



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS, 55TH WING (ACC)  
OFFUTT AIR FORCE BASE NEBRASKA

18 Nov 2010

MEMORANDUM FOR MR. FRANK PRUCKA  
10627 Martha Street  
Omaha NE 68124-3647

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Notice of Right of Entry onto Prucka Property

1. Offutt Air Force Base is submitting the following notice of our intent to access your property 6 and 7 December 2010. This notification is being sent in accordance with our right of entry agreement signed on 17 October 2006. The subject property is north of Cunningham Road and east of Harland-Lewis Road in Bellevue, Nebraska. The legal description of subject property is described as follows:

2. A tract of land in the West  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 7, T13N, R14E, of the 6<sup>th</sup> PM.

Commencing at Southwest corner of said SW  $\frac{1}{4}$ ; thence East along the South line of said SW  $\frac{1}{4}$ , 800 ft, to the point of beginning; thence North 300 ft; thence East 300 ft; thence South 300 ft; thence West along South line of said SW  $\frac{1}{4}$ , to the point of beginning.

3. The work to be completed during this right of entry will include:

a. Sampling and inspecting, including the use of a relatively small track-mounted direct push rig to obtain groundwater samples. No permanent sampling structures or equipment will be installed on or beneath the surface of the premises.

b. Land surveying and photographing associated with the sampling process to document sampling locations and to maintain a record of temporary structures, equipment, and methods used during the sampling event.

4. If you have any questions regarding this request, please call me at (402) 294-7621.

  
PHILIP E. CORK  
Chief, Environmental Restoration Element

*The Sun Never Sets on the Fightin' Fifty-Fifth*



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS, 55TH WING (ACC)  
OFFUTT AIR FORCE BASE NEBRASKA

OCT 28 2010

MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Meeting Minutes of the Offutt AFB Environmental Restoration Program (ERP)  
Restoration Advisory Board (RAB), 28 September 2010

1. Place: Bellevue Public Schools Welcome Center, Hwy 75 & Hwy 370, Bellevue NE
2. Date/Time: 28 September 2010/3:00 - 4:00 p.m.
3. RAB Members Present: Mr. John Ott, Community Co-Chair

Other Attendees: Col Michael Allshouse, 55 MSG/CC  
Ms. Deb Aragon, 55 WG/PA  
Ms. Sabina Chowdhury, BAH  
Mr. Paul Dusenbury, BAH  
Mr. Jeff Johnson, EPA  
Mr. Denny Jorgenson, URS  
Mr. Dave Koukol, Falt Fisheries Attorney  
Mr. Michael Litman, AFCEE  
Mr. Ed Lueninghoener, 55 CES/DD  
Mr. Bob Mallisee, URS  
Ms. Stacey Stricker, NDEQ  
SSgt Dudley Lykins, 55 AMDS/SGPB  
Mr. Jesse Schraft, 55 WG/JA

4. The September 2010 RAB meeting was chaired by Mr. Phil Cork, 55 CES/CEV. Mr. Cork began the meeting with introductions. Mr. Cork then provided a history of each site utilizing site and plume maps.

5. Mr. Cork provided a summary of the ERP sites:

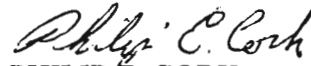
a. During the presentation of the information regarding the Old Jet Engine Test Stand (OJETS) site, Mr. Koukol asked if it was expected that the clean zones were to get larger? Mr. Cork responded that the clean zones created by the *in situ* biostimulation treatment zones (IRTs) should continue to grow in size downgradient, but not necessary to the sides of the zones. Mr. Koukol asked if there was a need to install IRTs between the two existing distal IRTs or in the southwest portion of the distal plume. Mr. Cork responded that there are no plans to install any additional IRTs along the distal portion of the plume. Mr. Jeff Johnson (EPA) responded that the

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EPA is reviewing the data collected along the distal portion of the plume to see if there is evidence of plume movement and/or increased vinyl chloride concentrations. The EPA would then require Offutt to complete additional action to halt the plume movement. Mr. Ott asked how deep the biostimulant injections were. Mr. Cork responded that the biostimulant injections are between 45 and 90 feet below the ground surface. Mr. Ott followed by asking if any effect had been seen from the heavy rains and the flooding of the ditches in the area. Mr. Cork responded that because of the depth of the vinyl chloride contamination (45 to 90 feet), no changes in the groundwater plume have been tied to higher water levels at OJETS.

b. During presentation of the information on the military munitions response program (MMRP), Mr. Koukol asked about what was the "indication" that there was or is chemical agent buried at the Landfill 3 site. Mr. Cork responded that the indication that there was possibly chemical agent buried at the Landfill 3 site was from original architectural drawing made for construction of the swimming pool near the Officer's Club.

6. The next RAB meeting is scheduled for March 2011, 3:00-4:00 p.m., at the Bellevue Public Schools Welcome Center. A notice will be sent when a specific date is determined.

  
PHILIP E. CORK  
Recorder

Approved as written



MICHAEL J. ALLSHOUSE, Colonel, USAF  
Commander, 55th Mission Support Group

2 Attachments:

1. RAB Presentation
2. Distribution List



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# **RESTORATION ADVISORY BOARD (RAB)**

**28 September 2010**

This Briefing is  
UNCLASSIFIED



## **AGENDA**



### **ERP**

- Landfill 5
- Fire Training Area 3
- Old Jet Engine Test Stand
- Landfill 4 Trench Area
- Landfill 4
- Hardfill 2 Composite
- Building 301
- Tank 349
- Elkhorn



# AGENDA



## MMRP

- Trap and Skeet Range
- Explosive Ordnance Disposal Range
- Possible Chemical Agent Burial Site (LF4 Trench Area)
- Possible Chemical Weapons/Poison Gas Burial Site (Landfill 3)



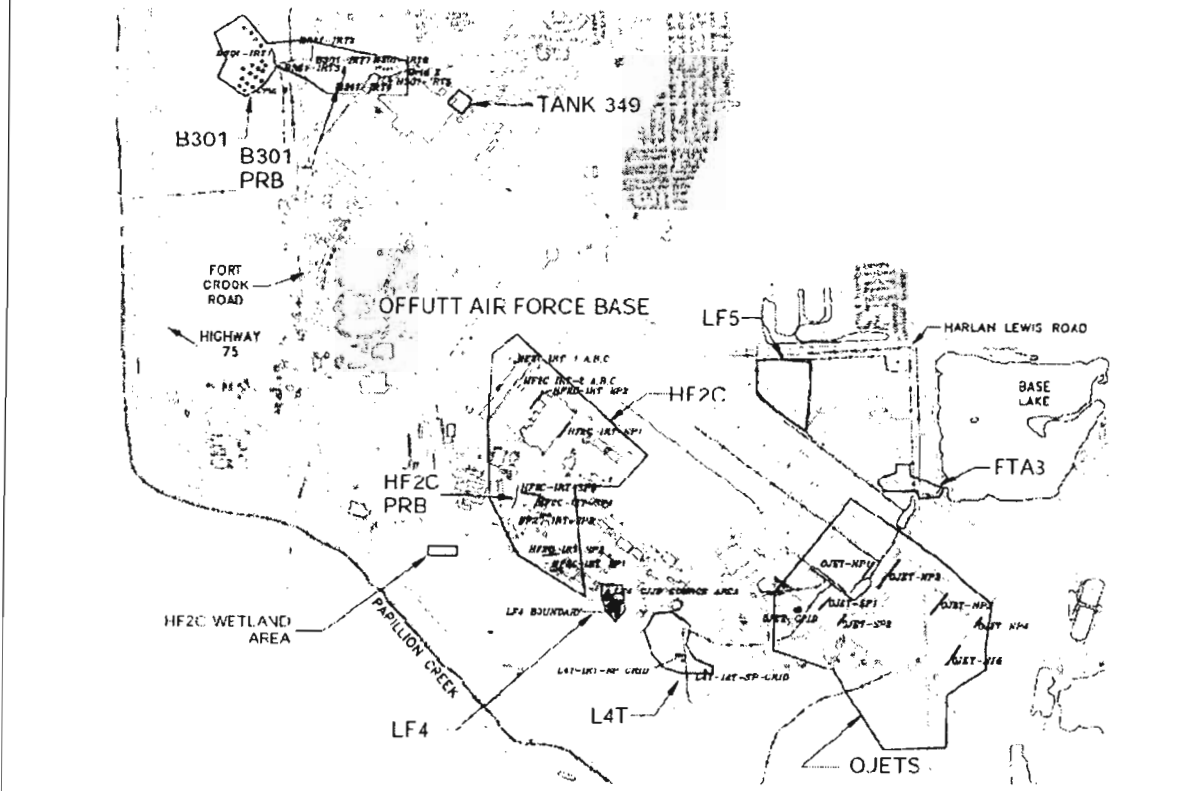
# AGENDA



## Compliance to Restoration

- Buildings 528 and 529
- India April Spill
- Building 457 Spill
- Building 517 Spill
- Storage Tank 580 Spill

# Offutt AFB ERP Sites



## LANDFILL 5



### FY10 Activities

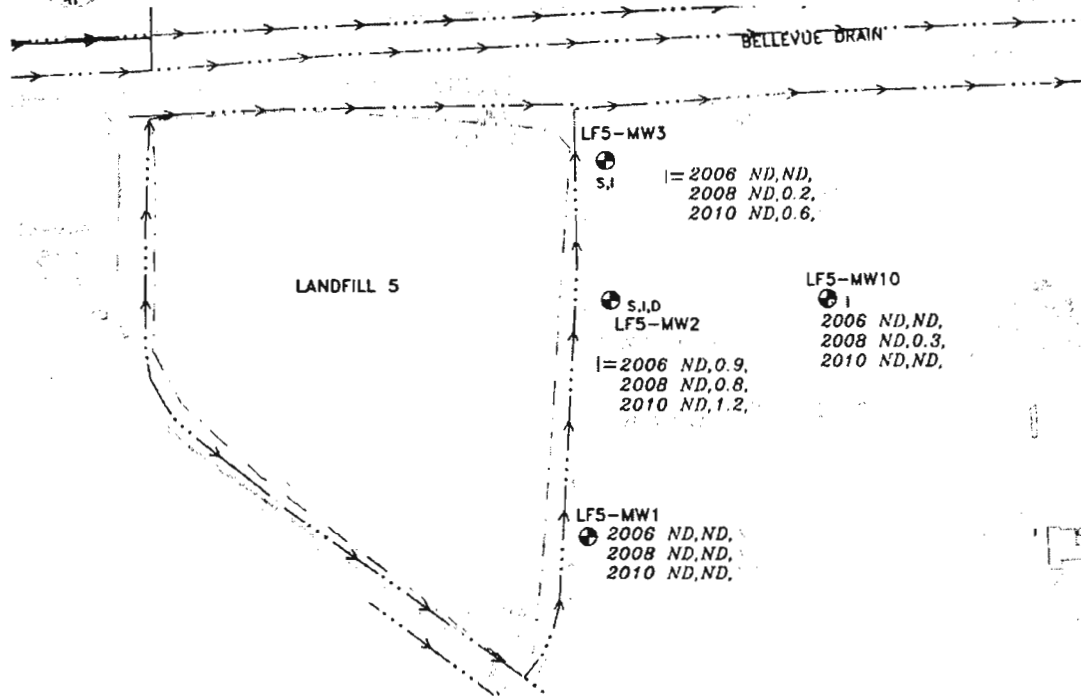
- Site inspections, groundwater monitoring (April), maintenance, and required grounds work
- NDEQ approved discontinuation of groundwater monitoring
- Revised Post-Closure Care Plan
- Abandon all site monitoring wells in Fall

### FY11 Planned Activities

- Site inspections, ground maintenance, maintain land use controls (LUCs)



# LANDFILL 5



# FIRE TRAINING AREA 3



## FY10 Activities

- Post bio-sparging shutdown monitoring in distal plume
- Monitored Natural Attenuation (MNA) sampling in the former source area and groundwater plume core
- Distal direct push groundwater sampling in November
- Modeling to predict when MCLs will be met throughout the plume after November sampling

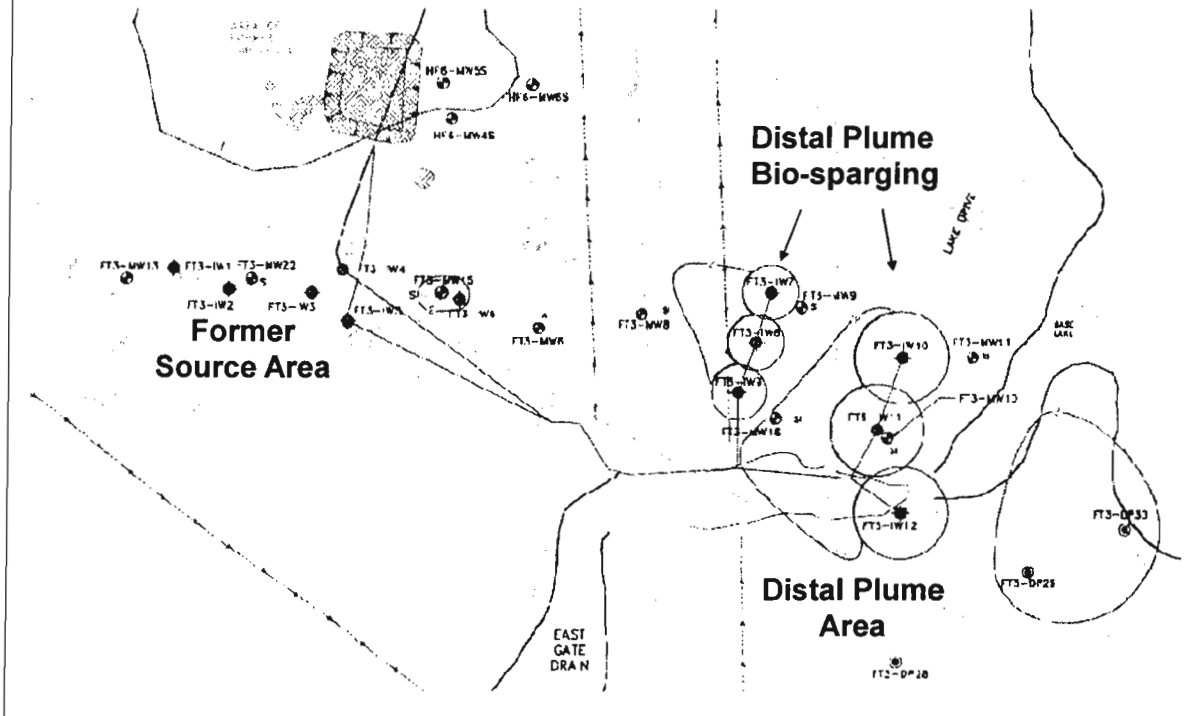
## FY11 Planned Activities

- Dismantle source and distal bio-sparging systems
- MNA in the former source, core and distal portion of the groundwater plume



# **FIRE TRAINING AREA 3**

## **Vinyl Chloride Plume**



# **OLD JET ENGINE TEST STAND**



## **FY10 Activities**

- Monitored Natural Attenuation (MNA) sampling in the former source area and groundwater plume core
- Re-injected biostimulant along distal off-Base areas
- Performance monitoring of seven biostimulant areas in the source zone, Base boundary, and distal portions of the vinyl chloride plume
- Public notice and finalization of the Statement of Basis

## **FY11 Planned Activities**

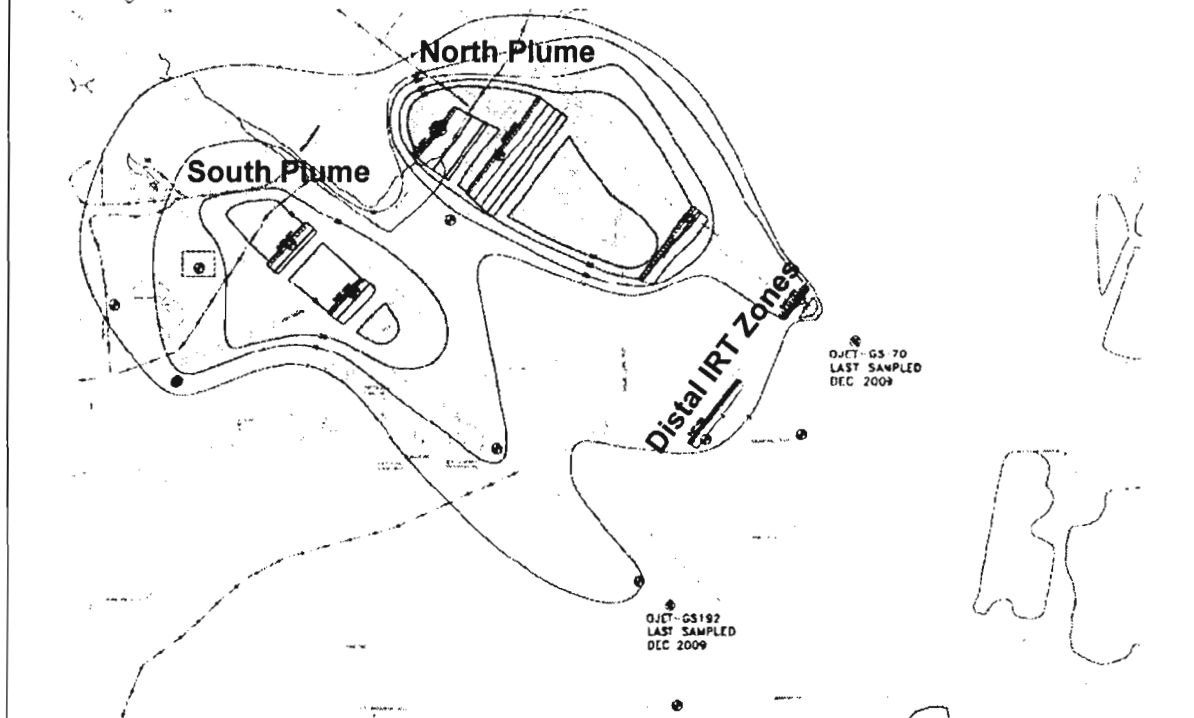
- Performance and MNA sampling in the former source, core and distal portion of the groundwater plume





# OLD JET ENGINE TEST STAND

Vinyl Chloride Plume



# LANDFILL 4 TRENCH



## FY10 Activities

- Groundwater sampling for annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
- Landfill inspection, including fencing, signs and cover

## FY11 Planned Activities

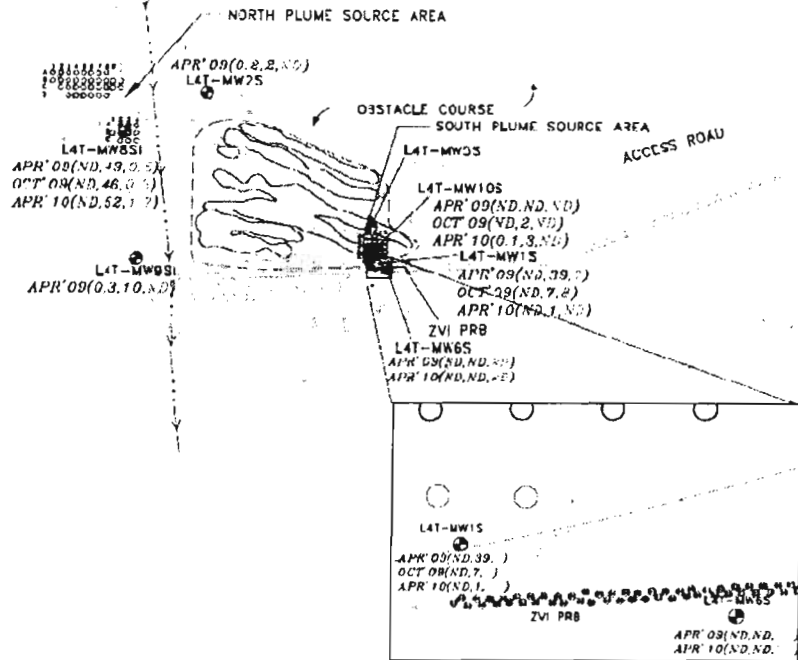
- Annual landfill inspection
- Biennial groundwater monitoring



# LANDFILL 4 TRENCH



L4T-MW7SI  
APR'09(1.23.0.3)



# LANDFILL 4



## FY10 Activities

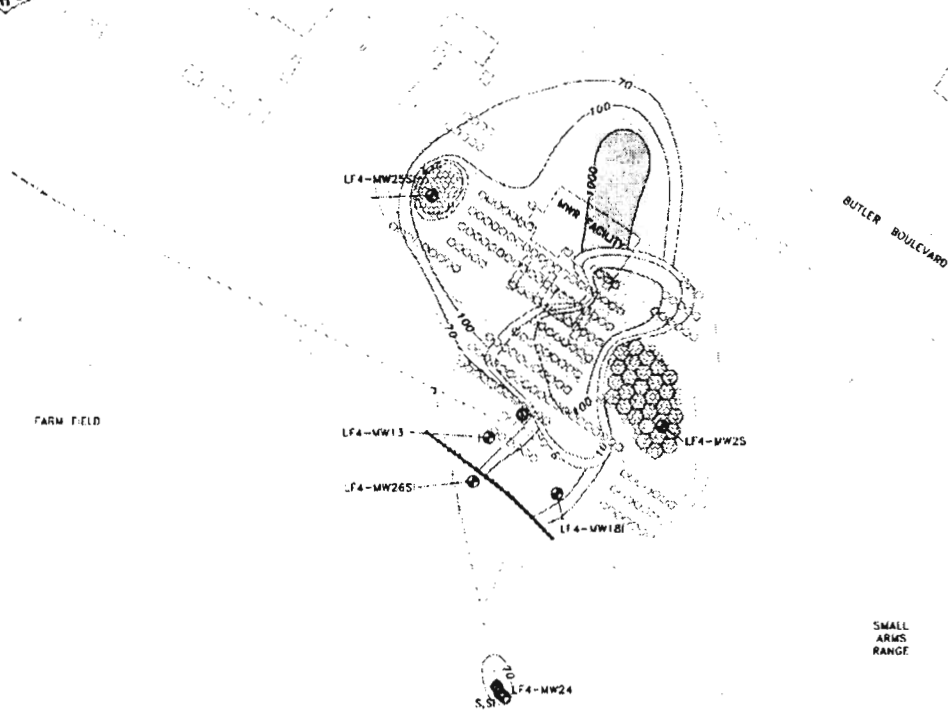
- Continued trial shutdown of hydraulic containment system with quarterly sampling of select monitoring wells
- Groundwater sampling for annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
- ESTCP Demonstration project for sheer thinning of biostimulant into low permeability zones
- Public notice and finalization of the Statement of Basis

## FY11 Planned Activities

- Permanent shutdown of hydraulic containment system
- Continue semiannual/annual performance monitoring of site remedies and biennial plume monitoring (outside biostimulant injection areas)



## LANDFILL 4



## HARDFILL 2 COMPOSITE

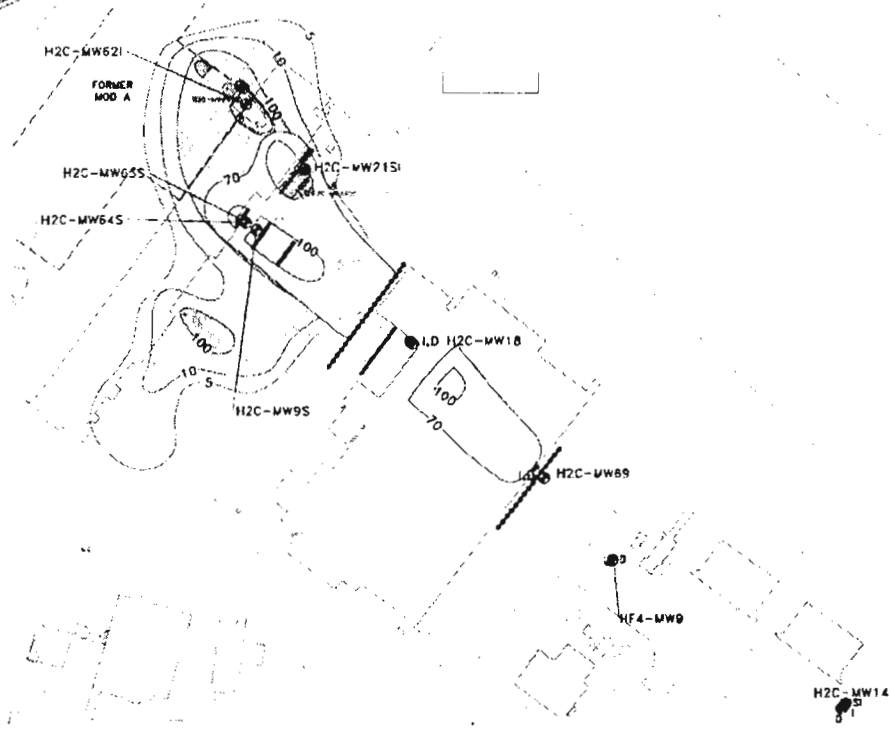


### FY10 Activities

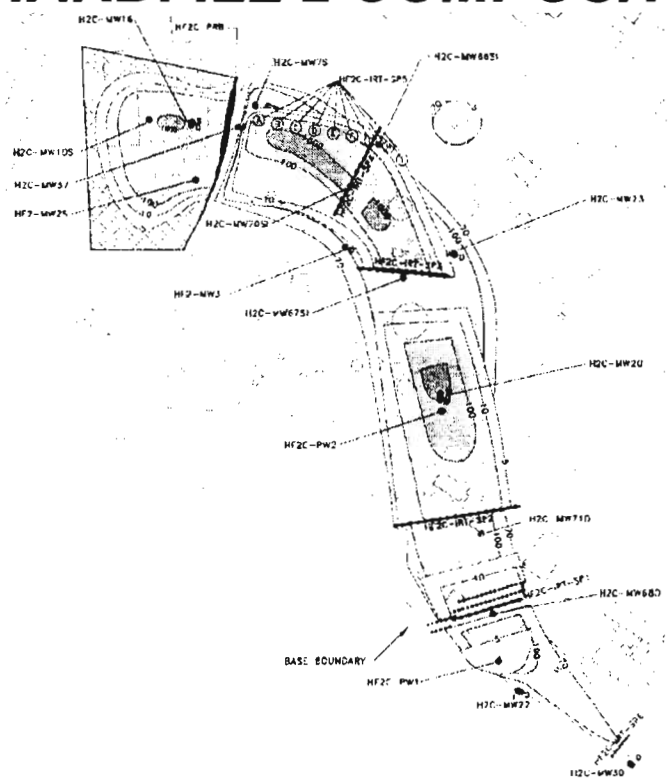
- Annual groundwater sampling for plume monitoring (outside biostimulant injection areas)
- Semiannual performance monitoring (within biostimulant injection areas) in the Northern Plume and quarterly performance monitoring in the Southern Plume
- Semiannual performance monitoring for ZVI PRB
- Began trial shutdown of hydraulic containment well HF2C-PW2 in April
- Continued inspections and maintenance of the remaining portion of the hydraulic containment system and the constructed wetlands
- Corrective action (filling former utility chases) at Building 321 (Field House), followed by indoor vapor sampling in April and October



# HARDFILL 2 COMPOSITE

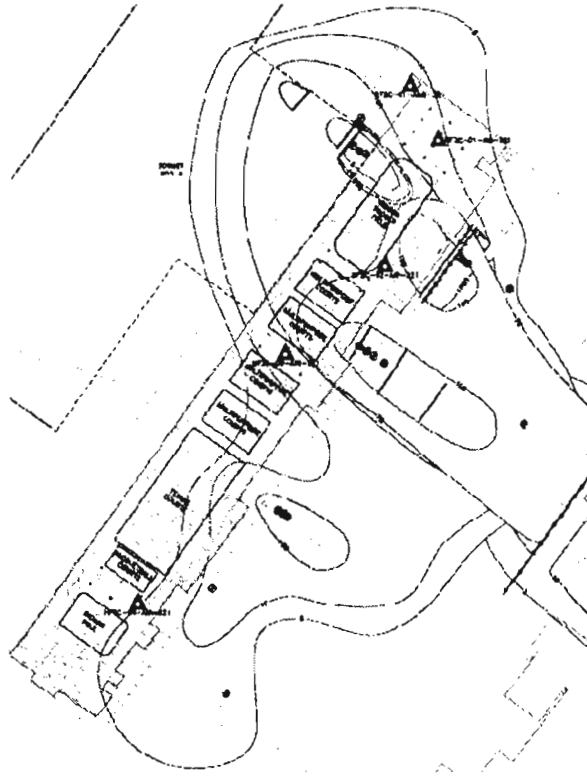


# HARDFILL 2 COMPOSITE





## **HARDFILL 2 COMPOSITE**



## **HARDFILL 2 COMPOSITE**



### **FY11 Planned Activities**

- Annual MNA groundwater sampling in the Northern and Southern Plume
- Semiannual/ quarterly groundwater sampling of biostimulant injection areas
- Annual/ semiannual groundwater sampling of ZVI PRB
- Continue inspections and maintenance of constructed wetlands
- Permanent shutdown of hydraulic containment system



# BUILDING 301



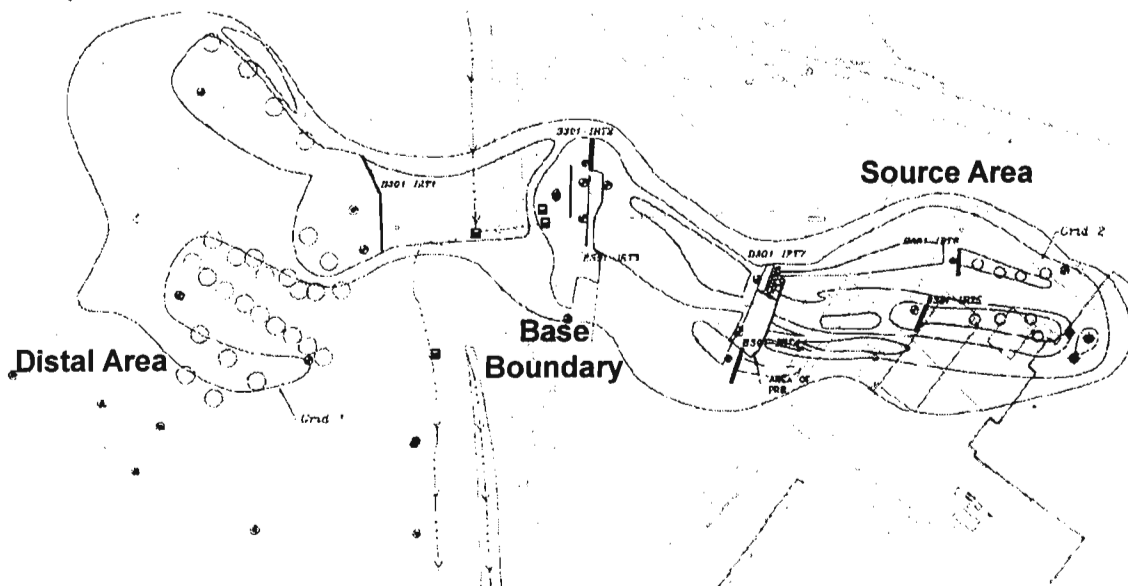
## FY10 Activities

- Collect groundwater samples for annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
- Completed annual ZVI PRB performance monitoring
- Complete semiannual field drain and NPDES monitoring
- Corrective action (filling former utility chases) at Building 321 (Field House), followed by indoor vapor sampling in April and October
- Public notice and finalization of the Statement of Basis



# BUILDING 301

## Trichloroethene (TCE) Plume





## **BUILDING 301**



### **FY11 Planned Activities**

- Annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
- Annual ZVI PRB performance monitoring
- Complete semiannual field drain and NPDES monitoring



## **TANK 349**



### **FY10 Activities**

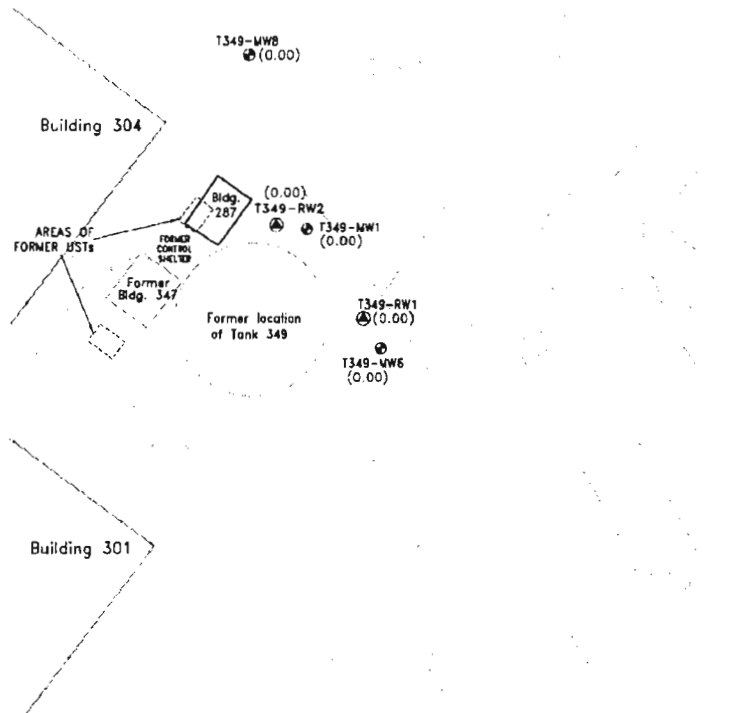
- Submitted Site Closure request in July 2009 after one-year of no measurable free product. Received Site Closure from NDEQ in December 2009 after 30-day public notification period.
- Monitoring well abandonment

### **FY11 Planned Activities**

- Site Closed



# TANK 349



# ELKHORN



## FY10 Activities

- Semiannual groundwater sampling in May and October. Sampling is to monitor post-pumping shutdown conditions at two on-Site wells.

## FY11 Planned Activities

- Semiannual groundwater sampling at two on-Site monitoring wells

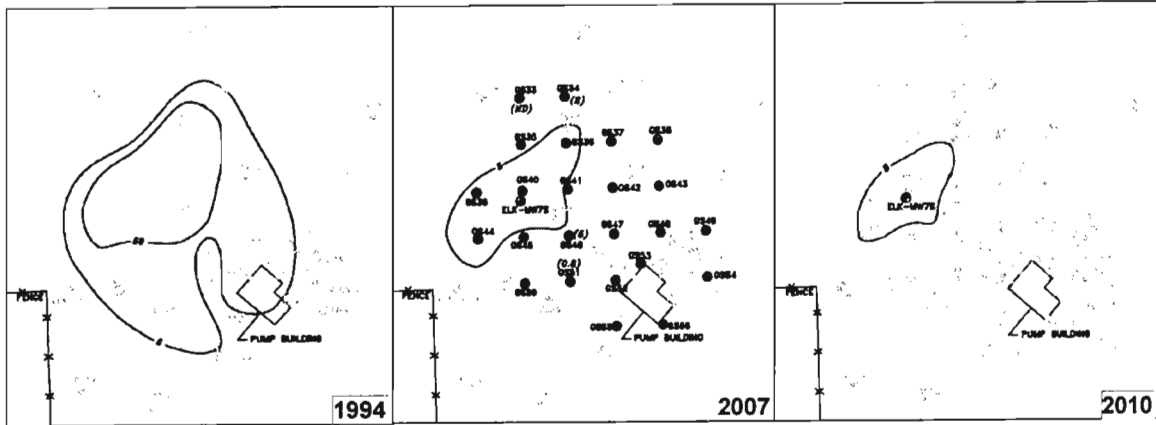




# ELKHORN



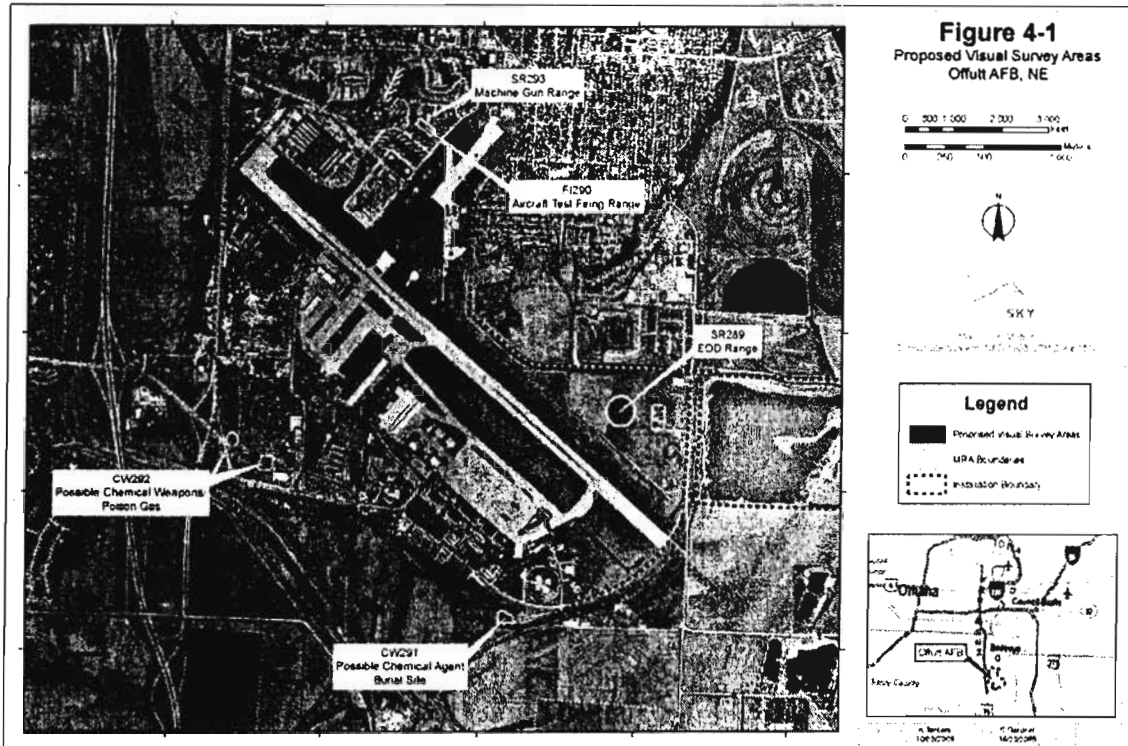
## Shallow Groundwater Plume



# MMRP



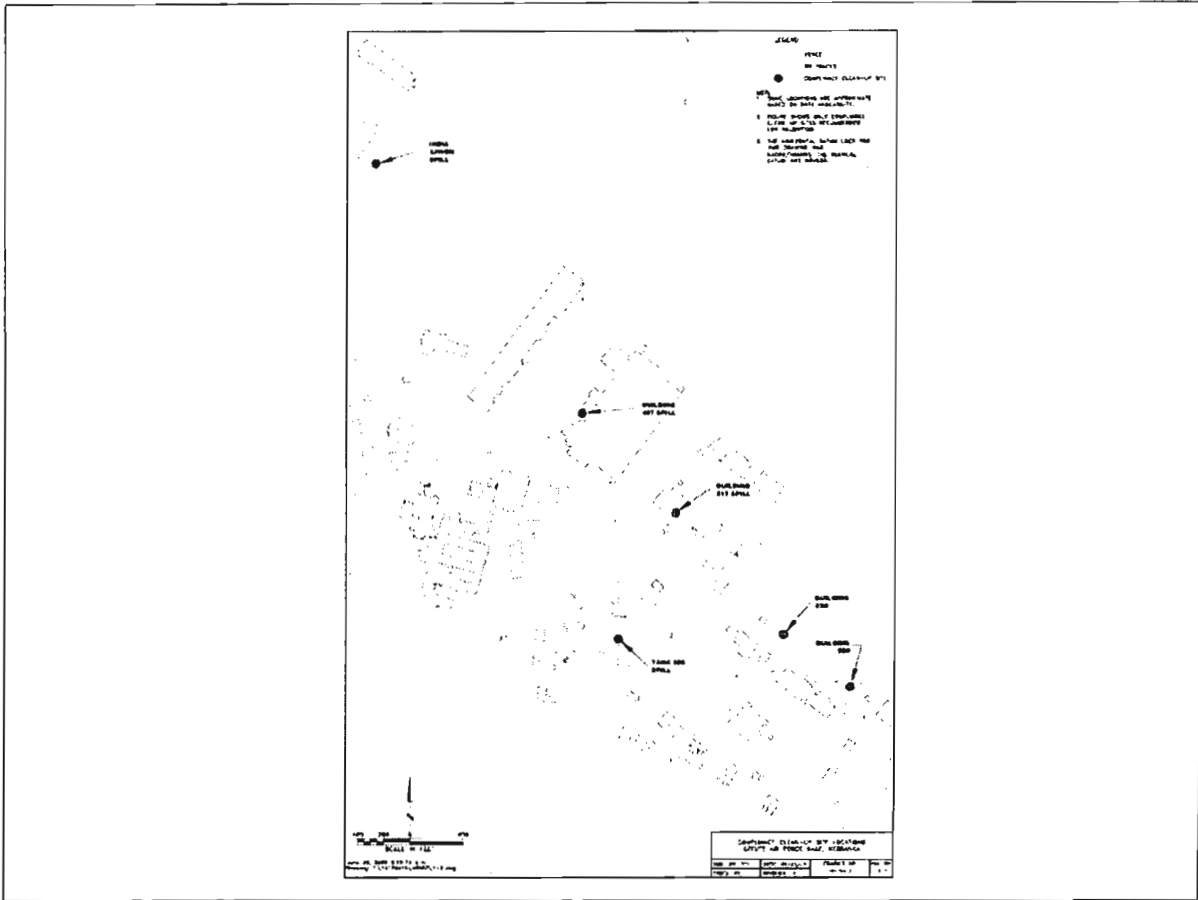
- Draft Final CSE Phase II Report completed August 2010
- Sites included:
  - Trap and Skeet Range
  - Explosive Ordnance Disposal Range
  - Possible Chemical Agent Burial Site (LF4 Trench Area)
  - Possible Chemical Weapons/Poison Gas Burial Site (Landfill 3)



## COMPLIANCE TO RESTORATION



- Final Evaluation Report (August 2009)
- Sites included:
  - Buildings 528 and 529
  - India April Spill
  - Building 457 Spill
  - Building 517 Spill
  - Storage Tank 580 Spill



# ***NEXT RAB MEETING***



- MARCH 2011
- BELLEVUE PUBLIC SCHOOLS WELCOME CENTER

## DISTRIBUTION LIST

Mr. Jeff Johnson  
Environmental Protection Agency, Region VII (ARTD/RCAP)  
901 N. 5<sup>th</sup> Street  
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Lincoln NE 68509-8922

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Bellevue NE 68005

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Omaha NE 68102

Mr. John Ott  
1602 Elm Street  
Bellevue NE 68005

Mr. Frank Prucka  
10627 Martha St.  
Omaha NE 68124-1845

Mr. John Poore  
17628 Allis Rd.  
Council Bluffs IA 51503-6478



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 55TH WING (ACC)  
OFFUTT AIR FORCE BASE, NEBRASKA

22 April 2010

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Meeting Minutes of the Offutt AFB Environmental Restoration Program (ERP)  
Restoration Advisory Board (RAB), 19 April 2010

1. Place: Bellevue Public Schools Welcome Center, Hwy 75 & Hwy 370, Bellevue NE
2. Date/Time: 19 April 2010/3:00 - 4:00 p.m.
3. RAB Members Present: Mr. John Ott, Community Co-Chair

Other Attendees: Ms. Sabina Chowdhury, AFCEE  
Ms. Jean Coburn, 55 CES/CEVR  
Mr. Dave Koukol, Falt Fisheries Attorney  
Mr. Ed Lueninghoener, 55 CES/CD  
Mr. Bob Mallisee, URS

4. Due to the absence of the Wing and Mission Support Group (MSG) leadership, the April 2010 RAB meeting was initiated by Mr. Lueninghoener, 55 CES/CD. Mr. Lueninghoener began the meeting by explaining the missing military leaders and stating that the Environmental Protection Agency (EPA) or Nebraska Department of Environmental Quality (NDEQ) representatives were unable to attend this meeting. Since these representatives were not present, Mr. Lueninghoener asked the attendees if they wanted to review the entire briefing or focus on the portions that those in attendance would like to review. Since Mr. Koukol was in attendance, representing the Falt Fisheries, he asked that the Old Jet Engine Test Stand (OJETS) site be reviewed.

5. Ms. Coburn provided a summary of the OJETS site: Reinforcement of the distal In-situ Reductive Treatment (IRT) zones was completed in March 2010. This included injection of a molasses, soy oil, and whey blend. Mr. Koukol asked how the southern edge of the plume had changed since the last RAB meeting. Mr. Mallisee stated the extent of the plume had remained about the same. Mr. Koukol asked if the perimeter of the plume had changed. Mr. Mallisee stated there has been no significant change in the interpretation of the plume's perimeter since the baseline from 2006. The EPA is working on a Statement of Basis for this site, along with two other Offutt sites. The public notice for this Statement of Basis is expected to be conducted this summer.

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6. The meeting concluded after the presentation on the OJETS site, but subsequent to the meeting Ms. Coburn and Mr. Mallisee reviewed the information with the AFCEE representative, Ms. Chowdhury.

7. The next RAB meeting is tentatively scheduled for September 2010, 3:00-4:00 p.m., at the Bellevue Public Schools Welcome Center. A notice will be sent when a final date is determined.



JEAN E. COBURN  
Recorder

Approved as written



EDWARD W. LUENINGHOENER  
Deputy Civil Engineer

3 Attachments:

1. RAB Presentation
2. ERP Site Map
3. Distribution List

## DISTRIBUTION LIST

Mr. Jeff Johnson  
Environmental Protection Agency, Region VII (ARTD/RCAP)  
901 N. 5<sup>th</sup> Street  
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**RESTORATION ADVISORY  
BOARD (RAB)  
19 April 2010**

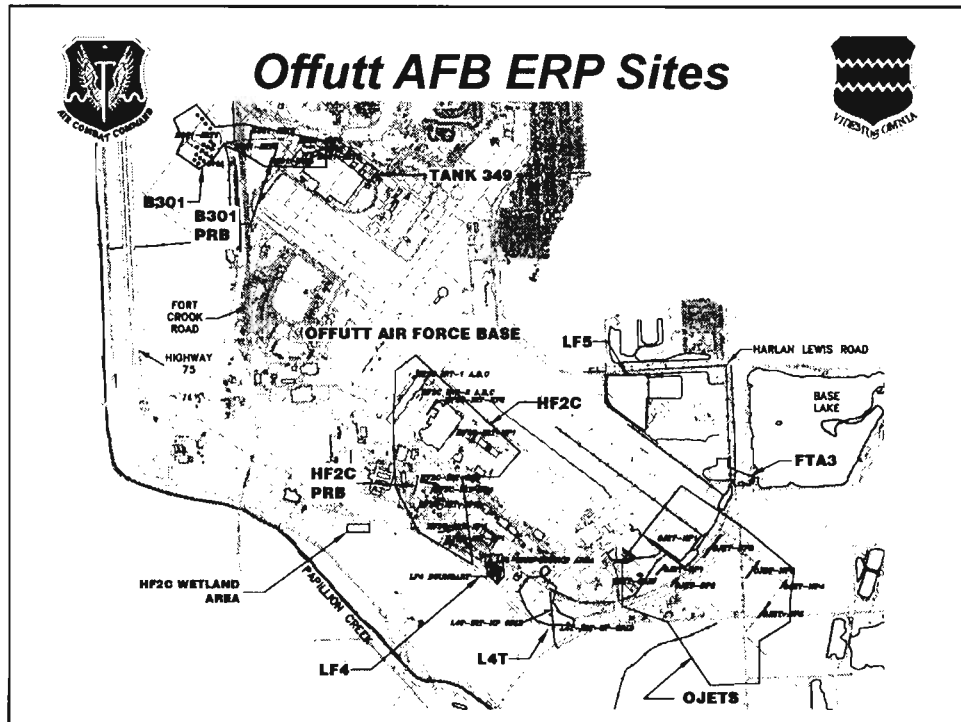
The Restoration Advisory Board (RAB) will meet on 19 April 2010 at 10:00 AM in the 301 Building, 301 Building, 301 Building.



**AGENDA**



- Landfill 5
- Fire Training Area 3
- Old Jet Engine Test Stand
- Landfill 4 Trench Area
- Landfill 4
- Hardfill 2 Composite
- Building 301
- Tank 349
- Elkhorn



## LANDFILL 5



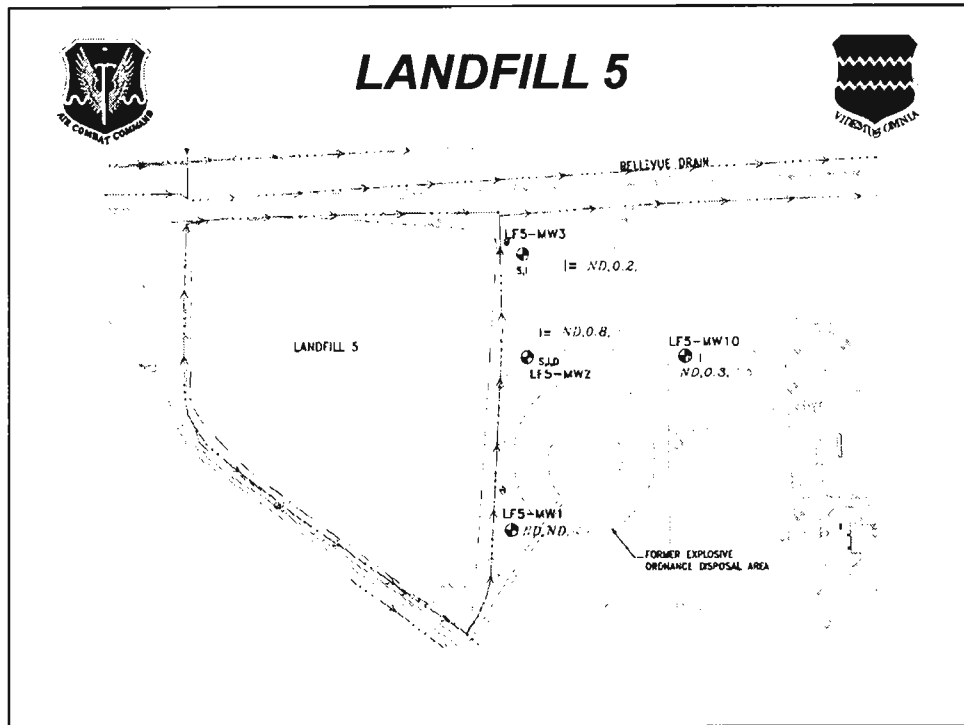
- Site status is currently RCRA long-term monitoring

### **FY09 Activities**

- Site inspections, maintenance, and required grounds work

### **FY10 Planned Activities**

- Biennial groundwater monitoring
- Expect CAH concentrations to remain below MCLs



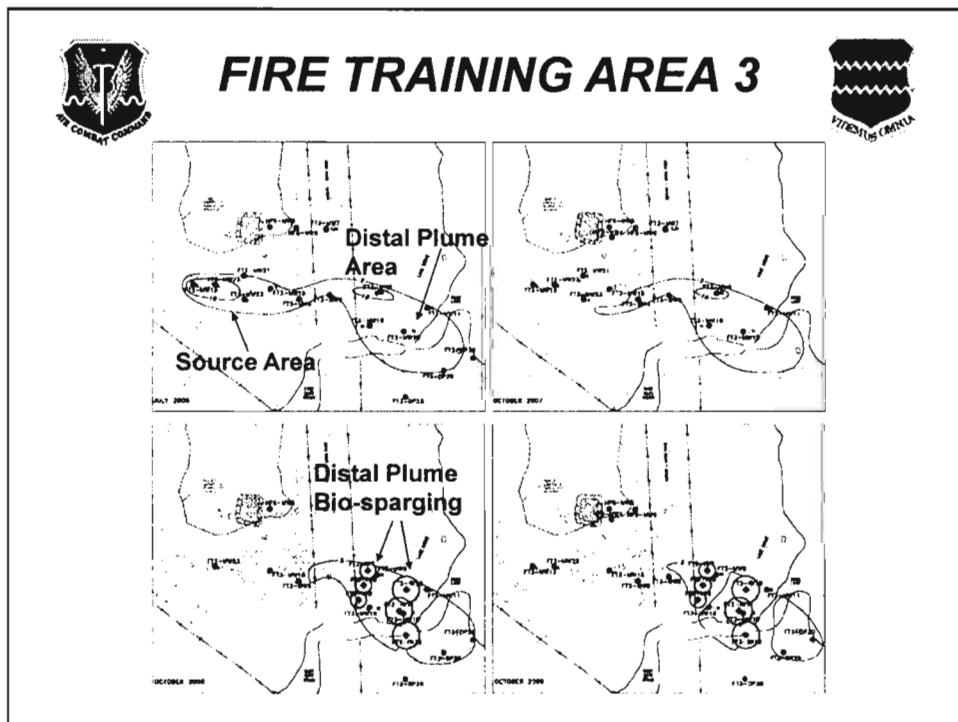
**FIRE TRAINING AREA 3**

**FY09 Activities**

- Bio-sparging in distal plume area
- Monitored Natural Attenuation (MNA) sampling in the former source area and groundwater plume core

**FY10 Planned Activities**

- Post bio-sparging shutdown monitoring
- MNA in the former source, core and distal portion of the groundwater plume
- Modeling to predict when MCLs will be met throughout the plume



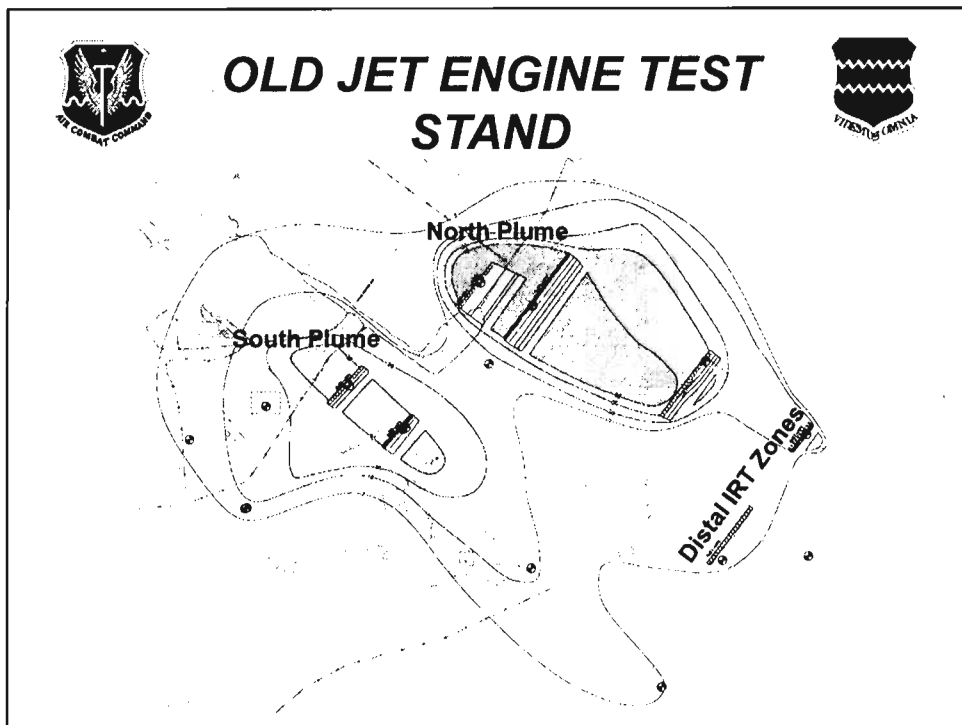
**OLD JET ENGINE TEST STAND**

**FY09 Activities**

- Monitored Natural Attenuation (MNA) sampling in the former source area and groundwater plume core
- Performance monitoring of seven biostimulant areas in the source zone, Base boundary, and distal portions of the vinyl chloride plume

**FY10 Planned Activities**

- Reinforcement of the distal IRT zones in March 2010
- Performance and MNA sampling in the former source, core and distal portion of the groundwater plume
- Public notice and finalization of the Statement of Basis



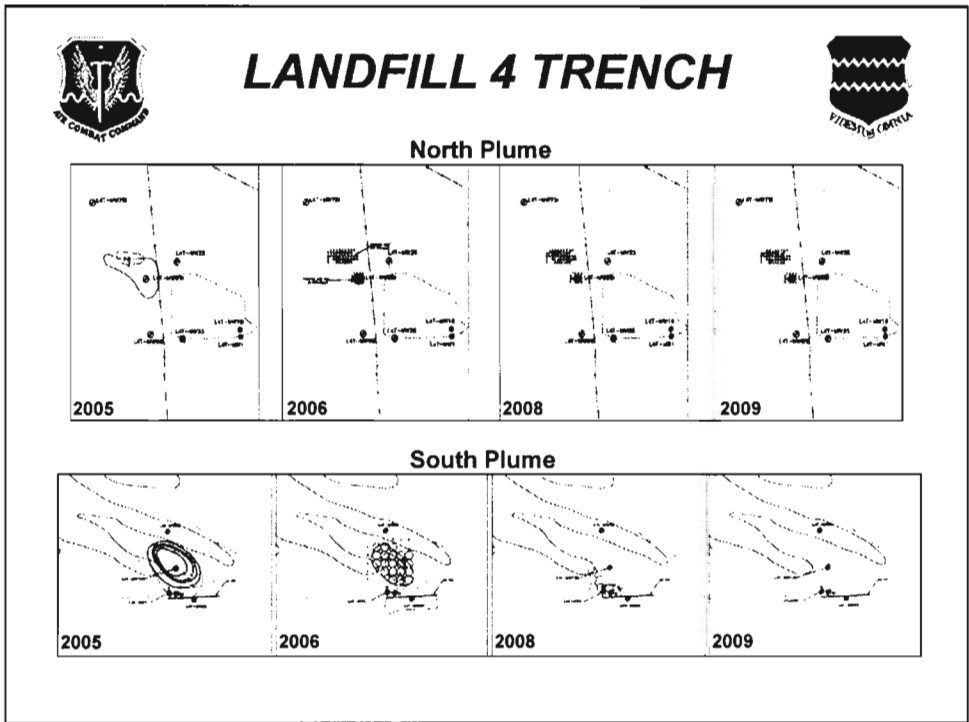
The diagram is a site map titled "LANDFILL 4 TRENCH". It features the same two logos as the first diagram: the 11th Combat Command logo on the left and the 11th Air Force logo on the right. The map shows the layout of the landfill trench and various monitoring wells and activity zones.


**FY09 Activities**

- Groundwater sampling for annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
- Landfill inspection, including fencing, signs and cover


**FY10 Planned Activities**

- Semiannual groundwater sampling of biostimulant injection areas
- Annual groundwater sampling of monitoring well downgradient of ZVI PRB
- Annual landfill inspection





# LANDFILL 4

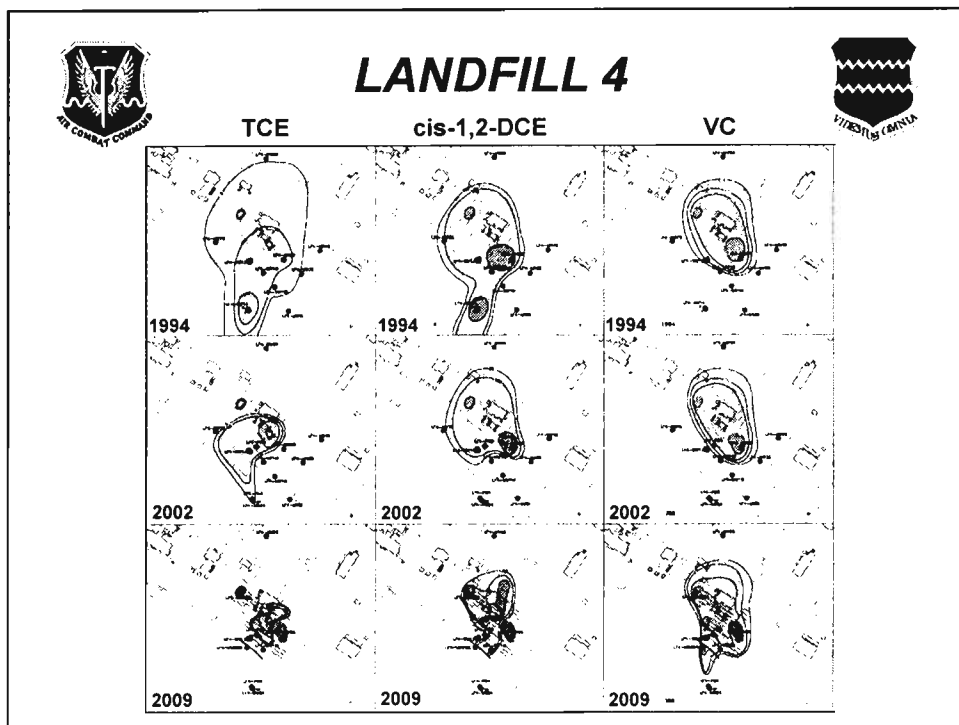


**FY09 Activities**

- Began trial shutdown of hydraulic containment system in April with bi-monthly sampling of select monitoring wells
- Groundwater sampling for annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)

**FY10 Planned Activities**

- Continue trial shutdown of hydraulic containment system with plans for permanent shutdown. Permanent shutdown expected by end of 2010.
- Continue semiannual performance monitoring of site remedies and annual plume monitoring (outside biostimulant injection areas)
- Public notice and finalization of the Statement of Basis

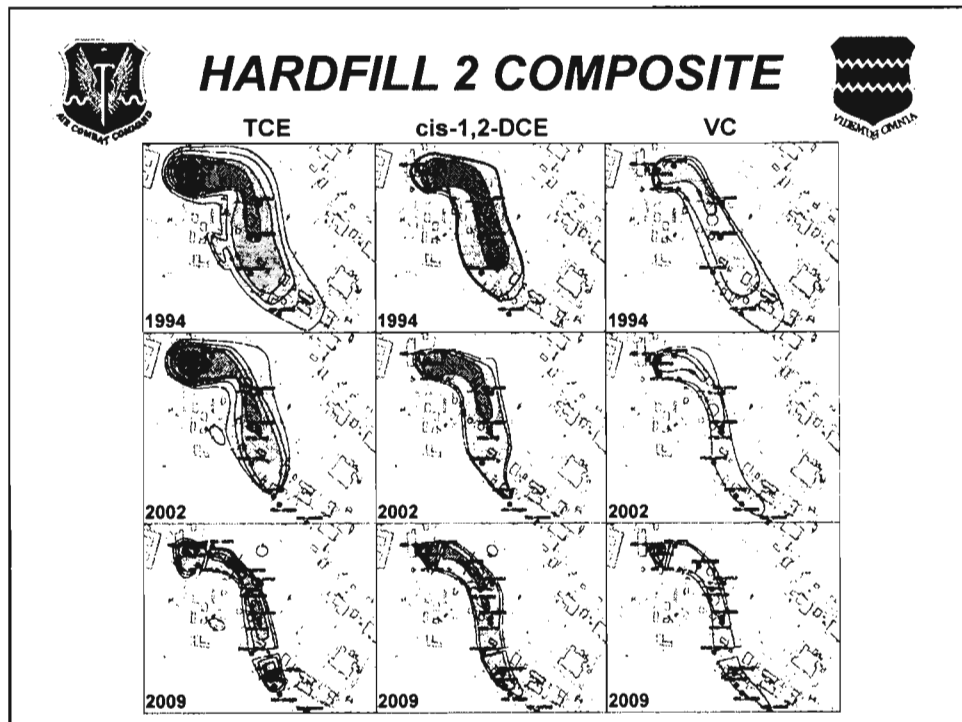
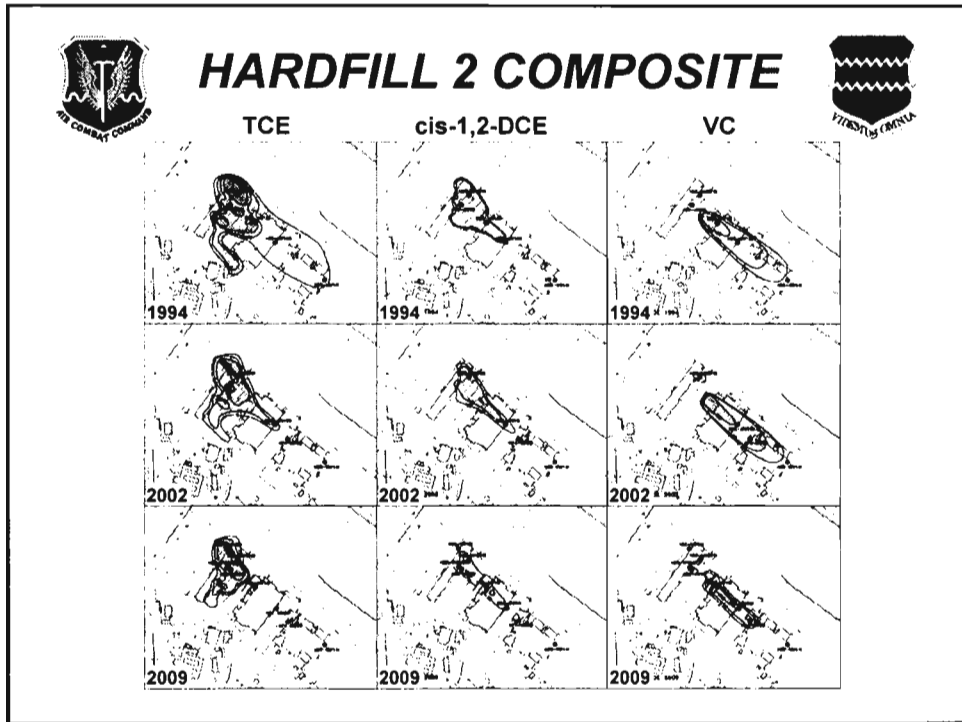


**HARDFILL 2 COMPOSITE**

**FY09 Activities**

- Continued inspections and maintenance of the HF2C portion of the hydraulic containment system and constructed wetlands
- Annual groundwater sampling for plume monitoring (outside biostimulant injection areas)
- Semiannual performance monitoring (within biostimulant injection areas) in the Northern Plume and quarterly performance monitoring in the Southern Plume
- Collected semiannual groundwater samples for ZVI PRB performance monitoring
- Submitted a corrective action plan for vapor intrusion at Building 321 (Field House).







