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CAPE ROMANZOF LRRS
ALASKA

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 121

Clean Sweep Program
Cape Romanzof LRRS, Alaska

Draft Final Report

January 2004

United States Air Force
611 CES
Elmendorf AFB, Alaska

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Abbreviations and Acronyms

11 CEOR.....11th Civil Engineer Squadron
611 CES.....611th Civil Engineer Squadron
AC&W.....Aircraft Control and Warning
ADEC.....State of Alaska, Department of Environmental conservation
AFCEE.....Air Force Center for Environmental Excellence
IRP.....Installation restoration Program
LCS.....Laboratory Control Sample
LRRS.....Long Range Radar Site
LTM.....Long Term Monitoring
MAR.....Minimally Attended Radar
OSHA.....Occupational Safety and Health Administration
PA.....Preliminary Assessment
PCB.....Polychlorinated Biphenyl
PPM.....parts per million
PVC.....PolyVinylChloride
RI.....Remedial Investigation
ROD.....Record of Decision
RPD.....Relative Percent Difference
QA/QC.....Quality Assurance/Quality Control
QPP.....Quality Program Plan
RBC.....Recommended Background Concentrations
ROCC.....Regional Operations Control Center
SAP.....Sampling and Analysis Plan
SOW.....Scope of Work
USACE.....United States Army Corp of Engineers
USAF.....United States Air Force
USFWS.....United States Fish & Wildlife Service
WACS.....White Alice Communications System

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1.0 INTRODUCTION

As part of the United States Air Force (USAF) Clean Sweep Program, the 611th CES/CEVO engaged in projects at Cape Romanzof LRRS. Activities accomplished in the summer of 2003 involve demolition of building 4100 (unoccupied weather station) and its septic system and assessment of PCB contaminated soil down gradient from closed landfill #2 (LF-03). These activities are required under various regulations outlined in 40 CFR and various Department of Defense (DOD) environmental programs developed in direct response to the requirements of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA), which requires all federal agencies to fully comply with its procedural and substantive requirements.

2.0 LOCATION

Cape Romanzof is located on the slopes of Towak Mountain in the Yukon Delta National Wildlife Refuge, approximately 540 miles west of Anchorage, 165 miles northwest of Bethel and 170 miles southeast of Nome on a small peninsula that extends into the Bering Sea (Figure 1) The site covers 4,900 acres The nearest towns are Scammon Bay (population 491), which lies approximately 15 miles to the east, and Hooper Bay (population 1,075) which lies approximately 15 miles to the south.

Due to its remote location, Cape Romanzof is accessible only by air or sea. The only road on site is approximately 4.9 miles long, was built and maintained by the Air Force, and connects Upper Camp, Lower Camp, the airstrip, and the Bering Sea coastal barge landing site (Figure 2). Ground-surface elevations at Cape Romanzof range from zero feet mean sea level (MSL) at the shoreline of the Bering Sea to approximately 2,300 feet above MSL at the Upper Camp.

3.0 GEOLOGY

The geology of the Cape Romanzof Upper Camp consists of sand, gravel, and boulders overlying Latest Cretaceous to Tertiary granitic bedrock of Towak Mountain. At Lower Camp, thin to moderately thick talus (coarse-grained materials) and alluvial sequences have been transported downslope into the steeply sloping stream valley of Fowler (Nilumat) Creek and its tributaries. The mixed talus and alluvial materials consist of large granitic boulders, rock fragments (probably cobble-sized), sand, and minor amounts of silt and clay. The talus layer is between 57 and 74 feet thick in local water wells, and is underlain by weathered bedrock. Granitic bedrock underlies the unconsolidated deposits (WCC, 1992).

3.1 Soils

Soils at upper camp are characterized as a thin, granular, unconsolidated, non-cohesive layer of sand and gravel that is overlain by a spongy layer of mosses and organic matter of varying thickness. Soils at lower camp are commonly sand and silt with gravel/talus horizons near the bedrock interface. Soil thickness at lower camp reaches up to 74 feet.

3.2 Groundwater

The major surface-water feature at Cape Romanzof is Fowler (Nilumat) Creek, which drains into Kokechik Bay. Nilumat Creek has a watershed area of approximately 8 5 square miles. Active springs exist northeast of Landfill 2 (LF03), indicating a shallow water table with a hydrostatic head (WCC, 1992).

4 0 CLIMATE

Cape Romanzof lies in the maritime climatic zone. Average summer temperatures range from 39 to 53 degrees Fahrenheit (°F), and winter temperatures range from 5 to 20°F. The average annual precipitation is 26.8 inches and the potential evapo-transpiration amount of 14.8 inches indicate there is the potential for at least 12 inches of meteoric water for the recharge of local aquifers.

5.0 OPERATIONS

Cape Romanzof LRRS is one of the 10 original Aircraft Control and Warning systems in Alaska. The installation construction was completed in 1952 and operations began in 1953. 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 Cape Romanzof WACS, which was deactivated. Several additional system upgrades and personnel changes have occurred at the Cape Romanzof LRRS. The most recent reduction in personnel occurred in 1985, when the Minimally Attended Radar (MAR) was activated. Currently five people live onsite at the Cape Romanzof LRRS to monitor and maintain the facilities.

The site consists of a Lower Camp, Upper Camp, and an airstrip. The Lower Camp has the support facilities (housing, power plant, and fuel storage) (Photograph #1) and the Upper Camp contains the Long Range Radar equipment at the top of the mountain. A new composite facility was constructed in 1984 which provides industrial and living facilities for station personnel. Most of the older facilities at Lower Camp and the White Alice site at Upper Camp have been demolished. Upper and Lower Camps are connected by a tramway (Photograph #2).

Operations at the Cape Romanzof LRRS have included transfer and storage of petroleum, oil, and lubricants (POL); maintenance of vehicle and electronic systems; wastewater treatment; power generation and maintenance; fire training; waste disposal (landfills); and road and runway oiling.

6.0 CONTAMINANT RELEASES

The historical operations at the Cape Romanzof LRRS have resulted in contaminant releases at various locations. Leaks and spills at fuel storage and delivery facilities led to contamination of soil with petroleum products at some locations. Electronic system maintenance activities resulted in the discharge of oil containing polychlorinated biphenyls (PCBs) and possibly solvents. Waste motor oil and cleaning solvents, some of which may have been released into the environment, were generated by power plant and vehicle-maintenance activities. Camp waste and waste from construction and demolition

that are buried at the facility could generate leachate (contaminated water). Insect spray used in the 1950s to control mosquitoes (along roads and runways) may have left residual amounts of pesticide in the environment. Wastewater treatment processes may have generated sludges containing hazardous substances such as solvents that remain in buried septic tanks.

7 0 SUMMARY OF WORK ACCOMPLISHED IN 2003

Work accomplished at Cape Romanzof in 2003 consisted two tasks at one location adjacent to the runway and one task adjacent to the road below Lower Camp By category, these projects consist of:

- Demolition of the old weather station (building 4100). Collection and transporting destruction debris to the onsite landfill. The Demolition of building 4100 was contingent upon prior asbestos abatement of the structure.
- Demolition and abandonment of the associated septic system and piping from building 4100.
- Investigation of PCB contaminated soil adjacent to the capped and defunct landfill #2 (LF-003).
- Work was conducted in August 2003.

8.0 DEVIATIONS FROM WORK PLAN

The two-onsite biocells were not emptied of remediated soil. Priority work constraints at different locations necessitated the mobilization of the 611th personnel from Cape Romanzof. Additionally, the placement of 5500 cubic yards of material on the cap of landfill #2 was deemed premature after the sample results for the sediment samples down gradient of the landfill indicated high levels of PCBs.

9.0 SITE – BY – SITE WORK ACCOMPLISHED

Building 4100

Building 4100 was the old weather station building adjacent to the runway below Lower Camp (Figure 3). Building #4100 was a single story, wood frame building that covered approximately 2168 square feet. All utilities had been removed from the building. Following asbestos abatement by a private contractor, personnel of the 611 CES/CEVO demolished the structure. All materials derived from the destruction of the building were placed in the on site landfill. The building site was graded and contoured to fit the natural contours of the land. A 25,000 gallon above ground fuel (diesel) tank was located approximately 40 feet south of building 4100 (Figure 3). A moderate sized fuel spill occurred along the west side of the tank in the 1970's. The tank was demolished during an earlier clean sweep program in 1996 and the tank containment berm was leveled and graded to fit the contours of the landscape in 1996 or at some later date There was no visible staining or obvious contamination at the fuel tank/berm area.

Septic System at Building 4100

During the summer 2003 activities, the former sanitary sewerage system was demolished in place and abandoned (Figure 3). Prior to demolition, the contents of the septic tanks were assessed for potential hazards (Photograph #3) Sample 53031038001 was analyzed for DRO (AK102), PCBs/ pesticides (8082), metals, volatile (8260) and semi-volatile (8270) organic compounds. Analytical results indicate no contaminants of concern were found at levels sufficient to warrant remedial action. Complete analytical results are located in appendix B.

LF-003 (Landfill #2)

Landfill #2 (LF-003) is located approximately one mile west of the residential dome, along the south side of the road that connects Lower Camp to the airstrip (Figure 4). The landfill covers approximately 43,800 square feet.

In 1989 and 1991, site investigations documented the area surrounding the landfill as having large amounts of exposed wood, metal and plastic debris. Several areas of stained soil and several points of oily effluent were noted on top of and adjacent to the landfill respectively. Two drainages adjacent to the landfill were receiving surface flow and effluent flow from the landfill. Several seeps were visible on the surface of the landfill. These seeps flowed for up to 100 feet before reentering the landfill In 1989, 4 monitoring wells were installed in the landfill (Figure 5). Investigations conducted in 1989 and 1990 indicated that soil and surface water down gradient of the landfill were contaminated with petroleum hydrocarbons and PCB's. In 1993 and 1994, personnel of the 611th CES/CEVO collected debris from the periphery of the landfill, diverted a drainage at the toe of the landfill, and covered the landfill with a hypalon membrane/geotextile fabric/clean-fill cap. The cap was designed to prevent the occurrence of debris escaping the landfill and to prevent the infiltration of surface water and subsequent contaminated effluent. Two monitoring wells installed in 1989 (#3, #4) were abandoned during the installation of the landfill cap. Re-vegetation was undertaken after observations indicated the contaminated effluent seeps had dried up. PCB concentrations in surface soil down gradient from the landfill (up to 40 feet) ranged from several ppb to several hundred ppb. In 1996, Harding Lawson installed 7 monitoring wells around LF-003 (Figure 5). Soil, sediment, groundwater and surface water samples were collected and analyzed. Results indicated that surface water and sediment down gradient of the landfill contained levels of PCB and DRO above recommended background concentrations (RBC). Harding Lawson continued monitoring the site in 1997 and results indicated levels of benzene and chloromethane that exceed RBC's in 2 monitoring wells DRO was detected in all samples with concentrations ranging from 13.1 mg/Kg to 371 mg/Kg. Minor concentrations of SVOC's were detected and three sediment samples from one location (SD-2) contained levels of PCB's that ranged from 69.1 to 630 mg/Kg (Figure 5). Trace amounts of pesticides were detected in one sediment sample In 1998, personnel of the 611th CES/CEVO collected 50 soil samples in order ascertain the extent of PCB and petroleum hydrocarbon contamination adjacent to LF-003. Low level, widespread petroleum hydrocarbon contamination was documented in 1998. With the exception of one sampling site (SD-2, 180 mg/Kg PCB) all other samples analyzed for PCB's were below detection or ADEC clean up levels Repair of the perimeter of the landfill cap was recommended in 1998. Long term monitoring was continued in 1999. Two groundwater samples from the monitoring wells

contained minor amounts of DRO. Colocated sediment and groundwater samples (SD/SW-1, SD/SW-2, SD/SW-3) indicated the presence of petroleum hydrocarbons above RBC's and one sediment sample contained DRO and benzene concentrations above ADEC clean up levels. PCB's were not detected in the surface water or sediment samples. Inspection of the cap in 1999 was curtailed due to snow cover.

Work conducted in FY 2003 included inspecting the cap for integrity and serviceability. The cap was in serviceable condition although there were several locations where the edges of the membrane were visible along the margins of the landfill. Sediment and surface water samples from sampling site SD-2, have repeatedly contained levels of PCB's that exceed ADEC clean up levels (Figure 5). Soil, groundwater, sediment and surface water samples adjacent to SD-2 contain minor to undetectable amounts of PCB contamination In FY 2003, careful observations indicated the sediment located at SD-2 was being deposited from the landfill via a seep that surfaces at the toe of the landfill. A sediment sample (53031038002) collected at SD-2 contained 60.2 mg/Kg of Aroclor 1260 (PCB) (Figure 5). The subsurface stream was traced under and through the boulder field by visual and auditory observations until another sediment sample could be obtained. Sample 53031038003 was collected approximately 120 feet downstream of 53031038002 and contained an Aroclor 1260 concentration of 395 mg/Kg (Photograph #4). Further sampling could not be accomplished without the aid of an excavator. The extent of the PCB contamination initially documented at SD-2•cannot be determined until removal of the overlying boulder field has commenced. Sediment sample 53031038004 was collected from the roadside drainage upgradient of 53031038002. Analytical results indicate no PCB contamination at this location. Complete analysis for the aforementioned samples is located in appendix B

10.0 SITE SUMMARIES, CONCLUSIONS AND RECCOMENDATIONS

Building 4100

Building 4100 and its associated septic system were demolished. Debris from the building was placed in the onsite landfill. The septic system, following the results of a septic waste management profile, was demolished in place. There were no floor drains in the building and no visible staining or contamination under the building The 25,000 gallon fuel tank and its associated containment berm had been previously remediated.

- Recommend no further action.

LF-003 (Landfill #2)

The landfill cap was in serviceable condition although there were several locations where the edges of the membrane were visible along the margins of the landfill. Observations indicate the sediment located at previous sample location SD-2 was being deposited from the landfill via a seep that surfaces at the toe of the landfill. A sediment sample collected at SD-2 contained 60.2 mg/Kg of Aroclor 1260 and another sample that was collected approximately 120 feet downstream contained an Aroclor 1260 concentration of 395 mg/Kg. The extent of the PCB contamination initially documented at SD-2•cannot be

determined until removal of the overlying boulder field has commenced. One sediment sample collected upgradient of the landfill indicate no PCB contamination. Recommendations include:

- Detailed mapping of the sub-surface stream course that is bearing PCB contaminated sediments. The mapping should include the streams outfall into Nilumat Creek
- Because there are numerous pockets of sediments in the boulder field interstices, only sediment samples that can be confidently identified as having been deposited by the sub-surface stream in question should be sampled. This sampling may involve moving boulders in order to gain access to the sediment samples. Invasive sampling of this type should be initiated at the downstream end of the drainage and proceed in a methodical upstream direction in order to prevent cross contamination.
- Variations in the streams depth and width due to influxes of rainwater/seasonal meltwater dictate that sediment samples on either side of the streams present configuration be sampled as well. Again, only samples that can be confidently identified as having been deposited by the sub-surface stream in question should be sampled.
- Following definition of the contaminated area, the contaminated sediment will have to be collected and shipped off site for disposal.

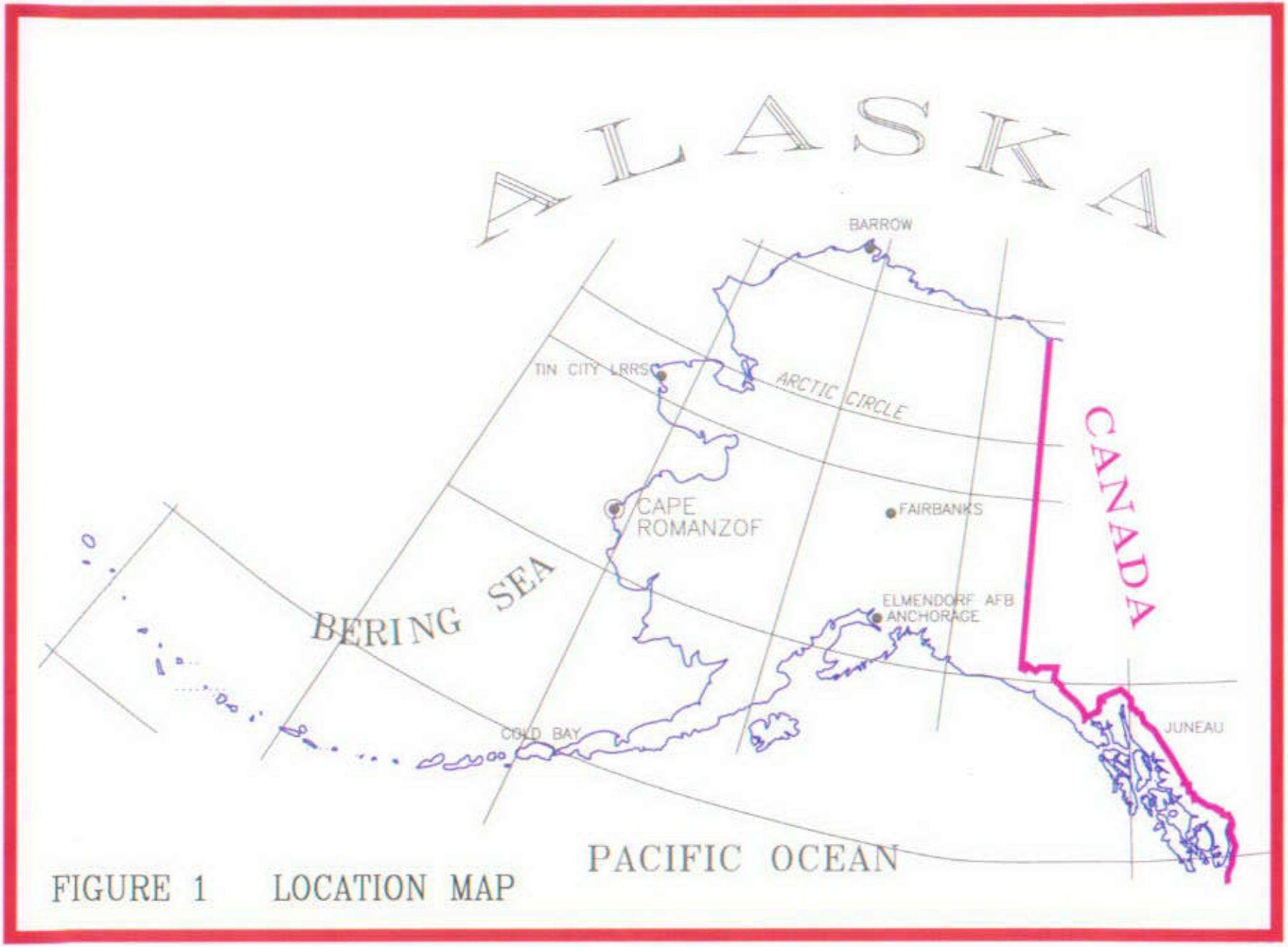


FIGURE 1 LOCATION MAP

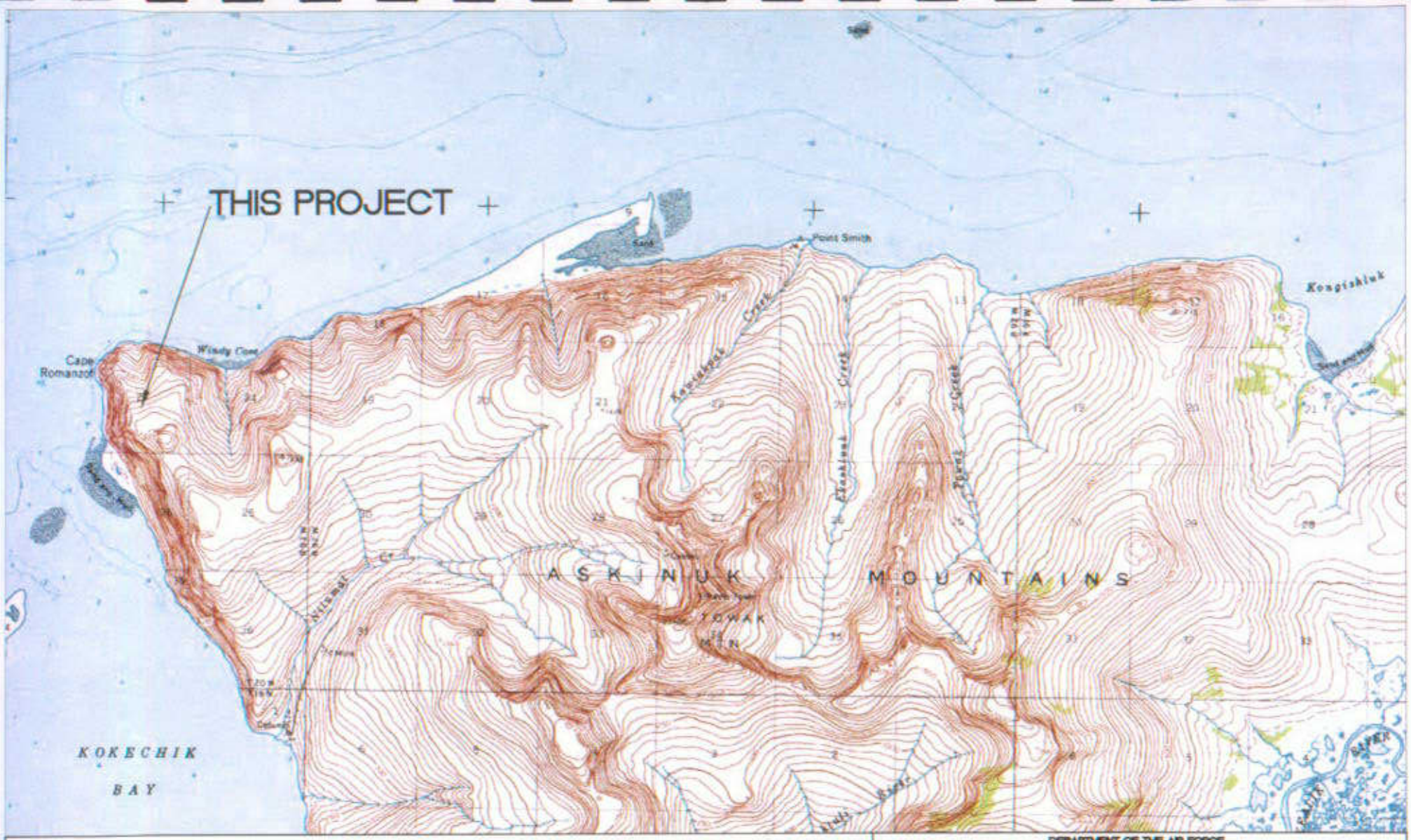


FIGURE 2

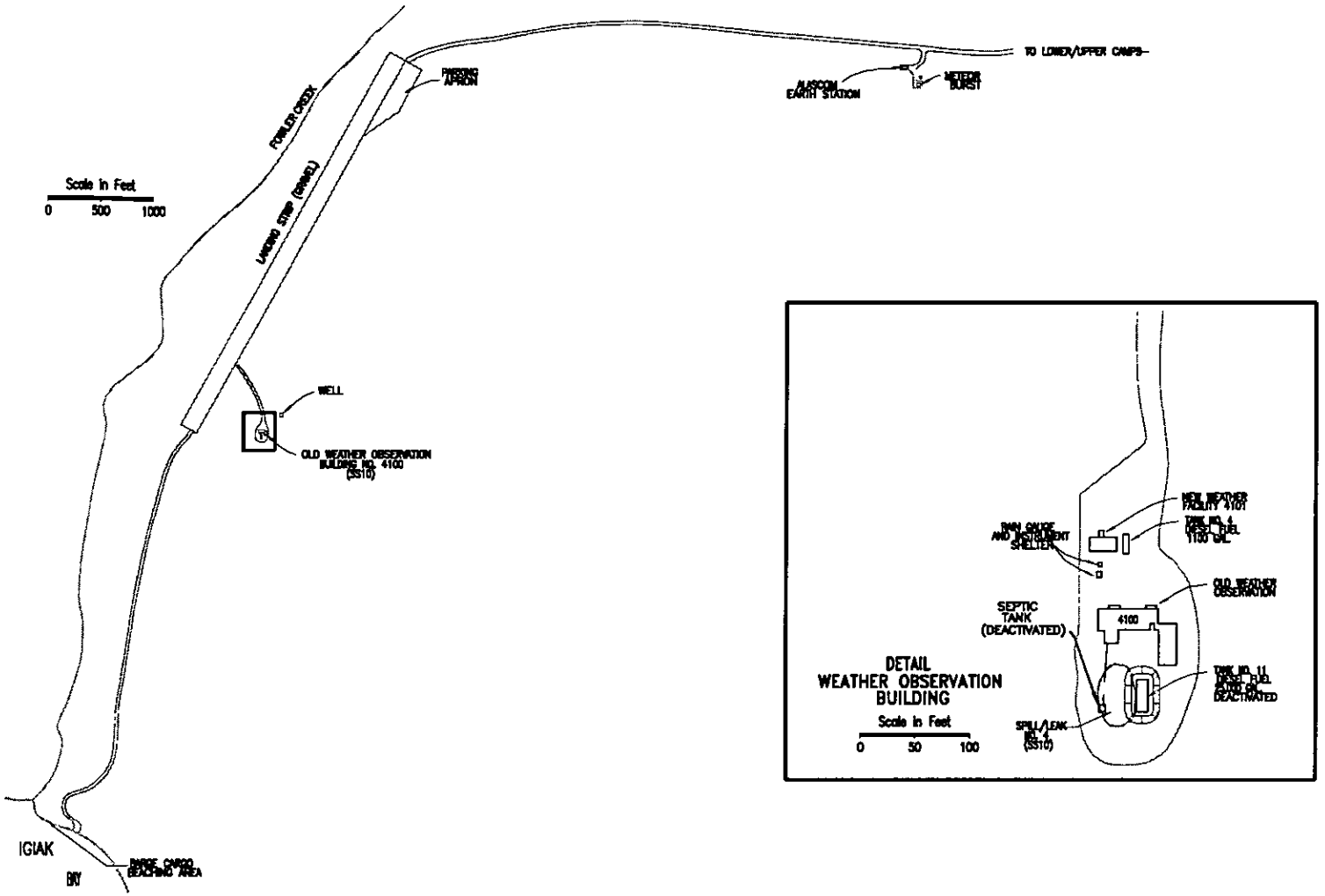
DEPARTMENT OF THE AIR FORCE
611th CIVIL ENGINEER SQUADRON
ELMENDORF AFB ALASKA 99506

CAPE ROMANZOF LRRS, ALASKA

SITE MAP

PROJECT DATE:	SCALE:	DRAWING DATE:
2003	N.T.S.	APR 2003
DRAWN BY:	FIELD DATE:	FIGURE No.:
JCB	2003	2

121 12



NORTH

FIGURE 3

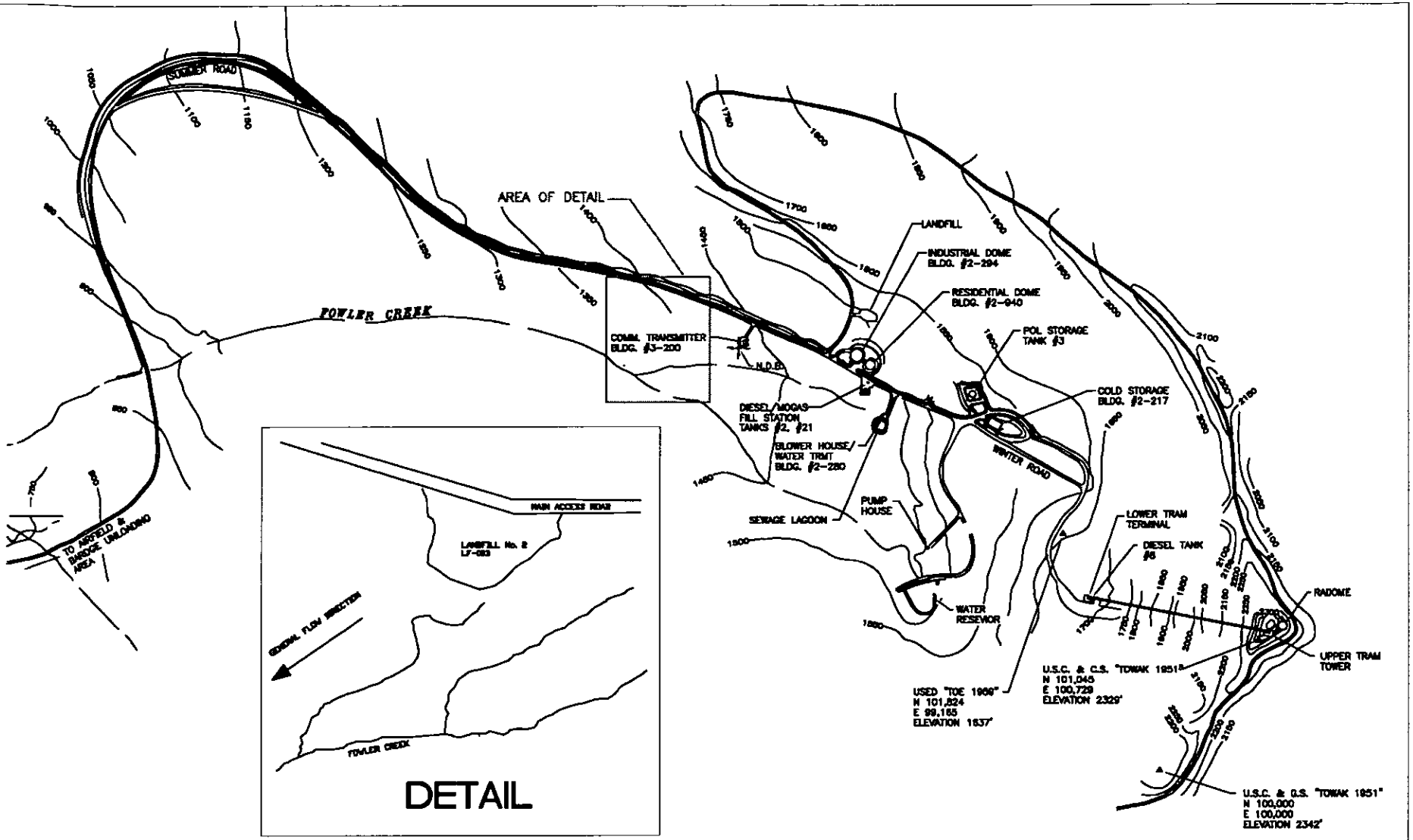
DEPARTMENT OF THE AIR FORCE
66th CIVIL ENGINEER SQUADRON
ELMENDORF AFB ALASKA 99506

CAPE ROMANZOF LRRS, ALASKA

OLD WEATHER STATION (No. 4100) AND SEPTIC TANK

PROJECT DATE:	SCALE:	DRAWING DATE:
2003	AS STATED	APR 2003
DRAWN BY:	FIELD DATE:	FIGURE No.:
JCB	2003	3

121 13



NORTH

FIGURE 4

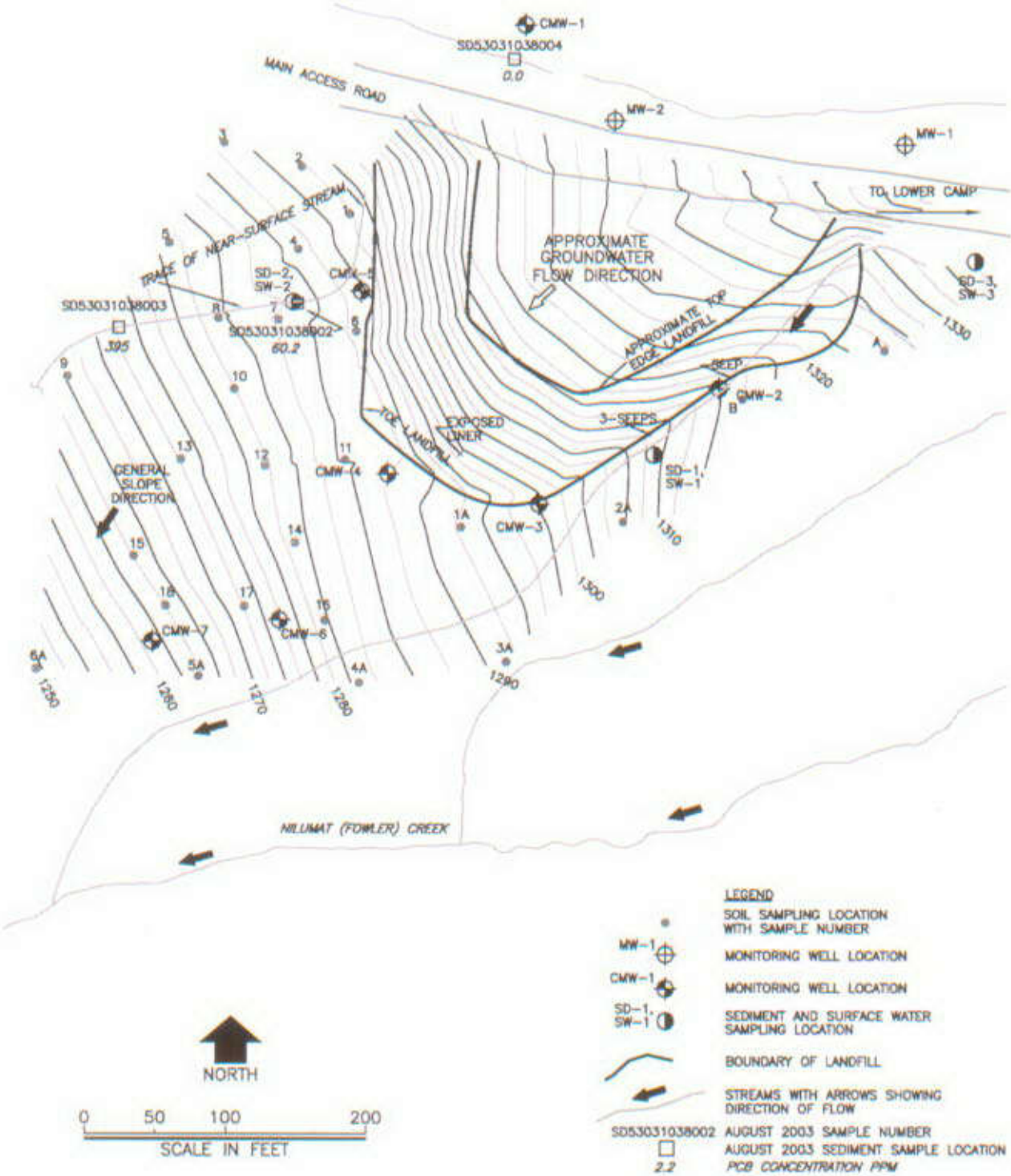
DEPARTMENT OF THE AIR FORCE
611th CIVIL ENGINEER SQUADRON
ELMENDORF AFB ALASKA 99506

CAPE ROMANZOF LRRS, ALASKA

LANDFILL No. 2
LF-003

PROJECT DATE:	SCALE:	DRAWING DATE:
2003	N.T.S.	APR 2003
DRAWN BY:	FIELD DATE:	FIGURE No.:
JCB	2003	4

121 14



DEPARTMENT of the AIR FORCE
611 CML ENGINEER SQUADRON

MAP LF-003 PRIOR SAMPLE LOCATIONS
CAPE ROMANZOF LRRS, AK

SCALE: 1 = 100 | Apr 2003

FIGURE 5

Appendix A
Photographs of Cape Romanzof, 2003

Photograph 1. A view of lower camp looking west. A biocell soil treatment cell, cold storage building, fuel storage and domes are visible in the foreground. One mile beyond the domes, on the left hand side of the road, is LF-003. The end of the runway is visible at the end of the road.

Photograph 2. A view from lower camp looking east that illustrates the location of the tram from lower camp to upper camp.

Photograph 3. A view of the septic man-ways above the septic tank behind building #4100 (the old weather station).

Photograph 4. The boulder field west of LF-003 extends from the toe of the landfill to Nilumat Creek. Sample site SD-2 (sample #53031038002) is several feet to the right of the monitoring well in the foreground. Sample #53031038003 was collected approximately 120 feet west of SD-2.

1 Data Quality Review

The data assessment procedures, calculations, and qualifications used for the Cape Romanzof FY2003 samples are based on the Air Force Center for Environmental Excellence (AFCEE) and U S Environmental Protection Agency (USEPA) procedural guidance documents The reference documents used include the USEPA *Guidance on Environmental Data Verification and Validation* EPA QA/G-8, August 1999, USEPA *Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA 540/R-99/008), October 1999, and the USEPA *Contract Laboratory Program National Functional Guidelines for inorganic Data Review* (EPA 540-R-01-008), July 2002.

Problems with analytical data usually occur in spite of all precautions taken in the planning and execution of the sampling and analysis task. This Quality Assurance Report (QAR) specifies any data problems in terms of the data that are affected and how these data may be limited for use in their intended applications The data assessment is conducted in a two-step process The first step is performed by the analytical laboratory and is based on their standard operating and quality control procedures After the laboratory analyses have been completed and the laboratory has reported the data, the 611th CES/CEVO performs the second step of the data assessment This QAR discusses the second step of the data assessment The data assessment procedures that were performed for this project include·

Initial review of analytical and field data for complete and accurate documentation, holding time compliance, and required frequency of quality control (QC) samples
Evaluation of blank samples to identify systemic contamination.
Calculations for accuracy and precision using the appropriate quality control sample results
Assigning of data qualifier flags to the data as necessary to reflect limitations identified by the data assessment process
Estimate of completeness, in terms of the percent valid unqualified data

Quality control data provide information for identifying and defining qualitative limitations associated with measurement data The following key types of QC procedures provide the primary basis for quantitatively evaluating data quality

Sample handling procedures
Field and laboratory blank samples
Laboratory control samples
Matrix spiked samples
Field duplicate samples
Q A- laboratory analysis data

1.1 Sample Handling Procedures

Proper sample handling techniques are required to ensure sample integrity Items included in sample handling include

Sample collection (i e , bottle) and preservation method
Maintaining proper sample temperature during storage and transport
Chain-of-custody procedures to prevent sample tampering.
Holding time limits for sample extraction and analysis
Proper sample labeling and documentation to ensure correct sample identification

The analytical data reports received from the laboratories were reviewed to determine compliance with The sample handling and holding time criteria

1.2 Blank Samples

1 2 1 LaboratoryBlankSamples

Laboratory blank samples (method blanks) are laboratory-prepared, analyte-free matrices designed to detect the introduction of contamination or other artifacts into the laboratory sample handling and analytical process These blanks play an especially important role in sampling programs involving trace-level analyses or analytes that are common solvents found in a laboratory

1 2 2 Trip Blanks

A trip blank is a sample of analyte-free media taken from the laboratory to the sampling site, and returned to the laboratory unopened for analysis A trip blank simulates a sample container and sample traveling to and from the field It is used to document contamination attributable to shipping and field handling procedures This type of blank is useful in documenting contamination of volatile organic samples

1.3 Surrogate Compounds

Surrogates are generally added to all analytical samples being analyzed for organic compounds All samples are spiked with one or more of the surrogate compounds, which are chemically similar to the analytes of interest but are not expected to be present in the original sample Recovery of these surrogate compounds gives an estimate of the effectiveness of the extraction and analysis for each individual sample

1.4 Field Duplicate and Split Samples

Field duplicate samples are collected simultaneously with or in immediate succession to a primary project sample Duplicates are designed to replicate their primary samples Duplicates are treated in the same manner as the primary sample during all phases of sample collection, handling, and analysis Duplicate sample results are used to assess precision, including variability associated with both the laboratory analysis and the sample collection process. Split samples are collected in an identical manner to duplicate samples, however, they are submitted to an independent laboratory for analysis Duplicate field samples were collected and submitted blind to the project laboratory at a frequency of ten percent for this program Split samples were submitted to an independent quality assurance (QA) laboratory also at the frequency of ten percent

The analytical results are reviewed for agreement with each other or their respective reporting limits and evaluated for comparability The primary, field duplicate, and QA laboratory results must be within the RPD established by each of the analytical methods as established in the QAPP to be considered comparable Estimated data (results that have been quantified below the reporting limit and results qualified with an "F" flag) will not be considered significant for the purpose of data agreement

1.5 Reporting Limits

The analytical reporting limits required for this project include the most stringent of the following requirements.

- Groundwater cleanup standards as set out in State of Alaska regulations 18 AAC 75
- Alaska Water Quality Standards 18 AAC 70
- Alaska Drinking Water Standards 18 AAC 80

All analytical results were consistent with the required reporting limits

1.6 Completeness

Completeness is calculated for the aggregation of data for each analyte measured for any particular sampling event or other defined set of samples Completeness is calculated and reported for each method, matrix and analyte combination The number of valid results divided by the number of possible individual analyte results, expressed as a percentage, determines the completeness of the data set For completeness requirements, valid results are all results not qualified with an "R" flag The requirement for completeness is 85 percent for aqueous samples For any instances of samples that could not be analyzed for any reason (holding time violations or

which resampling and analysis were not possible, samples spilled or broken, etc), the numerator of this calculation becomes the number of valid results minus the number of possible results not reported

The formula for calculation of completeness is presented below

$$\% \text{ completeness} = \frac{\text{Number of valid results}}{\text{number of possible results}}$$

1.7 Data Qualification

Based on the data assessment results the analytical data results are flagged with qualifiers to indicate potential problems with the qualified results The following is a list of data qualifiers that were used in this report A definition of the data qualifier meaning is also provided

Table 1-1 Data Qualifiers

Qualifier	Description
J	The analyte was positively identified, but the quantitation is an estimation
ND/U	The analyte was analyzed for, but not detected The associated numerical value is at or below the PQL. The PQL is shown in brackets
F	The analyte was positively identified but the associated numerical value is below the laboratory's reporting limit.
H	Holding time was exceeded for a particular analytical method
R	The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	A matrix effect was present.
T	Tentatively identified compound (using GC/MS)
V	Flags that are preceded by the letter "V" (i e , VH) correspond to the flag meanings above, except that the "V" signifies that the flag was assigned during the A/E's data review process

2 Quality Control Results

Samples consisting of groundwater were collected and analyzed in accordance with appropriate EPA methods QC procedures associated with these samples included the evaluation of sample holding times, blank samples, laboratory control samples, matrix spikes surrogate spikes Results of these analyses are discussed in this section

Overall, QA/QC data associated with the Cape Romanzof FY 2003 program indicate that measurement data are acceptable and defensible for project use The QA/QC data indicate that the quality control mechanisms were effective in ensuring measurement data reliability within the expected limits of sampling and analytical error The calculated completeness for the monitoring program was greater than 90%.

2.1 Holding Times

Holding times for all analytical sample requests were reviewed and found to be consistent with the USEPA recommended holding times

2.2 Containers and Preservation

Samples were received in containers with preservation consistent with requested analyses to be performed at the laboratory Upon receipt at CT&E Environmental Services Inc , no anomalies were noted

2.3 SALIENT FEATURES OF ANALYTICAL RESULTS

Trip blanks were analyzed for volatile and fugitive chemicals, and were found to be pristine

2.4 Gasoline-Range Organics (GRO)

Project water samples, soil samples, and trip blanks were analyzed for GRO by Alaska Method AK101 All analytical results are acceptable

2.5 Diesel Range Organics (DRO) and Residual Range Organics (RRO)

Project water samples and soil samples were analyzed for DRO/RRO by Alaska Method AK102/AK103 All analytical results are acceptable.

2.6 Polynuclear Aromatic Hydrocarbons (PAH)

Project water samples, soil samples, and trip blanks were analyzed by SW827OC-SIM All analytical results are acceptable

2.7 Organochlorine Pesticides (Pesticides)

Project water samples and soil samples were analyzed for organochlorine pesticides using method 8081A All sample analytical results are acceptable

2.8 Polychlorinated Biphenyis (PCBS)

Project water samples and soil samples were analyzed for PCBs using method SW8082 All sample analytical results are acceptable

2.9 Volatile Organic Compounds (VOCS)

Project water samples, soil samples, and trip blanks were analyzed for VOCs using method SW8260B. All sample analytical results are acceptable.

3.0 RCRA Metals

Project water samples and soil samples were analyzed for RCRA Metals using method SW6020 All sample analytical results are acceptable

Project water samples, soil samples, and trip blanks were analyzed for mercury using EPA Method SW7470A All sample analytical results are acceptable

Laboratory Analysis Report

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Carl Hornig
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Results are final. Rept as prelim pending PCB/Pest on -5- Aldrin

Work Order:	1035199
	Cape Romanzof Call B-373
Client:	Graybar Electric
Report Date:	August 29, 2003

Enclosed are the analytical results associated with the above workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Control Manual that outlines this program is available at your request. The laboratory ADEC certification numbers are AK08-03 (DW) and UST-005 (CS).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth in our Quality Assurance Program Plan.

If you have any questions regarding this report or if we can be of any other assistance, please call your SGS Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

PQL	Practical Quantitation Limit (reporting limit).
U	Indicates the analyte was analyzed for but not detected.
F	Indicates an estimated value that falls below PQL, but is greater than the MDL.
J	The quantitation is an estimation.
B	Indicates the analyte is found in a blank associated with the sample.
*	The analyte has exceeded allowable regulatory or control limits.
GT	Greater Than
D	The analyte concentration is the result of a dilution.
LT	Less Than
!	Surrogate out of control limits.
Q	QC parameter out of acceptance range.
M	A matrix effect was present.
JL	The analyte was positively identified, but the quantitation is a low estimation.

Note: Soil samples are reported on a dry weight basis unless otherwise specified.

- PRELIMINARY -

SGS

SGS Ref.#	1035199001
Client Name	Graybar Electric
Project Name/#	Cape Romanzof Call B-373
Client Sample ID	53031038001 Septic Sludge
Matrix	Other Solids (Wet Weight)

All Dates/Times are Alaska Standard Time

Printed Date/Time	08/29/2003 9 44
Collected Date/Time	08/16/2003 8.22
Received Date/Time	08/19/2003 10·50
Technical Director	**Stephen C. Ede**

Released By Stephen C. Ede

Sample Remarks

8260 - Surrogate recoveries are biased low and do not meet laboratory QC criteria due to high moisture content of sample.
8260 - Sample was in-house extracted This extraction procedure involves opening the sample container and removing a portion of the sample. Some volatile constituents may be lost during sample handling

Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waste Management Profile Characterization										
Aqueous Phase, Total		5 0		%	SW1311 TCLP	A			08/19/03	BJS
Oil Phase, Total		0.0		%	SW1311 TCLP	A			08/19/03	BJS
Solid Phase, Total		95		%	SW1311 TCLP	A			08/19/03	BJS
Waste Management Profile TCLP Metals										
Arsenic		0 500 U	0.500	mg/L	SW6010B TCLP	A	(<=5)	08/26/03	08/26/03	BAG
Barium		0 242	0.100	mg/L	SW6010B TCLP	A	(<=100)	08/26/03	08/26/03	BAG
Cadmium		0.0500 U	0.0500	mg/L	SW6010B TCLP	A	(<=1)	08/26/03	08/26/03	BAG
Chromium		0 200 U	0 200	mg/L	SW6010B TCLP	A	(<=5)	08/26/03	08/26/03	BAG
Copper		0 100 U	0.100	mg/L	SW6010B TCLP	A		08/26/03	08/26/03	BAG
Hexavalent Chromium		2 00 U	2.00	mg/L	SW7196A TCLP	A	(<=5)		08/26/03	GDY
Nickel		0 300 U	0 300	mg/L	SW6010B TCLP	A		08/26/03	08/26/03	BAG
Selenium		1 00 U	1.00	mg/L	SW6010B TCLP	A	(<=1)	08/26/03	08/26/03	BAG
Lead		0.500 U	0.500	mg/L	SW6010B TCLP	A	(<=5)	08/26/03	08/26/03	BAG
Mercury by Cold Vapor		0 00200 U	0.00200	mg/L	SW7470A TCLP	A	(<=0 2)	08/26/03	08/26/03	JAL
Silver		0 200 U	0 200	mg/L	SW6010B TCLP	A	(<=5)	08/26/03	08/26/03	BAG
Zinc		0 401	0 300	mg/L	SW6010B TCLP	A		08/26/03	08/26/03	BAG
Waste Management Profile										
Ignitability Seta Flash		GT 200 F	70.0	degrees F	SW1020A	A	(>=140)		08/25/03	GDY
pH, Soil		4 82	0 100	pH units	SW9045C	A	(2-12.5)		08/21/03	JWD
Phenols, Total		2 31 U	2.31	mg/Kg	SW9065	A		08/25/03	08/26/03	KC
Reactivity		Non-Reactive			SW846 7 3	A			08/22/03	BJS
Waste Management Profile Pest/PCB's										
Aroclor-1248		0 00582 U	0.00582	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA

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SGS

SGS Ref.#	1035199001
Client Name	Graybar Electric
Project Name/#	Cape Romanzof Call B-373
Client Sample ID	53031038001 Septic Sludge
Matrix	Other Solids (Wet Weight)

All Dates/Times are Alaska Standard Time

Printed Date/Time	08/29/2003 9:44
Collected Date/Time	08/16/2003 8:22
Received Date/Time	08/19/2003 10:50
Technical Director	**Stephen C. Ede**

Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waste Management Profile Pest/PCB's										
Aroclor-1242		0 00582 U	0.00582	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1232		0.00582 U	0 00582	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1016		0 00582 U	0.00582	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1221		0.00582 U	0.00582	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1254		0.00582 U	0 00582	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1260		0.00582 U	0 00582	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Surrogates										
Decachlorobiphenyl <surr>		77 9		%	SW8082	A	60-125	08/22/03	08/24/03	WAA
Waste Management Profile Volatiles										
Vinyl chloride		0 0130 U	0.0130	mg/Kg	SW8260B	A	(<=0.2)	08/25/03	08/26/03	RMV
1,1-Dichloroethene		0.0250 U	0.0250	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
Methylene chloride		0 0999 U	0.0999	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
Carbon disulfide		0.0999 U	0.0999	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
2-Butanone (MEK)		0.250 U	0.250	mg/Kg	SW8260B	A	(<=200)	08/25/03	08/26/03	RMV
Chloroform		0.0250 U	0.0250	mg/Kg	SW8260B	A	(<=6)	08/25/03	08/26/03	RMV
1,1,1-Trichloroethane		0 0250 U	0.0250	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
Carbon tetrachloride		0.0250 U	0.0250	mg/Kg	SW8260B	A	(<=0.5)	08/25/03	08/26/03	RMV
Benzene		0.0130 U	0.0130	mg/Kg	SW8260B	A	(<=0.5)	08/25/03	08/26/03	RMV
1,2-Dichloroethane		0 0130 U	0 0130	mg/Kg	SW8260B	A	(<=0.5)	08/25/03	08/26/03	RMV
Trichloroethene		0 0200 U	0 0200	mg/Kg	SW8260B	A	(<=0.5)	08/25/03	08/26/03	RMV
4-Methyl-2-pentanone (MIBK)		0 250 U	0 250	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
Toluene		0 0499 U	0 0499	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
2-Hexanone		0 250 U	0.250	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
Tetrachloroethene		0 0250 U	0.0250	mg/Kg	SW8260B	A	(<=0.7)	08/25/03	08/26/03	RMV
Chlorobenzene		0 0250 U	0 0250	mg/Kg	SW8260B	A	(<=100)	08/25/03	08/26/03	RMV
Ethylbenzene		0.0499 U	0.0499	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
P & M -Xylene		0 0499 U	0.0499	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
o-Xylene		0 0499 U	0.0499	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
Styrene		0 0250 U	0 0250	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
1,3-Dichlorobenzene		0 0250 U	0.0250	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
1,4-Dichlorobenzene		0 0250 U	0.0250	mg/Kg	SW8260B	A	(<=7.5)	08/25/03	08/26/03	RMV

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SGS

SGS Ref.#	1035199001	**All Dates/Times are Alaska Standard Time**	
Client Name	Graybar Electric	**Printed Date/Time**	08/29/2003 9:44
Project Name/#	Cape Romanzof Call B-373	**Collected Date/Time**	08/16/2003 8.22
Client Sample ID	53031038001 Septic Sludge	**Received Date/Time**	08/19/2003 10:50
Matrix	Other Solids (Wet Weight)	**Technical Director**	**Stephen C. Ede**

Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waste Management Profile Volatiles										
1,2-Dichlorobenzene		0 0250 U	0.0250	mg/Kg	SW8260B	A		08/25/03	08/26/03	RMV
Surrogates										
Dibromofluoromethane <surr>		! 68.2		%	SW8260B	A	83-119	08/25/03	08/26/03	RMV
1,2-Dichloroethane-D4 <surr>		! 66.4		%	SW8260B	A	83-122	08/25/03	08/26/03	RMV
Toluene-d8 <surr>		! 64.6		%	SW8260B	A	87-115	08/25/03	08/26/03	RMV
4-Bromofluorobenzene <surr>		65 5		%	SW8260B	A	46-133	08/25/03	08/26/03	RMV

~~PRELIMINARY~~

SGS

SGS Ref.#	1035199002	**All Dates/Times are Alaska Standard Time**	
Client Name	Graybar Electric	**Printed Date/Time**	08/29/2003 9:44
Project Name/#	Cape Romanzof Call B-373	**Collected Date/Time**	08/16/2003 9:43
Client Sample ID	53031038002	**Received Date/Time**	08/19/2003 10:50
Matrix	Soil/Solid	**Technical Director**	**Stephen C. Ede**
		Released By	

Sample Remarks:

Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Polychlorinated Biphenyls										
Aroclor-1016		0 0828 U	0.0828	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1221		0 0828 U	0.0828	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1232		0.0828 U	0.0828	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1242		0 0828 U	0.0828	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1248		0 0828 U	0.0828	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1254		0.0828 U	0.0828	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1260		60 2	16.6	mg/Kg	SW8082	A		08/22/03	08/25/03	WAA
Surrogates										
Decachlorobiphenyl <surr>		73 9		%	SW8082	A	60-125	08/22/03	08/24/03	WAA
Solids										
Total Solids		72 0		%	SM20 2540G				08/20/03	CMT

~~PRELIMINARY~~

SGS

SGS Ref.#	1035199003
Client Name	Graybar Electric
Project Name/#	Cape Romanzof Call B-373
Client Sample ID	53031038003
Matrix	Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time	08/29/2003 9:44
Collected Date/Time	08/16/2003 9.56
Received Date/Time	08/19/2003 10:50
Technical Director	**Stephen C. Ede**

Released By

Sample Remarks:

Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Polychlorinated Biphenyls										
Aroclor-1221		0 126 U	0.126	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1016		0 126 U	0.126	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1232		0.126 U	0 126	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1248		0.126 U	0.126	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1242		0.126 U	0.126	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1254		0 126 U	0.126	mg/Kg	SW8082	A		08/22/03	08/24/03	WAA
Aroclor-1260		395	63.1	mg/Kg	SW8082	A		08/22/03	08/25/03	WAA
Surrogates										
Decachlorobiphenyl <surr>		74 6		%	SW8082	A	60-125	08/22/03	08/24/03	WAA
Solids										
Total Solids		63 5		%	SM20 2540G				08/20/03	CMT

~~PRELIMINARY~~

SGS

SGS Ref.#	1035199004
Client Name	Graybar Electric
Project Name/#	Cape Romanzof Call B-373
Client Sample ID	53031038004
Matrix	Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time	08/29/2003 9:44
Collected Date/Time	08/16/2003 10:26
Received Date/Time	08/19/2003 10:50
Technical Director	Stephen C. Ede
Released By	

Sample Remarks:

Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Polychlorinated Biphenyls										
Aroclor-1016		0.0778 U	0.0778	mg/Kg	SW8082	A		08/22/03	08/25/03	WAA
Aroclor-1221		0.0778 U	0.0778	mg/Kg	SW8082	A		08/22/03	08/25/03	WAA
Aroclor-1232		0 0778 U	0.0778	mg/Kg	SW8082	A		08/22/03	08/25/03	WAA
Aroclor-1242		0 0778 U	0.0778	mg/Kg	SW8082	A		08/22/03	08/25/03	WAA
Aroclor-1248		0.0778 U	0.0778	mg/Kg	SW8082	A		08/22/03	08/25/03	WAA
Aroclor-1254		0.0778 U	0.0778	mg/Kg	SW8082	A		08/22/03	08/25/03	WAA
Aroclor-1260		0.0778 U	0.0778	mg/Kg	SW8082	A		08/22/03	08/25/03	WAA
Surrogates										
Decachlorobiphenyl <surr>		85		%	SW8082	A	60-125	08/22/03	08/25/03	WAA
Solids										
Total Solids		74 5		%	SM20 2540G				08/20/03	CMT

PRELIMINARY

Results here are final.
Report is preliminary pending PCB/Pest

SGS

SGS Ref.#	1035199005
Client Name	Graybar Electric
Project Name/#	Cape Romanzof Call B-373
Client Sample ID	53031038005
Matrix	Oil/Xylene Miscible Liquid

All Dates/Times are Alaska Standard Time

Printed Date/Time	08/29/2003 9.44
Collected Date/Time	08/16/2003 13 34
Received Date/Time	08/19/2003 10:50
Technical Director	Stephen C. Ede
Released By	JJ Mac C

Sample Remarks:

Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Characterization										
pH, Corrosivity		6 69	0.100	pH units	SW9045C	A	(2-12.5)		08/21/03	JWD
TCLP Metals										
Mercury by Cold Vapor		0.0350 U	0.0350	mg/L	SW7471A TCLP	A	(<=0.2)	08/22/03	08/22/03	JAL
Waste Management Profile Characterization										
Aqueous Phase, Total		0 0		%	SW1311 TCLP	A			08/19/03	BJS
Oil Phase, Total		100		%	SW1311 TCLP	A			08/19/03	BJS
Solid Phase, Total		0.0		%	SW1311 TCLP	A			08/19/03	BJS
Waste Management Profile TCLP Metals										
Arsenic		2.28 U	2.28	mg/L	SW6010B TCLP	A	(<=5)	08/21/03	08/27/03	BAG
Barium		1.68	0.911	mg/L	SW6010B TCLP	A	(<=100)	08/21/03	08/27/03	BAG
Cadmium		0.456 U	0 456	mg/L	SW6010B TCLP	A	(<=1)	08/21/03	08/27/03	BAG
Chromium		0 911 U	0 911	mg/L	SW6010B TCLP	A	(<=5)	08/21/03	08/27/03	BAG
Copper		26 7	0.911	mg/L	SW6010B TCLP	A		08/21/03	08/27/03	BAG
Lead		2 28 U	2 28	mg/L	SW6010B TCLP	A	(<=5)	08/21/03	08/27/03	BAG
Nickel		0 911 U	0.911	mg/L	SW6010B TCLP	A		08/21/03	08/27/03	BAG
Selenium		0 0911 U	0.0911	mg/L	SW7740A TCLP	A	(<=1)	08/25/03	08/25/03	JMP
Silver		0 911 U	0.911	mg/L	SW6010B TCLP	A	(<=5)	08/21/03	08/27/03	BAG
Zinc		248	45 6	mg/L	SW6010B TCLP			08/21/03	08/27/03	BAG
Waste Management Profile										
Boiling Point, Open Cup		GT 110 F		degrees F	Open Cup	A			08/22/03	GDY
Ignitability Seta Flash		LT 70 F	70 0	degrees F	SW1020A	A	(>=140)		08/26/03	GDY
Phenols, Total		15700	1240	mg/Kg	SW9065	A		08/26/03	08/26/03	KC
Reactivity		Non-Reactive			SW846 7 3	A			08/22/03	BJS

- PRELIMINARY -

SGS

SGS Ref.#	1035199005
Client Name	Graybar Electric
Project Name/#	Cape Romanzof Call B-373
Client Sample ID	53031038005
Matrix	Oil/Xylene Miscible Liquid

All Dates/Times are Alaska Standard Time

Printed Date/Time	08/29/2003 9:44
Collected Date/Time	08/16/2003 13:34
Received Date/Time	08/19/2003 10:50
Technical Director	Stephen C. Ede

Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waste Management Profile										
Waste Management Profile Volatiles										
1,1,1,2-Tetrachloroethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,1,1-Trichloroethane		74800	2420	mg/L	SW8260B TCLP			08/25/03	08/26/03	RMV
1,1,2,2-Tetrachloroethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,1,2-Trichloroethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,1-Dichloroethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,1-Dichloroethene		483 U	483	mg/L	SW8260B TCLP	A	(<=0.7)	08/25/03	08/26/03	RMV
1,1-Dichloropropene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,2,3-Trichlorobenzene		1930 U	1930	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,2,3-Trichloropropane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,2,4-Trichlorobenzene		1930 U	1930	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,2,4-Trimethylbenzene		1930	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,2-Dibromo-3-chloropropane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,2-Dibromoethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,2-Dichlorobenzene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,2-Dichloroethane		483 U	483	mg/L	SW8260B TCLP	A	(<=0.5)	08/25/03	08/26/03	RMV
1,2-Dichloroethane		483 U	483	mg/L	SW8260B TCLP	A	(<=0.7)	08/25/03	08/26/03	RMV
1,2-Dichloropropane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,3,5-Trimethylbenzene		700	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,3-Dichlorobenzene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,3-Dichloropropane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
1,4-Dichlorobenzene		483 U	483	mg/L	SW8260B TCLP	A	(<=7.5)	08/25/03	08/26/03	RMV
2,2-Dichloropropane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
2-Chlorotoluene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
4-Chlorotoluene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
4-Isopropyltoluene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Benzene		483 U	483	mg/L	SW8260B TCLP	A	(<=0.5)	08/25/03	08/26/03	RMV
Bromobenzene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Bromochloromethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Bromodichloromethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Bromoform		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Bromomethane		2420 U	2420	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV

SGS

SGS Ref.#	1035199005
Client Name	Graybar Electric
Project Name/#	Cape Romanzof Call B-373
Client Sample ID	53031038005
Matrix	Oil/Xylene Miscible Liquid

All Dates/Times are Alaska Standard Time

Printed Date/Time	08/29/2003 9:44
Collected Date/Time	08/16/2003 13:34
Received Date/Time	08/19/2003 10:50
Technical Director	Stephen C. Ede

Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waste Management Profile Volatiles										
Carbon disulfide		9660 U	9660	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Carbon tetrachloride		483 U	483	mg/L	SW8260B TCLP	A	(<=0.5)	08/25/03	08/26/03	RMV
Chlorobenzene		483 U	483	mg/L	SW8260B TCLP	A	(<=100)	08/25/03	08/26/03	RMV
Chloroethane		2420 U	2420	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Chloroform		483 U	483	mg/L	SW8260B TCLP	A	(<=6)	08/25/03	08/26/03	RMV
Chloromethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
cis-1,2-Dichloroethene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
cis-1,3-Dichloropropene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Dibromochloromethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Dibromomethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Dichlorodifluoromethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Ethylbenzene		2990	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Hexachlorobutadiene		1930 U	1930	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Isopropylbenzene (Cumene)		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Methylene chloride		2420 U	2420	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
n-Butylbenzene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
n-Propylbenzene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Naphthalene		1930 U	1930	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
o-Xylene		749	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
P & M -Xylene		2570	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
sec-Butylbenzene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Styrene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
tert-Butylbenzene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Tetrachloroethene		483 U	483	mg/L	SW8260B TCLP	A	(<=0.7)	08/25/03	08/26/03	RMV
Toluene		556	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
trans-1,2-Dichloroethene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
trans-1,3-Dichloropropene		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Trichloroethene		483 U	483	mg/L	SW8260B TCLP	A	(<=0.5)	08/25/03	08/26/03	RMV
Trichlorofluoromethane		483 U	483	mg/L	SW8260B TCLP	A		08/25/03	08/26/03	RMV
Vinyl chloride		483 U	483	mg/L	SW8260B TCLP	A	(<=0.2)	08/25/03	08/26/03	RMV
Surrogates										
1,2-Dichloroethane-D4 <surr>		102		%	SW8260B TCLP	A	56-137	08/25/03	08/26/03	RMV
4-Bromofluorobenzene <surr>		101		%	SW8260B TCLP	A	57-143	08/25/03	08/26/03	RMV

SGS

SGS Ref.#	1035199005
Client Name	Graybar Electric
Project Name/#	Cape Romanzof Call B-373
Client Sample ID	53031038005
Matrix	Oil/Xylene Miscible Liquid

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Parameter	Qualifiers	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Waste Management Profile Volatiles										
Toluene-d8 <surr>		102		%	SW8260B TCLP	A	60-141	08/25/03	08/26/03	RMV

- PRELIMINARY -

Appendix C
Comments, Responses to Comments and Approval Letters, 2003

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE