



June 30, 2021

Ms. Ann Lin
Seneca Group
1191 Second Avenue, Suite 1500
Seattle, WA 98101

Re: Environmental Summary Letter

TBN Parking Lot Improvement Project
18460 NE 76th Street, Redmond, Washington
Project No. 190144-B-01

Dear Ann:

Aspect Consulting, LLC (Aspect) has prepared this letter to present findings of our environmental review to support planned tenant improvements of TBN Parking Lot (King County tax parcel number 221295-0050), a parking lot with address 18460 NE 76th Street in Redmond, Washington (Subject Property; see Figure 1). We understand that improvements to the existing gravel parking area, referred to as TBN Parking Lot, are planned and will likely include paving, landscaping, installation of a stormwater collection system, and lighting.

In 2019, Aspect completed a “Phase I Environmental Site Assessment” (ESA) report on behalf of Seneca Group for the full Subject Property consisting of four King County tax parcels (King County tax parcel numbers 221295-0050 [Lot 50], 221295-0070 [Lot 70], 221295-0080 [Lot 80], and 221295-0073 [Lot 73]; Aspect, 2019). At the time of the 2019 report, TBN Parking Lot was referred to as “Lot 50” and improvements were not planned.

The following sections summarize information in the 2019 Phase I ESA pertinent to TBN Parking Lot (formerly “Lot 50”); no additional research, records acquisition, or data collection has been completed in preparation of this document beyond what was conducted in 2019 and summarized in that report. In support of the upcoming improvements, Aspect has re-reviewed the 2019 Phase I ESA information in the context of the upcoming tenant improvement construction and increased use for parking purposes, to evaluate environmental risk to construction workers during improvement, and to those persons using the parking lot after construction is complete.

Review Findings

The 2019 Phase I ESA revealed several recognized environmental conditions (RECs) pertaining to TBN Parking lot as listed below:

1. **On-Property REC:** Diesel detected in soil and diesel and arsenic detected in groundwater on TBN Parking Lot, likely associated with fill of an unknown source placed on the lot in the 1970s. Diesel concentrations above the Model Toxics Control Act (MTCA) cleanup level has been detected in soil across TBN Parking Lot at depths ranging from 3 to 11 feet below the ground surface (bgs). Fill soil has been described as extending to 15 feet bgs. Dissolved arsenic has been detected in groundwater above the MTCA Method A cleanup level in temporary monitoring wells in studies in 1994 and 2014.

2. **Off-Property historical RECs (HRECs):** An oil UST removal and associated remedial excavation occurred on the east side of TBN Parking Lot and on the adjacent Costco property in March 2016. Final confirmation samples indicated that soil in the excavation extents was below cleanup levels, and the Washington State Department of Ecology (Ecology) issued an No Further Action (NFA) letter on November 18, 2016.

Based on these findings, there is a potential to encounter contaminants of concern (petroleum hydrocarbons and arsenic) above MTCA Method A cleanup levels in soil and groundwater during planned tenant improvement construction to TBN Parking Lot. Pending the location of the planned tenant improvements relative to the historical exploration locations (Figure 2), additional soil and groundwater characterization may be required to identify appropriate handling procedures, and environmental media disposal profiling.

Because the improvement plan includes paving TBN Parking Lot, the risk of exposure to future parking lot users after the improvements are completed will be very low, as direct contact with soil and groundwater is the main exposure pathway for the existing contamination. If a structure is proposed as part of the tenant improvement (such as an employee-occupied parking kiosk), then chemical vapor intrusion pathway may need to be evaluated.

2019 Environmental Information – TBN Parking Lot

Historical Use and Operations

TBN Parking Lot operated as a storage yard from the late 1970s until approximately 1994, when Genie began leasing the lot. According to SCS Engineers' 1994 Phase I/II ESA on TBN Parking Lot, approximately 20,000 cubic yards of fill materials was placed to raise the ground level sometime in the early 1970s. SCS observed fuel storage tanks; empty oil, transmission fluid, brake fluid, and antifreeze containers; and truck and automobile tires and filters stored directly on the unpaved ground during their site reconnaissance in 1994. The surficial debris was removed in 1994 and covered with imported soil to reach the grade of the adjacent roadway and overlain with quarry spalls and gravel. The Subject Property remains unchanged from 1994 to present day.

Historical Spills on TBN Parking Lot

The following spills were listed in the regulatory database search report obtained for the 2019 Phase I ESA (EDR report):

- On March 1, 2007, 1 gallon of hydraulic oil was reported as spilled. No other information is provided on the EDR listing. According to a record from the City of Redmond, a spill on May 2, 2007, of hydraulic fluid from a piece of equipment on TBN Parking Lot was cleaned up by Phillips Environmental. It is unclear if these spills are related.
- A spill recorded on April 23, 2009, by AECOM as a diesel release from a diesel-powered, portable generator used for lighting of TBN Parking Lot parking area at night. Genie estimated that 30 gallons of diesel may have been released from a cracked fuel line on the generator. The generator was immediately removed from service and repaired after the release was observed by a security contractor. A backhoe contractor was then hired to excavate the contaminated soil from below the leak.

