DEPARTMENT OF THE ARMY
ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
600 ARMY PENTAGON
WASHINGTON, DC 20310-0600

July 14, 2006

Base Realignment and Closure Division

SUBJECT: Restoration of Site Conditions at the Former Army Landfill, Former U.S. Disciplinary Barracks, Lompoc California

BRAC Clean Up Team

The Army has prepared this Technical Memorandum to describe restoration activities performed at the Former Army Landfill (FAL) site, former United States Disciplinary Barracks (USDB) in Lompoc, California (Enclosure 1) in July 2005. This work was performed in response to BRAC Cleanup Team (BCT) agreements that conditions leading up to the issuance of a No-Further-Action (NFA) letter for the site should be restored and maintained.

Background.

a. The FAL site is located in the northern portions of the USDB, in a large open field situated east of the Prison's main delivery gate and in between two staff housing areas (Enclosure 1). The site was investigated between 1996 and 2000. Based on the evidence contained in multiple reports from site investigations between 1996 and 2000, the BCT, including regulatory members, issued a Memorandum of No-Further-Action dated 4 December 2000 (Enclosure 2). A condition of the NFA stated that the site would be reviewed periodically to ensure conditions have not changed. The NFA indicated that if significant changes are observed then the NFA letter might be withdrawn.

b. During visits to the FAL site in July 2004, Anthony Nelson, the Army's BRAC Environmental Coordinator, and Michael Schmaeling, of Santa Barbara County, observed that ground squirrels had moved onto the site and were bringing some waste material to the surface as a result of their burrowing activity. Subsequently, the BCT held a meeting to evaluate options and consider what actions should be taken to mitigate rodent burrowing. The BCT members agreed that the conditions present when the NFA was issued (4 December 2000) should be restored and that a maintenance plan should be developed and implemented.

Restoration Activity

a. Following the BCT meeting and subsequent agreements between the BCT stakeholders, the Army, the Army's contractor and Bureau of Prisons (BOP) proposed to conduct the following restoration actions:

1. The materials brought to the surface by squirrel activity would be collected and placed back in to the burrow. (Santa Barbara County confirmed that this action was acceptable according to regulatory guidance for solid waste facilities),

2. The burrows would then be backfilled with soils near the burrow,

3. The site would be surrounded with an eight foot tall chain link fence, equipped with a locked access fence,

4. The site would be posted with no-trespassing signs,

5. The Prison would develop, and implement, a maintenance program (Enclosure 3),

6. The Prison Maintenance Program would be formally added to the maintenance schedule so that it would become part of the Prison's routine housekeeping activities,

7. Prison staff would execute a rodent control program using an approach acceptable to Prison authorities,

8. The Army would inspect the site at least once a year and prepare and issue a letter report, which would include prison staff actions conducted during the reporting period.

b. The restoration activities began in early 2005 with the process of backfilling squirrel burrows and procuring fencing material. Restoration work picked up in the last week of June with the delivery of 1200 feet of chain link fence. The fence was installed over the next four weeks. Once completed, "no trespassing" notices were placed on the fence. The fence's gate was equipped with a lock and keys were placed with the security office for checkout by Prison staff needing access to the FAL site. Prison staff, with security clearance, initiated the rodent control measure over the period of 3 to 11 August 2005. Subsequent visits to the site by Anthony Nelson, Jim Hamlin of Santa Barbara County and on-site Prison staff verified that the squirrel population had indeed been removed. However, since the site is situated in a large open field many ground squirrels inhabit the surrounding area. Subsequent site visits my Anthony S. Nelson and James Hamlin observed an increase in squirrel activity between December 2005 to March 2006. Consequently, the rodent control program at the FAL will have to be conducted at least annually, if not more frequently.

Summary The BCT agrees restoration activities at the site are complete (as documented in the Enclosures) the attached maintenance program which includes routine inspection and reporting will be conducted from now on. As a result of restoration actions a maintenance program is in place and the FAL site is considered restored to pre-NFA letter conditions. According to 2004 BCT agreements, the NFA letter will remain in force.

