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MEETING MINUTES FROM RESTORATION ADVISORY BOARD MEETING HELD 10 MAY
2001 NAS FORT WORTH TX
5/10/2001
RESTORATION ADVISORY BOARD



**NAVAL AIR STATION
FORT WORTH JRB
CARSWELL FIELD
TEXAS**

**ADMINISTRATIVE RECORD
COVER SHEET**

AR File Number 589

**CARSWELL/PLANT 4
RESTORATION ADVISORY BOARD MEETING**

DRAFT
Summary Minutes of May 10, 2001
Regular Quarterly Meeting

A regular meeting of the Carswell/Plant 4 Restoration Advisory Board (RAB) was held May 10, 2001, at the Desert Storm Conference Center, 2570 Desert Storm Road, located on the Naval Air Station (NAS) Fort Worth Joint Reserve Base (JRB). The RAB meeting began at 6:00 p.m.

Agenda

Welcome/Introductions/Minutes
Carswell Off-Base (Charles Pringle)
 Program Update
 Property Transfer Update
Carswell On-Base (Mike Dodyk, Don Ficklen)
 Program Update
Air Force Plant 4 (George Walters)
 Project Update
New East Parking Lot Groundwater
 Treatment System Tour
Next Meeting Agenda
Open Discussion/Questions

Welcome and Introduction of Attendees

Mr. George Walters, Air Force Plant 4 (AFP 4) Project Manager from Wright Patterson Air Force Base, introduced himself and announced that Ms. J'Nell Pate, Community Co-Chair, would be unable to attend the meeting. Mr. Walters called the meeting to order and reconfirmed the evening's tour of the F-16 assembly line and the groundwater treatment system. He stated that he wanted to make sure everyone was able to see what was built for the 5.5 million dollars that was spent.

Mr. Walters asked that any objections or corrections be presented regarding the February 2001 RAB Meeting Minutes. Hearing none, the minutes from the previous meeting were approved.

Comments regarding the draft meeting minutes for this meeting (May 10, 2001) should be sent to:

Ms. Miquette Rochford
HydroGeoLogic, Inc.
1155 Herndon Parkway, Suite 900
Herndon, Virginia 20170
Phone: (703) 736-4511
Fax: (703) 471-4180
e-mail: mer@hgl.com

Westworth Redevelopment Authority

Even though Mr. Leland Clemons was not on the agenda, he provided a short update on the golf course construction. He explained that a lot of progress has been made on the construction of the golf course because of dry weather in April. He also announced the Texas Natural Resource Conservation Commission (TNRCC) and Air Force Center for Environmental Excellence (AFCEE) approval to move forward with covering "Mount Landfill 4." He stated there is already approximately 8 to 10 feet of additional clay on a significant portion of the landfill.

Mr. Clemons expressed his belief that the golf course construction could be complete by the end of June. At that time, they will begin grassing to achieve the November opening date. If a November opening cannot be achieved they will defer until March. Currently, they are on target for opening the golf course in November.

Mr. Clemons continued by explaining a brief set back occurred with Lowe's as the first commercial development on site. There was some miscommunication among them and failure to obtain Federal Aviation Authority (FAA) approval. They are working to correct the matter and hope to have closure on the site within the next four to six weeks. Additionally, there are several other developers and large box railers who are interested in following Lowe's. Mr. Clemons is confident that there will be a significant amount of growth along the Highway 183 frontage over the next four to six months.

Mr. Gross, a community member, asked where the Lowe's is going to be located.

Mr. Clemons responded by stating that Green Oaks Road will be extended across Highway 183 and Lowe's will occupy approximately 16 acres at that spot.

Next, Mr. Clemons discussed the preliminary approval on the plat for the residential development area across from Shady Oaks. There is a drainage study that will be time consuming for the site, especially since this particular site does not have a lot of topography. Mr. Clemons also stated that they will need to be careful and move the water away from the site and not into other residences surrounding the area.

Mr. Gross then inquired about possible problems with the rezoning for White Settlement.

Mr. Clemons replied that White Settlement was very cooperative considering the sales tax revenue generation accruing for their city. He went on to explain that they will need

to run water lines to the Lowe's area, which is an issue because they do not typically provide any utility service for that part of White Settlement.

Mr. Walters then asked if the height of the building would cause any problems with the runway.

Mr. Clemons explained that neither the height of the building nor the equipment they need to bring in, such as cranes to build the building from the center point of the runway, present a problem and they measure a little over a half a mile. What the FAA is evaluating now is whether or not any of the materials, or any of the electrical circuitry within the building, may interfere with the radar tower. However, the height of the building and the construction material do not present a problem.

Mr. Gross asked if there would be any problems with noise, to which Mr. Clemons responded that it would be loud given the close proximity to the runway.

Mr. Gross continued by asking about the noise level of the aircraft running up and back.

Mr. Clemons stated that it would be loud, but he does not think it will be a problem for Lowe's. He suggested that perhaps a grocery store might find it a nuisance, but the decibel range would be the same as the Home Depot across the highway and people are not deterred from shopping there.

Carswell Off-Base

Mr. Walters introduced Charles Pringle, Base Realignment and Closure (BRAC) Environmental Coordinator for the Air Force Base Conversion Agency (AFBCA), to give an update on the AFCEE portion of the facility.

