Site Hazard Assessment
Recommendation for No Further Action

Site Name: GTE Northwest Kennewick Main Control Office
Site Address: 15 S Benton Street
City, County, WA Zip: Kennewick, Benton, WA 99336
Ecology Facility Site ID No.: 1564314
Cleanup Site ID: 7427
Date: January 6, 2014

Background/ Previous Site Investigations:
In the fall of 1989 the telephone company, GTE, hired Applied Geotechnology Inc. (Bellevue, WA) to oversee the removal of two underground storage tanks (UST) at their property at 15 South Benton Street in Kennewick, WA. Based on GTE records there were two tanks on site that were installed prior to 1966 and use of the tanks was terminated in 1984. The tank volumes were 110 and 1,000 gallons and were used to store fuel that supplied an oil-fired heater (2). On October 10-11, 1989 the Roberts Company removed the tanks along with approximately 15 cubic yards of soil. The small tank was in good condition but the large tank had a ¼ inch hole in one end. There was no reference as to the specific location of the hole. The soil at the bottom of the excavation hole was visibly contaminated. Soil samples taken near the bottom of the excavation at 12.5 and 15 feet below the ground surface (bgs) showed considerable contamination of petroleum hydrocarbons (13,000 and 5,600 parts per million (ppm), respectively). The excavation hole was close to the footing of the building and utilities so excavation was halted until more sampling could be performed.

On November 7, 1989 Applied Geotechnology, Inc. (AGI) performed soil boring at the tank excavation site to a depth of 42 feet below the ground surface (bgs). Boring indicated that there was dense, fine to medium sand from 15-30 feet bgs and very dense sand mixed with gravel (medium to coarse) from 30-42 feet bgs. There are conflicting reports, but one report (1) stated that ground water was present at a depth of 37 feet bgs. No ground water samples were taken. Soil samples were taken at intervals of approximately 3.5 feet and analyzed for Total Petroleum Hydrocarbons (TPH) by EPA Method 418.1. According to one report (1), "soil was not retained in sufficient quantity by the sampling spoon to test below a depth of 30.5 feet." (see Table 1 for soil boring results.)

Table 1. Total Petroleum Hydrocarbon Concentrations in Soil Samples Taken at GTE Site

Bore Hole Depth (feet)	Total Petroleum Hydrocarbon Concentration (ppm)		Excavation Hole depth (feet)	Total Petroleum Hydrocarbon Concentration (ppm)
17.5	73		17.5	300
20	10		18.5	150 (post-excavation)
22.5	25			
26	3			
30	61			

Based on excavation data and bore hole analysis, a decision was made to excavate the tank site to a depth of 17.5 feet bgs. Because the contamination was close to the building footing and underground utilities, the contractor did most of the excavation by hand. AGI was on site to perform field and soil sampling during the excavation which occurred on May 22-23, 1990. Soil samples taken at 17.5 feet bgs revealed TPH levels of 300 ppm and more excavation to a depth of 18.5 feet was performed on June 1, 1990. The final TPH reading at 18.5 feet bgs was 150 ppm (see Table 1). AGI stated that contamination extended beneath the building but that no further excavation could be performed (2). No other work at the site was performed until 1998.

In 1998, another 1,000 gallon UST was discovered and removed. This tank was located to the east of the previous tank excavation. The report stated that this tank was installed in 1980 and supplied diesel to an emergency backup generator inside the building (3). The UST was removed on August 3, 1998 by Heritage Construction (Seattle, WA). No signs of corrosion and no visible holes were observed. No groundwater was encountered during the excavation and no obvious signs of soil contamination were observed. The excavation hole was field screened for volatile organic compounds (VOCs) using a photoionization detector. No VOCs were detected. In addition, five soil samples were collected from the sidewalls and bottom (8.5 feet bgs) of the excavation hole. Soil samples were analyzed for diesel by the WTPH-D method. The stockpile soil samples ranged from 41-74 ppm and a sidewall sample had 49 ppm of diesel. The other samples were "non-detect". All samples were below the Model Toxics Control Act (MTCA), Method A Soil Cleanup Levels for Unrestricted Land Uses for diesel.

