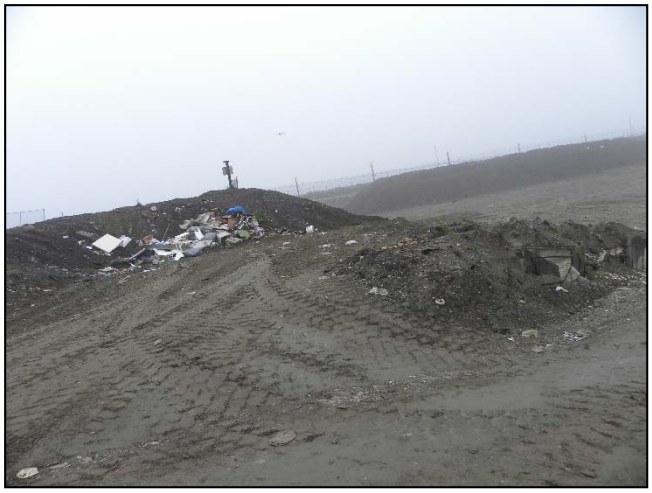
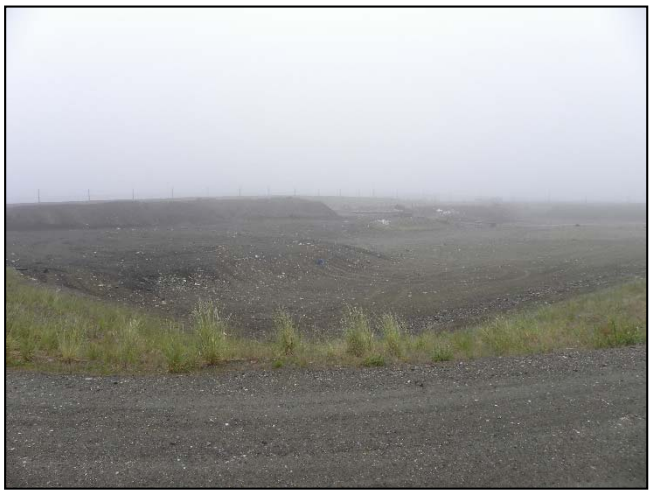
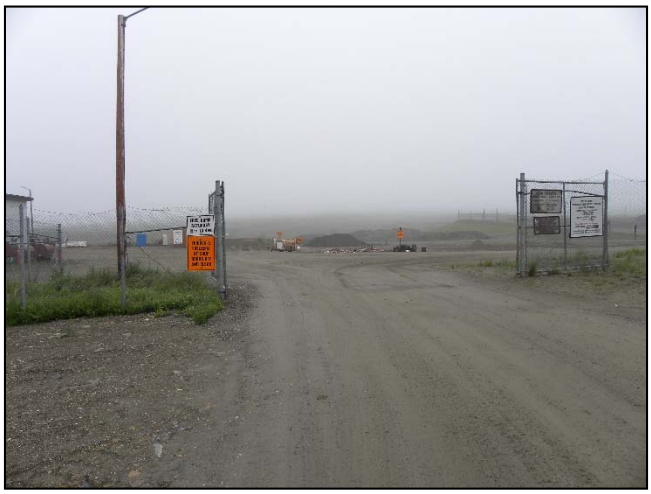
Alaska Department of Environmental Conservation (ADEC) Solid Waste Program (Trisha Bower, Rebecca Colvin and Jacob Timmons) conducted a Coastal Impact Assistance Program (CIAP), Waste Erosion Assessment and Review (WEAR) site visit for the City of Nome, September 10th, 2014. The following narrative is a brief description of our findings during the September inspection.

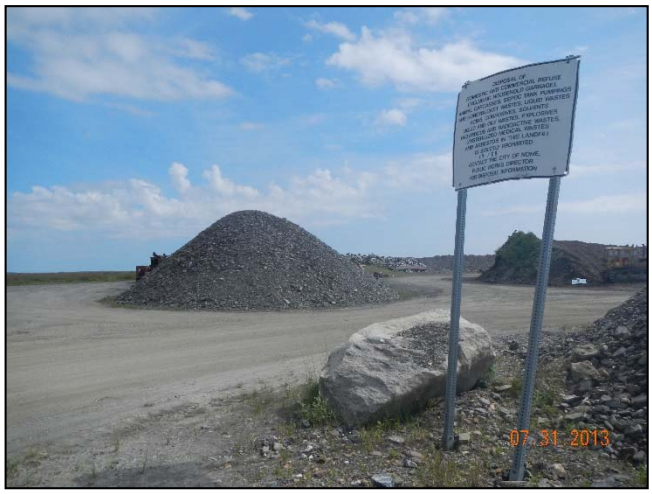
WEAR Sites

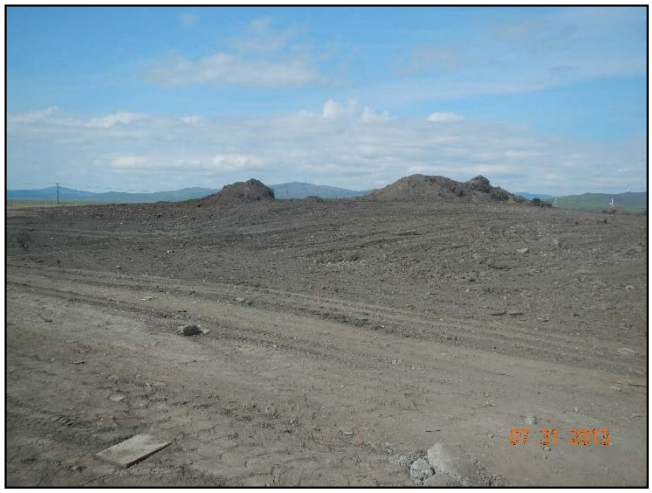
- **Landfill, 64.524148/-165.279817 (Active)** — This 23 acre site is a permitted Class II landfill that is operated by the City of Nome. It has been in operation since the late 1990s. The City has a Public Works Department that manages the landfill, employing a full-time Landfill Manager and auxiliary staff. This landfill is designed as a trench and fill landfill and currently monitors surface water, temperature and slope stability. This landfill accepts municipal solid waste, polluted soil, and some special wastes with ADEC approval. The Nome community also recycles heavily, so while many wastes are accepted at the Nome landfill many of them are diverted for recycling or reuse. This well-run facility is completely fenced and is located almost 3 miles inland from the Bering Sea.

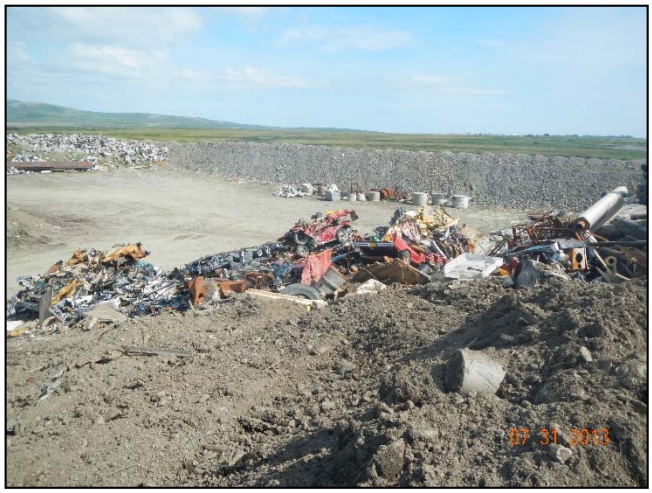


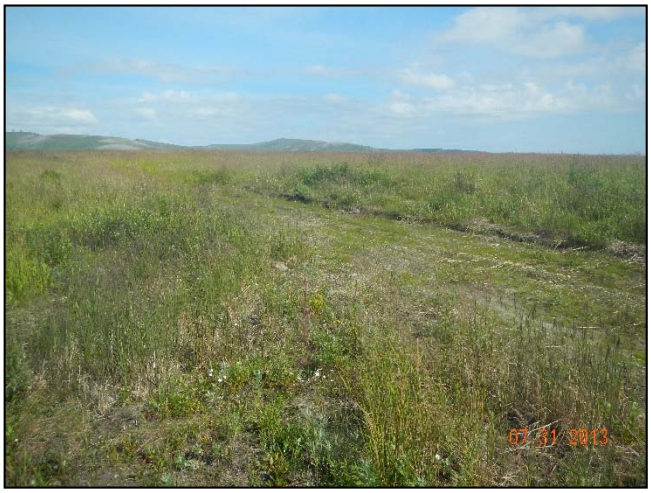
- **Inert Waste Monofill, 64.526021/-165.416043 (Active)** – The City of Nome manages a 7 acre, inert waste monofill for any inert waste that is not accepted at the Nome landfill. It is located on Center Creek Road, north of the runway and has been in operation since 1997. This site mostly comprises different metal debris and junk vehicles that are crushed, consolidated, and covered frequently. This site is adjacent to the original Nome landfill that is now closed. It is located more than a mile inland from the Bering Sea. Nome is now protected by a seawall that was constructed in 1951 and two jetties, 200 and 400 feet long that were constructed in 1919 and 1935. The seawall was expanded an additional 3,750 feet in 1993.

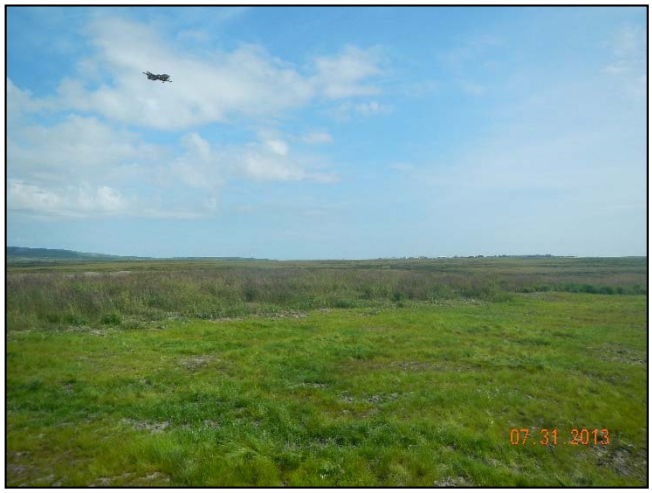


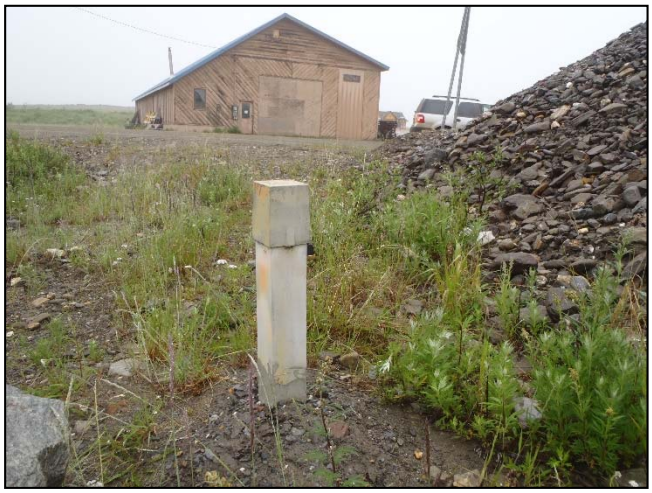




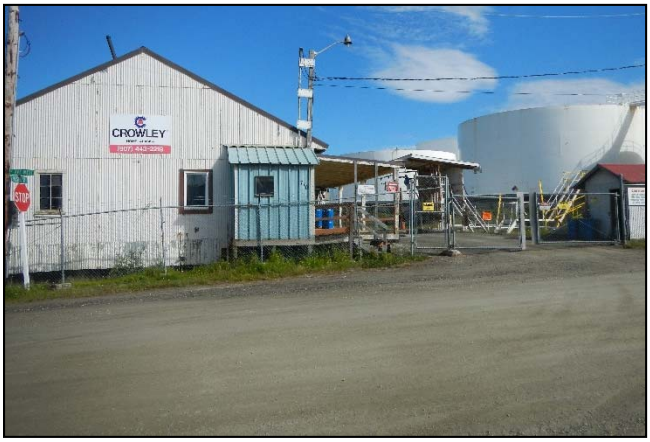
- **Center Creek Landfill, 64.527885/-165.414920 (Closed)** – This is the original Nome landfill. The site was closed in 1999. This 9 acre landfill accepted municipal, commercial waste and potentially mining, and military waste throughout its active life. It is located next to the Inert Waste Monofill; both of these landfills are owned and maintained by the City of Nome. This site is inspected annually and is currently monitoring groundwater, stability and settlement, and gas. It is well-vegetated with no exposed waste. This site is located approximately 2 miles from the Bering Sea, where erosion control measures of a riprap wall are installed.