## ***HARDFILL 2 COMPOSITE***



### **FY10 Planned Activities**

- Corrective action (filling former utility chases) at Building 321 (Field House), followed by indoor vapor sampling
- Semiannual/ quarterly groundwater sampling of biostimulant injection areas
- Annual MNA groundwater sampling in the Northern and Southern Plume
- Annual semiannual groundwater sampling of ZVI PRB
- Continue inspections and maintenance of constructed wetlands
- Begin trial shutdown of HF2C portion of hydraulic containment system with plans for permanent shutdown

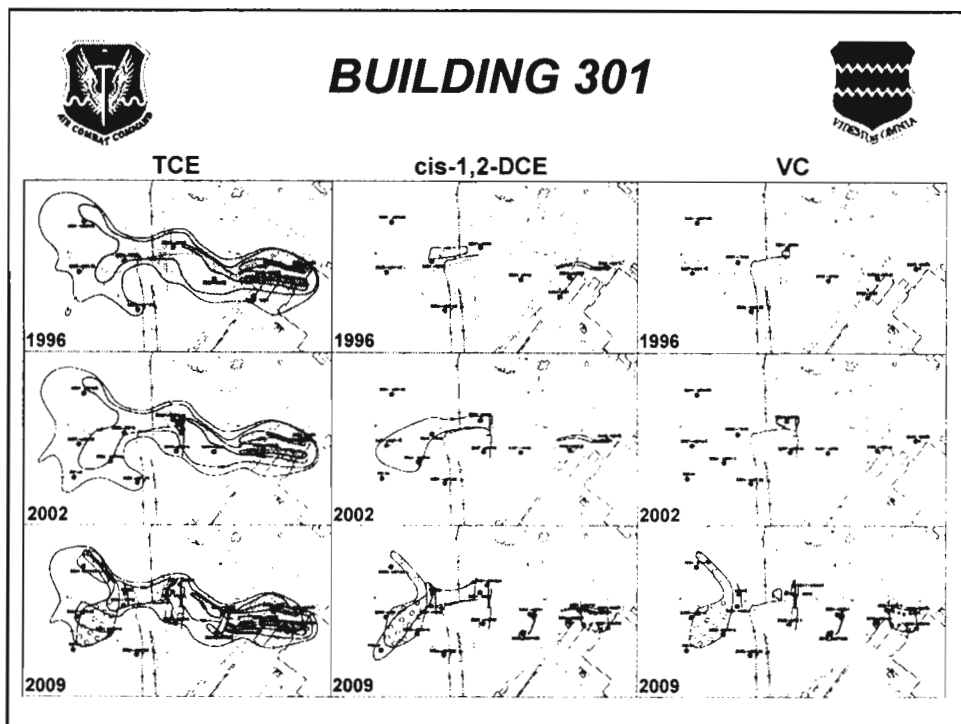


## ***BUILDING 301***



### **FY09 Activities**


- Completed investigation and injection of biostimulant to create an IRT zone near northern end of the ZVI PRB
- Completed annual ZVI PRB performance monitoring
- Collect groundwater samples for annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
- Complete semiannual field drain and NPDES monitoring




**BUILDING 301**

**FY10 Planned Activities**

- Corrective action (filling former utility chases) at Building 321 (Field House), followed by indoor vapor sampling
- Annual ZVI PRB performance monitoring
- Annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
- Complete semiannual field drain and NPDES monitoring
- Public notice and finalization of the Statement of Basis



# TANK 349

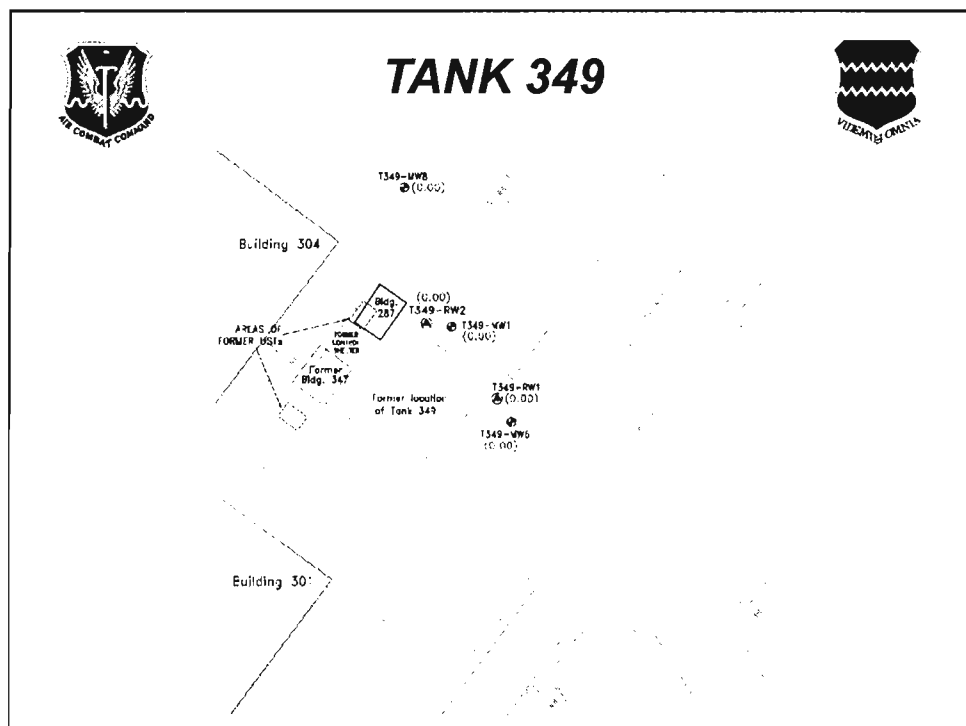


**FY09 Activities**

- Submitted Site Closure request in July after one-year of no measurable free product. Received Site Closure from NDEQ in December after 30-day notification period.

**FY10 Planned Activities**

- Monitoring well abandonment





# ELKHORN



## FY09 Activities

- Monitoring well ELK-MW7S was operated as an extraction well through August
- Collected groundwater samples from on-Site wells and surrounding private wells
- Submitted letter to NDEQ to request discontinue of long-term groundwater monitoring in September
- NDEQ responded with request for 3 more semiannual sampling events to monitor for potential rebound after pumping shutdown of ELK-MW7S

## FY10 Planned Activities

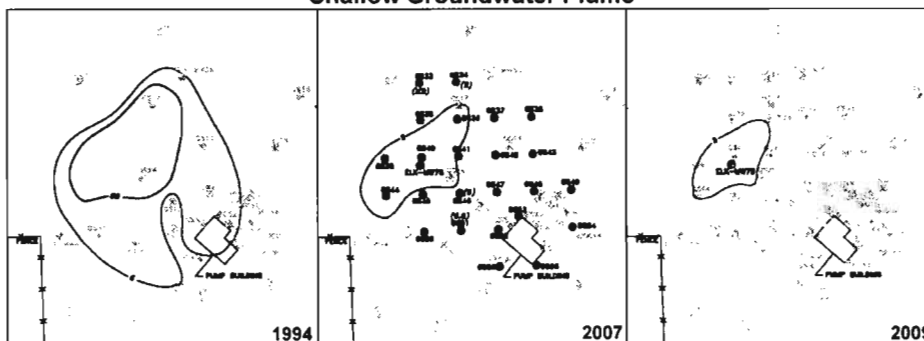
- Semiannual groundwater sampling at two on-site monitoring wells



# ELKHORN



Shallow Groundwater Plume





## ***NEXT RAB MEETING***



SEPTEMBER 2010

BELLEVUE PUBLIC SCHOOLS WELCOME CENTER



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS, 55TH WING (ACC)  
OFFUTT AIR FORCE BASE, NEBRASKA

10 March 2010

MEMORANDUM FOR MR. FRANK PRUCKA  
10627 Martha Street  
Omaha, Nebraska 68124-3647

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Notice of Right of Entry onto Prucka Property

1. Offutt Air Force Base is submitting the following notice of our intent to access your property 22 March through 3 April 2010. This notification is being sent in accordance with our right of entry agreement signed on 17 October 2006. The subject property is north of Cunningham Road and east of Harland-Lewis Road in Bellevue, Nebraska. The legal description of subject property is described as follows:

A tract of land in the West  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 7, T13N, R14E, of the 6<sup>th</sup> PM.

Commencing at Southwest corner of said SW  $\frac{1}{4}$ ; thence East along the South line of said SW  $\frac{1}{4}$ , 800 ft, to the point of beginning; thence North 300 ft; thence East 300 ft; thence South 300 ft; thence West along South line of said SW  $\frac{1}{4}$ , to the point of beginning.

2. The work to be completed during this right of entry will include:

a. Injection of a remediation material, consisting of food-grade emulsified molasses, soy oil, whey, and potable water beneath the surface at depths greater than 50 feet. No permanent structures or equipment will be installed on or beneath the surface of the premises.

b. Land surveying and photographing associated with the sampling process to document sampling locations and to maintain a record of temporary structures, equipment, and methods used during the sampling event.

3. If you have any questions regarding this request, please call me at (402) 294-7621.

  
PHILIP E. CORK  
Chief, Environmental Restoration Element

*The Sun Never Sets on the Fightin' Fifty-Fifth*



**DEPARTMENT OF THE AIR FORCE**  
**HEADQUARTERS 55TH WING (ACC)**  
**OFFUTT AIR FORCE BASE, NEBRASKA**

OCT 14 2009

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Meeting Minutes of the Offutt AFB Environmental Restoration Program (ERP)  
Restoration Advisory Board (RAB), 22 September 2009

1. Place: Bellevue Public Schools Welcome Center, Hwy 75 & Hwy 370, Bellevue NE
2. Date/Time: 22 September 2009/3:00 - 4:00 p.m.
3. RAB Members Present: Mr. Philip Cork, 55 CES/CEVR  
Mr. John Ott, Community Co-Chair

Other Attendees: Col Mike Allshouse, 55 MSG/CC  
2Lt Ken Scholz, 55 WG/PA  
Ms. Deb Aragon, 55 WG/PA  
Ms. Jean Coburn, 55 CES/CEVR  
Ms. Carolyn Jacobson, 55 CES/CEVR  
Mr. Dave Koukol, Falt Fisheries Attorney  
Mr. Ed Lueninghoener, 55 CES/CD  
Mr. Bob Mallisee, URS  
Mr. Ken Scholz  
Mr. Jesse Schraft, 55 WG/JA  
Ms. Stacey Stricker, Nebraska Department of Environmental Quality

4. The September 2009 RAB meeting was chaired by Col Allshouse, 55 MSG/CC. Mr. Cork began the meeting with introductions. Mr. Cork then provided the current status of each environmental restoration site.

a. Landfill 5: FY09 sampling at the site indicates the plume is stable. Offutt is working with the EPA to reduce the frequency of monitoring at the site.

b. Fire Training Area 3: FY09 activities include continued operation of the distal biosparging system and annual plume monitoring. After the next round of sampling, Offutt will model the groundwater to predict when the plume will be reduced to Maximum Contaminant Levels (MCLs). This will also provide information on how long the system will need to remain in operation.

*Global Vigilance for America*



c. Old Jet Engine Test Stand: The OJETS vinyl chloride plume extends southeast of the base onto private property. Biostimulant injections have been completed along the base boundary and off-base areas. Offutt submitted a draft Statement of Basis to the Environmental Protection Agency (EPA). In order for the Statement of Basis to be completed, land use controls need to be implemented for off-base properties. The EPA and the State of Nebraska would like some type of deed restrictions for those properties affected by the plume so the landowners or future landowners will not install a drinking water well on their property. The State has a Uniform Environmental Covenant Act (UECA) in place to address these types of institutional controls. Mr. Cork stated he had visited the affected property owners and one had agreed to sign a restrictive easement and one property owner said he probably would not sign an agreement. Mr. Ott asked if the Sod Farm or the Baseball Village were included in the affected properties. Mr. Cork stated the affected properties were the Sod Farm, Paddington Place, Armstrong-Jones Construction and the Baseball Village was over a portion of the plume. Mr. Cork also stated he had talked with the developer regarding water use on the property. He said they could use the Foe well for irrigation purposes since it was already installed on the property and should not affect the contaminant plume, however, recommended a drinking water well not be installed on the property. Mr. Cork said the developer was aware of the high mineral content and the contamination in the area and would not be using the water for drinking purposes. Mr. Ott asked if Offutt had run water to the Dvorsky Subdivision. Mr. Cork stated that the affected property owners in the Dvorsky Subdivision were hooked up to the Metropolitan Utilities District (MUD) water line in 1995. Mr. Koukol asked what property owners were affected. Mr. Cork stated the affected property owners were Joe Wendl (Sod Farm), Tarran Jones (Paddington Place), and Rick Armstrong (Armstrong-Jones Construction). Mr. Koukol asked if Falt Fisheries were affected. Mr. Cork stated Falt Fisheries were not included in the affected landowners. Mr. Lueninghoener asked what property owner was affected on the east side of Harlan Lewis Road. Mr. Cork stated the owner was Mr. Frank Prucka. Mr. Cork stated those property owners were not contacted since they already have institutional controls in place since their property is included in the Offutt clear zone. Mr. Koukol asked how the outline of the plume was determined. Mr. Cork stated that years of sampling have clearly defined the edge of the plume. Mr. Koukol asked how the southern edge of the plume had changed since the last RAB meeting. Mr. Mallisee stated the extent of the plume had remained about the same. Mr. Koukol asked if the perimeter of the plume had changed. Mr. Mallisee stated there has been no significant change in the interpretation of the plume since the baseline from 2006.

5. Landfill 4 Trench Area: FY09 activities included collecting groundwater samples from outside and within the biostimulant injection areas. Sampling in the source area indicates that injections in that area have caused a reduction in the concentrations of contamination. Offutt will be petitioning the EPA to reduce frequency of monitoring at the site.

6. Landfill 4: Offutt requested the EPA approve a temporary shutdown of the containment system. The EPA agreed and the system was shut down in April with continued bi-monthly sampling. If concentrations remain stable, Offutt will ask the EPA to shut the system down permanently. Semiannual performance monitoring and annual plume monitoring will continue. Offutt submitted a draft Statement of Basis to the EPA, which will ultimately indicate the final remedy selected. After the Statement of Basis is approved, the EPA will issue a permit modification to include final remedies.

7. Hardfill 2 Composite: Offutt submitted a request to the EPA to temporarily shut down the HF2C portion of the hydraulic containment system. Mr. Cork said that Jeff Johnson had indicated in a recent telephone conversation that he would likely not be able to approve shut down at this time. Some additional steps, including the installation of a monitoring well, will need to occur prior to approval of a temporary shutdown of the system. Mr. Cork stated that several technologies had been completed at the site to reduce the concentrations of contamination. These include a Permeable Reactive Barrier (PRB) wall made of iron filings and also biostimulant injections. Offutt also submitted a corrective action plan for the vapor intrusion at building 321 (Field House). Although there are no vapor intrusion issues in building 321, the corrective action will be completed as a preemptive action, based on vapor intrusion data from building 301, which has similar utility chases and a groundwater plume beneath the building. This corrective action will begin this fall. The corrective action includes plugging the utility chases with foam to prevent a conduit for contamination into the building. Monitoring will be conducted after the utility chases are filled to assure that there is no vapor intrusion issue in the building associated with the groundwater plume.

8. Building 301: Offutt submitted a vapor intrusion report and corrective action plan to include plugging the utility chases. Mr. Ott asked if the building 301 off-base plume fell into the base's restrictive easements. Mr. Cork stated that it did fall into the Offutt clear zone so restrictions already apply. No restrictive easements will be required in this area.


9. Tank 349: Monitoring at the site has detected no measurable product in the wells for over a year. Offutt submitted a site closure request to the State. The EPA has some concern that there may be vapor intrusion issues associated with the Tank 349 site. Mr. Cork stated it was our understanding that all steps had been taken to address the Tank 349 issues under the Nebraska Underground Storage Tank Program. Mr. Cork then asked Stacey Stricker to verify with Nancy Mann that no additional steps would be required.

10. Elkhorn Communications Facility: Offutt has continued monitoring of off-site properties and all sampling has been non-detect. Offutt submitted a letter to the State to request discontinuation of long-term groundwater monitoring. If this is approved, Offutt will seek site closure.


11. Military Munitions Response Program (MMRP): The MMRP will be handled under the Environmental Restoration Program. The purpose is to make MMRP sites safe for reuse consistent with anticipated future land uses. A Comprehensive Site Evaluation Phase I was completed at Offutt in August 2007. This included historical records review, visual site reconnaissance, and interviews. The CSE Phase II was completed at Offutt on 15 September 2009. Phase II included visual surveys, x-ray fluorescents and environmental sampling. Offutt is awaiting the final report which should be available within a few months.

12. One Cleanup Program: The One Cleanup Program evaluates the Air Force's inventory of compliance cleanup sites to identify sites that are Defense Environmental Restoration Account (DERA) eligible. Of the 14 sites identified at Offutt, 5 sites were deemed DERA eligible and validated.

13. The next RAB meeting is tentatively scheduled for Tuesday, 23 March 2010, 3:00-4:00 p.m., at the Bellevue Public Schools Welcome Center.

  
PHILIP E. CORK  
Recorder

Approved as written

  
MICHAEL J. ALLSHOUSE, Colonel, USAF  
Commander, 55th Mission Support Group

3 Attachments:

1. RAB Presentation
2. ERP Site Map
3. Distribution List

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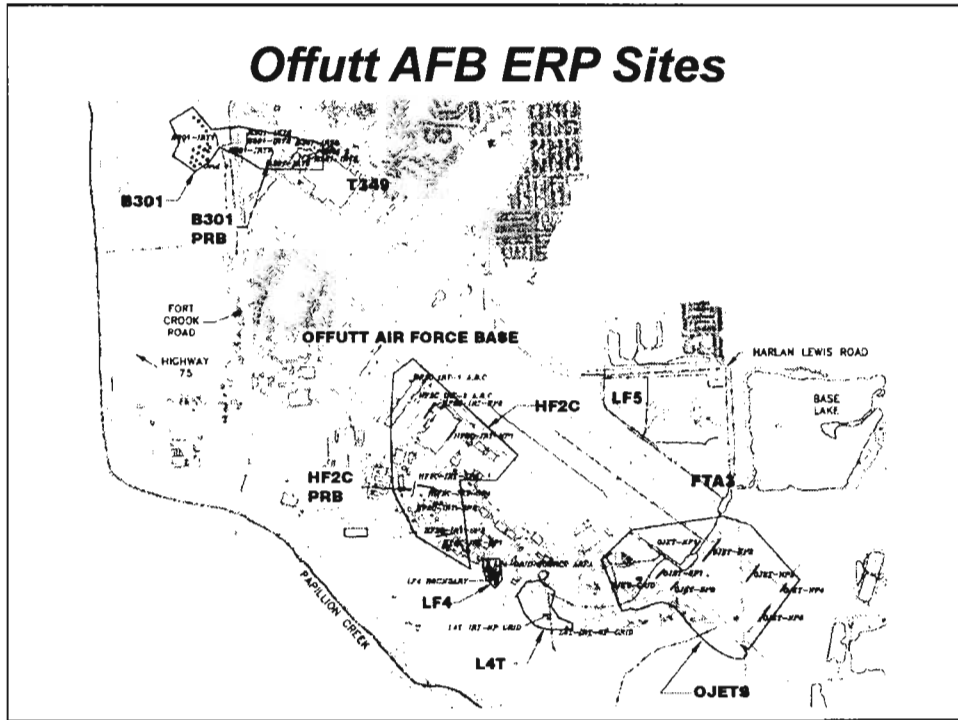
**RESTORATION ADVISORY  
BOARD (RAB)**  
*22 September 2009*

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**AGENDA**

- Landfill 5
- Fire Training Area 3
- Old Jet Engine Test Stand
- Landfill 4 Trench Area
- Landfill 4
- Hardfill 2 Composite
- Building 301
- Tank 349
- Elkhorn

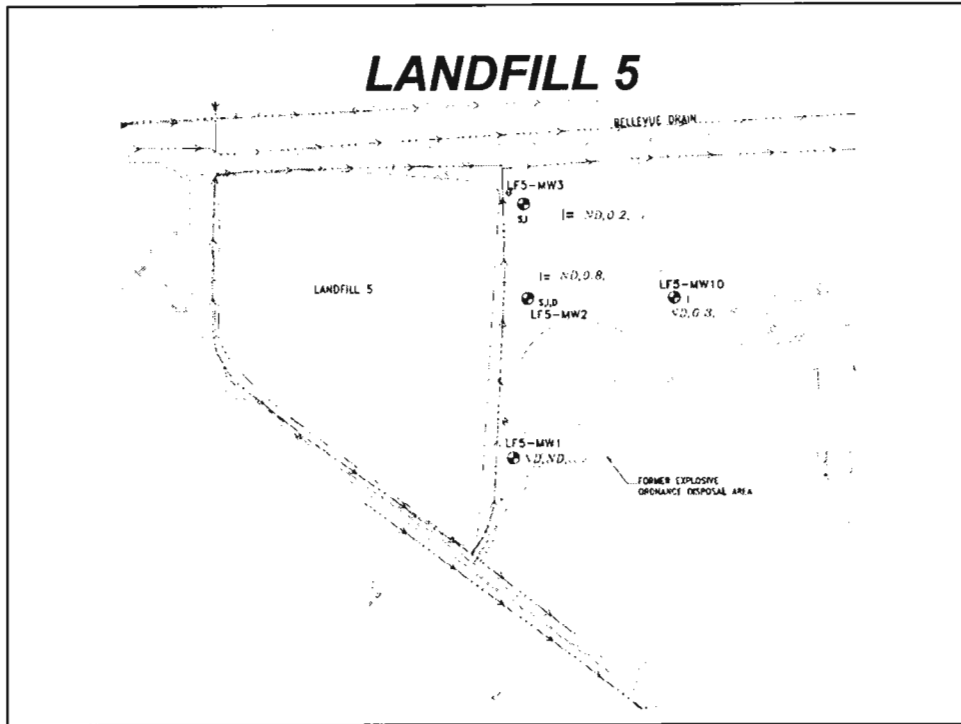
## Offutt AFB ERP Sites



## LANDFILL 5



- **FY09 Activities**
  - Continuing site inspections, maintenance, and required grounds work
- **FY10 Planned Activities**
  - Biennial groundwater monitoring
  - Site inspections, maintenance, and required grounds work
  - Request reduced frequency of groundwater monitoring

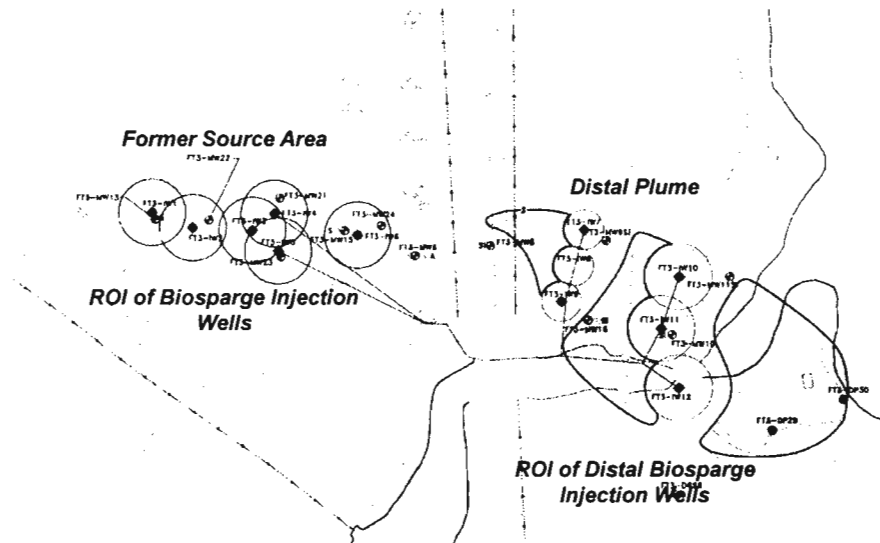


## FIRE TRAINING AREA 3



- **FY09 Activities**
  - Operated and maintained distal biosparging system, including quarterly performance monitoring
  - Collected groundwater samples for annual plume monitoring
- **FY10 Planned Activities**
  - Biennial groundwater sampling
  - Model groundwater to predict when plume will be less than MCLs

## FIRE TRAINING AREA 3 SOLVENT PLUME

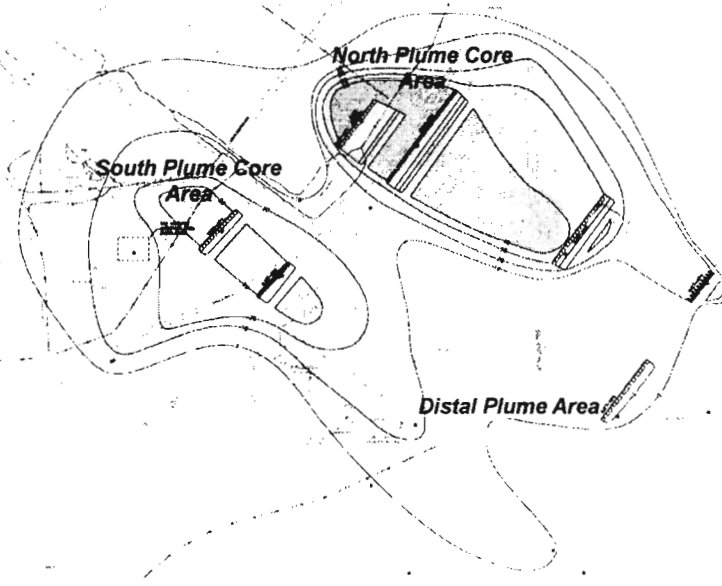


## OLD JET ENGINE TEST STAND

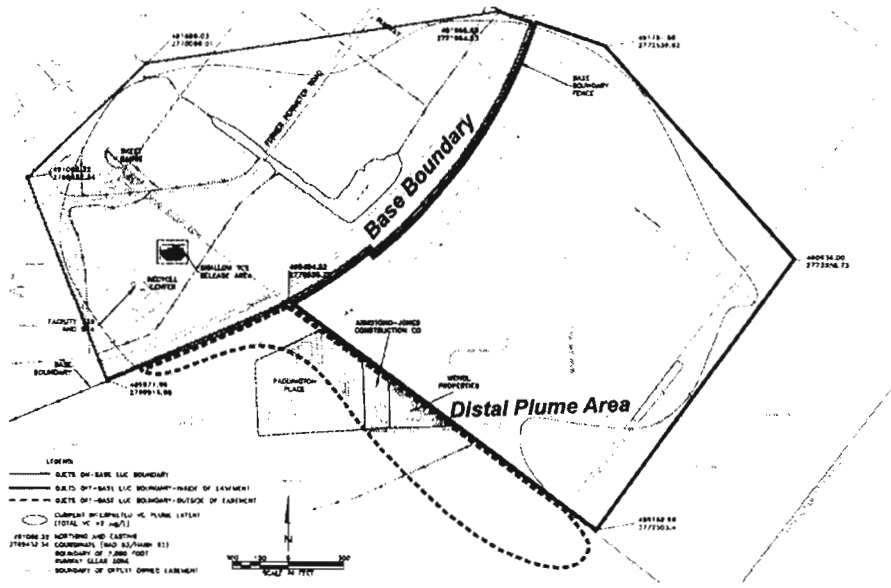


- FY09 Activities
  - Reinjected biostimulant along Base boundary and select off-Base areas
  - Collected groundwater samples for semiannual plume monitoring (outside biostimulant injection areas) and quarterly performance monitoring (within biostimulant injection areas)
  - Submitted Draft Statement of Basis to EPA
  - Complete Environmental Covenants with affected off-Base landowners
- FY10 Planned Activities
  - Annual plume monitoring (outside injection areas)
  - Semiannual monitoring of biostimulant injection
  - RCRA Permit modification incorporating final remedies

# OLD JET ENGINE TEST STAND



# OLD JET ENGINE TEST STAND – Land Use Control Areas





## **OLD JET ENGINE TEST STAND – UECA**

- One way to minimize the potential for human exposure to contamination and protect the integrity of a remedy is through the use of institutional controls. Institutional controls are legal or administrative measures that limit land or resource use.
- Offutt is looking to have limited institutional controls implemented on off-Base property where the groundwater is contaminated and easement agreements are not already in place.
- The limited institutional controls will be pursuant to the Nebraska Uniform Environmental Covenant Act (UECA). Web site: <http://www.deq.state.ne.us/Publications/Pages/05-162>

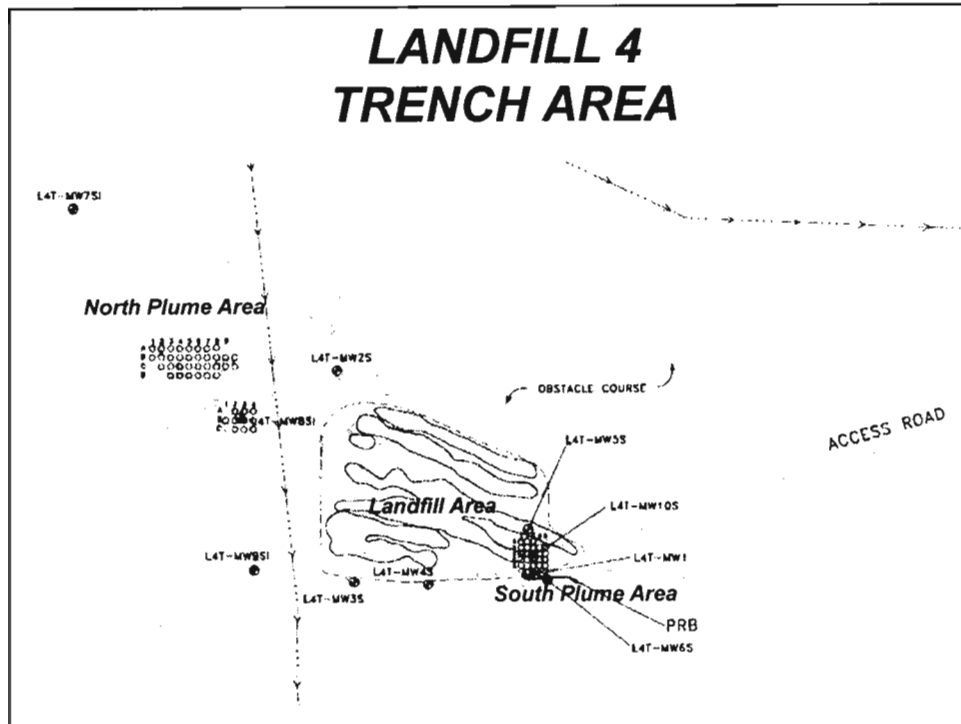


## **LANDFILL 4 TRENCH AREA**



- **FY09 Activities**
  - Collected groundwater samples for annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
  - Landfill inspection, including fencing, signs and cover
- **FY10 Planned Activities**
  - Semiannual monitoring of biostimulant injection areas
  - Annual plume monitoring (outside injection areas)
  - Continued landfill inspections
  - Request reduced frequency of groundwater monitoring

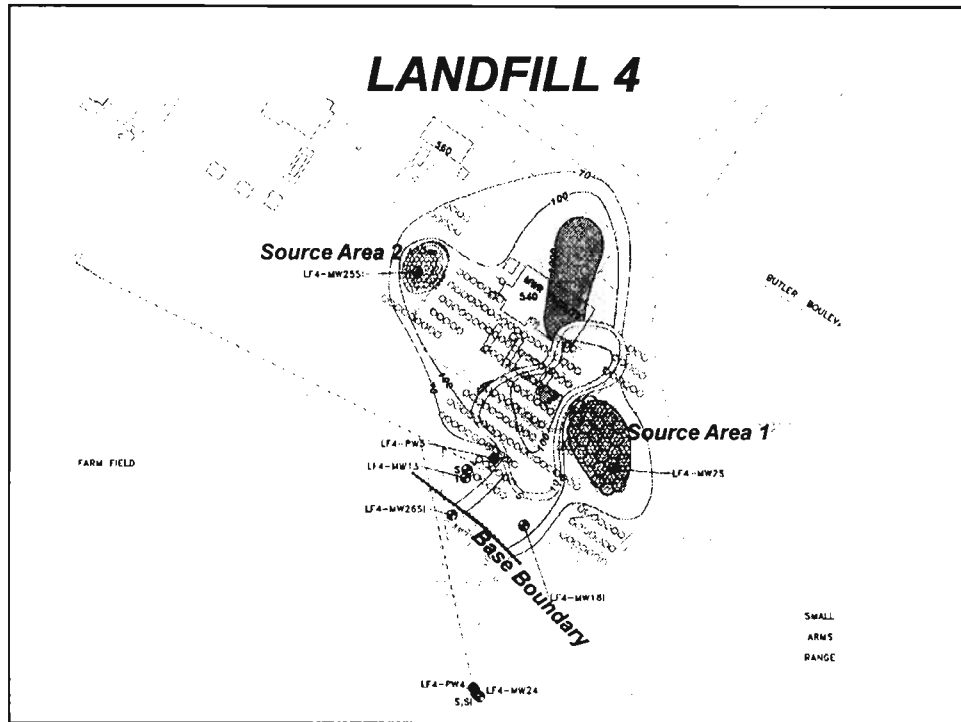
## LANDFILL 4 TRENCH AREA



## LANDFILL 4



- **FY09 Activities**
  - Began trial shutdown of hydraulic containment system in April with bi-monthly sampling of select monitoring wells
  - Collected groundwater samples for annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
  - Submitted Draft Statement of Basis to EPA
- **FY10 Planned Activities**
  - Continue trial shutdown of hydraulic containment system with plans for permanent shutdown
  - Continue semiannual performance monitoring of site remedies and annual plume monitoring (outside biostimulant injection areas)
  - RCRA Permit modification incorporating final remedies



## HARDFILL 2 COMPOSITE



- **FY09 Activities**

- Continued inspections and maintenance of the HF2C portion of the hydraulic containment system and constructed wetlands
- Request submitted for trial shutdown of HF2C portion of hydraulic containment system
- Collected annual groundwater samples for plume monitoring (outside biostimulant injection areas)
- Collected semiannual performance monitoring (within biostimulant injection areas) in the Northern Plume and quarterly performance monitoring in the Southern Plume
- Collected semiannual groundwater samples for ZVI PRB performance monitoring
- Submitted a corrective action plan for vapor intrusion at Building 321 (Field House). The corrective action should occur in late Fall.

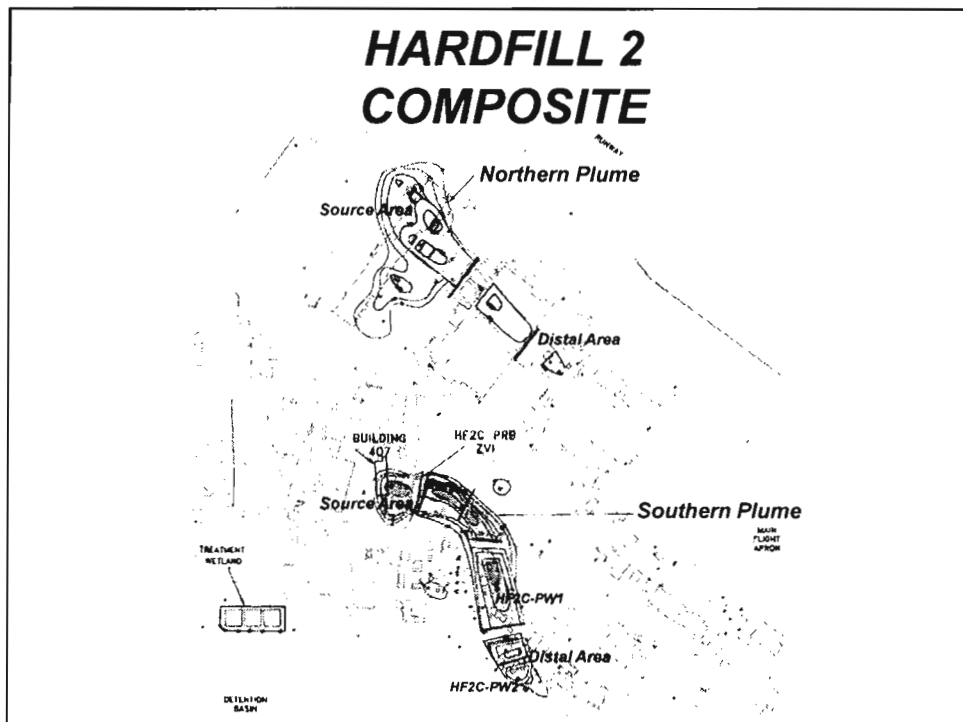


## HARDFILL 2 COMPOSITE

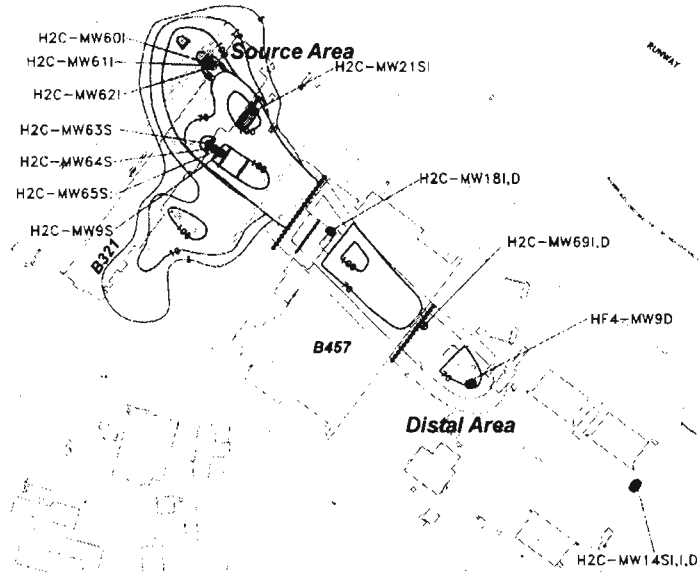


### FY10 Planned Activities

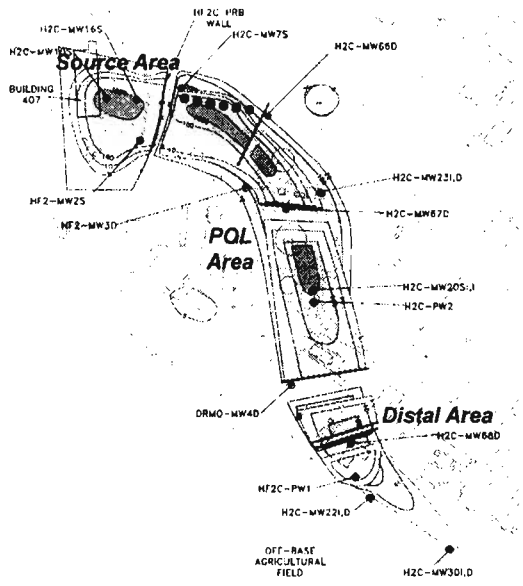
- Continue semiannual\ quarterly performance monitoring of biostimulant injection areas
- Continue trial shutdown of HF2C portion of hydraulic containment system with plans for permanent shutdown
- Continue inspections and maintenance of constructed wetlands
- Continue annual plume and semiannual ZVI PRB performance monitoring



# HARDFILL 2 COMPOSITE



# HARDFILL 2 COMPOSITE



## ***BUILDING 321 – Corrective Action***

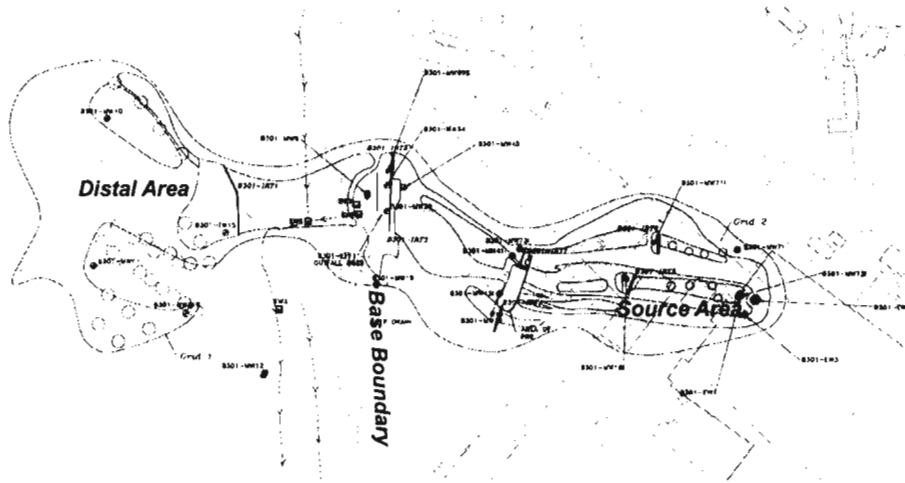


## ***BUILDING 301***

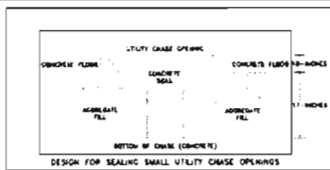
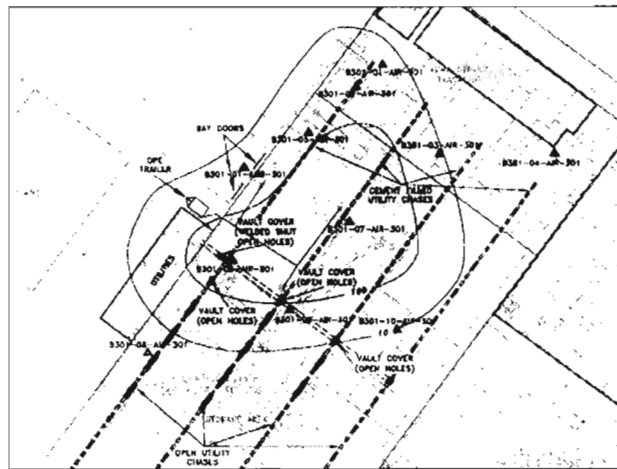


- **FY09 Activities**
  - Submitted Building 301 Vapor Intrusion Report and Corrective Action Plan. The corrective action should occur in late Fall.
  - Completed investigation and injection of biostimulant to create an IRT zone near northern end of the ZVI PRB
  - Completed annual ZVI PRB performance monitoring
  - Collect groundwater samples for annual plume monitoring (outside biostimulant injection areas) and semiannual performance monitoring (within biostimulant injection areas)
  - Complete semiannual field drain and NPDES monitoring
  - Submit Draft Statement of Basis to EPA
- **FY10 Planned Activities**
  - Continue semiannual performance monitoring of site remedies and annual plume monitoring (outside biostimulant injection areas)
  - RCRA Permit modification incorporating final remedies

# BUILDING 301



# BUILDING 301 – Corrective Action



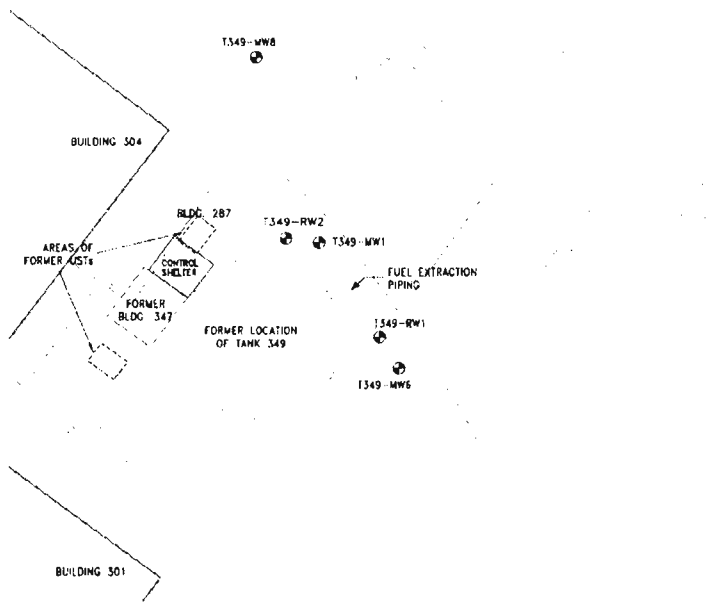


# TANK 349



- FY09 Activities
  - Submitted Site Closure request in July after one-year of no measurable free product
- FY10 Planned Activities
  - Site Closure

# TANK 349



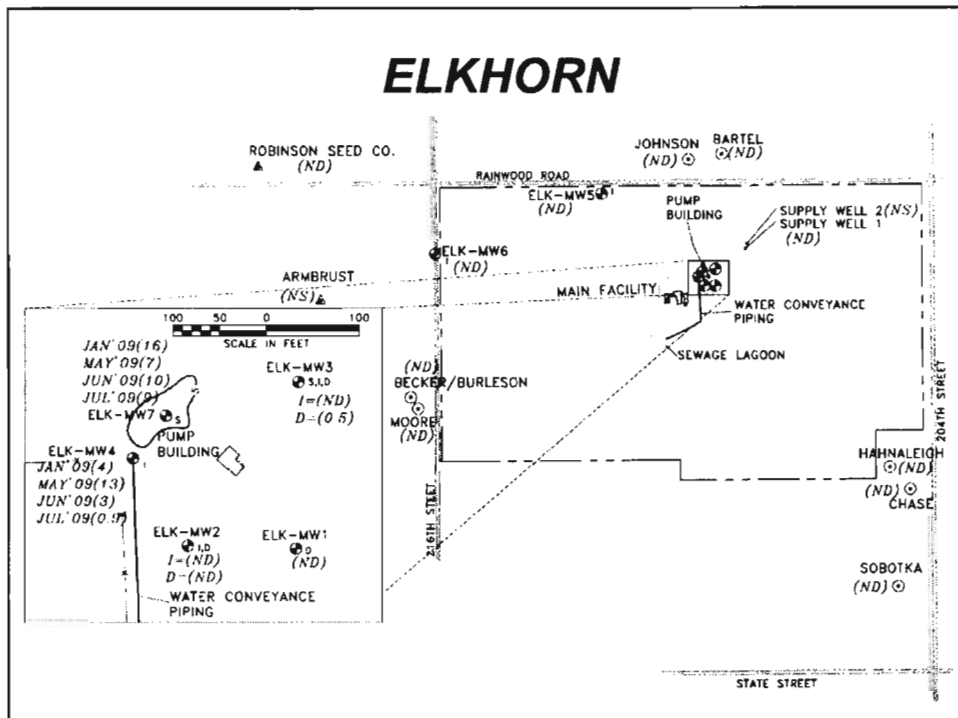




# ELKHORN



- FY09 Activities
  - Monitoring well ELK-MW7S was operated as an extraction well
  - Collected groundwater samples from on-Site wells and surrounding private wells
  - Submitted letter to NDEQ to request discontinue of long-term groundwater monitoring
- FY10 Planned Activities
  - Site Closure





**ADDITIONAL PROGRAMS  
NOW BEING MANAGED UNDER  
THE DEFENSE ENVIRONMENTAL  
RESTORATION ACCOUNT**



- MILITARY MUNITIONS RESPONSE PROGRAM (MMRP)
- ONE CLEAN-UP



**MILITARY MUNITIONS  
RESPONSE PROGRAM  
(MMRP)**



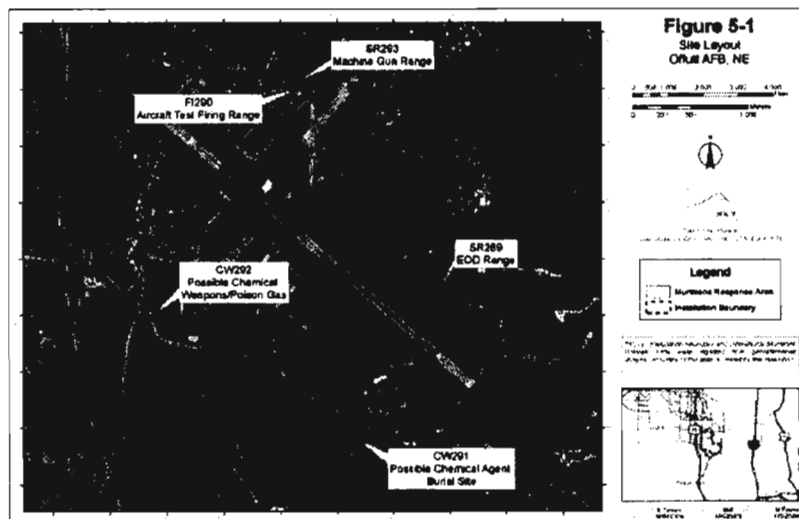
- Make munitions response areas safe for reuse consistent with anticipated future land uses
- Comprehensive Site Evaluations (CSE) are cornerstone of MMRP
- CSE PHASE I: Historical records reviews, visual site reconnaissance, and interviews
  - Completed at Offutt August 2007
- CSE PHASE II: Wide Area Assessment, geophysical surveys, visual surveys, x-ray fluorescents (XRF) and environmental sampling
  - Completed at Offutt September 2009



## OFFUTT SITES



- SR293 Machine Gun Range
- SR289 EOD Range
- F1290 Aircraft Test Firing Range
- CW291 Possible Chemical Agent Burial Site (Landfill 4 Trench Area)
- CW292 Possible Chemical Weapons/Poison Gas Burial Site (Landfill 3)





## **ONE CLEAN UP PROGRAM**



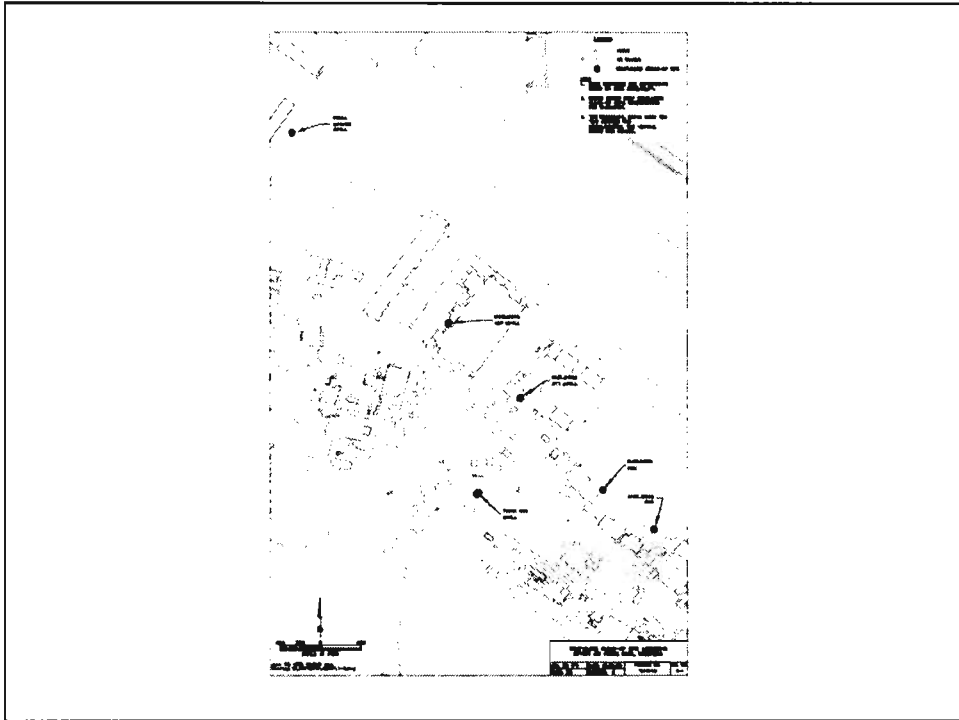
- Verify and update the Air Force's inventory of compliance clean-up sites
- Evaluate the Air Force's inventory of compliance clean-up sites to identify sites that are DERA eligible
- Populate Air Force database with site data



## **OFFUTT SITES**



- 8 sites not deemed DERA eligible and not recommended for validation
- 1 site deemed eligible but not recommended for validation
  - Skeet Range
- 5 sites deemed DERA eligible and validated
  - Buildings 528/529
  - India April Spill
  - Building 457 Spill – Fuel Spill and Fuel Lines
  - Building 517 Spill – AGE Facility
  - Storage Tank 580 Spill



**QUESTIONS?**

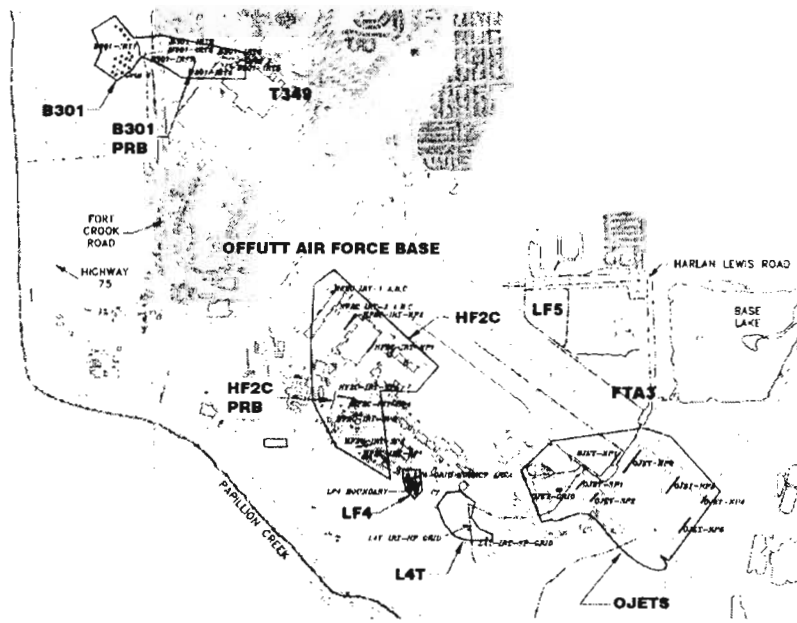
# TENTATIVE NEXT RAB MEETING

MONDAY, 23 MARCH 2010

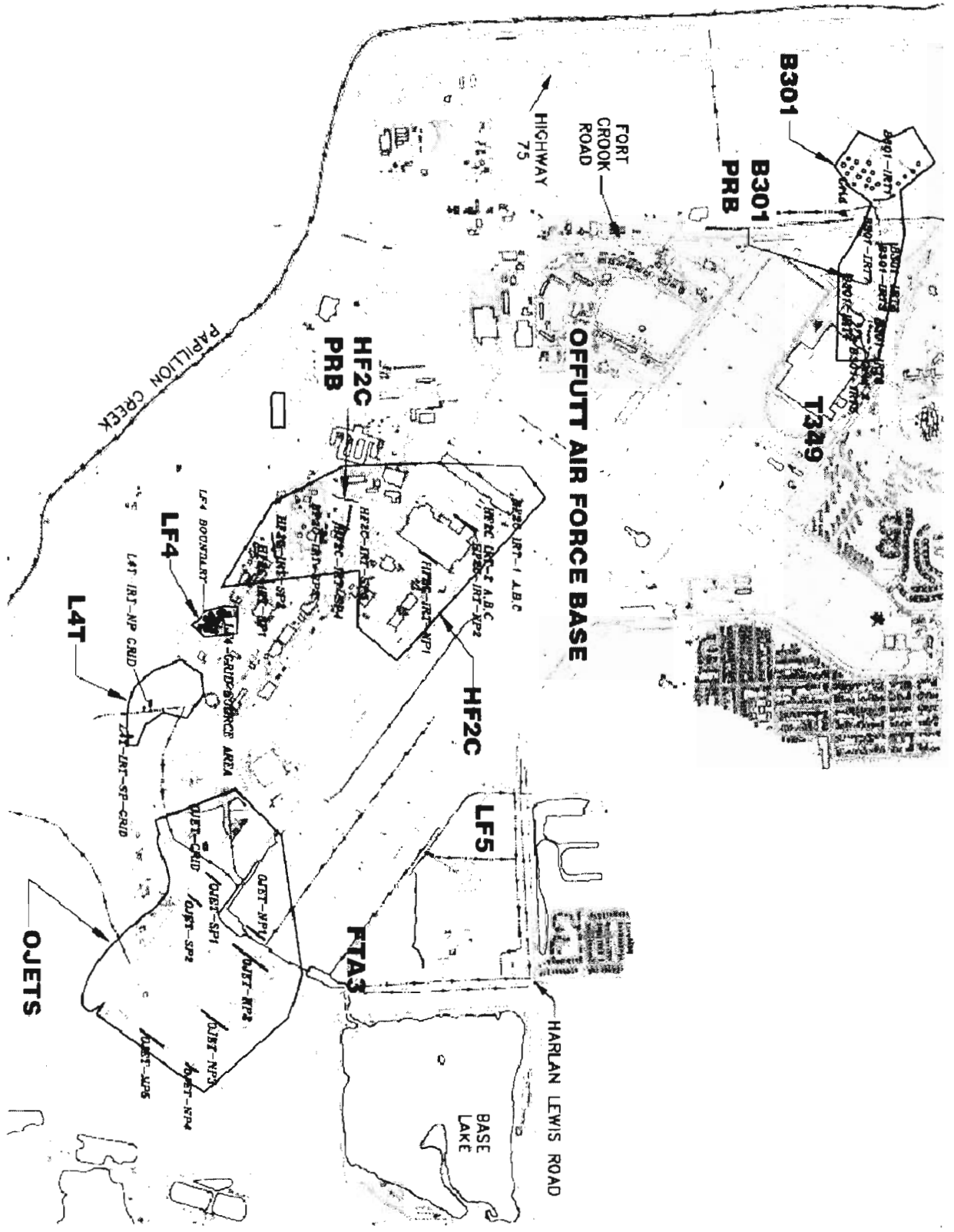
3:00 – 4:00 P.M.

BELLEVUE PUBLIC SCHOOLS WELCOME CENTER

## Offutt AFB ERP Sites



# Offutt AFB ERP Sites



## Uniform Environmental Covenants Act (UECA)

Environmental covenants are used to provide protection from exposure to contaminants that impact properties. Protection from remaining contamination is usually accomplished through the enforcement of property-specific activity and use limitations (AULs) contained in the environmental covenants. The Uniform Environmental Covenants Act (UECA) provides the legal framework for state and federal agencies to create, modify, enforce, and terminate environmental covenants. UECA makes environmental covenants enforceable by eliminating certain common law doctrines that might otherwise cast doubt on the covenants' long-term validity. UECA removes various legal impediments to the use of such controls and thereby lessens liability concerns of seller and lenders associated with the redevelopment and sale of the property. UECA helps to return previously contaminated property to the stream of commerce, by allowing the owners of that property to transfer or sell the property subject to approved AULs. UECA does not force any existing property owner to agree to long-term AULs on his or her property – these agreements are voluntary. Subsequent purchasers of the property would be subject to these AULs, but would do so with actual knowledge of the AULs as recorded in the land records, prior to the transaction.

In addition to the practical benefit of protecting people living and working on or near sites with remaining contamination, environmental covenants prepared under UECA provide additional benefits to multiple stakeholders:

- **Property owners** who agree to place environmental covenants on their properties are protected from liability issues that could arise from future owners violating or eliminating AULs specified in the covenants.
- **Lenders and local governments** find that environmental covenants are useful tools that facilitate the redevelopment, sale, and productive use of remediated property, thereby increasing the underlying value of the real estate.
- **Environmental regulators** rely upon environmental covenants to implement agreed-upon AULs, maintain a mechanism for the long-term stewardship of remediated properties, and thereby meet their obligation to protect human health.
- **Neighbors and potential purchasers** are provided full disclosure of which activities and uses are appropriate for the property, which AULs are required on the property, and how long the AULs will need to be maintained.

UECA requires a state or federal environmental agency to be a signatory to the environmental covenant, thereby ensuring that the selected AULs have undergone an appropriate regulatory review, are based on sound science, and are protective of human health; that the agency is afforded the right to enforce the covenant, if necessary; and that notice of the covenant is provided to affected third parties. Despite being a signatory to the covenant, the agency does not obtain any real property interest in the property.



## DISTRIBUTION LIST

Mr. Jeff Johnson  
Environmental Protection Agency, Region VII (ARTD/RCAP)  
901 N. 5<sup>th</sup> Street  
Kansas City KS 66101

Ms. Stacey Stricker  
Nebraska Department of Environmental Quality  
Suite 400, The Atrium  
1200 N. Street  
P.O. Box 98922  
Lincoln NE 68509-8922

Mr. Jeff Roberts  
City of Bellevue  
210 W. Mission Ave.  
Bellevue NE 68005

Mr. Joe Cascio  
4410 Maass Rd.  
Bellevue NE 68123-1129

Mr. David Falt  
Falt Fisheries, Inc.  
1000 Cunningham Road  
Bellevue NE 68005

Mr. William Falt  
Falt Fisheries, Inc.  
5424 S. 24<sup>th</sup> St.  
Omaha NE 68107-4426

Mr. Steve Hurlbutt  
17615 S. Highway 50  
Springfield NE 68059-4830

Ms. Rita Hurlbutt  
13105 Jennifer St.  
Springfield NE 68059-5894

Mr. Dave Koukol  
Engdahl Koukol Goracke & Johnson, LLC  
1623 Farnam Street, Suite 300  
Omaha NE 68102

Mr. John Ott  
1602 Elm Street  
Bellevue NE 68005

Mr. Frank Prucka  
10627 Martha St.  
Omaha NE 68124-1845

Mr. John Poore  
17628 Allis Rd.  
Council Bluffs IA 51503-6478



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 55TH WING (ACC)  
OFFUTT AIR FORCE BASE, NEBRASKA

OCT 18 2007

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Meeting Minutes of the Offutt AFB Environmental Restoration Program (ERP)  
Restoration Advisory Board (RAB), 17 September 2007

1. Place: Bellevue Public Schools Support Center, Hwy 75 & Hwy 370, Bellevue NE
2. Date/Time: 17 September 2007/3:00 - 4:00 p.m.
3. Co-Chairmen: Col Thomas Goffus/Mr. John Ott
4. RAB Members Present: Col Thomas Goffus, 55 MSG/CC  
Mr. Philip Cork, 55 CES/CEVR  
Mr. Jeff Johnson, USEPA Region VII  
Mr. Wade Gregson, NDEQ Representative  
Mr. Dave Petrocchi, City of Bellevue Representative  
Mr. John Ott, Local Citizen

Other Attendees: Lt Col Phillip Moessner, 55 MSG/CD  
Ms. Debbie Aragon, 55 WG/PA  
Ms. Sabina Chowdhury, Booz, Allen Hamilton  
Ms. Jean Coburn, 55 CES/CEVR  
Mr. Denny Jorgenson, URS Corp  
Mr. Dave Koukol, Local Citizen  
Mr. Ed Lueninghoener, 55 CES/CD  
Mr. Bob Mallisee, URS  
Mr. Jesse Schraft, 55 WG/JA

5. Col Thomas Goffus, 55 MSG/CC, chaired the September 2007 RAB meeting. Col Goffus welcomed everyone to the meeting. Mr. Cork began the meeting with introductions and provided a briefing on the following topics:

- a. Landfill 5: Landfill 5 remediation is complete. The activities for FY08 included site inspections, maintenance, and required grounds work. Col Goffus asked why Buffalo grass was chosen

f. Landfill 4: Monitoring will continue on the remedies currently in place, including hydraulic containment system, IRT areas, and in situ chemical oxidation at the site. There are two pumping wells associated with the site. An IRT was placed between the two pumping wells using vegetable oil. Offutt has requested EPA approve longer term shut down of on-site pumping well to evaluate effectiveness of boundary IRT zone. FY08 activities include hydraulic containment inspections, annual plume monitoring, and quarterly performance monitoring of site remedies.

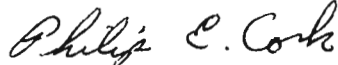
g. Hardfill 2 Composite: In FY07, completed re-injection of biostimulant in the northern plume source area. Submitted a technical memorandum for IRT re-injection demonstration and completed re-injection in the southern plume. Monitoring continues on the zero-valent iron wall and treatment wetlands—both systems are working as designed. FY08 activities include continued monitoring of IRT zones, wetlands, and hydraulic containment system.

h. Building 301: Submitted Final Building 301 Soil Source Zone Investigation Report to EPA. Submitted Final B-301 Dual-Phase Extraction Corrective Measures Implementation Plan, installed the DPE system, and began operation of the system. Submitted technical memorandum for IRT re-injection demonstration and completed re-injection within plume core upgradient of ZVI Permeable Reactive Barrier. Activities for FY08 include continued quarterly performance monitoring of IRTs and submittal of a request to reduce frequency of general plume monitoring.

i. Tank 349: In FY07, Offutt continued product removal using passive removal canisters and hydrophobic bailers. Offutt has received approval from NDEQ for two pilot tests—high vacuum extraction and biosparging. The high vacuum extraction test was completed and the biosparging test was started in September. Activities for FY08 include removal of remaining product and site closure.

j. Elkhorn: Some residual contamination still remains at approximately 300 feet below the ground surface in the Dakota Sandstone aquifer. Shallower contamination remains at a depth of about 30 feet in perched groundwater. Offutt had been working with the State on an Alternate Cleanup Level. At NDEQ's recommendation, Offutt prepared a No Further Action Remedial Action Plan (RAP) recommending Long-Term Monitoring. This plan would be the decision document for the site. Col Goffus asked what the cause of the contamination at this site was. Mr. Cork stated the cause was unknown; however, it was likely a surface spill that contaminated the perched groundwater, which then moved into the gravel pack of the former supply well down to the deeper Dakota Sandstone. Offutt continues to monitor off-base wells—no contamination has been detected in these wells. Activities for FY08 include annual plume monitoring and continuation of voluntary pumping of monitoring wells ELK-MW4I and ELK-MW7S.

6. Mr. Cork thanked everyone for taking time to attend the RAB. The next RAB meeting is tentatively scheduled for Monday, 17 March 2008, 3:00-4:00 p.m., at the Bellevue Public Schools Welcome Center.

  
PHILIP E. CORK  
Recorder

Approved as written

  
THOMAS W. GOFFUS, Colonel, USAF  
Commander, 55th Mission Support Group

3 Attachments:

1. RAB Presentation
2. ERP Site Map
3. Distribution List

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**RESTORATION ADVISORY  
BOARD (RAB)**  
*17 September 2007*

This Briefing is  
UNCLASSIFIED

**AGENDA**

- Landfill 5
- Hardfill 6
- Fire Training Area 3
- Old Jet Engine Test Stand
- Landfill 4 Trench Area
- Landfill 4
- Hardfill 2 Composite
- Building 301
- Tank 349
- Elkhorn

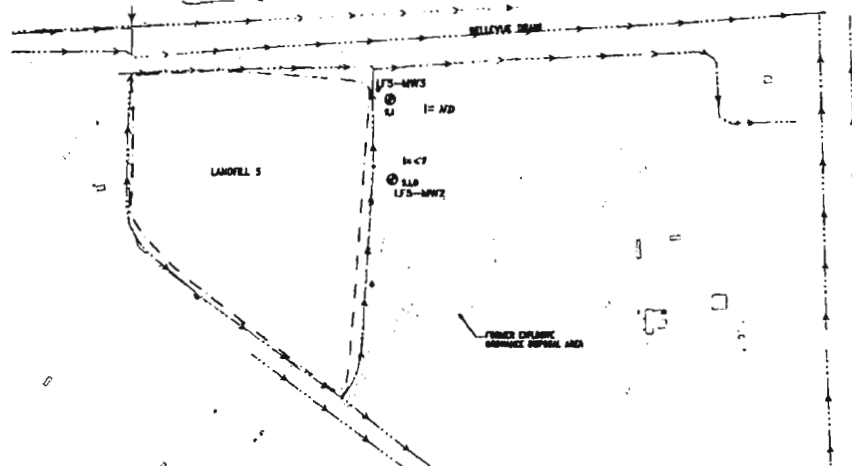


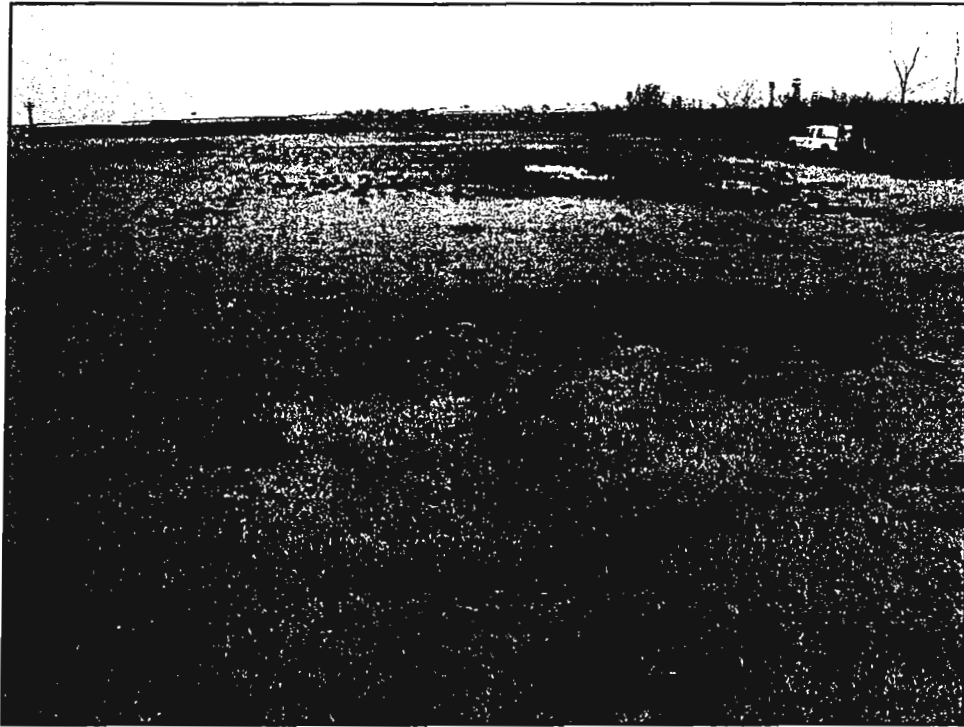
## LANDFILL 5



- **Site status is currently RCRA long-term monitoring**
- **FY07 Activities**
  - Completed 2007 groundwater monitoring at two key wells
    - CAH concentrations remained below MCLs
  - Continuing site inspections, maintenance, and required grounds work
- **FY08 Planned Activities**
  - Biennial groundwater monitoring
  - Site inspections, maintenance, and required grounds work

## LANDFILL 5





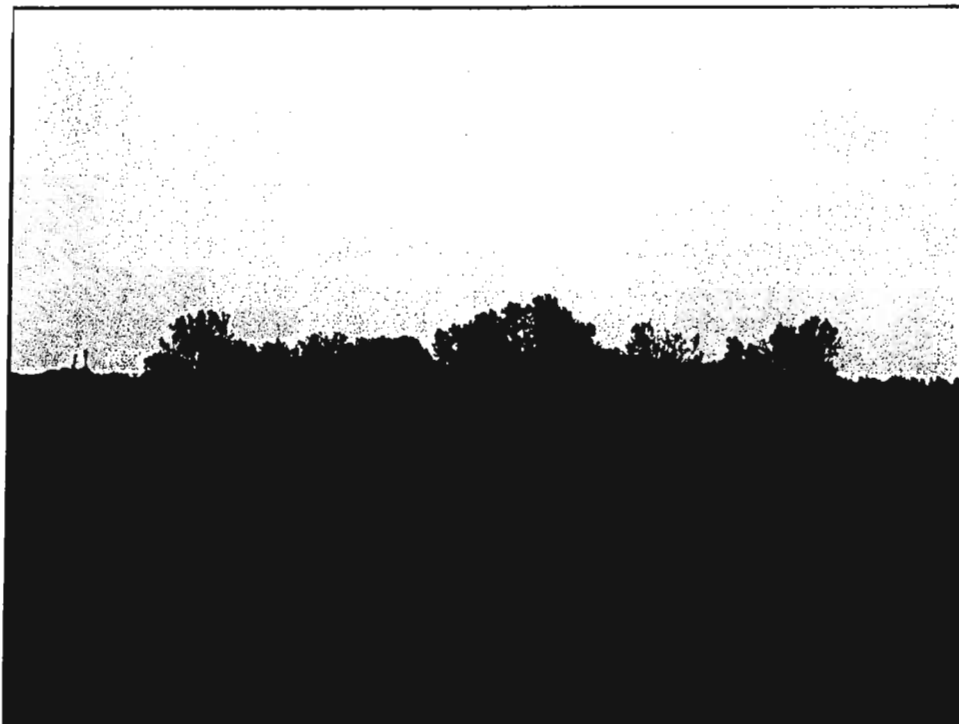
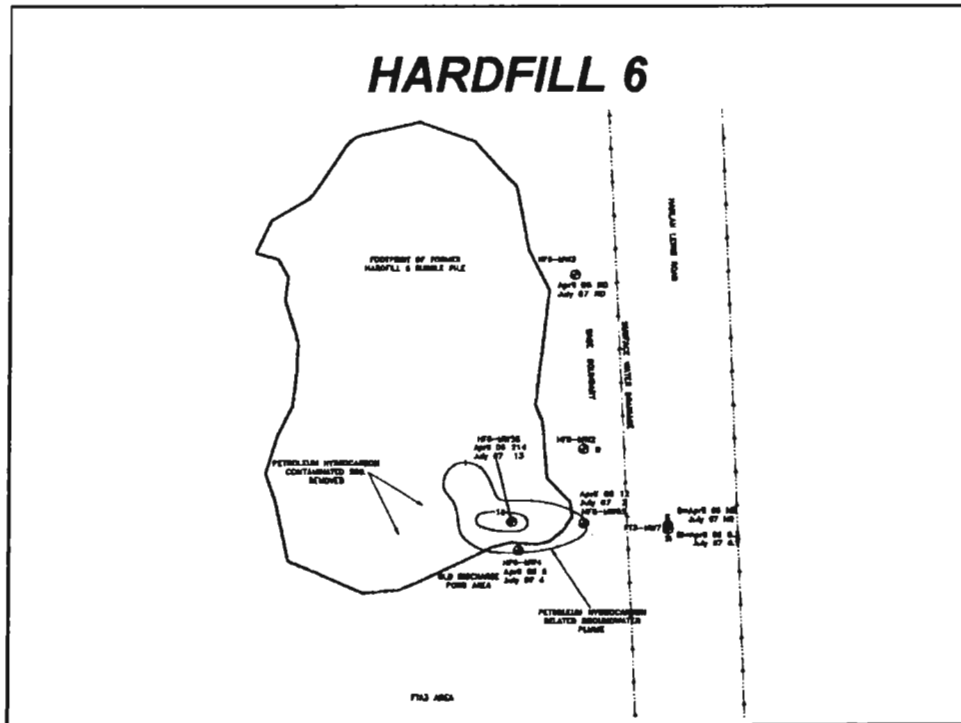
## ***HARDFILL 6***



- **FY07 Activities**
  - Completed annual groundwater monitoring
    - Concentrations of fuel compounds decreased by up to 95% since source removal (2004) with all compounds below MCLs
  - EPA completed review of Statement of Basis
- **FY08 Planned Activities**
  - Removal of SWMU from RCRA Permit due to clean closure
  - Plume monitoring will be associated with FTA3



# HARDFILL 6



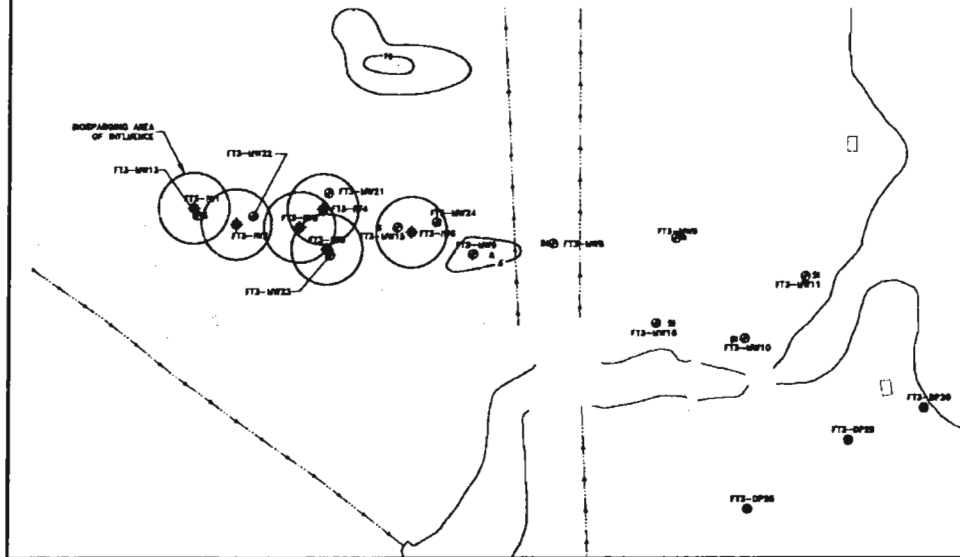


## ***FIRE TRAINING AREA 3***

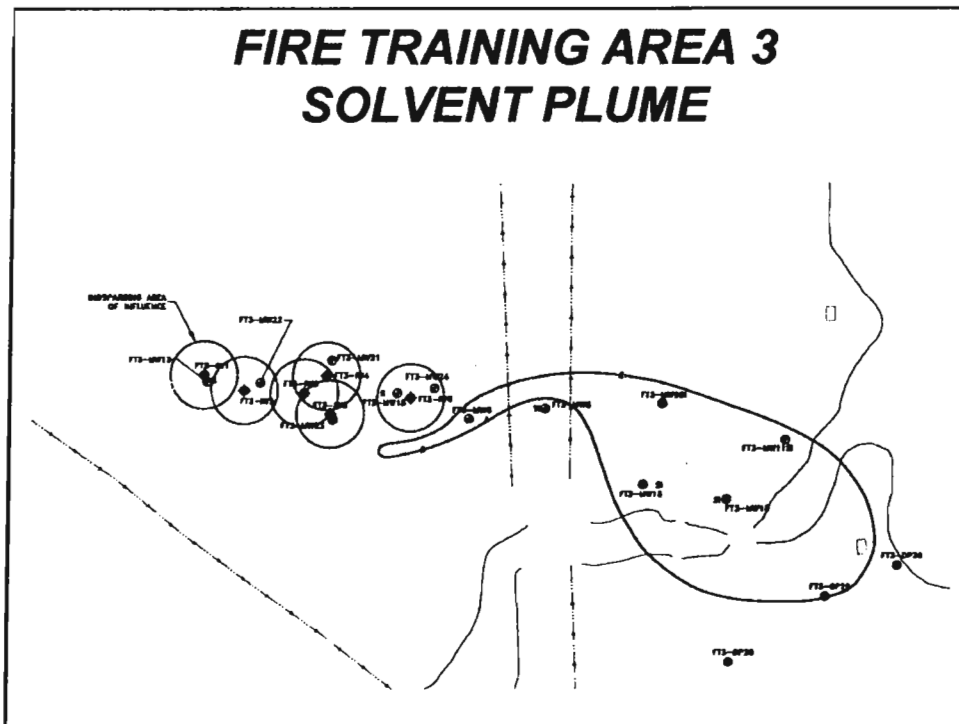


- **FY07 Activities**
  - Operated and maintained biosparging system from June 2006 to March 2007
  - EPA approved biosparging system shut down to assess core concentration stability in March 2007
  - System remains shut down pending EPA approval
  - Request to reduce groundwater monitoring frequency will be submitted after permanent biosparging system shut down is approved
- **FY08 Planned Activities**
  - Biennial groundwater sampling

# FIRE TRAINING AREA 3 BTEX PLUME



# FIRE TRAINING AREA 3 SOLVENT PLUME



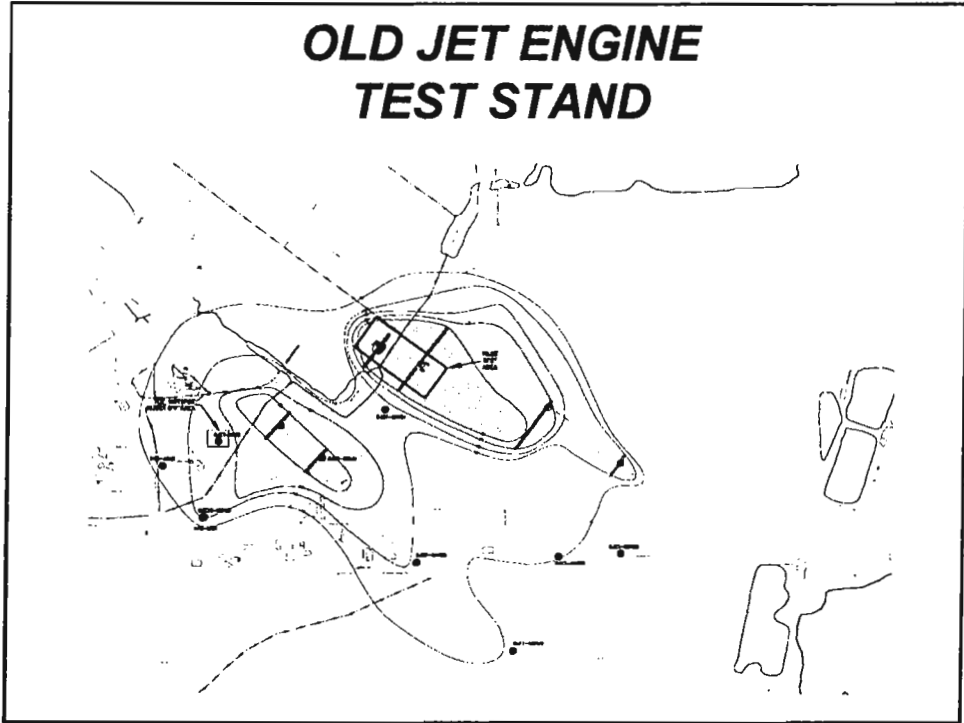


## **OLD JET ENGINE TEST STAND**

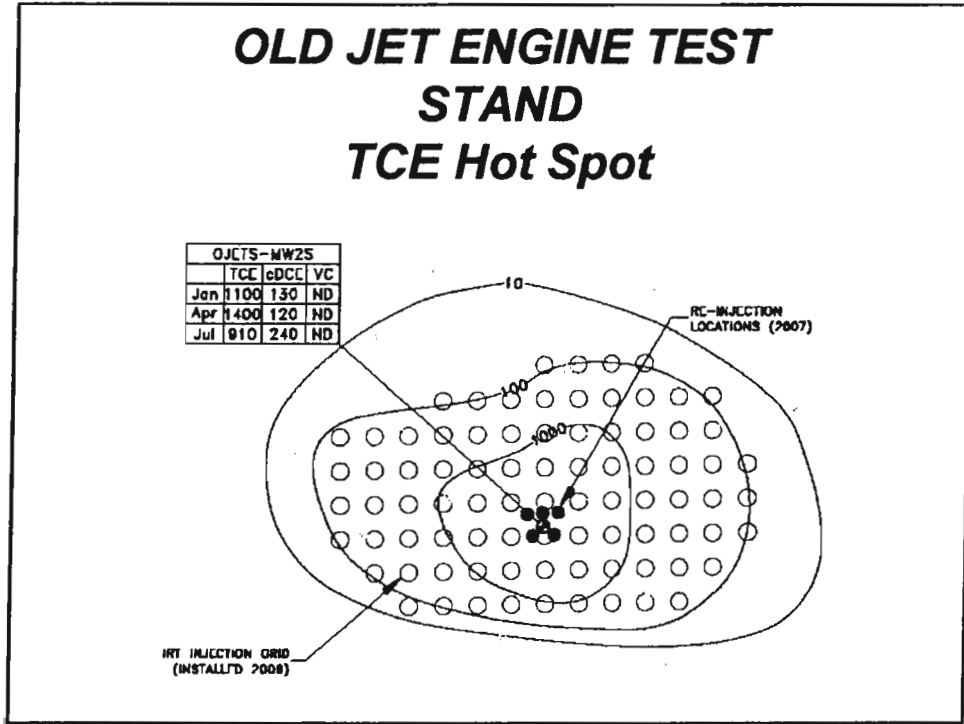


- **FY07 Activities**
  - Submitted Final OJETS assessment report to EPA
  - Completed bioremediation pilot test of different biostimulants
  - Collected groundwater samples for IRT performance monitoring of shallow hotspot area
  - Submitted technical memorandum for IRT re-injection demonstration and completed re-injection within shallow TCE hotspot
  - Conducted semiannual plume monitoring
  - Submitted OJETS CMIP Addendum for in situ reductive bioremediation and began biostimulant injection on-Base
- **FY08 Planned Activities**
  - Quarterly monitoring of biostimulant injection
  - Semiannual plume monitoring (outside injection areas)

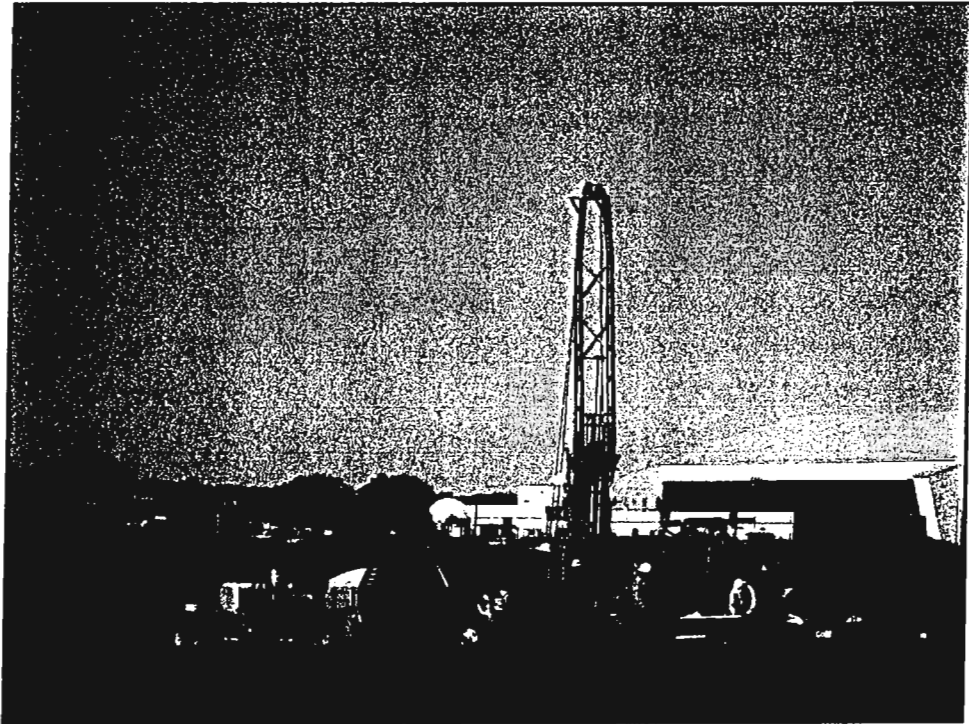
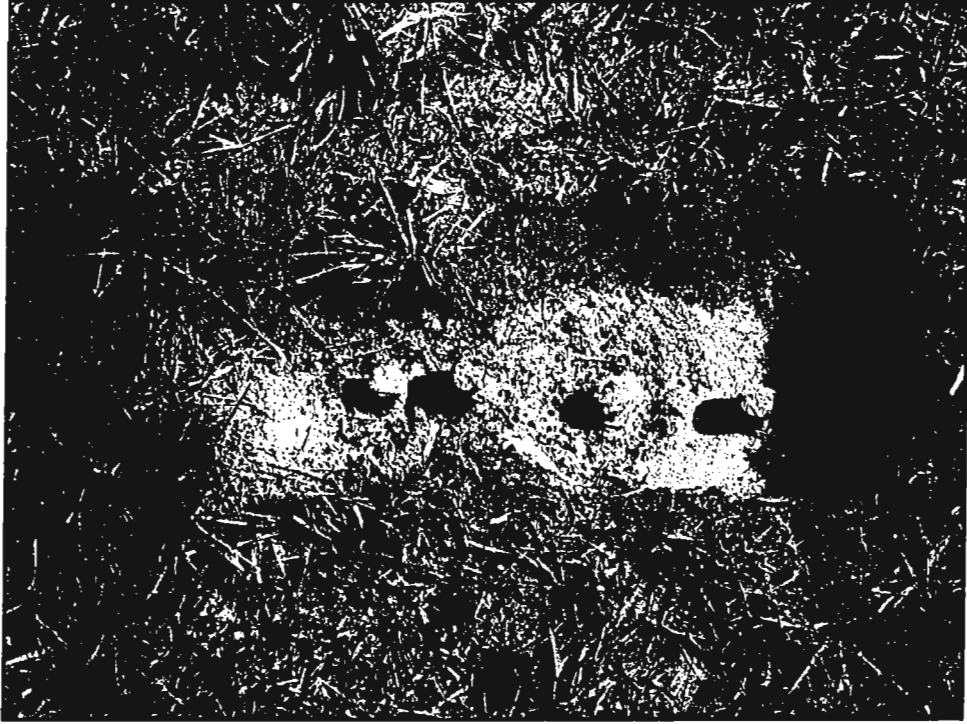
# OLD JET ENGINE TEST STAND

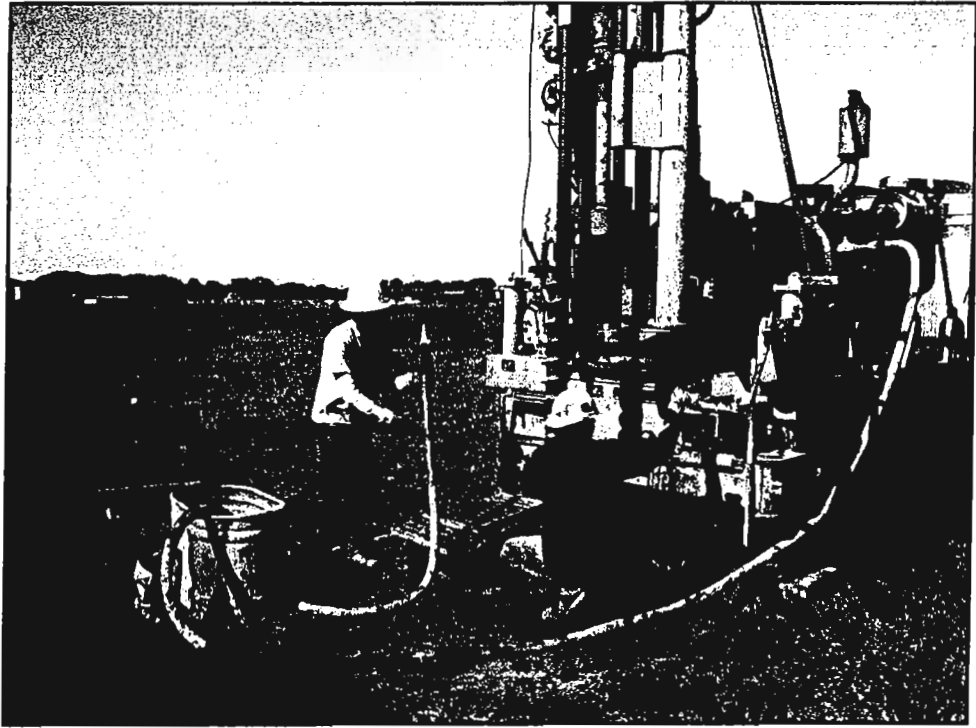


# OLD JET ENGINE TEST STAND TCE Hot Spot

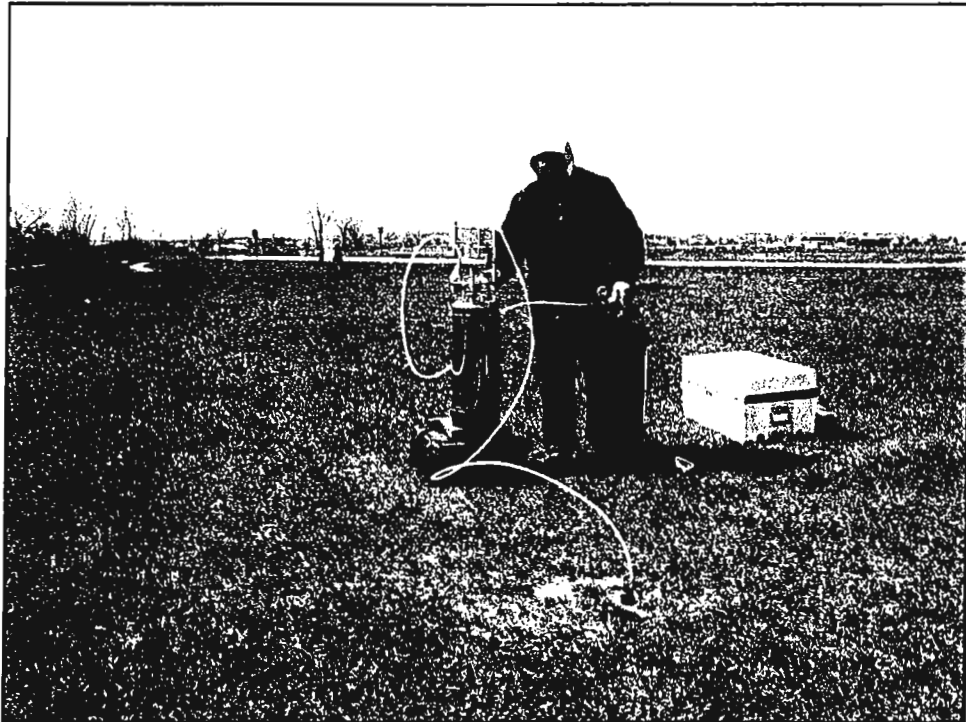










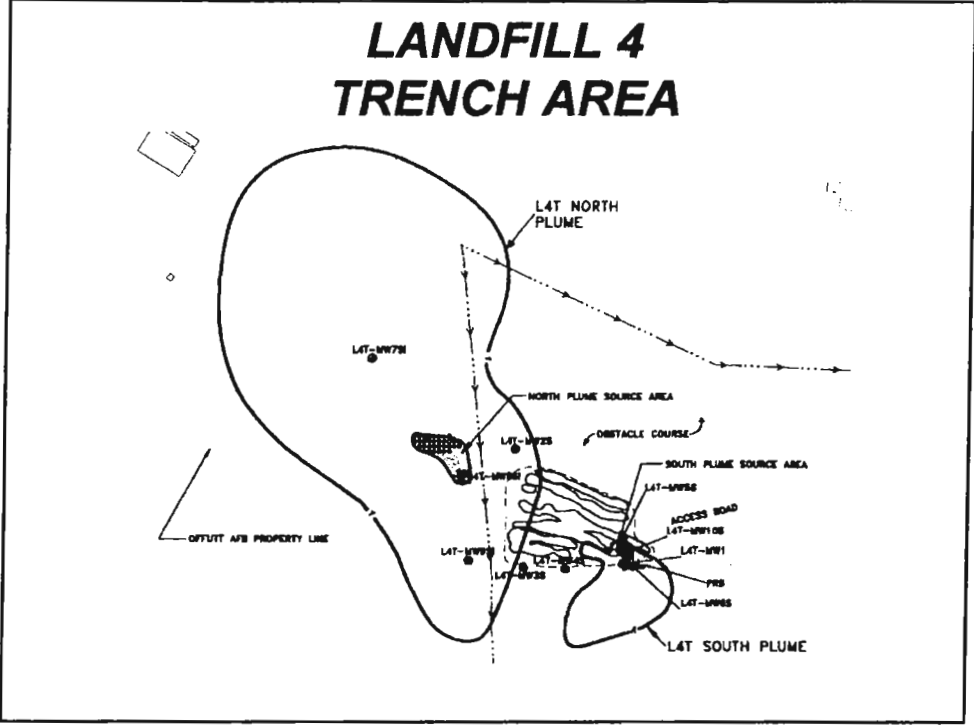


## **LANDFILL 4 TRENCH AREA**

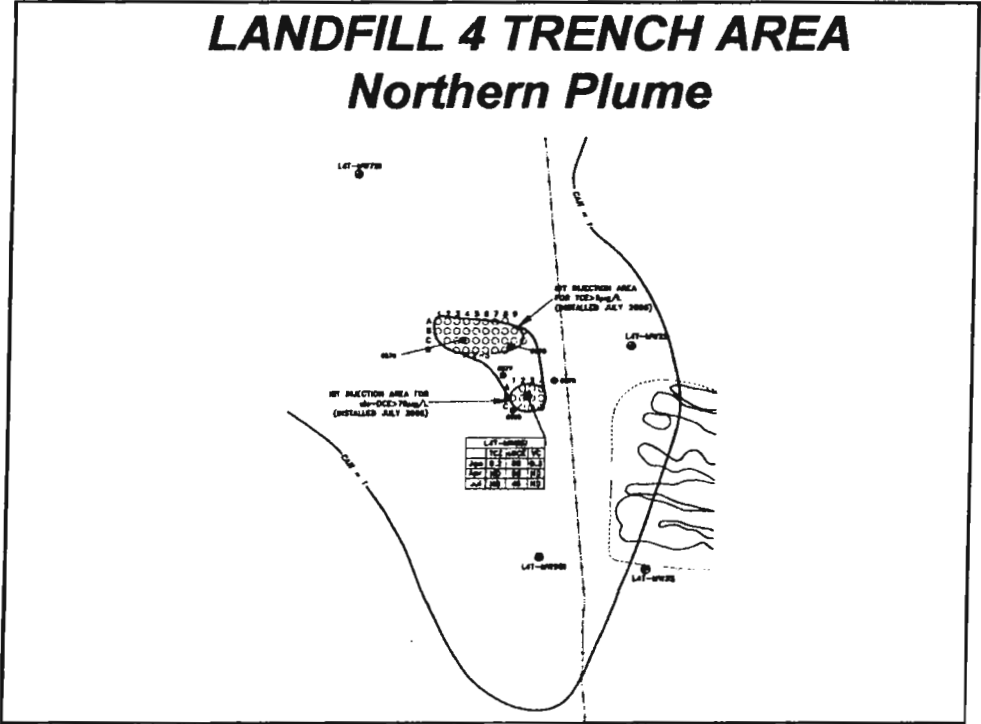


- **FY07 Activities**
  - EPA completed review of Statement of Basis
  - Collected groundwater samples from two monitoring wells for IRT performance monitoring
  - Completed annual plume monitoring
  - Continued landfill inspection, including fencing, signs and cover
- **FY08 Planned Activities**
  - Quarterly monitoring of IRT injection areas
  - Annual plume monitoring (outside injection areas)
  - Landfill inspection

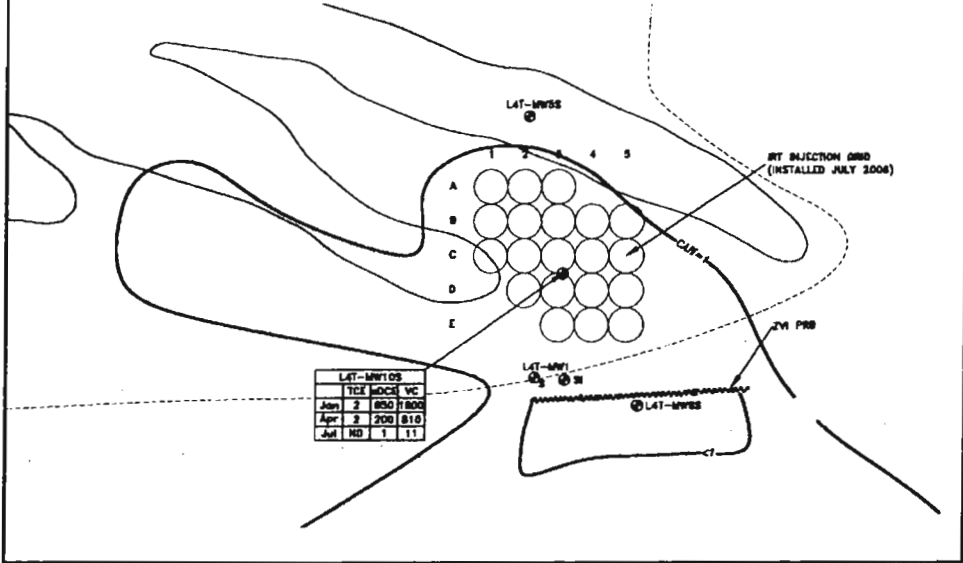
# LANDFILL 4 TRENCH AREA



# LANDFILL 4 TRENCH AREA Northern Plume



# LANDFILL 4 TRENCH AREA Southern Plume

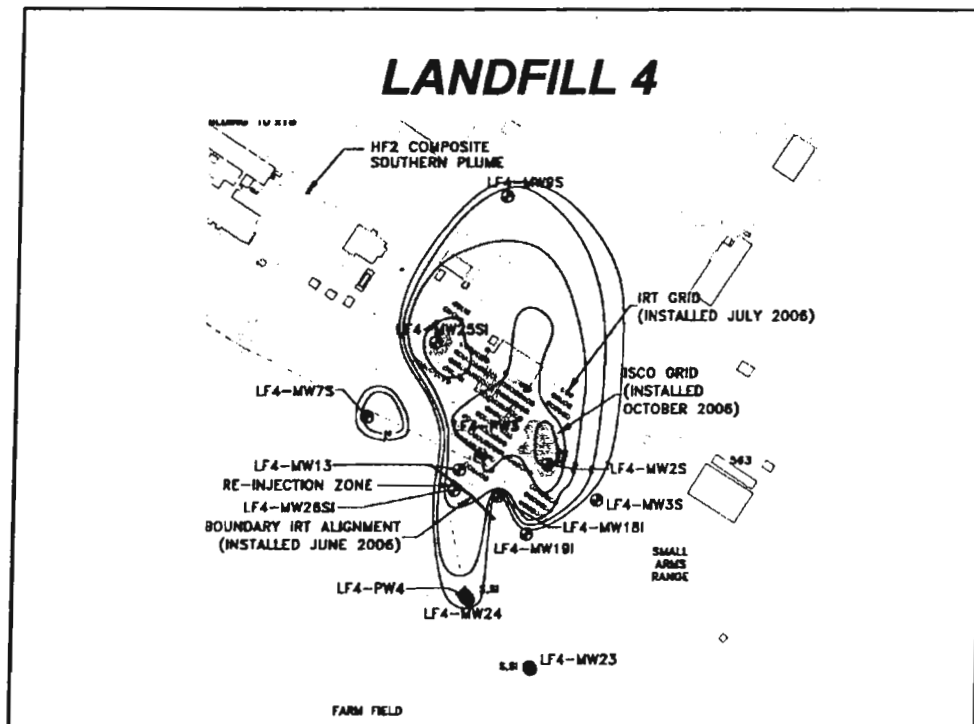




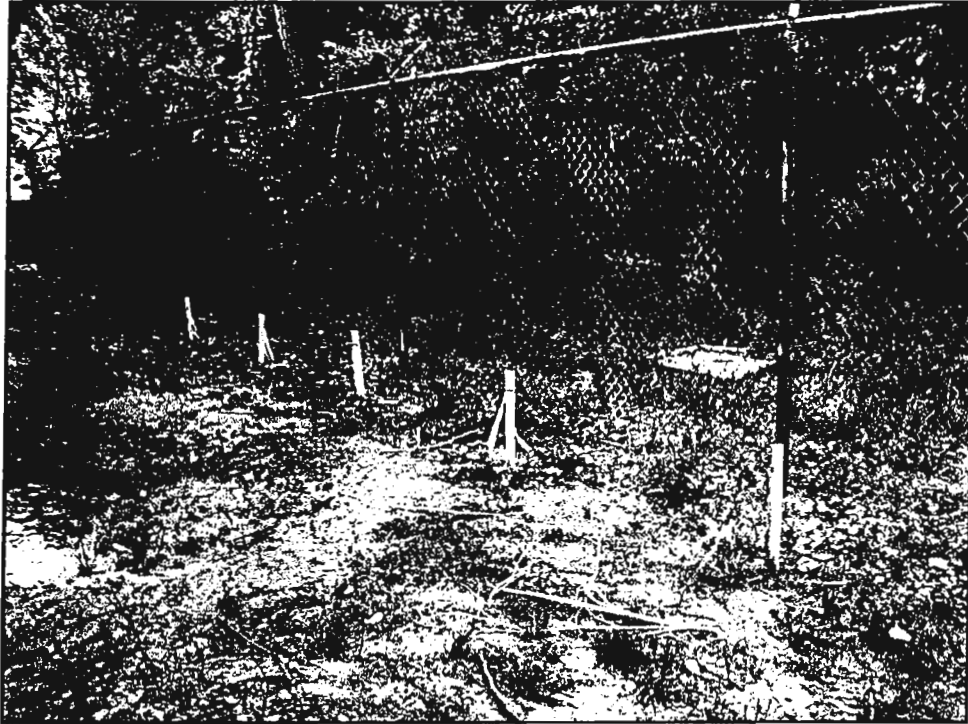
## LANDFILL 4



- **FY07 Activities**
  - Conducted inspections of the hydraulic containment system
  - Collected groundwater samples from six monitoring wells for IRT and potassium permanganate performance monitoring
  - Completed annual plume monitoring
  - Submitted technical memorandum for IRT re-injection demonstration and completed re-injection along base boundary
  - Proposed longer term shut down of on-site pumping well LF4-PW3 in order to evaluate effectiveness of boundary IRT zone
- **FY08 Planned Activities**
  - Conduct inspections, water level measurements, and quarterly sampling of hydraulic containment wells and effluent
  - Continue quarterly performance monitoring of site remedies
  - Continue annual plume monitoring







## **HARDFILL 2 COMPOSITE**



- **FY07 Activities**
  - Submitted Final Hardfill 2 Composite Northern Plume Source Control Demonstration Report
  - Completed re-injection of biostimulant in the Northern Plume source area
  - Submitted technical memorandum for IRT re-injection demonstration and completed re-injection in Southern Plume
  - Completed annual plume and semiannual ZVI PRB monitoring
  - Conducted inspections and maintenance of constructed wetlands
  - Collected quarterly groundwater samples from 19 monitoring wells for IRT performance monitoring
  - Installed and operated DPE system at southern plume source area (Bldg 407). Temporary shutdown approved and system moved to B301
  - Submitted draft Statement of Basis to EPA for review
  - Submitted Technical Impracticability (TI) Evaluation for Source Area 8 to EPA. Working on revision and final submittal

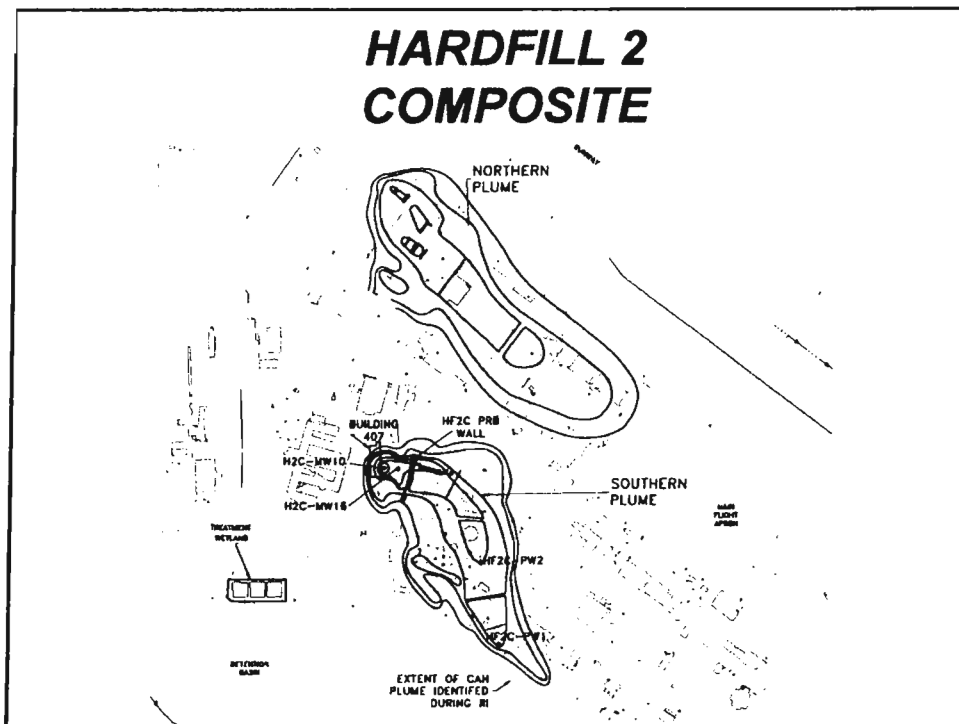


## HARDFILL 2 COMPOSITE

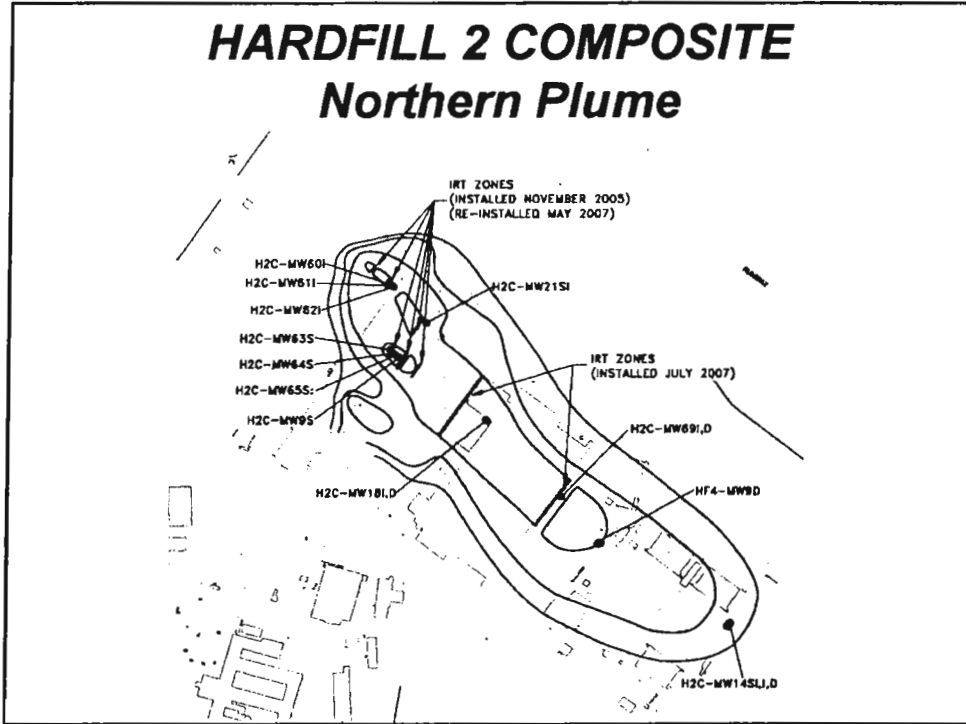


### FY08 Planned Activities

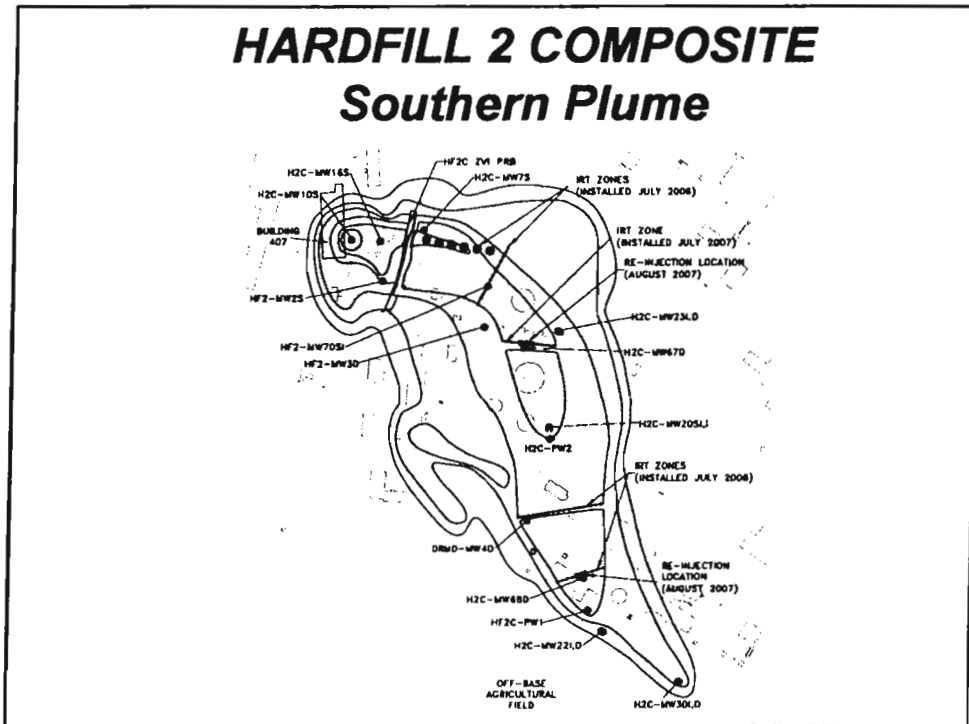
- Continue quarterly performance monitoring of IRT zones
- Inspect, collect water level measurements, and quarterly sampling of two hydraulic containment system pumping wells
- Continue inspections and maintenance of constructed wetlands
- Completed annual plume and semiannual ZVI PRB monitoring
- Continue limited DPE at southern plume source area



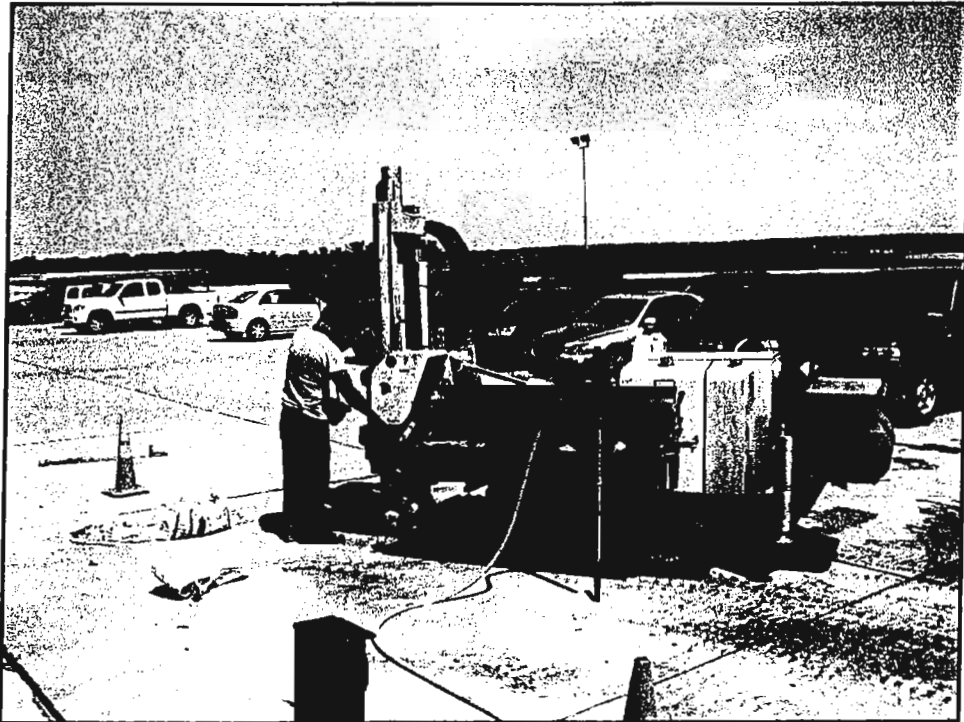
# HARDFILL 2 COMPOSITE Northern Plume

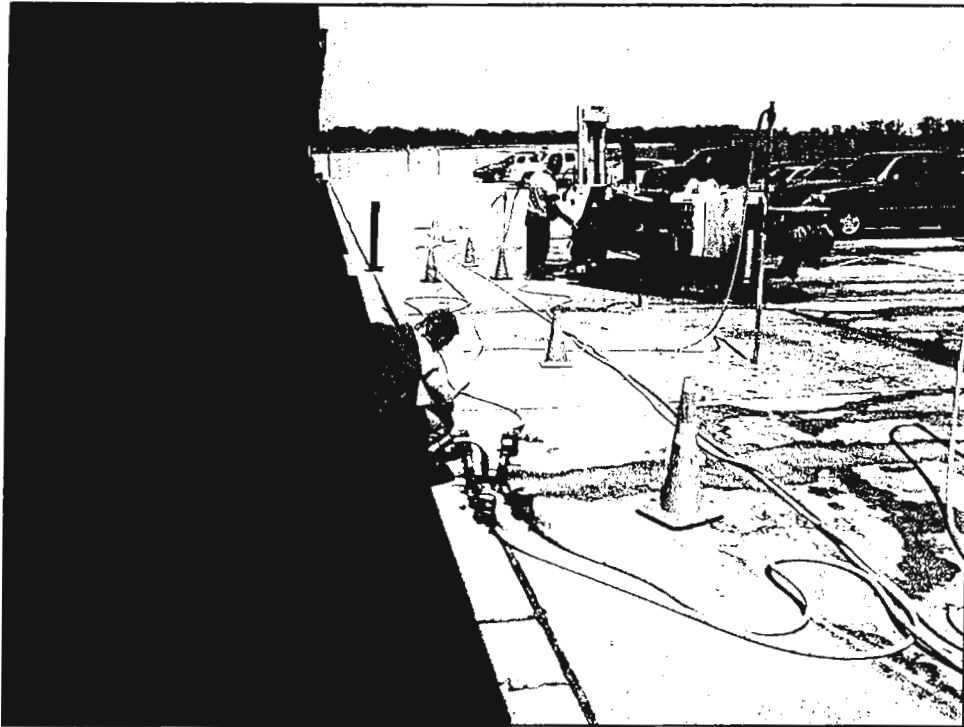


# HARDFILL 2 COMPOSITE Southern Plume







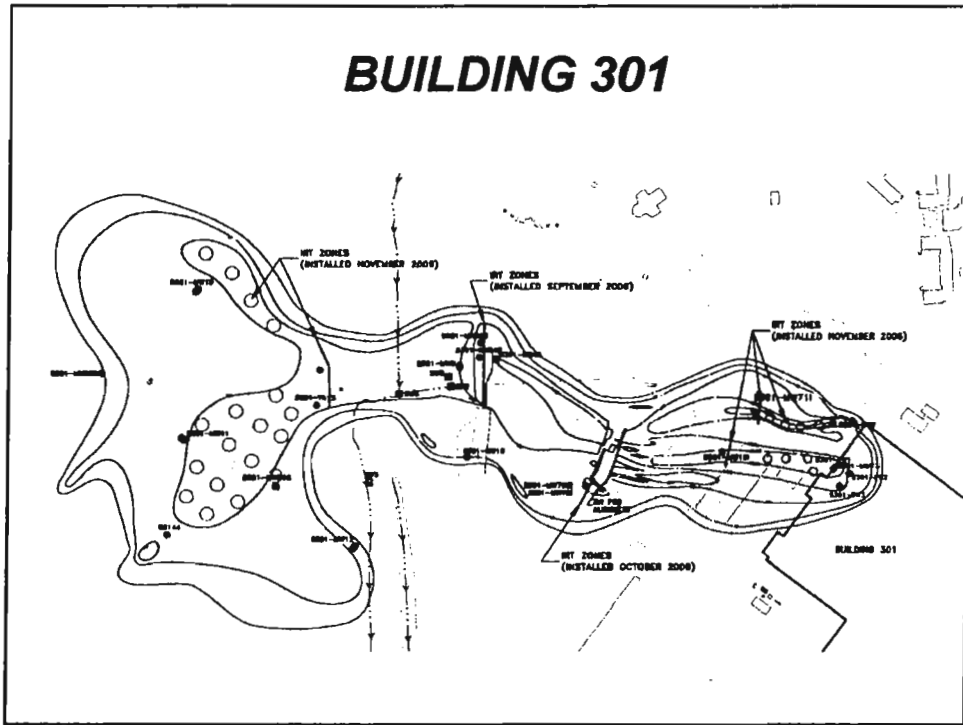


## **BUILDING 301**

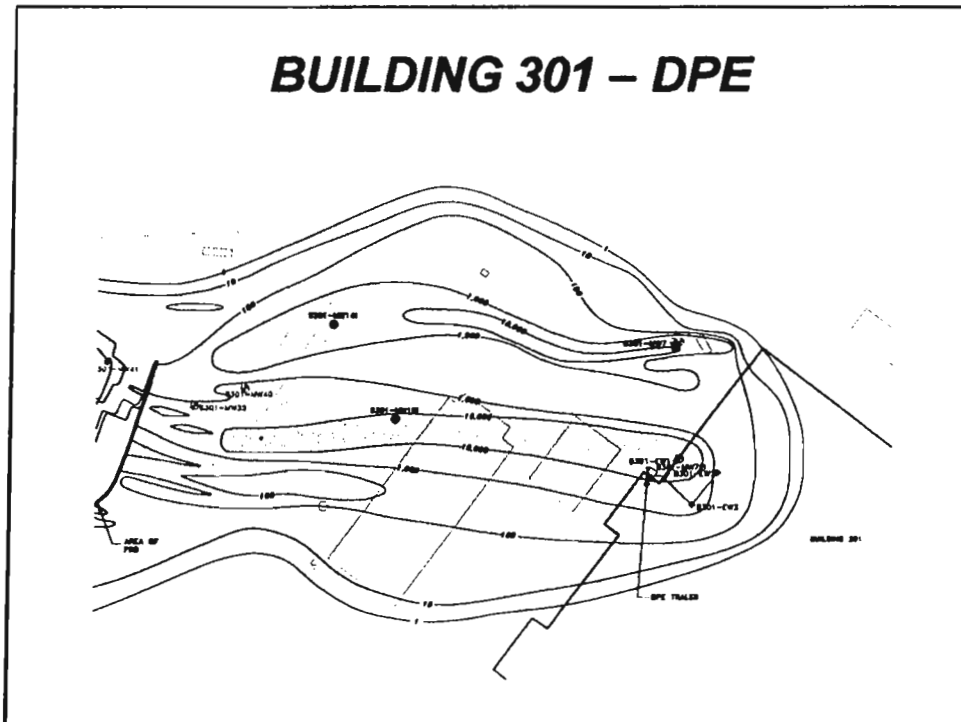


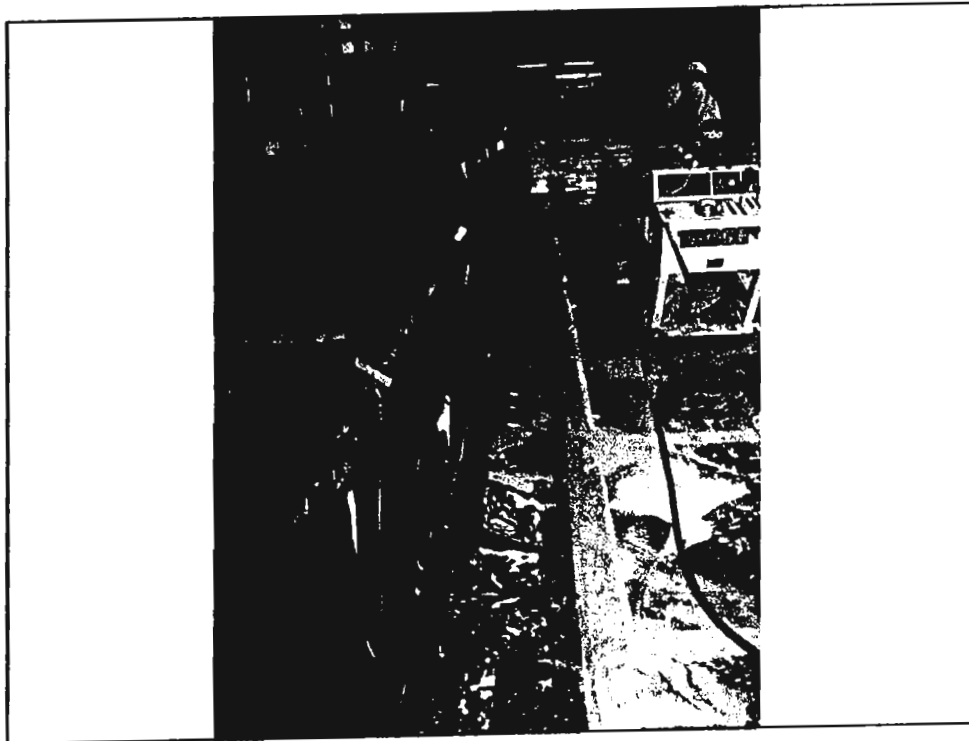
- **FY07 Activities**
  - Submitted Final Building 301 Soil Source Zone Investigation Report
  - Completed semiannual plume, ZVI PRB, and field drain monitoring
  - Completed annual surface water and off-Base plume monitoring
  - Submitted Final B301 Dual-Phase Extraction Corrective Measures Implementation Plan, installed system, and began operation
  - Collected quarterly groundwater samples from 7 monitoring wells for IRT performance monitoring
  - Submitted technical memorandum for IRT re-injection demonstration and completed re-injection within plume core upgradient of ZVI PRB
- **FY08 Planned Activities**
  - Continue quarterly performance monitoring of IRTs
  - Submit request to reduce frequency of general plume monitoring

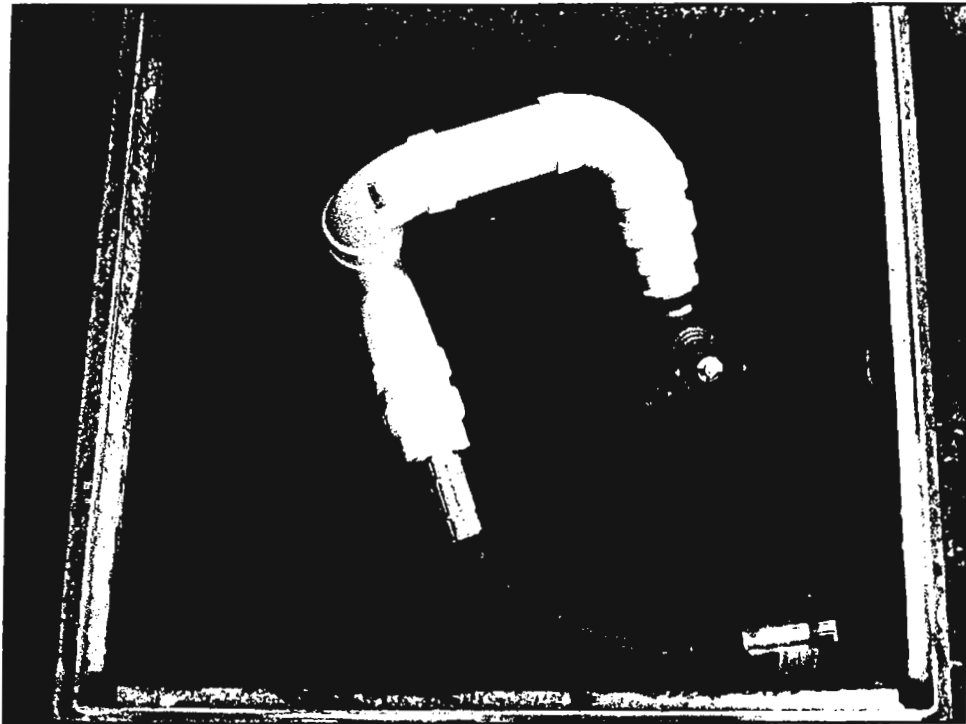
# BUILDING 301

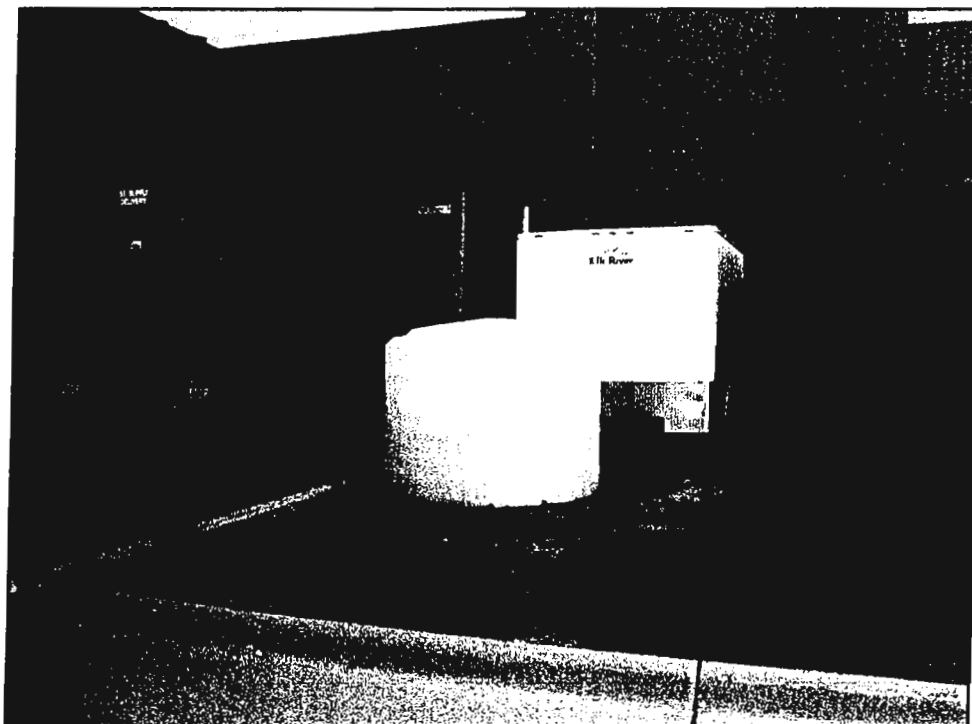
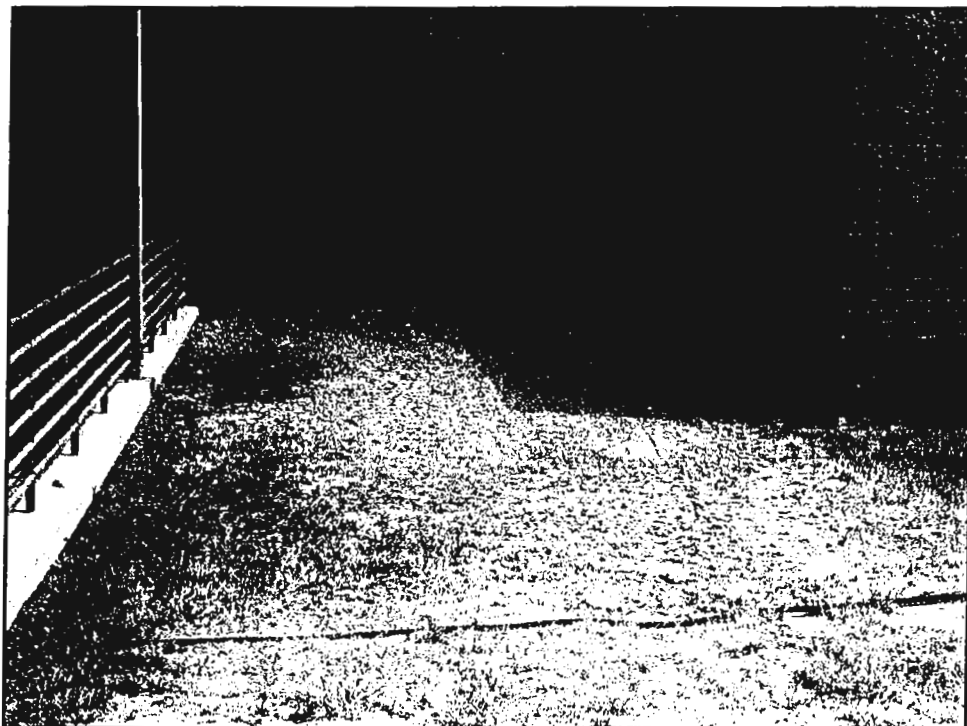


# BUILDING 301 - DPE







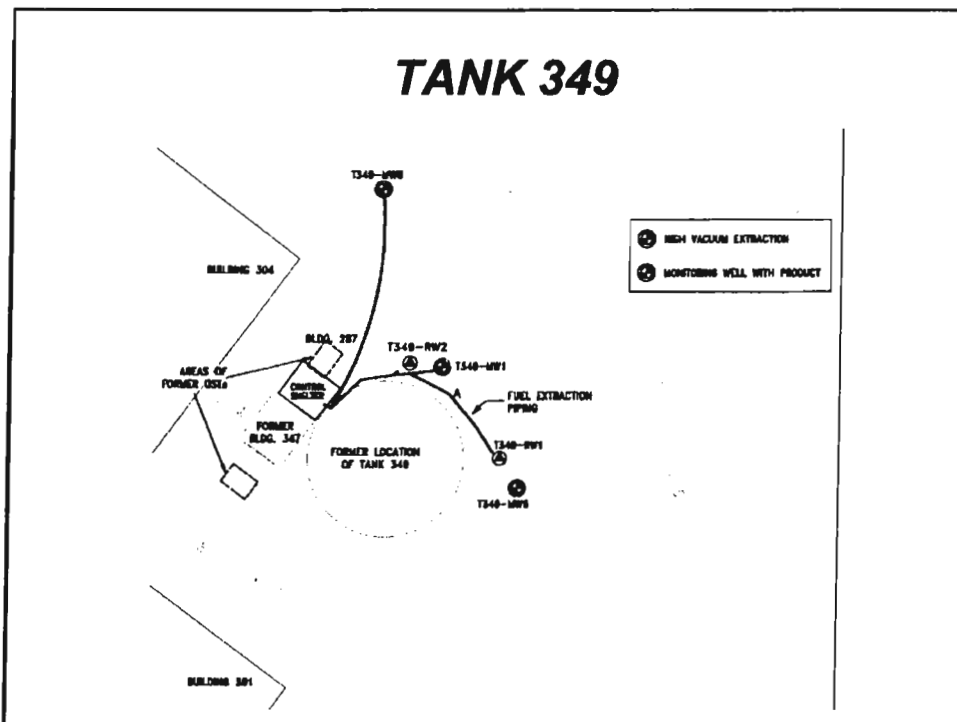




## TANK 349



- **FY07 Activities**
  - Free product removed using passive removal canisters and hydrophobic bailers
  - Received approval from NDEQ for two pilot tests
    - High vacuum extraction, which was completed in May
    - Biosparging, which was started in August
- **FY08 Planned Activities**
  - Continue inspections and remove remaining product
  - Site Closure



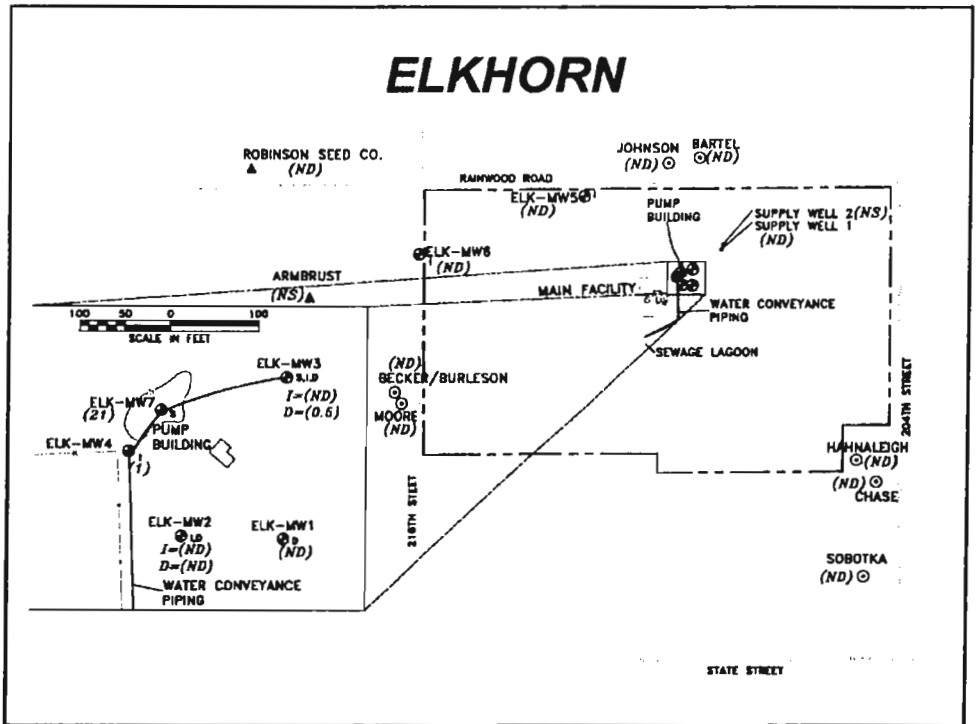


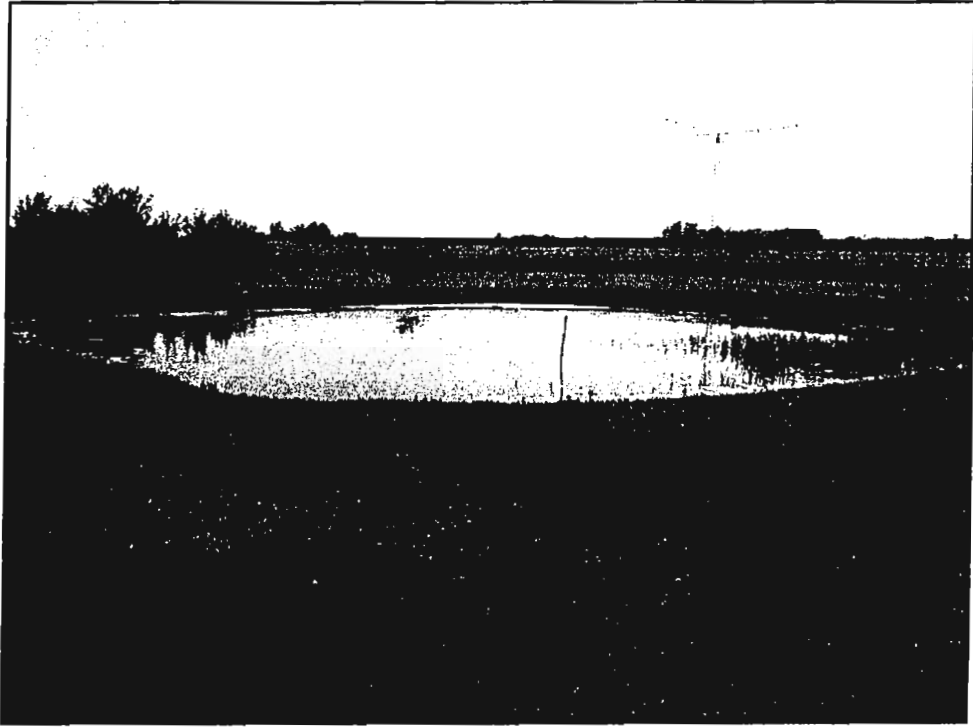
## **ELKHORN**



- **FY07 Activities**
  - Submitted letter to NDEQ on Proposed Alternate Cleanup Level
    - NDEQ indicated they would need more site data for ACL review
    - Suggested Offutt submit a Remedial Action Plan (RAP)
  - Decision to proceed with the NDEQ RAP process
    - Submitted a NFA RAP to NDEQ for review
  - Monitoring well ELK-MW4I and ELK-MW7S were operated as extraction wells
- **FY08 Planned Activities**
  - Annual plume monitoring
  - Continue pumping at MW4I and MW7S







**QUESTIONS?**

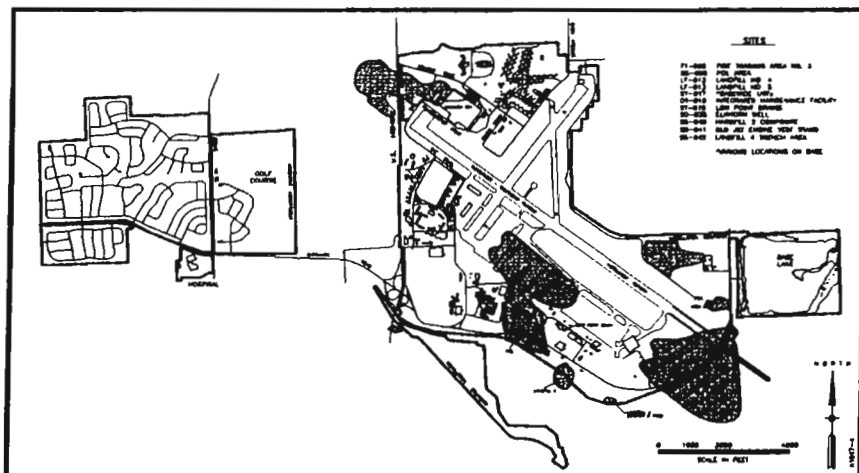
## NEXT RAB MEETING

MONDAY, 3 MARCH 2008

3:00 – 4:00 P.M.

