

TO; Susan Martin
FROM: C. Kelley Crossman *CKC*
A. Elizabeth Gordon *AGG*
RE; Cannon AFB, ERA (Site 17)
Environmental Review Comments
DATE: April 29, 1988

XI



This unit will be monitored by EPA as a solid waste management unit (SWMU) under the HSW Amendments. The results and suggested further actions for this unit from the preliminary review/visual site inspection report for Cannon AFB are attached. ATKearney's information is based on studies and information predating this IRP preliminary draft report. However, we concur with the need for limited further monitoring of the soil rather than no action at all as proposed in this report. Our reasons are as follows. First, the potential for future releases and exposure are low because the unit is no longer in use; the use of DDT and chlordane has been banned and the concentrations of the pesticides are low. Consequently, extensive monitoring will not be necessary. However no action is not fully warranted because (1) although the caliche layer can act as an aquitard, solution cavities may form allowing infiltration and (2) DDT is known historically for its persistence in the environment. Also, further testing for solvents may be necessary. These pesticides are nearly water insoluble and, consequently, solvents must have been used to rinse the equipment, etc. We will also be talking with Cannon AFB about the possible need for a closure plan because the unit was used after 1981.

There are a couple of statements of note. First, the documents used by ATKearney indicate that the unit was in use as early as 1968 whereas this study indicates use "at least since 1981, and possibly longer (p. 1-8)." The use of DDT was banned by the state government in 1970 and the federal government in 1972. The presence of DDT and its derivatives indicate operation at this site before 1970. Also, we are always uneasy with later studies that correct extensively the data from previous studies. Lastly, the statement is made that "Bioreclamation of the area would not initiate any further regulatory requirements (p. 5-5)." Bioreclamation is land treatment and would require a permit under the present hazardous waste regulations.

cc: Tanga Wiinkle, EPA, Region VI

Hand
20-88

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION
ENVIRONMENTAL REVIEW COMMENT FORM

TO: C. Kelly Crossman

FROM: Susan Martin
Program Support Bureau
P.O. Box 968
Santa Fe, NM 87504-0968
Tel: 827-2568

DATE: 4/20/88

PROJECT TITLE: CANNON AFB, ENTOMOLOGY RINSE AREA (SITE 17)

EID FILE #: 350-FR

SAI #: N/A

Please review the attached document and submit any comments to me no later than ASAP. Your review should include at least the following:

- (1) Any conflicts with or requirements under EID laws and regulations;
- (2) Any deficiencies or inaccuracies in the information provided which prevent an adequate environmental assessment on the project; and
- (3) Any information which may be helpful in understanding the environmental impact of the project in context (e.g., other environmental problems in the vicinity which may be impacted by the project, but for which no specific EID laws and regulations apply). **Please return all documents.**

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION
ENVIRONMENTAL REVIEW COMMENT FORM

TO: Bruce Gallaher

FROM: Susan Martin
Program Support Bureau
P.O. Box 968
Santa Fe, NM 87504-0968
Tel: 827-2568

DATE: 3/29/88

PROJECT TITLE: CANNON AFB, ENTOMOLOGY RINSE AREA (SITE 17)

EID FILE #: 350-ER

SAI #: N/A

Please review the attached document and submit any comments to me no later than ASAP. Your review should include at least the following:

- (1) Any conflicts with or requirements under EID laws and regulations;
- (2) Any deficiencies or inaccuracies in the information provided which prevent an adequate environmental assessment on the project; and
- (3) Any information which may be helpful in understanding the environmental impact of the project in context (e.g., other environmental problems in the vicinity which may be impacted by the project, but for which no specific EID laws and regulations apply). Please return all documents.

We see no conflict with the W.Q.C.C. regulations. However, the site may require a closure plan under RCRA. I suggest you have the Haz. Waste Section review this document.

RECEIVED

MAR 1988

B. Gallaher

GROUND WATER/HAZARDOUS WASTE
BUREAU

PRELIMINARY REVIEW/VSI REPORT
RCRA FACILITY ASSESSMENT

Cannon Air Force Base
Clovis, New Mexico
EPA ID No. NM 7572124454

Prepared for:

U.S. Environmental Protection Agency
Region VI
1445 Ross Avenue
Dallas, TX 75202-2733

Prepared by:

A. T. Kearney, Inc.
222 South Riverside Plaza
Chicago, Illinois 60606

Contract No. 68-01-7374
Work Assignment No. R26-01-11

July, 1987

0110E-CH

96. UNIT NAME: Old Entomology Rinse Area

Unit Description: This unit is an inactive open pit 3 feet square and 2 feet deep, located in the Eastern Area of the Air Force Base. Rinse water from decontaminating pesticide spraying equipment and empty containers from the pesticide storage building (No. 2160) sink were discharged to this open pit. The pit was within 5 feet of the building. The building has been demolished and the pit is no longer in use. The pit structure appears to be an old Parshall flume and was apparently part of the influent structures for the former wastewater treatment system (Imhoff tank).

Loam topsoil is between four and five feet thick. A caliche layer interbedded with sand and silt lenses extends to 40 feet below the soil surface. Soil and some gravel in the base of the pit prevented inspection to determine the nature and condition of the bottom. It was not known whether pesticides that drained into the pit were self-contained within the open pit or percolated into the ground, possibly through cracked concrete.

This unit was identified as Site No. 17 in the IRP Phase I study due to the potential for percolation of pesticide wastes into the ground and the existence of potable water Wall No. 5 within 1,200 feet of the site (Ref. 6).

Date of Start-Up: Use of this unit is suspected to have started in 1968 or perhaps earlier (Ref. 6).

Date of Closure: Use of this unit probably ceased in 1983 (Ref. 47).

Wastes Managed: This unit collected effluent from the pesticide rinsing sink. The pesticides used on the Air Force Base have included the following: Sevin, Diazinon E.C., Diazinon granules, Dursban E.C., Baygon solution, Baygon granules, Malathion E.C., Malathion technical, zinc phosphate, and 2,4-D herbicide.

96. (Cont'd.)

Old Entomology Rinse Area

Release Controls:

Soil and some gravel in the base of the pit obscured the nature and condition of the bottom (Ref. 47). It was not known whether pesticides that drained into the pit were self-contained within the open pit or percolated into the ground possibly through cracked concrete (Ref. 6).

Drainage from the site is intercepted by a small ditch which runs parallel to the perimeter road (Ref. 46).

Release History:

In 1983, deep soil borings were drilled in this area. Results from soil analysis are presented in Talbe 96 and Figure 96 following this page. Samples collected below the caliche layer contained levels of the herbicide 2,4-D and 4-4 DDT. The accumulation of these contaminants in the unconsolidated sand represents a major or environmental concern (Ref. 46).

Table 96

Results of Soil Samples for
Old Entomology Rinse Area

Sample Number	Depth	As ¹	Hg ¹	Herbicides ¹	Organo-Phosphate Pesticides ³	EPA 608 Pesticides ³	Purgeable Organics (EPA 8010/8020) ²
17A-1	2.0-4.0'	4.1	0.09	ND	ND	dieldrin=.002 toxaphene=.221	ND
17A-2	5.0-6.0'	2.3	0.10	2,4-D=.283	ND	ND	ND
17A-3	7.5-9.6'	1.4	0.10	2,4-D=.059	ND	ND	ND
17A-4	62.5-63.0	ND	0.04	2,4-D= 3.41	ND	ND	ND
17B-1	4.0-5.5'	1.8	0.08	ND	ND	ND	ND
17B-2	9.5-10.5'	5.6	0.24	ND	ND	ND	ND
17C-1	2.0-4.0'	1.6	0.07	ND	ND	4,4-DDT=29 4,4-DDE=25 4,4-DDD=7	ND
17C-2	9.5-10.5'	1.2	0.08	ND	ND	ND	ND
17C-3	61.5-62.0'	2.0	0.10	2,4-D=406	ND	4,4-DDT=8	ND
17B-2a	9.5-10.5'	2.0	0.10	ND	ND	ND	ND

¹ concentrations in mg/kg

² concentrations in ug/kg

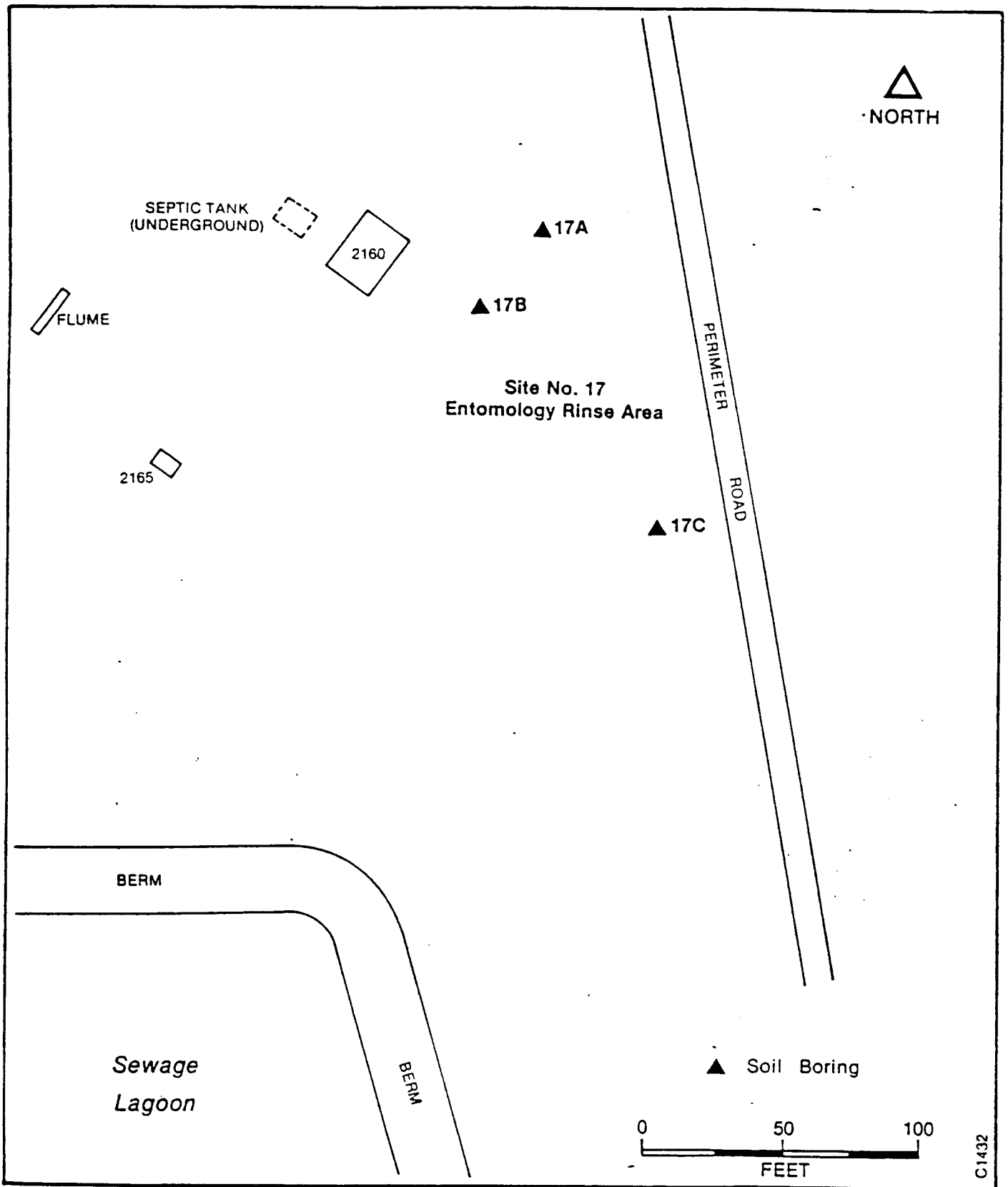
³ concentrations in ug/kg (corresponding to default units of ug/L reported in Appendix A)

ND = not detected, detection limits and analytical techniques are listed in Appendix A

Source: Reference 46

Figure 96

Soil Boring Locations for
Old Entomology Rinse Area



Source: Reference 46

C1432

96. UNIT NAME Old Entomology Rinse Area (Northern Area of Base)
- Soil/Groundwater: The potential for release to soil is high due to the unlined nature of the unit. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.
- Surface Water: The potential for release to surface water is low due to the fact that this unit does not discharge to any surface water body.
- Air: The potential for release to air is low due to the fact that this unit is no longer in use.
- Subsurface Gas: The potential for generation of subsurface gas is low due to the nature of the wastes disposed.
- Suggested Further Actions: Continued monitoring under the Air Force IRP Program.

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone	<input type="checkbox"/> Personal	Time 11:15	Date April 27, 1988
Originating Party A. Elizabeth Gordon Hazard Waste Mgmt Section		Other Parties Mr. Matthews - NMSU 646-2133 Pest. Mgmt. Prog.	
Subject DDT		EID returned call at 3:20 p.m.	

Discussion

DDT use banned when ^{fed.} 1972; state reg 1970
 derivatives DDE + DDD ~ 3 years ago
 known persistence = still being found; recent soil survey last date 1965-1966
 levels of concern DDE 2X DDT levels; last survey, found single digit ppm in 1984 + 1985
 trade names: same family chlorinated NCO
 chlordane - levels of concern stopped 3-4 years ago except ^{termiticide} ~~Termiticide~~; none

fungicide \Rightarrow residues of DDT; approx 2 years ago: dicofol
 dicofol
 Conclusions or Agreements

Distribution

Signed A. Elizabeth Gordon