Program Update

Mr. Pringle began by saying that AFBCA has been working on six different sites, Landfills 4, 5, 8, Waste Pile 7, the Aerospace Museum, and the Grounds Maintenance Yard. He explained that AFCEE submitted a final report to TNRCC for the Landfills and Waste Pile 7 and received a letter saying they met the requirements. The paperwork is being finished, and these sites should be closed out by the end of this month. He also stated that they have another site, the Aerospace Museum, on which they did some fill work. However, they have to perform a removal action because one area has a higher lead count. They also have a Finding of Suitability to Transfer (FOST) for the stables. This area consists of 49 acres that will be transferred to Westworth Redevelopment Authority. The FOST has gone to the regulators for review and approval. Mr. Pringle hopes they will confer with their lawyers, put the deed together, and transfer the property accordingly.

Mr. Pringle concluded by saying that after they were finished with these areas then most of the sites will become Don Ficklen's responsibility. Mr. Ficklen is responsible for Air Force part of the NAS requiring remediation. Mr. Pringle concluded by stating that he will be working on a few more plots in order to transfer some land, and then he will eventually be working his way out of a job.

Carswell On-Base

Mr. Walters introduced Mike Dodyk to discuss Carswell On-Base.

Program Update

Mr. Dodyk began by introducing himself and pointing out that his telephone number is printed on the fact sheets. He explained that work is progressing well and that the TNRCC has granted closure on seven of the environmental sites. In March, AFCEE received a letter approving closure of Area of Concern 17, a suspected former landfill, along with suspected former fire training areas and some oil/water separators. Currently, AFCEE is in the process of submitting closure reports on various other sites, including a storm drainage system, and fuel hydrant system. There are four waste accumulation areas and various oil/water separators that have been submitted for closure.

Mr. Dodyk then showed pictures of four waste accumulation areas on which closure was requested. He explained that these areas are on the base where they stored chemical waste. According to the closure report, there was no release from these sites.

Mr. Dodyk went on to address the continued progress and discussed the fieldwork that was done in February for the landfills in the former Training Areas No. 2 and another suspected former training area. He indicated that a report is being prepared on the Area of Concern 13, the auto hobby shop oil/water separator. Additionally, he noted that a semi-annual basewide groundwater sampling and a risk assessment of the TCE plume had been conducted. In addition to the fieldwork, they are currently designing a permeable reactive barrier.

Next, Mr. Dodyk explained the upcoming field work that will take place over the next two months, including more soil and groundwater sampling for the former aircraft wash areas, storm water interceptor, and the East Gate oil/water separator. A pilot study for the clean up of groundwater contamination from the former base gas station will be conducted. Mr. Dodyk reminded everyone that the gas station had closed eight years ago because the tanks had leaked. They now are going to try to clean up that contamination. They also are doing excavation of certain degrees at the former fire training areas. A geophysical survey has been completed. They found that there are some areas of buried metallic debris, and they are going to try to dig them up. They also are going to excavate the french drain system, and then remove it.

Mr. Dodyk described that later this summer they will have an interim remedial action plan for five of the waste accumulation areas and five landfills because of the hot spots found at these particular locations. They are going to treat groundwater hot spots, which is part of the ongoing Resource Conservation and Recovery Act (RCRA) facility investigation. Mr. Dodyk concluded by saying that a Phase III sampling round at the Building 1655 oil/water separator will be conducted this summer.

Air Force Plant 4

Mr. Walters reintroduced himself and provided a project update on Air Force Plant 4.

Project Update

Mr. Walters identified three items for discussion. He started with an update on Lake Worth sediment sampling. The U.S. Geological Survey (USGS) in Austin is reviewing the data, and they expect to present the data at the next RAB meeting, which will be in August. Mr. Walters does not want to jump the gun, but the results are pretty good. The concentrations in the sediment are not that bad. Mr. Walters believes that any work done by the City to the lake, such as dredging it, should not present a problem.

Mr. Walters then introduced a tour to the east parking lot. The tour will commence in the east parking lot and continue on for a tour of the F-16 assembly line. Mr. Walters reminded everyone that the assembly building is one-mile long and that pictures do not provide a good measure for how far it is. Mr. Walters also indicated that when standing at this parking lot, it is possible to look across the flight line therefore seeing Carswell a long way away. Again, Mr. Walters stated that pictures do not do justice for how much groundwater and the extent of the area that needs to be treated.

Mr. Walters explained that one cannot see how far apart the extraction wells are because mostly everything is underground. However, it is possible to see the treatment system and the building. He also noted that the tour would enable everyone to see 17 extraction wells, the barrier wall, and hydraulic barrier wall well vaults. Mr. Walters then asked if they were going to tour near the flight line?

A representative from AFP 4 responded that they would get a tour of the north end of the flight line area.

Mr. Walters continued by stating that behind the engine run up station there are several extraction wells but that it may be difficult to see them because they are underground and only a small amount of piping is available on the surface. A handout was provided detailing extraction well installation. However, Mr. Walters did point out that the extraction wells behind the engine run up station are

different because they are deeper and not typical wells. Mr. Walters further described that they did not want to create any foreign object damage in the ramp-up area so they had to install a very expensive horizontal extraction well in the area where the F-16 aircraft taxi out.

