30 0

File: 17G
S.H.

TATALINA LRRS
ALASKA

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 30

TECHNICAL DOCUMENT TO SUPPORT INSTALLATION RESTORATION DECISION

PART I

DECLARATION

SITE NAME AND LOCATION

Installation Restoration Program Site SS-001, which includes the Minimally Attended Radar (MAR) site at Tatalina Long Range Radar Station (LRRS), Alaska.

STATEMENT OF BASIS

This decision is based on information contained in the Administrative Record, including but not limited to the results of Installation Restoration Program (IRP) Records Search, Technical Support Document for Record of Decision, Preliminary Assessment, Site Inspection study, and a Remedial Investigation (RI) completed in 1997 at the Tatalina LRRS, Alaska, with reports dated 1985, 1988, 1991, 1993, and 1998, respectively.

This Decision Document (DD) presents the selected remedial actions for the above listed site. This DD has been developed in accordance with the Defense Environmental Restoration Program, 10 *United States Code* (USC) 2701, consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601, and Executive Order 12580 (52 *Federal Register* 2923), and to the extent practicable with the National Oil and Hazardous Substances Pollution Contingency Plan (40 *Code of Federal Regulations* 300).

ASSESSMENT OF THE SITE

On the basis of the 1997 RI and risk assessments conducted at IRP Site SS-001, there currently is no need for further remedial action. This determination is protective of human health and the environment and complies with Applicable or Relevant and Appropriate Requirements (ARARs) for the site.

DESCRIPTION OF THE SELECTED REMEDY

Based upon investigations conducted at IRP Site SS-001 to date, there is presently no unacceptable risk or threat to public health or the environment. Therefore, the selected remedy for Site SS-001 is no further action under CERCLA. However, petroleum contaminated soil adjacent to the MAR facility has not been fully delineated due to the risk of compromising the structural integrity of the MAR facility. When the current MAR facility is decommissioned and removed in the future, the extent of subsurface contamination remaining beneath the building will be assessed to determine if remedial action is necessary. If soil is excavated from the site, the soil must be handled consistent with the current ARARs at the time of excavation and be coordinated with ADEC. Institutional control in the form of notice in land records will be developed by the Air Force, with ADEC concurrence, for waste left in place and within a base master plan. The State of Alaska supports and concurs with the selected remedy of no further action, with the extent of subsurface contamination to be assessed when the MAR facility is decommissioned and removed in the future.

DECLARATION AND STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with federal and state requirements that are legally applicable or relevant and appropriate, and is cost-effective. The statutory preference for treatment is not satisfied because treatment was not found to be necessary. Contaminant levels at the site have been determined to present no unacceptable threat to human health or the environment; thus, no treatment is necessary.

This decision may be reviewed and modified in the future if new information becomes available which indicates the presence of previously undiscovered contamination or exposure routes that may cause a risk to human health or the environment.

MICHAEL M. WYKA, Colonel, USAF
Commander, 611th Air Support Group
United States Air Force

17 Jan 01
Date

Jennifer Roberts
Contaminated Sites Section Manager
Alaska Department of Environmental Conservation

Nov 21 2000
Date

PART II

DECISION SUMMARY

for

SOURCE AREA SS-001
(Minimally Attended Radar Site)
at
TATALINA LONG RANGE RADAR STATION, ALASKA
FEBRUARY 1999

This Decision Summary provides an overview of the No Further Action determination for Source Area SS-001 at Tatalina Long Range Radar Station (LRRS), Alaska. This Decision Document presents the physical features of the site, the contaminants present, and the associated risks to human health and the environment. It also describes the rationale for a no further action determination and states how the determination satisfies requirements of the Defense Environmental Restoration Program, 10 *United States Code* (USC) 2701, consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601 and Executive Order 12580, and the National Oil and Hazardous Substances Pollution Contingency Plan.

The U.S. Air Force (USAF) completed a Remedial Investigation (RI) at SS-001 to provide information regarding the nature and extent of contamination in the soils. A baseline Human Health Risk Assessment and Ecological Risk Assessment were developed and used in conjunction with the RI to determine the need for remedial action. The RI and risk assessments were completed for Alaska Department of Environmental Conservation (ADEC) review and approval. On the basis of the results of the RI and risk assessments, it has been determined that no unacceptable risk or threat to public health or the environment exists. Therefore, there is no need for remedial action under CERCLA. Complete details regarding the remedial investigation and risk assessment methodology and results are included in the *Tatalina Long Range Radar Station Remedial Investigation Report* (October 1998).

1.0 SITE NAME, LOCATION, AND DESCRIPTION

The Tatalina LRRS is in the upper Kuskokwim River area, 240 miles northwest of Anchorage. The nearest settlement is Takotna (population of 58), a community about 6 miles by road north of the Tatalina LRRS. The larger community of McGrath (population of 441) is about 20 air miles east. Figure 1 shows the location of the Tatalina LRRS and surrounding communities within southcentral interior Alaska. (Figures are provided at the end of Part II.)

The Tatalina LRRS is owned by the U.S. Government and is under the jurisdiction of the USAF. It is one of many communication installations owned by the USAF as part of a defense communication network and aircraft warning system across Alaska. It consists of 4,968 acres at the base of Takotna Mountain, on the eastern flank of the Kuskokwim Mountains. The Tatalina LRRS consists of four distinct areas: Upper Camp on Takotna Mountain, Lower Camp, Airstrip, and Sterling Landing. Figure 2 shows the general layout of the Tatalina LRRS.

The Tatalina LRRS was established in November 1952 as the Tatalina Air Force Station. It was one of the 10 original Aircraft Control and Warning systems in Alaska. In 1957, a White Alice Communications System (WACS) was established at Upper Camp and operated continuously from 1957 until 1979. In 1979, a satellite earth terminal owned by AT&T Alascom replaced communications at the Tatalina WACS, which was deactivated. Several additional system upgrades and personnel changes have occurred at the Tatalina LRRS. The most recent reduction in personnel occurred in 1985, when the Minimally Attended Radar (MAR) was activated. Currently, six people live onsite at the Tatalina LRRS at the Lower Camp to monitor and maintain the facilities. There are no current plans to change the land use status at the installation from USAF ownership. The land surrounding the installation is owned by several Native corporations. The Sterling-Ophir Highway, which extends from the community of Takotna to the Sterling Landing at the Kuskokwim River, runs through the installation. This road has a 100-foot right-of-way for private and public use.

Site SS-001 is located on top of Takotna Mountain at Upper Camp and consists of the current dome structure and the area around this dome where additional MAR structures were formally located. The location of SS-001 is shown in Figure 2.

2.0 SITE HISTORY AND ENFORCEMENT ACTIVITIES

Information about past activities at SS-001 and IRP studies that have been previously completed for this source area are summarized in the following sections.

2.1 SITE HISTORY

The present MAR facility was installed at Upper Camp in 1985. Four areas of potential contamination within the MAR source area were investigated during the RI as shown on Figure 3: two fuel releases from aboveground diesel fuel storage tanks that occurred in the 1980s; an abandoned, buried, septic tank; and a former electrical transformer storage area where transformer oils containing polychlorinated biphenyls (PCBs) may have been released onto the pad during routine operations. Contamination in these four areas resulted

from past operations and from the present facility. The fuel releases were reported as follows:

- Spill No. 6: 500 gallons of diesel fuel spilled from the piping system near the new MAR tower in 1985. The fuel reportedly drained onto the bedrock. File document information did not include the specific date, location, or cleanup action.
- Spill No. 7: A diesel spill larger than the 1985 release occurred in the early 1980s. File document information did not include the specific date, tank location, amount of fuel released, or cleanup action.

During removal of the diesel tanks and former buildings at the MAR site and during demolition activities, several feet of fill material were added to the MAR site area. The slope below the estimated location of the abandoned septic tank is covered by about 1 foot of fill mixed with construction debris.

2.2 REGULATORY AND ENFORCEMENT HISTORY

The MAR site was first identified as IRP source area 1 during a Phase I Records Search (1985) and follow-up action was recommended. The site was later included in a 1988 Technical Support Document for Record of Decision and recommended for no further action. The site was later evaluated during a Preliminary Assessment in 1991, which resulted in a no further action recommendation. This source area was not included in the 1992 Site Inspection completed at Tatalina LRRS. Because of the absence of analytical data to support a no further action decision, SS-001 was included in the 1997 RI at Tatalina LRRS.

2.3 COMMUNITY RELATIONS ACTIVITIES

Past hazardous waste investigations and cleanup activities at the Tatalina LRRS have been documented in several USAF reports. These reports are listed and summarized in the *Tatalina Long Range Radar Station Remedial Investigation Report* (October 1998). An administrative record has been established at the USAF 611 Civil Engineering Squadron. A community relations program was initiated by the USAF for the Tatalina LRRS; the *Community Relations Plan* was produced (June 1997); and a community relations meeting was held in May 1997 in Takotna, Alaska, before the RI field investigation. The Proposed Plan was distributed for public review in February 1999. The public comment period was from February 18, 1999, to March 19, 1999. A community meeting in Takotna was held on February 18, 1999, to discuss the results of the RI and the Proposed Plan. Responses to all comments received on the Proposed Plan are presented in the Responsiveness Summary provided in Part III, and a copy of the administrative record index is provided in Appendix A.

3.0 SITE CONTAMINATION AND RISKS

The 1997 RI was conducted to determine if contamination exists at the Tatalina LRRS that could pose a risk to the environment and public health. The following sections summarize the methodology for conducting the RI at SS-001 and the RI results.

3.1 REMEDIAL ACTION OBJECTIVES

As part of the 1997 RI, remedial action objectives (RAOs) were developed for all source areas at the Tatalina LRRS. The RAOs were presented in the *Remedial Investigation/Feasibility Study Work Plan, Tatalina LRRS* (1997) and were developed along

with preliminary applicable or relevant and appropriate requirements (ARARs), to-be-considered (TBC) criteria, and a conceptual site model. RAOs were established that were protective of human health and the environment and complied with ARARs as defined in current state and federal regulations. The information used to establish RAOs included site-specific data from the RI about contaminants detected in the baseline risk assessments, safety and logistical considerations for mobilizing to the remote site for additional investigation and remedial activities, and costs associated with further action relative to the benefit derived at a remote site. Additional consideration also was given to the length of time contaminants may have been present at the site and to the fact that most of the sources of the contamination, such as fuel storage tanks, were removed as early as the 1980s.

The baseline risk assessment included screening of contaminants for both human health and ecological risks. The screening levels used for the human health risk assessment represented cancer risks of 1×10^{-5} for an individual chemical, 5×10^{-5} for all chemicals for an exposure route, and 1×10^{-4} for all chemicals across all exposure routes. Hazard indexes of 1.0 for individual chemicals and 10.0 cumulative per exposure pathway were used to screen non-carcinogens. In the ecological risk assessment, concentrations of detected chemicals were compared to critical toxicity values for representative species. Hazard quotients of less than or greater than 1 were calculated for toxicity and risk screening.

Chemical-specific ARARs and TBC criteria used for establishing RAOs included ADEC regulations for cleanup of hazardous substances (Title 18, Chapter 75, of the *Alaska Administrative Code* [AAC]), U.S. Environmental Protection Agency (EPA) spill cleanup policy for PCBs (Title 40, Part 761.120-135, of the *Code of Federal Regulations*), and water quality standards (18 AAC 70; federal Clean Water Act) and risk management standards developed in the baseline human health and ecological risk assessment. In addition, draft hazardous substances cleanup regulations in 18 AAC 75 were used to estimate soil and groundwater cleanup levels for several organic and inorganic contaminants, including petroleum hydrocarbons. The draft regulations used during the RI were promulgated and became effective January 22, 1999. The promulgated regulations did not result in any changes to the RI results, conclusions, or recommendations. The Tatalina LRRS RI used Method 2 (Tables B1 and B2) of the 18 AAC 75 cleanup standards to propose maximum allowable petroleum hydrocarbon cleanup levels for sites at the Tatalina LRRS Upper Camp that have less than 40 inches of rainfall and pose no potential threat to groundwater.

Groundwater that may exist at Upper Camp is not considered a drinking water source by application of 18 AAC 75.350. Specific criteria to demonstrate the groundwater is not a drinking water source are discussed below.

1. No groundwater aquifer was encountered during the RI at Upper Camp, where bedrock was encountered at an average 4-foot depth at all but one sampling location. The Upper Camp is located at the top of Takotna Mountain, which is the top of a granite-diorite pluton. The area is rocky and exposed. A locally absent, thin gravelly residuum overlies the shallow bedrock. Outcrops of bedrock are common. Upper Camp is located at an elevation of 3200 feet. From the top, the terrain descends to an elevation of 1,250 feet at Lower Camp over a distance of approximately 1 mile.

