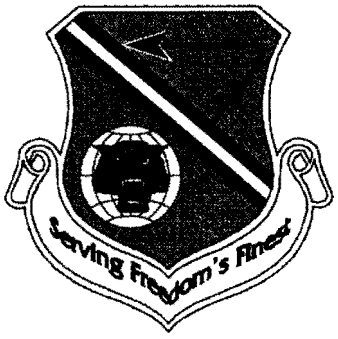
Kirtland Air Force Base
Albuquerque, New Mexico

Interim Corrective Measures
Work Plan
Solid Waste Management Unit ST-64

Final Draft - October 15, 1997



377 ABW/EMR
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INSTALLATION RESTORATION PROGRAM
KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO

INTERIM CORRECTIVE MEASURES WORK PLAN
FOR
SWMU ST-64
FORMER U.S. ARMY CORPS OF ENGINEERS
VEHICLE MAINTENANCE YARD (ST-64) (FORMER ST-337)

FINAL DRAFT

OCTOBER 15, 1997

Prepared for

HQ AFCEE/ERD

ENVIRONMENTAL RESTORATION DIVISION

BROOKS AFB, TEXAS 78235-5363

DSN: 240-5288 COMM: (210) 536-5288

USAF CONTRACT NO. F41624-94-D-8053 DELIVERY ORDER NO. 0092

Prepared by

CH2M HILL

ALBUQUERQUE, NEW MEXICO

NOTICE

This Interim Corrective Measures Work Plan has been prepared for the U.S. Air Force by CH2M HILL for the purpose of aiding in the implementation of a final remedial action plan under the Installation Restoration Program (IRP). As the plan relates to actual or possible releases of potentially hazardous substances, its release prior to an Air Force final decision on remedial action may be in the public's interest. The limited objectives of this plan 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 plan, since subsequent facts may become known which may make this plan premature or inaccurate.

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REPORT DOCUMENTATION PAGE	Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, Virginia 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, D.C. 20503.

1. AGENCY USE ONLY	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	October 1997	Interim Corrective Measures Work Plan, October 1997

4. TITLE AND SUBTITLE

Kirtland Air Force Base
Albuquerque, New Mexico
Interim Corrective Measures Work Plan for SWMU ST-64 Former U.S. Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (Former ST-337)

5. FUNDING NUMBERS

USAF Contract No. F41624-94-D-8053
Delivery Order No. 0092

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3207 North Road
Brooks Air Force Base, Texas 78235-5363

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

This Corrective Measures Work Plan describes soil removal and disposal activities that will be performed during 1997 at SWMU ST-64 Former U.S. Army Corps of Engineers Vehicle Maintenance Yard (Former ST-337) in the RCRA Part B Permit for Kirtland AFB, New Mexico.

14. SUBJECT TERMS

Final Draft, Interim Corrective Measures Work Plan

15. NUMBER OF PAGES
10

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	SAR

NSN 7540-01-280-5500

Standard Form 298 (Rev 2-89)
Prescribed by ANSI Std 239-18 298-102

PREFACE

This Interim Corrective Measures Plan describes soil removal and disposal activities that will be performed during 1997 at solid waste management unit ST-64, Former U.S. Army Corps of Engineers Vehicle Maintenance Yard of the RCRA Part B Permit for Kirtland Air Force Base (AFB). The plan addresses the requirements of the U.S. Air Force (USAF) statement of work, dated March 6, 1997.

This was prepared by CH2M HILL in August and September 1997. Mr. Bassim D. Shebaro of the Air Force Center for Environmental Excellence was the Restoration Team Chief and Mr. Rodney Arnold served as the Contracting Officer's Representative.

Michael J. Bitner
CH2M HILL Vice President

Amy R. Halloran, P.E.
CH2M HILL Project Manager

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ACRONYMS

AFB	Air Force Base
bgs	below ground surface
DRO	diesel range organics
EPA	U.S. Environmental Protection Agency
GRO	gasoline range organics
HHRB	human health risk-based (EPA Region VI Media-Specific Screening Levels)
ICM	Interim Corrective Measures
IRP	Installation Restoration Program
mg/kg	milligram per kilogram
NMED	New Mexico Environment Department
PCB	polychlorinated biphenyl
PID	photoionization detector
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SSHP	Site Safety and Health Plan
SWMU	solid waste management unit
SVOC	semi-volatile organic compound
TAL	target analyte list
TPH	total petroleum hydrocarbons
USAF	U.S. Air Force
UST	underground storage tank
UTL	upper tolerance limit
VOC	volatile organic compound

EXECUTIVE SUMMARY

This Work Plan was prepared as guidance for the Interim Corrective Measures (ICM) to be conducted at solid waste management unit ST-64 Building 20212, Former U.S. Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (former ST-337), Kirtland Air Force Base, New Mexico. The goal of the ICM is to reduce the risk to human health and the environment associated with contamination that was identified during the Appendix III Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) conducted in 1995 and 1996.

This site was initially investigated during Phase 1 of the Appendix III RFI (USAF, 1995b). All soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), target analyte list (TAL) metals, and polychlorinated biphenyls (PCBs)/pesticides. The Phase 1 analytical results indicated that SVOC and TPH concentrations were detected in some samples at levels in excess of U.S. Environmental Protection Agency (EPA) Region 6 human health risk-based (HHRB) screening levels and/or New Mexico Environment Division (NMED) action levels. Follow-on sampling was conducted during the Appendix III Phase 2 RFI (USAF, 1997). All samples were analyzed for VOCs, SVOCs, and TPH. The analytical results indicated that TPH concentrations were detected in some samples at levels exceeding the 100 milligram per kilogram (mg/kg) NMED TPH action level. All VOC and SVOC concentrations were below the EPA Region 6 HHRB screening levels.

Based on the RFI results, an ICM has been recommended for this site. The ICM will consist of excavation, soil characterization, and disposal of TPH- and SVOC-contaminated soil as detected in the Phases 1 and 2 RFI investigations. Soil contaminated with SVOCs above the HHRB screening levels and/or TPH above the NMED underground storage tank action level of 100 mg/kg will be removed down to a depth of 10 ft belowground surface. Removal of contaminated soil to a depth of 10 ft should mitigate any potential human exposure to compounds that exceed HHRB screening levels. Representative soil samples will be collected from the bottom and sides of the excavated areas to verify contaminant removal.

1. INTRODUCTION

This Work Plan was prepared as guidance for Interim Corrective Measures (ICM) to be conducted at solid waste management unit (SWMU) ST-64 Building 20212, Former U.S. Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (former ST-337), Kirtland Air Force Base (AFB), New Mexico. The location of the site is shown in Figure 1-1. The ICM goal is to reduce the risk to human health and the environment. Contamination was identified during the Appendix III Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) conducted in 1995 and 1996. This ICM Work Plan was developed to serve as a guide in the field and contains site descriptions, results of previous investigations, plans, and rationale for the ICM. This Work Plan is considered a deliverable under Contract Number F41624-94-D-8053, Delivery Order No. 0092.

1.1 Description of the Interim Corrective Measures

Based on the RFI results, an ICM has been recommended for this site. The ICM will consist of excavation, soil characterization, and the removal of contaminated soil at site ST-64. Representative soil samples will be collected from the bottom and sides of the excavated area for confirmation of contaminant removal.

1.1.1 Project Objectives

The objective of the ICM is to reduce the risk to human health and the environment posed by contamination at site ST-64. The contaminants of concern are semi-volatile organic compounds (SVOCs) and total petroleum hydrocarbons (TPH). Several SVOCs were detected above the U.S. Environmental Protection Agency (EPA) Region 6 human health risk-based (HHRB) levels. Petroleum hydrocarbons were detected above the New Mexico Environment Department (NMED) underground storage tank (UST) action level of 100 milligrams per kilogram (mg/kg) (NMED, 1995). Contaminated soil above these action levels will be excavated and disposed of during the ICM. These actions should effectively reduce the risk to human health and the environment. The ICM proposed in this plan is considered voluntary and will not, in itself, remove the site from the current corrective action schedule.

1.2 Scoping Documents

The following project scoping document will be used to implement the ICM at ST-64:

- *Kirtland AFB Base-Wide Plans for Installation Restoration Program* (IRP) (U.S. Air Force [USAF], 1995a)

Field activities include, but are not limited to, the following: soil excavation, confirmatory sampling, waste transport and disposal, sample handling and shipping, decontamination procedures, and equipment calibration.

Exceptions to this document are documented in this site-specific ICM Work Plan and the site-specific Site Safety and Health Plan (SSHP) addendum.

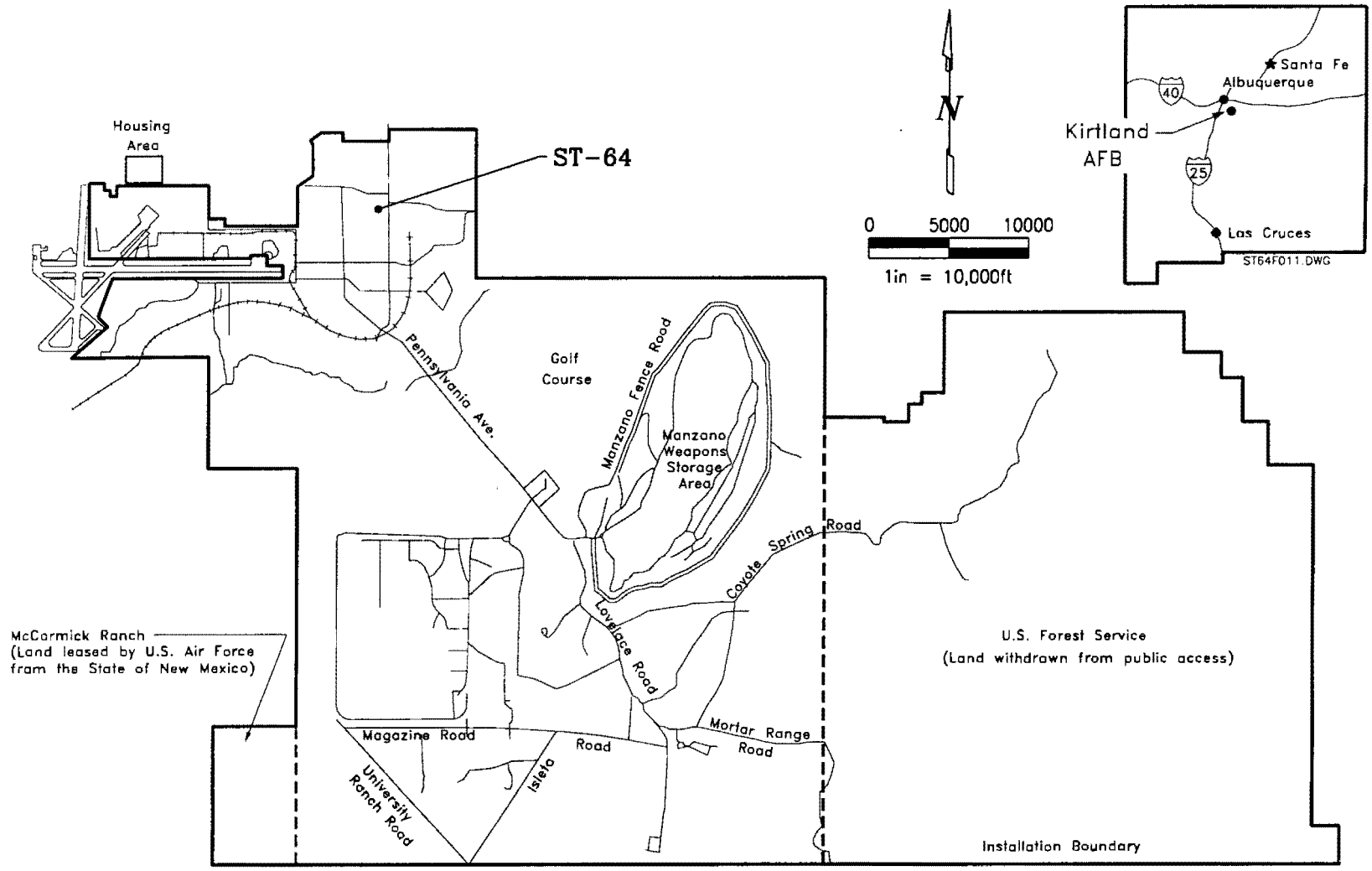


Figure 1-1. Site Location Map for SWMU ST-64, Former U.S. Army COE Vehicle Maintenance Yard (ST-64) (Former ST-337)

2. BACKGROUND INFORMATION

A site map of SWMU ST-64 at Kirtland AFB is depicted in Figure 2-1. SWMU ST-64 is located at 4th Street and G Avenue in the northwest portion of Kirtland AFB. This SWMU is the former U.S. Army Corps of Engineers Vehicle Maintenance Yard, which is adjacent to the site where Building 20212 was located (building has recently been demolished). A soil/gravel area was previously used for the aboveground storage of liquid waste generated by the vehicle maintenance facility. Six 55-gallon drums, placed on wooden pallets, were used to store liquid waste including motor oil, brake fluid, and antifreeze. Contamination in the soil was identified during the Appendix III RFI. Results of the RFI are discussed in Section 2.1.

2.1 Results of Previous Investigations

This site was initially investigated during Phase I of the Appendix III RFI (USAF, 1995b). Samples were collected from five boreholes (ST-337C-01 through -05). Borehole ST-337C-01 was installed at a background location. The remaining holes (ST-337C-02 through -05) were installed in an area exhibiting surface soil staining. All soil samples were analyzed for volatile organic compounds (VOCs) (EPA Method 8240), SVOCs (EPA Method 8270), TPH (EPA Method 8015 Modified), target analyte list (TAL) metals (EPA Method 6010), and polychlorinated biphenyls (PCBs)/pesticides (EPA Method 8080). The analytical results are presented in Table 2-1, with only those compound concentrations that exceeded the method detection levels reported. The results are also summarized below.

- Seven VOCs were detected; all concentrations were significantly below residential HHRB screening levels.

- Eighteen SVOCs were detected, with five at concentrations above residential HHRB screening levels: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno (123-c,d)pyrene. SVOCs above HHRB screening levels were found in samples collected from 0 to 2 ft in boreholes ST-337C-02, ST-337C-04, and ST-337C-05. Other SVOCs detected in samples collected at this site were bis(2-ethylhexy)phthalate, di-n-butylphthalate, 2-methylnaphthalene, naphthalene, and phenol; none of these compounds was above HHRB screening levels.

- Diesel range organics (DRO) were detected in nine samples at concentrations ranging from 7.9 to 5,600 mg/kg. Four samples, collected from 0 to 13 ft in boreholes ST-337C-02 and ST-337C-03, contained concentrations in excess of the 100 mg/kg NMED TPH action level.

- Gasoline range organics (GRO) were detected in five samples at concentrations ranging from 0.29 to 150 mg/kg. One sample (ST-337C-03-0508) contained a concentration in excess of the 100 mg/kg NMED TPH action level (150 mg/kg).

- Arsenic and beryllium were the only metals detected at concentrations exceeding HHRB screening levels. Arsenic was detected in four samples at concentrations above the 6.5-mg/kg upper tolerance limit (UTL). These concentrations are naturally occurring throughout Kirtland AFB (USAF, 1995a).

- Two pesticides, 1,1-bis(chlorophenyl)-2,2-dichlorethene (DDE) and 1,1-bis(chlorophenyl)-2,2,2-trichloroethane (DDT), were detected at concentrations significantly below HHRB screening levels.

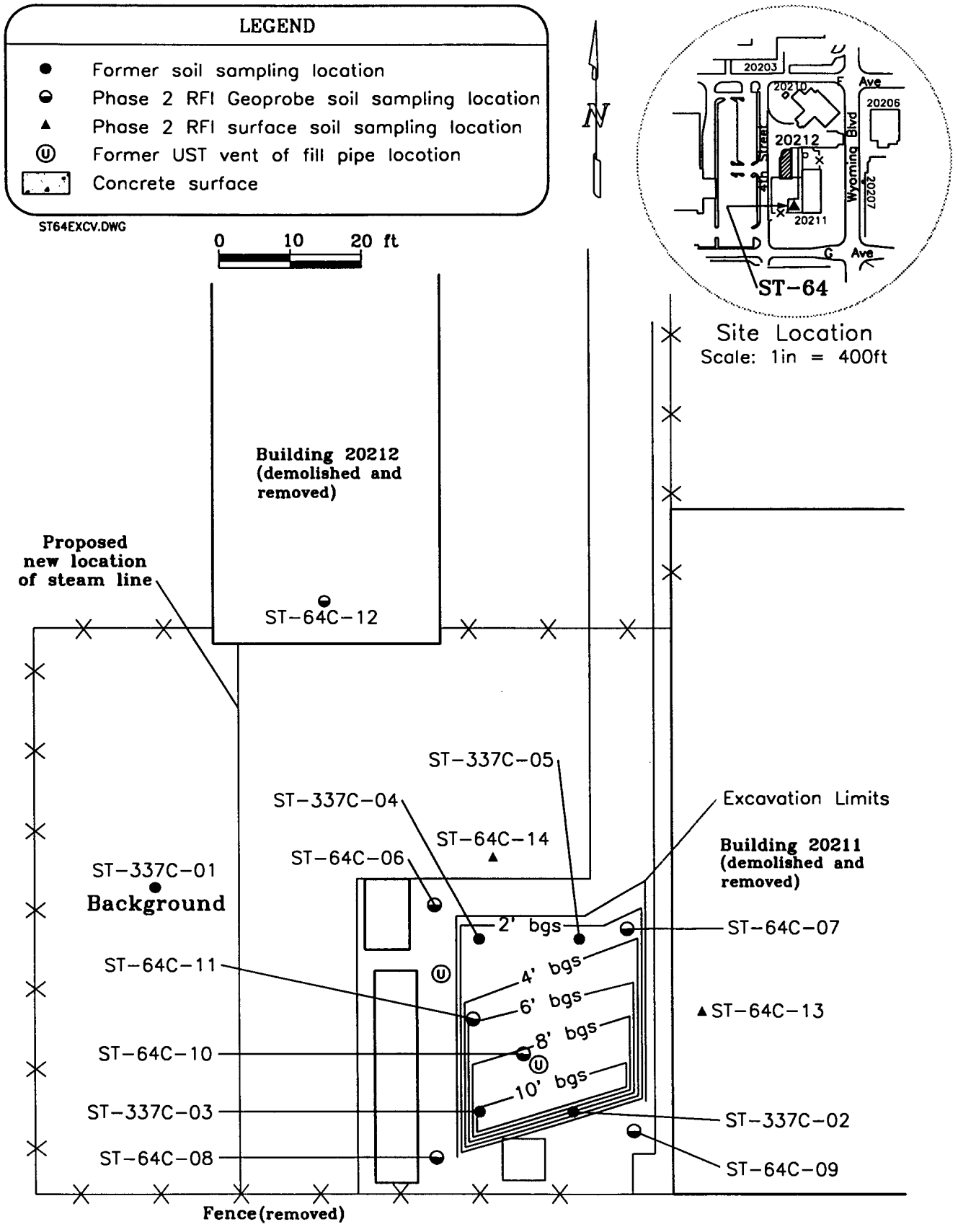


Figure 2-1. Excavation Area for ICM at SWMU ST-64, Building 20212, U.S. Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (Former ST-337)

Table 2-1. Summary of Appendix III Phase 1 RFI Reportable Analytical Results at SWMU ST-64, Building 20212, Former Army Corps of Engineers Vehicle Maintenance Yard (ST-64)

Chemical Class	Analyte	HHRB Screening Level	Borehole Number and Sample Depth Interval (Concentrations in mg/kg)							
			ST337-01		*ST337C-02*			*ST337C-03*		
			5-7	10-12	0-2	5-8	10-13	0-2	5-8	10-13
VOC	Acetone	2,000	ND	0.006	0.004	0.003	ND	ND	0.18	0.087
	Ethylbenzene	2,900	ND	ND	ND	ND	ND	ND	3.2	1.8
	Methyl ethyl ketone	8,700	ND	ND	ND	ND	ND	ND	0.023	0.009
	Methyl isobutyl ketone	5,200	ND	ND	ND	ND	ND	ND	0.009	ND
	Methylene chloride	11.0	0.003	0.003	0.004	0.014	0.013	0.01	0.006	0.008
	Toluene	1,900	ND	0.003	ND	ND	ND	ND	0.003	0.003
	Total Xylenes	980	ND	ND	ND	ND	ND	ND	3.1	0.26
SVOC	Acenapthene	360	ND	ND	0.44	ND	ND	ND	ND	ND
	Anthracene	19.0	ND	ND	0.60	ND	ND	ND	ND	ND
	Benzo(a)anthracene	0.60	ND	ND	**2.6**	ND	ND	ND	ND	ND
	Benzo(a)pyrene	0.06	ND	ND	**1.8**	ND	ND	ND	ND	ND
	Benzo(b)fluoranthene	0.60	ND	ND	**3.5**	ND	ND	ND	ND	ND
	Benzo(g,h,i)perylene	N/A	ND	ND	**1.2**	ND	ND	ND	ND	ND
	Benzo(k)fluoranthene	6.1	ND	ND	1.5	ND	ND	ND	ND	ND
	bis(2-ethylhexyl)Phthalate	32.0	ND	ND	ND	ND	ND	ND	ND	ND
	Chrysene	24.0	ND	ND	3.2	ND	ND	ND	ND	ND
	di-n-Butylphthalate	6,500	ND	ND	ND	ND	ND	ND	ND	ND
	Dibenz(a,h)anthracene	0.06	ND	ND	**0.57**	ND	ND	ND	ND	ND
	Fluoranthane	2,600	ND	ND	6.3	ND	0.55	ND	ND	ND
	Indeno(1,2,3-c,d)pyrene	0.60	ND	ND	**1.2**	ND	ND	ND	ND	ND
	2-Methylnaphthalene	N/A	ND	ND	ND	ND	ND	ND	50.0	59.0
	Naphthalene	800	ND	ND	ND	ND	ND	ND	11.0	13.0
	Phenanthrene	N/A	ND	ND	3.2	ND	ND	ND	ND	ND
	Phenol	39,000	ND	ND	ND	ND	ND	ND	ND	ND
	Pyrene	2,000	ND	ND	5.0	ND	ND	ND	ND	ND
TPH	Diesel Range Organics	100	ND	9.9	46.0	93.0	**140**	**3,300**	**5,600**	**4,400**
	Gasoline Range Organics	100	ND	ND	ND	0.37	0.45	ND	**150**	86.0
METALS	Aluminum	77,000	5,450	3,750	6,860	8,090	9,580	10,800	9,750	6,660
	Arsenic	0.32 [2)]	3.1	2.7	9.5	3.7	3.8	10.6	3.6	2.3
	Barium	5,300	153	100	160	236	221	176	200	168
	Beryllium	0.14 [2)]	0.45	0.33	0.43	0.58	0.55	0.56	0.56	0.33
	Cadmium	38.0	ND	ND	0.54	ND	ND	ND	ND	ND
	Calcium	N/A	36,900	48,200	44,600	48,500	46,600	41,700	47,300	71,800
	Chromium, Total	210	8.6	11.6	11.6	11.0	6.9	7.6	10.2	6.5
	Cobalt	4,700	5.0	5.7	5.7	7.5	5.8	6.6	5.6	4.1
	Copper	2,800	16.0	20.8	20.8	22.8	14.3	13.7	31.3	17.6
	Iron	23,000	8,690	10,100	10,100	12,100	14,100	14,500	14,200	9,850
	Lead	400	6.5	37.5	37.5	8.0	10.6	8.9	5.5	3.4
	Magnesium	N/A	3,820	2,190	3,870	5,430	4,250	4,600	4,250	3,490
	Manganese	380	194	219	219	274	211	197	177	120
	Nickel	1,500	8.3	9.3	9.3	13.0	18.3	10.2	7.9	5.9
	Potassium	N/A	971	1,630	1,630	1,380	1,770	2,250	1,660	1,070
	Sodium	N/A	83.2	62.9	89.1	117	198	106	138	151
	Vanadium	540	18.8	11.9	20.8	25.4	31.6	31.0	33.0	23.5
	Zinc	23,000	30.3	36.8	67.2	41.7	30.7	37.1	30.4	22.2
PESTICIDES	DDE	1.3	ND	ND	ND	ND	ND	ND	ND	0.006
	DDT	1.3	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
1) HHRB Screening Level - EPA Region 6 human health risk-based residential screening level
2) Arsenic and beryllium concentrations are considered to be background concentrations rather than being attributable to anthropogenic activities at the site.
3) Concentrations in excess of screening levels are shown in bold and shaded.

Table 2-1. Summary of Appendix III Phase 1 RFI Reportable Analytical Results at SWMU ST-64, Building 20212, Former Army Corps of Engineers Vehicle Maintenance Yard (ST-64)

Chemical Class	Analyte	HHRB Screening Level	Borehole Number and Sample Depth Interval (Concentrations in mg/kg)						
			ST337C-04				*ST337C-05*		
			0-2	5-7	10-12	30-32	0-2	5-8	10-13
VOC	Acetone	2,000	ND	ND	0.007	ND	ND	0.014	0.005
	Ethylbenzene	2,900	ND	ND	ND	ND	ND	ND	ND
	Methyl ethyl ketone	8,700	ND	ND	ND	ND	ND	0.004	ND
	Methyl isobutyl ketone	5,200	ND	ND	ND	ND	ND	ND	ND
	Methylene chloride	11.0	0.005	0.004	0.004	0.003	0.005	0.005	0.004
	Toluene	1,900	0.018	ND	ND	ND	ND	ND	ND
	Total Xylenes	980	0.026	ND	ND	ND	ND	ND	ND
	Acenapthene	360	ND	ND	ND	ND	ND	ND	ND
	Anthracene	19.0	ND	ND	ND	ND	0.36	ND	ND
	Benzo(a)anthracene	0.60	0.37	ND	ND	ND	**0.87**	ND	ND
	Benzo(a)pyrene	0.06	**0.41**	ND	ND	ND	0.77	ND	ND
	Benzo(b)fluoranthene	0.60	0.48	ND	ND	ND	**0.69**	ND	ND
	Benzo(g,h,i)perylene	N/A	ND	ND	ND	ND	0.40	ND	ND
	Benzo(k)fluoranthene	6.1	0.38	ND	ND	ND	0.77	ND	ND
	bis(2-ethylhexyl)Phthalate	32.0	ND	ND	ND	0.45	ND	ND	ND
	Chrysene	24.0	0.47	ND	ND	ND	0.95	ND	ND
	di-n-Butylphthalate	6,500	ND	0.47	ND	0.49	ND	ND	ND
	Dibenz(a,h)anthracene	0.06	ND	ND	ND	ND	ND	ND	ND
	Fluoranthane	2,600	0.82	ND	ND	ND	2.1	ND	ND
	Indeno(1,2,3-c,d)pyrene	0.60	ND	ND	ND	ND	0.41	ND	ND
	2-Methylnaphthalene	N/A	ND	ND	ND	ND	ND	ND	ND
	Naphthalene	800	ND	ND	ND	ND	ND	ND	ND
	Phenanthrene	N/A	ND	ND	ND	ND	1.5	ND	ND
	Phenol	39,000	ND	0.54	0.58	ND	ND	ND	ND
	Pyrene	2,000	0.66	ND	ND	ND	1.7	ND	ND
TPH	Diesel Range Organics	100	7.9	ND	ND	ND	31.4	ND	ND
	Gasoline Range Organics	100	0.29	ND	ND	ND	ND	ND	ND
METALS	Aluminum	77,000	11,300	9,490	5,990	4,340	10,600	7,210	8,980
	Arsenic [2]	0.32 [2]	17.1	3.4	3.3	1.1	10.9	2.1	2.8
	Barium	5,300	125	224	94.8	67.7	191	179	137
	Beryllium [2]	0.14 [2]	0.54	0.54	0.42	0.31	0.54	0.43	0.43
	Cadmium	38.0	ND	ND	ND	ND	ND	ND	ND
	Calcium	N/A	27,500	31,100	33,000	17,600	33,700	31,500	49,400
	Chromium, Total	210	9.5	1.1	5.5	5.2	8.2	10.6	6.7
	Cobalt	4,700	6.4	6.1	4.2	6.5	6.4	5.2	5.3
	Copper	2,800	14.2	29.9	76.2	76.3	13.5	58.6	11.2
	Iron	23,000	14,700	13,500	8,820	13,000	14,400	10,400	10,900
	Lead	400	20.4	4.2	3.9	3.8	14.9	4.1	5.0
	Magnesium	N/A	4,090	4,450	2,450	2,870	4,200	3,700	3,400
	Manganese	380	215	205	105	189	221	169	119
	Nickel	1,500	9.2	8.6	5.5	11.3	8.2	6.7	7.7
	Potassium	N/A	2,460	1,750	974	1,000	2,230	1,240	1,400
	Sodium	N/A	107	286	263	148	161	196	200
	Vanadium	540	31.7	29.0	21.0	24.4	31.5	21.7	26.4
	Zinc	23,000	37.2	37.3	44.5	46.3	34.2	42.6	21.4
PESTICIDES	DDE	1.3	0.008	ND	ND	ND	0.052	ND	ND
	DDT	1.3	0.022	ND	ND	ND	ND	ND	ND

Notes:
1) HHRB Screening Level - EPA Region 6 human health risk-based residential screening level
2) Arsenic and beryllium concentrations are considered to be background concentrations rather than being attributable to anthropogenic activities at the site.
3) Concentrations in excess of screening levels are shown in bold and shaded.

Follow-on sampling was conducted during the Appendix III Phase 2 RFI (USAF, 1997). Eight boreholes (ST-64C-06 through ST-64C-13) were sampled at 0- to 2-, 5- to 7-, 10- to 12-, and 20- to 22-ft belowground surface (bgs). Additional samples were collected at 10-ft intervals at ST-64C-06 (to 52 ft), ST-64C-09 (to 42 ft), ST-64C-11 (to 32 ft), and ST-64C-13 (to 42 ft) due to elevated photoionization detector (PID) readings. Two surface soil samples (ST-64C-14 and ST-64C-15) were collected in an area formerly covered by a concrete slab. All samples were analyzed for VOCs, SVOCs, and TPH. The analytical results are presented in Table 2-2, with only those compound concentrations that exceeded the method detection levels reported. The results are also summarized below.

- No VOCs were detected in any of the samples collected during the Phase 2 RFI.
- Thirteen SVOCs were detected, all below the HHRB screening levels.
- DROs were detected at concentrations exceeding the 100 mg/kg NMED TPH action level in the 0- to 2-ft samples from boreholes ST-64C-07 (160 mg/kg), ST-64C-10 (420 mg/kg), and ST-64C-11 (170 mg/kg).

2.2 Work Plan and Rationale

Based on the RFI results, an ICM has been recommended for this site. The ICM will consist of excavation, soil characterization, and disposal of TPH and SVOC contaminated soil. The proposed area of excavation is shown in Figure 2-1. Soil contaminated with SVOCs above the HHRB screening levels and TPH above the NMED UST action level of 100 mg/kg will be removed down to a depth of 10 ft bgs. A 10-ft depth of excavation is proposed because this depth is reasonably achievable without requiring significant overexcavation of the area and/or implementation of engineering controls to shore the excavation. Removal of contaminated soil to a depth of 10 ft should mitigate any potential human exposure to compounds that exceed HHRB screening levels. Representative soil samples will be collected from the bottom and sides of the excavated areas to verify contaminant removal. Site-specific ICM activities are described below:

- Excavate an approximately 34 ft x 28 ft x 10 ft (4,358 cu ft) volume of soil.
- Stockpile excavated soil on plastic sheeting adjacent to the excavation.
- Sample soil from the bottom and sides of the excavation. Analyze the samples for SVOCs (EPA Method 8270) and TPH (EPA Method 8015B). If soil concentrations of SVOCs and/or TPH are still present above their respective action levels, remove additional soil. Perform subsequent sampling to confirm removal of contaminated soil.
- Sample the stockpiled soil from the excavation for disposal criteria. Analyze the samples for TPH and SVOCs.
- Secure the excavation with t-posts and caution tape, and cover and secure the excavated stockpile to prevent wind erosion.
- Dispose of the stockpiled soil at Kirtland AFB landfill or permitted treatment facility, as appropriate.
- Backfill the excavated area with clean fill obtained from Kirtland AFB.

Table 2-2. Summary of Appendix III Phase 2 RFI Reportable Analytical Results at SWMU ST-64, Building 20212, Former Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (Concentrations in mg/kg)

Chemical Class	Analyte	HHRB [1] Screening Level	Borehole Number and Sample Depth Interval								
			ST-64C-06		*ST-64C-07*			*ST-64C-08*			*ST-64C-09*
			30–32	*50–52*	*0–2*	*0–2*	*20–22*	*0–2*	*10–12*	*20–22*	*0–2*
TPH	Diesel Range	100	4.4	17.0	64.0	**160**	7.8	33.0	6.4	7.4	6.0
	Gasoline Range	100	<0.21	<0.21	<0.20	NA	<0.21	<0.20	<0.22	<0.21	<0.21

Chemical Class	Analyte	HHRB [1] Screening Level	Borehole Number and Sample Depth Interval							
			ST-64C-10				*ST-64C-11*	*ST-64C-12*	*ST-64C-13*	*ST-64C-14*
			0–2	*0–2*	*5–7*	*20–22*	*0-2*	*5–7*	*40–42*	*0–2*
TPH	Diesel Range	100	**420**	26.0	85.0	8.3	**170**	<5.0	9.2	5.8
	Gasoline Range	100	<0.21	<5.0	6.1	<0.21	<5.0	11.0	<0.22	<0.21

Notes:

1) HHRB Screening Level - EPA Region 6 human health risk-based residential screening level

2) Concentrations in excess of screening levels are shown in bold and shaded.

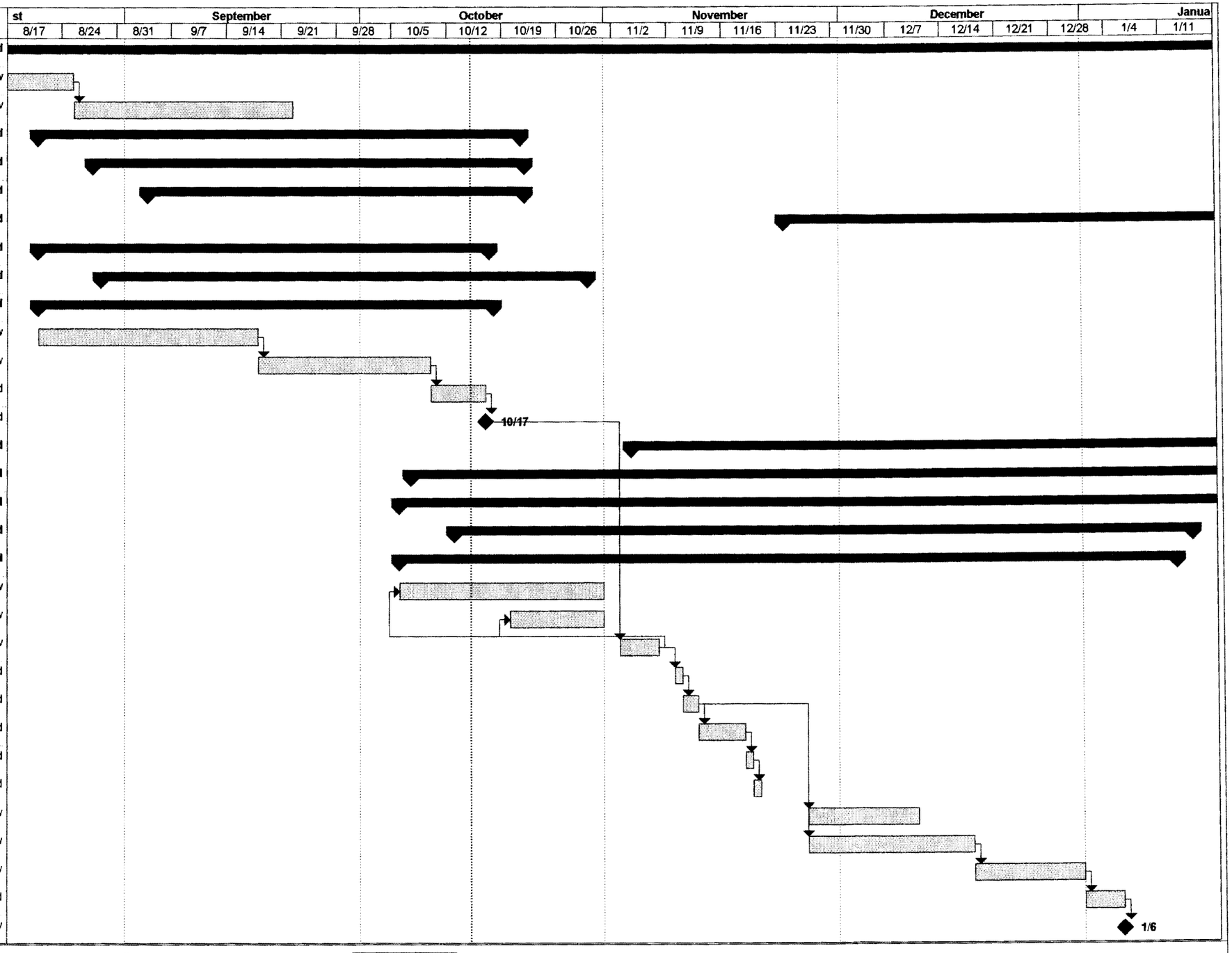
This removal action should eliminate potential exposure to SVOC and TPH contaminated soil and effectively reduce the risk to human health and the environment. In addition to this ICM, this site is scheduled to be capped with 6 inches of asphalt as part of a parking lot.

2.3 ICM Schedule

A summary of the expected schedule for conducting ICM activities and providing deliverable reports is presented below. A more detailed graphic schedule also is attached (Figure 2-2).

Submittal of Final Draft ICM Work Plan	October 15, 1997
ICM Field Activities	November 3 through November 20, 1997
Submittal of Draft ICM Report	December 17, 1997
Submittal of Final Draft ICM Report	One week after receipt of Kirtland AFB comments on Draft ICM Report
Submittal of Final ICM Report	60 days after receipt of comments on Final Draft Report from EPA, NMED, and the public

ID	Task Name	Duration
1	**TASK 1- MOD1 WORKPLANS**	**141d**
2	1.1 - Project Planning/Scoping Meetings, Pre-Survey	4.5w
3	1.2 - Project Schedule	4w
4	**1.3 ST-66 SA Workplan**	**43.5d**
9	**1.4 ST-64 CMS Workplan**	**39d**
14	**1.5 RW-68 CMS Workplan**	**34d**
19	**1.6 ST-70 CMS Workplan**	**54d**
26	**1.7 ST-70 ICM Workplan**	**41.5d**
31	**1.8 WP-58 ICM Workplan**	**44d**
36	**1.9 ST-64 ICM Workplan**	**42d**
37	1.9.1 - Draft Workplans	4w
38	1.9.2 - KAFB Draft Review	3.2w
39	1.9.3 - Final Draft Workplans	5d
40	1.9.4 - Final Draft Workplans to EPA and NMED	1d
41	**TASK 2- SITE ASSESSMENT AT ST-66**	**86d**
51	**TASK 3- CORRECTIVE MEASURES STUDIES AT ST-64, RW-68**	**169d**
93	**TASK 4- INTERIM CORRECTIVE MEASURES AT ST-70, WP-58**	**79d**
94	**4.1 ICM at ST-70**	**68d**
108	**4.2 ICM ST-64**	**71d**
109	4.2.1 Subcontracting	4w
110	4.2.2 Permits, etc	2w
111	4.2.3 Excavation	1w
112	4.2.4 Verification Sampling	1d
113	4.2.5 Sample Analysis	2d
114	4.2.6 Backfill	4d
115	4.2.7 Landscaping	1d
116	4.2.8 Demob	1d
117	4.2.9 Data Validation	2w
118	4.2.10 Draft ICM Report	3w
119	4.2.11 Kirtland Review of Draft ICM Report	2w
120	4.2.12 Final Draft ICM Report	3d
121	4.2.13 Final Draft ICM Report to EPA and NMED	1w



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