



Notice of Environmental Contamination

Grantor: State of Alaska
Department of Environmental Conservation
Contaminated Sites Program

Grantee: The Organized Village of Kwethluk
Former Joseph Guy Community Center

Legal Description: Lot 2, Parcel A, Community Center Subdivision, Plat 2004-10

Recording District: Bethel

Return to: John Carnahan, ADEC, 610 University Avenue, Fairbanks, AK 99709

State Business- No Charge

NOTICE OF ENVIRONMENTAL CONTAMINATION

As required by the Alaska Department of Environmental Conservation, Grantor, pursuant to 18 AAC 78.625 the Organized Village of Kwethluk, Grantee(s), as the owner [and operator] of the subject property, hereby provides public notice that the property located near: the Intersection of Jay Hammond Way and Airport Road, Kwethluk, Alaska, 99621 and more particularly described as follows:

Lot 2, Parcel A, Community Center Subdivision, Plat 2004-10

has been subject to a discharge or release and subsequent cleanup of oil or other hazardous substances, regulated under 18 AAC 78, revised as of April 8, 2012. This release and cleanup are documented in the Alaska Department of Environmental Conservation (ADEC) contaminated sites database at http://www.dec.state.ak.us/spar/csp/db_search.htm under Hazard ID number 25663.

ADEC reviewed and approved, subject to this and other institutional controls, the cleanup as protective of human health, safety, welfare, and the environment. No further cleanup is necessary at this site unless new information becomes available that indicates to ADEC that the site may pose an unacceptable risk to human health, safety, welfare, or the environment. ADEC determined, in accordance with 18 AAC 78.090 - 276 corrective action rules, that site cleanup has been performed to the maximum extent practicable even though residual metals-contaminated soil exists on-site.

Attached is a decision document for the site with two site diagrams; one diagram shows the location of the property, and the other indicates the limits of the contaminated soil excavation completed in 2012. The following institutional controls apply to the site:

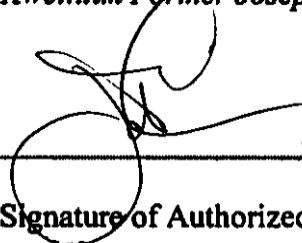
1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, these management conditions may not be protective and DEC may require additional remediation and revised conditions. Therefore the Organized Village of Kwethluk shall report to DEC every five years to document land use, or report as soon as the Organized Village of Kwethluk becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local DEC office or electronically to DEC.ICUnit@alaska.gov.
2. Installation of wells on the property with the intent of extracting groundwater for any purpose requires DEC approval.
3. Any proposal to transport soil off-site requires DEC approval in accordance with 18 AAC 78.600(h). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.



4. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

This notice remains in effect until a written determination from ADEC is recorded that states that soil at the site has been shown to meet the most stringent soil cleanup levels in method two of 18 AAC 75.340 and that off-site transportation of soil and groundwater is not a concern.

For more information on the contaminated site in this Notice of Environmental Contamination, please see ADEC Contaminated Sites Program file number 2424.57.001 for the site named *Kwethluk Former Joseph Guy Community Center*.



Signature of Authorized ADEC Representative

10/31/2014
Date





THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

**Department of Environmental
Conservation**

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

610 University Avenue
Fairbanks, AK 99709
Phone: 907-451-2156
Fax: 907-451-2155
<http://dec.alaska.gov/>

File No: 2424.57.001

July 15, 2014

Martin Andrew, President
Organized Village of Kwethluk
P.O. Box 130
147 Jay Hammond Way
Kwethluk, AK 99621

Re: Decision Document: Kwethluk Former Joseph Guy Community Center
Cleanup Complete Determination – Institutional Controls

Dear Mr. Andrew:

The Alaska Department of Environmental Conservation (DEC) has reviewed the environmental records for the above referenced site. This decision letter memorializes the site history, cleanup actions, and specific conditions required to effectively manage remaining contamination. No further remedial action will be required as long as compliance with these conditions is maintained. This determination is in accordance with 18 AAC 75.380(d) and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

Site Name and Location:

Kwethluk Former Joseph Guy Community Center
Near the Intersection of Jay Hammond Way
& Airport Road
Kwethluk, AK 99621
Lot 2, Parcel A, Community Center Subdivision