Next, Mr. Walters presented a timeline. He did so to explain why the five and a half million-dollar treatment system was not installed five years ago. He said that things have to be done in an orderly process. The aerial investigations conducted show additional release of trichloroethylene (TCE) in Building 181 in 1991, which is in the top corner of the building flowing out toward the east parking lot. Mr. Walters reminded everyone that they would not see the installed remediation system, which was toured two years ago. He confirmed that when they do investigations, and when they think they are going to spend money, they do an interim, not final action, before the investigations are complete. Mr. Walters stated that in 1995 they expanded the soil vapor extraction system by Building 181. Additionally, in 1996 there was a record of decision calling for a large pump and treat estimate to take care of the plume and to cut the source off at the plant.

Mr. Walters then discussed the building of the east parking lot system, a very complicated system with a lot of piping. The building took longer than anticipated and had a little cost overrun. It is their hope that their next project will be a large, half-acre heating for the soil/groundwater in Building 181. They hope to install it in January 2002. Mr. Walters showed the pilot testing which was deemed successful. The cost will be around \$2,000,000.

Next year, they hope to finalize everything and are aiming toward the goals of clean up. With one well having 800,000 parts per billion, they hope to have it down to 10,000 parts, the clean up goal in the Record of Decision. However, when pure product is flowing it is very difficult to get it down to 10,000. The EPA agreed with them, but their goal has not changed.

Mr. Walters stated that they want to get the TCE concentration in groundwater in the east parking lot down to 400 parts per billion. The drinking level is 5 parts per billion, but no one drinks the water in this area and their goal is to prevent the plume from spreading. If the head off the plume is contained, then they have other extraction systems down in the golf course section of the plume to clean up the plume. They are doing further investigations on the northern plume to see if there are any other additional actions required.

Mr. Walters presented a sequential diagram of TCE in the groundwater. He described how TCE is introduced, via leaking pipes or landfills, and how TCE has a tendency to absorb onto microscopic particles. It was explained that a soil particle has pore spaces and that is how the TCE gets in there. However, once a pumping starts then all of the TCE that is free will move towards the extraction well where the concentration can be measured and will go down. This is a good

thing. Mr. Walters stated that diagram No. 3 shows an area that had been pumped for several years and the concentrations were going down.

Mr. Walters noted that once clean water appears the blue clean water can come in and start to dilute the system even more. He further clarified that if the treatment system was turned off on No.4, even with its low concentrations, those particles of TCE in the pore space are hard to get out. They naturally diffuse. What Mr. Walters is trying to do in Building 181 is heat the soil to release TCE into the air. He stated they would only be able to afford the six-phase heating on the hot spot. The good news is that normally this water is not considered drinkable or consumable, therefore, the treatment process can be long term. Mr. Walters noted this would be a long-term operation until other technologies come out that can get in there and get the TCE particles in soil pores. He pointed out that there are other treatment projects that they will probably try as pilot systems. If they are successful, then they will probably try them on a larger scale.

Mr. Walters concluded his project update by discussing the budgeting process and how the money is going to be spent next year. He explained that June is the time for projects to be submitted to Headquarters for next year (October 01). Currently, he is discussing with the EPA, through their meetings, whether to budget for further Carswell actions, or further investigations, and then budget the following year and years on out.

Mr. Walters talked about the treatment system Building 181 where a lot of money was put in the ground. The number 1 priority is to keep the system operating. And, whatever project they decide they want to continue, meaning any further excavations or pilots they want to do, they will get funded later in the year. AFCEE is Mr. Walter's contracting agency. It takes approximately three months for them to put something together for a contract. So, project contracting money does not just happen. This is normal processing. However, if there is an emergency they are able to receive money for the initial investigation and sampling. Then, the next step after the emergency is to submit proposals for future follow-up studies.

Again, Mr. Walters discussed the tour of the treatment system and the good things happening there. He reminded everyone that while they are cleaning up the groundwater here, TCE is everywhere. It is in the food you eat, like peanut butter and cereal, however it is at low levels, but everyone should know it is out there and be aware of it. The EPA has done extensive studies on TCE. More importantly, he wants to inform everyone of the good job they are doing here and that they are going to keep the plume on-site and treat it. The bigger issue is that it is out there. It is in the air. They are finding it all over the world since many industries and countries used TCE. Air Force Plant 4 no longer uses TCE.

Mr. Walters concluded by reminding everyone about the details of the tour informing them that they were going to see the F-16 and a B-36 that is being

refurbished. He also asked that there be no cameras or tape recorders inside the building.

Adjournment

The next RAB meeting is scheduled for August 9, 2001. The meeting adjourned at 6:30 p.m. The tour began immediately after.

In Attendance

Carswell DERA (On-Base)

Rich Wheeler, Ellis Environmental Group
 Melvin Alli, HQ AFCEE/ERD
 Mike Dodyk, HQ AFCEE/ERD
 Don Ficklen, HQ AFCEE/ERD
 John Gillespie, HQ AFCEE
 Lynn Morgan, HydroGeoLogic, Inc.
 Miquette Rochford, HydroGeoLogic, Inc.
 Robert Wallace, HydroGeoLogic, Inc.
 Christiana Hewitt, Universe Technologies
 Audrie Medina, Universe Technologies
 Andrea West, Universe Technologies

Carswell AFBCA (Off-Base)

