

TRIP REPORT



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Project: Aniak Preliminary Engineering Report (PER)
Purpose: Initial Site Visit, Geotechnical Investigation, House-to-House Survey
Date: Monday August 11th - Thursday August 14th, 2025
Location: Aniak, Alaska
People Traveling: Charlie Hampton (CRW), Noah Irby (CRW), Laurie Hulse (CRW), Marc Cambra (VSW)
Reporter: Charlie Hampton, Noah Irby, Laurie Hulse

Monday August 11th, 2025 – Site Conditions: Mostly Sunny, Slight Wind, Warm

Traveling parties (Charlie and Noah) arrived separately at Ryan Air in the morning. Staff informed that flight was delayed till later in the morning; parties rode together back to the office and used ride-share service later to get back to Ryan Air for departure by 10:45am. Plane departed Anchorage at approximately 11:45am and arrived in Aniak at approximately 1:45pm. Charlie and Noah met Francis Vaska (City of Aniak) and Steven McEvoy (Aniak B&B) at the airport. Charlie and Noah gathered their luggage and air cargo and rode back to Aniak B&B to drop off some gear and prepare for fieldwork.

Charlie began coordinating with Francis of City of Aniak at approximately 2:00pm to gather equipment needed to advance the first test pit for soil sampling and percolation testing at the sewage lagoon site. By approximately 2:30pm, Dakota of City of Aniak arrived to operate the Volvo 580 excavator. Charlie investigated locations to advance the first test pit, the top priority test pit meant to characterize soils within the existing percolation lagoon cell, which was dry. The slopes of the percolation cell were overgrown with small woody sapling and tree stratum vegetation with a maximum trunk diameter of three inches (primarily willow). The bottom surface of the cell was vegetated with herb stratum plants approximately four feet tall (primarily sedges and *Calamagrostis canadensis*). Numerous small trees with trunk diameter up to three inches were present, felled within the bottom surface of the cell, indicating that the bottom surface was once vegetated with shrubs and trees but cleared recently. After discussion with Laurie Hulse to verify, it was determined that a test pit within the existing percolation cell was feasible because the cell was dry and vegetation did not prohibit entry to the lagoon cell. Two pits were excavated adjacent to one another at the center of the existing perc cell. One pit was excavated approximately ten feet deep to verify that only one type of soil was present at this depth in accordance with previous geotechnical investigations for construction of the lagoon. Groundwater was present at the very bottom of this test pit. A soil sample was collected from the soil excavated from this test pit.

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A second pit was excavated to conduct a percolation test. A modified percolation test was implemented at this location to model percolation under five feet of head, the approximate desired depth of the percolation cell to achieve both secondary treatment and infiltration. A shallow (two feet) pit was excavated at a footprint approximately 5 feet wide and 15 feet long. Within this pit, a small hole was excavated by hand to an additional depth of approximately 1.5 feet. Approximately two inches of gravel were placed at the bottom of this small hole. A five-foot length of 1.25-inch ABS pipe was placed vertically in the hole contacting the gravel, and approximately six inches of gravel was placed around the pipe. Following this, the remainder of the hand-excavated hole was backfilled with tightly compacted soils, and the entire pit was loosely backfilled to original grade. 5/8" gravel was used. This was constructed to simulate infiltration under up to five feet of vertical head within the lagoon.

Immediately after constructing this well, Charlie and Francis began pouring water into the pipe to saturate the percolation well. Due to a damaged clutch in the City water truck, water had to be hauled from the lagoon access road in five-gallon buckets using a skid steer. Four such attempts to saturate the well were attempted, each attempt including four each five-gallon buckets of potable water poured into the well. Charlie estimates that, after accounting for water lost during transport, approximately 50 gallons of water were poured into the well. Water was never observed at the top of the vertical ABS pipe. Charlie and Francis stopped work at approximately 6:00pm.

While Charlie was working on test pits, Noah began the House-to-House survey effort on foot and completed the first pass of the Southwest part of town that evening. After Charlie completed his work at approximately 6:00pm he met with Noah and assisted; they worked until approximately 8:30pm. Charlie and Noah then returned to the lodging, put gear away and wrapped up miscellaneous items, ending the day at 9:00pm.

Tuesday August 12th, 2025 – Site Conditions: Overcast/Slight Rain, Slight Wind, Mild Temperature

In the morning, the team began preparing for the day and briefing at approximately 7:30am. Charlie and Noah met city crew at the city shop and outlined work plans for the day. Charlie and Noah split up again at this time.

Charlie returned to the percolation well with the City of Aniak crew at approximately 8:30am following a meeting at the city shop at 8:00am. The crew included Francis, Dakota, Silver, J.R., and Joe. Charlie instructed Dakota to backfill the larger geotechnical test pit to prevent the hole from caving in, and the percolation test resumed. This time, water was poured down the well using a five-gallon bucket with a lid equipped with a pouring spout that increased the flow rate to the pipe. With this device, it took less than five gallons of water to overfill the pipe with water. However, Charlie observed that percolation was too rapid to conduct a conventional percolation test at 30-minute or 10-minute intervals, even at the standard head of six inches. Charlie instructed the crew of the location of the second test pit and conducted a modified percolation test to capture the elevated percolation rate. Prior to conducting the percolation test, Charlie went to the Aniak tribe office to request use of their water truck for test pits advanced later this date. The tribe provided the water truck and an operator.

For the modified percolation test, Charlie poured five gallons of water into the vertical pipe. Charlie collected 20 data points including the time and the measured water level within the pipe. Readings began at 09:56:34 at a head of 2.7 feet and ended at 10:11:33 when only 0.1 feet of water remained in the well.

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During the modified percolation test, the crew advanced a second test pit to a depth of six feet at the proposed location of the primary cell for the improved lagoon. A conventional percolation test pit was advanced by hand using a shovel in accordance with the EPA guidance. The hand-excavated pit was approximately 1.6 feet deep with two inches of gravel backfill in the bottom to prevent scouring. The hole was immediately filled with water to saturate the pit. Water was replaced twice throughout the business day, with intent to conduct the percolation test the following date. Charlie began recording field notes at 11:30 when the crew broke for lunch to return at 1:00pm.

Laurie Hulse and Marc Cambra's flight from Anchorage arrived at approximately 10:30am. Richie Diehl met them at the Ryan Air terminal with their pickup rental. Steven McEvoy also met them to make sure there was a ride to the lodging at his B&B. Marc and Laurie drove to the Aniak Traditional Council (ATC) meeting at 11am. The meeting had just begun. Laura Simeon introduced them and they shared information about the VSW project and the purpose for being in Aniak. Leonard Morgan and RJ Morgan were to be available later for Marc and Laurie to tour ATC's washeteria and watering point. Marc and Laurie left while the meeting proceeded and went to the sewage lagoon site. Geotech work was in evidence, but the crew was at a lunch break. They proceeded to the lodgings to drop gear, then met with the Public Works crew and Charlie at the City shop as they coordinated their afternoon.

Laurie and Marc directed Charlie to advance a test pit near the center of the northern half of the parcel on which the new primary lagoon cell is proposed. This location was considered a possible location for a new percolation cell if the existing lagoon cannot be rehabilitated. Laurie and Marc approved minor clearing of vegetation required to access and advance this test pit.

At 1:00pm, Charlie met with the City of Aniak Crew to advance the third test pit. Dakota began clearing a path to the desired location using the Volvo 580 excavator. No live trees larger than six inches in diameter were damaged, though several shrubs and down trees were removed using the excavator and a chainsaw to access the desired location. Dakota reached the desired location at approximately 2:15pm and excavated the third test pit. A percolation pit the same dimensions as installed in Test Pit 2 were installed in Test Pit 3. This pit was also filled with water to saturate until the morning.

Test Pit 2 contained cohesive soils (clayey sand) with significant fines. Test Pit 3 also contained sands with significant fines, but the soils were not cohesive (silty sand). During initial saturation, soils in Test Pit 2 appeared nearly impermeable even under 1.5 feet of head, and soils within Test Pit 3 appeared very permeable. Charlie stopped work at approximately 16:00 to join Noah and assist with community interviews.

Concurrently, Noah continued the House-to-house survey effort on foot and started with the Southeast part of town, completing a first pass there and then completing the second pass through the Southwest part.

Marc and Laurie went back to the ATC meeting to meet with Leonard and RJ. They showed them the community watering point: a spigot and small hose for filling containers. In winter, the spigot is turned off and people go inside the washeteria to fill their containers. There were several washers and dryers in one room. The building also houses several offices, a community hall, and serves other functions. The water well is about 50 feet from the building, with a wood cover. There is no treatment for the water. The mechanical room housed a pressure tank and a boiler. During the 45 minutes that Marc

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and Laurie were there, one person was using the washing/drying machines, and no one filled water containers at the spigot.

