

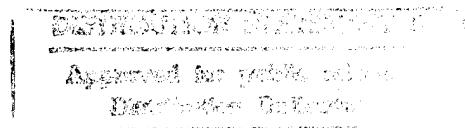
**United States Air Force  
611th Air Support Group/  
Civil Engineering Squadron**

**Elmendorf AFB, Alaska**

**Final**

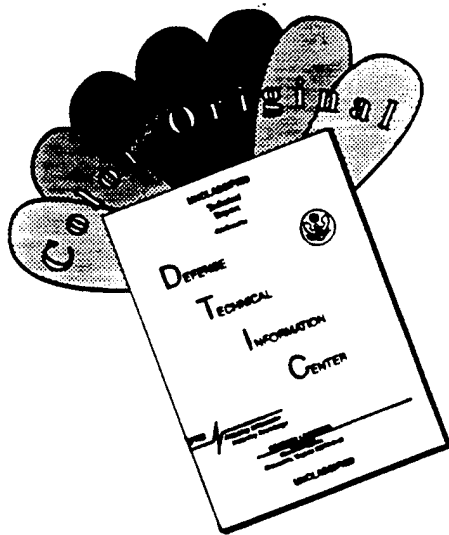
**Decision Document for  
No Further Response Action Planned**

**Bullen Point Radar Installation,  
Alaska**



**24 MAY 1996**

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**United States Air Force  
611th Air Support Group/  
Civil Engineering Squadron**

**Elmendorf AFB, Alaska**

**Final**

**Decision Document for  
No Further Response Action Planned**

**Bullen Point Radar Installation,  
Alaska**

**Prepared by:**

**ICF Technology Incorporated**

**24 MAY 1996**

**19960808 060**

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## PREFACE

This report presents information supporting decisions for no further action at two sites located at the Bullen Point radar installation in northern Alaska. The sites were characterized based on sampling and analyses conducted during Remedial Investigation activities performed during August and September 1993. This report meets the requirements of the United States Air Force (Air Force) Installation Restoration Program (IRP) and is designed to comply with all federal, state, and local laws governing the conduct of environmental investigations in Alaska. This report was prepared by ICF Technology Incorporated.

This report was prepared between March and May 1996. Mr. Samer Karmi of the Air Force Center for Environmental Excellence Environmental Restoration Division (AFCEE/ESR) was the Alaska Restoration Team Chief for this task. Dr. Jerome Madden and Mr. Richard Borsetti of the 611th CES/CEVR were the Remedial Project Managers for this project.

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## **NOTICE**

This report has been prepared for the Air Force by ICF Technology Incorporated to support no further action decisions for specified sites under the Air Force Installation Restoration Program (IRP). The limited objectives of this report and the ongoing nature of the IRP, along with the evolving knowledge of site conditions and chemical effects on the environment and health, must be considered when evaluating this report, since subsequent facts may become known which may make this report premature or inaccurate. Acceptance does not mean that the Air Force adopts the conclusions, recommendations or other views expressed herein, which are those of the contractor only and do not necessarily reflect the official position of the Air Force.

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## LIST OF ACRONYMS AND ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
AFCEE/ESR	Air Force Center for Environmental Excellence Environmental Restoration Division
ARAR	Applicable or Relevant and Appropriate Requirement
Air Force	United States Air Force
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DEW	Distant Early Warning
DRPH	Diesel Range Petroleum Hydrocarbons
DTIC	Defense Technical Information Center
GRPH	Gasoline Range Petroleum Hydrocarbons
IRP	Installation Restoration Program
POL	Petroleum, Oil, and Lubricants
RAB	Restoration Advisory Board
RI	Remedial Investigation
SVOC	Semi-Volatile Organic Compound
VOC	Volatile Organic Compound

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## 1.0 INTRODUCTION

This Decision Document discusses the selection of no further action as the recommended action for two sites located at the Bullen Point radar installation. The United States Air Force (Air Force) completed a Remedial Investigation/Feasibility Study and a Risk Assessment for the five sites located at the Bullen Point installation (U.S. Air Force 1996a,b). Based on the findings of these activities, two sites are recommended for no further action. Each recommendation for no further action is based on one or more of the following criteria:

- The findings of the Remedial Investigation/Feasibility Study demonstrate that chemical constituents are not present or occur at low concentrations;
- There is no unacceptable risk to potential human or ecological receptors posed by chemical constituents detected at the site; and
- The Air Force was unable to identify a source of suspected contamination during the Remedial Investigation/Feasibility Study process.

The following sites at the Bullen Point radar installation are recommended for no further action:

- Old Landfill/Dump Site East (LF06) and
- Drum Storage Area (SS10).

The recommendation of no further action is considered to be protective of human health and the environment, to be cost effective, and to meet applicable or relevant and appropriate requirements (ARARs). Sites at the Bullen Point installation requiring remedial action are addressed in the Final Bullen Point Remedial Investigation/Feasibility Study (U.S. Air Force 1996a).

The Distant Early Warning (DEW) Line community relations program, which includes the community of Kaktovik, was developed to educate the residents on the nature of the Installation Restoration Program (IRP) activities and findings and to ensure the community has input to the decision-making process. The activities include researching, developing, and maintaining a mailing list; producing and distributing fact sheets; and establishing and maintaining Administrative Records/Information Repositories at the Elmendorf Air Force Base in Anchorage and the Tuzvy Library in Barrow, Alaska. The Air Force will continue to seek input from the community by organizing a Restoration Advisory Board (RAB) informational meeting and being available for informal visits and small group meetings. The Air Force will broadcast radio announcements, hang poster in public areas, and publish notices announcing RAB informational meetings to inform the community.

In October 1994, a fact sheet was distributed to everyone on the mailing list summarizing public involvement opportunities during the overall remedial action decision making process. The fact sheet provided a brief history of the DEW Line installations, an overview of the IRP, an update on the environmental investigations at each installation, and a description of the Community

Relations Plan, including Air Force plans to keep the community informed about environmental activities at the various installations. The fact sheet also provided a general schedule of the process leading up to the public comment period. The Final Remedial Investigation/Feasibility Study, Final Risk Assessment, and Draft Final Decision Document for Bullen Point were placed in the information repository for public review in March 1996. A fact sheet explaining the Remedial Investigation/Feasibility Study and Risk Assessment findings was prepared and distributed to individuals on the mailing list. A public comment period on the Draft Final Decision Document was announced via public notice published in the North Slope Sentinel, and via posters mailed to the city office. The Air Force received no public response during the formal comment period.

To facilitate public participation, the Final Remedial Investigation/Feasibility Study, Final Risk Assessment, and Draft Final Decision Documents for the Bullen Point radar installation were placed in the administrative record/information repository at the Elmendorf AFB in Anchorage and at the Tuzvy Library in Barrow, Alaska. In addition, these documents were also available at the Kaveolook School in Kaktovik, Alaska. The public comment period for the Draft Final Decision Document for the no further action sites was held from March 22 to April 22, 1996. Individuals who visited the repositories over the course of the public comment period were asked to sign in so the Air Force could determine if the repository was being used. The repository was not visited during the comment period as per the sign in sheet. Questions or comments in regard to information presented in these documents should be addressed to:

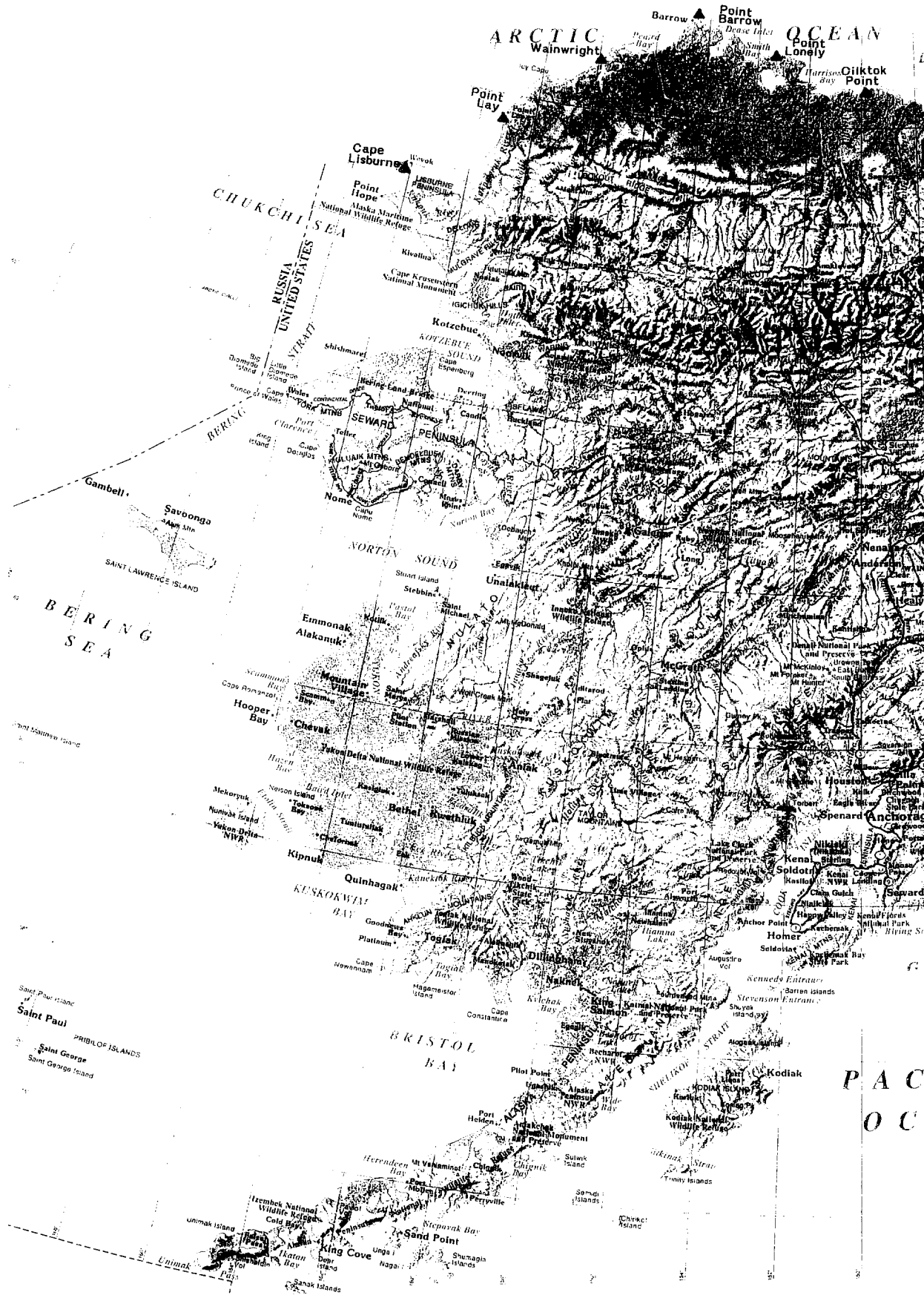
Mr. Roger Lucio  
Community Relations Coordinator  
611 CES/CEVR  
6900 - 9th Street, Suite 360  
Elmendorf AFB, Alaska 99506-2270  
(907) 552-4532 or 1-800-222-4137

## **1.1 OVERVIEW OF THE BULLEN POINT RADAR INSTALLATION RESTORATION PROGRAM**

The Bullen Point radar installation is located at 70°10'N, 146°50'W on the Arctic Coastal Plain. The nearest populated area is Dead Horse, approximately 40 miles to the west. Bullen Point radar installation, also known as POW-3, was constructed as an auxiliary station and was active between 1953 and 1971. In 1993 a Short Range Radar system was being constructed at Bullen Point, and currently the unmanned short range radar system is operating at the installation.

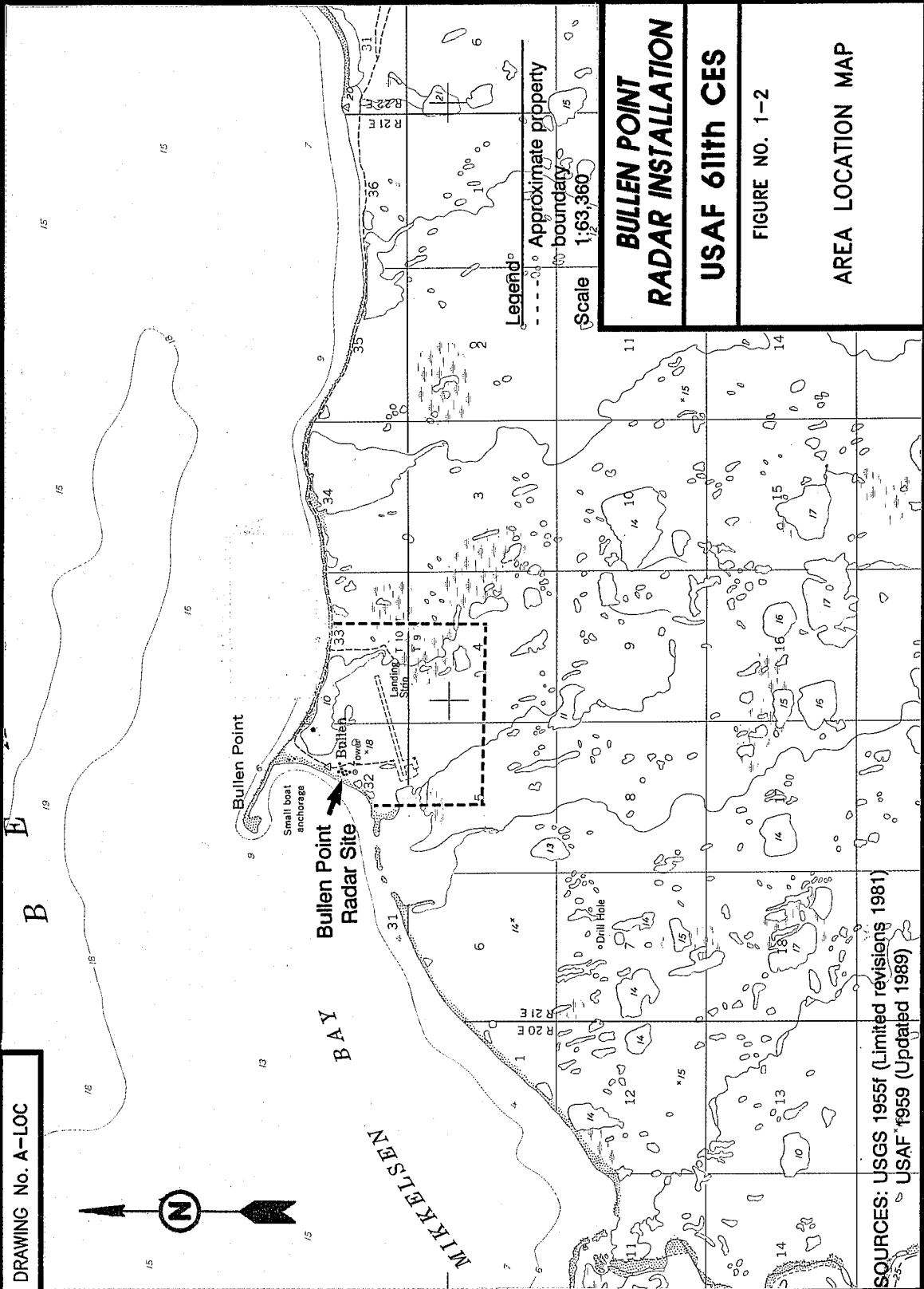
The facility is established in 620 acres of low lying tundra. The maximum elevation on Bullen Point is 18 feet above mean sea level (AMSL), and drainage is radially away from the high points. The Bullen Point installation is situated adjacent to the northern coast, on a relatively flat area below a gradual slope. The general location of the Bullen Point radar installation is shown in Figure 1-1, and an area location map is presented in Figure 1-2.