James Waldron, AFBCA/DC
 Charles Pringle, AFCEE

Air Force Plant 4

Gregg McGraw, IT Corporation
 Rick Wice, IT Corporation
 Delbert L. Zirgler, Jacobs Engineering
 John Miller, Mitretek
 Don Yates, Public Affairs Office, Wright Patterson Air Force Base
 Christopher Braun, U.S. Geological Survey
 Sandra Eberts, U.S. Geological Survey
 George Walters, AFP 4 Project Manager, Wright Patterson Air Force Base

United States Navy

Captain Steve McMullin, Commander in Chief, NAS Fort Worth
 Don Ray, Navy Public Affairs

Texas Natural Resource Conservation Commission

Ray S. Risner
 Tim Sewell
 Ludmila Voskov
 Mark Weeger

U.S. Environmental Protection Agency**Charles D. Abshire****Gary Miller****Ruben Moya****Lockheed Martin****Fred Novak, Lockheed Martin****Norman Robbins, Community Relations Manager****Janey Shih, Lockheed Martin Environmental Resources Management****Others (Off-Base)****Tom Kearley, City Member****Brian Camp, City of Fort Worth Environmental Management Dept.****Robert Taylor, City of Fort Worth Water Department****Greg Hendrickson, City of River Oaks****Judy Hendrickson, City of River Oaks****D. W. Owen, City of River Oaks****Mike Gross, Community Member****John Maddox, Community Member****James Rau, Community Member****Aaron Wice, Community Member****Chuck Tilbrook, Pride Refining****Leland Clemons, Westworth Redevelopment Authority****Ed VonKohn, Westworth Village**

NAS Fort Worth JRB Installation Restoration Program Update

Michael R. Dodyk, P.E.

May 10, 2001

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Geologic

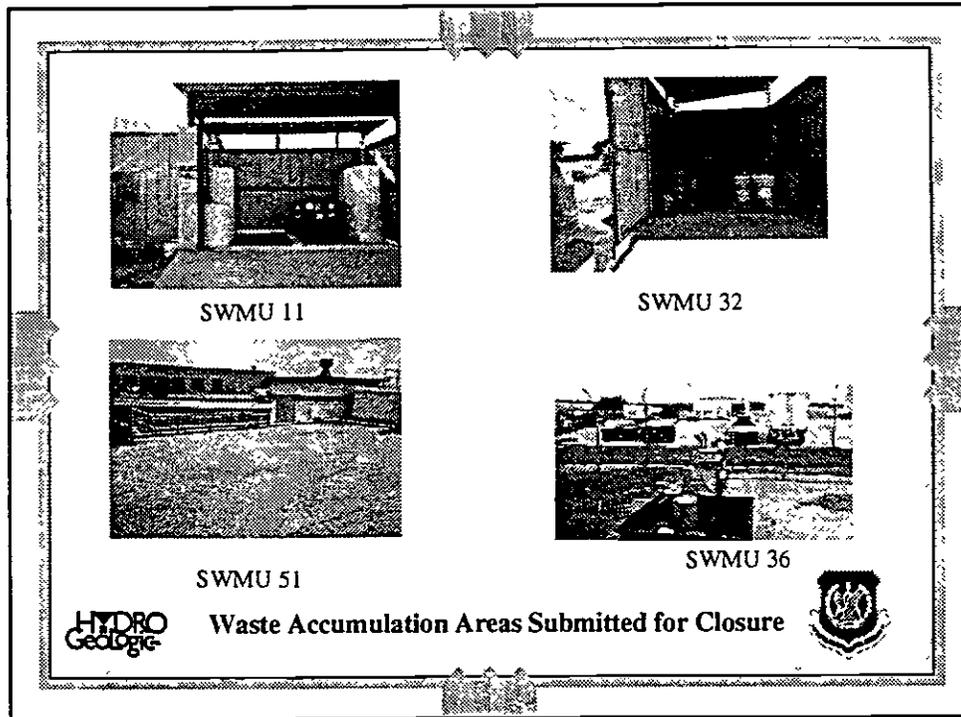


Site Closure Update

- ◆ TNRCC granted closure on 7 sites in March 2001:
 - AOC 17, Suspected Former Landfill
 - AOC 18, Suspected Former Fire Training Area
 - Oil/Water Separator Sites at Buildings 1101, 1320, 1423, 1656, and 4160
- ◆ Closure reports submitted to TNRCC for review:
 - SWMU 53, Stormwater Drainage System
 - Area of Concern 4, Fuel Hydrant System
 - SWMUs 11, 32, 36, and 51 Waste Accumulation Areas
 - SWMUs 35, 37, 40, 41, 44, 47, 52; AOC s 10, 11, and 12; and Buildings 1602, 3358, and 4146 Oil/Water Separator Sites

HYDRO
Geologic





Continued Progress

- ◆ Field work conducted in February for Landfills, Former Fire Training Area No. 2, and AOC 19, a Suspected Former Fire Training Area.
- ◆ Preparation of RFI Report for AOC 13 (Auto Hobby Shop Oil/Water Separator) continued.
- ◆ Semi-annual basewide groundwater sampling conducted in April 2001.
- ◆ Risk Assessment and Focused Feasibility Study of the southern lobe of the TCE plume continued.
- ◆ Work continued with designing the permeable reactive barrier for the TCE plume.
- ◆ Site Investigation of AOC 20 and data gaps investigation for AOC 2 RFI continued.

