

EXHIBIT B

GRAIN HANDLING FACILITY AT FREEMAN SITE
SCOPE OF WORK
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

This Scope of Work is to investigate contamination at the Grain Handling Facility at Freeman site (Site) located at approximately 14603 Highway 27, Freeman, Washington. This scope of work prepared by the Washington Department of Ecology (Ecology) is to be used by the potentially liable persons (PLPs) to develop Work Plans in order to complete a Remedial Investigation/Feasibility Study (RI/FS) at the Site.

The RI is to supplement existing data and determine the nature and extent of contamination at the Site. The FS will evaluate remedial alternatives that are applicable for Site cleanup. The information and data gathered during the RI/FS will be used to identify if additional data needs to be collected and determine an appropriate remedial action. The PLPs will furnish all personnel, materials, and services necessary for, or incidental to, performing the Remedial Investigation at the Site.

The RI/FS shall contain the following tasks:

Task I: RI/FS Project Plan

A. RI/FS Work Plan

A work plan outlining procedures for the Remedial Investigation must be prepared which includes the following information:

1. Background Summary

Any pertinent Site information including, but not limited to:

- a. Maps – topographical, property lines, underground and aboveground tank locations, sumps, piping, pumping stations, well locations, surface water bodies near the vicinity of the Site, previous Site investigations; all maps will be consistent with the requirement set forth in WAC 173-340-840(4) and be of sufficient detail and accuracy to locate and report all current and future work performed at the Site.
- b. A discussion of Site history, including the location of current and former operations and activities at the Site.
- c. General geology and hydrogeology of the Site area and a brief discussion of local climate.

2. Evaluation of Existing Data

A discussion of activities and data already collected during previous investigations, including but not limited to the identification of existing and proposed locations for groundwater monitoring wells, and the potential requirement for additional data.

3. Task II Work Plans and Schedules

B. Sampling and Analysis Plan

The PLPs must prepare a Sampling and Analysis Plan for use during all Site characterization studies. The Sampling and Analysis Plan must contain:

1. Field Sampling and Testing Plans – The plan will describe in detail the sampling, testing, and data gathering methods, locations, frequency and other field study procedures that will be used for obtaining data required to complete the RI/FS. The Sampling and Testing Plan will include the following:
 - a. Specific sampling methods, including number and type of QA/QC samples.
 - b. Sampling locations and designations, including access considerations.
 - c. Types of media to be sampled and the number of samples of each.
 - d. Schedule and task assignments.
 - e. Supplies and equipment.
 - f. Monitoring well construction requirements.
 - g. Analytical procedures, methods, and detection limits.
 - h. Sample custody procedures, including holding times, containers, and preservation.
 - i. Shipping and handling arrangements.
2. Quality Assurance Project Plan (QAPP)
 - a. Field quality assurance/quality control (QA/QC) methods.
 - b. Chain of custody procedures.
 - c. Decontamination procedures.

- d. Laboratory QA/QC methods.
- 3. Health and Safety Plan
 - a. Level of protection.
 - b. Hazard evaluation.
 - c. Waste characteristics.
 - d. Special considerations and emergency information.

C. Public Participation Plan

Ecology will prepare a Public Participation Plan in accordance with WAC 173-340-600. The PLPs will be provided an opportunity to provide feedback about the Plan and participate in the implementation.

Task II: Remedial Investigation

The purpose of the Remedial Investigation is to obtain the information necessary to characterize the Site including sources, types, and extent of contamination present to sufficiently complete the Feasibility Study. The resulting data must meet the criteria set out in the QAPP and be of sufficient quality to develop an appropriate remedial action for the Site. The investigation will meet the requirements stated in WAC 173-340-350 and, more specifically, must include the following elements:

A. Site Characterization

Collect analytical data on groundwater and soils contamination in the vicinity of the Site. Considering information on historical operations and hydrogeology, the data must be sufficient to delineate the depth, areal extent, velocity and direction of contaminant movement, type, and concentration of contaminants.

- 1. Collect background information from the previous environmental investigations, other Ecology information, and any other historical data.

- 2. Hydrogeology

An investigation of the regional and Site specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the Site

- a. Evaluate and monitor all existing monitoring wells.
- b. Install new groundwater monitoring wells and soil borings where needed.
- c. Measure water levels in all wells and new borings.

- d. Characterize regional stratigraphy and lithology based on well logs, maps, and any other information available.
- e. Estimate hydraulic conductivity and porosity based on well logs, samples, and other general information available.
- f. Prepare maps showing water levels and regional/Site hydrogeology.

3. Soils

- a. Install soil borings and/or test pits, where needed.
- b. Characterize soil samples using the Unified Soil Classification System (USCS).
- c. Prepare logs for all borings and test pits.
- d. Collect soil vapor samples, where needed, to evaluate the vapor intrusion pathway.

B. Source and Contamination Characterization

- 1. Sampling locations will be selected to characterize the contamination.
- 2. Collect soil and groundwater samples sufficient to delineate nature and extent of contaminants and their impact to the environment.
- 3. Analytical data collected must help describe the nature, extent, and potential sources of contamination.

C. Potential Receptor Information

Collect data on the surrounding human and ecological populations that may be in contact with contaminants and potential routes of exposure for those populations.

- 1. Public Use/Site Access – Potential uses of the affected properties and the presence or absence of controls on Site access.
- 2. Potential Groundwater/Surface Water Uses – Any consumptive, recreational, or other use of groundwater and surface water in the area, and by which populations.
- 3. Environmental Receptors – Information on the presence of endangered or threatened species, potential habitats, and ecological environments.

Task III: RI/FS Report

The PLPs will complete a report documenting the Remedial Investigation/Feasibility Study as required by WAC 173-340-350(7) and (8). This report will include the following elements:

A. Remedial Investigation

1. Background Information

- a. Site History.
- b. Previous Studies.

2. Nature and Extent of Contamination

The PLPs will prepare an assessment and description of the degree and extent of contamination. This should include:

- a. Data Analysis – Analyze all data collected during Task II and prepare supporting maps and tables.
- b. Lab reports, previous investigations, well and boring logs, and any other documentation of characterization activities must be included.

3. ARARs Analysis

Identify Applicable local, State and Federal Laws for cleanup of the Site in accordance with WAC 173-340-710.

4. Cleanup Levels/Risk Assessment Analysis

Perform a baseline Model Toxics Cleanup Act (MTCA) cleanup levels analysis/baseline risk assessment characterizing the current and potential threats to public health and the environment that may be posed by hazardous substances at the facility. The assessment will integrate cleanup standards and risk assessment as required by WAC 173-340-357 and WAC 173-340-708.

5. Discussion and Recommendations

- a. Interpret and discuss data to determine the nature and extent of the contamination and to support final recommendations for the Site.
- b. A summary of all possible and suspected source areas of contamination based on the data collected will be included.
- c. Any known or potential risks to the public health, welfare, and the environment should be discussed.

- d. Recommendations should be provided identifying additional data requirements.

B. Feasibility Study

- a. Identification of contamination to be remediated.
- b. Identification and initial screening of treatment technologies.
- c. Proposed remedial alternatives and evaluation with respect to MTCA criteria.
- d. Recommended alternative.

Schedule of Deliverables

<u>Deliverables</u>	<u>Date Due</u>
Effective date of Order	Start
PLPs to Submit Agency Review Draft RI/FS Work Plan, Sampling and Analysis Plan, Health and Safety Plan, and Schedule of Work to be Performed	30 days after start
PLPs to Submit Revised RI/FS Work Plan, Sampling and Analysis Plan, Health and Safety Plan, and Schedule of Work to be Performed	30 days after PLPs receive Ecology’s comments on Draft Documents
PLPs to Submit Final RI/FS Work Plan, Sampling and Analysis Plan, Health and Safety Plan, and Schedule of Work to be Performed	14 days after PLPs receive Ecology’s written approval of Revised RI/FS Work Plan
PLPs to begin implementation of RI	30 days after PLPs receive Ecology’s written approval of Revised RI/FS Work Plan
PLPs to Submit Agency Review Draft RI/FS Report	12 months after PLPs receive Ecology’s written approval of Revised RI/FS Work Plan
PLPs to Submit Revised, Public Review Draft RI/FS Report	30 days after PLPs receive Ecology’s comments on Draft Document
PLPs to Submit Final RI/FS Report	30 days after PLPs receive Ecology’s written approval of Revised RI/FS Report draft
Progress Reports	Every 3 months