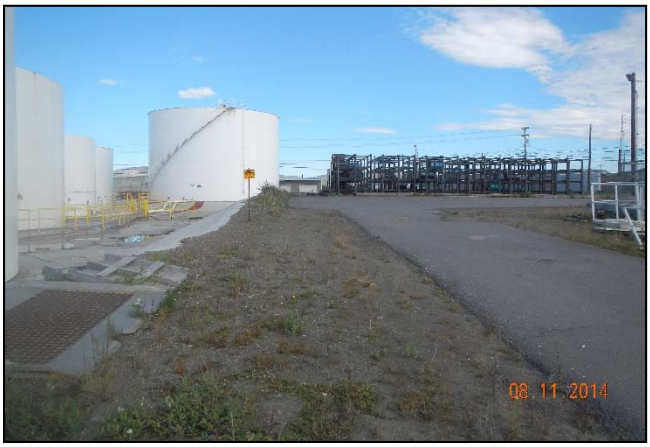


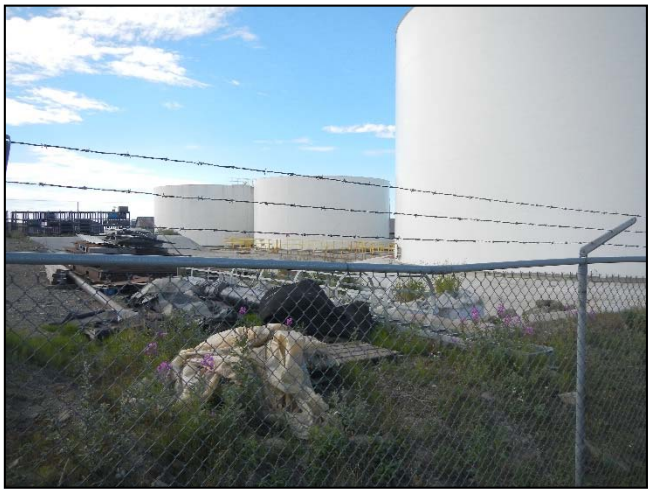


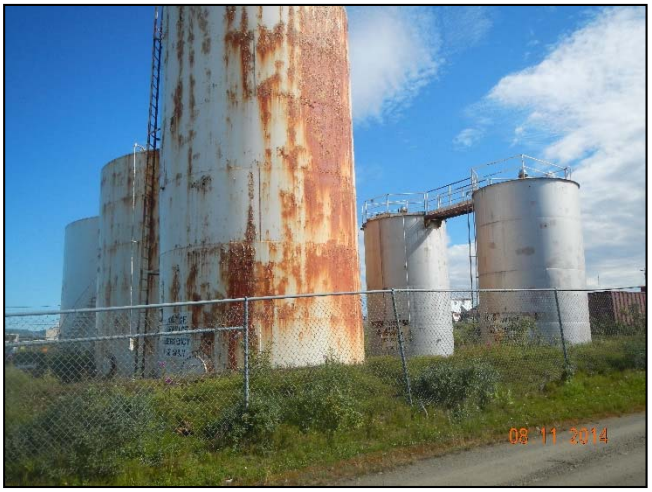


- **Crowley Tank Farm, 64.501133/-165.417066 (Active)** – This tank farm is located on West F Street and is owned and operated by Crowley Marine Services. It is regulated by the ADEC Terminals and Tank Farm Section and has a total capacity of approximately 3 million gallons of fuel. It consists of 5 vertical tanks and multiple stacking platforms for 55 gallon drums. This tank farm is fully fenced within a locked area. There was also one lone horizontal tank outside of the secured area that was disconnected and not in use. This site also includes 5 inactive tanks across the street from the active facility. For that site, the fencing was falling down in places and the tanks were labeled as 'Out of Service for Emergency Use Only.' There was orange staining on the road immediately in front of the inactive tanks. This site was approximately 260 feet from the Snake River and the small boat harbor.

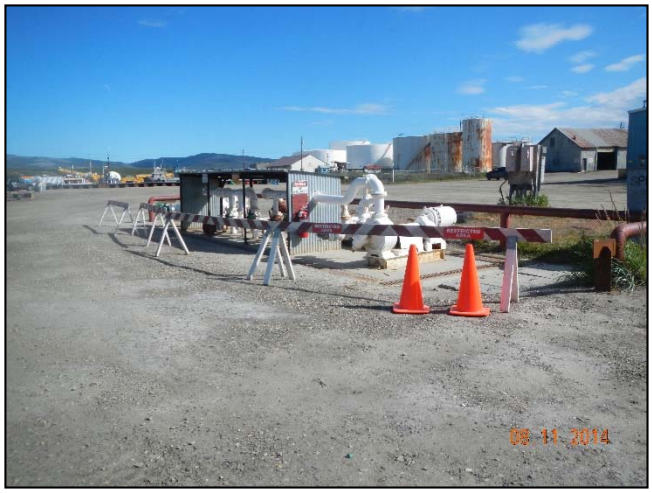


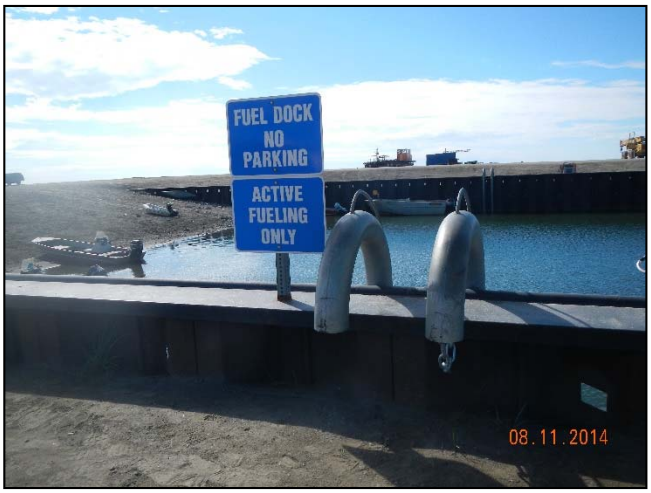


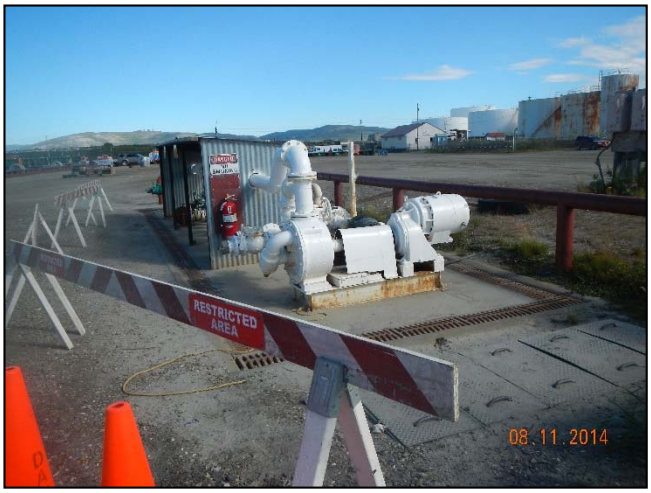




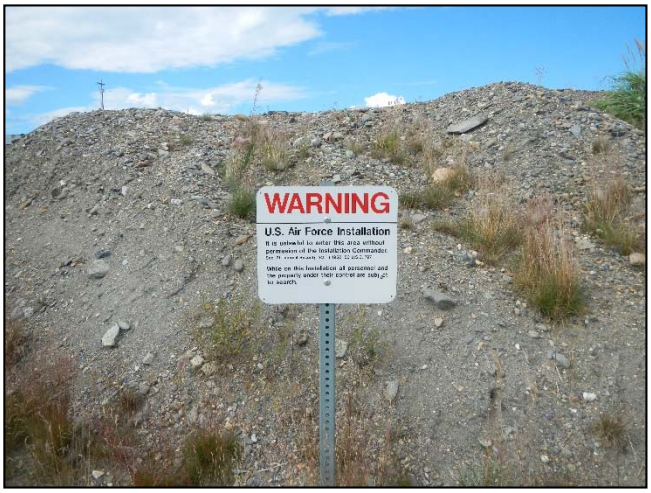
- **East Nome Harbor Upgrade, 64.500116/-165.419815 (Active)** – This is a known Contaminated Site (File ID 400.38.034) due to petroleum contamination. It is located just south of the Crowley Tank Farm. Soil samples were collected from 21 borings drilled in two areas under study for harbor improvement projects in 2003. Soils at the proposed project site at the Crowley Marine dock area are extensively contaminated with gasoline and diesel range fuels, at both the surface and at depth. The polluted soil stockpile from this site has been characterized for disposal, and future harbor upgrades are still in progress as of 2014. This site is part of the harbor adjacent to Snake River, which has erosion control measures installed.