BELLEVUE PUBLIC SCHOOLS WELCOME CENTER

## OFFUTT ERP SITES



## DISTRIBUTION LIST

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Mr. John Ott  
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Bellevue NE 68005

Mr. Frank Prucka  
10627 Martha St.  
Omaha NE 68124-1845

Mr. John Poore  
17628 Allis Rd.  
Council Bluffs IA 51503-6478

Ms. Cindy Hood  
HQ AFCEE/ICM  
3300 Sidney Brooks  
Brooks City-Base TX 78235-5112

Ms. Sabina Chowdhury  
700 N St Marys #700  
San Antonio TX 78205

Monday 9/17/07  
3-4 PM



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**RESTORATION ADVISORY  
BOARD (RAB)**  
5 March 2007

This Briefing is  
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**AGENDA**



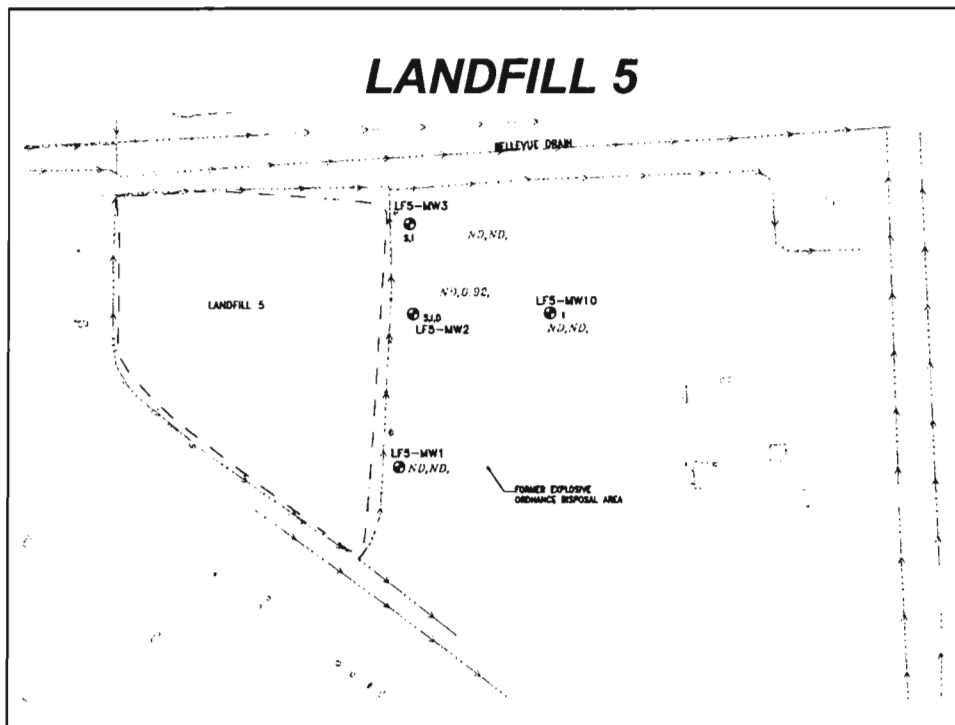
- Landfill 5
- Hardfill 6
- Fire Training Area 3
- Old Jet Engine Test Stand
- Landfill 4 Trench Area
- Landfill 4
- Hardfill 2 Composite
- Building 301
- Tank 349
- Elkhorn



## LANDFILL 5



- **FY06 Activities**
  - Completed site inspections, maintenance, and required grounds work
  - Completed 2006 biennial groundwater monitoring
    - CAH concentrations remained below MCLs
- **FY07 Planned Activities**
  - Site inspections, maintenance, and required grounds work

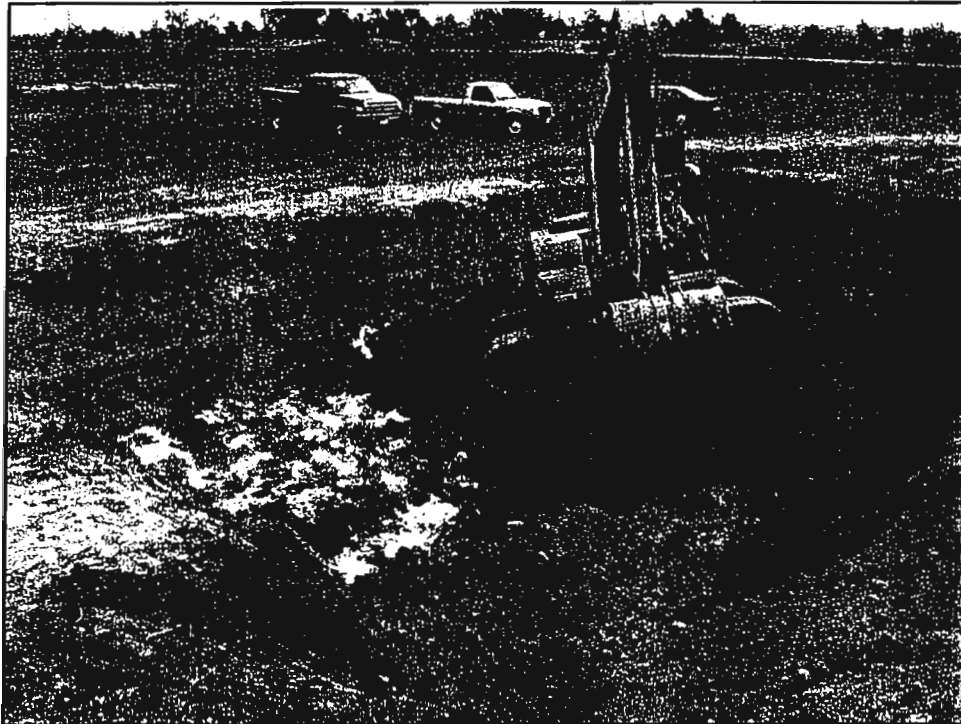




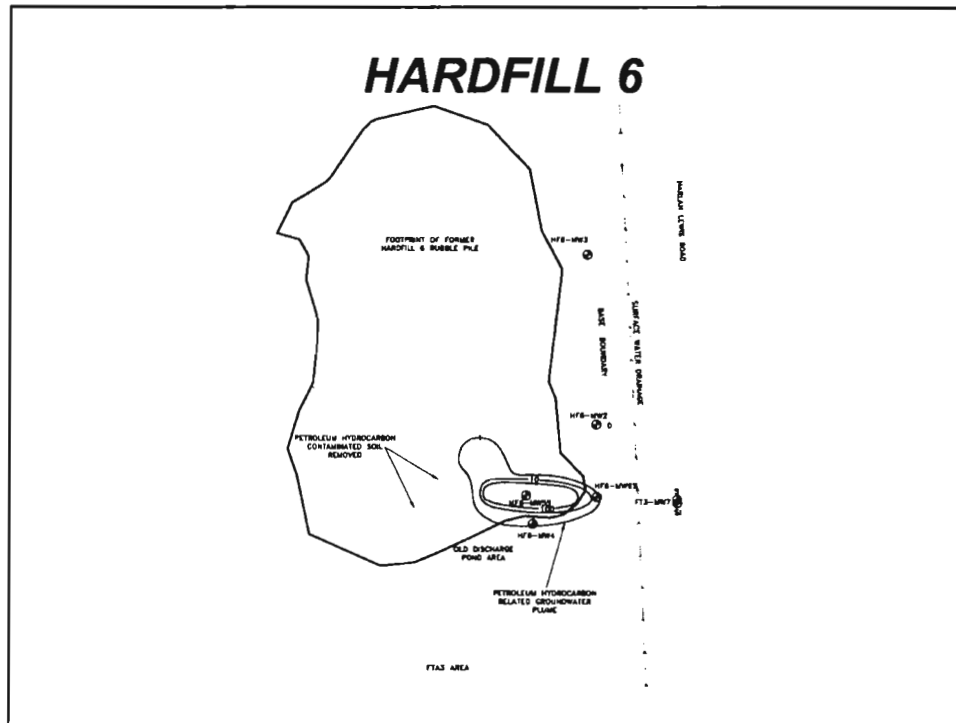
## ***HARDFILL 6***



- **FY06 Activities**
  - Received EPA approval of RCRA Facility Investigation (RFI) report
  - Submitted draft No Further Action Statement of Basis to EPA
- **FY07 Planned Activities**
  - Termination of the corrective action requirements by RCRA permit
  - Incorporation of dissolved fuel plume into FT-03 (administrative action only)



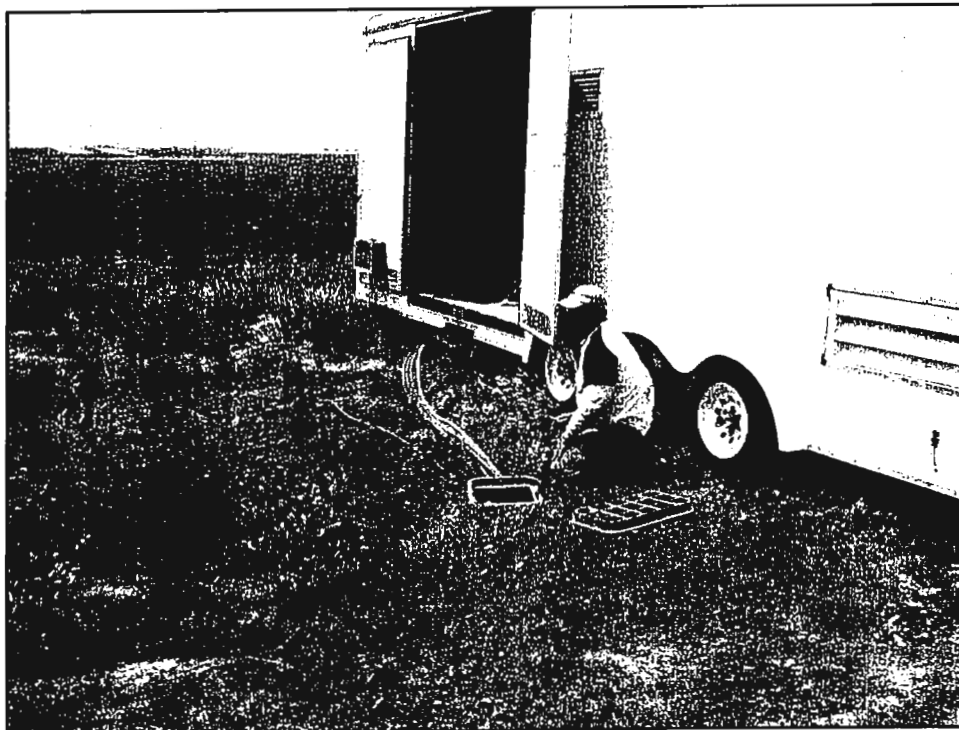
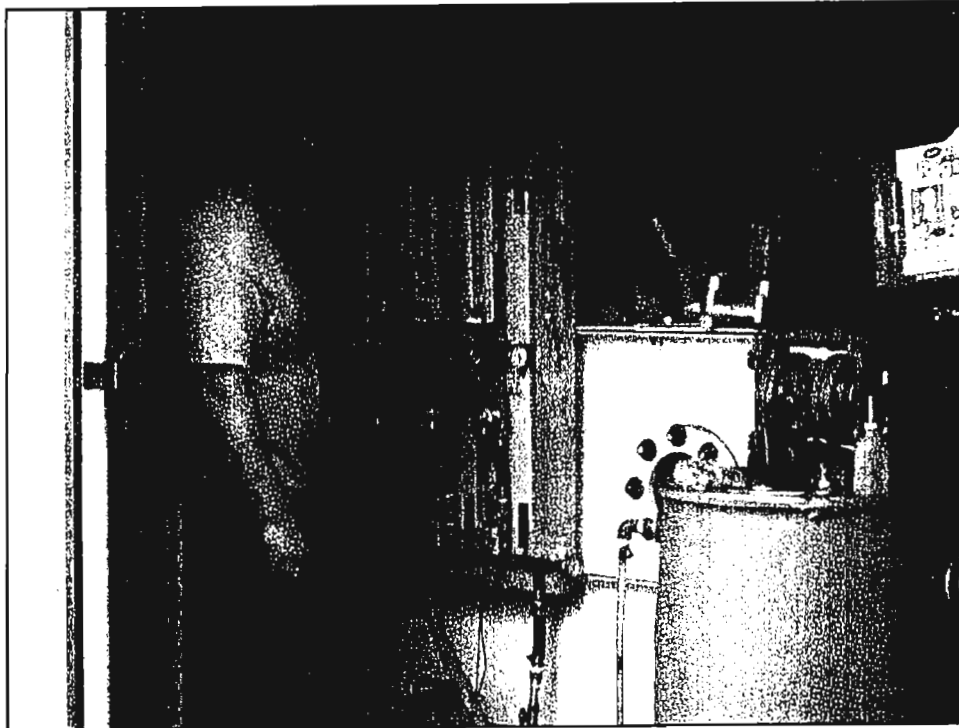




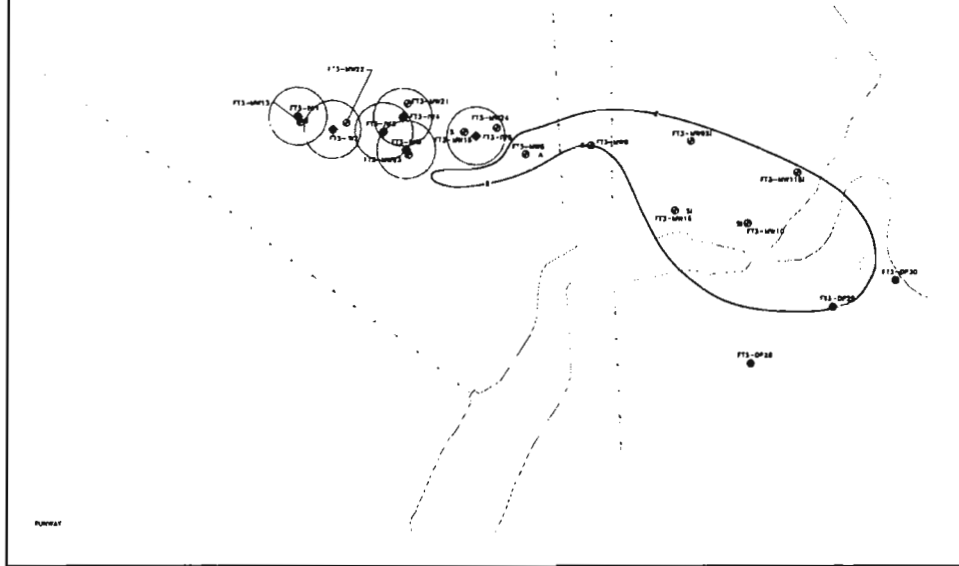
## FIRE TRAINING AREA 3



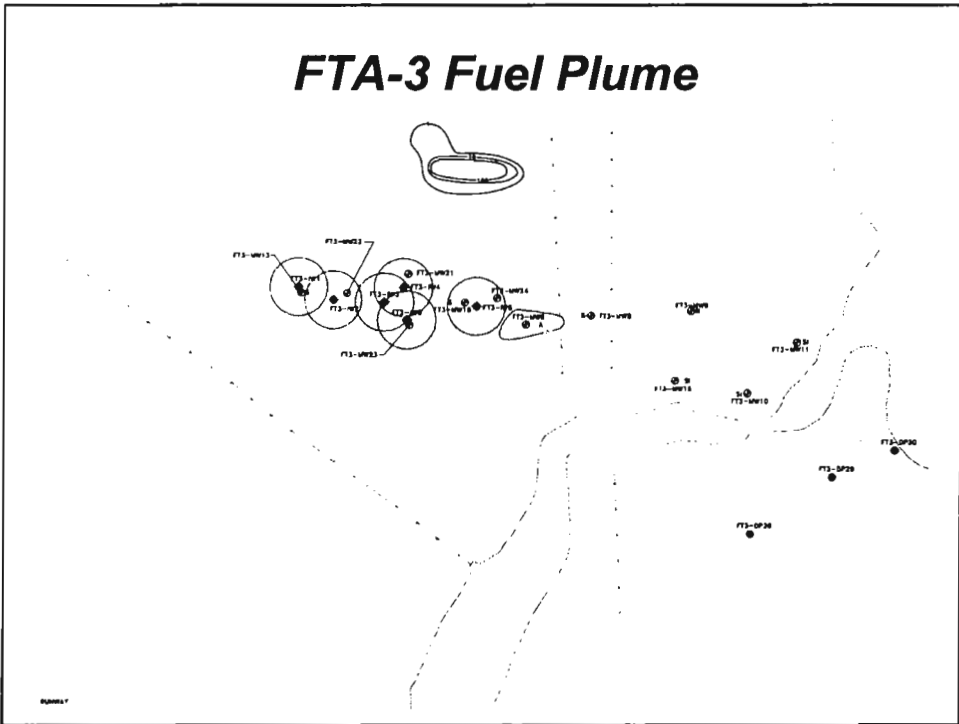
- FY06 Activities
  - Notified NDEQ of completion of groundwater monitoring activities
    - Groundwater not impacted by Land Treatment Unit activities
  - Operated and maintained biosparging system
  - Monitored biosparging system performance
    - System operating as designed
- FY07 Planned Activities
  - Operate, maintain, and complete performance monitoring of biosparging system
  - Conduct annual plume monitoring
  - Requested temporary shut down of the biosparging system
  - EPA approval of system shutdown is pending
    - Upon approval, will monitor groundwater concentrations for rebound



# FTA-3 Vinyl Chloride Plume



# FTA-3 Fuel Plume





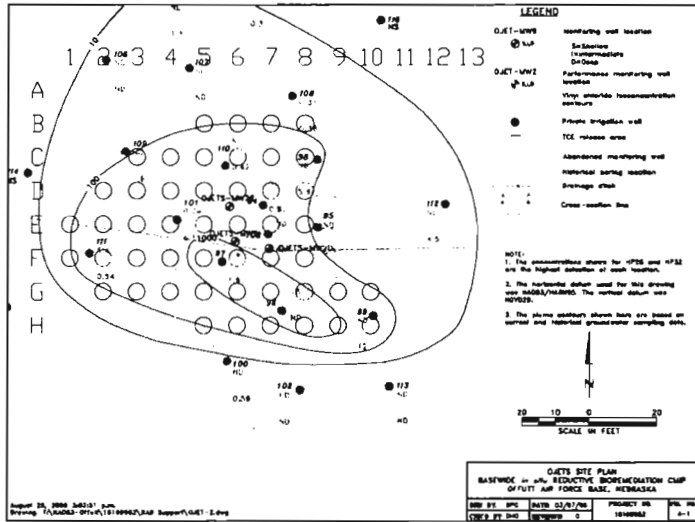
## **OLD JET ENGINE TEST STAND**



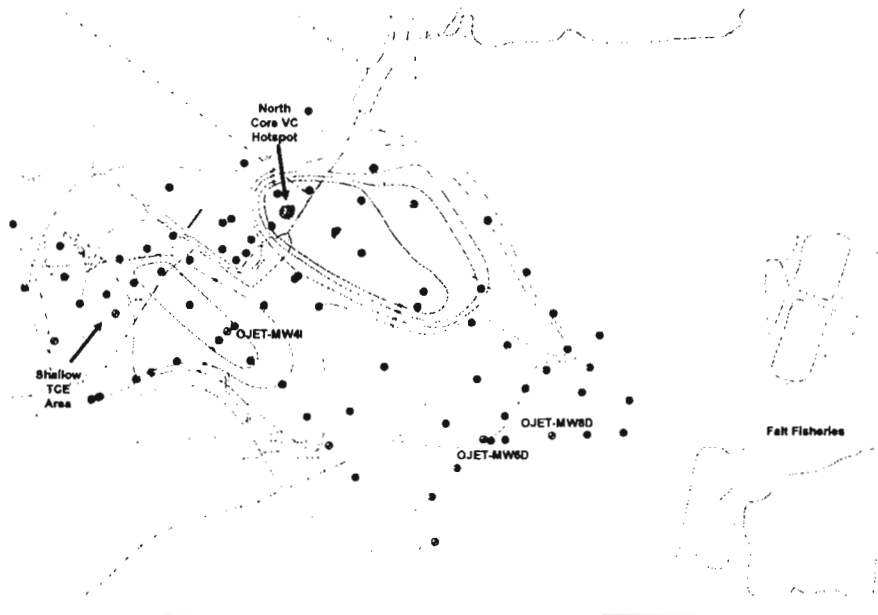
- **FY06 Activities**
  - Conducted semiannual plume monitoring
  - Negotiated right-of-entry agreement with two property owners
  - Continued direct push water sampling associated with
    - Subsurface source investigation
    - In situ reductive treatment (IRT) zone designs
  - Injected emulsified oil within the shallow TCE hot spot
- **FY07 Planned Activities**
  - Submit assessment report for analytical investigation results
  - EPA approval of IRT pilot study is pending
    - Complete pilot study upon EPA approval
  - Submit Addendum to Corrective Measures Implementation Plan for in situ reductive bioremediation
  - Complete installation of IRT zones



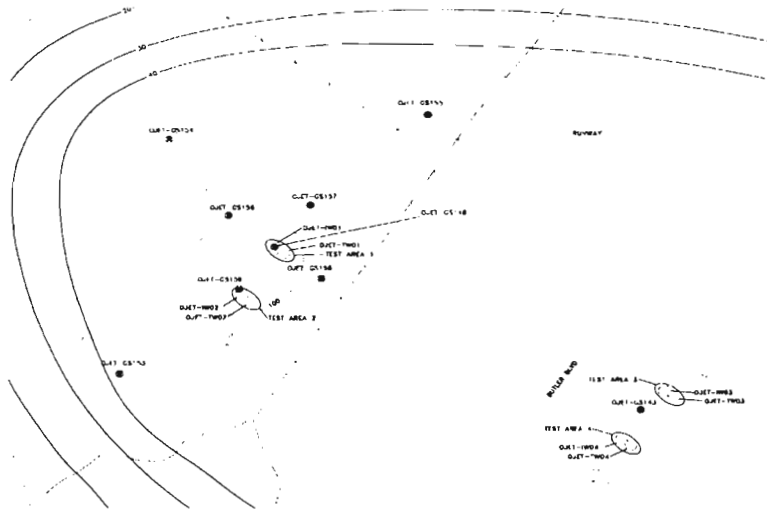
# OLD JET ENGINE TEST STAND



# OJETS Vinyl Chloride Plume



## OJETS Pilot Test Area

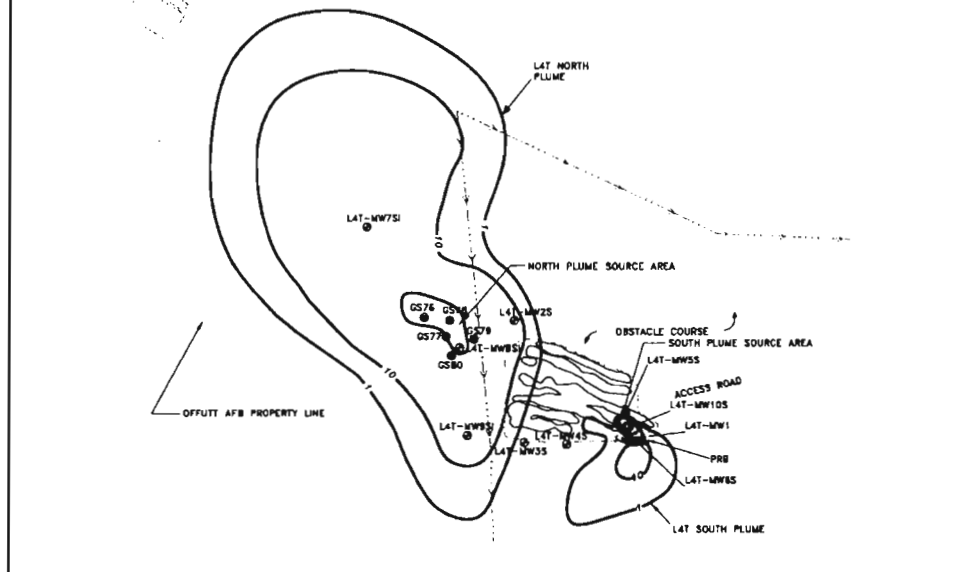


## LANDFILL 4 TRENCH AREA



- FY06 Activities
  - Collected groundwater samples for IRT performance monitoring
  - Submitted draft Statement of Basis to EPA
- FY07 Planned Activities
  - Conduct annual landfill inspection
  - Conduct quarterly performance monitoring of IRT zones
  - Work with Security Forces on Land Use Control fencing

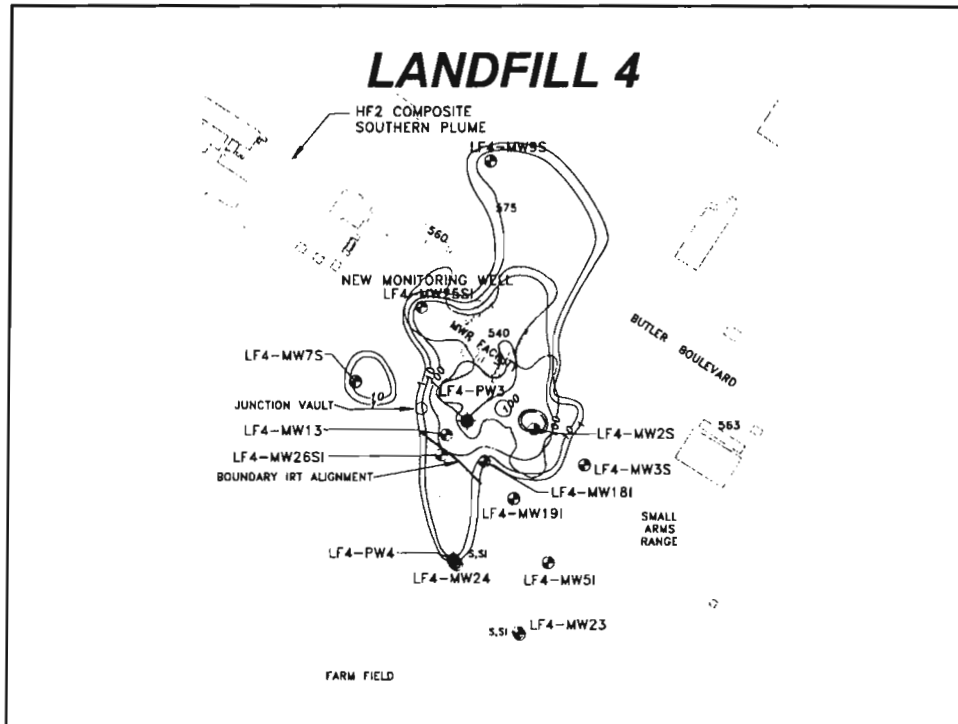
## LANDFILL 4 TRENCH AREA




## LANDFILL 4




- **FY06 Activities**
  - Conducted inspections of the hydraulic containment system
  - Collected groundwater samples for IRT performance monitoring
  - Completed potassium permanganate injection within subsurface source areas
- **FY07 Planned Activities**
  - Conduct inspections, water level measurements, and quarterly sampling of hydraulic containment wells and effluent
  - Continue quarterly performance monitoring of site remedies
  - Address potential technical issues associated with the potassium permanganate injection





## HARDFILL 2 COMPOSITE



- **FY06 Activities**
  - Collected groundwater samples for performance monitoring related to the northern plume IRT source control demonstration project
  - Completed injection of IRT zones
  - Collected groundwater samples for IRT performance monitoring
  - Began installation of Dual-Phase Extraction (DPE) system at southern plume source area (near Bldg 407)
  - Reached agreement with EPA on reduction in sampling frequency for zero valent iron permeable reactive barrier and for natural attenuation



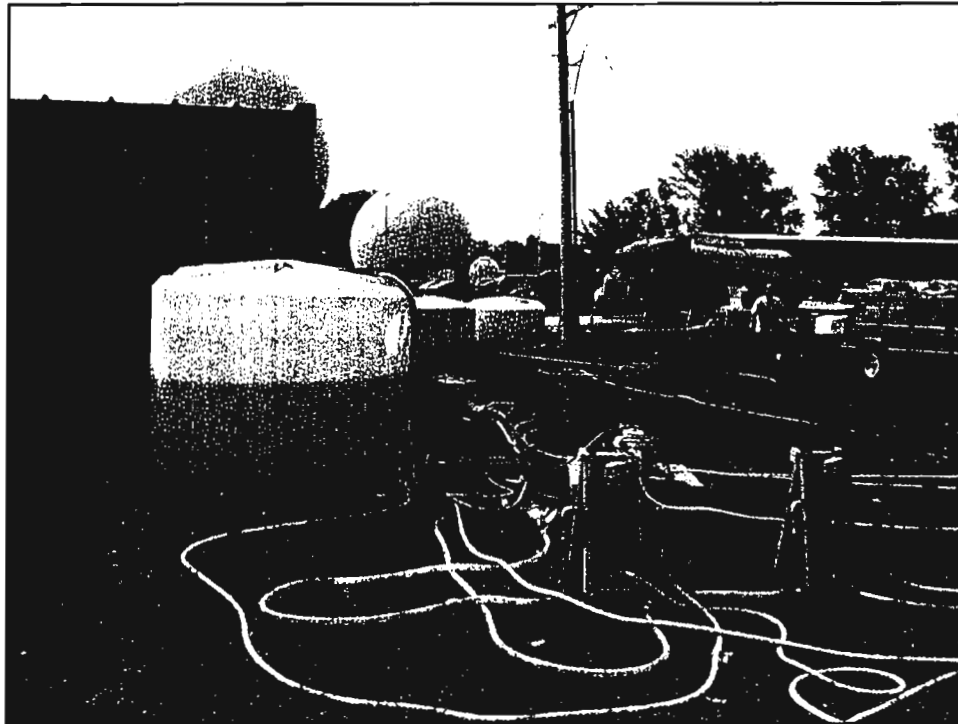


## **HARDFILL 2 COMPOSITE**

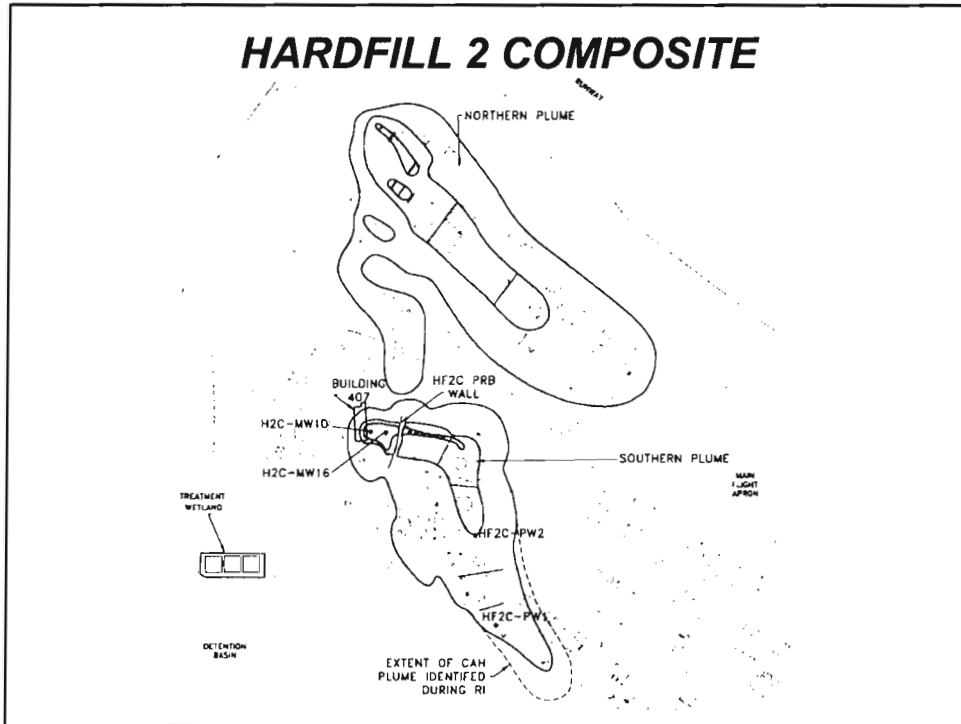


### **FY07 Planned Activities**

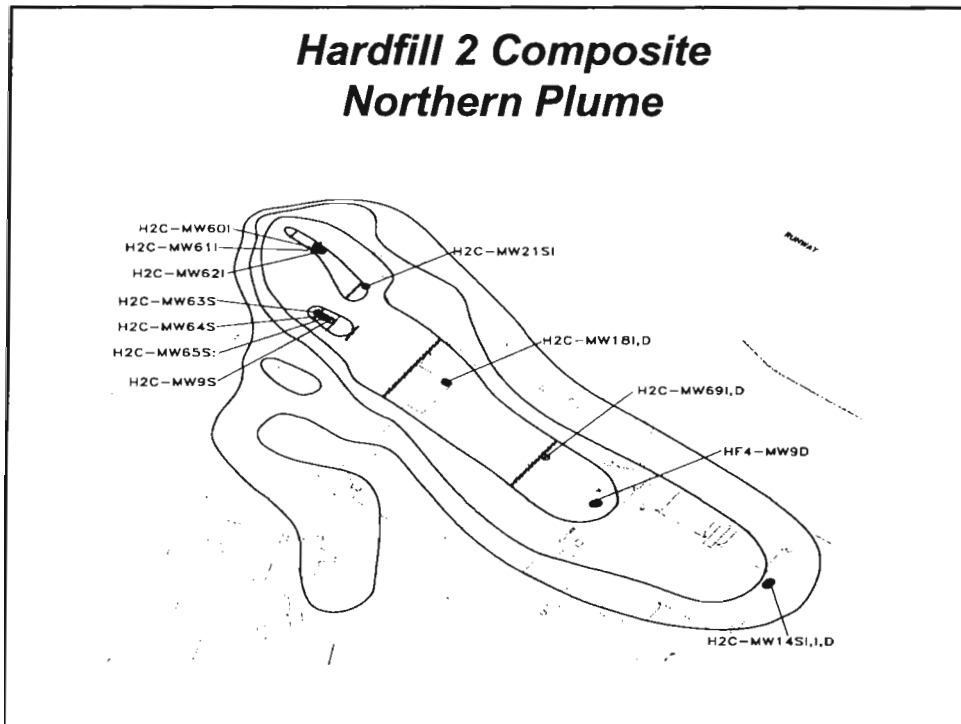
- Inspect, collect water level measurements, and quarterly sampling of two hydraulic containment system pumping wells
- Inspect treatment wetland and continue continuous flow operation
- Continue quarterly performance monitoring of IRT zones
- Re-inject emulsified oil in northern plume source area
- Begin operation of southern plume DPE system
- Submit draft Statement of Basis to EPA
- Submit Technical Impracticability Evaluation for southern plume source area



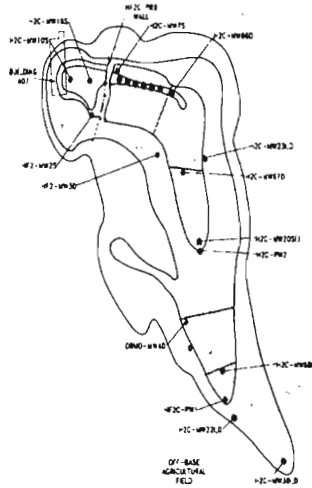
# HARDFILL 2 COMPOSITE



## Hardfill 2 Composite Northern Plume



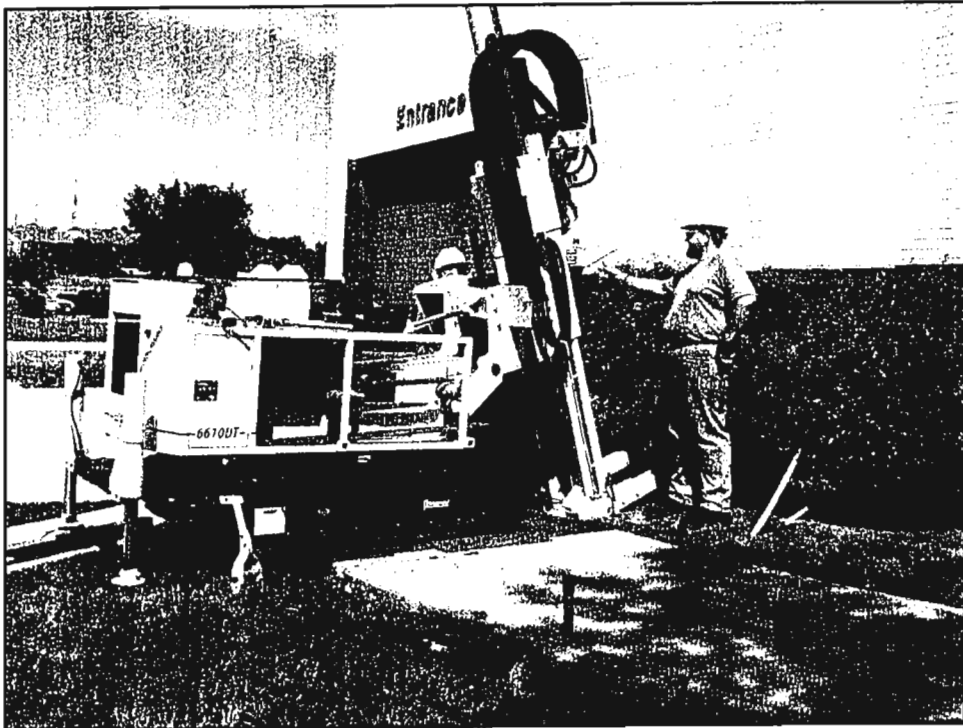
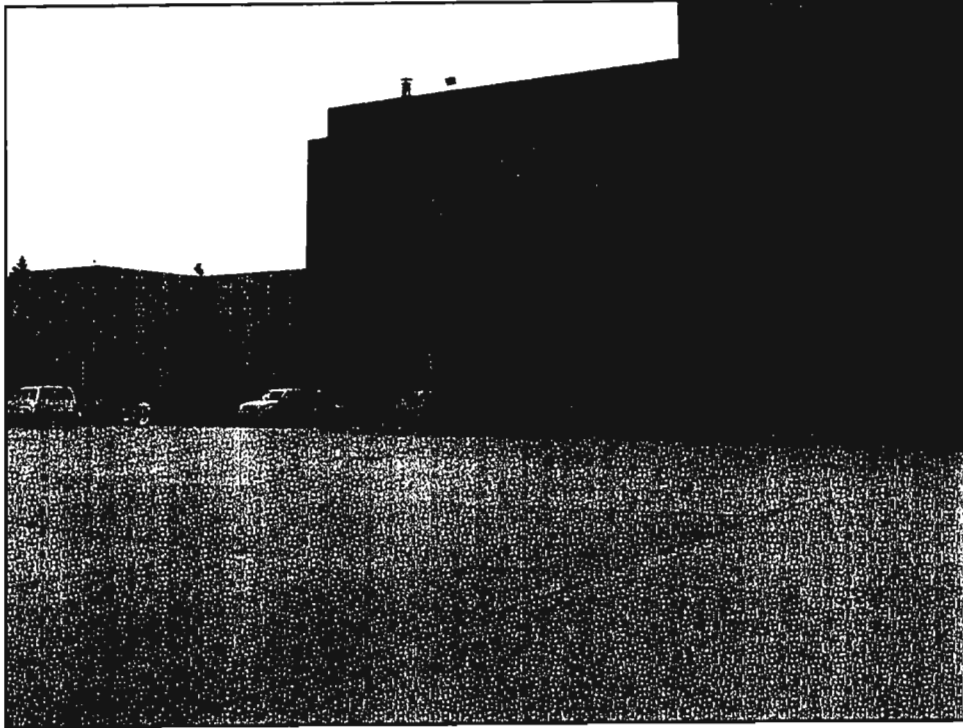
## **Hardfill 2 Composite Southern Plume**

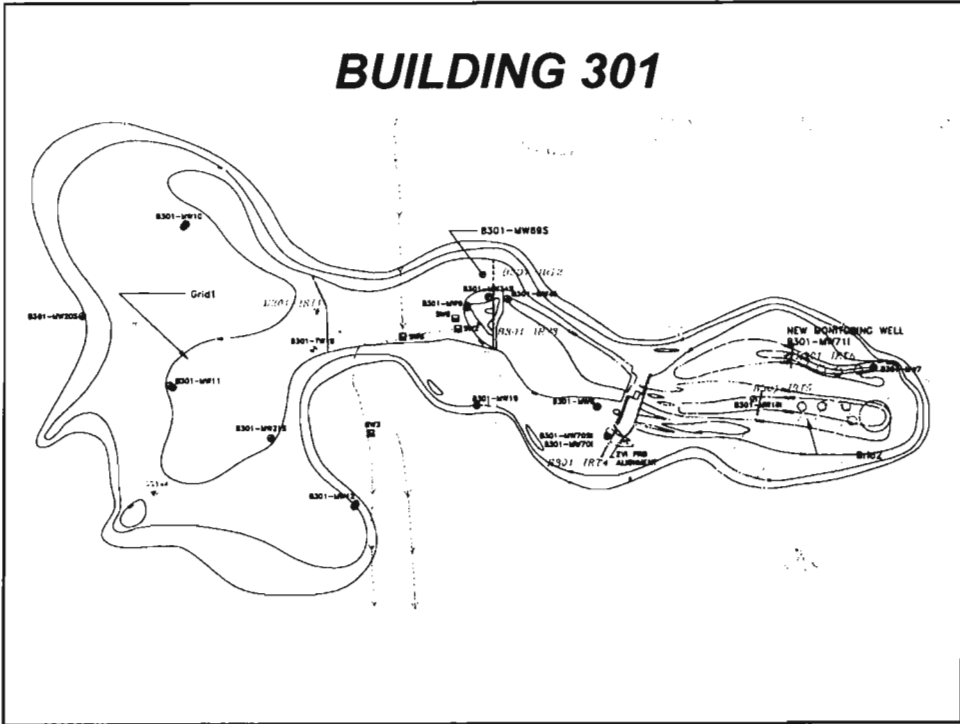


## **BUILDING 301**

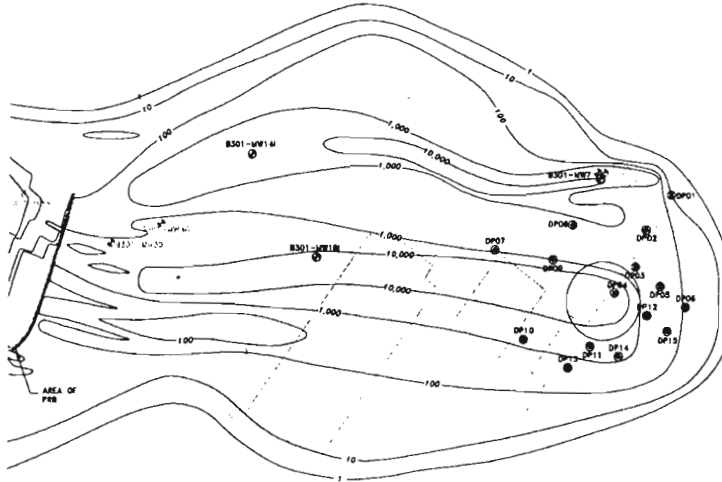


- **FY06 Activities**
  - Conducted semiannual plume monitoring
  - Bimonthly groundwater samples were collected from MW581
    - Well is located downgradient of B301 zero-valent iron PRB
    - Had been showing elevated TCE concentrations
    - October concentrations were consistent with August 2007 results
  - Completed injection of IRT zones
  - Collected groundwater samples for IRT performance monitoring
- **FY07 Planned Activities**
  - Continue quarterly performance monitoring of IRTs
  - Submit final B301 Soil Source Zone Investigation Report
  - Submit B301 DPE CMIP
  - Submit request to reduce frequency of general plume monitoring





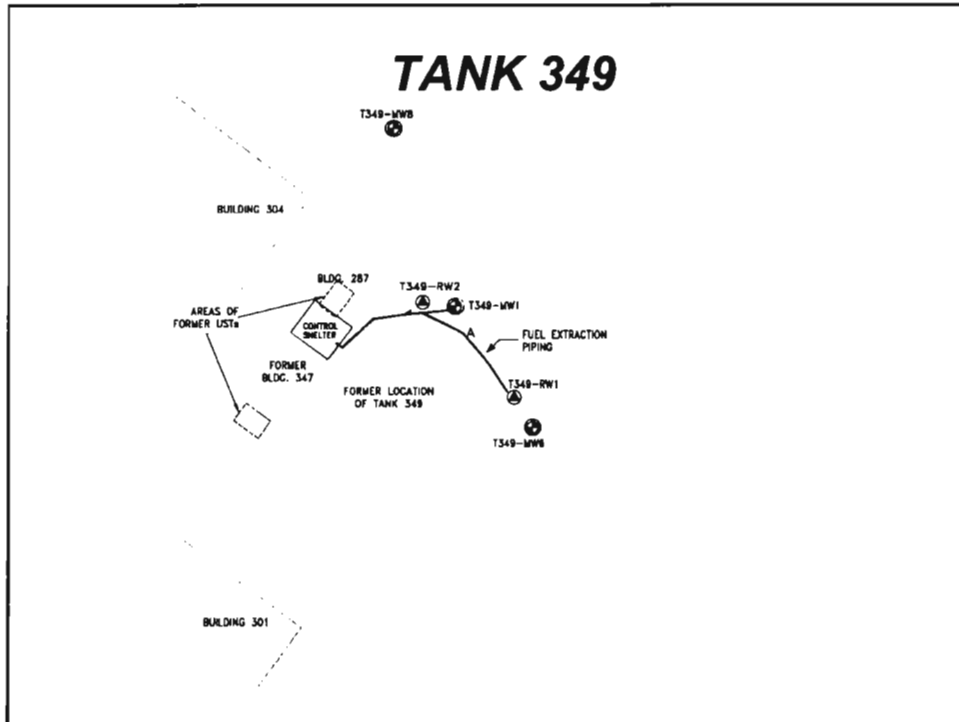
## **Building 301 TCE Plume at Source Area**




## **TANK 349**




- **FY06 Activities**
  - Continued free product removal using hydrophobic canisters and bailers
  - Received letter from NDEQ requesting Offutt submit a Tier 2 Work Plan
  - Submitted Tier 2 Risk Based Corrective Action letter work plan to NDEQ
    - NDEQ approved Tank 349 Tier 2 Work Plan
- **FY07 Planned Activities**
  - Continue inspections and product removal activities
  - Complete Tier II field investigation and reporting to NDEQ
  - Submit 2006 Product Removal Letter to NDEQ
  - Conduct high vacuum extraction of remaining free product

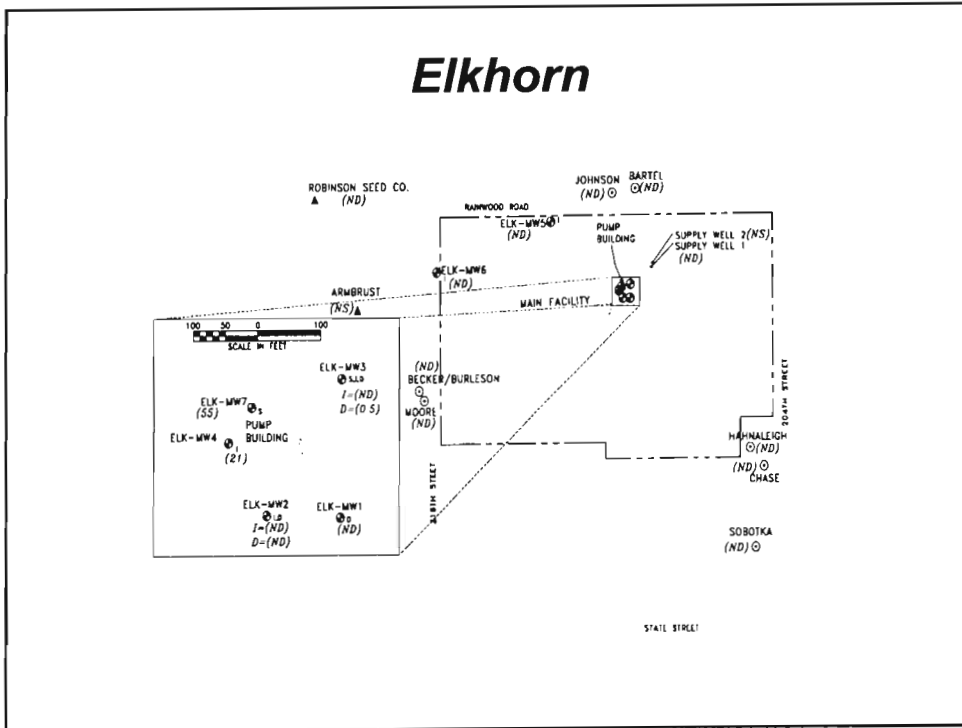
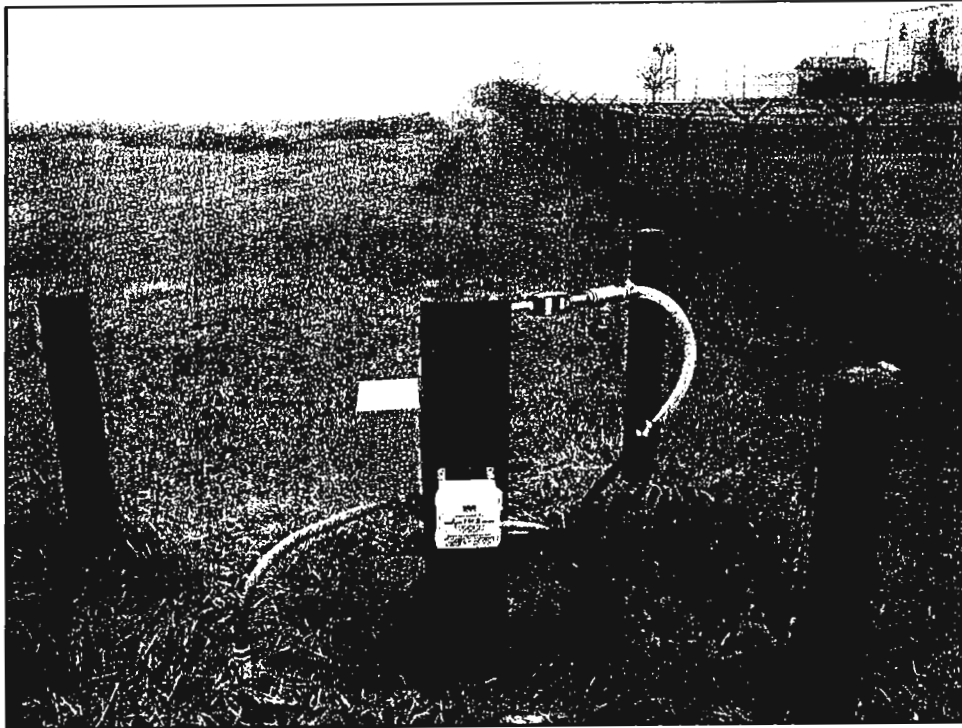




## ELKHORN



- **FY06 Activities**
  - Continued operating well ELK-MW4I as a pumping well
  - Informed the NDEQ that Offutt intended to propose an Alternate Cleanup Level (ACL)
  - Work began on ACL groundwater modeling
- **FY07 Planned Activities**
  - Annual groundwater monitoring of site wells and nearby private wells
  - Continue operation of well ELK-MW4I as a pumping well
  - Complete ACL groundwater modeling and submit results to NDEQ
  - Submit request to NDEQ to reduce groundwater monitoring frequency







## NEXT RAB MEETING

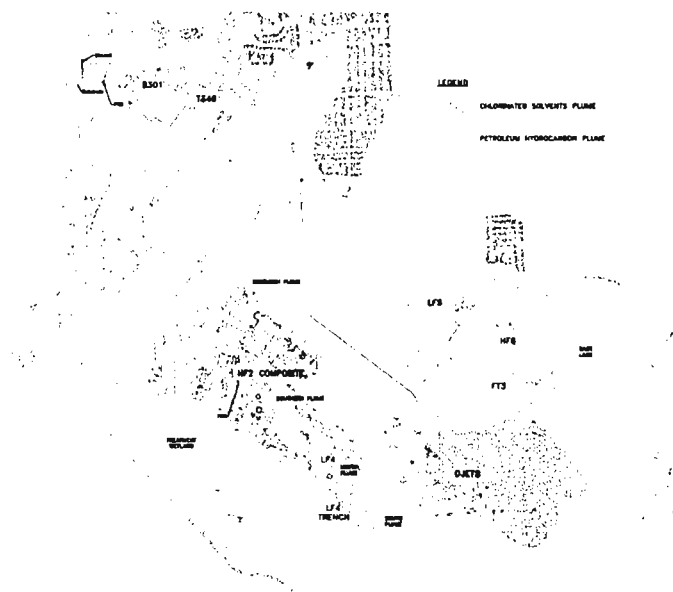


**MONDAY, 17 SEPTEMBER 2007**

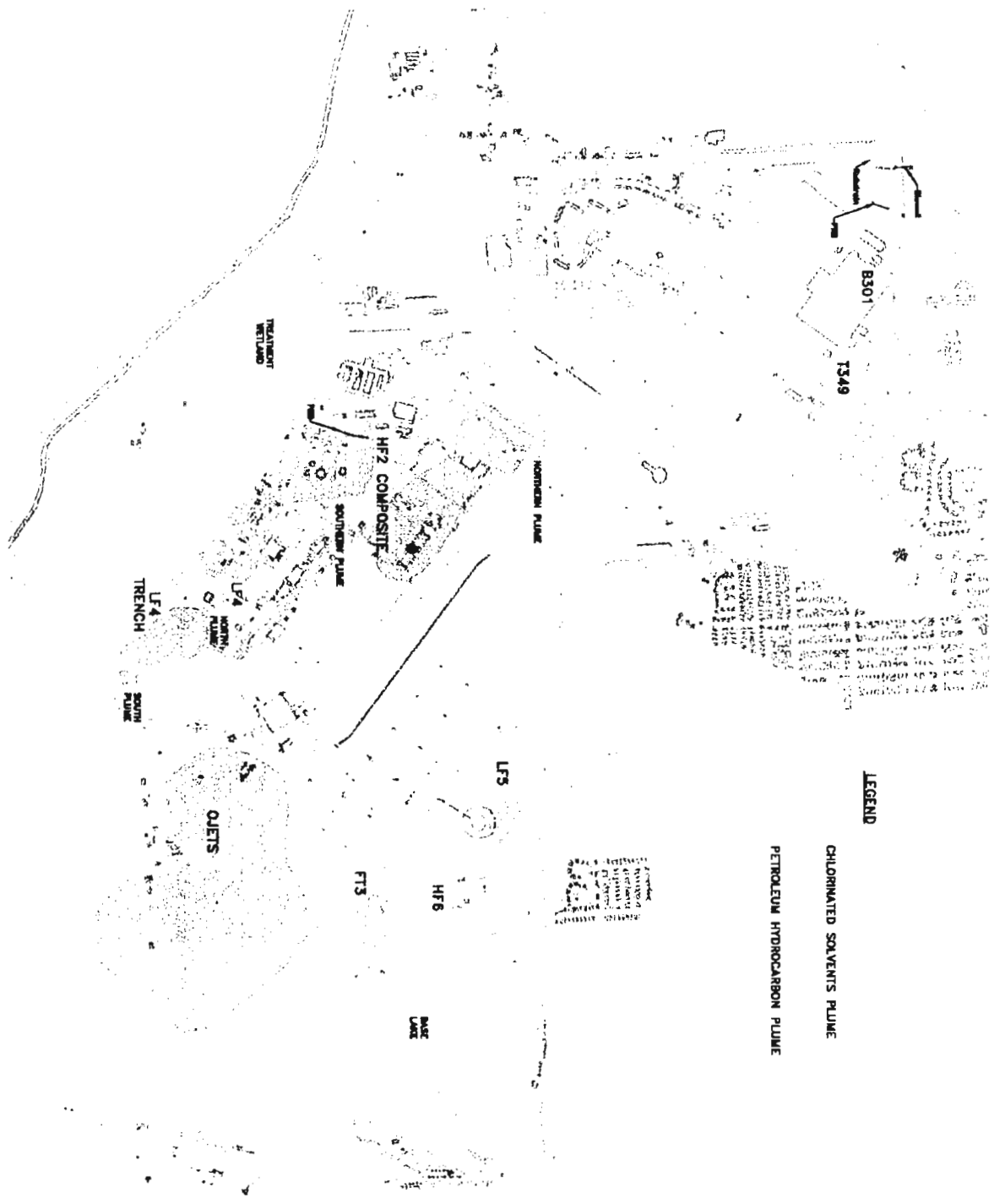
**3:00 – 4:00 P.M.**

**BELLEVUE PUBLIC SCHOOLS WELCOME CENTER**

## OFFUTT ERP SITES



# OFFUTT ERP SITES





**DEPARTMENT OF THE AIR FORCE**  
**HEADQUARTERS 55TH WING (ACC)**  
**OFFUTT AIR FORCE BASE, NEBRASKA**

22 January 2007

55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

Mr. Frank Prucka  
10627 Martha Street  
Omaha NE 68124-1845

Dear Mr. Prucka

We are looking forward to seeing you at the next Offutt AFB Environmental Restoration Program (ERP) Restoration Advisory Board (RAB) meeting. Following are the details for the upcoming meeting:

Date: Monday, 5 March 2007  
Time: 3:00 - 4:00 p.m.  
Location: Bellevue Public Schools Welcome Center  
Intersection of Hwy 370 and Hwy 75  
Bellevue NE

If you are unable to attend this meeting or have any questions, please call Philip Cork or Jean Coburn at 294-7621.