HYDRO
Geologic



Upcoming Field Work

◆ Over The Next 2 Months:

- Phase II soil and initial groundwater sampling for:
 - SWMU 50, Former Aircraft Wash Area No. 2
 - SWMU 54, Storm Water Interceptor 004
 - SWMU 55, East Gate Oil/Water Separator
- Pilot study for cleanup of groundwater contamination at AOC 1, the former base service and gas station.
- Excavation and removal of buried metallic debris at the former Fire Training Area No. 2 and the suspected Fire Training Area (SWMUs 19, 20, 21, and AOC 19). Phase II field work for soil and groundwater sampling to occur after removal activities.
- Excavation of the French Underdrain System (SWMU 64).

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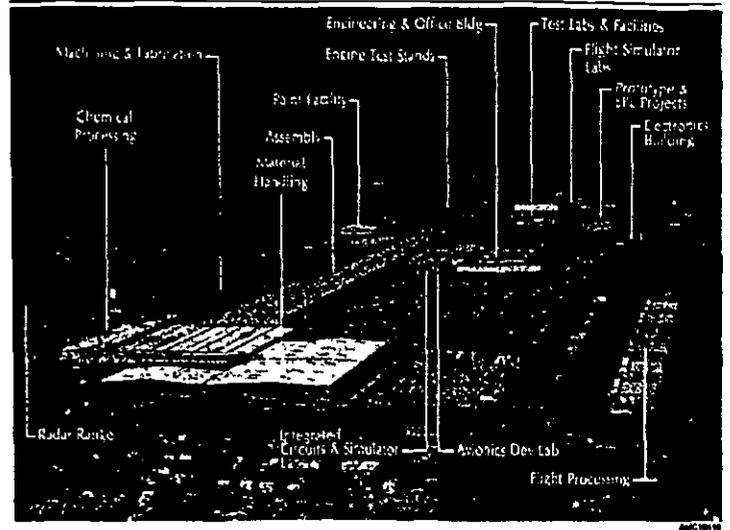
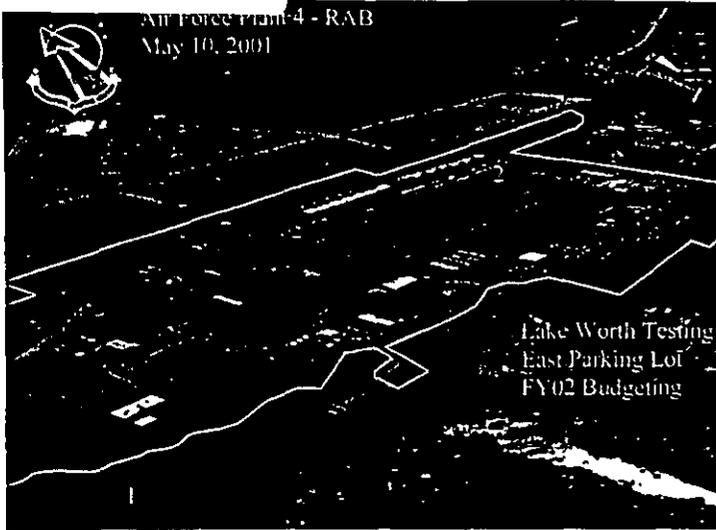
Upcoming Field Work

◆ Later This Summer:

- Interim Remedial Actions planned at 5 Waste Accumulation Areas and 5 Landfills to remove soil hot spots and treat groundwater hot spot in place as part of the RCRA Facility Investigation.
- Phase III soil sampling at the Building 1655 Oil/ Water Separator Site.

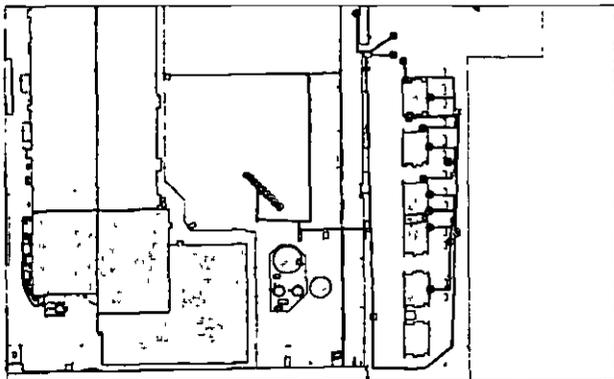
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East Parking Lot Remedial Action