- AECOM collected confirmation samples from the excavation. Heavy oil was detected in a west sidewall sample collected from the excavation. Genie opted to over-excavate this area, although the heavy-range oil was not associated with the diesel spill. The volume of contaminated soil removed totaled 45 cubic yards and an excavation area totaling 10.5 feet wide by 18 feet long by 6 to 7 feet deep. Groundwater was encountered at about 7 feet bgs and was pumped out of the excavation. All excavation materials were delivered by Burlington Environmental to the Chemical Waste Management landfill near Arlington, Oregon. AECOM determined that the cleanup action complies with MTCA regulations.

Physical Setting

Fill was imported onto TBN Parking Lot during at least two events. The first occurring sometime in the late 1970s, sourced from the Microsoft campus construction and other sources (according to an owner's account in the SCS Engineers' 1994 Phase I ESA). And the second occurring in the 1990s, consisting of gravel and quarry spalls, sand and gravel, concrete, brick, wood debris, tar, and asphalt (Partner, 2014). Urban Redevelopment (UR) created a cross section of Lot 73 and TBN Parking Lot (formerly "Lot 50") showing approximately 10 feet of fill overlying approximately 5 feet of asphalt/organic fill. The native units consist of gray sand overlying a 10- to 15-foot layer of peat, overlying a 5-foot layer of clay, overlying alluvial sand. The cross section is included in Appendix A.

Groundwater was encountered at depths less than 6 feet bgs in the Environ (2002) and Urban Development (2003) explorations (approximately 49 feet above msl).

A city monitoring well located between Lot 73 and TBN Parking Lot of the Subject Property—in addition to the five independent wells located on Lots 70, 73, and 80—is sampled regularly to test for drinking water in the City of Redmond. According to the City of Redmond Annual Groundwater report, the groundwater is treated with chlorine and air stripping towers.

In 2003, groundwater was encountered at depths ranging between approximately 9.5 feet bgs, and 12 feet bgs in monitoring well UR-6, located on the central portion of the west-adjointing property to the TBN Parking Lot (UR, 2003). UR interpreted groundwater flow direction within the shallow groundwater encountered to fluctuate from northwest (January 2003) to southwest (August 2003). Deeper borings installed by UR on the TBN Parking Lot property were completed to the maximum depth of 39 feet bgs. Based on the field observations, and laboratory analyses, UR interpreted the groundwater observed in monitoring wells completed in 2003 to be shallow perched water, and hydraulically separate from the underlying alluvial aquifer which was encountered at approximately 37 feet bgs (UR, 2003). As of 2014, five monitoring wells on the west-adjointing property (GMC-04, GMC-05, GMC-07, UR-5 and UR-6) were sampled and groundwater was encountered at depths less than 6 feet bgs (Partner, 2014). During the 2019 Phase I ESA site reconnaissance, two monitoring wells were observed, GMC-04 and UR-6, as shown on Figure 1 (Aspect, 2019).

Previous Environmental Investigations

Several previous environmental reports were identified and reviewed, including the following:

- One prior Phase I ESA for the Subject Property (ERM, 2017)
- One combined Phase I and II ESA report that covers TBN Parking Lot (Partner, 2014)

- One subsurface investigation report for the Subject Property (Environ, 2002)
- One environmental summary letter pertaining to the Subject Property (Partner, 2017)
- One underground storage tank (UST) closure and remedial action report for TBN Parking Lot (Pacific Crest Environmental, 2016)
- One subsurface investigation report for TBN Parking Lot (SCS, 1994)
- One subsurface investigation report for Lots 80, 73, and TBN Parking Lot (UR, 2003)

Portions of these reports summarizing previous explorations and analytical data are included as Appendix A.

Subsurface investigations were completed to evaluate possible impacts from the RECs identified by the Phase I ESAs, which included: the installation of four permanent monitoring wells (UR-1 through UR-4); three soil borings GMWC-03, B-101 and B-102; collecting three surface soil samples (S-1 through S-3); and completion of 24 test pits. Pertinent details from the subsurface investigations are summarized below; explorations and remedial excavation areas are shown relative to existing site features on Figure 2.

- **Diesel-range Total Petroleum Hydrocarbons (TPH) in Soil (SCS, 1994).** SCS Engineers conducted a Phase II investigation on TBN Parking Lot, when Genie was considering expanding their facility onto this parcel. They excavated 10 test pits (TP-1 through TP-10) across TBN Parking Lot and submitted soil samples for chemical analytical testing. Diesel-range TPH was detected in fill soil at concentrations exceeding the existing Washington State Model Toxics Control Act (MTCA) cleanup level of 2,000 milligrams per kilogram (mg/kg; SCS, 1994).
- **Diesel- and Oil-range TPH and Arsenic in Groundwater (Environ, 2002).** Environ completed a Phase II investigation in 2002 to characterize groundwater quality at Lots 80, 73, and TBN Parking Lot in anticipation of a proposed groundwater protection area ordinance from the City of Redmond. Environ collected groundwater from temporary wells installed on TBN Parking Lot and the west-adjointing properties (only GMC-03 is located on TBN Parking Lot; GMC-02 was installed downgradient and off-property). Groundwater samples were analyzed for volatile organic compounds (VOCs); benzene, toluene, ethylbenzene, and xylene (BTEX); gasoline-, diesel-, and motor oil-range TPH; and total and dissolved metals. It is unclear from the report if the VOCs list analyzed included the solvents listed in Genie's waste manifests (Environ, 2002).

Concentration of gasoline-range TPH and various VOCs including BTEX were detected, but none were above MTCA cleanup levels. Concentrations of diesel- and oil-range TPH in groundwater were detected above MTCA cleanup levels of 0.5 mg/L (same as present-day cleanup level), with the highest concentrations observed at GMC-03 located at TBN Parking Lot. Total metals were detected in three unfiltered groundwater samples in concentrations above MTCA cleanup levels (arsenic, chromium, and lead) in GMC-02 and GMC-03. Dissolved arsenic was detected in the filtered groundwater samples collected at concentrations above MTCA cleanup levels (GMC-02 and GMC-03).

- **Arsenic in Groundwater (UR, 2003).** Urban Redevelopment (UR) installed four monitoring wells (UR-1 through UR-4) in 2003, located on TBN Parking Lot. This study

analyzed groundwater for diesel, gasoline, and BTEX, but they did not analyze for the chemicals used in Genie's operations including 1,1,1, -trichloroethane (1,1,1- TCA) and chromic acid (UR, 2003). Additionally, groundwater samples were analyzed for total and dissolved metals, and arsenic was identified in groundwater in UR-3 and UR-4 at concentrations above the MTCA Method A cleanup level.

UR reported that the other analytes were either not detected above laboratory reporting limits, or were detected below MTCA cleanup levels; however, the laboratory analytical data was not summarized for this report, so reporting limits and concentrations were not available for review. In addition, UR (2003) reports using silica gel cleanup as part of the laboratory analytical procedure for diesel-range TPH analysis, to:

Remove possible interferences with the analytical method that result from the presence of biogenic materials that are usually present with the naturally occurring organics that were observed in the soil stratigraphy, and because of the presence of peat observed in the shallow water table.

UR also recommended two additional quarters of groundwater data be collected from the site, focusing on diesel-range TPH and arsenic as the main contaminants of concern. No reports summarizing those events were reviewed.

Based on the findings summarized in the documents prepared for TBN Parking Lot between 1994 and 2003 (SCS, 1994; Environ, 2002; UR, 2003), Ecology (2004) determined on January 21, 2004, that:

The release of petroleum hydrocarbon into soil and groundwater no longer posed a threat to human health or the environment, and that no further remedial action was necessary under MTCA, chapter 70.105D RCW. These remedial actions were not conducted under a consent decree with Ecology, and the determination was only made with respect to the Gravel Parking Lot (tax ID no. 221295-0050).

- **UST Removal on Property Boundary (Pacific Crest Environmental, 2016).** An orphan UST was encountered on the boundary between the Costco property (east-adjointing) and TBN Parking Lot in 2016. Pacific Crest Environmental delivered a "UST Closure and Independent Cleanup Report" to Ecology on June 22, 2016, outlining UST removal and soil excavation of the UST.

The tank contents were pumped out and the tank was removed. Confirmation samples indicated that oil-range TPH was detected above the cleanup level of 2,000 mg/kg, so an additional 2.5 feet of soil was removed from the east sidewall. Final confirmation samples indicated that the sidewall was below the cleanup level and Ecology issued an NFA letter November 18, 2016. Groundwater was not encountered in the excavation or analyzed during this investigation.

Conclusions and Recommendations

Based on the review of previous environmental reports and the findings of the 2019 Phase I ESA, evidence of contaminants of concern were identified in the subsurface soil and groundwater on TBN Parking Lot. Contaminants of concern include diesel- and oil-range TPH, and arsenic, which were detected at concentrations that exceed MTCA Method A cleanup levels in both fill soil and groundwater located across the Subject Property.

