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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Region Office
PO Box 330316, Shoreline, WA 98133-9716 • 206-594-0000

March 07, 2024

Andrew Rardin
Airport Environmental & Wildlife Manager
Paine Field Snohomish County Airport
3220 100th Street SW, Suite A
Everett, Washington, 98204
(andrew.rardin@snoco.org)

Re: Ecology Comments on Draft Agreed Order Remedial Investigation Work Plan
TECT Aerospace Everett
2933 109th St SW, Everett, WA 98204
Facility Site No.: 17392
Cleanup Site ID No.: 12071

Dear Andrew Rardin:

The Washington State Department of Ecology (Ecology) received the *Draft Agreed Order Remedial Investigation Work Plan* on December 28, 2023 (*December 2023 Draft AO RIWP*) for the TECT Aerospace Everett facility (Site). The Site is generally located at 2933 109th St SW in Everett (the Property) and consists of the Property and multiple nearby properties.

The Site cleanup is conducted under *Agreed Order No. 21781* (*AO 21781*), Effective August 30, 2023. The *AO 21781* requires Snohomish County (the County) to submit an Agency Review Draft Agreed Order Remedial Investigation Work Plan (Draft AO RIWP) no later than 120 days following the effective date of the AO (December 28, 2023). The submission of the *December 2023 Draft AO RIWP* meets the requirement of *AO 21781*.

Based on a review of the *December 2023 Draft AO RIWP*, Ecology is providing the following comments:

1. **Ecology requires the following revisions to screening levels:**
    - **Soil Screening Levels:**
        - Where screening levels are established based on the protection of groundwater, the appropriate screening level should be applied based on the location of any given sample in the vadose or saturated interval. Where possible, screening levels should be

applied to individual soil samples based on their locations either in the vadose or saturated zone.

- **Groundwater Screening Levels:**
  - Screening levels for per- and polyfluoroalkyl substances (PFAS) compounds PFOA, PFAS, PFNA, PFHxS, and PFBS should be based on Washington State's State Action Levels (SALs) for drinking water. SALs are available in Ecology's *Guidance for Investigation and Remediating PFAS Contamination in Washington State*[1], published June 2023, or in column AN (Method B Potable Groundwater Cleanup Level) of Ecology's Cleanup Levels and Risk Calculation (CLARC) master spreadsheet.
  - Several screening level values for Site contaminants of concern (COCs) calculated per WAC 173-340-720(7)(b) are lower than necessary (e.g. benzene). Screening levels for groundwater at the Site should be based on the values published in column AN of the CLARC master spreadsheet.
- Following the recommended revisions to screening levels discussed above, please update Figures 3 through 7, 10, and 11 based on exceedances of revised screening levels.

2. **Ecology requires the following revisions to the sampling plan to adequately address remaining data gaps:**
   - **Building C-20 to -22 Area**:
     - A shallow soil sample collected from 1-2 feet below ground surface (bgs) from RISB-22 in 2019 contained diesel- (TPH-D) and oil-range (TPH-O) total petroleum hydrocarbons above the screening levels established in the *December 2023 Draft AO RIWP*. Ecology requires collecting soil samples for analysis of from RISG-204 and -205 to characterize the extent of soil contamination in this area.
     - The speciation of chromium (Cr) in soil and groundwater at the Site is a data gap. The *December 2023 Draft AO RIWP* includes the collection of a groundwater sample from proposed monitoring well RIGW-100 for speciation of Cr in groundwater. Soil samples collected from RISB-13 from 10 to 13 feet bgs from in 2019 contained total Cr above the screening level for Cr VI. Ecology requests soil samples be collected for speciation of Cr in soil from RIGW-100.
     - The *December 2023 Draft AO RIWP* includes a survey of a trench drain inside Building C-22 to identify the discharge point of the drain. Ecology requires discussion of the collection of additional soil and/or groundwater for Site COCs at the discharge point of the drain depending on how the drain terminates.

[1] https://apps.ecology.wa.gov/publications/SummaryPages/2209058.html

- Groundwater samples collected from RISB-07, RISB-13, RISB-23 through RISB-25 and RISB-49 contained TPH-D and TPH-O above the established screening levels. Historical groundwater samples collected south of building C-22 and east of building C-21 were not analyzed for TPH-D and TPH-O. Additional groundwater samples are needed east of RISB-14 and RISB-60, and south of RISB-07, RISB-23, and RISB-49 to delineate exceedances of TPH-D+O and volatile organic compounds (VOCs) in this area. Ecology requests at least one boring in both these areas be completed as a permanent monitoring well in order to aid in long-term site-wide shallow groundwater characterization.

- **Building C-23 Area**
  - Soil and groundwater samples collected from RISB-61 contained cis-1,2-dichloroethene (DCE) and vinyl chloride, respectively, above the Site screening levels. Ecology requests additional borings east of RISB-61 to delineate the extent of contamination in this area.

- **Building C-27, C-29, and Former Fuel Farm Area**
  - To evaluate soil gas characteristics in this area, explorations RISG-209 to RISG-218 are proposed in two transects. In the figures provided in the *December 2023 Draft AO RIWP*, RISG-215 to RISG-218 are shown extending east from RISG-209 toward Building C-23. Building C-23 is not currently occupied. Ecology requests these samples be reoriented to extend west toward Hangar 1 to provide better estimation of soil gas concentrations below the occupied building.
  - Ecology appreciates your inclusion of a PFAS sample from HMB-1 to characterize former releases of aqueous film forming foam (AFFF) in this area. In the event HMB-1 contains PFAS above screening levels, additional groundwater samples will be necessary from adjacent monitoring wells installed in the shallow aquifer as well as the deep aquifer.
  - Additional groundwater samples are needed west of RISB-77 and south of RISB-79 to fully delineate the extent of VOCs in this area. Soil samples should also be collected for analysis of VOCs in soil west of RISB-77.

- **Site-wide characterization**
  - Collection of groundwater samples from temporary wells should be scheduled during the time of year with the highest anticipated water table elevation. Ecology recommends assessing water table elevations from previous sampling efforts to identify the season with the highest likelihood for shallow groundwater to be present.
  - If the results of groundwater samples collected from replacement deep aquifer monitoring wells RIDW-7 and RIDW-8, indicate that VOCs, 1,4 dioxane, and/or PFAS

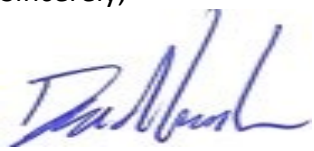
are present in these wells above screening levels, additional explorations will be necessary to fully define the extent of contamination in the deep aquifer.

3. **Evaluating Vulnerable Populations and Overburdened Communities**
   The revised MTCA rule, adopted January 1, 2024, requires evaluation of whether a population threatened by a contaminated site includes a likely vulnerable population or overburdened community during the remedial investigation. Effects on vulnerable populations and overburdened communities must also be considered during evaluation of cleanup alternatives in the feasibility study. Please refer to Ecology's *Implementation Memorandum No. 25: Identifying Likely Vulnerable Populations and Overburdened Communities under the Cleanup Regulations*[2], published January 2024 when drafting the RI report and feasibility study.

Ecology appreciates your timely submission of the *December 2023 Draft AO RIWP*. We look forward to working together to accomplish characterization and cleanup of the Site. Per Exhibit B of *AO 21781*, please incorporate Ecology's requested edits to the *December 2023 Draft AO RIWP* and submit a revised AO RIWP later than 45 calendar days following receipt of this letter.

If you have any questions about this letter, please contact me by phone at (206) 459-6287 or by email at david.unruh@ecy.wa.gov.

Sincerely,



David Unruh
Site Manager
Toxics Cleanup Program, NWRO

Enclosures: Figures

Cc: Michelle Corsi, Paine Field Snohomish County Airport (michelle.corsi@co.snohomish.wa.us)
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[2] https://apps.ecology.wa.gov/publications/SummaryPages/2409044.html

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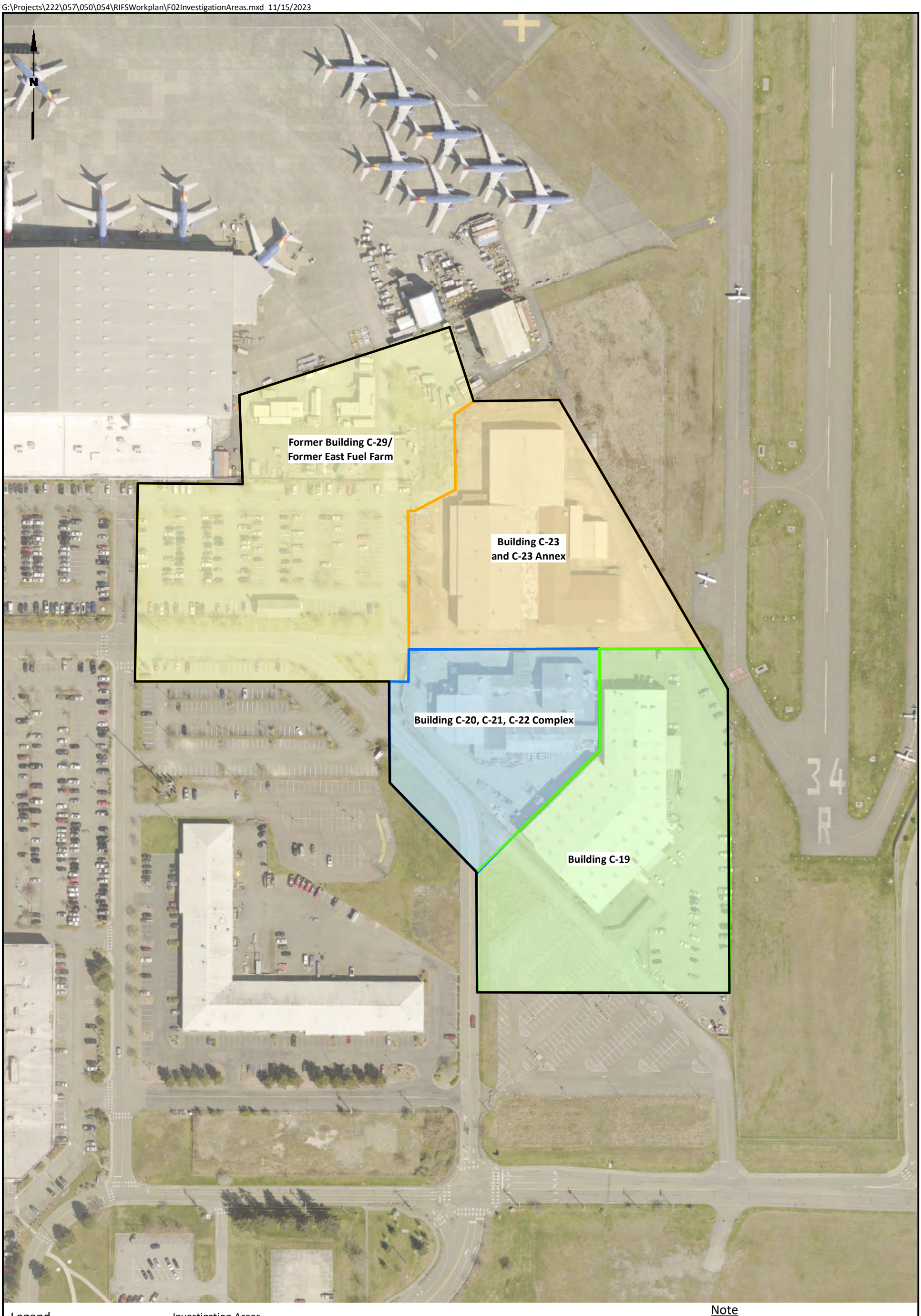

Legend

Approximate Site Boundary

Investigation Areas

- Building C-19
- Building C-20, C-21, C-22 Complex
- Building C-23 and C-23 Annex
- Former Building C-29/ Former East Fuel Farm

0 150 300

Scale in Feet

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: AGI 1999; Landau Associates 2006; King County GIS.

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TECT Aerospace Everett, Washington	**Investigation Areas**	Figure 2

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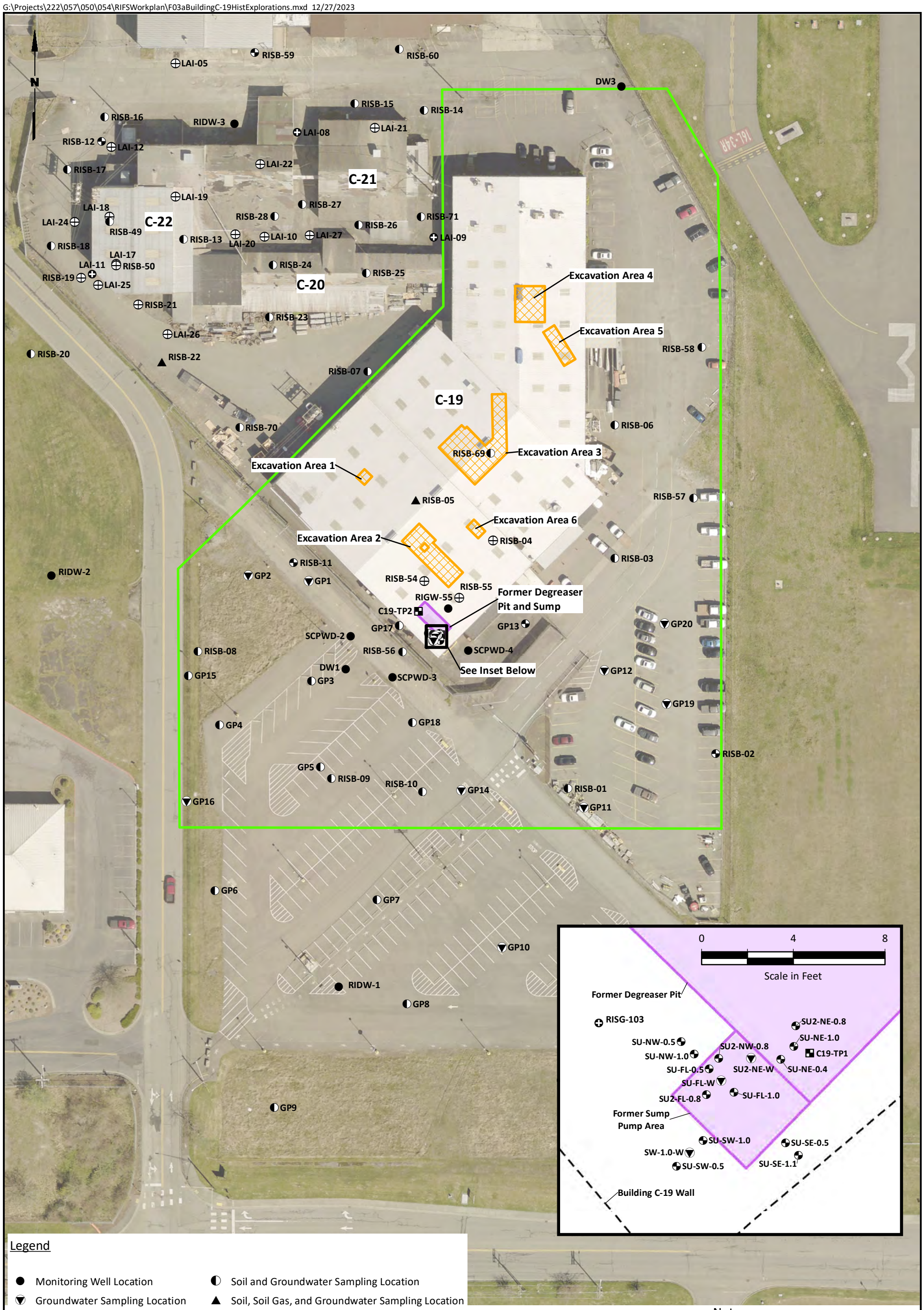

Legend

- Monitoring Well Location
- Groundwater Sampling Location
- Soil Boring Location
- Indoor Air Sampling Location
- Soil and Soil Gas Sampling Location
- Soil Gas Sampling Location
- Test Pit
- Soil and Groundwater Sampling Location
- Soil, Soil Gas, and Groundwater Sampling Location
- Building C-19 Investigation Area
- Previous Remedial Action Areas

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: AGI 1999; Landau Associates 2006; King County GIS.

0 70 140

Scale in Feet

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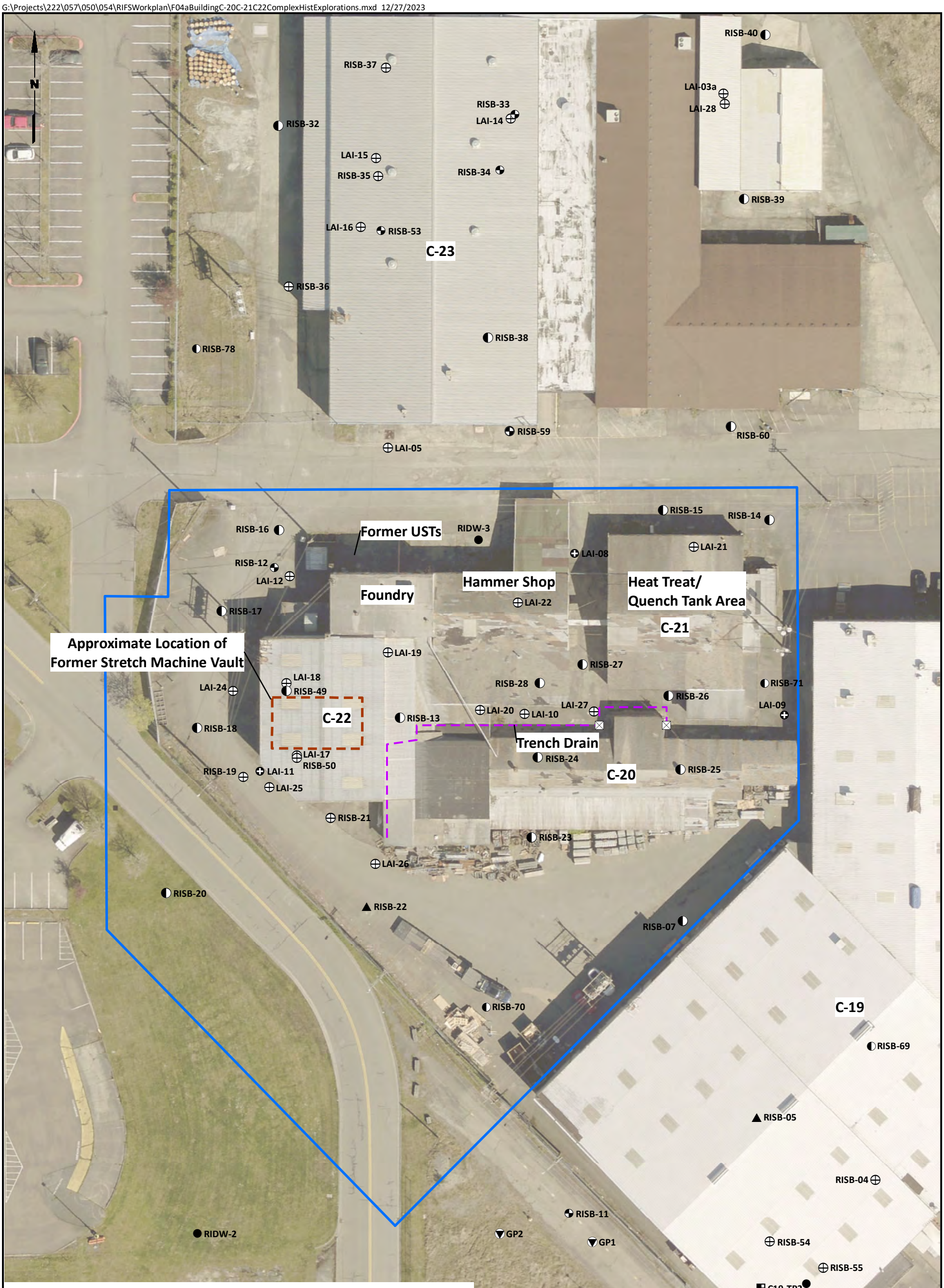
Building C-19
Historical Exploration Locations

Figure
3a

G:\Projects\222\057\050\054\RIFSWorkplan\F04aBuildingC-20C-21C22ComplexHistExplorations.mxd 12/27/2023



Legend

- RI Monitoring Well Location
- Groundwater Sampling Location
- Soil Boring Location
- Indoor Air Sampling Location
- Soil and Soil Gas Sampling Location
- Soil Gas Sampling Location
- Test Pit
- Soil and Groundwater Sampling Location
- Soil, Soil Gas, and Groundwater Sampling Location
- Catch Basin
- Trench Drain
- Building C-20, C-21, C-22 Complex Investigation Area
- Approximate Location of Former Stretch Machine Vault

0 50 100

Scale in Feet

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: AGI 1999; Landau Associates 2006; King County GIS.

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Building C-20, C-21, C-22 Complex Historical Exploration Locations

Figure 4a

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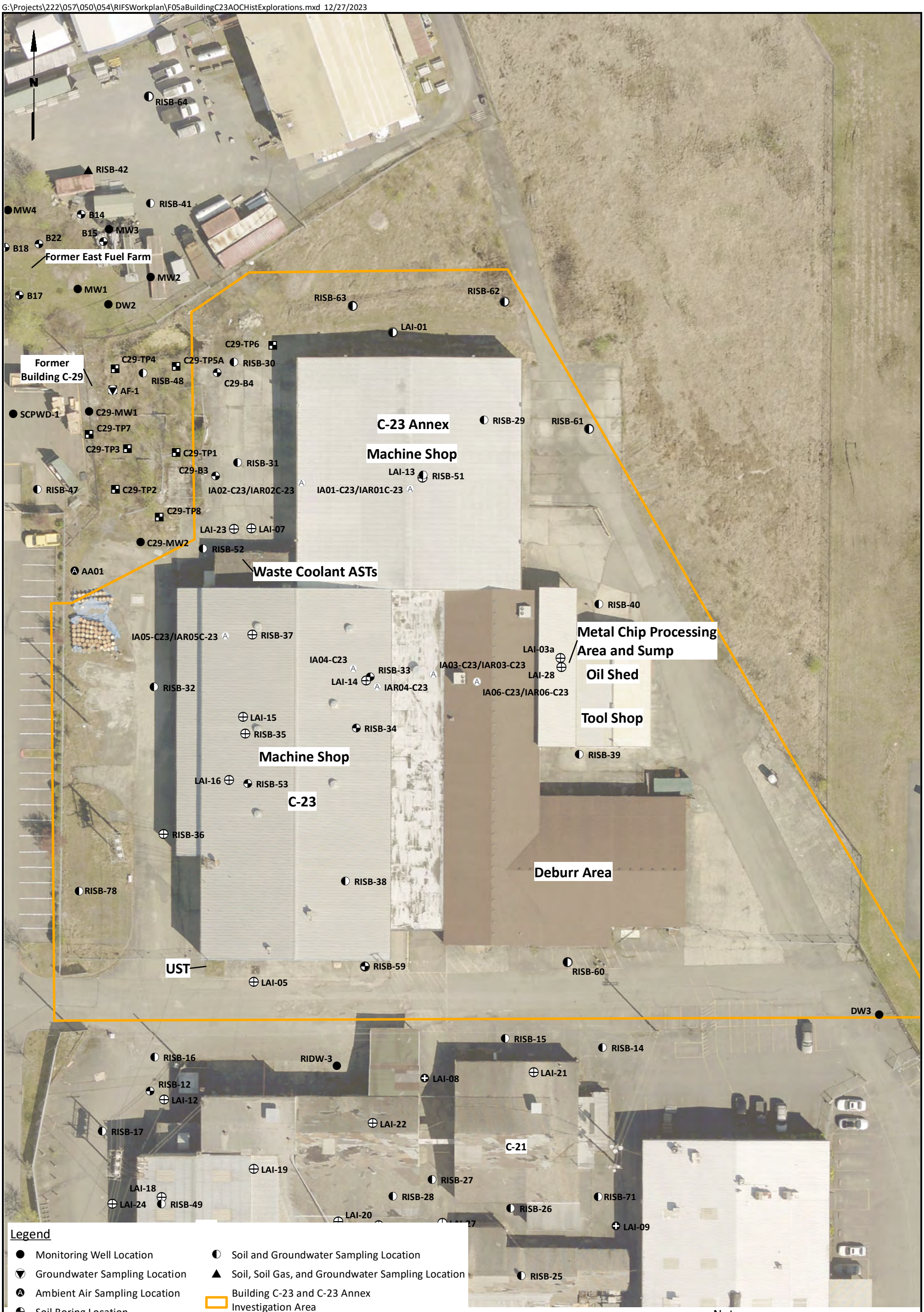

Legend

- Monitoring Well Location
- Groundwater Sampling Location
- Ambient Air Sampling Location
- Soil Boring Location
- Indoor Air Sampling Location
- Soil and Soil Gas Sampling Location
- Soil Gas Sampling Location
- Test Pit
- Soil and Groundwater Sampling Location
- Soil, Soil Gas, and Groundwater Sampling Location
- Building C-23 and C-23 Annex Investigation Area

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: AGI 1999; Landau Associates 2006; King County GIS.

0 50 100

Scale in Feet

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Building C-23 and C-23 Annex Historical Exploration Locations

Figure 5a

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Legend

- Monitoring Well Location
- Groundwater Sampling Location
- Ambient Air Sampling Location
- Soil Boring Location
- Indoor Air Sampling Location
- Soil and Soil Gas Sampling Location
- Soil Gas Sampling Location
- Test Pit
- RI Soil and Groundwater Sampling Location
- RI Soil, Soil Gas, and Groundwater Sampling Location
- Former Building C-29/Former East Fuel Farm Investigation Area

Notes

1. UST = Underground Storage Tank
2. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: AGI 1999; Landau Associates 2006; King County GIS.

0 70 140

Scale in Feet

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Former Building C-29/Former Fuel Farm Historical Exploration Locations

Figure 6a

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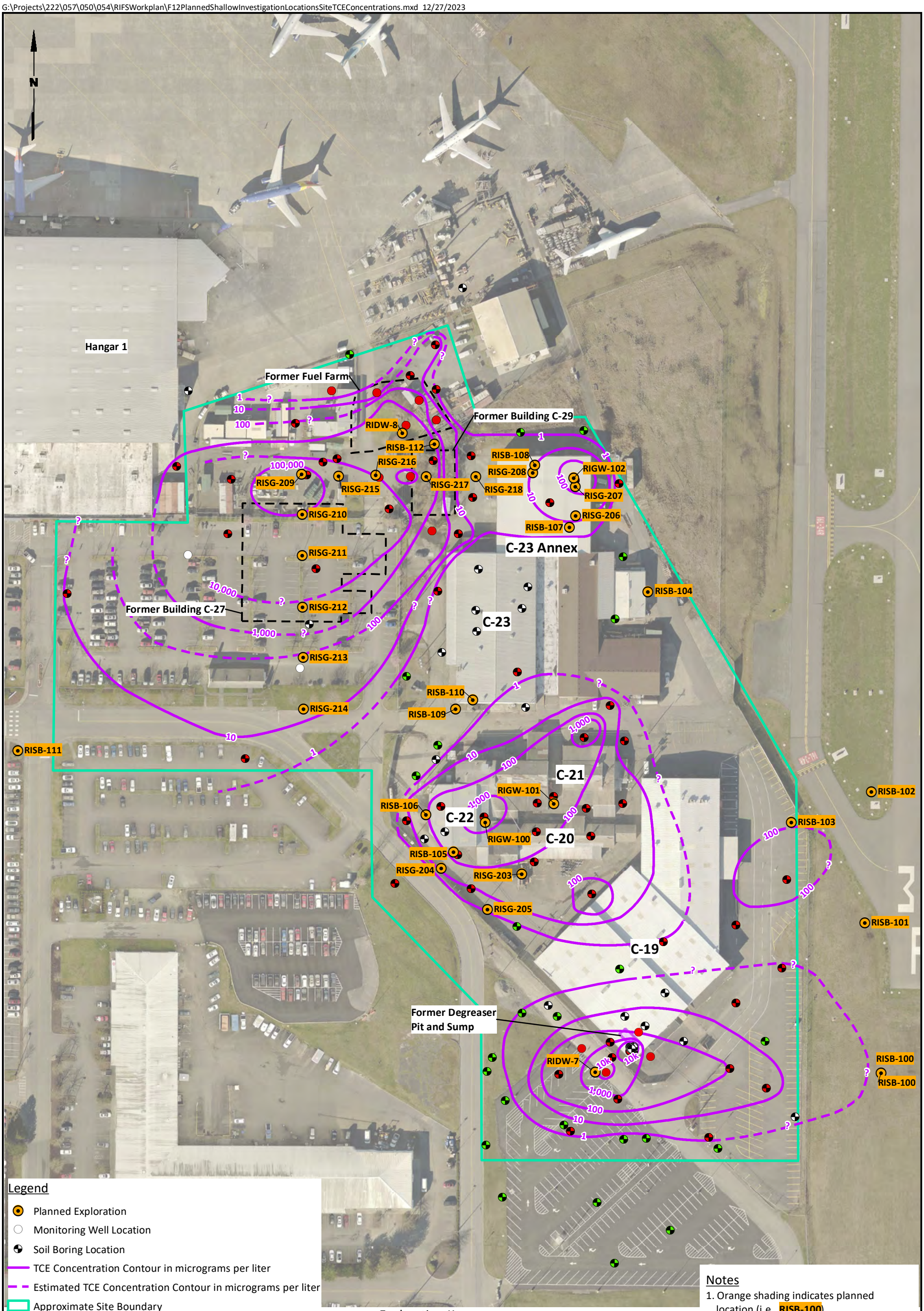

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Planned Shallow Aquifer Investigation Locations and TCE Concentration Contours in Shallow Groundwater

Figure
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