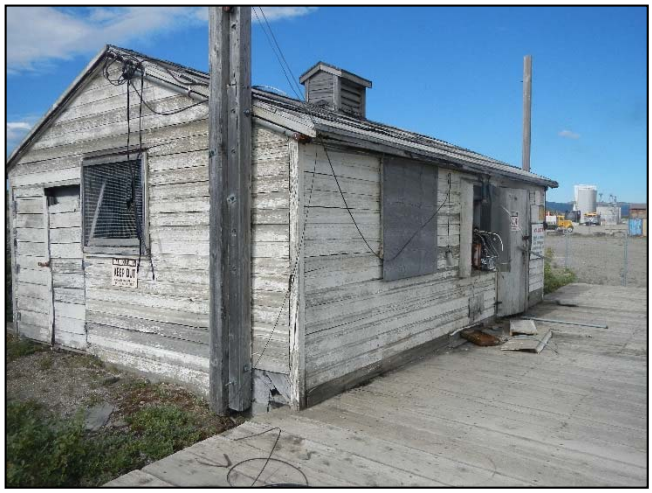




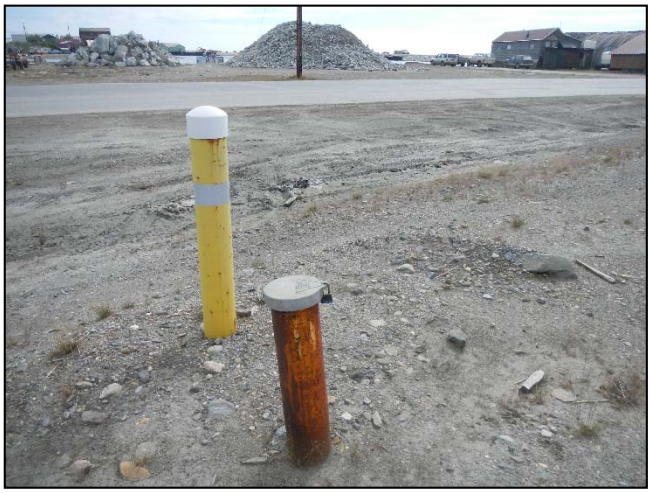
- **Former West Nome Tank Farm, 64.503277/-165.430256 (Active) –** This is an active Contaminated Site (File ID 400.38.002) due to petroleum contamination. It is located approximately 500 feet south of the new Nome power plant. This former US Air Force (USAF) tank farm was built to support the WWII Lend/Lease Program. The property is owned by the USAF and the tank farm was operated from 1944 to 1991 by the USAF and its lessees: Chevron (Standard Oil) and Crowley Marine Services. Soil and groundwater is contaminated with petroleum due to historical spills and refueling operations. The site consists of the former tank farm property, former fill stands, and remaining pipelines associated with the former tank farm. All tanks have been removed. Monitoring wells have been installed on the property since 1986, and the site had some cleanup activities occur around 2005. The site remains under long-term monitoring with development of a cleanup plan in progress. This site is approximately 360 feet to the Snake River.



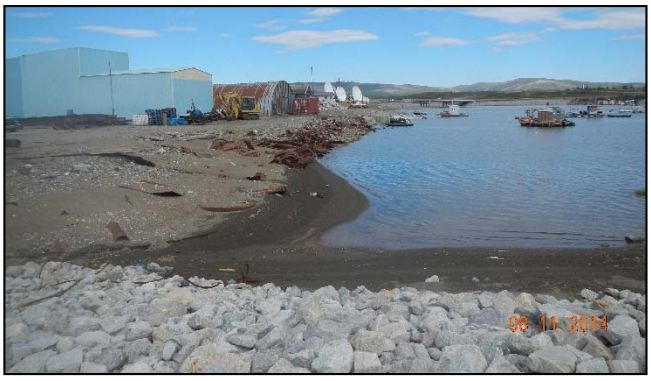
- **New Power Plant, 64.505065/-165.429957 (Closed)** – This is a known Contaminated Site (File ID 400.38.031) with the status 'Cleanup Complete – Institutional Controls.' This site was originally part of the United States Army's Marks Field. In 1970, the Alaska Department of Transportation acquired the property and converted a munitions storage building into a warm storage and maintenance facility (known as the ADOT&PF Nome Airport Maintenance Facility). This site was the proposed site for the Nome Power Plant location, approximately 200 feet northwest of the existing NJUS power plant. Before designing and constructing a new facility, the new site required the collection of environmental and geotechnical data. During this investigation, diesel range organic contamination was found in the soil. This site was the recipient of an EPA Brownfield cleanup grant, under which cleanup activities occurred around 2005. The new power plant was constructed and is in operation. Institutional controls are monitored and reported to ADEC every two years. This site is located approximately 350 feet from the Snake River.



- **Port Road Industrial Subdivision Lot 7, 64.504290/-165.428510 (Active)** – This is a known Contaminated Site (File ID 400.38.050). Contamination was discovered in the groundwater at Lot 7 Port Road Industrial Subdivision during characterization efforts at the Former West Nome Tank Farm which lies southwest across port road. The source and extent of contamination are unknown but are not believed to be associated with the Former West Nome Tank Farm. The Nome New Power House, another known contaminated site, lies up gradient from the site across Port Road. This site is approximately 275 feet from the Snake River.

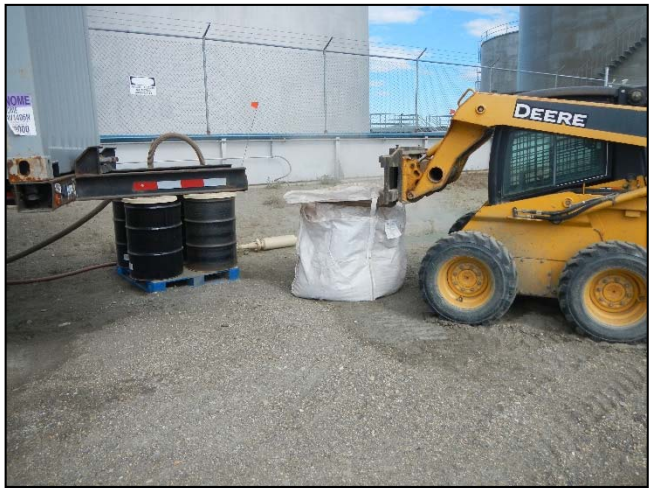


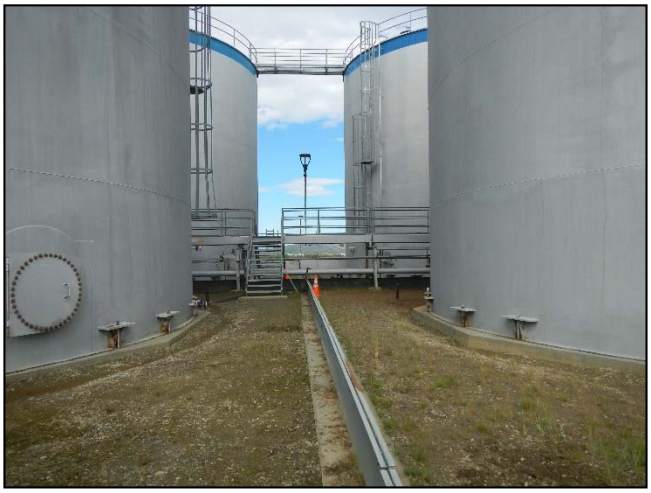
- **Alaska Gold Snake River Property, 64.501507/-165.430654 (Active)** – This is a known Contaminated Site (File ID 400.38.033). In September 2002, soil borings and groundwater wells were drilled on Alaska Gold's property that is between the Snake River and the Former West Nome Tank Farm (WNTF) for the purposes of determining the extent of soil and groundwater contamination at the WNTF. During that investigation diesel impacted soil and groundwater contamination was discovered. In addition, surface staining was also noted on the Alaska Gold property. This site was subdivided and sold to different owners in 2006. This site terminates at the Snake River, where there are erosion control measures in place including a riprap wall.

