MAUL FOSTER ALONGI

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April 24, 2014
Project No. 0346.04.08

John Mefford
Washington State Department of Ecology
15 West Yakima Avenue
Suite 200
Yakima, WA 98902-3452

Re: Monitoring Well Redevelopment Work Plan
Former Cream Wine/Carnation Property, Sunnyside, Washington

Dear Mr. Mefford:

Maul Foster & Alongi, Inc. has prepared this letter to provide a brief summary of proposed monitoring well redevelopment activities at the former Cream Wine/Carnation Property (the Property) located at 111 East Lincoln Avenue in Sunnyside, Washington (see Figure 1). The scope of work included in this letter is based on findings from the performance and compliance monitoring events completed in November 2013 and February 2014, respectively, as discussed in the final Remedial Action Completion Report (MFA, 2014).

Location

The Property is located in section 36 of township 10 north and range 29 east of the Willamette Meridian, on tax lots 221036 to 22006 (see Figure 1). The Property is approximately 4.67 acres and is zoned as "heavy industrial."

The Property is bordered by 1st Street and residential development to the north; by industrial development to the south; by 1st Avenue, residential development, and Valley View Market (VVM) to the west; and a commercial development to the east (Ken's Auto Wash & Quick Lube).

Monitoring Well Redevelopment

Monitoring wells MW08, MW17, MW18, MW19, and MW20 (see Figure 2) will be redeveloped by surging, bailing, and pumping to remove accumulated sediment and emulsified reagent that has remained as result of the groundwater injections completed in September 2013 (MFA, 2014). Redevelopment is expected to improve the hydraulic connection with the water-bearing zone and reduce turbidity in groundwater samples collected from the wells. If there is no water in MW08, jetting may be introduced to develop the well.

Surging moves water back and forth through the well screen to facilitate sediment removal. A surge block is moved up and down along the length of the screened section of the well. As the surge block is raised and lowered, a positive pressure is created in the direction the surge block is moving (forces water outward through the screen) and negative pressure is created behind the surge block (pulls water inward through the screen). A bailer functions effectively as a surge block and may be used at the Property. Surging generally does not entail removal of any water from the well and is followed by pumping or bailing to remove sediment in the well.

Jetting is a more vigorous method for removing sediment from a well. Whereas jetting is highly effective, it is generally not recommended for use at hazardous waste sites because it entails pumping fresh, clean water through the well screen using a special jetting tool. Introducing water into the aquifer, if not carefully documented and managed, can raise concerns that contaminant concentrations may be diluted in subsequent samples collected from the well. If surging is not feasible (i.e., insufficient water in the well) or is not effectively removing sediment and/or reagent from the wells, jetting may be used. However, in order to ensure that subsequent samples collected from the well are representative, the volume of water introduced during jetting will be carefully documented and, once the jetting has been completed, at least three times the volume of water introduced will be removed by pumping or bailing.

Water quality field parameters such as specific conductance, pH, temperature, and turbidity will be measured during well development. The wells will be redeveloped until the turbidity measurements are 10 nephelometric turbidity units or less, or until there is no noticeable decrease in turbidity. To the extent practical, water quality field parameters will be considered stable when the specific conductance is within 10 percent of the previous reading, pH is within 0.1 standard unit of the previous reading, and temperature is within 0.1 degree Celsius of the previous reading.

Following redevelopment, a minimum of 24 hours will be allowed for the wells to return to equilibrium conditions prior to sampling.

Schedule

The well redevelopment and second quarterly event to monitor compliance following completion of the remedial action are scheduled for May 14 to 16, 2014.

Please feel free to call Heather Hirsch (360-594-6257) or Michael Stringer, project manager, (206-858-7617) with any questions.

Sincerely,

Maul Foster & Alongi, Inc.

Justin Pounds
Project Environmental Scientist

Heather R. Hirsch, LHG
Project Hydrogeologist

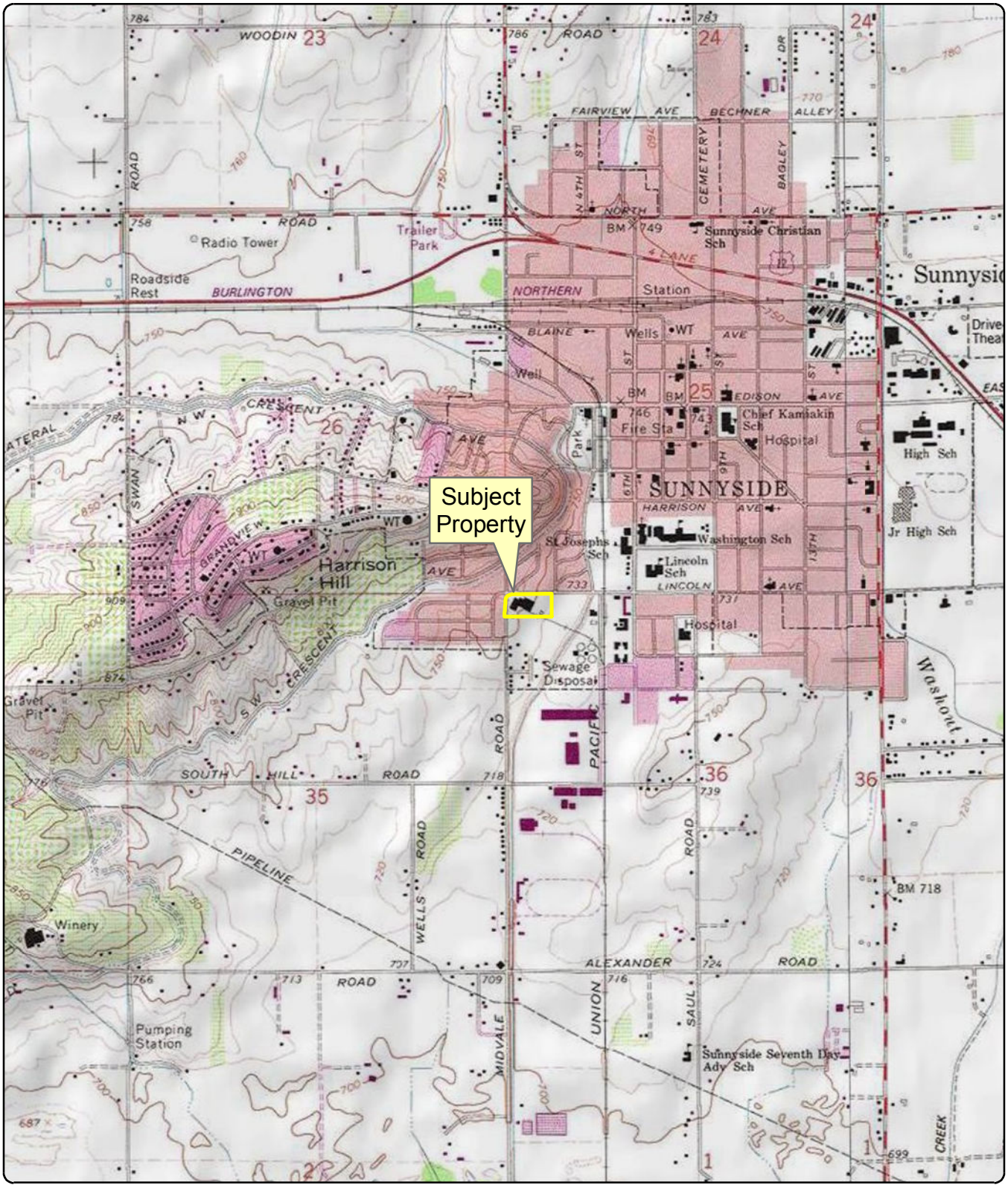
Attachments: Reference
Figures

cc: Jay Hester, Port of Sunnyside

State of Washington
Hydrogeologist
2819
Licensed Geologist
HEATHER R. HIRSCH

MFA. 2014. Remedial action completion report. Former Cream Wine/Carnation property. Maul Foster & Alongi, Inc. Vancouver, Washington. April 9.

FIGURES



Site Address: 111 E Lincoln Ave, Sunnyside, Washington
Source: US Geological Survey (1990) 7.5-minute topographic quadrangle: Sunnyside
Section 36, Township 10 North, Range 22 East

Figure 1
Property Location

Former Cream Wine/
Carnation Property
Port of Sunnyside
Sunnyside, Washington

0 1,000 2,000
Feet

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Path: X:\0346.04\Projects\Completion Report\Fig1 Property Location.mxd
Print Date: 1/9/2014
Approved By: J. Pounds
Produced By: J. Schane
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Figure 2
Monitoring Well Locations

Former Cream Wine/
Carnation Property
Port of Sunnyside
Sunnyside, Washington

Legend

- Injection Point
- Injection Point & Long-Term Monitoring Well
- Long-Term Monitoring Well
- Property Boundary (Approximate)
- Tax Lots (Approximate)

Notes:
1. Sample locations were surveyed by Gray's Survey and Engineering on June 18 and 19, 2012. The locations of other site features are approximate.

0 25 50
Feet

Source: Aerial photograph (June 2011) obtained from Esri ArcGIS Online

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