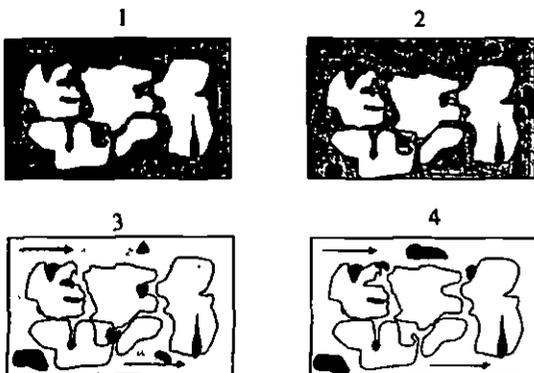
Operational ~~Dec 2000~~ March 2001



East Parking Lot Time Line

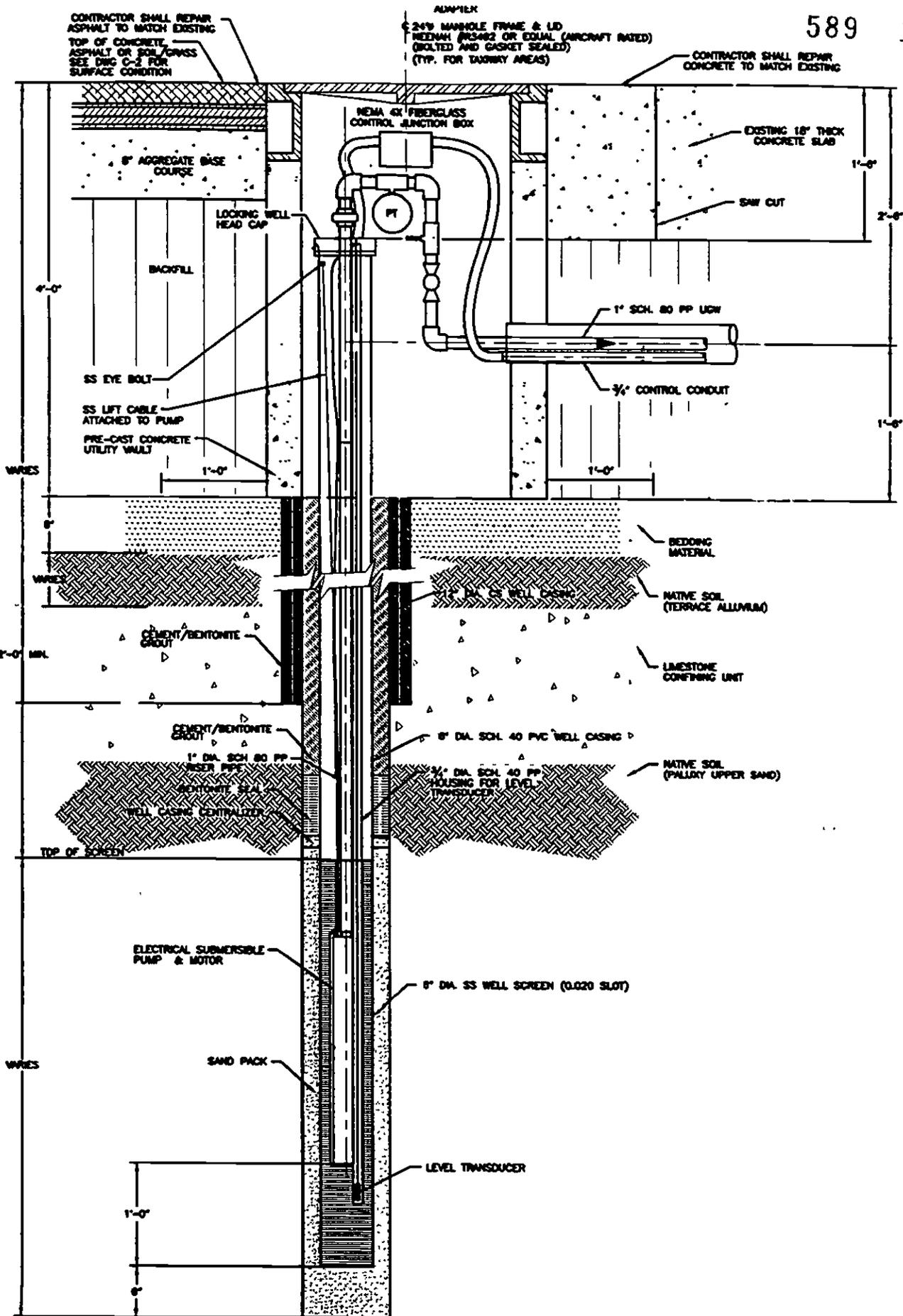
- 1983-1991 Site wide investigations
- 1991 Bldg 181 TCE Release
- 1992 Bldg 181 investigations
- 1993 Bldg 181 Interim Soil Vapor Extraction
- 1995 Expanded SVE
- 1994 Interim EPL Groundwater P&T
- 1995 Remedial Investigations completed
- 1996 Record of Decision Final
- 1999 - 2005 Bldg 181 Full Scale SVE
- 2001 - 2018 EPL Full Scale Operation
- 2002 Bldg 181 Six Phase Heating of Soil/GW
- 2002 ROD 5 Year Review

Long Term Pumping Required



FY 2002 Budgeting

- June 01 Projects Submitted to HQ
 - Operations and Maintenance
 - Long Term Monitoring
 - Others (Carswell Actions?)
- July 01 Approval by HQ/Pentagon
- Nov 01 Continuing Resolution Funding
 - O&M
- Jan 01 Final Funding of Projects
 - 3 months to contract