Site Description

The site is located at 15 South Benton Street in Kennewick, WA (Benton County Parcel ID 101891020005013). Currently, the building is owned by the telecommunications company, Frontier, and houses a cable vault in the basement. The site is located in commercial business district in downtown Kennewick (see Figures 1 and 2) and is surrounded by other small businesses. The nearest neighbor to the tank excavation site is Chell Design (approximately 19 feet to the north). Chell design creates custom murals and faux finishes for walls, ceilings, floors, and furniture. Further to the east, west and south approximately 1000 feet are residential areas. To the north are more business and farther north (~2,900 feet) is the Columbia River. There is also an irrigation canal 1,100 feet to the south. The City of Kennewick has two Ranney Collector Wells approximately

6,600 feet to the northwest (see Figure 1). These two wells provide 67% of the drinking water for the City of Kennewick (population 76,000). The remaining 33% of Kennewick's drinking water comes from treated Columbia River water. The river intake pump station is located approximately 4,500 feet to the northeast of the site.

Site Hazard Assessment

The site hazard assessment (SHA) was performed by, James Coleman, Environmental Health Specialist for the Benton-Franklin Health District on December 5, 2013. He was joined at the site by Frontier employee Jeff Marshall. A GPS reading was taken near the western excavation site and was later determined to be within 80 feet of the GPS reading listed in the Department of Ecology (Ecology) ISIS cleanup data base. Photos were taken in the alley where the three tanks were removed (see Figure 5, Panels A and B). Panel A shows the approximate locations of where all three tanks were removed-two in 1989 and one in 1998. Panel B shows a close up of the 1989 tank excavation area where contaminated soil was removed. The ally is covered with asphalt and cement. Mr. Marshall showed me the location where a new 1,000 gallon UST was installed. The assumption was that when the old 1,000 UST was removed in 1998 that a new tank (along with current leak detection systems) was installed in the old excavation pit. This was confirmed after the SHA using the Ecology ISIS system. According to Mr. Marshall, the tank stores diesel which is used as fuel for backup power generator.

Photos were also taken in the basement (cable vault) of the building. The north basement wall faces the area where the tanks were excavated (see Figures 3-5). Oil was documented to have leaked into the soil near the exterior surface of this wall and under the building (1). The integrity of the cement wall was good but at least one area showed what appeared to be moisture seepage (see Figure 5, Panels C and D). The cable vault has a gas monitoring system (Sentry, Model 5000, Sierra Monitoring Corp). Employees said the system is very sensitive and the alarm has been activated on several occasions-usually due to outdoor air quality problems.

Pathway Information (As applicable)

The **Surface Water Pathway** is not likely a significant route of potential exposure at this site, nor is the **Air Pathway**, due to the entirely subsurface nature of any possible remaining contamination.

Groundwater: One of the reports indicates that ground water was encountered at 37.5 feet bgs when soil boring was performed but groundwater sampling was not performed. However, soil boring samples show that TPH contamination near ground water level (see Table 1, 30 feet, 60 ppm) was far below Model Toxics Control Act (MTCA), Method A Soil Cleanup Levels for Unrestricted Land Uses (2,000 ppm).

Conclusions/Recommendations

The tank excavation at the site revealed the presence of some petroleum contaminants. However, after excavation and soil monitoring none of the contaminants exceeded Model Toxics Control Act (MTCA), Method A Soil Cleanup Levels for Unrestricted Land Uses

for TPH. No evidence exists that indicates that ground water was impacted. In addition, the excavation site has been covered with asphalt.

It is recommended that this site receive **no further action** under MTCA, based on WAC 173-340-310(5)(d)(ii): that a release of a hazardous substance has occurred at the site, but in the department's judgment, does not pose a threat to human health or the environment.

