



HAFB 2
DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 49TH FIGHTER WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO

Rec'd
4/12/02

9 Apr 02

49 CES/CEVR
550 Tabosa Avenue
Holloman AFB NM 88330-8458

Mr. Cornelius Amindyas
NMED-HWB
4131 Montgomery NE
Albuquerque, NM 87109

SUBJECT: Submittal of Closure Reports for SWMU 136, FT-31 North Area (SWMUs 39, 127, and 135) and Replacement Copy of Table 2 RFI Report; EPA ID NM6572124422

We submit the attached reports for your review. Atch 1 is a No Further Action proposal for SWMUs 39, 127, 135. Atch 2 is a No Further Action proposal for SWMU 136. The Table 2 RFI (Atch 3) is also provided (per your request) as it contains data on various SWMUs found on the former Table 2 of Holloman's permit including SWMU 183 that has been a recent topic of discussion between our offices.

If you have any questions or require additional information please contact me at (505) 572-5395.

JOSE A. GALLEGOS
Environmental Engineer
Chief, Restoration/P2 Element

Attachments:

1. *Final Closure Report for SWMUs 39, 127, and 135 – ERP Site FT-31, Mar 2002 (1 copy)*
2. *Final Closure Report for SWMU 136 – Building 1119 Washrack Drainage Pit, Oct 2002 (1 copy)*
3. *Final Phase I RCRA Facility Investigation Report, Table 2 SWMUs, Vol. I-III, Sep 1997 (1 copy)*

cc (w/Atchs 1 and 2, only)

Mr. James P. Bearzi, NMED-HWB
Mr. Allen Chang, USEPA, Region 6

**DRAFT CLOSURE REPORT FOR SWMU 136—BUILDING 1119 WASHRACK DRAINAGE PIT
HOLLOMAN AIR FORCE BASE, NEW MEXICO
JULY 2001**

Comment No.	Page/Section	Comments	Response
Reviewer: Carrie Ables, Industrial Hygienist, U.S. Army Corps of Engineers, Omaha District			
1	General	<ul style="list-style-type: none"> a. Indicate whether surface and/or subsurface soil samples were collected from the excavation. b. Explain the difference (if any) between “Base cleanup standards”, “action levels”, “Base cleanup criteria”, “risk-based screening levels”, “regulatory action levels”, “risk-based levels”, and “New Mexico human health standards”. Please clarify and provide the basis for each. c. Explain the difference (if any) between the “1,000 mg/kg action level” and the “1,000 mg/kg standard”. d. Clarify whether the Base cleanup criteria is 1,000 mg/kg for TRPH or TPH. 	<p>Only subsurface samples were collected from the excavation-text added.</p> <p>These statements are referring to the same thing. The text has been revised for more consistency.</p> <p>Both statements are the same and only “action level” is used now.</p> <p>TPH and TRPH refer to the same contaminant; however, TRPH is the constituent reported under EPA method 418.1. TPH is a general term used to refer to petroleum hydrocarbons contained in a sample or medium.</p>
2.	Page 1-1, Section 1.0	Indicate whether surface and/or subsurface soil was contaminated with POL and remediated at SWMU 136. Please clarify throughout the report.	Surface and subsurface soil was excavated due to POL contamination.
3.	Page 1-2, Figure 1-1	Suggest including the location of SWMU 136 within Holloman AFB.	The figure was revised.
4.	Page 1-3, Section 1.1	Explain what is meant by “applicable Base remediation standards”. What are they? Please be more specific.	“applicable Base remediation standards” are the NMED approved clean-up action levels. The text was revised.
5.	Page 1-3, Section 1.2	Include closure reports in the fourth bullet.	USACE site closure reports have been added to the 4 th bullet.
6.	Page 1-5, Section 1.5	<ul style="list-style-type: none"> a. Insert “136” after “SWMU”. b. Insert “soil” between “subsurface” and “samples”. c. Indicate what type of metals was analyzed for. d. Explain the difference (if any) between the “RFI for Table 2 sites” and the “RFI in 1997”. It appears that they are the same investigation, but the findings are different. The text is confusing. Please clarify. 	<p>Text inserted.</p> <p>Text inserted.</p> <p>Target Analyte List (TAL) metals were analyzed in samples during the RFI.</p> <p>RFI for Table 2 sites and the 1997 RFI are the same program.</p>
7.	Page 1-6,	a. Suggest including “Region 6” after “EPA”.	Text added.

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Comment No.	Page/Section	Comments	Response
	Section 1.6	<ul style="list-style-type: none"> b. Explain what is meant by “subsurface”. Does this refer to soil or groundwater? c. Delete “of the NMEIB/USTR” after “XIV”. It is redundant. 	<p>Subsurface refers to everything below the ground surface.</p> <p>Text deleted.</p>
8.	Page 2-1, Section 2.0	<ul style="list-style-type: none"> a. Be consistent when referring to this site. The text is confusing when the site is referred to as “SWMU 136” and “Building 1119 Washrack Drainage Pit”. b. Indicate whether surface and/or subsurface soil sampling was conducted. c. Explain the difference between “TPH” and “TRPH”. The text uses these terms interchangeably. d. Specify which metals were detected in the samples. 	<p>SWMU 136 is used unless directly referring to the washrack or Building 1119 for description purposes.</p> <p>Surface and subsurface soil sampling was conducted.</p> <p>TRPH—Total Residual Petroleum Hydrocarbons TPH—Total Petroleum Hydrocarbons TRPH is used when referring to the laboratory analysis under EPA method 418.1. TPH is used as a general reference for petroleum hydrocarbons. The metals detected are listed in Appendix B.</p>
9.	Page 2-1, Section 2.1	Indicate whether surface and/or subsurface soil was included in the field activities.	Surface and subsurface soil samples were collected.
10.	Pages 2-3 and 2-6, Sections 2.1 and 2.4	Clarify whether the soil is contaminated with TPH or TRPH.	These terms refer to the same contaminant. TRPH is the result provided under EPA method 418.1.
11.	Page 2-3, Section 2.2	<ul style="list-style-type: none"> a. Specify what type of representative samples were required for site closure. b. Include a reference for “Section 2.4”. 	<p>The samples required for site closure were samples representative of the site after remediation and samples from the stockpiles.</p> <p>This is referenced in the text. The sentence has been reworded to clarify that this is Section 2.4 of the FSAP.</p>
12.	Page 2-3, Section 2.2.1	<ul style="list-style-type: none"> a. Include “Soil” before “Site” in the heading. b. Figure 3-1 is not included in my copy of this report. Should it be Figure 2-1? b. Indicate what type of sample was collected from the bottom of the excavations. 	<p>Instead of inserting “soil” before “site”, “Soil” has been inserted before “Samples”.</p> <p>Yes, this should be Figure 2-1. Text corrected.</p> <p>A soil sample was collected from the bottom of the excavations. The sample ID indicates the top of the sample interval which was 20, however, the bottom of the excavation was at 21 ft.</p>

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Comment No.	Page/Section	Comments	Response
		d. Is the TRPH detection of 34 mg/kg at SWMU136-17-19 below the laboratory quantitation limit? The text and the table are confusing. Please clarify.	The laboratory quantitation limit is 10 mg/kg. Text revised.
13.	Page 2-4, Table 2-1	Explain why the depth for location SWMU136-09-20 is 21 ft instead of 20 ft.	The bottom of the excavation was at 21 ft.
14.	Page 2-5, Table 2-2	Please clarify the note beneath the table. Are the concentrations listed for ethylbenzene and/or xylenes below the laboratory quantitation limits?	This note was incorrect and has been deleted.
15.	Page 2-6, Sections 2.3 and 2.5	Explain the difference (if any) between the "USACE project engineer" and the "USACE resident engineer".	Only "USACE project engineer appears to be mentioned in these sections.
16.	Page 2-7, Section 2.6	Explain what is meant by "appropriate personal protective equipment". Please be more specific.	Appropriate PPE was Level D. The text was revised.
17.	Appendix A General	Ensure that all copies for the Non-Hazardous Waste Manifests are legible.	The photocopies of the manifests are the most legible copies available for reproduction in this report.
18.	Appendix D General	Please correct spelling error.	This spelling error cannot be corrected at this time as these are copies of original inspection logs.
19.	Appendix E Page 1 of 3	a. Indicate whether surface and/or subsurface soil sampling was conducted. b. Specify which metals were detected in the samples. c. Provided the basis for the risk-based screening levels.	Surface and subsurface soil sampling was conducted. The tables listing metals detected samples were taken directly from the RFI report, and are included in this Appendix. The risk based screening levels are based on the EPA Region 6 screening levels.
20.	Appendix E Page 2 of 3	Part II: Define the asterisk (*).	The asterisk is defined in the lower right hand portion of the page.

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Comment No.	Page/Section	Comments	Response
21.	Appendix E Page 3 of 3, Part III:	<p>a. Explain why the cancer and noncancer risks are evaluated for chemicals of concern in the Ecological Risk Assessment if no VOCs, SVOCs, or metals were selected as chemicals of concern in the Risk assessment conducted table.</p> <p>b. Ensure that the column headings for the tables provided in the Table 2 RFI Report are legible.</p>	<p>Risk is still evaluated for the chemicals that were detected during the RFI as part of the risk assessment. Chemicals of concern during the RFI referred to contaminants that have measurable risk to ecological receptors.</p> <p>These table were taken directly from photocopies of the original RFI report. Corrections cannot be made as requested.</p>
Reviewer: Jerold Trease, Chemist, U.S. Army Corps of Engineers, Omaha District			
1.	Page 1-3, Section 1.4 Technical Approach, 1st paragraph, 1st sentence:	Suggested revision of first sentence: ". . . distinguish this site <u>as requiring NFA since</u> where soil contaminates do not exceed regulatory standards as requiring NFA. "	Sentence revised.
2.	Page 1-5, Section 1.4 Technical Approach, 2nd paragraph, 1st sentence	The acronym "WOT" should be defined in the text the first time it is used in the report.	Acronym defined.
3.	Page 1-5, Section 1.4 Technical Approach, 2nd paragraph, last sentence	In light of the initial and over-excavation site restoration activities described for SEP-DEC 1999 in Section 2.1, the last sentence in Section 1.4 warrants clarification. The current confusing wording reads as follows: "Subsequent to the information presented in the site investigations, the levels of TPH in soil precluded a need to excavate soil contaminated with POL in excess of Base cleanup criteria."	Sentence revised.
4.	Page 1-5, Section 1.5, Previous Investigations, 2nd paragraph, 2nd sentence:	Suggested revision for the 2nd sentence: " The ecological risk assessment indicated that since <u>Since</u> the area is industrial and the surface is covered in concrete, pavement, or heavy gravel, <u>the ecological risk assessment indicated</u> that there was a low potential for exposure to wildlife."	Sentence revised.

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5.	Page 1-7, Section 1.6 Regulatory Action Levels, last paragraph, last sentence	A period should be added at the end of the last sentence.	Period added.
6.	Page 2-3, Section 2.2.1 Site Closure Samples, 4th sentence	Suggested revision: "The analytical results presented in <u>the lower half of Table 2-1 . . .</u> "	Sentence revised.
7.	Page 2-3, Section 2.2.1 Site Closure Samples, 6th sentence	Suggested revision: " The remaining seven <u>Six of eight</u> samples from the over-excavation . . ."	Changed to "seven of eight"
8.	Page 2-3, Section 2.2.1 Site Closure Samples, 7th sentence	Suggested replacement for the sentence fragment "Analytical results" at the end of Section 2.2.1: "BTEX results for all eight over-excavation samples were reported as nondetections below the laboratory reporting limit."	Missing text has been included.
9.	Page 2-4, Table 2-1	The "ND" reported in the right column of Table 2-1 does not agree with the BTEX data given for sample location SWMU 136-05-19 in Appendix B. The BTEX data given in Appendix B should be verified for accuracy and Table 2-1 edited as appropriate.	Table 2-1 has been revised.
10.	Pages 2-5, Table 2-2	Suggested revision to delete inaccurate information from the Note given below the footnotes of Table 2-2: "Note: TPH analysis by EPA Method 418.1 and BTEX analysis by EPA Method 8021B for the samples indicated BTEX concentrations were also below the laboratory reporting quantitation limits. "	Inaccurate information in the note has been deleted.
11.	Page 2-6, Section 2.2.2 Soil Stockpile Samples, last sentence	Suggested revision of last sentence to reflect the ethylbenzene and total xylenes detections reported in Table 2-2: "BTEX concentration were reported as nondetections below the laboratory quantitation limits <u>(detection limits for reporting purposes) for benzene and toluene, while ethylbenzene was detected at 0.042 mg/kg in one sample and total</u>	Text added.

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		<u>xylenes</u> was detected in all four samples ranging from 0.026 to 0.11 mg/kg."	
12.	Page 2-6, Section 2.3 Site Restoration	A description of the location of the borrow source and the means by which it was judged clean (e.g., test data, historical knowledge, professional judgement of responsible and competent authority, or etc., whichever is applicable) should be added to the text of Section 2.3. Also, either the text in Section 2.3 or the information provided in Appendix C should be revised or supplemented, because there is currently no information provided in Appendix C to support the statement given in Section 2.3 that the imported soil was clean.	The clean soil came directly from the Base borrow source. Prior to being placed in the Base's borrow source area, soil samples are analyzed by a laboratory for contamination and is only allowed in the borrow source if determined to be clean. The soil was also visually inspected for staining and physically inspected for odor.
13.	Page 2-6, Section 2.4 Waste Handling and Disposal, last sentence	A period should be added at the end of the last sentence.	Period added.
14.	Appendix A, Waste Disposal Manifests, last page	The Chain-of-Custody record provided at the end of Appendix A is for the over-excavation samples (sampled 9-10-99), not for the waste disposal samples (sampled 9-14-00). The applicable C-O-C record to support the Generator's Waste Profile documentation should be located and copied to replace the C-O-C record currently provided.	The C-O-Cs appeared to have been switched between appendices. The correct C-O-Cs are in their proper place in this report.
Reviewer: Court Fesmire, Project Manager, Holloman AFB			
1.	Page 1-1, last paragraph, first line	"In addition to RCRA regulatory requirements, the Base must also comply with the Installation Restoration Program (IRP) which was established..." change: In addition to RCRA regulatory requirements, the Base must also comply with the Environmental Restoration Program (ERP), formerly the Installation Restoration Program (IRP), which was established...	Text corrected.

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2.	Figure 1-2	Do we need all of the other SWMUs on this figure? It seems cluttered and hard to locate SWMU 136.	Figure revised.
3.	Page 1-3, Section 1.4	“This report includes the rationale for a recommendation that the New Mexico Environment Department (NMED) distinguish this site where soil contaminants do not exceed regulatory standards as requiring NFA.” The meaning and intent of this sentence is unclear to me. What are we trying to say? The use of the word distinguish is especially unclear.	Sentence revised
4.	page 1-5, first paragraph, first sentence	“... if any soil remained in place that exceeded Base cleanup standards.” Should it be ... if any soil remained in place that exceeded the then applicable Base cleanup standards?”	At this time Holloman AFB has not received a notice from NMED to revise the pre-existing TPH and benzene action levels, upon which the remediation was conducted at SWMU 136. The text was not revised to refer to action levels as “then”.
5.	page 1-5, first paragraph, last sentence	This sentence does not make sense to me. What are we trying to say?	Sentence revised.
6.	page 1-6, General comment,	p. 1-6, General comment, 3rd paragraph with the comment on the groundwater beneath HAFB unfit for human consumption. The state is no longer accepting this blanket comment and may require TDS samples specific to this site.	The state has not yet provided notice to Holloman AFB about rescinding the previously approved guidance for TDS in groundwater beneath the Base. The text has not been revised to reflect current discussions about TDS since all remedial action at Holloman AFB has been completed based on the fact that groundwater beneath the Base is nonpotable.
7.	page 2-1, Section 2.0	The risk-based screening levels that are referenced in this section; are they included in the document? Are these are different than current levels. If they are not included, they should be.	With respect to this comment please refer to the response to comment 4.
8.	Page 2-3	Last sentence on the page (just two words “Analytical results”) just ends. What is missing?	Missing text added.
9.	Page 2-6	Appendix C is a list of the amount of soil imported to the site. How does this support the use of clean soil? Appendix C does not address samples or certification of clean soil. It is only the amount.	Soil used for backfill at SWMU 136 was provided from the Base borrow area which only allows storage of soil that is certified as clean by use of analytical testing prior to disposition in this area. Additionally, soil taken from the Base

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Comment No.	Page/Section	Comments	Response
			borrow area was used if it did not appear to be contaminated by means of visual inspection or have elevated PID readings.
10.	Appendix A	Most of the copies of the manifests are unreadable. Are better copies available?	Holloman AFB has official paper copies of the manifests. The copies contained in this report are the best photocopies available at this time.
11.	Appendix E	I suggest that a short paragraph for these excerpts be included detailing what documents the copied portion came from. The reader may be able to tell from the copies themselves, but we should make this as clear as possible to the state, especially that they already have the parent document.	A paragraph including the requested information is now provided at the beginning of Appendix E.
Reviewer: Jose Gallegos, Project Manager, Holloman AFB			
1.	Title page	Remove word draft from title after reconciling comments, i.e., should be titled "Final Closure Report for ...", we do not want any use of "Draft" in title.	Title page revised.
2.	Title page	"Project Number:..." Tom or I can get you a project no. if you verify what DO and WAD work was performed under. The title page state DO 32, WAD 3 and section 1.0 states DO 27, WAD 3. DO 32, WAD 3 is "LTO Multi-sites" and DO 27, WAD 3 is "LTO at T-38 and Bldg 828" but included SWMU 136 in SOW. The project no. for DO27,WAD 3 is "KWRD946004Z4" and for DO 32, WAD 3 is "KWRD20017018" (ERA funds). Sorry, but the AF is really coming down hard on being able to track costs.	Title page revised.
3.	Page 1-1, Section 1, Paragraph 1, Sentence 3 and Sentences 4-6	Add to sentence "...1988 RCRA Facilities Assessment <i>and since</i> ." Delete sentences 4-6 (S4-S6) and replace with (or some variation of) : <i>"The SWMUs are divided into two distinct tables: Table A.1 contains those units that currently require corrective action and Table A.2 that contains those units given a status of No Further Action and NOT</i>	Text revised and modified for grammatical correctness.

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Comment No.	Page/Section	Comments	Response
		<i>requiring any corrective action at this time."</i>	
4.	Page 1-1, Section 1.1, Paragraph 2	SWMU 136 is NOT part of the IRP and is NOT an IRP site. Delete the paragraph unless previous IRP investigations have contributed to the SWMU 136 investigation. I don't believe any did, only RFI info.	Text revised.
5.	Page 1-3, Section 1.1, last paragraph	Remove reference to IRP (see previous comment).	Text revised.
6.	Page 1-3, Section 1.3, Sentence 1	End sentence following "...conclusion" and delete the remainder.	Text revised.
7.	Page 1-3, Section 1.4, Sentence 1	Sentence confusing as written...please rewrite to be more concise.	Text revised.
8.	Figure 1-2	Is there anyway to make SWMU 136 stand out more? Maybe deleting other SWMUs or bolding 136 and leaving a few others as reference points.	Figure revised.
9.	Page 1-5, Section 1.4, last paragraph	Give "Phase I Basewide POL" reference for reader. Also, in sentence 3, add at end, "...and NMED established cleanup levels of 1,000 mg/kg TPH" Adding such language will clarify that the biovent system was designed according to state established action levels.	Text revised.
10.	Page 1-5, Paragraphs 1 and 2 and Section 4.0	Reference either latest (final) version of Table 2 RFI (dated Sep 97) or both versions including the Oct 94 release. Obviously, the later version was most updated. Correct reference entries in Section 4.0 to reflect this. The current entry is incorrect as it reads "1994....Sep 97"	Text revised.
11.	Page 1-5, Section 1.5, Paragraph 1, Sentence 1	Need commas before "...although..." and after "...soil..."?	Text revised.

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12.	Page 1-5, Section 1.6, Paragraph 1	Latest NMED letter is dated 1995. I provided copies of these letters at the Scoping meeting on 17-18 Sep 01.	Text revised.
13.	Page 1-6, Section 1.6, Paragraph	Following bullets at top of page: Any site-specific TDS data? (We've since discussed this on phone).	There is currently no known TDS data available for the site.
14.	Pages 1-6 to 1-7	In the paragraph that starts on Page 1-6 and end at top of Page 1-7, clarify why SWMU 136 not covered under these regs...be specific as to why, e.g., construction, size, etc...	Text revised.
15.	Page 1-7, last paragraph, Sentence 1	Change "sites" to singular, "site". Also, after "...September 1999..." delete wording "sampling event" and replace with "removal action". I could be wrong here, but I believe that's what you meant?	The comment is correct. Text revised.
16.	Page 2-1, Section 2.0, Paragraph 1, Section 3	Provide month and year of samples not just RFI date.	Text revised.
17.	Page 2-1, Section 2.1, Paragraph 1	Referencing sentence 8, clarify why VOC and SVOC analysis were not required as a result of RFI info.	Text revised.
18.	Page 2-1, Section 2.1, Paragraph 1, last sentence	Delete wording "..., over excavation,...".	Text revised.
19.	Page 2-1, Section 2.1, Paragraph 2, Sentence 1	Replace wording "...and over excavation..." with "..., and additional excavation...".	Text revised.
20.	Figure 2-1	Include building 1119 as reference point. Also, delete "Over-Excavation..." in legend with "Second Phase...".	Due to the scale of the map, Building 1119 could not be included in the figure. A note has been added to the figure to indicate the direction and distance from the washrack in which Building 1119 is located.

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Comment No.	Page/Section	Comments	Response
21.	Page 2-3, Section 2.1, Paragraph 2 (sentence at top of page)	Clarify soil from second phase of excavation or overall.	Text revised.
22.	Page 2-3, Section 2.2.1, Paragraph 1, Sentence 1	Should be Figure 2-1 rather than Figure 3-1.	Figure revised.
23.	Page 2-3, Section 2.2.1, Paragraph 1, Sentence 5	Should we emphasize that TRPH below 100 mg/kg or just leave out reference to action level?	Text revised.
24.	Page 2-3, Section 2.2.1, Paragraph 1, Last sentence on page	Sentence starting with “Analytical results...” is not complete, i.e., does not continue on page 2-6 (next page with text).	Text revised.
25.	Page 2-6, Section 2.4, Paragraph 1, Sentence 1	Did the 128 tons include SP02? If so, let’s clarify by saying so, provide volume and/or weight data on Table 2-2. Reviewing Appendix A, appears not be included.	The 128 tons did not include soil from stockpile SP02. Table 2-2 was revised to include weights of soil disposed off site.
26.	Section 4.0	Correct and/or add Table 2 RFI reference per Comment 10.	Text revised.



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*Headquarters, Air Combat Command
Langley Air Force Base,
Virginia*

*Final Closure Report
for SWMU 136 — Building 1119 Washrack Drainage Pit*

*Holloman Air Force Base,
New Mexico*

October 2001



*49 CES/CEV
Holloman Air Force Base,
New Mexico*

Project Number: KWRD20017018

**FINAL CLOSURE REPORT
FOR SWMU 136-BUILDING 1119 WASHRACK DRAINAGE PIT
HOLLOMAN AIR FORCE BASE, NEW MEXICO**



Prepared for:

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Under Contract No. DACW-45-94-D-003
Delivery Order 32, Work Authorization Directive 3
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Albuquerque District
Albuquerque, New Mexico

October 2001

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APPENDICES

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LIST OF ACRONYMS

AFB	Air Force Base
BTEX	benzene, toluene, ethylbenzene, and total xylenes
c.y.	cubic yards
DQCR	daily quality control report
EPA	U.S. Environmental Protection Agency
FSAP	Field Sampling and Analysis Plan
ft	feet
HSWA	Hazardous and Solid Waste Amendments
IRP	Installation Restoration Program
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NA	not analyzed
ND	not detected
NFA	no further action
NMED	New Mexico Environment Department
NMEIB	New Mexico Environmental Improvement Board
O/WS	oil/water separator
PID	photoionization detector
POL	petroleum, oils, and lubricants
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
Rhino Environmental	Rhino Environmental Services, Inc.
SSHP	Site Safety and Health Plan
SVOC	semivolatile organic compound
SWMU	solid waste management unit

LIST OF ACRONYMS (concluded)

TCLP	toxicity characteristic leaching procedure
TDS	total dissolved solids
TPH	total petroleum hydrocarbons
TRPH	total recoverable petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
UST	underground storage tank
USTR	Underground Storage Tank Regulation
VOC	volatile organic compound
WOT	waste oil tank

1.0 INTRODUCTION

This report documents the remediation of subsurface soil contaminated with petroleum, oils, and lubricants (POL) at SWMU 136, Holloman Air Force Base (AFB) (Figure 1-1) under the Total Environmental Restoration Contract No. DACW-45-94-D-003, Delivery Order 27, Work Authorization Directive 3, with the U.S. Army Corps of Engineers (USACE), Omaha District. The site closure activities at SWMU 136 began in September 1999 and were completed in December 1999. All activities were conducted in accordance with the Phase I Project Plans for Remediation of POL-Contaminated Sites and Oil/Water Separator (O/WS) Removals, which included the work plan, quality assurance project plan, field sampling and analysis plan (FSAP), and contractor quality control plan (EBASCO 1995a); the Basewide Site Safety and Health Plan (SSHP) (EBASCO 1995b); and also included the Phase II Work Plan (EBASCO 1995c).

1.1 BACKGROUND

Under a Resource Conservation and Recovery Act (RCRA) Part B permit, Holloman AFB operates an on-site storage facility for currently generated hazardous wastes. As a holder of such a facility operating permit, the Base is subject to RCRA corrective action program requirements. The Hazardous and Solid Waste Amendments (HSWA) portions of the RCRA permit require Holloman AFB to investigate certain solid waste management units (SWMUs) identified in the 1988 RCRA Facilities Assessment. The SWMUs listed in Holloman AFB RCRA Permit are divided into two distinct tables:

- Table A.1—Units that currently require corrective action
- Table A.2—Units given a status of No further Action and not requiring corrective action at this time

With regard to this project, soil contaminated with POL exceeding applicable Base remediation standards was identified during previous RCRA Facility Investigations (RFI) and/or IRP investigations conducted at Holloman AFB (Holloman AFB 1995; Radian 1994). To fulfill the requirements of the HSWA portion of the Holloman AFB RCRA Part B permit, SWMU 136—the washrack drainage pit at Building 1119—was designated for restoration. The location of SWMU 136 is indicated on the map in Figure 1-2.