STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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July 21, 2015

Mr. Mark Nelson
Nelson Petroleum
1125 SW 80th Street
Everett, WA 98203

Re: Opinion Pursuant to WAC 173-340-515(5) on Site Decommissioning and Demolition Work Plan for the Following Hazardous Waste Site:

- **Name:** Nelson Distributing Granite Falls
- **Address:** 201 W. Stanley Street, Granite Falls, WA 98252
- **Facility/Site No.:** 48574863
- **VCP No.:** NW2982
- **Cleanup Site ID No.:** 12684

Dear Mr. Nelson:

Thank you for submitting documents regarding your proposed remedial action for the Nelson Distributing Granite Falls facility (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following release(s) at the Site:

- Total petroleum hydrocarbons in the diesel (TPH-D) and oil (TPH-O) ranges into the soil.

- Total petroleum hydrocarbons in the gasoline range (TPH-G), TPH-D benzene, toluene, ethylbenzene and xylenes (BTEX) into the ground water.

Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your proposed remedial actions:

1. Environmental Associates, Inc., *Preliminary Subsurface Exploration Bulk Fuel Facility, 201 West Stanley Street, Granite Falls, WA*. December 9, 2003.

2. SD&C, *Phase I and Phase II Environmental Site Assessment 201 W. Stanley St. Granite Falls, WA*. April 3, 2008.

3. SD&C, *Site Decommissioning and Demolition Work Plan Nelson Petroleum Site, Granite Falls, WA*. May 1, 2015.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at (425) 649-7235 or sending an email to: nwro_public_request@ecy.wa.gov.

The Site is defined by the extent of contamination caused by the following releases:

- TPH-D and TPH-O into the soil.

- TPH-G,TPH-D ranges, and BTEX into the ground water.

The Site is more particularly described in Enclosure A to this letter, which includes a detailed Site diagram. The description of the Site is based solely on the information contained in the documents listed above.

Based on a review of supporting documentation listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the release(s) at the Site, Ecology has determined:**

- The 2008 Phase I/II Environmental Site Assessment indicated that soil and ground water contamination is present in some areas of the Property; however, the lateral and vertical extent of this contamination has not been determined. Specifically, the following data gaps have been identified:

    - Soil samples were not analyzed for TPH-G in 2008 and only one soil sample was analyzed for volatile organic compounds.

    - Based on the results of the 2003 as well as the 2008 work, contamination exists in the borings close to the edges of the property (B-1, B-3, B-7 and SB-1) in soil and ground water, thus the Site may extend beyond the Property boundaries. Information is not currently available to make this determination.

As a result of these data gaps, additional Site characterization, including soil and ground water, is necessary prior to remediation or development of the property. Remediation of the Site will not be complete without first understanding the extent of the contamination.

- Regarding the Site Decommissioning and Demolition Work Plan:
    - Section 3.2 proposes to conduct soil excavation guided by field screening. This is not an adequate process for site characterization. Additional sampling is recommended using the methods described in the *Guidance for Remediation of Petroleum Contaminated Sites (October 2011)*: https://fortress.wa.gov/ecy/publications/SummaryPages/1009057.html.
    - Section 3.3 of the work plan indicates that "soil that is wet or saturated will be allowed to drain prior to transport". Please describe how this will be done and what measures will be taken to prevent contaminated water draining from the soil into adjacent properties or uncontaminated areas.
    - Section 3.4 describes the proposed treatment for ground water. Please include the objective of the ground water treatment and list all permit requirements for this activity. Will the treated water be sampled prior to discharging it to confirm contaminants are no longer present?
    - Section 3.5 describes samples to be collected for confirmation however the locations of the confirmation samples are unclear. Soil samples should be collected from the sidewalls and the bottom of the excavation. Any stockpiles generated during excavation may also need to be sampled if screening for off-Site disposal is planned.
    - Section 3.8 describes a ground water monitoring program with three monitoring wells. Prior to the selection of monitoring well locations, the source areas of contamination must be defined and the ground water flow direction estimated based on Site topography. Include a figure showing proposed monitoring well locations and describe well construction details.
    - Well construction details and monitoring parameters must follow the *Guidance for Remediation of Petroleum Contaminated Sites (October 2011)*: https://fortress.wa.gov/ecy/publications/SummaryPages/1009057.html.
- A terrestrial ecological evaluation (TEE) submittal for the Site is required by WAC 173-340-7490. The TEE form is located on Ecology's website: (http://www.ecy.wa.gov/programs/tcp/vcp/vcp2008/vcpForms.html).
- Electronic submittal of all sampling data into Ecology's Electronic Environmental Information Management (EIM) database is a requirement in order to receive a final Ecology determination for this Site. Jenna Durkee (email jedu461@ecy.wa.gov or via telephone at 509-454-7865) is Ecology's contact and resource on entering data into EIM.

- Under Washington State law (Chapters18.43 and18.220 RCW), all hydrogeologic and engineering work must be conducted by, or under the supervision of a licensed geologist, hydrogeologist or professional engineer qualified to conduct the work. Any Site investigation/cleanup document containing geologic or engineering work must be submitted under the seal of such an appropriately licensed professional. The submitted Site Decommissioning and Demolition Work Plan has not been stamped by a licensed professional.

This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

If you have any questions regarding this opinion, please contact me at (425) 649-7058 or by email at taca461@ecy.wa.gov.

Sincerely,

T. Cardona

Tamara Cardona, PhD
Toxics Cleanup Program

Enclosures: Site Description and Diagrams

cc: Timothy Slotta, Slotta Design and Construction
Sonia Fernandez, VCP Coordinator, Ecology

Enclosure A

Site Description and Diagrams

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site is described as total petroleum hydrocarbons in the gasoline (TPH-G) and diesel (TPH-D) ranges, benzene, toluene, ethylbenzene and xylenes (BTEX) into the ground water and total petroleum hydrocarbons in the diesel and oil (TPH-O) ranges into the soil at the Nelson Distributing facility located at 201 West Stanley Street in Granite Falls, WA (Property). The Property corresponds to Snohomish County tax parcel number 30061300403400 which occupies 0.58 acres.

Area and Property Description: The Property is the location of the Nelson Distributing fuel distribution facility. The Property includes a 1,500-square foot warehouse building with interior office space and three fuel distribution pump locations. There are four aboveground fuel storage tanks (AST) located west of the warehouse. The Property is bounded by a gas station to the east, West Stanley Street to the South and an undeveloped lot to the north. At the west of the Property, a 100-square foot operating shed building associated with an AST compound was part of the original Property but appears to have been split as a separate parcel sometime after 2008 with parcel number 30061300403500. A commercial building is also located on the adjacent western property which was formerly Glen's Rentals, an equipment rental company.

Property History and Current Use: The building on the Site is classified as commercial and has been in place since 1938, which is most likely the first developed use of the Property. Title records indicate that the property has been leased as a bulk fuel facility since 1938.

There are four steel ASTs on the west side of the Property along with fueling pumps. The ASTs include one 12,955-gallon unleaded gasoline tank; one 19,430-gallon low sulfur diesel tank; and two 4,970-gallon high sulfur diesel tanks that are interconnected. The tanks are enclosed by a gated cyclone fence on top of a concrete impoundment wall. Nelson Petroleum acquired the lease on the Property from Chevron in 1980 but purchased it in 2008. Fuel distribution is the current use of the Property.

Sources of Contamination: The contamination on the Property is assumed to have been caused by the former bulk fuel distribution activities. Specific releases causing the identified contaminated areas are not documented.

Physiographic Setting: The Site is located at an elevation of approximately 400 feet above mean sea level. The Granite Falls area is located between the Northern Cascade subcontinent encompassing the surrounding mountain ranges to the east and the Puget Sound lowland to the west. The Northern Cascade subcontinent is composed of oceanic crust and mudstones that accumulated on the ocean floor 50 million years ago. At lower elevations and along the river valleys, the soils were deposited by glaciers about 15,000 years ago. The materials underlying the Site are expected to be recessional outwash, sand, gravel, alluvial deposits and glacial till.

Surface/Storm Water System: The surface water body closest to the Site is a man-made pond on the adjacent property about 180 feet to the north. The Pilchuck River is located approximately 0.5 miles southwest of the Site. The Site has a storm water collection system and oil-water separator which drains to the west along Stanley Street to a municipal surface water drainage system.

Ecological Setting: The surface of the Property is partly covered by pavement, concrete, gravel, and a building. Other areas are vacant and have no land cover (northern portion of the Property). An undeveloped lot is adjacent to the north of the Property; this area can potentially be accessed by wildlife. A chain link fence separates the developed side of the Property from the undeveloped.

Geology: The soils at the Site consist of a dense sandy silt layer underlain at a depth of six feet by a shallow water-bearing sand. The sand is underlain by very dense glacial till that occurs at approximately 16 feet below ground surface (bgs), the maximum depth explored.

Ground Water: Ground water was encountered during Site work at a depth of 6 feet bgs. Based on topography, ground water on the Site most likely flows to the southwest. A review of water well records in 2008 indicated that two domestic drinking water wells were located ¼ mile east and southeast of the Site. The depth of the well to the east is unknown; the well located southeast of the Site is 14 feet deep.

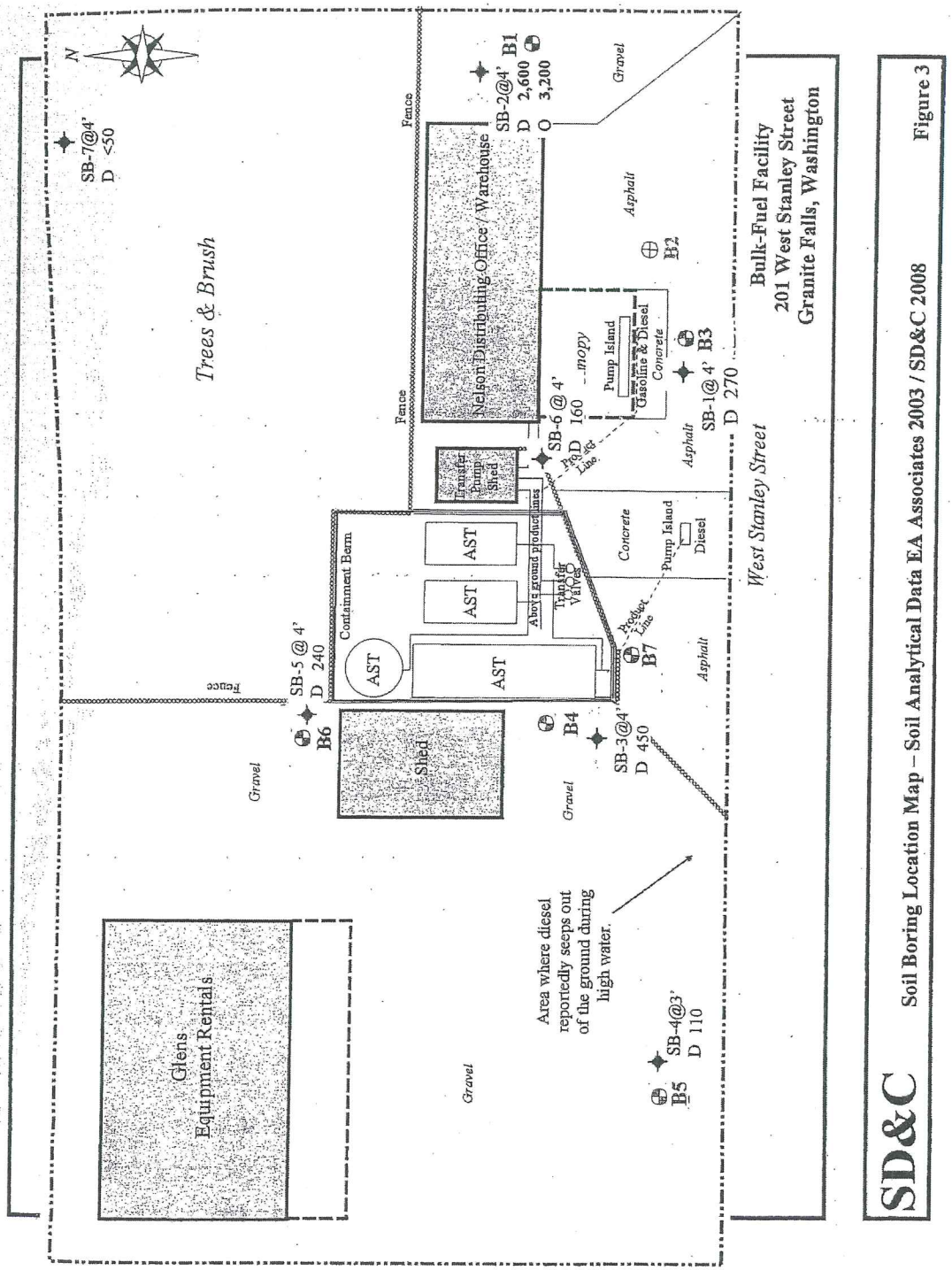
Water Supply: The City of Granite Falls obtains drinking water from the Snohomish County PUD Water Utility, which purchases water from the City of Everett. Everett's water comes from the Spada Reservoir.

Release and Extent of Soil and Ground Water Contamination: Soil contamination consisting of TPH-G, TPH-D, TPH-O and benzene was identified in soil and ground water in 2003 during a Preliminary Subsurface Exploration for a potential property transaction. Seven soil borings were advanced using a Bobcat equipped with a fencepost auger. The auger was advanced to a depth of approximately five to six feet bgs and composite samples were collected from the auger flights at depths of two to three feet and four to five feet bgs. Ground water was encountered in all soil borings at depths between two to four feet bgs. Disposable bailers were used to collect ground water samples. All seven ground water samples were analyzed for TPH-G, TPH-D, TPH-O and BTEX. Five composite soil samples from five of the borings were also submitted for TPH-G, TPH-D, TPH-O, and BTEX analysis. TPH-G, TPH-D, and benzene were detected above MTCA Method A cleanup levels in soil and ground water. TPH-O also exceeded the MTCA Method A cleanup levels in ground water.

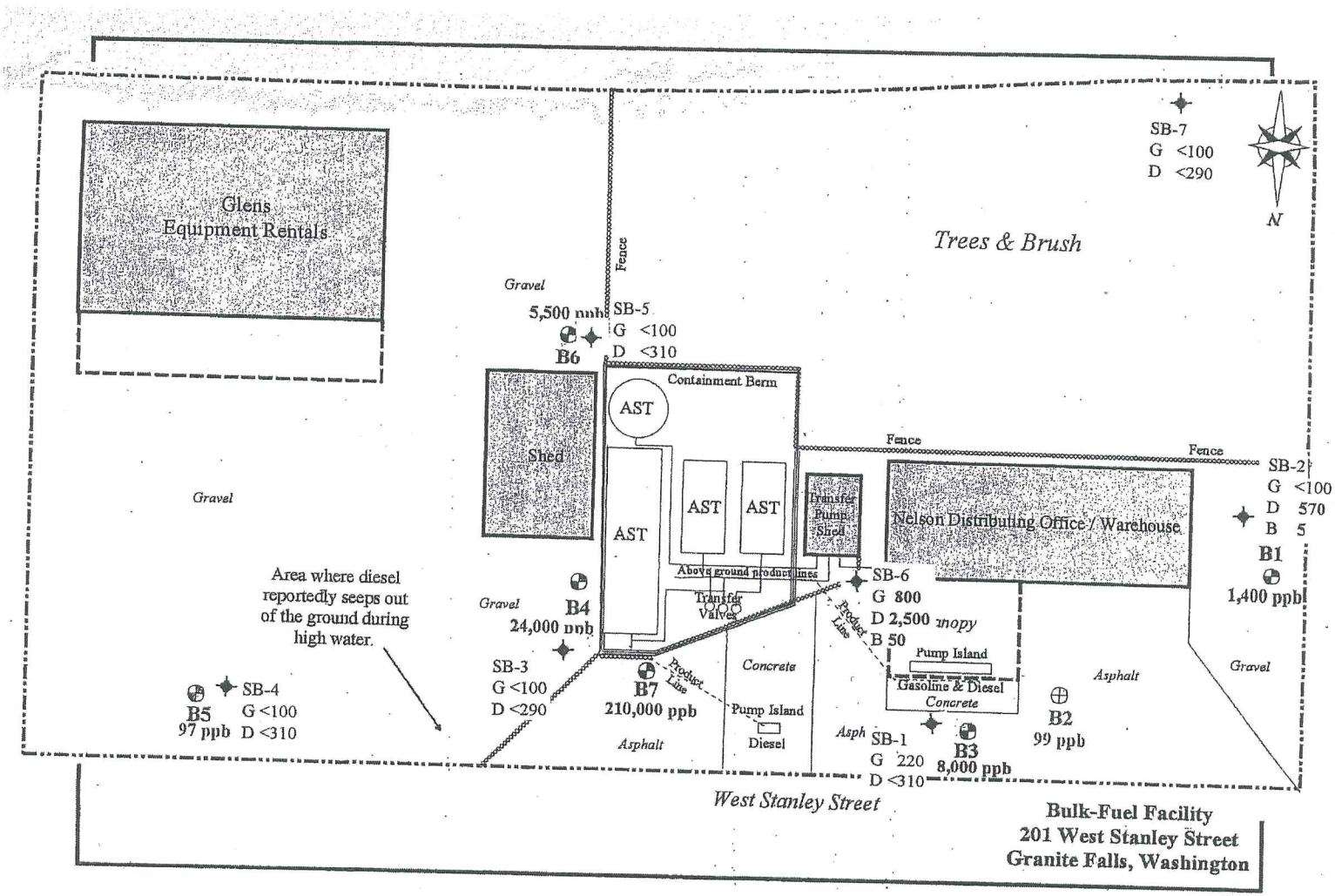
An additional subsurface assessment was completed in 2008 using a Geoprobe drilling rig to collect soil and ground water samples from seven borings. The number and location of the subsurface soil samples was based on the facility operations and proximity to the fueling pumps, ASTs, and the warehouse storage location. Soil samples were collected from each temporary boring and analyzed for TPH-D, TPH-O, and BTEX. One soil sample was analyzed for volatile organic compounds and semi-volatile organic compounds. Some low detections of semi-volatile compounds were present, however, laboratory analysis report states that the surrogate recovery was above the established range, suggesting a potential high bias. No soil samples were analyzed for TPH-G. One soil sample collected at a depth of 4 feet bgs exceeded the TPH-D and TPH-O Method A cleanup levels.

Ground water samples were collected in 2008 from temporary screens placed at 6 feet bgs in each of the borings. In three of the borings (SB-1, SB-2 and SB-6), the ground water was noted to have a slight petroleum hydrocarbon sheen floating on the surface. Ground water samples were analyzed for TPH-G, TPH-D, TPH-O, and BTEX. One ground water sample (location B-6) was also analyzed for volatile organic compounds. BTEX compounds were detected in groundwater sample (B-6), however Method A cleanup levels were only exceeded for TPH-G, TPH-D, and benzene in this sample.

Site Diagrams



SD&C Soil Boring Location Map – Soil Analytical Data EA Associates 2003 / SD&C 2008 Figure 3



SD&C Boring Location Map – Groundwater Analytical Data EA Associates 2003 / SD&C 2008 Figure 4