

## Site Characterization, Remediation, and Closure Report **HIPAS Observatory** Fairbanks (Two Rivers), Alaska March 5, 2013

did not identify lines, piping, or other evidence that could have been associated with the former bunkhouse tank. Without any evidence of a release or a specific tank location, no additional assessment was completed to address this former tank.

At the time of the Phase I ESA, the bunkhouse received heating oil from an aboveground storage tank located to the south of the bunkhouse driveway. This tank was also adjacent to the emergency generator for the facility and provided diesel that generator. The AST, the emergency generator, and the bunkhouse were removed from the Site in 2010. Most of the fuel line was located aboveground along the floor of the bunkhouse and showed no evidence of leaks or drips. The fuel line to the bunkhouse that was left in place beneath the driveway was removed and expected. No stained soil, odor, or other potential concern was observed beneath the line or the remainder of the bunkhouse footprint.

The AST area was used for storage of materials in 2010 and could not be inspected. Similarly, the emergency generator building was not removed until 2011. In 2012, a final inspection of the bunkhouse, AST area, and emergency generator shed area was completed. No stained soil, odor, or other potential concern was observed beneath or around the locations of the AST, the emergency generator shed, or the former bunkhouse location. Based on these observations, field screening and laboratory testing were not undertaken.

## 5.7 **Well Decommissioning**

The HIPAS site had five drinking water wells across the site, as shown in Figure 10. These wells were standard drinking water wells for the Fairbanks area, consisting of a 6-inch steel well casing, a pitless adapter, and a submersible pump. The pumps had been removed and sold during the second auction. The wells were located near and served the following buildings: the Bunkhouse, the LIDAR Building, the Generator Building, the Transmitter Building, and the ATCO Building. The well at the ATCO Building was not connected to the ATCO Building or any other building at the site. A well log for one of these wells was identified in the Alaska Department of Natural Resources' (ADNR) Well Log Tracking System (WELTS) and is included in Appendix 7. The well log indicated a total depth of 60 feet, suggesting this well was most likely the Generator Building well which had a total measured depth of 55 feet., but the specific well could not be verified. No evidence of an application for water rights was identified and no other well logs were identified in HIPAS or ADNR records.

On September 12, 2012 Ron Pratt inspected and measured the stick-up height, static water level and total depth for each of the five wells. The depth to static water level ranged from 19.9 to 27.2 feet below the ground surface (bgs). These depths calculated to groundwater depths of 20 to 25 feet bgs, typical of anecdotal reports in the area. The total depth of the wells ranged from 28 to 55 feet.



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## Work Completed 2012

From September 21 through 25, 2012, Smallwood Creek, Inc and NORTECH decommissioned the five wells in accordance with 18 AAC 80.015(e) and AWWA A100-97, Appendix H (by reference) using the following procedure:

- The area around each well casing was excavated to six to eight feet below the adjacent ground level.
- The casing was cut off one foot above the bottom of the excavation, leaving one foot of exposed well casing in the excavated area.
- The well casing was filled to approximately two feet below the top of the casing using clean pit-run gravel and bentonite:
  - Gravel fill was inspected for possible contamination and field screened for hydrocarbons (all results were less than 3 ppm)
  - o The well was filled with gravel up to approximately 10 feet below the top of the casing
  - Two bags (100 pounds) of bentonite were placed above the gravel fill
  - The bentonite was wetted and allowed to hydrate for a minimum of 24 hours
- Concrete was used to seal the top of the well casing:
  - o A 2-foot diameter Sonotube concrete form 27 inches in height was placed over the top of the exposed well casing
  - The remainder of the casing and the Sonotube assembly were filled with concrete and allowed to cure for at least 24 hours
- The excavation was backfilled with clean pit-run gravel and native material from the original excavation:
  - Soil was backfilled in approximately 18 inch lifts and tamped with the backhoe
  - o The final surface was mounded at least 6 inches in height above the adjacent ground surface for a radius of at least four feet to prevent ponding over the decommissioned casing

**NORTECH** personnel oversaw and recorded the decommissioning activities. Photographs of typical decommissioning efforts are located in Appendix 3. **NORTECH** also completed the ADNR Well Record of Decommissioning for each well. These documents are located in Appendix 7.