



Alaska Department of Environmental Conservation

Reuse & Redevelopment Initiative

Brownfield Assessment



Old Alatna Village Site

Environmental Audit

Alatna, Alaska

Submitted to:
Department of Environmental Conservation
Brownfield Program



By:
OASIS Environmental, Inc
April 17, 2008

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ACRONYMS AND ABBREVIATIONS

ANTHC.....	Alaska Native Tribal Health Consortium
ASTM	American Society of for Testing and Materials
ATV	all-terrain vehicle
DBA.....	DEC Brownfield Assessment
ADCCED	Alaska Department of Commerce, Community, and Economic Development
ADCRA.....	Alaska Division of Community and Regional Affairs
DEC.....	Alaska Department of Environmental Conservation
DOT.....	Department of Transportation
ADES	Alaska Division of Emergency Services
EPA.....	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
IGAP.....	Indian Affairs General Assistance Program
NTP.....	Notice-to-Proceed
OASIS	OASIS Environmental, Inc.
PCB.....	polychlorinated biphenyl
RCRA.....	Resource Conservation and Recovery Act
RFP.....	Request for Proposal
TSCA.....	Toxic Substance Control Act
TSD.....	Treatment, Storage and Disposal
US	United States
YRITWC	Yukon River Inter-Tribal Watershed Council

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1. PROJECT DESCRIPTION

Under Notice-to-Proceed (NTP) 18-9028-13-39, the Alaska Department of Environmental Conservation (DEC) tasked OASIS Environmental, Inc. (OASIS), to conduct an environmental audit of the Old Alatna village site, located approximately 1 mile northeast of the current location of Alatna, Alaska (see Figure 1). This report presents the findings of the environmental audit. It is the second deliverable under NTP 18-9028-13-38, following a Planning and Scoping Meeting Summary (OASIS, 2007a). Both deliverables were performed in accordance with OASIS' proposal for this project.

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2. ENVIRONMENTAL AUDIT

2.1. Introduction

In 1994 a catastrophic flood of the Koyukuk River wiped out the traditional village of Alatna, forcing the residents to relocate their village to a new site at a higher elevation, about 1 mile from the former location. No environmental assessment has been completed since the flood, which left behind several cabins. Other debris and potentially hazardous materials were also left behind, such as fuel drums and transformers, which may or may not contain PCBs. The community is interested in reusing their traditional village site for community gatherings, subsistence activities, and for a cultural and historic monument to preserve community memories. The materials that remain at the old village site could possibly be used to construct one new building. The site is important because of its cultural and historical significance to village of Alatna residents. In order to identify environmental conditions that may hinder their reuse objectives, the Alatna Tribal Council applied to DEC for a DEC Brownfield Assessment (DBA).

2.1.1. Purpose

DEC is conducting this investigation in response to a DBA request submitted by the Alatna Tribal Council to DEC's Brownfield Program. The DBA was requested to identify the presence of potential environmental hindrances that could impact future use of the Old Alatna village site. This environmental audit was performed in order to meet this objective.

This report presents the findings of the environmental audit, and includes information gathered from federal, state, and local agencies; personal interviews with people familiar with the site and surrounding properties; review of site photographs and historical aerial photographs; and a site visit conducted by an OASIS representative.

2.1.2. Scope of Services

OASIS conducted the following tasks to accomplish the project objectives:

- Reviewed historical records and aerial photographs of the site;
- Interviewed local residents familiar with the site;
- Performed a site reconnaissance; and
- Prepared this report with audit findings, conclusions, and recommendations.

2.1.3. Significant Assumptions

This environmental audit provides information regarding the environmental condition of the site. This report is a professional opinion and judgment based upon information obtained during the course of performance of services.

Environmental conditions may exist at the site that cannot be identified by visual observation only. Where the scope of services is limited to observations made during site reconnaissance, interviews, or review of readily available reports and literature, any

conclusions or recommendations are necessarily based in part on information supplied by others, the accuracy or sufficiency of which may not be independently verified by OASIS.

No investigation is thorough enough to exclude the presence of hazardous substances, petroleum products, or contamination resulting from spills of these products at a given site. Therefore, if no hazardous substances or materials or petroleum products are identified during the assessment, such a finding should not be construed as a guarantee of the absence of such materials or contamination resulting from such materials on the property. Rather, the assessment should only be considered the result of services performed within the scope, limitations, and cost of the work performed.

2.1.4. Limitations and Exceptions

Any opinions or recommendations presented apply to site conditions existing at the time of performance of services. OASIS is unable to report on or accurately predict events that may impact the site following performance of the described services, whether occurring naturally or caused by external forces. OASIS assumes no responsibility for conditions that OASIS is not authorized to investigate or conditions generally recognized as environmentally unacceptable at the time services are performed. OASIS is not responsible for changes in applicable environmental standards, practices or regulations following performance of services.

Performance of this environmental audit did not include the collection or analysis of soil, ground water, surface water, or air samples.

2.1.5. Special Terms and Conditions

The environmental audit activities and report structure generally follow those outlined in the American Society for Testing and Materials (ASTM) Standard E 1527-05, which was written for Phase I Environmental Site Assessments. However, as this investigation is not a complete or formal Phase I assessment, the project RFP directed the consultant (OASIS) to establish which tasks were appropriate for this investigation and establish the reporting outline accordingly. OASIS slightly modified the tasks and report format of the ASTM Standard E1527-05 to fit the project's purpose and available data. Modifications are noted where appropriate.

2.2. Site Description

2.2.1. Location

The village of Alatna is located in interior Alaska, directly on the Arctic Circle and approximately 190 miles northwest of Fairbanks. It lies on the north bank of the Koyukuk River, slightly downstream (southwest) of its confluence with the Alatna River. The village occupies 36.5 square miles of land. It has a cold, continental climate, with highs of 70°F in summer and extended periods of -40°F in the winter. Average annual precipitation is 13 inches; average annual snowfall is 72 inches.

The village was settled by the Inupiaq. An Athabascan community lives across the river on the south bank in the village of Allakaket. These two villages have co-existed for over 100 years. In 1975 they were incorporated as one city. They are currently connected by an electrical intertie.