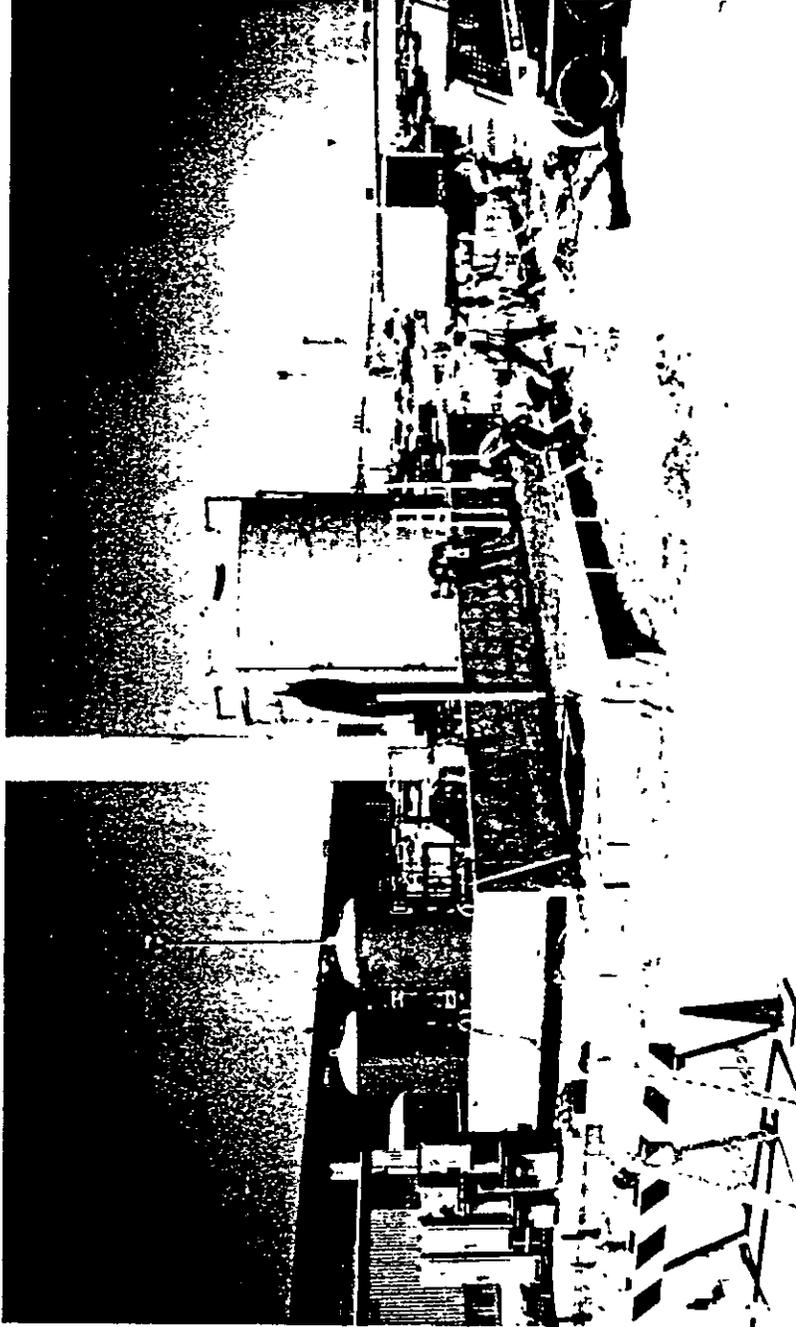
**PALUXY UPPER SAND
EXTRACTION WELL
& VAULT SECTION**
NTS

**Construction History And System Description
For The
East Parking Lot And Window Area
Groundwater Pump And Treat System
Air Force Plant 4, Fort Worth, Texas**

May 2001



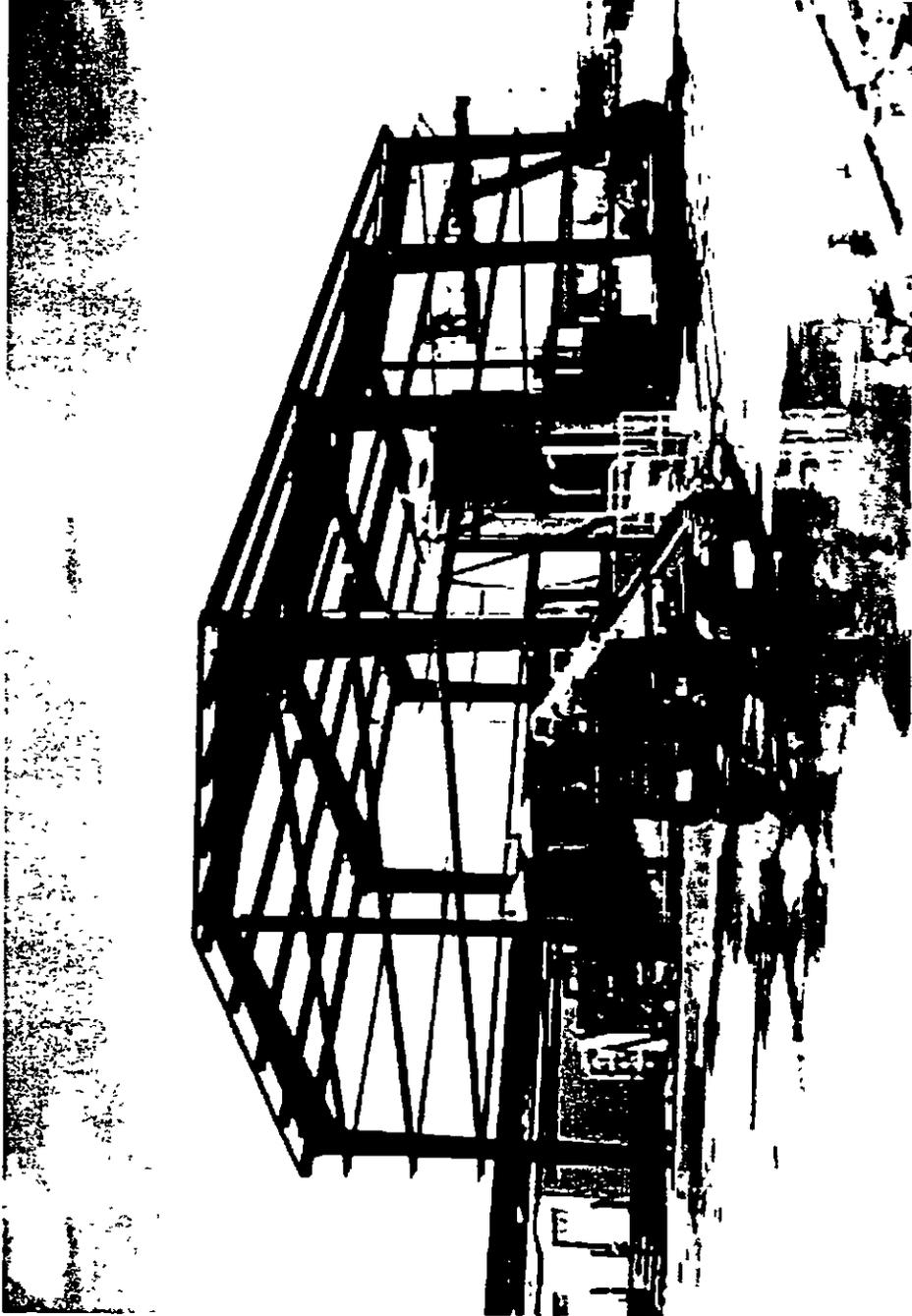
Preparing building foundation for concrete pour.