2. There are no drinking water sources at Upper Camp and groundwater that may exist at this location is not within a zone of contribution of an active private or public drinking water system.
3. The nearest drinking water is the Tatalina LRRS gallery system located on the east side of Lower Camp, approximately 1 mile from Upper Camp on Takotna Mountain. Results of the RI did not indicate any direct groundwater or surface water connection from Upper Camp to the water gallery.
4. The groundwater that may exist at Upper Camp is not within a recharge area for a private or public drinking water well, or a wellhead protection area, or a sole source aquifer.
5. The groundwater that may exist in the bedrock is not a reasonably expected potential future source of drinking water based on the following considerations:

- No one resides at Upper Camp, and groundwater, if present, is not currently needed or desirable as a drinking water source. The USAF has no plans to house people at Upper Camp or provide an onsite groundwater or surface water drinking water supply at this location. If ownership is transferred in the future, it is unlikely that people would live at this location and need to use the groundwater, if present, as drinking water.
- The hydrogeology of Upper Camp consists primarily of rain and snowmelt that infiltrates through the residual soil to shallow bedrock. The underlying bedrock then acts as a lower flow boundary, along which water can continue until it infiltrates into fractured bedrock or resurfaces as a surface spring. Although the extent and nature of fracturing of the bedrock was not characterized during the RI, it is anticipated that the continuity and transmissivity of these fractures would decrease rapidly with depth. Quantity and quality of groundwater is unknown but it is likely that both may be insufficient for a drinking water source.

6. Hazardous substances above ADEC cleanup levels or risk-based levels were not encountered in subsurface soils at Upper Camp, with the exception of one subsurface soil sample at source area SS-001, which was collected at a depth of 4 feet (just above bedrock). Additional investigation at the SS-001 location will be conducted in the future when the onsite building is removed. Results of RI at the location did not indicate any potential threat to groundwater or surface water at this location or in seep and sediment samples collected downgradient from Upper Camp source areas.

Because of the location of Site SS-001 and the lack of a groundwater exposure pathway at the site, cleanup standards for an inhalation exposure pathway were applicable. These standards are provided below.

Analyte	Cleanup Standard (soil)	Cleanup Standard (groundwater)
Gasoline-range organic compounds	1,400 mg/kg	1,300 µg/L
Diesel-range organic compounds	12,500 mg/kg	1,500 µg/L

Residual-range organic compounds	10,000 mg/kg	1,100 µg/L

µg/L = Micrograms per liter
mg/kg = Milligrams per kilogram
PCB results at SS-001 were below 18 AAC 75 cleanup levels for PCBs. The following PCB cleanup levels from 18 AAC 75 apply to the MAR site:

Analyte	Cleanup Standard (soil)
PCBs	1 parts per million (ppm) (surface)
	10 ppm (subsurface)

3.2 RI RESULTS

The objective for the RI at SS-001 was to perform sampling to determine if petroleum contamination existed as a result of past fuel spills, assess past site cleanup activities completed during demolition, determine if the abandoned septic tank released contaminants, and identify the presence and character of surface water migration pathways from the source area.

Four test pits and three seep and sediment locations were sampled to investigate the potential release of contaminants from the MAR site. Figures 3 and 4 show the sample locations at this source area. A backhoe was used to dig four test pits: one at the former septic tank, one at the former transformer vault area, and two at former diesel tank locations. A maximum of 3.5 feet of sandy gravel or gravelly sand covered bedrock at each site, except for the east diesel tank, where bedrock was not reached at 4 feet below ground surface, the maximum depth of Test Pit (TP) 2. Because installation personnel requested that the foundation beneath the existing MAR dome not be undercut by the test pit excavation in TP2, digging was limited to 4 feet at that test pit location. For the same reason, no test pit was excavated adjacent to the northeast side of the dome, where a third former diesel tank had been located. The area of the third former diesel tank next to the building had been filled and regraded; therefore, there was no visual indication of surface contamination from potential past releases. The TP2 location was situated downgradient of the third former tank and depicts a representative downgradient sample location.

At least two soil samples were collected from each test pit. One sample was collected at backhoe refusal depth, generally at the top of bedrock. The second sample was collected from the top of native (in-place) material or from the sidewall of the pit. The soil samples from the former transformer area excavation (TP3) were submitted for analysis of PCBs only. The TP3 location was chosen based on the recommendation of LRRS personnel who were onsite when the former PCB vault was in use.

To identify potential migration pathways from the MAR site pad, field personnel looked for seeps around the perimeter of the pad and summit area. Three seep and three sediment samples were collected for analysis.

Soil samples collected at SS-001 were analyzed for the following parameters:

- TP1 (near septic tank)—volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides and PCBs, metals
- TP2 (near east diesel tank)—diesel-range organic (DRO) compounds, gasoline-range organic (GRO) compounds, VOCs, and lead
- TP3 (near transformer)—PCBs only, due to former electrical equipment
- TP4 (near west diesel tank)—DRO, GRO, VOCs, and lead

Septic tanks at other radar stations have contained petroleum hydrocarbons, solvents, and metals from waste oils; therefore, those contaminants were included as analytes at the former septic tank location.

Surface and subsurface soils, surface water, and sediment samples were collected and analyzed for petroleum hydrocarbons, solvents, metals, PCBs, and pesticides by using the following analytical methods: Refer to Table 1 for analytical methods used for each media.

Chemical	Analytical Method
Petroleum hydrocarbons	ADEC Methods: AK 101, AK 102
Volatile organic compounds	EPA Method 8260A
Semivolatile organic compounds	EPA Method 8270B
Metals	EPA Method 6010A/7000 series, 9010
PCBs and pesticides	EPA Method 8081

Analytical results were compared to Upper Camp background values obtained during the RI, ADEC cleanup levels (18 AAC 75), and risk management standards developed in the baseline human health and ecological risk assessments completed for this source area. Figure 4 shows the sampling locations and significant analytical results for petroleum hydrocarbons. Table 1 shows the requested analyses for each sample.

Pesticides, PCBs, VOCs, SVOCs, and metals detected in soils from TP1 were at trace levels and, in most cases, were at or below the analytical method reporting limit. None of the chemicals or metals were detected at levels exceeding risk-based levels developed in the baseline risk assessment.

TP2 had elevated GRO levels (110 to 360 milligrams per kilogram [mg/kg]) and DRO levels (5,810 to 12,000 mg/kg). The highest DRO levels were detected at the bottom of the excavation where the former diesel tank was located.

The samples from TP3 showed low residual levels of Aroclor 1260 (PCBs) at 2.8 mg/kg and 4.2 mg/kg. The maximum concentration (4.2 mg/kg) was detected at the bottom of the test pit, where bedrock was encountered.

VOC contamination also was detected in analytical results for TP4 at very low levels that were below risk-based levels. DRO levels ranged from 20 to 22 mg/kg; however, a review of the laboratory chromatogram data did not indicate a pattern match for diesel, which likely indicates that biogenic material in the soil may have contributed to the result. GRO was detected in a single sample at 2.1 mg/kg.

On the basis of available information gathered during the RI, it appears that residual soil contaminants extend vertically from near the ground surface to the top of the bedrock surface. The lateral extent of petroleum hydrocarbon contamination in subsurface soil at TP2 is likely bounded on the west by the existing MAR dome and on the north, east, and south by the summit access roadway.

Given the granular nature of the soils beneath the graded MAR pad, it is probable that the contaminants in TP2 extend from the former diesel tank source to the nearest point where the soils have a significant increase in organic matter content (especially native tundra soils). Movement of organic contaminants is anticipated to slow significantly because the organic matter would tend to trap and hold them. Biodegradation of the contaminants can occur; however, the rate would be very limited by site conditions such as low temperatures and infrequent summer precipitation.

VOCs and pesticides were detected in surface water (seep) and sediment sampling along the access roadway below the MAR site, but at very low levels and, in most cases, at levels below the method reporting limits. All detected chemicals were below comparative human health and ecological risk screening criteria and pose low potential risk.

Analytical results from the MAR site soil, sediment, and seep sampling locations also did not indicate contaminant levels above cleanup standards in 18 AAC 75, with the exception of DRO results at TP2. The subsurface DRO contamination at TP2 (12,000 mg/kg at 4-foot depth) likely extends to the base of, and possibly beneath, the existing MAR dome, which effectively restricts soil excavations. Although bedrock was not reached at the maximum depth excavated at this location, it is expected that bedrock is very close to the bottom of the excavation. The spills in this area occurred before removal of the old MAR facilities in the 1980s. The current migration of contaminants from this area is expected to be very slow because much of the contamination will be bound with soil organic matter. The source of the diesel fuel contamination has been removed and the levels of petroleum hydrocarbons in the soil are expected to continue to decrease. GRO levels at depth in the test pit were relatively low (360 mg/kg); BTEX and benzene were not detected. Excavation of contaminated soils in this area is likely not feasible at this time because of the need to protect the foundation integrity for the existing MAR building.

On the basis of RI results and the baseline risk assessment, no excavation or additional investigation is recommended at this time for SS-001. When the current MAR facility is decommissioned and removed in the future, the extent of subsurface contamination remaining beneath the building will be re-assessed to determine potential remedial needs.

4.0 SELECTED REMEDY

On the basis of the 1997 RI and risk assessments conducted at SS-001, no contaminants of concern exist at this site for risk management and there is no need for further remedial action

at this time. This determination is protective of human health and the environment. When the current MAR facility is decommissioned and removed in the future, the extent of subsurface contamination remaining beneath the building will be assessed to determine if remedial action is necessary. If soil is excavated from the site, the soil must be handled consistent with the current ARARs at the time of excavation and be coordinated with ADEC. Institutional control in the form of notice in land records will be developed by the Air Force, with ADEC concurrence, for waste left in place and within a base master. The State of Alaska supports and concurs with the selected remedy of no further action.

This decision may be reviewed and modified in the future if new information becomes available which indicates the presence of previously undiscovered contamination or exposure routes that may cause a risk to human health or the environment.

PART III

RESPONSIVENESS SUMMARY

OVERVIEW

The U.S. Air Force and the Alaska Department of Environmental Conservation distributed a Proposed Plan for No Further Response Action planned (NFRAP) at seven source areas at Tatalina LRRS. The seven source areas include SS-001, DP-005, OT-012, SS-007, SS-009, LF-010, and OT-006.

The Proposed Plan described the results of the RI conducted at these source areas and the recommendations for NFRAP. Verbal comments about the Proposed Plan were received at a public meeting conducted at Takotna, Alaska, during the public comment period. The comments are summarized and presented in this Responsiveness Summary.

BACKGROUND OF COMMUNITY INVOLVEMENT

The public was encouraged to participate in the NFRAP decision at the seven source areas during a public comment period from February 18, 1999, to April 15, 1999. The original public comment period was scheduled for February 18 to March 19, 1999. The U.S. Air Force extended the public comment period to allow more time for community members to review the Proposed Plan and submit comments. The Proposed Plan was released to the public and copies delivered to Takotna residents on February 18. Copies of the Proposed Plan were also sent to all known interested parties, including Tatalina LRRS workers and residents.

The Proposed Plan summarizes available information about the seven source areas. Additional information will be placed into three information repositories: the U.S. Air Force 611 CES/CEVR offices at Elmendorf Air Base, the Takotna Community Library, and the McGrath Public Library. An Administrative Record, including all items to be placed into the information repositories and other documents used in the selection of the NFRAP recommendation for the seven source areas, was established at the 611 CES/CEVR offices at Elmendorf Air Force Base. The public was encouraged to inspect materials available in the Administrative Record during business hours.

Interested citizens were invited to comment on the Proposed Plan and the NFRAP recommendations by mailing comments to the 611 CES/CEVR Community Relations Coordinator, by calling a toll-free telephone number to record a comment, or by attending and commenting at a public meeting conducted on February 18, 1999, at the Takotna Community Center in Takotna, Alaska. The proceedings of the meeting were recorded, and the transcript became part of the Administrative Record for the seven NFRAP source areas at Tatalina LRRS.

SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND U.S. AIR FORCE RESPONSES

Verbal Comments from the Public Meeting

Comment: If the EPA and ADEC told the Air Force to clean something up, and the Air Force didn't want to do that, does the Air Force have the power to say "No"? In this case, who has the authority to say "Look at it; do it"?

Response: The Air Force follows regulations regarding investigations and cleanups of potentially contaminated sites. The regulations are based on whether an animal or human could be harmed. If a site can cause harm, then the ADEC has the authority to tell the Air Force to clean up the site.

Comment: Has the U.S. Air Force investigated the old tram site on the hill at the Tatalina LRRS, where there was a building? A transformer building was reportedly formerly located at that site.

Response: The tram building was not included in the 1997 remedial investigation (RI). The Air Force and the ADEC are planning to conduct further investigation at that site and will request input from community members at that time.

Comment: I am not comfortable only using water samples to investigate, and would prefer using heavy equipment to do excavations. I am not certain how long biodegradation takes, and whether contaminants would get into the groundwater. This is regarding IRP site LF-004.

Response: The Air Force has determined that there is not enough information to make a decision regarding future action at this source area. It is not one of the NFRAP source areas discussed in the Proposed Plan. The Air Force will be conducting further investigation at LF-004.

Comment: Regarding the reporting of environmental concerns, I know a man who is reluctant to come forward about things he might have done. Even though local people have said they know where contaminants are buried, they did not share this information with the Air Force when there was an opportunity to do so. A community member said he had not been asked for any information about the area.

Response: A bulk mailing was conducted 2 years ago and public meetings were held, including one public meeting conducted before the 1997 RI field work. Newspaper notices requesting information about the Tatalina LRRS site and any potentially contaminated areas were also published. It is not too late to provide information to the Air Force. The easiest way to contact the Air Force is through the toll-free number provided in the Proposed Plan. The U.S. Air Force encourages individuals to contact them regarding any information or concerns they have about the sites. If new information becomes available about a site that has already been closed for further action, the ADEC and the Air Force can re-open the site and conduct additional work.

Comment: What are the plans for Sterling Landing?

Response: The Air Force is planning to conduct a follow-up investigation at Sterling Landing in late summer 1999 because the 1997 field investigation did not fully determine the extent of contamination.

Comment: It is all right if sites are closed, as long as they can be re-opened in the future if new information is available or new contamination is found.

Response: The Air Force will return to an area for further investigation if new information indicates that contamination exists that may cause harm to the environment or human health.

Comment: There is a concern about the tanks that were removed from Sterling Landing and that are now left in pieces alongside the road to Takotna.

Response: The Air Force no longer owns the tanks and is unable to remove the tank remnants. The tanks were cleaned during the tank closure process the Air Force conducted, so there are no hazardous substances associated with the tanks. In this case, because the Air Force does not own the tanks, the current owner of the tanks is responsible for removing the pieces from the road.

Comment: Can an information repository be established in McGrath?

Response: Yes, according to the Proposed Plan, an information repository will be established at the McGrath Public Library.

Comment: How long will the monitoring wells at Sterling Landing be monitored and what is the normal procedure when sites are obviously contaminated?

Response: The Air Force has not determined how long the wells will need to be monitored. The normal procedure for addressing a potential contaminated site is to conduct an investigation and then, depending on the results of the investigation, a cleanup may be conducted. The decisions regarding the investigation and cleanup are made in consultation with the ADEC and the community members. It is too early to determine if a cleanup will be conducted at Sterling Landing or what type of cleanup may be conducted. These decisions will be made after the follow-up investigation in 1999 and further discussions with the ADEC and community members.

Comment: There is a concern regarding the scheduling of additional site investigations at Sterling Landing. When fuel barges deliver fuel to Sterling Landing in the summer, the community residents and others that need the fuel need access to Sterling Landing and the road to Takotna. Will Sterling Landing need to be closed down in the summer?

Response: The Air Force will coordinate the scheduling of further investigation activities at Sterling Landing with the community members, and every effort will be made to accommodate access to Sterling Landing and the roadways for fuel deliveries at Sterling Landing and transporting of the fuel to Takotna.

Comment: What are the property boundaries at Sterling Landing, and who owns the property where the Air Force tanks were formerly located?

Response: The Air Force is currently researching the property boundaries at Sterling Landing and associated real estate issues. This information is needed before additional investigation is conducted at this location. If there are fuel storage tanks at Sterling Landing

that the Air Force does not own and that are leaking, the tanks will need to be repaired before the additional investigation can be conducted. The current owners of the fuel tanks at Sterling Landing are responsible for maintaining the tanks, or replacing them if necessary.

Comment: How does the Air Force know when a site is clean?

Response: The Air Force begins by sampling at the site and then removing the contamination. The site is again sampled, after the contaminated area has been removed, to confirm all the contamination was removed. Then the site is monitored for a length of time that is negotiated with the ADEC and the community to be sure that the cleanup was successful. If additional contamination if found during the monitoring, the Air Force needs to go back and conduct more cleanup and repeat the process.

Comment: Does the Air Force do its own laboratory work? There is a concern about turnaround time, and if it takes a long time for the results, it may be too late to address a potential problem. The example is fuel quality testing of fuel that is delivered to Sterling Landing. When it takes several months to receive the data, by that time the fuel has already been used.

Response: Laboratory work is generally conducted by contractors hired by the Air Force. If the sampling for the fuel quality is taking too long, the laboratories can be requested to complete a faster turnaround for results. It should not take so long to complete the fuel quality analyses, and the Air Force will look further into this issue.

Comment: In response to Air Force interest in local hire, hiring local people is great and I hope that the Air Force will follow through on this. Many people in Takotna and McGrath have taken the required OSHA training so they can work at the Air Force sites that require the training.

Response: The Air Force would like to hire locally and encourages local community members to be involved in the work available at sites.

Comment: Why weren't source areas WAA No. 2 and LF-010 cleaned up right away?

Response: The Air Force did not have the information regarding potential contamination and work practices that contribute to contamination when these sites were active many years ago. Now, the Air Force realizes that common work practices that were done in the past caused contamination. Therefore, the sites are being investigated and cleaned up.

Comment: In response to the Air Force question regarding the best ways to keep the community informed about IRP activities at Tatalina LRRS, a Regional Advisory Board (RAB) would be the best method. Until a RAB is established, locally involved organizations could be contacted when information is available from the Air Force, and when new information needs to be sent out.

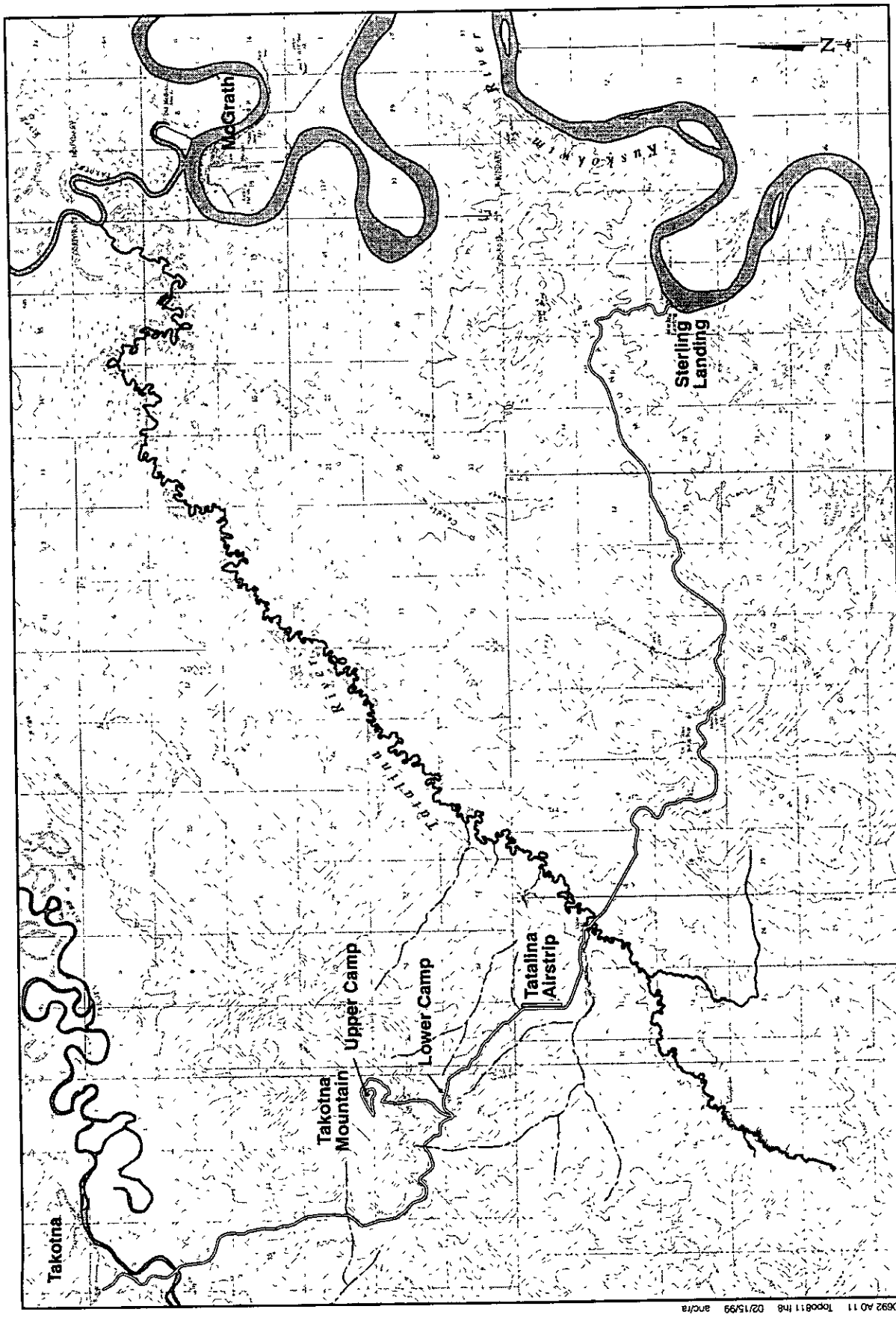
Response: The Air Force is currently working on establishing a RAB for the Tatalina LRRS. It has not been determined when the RAB will be established. The Air Force is interested in the most efficient ways to distribute information to community members, so everyone is informed about what the Air Force is planning to do at Tatalina LRRS and the results of investigations and cleanups that may be performed.

Comment: An additional contaminated site that was not investigated during the 1997 RI may exist at Upper Camp. This is an area near DP-005, north of the MK Debris site and Northeast Landfill. While working at the facility, I recall the facility personnel gave instructions to discard drums over the steep slope, into the ravine below. Some time later on, facility workers were instructed to collect the drums, crush them, and dispose of the drums in an onsite landfill. If the drums were not empty, fire axes were used to release the contents so the drums could be hauled to DP-005 for disposal. Drums are still visible at this site.

Response: The Air Force and ADEC are planning to conduct additional investigation of this new site in the future. Additional input from community members who have knowledge about past operations at this site will be solicited at that time.

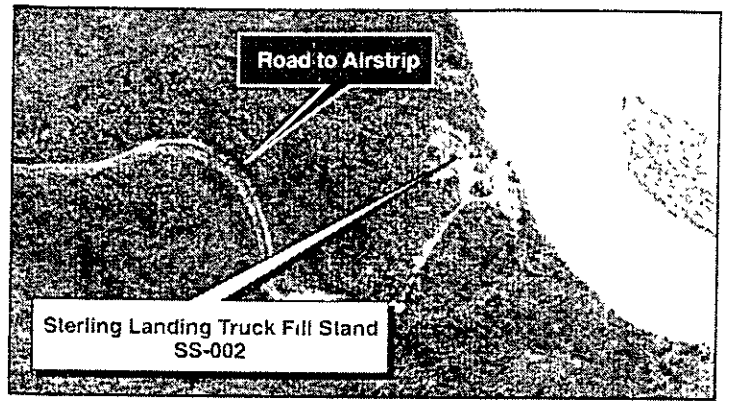
Written Comments

No written comments were received during the public comment period.



From U S Geological Survey maps Iditarod (D-1) and McGrath (D-6), Alaska

Figure 1. Location Map for Tatalina LRRS and Surrounding Area



Sterling Landing *on the Kuskokwim River, 16 miles east-southeast from Tatalina Airstrip on airstrip road*

Upper Waste Accumulation Area No 2
LF-010

Landfill No 2
LF-004

Upper Landfill No 1
LF-010

N

Wellhouse and
Infiltration Gallery

Airstrip
OT-006

Minimally Attended Radar (MAR)
SS-001

Lower Waste Accumulation Area No. 2
LF-010

Road to Upper Camp

Northeast Landfill
DP-005

Former Paint Shop
SS-008

Sewage Lagoon
SS-008

MK Debris Site
DP-005

Old Sanitary
Sewer System
SS-008

POL Tank Farm
SS-003

Waste Accumulation Area No. 4
SS-008
Truck Fill Stand
SS-009

Waste Accumulation Area No. 1
SS-011

Hardfill No. 2
DP-005

White Alice Communications System
OT-012

Waste Accumulation Area No 3
Paint and Oil Storage Building
SS-007

Hardfill No 1
SS-011

500 0 1,000

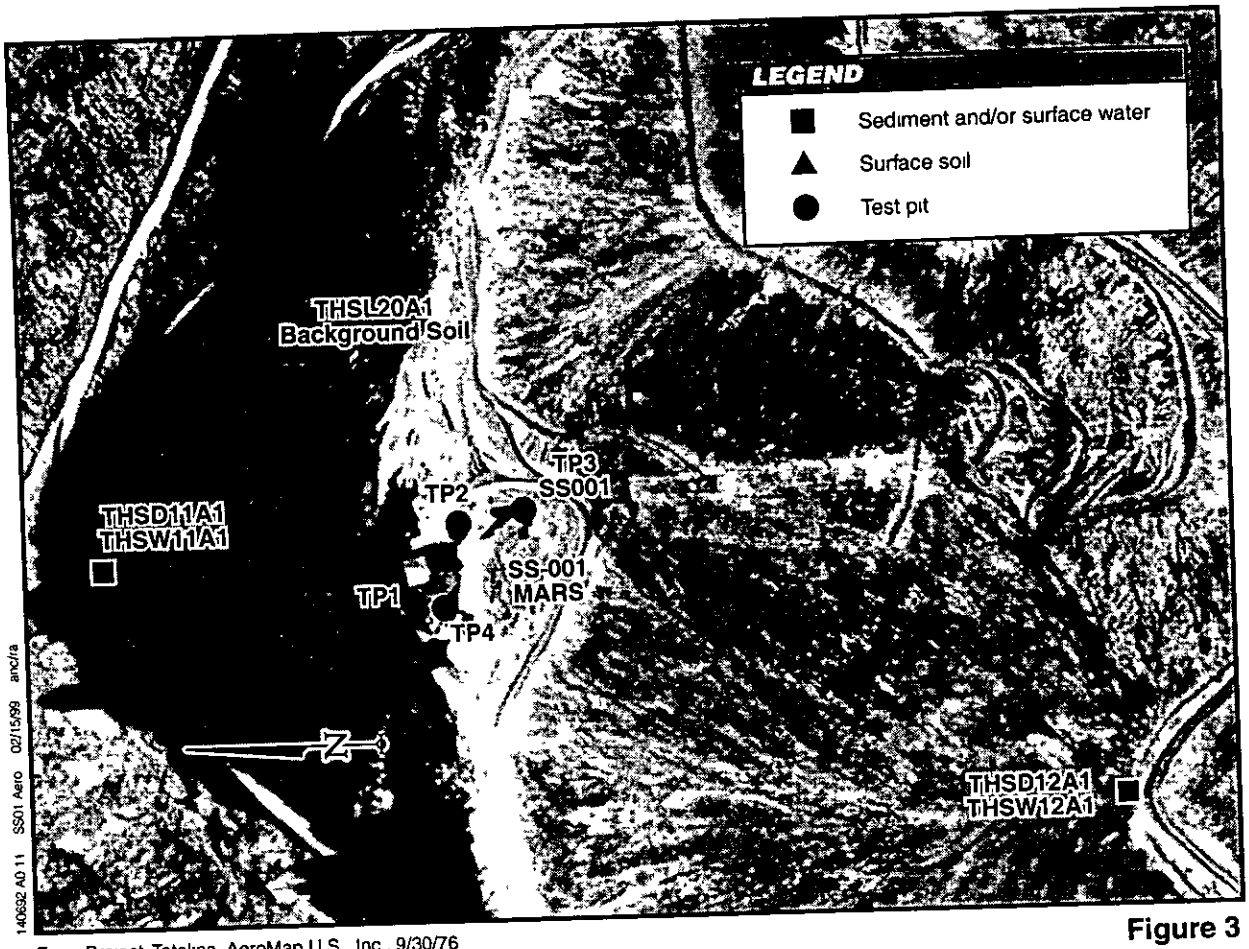
Approximate Scale: 1" = 1,000'

ARCTIC OCEAN
★ Tatalina
BERING SEA
PACIFIC OCEAN

140692 A109 SS01Focus.fhg 02/12/99 anc/a

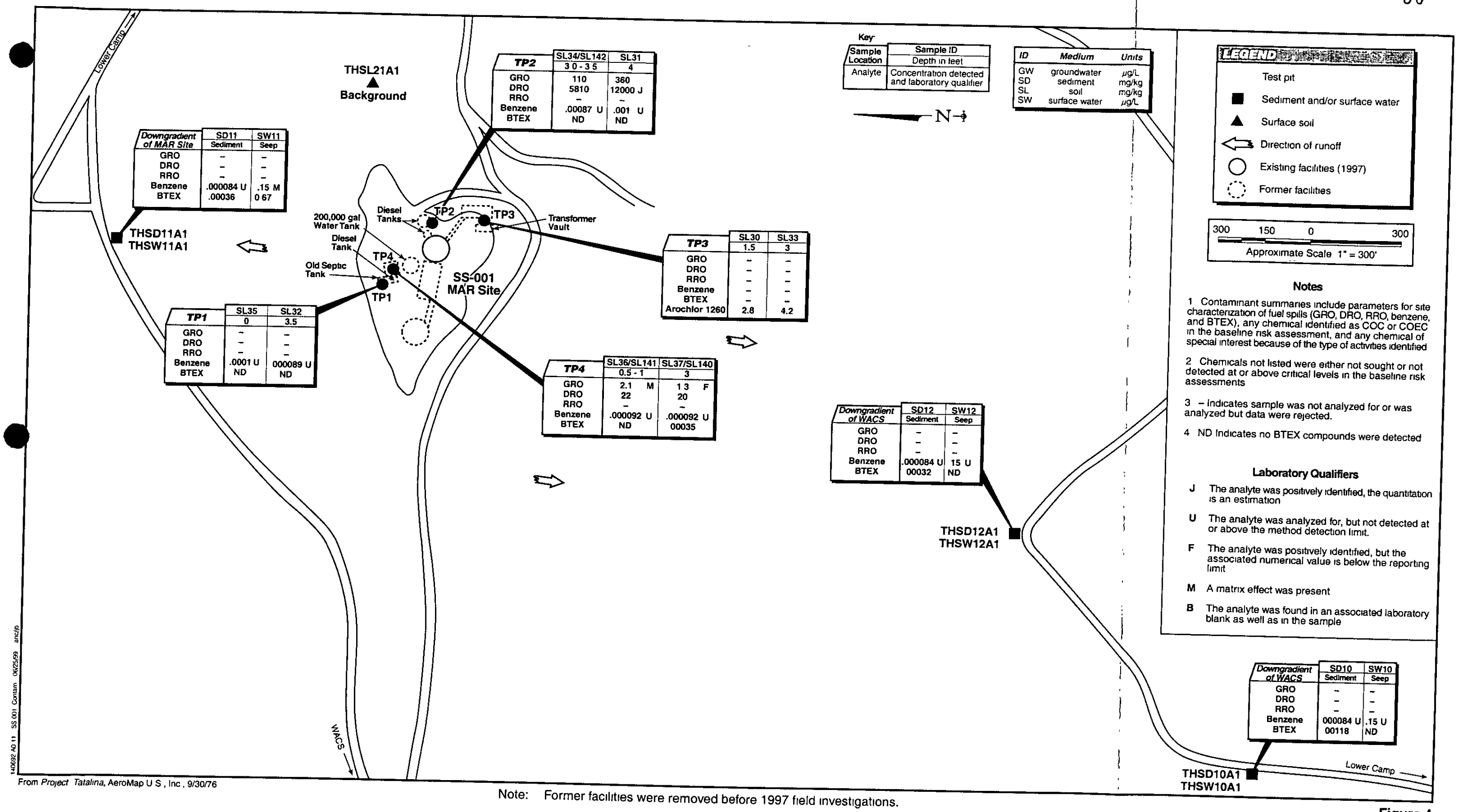
From Project Tatalina, 9/30/76, and Project McGrath 8/27/84, AeroMap U S , Inc , and U S Geological Survey map, McGrath (D-6), Alaska

Figure 2
Aerial Photograph of Tatalina LRRS Site Locations



From Project Tatalina, AeroMap U S , Inc , 9/30/76

Figure 3
Aerial Photograph of SS-001



Notes

1 Contaminant summaries include parameters for site characterization of fuel spills (GRO, DRO, RRO, benzene, and BTEX), any chemical identified as COC or COEC in the baseline risk assessment, and any chemical of special interest because of the type of activities identified

2 Chemicals not listed were either not sought or not detected at or above critical levels in the baseline risk assessments

3 – Indicates sample was not analyzed for or was analyzed but data were rejected.

4 ND Indicates no BTEX compounds were detected

Laboratory Qualifiers

J The analyte was positively identified, the quantitation is an estimation

U The analyte was analyzed for, but not detected at or above the method detection limit.

F The analyte was positively identified, but the associated numerical value is below the reporting limit

M A matrix effect was present

B The analyte was found in an associated laboratory blank as well as in the sample

Note: Former facilities were removed before 1997 field investigations.

Figure 4
Contaminant Summary for SS-001, MAR Site
Tatalina LRRS RI

APPENDIX A

TATALINA LRRS ADMINISTRATIVE RECORD INDEX

The following list includes U.S. Air Force Installation Restoration Program plans and reports completed to date for the Tatalina LRRS. A comprehensive Administrative Record for the Tatalina LRRS is currently in progress and will be available to the public when completed.

U.S. Air Force. *Tatalina Long Range Radar Station Takotna Public Meeting Regarding "Proposed Plan for No Further Response Action Planned" Meeting Minutes.* February 18, 1999.

U.S. Air Force. *Proposed Plan for No Further Response Action Planned: IRP Sites DP-005, OT-012, SS-001, SS-009, LF-010, OT-006, United States Air Force Installation Restoration Program, Tatalina LRRS, Alaska.* February 1999.

U.S. Air Force. *Remedial Investigation Report, Tatalina LRRS, Alaska.* October 1998.

U.S. Air Force. *Interim Remedial Action Report (Draft), Tatalina LRRS.* March 1998.

U.S. Air Force. *Analytical Data Informal Technical Information Report, Tatalina LRRS.* February 1998.

U.S. Air Force. *Community Relations Plan, Tatalina Long Range Radar Station, Alaska.* June 1997.

U.S. Air Force. *Remedial Investigation/Feasibility Study Sampling and Analysis Plan, Tatalina LRRS, Alaska.* June 1997.

U.S. Air Force. *Remedial Investigation/Feasibility Study Work Plan, Tatalina LRRS, Alaska.* June 1997.

U.S. Air Force. *Sterling Landing Fuel Tanks Site Environmental Baseline Survey.* 1997.

U.S. Air Force. *Draft Management Action Plan (Update), Tatalina Long Range Radar Station, Alaska.* August 1996.

U.S. Air Force. *Management Action Plan, Tatalina LRRS, Alaska.* Environmental Restoration Program. September 1995.

U.S. Air Force. *Site Investigation Report, Tatalina LRRS, Alaska.* July 1993.

U.S. Air Force. *Preliminary Assessment for Tatalina Long Range Radar Site.* 1991.

U.S. Air Force. *Installation Restoration Program Technical Support Document for Record of Decision, Tatalina Air Force Station LRRS Site.* February 29, 1988.

U.S. Air Force. *Installation Restoration Program Technical Support Document for Record of No Further Action, Tatalina Air Force Station LRRS Site.* 1988.

U.S. Air Force. *Phase I: Records Search, AAC–Southern Region.* September 1985.

APPENDIX B

ACRONYM LIST

AAC	*Alaska Administrative Code*
ADEC	Alaska Department of Environmental Conservation
ARAR	applicable or relevant and appropriate requirement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DD	Decision Document
DRO	diesel-range organic
EPA	U.S. Environmental Protection Agency
GRO	gasoline-range organic
IRP	Installation Restoration Program
LRRS	Long Range Radar Station
MAR	Minimally Attended Radar
mg/kg	milligrams per kilogram
µg/L	micrograms per liter
PCB	polychlorinated biphenyl
ppm	parts per million
RAO	remedial action objective
RI	remedial investigation
SVOC	semivolatile organic compound
TBC	to-be-considered
TP	test pit
USAF	U.S. Air Force
USC	*U.S. Code*
VOC	volatile organic compound
WACS	White Alice Communications System

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE