



# Oregon

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June 1, 2023

via *Electronic Delivery*

Ms. Traci Parker  
Siltronic Corporation  
7200 NW Front Avenue  
Portland, Oregon 97210

RE: DEQ Comments on *Siltronic Operable Unit Remedial Investigation Data Summary Report*  
Siltronic Corporation  
Portland, Oregon  
ECSI No. 183

Dear Ms. Parker:

Thank you for submitting of the *Siltronic Operable Unit Remedial Investigation Data Summary Report* (Data Summary Report), dated March 31, 2023. DEQ has reviewed the Data Summary Report in the context of the Scope of Work described in Exhibit B of the Unilateral Order between Siltronic and DEQ (DEQ Order No. OPSR-NWR-16-02). Based on our review of the Data Summary Report, DEQ does not require Siltronic to submit a revised Remedial Investigation Work Plan (RIWP) in advance of the Remedial Investigation (RI) Report. DEQ will assess the need for a revised RIWP based on the assessment of RI data gaps presented in the conclusions of the RI Report. DEQ requires Siltronic to submit a draft RI Report within 150 days of receipt of this letter. Prior to submitting the RI Report, DEQ requests Siltronic prepare a response to comments within 45 days of receipt of this letter, documenting how our comments on the Data Summary Report will be incorporated into the RI Report for the Siltronic Operable Unit.

### **General comments**

- 1. Groundwater dataset and groundwater data evaluations for the SOU RI.** The focus of the groundwater dataset and associated evaluations for the RI is on evaluating potential vertical migration of contaminants from shallower water bearing zones (WBZ) into deeper water bearing zones. The evaluation of nature and extent of groundwater contamination should begin with evaluating contamination in the fill and fill water bearing zone and then assessing vertical migration of contamination using a top-down evaluation framework. Figure 1 illustrates DEQ's criteria for determining which groundwater wells and data are necessary to evaluate the nature and extent of contamination in the physical scope of the SOU RI (as defined in DEQ's May 10, 2022 letter to Siltronic Re: *Southern Siltronic Operable Unit Remedial Investigation, Feasibility Study, and Source Control Evaluation*<sup>1</sup>). This flow chart represents the conceptual basis upon which DEQ has made groundwater well and data approval decisions articulated in specific comments below.

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<sup>1</sup> DEQ. 2022. Re: Southern Siltronic Operable Unit Remedial Investigation, Feasibility Study, and Source Control Evaluation, Siltronic Corporation, Portland, Oregon, ECSI No. 183. May 10.

- a. **Conditionally approved and not approved groundwater data.** DEQ has categorized some groundwater data and wells as conditionally approved or not approved for the SOU RI because it is not clear to DEQ why they are necessary to meet the DUOs for the RI within the physical scope of the SOU RI (as articulated in DEQ's May 2022 letter to Siltronic). DEQ used the flow chart in Figure 1 to make decisions about approvals outlined in this letter. If Siltronic's data evaluations indicate that any of the currently un-approved groundwater wells or data are necessary for a complete dataset and evaluation to be used in the RI, Siltronic may request discussion(s) with DEQ to evaluate these potential approvals on a case-by-case basis, per the logic outlined in Figure 1 and as described in the specific comments below.
2. The application of data use objectives (DUOs) in the Data Summary Report is too broad to be useful for decision-making. DEQ has therefore approved wells and data using a decision tree, included as Figure 1 attached to this letter and described in the specific comments below.

### **Specific comments**

3. **Section 1.1.2. Property History.** The 2017 Siltronic Operable Unit Remedial Investigation Work Plan was not approved by DEQ. DEQ's approval of the Data Summary Report does not imply DEQ's agreement with all aspects of the history provided in the 2017 RIWP or all technical assessments presented in the 2017 RIWP.
4. **Section 2. Data Use Objectives.**
  - a. This section establishes DUOs to delineate the physical scope of the SOU RI and to meet the objectives identified in the 2016 Order. DEQ recognizes that these DUOs were previously discussed and approved for use in the Data Summary Report. Based on the evaluation approach presented in the Data Summary Report, DEQ has the following clarifying revisions to the DUOs 2, 3, and 5 to further refine the scope of the RI dataset and evaluations in the RI Report (*edits to DUOs are italicized below*):
    - i. DUO 2: Identify hazardous substances, including all COI groups associated with the potential sources and known releases on the *Siltronic Property* (identified in Table 1-1 and referred to here as SOU COIs), present in Fill and alluvial soil and groundwater. Determine the nature and extent of SOU COIs associated with source materials located on the *Siltronic Property* in Fill and alluvial soil and groundwater. (2016 Order objectives 2, 3, and 7).
    - ii. DUO 3: Delineate SOU COIs originating from source materials located on the *Siltronic Property*, including the vertical and lateral extent of groundwater impacts associated with source materials located on the SOU, to define the physical scope of the RI (2016 Order objectives 3, 4, and 5).
    - iii. DUO 5: Evaluate the potential for SOU COIs associated with source materials located on the *Siltronic Property* in the AWBZ to migrate laterally to the Willamette River, or vertically downward to deeper water-bearing zones *as is justified by DEQ-approved technical evaluations*. (2016 Order objectives 4, 5 and 8).
5. **Section 3. Data Reconciliation.**
  - a. **Section 3.1. Monitoring Well Installations and Development.** DEQ's approvals of the monitoring well installations described in this section are described below. If Siltronic wishes to include data from wells that were either conditionally approved or not approved for use in the SOU RI, it may present technical rationale for their inclusion in the RI Report as is justified by the technical evaluations and guided by the decision tree provided in Figure 1.
    - i. Approved for use in the SOU RI:
      1. WS-52-20, WS-50-32, WS-52-55 were previously approved by DEQ for use in the SOU RI, as noted in Section 3.1.1 of the Data Summary Report.

2. WS-53-73
3. WS-49-37
- ii. Conditionally approved for use in the SOU RI, as guided by the decision tree provided in Figure 1:
  1. WS-50-86
  2. WS-49-76
  3. WS-51-64
- iii. Not approved for use in the SOU RI due to uncertainty about the potential for COCs to migrate from shallower WBZs to WBZs at this depth:
  1. WS-48-76
  2. WS-52-94
  3. WS-49-107
  4. WS-53-144

**b. Section 3.2. Groundwater sampling.** DEQ's approval of the groundwater data discussed in this section is described below. If Siltronic wishes to include data in water bearing zones or for analytes that are conditionally approved or not approved for use in the SOU RI, it may present technical rationale for their inclusion in the RI Report as is justified by the technical evaluations and guided by the decision tree provided in Figure 1:

- i. Approved for use in the SOU RI:
  1. Groundwater data collected in the fill WBZ.
  2. Groundwater data collected in the upper alluvium WBZ, for COIs exceeding SLVs, as guided by the decision tree provided in Figure 1.
- ii. Conditionally approved for use in the SOU RI:
  1. Groundwater data collected in the deeper alluvium WBZ, for COIs exceeding SLVs, as guided by the decision tree provided in Figure 1.
- iii. Not approved for use in the SOU RI due to uncertainty about the potential for COCs to migrate from shallower WBZs to WBZs at this depth:
  1. Groundwater data collected in the alluvial gravel and basalt WBZs.

**c. Section 3.3. Hydraulic Conductivity Testing.** DEQ approves the hydraulic conductivity dataset as presented in the SOU Data Summary Report, for all wells approved as described in Comment #5a above.

**d. Section 3.4. Soil Sampling.** DEQ approves the soil dataset as presented in the SOU Data Summary Report.

#### **6. Section 4. Data Gaps.**

- a. DEQ requests Siltronic complete a more robust data gaps assessment in the RI Report, including additional justification of the sufficiency of the dataset to meet the DUOs. This should include discussion demonstrating whether the delineation of nature and extent of contamination is complete and sufficient for proceeding to the risk assessment. DEQ reserves the right to request additional data as needed for the subsequent steps in the site investigation based on the data gaps assessment provided in the RI Report.

**7. Table 1-1.** DEQ has the following comments on Table 1-1. Please incorporate the following comments into all analyses and evaluations accordingly in the RI and all subsequent site investigation materials.

- a. Provide a figure identifying the locations/footprints of the potential sources identified in Table 1-1 in the RI Report.
- b. DEQ considers metals, including lead, to be potentially associated with demolition debris from Schnitzer.

- c. Consolidate “NW Natural Waste Materials” and “Wood Waste” into a single potential source called “Former MGP Wastes and Byproducts.”
  - d. Remove the “S” under Chlorinated VOCs (cVOCs) for “NW Natural Waste Materials.” DEQ has not identified cVOCs as a COI associated with Former MGP Wastes and Byproducts
  - e. Remove the “S” under dioxins/furans for “NW Natural Waste Materials.” As stated in DEQ’s December 16, 2021 *Contaminants of Concern, Risk-Based Criteria, and Preliminary Remediation Goals Memorandum*<sup>2</sup> (PRG Memo), DEQ does not consider dioxins/furans to be COIs associated with the Gasco Operable Unit. Likewise, DEQ does not consider dioxins/furans on the Siltronic OU to be associated with Former MGP Wastes and Byproducts. DEQ notes that we do consider dioxins/furans to be COIs associated with other potential sources relevant to the Siltronic OU (e.g., Willamette River Dredge Spoils).
  - f. DEQ considers gasoline-range hydrocarbons and monochlorobenzene to be potentially associated with Willamette River dredge spoils that were placed as fill material on the SOU.
- 8. Figures.** The Siltronic OU boundary is incorrectly shown on the Data Summary Report Figures. All future submittals must correctly show the Siltronic OU boundary, as drawn on Exhibit A of the 2016 Unilateral Order between Siltronic and DEQ (DEQ Order No. OPSR-NWR-16-02) and attached to this letter as Figure 2.

Thank you for incorporating these comments into the RI Report for the Siltronic Operable Unit. Please contact me for any clarifications on this letter.

Sincerely,



Blair Paulik, PhD  
Remedial Project Manager/Toxicologist  
NWR Cleanup Section

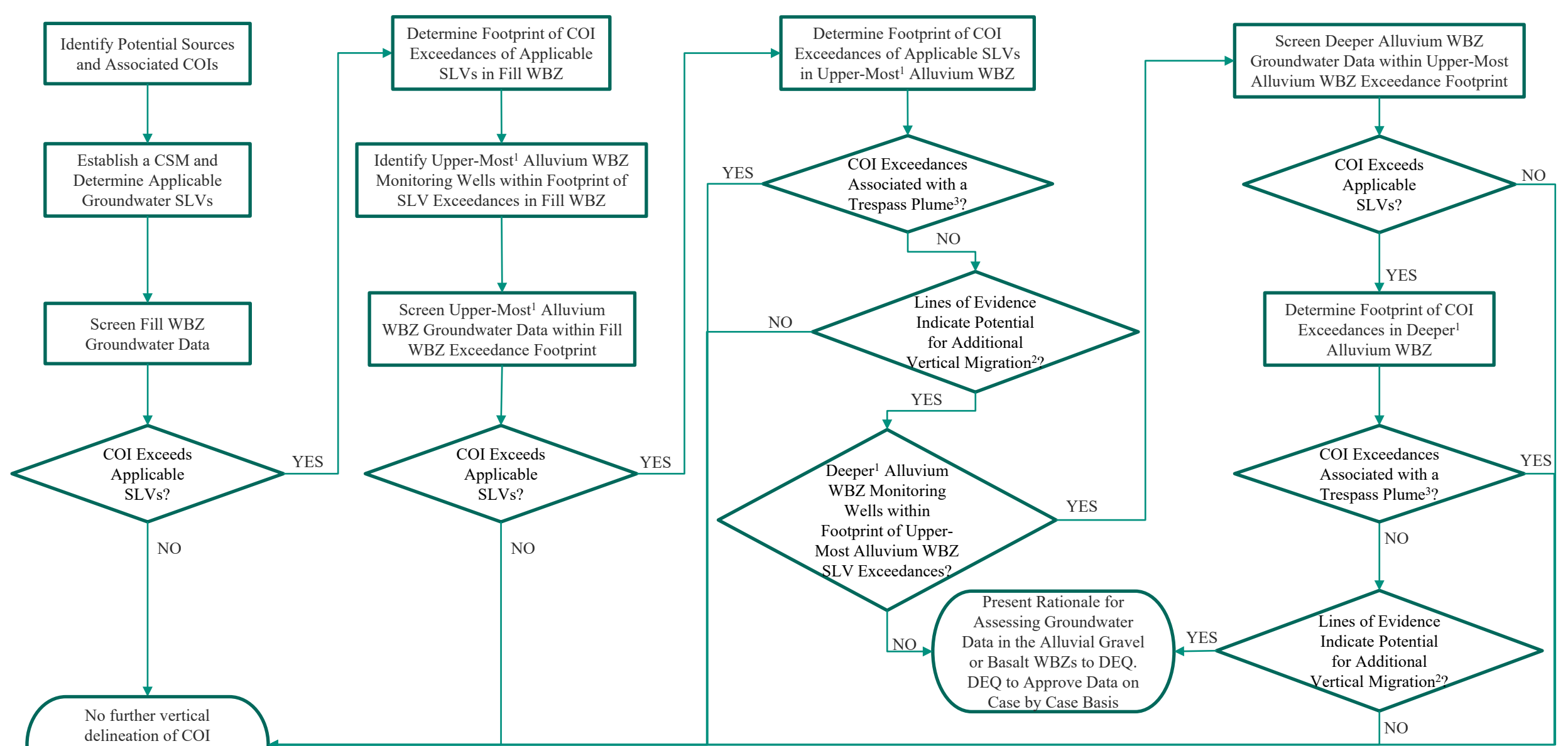
ec: Wesley Thomas, DEQ  
Paul Seidel, DEQ  
Dave Lacey, DEQ  
Dan Hafley, DEQ  
Madi Novak, EPA  
Laura Hanna, EPA  
Elizabeth Bingold, Siltronic Corporation  
David Rabbino, Jordan Ramis  
Mike Murray, Maul Foster & Alongi  
Courtney Savoie, Maul Foster & Alongi  
Audrey Hackett, Maul Foster & Alongi

cc: ECSI No. 183 File

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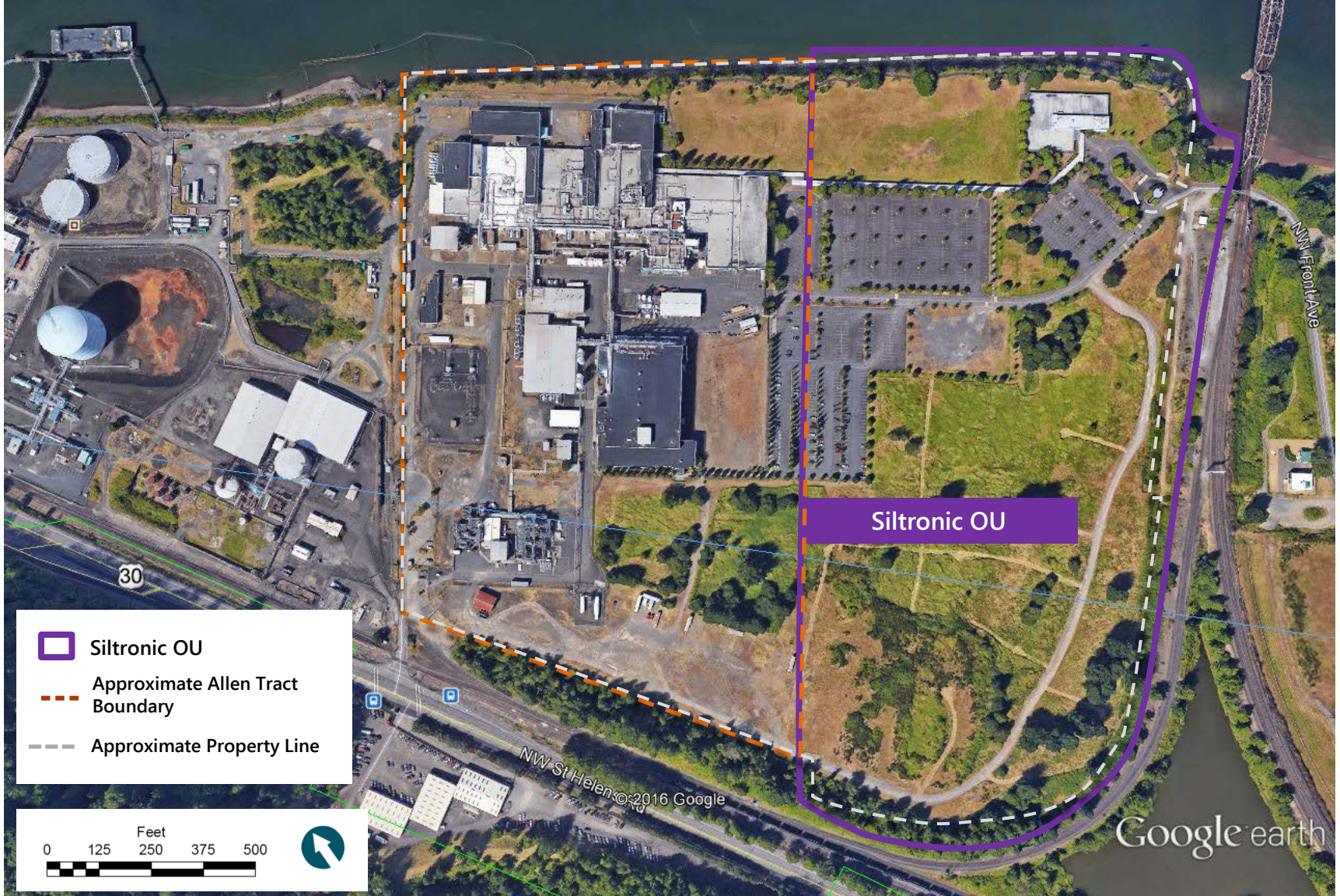
<sup>2</sup> DEQ. 2021. Contaminants of Concern, Risk-Based Criteria, and Preliminary Remediation Goals, Former Gasco Manufactured Gas Plant Operable Unit, Portland, Oregon, ECSI# 84. December 16.

# **FIGURES**



- Notes: 1. In areas with multiple monitoring wells screened within different elevation ranges in the Alluvium WBZ, the upper-most monitoring well monitoring wells are those representing the highest elevations within the Alluvium WBZ, and deeper monitoring wells are those representing deeper elevations within the Alluvium WBZ. Not all portions of the Siltronic Operable Unit have multiple monitoring wells representing different elevation zones of the Alluvium WBZ.
2. Lines of evidence must include hydrogeology (e.g., vertical hydraulic gradients), chemical properties affecting mobility, vertical concentration gradients, and applicable SLV exceedance ratios.
3. Trespass groundwater plumes include those from source areas not located on the Siltronic property, such as the Rhone Poulenc plume. MGP constituents are not considered a trespass plume.

**Figure 1 | Groundwater Data Vertical Delineation Approval Decision Tree** 



**Figure 2**  
Southern Siltronic Site Operable Unit (Siltronic OU)  
(boundary is approximate)