



PROPERTY ASSESSMENT AND CLEANUP PLAN

COPPER VALLEY SCHOOL TAZLINA, ALASKA



Submitted to: Department of Environmental Conservation Reuse and Redevelopment Program

> By: Oasis Environmental, Inc. May 19, 2010

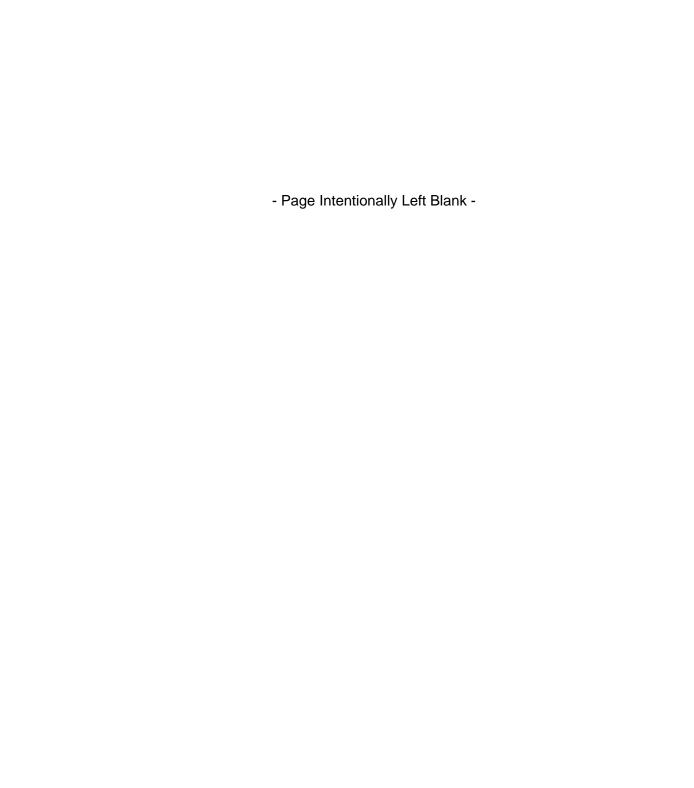


TABLE OF CONTENTS

AC	ACRONYMS AND ABBREVIATIONSv						
EX	ECUT	IVE SUMMARY	vii				
1.	INTRODUCTION						
	1.1.	Purpose					
	1.2.	Scope of Work					
	1.3.	Objectives					
	1.4.	Limitations	. 1				
2.	COMMUNITY OVERVIEW AND INFORMATION						
	2.1.	Community General Information					
		2.1.1. Location and Climate					
		2.1.2. History					
		2.1.3. Community Resources and Infrastructure					
	2.2.	Community Involvement					
		2.2.1. Community Concerns					
		2.2.2. Stakeholder Meeting Summary					
	0.0	2.2.3. Proposed Community Development and Land Reuse					
	2.3.	Interviews					
3.							
	3.1.	General Site Overview					
	3.2.	Geologic Setting					
		3.2.1. Site Soils					
		3.2.2. Site Groundwater					
	3.3.	Property Use					
	3.4.	Ownership Information					
	3.5.	Records Review					
		3.5.1. Tazlina River Trading Post					
		3.5.2. ADOT&PF Tazlina Maintenance Station					
4.		RECONNAISSANCE					
	4.1.	Methodology					
	4.2.	Observations					
		4.2.1. Asbestos Insulation					
		4.2.2. Paint Pallet Area					
		4.2.3. Crates of Powder					
		4.2.4. Dumpsites					
		4.2.5. Drums					
		4.2.6. Tanks					
		4.2.7. Artesian Wells	16 17				
		4.Z.O. OHUU DUIIUIHU	1/				

Eroding Dumpsite 25 Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29 Artesian Wells 29 al Remediation Strategies or Alternatives 29 Soil Management Strategies 29 Water Management Strategies 29 Available Resources 30 al Outline of Remedial Requirements 30 al Cost Estimate Information 32 Irce Leveraging Opportunities 32 ONS 35				
Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29 Artesian Wells 29 al Remediation Strategies or Alternatives 29 Soil Management Strategies 29 Water Management Strategies 29 Available Resources 30 al Outline of Remedial Requirements 30 al Cost Estimate Information 32				
Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29 Artesian Wells 29 al Remediation Strategies or Alternatives 29 Soil Management Strategies 29 Water Management Strategies 29 Available Resources 30 al Outline of Remedial Requirements 30 al Cost Estimate Information 32				
Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29 Artesian Wells 29 al Remediation Strategies or Alternatives 29 Soil Management Strategies 29 Water Management Strategies 29 Available Resources 30 al Outline of Remedial Requirements 30				
Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29 Artesian Wells 29 al Remediation Strategies or Alternatives 29 Soil Management Strategies 29 Water Management Strategies 29 Available Resources 30				
Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29 Artesian Wells 29 al Remediation Strategies or Alternatives 29 Soil Management Strategies 29 Water Management Strategies 29				
Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29 Artesian Wells 29 al Remediation Strategies or Alternatives 29 Soil Management Strategies 29				
Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29 Artesian Wells 29 al Remediation Strategies or Alternatives 29				
Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29 Artesian Wells 29				
Aboveground Dumpsites 26 Asbestos-Containing Material 27 Paint Pallet Area 27 Crates of Powder 27 UST 28 Shop Building 28 Lead-Based Paint 28 Sewer System/Leach Field 29				
Aboveground Dumpsites				
Freding Dumpsite 25				
inchaca Remedia Adions by Odurce Area				
nmended Remedial Actions by Source Area				
al Overall Environmental Actions				
RECOMMENDED ACTIONS/OPINION2				
al Environmental Overview23				
Non-Regulated Cleanup Criteria				
Other Regulated Cleanup Criteria22				
Soil/Water Regulatory Cleanup Requirements22				
up Criteria22				
CSM Summary21				
Exposure Pathways Determination				
Potential Contaminants of Concern21				
ptual Site Model21				
or Perceived Data Gaps20				
ial Source Areas19				
ANTHC Hydrologic Survey19				
USACE Erosion Assessment				
EMI Asbestos Assessment				
cal Environmental Review19				
ENVIRONMENTAL REVIEW AND SUMMARY OF FINDINGS1				
Other				
NVIRONM 1. Histori 5.1.1. 5.1.2. 5.1.3. 2. Potent 3. Knowr 4. Conce 5.4.1. 5.4.2. 5.4.3. 5. Cleant 5.5.1. 5.5.2. 5.5.3. 6. Gener 1. Gener				

TABLES (in text)

- 1: Inventory of Groundwater Wells
- 2: Inventory of Dumpsite Drums
- 3: Potential Remedial Actions by Source Area
- 4: Estimated Costs for Characterization and Remedial Actions

FIGURES

- 1: Vicinity Map
- 2: Project Location Map
- 3: Historical Site Layout, Aerial Photo Date: October 2, 1962
- 4: Historical Site Layout, Aerial Photo Date: June 4, 1977
- 5: Historical Site Layout, Aerial Photo Date: June 4, 1982
- 6: Historical Site Layout, Aerial Photo Date: June 11, 1995
- 7: Project Site Feature Layout

APPENDICES

- A: Native Village of Tazlina DEC Brownfields Assessment Request
- B: Stakeholder Meeting Minutes
- C: EDR Report
- D: Field Notes
- E: Photographic Log
- F: GoogleEarth Map and Photolink
- G: Conceptual Site Model
- H: Cost Estimate Tables

ACRONYMS AND ABBREVIATIONS

AAC..... Alaska Administrative Code ACM Asbestos-containing materials ANTHC...... Alaska Native Tribal Health Consortium ADOT&PF Alaska Department of Public Transportation and Public Facilities BTEX..... Benzene, toluene, ethylbenzene, and xylenes CERCLA....... Comprehensive Environmental Response, Compensation, & Liability Act CORRACTS.. Corrective Action Detail Report DEC...... Alaska Department of Environmental Conservation DNR Department of Natural Resources DRO Diesel-range organics EPA..... Environmental Protection Agency °F Degrees Fahrenheit GRO...... Gasoline-range organics IGAP..... Indian General Assistance Program mg/kg Milligrams per kilogram mg/L Milligrams per liter NPL National Priorities List OASIS OASIS Environmental, Inc. PACP Property assessment and cleanup plan RACM...... Regulated asbestos-containing materials RCRA...... Resource, Conservation, and Recovery Act TCLP...... Toxicity Characteristic and Leaching Procedure TRI Toxic Release Inventory USACE...... U.S. Army Corps of Engineers USGS...... U.S. Geological Services UST..... Underground storage tank

WELTS...... Well Log Tracking System

EXECUTIVE SUMMARY

OASIS Environmental Inc. (OASIS) performed a property assessment at the Copper Valley School site in Tazlina, Alaska on behalf of the Alaska Department of Environmental Conservation (DEC) in September 2009. The overall project objective was to prepare a property assessment and cleanup plan (PACP) to provide a basis for the landowner to develop definitive plans for site management and reuse. As part of the property assessment, OASIS performed a records review of available information sources, reviewed historical aerial photographs, and conducted a site visit and interviews with knowledgeable personnel.

Based on the information collected during the property assessment, OASIS identified nine potential sources areas. There is currently limited data to characterize the site and sources, but a high potential for contamination at this site. Additional characterization should be performed to more completely understand the potential environmental impacts at this site. Due to easy and uncontrolled access to the site by the community, the presence of potentially hazardous materials, and the degree and extent of contamination not fully identified, there is a significant risk of exposure to human health and the environment. All exposure pathways at the Copper Valley School site are considered complete or potentially complete at this time until further characterization determines otherwise.

Estimated costs have been developed for recommended characterization, remediation, and cleanup activities at the site. These estimated costs can be used as a guide for the community to plan how long-term goals for reuse of the property may be accomplished. Means of consolidating resources are proposed to achieve savings for the cost of the entire project.

1. INTRODUCTION

1.1. Purpose

Under Notice-to-Proceed (NTP) 18-4002-11-002, the Alaska Department of Environmental Conservation (DEC) tasked OASIS Environmental, Inc. (OASIS) with the completion of a property assessment and cleanup plan (PACP) at the Copper Valley School site (hereafter, "the site") in Tazlina, Alaska. This PACP describes the activities performed during the site assessment and provides recommendations for the future beneficial reuse of the site. Figure 1 shows the site vicinity, and Figure 2 shows the project site.

1.2. Scope of Work

The project's scope of work included researching environmental databases and historical aerial photographs, interviewing community members familiar with the site, and performing a limited site assessment to evaluate potential hazards and environmental conditions. Upon completion of the records review and site assessment, available analytical data were compared against appropriate regulatory criteria, and a potential cleanup plan was developed to allow future reuse of the site in alignment with landowner goals.

1.3. Objectives

The overall project objective was to prepare a PACP to provide a basis for the landowner to develop definitive plans for site management and reuse. As part of DEC's Brownfield Program, specific objectives included the following:

- Determining whether an environmental hindrance exists at the site
- Identifying the nature and extent of contamination and its potential impact on the reuse of the property
- Proposing recommendations for additional assessment, if necessary
- Identifying cleanup options and providing an estimate of cleanup costs for the site

1.4. Limitations

Any opinions and/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.

The site investigation activities were conducted in accordance with the American Society of Testing Materials (ASTM) guidelines E 1527-05 for site assessments with generally accepted practices and procedures. The professional judgment of OASIS to assess the potential for contamination is based on limited data; no other warranty is given or implied by this report.

Estimated costs for additional characterization and cleanup were based on limited data regarding site conditions. Costs are approximations and are intended to be average expected amounts for activities. Actual costs may be more or less and will be dependent on actual conditions at the time activities are performed.

5/19/2010

2. COMMUNITY OVERVIEW AND INFORMATION

2.1. Community General Information

2.1.1. Location and Climate

According to the Alaska Division of Community and Regional Affairs (DCRA), Community Information Summary, Tazlina is located 5 miles south of Glennallen, at mile 110.5 on the Richardson Highway. It is comprised of several small residential subdivisions and a business district. The community lies at approximately 62.050790° north latitude and 145.435880° west longitude in Section 21, Township 003N, Range 001W, Copper River Meridian. Tazlina is located in the continental climate zone, with long, cold winters, and relatively warm summers. Temperature extremes range from -74 degrees Fahrenheit (°F) to 96°F. Snowfall averages 39 inches, and total annual precipitation is 9 inches.

2.1.2. History

The area around Tazlina reportedly was a fishing camp of the Ahtna Indian tribes who historically moved up and down the Copper River and its tributaries. Tazlina is Athabascan for "swift water." By 1900 a permanent village had been established on the north and south banks of the Tazlina River near its confluence with the Copper River. The community of Tazlina developed around the old Copper Valley School, built by the Catholic Church in 1954 to board students from all over the state. The school closed in 1971, when local high schools were constructed in the remote areas of the state and boarding schools were discontinued (DCRA Community Information Summaries).

2.1.3. Community Resources and Infrastructure

Occupied homes are fully plumbed. The majority of residents have individual wells and septic systems. Others haul well water from the Copper Center Safewater well or have water delivered by truck from Glennallen. Refuse is collected by Copper Basin Sanitation from Glennallen. Electricity is provided by Copper Valley Electric Association. There are no state-operated schools located in the community. Local hospitals or health clinics include Copper Center Health Clinic in Copper Center and Cross Road Medical Center in Glennallen. Emergency service is provided by volunteers.

Many residents depend on subsistence fishing and hunting. Local businesses include a combined grocery, liquor, hardware, gas, and sporting goods store; a wholesale bread distributor; a freight service; and an RV park. Nearby government operations include the Prince William Sound Community College, Division of Forestry, State Highway Maintenance Station, Division of State Parks, and Division of Communications. There is a state-owned, 900-feet-long by 42-feet-wide gravel airstrip and a seaplane facility at Smokey Lake (DCRA Community Information Summaries).

2.2. Community Involvement

2.2.1. Community Concerns

Residential housing exists near the site, and it is easily accessible by the community. Children sometimes use the site as a play area, although the location is presumed to be potentially hazardous. The site is also potentially physically dangerous, due to the presence of building debris from a fire in 1976 and the dilapidated conditions of the structures that survived the fire. The community is concerned that uncontrolled access to the site may lead to the possibility of acute or chronic illness/injury without an understanding of potential environmental contaminants and hazards. The community has identified the following potential environmental concerns at the site:

- Asbestos-like substances
- Lead-based paint
- Pallets of unknown substances
- Underground storage tanks (USTs)
- Buried dumpsites (one discovered through river erosion, exposing lead batteries, paint containers, and pipes)
- An uncapped artesian well
- Presumed septic and waste systems
- The location of the property within a flood plain
- Potential contaminants leaching or eroding into the Copper and Tazlina Rivers

The Native Village of Tazlina applied for and was awarded a DEC Brownfield Assessment of the Copper Valley School site. The DEC Brownfields Assessment request completed by the Native Village of Tazlina is attached in Appendix A.

2.2.2. Stakeholder Meeting Summary

A stakeholder meeting was held via teleconference on September 2, 2009. In attendance were representatives from the DEC, the Native Village of Tazlina, the Copper Valley School Association, and OASIS. During the teleconference, the Tazlina residents described their concerns regarding the property and potential plans for the beneficial reuse of the site in the future. Stakeholder meeting minutes are included in Appendix B.

2.2.3. Proposed Community Development and Land Reuse

The Copper Valley School Association has a non-profit building committee to manage and plan for the reuse of the property. The school association hopes to finalize a long-term strategic plan for the property in the near future. The Catholic Church (Diocese of Anchorage), the school association, and the community all envision using the site for cultural and/or educational purposes that create opportunities for the future Native leaders of Alaska, much as the original school did. The goal would be to strengthen the experience and understanding of the cultural traditions of the Native people.

Oasis ENVIRONMENTAL 4 5/19/2010

The Brownfield program is intended to identify, assess, and revitalize properties, but the funding is limited to assessment only. Other avenues of funding for further assessment or site cleanup would come from other sources.

2.3. Interviews

Persons having specific knowledge about the former school site were interviewed during the course of the onsite visit – specifically while conducting an initial site walk on September 19 and 21, 2009. Observations and recollections were interactively discussed by the group at the facility locations where pertinent activities took place. Those individuals interviewed during the site walk are as follows:

- Christopher Wright, Native Village of Tazlina
- Heidi Veach, Native Village of Tazlina IGAP Environmental Coordinator
- Elmer Marshall
- Johnny Goodlataw, Native Village of Tazlina Council President
- Steve Henderson, former student
- Arnold Lincoln, former student and CVA Board Member

Information gathered during the course of the site visit is included within the applicable section of this report.

5/19/2010

3. PROPERTY OVERVIEW

3.1. General Site Overview

The former Copper Valley School is situated on approximatly 30 acres where the Copper and Tazlina rivers meet. The legal description of the site is: Copper River Meridian, Alaska, T3N, R1W, Sec 10, Lots 6 & 7, NW1/4SW1/4, S1/2SW1/4, Sec 15, Lots 2,3,4,7 & 8, N1/2NW1/4, SE1/4NW1/4. The site is accessible by road and can be accessed at Mile 111 Richardson Highway. The school site is located about 0.5 miles from the Richardson Highway.

3.2. Geologic Setting

3.2.1. Site Soils

The Copper Valley School site has Klutina-type soils, which are nearly level to gently sloping, rarely to occasionally flooded, and very deep and well drained. The surface is covered with a mat of partially decomposed organic material. The mineral surface is typically very fine sandy loam about 3 inches thick. The upper part of the substratum is stratified very fine sandy loam, fine sand, and sand 12 to 29 inches thick. The lower part of the substratum is very gravelly sand.

3.2.2. Site Groundwater

Based on topography, groundwater presumably flows south to the Tazlina River. Three groundwater wells are documented to exist on the site (EDR Geocheck) and are summarized as follows:

Well **Date Installed** Depth Comments Description Free flowing, approximately Artesian Well 1953 Unknown 1.25 -1.5 gpm Assumed to be second Open Well <1955 15-30 feet artesian well, apparently intermittently flowing. Well 1960 40 feet Depth to GW = 10'

TABLE 1. INVENTORY OF GROUNDWATER WELLS

The presence of three wells on the site appears to be supported by an unreferenced table of "Subsurface Resources" listing wells throughout the general area. The table lists four wells for the Copper Valley School, however one well (having a depth of 82 feet) is situated on the Copper Center Elementary School site. In the table, it was also noted that 3 wells had been found on the subject property site. No well logs could be located for the listed wells.

3.3. Property Use

The land traditionally belonged to the Ahtna people and was a transit point to their many subsistence fishing activities in the area where two major rivers converge. Local Native residents still traverse the land to access the rivers for subsistence activities.

A patent was granted in 1956 for the property to be used as a Catholic Mission School. Construction of the school began in 1954, and it began receiving students in 1956. The boarding school was open for 15 years until it closed in 1971 due to financial constraints associated with the operation of the school. A fire destroyed the main buildings in 1976, and the ruins still exist at the property. Other buildings not destroyed by the 1976 fire still remain at the site and have fallen into disrepair. Figures 3, 4, 5, and 6 present historical aerial photographs of the property from 1967, 1977, 1982, and 1995, respectively.

Since 1990, the alumni of the Copper Valley School have held an annual reunion every August at the site.

3.4. Ownership Information

The Catholic Church, Diocese of Anchorage, purchased the land from the Bureau of Land Management in 1953. The property was auctioned to developers in August 1974, however, according to the Diocese the transaction was never completed for lack of payment and thus they have retained ownership to date. The Copper Valley School Association, a group of alumni who attended the school, will soon be in charge of managing the property for the Catholic Church, although it is not known when this relationship will take effect.

3.5. Records Review

A review of the available environmental records identified two sites in the databases near the Copper Valley School: the Tazlina River Trading Post and the Alaska Department of Public Transportation and Public Facilities (ADOT&PF) Tazlina Maintenance Station.

An EDR® Standard Report listed no other files related to this site in its search of the following databases: DEC Contaminated Sites and Leaking Underground Storage Tanks Database, the DEC Statewide Oil and Hazardous Substance Spills Database, the DEC UST Storage Tanks Database, the Alaska Department of Natural Resources (DNR) Well Log Tracking System (WELTS) database, the Environmental Protection Agency (EPA) National Priority List (NPL); EPA Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS) list; EPA Resource, Conservation, and Recovery Act (RCRA) Corrective Action Detail Report (CORRACTS) list; EPA RCRA non-CORRACTS Treatment, Storage, and Disposal Facilities list; the National Response Center database; the EPA Envirofacts/Enviromapper database; the EPA Toxic Release Inventory (TRI) sites database; United States Geological Service (USGS) Surface Water Resources; and the Alaska State List of Landfills and Solid Waste Facilities.

The EDR report is contained in Appendix C.

3.5.1. Tazlina River Trading Post

The Tazlina River Trading Post (DEC File Number 2260.26.002) is located at Mile 111.2 of the Richardson Highway in Tazlina, approximately 1.12 miles northwest (and on the same side of the Tazlina River) from the subject site. Three USTs consisting of one 2,000-gallon and two 1,000-gallon gasoline tanks were removed from this site in June 1993. Gasoline and benzene soil contaminants exceeding Method Two cleanup standards were encountered around pipe connections along the piping that runs from the tanks to the dispensing island. Analytical results for soil samples indicated that the contamination had migrated both vertically and laterally as a result of loose pipe fittings. Approximately 1,200 cubic yards of gasoline-contaminated soil was excavated during closure activities for the three tanks. The excavated contaminated soil was placed in a passive ventilation treatment cell at the rear of the property. The DEC approved closure complete for this site in 2007.

3.5.2. ADOT&PF Tazlina Maintenance Station

The ADOT&PF Tazlina Maintenance Station (DEC File Number 2260.26.001) is located at Mile 110 of the Richardson Highway, approximately ¾ miles southwest (and across the Tazlina River) from the school site. One 8,000-gallon diesel UST and one 8,000-gallon gasoline UST were removed in 1993. Approximately 2,000 cubic yards of contaminated soil was removed from the excavation, which extended to a depth of 25 feet below the diesel UST and 32 feet below the gasoline UST. Samples at the base of the excavation contained benzene at 40 milligrams per kilogram (mg/kg) to 120 mg/kg; diesel-range organics (DRO) from 63 mg/kg to 960 mg/kg; and gasoline-range organics (GRO) from 3,100 mg/kg to 7,500 mg/kg.

A 2,000-gallon used oil UST was removed in 1997, and approximately 10 cubic yards of contaminated soil from the excavation was stockpiled on-site. Benzene levels at the base of the excavation measured 0.047 mg/kg. The on-site drinking water well did not contain benzene, toluene, ethylbenzene, or xylenes (BTEX) above laboratory practical quantation limits.

A release investigation performed in 2005 showed that contaminated soil remains beneath the former tanks. The area of highest contamination is approximately 35 to 38 feet below ground surface, with a DRO concentration of 1,180 mg/kg, a benzene concentration of 7.21 mg/kg, a toluene concentration of 51.8 mg/kg, and an ethylbenzene concentration of 11.6 mg/kg. This residual contamination is more than 100 feet above the water table, is underlain by clay and frozen silt soils, and is buried under 35 feet of clean soil. The DEC determined that the residual contamination remaining in the ground does not pose a risk and will naturally attenuate over time. In 2005, the DEC determined cleanup complete with institutional controls for this site.

The ADOT&PF Tazlina Maintenance Station is located on the opposite side of the Tazlina River from the Copper Valley School site, so it is unlikely to influence environmental conditions at the school site.

4. SITE RECONNAISSANCE

4.1. Methodology

OASIS performed a site reconnaissance at the Copper Valley School site on September 19 and September 21, 2009. On September 19, OASIS inspected the site accompanied by Steve Henderson, a former student who is familiar with the property. On September 21, OASIS met with Native Village of Tazlina employees and several other community members who identified potential environmental concerns throughout the property, including asbestos-like substances in certain buildings, pallets of paint and unknown powder, a UST, buried dumpsites (some eroding into the Tazlina River), and a continually flowing artesian well.

Field notes and photographs were taken to document observations of historical and existing site conditions. OASIS also collected GPS coordinates for features of interest. Field notes are included in Appendix D, and a photographic log is included in Appendix E. Photographs and GPS coordinates taken during the site visit were combined in a *.kmz GoogleEarth file, which is presented in Appendix F. No samples were collected during the site reconnaissance.

4.2. Observations

Features of interest observed during the site visit include the following: potential asbestos insulation, pallets of paint and unknown powder, buried and aboveground dumpsites, discarded lead batteries in the dumpsites, refrigerators/freezers, abandoned drums (some containing liquid), a UST, and two artesian wells. Figure 7 shows the locations of these features. The following subsections detail each feature. Photographs shown within the text below are also provided, at a larger scale, within Appendix E.

4.2.1. Asbestos Insulation

A 1989 asbestos assessment documented the presence of asbestos insulation in the boiler room (Environmental Management Inc. 1989). During the site visit, OASIS observed potential asbestos-containing insulation in the boiler room, likely the same

insulation noted in the 1989 asbestos assessment, which is open and exposed to the elements. The bulk of the insulation potentially containing asbestos remains on the boilers, although there are small scraps of insulation spread throughout the room. The boiler room is open and exposed to the elements, but the insulation appeared to be largely contained within the boiler room and not scattered outside the building area (see Photographs 1 and 2, Appendix E).





The former kitchen wing contained some suspect material that contained fibers and could potentially be asbestos insulation. No samples were collected to determine if the material



contained asbestos. The amount of debris in the kitchen wing made it difficult and unsafe to fully inspect the kitchen area (see Photographs 3 and 4, Appendix E).

4.2.2. Paint Pallet Area

Approximately 600 feet northeast of the main school building, three pallets were observed with containers of unknown contents. The containers most likely contain paint based on professional judgment. The cans have been exposed to the elements for some



time, as most are rusted and split open with the contents exposed. None of the cans had markings to indicate what the contents may have been. The westernmost pallet had approximately 150–200 cans

with hardened, flaky white or black material. The center pallet contained about 150 cans with hardened, flaky



white material. The easternmost pallet had approximately 30–40 cans, some empty, and some containing hardened, waxy material that was white and smelled faintly solvent-like.

Between the western and center pallets, approximately 30 buckets were scattered on the ground. Several were rusted and/or split open with exposed contents, but the



majority was intact. Hardened gray or black material was observed in the buckets that were open. The buckets may be surplus materials from the Army, since some containers had markings that read "Ladd Field," and former students recalled that the school routinely received military surplus supplies and materials. Photographs 5–9 in Appendix E show the cans and buckets in this area.

4.2.3. Crates of Powder



Approximately 1,000 feet north of the main school building area is a pile of stacked crates measuring approximately 20 feet long by 8 feet wide by 8 feet high. There are approximately 300–400 crates present. Some crates near the outer edges of the pile have fallen and broken open. The open crates contain a hardened white

powder. Photographs 10 and 11 in Appendix

E show the crate pile and contents. Markings visible on some of the crates read "FROM SEATTLE ENG'R WHSE." Some local community members have heard anecdotally that the crates might contain gypsum. It is not known how the gypsum was intended to be used.



4.2.4. Dumpsites

4.2.4.1. Former Dumpsite

According to two former students, refuse was dumped on the ground directly south of the school area on the bank of the Tazlina River when the school was in operation. OASIS inspected the area indicated by the former students. No debris or evidence of debris was observed in this area.

4.2.4.2. Eroding Dumpsite

Community members identified a buried dumpsite along the Tazlina River where debris was eroding from the riverbank. Waste was visible for a length of approximately 30–40 feet along the bank. It is unknown how far the debris extends from the river inwards. The



material consisted mostly of metal debris, such as pipes, metal cans, bedsprings, and other assorted debris. Christopher Wright of the Native Village of Tazlina mentioned that batteries have been previously observed at this dumpsite eroding into the river, although no batteries were visible during the site visit. Community members indicated that the river level was high at the time of the inspection, which may have hindered additional

observations of the dumpsite. Photographs 12 and 13 in Appendix E show the eroding dumpsite.

4.2.4.3. Aboveground Dumpsites

Several aboveground dumpsite areas of considerable size were observed throughout

the property. One area is approximately 1,000 feet southeast of the school near the river ("Dumpsite 1"); one is approximately 650 feet east-southeast of the school in the woods ("Dumpsite 2"); and one is east-northeast of the school near the shop ("Dumpsite 3"). A smaller dumpsite was observed approximately 700 feet in the woods south-southeast of the school. Debris in the dumpsites appeared to be both historical waste from when the



school was in operation and recent debris that has been brought in since the school closed (see Photographs 14–16, Appendix E). Many miscellaneous items were present in the dumpsites, including but not limited to the following:

- Appliances and furniture from the school: industrial-sized washers and dryers, small boilers and hot water heaters, lockers
- Household appliances and furniture: 20–30 refrigerators and/or freezers, stoves, couches, mattresses
- Abandoned vehicles (about 20) and vehicle parts
- Tires
- Automotive batteries (about 10)
- Empty paint cans
- 5-gallon drums (closed top) and 5-gallon buckets, some containing small quantities of liquid (discussed in further detail in the next section)
- Closed-top, 55-gallon drums that seemed empty
- Open-top, 55-gallon drums that appear to have been burn barrels
- Wood scraps, such as OSB and pallets
- Residential-type trash: steel food and soda cans, water bottles, and other kitchen waste

Mr. Christopher Wright mentioned that the Native Village of Tazlina had a grant to remove and dispose of abandoned refrigerators and freezers in the Tazlina area. Mr. Wright reported that a number of refrigerators and freezers had been removed from the site prior to the site visit, although some were left on-site, because the landfill would not accept the overly dirty ones. During the site walk, more refrigerators and freezers were observed that the Native Village of Tazlina had been unaware of, and Mr. Wright said the newly discovered ones would be removed using the village's grant. Ms. Heidi Veach of the Native Village of Tazlina was contacted in December, and she indicated that nine additional refrigerators and freezers were removed after the site visit.

4.2.5. Drums

In the dumpsite east-northeast of the school ("Dumpsite 3"), 11 5-gallon drums and



buckets were observed, some containing small amounts of liquid (see Photograph 17, Appendix E). Three of the drums were labeled as having contained turpentine. One drum was marked as previously containing a floor emulsion product. Another drum read "RPM Delo," which probably refers to a diesel engine lubricating oil product. The rest of the drums either had no labels, or the former contents were not able to be discerned based on the

markings present. A faint chemical odor was detected near the 5-gallon drums and buckets. Table 2 provides a general summary of drums observed in the various dumpsites around the propertery.

Location Name	Location Description	Number of Drums	Comments
"Dumpsite 1"	1,000 feet SE of school	6	Open-top and empty; appear to have been used as burn barrels.
"Dumpsite 2"	650 feet E-SE of school	6	Empty barrels
"Dumpsite 3"	500 feet E-NE of School	11	5-gallon "drums", some with liquid, 3 labeled as turpentine, one labeled "Columbia snug emulsion, floor, one lableled "RPM Delo"
		6	Closed top, empty 55 gallon drums

TABLE 2. INVENTORY OF DUMPSITE DRUMS

4.2.6. Tanks

Several tanks were observed on the property. Fill and vent pipes of an UST were



observed south of the former boiler room (see Photograph 18, Appendix E). It is unknown what the contents of the UST were and if any liquid remains in the tank. The size of the UST also is unknown; however, the tank is likely small, as the fill and vent pipes were approximately 3 feet apart. No stressed vegetation or staining was observed on the ground surface.

An aboveground tank with a length of approximately 33 feet and a diameter of

approximately 6.5 feet was noted in the boiler room (Photograph 19, Appendix E). It is unknown for certain what the tank may have contained, but a community member who worked in the boiler room when the school was in operation thought the tank contained water. The tank appeared empty at the time of the inspection, and no evidence of leaks was observed.



North of the school is a dilapidated structure containing a large tank in a cellar with

cinderblock walls. The tank is approximately 40–50 feet long and has a diameter of about 10–12 feet. According to former students, the structure was a well house, and the large tank served as a water holding tank. The well house and tank are shown in Appendix E, Photographs 20 and 21.





A tank was observed in the woods northeast of the shop building (Photograph 22, Appendix E). It appeared to have once been standing upright, but is now fallen over. A former student thought the tank container water. No leaks or staining was observed in the vicinity of the tank.

4.2.7. Artesian Wells

An artesian well is located near the school, south of the boiler room. The well is continually flowing, with a flow rate of approximately 1.25-1.50 gallons per minute. The well casing has a diameter of approximately 6-8 inches. Standing water and iron staining were observed in the vicinity of the artesian well, extending approximately 100 feet southeast of the well. (See Photographs 23 and 24 in Appendix E).





A second uncapped well casing was observed just north of the school. A storage tank is situated next to the well but appears to be disconnected. Moisture and corrosion around the well casing suggest the well may also be artesian, but it was not flowing at the time of the site visit.

4.2.8. Shop Building

The shop building is a two-story structure located approximately 300 feet northeast of the school. The main floor of the building appears to be used for habitation with



numerous mattresses and couches, a woodburning stove and bags of trash. Observations of the second floor of



the building could not be made because it was unsafe to access.

Evidence of the building's former use as a maintenance shop was not apparent. It is unknown if there is a floor drain for the collection of fluids from maintenance activities. Community concern about possible asbestos in the shop was not confirmed – fiberglass insulation was observed on interior walls.



4.2.9. Other

An approximately 8-inch diameter corrugated steel culvert was observed protruding from the river bank south of the school, about 2-3 feet below the ground level. The culvert is assumed to be associated with a stormwater drainage system. It is unknown if stormwater still flows out this pipe. Water was not observed draining from the pipe, and there was no evidence that drainage had recently occurred.

5. ENVIRONMENTAL REVIEW AND SUMMARY OF FINDINGS

5.1. Historical Environmental Review

5.1.1. EMI Asbestos Assessment

An asbestos assessment was performed in 1989 (Environmental Management, Inc. 1989). A total of seven samples were collected from the shop, a log cabin near the shop (which no longer exists), the school boiler room, cases of decomposed gypsum board in a dumping area north of the school, and a pipe pile (no longer present) near the cases of gypsum. Two samples collected from insulation on pipes and equipment in the boiler room tested positive for asbestos, as did the sample collected from thermal pipe wrap in the pipe pile near the cases of gypsum. All other samples were negative for asbestos. No asbestos-containing materials (ACM) were visually observed in the ruins of the school, but the debris was not moved to check for asbestos. The report noted cases of insulation at the dumping area that had been tested by the Copper River Native Association with positive results for asbestos.

5.1.2. USACE Erosion Assessment

An erosion assessment of the Tazlina River was performed in 2008 by the U.S. Army Corps of Engineers (USACE). The assessment found that erosion associated with seasonal flooding and river channel migration is affecting several areas along the river, including the north riverbank where the property is located. Eroding dumpsites from the Copper Valley School property were observed during the assessment. There is concern that future erosion will adversely affect the road to the school.

5.1.3. ANTHC Hydrologic Survey

In 2008, the Alaska Native Tribal Health Consortium (ANTHC) performed an area-wide hydrologic survey in Tazlina as a baseline study for a community water and sewer master plan (G.V. Jones and Associates 2009). Samples were collected from Tazlina-area drinking water wells to ascertain water quality and determine suitable drinking water sources. The artesian well at the Copper Valley School site was one of the wells sampled during the study. A sample from the well was analyzed for metals, nitrate, colony count, and coliform. No analytes exceeded groundwater cleanup levels in Table C of 18 Alaska Administrative Code (AAC) 75.431; however, iron, manganese, and sodium exceeded the secondary drinking water criteria stipulated in 18 AAC 80.300.

5.2. Potential Source Areas

Based on existing data and conditions noted during the site visit, the following potential sources or source areas have been identified:

 Eroding dumpsites: one observed eroding into Tazlina River, as well as another eroding dumpsite noted in the 2008 erosion report (U.S. Army Corps of

Oasis ENVIRONMENTAL 19 5/19/2010

Engineers 2008). The area noted in the erosion report was inspected during the site visit, but the eroding dumpsite was not observed.

- Several aboveground dumpsites, with automotive batteries, refrigerators, freezers, and drums present. Other potentially hazardous material may be located in the dumpsites as well.
- Asbestos insulation in the boiler room. ACM also may be present in other areas
 of the building rubble.
- The area with pallets likely containing paint cans, and buckets with unknown contents near the pallets.
- Crates of unknown white powder.
- Boiler Room UST. (Note: This is the only UST known to exist at the site.
 Anecdotal accounts of a UST beneath the kitchen are unconfirmed.)
- Shop building: vehicle maintenance was performed there.
- Lead-based paint likely present in the school debris.
- Sewer and drainage system/leach field.

5.3. Known or Perceived Data Gaps

Data gaps were determined through review of existing literature, the site visit, and interviews with knowledgeable personnel. Sampling was not performed for this project. With the exception of the asbestos in the boiler room, the contaminants of concern and environmental impacts for each potential source area have not been fully defined or quantified.

The following data gaps have been identified:

- Distribution of waste and size of the eroding dumpsite that was observed during the site visit is still unknown.
- The U.S. Army Corps of Engineers erosion report noted an eroding dumpsite along the Tazlina River that was not observed during the site visit.
- Former students had no knowledge of the school's wastewater and drainage systems. A leachfield was not observed during the site visit.
- A potential stormwater drainage pipe was observed protruding from the Tazlina River bank, but it is unknown what it connects to and if water still flows out of it.
- Buried fuel tanks reportedly may be present in the kitchen wing of the school building. Due to the amount of rubble remaining, the kitchen could not be inspected.
- The community is concerned about asbestos insulation in the shop building. Insulation observed on the ground floor of the shop appeared to be fiberglass.
 The second floor of the building could not be accessed during the site visit due to safety concerns.
- The purpose of, and more importantly the composition of the white powder is unknown.

Oasis ENVIRONMENTAL 20 5/19/2010

- Asbestos in various locations.
- Possible petroleum hydrocarbon contamination in known and suspect tank locations.
- Potential impacts from miscellaneous drums throughout the site.
- Potential groundwater impacts.
- Extent of any soil contamination, including lead in soil around the structures.

5.4. Conceptual Site Model

A Human Health Conceptual Site Model (CSM) was completed for the Copper Valley School site by OASIS and is summarized below. The CSM form and associated graphic is included in Appendix G.

5.4.1. Potential Contaminants of Concern

Potential contaminants of concern at the site include:

- fuels (UST, shop building, dumpsites)
- volatile organic compounds (UST, shop building, dumpsites)
- polynuclear aromatic hydrocarbons (UST, shop building, dumpsites)
- Metals (dumpsites, paint pallets, (debris that may contain lead-based paint)
- Freon (dumpsites with discarded refrigerators and freezers)
- Asbestos (various site locations)

Further site characterization and field screening/analytical sampling may help determine additional contaminants of concern at the site, including potential contaminants associated with the dumpsites, paint pallets, unknown crates of powder, and 5-gallon drums with liquid.

5.4.2. Exposure Pathways Determination

All exposure pathways at the Copper Valley School site are considered complete or potentially complete at this time, until further characterization determines otherwise.

5.4.3. CSM Summary

Given the limitations of existing data, all exposure media and pathways are assumed to be complete at this time. Completed pathways do not imply that contamination exists, only that the mechanism for potential impacts to human health cannot be ruled out. A completed pathway indicates the possible combination of a contaminant source, a transport mechanism and a human receptor. With acquisition of site specific information, the CSM should be revised to more accurately depict site environmental risks.

Oasis ENVIRONMENTAL 21 5/19/2010

5/19/2010

5.5. Cleanup Criteria

5.5.1. Soil/Water Regulatory Cleanup Requirements

Soil contaminant concentrations must meet DEC cleanup criteria and may be evaluated using Method Two soil cleanup values for the Under 40 Inch Zone in Tables B1 and B2 of Title 18 of the Alaska Administrative Code, Chapter 75, Part 341 (18 AAC 75.341). Alternatively, soil cleanup levels could be developed under Method Three procedures described in (18 AAC 75). This method uses site specific soil and groundwater parameters to develop risk-based cleanup criteria without conducting an exhaustive risk assessment. Groundwater contaminant concentrations must meet DEC groundwater cleanup levels in Table C of 18 AAC 75.431 in order to be protective of potential use as drinking water. DEC's surface water quality criteria (18 AAC 70.020), including calculation of total aromatic hydrocarbons (total BTEX) and total aqueous hydrocarbons applies to surface water of the Tazlina River. Groundwater, which is presumed to be closely connected hydrologically to the adjacent surface water, also may not cause a violation of the surface water quality standards in 18 AAC 70.

5.5.2. Other Regulated Cleanup Criteria

ACM with more than 1% asbestos are federally regulated (40 CFR 61.141) and state regulated (18 AAC 60.450). Building demolition requires asbestos removal. Asbestos abatement should be conducted by a certified professional, and ACM must be properly disposed of at a landfill permitted for asbestos disposal, such as the Matanuska-Susitna Borough Central Landfill. Asbestos disposal options should be more fully explored once the waste volumes have been more accurately estimated and characterization has been conducted.

USTs with at least a 110-gallon capacity are regulated by the State of Alaska under 18 AAC 78. Septic tanks and heating oil tanks (used for onsite consumption) are excluded from regulation. The UST near the boiler room is apparently exempt, however, should site environmental actions uncover any regulated USTs onsite, the following closure requirements would apply:

- Filing notice with the DEC
- Hiring certified UST workers to perform work
- Hiring qualified people to perform sampling
- Notifying the DEC in the event spills or leaks are discovered
- Ensuring proper disposal of tank and materials
- Submitting post-closure notice to the DEC within 30 days of closure

5.5.3. Non-Regulated Cleanup Criteria

The facility may be regulated by 18 AAC 60.010(a) under (1) "a person may not store accumulated solid waste in a manner that causes a litter violation under 18 AAC 64.015; (2) the attraction or access of domestic animals, wildlife, or disease vectors; (3) a health

Oasis Environmental 22

hazard; or (4) polluted run-off water." Based on these criteria, various violations of 18 AAC 60 likely are occurring at the site.

The site may also be regulated by 18 AAC 60.010(h), because more than 50 tons of materials intended for either reuse, recycling, resource recovery, or disposal are stored at the facility and are "causing or contributing to a nuisance or poses a risk to public health, safety, welfare, or to the environment."

Additionally, 18 AAC 60.035 (vehicles and construction equipment) requires a person disposing of a vehicle or construction equipment to ensure that all batteries are removed, fluids are drained, the vehicle is not used to stabilize a slope, and it does not create a visual nuisance.

The waste also may be regulated by various other sections of 18 AAC 60:

- Section 20: Hazardous waste
- Section 225: Surface water requirements
- Section 450: Asbestos
- Section 490: Closure demonstration and post-closure care

Non-hazardous solid waste debris can be taken to the Glennallen Regional Landfill for disposal. Scrap metal can either be recycled or taken to the landfill. Hazardous material such as automotive batteries, refrigerators, freezers, and asbestos need to be separated from non-hazardous waste and handled and disposed of properly.

5.6. General Environmental Overview

There is limited data and a high potential for contamination at this site based on the nature of the potential source areas. Due to easy and uncontrolled access to the site by the community, the presence of potentially hazardous materials and the degree and extent of contamination not fully identified, there is a significant risk of exposure to human health and the environment. All exposure pathways at the Copper Valley School site are considered complete or potentially complete at this time until further characterization determines otherwise.

Oasis ENVIRONMENTAL 23 5/19/2010

6. RECOMMENDED ACTIONS/OPINION

6.1. General Overall Environmental Actions

In order to more completely understand the potential environmental impacts at this site, additional characterization needs to be performed. Unknown substances and materials must be identified so the correct remedial action can be taken. On-site hazard characterization should be utilized to characterize the unknown materials. Disposal of the unknown items will depend on the classification of the materials.

In areas where the potential contaminants of concern are known or can be reasonably ascertained, field screening or sampling should be performed to quantify the amount of contamination present.

Items potentially containing hazardous materials (automotive batteries, refrigerators, and freezers) should be removed from the site and transported to an appropriate disposal or recycling facility. Care must be taken when removing these items so as to avoid potential release.

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. Non-hazardous waste can be taken to the Glennallen landfill for disposal.

6.2. Recommended Remedial Actions by Source Area

6.2.1. Eroding Dumpsite

6.2.1.1. Site Characterization

Extensive site characterization, such as widespread lateral and vertical sampling of the site, is often impractical due to the high cost involved. Furthermore, extensive sampling cannot fully characterize the heterogeneity of former dumpsites. Therefore, site managers must operate under the assumption that the site is contaminated and treat it as a whole when planning remedial activities.

Site characterization will help estimate the dumpsite's volume to enable remediation planning and determine equipment needs and costs. Geophysical surveying is recommended to delineate the extent of the dumpsite, since this technology is non-intrusive. Alternatively, borings and/or trenches can be dug to delineate the volume of the dumpsite and also provide analytical data.

6.2.1.2. Remediation

Site stabilization and removal are the two main remediation options for eroding dumpsites; however, the continually vulnerable nature of eroding sites precludes stabilization from being a long-term solution. In the event of an emergency, such as an immediate threat or ongoing release of a hazardous substance, stabilization might be suitable as an interim remedy.

Oasis ENVIRONMENTAL 25 5/19/2010

Waste removal should only be performed if the contractor is prepared to retrieve and manage containers with unknown and possibly hazardous contents. Therefore, either training must be provided to local workers or a hazardous materials team must be brought on-site prior to beginning the removal.

The most practical and cost-effective methods should be selected for site removal. Ideal techniques are relatively low-risk, low-impact, and low-cost. Examples include manual labor, such as hand digging and use of maneuverable mini-utility vehicles for transporting waste. If site conditions render hand digging impractical, site managers should select the least destructive method possible.

Depending on the site conditions, erosion control measures may need to be taken following removal. Examples include the use of jute netting and seeding the bank with native vegetation.

Winter excavation might be preferable to summer for waste removal. Advantages include protecting native vegetation from the impact of heavy equipment, preventing the excavated area from being inundated by groundwater, and perhaps most importantly, reducing the risk of a release to the adjacent surface water. However, certain aspects of the removal can be more difficult during winter, such as waste identification and field screening of soil.

6.2.2. Aboveground Dumpsites

Potentially hazardous items such as lead-acid automotive batteries, refrigerators, and freezers are known to be present in some of the dumpsites and should be handled and disposed of separately from non-hazardous waste. Care must be taken when removing these items so as to avoid spillage, and then they should be transported to a suitable disposal or recycling facility. The Glennallen landfill accepts automotive batteries free of charge for recycling, and it also accepts refrigerators and freezers for a fee of \$80 per unit for Freon removal. Samples should be collected from beneath the batteries, refrigerators, and freezers to determine if contamination exists in the soil.

As noted in Table 2, approximately 29 drums were observed in some of the dumpsites. Though most drums appeared to be empty, some small drums were observed to have small amounts of liquid in them. These drums, as well as any other drums that are discovered to have unknown residual liquid or solid material remaining in them should undergo hazard characterization. Disposal will depend on the hazard classification. If the material is determined to be potentially hazardous, soil samples should be collected from beneath the drums to ensure no contamination remains after the drums are removed.

Once all potentially hazardous materials have been removed, cleanup of debris and non-hazardous waste can proceed. The aboveground dumpsites may require additional characterization if unknown and/or potentially hazardous materials are encountered during the site cleanup.

Oasis ENVIRONMENTAL 26 5/19/2010

6.2.3. Asbestos-Containing Material

An asbestos review was performed at the site in 1989 that identified asbestos insulation in the boiler room and in a dumping area north of the school. OASIS did not observe the reported ACM north of the school during the site visit. The 1989 asbestos review did not state if the asbestos was friable or non-friable, so it must be assumed that the material is friable. Handling of regulated asbestos-containing material (RACM) is controlled by OSHA while the disposal of RACM falls under the jurisdiction of the DEC.In general, the following special precautions should be adhered to:

- Removal must be performed by certified asbestos abatement professionals.
- The RACM must be wet to prevent fiber release.
- The RACM must be sealed in a leak-proof container and marked with the required labels.
- Disposal may only be at a landfill permitted to accept RACM (the landfills in Glennallen and Valdez do not accept asbestos waste; the nearest landfill permitted to accept asbestos is the Matanuska-Susitna Borough Landfill).
- A waste shipment record must be completed for each load and signed by both the transporter and the receiving party.

Since ACM at the site may not be fully delineated, materials should be inspected for potential ACM prior to demolition and cleanup. Any suspect material should be tested to determine whether or not asbestos is present and disposed of accordingly.

6.2.4. Paint Pallet Area

Contents in the paint cans and buckets north of the school need to be characterized to determine what is in the containers. A DEC-approved sample and analysis plan should be developed to fully characterize potential wastes at the site. A determination of the material will guide disposal as either non-hazardous or hazardous waste, and also whether or not the material is a potential source area. If the material is hazardous, samples should be collected from beneath the pallets and buckets to determine if contamination exists in the soil. Characterization of the material can be accomplished using on-site hazard characterization.

6.2.5. Crates of Powder

The unknown white powder in crates north of the school must be characterized. Characterization of the material can be accomplished using on-site hazard characterization and should be supported through a DEC-approved sample and analysis plan. The crates of powder will be disposed of as either non-hazardous or hazardous waste, depending on the material determination. If the material is hazardous, the crate pile is a potential source area, and samples should be collected from beneath the crates to establish if contamination exists in the soil.

Oasis ENVIRONMENTAL 27 5/19/2010

6.2.6. UST

If desired, the UST observed near the boiler room and artesian well can be further investigated to determine whether the tank is regulated by the DEC or exempt. Information such as tank capacity, content, and historical use would help determine the tank's regulatory status. However, it is recommended that the UST be closed during site cleanup even if the tank is exempt. Closure options for the UST are in-place abandonment or tank removal, with tank removal the preferred alternative. Closure of the UST will need to be performed in accordance with 18 AAC 78.

6.2.7. Shop Building

The shop building is a potential source area for hydrocarbon, solvent, and metal contamination. It is unknown how products were stored, handled, or disposed of while the shop was in use. No stained areas were noted by OASIS during the site visit, though debris in and around the building may have precluded observation. If stained soil is observed during site cleanup, soil samples should be collected from the stained areas. If stained soil is not observed during site cleanup, several soil samples should still be collected from representative areas near the shop building to document conditions around the building, since stained soil is not a sufficient indicator of potential contamination. Site characterization should be conducted through an ADEC-approved sample and analysis plan.

It is unknown if a drainage system existed in the shop. If a floor drain is present in the concrete slab, liquid waste may have been disposed of down the drain and into the school's sewer system. More information is needed on the shop drainage system. If present, samples should be collected to determine whether contamination has migrated through the sewer system.

A maintenance shop reasonably results in concern about possible hydrocarbon, solvent, or metal contamination associated with typical maintenance activities. In addition, the community was concerned about potential ACM in the building. Although insulation inspected during the site visit appeared to be fiberglass (as discussed in Section 4.2.8), any suspect material encountered during demolition and cleanup should be sent to a laboratory for testing, in accordance with a sample and analysis plan.

6.2.8. Lead-Based Paint

Since the school was constructed in the 1950s, lead-based paint was likely used for the school buildings and therefore is potentially present in the debris. Lead-based paint may also be present in the dumpsites in paint containers or on material deposited in the dumpsites. A lead-based paint assessment should be performed by a certified lead professional to characterize the amount of potential lead contamination present in the school debris, the surrounding soil, and any other potential lead-based paint sources at the site.

Debris, dust, chips, sludge, or soil wastes with a Toxicity Characteristic and Leaching Procedure (TCLP) lead concentration of less than 5 milligrams per liter (mg/L) may be

Oasis ENVIRONMENTAL 28 5/19/2010

disposed of as non-hazardous waste. Any materials with a TCLP lead concentration of greater than 5 mg/L must be managed as hazardous waste under RCRA. This waste may be disposed of in quantities less than 200 pounds a month at a Class I or Class II landfill that is permitted to accept conditionally exempt small quantity generator waste. If the waste exceeds 200 pounds a month, the waste must be disposed of at an EPA-certified treatment, storage, and disposal facility. Once the nature and volume of contaminated material has been determined, options for disposal should be more fully explored.

6.2.9. Sewer System/Leach Field

More information is needed on the school's sewer system and leach field before it can be determined if it is a potential source area and if remedial actions need to be performed. If it is suspected that contamination may be present in the leach field (i.e. shop floor drains were connected to the leach field), the leach field should be located and soil borings installed to characterize any potential contamination present. If contamination is present, remedial actions will depend on the nature and extent of the contamination.

6.2.10. Artesian Wells

Although the groundwater wells are not potential source areas, the flowing artesian well on the east side of the school, in particular, is considered an eyesore by the community. The well should be decommissioned, or, at a minimum, capped to prevent groundwater discharge resulting in wet and iron-stained ground conditions.

6.3. General Remediation Strategies or Alternatives

6.3.1. Soil Management Strategies

If contaminated soil is encountered during site characterization, resulting recommendations for soil management may include natural attenuation, in-situ remediation, or remedial excavation with either on-site or off-site treatment and disposal. Existing site information is inadequate to determine with certainty which soil management strategy or combination of strategies will be appropriate for the site.

6.3.2. Water Management Strategies

It is unknown if groundwater or surface water are being impacted from the potential source areas at the site. The Tazlina River is potentially impacted from hazardous materials that may be present in eroding dumpsites. Groundwater is potentially impacted in the vicinity of the UST. If hazardous material or contamination is discovered during additional site characterization or remediation, water management strategies will be addressed at that time.

Oasis ENVIRONMENTAL 29 5/19/2010

6.3.3. Available Resources

Local workers and equipment will be used to the extent possible and will minimize costs for characterization and remedial actions. However, for the cost estimates, mobilization of personnel and equipment from Anchorage was assumed to provide a reasonable potential estimate should local resources be unavailable.

6.3.3.1. Equipment

Heavy equipment, such as backhoes and loaders, will be useful in removing the large volume of general, non-hazardous debris from the site during cleanup. Heavy equipment will also be required during the remediation of the potential source areas, such as excavating and removing material from the buried dumpsite, removing the UST and any associated contaminated soil, and excavating any other potentially contaminated soil at the site. Dump trucks should be used to transport material off-site to the appropriate destination.

Ground-penetrating radar equipment may be used to survey and delineate the extent of buried dumpsites.

When the leach field is located, soil borings should be drilled to characterize potential contamination, and a drill rig will be necessary to advance the borings and install wells.

A hazard characterization kit will be needed to characterize unknown materials that were identified during the site visit, such as the contents of paint cans at the paint pallet area, white powder in crates, and liquid in drums. Furthermore, any unknown and/or potentially hazardous material encountered during site cleanup should be characterized to determine whether or not the material is hazardous.

Other, more routine equipment also will needed such as photo-ionization detectors, sampling equipment, and water quality meters to complete characterization and remedial efforts..

6.3.3.2. Labor

Appropriate professional environmental personnel should be on-site during source area characterization, source area remediation, and general site cleanup of non-hazardous waste. A certified asbestos professional will be needed for the removal of ACM, and a certified lead-based paint professional will be needed for lead-based paint abatement, if lead-based paint is present at the site.

Equipment operators, truck drivers, and laborers are needed during potential source area remediation and general site cleanup. Since materials at this site are hazardous or potentially hazardous, operators and laborers must have the appropriate HAZWOPER training and certification.

6.4. General Outline of Remedial Requirements

Table 3 presents a general listing of potential remedial actions for each source area.

oasis ENVIRONMENTAL

TABLE 3. POTENTIAL REMEDIAL ACTIONS BY SOURCE AREA

Source Area	Potential Remedial Action
Eroding Dumpsite	Delineate waste distribution and extent of dumpsite:
	GPR Survey
	Boring and/or trenches (alternative)
	Remediate dumpsite:
	Remove waste
	Separate potentially hazardous waste from non-hazardous waste
	Characterize unknown materials as either hazardous or non-
	hazardous using a chemical identification test kit
	Collect soil samples if hazardous waste encountered
	Dispose of waste appropriately
	Backfill dumpsite

Above and and Division site.	One and a leasure and attack the base of the first of the		
Aboveground Dumpsites	Separate known potentially hazardous waste (batteries,		
	refrigerators, freezers) from non-hazardous waste		
	Characterize unknown materials as either hazardous or non- barardous uning a sharping lidestification text lift		
	hazardous using a chemical identification test kit		
	Collect soil samples beneath potentially hazardous waste		
A 1	Dispose of waste appropriately		
Asbestos – Various	Have a licenced professional perform all asbestos work		
locations	Remove known ACM		
	Sample suspect material to determine if is ACM		
	Properly package and dispose of ACM at permitted landfill		
Paint Pallet Area	Characterize material as either hazardous or non-hazardous using		
	a chemical identification test kit		
	Manage and dispose of material appropriately, depending on		
	characterization		
	Collect soil samples beneath the cans and buckets (if material is		
	determined to be hazardous)		
Crates of Powder	Characterize material as either hazardous or non-hazardous using		
	a chemical identification test kit		
	Dispose of material appropriately, depending on characterization		
	Collect soil samples beneath the crate pile (if material is determined)		
	to be hazardous)		
UST	Close UST (removal recommended over in-place closure) in		
	accordance with DEC regulations		
	Remove tank contents		
	Clean UST		
	Properly dispose of tank sludge and wastewater		
	Excavate contaminated soil		
	Collect confirmation samples		
	File appropriate paperwork with the DEC		
Shop Building	Collect samples around the building to characterize potential		
	contamination		
	Investigate potential drainage systems in the shop		
	If drainage system present, collect samples to determine if		
	contamination has migrated through the sewer system		
	Sample any suspect material to determine if is ACM		
	Dispose of ACM properly (if encountered)		
Lead-Based Paint	Have a certified professional collect samples from the school		
	debris, the surrounding soil, and any other potential lead-based		
	paint sources to characterize the amount of lead		
	Dispose of lead-based paint waste appropriately (if encountered)		
Sewer System/Leach Field	Research school's sewage/drainage sytem		
	Attempt to locate leach field		
	If located, install soil borings to characterize potential contamination		
Artesian Wells (2)	Decommission two groundwater wells.		

6.5. General Cost Estimate Information

Total cost estimates for the various phases of site characterization, remediation, and cleanup are presented in Table 4. Detailed break-downs of the estimate costs are presented in Appendix H.

TABLE 4. ESTIMATED COSTS FOR CHARACTERIZATION AND REMEDIAL ACTIONS

Action	Estimated Cost
Non-hazardous building debris cleanup and disposal	\$551,798
Eroding dumpsite	
Characterization	\$25,030
Remediation	\$208,785
Aboveground dumpsite	
Characterization	\$27,583
Remediation	\$596,123
Asbestos	
Characterization	\$4,937
Remediation	\$18,678
Paint pallet area	
Characterization	\$8,213
Remediation	\$60,260
Crates of powder	
Characterization	\$6,642
Remediation	\$22,525
UST	
Remediation	\$38,680
Shop building	
Characterization	\$13,153
Lead-based paint	
Characterization	\$6,718
Sewer system/leach field	
Characterization	\$28,852
Groundwater wells (2)	
Decommission	\$6,500
Total Project Cost:	\$1,624,477

6.6. Resource Leveraging Opportunities

Cleanup costs for this site were estimated separately for each potential source area, with a number of broad assumptions. There are various planning and logistical methods that may be utilized to achieve cost savings, including but not limited to:

- The Glennallen area occasionally has a vehicle cleanup program to remove and dispose of junk cars in the community. The abandoned vehicles at the site could be removed during such a program.
- Cleanup grants similar to the grant received for the cleanup and removal of refrigerators and freezers may be obtained by the Native Village of Tazlina. If so, funds could potentially be used to remove debris at the site.

- For estimating purposes, it was assumed that heavy equipment and dump trucks would be mobilized from Anchorage for site characterization and remediation activities. However, local equipment may be used for site cleanup, if available.
- If characterization or remedial activites for several source areas were performed at the same time, an economy of scale likely would be achieved for mobilization and on-site costs.
- Certain equipment or supplies (such as the chemical identification test kit) can be utilized for multiple tasks to achieve savings.
- It was assumed that some hazardous material will be discovered at the site during source area characterization. If the amount of hazardous waste encountered is less than planning estimates, cleanup costs will be reduced.
- Concrete building debris may potentially be reused on-site to fill building foundations, or merely buried, instead of disposal at the landfill.
- A permit may potentially be obtained to dispose of wooden building debris by burning.
- The shop building potentially could be used for firefighter training, and demolished by burning it down.
- Copper Valley School alumni are a tight-knit group who are interested in reviving the site. The alumni might be inspired to provide volunteer labor and resources for site cleanup activites, in conjunction with their annual reunion and gathering at the site.

Oasis ENVIRONMENTAL 33 5/19/2010

- Page Intentionally Left Blank -

7. CONCLUSIONS

OASIS performed a property assessment at the Copper Valley School site in Tazlina, Alaska. The overall project objective was to prepare a PACP to provide a basis for the landowner to develop definitive plans for site management and reuse. As part of the DEC's Brownfield Program, specific objectives included the following:

- Determining whether an environmental hindrance exists at the site
- Identifying the nature and extent of contamination, and its potential impact on the reuse of the property
- Proposing recommendations for additional assessment, if necessary
- Identifying cleanup options and providing an estimate of cleanup costs for the site

As part of the property assessment, OASIS performed a records review of available information sources, reviewed historical aerial photographs, and conducted a site visit and interviews with knowledgeable personnel.

Based on the information collected during the property assessment, OASIS identified the following potential source or source areas:

- Dumpsite(s) eroding into the Tazlina River
- Aboveground dumpsites, with potentially hazardous material such as automotive batteries, refrigerators, freezers, and drums present
- ACM
- Area with pallets likely containing paint cans, and buckets with unknown contents near the pallets
- Crates of unknown white powder
- UST (Note: There is evidence of just one UST at the site near the boiler building. Anecdotal accounts of a UST beneath the kitchen are unconfirmed.)
- Shop building
- Potential lead-based paint
- Sewer and drainage system/leach field

There is limited data to currently characterize the site and sources, but there is a high potential for contamination at this site. Due to easy and uncontrolled access to the site by the community, the presence of potentially hazardous materials, and the degree and extent of contamination not fully identified, there is a significant risk of exposure to human health and the environment. All exposure pathways at the Copper Valley School site are considered complete or potentially complete at this time until further characterization determines otherwise.

Before remediation of the potential source areas and cleanup of non-hazardous material and debris can proceed, additional characterization must be performed. Eroding dumpsites must be characterized to delineate the distribution of waste and size of the

dumpsite(s). Unknown materials must be characterized to determine if they are hazardous or non-hazardous. Samples must be collected to determine if potentially hazardous materials have impacted the ground beneath.

Hazardous material such as asbestos, batteries, refrigerators, freezers, and any other hazardous materials discovered during additional characterization will be handled separately than non-hazardous waste and transported to an appropriate disposal location. Non-hazardous material can be taken to the Glennallen Regional Landfill for disposal.

A total cost estimate is provided for the entire cleanup and reuse of this site: \$1,624,477.

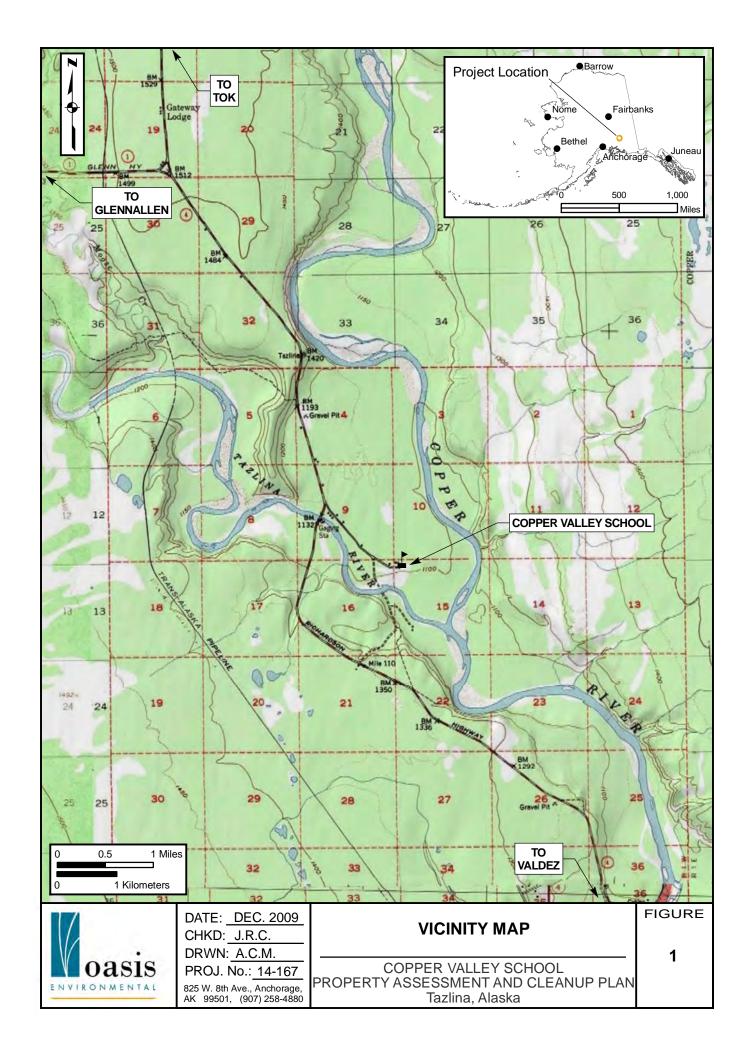
8. REFERENCES

- DEC. 2003. 18 AAC 60. Solid Waste Management. As amended through August 8, 2003.
- DEC. 2006. 18 AAC 78. Underground Storage Tanks. As amended through October 2006.
- DEC. 2006. 18 AAC 80, Drinking Water. As amended through November 9, 2006.
- DEC. 2008. 18 AAC 75, Oil and Other Hazardous Substances Pollution Control. Revised as of October 9, 2008.
- Environmental Management, Inc. 1989. Report on the Asbestos Site Review of the Old Copper Center School, Tazlina, Alaska. October 9.
- G.V. Jones and Associates. 2009. Tazlina Water and Sewer Feasibility Study. April.
- U.S. Army Corps of Engineers (Alaska District). 2008. Alaska Baseline Erosion Assessment, Erosion Information Paper Tazlina, Alaska. February 29.

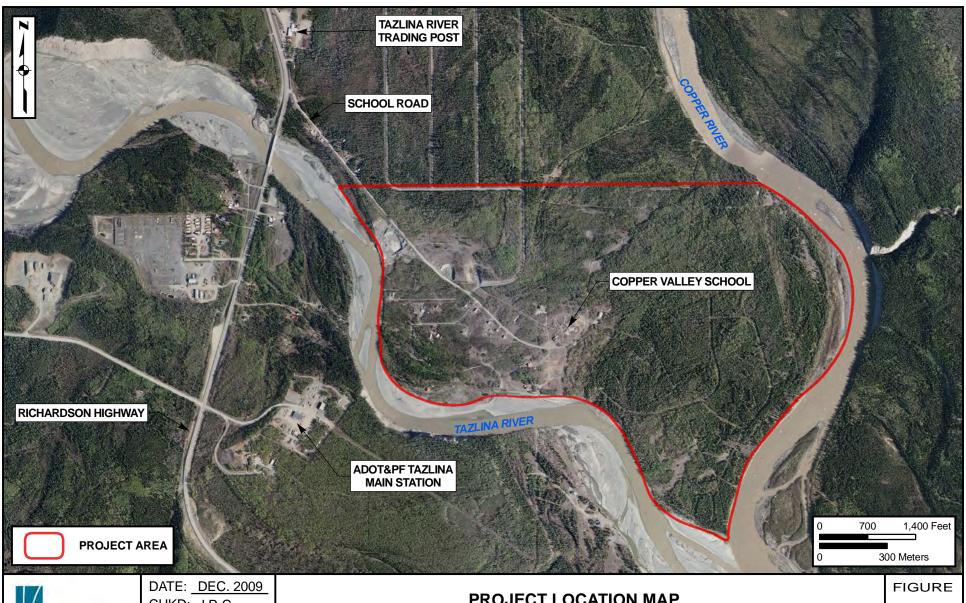
- Page Intentionally Left Blank -

FIGURES

- Page Intentionally Left Blank -









CHKD: J.R.C.

DRWN: A.C.M.

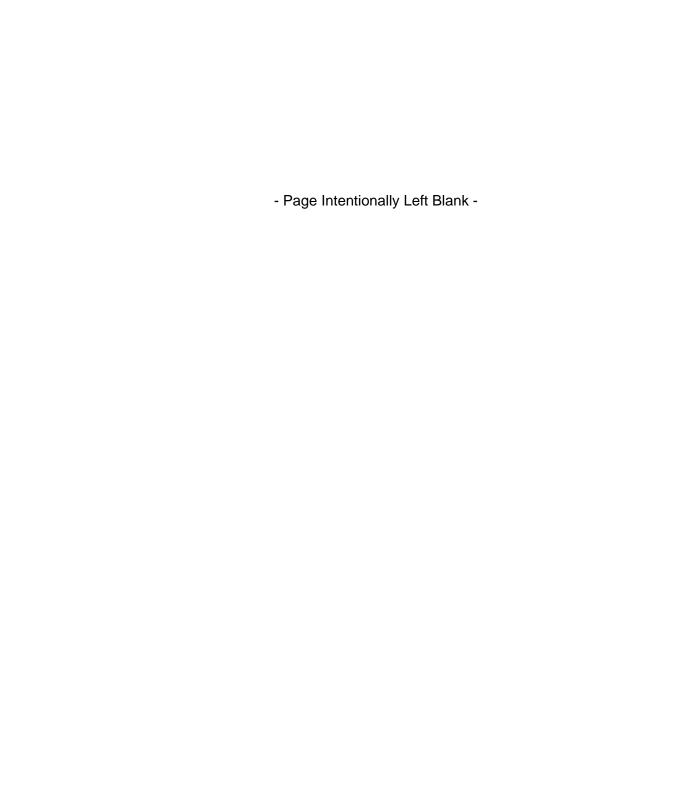
PROJ. No.: 14-167

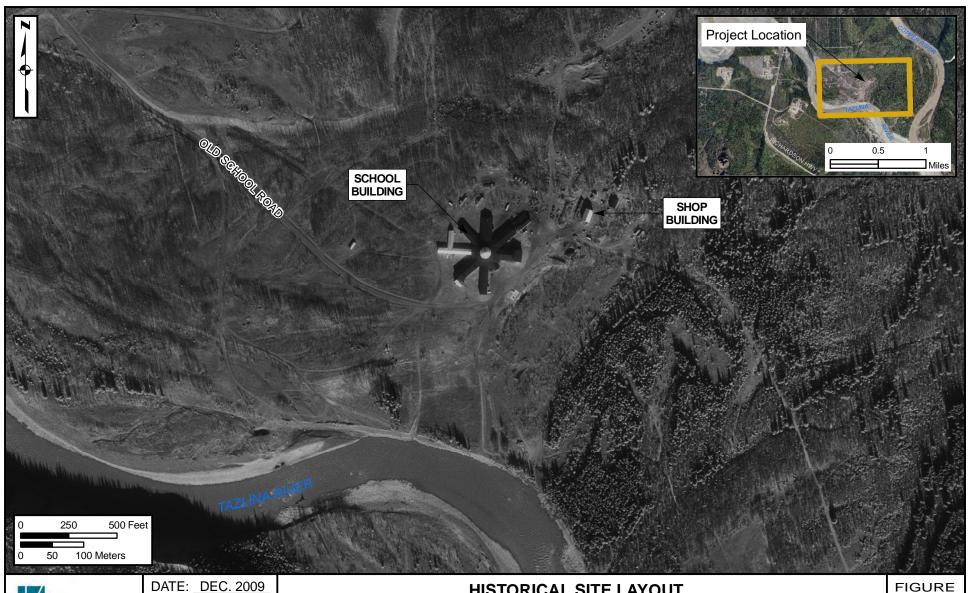
825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880

PROJECT LOCATION MAP

COPPER VALLEY SCHOOL PROPERTY ASSESSMENT AND CLEANUP PLAN Tazlina, Alaska

2







DATE: <u>DEC. 2009</u> CHKD: J.R.C.

DRWN: A.C.M.

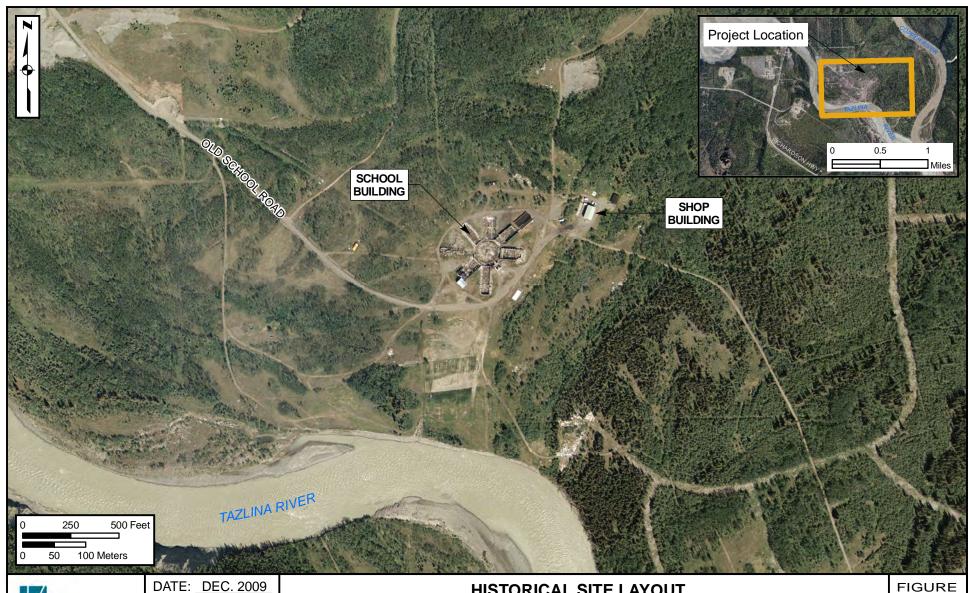
PROJ. No.: 14-167

825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880

HISTORICAL SITE LAYOUT AERIAL PHOTO DATE: OCTOBER 2, 1967

COPPER VALLEY SCHOOL PROPERTY ASSESSMENT AND CLEANUP PLAN Tazlina, Alaska 3







DATE: <u>DEC. 2009</u> CHKD: J.R.C.

DRWN: A.C.M.

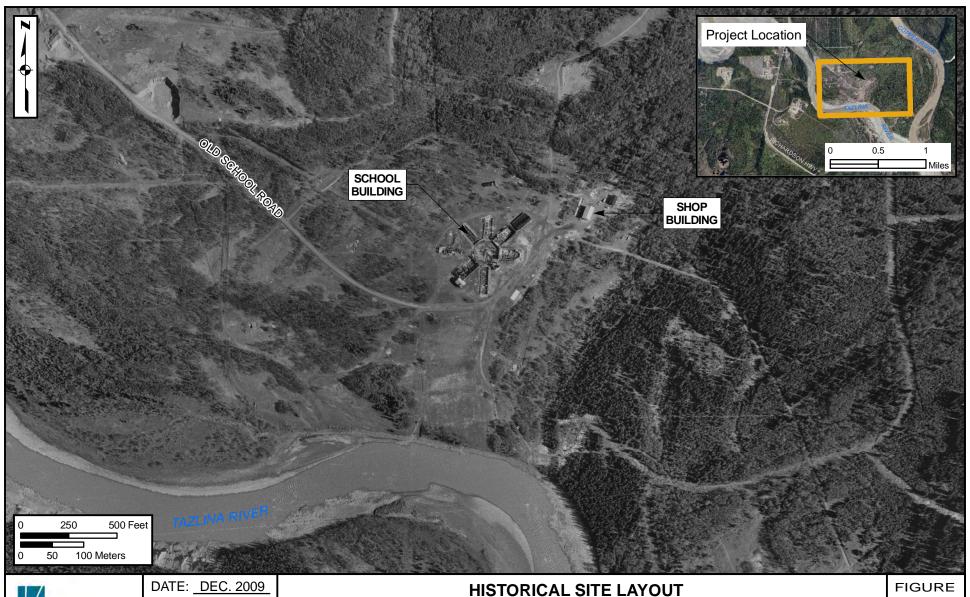
PROJ. No.: 14-167

825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880

HISTORICAL SITE LAYOUT AERIAL PHOTO DATE: JUNE 4, 1977

COPPER VALLEY SCHOOL PROPERTY ASSESSMENT AND CLEANUP PLAN Tazlina, Alaska





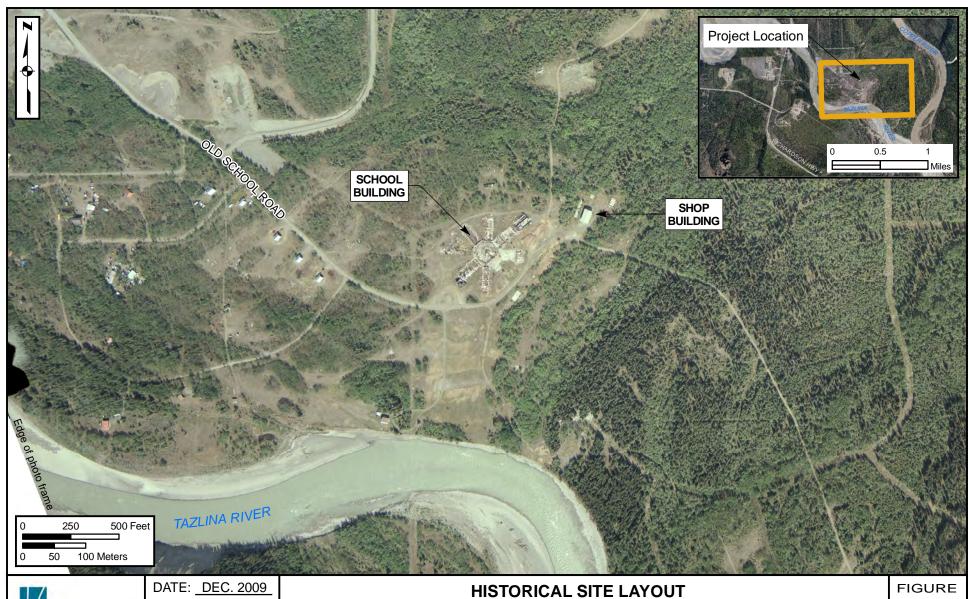


DATE: DEC. 2009
CHKD: J.R.C.
DRWN: A.C.M.

PROJ. No.: <u>14-167</u> 825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880 HISTORICAL SITE LAYOUT AERIAL PHOTO DATE: JUNE 4, 1982

COPPER VALLEY SCHOOL PROPERTY ASSESSMENT AND CLEANUP PLAN Tazlina, Alaska 5







CHKD: J.R.C.

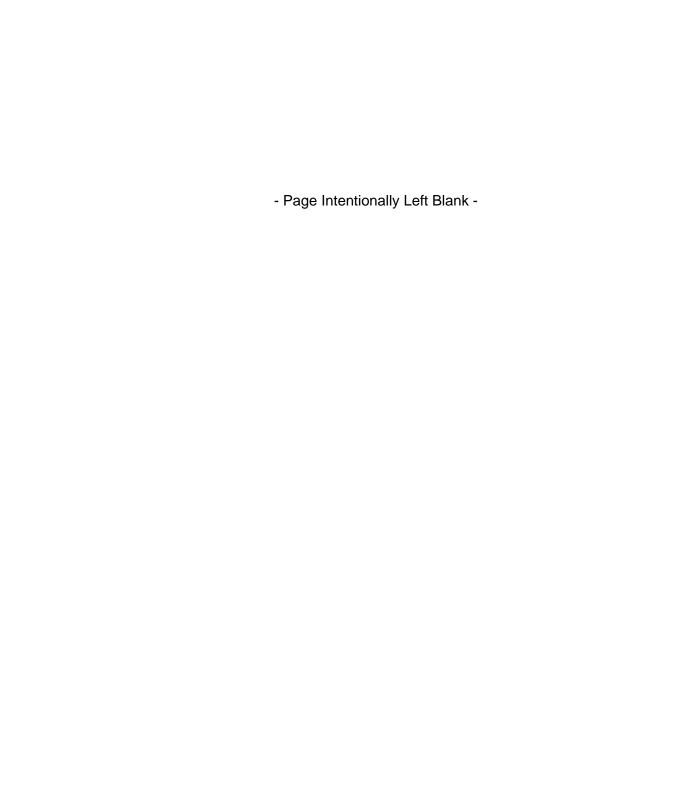
DRWN: A.C.M. PROJ. No.: 14-167

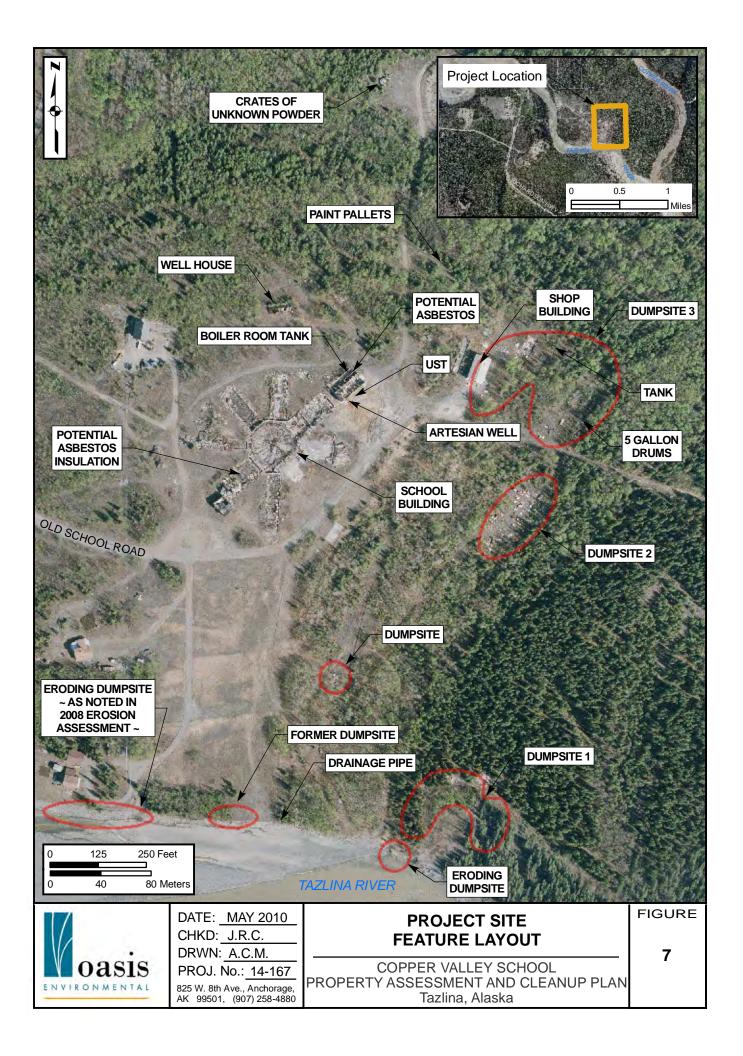
825 W. 8th Ave., Anchorage, AK 99501, (907) 258-4880

HISTORICAL SITE LAYOUT AERIAL PHOTO DATE: JUNE 11, 1995

COPPER VALLEY SCHOOL PROPERTY ASSESSMENT AND CLEANUP PLAN Tazlina, Alaska

6







APPENDIX A

Native Village of Tazlina DEC Brownfields Assessment Request



Tazlina Alaska

Copper Valley School -Tazlina

DEC Brownfields Assessment Request Form - 2009

Please check the appropriate box for each question at the top of this page, and then answer questions 1–5 by inserting text in the blank area under each question, using as much space as you need. The deadline for receipt of requests is March 3, 2009.

Eligibility Determination—General Questions:	
Is the applicant in any way responsible for the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site, or relating to the potential contamination at the site of the site of the potential contamination at the site of the potential contamination at the site of the s	ated to those who
☐ Yes XX☐ No	
Is the site federally owned?	
☐ Yes XX☐ No	
Has the site or facility received funding for remediation from the Leaking Underground S (LUST) Trust Fund?	Storage Tank
☐ Yes XX☐ No ☐ Unknown	
If you answered "yes" to any of the above questions, we recommend that you plot discuss the specifics of your eligibility determination.	ease call DEC to
To the best of your knowledge, is the <i>owner</i> of the property in question:	
X? Private City/Public State Native Corp Tribal	Unknown
Known or suspected contaminant(s) (check one):	
☐ Hazardous Substances ☐ Petroleum Only XX☐ Hazardous Substance	es and Petroleum
Is this site currently listed on DEC's contaminated sites database?	
☐ Yes XX☐ No ☐ Unknown	
If yes, please list the project name, if known:	
1. Applicant/Owner	
 a) Applicant - Provide the name and address of the organization applying for a the contact person, email, telephone, and fax numbers. 	JEGEIVE
Native Village of Tazlina	FEB 2 6 2009
POB 87 Glennallen, AK 99588	
Christopher Wright, Tribal Administrator 822-4375, (Fax) 822-5865, Email: tazlina@cvinternet.net	CONTAMINATED SITES FAIRBANKS

If Applicant is IGAP staff, please provide name of EPA project officer:

b) Project Team - Because no one person can be responsible for all aspects of a brownfield project, we request that you form a project team to ensure continued action beyond this DBA. Attach a letter from each team member acknowledging their support and willingness to participate. (Team members may include: city or village government representatives, tribal council representatives, environmental managers, elders or other community leaders, and other interested parties.)

The Tazlina Village Administrator is taking lead on this project, supported by our EPA staff of 2 (Itr attached) and the Village Council with strong support of the Copper Valley School Association and the Catholic Church, Archdiocese of Anchorage. This is a decades-long, simmering project with wide support in the area with a wide range of interests but the

Village and the Church are the only parties with "standing" as they own much of the surrounding land and are most directly affected in terms of subsistence and exposure.

Accordingly, when the project becomes a reality, we will develop an advisory team composed of those interested parties, the owner's representatives, and local resident organizations.

c) <u>Property Owner</u> - The owner of the property must allow DEC access to the site. If the applicant is different from the owner, include written consent for access from the owner. (Note: the applicant must be able to secure access for DEC and its contractors to conduct the assessment.)

<u>The property is owned by the Catholic Church, Diocese of Anchorage.</u> The Archbishop of Anchorage, and the Copper Valley School Association (an associated group of former students) are in full agreement with the intent of this study and permission for access is included with the attachments to this request.

2. Site Information

a) Historical Site Use - Describe, to the best of your ability, the previous known uses of the site, when the different activities occurred, and any historic or cultural significance of the property. Identify when and how the site became or may have become contaminated, with what substance(s), and where the contamination is likely to be found.

Traditionally the land belonged to the Ahtna people and was/is a transit point to their many subsistence fish activities in the area where two major rivers converge

This site of 462 acres was purchased from the Bureau of Land Management for \$3/acre in 1953 with the patent for use as a Mission School granted in 1956. The physical building of the school began in 1954 and received students in 1956.

The site served as a school and boarding school for 15 years until 1971. In 1976 fire destroyed the main buildings and over the years the remaining out buildings have deteriorated.

There is an annual gathering of the Copper Valley School Alumni on the site and are undertaking to revive the site as a place for cross-cultural education and training to assist native students to bridge the cultural divides in our world and becoming effective and productive leaders.

There is also a cemetery on the site.

The Copper Valley School, as it was/is known, is a large piece of positive local history.

Over the years, the place has had private housing growing up around it and has become a common play area for the area children – though they are warned against it.

Contaminants/Problems:

- 1. An asbestos-like substance used for insulation is obvious hanging in some buildings and from some equipment.
- 2. There are many pallets of bags of unknown powder and granular substances whose labels have long ago faded
- 3. There are underground tanks. At least one is approximately 8'x50'.

- 4. There are buried dumps from the period, at least one of which is being exposed by river erosion with lead-acid batteries, paint containers and pipes
- 5. etc. visible. This begs the question of effect to downriver fish wheels and the Copper River Salmon fishery.
- 6. Most paint of that period was lead-based. Its use has not been investigated but it is reasonable to expect that the containers are in the buried dumps.
- 7. There is at least one artesian well, uncapped and flowing for 38 years which is highly mineralized, high TDS, non-ADEC quality and is/has saturated the upper groundwater sources of most local potable wells.
- 8. Unknown septic/Waste systems and locations.
- 9. All in a flood plain with increasing erosion and potential channel change. (see Corps of Engineers Report)
- 10. A current-use Catholic cemetery is also threatened.
- b) Current Site Condition and Use Provide the common name of the site, address, approximate acreage, zoning, and types of buildings. Please attach a site map or aerial photograph showing the site's location in the community, adjacent land use, and areas of known or suspected contamination. Identify approximate property boundaries.

Common Name: Old Catholic School or Copper Valley School Site

Address: Old School Road, Tazlina Alaska

The site in question is about a 30 acre area noted on the map. It is part of a 462 Acre property that spans the confluence of the Copper and Tazlina Rivers and was the site of the Catholic Mission school for Alaskan Natives from the late 1950's to 1971 when it burned down. The buildings are primarily brick or cinderblock construction.

The legal descriptor is:

Copper River Meridian, Alaska T.3N., R. 1W. Sect 10, lots 6 & 7, NW1/4SW1/4, S1/2SW1/4 Sec 15, lots2,3,4,7 & 8, N1/2NW1/4, SE1/4NW1/4

Maps & photo's attached.

c) Prior Environmental Assessment Activities - Please describe any prior site assessment or cleanup activities at the site and briefly state what you know about the findings of that work. Attach the summary or conclusion sections of the reports if available. If reports are not available, provide the consultant, client, approximate date of the study, and any other pertinent information.

Attached is a recent USGS erosion report and a previous Asbestos Review provided by the Catholic Church.

We have made several non-professional surveys of the area problems over the past 10 years via our EPA programs but had neither skills nor access to professionals to validate local knowledge & beliefs.

The eroding, formerly buried, dump is clearly visible in the summertime as are the boxes of chemicals and a probable asbestos type material (photo's attached). The artesian well is always running. Various reports have been written over the years but have generally been lost to time. Local Native people have an intimate knowledge of locations and issues, as does the Copper Valley School Association who is in the process of taking over administration of the property for the Church.

3. Environmental Concerns

a) Reason for Concern - What is the reason for concern by the community, and what do you hope to gain by our involvement? Is there specific information that you are seeking? Please discuss community concerns in general, and identify any specific problems if possible.

As an area that is accessible to, and commonly used by unsupervised children/youth and available to the public without restriction, we are concerned about the potential for toxicity/illness and injury.

On the erosion/flood problems, we are concerned about contamination of our famous Copper River Salmon and the watershed. More specifically, our people subsistence fish the areas very near the problem so future survival is jeopardized.

The erosion, in the larger picture, is being investigated by the Army Corps of Engineers in conjunction with the support from the Native Village of Tazlina, the Association of Tazlina Residents and will be reviewed by the State of Alaska DOT. This particular area is very close to the confluence with the Copper River so the potentials for, and consequences of degradation are considerable. Further studies are being applied for.

Information we are seeking includes a professional analysis of the situation, specific suggestions for remediation, analysis & identification of the materials present, analysis of other potential biohazards (fuel tanks etc) and a solid baseline that will assist us in seeking further funding for remediation.

b) Proposed Project Need - Describe to the best of your ability what your project team believes are the needed assessment activities, and what result you would like to see from this project. Indicate any constraints as to when this work must be completed (e.g., to meet construction timeline, property transaction pending, etc.).

See Above for specific activities we would like, which will include

Location and mapping of underground dumps.

Analysis of materials in and around the structures and structural remains for hazards and toxins.

Analysis of existing and potential erosion effects on habitat and remediation.

Analysis of groundwater effects for area residents and remediation options.

The Copper River area is very difficult to do any field work in for long periods of the October through May months, leaving the relatively short window of about 4.5 months of access. Most funding possibilities that will result from this investigation are in the Spring and Fall.

4. Community Planning and Reuse Goals

a) Other Community Plans or Projects - It is helpful to know if other state or federal agencies are planning work in your community. List any community plans that may exist or are in development, such as: economic development plans, hazard mitigation plans, or erosion studies. Describe any other community projects that may be scheduled or pending, such as: water and sewer construction, a new landfill, road or airport construction, a new school or addition, fuel-storage tank farms, new housing, or other facilities.

The Village of Tazlina is involved in and EPA-IGAP focused on recycling and assisting in our erosion problem and is seeking an EPA-ICARE grant in 2010 to build infrastructure and capacity to continue to study mitigation possibilities that the DEC project will help identify.

Currently the Native community accesses the river for subsistence activities and the former students of the Copper Valley School are actively working to create educational and cultural programs for Native youth and Adults at the site.

In conjunction with the Association of Tazlina Residents, we are seeking further river erosion studies and analysis with the Army Corps of Engineers and seeking assistance from the Catholic Church, Anchorage Diocese, the Copper River Watershed Project, local Fish & Game committees, other local river based villages and State of Alaska DOT. These are just being approached as this is written but we expect a positive response.

The Village has an ongoing, area-wide Water Quality and Availability study and hydrologic survey going on in the immediate area with the Alaska Native Tribal Health Consortium and its contractors.

We do note that the land in question has been subdivided and will be managed by the Copper Valley School Association and that the land has other subdivisions adjoining it.

b) Reuse or Redevelopment Plans - Does the community have well defined plans for how they would like to reuse this site if it were not for the real or perceived environmental problems? Is this site affecting the use of adjacent properties, subsistence habitat, or other resources? Do reuse plans include the incorporation of greenspace or sustainable, green building practices? If so, please describe.

As noted previously, the property that is the focus of this request is not owned by the Native Village of Tazlina, though it is on our traditional lands and we must traverse it in order to access many of our subsistence activities.

In conjunction with the Copper Valley School Alumni Association, it is hoped that this property will be the site for educational opportunities for the future Native leaders of Alaska much as the original school did, and to work to strengthen the experience and understanding of the cultural traditions of the Native peoples.

Consequently, the Native Village of Tazlina has not made any specific plans although we would like to see a park created that memorializes the School itself and makes use of an existing sports field. We would like to see the property used for outdoor education, environmental and subsistence activities for the general public and as an example of what can be done by a community. The Catholic Diocese and the Copper Valley School Association have similar plans for outdoor, cultural, and academic uses of the property in alignment with the property patent that it be used for educational purposes.

It has been readily apparent throughout this paper that the site is strongly and negatively affecting adjacent properties, certainly fish habitat, groundwater supplies/quality and presents physical dangers.

5. Public Involvement

a) Public Benefit - Briefly discuss how your proposed reuse or redevelopment plans for the property will provide a benefit to the public. Why is this important to your community? (Things to consider: creation of jobs, preservation of historically or culturally significant property, preservation of subsistence habitat, reuse or recycling of materials, cost savings to the community, or increased property values.)

I'd have to say that this, also, has been made abundantly clear above with several additions:

- 1 A remediation project for these issues would be quite extensive and provide significant employment in a depressed area.
- 2 Enhancement and protection of fish and wildlife habitat is an extremely important concern
- 3 Visual enhancement as a result of remediation will strongly affect the surrounding private properties economic value and provide an overall improvement in the community sense of self.
- The property itself, returned to a more pristine level, provides a pair of proud histories. That of the first inhabitants whose descendents have had to tolerate the mess and danger to its families for generations and of the School itself. It might be useful to note that the Copper Valley School produced more than a generation of Native leaders, both in this valley and around the State who were well schooled and developed one of the first bridges between the cultures of Alaska. The attendants of this school, represented by the CV School Association, still make the pilgrimage here every summer to celebrate a very important time in their own lives and in the futures of uncountable Alaskan Natives whose successes were built on the graduates examples of what can be.
- 5 This is not simply an issue of our small place in Alaska. Publicly noting and fixing this issue affects the course of the river itself and the Copper River beyond (whose current is already being changed) by providing a return to a quality of habitat threatened presently by issues mentioned and in the future by the possibilities of a river channel change also addressed by the Corps of Engineers as going right through the area.
- b) Community Support Is the community strongly supportive of this project? Please identify other organizations in your community with whom you are coordinating on this reuse or redevelopment project. (Providing names and phone numbers of contacts is helpful here, and include resolutions or letters of support as applicable.)

Archdiocese of Anchorage, Catholic Church
Copper River Watershed Project (Coming)
Copper Valley Regional Development Council (CVRDC)
Copper Country Alliance
Local EPA
Gakona Village Council
Kenny Lake Soil & Water Conservation Service
Ahtna Inc.

Contact names & numbers are on the various letterheads.

c) Community Resources - Our assessment often requires local assistance with site visits, lodging, excavation equipment, and transportation. Describe local resources that are available for this project. Does the community have financial or other resources to supplement this DBA or for

other phases of the project, such as equipment, in-kind services, or funding for cleanup or new construction? Can this DBA be used to leverage other funding or services for the project?

Staff homes for 1-3 people, camping at the Village Site, use of Pickup and/or Van, in-house kitchen facilities.

Should excavation equipment be needed, it can be requested from our parent corporation if it is not in use.

This project is mostly about investigation. Clean-up, remediation efforts and major removals will be a subject based on the results learned.

The Village Hall is available for public and/or group meetings.

The selection of a site for a DBA in no way implies that DEC is accepting liability for any contamination that may exist at the site, nor is DEC responsible for any necessary cleanup of hazardous substances that may be found at the site. Liability for contamination on a property is specifically addressed in Alaska Statute (AS) 46.03.822, which outlines those who are liable for the release of a hazardous substance. The general liability categories include: (1) those with an ownership interest in the property; (2) those in control of the substance at the time of the release; or (3) those who arrange for disposal or transport of the substance.

"It is so for each of us who was born an Alaska Indian, Eskimo or Aleut. Whatever happens to our tribe and whatever happens to our tribal land is our individual and collective lifetime concern. Our responsibility for our tribal lands, our tribal government, and our tribal sovereignty are not of recent origin. They become a part of our lifetime agenda upon our birth." -John Borbridge, Jr.

Submit Completed Forms by March 3, 2009, to:

By email: Sonja.Benson@alaska.gov or By fax: (907) 451-2155 c/o Sonja Benson

Or by regular mail:

DEC Brownfield Assessments

c/o Sonja Benson Department of Environmental Conservation 610 University Avenue Fairbanks, Alaska 99709

If you have questions, call Sonja Benson at (907) 451-2156, Deborah Williams at (907) 451-5174, or John Carnahan at (907) 451-2166.



Copper River Watershed Project

Voices for a wild salmon economy

January 29, 2009

John Carnahan Brownfields Coordinator, DEC 610 University Ave. Fairbanks, AK 99709-3643

Dear Mr. Carnahan.

I am writing to urge your support for the Native Village of Tazlina's efforts to assess current and potential future affects of pollution from improperly discarded batteries and large-scale refuse dumps to our salmon-migratory and rearing waters.

The Copper River Watershed Project works to ensure the long-term sustainability of our wild salmon economy. Much of our work focuses on salmon and salmon habitat because this keystone species is the currency of our region. As you know, the Copper River and its tributaries, including the Tazlina River, are a critical salmon-producing system that support our region's subsistence, commercial and sport fisheries and regional economy.

Wild salmon are a staple source of food to residents in our region, and water quality is consequently of great concern. Alaska Department of Fish and Game subsistence use surveys state that households in the Copper River region harvest 318 pounds of salmon annually (Community Profile Database, ADFG, March 1999).

Although the location of this as-yet-unassessed brownfield site may seem small and remote, it has the potential to affect thousands of Alaska residents who rely on the Copper River for its fisheries, as well as cause long-term damage to critical spawning, rearing and migratory habitat if it is not addressed.

Thank you for your support of our local tribal councils' and non-profits' efforts to ensure that state water quality standards in this critical waterbody are maintained.

Sincerely,

Kristin T. Smith Executive Director

REPORT ON THE ASBESTOS SITE REVIEW of THE OLD COPPER CENTER SCHOOL Tazlina, Alaska October 9, 1989

Authorization:

At the request of Reverend Steven C. Moore, Vicar General of the Archdiocese of Anchorage the burned remains of the Old Copper Center School near Tazlina was visited and reviewed for asbestos containing materials and the results are included in the attached report of our findings. The report includes all the facilities, storage and dump areas on the site. During the site visit a interview of local native environmental representatives was helpful in previding some information. Laboratory results of samples collected and qualification of our laboratory is included.

Findings:

A site visit was conducted by Mr. Howard Novakowski, Environmental Engineer for Environmental Management Inc. on July 26, 1989. Seven samples and pictures were taken.

The former school was destroyed to rubble by fire several years ago. It does operate as a school. The remains shown in the photographs are of rubble and abandon facilities. Prior to the fire the school operated as a boarding school and was believed to be constructed in the 1950's.

A review of the site delineated several distinct buildings and areas which were reviewed. Firstly the school building was reviewed and because the structure has been burned out most all of the remaining material is concrete steel or wood because of the moisture and deterioration. No specific asbestos materials were noticed in the rubble however with the mechanical piping systems there may be asbestos containing materials dislodged during the fire and now infiltrated into the rubble or ground.

The remaining structures including the Old Boiler Building, the Log Cabin Building, and the Engine Shop Building were reviewed. In the Log Cabin Building a sample was taken of suspect floor tile materials and adhesive. This sample number TCS-1 was negative for asbestos.

In the Engine Shop Building a sample was taken also of suspect floor tile materials and adhesive. This sample number TCS-2 was negative for \times asbestos.

RECEIVED

FEB 2 6 2009

CONTAMINATED SITES FAIRBANKS

REPORT ON THE ASBESTOS SITE REVIEW of THE OLD COPPER CENTER SCHOOL Tazlina, Alaska

cont'd

Findings (cont'd):

In the Old Boiler Building three samples were taken also of suspected thermal insulation system material on pipes and equipment. These sample numbers are TCS-5,6 & 7. Sample numbers are TCS-5 & 6 were positive for asbestos. They were on the boiler and piping. Sample number are TCS-7 was negative for asbestos. It was from a pipe elbow.

Investigation of the site lead to a old storage dump area. At this area several suspect materials of which some were sampled. As shown on the Sample Location / Site Plan we have prepared, a pipe pile containing thermal insulation pipe wrap was sampled. This sample number TCS-3 was positive for asbestos. Much of this material has fallen off the pipes on to the ground.

Also at the storage dump area was cases of old thermal pipe insulation similar to the kind tested positive in the Old Boiler Building. Mr. Cunitz, Environmental Health Officer for the Copper River Native Association indicated the Public Health Service had taken samples of this material and it was positive. Unfortunately we were unable to obtain a copy of those test results however based this and our observations we feel comfortable presuming this material positive for asbestos.

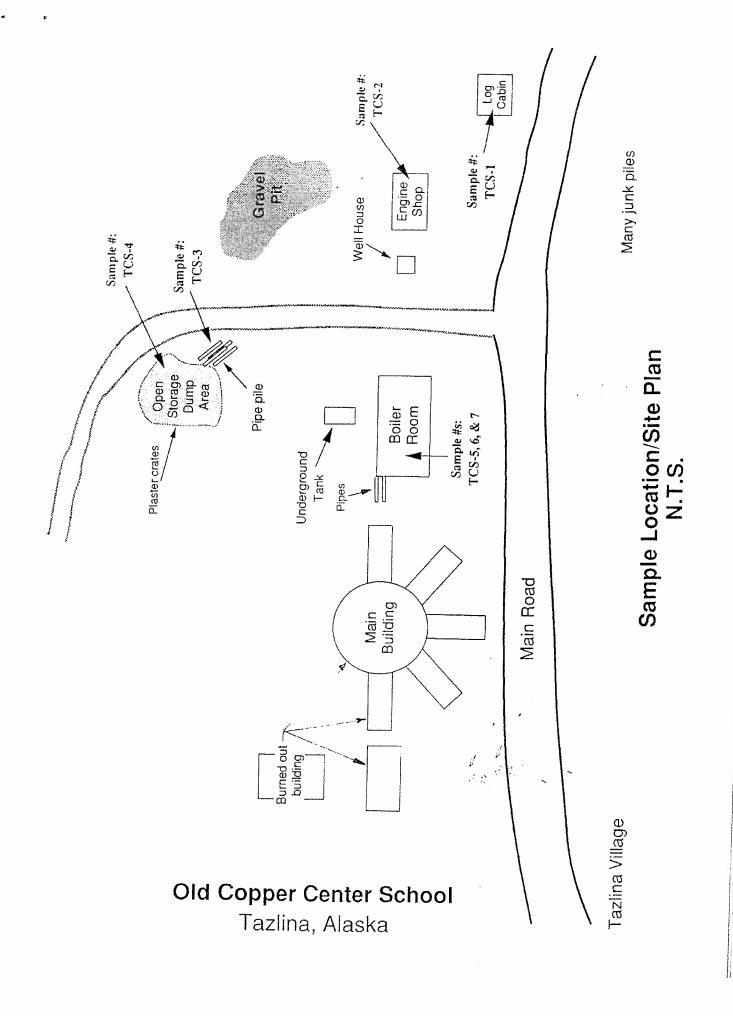
Also at the storage dump area were cases of a decomposed gypsum board like material. This was sampled, sample number TCS-4 and the sample results were negative.

Summary:

No asbestos containing materials were visually observed in the old School Building rubble however asbestos containing material may be burried in the rubble. At the time of disposal of the material review and adequate precautions should be taken.

The old boiler and piping systems in the remaining Old Boiler Building are positive for asbestos and are in a condition to become airborne if disturbed which could cause health hazards to occupants. Some options to control the potential hazard are to either remove the asbesots containing material or to barracade and post the building as contaminated.

The material in the storage dump area is positive for asbestos in the pipe pile and old thermal insulation. Both of these materials could present health hazards if disturbed and fibers released in the air. Some of these materials are on the ground. Some options to control the potential hazard are to either remove the asbesots containing material and clean up or to barracade with a fence and post the area as contaminated.





ALASKA BASELINE EROSION ASSESSMENT

U.S. Army Corps of Engineers Alaska District

Erosion Information Paper - Tazlina, Alaska

Current as of February 29, 2008

Community Information

Tazlina (taz-LEE-nuh), population 188, is 5 miles south of Glennallen along the Richardson Highway at mile 110.5. It is unincorporated in the unorganized borough.

Description of Erosion Problem

Tazlina is on the north and south banks of the Tazlina River, near its junction with the Copper River. The Tazlina River is about 46 miles long and flows east from Tazlina Lake into the Copper River. The 25-mile long Tazlina Glacier is the primary source of silty glacial water in the river. The meandering river channel causes erosion at Tazlina. Steep, unvegetated slopes along road cuts also are slumping and sliding. The erosion associated with the seasonal flooding and river channel migraion has impacted 4 riverbank areas. The south bank of the river channel is reported to have eroded 20 to 50 feet upstream of the Richardson Highway Bridge in the past 20 years. An ice jam that formed along the river channel on February 12, 2007 piled up to within 3 feet of the bottom of the Richardson Highway Bridge. No specific erosion damage was reported from this ice jam event, but ice jams are reported to contribute to erosion in the community.

Potential Damages

Residences, private wells, fuel tanks, smoke houses, outbuildings, a power pole, and a pathway by the old Catholic School are threatened by erosion. Erosion prevents use of a boat launch area east of the Richardson Highway and south of the bridge, and a picnic area at the launch has lost several feet of riverbank to erosion. A dike on the upstream north side of the river that deflects river flow to the south side has been effective in protecting the bridge, but the south bank of the river is now eroding. The cost for the dike is unknown and other erosion protection measures were not reported.

There is concern that the Tazlina River may erode into an old gravel pit downstream from the Richardson Highway Bridge on the north (outside) bend of the river and adversely impact School Road, Tazlina Loop Road, and residences. The Tazlina Trailer Court, a campground, a watering point, and the Bradley Subdivision on the upstream side of the Richardson Highway Bridge, also are reported as areas and facilities at risk from continued erosion.

Photos and Diagrams

Photos of erosion provided by Michael L. Bird are attached. Also, attached is a diagram depicting the linear extent of erosion in the community.

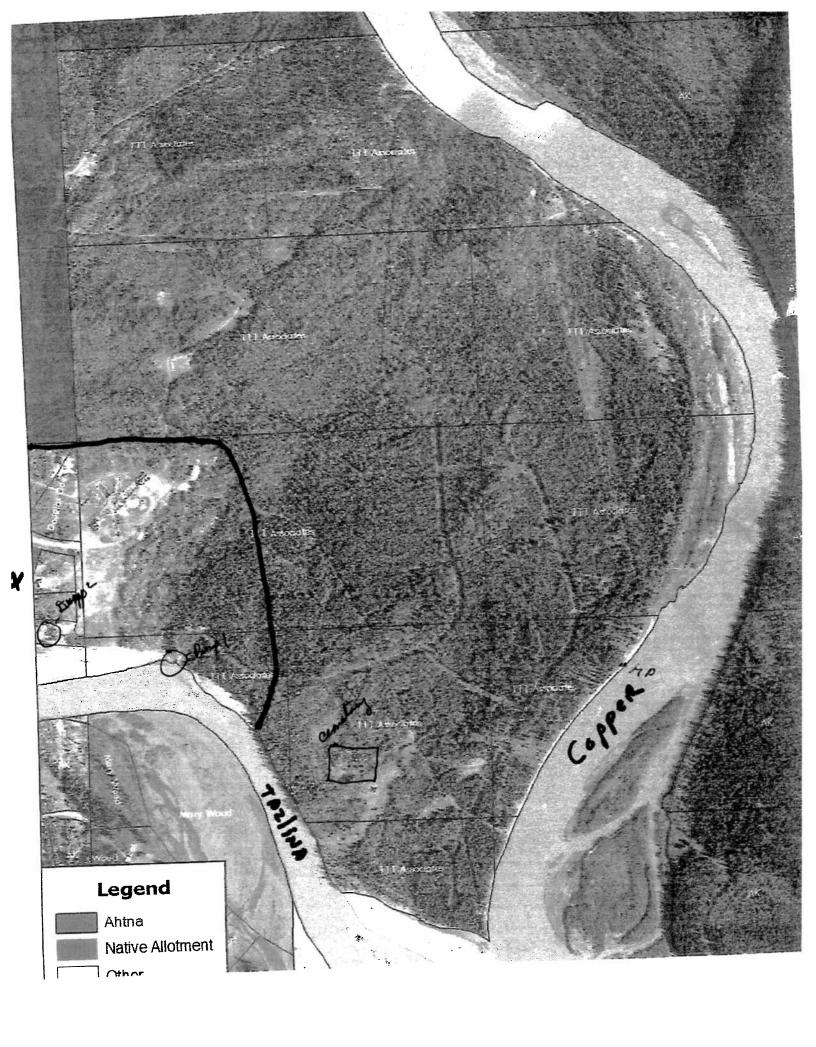
RECEIVED

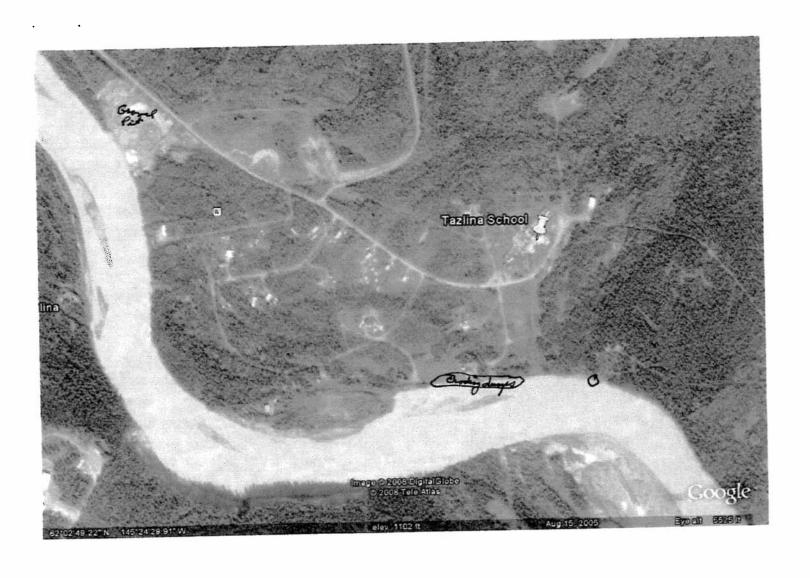
FEB 2 6 2009

CONTAMINATED SITES FAIRBANKS

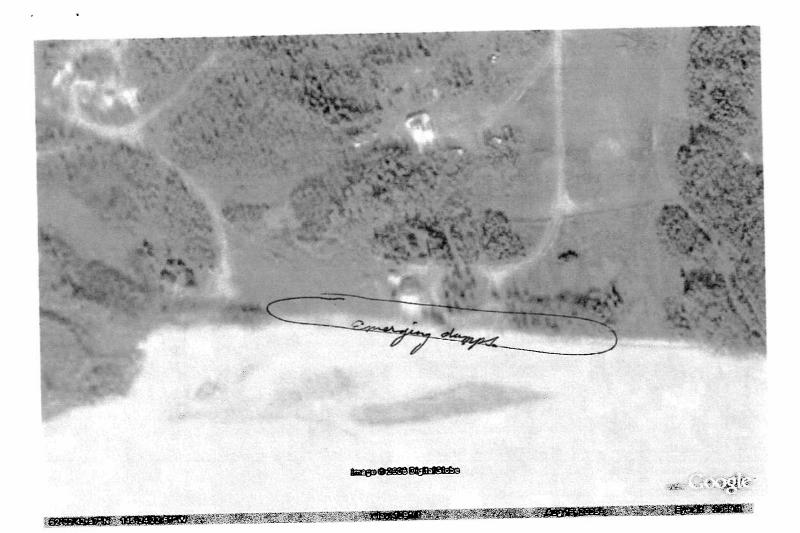


Figure 2-1 Study Area







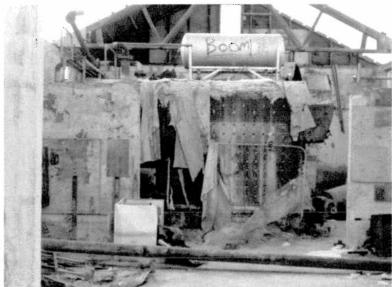




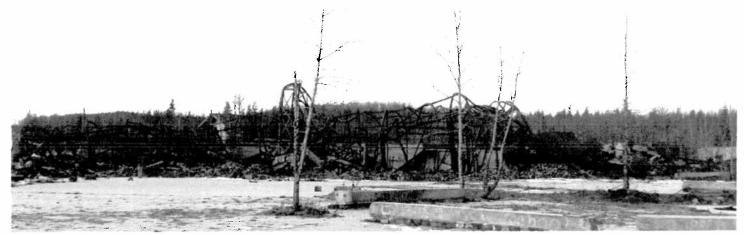


Buried Fuel Tank (about 10'x60') and bunker





One Boiler system – looks like asbestos to me



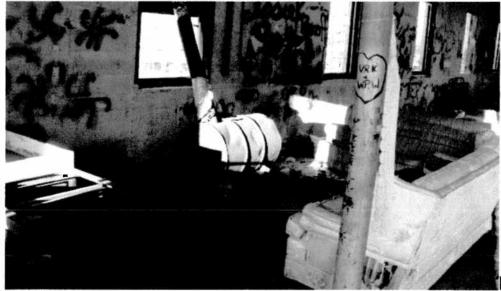
Remains of 1 of 5 wings of the main school building





Out building – unknown use

Maintenance garage – fav kids hangout



HQ at the hangout by the beds.



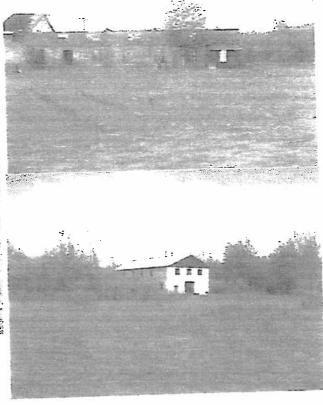
Downstairs lounge and beds

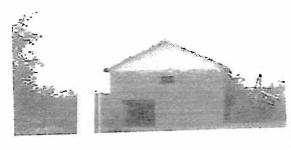


Other Side

Old Catholic Church Property 2000











Archdiocese of Anchorage

225 Cordova Street • Anchorage, AK 99501-2409 907.297-7700 • fax 907.279.3885 www.archdioceseofanchorage.org

February 20, 2009

Christopher Wright Tribal Administrator Native Village of Tazlina POB 87 Glennallen, AK 99588

Dear Mr. Wright,

Thank you for your efforts in pursing avenues to explore potential pollution challenges and impacts of the river erosion on the Tazlina and Copper Rivers.

As the owner of a large section of land at the confluence of the Copper and Tazlina Rivers known as the Old Copper Valley School site, on behalf of the Archbishop, the Corporation of the Catholic Archbishop of Anchorage gives permission, for access required for the DEC Brownfield Assessment, that you are seeking from the State of Alaska. I ask that we received a copy of any report at the time you receive the report so that we can actively work with you to address any issues that are identified by this assessment.

It is our desire that we work cooperatively with our neighbors to ensure the best future for the land and the people and those who may benefit from the future works that will occur on the Old Copper Valley School Site.

Please keep us informed as things progress and, if need additional letters of support please contact me.

Sincerely,

Charlotte V. Davenport

Chancellor

Archdiocese of Anchorage

Corporation of the Catholic Archbishop of Anchorage

cc: Copper Valley Alumni Assn.

Charlette V. Davenport



COPPER COUNTRY ALLIANCE

HC 60 Box 306T Copper Center, Alaska 99573 Phone (907) 822-3644 Fax (907) 822-3644 cca@coppervalleyak.net

a 501(c)(3) non-profit corporation
"Protecting the rural and wild natural environment of the
Wangeil Mountains/Copper Basin region."

January 27, 2009

Re: Tazlina River Erosion and Potential Contaminants

To Whom It May Concern:

Copper Country Alliance is an all-volunteer conservation organization based in the Copper River Basin. Most of our members are residents of the Copper Basin/Wrangell Mts. region. Thus, we have a stake in maintaining the region's clean water, land, and air. We also take an interest in the health of the region's many small communities and their inhabitants.

Erosion by the Tazlina River appears to be an issue with both short-term and long-term consequences. Protection of the highway bridge, protection of homes, and prevention of pollution are all of immediate concern. We hope that studies will also address such long-term issues as identifying uses that are compatible in the floodplain of a meandering river, and those uses that are not. The integrity of the Trans-Alaska Pipeline, which has above-ground approaches to the river and an underwater crossing not far upstream, must always be protected.

The Native Village of Tazlina deserves praise for raising the erosion and contamination issues and for seeking solutions. We support their requests to the Alaska Department of Environmental Conservation and the Corps of Engineers for investigation of these issues.

Sincerely,

COPPER COUNTRY ALLIANCE

Rette Medenry

Ruth McHenry Volunteer Staff



P.O. Box 9, Glennallen, AK 99588 * 907-822-5001 phone * 907-822-5009 fax www.coppervalley.org * cvda@cvinternet.net

February 3, 2009

Mr. Christopher Wright Administrator Native Village of Tazlina P.O. Box 87 Glennallen, AK 99588

Dear Mr. Wright,

The Copper Valley Development Association has been serving the region since 1991 as a regional non-profit entity serving the needs of our area residents. We are an Alaska Regional Development Organization as well as a USDA-authorized Resource Conservation and Development Council.

Long-term protection of our natural ecosystems, especially our fisheries habitats is an important goal of our residents and this organization. Through our projects and programs, we have addressed a number of environmental issues. This includes the removal of 1,200 abandoned vehicles, 500 refrigerators, 1,650 lead-acid batteries and tons of associated scrap metal and household waste. We have also supported local recycling of electronics, household materials and community clean-ups.

We understand the threats of hazardous wastes that may potentially drain into our watersheds. We are aware of the potential contamination at the Old Catholic School site on Old School Road in Tazlina that burned many years ago. Many residents are concerned about the potential threats from asbestos, lead-acid batteries and buried waste that might be found there. The threat is exacerbated by the accelerated erosion from the rivers near this site.

We support activities that the Native Village of Tazlina might conduct with current landowners, the Alaska Department of Environmental Conservation, Environmental Protection Agency and Army Corps of Engineers to further study and assess the needed remediation to this site to protect our Copper River.

Please feel free to contact us if we can be of further assistance to this worthwhile effort.

Sincerely

Teri Nutter President

Native Village of Tazlina

P. O. Box 87

Glennallen, Alaska 99588-0087

Phone: (907) 822-4375

Fax: (907) 822-5865

tazlina a cviniernei nei

Tuesday, January 20, 2009

Native Village of Tazlina EPA Programs Manager POB 87 Glennallen, AK 99588

Re: Brownfields Support

Dear Native Village of Tazlina,

The Native Village of Tazlina EPA Program fully supports the Tazlina Village Council to pursue a DEC Brownfield assessment. Currently staff is working on completing an Emergency Preparedness plan for the Village which will include a hazard assessment. The Emergency Preparedness plan will allow the village to have the proper supplies to help residents under a number of emergency situations. The flooding of the Tazlina River and change in the rivers flow plus potential pollutants are of concern to EPA. The DEC assessment would supply needed information about hazards on land bordering the Village of Tazlina and allow the village to be better prepared.

The EPA Program also recognizes the dependence of the village members on subsistence fishing. The continued flooding of the Tazlina River is a real risk to the continued safe harvest of these fish from the Tazlina and Copper Rivers.

The EPA Program will be contracting a water quality study to determine future access of potable water for residences. The information DEC obtains about the old Catholic School site will supply the contractor with known hazards in the area. Decisions of where to locate a washeteria or other public facility will be greatly enhanced by this assessment.

The Native Village of Tazlina EPA program fully supports the DEC performing a Brownfield Assessment and sharing its findings with the Tazlina Village Council. It will make the village well qualified to determine risks to its residents.

Sincereis

neidi veach

EPA Coordinator

Native Village of Tazlina



Kenny Lake Soil & Water Conservation District HC 60 Box 52 Copper Center, Alaska 99573 Office: (907) 822-4479 Fax: (907) 822-4489

Email: kiswed@kennylakeak.net

Feb. 12, 2009

To Whom It May Concern:

This is a letter in support of the Native Village of Tazlina's pursuit of funding for investigation and analysis of the Tazlina River erosion concerns. There are serious resource concerns that need to be addressed related to flooding on the Tazlina River and the resulting erosion.

There are concerns that climate change may be intensifying the flooding and erosion on the river, which may affect public health, drinking water sources, and cause structural damage to residences, public facilities, transportation corridors, and businesses. With numerous old refuse sites and the Trans Alaska Pipeline crossing the Tazlina River, there are concerns that pollutants may contaminate the Copper River, a major source of subsistence for many area residents.

A critical investigation and analysis of the situation could provide the area stakeholders a better understanding of the alternative actions that could be taken to alleviate the resource concerns.

We urge you to fund the necessary investigations so that we can move forward with solutions to these important resource concerns.

Sincerely,

Doug Vollman, KLSWCD District Manager



February 7, 2009

Mr. Christopher Wright, Administrator Native Village of Tazlina P.O. Box 87 Glennallen, AK. 99588-0087

Re: Brownfields Support Letter

Dear Mr. Wright:

Ahtna, Incorporated would like to offer this letter in support of your request to seek Department of Environmental Conservation and U.S. Army Corp of Engineers assistance for the analysis and technical guidance in establishing a base-line environmental study associated with the potential clean up of the waste materials located near the Tazlina River on the Catholic Diocese property near Tazlina.

Please feel free to contact us if you have any further questions or needs concerning this request.

Sincerely,

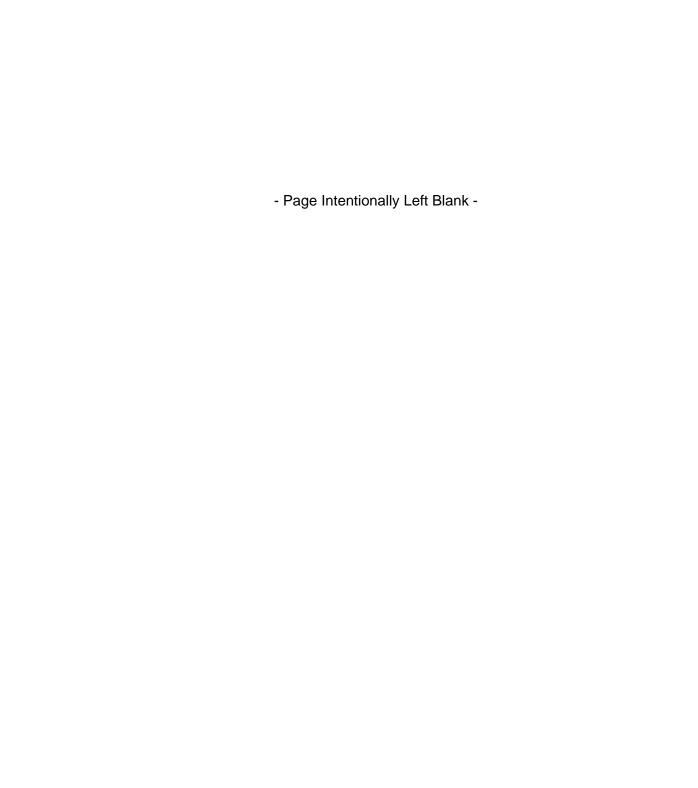
Kathryn Martin

Ahtna VP Land and Resources



APPENDIX B

Stakeholder Meeting Minutes





September 8, 2009

Dennis Harwood ADEC Technical Services and Risk Assessment 555 Cordova Street Anchorage, AK 99501

Subject: Copper Valley School Stakeholder Meeting Minutes

Dear Mr. Harwood:

This letter report summarizes meeting minutes for a teleconference on September 2, 2009, with the stakeholders of the Copper Valley School. The meeting served as the project kick-off for a property assessment and cleanup plan that OASIS is performing for the Alaska Department of Environmental Conservation (DEC) on behalf of the Native Village of Tazlina through DEC's Brownfields Assessment program. The meeting began at 2:00 and concluded at approximately 3:00.

Participants

John Carnahan, DEC, Brownsfield Coordinator

Deborah Williams, DEC, Brownsfield Project Manager

Christopher Wright, Native Village of Tazlina, Tribal Administrator

Heidi Veach, Native Village of Tazlina, IGAP Coordinator

Arnold Lincoln, Copper Valley School Association Board member and Tazlina resident

Chuck Akers, Copper Valley School Association President

Julie Clark, OASIS Environmental, Project Manager

Ben Martich, OASIS Environmental, Supervisor

Minutes

The following provides a bulleted summary of discussions.

- Introductions by participants.
- Chuck Akers is the president of the Copper Valley School Association. The Copper Valley School
 Association has been working closely with the Catholic Church Archdiocese of Anchorage (the
 property owners), and Chuck is present as an unofficial proxy for the Catholic Church. The
 Copper Valley School Association will soon be managing the Copper Valley School site (hereafter

825 W. 8th Ave., Anchorage, AK 99501 Phone: (907) 258-4880

- called the "Property") on behalf of the Church, although the Church will retain ownership of the Property.
- John Carnahan describes the Brownsfield program: It's funded by the EPA and intended to identify, assess and revitalize properties. The DEC can only fund a few projects a year and the funding is limited to assessment only, but there are other avenues of funding for further assessment and cleanup. The report written by OASIS will likely be used to seek additional funds, probably through EPA, for further assessment and the actual cleanup work.
- Chuck Akers says that the Catholic Church would like to be copied on communication and reports
 during this project so they can be aware of the progress. Chuck mentions that he hopes this
 project will focus on finding the major potential hazards at the site, and not every small concern,
 so the project will be less costly in the long run.
- John responds that records research and community interviews will help keep the project focused by discriminating between the real and perceived issues at the site. Tanks, dumps, fuel lines, etc. are common important concerns.
- Chris reiterates that he hopes this project will focus energy on the most important matters at the Property.
- John responds that unknowns at a site can cause problems. When even the small concerns are documented, they can be more easily understood and prioritized.
- Chris identifies potential concerns about the Property:
 - Old paint on pallets
 - Unknown granular material on pallets, which may or may not be gypsum
 - Asbestos in the boiler room
 - Inland buried dumps exposed by river erosion. Lead batteries and unknown cans have been seen eroding out of the dump. The eroding dumpsite into the river is what originally brought the potential hazards at the Property to the attention of the community. There may be other buried dumpsites on the Property as well.
 - The Native Village of Tazlina would like to see the hazards removed from the Property, and then the Property cleaned up and reused beneficially.
- Chuck says that the Copper Valley School Association has a building committee, and several members live in Tazlina: Arnold Lincoln and Gary Fisher. Chuck (a former student) provided some information about historic Property use and potential environmental issues:
 - The boiler had pipes insulated with asbestos wrap; much of the insulation was dispersed by the fire and then probably brown away by the wind. The Church did an asbestos study that found minimal effects from the asbestos.
 - o There may be buried fuel tanks in the kitchen area.
 - The shop had asbestos insulation.
 - Trucks also were repaired in the shop.
 - Tanks to the north and west of the main building area were probably water tanks. The school kept food items such as potatoes and carrots there.
 - The school received surplus government supplies such as the pallets of paint.
 - The Copper Valley School Association is concerned that there has been more recent dumping at the site after the school burned down.



- Some suggestions/recommendations to clean up the site have been to fill building foundations with cobble, bury everything as is, and encapsulate the site.
- John asks about the asbestos study performed by the Church. The Native Village of Tazlina
 included the study in the Brownsfield application, and it was also included in the RFP sent out by
 the DEC. OASIS has a copy of the study.
- Arnold mentions several other concerns:
 - Old leach fields.
 - o A well drilled at the boiler plant with water seeping out.
- Chris thinks the well is a deep artesian well with high mineral content, and could be influencing the upper groundwater aquifers. It may just need to be capped.
- Arnold mentions dumping areas in the woods, used by locals after the school burned down.
- Chris, Arnold, and Johnny Goodtalaw (Tazlina Council President) would like to be present when OASIS performs the site visit.
- Julie describes what activities OASIS will be performing for this project: a review of environmental
 databases and records for the site and immediately surrounding areas, a site visit to the Property
 to assess any environmental concerns, focusing specifically on the concerns raised by the
 community, and interviews with members of the community while performing the site visit. No
 sampling will be conducted during the site visit.
- Scheduling: Heidi and Chris work for the Native Village of Tazlina, so they are available Monday through Friday from 8 a.m. to 5 p.m. Arnold is unavailable after October 1. Council President Johnny Goodtalaw would like to be present as well, and can be available if we tentatively decide on dates for the site visit.
- Tentatively plan on Monday and Tuesday September 21-22 for OASIS to conduct the site visit.
- OASIS will submit the draft property assessment and cleanup plan in December 2009, and the final property assessment and cleanup plan in January 2010.
- Some contact information provided.
 - Sister Charlotte Davenport, CFO Archdiocese of Anchorage, 225 Cordova Street, Anchorage AK 99501, Email: cdavenport@caa-ak.org
 - o Chris Wright's phone number: 907-822-4375
 - Arnold Lincoln's email: aklincoln1942@earthlink.net
- Ben Martich (OASIS) asks about the long-term goal for the Property.
- Chuck answers that the dream is to have some sort of educational or cultural center. The school association hopes to have a strategic plan in the next year. A non-profit 501(c)(3) will manage and plan for the reuse of the Property.
- Chris says that his vision for the Property is a structured, safe, fun place serving some educational purpose, and that everybody should have access to the site.
- John asks who will retain ownership of the Property. As both Chris and Chuck understand, the Archdiocese of Anchorage Church will remain the owners.
- John says that this project will just scratch the surface for assessment, and more funding will
 need to come from the EPA to finish the project. DEC has worked with many people to get further
 funding to carry projects through to fruition. John states that while it is not necessary for the DEC

to be included in the logistics and planning of the site visit, the DEC should be copied on any communication so they can stay in the loop as the project evolves.

• Teleconference adjourns.

OASIS appreciates the opportunity to assist DEC, Native Village of Tazlina, and the Copper Valley School Association with this project. Please contact us at 907-258-4880, or email at <u>j.clark@oasisenviro.com</u>, if you have any questions regarding the submission of the meeting minutes.

Sincerely,

OASIS Environmental, Inc.

ulii Clark

Julie Clark

Project Manager

Max Schwenne

My W. Shumme

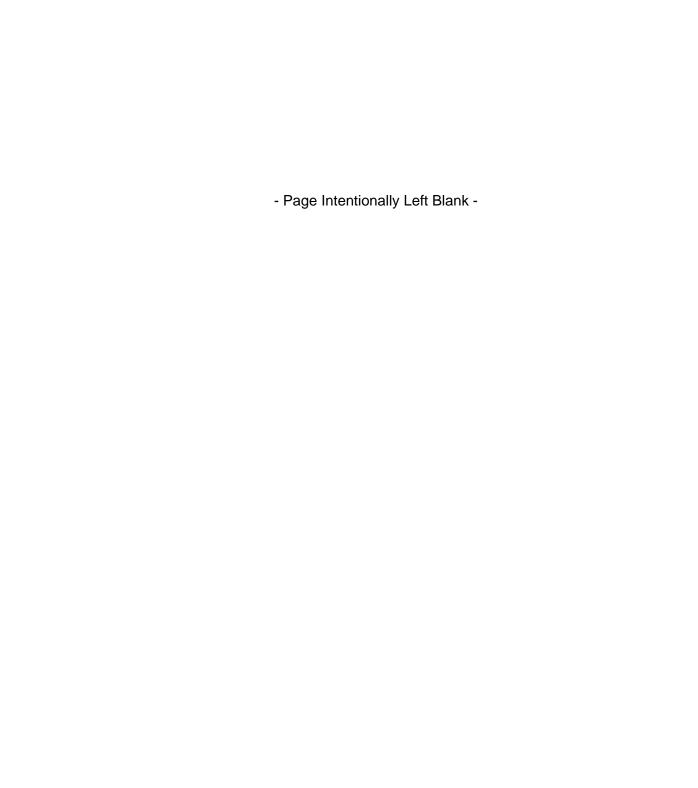
Vice President

CC:

John Carnahan, DEC Brownfields Coordinator Deborah Williams, DEC Project Manager

APPENDIX C

EDR Report



Copper Valley School

Richardson Highway Tazlina, AK 99588

Inquiry Number: 2585164.2s

September 10, 2009

The EDR Radius Map™ Report with GeoCheck®

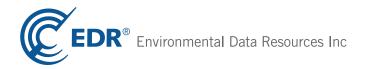


TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map.	 3
Map Findings Summary	4
Map Findings	7
Orphan Summary	
Government Records Searched/Data Currency Tracking	GR-1
GEOCHECK ADDENDUM	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map.	A-5
Physical Setting Source Map	
Physical Setting Source Map Findings	A-10
Physical Setting Source Records Searched	A-23

Thank you for your business.Please contact EDR at 1-800-352-0050 with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2009 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

RICHARDSON HIGHWAY TAZLINA, AK 99588

COORDINATES

Latitude (North): 62.048000 - 62° 2' 52.8" Longitude (West): 145.403000 - 145° 24' 10.8"

Universal Tranverse Mercator: Zone 6 UTM X (Meters): 583512.2 UTM Y (Meters): 6880354.0

Elevation: 1102 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: N/A

Source: USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

Proposed NPL..... Proposed National Priority List Sites

NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list	
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information
Federal CERCLIS NFRAP	site List
CERC-NFRAP	CERCLIS No Further Remedial Action Planned
Federal RCRA CORRACT	S facilities list
CORRACTS	Corrective Action Report
Federal RCRA non-CORR	ACTS TSD facilities list
RCRA-TSDF	RCRA - Transporters, Storage and Disposal
Federal RCRA generators	list
	RCRA - Large Quantity Generators
	RCRA - Small Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator
	ols / engineering controls registries
	Engineering Controls Sites List Sites with Institutional Controls
Federal ERNS list	
ERNS	Emergency Response Notification System
State- and tribal - equivale	ent CERCLIS
SHWS	Contaminated Sites Database
State and tribal landfill an	d/or solid waste disposal site lists
SWF/LF	Solid Waste Facilities
State and tribal leaking st	orage tank lists
LUST	Leaking Underground Storage Tank Database
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
State and tribal registered	l storage tank lists
	Underground Storage Tank Database
	Regulated Aboveground Storage Tanks
INDIAN 021	Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS..... Engineering Controls Site Listing INST CONTROL..... Contaminated Sites with Institutional Controls

System

State	and	tribal	voluntary	cleanup	sites
-------	-----	--------	-----------	---------	-------

VCP......Voluntary Cleanup Program sites INDIAN VCP.....Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS.....Identified and/or Proposed Brownfields Sites

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9...... Torres Martinez Reservation Illegal Dump Site Locations

ODI...... Open Dump Inventory

INDIAN ODI...... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs

CDL Illegal Drug Manufacturing Sites

US HIST CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

LUCIS.....Land Use Control Information System

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System

SPILLS......Spills Database

Other Ascertainable Records

RCRA-NonGen______RCRA - Non Generators
DOT OPS______Incident and Accident Data
DOD_______Department of Defense Sites
FUDS______Formerly Used Defense Sites

CONSENT..... Superfund (CERCLA) Consent Decrees

TRIS...... Toxic Chemical Release Inventory System

TSCA...... Toxic Substances Control Act

Act)/TSCA (Toxic Substances Control Act)

HIST FTTS....... FIFRA/TSCA Tracking System Administrative Case Listing

SSTS..... Section 7 Tracking Systems

ICIS..... Integrated Compliance Information System

FINDS______Facility Index System/Facility Registry System RAATS______RCRA Administrative Action Tracking System

SCRD DRYCLEANERS...... State Coalition for Remediation of Drycleaners Listing

PCB TRANSFORMER...... PCB Transformer Registration Database

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

NPDES: A listing of permitted wastewater facilities.

A review of the NPDES list, as provided by EDR, and dated 11/24/2006 has revealed that there is 1 NPDES site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TAZLINA VILLAGE OF	TAZLINA VILLAGE COUNCIL	SW 1/4 - 1/2 (0.368 mi.)	1	7

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
VEHICLE ROLLOVER MP 83.5 RICHARDSO	SHWS
KENNY LAKE MERCANTILE	SHWS
MOUNTAIN VIEW GAS & LIQUOR	SHWS
ALYESKA PS 12 MAINLINE TURBINE SUM	SHWS
ALYESKA PLMP 734 PIPE LEAK	SHWS
ALYESKA PS 12 FUEL ISLAND AREA	SHWS
OLD BIA COPPER CENTER SCHOOL	SHWS, BROWNFIELDS
ADOTPF - TAZLINA MAINTENANCE STATI	SHWS, INST CONTROL
ADOTPF - NELCHINA MAINTENANCE STATI	SHWS
ADOTPF - NELCHINA MAINTENANCE STATIO	SHWS, INST CONTROL
ADFG - GLENN HIGHWAY	SHWS
ELLIS AIR TAXI	SHWS
CHEVRON - GLENNALLEN	SHWS
HUB OF ALASKA, INC.	SHWS
SEND INTERNATIONAL MAINTENANCE SHO	SHWS
CVEA GLENNALLEN TANK LINER	SHWS
ADOT&PF GLENNALLEN HIGHWAY MAINTEN	SHWS
CVEA GLENNALLEN POWER PLANT GW	SHWS
ADOTPF - NELCHINA MAINTENANCE STAT	SHWS
	SHWS
FORMER LAKE LOUISE CONVENIENCE STO	
FAA GULKANA	SHWS
CVEA GLENNALLEN PLANT MGR RESIDENC	SHWS
CVEA GLENNALLEN ETHYLENE GLYCOL	SHWS
ALYESKA PS 11 BLOCK VALVE 20 BL2	SHWS SHWS
GLENNALLEN QUICK STOP COPPER VALLEY ELECTRIC, GLENNALLEN	
•	SHWS BROWNELL DC
ADOT&PF GULKANA AIRPORT BLK 21 LEA	SHWS, BROWNFIELDS
COPPER CENTER RADIO STATION	CERC-NFRAP
TOLSONA RADIO RELAY SITE	CERC-NFRAP
TOLSONA COMMUNITY LANDFILL	SWF/LF
GLENNALLEN LANDFILL	SWF/LF
MOUNTAIN VIEW GAS & LIQUOR KENNY LAKE MERCANTILE	LUST HET VCD
	LUST, UST, VCP
ADOTPE - NEL CUINA MAINTENANCE STATI	LUST
ADOTPF - NELCHINA MAINTENANCE STAT ADOTPF - PAXSON MAINTENANCE STATIO	LUST
ELLIS AIR TAXI	LUST LUST
HUB OF ALASKA, INC.	LUST
•	
ADF&G - GLENNALLEN SEND INTERNATIONAL MAINTENANCE SHO	LUST, UST LUST
FORMER LAKE LOUISE CONVENIENCE STO	LUST
FAA GULKANA	LUST
ADOTPF - NELCHINA MAINTENANCE STAT	LUST
COPPER VALLEY ELECTRIC, GLENNALLEN	LUST
MOUNTAIN VIEW LIQUOR & GAS	UST
GRIZZLY PIZZA & GIFT SHOP	UST
LAKE LOUISE CONVENIENCE STORE	UST
HUB OF ALASKA	UST
COPPER VALLEY ELECTRIC ASSOCIATI	UST
ADF&G - MILE 185 OLD ADOT MAINTENA	UST
SEND MAINTENANCE SHOP	UST
ADOTPF - PAXSON MAINTENANCE STATIO	UST
ADOTPF - PAXSON MAINTENANCE STATIO	UST
ADOTPF - TAZLINA MAINTENANCE STATI ADOTPF - NELCHINA MAINTENANCE STAT	UST
AT&T - TOLSONA MICROWAVE REPEATER	UST
AT&T - TOLSONA MICROWAVE REPEATER AT&T - TAHNETA PASS MICROWAVE REPE	UST
VALDEZ - COOPER RIVER HELIPORT	UST
MAINTENANCE SHOP	UST
EAGLE AIRMOTIVE	UST
LAGLE AIMWOTTVE	001

EXECUTIVE SUMMARY

TAZLINA RIVER TRADING POST
KNOEBEL'S UNION
ADOTPF - NELCHINA MAINTENANCE STAT
ALYESKA MAINLINE REFRIGERATION UNI
CHEVRON USA INC COPPER CTR BULK PL
QUALITY ASPHALT PAVING INC
ALYESKA PIPELINE CHECK VALVE 92
ALASKA DOT & PF GLENNALLEN
ADEC GLENNALLEN LDFL
USDOI NPS WRANGELL ST ELIAS GLENN
ALYESKA TAPS PUMP STA 12
KENNY LAKE SCHOOL
COPPER CENTER SCHOOL
COPPER VALLEY ELECTRIC ASSO-GLENNA

GLENNALLEN DIESEL PLANT

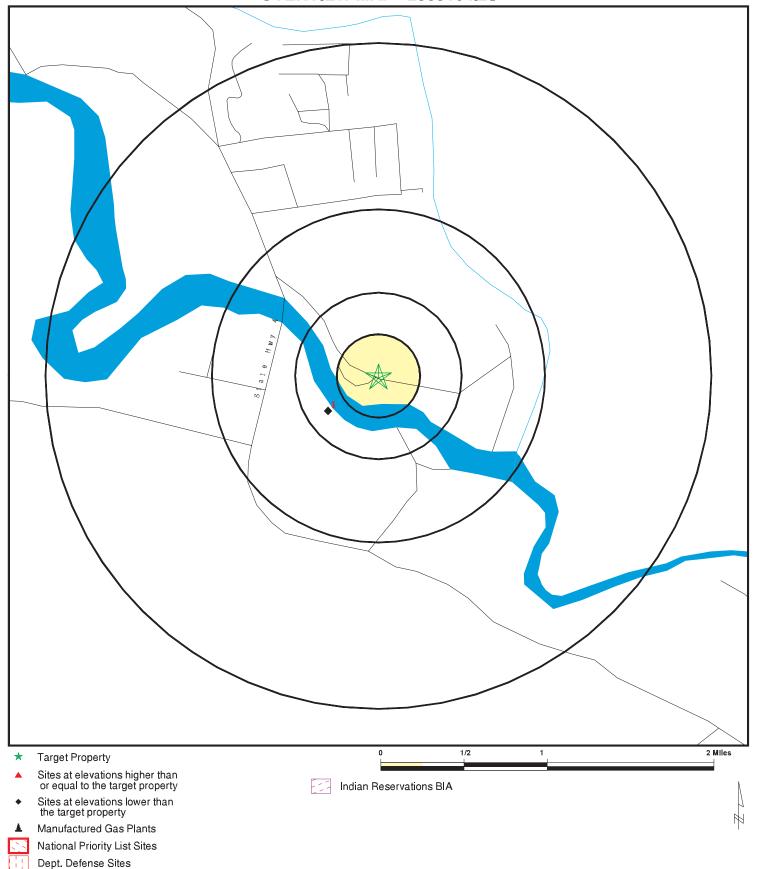
VCP RCRA-SQG, FINDS FINDS, RCRA-NonGen FINDS, RCRA-NonGen FINDS, RCRA-NonGen FINDS, RCRA-CESQG FINDS, RCRA-CESQG FINDS, RCRA-CESQG FINDS, RCRA-CESQG FINDS

FINDS FINDS ICIS AIRS

UST

UST

OVERVIEW MAP - 2585164.2s



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

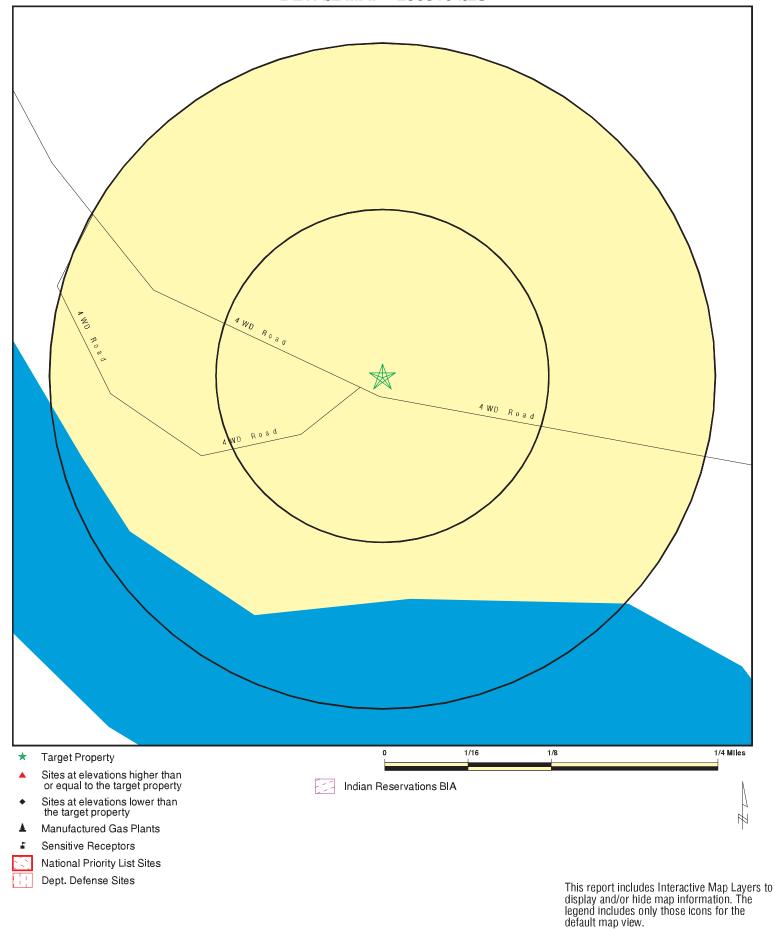
SITE NAME: Copper Valley School ADDRESS: Richardson Highway

Tazlina AK 99588 LAT/LONG: 62.0480 / 145.4030 Oasis Environmental

CLIENT: Oasis Envir CONTACT: Julie Clark INQUIRY#: 2585164.2s

DATE: September 10, 2009 2:07 pm

DETAIL MAP - 2585164.2s



SITE NAME: Copper Valley School
ADDRESS: Richardson Highway
Tazlina AK 99588
LAT/LONG: 62.0480 / 145.4030

CLIENT: Oasis Environmental
CONTACT: Julie Clark
INQUIRY #: 2585164.2s
DATE: September 10, 2009 2:07 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	Total Plotted				
STANDARD ENVIRONMENT	STANDARD ENVIRONMENTAL RECORDS											
Federal NPL site list												
NPL Proposed NPL NPL LIENS		1.500 1.500 0.500	0 0 0	0 0 0	0 0 0	0 0 NR	0 0 NR	0 0 0				
Federal Delisted NPL site	e list											
Delisted NPL		1.500	0	0	0	0	0	0				
Federal CERCLIS list												
CERCLIS		1.000	0	0	0	0	NR	0				
Federal CERCLIS NFRAI	Site List											
CERC-NFRAP		1.000	0	0	0	0	NR	0				
Federal RCRA CORRAC	TS facilities li	st										
CORRACTS		1.500	0	0	0	0	0	0				
Federal RCRA non-COR	RACTS TSD f	acilities list										
RCRA-TSDF		1.000	0	0	0	0	NR	0				
Federal RCRA generator	s list											
RCRA-LQG RCRA-SQG RCRA-CESQG		0.750 0.750 0.750	0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0				
Federal institutional con engineering controls reg												
US ENG CONTROLS US INST CONTROL		1.000 1.000	0 0	0 0	0 0	0 0	NR NR	0 0				
Federal ERNS list												
ERNS		0.500	0	0	0	NR	NR	0				
State- and tribal - equiva	lent CERCLIS	3										
SHWS		1.500	0	0	0	0	0	0				
State and tribal landfill a solid waste disposal site												
SWF/LF		1.000	0	0	0	0	NR	0				
State and tribal leaking s	storage tank l	ists										
LUST INDIAN LUST		1.000 1.000	0 0	0 0	0 0	0 0	NR NR	0 0				
State and tribal registere	ed storage tar	ık lists										
UST AST		0.750 0.750	0 0	0 0	0 0	0	NR NR	0 0				

MAP FINDINGS SUMMARY

Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
	0.750	0	0	0	0	NR	0
onal ntrol registrie	es						
	1.000 1.000	0 0	0 0	0 0	0 0	NR NR	0 0
y cleanup site	es						
	1.000 1.000	0 0	0 0	0 0	0 0	NR NR	0 0
elds sites							
	1.000	0	0	0	0	NR	0
ITAL RECORDS	<u>s</u>						
	1.000	0	0	0	0	NR	0
Solid							
	1.000 1.000	0	0	0	0	NR NR	0 0 0
s waste /	1.000	O	Ü	Ü	Ü	IVIX	O
	0.500 0.500 0.500	0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
	0.000	Ü	Ü	Ü	1417	1414	Ü
	0.500 1.000	0 0	0 0	0 0	NR 0	NR NR	0 0
Release Repo	rts						
	0.500 0.500	0 0	0 0	0 0	NR NR	NR NR	0 0
cords							
	0.750 0.500 1.500 1.500 1.500 1.500 1.000 0.750 0.500	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 NR 0 0 0 0 0 NR NR	NR NR 0 0 0 NR NR NR NR	0 0 0 0 0 0 0
	Property onal introl registrie y cleanup site elds sites ITAL RECORDS	Target Property Distance (Miles) 0.750 0.750 0.750 0.750 0.750 1.000 1.500	Target Property (Miles) < 1/8 0.750 0 1.500 0	Target Property Distance (Miles) < 1/8 1/8 - 1/4	Target Property (Miles) < 1/8	Target Property (Miles) < 1/8 1/8 - 1/4 1/4 - 1/2 1/2 - 1 0.750 0 0 0 0 0 0.000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.010000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.010000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.010000 0.01000 0.010000 0.010000 0.010000 0.0100000 0.01000000 0.0100000000	Target Property (Miles) < 1/8

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FTTS		0.500	0	0	0	NR	NR	0
HIST FTTS		0.500	0	0	0	NR	NR	0
SSTS		0.500	0	0	0	NR	NR	0
ICIS		0.500	0	0	0	NR	NR	0
PADS		0.500	0	0	0	NR	NR	0
MLTS		0.500	0	0	0	NR	NR	0
RADINFO		0.500	0	0	0	NR	NR	0
FINDS		0.500	0	0	0	NR	NR	0
RAATS		0.500	0	0	0	NR	NR	0
DRYCLEANERS		0.750	0	0	0	0	NR	0
NPDES		0.500	0	0	1	NR	NR	1
AIRS		0.500	0	0	0	NR	NR	0
INDIAN RESERV		1.500	0	0	0	0	0	0
SCRD DRYCLEANERS		1.000	0	0	0	0	NR	0
PCB TRANSFORMER		0.500	0	0	0	NR	NR	0
EDR PROPRIETARY RECOR	RDS							
EDR Proprietary Records	s							
Manufactured Gas Plants		1.500	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction

MAP FINDINGS

Distance

Elevation Site Database(s) EPA ID Number

1 TAZLINA VILLAGE OF NPDES \$108033671 SW TAZLINA VILLAGE COUNCIL N/A

1/4-1/2 0.368 mi. 1944 ft.

Relative: NPDES:

Lower Facilty Addr2: P.O. Box 87

GLENNALLEN, AK 99588

Facility Type: Domestic Wastewater

Actual: Lat/Long: 62.05079 / 145.43588

1095 ft. Permit Status: Not migrated yet
Receiving Water: undetermined - migration

Permit Number: Tazlina
Latitude Direction: N
Lat/Lon Type Code: LAT
Longitude Direction: W

Date Type:
Issued Date/Time:
Expiration Date/Time:
Dec Date Type:
Dec Issue Date:
Dec Expiration Date:
Stormwater Receiving Water:

DEC Dates
Not reported
Not reported
Not reported
Not reported
Not reported

NPDES:

Permit Type: Tazlina
Date Type: DEC Dates
Issued Date/Time: Not reported
Expiration Date/Time: Not reported
Dec Date Type: Not reported
Dec Issue Date: Not reported
Dec Expiration Date: Not reported

NPDES:

Receiving Water: undetermined - migration

Stormwater Receiving Water: Not reported

EDR ID Number

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
COPPER CENTER	S108540243	VEHICLE ROLLOVER MP 83.5 RICHARDSO	MP 83.5 RICHARDSON HIGHWAY	99573	SHWS
COPPER CENTER	1011280677	KENNY LAKE SCHOOL	MILE 5 EDGERTON HWY	99573	FINDS
COPPER CENTER	1011280674	COPPER CENTER SCHOOL	MILE 104 OLD RICHARDSON HWY	99573	FINDS
COPPER CENTER	1003880840	COPPER CENTER RADIO STATION	MILE 100.8 OLD RICHARDSON HWY	99573	CERC-NFRAP
COPPER CENTER	1000434557	CHEVRON USA INC COPPER CTR BULK PL	MILE 101 RICHARDSON HWY	99573	FINDS, RCRA-NonGen
COPPER CENTER	U003951962	MOUNTAIN VIEW LIQUOR & GAS	MILE 100.8 OLD RICHARDSON HWY	99573	UST
COPPER CENTER	U003765277	GRIZZLY PIZZA & GIFT SHOP	MILE 93 RICHARDSON HWY	99573	UST
COPPER CENTER	U003331049	MOUNTAIN VIEW GAS & LIQUOR	MILE 100.8 OLD RICHARDSON HWY.	99573	LUST
COPPER CENTER	U003140488	KENNY LAKE MERCANTILE	MILE 7.5 EAGERTON HWY	99573	LUST, UST, VCP
COPPER CENTER	S109256188	KENNY LAKE MERCANTILE	MILE 7.5 EDGERTON HWY		SHWS
COPPER CENTER	S109255105	MOUNTAIN VIEW GAS & LIQUOR	MILE 100.8 OLD RICHARDSON HWY.	99573	SHWS
COPPER CENTER	S107028803	ALYESKA PS 12 MAINLINE TURBINE SUM	MILE 64.7 RICHARDSON HWY.	99573	SHWS
COPPER CENTER	S105555601	ALYESKA PLMP 734 PIPE LEAK	MILE 65 RICHARDSON HWY.	99573	SHWS
COPPER CENTER	S104892467	ALYESKA PS 12 FUEL ISLAND AREA	MILE 64.7 RICHARDSON HWY.	99573	SHWS
COPPER CENTER	S109568258	OLD BIA COPPER CENTER SCHOOL	OLD RICHARDSON HIGHWAY	99573	SHWS, BROWNFIELDS
COPPER CENTER	1000287448	QUALITY ASPHALT PAVING INC	RICHARDSON HWY MI POST 101	99573	FINDS, RCRA-NonGen
GLENALLEN	1003880875	TOLSONA RADIO RELAY SITE	MI. 165.9 GLENN HWY, 28 MI. W.	99588	CERC-NFRAP
GLENNALLEN	U003331232	ADOTPF - TAZLINA MAINTENANCE STATI	MI 110 RICHARDSON HWY,	99588	LUST
GLENNALLEN	S109254809	ADOTPF - TAZLINA MAINTENANCE STATI	MI 110 RICHARDSON HWY	99588	SHWS, INST CONTROL
GLENNALLEN	1004670218	ADEC GLENNALLEN LDFL	MI 122 RICHARDSON HWY	99588	FINDS, RCRA-CESQG
GLENNALLEN	S109256524	ADOTPF - NELCHINA MAINTENANCE STAT	MI 142.5 GLENN HIGHWAY	99588	
GLENNALLEN	S105246527	ADOTPF - NELCHINA MAINTENANCE STAT	MI 142.5 GLENN HIGHWAY,	99588	LUST
GLENNALLEN	U004116233	LAKE LOUISE CONVENIENCE STORE	MP 160 GLENN HWY	99588	UST
GLENNALLEN	U003331253	ADOTPF - PAXSON MAINTENANCE STATIO	MI 185.5 RICHARDSON HWY,	99588	LUST
GLENNALLEN	S109254808	ADOTPF - PAXSON MAINTENANCE STATIO	MI 185.5 RICHARDSON HWY	99588	SHWS, INST CONTROL
GLENNALLEN	S109256511	ADFG - GLENN HIGHWAY	MP 186.5 GLENN HIGHWAY	99588	SHWS
GLENNALLEN	1004670249	USDOI NPS WRANGELL ST ELIAS GLENN	MI 187 GLENN HWY	99588	FINDS, RCRA-CESQG
GLENNALLEN	U003998691	HUB OF ALASKA	MP 189.5 GLENN HWY JUNCTION GL	99588	UST
GLENNALLEN	1001085203	ALYESKA PIPELINE CHECK VALVE 92	MP 593.7 RICHARSON HWY	99588	FINDS, RCRA-NonGen
GLENNALLEN	1011587863	COPPER VALLEY ELECTRIC ASSO-GLENNA	GLENN HIGHWAY MILE POST 187	99588	ICIS
GLENNALLEN	S109255506	ELLIS AIR TAXI	GLENN HIGHWAY;	99588	SHWS
GLENNALLEN	S109254829	CHEVRON - GLENNALLEN	GLENN HIGHWAY;	99588	SHWS
GLENNALLEN	S109254825	HUB OF ALASKA, INC.	GLENN / RICHARDSON HWYS.; MI	99588	SHWS
GLENNALLEN	S106672741	ELLIS AIR TAXI	GLENN HIGHWAY; ,	99588	LUST
GLENNALLEN	S105246602	HUB OF ALASKA, INC.	GLENN / RICHARDSON HWYS.; MI	99588	LUST
GLENNALLEN	U004116046	COPPER VALLEY ELECTRIC ASSOCIATI	MILE 187 GLENN HWY	99588	UST
GLENNALLEN	U004127123	ADF&G - MILE 185 OLD ADOT MAINTENA	MILE 185 GLENN HWY	99588	UST
GLENNALLEN	U004127122	SEND MAINTENANCE SHOP	MILE 187 GLENN HWY AT COLLEGE	99588	UST
GLENNALLEN	U004116349	ADOTPF - PAXSON MAINTENANCE STATIO	MILE 185.5 RICHARDSON HWY	99588	UST
GLENNALLEN	U004116300	ADOTPF - TAZLINA MAINTENANCE STATI	MILE 110 RICHARDSON HWY	99588	UST
GLENNALLEN	U004116297	ADOTPF - NELCHINA MAINTENANCE STAT	MILE 142.5 GLENN HWY	99588	UST
GLENNALLEN	U004116153	AT&T - TOLSONA MICROWAVE REPEATER	MILE 160 GLENN HWY	99588	UST
GLENNALLEN	U004115846	AT&T - TAHNETA PASS MICROWAVE REPE	MILE 118 GLENN HWY	99588	UST

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
GLENNALLEN	U004115768	VALDEZ - COOPER RIVER HELIPORT	MILE POST 110 RICHARDSON HWY	99588	UST
GLENNALLEN	U003951889	MAINTENANCE SHOP	MILE 187.5 GLENN HWY	99588	UST
GLENNALLEN	U003141034	ADF&G - GLENNALLEN	MILE 186.5 GLENN HWY	99588	LUST, UST
GLENNALLEN	U003140939	EAGLE AIRMOTIVE	MILE 118 RICHARDSON HWY GULKAN	99588	UST
GLENNALLEN	U003140106	TAZLINA RIVER TRADING POST	MILE 111 RICHARDSON HWY PO BOX	99588	UST
GLENNALLEN	U003139364	KNOEBEL'S UNION	MILE 183 GLENN HWY	99588	UST
GLENNALLEN	S109568486	SEND INTERNATIONAL MAINTENANCE SHO	MILE 187 GLENN HIGHWAY; CORNER	99588	SHWS
GLENNALLEN	S109568395	CVEA GLENNALLEN TANK LINER	MILE 187 GLENN HIGHWAY	99588	SHWS
GLENNALLEN	S109568134	ADOT&PF GLENNALLEN HIGHWAY MAINTEN	MILE 185 GLENN HIGHWAY	99588	SHWS
GLENNALLEN	S109568050	CVEA GLENNALLEN POWER PLANT GW	MILE 187 GLENN HIGHWAY	99588	SHWS
GLENNALLEN	S109349609	SEND INTERNATIONAL MAINTENANCE SHO	MILE 187 GLENN HIGHWAY; CORNER	99588	LUST
GLENNALLEN	S109261301	FORMER LAKE LOUISE CONVENIENCE STO	MILE 160 GLENN HIGHWAY,	99588	LUST
GLENNALLEN	S109261277	FAA GULKANA	MILE 120 RICHARDSON HWY.,	99588	LUST
GLENNALLEN	S109261153	ADOTPF - NELCHINA MAINTENANCE STAT	MILE 142.5 GLENN HIGHWAY,	99588	LUST
GLENNALLEN	S109255704	ADOTPF - NELCHINA MAINTENANCE STAT	MILE 142.5 GLENN HIGHWAY	99588	SHWS
GLENNALLEN	S109255396	FORMER LAKE LOUISE CONVENIENCE STO	MILE 160 GLENN HIGHWAY	99588	SHWS
GLENNALLEN	S109255358	FAA GULKANA	MILE 120 RICHARDSON HWY.	99588	SHWS
GLENNALLEN	S109229626	ADOTPF - NELCHINA MAINTENANCE STAT	MILE 142.5 GLENN HIGHWAY	99588	VCP
GLENNALLEN	S107738830	GLENNALLEN DIESEL PLANT	MILE 187 GLENN HWY	99588	AIRS
GLENNALLEN	S107029203	CVEA GLENNALLEN PLANT MGR RESIDENC	MILE 187 GLENN HIGHWAY	99588	SHWS
GLENNALLEN	S107029202	CVEA GLENNALLEN ETHYLENE GLYCOL	MILE 187 GLENN HIGHWAY	99588	SHWS
GLENNALLEN	S107029200	ALYESKA PS 11 BLOCK VALVE 20 BL2	MILE 114 RICHARDSON HWY.	99588	SHWS
GLENNALLEN	S105273785	GLENNALLEN QUICK STOP	MILE 115.5 RICHARDSON HWY	99588	SHWS
GLENNALLEN	S104740857	TOLSONA COMMUNITY LANDFILL	MILE 168.5 GLENN HWY	99588	SWF/LF
GLENNALLEN	S103377110	GLENNALLEN LANDFILL	MILEPOST 121.5 RICHARDSON HWY	99588	SWF/LF
GLENNALLEN	S109255684	COPPER VALLEY ELECTRIC, GLENNALLEN	RICHARDSON HIGHWAY;	99588	SHWS
GLENNALLEN	S106247580	COPPER VALLEY ELECTRIC, GLENNALLEN	RICHARDSON HIGHWAY; ,	99588	LUST
GLENNALLEN	S109568261	ADOT&PF GULKANA AIRPORT BLK 21 LEA	RICHARDSON HIGHWAY	99588	SHWS, BROWNFIELDS
GLENNALLEN	1001480888	ALYESKA MAINLINE REFRIGERATION UNI	RICHARDSON HWY MP 151	99588	RCRA-SQG, FINDS
GLENNALLEN	1000856113	ALASKA DOT & PF GLENNALLEN	RICHARDSON HWY MI 110	99588	FINDS, RCRA-NonGen
GLENNALLEN	1000840628	ALYESKA TAPS PUMP STA 12	RICHARDSON HWY MP 65	99588	FINDS, RCRA-CESQG

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 02/02/2009 Source: EPA
Date Data Arrived at EDR: 02/12/2009 Telephone: N/A

Date Made Active in Reports: 03/30/2009 Last EDR Contact: 09/10/2009

Number of Days to Update: 46 Next Scheduled EDR Contact: 10/26/2009
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/23/2009 Source: EPA
Date Data Arrived at EDR: 04/28/2009 Telephone: N/A

Number of Days to Update: 21 Next Scheduled EDR Contact: 10/26/2009
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Source: EPA

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Telephone: 202-564-4267 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

NPL where no further response is appropriate

Date of Government Version: 02/02/2009 Date Data Arrived at EDR: 02/12/2009 Date Made Active in Reports: 03/30/2009

Number of Days to Update: 46

Source: EPA Telephone: N/A

Last EDR Contact: 09/10/2009

Next Scheduled EDR Contact: 10/26/2009 Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/09/2009 Date Data Arrived at EDR: 01/30/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 101

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 09/10/2009

Next Scheduled EDR Contact: 10/12/2009 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 12/03/2007 Date Data Arrived at EDR: 12/06/2007 Date Made Active in Reports: 02/20/2008

Number of Days to Update: 76

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 09/09/2009

Next Scheduled EDR Contact: 12/14/2009 Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2009 Date Data Arrived at EDR: 04/02/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 39

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 08/31/2009

Next Scheduled EDR Contact: 11/30/2009 Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Transporters, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 11/12/2008 Date Data Arrived at EDR: 11/18/2008 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 118

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 09/02/2009

Next Scheduled EDR Contact: 10/19/2009 Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/12/2008 Date Data Arrived at EDR: 11/18/2008 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 118

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 09/02/2009

Next Scheduled EDR Contact: 10/19/2009 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 11/12/2008 Date Data Arrived at EDR: 11/18/2008 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 118

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 09/02/2009

Next Scheduled EDR Contact: 10/19/2009 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/12/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 03/16/2009

Number of Days to Update: 118

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 09/02/2009

Next Scheduled EDR Contact: 10/19/2009 Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/31/2009 Date Data Arrived at EDR: 04/22/2009 Date Made Active in Reports: 05/05/2009

Number of Days to Update: 13

Source: Environmental Protection Agency Telephone: 703-603-0695

Last EDR Contact: 06/29/2009

Next Scheduled EDR Contact: 09/28/2009 Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/31/2009 Date Data Arrived at EDR: 04/22/2009 Date Made Active in Reports: 05/05/2009

Number of Days to Update: 13

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 06/29/2009

Next Scheduled EDR Contact: 09/28/2009 Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/30/2009
Date Made Active in Reports: 05/19/2009

Number of Days to Update: 109

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 08/26/2009

Next Scheduled EDR Contact: 10/19/2009 Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Contaminated Sites Database

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 05/28/2009 Date Data Arrived at EDR: 05/28/2009 Date Made Active in Reports: 06/23/2009

Number of Days to Update: 26

Source: Department of Environmental Conservation

Telephone: 907-451-2143 Last EDR Contact: 09/08/2009

Next Scheduled EDR Contact: 12/07/2009 Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/17/2009 Date Data Arrived at EDR: 07/21/2009 Date Made Active in Reports: 08/04/2009

Number of Days to Update: 14

Source: Department of Environmental Conservation

Telephone: 907-269-7632 Last EDR Contact: 07/21/2009

Next Scheduled EDR Contact: 10/19/2009 Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 06/08/2009 Date Data Arrived at EDR: 06/10/2009 Date Made Active in Reports: 06/23/2009

Number of Days to Update: 13

Source: Department of Environmental Conservation

Telephone: 907-465-5301 Last EDR Contact: 09/09/2009

Next Scheduled EDR Contact: 12/07/2009 Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009 Date Data Arrived at EDR: 02/19/2009 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 25

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/24/2009 Date Data Arrived at EDR: 03/03/2009 Date Made Active in Reports: 05/05/2009

Number of Days to Update: 63

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/20/2009 Date Data Arrived at EDR: 05/20/2009 Date Made Active in Reports: 05/29/2009

Number of Days to Update: 9

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/24/2009 Date Data Arrived at EDR: 05/20/2009 Date Made Active in Reports: 06/17/2009

Number of Days to Update: 28

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 08/21/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 06/01/2009 Date Data Arrived at EDR: 06/03/2009 Date Made Active in Reports: 06/17/2009

Number of Days to Update: 14

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 12/15/2008 Date Data Arrived at EDR: 12/16/2008 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 90

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 06/04/2009 Date Data Arrived at EDR: 06/05/2009 Date Made Active in Reports: 06/17/2009

Number of Days to Update: 12

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 06/08/2009 Date Data Arrived at EDR: 06/10/2009 Date Made Active in Reports: 06/24/2009

Number of Days to Update: 14

Source: Department of Environmental Conservation

Telephone: 907-269-7504 Last EDR Contact: 09/09/2009

Next Scheduled EDR Contact: 12/07/2009 Data Release Frequency: Semi-Annually

AST: Regulated Aboveground Storage Tanks

The list covers "regulated" facilities with storage capacities above 10,000 barrels (or 5,000 barrels of crude).

Date of Government Version: 01/05/2005 Date Data Arrived at EDR: 01/06/2005 Date Made Active in Reports: 02/02/2005

Number of Days to Update: 27

Source: Department of Environmental Conservation

Telephone: 907-465-5231 Last EDR Contact: 07/06/2009

Next Scheduled EDR Contact: 09/21/2009 Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008 Date Data Arrived at EDR: 12/30/2008 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 76

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 08/21/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/20/2009 Date Data Arrived at EDR: 05/20/2009 Date Made Active in Reports: 05/29/2009

Number of Days to Update: 9

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 06/04/2009 Date Data Arrived at EDR: 06/05/2009 Date Made Active in Reports: 06/17/2009

Number of Days to Update: 12

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/24/2009 Date Data Arrived at EDR: 03/03/2009 Date Made Active in Reports: 05/05/2009

Number of Days to Update: 63

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009 Date Data Arrived at EDR: 02/19/2009 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 25

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 06/01/2009 Date Data Arrived at EDR: 06/03/2009 Date Made Active in Reports: 06/17/2009

Number of Days to Update: 14

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/15/2008 Date Data Arrived at EDR: 12/16/2008 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 90

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Quarterly

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 09/08/2008 Date Data Arrived at EDR: 09/19/2008 Date Made Active in Reports: 10/16/2008

Number of Days to Update: 27

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Site Listing

A listing of sites with engineering controls in place included in the Contaminated Sites.

Date of Government Version: 05/28/2009 Date Data Arrived at EDR: 05/28/2009 Date Made Active in Reports: 06/23/2009

Number of Days to Update: 26

Source: Department of Environmental Conservation

Telephone: 907-451-2143 Last EDR Contact: 09/08/2009

Next Scheduled EDR Contact: 12/07/2009 Data Release Frequency: Quarterly

Inst Control: Contaminated Sites with Institutional Controls
Contaminated sites that have institutional controls.

Date of Government Version: 05/28/2009 Date Data Arrived at EDR: 05/28/2009 Date Made Active in Reports: 06/23/2009

Number of Days to Update: 26

Source: Department of Environmental Conservation

Telephone: 907-451-2143 Last EDR Contact: 09/08/2009

Next Scheduled EDR Contact: 12/07/2009 Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program sites

Sites involved in the Voluntary Cleanup Program.

Date of Government Version: 06/23/2009 Date Data Arrived at EDR: 06/23/2009 Date Made Active in Reports: 07/17/2009

Number of Days to Update: 24

Source: Department of Environmental Conservation

Telephone: 907-451-2143 Last EDR Contact: 06/23/2009

Next Scheduled EDR Contact: 09/21/2009 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009 Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 07/20/2009

Next Scheduled EDR Contact: 10/19/2009

Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Identified and/or Proposed Brownfields Sites

Brownfield properties are defined by U.S Environmental Protection Agency (EPA) as "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contamination." DEC is developing resources to assist eligible entities in Alaska in applying for EPA brownfields grants. The program also will provide technical assistance and perform some site assessments, The purpose of these assessments is to assist local redevelopment efforts on previously contaminated properties that are vacant or underused.

Date of Government Version: 05/28/2009 Date Data Arrived at EDR: 05/28/2009 Date Made Active in Reports: 06/23/2009

Number of Days to Update: 26

Source: Department of Environmental Conservation

Telephone: 907-451-2166 Last EDR Contact: 09/08/2009

Next Scheduled EDR Contact: 12/07/2009

Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 10/01/2008 Date Data Arrived at EDR: 11/14/2008 Date Made Active in Reports: 12/23/2008

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 07/14/2009

Next Scheduled EDR Contact: 10/12/2009 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 03/25/2008 Date Data Arrived at EDR: 04/17/2008 Date Made Active in Reports: 05/15/2008

Number of Days to Update: 28

Source: EPA, Region 9 Telephone: 415-972-3336 Last EDR Contact: 07/13/2009

Next Scheduled EDR Contact: 09/21/2009 Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 08/26/2009

Next Scheduled EDR Contact: 11/23/2009 Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/01/2008 Date Data Arrived at EDR: 10/31/2008 Date Made Active in Reports: 12/23/2008

Number of Days to Update: 53

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 03/26/2009

Next Scheduled EDR Contact: 06/22/2009 Data Release Frequency: Quarterly

CDL: Illegal Drug Manufacturing Sites

A list of properties that have been determined to be illegal drug manufacturing sites.

Date of Government Version: 06/05/2009 Date Data Arrived at EDR: 06/12/2009 Date Made Active in Reports: 06/23/2009

Number of Days to Update: 11

Source: Department of Environmental Conservation

Telephone: 907-269-7543 Last EDR Contact: 06/12/2009

Next Scheduled EDR Contact: 09/07/2009 Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007 Date Data Arrived at EDR: 11/19/2008 Date Made Active in Reports: 03/30/2009

Number of Days to Update: 131

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 03/23/2009

Next Scheduled EDR Contact: 06/22/2009 Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 05/29/2009 Date Data Arrived at EDR: 06/03/2009 Date Made Active in Reports: 06/17/2009

Number of Days to Update: 14

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 08/17/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005 Date Data Arrived at EDR: 12/11/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 31

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 09/08/2009

Next Scheduled EDR Contact: 12/07/2009 Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/31/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/29/2009

Number of Days to Update: 43

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 07/16/2009

Next Scheduled EDR Contact: 10/12/2009 Data Release Frequency: Annually

SPILLS: Spills Database

Oil and hazardous substance releases to be reported to the Department of Environmental Conservation.

Date of Government Version: 07/29/2009 Date Data Arrived at EDR: 07/30/2009 Date Made Active in Reports: 08/17/2009

Number of Days to Update: 18

Source: Department of Environmental Conservation

Telephone: 907-465-5242 Last EDR Contact: 07/27/2009

Next Scheduled EDR Contact: 10/26/2009 Data Release Frequency: Semi-Annually

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous

waste.

Date of Government Version: 11/12/2008 Date Data Arrived at EDR: 11/18/2008 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 118

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 09/02/2009

Next Scheduled EDR Contact: 10/19/2009 Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 05/14/2008 Date Data Arrived at EDR: 05/28/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 72

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 08/27/2009

Next Scheduled EDR Contact: 11/23/2009

Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS

Telephone: 703-692-8801 Last EDR Contact: 05/08/2009

Next Scheduled EDR Contact: 08/03/2009 Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 09/05/2008 Date Made Active in Reports: 09/23/2008

Number of Days to Update: 18

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 07/01/2009

Next Scheduled EDR Contact: 09/28/2009

Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 01/27/2009 Date Data Arrived at EDR: 04/23/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 18

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 07/20/2009

Next Scheduled EDR Contact: 10/19/2009 Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/23/2009 Date Data Arrived at EDR: 04/28/2009 Date Made Active in Reports: 05/19/2009

Number of Days to Update: 21

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 09/10/2009

Next Scheduled EDR Contact: 09/28/2009 Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 01/05/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 05/08/2009

Number of Days to Update: 1

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 06/15/2009

Next Scheduled EDR Contact: 09/14/2009 Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/19/2009 Date Data Arrived at EDR: 03/24/2009 Date Made Active in Reports: 05/05/2009

Number of Days to Update: 42

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 06/23/2009

Next Scheduled EDR Contact: 09/21/2009 Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 04/09/2009 Date Made Active in Reports: 06/17/2009

Number of Days to Update: 69

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 06/16/2009

Next Scheduled EDR Contact: 09/14/2009 Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002 Date Data Arrived at EDR: 04/14/2006 Date Made Active in Reports: 05/30/2006

Number of Days to Update: 46

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 07/14/2009

Next Scheduled EDR Contact: 10/12/2009 Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 06/15/2009

Next Scheduled EDR Contact: 09/14/2009 Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 06/15/2009

Next Scheduled EDR Contact: 09/14/2009 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 03/14/2008 Date Made Active in Reports: 04/18/2008

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 07/14/2009

Next Scheduled EDR Contact: 10/12/2009 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 03/20/2009 Date Data Arrived at EDR: 03/20/2009 Date Made Active in Reports: 05/05/2009

Number of Days to Update: 46

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 07/13/2009

Next Scheduled EDR Contact: 10/12/2009 Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 02/26/2009 Date Data Arrived at EDR: 05/20/2009 Date Made Active in Reports: 05/29/2009

Number of Days to Update: 9

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 08/05/2009

Next Scheduled EDR Contact: 11/02/2009 Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/02/2009 Date Data Arrived at EDR: 04/24/2009 Date Made Active in Reports: 05/19/2009

Number of Days to Update: 25

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 06/29/2009

Next Scheduled EDR Contact: 09/28/2009 Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/28/2009 Date Data Arrived at EDR: 04/29/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 12

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/28/2009

Next Scheduled EDR Contact: 10/26/2009 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/28/2009 Date Data Arrived at EDR: 05/01/2009 Date Made Active in Reports: 05/19/2009

Number of Days to Update: 18

Source: EPA

Telephone: (206) 553-1200 Last EDR Contact: 06/29/2009

Next Scheduled EDR Contact: 09/28/2009 Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008

Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 02/19/2009 Date Made Active in Reports: 05/22/2009

Number of Days to Update: 92

DRYCLEANERS: Drycleaner Facility Listing A listing of drycleaning facilities in Alaska.

> Date of Government Version: 02/15/2006 Date Data Arrived at EDR: 02/16/2006 Date Made Active in Reports: 03/15/2006

Number of Days to Update: 27

NPDES: Wastwater Discharge Permit Listing A listing of permitted wastewater facilities.

> Date of Government Version: 11/24/2006 Date Data Arrived at EDR: 11/27/2006 Date Made Active in Reports: 12/21/2006

Number of Days to Update: 24

AIRS: AIRS Facility Listing

A listing of permitted airs facilities.

Date of Government Version: 08/03/2009 Date Data Arrived at EDR: 08/03/2009 Date Made Active in Reports: 08/17/2009

Number of Days to Update: 14

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 09/09/2009

Next Scheduled EDR Contact: 12/07/2009 Data Release Frequency: Biennially

Source: Department of Environmental Conservation

Telephone: 907-269-7577 Last EDR Contact: 07/20/2009

Next Scheduled EDR Contact: 10/19/2009 Data Release Frequency: No Update Planned

Source: Department of Environmental Conservation

Telephone: 907-465-5480 Last EDR Contact: 07/13/2009

Next Scheduled EDR Contact: 10/12/2009

Data Release Frequency: Varies

Source: Department of Environmental Conservation

Telephone: 907-451-2103 Last EDR Contact: 08/03/2009

Next Scheduled EDR Contact: 11/02/2009

Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 05/08/2009

Next Scheduled EDR Contact: 08/03/2009 Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 04/13/2009 Date Data Arrived at EDR: 04/14/2009 Date Made Active in Reports: 06/17/2009

Number of Days to Update: 64

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 09/08/2009

Next Scheduled EDR Contact: 11/09/2009

Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 05/08/2009

Next Scheduled EDR Contact: 08/03/2009

Data Release Frequency: N/A

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009

Number of Days to Update: 100

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 08/21/2009

Next Scheduled EDR Contact: 11/16/2009 Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR C

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/22/2009 Date Data Arrived at EDR: 05/27/2009 Date Made Active in Reports: 07/01/2009

Number of Days to Update: 35

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 08/27/2009

Next Scheduled EDR Contact: 11/23/2009 Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its

fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Facilities Database

Source: Department of Education & Early Development

Telephone: 907-465-2800

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data Source: Department of Fish & Game

Telephone: 907-465-4100

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

© 2009 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK®-PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

COPPER VALLEY SCHOOL RICHARDSON HIGHWAY TAZLINA, AK 99588

TARGET PROPERTY COORDINATES

Latitude (North): 62.04800 - 62° 2′ 52.8" Longitude (West): 145.403 - 145° 24′ 10.8"

Universal Tranverse Mercator: Zone 6 UTM X (Meters): 583512.2 UTM Y (Meters): 6880354.0

Elevation: 1102 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property: N/A

Source: USGS 7.5 min quad index

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

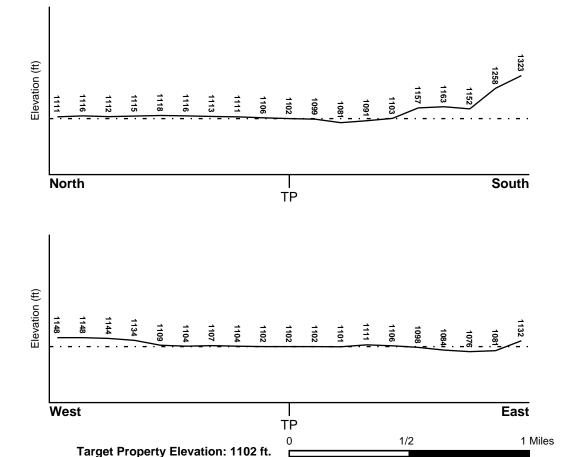
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

FEMA Flood Electronic Data

Target Property County Electronic Data
VALDEZ_CORDOVA, AK Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property Data Coverage

Not Reported N

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

LOCATION GENERAL DIRECTION

MAP ID FROM TP GROUNDWATER FLOW

Not Reported

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era: - Category: -

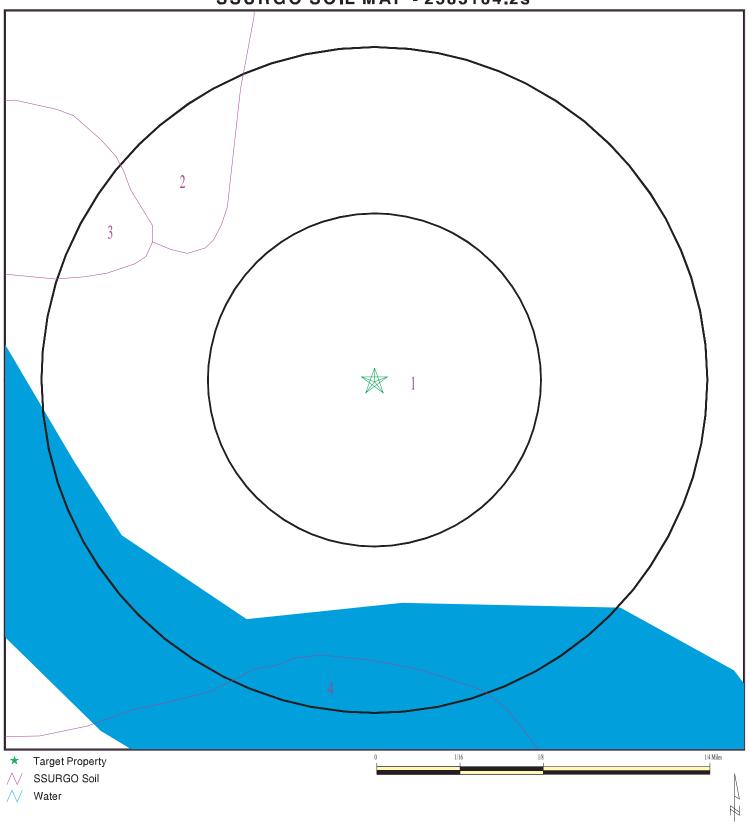
System:

Series: -

Code: N/A (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 2585164.2s



SITE NAME: Copper Valley School ADDRESS: Richardson Highway Tazlina AK 99588 LAT/LONG: 62.0480 / 145.4030

CLIENT: Oasis Environmental CONTACT: Julie Clark INQUIRY#: 2585164.2s

DATE: September 10, 2009 2:08 pm

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Klutina

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information								
	Bou	ndary		Classi	fication	Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Oon Roudin		
1	0 inches	3 inches	very fine sandy loam	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6		
2	3 inches	25 inches	stratified sand to silt loam	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6		
3	25 inches	59 inches	very gravelly sand	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6		

Soil Map ID: 2

Soil Component Name: Gulkana

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information							
	Boundary		Classification			Saturated hydraulic		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)	
1	0 inches	14 inches	silt loam	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6	
2	14 inches	59 inches	very gravelly sand	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6	

Soil Map ID: 3

Soil Component Name: Pippin

Soil Surface Texture: silt loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to

excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information								
	Boundary			Classification					
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	hydraulic conductivity micro m/sec	Soil Reaction (pH)		
1	0 inches	7 inches	silt loam	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6		
2	7 inches	59 inches	extremely gravelly sand	Not reported	Not reported	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6		

Soil Map ID: 4

Soil Component Name: Water

Soil Surface Texture: silt loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to

excessively drained sands and gravels.

Soil Drainage Class: Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
	USGS2026 126	1/8 - 1/4 Mile West
A2	USGS2026124	1/8 - 1/4 Mile West
A3	USGS2026125	1/8 - 1/4 Mile West
4	USGS2026123	1/2 - 1 Mile WSW
5	USGS2025962	1/2 - 1 Mile NW
6	USGS2026129	1/2 - 1 Mile West
7	USGS2025956	1/2 - 1 Mile WNW
B8	USGS2025961	1/2 - 1 Mile WNW
B9	USGS2025960	1/2 - 1 Mile WNW
10	USGS2025959	1/2 - 1 Mile WNW

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
11	USGS2026122	1/2 - 1 Mile WSW
C12	USGS2025953	1/2 - 1 Mile West
13	USGS2025958	1/2 - 1 Mile WNW
C14	USGS2025957	1/2 - 1 Mile WNW
15	USGS2026127	1/2 - 1 Mile West

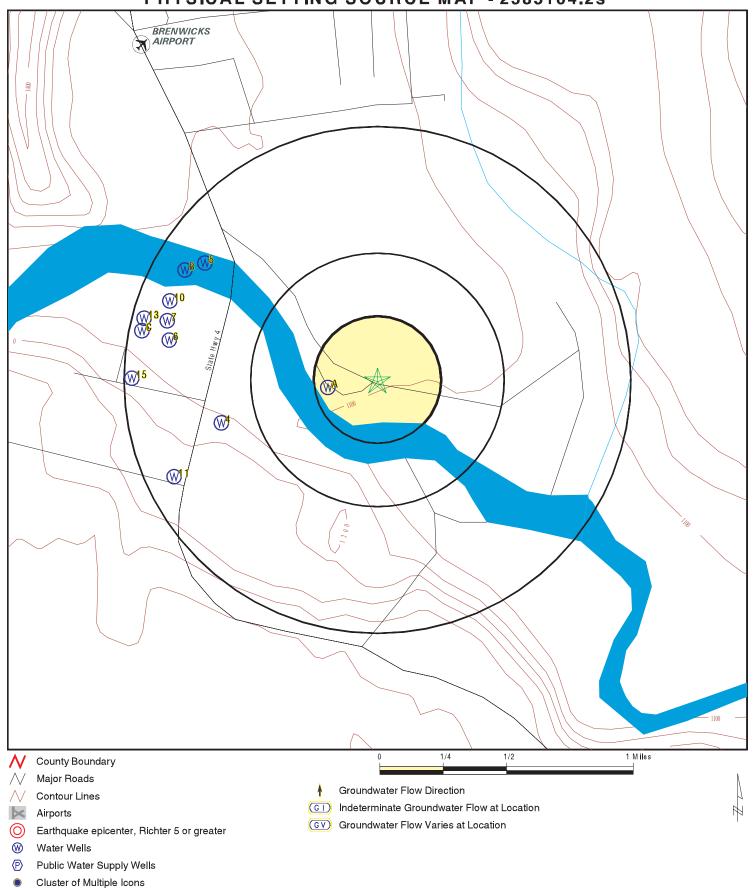
FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

PHYSICAL SETTING SOURCE MAP - 2585164.2s



SITE NAME: Copper Valley School ADDRESS: Richardson Highway

Tazlina AK 99588 LAT/LONG: 62.0480 / 145.4030 Oasis Environmental

CLIENT: Oasis Envir CONTACT: Julie Clark

INQUIRY#: 2585164.2s

DATE: September 10, 2009 2:07 pm

Map ID Direction Distance

Elevation Database EDR ID Number

A1 West 1/8 - 1/4 Mile

FED USGS USGS2026126

Higher

Agency cd: **USGS** Site no: 620254145242503

CB00300115BBBC3 001 Site name:

Latitude: 620254

62.04786212 Longitude: 1452425 Dec lat: Dec Ion: -145.40909316 Coor meth: Μ Coor accr: Т Latlong datum: NAD27 Dec latlong datum: NAD83 District: 02 261 State: 02 County:

US NWNWNWS15 T003N R001W C Country: Land net:

Location map: **GULKANA A-3** Map scale: 63360

Altitude: 1100.00

Altitude method: Interpolated from topographic map

Altitude accuracy:

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19600101 Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag:

Type of ground water site: Single well, other than collector or Ranney type

Not Reported Aquifer Type: Aquifer: Not Reported

Well depth: 40.0 Hole depth: 40.0

Source of depth data: Not Reported

Project number: Not Reported

Daily flow data begin date: 0000-00-00 Real time data flag: 0

Daily flow data end date: 0000-00-00 Daily flow data count:

Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00 Peak flow data count: Water quality data begin date: 1966-08-08 Water quality data end date:1966-08-08

Water quality data count:

Ground water data begin date: 1966-08-08 Ground water data end date: 1966-08-08

Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1966-08-08 10.00

Note: The site had been pumped recently.

West **FED USGS** USGS2026124

1/8 - 1/4 Mile Higher

USGS Agency cd: Site no: 620254145242501

Site name: CB00300115BBBC1 001

Latitude: 620254

62.04786212 Longitude: 1452425 Dec lat:

Dec Ion: -145.40909316 Coor meth: М Coor accr: Т Latlong datum: NAD27 Dec latlong datum: NAD83 District: 02 02 County: 261

NWNWNWS15 T003N R001W C US Land net: Country:

GULKANA A-3 Location map: Map scale: 63360

Altitude: 110.00

Altitude method: Interpolated from topographic map

Altitude accuracy:

Altitude datum: National Geodetic Vertical Datum of 1929

19020102 Hydrologic:

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19530101 Date inventoried: Not Reported Mean greenwich time offset: **AKST**

Local standard time flag:

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: Not Reported

Well depth: 65.0 Hole depth: 65.0

Source of depth data: Not Reported

Project number: Not Reported

Real time data flag: Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count:

Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00 Peak flow data count: Water quality data begin date: 1954-07-00

Water quality data end date:1957-07-01 Water quality data count:

Ground water data begin date: 1982-08-04 Ground water data end date: 1982-08-04

Ground water data count:

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1982-08-04

Note: The site was flowing, but the head could not be measured without additional equipment.

A3 West

1/8 - 1/4 Mile Higher

> Agency cd: **USGS** Site no: 620254145242502

CB00300115BBBC2 001 Site name:

Latitude: 620254

Longitude: 1452425 Dec lat: 62.04786212

Dec Ion: -145.40909316 Coor meth: NAD27 Coor accr: Т Latlong datum: Dec latlong datum: NAD83 District: 02 State: 02 County: 261

US NWNWNWS15 T003N R001W C Country: Land net:

Location map: **GULKANA A-3** Map scale: 63360

FED USGS

USGS2026125

Altitude: 1100.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 50

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: Not Reported Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported Aquifer: Not Reported

Well depth: 15.0 Hole depth: 30.0

Source of depth data: Not Reported Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data count: 0000-00-00 Water quality data begin date: 1955-06-00

Water quality data end date:1957-02-07 Water quality data count: 2

Ground water data begin date: 0000-00-00 Ground water data end date: 0000-00-00

Ground water data count: 0

Ground-water levels, Number of Measurements: 0

4 WSW FED USGS USGS2026123

1/2 - 1 Mile Higher

Agency cd: USGS Site no: 620240145251301

Site name: CB00300116BADB1 002

Latitude: 620249

Longitude: 1452513 Dec lat: 62.04647313 Dec lon: -145.42242688 Coor meth: M

 Dec Ion:
 -145.42242688
 Coor meth:
 M

 Coor accr:
 T
 Latlong datum:
 NAD27

 Dec latlong datum:
 NAD83
 District:
 02

 State:
 02
 County:
 261

Country: US Land net: SENENWS16 T003N R001W C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1150.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 25

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19750807

Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer: Not Reported

Aquifer: Not Reported
Well depth: 17.5 Hole depth:

Source of depth data: Not Reported

Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00

17.5

Peak flow data count: 0 Water quality data begin date: 0000-00-00

Water quality data end date:0000-00 Water quality data count: 0

Ground water data begin date: 1975-08-07 Ground water data end date: 1975-08-07

Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1975-08-07 7.00

5 NW FED USGS USGS2025962

1/2 - 1 Mile Higher

Agency cd: USGS Site no: 620322145251301

Site name: CB00300109CAAB1 006

Latitude: 620322 Longitude: 1452513 Dec lat: 62.05564037

 Dec Ion:
 -145.42242723
 Coor meth:
 M

 Coor accr:
 T
 Latlong datum:
 NAD27

 Dec latlong datum:
 NAD83
 District:
 02

 State:
 02
 County:
 261

Country: US Land net: NENESWS09 T003N R001E C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1150.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 25

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19750528

Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: Not Reported

Well depth: 187 Hole depth: 187 Source of depth data: Not Reported

Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date:0000-00-00Daily flow data count:0Peak flow data begin date:0000-00-00Peak flow data end date:0000-00-00

Peak flow data count: 0 Water quality data begin date: 0000-00-00 Water quality data end date:0000-00-00 Water quality data count: 0

Ground water data begin date: 1975-05-28 Ground water data end date: 1975-05-28

Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1975-05-28 35.00

Higher

6 West FED USGS USGS2026129 1/2 - 1 Mile

TC2585164.2s Page A-13

Agency cd: USGS Site no: 620307145253501

Site name: CB00300109CCAA1 007

Latitude: 620307

Longitude: 1452532 Dec lat: 62.05147344

 Dec Ion:
 -145.42770502
 Coor meth:
 M

 Coor accr:
 T
 Latlong datum:
 NAD27

 Dec latlong datum:
 NAD83
 District:
 02

 State:
 02
 County:
 261

Country: US Land net: NESWSWS09 T003N R001W C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1150.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 2

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19750717

Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag:

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: Not Reported

Well depth: 20.2 Hole depth: 20.2

Source of depth data: Not Reported Project number: Not Reported

Real time data flag: Not Reported Daily flow data begin date: Not Reported Daily flow data end date: Not Reported Daily flow data count: Not Reported Peak flow data begin date: Not Reported Peak flow data end date: Not Reported Peak flow data count: Not Reported Water quality data begin date: Not Reported Water quality data end date:Not Reported Water quality data count: Not Reported Ground water data begin date: Not Reported Ground water data end date: Not Reported

Ground water data count: Not Reported

Ground-water levels, Number of Measurements: 0

7 WNW FED USGS USGS2025956 1/2 - 1 Mile

Site no:

Agency cd: USGS

 Site name:
 CB00300109CBDD1 004

 Latitude:
 620311

 Longitude:
 1452532

 Dec lat:
 62.05258462

 Dec Ion:
 -145.42770506
 Coor meth:
 M

 Coor accr:
 T
 Latlong datum:
 NAD27

 Dec latlong datum:
 NAD83
 District:
 02

 State:
 02
 County:
 261

Country: US Land net: SENWSWS09 T003N R001E C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1150.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 25

Higher

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19741205

Date inventoried: Not Reported Mean greenwich time offset: AKST

620311145253201

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported Aquifer: Not Reported

Well depth: 20.0 Hole depth: 22.0

Source of depth data: Not Reported

Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data count: 0000-00-00 Water quality data begin date: 0000-00-00

Water quality data end date:0000-00-00 Water quality data count: 0

Ground water data begin date: 1974-12-05 Ground water data end date: 1974-12-05

Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1974-12-05 8.00

B8
WNW FED USGS USGS2025961
1/2 - 1 Mile

Higher

Agency cd: USGS Site no: 620321145252202

Site name: CB00300109CABA2 005

Latitude: 620321

Longitude: 1452522 Dec lat: 62.05536257

-145.4249273 Coor meth: Dec Ion: Μ Coor accr: Τ Latlong datum: NAD27 NAD83 Dec latlong datum: 02 District: 261 State: 02 County:

Country: US Land net: NWNESWS09 T003N R001E C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1150.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 25

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19750507

Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: Not Reported

Well depth: 81.6 Hole depth: 81.6

Source of depth data: Not Reported

Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00 Water quality data begin date: 0000-00-00

Water quality data end date:0000-00-00 Water quality data count: 0

Ground water data begin date: 1975-05-07 Ground water data end date: 1975-05-07

Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1975-05-07 34.00

B9 WNW FED USGS USGS2025960

1/2 - 1 Mile Higher

Agency cd: USGS Site no: 620321145252201

Site name: CB00300109CABA1 005

Latitude: 620321 62.05536257 Longitude: 1452522 Dec lat: Dec Ion: -145.4249273 Coor meth: Μ NAD27 Coor accr: Latlong datum: Dec latlong datum: NAD83 District: 02

State: 02 County: 261

Country: US Land net: NWNESWS09 T003N R001W C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1150.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 25

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19750417 Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported Aquifer: Not Reported

Well depth: 82.0 Hole depth: 82.0

Source of depth data: Not Reported Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00 Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00

Peak flow data end date: 0000-00-00

Water quality data begin date: 0000-00-00

Peak flow data count: 0 Water quality data begin date: 0000-00-00 Water quality data end date:0000-00-00 Water quality data count: 0

Ground water data begin date: 1975-04-17 Ground water data end date: 1975-04-17

Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1975-04-17 33.00

Higher

10 WNW FED USGS USGS2025959 1/2 - 1 Mile

TC2585164.2s Page A-16

Agency cd: USGS Site no: 620315145253001

Site name: CB00300109CACB1 002

Latitude: 620315

62.0536958 Longitude: 1452530 Dec lat: Dec Ion: -145.42714953 Coor meth: М NAD27 Coor accr: Т Latlong datum: Dec latlong datum: NAD83 District: 02 State: 02 County: 261

Country: US Land net: SWNESWS09 T003N R001W C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1120.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 50

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19730101
Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag:

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: Not Reported

Well depth: 22.0 Hole depth: 22.0

Source of depth data: Not Reported

Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00 Water quality data begin date: 1974-05-31

Water quality data end date:1974-05-31 Water quality data count: 1

Ground water data begin date: 0000-00-00 Ground water data end date: 0000-00-00

Ground water data count: 0

Ground-water levels, Number of Measurements: 0

11 WSW FED USGS USGS2026122

1/2 - 1 Mile Higher

Agency cd: USGS Site no: 620239145253601

Site name: CB00300116BCDD1 001

Latitude: 620239 Longitude: 1452536

Longitude: 1452536 Dec lat: 62.04369517

 Dec Ion:
 -145.42881587
 Coor meth:
 M

 Coor accr:
 T
 Latlong datum:
 NAD27

 Dec latlong datum:
 NAD83
 District:
 02

 State:
 02
 County:
 261

Country: US Land net: SESWNWS16 T003N R001W C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1230.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 50

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19690101

Date inventoried: Not Reported Date construction: 19690101

Mean greenwich time offset: AKST

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: Not Reported

Well depth: 147 Hole depth: 147

Source of depth data: Not Reported Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00 Water quality data begin date: 0000-00-00

Water quality data end date:0000-00-00 Water quality data count: 0

Ground water data begin date: 1969-11-02 Ground water data end date: 1969-11-02

Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1969-11-02 116.00

C12
West FED USGS USGS2025953

1/2 - 1 Mile Higher

Agency cd: USGS Site no: 620307145254401

Site name: CB00300109CCAB1 012

Latitude: 620308

Longitude: 1452544 Dec lat: 62.05175123

-145.43103847 Coor meth: Dec Ion: Μ Coor accr: Τ Latlong datum: NAD27 NAD83 Dec latlong datum: 02 District: 261 State: 02 County:

Country: US Land net: NESWSWS09 T003N R001W C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1135.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 50

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102 Topographic: Valley flat

Site type: Ground-water other than Spring Date construction: 19780901

Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: Not Reported

Well depth: 40.0 Hole depth: 40.0

Source of depth data: Not Reported

Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00 Water quality data begin date: 0000-00-00

Water quality data end date:0000-00-00 Water quality data count: 0

Ground water data begin date: 1982-07-28 Ground water data end date: 1982-07-28

Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1982-07-28 15.00

WNW **FED USGS** USGS2025958 1/2 - 1 Mile

Higher

Agency cd: **USGS** Site no: 620312145254201

Site name: CB00300109CBDB1 008

Latitude: 620312 62.05286241 Longitude: 1452542 Dec lat:

Dec Ion: -145.43048293 Coor meth: Μ NAD27 Coor accr: Latlong datum: NAD83 Dec latlong datum: District: 02 State: 02 County: 261

SENWSWS09 T003N R001W C Country: US Land net:

Map scale: Location map: **GULKANA A-3** 63360

Altitude: 1150.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 25

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

19750724 Site type: Ground-water other than Spring Date construction: Date inventoried: Not Reported Mean greenwich time offset: **AKST**

Local standard time flag:

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported Not Reported Aquifer:

Well depth: Hole depth: 17.5 17.5

Source of depth data: Not Reported

Project number: Not Reported

Real time data flag: 0

Daily flow data begin date: 0000-00-00 0000-00-00 Daily flow data end date: Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00 Peak flow data count: Water quality data begin date: 0000-00-00

Water quality data end date:0000-00-00 Water quality data count:

Ground water data begin date: 1975-07-24 Ground water data end date: 1975-07-24

Ground water data count: 1

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1975-07-24 4.50

Higher

C14 WNW **FED USGS** USGS2025957 1/2 - 1 Mile

TC2585164.2s Page A-19

Agency cd: USGS Site no: 620311145254301

Site name: CB00300109CBDC1 015

Latitude: 620311

Longitude: 1452543 Dec lat: 62.05258461

 Dec Ion:
 -145.43076071
 Coor meth:
 M

 Coor accr:
 T
 Latlong datum:
 NAD27

 Dec latlong datum:
 NAD83
 District:
 02

 State:
 02
 County:
 261

Country: US Land net: SENWSWS09 T003N R001W C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1135.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 50

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102 Topographic: Valley flat

Site type: Ground-water other than Spring Date construction: 19740101

Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag:

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: Not Reported

Well depth: 20.0 Hole depth: 20.0

Source of depth data: Not Reported Project number: Not Reported

Real time data flag: Not Reported Daily flow data begin date: Not Reported Daily flow data end date: Not Reported Daily flow data count: Not Reported Peak flow data begin date: Not Reported Peak flow data end date: Not Reported Peak flow data count: Not Reported Water quality data begin date: Not Reported Water quality data end date:Not Reported Water quality data count: Not Reported Ground water data begin date: Not Reported Ground water data end date: Not Reported

Ground water data count: Not Reported

Ground-water levels, Number of Measurements: 0

15 West FED USGS USGS2026127

1/2 - 1 Mile Higher

Agency cd: USGS Site no: 620300145255001

Site name: CB00300109CCCD1 001

 Latitude:
 620300

 Longitude:
 1452550
 Dec lat:
 62.04952886

 Dec lon:
 -145.43270511
 Coor meth:
 M

Coor accr: T Latlong datum: NAD27
Dec latlong datum: NAD83 District: 02
State: 02 County: 261

Country: US Land net: SWSWSWS09 T003N R001W C

Location map: GULKANA A-3 Map scale: 63360

Altitude: 1140.00

Altitude method: Interpolated from topographic map

Altitude accuracy: 50

Altitude datum: National Geodetic Vertical Datum of 1929

Hydrologic: 19020102

Topographic: Alluvial or marine terrace

Site type: Ground-water other than Spring Date construction: 19730101

Date inventoried: Not Reported Mean greenwich time offset: AKST

Local standard time flag:

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported Not Reported

Aquifer:

Well depth: 50.0 50.0 Hole depth:

Source of depth data: Not Reported Project number: Not Reported

Real time data flag: Not Reported Daily flow data begin date: Not Reported Not Reported Daily flow data end date: Not Reported Daily flow data count: Peak flow data begin date: Not Reported Peak flow data end date: Not Reported Not Reported Peak flow data count: Water quality data begin date: Not Reported Water quality data end date:Not Reported Water quality data count: Not Reported Ground water data begin date: Not Reported Ground water data end date: Not Reported

Ground water data count: Not Reported

Ground-water levels, Number of Measurements: 0

AREA RADON INFORMATION

State Database: AK Radon

Radon Test Results

City	Zip	Total Sites	<0.5 pCi/L	0.5-2.0	2.1-4.0	4.1-10	10-20	>20 pCi/L
	_							
Glennallen	99588	4	0	2	2	0	0	0

Federal EPA Radon Zone for VALDEZ-CORDOVA County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 99588

Number of sites tested: 3

Basement

Area Average Activity % <4 pCi/L % 4-20 pCi/L % >20 pCi/L Living Area - 1st Floor 0.600 pCi/L 100% 0% 0% Living Area - 2nd Floor Not Reported Not Reported Not Reported Not Reported 2.733 pCi/L

0%

0%

100%

TC2585164.2s Page A-22

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data Source: Department of Fish & Game

Telephone: 907-465-4100

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

RADON

State Database: AK Radon

Source: University of Alaska Fairbanks

Telephone: 907-474-7201 Radon Information

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at

private sources such as universities and research institutions.

EPA Radon Zones Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

© 2009 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

Copper Valley School

Richardson Highway Tazlina, AK 99588

Inquiry Number: 2585164.3

September 08, 2009

Certified Sanborn® Map Report



Certified Sanborn® Map Report

9/08/09

Site Name: Client Name:

Copper Valley School
Richardson Highway
Tazlina, AK 99588
Oasis Environmental
825 West 8th Avenue
Anchorage, AK 99501

EDR Inquiry # 2585164.3 Contact: Julie Clark



The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Oasis Environmental were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Copper Valley School Address: Richardson Highway City, State, Zip: Tazlina, AK 99588

Cross Street:

P.O. # 14-167

Project: Copper Valley P
Certification # 14D6-4C91-B2DE



Sanborn® Library search results Certification # 14D6-4C91-B2DE

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

✓ Library of Congress

✓ University Publications of America

✓ EDR Private Collection

Limited Permission To Make Copies

Oasis Environmental (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2009 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Copper Valley School

Richardson Highway Tazlina, AK 99588

Inquiry Number: 2585164.4

September 09, 2009

The EDR Historical Topographic Map Report



EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

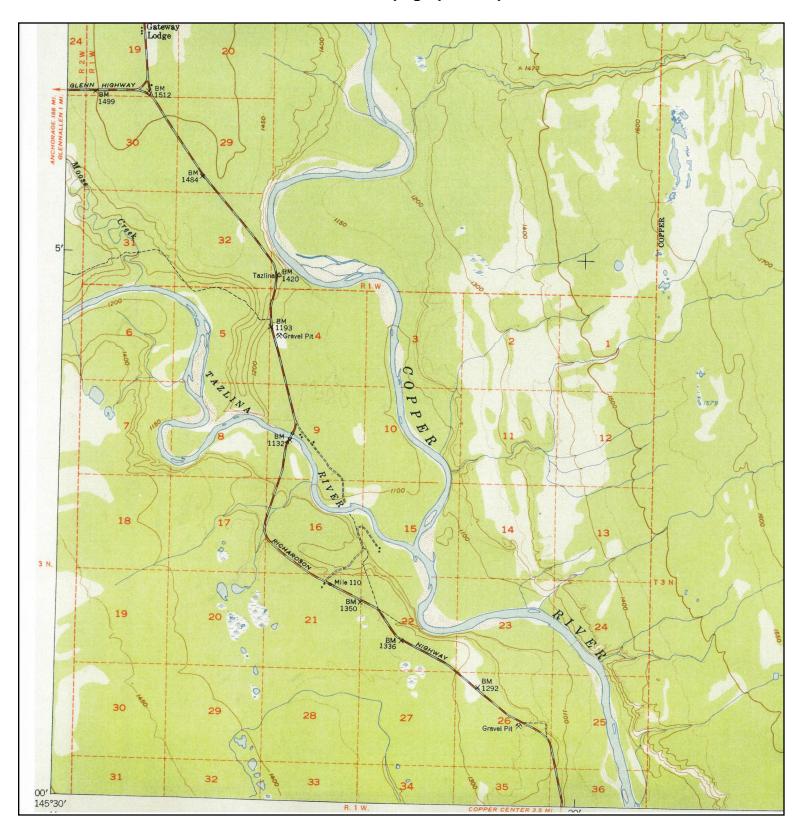
Thank you for your business.Please contact EDR at 1-800-352-0050 with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report AS IS. Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2009 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.





TARGET QUAD

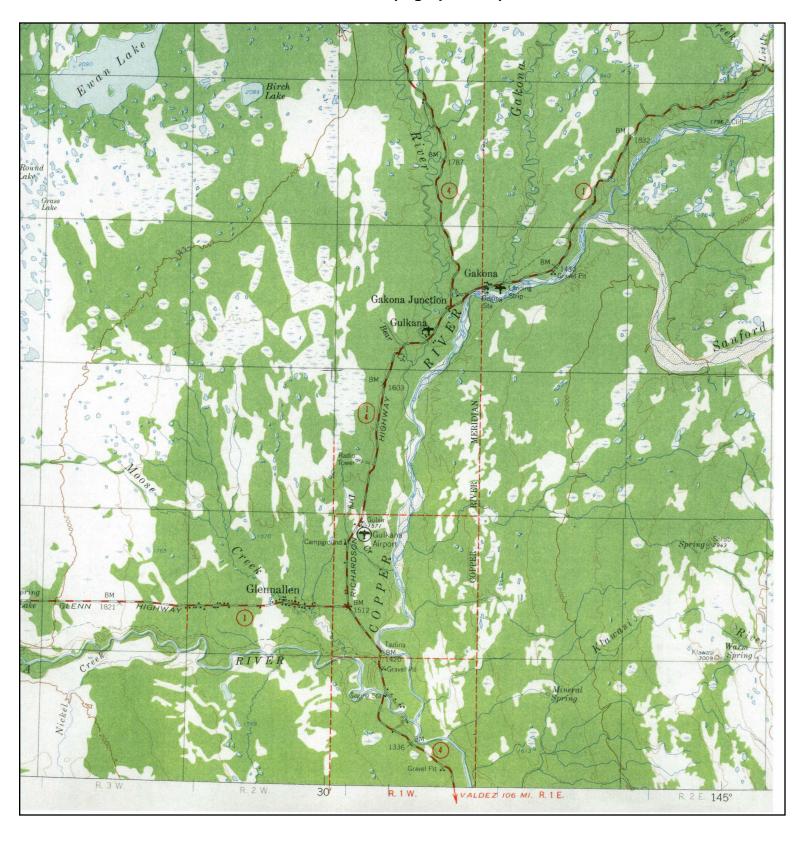
NAME: Gulkana, AK

MAP YEAR: 1952

SERIES: 15 SCALE: 1:63,360 SITE NAME: Copper Valley School ADDRESS: Richardson Highway

Tazlina, AK 99588 LAT/LONG: 62.048 / 145.403 CLIENT: Oasis Environmental

CONTACT: Julie Clark
INQUIRY#: 2585164.4
RESEARCH DATE: 09/09/2009





TARGET QUAD

NAME: Gulkana, AK

MAP YEAR: 1959

SERIES: 60

SCALE: 1:250,000

SITE NAME: Copper Valley School ADDRESS: Richardson Highway

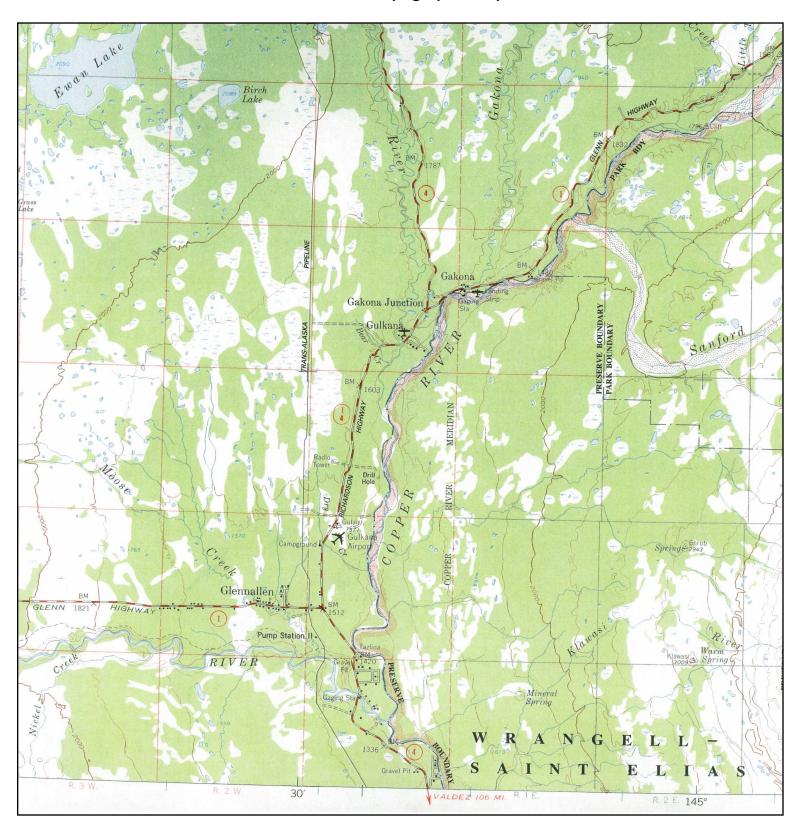
: Richardson Highway Tazlina, AK 99588

LAT/LONG: 62.048 / 145.403

CLIENT: Oasis Environmental

CONTACT: Julie Clark INQUIRY#: 2585164.4

RESEARCH DATE: 09/09/2009





TARGET QUAD

NAME: Gulkana, AK MAP YEAR: 1982 REVISED FROM:1959

SERIES: 60

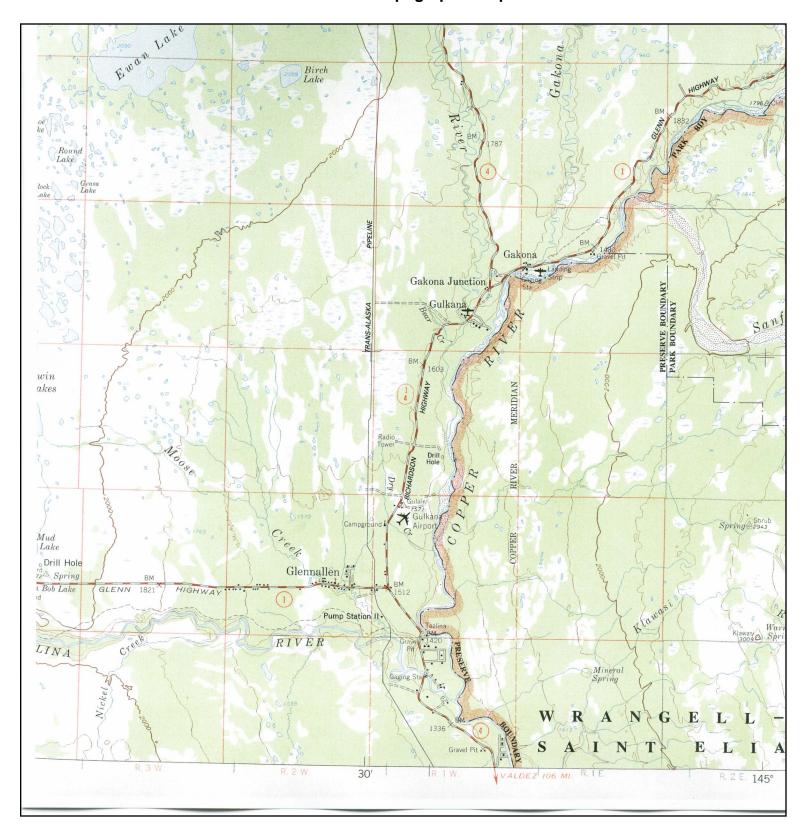
SCALE: 1:250,000

SITE NAME: Copper Valley School ADDRESS: Richardson Highway

Tazlina, AK 99588
LAT/LONG: 62.048 / 145.403

CLIENT: Oasis Environmental

CONTACT: Julie Clark
INQUIRY#: 2585164.4
RESEARCH DATE: 09/09/2009





TARGET QUAD

NAME: Gulkana, AK MAP YEAR: 1985 REVISED FROM:1959

SERIES: 60

SCALE: 1:250,000

SITE NAME: Copper Valley School

ADDRESS: Richardson Highway Tazlina, AK 99588

LAT/LONG: 62.048 / 145.403

CLIENT: Oasis Environmental

CONTACT: Julie Clark
INQUIRY#: 2585164.4
RESEARCH DATE: 09/09/2009

Copper Valley School

Richardson Highway Tazlina, AK 99588

Inquiry Number: 2585164.5

September 14, 2009

The EDR Aerial Photo Decade Package



EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDRs professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report AS IS. Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2009 by Environmental Data Resources, Inc., All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Date EDR Searched Historical Sources:

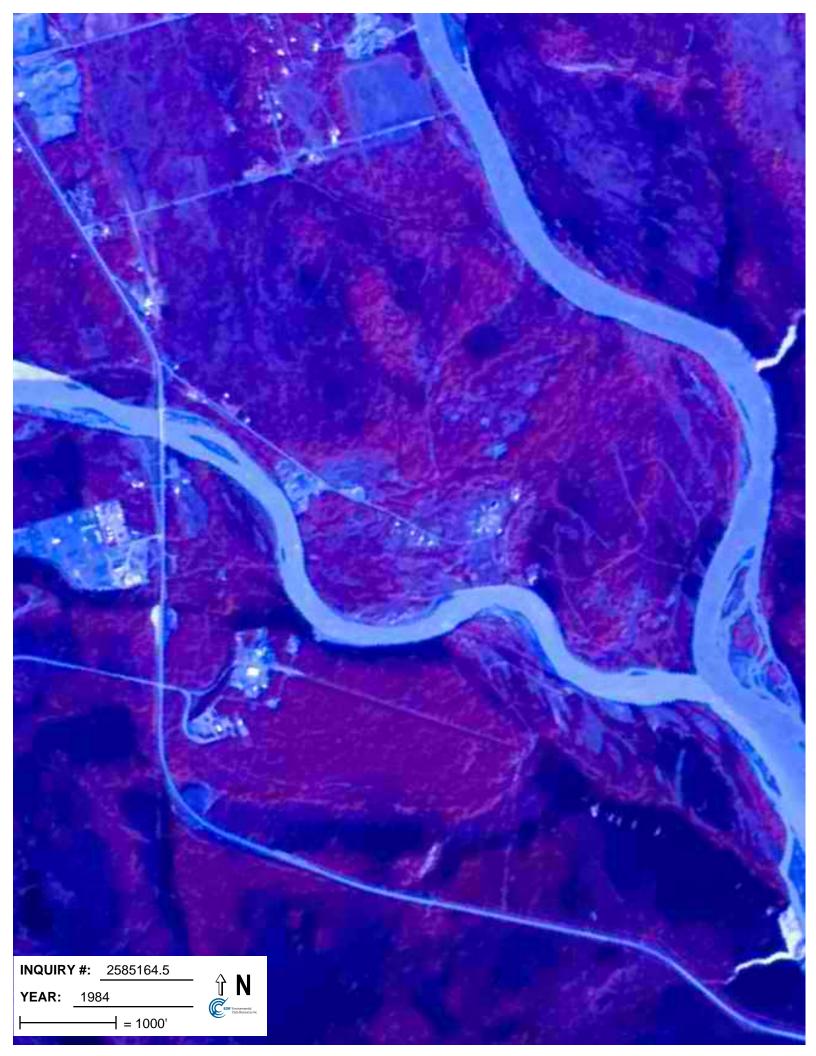
Aerial Photography September 14, 2009

Target Property:

Richardson Highway Tazlina, AK 99588

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1976	Aerial Photograph. Scale: 1"=1000'	Panel #: 2439080-F1/Flight Date: October 02, 1976	EDR
1984	Aerial Photograph. Scale: 1"=1000'	Panel #: 2439080-F1/Flight Date: August 28, 1984	EDR

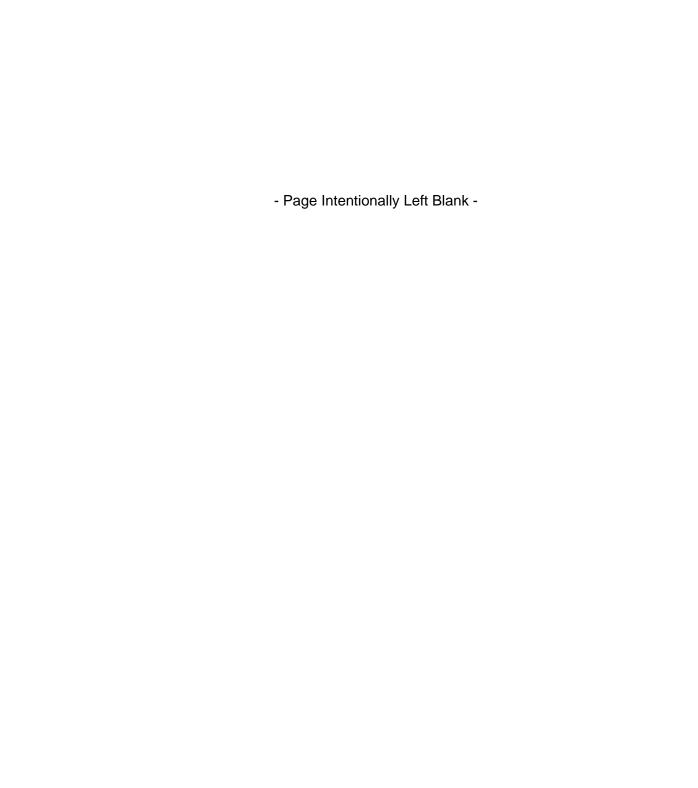






APPENDIX D

Field Notes





Address	825 West 8th Ave.
Phone _	Anchorage AK 99501 907-258-4880
Project .	Copper Valley School PACP

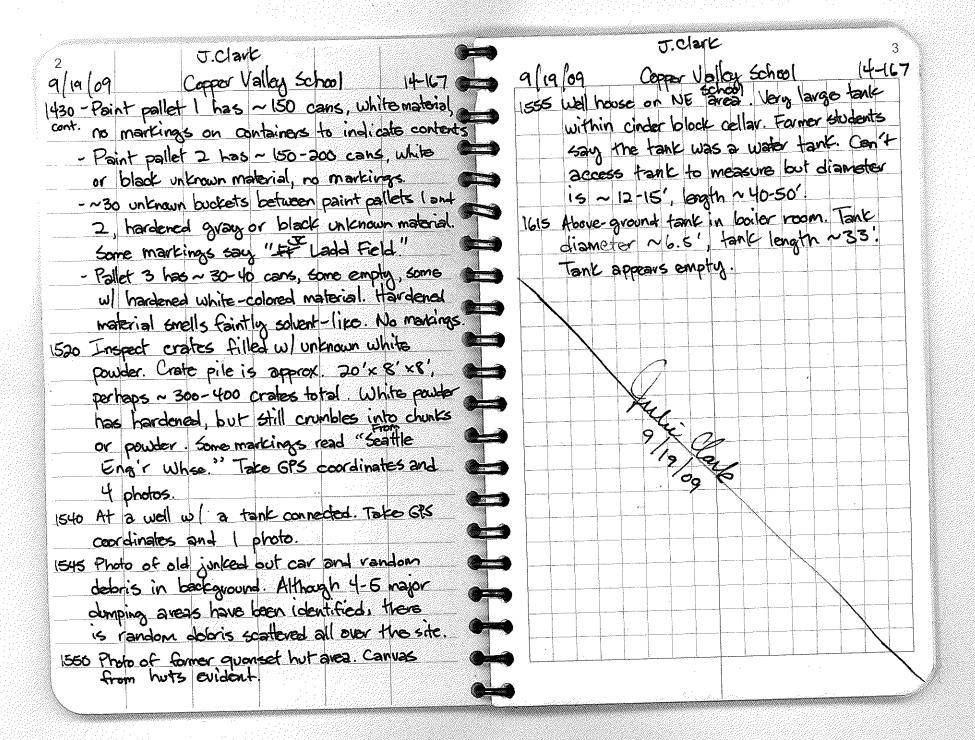
"Rite in the Rain" - a unique all-weather writing surface created to shed water and to enhance the written image. Makes it possible to write sharp, legible field data in any kind of weather.

a product of

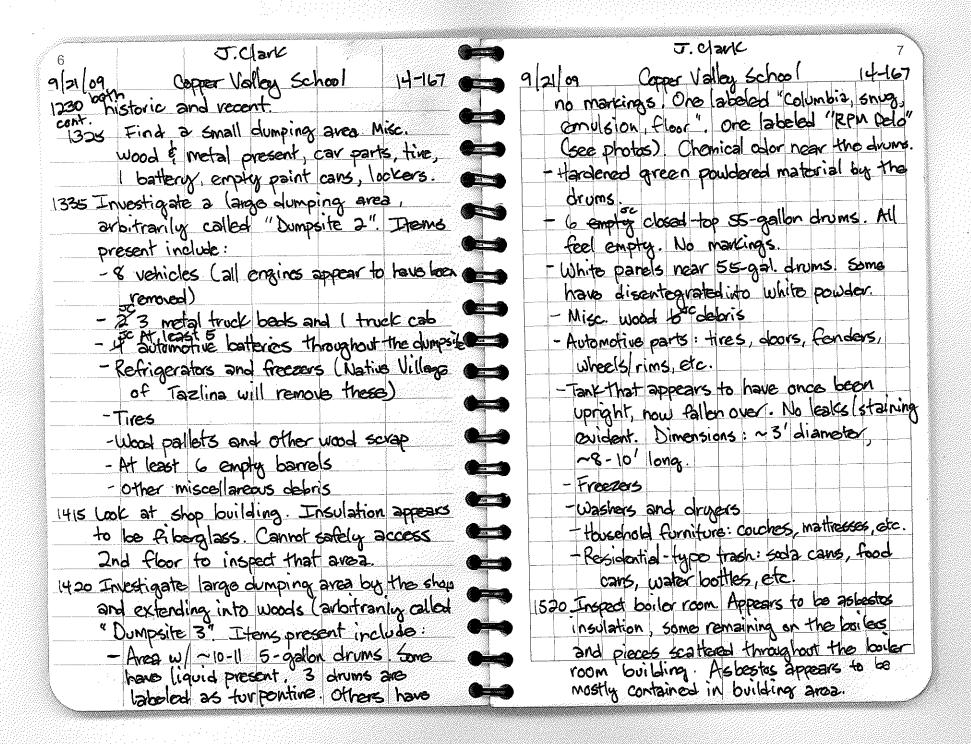
J. L. DARLING CORPORATION TACOMA, WA 98424-1017 USA www.RiteintheRain.com

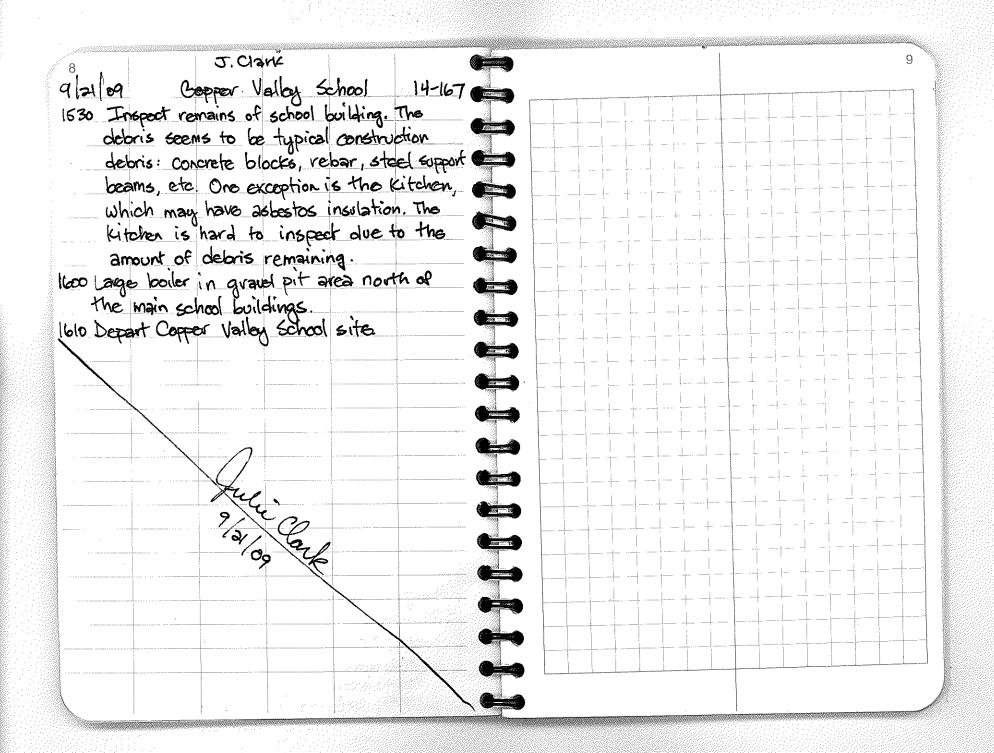
J.Clark 9 19 09 Copper Valley School 14-0900 J. Clark (OASIS) at Copper Valley School sites. Get a site tour w/ Steve Henderson 14-167 CONTENTS DATE REFERENCE PAGE (CUS alumni) 1200 Finished w/ site four. Have identified several dumpsites, several pallets of unknown material, artesian well, some tanks. 1415 At artesian well. Take GPS coordinates and 2 photos. Well is bubbling over, and there is iron staining.

1420 Note evidence of a UST near the former boiler room. Take GPS coordinates and 2 photos. No evidence of size or contents 1430 Piles/pallets of cans/bucket w/ unknown contents. Look like paint cans. White material coming out of some of the cans. ጥ Unknown **buckets** N Pallet 3 Paint Pallet 2 Paint pallet



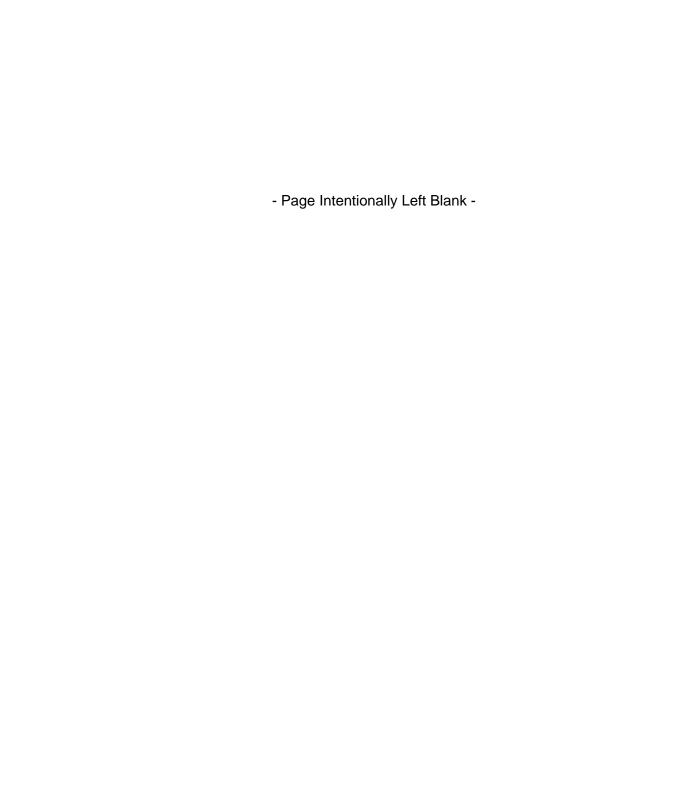
J. Clark J.Clark 9/21/09 Copper Valley School Copper Valley School 14-167 1155 Identify pipe protruding from bank. 0900 J. Clark (OKSIS) at Native Village of Probably a drainage pipe of some kind. Tazlina headquarters. Meet w/ Christophor Pipe is ~ 8" diameter corrugated sted Wright, Heidi Veach, Emer Marshall, (like culvert material) and has rusted Johnny Goodlataw. through in some places. Pipe appears 0945 Everyloody onsite. to loo ~ 2-3' logs. 1000 Arnold Lincoln (CVS Association) onsite 1205 Take GPS coodinates and photos of buried 100 miles Identify buried dumping area, by river. dumpsite that is croding into the viver J. Clark will revisit this area of GPS There are steel pipes, steel cans, badsprings. and take photos. and other miscellaneous steel deloris. 1025 Johnny Goodlatayu shows OASIS the shop. Material is erading out ~30-40' along 1035 Look at paint pallot area. bank, unknown how far into the bank the 1040 Look at large crafe pile. 200 TO debris is Earlier Christopher Wright 1100 Lak in boiler room area. Johnny thinks (Native Village of Tazlina) nentioned that tank was a water tank hés seen batteries have before. River is 1130 The community has shown J. Clark their currently pretty high, so we are probably major concerns. Everyone but J. Clark not seeing exactly how deep the debris departs site - OASIS remains onsite to document (thru photos & GPS) identified 1230 Investigate large dumping area, OASIS Concerns arbitrarly calls "Dumpsite 1" Many 1150 At area near Tazlina River where former misc. Items present: Industrial washers students Steve Henderson and Arnold Lincoln **(=)** dryers, boiler/hot water heater, wood identified as the dumping area when school to debris (pallets, OSB, etc.), car, soural was open. No evidence of trash or other 55 gal open top drums (6 total appear to discarded material - many have been washed away due to river erosion. have local used as burn barrels), cans, kitchen waste, tives. Track looks to be





APPENDIX E

Photographic Log





PHOTOGRAPH 1: BOILER ROOM BUILDING, VIEW SOUTHWEST



PHOTOGRAPH 2: ASBESTOS-CONTAINING INSULATION IN THE BOILER ROOM



PHOTOGRAPH 3: KITCHEN AREA, VIEW WEST



PHOTOGRAPH 4: SUSPECT MATERIAL POTENTIALLY CONTAINING ASBESTOS IN THE KITCHEN



PHOTOGRAPH 5: PAINT PALLETS, VIEW NORTH



PHOTOGRAPH 6: PAINT PALLET AND BUCKETS ON GROUND, VIEW SOUTHWEST



PHOTOGRAPH 7: CONTENTS OF A PAINT CAN



PHOTOGRAPH 8: CONTENTS OF A BUCKET



PHOTOGRAPH 9: CONTENTS OF A PAINT CAN



PHOTOGRAPH 10: CRATES CONTAINING WHITE POWDER, VIEW SOUTHWEST



PHOTOGRAPH 11: CLOSE UP OF WHITE POWDER IN THE CRATES



PHOTOGRAPH 12: DUMPSITE ERODING INTO TAZLINA RIVER, VIEW WEST



PHOTOGRAPH 13: DUMPSITE ERODING INTO TAZLINA RIVER, VIEW EAST



PHOTOGRAPH 14: DEBRIS IN AN ABOVEGROUND DUMPSITE, VIEW SOUTHWEST



PHOTOGRAPH 15: DEBRIS IN AN ABOVEGROUND DUMPSITE, VIEW EAST



PHOTOGRAPH 16: DEBRIS IN AN ABOVEGROUND DUMPSITE, VIEW NORTHEAST



PHOTOGRAPH 17: 5-GALLON DRUMS CONTAINING SMALL AMOUNTS OF LIQUID IN DUMPSITE, VIEW NORTHEAST



PHOTOGRAPH 18: FILL AND VENT PIPE OF UST, VIEW WEST



PHOTOGRAPH 19: TANK IN BOILER ROOM, VIEW NORTHEAST



PHOTOGRAPH 20: WELL HOUSE, VIEW NORTHWEST



PHOTOGRAPH 21: TANK IN WELL HOUSE CELLAR, VIEW SOUTHEAST



PHOTOGRAPH 22: TANK IN WOODS NEAR SHOP BUILDING, VIEW NORTHEAST



PHOTOGRAPH 23: ARTESIAN WELL, VIEW SOUTH



PHOTOGRAPH 24: STANDING WATER AND STAINING FROM ARTESIAN WELL, VIEW NORTHWEST



PHOTOGRAPH 25: SHOP BUILDING, VIEW NORTH-NORTHEAST



PHOTOGRAPH 26: INSULATION IN SHOP BUILDING, LIKELY FIBERGLASS, VIEW SOUTH-SOUTHWEST



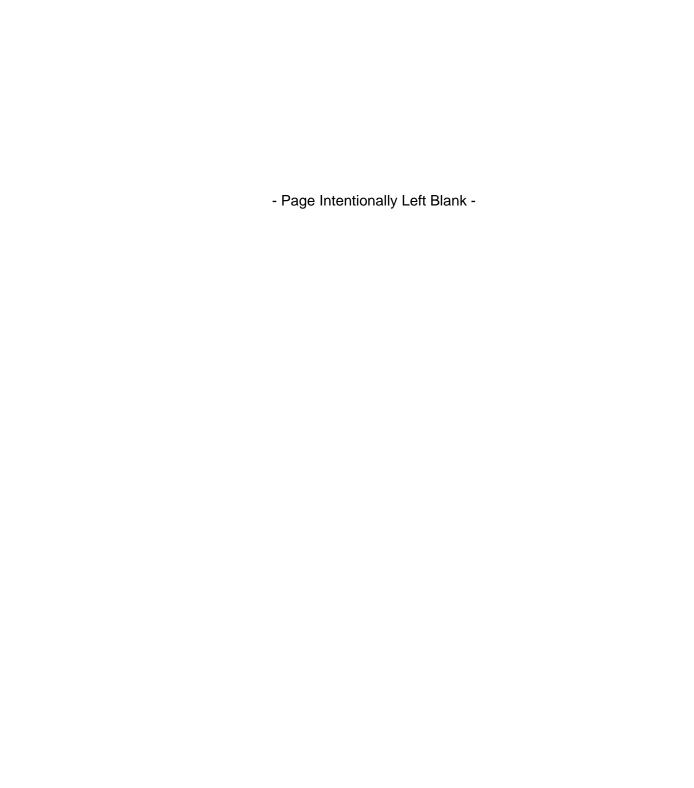
PHOTOGRAPH 27: SCHOOL BUILDING DEBRIS, VIEW NORTHWEST



PHOTOGRAPH 28: SCHOOL BUILDING DEBRIS, VIEW SOUTHEAST

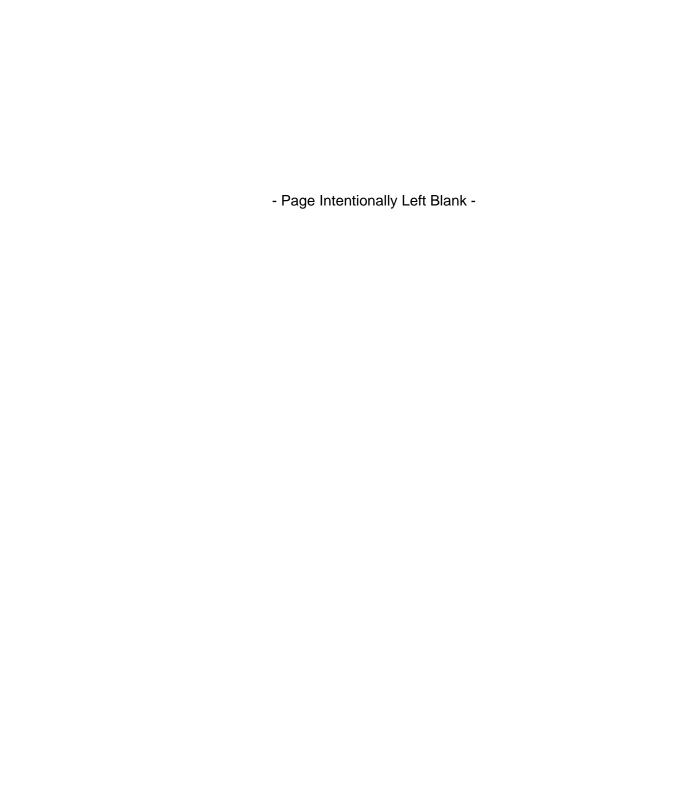


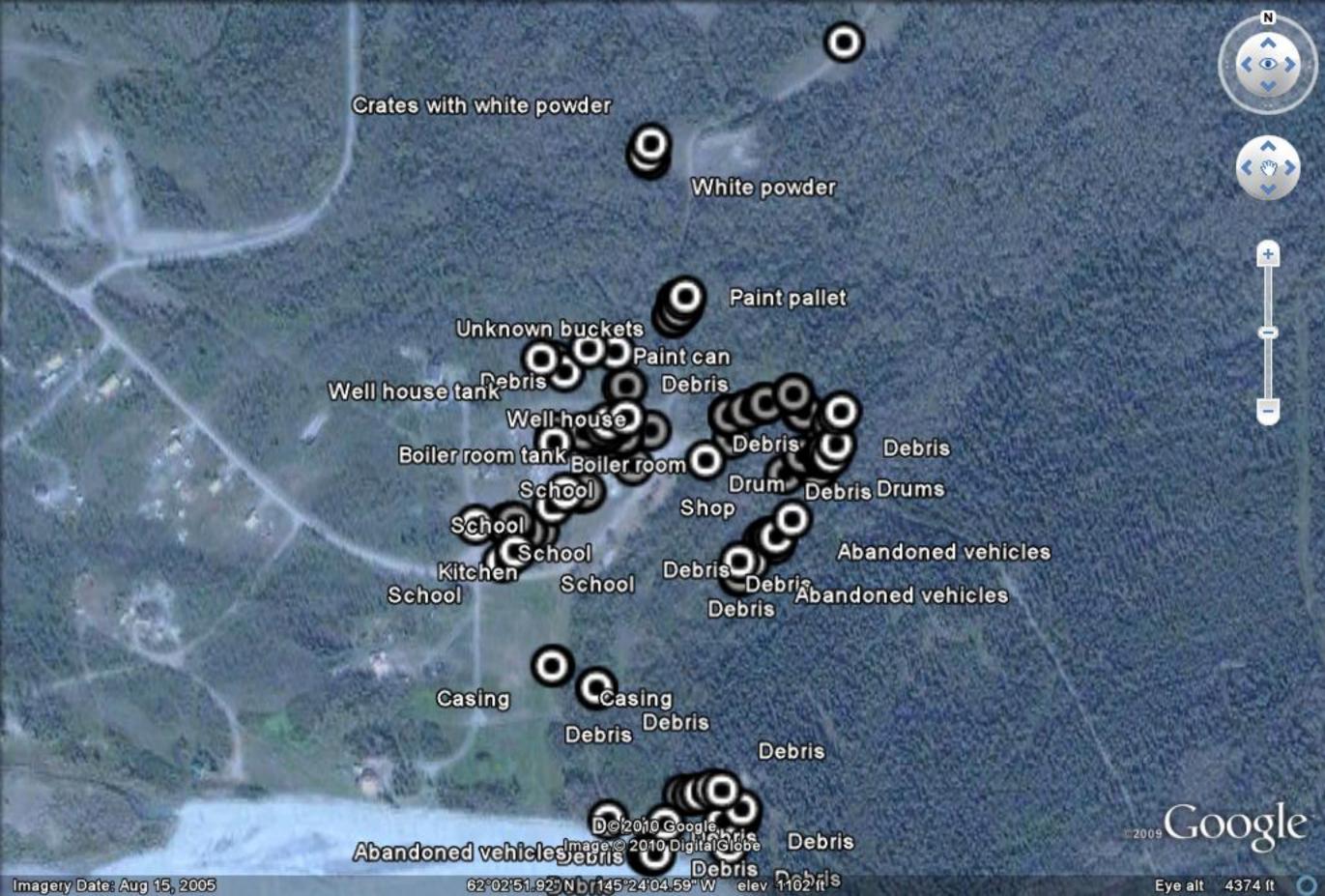
PHOTOGRAPH 29: SCHOOL BUILDING DEBRIS, VIEW SOUTHWEST



APPENDIX F

GoogleEarth Map and Photolink

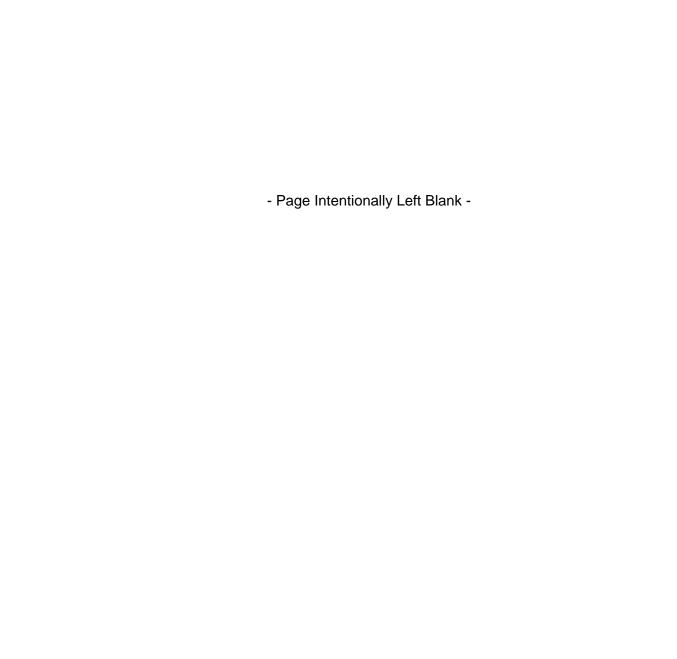






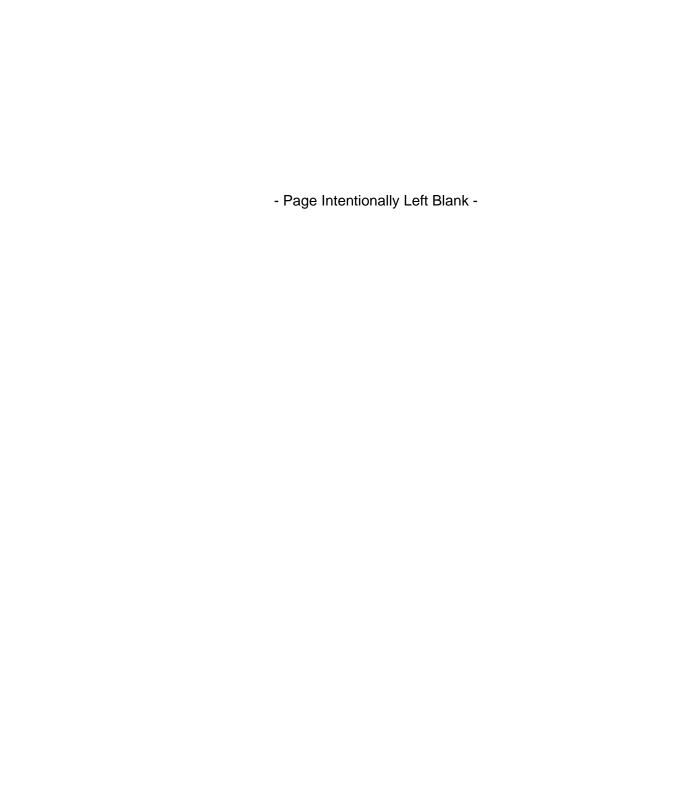
APPENDIX G

Conceptual Site Model



HUMAN HEALTH CONCEPTUAL SITE MODEL

Site:		Follow the directions below. <u>Do no</u> or land use controls when describ				ering			
Completed By: Date Completed: (1) Check the media that could be directly affected by the release. Media Transport Mechanisms Direct release to surface soil Surface Soil Migration or leaching to groundwater (0-2 ft bgs) (2) For each medium identified in (1), follow the top arrow and check possible transport mechanisms. Briefly list other mechanisms or reference the report for details. Transport Mechanisms Check soil Migration or leaching to groundwater check groundwater check arion to detail check arion to groundwater check groundwater check arion to detail check arion to groundwater check groundwater check arion to groundwater check arion to detail check arion to groundwater check arion to detail check arion to groundwater chec		(4) Check exposure pathways that are complete or need further evaluation. The pathways identified must agree with Sections 2 and 3 of the CSM Scoping Form. Exposure Pathways	eac rece both	untify the representation of the control of the con	eceptor re path " for fut and futi t 8. F	way: Ei ure rec ure rece uture	nter "C eptors, eptors. Rec	" for cu or "C/ epto	urrent /F" for
Runoff or erosion	soil	ncidental Soil Ingestion Dermal Absorption of Contaminants from Soil							
Subsurface Soil (2-15 ft bgs) Direct release to subsurface soil Direct release to subsurface soil Migration to groundwater check groundwater check air check air	groundwater	ngestion of Groundwater Dermal Absorption of Contaminants in Groundwater nhalation of Volatile Compounds in Tap Water							
Ground- water Direct release to groundwater Check groundwater	air	nhalation of Outdoor Air nhalation of Indoor Air nhalation of Fugitive Dust							
Surface Water Direct release to surface water Check sediment Check sediment Check biota Other (list):	surface water	ngestion of Surface Water Dermal Absorption of Contaminants in Surface Water nhalation of Volatile Compounds in Tap Water							
Sediment Direct release to sediment Check sediment Resuspension, runoff, or erosion Check surface water Uptake by plants or animals Check biota Other (list):		Direct Contact with Sediment Ingestion of Wild Foods							



Human Health Conceptual Site Model Scoping Form

Site	Name:	Copper Valley School, Tazlina, Alaska	э			
File	Number:					
Coi	mpleted by:	Julie Clark, OASIS Environmental				
The Cor char char	servation (DE) racterization. <u>I</u> racterization w	ne used to reach agreement with the Al C) about which exposure pathways show this information, a CSM graphic ork plan. The property of the italicized instruction.	ould and	be further in text must be	vestigated during site submitted with the site	
1.	General li	nformation:				
Sou	irces (check p	potential sources at the site)				
✓	USTs		✓	Vehicles		
√	ASTs		\checkmark	Landfills		
	Dispensers/f	uel loading racks		Transform	ers	
√	Drums		√	Other:	ead paint, unknown substances	, septic
Rel	ease Mechan	iisms (check potential release mech	hani.	sms at the s	ite)	
\checkmark	Spills		√	Direct disc	harge	
√	Leaks		✓	Burning		
				Other:		
[m	pacted Media	a (check potentially-impacted medi	a at	the site)		
√	Surface soil (0)-2 feet bgs*)	√	Groundwate	er	
√	Subsurface So	oil (>2 feet bgs)	✓	Surface wat	er	
√	Air			Other:		
Rec	ceptors (chec	k receptors that could be affected b	у со	ntamination	n at the site)	
√	Residents (ad	dult or child)	✓	Site visitor	u	
	Commercial	or industrial worker	\checkmark	Trespasser	9	
√	Construction	worker	✓	Recreation	al user	
✓	Subsistence l	harvester (i.e., gathers wild foods)		Farmer		
√	Subsistence of	consumer (i.e., eats wild foods)		Other:		

3/16/06

^{*} bgs – below ground surface

2.	Exposure Pathways: (The answers to the following questions will identify complete exposure pathways at the site. Check each box where the answer to the question is "yes".)			
	a)	Direct Contact –1 Incidental Soil Ingestion		
		Is soil contaminated anywhere between 0 a	and 15 feet bgs?	
		Do people use the site or is there a chance future?	they will use the site in the	
		If both boxes are checked, label this pathw	ay complete:	
		2 Dermal Absorption of Contaminants	s from Soil	
		Is soil contaminated anywhere between 0 a	and 15 feet bgs?	
		Do people use the site or is there a chance future?	they will use the site in the	
		Can the soil contaminants permeate the sk or within the groups listed below, should be absorption).		
		Arsenic Cadmium Chlordane 2,4-dichlorophenoxyacetic acid Dioxins DDT	Lindane PAHs Pentachlorophenol PCBs SVOCs	
		If all of the boxes are checked, label this p	athway complete:	
	b) Ingestion – 1 Ingestion of Groundwater			
	Have contaminants been detected or are they expected to be detected in the groundwater, OR are contaminants expected to migrate to groundwater in the future?			
	Could the potentially affected groundwater be used as a current or future drinking water source? Please note, only leave the box unchecked if ADEC has determined the groundwater is not a currently or reasonably expected future source of drinking water according to 18 AAC 75.350.			
		If both the boxes are checked, label this pathway complete:		

2 3/16/06

Ingestion of Surface Water Have contaminants been detected or are they expected to be detected in surface water OR are contaminants expected to migrate to surface water in the future? Could potentially affected surface water bodies be used, currently or in the future, as a drinking water source? Consider both public water systems and private use (i.e., during residential, recreational or subsistence activities). *If both boxes are checked, label this pathway complete:* **Ingestion of Wild Foods** Is the site in an area that is used or reasonably could be used for hunting, fishing, or harvesting of wild food? Do the site contaminants have the potential to bioaccumulate (see Appendix A)? Are site contaminants located where they would have the potential to be taken up into biota? (i.e. the top 6 feet of soil, in groundwater that **could be** connected to surface water, etc.) *If all of the boxes are checked, label this pathway complete:* c) Inhalation 1 Inhalation of Outdoor Air Is soil contaminated anywhere between 0 and 15 feet bgs? Do people use the site or is there a chance they will use the site in the future? Are the contaminants in soil volatile (*See Appendix B*)? *If all of the boxes are checked, label this pathway complete:* **Inhalation of Indoor Air** Are occupied buildings on the site or reasonably expected to be placed on the site in an area that could be affected by contaminant vapors? (i.e., within 100 feet, horizontally or vertically, of the contaminated soil or groundwater, or subject to "preferential pathways" that promote easy airflow, like utility conduits or rock fractures) Are volatile compounds present in soil or groundwater (See Appendix C)? *If both boxes are checked, label this pathway complete:*

3/16/06

3. Additional Exposure Pathways: (Although there are no definitive questions provided in this section, these exposure pathways should also be considered at each site. Use the guidelines provided below to determine if further evaluation of each pathway is warranted.)

Dermal Exposure to Contaminants in Groundwater and Surface Water

Exposure from this pathway may need to be assessed only in cases where DEC waterquality or drinking-water standards are not being applied as cleanup levels. Examples of conditions that may warrant further investigation include:

o Climate permits recreational use of waters for swimming,

Check the box if further evaluation of this pathway is needed:

O Climate permits exposure to groundwater during activities, such as construction.

without protective clothing, or Groundwater or surface water is used for household purposes.
o Groundwater or surface water is used for household purposes.
Check the box if further evaluation of this pathway is needed:
Comments:
Inhalation of Volatile Compounds in Household Water
Exposure from this pathway may need to be assessed only in cases where DEC water-quality or drinking-water standards are not being applied as cleanup levels. Examples of conditions that may warrant further investigation include: O The contaminated water is used for household purposes such as showering, laundering, and dish washing, and O The contaminants of concern are volatile (common volatile contaminants are listed in Appendix B)
Check the box if further evaluation of this pathway is needed:
Comments:
Inhalation of Fugitive Dust
 Generally DEC soil ingestion cleanup levels in Table B1 of 18 AAC 75 are protective of this pathway, although this is not true in the case of chromium. Examples of conditions that may warrant further investigation include: Nonvolatile compounds are found in the top 2 centimeters of soil. The top 2 centimeters of soil are likely to be dispersed in the wind as dust particles. Dust particles are less than 10 micrometers. This size can be inhaled and would be of concern for determining if this pathway is complete.

3/16/06

Comments:
Direct Contact with Sediment
This pathway involves people's hands being exposed to sediment, such as during recreational or some types of subsistence activities. People then incidentally ingest sediment from normal hand-to-mouth activities. In addition, dermal absorption of contaminants may be of concern if people come in contact with sediment and the contaminants are able to permeate the skin (see dermal exposure to soil section). This type of exposure is rare but it should be investigated if: • Climate permits recreational activities around sediment, and/or • Community has identified subsistence or recreational activities that would result in exposure to the sediment, such as clam digging.
ADEC soil ingestion cleanup levels are protective of direct contact with sediment. If they are determined to be over-protective for sediment exposure at a particular site, other screening levels could be adopted or developed.
Check the box if further evaluation of this pathway is needed:
Comments:

4. Other Comments (Provide other comments as necessary to support the information provided in this form.)

5 3/16/06

APPENDIX A

BIOACCUMULATIVE COMPOUNDS

Table A-1: List of Compounds of Potential Concern for Bioaccumulation

Organic compounds are identified as bioaccumulative if they have a BCF equal to or greater than 1,000 or a log K_{ow} greater than 3.5. Inorganic compounds are identified as bioaccumulative if they are listed as such by EPA (2000). Those compounds in Table X of 18 AAC 75.345 that are bioaccumulative, based on the definition above, are listed below.

Aldrin	DDT	Lead
Arsenic	Dibenzo(a,h)anthracene	Mercury
Benzo(a)anthracene	Dieldrin	Methoxychlor
Benzo(a)pyrene	Dioxin	Nickel
Benzo(b)fluoranthene	Endrin	PCBs
Benzo(k)fluoranthene	Fluoranthene	
Cadmium	Heptachlor	Pyrene
Chlordane	Heptachlor epoxide	Selenium
Chrysene	Hexachlorobenzene	Silver
Copper	Hexachlorocyclopentadiene	Toxaphene
DDD	Indeno(1,2,3-c,d)pyrene	Zinc
DDE		_

Because BCF values can relatively easily be measured or estimated, the BCF is frequently used to determine the potential for a chemical to bioaccumulate. A compound with a BCF greater than 1,000 is considered to bioaccumulate in tissue (EPA 2004b).

For inorganic compounds, the BCF approach has not been shown to be effective in estimating the compound's ability to bioaccumulate. Information available, either through scientific literature or site-specific data, regarding the bioaccumulative potential of an inorganic site contaminant should be used to determine if the pathway is complete.

The list was developed by including organic compounds that either have a BCF equal to or greater than 1,000 or a log K_{ow} greater than 3.5 and inorganic compounds that are listed by the United States Environmental Protection Agency (EPA) as being bioaccumulative (EPA 2000). The BCF can also be estimated from a chemical's physical and chemical properties. A chemical's octanol-water partitioning coefficient (K_{ow}) along with defined regression equations can be used to estimate the BCF. EPA's Persistent, Bioaccumulative, and Toxic (PBT) Profiler (EPA 2004) can be used to estimate the BCF using the K_{ow} and linear regressions presented by Meylan et al. (1996). The PBT Profiler is located at http://www.pbtprofiler.net/. For compounds not found in the PBT Profiler, DEC recommends using a log K_{ow} greater than 3.5 to determine if a compound is bioaccumulative.

APPENDIX B

VOLATILE COMPOUNDS

Table B-1: List of Volatile Compounds of Potential Concern

Common volatile contaminants of concern at contaminated sites. A chemical is defined as volatile if the Henry's Law constant is 1×10^{-5} atm-m³/mol or greater and the molecular weight less than 200 g/mole (g/mole; EPA 2004a). Those compounds in Table X of 18 AAC 75.345 that are volatile, based on the definition above, are listed below.

Acenaphthene	1,4-dichlorobenzene	Pyrene
Acetone	1,1-dichloroethane	Styrene
Anthracene	1,2-dichloroethane	1,1,2,2-tetrachloroethane
Benzene	1,1-dichloroethylene	Tetrachloroethylene
Bis(2-chlorethyl)ether	Cis-1,2-dichloroethylene	Toluene
Bromodichloromethane	Trans-1,2-dichloroethylene	1,2,4-trichlorobenzene
Carbon disulfide	1,2-dichloropropane	1,1,1-trichloroethane
Carbon tetrachloride	1,3-dichloropropane	1,1,2-trichloroethane
Chlorobenzene	Ethylbenzene	Trichloroethylene
Chlorodibromomethane	Fluorene	Vinyl acetate
Chloroform	Methyl bromide	Vinyl chloride
2-chlorophenol	Methylene chloride	Xylenes
Cyanide	Naphthalene	GRO
1,2-dichlorobenzene	Nitrobenzene	DRO

APPENDIX C

COMPOUNDS OF CONCERN FOR VAPOR MIGRATION

Table C-1: List of Compounds of Potential Concern for the Vapor Migration

A chemical is considered sufficiently toxic if the vapor concentration of the pure component poses an incremental lifetime cancer risk greater than 10-6 or a non-cancer hazard index greater than 1. A chemical

is considered sufficiently volatile if it's Henry's Law constant is 1 x 10⁻⁵ atm-m³/mol or greater.

	Dibenzofuran	Hexachlorobenzene
Acenaphthene		
Acetaldehyde	1,2-Dibromo-3-chloropropane	Hexachlorocyclopentadiene
Acetone	1,2-Dibromoethane (EDB)	Hexachloroethane
Acetonitrile	1,3-Dichlorobenzene	Hexane
Acetophenone	1,2-Dichlorobenzene	Hydrogen cyanide
Acrolein	1,4-Dichlorobenzene	Isobutanol
Acrylonitrile	2-Nitropropane	Mercury (elemental)
Aldrin	N-Nitroso-di-n-butylamine	Methacrylonitrile
alpha-HCH (alpha-BHC)	n-Propylbenzene	Methoxychlor
Benzaldehyde	o-Nitrotoluene	Methyl acetate
Benzene	o-Xylene	Methyl acrylate
Benzo(b)fluoranthene	p-Xylene	Methyl bromide
Benzylchloride	Pyrene	Methyl chloride chloromethane)
beta-Chloronaphthalene	sec-Butylbenzene	Methylcyclohexane
Biphenyl	Styrene	Methylene bromide
Bis(2-chloroethyl)ether	tert-Butylbenzene	Methylene chloride
Bis(2-chloroisopropyl)ether	1,1,1,2-Tetrachloroethane	Methylethylketone (2-butanone)
Bis(chloromethyl)ether	1,1,2,2-Tetrachloroethane	Methylisobutylketone
Bromodichloromethane	Tetrachloroethylene	Methylmethacrylate
Bromoform	Dichlorodifluoromethane	2-Methylnaphthalene
1,3-Butadiene	1,1-Dichloroethane	MTBE
Carbon disulfide	1,2-Dichloroethane	m-Xylene
Carbon tetrachloride	1,1-Dichloroethylene	Naphthalene
Chlordane	1,2-Dichloropropane	n-Butylbenzene
2-Chloro-1,3-butadiene	1,3-Dichloropropene	Nitrobenzene
(chloroprene)		
Chlorobenzene	Dieldrin	Toluene
1-Chlorobutane	Endosulfan	trans-1,2-Dichloroethylene
Chlorodibromomethane	Epichlorohydrin	1,1,2-Trichloro-1,2,2-
	T · · · · · · · · · · · · · · · · · · ·	trifluoroethane
Chlorodifluoromethane	Ethyl ether	1,2,4-Trichlorobenzene
Chloroethane (ethyl	Ethylacetate	1,1,2-Trichloroethane
chloride)		,-,
Chloroform	Ethylbenzene	1,1,1-Trichloroethane
2-Chlorophenol	Ethylene oxide	Trichloroethylene
2-Chloropropane	Ethylmethacrylate	Trichlorofluoromethane
Chrysene	Fluorene	1,2,3-Trichloropropane
cis-1,2-Dichloroethylene	Furan	1,2,4-Trimethylbenzene
Crotonaldehyde (2-butenal)	Gamma-HCH (Lindane)	1,3,5-Trimethylbenzene
Cumene (2-butenar)	Heptachlor	Vinyl acetate
DDE	Hexachloro-1,3-butadiene	Vinyl chloride (chloroethene)
DDE	11cxaciii010-1,5-butaulelle	vinyi chioride (chioroethene)

Source: EPA 2002.

Guidance on Developing Conceptual Site Models

January 31, 2005

APPENDIX H

Cost Estimate Tables

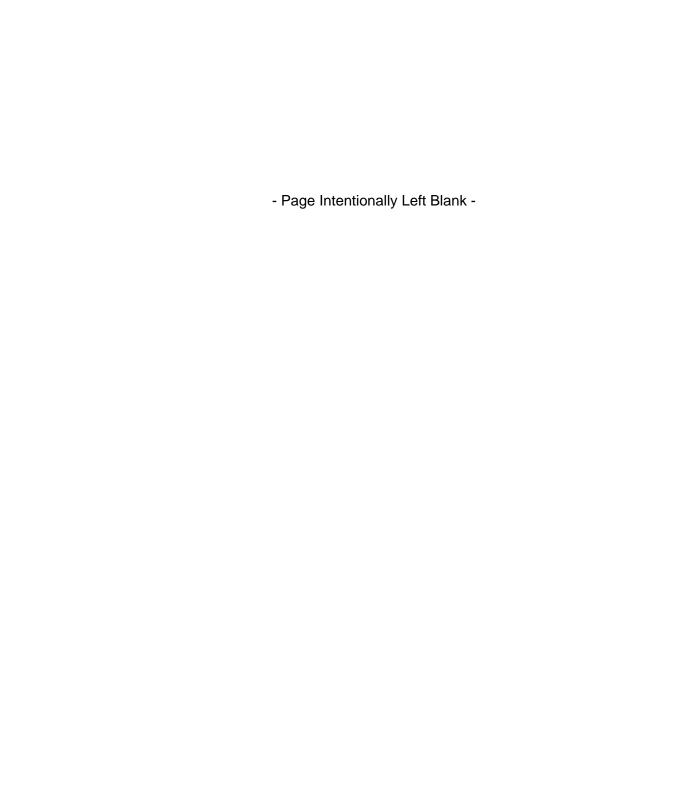


Table H-1. General Cost Estimate Non-Hazardous Site Debris Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
REMEDIATION			1 1100	
Equipment			П	
Backhoe	4	week	\$4,200	\$16,800
Loader	4	week	\$5,600	\$22,400
Labor				
Backhoe operator	4	week	\$7,700	\$30,800
Loader operator	4	week	\$7,700	\$30,800
Laborer (2 individuals)	8	week	\$6,300	\$50,400
Disposal at Glennallen Landfill				
School building	5000	су	\$20	\$100,000
Shop building	2000	су	\$20	\$40,000
Well house	250	су	\$20	\$5,000
Transport to Glennallen landfill (includes dump				
truck, fuel, driver time)	405	RT	\$200	\$81,000
Mobilization/Demobilization/Transportation				
Heavy equipment mob/demob from Anchorage	1	mob	\$10,000	\$10,000
Per diem, lodging (5 people)	20	week	\$1,463	\$29,260
Expenses	1	est	\$8,000	\$8,000
-	_	Rem	ediation Total	\$424,460
	Project M	anagement	(30% of Total)	\$127,338
TOTAL ESTIMATED COST				\$551,798

Assumptions:

10-hour work days

18 cy dump truck

All debris is non-hazardous (i.e. non-lead based paint)

Debris located in dumpsites is discussed in a separate table

Notes:

Cost savings may be achieved by reusing concrete on site instead of transporting to landfill.

The shop building potentially could be demolished by firefighters as a training exercise.

Table H-2. General Cost Estimate Eroding Dumpsite

Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
CHARACTERIZATION				
Equipment and Labor				
Ground-penetrating radar (GPR) equipment,				
personnel, and reporting	3	day	\$4,000	\$12,000
Environmental professional	2	day	\$1,000	\$2,000
Mobilization/Demobilization/Transportation				
GPR equipment mobilization	1	mob	\$3,500	\$3,500
Per diem, lodging (3 people)	6	day	\$209	\$1,254
Expenses	1	est	\$500	\$500
·	•	Characteriza	ation Subtotal	\$19,254
	Project M	anagement ((30% of Total)	\$5,776
	<u> </u>	_	rization Total	\$25,030
REMEDIATION				
Equipment				
Backhoe	2	week	\$4,200	\$8,400
Loader	2	week	\$5,600	\$11,200
Labor				•
Backhoe operator	2	week	\$7,700	\$15,400
Loader operator	2	week	\$7,700	\$15,400
Laborer	2	week	\$6,300	\$12,600
Environmental professional	2	week	\$7,000	\$14,000
Field screening/Sampling				
HazCat kit	1	kit	\$3,400	\$3,400
Disposal				
Non-hazardous waste (Glennallen Landfill)	900	су	\$20	\$18,000
Transport non-hazardous waste to Glennallen		,		
landfill (includes dump truck, fuel, driver time)	50	RT	\$200	\$10,000
Site Restoration				
Backfill material	900	су	\$30	\$27,000
Mobilization/Demobilization/Transportation				
Heavy equipment mobilization	1	mob	\$10,000	\$10,000
Per diem, lodging (4 people)	8	week	\$1,463	\$11,704
Expenses	1	est	\$3,500	\$3,500
	•	Remedia	tion Subtotal	\$160,604
	Project M	anagement ((30% of Total)	\$48,181
	ediation Total	\$208,785		
		TOTAL EST	IMATED COST	\$233,815

Assumptions:

10-hour work days

18 cy dump truck

Samples include GRO, DRO, RRO, VOCs, PAH, and metals analysis

Estimated dumpsite size 40'x100'x6'

Notes:

Cost likely to increase for analysis and disposal if hazardous material is discovered, based on the nature and amount.



Table H-3. General Cost Estimate Aboveground Dumpsites

Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
CHARACTERIZATION				
Supplies				
HazCat test kit	1	kit	\$3,400	\$3,400
Labor				
Environmental professional	2	day	\$1,000	\$2,000
Sampling				
Charcterization/Confirmation samples	20	samples	\$745	\$14,900
Mobilization/Demobilization/Transportation				
Per diem, lodging (1 person)	2	day	\$209	\$418
Expenses	1	est	\$500	\$500
		Characteriza	tion Subtotal	\$21,218
	Project M	anagement (30% of Total)	\$6,365
		Characte	rization Total	\$27,583
REMEDIATION				
Equipment				
Backhoe	3	week	\$4,200	\$12,600
Loader	3	week	\$5,600	\$16,800
Labor				
Backhoe operator	3	week	\$7,700	\$23,100
Loader operator	3	week	\$7,700	\$23,100
Laborer	3	week	\$6,300	\$18,900
Environmental professional	3	week	\$7,000	\$21,000
Disposal				
Non-hazardous waste (Glennallen Landfill)	5000	су	\$20	\$100,000
Transport non-hazardous waste to Glennallen landfill				
(includes dump truck, fuel, driver time)	280	RT	\$200	\$56,000
Site Restoration (if necessary)				
Backfill material	5000	yd	\$30	\$150,000
Mobilization/Demobilization/Transportation				
Heavy equipment mobilization	1	mob	\$10,000	\$10,000
Per diem, lodging (4 people)	12	week	\$1,463	\$17,556
Expenses	1	est	\$9,500	\$9,500
	tion Subtotal	\$458,556		
	Project M	anagement (30% of Total)	\$137,567
	diation Total	\$596,123		
		TOTAL ESTI	MATED COST	\$623,706

Assumptions:

10-hour work days

18 cy dump truck

Samples include GRO, DRO, RRO, VOCs, PAH, and metals analysis

Notes:

Cost likely to increase for analysis and disposal if hazardous material is discovered, based on the nature and amount.



Table H-4. General Cost Estimate Asbstos-Containing Material Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
CHARACTERIZATION				
Labor				
Environmental professional	2	day	\$1,000	\$2,000
Sampling		,	, , , , , , ,	, ,
Asbestos characterization samples (if necessary)	40	samples	\$22	\$880
Mobilization/Demobilization/Transportation				·
Per diem, lodging (1 person)	2	day	\$209	\$418
Expenses	1	est	\$500	\$500
	•	Characteriza	tion Subtotal	\$3,798
	Project M	anagement (30% of Total)	\$1,139
	-	Characte	rization Total	\$4,937
REMEDIATION				
Labor				
Laborer	3	day	\$900	\$2,700
Certified asbestos professional	3	day	\$1,100	\$3,300
Disposal				
Hazardous waste (Mat-Su Borough Landfill)	2	ton	\$100	\$200
Landfill asbestos handling fee	4	half hour	\$38	\$150
Transport asbestos to Mat-Su Borough Landfill				
(includes dump truck, fuel, driver time)	3	RT	\$1,800	\$5,400
Mobilization/Demobilization/Transportation				
Dump truck mobilization	1	mob	\$1,800	\$1,800
Per diem, lodging (2 people)	2	day	\$209	\$418
Expenses	1	est	\$400	\$400
		Remedia	tion Subtotal	\$14,368
	Project M	anagement (30% of Total)	\$4,310
		Reme	diation Total	\$18,678
		TOTAL ESTI	MATED COST	\$23,616

Assumptions:

10-hour work days

18 cy dump truck

Table H-5. General Cost Estimate Paint Pallet Area

Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
CHARACTERIZATION				
Supplies				
HazCat test kit	1	kit	\$3,400	\$3,400
Labor				
Environmental professional	2	day	\$1,000	\$2,000
Mobilization/Demobilization/Transportation				
Per diem, lodging	2	day	\$209	\$418
Expenses	1	est	\$500	\$500
		Characteriza	tion Subtotal	\$6,318
	Project Ma	anagement (30% of Total)	\$1,895
		Characte	rization Total	\$8,213
REMEDIATION				
Equipment				
Backhoe	2	days	\$600	\$1,200
Loader	2	day	\$800	\$1,600
Labor				
Backhoe operator	2	day	\$1,100	\$2,200
Loader operator	2	day	\$1,100	\$2,200
Environmental professional	2	day	\$1,000	\$2,000
Sampling				
Confirmation samples - metals	10	samples	\$100	\$1,000
Disposal				
Hazardous waste	1	est	\$10,000	\$10,000
Treatment of contaminated soil (if necessary)	10	ton	\$1,000	\$10,000
Transport hazardous waste/contaminated soil to				
Anchorage (includes dump truck, fuel, driver time)	2	RT	\$1,800	\$3,600
Site Restoration (if necessary)				
Backfill material	10	yd	\$30	\$300
Mobilization/Demobilization/Transportation				
Heavy equipment mobilization	1	mob	\$10,000	\$10,000
Per diem, lodging (3 people)	6	day	\$209	\$1,254
Expenses	1	est	\$1,000	\$1,000
		Remedia	tion Subtotal	\$46,354
	Project Ma	anagement (30% of Total)	\$13,906
		Reme	diation Total	\$60,260
		TOTAL ESTI	MATED COST	\$68,474

Assumptions:

10-hour work days

18 cy dump truck

Notes:

Material is assumed to be lead-based and therefore hazardous. If it is non-hazardous, the remediation cost will be approximately \$13,000 less.



Table H-6. General Cost Estimate Crates of Powder Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
CHARACTERIZATION			<u> </u>	
Supplies			T I	
HazCat test kit	1	kit	\$3,400	\$3,400
Labor				
Environmental professional	1	day	\$1,000	\$1,000
Mobilization/Demobilization/Transportation				
Per diem, lodging	1	day	\$209	\$209
Expenses	1	est	\$500	\$500
		Characteriza	tion Subtotal	\$5,109
	Project Ma	anagement (30% of Total)	\$1,533
		Characte	rization Total	\$6,642
REMEDIATION				
Equipment				
Backhoe	1	day	\$600	\$600
Loader	1	day	\$800	\$800
Labor				
Backhoe operator	1	day	\$1,100	\$1,100
Loader operator	1	day	\$1,100	\$1,100
Environmental professional	1	day	\$1,000	\$1,000
Disposal				
Non-hazardous waste (Glennallen Landfill)	50	су	\$20	\$1,000
Transport non-hazardous waste to Glennallen				
landfill (includes dump truck, fuel, driver time)	3	RT	\$200	\$600
Mobilization/Demobilization/Transportation				
Heavy equipment mobilization	1	mob	\$10,000	\$10,000
Per diem, lodging (3 people)	3	day	\$209	\$627
Expenses	1	est	\$500	\$500
		Remedia	ntion Subtotal	\$17,327
	Project Ma	anagement (30% of Total)	\$5,198
			ediation Total	\$22,525
		TOTAL EST	IMATED COST	\$29,167

Assumptions:

10-hour work days

18 cy dump truck

Notes:

Cost will increase for analysis and disposal if material is hazardous in nature.

Table H-7. General Cost Estimate UST Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
REMEDIATION				
Equipment				
Backhoe	2	day	\$600	\$1,200
Labor		,		
Backhoe operator	2	day	\$1,100	\$2,200
Laborer	2	day	\$900	\$1,800
Environmental professional	2	day	\$1,000	\$2,000
Sampling				
Confirmation samples	7	samples	\$300	\$2,100
Rush TAT 100% surcharge		LS		\$2,100
Disposal				
Non-hazardous waste (Glennallen Landfill)	5	су	\$20	\$100
Transport non-hazardous waste to Glennallen				
landfill (includes dump truck, fuel, driver time)	1	RT	\$200	\$200
Contaminated soil (if necessary)	20	ton	\$100	\$2,000
Transport hazardous waste/contaminated soil to				
Anchorage (includes dump truck, fuel, driver time)	2	RT	\$1,800	\$3,600
Site Restoration				
Backfill material	20	yd	\$30	\$600
Mobilization/Demobilization/Transportation				
Heavy equipment mobilization	1	mob	\$10,000	\$10,000
Per diem, lodging (3 people)	6	day	\$209	\$1,254
Expenses	1	est	\$600	\$600
		Reme	diation Total	\$29,754
	Project M	anagement (30% of Total)	\$8,926
		TOTAL ESTI	MATED COST	\$38,680

Assumptions:

10-hour work days

18 cy dump truck

Samples include GRO, DRO, RRO, BTEX, and PAH analysis

Table H-8. General Cost Estimate Shop Building

Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit		
Description	Quantity	Unit	Price	Total Price	
CHARACTERIZATION					
Labor					
Environmental professional	2	day	\$1,000	\$2,000	
Sampling					
Charcterization samples	10	samples	\$745	\$7,450	
Mobilization/Demobilization/Transportation					
Per diem, lodging	2	day	\$209	\$418	
Expenses	1	est	\$250	\$250	
Characterization Total				\$10,118	
Project Management (30% of Total)				\$3,035	
TOTAL ESTIMATED COST				\$13,153	

Assumptions:

10-hour work days

Samples include GRO, DRO, RRO, VOCs, PAH, and metals analysis

Notes:

Remedial cleanup costs have not been estimated because it is too difficult to predict the nature and quantity of potentially hazardous material or contamination until characterization has been completed.

Table H-9. General Cost Estimate Lead-Based Paint Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
CHARACTERIZATION				
Labor				
Environmental professional	2	day	\$1,100	\$2,200
Sampling				
XRF Sampling	2	day	\$400	\$800
Total lead samples	10	samples	\$150	\$1,500
Mobilization/Demobilization/Transportation				
Per diem, lodging	2	day	\$209	\$418
Expenses	1	est	\$250	\$250
Characterization Total				\$5,168
Project Management (30% of Total)				\$1,550
		TOTAL ESTI	MATED COST	\$6,718

Assumptions:

10-hour work days

Notes:

Remedial cleanup costs have not been estimated because it is too difficult to predict the nature and quantity of potentially hazardous material or contamination until characterization has been completed.

Table H-10. General Cost Estimate Sewer System/Leach Field Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
CHARACTERIZATION				
Equipment and Labor				
Installation of soil borings	2	day	\$3,000	\$6,000
Environmental professional	2	day	\$1,000	\$2,000
Sampling				
Charcterization samples	12	samples	\$745	\$8,940
Mobilization/Demobilization/Transportation				
Drill rig mobilization	1	mob	\$3,500	\$3,500
Per diem, lodging (3 people)	6	day	\$209	\$1,254
Expenses	1	est	\$500	\$500
Characterization Total				\$22,194
	Project Management (30% of Total)			
TOTAL ESTIMATED COST				\$28,852

Assumptions:

10-hour work days

Samples include GRO, DRO, RRO, VOCs, PAH, and metals analysis

Notes:

Remedial cleanup costs have not been estimated because it is too difficult to predict the nature and quantity of potentially hazardous material or contamination until characterization has been completed.

Table H-11. General Cost Estimate Artesian Wells

Copper Valley School Property Assessment and Cleanup Plan

	Est.		Est. Unit	
Description	Quantity	Unit	Price	Total Price
REMEDIATION				
Decommission artesian wells	2	est	\$2,500	\$5,000
	\$5,000			
	\$1,500			
TOTAL ESTIMATED COST				\$6,500

Assumptions:

1 day out and back from Anchorage for drilling contractor and environmental professional Notes:

Decommission will include either capping the well or filling w/ mud depending on hydrostatic pressure.

