KELLY AFB
TEXAS

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 3258

Kelly Restoration Advisory Board
Technical Review Subcommittee

Meeting Agenda
June 10, 2003, 6:30 – 9:00 p.m.
Environmental Health & Wellness Center
911 Castroville Road
(formerly Las Palmas Clinic)

I.	**Introduction** a. Agenda Review b. Packet Review	Dr. David Smith
II.	**Presentation of draft TAPP review of the Zone 3 RFI**	Mr. Patrick Lynch
III.	**Presentation on the Semiannual Compliance Plan Report**	Mr. ~~Mark Stoker~~ Rick Rogus
IV.	**Former Building 301 Interim Remedial System Update**	Ms. Norma Landez
V.	**Administrative** a. BRAC Cleanup Team (BCT) Update b. Spill Summary Report c. Documents to TRS/RAB d. Action Items e. Request for Agenda Items	Dr. David Smith

VI. Next TRS Meeting
Environmental Health and Wellness Center: August 12, 2003 / 6:30 p.m.

VII. Next RAB Meeting
Kennedy High School Auditorium: July 15, 2003 / 6:30 p.m.

VIII. Adjournment

June 10, 2003
Technical Review Subcommittee (TRS)
to the Kelly Restoration Advisory Board (RAB)

Dr. Gene Lené, RAB Community Member
Mr. Ruben Peña, RAB Co-Chair, Community Member
Mr. Rodrigo Garcia, RAB Community Member
Mr. Chico Rodriguez, RAB Community Member
Mr. Robert Silvas, RAB Community Member
Mr. Buddy Pletz, RAB Community Member
Mr. Nazarite Perez, RAB Community Member
Mr. Robert Montez, Community Member
Ms. Angel Martinez, Community Member
Mr. Richard Perez, City Councilman District 4
Ms. Rose Ann Sanchez, Office of Councilman Richard Perez
Mr. Yohei Mori, Ryukyu Shindo
Mr. William Ryan, Air Force Real Property Agency (AFRPA)
Mr. Don Buelter, AFRPA
Ms. Norma Landez, AFRPA
Mr. Robert Tijerina, AFRPA
Mr. Doug Karas, AFRPA
Ms. Linda Kaufman, San Antonio Metropolitan Health District (SAMHD)
Ms. Kyle Cunningham, SAMHD
Mr. Gary Martin, Greater Kelly Development Authority (GKDA)
Ms. Abigail Power, Texas Commission on Environmental Quality (TCEQ)
Mr. Mark Weeger, TCEQ
Mr. Patrick Lynch, Clearwater Revival Company
Mr. Jim Clary, CH2MHill
Mr. Rick Rogus, CH2MHill
Ms. Jennifer Wright, CH2MHill
Ms. Sarah Warden, CH2MHill
Ms. Betty Leite, CH2MHill
Mr. Bob Goodson, CH2MHill
Ms. Robyn Thompson, Booz Allen Hamilton (Booz Allen)
Ms. Megan Mabee, Booz Allen
Mr. Eddie Martinez, Booz Allen
Ms. Stephanie Trevino, Booz Allen
Mr. Scott Courtney, Booz Allen

The meeting began at 6:37 p.m.

Mr. Martinez introduced himself as the facilitator and welcomed all the RAB members and meeting attendees. He conducted a review of the meeting agenda and the contents of the meeting packet. Mr. Martinez stated that the next RAB meeting will be held on July 15, 2003, and the next TRS meeting will be held on August 12, 2003.

Patrick Lynch
Presentation of the Draft Technical Assistance for Public Participation (TAPP) Review of the Zone 3 Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)

Mr. Lynch explained that the purpose of the Zone 3 RFI Report was to investigate 20 source areas within Zone 3 to determine whether any hazardous wastes had been released, and if so, what the impact of the release was. His review of the report indicated that under risk reduction standard number one, closure would not be appropriate to apply to any source area in Zone 3. In addition, his review determined that a Corrective Measures Study (CMS) is recommended for the Building 308/312 area, the Building 10988 Oil-Water Separator, and the east taxiway.

Mr. Garcia asked if Mr. Lynch would be undergoing a process to determine the source of contamination for unidentified contaminants and wanted to know if additional research would be conducted. Mr. Lynch agreed that additional sampling is needed, but that this type of request was outside of the scope of his contract. He encouraged Mr. Garcia to submit his comments to the TRS. Dr. Lené added that he must receive all comments by June 20.

Mr. Silvas asked for an explanation of benzo(a)pyrene. Mr. Lynch answered that it is wastewater from herbicides/weed killers found in soil and groundwater samples. In reference to Mr. Lynch's assertion that there were inconsistencies in the data presented, Mr. Pletz asked why the data was recorded in parts per million and billion, as shown in Appendix 1 of the Zone 3 RFI Report for Building 375. Mr. Lynch reiterated that he interpreted the data in the table as being in parts per million, because labs cannot analyze data for this specific chemical in parts per billion. Mr. Silvas asked whether there were some contaminants of concern that were below acceptable levels. Mr. Lynch responded that some contaminants of concern were both above and below acceptable levels.

Mr. Garcia asked if Mr. Lynch had requested any additional background or historical data from the Air Force. Mr. Lynch replied that there is a large section of historical documentation in the report, which is complete with aerial photos, etc. Mr. Silvas pointed out that the base had been in operation since 1917 or 1918 and wanted to know how far back the data went. Mr. Lynch responded that references start in the 1950s and 1960s, but that he prefers to analyze actual soil samples rather than additional documents.

Mr. Silvas pointed out that tenants are conducting due diligence reports themselves. Mr. Lynch replied that chemical use activities are not necessarily documented. Mr. Silvas asked if the chemicals of concern had an odor that could be detected. Mr. Lynch said that especially after a rainfall, you could smell some chemicals, such as the historic calibration fluid spill, which is known as source of contamination in Zone 3. Mr. Garcia asked if air sampling would be conducted. Mr. Lynch responded that some soil gas samples were taken, but the results were not significant.

Mr. Montez asked if any studies of city landfills had been conducted, as he noted that Building 360 used to have a scrubber to remove contaminants, which were then dumped in city landfills. Mr. Lynch said that there is a landfill in Zone 1; however, he only reviewed sites in Zone 3. Mr. Montez asked why Building 301 was torn down. Mr. Karas informed him that a briefing on Building 301 would be given later during the meeting.

Mr. Martinez reminded meeting attendees that Mr. Lynch would be making a final presentation on the TAPP review of the Zone 3 RFI to the RAB at the July 2003 meeting.

Rick Rogus
Presentation of the Semiannual Compliance Plan Report

Mr. Rogus introduced himself and explained that he would be presenting the January 2003 Semiannual Compliance Plan Report, which covers the period July thorough December 2002. The scope of the report is to fulfill the TCEQ Compliance Plan requirements for monitoring and reporting, conduct an assessment of the interim remedial action systems, and provide a snapshot of groundwater contamination. The report analyzed 14 waste management areas, 4 RCRA-permitted units, and Leon Creek.

Mr. Rogus presented the results of the sampling by saying that decreases in the magnitude of chlorinated solvents in the source areas and downgradient of the remedial systems is occurring in the Zone 4 off-base plume, around the recovery systems in Zone 2 near Leon Creek, in the E-3 source area, and downgradient of Site SS040. In addition, semivolatile organic compounds (SVOCs), pesticides and polychlorinated biphenyls (PCBs) were not detected in 99 percent of the samples.

Mr. Rogus added that monitoring has indicated: VOC concentrations in the shallow groundwater have been greatly reduced at E-3, Sites SD-1 and SA-2 have no impact on the shallow groundwater, and natural degredation is occurring at Site S-8. At Leon Creek, sampling results indicated: 3 surface water and 25 sediment contaminants exceeded the conservative Texas Water Quality Standard guidelines, potential surface water toxicity exists at some sampling stations, pesticide contamination was found in several fish species (which is not uncommon in urban streams), and sensitive fish species were identified downstream of the former base.

On a slide that described the frequency of detection of volatile organic compounds, Mr. Pletz asked what ug/L means. Mr. Rogus explained that ug/L means parts per billion. Mr. Montez asked where the sampling at Leon Creek starts. Mr. Rogus replied that it begins below the city's treatment plant, approximately one mile from the base.

Mr. Pletz inquired whether Leon Creek feeds into the Medina River. Mr. Rogus affirmed that it does feed into the river below the city's treatment plant. Mr. Pletz asked if any testing had been conducted in the Medina River. Mr. Rogus stated that it had not, but that testing in the Medina River and Salado Creek would be conducted later this year. Ms. Powers added that TCEQ conducts regular monitoring on the Medina and San Antonio Rivers, and the results are posted on the TCEQ's Web site.

Mr. Martinez reminded meeting attendees that the report can be found at the EHWC library.

