TPH- BOD) (Turbi edahl Nitroge Cyanide) a) (Cd) (Co)	-17.8 -17.6 -17.7 -17.7 -17.7 -17.7 -17.9	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2) (Pb) (Mg) (Mn)	ease) Cl) (SO4) (No (Ni) (Ag) (Se)	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	OR OR Hg) (K) (Na)
3 4 Average: QUANTITY 5 1	13.4 13.3 13.2 13.3 TYPICAL A (8260) (801e (8270) (PAF (pH) (Condu (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	374.8 374.1 373.4 374.4 374.4 NALYSIS Al (0) (8020) (N H) (NWTPH- (1) (Total PO (2) (Total PO (3) (As) (Sb) ((1) (4) (As) (Sb) ((1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	0.48 0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (E) (Total Kid ranide) (Free (Fa) (Ba) (Be) (Ca) (Ca) (Ca) (Ca)	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX H-Dx) (TPH- BOD) (Turbi edahl Nitroge Cyanide) a) (Cd) (Co)	-17.8 -17.6 -17.7 -17.7 -17.7 -17.7 -17.9	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2) (Pb) (Mg) (Mn)	ease) Cl) (SO4) (No (Ni) (Ag) (Se)	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	OR OR Hg) (K) (Na)
3 4 Average: QUANTITY 5 1 Duplicate San	13.4 13.3 13.2 13.3 TYPICAL A (8260) (801e (8270) (PAF (pH) (Condu (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	374.8 374.1 373.4 374.4 374.4 NALYSIS Al (0) (8020) (N H) (NWTPH- (1) (Total PO (2) (Total PO (3) (As) (Sb) ((1) (4) (As) (Sb) ((1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	0.48 0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (E) (Total Kid ranide) (Free (Fa) (Ba) (Be) (Ca) (Ca) (Ca) (Ca)	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX H-Dx) (TPH- BOD) (Turbi edahl Nitroge Cyanide) a) (Cd) (Co)	-17.8 -17.6 -17.7 -17.7 -17.7 -17.7 -17.9	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2) (Pb) (Mg) (Mn)	ease) Cl) (SO4) (No (Ni) (Ag) (Se)	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	OR OR Hg) (K) (Na)
3 4 Average: QUANTITY 5 1	13.4 13.3 13.2 13.3 TYPICAL A (8260) (801e (8270) (PAF (pH) (Condu (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	374.8 374.1 373.4 374.4 374.4 NALYSIS Al (0) (8020) (f H) (NWTPH- (1) (Total PO (1) (Total PO (2) (As) (Sb) ((etals) (As) (Sl) (ag short list) (anne Ethene A	0.48 0.48 0.48 0.48 0.48 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (E) (Total Kid ranide) (Free (Fa) (Ba) (Be) (Ca) (Ca) (Ca) (Ca)	6.27 6.26 6.26 6.26 ER BOTTLE (NWTPH-GX H-Dx) (TPH- BOD) (Turbi edahl Nitroge Cyanide) a) (Cd) (Co)	-17.8 -17.6 -17.7 -17.7 -17.7 -17.7 -17.9	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2) (Pb) (Mg) (Mn)	ease) Cl) (SO4) (No (Ni) (Ag) (Se)	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	OR OR Hg) (K) (Na)



	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 7/2023@	959		
Sample Num	nber:	RGW143S-	230207		Weather:	rain, 40s			
Landau Repr	resentative:	KVP / AT							
WATER LEV	'EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	flush		
DTW Before	Purging (ft)	6.28	Time:	930	Flow through ce	ll vol.		GW Meter No.(s	WLM 9
Begin Purge:	Date/Time:	2/ 7 /2023 (931	End Purge:	Date/Time:	2/ 7/2023@	954	Gallons Purged:	<1
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	PII	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goal	ls: Stablization +/- 3%	n of Paramet +/- 10%	ters for three +/- 0.1 units	consecutive rea +/- 10 mV	dings within the for the form of the form of the diagram of the di	ollowing limits < 0.3 ft	>/= 1 flow	
024						+/- 10 70		through cell	
934	11.5	297.8	0.30	6.41	22.2	-	6.04	-	
937	10.3	291.8	0.30	6.40	12.6		6.05		
940	9.90	285.8	0.39	6.43	0.10		6.05		
943	9.60	282.2	0.86	6.44	-11.2				
946	9.50	280.2	1.65	6.46	-19.8				
949	9.50	279.3	2.28	6.47	-26.5				
952	9.60	279.1	2.72	6.48	-31.3				
SAMPLE CO	LLECTION I	DATA							<u> </u>
Sample Colle			Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated		_	
(By Numerica	ıl Order)	Other		_	₽	_			
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.):	slightly yello	w, small particles	s, no odor, no sheer	l		
		•							
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
-	(°F/°C)	Cond. (uS/cm)	(mg/L)	•	(mV)				
1	(° F /° C)	Cond. (uS/cm)	(mg/L)	6.47	-31.7				
1 2	(°F/°C) 9.60 9.60	Cond. (uS/cm) 279.1 279.1	(mg/L) 2.75 2.79	6.47	-31.7 -32.1				
1 2 3	(°F/°C) 9.60 9.60 9.60	Cond. (uS/cm) 279.1 279.1 279.1	(mg/L) 2.75 2.79 2.83	6.47 6.47 6.48	(mV) -31.7 -32.1 -32.5				
1 2	(°F/°C) 9.60 9.60 9.60 9.60	Cond. (uS/cm) 279.1 279.1 279.1 279.1	(mg/L) 2.75 2.79 2.83 2.87	6.47 6.47 6.48 6.48	(mV) -31.7 -32.1 -32.5 -32.7				
1 2 3	(°F/°C) 9.60 9.60 9.60	Cond. (uS/cm) 279.1 279.1 279.1	(mg/L) 2.75 2.79 2.83	6.47 6.47 6.48	(mV) -31.7 -32.1 -32.5				
1 2 3 4 Average:	9.60 9.60 9.60 9.60 9.60 9.60	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1	(mg/L) 2.75 2.79 2.83 2.87 2.81	6.47 6.47 6.48 6.48 6.48	(mV) -31.7 -32.1 -32.5 -32.7 -32.3		(ft)	(Fe II)	
1 2 3 4 Average:	(°F/°C) 9.60 9.60 9.60 9.60 9.60	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1	(mg/L) 2.75 2.79 2.83 2.87 2.81 LLOWED PI	6.47 6.48 6.48 6.48 6.48	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 TYPE (Circle a	(NTU)	(ft)	(Fe II)	
1 2 3 4 Average:	(°F/°C) 9.60 9.60 9.60 9.60 TYPICAL A (8260) (801- (8270) (PAI	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 0) (8020) (NH) (NWTPH-	2.75 2.79 2.83 2.87 2.81 LLOWED PI	6.47 6.48 6.48 6.48 6.48 CER BOTTLE (NWTPH-GX	-31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -TYPE (Circle at a company) -HCID) (8081)	pplicable or write	non-standard a	(Fe II) analysis below) WA WA WA	Observations
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 9.60 TYPICAL A (8260) (801) (8270) (PAI (pH) (Conduction)	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 279.1 0) (8020) (NH) (NWTPH-uctivity) (TD:	2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (FSS) (FSS) (FSS)	6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-GX H-Dx) (TPH-GOD) (Turbi	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 -TYPE (Circle a b) (BTEX) -HCID) (8081) dity) (Alkalinity	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (non-standard a	(Fe II) analysis below) WA WA WA	Observations
1 2 3 4 Average:	9.60 9.60 9.60 9.60 9.60 TYPICAL A (8260) (801 (8270) (PAI (pH) (Condu	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 20) (8020) (NH) (NWTPHuctivity) (TD:	(mg/L) 2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (NWTPH S) (TSS) (E 4) (Total Kie	6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-GOD) (Turbicedahl Nitroge	-31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -TYPE (Circle at a company) -HCID) (8081)	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (non-standard a	(Fe II) analysis below) WA WA WA	Observations
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 TYPICAL A (8260) (801) (8270) (PAI) (pH) (Condu) (COD) (TOtal Cyanic	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 20) (8020) (NH) (NWTPH-uctivity) (TD: CC) (Total POde) (WAD Cyde)	2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (F4) (Total Kickanide) (Free	6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-BOD) (Turbicedahl Nitrogele)	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 TYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity n) (NH3) (NO3	(NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (8/NO2)	non-standard a	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 7YPICAL A (8260) (801) (8270) (PAI (pH) (Conduction (COD) (TOtal Cyanical Cyan	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 279.1 (NALYSIS AI 0) (8020) (N H) (NWTPH- uctivity) (TD: C) (Total PO- de) (WAD Cy s) (As) (Sb) (2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (D) (NWTPH S) (TSS) (E 4) (Total Kie ranide) (Free Ba) (Be) (C	6.47 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-BOD) (Turbicedahl Nitrogeneral Cyanide) a) (Cd) (Co)	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -32.9 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.3 -32.1 -32.1 -	(NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (2)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 7YPICAL A (8260) (801) (8270) (PAI (pH) (Conduction (COD) (TOtal Cyanical Cyan	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 279.1 (uS/cm) 279.1 279.1 (uS/cm)	2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (D) (NWTPH S) (TSS) (E 4) (Total Kie ranide) (Free Ba) (Be) (C	6.47 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-BOD) (Turbicedahl Nitrogeneral Cyanide) a) (Cd) (Co)	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -32.9 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.3 -32.1 -32.1 -	(NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (2)	Observations OR OR OR OR
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 7YPICAL A (8260) (801) (8270) (PAI (pH) (Condu (COD) (Total Cyanic (Total Metals) (Dissolved M VOC (Boein	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 279.1 (uS/cm) 279.1 279.1 (uS/cm)	2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (NWTPH-G) (NWTPH-G) (Total Kideranide) (Free Ba) (Be) (Co) (Ba) (Be) (Co)	6.47 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-BOD) (Turbicedahl Nitrogeneral Cyanide) a) (Cd) (Co)	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -32.9 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.3 -32.1 -32.1 -	(NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (2)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 7YPICAL A (8260) (801) (8270) (PAI (pH) (Condu (COD) (Total Cyanic (Total Metals) (Dissolved M VOC (Boein	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 279.1 (NALYSIS AI 0) (8020) (North (North-Luctivity) (TD: Control POte) (WAD Cyst) (As) (Sb) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (de	2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (NWTPH-G) (NWTPH-G) (Total Kideranide) (Free Ba) (Be) (Co) (Ba) (Be) (Co)	6.47 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-BOD) (Turbicedahl Nitrogeneral Cyanide) a) (Cd) (Co)	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -32.9 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.3 -32.1 -32.1 -	(NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (2)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 7YPICAL A (8260) (801) (8270) (PAI (pH) (Condu (COD) (Total Cyanic (Total Metals) (Dissolved M VOC (Boein	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 279.1 (NALYSIS AI 0) (8020) (North (North-Luctivity) (TD: Control POte) (WAD Cyst) (As) (Sb) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (de	2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (NWTPH-G) (NWTPH-G) (Total Kideranide) (Free Ba) (Be) (Co) (Ba) (Be) (Co)	6.47 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-BOD) (Turbicedahl Nitrogeneral Cyanide) a) (Cd) (Co)	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -32.9 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.3 -32.1 -32.1 -	(NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (2)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 7YPICAL A (8260) (801) (8270) (PAI (pH) (Condu (COD) (Total Cyanic (Total Metals) (Dissolved M VOC (Boein	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 279.1 (NALYSIS AI 0) (8020) (North (North-Luctivity) (TD: Control POte) (WAD Cyst) (As) (Sb) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (de	2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (NWTPH-G) (NWTPH-G) (Total Kideranide) (Free Ba) (Be) (Co) (Ba) (Be) (Co)	6.47 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-BOD) (Turbicedahl Nitrogeneral Cyanide) a) (Cd) (Co)	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -32.9 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.3 -32.1 -32.1 -	(NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (2)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 9.60 1 (8260) (801) (8270) (PAI (pH) (Conductor) (Total Cyanical Metals (Dissolved Mathematical Methane Ethernocher)	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 279.1 (NALYSIS AI 0) (8020) (North (North-Luctivity) (TD: Control POte) (WAD Cyst) (As) (Sb) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (de	2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (NWTPH-G) (NWTPH-G) (Total Kideranide) (Free Ba) (Be) (Co) (Ba) (Be) (Co)	6.47 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-BOD) (Turbicedahl Nitrogeneral Cyanide) a) (Cd) (Co)	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -32.9 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.3 -32.1 -32.1 -	(NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (2)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 5	(°F/°C) 9.60 9.60 9.60 9.60 9.60 1 (8260) (801) (8270) (PAI (pH) (Conductor) (Total Cyanical Metals (Dissolved Mathematical Methane Ethernocher)	Cond. (uS/cm) 279.1 279.1 279.1 279.1 279.1 279.1 (NALYSIS AI 0) (8020) (North (North-Luctivity) (TD: Control POte) (WAD Cyst) (As) (Sb) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (As) (detals) (de	2.75 2.79 2.83 2.87 2.81 LLOWED PI NWTPH-G) (NWTPH-G) (NWTPH-G) (Total Kideranide) (Free Ba) (Be) (Co) (Ba) (Be) (Co)	6.47 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-BOD) (Turbicedahl Nitrogeneral Cyanide) a) (Cd) (Co)	(mV) -31.7 -32.1 -32.5 -32.7 -32.3 -32.8 -32.9 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.1 -32.3 -32.3 -32.1 -32.1 -	pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (2)	Observations OR OR OR Hg) (K) (Na)



Project Nam	ne:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:	-	Feb. 2023			Date/Time:	2/ 6 /2023@	1159		
Sample Nun	nber:	RGW147S-	230206		Weather:	overcast, 40s			
Landau Rep	resentative:	KVP / AT			•				
WATERIEV	/EL/WELL/PU	IRGE DATA							
Well Condition		Secure (YES)	Damaged (N	IO)	Describe:	flush		
DTW Before		15.1	Time:	-	Flow through ce		114011	GW Meter No.(s WI M 9
	Date/Time:			End Purge:	_	2/ 6/2023@	1156	Gallons Purged:	
Purge water of		2/ 0/2023	55-gal Drum	Ě	Storage Tank	Ground		SITE TREATM	
r urge water e	nsposed to.	-	55-gai Dium		Ü	⊕ Ground	_	SHE IKLAIM	ENT STSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time	. ,	. ,	, ,	ters for three	. ,	dings within the f		>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1136	12.0	141.3	1.93	6.18	45.2		15.15		
1139	11.7	135.7	1.86	6.15	45.6		15.19		
1142	11.4	116.8	1.49	6.09	46.0		15.19		
-		-				-	13.17		-
1145	11.1	104.0	1.28	6.03	47.7				
1148	10.9	97.0	1.05	5.97	49.2				
1151	10.7	76.5	0.88	5.90	51.0				
1154	11.0	75.0	0.51	5.80	51.8				
SAMPLE CO	LLECTION D	DATA							
Sample Colle	cted With:		Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	dure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	-1 () 1)				_				
(D) I time tee	u Oraer)	Other							
· ·			, sheen, etc.):	slightly yello	ow, many pulp loc	king particles, no c	dor, no sheen		
Sample Descri	ription (color,	turbidity, odor	·						
· ·	Temp	turbidity, odor	D.O.	slightly yello	ORP	Turbidity	DTW	Ferrous iron	Comments/
Sample Descri Replicate	Temp (°F/°C)	turbidity, odor Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)			Ferrous iron (Fe II)	Comments/ Observations
Sample Describerate Replicate	Temp (°F/°C)	Cond. (uS/cm) 73.0	D.O. (mg/L)	pH 5.80	ORP (mV)	Turbidity	DTW		
Sample Descri Replicate	Temp (°F/°C)	turbidity, odor Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity	DTW		
Sample Describerate Replicate	Temp (°F/°C)	Cond. (uS/cm) 73.0	D.O. (mg/L)	pH 5.80	ORP (mV)	Turbidity	DTW		
Replicate 1 2	Temp (°F/°C) 11.1 11.2	Cond. (uS/cm) 73.0 70.8	D.O. (mg/L) 0.52	pH 5.80 5.79	ORP (mV) 51.6	Turbidity	DTW		
Replicate 1 2 3	Temp (°F/°C) 11.1 11.2	Cond. (uS/cm) 73.0 70.8	D.O. (mg/L) 0.52 0.48	pH 5.80 5.79 5.80	ORP (mV) 51.6 51.4 51.2	Turbidity	DTW		
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5	D.O. (mg/L) 0.52 0.48 0.50 0.51	pH 5.80 5.79 5.80 5.79 5.80	ORP (mV) 51.6 51.4 51.2 50.9	Turbidity (NTU)	DTW (ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 TYPICAL A	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 CLOWED PI	5.80 5.79 5.80 5.79 5.80 5.79 5.80	ORP (mV) 51.6 51.4 51.2 50.9 51.3	Turbidity	DTW (ft)	(Fe II)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 TYPICAL A (8260) (8010	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI (0) (8020) (N	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 CLOWED PI	5.80 5.79 5.80 5.79 5.80 5.79 (NWTPH-Gx	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a	Turbidity (NTU)	DTW (ft)	analysis below)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 (8260) (8016) (8270D) (PA	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI 0) (8020) (NAH) (NWTPH	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 LLOWED PI	5.80 5.79 5.80 5.79 5.80 6.79 6.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP	ORP (mV) 51.6 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081)	Turbidity (NTU)	DTW (ft) non-standard :	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD:	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 CLOWED PINWTPH-G) (MWTPH-G) (NWTPH-G) (NWTP	5.80 5.79 5.80 5.79 5.80 6.79 6.80 FER BOTTLE (NWTPH-GX PH-Dx) (TP-BOD) (Turbi	ORP (mV) 51.6 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (DTW (ft) non-standard :	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 (8260) (8010 (8270D) (Pathorial (COD) (Tool	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD:	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 LLOWED PI WTPH-G) (NWTPH-G) (NWTP	5.80 5.79 5.80 5.79 5.80 5.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbicedahl Nitroge	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (DTW (ft) non-standard :	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 (8260) (8010 (8270D) (P4) (COD) (TOd (Total Cyanic	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI (0) (8020) (N AH) (NWTPH (uctivity) (TDS) (C) (Total PO-	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 CLOWED PI WTPH-G) (NWTPH-G) (NWTP	5.80 5.79 5.80 5.79 5.80 5.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP: BOD) (Turbicedahl Nitroge	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (DTW (ft) non-standard a	analysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 11.2 (8260) (8010 (8270D) (PA (PH) (Condu (COD) (Total Cyanid (Total Metals	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD: C) (Total PO- de) (WAD Cy c) (As) (Sb) (D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 CLOWED PI WTPH-G) (NWTPH-G) (NWTP	5.80 5.79 5.80 5.79 5.80 6.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbicedahl Nitroge Photos P	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 11.2 (8260) (8010 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI (0) (8020) (N AH) (NWTPH (activity) (TD) (C) (Total PO- (le) (WAD Cy (c) (As) (Sb) (Matter) (As) (Sb) (Matter) (Mat	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kic anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	5.80 5.79 5.80 5.79 5.80 6.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbicedahl Nitroge Photos P	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a	wA O3) (NO2) (F)	Observations OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 11.2 (8260) (8010 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI (0) (8020) (N AH) (NWTPH (activity) (TDS) (C) (Total PO- (de) (WAD Cy (de) (AS) (Sb) (Setals) (As) (Sb) (Setals)	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kic anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	5.80 5.79 5.80 5.79 5.80 6.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbicedahl Nitroge Photos P	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI (0) (8020) (N AH) (NWTPH (activity) (TD) (C) (Total PO- (le) (WAD Cy (c) (As) (Sb) (Matter) (As) (Sb) (Matter) (Mat	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kic anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	5.80 5.79 5.80 5.79 5.80 6.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbicedahl Nitroge Photos P	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 11.2 (8260) (8016 (8270D) (PA (COD) (Tool (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI (0) (8020) (N AH) (NWTPH (activity) (TD) (C) (Total PO- (le) (WAD Cy (c) (As) (Sb) (Matter) (As) (Sb) (Matter) (Mat	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kic anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	5.80 5.79 5.80 5.79 5.80 6.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbicedahl Nitroge Photos P	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI (0) (8020) (N AH) (NWTPH (activity) (TD) (C) (Total PO- (le) (WAD Cy (c) (As) (Sb) (Matter) (As) (Sb) (Matter) (Mat	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kic anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	5.80 5.79 5.80 5.79 5.80 6.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbicedahl Nitroge Photos P	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 11.2 (8260) (8016 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI (0) (8020) (N AH) (NWTPH (activity) (TD) (C) (Total PO- (le) (WAD Cy (c) (As) (Sb) (Matter) (As) (Sb) (Matter) (Mat	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kic anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	5.80 5.79 5.80 5.79 5.80 6.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbicedahl Nitroge Photos P	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.1 11.2 11.2 11.2 11.2 11.2 11.2 (8260) (8016 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 73.0 70.8 70.4 67.8 70.5 NALYSIS AI (0) (8020) (N AH) (NWTPH (activity) (TD) (C) (Total PO- (le) (WAD Cy (c) (As) (Sb) (Matter) (As) (Sb) (Matter) (Mat	D.O. (mg/L) 0.52 0.48 0.50 0.51 0.50 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kic anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	5.80 5.79 5.80 5.79 5.80 6.79 5.80 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbicedahl Nitroge Photos P	ORP (mV) 51.6 51.4 51.2 50.9 51.3 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)



Project Name	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 6 /2023@	1059		
Sample Num	ber:	RGW150S-	230206		Weather:	overcast, 40s			
Landau Repr	esentative:	KVP / AT							
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio	n:	Secure (YES)	Damaged (N	(O)	Describe:	flush		
DTW Before	Purging (ft)	5.61	Time:	1031	Flow through ce	ll vol.		GW Meter No.(s WLM 9
Begin Purge:	Date/Time:	2/ 6 /2023 0	1033	End Purge:	Date/Time:	2/ 6/2023@	1056	Gallons Purged:	<1
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° F /° C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goal	s: Stablization +/- 3%		ers for three +/- 0.1 units	consecutive rea +/- 10 mV	dings within the fe +/- 10%	ollowing limits < 0.3 ft	>/= 1 flow through cell	
1036	11.8	254.3	0.45	6.68	-14.6	., _,,,	5.55	·	
1039	11.8	243.9	0.41	6.68	-18.9		5.55		
1042	11.3	236.0	0.42	6.67	-19.9		5.55		
1045	10.8	223.3	0.47	6.65	-18.7				
1048	10.3	213.7	0.55	6.62	-5.9				
1051	10.0	207.9	0.56	6.58	-13.4		-		
1054	9.80	204.2	0.53	6.54	-10.4		-		
							-		
SAMPLE CO	LLECTION I	DATA				<u> </u>			
Sample Collec	cted With:		Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color,	turbidity, odor	, sheen, etc.):	clear, colorle	ess, no odor, no sh	neen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
керпеше	(°F/°C)	(uS/cm)	(mg/L)	pii		(NTU)	(ft)	(Fe II)	Observations
1	9.80				(\mathbf{mV})	(1110)	(11)		Observations
2	7.00	203.8	0.53	6.54	-10.6	(NIO)	(11)		Observations
	9.80	203.8	0.53	6.54			(11)		- Coser various
3					-10.6	(110)			
3	9.80	203.9	0.54	6.54	-10.6	(1410)			
	9.80	203.9	0.54	6.54	-10.6 -10.3 -10.4	(1110)			
4 Average:	9.80 9.80 9.80 9.8	203.9 203.6 203.6 203.7	0.54 0.53 0.53 0.53	6.54 6.54 6.54	-10.6 -10.3 -10.4 -10.0 -10.3			analysis below)	
4 Average:	9.80 9.80 9.80 9.8 TYPICAL A	203.9 203.6 203.6 203.7	0.54 0.53 0.53 0.53	6.54 6.54 6.54 6.54 ER BOTTLE	-10.6 -10.3 -10.4 -10.0 -10.3	pplicable or write		analysis below)	OR
4 Average: QUANTITY	9.80 9.80 9.80 9.8 TYPICAL A (8260) (8016	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N	0.54 0.53 0.53 0.53 0.53	6.54 6.54 6.54 6.54 ER BOTTLE (NWTPH-Gx	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a		non-standard		
4 Average: QUANTITY	9.80 9.80 9.80 9.80 9.8 1 YPICAL A (8260) (801) (8270D) (PA	203.9 203.6 203.6 203.7 203.7 203.7 203.7 203.7 203.7 203.9 203.9 203.9 203.9 203.6 203.7	0.54 0.53 0.53 0.53 0.53 LLOWED PI IWTPH-G) (NWTI	6.54 6.54 6.54 6.54 ER BOTTLE (NWTPH-Gx) PH-Dx) (TPI	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081)	pplicable or write	non-standard	WA □ WA □	OR 🗆
4 Average: QUANTITY	9.80 9.80 9.80 9.8 TYPICAL A (8260) (8014 (8270D) (PA	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD:	0.54 0.53 0.53 0.53 0.53 LLOWED PI WTPH-G) (NWTI S) (TSS) (F	6.54 6.54 6.54 6.54 ER BOTTLE (NWTPH-Gx, PH-Dx) (TPl-Dx) (Turbi	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081)	pplicable or write (8141) (Oil & C) (HCO3/CO3) (non-standard	WA □ WA □	OR 🗆
4 Average: QUANTITY 3	9.80 9.80 9.80 9.81 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD:	0.54 0.53 0.53 0.53 0.53 LLOWED PI WTPH-G) (NWTI S) (TSS) (E	6.54 6.54 6.54 6.54 ER BOTTLE (NWTPH-Gx PH-Dx) (TPH BOD) (Turbi edahl Nitroge	-10.6 -10.3 -10.4 -10.0 -10.3 -TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity	pplicable or write (8141) (Oil & C) (HCO3/CO3) (non-standard	WA □ WA □	OR 🗆
4 Average: QUANTITY 3	9.80 9.80 9.80 9.80 9.8 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals)	203.9 203.6 203.6 203.7 203.7 203.7 203.7 203.7 203.9 203.9 203.7 203.9	0.54 0.53 0.53 0.53 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kie anide) (Free Ba) (Be) (C	6.54 6.54 6.54 6.54 6.54 CR BOTTLE (NWTPH-Gx, PH-Dx) (TPI) BOD) (Turbi) Edahl Nitroge (Cyanide) a) (Cd) (Co)	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO2	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (Ni.) (Ag) (Se)	WA	OR O
4 Average: QUANTITY 3	9.80 9.80 9.80 9.80 9.8 TYPICAL A (8260) (8014 (8270D) (PA (pH) (Conduction (COD) (Total Cyanical (Cod) (Total Metals) (Dissolved M	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD: C) (Total PO- de) (WAD Cy de) (As) (Sb) (fetals) (As) (Sb) (0.54 0.53 0.53 0.53 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kie anide) (Free Ba) (Be) (C	6.54 6.54 6.54 6.54 6.54 CR BOTTLE (NWTPH-Gx, PH-Dx) (TPI) BOD) (Turbi) Edahl Nitroge (Cyanide) a) (Cd) (Co)	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO2	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (Ni.) (Ag) (Se)	WA	OR O
4 Average: QUANTITY 3	9.80 9.80 9.80 9.80 9.8 TYPICAL A (8260) (8014 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD: C) (Total PO de) (WAD Cy de) (As) (Sb) (detals) (As) (Sb	0.54 0.53 0.53 0.53 0.53 LOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kid anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	6.54 6.54 6.54 6.54 6.54 CR BOTTLE (NWTPH-Gx, PH-Dx) (TPI) BOD) (Turbi) Edahl Nitroge (Cyanide) a) (Cd) (Co)	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO2	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (Ni.) (Ag) (Se)	WA	OR OR
4 Average: QUANTITY 3	9.80 9.80 9.80 9.80 9.8 TYPICAL A (8260) (8014 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD: C) (Total PO- de) (WAD Cy de) (As) (Sb) (fetals) (As) (Sb) (0.54 0.53 0.53 0.53 0.53 LOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kid anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	6.54 6.54 6.54 6.54 6.54 CR BOTTLE (NWTPH-Gx, PH-Dx) (TPI) BOD) (Turbi) Edahl Nitroge (Cyanide) a) (Cd) (Co)	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO2	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (Ni.) (Ag) (Se)	WA	OR O
4 Average: QUANTITY 3	9.80 9.80 9.80 9.80 9.8 TYPICAL A (8260) (8014 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD: C) (Total PO de) (WAD Cy de) (As) (Sb) (detals) (As) (Sb	0.54 0.53 0.53 0.53 0.53 LOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kid anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	6.54 6.54 6.54 6.54 6.54 CR BOTTLE (NWTPH-Gx, PH-Dx) (TPI) BOD) (Turbi) Edahl Nitroge (Cyanide) a) (Cd) (Co)	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO2	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (Ni.) (Ag) (Se)	WA	OR O
4 Average: QUANTITY 3 1	9.80 9.80 9.80 9.80 9.8 TYPICAL A (8260) (8014 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD: C) (Total PO de) (WAD Cy de) (As) (Sb) (detals) (As) (Sb	0.54 0.53 0.53 0.53 0.53 LOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kid anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	6.54 6.54 6.54 6.54 6.54 CR BOTTLE (NWTPH-Gx, PH-Dx) (TPI) BOD) (Turbi) Edahl Nitroge (Cyanide) a) (Cd) (Co)	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO2	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (Ni.) (Ag) (Se)	WA	OR O
4 Average: QUANTITY 3 1	9.80 9.80 9.80 9.80 9.80 9.81 TYPICAL A (8260) (8010 (8270D) (PA (COD) (TOtal Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD: C) (Total PO de) (WAD Cy de) (As) (Sb) (detals) (As) (Sb	0.54 0.53 0.53 0.53 0.53 LOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kid anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	6.54 6.54 6.54 6.54 6.54 CR BOTTLE (NWTPH-Gx, PH-Dx) (TPI) BOD) (Turbi) Edahl Nitroge (Cyanide) a) (Cd) (Co)	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO2	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (Ni.) (Ag) (Se)	WA	OR O
4 Average: QUANTITY 3 1 Duplicate San	9.80 9.80 9.80 9.80 9.80 9.81 TYPICAL A (8260) (8010 (8270D) (PA (COD) (TOtal Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD: C) (Total PO de) (WAD Cy de) (As) (Sb) (detals) (As) (Sb	0.54 0.53 0.53 0.53 0.53 LOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kid anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	6.54 6.54 6.54 6.54 6.54 CR BOTTLE (NWTPH-Gx, PH-Dx) (TPI) BOD) (Turbi) Edahl Nitroge (Cyanide) a) (Cd) (Co)	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO2	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (Ni.) (Ag) (Se)	WA	OR O
4 Average: QUANTITY 3 1	9.80 9.80 9.80 9.80 9.80 9.81 TYPICAL A (8260) (8010 (8270D) (Pa (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	203.9 203.6 203.6 203.7 NALYSIS AI 0) (8020) (N AH) (NWTPI detivity) (TD: 0) (Total PO de) (WAD Cy de) (As) (Sb) (detals) (As) (St) g short list) hane Ethene Ad	0.54 0.53 0.53 0.53 0.53 LOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kid anide) (Free Ba) (Be) (C b) (Ba) (Be) (C	6.54 6.54 6.54 6.54 6.54 CR BOTTLE (NWTPH-Gx, PH-Dx) (TPI) BOD) (Turbi) Edahl Nitroge (Cyanide) a) (Cd) (Co)	-10.6 -10.3 -10.4 -10.0 -10.3 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO2	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((B/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (Ni.) (Ag) (Se)	WA	OR O



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 8/2023@	1131		
Sample Num	nber:	RGW152S-	230208		Weather:	overcast, 40s			
Landau Repr	resentative:	KVP / AT			-				
WATER LEV	/FI /WFI I /PI	IRGE DATA							
Well Condition		Secure (YES)	Damaged (N	(O)	Describe:	flush		
DTW Before		8.71	Time:	-	Flow through ce			GW Meter No.(s WI M 9
	0 0 0	2/ 8 /2023 (End Purge:	· ·	2/ 8/2023@	1127	Gallons Purged:	
Purge water d		<u> </u>	55-gal Drum	Ě	Storage Tank	Ground		SITE TREATM	
r urge water a	•	—	-		C	_	_		
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time		. ,	, , ,	ers for three		dings within the f	. ,	>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1107	11.5	1240	0.77	6.53	-43.6		8.74		
1110	10.6	1186	0.68	6.58	-68.0		8.74		
1113	10.2	983	0.59	6.60	-70.9		8.74		
	10.4	989			-64.2				
1116			0.59	6.59			-		
1119	10.3	965	0.75	6.61	-69.1				
1122	10.0	889	0.80	6.58	-62.1		· 		
1125	9.90	809	0.70	6.55	-50.5				
SAMPLE CO	LLECTION D	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	ıl Order)	Other							
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.):	medium turb	idity, colorless, n	o odor, no sheen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	(°F/°C)	(uS/cm)	(mg/L)	pm	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	9.90	797	0.68	6.56	-49.8				
2	9.80	779	0.68	6.55	-48.8				
						-	-		
3	9.80	768	0.65	6.54	-48.4	-			
4	9.80	749	0.64	6.54	-47.2				
Average:	9.83	773.3	0.66	6.55	-48.6				
QUANTITY	TYPICAL A	NALYSIS AI	LLOWED PI	ER BOTTLE	TYPE (Circle a	pplicable or write	non-standard	analysis below)	
3	(8260-SIM)	(8010) (8020)) (NWTPH-	G) (NWTPI	H-Gx) (BTEX)			wa 🗆	OR 🗆
	(8270D) (PA	AH) (NWTPI	H-D) (NWTI	PH-Dx) (TP	H-HCID) (8081)	(8141) (Oil & C	Grease)	wa □	OR 🗆
	-) (HCO3/CO3) ((Cl) (SO4) (N	O3) (NO2) (F)	
1	, , ,				Vitrogen) (NH3)	(NO3/NO2)			
		le) (WAD Cy			(C ₂) (C ₁) (C ₁)	(DL) (M.) (M.)	(NT:) (A -) (C)	(T1) (V) (Z)	II-) (V) (N)
1						(Pb) (Mg) (Mn)			
	(Dissolved M VOC (Boein	, , , ,) (ва) (ве) (La) (Cd) (Co)	(Cr) (Cu) (Fe) (F	ro) (Mg) (Mn) (Ni)	(Ag) (Se) (TI) (v)(Zn)(Hg)(K)	(Na) (Hardness) (Si
		ane Ethene A	cetylene						
	Du	Zuielle At	,10110						
	others								
Duplicate San	mple No(s):	Duplicate Lo		r					
Duplicate San Comments: Signature:	mple No(s):	bid initially, le		r	en it cleared up.	Date:	2/8/2023		



Project Nam	ne:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:	-	Feb. 2023			Date/Time:	2/ 8/2023@	1149		
Sample Nun	nber:	RGWDUP1	230208		Weather:	overcast, 40s			
Landau Rep	resentative:	KVP / AT			-				
WATEDIE	/EL/WELL/PI	IDCE DATA							
Well Condition		Secure (YES))	Damaged (N	(O)	Describe:			
DTW Before		Secure (TES	Time:	Damaged (1	Flow through ce		-	GW Meter No.(2)
		2/ /2023 @	Time.	End Purge:	_	2/ /2023 @		Gallons Purged:	8)
Purge water of			55-gal Drum	Ě	Storage Tank	Ground	Othor	SITE TREATM	ENT CVCTEM
ruige water t	iisposeu to.		55-gai Diuiii		Storage Talik	E Ground	Other	SHE IKEAIM	ENISISIEM
TD*	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goal	(uS/cm) ls: Stablization	(mg/L) n of Paramet	ters for three	(mV) consecutive rea	(NTU) dings within the f	(ft) ollowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
							-		
	. ———	DH	PLICA	ATE T	O RGV	W152S			
				1111	ORG	11325			
SAMPLE CO	DLLECTION I	DATA							
Sample Colle			Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	ture:	Alconox Was	sh 🗖	Tap Rinse	DI Water	Dedicated	_	_	
(By Numerica		Other	·· •	rup runse		Dealeated			
		-	sheen etc.):	medium turk	oidity, colorless, n	o odor no sheen			
Sumple Beser	ription (color,	turbiany, odor	, sneen, etc. <u>/.</u>	incurum ture	raity, coloriess, ii	o odor, no sneen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(° F /° C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	(Fe II)	Observations
1	9.80	786	0.68	6.56	-48.9				
2	9.80	774	0.66	6.55	-48.2				
3	9.90	757	0.65	6.54	-47.5				
4	9.80	743	0.64	6.55	-46.4		-		
	-						-		
Average:	9.83	765	0.66	6.55	-47.8				
QUANTITY						pplicable or write	non-standard	analysis below)	
3	` /	(8010) (8020	, \					wa 🗆	OR 🗆
	`					(8141) (Oil & C		WA 🗆	OR 🗆
1	* ' '	• • • • • • • • • • • • • • • • • • • •			dity) (Alkalinity		CI) (SO4) (N	O3) (NO2) (F)	
1	, , ,	le) (WAD Cy			Vitrogen) (NH3)	(NO3/NO2)			
1	<u> </u>				(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
									(Na) (Hardness) (Sil
			, (Du) (DU) ((Cu) (CU)	, (C1) (Cu) (1 C) (1	-/ (***5/ (*****) (**1)	(5/ (50/ (11) (· / () (115) (K)	(- m) (- m (m (m (m (m))) (M))
	VOC (Boeir								
	VOC (Boein Methane Eth	nane Ethene Ad	etylene						
			cetylene						
			cetylene						
			cetylene						
	Methane Eth	nane Ethene Ad							
Duplicate Sar	Methane Eth								
Duplicate Sar Comments: Signature:	Methane Eth	Duplicate to					2/8/2023		