Sincerely

  
PHILIP E. CORK  
Chief, Environmental Restoration Program

*Global Power for America*



**DEPARTMENT OF THE AIR FORCE**

HEADQUARTERS, 55TH WING (ACC)  
OFFUTT AIR FORCE BASE, NEBRASKA

21 Nov 2006

MEMORANDUM FOR MR. FRANK PRUCKA  
10627 Martha Street  
Omaha NE 68124-3647

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Notice of Right of Entry onto Prucka Property

1. Offutt Air Force Base is submitting the following notice for right of entry onto the Prucka property for the dates of 29-30 November 2006. The subject property is north of Cunningham Road and east of Harland-Lewis Road. The legal description of subject property is described as follows:

2. A tract of land in the West  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 7, T13N, R14E, of the 6<sup>th</sup> PM.

Commencing at Southwest corner of said SW  $\frac{1}{4}$ ; thence East along the South line of said SW  $\frac{1}{4}$ , 800 ft, to the point of beginning; thence North 300 ft; thence East 300 ft; thence South 300 ft; thence West along South line of said SW  $\frac{1}{4}$ , to the point of beginning.

3. The work to be completed during this right of entry will include:

a. Sampling and inspecting, including the use of a relatively small track-mounted direct push rig to obtain groundwater samples. No permanent sampling structures or equipment will be installed on or beneath the surface of the premises.

b. Land surveying and photographing associated with the sampling process to document sampling locations and to maintain a record of temporary structures, equipment, and methods used during the sampling event.

4. If you have any questions regarding this request, please call Mr. Philip Cork at (402) 294-7621.

*Philip E. Cork*  
PHILIP E. CORK  
Chief, Environmental Restoration Element

PAUL C. JESSEN  
MICHAEL M. HUPP  
DONALD L. SWANSON †  
M. SHAUN McGAUGHEY ‡  
MICHAEL C. COX \* †  
KURT F. TJADEN  
KAREN M. SHULER †  
GREGORY C. SCAGLIONE  
MARGARET C. HERSHISER  
MARK J. PETERSON  
ROBERTA L. CHRISTENSEN  
MAX J. BURBACH  
DAVID M. DVORAK  
JOHN M. LINGELBACH †  
MICHAEL S. MOSTEK  
MARY A. DONOVAN †  
MATTHEW D. MASER  
THOMAS F. ACKLEY  
BRIAN L. HARR □  
JOAN M. CANNON  
NORA M. KANE Δ  
MARLON M. LOFGREN Δ  
JULIE A. SCHULTZ  
DAVID R. MAYER  
CAROL A. SEWELL Θ  
KATHY J. KIRSCHBAUM  
JENNIFER R. PETERSEN † Δ  
JEFFERY R. SCHAFFART  
RICHARD D. VROMAN †

## KOLEY JESSEN P.C.

A Limited Liability Organization

ATTORNEYS AT LAW

ONE PACIFIC PLACE, SUITE 800  
1125 SOUTH 103 STREET  
OMAHA, NE 68124-1079

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BRANDON D. HAMM  
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KENDRA J. RINGENBERG ◊ + ◊  
ALLYSON V. CROSSMAN  
ALEXANDER J. WOLF  
CHRISTOPHER J. RIFFLE † ◊  
RACHEL L. THEILMANN  
TAYLOR C. DIECKMAN  
LEILANI M. HARBECK

MARA L. RASURE, OF COUNSEL

JAMES L. KOLEY, RETIRED

Also Admitted In:

\* Arizona † Colorado  
□ Illinois † Iowa  
◊ Kansas Θ Michigan  
◊ Minnesota + Missouri  
Δ South Dakota  
◊ Nebraska License Pending

October 19, 2006

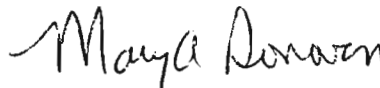
Leland Livingston  
55 CES/CERR  
106 Peacekeeper Drive, Suite 2N3  
Offutt AFB, NE 68113-4019

Re: Frank Prucka  
Right of Entry  
Our File No. 1329-0001

Dear Mr. Livingston:

Enclosed are two (2) executed original Right of Entry Agreements signed by Frank Prucka. Please return to me one signed original after it has been executed by Colonel Gleason. Thank you.

Very truly yours,



Mary A. Donovan

MAD/pml  
Enclosures  
cc: Frank Prucka (w/encl)

# COPY

DEPARTMENT OF THE AIR FORCE

RIGHT OF ENTRY

ENVIRONMENTAL SURVEYING, TESTING AND MONITORING

USAF-ACC-SGBP-9-06-007

The undersigned owner (the "Owner") hereby grants to the United States Air Force (the "Air Force") an irrevocable right of entry upon the real estate described in Section 11 hereof (the "Property") upon the following terms and conditions:

1. The Owner hereby grants to the Air Force, its officers, employees, contractors and representatives a right to enter upon the Property for Five (5) years, beginning November 1, 2006 and ending October 31, 2011, unless earlier terminated by mutual agreement between the parties. The Owner will be given seven (7) calendar days written notice prior to entry onto the Property. Every effort will be taken by the Air Force to schedule work such that entry to the Property is only required prior to planting in the spring or after harvest in the fall. Initial entry to conduct soil and groundwater sampling followed by injection of remediation materials (vegetable oil solution), will not be pursued until after the harvest of 2006 is completed upon confirmation of Owner. Subsequent entry will be to monitor the progress of the remediation system as required to complete the environmental restoration project on the property described below. This work is being conducted as part of the Air Force's environmental restoration responsibilities under direction of the United States Environmental Protection Agency. The work will include but is not limited to:

- a. Sampling and inspecting, including the use of a relatively small track-mounted direct push rig to obtain soil and groundwater samples. No permanent sampling structures or equipment will be installed on or beneath the surface of the premises.
- b. Injection of a remediation material, consisting of food-grade emulsified soy oil, lactate, and potable water (the "Remediation Material") beneath the surface at depths greater than 50 feet.
- c. Obtaining and removing soil and groundwater samples to be analyzed on site or to be sent to a laboratory for analysis.
- d. Land surveying and photographing associated with the sampling process to document sampling locations and to maintain a record of temporary structures, equipment, and methods used during the sampling event.

2. Owner agrees and consents that these actions by the Air Force are undertaken pursuant to its responsibilities under and authorized by the Comprehensive Environmental Response, Compensation and Liability Act and/or the Defense Environmental Restoration Program.

3. The Air Force shall restore the surface of the Property and any improvements or crops thereon, as nearly as possible, to their prior condition following any disturbance occasioned by use of the Property by the Air Force, its officers, employees, contractors or representatives. In the event such restoration is not possible, the Air Force shall compensate Owner for any damage to the Property.

4. No individual from the government or their representatives shall enter on the Property without prior notification and approval. The Air Force agrees to give written notice to the Owner not later than seven (7) calendar days in advance of the initiation of any activity, pursuant to this right of entry. This notice shall include a full disclosure of the nature, scope, location and duration of the activities to be performed by the Air Force on the Property. Any questions or comments by the Owner concerning the proposed activity should be addressed to: Mr. Philip Cork, 55<sup>th</sup> Civil Engineering Squadron, Offutt AFB, Nebraska; phone (402) 294-7621. Upon request of the Owner, the Air Force shall provide the Owner with copies of any and all documents and test results regarding the Air Force's activities on the property.

5. Any requests for information by the Air Force to Owner should be addressed to Mr. Frank Prucka, 10627 Martha Street, Omaha, NE 68124-1845, (402) 393-3647 or such other address and phone number that Owner may, from time to time, designate to the Air Force in writing.

6. Owner shall notify the Air Force by certified mail, within thirty (30) days after any conveyance of the Property.

7. It is understood and agreed that the Air Force does not acquire title or any other interest in land by means of this grant of permission and consent to enter the subject land of the owner during the term of the right of entry or any renewal thereof.

8. This written permission is given by the undersigned voluntarily, without coercion and without promises of any kind not herein provided by.

9. The Air Force shall be responsible for the cleanup and remediation, if necessary, of any spill or release of the Remediation Material on or beneath the Property. The Air Force shall also be liable for any and all damage to the Property, or the aquifer underlying said property, caused by the Air Force's sampling activities or injection of the Remediation Material.

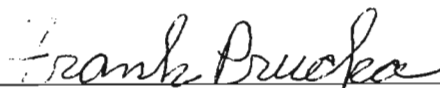
10. The Air Force shall not assign its rights or liabilities under this Right of Entry Agreement without the prior written consent of Owner, which consent may be withheld in Owner's sole and absolute discretion.

11. The Property, for which this right of entry is granted, is located in the State of Nebraska, County of Sarpy, and is described as follows:

A tract of land in the West  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 7, T13N, R14E, of the 6<sup>th</sup> PM.

Commencing at Southwest corner of said SW  $\frac{1}{4}$ ; thence East along the South line of said SW  $\frac{1}{4}$ , 800 ft, to the point of beginning; thence North 300 ft; thence East 300ft; thence South 300 ft; thence West along the South line of said SW  $\frac{1}{4}$ , to the point of beginning.(Exhibit A)

WITNESS MY HAND THIS 17 DAY OF October 2006:



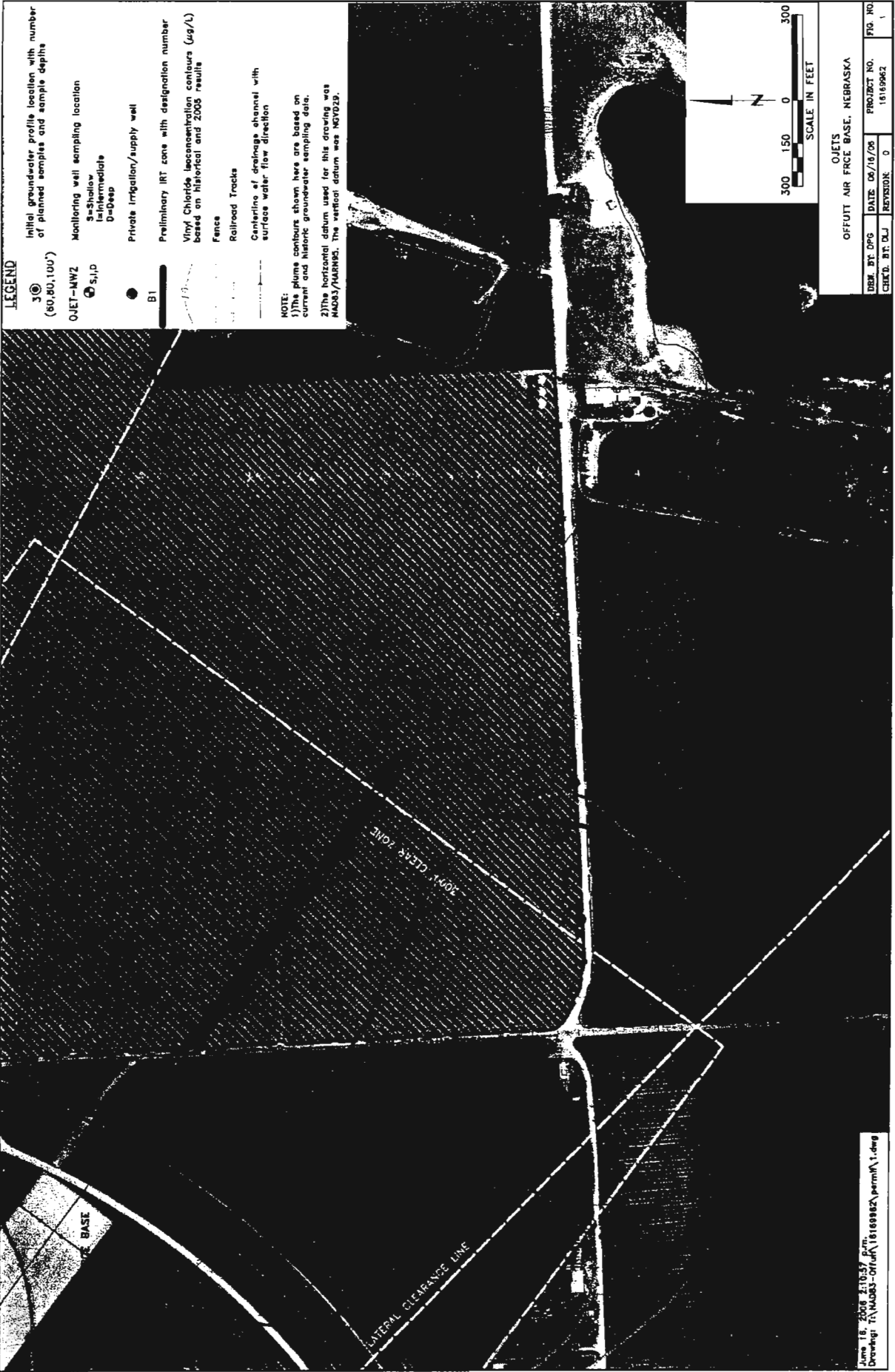
FRANK PRUCKA  
10627 Martha Street  
Omaha, NE 68124-3647

UNITED STATES AIR FORCE

Date \_\_\_\_\_

\_\_\_\_\_  
DONALD L. GLEASON, Colonel, USAF  
Commander, 55<sup>th</sup> Mission Support Group





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**RESTORATION ADVISORY  
BOARD (RAB)**  
*5 September 2006*

This Briefing is  
UNCLASSIFIED

**AGENDA**

- Landfill 5
- Hardfill 6
- Fire Training Area 3
- Old Jet Engine Test Stand
- Landfill 4 Trench Area
- Landfill 4
- Hardfill 2 Composite
- Building 301
- Tank 349
- Elkhorn

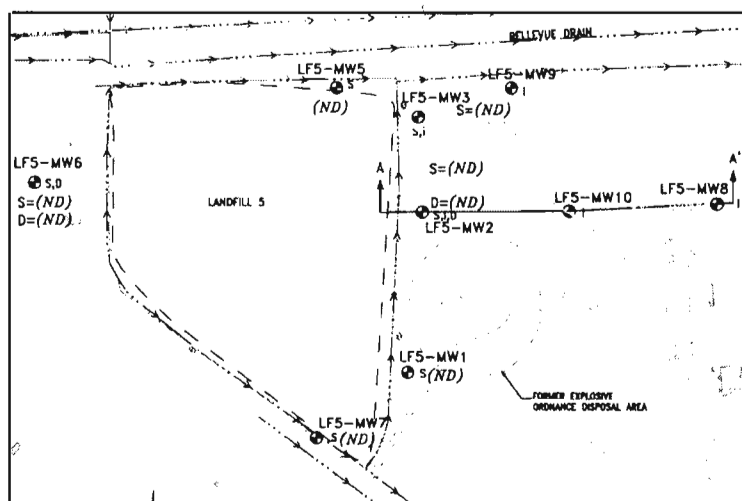


## LANDFILL 5



- Site status is currently RCRA long-term monitoring
- FY06 Activities
  - Completed 2006 biennial groundwater monitoring
    - CAH concentrations remained below MCLs
  - Completing site inspections, maintenance, and required grounds work

## LANDFILL 5



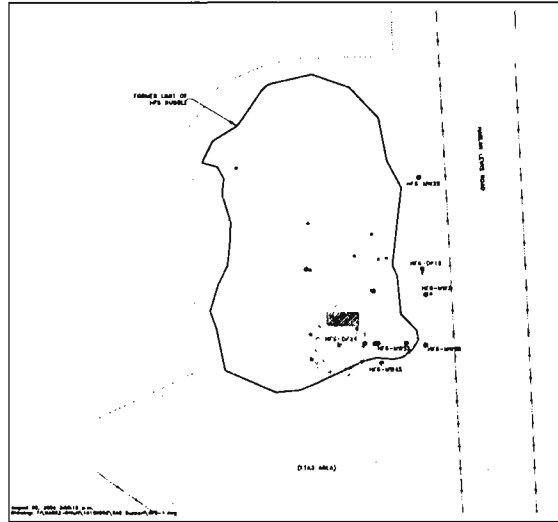


## ***HARDFILL 6***



- **FY06 Activities**
  - **Monitor groundwater for VOC analysis**
  - **Contaminated soil was excavated from north side of previously excavated area**
    - **Results indicated no remaining soil contaminated above EPA residential preliminary remediation goals**
  - **Submitted draft RCRA Facility Investigation (RFI) report**
  - **Seek EPA/NDEQ concurrence that remedy is complete**
  - **Prepare Statement of Basis outlining rationale for no further action**
  - **Associate the small petroleum hydrocarbon groundwater plume with the FT-03 site**

# HARDFILL 6



# HARDFILL 6



## ***HARDFILL 6***



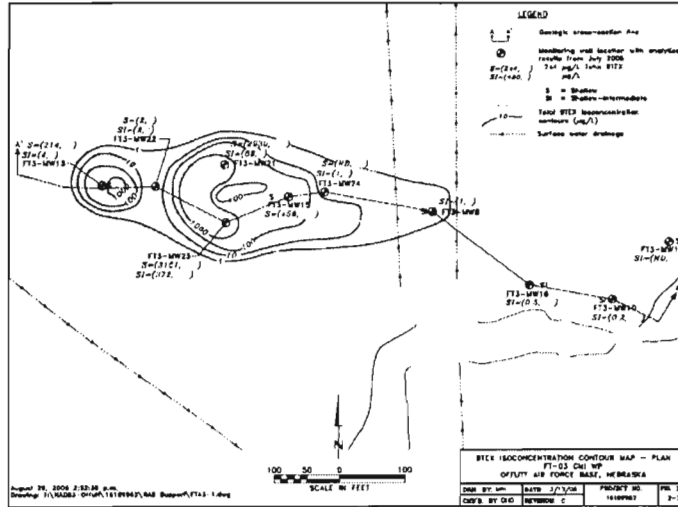


## ***FIRE TRAINING AREA 3***

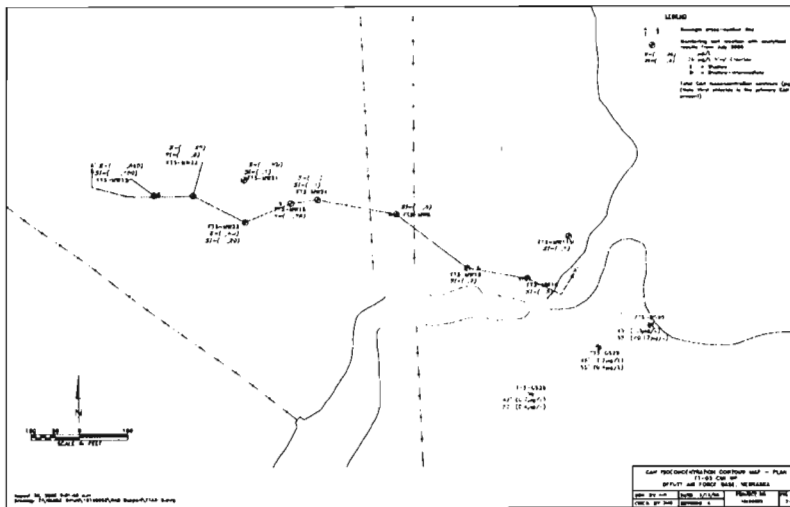


- **FY06 Activities**
  - Conducted groundwater monitoring for natural attenuation
  - Conducted groundwater sampling south of East Gate Drain to determine if VC plume extended further southeast
    - Results indicate plume does extend further downgradient
  - EPA approved remedy update for FT-03
    - Final Biosparging CMI Work Plan
  - Installed biosparging system and started performance operations and monitoring
  - Received EPA final decision on Response to Comments on FT-03 Statement of Basis and Final RCRA Permit Modification
  - Request EPA approval to reduce overall MNA groundwater sampling from annual to biennial beginning in 2007

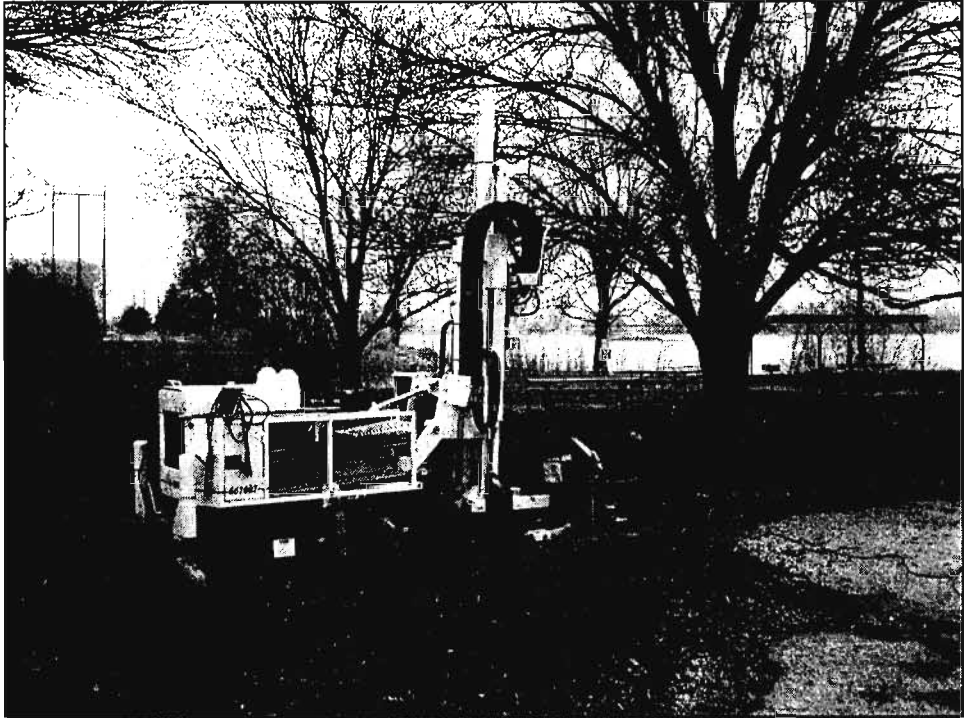
# FIRE TRAINING AREA 3 BTEX PLUME



# FIRE TRAINING AREA 3 SOLVENT PLUME









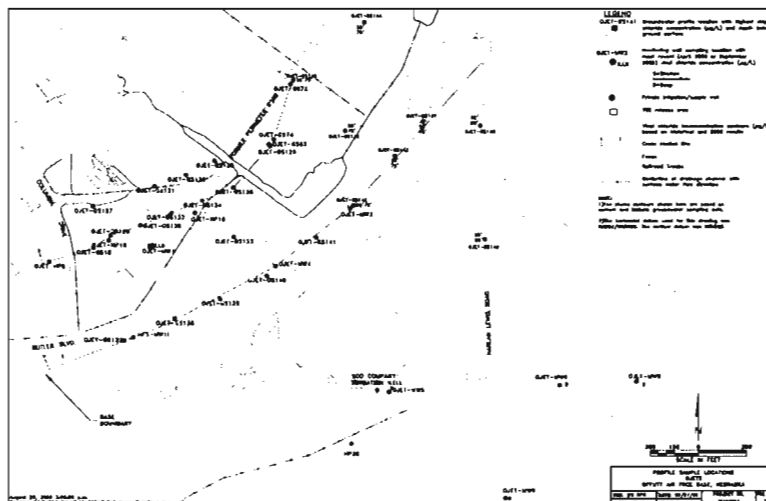


## OLD JET ENGINE TEST STAND

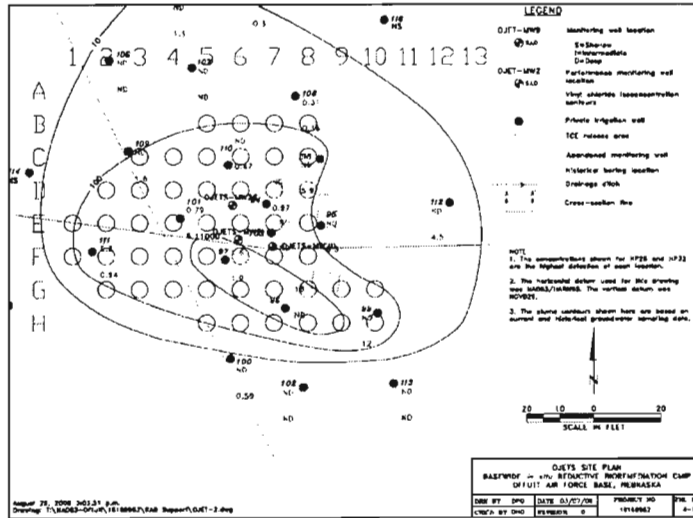


- **FY06 Activities**
  - Conduct groundwater monitoring for natural attenuation
  - Sampling conducted to verify stability of VC concentrations in southern portion of off-base plume
  - EPA approved remedy update for OJETS
  - Final OJETS Subsurface Investigation Work Plan
  - Final OJETS Plume Stabilization FFS
  - Working to obtain Rights of Entry for off-base properties
    - Access required to gather data required for design of in situ reductive treatment zone
  - Groundwater investigation implemented to better define suspected source of VC plume and to design treatment strategies
  - In situ reductive treatment zones expected to be installed this Fall to Early Winter
  - EPA requesting “government controls” to prohibit installation of drinking water wells outside of the clear zone

## OLD JET ENGINE TEST STAND

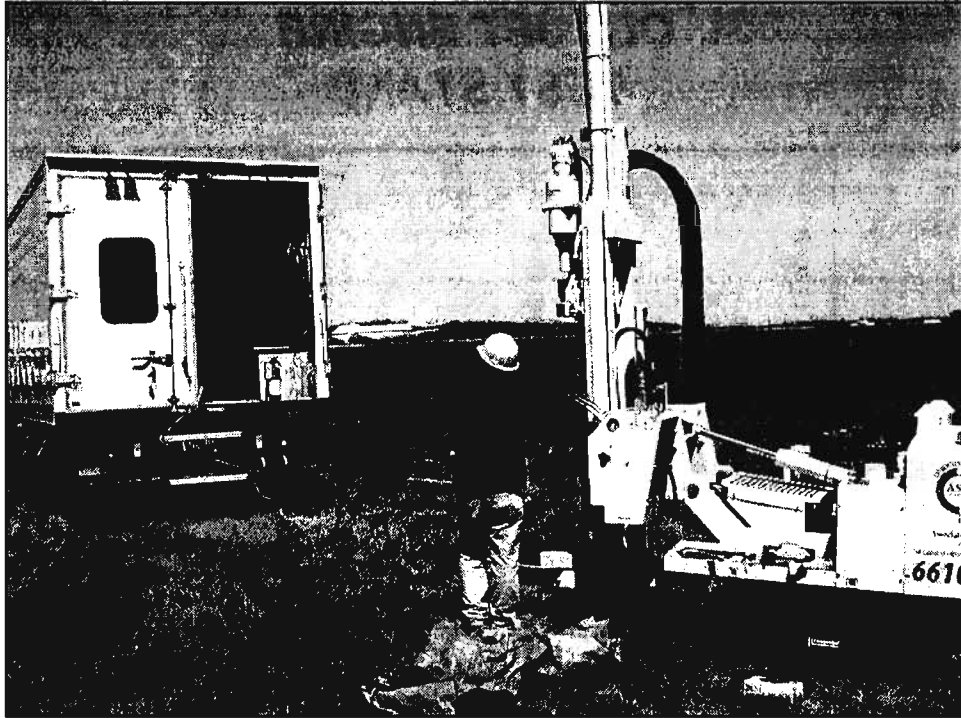


# OLD JET ENGINE TEST STAND



# OLD JET ENGINE TEST STAND





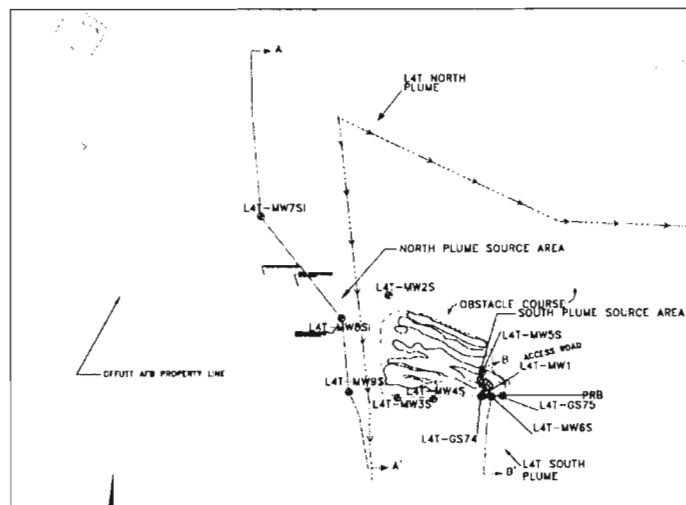


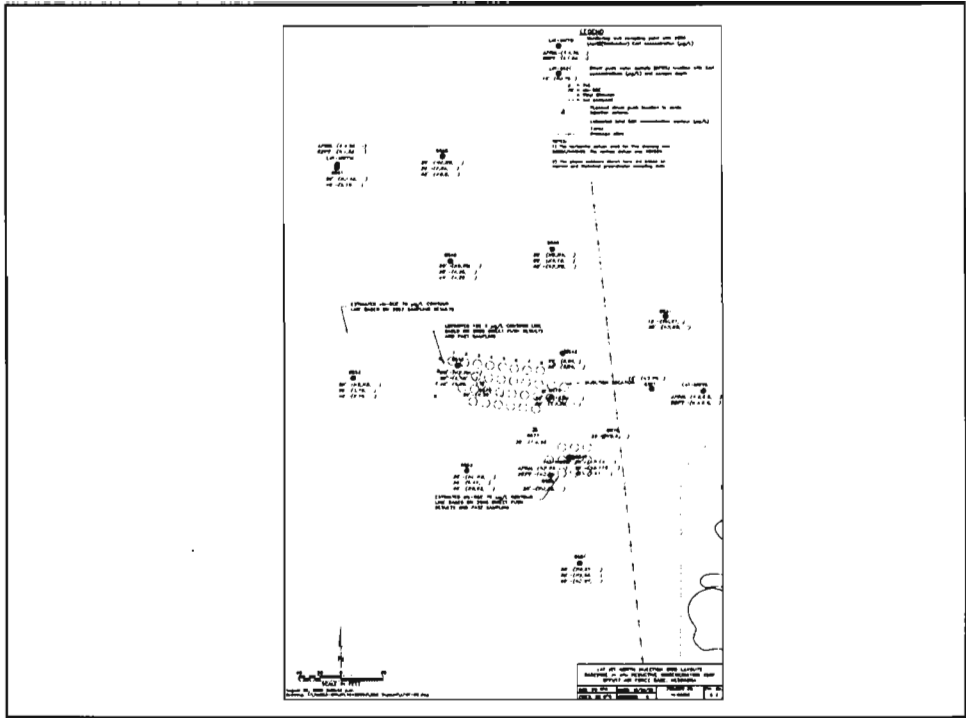
## LANDFILL 4 TRENCH AREA



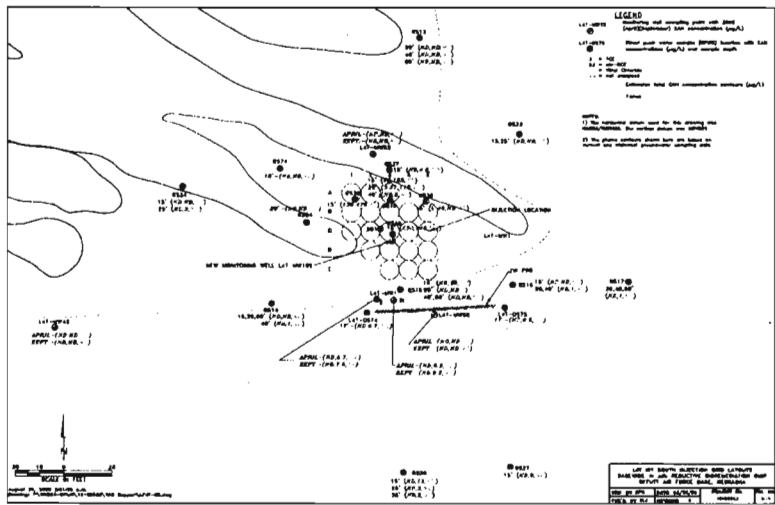
- **FY06 Activities**
  - Conduct groundwater monitoring for natural attenuation
  - EPA approved remedy update for LF4TA
  - Sampling conducted in northern plume to collect concentration data
    - Data used to finalize design prior to injection of IRT zones
  - Annual inspection of land use controls, i.e., fencing, signs, and cover
  - EPA approved land use control modification to allow use of the area by Security Forces for training
  - Installed monitoring well within the southern plume source
  - Installed IRT zones in both plumes
    - Performance monitoring of the in situ treatment to begin this Fall
  - Draft Statement of Basis currently in review

## LANDFILL 4 TRENCH AREA





# LANDFILL 4 TRENCH AREA





## **LANDFILL 4**

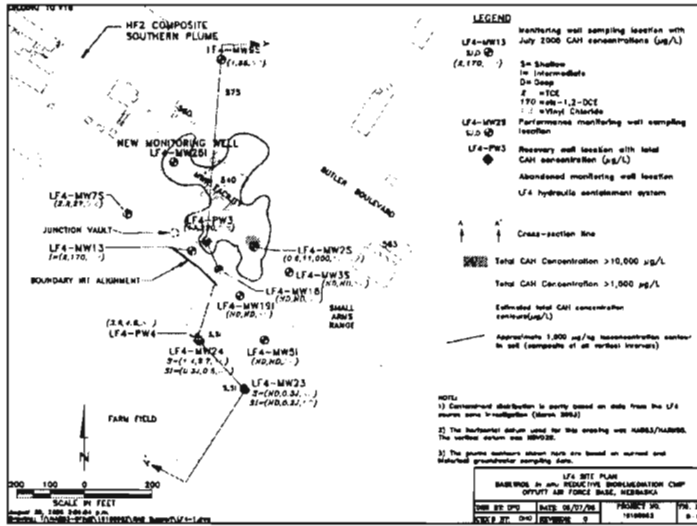


### **• FY06 Activities**

- **Conduct groundwater monitoring for natural attenuation**
- **Continue inspections of hydraulic containment system**
- **EPA approved remedy update for LF4**
- **NDEQ authorized potassium permanganate injection**
- **EPA approved draft in situ chemical oxidation work plan**
- **Installed IRT zones at the base boundary and at source areas**
- **Installed performance monitoring well within source area near the dog kennel training facility**
- **Installed performance monitoring well outside the base perimeter fence**
- **Started installation of in situ oxidation treatment zone in the high concentration source area (potassium permanganate)**



# LANDFILL 4



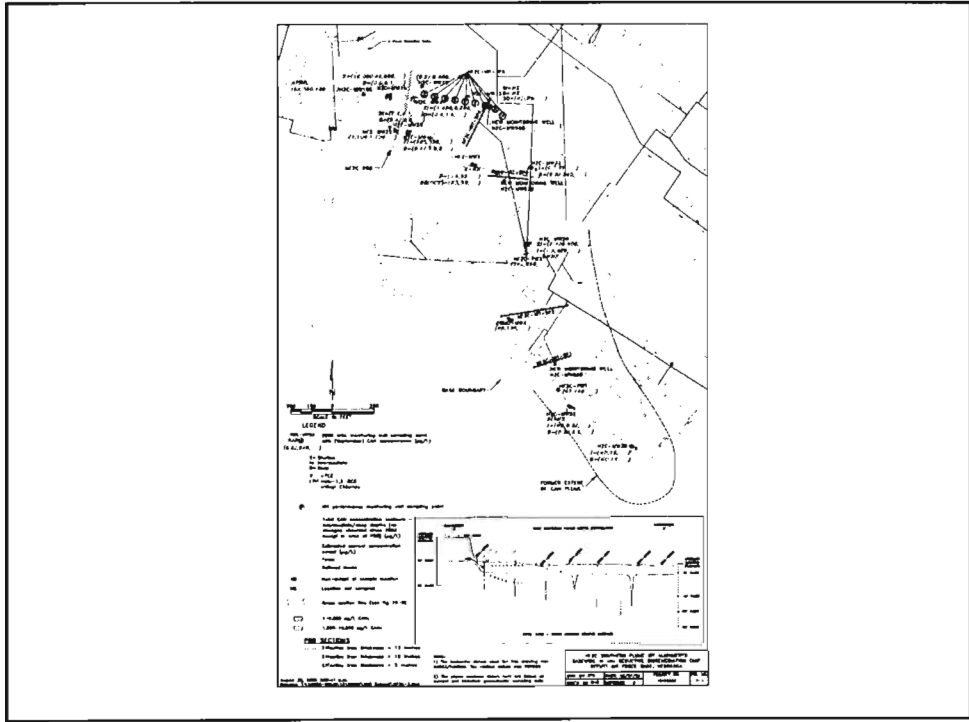


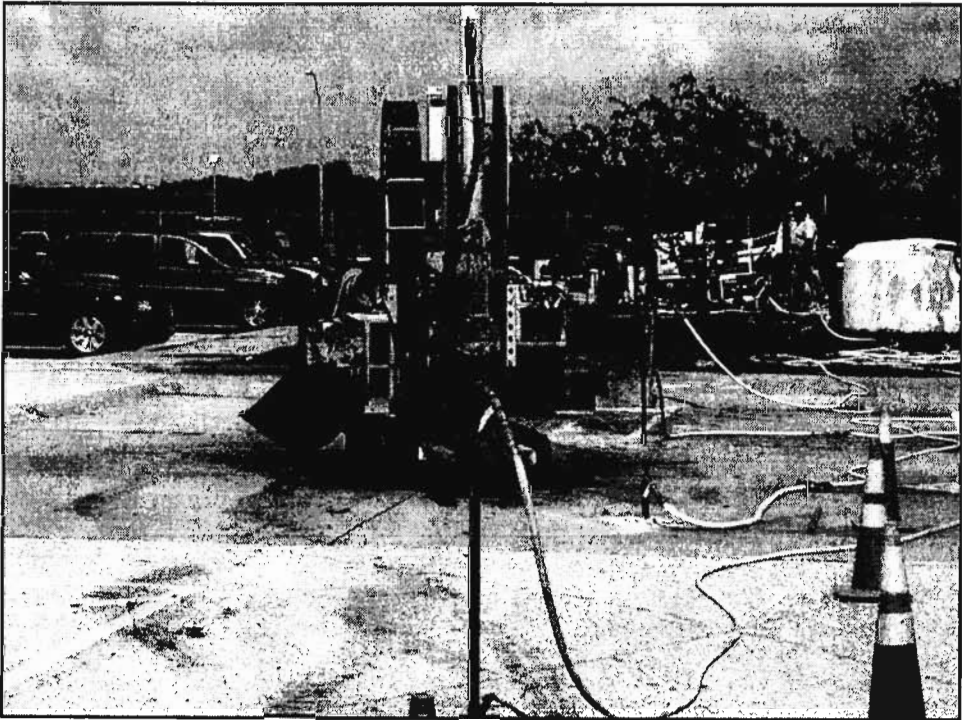
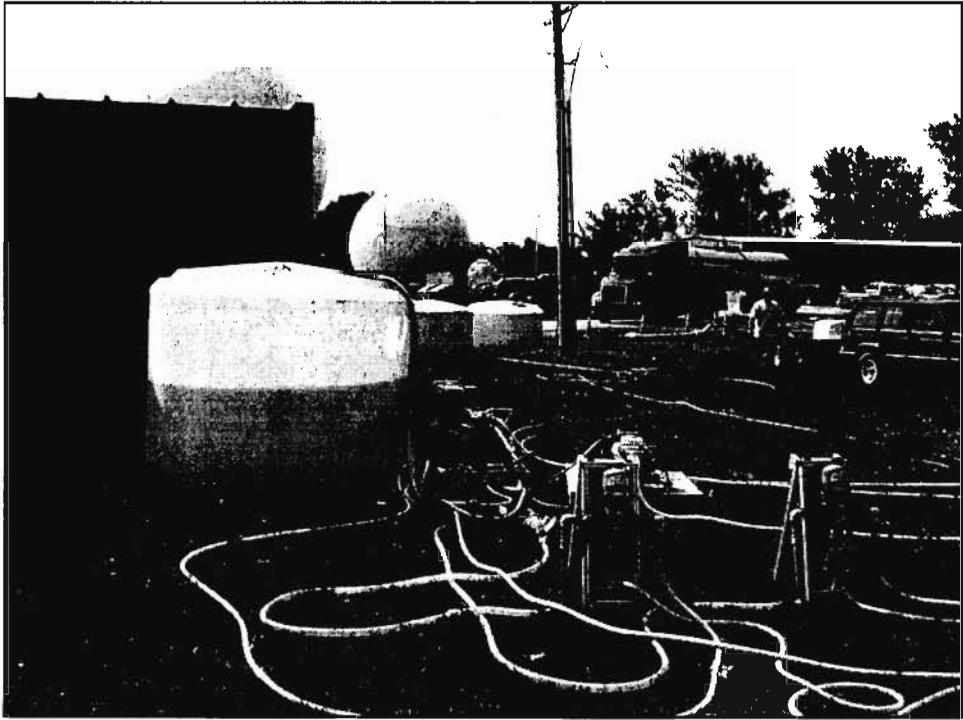
## ***HARDFILL 2 COMPOSITE***



- **FY06 Activities**
  - Conducted groundwater monitoring for natural attenuation and ZVI PRB performance monitoring
  - Northern plume source area undergoing IRT demonstration
    - Results to date indicate successful reductive bioremediation
  - All groundwater pumped (total of about 75 gpm) from the LF4 and HF2C hydraulic containment system is being treated by the wetland
  - NDEQ approved reduction in wetland discharge sampling frequency from monthly to quarterly
  - Requested EPA approval of a reduction in MNA sampling frequency from semi-annual to annual
  - NDEQ approved reduction in wetland discharge sampling frequency from monthly to quarterly
  - EPA approved remedy update for HF2C
    - Installed IRT zones in the distal area and core of southern plume
    - Installed IRT zones in core of northern plume
    - Installed 5 performance wells
    - Draft Dual Phase Extraction CMI Plan for Building 407 is in review
      - Expect to install the system this Fall
  - Quarterly performance sampling of IRTs will begin this Fall







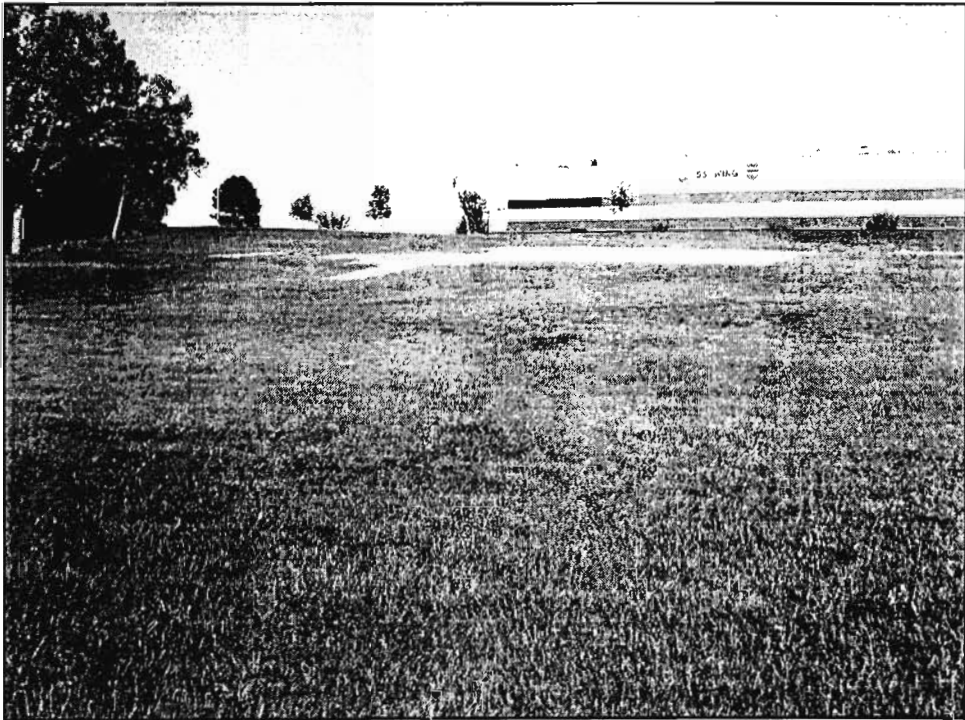
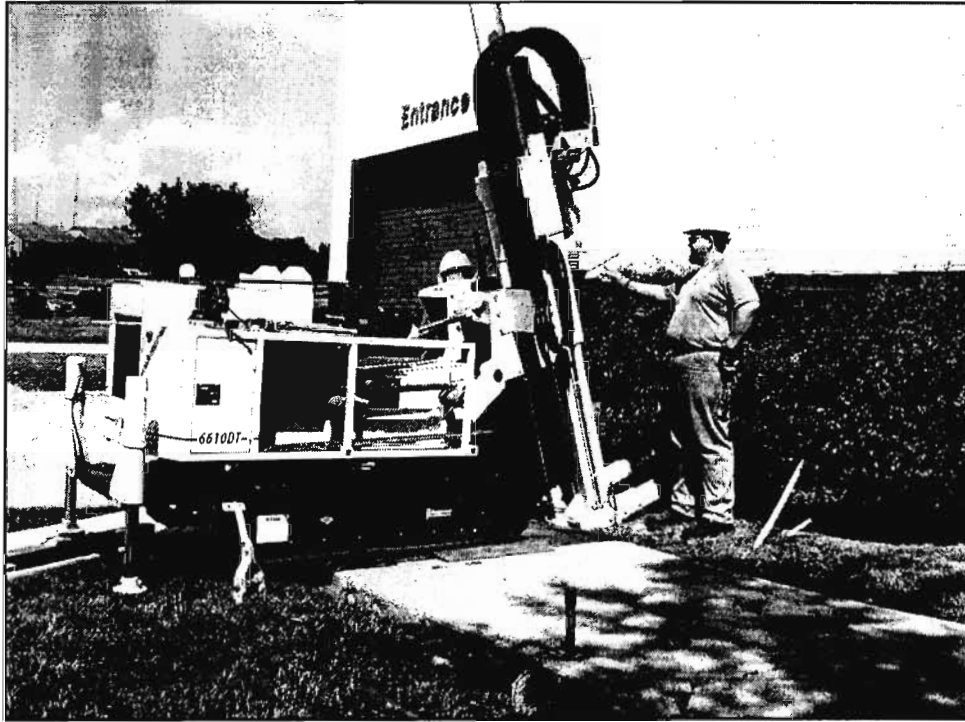
**HARDFILL 2  
COMPOSITE**



**HARDFILL 2  
COMPOSITE**











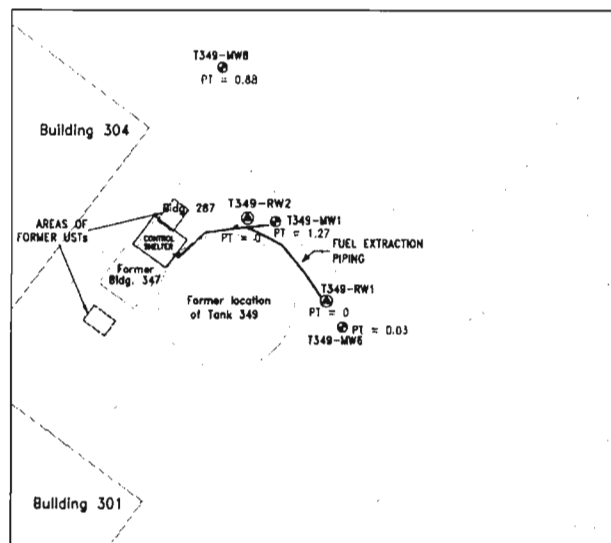
# TANK 349



## • FY06 Activities

- Weekly product level measurement and product removal until there are no measurable thicknesses
- Prepared and submitted Risked Based Corrective Action (RBCA) Tier I evaluation forms
- Tier II evaluation will be complete after all measurable product has been removed

# TANK 349





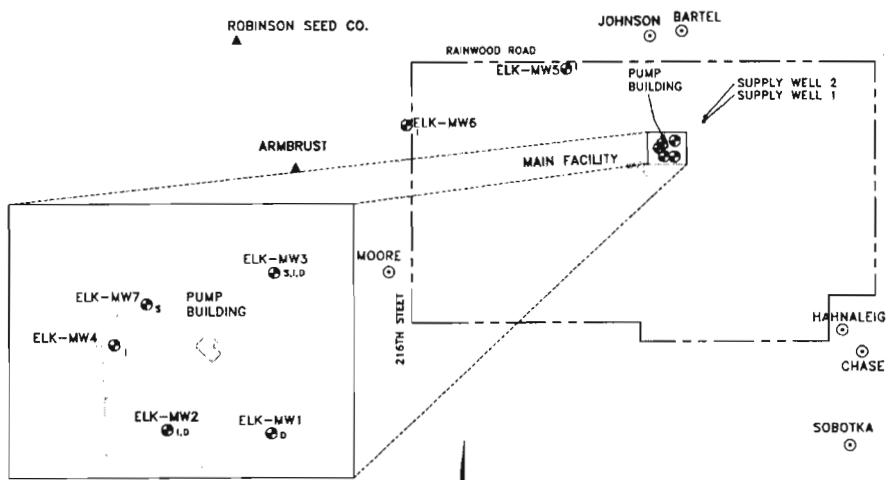
# ELKHORN



## • FY06 Activities

- Conduct annual groundwater monitoring of site wells and nearby private wells
- Requested NDEQ classification of perched groundwater at the site as GC and RAC 3
- Requested NDEQ formal documentation of our 1998 agreement that remedial action is complete
- Evaluated feasibility of using a monitoring well as a pumping well and started pumping this well in July
- Request NDEQ approval to reduce groundwater monitoring to biennial beginning in 2007

# ELKHORN



***QUESTIONS?***

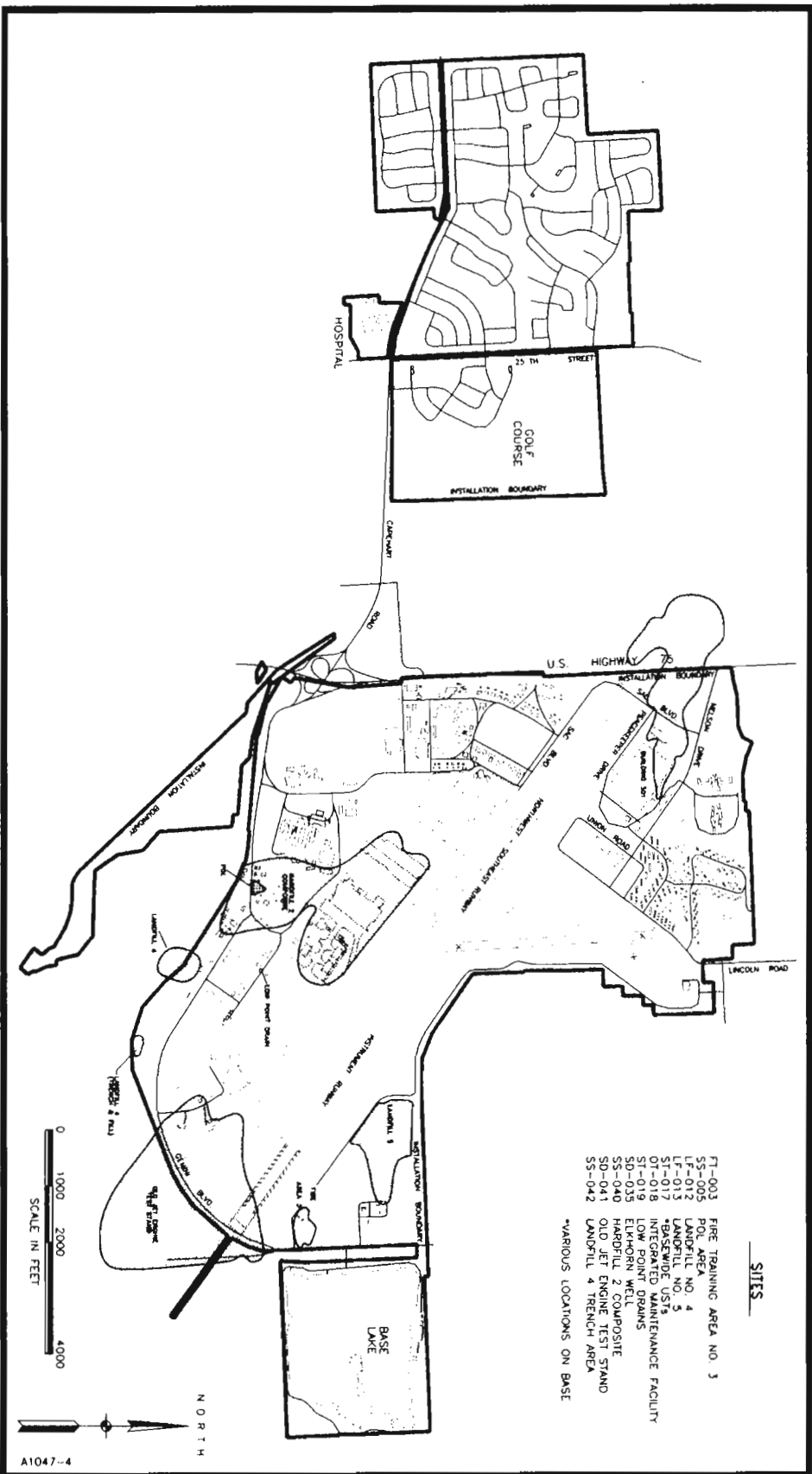
***NEXT RAB MEETING***

**TUESDAY, 6 MARCH 2007**

**3:00 – 4:00 P.M.**

**BELLEVUE PUBLIC SCHOOLS WELCOME CENTER**

# OFFUTT ERP SITES





# Solvent Contamination Treatment Technology Fact Sheet *In Situ* Anaerobic Bioremediation



## What is *in situ* anaerobic bioremediation?

*In situ* (i.e., in place) anaerobic bioremediation is an innovative remedial technology that involves the injection of organic materials to cleanup solvent chemicals in groundwater. The injected organic material naturally degrades and ferments resulting in the generation of hydrogen. The hydrogen is used by naturally occurring bacteria during the breakdown of the solvent contamination.

## Why use *in situ* enhanced bioremediation to cleanup contamination?

*In situ* enhanced bioremediation eliminates the need for aboveground treatment by using natural biological processes to transform the contaminants in groundwater to harmless byproducts while they are underground.

## What kinds of material can be injected into groundwater to breakdown organic chemicals?

Examples include alcohols, fatty acids (e.g., lactate), carbohydrates (e.g., sugars), vegetable oils, and plant debris (e.g., mulch). The substrates most commonly added for enhanced anaerobic bioremediation include lactate, molasses, and vegetable oils. At Offutt Air Force Base, a combination of soy oil and lactate is being used to treat groundwater contaminated with solvents (e.g., trichloroethene, vinyl chloride). The particular substrate chosen for injection at Offutt AFB is Newman Zone<sup>®</sup> made by RNAS Inc.

## What is Newman Zone<sup>®</sup> Emulsified substrate?

Newman Zone substrate is a mixture of water, soy oil, sodium lactate, sodium bisulfate (baking soda), and emulsifiers (to keep the water and oil mixture together). Newman Zone provides both a rapidly utilized food source (the lactate) and a slow-release long-term food source (the soy oil) that are designed to enhance *in situ* bioremediation of chlorinated solvents.

## Why does something need to be injected into the groundwater?

Natural breakdown of organic chemicals, such as solvents, is a slow process. The addition of an organic substrate is an extension to the naturally-occurring process that hastens the breakdown of solvents in groundwater.

## What happens after the substrate is injected?

The sodium lactate in the substrate begins to stimulate microbial growth within hours of injection and rapidly produces anaerobic conditions in the subsurface. After the lactate has been consumed, the soluble soy oil portion of the product is retained on soil surfaces and in pore spaces without significant impact to the aquifer permeability, where it slowly ferments. The soy oil is expected to ferment over several years releasing volatile fatty acids (e.g., Acetic Acid) and hydrogen, which support the anaerobic bacteria that breakdown the solvents in groundwater. The final by-products include methane, ethane, ethene, and carbon dioxide.

### Project Facts

#### Contaminated Media:

Groundwater

#### Treatment Technology:

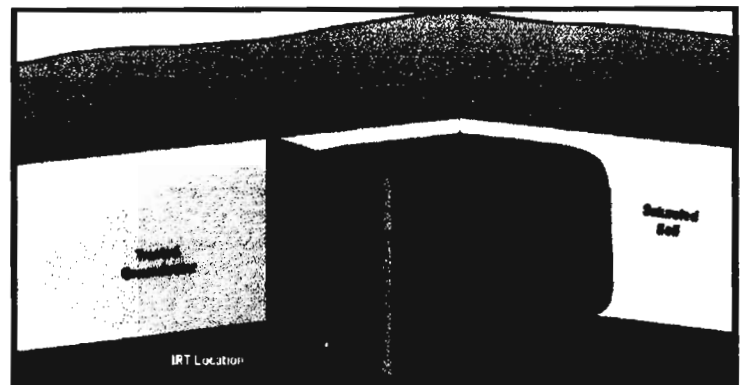
*In situ* anaerobic bioremediation

#### Objective:

Reduce chemical concentrations to below maximum contaminant concentrations (MCLs)

#### Contacts:

Phillip Cork  
Offutt AFB Restoration Manager  
Phone (402) 294-7621  
Phillip.Cork@offutt.af.mil



DEPARTMENT OF THE AIR FORCE

RIGHT OF ENTRY

ENVIRONMENTAL SURVEYING, TESTING AND MONITORING

USAF-ACC-SGBP-9-06-007

The undersigned owner hereby grants to the United States Air Force an irrevocable right of entry upon the following terms and conditions:

1. The owner hereby grants to the United States Air Force, its officers, employees, contractors and representatives a right to enter upon the below described lands of the owner during the next Five (5) years, beginning 1 October 2006 and ending 30 September 2011. The owner will be given seven (7) calendar days notice prior to entry onto the below described property. Every effort will be taken to schedule work such that entry to the property is only required prior to planting in the spring or after harvest in the fall. Initial entry to conduct soil and groundwater sampling followed by injection of remediation materials (vegetable oil solution), will not be pursued until after the harvest of 2006. Subsequent entry will be to monitor the progress of the remediation system as required to complete the environmental restoration project on the property described below. This work is being conducted as part of the Air Force's environmental restoration responsibilities. The work will include but is not limited to:

- a. Sampling and inspecting, including the use of a relatively small track-mounted direct push rig to obtain soil and groundwater samples. No permanent sampling structures or equipment will be installed on or beneath the surface of the premises.
- b. Injection of a remediation material, consisting of food-grade emulsified soy oil, lactate, and potable water beneath the surface at depths greater than 50 feet.
- c. Obtaining and removing soil and groundwater samples to be analyzed on site or to be sent to a laboratory for analysis.
- d. Land surveying and photographing associated with the sampling process to document sampling locations and to maintain a record of temporary structures, equipment, and methods used during the sampling event.

2. This right of entry includes the right of ingress through and egress from other lands of the owner, not described below, provided such ingress and egress are necessary and not otherwise conveniently available to the United States Air Force.

3. Owner agrees and consents that these actions by the United States Air Force are undertaken pursuant to its responsibilities under and authorized by the Comprehensive Environmental Response, Compensation and Liability Act and/or the Defense Environmental Restoration Program.

4. The United States Air Force agrees to assume responsibility for damages arising from activity of the United States Air Force, its officers, employees, and authorized representatives to said land or crops planted thereon in the exercise of this right of entry, either by repairing such damage or at the option of the United States Air Force by making an appropriate settlement with the owner.

5. No individual from the government or their representatives shall enter on the property without prior notification or approval. The United States Air Force agrees to give notice to the owner not later than seven (7) calendar days in advance of the initiation of any activity, pursuant to this right of entry. This notice shall include a full disclosure of the activities nature, scope, location and duration. Any questions or comments by the owner concerning the proposed activity should be addressed to: Mr. Philip Cork, 55<sup>th</sup> Civil Engineering Squadron, Offutt AFB, Nebraska; phone (402) 294-7621.

6. Any requests for information by the Air Force should be addressed to Mr. Frank Prucka, 10627 Martha Street, Omaha, NE 68124-1845, (402) 393-3647.

7. No conveyance of title, easement, or other interest by the owner in the below described property shall be consummated without provisions for the continued operation of the activities provided for in this right of entry. Prior to such conveyance of title, or other interests to below described property, owner shall notify the United States Air Force by certified mail, at least thirty (30) days prior to any conveyance, of owner's intent to convey any interest in said property and of the provision made for the continued operation of these actions pursuant to this right of entry.

8. It is understood and agreed that the United States Air Force does not acquire title or any other interest in land by means of this grant of permission and consent to enter the subject land of the owner during the term of the right of entry or any renewal thereof.

9. This written permission is given by the undersigned voluntarily, without coercion and without promises of any kind not herein provided by.

10. The owner's land, for which this right of entry is granted, is located in the State of Nebraska, County of Sarpy, and is described as follows:

A tract of land in the West  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 7, T13N, R14E, of the 6<sup>th</sup> PM.

Commencing at Southwest corner of said SW  $\frac{1}{4}$ ; thence East along the South line of said SW  $\frac{1}{4}$ , 800 ft. to the point of beginning; thence North 300 ft; thence East 300ft; thence South 300 ft; thence West along the South line of said SW  $\frac{1}{4}$ , to the point of beginning.(Exhibit A)

WITNESS MY HAND THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2006:

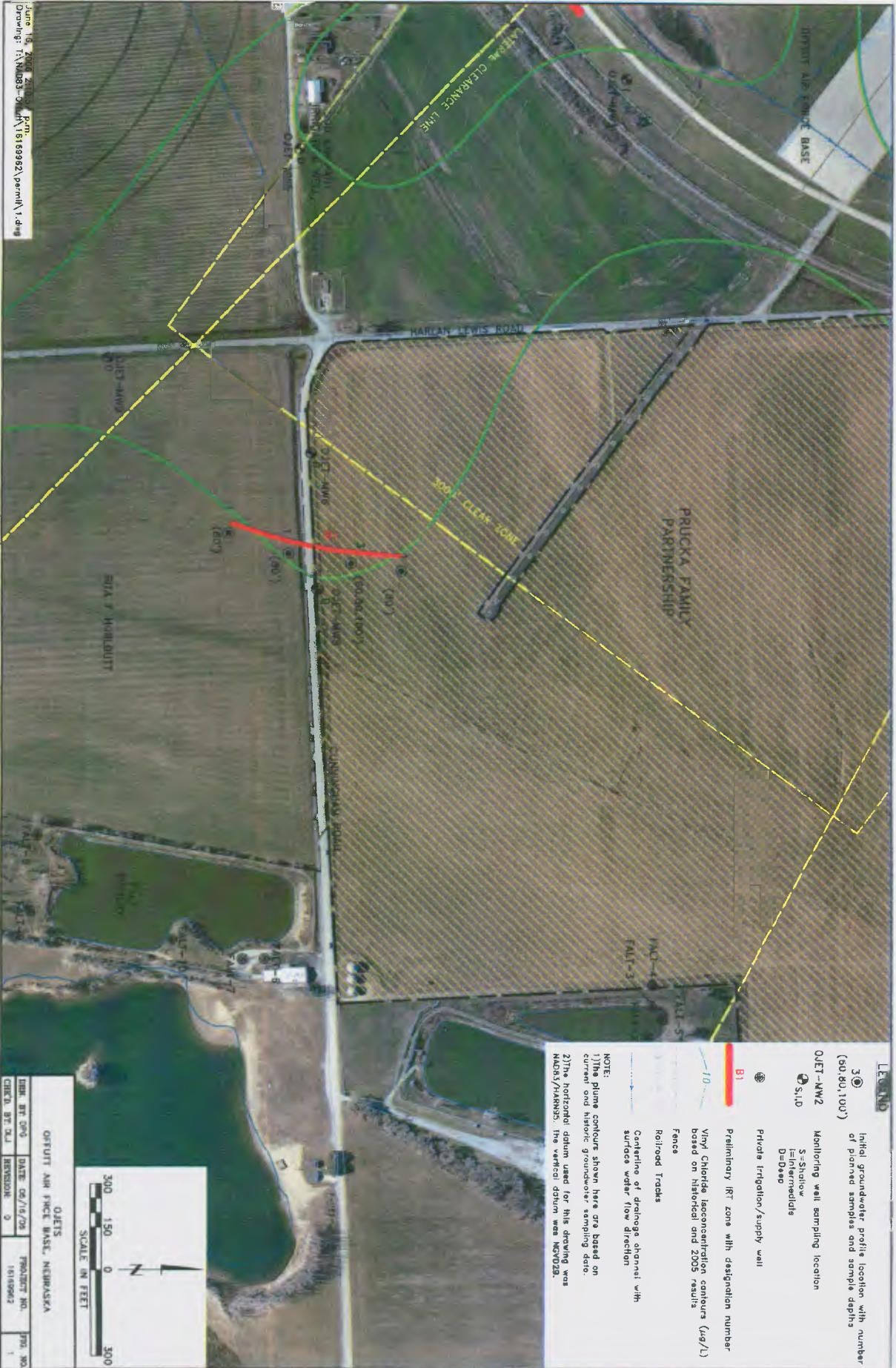
\_\_\_\_\_  
FRANK PRUCKA  
10627 Martha Street  
Omaha, NE 68124-3647

UNITED STATES AIR FORCE

Date \_\_\_\_\_

\_\_\_\_\_  
DONALD L. GLEASON, Colonel, USAF  
Commander, 55<sup>th</sup> Mission Support Group





June 18, 2008 2:00 PM  
 Drawing: T:\Mads3-06.mxd\15159982\perm\1.dwg

**LEGEND**

- 30' Initial groundwater profile location with number of planned samples and sample depths (90,80,100')
- OJET-NW2 Monitoring well sampling location
- S,1D S=Shallow I=Intermediate D=Deep
- Pride Irrigation/supply well
- B1 Preliminary IRF zone with designation number
- 10 Vinyl Chloride Isocentration contours (ug/L) based on historical and 2005 results
- Fence
- Railroad Tracks
- Centerline of drainage channel with surface water flow direction

**NOTE:**  
 1) Plume contours shown here are based on current and historic groundwater sampling data.  
 2) The horizontal datum used for this drawing was NAD83/HARNES3. The vertical datum was NAVD83.



OJETS			
OSTUTT AIR FORCE BASE, NEBRASKA			
DATE: 06/18/08	PROJECT NO.:	PLOT NO. 1	
CHG: BT DJJ	REVISION: 0	15159982	

EXHIBIT A

**DRAFT**

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- d. Land surveying and photographing associated with the sampling process to document sampling locations and to maintain a record of temporary structures, equipment, and methods used during the sampling event.

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3. Owner agrees and consents that these actions by the United States Air Force are undertaken pursuant to its responsibilities under and authorized by the Comprehensive Environmental Response, Compensation and Liability Act, as amended, U.S.C. Section 9601 et. seq. and/or the Defense Environmental Restoration Program, 10 USC 2201 et. seq.

**DRAFT**

4. The United States Air Force agrees to assume responsibility for damages arising from activity of the United States Air Force, its officers, employees, and authorized representatives to said land or crops planted thereon in the exercise of this right of entry, either by repairing such damage or at the option of the United States Air Force by making an appropriate settlement with the owner.

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8. It is understood and agreed that the United States Air Force does not acquire title or any other interest in land by means of this grant of permission and consent to enter the subject land of the owner during the term of the right of entry or any renewal thereof.

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**DRAFT**

WITNESS MY HAND THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2006:

\_\_\_\_\_  
FRANK PRUCKA  
10627 Martha Street  
Omaha, NE 68124-3647

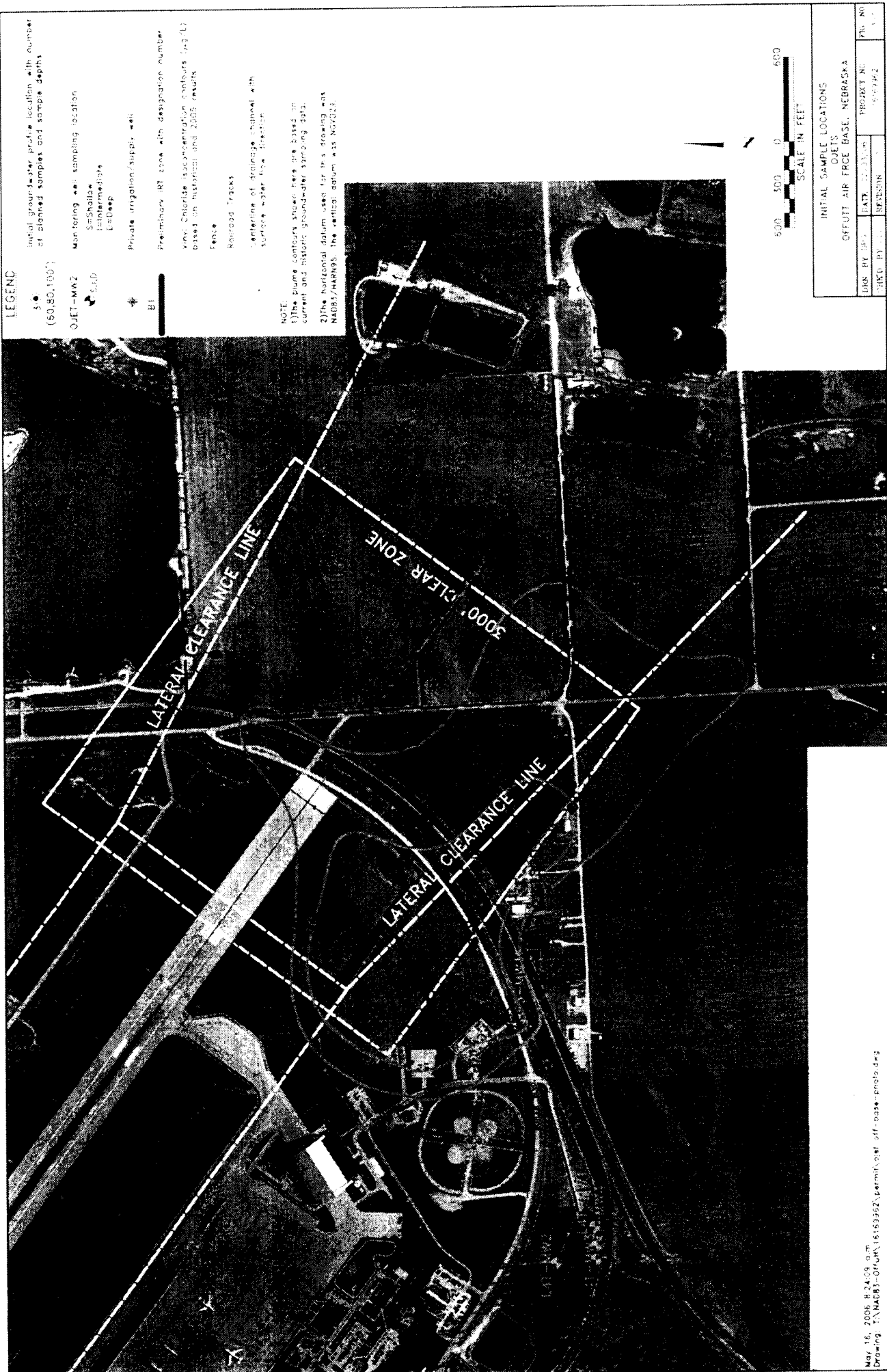
UNITED STATES AIR FORCE

Date \_\_\_\_\_

\_\_\_\_\_  
DONALD L. GLEASON, Colonel, USAF  
Commander, 55<sup>th</sup> Mission Support Group

**DRAFT**







DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 55TH WING (ACC)  
OFFUTT AIR FORCE BASE, NEBRASKA

OCT 15 2008

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Meeting Minutes of the Offutt AFB Environmental Restoration Program (ERP)  
Restoration Advisory Board (RAB), 9 September 2008

1. Place: Bellevue Public Schools Welcome Center, Hwy 75 & Hwy 370, Bellevue NE
2. Date/Time: 9 September 2008/3:00 - 4:00 p.m.
3. Co-Chairmen: Col Robert Maness/Mr. John Ott
4. RAB Members Present: Col Robert Maness, 55 WG/CV  
Mr. Philip Cork, 55 CES/CEVR  
Mr. Jeff Johnson, USEPA Region VII  
Mr. Bob Kuzelka, University of Nebraska Water Center  
Ms. Stacey Stricker, NDEQ Representative

Other Attendees: Capt Joe Campbell, 55 WG/PA  
Ms. Deb Aragon, 55 WG/PA  
Ms. Jean Coburn, 55 CES/CEVR  
Mr. Dave Koukol, Falt Fisheries Attorney  
Mr. John Kunding, 55 MSG/CD  
Mr. Ed Lueninghoener, 55 CES/CD  
Mr. Bob Mallisee, URS  
Mr. Ken Scholz, 55 WG/PA  
Mr. Jesse Schraft, 55 WG/JA

5. Col Maness, 55 WG/CV, chaired the September 2008 RAB meeting. Col Maness welcomed everyone to the meeting. Mr. Cork began the meeting with introductions and provided a briefing on the status of Offutt's Environmental Restoration Program (ERP) sites.

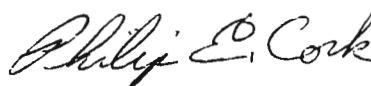
a. Mr. Cork stated that remedies are in place at all ERP sites. Although the sampling frequency may differ from site to site, monitoring at all sites will continue with the exception of Hardfill 6 which requires no further remedial action. Site monitoring is performed to evaluate the performance of In situ Reductive Treatment (IRT) zones, plume movement, and performance monitoring of site remedies. Site remedies include zero valent iron barriers, bio-barriers, dual-phase vapor extraction, biosparging, and monitored natural attenuation.

b. In addition to this monitoring, performance monitoring will be conducted at the zero valent iron barriers, which are installed at the following sites: Landfill 4 Trench Area, Hardfill 2 Composite, and Building 301.

c. Operation and maintenance of the hydraulic containment system will continue for the Landfill 4 and Hardfill 2 Composite sites. One of the goals for these sites is to eventually shut down the hydraulic containment system, such that the only remedial systems on base are passive systems.

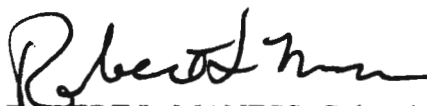
6. Mr. Cork thanked everyone for taking time to attend the RAB. Mr. Kuzelka indicated to Mr. Cork that this may be his last RAB meeting. Mr. Cork stated that Mr. Bob Kuzelka had been involved in the RAB since its inception in 1995 and thanked him for his participation over the years.

7. The next RAB meeting is tentatively scheduled for Tuesday, 10 March 2009, 3:00-4:00 p.m., at the Bellevue Public Schools Welcome Center.



PHILIP E. CORK  
Recorder

Approved as written



ROBERT L. MANESS, Colonel, USAF  
Commander

3 Attachments:

1. RAB Presentation
2. ERP Site Map
3. Distribution List





## **RESTORATION ADVISORY BOARD (RAB)**

**9 September 2008**

**Mr. Philip E. Cork  
55 CES/CEVR**

This Briefing is  
UNCLASSIFIED



## **AGENDA**



- **Landfill 5**
- **Hardfill 6**
- **Fire Training Area 3**
- **Old Jet Engine Test Stand**
- **Landfill 4 Trench Area**
- **Landfill 4**
- **Hardfill 2 Composite**
- **Building 301**
- **Tank 349**
- **Elkhorn**

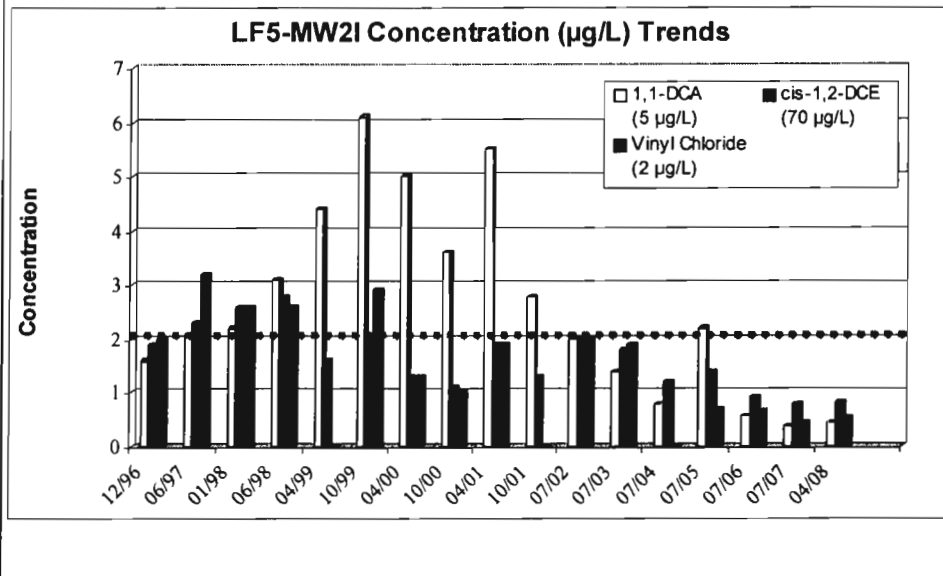


## LANDFILL 5



- Site status is currently RCRA long-term monitoring
- FY08 Activities
  - Completed 2008 biennial groundwater monitoring
    - CAH concentrations remained below MCLs
  - Completing site inspections, maintenance, and required grounds work
- FY09 Planned Activities
  - Site inspections, maintenance, and required grounds work

### Landfill 5 (LF-13) Groundwater Monitoring





## ***HARDFILL 6***



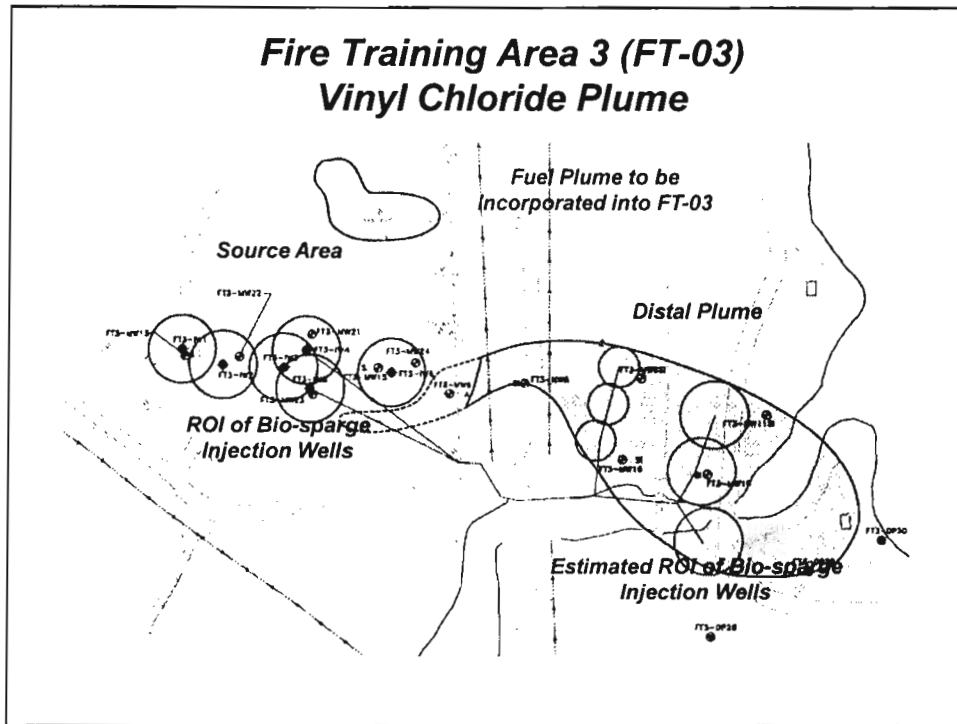
- **FY08 Activities**
  - **Corrective measures completed**
    - **RCRA permit has been modified to incorporate approved remedies**
- **FY09 Planned Activities**
  - **None – Groundwater sampling activities will part of the FTA3 site**




## ***FIRE TRAINING AREA 3***




- **FY08 Activities**
  - **Installed additional biosparging wells in off-base portion of plume**
  - **Operated and maintained biosparging system**
- **FY09 Planned Activities**
  - **Operate, maintain, and complete regular performance monitoring of biosparging system**



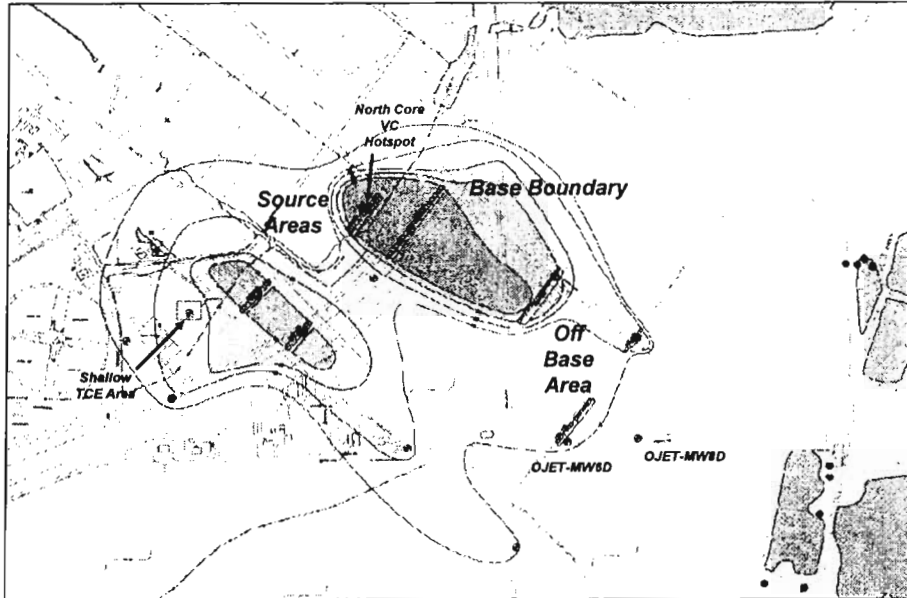


## OLD JET ENGINE TEST STAND

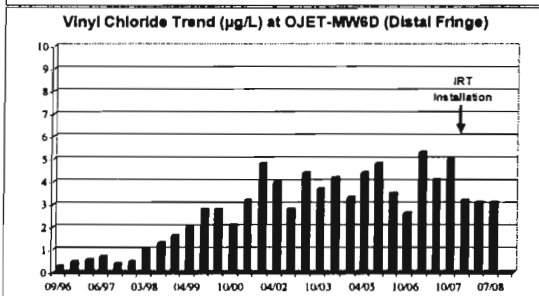
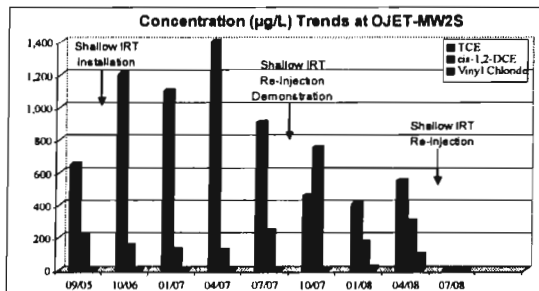


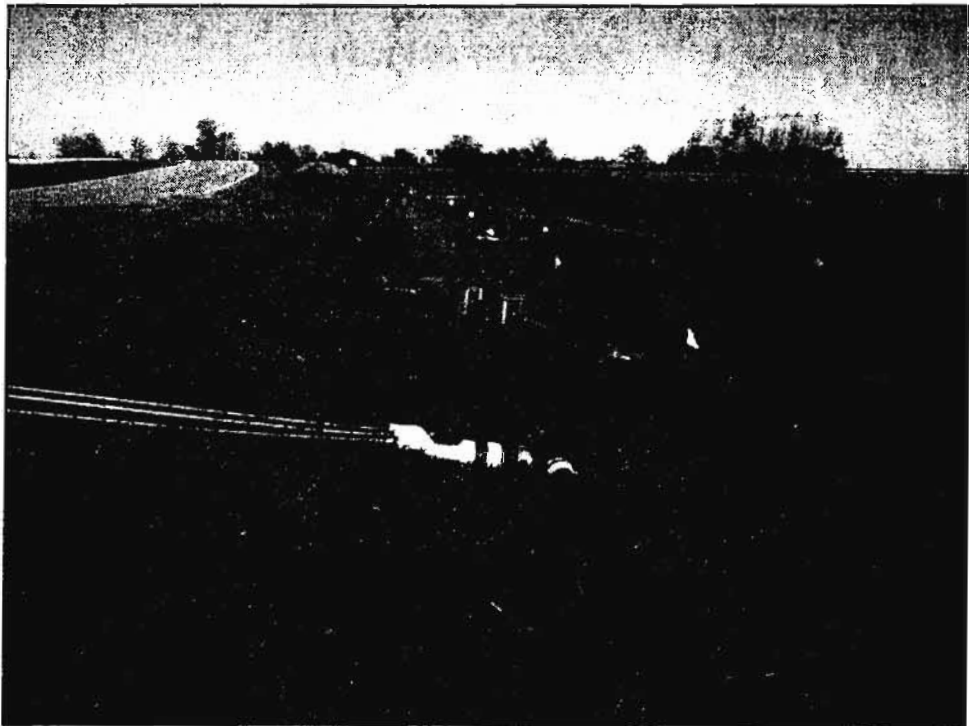
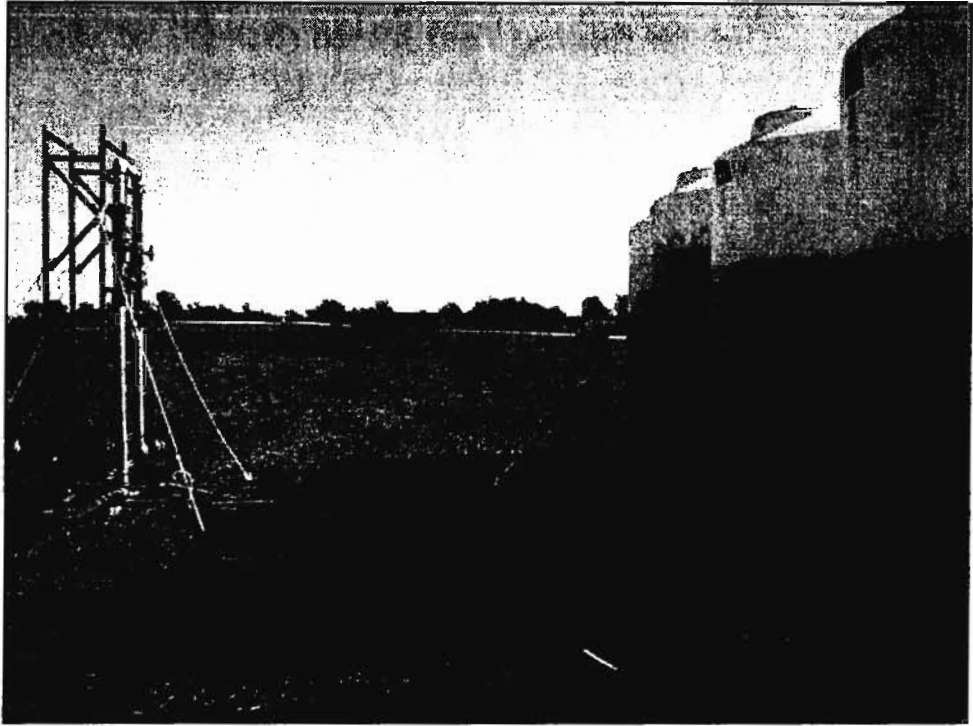
- **FY08 Activities**
  - Collected quarterly groundwater samples from monitoring wells for IRT performance monitoring
  - Collected semiannual groundwater samples from monitoring wells outside performance monitoring areas
  - Additional biostimulant injected at shallow TCE area
- **FY09 Planned Activities**
  - Continue semiannual plume monitoring
  - Continue semiannual groundwater samples from monitoring wells for IRT performance monitoring
  - Additional biostimulant injection in the source, Base boundary, and distal plume areas

## Old Jet Engine Test Stand (SD-41) Vinyl Chloride Plume Configuration



## OJETS (SD-41) Performance Trends





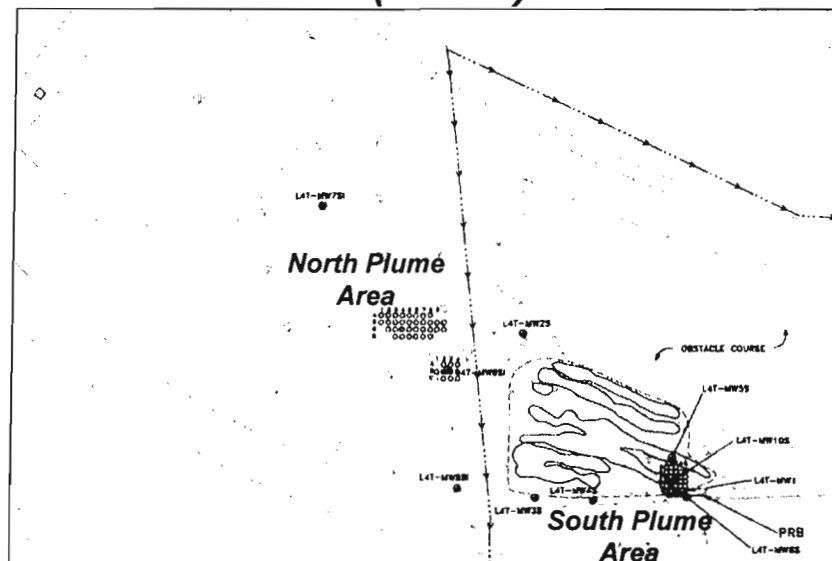


## LANDFILL 4 TRENCH AREA

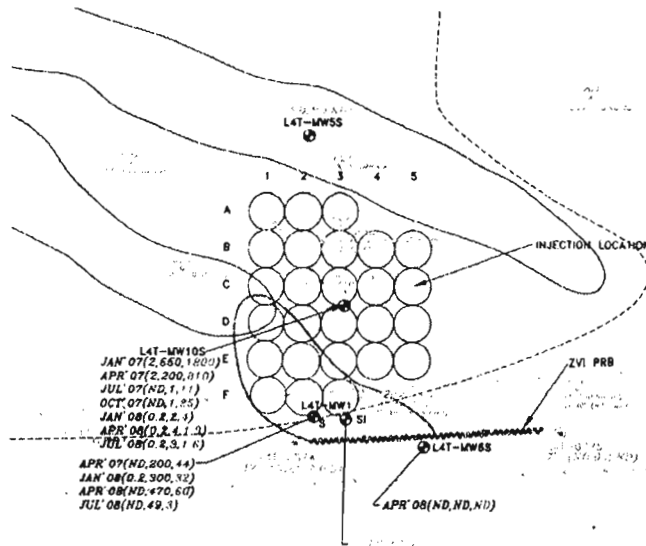


- **FY08 Activities**
  - Collected quarterly groundwater samples from two monitoring wells for IRT performance monitoring
  - Continued landfill inspection, including fencing, signs and cover
  - Additional biostimulant injected in southern plume
  - Corrective measures completed
    - RCRA permit has been modified to incorporate approved remedies
- **FY09 Planned Activities**
  - Conduct semiannual performance monitoring of IRT zones
  - Complete biennial groundwater monitoring

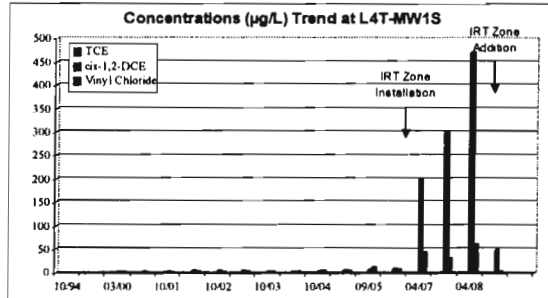
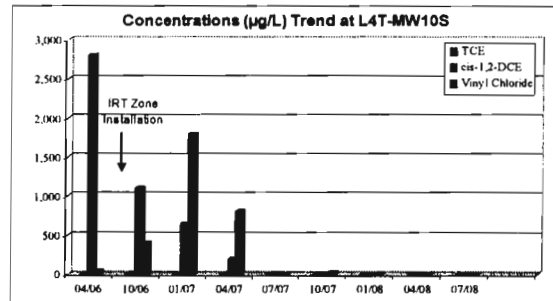
### Landfill 4 Trench Area (LF-42)



## Landfill 4 Trench (LF-42) South Plume Area



## LF4T (LF-42) South Plume Monitoring







## LANDFILL 4



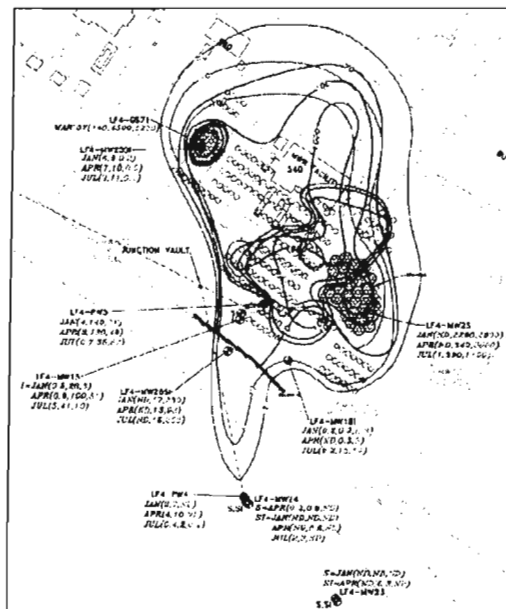
- **FY08 Activities**

- Conducted inspections of the hydraulic containment system
- Collected quarterly groundwater samples from five monitoring wells for IRT performance monitoring
- Collected annual groundwater samples from monitoring wells outside performance monitoring areas
- Additional biostimulant injected in source and along base boundary IRT zone
- Began work on vapor intrusion work plan

- **FY09 Planned Activities**

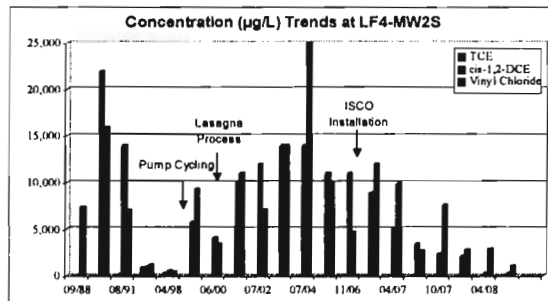
- Continue semiannual performance monitoring of site remedies
- Continue annual plume monitoring outside of site remedies
- Conduct inspections, water level measurements, and quarterly sampling of hydraulic containment wells and effluent
- Goal is to shut down hydraulic containment system

### Landfill 4 (LF-12) Area

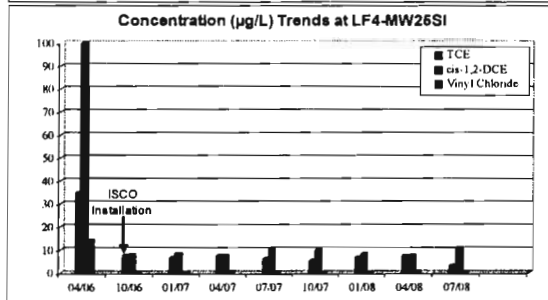


## Landfill 4 (LF-12) ISCO Performance Results

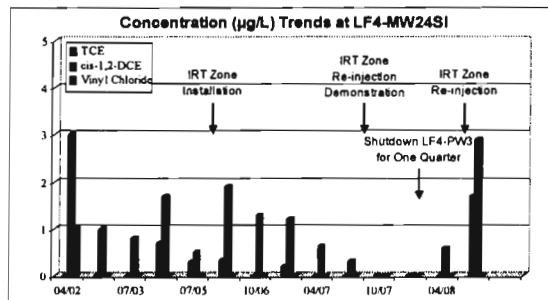
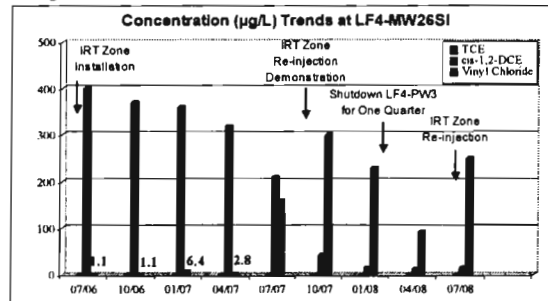
**ISCO  
Area 1**



**ISCO  
Area 2**



## Landfill 4 (LF-12) Boundary and off-Base IRT Performance Results







## **HARDFILL 2 COMPOSITE**



### **• FY08 Activities**

- **Collected quarterly groundwater samples from 18 monitoring wells for IRT performance monitoring**
- **Collected groundwater samples from 12 monitoring wells for zero valent iron permeable reactive barrier performance monitoring**
- **Collected annual groundwater samples from monitoring wells outside performance monitoring areas**
- **Additional injection of biostimulant in IRT zones in northern and southern plumes**
- **Continued inspection and maintenance of constructed treatment wetlands**
- **Corrective measures completed**
  - **RCRA permit has been modified to incorporate approved remedies**



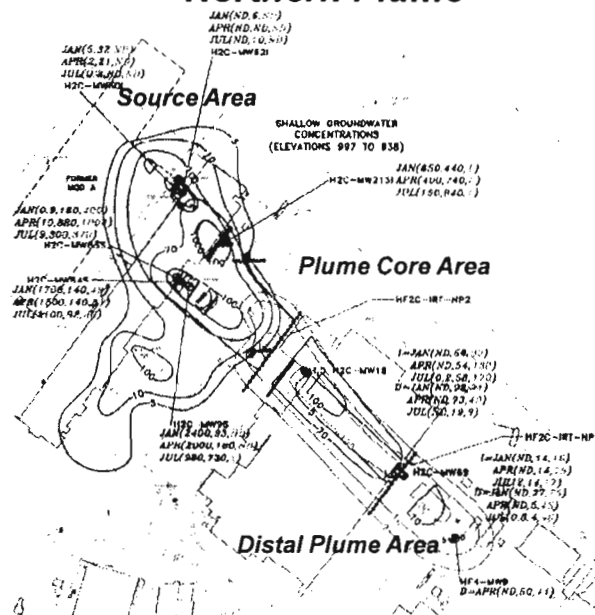
# HARDFILL 2 COMPOSITE



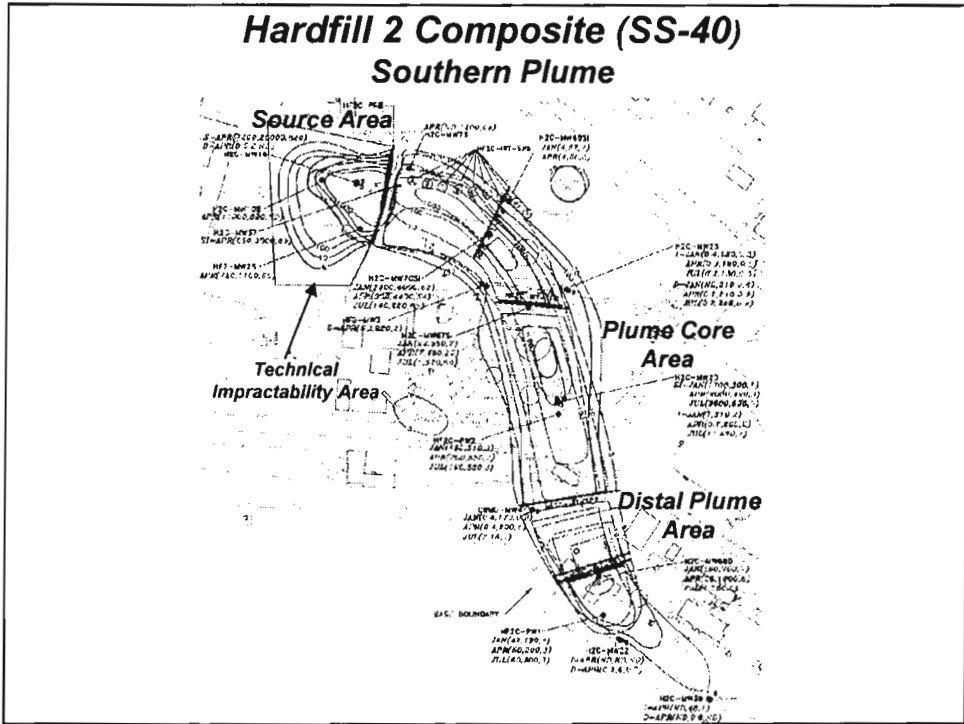
## • FY09 Planned Activities

- Continue semiannual performance monitoring of IRT zones
- Continue annual groundwater samples from monitoring wells outside performance monitoring areas
- Continue performance monitoring for zero valent iron permeable reactive barrier
- Inspect, collect water level measurements, and quarterly sampling of two hydraulic containment system pumping wells
- Inspect treatment wetland and continue continuous flow operation

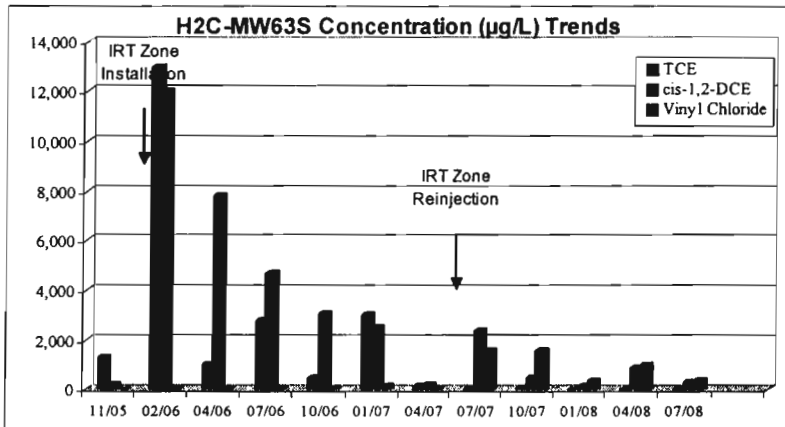
## Hardfill 2 Composite (SS-40) Northern Plume



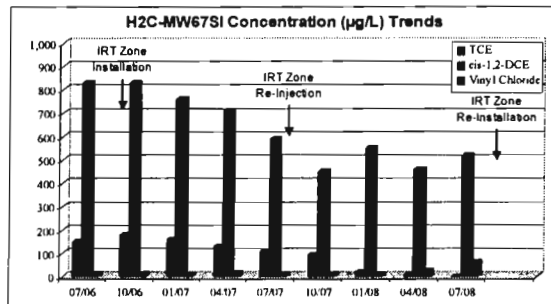
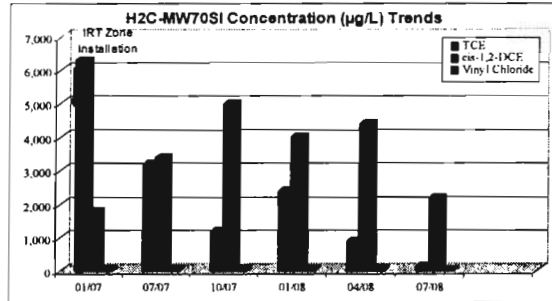
## Hardfill 2 Composite (SS-40) Southern Plume



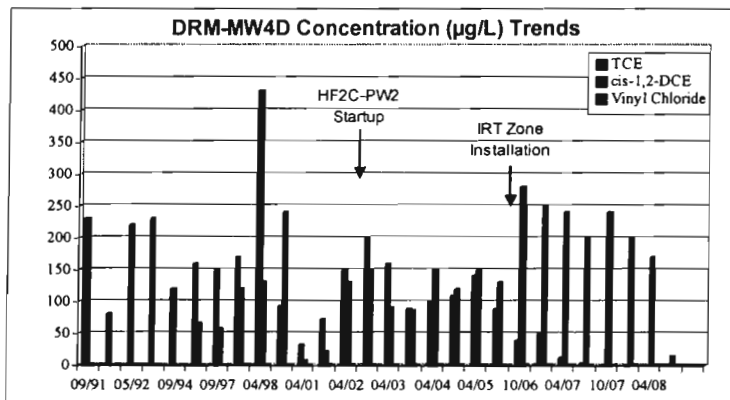
## Hardfill 2 Composite - Northern Plume Source



## Hardfill 2 Composite - Southern Plume Core



## Hardfill 2 Composite - Southern Plume Distal





## **BUILDING 301**



- **FY08 Activities**

- **Continued dual-phase extraction operation and maintenance and performance monitoring within source area**
- **Collected quarterly groundwater samples from 7 monitoring wells for IRT performance monitoring**
- **Collected semiannual groundwater samples from monitoring wells outside performance monitoring areas**
- **Additional injection of biostimulant in IRT zones in source, base boundary, and off-base areas**
- **Began work on vapor intrusion work plan**



## **BUILDING 301**

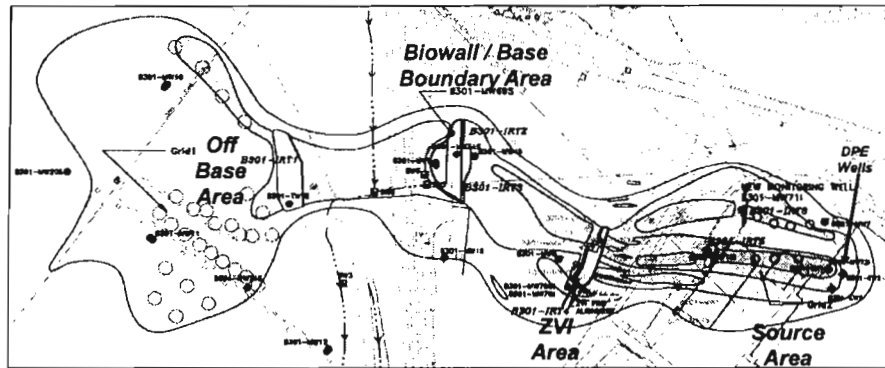


- **FY09 Planned Activities**

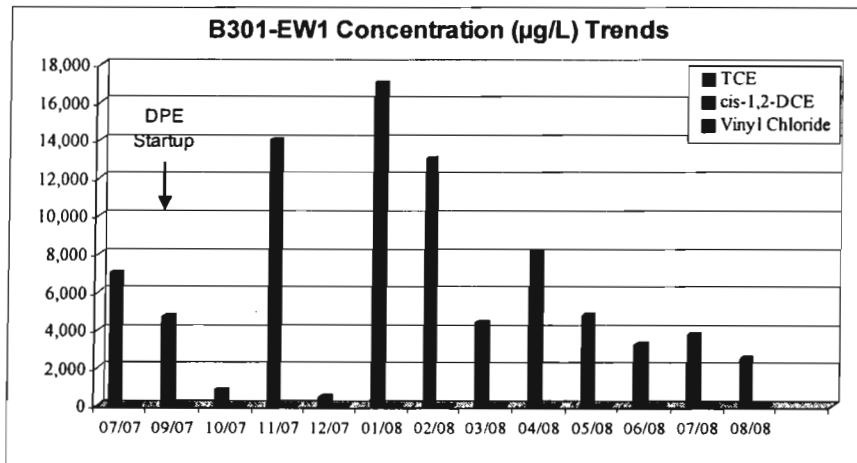
- **Continue semiannual performance monitoring of IRT zones**
- **Continue groundwater and surface water sampling from locations outside performance monitoring areas**
- **Submit request to reduce frequency of general plume monitoring**



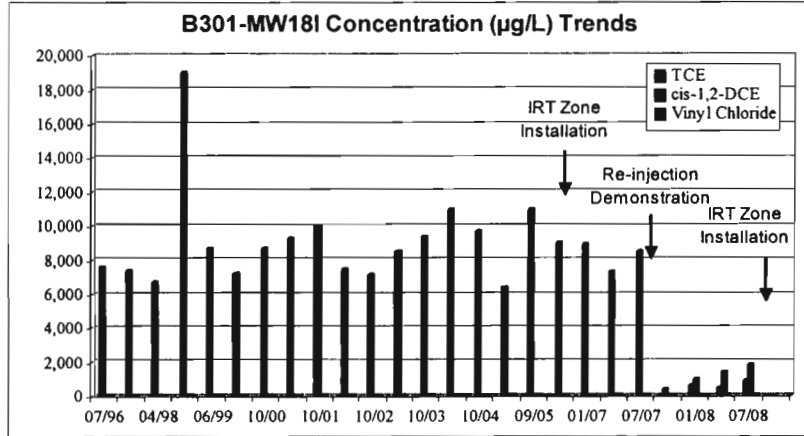
## Building 301 (OT-18)



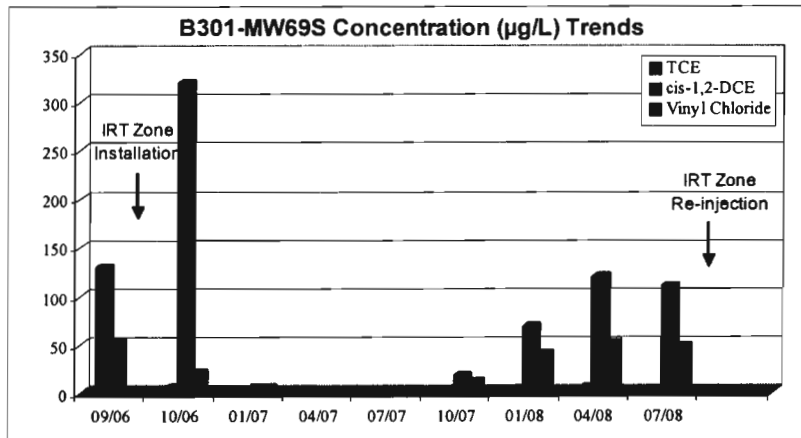
## Building 301 – Source Area



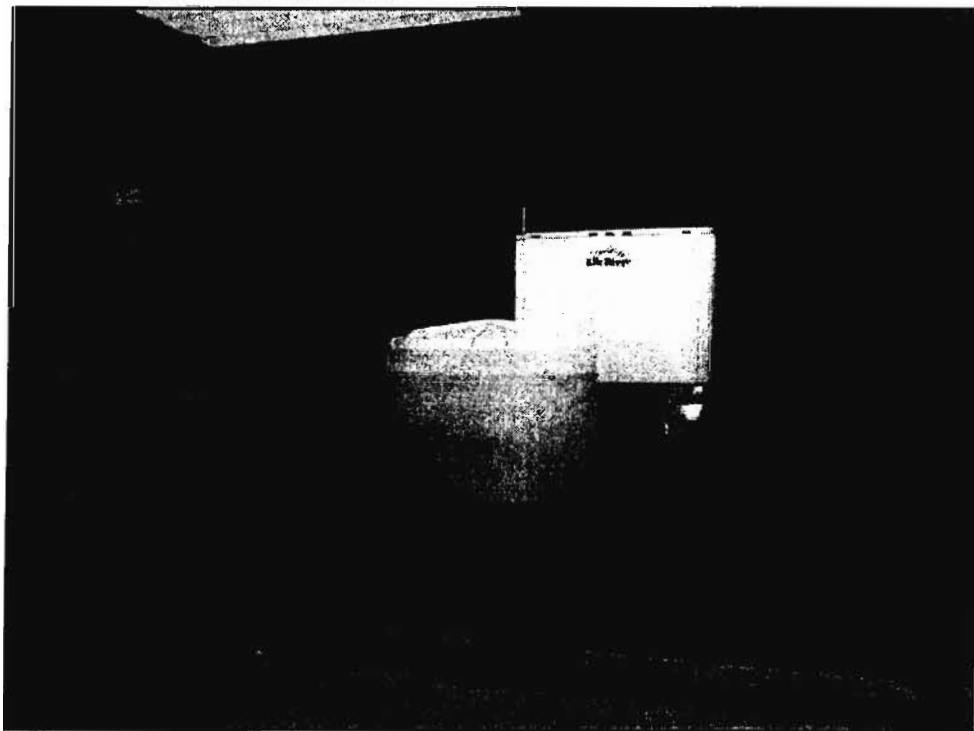
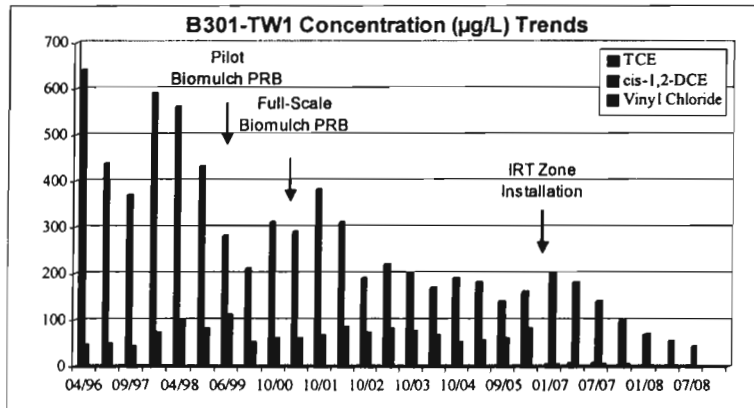
## Building 301 – Source Area



## Building 301 – Base Boundary



## Building 301 – Off-Base



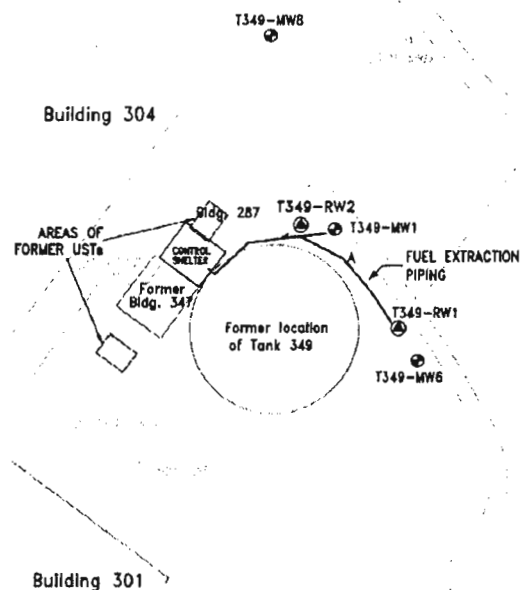


## TANK 349



- **FY08 Activities**
  - Operated biosparging system to remove/degrade free product at 3 wells
  - Received approval from NDEQ to shutdown biosparging system
  - Began post-shutdown monitoring in July
    - If no free product returns within one year, site closure will be requested
- **FY09 Planned Activities**
  - Continue inspections
  - Request site closure
  - Abandon site monitoring wells

## Tank 349 (ST-17)



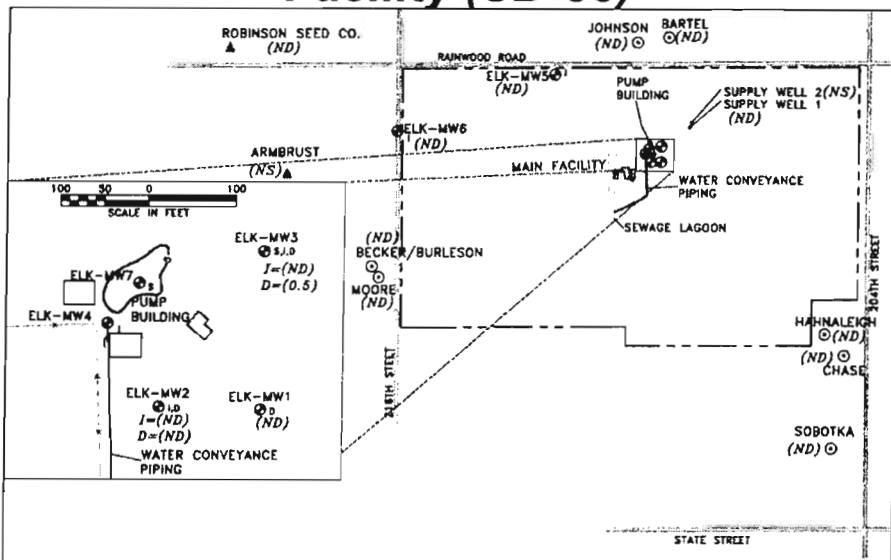


# ELKHORN



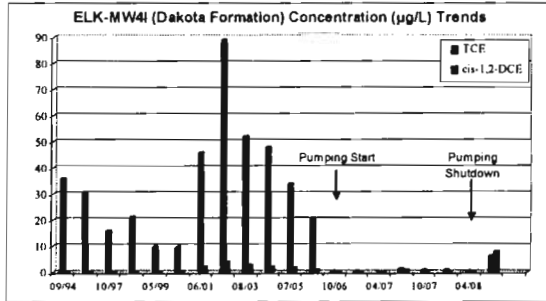
- **FY08 Activities**
  - Monitoring well ELK-MW4I and ELK-MW7S operated as extraction wells
  - Public notice of the Remedial Action Plan occurring in September
- **FY09 Planned Activities**
  - Plume monitoring of site monitoring wells and surrounding private wells
  - Continue pumping at ELK-MW7S

## Elkhorn Communications Facility (SD-35)

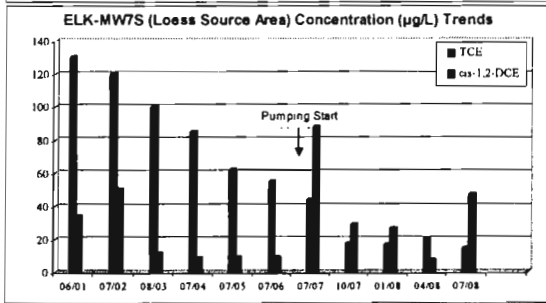


## Elkhorn Communications Facility Monitoring

**Dakota  
Sandstone**



**Loess**



**QUESTIONS?**

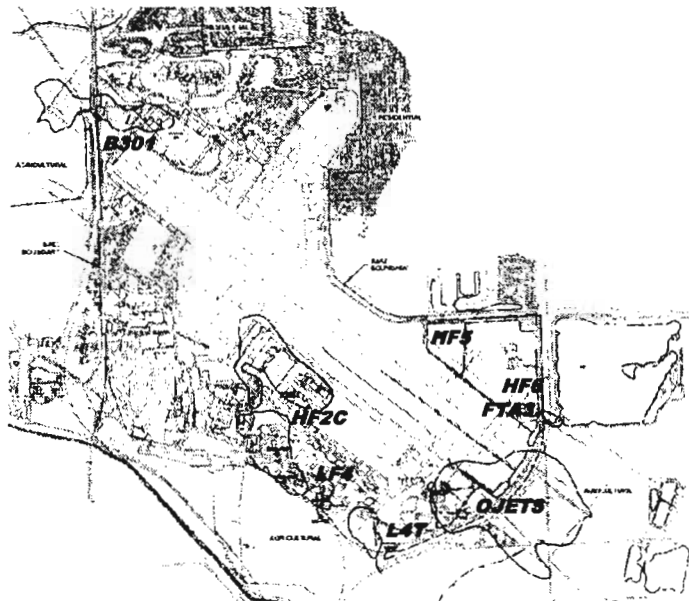
## ***NEXT RAB MEETING***

**MONDAY, 3 MARCH 2008**

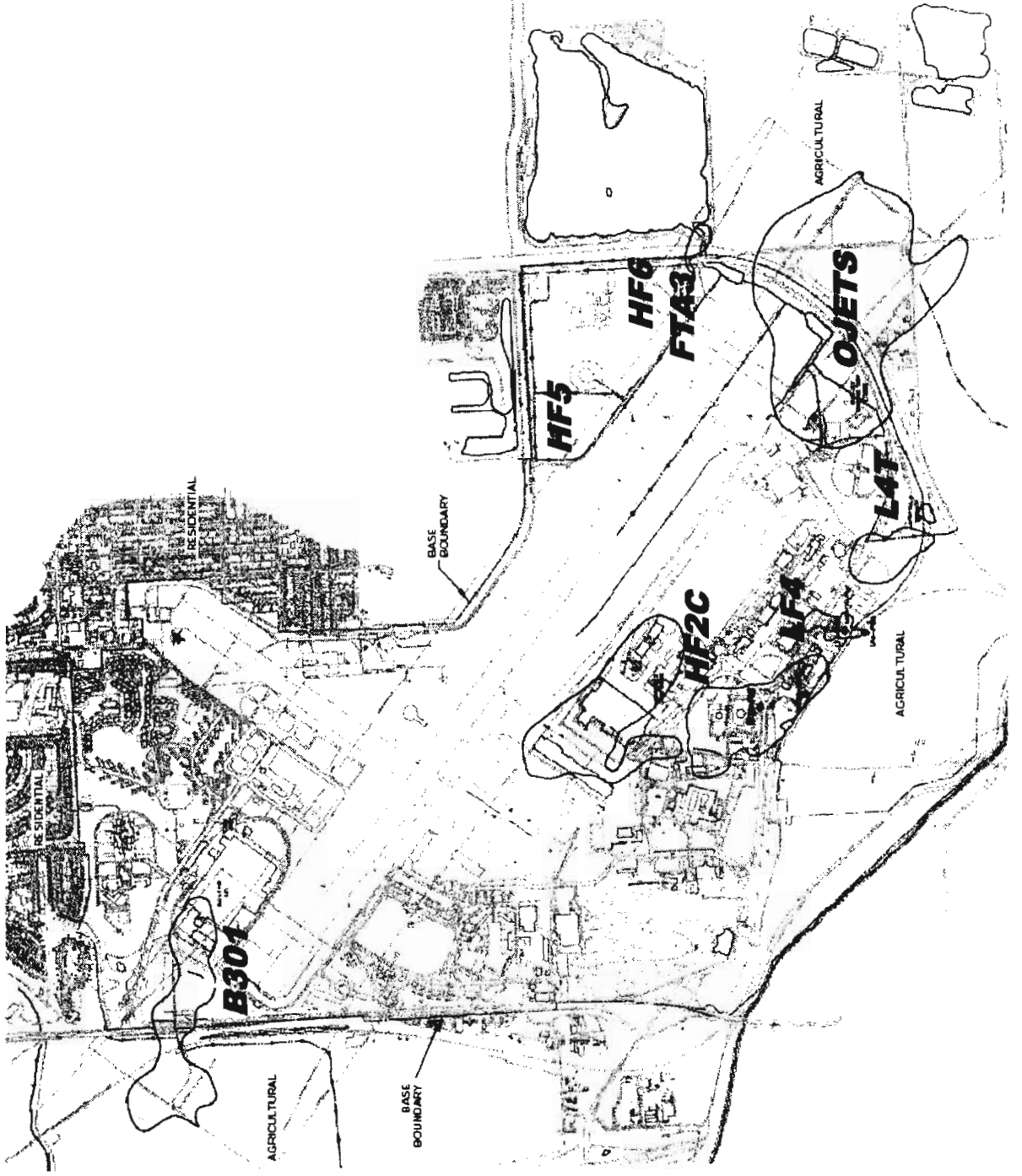
**3:00 – 4:00 P.M.**

**BELLEVUE PUBLIC SCHOOLS WELCOME CENTER**

## ***OFFUTT AFB ERP SITES***



# OFFUTT AFB ERP SITES





## DISTRIBUTION LIST

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HQ AFCEE/EXEC  
3300 Sidney Brooks  
Brooks City-Base TX 78235-5112



**DEPARTMENT OF THE AIR FORCE**  
**HEADQUARTERS 55TH WING (ACC)**  
**OFFUTT AIR FORCE BASE, NEBRASKA**

**JUN 23 2008**

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Meeting Minutes of the Offutt AFB Environmental Restoration Program (ERP)  
Restoration Advisory Board (RAB), 20 May 2008

1. Place: Bellevue Public Schools Welcome Center, Hwy 75 & Hwy 370, Bellevue NE
2. Date/Time: 20 May 2008/3:00 - 4:00 p.m.
3. Co-Chairmen: Col Michael Stinson/Mr. John Ott
4. RAB Members Present: Col Michael Stinson, 55 MSG/CD  
Mr. Philip Cork, 55 CES/CEVR  
Mr. Jeff Johnson, USEPA Region VII  
Mr. Bob Kuzelka, University of Nebraska Water Center  
Ms. Stacey Stricker, NDEQ Representative  
Mr. Dave Petrocchi, City of Bellevue Representative  
Mr. John Ott, Local Citizen

Other Attendees: Lt Col Phillip Moessner, 55 MSG/CD  
SSgt Christian Francisco, 55 AMDS/SGPB  
SrA Amanda Dick, 55 WG/PA  
Ms. Sabina Chowdhury, Booz, Allen Hamilton  
Ms. Jean Coburn, 55 CES/CEVR  
Mr. Mark Jacobsen, 55 CES/CE  
Mr. Dave Koukol, Falt Fisheries Attorney  
Mr. Ed Lueninghoener, 55 CES/CD  
Mr. Bob Mallisee, URS  
Mr. Jesse Schraft, 55 WG/JA

5. Col Stinson, 55 MSG/CD, chaired the March 2008 RAB meeting. Col Stinson welcomed everyone to the meeting. Mr. Cork began the meeting with introductions and provided a briefing on the following topics:

a. Landfill 5: Site status on Landfill 5 is Resource Conservation and Recovery Act (RCRA) Long-Term Monitoring. The activities for FY08 include biennial groundwater monitoring, site inspections, maintenance, and required grounds work.

b. Hardfill 6: The Statement of Basis and public notice on the site have been completed. No comments were received from the public. The Environmental Protection Agency (EPA) will now modify the RCRA permit to terminate corrective actions at the site. No further actions are required at the site.

c. Fire Training Area 3: Site status is response complete. No further remedial action is required in the source area. FY08 activities include installing and operating a biosparging system in the distal portion of the vinyl chloride plume. The hope is that the biosparging system will bring concentrations below Maximum Contaminant Levels (MCLs) in the plume. A fate and transport model will be completed to determine how long the plume will need to be monitored. Mr. Ott asked why the biosparging was being installed in the widest portion of the plume. Mr. Cork stated that the soil source area had already been removed so the biosparging system is being used to hopefully shorten the length of time required for long-term plume monitoring.

d. Old Jet Engine Test Stand: Site status is remedy in place. A biostimulant will be injected into the aquifer to enhance bioremediation in the plume and hopefully reduce the number of years required for monitoring. Mr. Ott asked how deep the injections would be placed. Mr. Malissee stated the injections would be between 40 and 85 feet deep. Fate and transport modeling will be completed at the site to illustrate plume stability, predict remedy effectiveness, and determine how long it will take to achieve MCLs through the off-base portion of the plume. Mr. Koukel asked what mechanism was used to determine the contour of the plume. Mr. Cork stated that monitoring well concentrations were initially used to determine the contours and since then direct push sampling has more clearly defined the extent of the plume. Mr. Koukel asked what was being done on the southern portion of the plume to determine if the plume is moving downgradient. Mr. Cork stated permanent monitoring wells are monitored frequently to see if there is any plume movement. In MW8D, the contaminant level is .5 ppb. The MCL for vinyl chloride is 2 ppb, therefore, the contamination is well below the MCL. Mr. Koukel asked how the toe end of the plume was determined. Mr. Cork stated that direct push sampling is used to define the toe of the plume and sampling indicates the plume is stable. Mr. Malissee stated that since the last RAB, another well was installed near the toe of the plume to more closely determine plume stability. Mr. Malissee stated that the last sample results would be included in the next annual report. Mr. Koukel asked if that would be available to the public in the information repository. Mr. Cork stated that these results would be available after the report is finalized.

e. Landfill 4 Trench Area: A Statement of Basis was completed and sent out for public review. No comments were received. The EPA will modify the RCRA permit to specify final remedy, including in-situ bioremediation and monitoring natural attenuation.

f. Landfill 4: Site status is remedy in place. A Statement of Basis is being completed on the site. Additional biostimulant will be injected at the site to reinforce the base boundary IRT zone. FY08 activities also include inspections, water level measurements, and sampling of the hydraulic containment system.

g. Hardfill 2 Composite: A Statement of Basis was completed and sent out for public review. No comments were received. The EPA will modify the permit to include in-situ bioremediation, dual-phase extraction, hydraulic containment, and monitoring natural attenuation as the final remedy. FY08 activities include annual plume monitoring and quarterly performance monitoring of the northern and southern IRT zones. Additional biostimulant will be injected in select northern and southern IRT zones. FY08 activities also include continued inspection and sampling of the hydraulic containment system and the constructed wetlands. Mr. Koukel asked where the water was sent that comes from the containment pumping. Mr. Cork stated that the water used to go to the City of Omaha Publicly Owned Treatment Works, however, now it goes to a constructed wetland area. The piping remains in place so that the water can still be sent to the POTW if needed. Mr. Koukel asked if the constructed wetlands attracted birds. Mr. Cork stated that the constructed wetland was designed as a subsurface flow so there is no standing water to attract birds. Mr. Kuzelka asked if the wetland was considered a site that would need to be cleaned up. Mr. Cork stated that there is no accumulation of solvent so it requires no clean up.

h. Building 301: The Statement of Basis is being completed. FY08 activities include plume monitoring and performance monitoring of source, base boundary, and distal portion of plume IRT zones. Additional biostimulant will be injected into the distal plume IRT zones. The dual-phase extraction will remain in operation within the soil source area. The hope is to reduce the frequency of monitoring for monitored natural attenuation.

i. Tank 349: A Tier II report has been sent to the Nebraska Department of Environmental Quality (NDEQ) for their review. The free product remaining at the site is .02 feet. The biosparging system will remain until the free product has been removed. At that time, Offutt will petition NDEQ for site closure.

j. Elkhorn: A Remedial Action Plan was finalized in February 2008. This plan will now go out for public notice. No contamination has ever been detected in the off-base sampling. After 2008 sampling, Offutt will request to discontinue sampling.

6. Mr. Cork thanked everyone for taking time to attend the RAB. Mr. Ott said Offutt had come a long way in the 10 years he had been associated with the RAB. Mr. Koukel asked about the Baseball Village proposal that had been mentioned in the last RAB. Mr. Ott said the property had been purchased and plans were in progress for the village. Mr. Koukel asked if the irrigation well was an issue or if the Baseball Village would affect any of the restoration work at Offutt. Mr. Cork stated he had already talked with the firm proposing the Baseball Village. Mr. Cork stated that the Baseball

Village may utilize the existing irrigation well at the site; however, it should not affect the restoration sites at Offutt. The next RAB meeting is tentatively scheduled for Monday, 9 September 2008, 3:00-4:00 p.m., at the Bellevue Public Schools Welcome Center.

  
PHILIP E. CORK  
Recorder

Approved as written

  
MICHAEL J. STINSON, Colonel, USAF  
Commander, 55th Mission Support Group

3 Attachments:

1. RAB Presentation
2. ERP Site Map
3. Distribution List

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**RESTORATION ADVISORY  
BOARD (RAB)**  
*20 May 2008*

This Briefing is  
UNCLASSIFIED

**AGENDA**

- **Site Status**
- **Activities Planned for FY08**

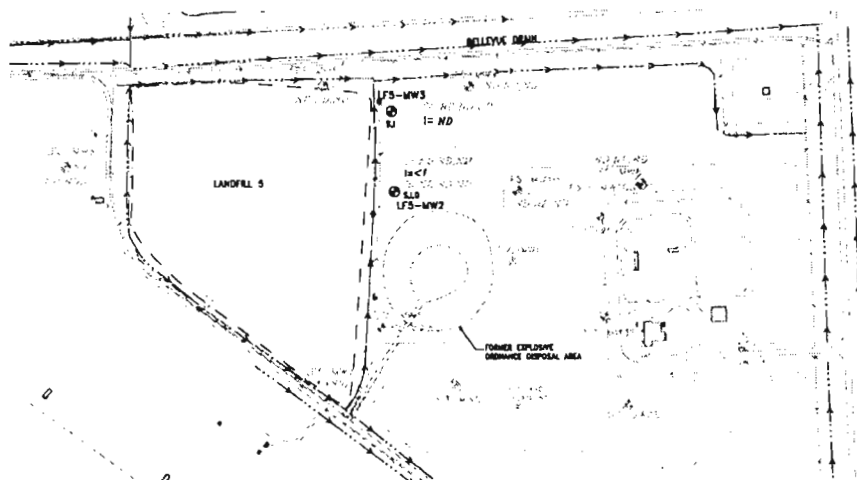


## LANDFILL 5



- **Site Status**
  - RCRA long-term monitoring
- **FY08 Activities**
  - Biennial groundwater monitoring
  - Site inspections, maintenance, and required grounds work

## LANDFILL 5







# HARDFILL 6

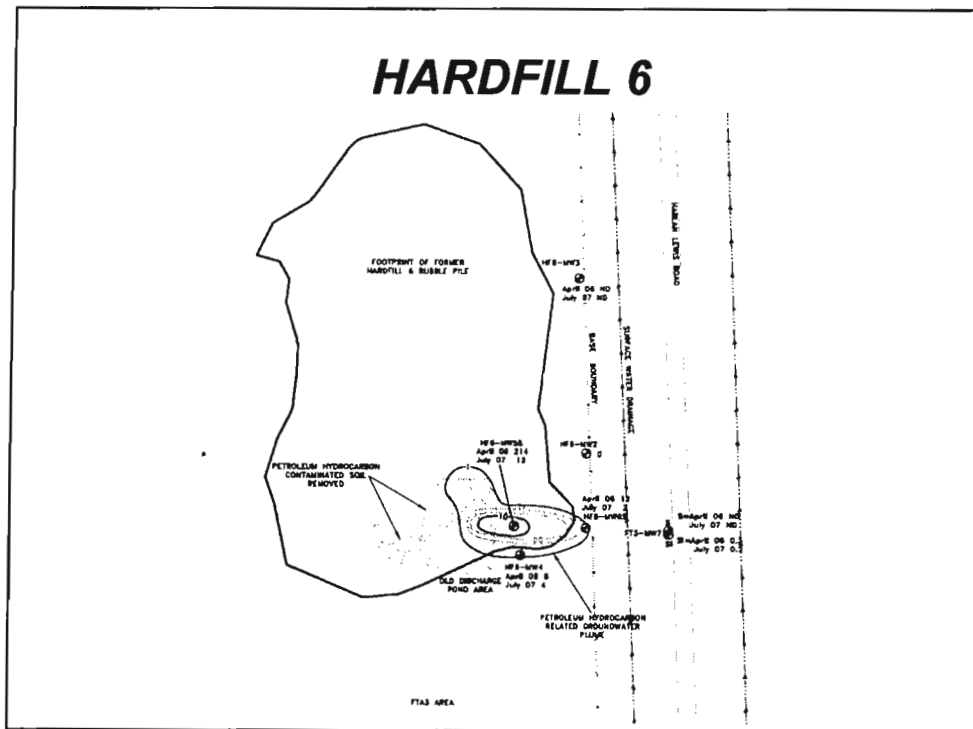


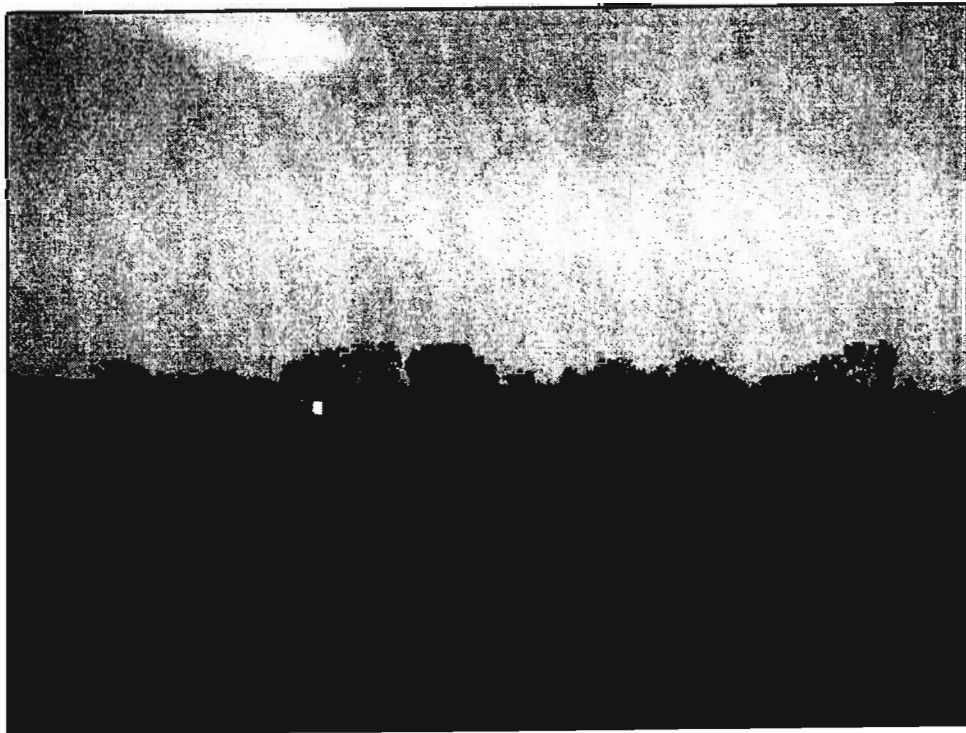
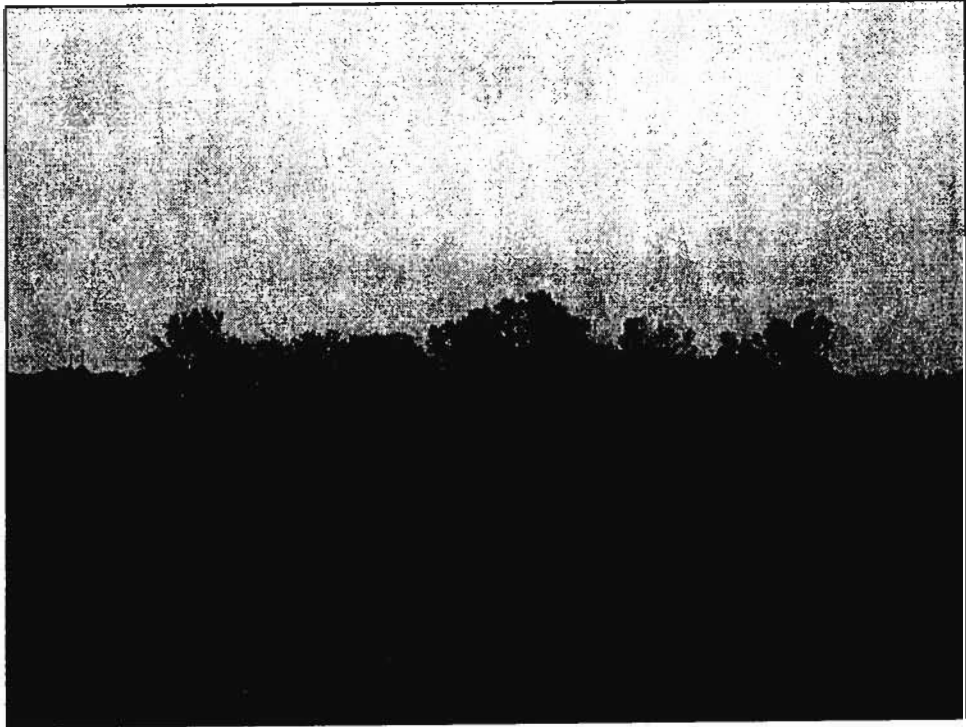
- **Site Status**

- Statement of Basis and Public notice completed
  - No comments were received
- EPA to modify RCRA permit to Terminate Corrective Actions Requirements due to clean closure

- **FY08 Activities**

- No further action required





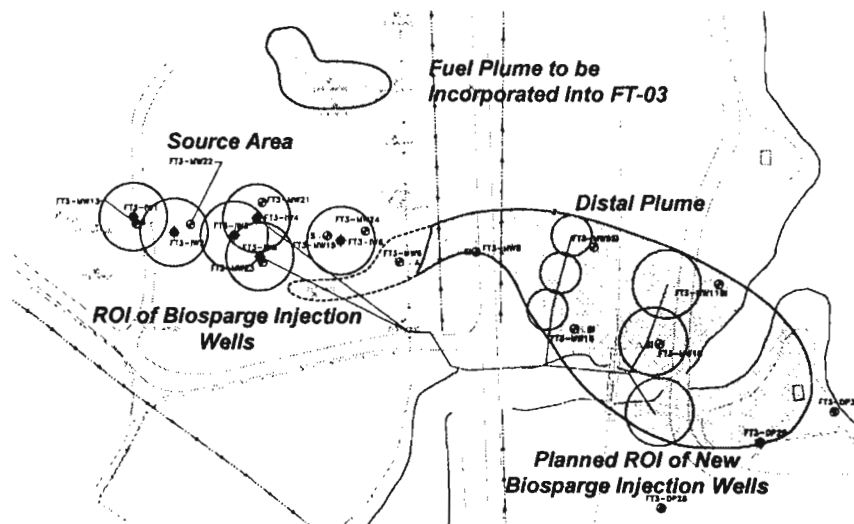


## FIRE TRAINING AREA 3

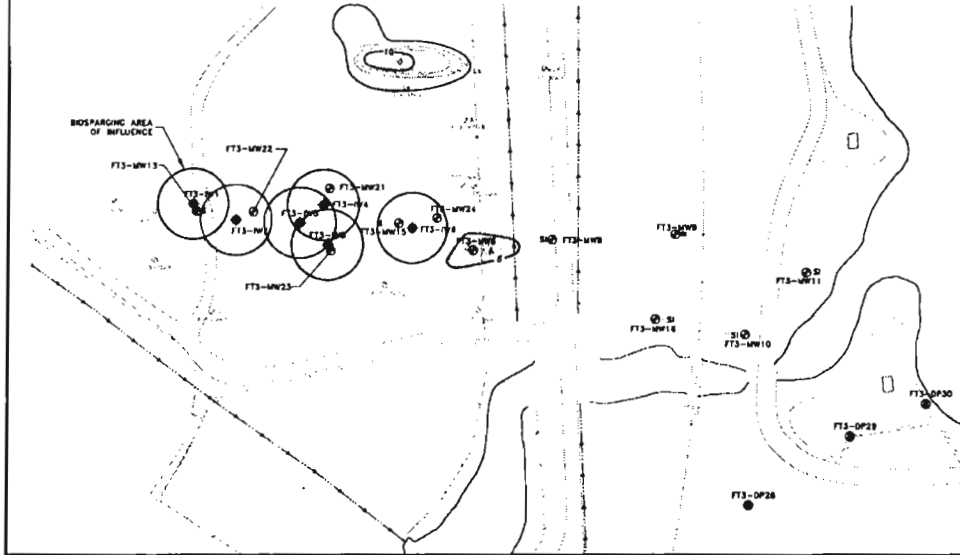


- Site Status
  - Response complete in source area (no further remedial action required in source area)
  - Remedial action in place for distal portion of plume
- FY08 Remedial Action-Operation Activities
  - Annual groundwater monitoring
    - Including monitoring associated with discharge pond area
  - Install and operate biosparging system in distal portion of vinyl chloride (VC) plume
    - Start performance monitoring
  - Complete fate and transport model
    - Predict when MCLs will be met throughout remaining Benzene and VC plumes

## FIRE TRAINING AREA 3 VINYL CHLORIDE PLUME



# FIRE TRAINING AREA 3 BTEX PLUME



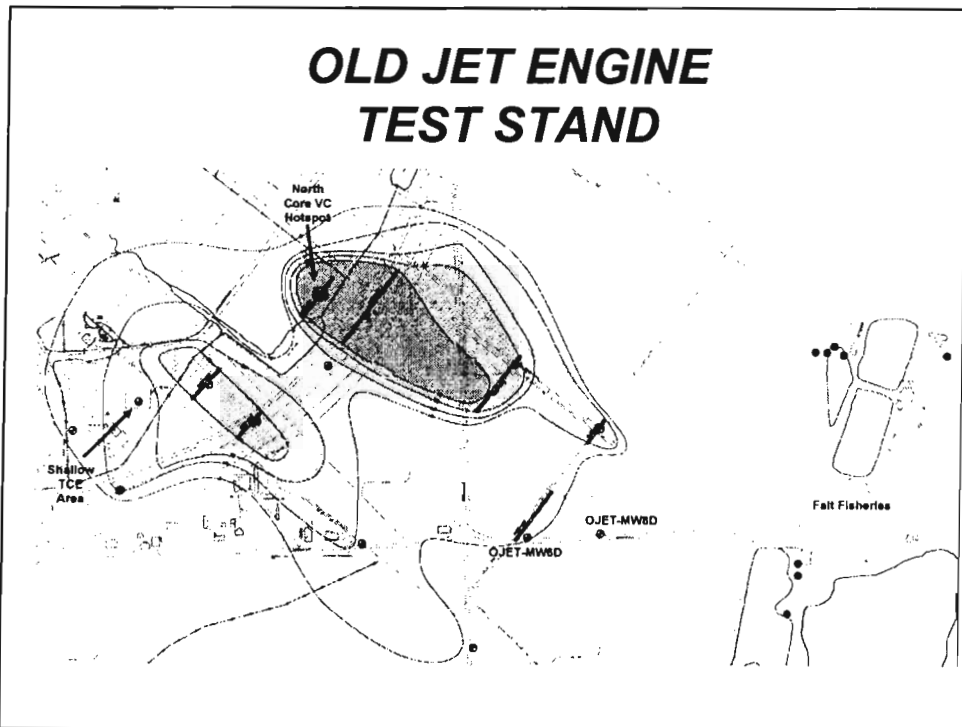


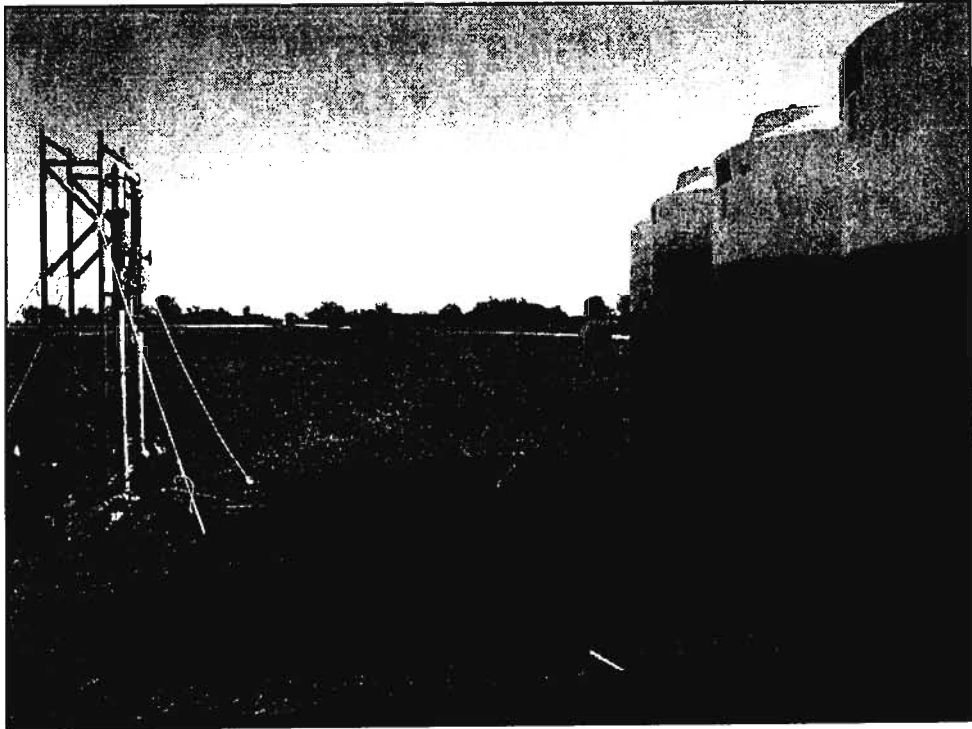
## OLD JET ENGINE TEST STAND

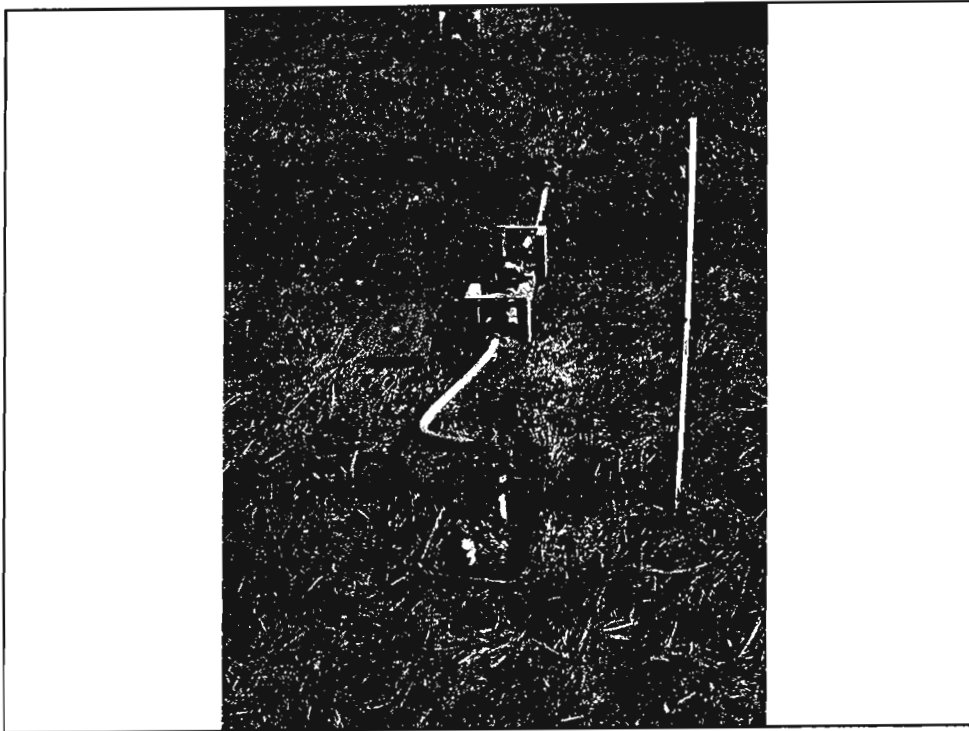
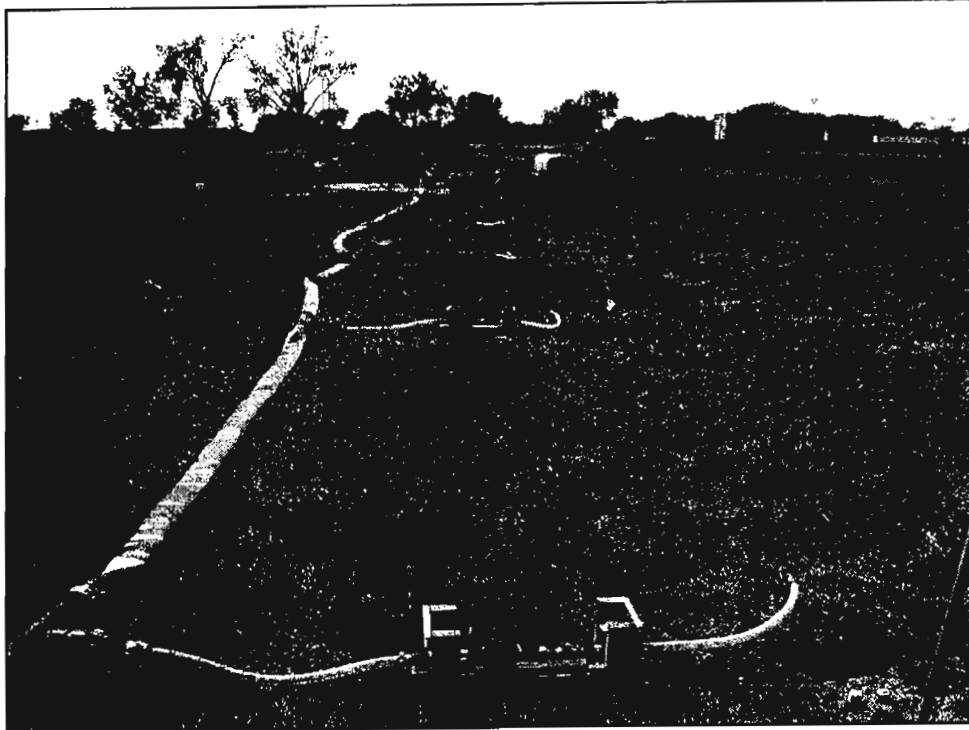


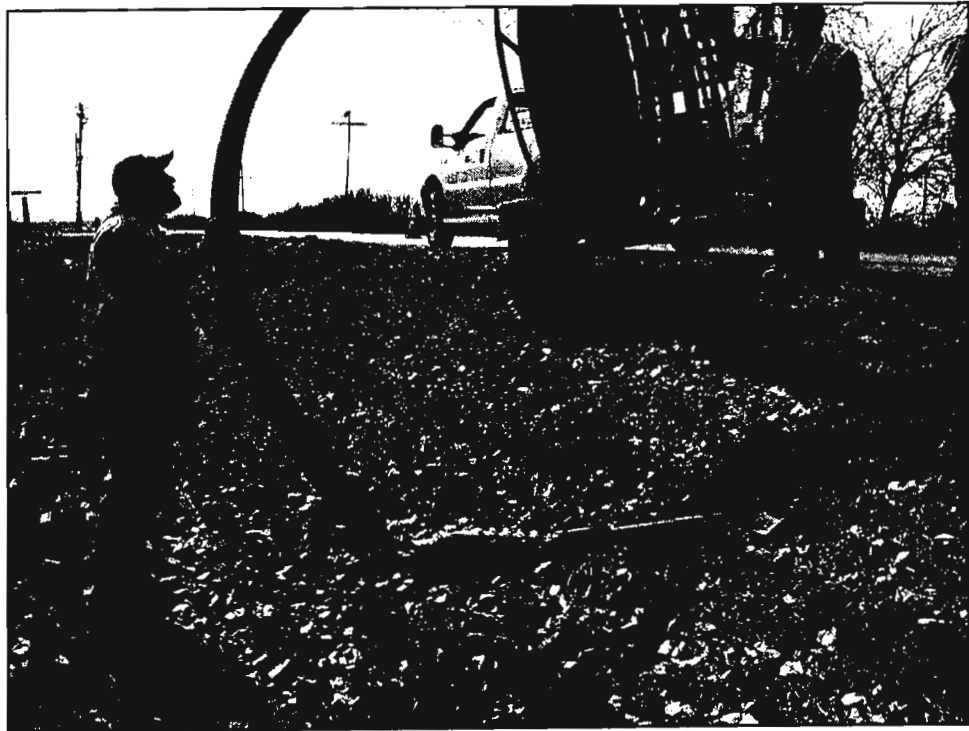
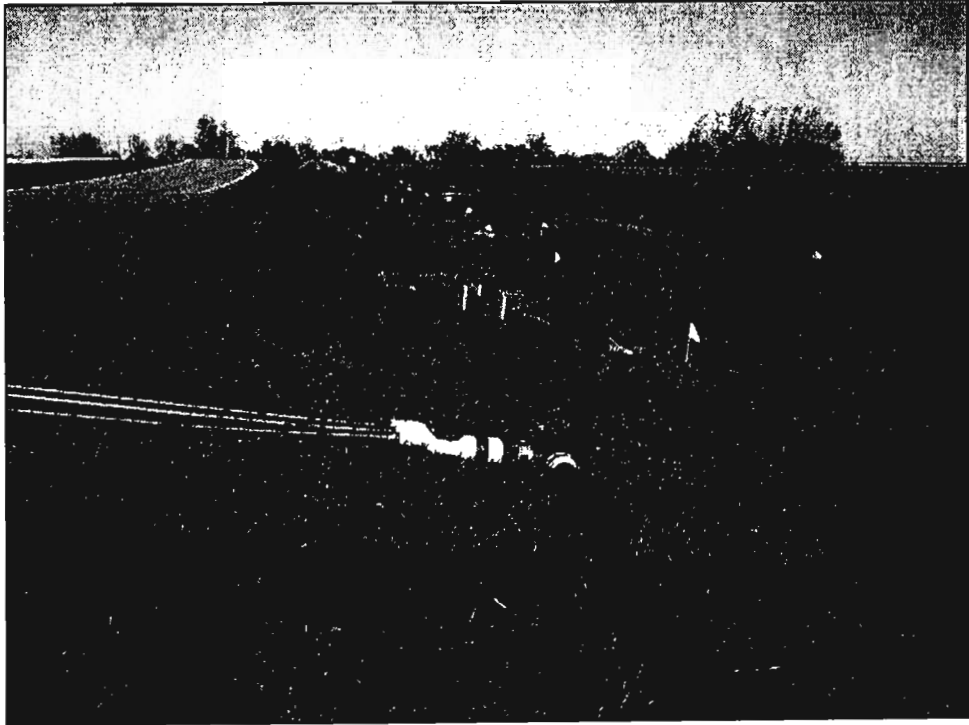
- Site Status
  - Remedy in place
    - Remedial action operation
- FY08 Remedial Action-Operation Activities
  - Semiannual plume groundwater monitoring
  - Quarterly performance monitoring of source, base boundary and distal plume IRT zones
  - Reinforcement of shallow TCE IRT zone through injection of additional biostimulant
  - Complete fate and transport model for plume
    - Illustrate plume stability
    - Predict effectiveness of remedy
    - Develop estimates for achieving MCL through off-base portion of VC plume

## OLD JET ENGINE TEST STAND



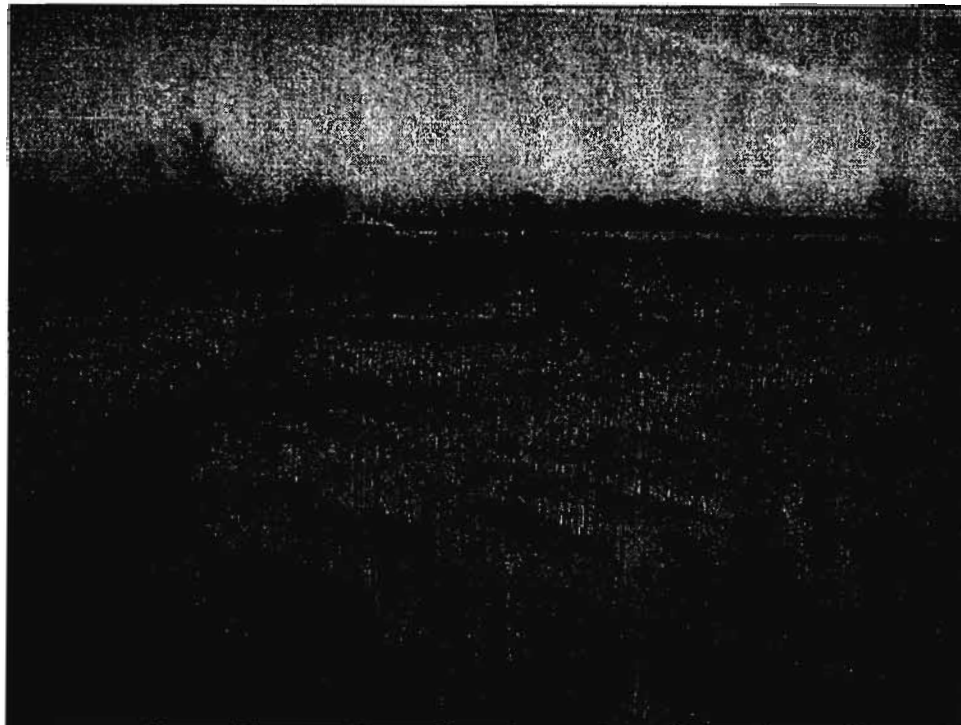










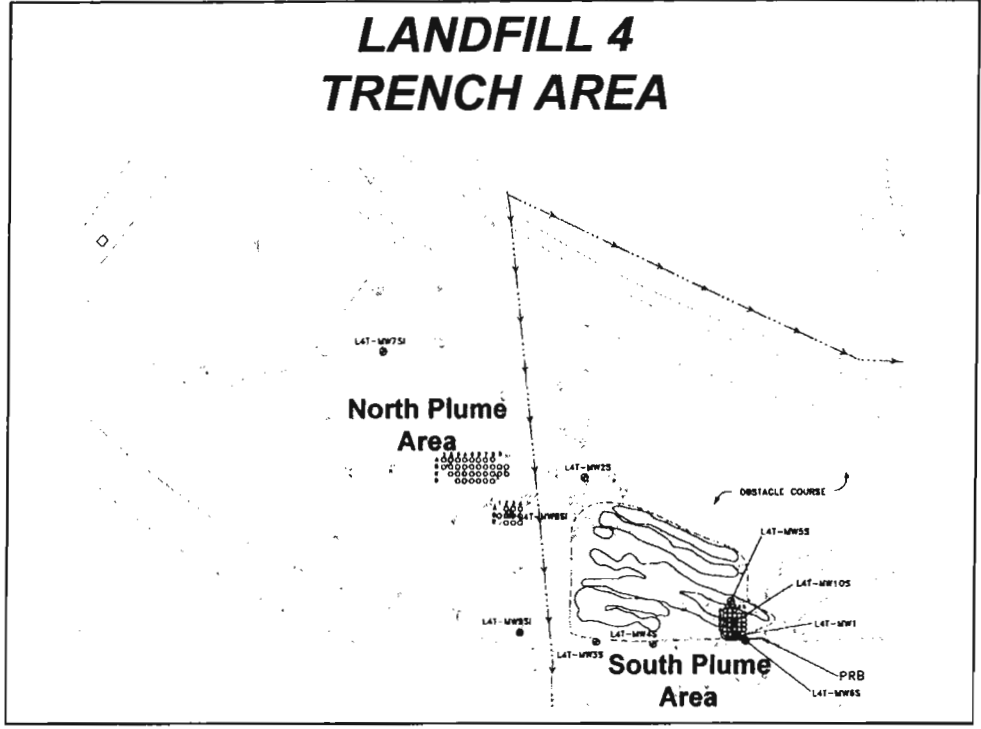


## **LANDFILL 4 TRENCH AREA**



- **Site Status**
  - SOB and Public notice completed
    - No comments were received
  - EPA to modify RCRA permit to specify final remedy
    - Includes in-situ bioremediation and MNA
- **FY08 Remedial Action-Operation Activities**
  - Annual plume monitoring of southern plume
  - Quarterly performance monitoring of northern and southern plume IRT zones
  - Landfill inspection

# LANDFILL 4 TRENCH AREA



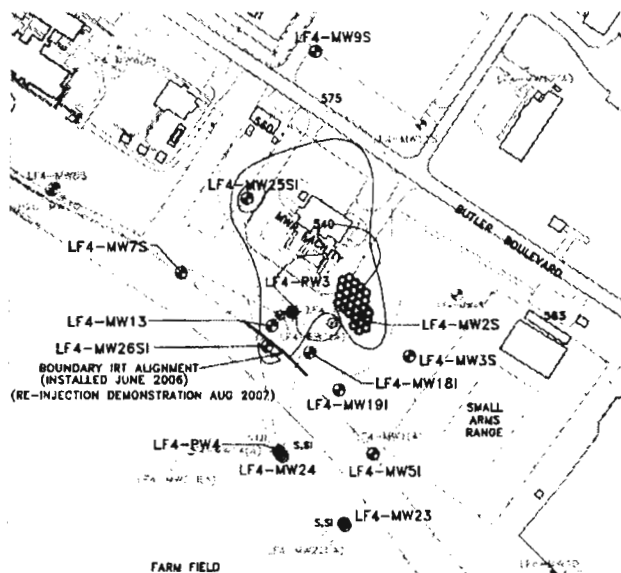


## LANDFILL 4



- Site Status
  - Development of Statement of Basis in progress
- FY08 Remedial Action-Operation Activities
  - Annual plume monitoring
  - Quarterly performance monitoring of IRT and ISCO zones
  - Reinforcement of base boundary IRT zone through injection of additional biostimulant
  - Conduct inspections, water level measurements, and quarterly sampling of hydraulic containment wells and effluent

## LANDFILL 4





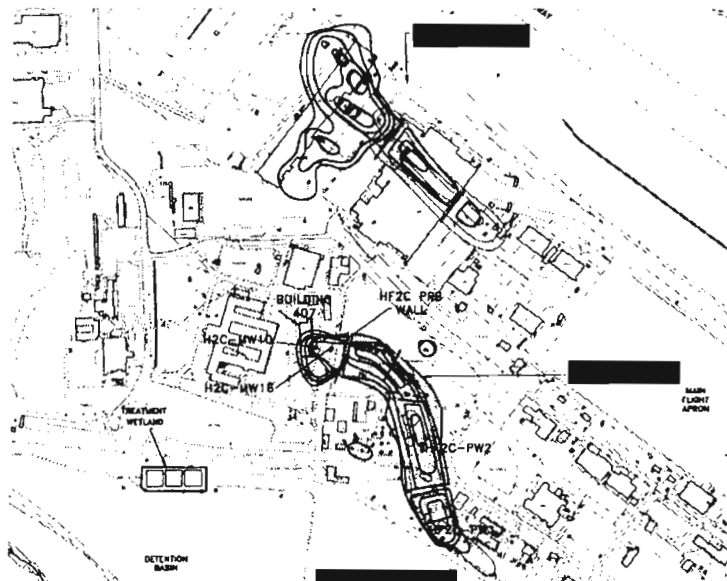


## HARDFILL 2 COMPOSITE

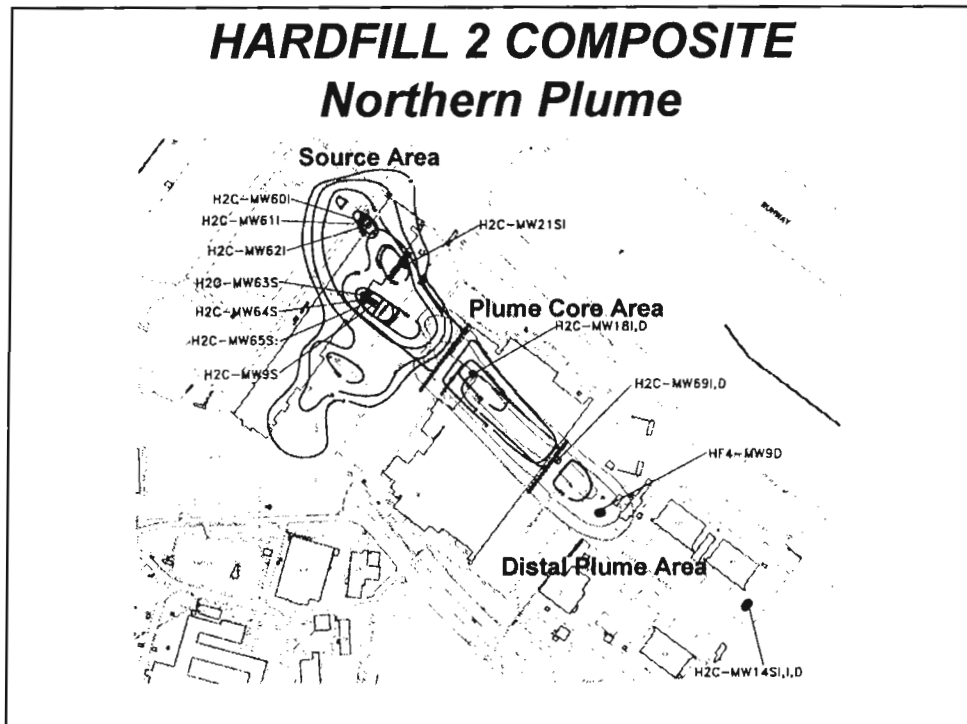


- Site Status
  - SOB and Public notice completed
    - No comments were received
  - EPA to modify RCRA permit to specify final remedy
    - Includes in-situ bioremediation, dual-phase extraction, hydraulic containment, and MNA
- FY08 Remedial Action-Operation Activities
  - Annual plume monitoring
  - Quarterly performance monitoring of northern and southern plume IRT zones
  - Reinforcement of select northern and southern IRT zones through injection of additional biostimulant
  - Monitoring of southern plume source area
    - Determine if additional operation of dual-phase extraction is warranted
  - Continue inspections and sampling of hydraulic containment system
  - Continue inspections and maintenance of constructed wetlands

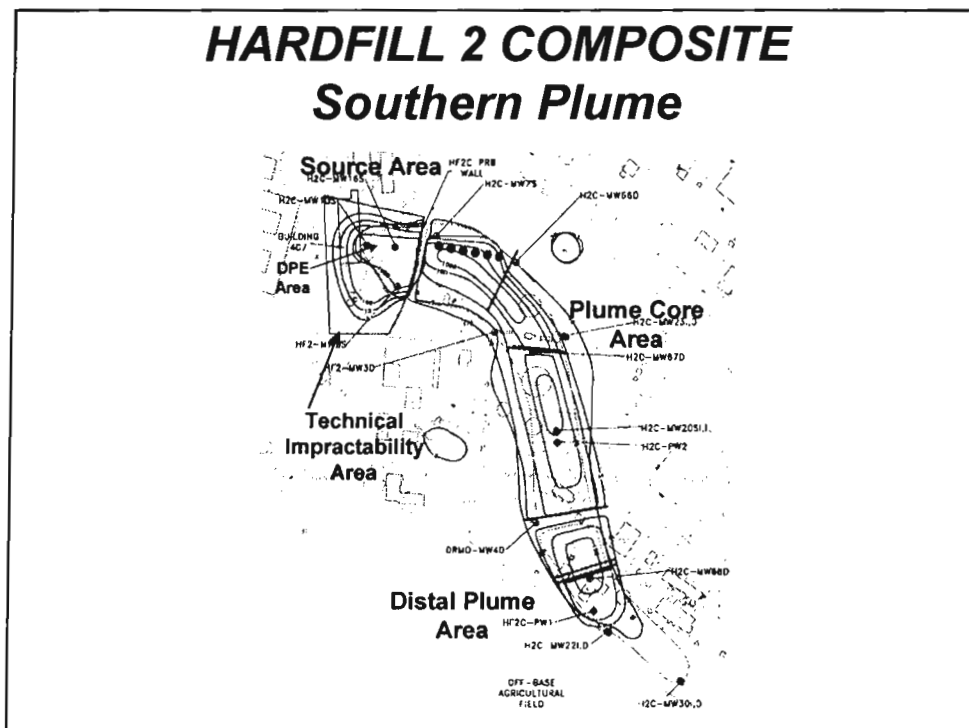
## HARDFILL 2 COMPOSITE

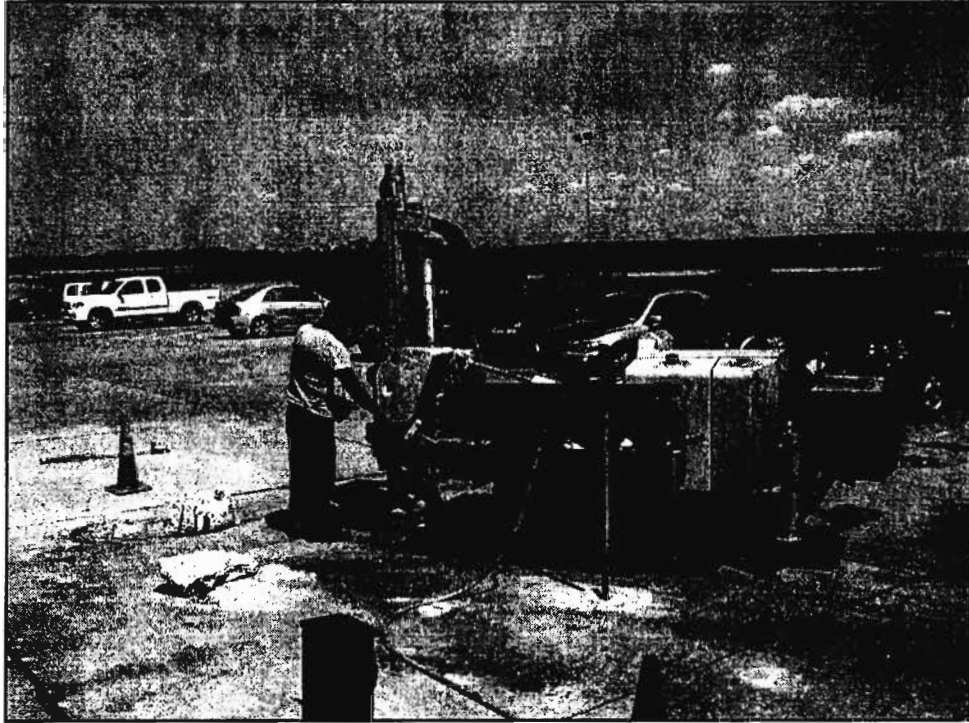


## HARDFILL 2 COMPOSITE Northern Plume



## HARDFILL 2 COMPOSITE Southern Plume







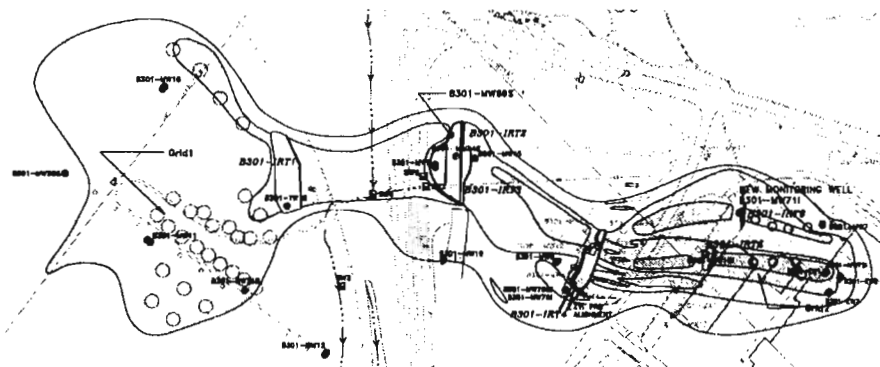


## BUILDING 301

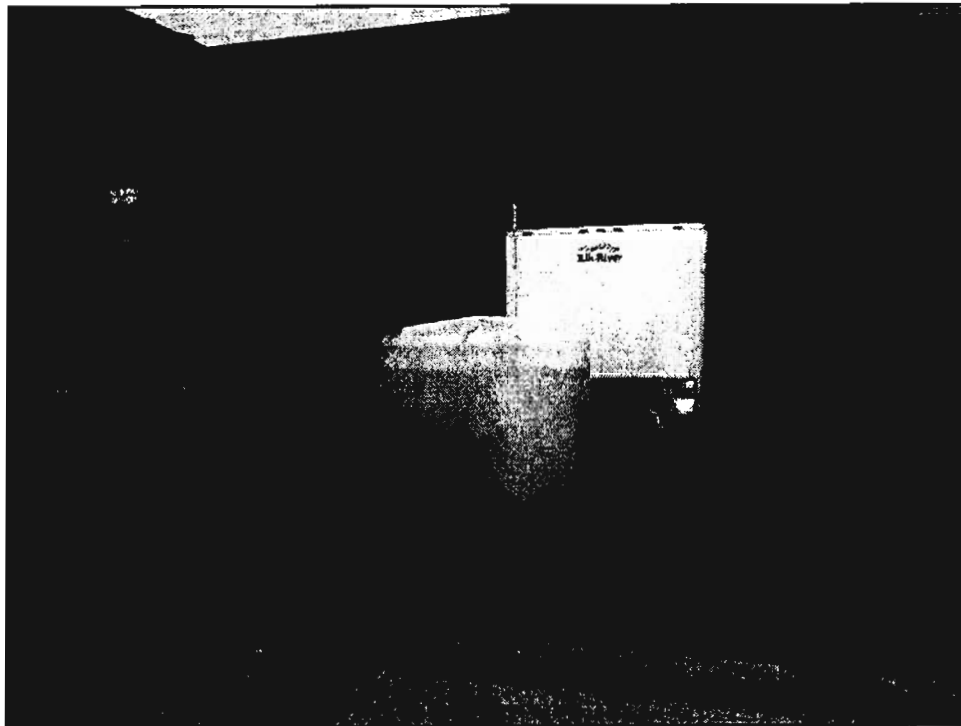
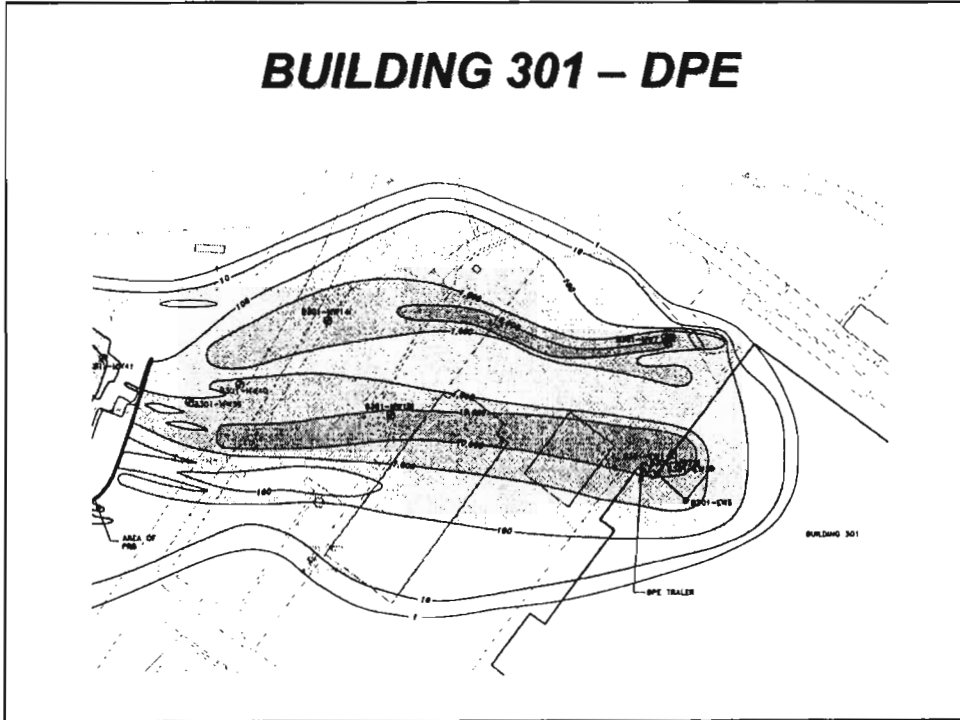


- Site Status
  - Development of Statement of Basis in progress
- FY08 Remedial Action-Operation Activities
  - Semiannual and annual plume monitoring
  - Quarterly performance monitoring of source, base boundary, and distal plume IRT zones
  - Enhancement of source, base boundary, and distal plume IRT zones through injection of additional biostimulant
  - Continued operation of dual-phase extraction system within soil source area
  - Submit request to reduce frequency of natural attenuation monitoring

## BUILDING 301



# BUILDING 301 – DPE

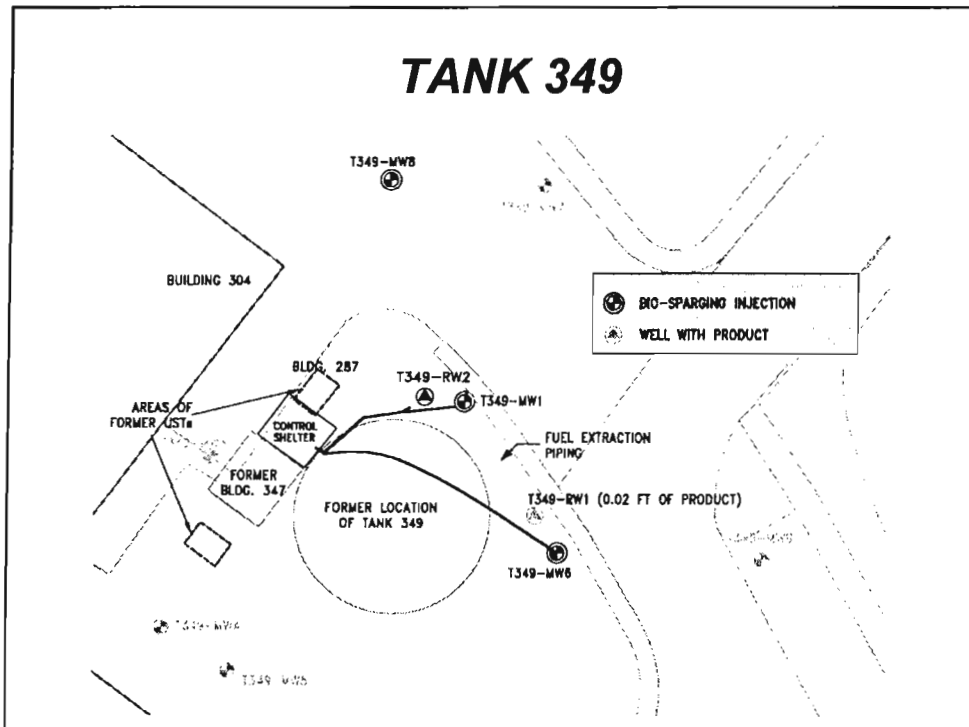


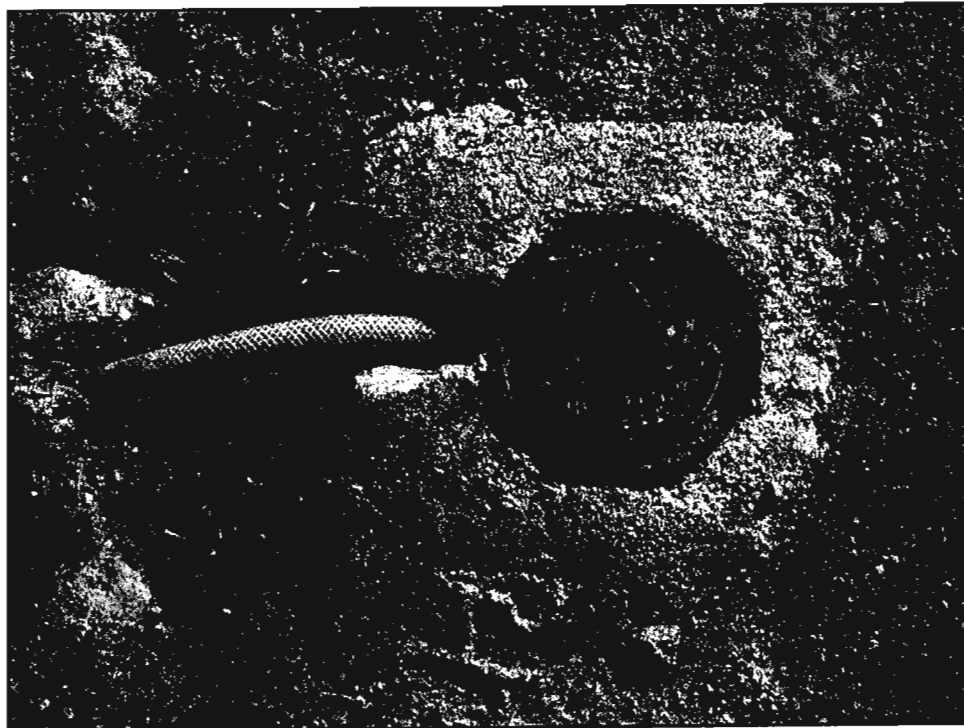
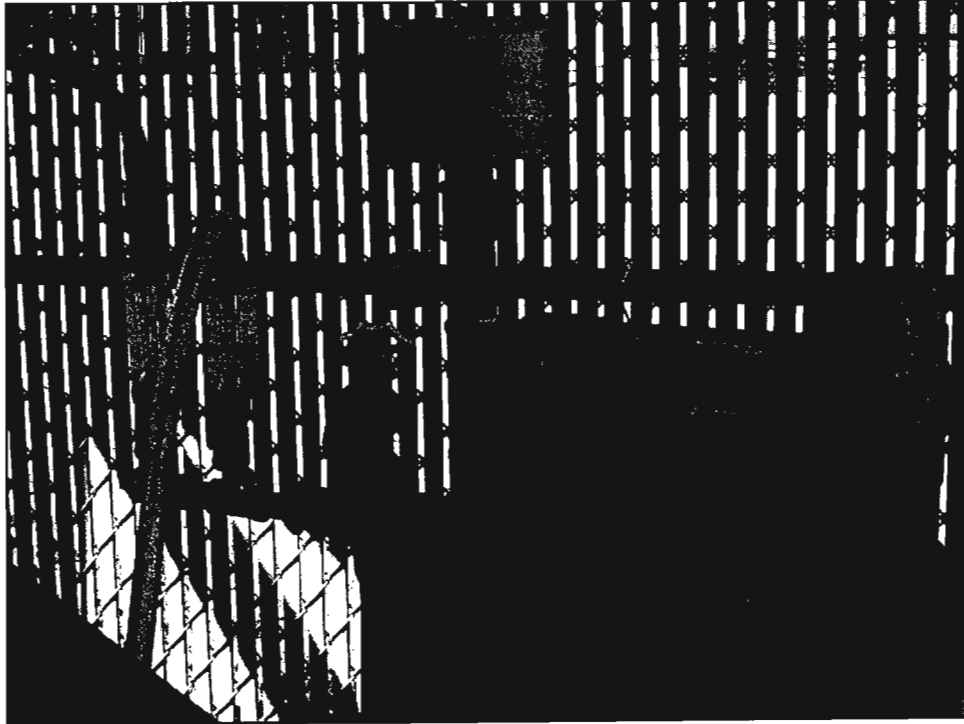


# TANK 349



- Site Status
  - Tier II report in NDEQ review
- FY08 Remedial Action-Operation Activities
  - Continue operation of Biosparging system
  - Continue removal of remaining free phase product
  - Petition NDEQ for site closure



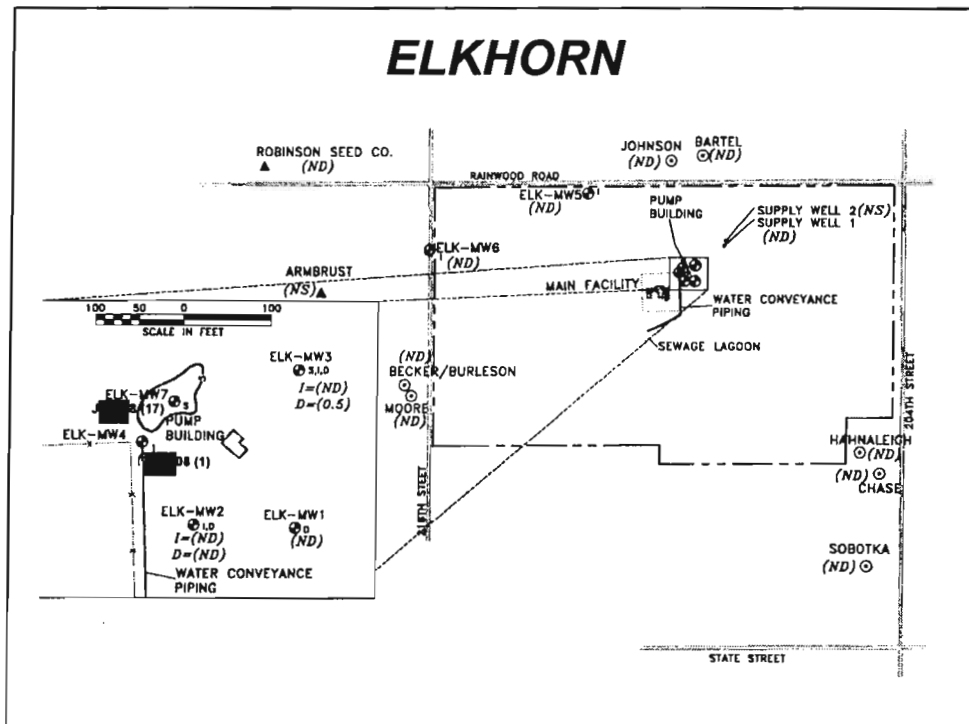


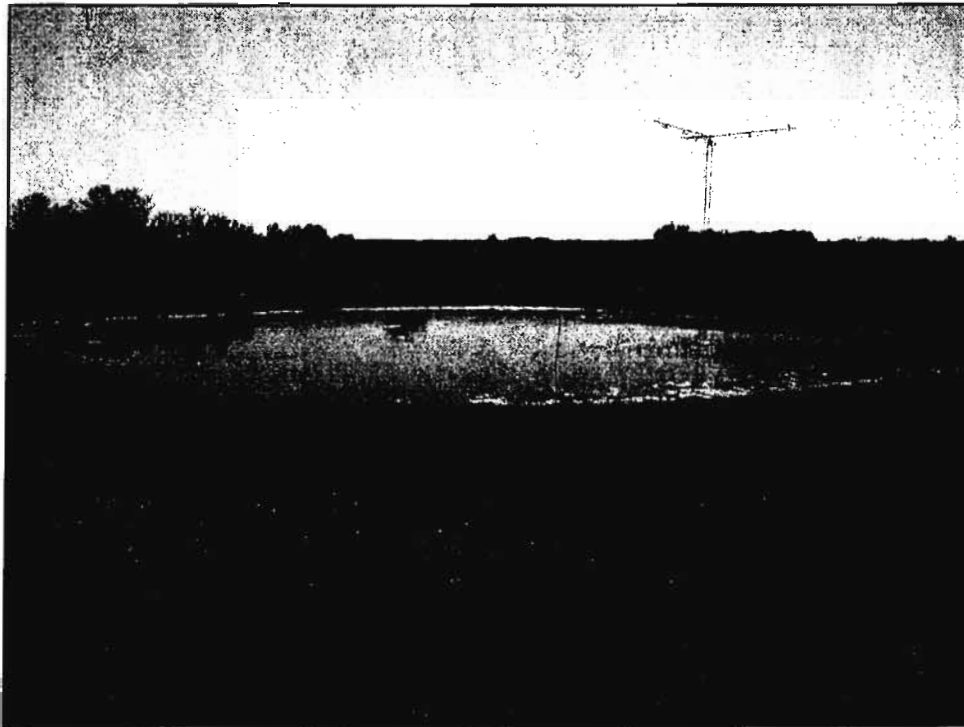


# ELKHORN



- Site Status
  - Remedial Action Plan finalized in Feb 08
    - Remedy complete
- FY08 Activities
  - Currently voluntarily pumping one well (ELK-MW7S)





**QUESTIONS?**

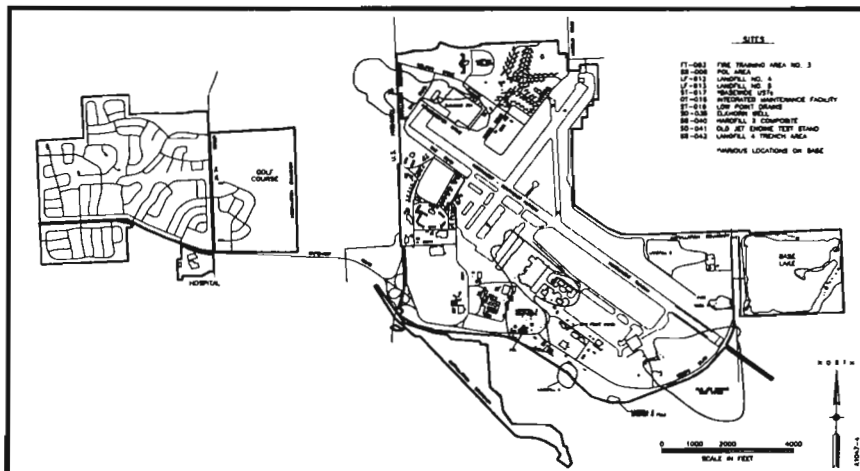
***NEXT RAB MEETING***

**TUESDAY, 9 SEPTEMBER 2008 (TENTATIVE)**

**3:00 – 4:00 P.M.**

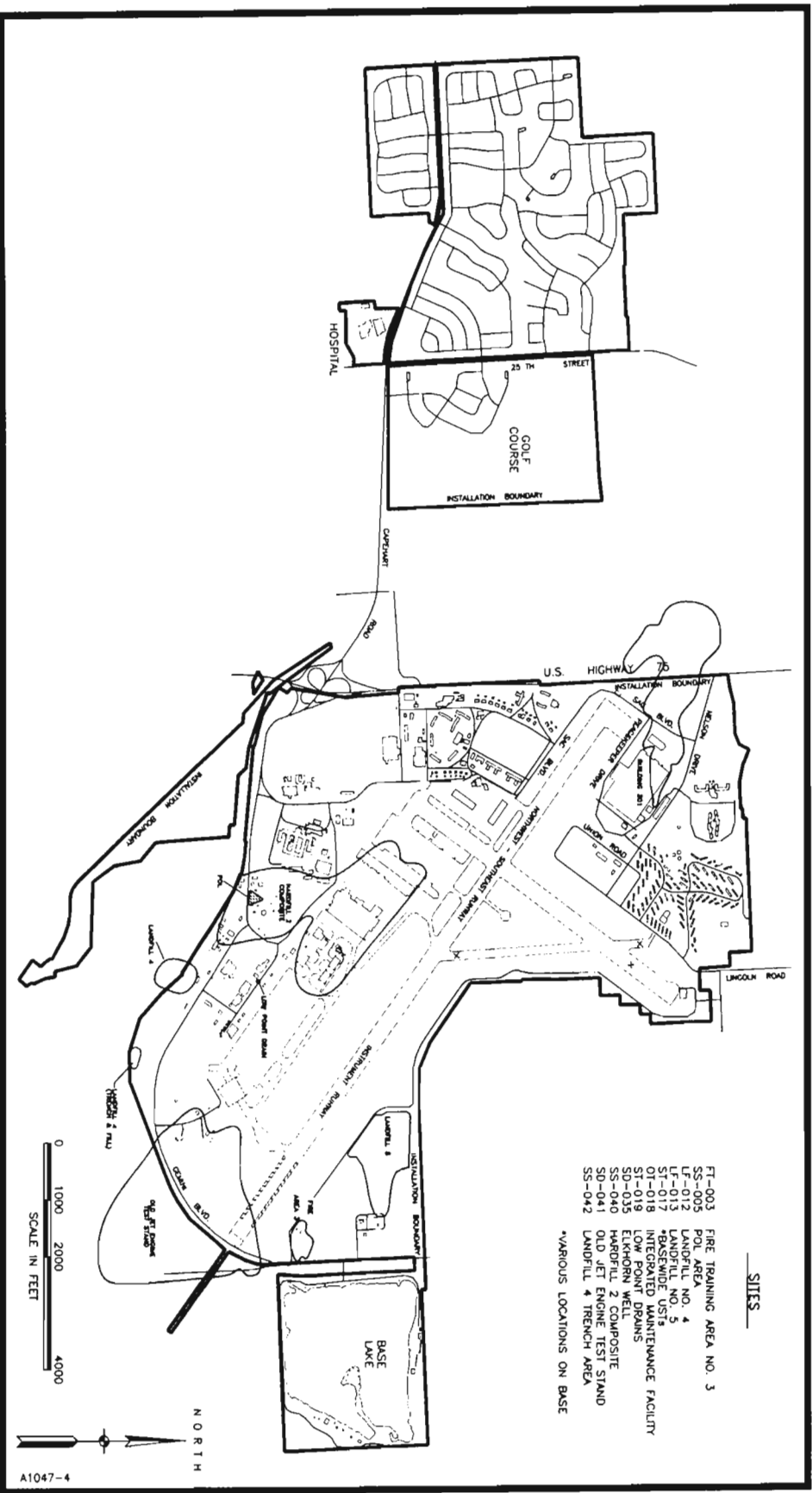
**BELLEVUE PUBLIC SCHOOLS WELCOME CENTER**

# OFFUTT ERP SITES





# OFFUTT ERP SITES



## DISTRIBUTION LIST

Mr. Jeff Johnson  
Environmental Protection Agency, Region VII (ARTD/RCAP)  
901 N. 5<sup>th</sup> Street  
Kansas City KS 66101

Ms. Stacey Stricker  
Nebraska Department of Environmental Quality  
Suite 400, The Atrium  
1200 N. Street  
P.O. Box 98922  
Lincoln NE 68509-8922

Mr. David Petrocchi  
City of Bellevue  
210 W. Mission Ave.  
Bellevue NE 68005

Mr. Joe Cascio  
4410 Maass Rd.  
Bellevue NE 68123-1129

Mr. David Falt  
Falt Fisheries, Inc.  
1000 Cunningham Road  
Bellevue NE 68005

Mr. William Falt  
Falt Fisheries, Inc.  
5424 S. 24<sup>th</sup> St.  
Omaha NE 68107-4426

Mr. Steve Hurlbutt  
17615 S. Highway 50  
Springfield NE 68059-4830

Ms. Rita Hurlbutt  
13105 Jennifer St.  
Springfield NE 68059-5894

Mr. Dave Koukol  
8712 W. Dodge Rd., Suite 400  
Omaha NE 68114-3431

Mr. Bob Kuzelka  
University of Nebraska Water Center  
504 Hardy Hall  
3310 Holdrege  
Lincoln NE 68583-0995

Mr. John Ott  
1602 Elm Street  
Bellevue NE 68005

Mr. Frank Prucka  
10627 Martha St.  
Omaha NE 68124-1845

Mr. John Poore  
17628 Allis Rd.  
Council Bluffs IA 51503-6478

Ms. Christine Rojko  
HQ AFCEE/EXEC  
3300 Sidney Brooks  
Brooks City-Base TX 78235-5112



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 55TH WING (ACC)  
OFFUTT AIR FORCE BASE NEBRASKA

25 JUL 2006

55 CES/CERR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

Frank Prucka  
10627 Martha Street  
Omaha, NE 68124-1845

Dear Mr. Prucka

Right of Entry, USAF-ACC-SGBP-9-06-007 will authorize the United States Air Force to conduct soil and groundwater sampling on your property. The initial sampling will take place after the Fall harvest of 2006. You will be contacted by an Air Force representative seven (7) calendar days before the sampling commences. Right of Entry, USAF-ACC-SGBP-9-06-007, will be effective for a period of five years beginning 1 October 2006 and ending 30 September 2011. During that period, Air Force representatives will, with prior notification, enter your land approximately 2-3 times a year to conduct environmental field work. These samples will be taken before planting season begins, and after the crops are harvested.

Enclosed you will find 2 copies of the proposed Right of Entry. If you concur with the terms, please sign both copies and return them to our office. We will then obtain the appropriate Air Force signature and return a copy for your records. Thank you for your support.

If you have any questions please call, Leland Livingston at 402-294-7618.

  
BARBARA J. KRIMMINGER  
Chief, Real Estate Management

Attachment:  
Right of Entry USAF-ACC-SGBP-9-06-007

*Global Power for America*



**DEPARTMENT OF THE AIR FORCE**

**HEADQUARTERS 55TH WING (ACC)  
OFFUTT AIR FORCE BASE, NEBRASKA**

**SEP 27 2006**

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Meeting Minutes of the Offutt AFB Environmental Restoration Program (ERP)  
Restoration Advisory Board (RAB), 5 September 2006

1. Place: Bellevue Public Schools Welcome Center, Hwy 75 & Hwy 370, Bellevue NE
2. Date/Time: 5 September 2006/3:00 - 4:00 p.m.
3. Co-Chairmen: Lt Col Barry Beard/Mr. John Ott
4. RAB Members Present: Mr. Philip Cork, 55 CES/CEVR  
Mr. Jeff Johnson, USEPA Region VII  
Ms. Melissa Kemling, NDEQ  
Mr. John Ott, Local Citizen

Other Attendees: Lt Col Barry Beard, 55 MSG/CD  
Lt Col Phillip Moessner, 55 CES/CC  
Lt Col Julie Ziegenhorn, 55 WG/PA  
MSgt Tracy Reed, 55 WG/PA  
Ms. Debbie Aragon, 55 WG/PA  
Ms. Jean Coburn, 55 CES/CEVR  
Mr. Dave Falt, Local Citizen  
Mr. Kevin Howe, USACE (Omaha)  
Mr. Denny Jorgenson, URS Corp  
Mr. Ed Lueninghoener, 55 CES/CEV  
Mr. Bob Mallisee, URS  
Mr. Dave Overbey, URS  
Mr. Frank Prucka, Local Citizen  
Mr. Jesse Schraft, 55 WG/JA  
Ms. Dawn Stock, URS

5. Lt Col Barry Beard, 55 MSG/CD, chaired the September RAB meeting for Col Curtiss Petrek, 55 WG/CV. Mr. Cork began the meeting with introductions and provided a briefing on the following topics:

***Global Power for America***

- a. Landfill 5: Landfill 5 is the most recently active site on the base. The site was capped with impervious material covered with soil and buffalo grass. Annual activities include plume stabilization monitoring, maintenance, and grounds work. As of now, the plume remains stable and no further remedial action is required. Mr. Ott asked if the plume still remained on base. Mr. Cork stated the plume had never migrated beyond the base boundary and still remains on base. Mr. Cork added that the plume appears to be retracting somewhat and that the Chlorinated Aliphatic Hydrocarbons (CAHs) are below Maximum Contaminant Levels (MCLs). There has been some ponding on the site and piping is being run to take the water off the top of the landfill.
- b. Hardfill 6: Mr. Cork stated this site was the former rubble pile located near Harlan Lewis Drive. This rubble pile was created during a runway keel project. It is possible some other items had been disposed of at the site. The rubble pile was removed and sampling was conducted throughout the removal process. After the pile was removed, some additional excavation was required to remove the soil source. With the additional excavation, Offutt should be able to achieve remediation goals. The draft Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) report was submitted to EPA. After receiving approval on this report, Offutt would like to begin the site closeout process. A small petroleum hydrocarbon plume at the site will be managed with the Fire Training Area 3 site.
- c. Fire Training Area 3: Groundwater monitoring at the site indicates the Vinyl Chloride (VC) plume does extend further downgradient than originally believed. The EPA approved a remedy update for the site to include biosparging. The biosparging system is intended to attack the on-base source. Offutt is seeking EPA approval to reduce groundwater sampling from annual to biennial. Offutt received EPA final decision on response to comments for the Statement of Basis and Final RCRA Permit Modification.
- d. Old Jet Engine Test Stand: Currently conducting groundwater monitoring for natural attenuation. Also, conducting sampling to verify the stability of the VC concentrations in the southern portion of the off-base plume. The leading edge of the plume extends toward Falt Fisheries. Offutt is mandated to keep the plume from migrating any further downgradient. Offutt personnel are working with adjacent property owners to obtain rights of entry onto their properties to gather additional data required to design an *in situ* reductive treatment (IRT) zone. The sampling on these properties would be planned in the spring before planting and the fall after harvest. The off-base residents were connected to the City of Omaha water system; however, there is some concern that some of the wells have not been abandoned. Lt Col Moessner asked if off-base residents were using wells, wouldn't it contribute to contamination being pulled off base. Mr. Cork stated that it is possible; however, the wells are very low capacity and pumping would have little impact on plume movement. It should also be noted that any contamination from these wells would volatilize very quickly and likely cause no health problems. Offutt environmental and legal personnel are working to provide a deed restriction to prevent off-base residents from installing drinking water wells outside of the runway clear zone.
- e. Landfill 4 Trench Area: Mr. Cork stated this site was discovered while trying to locate a landfill near the same area. A Surface Towed Ordnance Locating System (STOLS) was used at the site, which discovered trench areas; therefore the site was named Landfill 4 Trench Area. Currently, groundwater monitoring is being conducted at the site for natural attenuation. In order to meet Performance Based Contract (PBC) goals, the EPA has approved a remedy update to include IRT zones. The IRT zones have been installed and are being used to remediate contamination in the northern and southern plume hot spots. Offutt Security Forces asked if a portion of the fence around this site could be removed so they could use a portion of the area for training. With EPA

concurrence and some land use control signage, Security Forces will be able to use the site. The land use control measures will be included in the Security Forces Operating Instruction (OI) so all personnel will be briefed on the restrictions for use of the area.

f. Landfill 4: The EPA has approved a remedy update for this site to include injection of potassium permanganate and vegetable oil to reduce concentrations. Offutt worked with the NDEQ to approve injection of potassium permanganate at the site. The potassium permanganate is being injected in the high concentration source area and the vegetable oil injections will be used in the remaining contaminated areas. A performance monitoring well was installed on base property just outside the base boundary fence line.

g. Hardfill 2 Composite: A Zero Valent Iron (ZVI) wall has been installed at the site. Currently conducting performance monitoring for Monitored Natural Attenuation (MNA) and the ZVI Permeable Reactive Barrier. Injection of Newman Zone vegetable oil has been completed at the northern plume. Initial sampling indicates favorable results. The constructed wetland is receiving effluent from the Landfill 4 and Hardfill 2 Composite sites. The wetland is treating all of the pumped groundwater, eliminating effluent being sent to the City of Omaha Publicly Owned Treatment Works. The NDEQ approved a reduction in wetland discharge sampling from monthly to quarterly. The EPA approved a remedy update to include: installation of IRT zones in distal area and southern plume core, installation of IRT zones in the core of the northern plume, and installation of 5 performance wells. The draft Dual-Phase Extraction Corrective Measures Implementation Plan (CMIP) for Building 407 is in review and Offutt expects to install the system this fall.

h. Building 301: Currently conducting groundwater monitoring for natural attenuation and ZVI performance monitoring. A Permeable Reactive Barrier (PRB) was installed in the area of highest concentration. The Final Building 301 Soil Source Zone Investigation Work Plan has been approved. Installation of the IRT zones in the source area and south of the ZVI PRB will begin this fall. There appears to be some contamination bypassing the southern end of the wall. It is likely vegetable oil will be injected to treat the TCE "finger". The EPA indicated final remedy at this site needs to meet MCLs at and downgradient of ZVI PRB alignment unless Offutt can prove that it is technically impractical to treat all or a portion of the plume. Mr. Schraft asked if a source of the contamination had ever been determined. Mr. Cork said there had been several different operations, including chemical vats, acid pits, etc., in Building 301; however, a source has never been determined. Mr. Schraft asked when these activities occurred. Mr. Cork stated it was probably during the 1940's, but historical documents were not definitive.


i. Tank 349: Offutt will continue product removal until there is no measurable product thickness. When this occurs, Offutt will request site closeout from NDEQ.

j. Elkhorn: Continuing annual sampling of on-site wells and nearby private wells which continue to be non-detect. Offutt requested formal documentation from NDEQ that remedial action is complete. Offutt evaluated the feasibility of using a monitoring well as a pumping well. This pumping began in July. Offutt requested approval from NDEQ to reduce groundwater monitoring to biennial beginning in 2007.

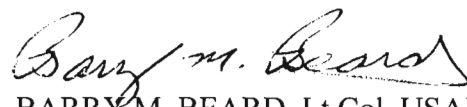
k. Open Discussion: Mr. Falt asked how fast the OJETS plume was moving. Mr. Cork stated it was difficult to determine the distance the plume is moving per year. The water movement can be

determined, however, there are too many factors retarding the movement of contamination to tell for sure. Mr. Jorgenson did state that this plume had moved to its current point over a period of about 50 years.

6. Mr. Cork thanked everyone for taking time to attend the RAB. The next RAB meeting will be Tuesday, 5 March 2007, 3:00-4:00 p.m., at the Bellevue Public Schools Welcome Center.

  
PHILIP E. CORK  
Recorder

Approved as written

  
BARRY M. BEARD, Lt Col, USAF  
Deputy Commander, 55th Mission Support Group

3 Attachments:

1. RAB Presentation
2. ERP Site Map
3. Distribution List



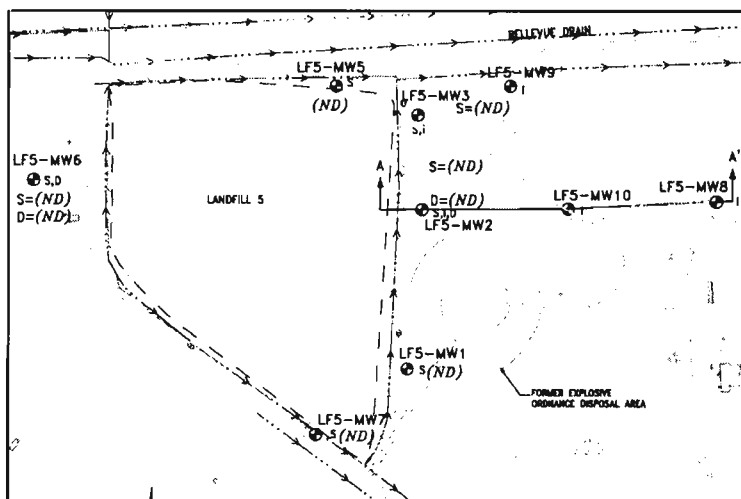


## LANDFILL 5



- Site status is currently RCRA long-term monitoring
- FY06 Activities
  - Completed 2006 biennial groundwater monitoring
    - CAH concentrations remained below MCLs
  - Completing site inspections, maintenance, and required grounds work

## LANDFILL 5



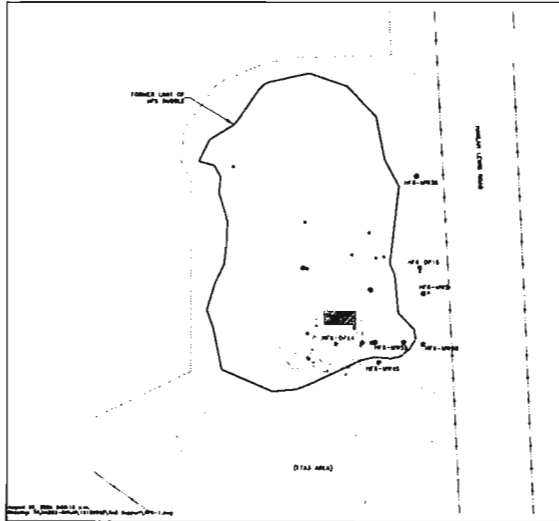


## ***HARDFILL 6***



- **FY06 Activities**
  - **Monitor groundwater for VOC analysis**
  - **Contaminated soil was excavated from north side of previously excavated area**
    - **Results indicated no remaining soil contaminated above EPA residential preliminary remediation goals**
  - **Submitted draft RCRA Facility Investigation (RFI) report**
  - **Seek EPA/NDEQ concurrence that remedy is complete**
  - **Prepare Statement of Basis outlining rationale for no further action**
  - **Associate the small petroleum hydrocarbon groundwater plume with the FT-03 site**

# HARDFILL 6



# HARDFILL 6



## ***HARDFILL 6***



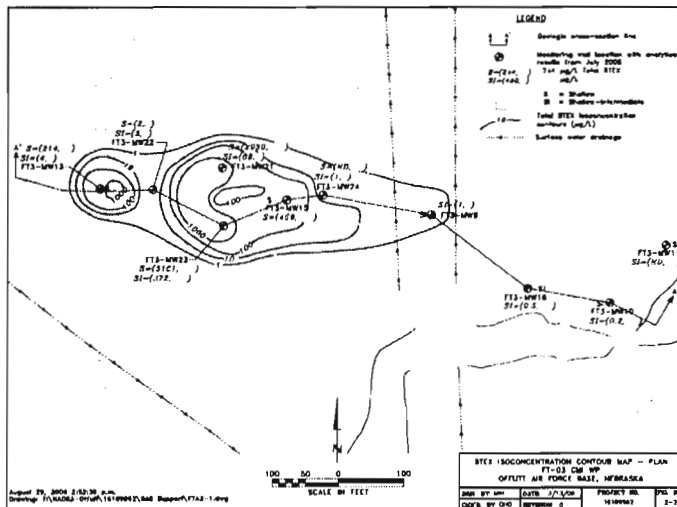


## ***FIRE TRAINING AREA 3***

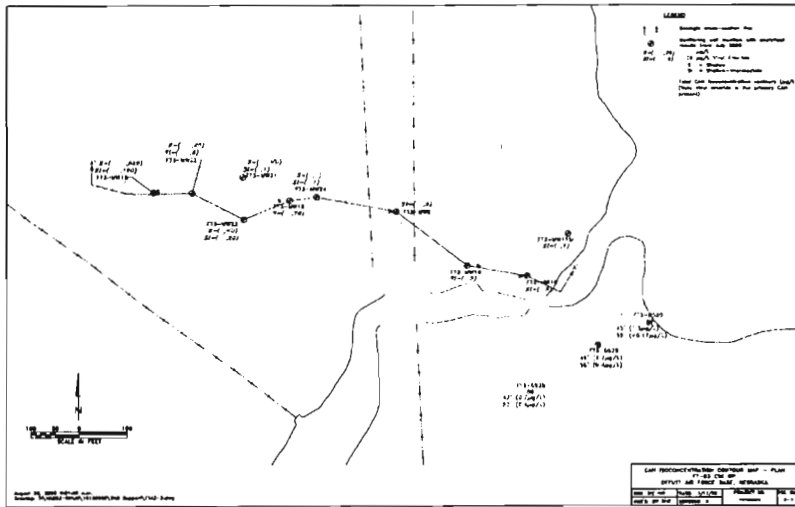


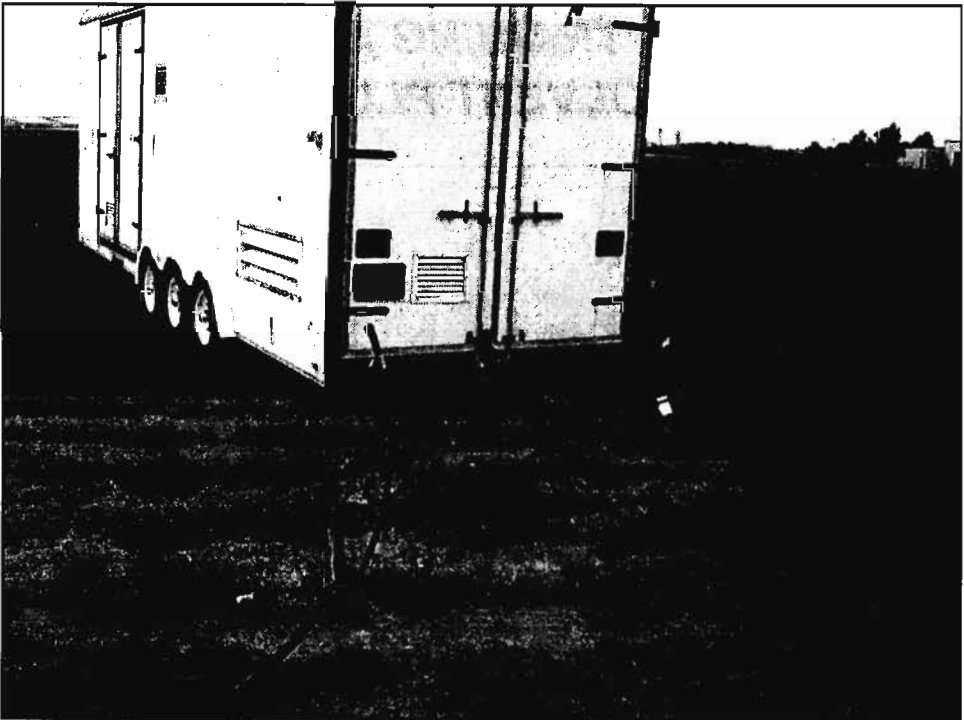
- **FY06 Activities**
  - Conducted groundwater monitoring for natural attenuation
  - Conducted groundwater sampling south of East Gate Drain to determine if VC plume extended further southeast
    - Results indicate plume does extend further downgradient
  - EPA approved remedy update for FT-03
    - Final Biosparging CMI Work Plan
  - Installed biosparging system and started performance operations and monitoring
  - Received EPA final decision on Response to Comments on FT-03 Statement of Basis and Final RCRA Permit Modification
  - Request EPA approval to reduce overall MNA groundwater sampling from annual to biennial beginning in 2007

# FIRE TRAINING AREA 3 BTEX PLUME



# FIRE TRAINING AREA 3 SOLVENT PLUME









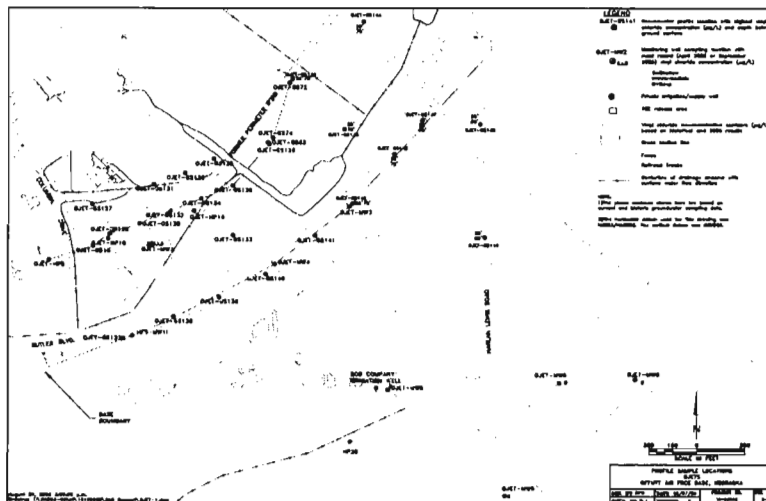


# OLD JET ENGINE TEST STAND

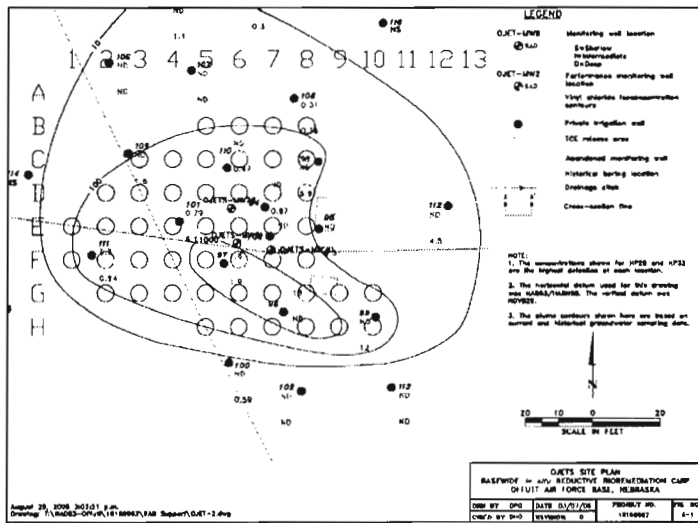


- **FY06 Activities**
  - Conduct groundwater monitoring for natural attenuation
  - Sampling conducted to verify stability of VC concentrations in southern portion of off-base plume
  - EPA approved remedy update for OJETS
  - Final OJETS Subsurface Investigation Work Plan
  - Final OJETS Plume Stabilization FFS
  - Working to obtain Rights of Entry for off-base properties
    - Access required to gather data required for design of in situ reductive treatment zone
  - Groundwater investigation implemented to better define suspected source of VC plume and to design treatment strategies
  - In situ reductive treatment zones expected to be installed this Fall to Early Winter
  - EPA requesting "government controls" to prohibit installation of drinking water wells outside of the clear zone

# OLD JET ENGINE TEST STAND

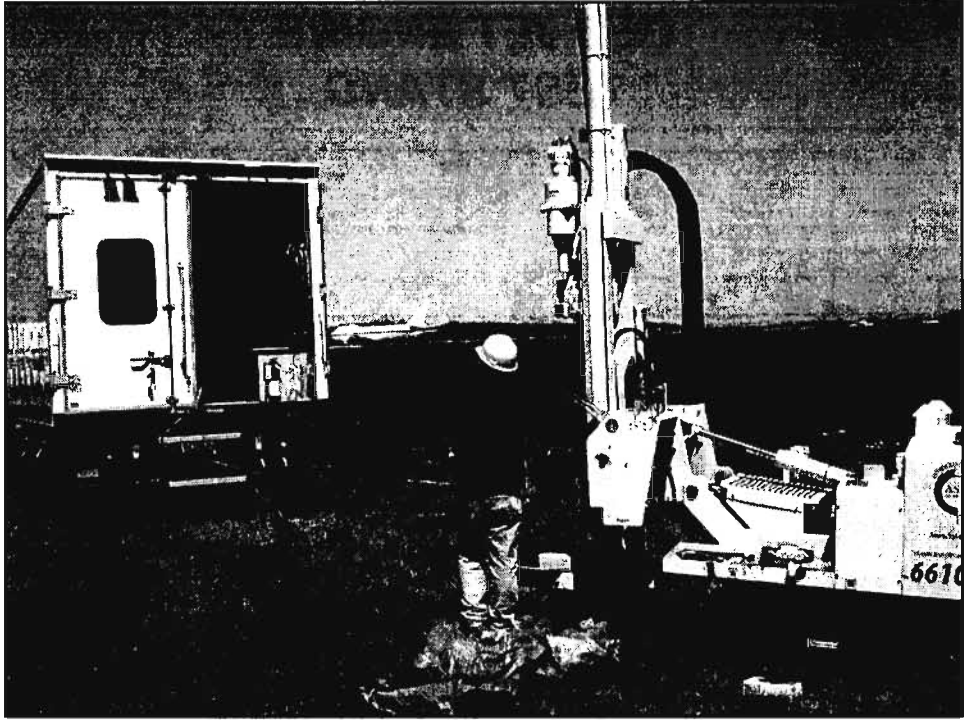


# OLD JET ENGINE TEST STAND



# OLD JET ENGINE TEST STAND







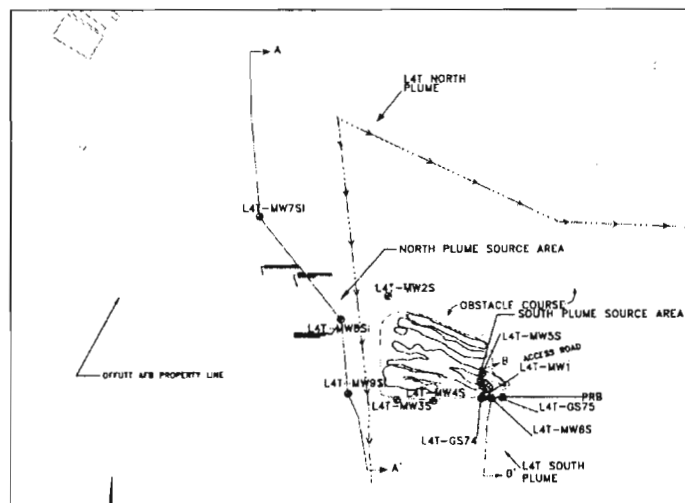
# LANDFILL 4 TRENCH AREA



- **FY06 Activities**

- Conduct groundwater monitoring for natural attenuation
- EPA approved remedy update for LF4TA
- Sampling conducted in northern plume to collect concentration data
  - Data used to finalize design prior to injection of IRT zones
- Annual inspection of land use controls, i.e., fencing, signs, and cover
- EPA approved land use control modification to allow use of the area by Security Forces for training
- Installed monitoring well within the southern plume source
- Installed IRT zones in both plumes
  - Performance monitoring of the in situ treatment to begin this Fall
- Draft Statement of Basis currently in review

# LANDFILL 4 TRENCH AREA







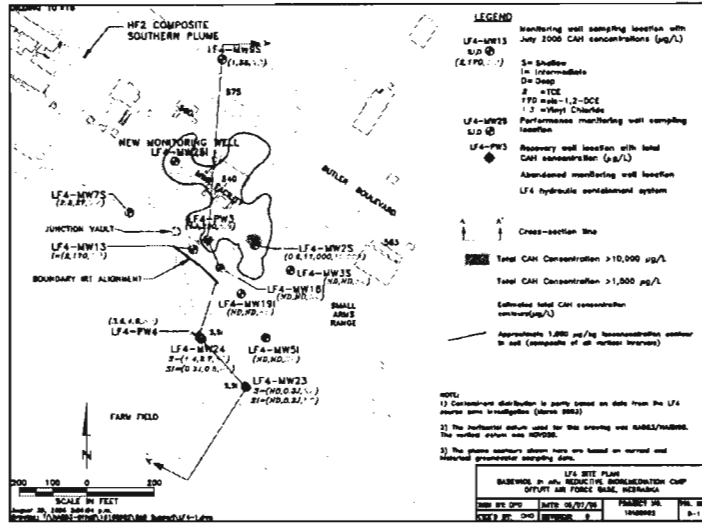
## **LANDFILL 4**



### **• FY06 Activities**

- Conduct groundwater monitoring for natural attenuation**
- Continue inspections of hydraulic containment system**
- EPA approved remedy update for LF4**
- NDEQ authorized potassium permanganate injection**
- EPA approved draft in situ chemical oxidation work plan**
- Installed IRT zones at the base boundary and at source areas**
- Installed performance monitoring well within source area near the dog kennel training facility**
- Installed performance monitoring well outside the base perimeter fence**
- Started installation of in situ oxidation treatment zone in the high concentration source area (potassium permanganate)**

# LANDFILL 4





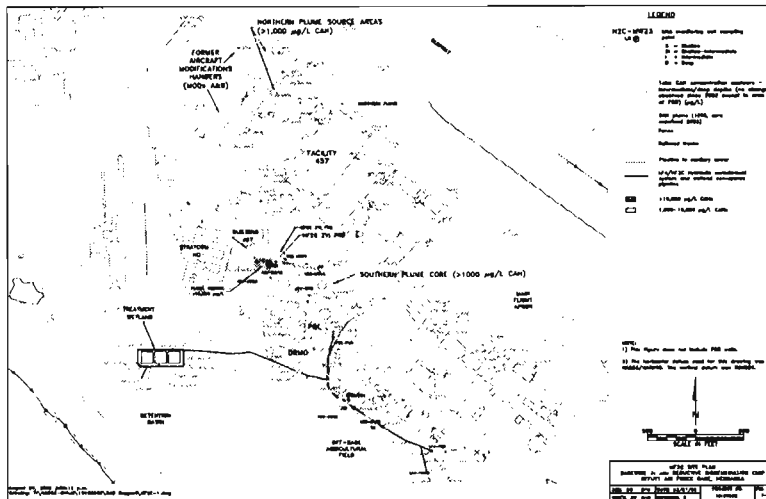
## ***HARDFILL 2 COMPOSITE***



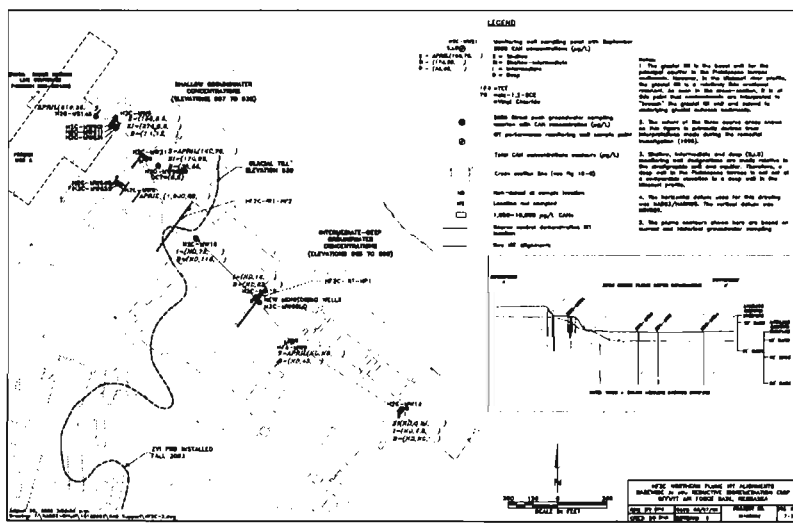
- **FY06 Activities**
  - Conducted groundwater monitoring for natural attenuation and ZVI PRB performance monitoring
  - Northern plume source area undergoing IRT demonstration
    - Results to date indicate successful reductive bioremediation
  - All groundwater pumped (total of about 75 gpm) from the LF4 and HF2C hydraulic containment system is being treated by the wetland
  - NDEQ approved reduction in wetland discharge sampling frequency from monthly to quarterly
  - Requested EPA approval of a reduction in MNA sampling frequency from semi-annual to annual
  - NDEQ approved reduction in wetland discharge sampling frequency from monthly to quarterly
  - EPA approved remedy update for HF2C
    - Installed IRT zones in the distal area and core of southern plume
    - Installed IRT zones in core of northern plume
    - Installed 5 performance wells
    - Draft Dual Phase Extraction CMI Plan for Building 407 is in review
      - Expect to install the system this Fall
  - Quarterly performance sampling of IRTs will begin this Fall

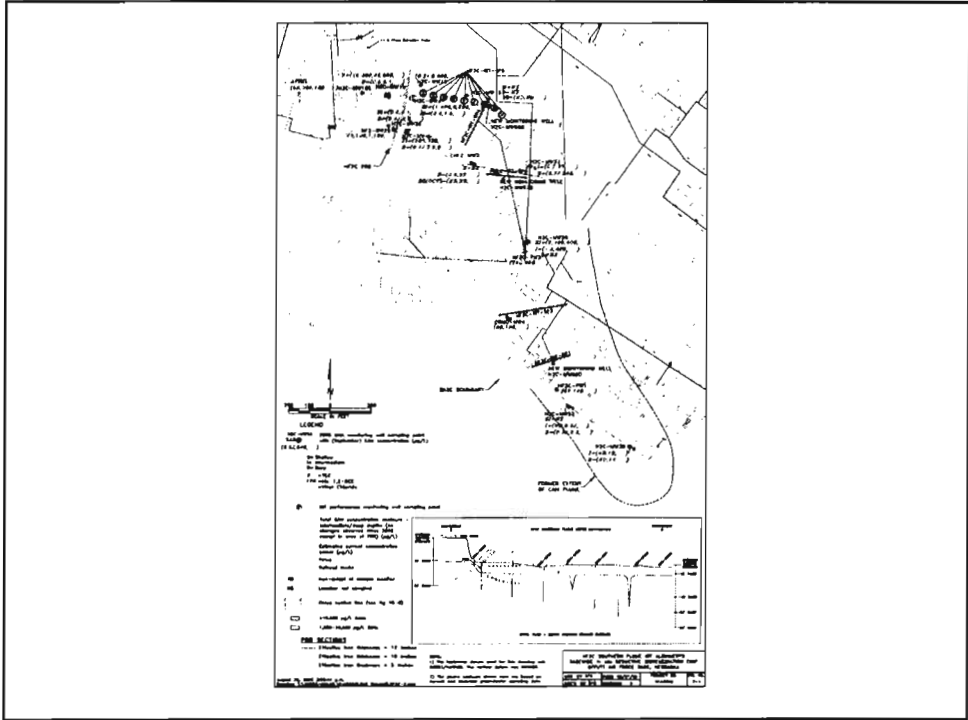


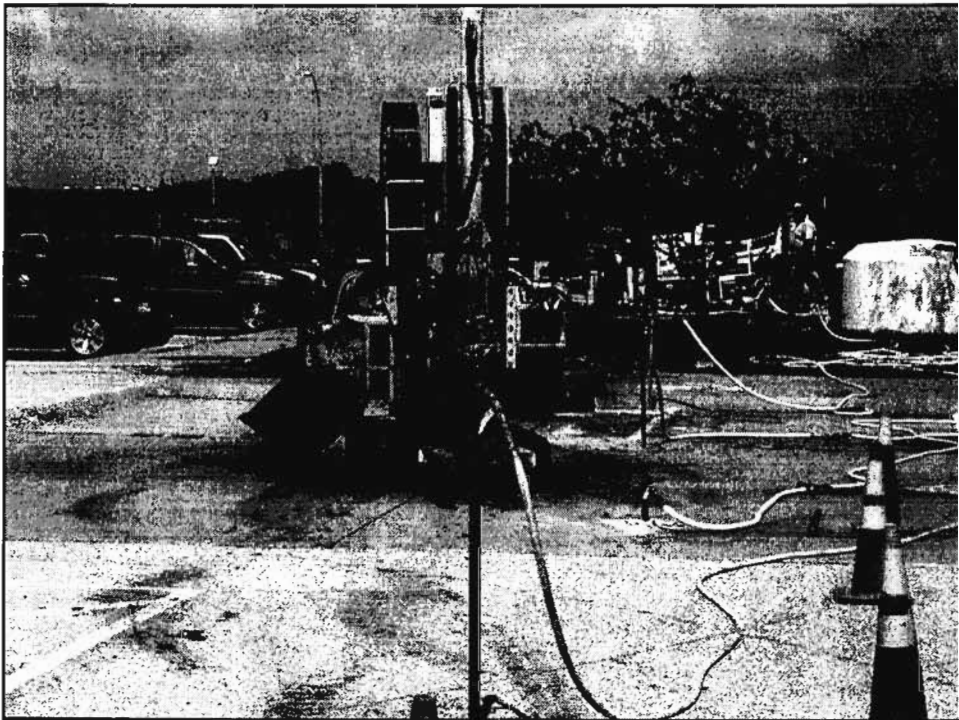
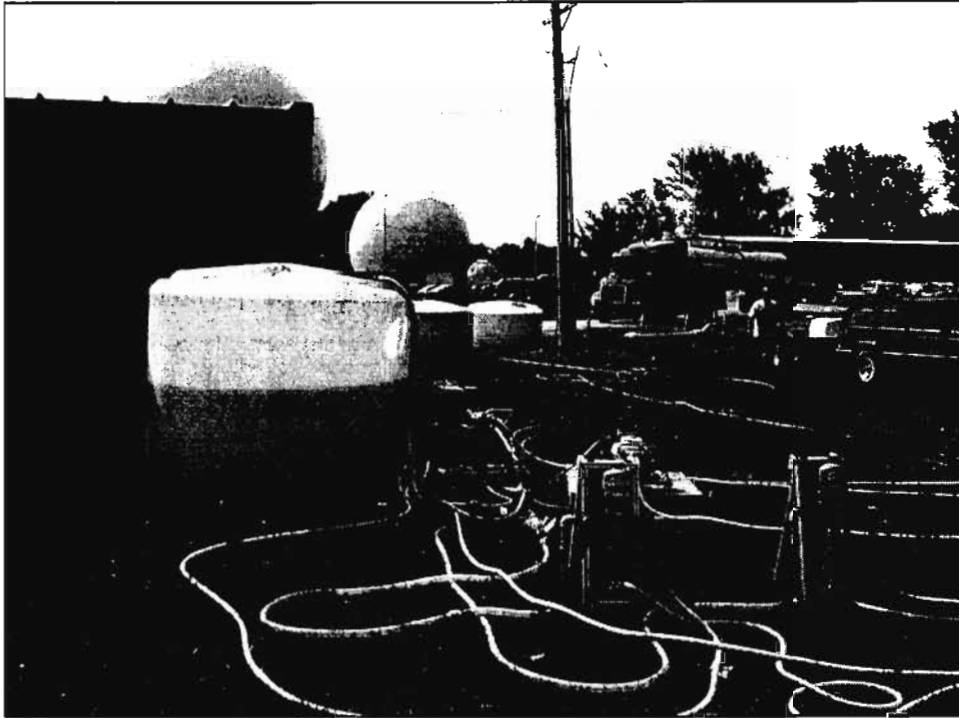
# HARDFILL 2 COMPOSITE



# HARDFILL 2 COMPOSITE







**HARDFILL 2  
COMPOSITE**



**HARDFILL 2  
COMPOSITE**



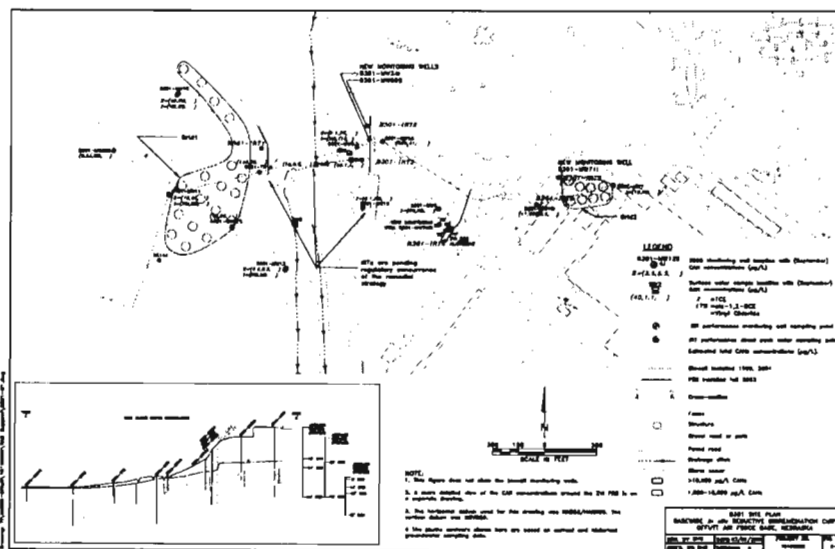


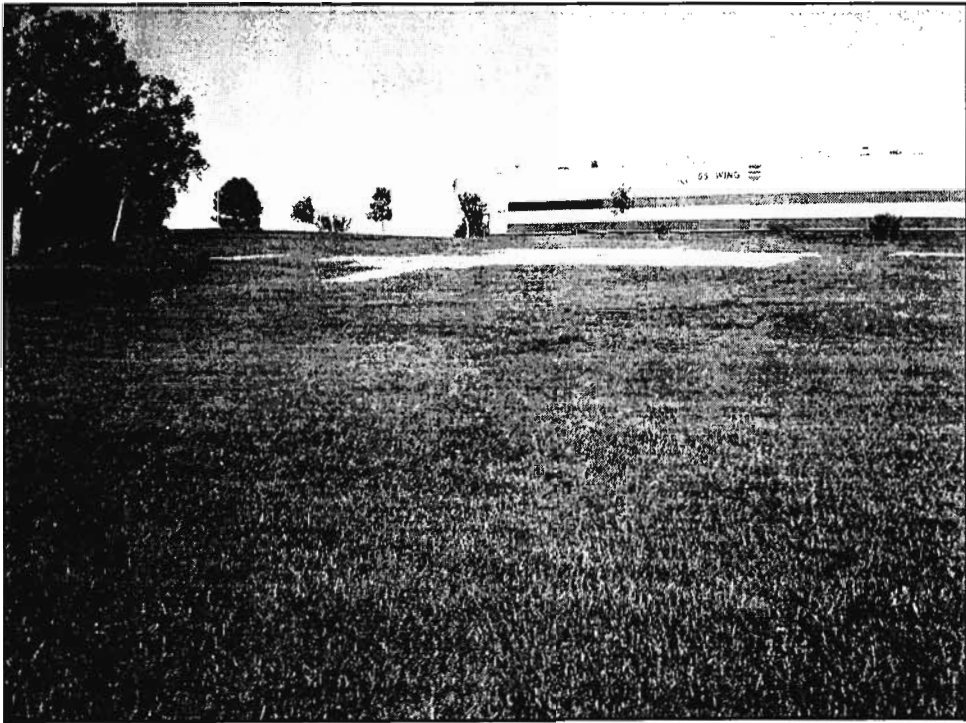
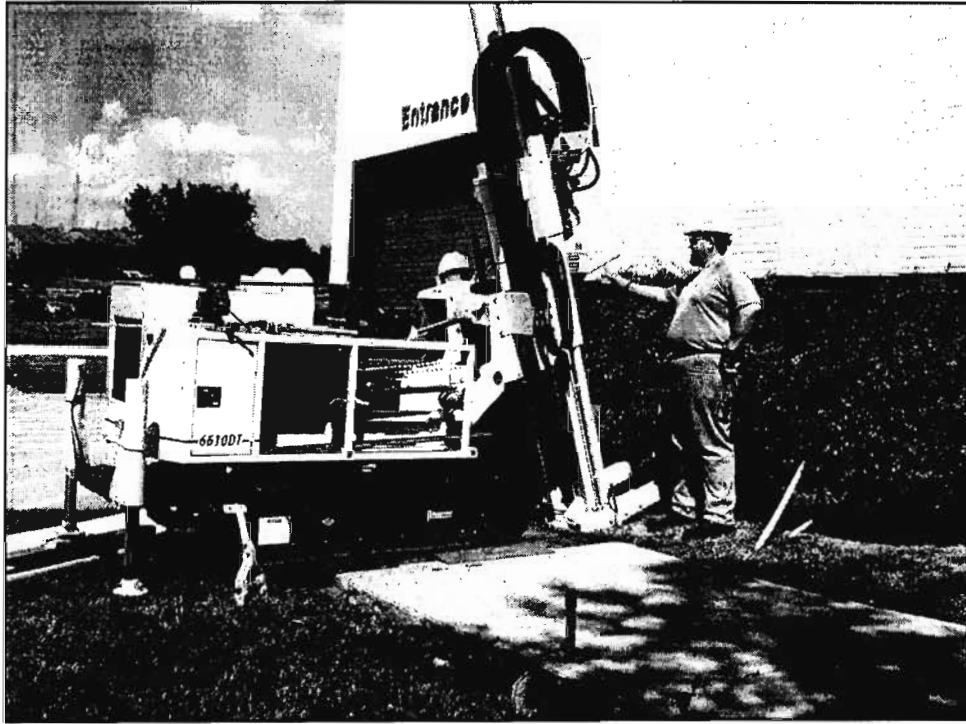
# BUILDING 301



- **FY06 Activities**
  - Conducted groundwater monitoring for natural attenuation and ZVI performance monitoring
  - Teleconference with EPA and NDEQ to discuss technical approach for this site. Decisions:
    - No additional actions warranted at ZVI until more data is collected from B301-MW58I
    - EPA agreed data collected south of ZVI PRB appeared to define lateral extent of "TCE finger"
    - EPA indicated final remedy at this site needs to meet MCLs at and downgradient of ZVI PRB alignment
    - EPA position is that "point of compliance" is throughout the plume, unless it can be proven that it is technically impractical to treat all or a portion of the plume
  - EPA approved remedy update for B301
  - Final B301 Soil Source Zone Investigation Work Plan approved
  - Plan to install IRTs in source area and south of ZVI PRB this Fall

# BUILDING 301







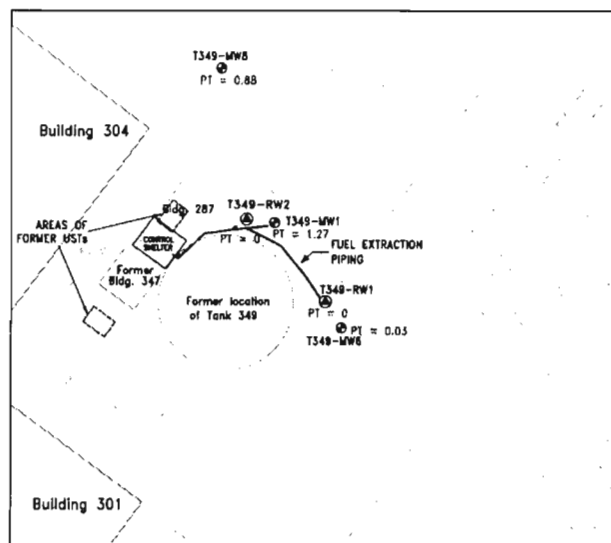
## TANK 349



### • FY06 Activities

- Weekly product level measurement and product removal until there are no measurable thicknesses
- Prepared and submitted Risked Based Corrective Action (RBCA) Tier I evaluation forms
- Tier II evaluation will be complete after all measurable product has been removed

## TANK 349





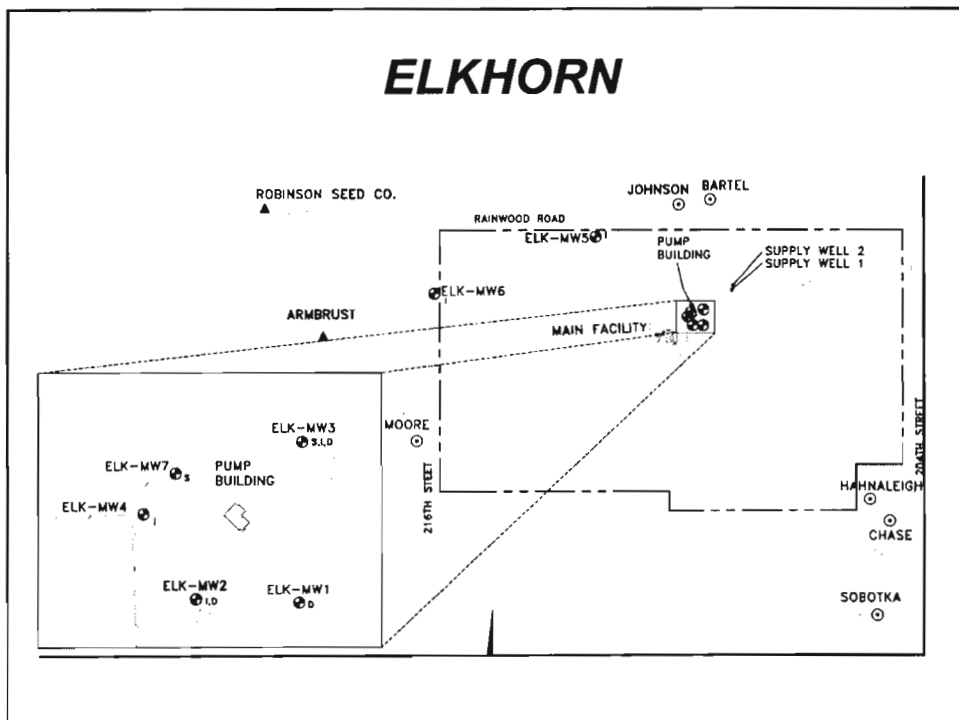
# ELKHORN



## • FY06 Activities

- Conduct annual groundwater monitoring of site wells and nearby private wells
- Requested NDEQ classification of perched groundwater at the site as GC and RAC 3
- Requested NDEQ formal documentation of our 1998 agreement that remedial action is complete
- Evaluated feasibility of using a monitoring well as a pumping well and started pumping this well in July
- Request NDEQ approval to reduce groundwater monitoring to biennial beginning in 2007

# ELKHORN





***QUESTIONS?***

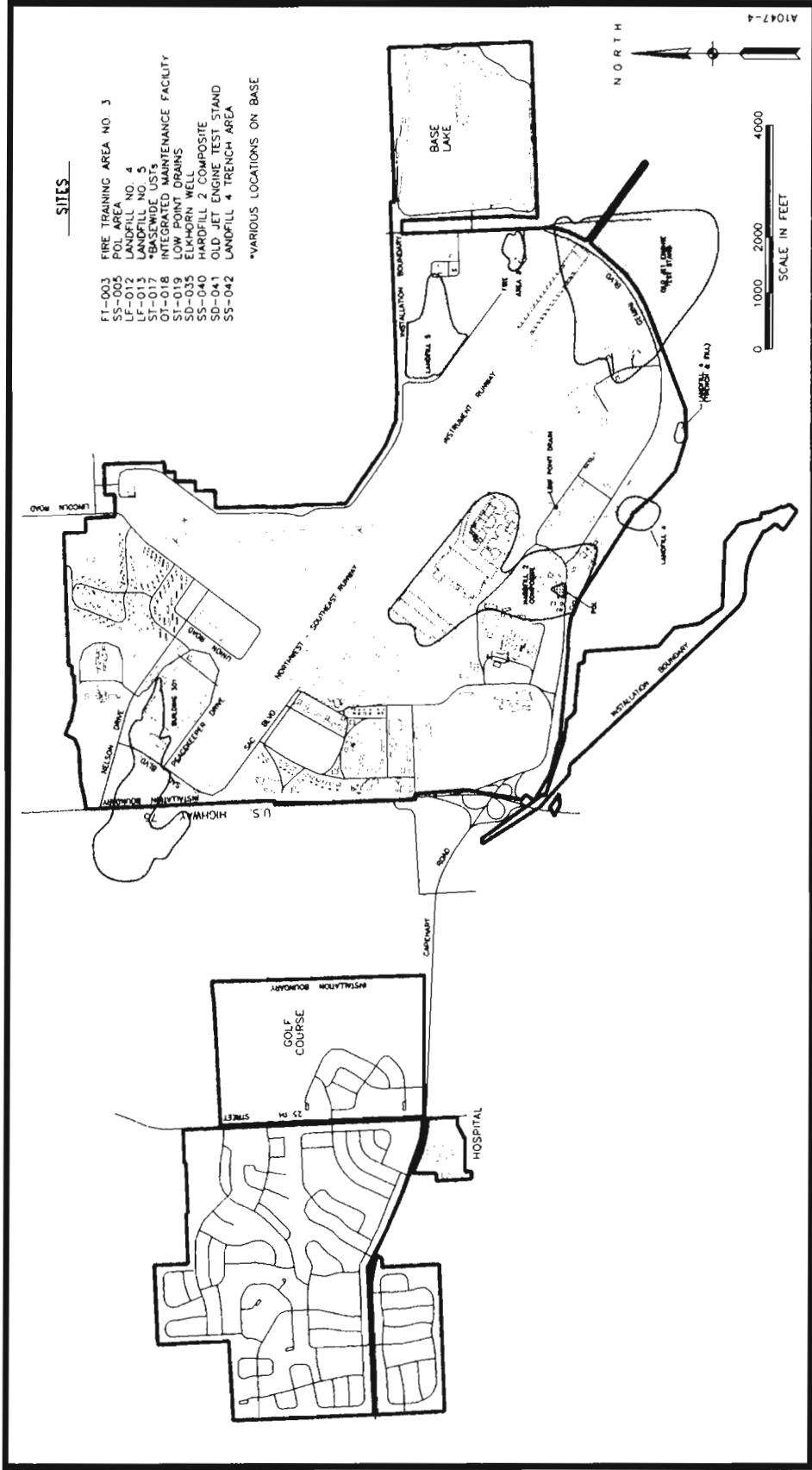
***NEXT RAB MEETING***

**TUESDAY, 6 MARCH 2007**

**3:00 – 4:00 P.M.**

**BELLEVUE PUBLIC SCHOOLS WELCOME CENTER**

# OFFUTT ERP SITES



## SITES

- FT-003 FIRE TRAINING AREA NO. 3
  - SS-005 POL. AREA
  - LF-012 LANDFILL NO. 4
  - LF-015 LANDFILL NO. 5
  - ST-017 \*BASEWIDE UST'S
  - OT-018 INTEGRATED MAINTENANCE FACILITY
  - SI-019 LOW POINT DRAINS
  - SS-003 HARDPAN
  - SS-004 \*COMPOSITE
  - SS-041 OLD JET ENGINE TEST STAND
  - SS-042 LANDFILL 4 TRENCH AREA
- \*VARIOUS LOCATIONS ON BASE

A1047-4



# Solvent Contamination Treatment Technology Fact Sheet

## *In Situ* Anaerobic Bioremediation



### What is *in situ* anaerobic bioremediation?

*In situ* (i.e., in place) anaerobic bioremediation is an innovative remedial technology that involves the injection of organic materials to cleanup solvent chemicals in groundwater. The injected organic material naturally degrades and ferments resulting in the generation of hydrogen. The hydrogen is used by naturally occurring bacteria during the breakdown of the solvent contamination.

### Why use *in situ* enhanced bioremediation to cleanup contamination?

*In situ* enhanced bioremediation eliminates the need for aboveground treatment by using natural biological processes to transform the contaminants in groundwater to harmless byproducts while they are underground.

### What kinds of material can be injected into groundwater to breakdown organic chemicals?

Examples include alcohols, fatty acids (e.g., lactate), carbohydrates (e.g., sugars), vegetable oils, and plant debris (e.g., mulch). The substrates most commonly added for enhanced anaerobic bioremediation include lactate, molasses, and vegetable oils. At Offutt Air Force Base, a combination of soy oil and lactate is being used to treat groundwater contaminated with solvents (e.g., trichloroethene, vinyl chloride). The particular substrate chosen for injection at Offutt AFB is Newman Zone<sup>®</sup> made by RNAS Inc.

#### Project Facts

##### Contaminated Media:

Groundwater

##### Treatment Technology:

*In situ* anaerobic bioremediation

##### Objective:

Reduce chemical concentrations to below maximum contaminant concentrations (MCLs)

##### Contacts:

Philip Cork  
Offutt AFB Restoration Manager  
Phone (402) 294-7621  
Philip.Cork@offutt.af.mil

### What is Newman Zone<sup>®</sup> Emulsified substrate?

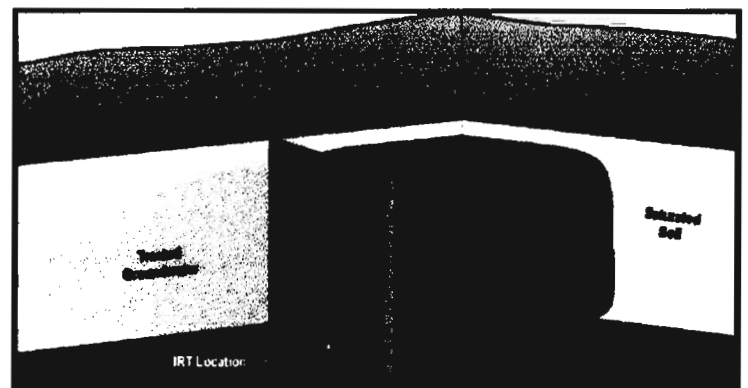
Newman Zone substrate is a mixture of water, soy oil, sodium lactate, sodium bisulfate (baking soda), and emulsifiers (to keep the water and oil mixture together). Newman Zone provides both a rapidly utilized food source (the lactate) and a slow-release long-term food source (the soy oil) that are designed to enhance *in situ* bioremediation of chlorinated solvents.

### Why does something need to be injected into the groundwater?

Natural breakdown of organic chemicals, such as solvents, is a slow process. The addition of an organic substrate is an extension to the naturally-occurring process that hastens the breakdown of solvents in groundwater.

### What happens after the substrate is injected?

The sodium lactate in the substrate begins to stimulate microbial growth within hours of injection and rapidly produces anaerobic conditions in the subsurface. After the lactate has been consumed, the soluble soy oil portion of the product is retained on soil surfaces and in pore spaces without significant impact to the aquifer permeability, where it slowly ferments. The soy oil is expected to ferment over several years releasing volatile fatty acids (e.g., Acetic Acid) and hydrogen, which support the anaerobic bacteria that breakdown the solvents in groundwater. The final by-products include methane, ethane, ethene, and carbon dioxide.



## DISTRIBUTION LIST

Mr. Jeff Johnson  
Environmental Protection Agency, Region VII (ARTD/RCAP)  
901 N. 5<sup>th</sup> Street  
Kansas City KS 66101

Ms. Melissa Kemling  
Nebraska Department of Environmental Quality  
Suite 400, The Atrium  
1200 N. Street  
P.O. Box 98922  
Lincoln NE 68509-8922

Mr. David Goedecken  
City of Bellevue  
210 W. Mission Ave.  
Bellevue NE 68005

Ms. Mary Johansen  
1510 South 91<sup>st</sup> Avenue  
Omaha NE 68124-1218

Mr. Bob Kuzelka  
University of Nebraska Water Center  
103 Natural Resources Hall  
Lincoln NE 68583-0844

Mr. John Ott  
1602 Elm Street  
Bellevue NE 68005

Mr. Steve Hurlbutt  
17615 S. Highway 50  
Springfield NE 68059-4830

Ms. Rita Hurlbutt  
13105 Jennifer St.  
Springfield NE 68059-5894

Mr. Dave Koukol  
8712 W. Dodge Rd., Suite 400  
Omaha NE 68114-3431

Mr. William Falt  
Falt Fisheries, Inc.  
5424 S. 24<sup>th</sup> St.  
Omaha NE 68107-4426

Mr. David Falt  
Falt Fisheries, Inc.  
1000 Cunningham Road  
Bellevue NE 68005

Mr. Joe Cascio  
4410 Maass Rd.  
Bellevue NE 68123-1129

Mr. Frank Prucka  
10627 Martha St.  
Omaha NE 68124-1845

Mr. John Poore  
17628 Allis Rd.  
Council Bluffs IA 51503-6478



**DEPARTMENT OF THE AIR FORCE**

HEADQUARTERS, 55TH WING (ACC)  
OFFUTT AIR FORCE BASE, NEBRASKA

6 Nov 2006

MEMORANDUM FOR MR. FRANK PRUCKA  
10627 Martha Street  
Omaha NE 68124-3647

FROM: 55 CES/CEVR  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Notice of Right of Entry onto Prucka Property

1. Offutt Air Force Base is submitting the following notice for right of entry onto the Prucka property during the dates 9-13 November 2006. The subject property is north of Cunningham Road and east of Harland-Lewis Road. The legal description of subject property is described as follows:

2. A tract of land in the West  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 7, T13N, R14E, of the 6<sup>th</sup> PM.

Commencing at Southwest corner of said SW  $\frac{1}{4}$ ; thence East along the South line of said SW  $\frac{1}{4}$ , 800 ft, to the point of beginning; thence North 300 ft; thence East 300 ft; thence South 300 ft; thence West along South line of said SW  $\frac{1}{4}$ , to the point of beginning.

3. The work to be completed during this right of entry will include:

a. Sampling and inspecting, including the use of a relatively small track-mounted direct push rig to obtain groundwater samples. No permanent sampling structures or equipment will be installed on or beneath the surface of the premises.

b. Land surveying and photographing associated with the sampling process to document sampling locations and to maintain a record of temporary structures, equipment, and methods used during the sampling event.

4. If you have any questions regarding this request, please call me at (402) 294-7621.

A handwritten signature in black ink, appearing to read "M. Kemp".

MICHAEL J. KEMP, P.E.  
Chief, Environmental Compliance Element

6 Nov 06

Mr. Prucka,

Per our phone conversation this morning, attached is the letter requesting access to your property 9-13 November 2006. URS Corporation will be conducting sampling, land surveying, etc., on this property during this time. We apologize for not sending this letter with more notice and appreciate you giving your verbal consent to conducting this sampling during this time.

If you have any questions or concerns, please contact Mr. Philip Cork or Ms. Jean Coburn at 294-7621.

Jean Coburn  
55 CES/CEVR  
Offutt AFB NE  
(402) 294-7621  
jean.coburn@offutt.af.mil



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, OMAHA DISTRICT  
215 NORTH 17TH STREET  
OMAHA, NEBRASKA 68102-4978



November 4, 1994

REPLY TO  
ATTENTION OF

Real Estate Division

SUBJECT: ENG Form 1258, Department of the Army, Right-of-Entry for  
Survey and Exploration, Sarpy County, Nebraska

Mr. Frank Prucka  
12105 Y Plaza  
Omaha, Nebraska 68137

Dear Mr. Prucka:

The U.S. Army Corps of Engineers is conducting an investigation to determine if Department of Defense activities have caused water contamination.

In accordance with our recent telephone conversation, the Corps is requesting the right to enter your property and test the ground water. Enclosed are an original and three (3) copies of ENG Form 1258, Department of Army Right-of-Entry for Survey and Exploration for property owned by yourself and Paddington Place Incorporated. Please date and sign the originals and two (2) copies and return them in the enclosed envelope. Your signature does not need a witness or a notary. The third copy is for your records.

After the Right-of-Entry has been signed on behalf of the Government, a fully-executed copy will be returned to you. The testing is scheduled to shortly, therefore, we would appreciate your returning the signed documents as soon as possible.

If you have any questions, please call me at (402) 221-4510. Thank you in advance for your cooperation.

Sincerely,

Terri S. Barton  
Acquisition Branch  
Real Estate Division

Enclosures



**DEPARTMENT OF THE ARMY**  
**RIGHT-OF-ENTRY FOR SURVEY AND EXPLORATION**

OFFUTT AIR FORCE BASE

*(Project, Installation or Activity)*

*(Tract Number or Other Property Identification)*

The undersigned, hereinafter called the "Owner", hereby grants to the UNITED STATES OF AMERICA, hereinafter called the "Government", a permit or right-of-entry upon the following terms and conditions:

1. The Owner hereby grants to the Government an irrevocable right to enter upon the lands hereinafter described at any time within a period of twelve ( 12 ) months from the date of this instrument, in order to survey, make test borings, and carry out such other exploratory work as may be necessary to complete the investigation being made of said lands by the Government.

2. The permit includes the right of ingress and egress on other lands of the Owner not described below, provided such ingress and egress is necessary and not otherwise conveniently available to the Government.

3. All tools, equipment, and other property taken upon or placed upon the land by the Government shall remain the property of the Government and may be removed by the Government at any time within a reasonable period after the expiration of this permit or right-of-entry.

4. The Government agrees to be responsible for damages arising from the activity of the Government, its officers, employees, or representatives on said land, in the exercise of rights under this permit or right-of-entry, either by repairing such damage or at the option of the Government by making an appropriate settlement with the Owner in lieu thereof.

5. If aircraft flights over said lands, or entry upon the land by means of helicopter or other type aircraft, are necessary, the Government shall inform the Owner, in advance, of each such flight or entry.

6. The land affected by this permit or right-of-entry is located in the State of Nebraska , County of Sarpy , and is described as follows:

SW1/4NW1/4, NW1/4SW1/4 Section 18, T13N R14E, Bellevue, Sarpy County, Nebraska

WITNESS MY HAND AND SEAL this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_

\_\_\_\_\_  
MR. FRANK PRUCKA (SEAL)

\_\_\_\_\_  
(SEAL)

UNITED STATES OF AMERICA

By

**DEPARTMENT OF THE ARMY**  
**RIGHT-OF-ENTRY FOR SURVEY AND EXPLORATION**

OFFUTT AIR FORCE BASE

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\_\_\_\_\_  
MR. FRANK PRUCKA (SEAL)

\_\_\_\_\_  
(SEAL)

UNITED STATES OF AMERICA

By

**DEPARTMENT OF THE ARMY**  
**RIGHT-OF-ENTRY FOR SURVEY AND EXPLORATION**

OFFUTT AIR FORCE BASE

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SW1/4NW1/4, NW1/4SW1/4 Section 18, T13N R14E, Bellevue, Sarpy County,  
Nebraska

WITNESS MY HAND AND SEAL this                      day of                      , 19

\_\_\_\_\_  
MR. FRANK PRUCKA (SEAL)

\_\_\_\_\_  
(SEAL)

UNITED STATES OF AMERICA

By

**DEPARTMENT OF THE ARMY**  
**RIGHT-OF-ENTRY FOR SURVEY AND EXPLORATION**

OFFUTT AIR FORCE BASE

*(Project, Installation or Activity)*

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WITNESS MY HAND AND SEAL this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_

\_\_\_\_\_  
MR. FRANK PRUCKA (SEAL)

\_\_\_\_\_  
(SEAL)

UNITED STATES OF AMERICA

By



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 55TH SUPPORT GROUP (ACC)  
OFFUTT AIR FORCE BASE, NEBRASKA

11/28/94

19:8 NOV 1994

MEMORANDUM FOR US Army Corps of Engineers  
CEMRO-RE-AP (Ms Terry Barton)  
215 N 17th St  
Omaha NE 68102-4978

FROM: 55 CES/CER  
106 Peacekeeper Dr Ste 2N3  
Offutt AFB NE 68113-4019

SUBJECT: Right-of-Entry for Survey and Exploration

1. Attached for your files is the original Right-of-Entry for Survey and Exploration for property owned by Mr. Frank Prucka.
2. If you have questions, please contact Mr. Gordon Dix at 294-7618.

  
KARL A. MORRIS  
Chief, Resources Flight

Attachment:  
Right-of-Entry

cc: Mr. Frank Prucka  
55 CES/CEV

*soil testing*

DEPARTMENT OF THE ARMY

RIGHT-OF-ENTRY FOR SURVEY AND EXPLORATION

OFFUTT AIR FORCE BASE

(Project, Installation or Activity)

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6. The land affected by this permit or right-of-entry is located in the State of Nebraska , County of Sarpy , and is described as follows:

Section 7 Township 13 North Range 14 East, Tax Lot 14

7. The Government will provide twenty-four (24) hour notice to the owner at (402) 895-2194 prior to entering property.

WITNESS MY HAND AND SEAL this 26th day of October, 1954

Mr. Frank Prucka

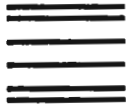
MR. FRANK PRUCKA (SEAL)

(SEAL)

UNITED STATES OF AMERICA

By [Signature] INSTALLATION COMMANDER

OFFICIAL BUSINESS



NO POSTAGE  
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IN THE  
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**US Army Engineer District, Omaha  
Corps of Engineers  
ATTN: EMRC  
215 North 17th Street  
Omaha, Nebraska 68102-9959**