①





DRAWING No. A-LOC



Legend:  
 - - - - - Approximate property boundary

Scale 1:63,360

**BULLEN POINT  
 RADAR INSTALLATION**

**USAF 611th CES**

FIGURE NO. 1-2

AREA LOCATION MAP

SOURCES: USGS 1955f (Limited revisions 1981)  
 USAF 'f959 (Updated 1989)

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Phase I activities included a detailed review of pertinent installation records from both government and civilian contractors, contacts with various government and private agencies for documents relevant to the program, and onsite visits during July and August 1981. The onsite visits included interviews with key installation employees, ground tours of installation facilities, and plane overflights to identify past disposal and possible contaminated areas.

Stages 1 and 2 of the Phase II Confirmation/Quantification activities were conducted in 1986 (Dames and Moore 1986, 1987). Phase II, Stage 1 activities involved field investigations of specific sites that were identified in the Phase I Installation Assessment/Records Search activities. A surface water sample was collected at one site at the Bullen Point installation.

A Technical Operations Plan for the Phase II, Stage 2 work was prepared in August. Phase II, Stage 2 activities involved field investigation of one site, including additional soil sampling based on findings from the Phase II, Stage 1 field investigation. Onsite observations and analytical results were recorded in the Phase II, Stage 2 Draft Report (Dames and Moore 1987).

By 1988, the Air Force had replaced the phased approach with an approach more similar to the Remedial Investigation/Feasibility Study activities of EPA. Remedial Investigation/Feasibility Study Stage 3 activities and a Final Work Plan were completed for the Bullen Point installation in June 1988 (Woodward-Clyde 1988). The Stage 3 Final Work Plan called for subsurface soil investigations, surface water and sediment sampling, possible removal actions, hydrologic assessment, a demographic survey, an endangerment assessment (health risk assessment), and a feasibility study for the remedial alternatives. The Stage 3 Final Report of September 1990 summarized the results of the remedial investigation and supported a no further action decision (Woodward-Clyde 1990).

The Air Force's IRP Decision Document for Bullen Point of October 1990 concluded that no further action was needed at the Bullen Point Remedial Investigation/Feasibility Study sites. However, correspondence from Alaska Department of Environmental Conservation (ADEC) personnel to Air Force personnel in November 1991 disagreed with the no further action conclusion, and stated that further investigation was needed and corrective action appeared necessary because of improper waste disposal practices and other issues.

In January 1992, an Environmental Assessment was prepared for a proposed prototype Short Range Radar station at the Bullen Point DEW Line station and concluded that sociocultural and air quality impacts would be insignificant (Hart Crowser 1987).

Although not an IRP activity, an Air Force contractor conducted a hydrocarbon screening soil sampling program at Bullen Point in preparation for construction activities associated with proposed radar stations (ENSR 1992). A total of 520 screening samples and 65 samples for laboratory analysis were collected from 2 areas at the Bullen Point installation. Petroleum products were detected in soil samples in several areas; complete results are described in the report. A letter indicated that petroleum contamination was discovered during short range radar construction activities in 1992 (Matrix Construction 1992).

The Air Force conducted Remedial Investigation/Feasibility Study field activities at the Bullen Point radar installation during 1993. The objectives of these activities were to confirm the presence or absence of chemical contamination at specific areas of the installation; define the extent and magnitude of confirmed chemical releases; gather adequate data to determine the magnitude of potential risks to human health and the environment; and gather adequate data to identify and select the appropriate remedial actions for sites where apparent risks exceed acceptable limits.

The Final Bullen Point Remedial Investigation/Feasibility Study was completed in March 1996 (U.S. Air Force 1996a).

Once the data had been validated and compiled, the Air Force conducted human health and ecological risk assessments to evaluate the human health and ecological risks that may be associated with chemicals released to the environment. The risk assessments characterized the probability that measured concentrations of hazardous chemical substances will cause adverse effects in humans or the environment in the absence of remediation. The risk assessment is used in conjunction with state and federal standards and/or guidance to determine if site remediation is warranted. The Final Bullen Point Risk Assessment was completed in March 1996 (U.S. Air Force 1996b).

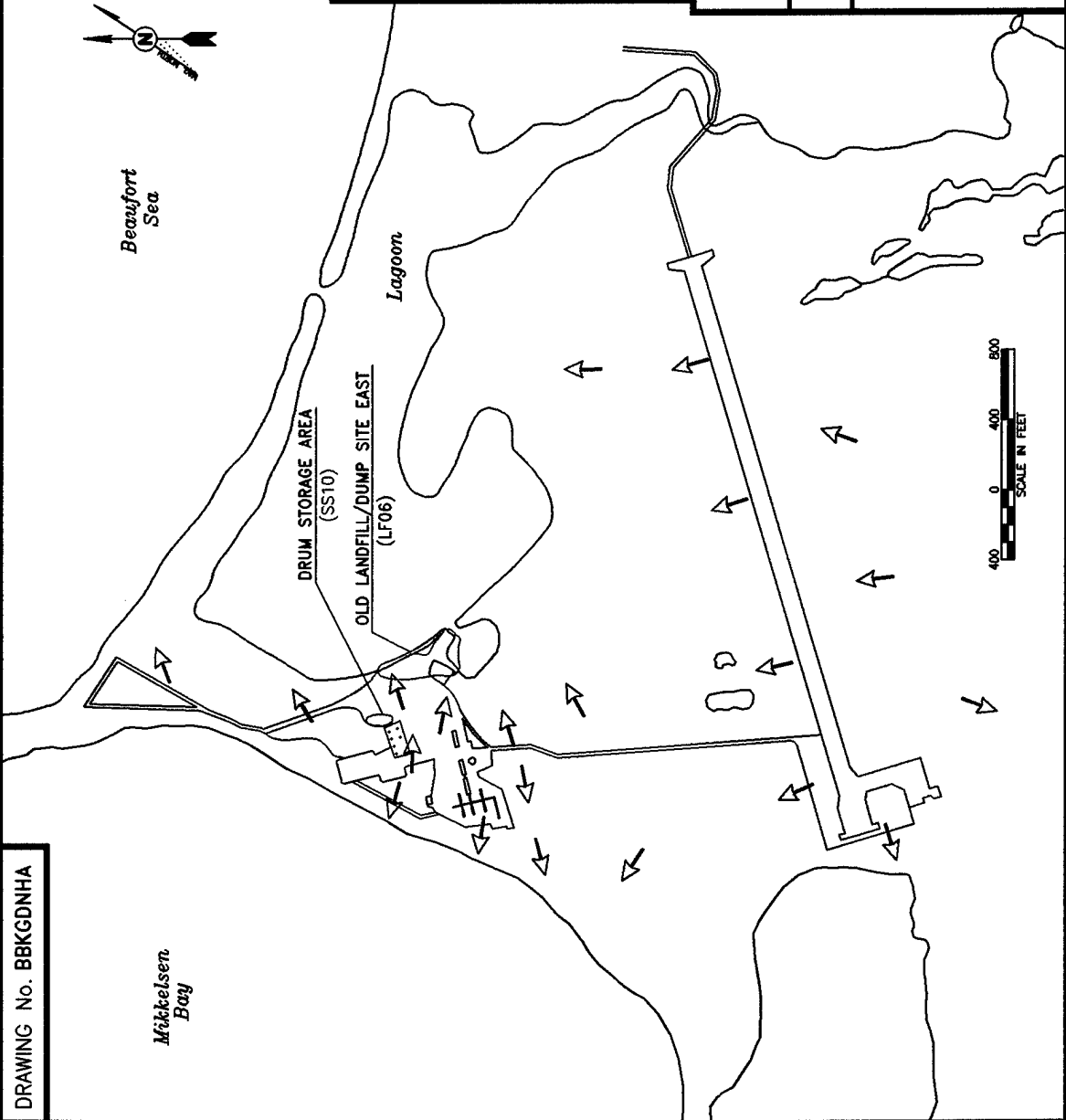
Based on the Final Bullen Point Remedial Investigation/Feasibility Study (U.S. Air Force 1996a) and Final Bullen Point Risk Assessment (U.S. Air Force 1996b), remedial actions are recommended at three of the five sites. No further action is recommended at the two remaining sites.

## **1.2 DECISION DOCUMENT ORGANIZATION**

Section 1.0 of this decision document presents general information regarding the Bullen Point radar installation, past environmental investigations, and community involvement activities conducted by the Air Force. Sections 2.0 and 3.0 present the Decision Documents for the two no further action sites. These sections are intended to be stand-alone documents summarizing information from the Final Bullen Point Remedial Investigation/Feasibility Study (U.S. Air Force 1996a) and the Final Bullen Point Risk Assessment Report (U.S. Air Force 1996b). Table 1-1 presents the two sites and the sections of this document applicable to these sites. The locations of the two sites recommended for no further action are presented in Figure 1-3.

The organization of Sections 2.0 and 3.0 was developed based on guidance received from ADEC. These sections include a Declaration of Decision that contains a Statement of Basis, a Description of the Selected Remedy, a Declaration, and signature pages for ADEC and Air Force representatives. The Declaration of Decision is followed by information to support the Decision Document including site identification and history, investigation findings, results of the risk assessment, the selected remedial action, and references used to support the Decision Document.

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[Symbol: Dotted circle]	SURFACE WATER
[Symbol: Single line]	GRAVEL PAD BOUNDARY
[Symbol: Arrow]	SURFACE DRAINAGE
[Symbol: Irregular shape]	NFA SITES

**BULLEN POINT  
RADAR INSTALLATION**

**USAF 611th CES**

FIGURE NO. 1-3  
INSTALLATION  
SITE PLAN

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**TABLE 1-1. BULLEN POINT NO FURTHER ACTION SITES**

SITE NAME	SITE NUMBER	SECTION NUMBER
Old Landfill/Dump Site East	LF06	2.0
Drum Storage Area	SS10	3.0

**1.3 REFERENCES**

- CH2M Hill. 1981. Installation Restoration Program Search, Alaska Dewline Stations. Prepared for the United States Air Force.
- Dames and Moore. 1986. Installation Restoration Program, Phase II, Stage 1 - Confirmation/Quantification. Prepared for USAFOEHL/TS.
- Dames and Moore. 1987. Installation Restoration Program, Phase II, Stage 2 - Confirmation/Quantification. Prepared for USAFOEHL/TS.
- Delmore Mapping. 1992. Alaska Atlas and Gazetter. First Edition. Second Printing.
- ENSR. 1992. Hydrocarbon Screening at Proposed North Warning Radar Stations: Wainwright, Lonely, and Bullen Point, Alaska. Appendices A, B, and C.
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- Matrix Construction. 1992. Attention Ed Armstrong, State of Alaska, regarding North Warning System/UAR, MN Letter NW S253 dated August 1992. Additional Soil Contamination Discovery. Bullen Point, Alaska.
- U.S. Air Force. 1959 (updated 1989). Real Estate Map, Bullen Point Radar Station, Alaska.
- U.S. Air Force. 1996a. Final Remedial Investigation and Feasibility Study, Bullen Point Radar Installation, Alaska. Prepared for the USAF Center for Environmental Excellence, Environmental Restoration Division. Prepared by ICF Technology, Inc. May.
- U.S. Air Force. 1996b. Final Risk Assessment for the Bullen Point Radar Installation, Alaska. Prepared for the USAF Center for Environmental Excellence, Environmental Restoration Division. Prepared by ICF Technology, Inc. May.

U.S. Geological Survey. 1995 (minor revision 1985). Flaxman Island (A-5) Quadrangle, Alaska, 1:63,360 Series (Topographic).

Woodward-Clyde Consultants. 1990. Installation Restoration Program Remedial Investigation/ Feasibility Study, Stage 3, Barter Island AFS (BAR-M), Bullen Point AFS (POW-3), and Point Lonely AFS (POW-1), Alaska. Final Report.

**DECISION DOCUMENT FOR  
NO FURTHER RESPONSE ACTION PLANNED  
BULLEN POINT RADAR INSTALLATION**

**SECTION 2.0**

<u>SITE NUMBER</u>	<u>SITE NAME</u>
LF06	Old Landfill/Dump Site East

**2.0 DECLARATION OF DECISION**  
**Old Landfill/Dump Site East (LF06)**  
**Page 1 of 6**

**SITE NAME AND LOCATION**

Site Number: LF06  
Site Name: Old Landfill/Dump Site East  
Location: Bullen Point Radar Installation, Alaska

**STATEMENT OF BASIS**

This decision is based on the results of Installation Restoration Program (IRP) investigations including records searches, field investigations, and data analyses, and the human health and ecological risk assessments prepared with information gained from the 1993 Remedial Investigation (RI). Based on the results of soil, sediment, and surface water sampling for inorganics and organics and the completion of a human health and ecological risk assessment, potential adverse effects to human and ecological receptors resulting from conditions at the Old Landfill/Dump Site East, site LF06, are not expected. The information on which the decision is based is available to the public in administrative records/information repositories. The information available includes the Final Bullen Point Remedial Investigation/Feasibility Study (U.S. Air Force 1996a) and the Final Bullen Point Risk Assessment (U.S. Air Force 1996b).

**DESCRIPTION OF THE SELECTED REMEDY**

Based on the current conditions at the Old Landfill/Dump Site East (LF06), it has been determined that no significant risk or threat to public health or the environment exists. Therefore, no further action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, is required.

**DECLARATION**

This Decision Document presents the selected remedy for the site developed in accordance with CERCLA (as amended by the Superfund Amendments and Reauthorization Act of 1986), the National Contingency Plan, the regulations of the State of Alaska Department of Environmental Conservation (ADEC), and the United States Air Force (Air Force) IRP. It has been determined that no further action is protective of human health and the environment, attains federal and state requirements that are applicable or relevant and appropriate, and is cost effective. The statutory preference for further treatment is not satisfied because further treatment was not found to be necessary. Contaminant levels at the site have been determined to present no significant threat to human health or the environment; therefore, no treatment is necessary.

**2.0 DECLARATION OF DECISION**  
**Old Landfill/Dump Site East (LF06)**  
**Page 2 of 6**

This decision does not preclude future remedial or site investigations if information indicates that there is previously undiscovered contamination or exposures that may cause risk to human health or the environment. The ADEC reserves all of its rights to request additional activities in the future, if necessary.

2.0 DECLARATION OF DECISION  
Old Landfill/Dump Site East (LF06)  
Page 3 of 6

UNITED STATES AIR FORCE

Signature: \_\_\_\_\_  
Name: Samuel C. Johnson, III, Colonel, USAF  
Commander, 611th Air Support Group

Date: \_\_\_\_\_

**2.0 DECLARATION OF DECISION  
Old Landfill/Dump Site East (LF06)  
Page 4 of 6**

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**2.0 DECLARATION OF DECISION**  
**Old Landfill/Dump Site East (LF06)**  
**Page 5 of 6**

REVIEW AND CONCURRENCE: STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL  
CONSERVATION

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Kurt Fredriksson  
Director, Division of Spill Prevention and Response

**2.0 DECLARATION OF DECISION  
Old Landfill/Dump Site East (LF06)  
Page 6 of 6**

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## **2.1 DECISION DOCUMENT SUPPORT**

The following sections summarize the site history, sample analyses, human health and ecological risk assessments, public involvement, and selected action and decision for the Old Landfill/Dump Site East, site LF06.

### **2.1.1 Site History**

The Old Landfill/Dump Site East is the location of the installation landfill that was used from 1956 to 1971 (when the installation was deactivated); it is less than one acre in size. The dump site is located adjacent to the shore of a lagoon that opens to the Beaufort Sea approximately 600 feet east of the module train and approximately 250 feet east of the new technical services building. The Old Landfill/Dump Site East was covered with gravel and graded; however, minor erosion from wave action has caused some of the rusty drums and other landfill debris to become exposed. The exposed rusty drums were empty, and there was no evidence that suggested any drums contained fluids.

### **2.1.2 Sample Analyses Summary**

Historic sampling conducted at the Old Landfill/Dump Site East (LF06) detected total petroleum hydrocarbons (TPH) in soil and lead in surface water. TPH were previously detected in one soil sample collected at the southwest border of the Old Landfill/Dump Site East, and lead was reported in a previous surface water sample collected from the west perimeter of the Old Landfill/Dump Site East. A summary of sample analytical results for historic investigations is presented in Table 2-1.

During the 1993 RI, the Air Force collected nine soil, two sediment, and three surface water samples from the gravel pads, ponds, and tundra areas at the site. Organic compounds detected in soil/sediment samples collected at the site include diesel range petroleum hydrocarbons (DRPH) and two semi-volatile organic compounds (SVOCs). In surface water samples, organic compounds detected at the site include DRPH, and benzene, toluene, ethylbenzene, and xylenes (BTEX).

Metals were not detected above levels of concern in soil/sediment or surface water samples collected at the site. Table 2-2 summarizes the organic chemicals detected above background levels. Sample locations and results are shown in Figure 2-2.

A comparison of between historical and current project data indicates the conditions at the Old Landfill/Dump Site East are similar to those in the past. Slight differences between current and historical data are likely due to more extensive sampling during the 1993 RI.

The primary contaminants at the Old Landfill/Dump Site East (LF06) site are relatively low levels of petroleum hydrocarbons (DRPH), BTEX, and other volatile organic compounds (VOCs) commonly associated with diesel fuel. The suspected source of the low levels of petroleum compounds detected during sampling conducted at the Old Landfill/Dump Site East is the POL Tanks (ST05) site. The landfill, which has been inactive since 1971, is downgradient from the

**TABLE 2-1. SUMMARY OF HISTORIC SAMPLING AT THE OLD LANDFILL/DUMP SITE EAST (LF06)**

CHEMICAL	SAMPLE/MEDIA	MAXIMUM CONCENTRATION	NUMBER OF DETECTIONS
TPH <sup>a</sup>	Soil	138 mg/kg	1
Lead	Surface Water	0.05 µg/L	1

<sup>a</sup> TPH = Total petroleum hydrocarbons.

**TABLE 2-2. SUMMARY OF 1993 REMEDIAL INVESTIGATION SAMPLING AT THE OLD LANDFILL/DUMP SITE EAST (LF06)**

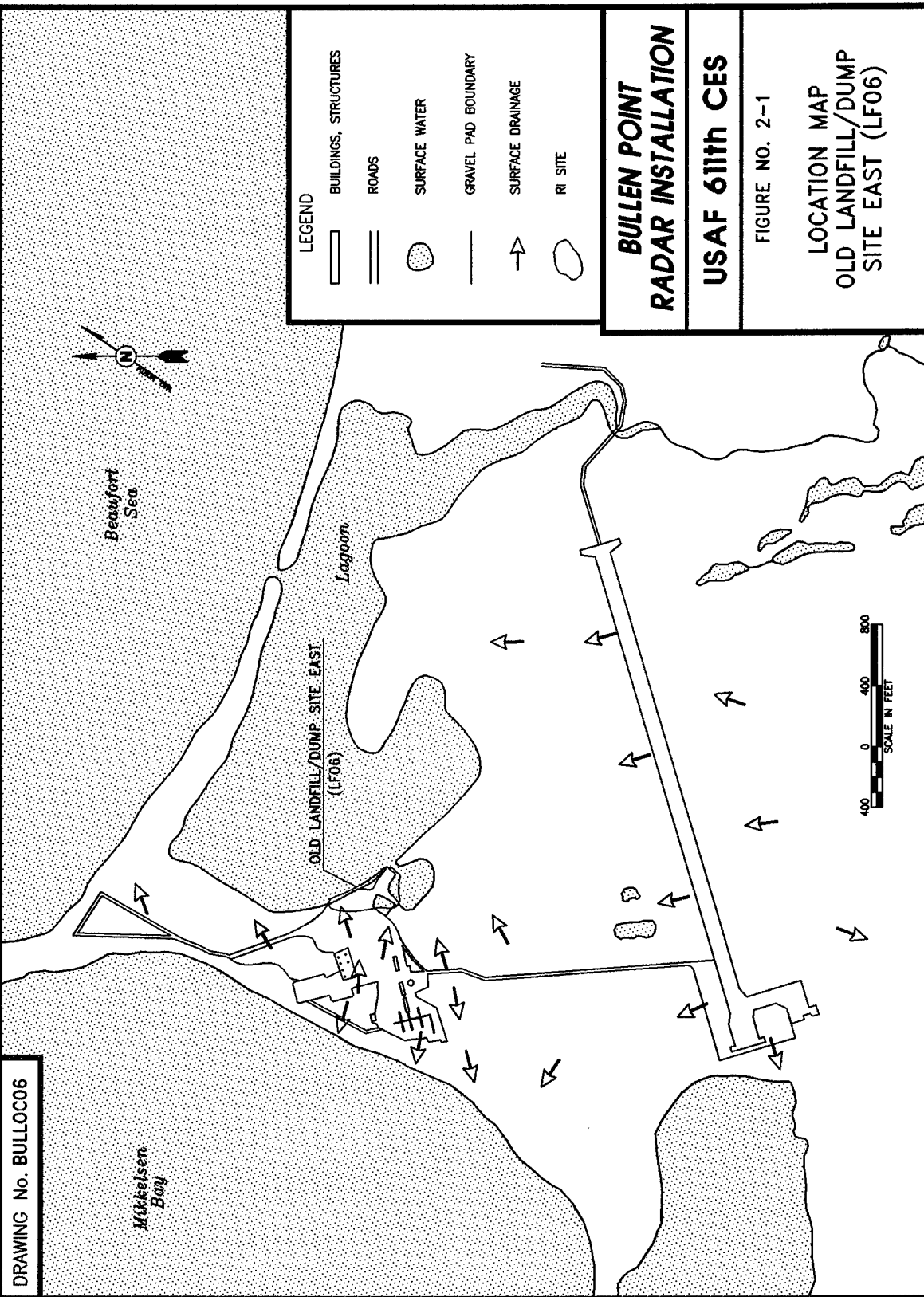
CHEMICAL	SAMPLE/MEDIA	MAXIMUM CONCENTRATION	NUMBER OF DETECTIONS
DRPH <sup>a</sup>	Soil/Sediment	219 <sup>b</sup> mg/kg	7
bis(2-Ethylhexyl)phthalate	Soil	0.447 mg/kg	1
4-Methylphenol	Sediment	0.58 mg/kg	1
di-n-Butylphthalate	Sediment	0.74 mg/kg	1
DRPH	Surface Water	1,870 <sup>c</sup> µg/L	2
Toluene	Surface Water	1.2 µg/L	1
Ethylbenzene	Surface Water	7.6 µg/L	1
Xylenes (Total)	Surface Water	19.2 µg/L	1

<sup>a</sup> DRPH = Diesel Range Petroleum Hydrocarbons.

<sup>b</sup> The laboratory reported that the pattern of compounds detected in this sample was not consistent with a middle distillate fuel.

<sup>c</sup> The laboratory reported that the pattern of compounds detected in this sample was not consistent with an unweathered middle distillate fuel.

DRAWING No. BULLOC06



LEGEND	
[Symbol: Thin solid line]	BUILDINGS, STRUCTURES
[Symbol: Double parallel lines]	ROADS
[Symbol: Stippled area]	SURFACE WATER
[Symbol: Single solid line]	GRAVEL PAD BOUNDARY
[Symbol: Arrow]	SURFACE DRAINAGE
[Symbol: Irregular shape]	RI SITE

**BULLEN POINT  
RADAR INSTALLATION**

**USAF 611th CES**

FIGURE NO. 2-1  
LOCATION MAP  
OLD LANDFILL/DUMP  
SITE EAST (LF06)

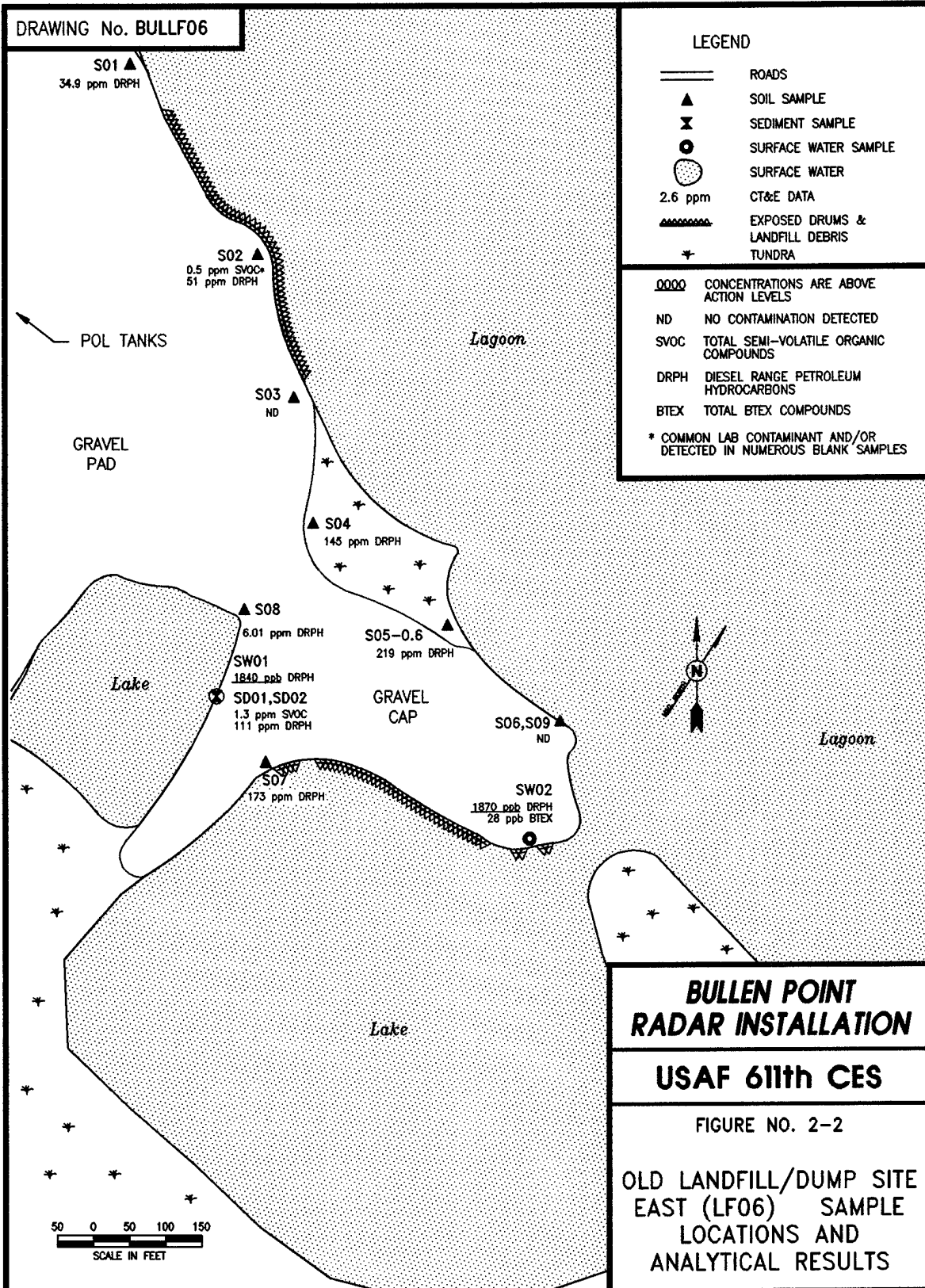
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DRAWING No. BULLF06

LEGEND

- ==== ROADS
- ▲ SOIL SAMPLE
- ⊗ SEDIMENT SAMPLE
- SURFACE WATER SAMPLE
- SURFACE WATER
- 2.6 ppm CT&E DATA
- ⚡ EXPOSED DRUMS & LANDFILL DEBRIS
- ✦ TUNDRA

0000 CONCENTRATIONS ARE ABOVE ACTION LEVELS  
 ND NO CONTAMINATION DETECTED  
 SVOC TOTAL SEMI-VOLATILE ORGANIC COMPOUNDS  
 DRPH DIESEL RANGE PETROLEUM HYDROCARBONS  
 BTEX TOTAL BTEX COMPOUNDS  
 \* COMMON LAB CONTAMINANT AND/OR DETECTED IN NUMEROUS BLANK SAMPLES



**BULLEN POINT  
RADAR INSTALLATION**

**USAF 611th CES**

FIGURE NO. 2-2

OLD LANDFILL/DUMP SITE  
EAST (LF06) SAMPLE  
LOCATIONS AND  
ANALYTICAL RESULTS

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POL Tanks site, and the contaminants detected at the Old Landfill/Dump Site East are similar to those detected at the POL Tanks (ST05) site.

### **2.1.3 Risk Assessment Summary**

The Final Bullen Point Risk Assessment (U.S. Air Force 1996b) concluded that risks posed to human and ecological receptors by site contaminants are minimal given current and future site uses. A potential human health noncancer hazard was identified in surface water from DRPH. This potential hazard is based on a future scenario in which the site surface water would be used as a sole drinking water supply. Even using the conservative future scenario, the potential human health risks at the site are not of a magnitude that normally requires remediation action. No significant ecological risks were identified based on an evaluation of chemicals detected in soil/sediment and surface water.

Based on the 1993 RI sampling and analyses, risk assessment, and current and future site uses, remedial actions are not warranted at the site. No significant human health or ecological risks were identified at the site. Therefore, the Old Landfill/Dump Site East (LF06) is recommended for no further action.

## **2.2 PUBLIC INVOLVEMENT AND COMMENT**

Community relations activities that have taken place for the Bullen Point radar installation include the following: residents of Kaktovik were interviewed by Air Force community relations personnel on 29 June 1993 and 7 July 1993; a mailing list of North Slope residents is being maintained by the 611th CES/CEVR; a fact sheet describing the status of the Installation Restoration Program at the radar installation was distributed to the mailing list on October 1994; a fact sheet was distributed to the mailing list during August 1995 explaining the Restoration Advisory Board (RAB) and how community residents could become RAB members; two RAB meetings were held in Barrow, Alaska in 1995; public notices were published during March 1996 regarding the decision for no further action at the Old Landfill/Dump Site East (LF06); fact sheets were sent to all residents on the mailing list during March 1996 describing the site recommended for no further action at the Bullen Point radar installation; a public review and comment period on the Draft Final Decision Document for the no further action sites was held from March 22 to April 22, 1996; and documents have been, and will continue to be, available for review at Tuzvy Library in Barrow, Alaska, Elmendorf Air Force Base in Anchorage, Alaska, and the Kaveolook School in Kaktovik, Alaska. The Air Force has received no public comments in response to the fact sheets, public notices distributed to date, or during the formal public comment period.

To facilitate public participation the Air Force plans to conduct a RAB informational meeting during 1996.

### **2.3 SELECTED ACTION AND DECISION**

The selected action and decision for the Old Landfill/Dump Site East (LF06) is no further action. This action is consistent with the requirements of ADEC, the Air Force, and federal regulations regarding the remediation of hazardous waste sites. This decision is based on the conclusions provided above and the supporting documentation contained in the Final Bullen Point Remedial Investigation/Feasibility Study (U.S. Air Force 1996a) and the Final Bullen Point Risk Assessment (U.S. Air Force 1996b).

### **2.4 REFERENCES**

U.S. Air Force. 1996a. Final Remedial Investigation and Feasibility Study, Bullen Point Radar Installation, Alaska. Prepared for the USAF Center for Environmental Excellence, Environmental Restoration Division. Prepared by ICF Technology, Inc. May.

U.S. Air Force. 1996b. Final Risk Assessment for the Bullen Point Radar Installation, Alaska. Prepared for the USAF Center for Environmental Excellence, Environmental Restoration Division. Prepared by ICF Technology, Inc. May.

U.S. Environmental Protection Agency. 1991. Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions. Office of Solid Waste and Emergency Response. Washington D.C. April 22, 1991.

**DECISION DOCUMENT  
BULLEN POINT RADAR INSTALLATION**

**SECTION 3.0**

<u>SITE NUMBER</u>	<u>SITE NAME</u>
SS10	Drum Storage Area

**3.0 DECLARATION OF DECISION**  
**Drum Storage Area (SS10)**  
**Page 1 of 6**

**SITE NAME AND LOCATION**

Site Number: SS10  
Site Name: Drum Storage Area  
Location: Bullen Point Radar Installation, Alaska

**STATEMENT OF BASIS**

This decision is based on the results of Installation Restoration Program (IRP) investigations including records searches, field investigations, and data analyses, and the human health and ecological risk assessments prepared with information gained from the 1993 Remedial Investigation (RI). Based on the results of soil sampling for inorganics and organics and the completion of a human health and ecological risk assessment, potential adverse effects to human and ecological receptors resulting from conditions at the Drum Storage Area, site SS10, are not expected. The information on which the decision is based is available to the public in administrative records/information repositories. The information available includes the Final Bullen Point Remedial Investigation/Feasibility Study (U.S. Air Force 1996a) and the Final Bullen Point Risk Assessment (U.S. Air Force 1996b).

**DESCRIPTION OF THE SELECTED REMEDY**

Based on the current conditions at the Drum Storage Area (SS10), it has been determined that no significant risk or threat to public health or the environment exists. Therefore, no further action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, is required.

**DECLARATION**

This Decision Document presents the selected remedy for the site developed in accordance with CERCLA (as amended by the Superfund Amendments and Reauthorization Act of 1986), the National Contingency Plan, the regulations of the State of Alaska Department of Environmental Conservation (ADEC), and the United States Air Force (Air Force) IRP. It has been determined that no further action is protective of human health and the environment, attains federal and state requirements that are applicable or relevant and appropriate, and is cost effective. The statutory preference for further treatment is not satisfied because further treatment was not found to be necessary. Contaminant levels at the site have been determined to present no significant threat to human health or the environment; therefore, no treatment is necessary.

**3.0 DECLARATION OF DECISION**  
**Drum Storage Area (SS10)**  
**Page 2 of 6**

This decision does not preclude future remedial or site investigations if information indicates that there is previously undiscovered contamination or exposures that may cause risk to human health or the environment. The ADEC reserves all of its rights to request additional activities in the future, if necessary.

3.0 DECLARATION OF DECISION  
Drum Storage Area (SS10)  
Page 3 of 6

UNITED STATES AIR FORCE

Signature: \_\_\_\_\_  
Name: Samuel C. Johnson, III, Colonel, USAF  
Title: Commander, 611th Air Support Group

Date: \_\_\_\_\_

**3.0 DECLARATION OF DECISION**  
**Drum Storage Area (SS10)**  
**Page 4 of 6**

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**3.0 DECLARATION OF DECISION  
Drum Storage Area (SS10)  
Page 5 of 6**

REVIEW AND CONCURRENCE: STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL  
CONSERVATION

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Kurt Fredericksson  
Director, Division of Spill Prevention  
and Response

**3.0 DECLARATION OF DECISION**  
**Drum Storage Area (SS10)**  
**Page 6 of 6**

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### 3.1 DECISION DOCUMENT SUPPORT

The following sections summarize the site history, sample analyses, human health and ecological risk assessments, public involvement, and selected action and decision for the Drum Storage Area, site SS10.

#### 3.1.1 Site History

The Drum Storage Area (SS10) is located approximately 100 feet northeast of the petroleum, oil, and lubricants (POL) Tanks site (ST05) (Figure 3-1). The site was used to stockpile drummed fluids such as solvents, antifreeze, and lube oil, and consists of a gravel pad area elevated approximately three feet above the tundra. Posts remain that supported a platform used to store drums off the ground surface. The site was deactivated with the installation in 1971.

#### 3.1.2 Sample Analysis Summary

The Air Force had not conducted sampling and analysis at the Drum Storage Area (SS10) prior to the 1993 RI. During the 1993 RI the Air Force collected three soil samples from gravel pad areas at the site (U.S. Air Force 1996a). Two soil samples contained low levels of diesel and gasoline range petroleum hydrocarbons [diesel range petroleum hydrocarbons (DRPH) and gasoline range petroleum hydrocarbons (GRPH)]. No inorganic analytes were detected at concentrations exceeding background concentration and regulatory action levels. Table 3-1 summarizes the organic chemicals detected above background levels. Sample locations are shown on Figure 3-2.

The suspected source of the petroleum compounds detected during sampling conducted at the Drum Storage Area site (SS10) is migration from the POL Tanks (ST05) site. Petroleum compounds were detected in samples, collected in conjunction with the investigation of the POL Tanks site, that encompass the Drum Storage Area site. The compounds detected at the Drum Storage Area were detected at similar levels in the surrounding POL Tanks site samples. There were no contaminant sources identified or visual signs of source areas associated with the Drum Storage Area.

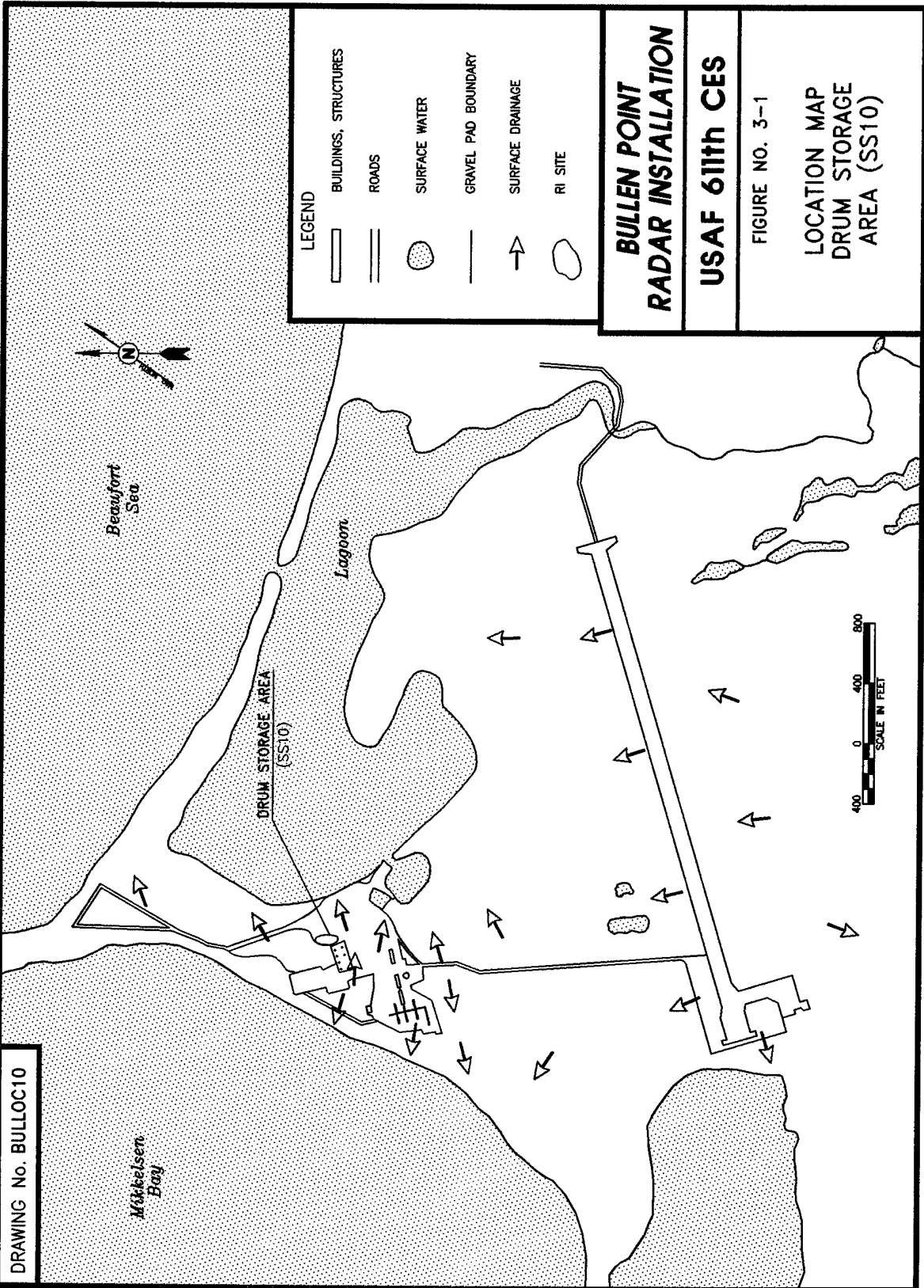
**TABLE 3-1. SUMMARY OF 1993 REMEDIAL INVESTIGATION SAMPLING AT THE DRUM STORAGE AREA (SS10)**

CHEMICAL	SAMPLE MEDIA	MAXIMUM CONCENTRATION	NUMBER OF DETECTIONS
DRPH <sup>a</sup>	Soil	775 mg/kg	2
GRPH <sup>b</sup>	Soil	14.3 mg/kg	2

- <sup>a</sup> DRPH = Diesel Range Petroleum Hydrocarbons.  
<sup>b</sup> GRPH = Gasoline Range Petroleum Hydrocarbons.

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DRAWING No. BULLOC10



LEGEND	
[Symbol: Solid line]	BUILDINGS, STRUCTURES
[Symbol: Double line]	ROADS
[Symbol: Circle with dot]	SURFACE WATER
[Symbol: Dashed line]	GRAVEL PAD BOUNDARY
[Symbol: Arrow]	SURFACE DRAINAGE
[Symbol: Circle]	RI SITE

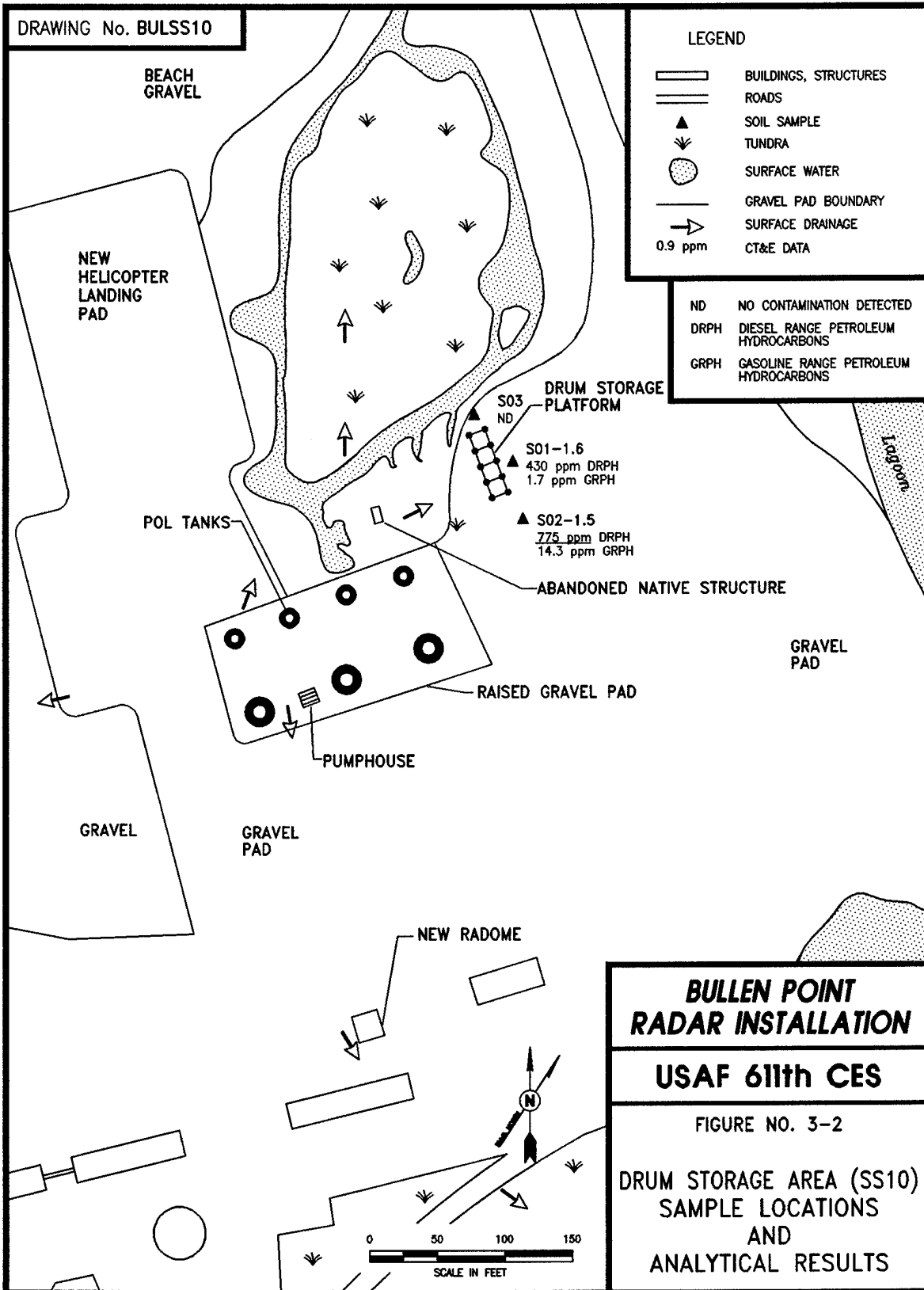
**BULLEN POINT  
RADAR INSTALLATION**

**USAF 611th CES**

FIGURE NO. 3-1  
LOCATION MAP  
DRUM STORAGE  
AREA (SS10)

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DRAWING No. BULSS10



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### **3.1.3 Risk Assessment Summary**

The Final Bullen Point Risk Assessment (U.S. Air Force 1996b) concluded that risks posed to human and ecological receptors by site contaminants are minimal given current and future site uses. Based on RI sampling and analyses, risk assessments, and current and future site uses, remedial actions are not warranted at this site. No significant human health or ecological risks were identified at the site. Therefore, the Drum Storage Area (SS10) is recommended for no further action.

## **3.2 PUBLIC INVOLVEMENT**

Community relations activities that have taken place for the Bullen Point radar installation include the following: residents of Kaktovik were interviewed by Air Force community relations personnel on 29 June 1993 and 7 July 1993; a mailing list of North Slope residents is being maintained by the 611th CES/CEVR; a fact sheet describing the status of the Installation Restoration Program at the radar installation was distributed to the mailing list on October 1994; a fact sheet was distributed to the mailing list during August 1995 explaining the Restoration Advisory Board (RAB) and how community residents could become RAB members; two RAB meetings were held in Barrow, Alaska in 1995; public notices were published during March 1996 regarding the decision for no further action at the Drum Storage Area (SS10); fact sheets were sent to all residents on the mailing list during March 1996 describing the site recommended for no further action at the Bullen Point radar installation; a public review and comment period on the Draft Final Decision Document for the no further action sites was held from March 22 to April 22, 1996; and documents have been, and will continue to be, available for review at Tuzvy Library in Barrow, Alaska, Elmendorf Air Force Base in Anchorage, Alaska, and the Kaveolook School in Kaktovik, Alaska. The Air Force has received no public comments in response to the fact sheets, public notices distributed to date, or during the formal public comment period.

To facilitate public participation the Air Force plans to conduct a RAB informational meeting during 1996.

## **3.3 SELECTED ACTION AND DECISION**

The selected action and decision for the Drum Storage Area (SS10) is no further action. The action is consistent with the requirements of ADEC, the Air Force, and federal regulations regarding the remediation of hazardous waste sites. This decision is based on the conclusions provided above and the supporting documentation contained in the Final Bullen Point Remedial Investigation/Feasibility Study (U.S. Air Force 1996a) and the Final Bullen Point Risk Assessment (U.S. Air Force 1996b).

### 3.4 REFERENCES

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- U.S. Air Force. 1996b. Final Risk Assessment for the Bullen Point Radar Installation, Alaska. Prepared for the USAF Center for Environmental Excellence, Environmental Restoration Division. Prepared by ICF Technology, Inc. May.