Alatna was devastated by a severe flood in 1994. The Alaska Division of Emergency Services (DES) and Federal Emergency Management Agency (FEMA) provided immediate assistance with housing and financial needs. The entire community was relocated approximately 1 mile down river (southwest) and $\frac{3}{4}$ of a mile away from the river in order to be elevated above the floodplain. After relocating, the village became tribally owned. The 2006 population estimate for the village was 33 residents (DCRA, 2006). The economy is seasonal and subsistence-based. Although Alatna continues to rely on Allakaket for certain facilities (e.g., school and landfill), a new washeteria, water treatment plant, and health clinic were recently built (Alatna Tribal Council [ATC], 2007b).

2.2.2. Site and Vicinity General Characteristics

The project site is the former (pre-1994) village location, known as the Old Alatna site. The only land access is a wide all-terrain vehicle (ATV) trail located south of the site (Figure 2); the trail connects to the main road leading from the Koyukuk River to the new village site. The site is bordered to the east by the Koyukuk River and to the west by a steep hillside.

The site lies in a flat clearing surrounded by a mixed spruce and deciduous forest. Deciduous shrubs and small trees such as willow and birch grow sparsely within the clearing. A great deal of fireweed and grasses grow in the summer. A substantial amount of debris is strewn across the site; the debris is remnant of the 1994 flood.

2.2.3. Current Use of the Property

There is no documented use of the property at this time. Some residents believe that fishing likely occurs on the shore of the Old Alatna site, but this is not known for certain.

2.2.4. Description of Structures, Roads, and Other Improvements on the Site

Nine cabins are located at the site. No major roads lie within the site's immediate vicinity. An ATV trail leads to the site from the south (Figure 2). The trail connects the site with the main road used to travel between the Koyukuk River and the new village site.

2.2.5. Description of Adjoining Properties

The Koyukuk River borders the site to the east. Adjacent property to the north and west is essentially undisturbed and undeveloped. No evidence of historical use in these areas was found. Aside from the existing ATV trail to the south, there are no obvious roads or trails leading to the site.

2.3. User Provided Information

User provided information is presented in Section 2.6, Interviews.

2.3.1. Title Records

None provided.

2.3.2. Environmental Liens or Activity and Use Limitations

None provided.

2.3.3. Specialized Knowledge

Specialized knowledge is presented in Section 2.6, Interviews.

2.3.4. Valuation Reduction for Environmental Issues

Not applicable.

2.3.5. Owner, Property Manager, and Occupant Information

The Alutna Tribal Council is the current landowner (ATC, 2007a). Contact information is provided below.

Alutna Tribal Council
Janelle Dayton, Environmental Coordinator
P.O. Box 70, Alutna, Alaska 99720
907-968-2304

2.3.6. Reason for Performing Assessment

This environmental audit was conducted as part of a Brownfield assessment of the site. Brownfield sites are generally considered to be abandoned or underutilized properties (especially industrial and commercial facilities) where redevelopment or expansion may be complicated by possible environmental contamination (real or perceived). The program focuses on assessing contaminated or potentially contaminated sites to determine the suitability of the sites for reuse. The end goal is to provide the given community with comprehensive and useful information for achieving site reuse.

The specific objective of this project is to identify the presence of potential environmental hindrances that could impact reuse at the Old Alutna site.

2.4. Government and Historical Records Review

2.4.1. Standard Environmental Record Sources

OASIS did not search the Environmental Data Resources database, as a search would likely yield little useful information for a site within a remote Alaskan village. Instead, OASIS reviewed all available files related to the site at the Fairbanks DEC office as well as online EPA and DEC database information. Available historical aerial photographs

were also examined. Lastly, OASIS reviewed documents that were presented by community members during OASIS' site visit.

Since no previous environmental investigations were conducted at the site (ATC, 2007a), site record sources were limited. OASIS reviewed the following record sources (presented in chronological order):

- Historical aerial photographs (1991 and 2000)
- Alaska Community Databases' Community Information Summary for Alutna (2006)
- The Alutna Tribal Council's DBA application for the former dumpsite (2007)
- FY2007 Alutna IGAP Proposal for a new landfill (2007)

The useful information extracted from these sources is presented in this section (Section 2.4). Note that the DEC Contaminated Sites and Underground Storage Tank Databases did not contain any sites in Alutna. An EPA web database search did not yield any relevant data either.

2.4.2. Additional Environmental Record Sources

Additional environmental record sources were not reviewed for this site.

2.4.3. Physical Setting Sources

An approximately 7.5-minute topographic map of the site is provided as Figure 1.

No information was found on the soil and groundwater conditions at the Old Alutna site. The surface soils are likely typical of a shoreline environment (fine sand and silt). Bedrock is probably shallow, judging by the proximity of the steep bedrock hillside (Figure A1 in Appendix A).

2.4.4. Historical Use Information

The site was the first village of Alutna. An Inupiaq community settled here sometime during the latter half of the 19th century. The village was a traditional trading center for the Inupiaq and Athabascan tribes. The Athabascans settled across the Koyukuk River in the village of Allakaket. In 1975 Allakaket and Alutna were incorporated as one city. Before the village relocated, Alutna residents relied on Allakaket for nearly all the city facilities (e.g., school, clinic, airport, and landfill) (DCRA, 2006).

Flooding reportedly has occurred on an annual basis at the Old Alutna site, though not as severe as the 1994 flood (Sam, 2007). One other major flood is on record before 1994. In contrast to the 1994 flood, it was caused by a springtime ice jam rather than a fall storm. That flood inundated 85 percent of the village.

The 1994 flood devastated the village. DES and FEMA provided immediate assistance with housing and financial needs. The entire community was relocated above the floodplain approximately 1 mile down river (southwest) and $\frac{3}{4}$ of a mile away from the river.

The primary sources of information on post-flood historical use were interviews with elders in the community. For instance, Harding Sam was on the cleanup crew during the

1995 village cleanup and relocation effort. After the flood, residents collected what was left of the personal belongings they wanted. They staged a burn-pile for unwanted items and also flew some items out. Larry Edwards provided a few historical photos from soon before and after the flood. The Old Alatna site before the flood is shown in Figure A1 of Appendix A. Two frame cabins that were damaged by the flood are shown in Figure A2. Both cabins were later demolished (Edwards, 2007).

The only other records on the site after the relocation is the Alatna Tribal Council DBA application, which notes that a cleanup was performed in preparation for backhaul. Freezers and refrigerators were removed from the site during the cleanup (ATC, 2007a).