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 8 /2023@	1303		
Sample Nun	nber:	RGW153S-	230208		Weather:	sunny, 40s			
Landau Repr	resentative:	KVP / AT			•				
WATER LEV	EL/WELL/PU	IRGE DATA							
Well Condition		Secure (YES)	Damaged (N	(O)	Describe:	flush		
DTW Before	Purging (ft)	9.29	Time:	1234	Flow through ce	ll vol.		GW Meter No.(s	WLM 9
		2/ 8/2023 @		End Purge:	_	2/ 8 /2023 @	1259	Gallons Purged:	
Purge water d			55-gal Drum		Storage Tank	Ground		SITE TREATM	
C	Tr	C 1	D.O.		-		_		
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goal					dings within the f	ollowing limits	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1239	12.7	177.6	2.88	6.56	46.0		9.29		
1242	12.4	179.5	2.55	6.48	42.9		9.29		
1245	12.0	184.2	2.58	6.45	41.0		9.23		
1248	11.7	193.9	2.18	6.44	39.3				
1251	11.4	205.1	1.65	6.44	35.8				
1254	11.1	211.0	1.29	6.46	30.7				
	. ———					-			-
1257	10.9	211.9	1.13	6.49	26.6				
G L L PRI E GO									
SAMPLE CO Sample Colle			Bailer		Dump/Dump Trip	a dedicated bladder			
Made of:	cted with.	Stainless Stee		PVC	Teflon	dedicated bladder Polyethylene	Other	Dedicated	
Decon Proced				Tap Rinse			U Other	Dedicated	
(By Numerica		Alconox Was	sn 📋	rap Kinse	DI Water	Dedicated			
· ·			shoon ata):	clight vollous	tint low tubridit	u no odor no shoo	ın.		
· ·			, sheen, etc.):	slight yellow	tint, low tubridit	y, no odor, no shee	en		
· ·	Temp	turbidity, odor	D.O.	slight yellow	ORP	Turbidity	DTW	Ferrous iron	Comments/
Sample Descr	ription (color,	turbidity, odor	·					Ferrous iron (Fe II)	Comments/ Observations
Sample Descr	Temp	turbidity, odor	D.O.		ORP	Turbidity	DTW		
Sample Descri Replicate	Temp (°F/°C)	turbidity, odor Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity	DTW		
Sample Descri Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pH 6.49	ORP (mV)	Turbidity	DTW		
Replicate 1 2	Temp (°F/°C) 10.9	Cond. (uS/cm) 211.9	D.O. (mg/L) 1.13	pH 6.49 6.49	ORP (mV) 26.3	Turbidity	DTW		
Replicate 1 2 3	Temp (°F/°C) 10.9 10.9	Cond. (uS/cm) 211.9 211.9	D.O. (mg/L) 1.13 1.12	pH 6.49 6.49 6.49	ORP (mV) 26.3 26.1 25.9	Turbidity	DTW		
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.9 10.8 10.9	Cond. (uS/cm) 211.9 211.9 211.9 211.8 211.9	D.O. (mg/L) 1.13 1.12 1.10 1.11	pH 6.49 6.49 6.49 6.49 6.49	ORP (mV) 26.3 26.1 25.9 25.7 26.0	Turbidity (NTU)	DTW (ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9	Cond. (uS/cm) 211.9 211.9 211.9 211.8 211.9	D.O. (mg/L) 1.13 1.12 1.10 1.11 1.11 LLOWED PI	6.49 6.49 6.49 6.49 6.49 6.49	ORP (mV) 26.3 26.1 25.9 25.7 26.0	Turbidity	DTW (ft)	(Fe II)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM)	Cond. (uS/cm) 211.9 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020	D.O. (mg/L) 1.13 1.12 1.10 1.11 LLOWED PI)) (NWTPH-	6.49 6.49 6.49 6.49 6.49 6.49 6.49 6.49	ORP (mV) 26.3 26.1 25.9 25.7 26.0 TYPE (Circle a	Turbidity (NTU)	DTW (ft)	(Fe II)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 10.8 20.9 10.9 10.8 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	Cond. (uS/cm) 211.9 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020)	D.O. (mg/L) 1.13 1.12 1.10 1.11 LLOWED PI 1.10 (NWTPH-I-D) (NWTPH-I-D) (NWTPH-I-D)	6.49 6.49 6.49 6.49 6.49 6.49 6.49 FER BOTTLE	ORP (mV) 26.3 26.1 25.9 25.7 26.0 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081)	Turbidity (NTU) pplicable or write (8141) (Oil & C	DTW (ft) non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 10.8 (8260-SIM) (8270D) (PA	Cond. (uS/cm) 211.9 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS)	D.O. (mg/L) 1.13 1.12 1.10 1.11 LLOWED PI D) (NWTPH-H-D) (NW	6.49 6.49 6.49 6.49 6.49 6.49 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi	ORP (mV) 26.3 26.1 25.9 25.7 26.0 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081)	pplicable or write (8141) (Oil & C (HCO3/CO3) (DTW (ft) non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (Pz (pH) (Conduction (COD) (TO	Cond. (uS/cm) 211.9 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS)	D.O. (mg/L) 1.13 1.12 1.10 1.10 1.11 LLOWED PI 1.1) (NWTPH-H-D) (NWTH-H-D) (NWTI	6.49 6.49 6.49 6.49 6.49 6.19 6.49 6.19 6.19 6.19 6.19 6.10 6.10 6.10 6.10 6.10 6.10 6.10 6.10	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) (dity) (Alkalinity	pplicable or write (8141) (Oil & C (HCO3/CO3) (DTW (ft) non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (PJ (pH) (Conducted Cyanical	Cond. (uS/cm) 211.9 211.9 211.8 211.9 211.8 211.9 (8010) (8020 AH) (NWTPH (activity) (TDS) C5310C) (To	D.O. (mg/L) 1.13 1.12 1.10 1.10 1.11 LLOWED PI D) (NWTPH-H-D) (NWTPH-H-	6.49 6.49 6.49 6.49 6.49 6.49 6.19 6.49 CR BOTTLE CHOWN (TPICHE) C	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity Vitrogen) (NH3)	pplicable or write (8141) (Oil & C (HCO3/CO3) (DTW (ft) non-standard : Grease) Cl) (SO4) (Ne	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Conduction (COD) (Total Cyanical (Total Metals)	Cond. (uS/cm) 211.9 211.9 211.8 211.9 211.8 211.9 (8010) (8020 AH) (NWTPHactivity) (TD: (C5310C) (To: (de) (WAD Cy.) (As) (Sb) (D.O. (mg/L) 1.13 1.12 1.10 1.11 LLOWED PI D) (NWTPH-H-D) (NWTPH-H-D) (NWTPH-H-D) (NWTPH-H-D) (Total PO4) (Tot	6.49 6.49 6.49 6.49 6.49 6.49 ER BOTTLE GO (NWTP) PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity dity) (Alkalinity (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2) (Pb) (Mg) (Mn)	non-standard : Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (Pa (pH) (Conducted Cyanical Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TD: C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ug short list)	D.O. (mg/L) 1.13 1.12 1.10 1.11 1.11 LLOWED PI J. (NWTPH-H-D) (NWTPH-H-	6.49 6.49 6.49 6.49 6.49 6.49 ER BOTTLE GO (NWTP) PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity dity) (Alkalinity (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2) (Pb) (Mg) (Mn)	non-standard : Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OH OR OH OR OH OR OH OH OH OH OH OH OH OH OH OH
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (Pa (pH) (Conducted Cyanical Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 211.9 211.9 211.8 211.9 211.8 211.9 (8010) (8020 AH) (NWTPHactivity) (TDS (C5310C) (To de) (WAD Cy) (As) (Sb) (Setals) (As) (St)	D.O. (mg/L) 1.13 1.12 1.10 1.11 1.11 LLOWED PI J. (NWTPH-H-D) (NWTPH-H-	6.49 6.49 6.49 6.49 6.49 6.49 ER BOTTLE GO (NWTP) PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity dity) (Alkalinity (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2) (Pb) (Mg) (Mn)	non-standard : Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OH OR OH OR OH OR OH OH OH OH OH OH OH OH OH OH
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (Pa (pH) (Conducted Cyanical Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TD: C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ug short list)	D.O. (mg/L) 1.13 1.12 1.10 1.11 1.11 LLOWED PI J. (NWTPH-H-D) (NWTPH-H-	6.49 6.49 6.49 6.49 6.49 6.49 ER BOTTLE GO (NWTP) PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity dity) (Alkalinity (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2) (Pb) (Mg) (Mn)	non-standard : Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OH OR OH OR OH OR OH OH OH OH OH OH OH OH OH OH
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (Pd) (COD) (Total Cyanic (Total Metals) (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TD: C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ug short list)	D.O. (mg/L) 1.13 1.12 1.10 1.11 1.11 LLOWED PI J. (NWTPH-H-D) (NWTPH-H-	6.49 6.49 6.49 6.49 6.49 6.49 ER BOTTLE GO (NWTP) PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity dity) (Alkalinity (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2) (Pb) (Mg) (Mn)	non-standard : Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OH OR OH OR OH OR OH OH OH OH OH OH OH OH OH OH
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (Pa (pH) (Conducted Cyanical Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TD: C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ug short list)	D.O. (mg/L) 1.13 1.12 1.10 1.11 1.11 LLOWED PI J. (NWTPH-H-D) (NWTPH-H-	6.49 6.49 6.49 6.49 6.49 6.49 ER BOTTLE GO (NWTP) PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity dity) (Alkalinity (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2) (Pb) (Mg) (Mn)	non-standard : Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OH OR OH OR OH OR OH OH OH OH OH OH OH OH OH OH
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (PJ (COD) (TOtal Cyanic (Total Metals) (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TD: C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ug short list)	D.O. (mg/L) 1.13 1.12 1.10 1.11 1.11 LLOWED PI J. (NWTPH-H-D) (NWTPH-H-	6.49 6.49 6.49 6.49 6.49 6.49 ER BOTTLE GO (NWTP) PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity dity) (Alkalinity (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2) (Pb) (Mg) (Mn)	non-standard : Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OH OR OH OR OH OR OH OH OH OH OH OH OH OH OH OH
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.9 10.8 10.9 10.8 10.9 TYPICAL A (8260-SIM) (8270D) (PJ (COD) (TOtal Cyanic (Total Metals) (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 211.9 211.9 211.8 211.9 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TD: C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ug short list)	D.O. (mg/L) 1.13 1.12 1.10 1.11 1.11 LLOWED PI J. (NWTPH-H-D) (NWTPH-H-	6.49 6.49 6.49 6.49 6.49 6.49 ER BOTTLE GO (NWTP) PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) 26.3 26.1 25.9 25.7 26.0 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity dity) (Alkalinity (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2) (Pb) (Mg) (Mn)	non-standard : Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OH OR OH OR OH OR OH OH OH OH OH OH OH OH OH OH



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Project Nam	ie:	Boeing Ren	iton		Project Number	r <u>:</u>	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/08/2023 @	1328		
Sample Nun	nber:	RGW172S-	230208		Weather:	PARTIALLY C	LOUDY, 40S		
Landau Repr	resentative:	KVP			•				
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES	5)	Damaged (N	NO)	Describe:	FLUSH MOU	NT	
DTW Before	Purging (ft)	9.33	Time:	1255	Flow through ce	ll vol.		GW Meter No.(SLOPE 11
Begin Purge:	Date/Time:	2/08/2023 @	1257	End Purge:	Date/Time:	2/078/2023 @	1324	Gallons Purged:	0.
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goal	s: Stablizatio +/- 3%	n of Paramet +/- 10%	ters for thre +/- 0.1 units		dings within the f +/- 10%	ollowing limits < 0.3 ft	>/= 1 flow through cell	
1200						1, 10,0		tiii ougii cen	
1300	12.4	283.8	0.63	6.50	15.6		9.55	-	
1303	12.1	314.8	0.52	6.52	-21.7		9.55		
1306	12.1	319.6	0.33	6.66	-30.5		9.54		
1309	11.9	288.7	0.44	6.72	-38.1				
1312	12.0	273.2	0.70	6.73	-49.6				
1315	12.2	261.3	1.33	6.73	-53.8				
1318	12.0	253.8	1.63	6.70	-48.2				
1321	12.1	257.9	1.90	6.68	-47.0		-	· 	-
	LLECTION E								
Sample Colle	cted With:		Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure.	Alconox Wa	sh 🗖	Tap Rinse	DI Water	Dedicated		_	
(By Numerica	_	Other							
			shoon oto)	CLEAD CO	OLOBLESS NO.	DOR, NO SHEEN	т		
Sample Desci	iption (color,	turbianty, odo.	i, sileeli, etc.) <u>.</u>	CLEAR, CC	DLOKLESS, NO C	DOK, NO SHEEP	<u> </u>		
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.2	247.3	1.96	6.68	-48.8				
2	12.3	247.3	1.99	6.68	-49.8			•	
2			-	-	· 				
3	12.3	247.6	2.02	6.68	-49.3	_	-		
4	12.3	247.3	2.06	6.68	49.3				
Average:	12.3	247.4	2.01	6.68	-24.7				
QUANTITY	TYPICAL A	NALYSIS A	LLOWED PI	ER BOTTLI	E TYPE (Circle a	pplicable or write	non-standard	analysis below)	
3	(8260-SIM)	(8010) (802	0) (NWTPH	-G) (NWTP	H-Gx) (BTEX)			wa 🗆	OR 🗆
	(8270D) (PA	AH) (NWTP	H-D) (NWT	PH-Dx) (TF	PH-HCID) (8081)	(8141) (Oil & C	Grease)	wa 🗆	OR 🗆
	(pH) (Condu	uctivity) (TD	S) (TSS) (I	BOD) (Turb	idity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (N	O3) (NO2) (F)	
1	(COD) (TO	C5310C) (To	otal PO4) (To	otal Kiedahl	Nitrogen) (NH3)	(NO3/NO2)			
	` .	le) (WAD Cy	, ,	-					
1	`		. , , , ,			(Pb) (Mg) (Mn)	. , ,	. , , , , , ,	<u> </u>
			b) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (I	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (S
	VOC (Boein	,	cotulono						
	ivietnane Eth	nane Ethene A	сетугене						
	others								
Duplicate Sar	nple No(s):								
Comments:									
Signature:		KVP				Date:	2/8/2023		



Project Nam	ne:	Boeing Rent	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/08/2023 @	1222		
Sample Nun	nber:	RGW173S-	230208		Weather:	PARTIALLY CI	LOUDY, 40S		
Landau Rep	resentative:	KVP			-				
WATERIEV	VEL/WELL/PU	IRGE DATA							
Well Condition		Secure (YES))	Damaged (N	(0)	Describe:			
DTW Before		9.31	Time:		Flow through ce			GW Meter No.(e)
	Date/Time:			End Purge:	_	2/ 08/2023 @	1219	Gallons Purged:	3)
Purge water of		2/06/2023 @	55-gal Drum	Ě	Storage Tank	Ground		SITE TREATM	ENT SVSTEM
r urge water e	iisposed to.		55-gai Diuii		C	⊕ Ground	_	SITE TREATM	ENT STSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time	. ,		, , ,	ters for three	. ,	dings within the fo		>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1156	12.7	280.8	0.43	6.65	-108.7		9.52		
1159	12.7	281.5	1.24	6.53	-99.3		9.47		
1202	12.7	282.0	1.67	6.54	-96.7		9.44		
-	-								
1205		280.8	2.34	6.55	-92.9				
1208	12.7	280.5	2.71	6.61	-92.4				
1211	12.7	277.7	3.07	6.52	90.1				
1214	12.6	277.3	3.25	6.71	-89.8				
1217	11.3	266.8	3.63	6.64	-87.6				
SAMPLE CO	DLLECTION D	OATA							
Sample Colle	ected With:		Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	dure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other			_				
	,	ш оше							
Sample Descr		_	, sheen, etc.):	CLEAR, CO	LORLESS, NO C	DOR, NO SHEEN	١		
	ription (color,	turbidity, odor	·						
Sample Describerate Replicate	ription (color,	turbidity, odor	D.O.	CLEAR, CO	ORP	Turbidity	DTW	Ferrous iron (Fe II)	Comments/ Observations
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)			Ferrous iron (Fe II)	Comments/ Observations
Replicate	Temp (°F/°C)	Cond. (uS/cm) 266.4	D.O. (mg/L)	pH 6.66	ORP (mV)	Turbidity	DTW		
Replicate 1 2	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity	DTW		
Replicate	Temp (°F/°C)	Cond. (uS/cm) 266.4	D.O. (mg/L)	pH 6.66	ORP (mV)	Turbidity	DTW		
Replicate 1 2	Temp (°F/°C) 11.3	Cond. (uS/cm) 266.4	D.O. (mg/L) 3.62 3.55	pH 6.66 6.62	ORP (mV) -87.3	Turbidity	DTW		
Replicate 1 2 3	Temp (°F/°C) 11.3 11.8	Cond. (uS/cm) 266.4 266.0	D.O. (mg/L) 3.62 3.55	pH 6.66 6.62 6.63	ORP (mV) -87.3 -87.1	Turbidity	DTW		
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.3 11.8 11.8 11.6	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54	pH 6.66 6.62 6.63 6.62 6.63	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1	Turbidity (NTU)	DTW (ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54	pH 6.66 6.62 6.63 6.62 6.63	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1	Turbidity	DTW (ft)	(Fe II)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM)	Cond. (uS/cm) 266.4 266.4 266.7 266.4 NALYSIS AI (8010) (8020	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LOWED PI)) (NWTPH-	6.66 6.62 6.63 6.62 6.63 ER BOTTLE	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1	Turbidity (NTU)	DTW (ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA	Cond. (uS/cm) 266.4 266.4 266.7 266.4 NALYSIS AI (8010) (8020)	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LLOWED PI D) (NWTPH-H-D) (NWT	6.66 6.62 6.63 6.62 6.63 ER BOTTLE -G) (NWTPI	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081)	Turbidity (NTU)	DTW (ft)	analysis below) WA WA WA	Observations OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS)	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LLOWED PI D) (NWTPH-D)	6.66 6.62 6.63 6.62 6.63 ER BOTTLE -G) (NWTPI PH-Dx) (TP-BOD) (Turbi	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (DTW (ft)	analysis below) WA WA WA	Observations OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Conduction) (COD) (TOO (Total Cyanical	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPH activity) (TDS C5310C) (To	3.62 3.55 3.50 3.49 3.54 LLOWED PI () (NWTPH-H-D) (NW	6.66 6.62 6.63 6.62 6.63 ER BOTTLE G) (NWTPI PH-Dx) (TP BOD) (Turbi otal Kiedahl N Cyanide)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (NH3)	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2)	DTW (ft) non-standard and and and and and and and and and an	analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Conduction) (COD) (TOO (Total Cyanical	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPH activity) (TDS C5310C) (To	3.62 3.55 3.50 3.49 3.54 LLOWED PI () (NWTPH-H-D) (NW	6.66 6.62 6.63 6.62 6.63 ER BOTTLE G) (NWTPI PH-Dx) (TP BOD) (Turbi otal Kiedahl N Cyanide)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (NH3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (DTW (ft) non-standard and and and and and and and and and an	analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 9	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals) (Dissolved M	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS (C5310C) (To le) (WAD Cy) (As) (Sb) (etals) (As) (Sb) (D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LOWED PI () (NWTPH-H-D) (NWTI H-D) (NWTI H-D) (TSS) (Etal PO4) (Teanide) (Free Ba) (Be) (C	6.66 6.62 6.63 6.62 6.63 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a al-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (Alkalinity) (Ittrogen) (NH3)	pplicable or write (8141) (Oil & Cool (HCO3/CO3) (Good (NO3/NO2)) (Pb) (Mg) (Mn)	non-standard a Grease) CI) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 9	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS C5310C) (To le) (WAD Cy) (As) (Sb) (etals) (As) (Sb og short list)	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LLOWED PI D) (NWTPH-H-D) (NWTPH-H-	6.66 6.62 6.63 6.62 6.63 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a al-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (Alkalinity) (Ittrogen) (NH3)	pplicable or write (8141) (Oil & Cool (HCO3/CO3) (Good (NO3/NO2)) (Pb) (Mg) (Mn)	non-standard a Grease) CI) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 9	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS (C5310C) (To le) (WAD Cy) (As) (Sb) (etals) (As) (Sb) (D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LLOWED PI D) (NWTPH-H-D) (NWTPH-H-	6.66 6.62 6.63 6.62 6.63 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a al-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (Alkalinity) (Ittrogen) (NH3)	pplicable or write (8141) (Oil & Cool (HCO3/CO3) (Good (NO3/NO2)) (Pb) (Mg) (Mn)	non-standard a Grease) CI) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 9	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS C5310C) (To le) (WAD Cy) (As) (Sb) (etals) (As) (Sb og short list)	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LLOWED PI D) (NWTPH-H-D) (NWTPH-H-	6.66 6.62 6.63 6.62 6.63 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a al-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (Alkalinity) (Ittrogen) (NH3)	pplicable or write (8141) (Oil & Cool (HCO3/CO3) (Good (NO3/NO2)) (Pb) (Mg) (Mn)	non-standard a Grease) CI) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 9	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS C5310C) (To le) (WAD Cy) (As) (Sb) (etals) (As) (Sb og short list)	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LLOWED PI D) (NWTPH-H-D) (NWTPH-H-	6.66 6.62 6.63 6.62 6.63 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a al-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (Alkalinity) (Ittrogen) (NH3)	pplicable or write (8141) (Oil & Cool (HCO3/CO3) (Good (NO3/NO2)) (Pb) (Mg) (Mn)	non-standard a Grease) CI) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 9	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS C5310C) (To le) (WAD Cy) (As) (Sb) (etals) (As) (Sb og short list)	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LLOWED PI D) (NWTPH-H-D) (NWTPH-H-	6.66 6.62 6.63 6.62 6.63 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a al-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (Alkalinity) (Ittrogen) (NH3)	pplicable or write (8141) (Oil & Cool (HCO3/CO3) (Good (NO3/NO2)) (Pb) (Mg) (Mn)	non-standard a Grease) CI) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 9	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (COD) (Tool (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 NALYSIS AI (8010) (8020 AH) (NWTPHactivity) (TDS C5310C) (To le) (WAD Cy) (As) (Sb) (etals) (As) (Sb og short list)	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LOWED PI () (NWTPH-H-D) (NWTH-H-D) (NWTH-H-D	6.66 6.62 6.63 6.62 6.63 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a al-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (Alkalinity) (Ittrogen) (NH3)	pplicable or write (8141) (Oil & Cool (HCO3/CO3) (Good (NO3/NO2)) (Pb) (Mg) (Mn)	non-standard a Grease) CI) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 9 3 3	Temp (°F/°C) 11.3 11.8 11.8 11.6 TYPICAL A (8260-SIM) (8270D) (PA (COD) (Tool (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 266.4 266.0 266.4 266.7 266.4 266.7 266.4 (8010) (8020 AH) (NWTPH (stivity) (TDS (C5310C) (To (le) (WAD Cy) (As) (Sb) (etals) (As) (Sb (g short list) anne Ethene Acceptable (1988)	D.O. (mg/L) 3.62 3.55 3.50 3.49 3.54 LOWED PI () (NWTPH-H-D) (NWTH-H-D) (NWTH-H-D	6.66 6.62 6.63 6.62 6.63 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	ORP (mV) -87.3 -87.1 -87.0 -86.9 -87.1 TYPE (Circle a al-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity (Alkalinity) (Ittrogen) (NH3)	pplicable or write (8141) (Oil & Cool (HCO3/CO3) (Good (NO3/NO2)) (Pb) (Mg) (Mn)	non-standard a Grease) CI) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)



Project Nam	ie:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99 099	
Event:	····	Feb. 2023			Date/Time:	2/07/2023 @	0020217100010	1424	
Sample Nun	nher:	RGW176S-	230207		Weather:	PARTIALLY C	LOUDY 40S I		
Landau Rep	=	KVP	230207		· · · · · · · ·	THUTHELT	20021, 1001	SICEL I	
WATER LEV	/EL/WELL/PU	Secure (YES)	Damaged (N	10)	Describe:	FLUSH MOU	NTIN DIRT	
		,	,		,		TEOSII MOUI		CLODE 11
DTW Before		6.22	Time:		Flow through ce		1.422	GW Meter No.(s	SLOPE II
	Date/Time:	2/01/2023 @		End Purge:		2/07/2023 @ Ground		Gallons Purged:	ENIT CAZCTEM
Purge water of	iisposed to.		55-gal Drum		Storage Tank	El Gionna	Other	SITE TREATM	ENTSTSTEM
Time	Temp (°F/°C)	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	. ,	(uS/cm) s: Stablization	(mg/L) n of Paramet	ters for thre	(mV) e consecutive rea	(NTU) dings within the fo	(ft) ollowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1359	12.4	NM	2.53	8.43	33.8		5.77		
1402	12.6	414.5	1.01	8.31	9.9		5.53		
1405	12.7	408.7	0.53	8.16	-8.4		5.47		
1408	12.5	404.6	0.50	8.18	-10.1				
1411	12.5	400.8	0.45	7.20	-12.4				
1414	12.5	400.5	0.40	7.23	-19.5				
1417	12.4	400.0	0.36	7.15	-21.5				
1420	12.4	399.8	0.35	7.18	-22.9				
SAMPLE CO	LLECTION D	OATA							
Sample Colle	cted With:		Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	dure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other			_				
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.):	CLEAR, YE	ELLOW TINT, CL	IGHT SULFURIC	ODOR, NO SH	EEN	
			-						
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.4	399.7	0.35	7.19	-23.8	(/		(' '	
2	12.4	399.6	0.36	7.19	-23.9				
3	12.4	399.6	0.36	7.18	-23.9				
4	12.4	399.6	0.37	7.20	-23.9				
Average:	12.4	399.6	0.36	7.19	-23.9			-	
	·								
					-	pplicable or write	non-standard		OD [
3		0) (8020) (N				(8141) (Oil & C	Proces)	WA □	OR OR
						(8141) (Olf & C) (HCO3/CO3) (OK L
		•			en) (NH3) (NO3		- / (~ 3 .) (11.	/ (/-/-/-/-/-/-/-/-/-/-/-/-/-/-/-/-	
		le) (WAD Cy			, , , , , ,	· · · · · · · · · · · · · · · · · · ·			
	(Total Metals) (As) (Sb) ((Ba) (Be) (C	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (l	Hg) (K) (Na)
	(Dissolved M	etals) (As) (St	(Ba) (Be) (Ca) (Cd) (Co	(Cr) (Cu) (Fe) (Fe)	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Si
	VOC (Boein	g short list)							
	Methane Eth	ane Ethene A	cetylene						
	others								
	outer 5								
Duplicate Sar	mple No(s):								
Duplicate Sar Comments:	mple No(s):								



Project Nam	ne:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/07/2023 @			
Sample Nun	nber:	RGW178S-	230207		Weather:	RAINY, 40S, BI	REEZY	1118	
Landau Rep	resentative:	KVP			_				
WATER LEV	/EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	FLUSH MOU	NT	
DTW Before	Purging (ft)	7.63	Time:	1037	Flow through cel	ll vol.		GW Meter No.(s	SLOPE 11
Begin Purge:	Date/Time:	2/07/2023 @	1039	End Purge:	Date/Time:	2/07/2023 @	1115	Gallons Purged:	0.5
Purge water of	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	PII	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	0					dings within the fo	- C	>/= 1 flow	
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1046	11.8	290.2	0.88	9.64	-7.1		7.65		
1049	11.8	289.4	1.03	12.95	-9.0		7.5		YSI ISSUES CORD
1058	11.2	283.9	0.05	8.68	-12.2		7.63		
1101	9.9	276.6	0.06	7.64	-11.6				
1104	10.8	282	0.06	7.88	-10.1				
1107	11.4	288.5	0.06	7.83	-13.8			-	-
1110	()	290.7	0.10	7.77	-14.9			-	
	· -								
1113	11.6 DLLECTION I	289.4	0.31	7.77	-15.4				
Sample Colle			Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was		Tap Rinse	DI Water	Dedicated	_		
(By Numerica		Other	<u>u</u>	rup runse	□ DI Water	Bedicated			
			. sheen. etc.):	CLEAR, CO	LORLESS, SLIG	HT SULFRIC ODO	OR. NO SHEEN		
	r ,	,,,,,,,	, , , <u>.</u>	,			,		
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.5	288.8	0.39	7.77	-15.4				
2	11.6	288.9	0.34	7.78	-15.6				
3	11.6	288.2	0.32	7.88	-15.5				
4	11.6	287.9	0.35	7.92	-15.5				
Average:	11.6	288.5	0.35	7.84	-15.5				
	·								
QUANTITY					•	pplicable or write	non-standard		~~ □
3	` / `	0) (8020) (N		`	, , ,	(0141) (011.0.6	7	WA 🗆	OR \square
						(8141) (Oil & C		WA □	OR 🗆
	* ' '	• • • • • • • • • • • • • • • • • • • •			n) (NH3) (NO3		CI) (BO+) (IV	33) (1102) (1)	
	, , ,	le) (WAD Cy	, ,) (1112) (1102	,1102)			
					(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
	(Dissolved M	letals) (As) (St) (Ba) (Be) (Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (F	b) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein	ng short list)							
	Methane Eth	nane Ethene A	cetylene						
	othora								
	others								
Duplicate Sar	mple No(s):								
Duplicate Sar Comments:	mple No(s):								



Project Nam	e:	Boeing Ren	ton		Project Number	r:	0025217.003.0	99.099	_
Event:		Feb. 2023			Date/Time:	2/6/2023 @	1502		
Sample Num	nber:	RGW188S-	230206		Weather:	WINDY, 40S, R	AINY		
Landau Repr	resentative:	KVP							
WATER LEV	'EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	FLUSH MOU	NT AIRPLANE R	ATED LID
DTW Before	Purging (ft)	5.11	Time:	1430	Flow through cel	ll vol.		GW Meter No.(s	SLOPE 11
Begin Purge:	Date/Time:	2/06/2023 @	1434	End Purge:	Date/Time:	2/ 06/2023 @	1458	Gallons Purged:	0.5
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	P	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goal	s: Stablization +/- 3%		ers for three +/- 0.1 units	consecutive rea +/- 10 mV	dings within the fo +/- 10%	ollowing limits < 0.3 ft	>/= 1 flow through cell	
1435	12.5	436.2	0.26	6.47	-3.4	17- 10 / 0	5.32	tin ough cen	
	· 								
1438	11.8	435.6	0.21	6.47	-34.7		5.29		
1441	11.8	435.1	0.47	6.50	-46.4		5.32		
1444	11.8	434.3	1.20	6.50	-54.3				
1447	10.9	428.9	2.14	6.50	-59.4				
1450	10.7	424.1	2.56	6.51	-61.2				
1453	10.3	418.2	3.34	6.51	-64.1				
1456	10.3	418.0	3.45	6.51	-64.5				
SAMPLE CO		OATA					-		
Sample Colle	cted With:		Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	ıl Order)	Other							
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.):	COLORLES	S. CLEAR, NO C	DOR, NO SHEEN	I		
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
керпеас	(°F/°C)	(uS/cm)	(mg/L)	pii	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	10.3	418.2	3.45	6.51	-64.7				
2	10.3	418.0	3.45	6.51	-64.8				
3	10.3	417.8	3.46	6.51	-64.8				
4	10.3	418.0	3.49	6.51	-65.0				
Average:	10.3	418.0	3.46	6.51	-64.8				
QUANTITY						pplicable or write	non-standard	analysis below)	
3		0) (8020) (N						WA L	OR 🗆
						(8141) (Oil & C		WA 🗆	OR \square
1	* / `	• • • • • • • • • • • • • • • • • • • •			n) (NH3) (NO3		CI) (304) (N	03) (NO2) (F)	
-		le) (WAD Cy		<u>_</u>) (1112) (1102	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	` *		, ,	•	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
	(Dissolved M	etals) (As) (St) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (F	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein	g short list)							
	Methane Eth	nane Ethene A	cetylene						
	others								
	others								
Duplicate San									
Duplicate San Comments:									



Project Nam	ie:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 7/2023@	1449		
Sample Nun	nber:	RGW189S-	230207		Weather:				
Landau Rep	resentative:	KVP / AT			-				
WATERIEV	/EL/WELL/PI	IRGE DATA							
Well Condition		Secure (YES)	Damaged (N	(O)	Describe:	flush		
DTW Before		5.12	Time:		Flow through ce		114011	GW Meter No.(s	WI M 9
		2/ 7 /2023 (-	2/ 7 /2023 @	1445	Gallons Purged:	
Purge water d			55-gal Drum	Ě	Storage Tank	Ground		SITE TREATM	
rurge water e	•	_	Ü		Č	_			
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time		(` 0 /	ters for three		dings within the f		>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1425	10.8	176.6	0.11	6.09	21.6		5.09		
1428	10.7	174.6	0.20	6.07	16.7		5.08		
1431	10.8	170.9	0.49	6.11	13.6		5.06		
1434	11.0	169.4	0.83	6.12	7.4				
	·					-			
1437	11.1	167.4	1.29	6.13	3.5	-			
1440	11.1	166.9	1.62	6.14	-0.7				
1443	11.2	165.3	1.92	6.16	-4.8				
SAMPLE CO	LLECTION I								
Sample Colle	cted With:		Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(D)/		_ ~ .							
(By Numerica	ıl Order)	Other							
•		-	, sheen, etc.):	clear, colorle	ess, no odor, no sh	neen			
Sample Descr	ription (color,	turbidity, odor	·				DTW	Farmousinon	Commental
•		-	D.O. (mg/L)	clear, colorle	ORP	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
Sample Descri Replicate	Temp	turbidity, odor Cond. (uS/cm)	D.O. (mg/L)	pН	ORP	Turbidity			
Sample Descri Replicate	Temp (°F/°C)	Cond. (uS/cm) 159.3	D.O. (mg/L)	pH 6.17	ORP (mV)	Turbidity			
Replicate 1 2	Temp (°F/°C) 11.2	Cond. (uS/cm) 159.3	D.O. (mg/L) 1.95	pH 6.17 6.26	ORP (mV) -5.1	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 11.2 11.2	Cond. (uS/cm) 159.3 157.9	D.O. (mg/L) 1.95 1.97 2.02	pH 6.17 6.26 6.28	ORP (mV) -5.1 -4.8	Turbidity			
Replicate 1 2	Temp (°F/°C) 11.2	Cond. (uS/cm) 159.3	D.O. (mg/L) 1.95	pH 6.17 6.26	ORP (mV) -5.1	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 11.2 11.2	Cond. (uS/cm) 159.3 157.9	D.O. (mg/L) 1.95 1.97 2.02	pH 6.17 6.26 6.28	ORP (mV) -5.1 -4.8	Turbidity			
Replicate 1 2 3 4	Temp (°F/°C) 11.2 11.2 11.2 10.9	Cond. (uS/cm) 159.3 157.9 156.9 158.0	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01	pH 6.17 6.26 6.28 6.30 6.25	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5	Turbidity	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.2 11.2 11.2 10.9 11.1	Cond. (uS/cm) 159.3 157.9 156.9 158.0	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01	6.17 6.26 6.28 6.30 6.25 ER BOTTLE	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5	Turbidity (NTU)	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801)	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI 0) (8020) (N	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PI	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-Gx	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 TYPE (Circle a	Turbidity (NTU)	non-standard	(Fe II)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801) (8270D) (PA	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AD (NWTPH	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PINWTPH-G) H-D) (NWT	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle at) (BTEX) H-HCID) (8081)	Turbidity (NTU) pplicable or write	non-standard a	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801) (8270D) (Pz (pH) (Conductor) (COD) (TO	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI (0) (8020) (NAH) (NWTPI cuctivity) (TD: (Total PO	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PINWTPH-G) H-D) (NWT: S) (TSS) (H4) (Total Kie	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbi edahl Nitroge	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle at) (BTEX) H-HCID) (8081)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (non-standard a	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average: QUANTITY 14 6	Temp (°F/°C) 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801- (8270D) (PJ (pH) (Conda) (COD) (TOtal Cyanic	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI (0) (8020) (NAH) (NWTPI (uctivity) (TD: (C) (Total PO- (le) (WAD Cy	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PINWTPH-G) H-D) (NWTPH-G) S) (TSS) (Factorial of the properties of the	pH 6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-Gx PH-Dx) (TP-BOD) (Turbic edahl Nitroge Cyanide)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (non-standard a	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 14 6	Temp (°F/°C) 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801) (8270D) (P/O) (PH) (Condo) (COD) (Total Cyanic) (Total Metals)	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI 0) (8020) (NAH) (NWTPI uctivity) (TD: C) (Total PO- de) (WAD Cy s) (As) (Sb) (D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PINATH-G) H-D) (NWT) S) (TSS) (IE 4) (Total Kievanide) (Freed (Ba) (Be) (C)	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX) PH-DX) (TP BOD) (Turbic edahl Nitroge et Cyanide) a) (Cd) (Co)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO2) (Cr) (Cu) (Fe)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 14 6	Temp (°F/°C) 11.2 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801) (8270D) (P/OpH) (Condo) (COD) (Total Cyanical Cyanical Cyanical Colors of the Condo) (Total Metals) (Dissolved Metals)	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI (0) (8020) (NAH) (NWTPI uctivity) (TD: (C) (Total PO- (de) (WAD Cy (de) (AS) (Sb) (Stetals) (As) (Sb)	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PINATH-G) H-D) (NWT) S) (TSS) (IE 4) (Total Kievanide) (Freed (Ba) (Be) (C)	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX) PH-DX) (TP BOD) (Turbic edahl Nitroge et Cyanide) a) (Cd) (Co)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO2) (Cr) (Cu) (Fe)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (Observations OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 14 6	Temp (°F/°C) 11.2 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801 (8270D) (P/OP) (COD) (TO (COD)	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI (0) (8020) (N AH) (NWTPI (uctivity) (TD: (C) (Total PO (de) (WAD Cy (s) (As) (Sb) (Many Cy (detals) (As) (Sb)	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PI NWTPH-G) H-D) (NWT S) (TSS) (IF 4) (Total Kicken (Tree (Normalide) (Free (Normalide) (Normalide) (Free (Normalide) (Norma	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX) PH-DX) (TP BOD) (Turbic edahl Nitroge et Cyanide) a) (Cd) (Co)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO2) (Cr) (Cu) (Fe)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 14 6	Temp (°F/°C) 11.2 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801 (8270D) (P/OP) (COD) (TO (COD)	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI (0) (8020) (NAH) (NWTPI uctivity) (TD: (C) (Total PO- (de) (WAD Cy (de) (AS) (Sb) (Stetals) (As) (Sb)	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PI NWTPH-G) H-D) (NWT S) (TSS) (IF 4) (Total Kicken (Tree (Normalide) (Free (Normalide) (Normalide) (Free (Normalide) (Norma	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX) PH-DX) (TP BOD) (Turbic edahl Nitroge et Cyanide) a) (Cd) (Co)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO2) (Cr) (Cu) (Fe)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 14 6	Temp (°F/°C) 11.2 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801 (8270D) (P/OP) (COD) (TO (COD)	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI (0) (8020) (N AH) (NWTPI (uctivity) (TD: (C) (Total PO (de) (WAD Cy (s) (As) (Sb) (Many Cy (detals) (As) (Sb)	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PI NWTPH-G) H-D) (NWT S) (TSS) (IF 4) (Total Kicken (Tree (Normalide) (Free (Normalide) (Normalide) (Free (Normalide) (Norma	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX) PH-DX) (TP BOD) (Turbic edahl Nitroge et Cyanide) a) (Cd) (Co)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO2) (Cr) (Cu) (Fe)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 14 6	Temp (°F/°C) 11.2 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801 (8270D) (P/OP) (COD) (TO (COD)	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI (0) (8020) (N AH) (NWTPI (uctivity) (TD: (C) (Total PO (de) (WAD Cy (s) (As) (Sb) (Many Cy (detals) (As) (Sb)	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PI NWTPH-G) H-D) (NWT S) (TSS) (IF 4) (Total Kicken (Tree (Normalide) (Free (Normalide) (Normalide) (Free (Normalide) (Norma	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX) PH-DX) (TP BOD) (Turbic edahl Nitroge et Cyanide) a) (Cd) (Co)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO2) (Cr) (Cu) (Fe)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 14 6	Temp (°F/°C) 11.2 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801 (8270D) (Po (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	turbidity, odor Cond. (uS/cm) 159.3 157.9 156.9 158.0 INALYSIS AI (0) (8020) (N AH) (NWTPI (1) (Total PO- (1) (WAD Cy (2) (As) (Sb) (Set (1) (As) (Sb) (Set (1) (As) (Set (1) (As	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PI NWTPH-G) H-D) (NWT S) (TSS) (I 4) (Total Kid ranide) (Free (Ba) (Be) (C D) (Ba) (Be) (C cetylene	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX) PH-DX) (TP BOD) (Turbic edahl Nitroge et Cyanide) a) (Cd) (Co)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO2) (Cr) (Cu) (Fe)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 14 6 3	Temp (°F/°C) 11.2 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801 (8270D) (Po (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI (0) (8020) (N AH) (NWTPI (uctivity) (TD: (C) (Total PO (de) (WAD Cy (s) (As) (Sb) (Many Cy (detals) (As) (Sb)	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PI NWTPH-G) H-D) (NWT S) (TSS) (I 4) (Total Kid ranide) (Free (Ba) (Be) (C D) (Ba) (Be) (C cetylene	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX) PH-DX) (TP BOD) (Turbic edahl Nitroge et Cyanide) a) (Cd) (Co)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO2) (Cr) (Cu) (Fe)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 14 6	Temp (°F/°C) 11.2 11.2 11.2 10.9 11.1 TYPICAL A (8260) (801 (8270D) (Po (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	turbidity, odor Cond. (uS/cm) 159.3 157.9 156.9 158.0 NALYSIS AI (0) (8020) (N AH) (NWTPI (1) (Total PO (2) (As) (Sb) (Getals) (As) (Sb) (fetals) (As) (St (mg short list) (mane Ethene Ac	D.O. (mg/L) 1.95 1.97 2.02 2.08 2.01 LLOWED PI NWTPH-G) H-D) (NWT S) (TSS) (I 4) (Total Kid ranide) (Free (Ba) (Be) (C D) (Ba) (Be) (C cetylene	6.17 6.26 6.28 6.30 6.25 ER BOTTLE (NWTPH-GX) PH-DX) (TP BOD) (Turbic edahl Nitroge et Cyanide) a) (Cd) (Co)	ORP (mV) -5.1 -4.8 -5.7 -6.2 -5.5 CTYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO2) (Cr) (Cu) (Fe)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (Observations OR OR OR OR OR OR OR OR OR OR



