Oregon DEQ Contained-In Determination Approval Signoff Sheet

Site Name: Gasco Operable Unit (ECSI #084 and #0183)

Location: 7900 NW St. Helens Road, Portland, Oregon 97210

Media: Groundwater extracted by the existing hydraulic control and containment system

Approved Disposal Location: Treatment as specified by NPDES Permit Number 103061 (permit renewal pending with DEQ)

Signatures:

Cleanup project manager:

Wesley THOMAS _____ Date: 8/15/2025

Hazardous Waste Program staff:

Zeb Bates
Zeb Bates (Aug 20, 2025 09:34:34 PDT) _____ Date:

Hazardous Waste or Solid Waste Program manager:

Audrey O'Brien _____ Date:

DEQ Cleanup Program manager:

Amanda Wozab _____ Date:

State of Oregon
Department of Environmental Quality Memorandum

To:	**Gasco Former MGP Operable Unit File, ECSI #0084** **Siltronic Corporation File, ECSI #0183**	**Date:**	**08/15/2025**
From:	**Wesley Thomas, Project Manager, Northwest Region Cleanup Program**		
Through:	**Zeb Bates, HW Inspector, Northwest Region HW Program**		
Approved:	**Audrey O'Brien, Manager, Northwest Region HW Program** **Amanda Wozab, Manager, Northwest Region Cleanup Program**		
Subject:	**No Longer Contained-In Determination** **Groundwater Extracted by the Existing Hydraulic Control and Containment System** **Gasco Operable Unit** **Portland, Oregon**		

The Oregon Department of Environmental Quality (DEQ) Northwest Region Environmental Cleanup, Hazardous Waste and Solid Waste Programs have prepared this No Longer Contained-In (NLCI) Determination at NW Natural's request[1]. This NLCI Determination applies to groundwater extracted from the Alluvium water-bearing zone (WBZ) by the existing hydraulic control and containment (HC&C) system on the Siltronic Geographical Subarea (GSA) of the Gasco Operable Unit (OU). Groundwater extracted by the HC&C system on the Siltronic GSA contains Resource Conservation and Recovery Act (RCRA) F002-listed contaminants of concern (COCs). Concentrations of the F002-listed COCs are reliably below established construction and excavation worker risk-based concentrations (RBCs), making the groundwater removed by the HC&C system eligible for a NLCI Determination.

Background Information

The Portland Gas & Coke Company (PG&C) constructed an oil-manufactured gas plant (MGP), known as the Gasco facility, on the current NW Natural property in 1912 and 1913. The Gasco facility was operated as an MGP from 1913 to 1956. The northern portion of the current Siltronic property (within the Siltronic GSA of the Gasco OU) was used for MGP residuals management during a portion of this time frame. PG&C sold the property now occupied by Siltronic in 1960. Siltronic constructed a silicon wafer manufacturing plant on the property in 1978, with plant operations commencing in March 1980, and formerly used trichloroethene (TCE) in its production of silicon wafers.

NW Natural prepared a draft *Contaminated Media Management Plan*[2] (CMMP) for the Gasco OU describing waste characterization and disposal practices for various media. The CMMP discusses the following typical suite of contaminates within the Gasco OU based on its operational history:

- **MGP/Hydrocarbon Wastes:** Cyanide; total petroleum hydrocarbons; polycyclic aromatic hydrocarbons (PAHs); volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX); and metals.

[1] Ede Environmental. 2025. Letter to Wes Thomas (DEQ); Subject: No Longer Contained-In Determination Request, NW Natural Former MGP Operable Unit, 7900 NW St. Helens Road, Portland, Oregon. July 22.
[2] Anchor QEA and Hahn and Associates, Inc. 2021. Contaminated Materials Management Plan. Prepared for NW Natural. November 19.

- **Siltronic Spent Trichloroethene (TCE) Wastes:** TCE and TCE breakdown products: cis-1,2-dichloroethene (cis 1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride (VC).

Contamination classified as "MGP/Hydrocarbon Wastes" generally resulted from former MGP operations or hydrocarbon-related sources. NW Natural does not apply toxicity characteristic waste codes to environmental media assumed to be impacted solely by MGP-related contaminants.

Environmental media contaminated with "Siltronic Spent TCE Wastes" are laboratory-tested to identify the presence of detectable concentrations of the TCE-related compounds, which would require disposal as a RCRA F002-listed hazardous waste. However, if the groundwater has concentrations of TCE-related compounds equal to or less than the most current RBCs for the Construction and Excavation Worker exposure pathways (provided in the table below), DEQ can make a NLCI Determination such that the waste (i.e., Environmental Media) will not require management as an F002-listed hazardous waste.

F002 Constituent	Contained-In Threshold Value (µg/L)
TCE	430
Cis-1,2-DCE	18,000
Trans-1,2-DCE	180,000
1,1-DCE	44,000
VC	960

Siltronic Pre-Treatment System

The Siltronic pre-treatment system is plumbed to receive groundwater pumped by the existing HC&C source control system along the Gasco OU shoreline, including an area downgradient of Siltronic's historical spent TCE release. Groundwater influent concentrations at the Siltronic pre-treatment system have been collected monthly since starting full-time, full-scale operation of the HC&C system in 2015, and tested for VOCs, PAHs, select metals, oil and grease, and total cyanide. The monthly testing results are reported to DEQ semiannually.

Concentrations of F002 constituents within the Siltronic pre-treatment system influent have declined over time, with routinely detected constituents limited to cis-1,2-DCE and vinyl chloride. Cis-1,2-DCE and vinyl chloride have never been detected in any influent sample at concentrations equal to or greater than the currently applicable NLCI RBC threshold values (18,000 µg/L and 960 µg/L, respectively). The maximum detected cis-1,2-DCE and vinyl chloride concentrations of 387 µg/L and 95.3 µg/L, respectively, were both measured in July 2015. The most recent available influent sample determined 1,2-DCE to be non-detected (<4.0 µg/L) and vinyl chloride to be detected at 5.2 µg/L.

No Longer Contained-In Determination

A NLCI Determination is needed to show that the groundwater does not qualify as characteristic hazardous waste, concentrations of F002-listed hazardous waste constituents detected in the groundwater extracted by the HC&C System on the Siltronic GSA are below applicable protective thresholds, and, if applicable, that land disposal restrictions are met. The table below shows the maximum and most recent cis-1,2-DCE and vinyl chloride concentration results for Siltronic pre-treatment influent compared to the applicable DEQ RBCs.

Analyte	F002 Contained-In Threshold Screening Values (µg/L)	Maximum Concentration (µg/L)	Most Recent Concentration (µg/L)
cis-1,2-DCE	18,000	387	<4
Vinyl chloride	960	95.3	5.2

Notes:
Bold: detected analyte
J: estimated concentration
--: no 20x TCLP limit established

To demonstrate that the groundwater extracted by the HC&C system on the Siltronic GSA no longer contains hazardous waste, the following conditions must be met:

1. The groundwater extracted by the existing HC&C system on the Siltronic GSA must not exhibit a characteristic of hazardous waste (must not be ignitable or corrosive). Based on knowledge of process, DEQ has determined that the groundwater is neither ignitable nor corrosive.
2. Detected concentrations of TCE and/or TCE breakdown products in environmental media from this site would be considered by DEQ to contain a listed hazardous waste (F002). Cis-1,2-DCE and vinyl chloride are the only TCE breakdown products routinely detected in the Siltronic pre-treatment system influent. The concentrations of cis-1,2-DCE and vinyl chloride in the Siltronic pre-treatment system influent have consistently remained below applicable construction worker and excavation worker RBC thresholds since the HC&C system began full-time, full-scale operation in 2015. Underlying constituents of TCE and/or its breakdown products might be present in the Siltronic pre-treatment plant influent at concentrations below the minimum reporting levels (MRLs) shown in the laboratory data. Using previous site information, the MRL concentrations, and knowledge of process, DEQ can assume that concentrations of underlying F002-listed constituents in groundwater extracted by the HC&C system on the Siltronic GSA would be below RBCs applicable to this NLCI Determination. Based on this result, the groundwater would be acceptable for disposal at a Clean Water Act permitted wastewater treatment system. The existing groundwater treatment system is operated under NPDES Permit Number 103061 (permit renewal pending) and meets this requirement.
3. RCRA Land Disposal Restrictions do not apply because the extracted groundwater was not removed from the Area of Contamination before this NLCI Determination.

Based on our review of the data and the above findings, DEQ has determined that the groundwater extracted by the existing HC&C system on the Siltronic GSA meets the criteria for no longer containing listed hazardous waste. MGP waste streams are not covered in this NLCI evaluation or approval. NW Natural should complete a separate hazardous waste determination for other Siltronic pre-treatment system waste streams at their respective points of generation. NW Natural must continue treating groundwater extracted by the existing HC&C system according to NPDES Permit Number 103061 (permit renewal pending). If the groundwater is not managed following these conditions of approval, this NLCI Determination does not apply, the waste remains hazardous waste, and must be managed or disposed of in compliance with applicable hazardous waste requirements.

This NLCI Determination is valid for a period of 5 years from its execution date (the latest date listed on the approval signoff sheet). This NLCI Determination only applies to groundwater extracted from the Siltronic GSA via the existing HC&C system. Modification of the existing HC&C system requires amendment of this NLCI Determination. Waste streams containing F002-listed COCs generated from separate identified locations within the AOC require an independent NLCI Determination.