

**NW Natural Pre-Remedial Design Data Gaps Sampling
Gasco Sediments Site – Spring 2020
Field Change Request Form**

Project Name: Gasco Sediments Cleanup Action **Subconsultant:** Anchor QEA, LLC

Field Activity: Subsurface Sediment Sampling **Request Number:** 11

To: Hunter Young, U.S. Environmental Protection Agency **Date:** April 24, 2020

Field Change Request (FCR) Title: Additional NAPL Mobility Sample Collection and Analysis


Description
<p>In September and October 2019, NW Natural performed the majority of the pre-design investigation (PDI) data gaps sampling activities in accordance with the U.S. Environmental Protection Agency (EPA)-approved Gasco Sediments Site <i>Revised Pre-Remedial Design Data Gaps Work Plan</i> (DGWP).</p> <p>As discussed in Section 3.2.2 of the DGWP, one of the components of the Capping Demonstration Evaluation includes attempting to separate nonaqueous phase liquid (NAPL) from sediment via large-scale shake tests for laboratory analysis of NAPL physical and chemical parameters. Nine samples were identified for large-scale shake tests in accordance with Section 3.2.2.1.1 of the DGWP based on visual observations of NAPL in the collected subsurface cores.</p> <p>Small amounts of NAPL were recovered from these large-scale shake tests, but the sample quantities were insufficient to complete the physical and chemical testing. To achieve the data quality objectives identified in the DGWP, NW Natural proposes to collect additional opportunistic (based on field observations of NAPL) bulk sediment samples during the remaining PDI subsurface sediment sampling. Selected subsurface sediment samples containing visual observations of NAPL will be collected into jars and shipped to a laboratory for centrifugation, and the separated NAPL (if available) will be submitted for chemical and physical analyses.</p>

Recommended Change
<p>NW Natural proposes to collect bulk subsurface sediment from four locations/depth intervals if significant NAPL is visually observed in enough of the 24 remaining nearshore PDI cores. Bulk sediment from these intervals will be placed into 16-ounce glass jars and shipped to Core Laboratories (the laboratory previously used for the PDI NAPL mobility testing) to be centrifuged with the intent to separate out and submit the pure NAPL for physical and chemical analysis in accordance with Section 3.2.2.2.1 of the DGWP. If encountered, Anchor QEA, LLC, anticipates being able to obtain sufficient bulk sediment volume for the NAPL centrifugation (as opposed to the previously attempted shake tests) from the primary core being collected for the depth of contamination (DOC) and capping demonstration evaluations. However, if insufficient NAPL sample volume is available following completion of the DOC and capping demonstration subsampling, Anchor QEA staff may decide to collect an additional core to obtain the necessary sample volume. If NAPL distribution in the remaining cores allows, the sample locations will be selected to provide spatial coverage throughout the principal threat waste-NAPL boundary identified in the DGWP.</p>

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<u>Nik Bacher, Anchor QEA</u> Respondent Field Coordinator (or Designee)	 Signature	<u>April 24, 2020</u> Date
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Approval:

<u>Ryan Barth, Anchor QEA</u> Respondent Project Lead	 Signature	<u>April 24, 2020</u> Date
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