

Quarterly report, first quarter 2019

RCRA Corrective Action Program Boeing Renton Facility Project # 0088880100.2019 The Boeing Company

Prepared for:

The Boeing Company Seattle, Washington

Revised June 19, 2019



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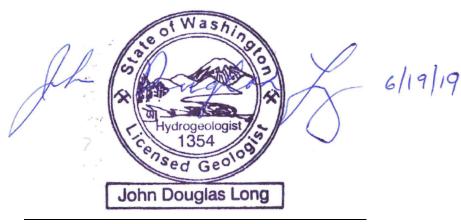
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Wood Environment & Infrastructure Solutions, Inc.



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1.0 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 at the Boeing Renton Facility (the Facility) during the first quarter 2019. This work is required under the Resource Conservation and Recovery Act (RCRA) Corrective Action Program being performed at the Boeing Renton Facility in Renton, Washington. 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). The groundwater monitoring program is detailed in the Addendum to the Compliance Monitoring Plan (Wood, 2019) which contains changes to the revised Compliance Monitoring Plan (Amec Foster Wheeler, 2016a) that superseded the original plan presented in Appendix D of the EDR (AMEC, 2014).

Groundwater monitoring and final cleanup action implementation 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, soil vapor extraction [SVE] and monitored attenuation [MA]); -
- Building 4-78/79 SWMU/AOC Group: (bioremediation, SVE, MNA, and MA);
- Former Fuel Farm AOC Group: (MNA);
- AOC-001 and AOC-002: (bioremediation and MA);
- AOC-003: (bioremediation and MA);
- AOC-004: (bioremediation and MA);
- AOC-060: (bioremediation and MA);
- AOC-090: (bioremediation and MA);
- Building 4-70: (bioremediation and MA);
- Lot 20/Former Building 10-71 Parcel: (bioremediation and 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). It should be noted that monitoring for the Building 10-71 area and Building 4-70 area is included in this monitoring report to maintain continuity with the monitoring program that has been conducted for these areas for several years and as approved by the Washington State Department of Ecology (Ecology); these two areas are not addressed explicitly in the Compliance Monitoring Plan but are being addressed per Ecology's December 30, 2015, email to Boeing with comments on the revised Compliance Monitoring Plan. Monitoring for Apron A is also included, as semiannual monitoring began in this area starting in the fourth quarter of 2016, as reported in the Apron A Investigation Results report (Amec Foster Wheeler, 2016b).

The goals for cleanup of groundwater at the Renton 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 are discussed for each SWMU and AOC below. Discussions include comparisons to

protection of groundwater for drinking water beneficial uses by comparing concentrations to the Model Toxics Control Act (MTCA) or United States Environmental Protection Agency (USEPA) Maximum Contaminant Level (MCL) as well as to site specific cleanup levels (CULs) which are based on protection of surface water beneficial uses.

This quarterly report:

- Describes work completed during the reporting quarter;
- 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 quarter, 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 quarter;
- Describes and discusses trends in monitoring data;
- Assesses remediation at each area; and
- Assesses attainment CULs at the CPOCs.

This report presents this information for the first quarter of 2019—the period from January through March 2019.

1.1 Quarterly progress reporting

In accordance with the requirements of the Order, corrective action activities were conducted at the Facility, as described in this report. As approved by Ecology in their letter dated November 18, 2015, progress reporting is conducted on a quarterly basis in conjunction with monitoring, operations, and maintenance activities conducted under the CAP.

1.1.1 Work completed in the first quarter 2019

The following work was completed during the first quarter of 2019, the period from January through March 2019:

- On behalf of Boeing, Wood submitted the fourth quarter 2018 report to Ecology on February 19, 2019.
- Groundwater monitoring for the first quarter of 2019 was completed during March 2019.
- A sixth round of nitrate/sulfate injections was completed in Building 4-78/79 injection wells B78-11, B78-13, and B78-17 through B78-21 in March 2019. Groundwater samples were collected from these injection wells and from monitoring wells GW244S and GW031S in February 2019.
- Sugar substrate injections were performed in March 2019 at Building 4-78/79 injection wells B78-12, B78-14, B78-15 and B78-16 for continued biostimulation of chlorinated solvents.
- An addendum to the Compliance Monitoring Plan was submitted in April 2019, requesting permission to remove AOC-034 and AOC-035 from the compliance monitoring program. Ecology approved the addendum on April 30, 2019; thus, AOC-034 and AOC-035 are not included in this report.

1.1.2 Deviations from required tasks

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

1.1.3 Deviations from CAP

There were no deviations from the CAP during this activity period, and there are no planned deviations from the CAP expected for the next activity period.

1.1.4 Schedule revisions

There were no significant revisions to the schedule for this reporting period and no revisions are expected for the next activity period.

1.1.5 Work projected for the next quarter

The following work is projected for the second quarter of 2019:

- Reporting will be completed in accordance with the Order, CAP, EDR, Addendum to the Compliance Monitoring Plan (Wood, 2019), and any changes approved by Ecology.
- Groundwater sampling and analysis for the second quarter of 2019 will be completed.
- Soil investigation work will be conducted at Building 4-78/79.

2.0 Groundwater sampling methodology

Groundwater was sampled and analyzed as described in Appendix A. These procedures are in accordance with the methods specified in the soil and groundwater sampling methodology, which is described in more detail in the revised Compliance Monitoring Plan (Amec Foster Wheeler, 2016a). Table A-1 summarizes the current groundwater monitoring program and constituents of concern (COCs) specified in the CAP and revised in the Addendum to the Compliance Monitoring Plan (Wood, 2019) 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 includes Building 4 70, Lot 20/Former Building 10-71, and Apron A, which were not included in the CAP. Any changes or exceptions to the sampling or analytical methods cited in Appendix A during the quarter are 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 quarter, 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 compact disc. The data validation memoranda are included in Appendix C.

3.0 Corrective action activities completed during quarter

This section describes the corrective action activities conducted at the Facility during the first quarter of 2019. Operation of the SVE system at SWMU-172/174 continued during the first quarter, as discussed in Sections 3.2.1.2 and 3.3.1.2. Quarterly compliance monitoring was conducted in accordance with the Addendum to the Compliance Monitoring Plan (Wood, 2019).

3.1 SWMU-168

This section describes corrective action activities conducted at this SWMU. Figure 1 shows the location of the groundwater monitoring wells at SWMU-168, as well as the groundwater elevations 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 the first quarter.

3.1.2 Compliance monitoring plan deviations

No deviations from the Compliance Monitoring Plan occurred for this area during the first quarter.

3.1.3 Water levels

Groundwater elevations measured during the first quarter 2019 groundwater monitoring event at SWMU 168 are summarized in Table 1 and shown on Figure 1. Groundwater elevation contours are not shown due to the limited number of shallow groundwater monitoring wells.

3.1.4 Groundwater monitoring results

Results for primary geochemical indicators are presented in Table 2; results for the SWMU-168 COCs are presented in Table 3. Groundwater in this area is monitored following the schedule presented in Tables A-1 and A-2 in Appendix A, which includes semiannual monitoring at the CPOC for both the area COCs and the primary geochemical indicators listed in Table A-2.

3.1.4.1 Natural attenuation/geochemical indicators

The geochemical indicator results are presented in Table 2. Data from the CPOC wells indicate that conditions are conducive to natural attenuation of vinyl chloride (VC) in this SWMU. The results for dissolved oxygen (DO) and oxidation reduction potential (ORP) measurements indicate reducing conditions. The pH values measured in all wells were near neutral.

3.1.4.2 COC results for source area

Groundwater samples were not collected from the source area well for SWMU-168, following the sampling schedule presented in Tables A-1 and A-2.

3.1.4.3 COC results for conditional point of compliance area

Monitoring results for the CPOC area monitoring wells are shown in Table 3. VC was detected below the CUL in the groundwater collected from all CPOC wells at concentrations ranging from 0.0211 micrograms per liter (μ g/L) in the groundwater from CPOC well GW229S to 0.0566 μ g/L in the groundwater from CPOC well GW231S. VC concentrations are below the applicable MCLs/MTCA criteria for potable water supply and the CULs established in the CAP.

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 SVE, bioremediation, and MA. Figure 2 shows the layout of the groundwater monitoring and 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 the first quarter.

3.2.1.2 Soil vapor extraction and bioremediation operations

The SVE system at SWMU-172 and SWMU-174 operated normally during the first quarter. Details for system operations are included in the SVE operations and monitoring report prepared by CALIBRE and included as Appendix D.

3.2.2 Compliance monitoring plan deviations

No deviations from the Compliance Monitoring Plan occurred for this area during the first quarter.

3.2.3 Water levels

Groundwater elevations for the SWMU-172 and SWMU-174 area measured during the first quarter 2019 are summarized in Table 4 and shown on Figure 2. The contoured data for March 2019 show that groundwater is generally flowing east from SWMU-172 and SWMU-174, toward the Cedar River Waterway, with an approximate horizontal gradient of 0.01.

3.2.4 Groundwater monitoring results

Groundwater at this area is monitored following the schedules 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. Total organic carbon (TOC) concentrations ranged from 0.56 milligrams per liter (mg/L) to 9.09 mg/L for all SWMU-172 and SWMU-174 monitoring wells. The other natural attenuation parameter results indicate that geochemical conditions were generally uniform and appropriate for reductive dechlorination of chlorinated volatile organic compounds (VOCs); the DO and ORP indicate reducing conditions were present.

3.2.4.2 COC results for source and downgradient plume areas

Table 6 lists first quarter 2019 analytical results for the SWMU-172 and SWMU-174 COCs. Figure 3 shows 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. Historical trend plots for PCE, TCE, VC, and *cis*-1,2-DCE in downgradient plume area wells GW172S and GW173S are shown in Figure 4. Flow generally moves from the vicinity of source area well GW152S to downgradient plume area well GW173S. 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.

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As shown in Table 6, *cis*-1,2-DCE, TCE, PCE, and VC concentrations exceeded the CULs in the groundwater collected from both source area and downgradient plume area wells. As shown in Figure 3, the concentrations of COCs in groundwater from source area wells generally decreased during the first quarter of 2019. As shown in Figure 4, COC concentrations also decreased in the groundwater from downgradient plume area wells GW172S and GW173S during the first quarter, except for VC in the groundwater from well GW172S. The concentrations of COCs in the groundwater from the source area and downgradient plume area are within the range of concentrations observed over the last two years.

Arsenic was detected above the CUL in all source area and downgradient plume area wells. As shown in Figure 5, the arsenic concentrations in the groundwater from both source area and downgradient wells decreased during the first quarter sampling event, except for in downgradient plume well GW173S, which increased very slightly. Copper was detected above the CUL in the groundwater from source area well GW152S and downgradient plume wells GW173S and GW226S. Copper was below the CUL in the groundwater from all other source and downgradient plume wells. Lead was detected above the CUL in the groundwater from source area well GW152S, but was not detected at concentrations above the CUL in the groundwater from the remaining source area well or any of the downgradient plume area wells.

While concentrations of select COCs in groundwater from source area and downgradient plume area wells exceed the CULs, COC concentrations are below the applicable MCLs/MTCA criteria for potable water supply, except for VC in source area well GW153S.

3.2.4.3 COC results for conditional point of compliance area

Results from the CPOC area wells are presented in Table 6 and trend charts for *cis*-1,2-DCE, TCE, and VC for all CPOC area wells are presented in Figure 6. As shown in Table 6, *cis*-1,2-DCE was detected at concentrations above the CUL, ranging from 0.0443 to 0.250 µg/L, in the groundwater collected from all CPOC area wells; TCE was detected above the CUL in the groundwater from CPOC well GW235I; and VC was detected above the CUL in the groundwater from CPOC well GW235I; and VC was detected from the CPOC wells and is not shown on Figure 6. As shown on Figure 6, concentrations of *cis*-1,2-DCE have exceeded the CUL in the CPOC wells since compliance monitoring began, but are generally stable and are of low concern due to the low toxicity of *cis*-1,2-DCE and associated lack of surface water quality standard for this constituent. The concentrations of TCE and VC in the CPOC wells also generally appear to be stable.

Arsenic was detected above the CUL in the groundwater samples from CPOC area wells GW232S, GW234S, and GW236S. Lead was detected above the CUL in the groundwater sample from CPOC well GW236S; copper was not detected above the CUL in the groundwater from the CPOC wells (Table 6). Figure 7 shows arsenic, copper, and lead trends since the beginning of compliance monitoring in groundwater samples from the CPOC wells. As shown in Figure 7, though arsenic, copper and lead concentrations appear to vary over time, there are no increasing trends in the groundwater collected from CPOC wells.

While select COC concentrations exceed the CUL in the groundwater from select CPOC wells, as detailed above, COC concentrations are below the applicable MCLs/MTCA criteria for potable water supply in all CPOC wells.

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 during the first quarter of 2019. The cleanup remedy for this SMWU/AOC group is bioremediation, SVE, MNA, and MA. Figure 8 shows the location of groundwater monitoring wells, bioremediation wells, and SVE wells for this area.



3.3.1 Cleanup action activities

3.3.1.1 Installation/construction activities

No installation/construction activities were conducted for this cleanup action area during the first quarter. Substrate injections were performed on March 14, 2019, in injection wells B78-12, B78-14, B78-15, and B78-16.

3.3.1.2 Soil vapor extraction and bioremediation operations

As previously reported during 2018 monitoring events, the SVE system at Building 4-78/79 SWMU/AOC Group was shut down during the first quarter of 2018, during which rebound testing was implemented. Soil samples were collected during the second quarter 2018 to assess the attainment of soil CULs, and results were reported in the second quarter monitoring report (Wood, 2018). The CULs were attained with one exception: the sample from 4.5 feet below ground surface at well PP13 had a concentration of total petroleum hydrocarbons as gasoline (TPH-G) of 147 milligrams per kilogram (mg/kg), and the field duplicate was 131 mg/kg, above the CUL of 30 mg/kg. A revised work plan (CALIBRE, 2019) for excavating the soils near PP13 and GW013S was submitted to Ecology on May 8, 2019, in response to a request from Ecology. The investigation described in the work plan is planned for June 2019.

A fifth round of nitrate/sulfate injections was performed in December 2018 and groundwater samples were collected in February 2019. An additional round (the sixth round) of nitrate/sulfate injections was performed in March 2019. The results of the performance monitoring are shown in Table 3-1 of Appendix D. Concentrations of benzene and *cis*-1,2-DCE in the groundwater from all injection wells related to ongoing benzene treatment in this area are shown in Figure 9. As shown in Figure 9, benzene concentrations in groundwater collected from injection wells in February 2019 ranged from below the reporting limit of 0.20 μ g/L to 16.50 μ g/L. The benzene concentration in source area well GW031S in March 2019 was 55.9 μ g/L. Trend charts for TCE and VC in the injection wells are presented in Figure 10.

The reagent concentrations for the December 2018 and March 2019 treatment injection events to provide additional nitrate and sulfate to the affected area due to the rapid reaction time observed during previous injection events were 800 mg/L for nitrate and 400 mg/L for sulfate. Injections were performed at B78-11, B78-13, B78-17, B78-18, B78-19, B78-20, and B78-21. More detail is provided in Appendix D.

3.3.2 Compliance monitoring plan deviations

No deviations from the Compliance Monitoring Plan occurred for this area during the first quarter.

3.3.3 Water levels

Groundwater elevations measured during the first quarter 2019 groundwater monitoring event at the Building 4-78/79 SWMU/AOC group are summarized in Table 7 and shown on Figure 8. The approximate direction of groundwater flow from the source area is generally to the west, with a hydraulic gradient of 0.001.

3.3.4 Groundwater monitoring results

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



3.3.4.1 Natural attenuation/geochemical indicators

The geochemical indicator results are presented in Table 8. In general, source area, downgradient, and CPOC area wells had low levels of DO and ORP, indicating that reducing conditions are present over the area and are generally favorable for reductive dechlorination of chlorinated VOCs. The pH in all monitoring wells was near 6 standard units during the first quarter monitoring period. Results for the other primary geochemical indicators were fairly consistent throughout this area.

3.3.4.2 COC results for source and downgradient plume areas

Table 9 lists first quarter 2019 analytical results for the Building 4-78/79 SWMU/AOC Group COCs. The CULs established in the CAP are also presented on Table 9. Figures 11 and 12 are trend charts showing historical trends for COCs for in source and downgradient plume area groundwater monitoring wells that have a history of frequent detections. Trend charts have not been prepared for groundwater monitoring wells or COCs that do not have a history of frequent detections.

As shown in Table 9, benzene was detected in groundwater samples from three source area wells at concentrations above the CUL. Benzene was below detection in the remaining source area wells. *Cis*-1,2-DCE and VC were detected at concentrations above their respective CULs in the groundwater from source area wells GW033S and GW244S. TCE was below detection in the groundwater from all source area wells. TPH-G was detected in the groundwater from source area well GW031S, at a concentration of 4,200 μ g/L (the field duplicate concentration was 4,220 μ g/L). TPH-G was also detected in the groundwater from source area well GW033S at a concentration below the CUL. No COCs were detected in the groundwater collected from the downgradient plume area wells.

Figure 11 shows trends for selected COCs for source area wells GW031S and GW033S and Figure 12 shows trends for selected COCs for source area well GW034S and downgradient plume area well GW209S. COC concentrations in the groundwater collected from GW031S are generally consistent with historical results and trends. The concentration of benzene in the groundwater collected from source area well GW033S is generally consistent with historical results. The concentrations of *cis*-1,2-DCE, TCE, and VC in both source area wells have decreased since mid-2018. COC concentrations in groundwater samples collected from source area well GW034S (Figure 12) are stable. Nitrate and sulfate injections described in Appendix D are continuing to be performed to address elevated benzene present between GW210S and GW031S.

Figure 12 shows a trend chart for downgradient plume area well GW209S, which was installed in 2008 and is located west of Building 4-79. Monitoring results for all COCs are stable in the groundwater collected from GW209S, with concentrations either not detected or detected at concentrations just above the reporting limit of 0.2 μ g/L.

Concentrations of COCs in the groundwater from select source area wells remain above the MCLs/MTCA standard for potable water supply (specifically for VC, benzene and TPH-G). Active treatment is ongoing. Concentrations of COCs in down gradient monitoring wells are below the applicable MCLs/MTCA criteria for potable water supply.

3.3.4.3 COC results for conditional point of compliance area

Groundwater monitoring results from the first quarter for the CPOC area are summarized in Table 9. Trends for CPOC wells GW143S, GW237S and GW240D are shown in Figures 13 through 15. Benzene was only detected in the groundwater sample collected from CPOC well GW237S. As shown in Figure 13, benzene has been sporadically detected in the groundwater from CPOC well GW237S but has not been detected in the groundwater samples from any other CPOC wells at concentrations above the CUL. VC was detected in the groundwater from CPOC wells GW237S and GW240D at concentrations above the

CUL. As shown in Figure 13, the concentrations of VC in the groundwater from these CPOC wells is within the range of concentrations detected since monitoring began. *Cis*-1,2-DCE and TCE were not detected in the groundwater collected from CPOC wells and concentrations above their respective CULs. As shown in Figures 13 and 14, the groundwater collected from CPOC well GW143S has sporadically had concentrations of both *cis*-1,2-DCE and TCE above the CUL. The only other COC detected in the groundwater samples from the CPOC area during the first quarter was TPH-G at a concentration of 1,680 µg/L in the sample from CPOC well GW237S. As shown in Figure 15, TPH-G concentrations in the groundwater from CPOC GW237S appear to fluctuate seasonally.

While benzene and VC exceed the CUL in the groundwater from select CPOC wells, as detailed above, the concentrations of benzene and VC are below the applicable MCLs/MTCA criteria for potable water supply, with the exception of GW237S which exceeds the benzene MCL of 5 ug/L.

3.4 Former fuel farm AOC group

The final remedy for the Former Fuel Farm is MNA. The Former Fuel Farm AOC group is monitored semiannually in May and November; therefore, no monitoring was conducted for this area during the first quarter of 2019.

3.5 AOC-001 and AOC-002

This section describes corrective action activities conducted at these AOCs during first quarter of 2019. The cleanup remedy for this corrective action area is bioremediation and MA. Bioremediation commenced for this area in late 2004, following source area excavation. Figure 16 shows the location of groundwater monitoring wells and the bioremediation injection system for AOC-001 and AOC 002, as well as the groundwater elevations measured during this monitoring event.

3.5.1 Cleanup action activities

No installation/construction activities were conducted for this cleanup action area during the first quarter.

3.5.2 Compliance monitoring plan deviations

No deviations from the Compliance Monitoring Plan occurred for this area during the first quarter.

3.5.3 Water levels

Table 10 presents the groundwater elevations measured during the first quarter 2019 monitoring event at AOC-001 and AOC-002. Figure 16 shows the groundwater elevations from this event. The average elevation of Lake Washington was not available from the U.S. Army Corps of Engineers Northwestern Division website. First quarter 2019 data indicate that groundwater in the vicinity of these AOCs was flowing west-northwest, toward Lake Washington, with an approximate horizontal hydraulic gradient of 0.001.

3.5.4 Groundwater monitoring results

Groundwater in this area is monitored following the schedule presented in Tables A-1 and A-2 in Appendix A. Results for primary geochemical indicators are presented in Table 11; results for the AOC-001 and AOC-002 COCs are presented in Table 12.

3.5.4.1 Monitored attenuation/geochemical indicators

The geochemical indicator results are presented in Table 11. The pH was near neutral in all CPOC wells and is conducive to microbial activity. Table 11 also suggests that geochemical conditions are appropriate

for reductive dechlorination of the COCs in the AOC-001 and AOC-002 CPOC area, as indicated by the reducing conditions, low DO levels, and generally appropriate TOC concentrations.

3.5.4.2 COC results for source and downgradient plume areas

The analytical results for the AOC-001 and -002 COCs are summarized in Table 12. Concentrations of 1,1-dichloroethene and benzene were below CULs in all AOC-001/002 source area and downgradient plume wells in the first quarter. *Cis*-1,2-DCE and VC were detected at concentrations above the CUL in the groundwater collected from all source and downgradient wells. TCE was detected at concentrations above the CUL in the groundwater collected from downgradient plume wells GW190S and GW192S. Trend plots for TCE, VC, and *cis*-1,2-DCE in source area well GW193S, and *cis*-1,2-DCE and VC in downgradient plume well GW190S are shown in Figure 17. The concentrations of the COCs in the groundwater from source area well are generally decreasing, while the concentrations of the COCs in the groundwater from downgradient plume wells remains stable (Figures 17 and 18).

While select COCs exceed the CULs in the groundwater from the source and downgradient plume wells, COC concentrations are below the applicable MCLs/MTCA criteria for potable water supply in the groundwater from the source area well and exceed these criteria in the groundwater from downgradient plume wells GW190S, GW192S and GW246S.

3.5.4.3 COC results for conditional point of compliance area

As shown in Table 12, 1,1-dichloroethene, benzene, and TCE concentrations in the groundwater samples collected from CPOC wells were either below detection or below the CUL. Concentrations of *cis*-1,2-DCE ranged from 0.0277 µg/L to 0.194 µg/L, above the CUL of 0.02 µg/L, in the groundwater samples from all CPOC area wells except for GW194S. VC was detected above the CUL of 0.05 µg/L in groundwater samples from CPOC wells GW185S, GW195S, and GW197S. As shown in Figure 19, concentrations of *cis*-1,2-DCE and VC in the CPOC area monitoring wells have been generally stable since compliance monitoring began, aside from the increase in concentrations of *cis*-1,2-DCE and VC observed in the groundwater samples collected from GW185S in the second and third quarters of 2016. COPC area wells GW194S and GW245S are not shown on Figure 19 because COCs are generally not detected in the groundwater samples from these wells. Similarly, the remaining COCs are generally below the CUL in the CPOC area monitoring wells and are not included on Figure 19.

COC concentrations in the groundwater from CPOC wells are below the applicable MCLs/MTCA criteria for potable water supply.

3.6 AOC-003

This section describes corrective action activities conducted at AOC-003 for the first quarter of 2019. The cleanup remedy for this AOC is bioremediation and MA. Figure 20 shows the location of groundwater monitoring and bioremediation wells at AOC-003, 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 the first quarter.

3.6.2 Compliance monitoring plan deviations

No deviations from the Compliance Monitoring Plan for this area occurred during the first quarter.

3.6.3 Water levels

Table 13 presents the groundwater elevations measured during the first quarter 2019 monitoring event at AOC-003. Figure 20 shows the groundwater elevations from this event. Groundwater elevation contours are not shown due to the limited number of shallow groundwater monitoring wells. The first quarter 2019 groundwater elevation data were anomalous with higher measured water levels in the downgradient CPOC wells, which is the opposite of what is usually observed at this AOC. Historic groundwater levels suggest that groundwater generally flows north-northwest toward Lake Washington.

3.6.4 Groundwater monitoring results

Groundwater at this area is monitored following the schedule presented in Tables A-1 and A-2 in Appendix A. Results for primary 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. The data indicate that conditions are generally conducive to biodegradation of the COCs for this AOC.

3.6.4.2 COC results for source and downgradient plume areas

Table 15 lists first quarter 2019 analytical results for the AOC-003 COCs. Trend plots have not been prepared for the AOC-003 source area well, since groundwater analyses for source area well GW249S have been generally below reporting limits. During the first quarter sampling event, VC was detected above the CUL in the groundwater samples from the source area well, GW249S, and the downgradient plume area well, GW188S. Concentrations of all other COCs were below the CUL.

COC concentrations in the groundwater from source and downgradient plume area wells are below the applicable MTCA/MCL criteria for potable water, except for the concentrations of VC in both source and downgradient plume wells.

3.6.4.3 COC results for conditional point of compliance area

Groundwater collected from the two CPOC monitoring wells did not have detections of PCE, TCE or *cis*-1,2-DCE above their respective CULs. VC was detected at concentrations above the CUL in the groundwater samples collected from both CPOC wells, as shown in Table 15.

While VC concentrations exceed the CUL in the groundwater from CPOC wells, as detailed above, COC concentrations are below the applicable MCLs/MTCA criteria for potable water supply in both CPOC wells, except for VC.

3.7 AOC-004

This section describes corrective action activities conducted at AOC-004. The cleanup remedy for this AOC is bioremediation and MA. Figure 21 shows the layout of the groundwater monitoring and bioremediation injection wells for this AOC.

3.7.1 Cleanup action activities

No installation/construction activities were conducted for this cleanup action area during the first quarter.

3.7.2 Compliance monitoring plan deviations

No deviations from the Compliance Monitoring Plan occurred for this area during the first quarter.

3.7.3 Water levels

Table 16 presents the groundwater elevations measured during the first quarter 2019 monitoring event at AOC-004. Figure 21 shows the groundwater elevations. Because there are only two groundwater elevation monitoring locations for AOC-004, groundwater contours are not shown on Figure 21.

3.7.4 Groundwater monitoring results

Groundwater at this area is monitored following the schedule presented in Tables A-1 and A-2 in Appendix A. Results for primary geochemical indicators are presented in Table 17; results for COCs are presented in Table 18.

3.7.4.1 Monitored attenuation/geochemical indicators

The geochemical indicator results are presented in Table 17. The primary geochemical indicators were generally uniform across the AOC. Geochemical indicators will continue to be monitored to assess attenuation of AOC 004 COCs.

3.7.4.2 COC results for the source area

Table 18 lists first quarter 2019 analytical results for lead, the sole AOC-004 COC. Lead was detected at a concentration of 0.00154 mg/L, above the CUL of 0.001 mg/L, in the groundwater sample from the source area well. Trend plots have not been created for the AOC-004 source area well, since COCs have not been detected consistently at concentrations above the CUL since monitoring began in 2015. The lead concentration is also below the applicable MCLs/MTCA criteria for potable water supply in the source area well.

3.7.4.3 COC results for the conditional point of compliance area

As shown in Table 18, lead was detected below the CUL at a concentration of 0.000815 mg/L in the groundwater from CPOC well GW174S. Lead concentrations are also below the applicable MCLs/MTCA criteria for potable water supply.

3.8 AOC-060

This section describes corrective action activities conducted at AOC-060 during the first quarter of 2019. The cleanup remedy for this AOC is bioremediation and MA. Figure 22 shows the locations of the groundwater monitoring and bioremediation injection wells at AOC-060, as well as the groundwater elevations measured during the first quarter sampling event.

3.8.1 Cleanup action activities

No installation/construction activities were conducted for this cleanup action area during the first quarter.

3.8.2 Compliance monitoring plan deviations

No deviations from the Compliance Monitoring Plan for this area occurred during this quarter.

3.8.3 Water levels

Table 19 presents the groundwater elevations measured during the first quarter 2019 groundwater monitoring event at AOC-060. Figure 22 shows the groundwater elevations measured during this event. The groundwater flow direction is west toward the Cedar River, and the hydraulic gradient was 0.001.

3.8.4 Groundwater monitoring results

Groundwater at this area is monitored following the schedule presented in Tables A-1 and A-2 in Appendix A. Results for primary geochemical indicators are presented in Table 20; results for COCs are presented in Table 21.

3.8.4.1 Monitored attenuation/geochemical indicators

The geochemical indicator results are presented in Table 20. The primary geochemical indicators show general uniform conditions in source and downgradient plume areas, except for the higher TOC concentrations detected in the groundwater from downgradient plume area wells GW012S and GW147S, reflecting the recent substrate injections. These data indicate that conditions are generally conducive to biodegradation of the COCs for this AOC.

3.8.4.2 COC results for source and downgradient plume areas

Table 21 presents first quarter 2019 analytical results for the AOC-060 groundwater COCs. Figures 23 and 24 present trend plots for the COCs in selected source area and downgradient plume area wells. Trend charts are not shown for groundwater monitoring wells for which COCs are not commonly detected.

As shown in Table 21 and Figures 23 and 24, concentrations of all COCs exceeded the CUL in the groundwater collected from source area well GW009S as well as all of the downgradient plume area wells, except for VC, which was detected at concentrations below the CUL in the groundwater from downgradient plume wells GW014S and GW147S. The concentrations of COCs in the groundwater from source area well GW009S and downgradient plume wells GW012S and GW014S are generally stable (Figures 23 and 24), while the concentrations of COCs in the groundwater from downgradient plume well GW147S appear to vary seasonally (Figure 24).

While select COCs exceed the CULs in source and downgradient plume area wells, as described above, with the exception of VC in the groundwater from GW012S, concentrations of COCs in the groundwater in the source area and downgradient plume area are below the applicable MCL/MTCA criteria for potable water supply.

3.8.4.3 COC results for the conditional point of compliance area

As shown in Table 21, *cis*-1,2-DCE was detected at a concentration above the CUL in the groundwater collected from CPOC wells GW253I and GW254S, and at concentrations below the CUL in the groundwater CPOC wells GW149S and GW150S. TCE was detected in the groundwater from CPOC well GW253I at a concentration above the CUL; TCE concentrations in the remaining CPOC wells were below the CUL. VC was detected in the groundwater from all of the CPOC wells except GW252S, but the concentrations were below the CUL. Figures 25 and 26 present trends for the COCs in the CPOC wells. As shown in Figures 25 and 26, the COC concentrations in the groundwater from the CPOC wells are generally stable, with *cis*-1,2-DCE and TCE the most consistently detected at concentrations above the CUL since February 2016.

While *cis*-1,2-DCE and TCE concentrations exceed the CUL in the groundwater from select CPOC wells, as detailed above, COC concentrations are below the applicable MCLs/MTCA criteria for potable water supply in all CPOC wells.

3.9 AOC-090

This section describes corrective action activities conducted at AOC-090 during the first quarter of 2019. The cleanup remedy for this AOC is bioremediation and MA. Figure 27 shows the locations of the groundwater monitoring wells and the bioremediation injection system at AOC-090, as well as the groundwater elevations measured during the first quarter.

3.9.1 Cleanup action activities

No installation/construction activities were conducted for this cleanup action area during the first quarter.

3.9.2 Compliance monitoring plan deviations

The laboratory inadvertently performed a silica gel cleanup during the TPH as diesel (TPH-D) analysis for the samples collected during the first quarter. During the second quarter, samples analyzed for TPH-D will be analyzed with and without the silica gel cleanup procedure to compare results for this area of degraded hydrocarbons.

3.9.3 Water levels

Table 22 presents the groundwater elevations measured during the first quarter 2019 groundwater monitoring event at AOC-090. Figure 27 shows the groundwater elevations measured during this event. Based on these measurements, groundwater flow directions in the vicinity of AOC-090 could not be accurately determined. The cause of variations in water levels is not known.

3.9.4 Groundwater monitoring results

Groundwater at this area is monitored following the schedule presented in Tables A-1 and A-2 in Appendix A. Results for primary geochemical indicators are presented in Table 23; results for COCs are presented in Table 24.

3.9.4.1 Monitored attenuation/geochemical indicators

The geochemical indicator results are presented in Table 23. The pH was near neutral in all CPOC wells except for GW189S, which was slightly below neutral at 5.15 SU. The other geochemical indicators show that conditions are generally uniform in AOC-090 groundwater and in general, primary geochemical indicators show that conditions support biological degradation of chlorinated VOCs.

3.9.4.2 COC Results for source and downgradient plume areas

Table 24 presents first quarter 2019 analytical results for the AOC-090 groundwater COCs. As shown in Table 24, only TCE, VC, TPH-G, and TPH-D were detected at concentrations above their respective CULs in the groundwater sample collected from GW189S. VC was also detected in the groundwater collected from downgradient plume area well GW176S at a concentration of 0.294 μ g/L, above the CUL. No other COCs were detected at concentrations above the CUL in the groundwater samples collected from downgradient plume area wells.

Figure 28 presents trends for selected COCs in source area well GW189S. As shown in Figure 28; concentrations of *cis*-1,2-DCE, TCE, and VC decreased during the first quarter sampling event. COC

concentrations in the groundwater sample from this source area well have been declining over the past several years and concentrations during the first quarter are within the ranges observed historically.

While select COCs exceed the CULs in groundwater from source and downgradient area wells, concentrations of COCs are below the applicable MCLs/MTCA criteria for potable water supply, with the exception of VC.

3.9.4.3 COC Results for conditional point of compliance area

VC was detected at concentrations above the CUL in the shallow zone CPOC wells GW178S and GW208S, and the intermediate zone CPOC well GW179I. No other COCs in were detected above the CULs in groundwater from either the shallow or intermediate zone CPOC wells. This is the tenth consecutive sampling event that neither 1,1,2-trichloroethane, acetone, benzene, carbon tetrachloride, chloroform, *cis*-1,2-DCE, methylene chloride, toluene, trans-1,2-dichloroethene, nor any of the TPH fractions were detected above CULs in any of the CPOC area wells.

As described above, VC concentrations exceed the CUL in the groundwater from select CPOC wells. Select concentrations also exceed the applicable MCLs/MTCA criteria for potable water supply. The concentrations of remaining COCs in the groundwater from CPOC wells are below applicable MCLs/MTCA criteria for potable water supply.

3.10 Building 4-70 area

This section describes corrective action activities conducted at this area during first quarter 2019. The cleanup remedy for the Building 4-70 Area is bioremediation and MA. Figure 29 shows the locations of the groundwater monitoring and bioremediation injection wells for this area.

3.10.1 Cleanup action activities

No installation/construction activities were conducted for this cleanup action area during the first quarter.

3.10.2 Compliance monitoring plan deviations

No deviations from the Compliance Monitoring Plan for this area occurred during this quarter.

3.10.3 Water levels

Table 25 presents the groundwater elevations measured during the first quarter 2019 monitoring event at Building 4-70. Figure 29 shows the groundwater elevations in the two monitoring wells for this area. These groundwater elevation data (only two wells) do not support development of elevation contours. However, the flow direction is expected to be similar to the flow observed at the Building 4 78/79 Area, which is generally to the west, toward the Cedar River Waterway.

3.10.4 Groundwater monitoring results

Groundwater in this area is monitored following the schedules presented in Tables A-1 and A-2 in Appendix A. Results for primary geochemical indicators are presented in Table 26; results for the Building 70 Area COCs are presented in Table 27.

3.10.4.1 Monitored attenuation/geochemical indicators

The geochemical indicator results are presented in Table 26. The primary geochemical indicators show that reducing conditions were present and that conditions were conducive to biological degradation of

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the chlorinated VOCs. Geochemical indicators will continue to be monitored following the schedule presented in Table A-2 in Appendix A.

3.10.4.2 COC Results for conditional point of compliance area

Both of the groundwater monitoring wells for the Building 4-70 Area are located along the CPOC (Figure 29). Groundwater monitoring results for the CPOC area wells are shown in Table 27. VC was detected in the groundwater from monitoring well GW260S at a concentration of 0.21 μ g/L, just above the CUL of 0.2 μ g/L. No other COCs were detected in the groundwater at concentrations above the CUL. Concentrations of all COCs were also below the applicable MCLs/MTCA criteria for potable water supply in all wells.

3.11 Lot 20/former building 10-71 parcel

The Lot 20/Former Building 10-71 Parcel is monitored semiannually in May and November; therefore, no monitoring was conducted for this area during the first quarter of 2019.

3.12 Apron A area

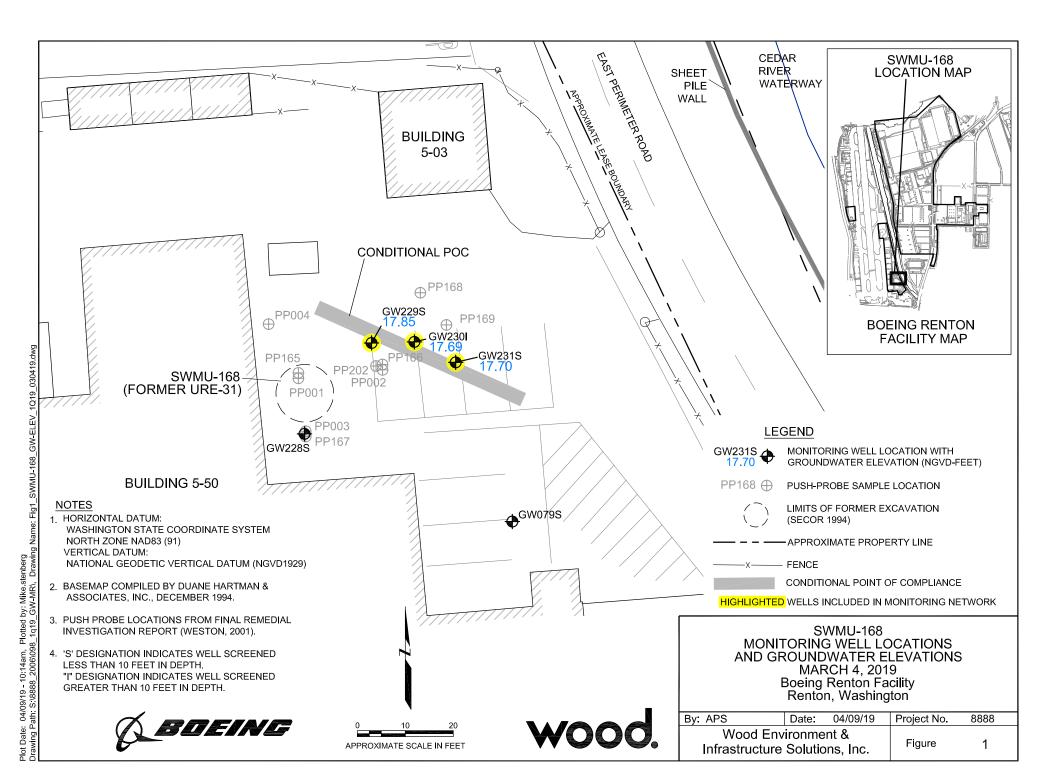
The Apron A Area is monitored semiannually in May and November; therefore, no monitoring was conducted for this area during the first quarter of 2019.

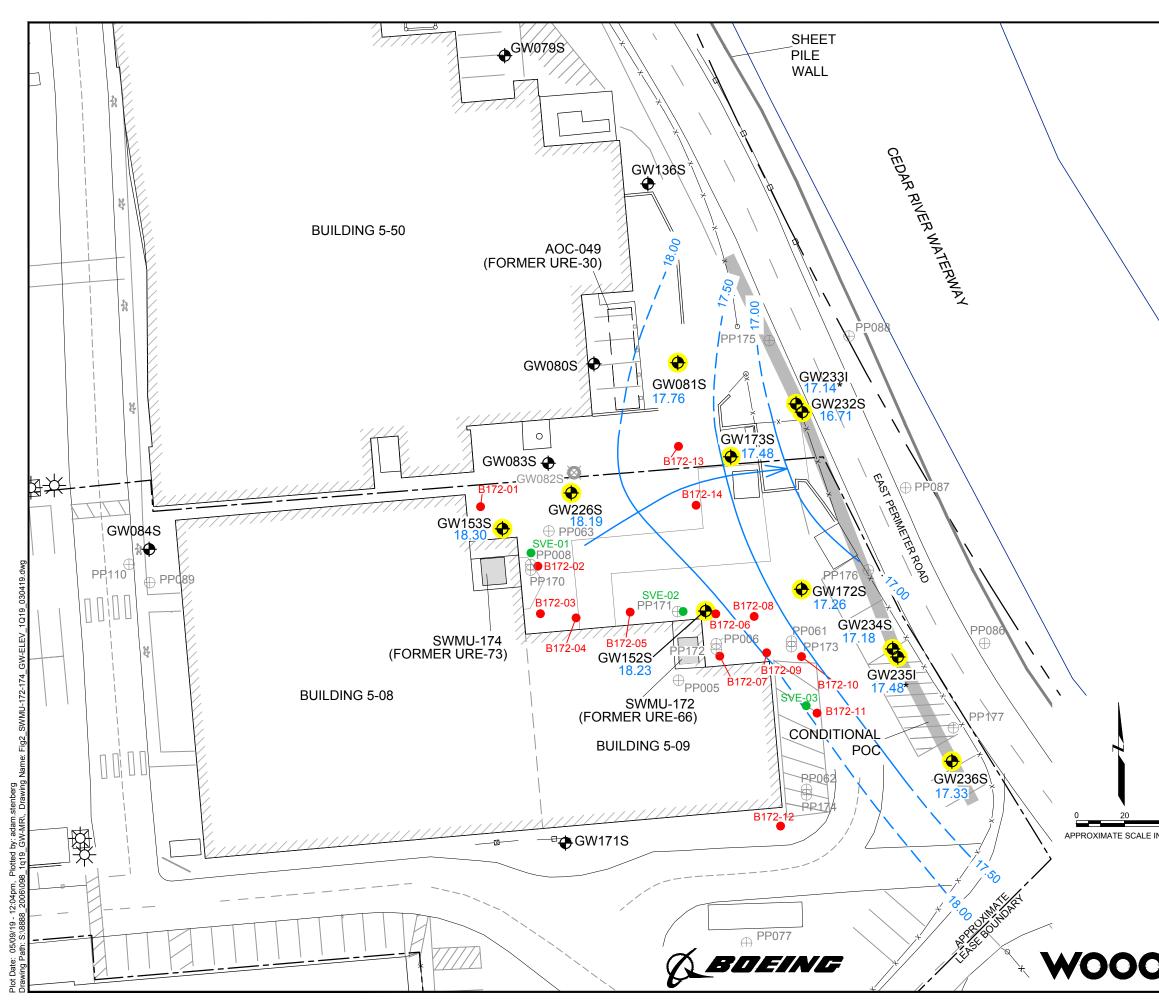
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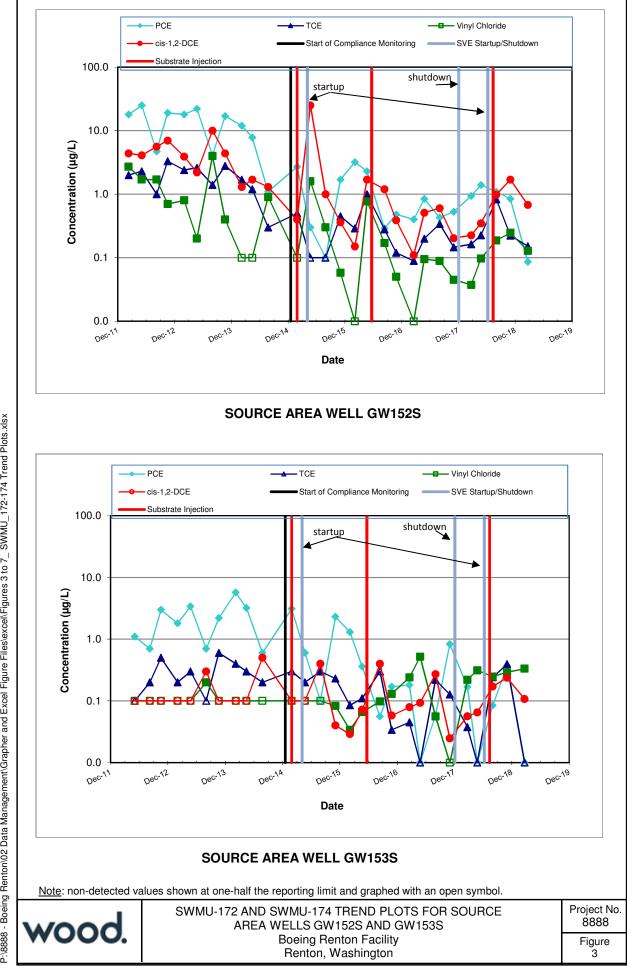


Figures

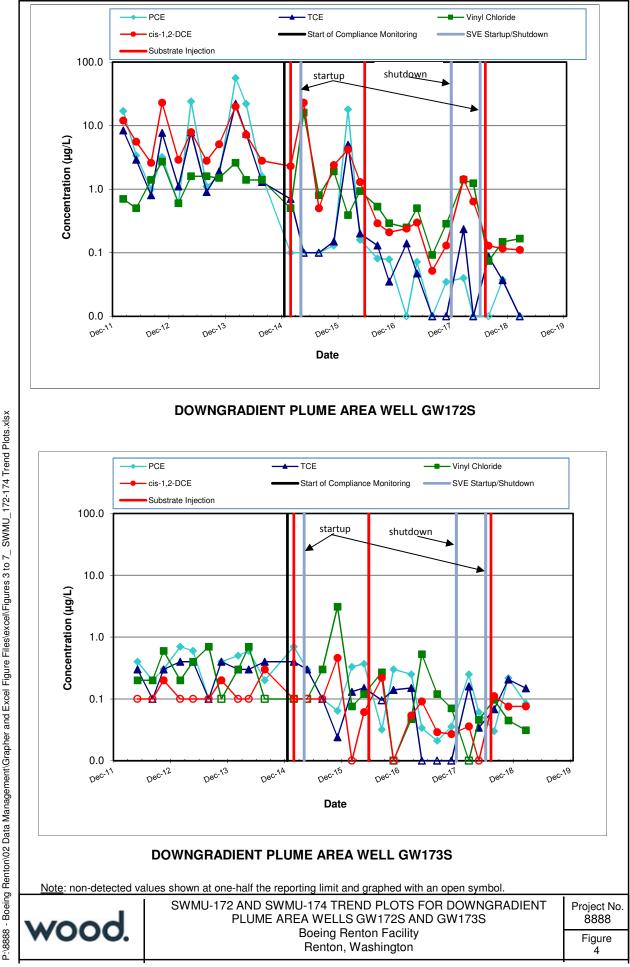




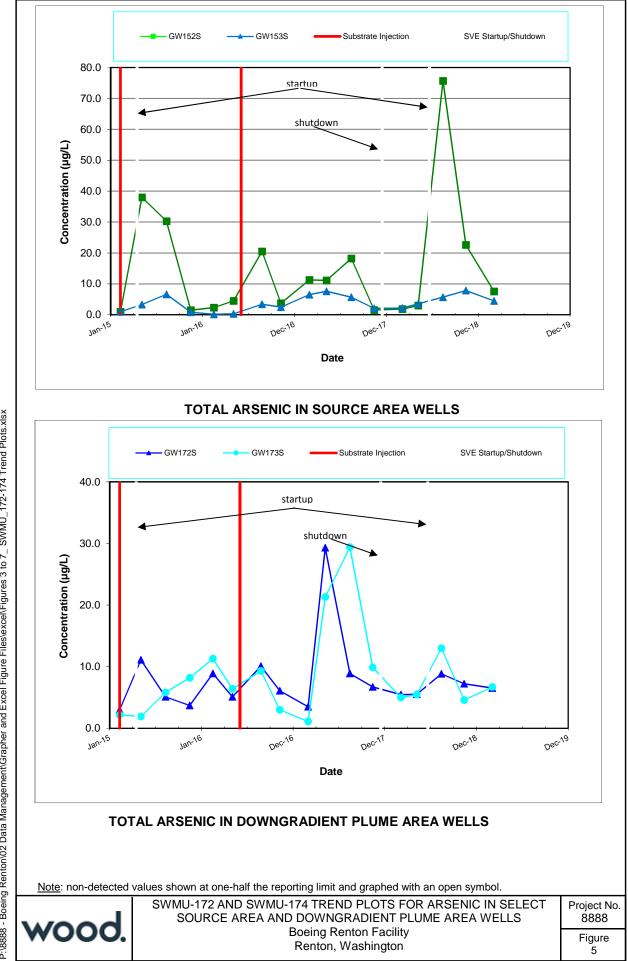
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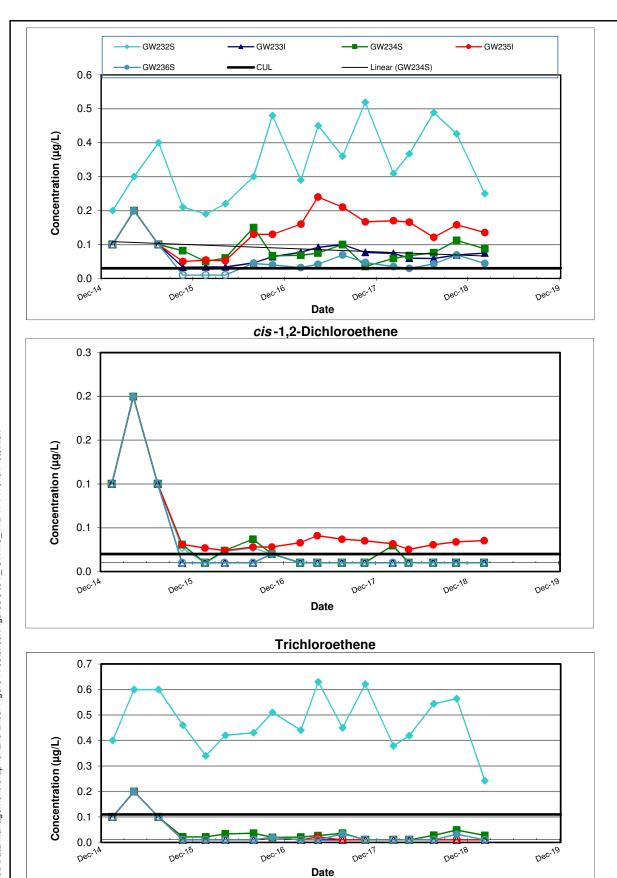
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Boeing Renton Facility

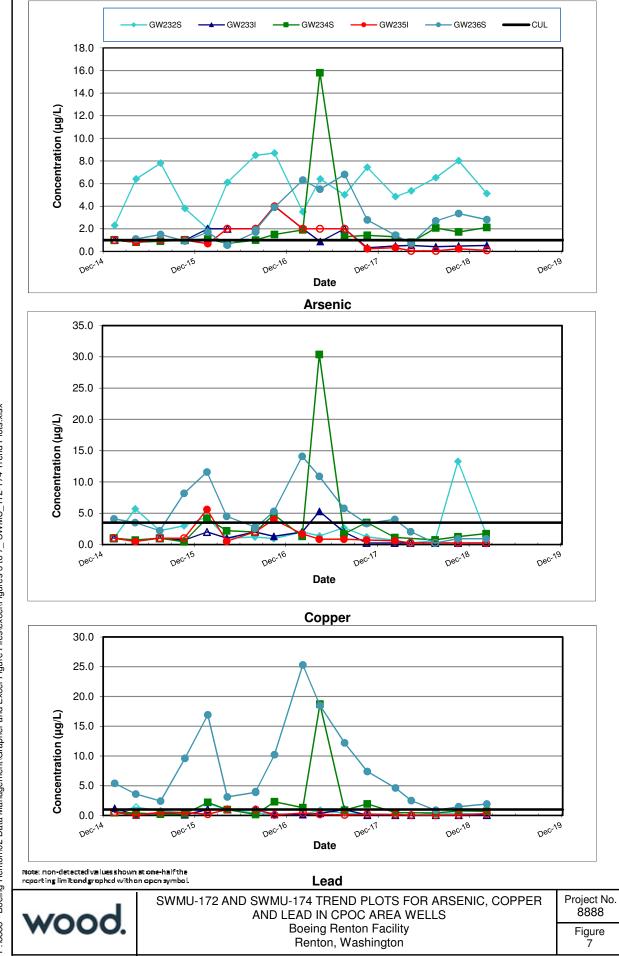
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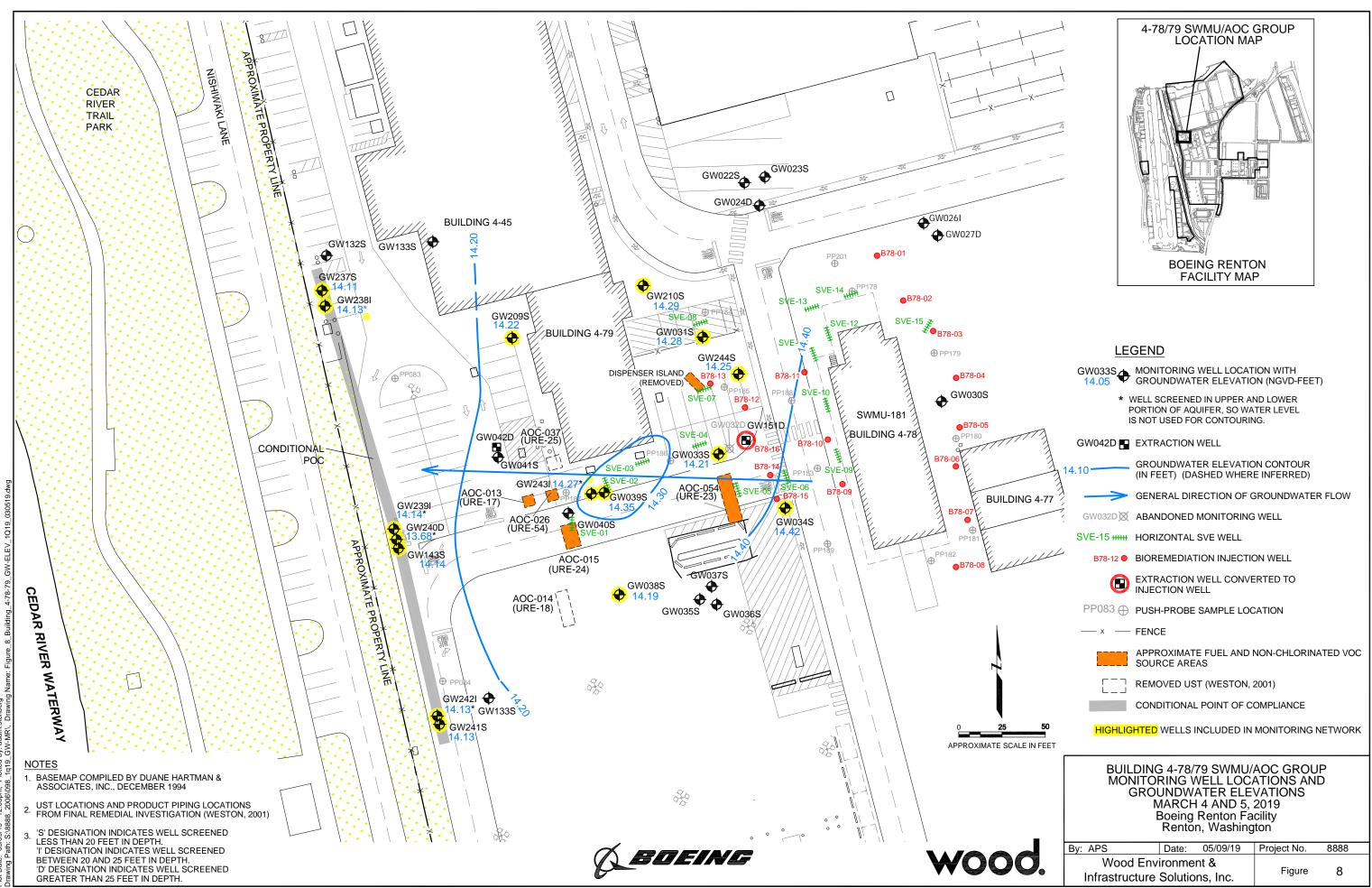
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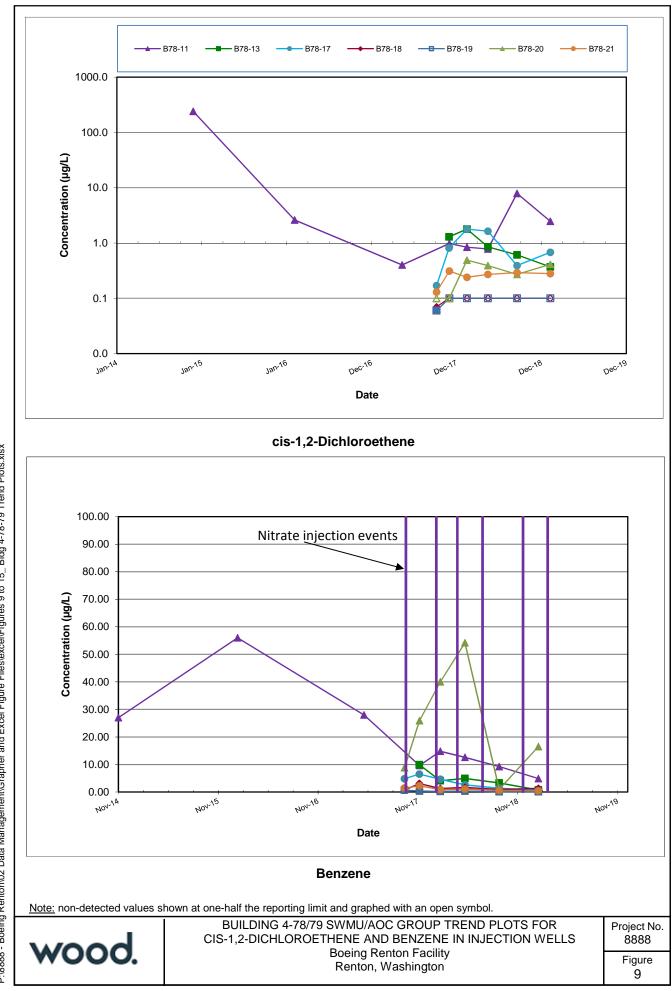
Project No. SWMU-172 AND SWMU-174 TREND PLOTS FOR CIS-1,2-DICHLROETHENE, TRICHLOROETHENE, AND VINYL CHLORIDE IN CPOC AREA WELLS 8888 Figure 6



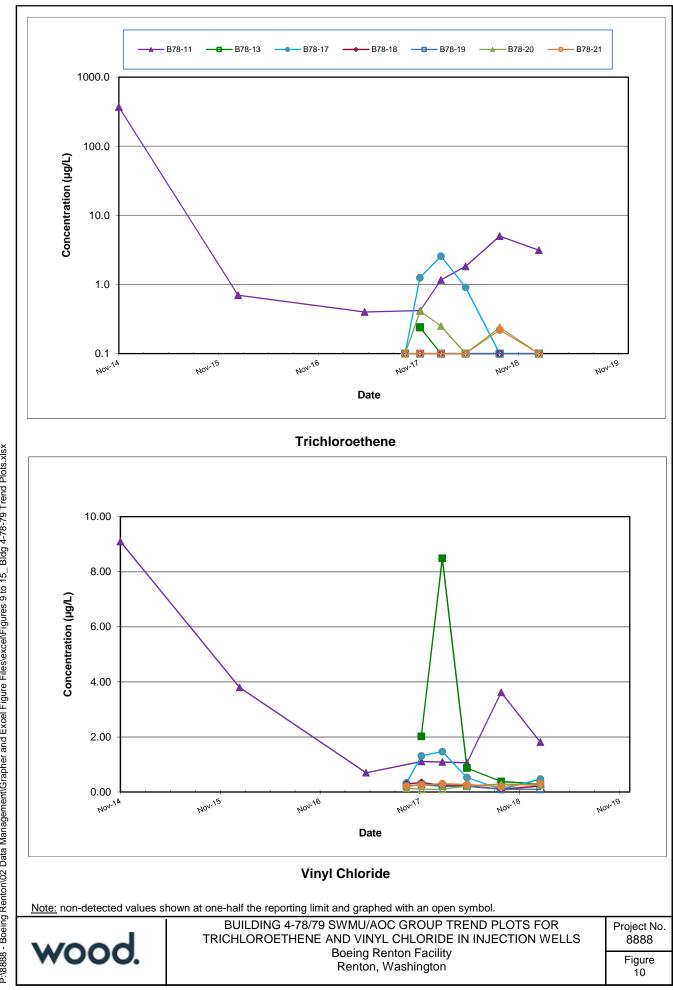
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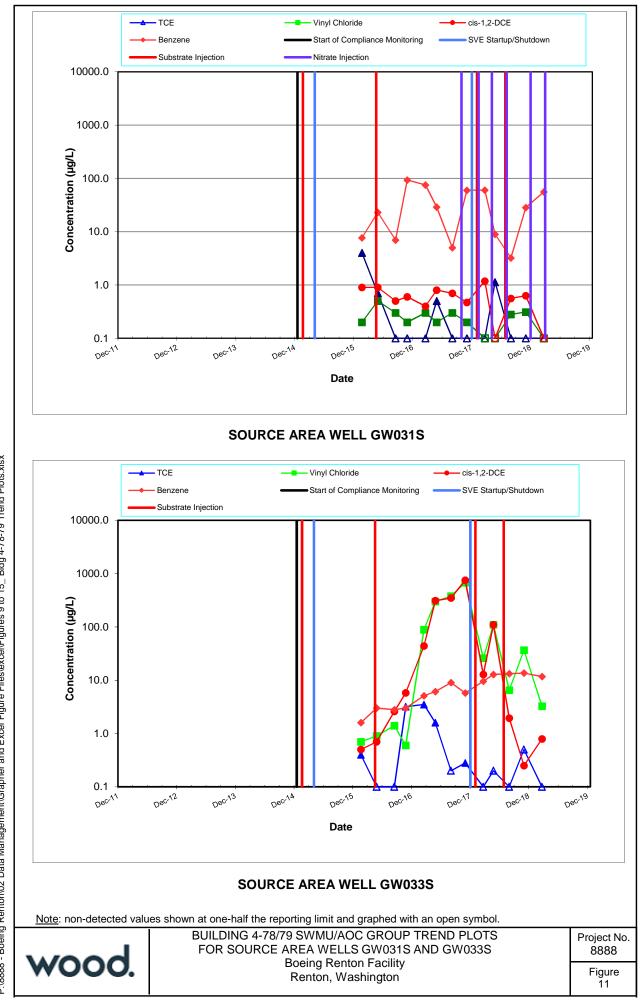
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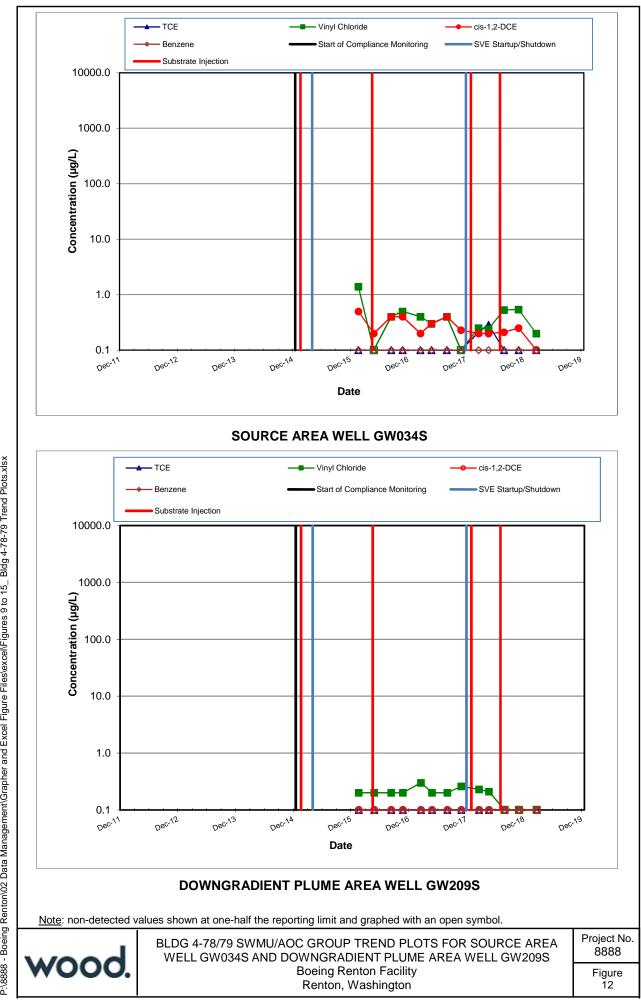
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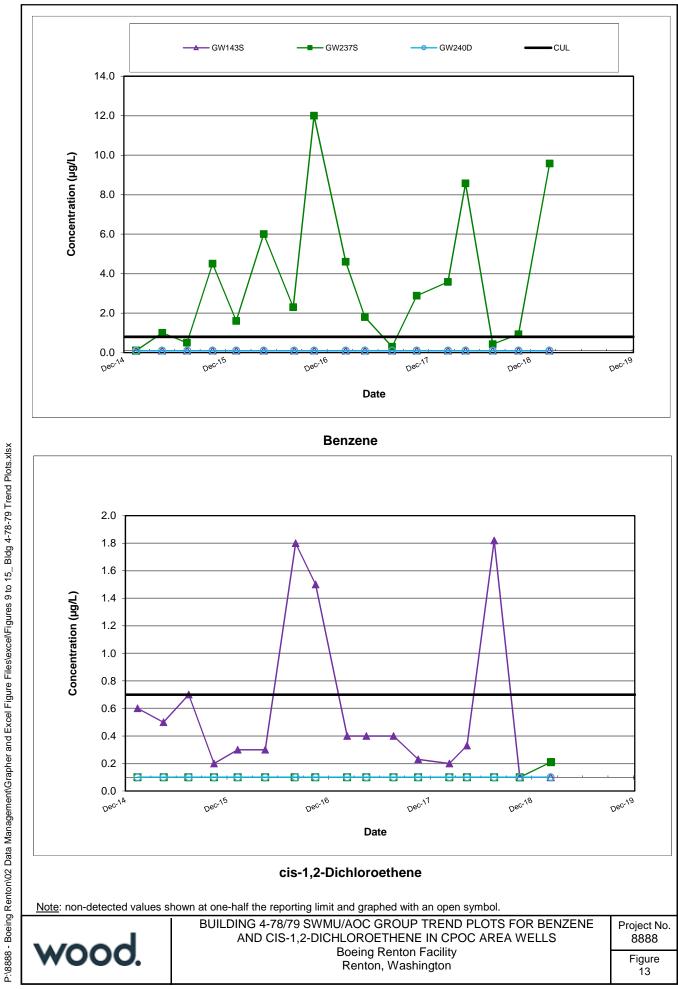
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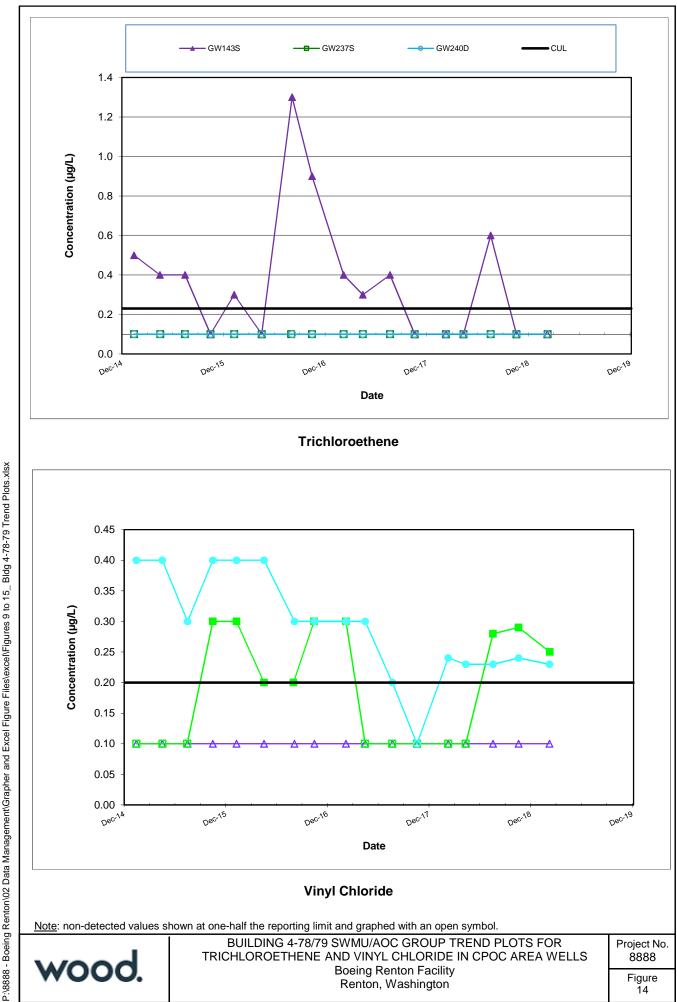


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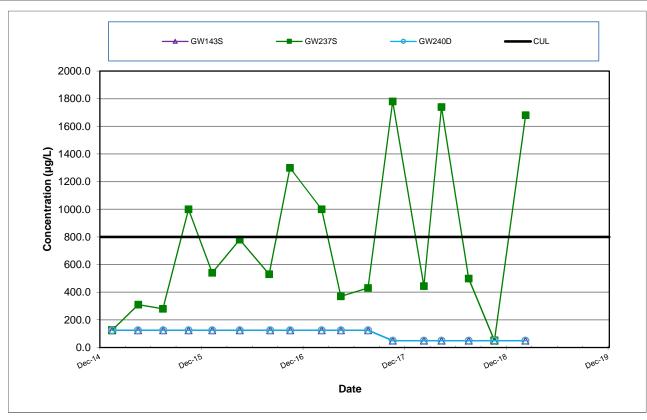


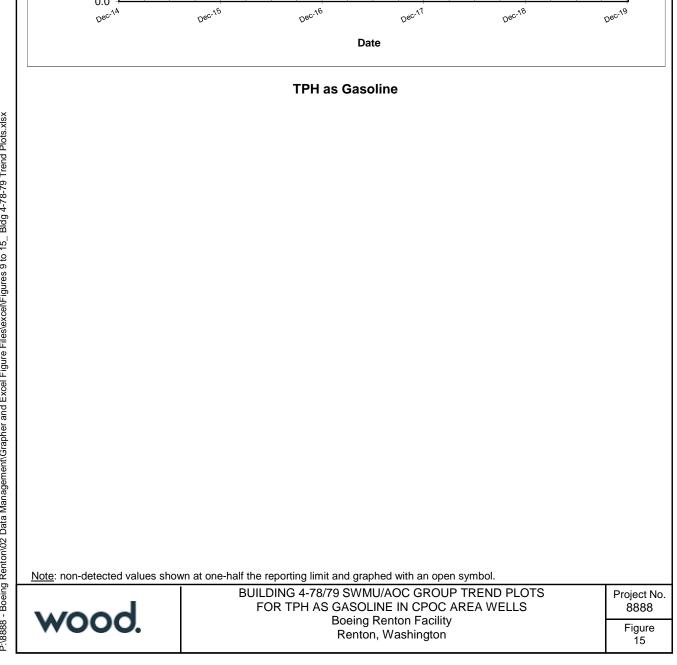
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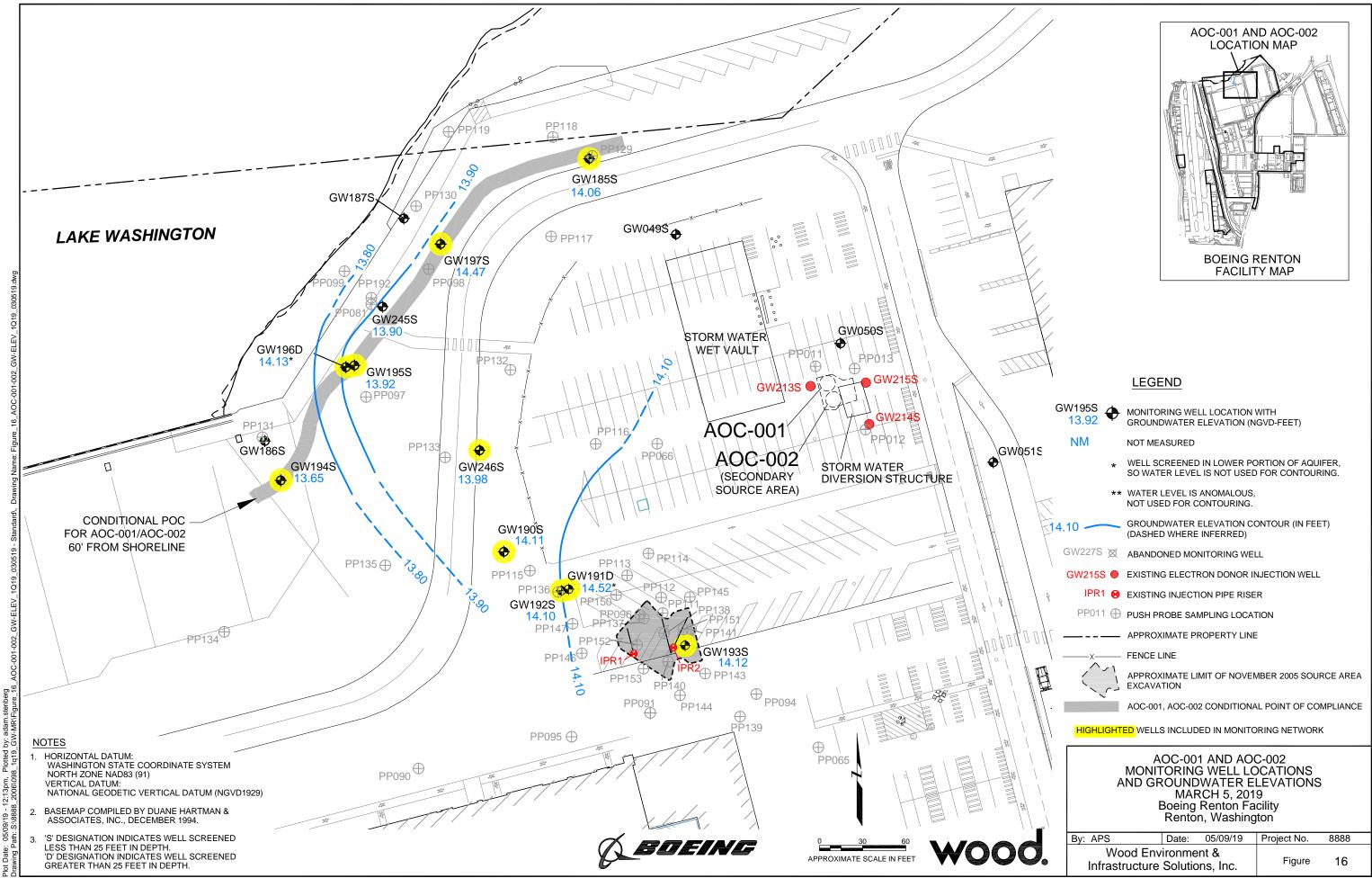


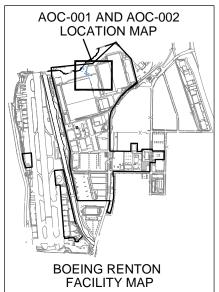
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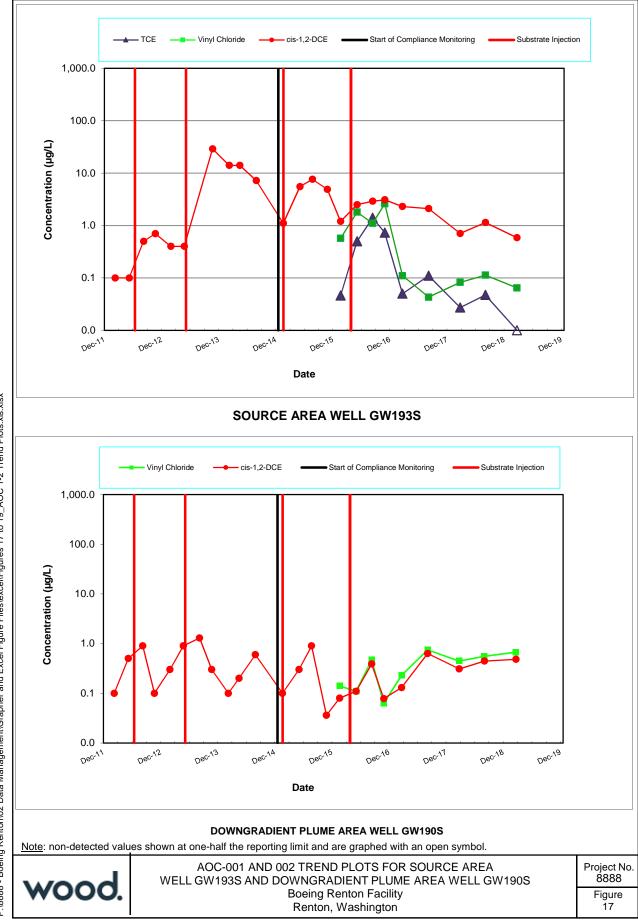




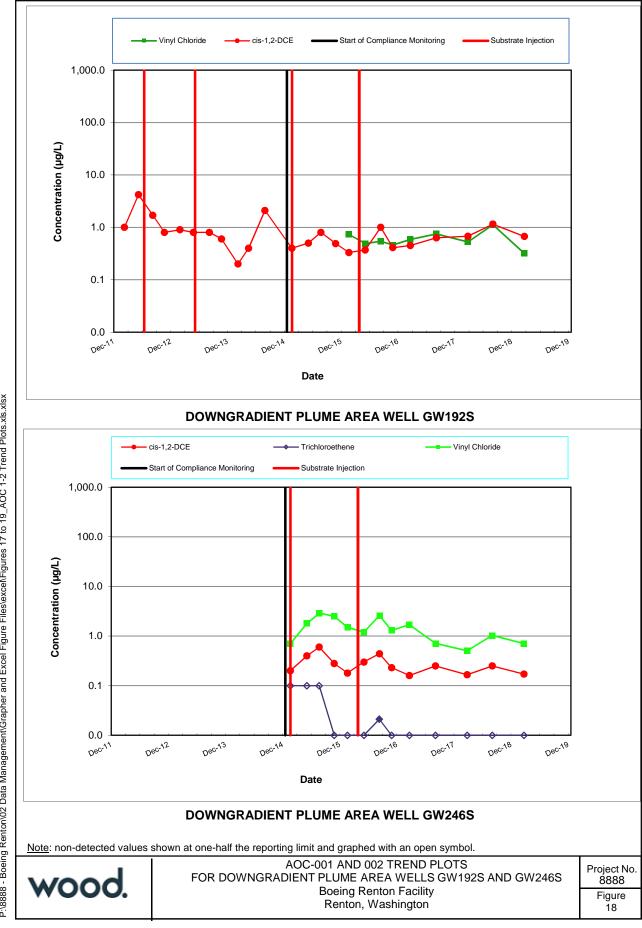
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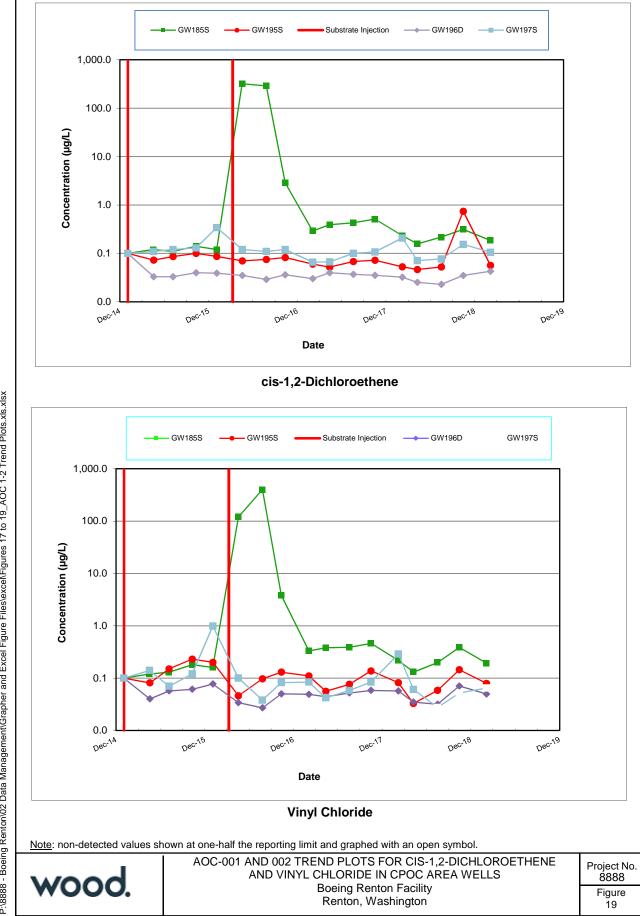




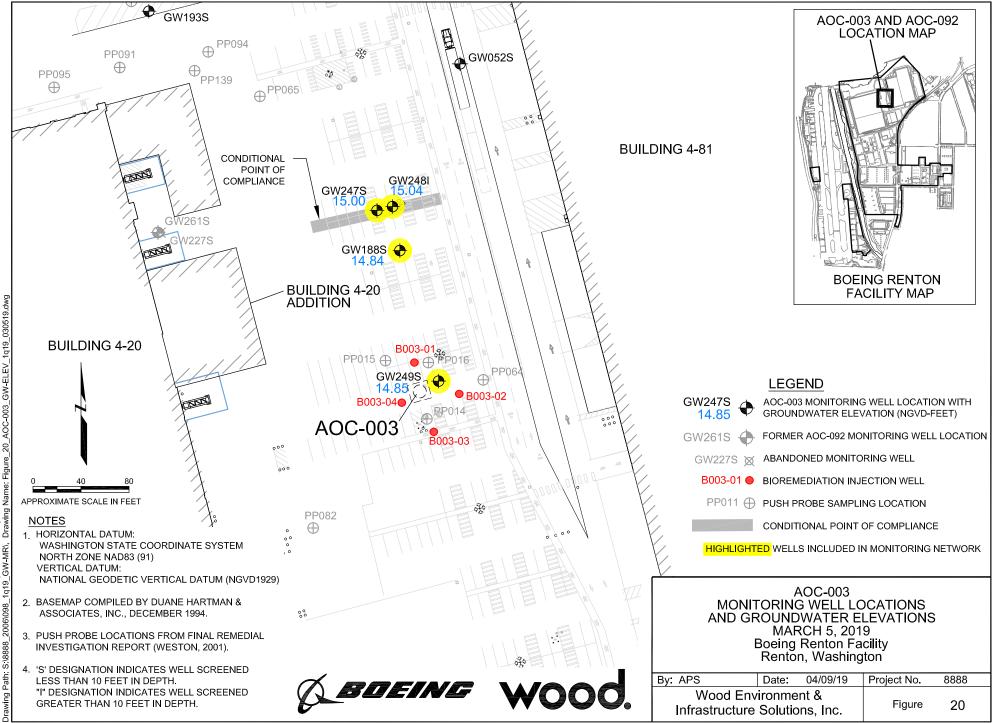
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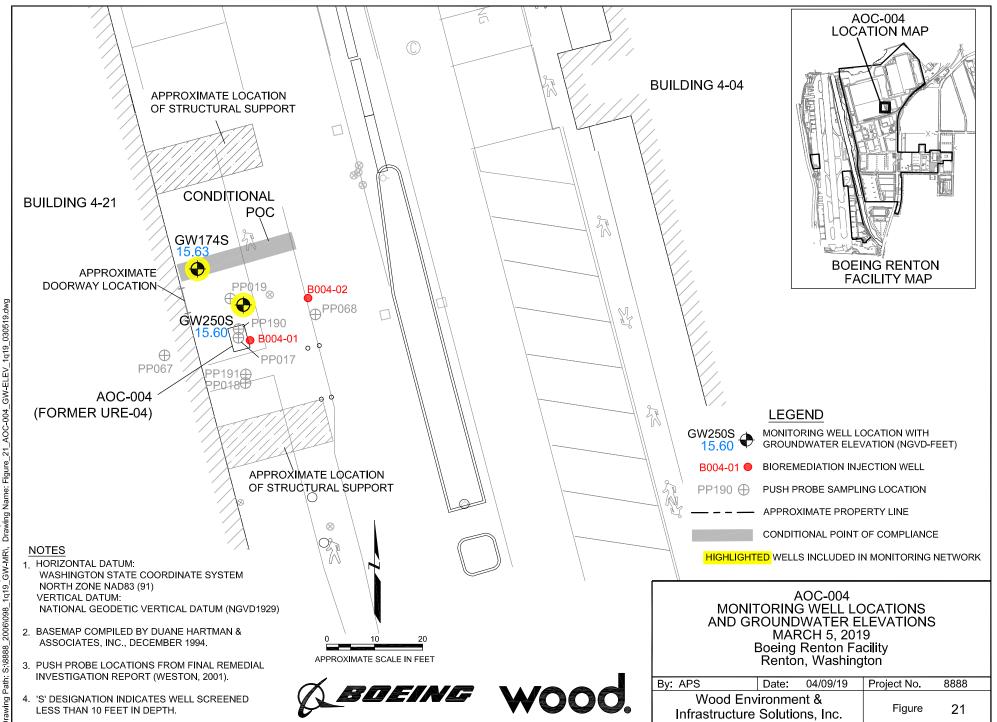


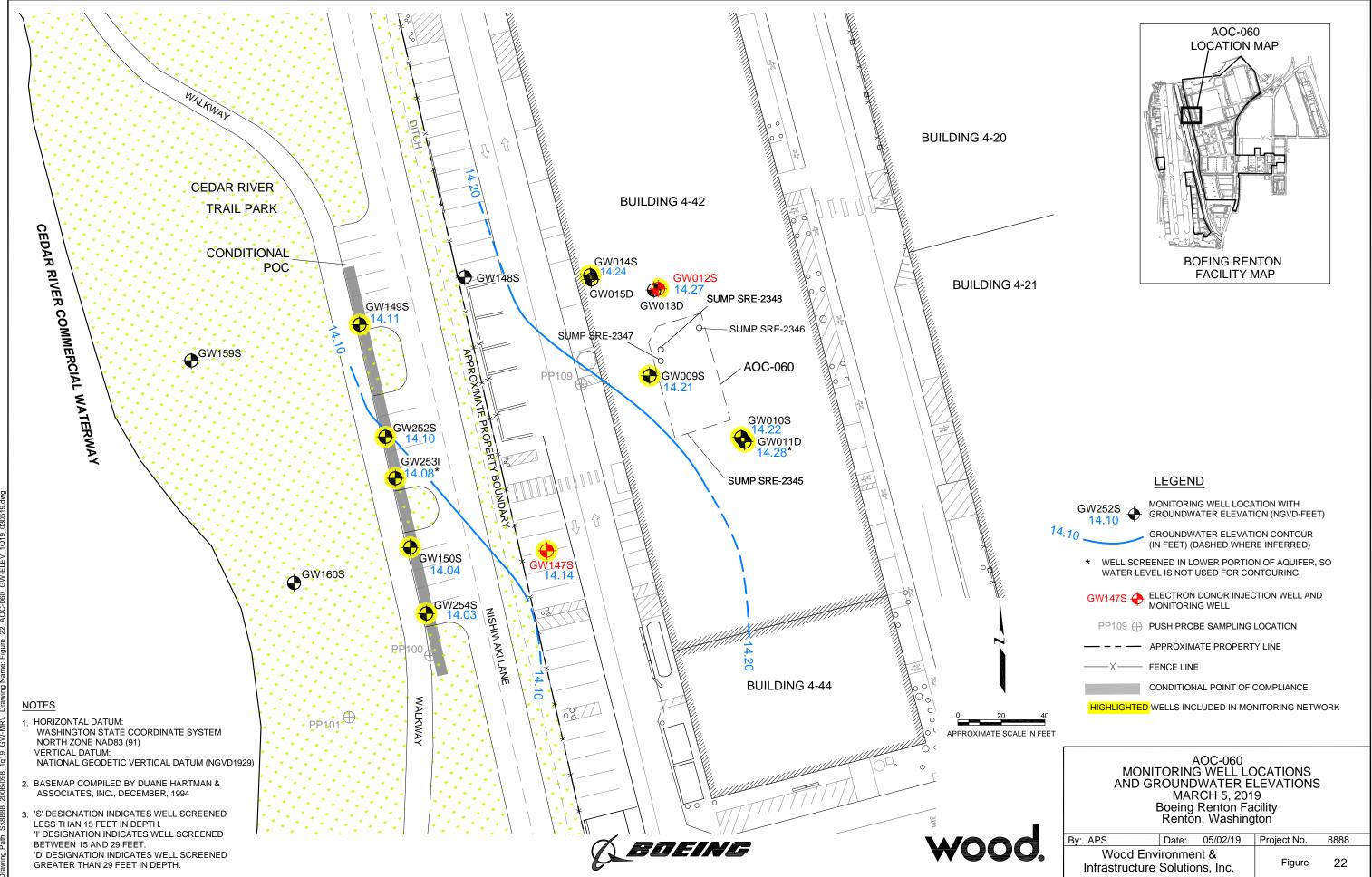
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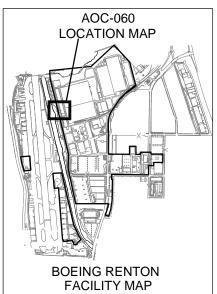
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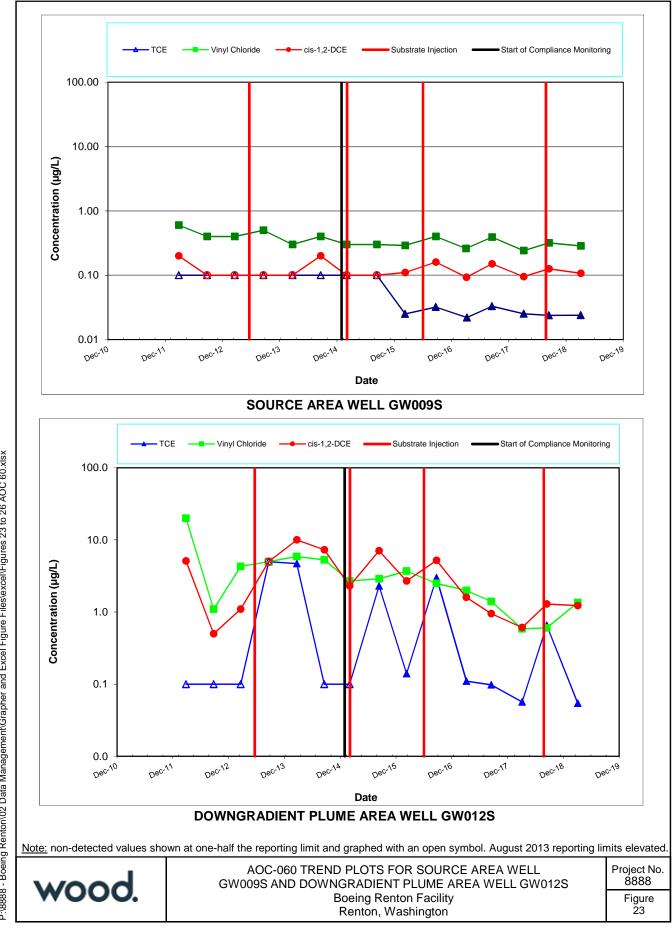


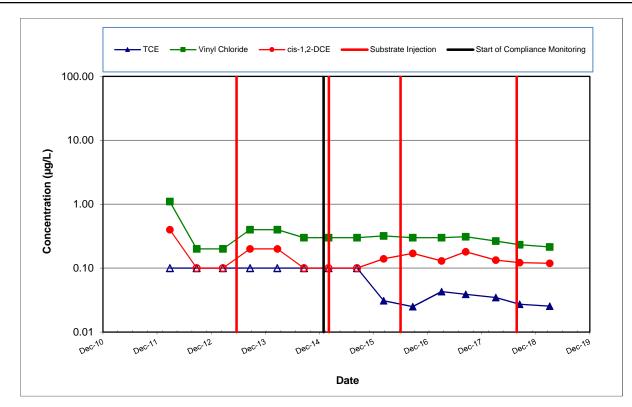


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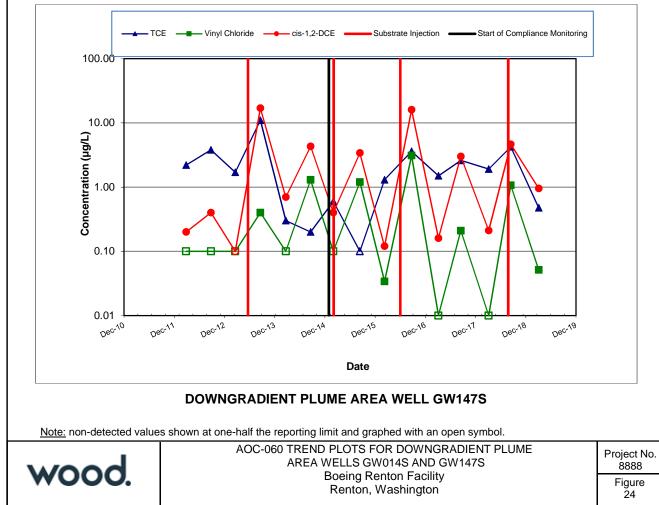


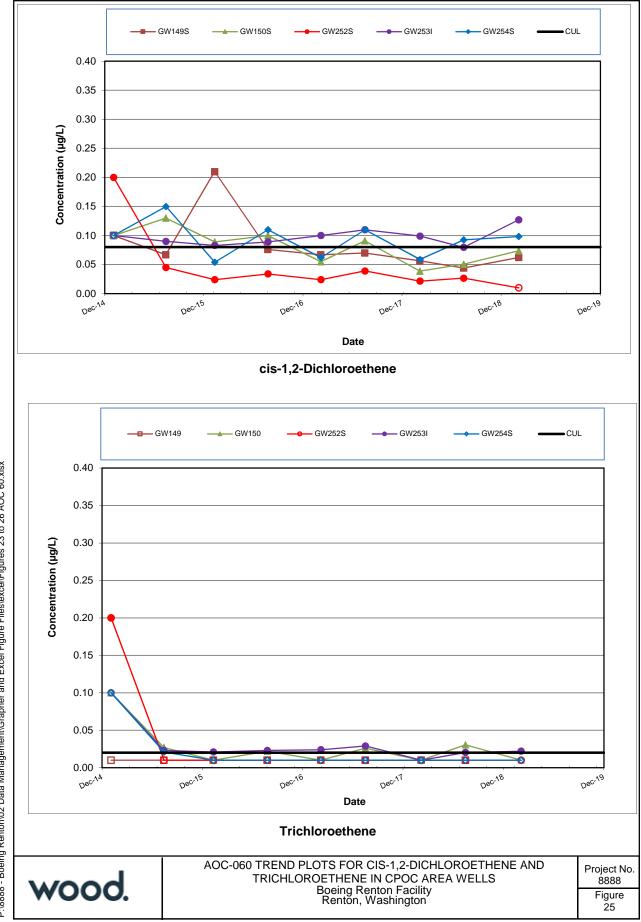


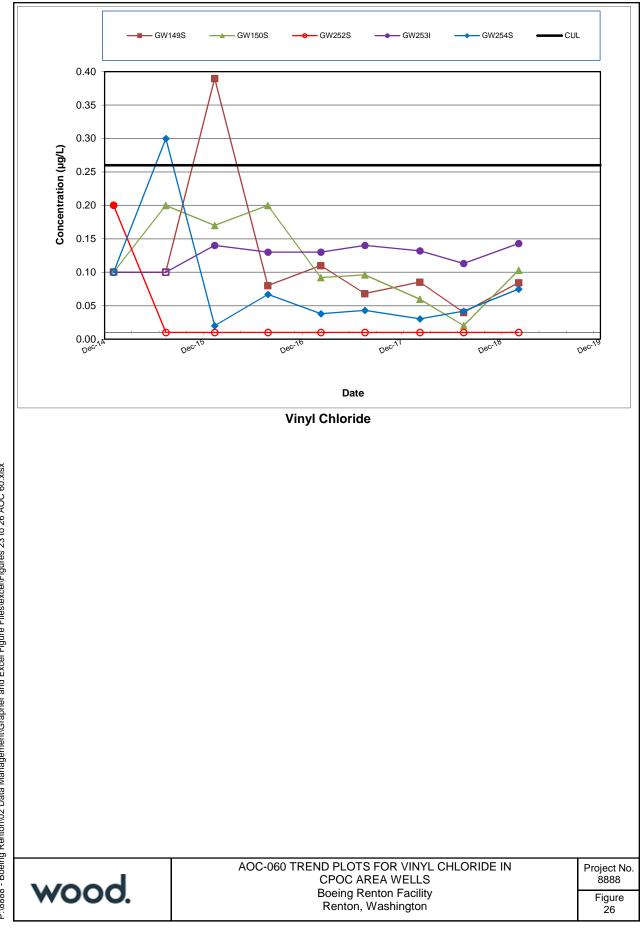


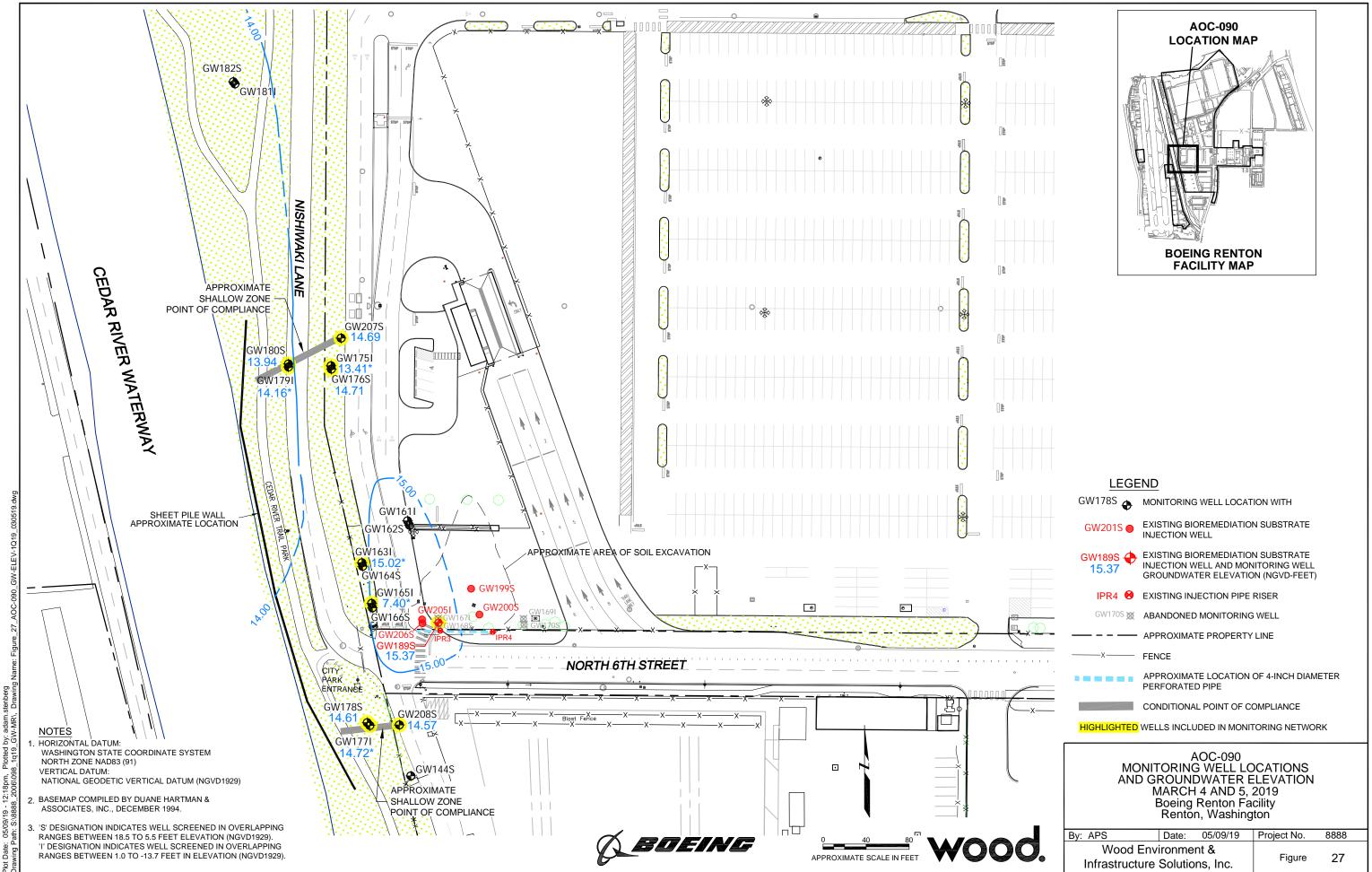


DOWNGRADIENT PLUME AREA WELL GW014S

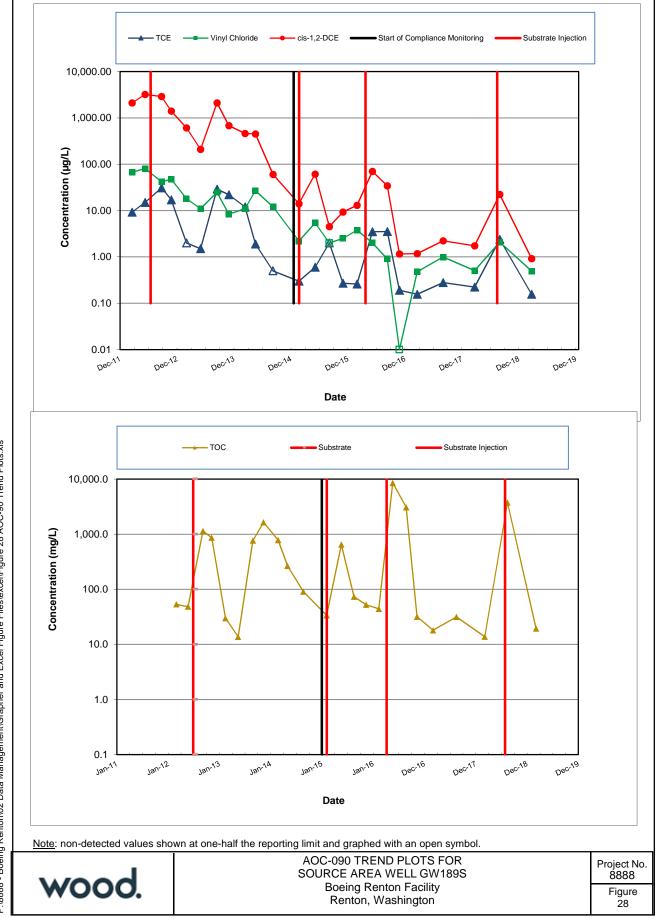




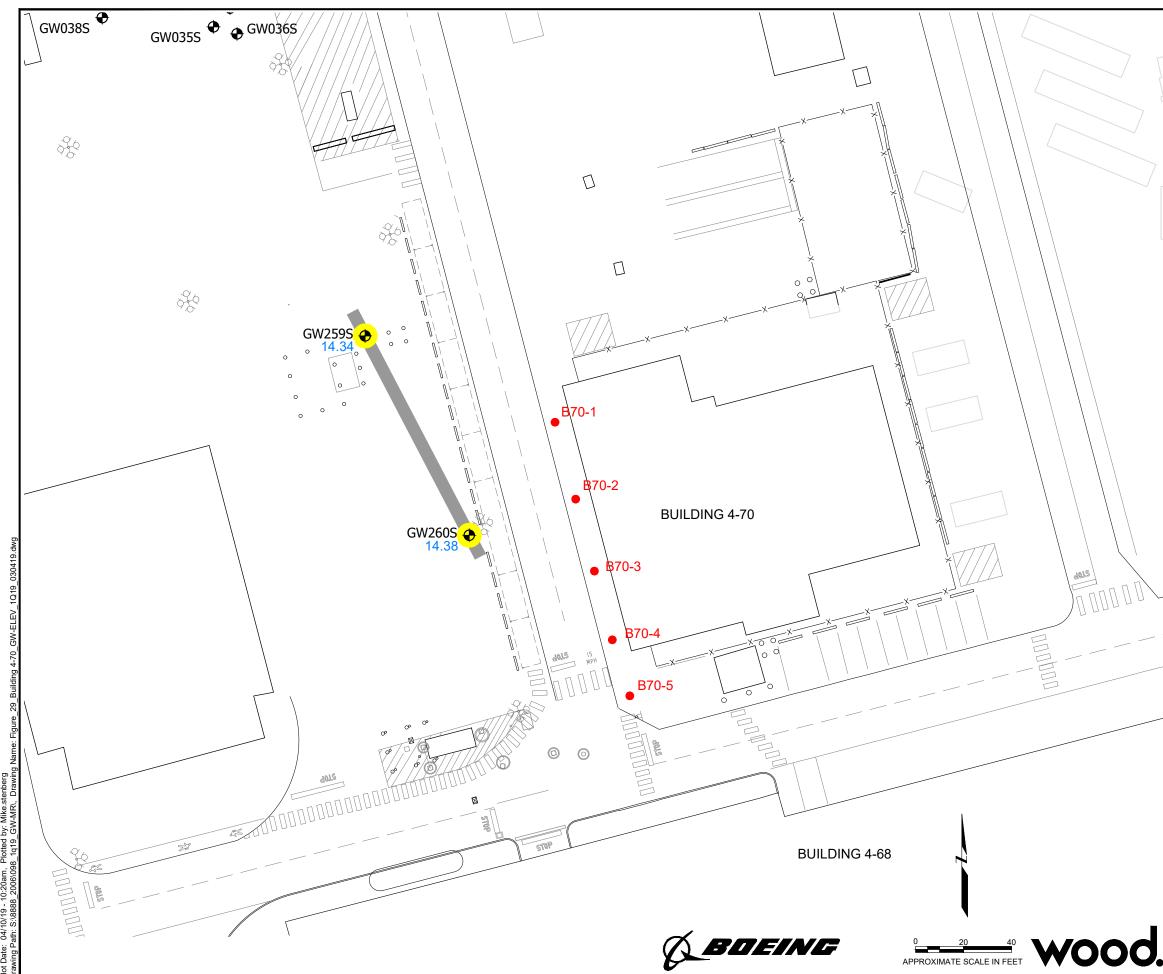




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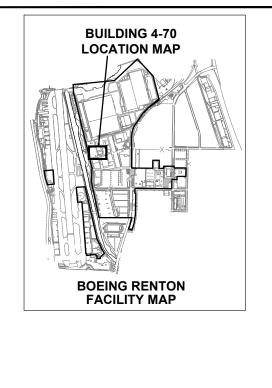


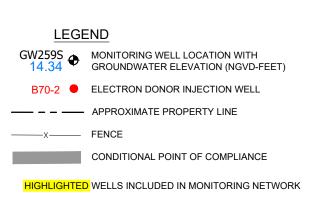
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NOTES

- 1. HORIZONTAL DATUM: WASHINGTON STATE COORDINATE SYSTEM NORTH ZONE NAD83 (91) VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM (NGVD1929)
- 2. BASEMAP COMPILED BY DUANE HARTMAN & ASSOCIATES, INC., DECEMBER 1994.
- 3. 'S' DESIGNATION INDICATES WELL SCREENED IN OVERLAPPING RANGES BETWEEN 18.5 TO 5.5 FEET ELEVATION (NGVD1929). 'I' DESIGNATION INDICATES WELL SCREENED IN OVERLAPPING RANGES BETWEEN 1.0 TO -13.7 FEET IN ELEVATION (NGVD1929).

BUILDING 4-70 MONITORING WELL LOCATIONS AND GROUNDWATER ELEVATIONS MARCH 4, 2019 Boeing Renton Facility Renton, Washington

By: APS	Date:	04/10/19	Project No.	8888	
Wood Env Infrastructure			Figure	29	



Tables

TABLE 1: SWMU-168 GROUNDWATER ELEVATION DATA March 4, 2019

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
GW229S	5 to 10	25.42	7.57	17.85
GW230I	4 to 14	24.86	7.17	17.69
GW231S	5 to 10	24.65	6.95	17.70

<u>Notes</u>

1. S = shallow well; 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 CONCENTRATIONS OF PRIMARY GEOCHEMICAL INDICATORS¹ March 4, 2019

Boeing Renton Facility, Renton, Washington

	Well ID ²					
	CPOC Area					
	GW229S	GW230I	GW231S			
Temperature (degrees C)	-1.92	9.12	6.49			
Specific Conductivity (µS/cm)	347	271	275			
Dissolved Oxygen (mg/L)	1.43	1.12	3.50			
pH (standard units)	6.26	6.44	6.54			
Oxidation/Reduction Potential (mV)	5.9	-6.2	-12.6			

<u>Notes</u>

1. Primary geochemical indicators are measured in the field.

2. S = shallow well; 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 CONCERN1March 4, 2019

Boeing Renton Facility, Renton, Washington

			Well ID ²					
		Cleanup						
		Level ³	GW229S	GW230I	GW231S			
Volatile Organic Com	pounds (µg/L)							
Vinyl Chloride		0.11	0.0211	0.0566	0.0327			

<u>Notes</u>

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

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

3 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 4: SWMU-172 AND SWMU-174 GROUP GROUNDWATER ELEVATION DATAMarch 4, 2019

Well ID ¹	Screen Interval Depth (feet bgs) ²	TOC Elevation (feet) ³	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet) ³
GW081S	5 to 20 ²	25.91	8.15	17.76
GW152S	5 to 20 ²	26.98	8.75	18.23
GW153S	5 to 20 ²	27.47	9.17	18.30
GW172S	8 to 18 ²	26.44	9.18	17.26
GW173S	8 to 18 ²	26.51	9.03	17.48
GW226S	5 to 20 ²	26.86	8.67	18.19
GW232S	4 to 14	24.45	7.74	16.71
GW233I	15 to 25	24.35	7.21	17.14
GW234S	3 to 13	24.95	7.77	17.18
GW235I	15 to 25	24.90	7.42	17.48
GW236S	5 to 15	24.36	7.03	17.33

Boeing Renton Facility, Renton, Washington

<u>Notes</u>

- 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 CONCENTRATIONS OF PRIMARY GEOCHEMICAL INDICATORS ¹ March 4, 2019 Boeing Renton Facility, Renton, Washington

		Well ID ²										
		Source Area			Downgradient Plume Area					CPOC Area		
		GW152S										i l
	GW152S	(field dup.)	GW153S	GW081S	GW172S	GW173S	GW226S	GW232S	GW233I	GW234S	GW235I	GW236S
Temperature (degrees C)	9.9	9.9	10.7	11.3	8.9	9.4	11.1	6.9	8.6	9.2	7.8	8.8
Specific Conductivity (µS/cm)	161.8	161.8	208.3	186.7	291.1	272.7	209.5	278.9	179.2	229.0	130.7	328.6
Dissolved Oxygen (mg/L)	0.34	0.34	0.73	0.59	1.99	0.37	0.54	2.94	1.04	1.51	1.78	1.99
pH (standard units)	6.25	6.25	6.49	6.56	6.47	6.65	6.58	6.00	6.56	6.31	6.39	6.61
Oxidation/Reduction Potential (mV)	46.7	46.7	30.9	64.3	-24.5	-7.1	17.5	-35.9	103.4	-12.7	-12.8	-44.4
Total Organic Carbon (mg/L)	2.81	4.55	7.03	4.12	3.87	4.54	9.09	6.12	4.20	1.40	0.56	2.17

<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.

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 March 4, 2019

Boeing Renton Facility, Renton, Washington

		Well ID ³											
			Source Area			Downgradier	it Plume Are	а			CPOC Area		
	Cleanup		GW152S (field										
	Level ⁴	GW152S	dup.)	GW153S	GW081S	GW172S	GW173S	GW226S	GW232S	GW233I	GW234S	GW235I	GW236S
Volatile Organic Compounds (µ	latile Organic Compounds (μg/L)												
cis -1,2-Dichloroethene	0.03	0.678	0.655	0.107	0.0355	0.111	0.0756	0.0387	0.250	0.075	0.0869	0.135	0.0443
Tetrachloroethene	0.02	0.086	0.0874	0.020 U	0.020 U	0.020 U	0.0842	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Trichloroethene	0.02	0.152	0.162	0.020 U	0.020 U	0.020 U	0.149	0.020 U	0.020 U	0.020 U	0.020 U	0.0353	0.020 U
Vinyl Chloride	0.11	0.128	0.142	0.333	0.020 U	0.167	0.0312	0.0432	0.242	0.020 U	0.0273	0.020 U	0.020 U
Total Metals (µg/L)													
Arsenic	1.0	7.54	7.11	4.49	2.33	6.52	6.72	5.07	5.12	0.529	2.11	0.200 U	2.81
Copper	3.5	5.12	4.44	2.00	0.536	2.07	4.38	4.55	1.70	0.500 U	1.75	0.500 U	0.919
Lead	1.0	3.33	3.33	0.352	0.100 U	0.774	0.712	0.413	0.167	0.102	0.701	0.322	1.94

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 CPOC = conditional point of compliance field dup. = field duplicate SWMU = solid waste management unit

TABLE 7: BUILDING 4-78/79 SWMU/AOC GROUP GROUNDWATER ELEVATION DATAMarch 4 and 5, 2019

Well ID ¹	Screen Interval Depth (feet bgs)	TOC Elevation (feet) ²	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet) ²
GW031S	5 to 25	19.44	5.16	14.28
GW033S	5 to 25	19.49	5.28	14.21
GW034S ³	5 to 25	19.65	5.39	14.42
GW038S	5 to 25	19.68	5.49	14.19
GW039S	3.5 to 13.5	19.30	4.95	14.35
GW143S	10 to 15	19.81	5.67	14.14
GW209S	3.5 to 13.3	19.37	5.15	14.22
GW210S	3.5 to 13.3	19.19	4.90	14.29
GW237S	5 to 15	18.85	4.74	14.11
GW238I	5 to 20	18.94	4.81	14.13
GW239I	15 to 20	19.69	5.55	14.14
GW240D	22 to 27	19.81	6.13	13.68
GW241S	4 to 14	20.28	6.15	14.13
GW242I	15 to 20	20.44	6.31	14.13
GW243I	5 to 20	19.49	5.22	14.27
GW244S	5 to 15	19.53	5.28	14.25

Boeing Renton Facility, Renton, Washington

<u>Notes</u>

- 1. S = shallow well; I = intermediate well; D = deep well.
- 2. Elevations in feet relative to National Geodetic Vertical Datum of 1929.
- 3. GW034S was measured on March 24, 2017, becaue it was inaccessible during the March 2 and 3 sampling event.

Abbreviations

AOC = area of concern bgs = below ground surface

SWMU = solid waste management unit

TOC = top of casing

TALBE 8: BUILDING 4-78/79 SWMU/AOC GROUP CONCENTRATIONS OF PRIMARY GEOCHEMICAL INDICATORS¹ March 4 and 5, 2019

Boeing Renton Facility, Renton, Washington

		Well ID ²									
		Source Area									
		GW031S									
	GW031S	(field dup.)	GW033S	GW034S	GW039S	GW243I	GW244S				
Temperature (degrees C)	12.2	12.2	13.1	9.1	13.7	14.1	11.6				
Specific Conductivity (µS/cm)	410.5	410.5	301.1	264.9	230.8	382.5	350.0				
Dissolved Oxygen (mg/L)	0.41	0.41	0.28	0.54	0.34	0.43	0.31				
pH (standard units)	6.48	6.48	6.29	6.26	6.18	6.43	6.32				
Oxidation/Reduction Potential (mV)	-57.3	-57.3	-20.2	-12.5	30.5	-11.1	-19.1				
Total Organic Carbon (mg/L)	14.44	13.34	17.90	8.95	2.66	10.41	14.69				

		Well ID ² Downgradient Plume Area					
	Down						
	GW038S	GW209S	GW210S				
Temperature (degrees C)	12.8	8.2	7.3				
Specific Conductivity (µS/cm)	260.8	288.6	267.5				
Dissolved Oxygen (mg/L)	0.48	0.73	0.49				
pH (standard units)	6.60	6.38	6.99				
Oxidation/Reduction Potential (mV)	-32.8	-22.5	-27.9				
Total Organic Carbon (mg/L)	8.69	9.34	14.47				

				Well ID ²							
		CPOC Area									
	GW143S	GW237S	GW238I	GW239I	GW240D	GW241S	GW2421				
Temperature (degrees C)	13.7	8.3	8.0	11.3	10.0	11.10	9.53				
Specific Conductivity (µS/cm)	287.6	171.0	356.1	272.3	332.5	301	395				
Dissolved Oxygen (mg/L)	0.17	2.77	1.05	0.21	0.26	0.36	0.50				
pH (standard units)	6.47	6.34	6.37	6.44	6.53	6.19	6.49				
Oxidation/Reduction Potential (mV)	-32.7	19.3	-31.6	6.1	-35.5	-16.8	-15.8				
Total Organic Carbon (mg/L)	9.27	9.15	9.1	9.8	5.07	NA	NA				

<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; D = deep 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 SWMU = solid waste management unit

TABLE 9: BUILDING 4-78/79 SWMU/AOC GROUP CONCENTRATIONS OF CONSTITUENTS OF CONCERN ^{1,2}

March 4 and 5, 2019

Boeing Renton Facility, Renton, Washington

					Well ID ³						
		Source Area									
	Cleanup		GW031S								
	Level ⁴	GW031S	(field dup.)	GW033S	GW034S	GW039S	GW243I	GW244S			
Volatile Organic Compounds (µg/L)											
Benzene	0.80	55.9	58.6	11.7	0.20 U	0.20 U	0.20 U	1.73			
cis -1,2-Dichloroethene	0.70	0.20 U	0.20 U	0.79	0.20 U	0.20 U	0.20 U	0.82			
Trichloroethene	0.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.22			
Vinyl Chloride	0.20	0.20 U	0.20 U	3.26	0.20	0.20 U	0.20 U	0.86			
Fotal Petroleum Hydrocarbons (µg/L)											
NWTPH-Gx (C7-C12)	800	4,200	4,220	395	100 U	100 U	100 U	100 U			

		Well ID ³						
	Cleanup	Downgradient Plume Area						
	Level ⁴	GW038S	GW209S	GW210S				
Volatile Organic Compounds (µg/L)								
Benzene	0.80	0.20 U	0.20 U	0.20 U				
cis -1,2-Dichloroethene	0.70	0.20 U	0.20 U	0.20 U				
Trichloroethene	0.23	0.20 U	0.20 U	0.20 U				
Vinyl Chloride	0.20	0.20 U	0.20 U	0.20 U				
Total Petroleum Hydrocarbons (µg/L)								
NWTPH-Gx (C7-C12)	800	100 U	100 U	100 U				

		Well ID ³								
	Cleanup		CPOC Area							
	Level ⁴	GW143S	GW237S	GW238I	GW239I	GW240D	GW241S	GW242I		
Volatile Organic Compounds (µg/L)										
Benzene	0.80	0.20 U	9.58	0.20 U						
cis -1,2-Dichloroethene	0.70	0.20 U	0.21	0.20 U						
Trichloroethene	0.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U		
Vinyl Chloride	0.20	0.20 U	0.25	0.20 U	0.20 U	0.23	0.20 U	0.20 U		
Total Petroleum Hydrocarbons (µg/L)										
NWTPH-Gx (C7-C12)	800	100 U	1,680	100 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; 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

NWTPH-Gx = total petroleum hydrocarbons in gasoline range

TABLE 10: AOC-001 AND AOC-002 GROUNDWATER ELEVATION DATAMarch 5, 2019

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
GW185S	4.5 to 14.5	16.27	2.21	14.06
GW190S	3.0 to 13.0	17.30	3.19	14.11
GW191D	26.5 to 36.0	17.53	3.01	14.52
GW192S	5.0 to 9.5	17.54	3.44	14.10
GW193S	3.0 to 12.8	18.67	4.55	14.12
GW194S	7.3 to 12.0	16.79	3.14	13.65
GW195S	7.3 to 12.0	16.34	2.42	13.92
GW196D	26.8 to 36.8	16.46	2.33	14.13
GW197S	7.8 to 12.5	16.52	2.05	14.47
GW245S	3.0 to 13.0	16.08	2.18	13.90
GW246S	4.0 to 14.0	16.53	2.55	13.98

<u>Notes</u>

1. S =shallow well; D =deep 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 11: AOC-001 AND AOC-002 CONCENTRATIONS OF PRIMARY GEOCHEMICAL INDICATORS ¹ March 5, 2019

Boeing Renton Facility, Renton, Washington

		Well ID ²										
	Source Area		Downgradien	t Plume Area	à		CPOC Area ³					
							GW185S					
	GW193S	GW190S	GW191D⁴	GW192S	GW246S	GW185S	(field dup.)	GW194S	GW195S	GW196D⁵	GW197S	GW245S
Temperature (degrees C)	9.4	12.0	12.7	11.3	11.8	12.0	12.0	11.5	12.2	10.5	13.4	12.4
Specific Conductivity (µS/cm)	911	270.5	298.1	290.5	171.0	584	584	495.5	444.3	326.1	781	439.4
Dissolved Oxygen (mg/L)	0.55	0.25	0.20	0.26	0.26	0.61	0.61	0.32	0.50	0.50	0.49	0.41
pH (standard units)	6.39	6.37	6.57	6.09	6.47	6.40	6.40	6.26	6.25	6.13	7.03	6.64
Oxidation/Reduction Potential (mV)	2.1	10.6	-27.8	1.9	-10.7	-34.8	-34.8	11.0	-44.6	-5.7	-108.7	-73.7
Total Organic Carbon (mg/L)	25.10	6.69	5.88	6.53	4.31	12.04	12.01	13.05	12.87	7.63	11.70	8.79

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. Wells GW185S through GW197S and GW246S are associated with the AOC-001 and AOC-002 cleanup action area.

4. GW191D is installed in a cluster with GW192S, and GW191D is screened below a silt layer at 26.5 to 36 feet in depth.

5. GW196D is installed in a cluster with GW195S, and GW196D is screened below a silt layer at 26.8 to 36.8 feet in depth.

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 12: AOC-001 AND AOC-002 CONCENTRATIONS OF CONSTITUENTS OF CONCERN ^{1,2} March 5, 2019

Boeing Renton Facility, Renton, Washington

			Well ID ³										
		Source Area	Downgradient Plume Area							POC Area			
	Cleanup	Area		Downgrauten				GW185S (field)					
	Level ⁴	GW193S	GW190S	GW191D ⁵	GW192S	GW246S	GW185S	dup.)	GW194S	GW195S	GW196D ⁶	GW197S	GW245S
Volatile Organic Compounds	(µg/L)												
1,1-Dichloroethene	0.057	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Benzene	0.8	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.26	0.20 U
cis -1,2-Dichloroethene	0.02	0.586	0.484	0.0558	0.670	0.171	0.185	0.194	0.020 U	0.0568	0.0427	0.106	0.0277
Trichloroethene	0.02	0.020 U	0.0207	0.020 U	0.0383	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Vinyl Chloride	0.05	0.0647	0.672	0.154	0.317	0.707	0.192	0.210	0.020 U	0.0790	0.0496	0.0647	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; D = deep well.

4. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.

5. GW191D is installed in a cluster with GW192S, and GW191D is screened below a silt layer at 26.5 to 36 feet in depth.

6. GW196D is installed in a cluster with GW195S, and GW196D is screened below a silt layer at 26.8 to 36.8 feet in depth.

Abbreviations

 $\mu g/L = micrograms per liter$ AOC = area of concern

CPOC = conditional point of compliance

field dup. = field duplicate

TABLE 13: AOC-003 GROUNDWATER ELEVATION DATA March 5, 2019

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	3.94	14.84
GW247S	4 to 14	18.91	3.91	15.00
GW248I	10 to 20	18.78	3.74	15.04
GW249S	4 to 14	18.85	3.71	14.85

<u>Notes</u>

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 TOC = top of casing

TABLE 14: AOC-003 CONCENTRATIONS OF PRIMARY GEOCHEMICAL INDICATORS 1March 5, 2019

Boeing Renton Facility, Renton, Washington

		Well ID ²						
	Source Area	Downgradient						
		Plume Area	CPOC Area					
	GW249S	GW188S	GW247S	GW248I				
Temperature (degrees C)	12.6	12.8	9.8	10.4				
Specific Conductivity (µS/cm)	343.4	407.6	344.2	418.4				
Dissolved Oxygen (mg/L)	0.41	0.44	0.52	0.19				
pH (standard units)	6.47	6.34	6.41	6.40				
Oxidation/Reduction Potential (mV)	-8.1	-9.9	43.2	-23.1				
Total Organic Carbon (mg/L)	17.03	9.38	9.86	13.25				

<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.

Abbreviations

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

TABLE 15: AOC-003 CONCENTRATIONS OF CONSTITUENTS OF CONCERN 1,2March 5, 2019

Boeing Renton Facility, Renton, Washington

			Well ID) ³	
		Source Area	Downgradient		
	Cleanup Source Area		Plume Area	СРОС	Area
	Level ⁴	GW249S	GW188S	GW247S	GW248I
Volatile Organic Compounds (µg/L)					
cis -1,2-Dichloroethene	0.78	0.0790	0.0493	0.0728	0.020 U
Tetrachloroethene	0.02	0.0105	0.0107	0.020 U	0.020 U
Trichloroethene	0.16	0.0157	0.0125	0.0180	0.020 U
Vinyl Chloride	0.24	0.424	0.537	0.392	0.707

<u>Notes</u>

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

 μ g/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

TABLE 16: AOC-004 GROUNDWATER ELEVATION DATA

March 5, 2019

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
GW174S	4 to 14	19.56	3.93	15.63
GW250S	4 to 14	19.31	3.71	15.60

<u>Notes</u>

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 CONCENTRATIONS OF PRIMARY GEOCHEMICAL INDICATORS¹ March 5, 2019

Boeing Renton Facility, Renton, Washington

	Well I	D ²
	Source Area	CPOC Area
	GW250S	GW174S
Temperature (degrees C)	8.99	10.83
Specific Conductivity (µS/cm)	154	188
Dissolved Oxygen (mg/L)	0.49	0.20
pH (standard units)	6.97	6.86
Oxidation/Reduction Potential (mV)	-371.1	-391.4

<u>Notes</u>

1. Primary geochemical indicators are measured in the field.

2. S = shallow well

Abbreviations

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

TABLE 18: AOC-004 CONCENTRATIONS OF CONSTITUENTS OF CONCERN1March 5, 2019

Boeing Renton Facility, Renton, Washington

		Well ID ²		
		Source Area	CPOC Area	
	Cleanup Level ³	GW250S	GW174S	
Metals (mg/L)				
Lead	0.001	0.00154	0.000815	

<u>Notes</u>

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

2. S = shallow well.

3. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.

Abbreviations

AOC = area of concern

CPOC = conditional point of compliance

mg/L = milligrams per liter

TABLE 19: AOC-060 GROUNDWATER ELEVATION DATA March 5, 2019

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	5.15	14.21
GW010S	4.5 to 14.5	19.47	5.25	14.22
GW011D	29 to 39	19.49	5.21	14.28
GW012S	4.5 to 14.5	19.11	4.84	14.27
GW014S	4.5 to 14.5	19.24	5.00	14.24
GW147S	5 to 15	18.73	4.59	14.14
GW149S	5 to 15	19.19	5.08	14.11
GW150S	5 to 15	19.10	5.06	14.04
GW252S	4 to 14	19.01	4.91	14.10
GW253I	10 to 20	19.02	4.94	14.08
GW254S	4 to 14	19.16	5.13	14.03

<u>Notes</u>

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 CONCENTRATIONS OF PRIMARY GEOCHEMICAL INDICATORS 1March 5, 2019

Boeing Renton Facility, Renton, Washington

					Well ID	2				
	Source									
	Area		Downgradient Plume Area					CPOC Area		
				GW014S						
	GW009S	GW012S	GW014S	(field dup.)	GW147S	GW149S	GW150S	GW252S	GW253I	GW254S
Temperature (degrees C)	19.90	19.92	18.50	18.50	11.72	12.79	7.40	8.84	9.37	8.44
Specific Conductivity (µS/cm)	421	2102	418	418	648	315	421	668	385	546
Dissolved Oxygen (mg/L)	0.33	0.21	0.20	0.20	0.22	0.37	0.48	0.24	0.33	0.59
pH (standard units)	6.45	6.02	6.44	6.44	4.52	6.60	6.80	6.78	6.67	6.77
Oxidation/Reduction Potential (mV)	-404.5	-406.2	-410.1	-410.1	-315.9	-369.5	-430.0	-415.8	-440.7	-409.3
Total Organic Carbon (mg/L)	5.90	29.17	3.34	4.62	22.26	5.16	4.32	4.64	4.10	6.11

<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.

 $\label{eq:sphere:sphe$

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

TABLE 21: AOC-060 CONCENTRATIONS OF CONSTITUENTS OF CONCERN 1,2 Marsh 5, 2010

March 5, 2019

Boeing Renton Facility, Renton, Washington

		Source									
		Area	Downgradient Plume Area CPOC Area								
	Cleanup				GW014S						
	Levels ⁴	GW009S	GW012S	GW014S	(field dup.)	GW147S	GW149S	GW150S	GW252S	GW253I	GW254S
Volatile Organic Compounds	s (µg/L)										
cis -1,2-Dichloroethene	0.08	0.107	1.230	0.119	0.115	0.955	0.0623	0.0737	0.020 U	0.127	0.0983
Trichloroethene	0.02	0.0239	0.0546	0.0254	0.0264	0.475	0.020 U	0.020 U	0.020 U	0.0221	0.020 U
Vinyl Chloride	0.26	0.285	1.350	0.214	0.203	0.0514	0.0843	0.103	0.020 UJ	0.143	0.0749

<u>Notes</u>

1. Data qualifiers are as follows:

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

U = 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

 μ g/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

TABLE 22: AOC-090 GROUNDWATER ELEVATION DATA March 4 and 5, 2019

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
GW163I	25 to 35	21.27	6.25	15.02
GW165I	25 to 35	21.14	13.74	7.40
GW175I	21.2 to 26.1	20.57	7.16	13.41
GW176S	10 to 14.3	20.15	5.44	14.71
GW177I	21.7 to 26	22.51	7.79	14.72
GW178S	11.2 to 15.5	22.73	8.12	14.61
GW179I	21.5 to 26	20.47	6.31	14.16
GW180S	10.5 to 15	20.56	6.62	13.94
GW189S	4 to 14	22.01	6.64	15.37
GW207S	7.3 to 12	21.12	6.43	14.69
GW208S	6.3 to 11	22.45	7.88	14.57

<u>Notes</u>

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 TOC = top of casing

TABLE 23: AOC-090 CONCENTRATIONS OF PRIMARY GEOCHEMICAL INDICATORS 1March 4 and 5, 2019

Boeing Renton Facility, Renton, Washington

		Well ID ²											
	Source Area	Downgradier	nt Plume Area	Shallow Zone CPOC Area					Intermediate Zone CPOC Area				
						GW180s							
	GW189S ³	GW175I	GW176S	GW178S	GW180S	(field dup.)	GW207S	GW208S	GW163I	GW165I	GW177I	GW179I	
Temperature (degrees C)	6.05	12.60	11.90	12.62	10.27	10.27	12.30	10.41	12.30	13.40	10.71	10.13	
Specific Conductivity (µS/cm)	649	446.6	549	514	303	303	310.2	632	316.4	332.6	644	418	
Dissolved Oxygen (mg/L)	0.67	0.30	0.39	0.35	0.53	0.53	0.26	0.37	0.54	0.81	0.67	0.36	
pH (standard units)	5.15	6.33	6.32	6.64	6.41	6.41	6.69	6.78	6.30	6.34	6.44	6.50	
Oxidation/Reduction Potential (mV)	-536.8	-12.1	-50.4	-39.3	2.2	2.2	-60.9	-67.9	-22.4	-43.3	-21.9	0.1	
Total Organic Carbon (mg/L)	19.29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

<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. GW189S is the replacement well for GW168S.

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

TABLE 24: AOC-090 CONCENTRATIONS OF CONSTITUENTS OF CONCERN 1,2 March 4 and 5, 2019

Boeing Renton Facility, Renton, Washington

							Well ID ³						
		Source Area	Downgradier	nt Plume Area		Shall	low Zone CPOC	Area		In	termediate Z	one CPOC Ai	rea
	Cleanup						GW180S						
	Levels ⁴	GW189S ⁵	GW175I	GW176S	GW178S	GW180S	(field dup.)	GW207S	GW208S	GW163I	GW165I	GW177I	GW179I
/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	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,1,2-Trichloroethane	0.2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1-Dichloroethene	0.057	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Acetone	300	5.00 U	5.00 U	5.00 U	5.54	5.00 U	6.44	5.00 U	5.00 U	6.90	5.00 U	5.00 U	7.16
Benzene	0.8	0.20	0.20 U	0.20 U	0.20 U	0.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Carbon Tetrachloride	0.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Chloroform	2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	2.4	0.92	0.20 U	0.25	0.20 U	0.20 U	0.20 U	0.20 U	0.21	0.20 U	0.20 U	0.20 U	0.20 U
Methylene Chloride	2	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Tetrachloroethene	0.05	0.0280	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Toluene	75	4.96	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	53.9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Trichloroethene	0.08	0.156	0.020 U	0.020 U	0.0213	0.020 U	0.0212	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Vinyl Chloride	0.13	0.496	0.020 U	0.294	0.392	0.020 U	0.020 U	0.0692	0.437	0.020 U	0.020 U	0.0573	0.133
otal Petroleum Hydrocarbon	s (µg/L)												
NWTPH-Gx (C7-C12)	800	1,070	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
DRO (C12-C24)	500	362	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ
HRO (C24-C40)	500	522	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ

Notes

1. Data qualifiers are as follows:

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

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

2. Bolded values exceed the cleanup levels.

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

4. Cleanup levels obtained from Table 2 of the Cleanup Action Plan.

5. GW189S is the replacement well for GW168S.

Abbreviations

µg/L = micrograms per liter

AOC = area of concern

CPOC = conditional point of compliance

DRO = diesel range organics

HRO = heavy range organics in the motor oil range

NWTPH-Gx = total petroleum hydrocarbons in gasoline range

TABLE 25: BUILDING 4-70 GROUNDWATER ELEVATION DATAMarch 4, 2019

тос Groundwater **Screen Interval** Depth to Elevation Elevation Depth Groundwater Well ID¹ (feet bgs) (feet)² (feet below TOC) (feet)² GW259S 5 to 15 19.72 5.38 14.34 5 to 15 14.38 GW260S 19.83 5.45

Boeing Renton Facility, Renton, Washington

<u>Notes</u>

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 26: BUILDING 4-70 CONCENTRATIONS OF PRIMARY GEOCHEMICAL INDICATORS 1

March 4, 2019

Boeing Renton Facility, Renton, Washington

	Wel	I ID ²				
	CPOC Area					
	GW259S	GW260S				
Temperature (degrees C)	15.8	12.1				
Specific Conductivity (µS/cm)	351.6	276.6				
Dissolved Oxygen (mg/L)	0.83	0.39				
pH (standard units)	6.66	6.33				
Oxidation/Reduction Potential (mV)	55.5	-48.5				
Total Organic Carbon (mg/L)	3.05	9.66				

<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

AOC = area of concern

CPOC = conditional point of compliance

degrees C = degrees Celsius

mg/L = milligrams per liter

mV = millivolts

TABLE 27: BUILDING 4-70 CONCENTRATIONS OF CONSTITUENTS OF CONCERN 1, 2March 4, 2019

Boeing Renton Facility, Renton, Washington	
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			ID ³ Area
	Cleanup Level ⁴	GW259S	GW260S
Volatile Organic Compounds (µg/L)			
cis-1,2-Dichloroethene	16	0.42	0.20 U
Trichloroethene	0.54	0.39	0.20 U
Vinyl Chloride	0.2	0.20 U	0.21

<u>Notes</u>

- 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 Washington State Department of Ecology email to Boeing on December 30, 2015.

Abbreviations

- µg/L = micrograms per liter
- CPOC = conditional point of compliance



Appendix A

TABLE A-1: GROUNDWATER COMPLIANCE MONITORING SCHEDULE

Boeing Renton Facility, Renton, Washington

Cleanup Action	Monitorin	ig Frequency ¹		Groundwate	er Monitoring Wells ²		Additional Water Level					
Area	Quarterly	Semiannual	Cross-Gradient Wells	Source Area Wells	Downgradient Plume Wells	CPOC Wells	Monitoring Wells ³	Constituents of Concern ⁴	Analyses ⁵			
SWMU-168		X (1,3)	NA	GW2285 ⁷	NA	GW229S, GW230I, and GW231S		VC	SW8260C SIM			
SWMU-172/SWMU-174	x		NA	GW152S and GW153S	GW081S, GW172S, GW173S,	GW232S, GW233I, GW234S,		cis -1,2-DCE, PCE, TCE, VC	SW8260C SIM ⁶			
					and GW226S	GW235I, and GW236S		Arsenic, copper, and lead	EPA 6020A			
Building 4-78/79	x		NA	GW031S, GW033S, GW034S,	GW038S, GW209S, and GW210S	GW143S, GW237S, GW238I, GW239I, GW240D, GW241S,		VC, TCE, <i>cis</i> -1,2-DCE, benzene	SW8260C ⁶			
SWMU/AOC Group				GW039S, GW243I, and GW244S		and GW242I		TPH-gasoline	NWTPH-Gx			
Former Fuel Farm SWMU/AOC Group		X (2,4)	NA	GW255S, GW256S, and GW257S	NA	GW183S, GW184S, GW211S, GW212S, GW221S, GW224S, and GW258S		TPH-jet fuel, TPH-diesel	NWTPH-Dx			
AOC-001/AOC-002	x	X (1,3)	NA	GW193S	GW190S, GW191D, GW192S,	GW185S, GW194S, GW195S,		Benzene	SW8260C ⁶			
A0C-001/A0C-002	(CPOC wells)	(all other wells)		Gw1955	and GW246S	GW196D, GW197S, and GW245S		TCE, <i>cis</i> -1,2-DCE, 1,1-dichloroethene, VC	SW8260C SIM ⁶			
AOC-003	х	X (1,3)	NA	GW2495	GW188S	GW247S and GW248I		PCE, TCE	SW8260C SIM ⁶			
AUC-005	(CPOC wells)	(all other wells)	NA	GW2495	GW 1885	GW2475 and GW248		cis -1,2-DCE, VC	SW8260C SIM			
AOC-004		X (1,3)	NA	GW250S	NA	GW174S		Lead	EPA 6020A			
AOC-060		X (1,3)	GW012S and GW014S	GW009S	GW147S	GW149S, GW150S, GW252S,	GW010S and GW011D	VC	SW8260C SIM ⁶			
ACC-000		Λ (1,3)	GW0123 and GW0143	000093	GW1475	GW253I, and GW254S	GW253I, and GW254S	GW253I, and GW254S	GW010S and GW011D	54S	TCE, <i>cis</i> -1,2-DCE	SW8260C SIM
								1,1,2-Trichloroethane, acetone, benzene, toluene, carbon tetrachloride, chloroform, <i>cis</i> -1,2-DCE, <i>trans</i> -1,2-DCE, methylene chloride	SW8260C ⁶			
AOC-090		X (1,3)	NA	GW189S	GW175I and GW176S	GW163I, GW165I, GW177I, GW178S, GW179I, GW180S, GW207S, and GW208S		1,1-Dichloroethene, 1,1,2,2-tetrachloroethane, VC, PCE, TCE	SW8260C SIM ⁶			
								TPH-gasoline	NWPTH-Gx			
								TPH-diesel, TPH-motor oil	NWTPH-Dx			
Building 4-70 Area		X (1,3)	NA	NA	NA	GW259S and GW260S		TCE, <i>cis</i> -1,2-DCE, VC	SW8260C ⁶			
ot 20/Former Building 10-71		X (2,4)	NA	10-71-MW1, 10-71-MW2, and 10-71-MW4	NA	NA		Toluene, cis-1,2-DCE, TCE, VC	SW8260C ⁶			
Apron A		X (2,4)	NA	GW262S and GW264S	NA	NA		cis -1,2-DCE and VC	SW8260C ⁶			

Notes:

1. The EDR presents the groundwater monitoring frequency for each SWMU/AOC. For sites with semiannual monitoring frequency, specific quarters when monitoring will be conducted is indicated by 1 for quarter 1, 2 for quarter 2, etc.

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. 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.

7. GW228S will not be monitored on a semiannual basis - only the CPOC wells will be monitored on a semiannual basis for SWMU-168.

Abbreviations:	
AOC = area of concern	PCE = tetrachloroethene
<i>cis</i> -1,2-DCE = <i>cis</i> -1,2 dichloroethene	SIM = selected ion monitoring
COCs = constituents of concern	SWMU = solid waste management unit
CPOC = conditional point of compliance	TCE = trichloroethene
Cr = chromium	TPH = total petroleum hydrocarbons
EDR = Engineering Design Report	trans -1,2-DCE = trans -1,2 dichloroethene
EPA = Environmental Protection Agency	VC = vinyl chloride
NA = not applicable	VOCs = volatile organic compounds

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

Boeing Renton Facility, Renton, Washington

					Primary Geochemical Para	meters ²	
Cleanup Action			ter Monitoring Wells				g Frequency ³
Area	Cross-Gradient Wells	Source Area Wells	Downgradient Plume Wells	CPOC Wells	Indicators	Quarterly	Semiannual
SWMU-168	NA	GW228S ⁴	NA	GW229S, GW230I, and GW231S	Dissolved oxygen, pH, ORP, temperature, specific conductance		X (1,3)
SWMU-172/SWMU-174	NA	GW152S and GW153S	GW081S, GW172S, GW173S, and GW226S	GW232S, GW233I, GW234S, GW235I, and GW236S	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC	Х	
Building 4-78/79 SWMU/AOC Group	NA	GW031S, GW033S, GW034S, GW039S, GW243I, and GW244S	GW038S, GW209S, and GW210S	GW143S, GW237S, GW238I, GW239I, GW240D, GW241S, and GW242I	Dissolved oxygen, pH, ORP, temperature, specific conductance in all wells, TOC in all wells except GW241S and GW242I	x	
Former Fuel Farm SWMU/AOC Group	NA	GW255S, GW256S, and GW257S	NA	GW183S, GW184S, GW211S, GW212S, GW221S, GW224S, and GW258S	Dissolved oxygen, pH, ORP, temperature, specific conductance		X (2,4)
AOC-001/AOC-002	NA	GW193S	V193SGW190S, GW191D, GW192S, and GW246SGW185S, GW194S, GW195S, GW196D, GW197S, and GW245SDissolved oxygen, pH, ORP, temperature, specific conductance, TOC(C		X (CPOC wells)	X (1,3) (all other wells)	
AOC-003	NA	GW249S	GW188S	GW247S and GW248I	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC	X (CPOC wells)	X (1,3) (all other wells)
AOC-004	NA	GW250S	NA	GW174S	Dissolved oxygen, pH, ORP, temperature, specific conductance		X (1,3)
AOC-060	GW012S and GW014S	GW009S	GW147S	GW149S, GW150S, GW252S, GW253I, and GW254S	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC		X (1,3)
AOC-090	NA	GW189S	GW175I and GW176S	GW163I, GW165I, GW177I, GW178S, GW179I, GW180S, GW207S, and GW208S	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC ⁵		X (1,3)
Building 4-70 Area	NA	NA	NA	GW259S and GW260S	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC		X (1,3)
ot 20/Former Building 10-71	NA	10-71-MW1, 10-71-MW2, and 10-71-MW4	NA	NA	Dissolved oxygen, pH, ORP, temperature, specific conductance		X (2,4)
Apron A	NA	GW262S and GW264S	NA	NA	Dissolved oxygen, pH, ORP, temperature, specific conductance, TOC		X (2,4)

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. 3. The EDR presents the groundwater monitoring frequency for each SWMU/AOC. For sites with semiannual monitoring frequency, specific quarters when monitoring will be conducted is indicated by 1 for quarter 1, 2 for quarter 2, etc.

4. Primary geochemical parameters will not be collected at GW228S - only at CPOC wells that are sampled semiannually.

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 EDR = Engineering Design Report NA = not applicable

ORP = oxidation reduction potential SWMU = solid waste management unit

TOC = total organic carbon



Appendix B



Project Name	e:	Boeing Ren	ton		Project Number	:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/4 /2019@		907	
Sample Num	ber:	RGW229S-	190304		Weather:	CLEAR COLD			
Landau Repr	esentative:	DSB			· · · · · · · · · · · · · · · · · · ·				
WATER LEV	EL/WELL/PU	RGE DATA							
Well Conditio		Secure (YES))	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	7.57	Time:	838	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/4 /2019 @	840	End Purge:	Date/Time:	3/ 4 /2019 @	859	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° F /°Ĉ)	(uS/cm)	(mg/L)	-	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goa +/- 3%	lls: Stablizatio +/- 3%		ters for three +/- 0.1 units	e consecutive read +/- 10 mV	lings within the fol +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
843	-2.70	373	2.34	6.23	2.4	17 1070		un ough een	
									DTW BELOW TOP OF
846	-2.80	364	2.05	6.21	6.0				PUMP
849	-2.65	361	1.78	6.24	5.1				
852	-2.41	352	1.59	6.25	4.2				
855	-2.44	354	1.48	6.27	1.3				
858	-1.92	347	1.43	6.26	5.9				
SAMPLE CO	LLECTION D	ATA							
Sample Collec			Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated		~	
(By Numerica	l Order)	Other				~~			
Sample Descri	iption (color, t	urbidity, odor,	sheen, etc.):		CLOUDY WHIT	'E NONS			
D. I'.		<u> </u>	D O		0.00	T		F ormana i mor	Commental
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	-1.94	349	1.40	6.27	1.9				
2	-1.99	349	1.38	6.28	0.8				
3	-1.95	350	1.41	6.28	0.9				
4	-1.96	349	1.35	6.29	0.9				
Average:	-1.96	349	1.39	6.28	1.1	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE '	Г YPE (Circle ap j	licable or write no	on-standard ana	lysis below)	
3	(8260C SIM V	VC) (8010)	(8020) (NW	ГРН-G) (NV	WTPH-Gx) (BTH	X)		WA 🗆	OR 🗌
						(Oil & Grea	•	WA 🗆	OR 🗆
						(HCO3/CO3) (Cl	l) (SO4) (NO3) (NO2) (F)	
		,	````		ll Nitrogen) (NH	3) (NO3/NO2)			
		e) (WAD Cys) (As) (Sb) (/ .	•	(\mathbf{Cr}) (\mathbf{Cu}) (\mathbf{E}_2) (Pb) (Mg) (Mn) (N		[]) (Ψ) (7 n) (U~)	(\mathbf{K}) (Na)
									a) (Hardness) (Silica)
	VOC (Boein		, (Du) (DU) (C	, (00) (00)		, (1,12), (1,11), (1,11) (1	-5/ (~~/ (11/ (*)	() (115) (11) (11)	., (marchess) (pined)
		ane Ethene Ac	etylene						
	others								

Comments:

Signature:

DSB



Project Name	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/ 4/2019@		837	
Sample Num	ber:	RGW230I-	190304		Weather:	CLEAR COLD			
Landau Repr	esentative:	DSB							
WATER LEV	EL/WELL/PU	IRGE DATA							
Well Condition	n:	Secure (YES))	Damaged (N	O)	Describe:	flush mount		
DTW Before I	Purging (ft)	7.17	Time:	808	Flow through cel	l vol.		GW Meter No.(2
Begin Purge:	Date/Time:	3/ 4 /2019 @	810	End Purge:	Date/Time:	3/ 4 /2019 @	831	Gallons Purged:	0.25
Purge water di	sposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa +/- 3%	lls: Stablizatio +/- 3%		ters for three +/- 0.1 units		dings within the fol +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
813	9.70	510	1.98	6.64	-13.1		7.19	0	
816	8.84	347	1.85	6.55	-7.2		7.2		
819	8.86	302	1.77	6.50	-8.9		7.2		
822		283	1.60	6.46	-6.6				
	9.10								
825	9.32	279	1.48	6.45	-4.2				
828	9.12	271	1.12	6.44	-6.2				
SAMPLE CO			D - 11						
Sample Collec Made of:		لیا Stainless Stee	Bailer	PVC	Pump/Pump Type		Other	Dadiaatad	
Decon Procedu		Alconox Was	_	Tap Rinse				Dedicated	
(By Numerical		Other		rap Killse	DI Water	Dedicated			
Sample Descri	,		sheen. etc.):		CLEAR COLOR	LESS NONS			
	puon (coror, c	<i>arerary</i> , <i>eacr</i> ,			022111 00201				
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	9.09	272	1.13	6.44	-6.0				
2	9.08	271	1.08	6.44	-6.1				
3	9.09	271	1.09	6.44	-6.1				
4	9.10	270	1.08	6.44	-6.0				
Average:	9.09	271	1.10	6.44	-6.1	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE '	TYPE (Circle ap	olicable or write no	on-standard ana	llysis below)	
					VTPH-Gx) (BTH			WA 🗆	OR 🗆
	(8270) (PAH	I) (NWTPH-I	D) (NWTPH	-Dx) (TPH-I	HCID) (8081) (8141) (Oil & Grea	se)	WA 🗆	OR
	(pH) (Condu	ctivity) (TDS) (TSS) (B	OD) (Turbid	lity) (Alkalinity)	(HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)	
	· · · · ·		`	`	nl Nitrogen) (NH	3) (NO3/NO2)			
		e) (WAD Cya	/ \						
						$\frac{Pb}{Mg} (Mg) (Mn) (N)$			
	(Dissolved M) VOC (Boein) (Ba) (Be) (C	(Cd) (Co)	(Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (N1) (A	ag) (Se) (11) (V)	(Zn) (Hg) (K) (N)	a) (Hardness) (Silica)
	· · ·	ane Ethene Ac	etvlene						
	Treenane Dill								
	others								
Duality C									
Duplicate Sam	(s):								

Comments:

Signature:



Project Name	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/ 4 /2019@		807	
Sample Num	iber:	RGW231S-			Weather:	CLEAR COLD			
Landau Repr	esentative:	DSB							
WATER LEV	EL/WELL/PU	RGE DATA							
Well Conditio	n:	Secure (YES))	Damaged (N	O)	Describe:	flush mount		
DTW Before I	Purging (ft)	6.95	Time:	737	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/ 4 /2019 @	741	End Purge:	Date/Time:	3/4 /2019 @	759	Gallons Purged:	0.25
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	+/- 3%		+/- 0.1 units		dings within the fol +/- 10%	< 0.3 ft	through cell	
744	8.58	374	5.29	6.61	-23.6		6.98		DTW BELOW
747	7.98	334	4.26	6.55	-17.0		6.98		TOP OF PUMP
750	7.16	305	3.95	6.54	-14.1		6.98	·	
							0.90		
753	6.51	290	3.70	6.54	-12.9				
756	6.53	281	3.56	6.53	-9.8				
759	6.49	275	3.50	6.54	-12.6				
SAMPLE CO									
Sample Collec	ted With:		Bailer		Pump/Pump Type				
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerical		Other	abaan ata).			/ NONE			
Sample Descri	iption (color, t	urbiaity, ouor,	sheen, etc.).		CLOUDY GREY	I NONS			
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	6.49	275	3.45	6.54	-12.9				
2	6.48	273	3.46	6.54	-13.1				
3	6.47	274	3.41	6.54	-13.3				
4	6.48	272	3.39	6.54	-12.8				
Average:	6.48	274	3.43	6.54	-13.0	#DIV/0!			
QUANTITY	TYPICAL A	NALVSIS AL	LOWED PE	R BOTTLE '	TYPE (Circle and	olicable or write no	on-standard and	lysis below)	
					VTPH-Gx) (BTH		in Standard and	WA 🗆	OR 🗆
						8141) (Oil & Grea	se)	WA 🗆	OR
	(pH) (Condu	ctivity) (TDS) (TSS) (B	OD) (Turbid	ity) (Alkalinity)	(HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)	
	(COD) (TOO	C SM5310C)	(Total PO4)	(Total Kiedał	nl Nitrogen) (NH	3) (NO3/NO2)			
		e) (WAD Cy	, ``						
						$\frac{Pb}{(Mg)} (Mg) (Mn) (Ng) (Mg) (Mg) (Mg) (Mg) (Mg) (Mg) (Mg) (M$			
	(Dissolved M VOC (Boein) (ва) (ве) (C	.a) (C0) (C0)	(Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (N1) (A	4g) (Se) (11) (V)	(Zn) (Hg) (K) (Na	a) (Hardness) (Silica)
		ane Ethene Ac	etvlene						
	others								
Duplicate Sam	nla Na(a):								
Dupilcale Sall	ipic 10(s).								

Comments:

Signature:



Purge water disposed to: 55-gal Drum Storage Tank Ground Other SITE TREATMENT SYSTEM Time Cond. D.O. pH ORP Turbidity DTW Internal Purge Comments/ Time (°F/°C) (uS/cm) (mg/L) (mV) (NTU) (ft) Volume (gal) Observations Purge Goals: Stablization of Parameters for three consecutive readings within the following limits +/- 3% >/= 1 flow -/= 1 flow through cell	Project Name	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Sample Number: RGW0815: 190304 Weather: ION, SUNNY Landua Representative: IHA	Event:		Quarterly M	larch 2019		Date/Time:	3/ 4 /2019@ 85	1		
WATER LEVEL APURCE DATA Well Condition: Secure (YES) Dataged (NO) Describe <u>FLUSH MOUNT</u> DTW Before Program 3.3 Flow through cell col. GW Meter No. (s) <u>HERON 3</u> GB alons Purged. 0 Parge water disposed to: Strage J Drum Strage Tank Ground Other Strage Tank Other Strage Tank Other Strage Tank Ground Other Strage Tank Other <td< td=""><td>Sample Num</td><td>iber:</td><td></td><td></td><td></td><td>Weather:</td><td>30'S, SUNNY</td><td></td><td></td><td></td></td<>	Sample Num	iber:				Weather:	30'S, SUNNY			
Well Condition: Secure (YES) Damaged (NU) Describe: <u>FLISH MOUNT</u> DTW Before Purging (ft) 8.15 Time: 232 Flow through cell vol. Galloos Purget. Comments/ Time: Temp Cond. D.O. pH ORP Turbitity DTW Turbitity Cond. Comments/ Yurge Gadds: Stabilization of Tarameters for three consecutive readings within the fallowing limits System to the fallowing limits System to the fallowing limits Value (MU) Observations 830 10.6 167.3 2.62 6.32 107.3 LOW 8.27 -0.35 TURN CPM DOW 833 11.0 179.9 1.34 64.55 78.5 </td <td>Landau Repr</td> <td>esentative:</td> <td>JHA</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Landau Repr	esentative:	JHA							
DTW Before Purging (1) 8.15 Time: 823 Flow drough cell vol. GW Meter No.(s HERON 3 Begin Purge: Date Time: 2' 4 / 2019 @ 848 Ground Other STIE TREATMENT SYSTEM Ground Other STIE TREATMENT SYSTEM Time: CP/C Cond. D.0. pH ORP Turbidity DTW Internal Purge Comments/ Time: CP/C Cond. D.0. pH ORP Turbidity DTW Internal Purge Comments/ 840 10.6. 167.3 2.62 6.39 107.3 LOW 8.27 <0.25	WATER LEV	EL/WELL/PU	JRGE DATA							
Begin Purge: Date/Time: 3/ 4 / 2019 @ 848 Gallous Purget: 0. Pring water disposed to: 0 55 gal Dum 0 Other TITETREATMENT SYSTEM 0 Other STITTEREATMENT SYSTEM Time: Temp Comp Do. plf ORP Unrihidity Turnicity Other STITTEREATMENT SYSTEM Other Other Other Other Other Other Statument Status Other Status Other Othe	Well Conditio	n:	Secure (YES))	Damaged (N	0)	Describe:	FLUSH MOUN	ЛТ	
Purge water disposed to: □ 55-gal Drum □ Storage Tank □ Ground □ Other STEE TREATMENT SYSTEM Time Temp Cond. D.O. pH ORP Turbidity DTW Internal Purge Comments/ 47.3% +f-10% +f-01% (NTU) (NTU) (NTU) Internal Purge Comments/ Sofardiants Sofardian	DTW Before	Purging (ft)	8.15	Time:	823	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Time Temp (F/C) Cond. (usC) D.O. (mgL) pH (mgV) ORP (mV) Turbidity (mV) DTW (mV) Internal Purge Volume (gal) Comments/ Observations 830 10.6 167.3 2.62 6.39 107.3 LOW 8.27 <0.25	Begin Purge:	Date/Time:	3/ 4 /2019 @	@ 827	End Purge:	Date/Time:	3/ 4/2019 @ 848		Gallons Purged:	0.75
Time (FF/C) (mgL) (mV) (NU) (t) (t) Volume (gal) Observations Purge Goals: Stabilization of Parameters for three consecutive readings within the following limits +/ 10% <0.3.0	Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
+/- 3% +/- 10% +/- 10mV +/- 10mV +/- 10% <0.3 ft through cell 830 10.6 167.3 2.62 6.30 107.3 1.0W 8.27 -0.25 TURN CPM DOW 833 11.0 179.9 1.34 6.45 103.5 8.27 -0.25 833 11.1 183.3 0.90 6.55 97.6 0.25 842 11.3 186.5 0.61 6.55 78.5	Time	(° F /°Ĉ)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	Volume (gal)	
833 11.0 179.9 1.34 6.45 103.5 8.27 <0.25										
833 11.0 179.9 1.34 6.45 103.5 8.27 <0.25	830	10.6	167.3	2.62	6.39	107.3	LOW	8.27	<0.25	TURN CPM DOWN
830 11.1 183.3 0.90 6.51 97.6 0.25 839 11.2 186.4 0.67 6.55 85.8 8.27	833	11.0								
830 112 1864 0.67 6.55 85.8 8.27 842 11.3 186.5 0.61 6.55 78.5								0.27		
842 11.3 186.5 0.61 6.55 78.5 845 11.3 187.3 0.61 6.56 70.9 0.5 847 11.3 186.7 0.59 6.56 64.3								0.07	0.23	
845 11.3 187.3 0.61 6.56 70.9 0.5 847 11.3 186.7 0.59 6.56 64.3								8.27		
847 11.3 186.7 0.59 6.56 64.3 SAMPLE COLLECTION DATA Sample Collected With: Bailer Pump/Pump Type DED BLADDER Made of: Stainless Steel PVC Teflon Polyethylene Other Decon Procedure: Alconox Wash Tap Rinse DI Water Dedicated Beplicate Temp Cond. D.0. pH ORP Turbidity OTW (Fe II) Observations 1 11.2 186.4 0.59 6.57 63.1 63.1 058 6.57 63.1 058 6.57 63.1 058 0.58 6.57 62.4 0.58 0.58 0.57 62.4 0.58 0.57 62.4 0.58 0.57 62.4 0.58 0.57 62.4 0.58 0.57 62.4 0.58 0.57 62.4 0.58 0.57 62.8 #DIV/0! 8.35 0.58 0.57 62.8 #DIV/0! 8.35 0.58 0.57 62.4 0.58 0.57 62.8 #DIV/0! 8.35 0.58 0.57 0.28	842	11.3	186.5	0.61	6.55	78.5				
SAMPLE COLLECTION DATA Sample Collected With: Bailer PVC Teflon Polyethylene Other Dedicated Made of: Stainless Steel PVC Teflon Polyethylene Other Dedicated Decon Procedure: Alconox Wash Tap Rinse DI Water Dedicated Dedicated By Numerical Order) Other	845	11.3	187.3	0.61	6.56	70.9			0.5	
Sample Collected With: Bailer Pump/Pump Type DED BLADDER Made of: Stainless Steel PVC Teflon Polyethylene Other Dedicated Bailer Other DVC Teflon Polyethylene Other Dedicated Becon Procedure: Alconox Wash Tap Rinse DI Water Dedicated Other Dedicated Sample Description (color, turbidity, odor, sheen, etc.): CLEAR, COLORLESS, NO/NS DTW Ferrous iron (ref PC) Comments/ (mg/L) 1 11.2 186.4 0.59 6.57 63.7	847	11.3	186.7	0.59	6.56	64.3				
Sample Collected With: Bailer Pump/Pump Type DED BLADDER Made of: Stainless Steel PVC Teflon Polythylene Other Dedicated Made of: Alconox Wash Tap Rinse D I Water Dedicated Other Dedicated Beson Procedure: Alconox Wash Tap Rinse D I Water Dedicated Other Dedicated Sample Description (color, turbidity, odor, sheen, etc.): CLEAR, COLORLESS, NO/NS DTW Ferrous iron (rF'C) Comments/ (mV) 1 11.2 186.4 0.59 6.57 63.7										
Made of: Stainless Steel PVC Tefon Polyethylene Other Dedicated Decon Procedure: Alconox Wash Tap Rinse DI Water Dedicated Dedicated By Numerical Order) Other Other Dedicated Dedicated Dedicated Sample Description (color, turbidity, odor, sheen, etc.): CLEAR, COLORLESS, NO/NS Comments/ (NTU) DTW Ferrous iron (Fe II) Comments/ Observations 1 11.2 186.4 0.59 6.57 63.7 - - 2 11.2 186.6 0.58 6.57 62.4 - - - 3 11.2 185.6 0.58 6.57 61.9 - - - - - Average: 11.2 186.2 0.58 6.57 62.8 #DIV/0! 8.35 - <t< td=""><td>SAMPLE CO</td><td>LLECTION D</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	SAMPLE CO	LLECTION D								
Decon Procedure: Alconox Wash Tap Rinse DI Water Dedicated (By Numerical Order) Other	-	ted With:		_					_	
(By Numerical Order) □				_			<u> </u>	U Other	Dedicated	
Sample Description (color, turbidity, odor, sheen, etc.): CLEAR, COLORLESS, NO/NS Replicate Temp (°F/°C) Cond. (us/cm) D.O. (mg/L) pH ORP (mV) Turbidity (NTU) DTW (ft) Ferrous iron (Fe II) Comments/ Observations 1 11.2 186.4 0.59 6.57 63.7				sh 🔲	Tap Rinse	DI Water	Dedicated			
Replicate Temp (°F/°C) Cond. (us/cm) D.O. (mg/L) pH ORP (mV) Turbidity (NTU) DTW (ft) Ferrous iron (Fe II) Comments/ Observations 1 11.2 186.4 0.59 6.57 63.7		,					~			
Implicitie CRPC (uS/cm) (mg/L) (mV) (NTU) (Rt) (Fe II) Observations 1 11.2 186.4 0.59 6.57 63.7	Sample Descr	iption (color, f	urbidity, odor,	sheen, etc.):	CLEAR, CO	LORLESS, NO/N	S			
2 11.2 186.8 0.58 6.57 63.1 3 11.2 185.6 0.58 6.57 62.4	Replicate				рН					
3 11.2 185.6 0.58 6.57 62.4 4 11.2 185.9 0.58 6.57 61.9 Average: 11.2 186.2 0.58 6.57 62.8 #DIV/0! 8.35 QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) 3 (8260-SIM) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR 0R 3 (8260-SIM) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR 0R (8270D) (PAH) (NWTPH-D) (NWTPH-D) (8081) (8141) (0il & Grease) WA OR 0R (pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl)<(SO4)	1	11.2	186.4	0.59	6.57	63.7				
4 11.2 185.9 0.58 6.57 61.9 Average: 11.2 186.2 0.58 6.57 62.8 #DIV/0! 8.35 QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) 3 (8260-SIM) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR 6270D) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease) WA OR (pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (S04) (NO3) (NO2) (F) 1 (COD) (TOC5310C) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2) (Total Cyanide) (Free Cyanide) 1 (Total Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (K) (Na) (Dissolved Metals) (As) (Sb) (Ba) (Ca)	2	11.2	186.8	0.58	6.57	63.1				
Average: 11.2 186.2 0.58 6.57 62.8 #DIV/0! 8.35 QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) 3 (8260-SIM) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR (8270D) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease) WA OR OR (pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HC03/CO3) (Cl) (NO3) (NO2) (F) 1 (COD) (TOC5310C) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2) (Total Cyanide) (Free Cyanide) 1 (Total Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (T1) (V) (Zn) (Hg) (K) (Na) 1 (Total Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd)	3	11.2	185.6	0.58	6.57	62.4				
Average: 11.2 186.2 0.58 6.57 62.8 #DIV/0! 8.35 QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) 3 (8260-SIM) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR (8270D) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease) WA OR Implify (PH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F) 1 (CoD) (TOct5310C) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2) Implify (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F) 1 (CoD) (TOct310C) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2) Implify (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F) 1 (Total Aetals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co)<	4	11.2	185.9	0.58	6.57	61.9				
QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below) 3 (8260-SIM) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX) WA OR							#DIV/0!	8 35		
3 (8260-SIM) (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) (TOC5310C) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2) (Total Cyanide) (WAD Cyanide) (Free Cyanide) 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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silic VOC (Boeing short list) Methane Ethane Ethene Acetylene							olicable or write no	n-standard ana	X	
(pH) (Conductivity) (TDS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F) 1 (COD) (TOC5310C) (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) 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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Si) </td <td>3</td> <td>`</td> <td></td> <td><u> </u></td> <td>· · ·</td> <td>, , ,</td> <td>(8141) (Oil & Gre</td> <td>ase)</td> <td></td> <td></td>	3	`		<u> </u>	· · ·	, , ,	(8141) (Oil & Gre	ase)		
1 (COD) (TOC5310C) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2) (Total Cyanide) (WAD Cyanide) (Free Cyanide) 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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silic VOC (Boeing short list) Methane Ethane Ethene Acetylene			<i>i i i i i i i i i i</i>		/ ``	, (, , ,		,		
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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silic VOC (Boeing short list) Methane Ethane Ethene Acetylene	1			/ · · · / · ·	, , , , , , , , , , , , , , , , , , ,	• • • • • • • •	· · · · · · · · · · · · · · · · · · ·	, (201) (1100	, (=+==), (=)	
(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) (Silic VOC (Boeing short list) Methane Ethane Ethene Acetylene		(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
VOC (Boeing short list) Methane Ethane Ethene Acetylene Image: Constraint of the state o	1	(Total Metals) (As) (Sb) (1	Ba) (Be) (Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (N	i) (Ag) (Se) (T	Cl) (V) (Zn) (Hg) (K) (Na)
Methane Ethane Ethene Acetylene		(Dissolved M	etals) (As) (Sb) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (A	(Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
		```	Č (							
others		Methane Eth	ane Ethene Ac	etylene						
others										
		others								
		Suido								

Comments: Signature:



Signature:

## **Groundwater Low-Flow Sample Collection Form**

Project Nam	e:	Boeing Ren	ton		Project Number	r: (	0025217.099.0	99	
Event:		Quarterly M			Date/Time:	3/ 4 /2019@ 105	6		
Sample Num	iber:	RGW152S-			Weather:	30'S, SUNNY			
Landau Repr	-	JHA			-				
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio		Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	JT	
DTW Before	Purging (ft)	8.75	Time:	1029	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 4 /2019 @	0 1031	End Purge:	Date/Time:	3/ 4/2019 @ 1052		Gallons Purged:	
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATME	NT SYSTEM
	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° <b>F</b> /° <b>Č</b> )	(uS/cm)	( <b>mg/L</b> )	-	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	als: Stablizatio +/- 3%		ters for three +/- 0.1 units	e consecutive read +/- 10 mV	lings within the foll +/- 10%	owing limits < 0.3 ft	>/= 1 flow through cell	
1034	9.8	210.1	0.96	6.24		LOW	8.78		
1034	9.6	186.0		6.24	61.0		0.70	<0.25	
			0.59				0.70		
1040	9.7	173.5	0.45	6.23	56.0		8.78	0.25	
1043	9.9	169.0	0.40	6.23	52.3				
1046	10.1	166.0	0.37	6.23	49.8				
1049	9.8	163.3	0.35	6.24	48.0				
1051	9.9	161.8	0.34	6.25	46.7				
SAMPLE CO									
Sample Collec	cted With:		Bailer			DED BLADDER		-	
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	,	Other	- <b>1</b>		OLODI EGG NO	(NIC			
Sample Descr	iption (color, t	urbialty, odor,	sheen, etc.):	CLOUD I, C	OLORLESS, NO	110			
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	(Fe II)	Observations
1	9.9	161.7	0.34	6.25	46.5				
2	9.9	161.7	0.34	6.25	46.4				
3	9.9	161.5	0.34	6.25	46.2				
4									
-	9.9	161.6	0.33	6.25	46.1				
	<u>9.9</u> 9.9		0.33	6.25 6.25	46.1	#DIV/0!			
Average:	9.9	161.6	0.34	6.25	46.3		a standard and		
Average: QUANTITY	9.9 <b>TYPICAL A</b>	161.6 NALYSIS AL	0.34 LOWED PE	6.25 <b>R BOTTLE</b> 7	46.3 <b>FYPE (Circle app</b>	#DIV/0!	ı-standard ana		OR 🗆
Average:	9.9 TYPICAL A (8260-SIM)	161.6 NALYSIS AL (8010) (8020	0.34 LOWED PE	6.25 <b>R BOTTLE</b> 7 G) (NWTPH	46.3 TYPE (Circle app -Gx) (BTEX)			WA 🗆	OR 🗆 OR 🗆
Average: QUANTITY	9.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA	161.6 NALYSIS AL (8010) (8020 AH) (NWTPH	0.34 <b>LOWED PE</b> ) (NWTPH-0 [-D) (NWTP	6.25 <b>R BOTTLE</b> 7 G) (NWTPH H-Dx) (TPH	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081)	blicable or write nor	se)	WA 🗆 WA 🗆	
Average: QUANTITY	9.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu	161.6 NALYSIS AL (8010) (8020 AH) (NWTPH activity) (TDS	0.34 <b>LOWED PE</b> ) (NWTPH-( (-D) (NWTP -) (TSS) (B)	6.25 <b>R BOTTLE</b> 7 G) (NWTPH H-Dx) (TPH OD) (Turbid	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081)	olicable or write nor         (8141)       (Oil & Great         (HCO3/CO3)       (Cl)	se)	WA 🗆 WA 🗆	_
Average: QUANTITY 3 1	9.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid	161.6 <b>NALYSIS AL</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (Tot le) (WAD Cya	0.34 <b>LOWED PE</b> ) (NWTPH-( -D) (NWTP -) (TSS) (B) al PO4) (Tot anide) (Free	6.25 <b>R BOTTLE</b> 7 G) (NWTPH H-Dx) (TPH OD) (Turbid al Kiedahl Ni Cyanide)	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081) ity) (Alkalinity) trogen) (NH3) (	olicable or write nor (8141) (Oil & Grea (HCO3/CO3) (Cl) (NO3/NO2)	ise) (SO4) (NO3	WA  WA  WA  WA  (NO2) (F)	OR 🗆
Average: QUANTITY 3	9.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals)	161.6 NALYSIS AL (8010) (8020 AH) (NWTPH activity) (TDS C5310C) (Tot le) (WAD Cya ) (As) (Sb) (1	0.34 <b>LOWED PE</b> ) (NWTPH- -D) (NWTP -D) (TSS) (B ⁴ al PO4) (Tot anide) (Free Ba) (Be) (Ca	6.25 <b>R BOTTLE</b> T G) (NWTPH H-Dx) (TPH OD) (Turbid al Kiedahl Ni Cyanide) ) (Cd) (Co)	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081) ity) (Alkalinity) trogen) (NH3) ( (Cr) (Cu) (Fe) (	olicable or write nor (8141) (Oil & Grea (HCO3/CO3) (Cl) (NO3/NO2) Pb) (Mg) (Mn) (Ni	(SO4) (NO3 (SO4) (NO3 ) (Ag) (Se) (T	WA  WA  WA  WA  WA  WA  WA  WA  WA  WA	OR  (K) (Na)
Average: QUANTITY 3 1	9.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved M	161.6 <b>NALYSIS AL</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (Tot le) (WAD Cya ) (As) (Sb) (I etals) (As) (Sb	0.34 <b>LOWED PE</b> ) (NWTPH- -D) (NWTP -D) (TSS) (B ⁴ al PO4) (Tot anide) (Free Ba) (Be) (Ca	6.25 <b>R BOTTLE</b> T G) (NWTPH H-Dx) (TPH OD) (Turbid al Kiedahl Ni Cyanide) ) (Cd) (Co)	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081) ity) (Alkalinity) trogen) (NH3) ( (Cr) (Cu) (Fe) (	olicable or write nor (8141) (Oil & Grea (HCO3/CO3) (Cl) (NO3/NO2)	(SO4) (NO3 (SO4) (NO3 ) (Ag) (Se) (T	WA  WA  WA  WA  WA  WA  WA  WA  WA  WA	OR  (K) (Na)
Average: QUANTITY 3 1	9.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	161.6 <b>NALYSIS AL</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (Tot e) (WAD Cya b) (As) (Sb) (1 etals) (As) (Sb g short list)	0.34 <b>LOWED PE</b> ) (NWTPH-( I-D) (NWTP ) (TSS) (Be al PO4) (Totanide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.25 <b>R BOTTLE</b> T G) (NWTPH H-Dx) (TPH OD) (Turbid al Kiedahl Ni Cyanide) ) (Cd) (Co)	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081) ity) (Alkalinity) trogen) (NH3) ( (Cr) (Cu) (Fe) (	olicable or write nor (8141) (Oil & Grea (HCO3/CO3) (Cl) (NO3/NO2) Pb) (Mg) (Mn) (Ni	(SO4) (NO3 (SO4) (NO3 ) (Ag) (Se) (T	WA  WA  WA  WA  WA  WA  WA  WA  WA  WA	OR  (K) (Na)
Average: QUANTITY 3 1	9.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	161.6 <b>NALYSIS AL</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (Tot le) (WAD Cya ) (As) (Sb) (I etals) (As) (Sb	0.34 <b>LOWED PE</b> ) (NWTPH-( I-D) (NWTP ) (TSS) (Be al PO4) (Totanide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.25 <b>R BOTTLE</b> T G) (NWTPH H-Dx) (TPH OD) (Turbid al Kiedahl Ni Cyanide) ) (Cd) (Co)	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081) ity) (Alkalinity) trogen) (NH3) ( (Cr) (Cu) (Fe) (	olicable or write nor (8141) (Oil & Grea (HCO3/CO3) (Cl) (NO3/NO2) Pb) (Mg) (Mn) (Ni	(SO4) (NO3 (SO4) (NO3 ) (Ag) (Se) (T	WA  WA  WA  WA  WA  WA  WA  WA  WA  WA	OR  (K) (Na)
Average: QUANTITY 3 1	9.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	161.6 <b>NALYSIS AL</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (Tot e) (WAD Cya b) (As) (Sb) (1 etals) (As) (Sb g short list)	0.34 <b>LOWED PE</b> ) (NWTPH-( I-D) (NWTP ) (TSS) (Be al PO4) (Totanide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.25 <b>R BOTTLE</b> T G) (NWTPH H-Dx) (TPH OD) (Turbid al Kiedahl Ni Cyanide) ) (Cd) (Co)	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081) ity) (Alkalinity) trogen) (NH3) ( (Cr) (Cu) (Fe) (	olicable or write nor (8141) (Oil & Grea (HCO3/CO3) (Cl) (NO3/NO2) Pb) (Mg) (Mn) (Ni	(SO4) (NO3 (SO4) (NO3 ) (Ag) (Se) (T	WA  WA  WA  WA  WA  WA  WA  WA  WA  WA	OR  (K) (Na)
Average: QUANTITY 3 1	9.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	161.6 <b>NALYSIS AL</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (Tot e) (WAD Cya b) (As) (Sb) (1 etals) (As) (Sb g short list)	0.34 <b>LOWED PE</b> ) (NWTPH-( I-D) (NWTP ) (TSS) (Be al PO4) (Totanide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.25 <b>R BOTTLE</b> T G) (NWTPH H-Dx) (TPH OD) (Turbid al Kiedahl Ni Cyanide) ) (Cd) (Co)	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081) ity) (Alkalinity) trogen) (NH3) ( (Cr) (Cu) (Fe) (	olicable or write nor (8141) (Oil & Grea (HCO3/CO3) (Cl) (NO3/NO2) Pb) (Mg) (Mn) (Ni	(SO4) (NO3 (SO4) (NO3 ) (Ag) (Se) (T	WA  WA  WA  WA  WA  WA  WA  WA  WA  WA	OR  (K) (Na)
Average: QUANTITY 3 1	9.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved Metals VOC (Boein Methane Eth others	161.6 <b>NALYSIS AL</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (Tot e) (WAD Cya b) (As) (Sb) (1 etals) (As) (Sb g short list)	0.34 <b>LOWED PE</b> ) (NWTPH-0 -D) (NWTP -D) (TSS) (Bu al PO4) (Totanide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca etylene	6.25 <b>R BOTTLE</b> T G) (NWTPH H-Dx) (TPH OD) (Turbid al Kiedahl Ni Cyanide) ) (Cd) (Co) (a) (Cd) (Co)	46.3 <b>TYPE (Circle app</b> -Gx) (BTEX) -HCID) (8081) ity) (Alkalinity) trogen) (NH3) ( (Cr) (Cu) (Fe) (	olicable or write nor (8141) (Oil & Grea (HCO3/CO3) (Cl) (NO3/NO2) Pb) (Mg) (Mn) (Ni	(SO4) (NO3 (SO4) (NO3 ) (Ag) (Se) (T	WA  WA  WA  WA  WA  WA  WA  WA  WA  WA	OR  (K) (Na)

Date:

3/4/2019

\\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\field form pdfs\GW081S



Project Nam	e <u>:</u>	Boeing Ren	ton		Project Number	:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4 /2019@ 102	26		
Sample Num	iber:	RGW153S-	190304		Weather:	30'S, SUNNY			
Landau Repr	esentative:	JHA			_				
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Condition	n:	Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	ЛТ	
DTW Before	Purging (ft)	9.17	Time:	958	Flow through cell	vol.		GW Meter No.(	HERON 3
Begin Purge:	Date/Time:	3/ 4 /2019 @	@ 1001	End Purge:	Date/Time:	3/ 4/2019 @ 102	2	Gallons Purged:	0.75
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa +/- 3%	uls: Stablizatio +/- 3%		ters for three +/- 0.1 units		lings within the fol +/- 10%	lowing limits < 0.3 ft	>/= 1 flow through cell	
1004	10.6	269.2	2.97	6.50		LOW	9.23	<0.25	
1007	10.6	224.6	1.25	6.49	52.5		9.23		
1007	10.6	222.0					7.23	0.23	
			1.09	6.50	49.1				
1013	10.7	217.1	0.92	6.49	42.6				
1016	10.7	214.3	0.84	6.49	37.8				
1019	10.7	211.7	0.78	6.48	34.4			0.5	
1021	10.7	208.3	0.73	6.49	30.9				
SAMPLE CO									
Sample Collec	eted With:		Bailer		Pump/Pump Type				
Made of:		Stainless Stee		PVC	+ <b>E</b> J	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	,	Other	1 ( )						
Sample Descr	iption (color, t	urbialty, odor,	sneen, etc.):	CLOUDY, C	COLORLESS, NO/	113			
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	10.7	207.9	0.73	6.48	30.4				
2	10.7	208.2	0.72	6.48	30.1				
3	10.7	207.3	0.73	6.47	30.0				
4	10.7	207.7	0.73	6.48	29.7				
Average:	10.7	207.8	0.73	6.48	30.1	#DIV/0!			
-									
QUANTITY 3		<u>NALYSIS AL</u> (8010) (8020				licable or write no	on-standard ana	WA 🗆	OR 🗆
		(8010) (8020 AH) (NWTPH	<i>(</i> )	· · ·	, , , , , , , , , , , , , , , , , , ,	(8141) (Oil & Gre	ase)	WA 🗆	$OR \square$
		/ · · · ·		/ /	, , , , ,	(HCO3/CO3) (CI	· · · · · · · · · · · · · · · · · · ·		on
1	(COD) (TOC		/ · · · / · · ·		trogen) (NH3) (	· · · · · · · · · · · · · · · · · · ·			
	(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
1	(Total Metals	) ( <mark>As</mark> ) (Sb) (]	Ba) (Be) (Ca	a) (Cd) (Co)	(Cr) (Cu) (Fe) (I	<b>Pb</b> ) (Mg) (Mn) (N	i) (Ag) (Se) (7	[1] (V) (Zn) (Hg	) (K) (Na)
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb)	) (Mg) (Mn) (Ni) (A	(Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein		atulara						
	wietnane Eth	ane Ethene Ac	etyiene						
	others								

Duplicate Sample No(s):

Comments: Signature:



Project Nam	e <u>:</u>	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4/2019@	1030		
Sample Num	ber:	RGW172S-	190304		Weather:	CLEAR			
Landau Repr	resentative:	SRB			-				
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio	n:	Secure (YES	)	Damaged (N	0)	Describe:			
DTW Before	Purging (ft)	9.18	Time:	950	Flow through cel	l vol.		GW Meter No.(s	HERON1
Begin Purge:	Date/Time:	3/4 /2019 @	<u>e</u> 1000			3/ 4 /2019 @	1020	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Тетр	Cond.	<b>D.O.</b>	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° <b>F</b> /°Ĉ)	(uS/cm)	(mg/L)	-	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
						dings within the fol		>/= 1 flow	
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1003	9.2	252.2	2.95	6.51	35.6	LOW	9.49	. <u></u>	
1006	9.6	265.9	2.73	6.42	23.6		9.45		
1009	9.2	304.2	2.21	6.44	-20.0		9.35		
1012	8.9	300.6	2.10	6.46	-24.3		9.30		
1015	8.9	294.0	2.02	6.47	-24.5				
1018	8.9	291.1	1.99	6.47	-24.5				
SAMPLE CO	LLECTION E								
Sample Collec	ted With:		Bailer			DED BALDDER			
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color, t	urbidity, odor,	, sheen, etc.):	SLIGHTLY	GRAY SLIGHTI	LY TURBID NO/NS			
Replicate	Тетр	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	8.9	288.0	1.99	6.47	-24.7				
2	8.8	289.4	1.97	6.47	-24.8				
3	8.9	288.6	1.93	6.47	-24.8				
4	8.9	286.2	1 45						
			1.95	6.47	-25.4				
Average:	8.9	288.1	1.96	6.47	-23.4	#DIV/0!			
		288.1	1.96	6.47	-24.9	#DIV/0!	on-standard ar	nalysis below)	
QUANTITY	TYPICAL A	288.1	1.96 LLOWED PE	6.47 R BOTTLE	-24.9 <b>TYPE (Circle ap</b>		on-standard ar	WA 🗆	OR 🗆
QUANTITY	TYPICAL A (8260-SIM)	288.1 NALYSIS AI (8010) (8020	1.96 LLOWED PE )) (NWTPH-	6.47 <b>R BOTTLE</b> G) (NWTPH	-24.9 <b>TYPE (Circle ap</b>	pplicable or write n			OR  OR  OR  OR  OR  OR  OR  OR  OR  OR
QUANTITY 3	<b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu	288.1 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH activity) (TDS	1.96 LLOWED PE )) (NWTPH- 1-D) (NWTF S) (TSS) (B	6.47 CR BOTTLE G) (NWTPH PH-Dx) (TPH OD) (Turbio	-24.9 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity)	pplicable or write n (8141) (Oil & Gr (HCO3/CO3) (C	ease)	WA 🗆 WA 🗆	
QUANTITY	<b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO	288.1 NALYSIS AI (8010) (8020 AH) (NWTPH activity) (TDS 25310C) (To	1.96 <b>LLOWED PE</b> )) (NWTPH- H-D) (NWTP S) (TSS) (B tal PO4) (To	6.47 <b>R BOTTLE</b> G) (NWTPH H-Dx) (TPH OD) (Turbic tal Kiedahl N	-24.9 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081)	pplicable or write n (8141) (Oil & Gr (HCO3/CO3) (C	ease)	WA 🗆 WA 🗆	
QUANTITY 3 1	TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid	288.1 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (To le) (WAD Cy	1.96 <b>LOWED PE</b> ) (NWTPH- 1-D) (NWTP 5) (TSS) (B tal PO4) (To ranide) (Free	6.47 <b>R BOTTLE</b> G) (NWTPH PH-Dx) (TPH OD) (Turbid tal Kiedahl N Cyanide)	-24.9 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3)	pplicable or write n (8141) (Oil & Gr (HCO3/CO3) (C (NO3/NO2)	ease) 1) (SO4) (NO	WA WA 3) (NO2) (F)	OR 🗆
QUANTITY 3	TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals	288.1 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH activity) (TDS C5310C) (To be) (WAD Cy ) (As) (Sb) (	1.96 <b>LLOWED PE</b> )) (NWTPH- H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca	6.47 <b>R BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbic tal Kiedahl N Cyanide) ) (Cd) (Co)	-24.9 <b>TYPE (Circle ap</b> H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141)         (Oil & Gr           (HCO3/CO3)         (C           (NO3/NO2)         (NO3/NO2)	ease) 1) (SO4) (NO 1i) (Ag) (Se) (	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR g) (K) (Na)
QUANTITY 3 1	TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved M	288.1 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (To e) (WAD Cy ) (As) (Sb) ( etals) (As) (St	1.96 <b>LLOWED PE</b> )) (NWTPH- H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca	6.47 <b>R BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbic tal Kiedahl N Cyanide) ) (Cd) (Co)	-24.9 <b>TYPE (Circle ap</b> H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141)         (Oil & Gr           (HCO3/CO3)         (C           (NO3/NO2)         (NO3/NO2)	ease) 1) (SO4) (NO 1i) (Ag) (Se) (	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR g) (K) (Na)
QUANTITY 3 1	TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	288.1 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH (1000) (700 (1000) (700) (1000) (700) (700) (700) (1000) (700) (700) (700) (1000) (700) (700) (700) (700) (700) (1000) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (	1.96 <b>LOWED PE</b> )) (NWTPH- H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.47 <b>R BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbic tal Kiedahl N Cyanide) ) (Cd) (Co)	-24.9 <b>TYPE (Circle ap</b> H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141)         (Oil & Gr           (HCO3/CO3)         (C           (NO3/NO2)         (NO3/NO2)	ease) 1) (SO4) (NO 1i) (Ag) (Se) (	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR g) (K) (Na)
QUANTITY 3 1	TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	288.1 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH activity) (TDS <b>C5310C</b> ) (To e) (WAD Cy ) (As) (Sb) ( etals) (As) (St	1.96 <b>LOWED PE</b> )) (NWTPH- H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.47 <b>R BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbic tal Kiedahl N Cyanide) ) (Cd) (Co)	-24.9 <b>TYPE (Circle ap</b> H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141)         (Oil & Gr           (HCO3/CO3)         (C           (NO3/NO2)         (NO3/NO2)	ease) 1) (SO4) (NO 1i) (Ag) (Se) (	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR g) (K) (Na)
QUANTITY 3 1	TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	288.1 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH (1000) (700 (1000) (700) (1000) (700) (700) (700) (1000) (700) (700) (700) (1000) (700) (700) (700) (700) (700) (1000) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (	1.96 <b>LOWED PE</b> )) (NWTPH- H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.47 <b>R BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbic tal Kiedahl N Cyanide) ) (Cd) (Co)	-24.9 <b>TYPE (Circle ap</b> H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141)         (Oil & Gr           (HCO3/CO3)         (C           (NO3/NO2)         (NO3/NO2)	ease) 1) (SO4) (NO 1i) (Ag) (Se) (	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR g) (K) (Na)
QUANTITY 3 1 1 1 1 1 1	TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	288.1 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH (1000) (700 (1000) (700) (1000) (700) (700) (700) (1000) (700) (700) (700) (1000) (700) (700) (700) (700) (700) (1000) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700) (700)	1.96 <b>LOWED PE</b> )) (NWTPH- H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.47 <b>R BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbic tal Kiedahl N Cyanide) ) (Cd) (Co)	-24.9 <b>TYPE (Circle ap</b> H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141)         (Oil & Gr           (HCO3/CO3)         (C           (NO3/NO2)         (NO3/NO2)	ease) 1) (SO4) (NO 1i) (Ag) (Se) (	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR 🗆

Duplicate Sample No(s):

Comments:



Signature:

## **Groundwater Low-Flow Sample Collection Form**

Project Nam	e:	Boeing Ren	ton		Project Number		0025217.099.0	99	
Event:		Quarterly M			Date/Time:	3/ 4 /2019@ 910	5		
Sample Num	nber:	RGW173S-			Weather:	30'S, SUNNY			
Landau Repr	resentative:	JHA			•				
WATER LEV	/EL/WELL/PU	RGE DATA							
Well Condition	on:	Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	Т	
DTW Before	Purging (ft)	9.03	Time:	849	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 4 /2019 @	Ø 854	End Purge:	Date/Time:	3/ 4/2019 @ 915		Gallons Purged:	0.75
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goa	(uS/cm) ds: Stablizatio	(mg/L) on of Parame	ters for three	(mV) consecutive read	(NTU) lings within the fol	(ft) Iowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
857	9.1	301.7	0.79	6.59	49.0	LOW	9.08	< 0.25	
900	9.3	284.8	0.53	6.66	30.2		9.08	< 0.25	
903	9.2	283.3	0.49	6.67	22.7				
906	9.2	277.7	0.59	6.67	7.2		9.08		
909		275.2	0.52	6.66	-0.1				
912		275.0	0.51	6.65	-2.4				
914		272.7	0.37	6.65	-7.1				
			0.07	0.05					
SAMPLE CO	LLECTION D	ATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED 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, t	urbidity, odor,	sheen, etc.):	CLOUDY, L	IGHT BROWN C	OLOR, NO/NS			
Replicate	Тетр	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
1.000100000	(°F/°C)	(uS/cm)	(mg/L)	P	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	9.4	270.8	0.37	6.65	-7.5				
2	9.3	271.1	0.38	6.65	-7.8				
3	9.3	270.2	0.37	6.65	-8.1				
4	9.3	270.5	0.37	6.65	-8.4				
Average:	9.3	270.7	0.37	6.65	-8.0	#DIV/0!	9.28		
-	TVPICAL A			<b>Ρ ΒΟΤΤΙ Ε</b> Ί	TVPF (Circle and	olicable or write no			
3	1				-Gx) (BTEX)	incable of write no	n-stanuaru and	WA $\Box$	OR 🗆
	f i i i i i i i i i i i i i i i i i i i		/		, , , ,	(8141) (Oil & Gre	ase)	WA 🗆	OR 🗆
	(pH) (Condu	ctivity) (TDS	5) (TSS) (B	OD) (Turbid	ity) (Alkalinity)	(HCO3/CO3) (Cl)	) (SO4) (NO3	) (NO2) (F)	
1	1				trogen) (NH3)	(NO3/NO2)			
		e) $(WAD Cys)$					•• • • • • • • • •		
1						$\frac{Pb}{(Mg)} (Mg) (Mg) (Ng) (Ng) (Mg) (Mg) (Mg) (Ng) (Mg) (Mg) (Mg) (Mg) (Mg) (Mg) (Mg) (M$			
	VOC (Boein		j (Da) (De) (C	.a) (CU) (CO) (	(CI) (CU) (FC) (PD	<u>) (1819) (1811) (181) (A</u>	(3e)(11)(V)	$(\Sigma \Pi)$ ( $\Pi g$ ) ( $K$ ) ( $N$	a) (Hardness) (Silica
	1	ane Ethene Ac	etylene						
	T								
	others								
Duplicate San	•	MSMSD Loc	ation						

 JHA
 Date:
 3/4/2019

 \\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\SWMU-172&174_3.4.19_JHA



Project Nam	e:	Boeing Ren	ton		Project Number	:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4 /2019@ 95	1		
Sample Num	nber:	RGW226S-	190304		Weather:	30'S, SUNNY			
Landau Repr	resentative:	JHA			-				
WATER LEV	'EL/WELL/PU	RGE DATA							
Well Condition		Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	JT	
DTW Before	Purging (ft)	8.67	Time:	925	Flow through cel	l vol.		GW Meter No.(s	HERON 3
		3/ 4 /2019 @	@ 929	End Purge:	-	3/ 4/2019 @ 950		Gallons Purged:	0.5
Purge water d			55-gal Drum	Ē	Storage Tank	Ground		SITE TREATM	
U	-		-		-				
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa	ls: Stablizatio	on of Parame			lings within the fol	lowing limits	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
932	11.7	233.7	1.82	6.49	74.3	LOW	8.67	< 0.25	
935	11.3	241.0	1.40	6.52	62.9				
938	10.6	220.5	0.83	6.58	45.2		8.67	0.25	
941	10.7	215.4	0.65	6.58	35.0				
						,			
944	11.0	214.5	0.62	6.57	30.3				
947	11.0	213.2	0.57	6.57	22.5			0.5	
959	11.1	209.5	0.54	6.58	17.5				
SAMPLE CO	LLECTION D								
Sample Collec	cted With:		Bailer			DED BLADDER			
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	,	Other							
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):	CLOUDY, C	COLORLESS, NO	/NS			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	(°F/°C)	(uS/cm)	(mg/L)	PII	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	11.0	210.1	0.54	6.59	17.2				
2	11.0	209.6	0.53	6.59	16.9				
3	11.0	209.5	0.53	6.58	16.7				
4	11.0	209.6	0.53	6.58	16.4			·	
Average:	11.0	209.7	0.53	6.59	16.8	#DIV/0!		·	
QUANTITY	TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE 7	<b>FYPE (Circle app</b>	olicable or write no	n-standard ana	lysis below)	
3					(-Gx) (BTEX)			WA 🗆	OR 🗌
	(8270D) (PA	(NWTPH	I-D) (NWTP	H-Dx) (TPH	-HCID) (8081)	(8141) (Oil & Gre	ase)	WA 🗆	OR 🗆
	<b>A</b> <i>i i</i>		· · · · ·	/ ~ ~		(HCO3/CO3) (CI)	) (SO4) (NO3	) (NO2) (F)	
1		· · · ·	, , ,		trogen) (NH3)	(NO3/NO2)			
		e) (WAD Cy		•					
1						$\frac{Pb}{Mg} (Mg) (Mn) (N)$			
	(Dissolved M VOC (Boein		) (Ba) (Be) (С	.a) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (N1) (A	.g) (Se) (TI) (V)	(Zn) (Hg) (K) (Na)	a) (Hardness) (Silica)
	`	g short list) ane Ethene Ac	etvlene						
		une Luiche At							
	others								

Duplicate Sample No(s):

Comments: Signature:

JHA

\\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\field form pdfs\GW226S



Project Name:		Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4/2019@	800		
Sample Number	:	RGW232S-	190304		Weather:	CLEAR			
Landau Represen	ntative:	SRB							
WATER LEVEL/	WELL/PU	JRGE DATA							
Well Condition:		Secure (YES)	)	Damaged (N	0)	Describe:			
DTW Before Purg	ging (ft)	7.74	Time:	729	Flow through cel	l vol.		GW Meter No.(s	HERON1
Begin Purge: Da	ate/Time:	3/4 /2019 @	730	End Purge:	Date/Time:	3/ 4 /2019 @	753	Gallons Purged:	0.25
Purge water dispos	sed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Тетр	Cond.	<b>D.O.</b>	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time (	(° <b>F</b> /°Ĉ)	(uS/cm)	( <b>mg/L</b> )	-	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	urge Goa +/- 3%	ls: Stablizatio +/- 3%		ters for three +/- 0.1 units		lings within the fo +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
								unoughten	
733	6.8	367.8	4.63	5.83		LOW	8.05		
736	4.9	335.2	4.02	5.84	-12.9		8.13		
739	4.6	304.8	3.71	5.83	-15.5		8.17		
742	5.3	292.4	3.37	5.82	-17.5		8.22		
745	6.3	293.6	3.14	5.83	-20.6		8.25		
748	7.0	289.6	2.99	5.92	-30.4				
751	6.9	278.9	2.94	6.00	-35.9				
								·	
SAMPLE COLLE Sample Collected			Bailer		Pump/Pump Type	DED BALDDER			
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procedure:		Alconox Was		Tap Rinse	DI Water	Dedicated			
(By Numerical Or		Other	ш Ш	r ap Kinse		Dedicated			
Sample Descriptio	·		sheen etc.).	CLEAR CO	LORI ESS NO/NS				
Sampie 2 esemptis		areraity, easi,		022.111.001		, 			
	Temp	Cond.	<b>D.O.</b>	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	(Fe II)	Observations
1	6.9	278.3	2.94	6.02	-37.0				
2	6.9	276.6	2.90	6.03	-37.6				
3	6.9	277.4	2.88	6.03	-38.1				
4	6.9	275.2	2.90	6.04	-39.0				
Average:	6.9	276.9	2.91	6.03	-37.9	#DIV/0!			
OUANTITY TY	PICAL A	NALYSIS AI	LOWED PR	R BOTTLE	TYPE (Circle ar	plicable or write 1	non-standard ar	nalysis below)	
					H-Gx) (BTEX)	phease of write i	ion standard a	WA 🗆	OR 🗆
	· · · · ·		/ .	<i>,</i> , , ,	, <u>,</u> , ,	(8141) (Oil & G	rease)	WA 🗆	OR 🗆
(pH	) (Condu	ctivity) (TDS	S) (TSS) (B	OD) (Turbio	dity) (Alkalinity)	(HCO3/CO3) (O	Cl) (SO4) (NO	3) (NO2) (F)	
1 (CO	D) ( <b>TO</b>	C5310C) (Tot	tal PO4) (To	tal Kiedahl N	itrogen) (NH3)	(NO3/NO2)			
		e) (WAD Cy							
						Pb) (Mg) (Mn) (1			
/ <del>**</del> •	and M	etals) (As) (Sb	) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pl)	o) (Mg) (Mn) (Ni) (	Ag) (Se) (Tl) (V	(Zn) (Hg) (K) (N)	Na) (Hardness) (Silica
VC	DC (Boein	g short list)							
VC	DC (Boein	g short list) ane Ethene Ac	etylene						
VC	DC (Boein		eetylene						
VC	DC (Boein ethane Eth		eetylene						

Duplicate Sample No(s):

Comments: LOWEST LEVEL OF PURGE -- STILL DRAWDOWN

Signature: SRB



Sample Nomber:         EGW2331-190304         Weather:         305. SUNNY           Landau Representative:         JHA         305. SUNNY           Well Condition:         Secure (YES)         Damaged (NO)         Describe: <u>FLUSH MOUNT</u> DTW Before Purging (ft)         7.21         Time:         Table Parameters <u>G</u> U010 @ 735         Galloos Purged:         0.05           Purge water disposed to:         0.55 gal Drum         Storage Tauk         Ground         Other STETE TREATMENT SYSTEM           Time:         Temp Cond.         D.O.         pII         ORF         Turbidity         DTW         Ground         Other STETE TREATMENT SYSTEM           Time:         Temp Cond:         Doi:         pII         ORF         Turbidity         DTW         Volume (ght)         Observations           740         4.5         1631         3.21         6.42         1410         LOW         7.23         -0.3 ft         Horospherel         Observations           743         6.3         1610         1.06         6.20         143.         -0.3 ft         Turbidity         Observations           743         6.3         1610         1.06         6.21         120.9         -0.5         -0.5         -0.5	Project Nam	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Sample Number:         RGW2331:         190304         Weather:         30%, SUNNY           Landau Representative:         JHA	Event:					Ũ	1	1		
Landau Representative:         JIIA           WATER LEVEL.PVICUE DATA         Banaged (N)         Describe:         FLUSH MOUNT           DYW Before Purging (ft)         7.21         Time:         733         Flow through cell vol.         GW Meter No. (s. HFRON 3           Begin Parge:         Data Crime:         J. 4.2019 @ 7.37         Inal Parge:         Data Crime:         J. 4.2019 @ 7.35         GROM Structure:         DOT           Time:         Cond         D.O.         pHI         ORP         Turbidity         DTW         Internal Parge:         Connects/           Time:         CuSCen         D.O.         pHI         ORP         Turbidity         DTW         Internal Parge:         Connects/           Time:         CuSCen         D.O.         pHI         ORP         Turbidity         DTW         Internal Parge:         Connects/           Tradition:         CuSCen         A.4.00%		iber:				-				
WHER LEVEL APURGE DATA         Damaged (NO)         Describe:         FLUSH MOLINT           Well Condition:         Secure (YES)         Damaged (NO)         Describe:         FLUSH MOLINT           TYPE derop Projegi (f)         7.21         Time:         723         Flow through cell vol.         GW Meter No (c HERON 3)           Begin Purge:         Date Time:         3/ 4 / 2019 (# 737         End Purge:         Date Time:         3/ 4 / 2019 (# 737         GW Meter No (c HERON 3)           Time         Time         Strage Johnn         Bornge Tink         GW Purget:         Date Time:         3/ 4 / 2019 (# 737         Comments'           Time         CFF (C)         (GSCm)         (mgL)         (mPL)         (mV)         Time (cpl)         Doservations           740         4.5         1631         3.21         6.42         141.0         I/OW         7.23         0.25         -           746         7.2         167.8         1.58         6.32         139.7         7.23         0.25         -         -           752         8.4         172.8         1.44         6.51         120.9         -         -         -         -         -         -         -         -         -         -         -		•	JHA							
Well Condition:       Secure (YLES)       Damaged (NC)       Describ:       ILLISH MOUINT         0T/W Refore Parging (ft)       2.21       Time:       7.23       How through cell vol.       Gillons Parging (ft)       0.05         Signi Parge:       Data       Data       Data       0.05       3/12       Gillons Parging (ft)       0.05       9/12       Gillons Parging (ft)       0.05       1.05       1.05       0.05       1.05       0.05       0.05       0.05       0.05       0.05<										
DTW Before Purging (1)       2.21       Time       2.33       Flow through cell vol.       GW Meter No.(5 HERON 3         Begin Purge:       Date/Time:       2/.4 / 2019 @ 73       End Purge:       Date/Time:       2/.4 / 2019 @ 738       GW Meter No.(5 HERON 3         Purge water disposed to:       GS 5-gal Drum       Storage Task       Ground       Other       STE TREATMENT SYSTEM         Time       (GFC)       GSC       (GAC)				)	Damaged (N	0)	Describe:	FLUSH MOUN	JT	
Begin Parge:       Date/Time:       ½ 4 / 2019 @ 737       End Parge:       Date/Time:       ½ 4 / 2019 @ 758       Gallons Parged:       0.033         Parge water disposed to:       Borge Tank       Ground       Other       Other       The rest of					-					LEDON 2
Parge water disposed to:         Image: Style plane         Image: Style plane <tt>Image: Style plane         <ttt< td=""><td></td><td></td><td></td><td></td><td></td><td>•</td><td></td><td></td><td>-</td><td></td></ttt<></tt>						•			-	
Time         Temp (FFC)         Cond. (uS)(emp(1))         D.0. (mg(1))         pH         ORP (mV)         Turbidity (NT)         DTW (NT)         Internal Purge (NT)         Comments/ (NT)           743         4.5         163.1         3.21         6.42         141.0         LOW         7.23         0.25           743         6.3         161.9         1.96         6.26         143.4	• •				Ē.			Other	e	
Time         ("FFC)         (us)("m)         (m)         ("NTD)         ("N         Values (agi)         Observations           740         4.5         163.1         3.21         6.42         141.0         LOW         7.23         -0.25	r uige water u	isposed to.		C						
Purge Coulds: Stabilization of Parameters for three consecutive readings within the following limits between the book of the parameters of	Time				pН				•	
740       4.5       163.1       3.21       6.42       141.0       LOW       7.23       c0.25         743       6.3       161.9       1.96       6.20       143.4	Time				ters for three	· · ·		· · ·		Observations
743       6.3       161.9       1.96       6.26       143.4		+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
746       7.2       167.8       1.58       6.32       139.7       7.23       0.25         749       8.0       170.5       1.46       6.44       131.4	740	4.5	163.1	3.21	6.42	141.0	LOW	7.23	<0.25	
746       7.2       167.8       1.58       6.32       139.7       7.23       0.25         749       8.0       170.5       1.46       6.44       131.4	743	6.3	161.9	1.96	6.26	143.4				
749       8.0       170.5       1.46       6.44       131.4         752       8.6       175.7       1.42       6.51       120.9         755       8.4       177.8       1.17       6.49       109.8       0.5         757       8.6       179.2       1.04       6.56       103.4       0.5         SAMPLE COLLECTION DATA         Sample Collected With:       Bailer       Pump/Pump Type       DED BLADDER         Colspan="2">Other       D dicated         Decon Procedure:       Colsonox Wash       Tap Rinse       D II Water       D decicated         By Numerical Order)       Other       Tap Rinse       D II Water       D decicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS         Replicate       Temp       Cond.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       8.6       178.1       1.00       6.56       101.8								7 23	0.25	
752       8.6       175.7       1.42       6.5       120.9								1.25	0.25	
755       8.4       177.8       1.17       6.49       109.8       0.5         757       8.6       179.2       1.04       6.56       103.4									·	
757       8.6       179.2       1.04       6.56       103.4         SAMPLE COLLECTION DATA       Sample Collected With:       Bailer       Pump/PumpType DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         By Numerical Order)       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS       Dreventor       Comments/         Replicate       Temp       Cond.       D.0.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       8.6       178.9       1.01       6.56       102.4	752	8.6	175.7	1.42	6.51	120.9				
SAMPLE COLLECTION DATA         Sample Collected With:       Bailer       Pump/Pump Type       DED BLADDER         Made of:       Stainless Steel       PVC       Teffon       Polyethylene         Decore Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated         Bocon Procedure:       Other       Stainless Steel       Tap Rinse       DI Water       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS       DR       Comments/       Observations         1 <u>8.6</u> 178.9       1.01 <u>6.56</u> 102.4	755	8.4	177.8	1.17	6.49	109.8			0.5	
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         By Numerical Order)       Other       Other       Dedicated       Dedicated       Dedicated         Replicate       Temp Cond.       D.O. pH       ORP Turbidity (NTU)       DTW (Fe II)       Observations         1       8.6       178.9       1.01       6.56       102.4	757	8.6	179.2	1.04	6.56	103.4				
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         By Numerical Order)       Other       Other       Dedicated       Dedicated       Dedicated         Replicate       Temp Cond.       D.O. pH       ORP Turbidity (NTU)       DTW (Fe II)       Observations         1       8.6       178.9       1.01       6.56       102.4										
Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         (By Numerical Order)       Other       Other       Dedicated       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS       DTW       Ferrous iron       Comments/         1       8.6       178.9       1.01       6.56       102.4	SAMPLE CO	LLECTION D	ATA							
Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated         By Numerical Order)       Other	Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BLADDER			
(By Numerical Order)       Other       CLEAR, COLORLESS, NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       8.6       178.9       1.01       6.56       102.4	Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS         Replicate       Temp (°F/°C)       Cond. (us/cm)       D.O. (mg/L)       pH       ORP (mV)       Turbidity (NTU)       DTW (ft)       Ferrous iron (Fe II)       Comments/ Observations         1       8.6       178.9       1.01       6.56       102.4	Decon Proced	ure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
Replicate       Temp (°F/°C)       Cond. (uS/cm)       D.O. (mg/L)       pH       ORP (mV)       Turbidity (NTU)       DTW (Rt)       Ferrous iron (Fe II)       Comments/ Observations         1       8.6       178.9       1.01       6.56       102.4	(By Numerica	l Order)	Other							
Implication       (FF'C)       (uS/cm)       (mg/L)       (mV)       (NTU)       (ft)       (Fe II)       Observations         1       8.6       178.9       1.01       6.56       102.4	Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):	CLEAR, CO	LORLESS, NO/N	S			
Implified       (FF*C)       (uS/cm)       (mg/L)       (mV)       (NTU)       (ft)       (Fe II)       Observations         1       8.6       178.9       1.01       6.56       102.4	Domligata	Tomn	Cond	DO		OPP	Tunkidi4.	DTW	Forrous iron	Comments/
1       8.6       178.9       1.01       6.56       102.4         2       8.6       179.1       0.99       6.56       101.8	Replicate				рп					
2       8.6       179.1       0.99       6.56       101.8         3       8.6       178.1       1.00       6.56       101.0         4       8.5       176.8       1.03       6.56       100.4         Average:       8.6       178.2       1.01       6.56       101.4       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       3       (8260-SIM)       (8010)       (8020)       (NWTPH-G)       (BTEX)       WA       OR       0R         3       (8260-SIM)       (8010)       (8020)       (NWTPH-G)       (BTEX)       WA       OR       0R         3       (8260-SIM)       (8010)       (8020)       (NWTPH-G)       (BTEX)       WA       OR       0R         4       (8270D)       (PAH)       (NWTPH-D)       (NWTPH-G)       (B141)       (Oil & Grease)       WA       OR       0R         4       (PH)       (Conductivity)       (TDS)       (BOD)       (Turbidity)       (Alkalinity)       (HC03/CO3)       (Cl)       (SO4)       (NO2)       (F)         1       (Cold Vanide)       (Free Cyanide)       (H13)       (NO3/NO2)       (Total Actals)       (	1	. ,	. ,		6 56					
3       8.6       178.1       1.00       6.56       101.0         4       8.5       176.8       1.03       6.56       100.4         Average:       8.6       178.2       1.01       6.56       101.4       #DIV/0!         QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         3       (8260-SIM)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         3       (8260-SIM)       (8010)       (8020)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR         6       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR       Image: Color (Colductivity)       OR       Image: Color (Colductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HC03/CO3)       (Cl)       (SO4)       (NO3)       (NO2)       (F)         1       (COD)       (TOctal PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Atelas)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (C										
4       8.5       176.8       1.03       6.56       100.4         Average:       8.6       178.2       1.01       6.56       101.4       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       0R       0R         3       (8260-SIM)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       0R         (8270D)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (oil & Grease)       WA       0R         (pH)       (Conductivity)       (TDS)       (TSS)       (BDD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (CI)       (NO3)       (NO2)       (F)         1       (COD)       (TOC5310C)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)         1       (Total Atels)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (Tital Challedakl)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Cu)										
Average:       8.6       178.2       1.01       6.56       101.4       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         3       (8260-SIM)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR	3	8.6	178.1	1.00	6.56	101.0				
QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         3       (8260-SIM) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)       WA       OR         (8270D) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)       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)       I         1       (COD) (TOC5310C) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)       I         (Total Cyanide) (WAD Cyanide) (Free Cyanide)       I       I         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) (Hardness) (Silica)         VOC (Boeing short list)       Methane Ethane Ethene Acetylene       I         I       I       I       I         I       I       I       I         I       I       I       I         I       I       I       I         I       I       I       I         I       I       I       I         I       I       I       I         I       I       I       I         I       <	4	8.5	176.8	1.03	6.56	100.4				
3       (8260-SIM) (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) (TOC5310C) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)         (Total Cyanide) (WAD Cyanide) (Free Cyanide)         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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica)         VOC (Boeing short list)       Methane Ethene Acetylene	Average:	8.6	178.2	1.01	6.56	101.4	#DIV/0!			
3       (8260-SIM) (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) (TOC5310C) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)         (Total Cyanide) (WAD Cyanide) (Free Cyanide)         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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica)         VOC (Boeing short list)       Methane Ethene Acetylene	OUANTITY	TVPICAL A	NAT VSIS AT	I OWED PE	R BOTTI F '	TVPF (Circle and	licable or write no	n-standard and	lysis below)	
(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) (TOC5310C) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)         (Total Cyanide) (WAD Cyanide) (Free Cyanide)         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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica)         VOC (Boeing short list)         Methane Ethane Ethene Acetylene							incubic of write no	<u>n-stanuaru and</u>	- • · · · · · · · · · · · · · · · · · ·	OR 🗌
<ul> <li>(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)</li> <li>1 (COD) (TOC5310C) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2) (Total Cyanide) (WAD Cyanide) (Free Cyanide)</li> <li>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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica) VOC (Boeing short list)</li> <li>Methane Ethane Ethene Acetylene</li> </ul>							(8141) (Oil & Gre	ase)		
(Total Cyanide) (WAD Cyanide) (Free Cyanide)         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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica)         VOC (Boeing short list)         Methane Ethane Ethene Acetylene										
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 Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica)         VOC (Boeing short list)         Methane Ethane Ethene Acetylene	1	(COD) (TOO	C5310C) (To	tal PO4) (Tot	tal Kiedahl Ni	trogen) (NH3)	(NO3/NO2)			
(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) (Silica)         VOC (Boeing short list)         Methane Ethane Ethene Acetylene		(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
VOC (Boeing short list)         Methane Ethane Ethene Acetylene	1									
Methane Ethane Acetylene				) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	.g) (Se) (Tl) (V)	(Zn) (Hg) (K) (Na	a) (Hardness) (Silica)
			ě í	. 1						
others		Methane Eth	ane Ethene Ac	etylene						
others										
		others								
	L									

Duplicate Sample No(s):

Comments: Signature:



J	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4/2019@	1000		
Sample Num	nber:	RGW234S-	190304		Weather:	CLEAR			
Landau Repr	resentative:	SRB			-				
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio		Secure (YES	)	Damaged (N	0)	Describe:			
DTW Before	Purging (ft)	7.77	Time:	920	Flow through cel	l vol.		GW Meter No.(s	HERON1
Begin Purge:	0 0 0			End Purge:	-	3/ 4 /2019 @	953	Gallons Purged:	
Purge water d			55-gal Drum	, Č	Storage Tank	Ground		SITE TREATM	
C	•	Cond.	D.O.	рН	ORP	Turbidity	DTW		Comments/
Time	Temp (°F/°C)	(uS/cm)	(mg/L)	рп	(mV)	(NTU)	(ft)	Internal Purge Volume (gal)	Observations
	Purge Goa	ls: Stablizatio	on of Paramet		e consecutive read	dings within the fo	llowing limits	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
933	7.7	149.1	6.66	6.42	45.0	MED	7.77		
936	10.2	250.8	1.55	6.49	-19.3		7.77		
939	10.0	244.5	1.51	6.47	-20.6		7.77		
942	9.4	236.3	1.59	6.40	-17.5				
945	9.2	231.2	1.56	6.32	-13.0				
948	9.1	229.3	1.53	6.30	-12.2				
951	9.2	229.0	1.51	6.31	-12.7				
SAMPLE CO	LLECTION E								
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BALDDER			
Made of:		Stainless Stee	el 🗖	PVC	Teflon	Polyethylene	D Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color, t	urbidity, odor,	, sheen, etc.):	SLIGHTLY	YELLOW AND	SLIGHTLY TURB	ID NO/NS		
Derlisete	Танин	Cand			ODD	T	DTW	Ferrous iron	Comments/
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	(Fe II)	Observations
1	9.1	228.7	1.52	6.31					
	9.2	220.7	1.52		120				
2	y /	220.0	1.50		-12.9				
2		228.8	1.50	6.31	-13.2				
3	9.2	228.8 228.9	1.50 1.50						
5 4				6.31	-13.2				
	9.2	228.9	1.50	6.31 6.32	-13.2 -13.4	#DIV/0!			
4 Average:	9.2 9.1 9.2	228.9 228.5 228.7	1.50 1.50 1.51	6.31 6.32 6.32 6.32	-13.2 -13.4 -13.7 -13.3				
4 Average: <b>QUANTITY</b>	9.2 9.1 9.2 TYPICAL A	228.9 228.5 228.7	1.50 1.50 1.51 LLOWED PE	6.31 6.32 6.32 6.32 6.32	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b>	#DIV/0!		nalysis below)	OR 🗆
4 Average: <b>QUANTITY</b>	9.2 9.1 9.2 TYPICAL A (8260-SIM)	228.9 228.5 228.7 NALYSIS AI (8010) (8020	<u>1.50</u> <u>1.50</u> <u>1.51</u> LLOWED PE )) (NWTPH	6.31 6.32 6.32 6.32 6.32 CR BOTTLE G) (NWTPH	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> I-Gx) (BTEX)			•	OR  OR
4 Average: <b>QUANTITY</b>	9.2 9.1 9.2 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA	228.9 228.5 228.7 NALYSIS AI (8010) (8020 AH) (NWTPH	1.50 1.50 1.51 <b>LLOWED PE</b> )) (NWTPH- H-D) (NWTP	6.31 6.32 6.32 6.32 6.32 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081)	plicable or write 1	rease)	WA 🗆 WA 🗆	
4 Average: <b>QUANTITY</b>	9.2 9.1 9.2 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu	228.9 228.5 228.7 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH activity) (TDS	1.50 1.50 1.51 LLOWED PE )) (NWTPH-0 H-D) (NWTP S) (TSS) (B	6.31 6.32 6.32 6.32 6.32 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH BOD) (Turbio	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081)	pplicable or write r (8141) (Oil & Gr (HCO3/CO3) (C	rease)	WA 🗆 WA 🗆	
4 Average: QUANTITY 3	9.2 9.1 9.2 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid	228.9 228.5 228.7 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH (NWTPH (10) (TDS (10) (TOS (10) (TOS) (10) (TOS) (10) (10) (10) (10) (10) (10) (10) (10)	1.50           1.51           LLOWED PE           )) (NWTPH-           H-D) (NWTP           S) (TSS) (B           tal PO4) (To           ranide) (Free	6.31 6.32 6.32 6.32 6.32 6.32 6.32 6.32 6.32	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> H-Gx) (BTEX) H-HCID) (8081) dity) (Alkalinity) itrogen) (NH3)	(8141) (Oil & Gi (HCO3/CO3) (C (NO3/NO2)	rease) Cl) (SO4) (NO	WA WA 3) (NO2) (F)	OR 🗆
4 Average: QUANTITY 3	9.2 9.1 9.2 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals	228.9 228.5 228.7 NALYSIS AI (8010) (8020 AH) (NWTPH activity) (TDS C5310C) (To le) (WAD Cy ) (As) (Sb) (	1.50 1.50 1.51 (NWTPH- (NWTPH- (NWTPH- (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-	6.31 6.32 6.32 6.32 6.32 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH PH-Dx) (TPH OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F)	OR ) (K) (Na)
4 Average: QUANTITY 3 1	9.2 9.1 9.2 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M	228.9 228.5 228.7 NALYSIS AI (8010) (8020 AH) (NWTPH (8010) (7DS (AH) (NWTPH (5310C) (To (5310C) (To (c) (WAD Cy (c) (As) (Sb) ( etals) (As) (Sb)	1.50 1.50 1.51 (NWTPH- (NWTPH- (NWTPH- (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (NWTP (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-D) (I-	6.31 6.32 6.32 6.32 6.32 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH PH-Dx) (TPH OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F)	OR
4 Average: QUANTITY 3 1	9.2 9.1 9.2 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	228.9 228.5 228.7 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH (8010) (8020 AH) (NWTPH (8010) (70 (5310C) (TO (5310C) (To (e) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb g short list)	1.50 1.50 1.51 <b>LOWED PE</b> )) (NWTPH-0 H-D) (NWTP H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.31 6.32 6.32 6.32 6.32 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH PH-Dx) (TPH OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F)	OR ) (K) (Na)
4 Average: QUANTITY 3 1	9.2 9.1 9.2 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	228.9 228.5 228.7 NALYSIS AI (8010) (8020 AH) (NWTPH (8010) (7DS (AH) (NWTPH (5310C) (To (5310C) (To (c) (WAD Cy (c) (As) (Sb) ( etals) (As) (Sb)	1.50 1.50 1.51 <b>LOWED PE</b> )) (NWTPH-0 H-D) (NWTP H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.31 6.32 6.32 6.32 6.32 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH PH-Dx) (TPH OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F)	OR ) (K) (Na)
4 Average: QUANTITY 3 1	9.2 9.1 9.2 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	228.9 228.5 228.7 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH (8010) (8020 AH) (NWTPH (8010) (70 (5310C) (TO (5310C) (To (e) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb g short list)	1.50 1.50 1.51 <b>LOWED PE</b> )) (NWTPH-0 H-D) (NWTP H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.31 6.32 6.32 6.32 6.32 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH PH-Dx) (TPH OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F)	OR 🗆
4 Average: QUANTITY 3 1 1 1	9.2 9.1 9.2 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	228.9 228.5 228.7 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH (8010) (8020 AH) (NWTPH (8010) (70 (5310C) (TO (5310C) (To (e) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb g short list)	1.50 1.50 1.51 <b>LOWED PE</b> )) (NWTPH-0 H-D) (NWTP H-D) (NWTP S) (TSS) (B tal PO4) (To ranide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.31 6.32 6.32 6.32 6.32 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH PH-Dx) (TPH OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-13.2 -13.4 -13.7 -13.3 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F)	OR ) (K) (Na)

Duplicate Sample No(s):

Comments:



Project Nam	e: Boeing Renton				Project Numbe	r:	0025217.099.0	099.099	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4/2019@	930		
Sample Num	iber:	RGW235I-	190304		Weather:	CLEAR			
Landau Repr	resentative:	SRB							
WATER LEV	EL/WELL/P	URGE DATA							
Well Condition		Secure (YES	)	Damaged (N	(0)	Describe:			
DTW Before	Purging (ft)	7.42	Time:	-	Flow through ce	ll vol.		GW Meter No.(s	HERON1
		3/4 /2019 @		End Purge:	•	3/ 4 /2019 @	920	Gallons Purged:	
Purge water d			55-gal Drum	Ē	Storage Tank	Ground		SITE TREATM	
-	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	рп	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goa	ls: Stablizatio	on of Parame		e consecutive rea	dings within the fo	llowing limits	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/ <b>- 10 mV</b>	+/- 10%	< 0.3 ft	through cell	
903	7.0	134.0	3.02	6.98	16.2	LOW-MED	7.42		
906	7.3	136.7	2.06	6.41	9.9		7.42		
909	8.1	133.7	1.81	6.36	-10.1		7.42		
912			1.75	6.39	-				
915	7.8	130.7	1.78	6.39	-12.8				
SAMPLE CO	LLECTION I	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BALDDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color,	turbidity, odor,	sheen, etc.):	CLEAR CO	LORLESS NO/N	S			
									~
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
				< <b>2</b> 0	. ,		(11)	(ren)	Obser various
1	7.8	130.5	1.77	6.39	-12.9				
2	7.8	130.5	1.75	6.39	-12.8				
3	7.8	130.1	1.75	6.39	-13.1				
4	7.7	130.0	1.74	6.39	-13.1				
Average:	7.8	130.3	1.75	6.39	-13.0	#DIV/0!			
r									
						oplicable or write i	non-standard ar	•	
3					$\frac{\text{H-Gx}}{\text{H-Gx}} \xrightarrow{\text{(BTEX)}}$	(0141) (011 8 0		WA 🗆 WA 🗆	OR  OR  OR  OR  OR  OR  OR  OR  OR  OR
						(8141) (Oil & Gi (HCO3/CO3) (0			
1			<i>·</i> · · <i>·</i> · · ·	` ``	(itrogen) (NH3)	/ /	(10)	3) (102) (1)	
		le) (WAD Cy	( ` _ ` _ ` _ ` _ ` _ ` _ ` _			(1103/1102)			
1		· · · · · · · · · · · · · · · · · · ·		• /	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn) (1	Ni) (Ag) (Se) ('	Tl) (V) (Zn) (H	g) (K) (Na)
									Na) (Hardness) (Silica
	VOC (Boein								
	Methane Eth	nane Ethene Ac	etylene						
	others								
	nple No(s).								

Duplicate Sample No(s)

Comments:

Signature: SRB



1 roject i (um	ame: Boeing Renton				Project Number	r:	0025217.099.0		
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4/2019@	900		
Sample Num	iber:	RGW236S-	190304		Weather:	CLEAR			
Landau Repr	esentative:	SRB			-				
WATER LEV	'EL/WELL/PU	<b>URGE DATA</b>							
Well Conditio		Secure (YES	)	Damaged (N	0)	Describe:			
DTW Before	Purging (ft)	7.03	Time:	828	Flow through cel	l vol.		GW Meter No.(s	HERON1
	000	3/4 /2019 @	830		-	3/ 4 /2019 @	855	Gallons Purged:	
Purge water d			55-gal Drum	, Č	Storage Tank	Ground		SITE TREATM	
C	-	Cond.	D.O.	рН	ORP	Turbidity	DTW		Comments/
Time	Temp (°F/°C)	(uS/cm)	(mg/L)	рп	(mV)	(NTU)	(ft)	Internal Purge Volume (gal)	Observations
	Purge Goa	ls: Stablizatio	on of Paramet		e consecutive read	dings within the fo	llowing limits	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/ <b>- 10 mV</b>	+/- 10%	< 0.3 ft	through cell	
833	5.7	263.0	7.00	6.78	83.4	LOW	7.10		
836	6.7	265.8	6.51	6.52	84.2		7.10		
839	8.3	309.0	4.72	6.38	24.3		7.10		
842	8.6	323.8	2.26	6.59	-28.0				
			,						
845	8.6	325.8	2.17	6.60	-33.0				
849	8.8	327.8	2.03	6.60	-40.6				
852	8.8	328.6	1.99	6.61	-44.4				
SAMPLE CO	LLECTION E								
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BALDDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	D Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):	SLIGHTLY	YELLOW AND	TURBID NO/NS			
Derlisete	Танан	Cand			ODD	T	DTW	Ferrous iron	Comments/
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	(Fe II)	Observations
1	8.8	328.6	1.99	6.61	-45.0				
			,						
2	8.9	328.7	2.03	6.60	-45.7				
3	8.9	220.0							
		328.8	2.03	6.60	-46.0				
4	8.9	328.8	2.03	<u>6.60</u> 6.60	-46.0				
4 Average:						#DIV/0!			
Average:	<u> </u>	328.6 328.7	2.04 2.02	6.60 6.60	-46.6 -45.8				
Average: QUANTITY	8.9 8.9 TYPICAL A	328.6 328.7 NALYSIS AI	2.04 2.02 LLOWED PE	6.60 6.60 <b>CR BOTTLE</b>	-46.6 -45.8 <b>TYPE (Circle ap</b>	#DIV/0!	non-standard an	nalysis below)	OR 🗆
Average: QUANTITY	8.9 8.9 TYPICAL A (8260-SIM)	328.6 328.7 NALYSIS AI (8010) (8020	2.04 2.02 LLOWED PE )) (NWTPH	6.60 6.60 <b>CR BOTTLE</b> G) (NWTPH	-46.6 -45.8 <b>TYPE (Circle ap</b>	plicable or write r		· · · · · · · · · · · · · · · · · · ·	OR  OR  OR  OR  OR  OR  OR  OR  OR  OR
Average: QUANTITY	8.9 8.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA	328.6 328.7 NALYSIS AI (8010) (8020 AH) (NWTPH	2.04 2.02 2.02 2.10WED PE 1.0) (NWTPH-1 1.0) (NWTP	6.60 6.60 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH	-46.6 -45.8 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081)	plicable or write r	rease)	WA 🗆 WA 🗆	
Average: QUANTITY	8.9 8.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu	328.6 328.7 <b>NALYSIS AI</b> (8010) (8020 AH) (NWTPH activity) (TDS	2.04 2.02 (NWTPH 1-D) (NWTP 5) (TSS) (B	6.60 6.60 <b>CR BOTTLE</b> G) (NWTPH PH-Dx) (TPH OD) (Turbio	-46.6 -45.8 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081)	pplicable or write r (8141) (Oil & Gr (HCO3/CO3) (C	rease)	WA 🗆 WA 🗆	
Average: QUANTITY 3	8.9 8.9 <b>TYPICAL A</b> (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid	328.6 328.7 NALYSIS AI (8010) (8020 AH) (NWTPH activity) (TDS C5310C) (Tor le) (WAD Cy	2.04 2.02 2.02 2.LOWED PE () (NWTPH H-D) (NWTP 5) (TSS) (B tal PO4) (To ranide) (Free	6.60 6.60 CR BOTTLE G) (NWTPP PH-Dx) (TPP OD) (Turbio tal Kiedahl N Cyanide)	-46.6 -45.8 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) Ity) (Alkalinity) itrogen) (NH3)	(8141) (Oil & Gi (HCO3/CO3) (C (NO3/NO2)	rease) Cl) (SO4) (NO	WA WA 3) (NO2) (F)	OR 🗆
Average: QUANTITY 3	8.9 8.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals	328.6 328.7 NALYSIS AI (8010) (8020 AH) (NWTPH activity) (TDS C5310C) (To (C5310C) (To (WAD Cy ) (As) (Sb) (	2.04 2.02 (NWTPH- 	6.60 6.60 <b>CR BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-46.6 -45.8 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR (K) (Na)
Average: QUANTITY 3 1	8.9 8.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M	328.6 328.7 NALYSIS AI (8010) (8020 AH) (NWTPH activity) (TDS C5310C) (Too le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb	2.04 2.02 (NWTPH- 	6.60 6.60 <b>CR BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-46.6 -45.8 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR (K) (Na)
Average: QUANTITY 3 1	8.9 8.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	328.6 328.7 NALYSIS AI (8010) (8020 AH) (NWTPH (1000) (8020 AH) (NWTPH (1000) (8020) (1000) (8020) (1000) (8020) (1000) (8020) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (	2.04 2.02 (NWTPH-0) (NWTPH-0) (NWTPH-0) (NWTP S) (TSS) (B tal PO4) (To anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.60 6.60 <b>CR BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-46.6 -45.8 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR 🗆
Average: QUANTITY 3 1	8.9 8.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	328.6 328.7 NALYSIS AI (8010) (8020 AH) (NWTPH activity) (TDS C5310C) (Too le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb	2.04 2.02 (NWTPH-0) (NWTPH-0) (NWTPH-0) (NWTP S) (TSS) (B tal PO4) (To anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.60 6.60 <b>CR BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-46.6 -45.8 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR (K) (Na)
Average: QUANTITY 3 1	8.9 8.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	328.6 328.7 NALYSIS AI (8010) (8020 AH) (NWTPH (1000) (8020 AH) (NWTPH (1000) (8020) (1000) (8020) (1000) (8020) (1000) (8020) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (	2.04 2.02 (NWTPH-0) (NWTPH-0) (NWTPH-0) (NWTP S) (TSS) (B tal PO4) (To anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.60 6.60 <b>CR BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-46.6 -45.8 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR (K) (Na)
Average:          QUANTITY         3         1         1         1         1	8.9 8.9 TYPICAL A (8260-SIM) (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	328.6 328.7 NALYSIS AI (8010) (8020 AH) (NWTPH (1000) (8020 AH) (NWTPH (1000) (8020) (1000) (8020) (1000) (8020) (1000) (8020) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (1000) (	2.04 2.02 (NWTPH-0) (NWTPH-0) (NWTPH-0) (NWTP S) (TSS) (B tal PO4) (To anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	6.60 6.60 <b>CR BOTTLE</b> G) (NWTPF PH-Dx) (TPF OD) (Turbio tal Kiedahl N Cyanide) a) (Cd) (Co)	-46.6 -45.8 <b>TYPE (Circle ap</b> I-Gx) (BTEX) I-HCID) (8081) dity) (Alkalinity) itrogen) (NH3) (Cr) (Cu) (Fe) (	(8141) (Oil & Gi         (HCO3/CO3) (C         (NO3/NO2)         Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO ]	WA WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR (K) (Na)

Duplicate Sample No(s):

Comments:

Frent:         Quardry March 2019         Data Time:         2: 5 : 20196 KM1           Sample Number:         IRGW 0315 - 190305         Weather:         303, SUNNY           Madma Representative:         IHA         Secure (YES)         Damaged (NO)         Describe:         ILLSH MOLTANEL           Will Condition:         Secure (YES)         Damaged (NO)         Describe:         ILLSH MOLTANEL         (INV Meder No.6.1IFRON 1           Heigh Parging (D)         5.16         Time:         KS 5 : 2019 (INV Meder No.6.1IFRON 1         INV           Parge water disposed to:         S 5 : 2019 (INV Meder No.6.1IFRON 1         DealeTime:         S : 2019 (INV Meder No.6.1IFRON 1         INV           Time:         Trep:         Code.         DO.0.         pH         OR         Threp:         Threp:         ON         Oncervision           712         14.77.9         US void (INV Meder No.6.1IFRON 1         INV         Volume (INV Meder No.6.1IFRON 1         ONCervision         ONCerv	Project Name	e:	Boeing Ren	ton		Project Number	:	0025217.099.0	99	
Landau Representative:         IHA           WATER LEVEL/VELL/FURGE DATA           Well Condition:         Secreto:         ILSS:         Duraged (NV)         Describe:         ILLSS:         MOUNT           Well Condition:         Socreto:         ILSS:         Duraged (NV)         Describe:         ILLSS:         MOUNT           Begin Purge:         Data Time:         37-2010 @ 818         Find Purge:         Data Time:         Socreto:         ILLSS:         Acce           Time         CFF*CP         Cont         D.O.         pUL         ONP         Torobidity         DTrue         Comments!         Observations:         >         Comments!           Parge value:         (NSem)         (NSem)         (NSem)         (NSem)         Comments!         Observations:         >         Comments!         Observations:         S         S         S	Event:		Quarterly M	larch 2019		Date/Time:	3/ 5 /2019@ 841	l		
WATER LEVEL WILL PURCE DATA         Duraged (NO)         Describe:         LLSH MOUNT           Well Conductor:         Secure (YLS)         Duraged (NO)         Describe:         LLUSH MOUNT           DTW Before Purging (th)         5.16         Time:         S06         Flow through cell vol.         GW Meter No.(sHERON 3           Beigh Purge:         Duer Time:         J.5.2019 & K38         East Purge         Gallons Purget:         0.32           Purger water disposed to:         D.5.5 gal Drum         Socrage Tark         Ground         Other         STTE TREATMENT SYSTEM           Time         ("Ferry Customediation of Parameters for three consecutive reading within the following limits:         VET INC         Woll Power and Powe	Sample Num	ber:	RGW031S-	190305		Weather:	30'S, SUNNY			
Well Condition:       Secure (YES)       Damaged (NO)       Describ:       ELLSH MOUNT         DTW Before Purging (rt)       5.16       Tine:       806 Plow through cell vol.       GW Meter No.(HERON 3         Begin Purge:       Due Cline:       3/ 5 / 2010 @ 818       End Purge::       Due Cline:       3/ 5 / 2010 @ 817       0/ 5         Begin Purge:       Due Cline:       3/ 5 / 2010 @ 818       End Purge::       Due Cline:       3/ 5 / 2010 @ 817       0/ 5         Time       Temp       Cond.       D.O.       p11       ORF       Therbidity       DTW       Name       Observations         12.3       407.3       0.59       6.48       -41.3	Landau Repr	esentative:	JHA			_				
DTW Befrice Purging (ft)       5.16       Time:       806       Flow through cell vol.       GW Meter No.(+EERON 3         Begin Purge:       Date/Time:       3/.5       2019 (# 88)       Gallons Purged:       0.05         Purge water deposed to:	WATER LEV	EL/WELL/PU	JRGE DATA							
Begin Purge:         Date Time:         3' 5 / 2019 @ 818         Fad Purge:         Date Time:         3' 5 / 2019 @ 839         Gallons Purged:         Date State           Purge water disposed to:         0         55-gall Drum         0         Storage Tank         0         Ground         Other         STIE TREATMENT SYSTEM           Time         Temp         Cond.         0.0.         pil         OKP         Tarthidity         DTW         Internal Parge         Comments/           Values (stabilization of Parameters for three consecutive readings within the following limits         >>1000         10000         Units         Other state         Comments/         Values (stabilization of Parameters for three consecutive readings within the following limits         >>10000         Other state         Comments/         Values (stabilization of Parameters for three consecutive readings within the following limits         >>100000         Other state         Comments/         Values (state         Distance (state         Comments/         Comments/         Comments/         Comments/         Distance (state         Comments/         Co	Well Conditio	n:	Secure (YES	)	Damaged (N	(0)	Describe:	FLUSH MOUN	ЛТ	
Parge water disposed to:       □       55-gat Drum       □       Storage Tank.       □       Ground       □       Other       SITE TREATMENT SYSTEM         Time       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Internal Parge       Comments/ (PD)       Observations         Parge Gaste: Stabilization of Parameters for three consecutive readings within the following limits +/-2.3%       (A)       Observations       Developments/ (PD)       Observations         \$22       12.3       409.6       0.6.6       6.44       4.13	DTW Before	Purging (ft)	5.16	Time:	806	Flow through cel	l vol.		GW Meter No.(	sHERON 3
Time       Temp       Cond.       D.O.       pII       ORP       Turbidity       DTW       Internal Parge       Comments/         With       Proceedate:       12.3       407.9       0.59       6.48       -35.5       MED       5.18       <0.25	Begin Purge:	Date/Time:	3/ 5 /2019	@ 818	End Purge:	Date/Time:	3/ 5/2019 @ 839		Gallons Purged:	0.75
Time         CF.Co.         (usNom)         (upL)	Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time         CF.Co.         (usNom)         (upL)		Tomp	Cond	DO	nЦ	OPP	Turbidity	DTW	Intornal Durga	Commonts/
+/- 3%         +/- 10%         +/- 10%         +/- 10%                                                                                                                    <	Time	-			рп		-		0	
821       12.3       407.9       0.59       6.48       -35.5       MED       5.18       <0.25		-					~	-	>/= 1 flow	
824       12.3       409.1       0.66       6.48       -41.3         827       12.3       409.8       0.50       6.58       -48.1       5.18       0.25         830       12.3       410.6       0.45       6.48       50.7		+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
827       1.2.3       409.8       0.50       6.58       48.1       5.18       0.25         830       12.3       410.6       0.45       6.48       -50.7	821	12.3	407.9	0.59	6.48	-35.5	MED	5.18	< 0.25	
830         12.3         410.6         0.45         6.48         -50.7           833         12.2         410.1         0.43         6.48         -53.3           836         12.2         410.2         0.40         6.48         -53.3           836         12.2         410.5         0.41         6.48         -57.3           SAMPI F COLLECTION DATA         Sample Collected With:         Bailer         Pump/Pump Type DED BLADDER           Made of:         Stainless Steel         PVC         Teffon         Polyethylene         Other           Sample Collected With:         Alconox Wash         Tap Rinse         D II Water         Dedicated           By Munerical Order)         Other	824	12.3	409.1	0.66	6.48	-41.3				
833       122       410.1       0.43       6.48       -53.3         836       122       410.2       0.40       6.48       -54.9         838       12.2       410.5       0.41       6.48       -57.3         SAMPI E-COLLECTION DATA       Sample Collected With:       Bailer       PumpPump Type DED BLADDER         Made of:       I Stainless Steel       PVC       Teflon       Polyethylene       Other         Sample Collected With:       Alconox Wash       Tap Rinse       D Water       Dedicated         (By Manerical Order)       Other	827	12.3	409.8	0.50	6.58	-48.1		5.18	0.25	
833       122       410.1       0.43       6.48       -53.3         836       122       410.2       0.40       6.48       -54.9         838       12.2       410.5       0.41       6.48       -57.3         SAMPI E-COLLECTION DATA       Sample Collected With:       Bailer       PumpPump Type DED BLADDER         Made of:       I Stainless Steel       PVC       Teflon       Polyethylene       Other         Sample Collected With:       Alconox Wash       Tap Rinse       D Water       Dedicated         (By Manerical Order)       Other	830	12.3	410.6	0.45	6 48	-50.7				
836         12.2         410.2         0.40         6.48         -54.9           838         12.2         410.5         0.41         6.48         -57.3           SAMPLE COLLECTION DATA         Sample Collected With:         Baller         Pump/Pump Type DED BLADDER           Made of:         Stainless Steel         PVC         Teflon         Polychylene         Other           Decon Procedure:         Alconox Wash         Tap Rinse         D IWater         Dedicated           By Numerical Order         Other         Other         Dedicated           Sample Description (color, turbidity, odor, sheen, etc.): CLEAR WITH MINOR SUSPENDED SOLIDS, COLORLESS, SLIGHT PETROLEUM ODOR/NS           Replicate         Temp         Cond.         D.0.         pH         ORP         Turbidity         DTW         Ferrous iron         Comments/           1         12.2         410.6         0.40         6.48         -57.5										
838       12.2       410.5       0.41       6.48       -57.3         SAMPLE COLLECTION DATA         Sample Collected With:       Bailer       PumpPump Type DED BLADDER         Made of:       Statiless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         By Numerical Order)       Other       Other       Termp Cond.       DO.       pH       ORP       Turbidity       DTW       Ferrons iron       Comments/         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR WITH MINOR SUSPENDED SOLIDS, COLORLESS, SLIGHT PETROLEUM ODOR/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrons iron       Comments/         1       12.2       410.6       0.40       6.48       -57.5										
SAMPLE COLLECTION DATA         Sample Collected With:          Bailer          Pump/Pump Type DED BLADDER         Made of:          Stainless Steel          PVC          Teflon          Poteon Procedure:          Alconox Wash          Tap Rinse          DI Water          Decon Procedure:          Alconox Wash          Tomple Description (color, turbidity, odor, sheen, etc.):          CLEAR WITH MINOR SUSPENDED SOLDS, COLORLESS, SLIGHT PETROLEUM ODOR/NS          Replicate          Temp         Cond.           D.0.         pH         (ngV)         (ngV)         (NTU)         (ft)         (fe II)         Observations          1         12.2         410.6         0.40         6.48         -57.5          2         12.3         411.4         0.41         6.48         -58.6          4         12.4         411.6         0.40         6.48         -59.1          Average:          12.3         411.2         0.40	836	12.2	410.2	0.40	6.48	-54.9				
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Other       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR WITH MINOR SUSPENDED SOLIDS, COLORLESS, SLIGHT PETROLEUM ODOR/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         (°F/°C)       (uS/cm)       (mg/L)       (mgV)       (nVU)       (ft)       (ft)       Observations         1       12.2       410.6       0.40       648       -55.1	838	12.2	410.5	0.41	6.48	-57.3				
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Other       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR WITH MINOR SUSPENDED SOLIDS, COLORLESS, SLIGHT PETROLEUM ODOR/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         (°F/°C)       (uS/cm)       (mg/L)       (mgV)       (nVU)       (ft)       (ft)       Observations         1       12.2       410.6       0.40       648       -55.1										
Made of: <ul> <li>Stainless Steel</li> <li>PVC</li> <li>Teflon</li> <li>Polyethylene</li> <li>Other</li> <li>Dedicated</li> </ul> Bocon Procedure:         Alconox Wash         Tap Rinse         DI Water         Dedicated           By Numerical Order)         Other	SAMPLE CO	LLECTION D	DATA							
Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Decicated         (By Numerical Order)       Other	Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BLADDER			
(By Numerical Order)         Other         Sample Description (color, turbidity, odor, sheen, etc.): CLEAR WITH MINOR SUSPENDED SOLIDS, COLORLESS, SLIGHT PETROLEUM ODOR/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.2       410.6       0.40       6.48       -57.5	Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Sample Description (color, turbidity, odor, sheen, etc.): CLEAR WITH MINOR SUSPENDED SOLIDS, COLORLESS, SLIGHT PETROLEUM ODOR/NS         Replicate       Temp (°F/°C)       Cond. (us/cm)       D.O. (mg/L)       pH       ORP (mV)       Turbidity (NTU)       DTW (ft)       Ferrous iron (Fe II)       Comments/ Observations         1       12.2       410.6       0.40       6.48       -57.5       -       -       -       -       -       -       Observations         3       12.3       411.4       0.41       6.48       -58.6       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	Decon Proced	ure:	Alconox Wa	sh	Tap Rinse	DI Water	Dedicated			
Replicate         Temp ('Ff'C)         Cond. (usS(m)         D.O. (mg/L)         pH         ORP (mV)         Turbidity (NTU)         DTW (t)         Ferrous iron (fe II)         Comments/ Observations           1         12.2         410.6         0.40         6.48         -57.5	(By Numerica	l Order)	Other							
(°F/°C)         (us/cm)         (mg/L)         (mV)         (NTU)         (ft)         (Fe II)         Observations           1         12.2         410.6         0.40         6.48         -57.5	Sample Descr	iption (color,	turbidity, odoi	; sheen, etc.):	CLEAR WIT	TH MINOR SUSP	ENDED SOLIDS, C	COLORLESS, S	LIGHT PETROL	EUM ODOR/NS
(°F/°C)         (us/cm)         (mg/L)         (mV)         (NTU)         (ft)         (Fe II)         Observations           1         12.2         410.6         0.40         6.48         -57.5										
1       12.2       410.6       0.40       6.48       -57.5         2       12.3       411.2       0.40       6.48       -58.1         3       12.3       411.4       0.41       6.48       -58.6         4       12.4       411.6       0.40       6.48       -59.1         Average:       12.3       411.2       0.40       6.48       -59.1         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       5         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-G)         6       (PAH)       (NWTPH-D)       (NWTPH-G)       (BEX)       WA       OR         (PH)       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (SO4)       (NO3)       (NO2)       (F)         1       (COD)       (TOct (Total PO4)       (Total K	Replicate	-			рН		-			
2       12.3       411.2       0.40       6.48       -58.1         3       12.3       411.4       0.41       6.48       -58.6         4       12.4       411.6       0.40       6.48       -59.1         Average:       12.3       411.2       0.40       6.48       -59.1         Average:       12.3       411.2       0.40       6.48       -59.1         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       5         5       (8260)       (8010)       (8020)       (NWTPH-GX)       (BTEX)       WA       OR         (8270)       (PAH)       (NWTPH-D)       (NWTPH-GX)       (BTEX)       WA       OR       0R         (pH)       (Conductivity)       (TDS)       (TDS)       (BDD)       (Turbidity)       (Alkalinity)       (HC03/CO3)       (Cl)       (NO2)       (F)         1       (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Adetals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Xu)       (Adetals)       (As)       (Sb)       (Adetals)       (As)       <	1				<b>C</b> 10		(110)	(11)	(1011)	Obser various
3       12.3       411.4       0.41       6.48       -58.6         4       12.4       411.6       0.40       6.48       -59.1         Average:       12.3       411.2       0.40       6.48       -59.1         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR          (8270)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR          (pH)       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alalinity)       (HCO3/CO3)       (Cl) (SO4)       (NO3)       (NO2)       (Total Cyanide)       (Free Cyanide)         (Total Cyanide)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb) (Ba)       (Be) (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Ma)       (Ma)       (Dissolved Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Cr)       (Cu)       (Ca)       (	1									
4       12.4       411.6       0.40       6.48       -59.1         Average:       12.3       411.2       0.40       6.48       -58.3       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       S       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR       S         (8270)       (PAH)       (NWTPH-D)       (NWTPH-D)       (8814)       (01 & Grease)       WA       OR       S         (PH)       (Conductivity)       (TDS)       (TDS)       (BDD)       (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 Cyanide)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (TI)       (V)       (Xn)       (Matadness)       (Silid	2	12.3	411.2	0.40	6.48	-58.1				
Average:       12.3       411.2       0.40       6.48       -58.3       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       0R         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         (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)       (NO2)       (F)         1       (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Cyanide)       (Free Cyanide)         (Total Cyanide)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Mb)       (Mn)       (Ni)       (Ag)       (Se)       (Thi Adventes)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Cu)       (Cu) <td< td=""><td>3</td><td>12.3</td><td>411.4</td><td>0.41</td><td>6.48</td><td>-58.6</td><td></td><td></td><td></td><td></td></td<>	3	12.3	411.4	0.41	6.48	-58.6				
QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         5       (8260) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)       WA       OR         (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)       Image: Conductivity (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)         (Total Cyanide) (WAD Cyanide) (Free Cyanide)       Image: Conductive (Conductive) (Conductive	4	12.4	411.6	0.40	6.48	-59.1				
QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         5       (8260) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)       WA       OR         (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)       Image: Conductivity (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)         (Total Cyanide) (WAD Cyanide) (Free Cyanide)       Image: Conductive (Conductive) (Conductive	Average:	12.3	411.2	0.40	6.48	-58.3	#DIV/0!			
5       (8260) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)       WA       OR         (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)         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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silid         VOC (Boeing short list)         Methane Ethane Ethene Acetylene			NAT VOIC AT		р вотті е	TVDE (Cincle or	nliachla an muite n	on standard a	nolucia holom)	
(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)         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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silic         VOC (Boeing short list)         Methane Ethane Ethene Acetylene						-	plicable or write n	on-standard a	•	
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silic         VOC (Boeing short list)         Methane Ethane Ethene Acetylene	5						(Oil & Grave)	(A)		
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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silid         VOC (Boeing short list)         Methane Ethane Ethene Acetylene			, ,	<i>,</i> ,	<i>,</i> ,	, , , ,	<i>,</i> ,	,		
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silide)         VOC (Boeing short list)         Methane Ethane Ethene Acetylene	1	, , ,	• • •	, , , ,	, ,			, (201) (110	-, (*,~=, (*)	
(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) (Silice VOC (Boeing short list) Methane Ethane Ethene Acetylene		(Total Cyanid			-		,			
VOC (Boeing short list) Methane Ethane Ethene Acetylene				· · ·		(Cr) (Cu) (Fe) (	Pb) (Mg) (Mn) (N	Ji) (Ag) (Se) (	Tl) (V) (Zn) (H	g) (K) (Na)
Methane Ethane Acetylene		(Dissolved M	etals) (As) (St	o) (Ba) (Be) (O	Ca) (Cd) (Co)	(Cr) $(Cu)$ $(Fe)$ $(Pl)$	o) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V	') (Zn) (Hg) (K) (	Na) (Hardness) (Silic
		VOC (Boein	g short list)							
others		Methane Eth	ane Ethene A	cetylene						
others										
others										
		others								

 Duplicate Sample No(s):
 Duplicate Location (DUP2)

Comments:

Signature:



Project Name	e:	Boeing Ren	ton		Project Number: 0025217.099.099				
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5 /2019@ 95	1		
Sample Num	ber:	RGW033S-	190305		Weather:	30'S, SUNNY			
Landau Repr	esentative:	JHA			-				
WATER LEV	EL/WELL/PU	IRGE DATA							
Well Condition		Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	Т	
DTW Before I	Purging (ft)	5.28	Time:	925	Flow through cell	vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 @	928	End Purge:	Date/Time:	3/ 5/2019 @ 947		Gallons Purged:	0.75
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C) Purge Gos	Cond. (uS/cm)	D.O. (mg/L)	pH ters for three	ORP (mV)	Turbidity (NTU) lings within the fol	DTW (ft) lowing limits	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	+/- 3%		+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
931	12.7	326.6	0.36	6.25	35.4	LOW	5.28	<0.25	
934	12.8	306.2	0.29	6.27	10.2				
937	13.0	302.9	0.27	6.28			5.28		
940	13.0		0.27	6.27	-11.7		5.20		
		302.4							
943	13.0	300.0	0.28	6.28	-17.9				
946	13.1	301.1	0.28	6.29	-20.2				
SAMPLE CO									
Sample Collec			Bailer			DED BLADDER		<b>—</b>	
Sample Collec Made of:	cted With:	Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Sample Collec Made of: Decon Proced	eted With:	Stainless Stee Alconox Was					Other	Dedicated	
Sample Collec Made of: Decon Procedu (By Numerical	cted With:	Stainless Stee Alconox Was	sh 🗍	PVC Tap Rinse	Teflon DI Water	<ul><li>Polyethylene</li><li>Dedicated</li></ul>		-	
Sample Collec Made of: Decon Procedu (By Numerical	cted With:	Stainless Stee Alconox Was	sh 🗍	PVC Tap Rinse	Teflon DI Water	Polyethylene		-	
Sample Collec Made of: Decon Procedu (By Numerical	cted With:	Stainless Stee Alconox Was	sh 🗍	PVC Tap Rinse	Teflon DI Water	<ul><li>Polyethylene</li><li>Dedicated</li></ul>		-	Comments/ Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri	cted With:	Stainless Stee Alconox Was Other urbidity, odor, Cond.	el sh sheen, etc.):	PVC Tap Rinse CLEAR, CO	Teflon DI Water	Polyethylene Dedicated HTEST ROTTEN/Pl Turbidity (NTU)	ETROLEUM O	DOR/NS Ferrous iron (Fe II)	
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate	cted With: ure: <i>l Order)</i> iption (color, t Temp (°F/°C)	Stainless Stee Alconox Was Other urbidity, odor, Cond. (uS/cm)	el sh sheen, etc.):	PVC Tap Rinse CLEAR, CO <b>pH</b>	Teflon DI Water LORLESS, SLIGH ORP (mV)	Polyethylene Dedicated HTEST ROTTEN/Pl Turbidity (NTU)	ETROLEUM OI DTW (ft)	DOR/NS Ferrous iron (Fe II)	
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate	cted With:	Stainless Stee Alconox Was Other urbidity, odor, Cond. (uS/cm) 301.2	el	PVC Tap Rinse CLEAR, CO <b>pH</b> 6.29	Teflon DI Water LORLESS, SLIGH ORP (mV) -20.6	Polyethylene Dedicated HTEST ROTTEN/Pl Turbidity (NTU)	ETROLEUM OI DTW (ft)	DOR/NS Ferrous iron (Fe II)	
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3	cted With:	Stainless Stee Alconox Was Other urbidity, odor, <b>Cond.</b> (uS/cm) <u>301.2</u> <u>301.2</u> <u>301.2</u>	el	PVC Tap Rinse CLEAR, CO <b>pH</b> 6.29 6.29 6.29	CRP (mV) -20.6 -21.1	Polyethylene Dedicated HTEST ROTTEN/Pl Turbidity (NTU)	ETROLEUM OI DTW (ft)	DOR/NS Ferrous iron (Fe II)	
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate	cted With:	Stainless Stee Alconox Was Other urbidity, odor, <b>Cond.</b> (uS/cm) <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u>	el	PVC Tap Rinse CLEAR, CO <b>pH</b> 6.29 6.29 6.29 6.29	CRP (mV) -20.6 -21.1 -21.4	Polyethylene Dedicated  TEST ROTTEN/Pl  Turbidity (NTU)	ETROLEUM OI DTW (ft)	DOR/NS Ferrous iron (Fe II)	
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average:	cted With:	Cond. (uS/cm) 301.2 301.2 301.2 301.2 301.2 301.2 301.2	el	PVC Tap Rinse CLEAR, CO <b>pH</b> 6.29 6.29 6.29 6.29 6.29	CRP (mV) -20.6 -20.9 -21.1 -21.4 -21.0	Polyethylene Dedicated  TEST ROTTEN/Pl  Turbidity (NTU) #DIV/0!	ETROLEUM OI DTW (ft)	DOR/NS Ferrous iron (Fe II)	
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY	cted With:	Stainless Stee Alconox Was Cond. (uS/cm) 301.2 301.2 301.2 301.2 301.2 301.2 NALYSIS AL	el  sh sheen, etc.): D.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO <b>pH</b> 6.29 6.29 6.29 6.29 6.29 8.80TTLE 7	☐ Teflon ☐ DI Water LORLESS, SLIGH 0RP (mV) -20.6 -20.9 -21.1 -21.4 -21.0 TYPE (Circle app	Polyethylene Dedicated  TEST ROTTEN/Pl  Turbidity (NTU)	ETROLEUM OI DTW (ft)	DOR/NS Ferrous iron (Fe II)	Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY 5	cted With: ure: <i>l Order)</i> iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u>	□         Stainless Stee         Alconox Was         □       Other         urbidity, odor,         Cond.         (uS/cm)         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2	el  sheen, etc.): b.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO <b>pH</b> 6.29 6.29 6.29 6.29 6.29 8 BOTTLE T	☐ Teflon ☐ DI Water LORLESS, SLIGH ORP (mV) -20.6 -20.9 -21.1 -21.4 -21.0 TYPE (Circle app (BTEX)	Polyethylene Dedicated  TEST ROTTEN/Pl  Turbidity (NTU) #DIV/0!	ETROLEUM OI DTW (ft) 	DOR/NS Ferrous iron (Fe II) lysis below) WA	Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY 5	cted With: ure: <i>l Order</i> ) iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> (8260) (8010) (8270) (PAH	Stainless Stee Alconox Was D Other urbidity, odor, (uS/cm) <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> []	el  sheen, etc.): _ b.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO <b>pH</b> 6.29 6.29 6.29 6.29 6.29 6.29 7.20 6.29 7.20 7.20 7.20 7.20 7.20 7.20 7.20 7.20	☐ Teflon ☐ DI Water LORLESS, SLIGH 0RP (mV) -20.6 -20.9 -21.1 -21.4 -21.0 TYPE (Circle app (BTEX) HCID) (8081) (8	Polyethylene Dedicated HTEST ROTTEN/Pl Turbidity (NTU) #DIV/0! dicable or write no 8141) (Oil & Grease	ETROLEUM OI DTW (ft) 	DOR/NS Ferrous iron (Fe II) 	Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY 5	cted With: ure: <i>l Order</i> ) iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> (8260) (8010) (8270) (PAH	□       Stainless Stee         Alconox Was       □         □       Other         urbidity, odor,	el  sheen, etc.): _ D.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO <b>pH</b> 6.29 6.29 6.29 6.29 6.29 6.29 8 BOTTLE 7 NWTPH-GX) -DX) (TPH-H OD) (Turbid	☐ Teflon ☐ DI Water LORLESS, SLIGH 0RP (mV) -20.6 -20.9 -21.1 -21.4 -21.0 TYPE (Circle app (BTEX) HCID) (8081) (8	Polyethylene Dedicated HTEST ROTTEN/Pl Turbidity (NTU) #DIV/0! dicable or write no 8141) (Oil & Greass (HCO3/CO3) (CI)	ETROLEUM OI DTW (ft) 	DOR/NS Ferrous iron (Fe II) 	Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY 5	cted With: ure: <i>l Order)</i> iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>(8260)</u> (8010) (8270) (PAH (PH) (Condu (COD) (TOO	□       Stainless Stee         Alconox Was       □         □       Other         urbidity, odor,	el  sheen, etc.): _ D.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO pH 6.29 6.29 6.29 6.29 6.29 6.29 6.29 6.29	☐ Teflon ☐ DI Water LORLESS, SLIGH ORP (mV) -20.6 -20.9 -21.1 -21.4 -21.4 -21.0 FYPE (Circle app (BTEX) HCID) (8081) (8 ity) (Alkalinity)	Polyethylene Dedicated HTEST ROTTEN/Pl Turbidity (NTU) #DIV/0! dicable or write no 8141) (Oil & Greass (HCO3/CO3) (CI)	ETROLEUM OI DTW (ft) 	DOR/NS Ferrous iron (Fe II) 	Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY 5	cted With: ure: <i>l Order)</i> iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u>	Stainless Stee Alconox Was Other urbidity, odor, Cond. (uS/cm) <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> <u>301.2</u> (NALYSIS AL	el  sheen, etc.): _ D.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO pH 6.29 6.29 6.29 6.29 6.29 6.29 6.29 6.29	☐ Teflon ☐ DI Water LORLESS, SLIGH ORP (mV) -20.6 -20.9 -21.1 -21.4 -21.4 -21.0 TYPE (Circle app (BTEX) HCID) (8081) (8 ity) (Alkalinity) ) (NH3) (NO3/N	Polyethylene Dedicated HTEST ROTTEN/Pl Turbidity (NTU) #DIV/0! dicable or write no 8141) (Oil & Greass (HCO3/CO3) (CI)	ETROLEUM OI DTW (ft) n-standard ana se) ) (SO4) (NO3	DOR/NS Ferrous iron (Fe II) lysis below) WA WA WA (NO2) (F)	Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY 5	cted With: ure: <i>l Order</i> ) iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>(8260)</u> (8010) (8270) (PAF (pH) (Condu (COD) (TOC (Total Cyanid) (Total Metals (Dissolved M	□       Stainless Stee         Alconox Was       □         □       Other         urbidity, odor,       □         Cond.       (uS/cm)	el  sheen, etc.): _ D.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO pH 6.29 6.29 6.29 6.29 6.29 6.29 6.29 6.29	□       Teflon         □       DI Water         LORLESS, SLIGH         ORP (mV)         -20.6         -20.9         -21.1         -21.4         -21.0         CYPE (Circle app (BTEX)         HCID) (8081) (8         ity) (Alkalinity)         ) (NH3) (NO3/N         (Cr) (Cu) (Fe) (F	Polyethylene Dedicated HTEST ROTTEN/PI Turbidity (NTU) #DIV/0! dicable or write no 8141) (Oil & Greas (HCO3/CO3) (CI) NO2) Pb) (Mg) (Mn) (N	ETROLEUM OI DTW (ft) n-standard ana se) ) (SO4) (NO3	DOR/NS Ferrous iron (Fe II) lysis below) WA WA WA (NO2) (F) (V) (Zn) (Hg)	Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY 5	cted With: ure: <i>l Order)</i> iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°C)</u> <u>(°F/°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u>	↓         Stainless Stee         Alconox Was         ↓         Other         urbidity, odor,         Cond.         (uS/cm)         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         10         (uS/cm)         301.2         301.2         301.2         10         (NWTPH-I         (ictivity) (TDS         (Total PO4         e) (WAD Cyst)         (As) (Sb) (I         etals) (As) (Sb)         g short list)	el  sheen, etc.): _ D.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO pH 6.29 6.29 6.29 6.29 6.29 6.29 6.29 6.29	□       Teflon         □       DI Water         LORLESS, SLIGH         ORP (mV)         -20.6         -20.9         -21.1         -21.4         -21.0         CYPE (Circle app (BTEX)         HCID) (8081) (8         ity) (Alkalinity)         ) (NH3) (NO3/N         (Cr) (Cu) (Fe) (F	Polyethylene Dedicated HTEST ROTTEN/PI Turbidity (NTU) #DIV/0! dicable or write no 8141) (Oil & Greas (HCO3/CO3) (CI) NO2) Pb) (Mg) (Mn) (N	ETROLEUM OI DTW (ft) n-standard ana se) ) (SO4) (NO3	DOR/NS Ferrous iron (Fe II) lysis below) WA WA WA (NO2) (F) (V) (Zn) (Hg)	Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY 5	cted With: ure: <i>l Order)</i> iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°C)</u> <u>(°F/°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u>	□       Stainless Stee         Alconox Was       □         □       Other         urbidity, odor,       □         Cond.       (uS/cm)	el  sheen, etc.): _ D.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO pH 6.29 6.29 6.29 6.29 6.29 6.29 6.29 6.29	□       Teflon         □       DI Water         LORLESS, SLIGH         ORP (mV)         -20.6         -20.9         -21.1         -21.4         -21.0         CYPE (Circle app (BTEX)         HCID) (8081) (8         ity) (Alkalinity)         ) (NH3) (NO3/N         (Cr) (Cu) (Fe) (F	Polyethylene Dedicated HTEST ROTTEN/PI Turbidity (NTU) #DIV/0! dicable or write no 8141) (Oil & Greas (HCO3/CO3) (CI) NO2) Pb) (Mg) (Mn) (N	ETROLEUM OI DTW (ft) n-standard ana se) ) (SO4) (NO3	DOR/NS Ferrous iron (Fe II) lysis below) WA WA WA (NO2) (F) (V) (Zn) (Hg)	Observations
Sample Collec Made of: Decon Procedu (By Numerical Sample Descri Replicate 1 2 3 4 Average: QUANTITY 5	cted With: ure: <i>l Order)</i> iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°C)</u> <u>(°F/°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u>	↓         Stainless Stee         Alconox Was         ↓         Other         urbidity, odor,         Cond.         (uS/cm)         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         10         (uS/cm)         301.2         301.2         301.2         10         (NWTPH-I         (ictivity) (TDS         (Total PO4         e) (WAD Cyst)         (As) (Sb) (I         etals) (As) (Sb)         g short list)	el  sheen, etc.): _ D.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO pH 6.29 6.29 6.29 6.29 6.29 6.29 6.29 6.29	□       Teflon         □       DI Water         LORLESS, SLIGH         ORP (mV)         -20.6         -20.9         -21.1         -21.4         -21.0         CYPE (Circle app (BTEX)         HCID) (8081) (8         ity) (Alkalinity)         ) (NH3) (NO3/N         (Cr) (Cu) (Fe) (F	Polyethylene Dedicated HTEST ROTTEN/PI Turbidity (NTU) #DIV/0! dicable or write no 8141) (Oil & Greas (HCO3/CO3) (CI) NO2) Pb) (Mg) (Mn) (N	ETROLEUM OI DTW (ft) n-standard ana se) ) (SO4) (NO3	DOR/NS Ferrous iron (Fe II) lysis below) WA WA WA (NO2) (F) (V) (Zn) (Hg)	Observations
Sample Collect Made of: Decon Procedu (By Numerical Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1	cted With: ure: <i>l Order)</i> iption (color, t Temp (°F/°C) <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>13.1</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°F/°C)</u> <u>(°C)</u> <u>(°F/°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u> <u>(°C)</u>	↓         Stainless Stee         Alconox Was         ↓         Other         urbidity, odor,         Cond.         (uS/cm)         301.2         301.2         301.2         301.2         301.2         301.2         301.2         301.2         10         (uS/cm)         301.2         301.2         301.2         10         (NWTPH-I         (ictivity) (TDS         (Total PO4         e) (WAD Cyst)         (As) (Sb) (I         etals) (As) (Sb)         g short list)	el  sheen, etc.): _ D.O. (mg/L) 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27	PVC Tap Rinse CLEAR, CO pH 6.29 6.29 6.29 6.29 6.29 6.29 6.29 6.29	□       Teflon         □       DI Water         LORLESS, SLIGH         ORP (mV)         -20.6         -20.9         -21.1         -21.4         -21.0         CYPE (Circle app (BTEX)         HCID) (8081) (8         ity) (Alkalinity)         ) (NH3) (NO3/N         (Cr) (Cu) (Fe) (F	Polyethylene Dedicated HTEST ROTTEN/PI Turbidity (NTU) #DIV/0! dicable or write no 8141) (Oil & Greas (HCO3/CO3) (CI) NO2) Pb) (Mg) (Mn) (N	ETROLEUM OI DTW (ft) n-standard ana se) ) (SO4) (NO3	DOR/NS Ferrous iron (Fe II) lysis below) WA WA WA (NO2) (F) (V) (Zn) (Hg)	Observations

Duplicate Sample No(s)

Comments: Signature:



Even:	Project Nam	ne: Boeing Renton				Project Number: 0025217.09			99	
Landau Representative:         SEB           WATER LEVEL, WEL JUTI REF DATA         Damaged (NO)         Describ::         fluck mount           WIC Condition:         Secure (VES)         Damaged (NO)         Describ::         fluck mount           DTW Before Porging (I)         5.39         Trace:         1012         Flow fluce::         0.00         OW Meter No.(s)[IERON]         0.22           Drage water disposed to:         5.5 ged Drum         0.5 ged Trace::         0.00         OTT         1032         Galoos Druget::         0.22           Parge Coald::         Stabilization of Parameters for three consecutive coalings within the following limits         Yotune (gal)         Observations         Votune (gal)         Observations           1018         9.7         271.4         1.06         6.57         20.0         LOW         5.39         Observations           1021         9.3         266.0         0.61         6.17         1.51         5.39         Observations           1027         9.1         265.5         0.58         6.25         -7.7         IU00         Deticated         Decicated           Docor Procedure:         Alconox Wash         Tap Rine         D VMar         Dedicated         Decicated         Decicated	Event:		Quarterly M	larch 2019		Date/Time:	3/ 05/2019@	1045		
WATER: LEVELAPURG: DATA           Well Condition:         Socure (VES)         Damaged (NO)         Describ:         Bink mount           DTW Before Program (0)         5.32         Time         JDI2         Flow through cell col         GW Meter No (a JEERON)         625           Parge water disposed to:         0         55-ggl Drum         Dito through cell col         GW Meter No (a JEERON)         625           Parge water disposed to:         0         55-ggl Drum         Dito Truth (1)         Other State Relativity SYSTEM         General Parge: Construction (1)         GW Meter No (a JEERON)         625           Parge water disposed to:         0         55-ggl Drum         Dito Truth (1)         Drum (pt)         Ditoreal Parge Construction (1)         Observations         94         Ditoreal Parge         Constructive (1)         Ditoreal Parge         Ditoreal Parge         Constructive (1)         Ditoreal Parge         Constructive (2)         Ditoreal Parge         Constructive (2)         Ditoreal Parge         Ditoreal Parge	Sample Nurr	ber:	RGW034S-	190305		Weather:	CLEAR			
Well Continue:       Secure (VIES)       Damaged (NO)       Describe:       Insk mount         DTW Before Parging (R)       5.39       Time:       1012       How through cell val.       GW Meter No.(§ HERONI)         Begin Parge:       Derror       55-gal Drum       Dite Time:       20 (20 (20 (20 (20 (20 (20 (20 (20 (20 (	Landau Repr	resentative:	SRB							
DTW Before Parging (h)       5.39       Time:       1012       Flow through cell vol.       OW Meter Note/HERONI         Regin Parge:       DateTime:       2.05 / 2019       1015       Fed Parge:       DateTime:       2.05 / 2019       1033       Gallons Parget:       6:25         Parge water Tripse;       Cond.       D.O.       pH       OR       Turbidity       DTW       Internal Parge       Connected       0:35       Connected       Connected       0:35       Connected       Con	WATER LEV	EL/WELL/P	URGE DATA							
Begin Parge:         Date/Time:         3/ 05 / 2019         1015         End Parge:         Date/Time:         3/ 05 / 2019         1035         Gaussian         0         SITE TREATMENT SYSTEM         0         0         SITE TREATMENT SYSTEM         0         0         SITE TREATMENT SYSTEM         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	Well Condition	on:	Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
Purge water disposed to:         Image: Star and the star and th	DTW Before	Purging (ft)	5.39	Time:	1012	Flow through ce	l <u>l vol.</u>		GW Meter No.(	HERON1
Time         Temp (*PC)         Cond. (uS/cm)         D.O. (mg/L)         pH         ORP (mV)         Turbidity (NTU)         DTW (NTU)         Internal Purge (NS)         Comments/ Observations           1018         9.7         27.14         1.06         6.57         200.10W         5.39           1021         9.3         266.0         0.61         6.17         1.51         5.39           1024         9.3         266.5         0.58         6.25         -7.7         -         -           1023         9.1         264.5         0.54         6.26         -12.5         -         -           1030         9.1         264.9         0.54         6.26         -12.5         -         -         -           Sample Collected With:         Bailer         Pump?Pump Type DED BLADDER         -         -         -         -           Sample Collected With:         Bailer         Pump?Pump Type DED BLADDER         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	Begin Purge:	Date/Time:	3/ 05 /2019	1015	End Purge:	Date/Time:	3/ 05 /2019 @	1033	Gallons Purged:	0.25
Time         CP/C: Purge Goals: Statistation of Parameters for three consecutive regulars within the following limits v1/. 3%         Volume (gai) v1/. 3%         Observations           1018         9.7         271.4         1.06         6.57         20.0         LOW         5.39           1021         9.3         266.6         0.59         6.20         5.4         5.39	Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
vf. 3%         vf. 10%         vf. 0.1 units         vf. 10 mV         vf. 10%         vf. 30%         vf. 10%         vf. 30%         vf. 10%         vf. 30%         vf. 10%         vf. 10%         vf. 10%         vf. 30%         vf. 10%         vf. 30%         vf. 10%         vf. 30%         vf. 30%         vf. 30%         vf. 10%         vf. 30%         vf. 30% <thvf. 30%<="" th="">         vf. 30%         <thvf. 30%<="" th=""></thvf.></thvf.>	Time	(° <b>F</b> /°Ĉ)	(uS/cm)	( <b>mg/L</b> )	-	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	
1018       9.7       271.4       1.06       6.57       20.0       LOW       5.39         1021       9.3       268.0       0.61       6.17       15.1       5.39         1024       9.3       266.6       0.59       6.20       5.4       5.39         1027       9.1       265.5       0.58       6.25       -7.7		0					0	0		
1021       9.3       268.0       0.61       6.17       15.1       5.39         1024       9.3       266.6       0.59       6.20       5.4       5.39         1027       9.1       265.5       0.58       6.25       -7.7         1030       9.1       264.9       0.54       6.26       -12.5         1030       9.1       264.9       0.54       6.26       -12.5         1030       9.1       264.9       0.54       6.26       -12.5         1030       9.1       264.9       0.54       6.26       -12.5         1030       9.1       264.9       0.54       6.26       -12.5         2000       Stainless Steel       PVC       Teflon       Polyethylene       Other       Decicated         Sample Collected With:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Other       Decicated         Sample Collection (color, turbidity ofor, sheen, etc.):       CLEAR COLLECTS NONS       Comments/       (Ft T)       Observations         1       9.1       264.7       0.54       6.25       -12.6	1018								0	
1024       9.3       266.6       0.59       6.20       5.4       5.39         1027       9.1       265.5       0.58       6.25       -7.7         1030       9.1       264.9       0.54       6.26       -12.5         Sample Collected With:       □       □       □       □       □         Sample Collected With:       □       Bailer       □       □       □       □         Sample Collected With:       □       Alconox Wash       □       Tap Rinse       □       Dedicated         Boyle Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS       □       Dedicated         Replicate       Temp       Cond       D.0,       pHT       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       9.1       264.6       0.55       6.25       -12.6										
1027       9.1       265.5       0.58       6.25       -7.7         1030       9.1       264.9       0.54       6.26       -12.5         Sample Collectal With:       Bailer       Pump/Pump Type DED BLADDER										
1030       9.1       264.9       0.54       6.26       -12.5         SAMPLE COLLECTION DATA       Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene         Decon Procedure:       Collector With:       Tap Rinse       DI Water       Dedicated         Boeno Procedure:       Other       Tap Rinse       DI Water       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       OTW       Ferrous iron       Commonts/         1       9.1       264.7       0.55       6.25       -12.6       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       - </td <td></td>										
SAMPLE COLLECTION DATA         Sample Collected With:         Bailer         PUTC         Terflon         Portocoluction         Atomox Wash         Tap Rinse         D1 Water         Decon Procedure:         Atomox Wash         Tap Rinse         D1 Water         Deconstruction         Other         Sample Description (color, turbidity, odor, sheen, etc.):         CLEAR COLORLESS NO/NS         Replicate       Temp         (FP'C)       (aSCm)         (mgl.)       (mV)         (NTU)       (th)         (Fe II)       Observations         1       9.1       264.7       0.54         2       9.1       264.7       0.54       6.26         2       9.1       264.7       0.54       6.26         4       9.1       264.7       0.55       6.25       -14.0         4       9.1       264.7       0.55       6.25       -14.0         (PUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       5         5       (8260) (8010)       (8020) (NWTPH-G) (NWTPH-G) (BNTTH-GN	1027	9.1	265.5	0.58	6.25	-7.7				
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated         Bay Numerical Order)       Other       Other       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS       DTW       Ferrous iron (ref PC)       Comments/ (mg/L)         1       9.1       264.6       0.55       6.25       -12.6	1030	9.1	264.9	0.54	6.26	-12.5				
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated         Bay Numerical Order)       Other       Dot       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS       DTW       Ferrous iron (FF IC)       Comments/ Observations         1       9.1       264.6       0.55       6.25       -12.6										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated         Bay Numerical Order)       Other       Other       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS       DTW       Ferrous iron (ref PC)       Comments/ (mg/L)         1       9.1       264.6       0.55       6.25       -12.6										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated         Bay Numerical Order)       Other       Other       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS       DTW       Ferrous iron (ref PC)       Comments/ (mg/L)         1       9.1       264.6       0.55       6.25       -12.6		· -								
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated         Bay Numerical Order)       Other       Other       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS       DTW       Ferrous iron (ref PC)       Comments/ (mg/L)         1       9.1       264.6       0.55       6.25       -12.6	SAMPLE CO	LLECTION I	DATA							
Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       D II Water       Dedicated       Dedicated         (By Numerical Order)       Other       Other       Dedicated       Dedicated       Dedicated         Replicate       Temp ('F'C)       Cond. (us/em)       D,O. (mg/L)       pH       ORP (mV)       Turbidity (NTU)       DTW (ft)       Ferrous iron (rF II)       Comments/ Observations         1       9.1       264.6       0.55       6.25       -12.6				Bailer		Pump/Pump Type	e DED BLADDER			
(By Numerical Order)       Other         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       9.1       264.6       0.55       6.25       -12.6	Made of:		Stainless Ste	el 🗖	PVC	Teflon	Polyethylene	Other	Dedicated	
Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp (°F/°C)       Cond. (uS/cm)       D.O. (mg/L)       pH       ORP (mV)       Turbidity (NTU)       DTW (Rt)       Ferrous iron (°F e II)       Comments/ Observations         1       9.1       264.6       0.55       6.25       -12.6	Decon Proced	ure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
Replicate         Temp (°F/°C)         Cond. (uS/cm)         D.O. (mg/L)         pH         ORP (mV)         Turbidity (NTU)         DTW (ft)         Ferrous iron (Fe II)         Comments/ Observations           1         9.1         264.6         0.55         6.25         -12.6	(By Numerica	l Order)	Other		-					
(°F/°C)       (uS/cm)       (mg/L)       (mV)       (NTU)       (ft)       (Fe II)       Observations         1       9.1       264.6       0.55       6.25       -12.6	Sample Descr	iption (color,	turbidity, odor	, sheen, etc.):	CLEAR CO	LORLESS NO/N	S			
(°F/°C)       (uS/cm)       (mg/L)       (mV)       (NTU)       (ft)       (Fe II)       Observations         1       9.1       264.6       0.55       6.25       -12.6		T	<u> </u>	<b>D</b> O		ODD	<b>T 1 • 1•</b>	DUN	Formourginon	Commontal
1       9.1       264.6       0.55       6.25       -12.6         2       9.1       264.7       0.54       6.24       -13.0         3       9.0       264.7       0.55       6.26       -14.6	Replicate				рн					
2       9.1       264.7       0.54       6.24       -13.0         3       9.0       264.7       0.55       6.26       -14.6	1				6.25	. ,				
3       9.0       264.7       0.55       6.26       -14.6         4       9.1       264.7       0.54       6.26       -15.6         Average:       9.1       264.7       0.55       6.25       -14.0       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR       0R         6(8270)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR       0R         (pH)       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HC03/CO3)       (Cl)       (S04)       (NO3)       (NO2)       (F)         1       (COD)       (TOct)       (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)       (Total Metals)       (As)<										
4       9.1       264.7       0.54       6.26       -15.6         Average:       9.1       264.7       0.55       6.25       -14.0       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       0         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         (8270)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR         (pH)       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (NO2)       (F)         1       (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Cyanide)       (Free Cyanide)         (Total Quaite)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb) (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (TI)       (V)       (Zn)       (Hg)       (K)       (Na)         (COD)										
Average:       9.1       264.7       0.55       6.25       -14.0       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         6       (8260)       (8010)       (8020)       (NWTPH-D)       (NWTPH-GX)       (BTEX)       WA       OR         6       (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)       (NO2)       (FF         1       (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)         (Total Quanide)       (WAD Cyanide)       (Free Cyanide)       (Conductivity)       (As)       (Be) (Ca)       (Cd)       (Co)       (Cr)       (Ma)       (Ma)         (Dissolved Metals)       (As)       (Sb)       (Ba)       (Be) (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)										
QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         (8270)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR       Image: Constraint of the constra	4	9.1	264.7	0.54	6.26	-15.6				
5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         (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)       (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)       (U)       (Zn)       (Hg)       (K)       (Na)         (Dissolved Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (Tl)       (Na)       (Hardness)       (Silicz         VOC       (Boeing short list)       Methane Ethane Ethene Acetylene	Average:	9.1	264.7	0.55	6.25	-14.0	#DIV/0!			
5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         (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)       (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)       (U)       (Zn)       (Hg)       (K)       (Na)         (Dissolved Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (Tl)       (Na)       (Hardness)       (Silicz         VOC       (Boeing short list)       Methane Ethane Ethene Acetylene	QUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	R BOTTLE	TYPE (Circle a	oplicable or write 1	non-standard ar	nalysis below)	
(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)       (Lu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (Tl)       (V)       (Zn)       (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)         (Dissolved Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (Tl)       (V)       (Zn)       (Hg)       (K)							•		· · · · · · · · · · · · · · · · · · ·	OR 🗆
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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others		(8270) (PAH	H) (NWTPH-	D) (NWTPH	I-Dx) (TPH-	HCID) (8081)	(8141) (Oil & Gre	ase)	WA 🗆	OR 🗆
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others		(pH) (Condu	uctivity) (TD	S) (TSS) (B	SOD) (Turbio	dity) (Alkalinity)	) (HCO3/CO3) (C	Cl) (SO4) (NO	3) (NO2) (F)	
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others	1		, , , , , , , , , , , , , , , , , , ,	· · · ·	0	n) (NH3) (NO3)	/NO2)			
(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) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others			· · · · · · · · · · · · · · · · · · ·	· · · · ·						
VOC (Boeing short list) Methane Ethane Ethene Acetylene others										
Methane Ethane Ethane Acetylene  others				o) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (P	b) (Mg) (Mn) (Ni) (	Ag) (Se) (Tl) (V	(Zn) (Hg) (K) (R)	Na) (Hardness) (Silica
others										
		Methane Eth	iane Ethene A	cetylene						
		others								

Duplicate Sample No(s)

Comments:

Signature: SRB



Project Nam	e:	Boeing Renton			Project Number: 0025217.09			99	
Event:		Quarterly M			Date/Time:	3/ 05/2019@	1020		
Sample Nun	nber:	RGW038S-			Weather:	CLEAR			
Landau Repr	resentative:	SRB							
WATER LEV	/FI/W/FII/PI	IRGE DATA							
WATER LEV Well Condition		Secure (YES	)	Damaged (N		Describe:	flush mount		
DTW Before		5.49	, Time:		Flow through ce			GW Meter No.(s	HERON1
Begin Purge:					•	3/ 05 /2019 @	1002	Gallons Purged:	
Purge water d			55-gal Drum	Č.	Storage Tank	Ground		SITE TREATM	
i uige water a	-		-		-				
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	· /		on of Parame		e consecutive rea	dings within the fo	· /	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/ <b>- 10 mV</b>	+/- 10%	< 0.3 ft	through cell	
953	12.3	254.0	0.50	6.61	-16.8	LOW	5.49		
956	12.5	255.5	0.49	6.61	-23.5		5.49		
959	12.8	260.8	0.48	6.60	-32.8		5.49		
			0110	0.00					
	·								
SAMPLE CO	LLECTION I	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color,	turbidity, odor	, sheen, etc.):	CLEAR CO	LORLESS NO/N	S			
Degligate	Тотт	Cond.	D.O.		ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	Temp (°F/°C)	(uS/cm)	D.O. (mg/L)	рН	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	12.8	261.8	0.48	6.60	-34.3				
2	12.9	262.1	0.49	6.60	-35.1				
3	12.9	263.0	0.49	6.60	-36.0				
4	12.8	263.0	0.49	6.60	-36.9				
Average:	12.9	262.5	0.49	6.60	-35.6	#DIV/0!			
QUANTITY	TVPICAL A	NAT VEIS AT	I OWED PE	'R BOTTI F	TVPF (Circle a	oplicable or write n	on-standard ar	alveic holow)	
5	(8260) (801)		WTPH-G) (			plicable of write i	ion-stanuaru ar	WA 🗆	OR 🗆
	· · · · ·					(8141) (Oil & Grea	ase)	WA 🗆	$OR \square$
	· · · · ·	· · · ·	<i>.</i>		, , , , , , , , , , , , , , , , , , ,	(HCO3/CO3) (C	,		
1					n) (NH3) (NO3)				
	(Total Cyanic	le) (WAD Cy	vanide) (Free	Cyanide)					
	(Total Metals	) (As) (Sb) (	Ba) (Be) (Ca	a) (Cd) $\overline{(Co)}$	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn) (N	Ni) (Ag) (Se) (	$\Gamma$ l) (V) (Zn) (Hg	g) (K) (Na)
ļ			o) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pe)	b) (Mg) (Mn) (Ni) (.	Ag) (Se) (Tl) (V	) (Zn) (Hg) (K) (N	Na) (Hardness) (Silica
	VOC (Boein								
	Methane Eth	nane Ethene A	cetylene						
	others								
	others								
Duplicate San	nple No(s).								

Duplicate Sample No(s

Comments:



Project Name	ne: Boeing Renton				Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5 /2019@ 102	21		
Sample Num	iber:	RGW039S-	190305		Weather:	30'S, SUNNY			
Landau Repr	esentative:	JHA			•				
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio	n:	Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	ЛТ	
DTW Before	Purging (ft)	4.95	Time:	956	Flow through cel	l vol.		GW Meter No.(s	SHERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 @	® 959	End Purge:	Date/Time:	3/ 5/2019 @ 102	0	Gallons Purged:	0.75
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	<b>D.O.</b>	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° <b>F</b> /°Ĉ)	(uS/cm)	( <b>mg/L</b> )	-	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	uls: Stablizatio +/- 3%		ters for three +/- 0.1 units	e consecutive read +/- 10 mV	lings within the fol +/- 10%	lowing limits < 0.3 ft	>/= 1 flow through cell	
1002	13.1	214.3	0.82	6.19		LOW	4.99		
						LOW	т.))		
1005	13.5	221.0	0.66	6.18	32.6			< 0.25	
1008	13.5	224.7	0.54	6.18	31.7			0.25	
1011	13.5	226.9	0.46	6.17	31.3		4.99		
1014	13.6	228.6	0.39	6.17	31.0				
1017	13.7	230.1	0.36	6.17	30.7				
1019	13.7	230.8	0.34	6.18	30.5				
SAMPLE CO	LLECTION D	ATA							
Sample Collec			Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	D Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🗖	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):	CLEAR, CO	LORLESS, NO/N	S			
			<b>D</b> 0		0.00		DATA	<b>F</b> armana <b>i</b> man	Commontal
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.7	230.8	0.33	6.18	30.4			<b>``</b>	
2	12.7	230.8	0.33	6.17	30.3				
	12.7	230.8	0.33	6.18	30.3				
3									
4	12.7	231.1	0.33	6.18	30.3				
Average:	12.7	230.9	0.33	6.18	30.3	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE 1	ГҮРЕ (Circle арј	olicable or write no	n-standard ana	lysis below)	
5		0) (8020) (N						WA 🗆	OR 🗆
		<i></i>	/ .	<i>,</i> ,		8141) (Oil & Greas	,	WA 🗆	OR 🗆
			<i>.</i>	, , ,	• / ` • • • /	(HCO3/CO3) (CI)	) (SO4) (NO3	) (NO2) (F)	
1	(COD) (TOO (Total Cyanid	(Total PO4 e) (WAD Cya	/ · · · ·		) (NH3) (NO3/1	NU2)			
		· · · · · ·		• /	$(\mathbf{Cr})$ $(\mathbf{Cu})$ $(\mathbf{Fe})$ $(\mathbf{Fe})$	Pb) (Mg) (Mn) (N	i) (Ag) (Se) (T	(V) $(\mathbf{Z}\mathbf{n})$ (Ha	$(\mathbf{K})$ (Na)
									a) (Hardness) (Silica)
	VOC (Boein		<u>, (=) (20) (0</u>	., (20, (20)		// (1) (1)	<u> </u>	<u> </u>	
		ane Ethene Ac	etylene						
ļ									
	others								
Duplicate San	nle No(s).								

Comments:

Signature:



Project Name	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4 /2019@ 144	41		
Sample Num	ber:	RGW143S-	190304		Weather:	40'S, SUNNY			
Landau Repr	esentative:	JHA			·				
WATER LEV	EL/WELL/PU	<b>RGE DATA</b>							
Well Conditio	n:	Secure (YES)	)	Damaged (N	O)	Describe:	FLUSH MOUN	T	
DTW Before	Purging (ft)	5.67	Time:	1357	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 4 /2019 @	@ 1418	End Purge:	Date/Time:	3/ 4/2019 @ 143	9	Gallons Purged:	0.75
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU) lings within the fol	DTW (ft)	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	+/- 3%		+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1421	13.2	281.1	0.19	6.45	35.8	LOW	5.67	< 0.25	
1424	13.4	284.0	0.15	6.46	14.7				
1427	13.5	285.4	0.13	6.47	-5.1		5.67	0.25	
							5.07	0.25	
1430	13.6	286.1	0.16	6.47	-18.3				
1433	13.6	286.8	0.16	6.47	-26.7				
1436	13.7	287.2	0.16	6.47	-30.9				
1438	13.7	287.6	0.17	6.47	-32.7				
SAMPLE CO									
Sample Collec	ted With:		Bailer			DED BLADDER		<b>—</b>	
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	·	Other	ala ana ata ).		LODIESS NOA	0			
Sample Descr	iption (color, t	urbiaity, odor,	sheen, etc.):	CLEAK, CO	LORLESS, NO/N	3			
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	13.7	287.6	0.16	6.47	-33.2				
2	13.7	287.2	0.17	6.47	-33.9				
3	13.7	287.3	0.17	6.47	-34.2				
4	13.7	287.1	0.17	6.47	-34.7				
Average:	13.7	287.3	0.17	6.47	-34.0	#DIV/0!			
		<u>NALYSIS AL</u> )) (8020) (N				olicable or write no	n-standard ana	ulysis below) WA □	OR 🗆
5						8141) (Oil & Greas	e)	WA 🗆	OR  OR  OR  OR  OR  OR  OR  OR  OR  OR
						(HCO3/CO3) (CI)			
1	(COD) ( <b>TO</b>				) (NH3) (NO3/1		, (201) (1100	/ (= · · · = / (= /	
		e) (WAD Cy			· · · · · ·				
	(Total Metals)	) (As) (Sb) (	Ba) (Be) (Ca	(Cd) (Co)	(Cr) (Cu) (Fe) (	Pb) (Mg) (Mn) (Na	i) (Ag) (Se) (7	Cl) (V) (Zn) (Hg)	(K) (Na)
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (Na	a) (Hardness) (Silica)
	VOC (Boein								
	Methane Eth	ane Ethene Ac	etylene						
	others								
	00000								
Duplicate San	nnle No(s).								

Comments: Signature:



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 05/2019@	945		
Sample Nun	nber:	RGW209S-	190305		Weather:	CLEAR			
Landau Repr	resentative:	SRB			-				
WATER LEV	/EL/WELL/PU	<b>URGE DATA</b>							
Well Condition		Secure (YES	)	Damaged (N	[O)	Describe:	flush mount		
DTW Before		5.15	Time:	-	Flow through cel			GW Meter No.(s	HERON1
	Date/Time:			End Purge:	-	3/ 05 /2019 @	938	Gallons Purged:	
Purge water d			55-gal Drum	Ĕ.	Storage Tank	Ground		SITE TREATM	
1 0180 11000 0									
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 Goa			ters for three		lings within the fo		>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/ <b>- 10 mV</b>	+/- 10%	< 0.3 ft	through cell	
918	9.9	290.4	1.06	6.27	43.1	LOW	5.15		
921	10.7	303.6	0.62	6.60	-1.4		5.15		
924	9.4	299.4	0.69	6.60	-18.4		5.15		
927	8.8	294.3	0.71	6.55	-21.6				
	·			,					
930		291.2	0.75	6.46	-21.7				
933	8.3	289.7	0.72	6.41	-21.7				
936	8.2	288.6	0.73	6.38	-22.5				
SAMPLE CO	LLECTION I								
Sample Colle	cted With:		Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	D Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	ription (color, t	urbidity, odor	, sheen, etc.):	CLEAR CO	LORLESS NO/NS	5			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	(°F/°C)	(uS/cm)	(mg/L)	hu	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	8.2	288.5	0.72	6.38	-22.8				
		288.3	0.72	6.37	-23.0				
2	8.2								
3	8.2	288.1	0.73	6.37	-23.3				
4	8.2	288.1	0.73	6.37	-23.6				
Average:	8.2	288.3	0.73	6.37	-23.2	#DIV/0!			
OUANTITY	TYPICAL A	NALYSIS AI	LOWED PF	R BOTTLE	TYPE (Circle ar	plicable or write r	non-standard ar	alvsis below)	
5		D) (8020) (N				<b>F</b>		WA 🗆	OR 🗆
				•		(8141) (Oil & Grea	ase)	WA 🗆	OR
	(pH) (Condu	ctivity) (TD	S) (TSS) (B	OD) (Turbi	dity) (Alkalinity)	(HCO3/CO3) (C	Cl) (SO4) (NO	3) (NO2) (F)	
		(Total PO	4) (Total Kie	dahl Nitroger	n) (NH3) (NO3/	NO2)			
1	(COD) (TO	$\sim$ ) (10tal 10.							
1	(Total Cyanid	le) (WAD Cy							
1	(Total Cyanic (Total Metals	le) (WAD Cy ) (As) (Sb) (	Ba) (Be) (Ca	a) (Cd) (Co)		Pb) (Mg) (Mn) (N			
	(Total Cyanic (Total Metals (Dissolved M	le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb	Ba) (Be) (Ca	a) (Cd) (Co)					
	(Total Cyanic (Total Metals (Dissolved M VOC (Boein	le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb g short list)	Ba) (Be) (Ca b) (Ba) (Be) (Ca	a) (Cd) (Co)					
	(Total Cyanic (Total Metals (Dissolved M VOC (Boein	le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb	Ba) (Be) (Ca b) (Ba) (Be) (Ca	a) (Cd) (Co)					
	(Total Cyanic (Total Metals (Dissolved M VOC (Boein	le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb g short list)	Ba) (Be) (Ca b) (Ba) (Be) (Ca	a) (Cd) (Co)					
	(Total Cyanic (Total Metals (Dissolved M VOC (Boein	le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb g short list)	Ba) (Be) (Ca b) (Ba) (Be) (Ca	a) (Cd) (Co)					g) (K) (Na) Na) (Hardness) (Silica

Duplicate Sample No(s):

Comments:



Project Nam	e <u>:</u>	Boeing Rent	on		Project Number	:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5 /2019@ 811	l		
Sample Num	iber:	RGW210S-	190305		Weather:	30'S, SUNNY			
Landau Repr	resentative:	JHA			-				
WATER LEV	EL/WELL/PU	IRGE DATA							
Well Condition	n:	Secure (YES)		Damaged (N	0)	Describe:	FLUSH MOUN	T	
DTW Before	Purging (ft)	4.9	Time:	747	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 @	[©] 749	End Purge:	Date/Time:	3/ 5/2019 @ 810		Gallons Purged:	0.75
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa +/- 3%	ils: Stablizatio +/- 3%		ters for three +/- 0.1 units	e consecutive read +/- 10 mV	lings within the foll +/- 10%	owing limits < 0.3 ft	>/= 1 flow through cell	
752	6.9	267.1	0.91	61.20	60.5	MED/HIGH	4.95	< 0.25	
755	7.0	267.3	0.81	6.95	49.6			<0.25	
							4.05		
758	7.1	268.6	0.69	6.98	33.0	·	4.95	0.25	
801	7.2	269.1	0.62	7.00	12.1	·			
804	7.2	266.4	0.53	6.99	-11.3				
807	7.2	266.3	0.51	6.99	-17.0			0.5	
809	7.3	267.5	0.49	6.99	-27.9				
SAMPLE CO	LLECTION D	ATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Stee	1	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	h 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):	TURBID WI	TH SAND, BROV	WNISH COLOR, SL	IGHT PETROL	EUM ODOR/NS	
Replicate	Temp	Cond.	D.O.	pH	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)	<b>r</b>	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	7.3	266.7	0.47	6.99	-29.2				
2	7.3	267.7	0.49	6.99	-30.8				
3	7.3	266.6	0.47	6.99	-32.2				
4	7.3	266.2	0.47	6.99	-34.0				
Average:	7.3	266.8	0.48	6.99	-31.6	#DIV/0!			
r									
	(8260) (8010			NWTPH-Gx)		licable or write no	n-standard ana	WA 🗆	OR 🗆
1 5	(0200) $(0010)$	· · · · · ·		,	· · · · ·	3141) (Oil & Greas	e)	WA 🗆	OR 🗆
5	(8270) (PAF	I) (NWTPH-F	J (INWIPH)		101D) (0001) (	(on a oreas	0)		on
5	(8270) (PAF (pH) (Condu			( )	ity) (Alkalinity)	(HCO3/CO3) (Cl)	(SO4) (NO3	) (NO2) (F)	
5		ctivity) (TDS	) (TSS) (B	OD) (Turbid	ity) (Alkalinity) ) (NH3) (NO3/I	(HCO3/CO3) (Cl) NO2)	(SO4) (NO3	) (NO2) (F)	
	(pH) (Condu (COD) (TOC	ctivity) (TDS	) (TSS) (BO ) (Total Kied	OD) (Turbid dahl Nitrogen)			(SO4) (NO3	) (NO2) (F)	
	(pH) (Condu (COD) (TOC (Total Cyanid	ctivity) (TDS C) (Total PO4 e) (WAD Cya	) (TSS) (B ) (Total Kied anide) (Free	OD) (Turbid dahl Nitrogen) Cyanide)	) (NH3) (NO3/N				(K) (Na)
	(pH) (Condu (COD) (TO( (Total Cyanid (Total Metals (Dissolved M	ctivity) (TDS C) (Total PO4 e) (WAD Cya ) (As) (Sb) (F etals) (As) (Sb)	) (TSS) (B ) (Total Kied unide) (Free Ba) (Be) (Ca	OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	(NH3) (NO3/N (Cr) (Cu) (Fe) (1	VO2) Pb) (Mg) (Mn) (Ni	) (Ag) (Se) (T	1) (V) (Zn) (Hg)	(K) (Na) a) (Hardness) (Silica)
	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	ctivity) (TDS C) (Total PO4 e) (WAD Cya ) (As) (Sb) (H etals) (As) (Sb) g short list)	) (TSS) (B ) (Total Kiec unide) (Free Ba) (Be) (Ca ) (Ba) (Be) (C	OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	(NH3) (NO3/N (Cr) (Cu) (Fe) (1	VO2) Pb) (Mg) (Mn) (Ni	) (Ag) (Se) (T	1) (V) (Zn) (Hg)	
	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	ctivity) (TDS C) (Total PO4 e) (WAD Cya ) (As) (Sb) (F etals) (As) (Sb)	) (TSS) (B ) (Total Kiec unide) (Free Ba) (Be) (Ca ) (Ba) (Be) (C	OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	(NH3) (NO3/N (Cr) (Cu) (Fe) (1	VO2) Pb) (Mg) (Mn) (Ni	) (Ag) (Se) (T	1) (V) (Zn) (Hg)	
	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	ctivity) (TDS C) (Total PO4 e) (WAD Cya ) (As) (Sb) (H etals) (As) (Sb) g short list)	) (TSS) (B ) (Total Kiec unide) (Free Ba) (Be) (Ca ) (Ba) (Be) (C	OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	(NH3) (NO3/N (Cr) (Cu) (Fe) (1	VO2) Pb) (Mg) (Mn) (Ni	) (Ag) (Se) (T	1) (V) (Zn) (Hg)	
	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	ctivity) (TDS C) (Total PO4 e) (WAD Cya ) (As) (Sb) (H etals) (As) (Sb) g short list)	) (TSS) (B ) (Total Kiec unide) (Free Ba) (Be) (Ca ) (Ba) (Be) (C	OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	(NH3) (NO3/N (Cr) (Cu) (Fe) (1	VO2) Pb) (Mg) (Mn) (Ni	) (Ag) (Se) (T	1) (V) (Zn) (Hg)	

Duplicate Sample No(s):

Comments: Signature:



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 05/2019@	815		
Sample Num	nber:	RGW237S-	190305		Weather:	CLEAR			
Landau Repr	resentative:	SRB			-				
WATER LEV	/EL/WELL/PU	JRGE DATA							
Well Condition		Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	4.74	Time:	-	Flow through cel			GW Meter No.(s	HERON1
	Date/Time:			End Purge:	-	3/ 05 /2019 @	809	Gallons Purged:	
Purge water d			55-gal Drum	Ĕ.	Storage Tank	Ground		SITE TREATM	
C	Тетр	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	hu	(mV)	(NTU)	(ft)	Volume (gal)	Observations
						dings within the fo		>/= 1 flow	
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
748	8.2	162.3	7.12	6.01	150.0	LOW	4.74		
751	7.8	167.3	3.86	6.16	84.0		4.74		
754	7.9	166.1	3.70	6.18	77.9		4.74		
757	7.8	163.3	3.30	6.27	49.4				
800	8.1	165.4	3.09	6.26	38.7				
803	·	168.4	2.90	6.30	26.9				
				,					
806	8.3	171.0	2.77	6.34	19.3				
SAMPLE CO			Bailer		Dump/Dump Tump				
Sample Collec Made of:		لیا Stainless Ste		PVC	Teflon	DED BLADDER Polyethylene	D Other	Dedicated	
Decon Proced	lure:		_	Tap Rinse		Dedicated		Dedicated	
(By Numerica		Alconox Was	sn Ll	rap Killse	DI Water	Dedicated			
	iption (color, t		sheen etc.):	CI EAR CR	AV NO/NS				
Sample Deser		urbluity, ouor,	, sheen, etc.).	CLLAR OR					
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		. ,		6.24		(110)	(11)	(Геп)	Obser various
1	8.3	171.7	2.74	6.34	17.8				
2	8.4	172.3	2.70	6.34	16.7				
3	8.4	172.7	2.70	6.34	15.9				
4	8.4	172.9	2.66	6.34	15.0				
Average:	8.4	172.4	2.70	6.34	16.4	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LOWED PF	R BOTTLE	TYPE (Circle ar	oplicable or write 1	on-standard ar	alvsis below)	
5	(8260) (8010		WTPH-G) (					WA 🗆	OR 🗆
			· · · · ·	,	· · · · · ·	(8141) (Oil & Gre	ase)	WA 🗆	OR
	(pH) (Condu	ctivity) (TDS	S) (TSS) (B	OD) (Turbi	dity) (Alkalinity)	(HCO3/CO3) (O	Cl) (SO4) (NO	3) (NO2) (F)	
1	(COD) (TO	C) (Total PO-	4) (Total Kie	dahl Nitroger	n) (NH3) (NO3/	NO2)			
	· · · · · · · · · · · · · · · · · · ·	e) (WAD Cy		<b>*</b> /					
						Pb) (Mg) (Mn) (1			
			o) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pt)	o) (Mg) (Mn) (Ni) (	Ag) (Se) (Tl) (V	) (Zn) (Hg) (K) (N	Na) (Hardness) (Silica
	VOC (Boein	Č (							
	Matter Pit	ama Ett. ·							
	Methane Eth	ane Ethene Ac	cetylene						
	Methane Eth	ane Ethene Ac	cetylene						
	Methane Eth	ane Ethene Ac	cetylene						

Duplicate Sample No(s):

Comments:



Project Name	e:	Boeing Ren	ton		Project Numbe	er:	0025217.099.0	99	
Event:		Quarterly M			Date/Time:	3/ 05/2019@	900		
Sample Num	iber:	RGW238I-			Weather:	CLEAR			
Landau Repr	esentative:	SRB							
WATER LEV	FI/WFII/PI	IRGE DATA							
WATER EEV Well Conditio		Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before I		4.81	, Time:	-	Flow through ce		indon mount	GW Meter No.(s	HERON1
Begin Purge:				End Purge:	-	3/ 05 /2019 @	842	Gallons Purged:	
Purge water di			55-gal Drum	Ĕ.	Storage Tank	Ground		SITE TREATM	
i uige water ui	1		-		-				
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Inne	· /	· /		ters for three	· /	dings within the fo		>/= 1 flow	Obser various
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/ <b>- 10 mV</b>	+/- 10%	< 0.3 ft	through cell	
833	8.0	364.7	1.12	6.39	-20.9	LOW	4.81		
836	7.9	360.9	1.10	6.40	-26.0		4.81		
839	8.0	356.1	1.05	6.37	-31.6		4.81		
037	0.0		1.05	0.57	-51.0		01		
								·	
SAMPLE CO	LLECTION D	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	e DED BLADDER			
Made of:		Stainless Ste	el 🗖	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procedu	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(D. Mana and a m									
(By Numerical	l Order)	Other							
•			, sheen, etc.):	SLIGHTLY	YELLOW CLEA	R NO/NS			
Sample Descri	iption (color, t	turbidity, odor	-				DTW	Ferrous iron	Comments/
•			D.O. (mg/L)	SLIGHTLY pH	YELLOW CLEA ORP (mV)	R NO/NS Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
Sample Descri	iption (color, t Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity			
Sample Descri Replicate	iption (color, t Temp (°F/°C) 8.0	Cond. (uS/cm) 355.2	D.O. (mg/L) 1.05	<b>рН</b> 6.37	ORP (mV) -32.0	Turbidity			
Sample Descrit Replicate	iption (color, t <b>Temp</b> (°F/°C) <u>8.0</u> <u>8.1</u>	Cond. (uS/cm) 355.2 355.2	D.O. (mg/L) 1.05 1.04	<b>рН</b> 6.37 6.37	ORP (mV) -32.0 -32.3	Turbidity			
Sample Descrit Replicate	iption (color, t Temp (°F/°C) 8.0 8.1 8.1	Cond. (uS/cm) 355.2 355.2 354.6	D.O. (mg/L) 1.05 1.04 1.06	рН 6.37 6.37 6.36	ORP (mV) -32.0 -32.3 -32.3	Turbidity			
Sample Descrit Replicate	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2	Cond. (uS/cm) 355.2 355.2	D.O. (mg/L) 1.05 1.04	рН 6.37 6.37 6.36 6.36	ORP (mV) -32.0 -32.3	Turbidity			
Sample Descrit Replicate	iption (color, t Temp (°F/°C) 8.0 8.1 8.1	Cond. (uS/cm) 355.2 355.2 354.6	D.O. (mg/L) 1.05 1.04 1.06	рН 6.37 6.37 6.36	ORP (mV) -32.0 -32.3 -32.3	Turbidity			
Sample Descrit Replicate	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1	Cond. (uS/cm) 355.2 355.2 354.6 354.7 354.9	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05	рН 6.37 6.37 6.36 6.36 6.37	ORP (mV) -32.0 -32.3 -32.3 -32.9 -32.4	Turbidity (NTU)	(ft)	(Fe II)	
Sample Descri Replicate 1 2 3 4 Average: QUANTITY	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1	Cond. (uS/cm) 355.2 355.2 355.2 354.6 354.7 354.9 NALYSIS AI	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05	pH 6.37 6.37 6.36 6.36 6.37 <b>CR BOTTLE</b>	ORP (mV) -32.0 -32.3 -32.3 -32.9 -32.4 TYPE (Circle a	Turbidity (NTU) 	(ft)	(Fe II)	
Sample Descrit Replicate	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.1 8.2 8.1 TYPICAL A	Cond. (uS/cm) 355.2 355.2 354.6 354.7 354.9 NALYSIS AI 0) (8020) (N	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE	pH 6.37 6.37 6.36 6.36 6.37 CR BOTTLE NWTPH-Gx)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX)	Turbidity (NTU) 	(ft)	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1 7491CAL A (8260) (8010 (8270) (PAH (pH) (Condu	Cond. (uS/cm) 355.2 355.2 355.2 354.6 354.7 354.9 NALYSIS AI 0) (8020) (N H) (NWTPH- activity) (TDS	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE WTPH-G) ( D) (NWTPH S) (TSS) (B	pH 6.37 6.37 6.36 6.36 6.37 CR BOTTLE NWTPH-Gx) I-Dx) (TPH- OD) (Turbic	ORP (mV) -32.0 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081)	Turbidity (NTU) #DIV/0! pplicable or write p (8141) (Oil & Gre (HCO3/CO3) (C	(ft)	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.1 8.2 8.1 TYPICAL A (8260) (8010 (8270) (PAH (pH) (Condu (COD) (TOC	Cond.           (uS/cm)           355.2           355.2           354.6           354.7           354.9           NALYSIS AI           0) (8020) (N           H) (NWTPH-           activity) (TDS           C) (Total PO-	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> NWTPH-Gx) (-Dx) (TPH- OD) (Turbic dahl Nitrogen	ORP (mV) -32.0 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081)	Turbidity (NTU) #DIV/0! pplicable or write p (8141) (Oil & Gre (HCO3/CO3) (C	(ft)	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1 7491CAL A (8260) (8010 (8270) (PAH (8270) (PAH (pH) (Condu (COD) (TOC (Total Cyanid	Lurbidity, odor,         Cond.         (uS/cm)         355.2         355.2         355.2         354.6         354.7         354.9         NALYSIS AI         0) (8020) (N         H) (NWTPH-         1ctivity) (TDS         C) (Total POO         Le) (WAD Cy	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie ranide) (Free	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> NWTPH-Gx) I-Dx) (TPH- OD) (Turbic dahl Nitrogen Cyanide)	ORP (mV) -32.0 -32.3 -32.3 -32.9 -32.4 TYPE (Circle aj (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) (NH3) (NO3)	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Gre           0 (HCO3/CO3) (O/1002)	(ft)	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.1 8.2 8.1 TYPICAL A (8260) (8010 (8270) (PAH (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals)	Cond. (uS/cm) 355.2 355.2 355.2 354.6 354.7 354.9 NALYSIS AI 0) (8020) (N H) (NWTPH- nctivity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) (	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> <b>NWTPH-Gx</b> <b>I-Dx</b> ) (TPH- OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) () (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gre           (HCO3/CO3) (O/NO2)           (Pb) (Mg) (Mn) (1	(ft) 	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.1 8.2 8.1 TYPICAL A (8260) (8010 (8270) (PAH (8270) (PAH (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals)	Cond.           (uS/cm)           355.2           355.2           355.2           355.2           354.6           354.7           354.9           NALYSIS AI           0) (8020) (N           4) (NWTPH-           1ctivity) (TDS           C) (Total POC           (WAD Cy)           ) (As) (Sb) (	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> <b>NWTPH-Gx</b> <b>I-Dx</b> ) (TPH- OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) () (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gre           (HCO3/CO3) (O/NO2)           (Pb) (Mg) (Mn) (1	(ft) 	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1 78.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 10 8.1 10 8.2 10 10 10 10 10 10 10 10 10 10	Cond. (uS/cm) 355.2 355.2 355.2 355.2 354.6 354.7 354.9 NALYSIS AI 0) (8020) (N H) (NWTPH- activity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) ( etals) (As) (St g short list)	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> <b>NWTPH-Gx</b> <b>I-Dx</b> ) (TPH- OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) () (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gre           (HCO3/CO3) (O/NO2)           (Pb) (Mg) (Mn) (1	(ft) 	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1 78.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 10 8.1 10 8.2 10 10 10 10 10 10 10 10 10 10	Cond.           (uS/cm)           355.2           355.2           355.2           355.2           354.6           354.7           354.9           NALYSIS AI           0) (8020) (N           4) (NWTPH-           1ctivity) (TDS           C) (Total PO-           (WAD Cy)           ) (As) (Sb) (	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> <b>NWTPH-Gx</b> <b>I-Dx</b> ) (TPH- OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) () (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gre           (HCO3/CO3) (O/NO2)           (Pb) (Mg) (Mn) (1	(ft) 	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1 78.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 10 8.1 10 8.2 10 10 10 10 10 10 10 10 10 10	Cond. (uS/cm) 355.2 355.2 355.2 355.2 354.6 354.7 354.9 NALYSIS AI 0) (8020) (N H) (NWTPH- activity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) ( etals) (As) (St g short list)	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> <b>NWTPH-Gx</b> <b>I-Dx</b> ) (TPH- OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) () (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gre           (HCO3/CO3) (O/NO2)           (Pb) (Mg) (Mn) (1	(ft) 	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1 78.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 8.1 10 8.2 10 8.1 10 8.2 10 10 10 10 10 10 10 10 10 10	Cond. (uS/cm) 355.2 355.2 355.2 355.2 354.6 354.7 354.9 NALYSIS AI 0) (8020) (N H) (NWTPH- activity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) ( etals) (As) (St g short list)	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> <b>NWTPH-Gx</b> <b>I-Dx</b> ) (TPH- OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) () (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gre           (HCO3/CO3) (O/NO2)           (Pb) (Mg) (Mn) (1	(ft) 	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1 TYPICAL A (8260) (8010 (8270) (PAH (8260) (8010 (8270) (PAH (0) (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (COD) (TOO (TOO (TOO (TOO (TOO (COD) (TOO (TOO (TOO (TOO (TOO (COD) (TOO (TOO (TOO (COD) (TOO (TOO (TOO (Dissolved Ma VOC (Boein Methane Eth others	Cond.         (uS/cm)         355.2         355.2         354.6         354.7         354.9         NALYSIS AI         0) (8020) (N         H) (NWTPH-         1ctivity) (TDS         C) (Total PO-         le) (WAD Cy         ) (As) (Sb) (         etals) (As) (St         g short list)         nane Ethene Ac	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE (WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ba) (Be) (Ca	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> <b>NWTPH-Gx</b> <b>I-Dx</b> ) (TPH- OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) () (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gre           (HCO3/CO3) (O/NO2)           (Pb) (Mg) (Mn) (1	(ft) 	(Fe II)	Observations
Sample Descri Replicate  1 2 3 4 Average:  QUANTITY 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1 TYPICAL A (8260) (8010 (8270) (PAH (8260) (8010 (8270) (PAH (0) (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (COD) (TOO (TOO (TOO (TOO (TOO (COD) (TOO (TOO (TOO (TOO (TOO (COD) (TOO (TOO (TOO (COD) (TOO (TOO (TOO (Dissolved Ma VOC (Boein Methane Eth others	Cond. (uS/cm) 355.2 355.2 355.2 355.2 354.6 354.7 354.9 NALYSIS AI 0) (8020) (N H) (NWTPH- activity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) ( etals) (As) (St g short list)	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE (WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ba) (Be) (Ca	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> <b>NWTPH-Gx</b> <b>I-Dx</b> ) (TPH- OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) () (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gre           (HCO3/CO3) (O/NO2)           (Pb) (Mg) (Mn) (1	(ft) 	(Fe II)	Observations
Sample Descrit Replicate 1 2 3 4 Average: QUANTITY 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	iption (color, t Temp (°F/°C) 8.0 8.1 8.1 8.2 8.1 TYPICAL A (8260) (8010 (8270) (PAH (8260) (8010 (8270) (PAH (0) (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (TOO (COD) (TOO (TOO (TOO (TOO (TOO (COD) (TOO (TOO (TOO (TOO (TOO (COD) (TOO (TOO (TOO (COD) (TOO (TOO (TOO (Dissolved Ma VOC (Boein Methane Eth others	Cond.         (uS/cm)         355.2         355.2         354.6         354.7         354.9         NALYSIS AI         0) (8020) (N         H) (NWTPH-         1ctivity) (TDS         C) (Total PO-         le) (WAD Cy         ) (As) (Sb) (         etals) (As) (St         g short list)         nane Ethene Ac	D.O. (mg/L) 1.05 1.04 1.06 1.04 1.05 LOWED PE (WTPH-G) ( D) (NWTPH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ba) (Be) (Ca	pH 6.37 6.37 6.36 6.36 6.36 6.37 <b>CR BOTTLE</b> <b>NWTPH-Gx</b> <b>I-Dx</b> ) (TPH- OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -32.0 -32.3 -32.3 -32.3 -32.9 -32.4 TYPE (Circle ap (BTEX) HCID) (8081) HCID) (8081) HCID) (8081) dity) (Alkalinity) () (NH3) (NO3) (Cr) (Cu) (Fe)	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Gre           0 (HCO3/CO3) (O'/NO2)           (Pb) (Mg) (Mn) (I           b) (Mg) (Mn) (Ni) (I	(ft) 	(Fe II)	Observations



Sample Number:         RGW2391-190304         Weather:         40'S, SUNNY           Landau Representative:         JHA	Project Name	e:	Boeing Ren	ton		Project Number	:	0025217.099.0	99	
Landau Representative:       IHA         WATER LVLL/PULL/PULL/PURSDE DATA WATER LVLL/PULL/PURSDE DATA WATER LVLL/PURSDE DATA Sector Purging (i)       555         DIW Before Purging (ii)       555         DIW Before Purging (ii)       552,53         Time:       J313         Purge:       Data Time:       374 / 2019 (ii) 1318         End Purge:       Data Time:       27 / 2019 (ii) 1399       Galdon Purget:       Galdon Purget:       Galdon Purget:       075         Purge:       Cond.       D.O.       PH       ORF       Turbidity       DTW       Internet Purget:       Conditions         Purge:       Cond.       D.O.       PH       ORF       Turbidity       DTW       Volume (pg)       Observations         Purge:       Cond.       D.O.       PH       ORF       Turbidity       DTW       Volume (pg)       Observations         1321       11.3       275.8       0.49       6.39       6.21       IOW       5.55       c0.25       10.25         1333       11.2       272.4       0.23       6.45       10.2       10.35       10.25       10.35       10.35       10.35       10.35       10.35       10.35       10.35       10.35       10.35       10.35	Event:		Quarterly M	larch 2019		Date/Time:	3/ 4 /2019@ 134	41		
WATER LEVEL APELL PURCHE DATA         Damaged (NO)         Describ:         FLUSH MOUNT           Well Condition:         Secure (YES)         Damaged (NO)         Describ::         FLUSH MOUNT           Brigh Purge:         DaroTime:         37.4.72019.49.1218         End Purge:         DatoTime:         37.4.72019.49.1239         Gallons Purged:         0.25           Purge water disposed to:         Strage Task         Granud         Other         Strate Task         Granud         Other         Strate Task         Other Strate Task TUREAT SYSTEM         Observations           Time         CHF C0         (SSCm)         mgL1         Storage Task         Granud         Other         Strate Task         Other Strate Task TUREAT SYSTEM         Observations           Time         CHF C0         (SSCm)         mgL1         Storage Task         FUTW         Task         Comments'         Comments'         Comments'         Storage Task         Task         Task         Task         Date Task         Observations         Storage Task         Observations         Date Task         Observations         Date Task         Storage Task         Storage Task         Storage Task         Observations         Date Task         Observations         Date Task         Observations         Date Task         Date Task	Sample Num	ber:	RGW239I-	190304		Weather:	40'S, SUNNY			
Well Conductor:       Source (VES)       Damaged (NO)       Describe: <u>IUUSH MOUNT</u> DTW Before Purging (D)       5.55       Time:       [1313]       Flow through cell vol.       Gallonss Purging (D)       Coll Meter No.(5 HERON3 (D)         Purge water disposed to:       0       55.50       Drum       Storage Tank       Ground       Other       STIE TERLATMENT SYSTEM         Time       Terme       Cond       D.O.       pH       OR       Other       STIE TERLATMENT SYSTEM         Time       Terme       Cond       D.O.       pH       OR       Other       STIE TERLATMENT SYSTEM         Time       Terme       Cond       D.O.       pH       OR       Other       STIE TERLATMENT SYSTEM         Time       Terme       Cond       D.O.       pH       OR       Other       STIE TERLATMENT SYSTEM         Time       Terme       Cond       D.O.       pH       OR       Other       STIE TERLATMENT SYSTEM         Tistal       11.2       272.8       0.49       6.50       6.21       FOUNDER       Other       Other       Other       Terlatily       Other       Terlatily       Other       Other       Other       Other       Other       Other       Other	Landau Repr	esentative:	JHA							
DTW Refore Purging (f)       5.55       Time:       13.13       Flow through cell wol.       GW Meter No.(s HFRON 3         Regin Purge:       Date/Time:       3.7.4       2010 / 61.31M       Find Purge:       Date/Time:       3.7.4       GW Meter No.(s HFRON 3	WATER LEV	EL/WELL/PU	RGE DATA							
Begin Purge:       Date/Time:       3' 4 / 2019 @ 1318       End Purge:       Date/Time:       3' 4 / 2019 @ 1339       Gallons Purget:       0.01b       Time       Time       Consumed to:       0.01b       Time:       3' 4 / 2019 @ 1318       Date/Time:       3' 4 / 2019 @ 1339       Gallons Purget:       0.035         Purge water disposed to:       0.050       mpL       Owner (a)       0.00b       Time:       Time:       Time:       0.01b       Time:       0.01b       Time:       Time:       Time:       Time:       0.00b       Time:       0.01b       Time:       0	Well Conditio	n:	Secure (YES	)	Damaged (N	O)	Describe:	FLUSH MOUN	T	
Parge water disposed to:       Image Storage Tank       Image Group       Ima	DTW Before	Purging (ft)	5.55	Time:	1313	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Time         Temp (F*C)         Cond. (usC)         D.O. (mgL)         pII (mgL)         ORP (mgL)         Turbidity (NTU)         DTW (NTU)         Internal Parge Volume (gal)         Comments/ Observations           1321         11.3         273.8         0.49         6.39         62.1         LOW         5.55         c0.25           1324         11.0         273.3         0.32         6.42         45.6         5.56         c0.25           1330         11.2         272.7         0.22         6.44         27.0         co.25         co.25           1330         11.2         272.4         0.24         6.45         10.5         co.25           1338         11.2         272.3         0.21         6.44         6.1         co.25           1338         11.3         272.3         0.21         6.44         6.1         co.25           1338         11.3         272.3         0.21         6.44         6.1         co.25           1338         11.3         272.3         0.21         6.44         6.1         co.27           Sample Collected Wait         Bailer         PumpPump Type DED BLADDER         co.27         co.28         co.27           Obcord Procedurit: </td <td>Begin Purge:</td> <td>Date/Time:</td> <td>3/ 4 /2019 @</td> <td>@ 1318</td> <td>End Purge:</td> <td>Date/Time:</td> <td>3/ 4/2019 @ 133</td> <td>9</td> <td>Gallons Purged:</td> <td>0.75</td>	Begin Purge:	Date/Time:	3/ 4 /2019 @	@ 1318	End Purge:	Date/Time:	3/ 4/2019 @ 133	9	Gallons Purged:	0.75
Time         (TrC)         (us/L)         (us/L) <td>Purge water d</td> <td>isposed to:</td> <td></td> <td>55-gal Drum</td> <td></td> <td>Storage Tank</td> <td>Ground</td> <td>Other</td> <td>SITE TREATM</td> <td>ENT SYSTEM</td>	Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
+/- 3%       +/- 10%       +/- 10 miles       +/- 10 miles       +/- 10%       <0.3 ft       through cell         1321       11.3       275.8       0.49       6.39       62.1       10W       5.56       <0.25	Time	(° <b>F</b> /° <b>Č</b> )	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	
1324       110       273.3       0.32       6.42       45.6       5.56         1327       11.2       272.8       0.35       6.43       35.1       0.25         1330       11.2       272.7       0.25       6.44       27.0       25         1333       11.2       272.4       0.24       6.45       19.2       25         1338       11.2       272.4       0.21       6.44       6.1       26         1338       11.3       272.3       0.21       6.44       6.1       26         Sample Collected Whit:       Bailer       Pump/Pump Type DED BLADDER       20       20       20         Made of:       Alcono Wash       Tap Rinse       D Water       D cdicated       00ther       Decicated         Sample Collectoric (color, ttribdity, odor, sheen, etc.):       CLEAR, COLORLESS, NONS       Even Processing       00ther       Even Processing       00ther       Even Processing       Comments/         1       11.2       272.2       0.22       6.44       5.4       2       11.2       272.2       0.22       6.45       4.2       11.2       11.2       272.2       0.22       6.45       4.5       4.11       11.2       272.2										
1324       110       273.3       0.32       6.42       45.6       5.56         1327       11.2       272.8       0.35       6.43       35.1       0.25         1330       11.2       272.7       0.25       6.44       27.0       25         1333       11.2       272.4       0.24       6.45       19.2       25         1338       11.2       272.4       0.21       6.44       6.1       26         1338       11.3       272.3       0.21       6.44       6.1       26         Sample Collected Whit:       Bailer       Pump/Pump Type DED BLADDER       20       20       20         Made of:       Alcono Wash       Tap Rinse       D Water       D cdicated       00ther       Decicated         Sample Collectoric (color, ttribdity, odor, sheen, etc.):       CLEAR, COLORLESS, NONS       Even Processing       00ther       Even Processing       00ther       Even Processing       Comments/         1       11.2       272.2       0.22       6.44       5.4       2       11.2       272.2       0.22       6.45       4.2       11.2       11.2       272.2       0.22       6.45       4.5       4.11       11.2       272.2	1321	11.3	275.8	0.49	6.39	62.1	LOW	5.56	<0.25	
1327       11.2       272.8       0.35       6.43       35.1       0.25         1330       11.2       272.7       0.25       6.44       27.0       1333         1333       11.2       272.4       0.23       6.45       10.5       10.5         1336       11.2       272.3       0.21       6.44       6.1       10.5       10.5         1338       11.3       272.3       0.21       6.44       6.1       10.5       10.5       10.6         Sample Collected With:       □       Bailer       □       PumpPump Type DED BLADDER       0.0       Dedicated         Sample Collected With:       □       Alconox Wash       □       Tar Rinsc       □ D Water       □ Dedicated         Brownerical Order)       □ Other       □       Dedicated       □       0.0       Demory (my)       (NTU)       (R)       Perrous iron       Comments/         1       11.2       272.2       0.22       6.44       5.4       2       11.2       0.22.2       6.45       4.8       10.0       1000000000000000000000000000000000000	1324			0.32	6.42					
1330       11.2       272.7       0.25       6.44       27.0         1333       11.2       272.4       0.24       6.45       19.2         1336       11.2       272.4       0.23       6.45       10.5         1338       11.3       272.3       0.21       6.44       6.1         SAMPLE COLLECTION DATA         Sample Collected With:       □       Bailer       □       Pump/Pump Type       DED BLADDER         Collected With:       □       Bailer       □       Pump/Pump Type       Delytelylenc       □       Other       □         Sample Collected With:       □       Bailer       □       Pump/Pump Type       Delytelylenc       □       Other       □       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS       □       Other       □       Dedicated         1       11.2       272.2       0.22       6.45       4.8       □       □       Other       Other       □         2       11.2       272.2       0.22       6.45       4.5       □       □       □       Other       □       Other       □       Other       □       Other       □ </td <td></td>										
133       11.2       272.4       0.24       6.45       19.2									0.25	
1336       11.2       272.4       0.22       6.45       10.5         1338       11.3       272.3       0.21       6.44       6.1         SAMPLE COLLECTION DATA         Sample Collected With:       Bailer       PumpPump Type       DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         Sample Collection (color, utrikity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS       Entropic (mg/L)       Other       Turbidity       Operations         1       11.2       272.2       0.22       6.44       5.4										
1338       11.3       272.3       0.21       6.44       6.1         SAMPLE COLLECTION DATA										
SAMPLE COLLECTION DATA         Sample Collected With:       Bailer       PUMP/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated         Bay       Other       Other       Dedicated         Bay       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS       DTW       Ferrous iron       Comments/         0       (FF/C)       (us/cm)       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       11.2       272.2       0.22       6.45       4.8	1336	11.2	272.4	0.23	6.45	10.5				
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         By Numerical Order)       Other       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS         Replicate Temp (refr)       Cond.       D.O. (mg/L)       pH       ORP (mV)       Turbidity       DTW (rt)       Ferrous iron (refr)       Observations         1       11.2       272.2       0.22       6.44       5.4	1338	11.3	272.3	0.21	6.44	6.1				
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         By Numerical Order)       Other       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS         Replicate       Temp ('RF'C)       Cond, (mg/L)       pH       ORP (mV)       Turbidity       DTW (rt)       Ferrous iron (ref I)       Observations         1       11.2       272.2       0.22       6.44       5.4										
Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       D II Water       Dedicated       Dedicated         (By Numerical Order)       Other       CLEAR, COLORLESS, NO/NS         Replicate       Temp ("F/C)       Cond.       D.O. (mgL)       pH       ORP (mV)       Turbidity (NTU)       Ferrous iron (Fe II)       Observations         1       11.2       272.2       0.22       6.44       5.4										
Decon Procedure:       Alconox Wash       Tap Rinse       D Water       Dedicated         (By Numerical Order)       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS         Replicate       Temp Cond. (S/F/°C)       D.O. (mg/L)       PH       ORP (mV)       Turbidity (nt)       Ferrous iron Comments/ Observations         1       11.2       272.2       0.22       6.44       5.4	-	ted With:								
(By Numerical Order)       Other       CLEAR, COLORLESS, NO/NS         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       11.2       272.2       0.22       6.44       5.4							<u> </u>	U Other	Dedicated	
Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR, COLORLESS, NO/NS         Replicate       Temp ("F/°C)       Cond. (uS/cm)       D.O. (mg/L)       pH       ORP (mV)       Turbidity (NTU)       DTW (ft)       Ferrous iron (Fe II)       Comments/ Observations         1       11.2       272.2       0.22       6.44       5.4				sh 📋	Tap Rinse	DI Water	Dedicated			
Replicate         Temp (°F/°C)         Cond. (uS/cm)         D.O. (mg/L)         pH         ORP (mV)         Turbidity (NTU)         DTW (ft)         Ferrous iron (Fe II)         Comments/ Observations           1         11.2         272.2         0.22         6.44         5.4		·		shaan ata);		LODIESS NO/N	<u>c</u>			
(°F/°C)       (uS/cm)       (mg/L)       (mV)       (NTU)       (ft)       (Fe II)       Observations         1       11.2       272.2       0.22       6.44       5.4	Sample Desci	iption (color, t	urbiaity, ouor,	sheen, etc.).	CLEAK, CO	LORLESS, NO/N	3			
2       11.2       272.2       0.22       6.45       4.8         3       11.2       272.2       0.22       6.45       4.2         4       11.2       272.2       0.21       6.45       3.5         Average:       11.2       272.2       0.22       6.45       4.2         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       5         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         (8270)       (PAH)       (NWTPH-D)       (NWTPH-DI)       (8081)       (8141)       (Oil & Grease)       WA       OR         (pH)       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (SO4)       (NO2)       (F)         1       (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Quaide)       (Free Cyanide)         (Total Quaide)       (WAD Cyanide)       (Free Cyanide)       (Cob)       (Cob)       (CD)       (CD)       (CD)       (CD)       (CD)       (CD)       (CD)       (CD)       (CD)       (	Replicate				рН					
3       11.2       272.2       0.22       6.45       4.2         4       11.2       272.2       0.21       6.45       3.5         Average:       11.2       272.2       0.22       6.45       4.5       #DIV/0!         QUANTITY         TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NTPH-Gx)       (BTEX)       WA       OR         (8270)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR         (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)         1       (COD)       (TOC)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Metals)       (As)       (Sb)       (Ba) (Be)       (Ca)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg) <td>1</td> <td>11.2</td> <td>272.2</td> <td>0.22</td> <td>6.44</td> <td>5.4</td> <td></td> <td></td> <td></td> <td></td>	1	11.2	272.2	0.22	6.44	5.4				
4       11.2       272.2       0.21       6.45       3.5         Average:       11.2       272.2       0.22       6.45       4.5       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR	2	11.2	272.2	0.22	6.45	4.8				
Average:       11.2       272.2       0.22       6.45       4.5       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       0         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         6       (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)       (NO2)       (F)         1       (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Quanide)       (Free Cyanide)         (Total Atelas)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Sb)       (Na)       (Hardness)       (Silica)         VOC       (Boeing short list)       Methane Ethane Ethene Acetylene       Image: Calification of them another stethene Acetylene       Image: Calification of th	3	11.2	272.2	0.22	6.45	4.2				
Average:       11.2       272.2       0.22       6.45       4.5       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       0         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         6       (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)       (NO2)       (F)         1       (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Quanide)       (Free Cyanide)         (Total Atelas)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Sb)       (Na)       (Hardness)       (Silica)         VOC       (Boeing short list)       Methane Ethane Ethene Acetylene       Image: Calification of them another stethene Acetylene       Image: Calification of th	4	11.2	272.2	0.21	6.45	3.5				
QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         (8270)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR       Implicable         (pH)       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (SO4)       (NO2)       (F)         1       (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Cyanide)       (Free Cyanide)         (Total Quanide)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Mn)       (Ni)       (Ag)       (Se)       (TI)       (V)       (Zn)       (Hg)       (K)       (Na)         1       (COD)       (Toc)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Mn)       (Ni)       (Ag)       (Se)       (TI)       (V)	Average:				6.45	4.5	#DIV/0!			
5       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         (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)         1       (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)         (Total Cyanide)       (WAD Cyanide)       (Free Cyanide)       (Total Akiedahl Nitrogen)       (NH3)       (NO3/NO2)         (Total Ateals)       (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)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (Tl)										
(8270)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR       Image: Conductivity         (pH)       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (SO4)       (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)       (TI)       (V)       (Zn)       (Hg)       (K)       (Na)         (Dissolved Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Si)       (Na)       (Hardness)       (Silica)         VOC       (Boeing short list)       Methane Ethane Ethane Acetylene       Image: Calification of the set the se							blicable or write no	on-standard and	· · · · · · · · · · · · · · · · · · ·	
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica)         VOC (Boeing short list)         Methane Ethene Acetylene         others	5						8141) (Oil & Greas	se)		
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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica)         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others			· · ·							
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica)         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others	1								, , , , ,	
(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) (Silica)         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others		(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
VOC (Boeing short list)         Methane Ethane Ethene Acetylene         Image: State										
Methane Ethane Ethene Acetylene         Image: Constraint of the sector				) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	(Se) (Tl) (V)	(Zn) (Hg) (K) (Na	a) (Hardness) (Silica)
others										
		Methane Eth	ane Ethene Ac	etylene						
		others								

Comments: Signature:



Project Name	e:	Boeing Ren	ton		Project Number:         0025217.099.099				
Event:		Quarterly M	arch 2019		Date/Time:	3/ 4 /2019@ 140	)6		
Sample Num	iber:	RGW240D-	190304		Weather:	40'S, SUNNY			
Landau Repr	esentative:	JHA			·				
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio	n:	Secure (YES)	)	Damaged (N	O)	Describe:	FLUSH MOUN	Τ	
DTW Before	Purging (ft)	6.13	Time:	1326	Flow through cel	l vol.		GW Meter No.(	HERON 3
Begin Purge:	Date/Time:	3/ 4 /2019 @	@ 1342	End Purge:	Date/Time:	3/ 4/2019 @ 140	3	Gallons Purged:	0.5
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C) Purge Gos	Cond. (uS/cm) ols: Stablizatio	D.O. (mg/L) on of Parame	pH ters for three	ORP (mV)	Turbidity (NTU) lings within the foll	DTW (ft) lowing limits	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1345	13.5	365.4	0.17	6.52	7.6	MED	6.57	< 0.25	TURN DOWN CPM
1348	12.9	361.1	0.16	6.53	-9.4		6.26		
1351	12.2	355.6	0.18	6.53	-16.6		6.19		
1354	11.8	351.3	0.18	6.53	-20.4			0.25	
								0.23	
1357	11.0	345.0	0.20	6.53	-25.0				
1400	10.7	340.3	0.22	6.53	-29.7				
1402	10.0	332.5	0.26	6.53	-35.5				
SAMPLE CO Sample Collect			Bailer		Dump /Dump Turp				
Made of:		الیا Stainless Stee		PVC	Teflon	DED BLADDER Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	_	Tap Rinse	DI Water	Dedicated		Dealeated	
(By Numerica		Other	··· -	rup ruise		Dealeuted			
	<i>,</i>		sheen, etc.):	CLEAR, CO	LORLESS, NO/N	S			
									~
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	9.9	332.0	0.26	6.52	-35.9				
2	9.9	331.7	0.26	6.53	-36.3				
3	9.9	331.3	0.26	6.53	-36.3				
4	9.9	331.1	0.26	6.53	-37.2				
Average:	9.9	331.5	0.26	6.53	-36.4	#DIV/0!			
·									
QUANTITY 5		<u>NALYSIS AL</u> D) (8020) (N				olicable or write no	n-standard ana	WA	OR 🗆
3						8141) (Oil & Greas	e)	WA 🗆	OR 🗆
		<i></i>	/	/ .	· · · · · ·	(HCO3/CO3) (Cl)	,		
1	(COD) (TOO	C) (Total PO4	) (Total Kie	dahl Nitrogen	) (NH3) (NO3/1	NO2)			
	(Total Cyanid	e) (WAD Cya	anide) (Free	Cyanide)					
						Pb) (Mg) (Mn) (Na			
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	.g) (Se) (Tl) (V)	(Zn) (Hg) (K) (N)	a) (Hardness) (Silica)
	VOC (Boein Methane Eth	g short list) ane Ethene Ac	etvlene						
		une Luiene Ac							
	others								
Duplicate San	$\mathbf{n}$ la $\mathbf{N}_{\mathbf{a}}(\mathbf{a})$								

Comments: Signature:



Project Nam	e:	Boeing Ren	iton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	Iarch 2019		Date/Time:	3/ 4 /2019@	1515		
Sample Nun	nber:	RGW-241S			Weather:	CLEAR			
Landau Repr	resentative:	SRB							
WATER LEV	EL/WELL/P	URGE DATA							
Well Condition		Secure (YES	)	Damaged (N	(0)	Describe:			
DTW Before	Purging (ft)	6.15	Time:	1442	Flow through ce	ll vol.		GW Meter No.(s	HERON1
		3/ /2019 @		End Purge:	•	3/ /2019 @	1500	Gallons Purged:	0.25
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)	рп	(mV)	(NTU)	(ft)	Volume (gal)	Observations
						dings within the fo		>/= 1 flow	
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1448	11.1	300.3	0.38	6.16	3.7	LOW	6.17		
1451	11.1	300.6	0.36	6.16	-10.4		6.17		
1454	11.1	301.2	0.36	6.19	-16.8		6.17		
			·						
SAMPLE CO									
Sample Collec	cted With:		Bailer			DED BLADDER		<b>—</b>	
Made of:		Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica		Other							
Sample Descr	iption (color,	turbidity, odor	, sheen, etc.):	CLEAR CO	LORLESS NO/N	8			
Replicate	Temp	Cond.	D.O.	pH	ORP	Turbidity	DTW	Ferrous iron	Comments/
1	(° <b>F</b> /° <b>C</b> )	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	(Fe II)	Observations
1	11.1	301.4	0.38	6.20	-19.6				
2	11.2	301.5	0.38	6.21	-21.0				
3	11.2	301.4	0.39	6.21	-22.0				
4	11.2	301.6	0.38	6.21	-22.7				
Average:	11.2	301.5	0.38	6.21	-21.3	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LLOWED PE	R BOTTLE	TYPE (Circle a)	oplicable or write	non-standard ar	nalysis below)	
5	( <b>8260</b> ) (801	0) (8020) (N	WTPH-G) (	NWTPH-Gx)	) (BTEX)			WA 🗆	OR 🗆
	(8270) (PAI	H) (NWTPH-	D) (NWTPH	I-Dx) (TPH-	HCID) (8081)	(8141) (Oil & Gre	ase)	WA 🗆	OR 🗆
	(pH) (Condu	<b>E</b> /		· · · ·		) (HCO3/CO3) (0	Cl) (SO4) (NO	3) (NO2) (F)	
	(COD) (TO				n) (NH3) (NO3)	/NO2)			
		le) (WAD Cy							
						(Pb) (Mg) (Mn) (I)			
			)) (ва) (ве) ( <b>(</b>	.a) (Cd) (Co)	(Cr) (Cu) (Fe) (P	o) (Mg) (Mn) (N1) (	Ag) (Se) (11) (V	) (Zn) (Hg) (K) (I	Na) (Hardness) (Silica
	VOC (Boein Methane Eth	ag short list) ane Ethene A	retulene						
	withiane Ell								
	others								
Duplicate San	nple No(s):								

Comments:

Signature: SRB



Project Name	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/ 4 /2019@		1457	
Sample Num	ber:	RGW-242I-	190304		Weather:	CLEAR			
Landau Repr	esentative:	DSB							
WATER LEV	EL/WELL/PU	<b>IRGE DATA</b>							
Well Conditio	n:	Secure (YES)	)	Damaged (N	O)	Describe:			
DTW Before I	Purging (ft)	6.31	Time:	1425	Flow through cel	l_vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/4 /2019 @	1428	End Purge:	Date/Time:	3/ 4 /2019 @	1444	Gallons Purged:	0.25
Purge water di	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/°Ĉ)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	Volume (gal)	Observations
	+/- 3%	HS: Stablizatio +/- 3%		ters for three +/- 0.1 units	e consecutive read +/- 10 mV	lings within the fo +/- 10%	< 0.3  ft	>/= 1 flow through cell	
1431	12.35	375	0.81	6.45	-20.4		6.35		
1434	11.51	386	0.49	6.45	-16.2		6.35		
1437	10.34	393	0.51	6.48	-15.7		6.35		
1440	9.53	395	0.50	6.49	-15.8				
SAMPLE CO	LLECTION D	ATA							
Sample Collec			Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated		-7	
(By Numerica	l Order)	Other				·^			
Sample Descri	iption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NONS			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	(°F/°C)	(uS/cm)	(mg/L)	P	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	9.44	395	0.46	6.50	-16.0				
2	9.43	395	0.48	6.50	-15.7				
3	9.42	395	0.47	6.50	-15.5				
4	9.39	395	0.47	6.50	-15.5				
Average:	9.42	395	0.47	6.50	-15.7	#DIV/0!			
-									
QUANTITY 5	(8260) (801)		WTPH-G) (			blicable or write no	on-standard ana	WA	OR 🗆
			<i>,</i> , ,		· · · · · · · · · · · · · · · · · · ·	8141) (Oil & Grea	se)	WA 🗆	OR 🗆
					· · · · · ·	, , , , , , , , , , , , , , , , , , ,	/		
	· · · · ·	ctivity) (TDS	5) (TSS) (B	OD) (Turbid	ity) (Alkalinity)	(11005/005) (01	(SO4) (NO3)	(NO2) (F)	
	· · · · ·	ctivity) (TDS			) (NH3) (NO3/I		l) (SO4) (NO3	) (NO2) (F)	
	(pH) (Condu (COD) (TOC (Total Cyanid	ctivity) (TDS C) (Total PO4 e) (WAD Cy	) (Total Kied anide) (Free	dahl Nitrogen) Cyanide)	) (NH3) (NO3/1	NO2)			
	(pH) (Condu (COD) (TOC (Total Cyanid (Total Metals	ctivity) (TDS C) (Total PO4 e) (WAD Cy. ) (As) (Sb) (1	) (Total Kiec anide) (Free Ba) (Be) (Ca	dahl Nitrogen Cyanide) ) (Cd) (Co)	) (NH3) (NO3/I (Cr) (Cu) (Fe) (	NO2) Pb) (Mg) (Mn) (N	Ji) (Ag) (Se) (T	'l) (V) (Zn) (Hg)	
	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M	ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (1 etals) (As) (Sb	) (Total Kiec anide) (Free Ba) (Be) (Ca	dahl Nitrogen Cyanide) ) (Cd) (Co)	) (NH3) (NO3/I (Cr) (Cu) (Fe) (	NO2) Pb) (Mg) (Mn) (N	Ji) (Ag) (Se) (T	'l) (V) (Zn) (Hg)	(K) (Na) a) (Hardness) (Silica)
	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (1 etals) (As) (Sb g short list)	) (Total Kied anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (C	dahl Nitrogen Cyanide) ) (Cd) (Co)	) (NH3) (NO3/I (Cr) (Cu) (Fe) (	NO2) Pb) (Mg) (Mn) (N	Ji) (Ag) (Se) (T	'l) (V) (Zn) (Hg)	
	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (1 etals) (As) (Sb	) (Total Kied anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (C	dahl Nitrogen Cyanide) ) (Cd) (Co)	) (NH3) (NO3/I (Cr) (Cu) (Fe) (	NO2) Pb) (Mg) (Mn) (N	Ji) (Ag) (Se) (T	'l) (V) (Zn) (Hg)	
	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (1 etals) (As) (Sb g short list)	) (Total Kied anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (C	dahl Nitrogen Cyanide) ) (Cd) (Co)	) (NH3) (NO3/I (Cr) (Cu) (Fe) (	NO2) Pb) (Mg) (Mn) (N	Ji) (Ag) (Se) (T	'l) (V) (Zn) (Hg)	
	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein	ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (1 etals) (As) (Sb g short list)	) (Total Kied anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (C	dahl Nitrogen Cyanide) ) (Cd) (Co)	) (NH3) (NO3/I (Cr) (Cu) (Fe) (	NO2) Pb) (Mg) (Mn) (N	Ji) (Ag) (Se) (T	'l) (V) (Zn) (Hg)	
Duplicate Sam	(pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein Methane Eth	ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (1 etals) (As) (Sb g short list)	) (Total Kied anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (C	dahl Nitrogen Cyanide) ) (Cd) (Co)	) (NH3) (NO3/I (Cr) (Cu) (Fe) (	NO2) Pb) (Mg) (Mn) (N	Ji) (Ag) (Se) (T	'l) (V) (Zn) (Hg)	

Signature:

DSB



Project Name	e:	Boeing Rent	ton		Project Number:         0025217.099.099				
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5 /2019@ 104	16		
Sample Num	ber:	RGW-243I-	190305		Weather:	30'S, SUNNY			
Landau Repr	esentative:	JHA							
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio		Secure (YES)	)	Damaged (N	O)	Describe:	FLUSH MOUN	JT	
DTW Before	Purging (ft)	5.22	Time:	1015	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 @	0 1024	End Purge:	Date/Time:	3/ 5/2019 @ 1045	5	Gallons Purged:	0.75
Purge water di	sposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa +/- 3%	uls: Stablizatio +/- 3%		ters for three +/- 0.1 units		lings within the foll +/- 10%	lowing limits < 0.3 ft	>/= 1 flow through cell	
1027	12.5	356.1	0.29	6.38		LOW		<0.25	
						LOW	5.22		
1030	12.9	360.8	0.38	6.41	39.2			<0.25	
1033	13.4	367.3	0.44	6.42	17.9		5.22	0.25	
1036	13.6	370.7	0.46	6.44	10.9				
1039	13.7	373.9	0.44	6.44	5.2				
1042	14.0	379.0	0.44	6.43	-5.0			0.5	
1044	14.1	382.5	0.43	6.43	-11.1				
SAMPLE CO	LLECTION D	ATA							
Sample Collec	ted With:		Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	D Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	ption (color, t	urbidity, odor,	sheen, etc.):	CLEAR, CO	LORLESS, NO/N	S			
Replicate	Тетр	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)	<b>r</b>	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	14.1	383.0	0.57	6.43	-11.5				
2	14.2	383.3	0.56	6.43	-12.0				
3	14.2	383.4	0.54	6.43	-12.3				
4	14.2	383.7	0.55	6.43	-12.7				
Average:	14.2	383.4	0.56	6.43	-12.1	#DIV/0!			
·									
QUANTITY 5		$\frac{(1)}{(1)} (8020) (N)$				blicable or write no	n-standard ana	WA 🗆	OR 🗆
						8141) (Oil & Greas	e)	$WA \square$	OR 🗆
	· / · ·	<i>,</i> , , , , , , , , , , , , , , , , , ,	/	<i>,</i> , ,		(HCO3/CO3) (Cl)	,		
1	(COD) (TOO	C) (Total PO4	) (Total Kie	dahl Nitrogen	) (NH3) (NO3/1	NO2)			
	(Total Cyanid	e) (WAD Cya	anide) (Free	Cyanide)					
	(Total Metals	) (As) (Sb) (I	Ba) (Be) (Ca	) (Cd) (Co)	(Cr) (Cu) (Fe) (	Pb) (Mg) (Mn) (Ni	i) (Ag) (Se) (T	1) (V) (Zn) (Hg)	(K) (Na)
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	g) (Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein	Č (							
	Methane Eth	ane Ethene Ac	etylene						
	others								
L	000018								
Duplicate San	nle $No(s)$								

Duplicate Sample No(s)

Comments: Signature:



Project Nam					Project Number:         0025217.099.099				
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5 /2019@ 922	[		
Sample Num	ıber:	RGW-244S	190305		Weather:	30'S, SUNNY			
Landau Repr	resentative:	JHA							
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Condition	n:	Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	ЛТ	
DTW Before	Purging (ft)	5.28	Time:	851	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 @	® 857	End Purge:	Date/Time:	3/ 5/2019 @ 918		Gallons Purged:	0.75
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa +/- 3%	als: Stablizatio +/- 3%		ters for three +/- 0.1 units		dings within the fol +/- 10%	lowing limits < 0.3 ft	>/= 1 flow through cell	
900	11.1	343.0	0.37	6.31		LOW		<0.25	
903	11.1	344.8	0.34	6.31	14.4	1011	0.01		
							5 21		
906	11.4	346.2	0.33	6.31	4.3		5.31	0.25	
909	11.5	348.2	0.34	6.32	-1.9				
912	11.7	350.0	0.30	6.31	-8.2				
915	11.6	350.1	0.32	6.31	-17.3				
917	11.6	350.0	0.31	6.32	-19.1				
SAMPLE CO	LLECTION D	ATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):	CLEAR, CO	LORLESS, NO/N	S			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
1	(° <b>F</b> /° <b>C</b> )	(uS/cm)	(mg/L)	r	( <b>mV</b> )	(NTU)	( <b>ft</b> )	(Fe II)	Observations
1	11.7	350.2	0.32	6.31	-19.5				
2	11.7	350.5	0.38	6.32	-19.9				
3	11.8	350.3	0.41	6.32	-20.5				
4	11.8	350.3	0.43	6.32	-21.0				
	11.8	350.3	0.39	6.32	-20.2	#DIV/0!			
Average:									
						plicable or write no	n-standard ana	<b>X</b>	
5		0) (8020) (N				8141) (Oil & Cross	-)	WA 🗆	OR  OR  OR  OR  OR  OR  OR  OR  OR  OR
						8141) (Oil & Greas (HCO3/CO3) (Cl)			
1	(COD) (TOC		<i>.</i>	, , , , , , , , , , , , , , , , , , ,	) (NH3) (NO3/	· · · · · · · · · · · · · · · · · · ·	(105	) (102) (1)	
		le) (WAD Cy	/ · · · ·	0	, (1.0.0) (1.0.0)				
		· · · · · · · · · · · · · · · · · · ·	<i>,</i> , ,		(Cr) (Cu) (Fe) (	Pb) (Mg) (Mn) (Na	i) (Ag) (Se) (7	(V) $(Zn)$ $(Hg)$	) (K) (Na)
									a) (Hardness) (Silica)
	VOC (Boein	g short list)							
	Methane Eth	ane Ethene Ac	etylene						
	others								
Duplicate San	nla No(a);								

Comments: Signature:



Project Name	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 05/2019@	1200		
Sample Num	iber:	RGW185S-	190305		Weather:	CLEAR			
Landau Repr	resentative:	SRB							
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Condition		Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before I	Purging (ft)	2.21	Time:	1125	Flow through cel	ll vol.		GW Meter No.(	s HERON1
Begin Purge:			1130	End Purge:	•	3/ 05 /2019 @	1145	Gallons Purged:	
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Тетр	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° <b>F</b> /°Ĉ)	(uS/cm)	(mg/L)	•	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	ls: Stablizatio +/- 3%		ters for three +/- 0.1 units	consecutive rea +/- 10 mV	dings within the fo +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
1100								un ough cen	
1133	12.0	563	0.61	6.12		LOW	2.21		
1136	12.1	583	0.59	6.35	-12.2		2.21		
1139	12.1	583	0.59	6.36	-14.8		2.21		
1142	12.0	584	0.61	6.40	-34.8				
SAMPLE CO	LLECTION F	DATA							
Sample Collec			Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Ste	el 🗖	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procedu	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated		_	
(By Numerical	l Order)	Other							
Sample Descri	iption (color, t	urbidity odor	sheen etc.).	CLEAR COL	ODI ESS NO/N	2			
	<b>I</b> ( ) , , , , , , , , , , , , , , , , , ,	urbiuity, ouor,	sheen, etc.).	CLLARCO	LOKLESS NO/IN	5			
Danliaata		-					DTW	Forrous iron	Commonts/
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O.	рН	ORP (mV)	Turbidity	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
-	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)				
1	<b>Temp</b> (° <b>F</b> /° <b>C</b> ) 12.1	Cond. (uS/cm) 585	D.O. (mg/L) 0.61	<b>рН</b> 6.40	ORP (mV) -36.0	Turbidity			
1 2	<b>Temp</b> (° <b>F</b> /° <b>C</b> ) <u>12.1</u> 12.0	Cond. (uS/cm) 585 585	D.O. (mg/L) 0.61 0.62	<b>рН</b> 6.40 6.41	ORP (mV) -36.0 -37.1	Turbidity			
1 2 3	Temp (°F/°C)           12.1           12.0           12.0	Cond. (uS/cm) 585 585 585	D.O. (mg/L) 0.61 0.62 0.62	<b>рН</b> 6.40 6.41 6.41	ORP (mV) -36.0 -37.1 -38.0	Turbidity			
1 2 3 4	Temp (°F/°C)           12.1           12.0           12.0           12.0	Cond. (uS/cm) 585 585 585 585	D.O. (mg/L) 0.61 0.62 0.62 0.61	<b>pH</b> 6.40 6.41 6.41 6.41	ORP (mV) -36.0 -37.1 -38.0 -38.8	Turbidity (NTU)			
1 2 3	Temp (°F/°C)           12.1           12.0           12.0	Cond. (uS/cm) 585 585 585	D.O. (mg/L) 0.61 0.62 0.62	<b>рН</b> 6.40 6.41 6.41	ORP (mV) -36.0 -37.1 -38.0	Turbidity			
1 2 3 4 Average:	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0	Cond. (uS/cm) 585 585 585 585 585 585	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62	<b>pH</b> 6.40 6.41 6.41 6.41 6.41	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5	Turbidity (NTU)	(ft)	(Fe II)	
1 2 3 4 Average: <b>QUANTITY</b> 5	Temp (°F/°C) 12.1 12.0 12.0 12.0 12.0 TYPICAL A (8260) (8010	Cond. (uS/cm) 585 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) (	pH 6.40 6.41 6.41 6.41 6.41 6.41 <b>CR BOTTLE</b> NWTPH-Gx)	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX)	Turbidity (NTU) #DIV/0!	(ft)	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 5	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0 </td <td>Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH</td> <td>D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF</td> <td>pH 6.40 6.41 6.41 6.41 6.41 6.41 <b>CR BOTTLE</b> NWTPH-GX) PH-DX) (TPH</td> <td>ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) I-HCID) (8081)</td> <td>Turbidity (NTU) #DIV/0! pplicable or write p (8141) (Oil &amp; Gr</td> <td>(ft)</td> <td>(Fe II)</td> <td>Observations</td>	Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF	pH 6.40 6.41 6.41 6.41 6.41 6.41 <b>CR BOTTLE</b> NWTPH-GX) PH-DX) (TPH	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) I-HCID) (8081)	Turbidity (NTU) #DIV/0! pplicable or write p (8141) (Oil & Gr	(ft)	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 5	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0 </td <td>Cond. (uS/cm) 585 585 585 585 585 585 585 585 00 (NUTPH (NWTPH activity) (TDS</td> <td>D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTP S) (TSS) (B</td> <td>pH 6.40 6.41 6.41 6.41 6.41 6.41 <b>CR BOTTLE</b> NWTPH-GX) PH-DX) (TPH OD) (Turbic</td> <td>ORP (mV) 36.0 37.1 38.0 38.8 37.5 TYPE (Circle ap (BTEX) I-HCID) (8081) lity) (Alkalinity)</td> <td>Turbidity (NTU)           #DIV/0!           plicable or write p           (8141) (Oil &amp; Grader)           (HCO3/CO3) (Compare)</td> <td>(ft)</td> <td>(Fe II)</td> <td>Observations</td>	Cond. (uS/cm) 585 585 585 585 585 585 585 585 00 (NUTPH (NWTPH activity) (TDS	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTP S) (TSS) (B	pH 6.40 6.41 6.41 6.41 6.41 6.41 <b>CR BOTTLE</b> NWTPH-GX) PH-DX) (TPH OD) (Turbic	ORP (mV) 36.0 37.1 38.0 38.8 37.5 TYPE (Circle ap (BTEX) I-HCID) (8081) lity) (Alkalinity)	Turbidity (NTU)           #DIV/0!           plicable or write p           (8141) (Oil & Grader)           (HCO3/CO3) (Compare)	(ft)	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 5	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0 </td <td>Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO-</td> <td>D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( I-D) (NWTP S) (TSS) (B 4) (Total Kie</td> <td>pH 6.40 6.41 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbic dahl Nitrogen</td> <td>ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) I-HCID) (8081)</td> <td>Turbidity (NTU)           #DIV/0!           plicable or write p           (8141) (Oil &amp; Grader)           (HCO3/CO3) (Compare)</td> <td>(ft)</td> <td>(Fe II)</td> <td>Observations</td>	Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO-	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( I-D) (NWTP S) (TSS) (B 4) (Total Kie	pH 6.40 6.41 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbic dahl Nitrogen	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) I-HCID) (8081)	Turbidity (NTU)           #DIV/0!           plicable or write p           (8141) (Oil & Grader)           (HCO3/CO3) (Compare)	(ft)	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 5	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0 </td <td>Cond. (uS/cm) 585 585 585 585 585 585 00 (8020) (N AH) (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (C)) (Total PO (C)) (WAD Cy)</td> <td>D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF S) (TSS) (B 4) (Total Kie anide) (Free</td> <td>pH <u>6.40</u> <u>6.41</u> <u>6.41</u> <u>6.41</u> <u>6.41</u> <u>6.41</u> <u>6.41</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u></td> <td>ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) Hity) (Alkalinity) (NH3) (NO3/</td> <td>Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil &amp; Gill &amp; G</td> <td>(ft)</td> <td>(Fe II)</td> <td>Observations</td>	Cond. (uS/cm) 585 585 585 585 585 585 00 (8020) (N AH) (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (C)) (Total PO (C)) (WAD Cy)	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF S) (TSS) (B 4) (Total Kie anide) (Free	pH <u>6.40</u> <u>6.41</u> <u>6.41</u> <u>6.41</u> <u>6.41</u> <u>6.41</u> <u>6.41</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u>	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) Hity) (Alkalinity) (NH3) (NO3/	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Gill & G	(ft)	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 5	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           (8260)           (8010)           (PA)           (COD)           (Total Cyanid)           (Total Metals)	Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH ctivity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) (	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	pH 6.40 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) H-HCID) (8081) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           plicable or write r           (8141) (Oil & Gi           0 (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (I	(ft) mon-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 5	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           (8260)           (8010)           (PA)           (COD)           (Total Cyanid)           (Total Metals)	Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb) (	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	pH 6.40 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) H-HCID) (8081) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           plicable or write r           (8141) (Oil & Gi           0 (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (I	(ft) mon-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 5	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           (8270D) (820)           (100) (TOC           (COD) (TOC           (Total Cyanid           (Dissolved M           VOC (Boein	Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb) (	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca 0) (Ba) (Be) (Ca	pH 6.40 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) H-HCID) (8081) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           plicable or write r           (8141) (Oil & Gi           0 (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (I	(ft) mon-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 5	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           (8270D) (820)           (100) (TOC           (COD) (TOC           (Total Cyanid           (Dissolved M           VOC (Boein	Cond. (uS/cm) 585 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 be) (WAD Cy c) (Total PO4 be) (WAD Cy c) (As) (Sb) (c) etals) (As) (Sb	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca 0) (Ba) (Be) (Ca	pH 6.40 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) H-HCID) (8081) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           plicable or write r           (8141) (Oil & Gi           0 (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (I	(ft) mon-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
1 2 3 4 Average:	Temp           (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           (B260)           (B270D)           (PA           (COD)           (Total Cyanid           (Total Metals           (Dissolved M	Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 be) (WAD Cy be) (WAD Cy c) (As) (Sb) ( etals) (As) (Sb	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca 0) (Ba) (Be) (Ca	pH 6.40 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) H-HCID) (8081) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           plicable or write r           (8141) (Oil & Gi           0 (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (I	(ft) mon-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
1 2 3 4 Average:	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           (8270D) (820)           (100) (TOC           (COD) (TOC           (Total Cyanid           (Dissolved M           VOC (Boein	Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 be) (WAD Cy be) (WAD Cy c) (As) (Sb) ( etals) (As) (Sb	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTF S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca 0) (Ba) (Be) (Ca	pH 6.40 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbic dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) H-HCID) (8081) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           plicable or write r           (8141) (Oil & Gi           0 (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (I	(ft) mon-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
1 2 3 4 Average:	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           (8260) (8010           (8260) (8010           (COD) (TOC           (Total Cyanid           (Total Metals           (Dissolved M           VOC (Boein           Methane Eth           others	Cond. (uS/cm) 585 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 be) (WAD Cy be) (WAD Cy c) (As) (Sb) ( etals) (As) (Sb	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTP S) (TSS) (B H) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ca	pH 6.40 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) b) (Cd) (Co) Ca) (Cd) (Co)	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) H-HCID) (8081) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           plicable or write r           (8141) (Oil & Gi           0 (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (I	(ft) mon-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
1 2 3 4 Average:	Temp (°F/°C)           12.1           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           12.0           (8260) (8010           (8260) (8010           (COD) (TOC           (Total Cyanid           (Total Metals           (Dissolved M           VOC (Boein           Methane Eth           others	Cond. (uS/cm) 585 585 585 585 585 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 be) (WAD Cy c) (Total PO4 be) (WAD Cy c) (As) (Sb) ( etals) (As) (Sb) g short list) nane Ethene Ad	D.O. (mg/L) 0.61 0.62 0.62 0.61 0.62 0.61 0.62 LOWED PE WTPH-G) ( H-D) (NWTP S) (TSS) (B H) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ca	pH 6.40 6.41 6.41 6.41 6.41 6.41 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) b) (Cd) (Co) Ca) (Cd) (Co)	ORP (mV) -36.0 -37.1 -38.0 -38.8 -37.5 TYPE (Circle ap (BTEX) H-HCID) (8081) H-HCID) (8081) H-HCID) (8081) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           plicable or write r           (8141) (Oil & Gi           0 (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (I	(ft) mon-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations

\\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\AOC 1.2.3_3.5.19 SRB



Project Name	e:	Boeing Rent	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5 /2019@ 12	.56		
Sample Num	iber:	RGW190S-	190305		Weather:	40'S, SUNNY			
Landau Repr	esentative:	JHA			-				
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio	n:	Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	T	
DTW Before	Purging (ft)	3.19	Time:	1231	Flow through cel	l vol.		GW Meter No.(	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 @	@ 1234	End Purge:	Date/Time:	3/ 5/2019 @ 125	55	Gallons Purged:	0.75
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C) Purge Goa	Cond. (uS/cm) als: Stablizatio	D.O. (mg/L) on of Parame	pH ters for three	ORP (mV) e consecutive read	Turbidity (NTU) lings within the fo	DTW (ft) llowing limits	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1237	11.7	305.1	0.56	6.41	27.7	LOW		<0.25	
1240	11.8	292.6	0.45	6.40	22.3				
1243	11.8	286.9	0.38	6.40	21.1		3.19		
1246	11.9	273.5	0.31	6.39	17.0				
1249	12.0	272.8	0.30	6.38	13.7				
								·	
1252	12.0	270.9	0.27	6.37	12.7			·	
1254	12.0	270.5	0.25	6.37	10.6				
SAMPLE CO									
Sample Collec			Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Stee	_	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	_	Tap Rinse	DI Water	Dedicated			
(By Numerica		Other		Tup Tunot					
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):	CLOUDY, L	IGHT BROWN C	COLOR, NO/NS			
									<u> </u>
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.0	270.5	0.25	6.37	10.4				
2	12.0	270.4	0.25	6.37	10.3				
3	12.0	270.8	0.25	6.36	9.9				
4	12.0	270.6	0.30	6.37	9.7				
Average:	12.0	270.6	0.26	6.37	10.1	#DIV/0!			
QUANTITY 5	<b>TYPICAL A</b> (8260) (801)		<b>LOWED PE</b> WTPH-G) (1			olicable or write no	on-standard ana	WA 🗆	OR 🗆
			( )	,	· · · · · ·	(8141) (Oil & Gro	ease)	WA 🗆	OR  OR  OR  OR  OR  OR  OR  OR  OR  OR
		ctivity) (TDS	/ .	/ ``	, , , ,	(HCO3/CO3) (C	,		
1	(COD) (TOO	C) (Total PO4	) (Total Kied	dahl Nitrogen	) (NH3) (NO3/I	NO2)			
	(Total Cyanid	e) (WAD Cya	anide) (Free	Cyanide)					
						Pb) (Mg) (Mn) (N			· / · · /
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein Methane Eth	g short list) ane Ethene Ac	etylene						
		and Build AC							
	others								
Duplicate San	$\mathbf{N}_{O}(s)$								

Duplicate Sample No(s):

Comments: Signature:



Project Name	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5 /2019@ 133	36		
Sample Num	iber:	RGW191D-	190305		Weather:	40'S, SUNNY			
Landau Repr	resentative:	JHA							
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio	n:	Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	T	
DTW Before	Purging (ft)	3.01	Time:	1306	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 @	@ 1309	End Purge:	Date/Time:	3/ 5/2019 @ 133	0	Gallons Purged:	0.75
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa +/- 3%	als: Stablizatio +/- 3%		ters for three +/- 0.1 units		lings within the fol +/- 10%	lowing limits < 0.3 ft	>/= 1 flow through cell	
1312	12.8	302.9	0.25	6.55	38.2	LOW	3.04	<0.25	
1315	12.7	303.2	0.22	6.56	23.0				
1318	12.7	300.0	0.21	6.56	3.4		3.04	·	
							5.04		
1321	12.7	299.9	0.21	6.56	-11.3			·	
1324	12.7	299.4	0.22	6.56	-15.6				
1327	12.7	298.9	0.21	6.57	-20.0				
1329	12.7	298.1	0.20	6.57	-27.8				
	·								
SAMPLE CO									
Sample Collec	eted With:		Bailer			DED BLADDER		_	
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	,	Other	1	CLOUDY C					
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):	CLOUDY, C	COLORLESS, NO	INS			
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.7	298.2	0.19	6.57	-28.5				
2	12.7	298.2	0.20	6.57	-29.1				
3	12.7	298.2	0.19	6.58	-29.6				
4	12.8	298.3	0.20	6.57	-30.2				
Average:	12.7	298.2	0.20	6.57	-29.4	#DIV/0!			
QUANTITY 5		<u>NALYSIS AL</u> D) (8020) (N				blicable or write no	n-standard ana	WA 🗆	OR 🗆
5			( )	,	· · · · · ·	(8141) (Oil & Gre	ase)	WA 🗆	OR  OR  OR  OR  OR  OR  OR  OR  OR  OR
		ctivity) (TDS				(HCO3/CO3) (CI			
1	(COD) (TOO		<i>.</i>		) (NH3) (NO3/1				
	(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
	(Total Metals	) (As) (Sb) (	Ba) (Be) (Ca	) (Cd) (Co)	(Cr) (Cu) (Fe) (	Pb) (Mg) (Mn) (N	i) (Ag) (Se) (7	Cl) (V) (Zn) (Hg)	(K) (Na)
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein	<b>U</b>							
	Methane Eth	ane Ethene Ac	etylene						
	others								
	Juliois								
Duplicate San	nle No(s)								

Duplicate Sample Not

Comments: Signature:



Project Nam	e:	Boeing Ren	ton		Project Number		0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5 /2019@ 140	)6		
Sample Nur	nber:	RGW192S-	190305		Weather:	40'S, SUNNY			
Landau Repr	resentative:	JHA			-				
WATER LEV	'EL/WELL/PU	RGE DATA							
Well Condition	on:	Secure (YES	)	Damaged (N	0)	Describe:	FLUSH MOUN	T	
DTW Before	Purging (ft)	3.44	Time:	1323	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 0	@ 1342	End Purge:	Date/Time:	3/ 5/2019 @ 135	2	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATME	INT SYSTEM
	Temp	Cond.	<b>D.O.</b>	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	$(^{\circ}F/^{\circ}C)$	(uS/cm)	(mg/L)	tors for throu	(mV)	(NTU) lings within the fol	(ft) lowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1345	11.2	296.2	0.24	6.11	4.7	LOW	3.44	<0.25	
1348	11.2	292.6	0.24	6.10	3.1				
1351	11.3	290.5	0.26	6.09	1.9				
			0.20						
	·								
	LLECTION D		Bailer		Dump /Dump Tump				
Sample Collec Made of:		الیا Stainless Ste	_	PVC	Teflon	DED BLADDER Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Wa		Tap Rinse	DI Water	Dedicated		Dedicated	
(By Numerica		Other		rap Kinse		Dedicated			
			sheen, etc.):	CLEAR. CO	LORLESS, NO/N	S			
1	1	<b>,</b> , ,	-		,				
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	. ,	. ,		C 10					Obset vations
1	11.3	290.8	0.26	6.10	1.0				
2	11.3	290.5	0.26	6.10	0.3				
3	11.3	290.4	0.26	6.10	0.3				
4	11.3	289.9	0.26	6.09	0.0				
Average:	11.3	290.4	0.26	6.10	0.4	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	R BOTTLE '	ГҮРЕ (Circle ар)	olicable or write no	n-standard ana	llysis below)	
5	( <b>8260</b> ) (8010								OR 🗌
	(8270D) (PA	H) (NWTPH	I-D) (NWTP	H-Dx) (TPH	-HCID) (8081)	(8141) (Oil & Gre	ase)	WA 🗆	OR 🗆
						(HCO3/CO3) (CI)	) (SO4) (NO3	) (NO2) (F)	
1					) (NH3) (NO3/1	NO2)			
		· · · · · ·	anide) (Free Ba) (Ba) (Ca		$(C_r)$ $(C_r)$ $(C_r)$	Dh (Ma) (Ma) (M		$(\mathbf{V})  (7_{\mathbf{n}})  (\mathbf{U}_{\mathbf{n}})$	$(\mathbf{K})$ $(\mathbf{N}_{\mathbf{n}})$
						Pb) (Mg) (Mn) (Ni ) (Mg) (Mn) (Ni) (A			
	VOC (Boein		, (Du) (DU) (C	, (Cu) (CU)	(Ci) (Cu) (I C) (I U	/ (1916) (1911) (A	<u>5) (50) (11) (4)</u>	<u>(116)</u> (11) (11a	, (manuss) (Sinca
	· · · · · ·	ane Ethene Ac	etylene						
	others								
Duplicate San									

Signature:



Project Nam	ne:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 05/2019@	1440		
Sample Nun	nber:	RGW193S-	190305		Weather:	CLEAR			
Landau Rep	resentative:	SRB							
WATER LEV	VEL/WELL/PI	<b>URGE DATA</b>							
Well Condition	on:	Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	4.55	Time:	1406	Flow through cel	l vol.		GW Meter No.(s	HERON1
Begin Purge:	Date/Time:	3/ 05 /2019	1410	End Purge:	Date/Time:	3/ 05 /2019 @	1430	Gallons Purged:	0.25
Purge water d	lisposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa +/- 3%	ls: Stablizatio +/- 3%		ters for three +/- 0.1 units	e consecutive rea +/- 10 mV	dings within the fo +/- 10%	< 0.3 ft	>/= 1 flow through cell	
1413		918	0.44	6.33		LOW	4.65		
1416		917	0.46	6.34	24.3		4.55		
1419		908					4.55		
			0.51	6.36	9.8		4.33		
1422	9.6	913	0.52	6.37	4.6				
1425	9.4	911	0.55	6.39	2.1				
SAMPLE CO	<b>DLLECTION I</b>	DATA		··					
Sample Colle	cted With:		Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Ste	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,	urbidity, odor	sheen, etc.):	CLEAR CO	LORLESS NO/N	5			
Denlisata	Тания	Cond.	D.O.		ORP	T	DTW	Ferrous iron	Comments/
Replicate	Temp (°F/°C)	(uS/cm)	D.O. (mg/L)	рН	(mV)	Turbidity (NTU)	(ft)	(Fe II)	Observations
1	9.4	909	0.55	6.39	1.0				
2	9.4	908	0.55	6.39	0.5				
3	9.3	908	0.56	6.39	0.0				
4	9.3	907	0.55	6.39	-0.5				
Average:	9.4	908	0.55	6.39	0.3	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	R BOTTLE	TYPE (Circle ap	oplicable or write r	on-standard ar	alysis below)	
5		0) (8020) (N						WA 🗆	OR 🗆
	(8270D) (PA	AH) (NWTPH	I-D) (NWTF	PH-Dx) (TPH	H-HCID) (8081)	(8141) (Oil & Gi	rease)	WA 🗆	OR 🗆
	(pH) (Condu	ctivity) (TD	S) (TSS) (B	OD) (Turbio	dity) (Alkalinity)	(HCO3/CO3) (C	Cl) (SO4) (NO	3) (NO2) (F)	
1			<i>,</i> , ,	- U	a) (NH3) (NO3/	NO2)			
1	(Total Cyanic	le) (WAD Cy	<i>,</i> , ,	<b>8</b> /					
			$\mathbf{D}_{\mathbf{A}}$ $(\mathbf{D}_{\mathbf{A}})$ $(\mathbf{C}_{\mathbf{A}})$	(Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn) (N	Ni) (Ag) (Se) (	$\Gamma$ l) (V) (Zn) (Hg	g) (K) (Na)
									• · · · · · · · · · · · · · · · · · · ·
	(Dissolved M	etals) (As) (St			(Cr) (Cu) (Fe) (P	o) (Mg) (Mn) (Ni) (	Ag) (Se) (Tl) (V	(Zn) (Hg) (K) (Mg) (K) (Mg) (K) (Mg) (K) (Mg) (K) (Mg) (K) (K) (K) (K) (K) (K) (K) (K) (K) (K	Na) (Hardness) (Silica
	(Dissolved M VOC (Boein	etals) (As) (St g short list)	o) (Ba) (Be) (C		(Cr) (Cu) (Fe) (Pl	b) (Mg) (Mn) (Ni) (	Ag) (Se) (Tl) (V	) (Zn) (Hg) (K) (N	Na) (Hardness) (Silica
	(Dissolved M VOC (Boein	etals) (As) (St	o) (Ba) (Be) (C		(Cr) (Cu) (Fe) (Pl	b) (Mg) (Mn) (Ni) (	Ag) (Se) (Tl) (V	) (Zn) (Hg) (K) (N	Na) (Hardness) (Silica
	(Dissolved M VOC (Boein	etals) (As) (St g short list)	o) (Ba) (Be) (C		(Cr) (Cu) (Fe) (Pl	b) (Mg) (Mn) (Ni) (.	Ag) (Se) (Tl) (V	) (Zn) (Hg) (K) (N	Na) (Hardness) (Silica
	(Dissolved M VOC (Boein	etals) (As) (St g short list)	o) (Ba) (Be) (C		(Cr) (Cu) (Fe) (Pl	o) (Mg) (Mn) (Ni) (.	Ag) (Se) (Tl) (V	) (Zn) (Hg) (K) (N	Na) (Hardness) (Silica

Comments:

Signature:



Project Name	e:	Boeing Ren	ton		Project Number	:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5 /2019@ 115	51		
Sample Num	ber:	RGW194S-	190305		Weather:	40'S, SUNNY			
Landau Repr	esentative:	JHA			-				
WATER LEV	EL/WELL/PU	<b>IRGE DATA</b>							
Well Conditio		Secure (YES	)	Damaged (N	0)	Describe:	FLUSH MOUN	ЛТ	
DTW Before	Purging (ft)	3.14	Time:	1125	Flow through cell	vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 0	@ 1129	End Purge:	Date/Time:	3/ 5/2019 @ 1048	8	Gallons Purged:	0.5
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C) Purge Goa	Cond. (uS/cm) uls: Stablizatio	D.O. (mg/L) on of Parame	pH ters for three	ORP (mV)	Turbidity (NTU) ings within the foll	DTW (ft) lowing limits	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	+/- 3%		+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1132	11.8	513.0	0.49	6.23	59.3	LOW	2.77	<0.25	
1135	11.3	505.0	0.44	6.24	45.9			<0.25	
1138	11.3	498.0	0.39	6.26	31.9		2.77		
1141	11.3	496.2	0.34	6.26	18.0				
1144	11.4	495.8	0.34	6.26	15.3				
1147	11.5	495.5	0.32	6.26	11.0				
SAMPLE CO			~ "						
Sample Collec	ted With:		Bailer		Pump/Pump Type				
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerical Sample Decor	<i>'</i>		shaan ata);		COLORLESS, NO/	NIS			
Sample Deser	iption (color, t	urblaity, ouor,	sheen, etc.).	CLOUD1, C	OLOKLESS, NO/	115			
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.5	495.3	0.32	6.26	10.9				
2	11.5	495.0	0.31	6.26	10.7				
3	11.5	495.2	0.31	6.26	10.6				
4	11.5	495.0	0.31	6.26	10.2				
Average:	11.5	495.1	0.31	6.26	10.6	#DIV/0!			
-				<b>ρ</b> βωττι ε '	FVDE (Circle and	licable or write no	n standard and	lysis bolow)	
5		$\frac{1313}{1313} \frac{1313}{1313} $				incable of write no	n-stanuaru and	WA 🗆	OR 🗆
	· · · ·	<i>·</i> · · · · · · · · · · · · · · · · · ·		,	· · · · ·	(8141) (Oil & Grea	ase)	WA 🗆	OR 🗆
	(pH) (Condu	ctivity) (TDS	S) (TSS) (B	OD) (Turbid	ity) (Alkalinity)	(HCO3/CO3) (Cl)	) (SO4) (NO3	) (NO2) (F)	
1	(COD) (TOO	C) (Total PO4	) (Total Kie	dahl Nitrogen	) (NH3) (NO3/N	IO2)			
	(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
						Pb) (Mg) (Mn) (Ni			
	•		) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb)	) (Mg) (Mn) (Ni) (A	.g) (Se) (Tl) (V)	(Zn) (Hg) (K) (Na	a) (Hardness) (Silica)
	VOC (Boein Methane Eth	g short list) ane Ethene Ac	etulene						
		and Eulene AC	CLYICHE						
	others								

Duplicate Sample No(s):

WATER LEVEL SEEMED TO BR RISING WHEN TAKING INITIAL MEASUREMENT. Comments:

JHA

Signature:



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 05/2019@	1330		
Sample Num	iber:	RGW195S-	190305		Weather:	CLEAR			
Landau Repr	resentative:	SRB			-				
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Condition		Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	2.42	Time:	1240	Flow through cel	l vol.		GW Meter No.(s	HERON1
Begin Purge:	Date/Time:	3/ 05 /2019	1300	End Purge:	Date/Time:	3/ 05 /2019 @	1325	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
-	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goa	(uS/cm) ls: Stablizatio	(mg/L) on of Parame	ters for three	(mV)	(NTU) lings within the fo	(ft) Ilowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1303	12.4	503.0	0.51	6.18	15.5	LOW	2.42		
1306	12.2	495.0	0.43	6.17	-6.5		2.42		
1309	12.2	478.2	0.45	6.20	-22.5		2.42		
							2.72		
1312	12.1	463.3	0.48	6.22	-31.7				
1315	12.0	449.2	0.49	6.22	-37.2				
1318	12.1	446.2	0.50	6.23	-40.9				
1321	12.2	444.3	0.50	6.25	-44.6				
SAMPLE CO	LLECTION D								
Sample Collec	cted With:		Bailer			DED BLADDER			
Made of:		Stainless Stee	el 🗖	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color, t	urbidity, odor,	, sheen, etc.):	CLEAR CO	LORLESS NO/NS	5			
Replicate	Temp	Cond.	D.O.	pH	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(° <b>F</b> /° <b>C</b> )	(uS/cm)	(mg/L)	<b>r</b>	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	12.1	442.7	0.51	6.26	-45.7				
2	12.2	442.6	0.51	6.26	-46.0				
3	12.2	442.8	0.51	6.26	-46.4				
				6.27					
4	12.1	440.9	0.51		-47.3				
Average:	12.2	442.3	0.51	6.26	-46.4	#DIV/0!			
QUANTITY						plicable or write 1	10n-standard ar	•	
5		)) (8020) (N						WA 🗆	OR 🗌
		, , , , , , , , , , , , , , , , , , ,		· · · ·	· · · · · ·	(8141) (Oil & G	,	WA 🗆	OR 🗆
						(HCO3/CO3) (C	Cl) (SO4) (NO	3) (NO2) (F)	
1	· · · · ·	e) (WAD Cy	· · · ·	2	n) (NH3) (NO3/	NO2)			
		· · · · · · · · · · · · · · · · · · ·	<i>,</i> , ,	<b>ř</b> (	$(\mathbf{Cr})$ $(\mathbf{Cu})$ $(\mathbf{Fe})$ $(\mathbf{Fe})$	Pb) (Mg) (Mn) (I	$(\Lambda q) (Se) ($	$\Gamma$ (V) ( $\mathbf{Z}$ n) (Ho	$(\mathbf{K})$ $(\mathbf{N}_2)$
									(Hardness) (Silica
	VOC (Boein		, (= =, (20) (0			, () () () () () (	0, (20) (11) (1	,, ( <b></b> ), ( <b></b> ), ( <b>I</b>	, ( <u></u> , ()) ())
		ane Ethene Ac	cetylene						
	others								

Duplicate Sample No(s):

Comments:



Project Nam	e:	Boeing Ren	ton		Project Numbe	er:	0025217.099.0	99	
Event:		Quarterly M			Date/Time:	3/ 05/2019@	1400		
Sample Nurr	ber:	RGW196D	- 190305		Weather:	CLEAR			
Landau Repr	resentative:	SRB							
WATER LEV	EL/WELL/P	URGE DATA							
Well Conditio		Secure (YES	)	Damaged (N	O)	Describe:	flush mount		
DTW Before	Purging (ft)	2.33	Time:	•	Flow through ce			GW Meter No.(s	s HERON1
Begin Purge:			1330		•	3/ 05 /2019 @	1342	Gallons Purged:	
Purge water d			55-gal Drum	Ĕ.	Storage Tank	Ground		SITE TREATM	
U	•	Cond	D.O.	pН	ORP		DTW		
Time	Temp (°F/°C)	Cond. (uS/cm)	(mg/L)	рп	(mV)	Turbidity (NTU)	(ft)	Internal Purge Volume (gal)	Observations
			on of Parame			dings within the fo	~	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/ <b>-</b> 10 mV	+/- 10%	< 0.3 ft	through cell	
1333	11.3	334.0	0.51	6.21	-0.3	LOW	2.35		
1336	10.6	328.4	0.52	6.13	-2.2		2.36		
1339	10.5	326.1	0.50	6.13			2.36		
						·			
	·								
	· . <u></u>								
SAMPLE CO	LLECTION I								
Sample Collec	cted With:		Bailer			e DED BLADDER			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Wa	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	,	Other							
Sample Descr	iption (color,	turbidity, odor	, sheen, etc.):	CLEAR CO	LORLESS NO/N	S			
Replicate	Temp	Cond.	D.O.	pH	ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	$(^{\circ}F/^{\circ}C)$	(uS/cm)	(mg/L)	PII	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	10.4	325.8	0.50	6.13	-6.3				
2	10.4	325.7	0.50	6.13	-6.8				
3	10.4	325.5	0.49	6.13	-7.4				
4	10.4	325.3	0.49	6.13	-7.8				
Average:	10.4	325.6	0.50	6.13	-7.1	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	R BOTTLE	TYPE (Circle a	pplicable or write r	non-standard ar	nalvsis below)	
5		0) (8020) (N						WA 🗆	OR 🗆
	(8270D) (PA	AH) (NWTPH	I-D) (NWTH	PH-Dx) (TPH	H-HCID) (8081)	(8141) (Oil & Gr	rease)	WA 🗆	OR 🗆
	(pH) (Condu	uctivity) (TD	S) (TSS) (B	OD) (Turbio	dity) (Alkalinity	) (HCO3/CO3) (C	Cl) (SO4) (NO	3) (NO2) (F)	
1	(COD) (TO	C) (Total PO	4) (Total Kie	dahl Nitroger	n) (NH3) (NO3	/NO2)			
		le) (WAD Cy	, , , , , , , , , , , , , , , , , , ,	<b>R</b> (					
						(Pb) (Mg) (Mn) (M			
			o) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (P	b) (Mg) (Mn) (Ni) (	Ag) (Se) (Tl) (V	(Zn) (Hg) (K) (1)	Na) (Hardness) (Silica
	VOC (Boein		a stril are a						
	Methane Eth	nane Ethene A	cetylene						
	others								
	nple No(s):								

Comments:

Signature: SRB



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 05/2019@	1230		
Sample Nun	nber:	RGW197S-			Weather:	CLEAR			
Landau Rep	resentative:	SRB			-				
WATER LEV	/EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	2.05	Time:	1157	Flow through cel	l vol.		GW Meter No.(	s HERON1
Begin Purge:	Date/Time:	3/ 05 /2019	1200	End Purge:	Date/Time:	3/ 05 /2019 @	1217	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	<b>D.O.</b>	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° <b>F</b> /°Ĉ)	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	ls: Stablizatio +/- 3%		ters for three +/- 0.1 units		dings within the fo +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
1202								through cen	
1203	13.3	821	0.50	6.96		LOW	2.05		
1206	13.3	813	0.49	7.07	-69.9		2.05		
1209	13.4	798	0.49	7.08	-91.7		2.05		
1212	13.3	781	0.49	7.05	-105.6				
1215	13.4	781	0.49	7.03	-108.7				
				,					
SAMPLE CC	LLECTION I							· <u> </u>	
Sample Colle			Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	lure:	Alconox Was	sh 🗍	Tap Rinse	DI Water	Dedicated		_	
(By Numerica	ıl Order)	Other				_			
Sample Desci	ription (color, t	urbidity, odor,	, sheen, etc.):	SLIGHTLY	GRAY AND TU	RBID NO/NS			
									~
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	13.4	(ub/ciii) 782	( <b></b> g, <b>.</b> 2) 0.49	7.03	-109.9			(1011)	
1									
2	13.5	783	0.49	7.03	-110.7				
3	13.5	784	0.49	7.02	-111.4				
4	13.4	785	0.48	7.02	-112.5				
Average:	13.5	784	0.49	7.03	-111.1	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	R BOTTLE	TYPE (Circle an	plicable or write n	on-standard a	nalvsis below)	
5		D) (8020) (N				<b>r</b>		WA 🗆	OR 🗆
						(8141) (Oil & Gr	rease)	WA 🗆	OR 🗆
	(pH) (Condu	ctivity) (TDS	S) (TSS) (B	BOD) (Turbio	dity) (Alkalinity)	(HCO3/CO3) (C	Cl) (SO4) (NO	3) (NO2) (F)	
1	(COD) (TO	C) (Total PO-	4) (Total Kie	dahl Nitroger	n) (NH3) (NO3/	NO2)			
	· · · · · · · · · · · · · · · · · · ·	le) (WAD Cy		<b>*</b>					
						Pb) (Mg) (Mn) (N			
			o) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pl	o) (Mg) (Mn) (Ni) (.	Ag) (Se) (Tl) (V	(Zn) (Hg) (K) (I)	Na) (Hardness) (Silica
1		y snort list)							
	VOC (Boein Mothana Eth	2 /	otvlono						
		ane Ethene Ac	cetylene						
		2 /	cetylene						
		2 /	cetylene						

Duplicate Sample Not

Comments:



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 05/2019@	1300		
Sample Nurr	ber:	RGW245S-			Weather:	CLEAR			
Landau Repr	resentative:	SRB							
WATER LEV	EL/WELL/P	URGE DATA							
Well Condition	on:	Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	2.18	Time:	1215	Flow through ce	l <u>l</u> vol.		GW Meter No.(s	HERON1
Begin Purge:	Date/Time:	3/ 05 /2019	1230	End Purge:	Date/Time:	3/ 05 /2019 @	1247	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	HS: Stabilzatio +/- 3%		+/- 0.1 units		dings within the fo +/- 10%	< 0.3  ft	through cell	
1233	11.2	438.6	0.54	6.44	-22.2	LOW	2.20		
1236	12.3	437.3	0.43	6.48	-45.3		2.20		
1239	12.9	441.3	0.44	6.62					
1242	12.6	441.2	0.43	6.64	-71.1				
1245	12.4	439.4	0.41	6.64	-73.7				
SAMPLE CO	LLECTION I	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color,	turbidity, odor	, sheen, etc.):	CLEAR CO	LORLESS NO/N	5			
	<b>T</b>	Card	DO		ODD	T	DIM	Ferrous iron	Comments/
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	(Fe II)	Observations
1	12.5	439.8	0.42	6.63	-73.7			~ /	
		440.3							
2	12.5		0.41	6.63	-74.3				
3	12.5	440.4	0.41	6.63	-74.3				
4	12.5	440.6	0.41	6.61	-73.7				
Average:	12.5	440.3	0.41	6.63	-74.0	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	R BOTTLE	TYPE (Circle a	oplicable or write r	non-standard ar	alvsis below)	
5		0) (8020) (N				•		WA 🗆	OR 🗆
	(8270D) (PA	AH) (NWTPH	I-D) (NWTH	PH-Dx) (TPH	H-HCID) (8081)	(8141) (Oil & Gr	rease)	WA 🗆	OR
	(pH) (Condu	uctivity) (TD	S) (TSS) (B	OD) (Turbi	dity) (Alkalinity)	(HCO3/CO3) (C	Cl) (SO4) (NO	3) (NO2) (F)	
1	(COD) ( <mark>TO</mark>	C) (Total PO	4) (Total Kie	dahl Nitroger	n) (NH3) (NO3)	NO2)			
		le) (WAD Cy	<i>,</i> ,	• /					
						(Pb) (Mg) (Mn) (M			
			o) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (P)	o) (Mg) (Mn) (Ni) (	Ag) (Se) (Tl) (V	) (Zn) (Hg) (K) (N	Va) (Hardness) (Silica
	VOC (Boein	Č (							
	wietnane Eth	nane Ethene Ad	cetylene						
	others								
<u>.                                    </u>									
Duplicate San	nle No(s)								

Comments:



Project Name	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5 /2019@ 122	21		
Sample Num	ber:	RGW246S-			Weather:	40'S, SUNNY			
Landau Repr	esentative:	JHA							
WATER LEV	EL/WELL/PU	RGE DATA							
Well Conditio		Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	ЛТ	
DTW Before I	Purging (ft)	2.55	Time:	1155	Flow through cel	l vol.		GW Meter No.(	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 @	@ 1159	End Purge:	Date/Time:	3/ 5/2019 @ 121	8	Gallons Purged:	0.75
Purge water di	sposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	pm	(mV)	(NTU)	(ft)	Volume (gal)	Observations
						lings within the foll		>/= 1 flow	
	+/- 3%	+/- 3%		+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1202	11.3	167.5	0.30	6.47	21.7	LOW		<0.25	
1205	11.3	168.9	0.36	6.47	11.1		2.55		
1208	11.6	169.8	0.33	6.47	4.8				
1211	11.7	170.6	0.28	6.47	-2.1		2.55		
1214	11.7	170.8	0.26	6.47	-6.2				
1217	11.8	171.0	0.26	6.47	-10.7				
SAMPLE CO									
Sample Collec	_		Bailer			DED BLADDER		<b>—</b>	
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	· · · · · · · · · · · · · · · · · · ·	Other							
Sample Descri	ption (color, t	urbidity, odor,	sheen, etc.):	CLEAR, CO	LORLESS, NO/N	S			
Replicate	Тетр	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	11.8	171.1	0.25	6.47	-12.5				
2	11.8	171.1	0.25	6.47	-13.4				
3	11.8	171.0	0.25	6.47	-13.8				
4	11.8	171.0	0.24	6.47	-14.4				
Average:	11.8	171.1	0.25	6.47	-13.5	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE 7	ГҮРЕ (Circle ap	olicable or write no	n-standard ana	lysis below)	
5	( <b>8260</b> ) (8010	)) (8020) (N	WTPH-G) (	NWTPH-Gx)	(BTEX)			WA 🗆	OR 🗆
	(8270D) (PA	(NWTPH	I-D) (NWTP	H-Dx) (TPH	-HCID) (8081)	(8141) (Oil & Gre	ase)	WA 🗆	OR 🗆
						(HCO3/CO3) (Cl)	(SO4) (NO3	) (NO2) (F)	
1					) (NH3) (NO3/1	NO2)			
		e) $(WAD Cy)$	/ 、						
						$\frac{Pb}{Ma} (Mg) (Mn) (Ni)$			
	VOC (Boein		<u>у (Ба) (Бе) (С</u>	(CU) (CO)	(CI) (CU) (Fe) (Pb	) (1813) (1811) (181) (A	<u>s) (se) (11) (V)</u>	(ZII) (П <u></u> д) (К) (N	a) (Hardness) (Silica)
	2	ane Ethene Ac	etvlene						
		Luiene / le							
	others								
	1								
Duplicate San	pie No(s):								

Comments:

Signature:



Event:         Quarterly March 2019         Date/Time:         3/ 05/2010/6         16/0           Landau Representative:         SKIB         (LEAR         (LEAR)         (LEAR)           Vertice:         SkiB         (LEAR)         (LEAR)         (LEAR)           Vertice:         SkiB         SkiB         (CHEAR)         (LEAR)           Vertice:         SkiB         SkiB         (CHEAR)         (MAR)         (MAR)           Vertice:         SkiB         SkiB         (MAR)         (MAR)         (MAR)         (MAR)           Vertice:         SkiB         SkiB         (MAR)         (MAR)         (MAR)         (MAR)         (MAR)         (MAR)           Vertice:         SkiB         SkiB         (MAR)	Project Name	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Landau Representative:         SEB           WATER LEVEL AVEL JAURGE DATA         Dumaged (NO)         Describs:         June 2010           Wall Condition:         Secure V(LS)         Dumaged (NO)         Describs::         June 2010           Jauge Torge:         Date Time:         Jule 7011         Jule 7011         Jule 7011         Jule 7011           Jarge water disposed to:         Stage Torge:         Date Time:         Jule 7011         Other         Stage Torget Avel (Second)         Other         Stage Torget Avel (Second)         Other         Jule 7011         Jule 70111	Event:		Quarterly M	larch 2019		Date/Time:	3/ 05/2019@	1600		
WATER LEVEL WEI LAURGE DATA         Duraged (NO)         Describe:         Human           Well Condition:         Secure Y USS         Duraged (NO)         Describe:         Human         GW Meter No.(-HERON1           Brigh Purge:         Dar Time:         3/ 05 /2019         ISU         Ead Purge         Dar Time:         GW Meter No.(-HERON1         0.22           Purge value disposed to:         ISU         55-gad Drun         Date Time:         Ground         Other         STIET REFUNCTIONET SYSTEM         Other attacks         Comments/           Time         Purge Cond.         DAG.         pH         Other attacks         STIET REFUNCTIONET SYSTEM         Other attacks         Comments/           1533         13.0         06.86         0.42         6.33         -6.24         LOW         3.54         F10W         Status         Other attacks         Comments/         Status         Comments/         Status         Other attacks         Comments/         Status         Comments/         Status         Status         Status         Comments/         Status         Status<	Sample Num	iber:	RGW188S-	190305		Weather:	CLEAR			
Well Coulding:       Secure (YES)       Damaged (NO)       Describe:       Inch. mount         DTW Refore Purging (N)       3.94       Time:       1515       Flow threads cell vol.       GW Meter Nn (e HERCN1)       2.02         Purge water disposed to:       0:       55.59       Drug Dome       Scorage Tank       0:       Ground       0:       1512       Gillows Purged.       0.22         Purge water disposed to:       0:       55.59       Drug Dome       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:       0:	Landau Repr	esentative:	SRB							
DTW Before Purging (ft)       3.94       Time:       1515       Flow through cell vol.       GW Meter Na.(# HERON1       (22)         Regin Purge:       Date Time:       23.05       Fold Purge:       Date Time:       20.55       (2010 GE       1522       Glans Runged.       (22)         Purge water dieposito:       S5.5gal Drum       Brongs Tark       Ground       Dter STIF TREATMENT SYSTEM       Observations       Observations       (22)         Time       Croot       Book       0.42       6.33       -24       100%       -6.34       -0.34       -0.42       -0.34       -0.41       0.05       -0.41       0.05       -0.41       0.05       -0.41       0.04       -0.41       0.04       -0.41       0.04       -0.41       0.04       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41       -0.41 <td< td=""><td>WATER LEV</td><td>EL/WELL/PU</td><td><b>URGE DATA</b></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	WATER LEV	EL/WELL/PU	<b>URGE DATA</b>							
Begin Purge:       Due Time:       32.05 / 2019       1330       End Purge:       Due Time:       32.05 / 2019       0 the STIET TREATMENT SYSTEM         Page water disposed to:       Image: Society of the Strength Conduction of Parameters for three consecutive readings within the following limits by 10%       Other STIET TREATMENT SYSTEM       Observations         Time       Creep Cond.       D.O.       pH       ORP       Turbidity       Turbidity       Turbidity       Turbidity       Other STIET TREATMENT SYSTEM         1533       13.0       40.86       0.42       6.33       -2.4       10.W       3.04         1539       12.8       407.6       0.44       6.34       -9.9       3.04	Well Conditio	n:	Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
Begin Purge:       Due Time:       32.05 / 2019       1330       End Purge:       Due Time:       32.05 / 2019       0 the STIET TREATMENT SYSTEM         Page water disposed to:       Image: Society of the Strength Conduction of Parameters for three consecutive readings within the following limits by 10%       Other STIET TREATMENT SYSTEM       Observations         Time       Creep Cond.       D.O.       pH       ORP       Turbidity       Turbidity       Turbidity       Turbidity       Other STIET TREATMENT SYSTEM         1533       13.0       40.86       0.42       6.33       -2.4       10.W       3.04         1539       12.8       407.6       0.44       6.34       -9.9       3.04	DTW Before I	Purging (ft)	3.94	Time:	1515	Flow through cel	ll vol.		GW Meter No.(s	HERON1
Time         Temp (FF*C)         Cond. (uS/cm)         D.O. (mgL)         pII         ORP (nV)         Turbidity (NTU)         DTW (th)         Internal Purge (th)         Comments/ Observations           1533         (FF*C)         (uS/cm)	Begin Purge:	Date/Time:	3/ 05 /2019	1530	End Purge:	Date/Time:	3/ 05 /2019 @	1542	Gallons Purged:	0.25
Time         (F/C)         (usNem)         (umpL)         (mV)         (NTL)         (h)         (h)         Observations           1533         13.0         418.6         0.42         6.33         -2.4         10W         5.91         10w         5.91           1535         13.0         418.6         0.42         6.33         -2.4         10W         5.94         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time         (F/C)         (usNem)         (umpL)         (mV)         (NTL)         (h)         (h)         Observations           1533         13.0         418.6         0.42         6.33         -2.4         10W         5.91         10w         5.91           1535         13.0         418.6         0.42         6.33         -2.4         10W         5.94         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -		Тетр	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
+/. 3%         +/. 3%         +/. 10%	Time	(° <b>F</b> /°Ĉ)	(uS/cm)	( <b>mg/L</b> )	_	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	
1533       13.0       408.6       0.42       6.33       -2.4       LOW       3.94         1536       13.0       408.8       0.42       6.34       -6.2       3.94										
1536       13.0       408.8       0.42       6.34       -6.2       3.94         1539       12.8       407.6       0.44       6.34       -9.9       3.94         Sample Collected With:       □       □       □       □       □       □       □         Sample Collected With:       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □	1533								····· · · · · · · · · · · · · · · · ·	
1539       12.8       407.6       0.44       6.34       -9.9       3.94										
SAMPLE COLLECTION DATA         Sample Collected With:       Bailer       Pump Pump Type DED BLADDER         Made of:       Stainless Stect       PVC       Teffon       Polycthylene         Decon Procedure:       Alconox Wash       Tap Rinse       D IWater       Dedicated         By Numerical Order)       Other       Stainless Stect       Detect       Dedicated         Sample Description (color, turbility, odor, sheen, etc.):       CLEAR COLORIESS NO/NS       Erepticate       Temp       Comments/ (YF/C)       Other         3       12.9       407.7       0.43       6.33       -10.3										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylenc       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Other       Dedicated         Bay Numerical Order)       Other       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.9       407.7       0.43       6.33       -10.5	1539	12.8	407.6	0.44	6.34	-9.9		3.94		
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylenc       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Other       Dedicated         Bay Numerical Order)       Other       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.9       407.7       0.43       6.33       -10.5										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylenc       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Other       Dedicated         Bay Numerical Order)       Other       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.9       407.7       0.43       6.33       -10.5										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylenc       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Other       Dedicated         Bay Numerical Order)       Other       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.9       407.7       0.43       6.33       -10.5										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylenc       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Other       Dedicated         Bay Numerical Order)       Other       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.9       407.7       0.43       6.33       -10.5										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylenc       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Other       Dedicated         Bay Numerical Order)       Other       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.9       407.7       0.43       6.33       -10.5										
Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS       Turbidity       DTW       Ferrous iron       Comments/         1       12.9       407.7       0.43       6.33       -10.3       -10.3       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	SAMPLE CO	LLECTION E	DATA							
Decon Procedure:       Alconox Wash       Tap Rinse       D Water       Dedicated         By Numerical Order)       Other       Sample Description (color, turbidity, odor, sheen, etc.):       CLEAR COLORLESS NO/NS         Replicate       Temp (TF°C)       Cond. (mg/L)       pH       ORP (mV)       Turbidity (NTU)       Ferrous iron (Fe II)       Observations         1       12.9       407.7       0.43       6.33       -10.3	Sample Collec	eted With:		Bailer		Pump/Pump Type	DED BLADDER			
(By Numerical Order)       □       Other	Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Sample Description (color, turbidity, odor, sheen, etc.):         CLEAR COLORLESS NO/NS           Replicate         Temp (°F/°C)         Cond. (uS/cm)         D.O. (mg/L)         pH         ORP (mV)         Turbidity (NTU)         DTW (ft)         Ferrous iron (Fe II)         Comments/ Observations           1         12.9         407.7         0.43         6.33         -10.3	Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
Replicate       Temp (TF/C)       Cond. (uS/cm)       D.O. (mg/L)       pH       ORP (mV)       Turbidity (NTU)       DTW (ft)       Ferrous iron (Fe II)       Comments/ Observations         1       12.9       407.7       0.43       6.33       -10.3       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	(D. Numarian	101								
Image: Control (PF/C)       (us/cm)       (mg/L)       (mV)       (NTU)       (ft)       (Fe II)       Observations         1       12.9       407.7       0.43       6.33       -10.3	•									
(°F/°C)       (us/cm)       (mg/L)       (mV)       (NTU)       (ft)       (Fe II)       Observations         1       12.9       407.7       0.43       6.33       -10.3	•			sheen, etc.):	CLEAR CO	LORLESS NO/N	5			
2       12.9       407.8       0.44       6.33       -10.5         3       12.8       407.5       0.43       6.33       -10.9         4       12.9       407.6       0.43       6.33       -11.2         Average:       12.9       407.7       0.43       6.33       -11.2         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       3       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-G)       (NWTPH-G)       (NWTPH-G)       (NWTPH-G)       (NWTPH-G)       (NWTPH-G)       (NWTPH-D)       (Regresse)       WA       OR       OR         (8270D)       (PAH)       (NWTPH-D)       (TVPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR       OR         (pH)       (Conductivity)       (TDS)       (TDS)       (TDD)       (Total Keidahl Nitrogen)       (NH3)       (NO3/NO2)         (Total Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (TI)       (V)       (Zn)       (Hg)       (K)       (Na)         (Dissolve	Sample Descri	iption (color, t	urbidity, odor,					DTW	Ferrous iron	Comments/
3       12.8       407.5       0.43       6.33       -10.9         4       12.9       407.6       0.43       6.33       -11.2         Average:       12.9       407.7       0.43       6.33       -11.2         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       3       (8260)       (8010)       (8020)       (NWTPH-Gx)       (BTEX)       WA       OR          (8270D)       (PAH)       (NWTPH-D)       (NWTPH-Gx)       (BTEX)       WA       OR          (pH)       (Conductivity)       (TDS)       (TDS)       (TDH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR          (pH)       (Conductivity)       (TDS)       (TDS)       (TDS)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)         (Total Cyanide)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Zu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Sb)       (A)       (A)         (DCC)       (Total Ketals)       (As)       (Sb) <t< td=""><td>Sample Descri</td><td>iption (color, t Temp</td><td>curbidity, odor,</td><td>D.O.</td><td></td><td>ORP</td><td>Turbidity</td><td></td><td></td><td></td></t<>	Sample Descri	iption (color, t Temp	curbidity, odor,	D.O.		ORP	Turbidity			
4       12.9       407.6       0.43       6.33       -11.2         Average:       12.9       407.7       0.43       6.33       -10.7       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       3       (8260)       (8010)       (8020)       (NWTPH-Gx)       (BTEX)       WA       OR	Sample Descri	iption (color, t Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity			
4       12.9       407.6       0.43       6.33       -11.2         Average:       12.9       407.7       0.43       6.33       -10.7       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       3       (8260)       (8010)       (8020)       (NWTPH-Gx)       (BTEX)       WA       OR	Sample Descri Replicate	iption (color, t <b>Temp</b> (°F/°C) 12.9	Cond. (uS/cm) 407.7	D.O. (mg/L) 0.43	<b>рН</b> 6.33	ORP (mV) -10.3	Turbidity			
Average:       12.9       407.7       0.43       6.33       -10.7       #DIV/0!         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	Sample Descritering Replicate	iption (color, t <b>Temp</b> (°F/°C) <u>12.9</u> <u>12.9</u>	Cond. (uS/cm) 407.7 407.8	D.O. (mg/L) 0.43 0.44	рН 6.33 6.33	ORP (mV) -10.3 -10.5	Turbidity			
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-DI)       (RTH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR       Implication         (pH)       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (SO4)       (NO3)       (NO2)       F         1       (COD)       (TOC)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       Implicate Sample       Implicate Sample No(s):       (Cod)       (Col (Col (Col (Col (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (T1) (V) (Zn) (Hg) (K) (Na)       (Hardness) (Silica         VOC       (Boeing short list)       Implicate Sample No(s):       Methane Ethene Acetylene       Implicate Sample No(s):       MSMSD Location         Comments:       Implicate Sample No(s):       MSMSD Location       Implicate Sample No(s):       MSMSD Location	Sample Descritering Replicate	iption (color, t Temp (°F/°C) 12.9 12.9 12.8	Cond. (uS/cm) 407.7 407.8 407.5	D.O. (mg/L) 0.43 0.44 0.43	рН 6.33 6.33 6.33	ORP (mV) -10.3 -10.5 -10.9	Turbidity			
3       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR	Sample Describert	iption (color, t Temp (°F/°C) 12.9 12.9 12.8 12.9	Cond. (uS/cm) 407.7 407.8 407.5 407.6	D.O. (mg/L) 0.43 0.44 0.43 0.43	рН 6.33 6.33 6.33 6.33	ORP (mV) -10.3 -10.5 -10.9 -11.2	Turbidity (NTU)			
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)       Methane Ethane Ethene Acetylene         others       Others	Sample Descri Replicate 1 2 3 4 Average:	iption (color, t Temp (°F/°C) <u>12.9</u> <u>12.9</u> <u>12.8</u> <u>12.9</u> <u>12.9</u> <u>12.9</u>	Cond. (uS/cm) 407.7 407.8 407.5 407.6 407.7	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43	рН 6.33 6.33 6.33 6.33 6.33	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7	Turbidity (NTU) 	(ft)	(Fe II)	
(pH)       (Conductivity)       (TDS)       (TTSS)       (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)       (Lu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (TI)       (V)       (Zn)       (Hg)       (K)       (Na)         (Dissolved Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (TI)       (V)       (Zn)       (Hg)       (K)       (Na)         (Dissolved Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (So)       (Ti)       (Ni)       (Ag)       (Fi)       (Fi) </td <td>Sample Descri Replicate</td> <td>iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9</td> <td>Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.7 NALYSIS AI</td> <td>D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43</td> <td>pH 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE</td> <td>ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap</td> <td>Turbidity (NTU) </td> <td>(ft)</td> <td>(Fe II)</td> <td>Observations</td>	Sample Descri Replicate	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9	Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.7 NALYSIS AI	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43	pH 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap	Turbidity (NTU) 	(ft)	(Fe II)	Observations
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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others         Duplicate Sample No(s):       MSMSD Location	Sample Descri Replicate	iption (color, t Temp (°F/°C) 12.9 12.9 12.8 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.	Cond. (uS/cm) 407.7 407.8 407.5 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 LLOWED PE	pH 6.33 6.33 6.33 6.33 6.33 6.33 <b>CR BOTTLE</b> NWTPH-Gx)	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX)	Turbidity (NTU) #DIV/0!	(ft)	(Fe II)	Observations
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others         Duplicate Sample No(s):         MSMSD Location	Sample Descri Replicate	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 (%20) (8010 (%270D) (PA)	Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.7 NALYSIS AI () (8020) (N AH) (NWTPH	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 LLOWED PE WTPH-G) ( H-D) (NWTP	pH 6.33 6.33 6.33 6.33 6.33 6.33 <b>CR BOTTLE</b> NWTPH-GX) PH-DX) (TPH	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081)	Turbidity (NTU) #DIV/0! pplicable or write 1 (8141) (Oil & Gr	(ft)	(Fe II)	Observations
(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) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others         Duplicate Sample No(s):       MSMSD Location         Comments:	Sample Descri Replicate 1 2 3 4 Average: QUANTITY 3	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 (82.0) (82.0) (82.70D) (PA (Condu	Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 LLOWED PE WTPH-G) ( H-D) (NWTP S) (TSS) (B	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 <b>CR BOTTLE</b> NWTPH-Gx) PH-Dx) (TPH OD) (Turbio	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gr           (HCO3/CO3) (C	(ft)	(Fe II)	Observations
VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others         Duplicate Sample No(s):       MSMSD Location         Comments:	Sample Descri Replicate 1 2 3 4 Average: QUANTITY 3	iption (color, t Temp (°F/°C) 12.9 12.9 12.8 12.9 12.9 12.9 12.9 12.9 (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC	Cond. (uS/cm) 407.7 407.8 407.5 407.6 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO-	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 LOWED PE WTPH-G) ( H-D) (NWTP S) (TSS) (B 4) (Total Kie	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH OD) (Turbid dahl Nitrogen	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity)	Turbidity (NTU)           #DIV/0!           pplicable or write r           (8141) (Oil & Gr           (HCO3/CO3) (C	(ft)	(Fe II)	Observations
Methane Ethane Ethene Acetylene         Methane Ethane Ethene Acetylene         others         Duplicate Sample No(s):       MSMSD Location         Comments:	Sample Descri Replicate 1 2 3 4 Average: QUANTITY 3	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 (20) 12.9 12.9 12.9 12.9 12.9 (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°F/°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C	Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO- le) (WAD Cy	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 0.43 LOWED PE WTPH-G) (H-D) (NWTP S) (TSS) (B 4) (Total Kie anide) (Free	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 <b>CR BOTTLE</b> NWTPH-Gx) PH-Dx) (TPH OD) (Turbid dahl Nitroger Cyanide)	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity) i) (NH3) (NO3/	Turbidity (NTU)           #DIV/0!           pplicable or write n           (8141) (Oil & Ga (HCO3/CO3) (Oil)           (NO2)	(ft)	(Fe II)	Observations
Image: Second	Sample Descri Replicate 1 2 3 4 Average: QUANTITY 3	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 (0.000) (8270D) (PA (8270D) (PA (8270D) (PA (8270D) (PA (0.000) (TOC (Total Cyanid (Total Metals) (Dissolved M	Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 b) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb)	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 0.43 LOWED PE WTPH-G) ( H-D) (NWTP S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH- OD) (Turbid dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Ga (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (1)	(ft) non-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
Duplicate Sample No(s):     MSMSD Location       Comments:	Sample Descri Replicate 1 2 3 4 Average: QUANTITY 3	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 (20) (8260) (8010 (8270D) (PA (8270D) (PA (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 0.43 LOWED PE WTPH-G) (I H-D) (NWTP S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH- OD) (Turbid dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Ga (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (1)	(ft) non-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
Duplicate Sample No(s):     MSMSD Location       Comments:	Sample Descri Replicate 1 2 3 4 Average: QUANTITY 3	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 (20) (8260) (8010 (8270D) (PA (8270D) (PA (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 0.43 LOWED PE WTPH-G) (I H-D) (NWTP S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH- OD) (Turbid dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Ga (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (1)	(ft) non-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
Duplicate Sample No(s):     MSMSD Location       Comments:	Sample Descri Replicate 1 2 3 4 Average: QUANTITY 3	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 (20) (8260) (8010 (8270D) (PA (8270D) (PA (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved M VOC (Boein	Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 0.43 LOWED PE WTPH-G) (I H-D) (NWTP S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH- OD) (Turbid dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Ga (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (1)	(ft) non-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
Comments:	Sample Description	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 12.9 (000) (8260) (8010 (8270D) (PA (8260) (8010) (8270D) (PA (9H) (Condu (COD) (TOO (Total Cyanid (Total Metals) (Dissolved M VOC (Boein Methane Eth	Cond. (uS/cm) 407.7 407.8 407.8 407.5 407.6 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO- le) (WAD Cy ) (As) (Sb) ( etals) (As) (Sb	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 0.43 LOWED PE WTPH-G) (I H-D) (NWTP S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH- OD) (Turbid dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Ga (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (1)	(ft) non-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
	Sample Description	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 TYPICAL A (8260) (8010 (8270D) (PA (8270D) (PA (PH) (Condu (COD) (TOO (Total Cyanid (Dissolved M VOC (Boein Methane Eth others	Cond. (uS/cm) 407.7 407.8 407.5 407.6 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO- le) (WAD Cy b) (As) (Sb) ( etals) (As) (Sb g short list) anne Ethene Action contents of the second	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 0.43 LOWED PE WTPH-G) ( H-D) (NWTP S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ca	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH- OD) (Turbid dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Ga (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (1)	(ft) non-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations
2 mm 30117	Sample Descri Replicate  1 2 3 4 Average:  QUANTITY 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	iption (color, t Temp (°F/°C) 12.9 12.9 12.9 12.9 12.9 12.9 12.9 TYPICAL A (8260) (8010 (8270D) (PA (8270D) (PA (PH) (Condu (COD) (TOO (Total Cyanid (Dissolved M VOC (Boein Methane Eth others	Cond. (uS/cm) 407.7 407.8 407.5 407.6 407.6 407.6 407.7 NALYSIS AI 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO- le) (WAD Cy b) (As) (Sb) ( etals) (As) (Sb g short list) anne Ethene Action contents of the second	D.O. (mg/L) 0.43 0.44 0.43 0.43 0.43 0.43 0.43 LOWED PE WTPH-G) ( H-D) (NWTP S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca b) (Ca	pH 6.33 6.33 6.33 6.33 6.33 6.33 6.33 6.33 CR BOTTLE NWTPH-Gx) PH-Dx) (TPH- OD) (Turbid dahl Nitrogen Cyanide) (Cd) (Co)	ORP (mV) -10.3 -10.5 -10.9 -11.2 -10.7 TYPE (Circle ap (BTEX) H-HCID) (8081) dity) (Alkalinity) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           pplicable or write 1           (8141) (Oil & Ga (HCO3/CO3) (O'NO2)           (Pb) (Mg) (Mn) (1)	(ft) non-standard an rease) Cl) (SO4) (NO Ni) (Ag) (Se) ('	(Fe II)	Observations



Project Name	e:	Boeing Ren	ton		Project Number		0025217.099.0	99	
Event:		Quarterly M			Date/Time:	3/ 5 /2019@ 152	26		
Sample Num	iber:	RGW247S-			Weather:	40'S, SUNNY			
Landau Repr	-	JHA			-				
WATER LEV	EL/WELL/PL	<b>RGE DATA</b>							
Well Conditio		Secure (YES	)	Damaged (N	0)	Describe:	FLUSH MOUN	Τ	
DTW Before I	Purging (ft)	3.91	Time:		Flow through cel			GW Meter No.(s	HERON 3
Begin Purge:				End Purge:	-	3/ 5/2019 @ 1517	7	Gallons Purged:	
Purge water di			55-gal Drum	Ĕ.	Storage Tank	Ground		SITE TREATM	
e	-	Cond	-		-				
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa	ls: Stablizatio	on of Parame			lings within the foll	lowing limits	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1504	10.8	342.9	0.50	6.37	71.1	LOW	4.3	<0.25	TURN CPM DOWN
1507	10.8	347.4	0.51	6.40	62.1		4.16		
1510	10.4	347.9	0.55	6.41	53.6				
1513	10.2	346.9	0.54	6.41	48.7				
1516		344.2	0.52	6.41	43.2				
1510	9.0		0.32	0.41	43.2				
	·								
SAMPLE CO									
Sample Collec	ted With:		Bailer			DED BLADDER			
Made of:		Stainless Ste	_		Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 📋	Tap Rinse	DI Water	Dedicated			
(By Numerica		Other	1 ( )	CLEAD CO					
Sample Descr	iption (color, t	urbiaity, odor,	sneen, etc.):	CLEAK, CO	LORLESS, NO/N	8			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(° <b>F</b> /° <b>C</b> )	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	(Fe II)	Observations
1	9.8	344.0	0.52	6.41	42.0				
2	9.8	343.8	0.53	6.41	41.2				
3	9.8	343.5	0.52	6.41	40.4				
4	9.8	343.3	0.52	6.41	40.0				
						#DU//01	4.25		
Average:	9.8	343.7	0.52	6.41	40.9	#DIV/0!	4.25		
						licable or write no	n-standard ana		
3		)) (8020) (N	( )	,	· · · · ·			WA 🗆	OR 🗌
						(8141) (Oil & Gre		$WA \square$	OR 🗆
1					(NH3) (NO3/N	(HCO3/CO3) (Cl)	) (SO4) (NO3	) (NO2) (F)	
1	, , , , , , , , , , , , , , , , , , ,	e) (WAD Cy		<u> </u>	) (1113) (1103/1	NU <i>2)</i>			
					(Cr) (Cu) (Fe) (	Pb) (Mg) (Mn) (Ni	i) (Ag) (Se) (T	'l) (V) (Zn) (Hg	) (K) (Na)
									a) (Hardness) (Silica)
	VOC (Boein								
	Methane Eth	ane Ethene Ac	etylene						
	others								
Duplicate San	nple No(s):								

Comments: Signature:



Project Nam	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/5/19 @ 1546			
Sample Num	nber:	RGW248I-	190305		Weather:	40'S, SUNNY			
Landau Repr	resentative:	JHA			·				
WATER LEV	'EL/WELL/PU	JRGE DATA							
Well Condition		Secure (YES)	)	Damaged (N	0)	Describe:	FLUSH MOUN	JT	
DTW Before	Purging (ft)	3.74	Time:	-	Flow through cel			GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 5 /2019 @		End Purge:	-	3/ 5/2019@154	15	Gallons Purged:	
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground		SITE TREATM	ENT SYSTEM
C	Тетр	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	pm	(mV)	(NTU)	(ft)	Volume (gal)	Observations
						lings within the fol		>/= 1 flow	
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1527	11.3	436.6	0.24	6.41	38.8	LOW	4.12	< 0.25	TURN CPM DOWN
1530	11.4	438.1	0.22	6.40	8.5				
1533	11.6	439.5	0.22	6.42	-2.4				
1536	11.2	430.2	0.21	6.41	-13.0		3.86		
1539	11.0	425.6	0.20	6.40	-17.5				
1542	10.6	421.1	0.20	6.40	-21.4				
			0.19	6.40	-23.1				
1544	10.4	418.4	0.19	0.40	-23.1				
SAMPLE CO		<u></u>							
Sample Colled			Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was		Tap Rinse	DI Water	Dedicated			
(By Numerica		Other		rup ruise		Dedicated			
	,		sheen, etc.):	CLEAR, CO	LORLESS, NO/N	S			
		••••	· · · ·						
Replicate	Temp	Cond.	<b>D.O.</b>	pН	ORP	Turbidity (NTU)	DTW	Ferrous iron	Comments/
	(° <b>F</b> /° <b>C</b> )	(uS/cm)	(mg/L)		(mV)	$(\mathbf{N}\mathbf{I}\mathbf{U})$	(ft)	(Fe II)	Observations
1	10.4	418.3	0.19	6.40	-23.5				
2	10.3	418.1	0.19	6.40	-23.7				
3	10.3	417.9	0.19	6.40	-23.9				
4	10.3	417.8	0.19	6.40	-24.5				
Average:	10.3	418.0	0.19	6.40	-23.9	#DIV/0!			
QUANTITY	TVPICAL A	NALVSIS AT	LOWED PE	R BOTTLE '	FVPE (Circle and	blicable or write no	on-standard and	lysis below)	
3		$\frac{1}{2} (8020) (N)$				incubic of write in	m-standar u ant	WA 🗆	OR 🗆
						(8141) (Oil & Gre	ease)	WA 🗆	OR 🗆
	(pH) (Condu	ctivity) (TDS	S) (TSS) (B	OD) (Turbid	ity) (Alkalinity)	(HCO3/CO3) (Cl	l) (SO4) (NO3	) (NO2) (F)	
1	(COD) (TOO	C) (Total PO4	) (Total Kied	dahl Nitrogen	) (NH3) (NO3/1	NO2)			
		e) (WAD Cy	, ,	•					
						Pb) (Mg) (Mn) (N			
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein Mothana Eth	g short list) ane Ethene Ac	otvlopo						
		ane Eulene AC	ciyielle						
	others								
	others								

Comments:

Signature:



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	Iarch 2019		Date/Time:	3/ 05/2019@	1530		
Sample Nur	nber:	RGW249S-			Weather:	CLEAR			
Landau Repr	resentative:	SRB							
WATER LEV	EL/WELL/PI	URGE DATA							
Well Condition	on:	Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	3.71	Time:	1457	Flow through cel	l vol.		GW Meter No.(s	HERON1
Begin Purge:	Date/Time:	3/ 05 /2019	1500	End Purge:	Date/Time:	3/ 05 /2019 @	1517	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C) Purge Goa	Cond. (uS/cm) ds: Stablizatio	D.O. (mg/L)	pH ters for three	ORP (mV)	Turbidity (NTU) dings within the fo	DTW (ft) Nowing limits	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1503	11.1	415.2	0.52	6.72	36.0	LOW	3.76		
1506	12.1	369.4	0.38	6.62	9.2		3.73		
1509	12.5	348.1	0.39	6.53			3.73		
			,						
1512		343.8	0.40	6.50					
1515	12.6	343.4	0.41	6.47	-8.1				
	·								
SAMPLE CO	LLECTION I								
Sample Collec	cted With:		Bailer			DED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color,	turbidity, odor,	, sheen, etc.):	SLIGHTLY	GRAY SLIGHL	Y TURBID NO/N	5		
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.6	343.7	0.41	6.47	-8.8	(2120)	()	(1 • 11)	
	12.6	343.9	0.41	6.47	-9.1				
2									
3	12.6	344.1	0.42	6.47	-9.6				
4	12.6	344.3	0.41	6.47	-10.0				
Average:	12.6	344.0	0.41	6.47	-9.4	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	ER BOTTLE	TYPE (Circle ap	plicable or write r	ion-standard ai	nalysis below)	
3	( <b>8260</b> ) (801	0) (8020) (N	WTPH-G) (	NWTPH-Gx	) (BTEX)			WA 🗆	OR 🗌
						(8141) (Oil & Gr		WA 🗆	OR 🗆
						(HCO3/CO3) (C	Cl) (SO4) (NO	3) (NO2) (F)	
1	(COD) (TO	, <u>,</u>	<i>,</i> , ,	2	n) (NH3) (NO3/	NO2)			
		$\frac{\text{le}}{(\text{WAD Cy})}$		• /			<b>I'</b> ) ( <b>A</b> -) ( <b>C</b> -) ('	$\mathbf{T} = (\mathbf{V} + (\mathbf{T}_{\mathbf{v}}) + (\mathbf{U}_{\mathbf{v}})$	$(\mathbf{V})$
						$\frac{Pb}{(Mg)} (Mg) (Mn) (Ni) (Ni) (Mg) (Mn) (Ni) (Ni) (Ni) (Ni) (Ni) (Ni) (Ni) (Ni$			a) (K) (Na) (A) (Hardness) (Silica
	VOC (Boein		י) (שמ) (שכ) (נ	<i>Luj</i> (Cuj (CU)		) (1 <b>81</b> 8) (1811) (181) (.	(1) (V	$(L_{\rm H})$ (11g) (K) (N	
		ane Ethene Ad	cetylene						
	others								
Duplicate San	onlo No(a).								

Duplicate Sample No(s):

Comments:



Project Name	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5 /2019@		1607	
Sample Num	ber:	RGW174S-	190305		Weather:	CLEAR			
Landau Repr	esentative:	DSB			•				
WATER LEV	EL/WELL/PU	<b>RGE DATA</b>							
Well Condition	n:	Secure (YES	)	Damaged (N	0)	Describe:			
DTW Before I	Purging (ft)	3.93	Time:	1540	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/ 5 /2019 0	1541	End Purge:	Date/Time:	3/5 /2019 @	1555	Gallons Purged:	0.25
Purge water di	sposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa +/- 3%	lls: Stablizatio +/- 3%		ters for three +/- 0.1 units		dings within the fo +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
1544	11.51	187	0.27	6.81	-383.3		4.02	8	ORP LOW
1547	12.15	186	0.18	6.83	-392.9		4.01		
1550	11.41	187	0.19	6.84	-399.7		3.98		
							3.90		
1553	10.83	188	0.20	6.86	-391.4				
SAMPLE CO	LLECTION D	ATA							
Sample Collec	ted With:		Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procede	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated		~~	
(By Numerical	l Order)	Other				<i>'</i> ^			
Sample Descri	ption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NONS			
D 1: (	<i>T</i>	<u> </u>	<b>D</b> 0		0.00			Ferrous iron	Comments/
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	(Fe II)	Observations
1	10.74	188	0.21	6.87	-392.7		(10)	(1 • 11)	
2	10.66	188	0.21	6.87	-392.5				
3	10.59	188	0.20	6.87	-392.9				
4	10.52	189	0.21	6.88	-393.5				
Average:	10.63	188	0.21	6.87	-392.9	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE '	ГҮРЕ (Circle ар	olicable or write n	on-standard ana	lvsis below)	
		)) (8021) (N						WA 🗆	OR 🗆
						8141) (Oil & Grea	se)	WA 🗆	OR
	(pH) (Condu	ctivity) (TDS	S) (TSS) (B	OD) (Turbid	ity) (Alkalinity)	(HCO3/CO3) (C	l) (SO4) (NO3	) (NO2) (F)	
	(COD) (TOO	, , , , , , , , , , , , , , , , , , ,	, <u>,</u>	<u> </u>	) (NH3) (NO3/1	NO2)			
		e) (WAD Cy	/ \						
1						$\frac{Pb}{(Mg)} (Mn) (N)$			
	(Dissolved M) VOC (Boein		) (ва) (ве) (C	.a) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	(Mg) (Mn) (N1) (A)	ag) (Se) (11) (V)	(2n) (Hg) (K) (Na	a) (Hardness) (Silica)
	2	g snort list) ane Ethene Ac	etvlene						
	methane Etti	and Eulene At							
	others								
Duplicate Sam	ple No(s):								

ORP VERY LOW, WILL CHECK AT END OF DAY AT OFFICE Comments:

Signature:

3/5/2019



Project Name	2:	Boeing Ren	ton		Project Number		0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/5 /2019@		1547	
Sample Num	ber:	RGW250S-	190305		Weather:	CLEAR			
Landau Repr	esentative:	DSB							
WATER LEV	EL/WELL/PU	RGE DATA							
Well Condition	n:	Secure (YES)	)	Damaged (N	0)	Describe:			
DTW Before I	Purging (ft)	3.71	Time:	1520	Flow through cel	l vol.		GW Meter No.(	2
Begin Purge:	Date/Time:	3/ 5 /2019 @	1523	End Purge:	Date/Time:	3/ 5 /2019 @	1543	Gallons Purged:	0.5
Purge water di	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	(° <b>F</b> /°Ĉ)	(uS/cm)	(mg/L)	-	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	lls: Stablizatio +/- 3%		ters for three +/- 0.1 units		lings within the fol +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
1526						17-1070		un ough een	ODDIOW
1526	11.59	151	1.92	6.90	-354.5		3.91		ORP LOW
1529	11.16	152	1.48	6.89	-357.8		3.88		
1532	10.13	154	1.25	6.92	-363.9		3.82		
1535	9.47	155	1.03	6.94	-367.7				
1538	9.09	155	0.73	6.96	-371.0				
1541	8.99	154	0.49	6.97	-371.1				
SAMPLE CO									
Sample Collec			Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	_	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was		Tap Rinse	DI Water				
(By Numerical		Other		rap Kinse					
Sample Descri			sheen, etc.):		CLOUDY SLIG	T YELLOW NON	[S		
Sumpro 2000	.priori (corori, c	<i>arerary</i> , <i>ease</i> ,			0200210210		~		
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(° <b>F</b> /° <b>C</b> )	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	(Fe II)	Observations
1	8.99	155	0.46	6.97	-371.3				
2	8.99	154	0.43	6.97	-371.8				
3	9.00	155	0.40	6.98	-373.2				
4	9.00	154	0.38	6.98	-373.6				
Average:	9.00	155	0.42	6.98	-372.5	#DIV/0!			
	TVDICAL A	NAT VEIS AT	I OWED DE	р ротті е <i>'</i>	FVDE (Cirolo on	licable or write no	n standard and	lucic bolow)	
QUANTITI	(8260) (8010		WTPH-G) (			incable of write in	n-stanuaru ana	WA 🗆	OR 🗆
	(8270) (PAH		( )		· · · · · · · · · · · · · · · · · · ·	3141) (Oil & Grea	se)	WA 🗆	OR 🗆
	· · · · ·	· · · ·			· · · · · ·	(HCO3/CO3) (Cl	,		
	(COD) (TOO				) (NH3) (NO3/I				
	(Total Cyanid	e) (WAD Cya	anide) (Free	Cyanide)					
1						Pb) (Mg) (Mn) (N			
	•		) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein		. 1						
	Methane Eth	ane Ethene Ac	etylene						
	others								
LI									
D l' C	ple No(s):								

Comments: ORP VERY LOW, WILL CHECK AT END OF DAY AT OFFICE

Signature:

DSB

Date:	3/5/2019



Project Name	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5/2019@		1337	
Sample Num	iber:	RGW009S-	190305		Weather:	CLEAR			
Landau Repr	esentative:	DSB			·				
WATER LEV	EL/WELL/PU	<b>IRGE DATA</b>							
Well Conditio	n:	Secure (YES)	)	Damaged (N	0)	Describe:	flush mount		
DTW Before I	Purging (ft)	5.15	Time:	1313	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/ 5 /2019 @	1314	End Purge:	Date/Time:	3/5 /2019 @	1330	Gallons Purged:	0.25
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	$(^{\circ}F/^{\circ}C)$	(uS/cm)	(mg/L)	tong for three	(mV)	(NTU)	(ft)	Volume (gal) >/= 1 flow	Observations
	+/- 3%	us: Stablizatio +/- 3%		+/- 0.1 units		dings within the fol +/- 10%	< 0.3  ft	through cell	
1317	19.45	432	0.43	6.36	-392.6		5.13	0	ORP LOW
1320	19.64	424	0.39	6.41	-403.3		5.14		
1323	19.72	422	0.36	6.44	-410.2		5.14		
							5.14		
1326	19.66	421	0.34	6.45	-403.8				
1329	19.90	421	0.33	6.45	-404.5				
SAMPLE CO									
Sample Collec	cted With:		Bailer		Pump/Pump Type	_		<b>—</b>	
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🗖	Tap Rinse	DI Water	Dedicated			
(By Numerical	·	Other	1						
Sample Descri	iption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NONS			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	(Fe II)	Observations
1	19.93	421	0.32	6.45	-405.7				
2	19.93	421	0.32	6.46	-405.3				
3	19.94	421	0.32	6.46	-405.1				
4	19.95	421	0.32	6.46	-405.7				
Average:	19.94	421	0.32	6.46	-405.5	#DIV/0!			
	TVDICAL A	NAT VEIS AT	I OWED DE	р ротті е <i>'</i>	FVDE (Circle on)	olicable or write no	n standard and	lucic bolow)	
3	(8260) (8010			NWTPH-Gx)		oncable of write no	on-standaru ana	WA 🗆	OR 🗆
			, · · ·	· · · · · ·	· · · · ·	(8141) (Oil & Gre	ease)	WA 🗆	OR 🗆
						(HCO3/CO3) (Cl			
1	(COD) (TOC				) (NH3) (NO3/1				
	(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
	(Total Metals)	) (As) (Sb) (1	Ba) (Be) (Ca	a) (Cd) (Co)	(Cr) (Cu) (Fe) (	Pb) (Mg) (Mn) (N	li) (Ag) (Se) (T	⁽¹⁾ (V) (Zn) (Hg)	(K) (Na)
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein		. 1						
	Methane Eth	ane Ethene Ac	etylene						
	others								
Duplicate Sam	nple No(s):								

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Comments: ORP VERY LOW, WILL CHECK AT END OF DAY AT OFFICE

Signature: DSB



Signature:

DSB

### **Groundwater Low-Flow Sample Collection Form**

Project Nam	ne:	Boeing Ren	ton		Project Numbe	er:	0025217.099.0	99	
Event:		Quarterly M			Date/Time:	3/ 5/2019@			
Sample Nur	nber:	RGW010S-			Weather:	CLEAR			
-	presentative:	DSB							
WATERIE	VEL/WELL/PU								
WATER EE		Secure (YES)	)	Damaged (N	JO)	Describe:	flush mount		
DTW Before		5.25	, Time:	-	Flow through ce		<u>IIubii IIIbuiit</u>	GW Meter No.(s	2
	Date/Time:			End Purge:		3/ 5 /2019 @		Gallons Purged:	2
Purge water of			55-gal Drum	Ē.	Storage Tank	Ground	Other	SITE TREATME	NT SYSTEM
1 0180 1 0001 0	-		-		-				
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa	als: Stablizatio	on of Parame		e consecutive rea	dings within the fo	llowing limits	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
	_								
	- 117				NTT X7				
	W	ATER		EL O	INL Y				
	_				·	·		· ·	
						·			
								· ·	
								· ·	
	-								
SAMPLE CO	DLLECTION D	ATA	Bailer		Pump/Pump Type				
Decon Proceed (By Numerical Sample Desc		Alconox Was		Tap Rinse	DI Water	Dedicated			
									<u> </u>
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	(27.0)	(00,011)	(		(	(1120)	(20)	(1 • 11)	
2								· ·	
3									
4									
Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE	TYPE (Circle ap	plicable or write no	on-standard ana	alvsis below)	
		D) (8020) (N							OR 🗆
	(8270D) (PA	AH) (NWTPH	I-D) (NWTP	PH-Dx) (TPH	H-HCID) (8081)	(8141) (Oil & Gr	ease)	WA 🗆	OR 🗆
	(pH) (Condu	ctivity) (TDS	S) (TSS) (B	OD) (Turbic	lity) (Alkalinity)	(HCO3/CO3) (C	l) (SO4) (NO3	6) (NO2) (F)	
					n) (NH3) (NO3/	NO2)			
		e) (WAD Cy							
						$\frac{(Pb) (Mg) (Mn) (N)}{(N + 1) (M + 1$			
			) (Ba) (Be) (C	Ca) (Cd) (Co)	<u>(Cr) (Cu) (Fe) (Pt</u>	5) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (Na	) (Hardness) (Silica)
	VOC (Boein Methane Eth	g short list) ane Ethene Ac	etvlene						
		une Luicht At							
	others								
	1 37 7 3								
Duplicate Sar Comments:	mple No(s):								

\\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\AOC-060 190305 DSB

Date:

3/5/2019



Signature:

DSB

### **Groundwater Low-Flow Sample Collection Form**

Project Nar	ne:	Boeing Ren	ton		Project Numbe	r	0025217.099.0	99	
Event:		Quarterly M			Date/Time:	3/ 5/2019@	0020217.077.0	· · ·	
Sample Nu	mber:	RGW011D-			Weather:	CLEAR			
-	presentative:	DSB							
WATED IE	VEL/WELL/PU								
WATER LE		Secure (YES)	)	Damaged (N	IO)	Describe:	flush mount		
	e Purging (ft)	5.21	, Time:	-	Flow through ce		<u>Indoir iniouni</u>	GW Meter No.(s	2
	: Date/Time:			End Purge:	-	3/ 5 /2019 @		Gallons Purged:	£
Purge water			55-gal Drum	, Š	Storage Tank	Ground	Other	SITE TREATME	ENT SYSTEM
8	-		-		-				
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa	als: Stablizatio	on of Parame		e consecutive rea	dings within the fo	llowing limits	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
	_							·	
	- 117				NTE NZ				
	VV	<u>ATER</u>		$\underline{EL}$ U					
								· · .	
						·		·	
								·	
					. <u></u>				
	OLLECTION D		D - 11						
Sample Coll			Bailer		Pump/Pump Type				
Made of:	. 6	Stainless Stee	_	PVC	Teflon	Polyethylene	U Other	Dedicated	
Decon Proce		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numeric		Other	1						
Sample Desc	cription (color, t	urbiaity, odor,	sneen, etc.):						
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
I	(° <b>F</b> /° <b>Ĉ</b> )	(uS/cm)	(mg/L)	•	( <b>mV</b> )	(NTU)	( <b>ft</b> )	(Fe II)	Observations
1									
2									
3									
					·	·			
4									
Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
QUANTITY	Y TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE	TYPE (Circle ap	plicable or write n	on-standard ana	lysis below)	
	(8260) (801	D) (8020) (N	WTPH-G) (	(NWTPH-Gx)	(BTEX)				OR 🗌
	(8270D) (PA	AH) (NWTPH	I-D) (NWTF	PH-Dx) (TPH	H-HCID) (8081)	(8141) (Oil & Gr	ease)	WA 🗆	OR 🗆
						(HCO3/CO3) (C	l) (SO4) (NO3	) (NO2) (F)	
					a) (NH3) (NO3/	NO2)			
		(WAD Cy)							
						$\frac{Pb}{(Mg)} (Mg) (Mn) (Ng) (Mg) (Mg) (Mg) (Mg) (Mg) (Mg) (Mg) (M$			
	VOC (Boein		) (Ба) (Ве) ( <b>(</b>	La) (CO) (CO)	(Cr) (Cu) (Fe) (Pt	b) (Mg) (Mn) (Ni) (A	4g) (Se) (11) (V)	(Zn) (Hg) (K) (Na	(Hardness) (Silica
	`	ane Ethene Ac	etvlene						
		and Durone Au							
	others								
	•								
Duplicate Sa Comments:	ample No(s):								

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Date:

3/5/2019



Project Name	e:	Boeing Ren	ton		Project Number	:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5/2019@		1407	
Sample Num	ber:	RGW012S-	190305		Weather:	CLEAR			
Landau Repr	esentative:	DSB			-				
WATER LEV	EL/WELL/PU	<b>RGE DATA</b>							
Well Conditio	n:	Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before I	Purging (ft)	4.84	Time:	1344	Flow through cel	l vol.		GW Meter No.(	2
Begin Purge:	Date/Time:	3/ 5 /2019 0	<u>i</u> 1347	End Purge:	Date/Time:	3/ 5 /2019 @	1406	Gallons Purged:	0.25
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Тетр	Cond.	D.O.	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° <b>F</b> /°Ĉ)	(uS/cm)	(mg/L)	-	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goa +/- 3%	ils: Stablizatio +/- 3%		ters for three +/- 0.1 units		lings within the fol +/- 10%	< 0.3 ft	>/= 1 flow through cell	
1350	20.15	2201	0.26	5.45	-391.7		4.91	0	ORP LOW
1353	20.06	2166	0.26	5.70	-395.3		4.92		
1356	20.00	2148	0.24	5.76	-395.3		4.92		
1359	19.96	2137	0.23	5.84	-398.3		1.92		
1402	19.94	2124	0.22	5.91	-404.0				
1405	19.92	2102	0.21	6.02	-406.2				
SAMPLE CO			D 11						
Sample Collec	ted With:		Bailer		Pump/Pump Type				
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
Sample Descri	,		shoon ata):		SUGHTI V CL	UDY COLORLES	S NONS		
Sample Deser	iption (color, t	urblaity, odor,			SEIGHTET CEC	JOD I COLORELS	5110115		
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(° <b>F</b> /° <b>C</b> )	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	(Fe II)	Observations
1	19.92	2100	0.20	6.03	-405.7				
2	19.92	2099	0.20	6.04	-405.4				
3	19.92	2097	0.20	6.05	-405.3				
4	19.92	2095	0.20	6.05	-405.3				
Average:	19.92	2098	0.20	6.04	-405.4	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AI	LOWED PE	R BOTTLE '	ГҮРЕ (Circle an	licable or write no	on-standard ana	lysis below)	
3		)) (8020) (N						WA 🗆	OR 🗆
	· · · ·		( ) ( )	,	· · · · ·	(8141) (Oil & Gre	ease)	WA 🗆	OR 🗆
	(pH) (Condu	ctivity) (TDS	S) (TSS) (B	OD) (Turbid	ity) (Alkalinity)	(HCO3/CO3) (Cl	) (SO4) (NO3	) (NO2) (F)	
1	(COD) (TOO	C) (Total PO4	(Total Kied	dahl Nitrogen	) (NH3) (NO3/1	NO2)			
	(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
						Pb) (Mg) (Mn) (N			
	•		) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N)	a) (Hardness) (Silica)
	VOC (Boein								
	Meinane Eth	ane Ethene Ac	etylene						
	others								
Duplicate Sam									

ORP VERY LOW, WILL CHECK AT END OF DAY AT OFFICE Signature:

DSB

Comments:

\\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\AOC-060 190305 DSB

3/5/2019 Date:



Project Nam	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5/2019@		1437	
Sample Num	iber:	RGW014S-	190305		Weather:	CLEAR			
Landau Repr	resentative:	DSB							
WATER LEV	EL/WELL/PU	RGE DATA							
Well Condition	on:	Secure (YES)	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	5	Time:	1415	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:		1416	End Purge:	-	3/5 /2019 @	1429	Gallons Purged:	0.25
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	(° <b>F</b> /°Ĉ)	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	ls: Stablizatio +/- 3%		ters for three +/- 0.1 units		dings within the fo +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
1419	18.60	452	0.25	6.40	-414.7	1/ 10/0	5.07	thi ough cen	ORP LOW
									OKI LOW
1422	18.48	426	0.21	6.43	-410.6		5.07		
1425	18.48	421	0.20	6.44	-410.2		5.07		
1428	18.50	418	0.20	6.44	-410.1				
SAMPLE CO	LLECTION D	ATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated		~	
(By Numerica	l Order)	Other							
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NONS			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	(°F/°C)	(uS/cm)	(mg/L)	pii	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	18.50	418	0.19	6.44	-410.6				
2	18.52	417	0.19	6.44	-410.5				
3	18.52	417	0.19	6.44	-410.6				
	18.53	417	0.18	6.44	-410.8				
4									
Average:	18.52	417	0.19	6.44	-410.6	#DIV/0!			
QUANTITY	TYPICAL A					olicable or write no	on-standard ana	· · · · · · · · · · · · · · · · · · ·	
3	(8260) (8010		WTPH-G) (		· · · · · ·			WA 🗆	OR
				<i>,</i> , ,	/ / /	(8141) (Oil & Gro (HCO3/CO3) (Cl	/	WA  (NO2) (F)	OR 🗆
1	(COD) (TOC)				) (NH3) (NO3/I		(304) ( $103$	) (NO2) (F)	
	()	e) (WAD Cya	/ .	U	(100)	(02)			
			/ .	•	(Cr) (Cu) (Fe) (	Pb) (Mg) (Mn) (N	li) (Ag) (Se) (T	l) (V) (Zn) (Hg)	) (K) (Na)
	(D' 1 1)(	etals) (As) (Sh	) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	(Mg) $(Mn)$ $(Ni)$ $(An)$	Ag) (Se) (Tl) (V)	(Zn) $(Hg)$ $(K)$ $(Na)$	a) (Hardness) (Silica)
	(Dissolved M	<i>(113)</i> (113) (50							
	VOC (Boein	g short list)							
	VOC (Boein		etylene						
	VOC (Boein	g short list)	etylene						
	VOC (Boein Methane Eth	g short list)	etylene						
	VOC (Boein	g short list)	etylene						
Duplicate San	VOC (Boein Methane Eth others	g short list)							
Duplicate San Comments:	VOC (Boein Methane Eth others	g short list) ane Ethene Ac	ation (DUP4)		AT OFFICE				

Signature: \\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\AOC-060 190305 DSB



Project Name	e <u>:</u>	Boeing Rent	ton		Project Number	:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5/2019@		1257	
Sample Num	ber:	RGW147S-	190305		Weather:	CLEAR			
Landau Repr	esentative:	DSB			-				
WATER LEV	EL/WELL/PU	<b>IRGE DATA</b>							
Well Conditio	n:	Secure (YES)	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	4.59	Time:	1231	Flow through cel	vol.		GW Meter No.(	2
Begin Purge:	Date/Time:	3/ 5 /2019 @	1232	End Purge:	Date/Time:	3/ 5 /2019 @	1253	Gallons Purged:	0.25
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa	ls: Stablizatio	on of Parame		e consecutive read	lings within the fol	llowing limits	>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1235	12.28	1673	0.60	4.47	-315.6		4.6		ORP LOW
1238	12.29	1384	0.36	4.47	-304.8		4.59		
1241	12.16	1072	0.28	4.48	-313.5		4.59		
1244	11.98	937	0.25	4.48	-314.9				
1247	11.90	828	0.24	4.49	-315.4				
1250	11.72	648	0.22	4.52	-315.9				
1230	11.72	040	0.22	4.52	-515.9				
SAMPLE CO									
Sample Collec			Bailer		Pump/Pump Type				
Made of:		یے۔ Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was	_	Tap Rinse		Dedicated			
(By Numerica		Other	··· -	rup ruise					
	<i>'</i>	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS WITH WHIT	TE SPECKS NO	SHEEN SLIGHT	ODOR
-	· ·	-							
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.73	633	0.22	4.52	-316.0				
2	11.69	614	0.21	4.52	-316.2				
3	11.70	599	0.22	4.52	-316.3				
4	11.70	591	0.22	4.53	-316.2				
Average:	11.71	609	0.22	4.52	-316.2	#DIV/0!			
QUANTITY 3		$\frac{(NALYSISAL}{(NALYSIS}) (8020) (N$				licable or write no	on-standard ana	WA	OR 🗆
5			· · ·	,	· · · · ·	(8141) (Oil & Gre	ease)	WA 🗆	OR 🗆
	· · · · · ·	<i>(</i> )	/ .	/ ``	, , , , ,	(HCO3/CO3) (Cl	/		on
1	(COD) (TOC				) (NH3) (NO3/I				
	(Total Cyanid	e) (WAD Cya	/ ```	<u></u>					
	(Total Metals)	) (As) (Sb) (I	Ba) (Be) (Ca	) (Cd) (Co)	(Cr) (Cu) (Fe) (I	Pb) (Mg) (Mn) (N	(i) (Ag) (Se) (T	1) (V) (Zn) (Hg	) (K) (Na)
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) $(Hg)$ $(K)$ $(N$	a) (Hardness) (Silica)
	VOC (Boein								
	Methane Eth	ane Ethene Ac	etylene						
	others								
	others								

Comments: ORP VERY LOW, WILL CHECK AT END OF DAY AT OFFICE

Signature:

3/5/2019



Project Name:		Boeing Ren	ton		Project Number	•••	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 5/2019@		1147	
Sample Num	iber:	RGW149S-	190305		Weather:	CLEAR			
Landau Repr	resentative:	DSB			-				
WATER LEV	EL/WELL/PU	<b>RGE DATA</b>							
Well Conditio		Secure (YES)	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	5.08	Time:	1126	Flow through cel	l_vol.		GW Meter No.(	s 2
Begin Purge:	Date/Time:	3/ 5 /2019 @	1128	End Purge:	Date/Time:	3/ 5 /2019 @	1146	Gallons Purged:	0.25
Purge water di	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/°Ĉ)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goa +/- 3%	lls: Stablizatio +/- 3%		ters for three +/- 0.1 units		lings within the fol +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
1131	12.66	303	0.22	6.58	-373.9	17 2070	5.08	un ough con	ORP LOW
1131		305	0.38	6.58	-366.2		5.08		OKI LOW
	12.70								
1137	12.68	312	0.45	6.59	-374.8		5.08		
1140	12.72	315	0.38	6.60	-371.5				
1143	12.75	315	0.38	6.60	-371.0				
1146	12.79	315	0.37	6.60	-369.5				
SAMPLE CO	LLECTION D	ATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated		~	
(By Numerica	l Order)	Other				<u>^</u>			
Sample Descri	iption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NO SHEEN	MALODOROUS	5	
Deallerte	<b>T</b>	Caral	DO		ODD	T1 * 1*4	DTU	Ferrous iron	Comments/
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	(Fe II)	Observations
1	12.81	315	0.37	6.60	-369.9				
2	12.81	315	0.37	6.60	-369.6				
3	12.83	315	0.36	6.60	-369.7				
4	12.83	315	0.36	6.60	-369.4				
Average:	12.82	315	0.37	6.60	-369.7	#DIV/0!			
QUANTITY	TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE	ГҮРЕ (Circle арр	olicable or write no	on-standard ana	lysis below)	
3		D) (8020) (N	( ) ( )	,	· · · · · ·			WA 🗆	OR 🗆
		( )		/	, , , , , ,	(8141) (Oil & Gre		WA 🗆	OR 🗆
1						(HCO3/CO3) (Cl	) (SO4) (NO3	) (NO2) (F)	
1	(COD) (TOC (Total Cyanid	c) (Total PO4 e) (WAD Cy	, <u>,</u>		) (NH3) (NO3/1	NO2)			
		· · · · ·			$(Cr)$ $(Cu)$ $(E_2)$	Pb) (Mg) (Mn) (N	(i) $(\Delta \sigma)$ $(\mathbf{S}_{\alpha})$ $(\mathbf{T}_{\alpha})$	$(V) (7_n) (U_{\alpha})$	$(\mathbf{K})$ (N ₂ )
									a) (Hardness) (Silica)
	VOC (Boein		, (Du) (DU) (C	(Cu) (CU)		, (112) (1111) (111) (F	-0/ (~~/ (11/ ( * /		a, (marcheos) (onica)
	,	ane Ethene Ac	etylene						
	others								

Comments: ORP VERY LOW, WILL CHECK AT END OF DAY AT OFFICE

Signature:

3/5/2019



Project Name	e:	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5/2019@		1017	
Sample Num	iber:	RGW150S-	190305		Weather:	CLEAR			
Landau Repr	resentative:	DSB							
WATER LEV	EL/WELL/PU	IRGE DATA							
Well Conditio	n:	Secure (YES)	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	5.06	Time:	954	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/ 5 /2019 @	956	End Purge:	Date/Time:	3/5 /2019 @	1018	Gallons Purged:	0.25
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	<b>D.O.</b>	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° <b>F</b> /°Ĉ)	(uS/cm)	( <b>mg/L</b> )	_	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	lls: Stablizatio +/- 3%		ters for three +/- 0.1 units		dings within the fo +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
959	11.83	441	0.32	6.81	-379.1	17 1070	5.05	un ough con	ORP LOW
1002	11.53	445	0.24	6.81	-379.2		5.04		
1005	10.91	444	0.27	6.82	-406.8		5.04		
1008	9.66	439	0.34		-414.1				
1011	7.61	425	0.46	6.81	-427.3				
	7.40	421		6.80	-430.0				
1014	/.40	421	0.48	0.80	-430.0				
SAMPLE CO									
Sample Collec			Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	_	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was		Tap Rinse	DI Water	Dedicated		<b>∽X</b>	
(By Numerica		Other		1	4	<b>**</b>			
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NONS			
								Ferrous iron	Comments/
Replicate	Tomm	Cond	DO	II	ODD				
	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	(Fe II)	Observations
1	(° <b>F</b> /°Ĉ)	(uS/cm)	(mg/L)	•	( <b>mV</b> )	(NTU)	(ft)	(Fe II)	
1	(° <b>F</b> /°Ĉ) 7.31	( <b>uS/cm</b> ) 417	( <b>mg/L</b> ) 0.48	6.80	( <b>mV</b> ) -431.7	(NTU)		(Fe II)	
2	(° <b>F</b> /°Ĉ) 7.31 7.30	( <b>uS/cm</b> ) 417 416	(mg/L) 0.48 0.48	6.80 6.80	(mV) -431.7 -432.4	(NTU)	(ft)	(Fe II)	
2 3	(° <b>F</b> /° <b>Ĉ</b> ) 7.31 7.30 7.28	(uS/cm) 417 416 416	(mg/L) 0.48 0.48 0.48	6.80 6.80 6.80	(mV) -431.7 -432.4 -433.0	(NTU)	(ft)	(Fe II)	
2 3 4	(° <b>F</b> /° <b>Ĉ</b> ) 7.31 7.30 7.28 7.26	(uS/cm) 417 416 416 415	(mg/L) 0.48 0.48 0.48 0.47	6.80 6.80 6.80 6.80	(mV) -431.7 -432.4 -433.0 -433.5	(NTU)	(ft)	(Fe II)	
2 3	(° <b>F</b> /° <b>Ĉ</b> ) 7.31 7.30 7.28	(uS/cm) 417 416 416	(mg/L) 0.48 0.48 0.48	6.80 6.80 6.80	(mV) -431.7 -432.4 -433.0	(NTU)	(ft)	(Fe II)	
2 3 4 Average: QUANTITY	(°F/°Ĉ) 7.31 7.30 7.28 7.26 7.29	(uS/cm) 417 416 416 415 416	(mg/L) 0.48 0.48 0.48 0.47 0.48	6.80 6.80 6.80 6.80 6.80 6.80	(mV) -431.7 -432.4 -433.0 -433.5 -432.7	(NTU)	(ft)	(Fe II)	
2 3 4 Average:	(°F/°Ĉ) <u>7.31</u> <u>7.30</u> <u>7.28</u> <u>7.26</u> <u>7.29</u> <b>TYPICAL A</b> (8260) (8010	(uS/cm) 417 416 416 416 415 416 NALYSIS AL 0) (8020) (N	(mg/L) 0.48 0.48 0.48 0.47 0.48 LOWED PEI WTPH-G) (1	6.80 6.80 6.80 6.80 6.80 R BOTTLE 7 NWTPH-Gx)	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 TYPE (Circle app (BTEX)	(NTU) #DIV/0!	(ft)	(Fe II)	Observations
2 3 4 Average: QUANTITY	(°F/°Ĉ) 7.31 7.30 7.28 7.26 7.29 <b>TYPICAL A</b> (8260) (8010 (8270D) (PA	(uS/cm) 417 416 416 415 416 415 416 NALYSIS AL (NWTPH AH) (NWTPH	(mg/L) 0.48 0.48 0.48 0.47 0.48 LOWED PEI WTPH-G) (1 WTPH-G) (1 -D) (NWTP	6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) (BTEX) (8081)	(NTU) #DIV/0! plicable or write no (8141) (Oil & Gro	(ft)	(Fe II)	Observations
2 3 4 Average: QUANTITY 3	(°F/°Ĉ) <u>7.31</u> <u>7.30</u> <u>7.28</u> <u>7.26</u> <u>7.29</u> <b>TYPICAL A</b> (8260) (8010 (8270D) (PA (9H) (Condu	(uS/cm) 417 416 416 415 416 415 416 NALYSIS AL 0) (8020) (N M) (NWTPH activity) (TDS	(mg/L) 0.48 0.48 0.47 0.48 0.47 0.48 LOWED PE WTPH-G) (I -D) (NWTP ) (TSS) (B	6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) lity) (Alkalinity)	(NTU) #DIV/0! blicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl	(ft)	(Fe II)	Observations
2 3 4 Average: QUANTITY	(°F/°Ĉ) 7.31 7.30 7.28 7.26 7.29 TYPICAL A (8260) (8010 (8270D) (PA (9H) (Condu (COD) (TOC	(uS/cm) 417 416 416 416 415 416 NALYSIS AL 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4	(mg/L) 0.48 0.48 0.48 0.47 0.48 LOWED PEI WTPH-G) (1 WTPH-G) (1 WTPH-G) (1 (NWTP ) (TSS) (Be ) (Total Kiec	6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) (BTEX) (8081)	(NTU) #DIV/0! blicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl	(ft)	(Fe II)	Observations
2 3 4 Average: QUANTITY 3	(°F/°Ĉ) <u>7.31</u> <u>7.30</u> <u>7.28</u> <u>7.26</u> <u>7.29</u> <b>TYPICAL A</b> (8260) (8010 (8270D) (PA (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid	(uS/cm) 417 416 416 415 416 415 416 NALYSIS AL 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 e) (WAD Cya	(mg/L) 0.48 0.48 0.48 0.47 0.48 LOWED PE WTPH-G) (I -D) (NWTP -D) (NWTP -D) (TSS) (Be ) (Total Kiec anide) (Free	6.80 6.80 6.80 6.80 6.80 6.80 6.80 6.80	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 TYPE (Circle ap (BTEX) I-HCID) (8081) lity) (Alkalinity) ) (NH3) (NO3/1	(NTU) #DIV/0! blicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl	(ft)	(Fe II)	Observations Observations OR
2 3 4 Average: QUANTITY 3	(°F/°Ĉ) 7.31 7.30 7.28 7.26 7.29 TYPICAL A (8260) (8010 (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals)	(uS/cm) 417 416 416 416 415 416 0 (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 e) (WAD Cya b) (As) (Sb) (1	(mg/L) 0.48 0.48 0.48 0.47 0.48 0.47 0.48 LOWED PEI WTPH-G) (1 WTPH-G) (1 WTPH-G) (1 (1-D) (NWTP ) (TSS) (Be) ) (Total Kiec anide) (Free - Ba) (Be) (Ca	6.80 6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) lity) (Alkalinity) ) (NH3) (NO3/I (Cr) (Cu) (Fe) (	(NTU) #DIV/0! plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	(ft) 	(Fe II)	Observations Observations OR
2 3 4 Average: QUANTITY 3	(°F/°Ĉ) 7.31 7.30 7.28 7.26 7.29 TYPICAL A (8260) (8010 (8270D) (PA (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals)	(uS/cm) 417 416 416 415 416 415 416 NALYSIS AL 0) (8020) (N AH) (NWTPH 100 (NWT	(mg/L) 0.48 0.48 0.47 0.48 0.47 0.48 LOWED PE WTPH-G) (1 -D) (NWTP ) (TSS) (Be ) (Total Kiec anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.80 6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) lity) (Alkalinity) ) (NH3) (NO3/I (Cr) (Cu) (Fe) (	(NTU) #DIV/0! plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	(ft) 	(Fe II)	Observations
2 3 4 Average: QUANTITY 3	(°F/°Ĉ) 7.31 7.30 7.28 7.26 7.29 TYPICAL A (8260) (8010 (8270D) (PA (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals)	(uS/cm) 417 416 416 416 415 416 0 (8020) (N 41) (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (NWTPH (C) (Total PO4 e) (WAD Cya (As) (Sb) (I etals) (As) (Sb)	(mg/L) 0.48 0.48 0.47 0.48 0.47 0.48 LOWED PE WTPH-G) (1 -D) (NWTP ) (TSS) (Be ) (Total Kiec anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.80 6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) lity) (Alkalinity) ) (NH3) (NO3/I (Cr) (Cu) (Fe) (	(NTU) #DIV/0! plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	(ft) 	(Fe II)	Observations
2 3 4 Average: QUANTITY 3	(°F/°Ĉ) 7.31 7.30 7.28 7.26 7.29 TYPICAL A (8260) (8010 (8270D) (PA (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals)	(uS/cm) 417 416 416 415 416 415 416 NALYSIS AL 0) (8020) (N AH) (NWTPH 100 (NWT	(mg/L) 0.48 0.48 0.47 0.48 0.47 0.48 LOWED PE WTPH-G) (1 -D) (NWTP ) (TSS) (Be ) (Total Kiec anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.80 6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) lity) (Alkalinity) ) (NH3) (NO3/I (Cr) (Cu) (Fe) (	(NTU) #DIV/0! plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	(ft) 	(Fe II)	Observations
2 3 4 Average: QUANTITY 3 1	(°F/°Ĉ) 7.31 7.30 7.28 7.26 7.29 TYPICAL A (8260) (8010 (8270D) (PA (8270D) (PA (8270D) (PA (0) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) (D	(uS/cm) 417 416 416 415 416 415 416 NALYSIS AL 0) (8020) (N AH) (NWTPH 100 (NWT	(mg/L) 0.48 0.48 0.47 0.48 0.47 0.48 LOWED PE WTPH-G) (1 -D) (NWTP ) (TSS) (Be ) (Total Kiec anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.80 6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) lity) (Alkalinity) ) (NH3) (NO3/I (Cr) (Cu) (Fe) (	(NTU) #DIV/0! plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	(ft) 	(Fe II)	Observations
2 3 4 Average: QUANTITY 3 1 1 	(°F/°Ĉ) <u>7.31</u> <u>7.30</u> <u>7.28</u> <u>7.26</u> <u>7.29</u> <b>TYPICAL A</b> (8260) (8010 (8270D) (PA (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) (Dissolv	(uS/cm) 417 416 416 415 416 415 416 NALYSIS AL 0) (8020) (N AH) (NWTPH 100 (NWT	(mg/L) 0.48 0.48 0.47 0.48 0.47 0.48 LOWED PE WTPH-G) (1 -D) (NWTP ) (TSS) (Be ) (Total Kiec anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.80 6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) lity) (Alkalinity) ) (NH3) (NO3/I (Cr) (Cu) (Fe) (	(NTU) #DIV/0! plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	(ft) 	(Fe II)	Observations
2 3 4 Average: QUANTITY 3 1	(°F/°Ĉ) <u>7.31</u> <u>7.30</u> <u>7.28</u> <u>7.26</u> <u>7.29</u> <b>TYPICAL A</b> (8260) (8010 (8270D) (PA (8270D) (PA (9H) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) (Dissolv	(uS/cm) 417 416 416 415 416 415 416 NALYSIS AL 0) (8020) (N AH) (NWTPH 100 (NWT	(mg/L) 0.48 0.48 0.47 0.48 0.47 0.48 LOWED PEI WTPH-G) (1 -D) (NWTP ) (TSS) (Be ) (Total Kiec anide) (Free Ba) (Be) (Ca ) (Ba) (Be) (Ca ) (Ba) (Be) (Ca	6.80 6.80 6.80 6.80 6.80 6.80 6.80 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co) (Ca) (Co)	(mV) -431.7 -432.4 -433.0 -433.5 -432.7 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) lity) (Alkalinity) ) (NH3) (NO3/I (Cr) (Cu) (Fe) (	(NTU) #DIV/0! blicable or write ne (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N ) (Mg) (Mn) (Ni) (A	(ft) 	(Fe II)	Observations

Signature:

DSB \\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\field form pdfs\GW149S



Project Name:		Boeing Renton			Project Number:		0025217.099.099		
Event:		Quarterly March 2019			Date/Time: 3/ 5/2019@		1127		
Sample Number:		RGW252S- 190305			Weather:	CLEAR			
Landau Repr	esentative:	DSB							
WATER LEV	EL/WELL/PU	<b>IRGE DATA</b>							
Well Conditio	n:	Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before l	Purging (ft)	4.91	Time:	1059	Flow through cel	l vol.		GW Meter No.(s	3 2
Begin Purge:	Date/Time:	3/ 5 /2019 0	1100	End Purge:	Date/Time:	3/5 /2019 @	1111	Gallons Purged:	0.25
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Тетр	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(° <b>F</b> /°Ĉ)	(uS/cm)	( <b>mg/L</b> )	_	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	lls: Stablizatio +/- 3%		ters for three +/- 0.1 units		dings within the fo +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
1102						+/- 10 /0		thi ough cen	
1103	11.29	667	0.25	6.76	-414.1		4.93		ORP LOW
1106	10.32	668	0.24	6.77	-412.1		4.93		
1109	8.84	668	0.24	6.78	-415.8		4.93		
SAMPLE CO	LECTION D	АТА							
Sample Collec			Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🗍	Tap Rinse	DI Water	Dedicated		*	
(By Numerica	l Order)	Other				*			
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):		CLOUDY WHIT	TE NONS			
		~ .						<b>.</b>	
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	8.74	665	0.25	6.78	-415.9				
2	8.74	664	0.26	6.78	-416.1				
3	8.74	663	0.26	6.78	-416.5				
4	0.40								
	8.63	663	0.26	6.78	-416.7				
Average:	8.63	663 664	0.26	6.78 6.78	-416.7 -416.3	#DIV/0!			
Average:	8.71	664	0.26	6.78	-416.3				
QUANTITY	8.71	664 NALYSIS AL	0.26 LOWED PE	6.78 <b>R BOTTLE</b> 7	-416.3 <b>FYPE (Circle ap</b> )	#DIV/0!	on-standard ana	¥ ,	
	8.71 <b>TYPICAL A</b> (8260) (8010	664 NALYSIS AL )) (8020) (N	0.26 LOWED PE WTPH-G) (	6.78 <b>R BOTTLE</b> 7 NWTPH-Gx)	-416.3 <b>FYPE (Circle ap)</b> (BTEX)			WA 🗆	OR  OR  OR  OR  OR  OR  OR  OR  OR  OR
QUANTITY	8.71 <b>TYPICAL A</b> (8260) (8010 (8270D) (PA	664 <b>NALYSIS AL</b> )) (8020) (N M) (NWTPH	0.26 LOWED PE WTPH-G) ( I-D) (NWTP	6.78 <b>R BOTTLE</b> 7 NWTPH-Gx) H-Dx) (TPH	-416.3 <b>FYPE (Circle ap)</b> (BTEX)	plicable or write n	ease)	WA 🗆	
QUANTITY	8.71 <b>TYPICAL A</b> (8260) (8010 (8270D) (PA	664 NALYSIS AL )) (8020) (N AH) (NWTPH ctivity) (TDS	0.26 LOWED PE WTPH-G) ( I-D) (NWTP S) (TSS) (B	6.78 <b>R BOTTLE</b> 7 NWTPH-Gx) H-Dx) (TPH OD) (Turbid	-416.3 <b>FYPE (Circle ap</b> (BTEX) I-HCID) (8081)	plicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl	ease)	WA 🗆	
QUANTITY 3	8.71 <b>TYPICAL A</b> (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC	664 NALYSIS AL )) (8020) (N AH) (NWTPH ctivity) (TDS	0.26 LOWED PE WTPH-G) ( I-D) (NWTP G) (TSS) (B I-) (Total Kie	6.78 <b>R BOTTLE</b> NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen)	-416.3 <b>TYPE (Circle ap)</b> (BTEX) (HCID) (8081) ity) (Alkalinity)	plicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl	ease)	WA 🗆	
QUANTITY 3	8.71 <b>TYPICAL A</b> (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals)	664 NALYSIS AL )) (8020) (N AH) (NWTPH ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (	0.26 LOWED PE WTPH-G) ( I-D) (NWTP 5) (TSS) (B 4) (Total Kies anide) (Free Ba) (Be) (Ca	6.78 <b>R BOTTLE</b> T NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	-416.3 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA (NO2) (F)	OR  ) (K) (Na)
QUANTITY 3	8.71 <b>TYPICAL A</b> (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals)	664 <b>NALYSIS AL</b> )) (8020) (N AH) (NWTPH ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (c etals) (As) (Sb	0.26 LOWED PE WTPH-G) ( I-D) (NWTP 5) (TSS) (B 4) (Total Kies anide) (Free Ba) (Be) (Ca	6.78 <b>R BOTTLE</b> T NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	-416.3 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA (NO2) (F)	OR
QUANTITY 3	8.71 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) VOC (Boein	664 <b>NALYSIS AL</b> ) (8020) (N H) (NWTPH ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (1 etals) (As) (Sb g short list)	0.26 LOWED PE WTPH-G) ( I-D) (NWTP 5) (TSS) (B 4) (Total Kies anide) (Free Ba) (Be) (Ca 1) (Ba) (Be) (Ca	6.78 <b>R BOTTLE</b> T NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	-416.3 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA (NO2) (F)	OR  ) (K) (Na)
QUANTITY 3	8.71 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) VOC (Boein	664 <b>NALYSIS AL</b> )) (8020) (N AH) (NWTPH ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (c etals) (As) (Sb	0.26 LOWED PE WTPH-G) ( I-D) (NWTP 5) (TSS) (B 4) (Total Kies anide) (Free Ba) (Be) (Ca 1) (Ba) (Be) (Ca	6.78 <b>R BOTTLE</b> T NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	-416.3 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA (NO2) (F)	OR  ) (K) (Na)
QUANTITY 3	8.71 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) VOC (Boein	664 <b>NALYSIS AL</b> ) (8020) (N H) (NWTPH ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (1 etals) (As) (Sb g short list)	0.26 LOWED PE WTPH-G) ( I-D) (NWTP 5) (TSS) (B 4) (Total Kies anide) (Free Ba) (Be) (Ca 1) (Ba) (Be) (Ca	6.78 <b>R BOTTLE</b> T NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	-416.3 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA (NO2) (F)	OR  ) (K) (Na)
QUANTITY 3	8.71 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) VOC (Boein	664 <b>NALYSIS AL</b> ) (8020) (N H) (NWTPH ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (1 etals) (As) (Sb g short list)	0.26 LOWED PE WTPH-G) ( I-D) (NWTP 5) (TSS) (B 4) (Total Kies anide) (Free Ba) (Be) (Ca 1) (Ba) (Be) (Ca	6.78 <b>R BOTTLE</b> T NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	-416.3 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA (NO2) (F)	OR  ) (K) (Na)
QUANTITY 3 1 1	8.71 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) (Dissolved Metals) VOC (Boein Methane Eth others	664 NALYSIS AL )) (8020) (N AH) (NWTPH ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (2 etals) (As) (Sb g short list) ane Ethene Ac	0.26 LOWED PE WTPH-G) ( I-D) (NWTP 5) (TSS) (B 4) (Total Kies anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca cetylene	6.78 <b>R BOTTLE</b> T NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co)	-416.3 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA (NO2) (F)	OR  ) (K) (Na)
QUANTITY 3 1 1 Duplicate Sam	8.71 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) VOC (Boein Methane Eth others nple No(s):	664 NALYSIS AL )) (8020) (N AH) (NWTPH ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (C etals) (As) (Sb g short list) ane Ethene Ac MSMSD Loc	0.26 LOWED PE WTPH-G) ( I-D) (NWTP 5) (TSS) (B 4) (Total Kies anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca cetylene cetylene	6.78 <b>R BOTTLE</b> T NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co) Ca) (Cd) (Co)	-416.3 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/I (Cr) (Cu) (Fe) ( (Cr) (Cu) (Fe) (Pb	plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA (NO2) (F)	OR  ) (K) (Na)
QUANTITY 3 1 1 Duplicate Sam	8.71 TYPICAL A (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals) (Dissolved Metals) VOC (Boein Methane Eth others nple No(s):	664 NALYSIS AL )) (8020) (N AH) (NWTPH ctivity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (2 etals) (As) (Sb g short list) ane Ethene Ac	0.26 LOWED PE WTPH-G) ( I-D) (NWTP 5) (TSS) (B 4) (Total Kies anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca cetylene cetylene	6.78 <b>R BOTTLE</b> T NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen) Cyanide) ) (Cd) (Co) Ca) (Cd) (Co)	-416.3 <b>TYPE (Circle ap</b> (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/I (Cr) (Cu) (Fe) ( (Cr) (Cu) (Fe) (Pb	plicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA (NO2) (F)	OR  ) (K) (Na)



Project Name	e:	Boeing Renton		Project Number	r:	0025217.099.0	125217.099.099		
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5/2019@		1057	
Sample Num	ber:	RGW253I-	190305		Weather:	CLEAR			
Landau Repr	esentative:	DSB							
WATER LEV	EL/WELL/PU	<b>IRGE DATA</b>							
Well Conditio	n:	Secure (YES)	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	4.94	Time:	1027	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/ 5 /2019 @	1031	End Purge:	Date/Time:	3/ 5 /2019 @	1051	Gallons Purged:	0.25
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	(° <b>F</b> /°Ĉ)	(uS/cm)	(mg/L)	-	( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	lls: Stablizatio +/- 3%		ters for three +/- 0.1 units		lings within the fol +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
1024						1/- 10/0		thi ough cen	ODDIOW
1034	2.68	493	0.57	6.64	-482.4		4.96		ORP LOW
1037	7.14	427	0.32	6.65	-476.2		4.94		
1040	10.42	395	0.27	6.65	-480.7		4.94		
1043	9.51	392	0.34	6.66	-456.0				
1046	9.29	386	0.37	6.66	-447.4				
1049	9.37	385	0.33	6.67	-440.7				
SAMPLE CO									
Sample Collec			Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	_	Tap Rinse	DI Water	Dedicated		<b>7</b>	
(By Numerica		Other		rup runse		×			
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NONS			
Replicate	Temp (°F/°C)	Cond. (uS/cm)	<b>D.O.</b> $(mg/I)$	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
		. ,	(mg/L)		. ,	$(\mathbf{N}\mathbf{I}\mathbf{U})$	(11)	(геп)	Observations
1	9.37	385	0.30	6.67	-440.7				
2	9.37	385	0.29	6.67	-440.4				
3	9.38	385	0.30	6.67	-440.1				
4	9.37	385	0.28	6.67	-440.0				
Average:	9.37	385	0.29	6.67	-440.3	#DIV/0!			
QUANTITY	TVPICAL A	NAT VSIS AT	I OWFD PF	<b>Ρ</b> ΒΟΤΤΙ Ε '	TVPF (Circle and	olicable or write no	n-standard and	lysis helow)	
3		)) (8020) (N				incubic of write in	m-standard and	WA 🗆	OR 🗆
			( )		· · · · ·	(8141) (Oil & Gre	ease)	WA 🗆	OR 🗆
	(pH) (Condu	ctivity) (TDS	5) (TSS) (B	OD) (Turbid	lity) (Alkalinity)	(HCO3/CO3) (Cl	) (SO4) (NO3	) (NO2) (F)	
1	(COD) (TOO	C) (Total PO4	) (Total Kie	dahl Nitrogen	) (NH3) (NO3/1	NO2)			
		e) (WAD Cya	/ .	•					
						Pb) (Mg) (Mn) (N			
			) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein		atulana						
	Methane Eth	ane Ethene Ac	etyiene						
	others								
<u> </u>									
Duplicate San									

Duplicate Sample No(s)

Signature:

Comments:	ORP VERY LOW, WILL CHECK AT END OF DAY AT OFFICE

\\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\field form pdfs\GW149S

DSB



Project Name	e:	Boeing Renton		Project Numbe	r:	0025217.099.099			
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5/2019@		957	
Sample Num	iber:	RGW254S-			Weather:	CLEAR			
Landau Repr	resentative:	DSB			·				
WATER LEV	EL/WELL/PU	IRGE DATA							
Well Conditio	n:	Secure (YES	)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	5.13	Time:	927	Flow through cel	l_vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/ 5 /2019 0	930	End Purge:	Date/Time:	3/5 /2019 @	944	Gallons Purged:	0.25
Purge water di	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	(° <b>F</b> /°Ĉ)	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	Volume (gal)	Observations
	Purge Goa +/- 3%	nls: Stablizatio +/- 3%		ters for three +/- 0.1 units		dings within the fol +/- 10%	llowing limits < 0.3 ft	>/= 1 flow through cell	
022						T/- 10 /0		thi ough cen	ODD I OW
933	10.19	596	0.95	6.63	-372.2		5.13		ORP LOW
936	9.87	580	0.56	6.72	-388.9		5.13		
939	9.37	575	0.55	6.74	-396.7		5.13		
942	8.44	546	0.59	6.77	-409.3				
	·								
SAMPLE CO									
Sample Collec			Bailer		Pump/Pump Type				
Made of:		Stainless Stee		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was		Tap Rinse		Dedicated			
(By Numerica		Other	,,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	rap Kinse					
Sample Descri	·		sheen, etc.):		CLEAR COLOR	LESS NONS			
Sampre Deser	.puon (coror, c	areiaity, easi,							
Replicate	Temp	Cond.	D.O.	pН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(° <b>F</b> /° <b>C</b> )	(uS/cm)	(mg/L)		( <b>mV</b> )	(NTU)	( <b>ft</b> )	(Fe II)	Observations
1	8.46	540	0.58	6.77	-408.1				
2	8.52	535	0.58	6.78	-409.4				
3	8.58	533	0.56	6.78	-410.0				
4	8.63	532	0.54	6.78	-410.4				
Average:	8.55	535	0.57	6.78	-409.5	#DIV/0!			
						plicable or write no	on-standard ana	*	
3	(8260) (8010		WTPH-G) (		· · · · ·	(8141) (Oil & Gre	222)	WA 🗆	OR  OR  OR  OR  OR  OR  OR  OR  OR  OR
						(HCO3/CO3) (Cl			
1	(COD) (TOC				) (NH3) (NO3/		) (504) (1103	) (102) (1)	
		e) (WAD Cy	/ · · · ·	0	, (, (,,,,,	,			
		· · · ·		•	(Cr) (Cu) (Fe) (	Pb) (Mg) (Mn) (N	(i) (Ag) (Se) (T	(I) (V) (Zn) (Hg)	) (K) (Na)
	(Dissolved M	etals) (As) (Sb	) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) $(Cu)$ $(Fe)$ $(Pb)$	(Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein	g short list)							
	Methane Eth	ane Ethene Ac	etylene						
	others								
Duplicate San	nple No(s):								

Signature: DSB

Comments:

ORP VERY LOW, WILL CHECK AT END OF DAY AT OFFICE

\\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\AOC-060 190305 DSB



Even:	Project Nam	ie:	Boeing Ren	iton		Project Numbe	r:	0025217.099.0	99	
Landau Representative:         SEB           WATER LIVEL/PULL/PURGE DATA         Barnaged (NO)         Describe:         (W Meter Na (4 HERON1)           Begin Purge:         Data         Data         (W Meter Na (4 HERON1)         Data           Begin Purge:         Data         200         Find Purge:         Data         (W Meter Na (4 HERON1)         Data           Begin Purge:         Data         Data         Data         Data         (W Meter Na (4 HERON1)         Data           Time         (FFC)         (Store)         D.0.         pH         OBE         Store         Store         Data         Data <td>Event:</td> <td></td> <td>Quarterly N</td> <td>Iarch 2019</td> <td></td> <td>Date/Time:</td> <td>3/ 4/2019@</td> <td>1230</td> <td></td> <td></td>	Event:		Quarterly N	Iarch 2019		Date/Time:	3/ 4/2019@	1230		
WATER. LEVEL.VEL.0PU.RGE.DATA       Damaged (NO)       Describe:	Sample Nun	nber:	RGW163I-	190304		Weather:	CLEAR			
Well Condition:       Secure (VFS)       Damaged (NO)       Describ:       GW Meter No.(sHERON1)         DTW Before Purgin (i)       6.25       Time:       1159       Flow drongh cell vol.       GW Meter No.(sHERON1)       022         Begin Purg:       Date Time:       21.4       201.9       120       Gilloms Purged:       022         Purge water disposed to:       D.0.       pH       OR       Turbidity       Other       SITE TREATMENT SYSTEM         Time       Temp       Cond.       D.0.       pH       OR       Turbidity       DTW       Name (a)         1202       110       27.3       2.26       6.27       31.1       D.0.       6.34       Decreations       Unoregated         1202       12.1       39.6       0.55       6.42       -10.4       6.34       Decreations       Decreat	Landau Rep	resentative:	SRB							
Well Condition:       Secure (VFS)       Damaged (NO)       Describ:       GW Meter No.(sHERON1)         DTW Before Purgin (i)       6.25       Time:       1159       Flow drongh cell vol.       GW Meter No.(sHERON1)       022         Begin Purg:       Date Time:       21.4       201.9       120       Gilloms Purged:       022         Purge water disposed to:       D.0.       pH       OR       Turbidity       Other       SITE TREATMENT SYSTEM         Time       Temp       Cond.       D.0.       pH       OR       Turbidity       DTW       Name (a)         1202       110       27.3       2.26       6.27       31.1       D.0.       6.34       Decreations       Unoregated         1202       12.1       39.6       0.55       6.42       -10.4       6.34       Decreations       Decreat	WATER LEV	/EL/WELL/PU	JRGE DATA							
DTW Refore Purging (f)       6.25       Time:       1120       Flowe through cell yeal.       GW Mater No.(s.HERON)         Begin Purge:       Date/Time:       3/.4. (2019) @       1215       Grand       Date Time:       3/.4. (2019) @       1215       Galows Purget:       0.25         Purge water disposed to:				)	Damaged (N	0)	Describe:			
Begin Purge:         Date/Time:         3.4         7.2019 @         1215         failors Purge.         0.05           Purge water disposed to:         0         55-gad Drum         0         Other Time:         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0<	DTW Before	Purging (ft)			-				GW Meter No.(s	HERON1
Purge water disposed to:         55 spal Drum         Storage Tank         Ground         Other         STET TREATMENT SYSTEM           Time         Temp         Cond.         D.O.         PII         ORP         Turbidity         DTW         Volume (age)         Observations           1203         11.0         272.3         2.26         6.27         31.1         LOW         6.34         Observations         Volume (age)         Observations         Volume (age)         Observations           1203         11.0         272.3         2.26         6.27         31.1         LOW         6.34         Observations           1209         12.1         311.1         0.56         6.22         -10.4         6.34         Observations           1212         12.3         316.4         0.54         6.30         Observations         Observations         Observations           Sample Collected With:         Bailer         Purge Purge Purge Purge Purge         Purge Purgee Purgeee Purgeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee						-		1215	-	
Time         Temp (°F°C)         Cond. (usCrm)         D.O. (mgL)         pII         ORP (mV)         Turbidity (NTU)         DTW (NTU)         Internal Purge Volume (gal)         Comments/ Observations           1203         110         272.3         2.26         6.27         31.1         LOW         6.34           1206         12.1         301.6         0.58         6.21         .48.4         6.34	• •				Č.				-	
Time         CF/C         (mg/L)         (my/L)         (my/L) <td>C</td> <td>-</td> <td>Cond</td> <td>-</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td>	C	-	Cond	-		-				
Purge Goale: Stabilization of Parameters for three consecutive readings within the following timits         >/= 110w           1203         11.0         272.3         2.26         6.27         31.1         10W         6.34           1206         12.1         30.66         0.58         6.21         -8.4         6.34           1209         12.1         311.1         0.56         6.22         -10.4         6.34           1212         12.3         316.4         0.54         6.30         -22.4	Time				рп					
1203       11.0       272.3       2.26       6.27       31.1       IOW       6.34         1206       12.1       309.6       0.58       6.21       -8.4       6.34         1209       12.1       311.1       0.56       6.22       -10.4       6.34         1212       12.3       316.4       0.54       6.30       -22.4		Purge Goa	ls: Stablizatio	on of Paramet		e consecutive rea	dings within the fo		>/= 1 flow	
1206       12.1       309.0       0.58       6.21       -8.4       6.34         1209       12.1       311.1       0.56       6.22       -10.4       6.34         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.54       6.30       -22.4         1211       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       Stainless Steel       PVC       Teflon       Polychylenc       Other       Declicated         1216       Alconox Wash       Tap Rinse       D1 Water       Declicated       Other       Other       Declicated         1216       Alconox Wash       Tap Rinse       D1 Water       Declicated       Other       Other       Other       Other         1223       316.7       0.53       6.30       -23.3       -       Other       Other       Observations <t< td=""><td></td><td>+/- 3%</td><td>+/- 3%</td><td>+/- 10%</td><td>+/- 0.1 units</td><td></td><td></td><td>&lt; 0.3 ft</td><td>through cell</td><td></td></t<>		+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units			< 0.3 ft	through cell	
1209       12.1       311.1       0.56       6.22       -10.4       6.34         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.54       6.30       -22.4         1212       12.3       316.4       0.51       Tap Rinse       D IWater       Dedicated         Boyon Procedure:       Atconox Wash       Tap Rinse       D II Water       Dedicated       Dedicated         Replicate       Temp       Cond.       D.0.       pHI       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.2       316.7       0.53       6.30       -23.3       -23.9	1203	11.0	272.3	2.26	6.27	31.1	LOW	6.34		
1212       12.3       316.4       0.54       6.30       -22.4         SAMPLE COLLECTION DATA         Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       D U Water       Dedicated         Bailer       Other       Dedicated       Deconstruction       Other       Dedicated         Sample Description (color, turbidity, oder, sheen, etc.);       COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS       Comments/         Replicate       Termp       Cond.       D.0,       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.32       -25.0	1206	12.1	309.6	0.58	6.21	-8.4		6.34		
SAMPLE COLLECTION DATA         Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Bacon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         By Numerical Order)       Other       Other       Dedicated       Dedicated       Dedicated         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.30       -23.3	1209	12.1	311.1	0.56	6.22	-10.4		6.34		
SAMPLE COLLECTION DATA         Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Bacon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         By Numerical Order)       Other       Other       Dedicated       Dedicated       Dedicated         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.30       -23.3	1212	12.3	316.4	0.54		-22.4				
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.30       -23.3										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.30       -23.3										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.30       -23.3										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.30       -23.3										
Sample Collected With:       Bailer       Pump/Pump Type DED BLADDER         Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Becon Procedure:       Alconox Wash       Tap Rinse       DI Water       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.30       -23.3										
Made of:       Stainless Steel       PVC       Teflon       Polyethylene       Other       Dedicated         Decon Procedure:       Alconox Wash       Tap Rinse       D I Water       Dedicated       Dedicated         Sample Description (color, turbidity, odor, sheen, etc.):       COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS         Replicate       Temp (US/cm) (US/cm) (mg/L)       ORP (US/cm) (DO (mg/L)       Comments/ (NTU)       OTW       Comments/ Observations         1       12.3       316.7       0.53       6.30       -23.3										
Decon Procedure:       Alconox Wash       Tap Rinse       D Water       Dedicated         (By Numerical Order)       Other       Sample Description (color, turbidity, odor, sheen, etc.):       COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.30       -23.3	-	cted With:		_					<b>—</b>	
(By Numerical Order)       □       Other         Sample Description (color, turbidity, odor, sheen, etc.):       COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS         Replicate       Temp       Cond.       D.O.       pH       ORP       Turbidity       DTW       Ferrous iron       Comments/         1       12.3       316.7       0.53       6.30       -23.3								U Other	Dedicated	
Sample Description (color, turbidity, odor, sheen, etc.):         COLORLESS SLIGHTLY TURBID WITH BROWN PARTICULATES NO/NS           Replicate         Temp (°F/°C)         Cond. (uS/cm)         D.O. (mg/L)         pH         ORP (mV)         Turbidity (NTU)         DTW (ft)         Ferrous iron (°F e II)         Comments/ Observations           1         12.3         316.7         0.53         6.30         -23.3         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - <t< td=""><td></td><td></td><td></td><td>sh 🗌</td><td>Tap Rinse</td><td>DI Water</td><td> Dedicated</td><td></td><td></td><td></td></t<>				sh 🗌	Tap Rinse	DI Water	Dedicated			
Replicate         Temp (°F/°C)         Cond. (uS/m)         D.O. (mg/L)         pH         ORP (mV)         Turbidity (NTU)         DTW (ft)         Ferrous iron (Fe II)         Comments/ Observations           1         12.3         316.7         0.53         6.30         -23.3										
(°FP°C)       (uS/cm)       (ng/L)       (mV)       (NTU)       (ft)       (Fe II)       Observations         1       12.3       316.7       0.53       6.30       -23.3	Sample Desci	ription (color, f	urbidity, odor	, sheen, etc.):	COLORLES	S SLIGHTLY TU	JRBID WITH BRO	WN PARTICUL	LATES NO/NS	
(°F/°C)       (uS/cm)       (mg/L)       (mV)       (NTU)       (ft)       (Fe II)       Observations         1       12.3       316.7       0.53       6.30       -23.3	Replicate	Тетр	Cond.	D.O.	рН	ORP	Turbidity	DTW	<b>Ferrous iron</b>	Comments/
2       12.3       316.9       0.52       6.31       -23.9         3       12.2       317.5       0.53       6.32       -25.0         4       12.2       317.7       0.52       6.32       -25.6         Average:       12.3       317.2       0.53       6.31       -24.5       #DIV/0!         QUANTITY TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         7       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-GX)       (BTEX)       WA       OR         2       (8270D)       (PAH)       (NWTPH-D)       (NWTPH-D)       (8081)       (8141)       (0il & Grease)       WA       OR         2       (8270D)       (TOAL MALYSIS (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (SO4)       (NO3)       (NO2)       (F)         (COD)       (TOC)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Cyanide)       (Free Cyanide)         (Total Cyanide)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb)       (Ba)       (Ba)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb	.1	-			r		•		(Fe II)	Observations
3       12.2       317.5       0.53       6.32       -25.0         4       12.2       317.7       0.52       6.32       -25.6         Average:       12.3       317.2       0.53       6.31       -24.5       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       7       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR       2         2       (8270D)       (PAH)       (NWTPH-D)       (NWTPH-D)       (8081)       (8141)       (Oil & Grease)       WA       OR       2         4       (CDD)       (TOC)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (COD)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)         (Total Quanide)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (TI) (V) (Zn) (Hg) (K) (Na)       (Dissolved Metals) (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (TI) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC       (Boeing short list)       Methane Ethane Ethene Acetylene	1	12.3	316.7	0.53	6.30	-23.3				
3       12.2       317.5       0.53       6.32       -25.0         4       12.2       317.7       0.52       6.32       -25.6         Average:       12.3       317.2       0.53       6.31       -24.5       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       7       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR       2         2       (8270D)       (PAH)       (NWTPH-D)       (NWTPH-D)       (8081)       (8141)       (Oil & Grease)       WA       OR       2         4       (CDD)       (TOC)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (COD)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)         (Total Quaide)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (TI) (V) (Zn) (Hg) (K) (Na)       (Hardness) (Silic:         VOC       (Boeing short list)       Methane Ethane Ethene Acetylene	2	12.3	316.9	0.52	6.31	-23.9				
4       12.2       317.7       0.52       6.32       -25.6         Average:       12.3       317.2       0.53       6.31       -24.5       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)       0       0         7       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       0       0         2       (8270D)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       0       0         (COD)       (TOC)       (Total PO4)       (Total Kiedahl Nitrogen)       (NH3)       (NO3/NO2)       (Total Cyanide)       (WAD Cyanide)       (Free Cyanide)         (Total Quaride)       (WAD Cyanide)       (Free Cyanide)       (Total Metals)       (As)       (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (T1) (V) (Zn) (Hg) (K) (Na)       (Hardness) (Silica         VOC (Boeing short list)       Methane Ethane Ethene Acetylene										
Average:       12.3       317.2       0.53       6.31       -24.5       #DIV/0!         QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         7       (&260)       (&010)       (&020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         2       (&270D)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (&0811)       (&141)       (Oil & Grease)       WA       OR         2       (&270D)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (&0811)       (&141)       (Oil & Grease)       WA       OR       OR         4       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (SO4)       (NO2)       (FF         4       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (SO4)       (NO2)       (FF         4       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (SO4)       (NO2)       (FF         4       (Data       (Mathematic) <td></td>										
QUANTITY       TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)         7       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         2       (8270D)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR       Image: Constraint of the constra										
7       (8260)       (8010)       (8020)       (NWTPH-G)       (NWTPH-Gx)       (BTEX)       WA       OR         2       (8270D)       (PAH)       (NWTPH-D)       (NWTPH-Dx)       (TPH-HCID)       (8081)       (8141)       (Oil & Grease)       WA       OR       Image: Constraint of the c	Average:	12.3	317.2	0.53	6.31	-24.5	#DIV/0!			
2       (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)         (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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others	QUANTITY	TYPICAL A	NALYSIS AI	LLOWED PE	R BOTTLE	TYPE (Circle ap	oplicable or write r	non-standard ar	nalysis below)	
(pH)       (Conductivity)       (TDS)       (TSS)       (BOD)       (Turbidity)       (Alkalinity)       (HCO3/CO3)       (Cl)       (NO3)       (NO2)       (F)         (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)       (Lu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (Tl)       (V)       (Zn)       (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)         (Dissolved Metals)       (As)       (Sb)       (Ba)       (Be)       (Ca)       (Cd)       (Co)       (Cr)       (Cu)       (Fe)       (Pb)       (Mg)       (Mn)       (Ni)       (Ag)       (Se)       (Tl)       (V)       (Zn)       (Hg)       (K)       (Na)       (Na) <td>7</td> <td>(<b>8260</b>) (801</td> <td>)) (8020) (N</td> <td>WTPH-G) (</td> <td>NWTPH-Gx)</td> <td>(BTEX)</td> <td></td> <td></td> <td>WA 🗆</td> <td>OR 🗆</td>	7	( <b>8260</b> ) (801	)) (8020) (N	WTPH-G) (	NWTPH-Gx)	(BTEX)			WA 🗆	OR 🗆
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others	2	(8270D) (PA	AH) (NWTPH	H-D) ( <mark>NWTP</mark>	PH-Dx) (TPH	H-HCID) (8081)	(8141) (Oil & G	rease)	WA 🗆	OR 🗆
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others		1						Cl) (SO4) (NO	3) (NO2) (F)	
(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) (Ca) (Cd) (Co) (Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg) (K) (Na) (Hardness) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others		· · · · ·	/		0	a) (NH3) (NO3/	NO2)			
(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) (Silica         VOC (Boeing short list)         Methane Ethane Ethene Acetylene         others										
VOC (Boeing short list) Methane Ethane Acetylene others										
Methane Ethane Acetylene  others				) (Da) (De) (C	.a) (CU) (CO)	(CI) (CU) (FC) (PI	<i>5)</i> (1818) (1811) (181) (.	ng) (30) (11) (V	<u>י (בווי (חפי (ה) (</u> 1	na) (11a1011058) (S11108
others		, in the second s	Č (	cetylene						
		internatio Dil	Durone / N							
Duplicate Semple No(c):		others								
		nnla Na(a)								

Comments: CAP WAS OFF WHEN MONUMENT OPENED



Project Nam	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4/2019@	1200		
Sample Num	nber:	RGW165I-	190304		Weather:	CLEAR			
Landau Repr	resentative:	SRB							
WATER LEV	EL/WELL/P	URGE DATA							
Well Condition	on:	Secure (YES	)	Damaged (N	0)	Describe:			
DTW Before	Purging (ft)	13.74	Time:	1129	Flow through ce	ll vol.		GW Meter No.(s	s HERON1
Begin Purge:	Date/Time:	3/4 /2019 @	1130	End Purge:	Date/Time:	3/ 4 /2019 @	1145	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
<b>75</b> .	Temp	Cond.	<b>D.O.</b>	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goa	(uS/cm) uls: Stablizatio	(mg/L) on of Parame	ters for three	(mV) e consecutive rea	(NTU) dings within the fo	(ft) llowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1133	12.7	323.3	0.87	6.23	50.2	LOW	13.03		
1136	13.8	334.0	0.82	6.35	-39.7		13.05		
1139	13.8	334.0	0.82	6.35	-40.9		13.05		
			,				15.05		
1142	13.4	332.6	0.81	6.34	-43.3				
SAMPLE CO	LLECTION I	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	e DED BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color,	turbidity, odor,	sheen, etc.):	SLIGHTLY	GRAY AND TU	RBID NO/NS			
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1				C 24	. ,	(1110)	(11)	( <b>FUII</b> )	Obser various
1	13.3	331.9	0.82	6.34	-43.4				
2	13.3	331.3	0.83	6.34	-43.7				
3	13.2	330.5	0.85	6.34	-44.0				
4	13.1	330.1	0.86	6.33	-44.1				
Average:	13.2	331.0	0.84	6.34	-43.8	#DIV/0!			
QUANTITY	TVDICAL A	NAT VEIS AT		р ротті б	TVDE (Circle or	oplicable or write r	on standard ar	alveig holow)	
7		$\begin{array}{c} (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020) \\ (8020$				opincable of write i	ion-stanuaru ar	WA 🗆	OR 🗆
2						(8141) (Oil & Gr	rease)	WA 🗆	OR 🗆
		<i>,</i> , ,		<i>,</i> , ,		(HCO3/CO3) (C		3) (NO2) (F)	on
		<b>8</b> / 1			n) (NH3) (NO3/		, , , , , , , , , , , , , , , , , , , ,	· · · · · · · · · · · · · · · · · · ·	
	(Total Cyanic	le) (WAD Cy	anide) (Free	Cyanide)					
	(Total Metals	) (As) (Sb) (	Ba) (Be) (Ca	a) (Cd) (Co)	(Cr) (Cu) (Fe)	(Pb) (Mg) (Mn) (N	Ni) (Ag) (Se) (	$\Gamma$ l) (V) (Zn) (Hg	g) (K) (Na)
			o) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pe)	b) (Mg) (Mn) (Ni) (	Ag) (Se) (Tl) (V	) (Zn) (Hg) (K) (N	Na) (Hardness) (Silica
	VOC (Boein								
	Methane Eth	nane Ethene Ac	cetylene						
	- (1								
	others								
Duplicate San	nnle $N_0(s)$ .								

Duplicate Sample No(s

Comments:

Signature: SRB



	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4/2019@ 123	31		
Sample Nur	nber:	RGW175I-			Weather:	30'S, SUNNY			
Landau Repr	resentative:	JHA							
WATER LEV	/EL/WELL/PU	JRGE DATA							
Well Condition	on:	Secure (YES	)	Damaged (N	0)	Describe:	FLUSH MOUN	ЛТ	
DTW Before	Purging (ft)	7.16	Time:	1203	Flow through cel	l vol.		GW Meter No.(s	HERON 3
Begin Purge:	Date/Time:	3/ 4/2019 0	@ 1208	End Purge:	Date/Time:	3/ 4 /2019 @ 122	1	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C) Purge Gos	Cond. (uS/cm)	D.O. (mg/L)	pH ters for three	ORP (mV)	Turbidity (NTU) dings within the foll	DTW (ft)	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	+/- 3%		+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1211	12.8	448.5	0.27	6.33	15.1	LOW	6.83	<0.25	
1214	12.9	448.7	0.28	6.34	-1.9		6.97	<0.25	AT LOWEST
1217		447.0	0.28	6.32	-7.9				SETTING
1220	12.6	446.6	0.30	6.33	-12.1				
SAMPLE CO	LLECTION D	ATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED 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									
	iption (color, t	urbidity, odor,	sheen, etc.):	CLOUDY, C	OLORLESS, NO	/NS			
		-							~
Replicate	Temp (°F/°C)	urbidity, odor, Cond. (uS/cm)	sheen, etc.): D.O. (mg/L)	CLOUDY, C	OLORLESS, NO	/NS Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
Replicate	Temp	Cond.	D.O.		ORP	Turbidity			
-	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity			
1	<b>Temp</b> (° <b>F</b> /° <b>C</b> ) 12.7	Cond. (uS/cm) 446.8	D.O. (mg/L) 0.29	<b>рН</b> 6.34	ORP (mV) -12.1	Turbidity			
1 2 3	<b>Temp</b> (°F/°C) <u>12.7</u> <u>12.7</u> <u>12.7</u>	Cond. (uS/cm) 446.8 447.1 445.6	D.O. (mg/L) 0.29 0.28 0.29	рН 6.34 6.34 6.34	ORP (mV) -12.1 -12.3 -12.4	Turbidity			
1 2 3 4	Temp (°F/°C) 12.7 12.7 12.7 12.7 12.7	Cond. (uS/cm) 446.8 447.1 445.6 446.0	D.O. (mg/L) 0.29 0.28 0.29 0.30	рН 6.34 6.34 6.34 6.34	ORP (mV) -12.1 -12.3 -12.4 -12.6	Turbidity (NTU)			
1 2 3 4 Average:	Temp (°F/°C) 12.7 12.7 12.7 12.7 12.7 12.7	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.4	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29	рН 6.34 6.34 6.34 6.34 6.34	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4	Turbidity (NTU) #DIV/0!	(ft)	(Fe II)	
1 2 3 4 Average: QUANTITY	Temp (°F/°C)           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.4 NALYSIS AL	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PE	pH 6.34 6.34 6.34 6.34 6.34 8.BOTTLE 7	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 TYPE (Circle ap	Turbidity (NTU)	(ft)	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 7	Temp (°F/°C) 12.7 12.7 12.7 12.7 12.7 12.7 <b>TYPICAL A</b> (8260) (8010	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.4 NALYSIS AL 0) (8020) (N	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PEI	pH 6.34 6.34 6.34 6.34 6.34 6.34 R BOTTLE 7 NWTPH-Gx)	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 TYPE (Circle ap (BTEX)	Turbidity (NTU) #DIV/0!	(ft)	(Fe II)	Observations
1 2 3 4 Average: QUANTITY	Temp (°F/°C)           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7<	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.4 NALYSIS AL 0) (8020) (N AH) (NWTPH	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PE WTPH-G) (1 I-D) (NWTP	pH 6.34 6.34 6.34 6.34 6.34 6.34 R BOTTLE 7 NWTPH-Gx) H-Dx) (TPH	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 TYPE (Circle ap (BTEX) (BTEX) (8081)	Turbidity (NTU) #DIV/0! blicable or write no (8141) (Oil & Gre	(ft) n-standard ana ase)	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 7	Temp (°F/°C) 12.7 12.7 12.7 12.7 12.7 12.7 12.7 <b>TYPICAL A</b> (8260) (8010 (8270D) (PA (8270D) (PA	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.4 NALYSIS AL 0) (8020) (N MH) (NWTPH activity) (TDS	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PE WTPH-G) (1 I-D) (NWTP S) (TSS) (B0	pH 6.34 6.34 6.34 6.34 6.34 6.34 R BOTTLE 7 NWTPH-Gx) H-Dx) (TPH OD) (Turbid	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 -12.6 -12.4 FYPE (Circle ap (BTEX) (BTEX) (-HCID) (8081) ity) (Alkalinity)	Turbidity (NTU) #DIV/0! blicable or write not (8141) (Oil & Gree (HCO3/CO3) (Cl)	(ft) n-standard ana ase)	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 7	Temp (°F/°C) 12.7 12.7 12.7 12.7 12.7 12.7 12.7 (8260) (8010 (8270D) (PA (8270D) (PA (pH) (Condu (COD) (TOO	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.4 NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PE WTPH-G) (1 I-D) (NWTP S) (TSS) (B0 I-D) (Total Kiec	pH 6.34 6.34 6.34 6.34 6.34 6.34 <b>R BOTTLE 7</b> <b>NWTPH-Gx</b> ) <b>H-Dx</b> ) (TPH OD) (Turbid dahl Nitrogen	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 TYPE (Circle ap (BTEX) (BTEX) (8081)	Turbidity (NTU) #DIV/0! blicable or write not (8141) (Oil & Gree (HCO3/CO3) (Cl)	(ft) n-standard ana ase)	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 7	Temp (°F/°C)           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           (8260) (8010           (8260) (8010           (8270D) (PA           (PH) (Condu           (COD) (TOO           (Total Cyanid)	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.0 446.4 NALYSIS AL 0) (8020) (N MH) (NWTPH activity) (TDS C) (Total PO4 le) (WAD Cy	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PE WTPH-G) (1 I-D) (NWTP S) (TSS) (Bo 4) (Total Kiec anide) (Free	pH <u>6.34</u> <u>6.34</u> <u>6.34</u> <u>6.34</u> <u>6.34</u> <u>6.34</u> <u>6.34</u> <u>R BOTTLE 7</u> <u>NWTPH-Gx</u> ) <u>H-Dx</u> ) (TPH OD) (Turbid dahl Nitrogen) Cyanide)	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 -12.6 -12.4 FYPE (Circle ap (BTEX) (BTEX) (BTEX) (HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1	Turbidity (NTU) #DIV/0! blicable or write not (8141) (Oil & Gree (HCO3/CO3) (Cl) NO2)	(ft) n-standard ana ase) (SO4) (NO3	(Fe II)	Observations OBSERVATIONS OR
1 2 3 4 Average: <b>QUANTITY</b> 7	Temp (°F/°C)           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           (Selettion)           (8010)           (8270D)           (PA           (COD)           (TOC           (Total Cyanid           (Total Metals)	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.0 446.4 NALYSIS AL 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 be) (WAD Cy 0) (As) (Sb) (1)	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PE WTPH-G) (1 H-D) (NWTP G) (TSS) (Be H-D) (NWTP G) (TSS) (Be H-D) (Free Ba) (Be) (Ca	pH 6.34 6.34 6.34 6.34 6.34 6.34 6.34 R BOTTLE 7 NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 -12.6 -12.4 TYPE (Circle ap (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           #DIV/0!           0licable or write no           (8141)         (Oil & Greating (Oil & Greating)))))))))))	(ft) n-standard ana ase) (SO4) (NO3 ) (Ag) (Se) (T	(Fe II)	Observations Observations OR
1 2 3 4 Average: <b>QUANTITY</b> 7	Temp (°F/°C)           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           (8260) (8010           (COD) (TOC           (Total Metals	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.4 NALYSIS AL 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (c) etals) (As) (Sb)	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PE WTPH-G) (1 H-D) (NWTP G) (TSS) (Be H-D) (NWTP G) (TSS) (Be H-D) (Free Ba) (Be) (Ca	pH 6.34 6.34 6.34 6.34 6.34 6.34 6.34 R BOTTLE 7 NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 -12.6 -12.4 TYPE (Circle ap (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           #DIV/0!           0licable or write no           (8141)         (Oil & Greating (Oil & Greating)))))))))))	(ft) n-standard ana ase) (SO4) (NO3 ) (Ag) (Se) (T	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 7	Temp (°F/°C)           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           (Secon) (8010           (8260) (8010           (PA) (Condu           (COD) (TOO           (Total Cyanid           (Dissolved M           VOC (Boein	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.0 446.4 NALYSIS AL 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 be) (WAD Cy be) (WAD Cy c) (As) (Sb) (c) etals) (As) (Sb g short list)	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PEI WTPH-G) (1 H-D) (NWTP S) (TSS) (B0 H-D) (Ca H-D) (Ca H-	pH 6.34 6.34 6.34 6.34 6.34 6.34 6.34 R BOTTLE 7 NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 -12.6 -12.4 TYPE (Circle ap (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           #DIV/0!           0licable or write no           (8141)         (Oil & Greating (Oil & Greating)))))))))))	(ft) n-standard ana ase) (SO4) (NO3 ) (Ag) (Se) (T	(Fe II)	Observations
1 2 3 4 Average: <b>QUANTITY</b> 7	Temp (°F/°C)           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           (Secon) (8010           (8260) (8010           (PA) (Condu           (COD) (TOO           (Total Cyanid           (Dissolved M           VOC (Boein	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.4 NALYSIS AL 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 e) (WAD Cy ) (As) (Sb) (c) etals) (As) (Sb)	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PEI WTPH-G) (1 H-D) (NWTP S) (TSS) (B0 H-D) (Ca H-D) (Ca H-	pH 6.34 6.34 6.34 6.34 6.34 6.34 6.34 R BOTTLE 7 NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 -12.6 -12.4 TYPE (Circle ap (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           #DIV/0!           0licable or write no           (8141)         (Oil & Greating (Oil & Greating)))))))))))	(ft) n-standard ana ase) (SO4) (NO3 ) (Ag) (Se) (T	(Fe II)	Observations
1 2 3 4 Average: QUANTITY 7	Temp (°F/°C)           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           (Secon) (8010           (8260) (8010           (PA) (Condu           (COD) (TOO           (Total Cyanid           (Dissolved M           VOC (Boein	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.0 446.4 NALYSIS AL 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 be) (WAD Cy be) (WAD Cy c) (As) (Sb) (c) etals) (As) (Sb g short list)	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PEI WTPH-G) (1 H-D) (NWTP S) (TSS) (B0 H-D) (Ca H-D) (Ca H-	pH 6.34 6.34 6.34 6.34 6.34 6.34 6.34 R BOTTLE 7 NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 -12.6 -12.4 TYPE (Circle ap (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           #DIV/0!           0licable or write no           (8141)         (Oil & Greating (Oil & Greating)))))))))))	(ft) n-standard ana ase) (SO4) (NO3 ) (Ag) (Se) (T	(Fe II)	Observations Observations OR
1 2 3 4 Average: QUANTITY 7	Temp (°F/°C)           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           12.7           (Secon) (8010           (8260) (8010           (PA) (Condu           (COD) (TOO           (Total Cyanid           (Dissolved M           VOC (Boein	Cond. (uS/cm) 446.8 447.1 445.6 446.0 446.0 446.4 NALYSIS AL 0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 be) (WAD Cy be) (WAD Cy c) (As) (Sb) (c) etals) (As) (Sb g short list)	D.O. (mg/L) 0.29 0.28 0.29 0.30 0.29 LOWED PEI WTPH-G) (1 H-D) (NWTP S) (TSS) (B0 H-D) (Ca H-D) (Ca H-	pH 6.34 6.34 6.34 6.34 6.34 6.34 6.34 R BOTTLE 7 NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide) ) (Cd) (Co)	ORP (mV) -12.1 -12.3 -12.4 -12.6 -12.4 -12.6 -12.4 TYPE (Circle ap (BTEX) I-HCID) (8081) ity) (Alkalinity) ) (NH3) (NO3/1 (Cr) (Cu) (Fe) (	Turbidity (NTU)           #DIV/0!           #DIV/0!           0licable or write no           (8141)         (Oil & Greating (Oil & Greating)))))))))))	(ft) n-standard ana ase) (SO4) (NO3 ) (Ag) (Se) (T	(Fe II)	Observations Observations OR

Comments: WATER LEVEL MEASURED RIGHT AFTER OPENING. PRESSURE DIFFERENCE CAUSED DIFFERENT WATER LEVEL?

3/4/2019



Project Name	e:	Boeing Rent	ton		Project Number:         0025217.099.099				
Event:		Quarterly M	arch 2019		Date/Time:	3/ 4/2019@ 12	56		
Sample Num	ber:	RGW176S-			Weather:	30'S, SUNNY			
Landau Repr	esentative:	JHA			•				
WATER LEV	FI/WFII/PI	IRGE DATA							
WATER LEV Well Conditio		Secure (YES)	)	Damaged (N	O)	Describe:	FLUSH MOUN	JT	
DTW Before I		5.44			Flow through cel			GW Meter No.(s	HERON 3
	0 0 0	3/ 4/2019 @		End Purge:	-	3/ 4 /2019 @ 125	3	Gallons Purged:	
Purge water di			55-gal Drum	Ē	Storage Tank	Ground		SITE TREATM	
i uige water u			-		-				
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
Time			on of Parame		e consecutive read	dings within the fol	lowing limits	>/= 1 flow	Obser various
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1235	12.1	555	0.31	6.31	20.8	LOW	5.61	<0.25	TURN TO
1238	11.8	552	0.38	6.31	-17.6		5.53		LOWEST CPM
1241	11.8	552	0.33	6.32	-31.9				
1244		549		6.32	-43.9			0.25	
	11.8		0.54					0.23	
1247	11.8	549	0.38	6.32	-49.6		5.58		
1250	11.8	549	0.38	6.32	-50.0				
1252	11.9	549	0.39	6.32	-50.4				
SAMPLE CO	LLECTION D	ATA							
Sample Collec	ted With:		Bailer		Pump/Pump Type	DED BLADDER			
Made of:		Stainless Stee	el 🗖	PVC	Teflon	Polyethylene	D Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descri	iption (color, t	urbidity, odor,	sheen, etc.):	CLEAR, SL	IGHT YELLOW 7	FINT, NO/NS			
Replicate	Тетр	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	(°F/°C)	(uS/cm)	(mg/L)	рп	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	11.8	549	0.39	6.32	-50.6				
2	11.8	549	0.40	6.32	-51.0				
3	11.8	549	0.41	6.32	-51.2				
4	11.8	549	0.40	6.32	-51.5				
Average:	11.8	549	0.40	6.32	-51.1	#DIV/0!	5.82		
QUANTITY	TYPICAL A	NALYSIS AL	LOWED PE	R BOTTLE '	TYPE (Circle and	plicable or write no	on-standard ana	lysis below)	
7		)) (8020) (N						WA 🗆	OR 🗆
2						(8141) (Oil & Gre	ease)	WA 🗆	OR
	(pH) (Condu	ctivity) (TDS	b) (TSS) (B	OD) (Turbid	lity) (Alkalinity)	(HCO3/CO3) (Cl	) (SO4) (NO3	) (NO2) (F)	
	(COD) (TOO	C) (Total PO4	) (Total Kie	dahl Nitrogen	) (NH3) (NO3/1	NO2)			
	, i i i i i i i i i i i i i i i i i i i	e) (WAD Cya	/ .						
	•					Pb) (Mg) (Mn) (N			
	•		) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	) (Mg) (Mn) (Ni) (A	Ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N	a) (Hardness) (Silica)
	VOC (Boein	e í	atrilara						
	wietnane Eth	ane Ethene Ac	etyiene						
	others								
<u></u>									
Duplicate San	nle $No(s)$ .								

Comments: Signature:

JHA



Project Name	e:	Boeing Renton		Project Numbe	r:	0025217.099.099			
Event:		Quarterly M	larch 2019		Date/Time:	3/4 /2019@		1217	
Sample Num	ber:	RGW177I-	190304		Weather:	CLEAR			
Landau Repr	esentative:	DSB							
WATER LEV	EL/WELL/PU	<b>RGE DATA</b>							
Well Conditio	n:	Secure (YES	)	Damaged (N	O)	Describe:	flush mount		
DTW Before I	Purging (ft)	7.79	Time:	1145	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/ 4 /2019 0	<u>e</u> 1153	End Purge:	Date/Time:	3/ 4 /2019 @	1208	Gallons Purged:	0.25
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATME	ENT SYSTEM
	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goa	(uS/cm) uls: Stablizatio	(mg/L) on of Parame	ters for three	(mV) e consecutive read	(NTU) dings within the fo	(ft) llowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1156	11.09	660	0.84	6.46	-32.9		7.57		
1159	11.66	644	0.72	6.43	-27.4		7.55		
1202	11.30	645	0.71	6.43	-23.5		7.53		
1205	11.15	644	0.64	6.42	-20.0				
1208	10.71	644	0.67	6.44	-21.9				
SAMPLE CO	LLECTION D	ATA							
Sample Collec			Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Ste	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated		~~	
(By Numerica	l Order)	Other				~~			
Sample Descri	iption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NONS			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(°F/°C)	(uS/cm)	(mg/L)	<b>r</b>	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	10.55	645	0.68	6.44	-21.6				
2	10.49	645	0.66	6.43	-21.1				
3	10.43	645	0.69	6.43	-21.0				
4	10.37	645	0.70	6.43	-21.0				
Average:	10.46	645	0.68	6.43	-21.2	#DIV/0!			
-						plicable or write no	n standard and	lucic holow)	
$\frac{QUANIIIY}{7}$		$\frac{(NALYSISAL}{(NALYSIS}) (8020) (N$				plicable of write ho	on-standard ana	WA	OR 🗆
2						(8141) (Oil & Gro	ease)	WA 🗆	OR 🗆
		· · · ·	, ```	( )	, <u>,</u> , ,	(HCO3/CO3) (Cl	,		
	(COD) (TOO	C) (Total PO-	) (Total Kie	dahl Nitrogen	) (NH3) (NO3/1	NO2)			
		e) (WAD Cy							
						$\frac{Pb}{Mg} (Mg) (Mn) (N)$			
	(Dissolved M		) (Ba) (Be) (C	.a) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb	9) (Mg) (Mn) (N1) (A	4g) (Se) (TI) (V)	(Zn) (Hg) (K) (Na)	a) (Hardness) (Silica)
		o chart neri							
	VOC (Boein		etylene						
	VOC (Boein	ane Ethene Ac	etylene						
	VOC (Boein		eetylene						
	VOC (Boein		etylene						
Duplicate Sam	VOC (Boein Methane Eth others		retylene						

Signature:

DSB



Project Name	e:	Boeing Renton		Project Numbe	r:	0025217.099.099			
Event:		Quarterly M	arch 2019		Date/Time:	3/4 /2019@		1247	
Sample Num	ber:	RGW178S-	190304		Weather:	CLEAR			
Landau Repr	resentative:	DSB							
WATER LEV	EL/WELL/PU	IRGE DATA							
Well Conditio	n:	Secure (YES)	)	Damaged (N	O)	Describe:	flush mount		
DTW Before	Purging (ft)	8.12	Time:	1220	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/ 4 /2019 @	1221	End Purge:	Date/Time:	3/ 4 /2019 @	1239	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATME	ENT SYSTEM
<b>T</b> .	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goa	(uS/cm) uls: Stablizatio	(mg/L) on of Parame	ters for three	(mV) e consecutive read	(NTU) dings within the fo	(ft) llowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1224	12.69	486	0.55	6.42	-23.2		8.16		
1227	12.42	495	0.34	6.55	-38.5		8.12		
1230	12.20	512	0.35	6.65	-47.2		8.12		
1233	12.49	513	0.35	6.59	-42.7				
1236	12.62	514	0.35	6.64	-39.3				
SAMPLE CO	LLECTION D	ATA							
Sample Collec			Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	h 🗍	Tap Rinse	DI Water	Dedicated		~~	
(By Numerica	l Order)	Other				·^			
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NONS			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(° <b>F</b> /° <b>C</b> )	(uS/cm)	(mg/L)	<b>r</b>	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	12.64	513	0.33	6.66	-40.4				
2	12.64	513	0.34	6.67	-40.3				
3	12.66	513	0.33	6.67	-40.2				
4	12.68	513	0.33	6.68	-40.3				
Average:	12.66	513	0.33	6.67	-40.3	#DIV/0!			
QUANTITY				ρ βωττι ε '		olicable or write no	on standard and	lycic bolow)	
QUANTITY 7		$\frac{(NALYSISAL}{(N)} (8020) (N)$				oncable of write no	on-standard ana	WA 🗆	OR 🗆
2						(8141) (Oil & Gro	ease)	WA 🗆	OR 🗆
		<i>(</i> )	/ .	<i>,</i> , ,	, <u>,</u> , ,	(HCO3/CO3) (Cl	,		
	(COD) (TOO	C) (Total PO4	) (Total Kie	dahl Nitrogen	) (NH3) (NO3/1	NO2)			
		e) (WAD Cy							
						Pb) (Mg) (Mn) (N			
	(Dissolved M VOC (Boein		) (Ba) (Be) (C	(Cd) (Co)	(Cr) (Cu) (Fe) (Pb	(Mg) (Mn) (Ni) (A)	Ag) (Se) (TI) (V)	(Zn) (Hg) (K) (Na	a) (Hardness) (Silica)
	```	g snort list) ane Ethene Ac	etylene						
	others								
Duplicate San	nple No(s).								

Signature:

DSB



Project Name	e:	Boeing Ren	ton		Project Numbe	r:	0025217.099.09	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/4 /2019@	1117		
Sample Num	ber:	RGW179I-	190304		Weather:	CLEAR			
Landau Repr	esentative:	DSB							
WATER LEV	EL/WELL/PU	RGE DATA							
Well Conditio	n:	Secure (YES)	Damaged (N	O)	Describe:	flush mount		
DTW Before	Purging (ft)	6.31	Time:	1042	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:		<u>é</u> 1047	End Purge:	Date/Time:	3/ 4 /2019 @	1104	Gallons Purged:	0.5
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATME	ENT SYSTEM
Time	Temp	Cond.	D.O. $(m \sigma/\mathbf{I})$	pН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goa	(uS/cm) lls: Stablizatio	(mg/L) on of Parame	ters for three	(mV) e consecutive read	(NTU) dings within the fo	(ft) llowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
1050	10.85	490	0.53	6.47	0.7		6.14		
1053	10.31	455	0.42	6.48	4.0		6.13		
1056	10.17	439	0.40	6.49	3.1		6.14		
1059	10.09	429	0.36	6.49	2.4				
1102	10.13	418	0.36	6.50	0.1				
SAMPLE CO	LLECTION D	ATA							
Sample Collec	ted With:		Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated		X	
(By Numerica	l Order)	Other							
Sample Descr	iption (color, t	urbidity, odor,	sheen, etc.):		CLEAR COLOR	LESS NONS			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Ferrous iron	Comments/
	(° F /° C)	(uS/cm)	(mg/L)		(mV)	(NTU)	(ft)	(Fe II)	Observations
1	10.15	417	0.34	6.52	-5.1				
2	10.16	417	0.33	6.53	-5.9				
3	10.16	417	0.33	6.53	-6.1				
4	10.15	417	0.33	6.53	-6.0				
Average:	10.16	417	0.33	6.53	-5.8	#DIV/0!			
-						olicable or write no	on standard and	lysis holow)	
		$\frac{(AL 1313 AL}{(N 200)} $				Sincable of write in	Jii-Stanuaru ana		OR 🗆
2						(8141) (Oil & Gro	ease)		OR 🗆
						(HCO3/CO3) (CI) (NO2) (F)	
) (NH3) (NO3/1	NO2)			
		e) (WAD Cy					Th / A \ /		
						$\frac{Pb}{Mg} (Mg) (Mn) (Ni) (Ni) (Mg) (Mg) (Mg) (Mg) (Mg) (Mg) (Mg) (Mg$			
	VOC (Boein) (Da) (Be) (C	.a) (CU) (CO)	(CI) (CU) (Fe) (PC	(1 vig) (1 viii) (1 vi) (A	(30)(11)(V)	(کוו) (ng) (K) (Na	a) (Hardness) (Silica)
		ane Ethene Ac	etylene						
			-						
	others								
Duplicate San	ple No(s):								

Signature:



Project Name	e:	Boeing Rente	on		Project Number	:	0025217.099.0	99	
Event:		Quarterly Ma	rch 2019		Date/Time:	3/4 /2019@		1037	
Sample Num	iber:	RGW180S-	190304		Weather:	CLEAR			
Landau Repr	resentative:	DSB							
WATER LEV	EL/WELL/PU	RGE DATA							
Well Conditio	n:	Secure (YES)		Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	6.62	Time:	1004	Flow through cell	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/ 4 /2019 @	1008	End Purge:	Date/Time:	3/ 4 /2019 @ 102:	5	Gallons Purged:	0.5
Purge water di	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 /°Ĉ)	(uS/cm)	(mg/L)	-	(mV)	(NTU)	(ft)	Volume (gal)	Observations
	Purge Goa +/- 3%	ls: Stablization +/- 3%		ters for three +/- 0.1 units		lings within the foll +/- 10%	lowing limits < 0.3 ft	>/= 1 flow	
						+/- 10%		through cell	
1011	11.13	309	1.02	6.45	-1.7		6.16		
1014	10.50	305	0.79	6.47	-3.1		6.13		
1017	10.26	304	0.66	6.46	0.0		6.12		
1020	10.26	304	0.60	6.45	1.0				
1023	10.27	303	0.53	6.41	2.2				
	·								
	·								
SAMPLE CO	LI FCTION D	<u></u>							
Sample Collec			Bailer		Pump/Pump Type	BLADDER			
Made of:		Stainless Steel		PVC		Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Wash	_	Tap Rinse	DI Water	Dedicated			
(By Numerica		Other		- · r - · · · ·					
Sample Descr	intion (solor t								
	iption (color, t	urbidity, odor, s	sheen, etc.):		CLEAR COLOR	LESS NONS			
	iption (color, t	urbidity, odor, s	sheen, etc.):		CLEAR COLOR	LESS NONS			
Replicate	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW (ft)	Ferrous iron	Comments/
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	•	ORP (mV)		DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
	Temp	Cond. (uS/cm) 303	D.O. (mg/L) 0.52	рН 6.41	ORP (mV) -0.3	Turbidity (NTU)		(Fe II)	
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	•	ORP (mV)	Turbidity (NTU)	(ft)	(Fe II)	
Replicate	Temp (° F /° C) 10.27	Cond. (uS/cm) 303	D.O. (mg/L) 0.52	6.41	ORP (mV) -0.3	Turbidity (NTU)	(ft)	(Fe II)	
Replicate 1 2	Temp (° F /° C) <u>10.27</u> 10.28	Cond. (uS/cm) 303 303	D.O. (mg/L) 0.52 0.54	6.41 6.42	ORP (mV) -0.3 -1.7	Turbidity (NTU)	(ft)	(Fe II)	
Replicate 1 2 3	Temp (°F/°C) 10.27 10.28 10.32	Cond. (uS/cm) 303 303 303	D.O. (mg/L) 0.52 0.54 0.52	6.41 6.42 6.42	ORP (mV) -0.3 -1.7 -1.6	Turbidity (NTU)	(ft)	(Fe II)	
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30	Cond. (uS/cm) 303 303 303 303 303	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52	6.41 6.42 6.42 6.42 6.42 6.42	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3	Turbidity (NTU) #DIV/0!	(ft)	(Fe II)	
Replicate 1 2 3 4 Average: QUANTITY	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI	Cond. (uS/cm) 303 303 303 303 303 NALYSIS ALI	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app	Turbidity (NTU)	(ft)	(Fe II)	Observations
Replicate 1 2 3 4 Average:	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010	Cond. (uS/cm) 303 303 303 303 303 NALYSIS ALI)) (8020) (NV	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE 7	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX)	Turbidity (NTU) #DIV/0!	(ft)	(Fe II)	
Replicate 1 2 3 4 Average: QUANTITY 7	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010 (8270D) (PA	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI)) (8020) (NV H) (NWTPH-	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.52 0.51 0.52 0.52 0.52 0.51 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE 7 NWTPH-GX) H-DX) (TPH	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081)	Turbidity (NTU) #DIV/0!	(ft) 	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010 (8270D) (PA (pH) (Condu	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI 0) (8020) (NV .H) (NWTPH- ctivity) (TDS)	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.51 0.52 0.52 0.51 0.52 0.52 0.52 0.51 0.52 0.52 0.52 0.52 0.51 0.52 0.52 0.52 0.54 0.52 0.52 0.52 0.54 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-GX H-DX) (TPH OD) (Turbid	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081)	Turbidity (NTU) #DIV/0! dicable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl)	(ft) 	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI 0) (8020) (NV .H) (NWTPH- ctivity) (TDS)	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.51 0.52 0.52 0.51 0.52 0.52 0.52 0.51 0.52 0.52 0.51 0.52 0.51 0.52 0.52 0.51 0.52 0.52 0.52 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-G x) H-D x) (TPH OD) (Turbid dahl Nitrogen	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 FYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)	Turbidity (NTU) #DIV/0! dicable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl)	(ft) 	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010) (8270D) (PH) (Condu (COD) (Total Cyanid) (Total Metals)	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI 0) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya 0) (As) (Sb) (B	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-G x) H-D x) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (F	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010 (8270D) (PA (PH) (Condu (COD) (TOC (Total Cyanid) (Total Metals) (Dissolved Metals)	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI 0) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya b) (As) (Sb) (B etals) (As) (Sb)	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-G x) H-D x) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (F	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010) (8270D) (PH) (Condu (COD) (Total Cyanid) (Dissolved Med) VOC (Boein)	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI)) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya e) (WAD Cya b) (As) (Sb) (B) ctals) (As) (Sb)	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-G x) H-D x) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (F	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010) (8270D) (PH) (Condu (COD) (Total Cyanid) (Dissolved Med) VOC (Boein)	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI 0) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya b) (As) (Sb) (B etals) (As) (Sb)	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-G x) H-D x) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (F	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010) (8270D) (PH) (Condu (COD) (Total Cyanid) (Dissolved Med) VOC (Boein)	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI)) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya e) (WAD Cya b) (As) (Sb) (B) ctals) (As) (Sb)	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-G x) H-D x) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (F	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7 2	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010) (8270D) (PH) (Condu (COD) (Total Cyanid) (Dissolved Med) VOC (Boein)	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI)) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya e) (WAD Cya b) (As) (Sb) (B) ctals) (As) (Sb)	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-G x) H-D x) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (F	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7 2	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010 (8270D) (PA (PH) (Condu (COD) (TOC (Total Metals) (Dissolved Metals) (Dissolved Metals) others	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI 0) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya e) (WAD Cya b) (As) (Sb) (B etals) (As) (Sb) g short list) ane Ethene Acce	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.51 0.52 COWED PEI VTPH-G) (1 D) (NWTP (TSS) (B0 (Total Kiec nide) (Free a) (Be) (Ca (Ba) (Be) (Ca (Ba) (Be) (Ca	6.41 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-GX) H-DX) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co) (Co) (Co) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (F	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7 2	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010 (8270D) (PA (PH) (Condu (COD) (TOC (Total Metals) (Dissolved Metals) (Dissolved Metals) others	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI)) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya e) (WAD Cya b) (As) (Sb) (B) ctals) (As) (Sb)	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.51 0.52 COWED PEI VTPH-G) (1 D) (NWTP (TSS) (B0 (Total Kiec nide) (Free a) (Be) (Ca (Ba) (Be) (Ca (Ba) (Be) (Ca	6.41 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-GX) H-DX) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co) (Co) (Co) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (F	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7 2 Duplicate San Comments:	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010 (8270D) (PA (PH) (Condu (COD) (TOC (Total Metals) (Dissolved Metals) (Dissolved Metals) others	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI 0) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya b) (As) (Sb) (B) etals) (As) (Sb) g short list) ane Ethene Acce Duplicate Loc	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.51 0.52 COWED PEI VTPH-G) (1 D) (NWTP (TSS) (B0 (Total Kiec nide) (Free a) (Be) (Ca (Ba) (Be) (Ca (Ba) (Be) (Ca	6.41 6.42 6.42 6.42 6.42 R BOTTLE NWTPH-GX) H-DX) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co) (Co) (Co) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (F	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni) (A (Mg) (Mn) (Ni) (A	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T g) (Se) (T1) (V)	(Fe II)	Observations
Replicate 1 2 3 4 Average: QUANTITY 7 2	Temp (°F/°C) 10.27 10.28 10.32 10.34 10.30 TYPICAL AI (8260) (8010) (8270D) (PA) (DOD) (TOC) (Total Cyanid) (Dissolved Methane Ethen) others nple No(s):	Cond. (uS/cm) 303 303 303 303 303 303 NALYSIS ALI 0) (8020) (NV H) (NWTPH- ctivity) (TDS) C) (Total PO4) e) (WAD Cya 0) (As) (Sb) (B etals) (As) (Sb) (B etals) (As) (Sb) g short list) ane Ethene Acce Duplicate Loc	D.O. (mg/L) 0.52 0.54 0.52 0.51 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	6.41 6.42 6.42 6.42 6.42 R BOTTLE R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co) Ca) (Cd) (Co)	ORP (mV) -0.3 -1.7 -1.6 -1.4 -1.3 TYPE (Circle app (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/N (Cr) (Cu) (Fe) (H (Cr) (Cu) (Fe) (Pb)	Turbidity (NTU) #DIV/0! #DIV/0! licable or write no (8141) (Oil & Gre (HCO3/CO3) (Cl) NO2) Pb) (Mg) (Mn) (Ni	(ft) n-standard ana ase)) (SO4) (NO3 i) (Ag) (Se) (T g) (Se) (T1) (V) 3/4/2019	(Fe II) 	Observations



Project Name	e:	Boeing Rent	on		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	arch 2019		Date/Time:	3/ 5/2019@		817	
Sample Num	ber:	RGW189S-	190305		Weather:	CLEAR			
Landau Repr	esentative:	DSB							
WATER LEV	EL/WELL/PU	JRGE DATA							
Well Conditio		Secure (YES))	Damaged (N	0)	Describe:			
DTW Before l	Purging (ft)	6.64	Time:	•	Flow through cel	l vol.		GW Meter No.(s	2
		3/ 5 /2019 @			-	3/ 5 /2019 @	811	Gallons Purged:	
Purge water di			55-gal Drum	, Č	Storage Tank	Ground		SITE TREATM	
C	Tomm		D.O.		ORP	Turbidity	DTW		Comments/
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	(mV)	(NTU)	(ft)	Internal Purge Volume (gal)	Observations
		als: Stablizatio	on of Parame			lings within the fo		>/= 1 flow	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft	through cell	
753	8.74	1191	1.32	4.76	-544.1		6.87		ORP LOW
756	8.19	977	0.97	4.83	-537.5		6.84		
759	7.08	856	0.84	4.91	-534.7		6.81		
802	6.81	818	0.81	4.95	-532.9				
805	6.25	705	0.72	5.08	-561.3				
808	6.05	649	0.67	5.15	-536.8				
000	0.03	049	0.07	5.15	-550.8				
SAMPLE CO Sample Collect			Bailer		Dump/Dump Type				
Made of:		الیا Stainless Stee		PVC	Pump/Pump Type	DLADDER Polyethylene	C Other	Dedicated	
Decon Proced	ure:	Alconox Was	_	Tap Rinse		<u> </u>		Dedicated	
(By Numerica		Other	h 📋	Tap Killse	DI Water	Dedicated			
	<i>'</i>	urbidity, odor,	sheen etc.).		CLEAR COLOR	LESS NO SHEEN	FOULODOR		
Sumple Deser		urblaity, odor,	-		CLL/ IK COLOI				
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	6.00	641	0.66	5.15	-536.1				
2	6.01	634	0.65	5.16	-534.0				
3	6.02	629	0.64	5.18	-532.5				
4	6.01	626	0.65	5.20	-531.3				
Average:	6.01	633	0.65	5.17					
Average.	0.01					#DIV/0!			
					-533.5	#DIV/0!			
		NALYSIS AL	LOWED PE	R BOTTLE '	ГҮРЕ (Circle apj	#DIV/0!	on-standard ana		
7	(8260) (8010	NALYSIS AL 0) (8020) (N	LOWED PE WTPH-G) (R BOTTLE (NWTPH-Gx)	ГҮРЕ (Circle apj (BTEX)	plicable or write no		WA 🗆	
	(8260) (8010 (8270D) (PA	NALYSIS AL 0) (8020) (N AH) (NWTPH	LOWED PE WTPH-G) (-D) (NWTP	R BOTTLE (NWTPH-Gx) H-Dx) (TPH	FYPE (Circle ap) (BTEX) I-HCID) (8081)	olicable or write no (8141) (Oil & Gro	ease)	WA 🗆	OR OR OR OR OR OR OR OR OR OR
7 2	(8260) (8010 (8270D) (PA (pH) (Condu	NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B ¹	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)	olicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl	ease)	WA 🗆	
7	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC	NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B ¹) (Total Kiew	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen	FYPE (Circle ap) (BTEX) I-HCID) (8081)	olicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl	ease)	WA 🗆	
7 2	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid	NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 le) (WAD Cya	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B) (Total Kiee anide) (Free	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/1	olicable or write no (8141) (Oil & Gro (HCO3/CO3) (Cl	ease) I) (SO4) (NO3	WA WA (NO2) (F)	OR 🗆
7 2	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals)	NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 le) (WAD Cya) (As) (Sb) (I	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B ⁴) (Total Kied anide) (Free Ba) (Be) (Ca	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/I (Cr) (Cu) (Fe) (olicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA) (NO2) (F)) (V) (Zn) (Hg)	OR 🗆
7 2	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 active) (VAD Cya b) (As) (Sb) (I actials) (As) (Sb g short list)	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B) (Total Kiee anide) (Free Ba) (Be) (Ca) (Ba) (Be) (Ca	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/I (Cr) (Cu) (Fe) (olicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA) (NO2) (F)) (V) (Zn) (Hg)	OR OR (K) (Na)
7 2	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	NALYSIS AL) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 le) (WAD Cya) (As) (Sb) (I etals) (As) (Sb	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B) (Total Kiee anide) (Free Ba) (Be) (Ca) (Ba) (Be) (Ca	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/I (Cr) (Cu) (Fe) (olicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA) (NO2) (F)) (V) (Zn) (Hg)	OR OR (K) (Na)
7 2	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 active) (VAD Cya b) (As) (Sb) (I actials) (As) (Sb g short list)	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B) (Total Kiee anide) (Free Ba) (Be) (Ca) (Ba) (Be) (Ca	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/I (Cr) (Cu) (Fe) (olicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA) (NO2) (F)) (V) (Zn) (Hg)	OR OR (K) (Na)
	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved Methane Eth Methane Eth	NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 active) (VAD Cya b) (As) (Sb) (I actials) (As) (Sb g short list)	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B) (Total Kiee anide) (Free Ba) (Be) (Ca) (Ba) (Be) (Ca	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/I (Cr) (Cu) (Fe) (olicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA) (NO2) (F)) (V) (Zn) (Hg)	OR OR (K) (Na)
	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved Metals) VOC (Boein	NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 active) (VAD Cya b) (As) (Sb) (I actials) (As) (Sb g short list)	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B) (Total Kiee anide) (Free Ba) (Be) (Ca) (Ba) (Be) (Ca	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/I (Cr) (Cu) (Fe) (olicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA) (NO2) (F)) (V) (Zn) (Hg)	OR OR (K) (Na)
	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOC (Total Cyanid (Total Metals (Dissolved Ma VOC (Boein Methane Eth others	NALYSIS AL D) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4 active) (VAD Cya b) (As) (Sb) (I actials) (As) (Sb g short list)	LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B) (Total Kied anide) (Free Ba) (Be) (Ca) (Ba) (Be) (C etylene	R BOTTLE NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co)	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/I (Cr) (Cu) (Fe) (olicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease) 1) (SO4) (NO3 1i) (Ag) (Se) (T	WA WA) (NO2) (F)) (V) (Zn) (Hg)	OR OR (K) (Na)
	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanid (Total Metals (Dissolved M VOC (Boein Methane Eth others	NALYSIS AL (NWTPH (NWTPH (NWTPH (TDS (Total PO4 () (Total PO4 () (Total PO4 () (As) (Sb) (I () (As) (Sb) (I () (As) (Sb) (LOWED PE WTPH-G) (-D) (NWTP) (TSS) (B) (Total Kied anide) (Free Ba) (Be) (Ca) (Ba) (Be) (Ca) (Ba) (Be) (Ca etylene	R BOTTLE 7 NWTPH-Gx) H-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)) (Cd) (Co) (Ca) (Co) (Co)	FYPE (Circle ap) (BTEX) I-HCID) (8081) ity) (Alkalinity)) (NH3) (NO3/I (Cr) (Cu) (Fe) (0 (Cr) (Cu) (Fe) (Pb)	olicable or write no (8141) (Oil & Gra (HCO3/CO3) (Cl NO2) Pb) (Mg) (Mn) (N	ease)) (SO4) (NO3 (ii) (Ag) (Se) (T Ag) (Se) (Tl) (V)	WA WA) (NO2) (F)) (V) (Zn) (Hg)	OR OR (K) (Na)



Project Name	e:	Boeing Ren	ton		Project Number		0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4/2019@ 115	56		
Sample Num	ber:	RGW207S-	190304		Weather:	30'S, SUNNY			
Landau Repr	esentative:	JHA			-				
WATER LEV	EL/WELL/PU	IRGE DATA							
Well Condition	n:	Secure (YES))	Damaged (N	0)	Describe:	FLUSH MOUN	ТТ	
DTW Before I	Purging (ft)	6.43	Time:	1128	Flow through cel	l vol.		GW Meter No.(HERON 3
Begin Purge:	Date/Time:	3/ 4/2019 @	@ 1133	End Purge:	Date/Time:	3/ 4 /2019 @ 1154	4	Gallons Purged:	0.75
Purge water di	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C) Purge Goa	Cond. (uS/cm)	D.O. (mg/L)	pH ters for three	ORP (mV)	Turbidity (NTU) lings within the fol	DTW (ft) lowing limits	Internal Purge Volume (gal) >/= 1 flow	Comments/ Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1136	11.9	340.3	0.31	6.71	13.4	LOW	6.43	< 0.25	
1139	11.9	328.5	0.28	6.71	-25.1			<0.25	
1142	11.9	325.1	0.26	6.70	-31.5		6.43	0.25	
1145	12.1	318.5	0.30	6.70	-43.6				
1148	12.3	313.4	0.28	6.69	-54.3				
1151	12.4	310.5	0.26	6.69	-60.1				
1153	12.3	310.2	0.26	6.69	-60.9				
SAMPLE CO			D :1						
Sample Collec Made of:		لیا Stainless Stee	Bailer	PVC	Pump/Pump Type	DED BLADDER	D Other	Dedicated	
Decon Proced		Alconox Was	_	Tap Rinse		Dedicated		Dedicated	
(By Numerical		Alconox was		Tap Killse	DI Water	Dedicated			
	· ·		sheen etc.).	CLEAR CO	LORLESS, NO/N	<u></u>			
	F (, .	,							
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.3	309.6	0.26	6.69	-61.4				
2	12.3	309.7	0.26	6.69	-61.6				
3	12.3	309.6	0.26	6.69	-61.8				
4	12.3	309.4	0.26	6.69	-62.3				
Average:	12.3	309.6	0.26	6.69	-61.8	#DIV/0!			
		$\frac{NALYSISAL}{(N)} (8020) (N)$				blicable or write no	n-standard ana	WA 🗆	OR 🗆
						(8141) (Oil & Gre	ase)	WA 🗆	OR 🗆
				• •		(HCO3/CO3) (Cl)			
	(COD) (TOO	C) (Total PO4	4) (Total Kie	dahl Nitrogen)) (NH3) (NO3/1	NO2)			
	(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
						Pb) (Mg) (Mn) (Na			
┝────┤) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (A	ag) (Se) (Tl) (V)	(Zn) (Hg) (K) (N)	a) (Hardness) (Silica)
┝────┥	VOC (Boein		atulana						
	memane Eth	ane Ethene Ac	ctytelle						
	others								

Duplicate Sample No(8

Comments: Signature:

JHA

\\sea2-fs1\projectF\$\8888 - Boeing Renton\02 Data Management\2019\1Q2019\field data\AOC-090_3.4.19_JHA



Project Name	2:	Boeing Ren	ton		Project Number	•	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/4 /2019@	1327		
Sample Num	ber:	RGW208S-	190304		Weather:	CLEAR			
Landau Repr	esentative:	DSB			•				
WATER LEV	EL/WELL/PU	RGE DATA							
Well Condition	n:	Secure (YES)	Damaged (N	0)	Describe:	flush mount		
DTW Before I	Purging (ft)	7.88	Time:	1303	Flow through cel	l vol.		GW Meter No.(s	2
Begin Purge:	Date/Time:	3/4 /2019 0	<u>é</u> 1304	End Purge:	Date/Time:	3/4 /2019 @	1323	Gallons Purged:	0.25
Purge water di	sposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
Time	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goa +/- 3%	lls: Stablizatio +/- 3%		ters for three +/- 0.1 units	e consecutive read +/- 10 mV	lings within the fol +/- 10%	lowing limits < 0.3 ft	>/= 1 flow through cell	
1307	11.32	607	0.79	6.26	-6.1		7.91		
1310	10.73	619	0.56	6.86	-39.5		7.91		
1313	10.73	628	0.48	6.49	-30.7		7.91		
1316	10.84	631	0.46	6.70	-17.6				
1319	10.75	633	0.43	4.61	45.3				
1322	10.41	632	0.37	6.78	-67.9				
SAMPLE CO			D 11						
Sample Collec	ted With:		Bailer		Pump/Pump Type				
Made of:		Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Procedu		Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
<i>(By Numerical</i> Sample Descri	,	Other	shaan ata).		CLEAR COLOR				
Sample Desch	iption (color, t	urbiaity, odor,	sheen, etc.).		CLEAR COLOR	LESS NONS			
Replicate	Temp (°F/°C)	Cond. (uS/cm)	D.O. (mg/L)	рН	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	10.40	632	0.38	6.80	-69.9				
2	10.39	632	0.37	6.83	-72.1				
3	10.39	632	0.36	6.85	-73.2				
4	10.39	632	0.36	6.86	-73.5				
Average:	10.39	632	0.37	6.84	-72.2	#DIV/0!			
-						olicable or write no	n standard and	lucic holow)	
7		$\frac{(AL 1515 AL}{(8020)} $				Dicable of write ito	on-stanuaru ana	WA 🗆	OR 🗆
					· · · · · ·	(8141) (Oil & Gre	ease)	WA 🗆	$OR \square$
	· · · · ·	<i>,</i> , , , , , , , , , , , , , , , , , ,	, , ,	())	, <u>, , , , , , , , , , , , , , , , , , </u>	(HCO3/CO3) (Cl	,		
	(COD) (TOO	C) (Total PO-) (Total Kie	dahl Nitrogen) (NH3) (NO3/1	NO2)			
	(Total Cyanid	e) (WAD Cy	anide) (Free	Cyanide)					
						Pb) (Mg) (Mn) (N			
) (Ba) (Be) (C	Ca) (Cd) (Co)	(Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (A	(Se) (Tl) (V)	(Zn) (Hg) (K) (Na)	a) (Hardness) (Silica)
	VOC (Boein		atulana						
	wieinane Eth	ane Ethene Ac	etylene						
	others								
Duplicate Sam	ple No(s):								

Comments: Signature:



Project Nam	e <u>:</u>	Boeing Ren	ton		Project Number	r:	0025217.099.0	99	
Event:		Quarterly M	larch 2019		Date/Time:	3/ 4/2019@	1400		
Sample Num	iber:	RGW259S-	190304		Weather:	CLEAR			
Landau Repr	resentative:	SRB			-				
WATER LEV	'EL/WELL/PU	JRGE DATA							
Well Condition	n:	Secure (YES)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	5.38	Time:	1320	Flow through cel	l vol.		GW Meter No.(s	HERON1
Begin Purge:	Date/Time:	3/4 /2019 @	1330	End Purge:	Date/Time:	3/ 4 /2019 @	1355	Gallons Purged:	0.25
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
-	Тетр	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C) Purge Goa	(uS/cm) ls: Stablizatio	(mg/L) on of Parame	ters for three	(mV)	(NTU) lings within the fo	(ft) Ilowing limits	Volume (gal) >/= 1 flow	Observations
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1333	13.5	265.0	1.98	6.45	88.3	LOW	5.64		
1336	13.9	329.5	0.84	6.60	68.6		5.70		
1339							5.70		
	13.9	332.5	0.86	6.61	67.5				
1342	14.1	335.9	0.72	6.61	65.5		5.70		
1345	14.8	342.6	0.66	6.65	59.5				
1348	15.3	346.8	0.70	6.65	57.6				
1351	15.8	351.6	0.83	6.66	55.5				
SAMPLE CO	LLECTION I	DATA							
Sample Collec	cted With:		Bailer		Pump/Pump Type	DED BALDDER			
Made of:		Stainless Stee	el 🔲	PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced	ure:	Alconox Was	sh 🔲	Tap Rinse	DI Water	Dedicated			
(By Numerica	l Order)	Other							
Sample Descr	iption (color, 1	urbidity, odor,	sheen, etc.):	BROWN AN	ND TURBID WIT	H FLOATING PA	RTICULATES N	NO/NS	
Replicate	Temp	Cond.	D.O.	pH	ORP	Turbidity	DTW	Ferrous iron	Comments/
Replicate	(°F/°C)	(uS/cm)	(mg/L)	рп	(mV)	(NTU)	(ft)	(Fe II)	Observations
1	15.9	352.6	0.91	6.66	55.2				
2	16.0	353.9	0.88	6.67	54.6				
3	16.2	354.5	0.88	6.67	54.4				
4	16.2	354.9	0.86	6.67	54.2				
Average:	16.1	354.0	0.88	6.67	54.6	#DIV/0!			
QUANTITY			I OWED PE	R BOTTLE	TYPE (Circle ap	nlicable or write r	on-standard ar	alysis below)	
	TYPICAL A	NALYSIS AI	LOWEDIE	N DOI I EE	<u> </u>	plicable of write i	ion standar a ar		
3		NALYSIS AI)) (8020) (N				plicable of write i		WA 🗆	OR 🗆
3	(8260) (8010 (8270D) (PA)) (8020) (N AH) (NWTPH	WTPH-G) (I-D) (NWTF	NWTPH-Gx) PH-Dx) (TPH	(BTEX) H-HCID) (8081)	(8141) (Oil & Gi	rease)	WA 🗆	OR OR OR OR OR OR OR OR OR OR
	(8260) (8010 (8270D) (PA (pH) (Condu)) (8020) (N AH) (NWTPH activity) (TDS	WTPH-G) (H-D) (NWTH S) (TSS) (B	NWTPH-Gx) PH-Dx) (TPH OD) (Turbio	(BTEX) I-HCID) (8081) dity) (Alkalinity)	(8141) (Oil & Gr (HCO3/CO3) (C	rease)	WA 🗆	
3	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO)) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO4	WTPH-G) (I-D) (NWTF S) (TSS) (B 4) (Total Kie	NWTPH-Gx) PH-Dx) (TPH OD) (Turbio dahl Nitroger	(BTEX) H-HCID) (8081)	(8141) (Oil & Gr (HCO3/CO3) (C	rease)	WA 🗆	
	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanic	0) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO- le) (WAD Cy	WTPH-G) (I-D) (NWTF S) (TSS) (B 4) (Total Kie anide) (Free	NWTPH-Gx) PH-Dx) (TPH OD) (Turbid dahl Nitrogen Cyanide)	(BTEX) I-HCID) (8081) dity) (Alkalinity) 1) (NH3) (NO3/	(8141) (Oil & Gi (HCO3/CO3) (C NO2)	rease) Cl) (SO4) (NO	WA 3) (NO2) (F)	OR 🗆
	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanic (Total Metals	D) (8020) (N AH) (NWTPH activity) (TDS C) (Total PO- be) (WAD Cy) (As) (Sb) (WTPH-G) (H-D) (NWTH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	NWTPH-Gx) PH-Dx) (TPH OD) (Turbio dahl Nitrogen Cyanide) a) (Cd) (Co)	(BTEX) H-HCID) (8081) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) ((8141) (Oil & Gi (HCO3/CO3) (C NO2) Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO Ni) (Ag) (Se) (1	WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR (K) (Na)
	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanic (Total Metals (Dissolved M	 (8020) (N (NWTPH (TDSC) (Total PO- (WAD Cy) (As) (Sb) ((etals) (As) (Sb) 	WTPH-G) (H-D) (NWTH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca	NWTPH-Gx) PH-Dx) (TPH OD) (Turbio dahl Nitrogen Cyanide) a) (Cd) (Co)	(BTEX) H-HCID) (8081) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) ((8141) (Oil & Gi (HCO3/CO3) (C NO2) Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO Ni) (Ag) (Se) (1	WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR (K) (Na)
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	(8260) (8010 (8270D) (PA (pH) (Condu (COD) (TOO (Total Cyanic (Total Metals (Dissolved M VOC (Boein	 (8020) (N (NWTPH (TDSC) (Total PO- (WAD Cy) (As) (Sb) ((etals) (As) (Sb) 	WTPH-G) (H-D) (NWTH S) (TSS) (B 4) (Total Kie anide) (Free Ba) (Be) (Ca b) (Ba) (Be) (Ca	NWTPH-Gx) PH-Dx) (TPH OD) (Turbio dahl Nitrogen Cyanide) a) (Cd) (Co)	(BTEX) H-HCID) (8081) dity) (Alkalinity) (NH3) (NO3/ (Cr) (Cu) (Fe) ((8141) (Oil & Gi (HCO3/CO3) (C NO2) Pb) (Mg) (Mn) (1	rease) [1] (SO4) (NO Ni) (Ag) (Se) (1	WA 3) (NO2) (F) Tl) (V) (Zn) (Hg	OR (K) (Na)
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Duplicate Sample No(s):

Comments:

Signature: SRB



Project Nam	e:	Boeing Ren	iton		Project Numbe	r:	0025217.099.0	99	
Event:		Quarterly M	Iarch 2019		Date/Time:	3/ 4/2019@	1430		
Sample Nun	nber:	RGW260S-	190304		Weather:	CLEAR			
Landau Repr	resentative:	SRB			-				
WATER LEV	/EL/WELL/PU	JRGE DATA							
Well Condition		Secure (YES)	Damaged (N	0)	Describe:	flush mount		
DTW Before	Purging (ft)	5.45	Time:	1345	Flow through cel	l vol.		GW Meter No.(s	s HERON1
		3/4 /2019 @		End Purge:	-	3/ 4 /2019 @	1425	Gallons Purged:	
Purge water d	isposed to:		55-gal Drum		Storage Tank	Ground	Other	SITE TREATM	ENT SYSTEM
	Temp	Cond.	D.O.	рН	ORP	Turbidity	DTW	Internal Purge	Comments/
Time	(°F/°C)	(uS/cm)	(mg/L)	рп	(mV)	(NTU)	(ft)	Volume (gal)	Observations
						dings within the fo		>/= 1 flow	
	+/- 3%	+/- 3%		+/- 0.1 units		+/- 10%	< 0.3 ft	through cell	
1403	11.6	254.8	0.33	6.12		LOW	5.47		
1406	11.9	261.0	0.28	6.13	-3.0		5.47		
1409	12.1	269.1	0.27	6.19	-16.4		5.47		
1412	12.0	271.7	0.30	6.26	-26.8				
1415	12.5	277.1	0.34	6.31	-39.0				
1418		278.1	0.34	6.36	-45.7				
1421	12.1	276.6	0.39	6.33	-48.5				
SAMPLE CO Sample Colled			Bailer		Dump/Dump Tung	DED BALDDER			
Made of:		لیے Stainless Ste		PVC	Teflon	Polyethylene	Other	Dedicated	
Decon Proced		Alconox Was		Tap Rinse	DI Water	Dedicated		Dedicated	
(By Numerica		Other		Tap Killse		Dedicated			
	·		sheen etc.):	CI FAR CO	LORLESS NO/N				
Sumple Deser		urblaity, odor,	, sheen, etc.).	CLL/IK CO)			
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	11.9	276.3	0.37	6.33	-48.4				
2	11.9	276.0	0.36	6.32	-48.1				
3	11.8	276.0	0.38	6.32	-48.3				
4	11.9	275.7	0.38	6.31	-47.9				
Average:	11.9	276.0	0.37	6.32	-48.2	#DIV/0!			
						plicable or write r	non-standard ar		
3	· · · ·	(8020) (N	· · · · · ·	· · · · · · · · · · · · · · · · · · ·	````	(9141) (0:1 & C		WA 🗆	OR OR OR OR OR OR OR OR OR OR
	· · · · ·	()				(8141) (Oil & Gr (HCO3/CO3) (C	,		
1	· · · · ·				(NH3) (NO3/		(1004) (110	3) (102) (1)	
		le) (WAD Cy		0					
	· · · · · · · · · · · · · · · · · · ·		, <u>,</u> ,	2 /	(Cr) (Cu) (Fe) (Pb) (Mg) (Mn) (N	Ni) (Ag) (Se) (Γ l) (V) (Zn) (Hg	g) (K) (Na)
									Na) (Hardness) (Silica
	VOC (Boein	g short list)							
	Methane Eth	ane Ethene Ac	cetylene						
	ath are								
	others								

Duplicate Sample No(s):

Comments:



Appendix C



Memo

То:	John Long, Project Manager	Project:	0088880100.2019
From:	Crystal Thimsen	C:	Project File
Tel:	(206) 342-1760		
Fax:	(206) 342-1761		
Date:	April 11, 2019		
Subject:	Summary Data Quality Review March 2019 Boeing Renton Groundwater SWMU-168 ARI Work Order Number: 19C0069	⁻ Sampling	

This memo presents the summary data quality review of three primary groundwater samples and one trip blank sample collected on March 4, 2019. 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 volatile organic compounds (VOCs) (vinyl chloride) by U.S. Environmental Protection Agency (EPA) Method 8260C with selected ion monitoring.

Sample ID	Laboratory Sample ID	Requested Analyses
RGW231S-190304	19C0069-01	vinyl chloride
RGW230I-190304	19C0069-02	vinyl chloride
RGW229S-190304	19C0069-03	vinyl chloride
Trip Blank	19C0069-04	vinyl chloride

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

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 March 5, 2019. The temperature of the cooler was recorded upon receipt and was below the maximum acceptable temperature of 6 degrees Celsius (°C).

Organic analyses

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

1. Preservation and Holding Times – Acceptable

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- 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 19C0069 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
RGW231S-190304	none
RGW230I-190304	none
RGW229S-190304	none
Trip Blank	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: From: Tel:	John Long, Project Manager Crystal Thimsen (206) 342-1760	Project: cc:	0088880100.2019 Project File
Fax:	(206) 342-1761		
Date:	April 10, 2019		
Subject:	Summary Data Quality Review March 2019 Boeing Renton Groundwater SWMU-172/174	Sampling	

This memo presents the summary data quality review of 11 primary groundwater samples, one groundwater field duplicate, and one trip blank sample collected on March 4, 2019. 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 8260C with selected ion monitoring;
- Total organic carbon (TOC) by Standard Method (SM) 5310 B-00; and
- Total metals (arsenic, copper, and lead) by EPA Method 6020A.

ARI Work Order Number: 19C0064

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

Sample ID	Laboratory Sample ID	Requested Analyses
RGWDup1-190304	19C0064-01	all
RGW232S-190304	19C0064-02	all
RGW233I-190304	19C0064-03	all
RGW081S-190304	19C0064-04	all
RGW236S-190304	19C0064-05	all
RGW173S-190304	19C0064-06	all
RGW235I-190304	19C0064-07	all
RGW226S-190304	19C0064-08	all
RGW234S-190304	19C0064-09	all
RGW153S-190304	19C0064-10	all
RGW172S-190304	19C0064-11	all



Sample ID	Laboratory Sample ID	Requested Analyses
RGW152S-190304	19C0064-12	all
Trip Blank	19C0064-13	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 March 5, 2019. The temperatures of the coolers were recorded upon receipt and were below the maximum acceptable temperature of 6 degrees Celsius (°C).

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
- 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. 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 the control limits.



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Sample ID/ Field Duplicate ID	Analyte	Primary Result (μg/L)	Duplicate Result (µg/L)	Reporting Limit (µg/L)	RPD (%)
	vinyl chloride	0.128	0.142	0.020	10
RGW152-190304/	cis-1,2-dichloroethene	0.678	0.655	0.020	3
RGWDup1-190304	trichloroethene	0.152	0.162	0.020	6
	tetrachloroethene	0.0860	0.0874	0.020	NC

<u>Notes</u> µg/L = micrograms per liter RPD= relative percent difference

7. Reporting Limits and Laboratory Flags – Acceptable

Inorganic analyses

Samples were analyzed for total metals and 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

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 field duplicate RPDs were within the control limits.

Sample ID/ Field Duplicate ID	Analyte	Primary Result	Duplicate Result	Reporting Limit	Units	RPD (%)
	тос	2.81	2.89	0.5	mg/L	3
RGW152-190304/	total arsenic	7.54	7.11	0.2	µg/L	6
RGWDup1-190304	total copper	5.12	4.44	0.5	µg/L	14
	total lead	3.33	3.33	0.1	µg/L	0

<u>Notes</u>

 μ g/L = micrograms per liter

mg/L = milligrams per liter

RPD= relative percent difference

TOC = total organic carbon



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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 19C0064 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
RGWDup1-190304	none
RGW232S-190304	none
RGW233I-190304	none
RGW081S-190304	none
RGW236S-190304	none
RGW173S-190304	none
RGW235I-190304	none
RGW226S-190304	none
RGW234S-190304	none
RGW153S-190304	none
RGW172S-190304	none
RGW152S-190304	none
Trip Blank	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 Contract Laboratory Program 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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Memo

То:	John Long, Project Manager	Project:	0088880100.2019
From:	Crystal Thimsen	C:	Project File
Tel:	(206) 342-1760		
Fax:	(206) 342-1761		
Date:	April 11, 2019		
Subject:	Summary Data Quality Review March 2019 Boeing Renton Groundwater Building 4-78/79 SWMU/AOC Group ARI Work Order Numbers: 19C0077 and		

This memo presents the summary data quality review of 16 primary groundwater samples, one field duplicate groundwater sample, and two trip blank samples collected on March 4 and 5, 2019. 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 8260C;
- Total petroleum hydrocarbons as gasoline (TPH-G) by Ecology Method NWTPH Gx; and
- Total organic carbon (TOC) by Standard Method (SM) 5310B-00.

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

Sample ID	Laboratory Sample ID	Requested Analyses
RGW239I-190304	19C0077-01	all
RGW240D-190304	19C0077-02	all
RGW143S-190304	19C0077-03	all
RGW-242I-190304	19C0077-04	VOCs and TPH-G
RGW-241S-190304	19C0077-05	VOCs and TPH-G
Trip Blank	19C0077-06	VOCs and TPH-G
RGWDUP2-190305	19C0111-01	all
RGW210S-190305	19C0111-02	all
RGW237S-190305	19C0111-03	all
RGW031S-190305	19C0111-04	all
RGW238I-190305	19C0111-05	all
RGW244S-190305	19C0111-06	all
RGW209S-190305	19C0111-07	all



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Sample ID	Laboratory Sample ID	Requested Analyses
RGW033S-190305	19C0111-08	all
RGW038S-190305	19C0111-09	all
RGW039S-190305	19C0111-10	all
RGW034S-190305	19C0111-11	all
RGW243I-190305	19C0111-12	all
Trip Blank	19C0111-13	VOCs and TPH-G

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 March 5 and 6, 2019. The temperatures of the coolers were recorded upon receipt and were below the maximum acceptable temperature of 6 degrees Celsius (°C).

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 except as noted:

<u>VOCs by EPA 8260C</u>: The recoveries for one of three surrogates, 1,2-dichloroethane-d4, was 163 percent for sample RGWDUP2-190305 and 173 percent for sample RGW031S-190305, above the control limits of 80 to 129 percent. The laboratory did not reanalyze the samples. The high surrogate recovery equates to a potential high bias in the sample; and all analytes were below detection; therefore, samples results are not affected and are not qualified.

- 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 relative percent differences (RPDs) for the field duplicate are within the project-specific control limit of 30 percent.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (µg/L)	Duplicate Result (µg/L)	Reporting Limit (µg/L)	RPD (%)
RGW031S-190305/ RGWDUP2-190305	benzene	55.9	58.6	0.20	5
	TPH-G	4,200	4,220	100	<1

Abbreviations

 μ g/L = micrograms per liter

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
- 3. LCS Acceptable
- 4. MS Acceptable
- 5. Laboratory Duplicates 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 RPDs are acceptable.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (mg/L)	Duplicate Result (mg /L)	Reporting Limit (mg /L)	RPD (%)
RGW031S-190305/ RGWDUP2-190305	TOC	14.44	13.34	0.50	8

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 ARI work order numbers 19C0077 and 19C0111 is 100 percent. Evaluation of the usefulness of these data is based on EPA guidance



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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
RGW239I-190304	none
RGW240D-190304	none
RGW143S-190304	none
RGW-242I-190304	none
RGW-241S-190304	none
Trip Blank	none
RGWDUP2-190305	none
RGW210S-190305	none
RGW237S-190305	none
RGW031S-190305	none
RGW238I-190305	none
RGW244S-190305	none
RGW209S-190305	none
RGW033S-190305	none
RGW038S-190305	none
RGW039S-190305	none
RGW034S-190305	none
RGW243I-190305	none
Trip Blank	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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Memo

To: From: Tel: Fax:	John Long, Project Manager Crystal Thimsen (206) 342-1760 (206) 342-1761 April 17, 2019	Project: c:	0088880100.2019 Project File
Date: Subject:	April 17, 2019 Summary Data Quality Review	.	

March 2019 Boeing Renton Groundwater Sampling AOC-001 and -002 and AOC-003 ARI Work Order Number: 19C0109

This memo presents the summary data quality review of 15 primary groundwater samples, one field duplicate, and one trip blank sample collected on March 5, 2019. 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 from AOC-001 and -002 were analyzed for the following:

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

Samples from AOC-003 were analyzed for the following:

- VOCs (cis-1,2-dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride) by EPA Method 8260C SIM; and
- TOC by SM 5310 B-00.

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

Sample ID	Laboratory Sample ID	Requested Analyses
RGWDUP3-190305	19C0109-01	all AOC-001 and -002 analyses
RGW194S-190305	19C0109-02	all AOC-001 and -002 analyses
RGW185S-190305	19C0109-03	all AOC-001 and -002 analyses
RGW246S-190305	19C0109-04	all AOC-001 and -002 analyses
RGW197S-190305	19C0109-05	all AOC-001 and -002 analyses
RGW245S-190305	19C0109-06	all AOC-001 and -002 analyses
RGW190S-190305	19C0109-07	all AOC-001 and -002 analyses



Sample ID	Laboratory Sample ID	Requested Analyses
RGW195S-190305	19C0109-08	all AOC-001 and -002 analyses
RGW191D-190305	19C0109-09	all AOC-001 and -002 analyses
RGW196D-190305	19C0109-10	all AOC-001 and -002 analyses
RGW192S-190305	19C0109-11	all AOC-001 and -002 analyses
RGW193S-190305	19C0109-12	all AOC-001 and -002 analyses
RGW247S-190305	19C0109-13	all AOC-003 analyses
RGW249S-190305	19C0109-14	all AOC-003 analyses
RGW248S-190305	19C0109-15	all AOC-003 analyses
RGW188S-190305	19C0109-16	all AOC-003 analyses
Trip Blank	19C0109-17	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 March 5, 2019. The temperatures of the coolers were recorded upon receipt and were below the maximum acceptable temperature of 6 degrees Celsius (°C). The field team did not put the date on the chain of custody. The laboratory logged the samples according to the date in the sample IDs.

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
- 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, 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 the control limits.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (ng/L)	Duplicate Result (ng/L)	Reporting Limit (ng/L)	RPD (%)
RGW185S-190305/	vinyl chloride	192	210	20.0	9
RGWDUP3-190305	cis-1,2-dichloroethene	185	194	20.0	5

Abbreviations

ng/L = nanograms per liter 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 Acceptable
- 5. Laboratory Duplicates Acceptable
- 6. Field Duplicates Acceptable

One field duplicate was submitted for TOC 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 field duplicate RPD was within the control limits.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (mg/L)	Duplicate Result (mg/L)	Reporting Limit (mg/L)	RPD (%)
RGW185S-190305/ RGWDUP3-190305	ТОС	12.04	12.01	0.50	<1

Abbreviations

mg/L = milligrams per liter

RPD= relative percent difference

TOC = total organic carbon

7. Reporting Limits and Laboratory Flags – Acceptable



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Overall assessment of data

The table below summarizes the data assessment. The completeness of ARI work order number 19C0109 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
RGWDUP3-190305	none
RGW194S-190305	none
RGW185S-190305	none
RGW246S-190305	none
RGW197S-190305	none
RGW245S-190305	none
RGW190S-190305	none
RGW195S-190305	none
RGW191D-190305	none
RGW196D-190305	none
RGW192S-190305	none
RGW193S-190305	none
RGW247S-190305	none
RGW249S-190305	none
RGW248S-190305	none
RGW188S-190305	none
Trip Blank	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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Memo

То:	John Long, Project Manager	Project:	0088880100.2019
From:	Crystal Thimsen	C:	Project File
Tel:	(206) 342-1760		
Fax:	(206) 342-1761		
Date:	April 16, 2019		
Subject:	Summary Data Quality Review March 2019 Boeing Renton Groundwater AOC-004 ARI Work Order Number: 19C0091	r Sampling	

This memo presents the summary data quality review of two primary groundwater samples collected on March 5, 2019. 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 total lead by U.S. Environmental Protection Agency (EPA) Method 6020A.

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

Sample ID	Laboratory Sample ID	Requested Analyses
RGW250S-190305	19C0091-01	total lead
RGW174S-190305	19C0091-02	total lead

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 samples on March 6, 2019. The temperature of the cooler was recorded upon receipt and was below the maximum acceptable temperature of 6 degrees Celsius (°C).

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



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4. MS/MSD – Acceptable

Additional sample volume was not submitted for MS/MSD analyses with samples collected from this site. MS/MSD results were reported with samples not associated with project samples; therefore, sample results are evaluated based on LCS/LCSD results. Project-specific MS/MSD requirements were met with samples collected at other sites included in this sampling event. The laboratory reported MS/MSD results; but project samples are not evaluated using this data since the spiked sample was not a project sample.

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 19C0091 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
RGW250S-190305	none
RGW174S-190305	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 Inorganic Superfund Data Review: EPA 540-R-013-001, August.

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Memo

То:	John Long, Project Manager	Project:	0088880100.2019
From:	Crystal Thimsen	C:	Project File
Tel:	(206) 342-1760		
Fax:	(206) 342-1761		
Date:	April 17, 2019		
Subject:	Summary Data Quality Review March 2019 Boeing Renton Groundwater AOC-060 ARI Work Order Number: 19C0108	Sampling	

This memo presents the summary data quality review of nine primary groundwater samples, one field duplicate, and one trip blank sample collected on March 5, 2019. 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 8260C with selected ion monitoring (SIM); and
- Total organic carbon (TOC) by Standard Method (SM) 5310B-00.

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

Sample ID	Laboratory Sample ID	Requested Analyses
RGW254S-190305	19C0108-01	all
RGW150S-190305	19C0108-02	all
RGW253I-190305	19C0108-03	all
RGW252S-190305	19C0108-04	all
RGW149S-190305	19C0108-05	all
RGW147S-190305	19C0108-06	all
RGW009S-190305	19C0108-07	all
RGWDUP4-190305	19C0108-08	all
RGW012S-190305	19C0108-09	all
RGW014S-190305	19C0108-10	all
Trip Blank	19C0108-11	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



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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 March 6, 2019. The temperatures of the coolers were recorded upon receipt and were below the maximum acceptable temperature of 6° 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 except as noted:
- 5. MS/MSD Acceptable except as noted:

<u>VOCs by EPA 8260C SIM</u>: the recoveries for vinyl chloride in the MS/MSD performed with sample RGW252S-090305 were 73.7 and 75.1 percent, lower than the control limits of 76 to 120 percent. The low recoveries equate to a potential low bias in the sample, and vinyl chloride was not detected in sample RGW252S-090305. Therefore, the vinyl chloride result is qualified as estimated and flagged with a "UJ."

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, 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 the control limits.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (ng/L)	Duplicate Result (ng/L)	Reporting Limit (ng/L)	RPD (%)
	vinyl chloride	214	203	20.0	5
RGW014S-190305/ RGWDUP4-190305	cis-1,2-dichloroethene	119	115	20.0	3
	trichloroethene	25.4	26.4	20.0	NC

Abbreviations

ng/L = nanograms per liter

NC = not calculated

RPD = relative percent difference



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

One field duplicate was submitted for TOC 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 field duplicate RPDs were within the control limits

Sample ID/ Field Duplicate ID	Analyte	Primary Result (mg/L)	Duplicate Result (mg/L)	Reporting Limit (mg/L)	RPD (%)
RGW014S-190305/ RGWDUP4-190305	TOC	3.34	3.31	0.50	1

Abbreviations

mg/L = milligrams per liter RPD= relative percent difference

TOC = total organic carbon

7. Reporting Limits – Acceptable

Overall assessment of data

A summary of the data assessment is presented in the table below. The completeness of work order number 19C0108 is 100 percent. Evaluation of the usefulness of these data is based on the EPA guidance document 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	Qualified Result	Units	Qualifier Reason
RGW254S-190305	none			
RGW150S-190305	none			
RGW253I-190305	none			
RGW252S-190305	vinyl chloride	0.20 UJ	ng/L	MS/MSD recovery
RGW149S-190305	none			



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Sample ID	Qualified Analyte	Qualified Result	Units	Qualifier Reason
RGW147S-190305	none			
RGW009S-190305	none			
RGWDUP4-190305	none			
RGW012S-190305	none			
RGW014S-190305	none			
Trip Blank	none			

Abbreviations:

UJ = the value is estimated at the reporting limit indicated MS/MSD = matrix spike/matrix spike duplicate ng/L = nanograms per liter

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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Memo

То:	John Long, Project Manager	Project:	0088880100.2019
From:	Crystal Thimsen	С:	Project File
Tel:	(206) 342-1760		
Fax:	(206) 342-1761		
Date:	April 12, 2019		
Subject:	Summary Data Quality Review		
-	March 2019 Boeing Renton Groundwater	Sampling	
	AOC-090		
	ARI Work Order Number: 19C0081 and 19	9C0103	

This memo summarizes the data quality review of 11 primary groundwater samples, one duplicate sample, and two trip blank samples collected on March 4 and 5, 2019. 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-1,2dichloroethene, chloroform, carbon tetrachloride, benzene, toluene, 1,1,2-trichloroethane) by U.S. Environmental Protection Agency (EPA) Method 8260C;
- VOCs (vinyl chloride, 1,1-dichloroethene, trichloroethene, tetrachloroethene, 1,1,2,2tetrachloroethane) by EPA Method 8260C with selected ion monitoring (SIM);
- 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 (SM) 5310C.

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

Sample ID	Laboratory Sample ID	Requested Analyses
RGWDUP5-190304	19C0081-01	VOCs and TPH
RGW180S-190304	19C0081-02	VOCs and TPH
RGW179I-190304	19C0081-03	VOCs and TPH
RGW207S-190304	19C0081-04	VOCs and TPH
RGW165I-190304	19C0081-05	VOCs and TPH
RGW177I-190304	19C0081-06	VOCs and TPH
RGW163I-190304	19C0081-07	VOCs and TPH
RGW175I-190304	19C0081-08	VOCs and TPH
RGW178S-190304	19C0081-09	VOCs and TPH



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Sample ID	Laboratory Sample ID	Requested Analyses
RGW176S-190304	19C0081-10	VOCs and TPH
RGW208S-190304	19C0081-11	VOCs and TPH
Trip Blank	19C0081-12	VOCs and TPH-G
RGW189S-190305	19C0103-01	All
Trip Blank	19C0103-02	VOCs and 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 March 5 and 6, 2019. The temperatures of the coolers were recorded upon receipt and were less than the maximum acceptable temperature of 6 degrees Celsius (°C).

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 except as noted:

<u>VOCs by EPA 8260C</u>: The recovery for one of four surrogates, 1,2-dichloroethane-d4, was 132 percent in the MSD analyzed with sample RGW189S-190305; above the control limits of 80 to 129 percent. Sample results are not affected by surrogate recoveries in quality control samples. Therefore, sample results are not qualified.

4. LCS/LCSD – Acceptable except as noted:

<u>VOCs by EPA 8260C</u>: The recovery for chloroform in the LCSD associated with samples analyzed on March 18, 2019, in word order 19C0081 was below the control limits. The associated LCS recovery was acceptable, as was the LCS/LCSD relative percent difference. Sample results are not qualified based on the acceptable LCS recovery.

5. MS/MSD – Acceptable except as noted:

<u>VOCs by EPA 8260C</u>: The recovery for 1,1,2-trichloroethane was above the control limits in the MS/MSD performed with sample RGW189S-190305. The high recovery equates to a potential



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high bias in the sample; and the 1,1,2-trichloroethane result was below detection in sample RGW189S-190305. Therefore, the result for 1,1,2-trichloroethane in sample RGW189S-190305 was not affected and not qualified.

<u>VOCs by EPA 8260C SIM</u>: The recovery for 1,1,2,2-tetrachloroethane was above the control limits in the MS/MSD performed with sample RGW189S-190305. The high recovery equates to a potential high bias in the sample; and the 1,1,2,2-tetrachloroethane result in sample RGW189S-190305 was below detection. Therefore, the result for 1,1,2,2-tetrachloroethane in sample RGW189S-190305 was not affected and not qualified.

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, 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 the control limits.

Sample ID/ Field Duplicate ID	Analyte	Primary Result (µg/L)	Duplicate Result (µg/L)	Reporting Limit (µg/L)	RPD (%)
	Acetone	5.00 U	6.44	5.00	NC
RGW180S-190304/ RGWDup5-190304	Benzene	0.23	0.20 U	0.20	NC
	Trichloroethene	0.020 U	0.0212	0.0200	NC

Abbreviations

 μ g/L = micrograms per liter

NC = not calculated

RPD = relative percent difference

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

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



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A field duplicate was not collected for TOC analysis 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 – Acceptable

Overall assessment of data

The completeness of ARI work order numbers 19C0081 and 19C0103 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, as qualified, meet the project's data quality objectives.

Sample ID	Qualified Analyte
RGWDUP5-190304	none
RGW180S-190304	none
RGW179I-190304	none
RGW207S-190304	none
RGW165I-190304	none
RGW177I-190304	none
RGW163I-190304	none
RGW175I-190304	none
RGW178S-190304	none
RGW176S-190304	none
RGW208S-190304	none
Trip Blank	none
RGW189S-190305	none
Trip Blank	none

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



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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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Memo

То:	John Long, Project Manager	Project:	0088880100.2019
From:	Crystal Thimsen	C:	Project File
Tel:	(206) 342-1760		
Fax:	(206) 342-1761		
Date:	April 11, 2019		
Subject:	Summary Data Quality Review August 2018 Boeing Renton Groundwate Bldg. 4-70 ARI Work Order Number: 19C0073	r Sampling	

This memo summarizes the data quality review of two primary groundwater samples and one trip blank sample collected on March 4, 2019. 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, cis-1,2-dichloroethene, and trichloroethene) by U.S. Environmental Protection Agency (EPA) Method 8260C; and
- Total organic carbon (TOC) by Standard Method (SM) 5310C.

Sample ID	Laboratory Sample ID	Requested Analyses
RGW259S-190304	19C0073-01	all
RGW260S-190304	19C0073-02	all
Trip Blank	19C0073-03	VOCs

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, 2014).

ARI received the samples on March 5, 2019. The temperature of the cooler was recorded upon receipt and was less than the maximum acceptable temperature of 6 degrees Celsius (°C).



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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 Acceptable except as noted:
- MS/MSD Extra volume was not submitted with samples to perform MS/MSD analyses. MS/MSD analyses performed with project samples submitted separately met project frequency requirements.
- 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 19C0073 is 100 percent. Evaluation of the usefulness of these data is based on EPA guidance documents referenced in the introduction to this report. Few problems were identified, and analytical performance was generally within specified limits. The data, as qualified, meet the project's data quality objectives.

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

Sample ID	Qualified Result
RGW259S-190304	none
RGW260S-190304	none
Trip Blank	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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Appendix D

APPENDIX D

Summary of Remedial Actions at the Boeing Renton Facility January – March 2019

Boeing Renton Site Renton, Washington

Prepared for: The Boeing Company EHS Remediation

Prepared by: CALIBRE Systems, Inc. Project No. K0357000

June 12, 2019

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Acronyms

AOC	Area of Concern
°Bx	degrees brix
bgs	below ground surface
Building 4-78/79	Building 4-78/4-79 SWMU/AOC Group
CALIBRE	CALIBRE Systems, Inc.
cfm	cubic feet per minute
DAP	Diammonium Phosphate
DCA	Dichloroethane
DCE	Dichloroethene
EDR	Engineering Design Report
ERD	Enhanced Reductive Dechlorination
ft	feet
lbs	pounds
mg/L	milligrams per liter
MgSO4	Magnesium Sulfate
NA	not analyzed
NaNO3	Sodium Nitrate
ND	non-detect
PCE	Tetrachloroethene
PID	Photoionization detector
ppbv	parts per billion by volume
SVE	Soil Vapor Extraction
SWMU	Solid Waste Management Unit
TCA	Trichloroethane
TCE	Trichloroethene
Tech Memo	Technical Memorandum
Total Chlorinated	Sum of PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1,1-TCA, and 1,1-DCA
TPH-G	Total Petroleum Hydrocarbons-Gasoline
ug/L	micorgrams per liter
VC	Vinyl Chloride
VOCs	Volatile Organic Compounds
VPC	Vapor Phase Carbon

1.0 Introduction

CALIBRE Systems, Inc. (CALIBRE) prepared this Technical Memorandum (Tech Memo) for the Boeing Company to summarize remedial actions implemented at the Boeing Renton Facility in the first quarter of 2019 (between January 1 and March 31, 2019). The ongoing remedial actions include:

- 1. Operation of one soil vapor extraction (SVE) system located at Solid Waste Management Unit (SWMU) designated as SWMU-172/174;
- Biological treatment to promote Enhanced Reductive Dechlorination (ERD) of volatile organic compounds (VOCs) in groundwater underway at several AOCs located throughout the Renton Facility, and;
- 3. Anaerobic biodegradation of benzene by nitrate/sulfate injections at the 4-78/79 Building.

CALIBRE completed the work described in this Tech Memo to support remedial activities described in the Engineering Design Report (EDR), (AMEC, 2014) as supplemented by a document describing the remedial approach for *in situ* treatment for benzene in groundwater (CALIBRE 2017).

1.1 Facility Location and Background

The Boeing Renton Facility is used for assembly of 737 airplanes and is located at the southern end of Lake Washington in Renton, Washington. The location of the Renton Facility and the locations of SWMU-172/174 and Building 4-78/79 within the Facility are shown on Figure 1-1. The locations of the other AOCs and SWMUs where groundwater treatment is ongoing are also included in Figure 1-1.

1.2 Objectives and Organization

The objective for this Tech Memo is to summarize work completed in accordance with the EDR in the first quarter of 2019. This includes operation and monitoring activities for the SVE system located at SWMU-172/174 and a summary of the ongoing biological treatment and monitoring of groundwater at the following areas:

SWMU-172/174 Building 4-78/4-79 SWMU/AOC Group (Building 4-78/79) AOC-001/002 AOC-003 Lot 20/Former Building 10-71 AOC-060 AOC-090 Building 4-70, and Apron A

This Tech Memo is organized as follows: Section 1 – Introduction and Background Section 2 – SVE System Operation and Monitoring Section 3 – Groundwater Treatment Section 4 – Conclusions and Recommendations Section 5 – References Attachment A – Field Data Sheets Attachment B – Laboratory Report

2.0 SVE Systems Operation and Monitoring

SVE systems were installed in the Building 4-78/79 and SWMU-172/174 areas and began operation in April 2015. During the last quarter of 2017 photoionization detector (PID) results from both systems had shown low-level VOC concentrations removed at asymptotically low levels. Rebound stabilization tests were conducted in early 2018 followed by collection of soil confirmation samples from both areas in June 2018. Ecology approved the recommended shutdown of the Building 4-78/79 SVE system on November 1, 2018 after review and evaluation of the soil confirmation results for that area (CALIBRE 2018a). Operational modifications have continued at the SWMU-172/174 SVE system to optimize VOC removal for that area. The following sections summarize the operating conditions, operational changes, and performance monitoring/evaluation for the SWMU-172/174 SVE system performed in January – March 2019.

2.1 SWMU-172/174 SVE System

The SWMU-172/174 SVE system consists of three vapor extraction wells and a SVE equipment trailer as shown in Figure 2-1. The SVE system is equipped with two vapor-phase GAC vessels, each filled with 1,800 pounds of virgin carbon. The GAC vapor treatment system is configured to run in a lead-lag configuration with vapor from the outlet of the lead vessel passing through the lag vessel. The system also includes two smaller vessels each containing 200 pounds of zeolite impregnated with permanganate.

Routine maintenance including oil changes, drive-belt tensioning and inspection, inspection of the air filter, and inspection of the moisture separator was completed per the Operations Manual (CALIBRE, 2014). System monitoring includes regular monitoring of total organic vapor concentrations with a calibrated photo-ionization detector (PID).

2.1.1 TO-15 Laboratory Analysis of Vapor Samples

Two vapor samples were collected from the SWMU-172/174 SVE system for TO-15 analysis on February 13, 2019. The results showed tetrachloroethene (PCE) represented approximately 90% of the total VOCs for the SWMU-172/174 SVE system influent and SVE-2 samples. Table 2-1 summarizes the TO-15 detections for the SWMU-172/174 SVE system for 14 TO-15 sampling events¹ that have been implemented since system startup. During this time, SVE-2 has continued to extract vapor while system operation modifications have been completed at SVE-1 and SVE-3 to alter the flushing patterns in the area of SVE-2, as described below. The laboratory report is included in Attachment B.

¹ Multiple changes to SVE system operations have been implemented over the period where data are shown. Changes to extraction flow rates by SVE wells are used to maximize the VOC mass removal and the corresponding SVE influent concentration is highly dependent on the flow rate from selected wells.

2.1.2 Summary of Operations and Operational Changes

The soil confirmation samples collected in the second quarter of 2018 identified a location between SVE-2 and SVE-3 which still showed elevated PCE levels in soil. During the third quarter of 2018, the SVE system was adjusted to alter the flushing pattern through this area by using SVE-3 as an inlet vent well with continued extraction through SVE-2 and SVE-1. Vapor concentrations, measured with a PID, showed some increase for approximately two weeks during that reporting period. Subsequent measurements during the fourth quarter 2018 reporting period showed vapor concentrations reducing to previous low level detections. Therefore, on December 5, 2018 the SVE system was adjusted to alter the flushing pattern around SVE-2 and SVE-1 as an inlet vent well with continued extraction from SVE-2 and reopening SVE-3 to extraction.

On February 7, 2019 (first quarter 2019) PID readings showed reduced VOC levels at SVE-3 while SVE-2 remained at 0 ppbv. Systems operation modifications were completed that day to adjust SVE-3 as an inlet vent well with extraction at SVE-1 and SVE-2. Upon opening SVE-1, audible sounds indicated water was present in the line near the gate valve of that well. To remove the water, SVE-2 and SVE-3 were closed to focus entire system flow/removal rate on the SVE-1 line. The system was allowed to operate in this manner overnight and re-checked the following day. No sounds of water movement were observed during that site inspection and SVE-3 was then opened as an inlet vent well with extraction at SVE-1 and SVE-2. Two samples were collected during the following site visit due to increased detections at the SVE wells and system influent. Table 2-2 shows the PID readings for the wells in the SWMU 172/174 SVE system. On March 14, 2019 a detection of 42 ppbv was measured with the PID from the effluent of the lag carbon vessel. This detection is near the field instrument detection limit able to be measured by the PID. In addition, measurements preceding and following this date showed 0 ppbv. Table 2-3 shows an operational summary for the system.

2.1.3 Mass Removal Estimate

Between April 17, 2015 and March 21, 2019 the SWMU-172/174 SVE system has recovered an estimated 15.6 pounds of VOCs (primarily PCE), as shown in Table 2-3. Approximately 1 pound of VOCs was removed during the current reporting period (first quarter 2019) based on PID measurements collected. Evaluation of the TO-15 results indicate a much lower mass removal rate therefore expanded TO-15 sampling will be completed in the following quarter. The cumulative VOC mass removal for the SWMU-172/174 SVE system is shown in Figure 2-2.

2.2 Recommended Next Steps for the SVE Systems

In December 2018, Boeing submitted to Ecology a Tech Memo describing the planned approach for further evaluation of soils at the Building 4-78/79 area (CALIBRE 2018b). Soil confirmation samples previously collected at this area revealed that cleanup standards for COCs were met at all but one of the 24 samples at the 4-78/79 area. The single sample (PP13) which exceed cleanup standards for TPH-G was collected from a low permeable silty/clay layer. The objective of the soil evaluation is to identify the location and depth of

utilities in the immediate area, determine the feasibility of excavating soil by delineating the extent of soil contamination around PP13 and to determine the extent of soil that can be removed. Utility clearance, coring and probe sampling related to the additional soil evaluation are planned for 2019.

Modifying the SVE system flow at the SWMU-172/174 area on February 7, 2019 showed increases in VOC mass removal from SVE-1, SVE-2 and the system influent for a number of weeks following the adjustment. TO-15 samples collected from SVE-2 and the system influent continue to show PCE as the primary chemical detected, comprising approximately 90% of the total VOCs detected. Subsequent monitoring during the later half of March 2019 show vapor concentrations reducing at SVE-1 and SVE-2. If concentrations reduce to asymptotic levels the system will be modified to alternate flows between wells as has been done in the past (i.e. SVE-1 was extracting and will be changed to an inlet vent and vice versa for SVE-3). Summa can samples for TO-15 analysis will be planned for the 2nd Quarter 2019 to monitor changes in vapor concentrations if observed.

Additional modifications to the operation of this system should be considered to continue increased mass removal in the area between SVE-2 and SVE-3. These modifications may include opening SVE-1 and SVE-3 as an inlet vent or SVE-1 and SVE-2 as an inlet vent, to focus vapor removal in that area. It may also be beneficial to operate the SVE system in a pulsed mode in order to allow vapor concentrations to rebound followed by running the system for a period of time.

3.0 Ongoing Groundwater Treatment

Groundwater treatment is being implemented at several AOCs/SWMUs at the Renton Facility. The primary remedy being implemented is enhanced reductive dechlorination (ERD) of chlorinated solvents in targeted areas. The ERD treatment involves substrate injection using sucrose as a carbon source to stimulate biological degradation of the chlorinated solvents between December 2014 and March 2019.

Beginning in late 2017, anaerobic biodegradation of benzene using nitrate and sulfate injections was implemented for a small area at the 4-78/79 Building. Performance monitoring was completed at the injection and monitoring wells at this area in February 2019 and those results are summarized in Table 3-1. A sixth round of nitrate/sulfate injections were performed in March 2019 and collection of performance monitoring samples are planned for the second quarter of 2019 from the injection and monitoring wells at the 4-78/79 Building Area were also amended with sucrose substrate in March 2019, see Table 3-2 and Table 3-3.

Site wide groundwater sampling was conducted as part of the quarterly monitoring program during this reporting period and the results are discussed in the main text of the quarterly report. Table 3-4 presents a summary of those groundwater monitoring results, by area, related to groundwater treatment/ERD implementation, with recommendations for additional substrate injections at selected areas.

4

4.0 Conclusions and Recommendations

The soil confirmation samples in the second quarter of 2018 revealed that cleanup standards for CVOCs were met at all but one of the 24 samples at the 4-78/79 area. The single sample which exceed cleanup standards for TPH-G was collected from a low permeable silty/clay layer. TO-15 samples from the nearest extraction well to this location showed TPH-G was non-detect in both samples, indicating it is unlikely that continued SVE operation would have any impact on this low permeable layer. Subsequently, Ecology approved the shutdown of the Building 4-78/79 SVE system in November 2018. A separate work plan was provided to Ecology for review and approval outlining the proposed locations and depths of additional soil sampling (by Geoprobe) around PP13 for evaluation of soil excavation. Ecology has since approved the work plan and the additional soil sampling is planned in 2019.

SVE operations were modified at the SWMU-172/174 area to increase flushing between extraction wells SVE-2 and SVE-3, based on the elevated PCE detections observed during the soil confirmation sampling event in the second quarter of 2018. Increased vapor concentrations were observed at SVE-2 and the system influent following the system modification on 2/7/2019 and were sustained into mid-March 2019. It is recommended that SVE operations be continued for this area, with samples collected for TO-15 analysis in the second quarter of 2019 and additional modifications to include opening of SVE-1 and SVE-2 as inlet vents or SVE-1 and SVE-3 as inlet vents to allow focused vapor removal at SVE-2 and SVE-3. In addition, it may be beneficial to operate the SVE system in a pulsed mode to monitor for any VOC rebound in soil vapor.

Groundwater monitoring will continue according to the EDR, with supplemental VOC and TOC sampling at selected wells. Substrate for ERD treatment at the Building 4-78/79 area was injected in the first quarter of 2019 after the quarterly sampling was completed. In addition, a sixth round of nitrate/sulfate injections for benzene treatment at the Building 4-78/79 area was completed in March 2019 and collection of performance monitoring data is planned for the second quarter of 2019. Additional substrate and/or nitrate/sulfate injections will be recommended following the review of the 2nd quarter 2019 monitoring results.

5.0 References

AMEC 2014. Draft Engineering Design Report Boeing Renton Cleanup Action Plan Implementation. Prepared by AMEC Environment & Infrastructure, Inc. for The Boeing Company. July 2014.

CALIBRE 2014. Operations and Maintenance Plan for the Renton Cleanup Action Soil Vapor Extraction Systems. Prepared by CALIBRE Systems, Inc. for The Boeing Company, EHS Remediation. July 2014.

CALIBRE 2017. Bioremediation of Benzene in Groundwater; Building 4-78/79 Area, Boeing Renton Facility Rev. 1. Prepared by CALIBRE Systems, Inc. for The Boeing Company, EHS Remediation. September 2017.

CALIBRE 2018a. Recommendation to shut down SVE system at Building 4-78/4-79 SWMU/AOC Group; Boeing Renton Site. Prepared by CALIBRE Systems, Inc. for The Boeing Company, EHS Remediation. October 2018.

CALIBRE 2018b. Plan for Evaluation of Soils around Probe PP13 at Building 4-78/4-79 SWMU/AOC Group; Boeing Renton Site. Prepared by CALIBRE Systems, Inc. for The Boeing Company, EHS Remediation. November 2018.

Ecology 2015. Washington State Water Quality Standards: Human Health Criteria and Implementation Tools. Prepared by the Washington Department of Ecology. Publication no. 14-10-058. January 2015.

USACE 2002. Engineering and Design - Soil Vapor Extraction and Bioventing. Prepared by US Army Corps of Engineers. EM 1110-1-4001. June 2002.

TABLES

Table 2-1 TO-15 Analytical Results - SWMU-172/174 SVE System Project History

SVE System Inlet

SVE System miet	1						r		r	1	1				1	
			aia 1 2	trans 1.2	Minud										Tatal	Tatal
Data	DCF	тог	cis-1,2-	trans-1,2-	Vinyl	1 1 1 704	1 1 0 0 4	A	Teluene		Chlanafarm	e Vulene	Dantana	Havena	Total	Total
Date	PCE	TCE	DCE	DCE	Chloride	1,1,1-TCA	1,1-DCA	Acetone	Toluene	m,p-Xylene	Chloroform	,	Pentane	Hexane	Chlorinated	VOCs
4/17/2015	1,500	130	120	ND ND	ND ND	13	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	1,763 447	1,763 447
10/13/2015	400	31	13			3.3			ND 1.1		ND					
3/8/2016	82	5.4	3.1 10	ND	ND	ND	ND	ND		2.2	ND	ND	ND	ND	91	94
6/30/2016	230	18	-	ND	ND	1.8	ND	11	ND	ND	2.4	ND	ND	ND	260	273
9/12/2016	230	16	8.3	ND	ND	1.9	ND	ND	ND	ND	1.2	ND	ND	ND	256	257
12/14/2016	100	6.2	3.8	ND	ND	ND 12	ND	ND	ND	ND	ND	ND	ND	ND	110	110
5/30/2017 - 30 min	520	220	17	ND	ND	13	2.7	ND	ND	ND	ND	ND	ND	ND	773	773
5/30/2017 - 100 min	530	200	17	ND	ND	14	ND	ND	ND	ND	ND	ND	ND	ND	761	761
5/30/2017 - 225 min	510	130	16	ND	ND	12	ND	ND	ND	ND	ND	ND	ND	ND	668	668
8/16/2017	180	16	7.8	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND	ND	206	206
12/8/2017 - Rebound																
Start	99	7.6	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110	110
5/22/2018	430	43	13	ND	ND	12	ND	ND	ND	ND	ND	ND	ND	ND	498	498
6/7/2018	160	13	5.4	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	180	180
6/20/2018	170	14	5.7	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	192	192
8/30/2018	110	8.6	3.7	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	122	122
2/13/2019	32	2.2	1.6	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	36	36
SVE-2																
			cis-1,2-	trans-1,2-	Vinyl										Total	Total
Date	PCE	TCE	DCE	DCE	Chloride	1,1,1-TCA	1,1-DCA	Acetone	Toluene	m,p-Xylene	Chloroform	o-Xylene	Pentane	Hexane	Chlorinated	VOCs
8/30/2018	180	14	6.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	200
2/13/2019	48	3.3	2.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	54	54
SVE-3																
			cis-1,2-	trans-1,2-	Vinyl										Total	Total
Date	PCE	TCE	DCE	DCE	Chloride	1,1,1-TCA	1,1-DCA	Acetone	Toluene	m,p-Xylene	Chloroform	o-Xylene	Pentane	Hexane	Chlorinated	VOCs
5/30/2017 - 30 min	540	51	18	ND	ND	14	2.6	ND	2.2	ND	ND	ND	ND	ND	626	628
5/30/2017 - 100 min	200	16	6.5	ND	ND	5.5	ND	ND	ND	ND	ND	ND	ND	ND	228	228
8/16/2017	350	30	15	ND	ND	3.5	ND	ND	ND	ND	1.3	ND	ND	ND	399	400
12/8/2017 - Rebound																
Start	170	13	5.8	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND	ND	191	191
1/19/2018 - 35-Day 60																
Minute Sample	310	30	13	ND	ND	6.9	1.3	ND	ND	ND	1.1	ND	ND	ND	361	362
1/19/2018 - 35-Day 180																
Minute Sample	310	28	12	ND	ND	7.9	1.1	ND	ND	ND	1.1	ND	ND	ND	359	360
3/6/2018 - 80-Day 60									1						1	
Min Sample	440	41	15	ND	ND	14	2.2	ND	ND	ND	ND	ND	ND	ND	512	512
3/6/2018 - 80-Day 180	-		-							İ	1				1	
Min Sample	410	33	13	ND	ND	13	1.6	ND	ND	ND	ND	ND	ND	ND	471	471
5/22/2018	790	66	22	ND	ND	22	ND	ND	ND	ND	ND	ND	ND	ND	900	900
6/7/2018	280	23	9.6	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	ND	316	316
6/20/2018	310	23	11	ND	ND	3.4	ND	ND	ND	ND	ND	ND	ND	ND	348	348
0/20/2018	210	24	11	טא	ND	5.4	טא	ND	טא	טא	ND	ND	שא	טא	540	540

Table 2-1 TO-15 Analytical Results - SWMU-172/174 SVE System Project History

VPC Outlet

			cis-1,2-	trans-1,2-	Vinyl										Total	Total
Date	PCE	TCE	DCE	DCE	Chloride	1,1,1-TCA	1,1-DCA	Acetone	Toluene	m,p-Xylene	Chloroform	o-Xylene	Pentane	Hexane	Chlorinated	VOCs
4/17/2015	5.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.1	5.1
10/13/2015	ND	ND	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	ND	11
3/8/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6/30/2016	ND	ND	ND	ND	ND	ND	ND	ND	15	1.6	ND	1.2	6.2	1.2	ND	25.2
9/12/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12/14/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/16/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

All results are in parts per billion by volume (ppbv).

ND = non-detect

NA = not analyzed

DCE = Dichloroethene

PCE = tetrachloroethene

TCE = trichloroethene

Total Chlorinated = the sum of PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1,1-TCA, and 1,1-DCA.

Shaded cells are results from 1st Quarter 2019.

Date	Days in Operation Since Startup ¹	SVE-01 (ppbv)	SVE-02 (ppbv)	SVE-03 (ppbv)	VPC Inlet (ppbv)	VPC Mid (ppbv)	VPC Outlet (ppbv) ²	Notes
1/15/2019	1,206	Vent	0	2,451	242		0	
1/25/2019	1,216	Vent	74	1,388	469		0	
2/7/2019	,		0		214		0	Opened SVE-3 as vent and started extracting at SVE-1. Hear water in SVE-1 line near gate valve. Closed SVE-2 temporarily to focus vacuum at SVE-1 to extract water. Will keep these settings overnight and check system tomorrow. On site to check water in SVE-1 line. Piping sounds clear, opened SVE-2 to
2/8/2019	1,230	0	0	Vent	6			operate.
2/13/2019	1,235	792	1,272	Vent	762			Collected TO-15 samples from system influent and SVE-2.
2/22/2019	1,244	0	1,251	Vent	431		0	
3/6/2019	1,256	143	1,242	Vent	1,082		0	
3/14/2019	1,264	319	722	Vent	353		42	
3/21/2019	1,271	114	329	Vent	287		0	

Notes:

ppbv = parts per billion by volume

VPC = vapor phase carbon

¹ Days in operation since system startup on April 17, 2015.

² Concentrations measured are near the field instrument detection limit able to be measured by the PID.

Operational change was made on 2/7/19. Due to reduced influent concentrations observed SVE-03 was opened as a vent well to promote focused

flow towards SVE-01 and SVE-02.

Blank cells - Not all wells were measured with the PID during each sampling event.

Table 2-3 VOC Mass Removal Estimate - SWMU 172/174 SVE System

					VOCs removed in Operating Period	Cumulative VOC Mass Removed Since Start of SVE
	PID Reading	Corrected Value	System Flow	Cumulative	Between Monitoring	Operations in April, 2015
Date	(ppbv)	(PCE) (ppbv) ¹	(cfm)	Runtime Hours	Events (lbs) ²	(lbs)
1/15/2019	242	139	90	22,835	0.173	14.78
1/25/2019	469	269	90	23,061	0.133	14.91
2/7/2019	214	123	98	23,366	0.089	15.00
2/8/2019	6	3	70	23,366	0.000	15.00
2/13/2019	762	438	70	23,477	0.083	15.08
2/22/2019	431	248	70	23,695	0.092	15.17
3/6/2019	1,082	623	70	23,973	0.295	15.47
3/14/2019	353	203	70	24,164	0.066	15.53
3/21/2019	287	165	70	24,327	0.046	15.58

Notes:

PID = photoionization detector

ppbv = parts per billion by volume

cfm = cubic feet per minute

lbs = pounds

¹ A correction factor of 0.57 has been applied to the PID vapor measurement for VOCs based on the mixture of analytes detected in the TO-15 analysis at the influent sample point from 2/13/19. This number is much higher than the TO-15 results.

² These are based soley on the PID measurements collected this quarter; the TO-15 analysis indicates much lower mass.

TO-15 analysis results showed Tetrachloroethene made up 89% of the total VOCs removed at the influent on 2/13/19.

Table 3-1 - Baseline and Performance Monitoring Groundwater Data; 4-78/79 Benzene Treatment Area

																Т
		Sample Depth			cis-1,2-				Benzene		Nitrate		Nitrite		Sulfate	
Sample ID	Date	(ft bgs)	TCE (ug/L)		DCE (ug/L)		VC (ug/L)		(ug/L)		(mg-N/L)		(mg-N/L)		(mg/L)	
		(0-7			- (-0, ,		- (-0, -,		(0, 7		(0 / /		(0 / /		(0, 7	╈
B78-11-8-113017	11/30/2017	8	0.42		0.98		1.11		9.66		<0.100	U	<0.100	U	1.94	T
B78-11-021418	2/14/2018	8	1.16		0.84		1.09		14.8		<0.100	U	<0.100	U	9.22	D
B78-11-051518	5/15/2018	8	1.86		0.78		1.06		12.6		<0.100	U	<0.100	U	34.1	D
B78-11-180917	9/17/2018	8	5.01		7.90		3.62		9.20		<0.100	U	<0.100	U	23.4	D
B78-11-020719	2/7/2019	8	3.13		2.47		1.81		4.88		<0.100	U	<0.100	U	25.0	D
	•	•														
B78-13-15-112917	11/29/2017	15	0.24		1.29		2.02		9.92		0.135		<0.100	U	0.652	
B78-13-021418	2/14/2018	15	<0.2	U	1.78		8.49		4.11		<0.100	U	<0.100	U	1.31	
B78-13-051518	5/15/2018	15	<0.2	U	0.85		0.87		4.94		0.182		<0.100	U	4.32	D
B78-13-180917	9/17/2018	15	<0.2	U	0.61		0.38		3.29		<0.100	U	<0.100	U	0.812	T
B78-13-020719	2/7/2019	15	<0.2	U	0.37		0.29		0.74		<0.100	U	<0.100	U	0.189	1
	•	•														
B78-17-9-100617	10/6/2017	9	<0.2	U	0.17	J	0.33		4.84		-		-		-	
B78-17-15-112917	11/29/2017	15	1.25		0.81		1.31		6.52		<0.100	U	<0.100	U	17.1	D
B78-17-021418	2/14/2018	15	2.57		1.78		1.47		4.61		<0.100	U	<0.100	U	7.35	D
B78-17-051518	5/15/2018	15	0.91		1.63		0.53		2.60		<0.100	U	<0.100	U	8.66	D
B78-17-180917	9/17/2018	15	<0.2	U	0.39		<0.2	U	1.37		<0.100	U	<0.100	U	9.63	D
B78-17-020719	2/7/2019	15	<0.2	U	0.68		0.47		0.56		0.101		<0.100	U	2.32	T
	•	•														
B78-18-8-100617	10/6/2017	8	<0.2	U	0.07	J	0.29		0.72		-		-		-	Γ
B78-18-15-112917	11/29/2017	15	<0.2	U	<0.2	U	0.35	М	3.10		<0.100	U	<0.100	U	0.343	T
DUP-01-112917	11/29/2017	15	<0.2	U	<0.2	U	0.36		2.96		<0.100	U	<0.100	U	1.68	T
B78-18-021418	2/14/2018	15	<0.2	U	<0.2	U	0.24		1.28		<0.100	U	<0.100	U	1.47	T
B78-18-051518	5/15/2018	15	<0.2	U	<0.2	U	0.23		1.68		<0.100	U	<0.100	U	27.6	D
B78-18-180917	9/17/2018	15	<0.2	U	<0.2	U	<0.2	U	0.89		<0.100	U	<0.100	U	7.28	D
B78-18-020719	2/7/2019	15	<0.2	U	<0.2	U	0.22		1.32		<0.100	U	<0.100	U	2.41	D
B78-19-9-100617	10/6/2017	9	<0.2	U	0.06	J	0.22		0.69		-		-		-	
B78-19-15-112917	11/29/2017	15	<0.2	U	<0.2	U	0.27	М	0.36		<0.100	U	<0.100	U	0.255	
B78-19-021418	2/14/2018	15	<0.2	U	<0.2	U	0.21		0.23		<0.100	U	<0.100	U	1.22	
B78-19-051518	5/15/2018	15	<0.2	U	<0.2	U	0.21		0.34		<0.100	U	<0.100	U	22.4	D
B78-19-180917	9/17/2018	15	<0.2	U	<0.2	U	<0.2	U	<0.2	U	<0.100	U	<0.100	U	1.91	
B78-19-020719	2/7/2019	15	<0.2	U	<0.2	U	<0.2	U	<0.2	U	<0.100	U	<0.100	U	2.16	
B78-20-8-100617	10/6/2017	8	<0.2	U	<0.2	U	0.14	J	8.81		-		-		-	
B78-20-15-113017	11/30/2017	15	0.41		<0.2	U	<0.2	U	25.9		2.93	D	<0.100	U	53.9	D
B78-20-021418	2/14/2018	15	0.25		0.49	М	<0.2	U	40.0		<0.100	U	<0.100	U	21.1	D
B78-20-051518	5/15/2018	15	<0.2	U	0.39		0.22		54.2		<0.100	U	<0.100	U	15.5	D
B78-20-180917	9/17/2018	15	0.24		0.27		0.29		0.98		<0.100	U	<0.100	U	2.39	
B78-20-020719	2/7/2019	15	<0.2	U	0.41	М	0.25		16.5		<0.100	U	<0.100	U	1.89	
										_				_		
B78-21-8-100617	10/6/2017	8	<0.2	U	0.13	J	0.21		1.42		-		-		-	
Dup01-100617	10/6/2017	15	<0.2	U	0.15	J	0.20	J	2.01		-		-		-	
B78-21-15-112917	11/29/2017	15	<0.2	U	0.31	М	0.26		2.27		0.101		<0.100	U	4.43	D
B78-21-021418	2/14/2018	15	<0.2	U	0.24		0.30		0.86		<0.100	U	<0.100	U	1.60	
B78-21-051518	5/15/2018	15	<0.2	U	0.27		0.27		1.08		<0.100	U	<0.100	U	4.59	D
B78-21-180917	9/17/2018	15	0.22		0.29		<0.2	U	0.59		<0.100	U	<0.100	U	3.62	D
B78-21-020719	2/7/2019	15	<0.2	U	0.28		0.32		0.43		0.170		0.161		3.78	D

		Sample Depth			cis-1,2-				Benzene		Nitrate		Nitrite		Sulfate	
Sample ID	Date	(ft bgs)	TCE (ug/L)		DCE (ug/L)		VC (ug/L)		(ug/L)		(mg-N/L)		(mg-N/L)		(mg/L)	
GW-244S-13-112917	11/29/2017	13	3.48		8.06		5.68		7.97		<0.100	U	<0.100	U	0.753	
GW-244S-021418	2/14/2018	13	1.01		1.25		1.22		5.34		<0.100	U	<0.100	U	1.25	
GW-244S	3/6/2018	13	1.26		2.00		1.56		6.86		•		-		-	
GW-244S-051518	5/15/2018	13	<0.2	U	0.30		0.41		3.89		<0.100	U	<0.100	U	<0.100	U
GW-244S-180917	9/17/2018	13	<0.2	U	0.25		0.38		3.74		<0.100	U	<0.100	U	0.113	
GW-244S	11/13/2018	13	<0.2	U	0.26		0.55		2.95		-		-		-	
GW-244S-020719	2/7/2019	13	<0.2	U	0.26		0.47		1.14		0.101		<0.100	U	0.337	
GW-244S	3/4/2019	13	0.22		0.82		0.86		1.73		-		-		-	
GW-031S-23-113017	11/30/2017	23	<0.2	U	<0.2	U	<0.2	U	17.6		<0.100	U	<0.100	U	2.54	D
GW-031S-021418	2/14/2018	23	<0.2	U	0.45	М	0.49		21.9		<0.100	U	<0.100	U	3.67	D
DUP-01-021418	2/14/2018	23	<0.2	U	0.46		0.42		21.4		-		-		-	
GW-031S	3/6/2018	23	<0.2	U	1.18		<0.2	υ	60.3		•		-		-	
GW-031S-051518	5/15/2018	23	0.36		0.40		0.21		2.68		<0.100	U	<0.100	U	2.95	D
Dup-01-051518	5/15/2018	23	0.32		0.34		0.20		2.64		<0.100	U	<0.100	U	2.87	D
GW-031S-180917	9/17/2018	23	<0.2	U	<0.2	U	0.28		<0.2	U	<0.100	U	<0.100	U	0.499	
Dup-01-180917	9/17/2018	23	<0.2	U	0.21		0.30		<0.2	U	<0.100	U	<0.100	U	0.441	
GW-031S	11/13/2018	23	<0.2	U	0.63		0.31		28.3		•		-		-	
Dup-01	11/13/2018	23	<0.2	U	0.58		0.30		23.8		•		-		-	
GW-031S-020719	2/7/2019	23	<0.2	U	0.51	М	<0.2	U	21.6		<0.100	U	<0.100	U	0.170	
Dup-01-020719	2/7/2019	23	<0.2	U	0.57	Μ	0.24		22.7		<0.100	U	<0.100	U	0.202	
GW-031S	3/4/2019	23	<0.2	U	<0.2	U	<0.2	U	55.9		-		-		-	
Dup-01	3/4/2019	23	<0.2	U	<0.2	U	<0.2	U	58.6		-		-		-	

Table 3-1 - Baseline and Performance Monitoring Groundwater Data; 4-78/79 Benzene Treatment Area

Notes:

U = non-detect

D = dilution

M = Estimated value for a GC/MS analyte detected and confirmed by an analyst but with low spectral match parameters.

Table 3-2 - March 2019 Injection Volumes at ERD Wells

Area	Injection Well	Volume of Solution (gallons)	Brix (°Bx)	Pounds Substrate in the Solution (lbs)
Building 4-78/79	B78-12	500	9.0	375
	B78-14	500	9.0	375
	B78-15	500	9.0	375
	B78-16	497	9.0	373
	Total (gal)	1,997	Total (lbs)	1,499

Notes:

^oBx (degrees brix) is a measure of the sugar content in an aqueous solution. One degree Brix is 1 gram of sucrose in 100 grams of solution and represents the strength of the solution as percantage by mass.

Table 3-3 - March 2019 Injection Volumes at Benzene Treatment Wells

Area	Injection Well	Volume Total (gal)	NaNO3 (lbs)	MgSO4 (lbs)	DAP (lbs)	Concentration NO3 Injected (mg/L)	Concentration SO4 Injected (mg/L)
Building 4-78/79	B78-11	504	4.74	2.08	5.38	825	397
	B78-13	508	4.62	2.08	5.41	797	393
	B78-17	508	4.62	2.08	5.41	797	393
	B78-18	508	4.62	2.08	5.41	797	393
	B78-19	511	4.62	2.08	5.34	793	391
	B78-20	503	4.62	2.08	5.34	805	397
	B78-21	507	4.62	2.08	5.34	799	394

Notes:

NaNO3 - Sodium Nitrate

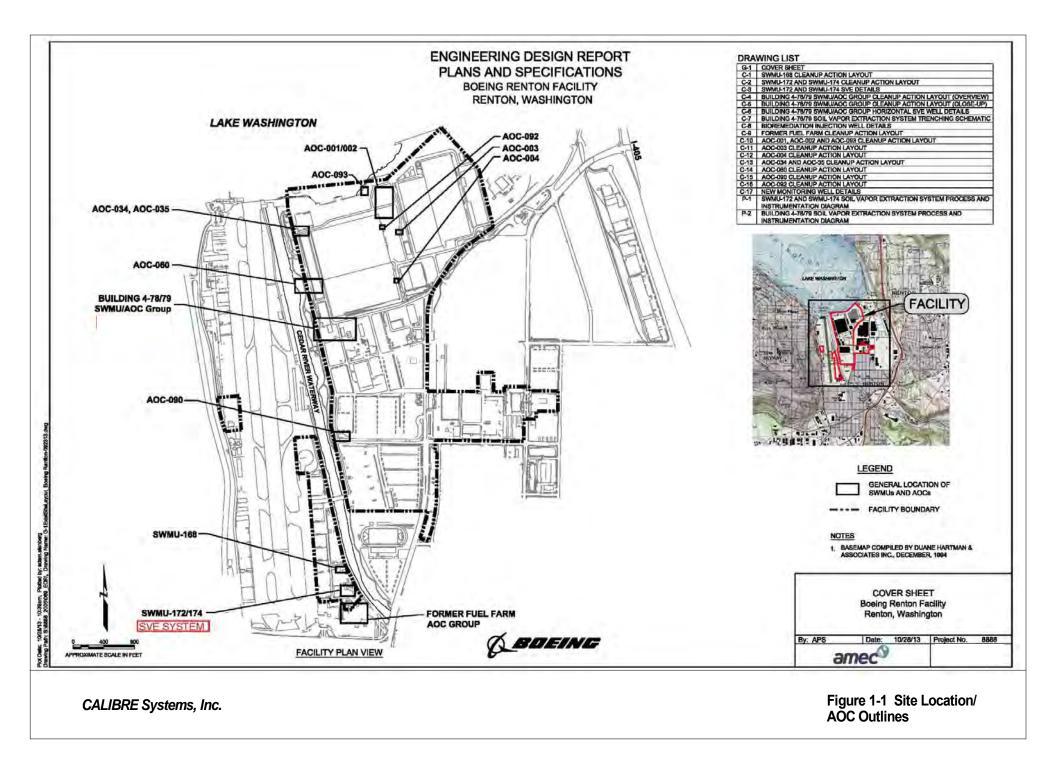
MgSO4 - Magnesium Sulfate

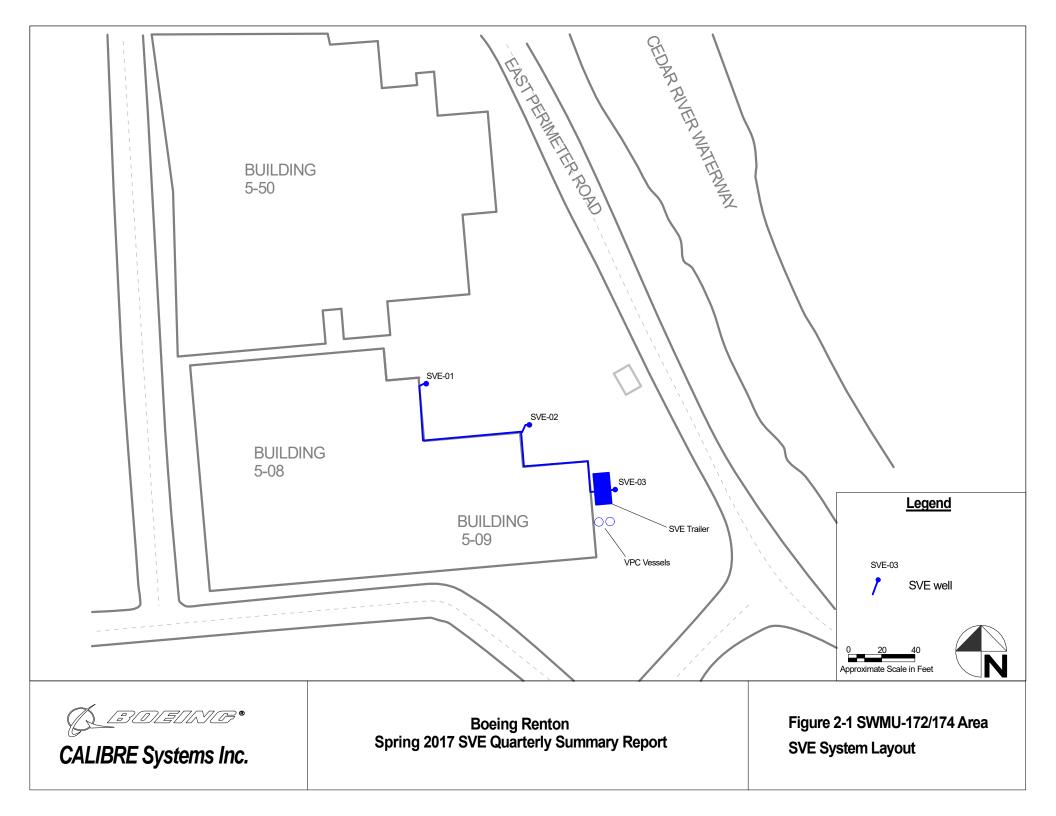
DAP - Diammonium Phosphate

Table 3-4 Groundwater Monitoring Results Summary March 2019 and Recommended ERD Treatment

GW Treatment Area	Source and down gradient MWs	CPOC wells	Treatment IWs	ERD Treatment Recommendation
SWMU-172/174	PCE and TCE less than 0.20 ug/L; cisDCE less than 0.70 ug/L; VC less than 0.20 ug/L.	All detections are at 0.25 ug/L or less.	Prior data Mar 2018, North and South IWS showed total CVOCs range from 0.03 ug/L to 6.90 ug/L. TOC near background.	Detections are very low and less than 1 ug/L throughout the site. Will consider additional injections if beneficial.
Building 4-78/4-79 SWMU/AOC Group	TCE, cisDCE and VC are ND or less than 0.86 ug/L at all but GW033S. One central well (GW033S) continues to show significant reductions in total CVOCs from 1,430 ug/L in Nov 2017. Recent data show 46 ug/L in Nov 2018 and now 4.1 ug/L in Mar 2019. Substrate was applied to this area after Mar 2019 sampling. Benzene increased at source well GW031S (28 ug/L in Nov 2018 to 59 ug/L in Mar 2019). Nitrate/sulfate injected following Mar 2019 sampling.	All CPOC wells with CVOCs either ND or slightly above CULs. Max VC concentration at 0.25 ug/L (CUL is 0.20 ug/L). Northern well GW237S showed increase in Benzene at 9.58 ug/L, up from 0.93 ug/L in Nov 2018.	wells with low detections where sum of CVOCs are	Substrate injection in selected IWs/areas around GW033S completed in March 2019 following sampling. Nitrate/Sulfate injected in area of GW031S completed in March 2019 following sampling. Performance samples collected in May 2019. Review performance monitoring results and make recommendation.
AOC-001/002	Source MW: TCE is ND; cisDCE less than 0.60 ug/L and VC less than 0.07 ug/L. Down gradient wells less than 0.71 ug/L	All detections below 0.21 ug/L.	Prior data Mar 2018, detections at or below 0.30 ug/L.	Consider injection at infiltration galleries at source (IPRA and IPRB) when area is accessible.
AOC-003	All detections are less than 0.54 ug/L.	All detections are less than 0.71 ug/L.	Prior data May 2017 one of four IWs sampled – VC detection less than 0.30 ug/L	Substrate injection to be considered in conjunction with AOC-001/002.
Lot 20 / former 10-71	Prior data Nov 2018, two of three wells are ND; other well shows TCE at 0.28 ug/L and cisDCE at 0.25 ug/L.	-	-	No action at this time.
AOC-60	MW's with detections less than 0.30 ug/L; treatment MWs with total CVOCs less than 2.6 ug/L.	Detections less than 0.15 ug/L.	-	Detections are very low throughout the site. Will consider additional injections if beneficial.
AOC – 90	Treatment MW at source with total CVOCs at 1.6 ug/L total CVOCs down from 27 ug/L in Aug 2018; down gradient wells less than 0.30 ug/L.	Detections less than 0.44 ug/L.	-	Detections are very low throughout the site. Will consider additional injections if beneficial.
Apron A	Prior data; two of three wells ND; other well shows VC at 0.55 ug/L.	-	-	No action at this time.
Building 4-70	-	Detections less than 0.42 ug/L.	-	No action at this time.

FIGURES





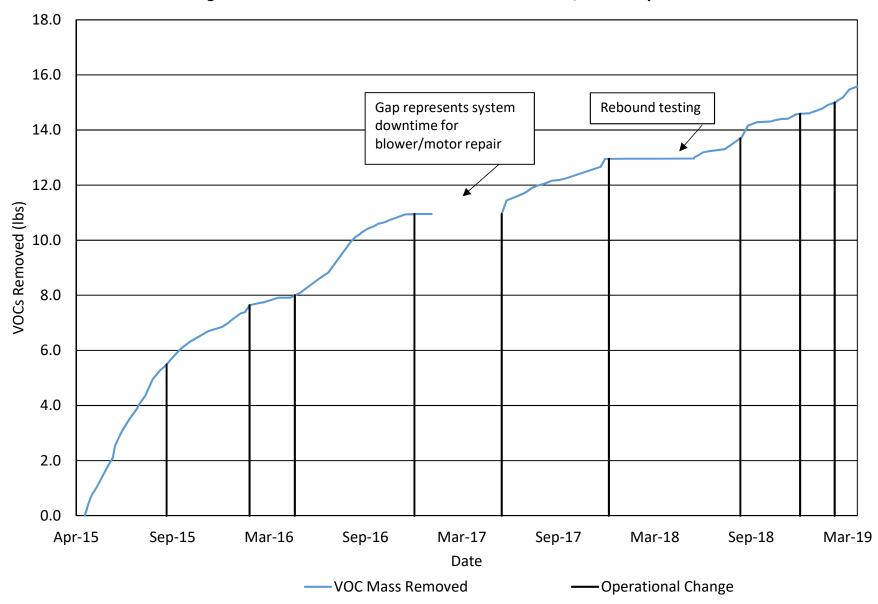


Figure 2-2 Cumulative VOC Mass Removed - SWMU-172/174 SVE System

*SWMU 172/174 SVE system did not run Winter 2017 due to equipment failure.

Attachment A: Field Log Forms

Inspection Date:

1 15/19

Date of last inspection:

12/21/18

Periodic systems check:

1) Check flowrate, vacuum, pressure, moisture separator, water storage drums

2) Check each SVE well, VPC inlet, and VPC outlet with PID.

	Oper		rs - Monitoring interval is variable.	
Inspection Time:	0011	Motor Hours:	4,001.8	
Blower	Current Value		Other Notes	
Vacuum gauge	39"420			
Pressure gauge	20 "120			
System flow rate	985cpm			
Blower Temperature	95°P			
Temp.at lag VPC discharge			i, any unusual noise/vibration	

PID Model:	D20 VUE 3000 0 ppb / 10.00pm							
Calibration time/	date:	115/19 1200	PID check	after monitor	ing:			
Sampling Point	Time	PID Reading (1)	PID Reading (2)	Vacuum	Flow Rate (gauge)	Differential Pressure	Flow Rate Calculated ¹	
SVE-01		Vent						
SVE-02		J ppb	8 ppb					
SVE-03		2,451 ppb						
VPC Inlet		242ppb	189 ppb					
VPC Midpoint						-		
VPC Outlet		Oppb	Oppb					
Other vapor point			8.6					

1. Flow rate calculated from the equation $Flow Rate (cfm) = 12.24 \times \sqrt{differential pressure}$.

Questions? Call Justin Neste @ (360) 981-5606

At the Completion of a monitoring event scan monitoring forms and email to Justin Neste: Justin.Neste@calibresys.com

Signature

Justin Deste Printed Name

Inspection Date:

125 19

Date of last inspection:

15

Periodic systems check:

1) Check flowrate, vacuum, pressure, moisture separator, water storage drums

2) Check each SVE well, VPC inlet, and VPC outlet with PID.

	Operational Parameters - Monitoring interval is variable.									
Inspection Time:	69.20	Motor Hours: 4,227.6								
Blower	Current Value	Other Notes								
Vacuum gauge	40"H20									
Pressure gauge	29 "420									
System flow rate	90 SURM									
Blower Temperature	9708									
Temp.at lag VPC discharge										
Other notes: che	eck oil level, drive bel	ts, TEFC motor fan, any unusual noise/vibration								

PID Model:	PPBRAG	3000	Details:	0 prb	10.01 ppm		
Calibration time/							
Sampling Point	Time	PID Reading (1)	PID Reading (2)	Vacuum	Flow Rate (gauge)	Differential Pressure	Flow Rate Calculated ¹
SVE-01		Vent					
SVE-02		56000	74ppb				
SVE-03		1,316 205	1388886				
VPC Inlet		451 2200	469776				
VPC Midpoint			1.				
VPC Outlet		dad C	0990				
Other vapor point		1.					

1. Flow rate calculated from the equation $Flow Rate (cfm) = 12.24 \times \sqrt{differential pressure}$.

Questions? Call Justin Neste @ (360) 981-5606

At the Completion of a monitoring event scan monitoring forms and email to Justin Neste: Justin.Neste@calibresys.com

Signature

Justin Wester Printed Name \sim Signature

17/19 Inspection Date:

Date of last inspection: __

Periodic systems check:

1) Check flowrate, vacuum, pressure, moisture separator, water storage drums

2) Check each SVE well, VPC inlet, and VPC outlet with PID.

Oper	ational Parameters - Monitoring interval is variable.			
1545	Motor Hours: 3532.6			
Current Value	Other Notes			
42" 1420	- extracting from SVE-1, can near water in SVE-1 line			
20"40	den a to when the all at -7, to form une @ SUE-1			
98 56FM	Will allow system to run like this overnight to try to			
93°F	Vou= 60"420 Flow= 42 scien			
	Pres= 5" H20 Trup = 104 °F ts TEFC motor fan, any unusual noise/vibration			
	1545 Current Value 42" HW 20" HW 98 50FM 93°F			

Other notes: check oil level, arive belts, TEFC mic

PID Model:	PPB LAE	3000	Details:	Oppb 1	10.00 pplan			
Calibration time	/ date: 1550	0 2/7/19	PID check after monitoring:					
Sampling Point	Time	PID Reading (1)	PID Reading (2)	Vacuum	Flow Rate (gauge)	Differential Pressure	Flow Rate Calculated ¹	
SVE-01		vent						
SVE-02		0 200	0400					
SVE-03		303,006	420,000 /45	5000				
VPC Inlet		176200	214805					
VPC Midpoint								
VPC Outlet		0,220	0980					
Other vapor point		/ (

1. Flow rate calculated from the equation Flow Rate $(cfm) = 12.24 \times \sqrt{differential}$ pressure.

Questions? Call Justin Neste @ (360) 981-5606

At the Completion of a monitoring event scan monitoring forms and email to Justin Neste: Justin.Neste@calibresys.com

Signature

2/7/19 Justin Neste Printed Name

1/25/19

2/8/19 Inspection Date:

Date of last inspection:

Periodic systems check:

1) Check flowrate, vacuum, pressure, moisture separator, water storage drums

2) Check each SVE well, VPC inlet, and VPC outlet with PID.

Inspection Time:		Motor Hours:		
Blower	Current Value	Other Notes		
Vacuum gauge	50"420	On site to chuck mater in SVE (line. Sounds dear		
Pressure gauge	10 " [72]	opened SUE-Z TO System flow & SUE-3 to inlut vent.		
System flow rate	10 SUFM			
Blower Temperature	104°15			
Temp.at lag VPC discharge		ts, TEFC motor fan, any unusual noise/vibration		

PID Model: Calibration time/ date:				Details: PID check after monitoring:					
SVE-01		0 ppo	Oppo						
SVE-02		0076	Oppb						
SVE-03		Vent	11						
VPC Inlet		0 993	6 990						
VPC Midpoint									
VPC Outlet									
Other vapor point									

1. Flow rate calculated from the equation $Flow Rate (cfm) = 12.24 \times \sqrt{differential} pressure.$

Questions? Call Justin Neste @ (360) 981-5606

At the Completion of a monitoring event scan monitoring forms and email to Justin Neste: Justin.Neste@calibresys.com

Printed Name

Signature

Signature

Date

Inspection Date:

2/13/19 Date of last inspection:

2/8/10

Periodic systems check:

1) Check flowrate, vacuum, pressure, moisture separator, water storage drums

2) Check each SVE well, VPC inlet, and VPC outlet with PID.

Inspection Time:	0815	Motor Hours: 8,668.3	
Blower	Current Value	Other Notes	
Vacuum gauge	51"1120	5-09-50E-IN-021319 C 0925	10-15
Pressure gauge	10 "Hz0	5-09-50E-2-021319 @ 6940	70-15
System flow rate	TÜSCEM		
Blower Temperature	9700		
Temp.at lag VPC discharge		ts, TEFC motor fan, any unusual noise/vibration	

PID Model:	PPBRA	NE3000	Details:	Оррь	/10.00 p	phi	
Calibration time	/ date: 2	13 0830	PID check	after monitor			
Sampling Point	Time	PID Reading (1)	PID Reading (2)	Vacuum	Flow Rate (gauge)	Differential Pressure	Flow Rate Calculated ¹
SVE-01	0855	174 ppb	792 ppb				
SVE-02	0910	1772 ppb	1,230 ppb				
SVE-03		Vent					
VPC Inlet	0845	762200	745000				
VPC Midpoint							
VPC Outlet	0840	Oppy	Oppla				
Other vapor point							

1. Flow rate calculated from the equation Flow Rate $(cfm) = 12.24 \times \sqrt{differential}$ pressure.

Questions? Call Justin Neste @ (360) 981-5606

At the Completion of a monitoring event scan monitoring forms and email to Justin Neste: Justin.Neste@calibresys.com

Justin Nesh Signature

Inspection Date:

3/6/19

_ Date of last inspection: _ 2/22/197

Periodic systems check:

1) Check flowrate, vacuum, pressure, moisture separator, water storage drums

2) Check each SVE well, VPC inlet, and VPC outlet with PID.

	Oper	rational Parameters - Monitoring interval is variable.	
Inspection Time:	0900	Motor Hours: 9163.5	
Blower	Current Value	Other Notes	
Vacuum gauge	45"1420		
Pressure gauge	10"1-20		
System flow	TOSOFIN		
Blower Temperature	99°12		
Temp.at lag VPC discharge			
Other notes: cho	eck oil level, drive bel	ts, TEFC motor fan, any unusual noise/vibration	

PID Model:	PBRAE	300)	Details:	Oppl	> 1999	8 pps	a.
Calibration time	/ date: D830	0 3/6/19	PID check	k after monitor	ing:		
Sampling Point	Time	PID Reading (1)	PID Reading (2)	Vacuum	Flow Rate (gauge)	Differential Pressure	Flow Rate Calculated ¹
SVE-01	0920	143 226	134ppb				
SVE-02	0930	1,210 ,100	1,2 42,076				
SVE-03	Valu	it.					
VPC Inlet	0910	956 ppb	1,082 ppb		-		
VPC Midpoint	9992000000						
VPC Outlet	0905	O PP6	oppb				
Other vapor point							

1. Flow rate calculated from the equation $Flow Rate (cfm) = 12.24 \times \sqrt{differential pressure}$.

Questions? Call Justin Neste @ (360) 981-5606

At the Completion of a monitoring event scan monitoring forms and email to Justin Neste: Justin.Neste@calibresys.com

Justin Neste

rich. Sionature

Inspection Date: Periodic systems check:

1) Check flowrate, vacuum, pressure, moisture separator, water storage drums

2) Check each SVE well VPC inlet, and VPC outlet with PID.

19

2/14

	Oper	rational Parameters - Monitoring interval is variable.	
Inspection Time:	1210	Motor Hours: 9354.8	
Blower	Current Value	Other Notes	
Vacuum gauge	45" 420		
Pressure gauge	10"420		
System flow rate	71) Scfor		
Blower Temperature	11308		
Temp.at lag VPC discharge			
Other notes: che	ck oil level, drive bel	ts, TEFC motor fan, any unusual noise/vibration	

PID Model:	PRRAEZ	,000	Details:	0 ppb	110.03ppm		
Calibration time	· · · · · · · · · · · · · · · · · · ·	- 1	PID check	after monitor			
Sampling Point	Time	PID Reading (1)	PID Reading (2)	Vacuum	Flow Rate (gauge)	Differential Pressure	Flow Rate Calculated ¹
SVE-01	1235	319 ppb	152 ppb				
SVE-02	1230	722ppb	642ppb				
SVE-03		Vent					
VPC Inlet	1225	353 ppb	326ppb				
VPC Midpoint							
VPC Outlet	1220	42 ppb	25ppb				
Other vapor point							

1. Flow rate calculated from the equation $Flow Rate (cfm) = 12.24 \times \sqrt{differential pressure}$.

Justin

Printed Name

Questions? Call Justin Neste @ (360) 981-5606

At the Completion of a monitoring event scan monitoring forms and email to Justin Neste: Justin Neste@calibresys.com

Signature

Neste

19 31 Date of last inspection:

Inspection Date: 3/21/19 Date of last inspection: 3/14/19 Periodic systems check:

1) Check flowrate, vacuum, pressure, moisture separator, water storage drums

2) Check each SVE well, VPC inlet, and VPC outlet with PID.

		ational Parameters - Monitoring interval is variable.	
Inspection Time:	0832	Motor Hours: 9.577.4	
Blower	Current Value	Other Notes	
Vacuum gauge	44"H20		
Pressure gauge	10" 420		
System flow rate	10 scfm		
Blower Temperature	110°F		
Temp.at lag VPC discharge		ts, TEFC motor fan, any unusual noise/vibration	

PID Model:	PPB	2 A É 3 000	Detail	s: <u>Calgas</u> neck after monitor	can empir		
Calibration time	e/ date:	N/A (3/4/19		neck after monitor	ing:		
Sampling Point	Time	PID Reading (1)	PID Readin (2)	g Vacuum	Flow Rate (gauge)	Differential Pressure	Flow Rate Calculated ¹
SVE-01	0925	107 pps	114 ppb				
SVE-02	0934	329ppb	324pp	2			
SVE-03		Vent					
VPC Inlet	0915	2.87,000	277 pp5	,			
VPC Midpoint				r			
VPC Outlet	0910	0775	Oppb				
Other vapor point			-	1.			

1. Flow rate calculated from the equation $Flow Rate (cfm) = 12.24 \times \sqrt{differential} pressure.$

Questions? Call Justin Neste @ (360) 981-5606

At the Completion of a monitoring event scan monitoring forms and email to Justin Neste: Justin.Neste@calibresys.com

Signature 3/1/19 TUSTIN WUSH Printed Name

Attachment B: TO-15 Laboratory Data Package



3/8/2019 Mr. Justin Neste CALIBRE, Environmental Technology Solutions 20926 Pugh Rd NE

Poulsbo WA 98370

Project Name: Renton Project #: Workorder #: 1902481

Dear Mr. Justin Neste

The following report includes the data for the above referenced project for sample(s) received on 2/25/2019 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Killy Butte

Kelly Buettner Project Manager

A Eurofins Lancaster Laboratories Company

180 Blue Ravine Road, Suite B Folsom, CA 95630



WORK ORDER #: 1902481

Work Order Summary

CLIENT:	Mr. Justin Neste CALIBRE, Environmental Technology Solutions 20926 Pugh Rd NE Poulsbo, WA 98370	BILL TO:	Accounts Payable Eurofins Lancaster Laboratories Environmental, LLC 2425 New Holland Pike Lancaster, PA 17605-2425
PHONE:	360-981-5606	P.O. #	
FAX:		PROJECT #	Renton
DATE RECEIVED:	02/25/2019	CONTACT:	Kelly Buettner
DATE COMPLETED:	03/08/2019		

			RECEIPT	FINAL
FRACTION #	NAME	<u>TEST</u>	VAC./PRES.	PRESSURE
01A	5-09-SVE-IN-021319	TO-15	5.5 "Hg	15 psi
02A	5-09-SVE-2-021319	TO-15	5.5 "Hg	15 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY:

Lai

03/08/19 DATE:

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016. Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000. (800) 985-5955. FAX (916) 985-1020



LABORATORY NARRATIVE EPA Method TO-15 CALIBRE, Environmental Technology Solutions Workorder# 1902481

Two 1 Liter Summa Canister samples were received on February 25, 2019. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: 5-09-SVE-IN-021319

Lab ID#: 1902481-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.2	1.6	4.9	6.5
Trichloroethene	1.2	2.2	6.6	12
Tetrachloroethene	1.2	32	8.4	220

Client Sample ID: 5-09-SVE-2-021319

Lab ID#: 1902481-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.2	2.8	4.9	11
Trichloroethene	1.2	3.3	6.6	18
Tetrachloroethene	1.2	48	8.4	330



Client Sample ID: 5-09-SVE-IN-021319 Lab ID#: 1902481-01A EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:			e of Collection: 2/13/19 9:26:00 AM e of Analysis: 2/28/19 07:05 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
cis-1,2-Dichloroethene	1.2	1.6	4.9	6.5
Benzene	1.2	Not Detected	3.9	Not Detected
Trichloroethene	1.2	2.2	6.6	12
Tetrachloroethene	1.2	32	8.4	220

Container Type: 1 Liter Summa Canister

-		Method
Surrogates	%Recovery	Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	80	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: 5-09-SVE-2-021319 Lab ID#: 1902481-02A EPA METHOD TO-15 GC/MS FULL SCAN

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File Name: Dil. Factor:	a022810 2.47			
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
cis-1,2-Dichloroethene	1.2	2.8	4.9	11
Benzene	1.2	Not Detected	3.9	Not Detected
Trichloroethene	1.2	3.3	6.6	18
Tetrachloroethene	1.2	48	8.4	330

Container Type: 1 Liter Summa Canister

	**	Method
Surrogates	%Recovery	Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	83	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: Lab Blank Lab ID#: 1902481-03A EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:			of Collection: NA of Analysis: 2/28/19 12:48 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected

		Method	
Surrogates	%Recovery	Limits	
Toluene-d8	101	70-130	
1,2-Dichloroethane-d4	83	70-130	
4-Bromofluorobenzene	96	70-130	



Client Sample ID: CCV Lab ID#: 1902481-04A EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:	a022802 1.00	Date of Collection: NA Date of Analysis: 2/28/19 10:54 AM
Compound		%Recovery
Chloromethane		89
Vinyl Chloride		88
1,1-Dichloroethene		91
Methylene Chloride		91
cis-1,2-Dichloroethene		96
Benzene		100
Trichloroethene		103
Tetrachloroethene		100

		Method	
Surrogates	%Recovery	Limits	
Toluene-d8	99	70-130	
1,2-Dichloroethane-d4	82	70-130	
4-Bromofluorobenzene	97	70-130	



Client Sample ID: LCS Lab ID#: 1902481-05A EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:	a022803 1.00	Date of Collection: NA Date of Analysis: 2/28/19 11:19 AM	
Compound	%Recovery		Method Limits
Chloromethane		86	70-130
Vinyl Chloride		89	70-130
1,1-Dichloroethene		92	70-130
Methylene Chloride		89	70-130
cis-1,2-Dichloroethene		105	70-130
Benzene		103	70-130
Trichloroethene		105	70-130
Tetrachloroethene		99	70-130

		Method	
Surrogates	%Recovery	Limits	
Toluene-d8	102	70-130	
1,2-Dichloroethane-d4	82	70-130	
4-Bromofluorobenzene	96	70-130	



Client Sample ID: LCSD Lab ID#: 1902481-05AA EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:	a022804 1.00	Date of Collection: NA Date of Analysis: 2/28/19 11:44 AM	
Compound	%Recovery		Method Limits
Chloromethane		86	70-130
Vinyl Chloride		90	70-130
1,1-Dichloroethene		91	70-130
Methylene Chloride		91	70-130
cis-1,2-Dichloroethene		107	70-130
Benzene			70-130
Trichloroethene		104	70-130
Tetrachloroethene		100	70-130

Contraction (Manual Contraction)		Method
Surrogates	%Recovery	Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	96	70-130