2.4.4.1. Aerial Photo Review

Aerial photographs from 2000 and 1991 were available. Both were taken in the summer. The 2000 photo is presented in Figure 2 and the 1991 photo is presented in Figure 3.

In the 2000 photo, the site appears very similar to its appearance during OASIS' site visit. Ten cabins are visible, which is one more than the amount observed during the site visit (one of the cabins was reportedly torn down between 2000 and 2007; Dayton, 2007). The positioning of the cabins also appears to be similar to today's. Several small white patches are scattered across the site, which likely are masses of debris such as sheet metal.

The 1991 photo shows approximately 16 buildings, most of which likely are homes. The outline of an old slough forms a half-moon shape bordering the western side of the village. The shape and thickness of the shoreline appears similar to the 2000 photo. In contrast to the 2000 photo, signs of life are visible, such as boats docked on shore and trails connecting the buildings. No roads leading out of the village are apparent. No potential sources of contamination are discernable.

2.4.5. Historical Use Information on Adjoining Properties

The Koyukuk River borders the site to the east. The river has historically been used for fishing and travel to other villages, most notably Allakaket. As noted in Section 2.2.5, adjacent property to the north and west is essentially undisturbed and undeveloped. No evidence of historical use in these areas was found. Aside from the existing ATV trail to the south, there were never any roads leading to the site.

2.5. Site Reconnaissance

2.5.1. Methodology and Limiting Conditions

On September 24, 2007, Julie Ahern of OASIS performed a site reconnaissance. Sonta Hamilton of the Yukon River Inter-Tribal Watershed Council (YRITWC) also visited the site to conduct a site inventory for the YRITWC Brownfields Program. Ms. Ahern and Ms. Hamilton were accompanied by Janelle Dayton, the Alatna Environmental Coordinator; Amelia Edwards, the Alatna Tribal Administrator; and Leonard Vent, an Alatna resident. Weather conditions were clear, calm, and between 30°F and 40°F. The site visit began at 11:30 a.m. and lasted approximately two hours, during which time Ms.

Ahern performed a walk-around of the site and photo-documented observations. Field notes are presented in Appendix B.

2.5.2. General Site Setting

Photographs of the site are provided in Appendix A. Two videos of the site are also provided on the CD version of this report. The site is about 5.5 acres in area. It stretches out along the Koyukuk River for approximately 1,200 feet and extends 200 feet inland (Figure 2).

The site entrance was from the south via a wide ATV trail (Figure A3) that connects to the main road leading from the Koyukuk River to the new village site. The site is bordered to the east by the Koyukuk River and to the west by a steep hillside.

The site was in a flat clearing surrounded by a mixed spruce and deciduous forest. Deciduous shrubs and small trees such as willow and birch grow sparsely within the clearing. A large amount of wilting fireweed and grasses were in the clearing (Figure A4). Most of the ground was covered by grasses and leaves.

Adjacent property was essentially undisturbed and undeveloped. Aside from the ATV trail to the south, there were no roads or trails leading to the site.

2.5.3. Structure Observations

The major structures on-site are the cabins formerly inhabited by Alutna residents. Nine cabins remain at the site. Their structural condition varies widely: some are warped, while others show little damage. The one elevated cabin on-site appears never to have been impacted by floods; a comparison of cabin foundations illustrates this point (Figures A5-A8). Evidence of the flood level is apparent by faded coloration on the cabin exteriors (Figure A9). Cabin interiors are in varying degrees of disarray and contain household items such as pots, books, mattresses, and clothing.

A significant amount of debris remains at the site. Large articles include building material such as sheet metal (Figure A10) and lumber; 55-gallon drums that were either empty or contained non-hazardous waste (Figures A11 and A12); partially-buried electrical cable (Figure A13); large spools of electrical cable (Figure A14); and interior items such as tables, shelving, bed frames, wood stoves, kitchen stoves, and fiberglass insulation (Figures A15 and A16). For heating, all of the cabins contained only wood stoves except for one. A monitor was found in one of the nine cabins (Figures A17 and A18); however, there was no heating oil tank anywhere near the cabin.

OASIS observed a few items that potentially contain hazardous materials. They are listed below:

1. Transformers – two white transformers were located on-site. The first transformer that OASIS observed was located near the southern border of the site (Figure A19). It stood upright and alone and did not appear to be damaged. The second transformer was in the middle to northern region of the site near two cabins (Figures A20 and A21); two pieces were broken off and lying next to it (Figure A22). Like the

first, it stood upright. It was not possible to determine if the transformers had leaked in the past.

2. Fuel tank – a red, rectangular tank was observed, with dimensions of approximately 3 feet by 3 feet by 1 foot (Figures A23 and A24). Amelia Edwards identified it as a diesel fuel tank that was part of the former generator. The generator was constructed in the 1970s (Sam, 2007). The tank was improvised for it (Edwards, 2007). No hydrocarbon odors or stained soil were observed around the tank.
3. Refrigerator – one refrigerator was found in a shed that was shoved into a cabin (Figure A25). No other refrigerators or freezers were observed. Community members removed the majority of freezers and refrigerators as part of a cleanup event last spring.

At the end of the site visit, Leonard Vent loaded a few items onto his ATV and transported them back to the current village site. The items included two small rusted buckets (contents unknown) and a large battery (Figure A26).

2.5.4. ANTHC Site

On the way back to the Tribal Council Office, Ms. Ahern, Ms. Hamilton, and Ms. Dayton stopped at a clearing off the main road in the village. The lot contains materials leftover from the washeteria and water treatment plant construction in 2006. Materials line the border of the lot; the center of the lot is empty (Figure C1 of Appendix C). Much of the material is equipment (Figure C2) and non-hazardous supplies and wastes, such as empty 5-gallon buckets, copper pipe fittings, and PVC piping (Figures C3 and C4). However, OASIS observed the following potentially hazardous materials:

- Four 55-gallon drums labels as diesel, propylene glycol, and hydraulic oil (Figures C5-C7);
- Approximately 14 5-gallon buckets labeled as epoxy (Figures C8 and C9); and
- Six 12-volt batteries (Figure C10).

Some of these materials could potentially be reused by the community. According to residents, ANTHC did not indicate whether they intended to return for the materials.

2.6. Interviews

On the afternoon of September 24, 2007, Ms. Ahern of OASIS conducted interviews with several Alutna community members. Janelle Dayton arranged the interviews with residents who were interested in discussing the site's history and reuse. The interviews were held from approximately 2:00 p.m. to 5:00 p.m. in the Alutna Tribal Council office. One to two people were interviewed at a time. The community members who were interviewed are listed in Table 1; their community roles and estimated ages are provided to help convey their perspectives toward the site. In addition to Ms. Ahern and the community members, Sonta Hamilton of YRITWC also participated.

TABLE 1. PARTICIPANTS OF INTERVIEW SESSIONS, 9/24/2007

	Name	Age*	Time in Alatna	Community Role
1	Eddie Bergman	60s	28 years	Not reported
2	Janelle Dayton	30	< 5 years	Environmental Director - IGAP
3	Amelia Edwards	60s	life	Tribal Administrator
4	Larry Edwards	50s	life	Mechanical Engineer
5	Clara Sam	50s	life	Not reported
6	Harding Sam	60s	life	Water Plant Operator
7	Ron Sam^	40s	life	Not reported

* Ages were estimated by OASIS interviewer in order to convey knowledge of site.

^ Ron Sam grew up in Alatna but was traveling at the time of the flood and relocation.

Discussion about the site covered three main topics: 1) potential contamination sources, 2) cleanup needs, and 3) reuse options. Other community projects were briefly discussed as well. The following is a summary of relevant information obtained during the interview session. Note that not all information gained during the session is provided here; some information is presented in previous sections where appropriate. Such information has been cited accordingly.

2.6.1. Potential Contamination Sources

OASIS asked all interviewees to identify site materials that should be removed before site reuse, and in particular, if they knew of potentially hazardous materials that could act as sources of contamination.

The community members noted non-hazardous debris that would need to be removed, such as spools of copper and aluminum cable and sheet metal (noted in Section 2.5.3). Concerning potentially hazardous materials, several of the interviewees identified the following three items:

1. Transformers – Residents are concerned about the potential of PCB contamination from the two transformers on-site. However, no one knew if the on-site transformers contain PCBs. Harding Sam noted that they arrived at the village in the 1980s.
2. Fuel tank from former generator – Several interviewees identified the old fuel tank (noted in Section 2.5.3) as a potential contamination source. A few affirmed that it presently does contain diesel fuel.
3. Refrigerators and freezers – Residents were concerned about the potential of Freon contamination from refrigerators and freezers. Most of the interviewees believed they had all been removed in the spring (Section 2.4.4). However, as noted in Section 2.5.3, one refrigerator was observed on-site.

A few other potentially hazardous materials were mentioned by Larry Edwards. Mr. Edwards recently observed two heavy-duty batteries at the site. Since one battery was removed during the site reconnaissance (Section 2.5.3), one potentially remains at the site. Additionally, Mr. Edwards recalled seeing barrels of used oil in the woods near the

hillside (i.e., along the northwestern edge of the site) shortly after the village relocation of 1995. These barrels were not observed during the site reconnaissance, but OASIS did not venture to the northwestern hillside. Lastly, Mr. Edwards indicated that an open dumpsite existed while the village resided at the site, located under the hillside near the former location of the village water treatment plant. However, to the best of his knowledge, the site was washed out by the 1994 flood. In a later interview, Ron Sam affirmed that the dump no longer existed.

All interviewees were asked if they had witnessed any hazardous substance spills during or after the flood; everyone responded that they had not.

2.6.2. Cleanup Needs

OASIS asked community members if they had suggestions for how to remove the on-site wastes. The majority responded that debris removal would require the use of heavy equipment. The community reportedly has one front-end loader; however, at the time of the site visit, it was not functioning due to mechanical problems.

All of the interviewees remarked on the equipment shortage and mechanical problems with existing equipment. They stated their consequential need for assistance with repairing or purchasing equipment. Many also stressed that this is an immediate and high-priority need. In addition to removing debris from the Old Alatna site, the equipment is needed for creation of a community landfill (Section 2.6.4).

When asked how the debris will be disposed of, most interviewees responded that they would like to backhaul as much material as possible. Residents were not certain as to which materials are acceptable, as the village backhaul program was still being established. Further backhaul discussion is provided in Section 2.6.4.

2.6.3. Reuse Options

OASIS asked community members for input on how the site should be reused. Several different options were put forward. Most of the interviewees advocated for seasonal use such as fishing. Establishing a campsite was suggested by a few residents. Larry Edwards had a specific touring company in mind, called Arctic Tours. Mr. Edwards suggested reserving part of the site for Arctic Tours; the reserved area would be used for temporary camping by tourists on float trips along the Koyukuk River. He knows the company owner and trusts him to take care of the site.

A few residents suggested a historical monument. For example, Ron Sam would like to see the cabins belonging to deceased village members (two altogether) restored for their sentimental and historical value.

Lastly, recycling of cabin wood was advocated. Residents suggested taking apart the cabins and using the wood for either firewood or building new structures in the current village. This suggestion is not in conflict with the historical monument option, as the historical monument advocates suggested only one or two cabins be preserved.

Several of those interviewed remarked that Oscar Nictune Jr. (a.k.a. "Ozzy") could provide useful information. He is a village elder, reportedly with good historical

knowledge of the site and strong reuse ideas. Unfortunately he was unavailable at the time of the interview sessions, but OASIS made note that he should be contacted for input when reuse planning is underway.

2.6.4. Other Community Projects

OASIS inquired as to whether Alatna had a comprehensive community plan. Janelle Dayton presented a document titled “Alatna: The Comprehensive Plan,” which was created during the relocation effort of 1995 (KH&A, 1995). Ms. Dayton indicated that the plan is supposed to be updated every few years, but no update has been completed yet due to higher-priority projects. Amelia Edwards briefly described the village’s community meetings: they are held once a month and are open to the public. She indicated that the turnout is not high but has slightly increased with the recent attendance of young residents.

The village’s other ongoing projects are focused on solid waste management. For example, Ms. Dayton recently completed a Fiscal Year 2007 IGAP proposal for funding a landfill construction project. Constructing a landfill in Alatna will reduce solid waste costs and environmental risks posed by transporting waste to Allakaket. In addition, Ms. Dayton has been trying to start a backhaul program for the village. The Koyukuk River is too shallow to allow barge passage, so backhauled items must be flown out. At the time of OASIS’ site visit, Ms. Dayton was awaiting a cost estimate from an airline. Sonta Hamilton said that YRITWC could assist with the effort.

At the end of each interview, Ms. Ahern indicated that DEC will be seeking feedback on the report for this assessment. Several community members agreed that follow-up communication is important. To facilitate this communication, Ms. Hamilton suggested having a teleconference between Alatna, YRITWC, and DEC following the report’s publication.

2.7. Findings

Based on information gathered from a records review, site reconnaissance, and interviews with concerned community members, OASIS determined that the following findings were relevant to the Old Alatna site environmental audit:

- A 1994 flood devastated the village of Alatna by destroying or sweeping away many of the community’s homes, infrastructure, and supplies. Led by DES and FEMA in 1995, the village relocated approximately one mile southwest of the site in an upland area. Valued items were salvaged. Many unusable items were burned or flown off-site.
- Flooding of the site continues on an annual basis, though not as severe as in 1994.
- Nine cabins remain at the site.
- The structural condition of the remaining cabins varies; some are warped, while others show little damage. The one elevated cabin appears never to have been impacted by floods. Cabin interiors are in varying degrees of disarray and contain household items such as pots, books, mattresses, and clothing.

- A significant amount of debris remains at the site. Large articles include building material such as sheet metal and lumber; 55-gallon drums (empty or with non-hazardous waste); partially-buried electrical cable; large spools of electrical cable; and interior items such as tables, shelving, bed frames, fiberglass insulation, wood stoves, and kitchen stoves.
- One monitor was found inside a cabin; its heating oil tank was not located.
- Residents removed the vast majority of freezers and refrigerators last spring.
- Items potentially containing hazardous materials include two transformers, one fuel tank, and one refrigerator. None of these items appeared to be leaking or punctured. There were no hydrocarbon odors around the fuel tank that would indicate a recent release.
- Residents affirmed that the fuel tank presently contains diesel fuel.
- The PCB content of the transformers is uncertain. They reportedly arrived at the village in the 1980s. Given that PCB manufacturing was banned in 1979, it is possible that they do not contain PCBs.
- A resident reported seeing barrels of used oil in the woods near the hillside (i.e., along the northwestern edge of the site) after the 1995 relocation. These barrels were not observed during the site reconnaissance but may be present.
- In order to remove large debris from the site, the community needs new heavy equipment and repairs to existing equipment. Community members emphasized that this is currently a top priority in order to complete this project as well as others.
- The village would like to backhaul as much site debris as possible. Community members are not yet familiar with backhaul acceptance requirements, as the backhaul program was still in development (as of OASIS' site visit).
- Site reuse suggestions include seasonal fishing and camping, preserving selected cabins as historical monuments, and recycling cabin logs for firewood or new structures. All reuse ideas appear to be compatible with one another.
- Much of the Alutna IGAP funding is being allocated toward construction of a landfill. As such, the village will need to locate alternate sources of funding for site cleanup and reuse.
- Alutna and DES developed a comprehensive community plan during the relocation effort; however, it has not been updated.

2.7.1. Data Gaps

After completion of the records review, site reconnaissance, and interviews with community members, only one significant data gap remained: OASIS did not determine if PCBs are in the two on-site transformers or if PCBs have been released from the transformers.

2.8. Conclusions and Recommendations

Based on our findings, OASIS concludes that the possible presence of PCBs within or around the on-site transformers is a potential environmental hindrance to site reuse. While other hazardous materials are potentially present on-site, they appear to be contained and pose little risk to human or ecological health if properly disposed.

Therefore, as the first step in achieving site reuse, OASIS recommends determining whether the transformers contain PCBs by looking for manufacturer's labels, which may give the date of manufacture and the trade name of the fluid. Some trade names that may refer to PCBs include Aroclor, Askarel, Eucarel, Pyranol, Dykanol, Clorphen, Clorinol, Chlorextol, Diacolor, Hyvol, Asbestol, Inerteen, Elemex, Saf-T-Kuhl, No-Flanol, Nepolin, EEC-18, and others. Equipment manufactured after 1979 usually does not contain PCBs. Most pre-1979 capacitors do contain PCBs, while many pre-1979 transformers do not. Transformers within buildings or vaults are more likely to contain PCBs. New equipment should be labeled "No PCBs."

PCBs are clear, amber-colored, or dark oily liquids. They may have a faint smell like motor oil, and some contain chlorobenzenes that make them smell like mothballs. Fluorescent light ballasts may contain about an ounce of PCBs; a utility pole capacitor or transformer may contain much more. Usually what leaks from a burned-out light ballast is not PCBs but a black tarry material that is used to muffle noise from the capacitor. However, it is safest to assume that liquid inside a transformer, capacitor, or light ballast contains PCBs, unless there is a "No PCBs" label on the equipment.

If PCBs are confirmed or suspected, the process outlined below must be used to dispose of the transformers:

- Toxic Substance Control Act (TSCA) identification number is obtained from the EPA;
- The drained transformer and oil is packaged and manifested in accordance with TSCA (40 CFR 761, Subpart D); and
- Materials are shipped to a TSCA Treatment, Storage and Disposal (TSD) facility.

Following the removal of the transformers, OASIS recommends removal and proper disposal of the items potentially containing hazardous materials, namely the fuel tank and the refrigerator.

A contractor trained to deal with compressed gas must drain the Freon from the refrigerator. The Freon should be sent to a Resource Conservation and Recovery Act (RCRA) TSD facility. The refrigerator can then be backhauled.

The fuel tank must be decommissioned by an UST-certified contractor by pumping out any remaining fuel, cleaning, and dismantling the tank. If the tank is in good condition, it may be used again; if not, it may be backhauled. If there is a used oil heater in the village, the drained fuel may be burned. If not, it must be contained in Department of Transportation (DOT) certified drums and shipped to Anchorage for recycling.

The only other potential environmental hindrance found during this environmental audit was the possible presence of used oil barrels at the site. A resident recalled seeing such barrels near the former location of the village's water plant; therefore, a search should be conducted in this area. If any drums are found, the contents of the drums should be characterized by sampling. If the drums contain oil, it may be burned in a used oil heater or packaged appropriately and shipped to Anchorage for recycling. If the contents of the drums are not fuel, the contents must be contained as hazardous waste and manifested to a RCRA-permitted TSD facility.

Once all potentially hazardous materials have been removed, the community can proceed with cleanup of debris and non-hazardous waste, followed by site reuse efforts. Establishing a site cleanup and reuse plan is highly recommended to increase potential for project success.

The plan should contain several elements, including (but not limited to) the following:

- Use local workers and equipment to the extent possible. Determine equipment needs for debris and waste removal, including which items are not available locally.
- Determine how the debris and non-hazardous waste will be disposed. This effort will likely involve collaboration with YRITWC to determine costs and which items are acceptable. For items that cannot be backhauled, the Allakaket landfill is a likely alternative.
- Reach community consensus on-site reuse. All suggested reuse options are viable. If opting to recycle cabin logs, OASIS recommends reusing them at the current village site rather than the Old Alatna site because of the likelihood of flooding.
- Develop a cost estimate for the site cleanup and reuse, taking into consideration the above factors (local labor, transportation of waste, equipment needs, demolition or restoration of cabins, etc).
- Identify funding sources to cover the estimated cost.

As suggested by the YRITWC, OASIS recommends that the Alatna Tribal Council hold a conference call with DEC and YRITWC following receipt of this report. The meeting will provide an opportunity for community members to provide feedback to DEC and YRITWC and to establish the next step the community will take in moving toward site reuse. OASIS encourages the Tribal Council to include as many community members as possible, including those who were not available for interviews during OASIS' site visit (e.g., Oscar Nictune Jr).

2.9. Additional Services

As described in Section 2.5.4 and shown in Appendix C, OASIS visited and discussed another community site of concern (the ANTHC materials area). This site visit and discussion constitute services outside of OASIS' original scope.

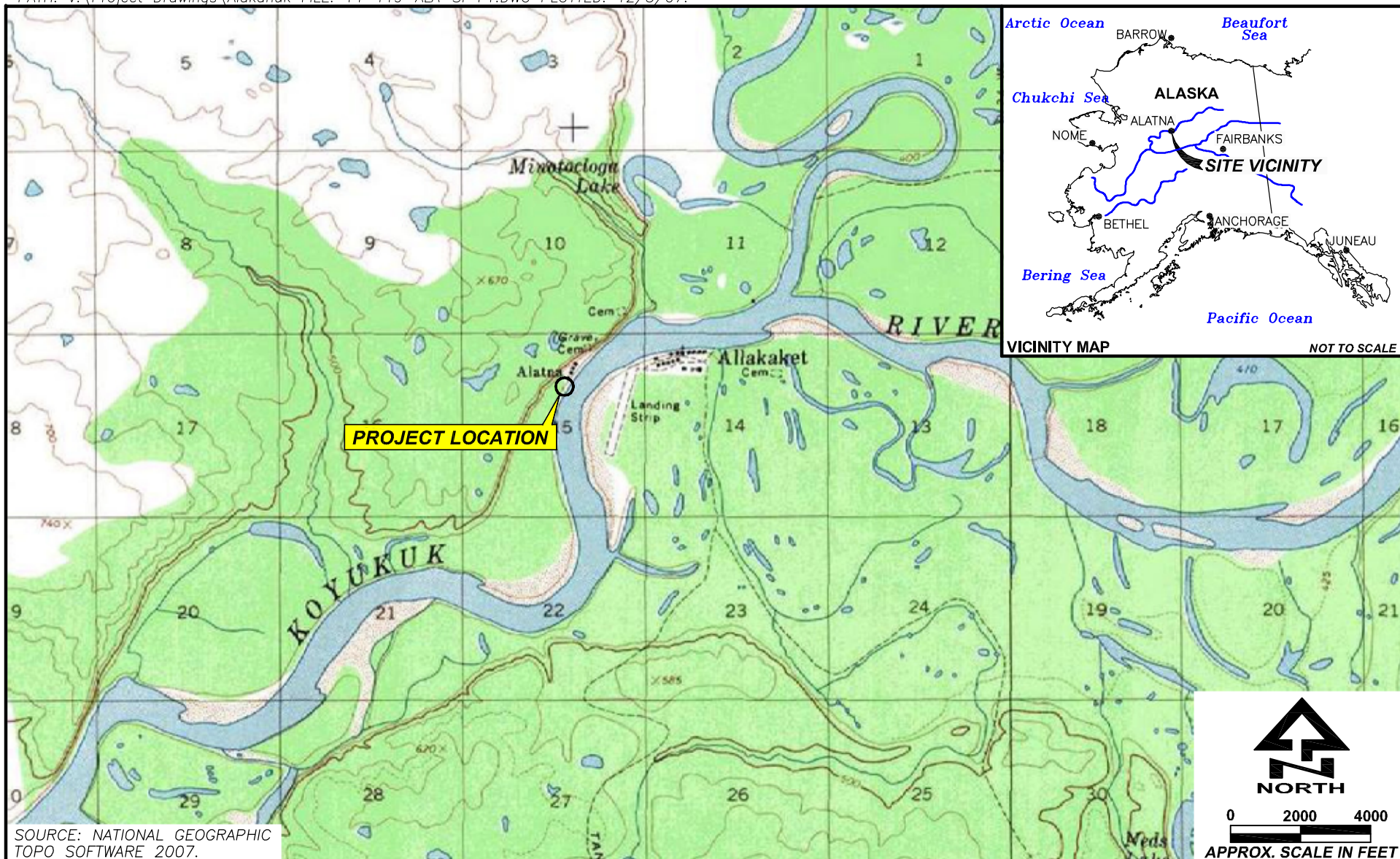
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FIGURES

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SOURCE: NATIONAL GEOGRAPHIC
TOPO SOFTWARE 2007.



DATE: DEC. 2007

CHKD: M.S.

DRAWN: C.E.H

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SITE LOCATION MAP

OLD ALATNA VILLAGE SITE
Alatna, Alaska

FIGURE

1

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PATH: V:\Project Drawings\Alatna FILE: 14-119-ALA-SI-F2.DWG PLOTTED: 12/3/07.



SOURCE: AERIAL PHOTO ALATNA7-6-2000.TIF DATED 11/6/2000 PROVIDED BY AERO-METRIC ANCHORAGE.



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2000 AERIAL PHOTOGRAPHY

OLD ALATNA VILLAGE SITE
Alatna, Alaska

FIGURE

2

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PATH: V:\Project Drawings\Alatna FILE: 14-119-ALA-SI-F2.DWG PLOTTED: 12/3/07.



SOURCE: SCANNED IMAGE ALATNA ROLL#91-52C EXP#-3
DATED 9/22/191 PROVIDED BY AERO-METRIC INC.



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AK 99501, (907) 258-4880

1991 AERIAL PHOTOGRAPHY

OLD ALATNA VILLAGE SITE
Alatna, Alaska

FIGURE

3

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APPENDIX A

Photographic Log of Site

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Figure A1. Looking southwest from Koyukuk River at Old Alatna site, prior to 1994 flood. Photo courtesy of Larry Edwards.



Figure A2. Two frame cabins that were taken down after 1994 flood. Photo courtesy of Larry Edwards.



Figure A3. Looking south down ATV trail that leads to site.

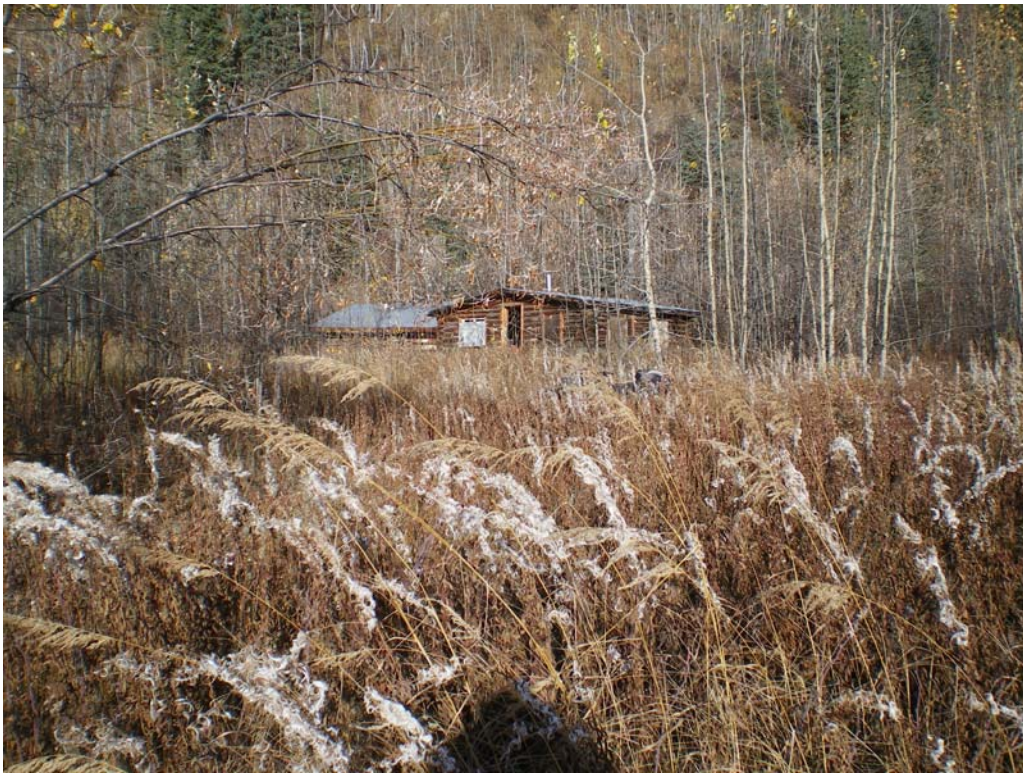


Figure A4. Wilting fireweed in clearing. Cabins in background.



Figure A5. Raised cabin at former village site. This is the only cabin that has not been moved by flood waters. (Photo courtesy of Janelle Dayton, 4/2007)



Figure A6. Beneath cabin on hill; this is the only cabin that was not moved by flooding.



Figure A7. Beneath cabin that has been moved (for comparison with previous figure).

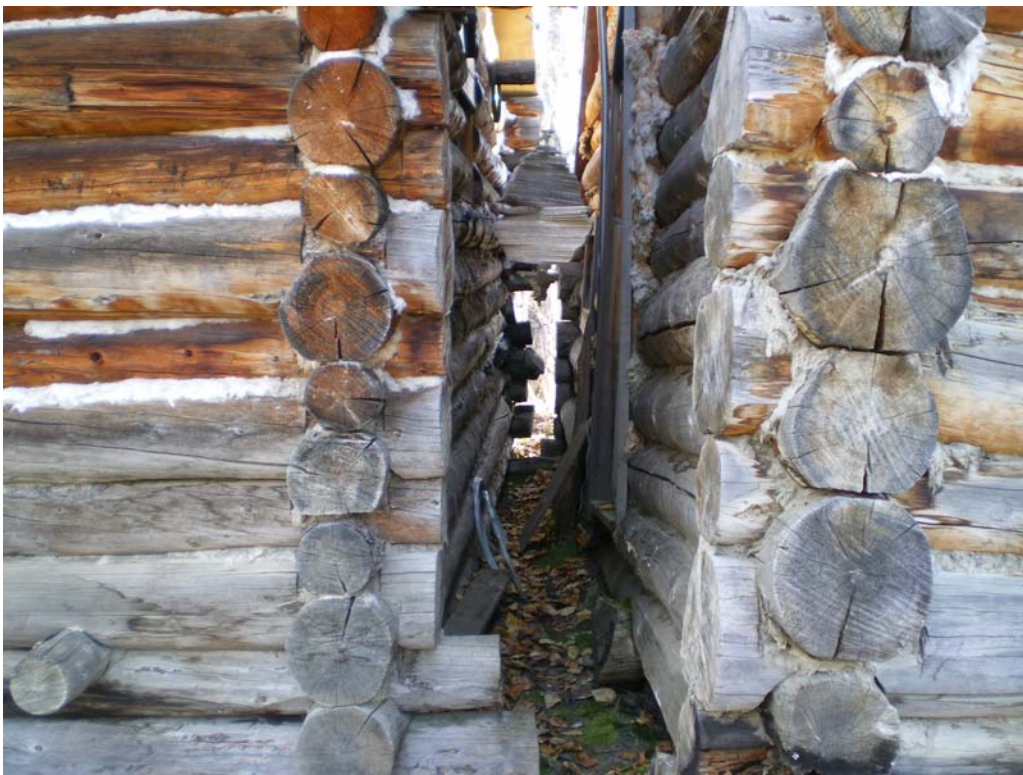


Figure A8. Example of cabin movement cause by flood.



Figure A9. Flood-level marked by faded coloration on cabin at former village site.



Figure A10. Sheet metal. One of several piles at site.



Figure A11. Various sized drums and other debris.



Figure A12. Another 55-gallon drum.



Figure A13. Partially-buried electric cable.



Figure A14. Electrical cables.



Figure 15 Wood stove.



Figure A16. Kitchen stove and oven.



Figure 17. Monitor in cabin at former village site. This was the only cabin at the site with an oil-fueled heating system.



Figure 18. Monitor exhaust outlet from cabin at former village site.



Figure 19 Transformer near southern edge of former village site.



Figure A20. Second transformer, located in central area of former village site.



Figure A21. Close-up of second transformer.



Figure 22. Pieces broken off of tranformer.



Figure 23. Rectangular tank identified as a fuel tank and possibly containing diesel.



Figure 24. Fuel tank potentially containing diesel (Photo courtesy of Janelle Dayton, 4/2007)



Figure 25. Refrigerator found inside shed.



Figure 26. Two buckets and battery being hauled offsite.

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APPENDIX B

Field Notes

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"Outdoor writing products for outdoor writing people."

8:00



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September 2007

⑨ J. Athern

9/24/07 14-119 - Alatna p. cloudy ~ 28F

0915 Arrived w/ Santa Hamilton in Allakaket.
Janelle Williams → (YRITWC) was also
on flight. → Alatna IGAP Env'l coordinator.

0945 Crossed Koyukuk R. to Alatna. SA (JA)
Eddie Begman was our driver.

1010 Arrived at tribal council office.
Waiting for community members to
arrive for site visit.

- Met Amelia Edwards, Tribal Counc. Admin.

- Janelle downloaded photos onto
a CD (photos that were faxed to DEC).

1100 Left for site visit (4-wheeler)

1125 Arrived to site. Amelia & Leonard
already on site. Walked around to vent

⑩ Took homes & other objects of
interest (+ transformers, fuel tank from
power plant/generator, spools of elec.
cable). Took several photos.

1300 Left site.

1310 Stopped at backhaul storage site.
Janelle asking Santa for backhaul
info (no pickup yet this season, try-
ing to arrange one before freeze-up).
This will be Alatna's 1st backhaul.

JA, 9/24/07 $\frac{1}{2}$

9/24/07

14-119 - Alatna

1315 Janelle mentioned waste/supplies left by ANTHC last year when they finished landfill. She does not know whether they plan to remove any of it.

1325 Visited ANTHC's waste/supply storage site. Several photos taken. Observed the following potentially haz. materials:

- 5-6 12-volt batteries
- 55-gal drum labeled 'diesel', full
- 55-gal drum labeled hydraulic oil, full
- 14 5-gal buckets labeled 'epoxy', full

1330 Left for Tribal office. Lunch.

1350 Began interviews - See legal pad for notes

1645 Ended interviews. Met w/ the following people:

1. Harding Sam
2. Amelia Edwards
3. Larry Edwards
4. Clara Sam
5. Eddie Bergman
6. Ron Sam

Spoke w/ Janelle re: landfill plan, finding sources, & map reference. She gave me copies of Solid waste workplan (FY08) and the 1995 village 'Comprehensive Plan' (to view, not keep).

1715 Looking through Comprehensive Plan.

JAhern 9/24/07 — 2/2

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APPENDIX C

Photographic Log of ANTHC Site

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Figure C1. Sonta Hamilton and Janelle Dayton stand in center of ANTHC site.



Figure C2. Large equipment.



Figure C3. Box of pipe fittings.



Figure C4. Miscellaneous waster and debris.



Figure C5. Two drums labeled as 'diesel.'

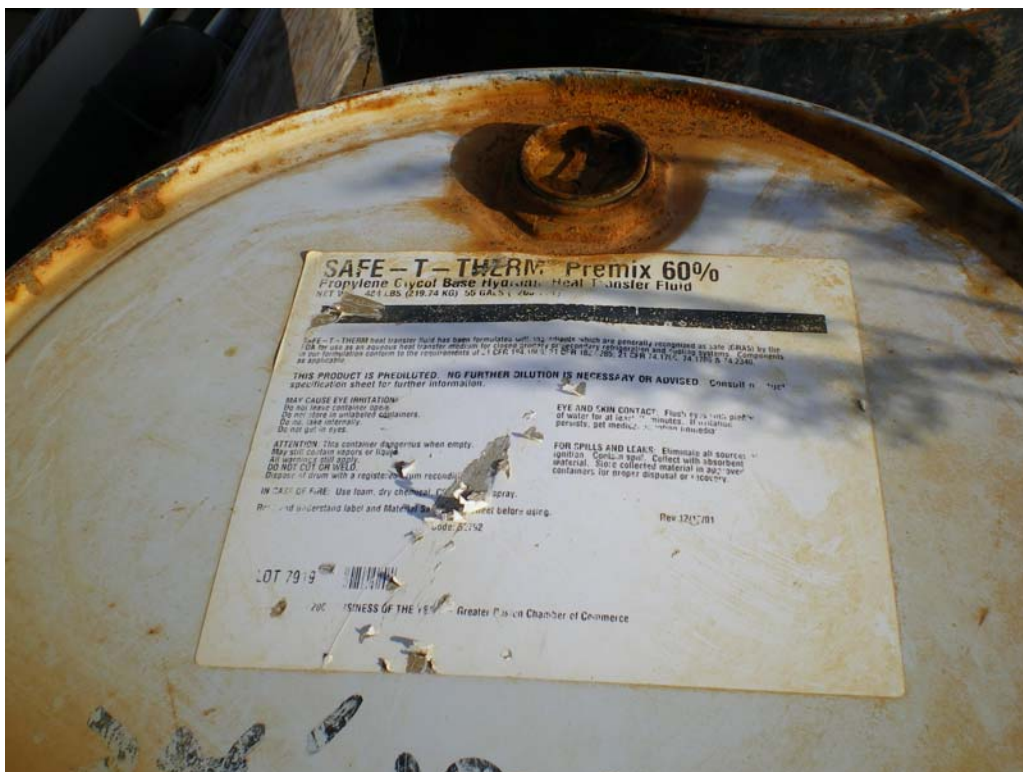


Figure C6. 55-gal drum labeled as propylene glycol.



Figure C7. 55-gal drum labeled as hydraulic fluid.



Figure C8. Buckets labeled as epoxy.



Figure C9. Bucket labeled as epoxy.



Figure C10. 12-volt batteries.

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