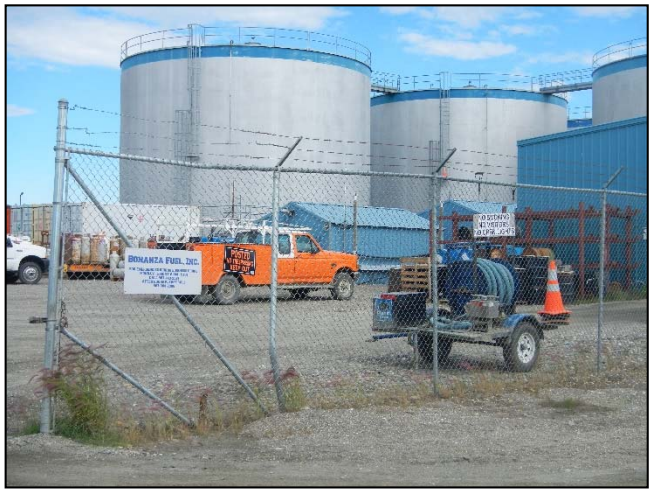


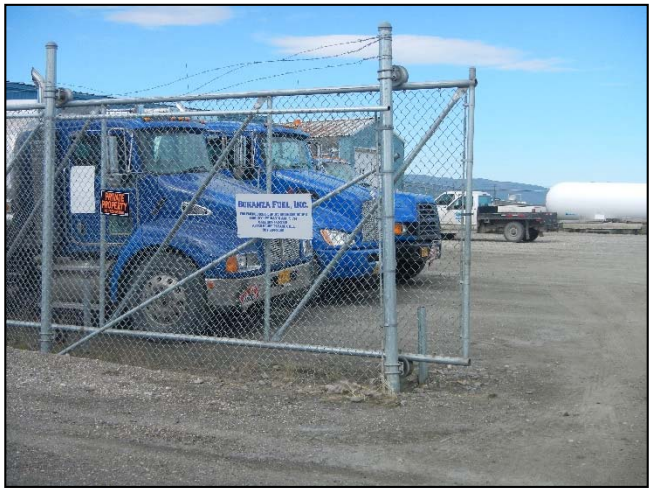
- **Crowley West Tank Farm, 64.502801/-165.438075 (Active)** – This tank farm is owned and operated by Crowley Marine Services. It is regulated by the ADEC Terminals and Tank Farm Section. It is located adjacent to the City Tank Farm and consists of 2 white vertical fuel tanks with a capacity of approximately 1 million gallons. They are within an earthen bermed area with unknown secondary containment. The site is completely fenced and is located 700 feet from the Bering Sea.

- **Bonanza Fuel, Inc. Tank Farm, 64.503319/-165.437073 (Active)** – This tank farm is owned by Bonanza Fuel, Inc. It is regulated by the ADEC Terminals and Tank Farm Section. It consists of 6 large vertical tanks with a total capacity of 3,666,012 gallons of fuel. The tanks are in metal walled secondary containment within a secured, fenced area. This tank farm is in an elevated area and is out of the flood plain, but the City Tank Farm located across the street has reported problems with permafrost melting and settlement. This site is located approximately 1100 feet from the Snake River and approximately 1300 feet from the Bering Sea.

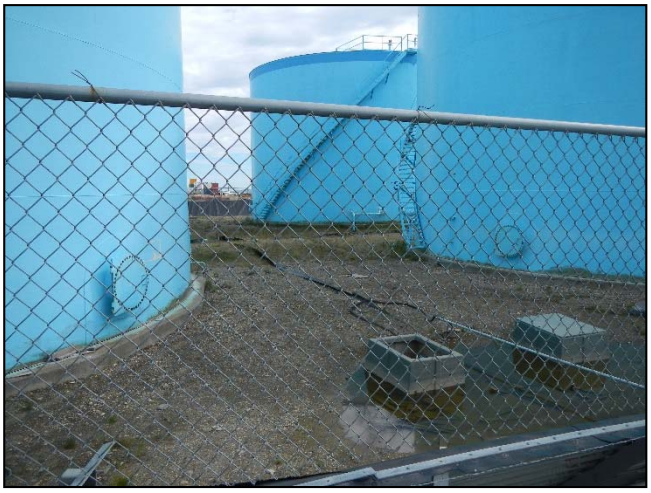


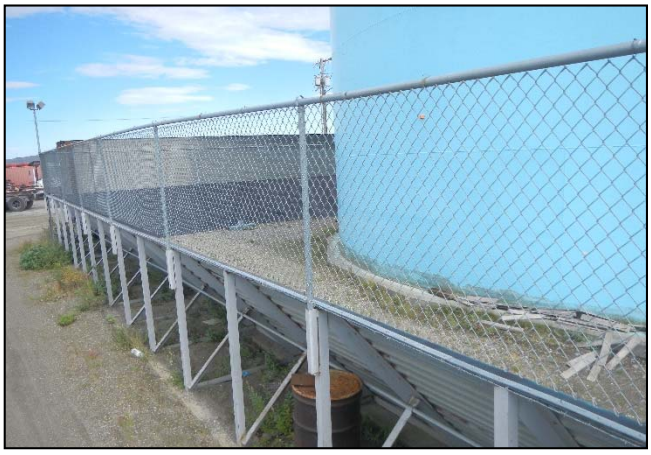




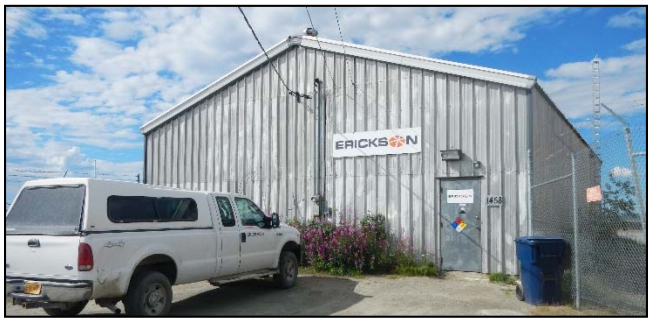


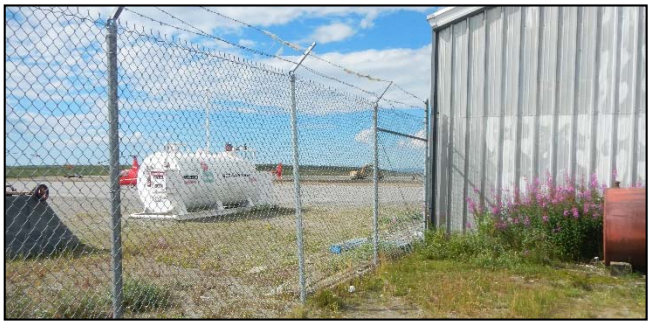
- **City Tank Farm, 64.502899/-165.439408 (Active)** – This is the community tank farm owned and operated by the City of Nome. It is regulated by ADEC Terminals and Tank Farm Section. This tank farm consists of 4 blue vertical fuel tanks with a total capacity of 3,427,998 gallons. They are within a metal corrugated lined secondary containment area that is fully fenced. This tank farm is in an elevated area and is out of the flood plain. However, the western end of the site has been subject to permafrost melting and settlement in the past, but the City of Nome is trying to stabilize the area. This site is located approximately 700 feet from the Bering Sea.



