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DEPARTMENT OF ENVIRONMENTAL QUALITY

ATTACHMENTS to the HWMA CORRECTIVE ACTION PERMIT

for the

MOUNTAIN HOME AIR FORCE BASE

EPA ID No. ID3572124557

Effective Date: January 11, 2015

Revision Date: March 16, 2020

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

LIST OF ATTACHMENTS

EFFECTIVE DATE: JANUARY 11, 2015
REVISION DATE: AUGUST 8, 2016

LIST OF ATTACHMENTS

The following attachment list includes excerpts from the Permittee' s Administrative Record, i.e., permit application, supplemental reports, and other documents contained in the Department's supporting file for the Permit. The Director has, as deemed necessary, modified specific language in the Attachments. These modifications are described in the permit conditions (Modules I through V), and thereby supersede the language of the original Attachments. If the language of the Permit conflicts with either the Attachments or the original application, the language in the Permit shall prevail. These incorporated Attachments are enforceable conditions of this Permit as modified by the specific permit condition(s).

ATTACHMENT 1 **RCRA PART A PERMIT APPLICATION**, consisting of:

RCRA Subtitle C Site Identification Form, pages 1 through 5 of the permit application

Hazardous Waste Permit Information Form, pages 1 through 6 of the permit application

ATTACHMENT 2 **FACILITY DESCRIPTION**, consisting of:

LIST OF ACRONYMS AND ABBREVIATIONS, of the permit application

Section 1.0, INTRODUCTION, pages 1-1 through 1-3 of the permit application

Section 2.0, GENERAL FACILITY DESCRIPTION, page 2-1 through 2-4 of the permit application

ATTACHMENT 3 **SECURITY**, consisting of:

Section 3.0, SECURITY, page 3-1 of the permit application

Appendix D, SECURITY PROCEDURES, pages D-1 through D-5, of the permit application

ATTACHMENT 4 **SOLID WASTE MANAGEMENT UNITS**, consisting of:

Section 4.0, SOLID WASTE MANAGEMENT UNITS, page 4-1 of the permit application

Section 4.10, SOLID WASTE MANAGEMENT UNITS, page 4-1 of the permit application

Section 4.2, FFA SITES, pages 4-2 through 4-41 of the permit application

Section 4.2, NON-FFA SITES, pages 4-42, 4-44, 4-46 through 4-57 of the permit application

Section 4.3, OIL WATER SEPARATORS, Table C of the permit application (renumbered as Table 4-3),

Section 4.4, OWS 1100 – CLOSED IN PLACE 1996, supplement to the permit application.

ATTACHMENT 5 **CORRECTIVE ACTION FOR SWMUS**, consisting of:

Sections 5.0 through 5.1, CORRECTIVE ACTION FOR SWMUS, page 5-1 of the permit application, except that the second paragraph under 5-1, Existing SWMUs, shall be revised as follows:

"The purpose of this permit is to provide for jurisdiction under the RCRA corrective actions program in the event the FFA terminates prior to selection of the final remedy under the FFA process for the sites addressed by this proposed permit. It is further expected that any of the two previously identified sites (FT-08 and SD-24) for which a "No Further Action" determination is made under the FFA process will be the subject of a Class 1 RCRA Permit Modification to delete that site from the proposed permit. Should the FFA be terminated, the most recent schedule of corrective action in the FFA shall be incorporated into the RCRA Part B Permit. Should MHAFB need additional days added to some of the scheduled deadlines to facilitate the transfer of funding and administration of project activities as warranted by USAF guidelines, MHAFB will notify IDEQ and work with IDEQ to determine the revised deadlines."

Section 5.3, Table A. FFA SWMUs, pages 5-2 through 5-11 of the permit application (renumbered as Table 5-1)

Section 5.4, Table A. Non-FFA SWMUs, pages 5-12 through 5-28 of the permit application (renumbered as Table 5-2)

ATTACHMENT 6 **POST-CLOSURE CARE**, consisting of:

Appendix E-1, SOLID WASTE MANAGEMENT UNIT DESCRIPTIONS, Pages E-1 though E-9 of the permit application, except that item 6.1, POL (ST-13) Cap Inspection and Maintenance Plan, and item 10, POL Storage Yard, AST Tank 2 (Part of ST-38) shall be deleted; and item 11 shall be renumbered as item 10.

Figures 6-1 through 6-14, supplemental information for the permit application

ATTACHMENT 7 **CLOSURE**, consisting of:

Closure documents from MHAFB Administrative Record at DEQ State Office.

ATTACHMENT 8 **ENVIRONMENTAL RESTORATION SITES,** consisting of:

Section 8.0, Environmental Restoration Sites at Mountain Home AFB-FFA, pages 8-1 through 8-2 of the permit application

ATTACHMENT 9 **MAPS**, consisting of:

Section 9.0, MAPS, Figures 1 through 7 of the permit application (renumbered as Figures 9-1 through 9-7)

ATTACHMENT 10 **GROUNDWATER MONITORING PROGRAM,** consisting of

Appendix B, GROUNDWATER MONITORING PLAN, pages B-1 through B-2 of the permit application

ATTACHMENT 11 **FEDERAL FACILITY AGREEMENT,** consisting of**:**

Appendix C, FEDERAL FACILITY AGREEMENT, pages C-1 though C-79 of the permit application

LIST OF RECORDS OF DECISION, from DEQ files

LIST OF CONSENT ORDERS, from DEQ files

LIST OF NO FURTHER ACTION DETERMINATIONS from DEQ files

ATTACHMENT 12 **PERMIT MODIFICATION/REVISION LOG,** consisting of:

Table 12-1. Permit Modification/Revision Log

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HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

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EFFECTIVE DATE: JANAUARY 11, 2015
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HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 1 – RCRA PART A PERMIT APPLICATION

RCRA Subtitle C Site Identification Form
Hazardous Waste Permit Information Form

EFFECTIVE DATE: JANAUARY 11, 2015

RCRA SUBTITLE C SITE IDENTIFICATION FORM

OMB# 2050-0024; Expires 12/31/2014

SEND COMPLETED FORM TO: The Appropriate State or Regional Office.	United States Environmental Protection Agency **RCRA SUBTITLE C SITE IDENTIFICATION FORM**

1. Reason for Submittal (MARK ALL BOX(ES) THAT APPLY)

Reason for Submittal:

- ☐ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location)
- ☐ To provide a Subsequent Notification (to update site identification information for this location)
- ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application
- ☒ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # 7/28/2003)
- ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below)
  - ☐ Site was a TSD facility and/or generator of ≥1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)

2. Site EPA ID Number

EPA ID Number I D 3 5 7 2 1 2 4 5 5 7

3. Site Name

Name: Mountain Home Air Force Base

4. Site Location Information

Street Address: 1030 Liberator Road

City, Town, or Village: Mountain Home AFB | **County:** Elmore

State: Idaho | **Country:** USA | **Zip Code:** 83648

5. Site Land Type

☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

6. NAICS Code(s) for the Site (at least 5-digit codes)

A. 9 2 8 1 1 0 | C.

B. | D.

7. Site Mailing Address

Street or P.O. Box: 366 CES/CEIE, 1030 Liberator Road

City, Town, or Village: Mountain Home AFB

State: Idaho | **Country:** USA | **Zip Code:** 83648

8. Site Contact Person

First Name: Curtis | **MI:** D | **Last:** Ohlsen

Title: Hazardous Waste Program Manager

Street or P.O. Box: 366 CES/CEIE, 1030 Liberator Road

City, Town or Village: Mountain Home AFB

State: Idaho | **Country:** USA | **Zip Code:** 83648

Email: curtis.ohlsen@us.af.mil

Phone: 208-828-1641/4120/6351 | **Ext.:** | **Fax:** 208-828-2194

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner: U.S. Air Force, 366 Fighter Wing | **Date Became Owner:** 8/7/1943

Owner Type: ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street or P.O. Box: 366 Gunfighter Avenue

City, Town, or Village: Mountin Home AFB | **Phone:** 208-828-2366

State: Idaho | **Country:** USA | **Zip Code:** 83648

B. Name of Site's Operator: U.S. Air Force, 366 CES/CEIE | **Date Became Operator:** 8/7/1943

Operator Type: ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

EPA ID Number | I | D | 3 | 5 | 7 | 2 | 1 | 2 | 4 | 5 | 5 | 7 | OMB#: 2050-0024; Expires 12/31/2014

10. Type of Regulated Waste Activity (at your site)
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities; Complete all parts 1-10.

Y ☑ N ☐ **1. Generator of Hazardous Waste**
If "Yes", mark only one of the following – a, b, or c.

- ☑ a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; **or** Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo) of acute hazardous waste; **or** Generates, in any calendar month, **or** accumulates at any time, more than 100 kg/mo (220 lbs./mo) of acute hazardous spill cleanup material.
- ☐ b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs./mo) of non-acute hazardous waste.
- ☐ c. CESQG: Less than 100 kg/mo (220 lbs./mo) of non-acute hazardous waste.

If "Yes" above, indicate other generator activities in 2-4.

Y ☐ N ☑ **2. Short-Term Generator** (generate from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.

Y ☐ N ☑ **3. United States Importer of Hazardous Waste**

Y ☐ N ☑ **4. Mixed Waste (hazardous and radioactive) Generator**

Y ☐ N ☑ **5. Transporter of Hazardous Waste**
If "Yes", mark all that apply.
- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☑ **6. Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste Part B permit is required for these activities.

Y ☐ N ☑ **7. Recycler of Hazardous Waste**

Y ☐ N ☑ **8. Exempt Boiler and/or Industrial Furnace**
If "Yes", mark all that apply.
- ☐ a. Small Quantity On-site Burner Exemption
- ☐ b. Smelting, Melting, and Refining Furnace Exemption

Y ☐ N ☑ **9. Underground Injection Control**

Y ☐ N ☑ **10. Receives Hazardous Waste from Off-site**

B. Universal Waste Activities; Complete all parts 1-2.

Y ☐ N ☑ **1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all that apply.**

- a. Batteries ☐
- b. Pesticides ☐
- c. Mercury containing equipment ☐
- d. Lamps ☐
- e. Other (specify) _____ ☐
- f. Other (specify) _____ ☐
- g. Other (specify) _____ ☐

Y ☐ N ☑ **2. Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities; Complete all parts 1-4.

Y ☐ N ☑ **1. Used Oil Transporter**
If "Yes", mark all that apply.
- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☑ **2. Used Oil Processor and/or Re-refiner**
If "Yes", mark all that apply.
- ☐ a. Processor
- ☐ b. Re-refiner

Y ☐ N ☑ **3. Off-Specification Used Oil Burner**

Y ☐ N ☑ **4. Used Oil Fuel Marketer**
If "Yes", mark all that apply.
- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

EPA ID Number | I | D | 3 | 5 | 7 | 2 | 1 | 2 | 4 | 5 | 5 | 7 | OMB#: 2050-0024; Expires 12/31/2014

D. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

❖ You can **ONLY** Opt into Subpart K if:

- you are at least one of the following: a college or university; a teaching hospital that is owned by or has a formal affiliation agreement with a college or university; or a non-profit research institute that is owned by or has a formal affiliation agreement with a college or university; AND
- you have checked with your State to determine if 40 CFR Part 262 Subpart K is effective in your state

Y ☐ N ☑ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories **See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:**

☐ a. College or University

☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university

☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

Y ☐ N ☑ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Waste

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D002	D003	D004	D006	D007	D008
D009	D011	D018	D035	D039	D040	F002
F003	F005	P030	U188			

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-Regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

Not Applicable						

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12. Notification of Hazardous Secondary Material (HSM) Activity

Y ☐ N ☑ Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

14. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	David R. Iverson Colonel, USAF,	
	Commander 366th Fighter Wing	

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ADDENDUM TO THE SITE IDENTIFICATION FORM:
NOTIFICATION OF HAZARDOUS SECONDARY MATERIAL ACTIVITY

ONLY fill out this form if:

- ❖ You are located in a State that allows you to manage excluded hazardous secondary material (HSM) under 40 CFR 261.2(a)(2)(ii), 261.4(a)(23), (24), or (25) (or state equivalent). See http://www.epa.gov/epawaste/hazard/dsw/statespf.htm for a list of eligible states; **AND**
- ❖ You are or will be managing excluded HSM in compliance with 40 CFR 261.2(a)(2)(ii), 261.4(a)(23), (24), or (25) (or state equivalent) **or** you have stopped managing excluded HSM in compliance with the exclusion(s) and do not expect to manage any amount of excluded HSM under the exclusion(s) for at least one year. Do not include any information regarding your hazardous waste activities in this section.

1. Indicate reason for notification. Include dates where requested.

☐ Facility will begin managing excluded HSM as of _____ (mm/dd/yyyy).

☐ Facility is still managing excluded HSM/re-notifying as required by March 1 of each even-numbered year.

☐ Facility has stopped managing excluded HSM as of _____ (mm/dd/yyyy) and is notifying as required.

2. Description of excluded HSM activity. Please list the appropriate codes and quantities in **short tons** to describe your excluded HSM activity ONLY (do not include any information regarding your hazardous wastes). Use additional pages if more space is needed.

a. **Facility code** (answer using codes listed in the Code List section of the instructions)	b. **Waste code(s) for HSM**	c. **Estimated short tons of excluded HSM to be managed annually**	d. **Actual short tons of excluded HSM that was managed during the most recent odd-numbered year**	e. **Land-based unit code** (answer using codes listed in the Code List section of the instructions)
	Not Applicable			

3. Facility has financial assurance pursuant to 40 CFR 261.4(a)(24)(vi). (Financial assurance is required for reclaimers and intermediate facilities managing excluded HSM under 40 CFR 261.4(a)(24) and (25))

Y ☐ N ☐ Does this facility have financial assurance pursuant to 40 CFR 261.4(a)(24)(vi)?

EPA Form 8700-12, 8700-13 A/B, 8700-23 (Revised 12/2011) Addendum Page 5 of 5

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HAZARDOUS WASTE PERMIT INFORMATION FORM

EPA ID Number | I | D | 3 | 5 | 7 | 2 | 1 | 2 | 4 | 5 | 5 | 7 | OMB#: 2050-0024; Expires 12/31/2014

United States Environmental Protection Agency

HARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact	**First Name:** Curtis	**MI:**	**Last Name:** Ohlsen
	Contact Title: Hazardous Waste Program Manager		
	Phone: 208-828-1684	**Ext.:**	**Email:** curtis.ohlsen@mountainhome.af
2. Facility Permit Contact Mailing Address	**Street or P.O. Box:** 1030 Liberator Road		
	City, Town, or Village: Mountain Home AFB		
	State: Idaho		
	Country: USA	**Zip Code:** 83648	
3. Operator Mailing Address and Telephone Number	**Street or P.O. Box:** 1030 Liberator Road		
	City, Town, or Village: Mountain Home AFB		
	State: Idaho	**Phone:** 208-828-1684	
	Country: USA	**Zip Code:** 83648	
4. Facility Existence Date	**Facility Existence Date (mm/dd/yyyy):** 11/1942		

5. Other Environmental Permits

A. Facility Type *(Enter code)*	B. Permit Number	C. Description
E	056 0-001	State Air Emissions Permit
N	ID-0027 64-2	NPDES WW Discharge
E	LA-0001 54-03	Wastewater Reuse Permit
N	IDR05C297	MSGP, Stormwater Discharge Permit
E	P2012 0029	Construction Permit
P	T12007 0041	Air Quality Operating Permit

6. Nature of Business: National Defense

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7. Process Codes and Design Capacities – Enter information in the Section on Form Page 3

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 8.

B. PROCESS DESIGN CAPACITY – For each code entered in Item 7.A; enter the capacity of the process.

1. **AMOUNT – Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.**
2. **UNIT OF MEASURE – For each amount entered in Item 7.B(1), enter the code in Item 7.B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.**

C. PROCESS TOTAL NUMBER OF UNITS – Enter the total number of units for each corresponding process code.

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity
Disposal		
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectares-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
Storage		
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
Treatment		
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Metric Tons Per Hour; or Million BTU Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Short Tons Per Day; BTUs Per Hour; Gallons Per Day; Liters Per Hour; or Million BTU Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; or Million BTU Per Hour

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity (for T81 – T94)
Treatment (Continued)		
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; Liters Per Hour; Kilograms Per Hour; or Million BTU Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR 260.10	
T94	Containment Building Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTU Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million BTU Per Hour
Miscellaneous (Subpart X)		
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; or Million BTU Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

Unit of Measure	Unit of Measure Code
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V
Short Tons Per Hour	D
Short Tons Per Day	N
Metric Tons Per Hour	W
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	X
Million BTU Per Hour	X
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
BTU Per Hour	I

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7. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 7 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. PROCESS DESIGN CAPACITY (2) Unit of Measure	C. Process Total Number of Units	For Official Use Only
X	1	S	0	2	533.788	G	001	
	1				Not Applicable, managed			
	2				under 90 day rule			
	3							
	4							
	5							
	6							
	7							
	8							
	9							
1	0							
1	1							
1	2							
1	3							

Note: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the line sequentially, taking into account any lines that will be used for "other" process (i.e., D99, S99, T04, and X99) in Item 8.

8. Other Processes (Follow instructions from Item 7 for D99, S99, T04, and X99 process codes)

Line Number (Enter #s in sequence with Item 7)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. PROCESS DESIGN CAPACITY (2) Unit of Measure	C. Process Total Number of Units	For Official Use Only
X	2	T	0	4	100.00	U	001	
					Not Applicable, managed			
					under 90 day rule			

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9. Description of Hazardous Wastes - Enter Information in the Sections on Form Page 5

A. **EPA HAZARDOUS WASTE NUMBER** – Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in Item 9.A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Item 9.A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in Item 9.B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all listed hazardous wastes.

For non-listed waste: For each characteristic or toxic contaminant entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. Enter the first two as described above.
2. Enter "000" in the extreme right box of Item 9.D(1).
3. Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 9.E.

2. PROCESS DESCRIPTION: If code is not listed for a process that will be used, describe the process in Item 9.D(2) or in Item 9.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in Item 9.A. On the same line complete Items 9.B, 9.C, and 9.D by estimating the total annual quantity of the waste and describing all the processes to be used to store, treat, and/or dispose of the waste.
2. In Item 9.A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Item 9.D.2 on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING Item 9 (shown in line numbers X-1, X-2, X-3, and X-4 below) – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)								(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0			
X	2	D	0	0	2	400	P	T	0	3	D	8	0			
X	3	D	0	0	1	100	P	T	0	3	D	8	0			
X	4	D	0	0	2											Included With Above

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9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number		A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)	D. PROCESSES (2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
	1		NOT			
	2		APPLICABLE			
	3					
	4					
	5					
	6					
	7					
	8					
	9					
1	0					
1	1					
1	2					
1	3					
1	4					
1	5					
1	6					
1	7					
1	8					
1	9					
2	0					
2	1					
2	2					
2	3					
2	4					
2	5					
2	6					
2	7					
2	8					
2	9					
3	0					
3	1					
3	2					
3	3					
3	4					
3	5					
3	6					

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10.	**Map**
	Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.
11.	**Facility Drawing**
	All existing facilities must include a scale drawing of the facility (see instructions for more detail).
12.	**Photographs**
	All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas (see instructions for more detail).
13.	**Comments**

10 and 11, Map and Facility Drawing are included in Part B of this permit application under maps tab.
12. No photographs included as there are no hazardous waste storage, treatment or disposal areas applicable under this permit.

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 2 – FACILITY DESCRIPTION

EFFECTIVE DATE: JANUARY 11, 2015

LIST OF ACRONYMS AND ABBREVIATIONS

ACC	Air Combat Command
AFB	Air Force Base
AMSL	Above Mean Sea Level
AOC	Area of Concern
AR	Administrative Record
ARAR	Applicable Relevant and Appropriate Requirements
AST	Aboveground Storage Tank
BDU	Bomb Disposal Unit (Practice bomb)
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
BX	Base Exchange
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CES	Civil Engineering Squadron
CFR	Code of Federal Regulations
CIMP	Cap Inspection and Maintenance Plan
COC	Contaminant of Concern
CWA	Clean Water Act
DOD	Department of Defense
DRMO	Defense Reutilization and Marketing Offices
EE/CA	Engineering Evaluation/Cost Analysis
EOD	Explosive Ordnance Disposal
ERP	Environmental Restoration Program
EWR	Electronic Warfare Range
FEMA	Federal Emergency Management Agency
FFA	Federal Facilities Agreement
FUDS	Formerly Used Defense Site
FY	Fiscal Year
ESD	Explanation of Significant Differences
ERP	Environmental Restoration Program
FEMA	Federal Emergency Management Agency
FOUO	For Official Use Only
GRO	Gasoline Range Organics
HWMA	Hazardous Waste Management Act
IAW	In accordance with
IC	Institutional Control
IDAPA	Idaho Administrative Procedure Act
IDEQ	Idaho Department of Environmental Quality
IDHW	Idaho Department of Health and Welfare
IRP	Installation Remediation Program
JATO	Jet Assisted Take Off
LQG	Large Quantity Generator
LTM	Long Term Monitoring
LOX	Liquid Oxygen

LUCS	Land Use Controls
MHAFB	Mountain Home Air Force Base
MMRP	Military Munitions Response Program
MOGAS	Motor Gasoline (unleaded)
MSA	Munitions Storage Area
MSW	Municipal Solid Waste
MW	Monitoring Well
MWR	Morale, Welfare and Recreation
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFA	No Further Action
NFRAP	No Further Remedial Action Proposed
NPDES	National Pollutant Discharge Elimination System
OU	Operable Unit
OWS	Oil Water Separator
PA	Preliminary Assessment
PAH	Polyaromatic Hydrocarbons
PBC	Performance Based Contract
PBR	Performance Based Restoration
PCB	Polychlorinated Biphenol
PRG	Preliminary Remediation Goal
POL	Petroleum, Oil, Lubricant
PVC	Polyvinyl Chloride
RA	Remedial Action
RA-O	Remedial Action – Objective
RBC	Risk Based Cleanup
RAGs	Risk Assessment Guidance
RBCA	Risk Based Corrective Action
RCRA	Resource Conservation Recovery Act
REM	Risk Evaluation Manual
RFA	RCRA Facility Assessment
ROD	Record of Decision
SAC	Strategic Air Command
SAR	Small Arms Range
SIF	Site Identification Form
SVE	Soil Vapor Extraction
SVOC	semi-volatile organic compound
SWMU	Solid Waste Management Unit
TAC	Tactical Air Command
TCE	Trichloroethylene or Trichloroethene
TCLP	Toxicity Characteristic Leaching Procedure
TRPH	Total Recoverable Petroleum Hydrocarbons
TSDF	Treatment, Storage, and Disposal Facility
UU/UE	Unlimited Use/Unrestricted Exposure
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USEPA	U.S. Environmental Protection Agency

UST	Underground Storage Tank
VE	Vapor Extraction
VH	Verlinda Hill
VOC	Volatile Organic Compound

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1.0 INTRODUCTION

Mountain Home Air Force Base (MHAFB) has prepared this Resource Conservation and Recovery Act (RCRA) Part B Permit Application to comply with Idaho Administration and Procedures Act (IDAPA) 58.01.05.012, Hazardous Waste Permit Program. RCRA Part B permits are valid for 10 years. MHAFB's original RCRA Part B Permit #ID3572124557 (MHAFB, 1992) expired October 21, 2002. The current permit expired on July 28, 2013. MHAFB submitted an Application 180 days prior to the expiration date of the existing permit in accordance with 40 CFR 270.14.h. This updated application is being submitted in response to a Notice of Deficiency from the State of Idaho Department of Environmental Quality (IDEQ) and addresses the comments from the State.

The hazardous waste storage unit (HWSU) covered under the original permit was closed in accordance with the requirements for closure of the HWSUs as described in Module II, Section L (II.L) of the General Facility Conditions and Attachment 8, August 20, 1991 "Closure Plan, Section f, Revision No.4 (the Closure Plan), of Permit. Closure activities included preparation of a Closure Operation Plan, removal of all materials from the HWSUs, facility decontamination, sampling to document completed decontamination and preparation of a report summarizing project activities and certifying the facility closure was performed in accordance with the requirements of the Closure Operation Plan. The Closure Certification Report was submitted to the IDEQ on August 15, 2001, with subsequent approval from IDEQ granted in a letter dated October 31, 2001. Documentation verifying the IDEQ approval of the HWSUs closure activities for Units 1 and 2 are included in Appendix A (Closure Certification Report, submitted 21 August 2001).

The HWSU (SS-30) consisted of three parts,

1. Unit 1 (HW Storage Pad - Bldg. 1316) is a concrete block structure with an attached concrete loading/unloading pad. The northwest room was used for storage of flammable chemicals and the northeast room historically housed toxic chemicals. In addition, separate designated areas were used for storage of acids, bases and chemicals categorized as reactive. Building 1316 was constructed and received its first shipment of hazardous waste in 1995.

2. Unit 2 (HW Storage Pad - Bldg. 1326) is situated southeast of Building 1316 and consists of a concrete slab covered by a pre-engineered metal roof. Two sides of the building are covered with metal sheeting and the two end walls are covered with plastic wind curtains. Building 1326 was constructed and received the first shipment of hazardous waste in 1991. Prior to construction of Building 1316, Building 1326 was used for storage of hazardous waste. After Building 1316 was put into service in 1995, Building 1326 was used as an overflow staging area for transporting wastes off site.

3. Unit 3 (HW Storage Pad) is located 240-300 feet southwest of Building 1326 and 1316. Prior to December 1987, it was the initial receiving point for drummed wastes collected from the Base. The 23 September 2010 ROD Amendment (Table 1-1) recommended that no further action be done at this site. The Site is now used to store pipe, conduit, and some decommissioned USTs.

Being that no active HWSU's exist at MHAFB since the one identified and closed in the 1992 permit, this RCRA Part B Permit Application is an extension of the current 2003 RCRA Part B Permit that focused on sites, identified for this purpose as solid waste management units (SWMUs), that are being actively remediated through the Federal Facilities Agreement (FFA) Team via the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Requirements for inclusion of a waste analysis plan, contingency plan, inspection plan, preparedness and prevention plan, traffic pattern map, and closure cost estimate under 40 CFR 270.14 and 40 CFR 264 for the closed HWSU no longer apply and therefore are not included in this application.

MHAFB utilizes the services of contractors to perform remediation activities and ground water monitoring. Base contractors are required to provide appropriate training to their respective employees. MHAFB also requires the managers of such protocols to be properly trained in accordance with OSHA regulations, 29 CFR 1910.120. All ground water monitoring activities are performed in accordance with the Ground Waste Monitoring Plan (included in Appendix B) through the FFA.

In January 1992, the United States Environmental Protection Agency (USEPA) Region X, Idaho Department of Health and Welfare (IDHW) the predecessor of the IDEQ, and MHAFB signed a Federal Facilities Agreement (FFA), Appendix C. The FFA addresses the remedial investigation (RI) processes, schedule of deliverables, implementation of remedial actions, compliance, and the integration of RCRA/Idaho Hazardous Waste Management Act (IHWMA)/CERCLA programs (Section V, 5.1, FFA). The integration of the aforementioned programs is as follows:

> "The Parties intend to integrate USAF's CERCLA response obligations and corrective action obligations of RCRAIHWMA which relate to the release(s) of hazardous substances, hazardous wastes, pollutants, or contaminants covered by this Agreement into this comprehensive Agreement. Therefore, the parties intend that activities covered by this Agreement will achieve compliance with CERCLA, 42.U.S.C. §9601, et seq., and applicable state law; satisfy the corrective action requirements of Sections 3004 (u) and (v), 42 U.S.C. §6924 (u) and (v), for a RCRA permit, and Section 3008 (h), 42 U.S.C. §6928 {h), for interim status facilities; satisfy corrective action requirements of HWMA; and meet or exceed all applicable or relevant and appropriate federal and state laws and regulations, to the extent required by Section 121 of CERCLA, 42 U.S.C. §9621.
>
> Based upon the foregoing, the Parties intend that any RA selected, implemented, and completed under this Agreement shall be deemed by the Parties to be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further corrective action under RCRA (FFA, 1992)."

To summarize, the general intent of the FFA is: to ensure that the environmental effects of releases of CERCLA hazardous substances to the environment at MHAFB are thoroughly investigated and appropriate remedial actions are taken to protect public health, welfare and the environment; establish a framework and schedule for developing, implementing and monitoring

response actions in accordance with CERCLA, RCRA, and the HWMA; and to facilitate cooperation, exchange of information and participation of the USEPA, IDHW and MHAFB in such actions {FFA, 1992). As such, SWMUs identified at MHAFB fall under existing guidelines of the FFA. Pursuant to Section 5 of the FFA, all investigations and subsequent remedial activities for existing and/or newly identified SWMUs are performed under the requirements of the existing FFA (FFA, 1992).

The Applicable Relevant and Appropriate Requirements (ARARs) for waste analysis, inspection, training, emergency preparedness and contingency planning for management of hazardous wastes at those sites being managed in accordance with the FFA are described in the Environmental Restoration Project (ERP) working documents, which can be found in the MHAFB Information Repository, located in building 1297.

For any SWMUs not included under the FFA, or for any newly-identified SWMUs, the appropriate waste analysis, inspection, training, emergency preparedness and contingency planning information, plans and record keeping requirements are included or will be developed as needed in accordance with applicable permit conditions addressing the corrective action process.

Waste analysis, inspection, training, emergency preparedness and contingency planning information, plans and records are available at the Base Environmental Office, located at 1030 Liberator Street, MHAFB.

2.0 GENERAL FACILITY DESCRIPTION

2.1 FACILITY DESCRIPTION

MHAFB is an active United States Air Force (USAF) military installation located approximately 10 miles southwest of the town of Mountain Home and approximately 40 miles southeast of Boise, Idaho (Figure 1). The Base lies at an elevation of 2,985 to 3,049 feet above mean sea level (amsl) and occupies about 5,800 acres within Township 4 South, Range 5 East, Sections 16, 17, 20, 21, 22, 27, 28, 29, 32, 33 and 34 in Elmore County (Figure 2). According to 2011 economic impact analysis report, Mountain Home AFB has 3,648 military personnel and their dependents living on base, with an additional 7,221 people (both military and civilian) living off the base in the surrounding communities.

The Base was established by the U.S. Department of Defense (DoD) in 1942 as a training base for several bombardment groups during World War II. In 1948, the 5th Strategic Reconnaissance Wing was stationed at the Base. Various tactical wings and squadrons have been assigned to the base since its inception. In 1992, Air Combat Command (ACC) was assigned to the Base. The Air Expeditionary Force was located at the Base in 1997 (FEC, 2001).

The location of the base by latitude and longitude is N 43.049511 W 115.866452.

Withdrawn in 1942, Saylor Creek Range (SCR) encompasses 109,466 acres and is located in Owyhee County in southwestern Idaho, approximately 20 miles southeast of MHAFB. All of SCR is located in Township 7 South, Range 7 East, Sections 1-36; all of Township 7 South, Range 8 East, Sections 1-36; Township 8 South, Range 7 East, Sections 1-5, 8-17, 20-29, and 32-36; Township 8 South, Range 8 East, Sections 1-36; Township 9 South, Range 7 East, Sections 1-5, 8-17, and portions of 24, 25 and 36; Township 9 South, Range 8 East, Sections 1-18 and portions of 19, 20, 29, 30, 31 and 32. SCR is located in the relatively flat upland of the Inside Desert at an average elevation of 3,700 feet above mean sea level (amsl).
Today, SCR is a day/night multi-use Class A/B/C air-to-ground and electronic combat training range complex.

2.2 PHYSICAL SETTING

The Base is located on the Mountain Home Plateau, an area characterized by rolling upland plains with occasional volcanic cones or buttes rising several tens to a few hundred feet above the plain. The elevation of the plain in the vicinity of MHAFB ranges from 2,700 feet to 3,200 feet amsl and is roughly 3,000 feet amsl at the site. The Snake River is situated approximately 4 miles south of MHAFB and forms the southern and southwestern boundary of the Mountain Home Plateau. The Snake River flows in a canyon, which is 300 to 500 feet below the surface of the plateau.

Agricultural activities dominate the land use in the vicinity of MHAFB, especially off the bench in the immediate vicinity of the Snake River to the south. Light industrial mixed with residential development is typical of the Town of Mountain Home area. Drinking water throughout the area

is normally supplied from groundwater resources. Review of the floodplain maps indicates MHAFB is not within the 100-year floodplain of any of the nearby rivers or streams (Figure 3) (FEMA, 1989).

2.3 CLIMATE

The Snake River Plain is semi-arid, continental, with scarce precipitation, cold winters, and warm summers. The average annual precipitation is 8.5 inches per year, with July being the driest month in the year. The mean monthly temperatures range from 29 degrees Fahrenheit (F) in January to 76 degrees in July. Wind speeds average 6 miles per hour or less 39 percent of the time, and 7 to 15 miles per hour 41 percent of the time. Wind directions are predominantly from the northwest. A composite wind rose covering the time period from 1 January 1973 to 31 May 2009, depicting predominant wind direction is included as Figure 4.

2.4 GEOLOGY

The geology in the vicinity of Mountain Home consists mostly of Pleistocene basalt of the Snake River Group (Newton, 1991; Whitehead, 1992). The near surface geology consists of windblown silt (loess) or fine sand from a few feet to more than 50 feet thick (southwestern portions of the Base) covering the basalt over most of MHAFB. Underlying the loess are, in descending order: Snake River Group basalt (approximately 50 feet thick), Bruneau Formation basalt lava (approximately 500 feet thick), and Glenns Ferry Formation silts and sands (1,400 feet thick) (Lewis and Stone, 1988). The lava is early to middle Pleistocene in age. The Glenns Ferry Formation is Pliocene (2 million years before present) lake sedimentation (Wood, 1994; Jenks and Bonnichsen, 1989). As many as 12 interbed (windblown or waterlain sediments that might impede the vertical movement of water in the vadose or phreatic zone) or interflow (rubbly, broken, or horizontally fractured zones that facilitate horizontal movement of water in the vadose or phreatic zone) intervals are present in the basalt below MHAFB (FEC, 2001).

Available data suggest that these interbed or interflow intervals are discontinuous across the Base; however, some intervals are continuous across small portions of the Base. One or two of the deeper interbed or interflow intervals appear to be more continuous than shallower intervals.

2.5 HYDROGEOLOGY

Site hydrogeology (270.14 (c)(2)) consists of regional groundwater underlying generally isolated areas of perched groundwater. The regional water table is approximately 370 feet below ground surface (bgs) and within the basalt lava flows of the Bruneau Formation.

2.5.1 Perched Groundwater

Perched groundwater occurs as discontinuous saturated zones that may be present above the regional water table. As reported in the 2001 Five-Year Review Report (FEC, 2001), the following conditions are conducive to the formation of perched water zones:

- A route and supply of infiltrating water;
- A large contrast in vertical hydraulic conductivity between adjacent geologic materials present in the vadose zone (geologic heterogeneity); and
- A net balance of infiltration rates in adjacent geologic materials in the vadose zone that result in temporary storage of water in saturated zones (perched water zones) above the regional water table

These conditions are met in some places on the western Snake River Plain. Near the Town of Mountain Home, water that infiltrates from Mountain Home Reservoir and from Rattlesnake Creek provides water for a perched zone (Norton et al., 1982). The depth to the perched water zone is generally less than 100 feet (in some places about 20 feet), and the gradient of the perched water zone is between 0.004 and 0.009 feet/foot (ft/ft) (Young et al., 1992). The perched water zone is approximately 200 feet higher than the regional water table (Young et al., 1992). Water from perched zones eventually infiltrates and recharges the regional aquifer (Norton et al., 1982).

Perched groundwater occurs as saturated zones that are present above the regional water table. The perched water zone at site ST-11 is confined mainly to a fractured zone in the basalt bedrock at a depth of about 30 to 40 feet bgs. This fractured zone exists immediately above a silty sand layer that was encountered in the rock borings. This silty sand layer was observed to be dry during drilling activities. The lateral extent of the perched water is uncertain, but it appears to be at least 250 feet by 500 feet.

2.5.2 Regional Groundwater

The regional water table is generally 370 feet bgs and within the Bruneau Formation basalt underlying the Base and the direction of groundwater movement is generally to the south-southwest. This direction is similar to the direction suggested by the U.S. Geological Survey {USGS) regional map for the western Snake River Plain for spring of 1980 (Newton, 1991).

The water table gradient is most uniform during the fall and winter months when there is no irrigation pumping and when the demands on Base production wells are the lowest; at this time, the water table gradient is between 0.001 and 0.00001 ft/ft. During the summer months a depression in the water table forms in the northwest quarter of the Base and along the western boundary. Groundwater flow along the southern boundary of the Base is reversed with flow to the north and toward the Base production wells. Pumping by off-Base production wells has the greatest impact on the western side of the Base; however, impact to the water levels in this part of the Base is offset somewhat by groundwater recharge from the treated wastewater infiltration basins (FEC, 2001).

An abrupt change in water levels north of the Base boundary has been observed on all monthly water table maps. Water levels measured in wells 1 to 2 miles north of the Base boundary are

consistently 20 to 40 feet higher than levels measured in wells to the south. This abrupt change may be caused by a structural feature such as a geologic fault (e.g., Norton et al., 1982 describes a similar abrupt change in water levels 10 miles north of the Base caused by a fault) or a lithologic feature such as an igneous dike that was injected vertically into surrounding basalt flows. Regardless of its cause, the discontinuity within the regional aquifer apparently limits groundwater recharge to the Base via underflow from the regional aquifer to the north and therefore represents an aquifer boundary. This in turn acts to magnify the impact of the Base production well pumping on local groundwater flow and on the local water table. The water table below the Base has a much lower gradient than the regional water table gradients predicted by USGS water table maps possibly due to the effects of the discontinuity (FEC, 2001).

A general trend in decreasing groundwater levels in the regional aquifer have been reported for the last 10 years. For the irrigation seasons of 1990-1991 and 1991-1992, net declines of 1 to 3 feet were measured for the water table on and near the Base; during the 1992-1993 season, the net decline of the water table was only about 0.5 foot. The lower rate of groundwater depletion observed during the 1992-1993 irrigation season was probably due to the wet spring and early summer of 1993, and lower demand on the aquifer because of less irrigation pumping. Between 1996 and 2000, net declines of 2.5 feet per year were measured below MHAFB. From 2000 to 2013, the water table has declined by a further 1.5 feet per year.

2.6 SURFACE WATER

The Mountain Home Plateau is drained by a series of intermittent streams which discharge to the Snake River. Canyon Creek is the nearest surface water to the Base and is located about 4 miles west of the Base boundary. The creek is an ephemeral stream flowing only in direct response to precipitation events.

Two large springs are located due south of the Base along the north canyon wall of the Snake River. Both springs are discharge points for the regional aquifer occurring in the basalts of the Idaho Group (FEC, 2001).

MHAFB is not within the 100 year flood plain based upon the FEMA Flood Insurance Rate Map, effective date 19 Jun 1989 (most recent FEMA map).

HWMA POST-CLOSURE/CORRECTVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 3 – SECURITY

3.0 SECURITY

APPENDIX D – SECURITY PROCEDURES

JANUARY 11, 2015

3.0 SECURITY

MHAFB is a military installation operated by the USAF. Security procedures are in place to control access to the Base. Security at MHAFB shall be in compliance with the procedures described in the attached Appendix D and in accordance with 270.14 (b)(4).

Since the original site, HWSU, for which this permit was written is closed and documented, no signs are posted at that facility. The facility (Mountain Home Air Force Base) itself, is surrounded by a fence with signs posted every 100 feet, as noted in Appendix D. The facility is also patrolled by security teams and working dog teams.

APPENDIX D - SECURITY PROCEDURES

D.1 SECURITY PROCEDURES AND EQUIPMENT

In accordance with 40 CFR 270.14(b)(4), security for MHAFB is provided under the auspices of the site being a United States military installation. As such access is strictly controlled and local United States Air Force (USAF) security personnel perform site security. Security Forces are responsible for implementation, maintenance, and enforcement of installation entry procedures. All military and civilian personnel assigned to, working on/in, and residing on MHAFB are responsible to assist in enforcement and for compliance with these procedures. The degree of control used (subject to the installation commander's discretion) will be proportional to the current security condition. Personnel must meet federal and local identification requirements to include proper licensing, registration and insurance of vehicles.

General protection of USAF resources is based on a tri-lateral protection philosophy that includes security forces, resource protection and custodial care by on-site personnel. Security forces are charged with resource protection within the MHAFB area of jurisdiction and have the primary responsibility for providing armed response/protection of personnel and resources. Security Forces provide patrol, observation, static posting and alarm response. These actions provide a credible deterrent to hostile actions. Physical aids and equipment form another side of the tri-lateral protection philosophy. These aids consist of fencing, concrete barriers and other miscellaneous equipment. The final and most prominent elements in the protection philosophy are the reporting and controlling actions used by custodial care (owner/user) personnel. On-site personnel are responsible for reporting suspicious and/or unsafe activities to the appropriate security office.

D.2 SECURITY FORCES POSTING REQUIREMENTS

SFS has the authority to establish security post priority lists, and to determine which posts go unmanned during personnel shortages. Posted charts, maintained by MHAFB security personnel, give security forces the authority to set up security posts and establish priorities. Priority of the security posts will be based on the following precedence; detection and alarm, response, entry control, and command and control.

D.3 POSTS

Security Forces assigned to permanent posts normally control entry into an area or building, perform personnel or vehicle identification checks and assist the public. In addition, security forces may be posted at other locations to serve a specific task, such as traffic control at an accident scene, crowd control at public events or to guard a sensitive resource. Temporary posts may be established as directed by the SFS or the on-duty flight chief or competent authority when an emergency or special situation exists.

D.4 PATROLS

Security Forces personnel assigned to mobile patrols conduct building and area checks, provide surveillance over resources, provide escorts, enforce the traffic code and provide armed

response to emergencies. These patrols will concentrate their activities in those areas most critical to the mission. Temporary patrols may be established to meet any emergency situation for the following reasons:

- To increase security for base resources as required by threats directed at or in close proximity to the base.
- As a compensating measure for an identified security deficiency.
- To augment established patrols in unique situations (e.g., escorts, convoys, and public events).
- To provide support for special mission or similar aircraft.
- To support the base crime prevention program. Security Forces Posting.

The Chief, Security Forces will maintain a minimum of eight patrols during normal operations 24 hours a day. During increased threat condition, security forces will be posted in accordance with their Post Priority Chart.

D.5 SIGNS

The base has signs posted on the perimeter fence and at all gates, whether operational or closed that state "WARNING U.S. Air Force Installation. It is unlawful to enter this area without permission of the Installation Commander. While on this Installation all personnel and the property under their control are subject to search. This area is patrolled by military working dog teams."

D.6 PHOTOGRAPHS OF SIGNS



Figure D-1. Example of signs posted at MHAFB installation entrance.



Figure D-2. Example of signs posted at ERP sites.



Figure D-3. Example of signs posted at LF-23.



Figure D-4. Example of signs posted at asbestos pit #2.

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 4 – SOLID WASTE MANAGEMENT UNITS

EFFECTIVE DATE: JANUARY 11, 2015

4.0 SOLID WASTE MANAGEMENT UNITS

Sections 3004 (u) and 3004 (v) of RCRA (42 U.S.C. §§ 6924 (u) and (v); HWMA (Idaho Code§ 39-4409 (5)); and IDAPA §16.01.05008 (40 CPR§ 264.101) require corrective action to be taken on site and off site for all releases of hazardous waste or hazardous waste constituents from any SWMU at the facility regardless of the time when the waste was placed in said unit. The USAF entered into a FFA with USEPA and IDHW effective January 16, 1992 to integrate and satisfy the response action requirements of CERCLA and the corrective action requirements of RCRA. The FFA, including all terms and conditions, schedules, and provisions for the extension of such schedules, is fully incorporated into this permit and enforceable, through this permit, as corrective action requirements. Compliance with the requirements of the FFA shall satisfy the corrective action requirements of this permit for SWMUs (270.14 (d)(1) and (d)(2)) addressed therein.

4.1 SWMU DESCRIPTION

As defined in the formerly proposed RCRA Corrective Action Rule (55 FR 30798- July 27, 1990), a SWMU is "any discernible unit in which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous wastes. This definition includes any area at a facility at which solid wastes have been routinely and systematically released."

The following SWMUs require post closure care or long term monitoring;

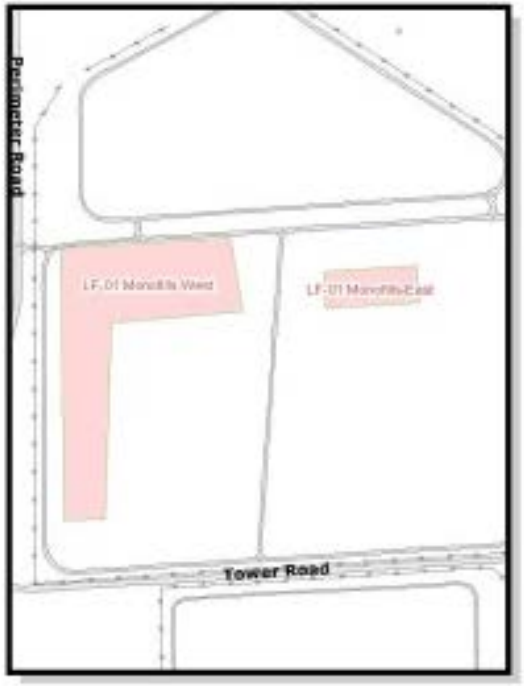
1. LF-01 (Land Use Controls and annual inspection of cap)
2. LF-02 (Land Use Controls and annual inspection of cap)
3. LF-03 (Land Use Controls and annual inspection of cap)
4. FT-08 (Remediate soils and unsaturated bedrock vapors. ROD approved VE system in place)
5. ST-11 (Vapor Extraction)
6. ST-13 (soils NFA) Groundwater covered under MW-24 LTM, proposed CIMP
7. LF-23 (Land Use Controls and annual inspection of cap)
8. SD-24 (Bedrock vapor extraction. For permit purposes we can include this under OU-3, SD-24 designation is only used internally in the USAF to apportion funds. SD-24 is closed for soils)
9. OU-3 (Continue operation of existing systems and LTM)
10. POL Storage Yard, AST Tank 2 (Closing site under RBCA/REM. On hold until completion of the construction work at the tank farm)
11. Verlinde Hill Rubble Pile (Continue to monitor and inspect under the asbestos program)

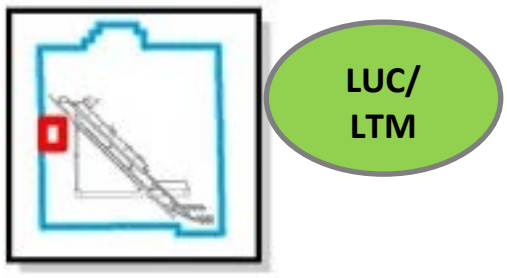
Details of the FFA and Non-FFA sites follow, including corrective action (270.14 (c)(8)) and site specific controls (270.14 (b)(5));

4.2 FFA SITE/SWMU SITE DESCRIPTIONS

Table 4-1. FFA Sites/SWMU Descriptions

LF-01





Site Description: Site LF-01 is a former landfill that is located near the west boundary of the Base and beneath the closed Base wastewater lagoons. The wastewater lagoon system consisted of four lagoon cells with a total surface area of about 73 acres and an average depth of 3.5 to 4 feet. The lagoon cells were built in 1961. The landfill trenches beneath them served as the main Base landfill prior to construction of the lagoon system. As part of OU-2, soils adjacent to the lagoon and the trenches were sampled and the perched water below the landfill trenches was sampled. Regional groundwater was also sampled for constituents that may have leached through. The sampling confirmed that there was no leachate coming from the landfill cells. The ecological risk assessment was deferred to OU-3. Landfill closure requirements were completed in the 2005 timeframe. Signs are posted restricting access and prohibiting dumping or digging.

Primary COCs: VOCs, Metals, PCBs, Pesticides

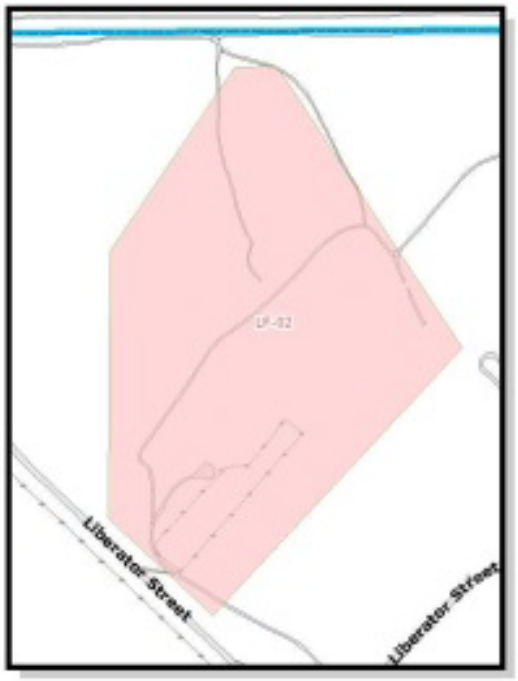
Select Site Information:

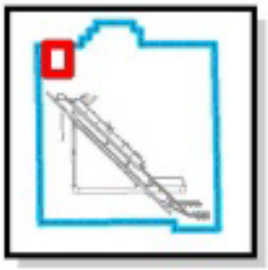
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- ESD dated 13 Oct 2006
- Five-Year Review – September 2011

Current Status: LUCs and ICs/LTM. The PBC Contract awarded in September 2005 completed the initial required ERP activities at this Site. Monofils were constructed over former landfill trenches. Annual inspections are being accomplished through the PBR contract process.

Action Required & Planned Path for Closure: An ESD dated 13 Oct 06 was approved to identify land use controls and annual inspection requirements to ensure the integrity of the closed landfill.

LF-02





LUC/IC
LTM

Site Description: The B-Street Landfill is located in the northwest corner of the Base and was the main Base sanitary landfill between 1956 and 1959. The B-Street Landfill area is made up of five principal areas: a Rubble Area, a Drum Disposal Area, a Trench Area, a Coal Ash Area, and a Burn Area. The Rubble Area occupies approximately 315 acres of the total landfill. The Drum Disposal Area is roughly circular, with a diameter of 80 feet (approximately 5,000 square feet). The Trench Area contains five trenches, four of which are about 50 feet by 400 feet and one which is 40 feet by 100 feet (Woodward-Clyde). Materials disposed of at the Site included general refuse (garbage, concrete, rubble, crushed empty drums, trees, hardware, rock, brick, mortar) and industrial wastes (waste oils, coal fly ash from a central heat plant, solvents, waste jet fuel, tank cleaning sludge) and possibly up to 230 drums of DDT (Dames & Moore). The refuse and wastes were placed in shallow trenches 2 to 14 feet deep depending on the amount of available soil cover which overlies the basalt bedrock. At least one of the trenches received asbestos waste. Elevated concentrations of phthalates and total recoverable petroleum hydrocarbons (TRPH, 25 to 1,300 ppm) were detected in soil samples. As a part of OU-2, the trench areas and drum disposal area of landfill LF-02 were investigated.

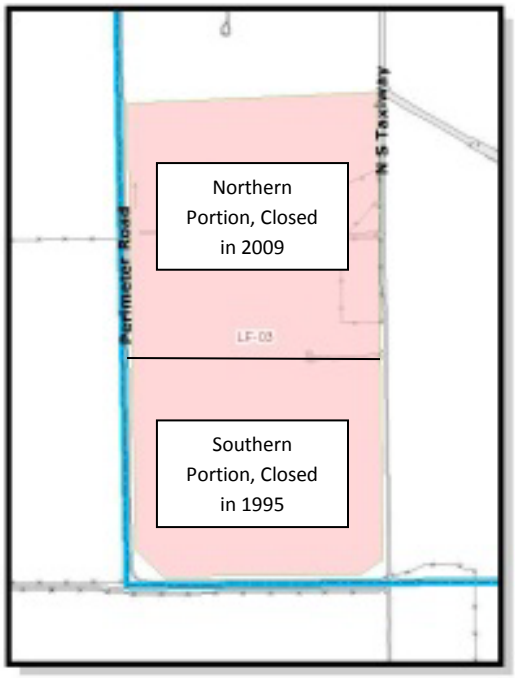
Primary COCs: VOCs, Metals, PCBs, Pesticides, Asbestos

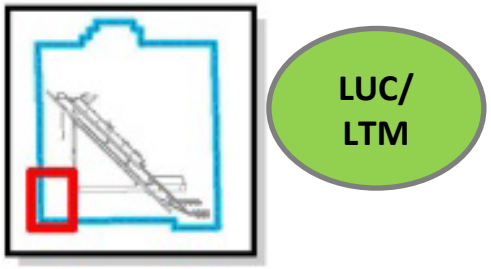
Select Site Information:

- RODs - June 1993 (soils) and October 1995 (groundwater)
- Five-Year Review - June 2001
- Five-Year Review - June 2006
- ESD date 13 October 2006
- Five-Year Review - September 2011

Current Status: LUCs/ICs/LTM. The PBC contract awarded in September 2005 completed required ERP activities at this Site. Rubble areas were covered with soil from construction spoils. Asbestos trenches were fenced and marked.
Action Required & Planned Path for Closure: An ESD dated 13 Oct 06 was approved to identify land use controls and annual inspection requirements to ensure the integrity of the closed landfill.

LF-03





LUC/
LTM

Site Description: The Landfill was located in the southwest corner of the Base. The landfill served as the principal active sanitary solid waste landfill since opening in 1969. It did accept empty drums for disposal in a metals trench. A Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) (IDHW, 1990) indicated POL wastes may have been disposed of at the landfill. Aerial photographs from 1950 indicated there may have been disposal activities at this Site prior to the construction of the active landfill. The Limited Field Investigation program for OU-1 concluded that Site investigations were not required for LF-03 Based on evidence from interviews with Base personnel. No hazardous wastes were known to be disposed of in the landfill. Groundwater monitoring wells were not installed at this Site. This Site was one of 15 Sites in OU-1 for which no further action has been recommended. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. State landfill regulations governed the operation and 2009 closure of the landfill. There is a separately fenced asbestos area in this closed landfill.

Primary COCs: None

Selected Site Information:

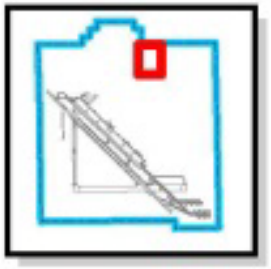
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2009 Municipal Solid Waste Post-Closure Plan

Current Status: NFRAP. The southern portion of the landfill was closed under an operating permit issued in 1977, while the northern portion operated under a second permit (issued in 1995) until it was closed in 2009 under the Municipal Solid Waste (MSW) Post-Closure regulations. A post-closure plan is in place.

Action Required and Planned Path for Closure: Landfill activities have ceased. All active cells were covered in accordance with a post-closure plan. Annual inspection and methane monitoring are being accomplished under the ERP Program by base personnel.

FT-04





NFA
UU/UE

Site Description: Fire Training Area 4 is located near the northern boundary of the Base. The Site consists of a 60-foot by 140-foot burn pit which was used in 1943 and 1944. Combustibles used in training exercises included aviation fuels, solvents, waste oils, and petroleum lubricants. A soil gas survey of the Site was conducted as part of the Limited Field Investigation study for OU-1 in 1991. The results indicated soil gas volatile organic compound (VOC) levels were not elevated over background. The "No Further Action Alternative" was recommended for this Site based on the soil gas survey results. This is one of 15 Sites in OU-1 for which no further action has been recommended. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. The Site was re-sampled in 2002 and levels of arsenic in soils exceeded back-ground levels in two locations. The nature and extent of arsenic above background was not determined. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site.

Primary COCs: Arsenic and Fuels related compounds

Select Site Information:

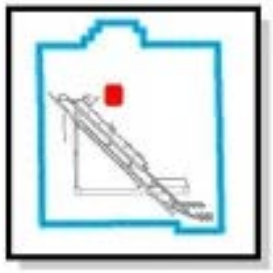
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD (AR-1277)
- Five-Year Review – September 2011

Current Status: No Further Action – UU/UE confirmed in 2010 Amendment to 1995 Record of Decision.

Action Required & Planned Path for Closure: No follow up action required.

FT-05





NFA
UU/UE

Site Description: Fire Training Area 5 is located beneath the footprint of the Base Supply Warehouse (Building 1325) in the north central portion of the Base. The area of concern is approximately 200 feet by 200 feet. The Site was used for training exercises in 1944 and 1945. Combustibles used in training exercises included aviation fuels, solvents, waste oils, and petroleum lubricants. A soil gas survey of the Site was conducted as part of the Limited Field Investigation study for OU-1 in 1991. The results indicated soil gas VOC levels were not elevated over background. The "No Further Action Alternative" was recommended for this Site Based on the soil gas survey results. This is one of 15 Sites in OU-1 for which no further action has been recommended. The 2001 Five-Year Review recommended land use controls (LUC) to restrict future uses to industrial. Re-sampling in 2002 did not find contamination exceeding screening criteria for unlimited use/unrestricted exposures (UU/UE). Further investigation under our 2006 Performance Based Contract concluded No Further Action and closure of the site to UU/UE. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site.

Primary COCs: Fuels Related Compounds

Select Site Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD (AR-1277)

Current Status: No Further Action – UU/UE confirmed in the 2010 Amendment to 1995 Record of Decision.

Action Required & Planned Path for Closure: No further action required, the Site is closed.

FT-06





NFA
UU/UE

Site Description: Fire Training Area 6 is located near the Base Flight Line, southwest of Building 1364. The area of concern is circular and approximately 310 feet in diameter. Fire extinguisher training exercises were conducted at this Site between 1948 and 1953. Combustibles used in training exercises included aviation fuels, solvents, waste oils, and petroleum lubricants. A soil gas survey was conducted as part of the Limited Field Investigation study for OU-1 in 1991. Only one in 32 soil-gas volatile organic sample concentrations was above background levels. The "No Further Action Alternative" was recommended for this Site Based on the soil gas survey results. This is one of 15 Sites in OU-1 for which no further action has been recommended. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. Re-sampling in 2002 did not find contamination exceeding screening criteria for unlimited use/unrestricted exposures (UU/UE). Further investigation was accomplished under our 2006 Performance Based Contract also concluded No Further Action and closure of the site to UU/UE. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site.

Primary COCs: None

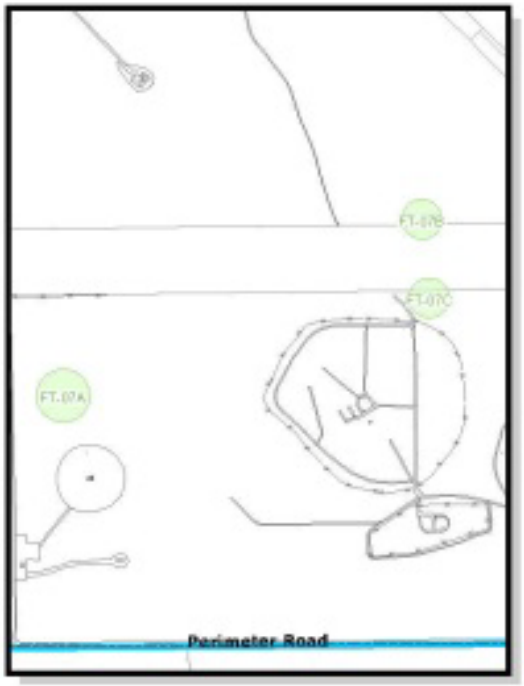
Select Site Information:

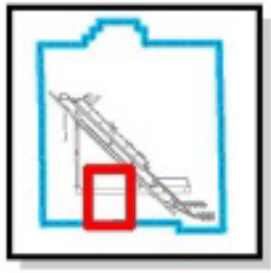
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD (AR-1277)

Current Status: NFRAP with LUC. UU/UE confirmed in the 2010 Amendment to the 1995 ROD.

Action Required & Planned Path for Closure: No further action required. The Site is closed.

FT-07





NFA
UU/UE

Site Description: Fire Training Area 7A is located in the southwest portion of the Base, approximately 1,200 feet south of the abandoned east-west runway. The Site is circular in shape and approximately 300 feet in diameter. Fire Training Area 7B is located on the north side of the abandoned east-west runway and is made up of two burn pits approximately 160 feet by 240 feet in total area. Fire Training Area 7C is located south of the abandoned east-west runway near the boundary of the "Prime Beef Training Area," and consists of two burn pits approximately 110 feet by 300 feet in total area. All three areas were used for fire extinguishing training exercises between 1953 and 1962. Combustibles used in fire training activities included aviation fuels, solvents, waste oils, and petroleum lubricants. A soil gas survey of Site 7A was conducted as part of the Limited Field Investigation study for OU-1 in 1991. The results from 62 soil gas samples indicated all concentrations of VOCs were non-detect or at levels considered at or near background. The "No Further Action Alternative" was recommended for this Site based on the soil gas survey results. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. Re-sampling in 2002 did not find contamination exceeding screening criteria for unlimited use/unrestricted exposures (UU/UE). OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site.

Primary COCs: None

Select Site Information:

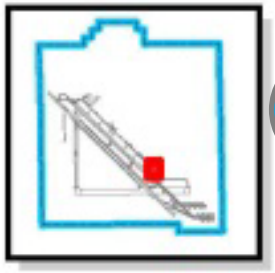
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD (AR-1277)

Current Status: No Further Action, UU/UE confirmed in the 2010 Amendment to the 1995 ROD.

Action Required & Planned Path for Closure: No Action Required.

FT-08





RA-O/ LTM

Site Description: Fire Training Area 8 is located in the southeast portion of the Base near the main NW-SE runway. Fire Training Area 8 is a 125-foot-diameter burn area used for fire control training from 1962 until 1986. A typical training exercise involved 300 to 500 gallons of fuel. Aviation gas was used from 1962 through 1975 and jet fuel from 1976 through 1986. Trace soil concentrations of VOCs were found during Site remedial investigations. Higher concentrations of TPH and BTEX were found here than at Fire Training Area 7. A risk analysis performed for the Site indicated there were no risks of impacts to groundwater, and human health risks were within an acceptable range. The Air Force, EPA Region X, and DEQ recommended the "No Further Action Alternative" for this Site. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. Re-sampling in 2002 and 2004 found contamination for PCOC (TCE and BTEX) to be at higher concentrations and more widespread than previously found. Investigations for OU-4 evaluated contaminants in the soils and included a Baseline risk assessment. Further groundwater evaluation and ecological risk assessment were deferred to OU-3. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site.

Primary COCs: TCE, BTEX

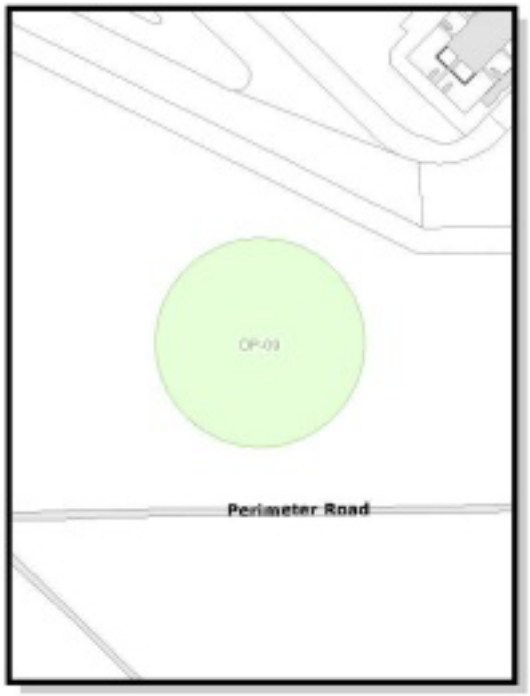
Select Site Information:

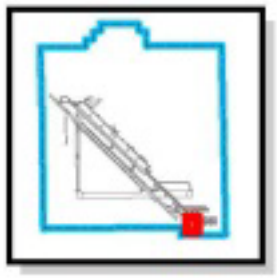
- RODs – June 1992 (soils); October 1995 (groundwater)
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- Five-Year Review – September 2011
- 2009 Amendment to 1992 ROD (AR-1247)
- 2010 Amendment to 1995 ROD (AR-1277)

Current Status: RA-O. The 2009 ROD Amendment approved VE as the appropriate remedy for the site. PBR Contracts have continued to operate a soil vapor extraction unit at the site. Level of contaminants have been reduced.

Action Required & Planned Path for Closure: Remediate soils and unsaturated bedrock vapors. ROD approved VE system in place. Remediation continues.

DP-09





NFA
UU/UE

Site Description: Waste Oil Disposal Site 9 is located near the southeast boundary of the Base. The Site was used from 1953 to 1956 for disposal of waste oils and other liquids; the waste oils were reportedly placed in trenches and backfilled with adjacent soils. Aerial photographs indicated soil staining in four parallel lines, probably corresponding to the trenches. The trenches varied in length from 140 to 180 feet. Field sampling at the Site was completed as part of the Limited Field Investigation study. Soil samples from ten backhoe test pits were obtained in August of 1991. Eleven soil samples were analyzed for field headspace VOCs, metals, volatile and semivolatile organic compounds, and TRPH. Organic compounds and TRPH were not detected. Maximum concentrations of arsenic (4.8 mg/kg), beryllium (0.58 mg/kg), and chromium (4.3 mg/kg) exceeded screening-level RBCs, but were within the Site background range. The findings of the Limited Field Investigation resulted in a "No Further Action Alternative" being recommended for this Site. This is one of 15 Sites in OU-1 for which no further action has been recommended. NFA confirmed through FFA team consensus.

Primary COCs: None

Select Site Information:

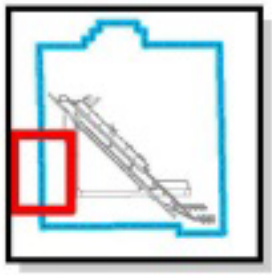
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006

Current Status: NFRAP.

Action Required & Planned Path for Closure: No action required. The Site is closed.

OT-10





NFA
UU/UE

Site Description: The Perimeter Road Site is located along the western Base boundary south of the wastewater lagoons. The Site is approximately 25 feet wide and 7,000 feet in length (175,000 ft2, approximately 4 acres). The Site was used until 1975 for disposal of waste oils from the Flight Line, Motor Pool, and the Auto Hobby Shop. The waste oils potentially contained waste degreasing chlorinated solvents. Seventeen soil samples were obtained from sixteen soil borings drilled on the centerline and sides of the Perimeter Road as part of the Limited Field Investigation study for OU-1. The samples were analyzed for VOCs, semivolatile organic compounds, total metals, and TRPH. TRPH were not detected in any samples, and organic compounds were all lower than screening-level RBCs. Maximum concentrations of arsenic (22.8 mg/kg), beryllium (1.6 mg/kg), cadmium (1.7 mg/kg), and chromium (24.5 mg/kg) all exceeded screening-level RBCs but were within local background levels. The "No Further Action Alternative" was recommended for this Site Based on the results of the field investigations. This is one of 15 Sites in OU-1 for which no further action has been recommended. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. NFA confirmed through FFA team consensus.

Primary COCs: None

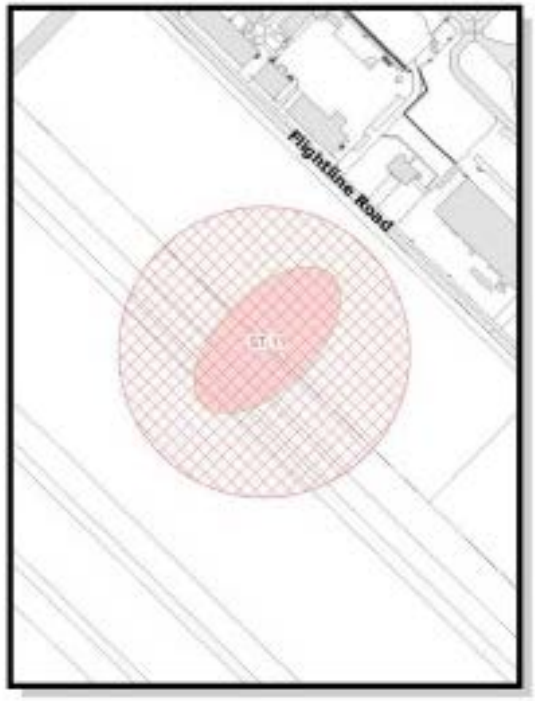
Select Site Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006

Current Status: NFRAP.

Action Required & Planned Path for Closure: No action required. The Site is closed.

ST-11





RA-O/ ITM

Site Description: The Flight Line Fuel Spill is located under the aircraft parking apron in the west-central part of the Base. The Site is almost entirely under concrete. The leak occurred from a ¾-inch ventline for a 16-inch fueling line. The fueling line carried jet fuel (JP-4) from the POL Yard to fueling hydrants along the flight line. The leak occurred soon after the fueling system was installed in the mid-1950s. Available information suggests that the leak occurred during the first half of 1957 and interview information indicates that the leak was intermittent and ongoing for a period of two to three months. During this time, as much as 50,000 gallons of fuel may have been released via the ventline leak. Upon discovery of the leak, the ventline was repaired and new access manholes were installed over the fueling line at the leak location. Soil gas sampling, soil borings, and rock corings were used to investigate the Site. Results of the Site investigation show that the highest concentrations of fuel contamination in soils occur west of the ventline and along the 16-inch fueling line. Some of this fuel appears to have infiltrated into soils to a shallow depth below the parking apron. Benzene in perched groundwater continues to be above RAO's for site cleanup. A vapor extraction system was proposed under the 1995 ROD Amendment in 2010. It has been constructed and continues to operate.

Primary COCs: LNAPL as JP-4, BTEX

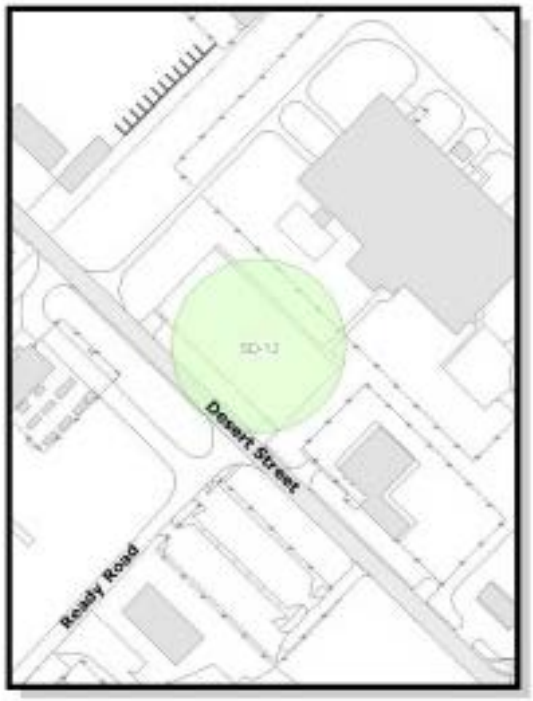
Select Site Information:

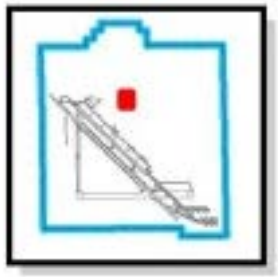
- Decision Documents – ROD October 1995; ESD March 2004
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- Five-Year Review – September 2011
- 2010 Amendment to 1995 ROD (AR-1277)

Current Status: RA-O/LTM. RAO/LTM continues under AF PBR Contracting mechanism. Further work and winterization programmed.

Action Required & Planned Path for Closure: Vapor extraction continues. Site closure is possible with enhancements to the system and continued operation.

SD-12





NFA
UU/UE

Site Description: The old Entomology Shop Yard was located in the north-central part of the Base. Site facilities included a building approximately 40 feet by 60 feet and two 1,000-gallon underground diesel fuel tanks located north and northwest of the building. The building was constructed in 1958 and was converted to the Entomology Shop in the late 1960s. The Shop was used to store and handle herbicides, pesticides, and application equipment. The application equipment was filled and cleaned within the building. Wastewater generated from cleaning the application equipment was discharged to surface soils outside the building through a concrete ditch and later through a buried drainpipe from 1969 to 1981. After 1981, the wastewater was collected in a UST installed adjacent to the northwest side of the building. The Entomology Shop was demolished and the USTs were removed in 1987. Currently, the Site is covered with asphalt and used as a parking lot. Three separate investigations have been completed at this Site, and the results show that the Site soils are contaminated with varying amounts of volatile and semivolatile organic compounds, pesticides, herbicides, petroleum hydrocarbons, and one metal (lead). The highest concentrations and frequencies of chemical detections occurred northwest of the building in the general area where wastewater was released to the Site soils. The contamination also occurs mainly in the surface and shallow subsurface soils. The results of the Human Health Risk Assessment and Ecological Risk Assessment indicate no unacceptable health risks are expected from exposure to soils at SD-12.

Primary COCs: SVOC. VOC, Pesticides, Herbicides, POL, Pb

Select Site Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006

Current Status: NFRAP.

NFRAP Action Required & Planned Path for Closure: No action required. The Site is closed.

ST-13

(Part of ST-38)





LUC/ ITM

LTM (GW)

Site Description: Site ST-13 is located in the south corner of the Petroleum, Oil, and Lubricants (POL) Yard, southeast of Building 1307. Before 1988, four 12,000- or 15,000-gallon USTs were present at the Site, and they were used to temporarily store segregated POL wastes prior to their pickup for reuse, resale, or disposal. The date of installation of the USTs is unknown, but they may have been installed as part of the original fuel distribution system at the Base. In June 1988, the four USTs were removed by U.S. Pollution Control, Inc. The tank excavation was backfilled with clean fill and was covered with a clay cap. Site closure was done under the regulatory authority of the Resource Conservation and Recovery Act (RCRA). Soil samples collected before and during the removal indicated that soil had been impacted by several volatile organic compounds, including: 1,1-dichloroethane, 1,1,1-trichloroethane, tetrachloroethene, benzene, ethylbenzene, toluene, and xylenes. Because contaminated soils were removed during the UST removal and the excavation filled and capped, and because the Site was closed under RCRA, a follow-on CERCLA investigation, Human Health Risk Assessment, and Ecological Risk Assessment were not done at the Site.

Primary COCs: BTEX, LNAPL JP-4

Select Site Information:

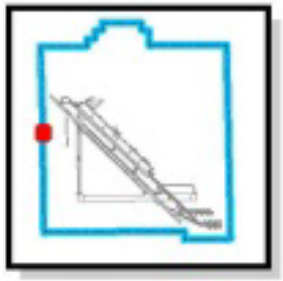
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- Five-Year Review - September 2011

Current Status: RCRA Post Closure required installation of a protective cap. FFA decision made that the site can be closed for soils to UU/UE. MHAFB installed a cap and will institute an inspection and maintenance program.

Action Required & Planned Path for Closure: LTM continues for regional groundwater assessment at MW-24. MHAFB is proposing a cap inspection and maintenance plan as part of the Part B application.

RW-14





NFA
UU/UE

Site Description: The Low Level Radioactive Materials Site (RW-14) is located on the western Base property near the Lagoon Landfill (LF-1). Sometime in the mid-1950s, an Atomic Energy Commission contractor buried a 55-gallon drum and associated materials, including radium coated aircraft instrument faces, radioactive metabolic tracer material, and cathode/anode components from x-ray equipment. Base personnel have estimated that the materials at RW-14 could persist for the next 1,250 years, based on the radioactive half-life of the compounds present and remain an operational and maintenance liability for the Air Force. An interim Remedial Action (RA) has been conducted at this Site. Materials removed (in two excavations) were two cubic yards of soil, a pipe, and six 55-gallon drums welded together top to bottom. Soil samples were taken off the bottom of each excavation. Tests of the pipe and drum did not reveal radioactive contaminants. Removed materials were disposed of as low-level radioactive waste. No further action has been recommended for this Site. Low-level radioactive material was removed and properly disposed of during an interim remedial action at RW-14 and completed actions for OU-5. Further groundwater evaluation and ecological risk assessment were deferred to OU-3. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. NFA confirmed through FFA team consensus.

Primary COCs: None

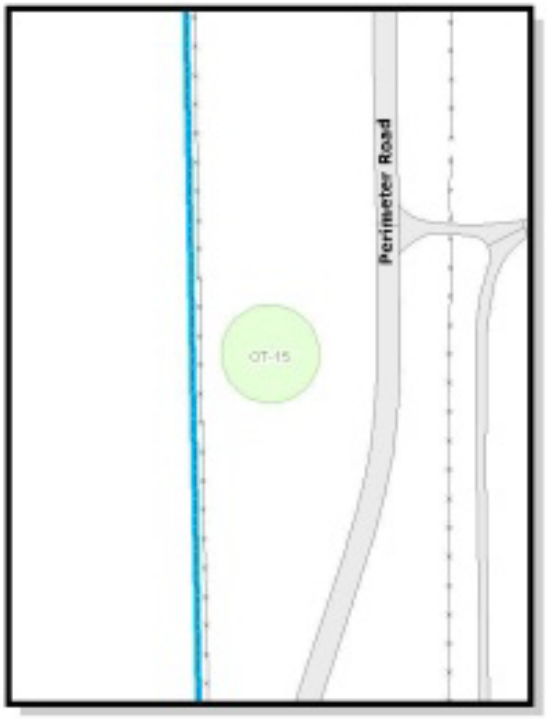
Select Site Information:

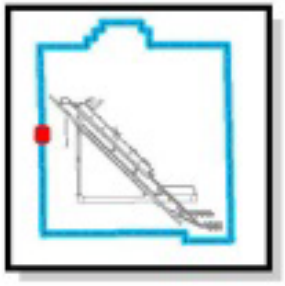
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD

Current Status: NFRAP.

Action Required & Planned Path for Closure: No action required. The Site is closed.

OT-15





NFA
UU/UE

Site Description: The Corker Material Burial Site is located along the western boundary of the Base, adjacent to the wastewater lagoons and west of the Perimeter Road. Corker material is a boron fiber composite used in the wing of the F-111A. Corker material from an aircraft crash was bagged and buried at this Site in July of 1979. Three borings were drilled at this Site in July of 1991 as part of the Limited Field Investigation study for OU-1. No boron was detected in any of 13 soil samples collected and, as a result, the "No Further Action Alternative" was recommended for this Site. This is one of 15 Sites in OU-1 for which no further action was been recommended. FFA team review confirmed the no further action status of this site.

Primary COCs: None

Select Site Information:

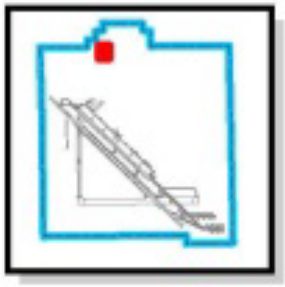
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD

Current Status: NFRAP.

Action Required: No action required. The Site is closed.

OT-16





NFA
UU/UE

Site Description: The MSA is located in the north-central part of the Base near the northern perimeter fence. The Site consisted of two burn operation areas operated by EOD personnel. The facility was apparently built sometime between 1950 and 1957. One burn operation was fueled by a 50-gallon diesel fuel tank. This operation was a popping furnace located in the center of a large circular graded area that is about 500 feet in diameter. It consisted of a concrete and steel structure with a steel plate that was heated to detonate munitions. Only the concrete blast-wall remains at the Site. A second burn area was an open burn pit about 60 feet long and 30 feet wide. Munitions were placed in the pit along with wood and fuel, ignited, and allowed to detonate. The open burn pit has not been used since April 1990. The popping furnace was dismantled in the fall of 1992. The investigations indicate that the soils in the open burn pit contain low concentrations of volatile organic compounds (VOCs), explosive compounds, and some relatively high concentrations of polyaromatic hydrocarbons (PAHs). No explosive compounds were detected in surface soil samples collected around the Popping Furnace. Buried munitions debris were removed and contaminated soils removed in 2008/2009 as documented in the Final Non-Time Critical Removal Action Report for ERP Site OT-16 dated 13 Feb 09.

Primary COCs: PAH, explosives residue, buried munitions items

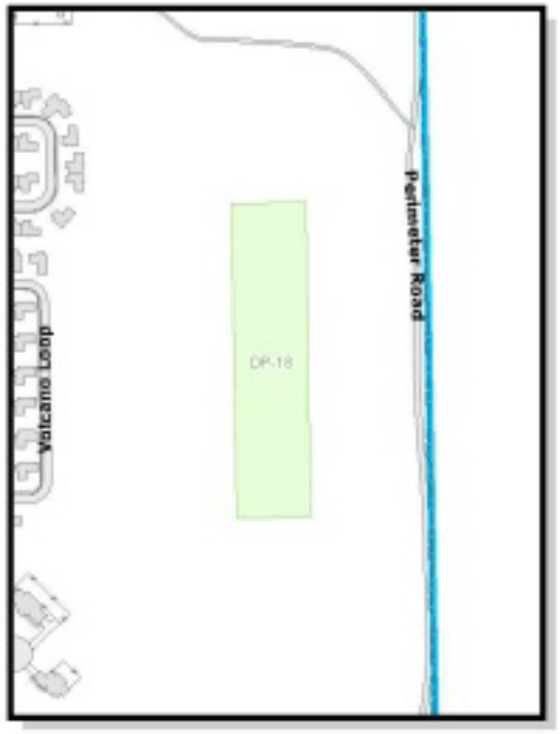
Select Site Information:

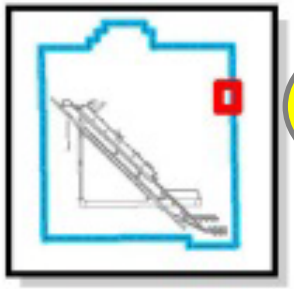
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- Final NTCRA Completion Report for ERP Site OT-16, 13 Feb 09
- 2010 Amendment to 1995 ROD
- Five-Year Review – September 2011

Current Status: A removal action was accomplished in 2008-2009.

Action Required & Planned Path for Closure: Removal of buried munitions debris was completed. Site is closed to UU/UE with no further action required.

DP-18





NFA
UU/UE

Site Description: The Old Burial Trench Site (DP-18) is located in the northeastern part of the Base and lies about one-fourth mile east of Base housing. This trench was reported to be about 800 feet long and 10 feet deep. This trench was allegedly excavated in 1953 and filled with various materials, including outdated ammunition, canned food, wrecked jeeps, and other excess supplies generated during World War II. After depositing these items over a one-week period of time, the trench was allegedly backfilled and covered. Fifteen test pits were excavated to a depth of 12 feet at this Site in August 1991. These test pits were chosen to adequately cover the Site area and to investigate anomalies detected with metal detectors. It was discovered that shallow basalt bedrock was causing the metal detector anomalies because of iron minerals contained in the basalt. No waste materials or other evidence of debris or disposal were found. Only one organic compound was found at a concentration three orders of magnitude below the highly conservative screening-level RBC. The "No Further Action Alternative" has been recommended for this Site. This is one of 15 Sites in OU-1 for which no further action has been recommended. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. UU/UE confirmed in the 2011 Final Five-Year Review. NFA confirmed through FFA team consensus.

Primary COCs: None

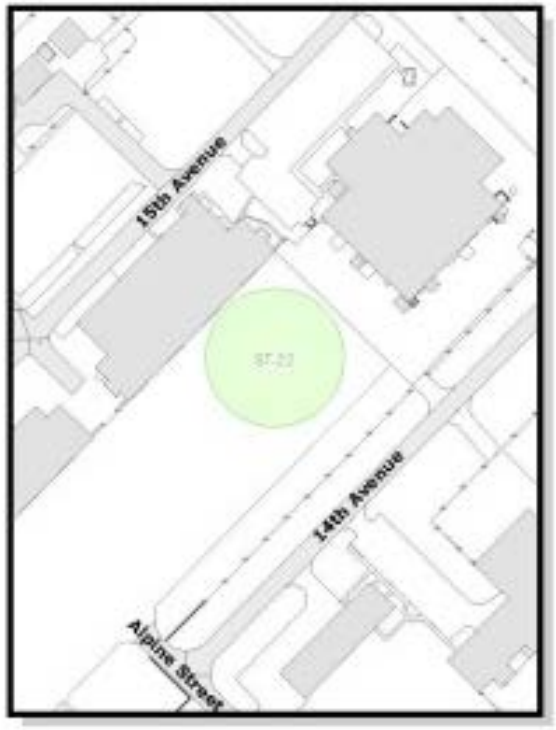
Select Site Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to the 1995 ROD

Current Status: NFRAP.

Action Required & Planned Path for Closure: No action required. The Site is closed.

ST-22





NFA
UU/UE

Site Description: Site ST-22, a former Titan Missile Maintenance Area, contains four abandoned underground tanks. Field investigation included drilling boreholes, field headspace analysis, soil sampling, and chemical analysis. The Titan Missile Maintenance Area was housed in Building 1333. This study area consisted of four underground storage tanks which contained solvents, acids, and caustic solutions. The tanks are abandoned and filled with sand. Six soil samples were collected as part of the Limited Field Investigation study and analyzed for organic residues of solvents stored in the area. All concentrations were below screening-level RBCs and, therefore, the "No Further Action Alternative" was recommended for the Site. This is one of 15 Sites in OU-1 for which No Further Action was recommended. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. Re-sampling in 2002 did not find contamination exceeding screening criteria for unlimited use/unrestricted exposures (UU/UE). OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. UU/UE was confirmed in the Final Five Year Remedy Review dated September 2011.

Primary COCs: None

Select Site Information:

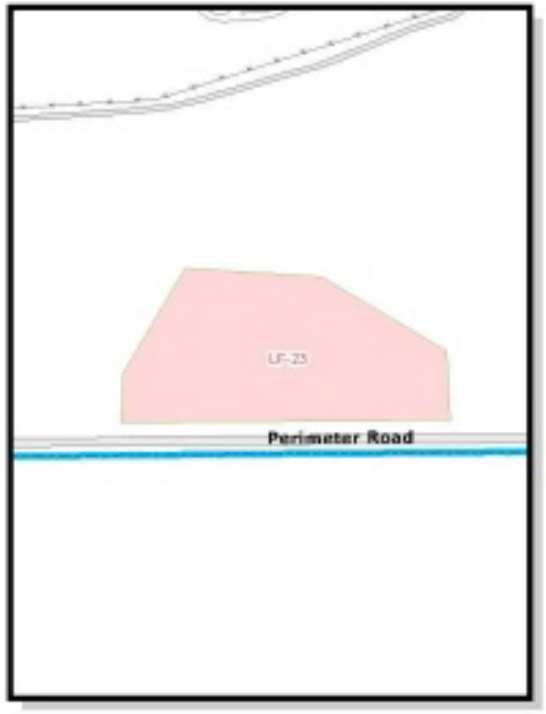
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to the 1995 ROD

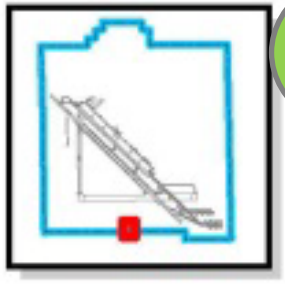
Current Status: NFRAP.

Action Required & Planned Path for Closure: No action required. The Site is closed.

LF-23

(Combined With DP-17)





LUC/IC
LTM

Site Description: The Solid Waste Disposal Area is located in the south-central part of the Base and lies approximately 100 feet north of the southern Base boundary. The former Solid Waste Disposal Area consists of three burial trenches. The trenches contained tires, household wastes, and other solid waste. The Used Tire Disposal Area (DP-17) ERP Site was combined with this Site for the Limited Field Investigation study. The primary historic source is household refuse, tires, and other solid waste buried in trenches. The trenches are covered with soil. Twelve test pits were excavated to depths of 10 to 16 feet in August of 1991. VOC headspace analysis from all samples from the pit was negative for volatile hydrocarbons. Thirteen soil samples were analyzed for volatiles, semi-volatile compounds, and total metals. The "No Further Action Alternative" was recommended based on the results of the field investigations. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. Re-evaluation in 2002 did find localized hot spot contamination exceeding screening criteria for unlimited use/unrestricted exposures (UU/UE). Further investigation under the PBC in the 2009-2011 timeframe resulted in an ESD dated 8 Jun 11 and closing the site with LUCs and ICs. Site DP-17, used tire disposal area, was incorporated into the LF-23 area of investigation and is part of LF-23.

Primary COCs: PAH

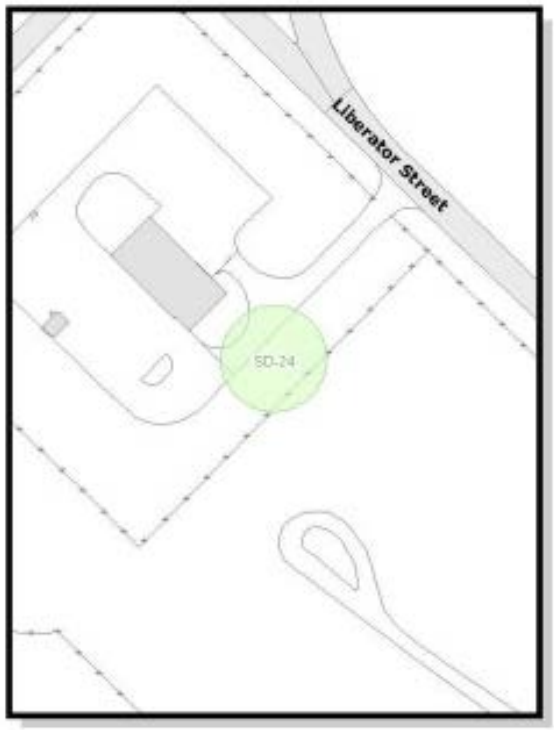
Select Site Information:

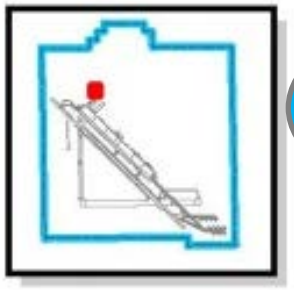
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- Five-Year Review – September 2011
- 2010 Amendment to the 1995 ROD
- ESD - 8 Jun 2011

Current Status: Long Term Maintenance and Annual Inspections for implementation of LUCs.

Action Required & Planned Path for Closure: Annual inspections.

SD-24





RA-O/ LTM

Site Description: Site SD-24 is located in the northwest part of the Base and is occupied by Building 1340. This facility was originally built in 1960 and 1961 as a liquid oxygen production and helium loading plant. There was a chemical waste collection tank/oil sump, a concrete-lined blow-down trench (drain trough), and a dry sump at the south end of the building. The dry sump was an infiltration gallery connected to the trough sump by a pipe. Discharge drain lines were added to the waste collection tank/oil sump and drain trough sump at this time. Waste oil was typically removed from the Site; however, between 1965 and 1974, some waste oil was placed in the drain trough and on the surface soils located southwest of the building. The investigation results showed that site soils and sediment were contaminated with varying concentrations of volatile organic compounds (primarily trichloroethene), semivolatile organic compounds (primarily polyaromatic hydrocarbons [PAHs]), petroleum hydrocarbons, and metals. The highest concentrations of volatile organics (trichloroethene, xylenes, and toluene) and PAHs were found in soil samples collected next to the waste collection tank/oil sump. PAHs, petroleum hydrocarbons, and metals were also detected in sediment at the outfalls of the oil drain lines which discharge to the main Base drainage ditch. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. In 2004, 450 yds^3 of TCE contaminated soils were removed for disposal. TCE contamination was found at the soil bedrock interface and likely penetrated shallow reaches of the fractured basalt bedrock. A limited field investigation was conducted at SD-24 as a part of OU-1. Due to levels of contaminants found to be present, Site SD-24 was referred to OU-6 and investigated under OU-3. A successful chemical oxidation was completed in 2008 to treat a small quantity of TCE remaining after a major soil removal in 2007. A 2010 ROD Amendment approved conversion of a Vapor Extraction pilot study to a remedy for the site. Bedrock vapor extraction was approved in a recent 2013 Interim ROD Amendment. Soils were approved for UU/UE. Contamination is in bedrock and the deeper regional groundwater aquifer.

SD-24
(Continued)

Primary COCs: TCE

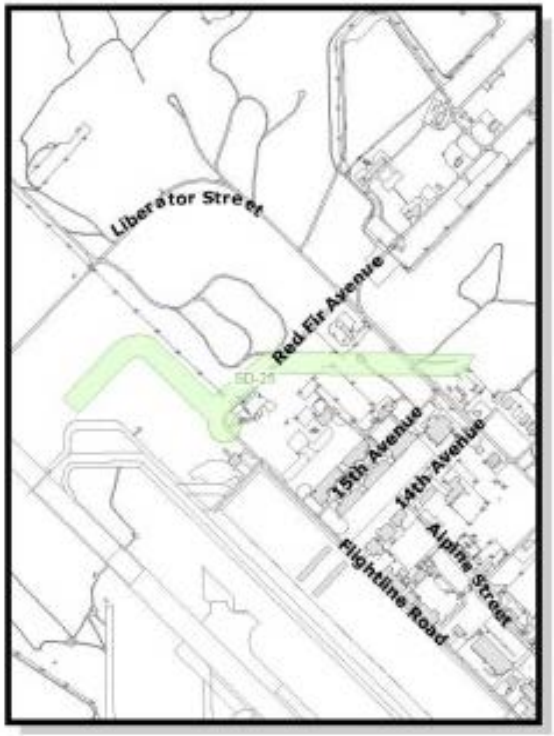
Select Site Information:

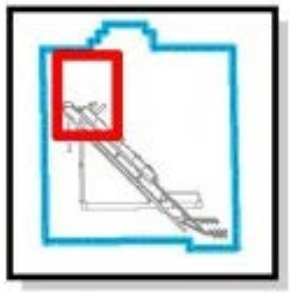
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD
- Five-Year Review – Sep 2011
- 2013 Interim ROD Amendment

Current Status: NFA for soils. Continued RAO and LTM for groundwater and vapor under OU-3.

Action Required & Planned Path for Closure: Continued RAO, LTM, and Bedrock Vapor Extraction.

SD-25





NFA
UU/UE

Site Descriptions: Site SD-25 includes the following ditch segments: (1) From 200 feet west of Site SD-24 southwest to the end of Cedar Street, (2) Continuation northwest for 900 feet, (3) Continuation southwest for 700 feet, (4) Under the main runway via a 48-inch-diameter concrete-pipe culvert, (5) Continuation southwest for 500 feet as an open ditch, (6) Continuation south for 1,600 feet to the intersection with an east-west open ditch (between wastewater lagoons), and (7) Northernmost dogleg trending southwest enclosed in culvert in 2002. The east-west ditch is about 2,000 feet long, and it starts near an abandoned taxiway located on the east side of the wastewater lagoons. The results of the investigations completed show that the ditch sediments are contaminated with volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), petroleum hydrocarbons, and metals. The majority of the significant VOC, SVOC, and petroleum hydrocarbon contamination was found at the Flight Line Storm Drain Outfall. No unacceptable risks to humans or key ecological receptors are expected from exposure to groundwater. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. A contaminated sediment removal action and restoration was completed in 2005. Re-evaluation of the remaining sediments for COCs indicated that the site meets UU/UE criteria.

Primary COCs: None

Select Site Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006

Current Status: NFA and UU/UE

Action Required &Planned Path for Closure: No further action required.

SS-26





NFA
UU/UE

Site Description: Site SS-26 is located near Building 208 in an area of approximately 10 feet by 10 feet that consists of an un-bermed, continuous-pour concrete slab. It contained an accumulation of drummed solvent and POL wastes. The pad was used from the mid-1970's until 1990 when a new covered accumulation shed was constructed nearby. The Wheel and Tire Shop (part of Building 208) generated the largest quantity of waste (primarily solvents) that was stored at the pad. Drummed wastes have been picked up by the DRMO for recycling, resale, or disposal. No primary sources of chemical releases exist at this site; no visual evidence or documentation to support the existence of a secondary source was found. Concern for possible soil contamination had been generated by the known practice of storing waste materials. Four hand-augured soil borings were drilled in 1991 as part of the Limited Field Investigation study and analyzed in the field for volatile organics. The "No Further Action Alternative" was recommended Based on the results of the Field Investigation. This is one of 15 Sites from OU-1 for which No Further Action was recommended. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site.

Primary COCs: None

Select Site Information:

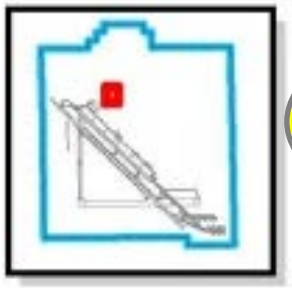
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to the 1995 ROD

Current Status: NFRAP.

Action Required & Planned Path for Closure: No action required. The Site is closed.

SD-27





NFA
UU/UE

Site Description: The Vehicle Wash Rack Site is used to clean construction vehicles, and it is located within a paved area in the north-central part of the Base. The Site consists of a concrete wash rack located north of Building 1354 that was built in the 1960s, the wash rack drainage ditch, and a concrete drum storage pad located northeast of the wash rack area. Leaking and overfilled waste oil drums and visibly stained soils were reported at the drum storage area in 1986. The investigation results indicate that the shallow soils near the concrete drum storage pad and the wash rack drainage ditch sediments are contaminated with volatile (VOC) and semivolatile (SVOC) organic compounds, pesticides, polychlorinated biphenyls (PCBs), petroleum hydrocarbons, and metals. Maximum concentrations of VOCs and SVOCs (mainly polyaromatic hydrocarbons [PAHs]) and some pesticides and metals were found in the sediment of the wash rack drainage ditch. The Human Health Risk Assessment and Ecological Risk Assessment indicate no unacceptable health risks are expected from exposure to soils at SD-27. Fate and transport modeling indicated that chemicals of concern found in the Site soils will not impact groundwater in concentrations that exceed RBCs. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. Re-sampling in 2002 did find localized hot spot contamination exceeding screening criteria for unlimited use/unrestricted exposures (UU/UE). A limited field investigation was conducted at SD-27 as a part of OU-1. Due to levels of contaminants found to be present, Site SD-27 was referred to OU-6 for further investigations and a Baseline risk assessment. Hot spot removal was accomplished in 2007 through the Performance Based Contract. This site underwent a non-time critical removal action for contaminated soil through the Engineering Evaluation/Cost Analysis (EE/CA) and Action Memorandum process to document that they still meet NFA criteria, but now with UU/UE land use potential.

SD-27
(Continued)

Primary COCs: PAH

Select Site Information:

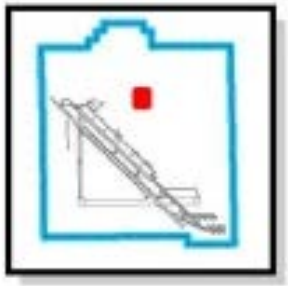
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD (AR-1277)
- Five-Year Review – September 2011

Current Status: RA-O. A PBC Contract was awarded in September 2005 to complete the required ERP activities at this Site.

Action Required & Planned Path for Closure: No further action required.

SS-28





NFA
UU/UE

Site Description: The Site was a former Wash Water Accumulation Basin near Building 2201 and was used to collect wastewater from the maintenance of a train engine. The basin also contained waste solvents, oil, and petroleum products used in the maintenance of the engine. An open unlined pit or basin located near Building 2201 formerly received wastewater pumped from a concrete sump inside the building. This water is now pumped into 55-gallon drums. This pit was closed in 1987 and contaminated soils were removed when a new disposal practice was implemented. Location of the basin was recorded from air photos and interview records. The primary source of contamination is now controlled because wash water is contained in a 55-gallon drum. Soil samples collected during the Limited Field Investigation indicated that arsenic, beryllium, chromium, and cadmium concentrations were above screening-level RBCs, but that all were less than background soil metal concentrations. The "No Further Action Alternative" was recommended based on the results of the Field Investigations. This is one of the 15 Sites from OU-1 for which No Further Action was recommended. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. FFA team review confirmed the no further action status of this site.

Primary COCs: None

Select Site Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to the 1995 ROD

Current Status: NFRAP/NFA.

Action Required & Planned Path for Closure: No action required. The Site is closed.

SS-29





NFA
UU/UE

Site Description: The Drum Accumulation Pad Site consists of a concrete pad approximately 20 feet by 35 feet in size that was used by the Propulsion Shop and the Nondestructive Testing Laboratory. Chemical wastes, including solvents, penetrants, emulsifiers, fuel, and hydraulic oil, were stored in drums on the fenced pad from the mid-1970s until 1990. Spilled waste was reportedly observed along the outside of the fence in 1986. The investigations completed at Site SS-29 show that the surface and shallow subsurface soils are contaminated with low concentrations of volatile organic compounds (VOCs), relatively high concentrations of semivolatile organic compounds (SVOCs, mainly polyaromatic hydrocarbons [PAHs]), and petroleum hydrocarbons. Most soil contamination was found off the northwest and southwest sides of the pad, an area of exposed surface soil. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. Resampling in 2002 did find localized hot spot contamination exceeding screening criteria for unlimited use/unrestricted exposures (UU/UE). A limited field investigation was conducted at SS-29 as a part of OU-1. Further groundwater evaluation and ecological risk assessment were deferred to OU-3. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site.

Primary COCs: PAH

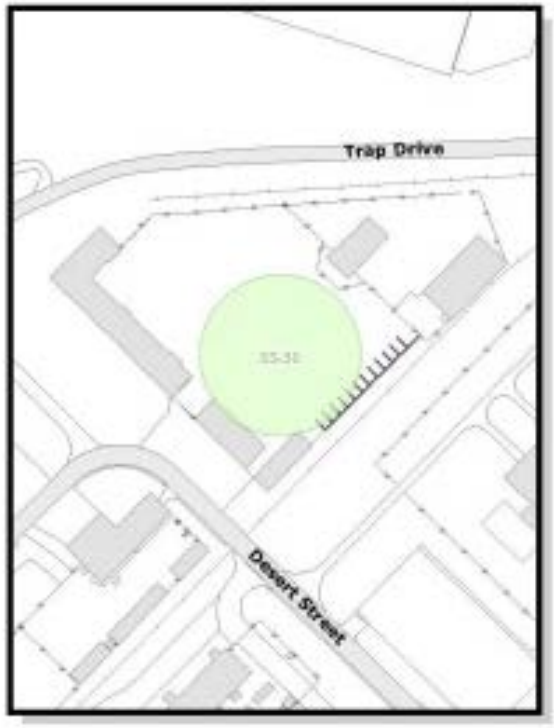
Select Site Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- Five-Year Review – September 2011
- 2010 Amendment to the 1995 ROD

Current Status: RA-O. The PBC was awarded in September 2005 to complete the required hot-spot removal ERP activities at this Site in 2007.

Action Required & Planned Path for Closure: No further action required.

SS-30





NFA
UU/UE

Site Description: DRMO Storage Area 1 (NR) was an unlined and un-bermed area located 240-300 feet northeast of Building 1322. Prior to December 1987, it was a temporary storage point for drummed wastes collected around the Base and other military facilities in the area, potentially receiving TCE, waste solvents, waste paints and thinners, and other associated products. The wastes were processed for recycling depending on the nature, quantity, and purity of the wastes. The Site is now used to store pipe, conduit, and some decommissioned tanks. Concern for this Site was generated after soil samples were obtained at Storage Area 1 (December 1987) at the time of discontinuation. From these samples, VOC contamination was suspected. VOCs were detected in the Limited Field Investigation, but at concentrations far below RBCs. Therefore, no further action was recommended. This is one of the 15 Sites from OU-1 for which No Further Action was recommended. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. The site was Clean-Closed under RCRA in 2001.

Primary COCs: None

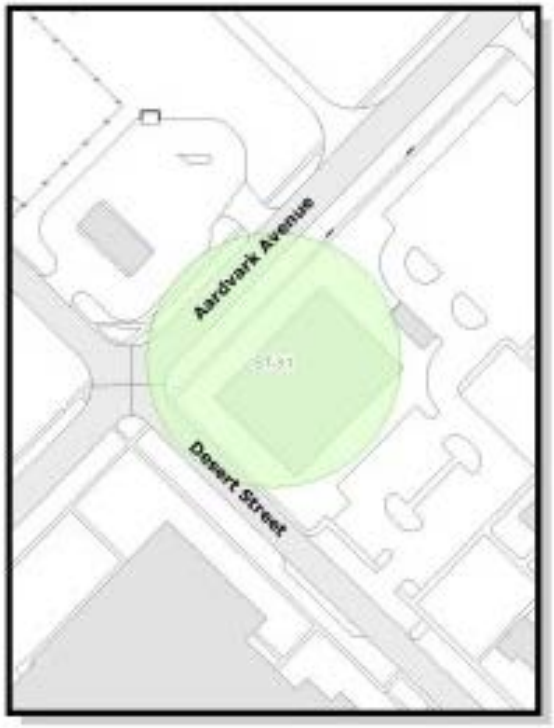
Select Site Information:

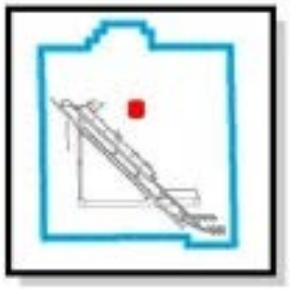
- ROD – October 1995
- Five-Year Review – June 2001
- 2001 RCRA DRMO Closure Certification
- Five-Year Review – June 2006
- 2010 Amendment to the 1995 ROD

Current Status: NFA and UU/UE.

Action Required & Planned Path to Closure: No action required. The Site is closed.

ST-31





NFA
UU/UE

Description: The BX Gasoline Station is located east of the intersection of Aardvark Avenue and "D" Street. It is approximately 150 feet east of the Base gymnasium and 500 feet south-southeast of the Over-the-Horizon radar facility (Building 2215). Most of the Site is paved with asphalt or covered with buildings. The facility originally included a service building, three gasoline dispenser islands, and three 10,000-gallon steel USTs that were installed in 1955 and that were used to store leaded and unleaded gasoline. Pumps and piping were replaced in 1983. Tank/piping tightness tests done in 1992 indicated that one of the tanks and its piping were leaking. The other two tanks passed the test. The duration of fuel release is not known, but the leak may have occurred over a period of years. The tank that failed the test, its associated piping, and approximately 800 cubic yards of contaminated soil were removed from the Site, and the excavation was backfilled with clean fill. The Site was sampled during several investigations. A Remedial Investigation was completed that included soil gas, soil boring, and rock coring investigations. Residual gasoline contamination was found in soils at the bottom of the tank removal excavation and in soils at the northeast end of the removal excavation. Fate and transport modeling indicated that chemicals of concern will not reach groundwater in concentrations that exceed conservative RBCs. The recommended land use control was to restrict future uses to industrial. A re-evaluation in 2002 did find localized hot spot contamination exceeding screening criteria for unlimited use/unrestricted exposures (UU/UE). In 2005 contaminated soils were removed and a RCRA clean site closure was accomplished during an end of year construction project for an indoor running track. The site was closed to UU/UE standards.

ST-31

(Continued)

Primary COCs: None

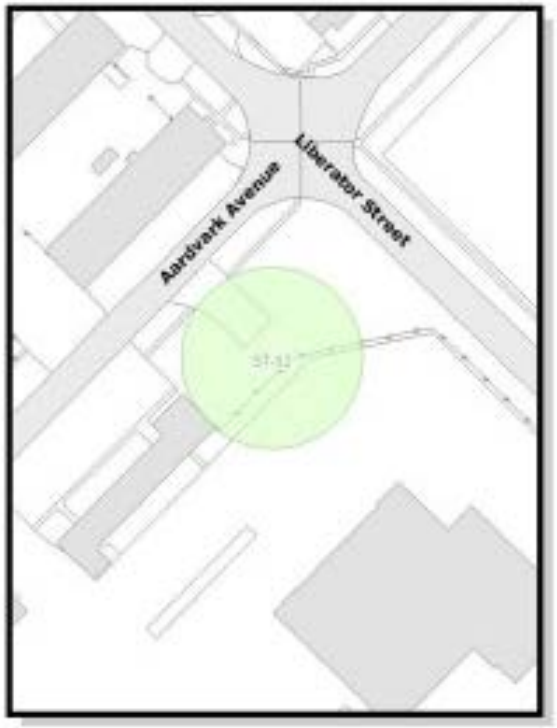
Select Site Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to the 1995 ROD

Current Status: NFA – UU/UE.

Action Required & Planned Path for Closure: No action required. The Site is closed.

ST-32





NFA
UU/UE

Site Description: The Military Gas Station was located at the south corner of the intersection of 9th Avenue and "B" Street. The Military Gas Station was constructed in 1948 to supply fuel to military vehicles. Original features included a service building (T-1113), one 5,000-gallon steel UST (diesel), one 12,000-gallon steel UST (gasoline), and one 19,000-gallon steel UST (diesel). Some piping changes were made in 1962, and two new pumps were added in 1991. The 12,000-gallon and 19,000-gallon USTs were removed in February 1992, and the 5,000-gallon UST was removed in May 1992. The Site was sampled during several investigations. The results of the investigations showed that residual fuels contamination in soils is present at the Site, and it occurred mostly under the east end of the pump island pad, below the excavation for the 5,000-gallon and 12,000-gallon USTs, and in a thin zone beneath the excavation for the 19,000-gallon UST. Field screening information and laboratory analytical data for various sample intervals in a rock coring completed to a depth of 155.6 feet below ground surface, showed that no detectable concentrations of fuel constituents were present in the basalt bedrock at a depth of 153.8 feet. Results of the Human Health Risk Assessment and the Ecological Risk Assessment indicate no unacceptable health risks are expected from exposure to soils. The 2001 Five-Year Review recommended land use controls to restrict future uses to industrial. Reevaluation in 2002 did not find contamination exceeding screening criteria for unlimited use/ unrestricted exposures (UU/UE). OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site.

ST-32
(Continued)

Primary COCs: None

Select Site Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD

Current Status: NFA.

Action Required & Planned Path for Closure: No action required. The Site is closed. Met requirements for UU/UE documented in the 2006 FYR. Confirmed in the 2011 Five-Year Remedy Review.

ST-34





NFA
UU/UE

Site Description: Fuel Hydrant No. 9 is located near the middle of the main taxiway west of the Base Residual fuel contamination was detected in one soil sample collected from a soil boring near the metering pit. Field observations indicate that bulk fuels did not migrate deeper than 15 feet below ground surface. The Site is part of the JP-4 hydrant fueling system that was installed at the Base during the mid-1950s. The hydrant system consisted of a fuel head and metering pit that were connected by an underground fuel line that was inside a pipe sleeve. The hydrant system was used to both meter fuel to aircraft and to defuel aircraft. The delivery pump in the metering pit transferred fuel to a defueling tank located near Fuel Hydrant No. 4. On April 4, 1991, personnel from the Civil Engineering Squadron Liquid Fuels Section conducted a routine inspection of the fuel hydrant, and they discovered approximately 10 gallons of JP-4 inside the metering pit. It was dripping from the seal between the fuel line and its protective pipe sleeve. Soils adjacent to the east end of the metering pit were excavated to a depth of about 5 feet. The fuel line was pressure tested, and replacement of the fuel line was deemed necessary. The fuel hydrant was subsequently removed, and soils were excavated from an area approximately 5 to 6 feet deep and 20 feet in diameter. A preliminary investigation was completed at the Site in April 1991.The results showed that the soils near the fuel head excavation contain no detectable concentrations of JP-4 constituents. Contaminants in the vapor phase were detected with the soil gas sampling around the fuel head excavation. Laboratory analysis, field screening, and field observations indicate that bulk fuels did not reach bedrock. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. The 1995 ROD recommended NFA.

ST-34
(Continued)

Primary COCs: None

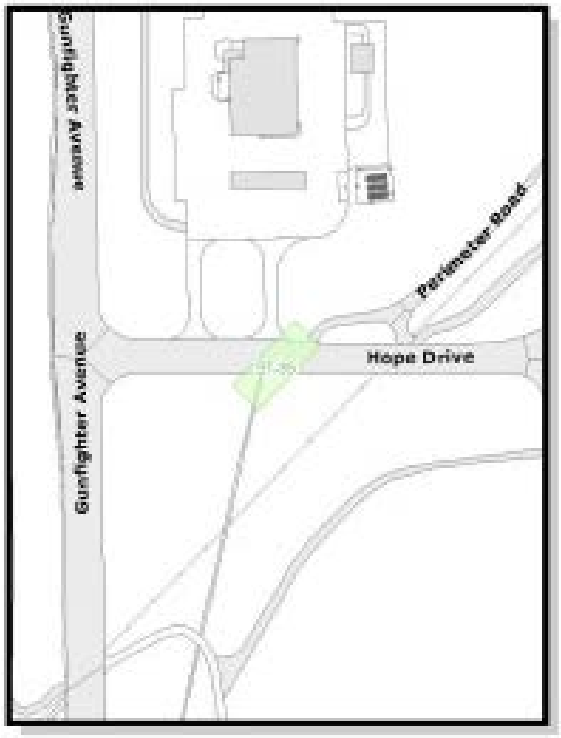
Select Site Information:

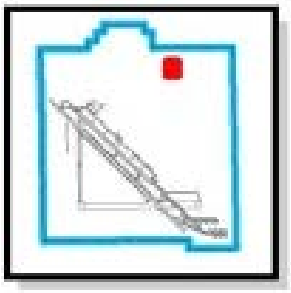
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD

Current Status: NFA

Action Required & Planned Path for Closure: No action required.

ST-35





NFA
UU/UE

Site Description: The Hospital Fuel Spill Site was located west of the Base hospital. The Site consisted of a fuel line that is under the hospital access road that intersects with Hope Drive. The actual Site was about 200 feet east of the intersection where the main JP-4 supply pipeline from the town of Mountain Home passes under the access road. The release occurred in the mid-1980s (probably 1985 or 1986). According to Base records, the pipeline was cut by a tooth on a grading machine during construction of the access road. An estimated 800 to 1,000 gallons of JP-4 were released from the pipeline under non-pumping, gravity flow conditions. The pipeline was reportedly repaired the day following the release. Approximately 350 to 400 gallons of fuel was recovered. Soils at the release site were excavated to a depth of 3.5 feet. The soil was transported to a land farm area. After the fuel line release and repair, Tracer Research Corporation installed a soil vapor monitoring system along the fuel pipeline. No leakage has been detected at the Site. Two soil borings were drilled to bedrock and were sampled to confirm the effectiveness of the soil removal action at the Site. Soil samples collected at the soil-bedrock interface were screened for total petroleum hydrocarbons (TPH) using immunoassay analysis. There was no residual JP-4 present in the soils. OU-3 investigated the soils, surface water/ sediments, and groundwater pathway ecological risk from this ERP Site.

Primary COCs: None

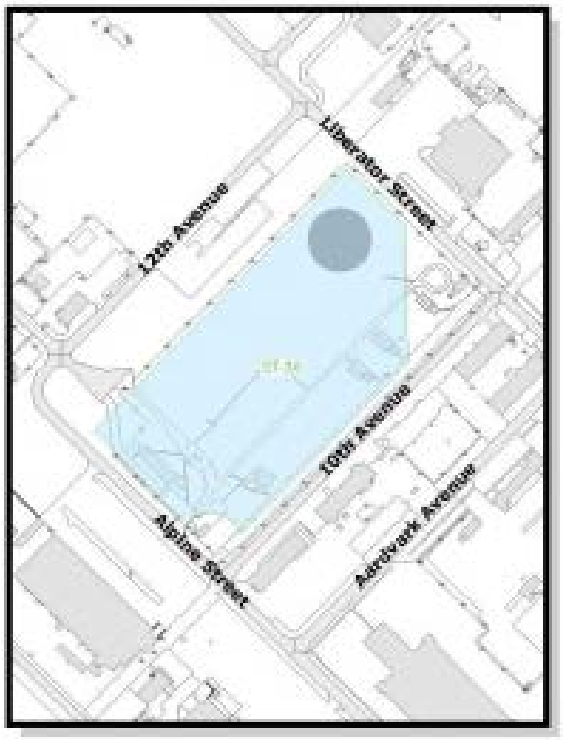
Select Site Information:

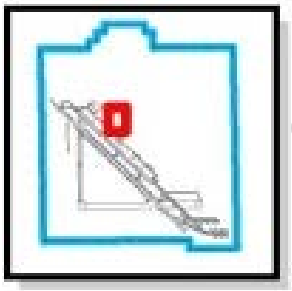
- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD

Current Status: NFA, UU/UE

Action Required & Planned Path for Closure: No action required. The Site is closed.

ST-38





NFA

Site Description: Site ST-38 originally concerned a tank removal that occurred in FY92; BTEX and TPH were evident from 10 feet below the ground surface (the bottom of the tank) to 25 feet below the ground surface. The Site was expanded to include the entire POL Yard in April 1993, when a contractor excavated a trench through the yard to install a new fuel line to the Base heat plant. Several "pockets" of contamination were exposed, indicating a history of leaking tanks and piping. Historically, the POL yard consisted of three 1.5-million-gallon tanks of JP-4/JP-8 (Tanks 1A, 2 and 3), one 600,000-gallon tank of diesel, four 21,000-gallon gasoline tanks, one 500-gallon diesel tank, two 500-gallon tanks of unknown product/waste, one 500-gallon tank of mixed hazardous waste, and one 55,000-gallon tank of ethylene glycol. The yard also consists of piping and manifold systems for delivery and receipt of product. The Site has been transferred from the OU-3 Fuel Sites and the FFA to Idaho State authorities. The investigation (tanks 1A and 2) has been conducted under the jurisdiction of the Idaho UST program. A Risk Base Corrective Action document has been completed for this site. The 1A Site was approved for no further action in 2011. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. Significant work in 2012 and 2013 has been completed at the site to remove older aboveground tanks and replace with new steel tanks. Site 2 is being closed under RBCA/REM but is on hold until all work is completed at the POL yard.

ST-38
(Continued)

Primary COCs: None

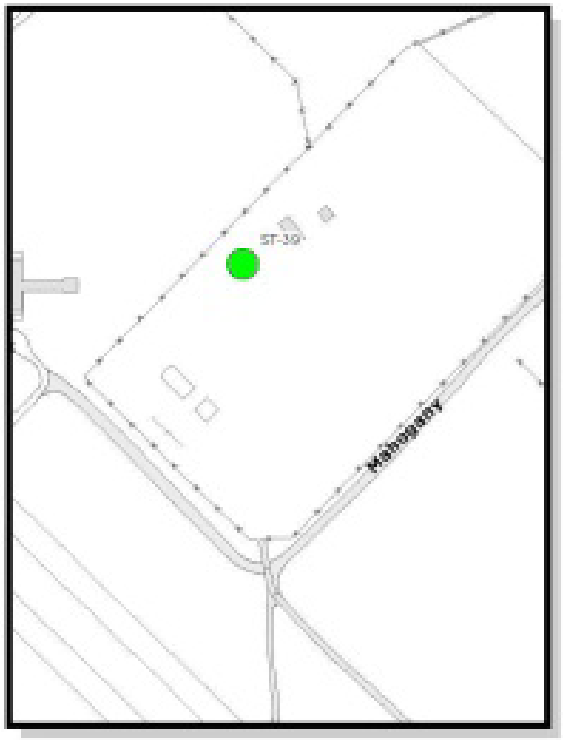
Select Site Information:

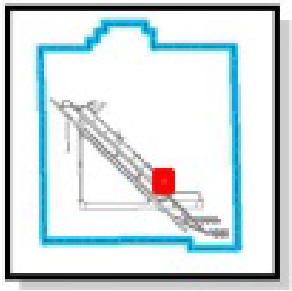
- RI/FS – March 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- Five-Year Review – Sep 2011
- RBCA Summary Report – Jul 2011
-

Current Status: NFA, No Action.

Action Required & Planned Path for Closure: No action required. The Site is closed under the RBCA program/State UST Program.

ST-39





NFA
UU/UE

Site Description: The 15,000-gallon Petroleum Storage Tank Site was located within the boundaries of Fire Training Area 8 (OU-4). The tank held the fuel used during the fire training exercises which included aviation gas from 1962 through 1975 and jet fuel from 1976 through 1986. Other petroleum products, oils, lubricants, and solvents may also have been stored. Site FT-08 was closed on 16 June 1992; however, the storage tank was technically part of the Base Underground Storage Tank program. The State of Idaho required confirmation testing around and under the tank as part of the UST program. Additional investigation at this Site was conducted as part of OU-6. There was no evidence of a release. No further action was recommended in the 1994 RI report. OU-3 investigated the soils, surface water/sediments, and groundwater pathway ecological risk from this ERP Site. The tank has been removed.

Primary COCs: None

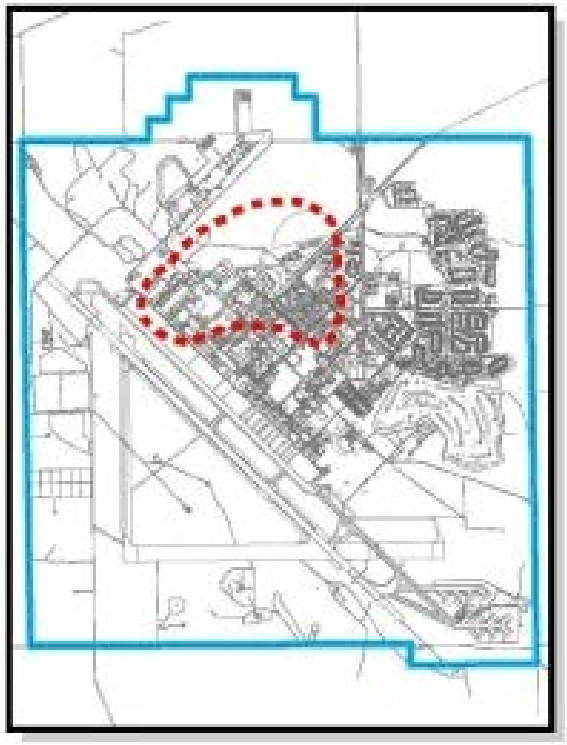
Select Site Information:

- RI/FS – March 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD

Current Status: NFA and UU/UE.

Action Required & Planned Path for Closure: No action required. The Site is closed.

OU-3



Site Description: OU-3 investigated and addressed known or suspected fuel releases at six fuel Sites (ST-11, ST-13, ST-31, ST-32, ST-34, and ST-35) and the soils, surface water/sediments, and groundwater pathway ecological risk from all 32 ERP Sites. The objective of the OU-3 groundwater investigation was to determine if contaminants of concern had been released to the regional groundwater at concentrations that pose an unacceptable human health risk. All Sites identified as possible contributors of chemicals to the environment were considered during the OU-3 Base-wide groundwater investigation. In the four rounds of groundwater sampling documented in the 1995 RI Report, TCE was the only contaminant that was consistently detected. From sampling in September 2005, the highest concentrations of TCE in regional groundwater were detected at Monitoring Well 35 (13 µg/L) and Monitoring Well 25 (7.3 µg/L). TCE concentrations in regional groundwater from other wells during the 2005 event were all below the MCL and consistent with prior years' results. Sites ST-13 and ST-11 were found to have fuel in the water. Locally groundwater is extracted from six wells for drinking, one well for industrial, and one well for irrigation. Pilot study at Sites FT-08, ST-11, and SD-24 were converted to approved vapor extraction systems. RIs, FSs, and PPs were completed. A ROD Amendment For OU-3 was completed in 2010. Most recently, October 2013, an Interim ROD Amendment for OU-3 approved bedrock vapor extraction as part of the final remedy and continued operation of VE systems at ST-11 and SD-24.

RA-O/ LTM

OU-3 (Continued)

Primary COCs: TCE, Fuels

Select OU Information:

- ROD – October 1995
- Five-Year Review – June 2001
- Five-Year Review – June 2006
- 2010 Amendment to 1995 ROD
- Five-Year Review – Sep 2011
- 2013 Interim ROD Amendment

Current Status: RA-O. The PBR Contract was awarded in September 2005 to complete the required ERP activities at this OU.

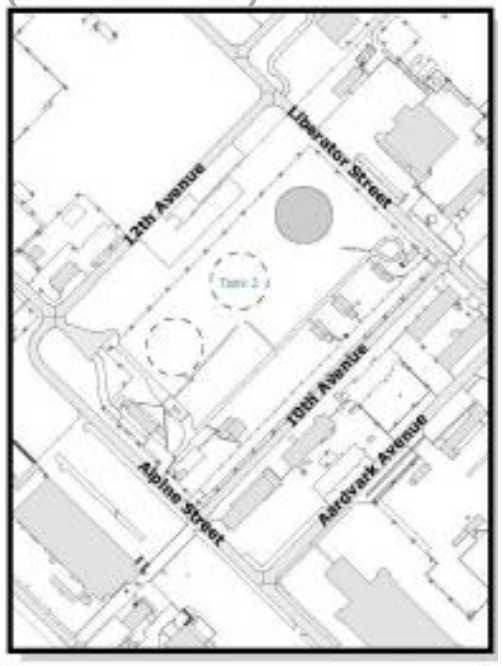
Action Required: Continued operation of existing systems and LTM

4.3 NON-FFA SITE/SWMU DESCRIPTION

Table 4-2. Non-FFA Site SWMU Descriptions

POL AREA, AST 2

(Part of ST-38)





On Hold

Site Description: The environmental concerns in the POL Storage Area were initially associated with Tank 1 and second with AST Tank 2 and were the result of pressure testing, inspections, and other fuel distribution system issues. Tank 1 was investigated under a separate project and has been demolished and replaced. At AST Tank 2 suspicion of a potential fuel release(s) was based upon results of the out-of-service inspections, repairs, and testing conducted on Tanks 2 and 3 during 2009 and 2010. A Tank 2 and 3 site investigation was conducted in 2010 and 2011 based upon the findings of the previous environmental work and information collected during the Tank 1A release and investigation at the POL Yard. Because of the age of the tanks and potential for catastrophic fuel releases the Defense Logistics Agency through the Army Corps of Engineers contracted with Weston Solutions to investigate Tanks 2 and 3. This Final Report, Tank 2 and 3 Site Investigation of Suspected Fuel Release Petroleum, Oil, and Lubricants Yard was completed 28 February 2011. The report supported replacement of these older tanks. Tank 2 was demolished in 2013. The soil investigation found only one exceedance. The site investigation was completed with a finding of no further action. However, the report recommended site investigation underneath the tanks, a risk evaluation and development of site-specific cleanup remediation standards based upon future industrial use of the site.

Primary COCs: PAHs, BTEX

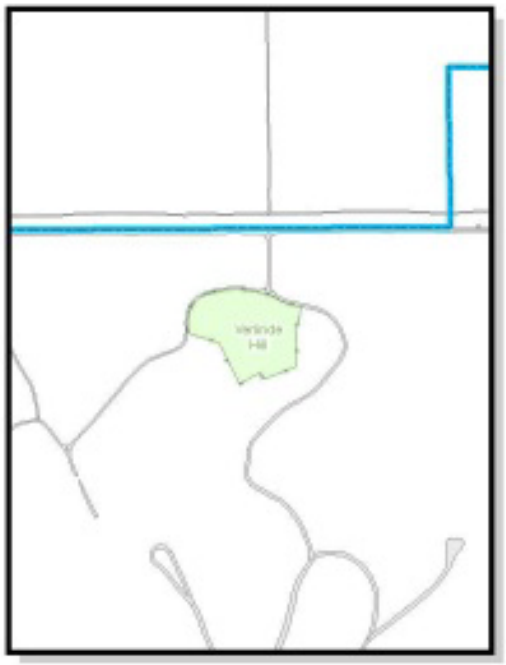
Select Site Information:

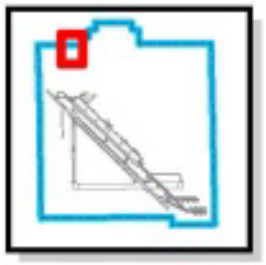
- POL Yard RBCA Summary Report Final, July 2011

Current Status: Tank 2 Demolition completed in 2013

Action Required & Planned Path for Closure: Site is planned as NFA, but a final decision is on hold awaiting completion of all work at the POL yard. Tank 3 is scheduled for demolition in 2014, no replacement tank is programmed.

VERLINDE HILL





LUC/
LTM

Site Description: Verlinde Hill (VH) rubble pile/disposal area is located in the northwest portion of base and had been historically used to place inert materials (rubble) from construction and demolition activities. The inert material was primarily rock and broken concrete associated with excavation and building demolition activities. Rubble material from base housing construction and demolition activities was placed in specified areas within VH. The VH Phases 5, 6, 7 Rubble Area is a SWMU based on the inadvertent placement of soils/rubble from base housing demolition and construction activities. The rubble from Phases 5, 6, and 7 contained some asbestos containing material, attributable to trenching operations (saw rock trenching excavation as well as backhoe operations), which unearthed abandoned buried asbestos piping (transite), which was inadvertently broken and mixed with rubble that was then transported for disposal to VH in the designated Phases 5, 6, and 7 area. The base entered into a Consent Order with DEQ in July 2009. IAW with that agreement, the base installed a final cover/cap, will maintain the cap to ensure it is in compliance with 40 CFR Subpart M, Part 61.151 for desert environments and as set forth in the DEQ approved VH RCRA Facility Investigation (RFI), Investigation Analysis and Recommendation of Corrective Measures document approved May 2011. Approved capping consisted of: Covering the area with 6 inches of compacted, non-asbestos containing soil, seeding the area with a dry-land seed mix, installing a 6-foot-high, chain link fence with two 8-foot-wide swing gates, and posting of asbestos warning signs at the entrance and at 100 meter intervals on the fence.

Primary COCs: Asbestos Containing Material (transite)

Select Site Information:

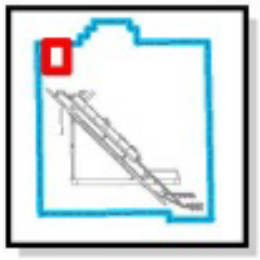
- Consent Order – July 2009

Current Status: Post-closure care/inspections IAW Consent Order

Action Required & Planned Path for Closure: Continue inspections and biannual monitoring.

DP-17





NFA

Site Description: DP-17 consisted of a used tire disposal area within three burial trenched co-located with LF-23, Solid Waste Disposal Area. The trenches contained tires, household wastes, and other solid waste. The Used Tire Disposal Area (DP-17) ERP site was combined with LF-23 for a Limited Field Investigation study. The primary historic sources in these trenches were household refuse, tires, and other solid waste buried in trenches. The trenches were covered with soil. Twelve test pits were excavated to depths of 10 to 16 feet in August of 1991. VOC headspace analysis from all samples from the pit was negative for volatile hydrocarbons. Thirteen soil samples were analyzed for volatiles, semivolatile compounds, and total metals. The "No Further Action Alternative" was recommended based on the results of the field investigations. This is one of fifteen sites in Operable Unit 1 for which No Further Action was recommended.

Primary COCs: PAH

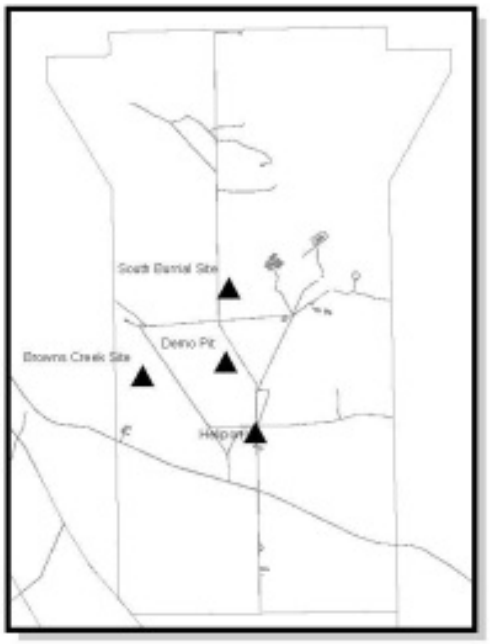
Select Site Information:

- Five-Year Review – June 2006
- Incorporated into LF-23 ESD, 8 Jun 2011
- Five-Year Review – September 2011

Current Status: Recommend No Further Action

Action Required & Planned Path for Closure: Recommend NFA

OT-19





NFA

Site Description: **(OT-19 is a duplication of OT-37. OT-37 contains all four of OT-19's sites, plus two more. It is recommended that we drop OT-19 and use OT-37 from this point forward.)** Munitions Residual Burial Sites at Saylor Creek Electronic Warfare Range. A Decision Document was completed in 1990 with no further action. The range is approximately 11.5 miles wide by 15 miles long covering an area of approximately 174 square miles. The ordnance impact area is a 13,000 acre fenced area located near the center of the range which contains four munitions residue burial sites. The range, initially consisting of several thousand acres, was established by the Army in 1944 and was used for various training activities. In 1954 the range size was increased by 419,120 acres and was used by SAC as a scorable precision bombing range. The range size was reduced by 312,400 acres in 1963. In 1968 the range was converted to an air-to-ground gunnery range for TAC. The range area was reduced by another 2,027 acres in 1970. The range is used by active Air Force, Air National Guard, and navy units training in air-to-ground weapons delivery and tactical air-to-ground reconnaissance. Electronic warfare capabilities were added to the scope of the range uses in 1982. A review of available records and interviews with personnel knowledgeable about the range lead to the identification of one active and three inactive expended ordnance burial sites within the fenced ordnance impact area. Expended ordnance items consist mainly of practice bombs with black power charges. Live ordnance is detonated by EOD personnel on a twice monthly routine basis prior to disposal in burial trenches. A comprehensive border clearance is conducted annually by EOD.

Primary COCs: Lead in soils, munitions related COC's

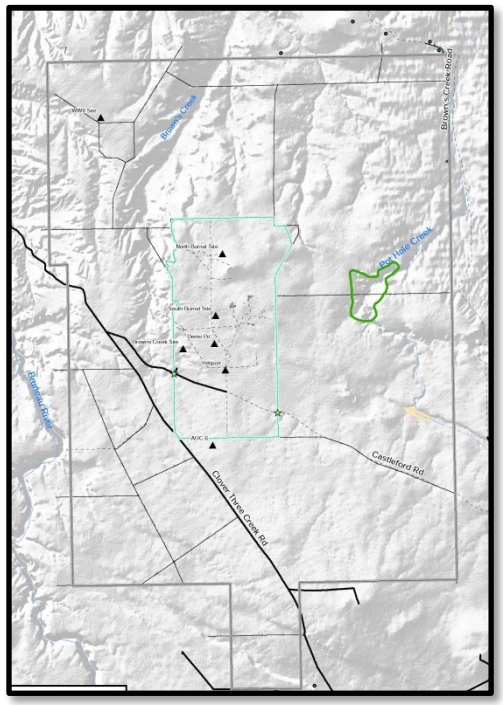
Select Site Information:

- RCRA Facility Assessment, Saylor Creek EWR, Jun 1993
- AOC Assessment Saylor Creek EWR, Jul 1996

Current Status: Recommend No Further Action

Action Required & Planned Path for Closure: No further action planned

OT-37



Site Description: **(OT-19 is a duplication of OT-37. OT-37 contains all four of OT-19's sites, plus two more. It is recommended that we drop OT-19 and use OT-37 from this point forward.)** The Saylor Creek Range site is located northeast of Mountain Home Air Force Base. The range has been operated from 1944 through present. In the past, napalm, high explosives, low-order explosives, tracer rounds, armor piercing rounds, 20 mm and 30 mm ammunition, flares and chaff have been expended on the range. Maintenance activities of vehicles, equipment, and government facilities present further possibilities that products such as solvents, POL products, and degreasers have been released into the environment. The RCRA Facility Assessment was completed in June 1993. According to the FA, possible environmental contamination sources include:

- North Burial Trenches, detonated ordnance burial
- South Burial Trenches, formerly detonated ordnance burial
- World War II Site, former artillery range
- Heliport Site, no evidence of quantity/type of waste disposal
- Brown's Creek Site, ordnance detonation and burial site
- Demolition Pit, formerly ordnance detonation site

The FA concluded that there was no risk to human health and the environment at Saylor Creek Electronic Warfare Range.

Primary COCs: Lead in soils, munitions related COC's

Select Site Information:

- RCRA Facility Assessment, Saylor Creek EWR, Jun 1993

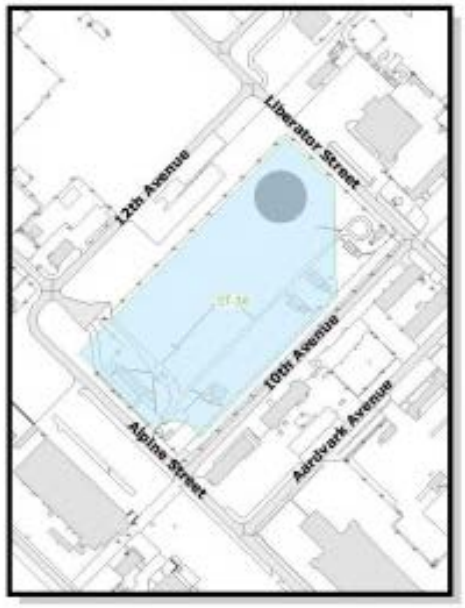
Current Status: No further recommended

NFA

Action Required & Planned Path for Closure: No further action recommended

AST 1A

(Part of ST-38)





NFA

Site Description: POL Yard, AST 1A (Part of ST-38), is located near the center of the Base, approximately 2,500 feet northeast of the main runway. ST-38 was discovered during a tank removal that occurred in FY 92; BTEX and TPH were evident from 10 ft. bgs (the bottom of the tank) to 25ft. bgs. The site was expanded to include the entire POL Yard in April 1993, when a contractor excavated a trench through the yard to install a new fuel line to the Base heat plant. Several "pockets" of contamination were exposed, indicating a history of leaking tanks and piping. ST-38 POL Yard consists of three 1.5-million-gallon tanks of JP-4, one 600,000-gallon tank of diesel, four 21,000-gallon gasoline tanks, one 500-gallon diesel tank, two 500-gallon tanks of unknown product/waste, one 500-gallon tank of mixed hazardous waste, and one 55,000-gallon tank of ethylene glycol. The yard also consists of piping and manifold systems for delivery and receipt of product. ST-38 has been transferred from OU-3 Fuel Sites, and the FFA. It has been reallocated to the RCRA Permit. The investigation will be conducted under the jurisdiction of the Idaho UST program. At a conference of FFA members at Mountain Home AFB on 16 Nov 1994, it was agreed to remove the petroleum release concerns at site ST-38 from the OU-3 RI and ROD, and address them instead under the State UST program. A RBCA investigation was completed and a finding of no further action was recommended.

Primary COCs: PAH, BTEX

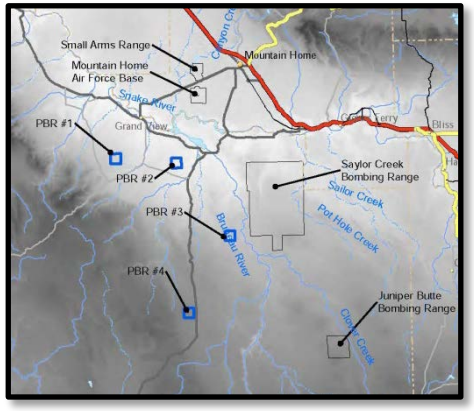
Select Site Information:

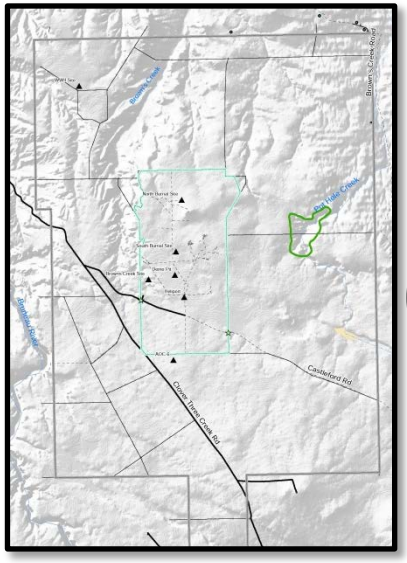
- Mountain Home Conference meeting minutes, 16 Nov 1994
- RBCA Summary Final Report, Jul 2011

Current Status: Recommend No Further Action

Action Required & Planned Path for Closure: No further action

AOC-2





NFA

Site Description: AOC-2, at Saylor Creek, consists of Precision Bombing Ranges 1 through 4 and the Mountain Home Small Arms Range (SAR). The Precision Bombing Ranges are located south and southwest of Mountain Home AFB and were constructed in 1943. Each site is a parcel of land 4 square miles in area. In the past (1940s and possibly 1950s), bomb scoring activities and evaluations were routinely conducted at the sites. The sites were identified in the Phase I RCRA Facility Investigation report that was transmitted to the State and the USEPA on July 19, 1993. No previous studies or investigations have been conducted at these sites. The type and quantities of hazardous materials and wastes present at these sites are currently not known. A preliminary site visit conducted in April 1994 by Base IRP personnel revealed the presence of numerous solid waste items and evidence of a burial pit on these sites. The sites were probably used in support of past range operations from the 1940s to the early 1950s, with suspected use as a burial site for munitions residue and hazardous waste from Mountain Home AFB. Mountain Home AFB agreed (with the State of Idaho) to conduct an assessment to determine whether these AOCs should be designated as SWMUs. The State agreed to allow Mountain Home AFB to conduct the assessments (RFA) to determine whether these sites were actually SWMUs, in lieu of immediately funding, initiating, and completing an in-depth RFI. As a result of negotiations at this meeting, the decision to identify these sites as SWMUs was delayed pending the findings and recommendations resulting from completion of the RFA, to be conducted concurrent with the on-going RFI effort at Saylor Creek. An AOC Assessment report (July, 1996) found no unacceptable human or ecological risks at these sites.

The field investigation at the SAR included only the EOD proficiency range because the remainder of the SAR is an active small arms training area. Several areas within the EOD proficiency range at the SAR contained munitions fragments and parts as well as other debris. EOD detonation pits and a pile of burned munitions debris were also encountered at the site. However, there is no evidence to suggest that routine or systematic disposal of waste occurred at the site. Therefore, no part of the EOD proficiency range is considered to be a SWMU.

AOC-2
(Continued)

Analytical results for soil samples collected from the ground surface and from an exploratory trench dug in the pile of burned munitions debris detected several VOCs, SVOCs, and explosive compounds at relatively low concentrations (up to 4 parts per million). The screening-level human health risk evaluation indicated that the concentrations in soils do not pose an unacceptable risk to human health for a residential use scenario.

Primary COCs: Lead in soils, munitions related COC's

Select Site Information:

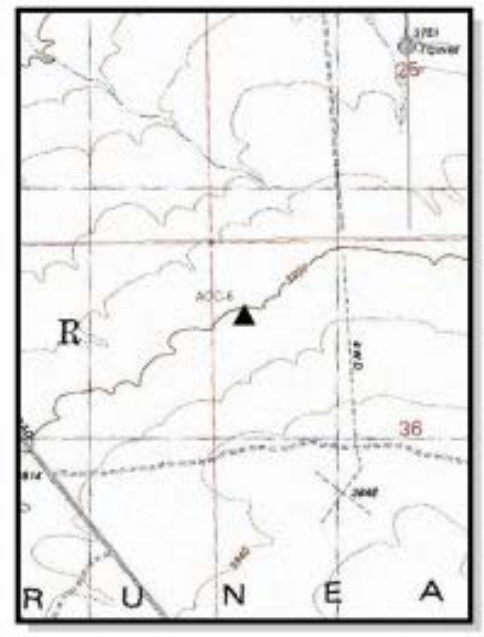
- AOC Assessment for PBR's, SAR and AOC's 6 and 11, Jul 1996

Current Status: Recommend No Further Action at SAR. PBRs were transferred to the Bureau of Land Management (BLM) and are being treated under the Formerly Used Defense Sites program.

- PBR 1 was transferred on 14 Feb 1958
- PBR 2 was transferred on 25 Nov 1955
- PBR 3 was transferred on 14 Sep 1956
- PBR 4 was transferred on 13 Nov 1957

Action Required & Planned Path for Closure: No further Action

AOC-6





NFA

Site Description: Saylor Creek Munitions Residue Burial Site (Inactive), Saylor Creek Range (AOC-06). A suspected burial trench was identified as "Site 3" by the EPA. They reported that no signs of recent burial activity were apparent. Site 3 is visible in aerial photographs taken in 1977, but the site did not appear in 1963 photographs. During a 1994 site visit, a feature was encountered; it was described as a trench that appeared to be filled and had become overgrown with vegetation. This site (AOC 6) was believed to contain munitions residue, as did other trenches at the Saylor Creek Range. The visual site inspection of AOC 6 involved an extensive search and geophysical surveying to identify a suspected burial trench observed on aerial photographs. Currently, the site is overgrown with vegetation and no surface expression of the suspected burial trench is evident. Several magnetic anomalies in the area were investigated with exploratory trenches, but no evidence of the suspected burial trench was observed. No samples were collected. Based on the results of the reconnaissance, the site is not considered a SWMU and no further action is recommended.

Primary COCs: Lead in soils, munitions related COC's

Select Site Information:

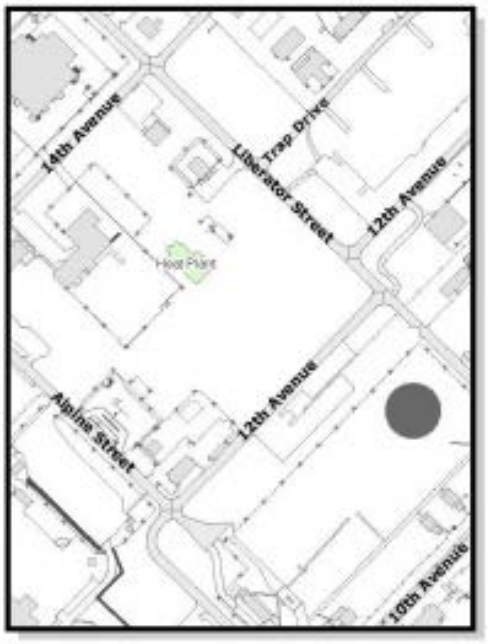
- AOC Assessment for PBR's, SAR and AOC's 6 and 11, Jul 1996

Current Status: Recommend No Further Action at AOC-6

.

Action Required & Planned Path for Closure: No further Action

AOC-7





NFA

Site Description: The Coal Storage Yard (AOC -7) is an inactive facility used for the storage of coal reserves for the Heating Plant (Building 1328) from 1943 until 1993. This site covers an area approximately 900 feet by 450 feet, and included a heating plant building, concrete storage pad, auxiliary generator, auxiliary generator fuel tank, and other related equipment associated with power generation. Demolition of all structures was complete in 2010. During operations, the Heating Plant used an average 12,000 to 14,000 tons of coal per year. As a result of the coal burning process, fly ash was produced at a rate of 2,000 tons per year. The fly ash was temporarily placed in a silo located at the site, and was eventually disposed of in the Base landfill. The silo is no longer present. Additionally, a railroad spur previously bordered the northwest side of the site. (See 2001 Five-Year Remedy Review for details.) Recently, an Environmental Baseline Survey (EBS) was conducted to potentially transfer this property to the Defense Logistics Agency. Samples were taken indicating no risk and no environmental significance. The site was suitable for transfer, however it was determined that it was not needed. The new tanks were designed to be placed in the same footprint as the old tanks after demolition.

Primary COCs: None (residual coal ash)

Select Site Information:

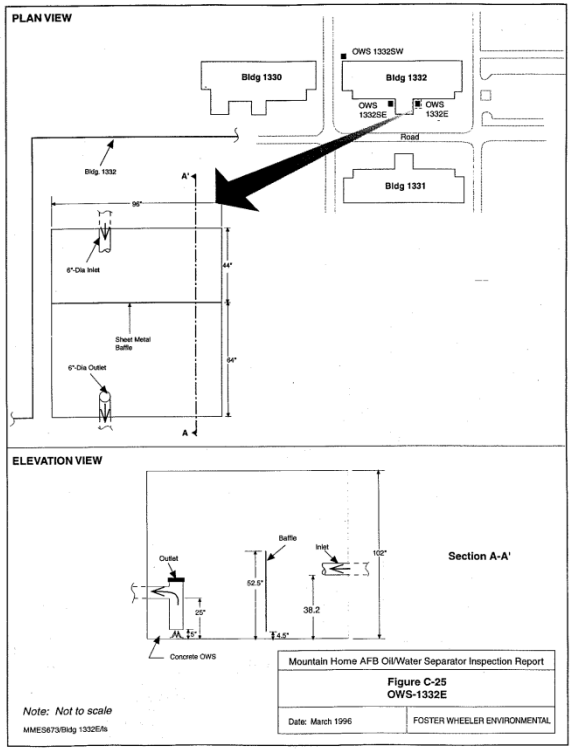
- Final Preliminary Assessment Report, Flour-Daniel, 1996
- EBS (Tank Farm Property, Michael Baker Jr, Inc.) March 2009

Current Status: Recommend No Further Action

Action Required & Planned Path for Closure: None

AOC-8

Oil Water Separator #1332e



Site Description: OWSs (AOC -8) have been used at the Base since the early 1940s. OWSs are located throughout the Base with the majority of them located in the central industrial area (Figure 8-3). The types and quantities of hazardous materials used at the Base are typical of facilities associated with aircraft and vehicle maintenance operations

Primary COCs: Oil, fuel, floor washing detergent (sodium metasilicate), battery acid and brake fluid

Select Site Information:

- MHAFB OWS Inspection Report, April 1996
- 24 Jan 1997, Letter from DEQ as NFA Required

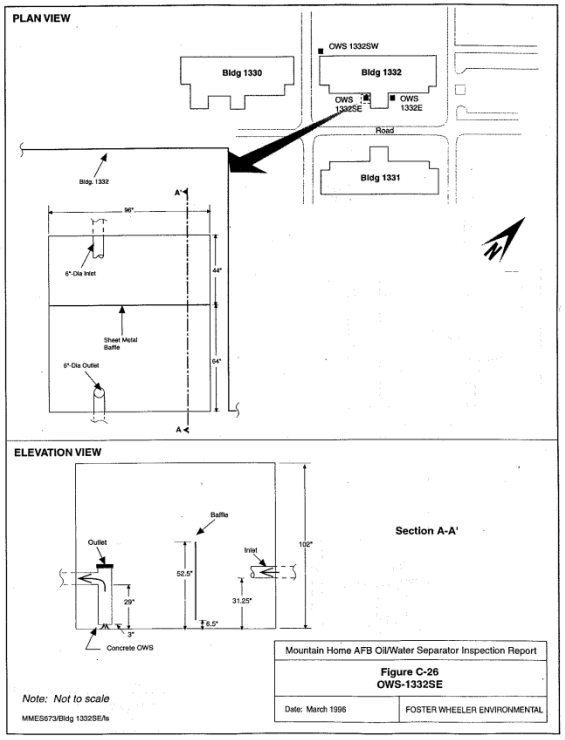
Current Status: The unit was decommissioned in July 1996.

Action Required & Planned Path for Closure: NFA required

NFA

AOC-8

Oil Water Separator #1332se



Site Description: OWSs (AOC -8) have been used at the Base since the early 1940s. OWSs are located throughout the Base with the majority of them located in the central industrial area (Figure 8-3). The types and quantities of hazardous materials used at the Base are typical of facilities associated with aircraft and vehicle maintenance operations

Primary COCs: Oil, fuel, floor washing detergent (sodium metasilicate), battery acid and brake fluid

Select Site Information:

- MHAFB OWS Inspection Report, April 1996
- 24 Jan 1997, Letter from DEQ as NFA Required

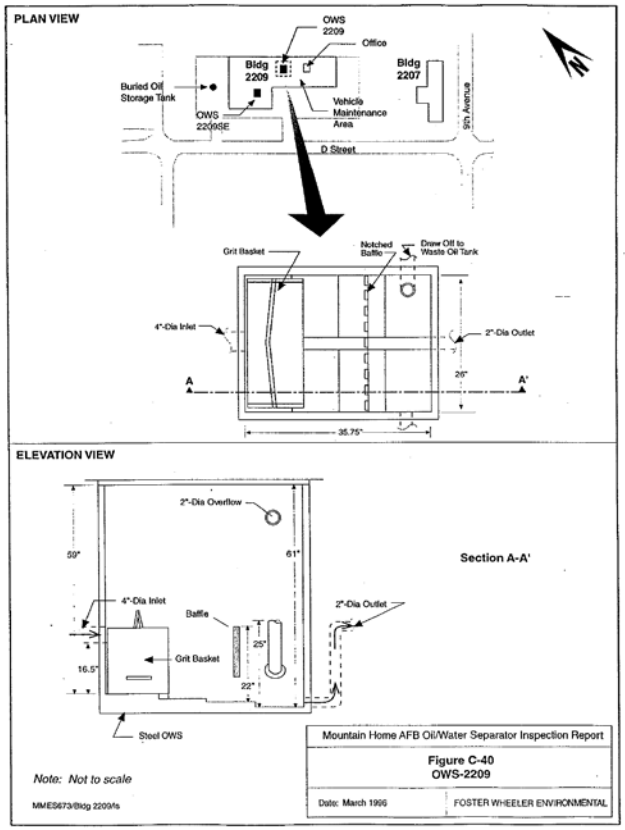
Current Status: The unit was decommissioned in July 1996.

Action Required & Planned Path for Closure: NFA required

NFA

AOC-8

Oil Water Separator #2304



Site Description: OWSs (AOC -8) have been used at the Base since the early 1940s. OWSs are located throughout the Base with the majority of them located in the central industrial area (Figure 8-3). The types and quantities of hazardous materials used at the Base are typical of facilities associated with aircraft and vehicle maintenance operations. The generating process was a vehicle washing facility. Typical contaminants of concern were oil, fuel, floor washing detergent (sodium metasilicate), battery acid and brake fluid. The OWS was a gravity separator with two compartments and an inverted pipe, discharging to a sanitary sewer. Upon inspection the inlet pipe from the carwash was full of sand, approximately 75% restricted. The inlet pipe from garage floor was 50% restricted.

Primary COCs: Oil, fuel, floor washing detergent (sodium metasilicate), battery acid and brake fluid

Select Site Information:

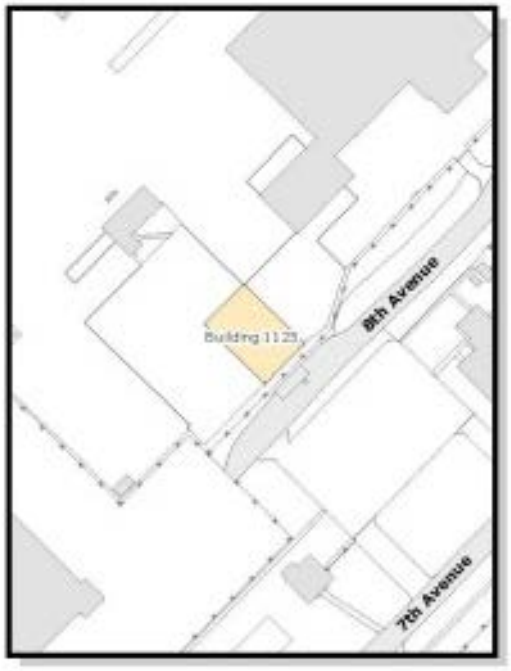
- MHAFB OWS Inspection Report, April 1996
- 24 Jan 1997, Letter from DEQ as NFA Required

Current Status: The unit was decommissioned in July 1996.

Action Required & Planned Path for Closure: NFA required

NFA

AOC-9





NFA

Site Description: The Motor Pool Site "A" (AOC -9) is an active facility used for the maintenance of vehicles and heavy equipment. This facility has been in operation since 1953, and is located in Building 1125 within the center of the Motor Pool compound and adjacent to the Vehicle Operations facility (Building 1126) (Figure 8-2). This facility involves the handling of POL, miscellaneous maintenance items (antifreeze, batteries, oil filters, cleaning fluids, etc.), and other associated equipment. A JP-4 reclamation unit and a used oil reclamation unit are both maintained at the facility. Two active OWSs are located at the site; one is located on the north side and one is located on the south side of the building. Additional operations performed include painting, paint stripping, fuel truck repair, tire removal and repair, battery servicing and replacement, brake work, transmission work, and air conditioning repair. Site access is limited. The entire site is fenced and access-controlled by vehicle operations. (From the 2001 Five Year Remedy Review Document – See for details on NFA Status)

Primary COCs: PAH's, BTEX

Select Site Information:

- Final Preliminary Assessment Report, Flour-Daniel, 1996

Current Status: No Further Action

Action Required & Planned Path for Closure: No Further Action

AOC-11





NFA

Site Description: The Pothole Canyon Burial Site is located east of Mountain Home AFB on the Saylor Creek Range. AOC 11 is a general area within Pot Hole Canyon where munitions debris was allegedly seen by MHAFB personnel. An aerial photograph review was conducted, but it did not reveal the location of any munitions debris in Pot Hole Canyon. Personnel at MHAFB had previously indicated that JATO bottles and BDUs were visible in the canyon from the air. However, specific locations of munitions debris were not known prior to the field investigation. The visual site inspection of this site involved several walk-overs of the canyon to locate Jet Assisted Take Off (JATO) bottles and practice bomb (BDUs) debris that MHAFB personnel indicated were present in the canyon. No such materials were identified during the ground reconnaissance; however certain portions of the canyon were inaccessible due to heavy vegetation. No samples of the site were collected. MHAFB EOD personnel conduct annual sweeps of this area to locate and collect stray practice bombs that end up outside the Saylor Creek Electronic Warfare Range fenced impact area. Therefore, any further action at this site should be limited to the routine sweeps conducted by EOD.

Primary COCs: Lead in soils, munitions related COC's

Select Site Information:

- AOC Assessment for PBR's, SAR and AOC's 6 and 11, Jul 1996

Current Status: Recommend No Further Action

.

Action Required & Planned Path for Closure: No further Action

AOC-12

(Liberator Street Sanitary Sewer Line)



NFA

Site Description: The Base's sanitary sewer system consists of gravity- and force-fed main collection systems and is comprised of approximately 153,000 linear feet of sewer mains and laterals ranging in size from 6 to 24-inches in diameter. The majority of the existing gravity flow collection system consists of pre-cast concrete with laterals typically consisting of 4 to 8-inch PVC pipe. The portion of the sanitary sewer system that is located along Liberator Street has been identified as Area of Concern 12 (AOC-12). The Liberator Street sanitary sewer line is constructed of concrete with a 15 inch diameter and has collected the sewage from the industrial portion of the Base since the 1950s. The sewer line ends at the Wastewater Treatment Plant, Building 3494. The site was investigated and target VOC and SVOC compounds were reported to be present in site soils; however, none of the concentrations exceeded compound-specific screening criteria. Metals were also reported in site soil samples, with some arsenic concentrations exceeding the residential and industrial carcinogenic soil PRG, and some iron concentrations exceeding the residential soil PRG. However, since none of the arsenic concentrations exceed the background concentration of arsenic established in previous risk assessment work at the Base, and high iron concentrations in area soils are expected due to area geology, these metals concentrations are probably not due to site related contamination and are not considered to pose a true potential risk. Because none of the target VOC and SVOC compounds exceeded compound-specific screening criteria, and metals concentrations are within expected background concentrations, the recommendation for Site AOC-12 was No Further Action.

Primary COCs: VOC's and SVOC's

Select Site Information:

- Final Report Site Investigations at Multiple Sites, MHAFB, ID, Feb 2003

Current Status: NFA Recommended.

Action Required & Planned Path for Closure: No further action.

4.4 OIL WATER SEPARATORS

Table 4-3. OWS SWMUs in 1997 DRAFT Addendum to November 1990 RFA for MHAFB

SWMU No.	OWS	Status
1	201, Hangar	Closed in place 1997-1998*
2	204, Hangar	Closed in place 1997-1998*
3	205, Hangar	Closed in place 1997-1998*
4	208E, Hangar/Wheel and Tire Shop (old)	Removed 1997-1998*
5	208NW, Hangar	Closed in place 1997-1998*
6	208SE, Hangar/Wheel and Tire Shop (old).	Closed in place 1997-1998*
7	208W, Hangar	Closed in place 1997***
8	208W, Hangar (Clean-out box))	Closed in place 1997***
9	211S, Hangar	Closed in place 1997-1998*
10	211W, Hangar	Closed in place 1997-1998*
11	211 W/Rack, Washrack	Removed 1996 (OWS Inspection Report 4/96)
12	261SE, Fire Station	Closed in place 1997-1998*
13	261W, Fire Station	Closed in place 1997-1998*
14	268 Old, Fire Training	Removed 1997-1998*
15	270E, Hush House 2	Closed in place 1997-1998*
16	1100, Vehicle Maintenance, Previously Abandoned	unknown
17	1100NW, Vehicle Maintenance	Removed 1997-1998*
18	1100SE, Vehicle Maintenance	Removed 1997-1998*
19	1100W, Car Wash Facility	Closed in place 1997-1998*
20	1125NE, Fuel Truck Maintenance	Removed 1997-1998*
21	1125W, Concrete Wash Pad	Closed in place 1997-1998*
22	1125S New, Fuel Truck Maintenance	Closed in place 1997-1998*
23	1225, Jet Engine Shop	Removed 1997-1998*
24	1229, Wheel and Tire Shop/MAURA/C	Closed in place 1997-1998*
25	1317E, POL Fuel Storage Area	Removed 1997-1998*
26	1317SE, POL Fuel Storage Area/Bulk Fuel Truck Loading Station	Removed 1997-1998*
27	1329W, Hangar/Maintenance Dock	Removed 1997-1998*
28	1329NW, Hangar/Maintenance Dock	Removed; AST Remains in Place 1997-1998*
29	1330SE, Hangar/Corrosion Control	Removed 1997-1998*
30	1331W, Hangar/Maintenance Dock	Removed 1997-1998*
31	1332E, Hangar/Fuel Cell Maintenance Shop	Decommissioned 7/96; 1124/1997 RCRA closure accepted
32	1332SE, Hangar/Fuel Cell Maintenance Shop	Decommissioned 7/96; 1124/1997 RCRA closure accepted
33	1333, Hangar/Maintenance Dock	Closed in place 1997-1998*
34	1335, Corrosion Control/Fuel systems Testing/Maintenance	Removed 1997-1998*
35	1340, Munitions Trailer Maintenance	Removed 1997-1998*
36	1341, Test Cell/Old Test Pad	Removed 1997-1998*

Table 4-3. OWS SWMUs in 1997 DRAFT Addendum to November 1990 RFA for MHAFB

SWMU No.	OWS	Status
37	1344, Hush House	Closed in place 1997-1998*
38	1347, Test Cell/Old Test Pad	Removed 1997-1998*
39	1349, Aircraft Wash Rack (outdoor)	Removed 2002****
40	1354, Road Maintenance Equipment Shop	Closed in place 1997-1998*
41	2209, Hobby Shop	Closed in place 2004*****
42	2209SE, Hobby Shop	Closed in place 2004*****
43	2304, Old BX Gas Station and Car Wash	Decommissioned 7/96; 1/24/1997 RCRA closure accepted
44	268, Fire Training, New	Remain in service**
45	331 (311), Range Squadron (RANS) Washrack	Converted to grit removal 2002****
46	315, ECRS/Power Production	Removed in 2002 (sewer construction project)
47	1311, Gov. Vehicle Fuel Station	Removed 2002****
48	1330E, Hangar/Corrosion Control	Removed; AST Remains in Place 1997-1998*
49	1331NW, Hangar/Maintenance Dock	To be removed**
50	1332SW, Hangar/Fuel Cell Maintenance Shop	Closed in place 2002****
51	1359, Aerospace Ground Equipment (AGE)	Removed 1997-1998*
52	1367, Fuel Truck Parking Lot	Removed 2002****
53	1415, POV Washrack	Removed 2002****
54	1804, Golf Course Maintenance	Converted to grit removal 2002****
55	6000, Hospital	Closed in place 2004*****
NA	206, Fire Truck Parking	No OWS present**
NA	603, MWR Supply	Closed in place, Bldg. demolished, 2009
NA	1339, Jet Engine Shop	Removed 2002****
NA	2215, Generator Room	Closed in place 2004*****
NA	6200, BX Service Station	Closed in place 2002****

* Status documented in Table 8-1 2001 Five-Year Remedy Review

** Status documented in Table 8-2 2001 Five-Year Remedy Review

*** Status documented in Woodward-Clyde, "Final Oil/Water Separator Decommissioning OWS 208W," December 1997

**** Status documented in URS, “Final Decommissioning Plan for Oil/Water Separators Mountain Home AFB,” June 2002

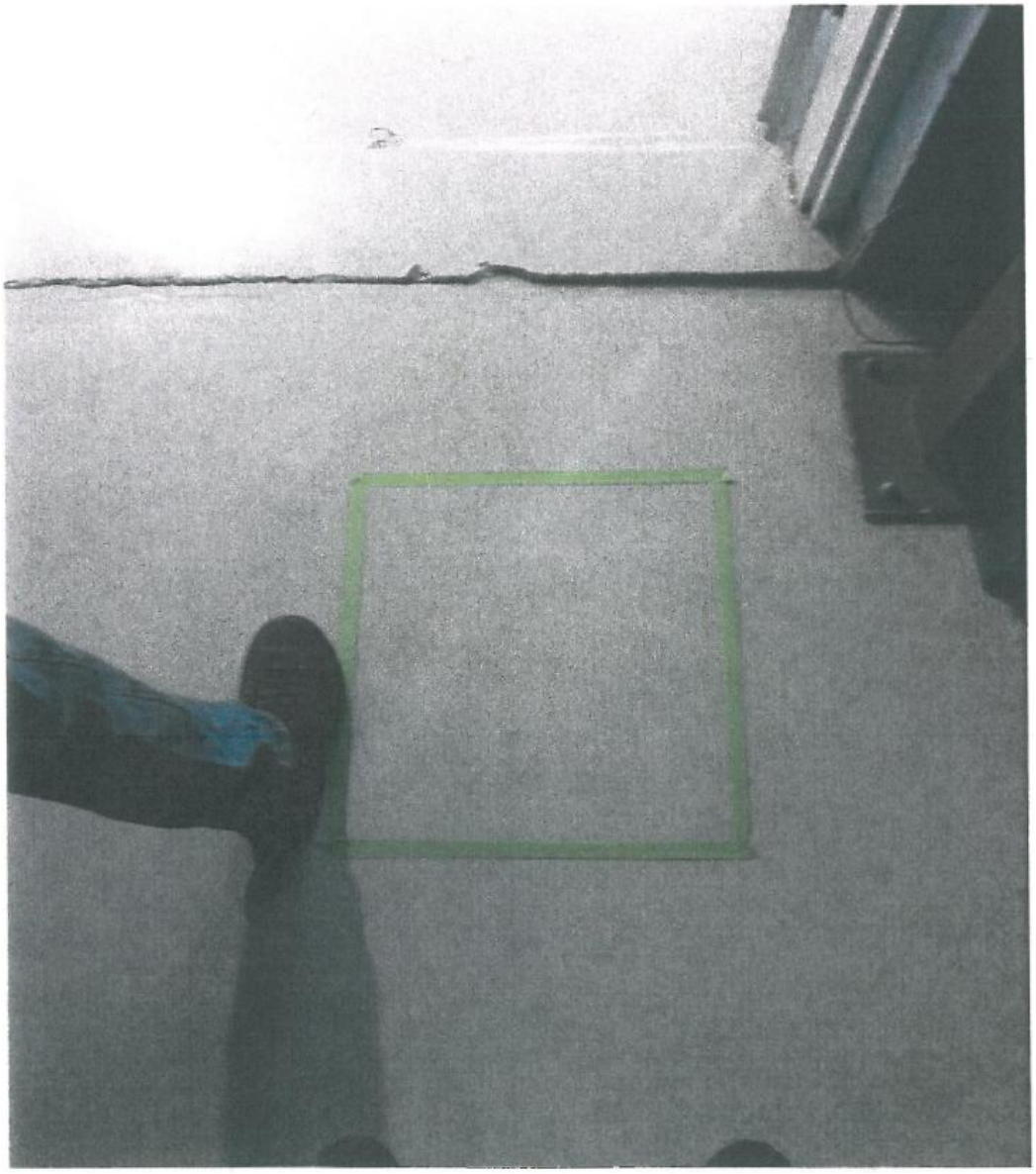
***** Status documented in URS, “Final Oil Water Separator Decommissioning Mountain Home AFB,” March 2004

4.5 OWS 1100 – CLOSED IN PLACE 1996

OWS-1100 had been incorrectly identified as an OWS; it was actually a sump. It was located in the old paint booth of Building 1100 and has since been sealed off with a concrete lid. The floors have been epoxy sealed post 1996 closure of sump; however, the square outline of vault is still visible (see photo below).

This was not an OWS; it was just a sump in the middle of the floor that is cleaned out regularly. It does not have outlet drains.

Wastewater composition: Water, oil, fuel, paint thinner, brake fluid, sodium hydroxide, latex wheel/tire sealer, antifreeze, battery acid, lubricants and detergent concentrated degreaser/cleaner/deodorizer.
Generating process: Vehicle washing and maintenance, shop cleaning, floor washing
OWS type: N/A unit was a wastewater sump (vault)
Discharge: None, drains are plugged
Status/Recommended disposition: NA
Sample: No sample collected



HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 5 – CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS

APPENDIX A – SITE DOCUMENTS LIST

EFFECTIVE DATE: JANUARY 11, 2015

5.0 CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS

As part of the FFA a total of 33 sites have been investigated to evaluate potential impacts to human health and the environment. In September 1995, the USAF, USEPA Region X, and IDHW signed a ROD. The parties concluded that no remedial action was necessary under CERCLA for soil or regional groundwater at 32 of 33 sites. The remaining site, ST-11, the flight line fuel spill, would be subject to a Limited Action. As of September 2011, a 5-year review of the selected remedies was conducted. In accordance with the Five Year Remedy Review Report and due to the continuing presence of low levels of Trichloroethylene (TCE) in groundwater, additional investigations were conducted at the active fire training area (FT-08) and the Old Liquid Oxygen Tank Facility and Auto Hobby Shop (together SD-24) in an attempt to determine if either is the source of the contamination in the groundwater. Upon the completion of the 2002 additional site investigations, FFA partners agreed that the sites, FT-08, Old Liquid Oxygen Tank Facility, and Hobby shop, required no further action (URS, 2002). As a result of further investigations, FT-08 has been recommended for a Soil Vapor Extraction system.

5.1 EXISTING SWMUs

The parties to the FFA have agreed that the sites identified in the FFA, and which are also the subject of this RCRA Part B Permit application being requested by IDEQ, are to be addressed under the CERCLA process, which also includes the requirements of the National Contingency Plan and the FFA. Therefore, corrective action for the two identified SWMUs is to be performed in accordance with the schedule in the FFA. The current FFA schedule is included in Appendix C.

The purpose of this permit is to provide for secondary jurisdiction under the RCRA corrective actions program in the event the FFA terminates prior to selection of the final remedy under the FFA process for the sites addressed by this proposed permit. It is further expected that any of the two previously identified sites for which a "No Further Action" determination is made under the FFA process will be the subject of a Class 1 RCRA Permit Modification to delete that site from the proposed permit. Should the FFA be terminated, the most recent schedule of corrective action in the FFA shall be incorporated into the RCRA Part B Permit with an additional 365 days added to all scheduled deadlines. This will permit MHAFB to facilitate the transfer of funding and administration of project activities as warranted by USAF guidelines.

5.2 NEWLY IDENTIFIED SWMUs

Any SWMU that is discovered subsequent to the issuance of the permit and not addressed in the FFA shall comply with the requirements of the permit. MHAFB anticipates that IDEQ will put in standard RCRA Part B Permit requirements in the existing permit with respect to as yet not identified SWMUs. These requirements will cover the characterization and, as needed, corrective action of these units.

5.3 FFA SWMUs

Table 5-1. FFA SWMUs

	Site Name	Operable Unit	Site ID (RFA Site ID)	Site Type/ Identification Date	Regulatory Mechanism	Decision Document	Status
1.	Lagoon Landfill	OU-2 OU-3 [Long-Term Monitoring (LTM)]	LF-01 (Site 1)	IRP/1983	FFA	• 1992 Federal Facility Agreement (FFA) • 1995 Record of Decision (ROD) • 2002 Post-Closure Maintenance Plan • 2006 Explanation of Significant Differences (ESD) for the 1995 ROD • 2010 Amendment to 1995 ROD	Land Use Controls (LUCs) (Does not meet criteria for Unlimited Use/Unrestricted Exposure [UU/UE]) Post closure activities per post-closure maintenance plan
2.	"B" Street Landfill	OU-2 OU-3 (LTM)	LF-02 (Site 2)	IRP/1983	FFA	• 1992 FFA • 1993 ROD • 2006 ESD for the 1993 ROD	LUCs (Does not meet UU/UE) Annual landfill inspection in accordance with ESD
3.	Former Base Landfill	OU-1 OU-3 (LTM)	LF-03 (Site 3)	IRP/1983	FFA/MSW	• 1992 FFA • 1995 ROD • 2009 Municipal Solid Waste (MSW) Post-Closure Plan • 2010 Amendment to 1995 ROD	LUCs and LTM Cap maintenance and gas monitoring for 30 years, as per MSW Landfill Post-Closure Plan
4.	Fire Training Area 4	OU-1 OU-3 (LTM)	FT-04 (Site 4)	IRP/1983	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	No Further Action (NFA) and UU/UE
5.	Fire Training Area 5	OU-1 OU-3 (LTM)	FT-05 (Site 5)	IRP/1983	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE

Table 5-1. FFA SWMUs

	Site Name	Operable Unit	Site ID (RFA Site ID)	Site Type/ Identification Date	Regulatory Mechanism	Decision Document	Status
6.	Fire Training Area 6	OU-1 OU-3 (LTM)	FT-06 (Site 6)	IRP/1983	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
7.	Fire Training Area 7 (FT-7A, FT-7B, FT-7C)	OU-1 OU-3 (LTM)	FT-7A, B & C (Site 7)	IRP/1983	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
8.	Fire Training Area 8 Soils	OU-4 OU-3 (LTM)	FT-08 (Site 8) (Plane Washing near Site 8)	IRP/1983	FFA	• 1992 FFA • 1992 ROD • 2009 Amendment to 1992 ROD (soil) • 2010 Amendment to 1995 ROD (groundwater; also included UST at FT-08)	Soil Vapor Extraction (SVE) (2009 ROD amendment) Groundwater addressed in 2010 ROD Amendment
9.	Waste Oil Disposal Area	OU-1 OU-3 (LTM)	DP-09 (Site 9)	IRP/1983	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
10.	Oiled Base Perimeter Road	OU-1 OU-3 (LTM)	OT-10 (Site 10)	IRP/1983	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
11.	Flight Line Fuel Spill	OU-3 Fuel Sites	ST-11 (Site 11)	IRP 1983/ 2001	FFA/RCRA	• 1992 FFA • 1995 ROD • 2004 ESD for the 1995 ROD • 2010 Amendment to 1995 ROD	Active remediation by vapor extraction (VE). Continuation of ICs established by the 1995 ROD and 2004 ESD

Table 5-1. FFA SWMUs

	Site Name	Operable Unit	Site ID (RFA Site ID)	Site Type/ Identification Date	Regulatory Mechanism	Decision Document	Status
12.	Old Entomology Shop • Rinsate tank (Installed in 1982 and removed in 1987.)	OU-1 OU-6 OU-3 (LTM)	SD-12 (Site 12)	IRP/1983	FFA	• 1992 FFA • 1993 Federal Facility Amendment 1 • 1987 RCRA Consent Order • 1995 ROD • 2010 Amendment to 1995 ROD • (Could not find record of tanks being RCRA closed.)	NFA and UU/UE
13.	Petroleum, Oil and Lubricant (POL) Yard Underground Storage Tank (UST) Site (a.k.a. POL/MOGAS Tank) • Four 12,000-gal USTs removed in 1988, and closed under RCRA in 1991	OU-3	ST-13 (POL Building 1380; Petroleum Storage Compound near POL Tank Area)	1990	FFA/RCRA	• 1992 FFA • 1987 RCRA Consent Order • 1991 DEQ RCRA Closure Letter (POL UST site RCRA cap; post closure groundwater monitoring turned over to FFA) • 1995 ROD (groundwater only) • 2010 Amendment to 1995 ROD • Note: Cap inspection and maintenance responsibility remains with MHAFB through 30-year post-closure care period.	NFA and UU/UE for soils LTM and LNAPL recovery (if necessary) for groundwater. Continued cap maintenance.
14.	Low-Level Radioactive Material Burial Site (RW-14)	OU-5 OU-3 (LTM)	RW-14 (Site 13)	IRP/1983	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
15.	Corker Material Burial Site	OU-1 OU-3 (LTM)	OT-15 (Site 14)	IRP/1983	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE

Table 5-1. FFA SWMUs

	Site Name	Operable Unit	Site ID (RFA Site ID)	Site Type/ Identification Date	Regulatory Mechanism	Decision Document	Status
16.	Munitions Burial Site includes munitions burn pit and popping furnace (Popping Furnace, aka Burn Kettle or Explosive Ordnance Disposal [EOD] Furnace).	OU-1 OU-6 OU-3 (LTM)	OT-16 (Site 15) (Popping Furnace)	IRP/1983	FFA	• 1991 RCRA Consent Order • 1992 RCRA Closure (Can't find record of closure certification) • 1992 FFA • 1995 ROD • 2007 Action Memorandum for OT-16 • 2010 Amendment to 1995 ROD	NFA and UU/UE (Under the 1995 ROD and 2010 ROD Amendment)
17.	World War II Burial Trench	OU-1 OU-3 (LTM)	DP-18 (Site 17)	IRP/1983	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
18.	USTs – Building 1333 (Titan 1 Missile Maintenance Area)	OU-1 OU-3 (LTM)	ST-22	IRP/1991	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
19.	Solid Waste Disposal Area (LF-23A & LF-23B) • (includes coal ash disposal site discovered in 2007)	OU-1 OU-3 (LTM)	LF-23[2]	IRP/1991	FFA	• 1992 FFA • 1995 ROD • 2007 Action Memorandum for LF-23 (coal ash) • 2010 Amendment to 1995 ROD • 2011 Explanation of Significant Difference (ESD) to the 1995 ROD	LUCs are in place under the 2011 ESD to the 1995 ROD.

[2] The FFA did not identify FT-23, but it appears to be a typographical error. It should have been included in 8.1(a).

Table 5-1. FFA SWMUs

	Site Name	Operable Unit	Site ID (RFA Site ID)	Site Type/ Identification Date	Regulatory Mechanism	Decision Document	Status
20.	Liquid Oxygen (LOX) Loading Plant and Auto Hobby Shop (a.k.a., Morale, Welfare and Recreation (MWR) Auto Hobby Shop/Munitions Trailer Maintenance Shop)	OU-1 OU-6 OU-3 (LTM)	SD-24	IRP/1991	FFA	• 1992 FFA • 1993 Federal Facility Amendment 1 • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE (soils) LTM/Vapor Extraction (VE) (bedrock vapor and regional groundwater)
21.	Flight Line Storm Drain	OU-1 OU-6 OU-3 (LTM)	SD-25	IRP/1991	FFA	• 1992 FFA • 1993 Federal Facility Amendment 1 • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
22.	Drum Accumulation Pad (Building 208)	OU-1 OU-3 (LTM)	SS-26	IRP/1991	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
23.	Vehicle Wash Rack – Building 1354	OU-1 OU-6 OU-3 (LTM)	SD-27	IRP/1991	FFA	• 1992 FFA • 1993 Federal Facility Amendment 1 • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE

Table 5-1. FFA SWMUs

	Site Name	Operable Unit	Site ID (RFA Site ID)	Site Type/ Identification Date	Regulatory Mechanism	Decision Document	Status
24.	Former Wash Water Accumulation Basin (Square Roundhouse-Railroad Maintenance Building Solvent Disposal Area)	OU-1 OU-3 (LTM)	SS-28	IRP/1991	FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
25.	Drum Accumulation Pad (Buildings 1222 and 1225 Drum Storage Areas)	OU-1 OU-6 OU-3 (LTM)	SS-29	IRP/1991	FFA	• 1992 FFA • 1995 ROD • 2007 Action Memorandum for SS-29 • 2010 Amendment to 1995 ROD	NFA and UU/UE
26.	Defense Reutilization and Marketing Office (DRMO) Storage Area • Unit 1 HW Storage Pad (Building 1316) • Unit 2 HW Storage Pad (Building 1326) • Unit 3 HW Storage Pad	OU-1 OU-3 (LTM)	SS-30 (DRMO Bldg. 1332)	IRP/1990	FFA/RCRA	• 1991 Consent Order (required closure of old pad) • 1992 FFA • 1995 ROD • 2001 RCRA DRMO Closure Certification • 2010 Amendment to 1995 ROD • (Unclear if old pad was RCRA closed prior to 2001, and unclear what Unit 3 refers to.)	NFA and UU/UE RCRA Clean Closed (Unclear if old pad was RCRA closed prior to 2001)
27.	Old Base Exchange (BX) Gas Station	OU-3 Fuel Sites	ST-31	IRP/1992	FFA	• 1993 Federal Facility Amendment 1 • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE

Table 5-1. FFA SWMUs

	Site Name	Operable Unit	Site ID (RFA Site ID)	Site Type/ Identification Date	Regulatory Mechanism	Decision Document	Status
28.	Old Military (MX) Gas Station	OU-3 Fuel Sites	ST-32	IRP/1992	FFA	• 1993 Federal Facility Amendment 1 • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
29.	Flight Line Fuel Hydrant # 9 Leak Area	OU-3 Fuel Sites	ST-34	IRP/1991	FFA	• 1993 Federal Facility Amendment 1 • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
30.	Jet Propulsion Fuel Type 4 (JP-4) Pipeline Leak (a.k.a., Hospital Fuel Spill)	OU-3 Fuel Sites	ST-35	IRP/1993	FFA	• 1993 Federal Facility Amendment 1 • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE
31.	POL Storage Area, RCRA SWMU (POL Building 1380)	OU-3	ST-38	IRP/1992	FFA	• 1993 Federal Facility Amendment 2 • 2010 Amendment to 1995 ROD	NFA Continue Leak Detection Program
32.	15,000-gallon UST at FT-08	OU-6 OU-3 (LTM)	ST-39	IRP/1992	FFA	• 1993 Federal Facility Amendment 1 • 1995 ROD • 2010 Amendment to 1995 ROD	NFA and UU/UE

Table 5-1. FFA SWMUs

	Site Name	Operable Unit	Site ID (RFA Site ID)	Site Type/ Identification Date	Regulatory Mechanism	Decision Document	Status
33.	Basewide Regional Groundwater	OU-3	OU-3 (Ground-water Quality)		FFA	• 1992 FFA • 1995 ROD • 2010 Amendment to 1995 ROD	Remedial Action (RA) - implementation of contaminant source removal from the vadose zone (Bedrock Vapor Extraction) (The ROD amendment that will formally require remediation will probably be signed in last quarter 2013, but the remedial action is occurring now.)

5.4 NON-FFA SWMUS

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status
1.	POL Storage Area AST Tank 2, (Part of ST-38)	N/A (Idaho Risk Management)		None yet	Release in 2009, removed in 2013. As of 2013 undergoing RCRA Risk Based Corrective Action
	Mountain Home Air Force Base (MHAFB) Response: The site is being worked under RBCA/REM. The State has left it open until construction ceases on the tank farm.				
2.	Mountain Home Small Arms Range	N/A		See AOC-02, Saylor Creek	
	MHAFB Response: Site is an active Small Arms Range (SAR), it is not closed and does not have any burial or disposal sites located around it. It is not a SWMU. This site will be re-evaluated when the SAR is closed down. There are no plans at this time to close down the SAR.				
3.	Verlinde Hill Rubble Pile/Disposal Area (SWMU)	N/A (RCRA/ NESHAP)		The 7/15/2009 DEQ Consent Order required compliance with corrective action permit. A DEQ letter dated 4/30/2012, incorporated and enforceable as part of the Consent Order, severed the Verlinde Hill Rubble Pile from the Consent Order, and stated that it did not require incorporation into the permit as an active SWMU. Continued maintenance and inspection of the cap will be performed as per the asbestos landfill cap maintenance plan (Subpart M). The Family Housing Areas, Phases 1-8 were determined not to be SWMUs.	Severed from Consent Order Required to continue maintenance of the cap under asbestos program
	MHAFB Response: This is NESHAP funded, not RCRA				
4.	Site EOD depicted on the Site Map (Figure 2) of the permit application.	EOD			Unknown
	MHAFB Response: This site is an old EOD proficiency range, used for training. Site is funded under the Military Munitions Response Program (MMRP) with work to be done in the spring of 2014. If the site is included in the permit, future work may not be funded. The MMRP budget people will force it to go for RCRA funding, which is limited. Therefore, it should not be included in this permit.				

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status
5.	Used Tire Disposal Site/Coal Ash Disposal Site	DP-17 (Site 16) (CERCLA)	IRP/1983	Not included in the FFA. The CH2M Hill, "Installation Restoration Program (IRP) Records Search for MHAFB," July 1983, recommended no further action; which was confirmed in the 1990 MHAFB RCRA Facility Assessment. A 2007 Action Memorandum for LF-23 addressed coal ash disposed at the site. Coal ash disposal being managed under LF-23.	Combined with LF-23 which is under LUC (Coal ash disposal being managed under LF-23)
	MHAFB Response: This site has been combined with FFA site LF-23.				
6.	Munition Residue Burial (Saylor Creek) • 1 active and 3 inactive expended ordnance burial sites	OT-19		Site OT-19 IRP Decision Document dated 8/21/1990 indicated no further action as per July 1993 IRP Records Search.	NFA
	MHAFB Response: All four of these sites are included in OT-37 along with two others. It is recommended that we no longer use OT-19 and use OT-37 instead. OT-19 was created first, and in a subsequent investigation, the same four sites were put into OT-37 along with two additional ones. The original four sites are known as South Burial Pit, Demolition Pit, Heliport Pad, and Brown's Creek.				
7.	Saylor Creek Electronic Warfare Range • WWII Site • Brown's Creek Site • South Burial Trenches • North Burial Trenches • Demolition Pit • Heliport Site	OT-37 (RCRA)		These sites were discussed in a 1990 RFA for MHAFB, a 1993 RCRA Facility Assessment and a 7/31/1995 DEQ letter recommending NFA for 6 SWMUs. There is also supposed to be a June 1995 RCRA Facility Assessment report recommended no further action. (Need a copy of report.)	NFA

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status
	MHAFB Response: OT-37 incorporates the original four sites listed in OT-19 along with two new ones, WWII Site and the North Burial Trench. The original four sites are known as South Burial Pit, Demolition Pit, Heliport Pad, and Brown's Creek. All six of these sites will now go under the OT-37 site ID, with OT-19 in parenthesis, as in OT-37 (OT-19).				
8.	POL Storage Area AST Tank 1A (Release in 2001, removed in 2007)	ST-38 (Idaho Risk Management)		A RCRA Risk-Based Corrective Action was done for the Tank 1A release in 2011. A DEQ letter dated 7/21/2011 indicates that no additional remediation or monitoring related to the Tank 1A release is required.	NFA
	MHAFB Response: All of the tanks within the POL storage yard will be treated as parts of one site. Site will be referred to as POL Storage Area, AST Tank 1A (Part of ST-38)				
9.	Site SR-40 depicted on the Site Map (Figure 2) of the permit application.	SR-40			unknown
	MHAFB Response: This site is an old skeet range. Site is already funded under the Military Munitions Response Program (MMRP) with work to be done in the spring of 2014. If the site is included in the permit, future work may not be funded. The MMRP budget people will force it to go for RCRA funding, which is limited. Therefore, it should not be included in this permit.				
10.	Site SR-70 depicted on the Site Map (Figure 2) of the permit application.	SR-70			unknown
	MHAFB Response: This site is an old skeet range. Site is already funded under the Military Munitions Response Program (MMRP) with work to be done in the spring of 2014. If the site is included in the permit, future work may not be funded. The MMRP budget people will force it to go for RCRA funding, which is limited. Therefore, it should not be included in this permit.				
11.	Wilder Air Force Station • Historical Oil Release Site • Waste Oil Storage Pad • OWS • Paint Storage	AOC-1		June 1994 CERCLA Preliminary Assessment (PA) concluded no risk to human health and the environment. (Need copy of document)	NFA
	MHAFB Response: This site was turned over to the Army in 1998. It is no longer under the jurisdiction or ownership of MHAFB and should not be included in the permit.				
12.	Saylor Creek	AOC-2		These sites were mentioned in a 1993 RCRA Facility	NFA (Need

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status
	Electronic Warfare Range Areas of Concern (AOCs)	**(Saylor Creek Electronic Warfare Range)**		Investigation. In meeting minutes dated 12/22/1993, these AOCs were to have been documented in a letter. (No letter has been located.) The 1995 DEQ Letter recommending NFA for the 6 SWMUs (OT-37) said that the AOCs were to be addressed in a subsequent letter. (No letter has been located.) A 1998 MHAFB Management Action Plan (not a decision document) stated that a July 1996 RCRA Facility Assessment (RFA) found no unacceptable human or ecological risks at these sites. (Need copy of 1996 RFA).	documentation)
	• Pot Hole Canyon (AOC-11)				
	MHAFB Response: Pot Hole Canyon is AOC-11, it should not be included as part of AOC-2.				
	• Precision Bombing Ranges 1, 2, 3, and 4 (PBR 1, PBR 2).				
	MHAFB Response: PBRs 1 through 4 were turned over to the Bureau of Land Management (BLM). They are being managed under the Formerly Used Defense Sites program. They are no longer part of Mountain Home AFB, nor are they under MHAFB's jurisdiction.				
	• Three new areas identified in the RFA				
	MHAFB Response: The three new areas listed in the 1990 RFA, are not identified by name in the records. It is assumed that they were the first references to the burial sites now known as WWII (OT-37), North Burial Trench (OT-37) and the Salvo Target AOC-6. The reference states "This report (Saylor Creek EWR) recommends that the one active and three inactive expended ordinance burial sites as well as the three new areas of land use where disposal may be occurring be in the RFI." Saylor Creek now contains eight sites, the four mentioned in OT-37 (OT-19), the three mentioned above and Pot Hole Canyon (AOC-11) as number eight. It is believed that all of the sites mentioned in the reference are covered by OT-37 (OT-19), AOC-6 and AOC-11.				
	• Mountain Home				

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status
	Small Arms Range				
	MHAFB Response: Site is an active Small Arms Range (SAR), it is not closed and does not have any burial or disposal sites located around it. It is not a SWMU. This site will be re-evaluated when the SAR is closed down. There are no plans at this time to close down the SAR.				
	• Unidentified area south of fence line located as dot on Saylor Creek Range Figure in Permit.				
	MHAFB Response: The unidentified area on the map which appeared as a "dot", is actually AOC-6, known as the Salvo Target. See AOC-6 for detailed information.				
	• "Other Site" referenced in the Task I Final Report during the 1976 EA.				
	MHAFB Response: There is very little information given in the reports. Only two sites are shown in the 1976 EA, Brown's Creek (inactive) and the Munitions Residue Burial Site (South Burial Trench). The Demo pit is shown but is strictly for demolition. Further information was found in the report listed below; 1. AR-718, RCRA Facility Assessment, June 1993, page 4-2, bullet 5: Another disposal site was identified in the EA (USAF, 1976). The location of this area was not described in the EA and was not shown on any of the accompanying figures. According to the EA, only target residue was buried at this location. 2. AR-718, RCRA Facility Assessment, June 1993, page 4-8, 4.1.4.8: As noted in section 4.1.1 above, little information is available about the disposal site identified in the EA (USAF 1976). No other written documentation was found; additional interviews may be needed to better define the location of the site and the type and volume of waste disposed at the site.				
13.	Munition Burial Site (Saylor Creek)	AOC-6		Can't correlate this to sites evaluated in 1993 RFI. See Saylor Creek AOC-2, AOC-11, OT-19 and OT-37.	unknown

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status

MHAFB Response: It is suspected that AOC 6 was probably used in support of past SCR operations from the 1940s to the 1980s, with possible use as a burial site for target practice residue.

A suspected burial trench was identified as "Site 3" by EPA (1989a). EPA (1989) reported that no signs of recent burial activity were apparent. Site 3 is visible in aerial photographs taken in 1977, but the site did not appear in 1963 photographs. During a 1994 site visit, a feature was encountered; it was described as a trench that appeared to be filled and had become overgrown with vegetation. This site (AOC 6) was believed to contain munitions residue, as did other trenches at the Saylor Creek Range. The other trenches were investigated during the Saylor Creek RFI (FWEC 1995).

1. Page 4-24, 4.2.6:

4.2.6.1 AOC-6 Aerial Photograph Review.

The following aerial photographs were reviewed to evaluate past activities and identify areas of interest at AOC- 6:

- BRU 5-24 and 5-25 (flown 6/5/40)
- VV HU M32 AMS 3948 and 3949 (7/25/53)
- BLM-8 17-31-113 and 17-31-114 (9/28/63)
- HAP 84F 193-20, 193-21, 193-22, and 193-23 (8/8/84)

Based on the aerial photograph review, AOC 6 was expected to be located in Section 36, TSS, R7E approximately 1,200 feet south of the south boundary (barbed wire fence) of the SCR impact area and 2,200 feet west of the south to north trending road to the SCR south tower (Figure 4-26 and Plate 1). The estimated dimensions of AOC-6 based on the aerial photos were approximately 250 feet by 30 feet. The long axis of the feature trends east to west.

4.2.6.2 Visual Site Inspection

A visual site inspection was performed in an attempt to locate the suspected MRBS. Measurements from various nearby landmarks were made to find the approximate location of the feature shown in aerial photographs. After the measuring had been completed, a walk-over of the area was performed to attempt to locate the surface expression of the trench. No surface expression of a trench was evident. Numerous fires have obscured the vegetation and the ground in this area had been disturbed from reseeding with wheatgrass. In the AOC 6 vicinity the following features were observed:

- Mounded ground trending north to south, approximately 12 feet by 50 feet by 3 feet,
- A depression east of the mounded ground trending east to west, approximately one foot in depth, 20 feet in width, and 250 feet in length,
- A ridge on the north and south sides of the depression, approximately 1 foot in height.
- Two empty crushed 1 gallon metal artillery cans

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status
	4.2.6.3 UXO Survey **A UXO survey "walk over" of approximately 10 acres was completed. The survey was performed by setting up search lanes located on six-foot centers and sweeping with the MK26. A magnetic anomaly encountered during the sweep suggested the possible presence of an apparent trench trending east to west. Two north to south exploratory trenches were excavated through the anomaly. The location of exploratory trenches AOC6 -TR -1 and AOC6 -TR -2 are shown on Figure 4-27 and information regarding the trenching is summarized in Table 4-2. No man-made material was encountered; only basalt was encountered in the exploratory trenches at depths of 3 to 5 feet bgs.** **4.2.6.4 Field Sampling** **Analytical samples were not collected at the site.** **2. Page 7-4, 7.6: The visual site inspection of AOC 6 involved an extensive search and geophysical surveying to identify a suspected burial trench observed on aerial photographs. Currently, the site is overgrown with vegetation and no surface expression of the suspected burial trench is evident. Several magnetic anomalies in the area were investigated with exploratory trenches, but no evidence of the suspected burial trench was observed. No samples were collected. Based on the results of the reconnaissance, the site is not considered a SWMU and no further action is recommended.**				
14.	Coal Storage Yard	AOC-7 (FFA)		Included in 2001 Five-Year Review. Although a Preliminary Assessment was done in 1996 that recommended no further action, the PA was not done under the FFA. The 2001 Five Year Review recommended further evaluation under the FFA. The 2006 Five Year Review did not mention this site at all, but this appears to be an oversight and AOC-7 should have been evaluated after the 2001 Five Year Review. This evaluation will need to be done before the next Five Year Review.	Requires evaluation before next Five Year Review

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status
	MHAFB Response: This site was evaluated as part of a preliminary assessment that was done by Fluor-Daniels. The report evidentially found that there was no significant impact to the area and recommended that the site be closed with No Further Action. However, this report as well as two other follow-on reports by the same company cannot be located. Efforts continue to try and locate the report with the contractor, the EPA and within the Air Force. **In 2009 an Environmental Baseline Survey (EBS) was performed on this and several other locations preparatory to transferring the property. The Phase II EBS resulted in no conclusions of environmental significance with regard to the area between 11th and 12th Avenues and the former coal yard area. Additionally, laboratory analysis of samples collected from the area between 11th and 12th Avenues and the Former Coal Storage Yard showed all samples to be below detection levels or below USEPA Region III risk-based screening levels.**				
15.	Oil Water Separators (OWSs) (51 inspected; 33 recommended for decommissioning; see Table C for list of OWSs) • 1332e • 1332se • 2304	AOC-8		A DEQ letter dated 1/24/1997 indicated no further action was necessary for OWSs 1332e, 1332se and 2304. The oil-water separator 1332E site at SS-30 is covered under the OU-3 bedrock extraction process. In 1996 a draft RCRA Facility Assessment Addendum was prepared. (Need a copy.) It appears that all of the OWS were addressed in the decommissioning project, but cannot locate any final document regarding completing the decommissioning of the OWSs. The 2001 Five Year Review evaluated AOC-8, (reference Section 8.4 and Tables 8-1 and 8-2 of the 2001 Five Year Review.) According to the 2001 Five Year Review, some sites were evaluated under the FFA, some under RCRA and some are still in use. With respect to those evaluated under the FFA, there is not a formal decision document (i.e., ROD, ROD amendment or ESD) that addresses the OWS units.	Need to evaluate under FFA program to confirm NFA.
	MHAFB Response: MHAFB has updated the list of OWS's that was supplied as part of the NOD (Table C). One remains in service with two additional units having been converted to grit removal. All others have been removed or closed in place.				
16.	Motor Pool Site "A"	AOC-9	IRP/1995 (IRP)	Included in 2001 Five-Year Review. Based on the results of the PA, a final decision document was issued in January 1997 recommending no further action (Fluor Daniel, 1997). (Can't locate decision document)	NFA

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status
	MHAFB Response: According to Dean Nygard, IDEQ this site was looked at under the CERCLA program, and received an NFA result. We are working to find evidence of this evaluation.				
17.	Strike Dam Recreation Annex (not a SWMU or AOC)	AOC-10		July 1983 IRP Records Search for MHAFB did not find any records of landfills or burial sites. A September 1996 PA concluded that no releases had occurred.	NFA
	MHAFB Response: MHAFB does not own any property at this site. Land is leased from the Bureau of Land Management and Idaho Power. The site is still active and will be reviewed when the location is closed.				
18.	Pot Hole Canyon (Saylor Creek) (a.k.a., Munition Burial Range)	AOC-11		See Saylor Creek AOC-2	NFA
	MHAFB Response: The Pothole Canyon Burial Site is located east of Mountain Home AFB on the Saylor Creek Range. AOC 11 is a general area within Pot Hole Canyon where munitions debris was allegedly seen by MHAFB personnel. An aerial photograph review was conducted, but it did not reveal the location of any munitions debris in Pot Hole Canyon. Personnel at MHAFB had previously indicated that JATO bottles and BDUs were visible in the canyon from the air. However, specific locations of munitions debris were not known prior to the field investigation. The visual site inspection of this site involved several walk-overs of the canyon to locate Jet Assisted Take-Off (JATO) bottles and practice bomb (BDUs) debris that MHAFB personnel indicated were present in the canyon. No such materials were identified during the ground reconnaissance; however certain portions of the canyon were inaccessible due to heavy vegetation. No samples of the site were collected. MHAFB EOD personnel conduct annual sweeps of this area to locate and collect stray practice bombs that end up outside the Saylor Creek Electronic Warfare Range fenced impact area. Therefore, any further action at this site should be limited to the routine sweeps conducted by EOD.				
19.	Liberator Street Sanitary Sewer Line (Not a SWMU)	AOC-12	(FFA)	Included in 2001 Five-Year Review. At that time it was recommended for further review under the FFA. Soil sampling did not indicate risk to human health and the environment, and so did not lead to any further investigation under the FFA. Not considered a SWMU (Can't locate decision document)	NFA

Table 5-2. Non-FFA SWMUs

	Site Name	Site ID/ (Regulatory Mechanism)	Site Type/ Identification Date	Decision Documents/ History	Status
	MHAFB Response: The Base's sanitary sewer system consists of gravity and force-fed main collection systems and is comprised of approximately 153,000 linear feet of sewer mains and laterals ranging in size from 6 to 24-inches in diameter. The majority of the existing gravity flow collection system consists of pre-cast concrete with laterals typically consisting of 4 to 8-inch PVC pipe. An Infiltration and Inflow (I&I) study was completed for MHAFB's sewer system, including the Liberator Street Sewer Line, (Radian 1996). The I&I work included flow metering, manhole inspections, smoke testing, and TV inspection. The study found that MHAFB's sanitary sewer system had both inflow and rainfall induced infiltration problems, with inflow being the more significant contributor. Inflow impacts were found to be primarily caused by partially combined storm-water and sanitary sewer systems. Infiltration and exfiltration problems were found to be caused by corroding and cracked pipes, most of which were approximately 50-years old at the time of the study. A follow up compliance evaluation of the sanitary sewer system (URS 2001) notes that exfiltration rates estimated at over 200,000 gallons per day (gpd) using 1994 to 1996 data could now be as high as 500,000 gpd when the same data are updated to 1999 and 2000 data. Exfiltration from the MHAFB sanitary sewer system is likely a contributing factor to the high nitrate levels that resulted in closure of Base production wells BPW1 and BPW7. The Liberator Street main sanitary sewer line was recently replaced and cross-connections repaired following the I &I study. Target VOC and SVOC compounds were reported to be present in Site soils; however, none of the concentrations exceeded compound-specific screening criteria. Metals were also reported in Site soil samples, with some arsenic concentrations exceeding the residential and industrial carcinogenic soil PRG, and some iron concentrations exceeding the residential soil PRG. However, since none of the arsenic concentrations exceed the background concentration of arsenic established in previous risk assessment work at the Base, and high iron concentrations in area soils are expected due to area geology, these metals concentrations are probably not due to site related contamination and are not considered to pose a true potential risk. The recommendation for Site AOC-12 is No Further Action.				

APPENDIX A – SITE DOCUMENTS LIST

Table 5-3. Documents Referenced in NOD Tables for FFA and Non-FFA Sites

No.	Document Name	Site Pertaining To	Admin Record Number or Location
Closure Documents Requested in NOD by IDEQ			
1	Burn Kettle, (OT-16), Operable Unit 6	OT-16	AR-780
2	DRMO, HW Storage Pads, Bldgs. 1326 and 1316	SS-30	AR-941
3	Underground Storage Tanks at POL Yard	ST-13	AR-780
FFA Sites			
1	1976 Saylor Creek Gunnery Range EA		Available, Hard Copy at MHAFB, Bldg. 1297
2	1987 RCRA Consent Order		87CORCRA0838
3	1991 Consent Order (required closure of old pad)		91CORCRA0837
4	1991 DEQ RCRA Closure Letter (POL UST site RCRA cap; post closure groundwater monitoring turned over to FFA)		2014BCQ335: MHAFB POL Tank Closure Approval 09-19-1991
5	1991 RCRA Consent Order		(duplicate of No. 2) 91CORCRA0837
6	1992 Federal Facility Agreement (FFA)		AR 214
7	1992 RCRA Closure		Searching
8	1993 Federal Facility Amendment 1		AR 421
9	1993 Federal Facility Amendment 2		AR 724
10	1993 ROD		AR 538
11	1995 Record of Decision (ROD)		AR 780
12	1995 ROD (groundwater only)		Searching
13	2001 RCRA DRMO Closure Certification		AR 941
14	2002 Post-Closure Maintenance Plan	LF-01	Searching
15	2004 ESD for the 1995 ROD		AR 1046
16	2006 ESD for the 1993 ROD		AR 1153
17	2006 Explanation of Significant Differences (ESD) for the 1995 ROD		AR 1152
18	2007 Action Memorandum for LF-23 (coal ash)	LF-23	AR 1128
19	2007 Action Memorandum for OT-16	OT-16	AR 1129
20	2007 Action Memorandum for SS-29	SS-29	AR 1131
21	2009 Amendment to 1992 ROD (soil)		AR 1247
22	2009 Municipal Solid Waste (MSW) Post-Closure Plan	LF-03	Searching
23	2010 Amendment to 1995 ROD		AR 1277
24	2011 Explanation of Significant Difference (ESD) to the 1995 ROD		AR 1301
25	2001 Five-Year Review.		AR 923
26	2006 Five Year Review		AR 1109

Table 5-3. Documents Referenced in NOD Tables for FFA and Non-FFA Sites			
No.	**Document Name**	**Site Pertaining To**	**Admin Record Number or Location**
27	2011 Five Year Review		AR 1313
Non-FFA Sites			
28	Site OT-19 IRP Decision Document dated 8/21/1990	OT-19	AR 236
29	7/15/2009 DEQ Consent Order required compliance with corrective action permit.	Verlinde Hill	Electronically available on MHAFB server
30	DEQ letter dated 4/30/2012, incorporated and enforceable as part of the Consent Order, severed the Verlinde Hill Rubble Pile from the Consent Order	Verlinde Hill	Electronically available on MHAFB server
31	The CH2M Hill, "Installation Restoration Program (IRP) Records Search for MHAFB," July 1983,	DP-17 (Site 16)	AR 192
32	2007 Action Memorandum for LF-23	LF-23	AR 1128
33	1990 MHAFB RCRA Facility Assessment.	OT-37	2013BCQ524: MHAFB RCRA Facility Assessment 11-30-1990
34	1993 RCRA Facility Assessment	OT-37	2013BCQ500: MHAFB Saylor Creek RCRA Facility Investigation 06-01-1993
35	7/31/1995 DEQ letter recommending NFA for 6 SWMUs	OT-37	2014BCQ334: MHAFB Saylor Creek No Further Action Determination 07-31-1995
36	June 1995 RCRA Facility Assessment report	OT-37	Searching
37	RCRA Risk-Based Corrective Action was done for the Tank 1A release in 2011	ST-38	Electronically available on MHAFB server
38	DEQ letter dated 7/21/2011 indicates that no additional remediation or monitoring related to the Tank 1A release is required	ST-38	Electronically available on MHAFB server
39	June 1994 CERCLA Preliminary Assessment (PA)	AOC-1 (Wilder)	AR 494
40	Transfer document for Wilder Air Force Base	AOC-1 (Wilder)	Electronically available on MHAFB server
41	1993 RCRA Facility Investigation. In meeting minutes dated 12/22/1993, these AOCs were to have been documented in a letter.	AOC-2	AR 504 (Facility Investigation Oct94)
42	The 1995 DEQ Letter recommending NFA for the 6 SWMUs (OT-37) said that the AOCs were to be addressed in a subsequent letter. (No letter has been located.)	AOC-2	Available, Hard Copy at MHAFB, Bldg. 1297
43	1998 MHAFB Management Action Plan (not a decision document)	AOC-2	Available, Hard Copy at MHAFB, Bldg. 1297
44	July 1996 RCRA Facility Assessment (Fluor Daniels)		2013BCQ719: MHAFB RFA Addendum October 1997
45	RCRA Risk-Based Corrective Action was done for the Tank 1A release in 2011	Tank 1a	Electronically available on MHAFB server

Table 5-3. Documents Referenced in NOD Tables for FFA and Non-FFA Sites

No.	Document Name	Site Pertaining To	Admin Record Number or Location
46	DEQ letter dated 7/21/2011 indicates that no additional remediation or monitoring related to the Tank 1A release is required	Tank 1a	Electronically available on MHAFB server
47	1996 Preliminary Assessment (Fluor Daniels)	AOC-7	Report is Missing
48	Final decision document was issued in January 1997 recommending no further action (Fluor Daniel, 1997). (Can't locate decision document)	AOC-9 Motor Pool	Report is Missing
49	September 1996 PA	AOC-10 Strike Dam	Report is Missing
50	DEQ letter dated 1/24/1997 indicated no further action was necessary for OWSs 1332e, 1332se and 2304.	AOC-8 (OWS)	MHAFB OWS 1332E 1332SE 2304 No Further Action 01-24-1997
51	1996 RCRA Facility Assessment	AOC-8 (OWS)	2013BCQ719: MHAFB RFA Addendum October 1997
52	Turnover document for transfer of PBRs to FUDS	PBRs	2014BCQ298: MHAFB PBR #1 02-12-2014 2014BCQ296: MHAFB Bruneau Precision Bombing Range #2 02-12-2014 2014BCQ299: MHAFB PBR #3 02-12-2014 2014BCQ297: MHAFB Bruneau PBR #4 02-12-2014

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 6 – POST-CLOSURE CARE

APPENDIX E - SOLID WASTE MANAGEMENT UNITS (SWMU) THAT REQUIRE POST CLOSURE CARE OR MONITORING

EFFECTIVE DATE: JANUARY 11, 2015
REVISION DATE: AUGUST 8, 2016

6.0 POST-CLOSURE CARE

APPENDIX E-1 – SOLID WASTE MANAGEMENT UNITS (SWMU) THAT REQUIRE POST CLOSURE CARE OR MONITORING

Appendix E-1 presents a description of the existing SWMUs that require post-closure care or monitoring that are addressed in this RCRA Part B Permit Post-Closure Application. Information presented herein was obtained in most part from the FFA and the Revised Final 2011 Five-Year Remedy Review Report prepared for MHAFB by URS (URS, 2011), and is in accordance with 270.14 (b)(13), (b)(14) and (b)(15).

1. LF-01 (Lagoon Landfill) (Land Use Controls and annual inspection of cap)

The primary O&M activities associated with Site LF-01 include LTM for site-related monitoring wells to monitor groundwater quality and ensure post-closure activities are being completed according to the post-closure plan (MACTEC 2002). In accordance with the specific ICs for Site LF-01 as described in the ESD for the ROD, signed October 13, 2006, for four OUs (OU-1, OU-3, OU-5, and OU-6) of MHAFB, an annual on-site inspection is completed for Site LF-01. During each inspection, the overall cap integrity including erosion, presence of burrowing animals, condition of drainage ditches, site drainage, and public access is reviewed for any compliance issues. Each inspection verifies compliance with the IC requirements, objectives, and controls in the ROD and ESD. A report discussing conditions and any recommendations required for maintenance and repairs is completed after each inspection for ICs. The most recent inspection report is included in Appendix A. Required follow-up actions on the 2-foot thick monofill cap are accomplished under the MHAFB environmental compliance program. Environmental restoration oversight on the monofill cap is of interest due to the fact that ERP Site LF-01 (four disposal trenches) resides under the cap.

2. LF-02 (B-Street Landfill) (Land Use Controls and annual inspection of cap)

The primary O&M activities associated with Site LF-02 include LTM for site-related monitoring wells to monitor groundwater quality and ensure annual landfill inspections of the LUCs are being completed in accordance with the ESD. In accordance with the specific ICs for Site LF-02 as described in the ESD for the 1993 ROD, signed October 13, 2006, an annual on-site inspection is completed for Site LF-02. During each inspection the general landfill condition is observed with particular attention paid to the fenced area surrounding the asbestos disposal trenches and whether any unauthorized activities (e.g., digging or dumping) are being done on the other areas (trench area, ash disposal area, and drum disposal area) under the LUCs. Each inspection verifies compliance with the IC requirements, objectives, and controls in the ROD and ESD. A report discussing conditions and any recommendations required for maintenance and repairs is completed after each annual inspection for ICs.

3. LF-03 (Land Use Controls and annual inspection of cap)

Inspections by MHAFB personnel will be conducted on the northern section on a semiannual basis (biannual inspection) for the first year of post-closure care, and annually

thereafter for the 30-year period. Inspections by the Central District Health Department ("CDHD") will occur as requested, or as provided by law. Records of inspections detailing observations will be kept in a log book so that changes in any of the MSWLF cells can be monitored; in addition, records will be kept detailing changes in post-closure care personnel to ensure that changing personnel will not affect post-closure care due to lack of knowledge of routine activities. The inspection forms that will be used can be found in Appendix D of the 2009 Municipal Solid Waste Landfill Post-Closure Plan and will serve to guide the inspections of the area.

Annual inspections of the southern section will be conducted by ERP personnel and/or their contractors. Records of inspections detailing observations will be kept in the restoration files, as required.

The condition of the facility will be documented with notes, maps and photographs. Monitoring of the landfill will include an examination of access, signage, surface water controls, concrete structures, final cover integrity, vectors and gas emissions. Maintenance activities will be implemented as needed to remedy potential or real problem situations identified during routine inspections.

4. FT-08 (Remediate soils and unsaturated bedrock vapors. ROD approved VE system in place)

RAWP dated February 26, 2010 and approved by the EPA and DEQ. The primary activities associated with the performance monitoring include the following:

- Effluent monitoring - The combined effluent vapor from the exhaust stack are sampled bimonthly and analyzed for COCs by EPA Method TO-15.
- Soil extraction well sampling - Vapor samples are collected from the SEWs to monitor COCs by EPA Method TO-15.
- Vapor monitoring well sampling - Vapor samples are collected from the VMWs to monitor COCs by EPA Method TO-15.
- Soil sampling - Direct push soil samples are collected at eight locations at Site FT-08. Six of the locations are next to the new vapor monitoring well locations to assess contamination site wide; one location is near SEW-9 to assess the TCE plume core; and one location is near bedrock extraction well (BEW)-1 to assess the area between the BTEX and TCE plumes. All direct push samples are analyzed for the COCs.

In addition, the primary activities associated with system operations include the following:

- SVE system – The system utilizes a trailer-mounted portable SVE system to apply a vacuum to soil through 10 shallow extraction wells (SEW-1 through SEW-10) installed in the soil at Site FT-08. Relative humidity and absolute humidity data are from the MHAFB Weather Station and onsite instruments at various times and are evaluated to determine if differences in humidity have an effect on the flow rates of the system. Vacuum responses are monitored in all available locations including vacuum monitoring clusters (soil and bedrock), unused SVE wells, and bedrock vapor monitoring ports in nearby monitoring well MW39.

- Air injection system - Operation of the air injection system includes inspection of the system and collection of field data twice per week. Periodic inspections include visual inspection of the blower unit and associated piping for defects, and verifying the discharge temperature is within operating range. Field data include temperature, pipe pressure, barometric pressure, and differential pressure. Air flow rates are computed from the field data.

Performance monitoring and system operations activities are presented and summarized in quarterly Remedial Action/Operation (RA/O) Technical Memoranda.

5. ST-11 (Vapor Extraction)

In accordance with the specific ICs for Site ST-11, as described in the ESD signed March 23, 2004 for the 1995 ROD, four operable units (OU-1, OU-3, OU-5, and OU-6) at MHAFB, a visual inspection is completed at least annually. The visual inspection is completed to verify compliance with the IC requirements, objectives, and controls in the ROD and the ESD; to determine violations of these controls; and to look for indications of tampering, incompatible use, and trespass. A report of the inspections is included in the LTM Annual Report each year including a statement as to whether all requirements, objectives, and controls in the ROD and ESD have been complied with and whether MHAFB's administrative procedures are effective.

The Air Force is completing performance monitoring and system operations according to the Final Remedial Action Report dated December 29, 2010 and approved by the EPA and DEQ. The primary activities associated with the performance monitoring include the following:

- Vapor monitoring well sampling -Vapor samples are collected from the MW20 and MW26 to monitor COCs by EPA Methods TO-14 and TO-15.
- Perched groundwater sampling – Perched groundwater samples will be collected over the operation life of the system, with one additional year of perched groundwater monitoring under the Basewide LTM program to monitor system effectiveness. The LTM program is summarized in Section 4.3.11. Semiannual groundwater sampling is completed at nine PZMWs located at Site ST-11 in accordance with the LTM program. The sampled wells sampled include: PZMW7, PZMW8, PZMW11, PZMW12, PZMW13, PZMW14, PZMW15, PZMW16, and PZMW17. The wells are sampled for BTEX (by EPA Method 8260b) and field parameters.
- Regional groundwater sampling – Performance monitoring will begin approximately 6 weeks after completion of *in situ* chemical oxidation injection activities. Bimonthly sampling of the PZMWs will continue after the three rounds of bimonthly performance monitoring are completed if RAOs have not been met and/or active remediation is still necessary. Once RAOs have been met and active remediation is no longer necessary, quarterly sampling will be performed as part of the Basewide LTM program to monitor site conditions. The data from the post-remedy monitoring will be evaluated by the FFA team to determine when and whether active monitoring of the perched groundwater can be concluded. Samples will be analyzed for VOCs by EPA Method 8260b. Sampling of groundwater and bedrock vadose zone vapors from nearby regional monitoring wells,

MW20 and MW26, will also be completed.

In addition, the primary activities associated with system operations include active removal of contaminated subsurface vapors are completed by using a semi-permanent trailer-mounted blower-based VE system. In addition to subsurface vapors, the VE system is also targeted at removing residual phase non-aqueous phase liquid floating on the perched groundwater and residing in the fractured bedrock vadose zone. The system is connected to VEW-3 and VEW-6 through abandoned electrical conduits that enter into a vault at manhole number 1. Although these two VEWs are located adjacent to each other, they are screened at different vertical intervals and together are expected to exert an influence over the entire vertical and lateral extent of site contamination.

Performance monitoring and system operations activities are presented and summarized in quarterly RA/O Technical Memoranda.

6. ST-13, Groundwater covered under MW-24 LTM

Soil samples collected before and during the removal of four UST's at the POL yard indicated that soil had been impacted by several volatile organic compounds. Because contaminated soils were removed during the UST removal and the excavation filled and capped, and because the site was closed under RCRA, a follow-on CERCLA investigation, Human Health Risk Assessment, and Ecological Risk Assessment was not done at the Site. There was a miscommunication between the CERCLA and RCRA programs as to who was going to monitor the site (cap). RCRA Post Closure required installation of a protective cap while the FFA made a decision that the site could be closed for soils to UU/UE. This part of the post-closure care was accidentally dropped and is now being addressed through the Part B permit. MHAFB installed a cap in 1994 and will institute an inspection and maintenance program detailed in a proposed CIMP.

Continued monitoring of the regional groundwater and occurrence of LNAPL (including continued use, as necessary, of a passive fuel absorbent sock) is recommended at MW24 under OU-3 as part of the LTM program. No recommendation or follow-up action was needed for this site as it does not require re-evaluation during future FYRs.

7. LF-23 (Land Use Controls and annual inspection of cap)

The primary O&M activities associated with Site LF-23 will include LTM for site-related monitoring wells to monitor groundwater quality and ensure annual inspections of the LUCs are completed in accordance with the ESD. An annual on-site inspection will be completed for Site LF-23 in accordance with the specific LUCs for Site LF-23 as described in the July 2011 ESD for the 1995 ROD. During each inspection, the general landfill condition will be observed with particular attention paid to the area with signage surrounding the coal ash and debris area and whether any unauthorized activities (e.g., digging or dumping) are being done under the LUCs and the warning signs will be inspected to ensure they are properly in place. Each inspection will verify compliance with the LUC requirements, objectives, and controls in the ROD and ESD. A report discussing conditions and any recommendations required for maintenance and repairs will be

completed after inspection for LUCs.

8. SD-24 (Bedrock vapor extraction)

For permit purposes this site is included under OU-3, SD-24 designation is only used internally in the USAF to apportion funds. SD-24 is closed for soils.

9. OU-3 (Continue operation of existing systems and LTM)

The primary O&M activities associated with the implemented remedial action (NRA with LTM) include LTM of regional groundwater, perched groundwater, and bedrock vadose zone vapors for OU-3. The LTM program was initiated in May 1996 in accordance with the Final Post-ROD Groundwater Monitoring Plan for OU-3. Changes have been made to the LTM program since 1996 based on deficiencies identified in the 2001 FYR and in subsequent annual LTM reports. The most significant change to the LTM program since the 2006 FYR includes the installation of one regional groundwater monitoring well with vapor ports (MW39) in January 2009.

Regional groundwater, perched groundwater, and bedrock vadose zone vapors are currently sampled in accordance with the 2007 through 2011 LTM Work Plan Addendum, the Site SD-24 Remedy Optimization Work Plan Addendum, and the installation of new well MW39. Groundwater is currently sampled from four regional groundwater monitoring wells on a quarterly basis, four regional groundwater monitoring wells on a semiannual basis, and seven wells on an annual basis. Sixteen wells have vapor monitoring ports installed at multiple depths for a total of 49 sampling ports. Semiannual groundwater sampling is completed at nine perched zone monitoring wells located at Site ST-11.

In addition, six MHAFB production wells are sampled on a quarterly basis to meet requirements of the Safe Drinking Water Act. VOCs, including TCE, have not been detected above MCLs in any of the MHAFB drinking water supply wells or perimeter wells.

10. Verlinde Hill Rubble Pile:

MHAFB has developed a Cap Maintenance Plan (CMP) for the Verlinde Hill Phases 5, 6, and 7 Rubble Area cap. The CMP includes:

- Vegetative layer inspection and maintenance to ensure that long-term vegetative surface is adequately established and maintained. Over time, areas may need to be reseeded. If reseeding is required, use a dry-land seed mix in late fall to take advantage of spring moisture to establish seedlings. Specifically, the CMP includes time and frequency of vegetative cover inspections, who will conduct the inspections (qualification of personnel), and procedures for documenting inspections. The CMP also describes the conditions that would trigger reseeding, procedures, timing for reseeding, and documentation protocols for maintenance activities.
- Routine inspections of cap cover and surrounding area for potential erosion of cap and berms and signs of deteriorating conditions. If erosion is occurring that could result in

cap deterioration and potential exposure of buried materials, the area requires re-grading and reseeding. The CMP identifies key inspection times and will include late spring after the last frost and early fall. The CMP will include protocols for erosion inspections and animal destruction (e.g., burrowing) of the cap and surrounding areas (when, how, and documentation). The CMP also describes the conditions that would trigger maintenance activities, procedures and timing for activities, and documentation protocols.

- Routine inspection of fence perimeter and warning signs; repair or replace as necessary. The CMP identifies frequency of inspections, triggers for repairing or replacing signs and fencing, and documentation protocol.
- Routine inspection of cap cover and surrounding area for ACM on the surface. If found, the ACM material will be removed and properly disposed of. The CMP identifies protocol on how ACM inspections will be conducted, frequency of inspections, and protocol for ACM removal and disposal. Activities will be similar to those actions identified in the Asbestos Contingency Plan.

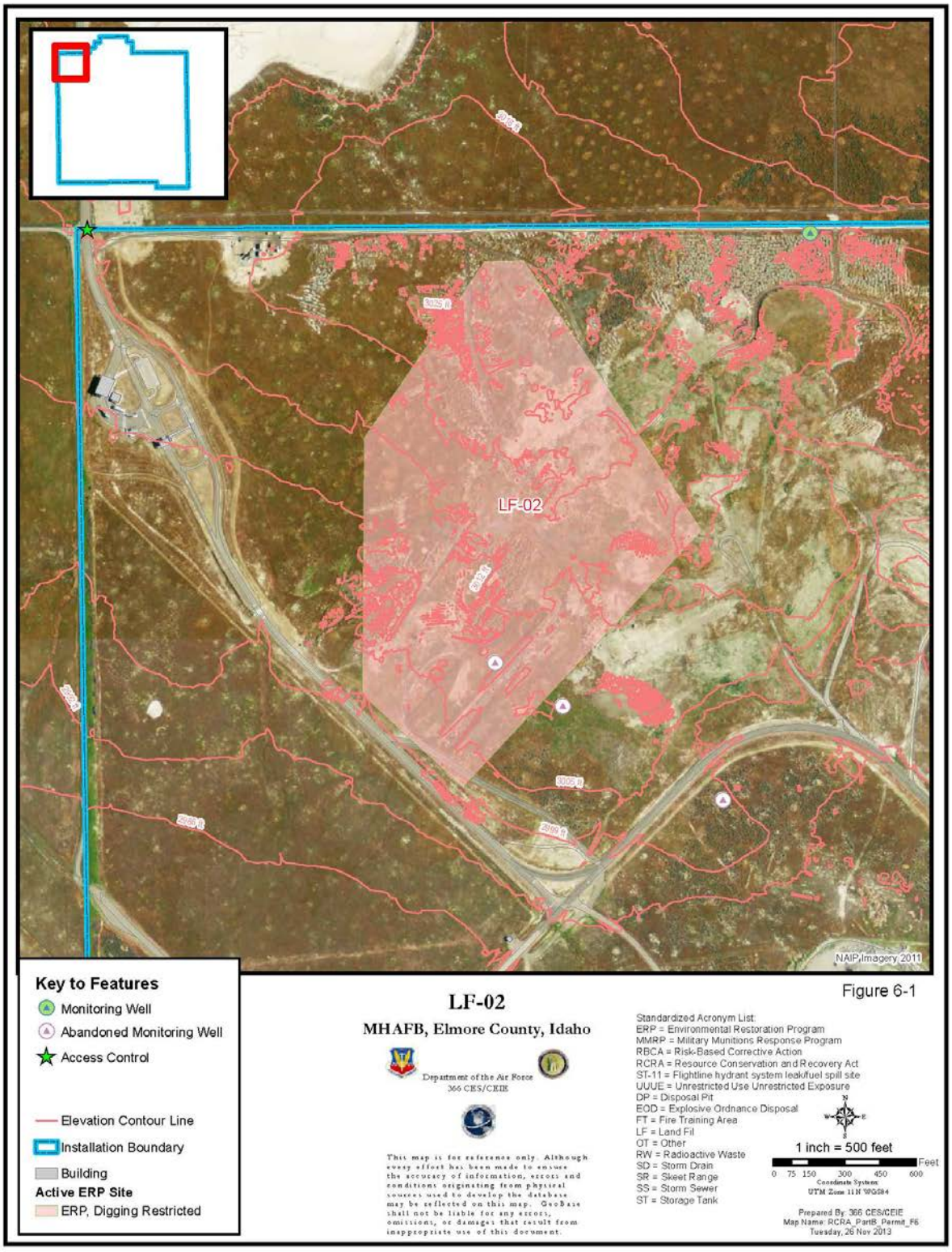


Figure 6-1. LF-02

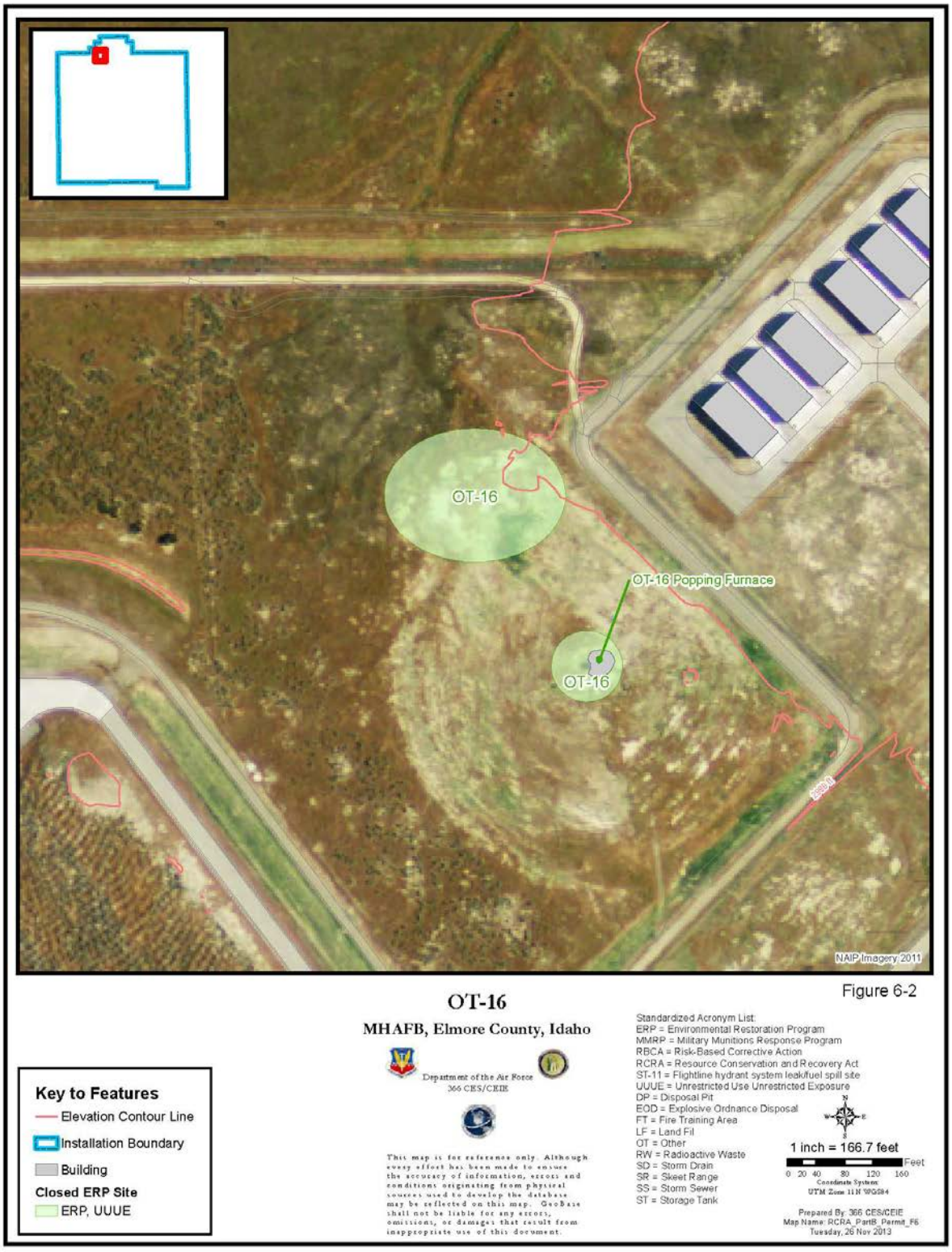


Figure 6-2. OT-16

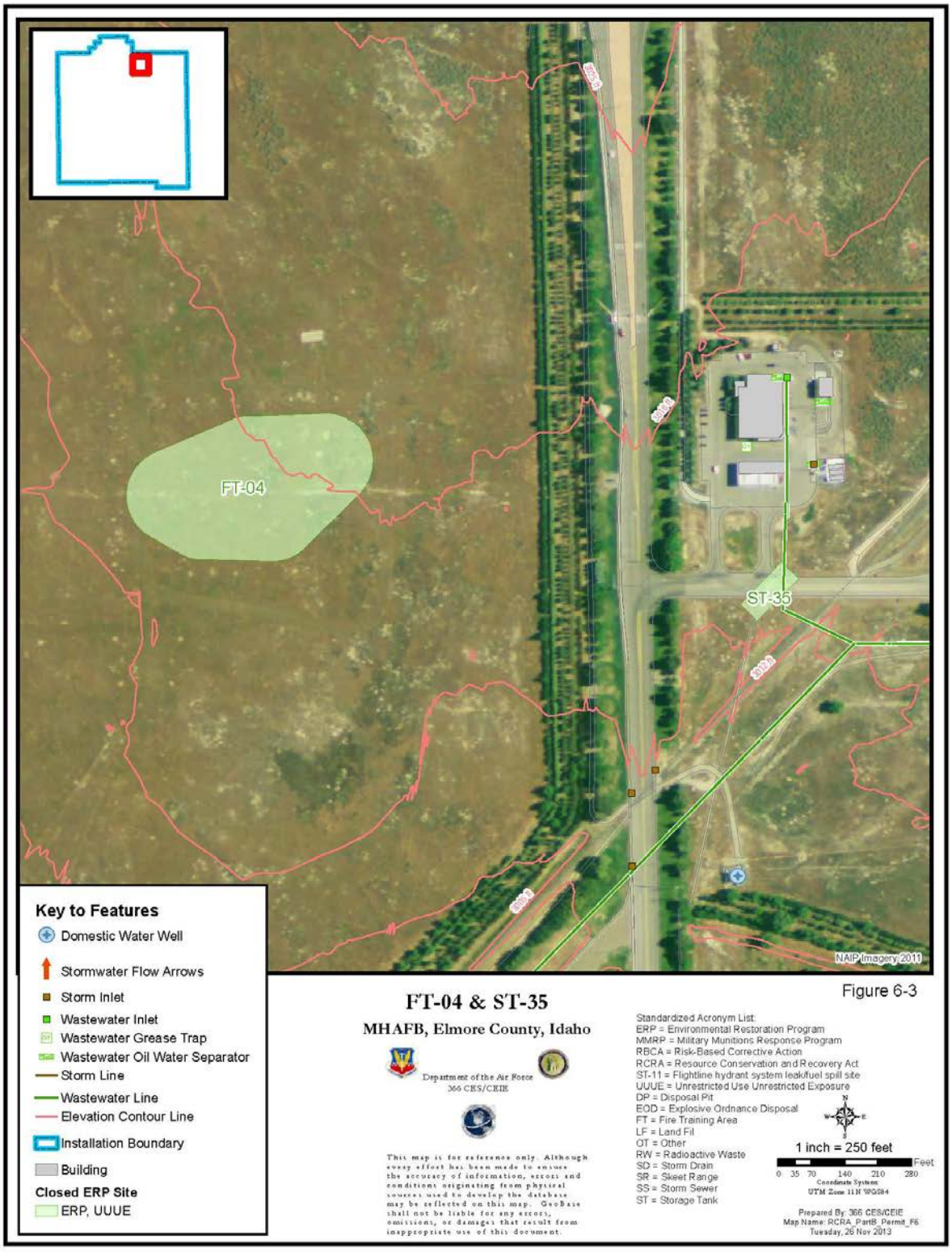


Figure 6-3. FT-04 and ST-35

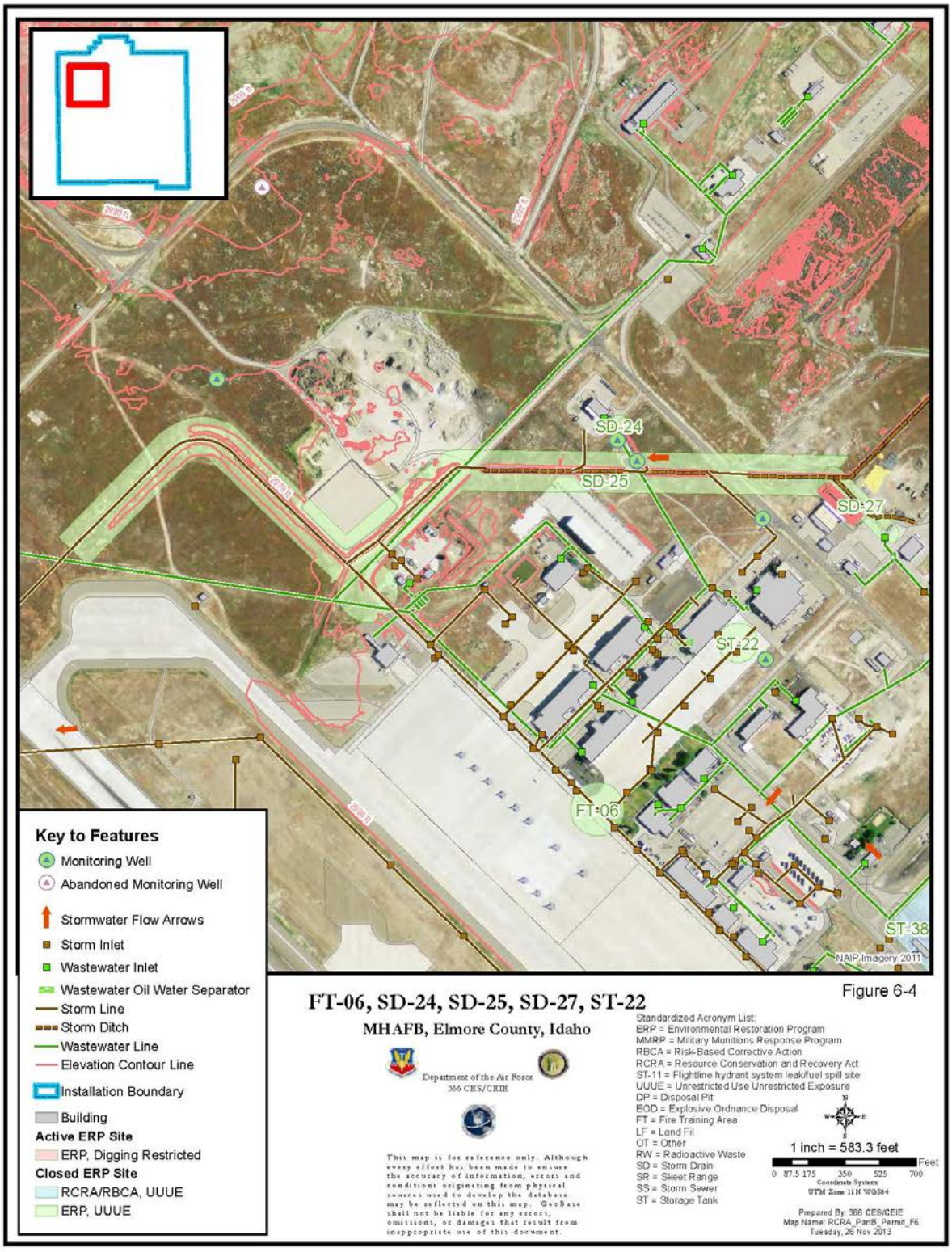


Figure 6-4. FT-06, SD-24, SD-25, SD-27, ST-22

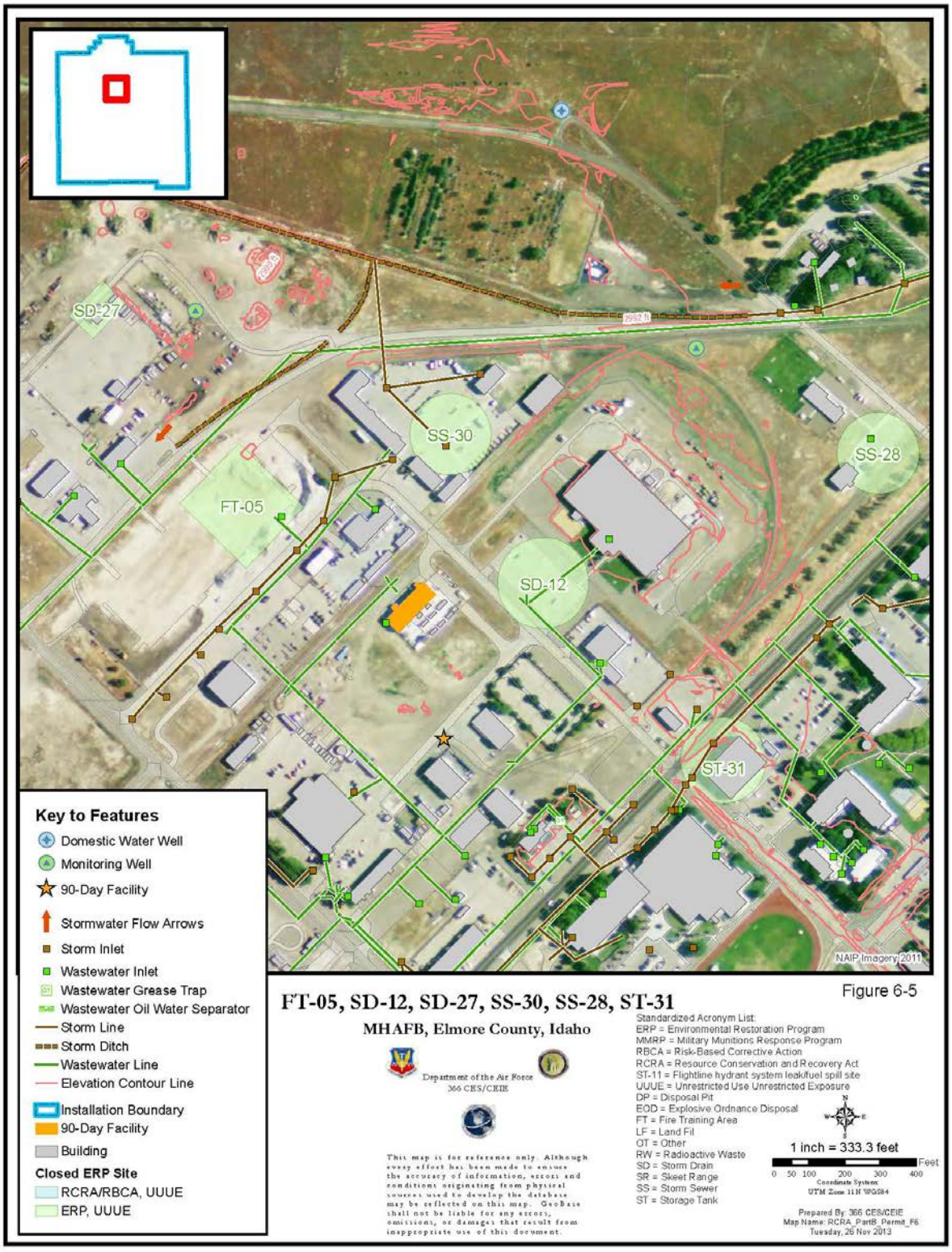


Figure 6-5. FT-05, SD-12, SD-27, SS-30, SS-28, ST-31



Figure 6-6. ST-11, ST-13, ST-38, SS-29

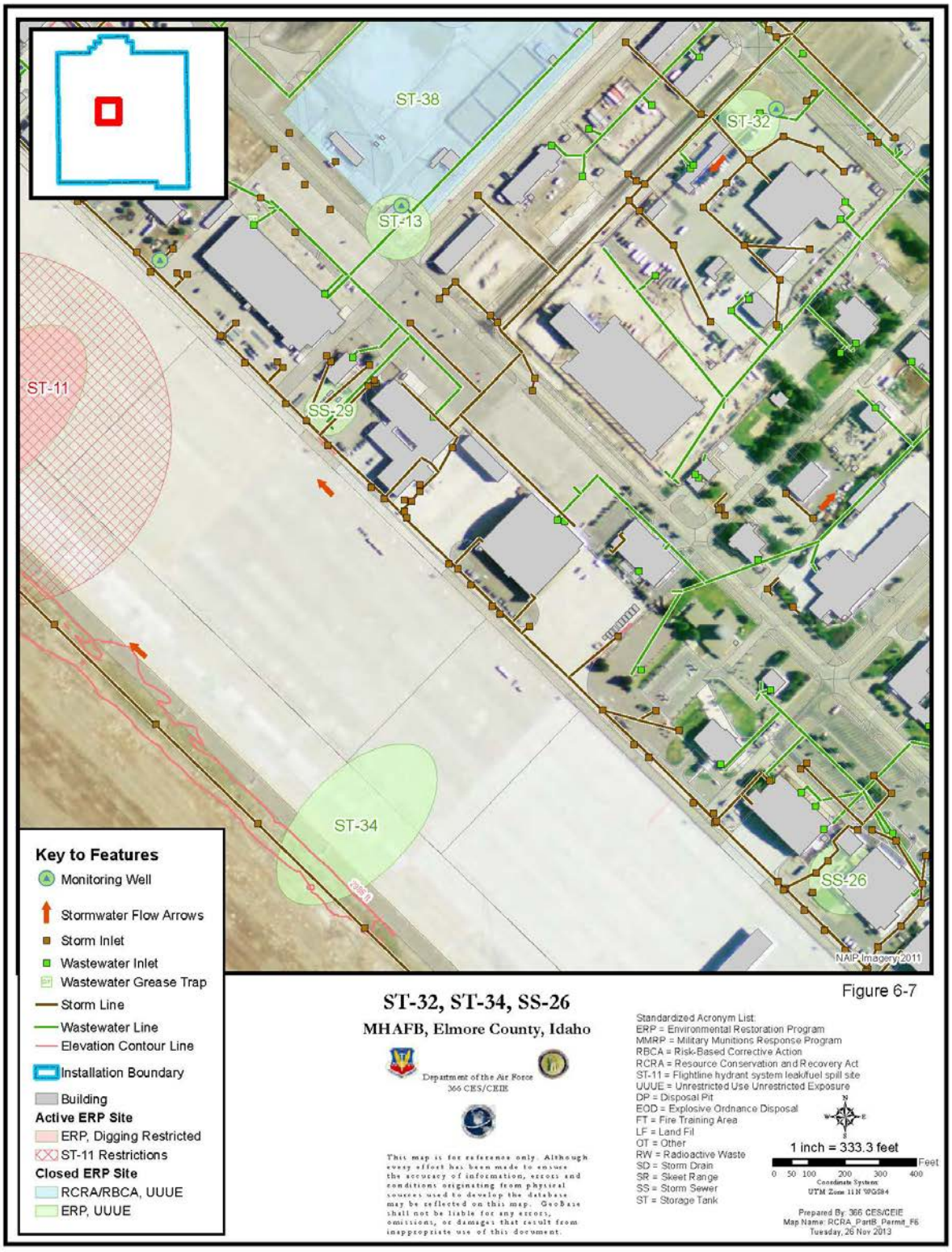


Figure 6-7. ST-32, ST-34, SS-26

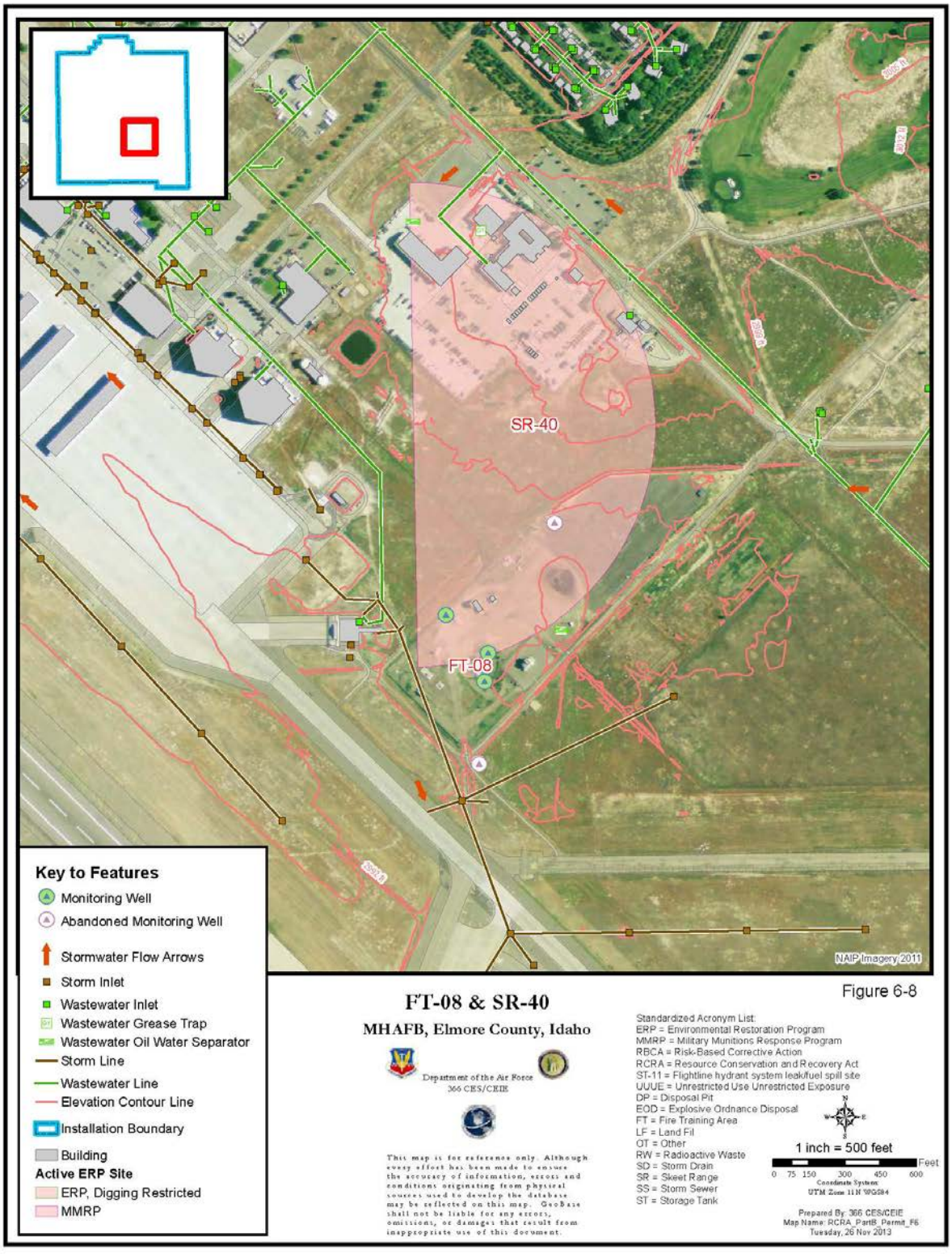


Figure 6-8. FT-08 and SR-40

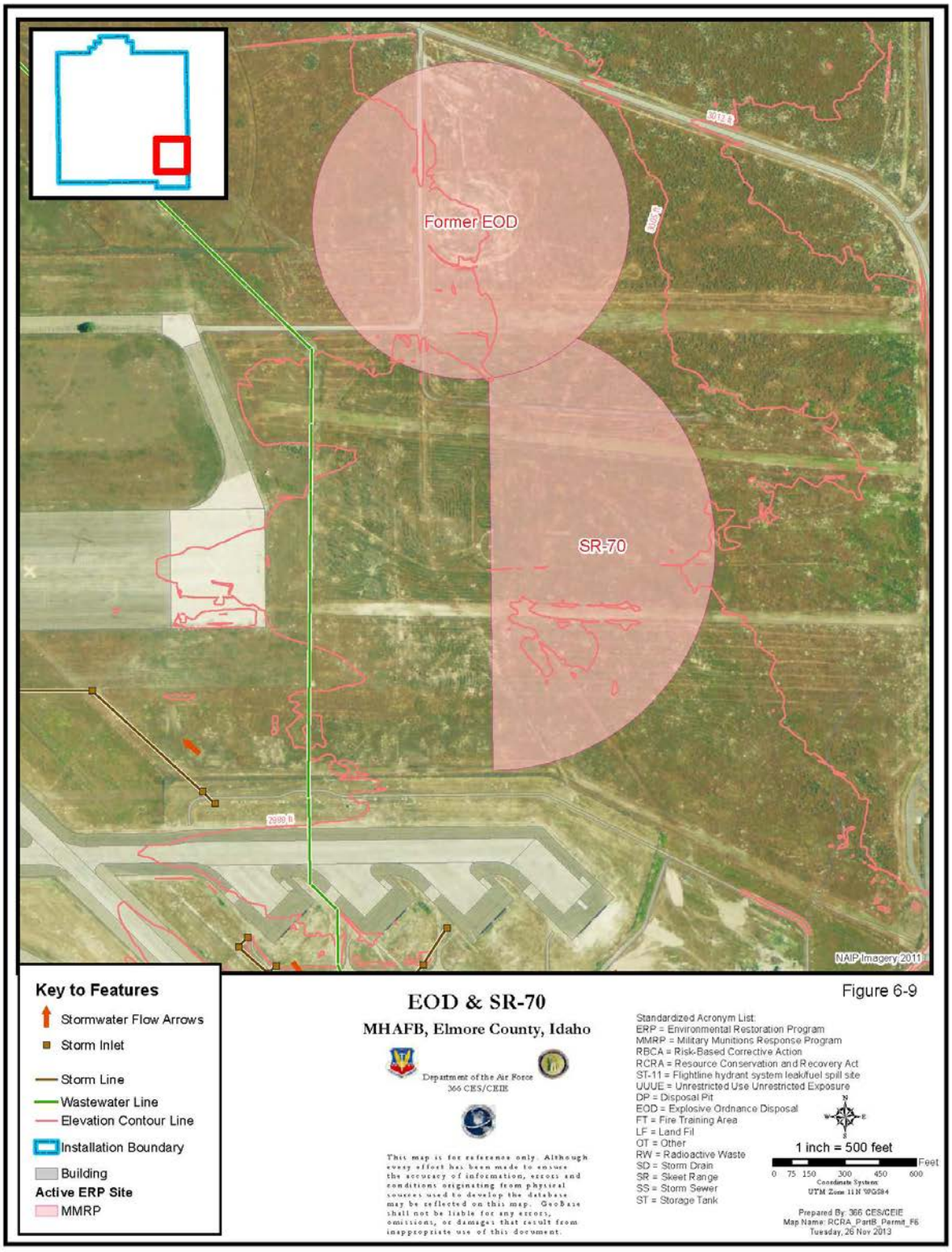


Figure 6-9. EOD & SR-70

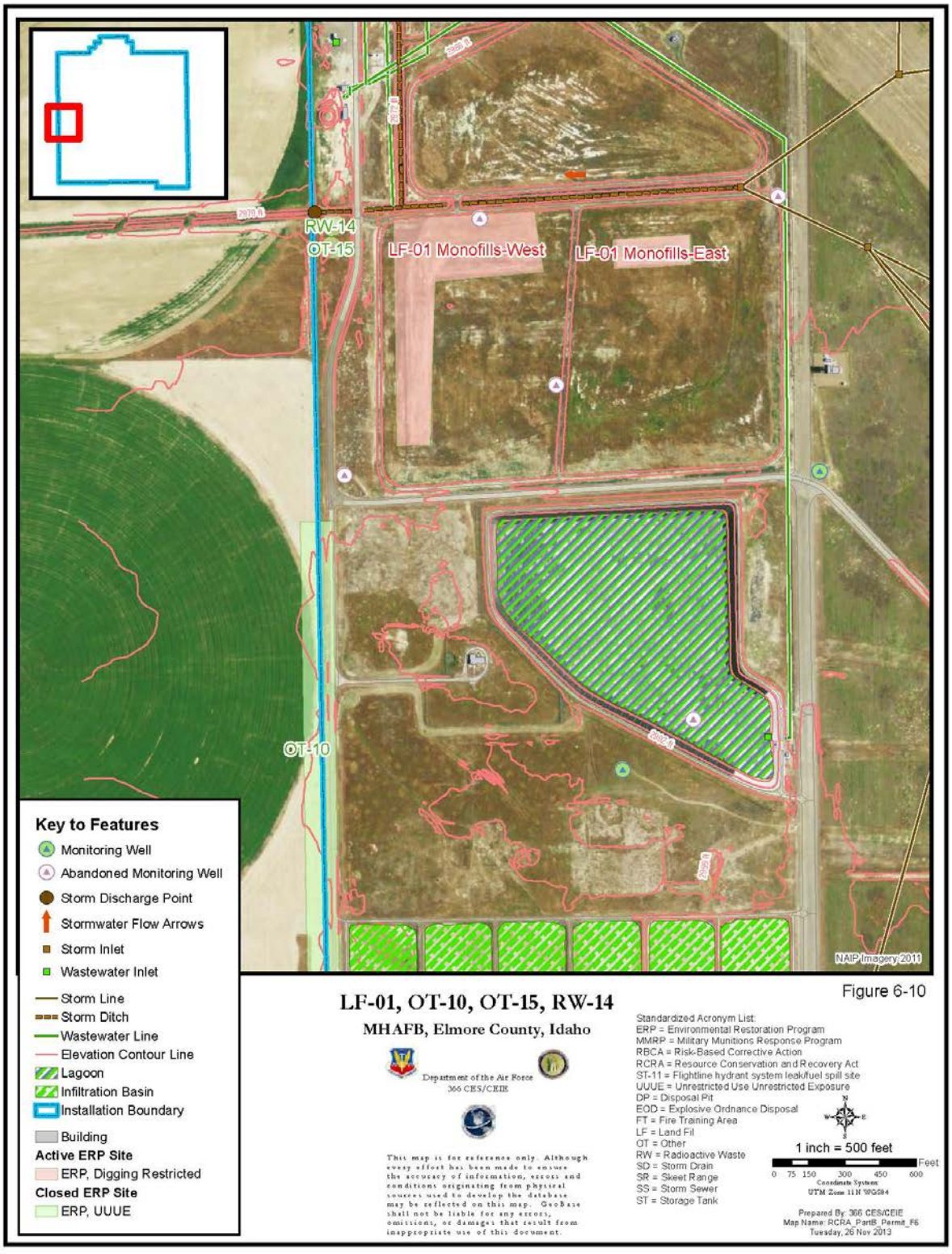


Figure 6-10. LF-01, OT-10, OT-15, RW-14

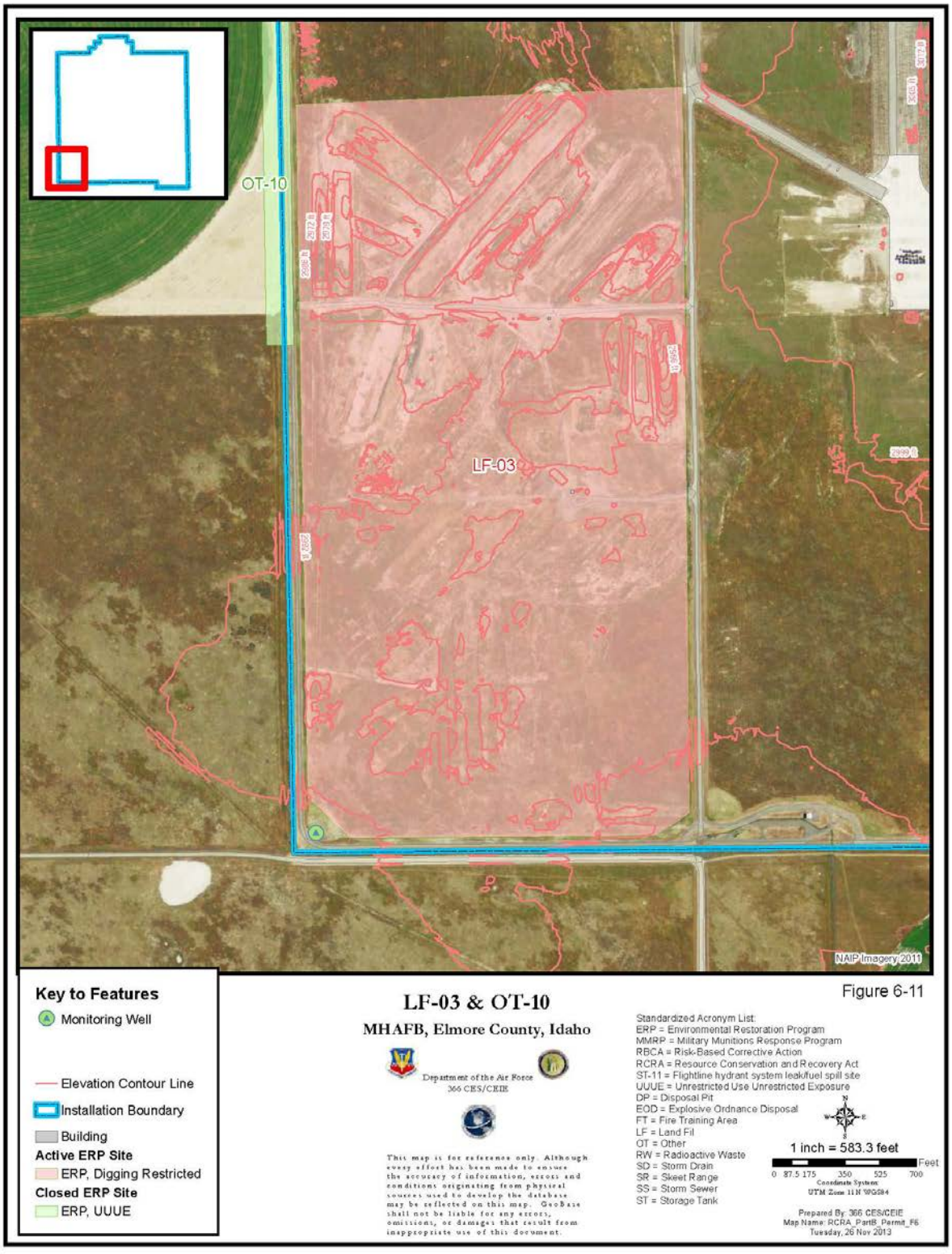


Figure 6-11. LF-03 and OT-10

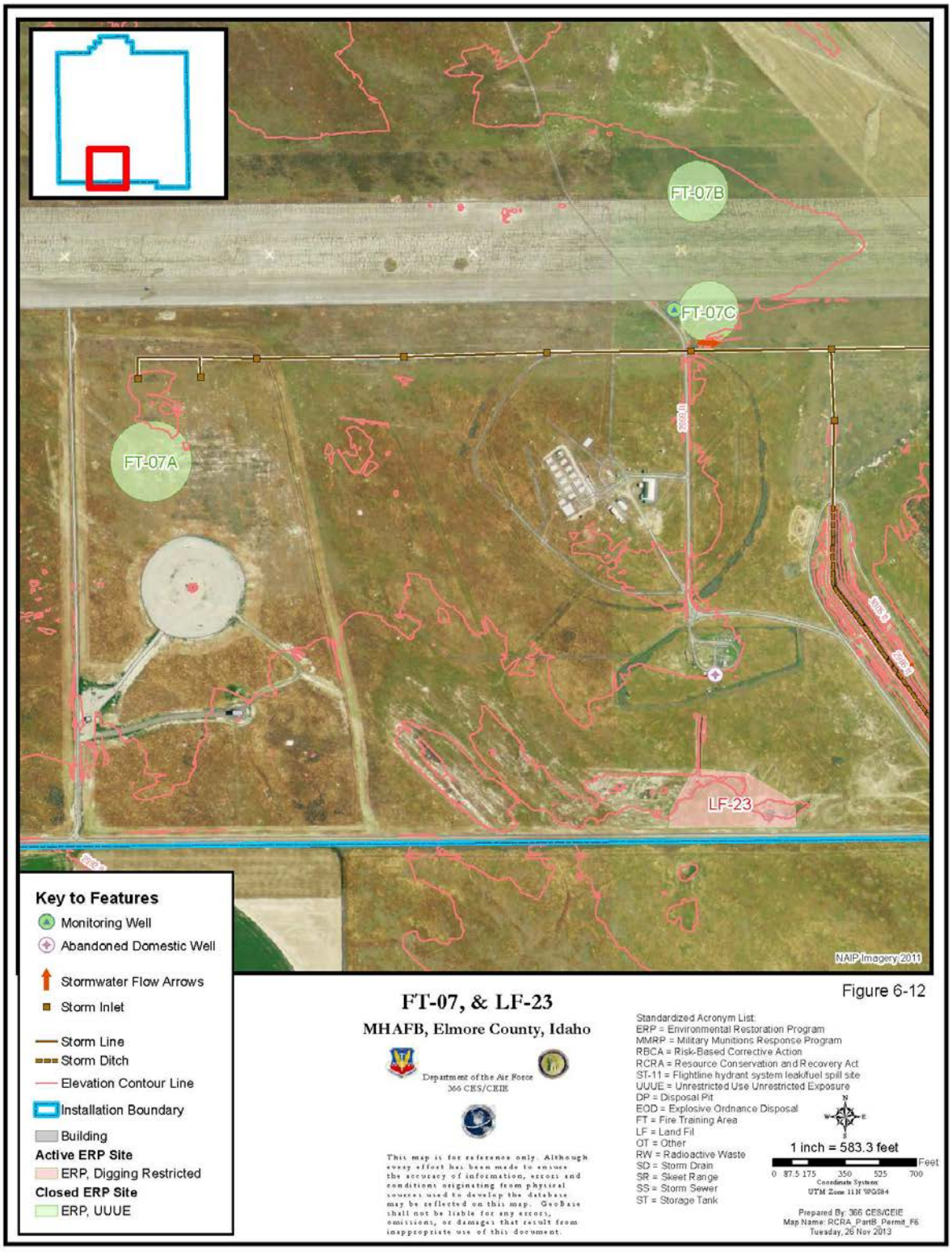


Figure 6-12. FT-07 and LF-23

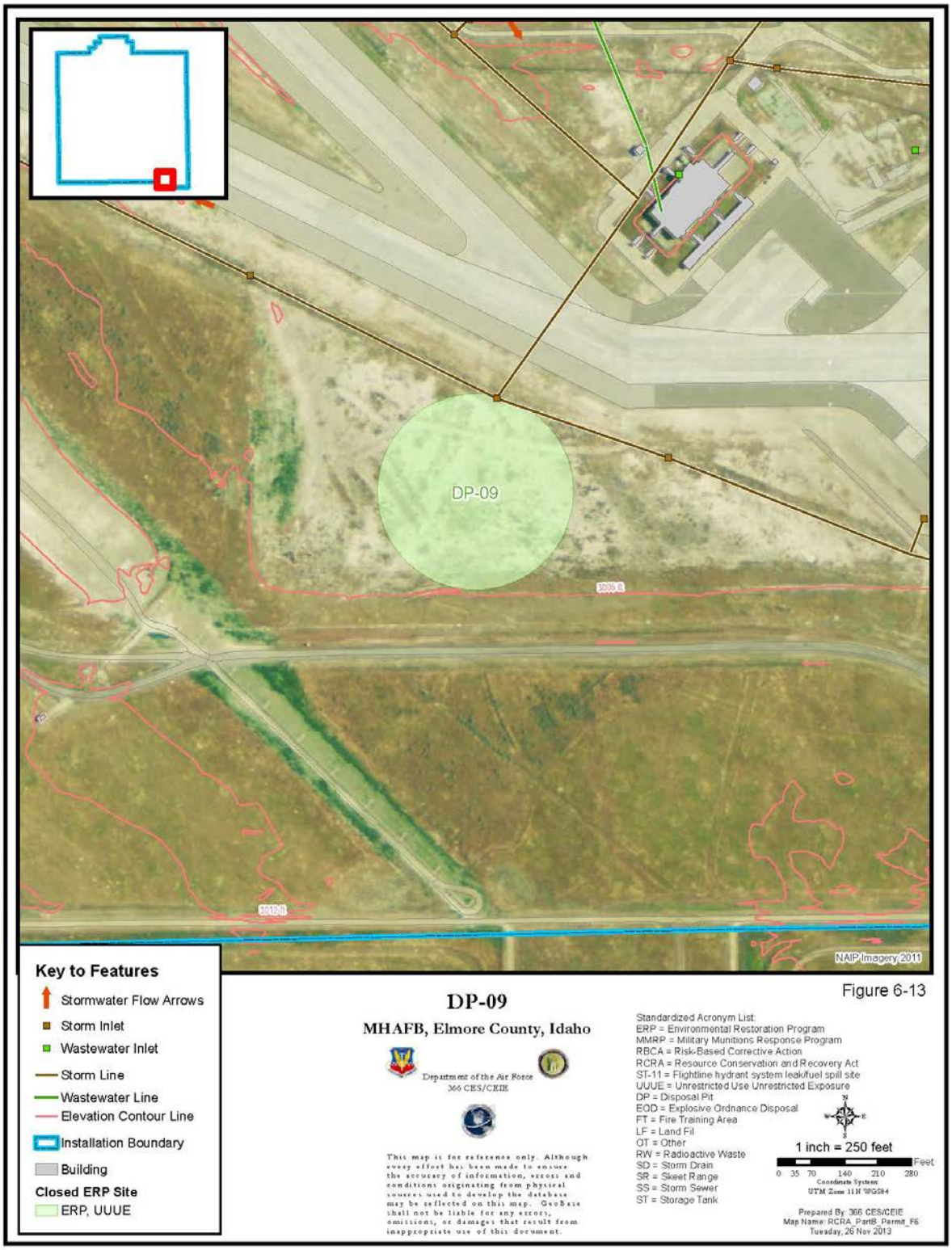


Figure 6-13. DP-09

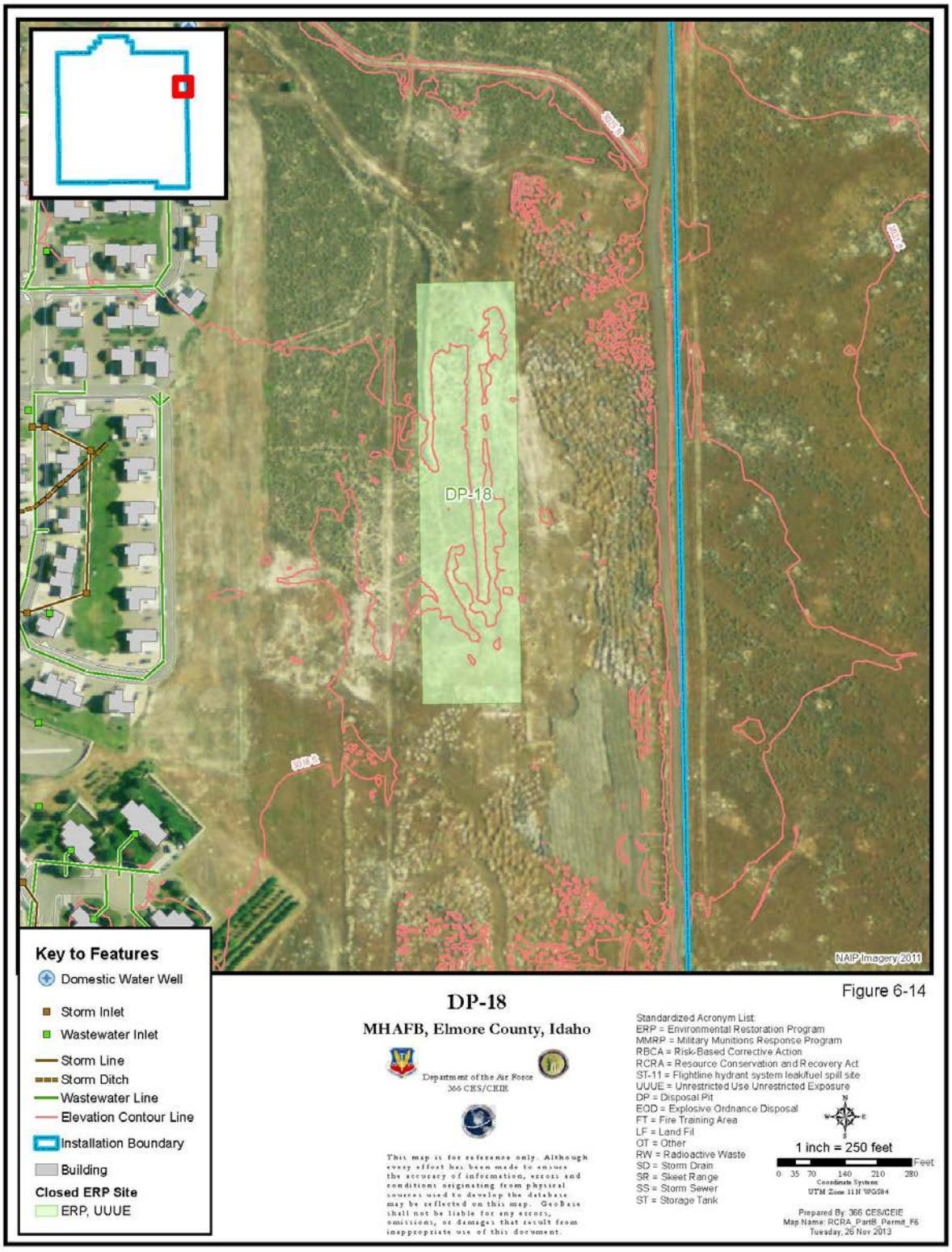


Figure 6-14. DP-18

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 7 – CLOSURE

EFFECTIVE DATE: JANUARY 11, 2015

7.0 CLOSURE

This section does not apply. There are no active units to go through closure. However, there have been several units that have undergone closure.

The units closed under IDAPA 58.01.05.008 and .009 940 CFR Parts 265 and 265) are:

- POL UST Tanks removed in 1988 and closed September 18, 1992 (1987 Consent Order) (Closure approval is included as Figure 7-1).

- OT-16 Popping Furnace closed October 1992 (1990 NOD) (Evidence of closure is included as Figures 7-2a and 7-2b).

- Oil Water Separators (OWS) studies in 1995 determined that many OWS contained hazardous waste. OWS 1332E, 1332SE, and 2304 were closed January 24, 1997. Work plans were developed to decommission 40 OWSs located at 26 sites under RCRA. OWS decommissioning were completed as two separate projected conducted in 1997 and 1998. Forty of the 55 OWSs were decommissioned and sampled for closure in 1997 and 1998. The Base is scheduled to close 14 of the remaining 15 OWSs in 2001 under RCRA. In 2001, the EPA and IDEQ required the MAHFB to collect soil samples at 11 OWS before closure approval would be granted. Two OWS, OWS 1347 and OWS 1354, required further decontamination. An OWS inventory was completed at the end of 1999 and listed 20 remaining OWSs located at 18 sites. Five of the 20 were determined to no longer or never present. SOWs were developed to decommission 14 of the 15 remaining OWS under RCRA. The OWS that remained in service (OWS 268-New) was reengineered. The EPA rejected the laboratory results associated with the 1997 and 1998 effort, and the Base resampled 11 of the 40 decommissioned OWS sites during the summer of 2001 under RCRA. These 11 sites are recommended for further evaluation under the FFA as site AOC-8. (No Further Action Approval for OWSs 1332E, 1332SE, and 2304 is included as Figure 7-3.)

- DRMO Storage Units Closures (Final Closure Certification is included as Figure 7-4.)

  - DRMO Storage Unit 1, approved October 31, 2001 (newest unit)
  - DRMO Storage Unit 2, approved October 31, 2001

- Tank at old entomology shop (1987 Consent Order)

The units closed under IDAPA 58.01.24, Standards and Procedures for Application of Risk Based Corrective Action at Petroleum Release Sites are:

- Aboveground Storage Tank (AST) Tank 1A at the POL Yard [No Further Action (NFA) Letter dated July 21, 2011 included as Figure 7-5]

- AST Tank 2 at the POL Yard (NFA Letter dated May 2, 2014 included as Figure 7-6)

- AST Tank 3 at the POL Yard (NFA Letter dated August 14, 2014 included as Figure 7-7)

IDAHO DEPARTMENT
OF HEALTH AND WELFARE
DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Statehouse Mail, Boise, ID 83720-9000, (208) 334-0502 Cecil D. Andrus, Governor Richard P. Donovan, Director

September 16, 1991

CERTIFIED MAIL NO. 085 186 410
RETURN RECEIPT REQUESTED

Colonel Steven F. Glantz, USAF
Commander
366th CSG/CC
Mountain Home AFB, ID 83648

Dear Colonel Glantz:

This letter is regarding Mountain Home Air Force Base's (MHAFB) Closure Plan for the Petroleum, Oil, Lubricant (POL) storage yard, EPA ID. No. ID3572124557.

The Hazardous Materials Bureau (HMB) has reviewed the closure activities summary report, the independent registered professional engineer's closure certification, and the modifications to the local zoning authorities survey plot. The HMB has concluded that the closure activities were completed in accordance with the approved POL Closure Plan, dated December 6, 1990.

With regard to post-closure care, the above referenced approved Closure Plan stated: "Details of the ground water monitoring and other details of the Post-Closure Plan will be addressed under a separate Interagency Agreement (IAG) between the State of Idaho, the Air Force, and the EPA." Accordingly, it is the responsibility of MHAFB to ensure that the applicable or relevant and appropriate requirements (ARAR's) of IDAPA § 16.01.5009 [40 CFR Part 265 Subparts F and N] are adhered to.

If you have any questions or comments, please contact Andrew J. Pentony of my staff at (208) 334-5879.

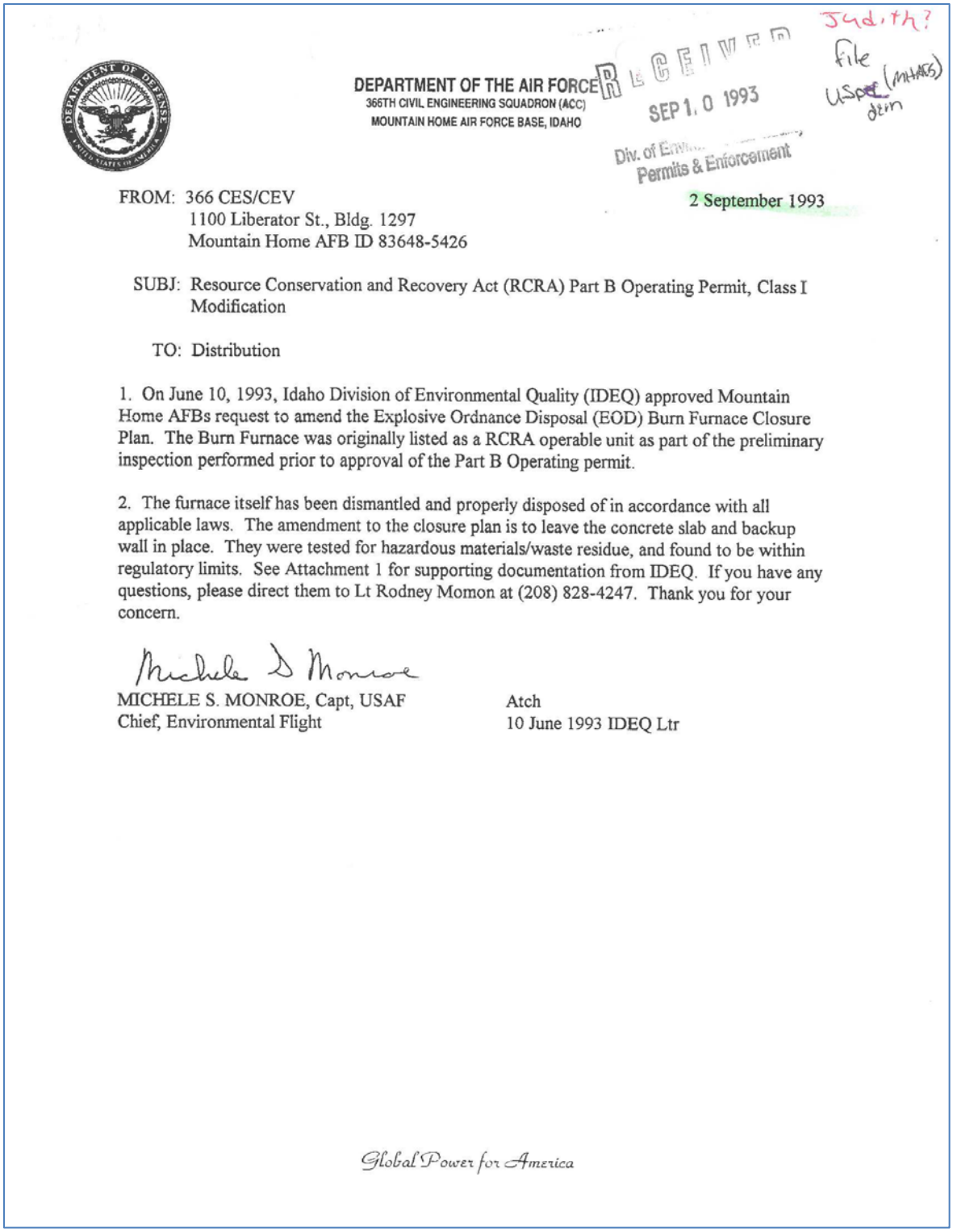
Sincerely,

Brian R. Monson, Manager
Compliance Section
Hazardous Materials Bureau

BRM/AJP/dr

cc: Dawnee Dahn, EPA Region X
John Hale, MHAFB
Lee Costanzo, Boise Field Office
Randy Walton, Boise Field Office
Dean Nygard, Hazardous Materials Bureau

Figure 7-1. POL Tanks Closure Approval



DEPARTMENT OF THE AIR FORCE
366TH CIVIL ENGINEERING SQUADRON (ACC)
MOUNTAIN HOME AIR FORCE BASE, IDAHO

RECEIVED
SEP 10 1993
Div. of Env...
Permits & Enforcement

Judith?
file
USAF (MHAFB)
dtm

FROM: 366 CES/CEV
1100 Liberator St., Bldg. 1297
Mountain Home AFB ID 83648-5426

2 September 1993

SUBJ: Resource Conservation and Recovery Act (RCRA) Part B Operating Permit, Class I Modification

TO: Distribution

1. On June 10, 1993, Idaho Division of Environmental Quality (IDEQ) approved Mountain Home AFBs request to amend the Explosive Ordnance Disposal (EOD) Burn Furnace Closure Plan. The Burn Furnace was originally listed as a RCRA operable unit as part of the preliminary inspection performed prior to approval of the Part B Operating permit.

2. The furnace itself has been dismantled and properly disposed of in accordance with all applicable laws. The amendment to the closure plan is to leave the concrete slab and backup wall in place. They were tested for hazardous materials/waste residue, and found to be within regulatory limits. See Attachment 1 for supporting documentation from IDEQ. If you have any questions, please direct them to Lt Rodney Momon at (208) 828-4247. Thank you for your concern.

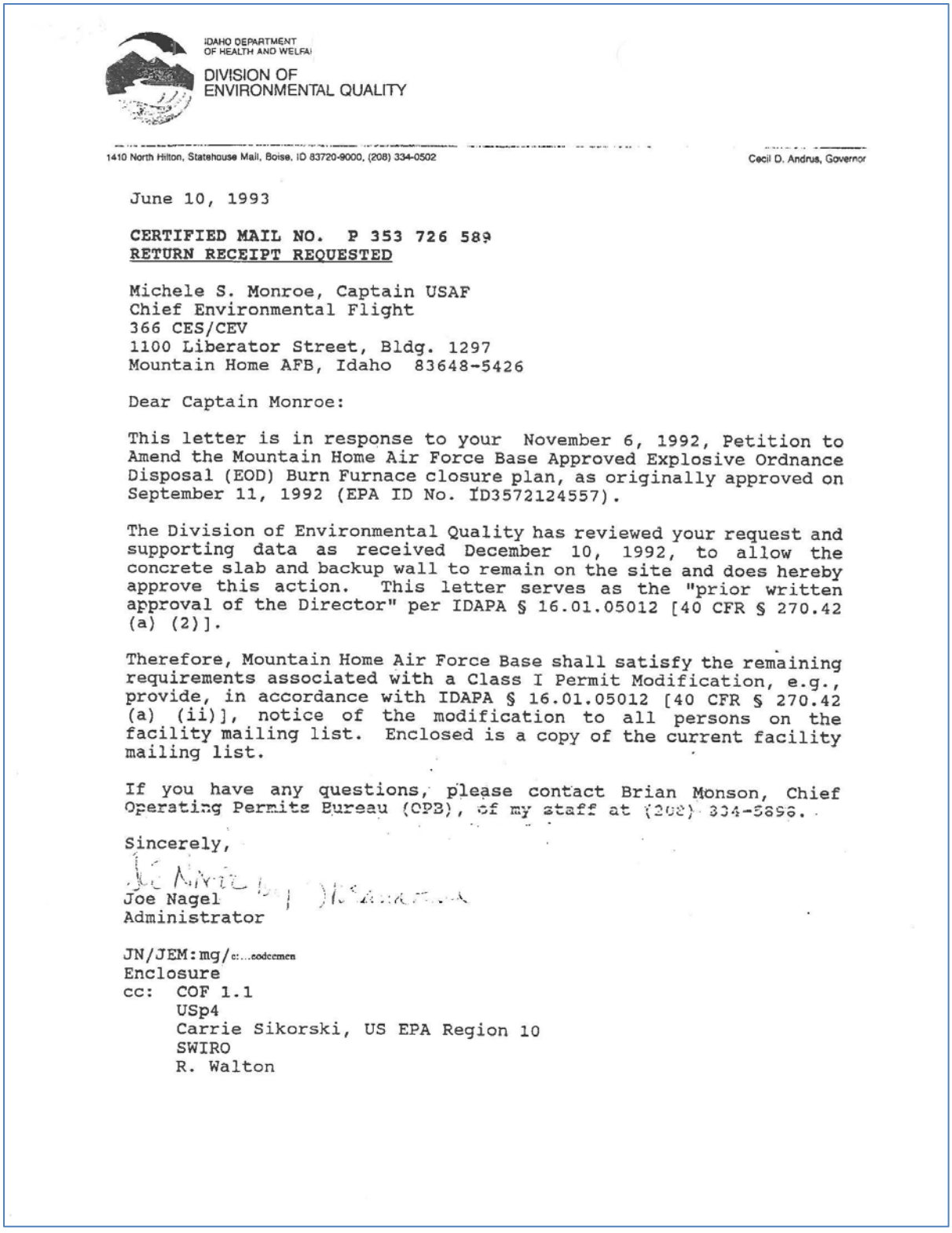
Michele S Monroe

MICHELE S. MONROE, Capt, USAF
Chief, Environmental Flight

Atch
10 June 1993 IDEQ Ltr

Global Power for America

Figure 7-2a. EOD Closure



IDAHO DEPARTMENT OF HEALTH AND WELFARE
DIVISION OF ENVIRONMENTAL QUALITY

1410 North Hilton, Statehouse Mail, Boise, ID 83720-9000, (208) 334-0502 Cecil D. Andrus, Governor

June 10, 1993

CERTIFIED MAIL NO. P 353 726 589
RETURN RECEIPT REQUESTED

Michele S. Monroe, Captain USAF
Chief Environmental Flight
366 CES/CEV
1100 Liberator Street, Bldg. 1297
Mountain Home AFB, Idaho 83648-5426

Dear Captain Monroe:

This letter is in response to your November 6, 1992, Petition to Amend the Mountain Home Air Force Base Approved Explosive Ordnance Disposal (EOD) Burn Furnace closure plan, as originally approved on September 11, 1992 (EPA ID No. ID3572124557).

The Division of Environmental Quality has reviewed your request and supporting data as received December 10, 1992, to allow the concrete slab and backup wall to remain on the site and does hereby approve this action. This letter serves as the "prior written approval of the Director" per IDAPA § 16.01.05012 [40 CFR § 270.42 (a) (2)].

Therefore, Mountain Home Air Force Base shall satisfy the remaining requirements associated with a Class I Permit Modification, e.g., provide, in accordance with IDAPA § 16.01.05012 [40 CFR § 270.42 (a) (ii)], notice of the modification to all persons on the facility mailing list. Enclosed is a copy of the current facility mailing list.

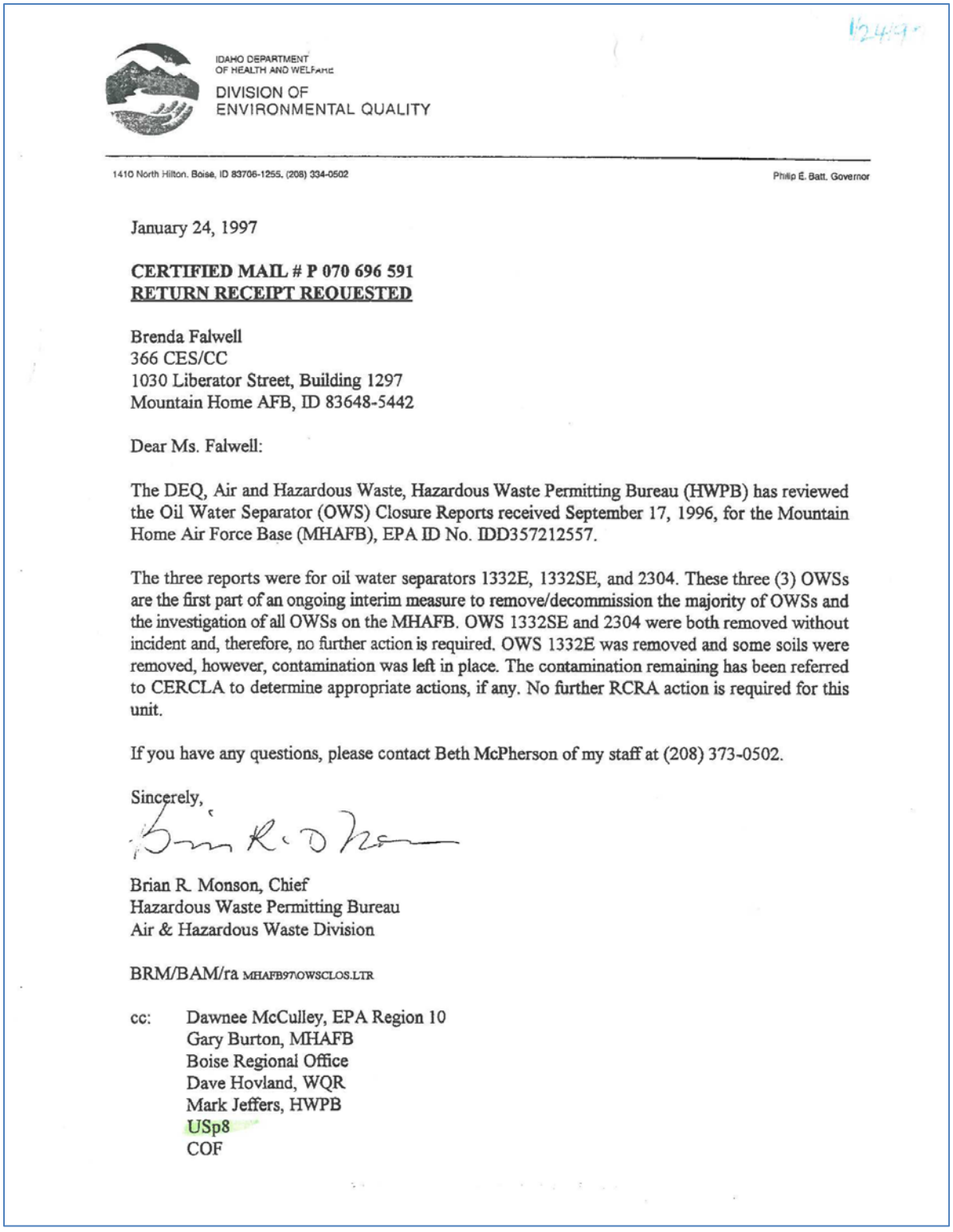
If you have any questions, please contact Brian Monson, Chief Operating Permits Bureau (OPB), of my staff at (208) 334-5898.

Sincerely,

Joe Nagel
Administrator

JN/JEM:mg/c:...codcemen
Enclosure
cc: COF 1.1
USp4
Carrie Sikorski, US EPA Region 10
SWIRO
R. Walton

Figure 7-2b. EOD Closure



IDAHO DEPARTMENT
OF HEALTH AND WELFARE
DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Boise, ID 83706-1255, (208) 334-0502 Philip E. Batt, Governor

January 24, 1997

CERTIFIED MAIL # P 070 696 591
RETURN RECEIPT REQUESTED

Brenda Falwell
366 CES/CC
1030 Liberator Street, Building 1297
Mountain Home AFB, ID 83648-5442

Dear Ms. Falwell:

The DEQ, Air and Hazardous Waste, Hazardous Waste Permitting Bureau (HWPB) has reviewed the Oil Water Separator (OWS) Closure Reports received September 17, 1996, for the Mountain Home Air Force Base (MHAFB), EPA ID No. IDD357212557.

The three reports were for oil water separators 1332E, 1332SE, and 2304. These three (3) OWSs are the first part of an ongoing interim measure to remove/decommission the majority of OWSs and the investigation of all OWSs on the MHAFB. OWS 1332SE and 2304 were both removed without incident and, therefore, no further action is required. OWS 1332E was removed and some soils were removed, however, contamination was left in place. The contamination remaining has been referred to CERCLA to determine appropriate actions, if any. No further RCRA action is required for this unit.

If you have any questions, please contact Beth McPherson of my staff at (208) 373-0502.

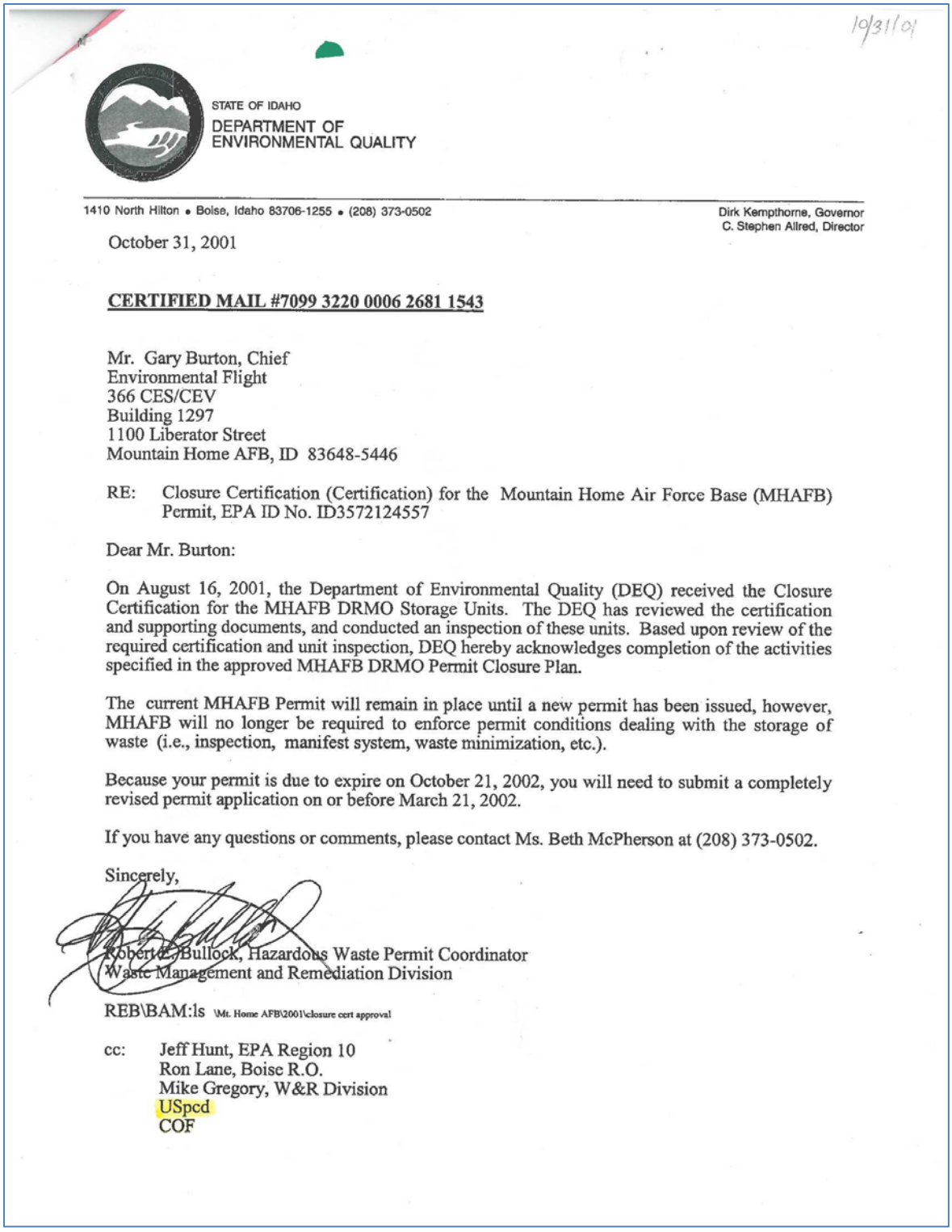
Sincerely,

Brian R. Monson, Chief
Hazardous Waste Permitting Bureau
Air & Hazardous Waste Division

BRM/BAM/ra MHAFB97\OWSCLOS.LTR

cc: Dawnee McCulley, EPA Region 10
Gary Burton, MHAFB
Boise Regional Office
Dave Hovland, WQR
Mark Jeffers, HWPB
USp8
COF

Figure 7-3. OWS 1332e, 1332SE and 2304 No Further Action



10/31/01

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

Dirk Kempthorne, Governor
C. Stephen Allred, Director

October 31, 2001

CERTIFIED MAIL #7099 3220 0006 2681 1543

Mr. Gary Burton, Chief
Environmental Flight
366 CES/CEV
Building 1297
1100 Liberator Street
Mountain Home AFB, ID 83648-5446

RE: Closure Certification (Certification) for the Mountain Home Air Force Base (MHAFB) Permit, EPA ID No. ID3572124557

Dear Mr. Burton:

On August 16, 2001, the Department of Environmental Quality (DEQ) received the Closure Certification for the MHAFB DRMO Storage Units. The DEQ has reviewed the certification and supporting documents, and conducted an inspection of these units. Based upon review of the required certification and unit inspection, DEQ hereby acknowledges completion of the activities specified in the approved MHAFB DRMO Permit Closure Plan.

The current MHAFB Permit will remain in place until a new permit has been issued, however, MHAFB will no longer be required to enforce permit conditions dealing with the storage of waste (i.e., inspection, manifest system, waste minimization, etc.).

Because your permit is due to expire on October 21, 2002, you will need to submit a completely revised permit application on or before March 21, 2002.

If you have any questions or comments, please contact Ms. Beth McPherson at (208) 373-0502.

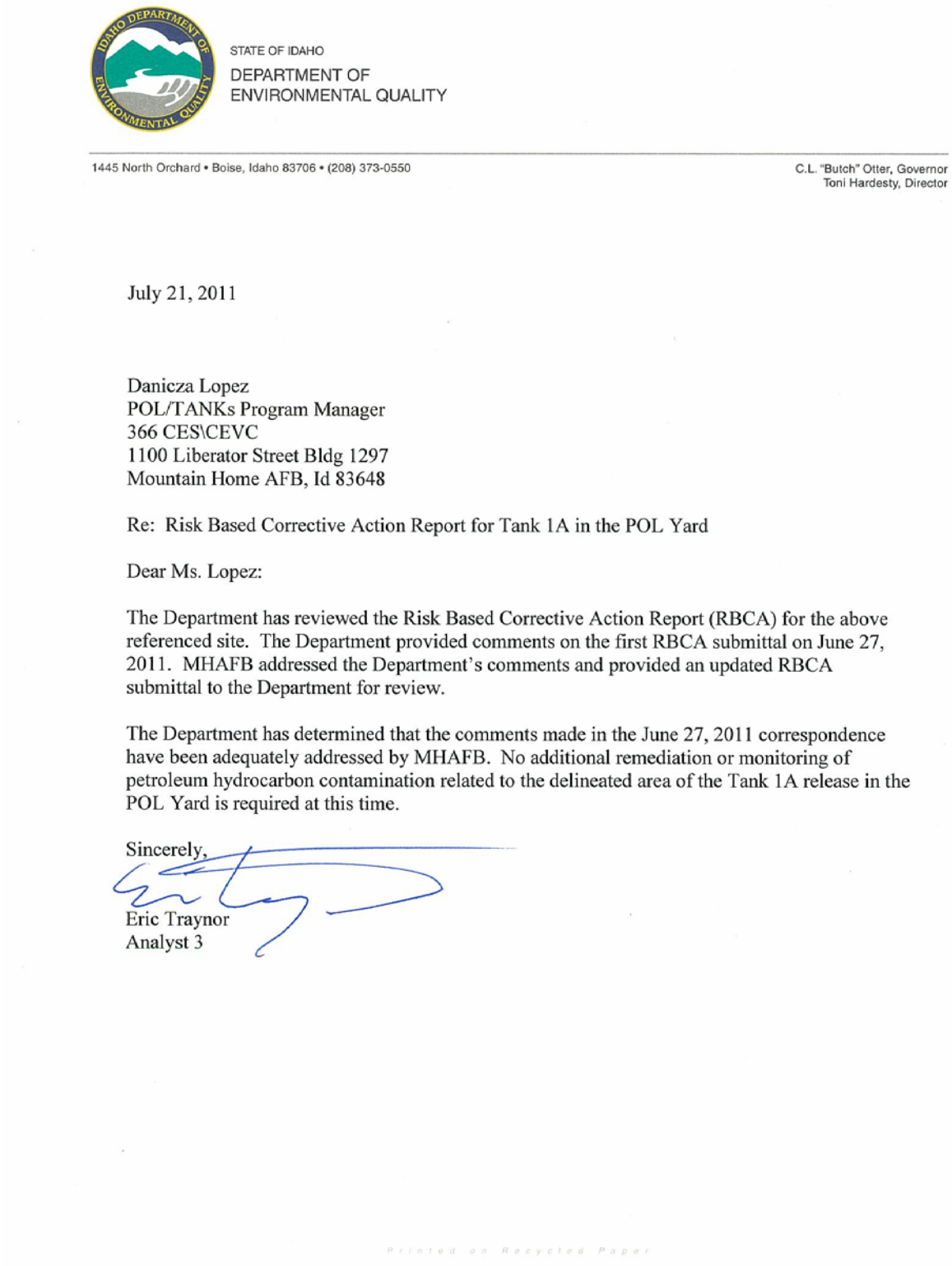
Sincerely,

Robert A. Bullock, Hazardous Waste Permit Coordinator
Waste Management and Remediation Division

REB\BAM:ls \Mt. Home AFB\2001\closure cert approval

cc: Jeff Hunt, EPA Region 10
Ron Lane, Boise R.O.
Mike Gregory, W&R Division
USpcd
COF

Figure 7-4. DRMO Closure Certification Approval



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1445 North Orchard • Boise, Idaho 83706 • (208) 373-0550

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

July 21, 2011

Danicza Lopez
POL/TANKs Program Manager
366 CES\CEVC
1100 Liberator Street Bldg 1297
Mountain Home AFB, Id 83648

Re: Risk Based Corrective Action Report for Tank 1A in the POL Yard

Dear Ms. Lopez:

The Department has reviewed the Risk Based Corrective Action Report (RBCA) for the above referenced site. The Department provided comments on the first RBCA submittal on June 27, 2011. MHAFB addressed the Department's comments and provided an updated RBCA submittal to the Department for review.

The Department has determined that the comments made in the June 27, 2011 correspondence have been adequately addressed by MHAFB. No additional remediation or monitoring of petroleum hydrocarbon contamination related to the delineated area of the Tank 1A release in the POL Yard is required at this time.

Sincerely,

Eric Traynor
Analyst 3

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Figure 7-5. AST Tank 1A No Further Action (NFA) Letter

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1445 North Orchard • Boise, Idaho 83706 • (208) 373-0550
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
Curt Fransen, Director

May 2, 2014

Danicza Lopez
POL/TANKs Program Manager
366 CES/CEAN
1100 Liberator Street Bldg 1297
Mountain Home AFB, ID 83648

Re: Project Summary and Chemical Data Final Report Tank #2 Demolition located at POL Yard, 11th and Liberator, Mountain Home AFB, Idaho, January 2014

Dear Ms. Lopez:

The Department of Environmental Quality (Department) has reviewed the Project Summary and Chemical Data Final Report, submitted by A.A.I. Demolition for the decommissioning of AST Tank #2 located at the POL Yard on 11th and Liberator, Mountain Home AFB, Idaho.

Of the three soil samples collected in the tank footprint, no constituents of concern were detected at or above the Idaho Risk Evaluation Manual Initial Default Target Levels (IDTLs). Based on the data presented, the Department will not require any additional assessments or remedial activities in the footprint of Tank #2.

The Department appreciates your cooperation with this project. If you have questions or concerns, I may be contacted at (208) 373-0469 or via email at maureen.vincenty@deq.idaho.gov.

Sincerely,

Maureen Vincenty
Hazardous Waste Science Officer

c: Dana Harper, A.A.I. Demolition

ec: Michael McCurdy, DEQ, State Office
Aaron Scheff, DEQ, Boise Regional Office

TRIM 2014BAS407

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Figure 7-6. AST Tank 2 NFA Letter

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1445 North Orchard • Boise, Idaho 83706 • (208) 373-0550
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
Curt Fransen, Director

August 14, 2014

Lisa Lowe
336 CES/CEIE
1030 Liberator Street
Mountain Home AFB, ID 83648

Re: Corrective Action Summary and Risk Evaluation Report for AST Tank 3 at Mountain Home Air Force Base, Idaho

Dear Ms. Lowe:

The Department of Environmental Quality (Department) has reviewed a Corrective Action Summary and Risk Evaluation report, performed by URS Corporation, for the former 1.5 million gallon JP-8 fuel AST Tank 3 located in the POL Yard at Mountain Home Air Force Base.

Tank 3 was deconstructed in spring of 2014 and petroleum contaminated soil (PCS) was discovered during demolition activities. The Department was notified of a petroleum release and two primary areas of PCS were encountered on the north and south sides of Tank 3. PCS was excavated and transported offsite to a commercial landfarm with confirmation samples collected. Analytical results of three confirmation samples resulted in additional PCS excavation and confirmation sampling. A total of 21 confirmation soil samples were collected and 3,839.37 tons of PCS was excavated.

PAH constituents were detected in all but three of the 21 confirmation soil samples with four samples having detections of PAHs in concentrations above screening levels. A perched aquifer ground water sample collected in 2010 from a boring drilled to 40 feet bgs (MW-14) detected no COCs in concentrations above screening levels.

A risk evaluation was performed with residential, non-residential, and construction worker receptors. Pathways evaluated include ingestion, outdoor and indoor inhalation, dermal contact, and ground water protection. The highest concentration for each analyte detected in confirmation samples or the highest reporting limit for undetected analytes were utilized in the risk evaluation model. The cumulative site risk and site hazard index are below acceptable levels for residential, non-residential and construction worker receptors.

Based on data presented the Department will close the two JP-8 impacted areas from former AST Tank 3 at the Mountain Home Air Force Base POL Yard without additional assessment, corrective action or monitoring. We appreciate your cooperation with this project. If you have questions or concerns, I can be contacted at (208) 373-0510 or mark.vankleek@deq.idaho.gov.

Sincerely,

Mark Van Kleek
Water Quality Science Officer

ec: Aaron Scheff, DEQ Boise Regional Office
Derek Young, URS
TRIM 2014BAS775

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Figure 7-7. AST Tank 3 NFA Letter

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 8 – ENVIRONMENTAL RESTORATION SITES

EFFECTIVE DATE: JANUARY 11, 2015

8.0 ENVIRONMENTAL RESTORATION SITES AT MOUNTAIN HOME AFB - FFA

8.1 ACTIVE ERP SITES

- FT-08, Fire Training Area 8 Soils
- ST-11, Fuel Hydrant System Spill
- OU-3, Basewide Regional Groundwater

8.2 SITES CLOSED, UNLIMITED USE/UNRESTRICTED EXPOSURE (UU/UE)

Of the 33 ERP sites, selected remedies are protective of human health and the environment and allow UU/UE for the following 25 sites:

- FT-04, Fire Training Area 4
- FT-05, Fire Training Area 5
- FT-06, Fire Training Area 6
- FT-07, Fire Training Area 7 (includes areas A, B, and C)
- DP-09, Waste Oil Disposal Area
- OT-10, Oiled Base Perimeter Road
- SD-12, Old Entomology Shop
- RW-14, Low-Level Radioactive Waste Disposal Area
- OT-15, Corker Material Burial Sites
- OT-16, Munitions Burial Site
- DP-18, World War II Material Burial Trench
- ST-22, USTs – Building 1333
- SD-25, Flightline Storm Drain
- SS-26, Drum Accumulation Pad
- SD-27, Wash Rack – Building 1354
- SS-28, Wash Water Accumulation Basin
- SS-29, Drum Storage Area
- SS-30, Defense Reutilization and Marketing Office Storage Area
- ST-31, Old Base Exchange Gas Station
- ST-32, Old Military Gas Station
- ST-34, Flightline Fuel Hydrant #9 Leak Area
- ST-35, Jet Propellant (JP)-4 Pipeline Leak
- ST-39, 15,000-gallon UST at FT-08
- AOC-9, Motor Pool Site “A”

8.3 SITES WITH LAND USE CONTROLS/INSTITUTE CONTROLS (ICS) AND ARE PROTECTIVE OF HUMAN HEALTH AND THE ENVIRONMENT

- LF-01, Lagoon Landfill
- LF-02, B-Street Landfill
- LF-03, Former Base Landfill (Closed with LUCs through ID Central District Health Department)

- LF-23, Solid Waste Disposal Area (DP-17, Used Tire Disposal Site/Coal Ash Disposal Site)
- ST-13, Petroleum, oil, and lubricants (POL) Yard Underground Storage Tank (UST)
- ST-38, POL Storage Area RCRA SWMU (Closed under Risk-Based Corrective Action standards)

8.4 ERP SITES WITH REMEDIES IN PLACE WITH LTM

- SD-24, Liquid Oxygen (LOX) Loading Plant (Synonymous with OU-3 Regional Groundwater)
- SD-24, Liquid Oxygen (LOX) Loading Plant (Closed for Soils)

8.5 SITES THAT ARE NOT PART OF THE PERMIT, BUT ARE COVERED IN THE COVER LETTER

- EOD Site
- SR-40, Former 1940s Skeet Range
- SR-70, Former 1970s Skeet Range
- MHAFB Small Arms Range
- AOC-1, Wilder Air Station
- AOC-8, Oil Water Separators (OWSs)
- AOC-10, Strike Dam Recreation Annex

8.6 NON-FFA SITES

- Verlinde Hill Rubble Pile/Disposal Area
- ST-38, POL Storage Area, AST #1A (Closed under RBCA)(Continued inspection requirements) and 2
- OT-19, Munitions Residue Burial, Saylor Creek (1 active, 3 inactive)
- OT-37, Saylor Creek Electronic Warfare Range, (6 sites)
- AOC-2, Saylor Creek Electronic Warfare Range (PBR)
- AOC-6, Munitions Burial Site, Saylor Creek
- AOC-7, Coal Storage Yard, yet to be determined on inclusion in NOD#9
- AOC-11, Pot Hole Canyon
- AOC-12, Liberator Street Sanitary Sewer Line

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 9 – MAPS

EFFECTIVE DATE: JANUARY 11, 2015

9.0 – MAPS

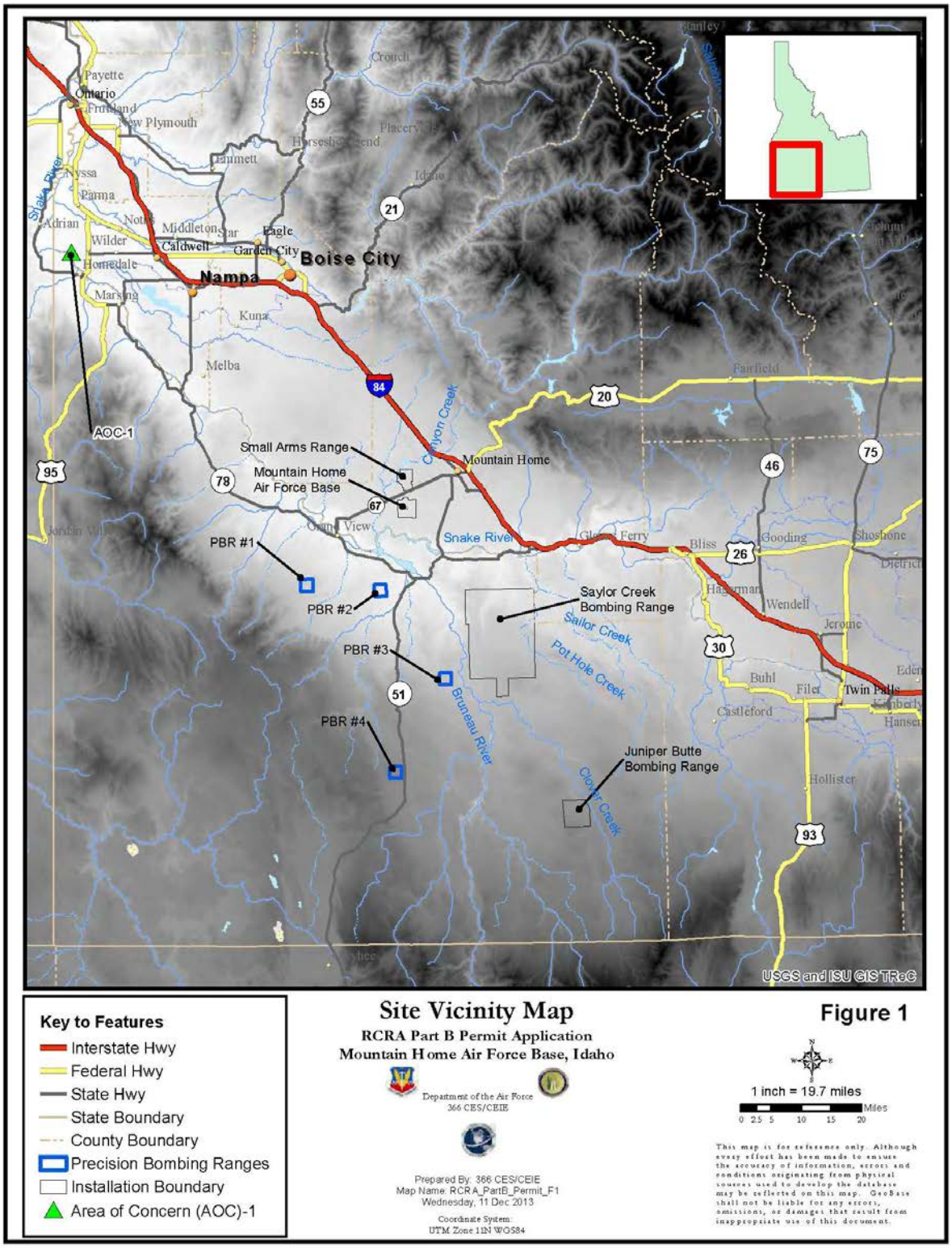

Figure 9-1. Site Vicinity Map

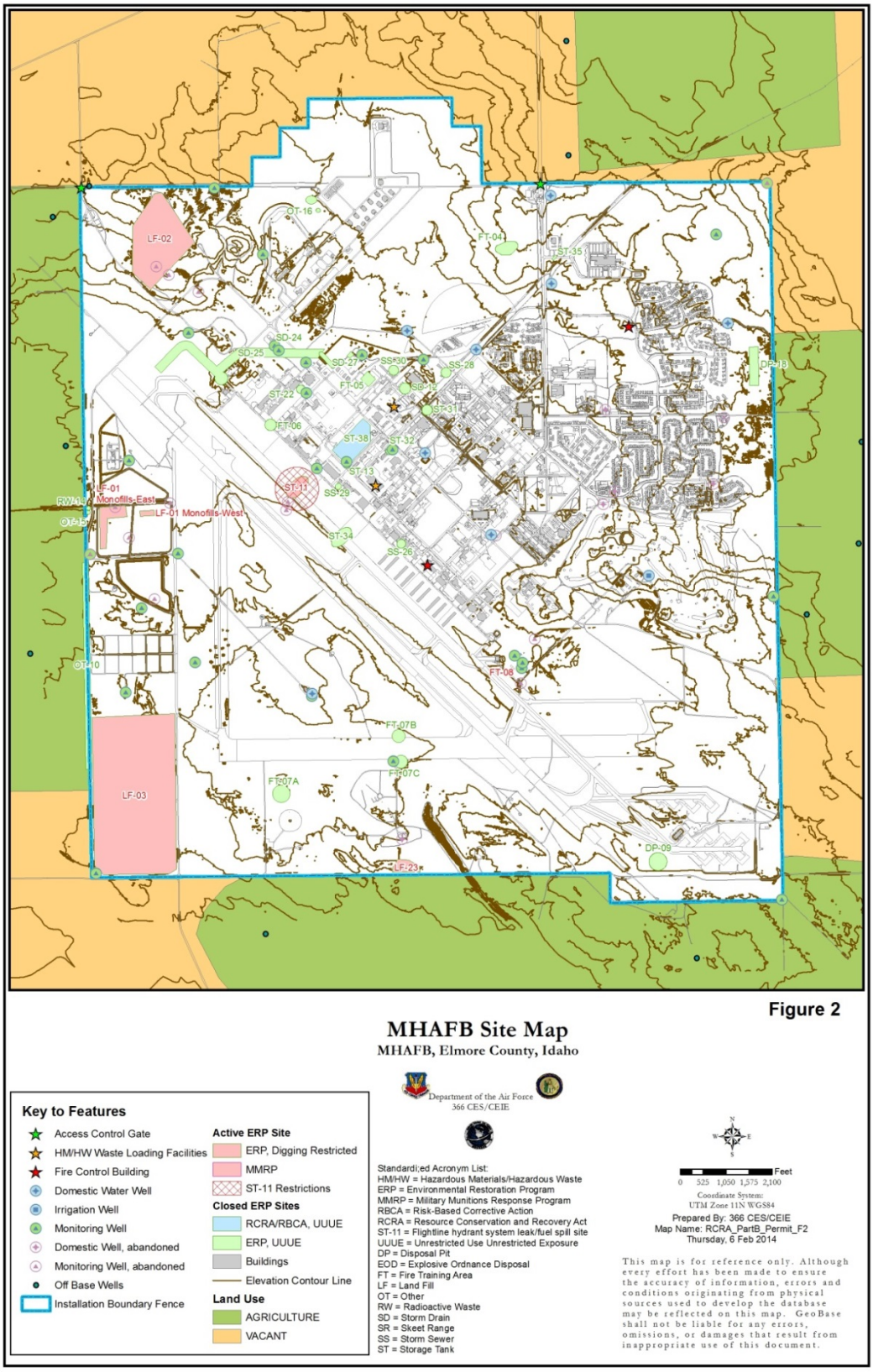

Figure 9-2. MHAFB Site Map

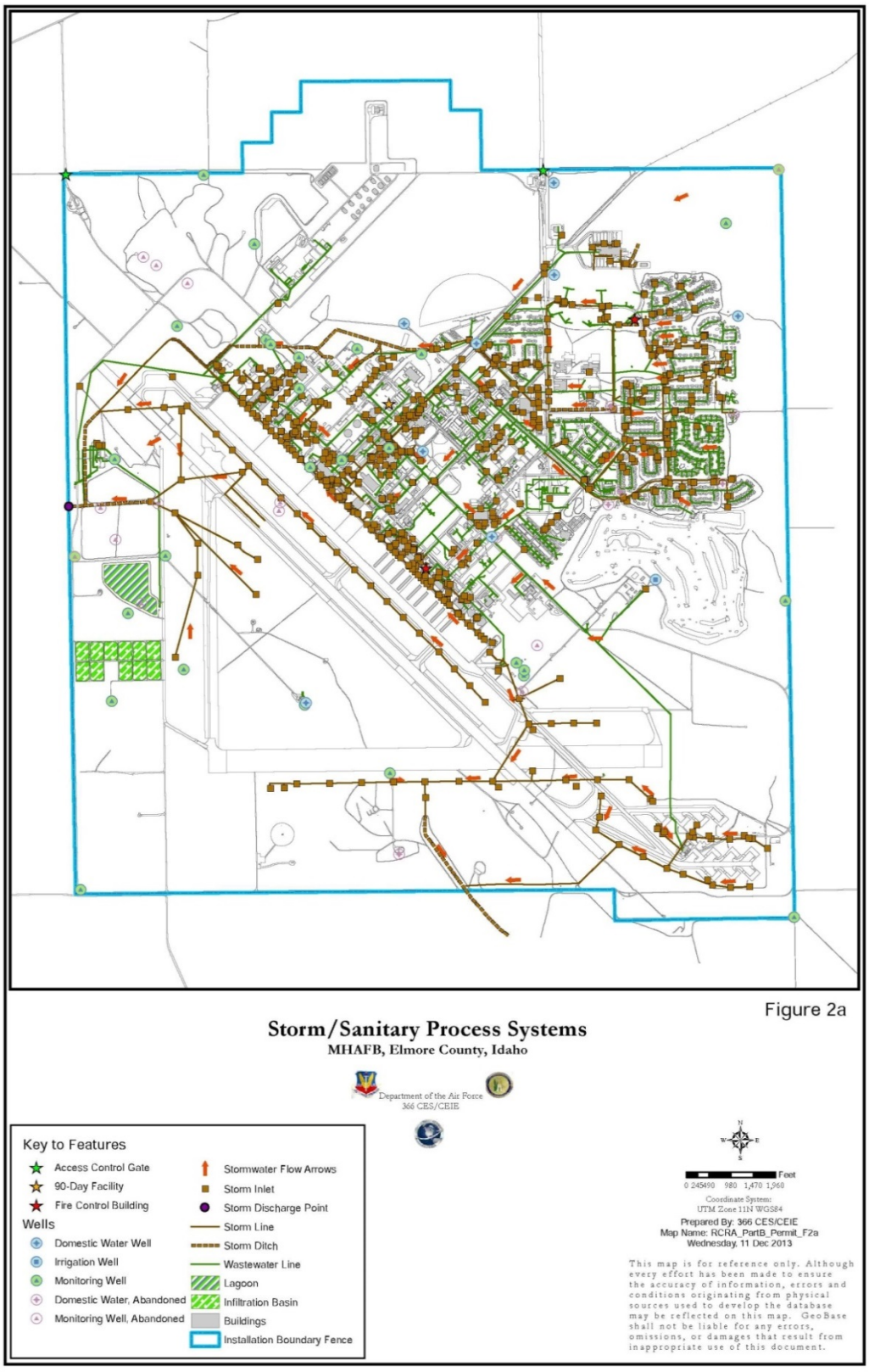

Figure 9-3. Storm/Sanitary Process Systems

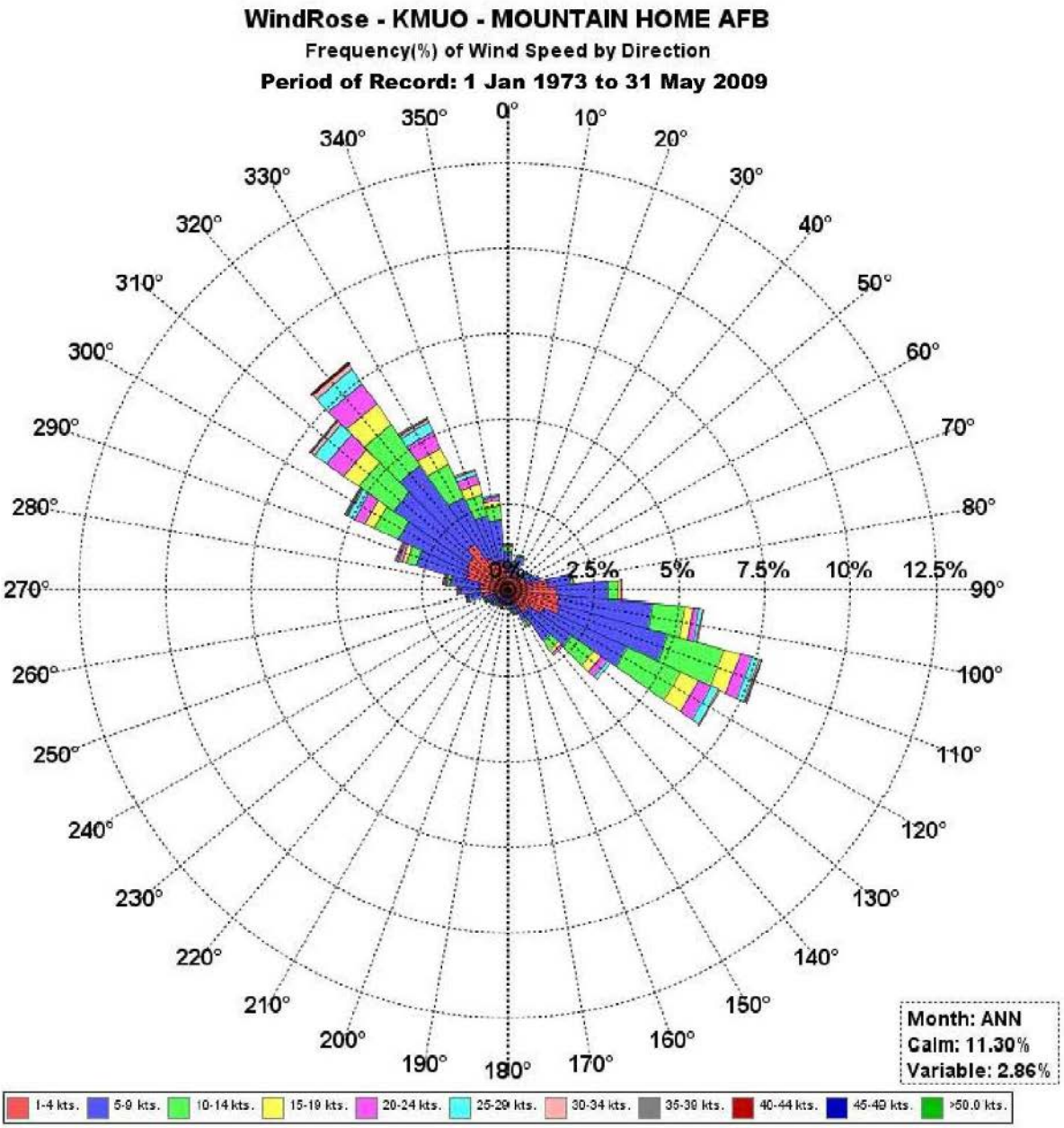

Figure 4
Wind Direction Plot
RCRA Part B Permit Application
Mountain Home Air Force Base
Mountain Home, Idaho

Figure 9-4. Wind Direction Plot

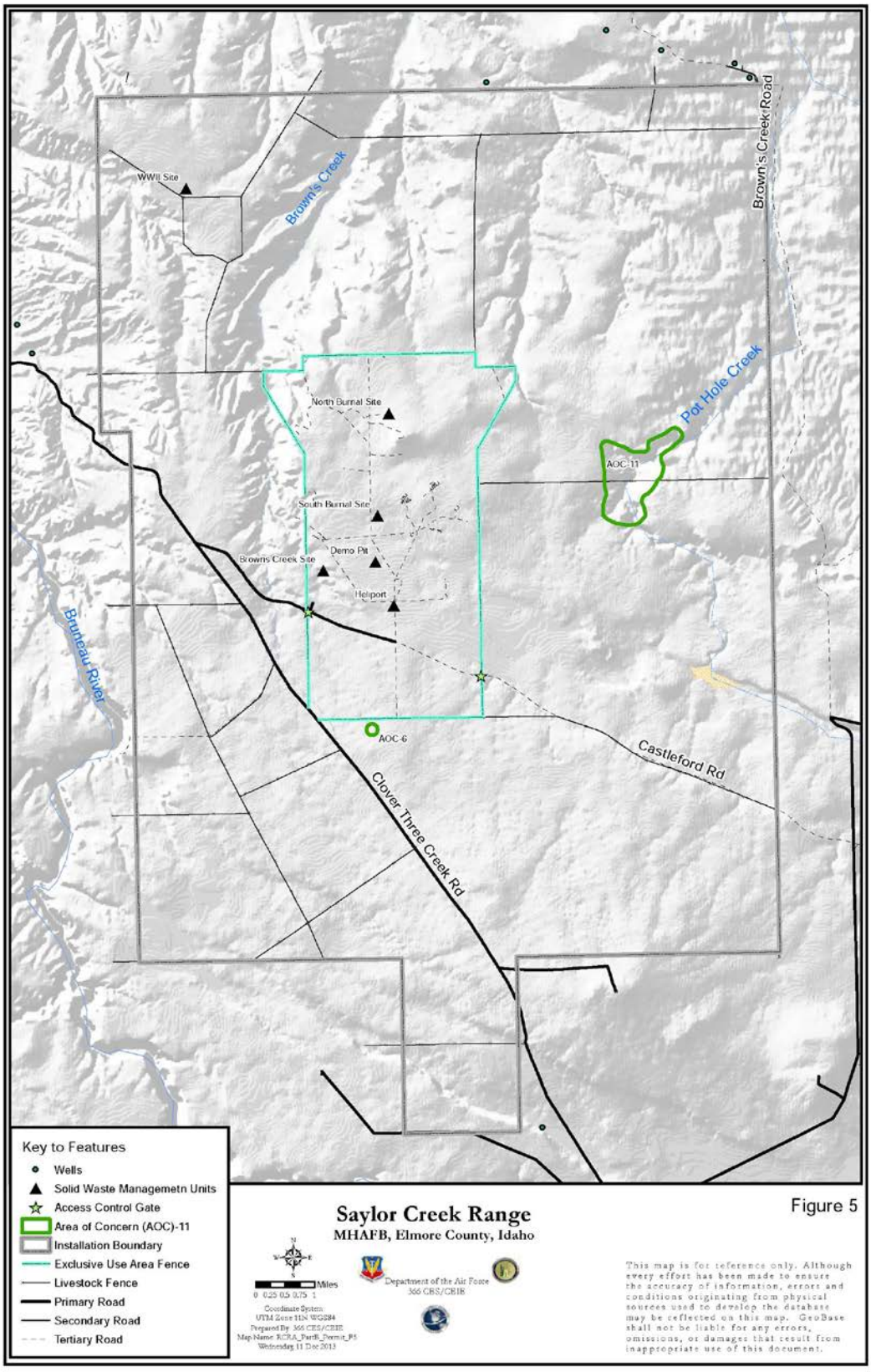

Figure 9-5. Saylor Creek Range

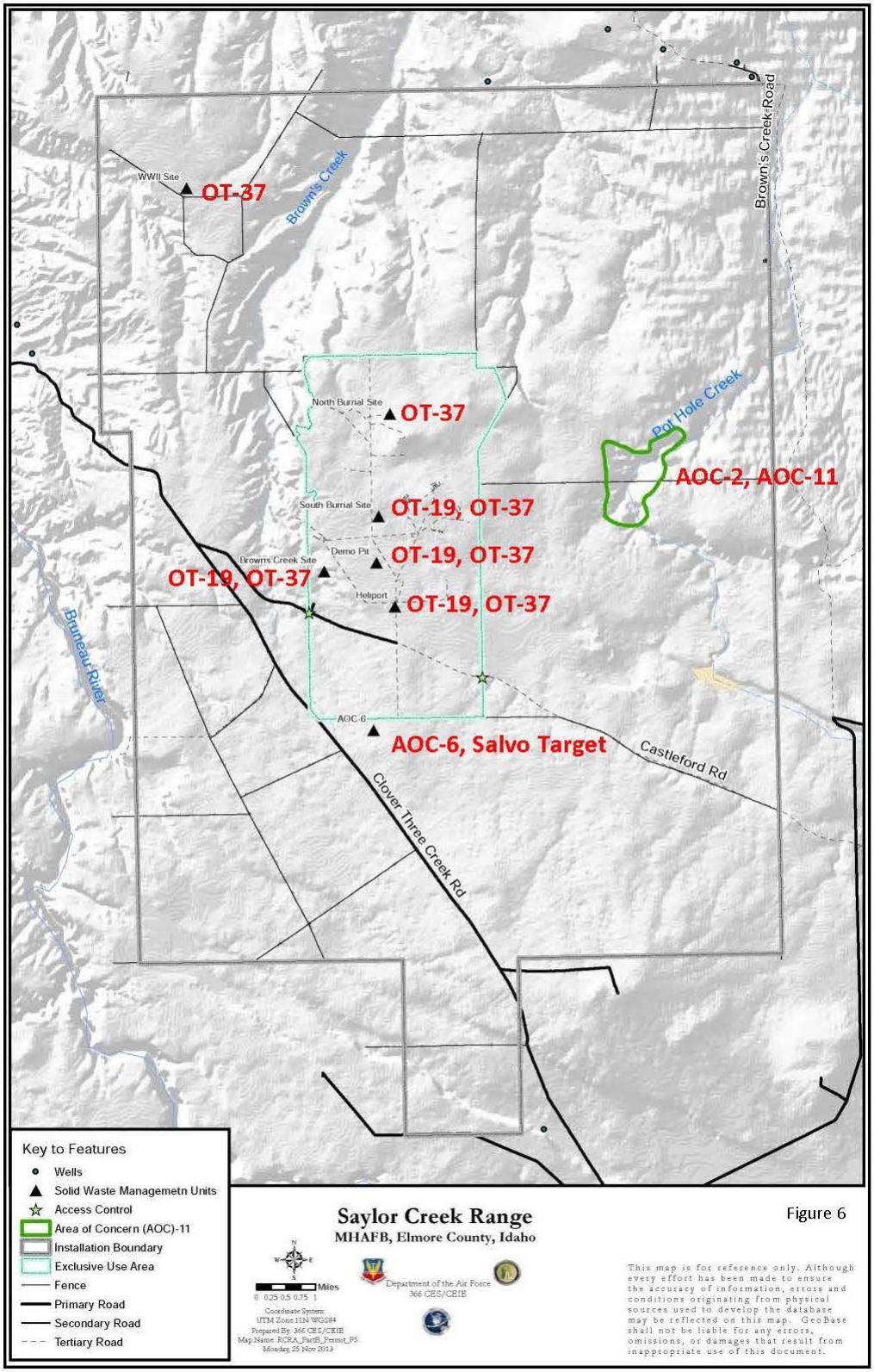

Figure 9-6. Saylor Creek Range

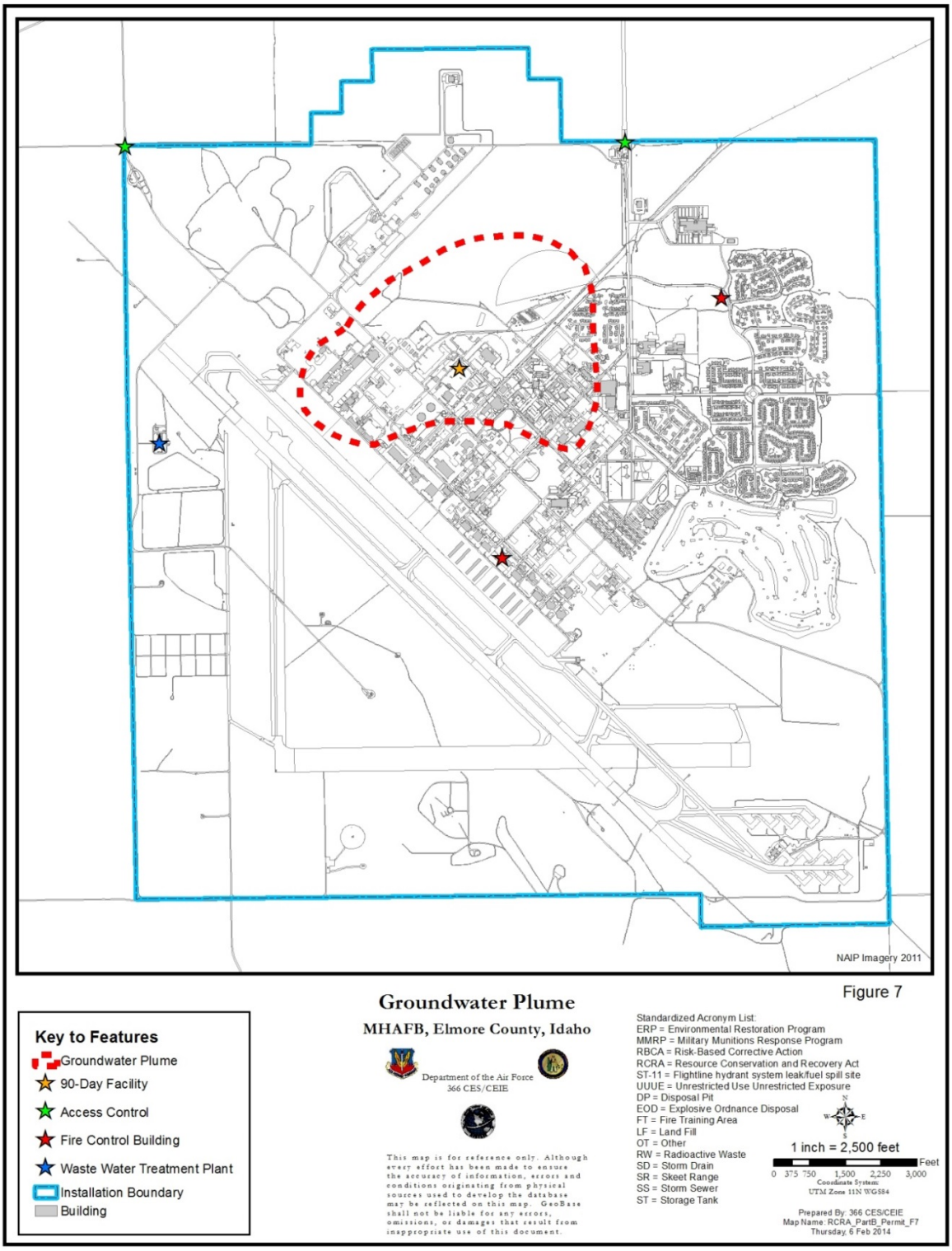

Figure 9-7. Groundwater Plume

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 10 – GROUNDWATER MONITORING PROGRAM

EFFECTIVE DATE: JANUARY 11, 2015

10.0 GROUNDWATER MONITORING PROGRAM

APPENDIX B – GROUNDWATER MONITORING PLAN

In accordance with 270.14 (c)(1), (c)(5) and (c)(6), the following reports detail the sampling and groundwater monitoring at Mountain Home Air Force Base.

Administrative Record Documents	Document Title
AR-1122	Environmental Restoration Program Basewide Work Plan, ACC 4-Base PBC
AR-1297	OU-3 Bedrock Vapor Extraction Well and System Installation Work Plan ACC 4-Base PBC
AR-1328	OU-3 Performance Monitoring Work Plan Addendum

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 11 – FEDERAL FACILITY AGREEMENTS, RECORDS OF DECISION, AND NO FURTHER ACTION DETERMINATIONS

EFFECTIVE DATE: JANUARY 11, 2015

11.0 FEDERAL FACILITY AGREEMENTS

APPENDIX C – FEDERAL FACILITIES AGREEMENT (FFA)

Federal Facility Agreement (FFA) January 16, 1992

Under CERCLA Section 120, Administrative Docket Number 1089-07-16-120, Mountain Home Air Force Base, Idaho, January 16, 1992, EPA Region 10, DEQ, and USAF, Appendix C, Pages C-3 though C-77

APPENDIX C

FEDERAL FACILITIES AGREEMENT (FFA)

IAG COVER SHEET

FILE NAME: MtHome.pdf

Title: MOUNTAIN HOME AIR FORCE BASE

Subject: Region 10, X

Author: DoD, Air Force, Idaho, ID, Department of Health and Welfare

Keywords: 10/09/91, 1991, FY91

I hereby certify that this is a true copy of the original thereof.
Carolyn J. Glover
of Attorneys for U.S. EPA.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 10
AND THE
IDAHO DEPARTMENT OF HEALTH AND WELFARE
AND THE
UNITED STATES AIR FORCE

IN THE MATTER OF:	
The U.S. Department of Defense, Mountain Home Air Force Base	FEDERAL FACILITY AGREEMENT UNDER CERCLA SECTION 120
Mountain Home, Idaho	Administrative Docket Number: 1089-07-16-120

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Based on the information available to the Parties on the effective date of this Federal Facility Agreement ("Agreement"), and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

I. JURISDICTION

Each Party is entering into this Agreement pursuant to the following authorities:

1.1 The United States Environmental Protection Agency ("U.S. EPA") enters into those portions of this Agreement that relate to the Remedial Investigation/Feasibility Study ("RI/FS") pursuant to Section 120(e)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. § 9620(e)(1), as amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), Pub. L. 99-499 (hereinafter referred to as "CERCLA"), Sections 3004(u) and (v), 3008(h), and 6001 of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6924(u) and (v), 6928(h), and 6961, as amended by the Hazardous and Solid Waste Amendments of 1984 ("HSWA") (hereinafter jointly referred to as RCRA); and Executive Order 12580;

1.2 U.S. EPA enters into those portions of this Agreement that relate to interim actions and final remedial actions pursuant to Section 120(e)(2) of CERCLA, 42 U.S.C. § 9620(e)(2), Sections 3004(u) and (v), 3008(h), and 6001 of RCRA, 42 U.S.C. §§ 6924(u) and (v), 6928(h), and 6961; and Executive Order 12580;

1.3 The United States Air Force ("USAF") enters into those portions of this Agreement that relate to the RI/FS pursuant to Section 120(e)(1) of CERCLA, 42 U.S.C. § 9620(e)(1); Sections 3004(u) and (v), 3008(h), and 6001 of RCRA, 42 U.S.C.

§§ 6924(u) and (v), 3008(h), and 6961; Executive Order 12580; the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321; and the Defense Environmental Restoration Program ("DERP"), 10 U.S.C. § 2701, et seq.;

1.4 USAF enters into those portions of this Agreement that relate to interim actions and final remedial actions pursuant to Section 120(e)(2) of CERCLA, 42 U.S.C. § 9620(e)(2); Sections 3004(u) and (v), 3008(h), and 6001 of RCRA, 42 U.S.C. §§ 6924(u) and (v), 6928(h), and 6961; Executive Order 12580; NEPA; and DERP;

1.5 The State of Idaho Department of Health and Welfare ("IDHW"), by and through its Director, enters into this Agreement pursuant to Sections 107, 120, and 121 of CERCLA, 42 U.S.C. §§ 9607, 9620, and 9621; Sections 3006 and 6001 of RCRA, 42 U.S.C. §§ 6926 and 6961; the Hazardous Waste Management Act ("HWMA"), I.C. § 39-4401, et seq.; and the Environmental Protection Health Act, 39-101, et seq.

1.6 U.S. EPA retains oversight authority for RCRA permitting activities pursuant to Section 3006 of RCRA, 42 U.S.C. § 6926, 40 C.F.R. 271.19.

II. DEFINITIONS

2.1 The terms used in this Agreement shall have the same meaning as defined in Section 101 of CERCLA, 42 U.S.C. § 9601, as amended; the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 CFR Part 300, as amended;

and Section 1004 of RCRA, 42 U.S.C. § 6903, as amended. In addition:

(a) "Agreement" shall mean this document and shall include all Attachments to this document, with the exception of Attachment 1, Scope of Work, which is for information only and shall not be an enforceable part of this Agreement. All other Attachments shall be incorporated by reference and are an integral and enforceable part of this document;

(b) "Authorized representative" may include a Party's contractors or any other designee;

(c) "Days" shall mean calendar days, unless otherwise specified. Any submittal that under the terms of this Agreement would be due on a Saturday, Sunday, or federal holiday shall be due on the following business day;

(d) "HWMA" shall mean the Idaho Hazardous Waste Management Act of 1983, I.C. §§ 39-4401, et seq., as amended, and any regulations promulgated pursuant thereto;

(e) "IDHW" shall mean the State of Idaho Department of Health and Welfare, or any of its successor agencies, employees, and authorized representatives;

(f) "Interim Action" or "IA" shall mean a discrete action implemented prior to final remedial action which is taken to prevent or minimize the release of hazardous substances to the environment as explained in the Preamble to the National Oil and Hazardous Substances Pollution Contingency Plan

("NCP"), 55 Fed. Reg. 8703-8706 (March 8, 1990), and 40 C.F.R. 300.430(a)(1);

(g) "Limited Field Investigation" or "LFI" shall mean screening investigations of potential source areas with inadequate data to determine whether these areas pose an unacceptable risk to human health or the environment;

(h) "Paragraph" shall mean a numbered paragraph of this Agreement, designated by an Arabic numeral;

(i) "Part" shall mean one of the thirty-seven (37) subdivisions of this Agreement, designated by a Roman numeral;

(j) "Parties" shall mean USAF, U.S. EPA, and IDHW;

(k) "RCRA" shall mean the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901, et seq., as amended by the Hazardous and Solid Waste Amendments of 1984 ("HSWA"). Pub. L. 98-616, and any regulations promulgated pursuant thereto;

(l) "Site" means Mountain Home Air Force Base ("MHAFB"), which occupies approximately nine (9) square miles on a plateau in Elmore County southwest of Mountain Home, Idaho, and the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action;

(m) "USAF" shall mean the United States Air Force and, to the extent necessary to effectuate the terms of this Agreement (including appropriations and congressional

reporting requirements), its employees, contractors, agents, successors, assigns, and authorized representatives; and

(n) "U.S. EPA" shall mean the United States Environmental Protection Agency, including Region 10, its employees, and authorized representatives.

III. PURPOSE

3.1 The general purposes of this Agreement are to:

(a) Ensure that the environmental impacts associated with releases and threatened releases at the Site are thoroughly investigated and appropriate removal and/or remedial action(s) taken as necessary to protect the public health, welfare, and the environment;

(b) Establish a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions at the Site in accordance with CERCLA, the NCP, RCRA, and HWMA; and,

(c) Facilitate cooperation, exchange of information, and participation of the Parties in such actions.

3.2 Specifically, the purposes of this Agreement are to:

(a) Identify removal and Interim Action ("IA") alternatives which are appropriate at the Site prior to the implementation of final remedial action(s) for the Site. IA alternatives shall be identified and proposed to the Parties as

early as possible prior to formal proposal of IA(s) to U.S. EPA pursuant to CERCLA. This process is designed to promote cooperation among the Parties in identifying IA alternatives prior to selection of final IA(s);

(b) Establish requirements for the performance of an RI to determine fully the nature and extent of the threat to the public health or welfare or the environment caused by the release and threatened release of hazardous substances, pollutants, or contaminants at the Site and to establish requirements for the performance of an FS for the Site to identify, evaluate, and select alternatives for the appropriate remedial action(s) to prevent, mitigate, or abate the release or threatened release of hazardous substances, pollutants, or contaminants at the Site in accordance with CERCLA;

(c) Identify the nature, objective, and schedule of response actions to be taken at the Site. Response actions at the Site shall attain that degree of cleanup of hazardous substances, pollutants, or contaminants mandated by CERCLA;

(d) Implement the selected interim action(s) and final remedial action(s) in accordance with CERCLA and meet the requirements of Section 120(e)(2) of CERCLA, 42 U.S.C. § 9620(e)(2), for an interagency agreement among U.S. EPA, IDHW, and USAF;

(e) Assure compliance, through this Agreement, with other federal and state hazardous waste laws and regulations for matters covered herein;

(f) Coordinate response actions at the Site with the mission and support activities at MHAFB;

(g) Expedite the cleanup process to the extent consistent with protection of human health and the environment; and

(h) Achieve RCRA/HWMA/CERCLA integration in accordance with Part V.

IV. PARTIES BOUND

4.1 This Agreement shall apply to and be binding upon USAF, U.S. EPA, and IDHW. USAF agrees to include notice of this Agreement in any document transferring ownership of property owned by the United States to any subsequent owners and operators of any portion of the Site in accordance with Section 120(h) of CERCLA, 42 U.S.C. § 120(h), regulations thereunder, and Part XXXII of this Agreement.

4.2 USAF will notify U.S. EPA and IDHW of the identity of its contractors performing work under this Agreement. USAF shall provide copies of this Agreement to all contractors performing any work pursuant to this Agreement.

4.3 Under no condition shall a Party under this Agreement utilize the services of any consultant, prime contractor, or subcontractor who has been suspended, debarred, or voluntarily excluded within the scope of 40 C.F.R. Part 32 or under the Federal Acquisition Regulation ("FAR") at 48 C.F.R. Subpart 9.4, et seq.

4.4 Each undersigned representative of a Party certifies that he or she is fully authorized to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement.

V. RCRA/HWMA/CERCLA INTEGRATION

5.1 The Parties intend to integrate USAF's CERCLA response obligations and corrective action obligations of RCRA/HWMA which relate to the release(s) of hazardous substances, hazardous wastes, pollutants, or contaminants covered by this Agreement into this comprehensive Agreement. Therefore, the Parties intend that activities covered by this Agreement will achieve compliance with CERCLA, 42 U.S.C. § 9601, et seq., and applicable state law; satisfy the corrective action requirements of Sections 3004(u) and (v), 42 U.S.C. § 6924(u) and (v), for a RCRA permit, and Section 3008(h), 42 U.S.C. § 6928(h), for interim status facilities; satisfy corrective action requirements of HWMA; and meet or exceed all applicable or relevant and appropriate federal and state laws and regulations, to the extent required by Section 121 of CERCLA, 42 U.S.C. § 9621.

5.2. Based upon the foregoing, the Parties intend that any RA selected, implemented, and completed under this Agreement shall be deemed by the Parties to be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further corrective action under RCRA (i.e., no further corrective

action shall be required). The Parties agree, for the purposes of integrating RCRA, HWMA, and CERCLA, that with respect to releases of hazardous substances covered by this Agreement, RCRA and HWMA shall be considered an applicable or relevant and appropriate requirement ("ARAR") pursuant to Section 121 of CERCLA, 42 U.S.C. § 9621.

5.3 The Parties recognize that the requirement to obtain permits for response actions undertaken pursuant to this Agreement shall be as provided for in CERCLA and the NCP. The Parties further recognize that ongoing hazardous waste management activities at MHAFB may require issuance of permits under federal and state laws. This Agreement does not affect the requirements, if any, to obtain such permits. However, if a permit is issued by IDHW to the MHAFB for ongoing hazardous waste management activities at MHAFB, IDHW shall reference and incorporate this Agreement (including appropriate schedules and provision for extension of such schedules) into the permit as corrective action requirements. To the extent authorized by law, the review of any permit condition which references this Agreement shall only be reviewed under CERCLA.

5.4. Nothing in this Agreement shall alter USAF's authority with respect to removal actions conducted pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604.

VI. FINDINGS OF FACT

6.1 For purposes of this Agreement, the following constitutes a summary of the facts upon which this Agreement is based. None of the facts related herein are admissions nor are they legally binding upon any Party with respect to any unrelated claims of persons not a Party to this Agreement.

6.2 MHAFB is located in southwestern Idaho. The base is located approximately ten (10) miles southwest of the town of Mountain Home in Elmore County, and covers approximately nine (9) square miles. Approximately eighty-five hundred (8,500) service men and women and their dependents live at the MHAFB. The population of the city of Mountain Home and surrounding area is approximately ninety-one hundred (9,100). Land use surrounding the base is primarily agricultural.

6.3 The base, established in 1943, has been under several different commands. Since 1965, the base has been under the command of the Tactical Air Command ("TAC").

6.4 On August 30, 1990, MHAFB was listed on the CERCLA National Priorities List. See 55 Fed. Reg. 35,502 (August 30, 1990).

VII. REGULATORY DETERMINATIONS

7.1 For purposes of this Agreement, the following constitutes a summary of the Regulatory Determinations upon which this Agreement is based. None of the Regulatory

Determinations related herein are admissions nor are they legally binding upon any Party with respect to any unrelated claims of person(s) not a Party to this Agreement.

7.2 MHAFB is a facility within the meaning of Section 101(9) of CERCLA, 42 U.S.C. § 9601(9);

7.3 Hazardous substances, pollutants, or contaminants within the meaning of Sections 101(14) and 104(a)(2) of CERCLA, 42 U.S.C. §§ 9601(14) and 9604(a)(2), have been disposed of at the Site;

7.4 There have been releases and there continue to be releases and threatened releases of hazardous substances, pollutants, or contaminants into the environment within the meaning of Sections 101(22), 104, 106, and 107 of CERCLA, 42 U.S.C. §§ 9601(22), 9604, 9606, and 9607 at and from the Site;

7.5 With respect to those releases and threatened releases, USAF is a responsible person within the meaning of Section 107 of CERCLA, 42 U.S.C. § 9607;

7.6 The actions to be taken pursuant to this Agreement are reasonable and necessary to protect the public health or welfare or the environment; and

7.7 A reasonable time for beginning and/or completing the actions has been provided.

VIII. SCOPE OF AGREEMENT

A. Work to be Performed

8.1 Based upon available information, the

operable units covered by this Agreement include, but are not limited to, the following activities for the identified source areas:

(a) Limited Field Investigation(s) ("LFI"): USAF shall perform LFI(s) for the following Operable Unit(s):

- Operable Unit 1, which includes source areas FT-4, FT-5, FT-6, FT-7, DP-9, OT-10, SD-12, OT-15, OT-16, DP-18, ST-22, LF-3, SD-24, SD-25, SS-26, SD-27, SS-28, SS-29, SS-30, and other source areas that may be identified in the RCRA Facility Assessment ("RFA"), aerial photographs, and other investigations.

(b) Remedial Investigation/Feasibility Study ("RI/FS"): USAF shall perform RI/FS(s) for the following Operable Unit(s):

- Operable Unit 2, which includes source areas LF-1 and LF-2.
- Operable Unit 3, which includes sources areas LF-3, SS-11, and RW-14, and site-wide groundwater characterization. Sources from LFI OU 1 that require RI/FS, and sources at the Petroleum, Oil, and Lubricant ("POL") Storage Yard (ST-13).
- Operable Unit 4, which includes source area FT-8. (Early Action)

8.2 USAF will conduct and finance the cost of the LFI(s), IA(s), and RI/FS(s) in accordance with the applicable

Work Plan(s) and implement the RD/RA at the Site in accordance with the applicable Work Plan(s), and all relevant statutes, regulations, policies, guidance, and criteria.

8.3 All work performed pursuant to this Agreement shall be under the direction and supervision, or in consultation with a qualified engineer, geologist, or equivalent expert with expertise in hazardous substances site investigation and remediation.

8.4 USAF shall perform the tasks and submit plans, reports, and other documents as required by those provisions of any Work Plan(s).

8.5 These matters are set forth in more detail below, and in the subsequent Work Plans. This Agreement fully incorporates the provisions of any Work Plan(s). In the event of any inconsistency between this Agreement and any Work Plan, this Agreement shall govern unless and until duly amended pursuant to Part XXXIII of this Agreement.

B. Limited Field Investigations

8.6 USAF shall conduct Limited Field Investigations ("LFI") to identify whether potential source areas pose an unacceptable risk to human health or the environment, including whether these source areas may represent a significant source of soil and/or groundwater contamination. Prior to performing the LFI(s), a work plan will be developed identifying the Data Quality Objectives established, based on the conceptual site model development. A Sampling and Analysis Plan consisting

of a Field Sampling Plan and a Quality Assurance Project Plan will also be submitted as part of the work plan. Activities to be conducted during an LFI include limited Project Planning (Conceptual Site Model and Data Quality Objectives); Community Relations; Field Investigations; Sample Analysis/Validation; Data Evaluation; and Risk Assessment, as appropriate. At completion of the LFI, an LFI report which contains the findings of the investigation shall be submitted to the agencies for review and comment. A determination shall be made between the Project Managers as to the disposition of each of the source areas.

C. Interim Actions

8.7 USAF shall develop and implement Interim Actions ("IAs") which shall be consistent with CERCLA, the NCP, and any applicable guidance and policy.

D. Remedial Investigations

8.8 USAF shall develop, implement, and report upon remedial investigations of the Site which comply with applicable requirements of CERCLA, the NCP, and pertinent written guidance and established written U.S. EPA policy, and which is in accordance with the requirements and time schedules set forth in this Agreement.

E. Feasibility Studies

8.9 USAF shall design, propose, undertake, and report upon feasibility studies for the Site which comply with applicable requirements of CERCLA, the NCP, and relevant guidance and established U.S. EPA policy, and which is in accordance with

the requirements and time schedules set forth in this Agreement.

F. Remedial Actions

8.10 USAF shall develop and submit its proposed remedial action alternative following completion and approval of an RI and FS. IDHW may recommend the remedial action alternative it deems appropriate to U.S. EPA. Pursuant to and in accordance with Parts XX and XXI, the U.S. EPA Administrator, in consultation with USAF and IDHW, shall make final selection of the remedial action(s) for the Site.

IX. PROJECT MANAGERS

9.1 Not later than five (5) days after the effective date of this Agreement, USAF, IDHW, and U.S. EPA shall each designate a Project Manager and alternate. Each Project Manager shall be responsible for overseeing his principal's duties concerning the implementation of this Agreement. All written communications between USAF and the regulatory agencies (including communication by letter, reports, notices, etc.), concerning activities related to this Agreement shall be directed or a copy sent to the appropriate Project Manager(s).

9.2 USAF, IDHW, and U.S. EPA may change their respective Project Manager(s) by sending a written notification to the other Parties no later than five (5) days before the date of such change.

9.3 Each Project Manager shall be, or rely on, a qualified and competent person with experience in hazardous

substances site investigations and remedial actions and having the skills necessary to implement this Agreement.

9.4 Project Managers shall have the authority to: (1) take samples, request split samples, and ensure that work is performed properly and in accordance with the terms of any final Management Plan; (2) observe all activities performed pursuant to this Agreement, take photographs, and make such other reports on the process of the work as the Project Managers deem appropriate; (3) review records, files, and documents relevant to this Agreement; (4) recommend and request minor field modifications to the work to be performed pursuant to the Agreement, or in techniques, procedures, or designs utilized in carrying out this Agreement; (5) exercise the authorities granted to them in this Part and the NCP, and (6) exercise those responsibilities granted in Paragraph 33.1.

9.5 The Project Managers or their alternates may, in accordance with Parts XX(J) and XXXIII of this Agreement, make modifications to the work to be performed pursuant to this Agreement, or in techniques, procedures, or design utilized in carrying out this Agreement, which are necessary to the completion of the project. Any minor field modification proposed by any Party pursuant to this Part must be approved orally by all Parties' Project Managers to be effective. The USAF Project Manager will make a contemporaneous record of such modification and approval in a written log, and a copy of the log entry will be provided as part of the next progress report. Even after

approval of the proposed modification, no Project Manager will require implementation by a government contractor without approval of the appropriate Government Contracting Officer.

9.5 The Project Manager for USAF shall be responsible for and coordinate the day-to-day field activities at the Site, and shall have all the authority vested in the On-Scene Coordinator and Remedial Project Manager by the NCP, 40 CFR Part 300. The Project Managers for USAF shall be reasonably available to supervise work performed at the Site during implementation of the work performed pursuant to this Agreement and be available to the U.S. EPA and IDHW Project Managers for the pendency of this Agreement. The absence of the regulatory agency Project Managers from the Site shall not be cause for work stoppage or delay.

X. ACCESS

10.1 Without limitation on any authority conferred on them by law, the U.S. EPA, IDHW, and/or their authorized representatives, shall have authority to enter the Site at all reasonable times for the purposes of, among other things: (1) inspecting records, operating logs, contracts, and other documents relevant to implementation of this Agreement; (2) reviewing the progress of USAF, its response action contractors, or agents in implementing this Agreement; (3) conducting such tests as IDHW and U.S. EPA Project Managers deem necessary; and (4) verifying the data submitted to U.S. EPA

and IDHW by USAF. USAF shall honor all requests for such access by U.S. EPA and IDHW. However, such access shall be obtained in conformance with USAF security regulations. The Parties recognize that MHAFB is a National Security Installation, thereby requiring that U.S. EPA and IDHW shall refrain from using cameras or recording devices at MHAFB without the permission of the USAF escort. Such permission shall not be unreasonably withheld. USAF shall provide an escort whenever U.S. EPA or IDHW requires access to MHAFB for purposes consistent with the provisions of this Agreement. The Parties agree that the provision of an escort will not unreasonably delay access. To the extent possible, U.S. EPA and IDHW shall provide reasonable notice to the USAF Project Manager to request necessary escorts. In the event that access requested by either U.S. EPA or IDHW is denied by USAF, USAF shall, within forty-eight (48) hours, provide a written explanation of the reason for the denial, including reference to the applicable regulations, and, upon request, a copy of such regulations. USAF shall expeditiously make alternative arrangements for accommodating the requested access. USAF shall not restrict the access rights of U.S. EPA or IDHW to any greater extent than USAF restricts the access rights of its contractors performing work pursuant to this Agreement.

10.2 To the extent that this Agreement requires access to property not owned and controlled by USAF, USAF shall exercise its authorities to obtain access pursuant to Section 104(e) of CERCLA, 42 U.S.C. § 9604(e), and shall make every

reasonable effort to obtain signed access agreements for itself, its contractors, and agents, and provide U.S. EPA and IDHW with copies of such agreements. With respect to non-USAF property upon which monitoring wells, pumping wells, treatment facilities, or other response actions are to be located, the access agreements to the extent practicable shall also provide that no conveyance of title, easement, or other interest in the property shall be consummated without provisions for the continued operation of such wells, treatment facilities, or other response actions on the property. The access agreements should also provide to the extent practicable that the owners of any property where monitoring wells, pumping wells, treatment facilities, or other response actions are located shall notify the USAF, IDHW, and U.S. EPA by certified mail, at least thirty (30) days prior to any conveyance, of the property owner's intent to convey any interest in the property and of the provisions made for the continued operation of the monitoring wells, treatment facilities, or other response actions installed pursuant to this Agreement.

10.3 Nothing in this Part shall be construed to limit the discretion of USAF to exercise the authority of the President under Section 104(e) of CERCLA, 42 U.S.C. § 9604(e), as delegated by Executive Order 12580.

XI. SAMPLING AND DATA/DOCUMENT AVAILABILITY

11.1 The Parties shall make available to each other quality assured results of sampling, tests, or other data generated by any Party, or on their behalf, with respect to the implementation of this Agreement within sixty (60) days of their collection or field testing. If quality assurance is not completed within sixty (60) days, data summary sheets or preliminary results shall be made available within the sixty (60) day period and quality assured data or results shall be submitted as they become available but in no event later than one hundred and twenty (120) days after the sampling or testing. The data summary sheets or preliminary results will not be used in a manner inconsistent with the objectives of the Work Plan(s). These periods can be extended upon mutual agreement among the Project Managers.

11.2 At the request of either the IDHW or U.S. EPA Project Manager, USAF shall allow split or duplicate samples to be taken by IDHW or U.S. EPA during sample collection conducted in accordance with U.S. EPA QA/QC requirements during the implementation of this Agreement. USAF's Project Manager shall notify the U.S. EPA and IDHW Project Managers not less than fourteen (14) business days in advance of any well drilling, sample collection, or other monitoring activity, conducted pursuant to this Agreement. The fourteen (14) day notification can be waived upon mutual agreement among the Project Managers for USAF, U.S. EPA, and IDHW.

11.3 If preliminary analysis indicates a potential imminent and substantial endangerment to the public health, all Project Managers shall be immediately notified.

XII. QUALITY ASSURANCE

12.1 Throughout all sample collection, transportation, and analyses activities conducted in connection with this Agreement, USAF shall use procedures for quality assurance, and for quality control, and for chain-of-custody in accordance with approved U.S. EPA methods, including "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans," QAMS-005/80, "Data Quality Objective Guidance," U.S. EPA 1540/687/003 and 004, and subsequent amendments to such guidelines. USAF shall require each laboratory it uses to perform all analyses according to approved U.S. EPA methods and to participate in a quality assurance/quality control program equivalent to that which is followed by U.S. EPA and which is consistent with U.S. EPA document QAMS-005/80.

XIII. REPORTING

13.1 USAF shall submit to IDHW and U.S. EPA quarterly or, at the option of USAF, more frequent written progress reports which describe the actions which USAF has taken during the previous quarter to implement the requirements of this Agreement. Quarterly reports are due on the 15th day of April, July, October, and January. Quarterly reports shall also

describe the activities scheduled to be taken during the upcoming quarter. Quarterly reports shall be prepared and submitted in accordance with the Work Plans.

XIV. NOTICE TO THE PARTIES

14.1 All Parties shall expeditiously transmit primary and secondary documents, and all notices required herein. Time limitations shall commence upon receipt.

14.2 Notice to the individual Parties shall be provided under this Agreement to the following addresses:

(A) **For the USAF:**

Project Manager
366 CSG/DEQ
Mt. Home Air Force Base, Idaho 83648

(B) **For U.S. EPA:**

Francine Allans
U.S. Environmental Protection Agency
Idaho Operations Office
422 W. Washington Street
Boise, Idaho 83702

(C) **For the State of Idaho:**

MHAFB Project Manager
Hazardous Materials Bureau
1410 N. Hilton
Boise, Idaho 83706

XV. PERMITS

15.1 Nothing in this Agreement relieves USAF from the requirement of obtaining an otherwise applicable permit or other authorization whenever it proposes a response action

involving the shipment or movement off-site of a hazardous substance, or undertakes any activities not directly related to response actions at the Site.

15.2 The Parties recognize that under Sections 121(d) and 121(e)(1) of CERCLA, 42 U.S.C. §§ 9621(d) and 9621(e)(1), and the NCP, CERCLA response actions called for by this Agreement and conducted entirely on the Site and in compliance with CERCLA are exempted from the procedural requirement to obtain federal, state, or local permits, but must satisfy all ARARs which would have been included in any such permit. Efforts to satisfy such permit-related ARARs shall include, but not be limited to, consideration by the Parties of standards, requirements, criteria, or limitations of permits which would otherwise be required and how the proposed response action will meet such standards, requirements, criteria, or limitations.

XVI. RETENTION OF RECORDS

16.1 The Parties shall preserve for a minimum of ten (10) years after termination of this Agreement all records and documents in their possession or in the possession of their divisions, employees, agents, accountants, contractors, or attorneys which relate to the presence of hazardous wastes and constituents, hazardous substances, pollutants, and contaminants at the Site or to the implementation of this Agreement, despite any document retention policy to the contrary. Upon request by

any Party, all Parties shall make available such records or documents, or true copies to one another. After this ten (10) year period, the Parties shall notify one another at least forty-five (45) days prior to destruction or disposal of any such documents or records.

XVII. ADMINISTRATIVE RECORD

17.1 USAF agrees it shall establish and maintain an Administrative Record at or near the Site in accordance with Section 113(k) of CERCLA, 42 U.S.C. § 9613(k), the NCP, and applicable U.S. EPA guidance, and that a copy of this Agreement shall be placed in the Administrative Record. The Administrative Record developed by USAF shall be periodically updated, indexed, and a copy of each document included in the Administrative Record. Such documents will be provided to U.S. EPA and IDHW, if they are not already present in the regulatory agency's files.

XVIII. CREATION OF DANGER/EMERGENCY ACTION

18.1 In the event U.S. EPA or IDHW determine that activities conducted pursuant to this Agreement, or any other circumstances or activities, are creating an imminent and substantial endangerment to the health or welfare of the people on the Site or in the surrounding area or to the environment, U.S. EPA or IDHW may require or order USAF to stop further implementation of this Agreement for twenty-four (24) hours or, upon agreement of the Parties, such period of time as needed to

abate the danger. Any unilateral work stoppage for longer than twenty-four (24) hours requires the concurrence of the U.S. EPA Division Director, in accordance with Paragraph 21.9.

18.2 In the event USAF determines that activities undertaken in furtherance of this Agreement or any other circumstances or activities at the Site are creating an imminent and substantial endangerment to the health or welfare of the people on the Site or in the surrounding area or to the environment, USAF may stop implementation of this Agreement for such periods of time necessary for U.S. EPA to evaluate the situation and determine whether USAF should proceed with implementation of the Agreement or whether the work stoppage should be continued until the danger is abated. USAF shall notify the Project Manager as soon as is possible, but not later than twenty-four (24) hours after such stoppage of work, and provide U.S. EPA with documentation of its analysis in reaching this determination. If U.S. EPA disagrees with the USAF determination, it may require USAF to resume implementation of this Agreement.

18.3 If U.S. EPA concurs in the work stoppage by USAF, or if U.S. EPA or IDHW require or order a work stoppage, USAF's obligations shall be suspended and the time periods for performance of that work, as well as the time period for any other work dependent upon the work which was stopped, shall be extended, pursuant to Part XXV of this Agreement. Any disagreements pursuant to this Part shall be resolved through the

dispute resolution procedures in Part XXI of the Agreement by referral directly to the DRC.

XIX. FIVE YEAR REVIEW

19.1 If a remedial action is selected that results in any hazardous substances, pollutants, or contaminants remaining at a Site, the Parties shall review such remedial action no less often than each five (5) years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. The U.S. EPA Project Manager and the IDHW Project Manager shall advise the USAF Project Manager of his or her findings in this regard. If USAF determines that additional action is required, the Agreement may be amended pursuant to Part XXXIII. USAF determination under this Part shall be subject to dispute resolution by the other Parties.

XX. CONSULTATION WITH U.S. EPA AND IDHW

A. Applicability

20.1 The provisions of this Part establish the procedures that shall be used by USAF, U.S. EPA, and IDHW to provide the Parties with appropriate notice, review, comment, and response to comments regarding RI/FS and RD/RA documents, specified herein as either primary or secondary documents. In accordance with Section 120 of CERCLA, 42 U.S.C. § 9620, and 10 U.S.C. § 2705, USAF will normally be responsible for issuing

primary and secondary documents to U.S. EPA and IDHW. As of the effective date of this Agreement, all draft and final documents for any deliverable identified herein shall be prepared, distributed, and subject to dispute in accordance with Paragraphs 20.3 through 20.24.

20.2 The designation of a document as "draft" or "final" is solely for purposes of consultation with U.S. EPA and IDHW in accordance with this Part. Such designation does not affect the obligation of the Parties to issue documents, which may be referred to herein as "final," to the public for review and comment as appropriate and as required by law.

B. General Process for RI/FS and RD/RA Documents:

20.3 Primary documents include those documents that are major, discrete portions of RI/FS or RD/RA activities. Primary documents are initially issued by USAF in draft subject to review and comment by U.S. EPA and IDHW. Following receipt of comments on a particular draft primary document, USAF will respond to the comments received and issue a draft final primary document subject to dispute resolution. The draft final primary document will become the final primary document either thirty (30) days after the issuance of a draft final document if dispute resolution is not invoked, or as modified by decision of the dispute resolution process.

20.4 Secondary documents include those documents that are discrete portions of the primary documents and are typically input or feeder documents. Secondary documents are

issued by USAF in draft subject to review and comment by U.S. EPA and IDHW. Although USAF will respond to comments received, the draft secondary documents may be finalized in the context of the corresponding primary documents. A secondary document may be disputed at the time the corresponding draft final primary document is issued.

C. Primary Documents:

20.5 USAF shall complete and transmit the following draft primary documents to U.S. EPA and IDHW for review and comment in accordance with the provisions of this Part:

(a) RI/FS Work Plan(s), including the work plan and Sampling and Analysis Plan (Field Sampling Plan, Quality Assurance Project Plan), Health and Safety Plan, Community Relations Plan Amendments

(b) Community Relations Plan

(c) RI/FS Report

(d) Record of Decision

(e) Remedial Design, including plan specifications and bid package

(f) Remedial Action Work Plan(s)

20.6 Only the draft final primary documents identified above shall be subject to dispute resolution. USAF shall complete and transmit draft primary documents in accordance with the timetable and deadlines established in Part XXIV of this Agreement. Primary documents may include target dates for subtasks as provided for in Paragraph 20.8. The purpose of target dates is to assist USAF in meeting deadlines, but target dates do not become enforceable by their inclusion in the primary

documents and are not subject to Parts XXII, XXIV, and/or XXV.

D. Secondary Documents:

20.7 USAF shall complete and transmit draft secondary documents to U.S. EPA and IDHW for review and comment in accordance with the provisions of this Part:

(a) Health and Safety Plan

(b) Limited Field Investigation Work Plan(s)

(c) Limited Field Investigation Report(s)

(d) Proposed Plan(s)

(e) RI Report, including the Baseline Risk Assessment

(f) 35% Remedial Design

20.8 Although U.S. EPA and IDHW intend to comment on the draft secondary documents listed above, such documents shall not be subject to dispute resolution except as provided by Paragraph 20.4. Target dates shall be established for the completion and transmission of draft secondary documents pursuant to Part XXIV of this Agreement.

E. Meetings of the Project Managers on Development of Documents

20.9 The Project Managers shall meet or confer approximately every thirty (30) days, except as otherwise agreed by the Parties, to review and discuss the progress of work being performed at the Site on the primary and secondary documents. Prior to preparing any draft document specified in Paragraphs 20.5 and 20.7 above, the Project Managers shall meet to discuss the document results in an effort to reach a common understanding, to the maximum extent practicable, with respect to

the results to be presented in the draft document.

F. Identification and Determination of Potential ARARs

20.10 For those primary or secondary documents that consist of or include ARAR determinations, prior to the issuance of a draft document, the Project Managers shall meet to identify and propose, to the best of their ability, all potential ARARs pertinent to the document being addressed. Draft ARAR determinations shall be prepared by USAF in accordance with Section 121(d)(2) of CERCLA, 42 U.S.C. § 9621(d)(2), the NCP, and pertinent written guidance issued by U.S. EPA and IDHW, which is not inconsistent with CERCLA and the NCP.

20.11 In identifying potential ARARs, the Parties recognize that ARARs can be identified on a site-specific basis and that ARARs depend on the specific hazardous substances, pollutants, and contaminants at a site, the particular actions proposed as a remedy, and the characteristics of a site. The Parties recognize that ARAR identification is necessarily an iterative process and that potential ARARs must be re-examined throughout the RI/FS process until a ROD is issued.

G. Review and Comment on Draft Documents

20.12 USAF shall complete and transmit each draft primary document to U.S. EPA and IDHW on or before the corresponding deadline established for the issuance of the document. USAF shall complete and transmit the draft secondary document in accordance with the target dates established for the issuance of such documents established pursuant to Part XXIV of

this Agreement.

20.13 Unless the Parties mutually agree to another time period, all draft documents shall be subject to a thirty (30) day period for review and comment. Review of any document by U.S. EPA or IDHW may concern all aspects of the document (including completeness) and should include, but is not limited to, technical evaluation of any aspect of the document, and consistency with CERCLA, the NCP, and any pertinent guidance or policy issued by the U.S. EPA or IDHW. Comments by U.S. EPA and IDHW shall be provided with adequate specificity so that USAF may respond to the comments and, if appropriate, make changes to the draft document. Comments shall refer to any pertinent sources of authority or references upon which the comments are based, and, upon request of USAF, U.S. EPA and IDHW shall provide a copy of the cited authority or reference. In cases involving complex or unusually lengthy documents, U.S. EPA and IDHW may jointly extend the thirty (30) day comment period for an additional twenty (20) days by written notice to USAF prior to the end of the thirty (30) day period. On or before the close of the comment period, U.S. EPA and IDHW shall deliver by next working day their written comments to USAF.

20.14 Representatives of USAF shall make themselves readily available to U.S. EPA and IDHW during the comment period for purposes of informally responding to questions and comments on draft documents. Oral comments made during such discussions need not be the subject of a written response by USAF

on the close of the comment period.

20.15 In commenting on a draft document which contains a proposed ARAR determination, U.S. EPA and IDHW shall include a reasoned statement of whether they object to any portion of the proposed ARAR determination. To the extent that U.S. EPA and IDHW do object, they shall explain the basis for their objection in detail and shall identify any ARARs which they believe were not properly addressed in the proposed ARAR determination.

20.16 Following the close of the comment period for a draft document, USAF shall give full consideration to all written comments on the draft document submitted during the comment period. Within thirty (30) days of the close of the comment period on a draft secondary document, USAF shall transmit to U.S. EPA and IDHW its written response to comments received within the comment period. Within thirty (30) days of the close of the comment period on a draft primary document, USAF shall transmit to U.S. EPA and IDHW a draft final primary document, which shall include USAF's response to all written comments, received within the comment period. While the resulting draft final document shall be the responsibility of USAF, it shall be the product of consensus to the maximum extent possible.

20.17 USAF may extend the thirty (30) day period for either responding to comments on a draft document or for issuing the draft final primary document for an additional twenty (20) days by providing timely written notice to U.S. EPA

and IDHW. In appropriate circumstances, this time period may be further extended in accordance with Part XXV.

H. Availability of Dispute Resolution for Draft Final Primary Documents

20.18 Dispute resolution shall be available to the Parties for draft final primary documents as set forth in Part XXI.

20.19 When dispute resolution is invoked on a draft primary document, work may be stopped in accordance with the procedures set forth in Part XXI regarding dispute resolution.

I. Finalization of Documents

20.20 The draft final primary document shall serve as the final primary document if no Party invokes dispute resolution regarding the document or, if invoked, at completion of the dispute resolution process should USAF's position be sustained. If USAF's determination is not sustained in the dispute resolution process, USAF shall prepare, within not more than thirty-five (35) days, a revision of the draft final document which conforms to the results of dispute resolution. In appropriate circumstances, the time period for this revision period may be extended in accordance with Part XXV hereof.

J. Subsequent Modifications of Final Documents

20.21 Following finalization of any primary document pursuant to Paragraph 20.20 above, U.S. EPA, IDHW, or

USAF may seek to modify the document, including seeking additional field work, pilot studies, computer modeling, or other supporting technical work, only as provided in Paragraphs 20.22 and 20.23.

20.22 U.S. EPA, IDHW, or USAF may seek to modify a document after finalization if it determines, based on new information (i.e., information that became available, or conditions that became known, after the document was finalized) that the requested modification is necessary. U.S. EPA, IDHW, or USAF may seek such a modification by submitting a concise written request to the Project Managers of the other Parties. The request shall specify the nature of the requested modification and how the request is based on new information.

20.23 In the event that a consensus among the Parties is reached, the written modification signed by the Project Managers shall be attached to the final document and incorporated by reference. In the event that a consensus is not reached by the Project Managers on the need for a modification, either U.S. EPA, IDHW, or USAF may invoke dispute resolution as provided in Part XXI to determine if such modification shall be conducted. Modification of a document shall be required only upon a showing that: (1) the requested modification is based on significant new information, and (2) the requested modification could be of significant assistance in evaluating impacts on the public health or the environment, in evaluating the selection of remedial alternatives, or in protecting human health and the

environment.

20.24 Nothing in this Subpart shall alter the ability of U.S. EPA or IDHW to request the performance of additional work which was not contemplated by this Agreement. USAF's obligation to perform such work must be established by either a modification of a document or by amendment to this Agreement.

XXI. RESOLUTION OF DISPUTES

21.1 Except as specifically set forth elsewhere in this Agreement, if a dispute arises under this Agreement, the procedures of this Part shall apply. All Parties to this Agreement shall make reasonable efforts to informally resolve disputes at the Project Manager or immediate supervisor level. If resolution cannot be achieved informally, the procedures of this Part shall be implemented to resolve a dispute.

21.2 Within thirty (30) days after: (1) the issuance of a draft final primary document pursuant to this Agreement, or (2) any action which leads to or generates a dispute, the disputing Party shall submit to the Dispute Resolution Committee ("DRC") a written statement of dispute setting forth the nature of the dispute, the work affected by the dispute, the disputing Party's position with respect to the dispute and the technical, legal, or factual information the disputing Party is relying upon to support its position.

21.3 Prior to any Party's issuance of a written

statement of dispute, the disputing Party shall engage the other Party in informal dispute resolution among the Project Managers and/or their immediate supervisors. During this informal dispute resolution period the Parties shall meet as many times as are necessary to discuss and attempt resolution of the dispute.

21.4 The DRC will serve as a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution. The Parties shall each designate one individual and an alternate to serve on the DRC. The individuals designated to serve on the DRC shall be employed at the policy level (SES or equivalent) or be delegated the authority to participate on the DRC for the purposes of dispute resolution under this Agreement. The U.S. EPA representative on the DRC is the Hazardous Waste Division Director ("Division Director") of U.S. EPA's Region 10. USAF's designated member is the Director of Environmental Management, Headquarters, Tactical Air Command. IDHW's designated member is the Hazardous Materials Bureau Chief. Written notice of any delegation of authority from a Party's designated representative on the DRC shall be provided to all other Parties.

21.5 Following elevation of a dispute to the DRC, the DRC shall have twenty-one (21) days to unanimously resolve the dispute and issue a written decision. If the DRC is unable to unanimously resolve the dispute within this twenty-one (21) day period the written statement of dispute shall be forwarded to the Senior Executive Committee (SEC) for resolution, within seven (7)

days after the close of the twenty-one (21) day resolution period.

21.6 The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the DRC. The U.S. EPA representative on the SEC is the Regional Administrator of U.S. EPA's Region 10. USAF's representative on the SEC is the Deputy Chief of Staff, Engineering and Services, Tactical Air Command. IDHW's representative on the SEC is the IDHW Administrator of the Division of Environmental Quality. The SEC members shall, as appropriate, confer, meet, and exert their best efforts to resolve the dispute and issue a written decision. If unanimous resolution of the dispute is not reached within twenty-one (21) days, U.S. EPA's Regional Administrator shall issue a written position on the dispute. USAF or IDHW may, within fourteen (14) days of the Regional Administrator's issuance of U.S. EPA's position, issue a written notice elevating the dispute to the Administrator of U.S. EPA for resolution in accordance with all applicable laws and procedures. In the event that USAF or IDHW elect not to elevate the dispute to the Administrator within the designated fourteen (14) day escalation period, USAF and/or IDHW shall be deemed to have agreed with the Regional Administrator's written position with respect to the dispute.

21.7 Upon escalation of a dispute to the Administrator of U.S. EPA pursuant to Paragraph 21.6, the Administrator will review and resolve the dispute within

twenty-one (21) days. Upon request, and prior to resolving the dispute, the U.S. EPA Administrator shall meet and confer with USAF's Secretariat Representative and a representative from IDHW to discuss the issue(s) under dispute. The Administrator will provide notice to both Parties of either Party's request to meet or confer with respect to any such dispute and will provide an adequate opportunity for both Parties to participate in any meeting or conference convened to resolve such dispute. Upon resolution, the Administrator shall provide USAF and IDHW with a written final decision setting forth resolution of the dispute. The duties of the Administrator set forth in this Part shall not be delegated.

21.8 The pendency of any dispute under this Part shall not affect USAF's responsibility for timely performance of the work required by this Agreement, except that the time period for completion of work affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this Agreement which are not affected by the dispute shall continue and be completed in accordance with the applicable schedule.

21.9 When dispute resolution is in progress, work affected by the dispute will immediately be discontinued if the Division Director for U.S. EPA's Region 10 or the IDHW Program Manager request, in writing, that work related to the dispute be

stopped because, in U.S. EPA's or IDHW's opinion, such work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse effect on human health or the environment, or is likely to have a substantial adverse effect on the remedy selection or implementation process. To the extent possible, U.S. EPA and IDHW shall consult with all Parties prior to initiating a work stoppage request. After stoppage of work, if USAF believes that the work stoppage is inappropriate or may have potential significant adverse impacts, USAF may meet with the U.S. EPA Division Director and IDHW equivalent to discuss the work stoppage. Following this meeting, and further consideration of the issues, the U.S. EPA Division Director will issue, in writing, a final decision with respect to the work stoppage. The final written decision of the U.S. EPA Division Director may immediately be subjected to formal dispute resolution. Such dispute may be brought directly to either the DRC or the SEC, at the discretion of USAF or IDHW.

21.10 Within twenty-one (21) days of resolution of a dispute pursuant to the procedures specified in this Part, USAF shall incorporate the resolution and final determination into the appropriate plan, schedule, or procedures and proceed to implement this Agreement according to the amended plan, schedule, or procedures.

21.11 Resolution of a dispute pursuant to this Part of the Agreement constitutes a final resolution of that dispute arising under this Agreement. All Parties shall abide by

all terms and conditions of any final resolution of dispute obtained pursuant to this Part of this Agreement, except as provided in Paragraph 36.2(b).

XXII. ENFORCEABILITY

22.1 The Parties agree that:

(a) Upon its effective date, this Agreement is enforceable by any person pursuant to Section 310 of CERCLA, 42 U.S.C. § 9659, and any violation of such standard, regulation, condition, requirement, or order contained herein will be subject to civil penalties under Sections 310(c) and 109 of CERCLA, 42 U.S.C. §§ 9659(c) and 9609;

(b) All timetables or deadlines associated with the RI/FS shall be enforceable by any person pursuant to Section 310 of CERCLA, 42 U.S.C. § 9659, and any violation of such timetables or deadlines will be subject to civil penalties under Sections 310(c) and 109 of CERCLA, 42 U.S.C. §§ 9659(c) and 9609;

(c) All terms and conditions of this Agreement which relate to interim actions or final remedial actions, including corresponding timetables, deadlines, or schedules, and all work associated with the interim actions or final remedial actions, shall be enforceable by any person pursuant to Section 310(c) of CERCLA, 42 U.S.C. § 9659(c), and any violation of such terms or conditions will be subject to civil penalties under Sections 310(c) and 109 of CERCLA, 42 U.S.C. §§ 9659(c) and 9609; and

(d) Any final resolution of a dispute pursuant to Part XXI of this Agreement which establishes a term, condition, timetable, deadline, or schedule shall be enforceable by any person pursuant to Section 310(c) of CERCLA, 42 U.S.C. § 9659(c), and any violation of such term, condition, timetable, deadline, or schedule will be subject to civil penalties under Sections 310(c) and 109 of CERCLA, 42 U.S.C. §§ 9659(c) and 9609.

22.2 Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any action or work where review is barred by any provision of CERCLA, including Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

22.3 The Parties agree that all Parties shall have the right to enforce the terms of this Agreement.

XXIII. STIPULATED PENALTIES

23.1 In the event that USAF fails to submit a primary document to U.S. EPA and IDHW pursuant to the appropriate timetable or deadline in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement which relates to an interim action or final remedial action, U.S. EPA may assess, after consultation with IDHW, a stipulated penalty against USAF. A stipulated penalty may be assessed in an amount not to exceed five thousand dollars ($5,000) for the first week (or part thereof), and ten thousand dollars ($10,000) for each additional week (or part thereof) for which a failure set forth in this paragraph occurs.

23.2 Upon determining that USAF has failed in a manner set forth in Paragraph 23.1, U.S. EPA shall so notify USAF in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, USAF shall have fifteen (15) days after receipt of the notice to invoke dispute resolution on the question of whether the failure did, in fact, occur. USAF shall not be liable for the stipulated penalty assessed by U.S. EPA if the failure is determined, through the dispute resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of dispute resolution procedures related to the assessment of the stipulated penalty.

23.3 The annual reports required by Section 120(e)(5) of CERCLA, 42 U.S.C. § 9620(e)(5), shall include, with respect to each final assessment of a stipulated penalty against USAF under this Agreement, each of the following:

a. The facility responsible for the failure;

b. A statement of the facts and circumstances giving rise to the failure;

c. A statement of any administrative or other corrective action taken at the relevant facility, or a statement of why such measures were determined to be inappropriate;

d. A statement of any additional action taken by or at the facility to prevent recurrence of the same type of failure; and

e. The total dollar amount of the stipulated penalty assessed for the particular failure.

23.4 Stipulated penalties assessed pursuant to this Part shall be payable to the Hazardous Substances Response Trust Fund only in the manner and to the extent expressly provided for in Acts authorizing funds for, and appropriations to, the Department of Defense.

23.5 In no event shall this Part give rise to a stipulated penalty in excess of the amount set forth in Section 109 of CERCLA, 42 U.S.C. § 9609.

23.6 This Part shall not affect USAF's ability to obtain an extension of a timetable, deadline, or schedule pursuant to Part XXV of this Agreement.

23.7 Nothing in this Agreement shall be construed to render any officer or employee of USAF personally liable for the payment of any stipulated penalty assessed pursuant to this Part.

XXIV. DEADLINES

24.1 With respect to the Operable Units identified in Paragraph 8.1, deadlines (subject to extension pursuant to Parts XXV and XXXIII) for the draft primary documents are established as follows:

	Date:
Operable Unit 1:	N/A
Operable Unit 2:	
a. Draft RI/FS Report	8/4/92
c. Draft ROD	1/31/93

Operable Unit 3:

a. Draft RI/FS Work Plan	5/12/92
b. Draft RI/FS Report	10/4/94
c. Draft ROD	4/2/95

Operable Unit 4:

a. Draft RI/FS Report	9/9/91
b. Draft ROD	3/7/92

24.2 Target dates for completion of the draft secondary documents identified in Paragraph 20.7(a) through (e) are listed in Table 1 of the attached Scope of Work.

24.3 Within twenty-one (21) days of issuance of each Record of Decision, USAF shall propose target dates for completion of the draft secondary documents identified in Paragraph 20.7(f) and deadlines for completion of the following draft primary documents:

a. Remedial Design

b. Remedial Action Work Plan

24.4 Within fifteen (15) days of receipt of the proposed deadlines submitted pursuant to Paragraph 24.3, U.S. EPA, in conjunction with IDHW, shall review and provide comments to USAF regarding the proposed deadlines and target dates. Within fifteen (15) days following receipt of the comments USAF shall, as appropriate, make revisions and reissue the proposal. The Parties shall meet as necessary to discuss and finalize the proposed deadlines and target dates. If the Parties agree on proposed deadlines and target dates, the finalized deadlines and target dates shall be incorporated into the

appropriate Work Plans. If the Parties fail to agree within thirty (30) days on any of the proposed deadlines, the disputed deadlines shall immediately be submitted for dispute resolution pursuant to Part XXI of this Agreement. The final deadlines established pursuant to this paragraph shall be published by U.S. EPA, in conjunction with IDHW.

24.5 The deadlines set forth in this Part, or to be established as set forth in this Part, may be extended pursuant to Part XXV of this Agreement. The Parties recognize that one possible basis for extension of the deadlines for completion of the RI/FS Reports is the identification of significant new Site conditions during the performance of the RI.

XXV. EXTENSIONS

25.1 Either a timetable and deadline or a schedule shall be extended upon receipt of a timely request for extension and when good cause exists for the requested extension. Any request for extension by USAF shall be submitted in writing to the Project Managers and shall specify:

a. The timetable and deadline or the schedule that is sought to be extended;

b. The length of the extension sought;

c. The good cause(s) for the extension; and

d. Any related timetable and deadline or schedule that would be affected if the extension were granted.

Good cause exists for an extension when sought in regard to:

a. An event of Force Majeure;

b. A delay caused by another Party's failure to meet any requirement of this Agreement;

c. A delay caused by the good faith invocation of dispute resolution or the initiation of judicial action;

d. A delay caused, or which is likely to be caused, by the grant of an extension in regard to another timetable and deadline or schedule; and

e. Any other event or series of events mutually agreed to by the Parties as constituting good cause.

25.2 Absent agreement of the Parties with respect to the existence of good cause, USAF may seek to obtain a determination through the dispute resolution process that good cause exists.

25.3 Within seven (7) days of receipt of a request for an extension of a timetable and deadline or a schedule, U.S. EPA and IDHW shall advise USAF in writing of its position on the request. Any failure by U.S. EPA or IDHW to respond within the seven (7) day period shall be deemed to constitute concurrence in the request for extension up to a maximum of fourteen (14) days. If U.S. EPA does not concur in the requested extension, it shall include in its statement of nonconcurrence an explanation of the basis for its position.

25.4 If there is consensus among the Project Managers, or their alternates, that the requested extension is warranted, USAF shall confirm the extension of the affected

timetable, deadline, or schedule in writing. If there is no consensus among the Project Managers as to whether all or part of the requested extension is warranted, the timetable and deadline or schedule shall not be extended except in accordance with determination resulting from the dispute resolution process.

25.5 Within seven (7) days of receipt of a statement of nonconcurrence with the requested extension, USAF may invoke dispute resolution.

25.6 A timely and good faith request for an extension shall toll any assessment of stipulated penalties or application for judicial enforcement of the affected timetable and deadline or schedule until a decision is reached on whether the requested extension will be approved. If dispute resolution is invoked and the requested extension is denied, stipulated penalties may be assessed and may accrue from the date of the original timetable and deadline or schedule. Following the grant of an extension, an assessment of stipulated penalties or an application for judicial enforcement may be sought only to compel compliance with the timetable and deadline or schedule as most recently extended.

XXVI. FORCE MAJEURE

26.1 Force Majeure shall mean any event arising from causes beyond the control of a Party that causes a delay in or prevents the performance of any obligation under this Agreement, including, but not limited to:

a. acts of God; fire, war; insurrection; civil disturbance; or explosion;

b. unanticipated breakage or accident to machinery, equipment, or lines of pipe despite reasonably diligent maintenance;

c. adverse weather conditions that could not be reasonably anticipated, or unusual delay in transportation;

d. restraint by court order or order of public authority;

e. inability to obtain, at a reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits, or licenses due to action or inaction of any governmental agency or authority other than USAF;

f. delays caused by compliance with applicable statutes or regulations governing contracting, procurement, or acquisition procedures, despite the exercise of reasonable diligence; and

g. insufficient availability of appropriated funds, if USAF shall have made timely request for such funds as part of the budgetary process as set forth in Section XXVII of this Agreement. If such an event occurs, IDHW may exercise its rights as provided in Paragraph 27.6, but U.S. EPA shall be bound by this Force Majeure and shall not assess stipulated penalties.

26.2 Force Majeure shall also include any strike or other labor dispute, whether or not within the control of the Parties affected thereby. Force Majeure shall not include

increased costs or expenses of response actions, whether or not anticipated at the time such response actions were initiated.

26.3 Any claim of Force Majeure shall be subject to dispute resolution and, where applicable, to the limitations of Paragraph 27.6.

XVII. FUNDING

27.1 It is the expectation of the Parties to this Agreement that all obligations of USAF arising under this Agreement will be fully funded. USAF agrees to seek sufficient funding through the Department of Defense budgetary process to fulfill its obligations under this Agreement.

27.2 In accordance with Section 120(e)(5)(B) of CERCLA, 42 U.S.C. § 9620(e)(5)(B), USAF shall provide to the Department of Defense for its annual report to Congress the specific cost estimates and budgetary proposals associated with the implementation of this Agreement.

27.3 Funds authorized and appropriated annually by Congress under the "Environmental Restoration, Defense" appropriation in the U.S. Department of Defense Appropriation Act and allocated by the DASD(E) to USAF will be the source of funds for activities required by this Agreement consistent with Section 211 of SARA, 10 U.S.C. Chapter 160. However, should the Environmental Restoration, Defense appropriation be inadequate in any year to meet the total USAF CERCLA implementation requirements, the Department of Defense shall employ and USAF

shall follow a standardized Department of Defense prioritization process which allocates that year's appropriations in a manner which maximizes the protection of human health and the environment. A standardized Department of Defense prioritization model is being developed and shall be utilized with the assistance of U.S. EPA and the states.

27.4 Any requirement for the payment or obligation of funds, including stipulated penalties, by USAF established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341. In cases where payment or obligation of funds, including stipulated penalties, would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted.

27.5 If appropriated funds are not available to fulfill USAF's obligations under this Agreement, U.S. EPA and IDHW reserve the right to initiate an action against any other person or to take any response action which would be appropriate absent this Agreement.

27.6 USAF maintains that any requirement for the payment or obligation of funds under this Agreement is subject to the availability of appropriated funds, and that the unavailability of such funds constitutes a valid defense to any judicial action that might be brought to enforce the terms of

this Agreement. Notwithstanding Paragraphs 27.1, 27.2, 27.3, 27.4, and 27.5 above, IDHW does not agree that lack of appropriation or funding constitutes a valid defense to performance by USAF. However, the Parties agree and stipulate that it is premature to raise and adjudicate the validity of such a defense at this time. If sufficient funds are not available to fulfill USAF's obligations under this Agreement, the Parties shall meet to discuss the funding shortfall, the ways of resolving it, and whether it is appropriate to adjust the deadlines set forth pursuant to Part XXIV affected by the funding shortfall. Any Party may elevate the issue(s) directly to the SEC for resolution. Six (6) months after the failure of USAF to meet a deadline because of lack of funding, IDHW shall have the right to seek judicial enforcement of this Agreement. This Paragraph is not subject to Part XXI, but does not exclude the consensual use of Part XXI. Acceptance of this Paragraph 27.6 does not constitute a waiver by USAF of the applicability of any appropriate provisions of the Anti-Deficiency Act, 31 U.S.C. § 1341, to the terms of this Agreement.

XXVIII. RECOVERY OF EXPENSES

28.1 USAF and U.S. EPA agree to amend this Part at a later date in accordance with any subsequent resolution of the currently contested issue of cost reimbursement.

28.2 Reimbursement of IDHW's expenses will be in accordance with the Defense/State Memorandum of Agreement

("DSMOA").

28.3 Nothing in this Agreement shall be construed to constitute a waiver of any claims by the State for any expenses incurred prior to the effective date of this Agreement.

XXIX. OTHER CLAIMS

29.1 Nothing in this Agreement shall constitute or be construed as a bar or release from any claim, cause of action, or demand in law or equity by or against any persons, firm, partnership, or corporation not a signatory to this Agreement for any liability it may have arising out of or relating in any way to this Agreement or the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, hazardous constituents, pollutants, or contaminants found at, taken to, or taken from MHAFB.

29.2 U.S. EPA and IDHW shall not be held as a Party to any contract entered into by USAF to implement the requirements of this Agreement.

29.3 USAF shall notify the appropriate federal and state natural resource trustees as required by Section 104(b)(2) of CERCLA, 42 U.S.C. § 9604(b)(2), and Section 2(e)(2) of Executive Order 12580. Except as provided in this Agreement, USAF is not released from any liability which it may have pursuant to any provisions of state and federal law. USAF is not released from any claim for damages for liability for destruction

or loss of natural resources.

29.4 This Agreement shall not restrict U.S. EPA and/or IDHW from taking any legal or response action for any matter not covered by this Agreement.

XXX. OTHER APPLICABLE LAWS

30.1 All actions required to be taken pursuant to this Agreement shall be undertaken in accordance with the requirements of all applicable state and federal laws and regulations unless an exemption from such requirements is provided in this Agreement, CERCLA, or the NCP.

XXXI. CONFIDENTIAL INFORMATION

31.1 USAF may assert on its own behalf, or on behalf of a contractor, subcontractor, or consultant, a confidentiality claim covering all or part of the information requested by this Agreement pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604. Analytical data shall not be claimed as confidential by USAF. Information determined to be confidential by USAF pursuant to 40 C.F.R. Part 2 shall be afforded the protection specified therein and such information shall be treated by IDHW as confidential, to the extent permitted by state law. If IDHW is unable to afford the confidentiality protection, USAF is not required to submit the data to IDHW. If no claim of confidentiality accompanies the information when it is submitted to either regulatory agency, the information may be made

available to the public without further notice to USAF.

XXXII. TRANSFER OF PROPERTY

32.1 Conveyance of title, easement, or other interest in MHAFB shall be in accordance with Section 120(h) of CERCLA, 42 U.S.C. § 9620(h), and any applicable regulations thereunder.

XXXIII. MODIFICATION/AMENDMENT OF AGREEMENT

33.1 Modifications to and/or actions taken pursuant to Paragraph 8.1 (Work to be Performed), Part XI (Sampling and Data/Document Availability), Part XII (Quality Assurance), Part XX (Consultation with U.S. EPA and IDHW), Part XXIV (Deadlines), and Part XXV (Extensions) may be effected by the unanimous agreement of the Project Managers.

33.2 Modifications or amendments not permitted by Paragraph 33.1 may be effected only by the unanimous agreement of the signatories or upon completion of Dispute Resolution, as applicable.

33.3 Any modification or amendment shall be reduced to writing; shall be effective as of the date it is signed by all the Project Managers or signatories, as applicable; and shall be incorporated into, and modify, this Agreement.

XXXIV. SEVERABILITY

34.1 If any provision of this Agreement is ruled invalid, illegal, or unconstitutional, the remainder of the Agreement shall not be affected by such ruling.

XXXV. TERMINATION AND SATISFACTION

35.1 The provisions of this Agreement shall be deemed satisfied upon a consensus of the Parties that USAF has completed its obligations under the terms of this Agreement. Any Party may propose in writing the termination of this Agreement upon a showing that the requirements of this Agreement have been satisfied. A Party opposing termination of this Agreement shall serve its objection upon the proposing Party within thirty (30) days of receipt of the proposal. Any objection shall describe in detail the additional work needed to satisfy the requirements of the Agreement. Any Party may invoke dispute resolution as to the request for or objection to a proposal to terminate.

XXXVI. RESERVATION OF RIGHTS

36.1 The Parties have determined that the activities to be performed under this Agreement are in the public interest. U.S. EPA and IDHW agree that compliance with this Agreement shall stand in lieu of any administrative and judicial remedies against USAF which are available to U.S. EPA and IDHW regarding releases or threatened releases of hazardous substances at MHAFB which are the subject of the activities performed by

USAF under this Agreement.

36.2 Nothing in this Agreement shall preclude U.S. EPA or IDHW from exercising any administrative or judicial remedies available to them under the following circumstances:

(a) Upon discovery of new information regarding hazardous substances, including, but not limited to, information regarding releases of hazardous substances to the environment which are not covered by this Agreement; or

(b) Upon IDHW's determination, after dispute resolution, that a proposed remedy will not be protective of human health and the environment under CERCLA. If IDHW exercises its rights under this subparagraph, it shall withdraw from the Agreement within sixty (60) days following the effective date of the ROD.

36.3 IDHW reserves the right, if any, under HWMA to enforce permit requirements, including corrective action. IDHW agrees to exhaust its rights under Part XXI prior to taking any action to enforce the permit corrective action requirements.

36.4 This Agreement shall not transfer U.S. EPA's authorities as prohibited by Section 120(g) of CERCLA, 42 U.S.C. § 9620(g), or in any way authorize a physically inconsistent response action, as prohibited by Section 122(e)(6) of CERCLA, 42 U.S.C. § 122(e)(6), or provide for review inconsistent with Section 113(h) of CERCLA, 42 U.S.C. § 9613(h), subject to exhaustion of rights under Part XXI.

36.5 In the event of any administrative or

judicial action by U.S. EPA or IDHW under this Part, all Parties reserve all rights, claims, and defenses available under law, including the right to contest the legal enforceability of State corrective action or other requirements against USAF.

XXVII. EFFECTIVE DATE

37.1 This Agreement is effective upon signature by all the Parties to this Agreement.

Signature sheet for the foregoing Federal Facility Agreement for the Mountain Home Air Force Base, between the U.S. Environmental Protection Agency, the U.S. Department of the Air Force, and the Idaho Department of Health and Welfare.

RICHARD P. DONOVAN
Idaho Department of Health and Welfare

January 16, 1992
Date

REPRESENTED BY:

Curt Fransen, Esq.

Signature sheet for the foregoing Federal Facility Agreement for the Mountain Home Air Force Base, between the U.S. Environmental Protection Agency, the U.S. Department of the Air Force, and the Idaho Department of Health and Welfare.

W S Hinton — 15 Jan 92

COL. WILLIAM S. HINTON, JR., COMMANDER — Date
Mountain Home Air Force Base
United States Air Force

Richard R Duncan — January 14, 1992

Date

REPRESENTED BY:

Col. Craig Anderson, Esq.

Signature sheet for the foregoing Federal Facility Agreement for the Mountain Home Air Force Base, between the U.S. Environmental Protection Agency, the U.S. Department of the Air Force, and the Idaho Department of Health and Welfare.

Dana A Rasmussen 11/6/92

DANA A. RASMUSSEN Date
Regional Administrator
Region 10
United States Environmental Protection Agency

REPRESENTED BY:

Cynthia L. Mackey, Esq.

MOUNTAIN HOME AIR FORCE BASE
FEDERAL FACILITY AGREEMENT SCOPE OF WORK

1.0 Introduction

The purpose of this attachment is to set forth the elements of work required to be performed, prior to the final Record of Decision (ROD), to respond to all hazardous substance releases or threat of releases at or from the Mountain Home Air Force Base (MHAFB) which may pose a threat to human health or the environment. This document provides the site management approach to implement the remedial response process under this Agreement. The source areas at MHAFB have been divided into manageable operable units (OU) and a schedule has been developed for performing the general remedial activities at each OU, as well as, the optimal sequence for performing each OU. The OUs at MHAFB have been divided into three categories of remedial activities:

- Remedial Investigation/Feasibility Study (RI/FS) OUs
- Interim Action (IA) OUs
- Limited Field Investigation (LFI) OUs

All response activities performed by USAF shall be consistent with the Agreement. Table 1 represents work schedules for completion of the decision process for each identified OU and was developed by the three parties during the Federal Facility Agreement negotiations. The table depicts starting, interim and completion dates for each OU. Primary document deadlines are enforceable and are contained in Section XXIV (24) of the Agreement.

2.0 Source Area Grouping into Operable Units

Seventeen potential source areas were identified at MHAFB in previous studies. These source areas were placed into one of the OU categories. The potential source areas are listed in Table 2. No further action was selected for source area DP-17, the Used Tire Disposal site, as identified in the Installation Restoration Program Records Search for Mountain Home Air Force Base, CH2M HIll, July 1983. The site location of DP-17 on Figure 1 of the CH2M HILL report is in error. Criteria used to group sites into the three OU categories include:

- Availability and sufficiency of previously collected data to support remedy selection
- Similarities of source areas and contaminants
- Complexity and size of source areas
- Affected media, potential for migration, exposure pathways and receptors

Operable Units:

- **Limited Field Investigation (LFI)**

OU 1 LFI: Source areas FT-4, FT-5, FT-6, FT-7, DP-9, OT-10, SD-12, OT-15, OT-16, DP-18, ST-22, LF-3, SD-24, SS-26, SD-27, SS-28, SS-29, SS-30, and other units that may be in the RCRA Facility Assessment (RFA), aerial photographs, and other investigations.

- **Remedial Investigation/Feasibility Study (RI/FS)**

OU 2 RI/FS: Source areas LF-1 and LF-2.

OU 3 RI/FS: Source areas LF-3, SS-11, and RW-14, and site-wide groundwater characterization. Sites from LFI OU 1 that require a RI/FS and necessary post closure groundwater monitoring for the Petroleum, Oil and Lubricant (POL) Storage Yard (ST-13) will also be incorporated into this OU. This OU will serve as the final RI/FS OU at the base and will establish the site-wide groundwater characterization and remedy selection.

OU 4 - Source area FT-8 (This may be an early final action)

3.0 Description of Remedial Activities

3.1 Remedial Investigation/Feasibility Study

The purpose of the remedial investigation/feasibility study (RI/FS) is to investigate the nature and extent of contamination at the Mountain Home Air Force Base (MHAFB) site and to develop and evaluate remedial alternatives, as appropriate. Two RI/FSs are currently planned for MHAFB. OU 2 RI/FS is an investigation and study of the Lagoon Landfill and the B Street Landfill. OU 3 RI/FS is a site-wide investigation and study and will concentrate on groundwater contamination concerns at the site.

SCOPE

The specific RI/FS activities to be conducted in each RI/FS at the MHAFB site are segregated in 11 separate tasks.

- Task 1 - Project Planning (Conceptual Site Model and Data Quality Objectives)
- Task 2 - Community Relations (Site-wide)
- Task 3 - Field Investigations
- Task 4 - Sample Analysis/Validation

- Task 5 - Data Evaluation
- Task 6 - Risk Assessment
- Task 7 - Treatability Studies
- Task 8 - RI Report, including Baseline Risk Assessment
- Task 9 - Remedial Alternatives Development and Screening
- Task 10 - Detailed Analysis of Alternatives
- Task 11 - RI/FS Report

Task 1 Project Planning

Project planning is done to: determine the types of decisions to be made; identify the type and quality of data quality objectives (DQOs) needed to support those decisions; describe the methods by which the required data will be obtained and analyzed; prepare project plans to document methods and procedures.

Once the scope has been agreed upon between the Project Managers, the Air Force will (1) develop the specific project management plans to meet the objectives of the RI/FS. The project plans will include: a work plan which provides a project description and outlines the overall technical approach, complete with corresponding personnel requirements, activity schedules, deliverable due dates; a sampling and analysis plan (composed of the field sampling plan (FSP) and the quality assurance project plan (QAPP); a health and safety plan; and a site-wide community relations plan. The latter three plans are described below.

Sampling and Analysis Plan. The Air Force will prepare a SAP which will consist of the following:

Field Sampling Plan. The FSP should specify and outline all necessary activities to obtain additional site data. It should contain an evaluation explaining what additional data are required to adequately characterize the site, conduct a baseline risk assessment, and support the evaluation of remedial technologies in the FS. The FSP should clearly state sampling objectives; necessary equipment; sample types, locations, and frequency; analyses of interest; and a schedule stating when events will take place and when deliverables will be submitted.

Quality Assurance Project Plan. The QAPP should address all types of investigations conducted and should include the following discussions:

- A project description (should be duplicated from the work plan or referenced)
- A project organization chart illustrating the lines of responsibility of the personnel involved in the sampling phase of the project.
- Quality assurance objectives for data such as the required precision and accuracy, completeness of data, representativeness of data, comparability of data, and the intended use of collected data
- Sample custody procedures during sample collection, the laboratory, and as part of the final evidence files
- The type and frequency of calibration procedures for field and laboratory instruments, internal quality control checks, and quality assurance performance audits and system audits
- Preventative maintenance procedures and schedule and corrective action procedures for field and laboratory instruments
- Specific procedures to assess data precision, representativeness, comparability, accuracy, and completeness of specific measurement parameters
- Data documentation and tracking procedures

Health and Safety Plan - The Air Force will develop an HSP on the basis of site conditions to protect personnel involved in site activities and the surrounding community. The plan should address all applicable regulatory requirements contained in 20 CFR 1910.120(i)(2) - Occupational Health and Safety Administration, Hazardous Waste Operations and Emergency Response (Final Rule, March 6, 1989).

Community Relations Plan - The Air Force will prepare a community relations plan (CRP) on how citizens want to be involved in the process based on interviews with community representatives and leaders. The CRP will describe the types of information to be provided to the public and outline the opportunities for community comment and input during the RI/FS. Deliverables, schedule, staffing, and budget requirements should be included in the plan.

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Task 2 Community Relations

The Air Force will provide the personnel, services, materials, and equipment for undertaking a community relations program. This program will be integrated closely with all remedial response activities to ensure community understanding of actions being taken and to obtain community input on RI/FS progress.

Task 3 Field Investigations

The Air Force will conduct those investigations necessary to characterize the site and to evaluate the actual or potential risk to human health and the environment posed by the site. Investigation activities will focus on problem definition and result in data of adequate technical content to evaluate potential risks and to support the development and evaluation of remedial alternatives during the FS. The aerial extent of investigation will be finalized during the remedial investigation.

Site investigation activities will follow the plans developed in Task 1. Strict chain-of-custody procedures will be followed and all sample locations will be identified on a site map. Activities anticipated for this site are as follows:

- Surveying and Mapping of the Site
- Waste Characterization
- Hydrogeologic Investigation
- Soils and Sediments Investigation
- Surface Water Investigation
- Air Investigation

Task 4 Sample Analysis/Validation

The Air Force will develop a data management system including field logs, sample management and tracking procedures, and document control and inventory procedures for both laboratory data and field measurements to ensure that the data collected during the investigation are of adequate quality and quantity to support the risk assessment and the FS. Collected data will be validated at the appropriate field or laboratory QC level to determine whether it is appropriate for its intended use. Task management and quality controls will be provided by the Air Force.

Task 5 Data Evaluation

The Air Force will analyze all site investigation data and present in the RI report the results of the analyses in an organized and logical manner so that the relationships between site investigation results for each medium are apparent. The Air Force will prepare a summary that describes (1) the quantities and concentrations of specific chemicals at the site and the ambient levels surrounding the site; (2) the number, locations, and types of nearby populations and activities; and (3) the potential transport mechanism and the expected fate of the contaminant in the environment.

In addition, the groundwater monitoring data will be submitted in a format that conforms with EPA Region 10 groundwater data base system, EPA Region 10 Order R7500-1, Groundwater Data Management.

Task 6 Risk Assessment

The Air Force will conduct a baseline risk assessment to assess the potential human health and environmental risks posed by the site in the absence of any remedial action. This effort will involve four components: contaminant identification, exposure assessment, toxicity assessment, and risk characterization. The risk assessment will be submitted as part of the RI report.

Task 7 Treatability Studies

The Air Force will conduct bench and/or pilot studies as necessary to determine the suitability of remedial technologies to site conditions and problems. Technologies that may be suitable to the site should be identified as early as possible to determine whether there is a need to conduct treatability studies to better estimate costs and performance capabilities. Should treatability studies be determined to be necessary, a testing plan identifying the types and goals of the studies, the level of effort needed, a schedule for completion, and the data management guidelines should be submitted to EPA and IDHW for review and comments.

Upon completion of the testing, the Air Force will evaluate the results to assess the technologies with respect to the goals identified in the test plan. A summary of the testing program and its results should be prepared by the Air Force and presented in the final RI/FS report. The Air Force will implement all management and QC review activities for this task.

Task 8 RI Report with Baseline Risk Assessment

The activities conducted and the conclusions drawn during the remedial investigation (Tasks 3 though 7) will be documented in an RI report (supporting data and information should be included in the appendices of the report). The Air Force will prepare and submit a draft RI report to EPA and IDHW for review.

Task 9 Remedial Alternatives Development and Screening

The Air Force will develop a range of distinct, hazardous waste management alternatives that will remediate or control any contaminated media (soil, surface water, ground water, sediments) remaining at the site, as deemed necessary in the RI, to provide adequate protection of human health and the environment. The potential alternatives should encompass, as appropriate, a range of alternatives in which treatment is used to reduce the toxicity, mobility, or volume of wastes but vary in the degree to which long-term management of residuals or untreated waste is required, one or more alternatives involving containment with little or no treatment; and a no-action alternative. Alternatives that involve minimal efforts to reduce potential exposures should be presented as "limited action" alternatives.

The following steps will be conducted to determine the appropriate range of alternatives for this site:

- Establish Remedial Action Objectives and General Response Actions

Preliminary remediation goals should be established based on readily available information (e.g., Rfds) or chemical-specific ARARs (e.g., MCLs). The Air Force should meet with EPA and IDHW to discuss the remedial action objectives for the site. As more information is collected during the RI, the Air Force in consultation with EPA and IDHW, will refine remedial action objectives as appropriate.

General response actions will be developed for each medium of interest defining contaminant, treatment, excavation, pumping, or other actions, singly or in combination to satisfy remedial action objectives. Volumes or areas of media to which general response actions may apply shall be identified, taking into account requirements for protectiveness as identified in the remedial action objectives and the chemical and physical characteristics of the site.

- Identify and Screen Technologies
- Configure and Screen Alternatives

Task 10 Detailed Analysis of Alternatives

The Air Force will conduct a detailed analysis of alternatives which will consist of an individual analysis of each alternative against a set of evaluation criteria and a comparative analysis of all options against the evaluation criteria with respect to one another.

The evaluation criteria are as follows:

- Overall Protection of Human Health and the Environment
- Compliance with ARARs
- Long-Term Effectiveness and Permanence
- Reduction of Toxicity, Mobility, or Volume Through Treatment
- Short-Term Effectiveness
- Implementability
- Cost
- State Acceptance
- Community Acceptance

The individual analysis should include: (1) a technical description of each alternative that outlines the waste management strategy involved and identifies the key ARARs associated with each alternative; and (2) a discussion that profiles the performance of that alternative with respect to each of the evaluation criteria. A table summarizing the results of this analysis should be prepared. Once the individual analysis is complete, the alternatives will be compared and contrasted to one another with respect to each of the evaluation criteria.

Task 11 RI/FS Report

The Air Force will present the results of Tasks 9 and 10 in the RI/FS report. Support data, information, and calculations will be included in appendices to the report. The Air Force will prepare and submit a draft RI/FS report to EPA and IDHW for review.

3.2 Interim Actions

The purpose of the IA - OUs at the MHAFB are to achieve early action using remedial authority at those sites which meet the IA general principles that are discussed in the NCP. If at anytime the information submitted to support the IA is found to be equivalent to that obtained during an RI/FS and the OU is separable, then the IA may be upgraded to an **early final action.**

One OU is currently planned as interim actions for MHAFB. At OU 4, source area FT-8, sufficient data may exist to support an early final action. The Air Force is in the process of preparing a RI/FS at source area FT-8. The RI/FS shall be submitted to the EPA and IDHW prior to, or with the Proposed Plan. The agencies shall determine whether the RI/FS meets CERCLA requirements and may constitute a final action instead of an IA.

The Preamble of the NCP, 55 Fed. Reg. 8703-8706 (March 8, 1990) states that to implement an early action under remedial authority, an operable unit for which an interim action is appropriate is identified. IA decisions are intended for straightforward sites that are limited in scope. Data sufficient to support the interim action decision is extracted from the ongoing RI/FS or from previous studies and an appropriate set of alternatives is evaluated. Few alternatives and in some cases only one should be developed for interim actions. A completed baseline risk assessment generally will not be available or necessary to justify an interim action. Qualitative risk information should be organized that demonstrates that the action is necessary to stabilize the site, prevent further degradation, or achieve significant risk reduction quickly. Supporting data, including risk information, and the alternatives analysis can be documented in a focused feasibility study. However, in cases where the relevant data can be summarized briefly and the alternatives are few and straightforward, it may be adequate and more appropriate to document the supporting information in the proposed plan.

3.3 Limited Field Investigations

To better limit the scope of the OU 3 RI/FS at MHAFB to investigations and studies of significant exposure pathways and identify potential additional interim action operable units, Limited Field Investigations (LFIs) will be conducted at the old spill/disposal sites to identify whether or not these sites pose an unacceptable risk to public health from soil ingestion, dust inhalation, future agricultural use and crop uptake or direct contact. The potential for these areas to represent a

significant source to groundwater contamination will also be evaluated. Prior to performing LFI's a work plan will be developed identifying the Data Quality Objectives established based on the conceptual site model development. As the objectives of the LFI are to ascertain the potential risk to human health from shallow soil contamination and/or the risk to human health from groundwater contamination resulting from the leaching of contaminants from these areas, the scope of the study is significantly less than that of an RI/FS. A SAP consisting of a FSP and QAPP will also be submitted as part of the work plan. Activities to be conducted during an LFI are the same as Tasks 1 through 6 of the RI/FS except more limited in scope. The site-wide CRP will be followed during conduct of an LFI. At completion of the LFI investigation, a LFI report which contains the findings of the investigation shall be submitted to the agencies for review and comment. A determination shall be made between the Project Managers to the disposition of each of the sources. Based on report results a decision will be reached between the Project Managers on whether the OU or specific sources within the OU will require follow up action or will require no further action. The decision will be reflected in the administrative record.

3.4 Quarterly Reports

Quarterly reports will be prepared by the Air Force to describe the technical progress at the MHAFB site. Quarterly reports will be submitted to U.S. EPA and IDHW as specified in the Agreement.

Documents that are not specified as primary or secondary documents in the Agreement, that will facilitate the implementation of the remedial process, may be submitted to EPA and IDHW as interim reports and technical memoranda for review, comment and/or discussion, upon agreement of all Project Managers. These documents are typically input or feeder documents, such as data interpretation, to the primary or secondary documents.

TABLE 1
ENFORCEABLE DEADLINES

ACTIVITY	DEADLINE
OU 2 Draft Work Plan Submittal	Submitted
OU 2 Draft RI/FS Report Submittal	8/4/92
OU 2 Draft ROD Submittal	1/31/93
OU 3 Draft Work Plan Submittal	5/12/92
OU 3 Draft RI/FS Report Submittal	10/4/94
OU 3 Draft ROD Submittal	4/2/95
OU 4 Draft RI/FS Report Submittal	9/9/91
OU 4 Draft ROD Submittal	3/7/92

Table 2

POTENTIAL SOURCE AREAS
AS OF THE EFFECTIVE DATE OF THE AGREEMENT

LF-1	Lagoon Landfill
LF-2	B Street Landfill
LF-3	Existing Landfill
FT-4	Fire Dept. Training Area
FT-5	Fire Dept. Training Area
FT-6	Fire Dept. Training Area
FT-7	Fire Dept. Training Area
FT-8	Fire Dept. Training Area
DP-9	Waste Oil Disposal Site
OT-10	Perimeter Road Site
SS-11	Fuel Hydrant System Leak/Spill Area
SD-12	Entomology Shop Yard
RW-14	Low-Level Radioactive Material Burial Site
OT-15	Corker Material Burial Site
OT-16	Munitions Residue Burial Site
DP-17	Used Tire Disposal Site
DP-18	Old Burial Trench
ST-22	Titan 1 Missile Maintenance Area
LF-23	Solid Waste Disposal Area
SD-24	Building 1340 - French Drain, Underground Storage Tank, and Gopher Holes
SD-25	Stormwater Drainage Ditch From Flightline
SS-26	Building 208 Drum Storage Area
SD-27	Building 1354 Wash Rack
SS-28	Square Roundhouse-Railroad Maintenance Building Solvent Disposal Area

Table 2, Page 2.

SS-29 Buildings 1222 and 1225 Drum Storage Areas

SS-30 DRMO Old Storage Unit

Federal Facility Agreement Amendment, March 10, 1993,

EPA Region 10, DEQ, and USAF, This adds ST-31, ST-32, ST-34, and ST-35 to OU-3, and adds OU-6 to include SD-12, SD-24, SD-25, SD-27, and the FT-08 underground storage tank (Copy is missing OU-6 schedule), Appendix C, Page C-78

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MOUNTAIN HOME AIR FORCE BASE
FEDERAL FACILITY AGREEMENT

AMENDMENT

Section 8.1(b) Remedial Investigation/Feasibility Study (RI/FS)

• Operable Unit 3, Sources from Limited Field Investigation (LFI) OU 1 that require a RI/FS will be addressed in OU 6. RI/FS at source areas BX Gas Station (ST-31), MX Gas Station (ST-32), Pit 9 (ST-34) and JP-4 Pipeline Leak (ST-35) is added.

• Operable Unit 6, which includes source areas from LFI OU 1, SD-12, SD-24, SD-25, and SD-27 that require a RI/FS, and a Phase II LFI at SS-29 and OT-16 and a Phase I LFI at FT-08 Underground Storage Tank.

The Parties agree to the above modifications to the Federal Facility Agreement. The OU 3 schedule does not change from the above changes and the OU 6 schedule is attached.

Fran Allans — 3/10/93
Fran Allans
Project Manager
U.S. Environmental Protention Agency — Date

Randy Walton — 3/10/93
Randy Walton
Project Manager
Idaho Department of Health and Welfare — Date

Gary Burton — 3/10/93
Gary Burton
Project Manager
U.S. Air Force — Date

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Mountain Home Air Force Base Federal Facility Agreement Amendment, November 5, 1993

EPA Region 10, DEQ and USAF, This adds OU-3 Remedial Investigation/Feasibility Study (RI/FS) at source area Petroleum, Oils, and Lubricants (POL) Yard Fuel Tanks/Piping, (ST-38) (copy is missing working schedule for the fuel sites), Appendix C, Page C-79

MOUNTAIN HOME AIR FORCE BASE
FEDERAL FACILITY AGREEMENT

AMENDMENT

Section 8.1(b) Remedial Investigation/Feasibility Study (RI/FS)

- Operable Unit 3, RI/FS at source area Petroleum, Oils, and Lubricants (POL) Yard Fuel Tanks/Piping, (ST-38), is added.

The parties agree to the above modification to the Federal Facility Agreement. The FFA Operable Unit 3 Schedule does not change as a result of this source addition. The site will be incorporated into the attached working schedule for the fuel sites.

Fran Allans — 10/29/93
FRAN ALLANS — date
Project Manager
U. S. Environmental Protection Agency

Randy Walton — 11/5/93
RANDY WALTON — date
Project Manager
Idaho Department of Health and Welfare

Gary L. Burton — 29 October 1993
GARY L. BURTON — date
Project Manager
U.S. Air Force

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11.1 LIST OF RECORDS OF DECISION

1. EPA Superfund Record of Decision: Mountain Home Air Force Base, Site 8, Fire Training Area 8, Operable Unit 4, EPA/ROD/R10-92/038, June 16, 1992

2. EPA Superfund Record of Decision: Mountain Home Air Force Base, Landfill No. 2, Operable Unit 2, EPA/ROD/R10-93/064, May 24, 1993

3. EPA Superfund Record of Decision: Mountain Home Air Force Base, Operable Units Nos. 1, 3, 5, 6, Lagoon Landfill and Fire Training Area 8, EPA/ROD/R10-95/124, September 27, 1994

4. EPA Superfund Explanation of Significant Differences: Mountain Home Air Force Base, OU 03, ST-11, EPA/ESD/R10-04/705, March 11, 2004

5. United States Air Force, "Site LF-02 (B-Street Landfill), Explanation of Significant Differences to the Record of Decision for Mountain Home Air Force Base, LF-02 Landfill No. 2 (B Street Landfill), Operable Unit 2 (dated June 15, 1993)," September 2006

6. United States Air Force, Mountain Home Air Force Base, Idaho, "Site LF-01 (Lagoon Landfill), Explanation of Significant Differences to the Record of Decision for Mountain Home Air Force Base, Operable Units 1, 3, 5, 6, Lagoon Landfill and Fire Training Area 8 (dated October 20, 1995)," September 2006

7. URS, "Action Memorandum for the Site OT-16 Non-Time Critical Removal Action Engineering Evaluation/Cost Analysis, Mountain Home AFB, Idaho," Prepared for Air Force Center for Environmental Excellence (AFCEE), 4-Base PBC, January 2007.

8. URS, "Action Memorandum for the Site LF-23 Non-Time Critical Removal Action Engineering Evaluation/Cost Analysis, Mountain Home AFB, Idaho. Prepared for Air Force Center for Environmental Excellence (AFCEE), 4-Base PBC. January 2007

9. URS, "Action Memorandum for the Site SD-27 Non-Time Critical Removal Action Engineering Evaluation/Cost Analysis, Mountain Home AFB, Idaho," Prepared for Air Force Center for Environmental Excellence (AFCEE), 4-Base PBC. January 2007.

10. URS, "Action Memorandum for the Site SS-29 Non-Time Critical Removal Action Engineering Evaluation/Cost Analysis, Mountain Home AFB, Idaho," Prepared for Air Force Center for Environmental Excellence (AFCEE), 4-Base PBC. January 2007.

11. Final Record of Decision Amendment, Operable Unit 4, Environmental Restoration Program Site Fire Training Area 8 (FT-08) Soil, Mountain Home Air Force Base, Idaho, September 18, 2009

12. Final Record of Decision Amendment, Operable Units 1, 3, 5, and 6 with a Proposed Remedy for Site ST-11 (Operable Units 1, 3, 5, and 6, Lagoon Landfill, and Underground Storage Tank at Fire Training Area 8), Mountain Home Air Force Base, Idaho, September 23, 2010

13. United States Air Force, Mountain Home Air Force Base, Idaho, "Site LF-23 (Solid Waste Disposal Area) Explanation of Significant Differences to the Record of Decision for Mountain Home Air Force Base. Operable Unit Nos. 1, 3, 5, and 6, Lagoon Landfill and Fire Training Area 8, dated October 20, 1995," June 8, 2011

11.2 LIST OF CONSENT ORDERS

1. DEQ, “Signed and Effective Consent Order for RCRA and Air Quality,” July 15, 2009.

2. C. Fransen, letter to Colonel Buckley, “USAF Mountain Home Air Force Base, Severance of Dunes and Gunfighter Manor Real Estate Parcels and Verlinde Hill Rubble Pile from the July 14, 2009 Consent Order,” April 30, 2012

11.3 LIST OF NO FURTHER ACTION DETERMINATIONS

1. R. Steger, DEQ, letter to G. Burton, MHAFB, “MHAFB No Further Action Concurrence for Six SWMUs at Saylor Creek Electronic Warfare Range,” July 31, 1995

2. B. Monson, DEQ, letter to B. Falwell, MHHAFB, “Oil/Water Separator 1332E No Further Action,” January 24, 1997

3. E. Traynor, DEQ, letter to D. Lopez, MHAFB, “Risk Based Corrective Action Report for Tank 1A in the POL Yard,” July 21, 2011

HWMA POST-CLOSURE/CORRECTIVE ACTION PERMIT

FOR THE

MOUNTAIN HOME AIR FORCE BASE

ATTACHMENT 12 – PERMIT MODIFICATION/REVISION LOG

EFFECTIVE DATE: JANUARY 11, 2015
MODIFICATION DATE: AUGUST 6, 2018

12.0 – PERMIT MODIFICATION/REVISION LOG

This attachment contains information concerning permit modifications

The current revision is revision 3, dated August 6, 2018.

Table 12-1. Permit Modification/Revision Log

Rev. No.	Date Transmitted to DEQ	Date Approved by DEQ	PMR Class	Summary of Changes
0	N/A	December 9, 2014	N/A	This is the renewed permit.
1	N/A	July 8, 2016 Effective August 8, 2016	Major	This is a DEQ-initiated Modification, based on receiving new information from MHAFB regarding the POL Cap. This modification shortens the post-closure care period from thirty (30) years to twenty five (25) years. The Permit Modification also removes conditions relative to post-closure care, removes the requirement to submit a post closure plan, updates the constituents of concern for groundwater protection, and makes minor changes to remove inconsistencies in the Permit.
2	August 30, 2017	September 20, 2017	1*	Conducted annual review of corrective action permit conditions, tables VI-1 through VI-4. Identified change to AOC-8 to read FFA Corrective Action due to the completion of investigative work. Additionally, identified change to EOD, SR-40, and SR-70 to read Closed out under MMRP; however, awaiting final signature from the Air Force Civil Engineer Center.
3	August 1, 2018	August 6, 2018	1*	Conducted annual review of corrective action permit conditions, tables VI-1 through VI-4. Identified changes to EOD, SR-40, and SR-70 to read Closed out under MMRP; Final ROD from Air Force Civil Engineer Center dated 12-21-2017.