



KELLY AFB
TEXAS

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 3362

Restoration Advisory Board Agenda

Location: Knights of Columbus Hall

Date: Nov. 13, 1995

Time: 6-8 p.m.

-
- 1. Final Approval/Sign Revised Charter Mr. Bailey**
 - 2. Potential Conflict of Interest Disclosure..... Mr. Bailey**
 - 3. Election of Community Co-chair..... Community Members**
 - 4. Review/Approval of Previous Meeting Minutes Mr. Bailey**
 - 5. Membership Actions**
 - Resignations/Removals
 - New applications
 - 6. Subcommittee Reports**
 - Newsletter **Mr. Sanchez**
 - Technical Assistance Grants..... **Mr. Ayala**
 - Technical Issues..... **Mr. Rice**
 - ATSDR **Mr. Quintanilla**
 - 7. Restoration Update Mr. Medina**
 - Architect & Engineering Contract Awards
 - Responsiveness Summary, Groundwater Zones 1, 2 & 3
 - Off-base drilling
 - Additional upcoming work
 - 8. Briefing/Discussion: How Clean is Clean -- TNRCC Risk TNRCC**
Reduction Rules And Their Application to Kelly AFB
 - 9. New Business Mr. Bailey**
 - 10. Selection of date, location and time of next meeting..... Mr. Bailey**

1 **Draft Minutes**
2 **of**
3 **The Kelly AFB Restoration Advisory Board Meeting**
4 **13 November 1995**

5 The eleventh meeting of the Kelly Air Force Base Restoration Board (RAB) took place
6 at 6:00 p.m. at Knights of Columbus Hall, San Antonio, Texas.

7 The RAB meeting agenda is attachment 1.

8 These minutes follow the progression of topics as the meeting took place and
9 correspond to similarly numbered agenda topics.

10 Mr. Larry Bailey, Kelly AFB Co-Chair, welcomed RAB members and the audience in
11 attendance. 12 RAB members or alternates were present. A list of attendees is
12 provided at attachment 2.

13 Mr. Bailey made several introductory comments:

- 14 • A 27 October letter from MGen Curtis has been sent to local community residents
15 confirming Kelly commitment to cleanup of the installation, regardless of closure
16 and realignment status.
- 17 • Kelly was notified of possible opportunity for a German Engineer/Scientist to
18 visit and work at Kelly for a short period of time (this is a German/U.S. Science
19 exchange program).
- 20 • ATSDR receipt of the RAB's letter was confirmed by informal telecon. As yet,
21 no written response, although ATSDR does have plans to visit Brooks in the near
22 future and Kelly will pursue the possibility of adding Kelly to that visit.
- 23 • According to information received from AFMC (Kelly's parent command), Kelly
24 cleanup funding for FY96 will range from \$16M to \$23M. Formerly referred to
25 as Defense Environmental Restoration Account or DERA, this funding will now
26 be simply Environmental Restoration Account (ERA).
- 27 • Kelly has been selected as having the best environmental restoration program in
28 AFMC for FY95. Kelly will represent AFMC for best in The Air Force and, if
29 successful at that level, will go on to represent The Air Force for DOD-wide
30 honors.
- 31 • There were no reportable spills at Kelly since the last formal RAB meeting.
- 32 • Richard Trevino has been selected for a position at Randolph AFB. His
33 dedication and leadership will be a great loss to Kelly. He will stay in his current
34 position until a suitable replacement can be found.

1 **1. Final Approval/Sign Revised Charter**

- 2 • Mr. Bailey submitted the revised charter for Board approval. Two specific items,
3 deferred at the 25 September board meeting, were offered for discussion and
4 approval -- removal of a member and Conflict of Interest.
- 5 • After discussion, it was suggested that charter wording, concerning removal of
6 members, be revised such that a majority vote of quorum of the RAB be required
7 for removal. A motion, made and seconded, to this effect was carried by vote of
8 the RAB.
- 9 • An edited version of the charter will be mailed to RAB members to allow review
10 prior to voting at the next RAB meeting.

11 **2. Potential Conflict of Interest Disclosure (COI)**

12 Ms. Williams, Kelly Environmental Consul, provided a summary of the issue.
13 Verbiage is needed in the charter to allow the board to deal with any COI issues that
14 should arise, in accordance with law. The verbiage offered is structured to protect
15 individual, due-process rights. In essence, members who stand to realize personal or
16 financial gain from issues before the board would not be eligible to vote those issues.
17 COI will be dealt with on a case-by-case basis. Examples of issues that might be a
18 COI are: claims against the Air Force relating to environmental issues before the
19 board or being an employee of, or working for, a firm providing consultant services to
20 Kelly EM.

- 21 • A motion to open consideration of charter issues in addition to member removal
22 and COI, made and seconded, was defeated by vote of board members present, 3
23 for, 9 against.
- 24 • A motion to approve the charter as is, made and seconded, was defeated by vote
25 of board members present, 4 for, 8 against.
- 26 • A motion to approve the charter except for the 2 sections at issue, and refer those
27 sections back to Kelly EM/JA for rewrite, made and seconded was passed by vote
28 of board members present, 9 for, 3 against.

29 **3. Election of Community Co-chair**

30 Three candidates were nominated. Alan Haggelthorn (nominated to succeed himself),
31 Armando Quintanilla, and Juan Solis, Sr. Air Force personnel excused themselves
32 from the nomination and voting portion of the meeting. It was suggested two votes
33 would be taken. First vote between the 3 candidates and the second vote between the
34 two candidates with the most votes, so that the candidate elected would be elected by
35 the majority of the RAB. A motion to this effect, made and seconded, passed by
36 unanimous vote of board members present.

- 37 • Initial vote resulted in a run-off between Mr. Quintanilla and Mr. Solis.
- 38 • The final vote selected Mr. Juan Solis, Sr. as new community co-chair effective
39 immediately.

PAGE 2

1 **4. Review/Approval of Previous Meeting Minutes**

2 Minutes of the Previous RAB meeting were approved as read.

3 **5. Membership Actions**

4 • **Resignations/Removals**

5 A letter will be sent to Kelly Thurlow because of 3 absences without an alternate
6 present.

7 • **New applications**

8 No new applicants at this time.

9 Mr. Edward Weinstein (alternate for Ms. Falkenberg) was approved as replacement
10 for Ms. Falkenberg, who will now be alternate.

11 **6. Subcommittee Reports**

12 • **Newsletter**

13 Mr. Sanchez stated that the Newsletter will be forwarded to Kelly AFB.

14 • **Technical Assistance Grants**

15 Due to the absence of Mr. Ayala, this was not discussed.

16 • **Technical Issues**

17 Mr. George Rice made a presentation. See attachment 3.

18 • **ATSDR**

19 Mr. Quintanilla reported that a letter was sent to ATSDR. As discussed earlier by
20 Mr. Bailey, ATSDR will be visiting Brooks AFB and it was hopeful that they would
21 then visit Kelly AFB.

22 **7. Restoration Update**

23 • **Architect & Engineering Contract Awards**

24 See attachment 4.

25 • **Responsiveness Summary, Groundwater Zones 1, 2 and 3**

26 Mr. Dan Medina presented the responsiveness summary (attachment 5).

27 • **Off-base drilling**

28 None Presented

- 1 • **Additional upcoming work**

2 None Presented

3 **8. Briefing/Discussion: How Clean is Clean - TNRCC Risk Reduction Rules**
4 **and Their Application to Kelly AFB**

5 Because of the lateness of the hour Mr. Beyer requested that his presentation be
6 postponed until the next RAB meeting. A motion to that effect and to put the
7 TNRCC at the top of the next RAB meeting agenda, made and seconded, passed by
8 unanimous vote of board members present.

9 Mr. Beyer closed with a plea for RAB support for moving forward with cleanup.
10 He stated that there will be increasing pressure to get cleanup actions in-place to
11 support transfer of property.

12 **9. New Business**

- 13 • Mr. Bailey provided a brief summary of the BRAC/IBASC process and current
14 status of that process.

- 15 • Mr. Quintanilla requested

- 16 ⇒ RAB members receive training.
17 ⇒ A copy of Denex for RAB members.
18 ⇒ Review of the budget.

- 19 • Mr. Rice asked if the Kelly/SAIC after-RAB discussions/debrief sessions were
20 open to anyone. Mr. Bailey welcomed any interested parties to the sessions.

21 **10. Selection of date, location and time of next meeting**

22 The next RAB meeting will be held Monday, 11 December 1995, 6:00pm at Price
23 Elementary School.

24 **ATTACHMENTS:**

- 25 1 - RAB meeting agenda
26 2 - Attendance list
27 3 - Technical presentation by George Rice
28 4 - Architect & Engineering Contract Awards
29 5 - Responsiveness summary presentation by Dan Medina

ATTACHMENT 2

**The Kelly AFB Restoration Advisory Board Meeting
Attendance
13 November 1995
Knights of Columbus Hall
6-8 PM**

Larry Bailey
Alan Hagelthorn
Gary Beyer
Carl Meppen (alternate for Bill Brown)
Tom Culbertson
Edward Weinstein (alternate for Joan Falkenberg)
Yolanda Johnson
Gene Lene
Tom Moore (Katherine Moore 1/2 meeting)
Sam Murrah
Armando Quintanilla
George Rice
Sam Sanchez
Deborah Robinson (alternate for Bill Sain)
Juan Solis, Sr.

Zone 2 Soil Leaching Calculations

ATTACHMENT 3a

Equations used by Air Force (see Feasibility Study for Zone 2 Soil, page D.1-47 &70):

$$C_{\text{mix}} = C_{\text{gw}} - \frac{V_d M}{QL} (C_u - C_{\text{gw}})$$

Where:

C_{mix} = Acceptable leachate concentration in soil (mg/L)

C_{gw} = Groundwater PRG (mg/L)

V_d = Groundwater Darcy velocity (ft/yr)

M = Mixing depth in aquifer (ft)

Q = Aquifer recharge rate (vertical, ft/yr)

L = Length of source parallel to groundwater flow (ft)

C_u = Groundwater concentration upgradient of site (mg/L)

$$\text{GPC} = C_{\text{mix}} K_d$$

Where:

GPC = Acceptable soil concentration (mg/kg)

C_{mix} = Acceptable leachate concentration in soil (mg/L)

K_d = solid/liquid distribution coefficient (L/kg)

$$K_d = f_{\text{oc}} K_{\text{oc}}$$

f_{oc} = Fraction organic carbon in soil or aquifer

K_{oc} = soil/organic carbon partition coefficient (L/kg)

Sample Calculations for Vinyl Chloride at Site E-1

| Variable | Air Force Value | Alternate Value ⁽¹⁾ |
|------------------------|-----------------------|--------------------------------|
| C _{gw} (mg/L) | 2.0X10 ⁻³ | 2.0X10 ⁻³ |
| V _d (ft/yr) | 54 | 16 ⁽²⁾ |
| M (ft) | 3.3 | 3.3 |
| Q (ft/yr) | 6.2X10 ⁻³ | 2.1X10 ⁻¹⁽³⁾ |
| L (ft) | 360 | 360 |
| C _u (mg/L) | 0 | 1.0X10 ⁻³ |
| f _{oc} | 8.93X10 ⁻⁴ | 8.93X10 ⁻⁴ |
| K _{oc} | 57 | 8.2 ⁽⁴⁾ |

| | | |
|-------------------------|----------------------|----------------------|
| C _{mix} (mg/L) | 1.6X10 ⁻¹ | 2.7X10 ⁻³ |
| GPC (mg/kg) | 8.2X10 ⁻³ | 2.0X10 ⁻⁵ |

¹ There is no claim that these values are the *correct* values. They are merely presented to show how a different, yet reasonable, set of assumptions can result in significantly different results.

² Calculated using geometric mean of hydraulic conductivity instead of arithmetic mean.

³ 2.5 inches – value used by CH2M Hill in basewide MODFLOW simulations.

⁴ See Feasibility Study for Zone 2 Soil, page D.1.6

**SHALLOW
AQUIFER**

**CONTAMINANT
PLUME**

**NAVARRO
CLAY**

**EDWARDS
AQUIFER**

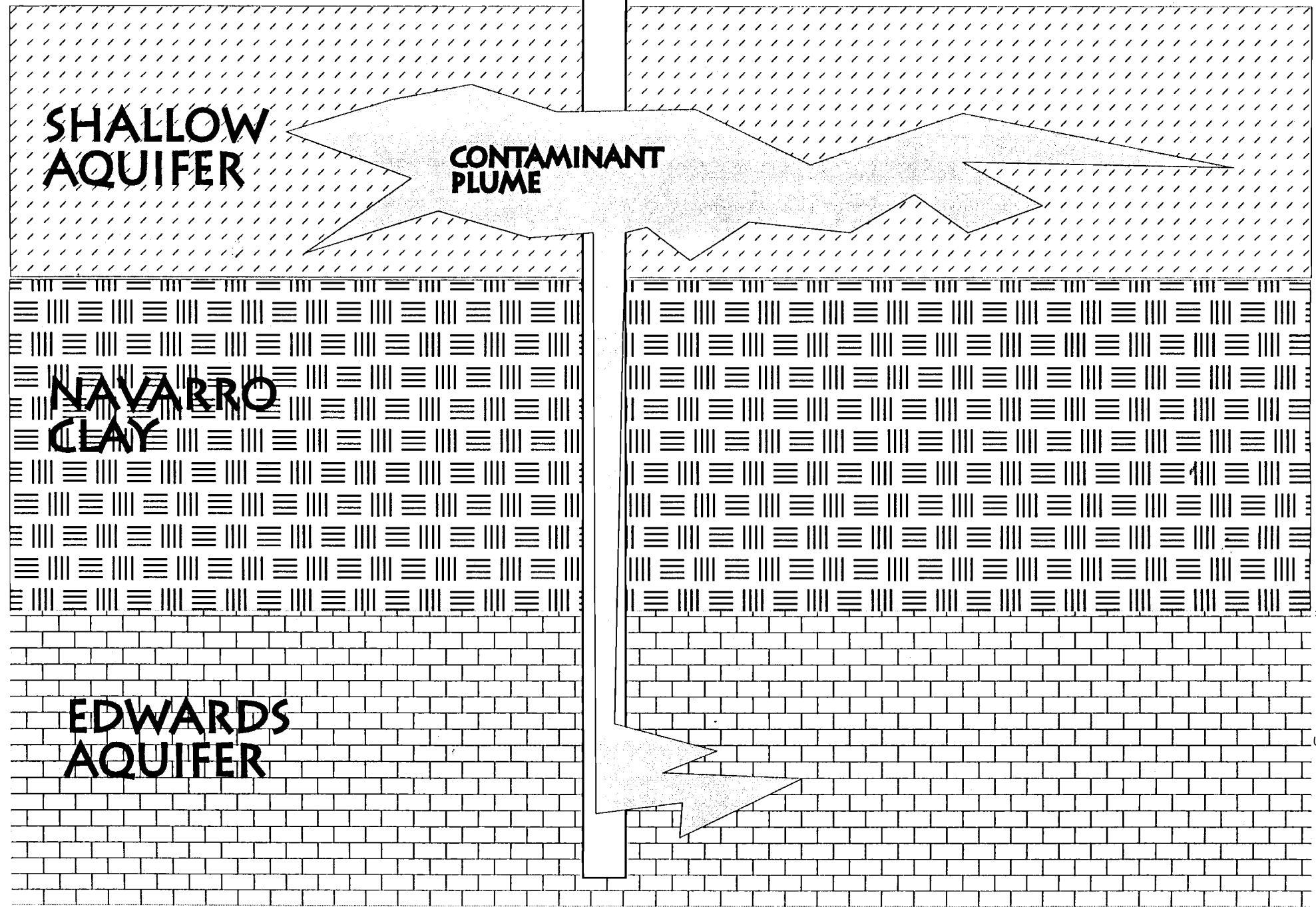
WELL

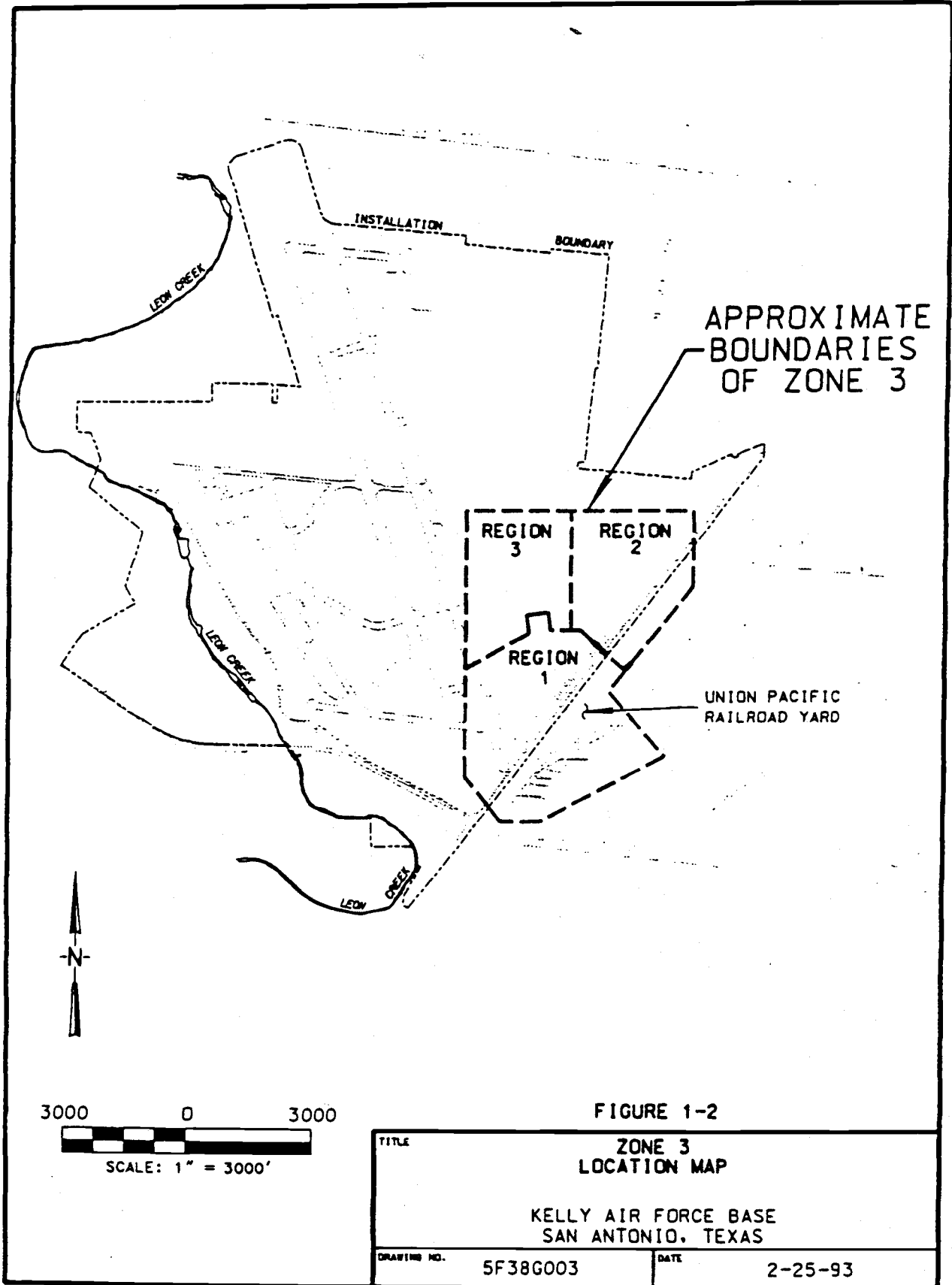
SHALLOW
AQUIFER

CONTAMINANT
PLUME

NAVARRO
CLAY

EDWARDS
AQUIFER

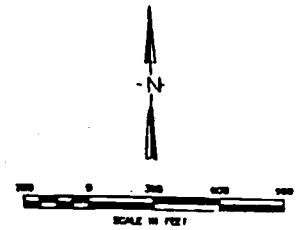
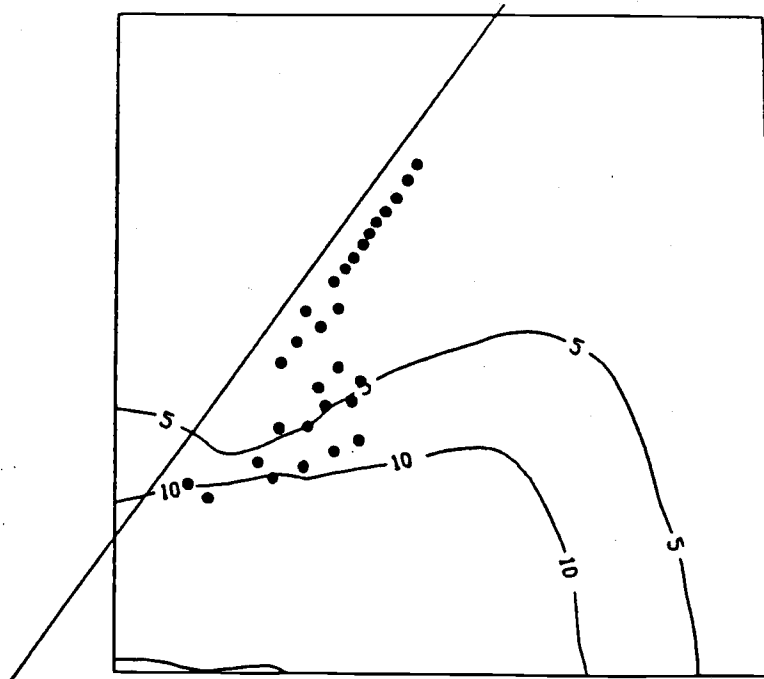




ZONE 3 PREFERRED ALTERNATIVE CHLORINATED SOLVENT CONCENTRATIONS AFTER PUMPING FOR 30 YEARS

04702948

C-31

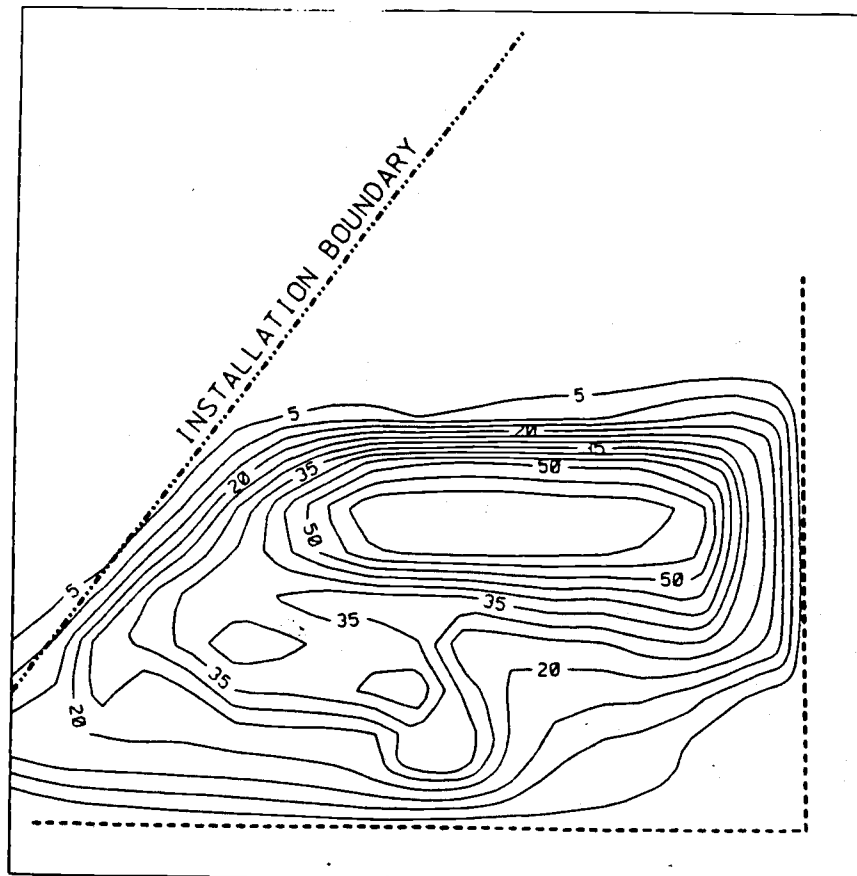


• RECOVERY WELL

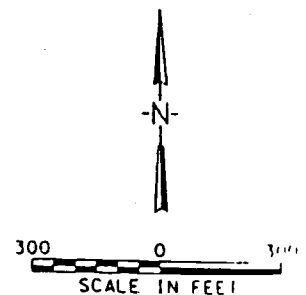
BASE BOUNDARY

1702949

C-47



CULVERT -----



PUBLIC DRAFT

FIGURE C-32 IRP SITE S-4, ALTERNATIVE GW-5, 30 YEARS WITH CULVERT

1 contractors take a look at the data. Initially,
2 through the remedial investigation and also
3 through the feasibility study -- we have
4 contractors look at that. These contractors use
5 their basis from their world-wide experiences or
6 their national experiences. They also get --
7 conversations with the State -- other than
8 Texas -- different -- other State regulatory
9 agencies -- EPA. The Air Force --
10 internal -- has what we consider a peer review
11 that's mandated to where we, in turn -- before
12 it even gets to the regulatory agencies and the
13 general public -- it goes to a board of
14 technical experts from various bases and we use
15 all of their expertise and all of their
16 regulatory mindsets to see, "Does it make
17 sense? Is the technique feasible? Is it
18 practical? Is it cost effective? Is there a
19 legal driver? Is there a risk driver?" All
20 those things are done prior to it even going out
21 of the Air Force. And, more importantly, as
22 part of this -- in this particular case, we also
23 had a second contractor look at it and then draw
24 on their resources.

25 We have an individual here who -- who spoke

31 Oct 95
Revised 03 Nov 95*

**Meeting Notes of the Restoration Advisory Board
Technical Sub-Committee Meeting
Held on October 20, 1995**

The following describes discussions and decisions reached at the technical sub-committee meeting. The agenda and a list of attendees are attached.

1. Early involvement in technical decisions

- Environmental Management (EM) staff will ask the Air Force Contracting Officer to determine 1) at what stage RAB members can become involved in the technical evaluation and planning process and, 2) what, if any, limitations exist concerning contact of RAB members with Air Force contractors. EM staff will report their findings at the next RAB meeting (November 13, 1995).
- Dan Medina will compile a list of the following:
 - Work currently being performed by Air Force Contractors, along with the identity of each contractor.
 - Current and anticipated Work.
 - Work planned to begin within the next year.
- The list will be presented at the next RAB meeting.

2. Review of Zone 3 groundwater restoration plans

- The modeling performed to date shows that between ten and 15 $\mu\text{g/L}$ of chlorinated solvents will remain in off-base groundwater after 30 years of remedial action. This result however only reflects an analysis of total chlorinated solvents, not individual solvents. The TNRCC stated that before it considers the cleanup complete the MCLs for individual solvents must be met.
- Although the exact identity of the remaining chlorinated solvents is unknown, they will consist of one or more of the following:
 - Tetrachloroethylene (PCE, maximum contaminant limit for drinking water [MCL] = $5\mu\text{g/L}$)
 - Trichloroethylene (TCE, MCL = $5\mu\text{g/L}$)
 - 1, 2 Dichloroethylene (DCE, MCL = $70 - 100^1 \mu\text{g/L}$)

¹ MCL depends on form, cis-1, 2 DCE = $70 \mu\text{g/L}$, trans-1, 2 DCE = $100 \mu\text{g/L}$.

- Vinyl Chloride (MCL = 2 µg/L)
 - The modeling results are based on total chlorinated solvents, not individual solvents. Mr. Ron Catchings explained that the Bioplume II model could only address BTEX components. Mr. Rice stated the concern that other sites were modeled for individual components, but this site was not. Mr. Catchings stated that he would find out if this were the case, and if so, the rationale.
 - Modeling is an ongoing basewide project and will continue as new data and more capable modeling codes become available
3. Subsidence
- No study of the effects of Air Force activity on subsidence has been done.
 - The Air Force will request funding to conduct a subsidence study. Dan Medina will provide further information at the next RAB meeting.
4. Establishing acceptable risk - 10^{-4} vs 10^{-6}
- Mr. Roberson and Mr. Beyer explained the TNRCC Risk Reduction Rules and related cleanup standards.
 - The Air Force and the Texas Natural Resources Conservation Commission (TNRCC) will give a presentation on risk assessment at the next RAB meeting. They will discuss the meaning of risk assessments and explain how acceptable levels of risk are established at individual sites (e. g. 10^{-4} vs 10^{-6} cancer risk; TNRCC Risk Reduction Standards).
5. Calculation of soil cleanup levels in Zone 2 (see attached pages)
- The contractor will give a detailed explanation of the calculations shortly after the next RAB meeting. All RAB members are invited to attend.
6. Off-base soil contamination in Zone 3
- The Air Force claims it is not responsible for any off-base surface-soil contamination. Information regarding this contamination can be obtained from TNRCC. The TNRCC agreed that the Air Force is not responsible for any off-base surface-soil contamination in Zone 3.
7. Status of requested information:
- Zone 2 water quality data

- The Air Force will provide all releasable water quality data collected under the Resource Conservation and Recovery Act (RCRA). In approximately two months, the Air Force will produce and provide a Basewide Remedial Assessment . Water quality data collected during 1994 is contained in the following documents:
 - Annual Groundwater Assessment Reports (RCRA)
 - Basewide Remedial Assessment
- Shallow aquifer survey
 - The survey will be released to the public in about one month.
- Reviews of Zone 2 modeling
 - The Air Force is not sure whether any specific reviews exist. If such reviews exist, the Air Force does not know if 1) it is legally required to release the reviews to the public, 2) it may ask contractors to voluntarily release the reviews.
 - Adrienne Williams will provide answers to these questions at the next RAB meeting.
- Map of KAFB Edwards well locations (new request)
 - The Air Force will provide a map.
- Measured partition coefficients for inorganics (new request; Halliburton-NUS, 1994)
 - The Air Force will provide the information.

8. Prioritize items for explanation by Air Force at future RAB meetings.

- Establishing acceptable risk, see item 4.

9. RAB subcommittee members were asked if they had any comments or if they had received comments from other RAB members regarding the Zones 1, 2, & 3 Soil Proposed Plans which were presented to the RAB on September 25, 1995. They stated they did not have any comments.

10. RAB subcommittee members were reminded to make requests following the established procedures.

* Revised based on further discussion with Mr. George Rice on 03 Nov 95.

==== Kelly Air Force Base — San Antonio Air Logistics Center ====

Installation Restoration Program

Progress Report

Office of Public Affairs, 807 Buckner, Kelly AFB TX 78241-5842 (210) 925-7951 DSN 945-7951

Kelly awards environmental contracts worth \$75 million

The Air Force has awarded four contracts worth \$75 million to provide continued environmental testing, studies, engineering and design work at the San Antonio Air Logistics Center here.

The contractors will provide technical expertise not available within the environmental management staff at Kelly. Contract support will cover all facets of testing air, soil and water to ensure the base complies with environmental laws and Air Force policies.

The four firms were awarded one-year firm, fixed-price, indefinite-quantity contracts with four one-year options. The firms are:

- CH2M Hill, San Antonio.
- Montgomery Watson Americas Inc., Pasadena, Calif.
- Roy F. Weston, West Chester, Pa.
- Science Applications International Corp., San Antonio.

A fifth contract is to be awarded within the next three months.

The environmental architect-engineer services contracts are generally referred to as A&E contracts. Contractors will be selected for specific tasks based upon their individual areas of expertise, their availability and the amount of work already assigned.

"These contract awards demonstrate the Air Force's continuing commitment to the cleanup program at Kelly AFB," said Larry Bailey, the base's director of Environmental Management.

Bailey emphasized that the recent decision to realign the air logistics center will have

“The Air Force has no intention of walking away from its environmental responsibilities at Kelly.”

no impact on the base's cleanup program. "The Air Force has no intention of walking away from its environmental responsibilities at Kelly," he said, adding that the award of the four contracts is "tangible evidence of the Air Force's commitment to the cleanup and environmental compliance."

Kelly's Installation Restoration Program identifies, investigates and, when necessary, cleans up past waste disposal and spill sites. There are currently 52 sites listed in the program, 20 of which have been identified to the Texas Natural Resource Conservation Commission as requiring no further action.

All Installation Restoration Program draft and final documents are available to the public for review and copying at the San Antonio Central Library government documents section and at the Kelly AFB Library.

Information about the cleanup program also is available by calling or writing Michael Estrada, SA-ALC/PA, Suite 1, Kelly AFB, TX 78241-5842; telephone (210) 925-7951; fax (210) 925-1778; Internet mestrada@sadis01.kelly.af.mil.

October 1995

Kelly AFB IRP RAB Update



13 NOVEMBER 1995

Kelly AFB IRP

- Kelly AFB Environmental Contractors
 - See Attached Progress Report

Directorate of Environmental Management



Kelly AFB IRP Current Work - FY96

- Soil & Groundwater Remedial Designs
Zones 1, 2, & 3 (next 6 to 12 months)
- Soil & Groundwater Remedial Investigations
Zones 4 & 5 (next 12 months)
- Basewide Remedial Assessment
 - Annual Sampling (next 12 months)
 - Operations and Maintenance of
Currently Operating Systems
(next 12 months)

Directorate of Environmental Management



Kelly AFB IRP Anticipated Work - FY96, 97

- Soil & Groundwater Remedial Actions
Zones 1, 2, & 3 (upon completion of RD)
- Soil & Groundwater Feasibility Studies
Zones 4 & 5 (upon regulatory approval
of the RI)

Directorate of Environmental Management



IRP Documents

- Major projects such as remedial designs and basewide remedial assessments will be briefed to the RAB when documents are prepared for release--prior to release, status reports will be provided and where possible, pre-release briefings will be held
- Documents such as workplans and reports will be made available when the TNRCC receives copies



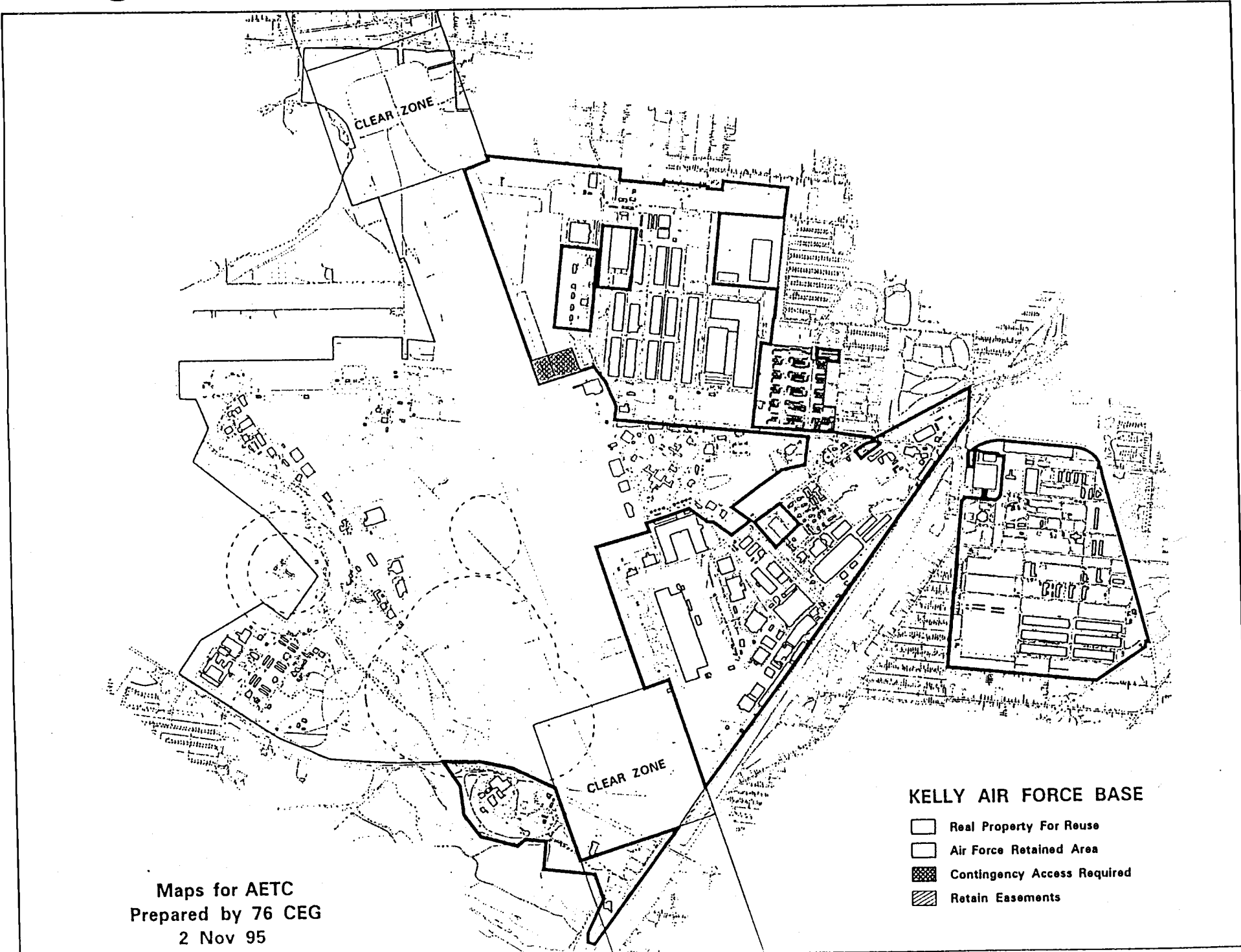
TNRCC RISK REDUCTION RULES

Mr. Gary Beyer

Texas Natural Resource Conservation Commission
Austin, Texas

Directorate of Environmental Management





Maps for AETC
 Prepared by 76 CEG
 2 Nov 95

KELLY AIR FORCE BASE

- Real Property For Reuse
- Air Force Retained Area
- Contingency Access Required
- Retain Easements

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE