



**SUSTAINABLE ENVIRONMENT, ENERGY,  
HEALTH & SAFETY PROFESSIONAL SERVICES**

**NORTECH, Inc.**

June 19, 2018

Submitted via email to:  
shawn.tisdell@alaska.gov

◆  
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Alaska Department of Environmental Conservation  
601 University Avenue  
Fairbanks, Alaska 99709

Attn: Shawn Tisdell

◆  
3105 Lakeshore Drive  
Suite A106  
**Anchorage, AK 99517**  
907.222.2445  
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**RE: Well Decommissioning Report, University Car Care Center –  
Williams #5026, ADEC File No.: 100.26.023, Haz ID: 23798  
ADOT&PF Fairbanks Signal Upgrades Stage 1, Site 18, Fairbanks  
Street**

Dear Shawn,

◆  
5438 Shaune Drive  
Suite B  
**Juneau, AK 99801**  
907.586.6813  
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**NORTECH** is pleased to provide the Alaska Department of Environmental Conservation (ADEC) with this report summarizing the decommissioning of a damaged vapor extraction system (VES) well. The Alaska Department of Transportation (ADOT) had contracted with **NORTECH** for Quality Assurance Plan Preparation and additional construction support for the Fairbanks Area Signal Upgrades (FASU) – Stage 1 project.

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www.nortechengr.com

These intersection upgrades overlap the VES and monitoring well (MW) network associated with contamination identified at the University Car Care Center – Williams #5026, ADEC File No. 100.26.023, located at 4103 Geist Road, Fairbanks, Alaska (the Site). During efforts to upgrade the traffic signals at the intersection of Geist Road and Fairbanks Street (FASU Site 18) a concrete and steel monument was damaged on June 4, exposing the top of the casing. This well was identified as vapor extraction system well number 8 (VES-8). The damaged well, VES-8, had been associated with a formerly-used air injection/vapor extraction system at the Site. **NORTECH** coordinated with the ADEC Project Manager for this site, Shawn Tisdell, and our written decommissioning plan for this well was approved by ADOT and ADEC on June 13, 2018.

On June 14, **NORTECH** staff and Shawn Tisdell arrived at the site to decommission in place the 4-inch diameter, damaged VES well identified above. The well was measured to be approximately 13.9 feet below ground surface (ft bgs) with groundwater at approximately 12.1 ft bgs. The top of the screen was estimated to be 44 inches bgs and the top of the casing was broken approximately 20 inches bgs. Following measurements, the surrounding ground-surface gravel was excavated to the approximate top of casing and the 2-inch diameter horizontal VES piping was measured to be approximately 26 to 28 inches bgs. Photo 2 shows that the horizontal piping was capped with a tightened 2-inch, expandable-gasket, casing cap prior to decommissioning.

The well was backfilled with 3/4-inch rock to approximately 58 inches bgs, where pea gravel was added to approximately 43 inches bgs. The well was sealed with 3/4-inch



bentonite, hole-plug chips to just above the remaining top of casing and hydrated with approximately 10 gallons of clean water. The bentonite demonstrated an ability to repel a small volume of water poured over the decommissioned well as shown in attached Photo 3. Some pieces of rebar were then placed over the well and the hole was then backfilled to match surface grade.

If you have any questions regarding the contents of this report, please contact me or Julie Keener.

Sincerely,  
**NORTECH**

A handwritten signature in blue ink that reads "Scott W. Hummel".

Scott Hummel  
Chemist

C: Maureen Carey, P.A., ADOT&PF  
Mike Herbeck, ADOT&PF

Attachments: Photo Pages VES-8 Decommissioning Report  
Field Notes



**Photo 1:** Looking east at the intersection of Fairbanks Street and Geist Road, the location of Vapor Extraction System well number eight (VES-8) is shown, protected by a blue, five-gallon bucket.



**Photo 2:** Shown above by the arrow, the orange, expandable, well-cap can be observed within the excavated top-of-casing housing for this well. The top-of-casing was measured to be approximately 20 inches below ground surface (in bgs). Heat trace wiring from the former air-sparg system is visible and was left in place. A small-diameter polyurethane tubing was tied to seal the tubing in place.





**Photo 3:** Following decommissioning of the well with  $\frac{3}{4}$ -inch rock and  $\frac{3}{4}$ -inch, hole-plug bentonite chips, the well is shown to prevent water from entering the casing. Short pieces of rebar were added to provide a magnetic marker of the well location.



**Photo 4:** Looking north at the former location of VES-8, decommissioned-in-place, and backfilled to match the surrounding grade.



# Field Activity Log

Weather: Partly Sunny, 60s, sli breeze

Date 6-14-18

Staff JAK, SWH

Project ID 17-2401

Safety Topics: Awareness; construction Length: 5 mins Page 1 of 1

1100 pack truck w/ materials, prep for 4" MW decommissioning

1240 arrive onsite. photograph, formulate plan.

1250 MW measurements VES-8

DTW: Approx. 12.1' bgs

Total depth: ~13.9' bgs

top of screen: ~44" below casing.

top of casing: ~20" bgs → horizontal casing approx 25" bgs. capped.

Plan is fill w/ gravel 3/4" to approx. 40" below broken casing.

Top of casing filled to 58" w/ gravel

Seen Tisdell onsite for site observation his PPb Rae ranged ~250-300 ppb.

Housing for VES, T-joint - 4". - added 2" locking cap on 2"-horizontal VES. Sealed ~~before~~ pressure tight.

1315 JAK dispatched to Tiga Ventures to pickup Bentonite / 3/4" hole-plug.

Peagravel added to 43" below casing top from 58" below casing top.

3/4" Hole Plug / Bentonite added to casing and hydrated w/ ~5 gallons water. The well was marked w/ used rebar and backfilled to match surrounding grade. Approx. 1/2 bag of bentonite used.

1345 clean-up tools. Approximate the location of G-4, 2" PVC (SE of well by approx. 5-10 ft.) West of current Guest walkway. Surveyed prior to backfill surface

Discuss preservation of 'G-4' well for future use.

1405 depart site, unpack truck,

1445 off field aspect