Duningt Nom		Boeing Ren	ton		Duainat Numba		0005017 000 0	00,000	
Project Nam	ie.		ton		Project Number	-	0025217.003.0	99.099	
Event:	-1	Feb. 2023	220206		Date/Time:	2/ 06/2023@	1648		
Sample Nun Landau Rep	-	RGW193S- KVP	230200		Weather:	WINDY, CLOU	D1,403		
	/EL/WELL/PU								
Well Condition		Secure (YES	,	Damaged (N	,		FLUSH MT A	IRPLANE RATE	
DTW Before		5.4	Time:		Flow through cel			GW Meter No.(s	
0 0	Date/Time:			End Purge:		2/06/2023 @		Gallons Purged:	0.5
Purge water of	lisposed to:	Ш	55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	ters for three	(mV)	(NTU) dings within the f	(ft)	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1611	11.0	530.0	0.37	6.43	20.7		5.57		
1614	10.9	434.6	0.27	6.28	16.4		5.47		
1617	10.9	411.6	0.23	6.26	9.9		5.52		
1620	10.8	377.4	0.40	6.27	0.8				
1623	10.8	345.0	0.77	6.28	-4.6				
1626	· 	319.3	1.17	6.30	-11.6				
1629	10.8	299.8	1.44	6.31	-15.4				
1632	10.8	266.3	1.71	6.33	-18.3				
SAMPLE CO	LLECTION D	OATA							
Sample Colle	cted With:		Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other							
Sample Descr	ription (color,	turbidity, odor	r, sheen, etc.):	CLEAR, LC	W TURB, SLIGH	T ORGANIC ODO	OR, COLORLES	S, NO SHEEN	
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	10.7	263.3	1.77	6.33	-19.4	(= . = =)	(==)	(= = =)	
2	10.7	263.4	1.78	6.33	-19.4				
3	10.7	258.4	1.83	6.33	-20.2				
4	10.7	258.1	1.84	6.34	-20.3		-		
Average:	10.7	260.8	1.81	6.33	-19.8				
OHANTITY	TVDICAL A	NAT VCIC AT	I I OWED DI	ED RATTI I	TVDF (Cirolo o	pplicable or write	non standard s	nalveic balow)	
3		0) (8020) (N				ppiicable of write	non-standard a	WA \square	OR 🗆
	, , ,	, , , ,		`		(8141) (Oil & C	Trease)	WA 🗆	OR 🗆
						(6111) (611 to 6			
1		•			en) (NH3) (NO3				
	(Total Cyanid	le) (WAD Cy	vanide) (Free	Cyanide)					
	(Total Metals) (As) (Sb) ((Ba) (Be) (C	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) $($	Hg) (K) (Na)
	(Dissolved M	etals) (As) (St	b) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (F	(Ni) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein	g short list)							
	Methane Eth	ane Ethene A	cetylene						
	others								
	others								
Dunlicate Sar									
Duplicate Bai	mple No(s):								
Comments:	mple No(s):								



Project Nam	ne:	Boeing Ren	ton		Project Number	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/07/2023 @	1330		
Sample Nun	nber:	RGW207S-	230207		Weather:	RAINY, 40S, W	INDY		
Landau Rep	resentative:	KVP			-				
WATER LEV	VEL/WELL/PU	IRGE DATA							
Well Condition		Secure (YES))	Damaged (N	O)	Describe:	FLUSH MOU	NT IN DIRT ON I	MEDIAN
DTW Before	Purging (ft)	6.18	Time:	1304	Flow through cel	ll vol.		GW Meter No.(s	SLOPE 11
	Date/Time:	2/07/2023 @	1307	End Purge:	Date/Time:	2/07/2023 @	1327	Gallons Purged:	1
Purge water of			55-gal Drum		Storage Tank	Ground	Other	SITE TREATMI	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	F	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goal	s: Stablization +/- 3%		ers for three +/- 0.1 units	consecutive rea +/- 10 mV	dings within the fo +/- 10%	ollowing limits < 0.3 ft	>/= 1 flow	
1200						+/- 10 70		through cell	
1309		265.4	0.83	8.61	-24		6.37		
1312	12.4	259.7	0.66	8.51	-24.6		6.27		
1315	12.1	256.9	0.56	8.40	-24.3		6.33		
1318	12.1	255.6	0.42	8.34	-24.1				
1321	12.2	256.4	0.39	8.27	-24.4				
1324	12.2	256.5	0.39	8.33	-24.2				
SAMPLE CO	DLLECTION D	ATA							
Sample Colle	ected With:		Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	dure:	Alconox Was	th 🗖	Tap Rinse	DI Water	Dedicated		_	
Replicate	Temp	Cond.	D.O.	pН	ORP	ODOR / NO SHEE	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	(Fe II)	Observations
1	12.2	256.3	0.37	8.39	-24.2				
2	12.2	256.3	0.36	8.34	-24.0				
3	12.2	256.6	0.36	8.34	-24.1				
4	12.2	256.3	0.36	8.32	-24.0				
Average:	12.2	256.4	0.36	8.35	-24.1				
OUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	R BOTTLE	TYPE (Circle a	pplicable or write	non-standard :	analysis below)	
3)) (8020) (N			•	ppinemore or write	11011 DW111011 U	wa 🗆	OR 🗆
	(8270D) (PA	AH) (NWTPI	H-D) (NWTP	PH-Dx) (TP	H-HCID) (8081)	(8141) (Oil & G	rease)	wa 🗆	OR 🗆
	l					(HCO3/CO3) (O3) (NO2) (F)	
	(COD) (TOO	C) (Total PO	4) (Total Kie	dahl Nitroge	n) (NH3) (NO3	3/NO2)			
		e) (WAD Cy		•					
						(Pb) (Mg) (Mn)			
			o) (Ba) (Be) (C	(Cd) (Co)	(Cr) (Cu) (Fe) (F	(Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (
	VOC (Boein	g short list) ane Ethene Ad	retylene						
	Triculant Ell	шк викис А	CLYTCHE						
	others								
	JI.								
Duplicate Sar	JI.								



_	ne:	Boeing Ren	ton		Project Number	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/07/2023 @	1202		
Sample Nun	nber:	RGW208S-	230207		Weather:	CLOUDY, 40S,	WET		
Landau Rep	-	KVP			-				
WATER LEV	VEL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	FLUSH MOUN	NT BY GATE	
DTW Before	Purging (ft)	7.54	Time:	1140	Flow through cel	l vol.		GW Meter No.(s	SLOPE 11
Begin Purge:	Date/Time:	2/ 07/2023 @	1141	End Purge:	Date/Time:	2/07/2023 @	1159	Gallons Purged:	0.:
Purge water of	disposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATME	ENT SYSTEM
TD :	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goal	(uS/cm) s: Stablization	(mg/L) n of Paramet	ters for three	(mV) e consecutive rea	(NTU) dings within the f	(ft) ollowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1143	12.1	390.7	1.65	7.46	0.6		7.64		
1146	12.0	396.3	1.00	7.51	-17.9		7.59		
1149	11.3	395.3	0.89	7.48	-27.7		7.67		
1152	12.0	402.4	0.73	7.53	-29.4				
1155	12.0	400.7	0.73	7.46	-30.6				
1158	12.1	393.4	0.71	7.47	-32.1				
	-								
SAMPLE CO	DLLECTION D	DATA							
Sample Colle	ected With:		Bailer		Pump/Pump Type	;			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee			_		_	_			
	aure: II II	Alconox Was	sh 🖂	Tap Rinse	DI Water	Dedicated			
		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other				_	OOR. NO SHEEI	N. LOW TURB	
(By Numerica Sample Desc	al Order)	Other turbidity, odor	, sheen, etc.):	CLEAR, VE	ERYSIGHT YELL	OW TINT, NO OE			
(By Numerica	al Order)	Other	D.O.			OW TINT, NO OF	DOR, NO SHEED DTW (ft)	N, LOW TURB Ferrous iron (Fe II)	Comments/ Observations
(By Numerica Sample Desc	al Order) cription (color,	Other turbidity, odor	, sheen, etc.):	CLEAR, VE	ERYSIGHT YELL ORP	OW TINT, NO OE	DTW	Ferrous iron	
(By Numerical Sample Description Replicate	al Order) rription (color, Temp (°F/°C) 12.1	Cond. (uS/cm) 391.8	D.O. (mg/L)	CLEAR, VE	ORP (mV)	OW TINT, NO OF	DTW	Ferrous iron	
(By Numerical Sample Description Replicate 1 2	ription (color, Temp (°F/°C) 12.1 12.1	Cond. (uS/cm) 391.8	D.O. (mg/L) 0.71	CLEAR, VE pH 7.40 7.34	ORP (mV) -32.1 -32.4	OW TINT, NO OF	DTW	Ferrous iron	
(By Numerical Sample Description Replicate 1 2 3	Temp (°F/°C) 12.1 12.1	Cond. (uS/cm) 391.8 391.6 389.0	D.O. (mg/L) 0.71 0.70	CLEAR, VE pH 7.40 7.34 7.37	ORP (mV) -32.1 -32.4 -32.5	OW TINT, NO OF	DTW	Ferrous iron	
(By Numerical Sample Description Replicate 1 2 3 4	al Order) ription (color, Temp (°F/°C) 12.1 12.1 12.1 12.1	Cond. (uS/cm) 391.8 391.6 389.0 388.8	D.O. (mg/L) 0.71 0.70 0.70	7.40 7.34 7.37 7.43	ORP (mV) -32.1 -32.4 -32.5 -32.6	OW TINT, NO OF	DTW	Ferrous iron	
(By Numerical Sample Description Replicate 1 2 3	Temp (°F/°C) 12.1 12.1	Cond. (uS/cm) 391.8 391.6 389.0	D.O. (mg/L) 0.71 0.70	CLEAR, VE pH 7.40 7.34 7.37	ORP (mV) -32.1 -32.4 -32.5	OW TINT, NO OF	DTW	Ferrous iron	
(By Numerical Sample Description Replicate 1 2 3 4 Average:	al Order) ription (color, Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1	Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3	D.O. (mg/L) 0.71 0.70 0.70 0.71	7.40 7.34 7.37 7.43 7.39	ORP (mV) -32.1 -32.4 -32.5 -32.6	OW TINT, NO OF	DTW (ft)	Ferrous iron (Fe II)	
(By Numerical Sample Description Replicate 1 2 3 4 Average:	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (801)	Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI (0) (8020) (N	D.O. (mg/L) 0.71 0.70 0.71 0.70 0.71 LLOWED PI	7.40 7.34 7.37 7.43 7.39 ER BOTTLE (NWTPH-GX	ORP (mV) -32.1 -32.4 -32.5 -32.4 2 TYPE (Circle a	OW TINT, NO OF Turbidity (NTU) pplicable or write	DTW (ft)	Ferrous iron (Fe II) analysis below) WA	Observations OR
(By Numerical Sample Desconding Replicate 1 2 3 4 Average:	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (8016) (8270D) (PA	Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (NAH) (NWTPH	D.O. (mg/L) 0.71 0.70 0.70 0.71 LLOWED PI	7.40 7.34 7.37 7.43 7.39 ER BOTTLE (NWTPH-GX	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a	Turbidity (NTU) pplicable or write	DTW (ft) non-standard a	Ferrous iron (Fe II) analysis below) WA WA WA	Observations
(By Numerical Sample Descondent Property of the Property of th	Temp (°F/°C) 12.1 12.1 12.1 12.1 (8260) (8010 (8270D) (PA (pH) (Condu	Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (N AH) (NWTPHactivity) (TDS	D.O. (mg/L) 0.71 0.70 0.70 0.71 LLOWED PINWTPH-G) H-D) (NWT) S) (TSS) (E	7.40 7.34 7.37 7.43 7.39 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbi	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a constitution of the cons	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (DTW (ft) non-standard a	Ferrous iron (Fe II) analysis below) WA WA WA	Observations OR OR
(By Numerical Sample Descondent Property of the Property of th	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (801e) (8270D) (Palent) (PH) (Conde) (COD) (TOO	Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (N AH) (NWTPHactivity) (TDS) C) (Total PO-	D.O. (mg/L) 0.71 0.70 0.70 0.71 LLOWED PI WYPH-G) H-D) (NWTI S) (TSS) (E	PH-Dx) (TP-BOD) (Turbicedahl Nitroge	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (DTW (ft) non-standard a	Ferrous iron (Fe II) analysis below) WA WA WA	Observations OR OR
(By Numerical Sample Descondent Property of the Property of th	Temp (°F/°C) 12.1 12.1 12.1 12.1 (8260) (8010 (8270D) (PA) (COD) (TOO (Total Cyanid	Cond. (uS/cm) 391.8 391.6 388.8 390.3 NALYSIS AI 0) (8020) (N AH) (NWTPH uctivity) (TDS C) (Total PO-	D.O. (mg/L) 0.71 0.70 0.70 0.71 LLOWED PI WTPH-G) (NWTI S) (TSS) (E 4) (Total Kicanide) (Free	PH 7.40 7.34 7.37 7.43 7.39 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbic edahl Nitroge Cyanide)	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a.	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (DTW (ft) non-standard a	Ferrous iron (Fe II) malysis below) WA WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR
(By Numerical Sample Descondent Property of the Property of th	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (8010 (8270D) (P/O) (PH) (Condo) (COD) (Total Cyanical Metals)	Other turbidity, odor turbidity, odor Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (N AH) (NWTPHactivity) (TDS C) (Total PO- de) (WAD Cy c) (As) (Sb) (D.O. (mg/L) 0.71 0.70 0.71 0.70 0.71 LLOWED PI WTPH-G) (NWTI S) (TSS) (E4) (Total Kie anide) (Free Ba) (Be) (C	PH-Dx) (TPBOD) (Turbicedahl Nitroges Cyanide) a) (Cd) (Co)	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a. a.) (BTEX) H-HCID) (8081) (idity) (Alkalinity) (idity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (6/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR OR OR OR OR OR OR
(By Numerical Sample Description Replicate 1 2 3 4 Average:	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (8010 (8270D) (P/O) (PH) (Condo) (COD) (Total Cyanical Metals)	Other turbidity, odor turbidity, odor turbidity, odor Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (NAH) (NWTPH cuctivity) (TDS C) (Total POde) (WAD Cy) (As) (Sb) (detals) (As) (Sb) (detals) (As) (Sb)	D.O. (mg/L) 0.71 0.70 0.71 0.70 0.71 LLOWED PI WTPH-G) (NWTI S) (TSS) (E4) (Total Kie anide) (Free Ba) (Be) (C	PH-Dx) (TPBOD) (Turbicedahl Nitroges Cyanide) a) (Cd) (Co)	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a. a.) (BTEX) H-HCID) (8081) (idity) (Alkalinity) (idity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (6/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR OR OR OR OR OR OR
(By Numerical Sample Descondent Property of the Property of th	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (8010 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Other turbidity, odor turbidity, odor turbidity, odor Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (NAH) (NWTPH cuctivity) (TDS C) (Total POde) (WAD Cy) (As) (Sb) (detals) (As) (Sb) (detals) (As) (Sb)	D.O. (mg/L) 0.71 0.70 0.70 0.71 LLOWED PI WTPH-G) (NWTI S) (TSS) (F 4) (Total Kicanide) (Free Ba) (Be) (C b) (Ba) (Be) (G	PH-Dx) (TPBOD) (Turbicedahl Nitroges Cyanide) a) (Cd) (Co)	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a. a.) (BTEX) H-HCID) (8081) (idity) (Alkalinity) (idity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (6/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR OR OR OR OR OR OR
(By Numerical Sample Description Replicate 1 2 3 4 Average:	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (8010 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (N AH) (NWTPHactivity) (TDS C) (Total PO- de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ag short list)	D.O. (mg/L) 0.71 0.70 0.70 0.71 LLOWED PI WTPH-G) (NWTI S) (TSS) (F 4) (Total Kicanide) (Free Ba) (Be) (C b) (Ba) (Be) (G	PH-Dx) (TPBOD) (Turbicedahl Nitroges Cyanide) a) (Cd) (Co)	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a. a.) (BTEX) H-HCID) (8081) (idity) (Alkalinity) (idity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (6/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR OR OR OR OR OR OR
(By Numerical Sample Description Replicate 1 2 3 4 Average:	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (8010 (8270D) (PA) (COD) (Total Cyanid (Total Metals) (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (N AH) (NWTPHactivity) (TDS C) (Total PO- de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ag short list)	D.O. (mg/L) 0.71 0.70 0.70 0.71 LLOWED PI WTPH-G) (NWTI S) (TSS) (F 4) (Total Kicanide) (Free Ba) (Be) (C b) (Ba) (Be) (G	PH-Dx) (TPBOD) (Turbicedahl Nitroges Cyanide) a) (Cd) (Co)	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a. a.) (BTEX) H-HCID) (8081) (idity) (Alkalinity) (idity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (6/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR OR OR OR OR OR OR
(By Numerical Sample Description Replicate 1 2 3 4 Average:	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (8010 (8270D) (PA (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (N AH) (NWTPHactivity) (TDS C) (Total PO- de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ag short list)	D.O. (mg/L) 0.71 0.70 0.70 0.71 LLOWED PI WTPH-G) (NWTI S) (TSS) (F 4) (Total Kicanide) (Free Ba) (Be) (C b) (Ba) (Be) (G	PH-Dx) (TPBOD) (Turbicedahl Nitroges Cyanide) a) (Cd) (Co)	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a. a.) (BTEX) H-HCID) (8081) (idity) (Alkalinity) (idity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (6/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR
(By Numerical Sample Descondent Property of the Property of th	Temp (°F/°C) 12.1 12.1 12.1 12.1 12.1 (8260) (8010 (8270D) (Pz (pH) (Condu (COD) (Total Cyanica (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 391.8 391.6 389.0 388.8 390.3 NALYSIS AI 0) (8020) (N AH) (NWTPHactivity) (TDS C) (Total PO- de) (WAD Cy c) (As) (Sb) (detals) (As) (Sb ag short list)	D.O. (mg/L) 0.71 0.70 0.70 0.71 LLOWED PI WTPH-G) (NWTI S) (TSS) (F 4) (Total Kicanide) (Free Ba) (Be) (C b) (Ba) (Be) (G	PH-Dx) (TPBOD) (Turbicedahl Nitroges Cyanide) a) (Cd) (Co)	ORP (mV) -32.1 -32.4 -32.5 -32.6 -32.4 E TYPE (Circle a. a.) (BTEX) H-HCID) (8081) (idity) (Alkalinity) (idity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (6/NO2) (Pb) (Mg) (Mn)	non-standard a Grease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR OR OR OR OR OR OR



Project Nam	ne:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/9/2023 @	1158		
Sample Nun	nber:	RGW211S-	230209		Weather:	CLOUDY,	40S		
Landau Rep	resentative:	KVP			•				
WATER LEV	/EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	FLUSH MOU	NT ON RENTON	AIRPORT SIDE
DTW Before	Purging (ft)	9.56	Time:	1127	Flow through ce	ll vol.		GW Meter No.(s	SLOPE 2
Begin Purge:	Date/Time:	2/09/2023 @	1130	End Purge:	Date/Time:	2/09/2023 @	1156	Gallons Purged:	0.5
Purge water of	disposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	Volume (gal)	Observations
	+/- 3%	s: Stablizatio +/- 3%		ers for three +/- 0.1 units	e consecutive rea +/- 10 mV	dings within the fe +/- 10%	ollowing limits < 0.3 ft	>/= 1 flow through cell	
1133		345.3	1.33	6.59	-101.4		9.82	3	
1136		323.5	2.55	6.63	-80.0		9.83		
						-			
1139		217.6	1.85	6.68	-70.5	-	9.90		
1142		159.0	0.72	6.62	-64.4				
1145	9.9	146.7	1.00	6.58	-60.7				
1148	10.0	135.1	1.52	6.51	-54.1				
1151	10.1	129.4	2.07	6.44	-49.9				
1154	10.1	128.0	2.40	6.41	-43.4				
	LLECTION I								
Sample Colle	ected With:		Bailer			QED BLADDER			
Made of:		Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	dure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(D 1/	101)	□ 0.1	_	•					
(By Numerica		Other		A SEE THE DE		_	NEDV OLIGI	TT CHENTON /	DETEROLEUR I WE
		-	r, sheen, etc.):	MED TURB		_	R, VERY SLIGH	IT CHEMICAL/ I	PETROLEUM-LIKE
		-	D.O. (mg/L)	MED TURB		_	R, VERY SLIGH DTW (ft)	Ferrous iron (Fe II)	PETROLEUM-LIKE Comments/ Observations
Sample Descri	ription (color,	turbidity, odo	D.O.		IDITY, ORANGI	E-BROWN COLOR	DTW	Ferrous iron	Comments/
Sample Describerate Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	E-BROWN COLOR	DTW	Ferrous iron	Comments/
Sample Describerate Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	E-BROWN COLOR	DTW	Ferrous iron	Comments/
Replicate 1 2	Temp (°F/°C) 10.1	Cond. (uS/cm) 127.8	D.O. (mg/L) 2.47 2.51	pH 6.4 6.4	ORP (mV) -42.1	E-BROWN COLOR	DTW	Ferrous iron	Comments/
Replicate 1 2 3 4	Temp (°F/°C) 10.1 10.1	Cond. (uS/cm) 127.8 127.7 127.6	D.O. (mg/L) 2.47 2.51 2.56 2.57	pH 6.4 6.4 6.4	ORP (mV) -42.1 -41.6 -40.9 -40.3	E-BROWN COLOR	DTW	Ferrous iron	Comments/
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1	Cond. (uS/cm) 127.8 127.7 127.6 127.3	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53	6.4 6.4 6.4 6.4	ORP (mV) -42.1 -41.6 -40.9 -40.3	E-BROWN COLOR	DTW (ft)	Ferrous iron (Fe II)	Comments/
Replicate 1 2 3 4	Temp (°F/°C) 10.1 10.1 10.1 10.1 TYPICAL A	Cond. (uS/cm) 127.8 127.7 127.6 127.3 127.6	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53	6.4 6.4 6.4 6.4 6.4 ER BOTTLE	ORP (mV) -42.1 -41.6 -40.9 -41.2 TYPE (Circle a	E-BROWN COLOR	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801)	Cond. (uS/cm) 127.8 127.7 127.6 127.3 127.6 NALYSIS AL (0) (8020) (1	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PH	6.4 6.4 6.4 6.4 6.4 6.4 KER BOTTLE	ORP (mV) -42.1 -41.6 -40.9 -41.2 TYPE (Circle a) (BTEX)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II) analysis below) WA	Comments/ Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 10.1 10.1 10.1 (8260) (801-16) (8270) (PAI	Cond. (uS/cm) 127.8 127.7 127.6 127.6 127.6 NALYSIS A. (0) (8020) (14) (NWTPH-	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PF NWTPH-G) (NWTPH-G) (D) (NWTPH-G)	6.4 6.4 6.4 6.4 6.4 6.4 CER BOTTLE (NWTPH-Gx 1-Dx) (TPH	ORP (mV) -42.1 -41.6 -40.9 -41.2 CTYPE (Circle at a continuous) -HCID) (8081)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr	DTW (ft)	Ferrous iron (Fe II) analysis below) WA WA WA	Comments/ Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801) (8270) (PAI (pH) (Condu	Cond. (uS/cm) 127.8 127.7 127.6 127.6 127.6 NALYSIS Al 0) (8020) (It d) (NWTPH- activity) (TD	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PP NWTPH-G) (NWTPH-G) (NW	6.4 6.4 6.4 6.4 6.4 6.4 ER BOTTLE NWTPH-GX H-Dx) (TPH-GOD) (Turbi	ORP (mV) -42.1 -41.6 -40.9 -41.2 CTYPE (Circle at a continuous) -HCID) (8081)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (DTW (ft)	Ferrous iron (Fe II) analysis below) WA WA WA	Comments/ Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801- (8270) (PAI (pH) (Conda (COD) (TO	Cond. (uS/cm) 127.8 127.7 127.6 127.6 127.6 NALYSIS Al 0) (8020) (It d) (NWTPH- activity) (TD	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PI NWTPH-G) (D) (NWTPH-S) (ES) (TSS) (ES) (ES) (ES)	pH 6.4 6.4 6.4 6.4 6.4 CR BOTTLE (NWTPH-Gx H-Dx) (TPH-GOD) (Turbic dahl Nitroge	ORP (mV) -42.1 -41.6 -40.9 -40.3 -41.2 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (DTW (ft)	Ferrous iron (Fe II) analysis below) WA WA WA	Comments/ Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801- (8270) (PAI (pH) (Conduction) (COD) (Tod (Total Cyanic	Cond. (uS/cm) 127.8 127.7 127.6 127.3 127.6 NALYSIS Al (0) (8020) (I H) (NWTPH- uctivity) (TD C) (Total PO (le) (WAD Cy	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PP NWTPH-G) (D) (NWTPF S) (TSS) (E 4) (Total Kieranide) (Free	pH 6.4 6.4 6.4 6.4 6.4 ER BOTTLE NWTPH-Gx H-Dx) (TPH GOD) (Turbic bdahl Nitroge Cyanide)	ORP (mV) -42.1 -41.6 -40.9 -40.3 -41.2 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (non-standard at ease)	Ferrous iron (Fe II) analysis below) WA WA O O O O O O O O O O O O O O O O O O O	Comments/ Observations OR OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801) (8270) (PAI (pH) (Condo) (COD) (Total Cyanical Metals) (Dissolved M	Cond. (uS/cm) 127.8 127.7 127.6 127.3 127.6 NALYSIS Al (0) (8020) (th) (NWTPH- cuctivity) (TD (C) (Total PO (de) (WAD Cy (detals) (As) (Sl)	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PF NWTPH-G) (D) (NWTPH-S) (TSS) (E) 4) (Total Kie 4) (Total Kie 4) (Total Kie 4) (Total Kie 4) (Ba) (Be) (Ca	pH 6.4 6.4 6.4 6.4 6.4 ER BOTTLE (NWTPH-Gx 1-Dx) (TPH BOD) (Turbiced Nitroge Cyanide) a) (Cd) (Co)	ORP (mV) -42.1 -41.6 -40.9 -40.3 -41.2 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity (NO3) (NH3) (NO3) (CCr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O3) (NO2) (F) (Tl) (V) (Zn) (I	Comments/ Observations OR OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801- (8270) (PAI (pH) (Conduction (COD) (Total Cyanical	Cond. (uS/cm) 127.8 127.7 127.6 127.6 127.6 NALYSIS Al () (8020) (! H) (NWTPH- activity) (TD (C) (Total PO (le) (WAD Cy () (As) (Sb) (g short list)	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PI NWTPH-G) (D) (NWTPH S) (TSS) (E 4) (Total Kie ranide) (Free Ba) (Be) (Ca o) (Ba) (Be) (Ca o) (Ba) (Be) (Ca	pH 6.4 6.4 6.4 6.4 6.4 ER BOTTLE (NWTPH-Gx 1-Dx) (TPH BOD) (Turbiced Nitroge Cyanide) a) (Cd) (Co)	ORP (mV) -42.1 -41.6 -40.9 -40.3 -41.2 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity (NO3) (NH3) (NO3) (CCr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O3) (NO2) (F) (Tl) (V) (Zn) (I	Comments/ Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801- (8270) (PAI (pH) (Conduction (COD) (Total Cyanical	Cond. (uS/cm) 127.8 127.7 127.6 127.3 127.6 NALYSIS Al (0) (8020) (th) (NWTPH- cuctivity) (TD (C) (Total PO (de) (WAD Cy (detals) (As) (Sl)	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PI NWTPH-G) (D) (NWTPH S) (TSS) (E 4) (Total Kie ranide) (Free Ba) (Be) (Ca o) (Ba) (Be) (Ca o) (Ba) (Be) (Ca	pH 6.4 6.4 6.4 6.4 6.4 ER BOTTLE (NWTPH-Gx 1-Dx) (TPH BOD) (Turbiced Nitroge Cyanide) a) (Cd) (Co)	ORP (mV) -42.1 -41.6 -40.9 -40.3 -41.2 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity (NO3) (NH3) (NO3) (CCr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O3) (NO2) (F) (Tl) (V) (Zn) (I	Comments/ Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801- (8270) (PAI (pH) (Conduction (COD) (Total Cyanical	Cond. (uS/cm) 127.8 127.7 127.6 127.6 127.6 NALYSIS Al () (8020) (! H) (NWTPH- activity) (TD (C) (Total PO (le) (WAD Cy () (As) (Sb) (g short list)	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PI NWTPH-G) (D) (NWTPH S) (TSS) (E 4) (Total Kie ranide) (Free Ba) (Be) (Ca o) (Ba) (Be) (Ca o) (Ba) (Be) (Ca	pH 6.4 6.4 6.4 6.4 6.4 ER BOTTLE (NWTPH-Gx 1-Dx) (TPH BOD) (Turbiced Nitroge Cyanide) a) (Cd) (Co)	ORP (mV) -42.1 -41.6 -40.9 -40.3 -41.2 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity (NO3) (NH3) (NO3) (CCr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O3) (NO2) (F) (Tl) (V) (Zn) (I	Comments/ Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801- (8270) (PAI (pH) (Conduction (COD) (Total Cyanical	Cond. (uS/cm) 127.8 127.7 127.6 127.6 127.6 NALYSIS Al () (8020) (! H) (NWTPH- activity) (TD (C) (Total PO (le) (WAD Cy () (As) (Sb) (g short list)	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PI NWTPH-G) (D) (NWTPH S) (TSS) (E 4) (Total Kie ranide) (Free Ba) (Be) (Ca o) (Ba) (Be) (Ca o) (Ba) (Be) (Ca	pH 6.4 6.4 6.4 6.4 6.4 ER BOTTLE (NWTPH-Gx 1-Dx) (TPH BOD) (Turbiced Nitroge Cyanide) a) (Cd) (Co)	ORP (mV) -42.1 -41.6 -40.9 -40.3 -41.2 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity (NO3) (NH3) (NO3) (CCr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O3) (NO2) (F) (Tl) (V) (Zn) (I	Comments/ Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 2	Temp (°F/°C) 10.1 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801- (8270) (PAI (pH) (Condu- (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 127.8 127.7 127.6 127.6 127.6 NALYSIS Al () (8020) (! H) (NWTPH- activity) (TD (C) (Total PO (le) (WAD Cy () (As) (Sb) (g short list)	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PI NWTPH-G) (D) (NWTPH S) (TSS) (E 4) (Total Kie ranide) (Free Ba) (Be) (Ca o) (Ba) (Be) (Ca o) (Ba) (Be) (Ca	pH 6.4 6.4 6.4 6.4 6.4 ER BOTTLE (NWTPH-Gx 1-Dx) (TPH BOD) (Turbiced Nitroge Cyanide) a) (Cd) (Co)	ORP (mV) -42.1 -41.6 -40.9 -40.3 -41.2 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity (NO3) (NH3) (NO3) (CCr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O3) (NO2) (F) (Tl) (V) (Zn) (I	Comments/ Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.1 10.1 10.1 10.1 10.1 TYPICAL A (8260) (801- (8270) (PAI (pH) (Condu- (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 127.8 127.7 127.6 127.6 127.6 NALYSIS Al () (8020) (! H) (NWTPH- activity) (TD (C) (Total PO (le) (WAD Cy () (As) (Sb) (g short list)	D.O. (mg/L) 2.47 2.51 2.56 2.57 2.53 LLOWED PI NWTPH-G) (D) (NWTPH S) (TSS) (E 4) (Total Kie ranide) (Free Ba) (Be) (Ca o) (Ba) (Be) (Ca o) (Ba) (Be) (Ca	pH 6.4 6.4 6.4 6.4 6.4 ER BOTTLE (NWTPH-Gx 1-Dx) (TPH BOD) (Turbiced Nitroge Cyanide) a) (Cd) (Co)	ORP (mV) -42.1 -41.6 -40.9 -40.3 -41.2 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity (NO3) (NH3) (NO3) (CCr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gr) (HCO3/CO3) (3/NO2) (Pb) (Mg) (Mn)	non-standard a ease) Cl) (SO4) (No	Ferrous iron (Fe II) analysis below) WA WA O3) (NO2) (F) (Tl) (V) (Zn) (I	Comments/ Observations OR OR OR Hg) (K) (Na)