Sincerely,

Michael G. Drumheller
Chief, Branch B

Enclosures:
1. Location Map
2. NFA Letter
3. BOP Grounds Maintenance Procedures
4. Photo Index and Documentation

BRAC Cleanup Team:

Mr. Anthony S. Nelson PG, BEC
HQDA BRAC/AFO (UNITEC)
30 CES/CEV
806 13th St., Suite 116
Vandenberg AFB, CA 93437

Mr. Michael Dukes, PE
ARCADIS
1050 Marina Way South
Richmond, CA 94804

Ms. Bridgette Lyles
Federal Bureau of Prisons
320 First Street NW
Room 5005
Washington, D.C. 20534

Mr. David Schwartzbart
California EPA
Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401-7906

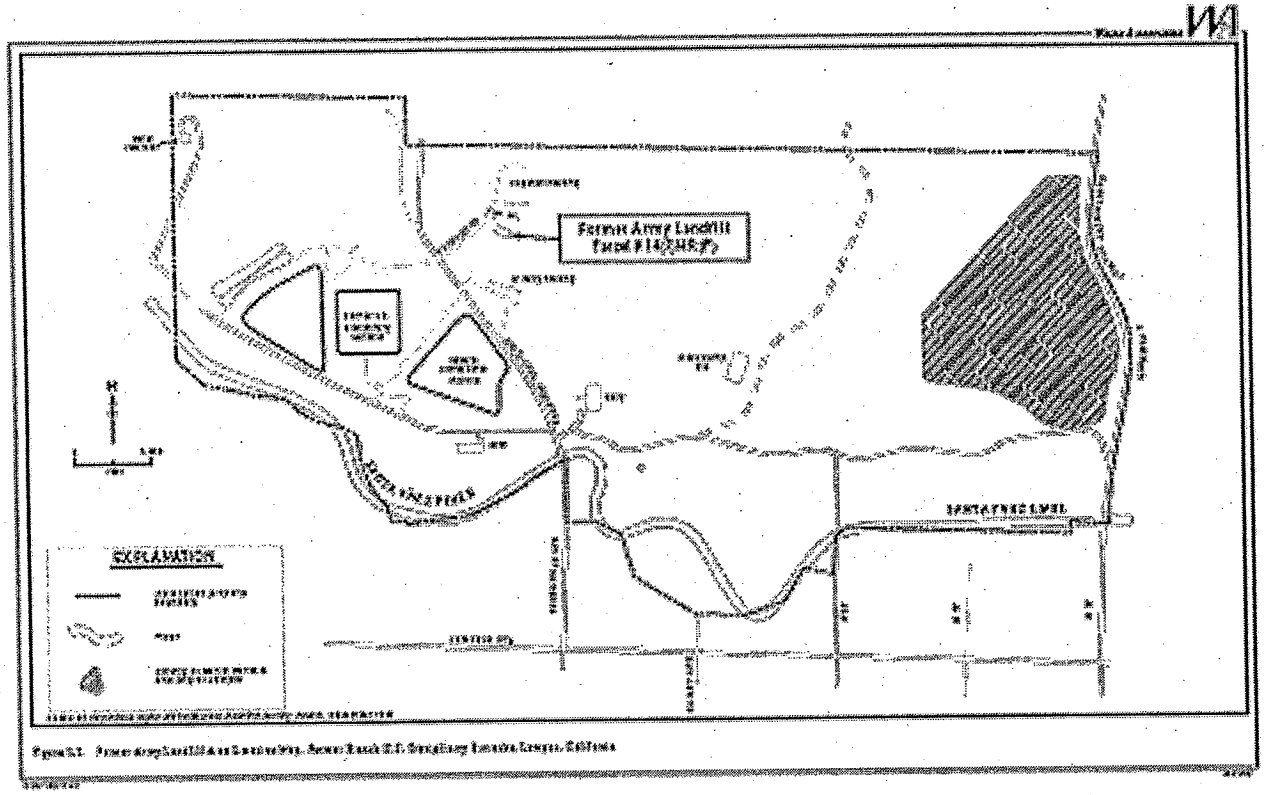
Mr. James Hamlin
Santa Barbara County
2125 South Centerpointe Parkway, Room 333
Santa Maria, CA 93455

Ms. Susan Knauf
Louis Berger & Associates
100 Halsted Street
East Orange, NJ 07019

Mr. William T. Brawner
Program Manager
U.S. Army BRACD
Taylor Bldg
2530 Crystal Drive, Room 5000
Arlington, VA 22202

Mr. Michael J. Kelly
United States Army Environmental Center
Attn: SFIM-AEC-CDS
5179 Hoadley Road
Aberdeen Proving Grounds, Maryland 21010-5401

ENCLOSURE 1
Site Location Map


EXPLANATION

ENCLOSURE 2
Memorandum of No Further Action

U. S. Disciplinary Barracks, Lompoc, California
Base Realignment and Closure (BRAC) Cleanup Team

Memorandum of No Further Action

Date: 4 December 2000

Former Army Landfill, BRAC Parcel 14, Coordinates 10,13

This memorandum documents a decision of "No Further Action" (NFA) at the U. S. Army Disciplinary Barracks (USDB) site listed above. BRAC Parcels and Coordinates are taken from the USDB Environmental Baseline Survey Report dated 11 June 1997.

The Former Army Landfill was established in the 1940s and closed in 1959. It is not known what types of materials or wastes were disposed of in the landfill.

The 25 August 2000 Site Investigation Report, Final Site Investigation Report, Former Army Landfill reported the results of an investigation to evaluate whether soil and/or ground water beneath the landfill was adversely impacted by disposed material. The investigation included a geophysical survey, soil gas survey, the collection of surface and subsurface soil samples and water samples.

The geophysical survey revealed a roughly rectangular 400 x 200 foot landfill with scattered metallic debris. The soil gas survey indicated the presence of several polynuclear aromatic hydrocarbons, mid-range alkanes and tetrachloroethylene vapors within the landfill.

A total of 33 soil samples were taken from 11 soil borings at depths to 15 feet below ground surface (bgs). The samples were analyzed for metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), furans, dioxins, and petroleum hydrocarbons. The only chemical to exceed EPA Region IX preliminary remediation goals (PRGs) for residential soil was arsenic. This was in three subsurface samples. The highest concentration of arsenic was 43.9 mg/kg from a sample taken at 5 bgs. Two other samples taken at 15 bgs had concentrations in the range of 18-19 mg/kg. These levels compare to the local background level of 6 to 21 mg/kg (based on nearby Vandenberg Air Force data).

The cancer risk associated with surface soil (1.5×10^{-5}) exceed screening criteria of 1.0×10^{-6}. However, the excess risk was entirely attributable to arsenic that was within the limits of the local background. The non-cancer risk associated with surface soil was estimated at 0.53 that is lower than the screening criteria of 1.

The residential cancer risk associated with subsurface soil (1.1×10^{-4}) and the non-cancer risk (3.7) are both above screening levels. The excess risk is almost entirely attributable to the arsenic and lead concentrations in one subsurface (5 bgs) sample. The risk was recalculated for construction workers (most likely future receptor). Using this scenario the cancer risk is

estimated at 6.0×10^{-7} and the non-cancer risk at 0.22. Both these values are well below the screening criteria for the most likely receptor.

Four wells were installed to monitor and sample the ground water. Seven quarters of ground water samples were collected from three wells and four quarters from a down gradient well installed later. All samples were analyzed for metals, VOCs, SVOCs, organochlorine pesticides, PCBs, and petroleum hydrocarbons. Several constituents were detected at levels slightly above the EPA Region IX PRGs for tap water or the California maximum contaminant levels for drinking water. None of the constituents was detected consistently at any of the wells and none were detected in the down gradient well.

The cancer risk associated with ground water (1.5×10^{-4}) and the non-cancer risk (5.1) are above screening criteria. The excess risk is attributable to the constituents that were not consistently detected and inorganic constituents that were detected in the range of local background levels. When the risks were recalculated using only the four most recent quarterly monitoring results and constituents detected above the local background the cancer risk was estimated at 3.5×10^{-7} and the non-cancer risk at 0.93, both below the screening criteria.

The Site Investigation Report concludes by recommending no further action at this site.

The Scoping Ecological Risk Assessment dated 14 July 2000 concluded that while the maximum concentrations of some chemicals of potential ecological concern exceed background concentrations they are not likely to constitute significant exposure to ecological receptors. Furthermore, the habitats at the site are of low quality and are unlikely to be used by wildlife in the area. No known threatened or endangered species inhabit the site. The report concludes that significant exposure to chemicals of potential ecological concern is not likely to occur.

The July 1996 Ordnance and Explosives Chemical Warfare Materials Archives Search Report Conclusions and Recommendations found "no credible evidence" of unexploded ordnance (UXO) burial at the locations of possible landfill areas.

Based on the evidence detailed in the Site Investigation Report, the Scoping Ecological Risk Assessment and the Ordnance and Explosives Chemical Warfare Materials Archives Search Report Conclusions and Recommendations the BCT designates the site as NFA and revises the BRAC Parcel Category from 7 (areas that are unevaluated or require additional evaluation) to BRAC Parcel Category as 3 (areas where storage, release, disposal and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal action).

Former Army Landfill, BRAC Parcel 14, Coordinates 10,13

The NFA site listed above will be reviewed periodically to ensure conditions have not changed. If significant changes occur the BCT may withdraw the NFA designation. In any event the final condition of the property must be documented in a Decision Document.

Francis J. Crown, Jr.
Environmental Coordinator for BRAC
Public Works, Fort Lewis, WA

4 Dec 00
Date

Debbie Lowe
Remedial Project Manager
U. S. Environmental Protection Agency, Region IX

2 January 2001
Date

Michael LeBrun P.E.
Michael LeBrun
DoD Program Manager for RWQCB3
Central Coast Regional Water Quality Control Board

5 Dec 00
Date

Peggy Langle
Peggy Langle
Director,
Santa Barbara County Environmental Health Services,
Local Enforcement Agency

12/14/00
Date

ENCLOSURE 3
Bureau of Prisons
Grounds Maintenance Procedures

U.S. Department of Justice

Federal Bureau of Prisons

Washington, DC 20534

January 6, 2005

GROUNDS MAINTENANCE PROCEDURES for the FORMER ARMY LANDFILL AND WOOD DUMP SITE. FEDERAL CORRECTIONAL COMPLEX, LOMPOC, CALIFORNIA

The following outline presents housekeeping and ground maintenance tasks that the Federal Bureau of Prisons (BOP) specifically the Federal Correctional Complex, (FCC) in Lompoc, California, voluntarily agrees to conduct these tasks at the Former Army Landfill(FAL) and Wood Dump (WD) sites located on what is now BOP owned property.

Typically, the Army will conduct normal routine inspections of the sites to document site conditions and identify any corrective actions that may be required. Most of the inspection activity will be at the WD and there are a few instances that will require rapid inspections. After large rainfall events the brush grate on the up-gradient face of the WD should be inspected to be sure it is not blocked with brush from up-stream areas. If possible, the Army or their contractor will coordinate with the FCC to conduct these inspections.

The FAL is the large grassy mound located just to the south of Capehart housing. The WD is located east of the dairy, just north of the large hay barns and coral area (maps will be provided). Both of these sites are former waste disposal sites that have waste material covered with soil. The soil cover requires certain maintenance tasks to keep the covers intact and functioning. The tasks presented below relate only to routine grounds maintenance activity and do not include any of the groundwater monitoring, routine reporting or possible site improvements that will be the ongoing responsibility of the Army. The following tasks are based generally on the conversations and site visits involving the BRAC Cleanup Team currently overseeing the work at these sites.

The FAL currently has no fencing or posted signage. The BOP and the Army along with State and Federal regulators agree that the FAL should be adequately fenced and contain four "No Trespassing" signs. Therefore, a fence will be installed around

the boundaries of the FAL in such a manner as to restrict access to the FAL but that will not close off or limit access to any other roads or areas around the site. Further, all current and future Wardens at the FCC will be notified that this fence cannot be removed without approval from the Army, Central Office Facilities Management Branch, Western Regional Office, and relevant State and Federal regulators.

Rodent and Burrowing Animal Control and Response: The soil cover at both sites is subject to the invasive activity of burrowing animals. These are mostly ground squirrels that dig into soil and inhabit the resulting burrow. This digging creates large openings in the cover and at times can bring waste material to the surface. Both are undesirable results. The actions to control the impacts of these burrowing animals may consist of the following:

In regards to the FAL, FCC Lompoc agrees to conduct the following ground maintenance tasks on a bi/weekly basis or as necessary. At such time when the need to conduct frequent ground maintenance is diminished as evidenced by the integrity of the cover and or the elimination of the burrowing animals, the ground maintenance schedule will be modified.

Infilling: This task consists of gathering any visible waste debris (glass, plastics, paper products, metal or wood debris and such) and replacing the debris back into the burrow. This may be assisted by slightly over excavating the burrow with a shovel to allow for replacement of the debris to the deepest part of the burrow. Alternatively, the debris could be driven or packed into the burrow using wood posts, tool handles, or some suitable device to help get the debris as deep as possible.

Soil Replacement and Covering: This task consists of replacing the soil scattered by the animals back into the burrow. Use of rakes or shovels could be employed to get the soil repositioned at the burrow. The soil should then be packed back into the burrow, on top of the replaced debris, as far as possible and leveled out to create a clean, smooth surface. In cases where there is not enough soil to completely refill the burrow fresh, soil can be brought onto the site to complete the filling process. To the extent possible these soils should be of fine-grained, clay in nature and uniform in size.

Animal Control: To diminish the amount of impact the ground squirrels are having on the FAL, the FCC will put in place animal control measures currently being used by the FCC at other FCC locations to help control the number of squirrels living at the site. These animal control measures will be put in place after a new fence has been installed around the site and they will then be monitored by the FCC as they deem necessary.

Reseeding: Should parts of the natural cover currently covering the FAL fail to rejuvenate itself due to the soil replacement and in filling, the FCC will reseed these areas to encourage native grass development. The U.S. Army is responsible for the FAL and should something happen to the majority of the cover that will require more than just some minor reseeding or maintenance, the Army will be notified by the FCC and be responsible for correcting the problem.

Vegetation Management: The two sites under discussion are quite different and will require different vegetation programs. In the case of the Wood Dump no mowing, weed removal, or other vegetation maintenance actions are needed. In fact, the desired result at the Wood Dump is to establish a native, self-reseeding vegetative cover that helps prevent erosion and reduces the amount of rainwater infiltration into the underlying waste. Therefore, no activity is prescribed for the Wood Dump. The FAL on the other hand sits between two staff housing areas and the site is currently mowed on a regular basis. However, some seeding of grasses in the area may be advisable if substantial soil is exposed either due to animal activity or the result of mowing.

Site Security, Postings and Restricted Access: Both sites represent waste disposal sites and generally speaking should have very limited access. The Wood Dump in particular should not have pedestrian or vehicle traffic unless they are authorized personnel there to conduct repairs to the cover as needed. The newly hydro seeded surface will take a couple of years to stabilize and all entry should be highly regulated.

The Wood Dump: The site is currently completely surrounded by barb wire fencing, including three gates to allow access for groundwater sampling purposes. These gates are equipped with cable locks. Currently, the farm manager has a complete set of keys, as does the Army and the Army's consultant. The Army will make one more set of keys and give them to the FCC's Facilities Manager. Currently, there are no signs or postings at the WD to alert people in the area that the site is to be entered only by authorized personnel. The BOP has agreed to install 4 signs around the WD to read (Water Monitoring Wells, Authorized Personnel Only).

Wood Dump Site: As stated previously in this document, the WD and its new cover should take care of itself. However, the BOP has agreed to walk the site semiannually and report any damage that is found that could threaten the integrity of the cover to the Facilities Manager. The Facilities Manager will verify this damage and contact the Army, Western Regional Office, and Central Office of his/her findings.

Contacts and Reporting: The Army will report activity at the sites on a regular basis. The FCC does not need to prepare any formal documents for submittal purposes. However, the Army does need to prepare such documentation and will incorporate the grounds maintenance activity conducted by the FCC. The Army requests that the FCC simply inform the Army of activity conducted during months preceding the preparation of reports. Such communication can be conducted via phone, emails, or maintenance summary prepared by the FCC and mailed to the Army.

Appropriate details can be established as this program develops. The FCC agrees to provide at least semiannual reports on activities conducted at both sites. These reports will come from the FCC, Lompoc Facilities Manager's Office in whatever manner they and the Army agree upon with cc copies to the Western Regional Office, Site Selection and Environmental Review Branch and the Facilities Management Branch at the Central Office.

In the event the contacts listed on this document for either the Army or the BOP change, all parties will be notified of the change.

Contacts:

FCC Lompoc Facilities Manager
(805) 735-2771 Ext 305

Army Landfill
Anthony S. Nelson (805) 886-2151 or (805) 686-5651

BOP Central Office

Site Selection and Environmental Review Branch
Pam Chandler or Rodney Anderson (202) 514-6470

Facilities Management Branch
Paul Keller or Valerie McDonald (202) 514-6652

Western Regional Office
Rick Batten or Greg Britt (925) 803-4708

B. G. Compton, Warden
Federal Correctional Complex,
Lompoc California

1-13-5
Date

for Pam Chandler

Pam Chandler, Chief
Site Selection and
Environmental Review Branch
Federal Bureau of Prisons, Washington, D.C.

1-6-05
Date

ENCLOSURE 4
Photo Index and Documentation

PHOTO INDEX
FAL Restoration Activity
Former U.S. Disciplinary Barracks, Lompoc California

The following briefly describes the content of each photo contained in this Technical Memorandum

1. Photo #0078: Erect fence, showing gate
2. Photo #0086: No Trespassing sign posted on fencing
3. Photo #0863: Miscellaneous waste debris at borrow opening
4. Photo #0864: Debris raked into pile
5. Photo #0866: Debris placed back into borrow
6. Photo #0868: Borrow backfilled with surrounding soil and raked smooth

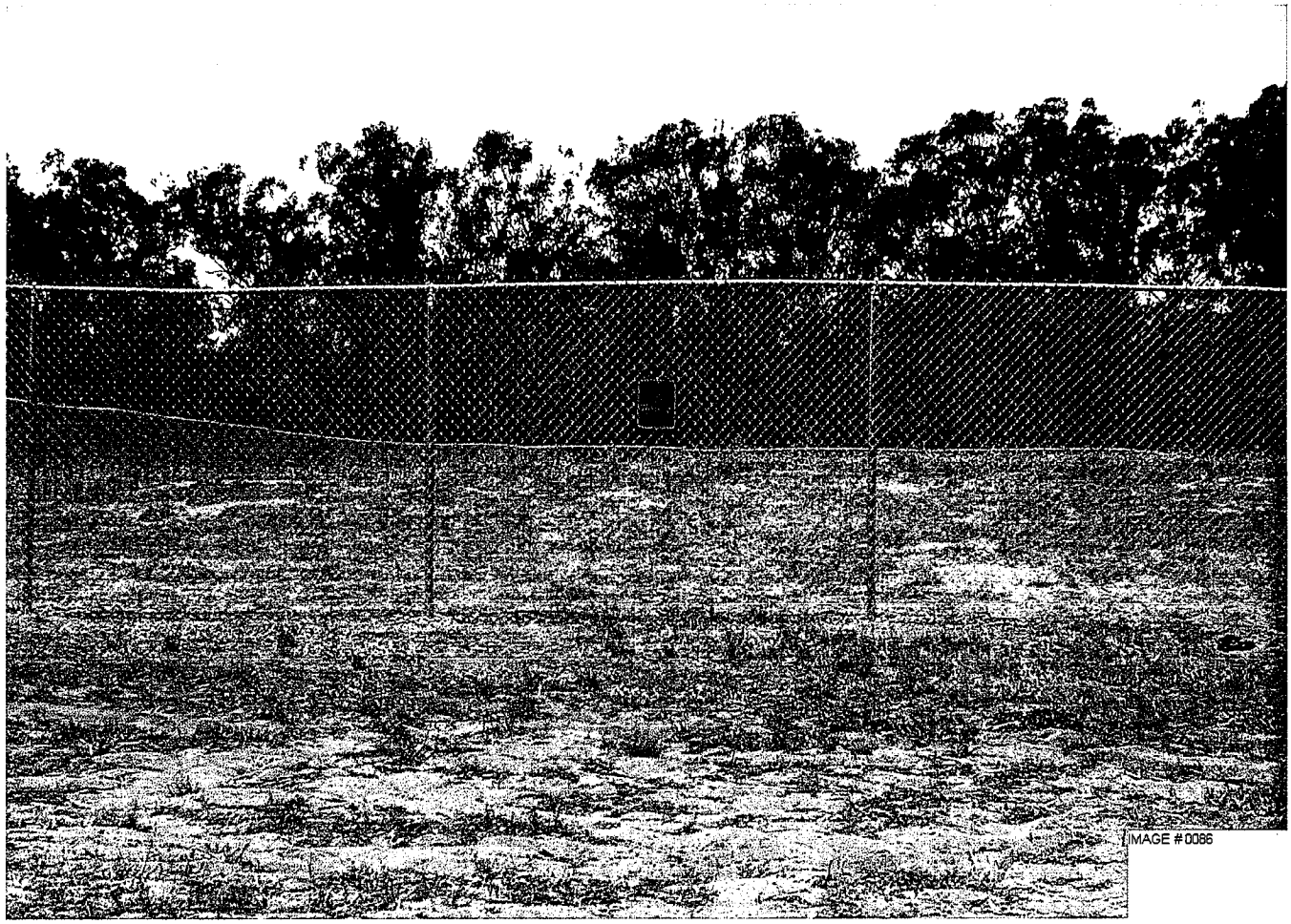


IMAGE # 0066

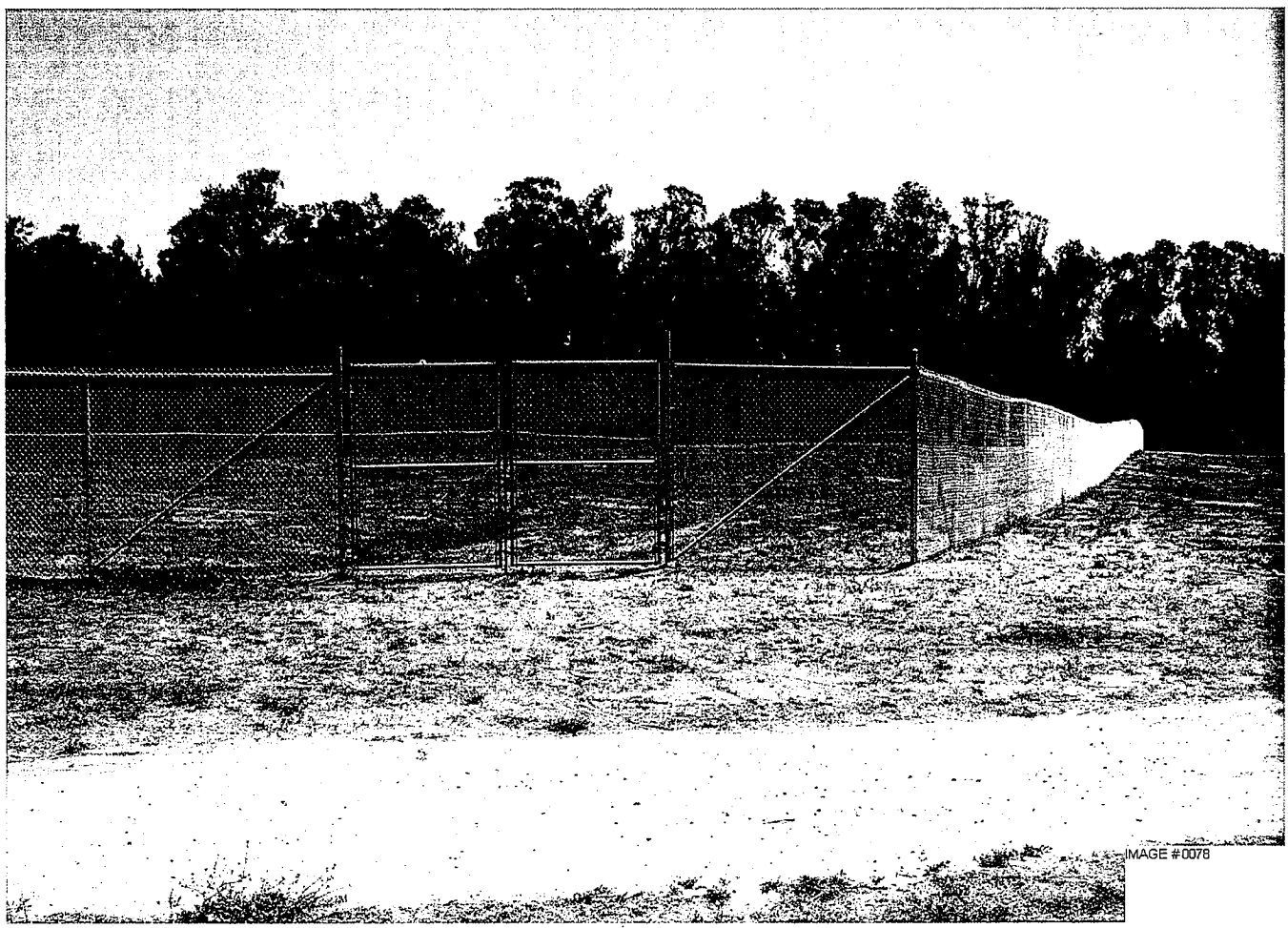


IMAGE # 0078

IMAGE #0863

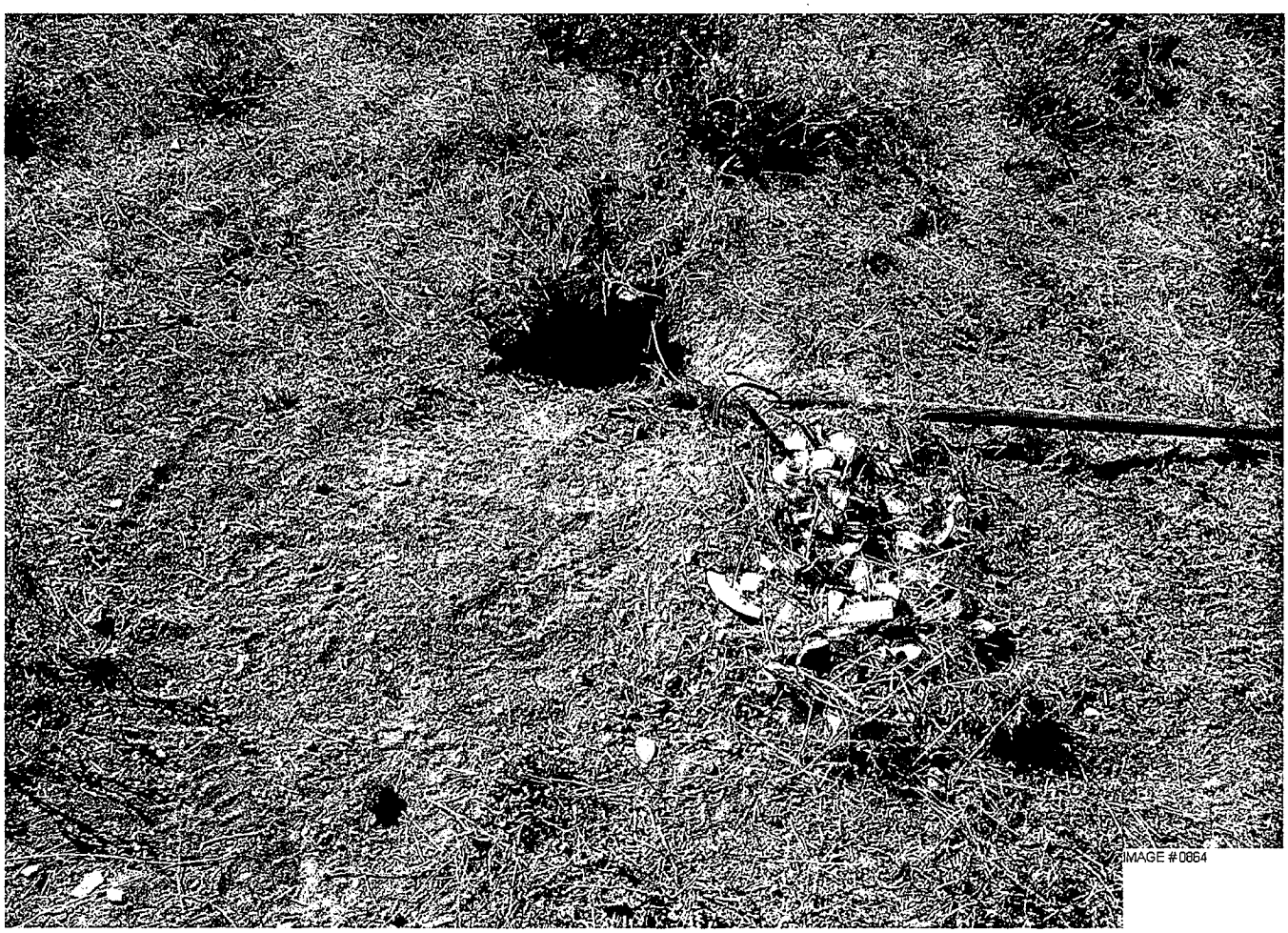


IMAGE #0864