Based on these findings, there is a potential to encounter contaminants of concern in soil and groundwater during planned tenant improvements. Therefore, it is prudent to take adequate precautions to prevent construction workers from direct contact with media impacted by the contaminants of concern. Appropriate training for hazardous waste operations and personal protective equipment will be required during soil and groundwater handling and excavation activities. Pending the location of the planned tenant improvements relative to the historical exploration locations (Figure 2), additional soil and groundwater characterization may be required to identify appropriate handling procedures, and environmental media disposal profiling.

To support the design of tenant improvements across the TBN Parking Lot, we recommend submitting a request to access the two existing monitoring wells on the west-adjointing property to measure groundwater in the property vicinity (GMC-04 and UR-6; Figure 1).

Assuming the final tenant improvement includes the paving of TBN Parking Lot, the risk of exposure to future parking lot users will be very low, as direct contact with soil and groundwater is the main exposure pathway for the existing contamination. If a structure is proposed as part of the tenant improvement, then soil vapor intrusion pathway may need to be evaluated depending on the final state of soil and groundwater removal activities.

References

- Aspect Consulting, LLC (Aspect), 2019, Phase I Environmental Site Assessment, NE 76th Street, 18340 and 18460 NE 76th Street, Redmond, Washington, prepared for Seneca Group, April 18, 2019.
- ERM, 2017, Phase I Environmental Site Assessment Facility DSE6, 18340 NE 76th Street, Redmond, Washington, dated August 3, 2017.
- Environ, 2002, Phase II Groundwater Investigation Report, Genie Industries, Redmond, Washington, dated October 2, 2002.
- Pacific Crest Environmental, 2016, UST Closure & Independent Cleanup Report, on Costco Wholesale/Genie Industries, Redmond, Washington, dated 22 June 2016.
- Partner Engineering and Science, Inc. (Partner), 2014, Phase I Environmental Site Assessment and Phase II Investigation, Redmond Commerce Center, Vacant Lot, NE Corner of NE 76th Street and 185th Ave. NE. March 25, 2014.
- Partner Engineering and Science, Inc. (Partner), 2017, Phase I ESA Summary Letter, Redmond Commerce Center 18340 and 18460 NE 76th Street and Vacant lot at 185th Avenue, July 12, 2017.
- SCS Engineers (SCS), 1994, Phase I & Phase II Environmental Investigation, Hartman/Sheldon Property, NE Corner of 185th Avenue NE and E 76th Street, Redmond, Washington 98073, dated May 11, 1994.
- Urban Redevelopment (UR), 2003, Voluntary Cleanup Program Site Assessment Report, Genie Industries and an Adjacent Parking Lot, an Industrial Facility at the Intersection of NE 76th Street and 185th Avenue Ne in Redmond, Washington, Prepared for Submittal to the

Washington Department of Ecology, Voluntary Cleanup Program, Northwest Regional Office, dated October 2, 2003.

Washington State Department of Ecology (Ecology), 2004, Independent Remedial Action, Genie Industries Manufacturing Facilities, Gravel Parking lot, No Further Remedial Action Letter, January 21, 2004.

Limitations

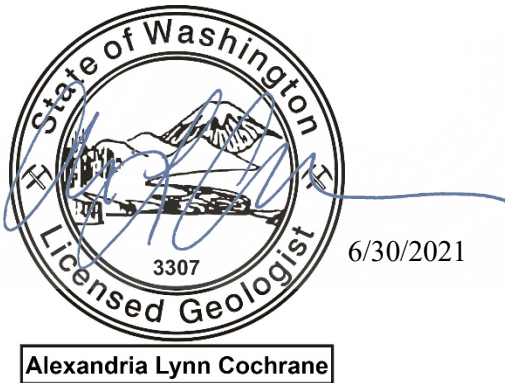
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Please refer to Appendix B titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

Sincerely,

Aspect consulting, LLC



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Attachments: Figure 1 – Site Vicinity Map
 Figure 2 – Site Plan and Previous Explorations
 Appendix A – Previous Environmental Reports
 Appendix B – Report Limitations and Guidelines for Use

FIGURES



- Boring Location (Environ, 2003)
- Boring Location (UR, 2003)
- ⬮ Monitoring Well (UR, 2003)
- Test Pit (UR, 2003)
- ▲ Surface Sample Location (SCS Engineers, 1994)
- Test Pit (SCS Engineers, 1994)
- TBN Parking Lot

Note: Site features are approximate.

Basemap Layer Credits // EagleView Technologies, Inc.

Site Plan and Previous Explorations

Environmental Conditions Summary
TBN Parking Lot
Redmond, Washington



JUN-2021

PROJECT NO.
190144

BY:
TDR / ALC
REVISED BY:

FIGURE NO.

2