Eyen Feb. 2023	Project Name	»:	Boeing Rent	ton		Project Numbe	r:	0025217.003.0	99.099	
Sample Numbers RGW221S-23029 Sample Numbers RGW221S-23029	J	<u>, '</u>				•	-			
Note Content		her:		230209		-		,,,,		
Marter Levil Well Condition Secure (YES) Damaged (NO) Describe: PLUSH MOUNT ON BOEING SIDE, NEAR DUMI OTN BEFORE SUE	•	_				-				
Note Condition			D CE D ATLA							
Date)	Damaged (N	IO)	Describe:	FLUSH MOUN	NT ON BOEING	SIDE NEAR DUMP
Purge Pur			` '			,		TEODII MOCI		
Purge water						· ·		936	-	
Temp					Ĕ				•	
CFF C CFF C CFF C CFF C C				Ü		-	_	_		
10.5 151.0 18.23 5.96 71.7 9.69 9.69 9.69 9.69 9.69 9.69 9.69 9.69 9.69 9.69 9.69 9.69 9.60 9.69 9.69 9.69 9.69 9.69 9.69 9.69 9.69 9.60 9.69	Time	-			рп		•		0	
913 10.5 15.0 18.23 5.96 71.7 9.69 916 10.3 160.0 10.98 5.93 65.5 9.70 919 10.0 160.8 7.17 5.93 63.0 9.73 922 9.7 160.6 4.39 5.95 61.1		0								
916		+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
100 160.8 7.17 5.93 63.0 9.73	913	10.5	151.0	18.23	5.96	71.7		9.69		
922 9.7 160.6 4.39 5.95 61.1 925 9.1 160.5 3.25 5.97 59.2 928 8.7 159.3 2.64 5.99 57.6 931 8.2 158.2 2.25 6.01 55.0 934 8.1 158.0 2.17 6.02 54.5 SAMPLE COLUMNOR Wash	916	10.3	160.0	10.98	5.93	65.5		9.70		
160.5 3.25 5.97 59.2	919	10.0	160.8	7.17	5.93	63.0		9.73		
SAMPLE COLLECTION DATA Stainless Steel PVC Teflon Polyethylene Other Dedicated	922	9.7	160.6	4.39	5.95	61.1				
SAMPLE COLLECTION DATA Sample Collected With: Bailer Pump/Pump Type QED BLADDER Dedicated	925	9.1	160.5	3.25	5.97	59.2				
SAMPLE COLLECTION DATA Sample Collected With:	928	8.7	159.3	2.64	5.99	57.6				
SAMPLE COLLECTION DATA Sample Collected With:	931	8.2	158.2	2.25	6.01	55.0				
Sample Collected With: Bailer Pump/Pump Type QED BLADDER Dedicated				-						
Sample Collected With:				2.17	0.02					
Decon Procedure:				Bailer		Pump/Pump Type	QED BLADDER			
Companies Comp	Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Commerce Commerce	Decon Procedu	ıre:	Alconox Was	sh 🗖	Tap Rinse	DI Water	Dedicated		_	
Replicate Temp (°F/°C) Cond. (uS/cm) D.O. (mg/L) pH (mV) ORP (mV) Turbidity (NTU) DTW (ft) Ferrous iron (Fe II) Comments/ Observations 1 8.1 157.9 2.13 6.01 54.8	(By Numerical	Order)	Other	_	-		_			
Company Comp	Sample Descri	ption (color, t	urbidity, odor	, sheen, etc.):	CLEAR, CC	LORLESS, SLIG	HT SULFURIC OI	OOR, NO SHEE	N	
Company Comp	Renlicate	Temn	Cond	D.O.	nН	ORP	Turbidity	DTW	Farrous iron	Comments
2 8.1 157.9 2.08 6.01 54.5 3 8.1 157.9 2.09 6.01 54.4 4 8.1 157.9 2.04 6.01 54.2 Average: 8.1 157.9 2.09 6.01 54.5 QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) (8260) (8010) (8020) (NWTPH-G) (NWTPH-GX) (BTEX) WA OR	перисис	-			PII		•			
3 8.1 157.9 2.09 6.01 54.4 4 8.1 157.9 2.04 6.01 54.2 Average: 8.1 157.9 2.09 6.01 54.5 QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) (8260) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR	1	8.1	157.9	2.13	6.01	54.8				
3 8.1 157.9 2.09 6.01 54.4 4 8.1 157.9 2.04 6.01 54.2 Average: 8.1 157.9 2.09 6.01 54.5 QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) (8260) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR	2	8.1	157.9	2.08	6.01	54.5				
4 8.1 157.9 2.04 6.01 54.2 Average: 8.1 157.9 2.09 6.01 54.5 QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) (8260) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR	3			-						
Average: 8.1 157.9 2.09 6.01 54.5 QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) (8260) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR 2 (8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease) WA OR (pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)										
QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) (8260) (8010) (8020) (NWTPH-G) (BTEX) WA OR OR 2 (8270) (PAH) (NWTPH-D) (TPH-HCID) (8081) (8141) (Oil & Grease) WA OR OR (pH) (Conductivity) (TDS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)										
(8260) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA □ OR □ 2 (8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease) WA □ OR □ (pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)	Average:	8.1	157.9	2.09	6.01	54.5				
2 (8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease) WA OR OR (PH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)	QUANTITY	TYPICAL A	NALYSIS AI	LOWED PI	ER BOTTLE	TYPE (Circle a	pplicable or write	non-standard a	nalysis below)	
(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		· , ·	<i>,</i> , , ,							
										OR □
I(COD) (TOC) (Total DOA) (Total Viodahl Nitransan) (NU2) (NO2/NO2)		•	•			•		CI) (SO4) (NO	J5) (NO2) (F)	
(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2) (Total Cyanide) (WAD Cyanide) (Free Cyanide)					•	п) (NH3) (NO3	/NO2)			
(Total Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na)		•		, ,	•	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (I	Hg) (K) (Na)
(Dissolved Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Sil										-
VOC (Boeing short list)										
		Methane Eth	ane Ethene Ac	cetylene						
Methane Ethane Ethene Acetylene										
Methane Ethane Ethene Acetylene										
	C	others								
Methane Ethane Ethane Acetylene others	Duplicate Sam	1 37 ()								
		pie No(s):								



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 9/2023@	1113		
Sample Num	nber:	RGW224S-	230209		Weather:	overvcast, 40s			
Landau Repr	resentative:	KVP / AT			•				
WATER LEV	'EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	Flush Mount		
DTW Before	Purging (ft)	10.34	Time:	1044	Flow through ce	ll vol.		GW Meter No.(s WLM 2
Begin Purge:	Date/Time:	2/ 9/2023 @	1045	End Purge:	Date/Time:	2/ 9 /2023 @	1108	Gallons Purged:	<1
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	P	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goal	s: Stablization +/- 3%		ters for three +/- 0.1 units	consecutive rea +/- 10 mV	dings within the fo +/- 10%	ollowing limits < 0.3 ft	>/= 1 flow through cell	
1049						T/- 10 /0		tiir ougii ceii	
1048	11.2	108.2	1.62	6.08	48.7		10.38		
1051	10.7	114.8	1.29	6.03	45.4		10.31		
1054	10.3	120.4	1.73	5.99	41.6		10.29		
1057	10.0	131.1	2.95	6.02	38.7				
1100	10.5	134.7	3.05	6.18	32.0				
1103	11.5	140.7	3.55	6.23	25.5				
1106	11.5	143.6	4.03	6.24	22.0				
SAMPLE CO	LLECTION D	DATA					·-		
Sample Colle	cted With:		Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	ıl Order)	Other							
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.):	clear, colorle	ess, no odor, no sl	neen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
керпеас	(°F/°C)	(uS/cm)	(mg/L)	pii	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	11.5	143.6	4.07	6.24	21.7				
2	11.5	143.9	4.13	6.24	21.3				
3	11.5	144.0	4.19	6.23	20.9				
4	11.4	144.1	4.27	6.23	20.4		-		
							-		
Average:	11.5	143.9	4.17	6.24	21.1				
QUANTITY						pplicable or write	non-standard		
	(8260) (8010	, , , ,	WTPH-G)			(0141) (01.6.6		WA L	OR 🗆
2						(8141) (Oil & Gr		WA D	OR ∐
	* / `				n) (NH3) (NO3		CI) (304) (N	O3) (NO2) (F)	
	` ' `	le) (WAD Cy			ii) (1113) (1103	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
				•	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
	(Dissolved M	letals) (As) (St) (Ba) (Be) (Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (I	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein	ng short list)							
	Methane Eth	nane Ethene A	cetylene						
	others								
	others								
Duplicate San		Duplicate Lo	cation (DUP3	3)					
Duplicate San Comments:		Duplicate Lo	cation (DUP3	3)					



Project Nan	ne:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 9/2023@	1133		
Sample Nur	nber:	RGWDUP3	3 230209		Weather:	overcast, 40s			
Landau Rep	resentative:	KVP / AT			•				
WATER LEV	VEL/WELL/PI	IRGE DATA							
Well Condition		Secure (YES	5)	Damaged (N	IO)	Describe:	Flush Mount		
DTW Before		Secure (125	Time:	Dumagea (1	Flow through ce		Train Mount	GW Meter No.(e)
	Date/Time:	2/ /2023 @		End Purge:	_	2/ /2023 @		Gallons Purged:	3)
Purge water of		<u> </u>	55-gal Drum	Ě	Storage Tank	Ground	Othor	SITE TREATM	ENT CVCTEM
Turge water t	disposed to.		55-gai Dium		Storage Tank	⊕ Ground	_	SITE TREATM	ENTSTSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O.	pН	ORP (mV)	Turbidity	DTW (ft)	Internal Purge	Comments/ Observations
Time	. ,	` /	(mg/L) n of Paramet	ters for three	. ,	(NTU) dings within the fo		Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
	-	Ī	OUPI.	ICAT	E TO F	RGW224	LS		
				10111	LIGI	10 11 22			
	-								
SAMDLE CO	DLLECTION I				<u> </u>			<u> </u>	
Sample Colle			Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proce	dura.	Alconox Wa			DI Water	Dedicated		Bealeulea	
(By Numerical		Other	SII 🔲	Tap Rinse	☐ DI Water	Dedicated			
(b) Numerice									
		_	14-)-	-111-					
		_	r, sheen, etc.):	clear, colorle	ess, no odor, no sl	neen			
	ription (color,	turbidity, odor	D.O.	clear, colorle	ORP	Turbidity	DTW	Ferrous iron	Comments/
Sample Desc	cription (color,	turbidity, odoi	·				DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
Sample Desc	ription (color,	turbidity, odor	D.O.		ORP	Turbidity			
Sample Desc Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity			
Sample Description Replicate	Temp (°F/°C)	Cond. (uS/cm) 143.8	D.O. (mg/L) 4.10	рН 6.24	ORP (mV)	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 11.5 11.4	Cond. (uS/cm) 143.8 144 144.1	D.O. (mg/L) 4.10 4.19	pH 6.24 6.23 6.24	ORP (mV) 21.5 21.2 20.7	Turbidity			
Replicate 1 2 3 4	Temp (°F/°C) 11.5 11.4 11.4	Cond. (uS/cm) 143.8 144 144.1 144.2	D.O. (mg/L) 4.10 4.19 4.24 4.30	pH 6.24 6.23 6.24 6.24	ORP (mV) 21.5 21.2 20.7 20.2	Turbidity			
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.4 11.5	Cond. (uS/cm) 143.8 144 144.1 144.2 144.0	D.O. (mg/L) 4.10 4.19 4.24 4.30	6.24 6.23 6.24 6.24	ORP (mV) 21.5 21.2 20.7 20.2 20.9	Turbidity (NTU)	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.4 11.5	Cond. (uS/cm) 143.8 144 144.1 144.2 144.0	D.O. (mg/L) 4.10 4.19 4.24 4.30	6.24 6.23 6.24 6.24	ORP (mV) 21.5 21.2 20.7 20.2 20.9	Turbidity	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.4 11.4 11.5 TYPICAL A (8260) (801	Cond. (uS/cm) 143.8 144 144.1 144.2 144.0 NALYSIS Al 0) (8020) (1	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI	6.24 6.23 6.24 6.24 6.24 6.24 6.24 6.10 6.10 6.10 6.10 6.10 6.10 6.10 6.10	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX)	Turbidity (NTU)	non-standard	analysis below)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.4 11.4 11.5 TYPICAL A (8260) (801 (8270) (PAI	Cond. (uS/cm) 143.8 144 144.1 144.2 144.0 LNALYSIS AD (10) (8020) (NH) (NWTPH-	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (NWTPH-G)	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx 1-Dx) (TPH	ORP (mV) 21.5 21.2 20.7 20.2 20.9 C TYPE (Circle at a) (BTEX) -HCID) (8081)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro	non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.4 11.4 11.5 TYPICAL A (8260) (801 (8270) (PAI (pH) (Condr	Cond. (uS/cm) 143.8 144.1 144.2 144.0 ANALYSIS Al 0) (8020) (NH) (NWTPH- uctivity) (TD.	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (NWTPH-S) (TSS) (E	6.24 6.23 6.24 6.24 6.24 ER BOTTLE (NWTPH-GX H-DX) (TPH	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) dity) (Alkalinity	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.4 11.4 11.5 (8260) (801 (8270) (PAI (pH) (Conduction)	Cond. (uS/cm) 143.8 144.1 144.2 144.0 ANALYSIS AD () (8020) (NH) (NWTPH- uctivity) (TD C) (Total PO	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (NWTPH-G) (NW	6.24 6.23 6.24 6.24 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH-Gx H-Dx H-Dx H-Dx H-Dx H-Dx H-Dx H-Dx H-D	ORP (mV) 21.5 21.2 20.7 20.2 20.9 C TYPE (Circle at a) (BTEX) -HCID) (8081)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.4 11.4 11.5 (8260) (801 (8270) (PAI (pH) (Condo) (COD) (TO) (Total Cyanic	Cond. (uS/cm) 143.8 144.1 144.2 144.0 ANALYSIS Al (0) (8020) (NH) (NWTPH- uctivity) (TD (C) (Total PO de) (WAD Cy	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (NWTPH-G) (NW	6.24 6.23 6.24 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbicedahl Nitroge	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle at a constant) (BTEX) -HCID) (8081) dity) (Alkalinity (NO)	pplicable or write (8141) (Oil & Gro.) (HCO3/CO3) (63/NO2)	non-standard : ease) CI) (SO4) (N	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.5 11.4 11.4 11.5 TYPICAL A (8260) (801 (8270) (PAI (pH) (Condition (COD) (TO	Cond. (uS/cm) 143.8 144 144.1 144.2 144.0 ANALYSIS AI 0) (8020) (I) H) (NWTPH- uctivity) (TD. C) (Total PO de) (WAD Cy s) (As) (Sb) (D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (NWTPH S) (TSS) (E 4) (Total Kic (yanide) (Free (Ba) (Be) (C	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbi edahl Nitroge c Cyanide) a) (Cd) (Co)	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) (dity) (Alkalinity (Alkalinity in) (NH3) (NO) (NH3) (NO) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (GRO) (Pb) (Mg) (Mn)	non-standard ease) CI) (SO4) (N (Ni) (Ag) (Se)	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.4 11.4 11.5 TYPICAL A (8260) (801 (8270) (PAI (pH) (Condo) (COD) (TO (Total Cyanic (Total Metals (Dissolved M	Cond. (uS/cm) 143.8 144 144.1 144.2 144.0 ANALYSIS All (0) (8020) (NH) (NWTPH- uctivity) (TD (C) (Total PO (de) (WAD Cy (s) (As) (Sb) (Interest) (As) (Sl)	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (NWTPH S) (TSS) (E 4) (Total Kic (yanide) (Free (Ba) (Be) (C	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbi edahl Nitroge c Cyanide) a) (Cd) (Co)	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) (dity) (Alkalinity (Alkalinity in) (NH3) (NO) (NH3) (NO) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (GRO) (Pb) (Mg) (Mn)	non-standard ease) CI) (SO4) (N (Ni) (Ag) (Se)	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.5 11.4 11.4 11.5 TYPICAL A (8260) (801 (8270) (PAI (pH) (Condition (COD) (TO (Total Cyanical Code) (Dissolved M) VOC (Boein	Cond. (uS/cm) 143.8 144 144.1 144.2 144.0 ANALYSIS All (0) (8020) (NH) (NWTPH- uctivity) (TD (C) (Total PO (de) (WAD Cy (s) (As) (Sb) (Interest) (As) (Sl)	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (MWTPH-G)	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbi edahl Nitroge c Cyanide) a) (Cd) (Co)	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) (dity) (Alkalinity (Alkalinity in) (NH3) (NO) (NH3) (NO) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (GRO) (Pb) (Mg) (Mn)	non-standard ease) CI) (SO4) (N (Ni) (Ag) (Se)	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.5 11.4 11.4 11.5 TYPICAL A (8260) (801 (8270) (PAI (pH) (Condition (COD) (TO (Total Cyanical Code) (Dissolved M) VOC (Boein	Cond. (uS/cm) 143.8 144.1 144.2 144.0 ANALYSIS Al 0) (8020) (f H) (NWTPH- uctivity) (TD. C) (Total PO de) (WAD Cy s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (MWTPH-G)	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbi edahl Nitroge c Cyanide) a) (Cd) (Co)	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) (dity) (Alkalinity (Alkalinity in) (NH3) (NO) (NH3) (NO) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (GRO) (Pb) (Mg) (Mn)	non-standard ease) CI) (SO4) (N (Ni) (Ag) (Se)	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.5 11.4 11.4 11.5 TYPICAL A (8260) (801 (8270) (PAI (pH) (Condition (COD) (TO (Total Cyanical Code) (Dissolved M) VOC (Boein	Cond. (uS/cm) 143.8 144.1 144.2 144.0 ANALYSIS Al 0) (8020) (f H) (NWTPH- uctivity) (TD. C) (Total PO de) (WAD Cy s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (MWTPH-G)	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbi edahl Nitroge c Cyanide) a) (Cd) (Co)	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) (dity) (Alkalinity (Alkalinity in) (NH3) (NO) (NH3) (NO) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (GRO) (Pb) (Mg) (Mn)	non-standard ease) CI) (SO4) (N (Ni) (Ag) (Se)	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.5 11.5 11.4 11.4 11.5 TYPICAL A (8260) (801 (8270) (PAI (pH) (Condition (COD) (TO (Total Cyanical Code) (Dissolved M) VOC (Boein	Cond. (uS/cm) 143.8 144.1 144.2 144.0 ANALYSIS Al 0) (8020) (f H) (NWTPH- uctivity) (TD. C) (Total PO de) (WAD Cy s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (MWTPH-G)	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbi edahl Nitroge c Cyanide) a) (Cd) (Co)	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) (dity) (Alkalinity (Alkalinity in) (NH3) (NO) (NH3) (NO) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (GRO) (Pb) (Mg) (Mn)	non-standard ease) CI) (SO4) (N (Ni) (Ag) (Se)	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 2	Temp (°F/°C) 11.5 11.4 11.4 11.5 (8260) (801 (8270) (PAI (PH) (Cond) (COD) (TO (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 143.8 144 144.1 144.2 144.0 ANALYSIS Al 0) (8020) (I H) (NWTPH- uctivity) (TD C) (Total PO de) (WAD Cy s) (As) (Sb) (I tetals) (As) (Sl ag short list) hane Ethene A	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (NWTPH-G) (NWTPH-G) (Pree (Ba) (Be) (Co) (Ba) (Be) (Co) (Cetylene	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbi edahl Nitroge c Cyanide) a) (Cd) (Co)	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) (dity) (Alkalinity (Alkalinity in) (NH3) (NO) (NH3) (NO) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (GRO) (Pb) (Mg) (Mn)	non-standard ease) CI) (SO4) (N (Ni) (Ag) (Se)	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 2 Duplicate Sai	Temp (°F/°C) 11.5 11.4 11.4 11.5 (8260) (801 (8270) (PAI (PH) (Cond) (COD) (TO (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 143.8 144.1 144.2 144.0 ANALYSIS Al 0) (8020) (f H) (NWTPH- uctivity) (TD. C) (Total PO de) (WAD Cy s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (NWTPH-G) (NWTPH-G) (Pree (Ba) (Be) (Co) (Ba) (Be) (Co) (Cetylene	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbi edahl Nitroge c Cyanide) a) (Cd) (Co)	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) (dity) (Alkalinity (Alkalinity in) (NH3) (NO) (NH3) (NO) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (GRO) (Pb) (Mg) (Mn)	non-standard ease) CI) (SO4) (N (Ni) (Ag) (Se)	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 2	Temp (°F/°C) 11.5 11.4 11.4 11.5 (8260) (801 (8270) (PAI (PH) (Cond) (COD) (TO (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 143.8 144 144.1 144.2 144.0 ANALYSIS Al 0) (8020) (I H) (NWTPH- uctivity) (TD C) (Total PO de) (WAD Cy s) (As) (Sb) (I tetals) (As) (Sl ag short list) hane Ethene A	D.O. (mg/L) 4.10 4.19 4.24 4.30 4.21 LLOWED PI NWTPH-G) (NWTPH-G) (NWTPH-G) (Pree (Ba) (Be) (Co) (Ba) (Be) (Co) (Cetylene	6.24 6.23 6.24 6.24 6.24 6.24 ER BOTTLE (NWTPH-Gx H-Dx) (TPH BOD) (Turbi edahl Nitroge c Cyanide) a) (Cd) (Co)	ORP (mV) 21.5 21.2 20.7 20.2 20.9 CTYPE (Circle a) (BTEX) -HCID) (8081) (dity) (Alkalinity (Alkalinity in) (NH3) (NO) (NH3) (NO) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Gro) (HCO3/CO3) (GRO) (Pb) (Mg) (Mn)	non-standard ease) CI) (SO4) (N (Ni) (Ag) (Se)	analysis below) WA WA O3) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)



Project Nam	ie:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/08/2023 @		1134	
Sample Num	nber:	RGW226S-	230208		Weather:	PARTIALLY C	LOUDY, 40S		
Landau Repi	resentative:	KVP			·				
WATER LEV	/EL/WELL/PU	URGE DATA							
Well Condition	on:	Secure (YES	5)	Damaged (N	IO)	Describe:	FLUSH MOUN	NT BY DOOR 2 (OF 5-09
DTW Before	Purging (ft)	8.66	Time:	1105	Flow through ce	ll vol.		GW Meter No.(s	SLOPE 11
Begin Purge:	Date/Time:	2/ 08/2023 @	1108	End Purge:	Date/Time:	2/ 08/2023 @	1133	Gallons Purged:	0.5
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	tona fon thus	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units		dings within the for +/- 10%	< 0.3 ft	>/= 1 flow through cell	
1110	13.8	289.4	1.07	6.45	-41.2		8.69		
1113	14.1	278.2	0.64	6.47	-52.7		8.66		
1116	14.4	267.3	0.39	6.47	-62.3		8.62		
1119	14.5	264.1	0.91	6.49	-68.0				
1122	14.6	262.9	2.79	6.57	-73.4				
1125	14.5	262.4	3.31	6.57	-76.4				
1128	14.6	261.3	3.67	6.49	-79.6				
1131	14.5	260.3	3.82	6.49	-81.1				
SAMPLE CO	LLECTION I	DATA							
Sample Colle	cted With:		Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	101								
()	ıl Order)	Other							
` -	,		r, sheen, etc.):	CLEAR, LO	W TURBIDITY,	NO ODOR, NO SI	HEEN		
Sample Descr	ription (color,	turbidity, odoi	·					Farrous iron	Comments/
	,		D.O. (mg/L)	CLEAR, LO	ORP (mV)	NO ODOR, NO SE Turbidity (NTU)	HEEN DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
Sample Descr	ription (color,	turbidity, odor	D.O.		ORP	Turbidity	DTW		
Sample Descr Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity	DTW		
Sample Descr Replicate	Temp (°F/°C)	Cond. (uS/cm) 260.3	D.O. (mg/L)	pH 6.49	ORP (mV)	Turbidity	DTW		
Sample Descr Replicate	Temp (°F/°C) 14.6	Cond. (uS/cm) 260.3	D.O. (mg/L) 3.84 3.86	pH 6.49 6.49	ORP (mV) -81.3	Turbidity	DTW		
Replicate 1 2 3	Temp (°F/°C) 14.6 14.7	Cond. (uS/cm) 260.3 259.9 259.8	D.O. (mg/L) 3.84 3.86	pH 6.49 6.49 6.49	ORP (mV) -81.3 -81.5	Turbidity	DTW		
Replicate 1 2 3 4 Average:	Temp (°F/°C) 14.6 14.7 14.7	Cond. (uS/cm) 260.3 259.9 259.8 259.2	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.89	6.49 6.49 6.49 6.49 6.49	ORP (mV) -81.3 -81.5 -81.8 -81.6	Turbidity (NTU)	DTW (ft)	(Fe II)	
Replicate 1 2 3 4	Temp (°F/°C) 14.6 14.7 14.7 14.7	Cond. (uS/cm) 260.3 259.9 259.8 259.2	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.89	6.49 6.49 6.49 6.49 6.49 6.49	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle a	Turbidity	DTW (ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM)	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS AI (8010) (8020)	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PLO) (NWTPH	6.49 6.49 6.49 6.49 6.49 6.49 6.49 6.49	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle a	Turbidity (NTU)	DTW (ft)	(Fe II)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (P2	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS AI (8010) (8020 AH) (NWTPI	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PI D) (NWTPH-H-D) (NWT	6.49 6.49 6.49 6.49 6.49 6.49 6.49 FER BOTTLE	ORP (mV) -81.3 -81.5 -81.8 -81.6 -7 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081)	Turbidity (NTU)	DTW (ft) non-standard a	(Fe II) analysis below) WA WA WA	Observations OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Conductor)	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS AI (8010) (8020 AH) (NWTPI uctivity) (TD.	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PI D) (NWTPH-H-D) (NWT) S) (TSS) (H	6.49 6.49 6.49 6.49 6.49 6.49 FER BOTTLE -G) (NWTP) -G) (NWTP) -GOD) (Turb)	ORP (mV) -81.3 -81.5 -81.8 -81.6 -7 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081)	Turbidity (NTU)	DTW (ft) non-standard a	(Fe II) analysis below) WA WA WA	Observations OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PA (PM) (Conduction (COD) (TOtal Cyanical C	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 (8010) (8020 AH) (NWTPI uctivity) (TD: C5310C) (To: de) (WAD Cy	D.O. (mg/L) 3.84 3.86 3.89 3.86 3.89 3.86 LLOWED PI (D) (NWTPH-H-D) (NWTPH-H-D) (NWTPH-H-D) (NWTPH-H-D) (NWTPH-H-D) (Total PO4) (Total PO4) (Tree/vanide) (Free/vanide) (Free/van	6.49 6.49 6.49 6.49 6.49 6.19 6.49 ER BOTTLE G) (NWTP: PH-Dx) (TP: BOD) (Turbicatal Kiedahl N	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) Vitrogen) (NH3)	pplicable or write (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) ((NO3/NO2)	DTW (ft) non-standard a	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PA (PM) (Conduction (COD) (TOtal Cyanical C	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 (8010) (8020 AH) (NWTPI uctivity) (TD: C5310C) (To: de) (WAD Cy	D.O. (mg/L) 3.84 3.86 3.89 3.86 3.89 3.86 LLOWED PI (D) (NWTPH-H-D) (NWTPH-H-D) (NWTPH-H-D) (NWTPH-H-D) (NWTPH-H-D) (Total PO4) (Total PO4) (Tree/vanide) (Free/vanide) (Free/van	6.49 6.49 6.49 6.49 6.49 6.19 6.49 ER BOTTLE G) (NWTP: PH-Dx) (TP: BOD) (Turbicatal Kiedahl N	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) Vitrogen) (NH3)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (DTW (ft) non-standard a	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Conduction (COD) (Total Cyanical (Total Metals)	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS AI (8010) (8020 AH) (NWTPI (1000) (TD. (1000	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PI (O) (NWTPH-H-D) (NWTPH-H-	6.49 6.49 6.49 6.49 6.49 ER BOTTLE G) (NWTP: PH-Dx) (TP: BOD) (Turbiotal Kiedahl North Country	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity Nitrogen) (NH3)	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2)	non-standard a Grease) Cl) (SO4) (No	MA CONTRACTOR (TI) (V) (Zn) (Exercise II)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PA (PM) (Conduction (COD) (Total Cyanica (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS Al (8010) (8020 AH) (NWTPI uctivity) (TD. C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sl) ag short list)	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PI D) (NWTPH-H-D) (NWT) S) (TSS) (Hotal PO4) (Total	6.49 6.49 6.49 6.49 6.49 ER BOTTLE G) (NWTP: PH-Dx) (TP: BOD) (Turbiotal Kiedahl North Country	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity Nitrogen) (NH3)	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2)	non-standard a Grease) Cl) (SO4) (No	MA CONTRACTOR (TI) (V) (Zn) (Exercise II)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PA (PM) (Conduction (COD) (Total Cyanica (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS Al. (8010) (8020 AH) (NWTPI uctivity) (TD. (C5310C) (To. (de) (WAD Cy. (o) (As) (Sb) (detals) (As) (Sl)	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PI D) (NWTPH-H-D) (NWT) S) (TSS) (Hotal PO4) (Total	6.49 6.49 6.49 6.49 6.49 ER BOTTLE G) (NWTP: PH-Dx) (TP: BOD) (Turbiotal Kiedahl North Country	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity Nitrogen) (NH3)	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2)	non-standard a Grease) Cl) (SO4) (No	MA CONTRACTOR (TI) (V) (Zn) (Exp.)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PA (PM) (Conduction (COD) (Total Cyanica (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS Al (8010) (8020 AH) (NWTPI uctivity) (TD. C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sl) ag short list)	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PI D) (NWTPH-H-D) (NWT) S) (TSS) (Hotal PO4) (Total	6.49 6.49 6.49 6.49 6.49 ER BOTTLE G) (NWTP: PH-Dx) (TP: BOD) (Turbiotal Kiedahl North Country	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity Nitrogen) (NH3)	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2)	non-standard a Grease) Cl) (SO4) (No	MA CONTRACTOR (TI) (V) (Zn) (Exp.)	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PA (PM) (Conduction (COD) (Total Cyanica (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS Al (8010) (8020 AH) (NWTPI uctivity) (TD. C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sl) ag short list)	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PI D) (NWTPH-H-D) (NWT) S) (TSS) (Hotal PO4) (Total	6.49 6.49 6.49 6.49 6.49 ER BOTTLE G) (NWTP: PH-Dx) (TP: BOD) (Turbiotal Kiedahl North Country	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity Nitrogen) (NH3)	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2)	non-standard a Grease) Cl) (SO4) (No	MA CONTRACTOR (TI) (V) (Zn) (Exp.)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PJ (COD) (TOtal Cyanic (Total Metals) (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS Al (8010) (8020 AH) (NWTPI uctivity) (TD. C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sl) ag short list)	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PI D) (NWTPH-H-D) (NWT) S) (TSS) (Hotal PO4) (Total	6.49 6.49 6.49 6.49 6.49 ER BOTTLE G) (NWTP: PH-Dx) (TP: BOD) (Turbiotal Kiedahl North Country	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity Nitrogen) (NH3)	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2)	non-standard a Grease) Cl) (SO4) (No	MA CONTRACTOR (TI) (V) (Zn) (Exp.)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 14.6 14.7 14.7 14.7 TYPICAL A (8260-SIM) (8270D) (PJ (COD) (TOtal Cyanic (Total Metals) (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 260.3 259.9 259.8 259.2 259.8 NALYSIS Al (8010) (8020 AH) (NWTPI uctivity) (TD. C5310C) (To de) (WAD Cy c) (As) (Sb) (detals) (As) (Sl) ag short list)	D.O. (mg/L) 3.84 3.86 3.86 3.89 3.86 LLOWED PI D) (NWTPH-H-D) (NWT) S) (TSS) (Hotal PO4) (Total	6.49 6.49 6.49 6.49 6.49 ER BOTTLE G) (NWTP: PH-Dx) (TP: BOD) (Turbiotal Kiedahl North Country	ORP (mV) -81.3 -81.5 -81.8 -81.6 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity Nitrogen) (NH3)	pplicable or write (8141) (Oil & C) (HCO3/CO3) ((NO3/NO2)	non-standard a Grease) Cl) (SO4) (No	MA CONTRACTOR (TI) (V) (Zn) (Exp.)	Observations OR OR OR Hg) (K) (Na)



Project Nam	ie:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 8 /2023@	1513		
Sample Nun	nber:	RGW230I-	230208		Weather:	sunny, 50s			
Landau Repr	resentative:	KVP / AT							
WATER LEV	/EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	flush		
DTW Before	Purging (ft)	6.6	Time:	1447	Flow through ce	ll vol.		GW Meter No.(s	WLM 9
		2/ 8 /2023 @	1446	End Purge:	_	2/ 8 /2023 @	1509	Gallons Purged:	
Purge water d			55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Tomn	Cond.	D.O.	pН	ORP	Tumbidita	DTW		Comments/
Time	Temp (°F/°C)	(uS/cm)	(mg/L)	рп	(mV)	Turbidity (NTU)	(ft)	Internal Purge Volume (gal)	Observations
						dings within the f		>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1449	11.6	274.4	1.19	6.25	49.1		6.67		
1452	10.6	270.6	0.90	6.27	44.2		6.69		
1455	11.2	267.9	0.57	6.25	40.6		6.71		
1458	11.8	274.6	0.45	6.31	30.7				
1501	11.8	274.6	0.41	6.32	26.2				-
1504	11.8	273.9	0.37	6.32	22.8	-			
1304	11.0	213.9	0.37	0.32	22.8				
	· ———					-			
							i		
	LLECTION I		D 11		D /D T	1.12 . 111.11			
Sample Colle	cted With:	_	Bailer	PVC		dedicated bladder		Dadinstad	
Made of:	. =	Stainless Stee			Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 📋	Tap Rinse	DI Water	Dedicated			
(By Numerica	u Oraer)	Other							
C1- D		-	1	.111.					
Sample Descr	ription (color,	-	r, sheen, etc.):	clear, colorle	ess, no odor, no sl	neen			
Sample Descri Replicate	Temp	-	D.O. (mg/L)	pH	ORP (mV)	Turbidity	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
Replicate	Temp (°F/°C)	turbidity, odor Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)				
Replicate	Temp (°F/°C)	Cond. (uS/cm) 273.9	D.O. (mg/L)	рН 6.33	ORP (mV)	Turbidity			
Replicate 1 2	Temp (°F/°C) 11.8	Cond. (uS/cm) 273.9 273.8	D.O. (mg/L) 0.37	pH 6.33 6.32	ORP (mV) 22.4 22.1	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 11.8 11.8	Cond. (uS/cm) 273.9 273.8 273.9	D.O. (mg/L) 0.37 0.37	pH 6.33 6.32 6.33	ORP (mV) 22.4 22.1 21.9	Turbidity			
Replicate 1 2	Temp (°F/°C) 11.8	Cond. (uS/cm) 273.9 273.8	D.O. (mg/L) 0.37	pH 6.33 6.32	ORP (mV) 22.4 22.1	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 11.8 11.8	Cond. (uS/cm) 273.9 273.8 273.9	D.O. (mg/L) 0.37 0.37	pH 6.33 6.32 6.33	ORP (mV) 22.4 22.1 21.9	Turbidity			
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8	Cond. (uS/cm) 273.9 273.8 273.6 273.8	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37	pH 6.33 6.32 6.33 6.33 6.33	ORP (mV) 22.4 22.1 21.9 21.7 22.0	Turbidity	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8	Cond. (uS/cm) 273.9 273.8 273.6 273.8	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 0.37	6.33 6.32 6.33 6.33 6.33 6.33	ORP (mV) 22.4 22.1 21.9 21.7 22.0	Turbidity (NTU)	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 (8260C SIM	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW	6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a	Turbidity (NTU)	non-standard	(Fe II)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 11.8 (8260C SIM (8270) (PAI	Cond. (uS/cm) 273.9 273.8 273.6 273.8 273.8 LNALYSIS AI VC) (8010) H) (NWTPH-	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 1.20	6.33 6.33 6.33 6.33 6.33 7TPH-G) (N	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (B7 HCID) (8081)	Turbidity (NTU)	non-standard	(Fe II) analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 (8260C SIM (8270) (PAR (pH) (Conduction) (COD) (TOC	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C)	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 0.37 0.10	6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-BOD) (Turbic (Total Kieda	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) (dity) (Alkalinity	Turbidity (NTU) pplicable or write TEX) (8141) (Oil & Gr	non-standard	(Fe II) analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 (8260C SIM (8270) (PAR (pH) (Conduction) (COD) (TOtal Cyanic	Cond. (uS/cm) 273.9 273.8 273.6 273.8 VC) (8010) H) (NWTPH-uctivity) (TD: C SM5310C) de) (WAD Cy	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPF S) (TSS) (F (Total PO4) vanide) (Free	6.33 6.33 6.33 6.33 6.33 6.33 6.30 CR BOTTLE (TPH-G) (N H-Dx) (TPH-BOD) (Turbic Cyanide)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (B1 HCID) (8081) dity) (Alkalinity (MI Nitrogen) (N	Turbidity (NTU) pplicable or write TEX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2)	non-standard : ease) Cl) (SO4) (No	malysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 TYPICAL A (8260C SIM (8270) (PAI (pH) (Conduction (COD) (Total Cyanical (Total Metals)	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C) de) (WAD Cy s) (As) (Sb) (D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPI S) (TSS) (E (Total PO4) (ranide) (Free	6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-BOD) (Turbic (Total Kieda (Cyanide)) a) (Cd) (Co)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) dity) (Alkalinity thl Nitrogen) (N (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write TEX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard at ease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (i	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 TYPICAL A (8260C SIM (8270) (PAI (pH) (Conductor) (Total Cyanical Cyanical Cyanical Cyanical Colors (Dissolved M	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C) de) (WAD Cy (x) (As) (Sb) (detals) (As) (Sb) (St)	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPI S) (TSS) (E (Total PO4) (ranide) (Free	6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-BOD) (Turbic (Total Kieda (Cyanide)) a) (Cd) (Co)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) dity) (Alkalinity thl Nitrogen) (N (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write TEX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard at ease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (i	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 11.8 (8260C SIM (8270) (PAR (pH) (Condition (COD) (Total Cyanic (Total Metals) (Dissolved M	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C) de) (WAD Cy (s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPI S) (TSS) (E (Total PO4) ranide) (Free Ba) (Be) (C (C (D)) (Ba) (Be) (C (D)) (C (6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-BOD) (Turbic (Total Kieda (Cyanide)) a) (Cd) (Co)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) dity) (Alkalinity thl Nitrogen) (N (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write TEX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard at ease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (i	Observations OR OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 11.8 (8260C SIM (8270) (PAR (pH) (Condition (COD) (Total Cyanic (Total Metals) (Dissolved M	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C) de) (WAD Cy (x) (As) (Sb) (detals) (As) (Sb) (St)	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPI S) (TSS) (E (Total PO4) ranide) (Free Ba) (Be) (C (C (D)) (Ba) (Be) (C (D)) (C (6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-BOD) (Turbic (Total Kieda (Cyanide)) a) (Cd) (Co)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) dity) (Alkalinity thl Nitrogen) (N (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write TEX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard at ease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (i	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 11.8 (8260C SIM (8270) (PAR (pH) (Condition (COD) (Total Cyanic (Total Metals) (Dissolved M	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C) de) (WAD Cy (s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPI S) (TSS) (E (Total PO4) ranide) (Free Ba) (Be) (C (C (D)) (Ba) (Be) (C (D)) (C (6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-BOD) (Turbic (Total Kieda (Cyanide)) a) (Cd) (Co)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) dity) (Alkalinity thl Nitrogen) (N (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write TEX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard at ease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (i	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 11.8 (8260C SIM (8270) (PAR (pH) (Condition (COD) (Total Cyanic (Total Metals) (Dissolved M	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C) de) (WAD Cy (s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPI S) (TSS) (E (Total PO4) ranide) (Free Ba) (Be) (C (C (D)) (Ba) (Be) (C (D)) (C (6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-BOD) (Turbic (Total Kieda (Cyanide)) a) (Cd) (Co)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) dity) (Alkalinity thl Nitrogen) (N (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write TEX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard at ease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (i	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 TYPICAL A (8260C SIM (8270) (PAI (pH) (Cond) (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C) de) (WAD Cy (s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPI S) (TSS) (E (Total PO4) ranide) (Free Ba) (Be) (C (C (D)) (Ba) (Be) (C (D)) (C (6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-G) (Total Kieda Cyanide) a) (Cd) (Co)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) dity) (Alkalinity thl Nitrogen) (N (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write TEX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard at ease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (i	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 TYPICAL A (8260C SIM (8270) (PAI (pH) (Cond) (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C) de) (WAD Cy (s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPI S) (TSS) (E (Total PO4) ranide) (Free Ba) (Be) (C (C (D)) (Ba) (Be) (C (D)) (C (6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-G) (Total Kieda Cyanide) a) (Cd) (Co)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) dity) (Alkalinity thl Nitrogen) (N (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (EX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard at ease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (i	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 11.8 11.8 11.8 11.8 11.8 TYPICAL A (8260C SIM (8270) (PAI (pH) (Cond) (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boeir Methane Eth	Cond. (uS/cm) 273.9 273.8 273.6 273.8 NALYSIS AI VC) (8010) H) (NWTPH- uctivity) (TD: C SM5310C) de) (WAD Cy (s) (As) (Sb) (detals) (As) (Sb) ug short list)	D.O. (mg/L) 0.37 0.37 0.37 0.37 0.37 LLOWED PI (8020) (NW D) (NWTPI S) (TSS) (E (Total PO4) ranide) (Free Ba) (Be) (C (C (D)) (Ba) (Be) (C (D)) (C (6.33 6.32 6.33 6.33 6.33 6.33 ER BOTTLE (TPH-G) (N H-Dx) (TPH-G) (Total Kieda Cyanide) a) (Cd) (Co)	ORP (mV) 22.4 22.1 21.9 21.7 22.0 TYPE (Circle a WTPH-Gx) (BT HCID) (8081) dity) (Alkalinity thl Nitrogen) (N (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (EX) (8141) (Oil & Gr) (HCO3/CO3) (H3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard at ease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	(Fe II) analysis below) WA WA O3) (NO2) (F) (TI) (V) (Zn) (i	Observations OR OR OR OR OR OR OR OR OR OR