SOURCES USED IN THIS REPORT

1. Contamination Assessment, Kennewick Main Office, GTE NW, Applied Geotechnology, Inc., December 11, 1989.

2. Tank Closure, Kennewick Main Office, GTE NW, Applied Geotechnology, Inc., June 28, 1990.

3. UST Closure Site Assessment, GTE Kennewick Main Central Office, GTE, Applied Geotechnology, Inc., November 3, 1998.

Appendix: Figures

Figure 1. Aerial View of Kennewick, WA showing GTE NW Site (arrow)

Figure 2. Aerial View (close-up) Showing Surrounding Businesses

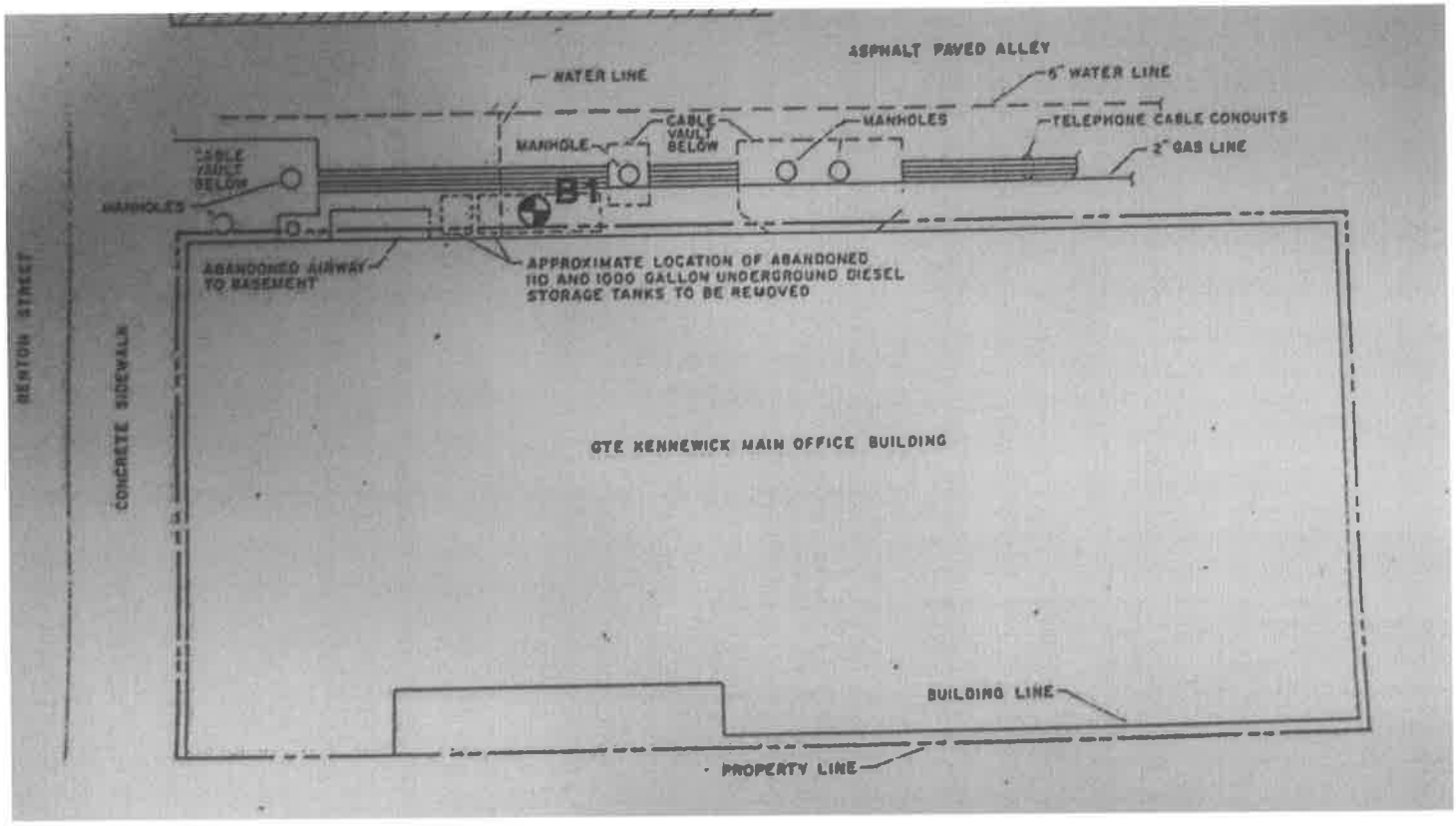

Figure 3. Site Map Showing the Approximate Location of the 110 and 1,000 gallon USTs that were removed in 1989.

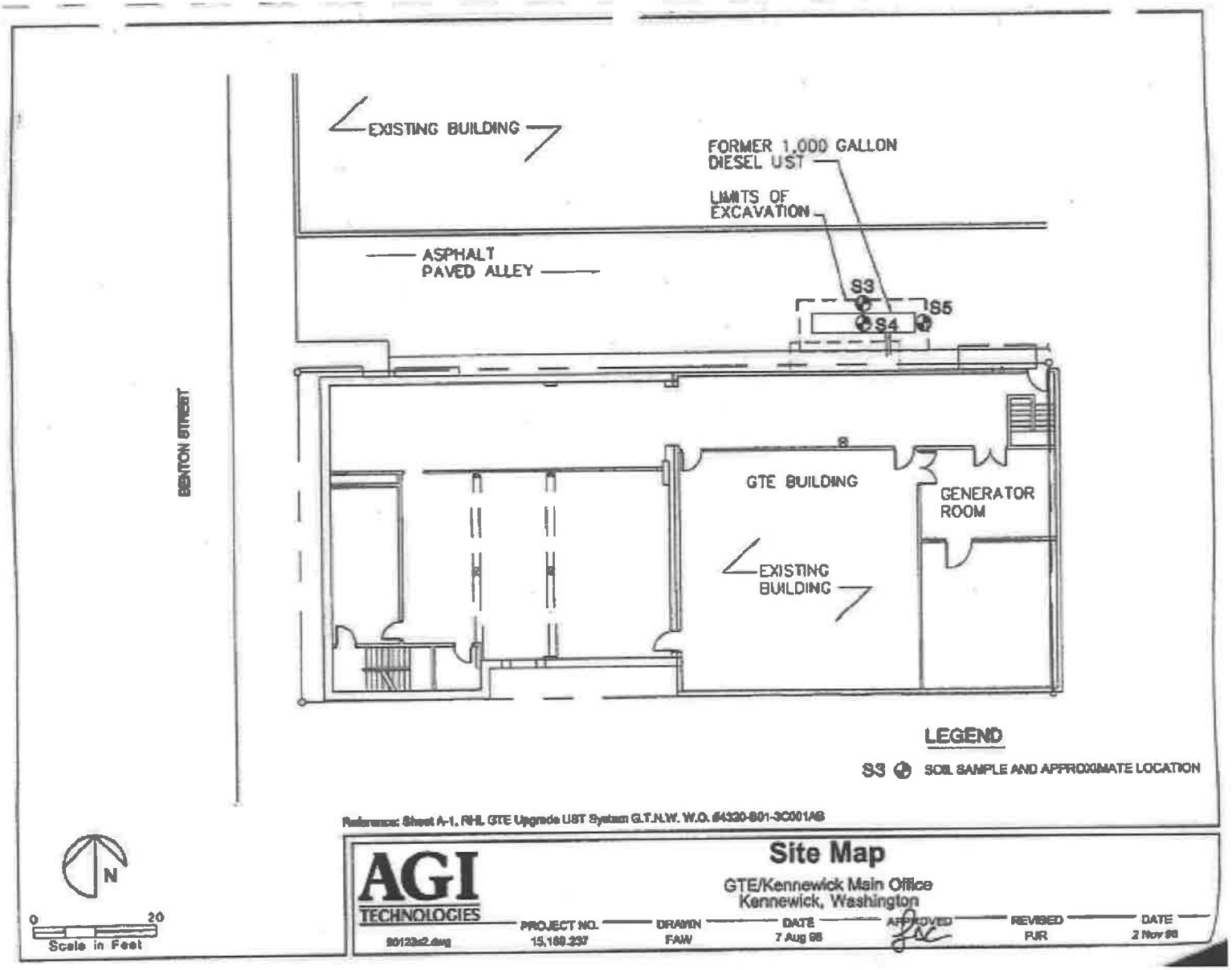

Figure 4. Site Map Showing the Location of the 1,000 gallon UST Removed in 1998.

Figure 5. Site Photos. (A)Photo taken looking to west in alley behind building. Arrows show approximate locations where tanks were removed. (B) Close up of tank excavation in 1989. (C) Basement wall facing tank excavation area. (D)Evidence of seepage near the top of the wall in the cable vault.

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