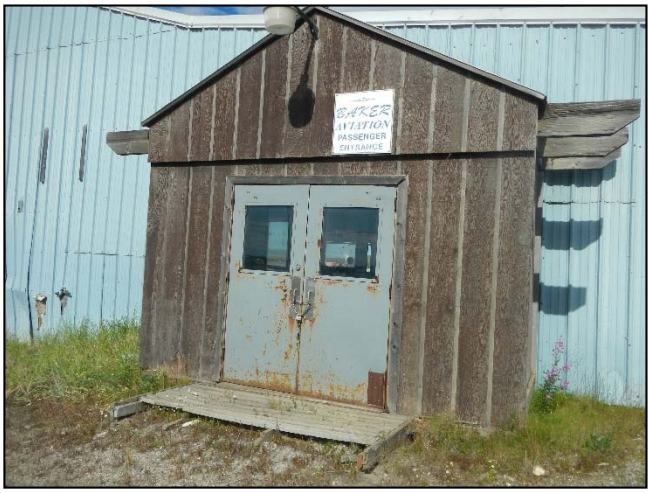


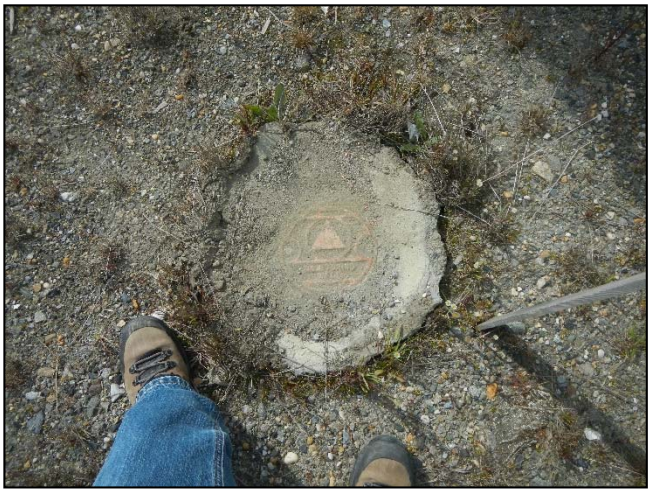
- **Evergreen Helicopters/Former MarkAir, 64.507509/-165.444616 (Active)** – This is a Contaminated Site (File ID 400.38.042) due to petroleum contamination. Lot 1 Block 3, Nome Airport has been in operation since World War II. Various equipment, aboveground and underground storage tanks, drums, planes, helicopters, and a building have occupied the site past and present. A Phase II Environmental Assessment (EA) was completed by Restoration Science and Engineering in July 1997 for the Mark Air Bankruptcy Trustee. No cleanup work has been conducted on this site. It is approximately 600 feet from the Snake River.

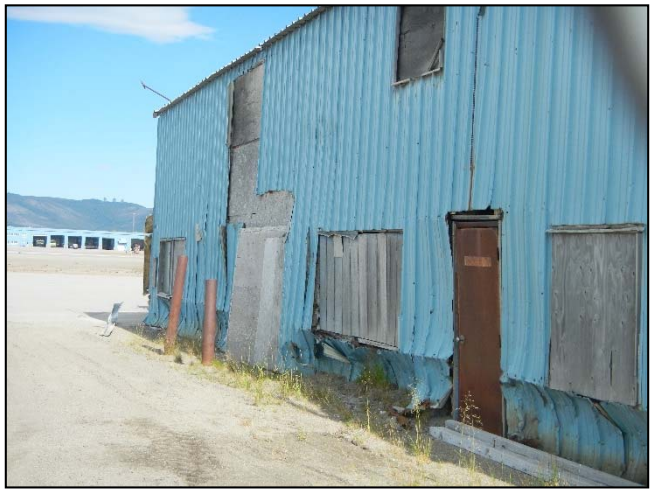




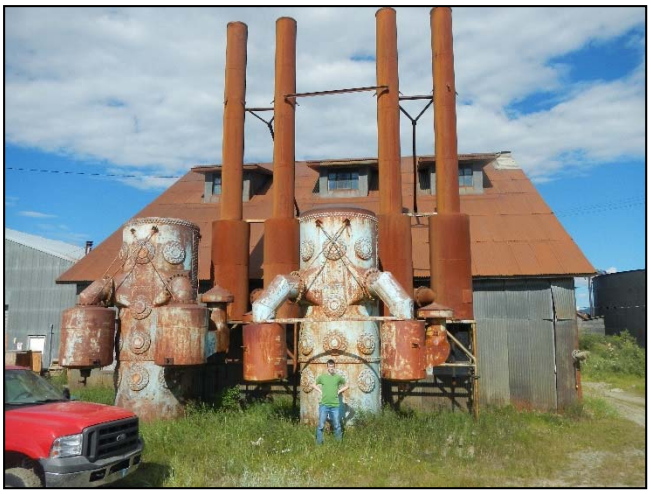
- **MarkAir, 64.507473/-165.440016 (Active)** – This is a known Contaminated Site (File ID 400.38.005). Cleanup at the Markair Lot 2 Block 11 has included decommissioning of the floor drains, excavation of contaminated soil adjacent to the floor drains and underground storage tanks (USTs), and removal of two USTs. This site has multiple monitoring wells installed. The building was in disrepair, but it was locked and secure during the site visit. This site is located approximately 450 feet from the Snake River.