Leonard and RJ showed Marc and Laurie the other ATC facilities on the site including a duplex housing the state troopers office and a bunkhouse under construction. This duplex has its own well. The water is filtered but still is high in minerals and leaves the fixtures rusty orange. One of the City lift stations is behind the ATC property. They shared that ATC used COVID-era funding to buy new Toyo stoves, well pumps, PEX to replace copper piping, pressure switches, and pressure tanks for several widows and elders in the community. Laura Simeon will look up some numbers and share with CRW to quantify these upgrades.

At 4pm Marc and Laurie went to the City shop and met Francis Vaska (Public works supervisor) and Dakota Phillips (Operator) and two other crewmen. They discussed lift station pumps, collection system extents, and took photos of their maps. They lent them a notebook with asbuilts of the lift station control panels. CRW made a pdf copy. The notebook was later returned to Lenore Kamikoff.

Noah had continued H2H surveys on the North side of town. Charlie once again arrived to assist Noah with the surveys after his field activities were completed, and the two finished the first pass on the North side as well as the second pass through the Southeast. They returned back to lodging once completed, and wrapped up the day at approximately 7:30pm.

Wednesday August 13th, 2025 – Site Conditions: Overcast, Slight Wind, Mild Temperature

In the morning, the team began preparing for the day and briefing at approximately 7:30am. Charlie, Noah, Laurie, and Marc departed for the city shop and met city crew there. After outlining work plans, the team split up. Noah, Laurie, and Marc started with the house-to-house survey efforts across the slough (escorted via skiff by local city staff, Dakota). These four homes have grid power via a cable under the slough, individual wells, and either onsite wastewater systems or honey buckets.

After returning to Aniak proper, Francis took Marc and Laurie to each of the six lift stations. Each lift station is in a building with a separate controls room. The buildings are clean and free of extra materials. All the pumps are functioning properly. The buildings are in good condition with the exception of the doors, which have been damaged by snow removal equipment and need replacement. The lift stations are located on embankments above the flood level, with adequate fencing. The fence gates are left open, and the building doors are unlocked (some locks are not operational). The only item (other than doors) in need of replacement is the trash rack rail at the Post Office lift station, which is bent such that they cannot access the trash rack easily.

This group also visited the fire station, which is in good condition but is no longer regularly staffed with volunteers. The fire station well is located under the flooring of the offices at the back of the bays. Reportedly, it takes 17 minutes for them to fill the 3,000-gallon water truck with the well pump. The public works employees operate the fire station and perform any firefighting needs. The ambulance is housed at the clinic. This morning while the water truck was being used for the percolation testing at the sewage lagoon site, the fire department bay was open and unoccupied. Francis said that they do not have problems with vandalism or people disturbing the equipment.

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Marc and Laurie also discussed flooding and erosion issues with various people. Everyone was in agreement that the lift stations do not flood, the lagoon dikes do not overtop, and any floodwaters are backed up water without ice or velocity. The Corps of Engineers dike appears to function well; they did not observe undermining or erosion of the concrete mats on the dike. The concrete mats were filled with vegetation and well overgrown in most areas. Downstream of the dike, the riverbank is steep in some places and may have eroded.

Concurrently that morning, Charlie began percolation testing at Test Pits 2 and 3. Percolation testing was conducted in accordance with the EPA guidance. Both test pits were tested concurrently, with readings equally spaced. For example, during 30-minute interval testing, water levels were measured once every 15 minutes, with 30-minutes between readings for each test pits.

30-minute interval percolation testing began at 8:50am. Testing ended at 10:05am. Test Pit 3 was dry by 9:53am, after less than 48 minutes of testing. Test Pit 2 was dry at 10:05, after just over one hour of testing. Because few data points were collected at this 30-minute interval, Charlie conducted a second percolation test in both test pits at 10-minute intervals, starting at 10:20am and ending at 11:40am. Data were recorded in field notes. Charlie broke for lunch at 12:00pm.

At 1:00pm, Charlie returned with Dakota, J.R., Joe, and Noah to Test Pits 2 and 3. Both test pits were advanced to ten feet of depth to verify that no new soil types were present beneath the locations of the percolation tests. Soil samples were collected for laboratory analysis the previous date. Both test pits were backfilled with original material to original grade. No groundwater was observed.

Following the conclusion of the House-to-house efforts across the slough, Noah continued with the second pass through the North side of town, and finished around noon. Noah and Charlie took a short break for lunch, and then met city crew at the testpit sites to oversee equipment recovery and filling of testpits. Charlie and Noah returned to the lodging at approximately 2:30pm and continued working on their laptops until approximately 4:30pm.

At 1:30pm, Marc and Laurie attended a “workshop” meeting at the City office. In attendance were
Dave Bonanno, Mayor
Clara Morgan, Tribal Council and City Council
Verdine Morgan
Morgan Simeon, City Clerk
Lenore “Missy” Kameronoff, City Administrator (via phone)
Emily Peterson, IGAP
Lisa Seavey, Health Clinic and City Council
Lisa Shield, Alaska Venture Planning from Eagle River, in town for Community Wildfire Planning

Marc and Laurie shared their activities this week and project objectives. They discussed initial thoughts about wastewater lagoon improvements and water upgrades. The meeting attendees from Aniak voiced that there is no interest in a piped water system in Aniak. The City wants a second watering point at the City office lot with both low flow water for residential haul water and high flow for filling water trucks.

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After business hours Wednesday, the CRW crew and Marc brought pizza from Hound House to the river dike to watch a kayak race, which was an event during the Aniak Fair week. After this entertaining race, they went to the ATC fairgrounds for the Fair volleyball tournament. CRW engineer Charlie participated and helped his team win third place in the tournament.

Thursday August 14th, 2025 – Site Conditions: Overcast/Slight Rain, Slight Wind, Mild Temperature

At 9am, Marc, Laurie, Charlie, and Noah met Lenore of City of Aniak at Aniak City Hall to discuss water and sewer alternatives prior to the village council and tribe meeting at 12:00pm. The group reviewed the activities of the week and discussed initial lagoon design ideas and watering point plans on the City office property.

Noah and Marc departed at 10:00am for the airport to return to Anchorage. Laurie and Charlie attended the community meeting at 12:00pm to distribute CRW merchandise and answer questions from the community regarding the proposed water and sewer projects and the community survey. The Aniak Traditional Council (ATC) and the City of Aniak together hosted the community meeting. The two local governments had invited all local businesses, agencies, and the public to identify shared goals and celebrate meaningful progress together. In attendance were approximately 150 members of the community, including ATC and City council members and employees, state troopers, health clinic reps, FAA, wildfire safety rep, and many others. ATC and the City introduced all council members and their employees. The traditional chief spoke for about 30 minutes. The children enjoyed the coloring books and colored pencils that CRW brought for the meeting.

The meeting was ongoing when Laurie and Charlie took leave to get to the airport, and they departed Aniak at 3:00pm.

Observations and notes

The trip proceeded generally according to plan; the team made contact with the community, documented site and infrastructure conditions, attended community meetings, and conducted a house-to-house survey effort.

Participation in house-to-house survey effort was higher than anticipated – 108 assessments were completed, 42 additional were attempted, and a total of 171 structures were determined non-residential. Of the 42 attempted but not completed surveys, many were padlocked or appeared vacant long-term and some appeared to be seasonal cabins. These were marked as attempted instead of non-residential under the assumption that they were indeed habitable, even if unoccupied currently. Some people were simply not home or out of town during our site visit. We attempted surveys at all structures at least 2 times during this site visit.

The team observed generally supportive sentiments throughout the community regarding our efforts and had nearly no issues with communication/cooperation with the community. People were generally welcoming, and no notable safety issues were observed. The only general issue observed during the house-to-house is that people were often not keen on sharing personal details, and many residents only provided a first name, but this is consistent with previous survey efforts in rural communities.

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Some common comments/concerns noted during House-to-house survey efforts included the presence of iron in people's water in the North part of town, some failed piping/wells in the south side of town, and some reluctance to move forward with a community piped water system due to fear of high costs. Preliminary survey results are included as a pdf map attached to this trip report. Full results will be edited/revised and included as an attachment to the PER.

Attachments

House To House Survey Preliminary Maps (5 sheets)

Aniak City and Tribal Council Contacts Lists from Community Meetings