Name and Mailing Address of Contact Party:

Richard Brezkin
Organized Village of Kwethluk
P.O. Box 130
Kwethluk, AK 99621

DEC Site Identifiers:

File: 2424.57.001
Hazard ID: 25663

Regulatory Authority for Determination:

18 AAC 75



Site Description and Background

The Former Joseph Guy Community Center was destroyed by fire in April 2006. The burned building debris sat on the property until its removal in 2012. The 1.0-acre property is located in Section 5, Township 8 North, Range 69 West, Seward Meridian at 60.810278N, -166.423945W.

The U.S. Environmental Protection Agency (EPA) provided a Targeted Brownfields Assessment (TBA) of the site in 2010 at the request of the Organized Village of Kwethluk, with findings published in 2011. EPA analyzed 28 soil samples taken from the first foot of soil below ground surface. EPA's sampling found Target Analyte List (TAL) metals above cleanup levels in the soil of the footprint of the former building; diesel-range organics (DRO) above cleanup levels in the soil adjacent to the former building footprint where an aboveground storage tank was once located; and semi-volatile organic compounds contamination above cleanup levels in the soil adjacent to the former building's footprint.

Contaminants of Concern

Investigations at this site included analytical testing for gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), furans, dioxins, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs) in soil. The following contaminants of concern were identified during the course of the site investigations summarized in the Characterization and Cleanup Activities section of this decision letter.

- Antimony
- Arsenic
- Chromium
- Copper
- Diesel Range Organics (DRO)
- Nickel
- N-nitroso-di-n-propylamine

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341(c), Table B1, and 18 AAC 75.341 (d), Table B2 under 40 inch Zone, Direct Contact. *Toxic Characteristic Leaching Procedure* testing has shown that the contaminants remaining on site have a low potential to migrate to groundwater, so the direct contact cleanup levels are appropriate.

Table 1 – Approved Soil Cleanup Levels

Contaminant	Soil (mg/kg), Direct Contact
Antimony	41
Arsenic	4.5
Chromium	300
Cobalt*	370
Copper	4,100
DRO	10,250**
Nickel	2,000
N-nitroso-di-n-propylamine	0.52



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*DEC does not have cleanup levels established for cobalt. The cobalt levels are based on EPA's Regional Screening Levels for Residential Soil and Soil to Groundwater, respectively.

**DRO direct contact level based on Ingestion cleanup level for the Under 40 inch Zone.

mg/kg = milligrams per kilogram

Characterization and Cleanup Activities

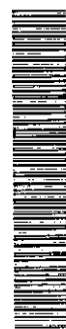
In April 2012, ERM Alaska, Inc. (ERM), formerly OASIS Environmental, Inc., while under contract to DEC, demolished and removed the burned building debris in order to access and remove the soil contamination identified during the 2010 TBA activities. The metal from the destroyed structure was transported to the Bethel Landfill. Approximately 30 cubic yards of non-hazardous small debris/incidental soil was scraped up during the building demolition and transferred to the Kwethluk dump.

ERM returned to the site in June 2012 to excavate the DRO and SVOC (specifically N-nitroso-di-n-propylamine and Bis(2-ethylhexyl)phthalate) contaminated surface soil noted during EPA's 2010 TBA investigation, and to more fully characterize the metals contamination within the former building footprint. During the June field event, three small areas were excavated around the former building perimeter (see Figure 1); the location of a former aboveground storage tank with DRO contamination, an area with N-nitroso-di-n-propylamine detected above cleanup levels, and an area mistakenly believed to contain Bis(2-ethylhexyl)phthalate in the soil above cleanup levels. EPA's 2010 TBA document incorrectly identified the cleanup level for Bis(2-ethylhexyl)phthalate as 1,300 micrograms per kg. The subject cleanup level is actually 13,000 micrograms per kg (13 mg/kg). Bis(2-ethylhexyl)phthalate has not been found at the site above cleanup levels, and therefore is not considered a contaminant of concern.

An average of 0.5 cubic yard of soil was removed from each of the three areas and placed in bulk sacks. Eleven samples were taken to characterize the soil in the bulk sacks and from the floor and sidewalls of the excavations. The samples were analyzed for DRO and SVOCs. DRO was detected at 16.0 mg/kg at the floor of the excavation, well below all regulatory cleanup levels. Bis(2-ethylhexyl)phthalate was not detected in any of the confirmation samples or the sample taken from the excavated soil. Synthetic precipitation leaching procedure (SPLP) samples from the excavated soil were also analyzed for DRO and SVOC to determine the leachability of the contaminants in the removed soil. The results (all non-detect) indicated that the DRO and SVOC in the soil are unlikely to leach into the groundwater. This information was used to support the disposal of the soil in the Kwethluk dump.

Also during June 2012, ERM used a portable X-ray Fluorescence analyzer (XRF) to screen 20 locations within the footprint of the former building for metals. Samples from the nine locations with the highest screening results were analyzed for antimony, arsenic, chromium, cobalt, copper and nickel. The results of the sampling indicated that antimony, chromium, cobalt, copper and nickel were present at concentrations below direct contact cleanup levels. Arsenic concentrations were above contact cleanup levels, and both arsenic and chromium were detected at concentrations that could exceed Resource Conservation and Recovery Act (RCRA) benchmark criteria for hazardous waste determinations.

ERM returned to the site in September 2012 to remove the soil from the southwestern portion of the former building footprint and evaluate the soil for compliance with RCRA. Soil and debris was excavated to an approximate depth of up to one foot below ground surface and placed into 1-cubic-yard (cy) bulk sacks (see Figure 2). The action produced 13 cy of small debris/soil. The sacks were sampled for compliance with RCRA using the Toxicity Characteristic Leaching Procedure (TCLP) TCLP sample results were well below the RCRA TCLP limits, therefore the debris and soil was not considered hazardous waste for the purposes of disposal. The maximum TCLP concentration found were 0.71 mg/L for arsenic and 0.025 mg/L for chromium. With approval from the DEC Solid Waste Program, the bulk sacks were transferred to the Kwethluk dump in June 2013.



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In an effort to evaluate the concentrations of the other metals detected at the site, six background soil samples were taken from the assumed material source used to create the pad at the Former Joseph Guy Community Center. The samples revealed the site antimony, cobalt, and nickel concentrations were either at or below background soil concentrations, suggesting that these metals may be attributable to naturally occurring concentrations in soil. The site arsenic, chromium, and copper results for soil remaining in place were consistently above background concentrations. The elevated concentrations of these three metals are most likely attributable to the presence of treated timbers supporting the building support pilings. Arsenic is the only metal of the six COPC metals with results that exceed the direct contact cleanup level. The background soil arsenic concentrations also exceed the direct contact cleanup level. This finding suggests that site soils likely exceeded the direct contact cleanup levels prior to impact associated with the building. Table 2 documents the highest concentrations of metals at the site, as compared to the highest background concentrations detected and the direct contact cleanup levels.

Table 2 – Residual and Background Soil Concentrations

	Antimony	Arsenic	Chromium	Cobalt	Copper	Nickel
Highest Residual Contamination in Place	0.53	18	33	10	900	31
Highest Background Concentration	0.9	12	29	15	27	35
Regulatory Criteria	41 a	4.5 a	300 a	370 b	4100 a	2000 a

Notes:

All laboratory results and regulatory criteria are in milligrams per kilogram.

Bolded values denote results above direct contact cleanup levels.

a DEC Method Two Direct Contact Soil Cleanup Level, Under 40-inch Zone

b EPA Regional Residential Soil Screening Level

Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one (1) across all exposure pathways.

Based on a review of the environmental record, DEC has determined that residual contaminant concentrations do not pose a cumulative human health risk, as long as the property is dedicated to commercial/industrial use.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using DEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of



the following: De minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 3.

Table 3 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De minimis Exposure	Surface soil contamination was almost entirely removed during the 2012 cleanup action and the remaining contamination is extremely limited in volume.
Sub-Surface Soil Contact	De Minimis	Based on the results of surface soil sampling and confirmation sampling following excavation activities, the extent of contamination in subsurface soil is considered De minimis.
Inhalation – Outdoor Air	Pathway Incomplete	No volatile contaminants remain in the soil.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	No volatile contaminants remain in the soil.
Groundwater Ingestion	De Minimis	Kwethluk utilizes groundwater as a drinking water source and although groundwater was not investigated, the site is located approximately XX feet/miles from the public water well and based on the contaminant concentrations found at the site, it is unlikely that drinking water in Kwethluk is impacted by contamination at the site.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in Kwethluk
Wild and Farmed Foods Ingestion	Pathway Incomplete	No wild or farmed foods exist on the site, as it is a developed vacant lot with pilings in place that are to be used to reconstruct a new community center. The closest wild foods source is the Kwethluk River, located approximately 0.1 mile to the north. Due to the nature of the metals contamination remaining in the soil, it is unlikely that the contamination would migrate and affect the river.
Exposure to Ecological Receptors	Pathway Incomplete	No ecological receptors exist on the site, as it is a developed vacant lot. The closest ecological receptors are at the Kwethluk River, located approximately 0.1 mile to the north. Due to the nature of the metals contamination remaining in the soil, it is unlikely that the contamination would migrate and affect the river.

Notes to Table 2: “De-Minimis Exposure” means that in DEC’s judgment receptors are unlikely to be affected by the minimal volume or concentration of remaining contamination. “Pathway Incomplete” means that in DEC’s judgment contamination has no potential to contact receptors. “Exposure Controlled” means there is an administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.



DEC Decision

Metals contamination remains on-site in soil above approved cleanup levels; however, DEC has determined there is no unacceptable risk to human health or the environment as long as the contamination is properly managed and the site is dedicated to commercial/industrial use.

A Notice of Environmental Contamination (deed notice) shall be recorded in the State Recorder's Office as an institutional control (IC) that identifies the nature and extent of contamination at the property and the conditions that the owners and operators are subject to in accordance with this decision document. A copy of the deed notice that will be recorded is enclosed for your information.

These conditions are as follows:

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, these management conditions may not be protective and DEC may require additional remediation and revised conditions. Therefore the Organized Village of Kwethluk shall report to DEC every five years to document land use, or report as soon as the Organized Village of Kwethluk becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local DEC office or electronically to DEC.ICUnit@alaska.gov.
2. Installation of wells on the property with the intent of extracting groundwater for any purpose requires DEC approval.
3. Any proposal to transport soil off-site requires DEC approval in accordance with 18 AAC 78.600(h). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
4. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

The DEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site. Institutional controls will be removed in the future if documentation can be provided that shows cleanup levels have been met. Management conditions 3 and 4 remain in effect after ICs are removed.

This determination is in accordance with 18 AAC 78.276(f) and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99811-1800, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99811-1800, within 30 days after the date of issuance of this letter, or within 30 days after the department

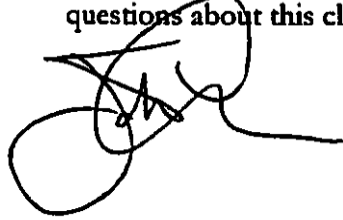


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issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

Please sign and return *Attachment A* to DEC within 30 days of receipt of this letter. If you have questions about this closure decision, please feel free to contact me at (907) 451-2166.



John Carnahan
Project Manager

Enclosure: Notice of Environmental Contamination

cc: Richard Brezkin, Tribal Administrator
Jennifer Roberts, DEC, Anchorage



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Attachment A: Cleanup Complete-ICs Agreement and Signature Page*

The Organized Village of Kwethluk agrees to the terms and conditions of this Cleanup Complete Determination, as stated in decision letter for the Kwethluk Former Joseph Guy Community Center, dated July 14, 2014. Failure to comply with the terms and conditions of the determination may result in DEC reopening this site and requiring further remedial action required in accordance with 18 AAC 75.380.

Mt. Auk

Signature of Authorized Representative, Title
Organized Village of Kwethluk

10/30/14
Date

Martin Andrew

Printed Name of Authorized Representative, Title
Organized Village of Kwethluk

Note to Responsible Person (RP):

After making a copy for your records, please return a signed copy of this form to the DEC project manager at the address on this correspondence within 30 days of receipt of this letter.



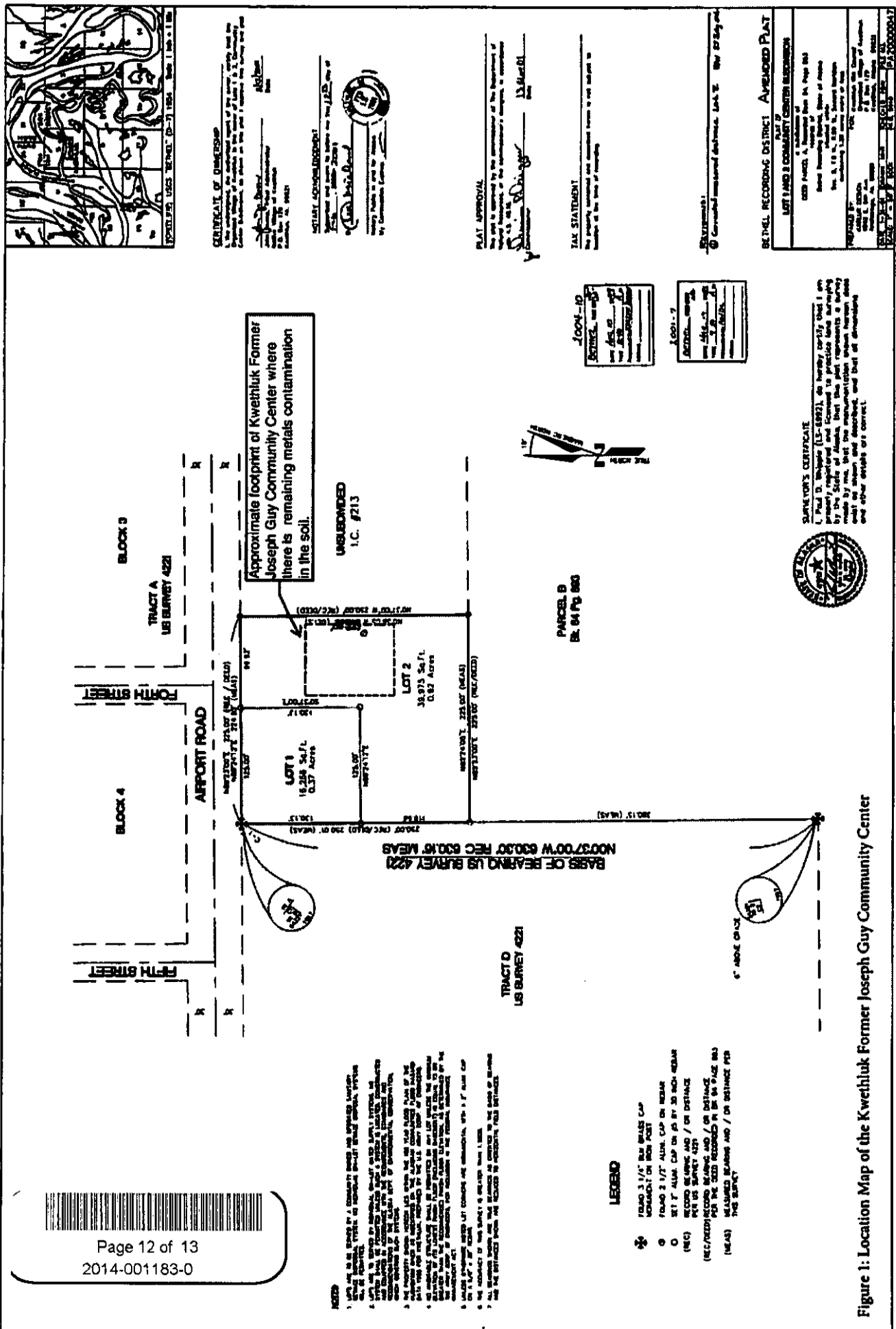
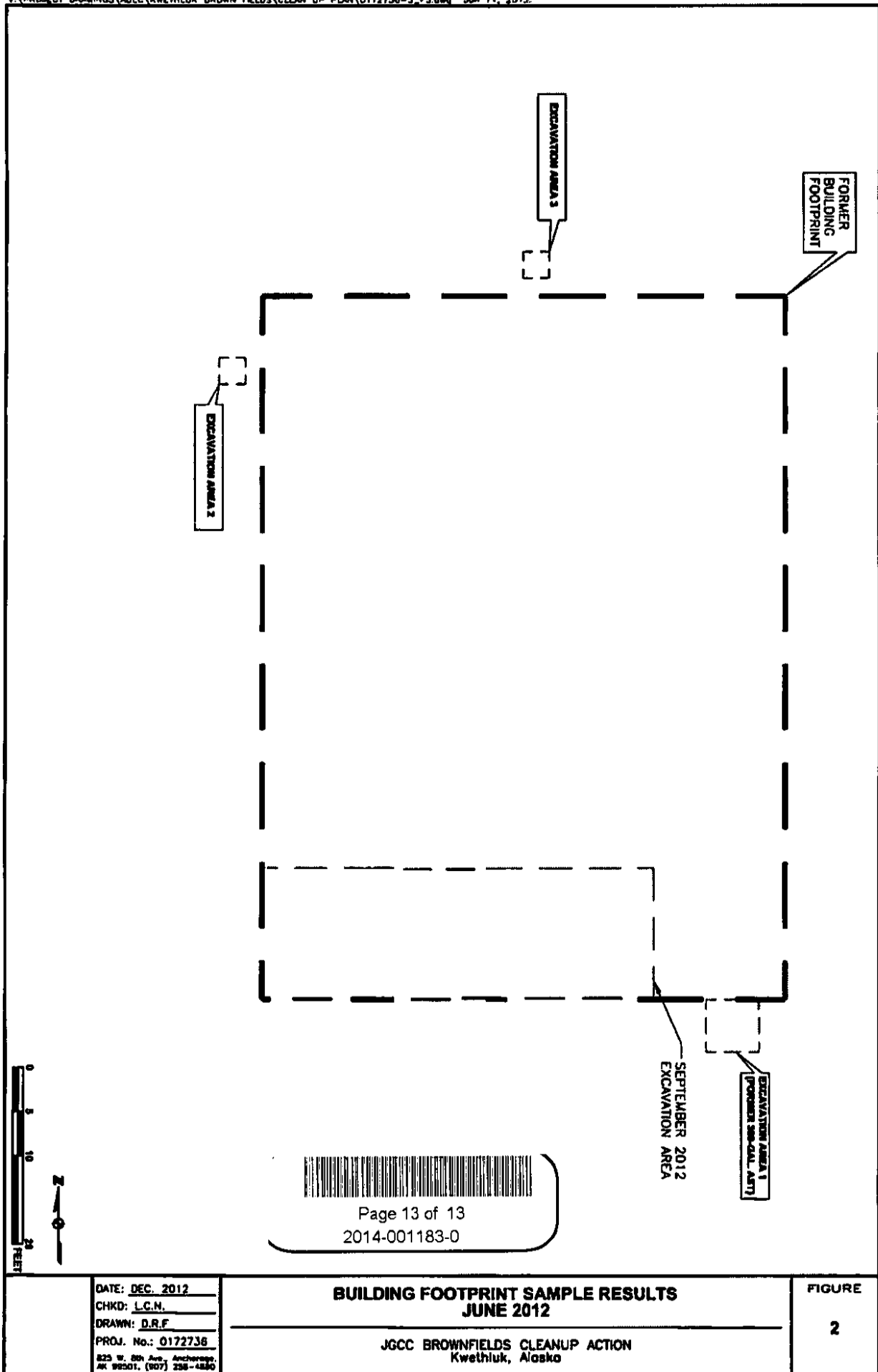


Figure 1: Location Map of the Kwethluk Former Joseph Guy Community Center



DATE: DEC. 2012
 CHKD: L.C.N.
 DRAWN: D.R.F.
 PROJ. No.: 0172736
 825 W. 8th Ave., Anchorage,
 AK 99501, (907) 236-4850

**BUILDING FOOTPRINT SAMPLE RESULTS
 JUNE 2012**

JGCC BROWNFIELDS CLEANUP ACTION
 Kwethluk, Alaska

FIGURE

2