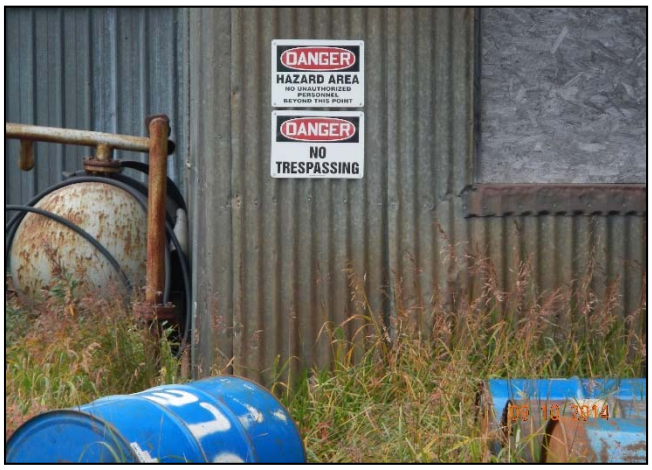


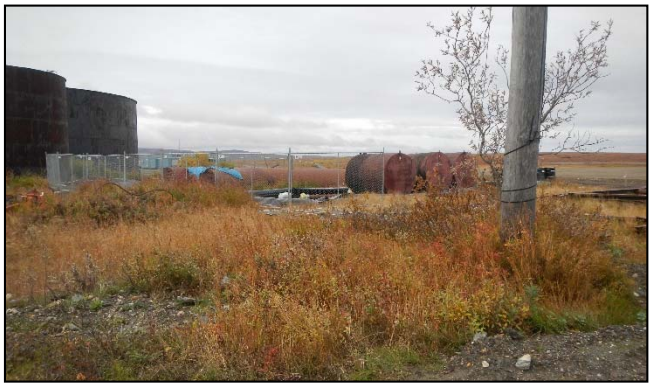


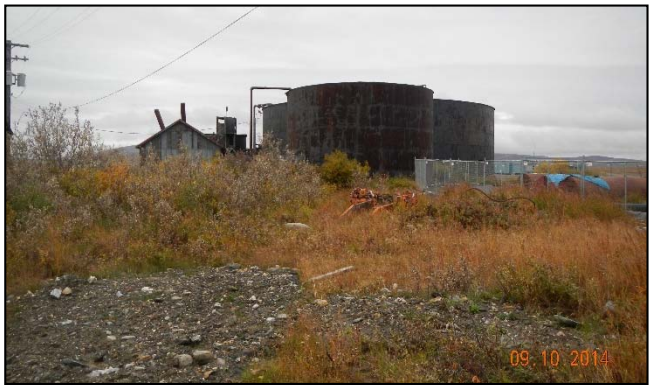


- **Former Alaska Gold Power Plant, 64.503270/-165.400788 (Active)** – This is a known Contaminated Site (File ID 400.38.040). During a site visit in 2008, DEC observed multiple soil stains from what appeared to be leaks from above ground storage tanks. A series of drums were scattered around the site with unknown contents. In 2011 Novagold hired an environmental consultant to sample multiple areas of concern. The sampling was primarily surface soil sampling and the results indicated multiple areas of contamination primarily near the tanks and the shop building. Drums had been removed by request of an EPA - Resource Conservation and Recovery Act inspection. The landowner has changed several times over the years with the current owner being the City of Nome. The site was confirmed as an EPA Brownfield site in 2014 as the City plans to build a mining museum on site. Two underground storage tanks were removed and the foundation of the new museum laid in 2014. Further cleanup work is planned for this site. This site is located approximately 2500 feet from the Bering Sea.

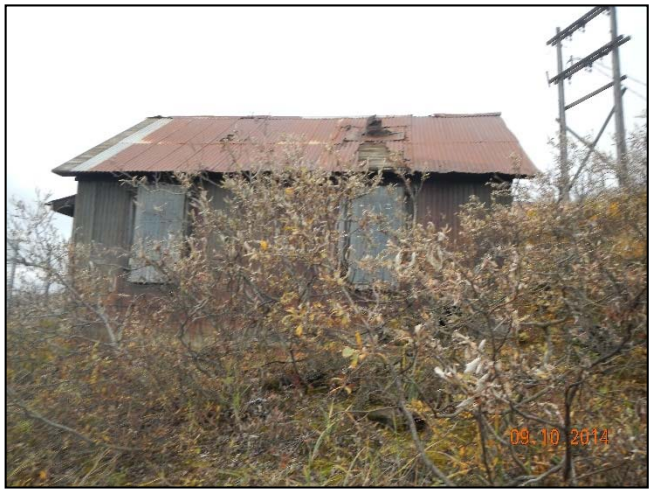


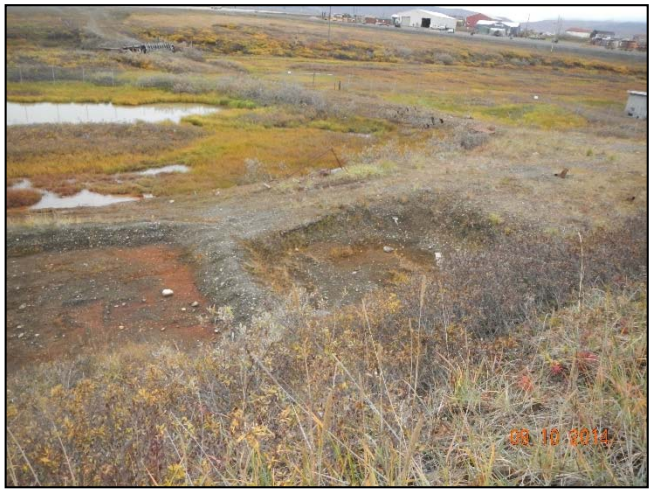


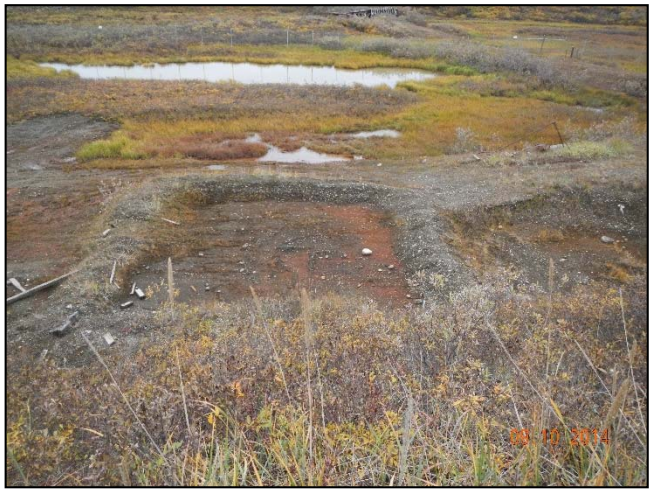




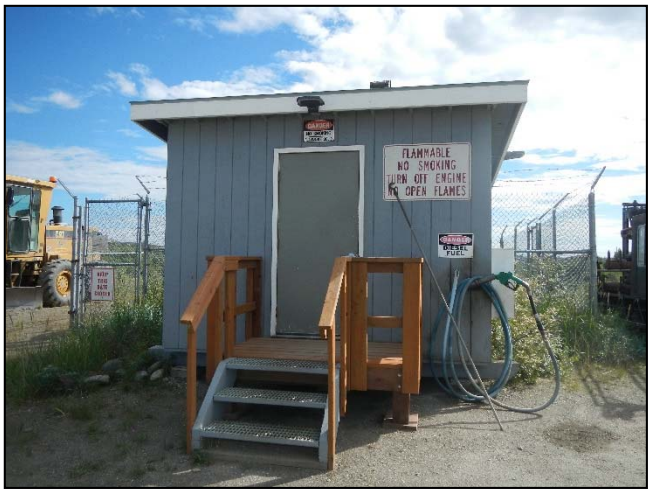
- **Alaska Gold Company New Gold House, 64.503760/-165.402348 (Active)** – This is a known Contaminated Site (File ID 400.38.028), which contains mercury and arsenic contamination from mining operations during the 1970s. The building and associated structures were removed in 2004; free mercury was discovered beneath the building and was removed at that time. Contamination was present in surface and subsurface soils at this site. There have been multiple soil and water sampling events at this site over the years. The site is completely fenced with 'Restricted Area' signs in place. Monitoring and cleanup activities are on-going for this site. This site is approximately 2500 feet from the Bering Sea, which has a riprap wall installed for erosion control.

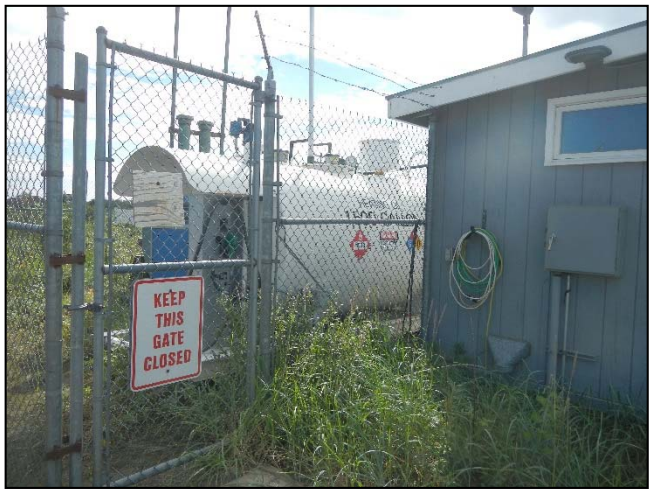


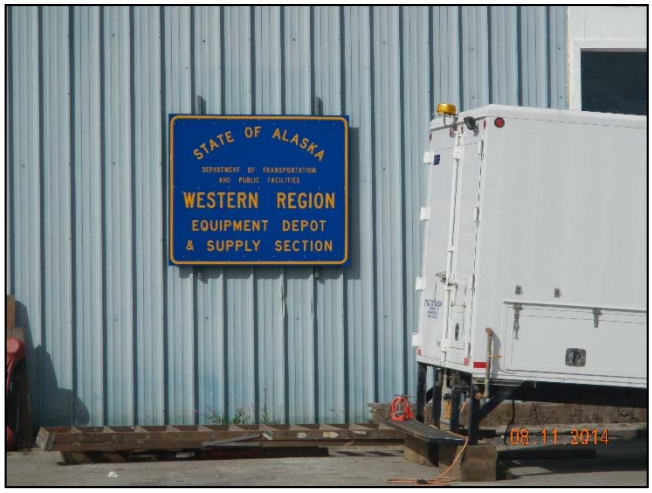




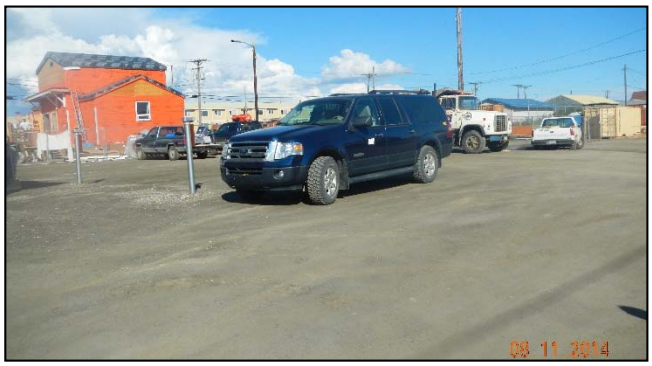
- **ADOTPF Maintenance Fueling Station, 64.538132/-165.403432 (Closed)** – This is a Contaminated Site (File ID 400.26.003) due to petroleum contamination from two underground storage tanks. The tanks have since been removed, but the site has remaining petroleum contamination. The site status was updated to 'Cleanup Complete – Institutional Controls' in 2007. The current ADOT facility is adjacent to this site, and there are now two above ground storage tanks at this location. This site is located almost three miles north of the Bering Sea.





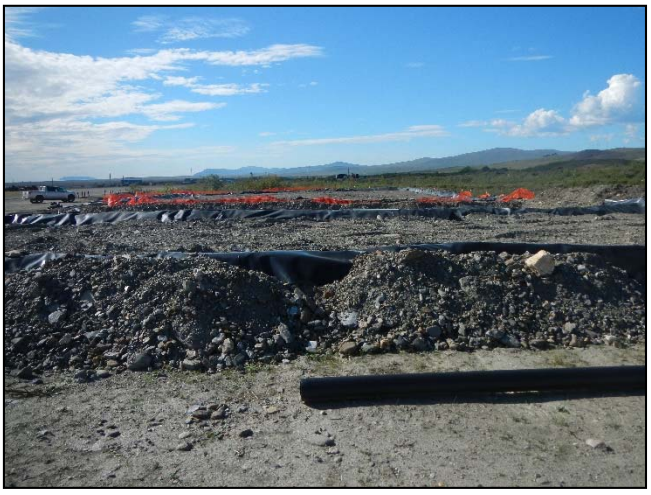


- **UAF Northwest Campus Parking, 64.496197/-165.396315 (Active)** – This is a known Contaminated Site (File ID 400.38.046). During upgrades to the University of Alaska Fairbanks (UAF) facility, petroleum contamination was found in the parking lot in 2010. This facility is in active use and is publicly accessible via Front Street. No further characterization or cleanup activities have occurred at this site as 2014. This site is approximately 250 feet from the Bering Sea, which has a riprap wall installed for erosion control.

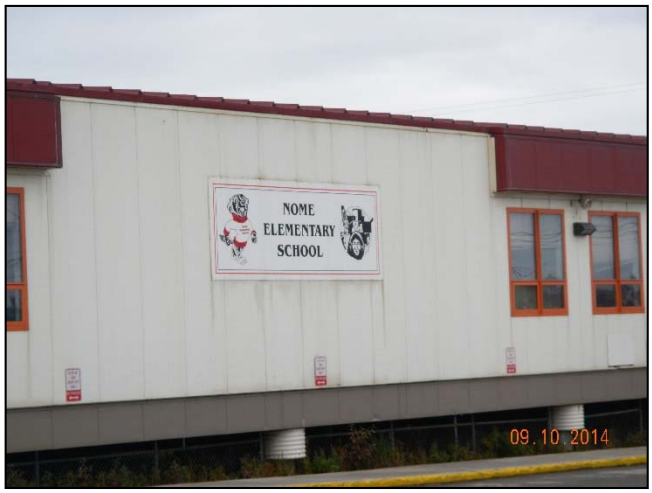


- **Hospital Spill Landfarming, 64.541703/-165.379860 (Active)** – Approximately 2,528 gallons of heating oil leaked from an above ground storage tank at the Norton Sound Regional Hospital on June 20, 2014. The tank had no secondary containment. The spill cleanup was managed by the DEC Prevention and Emergency Response Program (PERP) and the Norton Sound Heath Corporation. The site is logged under the name *Norton Sound Regional Hospital 1000Gal Diesel* in PERP's SPILLS database. Polluted soil was excavated from the site and taken to this location 2 miles outside of the community for landfarming to reduce the petroleum contaminants in the soil for final disposal. The polluted soil is in 3 adjacent lined cells and surrounded by temporary fencing that is falling down in places. It is approximately half an acre in size. This site is 300 feet west of the community baseball fields. It is 3 miles from Norton Sound.



- **Elementary School HOT, 64.498165/-165.384016 (Active)** – This is a Contaminated Site (File ID 400.38.038) due to petroleum contamination. In 2006 while removing a 10,000-gallon underground heating oil tank (HOT) from near the elementary school in Nome, contaminated soil and sheen on the groundwater was noted. The excavation was back-filled with clean gravel. Field screening was conducted at the time of excavation, but no analytical samples were taken. Securing the excavation site was a priority for student safety. The tank was examined and no hole was noted. The current above ground fuel tank is located on top of the former tank's location. The school has no basement and is on pilings; therefore there's no vapor intrusion risk. Work is on-going for this site. It is located approximately 1450 feet from the Bering Sea.



- **Mini Convention Center, 64.498365/-165.413560 (Active)** – This is a known Contaminated Site (File ID 400.38.043). On September 24, 2009 a 550-gallon diesel release was discovered by a city employee at the Mini Convention Center at 409 River Street in Nome. It was determined that a fuel line that supplied fuel from the 2,000-gallon aboveground heating oil tank had been vandalized. Approximately 15 cubic yards of contaminated soil were excavated from under the release site and excavation ceased when it became apparent that it may compromise the integrity of the building. Sampling results indicate that fuel remains in the soil and may have migrated under the structure. Against ADEC instructions, the site was backfilled due to public safety concerns and no future excavations are scheduled. During a 2013 site visit by the Contaminated Sites Program, staining was noticeable on the buildings slab foundation. This site is approximately 200 feet from the Bering Sea, which has a riprap wall installed for erosion control.