Norma Landez
Former Building 301 Interim Remedial System Update

Ms. Landez provided an overview of the installation of a permeable reactive barrier (PRB) near the former Building 301. She stated that AFRPA started construction activities in mid-May, installed the PRB in two weeks, and finished the project on June 2. After AFRPA left the site, GKDA started putting in a parking lot. When GKDA finishes installing the parking lot, AFRPA

will construct monitoring wells. Ms. Landez expressed her satisfaction with the success of the project, and said that AFRPA will transfer lessons learned to the installation of a PRB at Building 360.

Ms. Landez said that AFRPA is currently conducting a precharacterization study of the Building 360 area, will begin trench work on July 7, and will complete the project by September. Ms. Landez encouraged meeting attendees to visit the site of Building 360 during the PRB installation, and asked that interested parties call Mr. Martinez to schedule a site tour and receive clearance though Lockheed Martin.

Mr. Silvas asked if AFRPA would be conducting air monitoring during construction activities at Building 360. Ms. Landez affirmed that AFRPA would be monitoring the air on site while installing the PRB. Mr. Silvas asked why Building 301 was demolished. Ms. Landez explained that GKDA didn't want to use Building 301 as a plating shop.

Mr. Garcia requested background information on the contaminants found at Building 301. Ms. Landez replied that a construction completion report would be made available for review once it is finalized. She indicated that chlorinated solvents were detected in the vadose zone and groundwater near Building 301, which was why a PRB was installed at that particular location.

Mr. Silvas asked how many cleanup systems AFRPA would install. Ms. Landez responded that AFRPA constructed a PRB at Building 301, two systems at Building 360 (one PRB in the middle of the U and on the southern end of the building, and a slurry wall on the west end), one PRB in Zone 5 along the eastern boundary, and one PRB on 34th Street.

Administrative
BRAC Cleanup Team (BCT) Update
William Ryan

Mr. Ryan recapped the June 10 BCT meeting, noting Mr. Martin's briefing on the redevelopment of Kelly. Mr. Ryan said that AFRPA would continue to coordinate the transfer of property by deed with GKDA and determine whether the environmental cleanup of Kelly would have any impact with its redevelopment, and vice versa. GKDA recently expressed interest in acquiring Building 1680, Mr. Ryan noted. In addition, AFRPA will construct a PRB off base in Zone 5 along 34th Street. Mr. Ryan said that the statement of work is out, bids have been coming in, and the contract will be awarded by the end of the month. AFRPA will install the PRB in late summer or early fall and will conduct long-term monitoring.

Mr. Silvas inquired whether AFRPA would reach out to the affected community before installing the PRB. Mr. Ryan responded that the AFRPA conducted door-to-door outreach in the community this spring, and will conduct outreach activities again before the construction begins. Mr. Ryan added that AFRPA is currently collecting design data for the 34th Street PRB.

Spill Summary Report
Eddie Martinez

Mr. Martinez recounted that there have been two spills since the April 2003 RAB meeting. One spill occurred at Site S-8, where 200 gallons of untreated groundwater were released. Since the groundwater did not pose a hazard, it was allowed to commingle with the soil, which is

scheduled to be cleaned up. No removal action was taken. A second spill at Calidad Environmental Services involved a 0.5 gallon of Calgon CC540 scale dissolver, which was released from a container while being loaded onto a truck. The spill was contained, the acid solution was neutralized, and the residue from the release is currently awaiting characterization.

Documents to TRS/RAB
Eddie Martinez

Mr. Martinez added three documents to the Environmental Health and Wellness Center's (EHWC) library: the Quality Program Plan Sanitary Sewer System; Closure Reports for Solid Waste Management Units (SWMUs) at Buildings 317 and 424; and Closure Report for SWMUs at Buildings 331, 352, 360, 365, 375, 385, 645, 655, 3768, and 10998. Mr. Martinez pointed out that there are also libraries downtown and at Kelly, and that the binders can be checked out from library at the EHWC.

Action Items from previous meeting
Eddie Martinez

Mr. Martinez reviewed all action items from the March TRS which were addressed at the April 15, 2003, RAB meeting.

TRS Action Items

- Mr. Garcia expressed his dissatisfaction with air pollution studies conducted by the Alamo Area Council of Governments, as he felt that they did not contain enough information on Kelly. Mr. Garcia wanted to know where the monitoring stations near Kelly were, if they had received any EPA violations, etc. and said that he would write a letter to AFRPA detailing his concerns so that they could be addressed at an upcoming TRS meeting. Mr. Pletz suggested that the Agency for Toxic Substances and Disease Registry (ATSDR) air emissions study, which is due to be released in September, be reviewed at a future RAB meeting. Mr. Peña made a motion to wait until the ATSDR study is released before taking up the issue at the RAB; Mr. Pletz and Mr. Rodriguez were in favor, Messrs. Garcia, Silvas, and Perez were opposed. Mr. Silvas made a motion to present the issue to the RAB for decision, Mr. Pletz seconded the motion, and all were in favor.
- Mr. Silvas requested historical data on Alamo Aircraft, the permits they have for storing exotic metals, and information on any responsibility they have for cleaning up contamination resulting from their operations. Mr. Silvas made a motion for a representative from Alamo Aircraft to make a presentation to the RAB, which Mr. Garcia seconded. All TRS members were in favor of the motion to send out a letter to all parties involved: Alamo Aircraft, appropriate city council representatives, Bexar Appraisal District, Code Compliance, etc.

The meeting adjourned at 8:45 p.m.

10 de junio de 2003
Subcomité de Revisión Técnica (TRS)
De la Junta Asesora de Restauración de Kelly (RAB)

Dr. Gene Lené, Miembro de la Comunidad de RAB
Sr. Ruben Peña, RAB Co-presidente, Miembro de la Comunidad
Sr. Rodrigo Garcia, Miembro de la Comunidad de RAB
Sr. Chico Rodriguez, Miembro de la Comunidad de RAB
Sr. Robert Silvas, Miembro de la Comunidad de RAB
Sr. Buddy Pletz, Miembro de la Comunidad de RAB
Sr. Robert Montez, Miembro de la Comunidad
Sra. Angel Martinez, Miembro de la Comunidad de RAB
Sr. Richard Perez, Concejal del Distrito 4
Sra. Rose Ann Sanchez, Oficina del Concejal Richard Perez
Sr. Yohei Mori, Ryukyu Shindo
Sr. William Ryan, Agencia de Bienes Inmuebles de la Fuerza Aérea (AFRPA)
Sr. Don Buelter, AFRPA
Sra. Norma Landez, AFRPA
Sr. Robert Tijerina, AFRPA
Sr. Doug Karas, AFRPA
Sra. Linda Kaufman, Distrito de Salud del Área Metropolitana de San Antonio (SAMHD)
Sra. Kyle Cunningham, SAMHD
Sr. Gary Martin, Autoridad de Desarrollo del Área de Kelly (GKDA)
Sra. Abigail Power, Comisión de Calidad Ambiental de Texas (TCEQ)
Sr. Mark Weeger, TCEQ
Sr. Patrick Lynch, Clearwater Revival Company
Sr. Jim Clary, CH2MHill
Sr. Rick Rogus, CH2MHill
Sra. Jennifer Wright, CH2MHill
Sra. Sarah Warden, CH2MHill
Sra. Betty Leite, CH2MHill
Sr. Bob Goodson, CH2MHill
Sra. Robyn Thompson, Booz Allen Hamilton (Booz Allen)
Sra. Megan Mabee, Booz Allen
Sr. Eddie Martinez, Booz Allen
Sra. Stephanie Trevino, Booz Allen
Sr. Scott Courtney, Booz Allen

La reunión comenzó a las 6:37 p.m.

El Sr. Martinez se presento como el facilitador y dio la bienvenida a todos los miembros de RAB y a los asistentes a la reunión. Él revisó del programa de la reunión y el contenido del paquete de materiales de la reunión. El Sr. Martinez dijo que la siguiente reunión de RAB se llevará a cabo el 15 de julio de 2003, y la siguiente reunión de TRS será el 12 de agosto de 2003.

Patrick Lynch
Presentación del Borrador de la Revisión de Asistencia Técnica de Participación Pública (TAPP) para la Investigación de la Facilidad (RFI) de la Zona 3 bajo la Ley de Conservación y Recuperación de Recursos (RCRA)

El Sr. Lynch explicó que el propósito del Informe de RFI de la Zona 3 era investigar las 20 áreas de fuente dentro de la Zona 3 para determinar si se habían escapado residuos peligrosos, y de ser así, cual sería el impacto del escape. Su revisión del informe indicó que bajo el estándar 1 de reducción de riesgo, no sería apropiado cerrar ninguna de las áreas de fuente de la Zona 3. Además, su revisión determinó que se recomienda un Estudio de Medidas Correctivas (CMS) para el área del Edificio 308/312, el separador de agua y aceite del Edificio 10988, y la pista este.

El Sr. Garcia preguntó si el Sr. Lynch estaría tomando un proceso para determinar la fuente de la contaminación de los contaminantes no identificados y quería saber si se va a llevar a cabo alguna investigación adicional. El Sr. Lynch estuvo de acuerdo en que se necesita muestreo adicional, pero este tipo de petición está fuera del alcance de este contrato. Él alentó al Sr. Garcia a dar sus comentarios al TRS. El Dr. Lené añadió que tiene que recibir todos los comentarios para el 20 de junio.

El Sr. Silvas pidió una explicación de benzo(a)pireno. El Sr. Lynch respondió que se trataba de aguas residuales de herbicidas que se encontraron en muestras de suelo y agua subterránea. En referencia al comentario del Sr. Lynch de que había inconsistencias en la información presentada, el Sr. Pletz preguntó por qué la información fue escrita en partes por millón y billón, como muestra el Apéndice 1 del Informe de RFI de la Zona 3 RFI para el Edificio 375. El Sr. Lynch reiteró que él interpretó la información en la tabla como partes por millón, porque los laboratorios no pueden analizar la información para este químico en particular en partes por billón. El Sr. Silvas preguntó si hay algunos contaminantes de interés que estaban bajo niveles aceptables. El Sr. Lynch respondió que algunos de los contaminantes de interés estaban sobre y otros bajo niveles aceptables.

El Sr. Garcia preguntó si el Sr. Lynch había pedido a la Fuerza Aérea información adicional o datos históricos. El Sr. Lynch respondió que el informe tiene una sección larga de documentación histórica, completa con fotografías aéreas, etc. El Sr. Silvas indicó que la base había estado en operación desde 1917 ó 1918 y quería saber hasta cuando llega la información. El Sr. Lynch respondió que las referencias comienzan en las décadas de los 1950s y 1960s, pero que él prefiere analizar muestras de suelo reales en vez de documentos adicionales.

El Sr. Silvas indicó que los arrendatarios están haciendo ellos mismos los informes de diligencia debida. El Sr. Lynch respondió que las actividades que usan químicos no han sido documentadas necesariamente. El Sr. Silvas preguntó si los químicos de interés tienen un olor que puede ser detectado. El Sr. Lynch dijo que especialmente después de llover, se pueden oler algunos químicos, tal como el derrame histórico de fluido de calibración, el cual se conoce como una fuente de contaminación de la Zona 3. El Sr. Garcia preguntó si se podía hacer un muestreo de aire. El Sr. Lynch respondió que se habían tomado algunas muestras de gases del suelo, pero los resultados no fueron significativos.

El Sr. Montez preguntó si se había hecho algún estudio de los vertederos de la ciudad, ya que él notó que el Edificio 360 solía tener un sistema para quitar los contaminantes, los cuales eran

tirados entonces en vertederos de la ciudad. El Sr. Lynch dijo que hay un vertedero en la Zona 1. Sin embargo, él sólo ha revisado sitios en la Zona 3. El Sr. Montez preguntó por qué el Edificio 301 fue demolido. El Sr. Karas le informó que más adelante en la reunión se dará una presentación sobre el Edificio 301.

El Sr. Martinez le recordó a los asistentes que el Sr. Lynch hará una presentación final para RAB sobre la revisión del TAPP del RFI de la Zona 3 en la reunión de julio de 2003.

Rick Rogus
Presentación sobre el Informe del Plan de Cumplimiento Semi-anual

El Sr. Rogus se presentó y explicó que estaría presentado el Informe del Plan de Cumplimiento Semi-anual de enero de 2003, que cubre el periodo de julio a diciembre de 2002. El alcance del informe es cumplir con los requisitos de monitoreo y informes del Plan de Cumplimiento de TCEQ, llevar a cabo una evaluación de los sistemas interinos de remediación, y proveer una impresión de la contaminación del agua subterránea. El informe analizó 14 áreas de manejo de residuos, 4 unidades con permisos de RCRA, y Leon Creek.

El Sr. Rogus presentó los resultados del muestreo diciendo que la magnitud de solventes clorados en las áreas de las fuentes y bajo gradiente de los sistemas de remediación está decreciendo en el área de contaminación fuera de la base de la Zona 4, alrededor de los sistemas de recuperación en la Zona 2 cerca de Leon Creek, en el área de la fuente de E-3, y bajo gradiente del Sitio SS040. Además de los compuestos semi-volátiles orgánicos (SVOCs), no se detectaron plaguicidas y bifeniles policlorados (PCBs) en 99 por ciento de las muestras.

El Sr. Rogus añadió que el monitoreo ha indicado que: las concentraciones de VOC en el agua subterránea de poca profundidad han sido reducidas significativamente en E-3, los Sitios SD-1 y SA-2 no tienen impacto al agua subterránea de poca profundidad, y está ocurriendo degradación natural en el Sitio S-8. En Leon Creek, los resultados del muestreo indicaron que: 3 contaminantes en el agua superficial y 25 en sedimentos excedían los estándares de calidad de agua conservadores de Texas, existe toxicidad potencial del agua superficial en algunas estaciones de muestreo, se encontró contaminación con plaguicidas en varias especies de peces (lo cual no es fuera de lo común en ríos urbanos), y se identificaron especies de peces sensitivas bajo gradiente de la antigua base.

En la diapositiva que describe la frecuencia de detección de compuestos orgánicos volátiles, el Sr. Pletz preguntó que significa ug/L. El Sr. Rogus explicó que ug/L significa partes por billón. El Sr. Montez pregunto dónde empieza el muestreo de Leon Creek. El Sr. Rogus respondió que empieza bajo la planta de tratamiento de la ciudad, aproximadamente a una milla de la base.

El Sr. Pletz preguntó si Leon Creek desemboca al Río Medina. El Sr. Rogus afirmó que desemboca al río más abajo de la planta de tratamiento de la cuidad. El Sr. Pletz preguntó si se habían hecho pruebas en el Río Medina. El Sr. Rogus dijo que no, pero que se van a hacer pruebas en el Río Medina y Salado Creek más adelante este año. La Sra. Powers añadió que TCEQ lleva a cabo monitoreo regular en los Ríos Medina y San Antonio, y los resultados están en el sitio Web de TCEQ.

El Sr. Martinez le recordó a los asistentes que el informe está en la biblioteca de EHWC.

Norma Landez
Actualización del Sistema de Remediación Interino del Antiguo Edificio 301

La Sra. Landez dio un repaso de la instalación de una barrera permeable reactiva (PRB) cerca del antiguo Edificio 301. Ella dijo que AFRPA empezó las obras de construcción a mediados de mayo, instaló la PRB en dos semanas, y acabó el proyecto el 2 de junio. Luego de que AFRPA dejó el sitio, GKDA comenzó a poner un estacionamiento. Cuando GKDA acabe de instalar el estacionamiento, AFRPA construirá pozos de monitoreo. La Sra. Landez expresó su satisfacción con el éxito del proceso, y dijo que AFRPA aplicará las lecciones aprendidas a la instalación de una PRB en el Edificio 360.

La Sra. Landez dijo que AFRPA está llevando a cabo actualmente un estudio de pre-caracterización para el área del Edificio 360, empezará las excavaciones el 7 de julio, y completará el proyecto en septiembre. La Sra. Landez alentó a los asistentes a visitar el Edificio 360 durante la instalación de la PRB, y pidió que las personas interesadas llamen al Sr. Martinez para programar una visita y recibir autorización a través de Lockheed Martin.

El Sr. Silvas preguntó si AFRPA estaría llevando a cabo monitoreo de aire durante las obras en el Edificio 360. La Sra. Landez afirmó que AFRPA estaría monitoreando el aire del sitio durante la instalación de la PRB. El Sr. Silvas preguntó por qué fue demolido el Edificio 301. La Sra. Landez explicó que GKDA no quería usar el Edificio 301 como un taller de chapado en metal.

El Sr. Garcia pidió información sobre los contaminantes encontrados en el Edificio 301. La Sra. Landez contestó que el informe de finalización de las obras estaría disponible para su revisión cuando sea finalizado. Ella indicó que se detectaron los solventes clorados en la zona no saturada y en el agua subterránea cerca del Edificio 301, por lo que la PRB fue instalada en ese sitio en particular.

El Sr. Silvas preguntó cuantos sistemas de limpieza AFRPA va a instalar. La Sra. Landez respondió que AFRPA construyó una PRB en el Edificio 301, dos sistemas en el Edificio 360 (una PRB en el medio de la U y otra en la parte sur del Edificio, y una pared de lechada en la parte oeste), una PRB en la Zona 5 a lo largo del límite este, y una PRB en 34th Street.

Administrativo
Actualización del Equipo de Limpieza de BRAC (BCT)
William Ryan

El Sr. Ryan resumió la reunión de BCT del 10 de julio, comentando sobre la presentación del Sr. Martín sobre el redesarrollo de Kelly. El Sr. Ryan dijo que AFRPA continuará la coordinación con GKDA del traspaso del título de la propiedad y determinará si la limpieza ambiental de Kelly tendría algún impacto en su redesarrollo, y viceversa. El Sr. Ryan indicó que GKDA recientemente expresó interés en adquirir el Edificio 1680. Además, AFRPA construirá una PRB fuera de base en la Zona 5 a lo largo de 34th Street. El Sr. Ryan dijo que se hizo público el plan de trabajo, se han estado recibiendo propuestas, y el contrato será otorgado a final de mes. AFRPA instalará una PRB in a finales del verano o principio de otoño y llevará a cabo monitoreo a largo plazo.

El Sr. Silvas preguntó si AFRPA ha intentado comunicarse con la comunidad afectada antes de instalar la PRB. El Sr. Ryan respondió que AFRPA hizo actividades de alcance de puerta en

puerta en la comunidad esta primavera, y llevará a cabo de nuevo actividades de alcance antes de que empiecen las obras. El Sr. Ryan añadió que AFRPA está recibiendo actualmente diseños para la PRB de 34th Street.

Informe Repaso del Derrame
Eddie Martinez

El Sr. Martinez contó que ha habido dos derrames desde la reunión de RAB de abril de 2003. Un derrame ocurrió en el Sitio S-8, donde se escaparon 200 galones de agua subterránea no tratada. Como el agua subterránea no presentaba un riesgo, se permitió que ésta se mezclara con el suelo, el cual está programado para ser limpiado. No se tomó ninguna acción de eliminación. Un segundo derrame en Calidad Environmental Services conllevó 0.5 galones de disolvente de depósitos Calgon CC540 que se escapo de un contenedor cuando estaba siendo cargado al camión. El derrame fue contenido, la solución de ácido fue neutralizada, y los residuos del derrame están esperando ser caracterizados.

Documentos al TRS/RAB
Eddie Martinez

El Sr. Martinez añadió tres documentos a la biblioteca del Centro de Salad Ambiental y Bienestar (EHWC): el Plan de Programa de Calidad del Sistema de Aguas Negras; Informes de Cierre de las Unidades de Manejo de Residuos Sólidos (SWMUs) para los Edificios 317 y 424; y el Informe de Cierre de las SWMUs en los Edificios 331, 352, 360, 365, 375, 385, 645, 655, 3768, y 10998. El Sr. Martinez indicó que también hay bibliotecas en el centro de la ciudad y en Kelly, y que los documentos pueden ser sacados de la biblioteca del EHWC.

Acciones Pendientes de la Reunión Pasada
Eddie Martinez

El Sr. Martinez repasó todas las acciones pendientes del TRS de marzo que fueron abordadas en la reunión de RAB del 15 de abril de 2003.

Acciones Pendientes del TRS

- El Sr. Garcia expresó su descontento con los estudios de contaminación de aire completados por el Concilio de Gobiernos del Área de Alamo, porque piensa que no contienen información suficiente sobre Kelly. El Sr. Garcia quería saber donde estaban las estaciones de monitoreo cerca de Kelly, si habían recibido alguna violación de la EPA, etc. y dijo que escribiría una carta a AFRPA detallando sus preocupaciones para que pudiesen ser abordadas en una reunión futura del TRS. El Sr. Pletz sugirió que el estudio de emisiones al aire de la Agencia de Sustancias Toxicas y Registro de Enfermedades (ATSDR), que está programado para ser publicado en septiembre, sea revisado en una reunión futura de RAB. El Sr. Peña presentó una moción para esperar hasta que el estudio de ATSDR sea publicado antes de abordar este asunto en el RAB. El Sr. Pletz y el Sr. Rodriguez estuvieron a favor, y los Señores Garcia, Silvas, y Perez estuvieron en contra. El Sr. Silvas hizo una moción para presentar este asunto al RAB para su decisión. El Sr. Pletz secundó la moción, y todos estuvieron a favor.
- El Sr. Silvas pidió información histórica de Alamo Aircraft, los permisos que tienen para almacenar metales exóticos, y la información sobre cualquier responsabilidad que tienen de limpiar la contaminación como resultado de sus operaciones. El Sr. Silvas hizo a

moción para que un representante de Alamo Aircraft haga una presentación al RAB, lo que el Sr. Garcia secundó. Todos los miembros de TRS estuvieron a favor de la moción de enviar una carta a todos los partidos involucrados: Alamo Aircraft, representantes apropiados del ayuntamiento, el Distrito de Tasación de Bexar, Cumplimiento de Código, etc.

La reunión se suspendió a las 8:45 p.m.

KELLYUSA
The Center for Global Business

May 12, 2003

Mr. Adam Antwine
Senior Representative
AFBCA/DK
143 Billy Mitchell Blvd., Suite 5
San Antonio, TX 78226-1816

RE: Release Incident on May 5, 2003

Dear Mr. Antwine:

On May 5, 2003 at approximately 2:00 PM, Calidad Environmental Services was loading unused excess chemicals into their truck for shipment from GKDA to a disposal facility. During loading, a 5-gallon container of Calgon CC540 Scale Dissolver (containing hydrochloric acid) tipped over and fell off the pallet inside the truck. The lid of the plastic container was loose resulting in approximately one-half gallon of acid solution being released into the trailer. Some acid solution leaked through openings in the trailer onto the asphalt surface.

The spill was immediately contained using absorbent socks. Calidad personnel used sodium carbonate to neutralize the acid solution in the trailer and on the asphalt. The absorbent materials were then cleaned up and packaged into a container. The lid of the 5-gallon container of Calgon CC540 Scale Dissolver was secured and subsequently shipped off site. The container of residue from the release was retained for characterization for future disposal.

Although the Scale Dissolver was unused it was being disposed of as hazardous waste according to regulations. According to the manufacturer's Material Safety Data Sheet (MSDS) this commercial solution is 23% (by weight) hydrochloric acid (CAS Number 7647-01-0) and exhibits the characteristic of corrosivity (D002). The reportable quantity (RQ) of a hazardous waste with an EPA Hazardous Waste Number of D002 is 100 pounds. The specific weight of the solution according to the MSDS is 8.8 pounds per gallon. Given an estimated volume of one-half gallon released, the weight of the solution released is estimated at 4.4 pounds that does not exceed the RQ threshold for reporting the spill to the Texas Commission on Environmental Quality (TCEQ). A courtesy call was made to Ms. Abigail Power of TCEQ and Mr. William Ryan of your office on May 6, 2003. Since the release was incidental to the transportation of a hazardous waste, Calidad will provide a detailed written report to the U.S. Department of Transportation within 30 days per 49 CFR 171.16.

This incident has been reviewed and measures have been implemented to prevent recurrence of this type of spill. If you need any additional information, please feel free to call me at 362-7877.

Sincerely,

M. Gary Martin, P.E.
Environmental Program Manager

cc: Ms. Abigail Power, TCEQ

Spills Reporting
to the
Restoration Advisory Board

DATE OF SPILL	TIME	LOCATION	REPORTED BY	SPILL TYPE	AMOUNT	DESCRIPTION OF CONTAINMENT	REMOVAL OF WASTES
12/19/2002	10:40 a.m	Site SD-1	AFRPA	hydraulic oil	50 gal	Spill area was excavated (20 yds X 6 in.of soil). Soil was placed in a roll-off box and covered w/plastic.	Pending analytical results
12/18/2002	3:30 p.m.	DRMO	AFRPA	hydraulic oil	100 gal	Oil spilled on an area of 45 X 30 of asphalt. CoSA Public Works will remove absorbent waste and transport in drums. Site will be "steam cleaned" after absorbent waste has been removed.	On-going
1/10/2003	4:35 PM	Pad 33	Boeing	JP-8 Fuel	120 gal	A truck defueling an aircraft was overfilled. The spilled fuel was contained by Boeing spil response team and no fuel reached a storm drain. The remaining fuel was picked up with absorbent material.	The waste is pending disposal.
4/7/2003	11:30	Site 8	SAIC	groundwater	200 gal	A damaged hose released untreated ground water to soil.	No removal action taken
5/5/2003	2:00 p.m	Calidad Environmental Services	GKDA	Calgon CC540 Scale Dissolver	1/2 gal	A 5-gallon container tipped over while being loaded onto a truck in preparation for disposal. The spill was contained and the acid solution was neutralized	The container of residue from the release was retained for characterization for future disposal.

Draft Technical Review Report

Zone 3 RCRA Facility Investigation
Kelly Air Force Base
San Antonio, Texas

Prepared by:
Patrick G. Lynch, P.E.
Clearwater Revival Company 1

On behalf of the Kelly Air Force Base (AFB) Restoration Advisory Board (RAB), Clearwater Revival Company (CRC) has performed an independent technical review of the following document:

2002, Science Application International Corporation, "RCRA Facility Investigation, Zone 3, Kelly AFB, Texas, Final" prepared for Kelly Air Force Base, December.

The Zone 3 RFI investigates 20 source areas to determine if any hazardous waste has been released. Soil and groundwater sample results are used to determine if each source area should be closed without further cleanup, or if a Corrective Measure Study (CMS) which evaluates potential cleanup alternatives, should be prepared.

Two closure or cleanup standards have been proposed for Zone 3 under the Texas Risk Reduction Rule. Risk Reduction Standard No. 1 (RRS No. 1) would allow for unrestricted property use. To close a source area under RRS No. 1, all sample results must be below background levels or detection limits. Four of the 20 source areas have been recommended for closure under RRS No. 1.

Closure of a source area under RRS No. 2 requires a deed restriction prohibiting future residential use. The numerical RRS No. 2 criteria included values for surface soils that are protective of human health, and values for subsurface soils that are protective of groundwater quality. Six of the 20 source areas have been recommended for closure under RRS No. 2.

For source areas where soil and groundwater sample results exceed RRS No. 2 criteria a CMS is to be prepared. Ten of the source areas and groundwater throughout Zone 3

ÿ Author contact information: Clearwater Revival Company, 305 Spruce Street, Alameda, CA 94501, email: clearwater@toxicspot.com

exceed the RRS No. 2. Cleanup evaluations for these sites will be addressed in the Zone 2 and 3 CMS.

RESULTS OF REVIEW

CRC assessed the RCRA Facility Investigation's (RFI's) completeness, and the adequacy of the Air Force's proposed or current actions. CRC identified problems with the completeness and screening of data presented in the RFI Report. These problems resulted in a failure to identify all chemicals of concern, and a failure to determine the full extent of contamination.

To ensure that application of the Risk Reduction Rule is defensible, the State of Texas developed the "Consistency Memo" to addresses the treatment of:

- Infrequently detected compounds, (confirmation sampling)
- Detection limits that exceed RRS No. 2 criteria
- Background values

The RFI Report provides the rationale for excluding each chemical from further consideration. However, the rationales provided in the RFI Report are not consistent with the Consistency Memo. As a result, CRC's review concluded that three of the four source areas recommended for closure under RRS No. 1, should instead be closed under RRS No. 2, restricting future residential use. The fourth source area recommended for closure under RRS No. 1, Building 308/312 area, should instead be included in the Zone 2 and 3 CMS.

In addition, two of the sites recommended for closure under RRS No. 2, the Building 10988 Oil-water Separator and the East Taxiway, should instead be evaluated for further cleanup in the Zone 2 and 3 CMS.

COMMENTS ON INVESTIGATION

In many source areas, sample results from 1989 to the present are used in the data screening. The use of data collected prior to the end of hazardous waste activities is not appropriate to demonstrate that a release has not occurred, as subsequent spills may have resulted from the ongoing operations.

Two of the largest hazardous waste streams produced in Zone 3 are chemical mixtures - calibration fluid and the solvent PD-680. None of the analyses reported in the RFI would detect a release of these waste streams except "petroleum hydrocarbon" analyses. No RRS No. 2 standards have been proposed for "petroleum hydrocarbon"

mixtures, and in many cases this analysis was not performed on samples collected from the source areas where these wastes were stored.

The sample locations in some source areas (for example, Building 379 and Building 316) did not include locations likely to have the highest concentrations of contaminants.

A number of contaminant detections occurred outside of the extent of contamination defined for each source area in the RFI Report. The RFI did not consider the sample results to be "indicative of a release" because the sample locations were so far removed from site activities. It is difficult to agree with this assessment unless there was no rationale to collect a sample from these locations to begin with. As a result the extent of contamination in a number of source area has not been fully defined to background or non-detect.

A number of contaminants were eliminated based on the results of confirmation testing which showed lower concentrations. This use of confirmation sampling to eliminate sample results is at odds with the Consistency Memo.

DATA PRESENTATION

The screening process for each source area is well presented with a summary of detected contaminants presented in tables and figures for each source area. However, these tables contain a number of errors that make the RFI Report unreliable. CRC attempted to verify the detected contaminants tables using information from the Appendix I - Data Summary Tables but was unable for a number of reasons.

First, each table in Appendix I contains a footnote indicating: "All values in mg/kg." It is clear from the reported detection limits that the Appendix I data tables are presented in a mixture of units, mg/kg and µg/kg. It is not clear what units some of the sample results are actually reported in.

Secondly, CRC's review identified instances where results from Appendix I have not been included in the RFI Report tables summarizing all detected contaminants. In addition, it appears that some data results included in the RFI Report tables are not included in Appendix I.

Thirdly, the column headings used on many detected contaminants summary tables in Section 3 of the RFI are misleading. The values in the "percentage of detections above RL" column are inaccurate for metals. This "percentage of detections" includes only samples that exceeded the background metal concentration. Some metals with a reported low frequency of detection were actually detected in 100 percent of the samples.

Another problem with data presentation was the decision to summarize soil sample results from beneath the water table together with other subsurface soil sample results. The RFI report considers any detection below the groundwater table as a release to groundwater and not a release to soil. Detections below the water table were therefore not considered in deciding to close the source area or to include the source area in the Zone 2 and 3 CMS. Separate summary tables for samples collected beneath the water table should have been presented in the RFI so the basis for closure and cleanup decisions at each source area was apparent.

POLYCYCLIC AROMATIC HYDROCARBONS

With the exception of naphthalene and 2-methylnaphthalene, the RFI report does not identify benzo(a)pyrene or any other Polycyclic Aromatic Hydrocarbons (PAHs) as chemicals of concern despite surface and subsurface soil detections above RRS No.2 criteria.

PAHs were found in surface soils north of buildings 365/363/361 above RRS No. 2 criteria. PAHs were not identified as a chemical of concern for the CMS. The rationale was that the OWS were this contamination is found, would be included in the Site S-4 cleanup.

Similar concentrations of PAHs were found in surface soils and subsurface soils at Building 375. This contamination will not be addressed in a CMS because "contamination by asphalt paving" is alleged. This allegation is contradicted by the fact that one of the samples was collected from nine feet below the ground surface. CRC also believes the RFI may have misinterpreted the benzo(a)pyrene concentration in this sample as 1.042 mg/kg, when the actual value may be 1,042 mg/kg.

For PAHs found in surface soils and subsurface soils at the South Ramp source area the difference in results between the sample and its field duplicate sample was alleged to be "not indicative of a release."

For PAHs in surface soils and subsurface soils at the East Taxiway source area it was alleged that: "none of the SVOC detection is related to site activities." This allegation is contradicted by the fact that outdoor aircraft maintenance was conducted in this source area and historical aerial photos show significant staining on the taxiway as a result.

The benzo(a)pyrene and PAH contamination at each of these source areas should be further evaluated in the Zone 2 and 3 CMS. Since the analytical method used for PAHs in the RFI Report was not sensitive enough to detect benzo(a)pyrene at the RRS No. 2

criteria, additional investigation, using more sensitive laboratory methods, should be performed to identify the extent of PAH contamination at each of these source areas.

EXISTING RISKS POSED BY SURFACE SOIL CONTAMINATION

CRC reviewed the data summary tables to determine if any source areas contained surface soils that exceeded the RRS No. 2 criteria for protection of human health. With the exceptions of the benzo(a)pyrene contamination noted above, no other surface sample results above human health protective criteria were identified in the RFI Report.

CRC then reviewed high levels of contamination reported in 2-4 foot below ground surface samples where surface soil samples were not available. In some instances we believe that surface soils should be sampled to evaluate potential human health risks, particularly if sites have been leased. These locations include beneath the floor of Building 360 where high concentrations of PCE are found. Vinyl chloride contamination in the Building 385 Area and in the Ramp Area should also be addressed. The RFI indicates that the high levels of vinyl chloride found in the Ramp Area where removed during recent ramp repairs.

RFI Report Figure 3-106 indicates that chromium is found in surface soils above RRS No. 2 criteria. This figure was mislabeled and instead provides information on chromium contamination in subsurface soil.

METALS BACKGROUND CONCENTRATIONS

Background concentrations for metals have been proposed for both surface and subsurface soils. However, in a number of instances detections of metals above these background concentrations were considered "within the range of background." No range of background values is provided in the RFI Report and the decisions not to consider metals as chemicals of concern are often arbitrary. At some source areas metal sample results two and three times the background concentrations were eliminated as chemicals of concern.

EXAMPLES OF DATA SCREENING PROBLEMS

The solvent 2-hexanone was detected in surface soil samples from the Building 324/Building 318 source area and in the source area north of Building 365/363/361. This solvent was widely used in paint prior to 1982 when its manufacturing was banned because of health impacts associated with its use. No screening values are provided for 2-hexanone in Table 3-1 of the RFI Report though a value of 409 ppb is used in a summary table for Buildings 324/318. The detection at Buildings 365/363/361 was beneath the water table, so the release of 2-hexanone was to

groundwater and not soil. However, 2-hexanone was not identified as a groundwater contaminant in Zone 3.

N-nitrosodi-n-propylamine was found in a single soil sample from the Building 385 source area. The screening values for this contaminant in Table 3-2 of the RFI Report were not correctly calculated. The only known sources of this contaminant are weed killers. This contaminant was not considered related to the site activities.

Bis(2-ethylhexyl)phthalate is identified as a chemical of concern at four of the seven source areas where it was detected above RRS No. 2. At the Building 316 source area this contaminant was eliminated as a chemical of concern as allowed by the Consistency Memo because it was detected in the method blank. At the other two source areas where it was detected, East Taxiway and Building 362, bis(2-ethylhexyl)phthalate should be identified as a chemical of concern. The Building 362 was attributed to lab contamination but there is no evidence of detections in the method blank. At the East Taxiway the sample locations' proximity to site activities and the non-detectable results of the confirmation sample are not appropriate explanations for eliminating this chemical of concern.

CONCLUSIONS

RRS No. 1 Sites

Four source areas were identified for RRS No. 1 Closure. This indicates that no releases from the source area have caused contamination greater than background. These four source areas are:

Building 379 Container Storage Area (CSA)
Building 308/Building 312 Area
Building 331 Industrial Wastewater Collection System (IWCS)
Building 345 Oil Water Separator (OWS)

Soil analyses indicate that background concentrations of metals, and volatile organics, are exceeded at each of these source areas proposed for RRS No. 1 Closure. In addition, several chemicals at each site exceeded RRS No. 2 Closure criteria. These sample results were not included in the decision because: contaminants were found below the groundwater table; just above Reporting Limits; just above background; not detected in confirmation samples; sample contamination during collection or analysis; associated with Site S-4; or, was associated with IWCS.

At the Building 308/312 area high concentrations of PCE were found in soil samples but were associated with the IWCS corridor. There is no data on the extent of PCE found at

this location to determine if concentrations of PCE continue to exceed RRS No. 2 criteria outside of the corridor that would be addressed in the IWCS Closure project. Until extent of this release is defined this source area should be evaluated in the Zone 2 and 3 CMS.

RRS No. 2 Sites

Two source areas identified for RRS No. 2 Closure should instead be included in the Zone 2 and 3 CMS. These two source areas are:

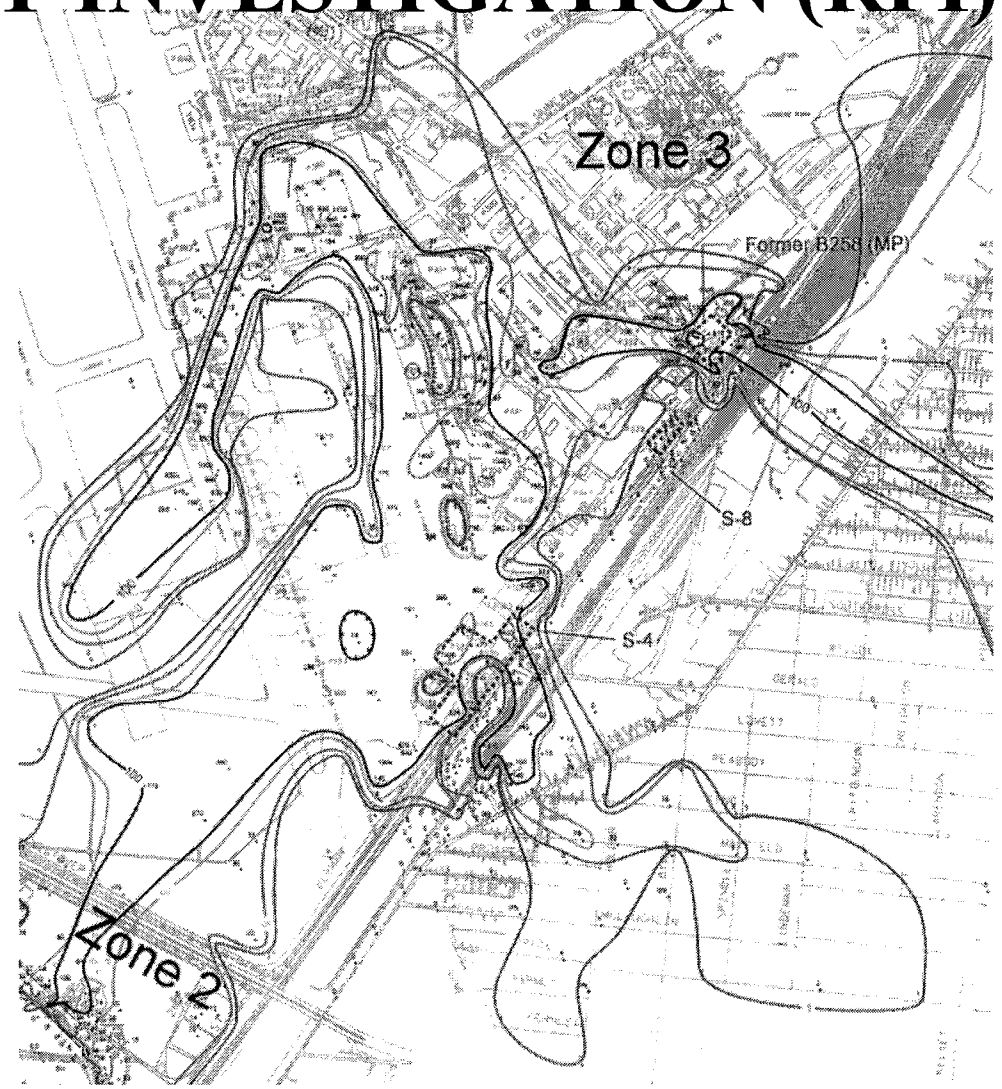
Building 10988 Oil-water Separator
East Taxiway

The CMS for the East Taxiway source area should address contamination by bis(2-ethylhexyl)phthalate, benzo(a)pyrene and other PAHs that exceed RRS No. 2 criteria. The CMS for the Building 10988 Oil-water Separator should address barium concentrations that exceed RRS No. 2 criteria.

REPORTS FOR THE ST. MARY'S LIBRARY

	REPORTS LISTED BELOW WERE TAKEN TO THE TRS MEETING	Date	Status	ADM
	June 2003			
237B	Quality Program Plan Sanitary Sewer Assessment	Mar 2003	Final Draft	Inf
813A	SWMUs at Bldg 317 (NoR SWMU # 075 & 076) and	Feb 2003	Final Draft	Inf
	Bldg 424 (NoR SWMU # 018) Closure Report			
816A	Closure Report for SWMUs at Bldgs 331, 352, 360, 365, 375, 385, 645, 655, 3768, 10998	Apr 2003	Final	Inf
	Date:			
	Signature:			

ZONE 3
RCRA FACILITY INVESTIGATION (RFI)
TAPP REVIEW



Zone 3 RFI Objectives

- 20 Source Areas Investigated
- What was released? Where?
- What is the appropriate closure standard to apply under the Risk Reduction Rule?
- Is a Corrective Measures Study needed?

Risk Reduction Standards

RRS No. 1 - Unrestricted Use

Background or non-detect

RRS No. 2 - Industrial Use Risk Screening

Health-based Standard Surface soils

Groundwater Protection in Subsurface Soil

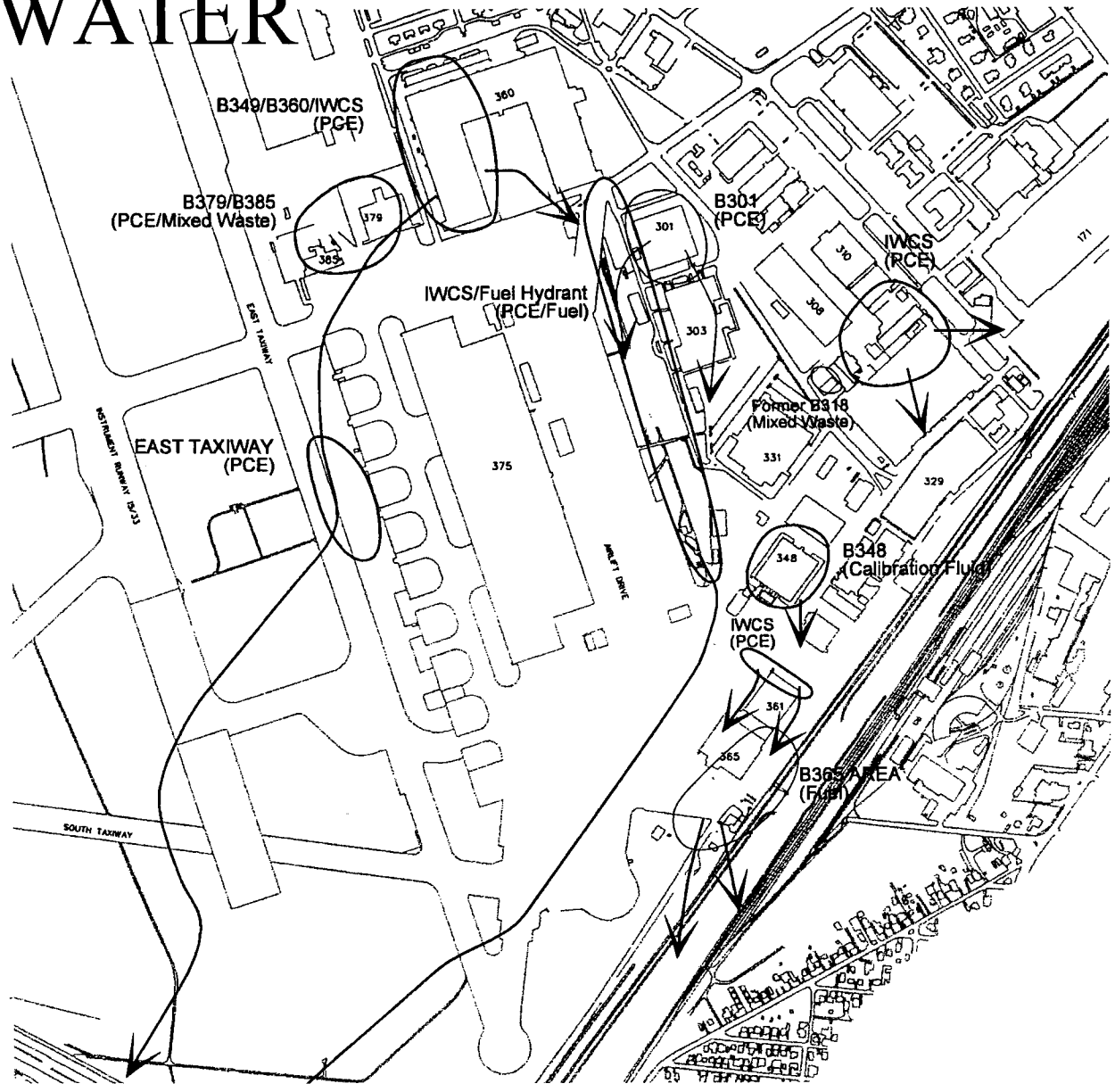
Drinking Water Standards in Groundwater

RRS No. 3 - Site Specific Risk Assessment

General Comments

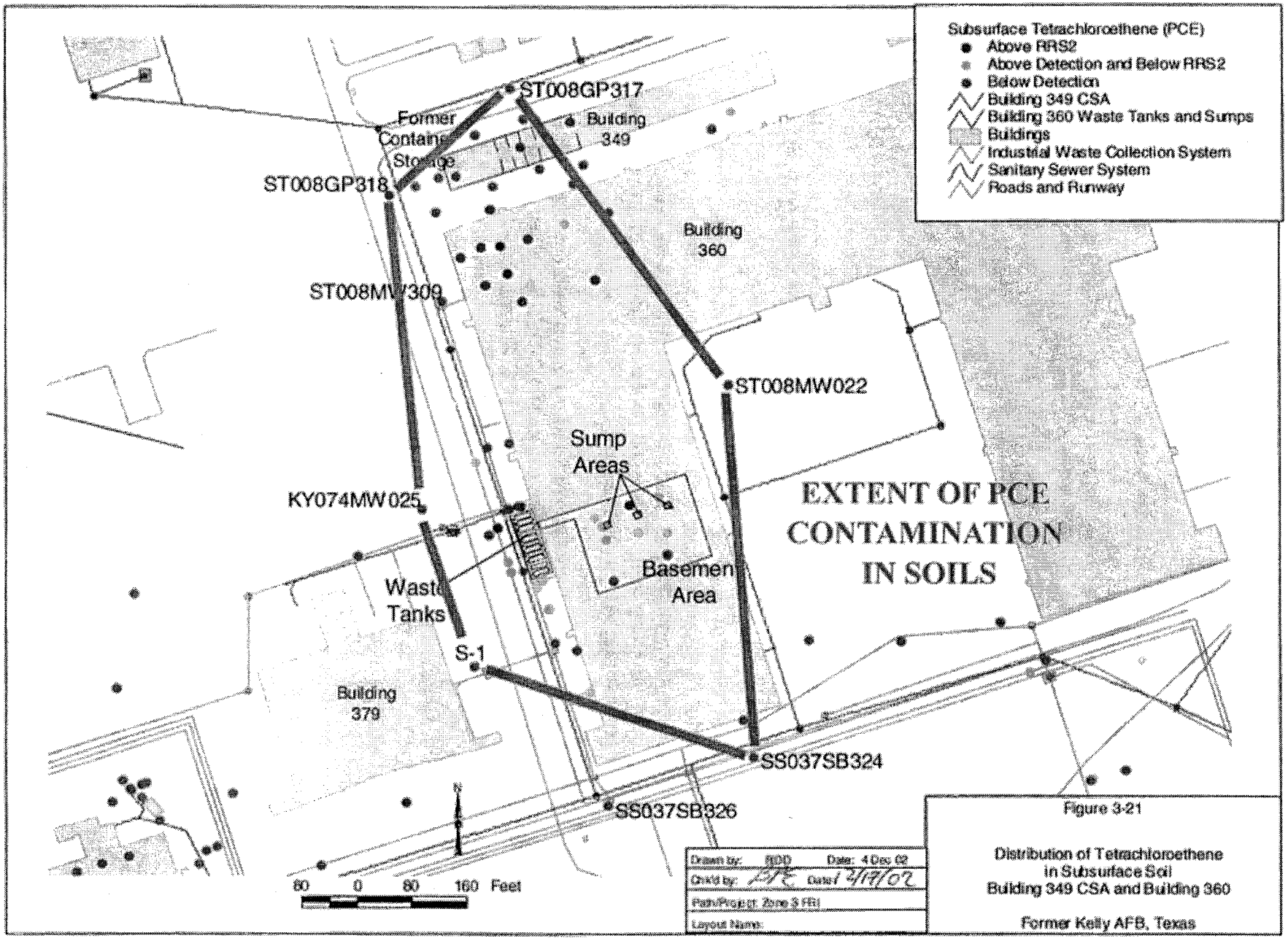
- Sampling dates and ongoing hazardous waste activities
- Calibration Fluid and PD-680 Solvent Sampling
- Samples from areas of highest contamination
- "Indicative of a release"

GROUNDWATER



Consistency Memorandum

- Infrequently Detected Compounds
- Detection Limits that exceed criteria
- Background Values
- Extent of Contamination


Subsurface Tetrachloroethene (PCE)
Above RRS2
Above Detection and Below RRS2
Below Detection
Building 349 CSA
Building 360 Waste Tanks and Sumps
Buildings
Industrial Waste Collection System
Sanitary Sewer System
Roads and Runway
ST008GP317
Former Contain Storage
Building 349
ST008GP318
Building 360
ST008MW309
ST008MW022
Sump Areas
KY074MW025
EXTENT OF PCE CONTAMINATION IN SOILS
Waste Tanks
Basemen Area
S-1
Building 379
SS037SB324
SS037SB326
80 0 80 160 Feet
Drawn by: RDD Date: 4 Dec 02
Chkd by: Date: 2/19/02
Path/Project: Zone 3 FRI
Layout Name:
Figure 3-21
Distribution of Tetrachloroethene in Subsurface Soil
Building 349 CSA and Building 360
Former Kelly AFB, Texas

Data Presentation

- Appendix I Units mixed
- Data Inconsistencies
- Percentage of Detections
- Soil Samples from beneath water table

APPENDIX I EXAMPLE

Table 3.4.1 (portion)

Building 375

LOCID	SBD	SED	LOGDATE	1,2,4-TRICHLOROBENZENE	1,2-DICHLOROBENZENE	1,3-DICHLOROBENZENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	BENZYL BUTYL PHTHALATE	BIS(2-CHLOROETHOXY) METHANE
375-08	15.5	17	9/23/1998		10											
375-09	10.5	12	9/24/1998		120	18										
375-09	12	13.5	9/24/1998		87											
375-09	17	18.5	9/24/1998		5											
KY013SB001	12	13	12/12/1991	1U	1U	1U	1U	1U	3	1U	1U	1U	1U	1U	1U	1U
KY013SB002	6	8	12/12/1991	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
KY013SB003	1	3	12/12/1991													
KY013SB003	9	10	12/12/1991	1U	1U	1U	1U	16	483	1U	1140	103	1U	103J	1U	1U
KY013SB004	1	2	12/12/1991													
KY013SB004	4	6	12/12/1991													
KY013SB004	4	6	12/12/1991	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	9
KY013SB005	10	11	12/12/1991	1U	1U	1U	1U	1U	1U	1U	29	66	1U	66J	59	1U
KY013SB006	0	2	8/18/1997	0.37U	0.37U	0.37U	0.37U	0.37U	0.37U	0.78	0.37U	1.2	1.1		0.37U	0.37U
KY013SB006	2	4	8/18/1997	0.37U	0.37U	0.37U	0.37U	0.37U	0.37U	0.37U	0.37U	0.37U	0.37U		0.37U	0.37U
KY013SB006	6	7	8/18/1997	0.34U	0.34U	0.34U	0.34U	0.34U	0.34U	0.34U	0.34U	0.34U	0.34U		0.34U	0.34U
KY013SB007	0	2	8/6/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB007	0	2	8/6/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB007	6	8	8/6/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB008	0	2	8/11/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB008	7	9	8/11/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB009	0	2	8/6/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB009	6	8	8/6/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB010	10	12	8/11/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB010	0	2	8/11/1997	3.3U	3.3U	3.3U	3.3U	3.3U	3.3U	3.3U	3.3U	3.3U	3.3U		3.3U	3.3U
KY013SB010	10	12	8/11/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB011	2	4	8/11/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB011	8	10	8/11/1997	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U	0.33U		0.33U	0.33U
KY013SB012	0	2	1/12/1999	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U
KY013SB012	8	10	1/12/1999	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U
KY013SB013	0	2	1/12/1999	440U	2000	440U	1400	620	440U	440U	440U	440U	440U	440U	440U	440U
KY013SB013	8	10	1/12/1999	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U

Data Screening Comments

- Metals Background Values
- Benzo(a)pyrene and PAH Contamination
- Extent of Contamination

Surface Soil Contamination

- Benzo(a)pyrene Building 375, Buildings 365/363/361, South Ramp Area, and East Taxiway
- PCE beneath floor of Building 360
- Vinyl Chloride Building 385 Area and Ramp Area

Conclusions

- RRS No. 1 Closure is not appropriate for any source area

- CMS recommended for:

  Building 308/312 Area

  Building 10988 Oil-water Separator

  East Taxiway

January 2003 Semiannual Compliance Plan Report (July-December 2002)

Report Summary

Presentation to the TRS
June 10, 2003

CH2MHILL

Project Scope

- Fulfill the TCEQ Compliance Plan requirements (monitoring and reporting).
- Conduct an annual assessment of the interim remedial action systems.
- Provide an annual "snapshot" of groundwater contamination.

CH2MHILL

Compliance Monitoring Breakout

- 14 Waste Management Areas (SWMUs)
- 4 RCRA-permitted units
- Leon Creek

CH2MHILL

Sampling

- Annual GW sampling of Waste Management Areas.
- Semi-annual GW sampling of four RCRA-regulated units (SA-2, SD-1, E-3, S-8).
- Semi-annual water level measurements.
- Annual biological sampling of Leon Creek.
- Semi-annual surface water/sediment sampling of Leon Creek.

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Annual WMA Sampling

- Sampled 422 monitoring wells on and off-base
- Samples analyzed for VOCs, SVOCs (except for 102 non-CP wells), metals, cyanide, pesticides/PCBs (Zones 1&2 only).

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Semi-annual Sampling of four RCRA Units

- Sampled 41 monitoring wells
- Wells monitor the following sites:
  - SA-2, SD-1 and E-3 (Zone 2)
  - S-8 (Zone 3)
- Samples analyzed for VOCs, SVOCs, metals, cyanide, pesticides/PCBs (Zone 2 only)

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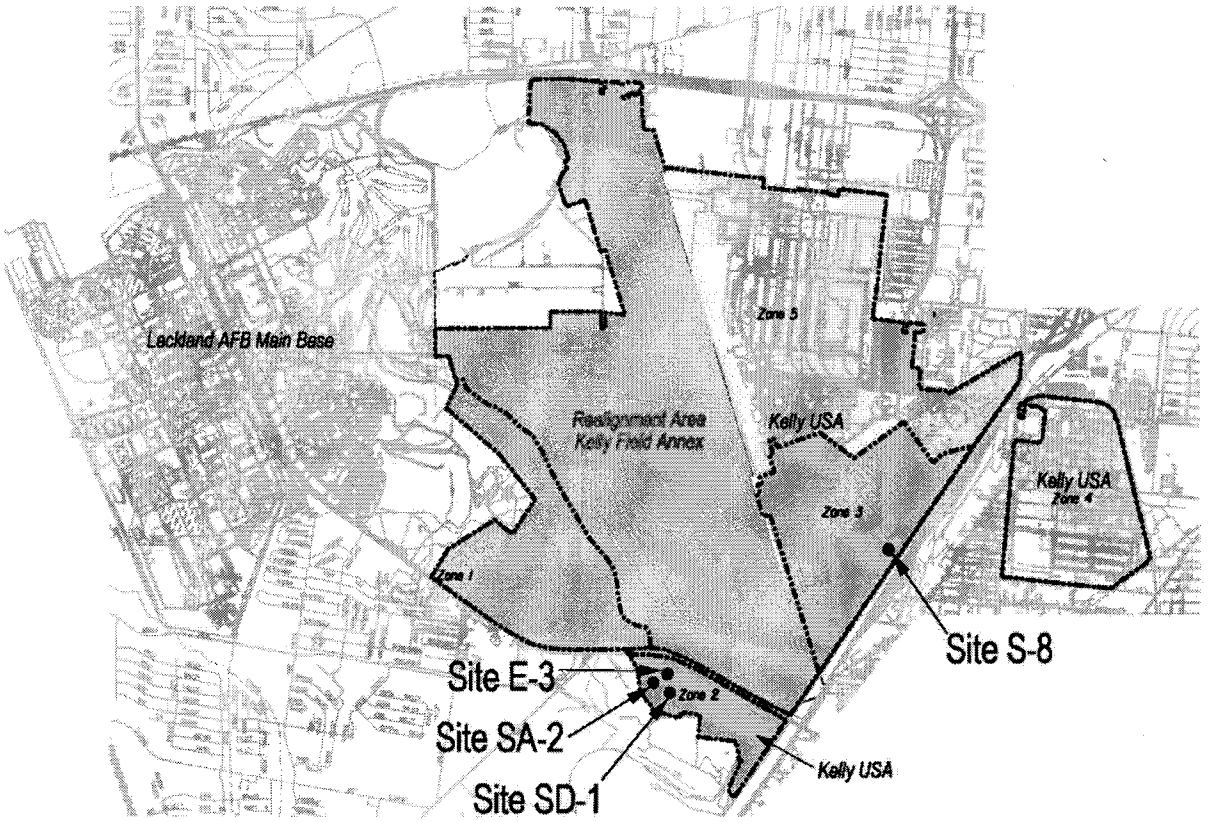
4 RCRA-Regulated Units



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Semi-Annual Water Level Measurements

- Water levels were measured during September 2002.
- Approximately 400 wells were measured during this event.
- Wells are checked for total depth, GW level, and any free product that might be on the water.

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Leon Creek Monitoring

- Small, shallow low-flow urban stream
- Flows through West San Antonio
- Lack of tree cover causes, high water temperatures, which reduces the amount of oxygen in the water
- Highly susceptible to flash floods
- Receptacle for urban runoff

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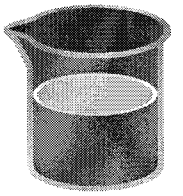
Leon Creek Monitoring

- Physical Assessment

- Chemical Assessment



- Biological Assessment

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Physical Assessment of Leon Creek

- During July 2002 we measured:
  - Stream flow in 4 segments.
  - Flow from selected seep and outfalls.
  - Surface water elevations at 21 stations.
- Created sketches and took photographs to document changes in the stream's physical appearance.

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Chemical Assessment of Leon Creek

- During July 2002 we sampled:
  - 22 surface water stations.
  - 20 sediment stations.
  - 6 outfalls and 8 seeps.
  - Analyze samples for VOCs, SVOCs, metals, cyanide, pesticides/PCBs, General Chemistry

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Biological Assessment of Leon Creek

- During July 2002 we conducted:
  - ChronicToxicity testing at 8 stream stations.
  - Fish tissue sampling at 8 stream stations.
  - EPA Rapid Bioassessment at 8 stream stations.

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2002 Results for the Annual Sampling

- Decreases in the magnitude of chlorinated solvents in the source areas and just downgradient of the remedial systems has been shown to be occurring in the following areas:
  - Zone 4 off-base plume
  - Around recovery systems in Zone 2 near Leon Creek
  - WP022 (E-3) Source area
  - Downgradient of Site SS040 (MP)

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Annual Sampling Frequency of Detection/Max

- VOCs
  - PCE - 62% Max: 4,710 ug/L
  - TCE - 70% Max: 1,250 ug/L
  - DCE - 74% Max: 581,000 ug/L
  - VC - 27% Max: 23,600 ug/L
- SVOCs, Pesticides and PCBs were not detected in 98% - 99% of the samples

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RCRA Sampling Results

- VOC concentrations in the shallow groundwater have been greatly reduced at E-3.
- SD-1 and SA-2 monitoring indicates that there is no impact to shallow groundwater from these sites.
- S-8 monitoring indicates that natural degradation is occurring.

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RCRA Sampling Frequency of Detection

- VOCs
  - PCE - 37% Max: 72 ug/L
  - TCE - 34% Max: 6.7 ug/L
  - DCE - 71% Max: 60 ug/L
  - VC - 26% Max: 90 ug/L
- SVOCs, Pesticides and PCBs were not detected in approximately 99% of the samples.

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Leon Creek Sampling Results

- Initial screening shows 3 surface water and 25 sediment contaminants exceeding the Texas Water Quality Standard guidelines, which are conservative, general guidelines.
- Chronic Toxicity results showed potential surface water toxicity at some of the stations and no potential sediment toxicity. A risk assessment is being performed to follow up on these results.
- Pesticide contamination was found in several of the fish species which is not uncommon in any urban stream.
- Sensitive fish species were identified downstream of Kelly AFB.

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Leon Creek

- Trend analysis shows that Leon Creek has remained fairly constant over the years
- An Ecological Risk Assessment is currently underway and based on all the test results to date, the initial assessment shows that there is no elevated ecological risk at Leon Creek.

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ADMINISTRATIVE RECORD

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