							•		
Project Nam	ie:	Boeing Ren	ton		Project Numbe	r <u>:</u>	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/08/2023 @	1544		
Sample Nun	nber:	RGW232S-	230208		Weather:	SUNNY, 40S			
Landau Repr	resentative:	KVP							
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	NO)	Describe:	FLUSH MOU	NT IN E. PERM.	ROAD PULL OUT
DTW Before	Purging (ft)	6.52	Time:	1507	Flow through ce	ll vol.		GW Meter No.(s SLOPE 2
Begin Purge:	Date/Time:	2/08/2023 @	1514	End Purge:	Date/Time:	2/08/2023 @	1540	Gallons Purged:	0.5
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goal	s: Stablizatio +/- 3%	n of Paramet +/- 10%	ters for thre +/- 0.1 units		dings within the f +/- 10%	ollowing limits < 0.3 ft	>/= 1 flow through cell	
1517	12.5	385.8	0.66	6.34	65.4	., _,,,	7.35	***************************************	pump slowed
1520	· 	381.5	1.39	6.36	49.4		7.52		pump slowed
					· 				
1523	12.0	379.1	1.95	6.36	33.2		7.78	-	DI DI DI CILITO
1526	· 	376.2	2.63	6.37	26.4		7.88		PUMP SLOWED
1529	11.5	373.6	3.14	6.37	13.6		7.94		
1532	10.9	367.6	3.86	6.37	6.6				
1535	10.9	365.8	4.10	6.37	4.2				
1538		365.7	4.22	6.38	2.0				
	LLECTION I	DATA	D '1		D /D T				
Sample Colle	cted With:		Bailer		Pump/Pump Type				
Made of:	Ш	Stainless Ste	el 📋	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	ıl Order)	Other			_				
Sample Descr	ription (color,	turbidity, odo	r, sheen, etc.):	CLEAR, NO	O ODOR, NO SHI	EEN, COLORLESS	S		
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.0	365.8	4.29	6.38	0.7	(1110)	(11)	(1 0 11)	Objet various
	·								
2	11.0	365.8	4.32	6.38	-0.1			-	
3	11.1	366.0	4.32	6.38	0.3				
4	11.0	366.3	4.42	6.38	-0.2				
Average:	11.0	366.0	4.34	6.38	0.2				
QUANTITY	TYPICAL A	NALYSIS A	LLOWED PI	ER BOTTLI	E TYPE (Circle a	pplicable or write	non-standard	analysis below)	
3	(8260-SIM)	(8010) (8020	O) (NWTPH-	-G) (NWTP	H-Gx) (BTEX)			wa 🗆	OR 🗌
	(8270D) (PA	AH) (NWTPl	H-D) (NWT	PH-Dx) (TP	PH-HCID) (8081)	(8141) (Oil & C	Grease)	WA □	OR □
	. , .	• • • • • • • • • • • • • • • • • • • •) (HCO3/CO3) (Cl) (SO4) (No	O3) (NO2) (F)	
1					Nitrogen) (NH3)	(NO3/NO2)			
	` .	le) (WAD Cy	, ,	-		m1 > 6 = 1 = -	AT	, m	
1	`		. , , , ,			(Pb) (Mg) (Mn)	. , ,	. , , , , , ,	
			b) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (I	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein	,							
	Methane Eth	nane Ethene A	cetylene						
	others								
	Calcib								
Duplicate Sar	mple No(s):								
Comments:									
Signature:				KVP		Date:	2/8/2023		



Project Nam	na:	Boeing Rent	on		Project Number	··	0025217.003.0	000 000	
Event:	. <u>.</u>	Feb. 2023	.011		Date/Time:	2/ 9/2023@	1015	199.099	
Sample Nun	nhar:	RGW234S-	230200		Weather:	overcast, 40s	1013		
Landau Rep	•	KVP / AT	230209		weather.	overcast, 40s			
WATER LEV	<mark>/EL/WELL/PU</mark>	Secure (YES)	. 1	Damaged (N	IO)	Describe:	fluch		
		` '		-			Hush	CW Motor No. (WIM 2
DTW Before		7.54 2/ 9/2023 @	Time: _ 946	End Purge:	Flow through ce	2/ 9 /2023 @	1000	GW Meter No.(Gallons Purged:	
Purge water of			55-gal Drum	Elia Fulge.	Storage Tank	2/ 9 /2023 @ Ground	_	SITE TREATM	
ruige water c	iisposed to.	4	55-gai Diuiii		C		Other	SHE IKEAIM	ENISISIEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time	. ,		, , ,	ers for three	. ,	dings within the fo		>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	-/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
949	10.4	217.7	0.54	6.62	-5.90		7.49		
952	10.1	186.0	0.47	6.59	-15.5		7.45		
955	10.0	175.3	0.96	6.56	-17.0		7.44		
958	. ———	169.5	2.07	6.54	-17.5				
	·				-				
1001	9.80	167.1	2.67	6.54	-17.4				
1004	9.80	165.2	3.19	6.54	-17.4				-
1007	9.80	164.1	3.53	6.53	-17.4				
	LLECTION I		D . '1		D /D T	1. 1 111. 11.			
Sample Colle	cted with:		Bailer			dedicated bladder		D. P. C. v. I	
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	_	Alconox Was	ın 📋	Γap Rinse	DI Water	Dedicated			
(By Numerica	ıl Order)	Other							
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.): s	slight yellow	tint, low turbidit	y, no odor, no sheer	1		
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)		(\mathbf{mV})	(NTU)	(ft)	(Fe II)	Observations
1	9.8	164.1	3.56	6.53	-17.5				
2	9.8	164.0	3.58	6.53	-17.5				
3	9.8	163.9	3.60	6.53	-17.5				
4	9.8	163.8	3.62	6.53	-17.5				
Average:	9.8	164.0	3.59	6.53	-17.5				
-									
-						pplicable or write	non-standard		OD [
3					H-Gx) (BTEX)) (8141) (Oil & C	Transa)	WA □	OR OR
						(HCO3/CO3) (OK 🗆
1		•			Vitrogen) (NH3)		CI) (DO4) (IV	(1102) (11)	
		le) (WAD Cy			5 / (- :5)	· · · · · - /			
1	(Total Metals) (As) (Sb) (Ba) (Be) (Ca	(Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
	(Dissolved M	etals) (As) (Sb) (Ba) (Be) (C	a) (Cd) (Co)	(Cr) (Cu) (Fe) (l	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (S
	VOC (Boein	g short list)							
	Methane Eth	nane Ethene Ac	etylene						
	others								
Duplicate Sar	nple No(s):								
Comments:	· · · · · ·								
Signature:	Adam Toroc	naile				Date:	2/9/2023		



Project Nam	e:	Boeing Ren	ton		Project Numbe	er:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 9/2023@	941		
Sample Num	nber:	RGW235I-	230209		Weather:	overcast, 40s			
Landau Repr	-	KVP / AT			•				
WATER LEV	EI /WEI I /DI	IDCE DATA							
WATER LEV		Secure (YES)	Damaged (N	(O)	Describe:	fluch		
DTW Before		6.59	Time:		Flow through ce		Hushi	GW Meter No.(WIM 2
	0 0 0	2/9/2023@		End Purge:	· ·	2/ 9/2023@	. 027	Gallons Purged:	
Purge water d		<u>27 7 7 2 0 2 3 @</u>	55-gal Drum	Ě	Storage Tank	Ground		SITE TREATM	
i uige water d	iisposed to.	-	Ü		Ü	U Ground	Other	SITE TREATM	ENT STSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time		. ,		ters for three		dings within the f	. ,	>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
917	9.90	146.2	0.32	6.74	14.6		6.63		
920	9.80	147.9	0.32	6.69	12.5		6.63		
923	9.80	147.5	0.27	6.71	8.20		6.63		-
926	9.60	145.6	0.22	6.73	3.50		-		
929	9.70	144.0	0.25	6.76	-1.90				
932	9.80	143.4	0.29	6.77	-5.30				
935	9.80	142.6	0.45	6.79	-8.10	-			
SAMPLE CO	LLECTION D	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	e dedicated bladder			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	ıl Order)	Other					i		
Sample Descr									
Sample Desci	ription (color,	turbidity, odor	, sheen, etc.):	clear, colorle	ess, no odor, no sl	neen			
			·-				DTW	Farmanainan	Commental
Replicate	Temp	Cond. (uS/cm)	D.O.	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity			
Replicate 1	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pH 6.79	ORP (mV)	Turbidity			
Replicate 1 2	Temp (°F/°C) 9.9	Cond. (uS/cm) 142.5 142.6	D.O. (mg/L) 0.49	pH 6.79 6.79	ORP (mV) -8.4 -8.6	Turbidity			
Replicate 1 2 3	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pH 6.79	ORP (mV)	Turbidity			
Replicate 1 2	Temp (°F/°C) 9.9	Cond. (uS/cm) 142.5 142.6	D.O. (mg/L) 0.49	pH 6.79 6.79	ORP (mV) -8.4 -8.6	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 9.9 9.9	Cond. (uS/cm) 142.5 142.6	D.O. (mg/L) 0.49 0.51	pH 6.79 6.79 6.79	ORP (mV) -8.4 -8.6	Turbidity			
Replicate 1 2 3 4 Average:	Temp (°F/°C) 9.9 9.9 9.9 9.9	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6	D.O. (mg/L) 0.49 0.51 0.54 0.57	pH 6.79 6.79 6.79 6.79 6.79	ORP (mV) -8.4 -8.6 -8.9 -9.1	Turbidity	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6	D.O. (mg/L) 0.49 0.51 0.54 0.57 0.53	6.79 6.79 6.79 6.79 6.79 6.79	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8	Turbidity (NTU)	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 9.9 9.9 9.9 9.9 7YPICAL A (8260-SIM)	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6 NALYSIS AI (8010) (8020	D.O. (mg/L) 0.49 0.51 0.54 0.57 0.53 LLOWED PI 0) (NWTPH-	6.79 6.79 6.79 6.79 6.79 6.79 6.79 6.79	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 TYPE (Circle a	Turbidity (NTU)	non-standard	(Fe II)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 9.9 9.9 9.9 9.9 7YPICAL A (8260-SIM) (8270D) (PA	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI	D.O. (mg/L) 0.49 0.51 0.54 0.57 0.53 LLOWED PI)) (NWTPH-H-D) (NWT	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE -G) (NWTPI -CH-Dx) (TP	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081)	Turbidity (NTU)	non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 9.9 9.9 9.9 9.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Conduction)	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6 142.6 (8010) (8020 AH) (NWTPH Detivity) (TD: C5310C) (To	D.O. (mg/L) 0.49 0.51 0.54 0.57 0.53 LLOWED PI 0.0 (NWTPH-H-D) (NWTI LLOWED PI 0.50 (TSS) (Ettal PO4) (Total	6.79 6.79 6.79 6.79 6.79 6.79 6.79 CFR BOTTLE CG) (NWTPI PH-Dx) (TP BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081)	Turbidity (NTU) applicable or write (8141) (Oil & Coo) (HCO3/CO3)	non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9 TYPICAL A (8260-SIM) (8270D) (PA (COD) (TOtal Cyanic	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI uctivity) (TD: C5310C) (To	D.O. (mg/L) 0.49 0.51 0.54 0.57 0.53 LLOWED PI 0.10 (NWTPH-H-D) (NWTIPH-H-D)	6.79 6.79 6.79 6.79 6.79 6.79 CER BOTTLE -G) (NWTPI -CH-Dx) (TP) BOD) (Turbi otal Kiedahl N -C Cyanide)	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) (dity) (Alkalinity (NH3))	Turbidity (NTU) applicable or write (8141) (Oil & C (HCO3/CO3) ((NO3/NO2)	non-standard : Grease) Cl) (SO4) (No	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR
Replicate 1 2 3 4 Average:	Temp (°F/°C) 9.9 9.9 9.9 9.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanic (Total Metals)	Cond. (uS/cm) 142.5 142.6 142.6 142.6 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI (activity) (TD) (C5310C) (To de) (WAD Cy () (As) (Sb) (D.O. (mg/L) 0.49 0.51 0.54 0.57 0.53 LLOWED PI 0) (NWTPH-H-D) (NWTI S) (TSS) (E tal PO4) (To ranide) (Free Ba) (Be) (Calculus (Company))	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a al-Gradual Control (Substitution of the Control	Turbidity (NTU) applicable or write (NTU) (NO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9 1TYPICAL A (8260-SIM) (8270D) (PA (pH) (Conduction (COD) (Total Cyanical Cyanical Cyanical Code) (Total Metals) (Dissolved M	Cond. (uS/cm) 142.5 142.6 142.6 142.6 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI (activity) (TD: (C5310C) (To (le) (WAD Cy () (As) (Sb) ((cetals) (As) (St)	D.O. (mg/L) 0.49 0.51 0.54 0.57 0.53 LLOWED PI 0) (NWTPH-H-D) (NWTI S) (TSS) (E tal PO4) (To ranide) (Free Ba) (Be) (Calculus (Company))	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a al-Gradual Control (Substitution of the Control	Turbidity (NTU) applicable or write (NTU) (NO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9 7YPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI uctivity) (TD: C5310C) (To de) (WAD Cy o) (As) (Sb) (detals) (As) (Sb	D.O. (mg/L) 0.49 0.51 0.57 0.53 LLOWED PI 0.10 (NWTPH-I-D) (NWTPH-I-D) (NWTIPH-I-D) (NWTIP	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a al-Gradual Control (Substitution of the Control	Turbidity (NTU) applicable or write (NTU) (NO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9 7YPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 142.5 142.6 142.6 142.6 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI (Solutivity) (TD: C5310C) (To de) (WAD Cy) (As) (Sb) (detals) (As) (Sb) (States)	D.O. (mg/L) 0.49 0.51 0.57 0.53 LLOWED PI 0.10 (NWTPH-I-D) (NWTPH-I-D) (NWTIPH-I-D) (NWTIP	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a al-Gradual Control (Substitution of the Control	Turbidity (NTU) applicable or write (NTU) (NO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9 7YPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI uctivity) (TD: C5310C) (To de) (WAD Cy o) (As) (Sb) (detals) (As) (Sb	D.O. (mg/L) 0.49 0.51 0.57 0.53 LLOWED PI 0.10 (NWTPH-I-D) (NWTPH-I-D) (NWTIPH-I-D) (NWTIP	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a al-Gradual Control (Substitution of the Control	Turbidity (NTU) applicable or write (NTU) (NO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9 7YPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI uctivity) (TD: C5310C) (To de) (WAD Cy o) (As) (Sb) (detals) (As) (Sb	D.O. (mg/L) 0.49 0.51 0.57 0.53 LLOWED PI 0.10 (NWTPH-I-D) (NWTPH-I-D) (NWTIPH-I-D) (NWTIP	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a al-Gradual Control (Substitution of the Control	Turbidity (NTU) applicable or write (NTU) (NO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9 TYPICAL A (8260-SIM) (8270D) (P/ (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI uctivity) (TD: C5310C) (To de) (WAD Cy o) (As) (Sb) (detals) (As) (Sb	D.O. (mg/L) 0.49 0.51 0.57 0.53 LLOWED PI 0.10 (NWTPH-I-D) (NWTPH-I-D) (NWTIPH-I-D) (NWTIP	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a al-Gradual Control (Substitution of the Control	Turbidity (NTU) applicable or write (NTU) (NO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3 1 Duplicate San	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9 TYPICAL A (8260-SIM) (8270D) (P/ (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 142.5 142.6 142.6 142.5 142.6 NALYSIS AI (8010) (8020 AH) (NWTPI uctivity) (TD: C5310C) (To de) (WAD Cy o) (As) (Sb) (detals) (As) (Sb	D.O. (mg/L) 0.49 0.51 0.57 0.53 LLOWED PI 0.10 (NWTPH-I-D) (NWTPH-I-D) (NWTIPH-I-D) (NWTIP	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a al-Gradual Control (Substitution of the Control	Turbidity (NTU) applicable or write (NTU) (NO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 9.9 9.9 9.9 9.9 9.9 TYPICAL A (8260-SIM) (8270D) (P/ (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 142.5 142.6 142.6 142.6 142.6 142.6 (8010) (8020 AH) (NWTPH (activity) (TD) (C5310C) (To (le) (WAD Cy (le) (WAD Cy (le) (As) (Sb) (detals) (As) (Sh (ag short list) (anne Ethene Activity)	D.O. (mg/L) 0.49 0.51 0.57 0.53 LLOWED PI 0.10 (NWTPH-I-D) (NWTPH-I-D) (NWTIPH-I-D) (NWTIP	6.79 6.79 6.79 6.79 6.79 6.79 ER BOTTLE G) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N	ORP (mV) -8.4 -8.6 -8.9 -9.1 -8.8 CTYPE (Circle a al-Gradual Control (Substitution of the Control	Turbidity (NTU) applicable or write (NTU) (NO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)



Project Name	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 9 /2023@	857		
Sample Num	nber:	RGW236S-	230209		Weather:	overcast, 40s			
Landau Repr	resentative:	KVP / AT			•	•			
WATER LEV	EI /WEI I /DI	IDCE DATA							
WATER LEV Well Conditio		Secure (YES)	Damaged (N	(O)	Describe:	fluch		
DTW Before		6.71	Time:		Flow through ce		Hushi	GW Meter No.(к WЛ М 2
Begin Purge:	0 0 0			End Purge:	· ·	2/ 9 /2023 @	. 952	Gallons Purged:	
Purge water d		<u>Z/ </u>	55-gal Drum	Ě	Storage Tank	Ground		SITE TREATM	
Turge water u	iisposed to.	-	-		Ü	□ Oround	Other	SITE TREATM	ENT STSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time		. ,	, , ,	ters for three		dings within the f	. ,	>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
832	9.70	231.0	4.25	6.64	107.9		6.72		
835	9.50	246.3	3.26	6.65	99.5		6.73		
838	10.1	251.7	0.29	6.66	69.0		6.71		
841	10.5	253.6	0.68	6.69	38.0		-		
844	10.5	251.4	1.34	6.68	22.5				
847	10.6	248.6	2.96	6.67	10.9				
850	10.7	245.5	3.62	6.67	4.60	-			
SAMPLE CO	LLECTION D	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	dedicated bladder			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	ıl Order)	Other							
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.):	yellow, clear	, no odor, no shee	en			
Danlianta	Tomp	Cond	D.O.	"U	OPP	Tunhidita	DTW	Farmana inan	Commontal
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
•	(°F/°C)	(uS/cm)	(mg/L)	•	(mV)	•			
1	(° F /° C)	(uS/cm) 245.6	(mg/L) 3.66	6.67	(mV) 4.20	•			
1 2	(°F/°C) 10.7	(uS/cm) 245.6 245.1	(mg/L) 3.66 3.70	6.67	(mV) 4.20 3.70	•			
1 2 3	(° F /° C)	(uS/cm) 245.6	(mg/L) 3.66	6.67	(mV) 4.20	•			
1 2	(°F/°C) 10.7	(uS/cm) 245.6 245.1	(mg/L) 3.66 3.70	6.67	(mV) 4.20 3.70	•			
1 2 3	(°F/°C) 10.7 10.7 10.7	245.6 245.1 245.2	3.66 3.70 3.74	6.67 6.66 6.67	(mV) 4.20 3.70 3.40	•			
1 2 3 4 Average:	(°F/°C) 10.7 10.7 10.7 10.7 10.7	245.6 245.1 245.2 244.6 245.1	(mg/L) 3.66 3.70 3.74 3.77 3.72	6.67 6.66 6.67 6.66 6.67	(mV) 4.20 3.70 3.40 3.10 3.60	•	(ft)	(Fe II)	
1 2 3 4 Average:	(°F/°C) 10.7 10.7 10.7 10.7 10.7 10.7 TYPICAL A	245.6 245.1 245.2 244.6 245.1	(mg/L) 3.66 3.70 3.74 3.77 3.72 LLOWED PI	6.67 6.66 6.67 6.66 6.67 ER BOTTLE	(mV) 4.20 3.70 3.40 3.10 3.60	(NTU)	(ft)	(Fe II)	
1 2 3 4 Average:	(°F/°C) 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM)	245.6 245.1 245.2 244.6 245.1 NALYSIS AI (8010) (8020	3.66 3.70 3.74 3.77 3.72 LLOWED PI 0) (NWTPH-	6.67 6.66 6.67 6.66 6.67 ER BOTTLE	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle a H-Gx) (BTEX)	(NTU)	non-standard	(Fe II)	Observations
1 2 3 4 Average:	(°F/°C) 10.7 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (PA	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH uctivity) (TDS)	3.66 3.70 3.74 3.77 3.72 LLOWED PI ()) (NWTPH-D) (NWTPH-D) (NWTR) (S) (TSS) (E	6.67 6.66 6.67 6.66 6.67 ER BOTTLE G) (NWTPI PH-Dx) (TP.	(mV) 4.20 3.70 3.40 3.60 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity	(NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (non-standard	analysis below) WA WA WA	Observations
1 2 3 4 Average:	(°F/°C) 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Conduction)	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS) (C5310C) (To	3.66 3.70 3.74 3.77 3.72 3.72 3.10 (NWTPH-H-D) (NWTPH-	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP BOD) (Turbi otal Kiedahl N	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle at H-Gx) (BTEX) H-HCID) (8081)	(NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (non-standard	analysis below) WA WA WA	Observations
1 2 3 4 Average: QUANTITY 3 1	(°F/°C) 10.7 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (PA (COD) (TOO	(uS/cm) 245.6 245.1 245.2 244.6 245.1 NALYSIS AI (8010) (8020 AH) (NWTPH (activity) (TDS (C5310C) (To	(mg/L) 3.66 3.70 3.74 3.77 3.72 LLOWED PI ()) (NWTPH-H-D) (NWTH-H-D) (NWTI S) (TSS) (Etal PO4) (Total PO4)	6.67 6.66 6.67 6.66 6.67 ER BOTTLE G) (NWTPI PH-Dx) (TP: BOD) (Turbi otal Kiedahl N	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle a H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity litrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & C (NO3/NO2)	non-standard : Grease) Cl) (SO4) (No	malysis below) WA WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR
1 2 3 4 Average:	(°F/°C) 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (Total Cyanic (Total Metals)	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS) (CS310C) (To (de) (WAD Cy (de) (AS) (Sb) (3.66 3.70 3.74 3.77 3.72 LLOWED PI 3.0) (NWTPH-H-D) (NWTI S) (TSS) (E tal PO4) (To anide) (Free Ba) (Be) (Canada	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) (Itrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & O) (HCO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 3 1	(°F/°C) 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Conduction (COD) (Total Cyanical Cyanica	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS (C5310C) (To (le) (WAD Cy () (As) (Sb) ((setals) (As) (St)	3.66 3.70 3.74 3.77 3.72 LLOWED PI 3.0) (NWTPH-H-D) (NWTI S) (TSS) (E tal PO4) (To anide) (Free Ba) (Be) (Canada	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) (Itrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & O) (HCO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR
1 2 3 4 Average: QUANTITY 3 1	(°F/°C) 10.7 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condt (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS (C5310C) (To (le) (WAD Cy (le) (As) (Sb) (detals) (As) (Sb) (g short list)	(mg/L) 3.66 3.70 3.74 3.77 3.72 LLOWED PI (NWTPH-D) (NWTPH-	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) (Itrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & O) (HCO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 3 1	(°F/°C) 10.7 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condt (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS (C5310C) (To (le) (WAD Cy () (As) (Sb) ((setals) (As) (St)	(mg/L) 3.66 3.70 3.74 3.77 3.72 LLOWED PI (NWTPH-D) (NWTPH-	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) (Itrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & O) (HCO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 3 1	(°F/°C) 10.7 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condt (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS (C5310C) (To (le) (WAD Cy (le) (As) (Sb) (detals) (As) (Sb) (g short list)	(mg/L) 3.66 3.70 3.74 3.77 3.72 LLOWED PI (NWTPH-D) (NWTPH-	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) (Itrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & O) (HCO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 3 1 1	(°F/°C) 10.7 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condt (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS (C5310C) (To (le) (WAD Cy (le) (As) (Sb) (detals) (As) (Sb) (g short list)	(mg/L) 3.66 3.70 3.74 3.77 3.72 LLOWED PI (NWTPH-D) (NWTPH-	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) (Itrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & O) (HCO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 3 1 1	(°F/°C) 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (P/ (pH) (Condu (COD) (TOtal Cyanic) (Total Metals) (Dissolved M VOC (Boein Methane Eth	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS (C5310C) (To (le) (WAD Cy (le) (As) (Sb) (detals) (As) (Sb) (g short list)	(mg/L) 3.66 3.70 3.74 3.77 3.72 LLOWED PI (NWTPH-D) (NWTPH-	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) (Itrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & O) (HCO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 3 1 1 Duplicate San	(°F/°C) 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (P/ (pH) (Condu (COD) (TOtal Cyanic) (Total Metals) (Dissolved M VOC (Boein Methane Eth	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS (C5310C) (To (le) (WAD Cy (le) (As) (Sb) (detals) (As) (Sb) (g short list)	(mg/L) 3.66 3.70 3.74 3.77 3.72 LLOWED PI (NWTPH-D) (NWTPH-	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) (Itrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & O) (HCO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)
1 2 3 4 Average: QUANTITY 3 1 1	(°F/°C) 10.7 10.7 10.7 10.7 10.7 TYPICAL A (8260-SIM) (8270D) (P/ (pH) (Condu (COD) (TOtal Cyanic) (Total Metals (Dissolved M VOC (Boein Methane Eth	(uS/cm) 245.6 245.1 245.2 244.6 245.1 (8010) (8020 AH) (NWTPH (activity) (TDS (C5310C) (To (le) (WAD Cy (le) (As) (Sb) (detals) (As) (Sb (ag short list) nane Ethene Activity	(mg/L) 3.66 3.70 3.74 3.77 3.72 LLOWED PI (NWTPH-D) (NWTPH-	6.67 6.66 6.67 6.66 6.67 ER BOTTLE CG) (NWTPI PH-Dx) (TP-BOD) (Turbi otal Kiedahl N Cyanide) a) (Cd) (Co)	(mV) 4.20 3.70 3.40 3.10 3.60 TYPE (Circle and H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) (Itrogen) (NH3)	(NTU) pplicable or write (8141) (Oil & O) (HCO3/CO3) (NO3/NO2) (Pb) (Mg) (Mn)	non-standard and Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	MA DOS) (NO2) (F)	Observations OR OR OR Hg) (K) (Na)



Project Nam	ie:	Boeing Ren	ton		Project Numbe	ŗ.	0025217.003.0	99 099	
Event:	<u> </u>	Feb. 2023	ton		Date/Time:	2/ 6 /2023@	1613	,,,	
Sample Nun	her:	RGW237S-	230206	-	Weather:	overcast, 40s	1013		
Landau Rep		KVP / AT	230200		Weather.	overeast, 403			
WATER LEV	VEL/WELL/PU	Secure (YES)	Damaged (N	(O)	Describe:	fluch		
		`	,				HUSH	CW Meter No. (мимо
DTW Before		5.21	Time:	End Purge:	Flow through ce	2/ 6/2023@	1600	GW Meter No.(s	
	Date/Time:	2/ 0/2023		Ĕ		Ground		Gallons Purged: SITE TREATM	
Purge water of	nsposed to:		55-gal Drum		Storage Tank	∟ Ground	Other	SHE IREALM	ENI SISIEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O.	pН	ORP (mV)	Turbidity	DTW	Internal Purge	Comments/ Observations
Time	. ,		(mg/L) n of Paramet	ers for three		(NTU) dings within the fo	(ft) ollowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1549	11.2	212.3	1.90	6.45	34.6		5.19		
1552	10.7	216.5	1.65	6.41	27.3		5.19		
1555	10.1	203.8	1.30	6.41	23.9		5.21		
1558	9.7	187.5	1.11	6.40	25.4				
1601	9.5	176.2	0.98	6.39	29.0				
1604	9.4	170.8	0.74	6.37	30.6			·	
1607	9.4	170.5	0.63	6.36	29.3				
C L M CDV E CC	T T COTTON I								
Sample Colle	LLECTION I	DATA	Bailer		Pumn/Pumn Tyne	dedicated bladder			
Made of:	cica wini.	Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Wa		Tap Rinse	DI Water	Dedicated	— Junes	Douncaiou	
(By Numerica		Other	sii 🔲	rap Kilise	□ Di watei	Dedicated			
•			shoon ata):	cliabtly valle	oranga partialas	no odor, no sheen			
Sample Desci	ription (color,	turbiuity, odo	, sneen, etc.) <u>.</u>	siightiy yeho	, orange particles	, no odor, no sneen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	(Fe II)	Observations
1	9.50	170.3	0.62	6.36	29.1				
2	9.50	170.0	0.62	6.36	29.0				
3	9.50	170.4	0.62	6.36	28.9				
4	9.50	170.5	0.62	6.36	28.7				
Average:	9.5	170.3	0.62	6.36	28.9	_			
OHANTITY	TVDICALA	NAT VCIC A	I I OWED DE	D DOTTI E	TVDE (Cirolo o	pplicable or write	non standard	malusis balaw)	
5			NWTPH-G) (ppiicable or write	non-standard a	WA	OR 🗆
						(8141) (Oil & Gro	ease)	wa 🗆	OR 🗆
	` / `				, , ,) (HCO3/CO3) (-
1	(COD) (TO	C) (Total PO	4) (Total Kie	edahl Nitroge	n) (NH3) (NO3	3/NO2)			
	(Total Cyanic	le) (WAD Cy	vanide) (Free	Cyanide)					
	(Total Metals) (As) (Sb) (Ba) (Be) (Ca	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
	(Dissolved M	etals) (As) (Sl	b) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (I	(Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein	<u> </u>							
	Methane Eth	nane Ethene A	cetylene						
	others								
Duplicate Sar	mple No(s):								
Comments:									
Signature:	Adam Toroc	cilc				Date:	2/6/2023		



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 7/2023@	901		
Sample Num	iber:	RGW240D-	230207		Weather:	rainy, 40s			
Landau Repr	resentative:	KVP / AT							
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Condition	n:	Secure (YES)	Damaged (N	(O)	Describe:	flush		
DTW Before	Purging (ft)	6.36	Time:	829	Flow through ce	ll vol.		GW Meter No.(s WLM 9
Begin Purge:	Date/Time:	2/ 7 /2023	834	End Purge:	Date/Time:	2/ 7 /2023 @	857	Gallons Purged:	<1
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	pii	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goal	s: Stablization +/- 3%		ters for three +/- 0.1 units	e consecutive rea +/- 10 mV	dings within the for +/- 10%	ollowing limits < 0.3 ft	>/= 1 flow through cell	
027						+/- 10 70		unrough cen	
837	11.9	244.5	1.99	6.56	10.6		6.61		
840	10.8	237.8	1.98	6.57	-19.8		6.52		
843	10.1	231.4	1.79	6.59	-35.2		5.52		
846	9.80	228.6	1.30	6.62	-49.1				
849	9.80	227.5	1.36	6.63	-53.7				
852	9.60	226.6	1.39	6.63	-56.3				
SAMPLE CO	LLECTION D	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	e dedicated bladder			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color,	turbidity, odo	, sheen, etc.):	colorless, lov	w tubridity, no od	or, no sheen			
- D I' :	m		D.O.	**	OPP	T 1:14	DOW		
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	9.60	226.3	1.38	6.63	-57.0				
2	9.60	226.4	1.39	6.63	-57.5		-		
				-					
3	9.60	226.2	1.39	6.64	-57.9				
4	9.60	225.9	1.41	6.64	-58.7				
Average:	9.60	226.2	1.39	6.64	-57.8				
QUANTITY	TYPICAL A	NALYSIS AI	LLOWED PI	ER BOTTLE	TYPE (Circle a	pplicable or write	non-standard	analysis below)	
5		0) (8020) (1						WA 🗆	OR 🗆
						(8141) (Oil & Gr		wa 🗆	OR □
	*				dity) (Alkalinity n) (NH3) (NO3	(HCO3/CO3) (Cl) (SO4) (N	O3) (NO2) (F)	
1	, , ,	le) (WAD Cy	, ,		II) (NH3) (NO	5/NO2)			
	•	•		•	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
	`	, , , , ,	, , , , ,			. , , , , , ,	, , , ,		(Na) (Hardness) (Sil
	VOC (Boein	ng short list)							
	Methane Eth	nane Ethene A	cetylene						
	d								
	others								
Duplicate San	nple No(s):								
Comments:									
Signature:	Adam Toroc	esik				Date:	2/7/2023		



Project Nam	ie.	Boeing Rent	ion		Project Number	r·	0025217.003.0	199 (199	
Event:		Feb. 2023	ion		Date/Time:	2/ 7 /2023@	1319	177.077	
Sample Nun	abar:	RGW244S-	230207		Weather:	rain, 40s	1319		
Landau Rep	•	KVP / AT	230207		weather.	1am, 40s			
		•							
WATER LEV	<mark>/EL/WELL/PU</mark>	Secure (YES)	\ 1	Damaged (N	(O)	Describe:	flush		
		` '		-			Hush	CW Motor No.	WIM O
DTW Before		5.51 2/ 7 /2023 (Time: _	End Purge:	Flow through ce	2/ 7 /2023 @	1215	GW Meter No.(Gallons Purged:	
Purge water of			55-gal Drum	Elia Fulge.	Storage Tank	Ground		SITE TREATM	
ruige water c	iisposed to.	-	55-gai Diuiii	4	C		Other	SHE IKEAIM	ENISISIEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time	. ,		, , ,	rs for three	. ,	dings within the f		>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10% +	-/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1255	12.4	360.1	0.67	6.39	-24.5		5.67		
1258	12.1	358.8	1.39	6.40	-36.1		5.69		
1301	11.9	357.3	1.92	6.40	-43.9		5.65		
1304		355.9	2.35	6.41	-48.0				
1307	11.6	354.2	2.82	6.41	-51.4		-		
	· 					_			-
1310		350.9	2.96	6.39	-53.8				
1313	13.2	371.7	3.05	6.41	-59.5			· 	
Sample Colle	LLECTION I		Bailer		Dump/Dump Trm	e dedicated peristal	i a		
Made of:	cied with.	_		PVC				. Dadiantad	
		Stainless Stee			Teflon	Polyethylene	Other	Dedicated	
Decon Procee	dure:	Alconox Was	sh 🔲 🤈	Γap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other							
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.): o	clear, colorle	ess, no odor, no sl	neen			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)	•	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	13.3	372.9	3.08	6.41	-59.8				
2	13.3	373.7	3.09	6.40	-60.1				
3	13.4	374.2	3.12	6.41	-60.4				
4	13.4	374.6	3.14	6.40	-60.7				
Average:	13.4	373.9	3.11	6.41	-60.3		-		
									-
						pplicable or write	non-standard		
5		0) (8020) (N				(01.11) (011.0.0		WA L	OR 🗆
						(8141) (Oil & Gr) (HCO3/CO3) (WA D	OR 🗆
1					n) (NH3) (NO		CI) (SO4) (N	O3) (NO2) (F)	
		e) (WAD Cy			1) (1113) (110	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
			, ,	-	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
									(Na) (Hardness) (Si
	VOC (Boein								
	Methane Eth	ane Ethene Ac	cetylene		<u> </u>				
	others								
Duplicate Sar	nple No(s):								
Comments:	*								
Signature:	Adam Toroc	:1.				Date:	2/7/2023		



Event Feb. 2023 1344 230206 Wather Weather Weather 40S WINDY, RAINY
NAMPLE COLLECTION DATA Sample Collected With Sample Description (color, turbidity, odor, sheen, etc.): CLEAR, LOW TURB, SLIGHTLY, YELLOW, NO ODOR, NO SHEEN, SLIGHTLY EFFERVESCEN Average: 9,0 374.8 1.131 6.45 4.99 376.5 1.23 6.45 5.50.2 376.8 376.9 5.123 6.45 5.50.2 376.8 376.9 5.123 6.45 5.50.2 376.8 5.50.2 376.8 5.123 6.45 5.50.2 376.8 5.50.2 376.8 5.123 6.45 5.50.2 376.8 5
WATER LEVEL/WEIL/PURGE DATA
Damaged (NO) Describe: Damaged (NO) Describe: DTW Before Purging (ft) 5.07 Time: 1315 Flow through cell vol. GW Meter No.(s SLOPE 11
DTW Before Purging (fi) S.07
Begin Purge Date/Time Da
Begin Purge Date/Time Da
Purge water disposed to:
Temp
Time
1324 11.3 369.6 1.61 6.43 -4.8 5.24
1324
1327
1330 9.6 383.2 1.26 6.45 36.9 5.14 1333 9.3 379.0 1.11 6.44 -42.2 1336 9.1 376.8 1.16 6.45 -46.8
1333 9.3 379.0 1.11 6.44 -42.2 1336 9.1 376.8 1.16 6.45 -46.8
SAMPLE COLLECTION DATA Sample Collected With: Bailer PVC Teflon Polyethylene Other Dedicated
SAMPLE COLLECTION DATA Sample Collected With:
SAMPLE COLLECTION DATA Sample Collected With:
Sample Collected With: Bailer Pump/Pump Type QED BLADDEWR Made of: Stainless Steel PVC Teflon Polyethylene Other Dedicated Decon Procedure: Alconox Wash Tap Rinse DI Water Dedicated (By Numerical Order) Other Other Dougle Description (color, turbidity, odor, sheen, etc.): CLEAR, LOW TURB, SLIGHTLY YELLOW, NO ODOR, NO SHEEN, SLIGHTLY EFFERVESCEN Replicate Temp (°F/°C) Cond. (uS/cm) D.O. (mg/L) pH ORP Turbidity (nTU) DTW (ft) Ferrous iron (Fe II) Observations 1 9.0 376.5 1.23 6.45 -49.2 -49.2 -49.9 -49.9 -49.9 -50.2 -49.9 -50.2 -50.2 -50.5 -50.5 -50.5 -50.5 -50.5 -50.5 -50.5 -50.0
Sample Collected With: Bailer Pump/Pump Type QED BLADDEWR Made of: Stainless Steel PVC Teflon Polyethylene Other Dedicated Decon Procedure: Alconox Wash Tap Rinse DI Water Dedicated (By Numerical Order) Other Other Dougle Description (color, turbidity, odor, sheen, etc.): CLEAR, LOW TURB, SLIGHTLY YELLOW, NO ODOR, NO SHEEN, SLIGHTLY EFFERVESCEN Replicate Temp (°F/°C) Cond. (uS/cm) D.O. (mg/L) pH ORP Turbidity (nTU) DTW (ft) Ferrous iron (Fe II) Observations 1 9.0 376.5 1.23 6.45 -49.2 -49.2 -49.9 -49.9 -49.9 -50.2 -49.9 -50.2 -50.2 -50.5 -50.5 -50.5 -50.5 -50.5 -50.5 -50.5 -50.0
Sample Collected With: Bailer Pump/Pump Type QED BLADDEWR Made of: Stainless Steel PVC Teflon Polyethylene Other Dedicated Decon Procedure: Alconox Wash Tap Rinse DI Water Dedicated (By Numerical Order) Other Other Dougle Description (color, turbidity, odor, sheen, etc.): CLEAR, LOW TURB, SLIGHTLY YELLOW, NO ODOR, NO SHEEN, SLIGHTLY EFFERVESCEN Replicate Temp (°F/°C) Cond. (uS/cm) D.O. (mg/L) pH ORP Turbidity (nTU) DTW (ft) Ferrous iron (Fe II) Observations 1 9.0 376.5 1.23 6.45 -49.2 -49.2 -49.9 -49.9 -49.9 -50.2 -49.9 -50.2 -50.2 -50.5 -50.5 -50.5 -50.5 -50.5 -50.5 -50.5 -50.0
Sample Collected With: Bailer Pump/Pump Type QED BLADDEWR Made of: Stainless Steel PVC Teflon Polyethylene Other Dedicated Decon Procedure: Alconox Wash Tap Rinse DI Water Dedicated (By Numerical Order) Other Other Dougle Description (color, turbidity, odor, sheen, etc.): CLEAR, LOW TURB, SLIGHTLY YELLOW, NO ODOR, NO SHEEN, SLIGHTLY EFFERVESCEN Replicate Temp (°F/°C) Cond. (uS/cm) D.O. (mg/L) pH ORP Turbidity (nTU) DTW (ft) Ferrous iron (Fe II) Observations 1 9.0 376.5 1.23 6.45 -49.2 -49.2 -49.9 -49.9 -49.9 -50.2 -49.9 -50.2 -50.2 -50.5 -50.5 -50.5 -50.5 -50.5 -50.5 -50.5 -50.0
Made of: Stainless Steel PVC Teflon Polyethylene Other Dedicated Decon Procedure: Alconox Wash Tap Rinse DI Water Dedicated (By Numerical Order) Other Other Sample Description (color, turbidity, odor, sheen, etc.): CLEAR, LOW TURB, SLIGHTLY YELLOW, NO ODOR, NO SHEEN, SLIGHTLY EFFERVESCEN Replicate Temp (°F/°C) Cond. (uS/cm) D.O. (mg/L) pH ORP (mV) Turbidity (NTU) DTW (Fe II) Comments/Observations 1 9.0 376.5 1.23 6.45 -49.2 -49.2 -49.9
Decon Procedure:
Community
Sample Description (color, turbidity, odor, sheen, etc.): CLEAR, LOW TURB, SLIGHTLY YELLOW, NO ODOR, NO SHEEN, SLIGHTLY EFFERVESCEN Replicate Temp (°F/°C) Cond. (uS/cm) D.O. (mg/L) pH (mV) Turbidity (NTU) DTW (ft) Ferrous iron (Fe II) Comments/Observations 1 9.0 376.5 1.23 6.45 -49.2 -49.2 -49.9
Replicate Temp (°F/°C) Cond. (uS/cm) D.O. (mg/L) pH (mV) ORP (mV) Turbidity (NTU) DTW (ft) Ferrous iron (Fe II) Comments/Observations 1 9.0 376.5 1.23 6.45 -49.2 -49.2 -49.2 -49.9<
(°F/°C) (uS/cm) (mg/L) (mV) (NTU) (ft) (Fe II) Observations 1 9.0 376.5 1.23 6.45 -49.2 -49.2 -49.2 -49.2 -49.2 -49.2 -49.2 -49.9 <td< td=""></td<>
1 9.0 376.5 1.23 6.45 -49.2 2 9.0 374.8 1.31 6.45 -49.9 3 9.0 374.5 1.39 6.45 -50.2 4 9.0 374.4 1.40 6.45 -50.5 Average: 9.0 375.1 1.33 6.45 -50.0
2 9.0 374.8 1.31 6.45 -49.9 3 9.0 374.5 1.39 6.45 -50.2 4 9.0 374.4 1.40 6.45 -50.5 Average: 9.0 375.1 1.33 6.45 -50.0
3 9.0 374.5 1.39 6.45 -50.2 4 9.0 374.4 1.40 6.45 -50.5 Average: 9.0 375.1 1.33 6.45 -50.0
4 9.0 374.4 1.40 6.45 -50.5 Average: 9.0 375.1 1.33 6.45 -50.0
4 9.0 374.4 1.40 6.45 -50.5 Average: 9.0 375.1 1.33 6.45 -50.0
Average: 9.0 375.1 1.33 6.45 -50.0
OHANDED TYPICAL ANALYSIS ALLOWED DED DOTTLE TYPE (C'-1 2-11
QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
3 (8260) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA ☐ OR ☐
(8270D) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease) WA OR
(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)
1 (COD) (ToC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2) (Total Cyanide) (WAD Cyanide) (Free Cyanide)
(Total Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na)
(Dissolved Metals) (As) (Sb) (Ba) (Be) (Cd) (Cd) (Cd) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Si
VOC (Boeing short list)
Methane Ethane Ethene Acetylene
others
others Duplicate Sample No(s): Comments:



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 06/2023@	1150		
Sample Nun	nber:	RGW249S-	230206		Weather:	40S, CLOUDY,	VERY WIND	Y	
Landau Repr	resentative:	KVP							
WATER LEV	'EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	FLUSH MOU	NT	
DTW Before	Purging (ft)	4.28	Time:	1120	Flow through cel	l vol.		GW Meter No.(s	SLOPE 11
Begin Purge:	Date/Time:	2/06 /2023 @	1123	End Purge:	Date/Time:	2/06/2023 @	1148	Gallons Purged:	0.5
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	P	(mV)	(NTU)	(ft)	Volume (gal)	Observations
						dings within the fo	- C	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1125	12.6	320.7	0.41	6.39	-61.3		4.29		
1128	12.4	317.6	0.70	6.34	-66.1		4.32		
1131	11.4	310.2	1.84	6.35	-67.4		4.29		
1134	11.7	308.0	2.80	6.32	-69.1				
1137	11.9	309.6	3.95	6.33	-71.0				
1140	12.0	309.6	4.42	6.34	-72.3				
1143	12.1	309.9	4.76	6.32	-73.0				
1146	12.1	308.7	4.91	6.32	-73.5				
SAMPLE CO			4.91	0.52					
Sample Colle			Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	ıl Order)	Other							
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.):	CLEAR, SL	GHT YELLOW	TINT, NO ODOR,	NO SHEEN		
- T	T	- C 1	D.O.		OPP	T 1:11	DOW		
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.1	308.4	4.94	6.34	-73.4				
2	12.1	308.5	4.95	6.34	-73.5				
3									
	12.1	308.4	4.97	6.32	-73.6			-	
4	12.1	308.3	4.98	6.33	-73.6				
Average:	12.1	308.4	4.96	6.33	-73.5				
QUANTITY	TYPICAL A	NALYSIS AI	LLOWED PI	ER BOTTLE	TYPE (Circle a	pplicable or write	non-standard	analysis below)	
3	(<mark>8260</mark>) (801	0) (8020) (N	WTPH-G)	(NWTPH-Gx) (BTEX)			WA 🗆	OR 🗆
	, ,					(8141) (Oil & C		WA 🗆	OR □
	· · · ·	• • • • • • • • • • • • • • • • • • • •	/ \ / \		37 \	(HCO3/CO3) (Cl) (SO4) (No	O3) (NO2) (F)	
1					n) (NH3) (NO3	3/NO2)			
	·	le) (WAD Cy		•	(Cr) (Cu) (Ea)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Sa)	(Tl) (V) (7n) (Ug) (V) (Ng)
							•		(Na) (Hardness) (Sil-
	VOC (Boein) (Ba) (Bc) (<i>ca)</i> (<i>ca)</i> (<i>co)</i>	(C1) (Cu) (1c) (1	<i>b)</i> (Wig) (Will) (Wi)	(11g) (SC) (11) (V) (Zii) (Tig) (IV)	(14a) (Hardiless) (Sil
		nane Ethene A	cetylene						
	others								
Duplicate Sar	nnle No(s).								
Comments:	r 1.0(b).								
						Date:	2/6/2023		



Project Nam	ne:	Boeing Ren	ton		Project Numbe	r.	0025217.003.0	99 099	
Event:	···	Feb. 2023			Date/Time:	2/07/2023 @	944	,,,,,,	
Sample Nun	nher:	RGW250S-	230207		Weather:	RAINY 40S, WI			
Landau Rep	=	KVP	230207		· · · · · · · · · ·	Termital loss, tra	11101		
WATER LEV	<mark>/EL/WELL/PU</mark>	Secure (YES)	Damaged (N	IO)	Describe:	FLUSH MOU	NT 12"	
DTW Before		3.73	Time:		Flow through cel		TEOSIT MOCI	GW Meter No.(s	SLOPE 11
	Date/Time:			End Purge:	-	2/07/2023 @	942	Gallons Purged:	SLOFE II
Purge water of		2/07/2023 @	55-gal Drum	Ĕ	Storage Tank	Ground		SITE TREATM	ENT CVCTEM
Turge water c	nsposed to.		55-gai Diulii	ب	Storage Talik	- Ground	Other	SITE TREATM	LIVI STSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time	. ,	` /		ers for three		dings within the f		>/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
919	11.2	104.8	3.65	6.58	59.8		3.89		
922	11.8	113.3	1.69	6.60	28.6		3.98		
925	11.8	114.2	1.08	6.67	8.8		4.11		
928	11.6	114.6	0.86	6.71	-7.1				
931	10.7	109.6	0.88	6.75	-13.0				
934	10.7	110.1	0.71	6.65	-13.6				
937	11.7	112.7	0.60	6.77	-24.9				
940	11.9	112.8	0.53	6.78	-26.3				
SAMPLE CO	LLECTION D	OATA							
Sample Colle	cted With:		Bailer		Pump/Pump Type	QED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procee	dure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other							
Sample Descr	ription (color,	turbidity, odor	, sheen, etc.):	CLEAR, LO	W - MED TURB,	SLIGHT YELLOV	W TINT, NO OI	OR, NO SHEEN	
D 11 .		- C 1	D.O.	**	OPP	T 1111	DOW		<u> </u>
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.8	112.3	0.52	6.78	-26	, ,	, ,	, ,	
2	11.9	112.3	0.50	6.79	-25.4		-		
3	11.9	112.6	0.51	6.79	-25.4				
4	11.9	112.0	0.49	6.80	-25.9				
Average:	11.9	112.3	0.51	6.79	-25.7				
OHANTITY	TVPICAL A	NAI VSIS AI	I OWED PI	ER ROTTI E	TVPF (Circle o	pplicable or write	non-standard	nalveic balow)	
QUANTITI		(8021) (N				ppincable of write	non-standard a	WA \square	OR 🗆
						(8141) (Oil & Gr	ease)	WA 🗆	OR 🗆
						(HCO3/CO3) (
	*	•			n) (NH3) (NO3				
	(Total Cyanid	e) (WAD Cy	ranide) (Free	Cyanide)					
1	(Total Metals	(As) (Sb) (Ba) (Be) (Ca	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (Hg) (K) (Na)
	(Dissolved M	etals) (As) (St	o) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Fe)	(Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Si
	VOC (Boein	g short list)							
	Methane Eth	ane Ethene A	cetylene						
	others								
Duplicate Sar	l								
Duplicate Sar Comments:	l								



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/ 6/2023@	1021		
Sample Num	nber:	RGW253I-	230206		Weather:	overcast, 40s			
Landau Repi	resentative:	KVP / AT			•				
WATERIEV	/EL/WELL/PU	IRCE DATA							
Well Condition		Secure (YES)	Damaged (N	(O)	Describe:	flush		
DTW Before		5.42	Time:		Flow through ce			GW Meter No.(wi M 9
	0 0 ,	2/ 6 /2023 0		End Purge:	_	2/ 6 /2023 @	1010	Gallons Purged:	
Purge water d		2/ 0 /2023 0	55-gal Drum	Č	Storage Tank	Ground		SITE TREATM	
Turge water u	nsposed to.	-	55-gai Dium		Ü	□ Oround	_	SITE TREATM	ENT STSTEM
Time	Temp (°F/°C)	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	. ,	(uS/cm) s: Stablization	(mg/L) n of Paramet	ters for three	(mV) e consecutive rea	(NTU) dings within the f	(ft) ollowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
959	10.8	296.1	1.03	6.43	1.4		5.42		
1002	10.4	283.6	0.84	6.39	1.3		5.41		
1005	10.3	278.5	0.72	6.38	-0.4	-	5.41		
							3.41		
1008	10.3	277.6	0.67	6.38	-4.1				
1011	10.5	281.2	0.77	6.42	-8.9				
1014	10.6	279.5	0.75	6.44	-12.0	-			
1017	10.7	279.2	0.69	6.47	-14.9				
SAMPLE CO	LLECTION D	DATA					·		
Sample Colle	cted With:		Bailer		Pump/Pump Type	e dedicated bladder			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	d Order)	Cthor	_		—				
	u Oraer)	Other							
			, sheen, etc.):	clear, colorle	ess, no odor, no sl	neen			
			, sheen, etc.):	clear, colorle	ess, no odor, no sh	neen			
			D.O. (mg/L)	clear, colorle	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
Sample Descr	Temp	turbidity, odor	D.O.		ORP	Turbidity			
Sample Description Replicate	Temp (°F/°C)	Cond. (uS/cm) 278.8	D.O. (mg/L)	pH 6.47	ORP (mV)	Turbidity			
Replicate 1 2	Temp (°F/°C) 10.8	Cond. (uS/cm) 278.8 279.1	D.O. (mg/L) 0.67	pH 6.47 6.48	ORP (mV) -15.2 -15.6	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 10.8 10.9	Cond. (uS/cm) 278.8 279.1 279.0	D.O. (mg/L) 0.67 0.66	pH 6.47 6.48 6.48	ORP (mV) -15.2 -15.6 -15.8	Turbidity			
Replicate 1 2	Temp (°F/°C) 10.8 10.9 10.8 10.8	Cond. (uS/cm) 278.8 279.1 279.0 278.9	D.O. (mg/L) 0.67	pH 6.47 6.48 6.48	ORP (mV) -15.2 -15.6	Turbidity			
Replicate 1 2 3	Temp (°F/°C) 10.8 10.9	Cond. (uS/cm) 278.8 279.1 279.0	D.O. (mg/L) 0.67 0.66	pH 6.47 6.48 6.48	ORP (mV) -15.2 -15.6 -15.8	Turbidity			
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.8 10.9 10.8 10.8	Cond. (uS/cm) 278.8 279.1 279.0 278.9 279.0	D.O. (mg/L) 0.67 0.66 0.65 0.65	pH 6.47 6.48 6.48 6.48	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7	Turbidity	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8	Cond. (uS/cm) 278.8 279.1 279.0 278.9 279.0	D.O. (mg/L) 0.67 0.66 0.65 0.65	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7	Turbidity (NTU)	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.8 10.9 10.8 10.8 TYPICAL A (8260) (8010	Cond. (uS/cm) 278.8 279.1 279.0 278.9 279.0 NALYSIS AI (0) (8020) (N	D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI	6.47 6.48 6.48 6.48 6.48 ER BOTTLE	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a	Turbidity (NTU)	non-standard	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu	Cond. (uS/cm) 278.8 279.1 279.0 278.9 279.0 NALYSIS AI 0) (8020) (NALY (NATP) activity) (TD:	D.O. (mg/L) 0.67 0.66 0.65 0.66 LLOWED PINWTPH-G) (M-D) (NWTIS) (TSS) (F	6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-GX PH-Dx) (TP	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 CTYPE (Circle at a constant) (BTEX) H-HCID) (8081) (dity) (Alkalinity)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 (8260) (8010 (8270D) (P/d) (PH) (Conduction) (TOI	Cond. (uS/cm) 278.8 279.1 279.0 278.9 279.0 NALYSIS AI (0) (8020) (N AH) (NWTPH (activity) (TD: (C) (Total PO-	D.O. (mg/L) 0.67 0.66 0.65 0.66 LLOWED PI NWTPH-G) (NWTPH-G)	6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx PH-Dx) (TP	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 CTYPE (Circle at) (BTEX)	Turbidity (NTU) pplicable or write (8141) (Oil & C) (HCO3/CO3) (non-standard	analysis below) WA WA WA	Observations
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 10.8 (8260) (801e (8270D) (PA (PH) (Conde) (COD) (Total Cyanic	Cond. (uS/cm) 278.8 279.1 279.0 278.9 279.0 NALYSIS AI (0) (8020) (N AH) (NWTPH (uctivity) (TDS) (C) (Total PO-	D.O. (mg/L) 0.67 0.66 0.65 0.66 LLOWED PI NWTPH-G) (NWTPH-G)	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx PH-Dx) (TP BOD) (Turbicedahl Nitroge	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) dity) (Alkalinity n) (NH3) (NO3)	Turbidity (NTU) pplicable or write (8141) (Oil & C (HCO3/CO3) (non-standard : Grease) C1) (SO4) (No	analysis below) WA WA O WA O O O O O O O O O O O O O O O O O O O	Observations OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 TYPICAL A (8260) (8016 (8270D) (PA (pH) (Condu (COD) (Total Cyanic) (Total Metals)	Cond. (uS/cm) 278.8 279.1 279.0 278.9 279.0 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TD: C) (Total PO- de) (WAD Cy c) (As) (Sb) (D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI WTPH-G) (NWTPH-G) (NWTP	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx) (TP BOD) (Turbicedahl Nitrogen et Cyanide) a) (Cd) (Co)	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Oil	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 TYPICAL A (8260) (8010 (8270D) (P/ (pH) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M	Cond. (uS/cm) 278.8 279.1 279.0 278.9 279.0 NALYSIS AI 0) (8020) (N AH) (NWTPH (uctivity) (TDS) (C) (Total PO- (le) (WAD Cy () (As) (Sb) ((etals) (As) (St)	D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI WTPH-G) (NWTPH-G) (NWTP	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx) (TP BOD) (Turbicedahl Nitrogen et Cyanide) a) (Cd) (Co)	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Oil	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 TYPICAL A (8260) (8010 (8270D) (PA (PM) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 278.8 279.1 279.0 278.9 278.9 279.0 NALYSIS AI () (8020) (N AH) (NWTPH () (Total PO- () (Total PO- () (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() () (detals) (As) (Sb) ((() () () (detals) (As) (Sb) ((() () () () (detals) (As) (Sb) ((() () () () () (() () (() () () (() (D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kic ranide) (Free Ba) (Be) (C b) (Ba) (Be) (C	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx) (TP BOD) (Turbicedahl Nitrogen et Cyanide) a) (Cd) (Co)	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Oil	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 TYPICAL A (8260) (8010 (8270D) (PA (PM) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 278.8 279.1 279.0 278.9 279.0 NALYSIS AI 0) (8020) (N AH) (NWTPH (uctivity) (TDS) (C) (Total PO- (le) (WAD Cy () (As) (Sb) ((etals) (As) (St)	D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kic ranide) (Free Ba) (Be) (C b) (Ba) (Be) (C	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx) (TP BOD) (Turbicedahl Nitrogen et Cyanide) a) (Cd) (Co)	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Oil	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 TYPICAL A (8260) (8010 (8270D) (PA (PM) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 278.8 279.1 279.0 278.9 278.9 279.0 NALYSIS AI () (8020) (N AH) (NWTPH () (Total PO- () (Total PO- () (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() () (detals) (As) (Sb) ((() () () (detals) (As) (Sb) ((() () () () (detals) (As) (Sb) ((() () () () () (() () (() () () (() (D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kic ranide) (Free Ba) (Be) (C b) (Ba) (Be) (C	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx) (TP BOD) (Turbicedahl Nitrogen et Cyanide) a) (Cd) (Co)	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Oil	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 TYPICAL A (8260) (8010 (8270D) (PA (PM) (Condu (COD) (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 278.8 279.1 279.0 278.9 278.9 279.0 NALYSIS AI () (8020) (N AH) (NWTPH () (Total PO- () (Total PO- () (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() () (detals) (As) (Sb) ((() () () (detals) (As) (Sb) ((() () () () (detals) (As) (Sb) ((() () () () () (() () (() () () (() (D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kic ranide) (Free Ba) (Be) (C b) (Ba) (Be) (C	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx) (TP BOD) (Turbicedahl Nitrogen et Cyanide) a) (Cd) (Co)	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Oil	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 TYPICAL A (8260) (8010 (8270D) (PA (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 278.8 279.1 279.0 278.9 278.9 279.0 NALYSIS AI () (8020) (N AH) (NWTPH () (Total PO- () (Total PO- () (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() () (detals) (As) (Sb) ((() () () (detals) (As) (Sb) ((() () () () (detals) (As) (Sb) ((() () () () () (() () (() () () (() (D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kic ranide) (Free Ba) (Be) (C b) (Ba) (Be) (C	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx) (TP BOD) (Turbicedahl Nitrogen et Cyanide) a) (Cd) (Co)	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Oil	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3 Duplicate Sar	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 TYPICAL A (8260) (8010 (8270D) (PA (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 278.8 279.1 279.0 278.9 278.9 279.0 NALYSIS AI () (8020) (N AH) (NWTPH () (Total PO- () (Total PO- () (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() () (detals) (As) (Sb) ((() () () (detals) (As) (Sb) ((() () () () (detals) (As) (Sb) ((() () () () () (() () (() () () (() (D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kic ranide) (Free Ba) (Be) (C b) (Ba) (Be) (C	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx) (TP BOD) (Turbicedahl Nitrogen et Cyanide) a) (Cd) (Co)	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Oil	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR OR OR OR OR OR OR OR
Replicate 1 2 3 4 Average: QUANTITY 3	Temp (°F/°C) 10.8 10.9 10.8 10.8 10.8 TYPICAL A (8260) (8010 (8270D) (PA (COD) (Total Cyanic (Total Metals (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 278.8 279.1 279.0 278.9 278.9 279.0 NALYSIS AI () (8020) (N AH) (NWTPH () (Total PO- () (Total PO- () (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() (detals) (As) (Sb) ((() () (detals) (As) (Sb) ((() () () (detals) (As) (Sb) ((() () () () (detals) (As) (Sb) ((() () () () () (() () (() () () (() (D.O. (mg/L) 0.67 0.66 0.66 0.65 0.66 LLOWED PI NWTPH-G) (NWTI S) (TSS) (E 4) (Total Kic ranide) (Free Ba) (Be) (C b) (Ba) (Be) (C	pH 6.47 6.48 6.48 6.48 6.48 ER BOTTLE (NWTPH-Gx) (TP BOD) (Turbicedahl Nitrogen et Cyanide) a) (Cd) (Co)	ORP (mV) -15.2 -15.6 -15.8 -16.3 -15.7 TYPE (Circle a) (BTEX) H-HCID) (8081) (dity) (Alkalinity (Alkalinity) (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU) pplicable or write (8141) (Oil & Oil	non-standard a Grease) Cl) (SO4) (No. (No. (No. (No. (No. (No. (No. (No.	wA O3) (NO2) (F)	Observations OR OR OR OR OR OR OR OR OR OR



Project Nam	ne:	Boeing Ren	ton		Project Number	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/08/2023 @	1420		
Sample Nur	nber:	RGW263S-	230208		Weather:				
Landau Rep	resentative:	KVP / AT							
WATER LEV	VEL/WELL/PU	JRGE DATA							
Well Condition		Secure (YES)	Damaged (N	(O)	Describe:	Flush Mount		
DTW Before	Purging (ft)	6.39	Time:		Flow through ce	ll vol.		GW Meter No.(s	(;)
	Date/Time:			End Purge:	_	2/ /2023 @		Gallons Purged:	,
Purge water of			55-gal Drum	Ě	Storage Tank	Ground	Other	SITE TREATMI	ENT SYSTEM
	•	~ ·			Ü		_	-	
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goal	. ,		ters for three	. ,	dings within the fo		>/= 1 flow	0.000
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
	_								
	\mathbf{W}_{A}	ATER	LEV.	EL O	NLY				
	-								
SAMPLE CO	DLLECTION I								
Sample Colle	ected With:		Bailer	4	Pump/Pump Type	·		_	
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proce	dure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other							
Sample Desc	ription (color,	turbidity, odor	, sheen, etc.):						
D. I'm	TD	C 1	D.O.		ODD	T	DEW		G
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	(, -,	(,				()			
								-	
2									
3									
4									
Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
QUANTITY	TVPICAL A	NAI VSIS AI	I OWED PI	FR ROTTI F	TVPF (Circle 9	pplicable or write	non-standard	analysis balow)	
QUANTITI	-	0) (8020) (N				ppicable of write	non-standard	wa 🗆	OR 🗆
						(8141) (Oil & C	Grease)	wa 🗆	OR 🗆
	(pH) (Condu	activity) (TD:	S) (TSS) (H	BOD) (Turbi	dity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (N	O3) (NO2) (F)	
	(COD) (TO	C) (Total PO	4) (Total Kie	edahl Nitroge	n) (NH3) (NO	3/NO2)			
	(Total Cyanid	le) (WAD Cy	ranide) (Free	Cyanide)					
	(Total Metals) (As) (Sb) (Ba) (Be) (C	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn)	(Ni) (Ag) (Se)	(Tl) (V) (Zn) (l	Hg) (K) (Na)
	(Dissolved M	etals) (As) (St) (Ba) (Be) (Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (l	Pb) (Mg) (Mn) (Ni)	(Ag) (Se) (Tl) (V) (Zn) (Hg) (K)	(Na) (Hardness) (Sil
	VOC (Boein								
	Methane Eth	ane Ethene A	cetylene						
	otho:								
	others								
Duplicate Sa	mple No(s):								
Comments:									
Signature:		KVP			<u></u>	Date:	2/8/2023	<u></u>	



Project Nam	ie:	Boeing Ren	ton		Project Numbe	r:	0025217.003.0	99.099	
Event:		Feb. 2023			Date/Time:	2/08/2023 @	1448		
Sample Nun	nber:	RGW264S-	230208		Weather:	PARTIALLY C	LOUDY, 40S		
Landau Repr	resentative:	KVP			·				
WATER LEV	/EL/WELL/PU	URGE DATA							
Well Condition	on:	Secure (YES)	Damaged (N	(O)	Describe:	Flush Mount		
DTW Before	Purging (ft)	5.1	Time:	1417	Flow through ce	ll vol.		GW Meter No.(s	SLOPE 11
Begin Purge:	Date/Time:	2/08/2023 @	1418	End Purge:	Date/Time:	2/08/2023 @	1445	Gallons Purged:	0.5
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	tore for three	(mV)	(NTU) dings within the f	(ft)	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1419	13.0	1079	0.58	6.20	17.5		5.53		
1422	12.9	1101	1.82	6.23	-14.0		5.68		
1425	12.9	1095	5.22	6.25	-43.1		5.96		
1428	12.8	1082	7.10	6.26	-56.1		6.07		
1431	12.8	1080	8.10	6.25	-62.4		6.15		
1434	12.8	1077	8.34	6.25	-67.2				
1437	12.7	1069	9.13	6.25	-70.1		· 		
1440	12.7	1065	9.44	6.25	-73.4				
SAMPLE CO	LLECTION I	DATA							
Sample Colle	cted With:		Bailer		Pump/Pump Type	QED BLADDER		_	
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	dure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	al Order)	Other							
Sample Description (color, turbidity, odor, sheen, etc.): EFFERVESCENT, CLEAR, NO ODOR, NO SHEEN									
Sample Descr	ription (color,	-	r, sheen, etc.):	EFFERVES	CENT, CLEAR, N	NO ODOR, NO SH	EEN		
Replicate	Temp (°F/°C)	-	D.O. (mg/L)	EFFERVES PH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
	Temp	turbidity, odor	D.O.		ORP	Turbidity	DTW		
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity	DTW		
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН 6.25	ORP (mV)	Turbidity	DTW		
Replicate 1 2	Temp (°F/°C) 12.7	Cond. (uS/cm) 1060	D.O. (mg/L) 9.51	pH 6.25 6.25	ORP (mV) -74.1	Turbidity	DTW		
Replicate 1 2 3	Temp (°F/°C) 12.7 12.7	Cond. (uS/cm) 1060 1061	D.O. (mg/L) 9.51 9.51	pH 6.25 6.25 6.25	ORP (mV) -74.1 -74.2	Turbidity	DTW		
Replicate 1 2 3 4 Average:	Temp (°F/°C) 12.7 12.7 12.7 12.7 12.7	Cond. (uS/cm) 1060 1061 1065 1062	D.O. (mg/L) 9.51 9.51 9.53 9.55 9.55	6.25 6.25 6.25 6.25 6.25	ORP (mV) -74.1 -74.1 -74.2 -74.3 -74.2	Turbidity (NTU)	DTW (ft)	(Fe II)	
Replicate 1 2 3 4	Temp (°F/°C) 12.7 12.7 12.7 12.7 12.7 12.7	Cond. (uS/cm) 1060 1061 1065 1062	D.O. (mg/L) 9.51 9.53 9.55 9.55	6.25 6.25 6.25 6.25 6.25 6.25	ORP (mV) -74.1 -74.1 -74.2 -74.3 -74.2	Turbidity	DTW (ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 12.7 12.7 12.7 12.7 12.7 TYPICAL A (8260) (801)	Cond. (uS/cm) 1060 1061 1065 1062 NALYSIS AL (0) (8020) (1)	D.O. (mg/L) 9.51 9.53 9.53 9.55 9.53	6.25 6.25 6.25 6.25 6.25 6.25 (NWTPH-GX	ORP (mV) -74.1 -74.2 -74.2 -74.2 -74.2 -74.2 -74.2 -74.2 -74.2	Turbidity (NTU)	DTW (ft)	(Fe II)	Observations
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APPENDIX C DATA VALIDATION MEMOS



Memo

To: Kathleen Goodman, Project Manager Project: PS20203450.2023

From: Caitlin Riechmann c: Project File

Tel: (503) 639-3400

Date: March 22, 2023

Re: Summary Data Quality Review

February 2023 Boeing Renton Groundwater Sampling

SWMU-168

ARI Work Order Number: 23B0219

This memo presents the summary data quality review of one primary groundwater sample and one trip blank sample collected on February 8, 2023. The samples were submitted to Analytical Resources, Inc. (ARI), located in Tukwila, Washington, a laboratory accredited by the Washington State Department of Ecology. The samples were analyzed for the volatile organic compound vinyl chloride by U.S. Environmental Protection Agency (EPA) Method 8260D with selected ion monitoring.

The samples and the analyses conducted on the samples are listed below.

Sample ID	Laboratory Sample ID	Requested Analyses
RGW230I-230208	23B0219-01	vinyl chloride
Tripblank 9-230208	23B0219-02	vinyl chloride

Data were reviewed in accordance with the appropriate method procedures and criteria documented in the Quality Assurance Project Plan (QAPP) (Amec Foster Wheeler, 2016). The control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used.

Holding times, method/trip blanks, surrogate recoveries, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD), matrix spike/matrix spike duplicates (MS/MSD), field duplicates, and reporting limits were reviewed where available to assess compliance with applicable methods. If qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA guidance documents (EPA, 2014).

ARI received the samples on February 9, 2023. The temperature of the cooler was recorded upon receipt and the cooler was less than the maximum acceptable temperature of 6 degrees Celsius.



Organic analyses

Samples were analyzed for vinyl chloride. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable
- 3. Surrogates Acceptable
- 4. LCS/LCSD Acceptable
- 5. MS/MSD Acceptable

Extra volume was not submitted for analysis of MS/MSD samples. The project frequency requirement was achieved with MS/MSD analysis conducted at other sites included in this sampling event.

6. Field Duplicates - Acceptable

Field duplicates were not collected at this site during this sampling event. The project frequency requirement of one field duplicate for every 20 samples was achieved with field duplicate samples collected at other sites included in this sampling event.

7. Reporting Limits and Laboratory Flags - Acceptable.

Overall assessment of data

The table below summarizes the data assessment. The completeness of ARI work order number 23B0219 is 100 percent. The usefulness of these data was evaluated based on EPA guidance documents listed in the introduction to this report. No problems were identified, and analytical performance was generally within specified limits.

Sample ID	Qualified Analyte
RGW230I-230208	none
Tripblank9-230208	none

References

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, February.

U.S. Environmental Protection Agency (EPA), 2014, U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review: EPA 540-R-014-002, August.

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Memo

To: Kathleen Goodman, Project Manager Project: PS20203450.2023

From: Caitlin Riechmann c: Project File

Tel: (503) 639-3400

Date: March 22, 2023

Re: Summary Data Quality Review

February 2023 Boeing Renton Groundwater Sampling

SWMU-172/174

ARI Work Order Number: 23B0226

This memo presents the summary data quality review of nine primary groundwater samples, one field duplicate, and one trip blank collected on February 8 and 9, 2023. The samples were submitted to Analytical Resources, Inc. (ARI), located in Tukwila, Washington, a laboratory accredited by the Washington State Department of Ecology. The samples were analyzed for the following:

- Volatile organic compounds (VOCs) (cis-1,2-dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride) by U.S. Environmental Protection Agency (EPA) Method 8260D with selected ion monitoring;
- Total organic carbon (TOC) by Standard Method 5310B; and
- Total metals (arsenic, copper, and lead) by EPA Method 6020A.

The samples and the analyses conducted on the samples are listed below.

Sample ID ¹	Laboratory Sample ID	Requested Analyses
RGW152S-230208	23B0226-01	all
DUP1-230208	23B0226-02	all
RGW226S-230208	23B0226-03	all
RGW153S-230208	23B0226-04	all
RGW173S-230208	23B0226-05	all
RGW172S-230208	23B0226-06	all
RGW232S-230208	23B0226-07	all
RGW236S-230209	23B0226-08	all



Sample ID ¹	Laboratory Sample ID	Requested Analyses
RGW235I-230209	23B0226-09	all
RGW234S-230209	23B0226-10	all
Tripblanks 10-230209	23B0226-11	VOCs

Note:

 Sample RGW234S was incorrectly logged as RGW2345 in the laboratory report. Based on associated sample naming from previous sampling events, the sample is referred to as RGW234S in this memo.

Data were reviewed in accordance with the appropriate method procedures and criteria documented in the Quality Assurance Project Plan (QAPP) (Amec Foster Wheeler, 2016). The control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used.

Holding times, method/trip blanks, surrogate recoveries, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD), matrix spike/matrix spike duplicates (MS/MSD), field duplicates, and reporting limits were reviewed where available to assess compliance with applicable methods. If qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA guidance documents (EPA, 2014a and b).

ARI received the samples on February 9, 2023. The temperature of the coolers was recorded upon receipt and one of the coolers was above the maximum acceptable temperature of 6 degrees Celsius (°C). The laboratory logged the samples with the time on the chain-of-custody (COC) and proceeded with analysis.

Organic analyses

Samples were analyzed for VOCs. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable except as noted:
 - The temperature of one of the coolers upon receipt at ARI was greater than the maximum acceptable temperature, at 7.2°C. Detected results from all samples are flagged with a "J" and non-detect results from all samples are qualified with a "UJ."
- 2. Blanks Acceptable
- 3. Surrogates Acceptable
- 4. LCS/LCSD Acceptable
- 5. MS/MSD Acceptable
- 6. Field Duplicates Acceptable

One field duplicate was submitted for each analysis during this sampling event, meeting the project frequency requirement of five percent, or one for every 20 samples. Primary and duplicate results are summarized in the table below. The project-specific control limit for field duplicate relative percent differences (RPDs) is 30 percent for concentrations greater than five times the reporting limit. The RPD is not calculated for results that are less than five times the reporting limit. In these cases, the absolute value of the difference between the primary and duplicate result should not exceed the value of the reporting limit. The field duplicate RPDs were within control limits.

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Sample ID/ Field Duplicate ID	Analyte	Primary Result (ng/L)	Duplicate Result (ng/L)	Reporting Limit (ng/L)	RPD (%)
	vinyl chloride	195	197	20.0	1
RGW152S-230208/	cis-1,2-dichloroethene	3,160	3,270	20.0	3
DUP1-230208	trichloroethene	101	104	20.0	3
	tetrachloroethene	234	219	20.0	7

Abbreviations

ng/L = nanograms per liter RPD = relative percent difference

7. Reporting Limits and Laboratory Flags - Acceptable.

Inorganic analyses

Samples were analyzed for TOC and total metals. Laboratory data were evaluated for the following parameters:

1. Preservation and Holding Times - Acceptable except as noted:

The temperature of one of the coolers upon receipt at ARI was greater than the maximum acceptable temperature, at 7.2°C. TOC results from all samples are flagged with a "J."

- 2. Blanks Acceptable
- 3. LCS Acceptable
- 4. MS/MSD Acceptable
- 5. Laboratory Duplicates Acceptable
- 6. Field Duplicates Acceptable except as noted:

One field duplicate was submitted for each analysis during this sampling event, meeting the project frequency requirement of five percent, or one for every 20 samples. Primary and duplicate results are summarized in the table below. The project-specific control limit for field duplicate RPDs is 30 percent for concentrations greater than five times the reporting limit. The RPD is not calculated for results that are less than five times the reporting limit. In these cases, the absolute value of the difference between the primary and duplicate result should not exceed the value of the reporting limit. The RPD between lead results was high, at 32 percent. The detected lead results from sample RGW152S-230208 and its field duplicate DUP1-230208 are flagged with a "J."

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Sample ID/ Field Duplicate ID	Analyte	Primary Result	Duplicate Result	Reporting Limit	RPD (%)
	lead	4.24 µg/L	3.06 µg/L	0.100 µg/L	32
RGW152S-230208/	arsenic	6.92 µg/L	7.02 µg/L	0.200 µg/L	1
DUP1-230208	copper	6.61 µg/L	5.82 µg/L	0.500 µg/L	13
	TOC	3.57 mg/L	3.67 mg/L	0.50 mg/L	3

Abbreviations

µg/L = micrograms per liter mg/L = milligrams per liter RPD = relative percent difference TOC = total organic carbon

7. Reporting Limits and Laboratory Flags - Acceptable

Overall assessment of data

The table below summarizes the data assessment. The completeness of work order number 23B0226 is 100 percent. The usefulness of these data was evaluated based on EPA guidance documents listed in the introduction to this report. Few problems were identified, and analytical performance was generally within specified limits. The data meet the project's data quality objectives.

Sample ID	Qualified Analyte	Qualifier Reason	Qualified Result ¹
RGW152S-230208	vinyl chloride	Elevated cooler temperature	195 J ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	3,160 J ng/L
	trichloroethene	Elevated cooler temperature	101 J ng/L
	tetrachloroethene	Elevated cooler temperature	234 J ng/L
	TOC	Elevated cooler temperature	3.57 J mg/L
	lead	High field duplicate RPD	4.24 J µg/L
DUP1-230208	vinyl chloride	Elevated cooler temperature	197 J ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	3,270 J ng/L
	trichloroethene	Elevated cooler temperature	104 J ng/L
	tetrachloroethene	Elevated cooler temperature	219 J ng/L
	TOC	Elevated cooler temperature	3.67 J mg/L
	lead	High field duplicate RPD	3.06 J µg/L
RGW226S-230208	vinyl chloride	Elevated cooler temperature	73.4 J ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	43.1 J ng/L
	trichloroethene	Elevated cooler temperature	20.0 UJ ng/L
	tetrachlorothene	Elevated cooler temperature	20.0 UJ ng/L
	TOC	Elevated cooler temperature	9.38 J mg/L



Sample ID	Qualified Analyte	Qualifier Reason	Qualified Result ¹
RGW153S-230208	vinyl chloride	Elevated cooler temperature	148 J ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	56.9 J ng/L
	trichloroethene	Elevated cooler temperature	20.0 UJ ng/L
	tetrachloroethene	Elevated cooler temperature	20.0 UJ ng/L
	TOC	Elevated cooler temperature	9.87 J mg/L
RGW173S-230208	vinyl chloride	Elevated cooler temperature	210 J ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	90.9 J ng/L
	trichloroethene	Elevated cooler temperature	47.9 J ng/L
	tetrachloroethene	Elevated cooler temperature	42.9 J ng/L
	TOC	Elevated cooler temperature	5.42 J mg/L
RGW172S-230208	vinyl chloride	Elevated cooler temperature	601 J ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	155 J ng/L
	trichloroethene	Elevated cooler temperature	20.0 UJ ng/L
	tetrachloroethene	Elevated cooler temperature	20.0 UJ ng/L
	TOC	Elevated cooler temperature	4.62 J mg/L
RGW232S-230208	vinyl chloride	Elevated cooler temperature	290 J ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	206 J ng/L
	trichloroethene	Elevated cooler temperature	20.0 UJ ng/L
	tetrachloroethene	Elevated cooler temperature	20.0 UJ ng/L
	TOC	Elevated cooler temperature	8.20 J mg/L
RGW236S-230209	vinyl chloride	Elevated cooler temperature	20.0 UJ ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	36.4 J ng/L
	trichloroethene	Elevated cooler temperature	20.0 UJ ng/L
	tetrachlorothene	Elevated cooler temperature	20.0 UJ ng/L
	TOC	Elevated cooler temperature	2.25 J mg/L
RGW235I-230209	vinyl chloride	Elevated cooler temperature	31.0 J ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	235 J ng/L
	trichloroethene	Elevated cooler temperature	29.6 J ng/L
	tetrachloroethene	Elevated cooler temperature	20.0 UJ ng/L
	TOC	Elevated cooler temperature	1.00 J mg/L

1	1	5	

Sample ID	Qualified Analyte	Qualifier Reason	Qualified Result ¹
RGW234S-230209	vinyl chloride	Elevated cooler temperature	30.4 J ng/L
	cis-1,2-dichloroethene	Elevated cooler temperature	58.1 J ng/L
	trichloroethene	Elevated cooler temperature	20.0 UJ ng/L
	tetrachloroethene	Elevated cooler temperature	20.0 UJ ng/L
	TOC	Elevated cooler temperature	3.00 J mg/L
Tripblanks10- 230209	none	NA	none

Notes:

- 1. Data qualifiers are as follows:
 - J = The value is an estimate.
 - UJ = The analyte was not detected at the estimated reporting limit indicated.

Abbreviations

µg/L = micrograms per liter mg/L = milligrams per liter ng/L = nanograms per liter NA = not applicable RPD = relative percent difference TOC = total organic carbon

References

- Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, February.
- U.S. Environmental Protection Agency (EPA), 2014a, U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review: EPA 540-R-014-002, August.
- EPA, 2014b, U.S. EPA National Functional Guidelines for Inorganic Superfund Data Review: EPA 540-R-013-001, August.



To: Kathleen Goodman, Project Manager Project

Project: PS20203450.2023

From: Caitlin Riechmann

c: Project File

Tel: (503) 639-3400

Date: March 22, 2023

Re: Summary Data Quality Review

February 2023 Boeing Renton Groundwater Sampling

Building 4-78/79 SWMU/AOC Group ARI Work Order Number: 23B0203

This memo presents the summary data quality review of seven primary groundwater samples, one field duplicate, and one trip blank collected from February 6 to 8, 2023. The samples were submitted to Analytical Resources, Inc. (ARI), located in Tukwila, Washington, a laboratory accredited by the Washington State Department of Ecology (Ecology). The samples were analyzed for the following:

- Volatile organic compounds (VOCs) (limited suite: benzene, vinyl chloride, cis-1,2-dichloroethene, and trichloroethene) by U.S. Environmental Protection Agency (EPA) Method 8260D;
- Total petroleum hydrocarbons as gasoline (TPH-G) by Ecology Method NWTPH-Gx; and
- Total organic carbon (TOC) by Standard Methods For the Examination of Water and Wastewater 5310B.

The samples and the analyses conducted on the samples are listed below.

Sample ID	Laboratory Sample ID	Requested Analyses
RGW237S-230206	23B0203-01	all
RGW240D-230207	23B0203-02	all
RGW143S-230207	23B0203-03	all
RGW033S-230207	23B0203-04	all
DUP2-230207	23B0203-05	all
RGW031S-R-230207	23B0203-06	all
RGW244S-R-230207	23B0203-07	all



Sample ID	Laboratory Sample ID	Requested Analyses
Tripblank2-230206	23B0203-08	VOCs
RGW034S-230208	23B0203-09	all

Data were reviewed in accordance with the appropriate method procedures and criteria documented in the Quality Assurance Project Plan (QAPP) (Amec Foster Wheeler, 2016). The control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used.

Holding times, method/trip blanks, surrogate recoveries, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD), matrix spike/matrix spike duplicates (MS/MSD), field duplicates, and reporting limits were reviewed where available to assess compliance with applicable methods. If qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in EPA guidelines (EPA, 2014a and b).

ARI received the samples on February 8, 2023. The temperature of the coolers was recorded upon receipt and the coolers were below the maximum acceptable temperature of 6 degrees Celsius.

Organic analyses

Samples were analyzed for VOCs and TPH-G. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable
- 3. Surrogates Acceptable
- 4. LCS/LCSD Acceptable
- 5. MS/MSD Acceptable

Extra volume was not submitted for analysis of MS/MSD samples. The project frequency requirement was achieved with MS/MSD analysis conducted at other sites included in this sampling event.

6. Field Duplicates - Acceptable

One field duplicate was submitted for each analysis during this sampling event, meeting the project frequency requirement of five percent, or one for every 20 samples. Primary and duplicate results are summarized in the table below. The project-specific control limit for field duplicate relative percent differences (RPDs) is less than 30 percent for concentrations greater than five times the reporting limit. The RPD is not calculated for results that are less than five times the reporting limit, as indicated on the table below by "NC." In these cases, the absolute value of the difference between the primary and duplicate result should not exceed the value of the reporting limit. The field duplicate RPDs were within control limits.

1	1	5	

Sample ID/ Field Duplicate ID	Analyte	Primary Result (µg/L)	Duplicate Result (µg/L)	Reporting Limit (µg/L)	RPD (%)
	vinyl chloride	0.24	0.21	0.20	NC
cis-1,2-dichlor	cis-1,2-dichloroethene	0.09	ND	0.20	NC
RGW033S-230207/	benzene	ND	ND	0.20	NC
RGWDUP2-230207	trichloroethene	ND	ND	0.20	NC
	tetrachloroethene	ND	ND	0.20	NC
	TPH-G	ND	ND	100	NC

Notes:

Data qualifiers are as follows:
 1 = The value is an estimate

Abbreviations-

 μ g/L = micrograms per liter

NC = not calculated ND = not detected

RPD = relative percent difference

TPH-G = total petroleum hydrocarbons as gasoline

7. Reporting Limits and Laboratory Flags - Acceptable.

Inorganic analyses

Samples were analyzed for TOC. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable except as noted:

TOC was detected at a concentration of 0.88 mg/L in the laboratory blank associated with the analysis of all the samples except Tripblank2-230206. The detected TOC results from samples RGW240D-230207, RGW033S-230207, and DUP2-230207 are qualified with a "J." TOC was detected in the remaining associated samples at concentrations greater than ten times the concentration detected in the laboratory blank and data usability is not adversely affected by the blank detection.

- 3. LCS Acceptable
- 4. MS/MSD Acceptable

Extra volume was not submitted for analysis of MS/MSD samples. The project frequency requirement was achieved with MS/MSD analysis conducted at other sites included in this sampling event.

5. Laboratory Duplicates - Acceptable

The laboratory did not perform duplicate analyses on the samples reviewed in this report.

6. Field Duplicates - Acceptable

One field duplicate was submitted for each analysis during this sampling event, meeting the project frequency requirement of five percent, or one for every 20 samples. Primary and duplicate results are summarized in the table below. The project-specific control limit for field duplicate relative percent differences (RPDs) is less than 30 percent for concentrations greater than five times the reporting limit. The RPD is not



calculated for results that are less than five times the reporting limit. In these cases, the absolute value of the difference between the primary and duplicate result should not exceed the value of the reporting limit. The field duplicate RPDs were within control limits.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (mg/L)	Duplicate Result (mg/L)	Reporting Limit (mg/L)	RPD (%)
RGW033S-230207/ RGWDUP2-230207	TOC	8.35	8.72	0.50	4

Abbreviations-

mg/L = milligrams per liter RPD = relative percent difference TOC = total organic carbon

7. Reporting Limits and Laboratory Flags - Acceptable

Overall assessment of data

The table below summarizes the data assessment. The completeness of work order number 23B0203 is 100 percent. Evaluation of the usefulness of these data is based on EPA guidance documents identified in the introduction to this report. Few problems were identified, and analytical performance was generally within specified limits. The data meet the project's data quality objectives.

Sample ID	Qualified Analyte	Qualifier Reason	Qualified Result ¹ (mg/L)
RGW237S-230206	none	NA	NA
RGW240D-230207	TOC	Method blank contamination	5.35 J
RGW143S-230207	none	NA	NA
RGW033S-230207	TOC	Method blank contamination	8.35 J
DUP2-230207	TOC	Method blank contamination	8.72 J
RGW031S-R-230207	none	NA	NA
RGW244S-R-230207	none	NA	NA
Tripblank 2-230206	none	NA	NA
RGW034S-230208	none	NA	NA

Notes:

Data qualifiers are as follows:
 J = The value is an estimate.

Abbreviations:

mg/L = milligrams per liter NA = not applicable TOC = total organic carbon



References

- Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, February.
- U.S. Environmental Protection Agency (EPA), 2014a, U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review: EPA 540-R-014-002, August.
- EPA, 2014b, U.S. EPA National Functional Guidelines for Inorganic Superfund Data Review: EPA 540-R-013-001, August.

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To: Kathleen Goodman, Project Manager Project: PS20203450.2023

From: Caitlin Riechmann c: Project File

Tel: (503) 639-3400

Date: March 22, 2023

Re: Summary Data Quality Review

February 2023 Boeing Renton Groundwater Sampling

Former Fuel Farm AOC Group ARI Work Order Number: 23B0220

This memo presents the summary data quality review of three primary groundwater samples and one field duplicate collected on February 9, 2023. The samples were submitted to Analytical Resources Inc. (ARI), a Washington State Department of Ecology-accredited laboratory located in Tukwila, Washington. The samples were analyzed for total petroleum hydrocarbons as diesel (TPH-D), as motor oil (TPH-O) and as Jet A (TPH-Jet A) by Washington State Department of Ecology Method NWTPH-Dx.

The samples and the analyses conducted on the samples are listed below.

Sample ID	Laboratory Sample ID	Requested Analyses
RGW221S-230209	23B0220-01	all
RGW211S-230209	23B0220-02	all
RGW224S-230209	23B0220-03	all
DUP3-230209	23B0220-04	all

Data were reviewed in accordance with the appropriate method procedures and criteria documented in the Quality Assurance Project Plan (QAPP) (Amec Foster Wheeler, 2016). The control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used.

Holding times, method/trip blanks, surrogate recoveries, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD), matrix spike/matrix spike duplicates (MS/MSD), field duplicates, and reporting limits were reviewed where available to assess compliance with applicable methods. If qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in EPA guidelines (EPA, 2014).



ARI received the samples on February 9, 2023. The temperature of the cooler was recorded upon receipt and the cooler was above the maximum acceptable temperature of 6 degrees Celsius (°C).

Organic analyses

Samples were analyzed for TPH-D plus TPH-O and TPH-Jet A. Laboratory data were evaluated for the following parameters:

1. Preservation and Holding Times - Acceptable except as noted:

The temperature of the cooler upon receipt at ARI was above the maximum acceptable temperature, at 7.2°C. The samples were collected a few hours before they were received and were received on ice, and data usability is not adversely affected by the temperature exceedance. No data were qualified.

- 2. Blanks Acceptable
- 3. Surrogates Acceptable
- 4. LCS/LCSD Acceptable
- 5. MS/MSD Acceptable

Extra volume was not submitted for analysis of MS/MSD samples. The project frequency requirement was achieved with MS/MSD analysis conducted at other sites included in this sampling event.

6. Field Duplicates - Acceptable:

One field duplicate was submitted for each analysis during this sampling event, meeting the project frequency requirement of five percent, or one for every 20 samples. Primary and duplicate results are summarized in the table below. The project-specific control limit for field duplicate relative percent differences (RPDs) is less than 30 percent for concentrations greater than five times the reporting limit, as indicated on the table below by "NC." The RPD is not calculated for results that are less than five times the reporting limit. In these cases, the absolute value of the difference between the primary and duplicate result should not exceed the value of the reporting limit. The field duplicate RPDs were within control limits.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (mg/L)	Duplicate Result (mg/L)	Reporting Limit (mg/L)	RPD (%)
,	TPH-D (C12-C24)	1.15	1.11	0.100	4
RGW224S-230209/ RGWDUP3-230209	TPH-O (C24-C38)	ND	ND	0.200	NC
	TPH-Jet A (C10-C18)	1.61	1.36	0.100	17

Abbreviations

mg/L = milligrams per liter NC = not calculated ND = not detected RPD = relative percent difference TPH-D = total petroleum hydrocarbons as diesel TPH-Jet A = total petroleum hydrocarbons as Jet A TPH-O = total petroleum hydrocarbons as motor oil

7. Reporting Limits and Laboratory Flags - Acceptable.

Overall assessment of data

The table below summarizes the data review. The completeness of ARI work order number 23B0220 is 100 percent. Evaluation of the usefulness of these data is based on EPA guidance



documents listed in the introduction to this report. Few problems were identified, and analytical performance was generally within specified limits. The data meet the project's data quality objectives.

Sample ID	Qualified Analyte
RGW221S-230209	none
RGW211S-230209	none
RGW224S-230209	none
DUP3-230209	none

References

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, February.

U.S. Environmental Protection Agency (EPA), 2014, U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review: EPA 540-R-014-002, August.



To: Kathleen Goodman, Project Manager Project: PS20203450.2023

From: Caitlin Riechmann c: Project File

Tel: (503) 639-3400

Date: March 22, 2023

Re: Summary Data Quality Review

February 2023 Boeing Renton Groundwater Sampling

AOC-001, -002, and -003

ARI Work Order Number: 23B0195

This memo presents the summary data quality review of four primary groundwater samples and two trip blanks collected on February 6, 2023. The samples were submitted to Analytical Resources, Inc. (ARI), located in Tukwila, Washington, a laboratory accredited by the Washington State Department of Ecology. The samples were selectively analyzed for the following:

- Benzene (a volatile organic compound [VOC]) by U.S. Environmental Protection Agency (EPA) Method 8260D;
- VOCs (vinyl chloride, 1,1-dichloroethene, cis-1,2-dichloroethene, and trichloroethene) by EPA Method 8260D with selected ion monitoring; and
- Total organic carbon (TOC) by Standard Method 5310B-00.

The samples and the analyses conducted on the samples are listed below.

Sample ID	Laboratory Sample ID	Requested Analyses
RGW249S-230206	23B0195-01	vinyl chloride and TOC
RGW248I-230206	23B0195-02	vinyl chloride and TOC
RGW188S-230206	23B0195-03	vinyl chloride and TOC
RGW193S-230206	23B0195-04	all
Trip Blank 3	23B0195-05	benzene
Trip Blank 4	23B0195-06	VOCs



Data were reviewed in accordance with the appropriate method procedures and criteria documented in the Quality Assurance Project Plan (QAPP) (Amec Foster Wheeler, 2016). The control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used.

Holding times, method/trip blanks, surrogate recoveries, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD), matrix spike/matrix spike duplicates (MS/MSD), field duplicates, and reporting limits were reviewed where available to assess compliance with applicable methods. If qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA guidance documents (EPA, 2014a and b).

ARI received the samples on February 9, 2023. The temperature of the coolers was recorded upon receipt and the coolers were below the maximum acceptable temperature of 6 degrees Celsius.

Organic analyses

Samples were analyzed for VOCs. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable
- 3. Surrogates Acceptable
- 4. LCS/LCSD Acceptable
- 5. MS/MSD Acceptable

Extra volume was not submitted for analysis of MS/MSD samples. The project frequency requirement was achieved with MS/MSD analysis conducted at other sites included in this sampling event.

6. Field Duplicates - Acceptable

Field duplicates were not collected at this site during this sampling event. The project frequency requirement of one field duplicate for every 20 samples was achieved with field duplicate samples collected at other sites included in this sampling event.

7. Reporting Limits and Laboratory Flags - Acceptable.

Inorganic analyses

Samples were analyzed for TOC. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable except as noted:

TOC was detected at a concentration of 0.88 mg/L in the laboratory blank associated with the four primary groundwater samples. The detected TOC results from samples RGW188S-230206 and RGW193S-230206 are qualified with a "J." TOC was detected in the remaining associated samples at concentrations greater than ten times the concentration detected in the laboratory blank and data usability is not adversely affected by the blank detection.

- 3. LCS Acceptable
- 4. MS/MSD Acceptable



Extra volume was not submitted for analysis of MS/MSD samples. The project frequency requirement was achieved with MS/MSD analysis conducted at other sites included in this sampling event.

- 5. Laboratory Duplicates Acceptable
- 6. Field Duplicates Acceptable

Field duplicates were not collected at this site during this sampling event. The project frequency requirement of one field duplicate for every 20 samples was achieved with field duplicate samples collected at other sites included in this sampling event.

7. Reporting Limits and Laboratory Flags - Acceptable

Overall assessment of data

The table below summarizes the data assessment. The completeness of work order number 23B0195 is 100 percent. The usefulness of these data was evaluated based on EPA guidance documents listed in the introduction to this report. Few problems were identified, and analytical performance was generally within specified limits.

Sample ID	Qualified Analyte	Qualifier Reason	Qualified Result ¹ (mg/L)
RGW249S-230206	none	NA	none
RGW248I-230206	none	NA	none
RGW188S-230206	TOC	Method blank contamination	8.79 J
RGW193S-230206	тос	Method blank contamination	6.08 J
Trip Blank 3	none	NA	none
Trip Blank 4	none	NA	none

Notes:

Data qualifiers are as follows:
 J = The value is an estimate.

Abbreviations:

NA = not applicable mg/L = milligrams per liter TOC = total organic carbon

References

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, February.

U.S. Environmental Protection Agency (EPA), 2014a, U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review: EPA 540-R-014-002, August.

EPA, 2014b, U.S. EPA National Functional Guidelines for Inorganic Superfund Data Review: EPA 540-R-013-001, August.



To: Kathleen Goodman, Project Manager Project: PS20203450.2023

From: Caitlin Riechmann c: Project File

Tel: (503) 639-3400

Date: March 22, 2023

Re: Summary Data Quality Review

February 2023 Boeing Renton Groundwater Sampling

AOC-004

ARI Work Order Number: 23B0189

This memo presents the summary data quality review of one primary groundwater sample collected on February 7, 2023. The sample was submitted to Analytical Resources, Inc. (ARI), located in Tukwila, Washington, a laboratory accredited by the Washington State Department of Ecology. The sample was analyzed for total lead by U.S. Environmental Protection Agency (EPA) Method 6020A.

The sample and the analyses conducted on the sample are listed below.

Sample ID ¹	Laboratory Sample ID	Requested Analyses
RGW250S	23B0189-01	total lead

Note:

Data were reviewed in accordance with the appropriate method procedures and criteria documented in the Quality Assurance Project Plan (QAPP) (Amec Foster Wheeler, 2016). The control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used.

Holding times, method/trip blanks, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD), matrix spike/matrix spike duplicates (MS/MSD), field duplicates, and reporting limits were reviewed where available to assess compliance with applicable methods. If qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA guidance documents (EPA, 2014).

ARI received the sample on February 8, 2023. The temperature of the coolers was recorded upon receipt and was below the maximum acceptable temperature of 6 degrees Celsius (°C).

^{1.} Sample RGW250S was incorrectly logged as RGW2505 in the laboratory report. Based on associated sample naming from previous sampling events, the sample is referred to as RGW250S in this memo.



Inorganic analyses

Samples were analyzed for total lead. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable
- 3. LCS Acceptable
- 4. MS/MSD Acceptable

Additional sample volume for MS/MSD analyses was not submitted with samples collected from this site. The project frequency requirement was achieved with MS/MSD analysis conducted at other sites included in this sampling event.

- 5. Field Duplicates Acceptable
 - Field duplicates were not collected at this site during this sampling event. The project frequency requirement of one field duplicate for every 20 samples was achieved with field duplicate samples collected at other sites included in this sampling event.
- 6. Reporting Limits and Laboratory Flags Acceptable

Overall assessment of data

The table below summarizes the data assessment. The completeness of work order number 23B0189 is 100 percent. The usefulness of these data was evaluated based on EPA guidance documents listed in the introduction to this report. No problems were identified, and analytical performance was within specified limits.

Sample ID	Qualified Analyte
RGW250S	none

References

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, February.

EPA, 2014, U.S. EPA National Functional Guidelines for Inorganic Superfund Data Review: EPA 540-R-013-001, August.

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To: Kathleen Goodman, Project Manager Project: PS20203450.2023

From: Caitlin Riechmann c: Project File

Tel: (503) 639-3400

Date: March 22, 2023

Re: Summary Data Quality Review

February 2023 Boeing Renton Groundwater Sampling

AOC-060

ARI Work Order Number: 23B0204

This memo presents the summary data quality review of six primary groundwater samples, one field duplicate, and one trip blank collected on February 6, 2023. The samples were submitted to Analytical Resources, Inc. (ARI), located in Tukwila, Washington, a laboratory accredited by the Washington State Department of Ecology. The samples were selectively analyzed for the following:

- Volatile organic compounds (VOCs) (cis-1,2-dichloroethene, trichloroethene, and vinyl chloride) by U.S. Environmental Protection Agency (EPA) Method 8260D with selected ion monitoring; and
- Total organic carbon (TOC) by Standard Method 5310B-00.

The samples and the analyses conducted on the samples are listed below.

Sample ID	Laboratory Sample ID	Requested Analyses
RGW253I-230206	23B0204-01	all
RGW150S-230206	23B0204-02	all
RGW147S-230206	23B0204-03	all
RGW014S-230206	23B0204-04	all
DUP4-230206	23B0204-05	all
RGW012S-230206	23B0204-06	all
RGW009S-230206	23B0204-07	all
Trip blanks1-230206	23B0204-08	VOCs

Data were reviewed in accordance with the appropriate method procedures and criteria documented in the Quality Assurance Project Plan (QAPP) (Amec Foster Wheeler, 2016). The



control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used.

Hold times, method/trip blanks, surrogate recoveries, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD), matrix spike/matrix spike duplicates (MS/MSD), field duplicates, and reporting limits were reviewed where available to assess compliance with applicable methods. If qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in EPA guidelines (EPA, 2014a and b).

Samples were received by ARI on February 8, 2023. The temperature of the cooler was recorded upon receipt and was below the maximum acceptable temperature of 6 degrees Celsius (°C). Samples were received in good condition.

Organic analyses

Samples were analyzed for VOCs. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable
- 3. Surrogates Acceptable
- 4. LCS/LCSD Acceptable
- 5. MS/MSD Acceptable

Extra volume was not submitted for analysis of MS/MSD samples. The project frequency requirement was achieved with MS/MSD analysis conducted at other sites included in this sampling event.

6. Field Duplicates - Acceptable

One field duplicate was submitted for each analysis during this sampling event, meeting the project frequency requirement of five percent, or one for every 20 samples. Primary and duplicate results are summarized in the table below. The project-specific control limit for field duplicate relative percent differences (RPDs) is less than 30 percent for concentrations greater than five times the reporting limit, as indicated on the table below by "NC." The RPD is not calculated for results that are less than five times the reporting limit. In these cases, the absolute value of the difference between the primary and duplicate result should not exceed the value of the reporting limit. The field duplicate results were within control limits.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (ng/L)	Duplicate Result (ng/L)	Reporting Limit (ng/L)	RPD (%)
RGW014S-230206/ RGWDUP4-230206 cis-1,2	vinyl chloride	231	230	20.0	0
	cis-1,2-dichloroethene	137	134	20.0	2
	trichloroethene	ND	ND	20.0	NC

Abbreviations

ng/L = nanograms per liter NC = not calculated ND = not detected

RPD = relative percent difference

7. Reporting Limits and Laboratory Flags - Acceptable.



Inorganic analyses

Samples were analyzed for TOC. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable
- 3. LCS Acceptable
- 4. MS/MSD Acceptable

Extra volume was not submitted for analysis of MS/MSD samples. The project frequency requirement was achieved with MS/MSD analysis conducted at other sites included in this sampling event.

5. Laboratory Duplicates - Acceptable

The laboratory did not perform duplicate analyses on the samples reviewed in this report.

6. Field Duplicates - Acceptable

One field duplicate was submitted for each analysis during this sampling event, meeting the project frequency requirement of five percent, or one for every 20 samples. Primary and duplicate results are summarized in the table below. The project-specific control limit for field duplicate relative percent differences (RPDs) is less than 30 percent for concentrations greater than five times the reporting limit. The RPD is not calculated for results that are less than five times the reporting limit. In these cases, the absolute value of the difference between the primary and duplicate result should not exceed the value of the reporting limit. The field duplicate RPDs were within control limits.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (mg/L)	Duplicate Result (mg/L)	Reporting Limit (mg/L)	RPD (%)
RGW014S-230206/ RGWDUP4-230206	TOC	3.82	4.09	0.50	7

Abbreviations

mg/L = milligrams per lite
RPD= relative percent difference
TOC = total organic carbon

7. Reporting Limits and Laboratory Flags - Acceptable

Overall assessment of data

A summary of the data assessment is presented in the table below. The completeness of work order number 23B0204 is 100 percent. Evaluation of the usefulness of these data is based on the EPA guidance document listed in the introduction to this report. No problems were identified, and analytical performance was within specified limits. The data meet the project's data quality objectives.

Sample ID	Qualified Analyte
RGW253I-230206	none
RGW150S-230206	none
RGW147S-230206	none



Sample ID	Qualified Analyte
RGW014S-230206	none
DUP4-230206	none
RGW012S-230206	none
RGW009S-230206	none
Trip blanks1-230206	none

References

- Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, February.
- U.S. Environmental Protection Agency (EPA), 2014a, U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review: EPA 540-R-014-002, August.
- EPA, 2014b, U.S. EPA National Functional Guidelines for Inorganic Superfund Data Review: EPA 540-R-013-001, August.

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To: Kathleen Goodman, Project Manager Project: PS20203450.2023

From: Caitlin Riechmann c: Project File

Tel: (503) 639-3400

Date: March 22, 2023

Re: Summary Data Quality Review

February 2023 Boeing Renton Groundwater Sampling

AOC-090

ARI Work Order Number: 23B0188

This memo summarizes the data quality review of five primary groundwater samples and four trip blanks collected on February 7, 2023. The samples were submitted to Analytical Resources, Inc. (ARI), located in Tukwila, Washington, a laboratory accredited by the Washington State Department of Ecology (Ecology). The samples were selectively analyzed for the following:

- Volatile organic compounds (VOCs) (acetone, methylene chloride, trans-1,2-dichlorethene, cis-1,2-dichloroethene, chloroform, carbon tetrachloride, benzene, toluene, and 1,1,2-trichloroethane) by U.S. Environmental Protection Agency (EPA) Method 8260D);
- VOCs (vinyl chloride, 1,1-dichloroethene, trichloroethene, tetrachloroethene, and 1,1,2,2-tetrachloroethane) by EPA Method 8260D with selected ion monitoring;
- Total petroleum hydrocarbons in the gasoline range (TPH-G) by Ecology Method NWTPH Gx;
- Total petroleum hydrocarbons in the diesel and motor oil ranges (TPH-D and TPH-O) by Ecology Method NWTPH-Dx (with silica gel cleanup); and
- Total organic carbon (TOC) by Standard Method 5310B-00.

The samples and the analyses conducted on the samples are listed below.

Sample ID	Laboratory Sample ID	Requested Analyses
RGW178S-230207	23B0188-01	vinyl chloride
RGW208S-230207	23B0188-02	vinyl chloride
RGW207S-230207	23B0188-03	vinyl chloride
RGW176S-230207	23B0188-04	vinyl chloride
RGW189S-230207	23B0188-05	All



Sample ID	Laboratory Sample ID	Requested Analyses
Trip Blank 5	23B0188-06	vinyl chloride
Trip Blank 6	23B0188-07	VOCs by EPA Method 8260D
Trip Blank 7	23B0188-08	VOCs by EPA Method 8260D with selected ion monitoring
Trip Blank 8	23B0188-09	TPH-G

Data were reviewed in accordance with the appropriate method procedures and criteria documented in the Quality Assurance Project Plan Addendum (QAPP) (Amec Foster Wheeler, 2016). The control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used.

Holding times, method/trip blanks, surrogate recoveries, laboratory control samples (LCS), laboratory duplicates (LCSD), matrix spike/matrix spike duplicates (MS/MSD), field duplicates, and reporting limits were reviewed where available to assess compliance with applicable methods. If qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in EPA guidelines (EPA, 2014a and b).

ARI received the samples on February 8, 2023. The temperature of the coolers was recorded upon receipt and was below the maximum acceptable temperature of 6 degrees Celsius.

Organic analyses

Samples were analyzed for VOCs and TPH. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable
- 3. Surrogates Acceptable
- 4. LCS/LCSD Acceptable
- 5. MS/MSD Acceptable except as noted:

ARI performed MS and MSD analyses on sample RGW-189S-230207.

TPH-D recovery was high (175 percent) in the MSD performed on sample RGW-189S-230207. Additionally, the relative percent difference (RPD) between TPH-D results was high (58.5 percent). The TPH-D result from sample RGW-189S-230207 was qualified with a "J."

Toluene recovery was low (79.4 percent) in the MS performed on sample RGW189S-230207. The toluene result from sample RGW189S-230207 was qualified with a "J."

The RPD between MS and MSD results for methylene chloride was high (36 percent). Methylene chloride was not detected in the unspiked native sample and no data were qualified.

6. Field Duplicates - Acceptable

Field duplicates were not collected at this site during this sampling event. The project frequency requirement of one field duplicate for every 20 samples was achieved with field duplicate samples collected at other sites included in this sampling event.



7. Reporting Limits and Laboratory Flags - Acceptable.

Inorganic analyses

Samples were analyzed for TOC. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable
- 3. LCS Acceptable
- 4. MS/MSD Acceptable
- 5. Laboratory Duplicates Acceptable
- 6. Field Duplicates Acceptable

Field duplicates were not collected at this site during this sampling event. The project frequency requirement of one field duplicate for every 20 samples was achieved with field duplicate samples collected at other sites included in this sampling event.

7. Reporting Limits and Laboratory Flags - Acceptable

Overall assessment of data

The completeness of ARI work order number 23B0188 is 100 percent. Evaluation of the usefulness of these data was evaluated based on EPA guidance documents listed in the introduction to this report. Few problems were identified, and analytical performance was generally within specified limits. The data meet the project's data quality objectives.

A summary of the data quality review is presented in the table below.

Sample ID	Qualified Analyte	Qualifier Reason	Qualified Result ¹
RGW178S-230207	none	NA	NA
RGW208S-230207	none	NA	NA
RGW207S-230207	none	NA	NA
RGW176S-230207	none	NA	NA
RGW189S-230207	toluene	Low MS recovery	0.69 J µg/L
	TPH-D	High MS recovery/ High MS/MSD RPD	0.648 J mg/L
Trip Blank 5	none	NA	none
Trip Blank 6	none	NA	none
Trip Blank 7	none	NA	NA
Trip Blank 8	none	NA	NA

Notes:

1. Data qualifiers are as follows:

J = The value is an estimate.

Abbreviations:

 μ g/L = micrograms per liter mg/L = milligrams per liter NA = not applicable



References

- Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, February.
- U.S. Environmental Protection Agency (EPA), 2014a, U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review: EPA 540-R-014-002, August.
- EPA, 2014b, U.S. EPA National Functional Guidelines for Inorganic Superfund Data Review: EPA 540-R-013-001, August.

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To: Kathleen Goodman, Project Manager Project: PS20203450.2023

From: Caitlin Riechmann c: Project File

Tel: (503) 639-3400

Date: March 22, 2023

Re: Summary Data Quality Review

February 2023 Boeing Renton Groundwater Sampling

Apron A

ARI Work Order Number: 23B0222

This memo presents the summary data quality review of one primary groundwater sample and one trip blank collected on February 8, 2023. The samples were submitted to Analytical Resources, Inc., (ARI), located in Tukwila, Washington, a laboratory accredited by the Washington State Department of Ecology. The samples were analyzed for the following:

- Volatile organic compounds (VOCs) (vinyl chloride and cis-1,2-dichloroethene) by U.S. Environmental Protection Agency (EPA) Method 8260D; and
- Total organic carbon (TOC) by Standard Method 5310B.

The samples and the analyses conducted on the samples are listed below.

Sample ID	Laboratory Sample ID	Requested Analyses
RGW264S-230208	23B0222-01	all
Trip Blank 11	23B0222-02	VOCs

Data were reviewed in accordance with the appropriate method procedures and criteria documented in the Quality Assurance Project Plan (QAPP) (Amec Foster Wheeler, 2016). The control limits provided in the QAPP are advisory limits; therefore, the most current control limits provided by the laboratory were used to evaluate the quality control data. In cases where the laboratory did not track limits for an analyte, the limits in the QAPP were used.

Holding times, method/trip blanks, surrogate recoveries, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD), matrix spike/matrix spike duplicates (MS/MSD), field duplicates, and reporting limits were reviewed where available to assess compliance with applicable methods. If qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA guidance documents (EPA, 2014a and b).



ARI received the samples on February 9, 2023. The temperature of the coolers was recorded upon receipt and was below the maximum acceptable temperature of 6 degrees Celsius.

Organic analyses

Samples were analyzed for VOCs. Laboratory data were evaluated for the following parameters:

1. Preservation and Holding Times - Acceptable except as noted:

Two sampling vials contained bubbles upon arrival at ARI. One vial was received without a bubble and WSP assumes that ARI used that vial for the VOC analysis. The data are not qualified for use.

- 2. Blanks Acceptable
- 3. Surrogates Acceptable
- 4. LCS/LCSD Acceptable
- 5. MS/MSD Acceptable

Extra volume was not submitted for project specific MS/MSD analyses. Sample precision is evaluated based on LCS and LCSD recoveries. The MS/MSD project frequency requirement of one MS/MSD for every 20 samples was achieved with extra volume submitted at other sites included in this sampling event.

6. Field Duplicates - Acceptable

Field duplicates were not collected at this site during this sampling event. The project frequency requirement of one field duplicate for every 20 samples was achieved with field duplicate samples collected at other sites included in this sampling event.

7. Reporting Limits and Laboratory Flags - Acceptable

Inorganic analyses

Samples were analyzed for TOC. Laboratory data were evaluated for the following parameters:

- 1. Preservation and Holding Times Acceptable
- 2. Blanks Acceptable except as noted:

TOC was detected at a concentration of 0.88 mg/L in the laboratory blank associated with sample RGW264S-230208. TOC was detected in sample RGW264S-230208 at a concentration greater than ten times the concentration detected in the blank and data usability is not adversely affected by the blank detection. No data were qualified for use.

- 3. LCS Acceptable
- 4. MS/MSD Acceptable

Extra volume was not submitted for project specific MS/MSD analyses. Sample precision is evaluated based on LCS and LCSD recoveries. The MS/MSD project frequency requirement of one MS/MSD for every 20 samples was achieved with extra volume submitted at other sites included in this sampling event.

5. Laboratory Duplicates - Acceptable

The laboratory did not perform duplicate analyses on the sample reviewed in this report.

6. Field Duplicates - Acceptable



Field duplicates were not collected at this site during this sampling event. The project frequency requirement of one field duplicate for every 20 samples was achieved with field duplicate samples collected at other sites included in this sampling event.

7. Reporting Limits and Laboratory Flags - Acceptable

Overall assessment of data

The table below summarizes the data assessment. The completeness of work order number 23B0222 is 100 percent. The usefulness of these data was evaluated based on EPA guidance documents listed in the introduction to this report. Few problems were identified, and analytical performance was generally within specified limits. The data meet the project's data quality objectives.

Sample ID	Qualified Analyte
RGW264S-230208	none
Trip Blank 11	none

References

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016, Quality Assurance Project Plan, Boeing Renton Facility, Renton, Washington: Prepared for the Boeing Company, February.

U.S. Environmental Protection Agency (EPA), 2014a, U.S. EPA National Functional Guidelines for Superfund Organic Methods Data Review: EPA 540-R-014-002, August.

EPA, 2014b, U.S. EPA National Functional Guidelines for Inorganic Superfund Data Review: EPA 540-R-013-001, August.

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APPENDIX D

HISTORICAL GROUNDWATER DATA TABLES

TABLE D-1: SWMU-168 HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN^{1, 2}

Boeing Renton Facility, Renton, Washington

	Current	Well ID ³ CPOC Area							
	Cleanup		GW229S						
Analyte	Level⁴	11/7/2016	3/1/2017	8/14/2017	3/5/2018	8/13/2018	3/4/2019	8/12/2019	3/9/2020
Volatile Organic Compo	unds (μg/L)								
Vinyl Chloride	0.11	0.020 U	0.020 U	0.021	0.0273	0.020 U	0.0211	0.020 U	0.020 U

	Current					Well ID ³ CPOC Area											
	Cleanup		GW230I														
Analyte	Level ⁴	3/4/2019	8/12/2019	3/9/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/17/2022	2/9/2023							
Volatile Organic Compo	unds (μg/L)																
Vinyl Chloride	0.11	0.0566	0.336	0.087	0.162	0.076	0.359 J	0.164	0.539 J	0.146							

	Current					l ID ³ : Area			
	Cleanup				GW:	2315			
Analyte	Level⁴	11/7/2016	3/1/2017	8/14/2017	3/5/2018	8/13/2018	3/4/2019	8/12/2019	3/9/2020
Volatile Organic Compo	unds (μg/L)								
Vinyl Chloride	0.11	0.020 U	0.020 U	0.020 U	0.0393	0.0326	0.0327	0.026	0.020 U

Notes:

- 1. Data qualifiers are as follows:
 - U = The analyte was not detected at the reporting limit indicated.
- 2. **Bolded** values exceed the cleanup levels.
- 3. S = shallow well; I = intermediate well.
- 4. Current cleanup levels obtained from Table 2 of the Cleanup Action Plan and are based on each individual SWMU or AOC.

Abbreviations:

 μ g/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

TABLE D-2: SWMU-172 AND SWMU-174 GROUP HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN^{1, 2}

Boeing Renton Facility, Renton, Washington

											Well ID ³									
	Current										Source Area	1								
	Cleanup					GW152S									GW:	L53S				
Analyte	Level ⁴	11/11/2019	3/9/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	2/21/2022	8/24/2022	2/8/2023	8/12/2019	11/11/2019	3/9/2020	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/24/2022	2/8/2023
Volatile Organic Compounds	(μg/L)																			
cis-1,2-Dichloroethene	0.03	0.530	0.892	1.66	0.144	1.330	1.57	1.59	0.877	3.16 J	0.278	0.204	0.0736	0.0789	0.0551	0.077	0.0582 J	0.0517	0.100	0.0569 J
Tetrachloroethene	0.02	0.384	1.12	0.319	0.081	0.0872	1.84	1.71	1.05	0.234 J	0.0544	0.164	0.024	0.020 U	0.020 U	0.020 U	0.020 UJ	0.0200 U	0.0200 U	0.0200 UJ
Trichloroethene	0.02	0.145	0.278	0.579	0.020 U	0.129	0.522	0.497	0.534	0.101 J	0.0326	0.131	0.02 U	0.020 U	0.020 U	0.020 U	0.020 UJ	0.0200 U	0.0525	0.0200 UJ
Vinyl Chloride	0.11	0.0366	0.15	0.284	0.0378	0.506	0.200	0.219	0.346	0.195 J	0.153	0.0859	0.249	0.266	0.135	0.220	0.193 J	0.174	0.214	0.148 J
Total Metals (μg/L)																				
Arsenic	1.0	7.48	3.84	6.72	7.67	16.3	2.88	2.34	47.7	6.92	4.72	11.9	5.48	3.85	4.05	32.8	32.8	4.98	2.85	4.76
Copper	3.5	16.6	8.03	7.45 J	17.2 J	9.08 J	5.07	3.88	9.17	6.61	1.58	10.2	3.09	1.73	1.68	33.9	33.9	1.45	0.641	1.14
Lead	1.0	12.1	6.13	3.89	12.5 J	5.38 J	2.78 J	1.90 J	5.75	4.24 J	0.351	2.76	0.712	0.372	0.326	5.80	5.80	0.302	0.123	0.256

										١	Well ID ³								
	Current									Downgrad	dient Plume Area								
	Cleanup					GW172S									GW173S				
Analyte	Level ⁴	5/6/2019	8/12/2019	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/24/2022	2/8/2023	11/11/2019	3/9/2020	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/24/2022	2/8/2023
Volatile Organic Compounds ((μg/L)																		
cis-1,2-Dichloroethene	0.03	0.0581	0.027	0.214	0.0561	0.108	0.0746	0.0532	0.0436	0.155 J	0.0378	0.0504	0.0488	0.0313	0.0505	0.0424 J	0.0280	0.168	0.0909 J
Tetrachloroethene	0.02	0.020 U	0.0451	0.0625	0.0603	0.0624	0.020 U	0.0677	0.0200 U	0.0200 UJ	0.0246	0.0224	0.020 U	0.020 U	0.020 U	0.020 UJ	0.0200 U	0.0200 U	0.0429 J
Trichloroethene	0.02	0.020 U	0.020 U	0.028	0.020 U	0.020 U	0.020 U	0.0201	0.0200 U	0.0200 UJ	0.0379	0.0305	0.0215	0.0239	0.020 U	0.020 UJ	0.0200 U	0.0496	0.0479 J
Vinyl Chloride	0.11	0.0808	0.0376	0.369	0.0628	0.219	0.155	0.137	0.0887	0.601 J	0.072	0.144	0.126	0.0455	0.183	0.176 J	0.0696	0.175	0.210 J
Total Metals (μg/L)																			
Arsenic	1.0	7.71	10.6	7.03	10.8	10.8	7.18	11.2	4.86	6.64	15.6	11.8	6.72	7.00	9.94	11.4	13.8	6.04	5.69
Copper	3.5	2.13	3.86	2.2	6.12	3.89	2.86	2.86	1.52	6.17	4.68	1.51	0.875	3.19	3.11	5.96	2.58	1.54	2.98
Lead	1.0	0.991	1.02	1.07	2.58	1.98	1.33	1.37	1.32	3.80	1.36	0.442	0.215	0.470	0.850	1.65	0.788	0.468	0.752

										1	Well ID ³								
	Current				Dow	ngradient Plum	e Area								CPOC Area				
	Cleanup					GW226S									GW232S				
Analyte	Level⁴	5/6/2019	8/12/2019	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/24/2022	2/8/2023	11/11/2019	3/9/2020	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/24/2022	2/8/2023
Volatile Organic Compounds (μg/L)																		
cis-1,2-Dichloroethene	0.03	0.0223	0.0259	0.0305	0.0218	0.020 U	0.0335 J	0.0363	0.0255	0.0431 J	0.659	0.221	0.352	0.482	0.219	0.464 J	0.197	0.325	0.206 J
Tetrachloroethene	0.02	0.020 U	0.020 U	0.020 U	0.0279	0.020 U	0.0202 J	0.0200 U	0.0200 U	0.0200 UJ	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ	0.0200 U	0.0200 U	0.0200 UJ
Trichloroethene	0.02	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ	0.0200 U	0.0200 U	0.0200 UJ	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ	0.0200 U	0.0200 U	0.0200 UJ
Vinyl Chloride	0.11	0.0459	0.029	0.0594	0.0415	0.0519	0.0516 J	0.0414	0.128	0.0734 J	0.860	0.264	0.337	0.425	0.263	0.653 J	0.307	0.558	0.290 J
Total Metals (μg/L)																			
Arsenic	1.0	2.97	2.85	3.33	4.93	8.12	5.57	7.33	3.09	4.28	8.09	2.73	4.71	3.83	4.78	6.19	3.75	3.83	3.51
Copper	3.5	0.500 U	0.626	0.704	1.48	3.92	1.48	2.40	0.500 U	0.500 U	3.85	2.22	0.539	0.627	2.09	1.79	1.09	0.500 U	0.915
Lead	1.0	0.100 U	0.100 U	0.190	0.136	0.513	0.124	0.237	0.100 U	0.100 U	0.378	0.354	0.100 U	0.100 U	0.318	0.262	0.234	0.122	0.124

										V	/ell ID ³								
	Current									СР	OC Area								
	Cleanup					GW234S									GW235I				
Analyte	Level⁴	5/6/2019	8/12/2019	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/24/2022	2/9/2023	11/11/2019	3/9/2020	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/24/2022	2/9/2023
Volatile Organic Compounds	μg/L)																		
cis-1,2-Dichloroethene	0.03	0.0630	0.0738	0.092	0.0914	0.020 U	0.0892	0.0591	0.134	0.0581 J	0.109	0.127	0.156	0.104	0.128	0.179	0.175	0.227	0.235 J
Tetrachloroethene	0.02	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.0200 U	0.0200 U	0.0200 UJ	0.020 U	0.020 U	0.020 U	0.020 U	0.0292	0.020 U	0.0200 U	0.0200 U	0.0200 UJ
Trichloroethene	0.02	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.0200 U	0.0200 U	0.0200 UJ	0.0287	0.0336	0.031	0.0227	0.020 U	0.0285	0.0253	0.0250	0.0296 J
Vinyl Chloride	0.11	0.0235	0.0252	0.032	0.0279	0.020 U	0.0497	0.0318	0.170	0.0304 J	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.24	0.0259	0.0280	0.0310 J
Total Metals (μg/L)																			
Arsenic	1.0	2.22	1.31	5.31	3.26	6.29	1.18	1.76	0.974	5.90	0.237	0.251	0.289	0.288	0.200 U	0.200 U	0.200 U	0.200 U	0.283
Copper	3.5	1.93	0.869	2.43	3.21	11.4	2.58	2.13	2.31	16.6	0.573	0.935	1.08	1.30	0.727	0.689	0.687	0.500 U	1.23
Lead	1.0	0.843	0.280	0.671	1.25	4.13	1.01	0.930	0.830	6.75	0.127	0.235	0.223	0.304	0.174	0.179	0.159	0.100 U	0.332

TABLE D-2: SWMU-172 AND SWMU-174 GROUP HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN^{1, 2}

Boeing Renton Facility, Renton, Washington

						Well ID ³				
	Current					CPOC Area				
	Cleanup					GW236S				
Analyte	Level⁴	5/6/2019	8/12/2019	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/24/2022	2/9/2023
Volatile Organic Compounds	(μg/L)									
cis-1,2-Dichloroethene	0.03	0.0281	0.0468	0.036	0.0881	0.020 U	0.0791	0.0200 U	0.0572	0.0364 J
Tetrachloroethene	0.02	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.0206	0.0200 U	0.0200 UJ
Trichloroethene	0.02	0.0206	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.0200 U	0.0200 U	0.0200 UJ
Vinyl Chloride	0.11	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.0223	0.0200 U	0.0200 U	0.0200 UJ
Total Metals (µg/L)										
Arsenic	1.0	2.10	3.70	2.10	10.1	2.89	5.49	1.97	0.995	1.64
Copper	3.5	2.17	0.893	4.24	10.8	9.70	2.47	5.27	1.22	2.07
Lead	1.0	1.90	1.53	2.61	10.8	6.31	1.79	3.32	0.798	1.38

Notes

1. Data qualifiers are as follows:

U = The analyte was not detected at the reporting limit indicated.

J = The value is an estimate.

2. Bolded values exceed the cleanup levels.

3. S = shallow well; I = intermediate well.

4. Current cleanup levels obtained from Table 2 of the Cleanup Action Plan and are based on each individual SWMU or AOC.

Abbreviations

μg/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

TABLE D-3: BUILDING 4-78/79 SWMU/AOC GROUP HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN 1, 2

Boeing Renton Facility, Renton, Washington

										W	ell ID ³								
	Current									Soul	ce Area								
	Cleanup					GW031S									GW033S				
Analyte	Level⁴	8/13/2019	19 11/12/2019 3/11/2020 5/11/2020 8/11/2020 2/15/2021 8/11/2021 8/23/2022 2/7/2023 3/11/2020 5/11/2020 2/16/2021 8/11/2021 2/22/2022 2/22/2022 8/17/2022 2/7/2023														2/7/2023		
Volatile Organic Compounds	μg/L)																		
Benzene	0.80	3.47	4.77	37.1	17.6	1.72 J	18.8 J	1.08	0.20 U	0.20 U	10.2	9.75	12.5	11.0	14.5	8.41	8.57	14.2 J	0.20 U
cis-1,2-Dichloroethene	0.70	0.47	0.40	0.61	0.40 J	0.67 J	0.31 J	0.20 U	0.26	0.18 J	21.4	39.5	188	1.64	0.55	3.82	4.04	0.45 J	0.09 J
Trichloroethene	0.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.25	0.20 U	0.20 U	0.200 U	0.200 U	0.20 U	0.20 U
Vinyl Chloride	0.20	0.21	0.25	0.20 U	0.20 U	0.32 J	0.20 UJ	0.20 U	0.39	0.26	52.2	87.3	310	5.31	2.31	8.90	9.28	1.53 J	0.24
Total Petroleum Hydrocarbon	s (µg/L)																		
TPH-G (C7-C12)	800	1390	1540	2,980	1,880	1,160	2,340	1,540	100 U	100 U	296	301	255	323	360	168	166	300 J	100 U

										W	ell ID ³								
	Current									Sou	rce Area								
	Cleanup					GW034S									GW244S				
Analyte	Level⁴	11/12/2019	3/11/2020	5/11/2020	8/11/2020	2/15/2021	8/11/2021	2/22/2022	8/17/2022	2/8/2023		11/12/2019	3/11/2020	5/11/2020	8/11/2020	2/15/2021	8/11/2021	8/23/2022	2/7/2023
Volatile Organic Compounds	(μg/L)																		
Benzene	0.80	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	1.47	9.62		0.87	0.52	0.46	0.43	0.46	0.20 U	0.25	0.12 J
cis-1,2-Dichloroethene	0.70	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	2.03	0.74		0.20 U	0.68	1.06	1.12	0.68	0.22	0.25	0.25
Trichloroethene	0.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U		0.20 U	0.23	0.20 U	0.20 U	0.29	0.20 U	0.20 U	0.20 U
Vinyl Chloride	0.20	0.39	0.20 U	0.21	0.41	0.25	1.20	0.330	1.45	4.12		0.35	0.7	0.85	0.98	0.64	0.37	0.46	0.55
Total Petroleum Hydrocarbor	ns (μg/L)																		
TPH-G (C7-C12)	800	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	350		100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U

											3								
											'ell ID³								
	Current									CPO	DC Area								
	Cleanup					GW143S									GW237S				
Analyte	Level⁴	11/12/2019	3/10/2020	5/11/2020	8/11/2020	2/15/2021	8/11/2021	2/22/2022	8/17/2022	2/7/2023	11/12/2019	3/10/2020	5/11/2020	8/11/2020	2/16/2021	8/11/2021	2/22/2022	8/17/2022	2/6/2023
Volatile Organic Compounds	(μg/L)																		
Benzene	0.80	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U	0.66	3.48	1.03	0.24	6.79 J	0.20 U	3.73	0.20 U	4.18
cis-1,2-Dichloroethene	0.70	0.20 U	0.21	0.20 U	1.17	0.26	0.65	0.430	0.76 J	0.36	0.22	1.00 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.200 U	0.20 U	0.22
Trichloroethene	0.23	0.20 U	0.20 U	0.20 U	0.23	0.20 U	0.20 U	0.200 U	0.53 J	0.10 J	0.20 U	1.00 U	0.20 U	0.20 U	0.20 UJ	0.20 U	0.200 U	0.20 U	0.20 U
Vinyl Chloride	0.20	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.09 J	0.34	1.00 U	0.20 U	0.20 U	0.31 J	0.20	0.200 U	0.20 U	0.26
Total Petroleum Hydrocarbon	ns (μg/L)																		
TPH-G (C7-C12)	800	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	961	729	100 U	100 UJ	360	664	100 U	805

	Current Cleanup					Well ID ³ CPOC Area GW240D				
Analyte	Level⁴	11/12/2019	3/10/2020	5/11/2020	8/11/2020	2/15/2021	8/11/2021	2/22/2022	8/17/2022	2/7/2023
Volatile Organic Compounds	(μg/L)									
Benzene	0.80	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	0.70	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U
Trichloroethene	0.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U
Vinyl Chloride	0.20	0.24	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.13 J
Total Petroleum Hydrocarbor	ns (µg/L)									
TPH-G (C7-C12)	800	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U

Notes

1. Data qualifiers are as follows:

U = The analyte was not detected at the reporting limit indicated.

UJ = The result is estimated and was not detected at the reporting limit indicated.

J = The value is an estimate.

2. **Bolded** values exceed the cleanup levels.

3. S = shallow well; D = deep well.

4. Current cleanup levels obtained from Table 2 of the Cleanup Action Plan and are based on each individual SWMU or AOC.

Abbreviations

μg/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

SWMU = solid waste management unit

TPH-G = total petroleum hydrocarbons as gasoline

TABLE D-4: FORMER FUEL FARM HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN¹

Boeing Renton Facility, Renton, Washington

										Wel CPOC									
			GW211S GW221S 11/11/2019 5/11/2020 8/10/2020 2/15/2021 8/10/2021 2/21/2022 8/19/2022 2/9/2023 5/7/2019 11/11/2019 5/11/2020 8/10/2020 2/15/2021 8/10/2021 2/21/2022 8/19/2022 1/2022 8/19/																
Analyte	Current Cleanup Level ³	5/7/2019	11/11/2019	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/19/2022	2/9/2023	5/7/2019	11/11/2019	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/19/2022	2/9/2023
Total Petroleum Hydrocarbon	is (mg/L)																		
TPH-D (C12-C24)	0.5	0.124	0.120	0.282	0.192	0.284	0.140	1.00 U	0.100 U	0.100 U	0.630	1.65	1.58	7.67	1.22	1.02	0.575	0.940	1.75
Jet A	0.5	0.117	0.117	0.267	0.155	0.262	0.100 U	1.00 U	0.100 U	0.100 U	0.397	1.09	1.09	5.70	0.89	0.718	0.460	0.562	1.20

						Well ID ² CPOC Area				
						GW224S				
Analyte	Current Cleanup Level ³	11/11/2019	5/11/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	2/21/2022	8/19/2022	2/9/2023
Total Petroleum Hydrocarbon	s (mg/L)									
TPH-D (C12-C24)	0.5	1.46	0.675	1.08	0.584	1.08	0.682	1.01	0.881	1.15
Jet A	0.5	1.80	0.918 J	1.42	1.04	1.47	1.04	1.76	1.25	1.61

<u>Notes</u>

- 1. Bolded values exceed the cleanup levels.
- 2. S = shallow well.
- 3. Current cleanup levels obtained from Table 2 of the Cleanup Action Plan and are based on each individual SWMU or AOC.

Abbreviations

AOC = area of concern

CPOC = conditional point of compliance

mg/L = milligrams per liter

SWMU = solid waste management unit

TPH-D = total petroleum hydrocarbons as diesel

TABLE D-5: AOC-003 HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN^{1, 2}

Boeing Renton Facility, Renton, Washington

										Well I	D ³								
						Source Area								Down	gradient Plume A	rea			
	Current Cleanup					GW249S									GW188S				
Analyte	Level ⁴	3/5/2019	8/14/2019	3/12/2020	8/10/2020	2/16/2021	8/12/2021	2/23/2022	8/24/2022	2/6/2023	3/5/2019	8/14/2019	3/12/2020	8/10/2020	2/16/2021	8/12/2021	2/22/2022	8/23/2022	2/6/2023
Volatile Organic Compounds	(μg/L)																		
cis-1,2-Dichloroethene	0.78	0.079	0.0526	0.0604	NA	NA	NA	NA	NA	NA	0.0493	0.0361	0.0362	NA	NA	NA	NA	NA	NA
Tetrachloroethene	0.02	0.0105	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	0.0107	0.020 U	0.0244	NA	NA	NA	NA	NA	NA
Trichloroethene	0.16	0.0157	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	0.0125	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.24	0.424	0.367	0.334	0.261	0.366	0.517	0.359 J	0.404 J	0.217	0.537	0.545	0.235	0.288	0.107	0.698	0.141 J	0.404	0.104

										Well I									
	Current Cleanup					GW247S									GW248I				
Analyte	Level⁴	11/12/2019	3/12/2020	5/13/2020	8/10/2020	2/16/2021	8/11/2021	2/23/2022	8/23/2022	2/6/2023	11/12/2019	3/12/2020	5/13/2020	8/10/2020	2/16/2021	8/11/2021	2/23/2022	8/23/2022	2/6/2023
Volatile Organic Compounds	(μg/L)																		
cis-1,2-Dichloroethene	0.78	0.0635	0.039	0.584	NA	NA	NA	NA	NA	NA	0.020 U	0.02 U	0.020 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	0.02	0.020 U	0.02 U	0.020 U	NA	NA	NA	NA	NA	NA	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Trichloroethene	0.16	0.148	0.02 U	0.020 U	NA	NA	NA	NA	NA	NA	0.0514	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.24	0.504	0.305	0.409	0.392	0.405	0.678	0.127 J	0.379	NA	0.62	0.499	0.546	0.383	0.426	0.711	0.598 J	0.742	0.588

		Well ID ³ Source Area
	Current Cleanup	GW193S
Analyte	Level⁴	2/6/2023
Volatile Organic Compounds (μg/L)	
cis-1,2-Dichloroethene	0.78	NA
Tetrachloroethene	0.02	NA
Trichloroethene	0.16	NA
Vinyl Chloride	0.24	0.334

Notes

1. Data qualifiers are as follows:

U = The analyte was not detected at the reporting limit indicated.

- 2. Bolded values exceed the cleanup levels.
- 3. S = shallow well; I = intermediate well.
- 4. Current cleanup levels obtained from Table 2 of the Cleanup Action Plan and are based on each individual SWMU or AOC.

<u>Abbreviations</u>

 μ g/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

NA = not analyzed

TABLE D-6: AOC-004 HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN¹

Boeing Renton Facility, Renton, Washington

							Well ID ²										
	Current						Source Area										
	Cleanup		GW250S														
Analyte	Level ³	3/6/2018	8/15/2018	3/5/2019	8/14/2019	3/9/2020	8/12/2020	2/16/2021	8/12/2021	2/22/2022	8/23/2022	2/7/2023					
Metals (mg/L)																	
Lead	0.001	0.000941	0.00107	0.00154	0.000714	0.00119	0.000611	0.000564	0.000663	0.000588	0.00131	0.000820					

Notes

- 1. Bolded values exceed the cleanup levels.
- 2. S = shallow well.
- 3. Current cleanup levels obtained from Table 2 of the Cleanup Action Plan and are based on each individual SWMU or AOC.

<u>Abbreviations</u>

mg/L = milligrams per liter

AOC = area of concern

CPOC = conditional point of compliance

TABLE D-7: AOC-060 HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN^{1, 2}

Boeing Renton Facility, Renton, Washington

										We	II ID ³								
	Current					Source Area								Down	gradient Plum	e Area			
	Cleanup					GW009S									GW012S				
Analyte	Levels ⁴	3/5/2019	8/14/2019	3/10/2020	8/11/2020	2/17/2021	8/11/2021	2/22/2022	8/19/2022	2/6/2023	3/5/2019	8/14/2019	3/10/2020	8/11/2020	2/17/2021	8/11/2021	2/22/2022	8/18/2022	2/6/2023
Volatile Organic Compounds	(μg/L)																		
cis -1,2-Dichloroethene	0.08	0.107	0.127	0.093	0.124	0.139	0.368	0.15	0.229	0.231	1.23	0.798	0.482	0.508	1.260	2.210	0.693	1.91 J	2.78
Trichloroethene	0.02	0.0239	0.020 U	0.0242	0.0324	0.0294	0.0316	0.0284	0.0288	0.0409	0.0546	0.0471	0.0505	0.0518	0.0454	0.0908	0.0506	1.02 J	0.208
Vinyl Chloride	0.26	0.285	0.300	0.183	0.219	0.300	0.160	0.434	0.570	0.550	1.35	0.893	0.603	0.387	0.180	0.795	1.57	0.294 J	0.881

										We	II ID ³								
	Current									Downgradier	nt Plume Area								
	Cleanup					GW014S									GW147S				
Analyte	Levels⁴	3/5/2019	8/14/2019	3/10/2020	8/11/2020	2/17/2021	8/11/2021	2/22/2022	8/18/2022	2/6/2023	3/5/2019	8/14/2019	3/10/2020	8/11/2020	2/17/2021	8/11/2021	2/22/2022	8/19/2022	2/6/2023
Volatile Organic Compounds ((μg/L)																		
cis -1,2-Dichloroethene	0.08	0.119	0.143	0.151	0.0932	0.130	0.147	0.133	0.134 J	0.137	0.955	4.11	0.287	0.931	0.180	0.180	0.679	8.37	0.766
Trichloroethene	0.02	0.0254	0.020 U	0.0419	0.020 U	0.035	0.0227	0.020 U	0.0246 J	0.0200 U	0.475	1.46	1.20	3.37	0.498	0.498	0.425	0.937	0.376
Vinyl Chloride	0.26	0.214	0.365	0.195	0.190	0.207	0.367	0.276	0.514 J	0.231	0.0514	0.215	0.020 U	0.0643	0.020 U	0.020 U	0.0623	3.39	0.0215

										We	ll ID ³								
	Current									CPOC	C Area								
	Cleanup					GW150S									GW253I				
Analyte	Levels ⁴	3/5/2019	8/14/2019	3/10/2020	8/11/2020	2/17/2021	8/11/2021	2/22/2022	8/22/2022	2/6/2023	3/5/2019	8/14/2019	3/10/2020	8/11/2020	2/17/2021	8/11/2021	2/22/2022	8/22/2022	2/6/2023
Volatile Organic Compounds	(μg/L)																		
cis -1,2-Dichloroethene	0.08	0.0737	0.0824	0.0525	0.0935	0.0393	0.0991	0.0547	0.126	0.0849	0.127	0.0917	0.0915	0.0879	0.140	0.106	0.0846	0.138	0.0991
Trichloroethene	0.02	0.020 U	0.0228	0.02 U	0.0291	0.020 U	0.020 U	0.020 U	0.0212	0.0200 U	0.0221	0.020 U	0.0212	0.0211	0.0272	0.0202	0.020 U	0.0205	0.0200 U
Vinyl Chloride	0.26	0.103	0.020 U	0.0541	0.0619	0.0455	0.122	0.0969	0.100	0.138	0.143	0.131	0.184	0.100	0.243	0.146	0.177	0.255	0.156

Notes:

- 1. Data qualifiers are as follows:
- U = The analyte was not detected at the reporting limit indicated.
- J = The value is an estimate.
- 2. **Bolded** values exceed the cleanup levels.
- 3. S = shallow well; I = intermediate well.
- 4. Current cleanup levels obtained from Table 2 of the Cleanup Action Plan and are based on each individual SWMU or AOC.

Abbreviations:

μg/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

TABLE D-8: AOC-090 HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN^{1, 2}

Boeing Renton Facility, Renton, Washington

										Wel	I ID ³								
	Current					Source Area								Down	gradient Plum	e Area			
	Cleanup					GW189S⁵									GW176S				
Analyte	Levels ⁴	8/13/2018	3/5/2019	8/12/2019	8/12/2020	2/17/2021	8/12/2021	2/23/2022	8/24/2022	2/7/2023	3/5/2019	8/12/2019	3/11/2020	8/12/2020	2/17/2021	8/17/2021	2/23/2022	8/23/2022	2/7/2023
/olatile Organic Compounds (μg	/L)																		
1,1,2,2-Tetrachloroethane	0.17	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.24 U	0.158	0.153	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM
1,1,2-Trichloroethane	0.2	2.00 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
1,1-Dichloroethene	0.057	0.020 U	0.020 U	0.020 U	0.0529	0.020 U	0.020 U	0.0200 U	0.0432	0.0200 U	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM
Acetone	300	70	5.00 U	5.0 U	5.00 U	10.6 J	5.00 U	5.00 U	6.28	5.00 U	5.00 U	5.0 U	5.0 U	NM	NM	NM	NM	NM	NM
Benzene	0.8	2.42	0.20	0.49	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
Carbon Tetrachloride	0.23	2.00 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
Chloroform	2	2.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
cis-1,2-Dichloroethene	2.4	22.3	0.92	6.87	1.93	0.47	3.15	0.20 U	1.78	0.230	0.25	0.27	0.25	NM	NM	NM	NM	NM	NM
Methylene Chloride	2	10.9 UJ	1.00 U	1.0 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	NM	NM	NM	NM	NM	NM
Tetrachloroethene	0.05	0.20 U	0.028	0.020 U	0.020 U	0.0283	0.020 U	0.0200 U	0.0206	0.200 U	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM
Toluene	75	21.7	4.96	3.11	1.05	5.21	2.42	0.47 J	43.7	0.690 J	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
trans-1,2-Dichloroethene	53.9	2.00 U	0.20 U	0.39	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.200 U	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
Trichloroethene	0.08	2.38	0.156	0.414	0.324	0.143	0.386	0.0505 UJ	0.43	0.0593	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM
Vinyl Chloride	0.13	2.09 J	0.50	1.20	0.369	0.0405	0.575	0.0867 J	0.460	0.0230	0.294	0.301	0.207	0.232	0.138	0.431	0.311 J	0.364	0.349
otal Petroleum Hydrocarbons (μg/L)																		
TPH-G (C7-C12)	800	9,440	1,070	943	699	507	504	370 J	555	246	100 U	100 U	100 U	NM	NM	NM	NM	NM	NM
TPH-D (C12-C24)	500	4,120	362	432	150	2160	390	192 J	521	648 J	100 UJ	100 U	100 U	NM	NM	NM	NM	NM	NM
TPH-O (C24-C40)	500	2.000 U	522	853	379	3990	689	263 J	586	1.120	200 UJ	200 U	200 U	NM	NM	NM	NM	NM	NM

	Current													Shall	Well ID ³ ow Zone CPO	C Area												
	Cleanup					GW178S									2075								GW2	2085				
Analyte	Levels ⁴	8/13/2018	3/5/2019	8/12/2019	8/12/2020	2/17/2021	8/12/2021	2/23/2022	8/24/2022	2/7/2023	3/5/2019	8/12/2019	3/11/2020	8/12/2020	2/17/2021	8/12/2021	2/23/2022	2/7/2023	8/23/2022	3/5/2019	8/12/2019	3/11/2020	8/12/2020	2/17/2021	8/12/2021	2/23/2022	8/24/2022	2/7/2023
Volatile Organic Compounds (μg/	'L)																											
1,1,2,2-Tetrachloroethane	0.17	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM
1,1,2-Trichloroethane	0.2	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
1,1-Dichloroethene	0.057	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM
Acetone	300	5.00 U	5.54	5.0 U	NM	NM	NM	NM	NM	NM	5.00 U	5.0 U	5.0 U	NM	NM	NM	NM	NM	NM	5.00 U	5.0 U	5.0 U	NM	NM	NM	NM	NM	NM
Benzene	0.8	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
Carbon Tetrachloride	0.23	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
Chloroform	2	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
cis-1,2-Dichloroethene	2.4	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.21	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
Methylene Chloride	2	1.00 U	1.00 U	1.00 U	NM	NM	NM	NM	NM	NM	1.00 U	1.00 U	1.00 U	NM	NM	NM	NM	NM	NM	1.00 U	1.0 U	1.0 U	NM	NM	NM	NM	NM	NM
Tetrachloroethene	0.05	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM	0.020 U	0.020 U	0.020 U	NM	NM	NM	NM	NM	NM
Toluene	75	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
trans-1,2-Dichloroethene	53.9	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM	0.20 U	0.20 U	0.20 U	NM	NM	NM	NM	NM	NM
Trichloroethene	0.08	0.0213	0.0213	0.020 U	NM	NM	NM	NM	NM	NM	0.020 U	0.0305	0.020 U	NM	NM	NM	NM	NM	NM	0.020 U	0.0293	0.020 U	NM	NM	NM	NM	NM	NM
Vinyl Chloride	0.13	0.378	0.392	0.3840	0.141	0.224	0.182	0.361 J	0.390	0.531	0.0692	0.020 U	0.020 U	0.377	0.066	0.232	0.356 J	0.0200 U	0.326	0.437	0.245	0.419	0.343	0.349	0.313	0.404 J	0.400	0.419
Total Petroleum Hydrocarbons (µ	ıg/L)																											
TPH-G (C7-C12)	800	100 U	100 U	100 U	NM	NM	NM	NM	NM	NM	100 U	100 U	100 U	NM	NM	NM	NM	NM	NM	100 U	100 U	100 U	NM	NM	NM	NM	NM	NM
TPH-D (C12-C24)	500	100 U	100 UJ	100 U	NM	NM	NM	NM	NM	NM	100 UJ	100 U	100 U	NM	NM	NM	NM	NM	NM	100 UJ	100 U	100 U	NM	NM	NM	NM	NM	NM
TPH-O (C24-C40)	500	200 U	200 UJ	200 U	NM	NM	NM	NM	NM	NM	200 UJ	200 U	200 U	NM	NM	NM	NM	NM	NM	200 UJ	200 U	200 U	NM	NM	NM	NM	NM	NM

Notes:

1. Data qualifiers are as follows:

U = The analyte was not detected at the reporting limit indicated.

J = The value is an estimate.

UJ = The analyte was not detected at the estimated reporting limit indicated.

2. Bolded values exceed the cleanup levels.

3. S = shallow well.

4. Current cleanup levels obtained from Table 2 of the Cleanup Action Plan and are based on each individual SWMU or AOC.

5. GW189S is the replacement well for GW168S.

Abbreviations:

μg/L = micrograms per liter AOC = area of concern

CPOC = conditional point of compliance

NM = Analyte not measured

SWMU = solid waste management unit

TPH-D = total petroleum hydrocarbons as diesel

TPH-G = total petroleum hydrocarbons as gasoline

TPH-O = total petroleum hydrocarbons as oil

TABLE D-9: APRON A HISTORICAL CONCENTRATIONS OF CONSTITUENTS OF CONCERN¹

Boeing Renton Facility, Renton, Washington

					Well ID ²				
					GW264S				
Analyte	5/7/2019	11/11/2019	5/12/2020	8/10/2020	2/15/2021	8/10/2021	2/21/2022	8/24/2022	2/8/2023
Volatile Organic Compounds	(μg/L)								
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.52	0.20 U	0.20 U	0.200 U	0.200 U	2.00 U
Vinyl Chloride	1.39	0.38	1.48	0.20 U	1.49	1.37	2.54	1.41	2.00 U

Notes:

1. Data qualifiers are as follows:

U = The analyte was not detected at the reporting limit indicated.

2. S = shallow well

Abbreviations:

μg/L = micrograms per liter