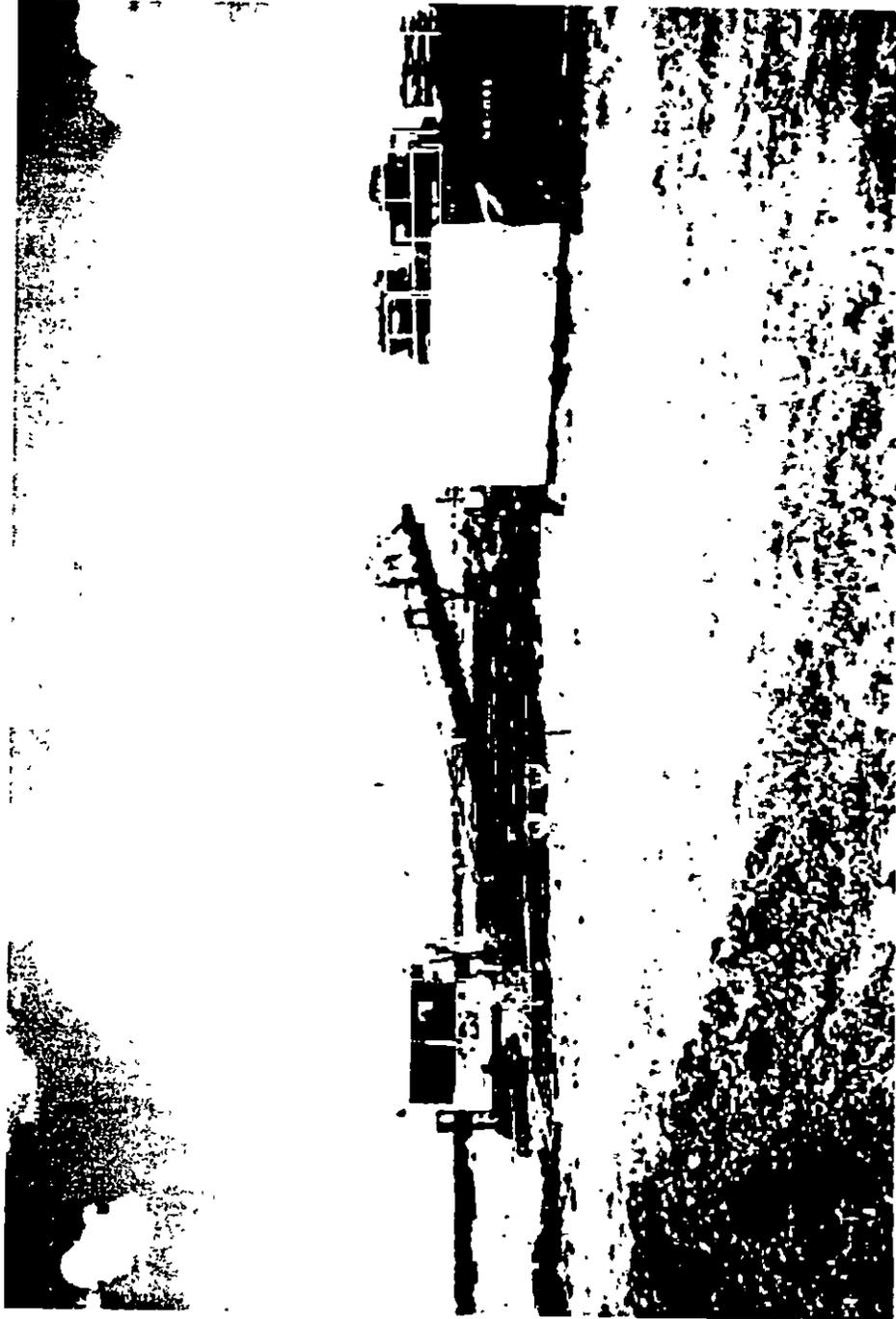
Building foundation and equipment pads in the acid containment area.



Erection of the treatment building.



Installation of horizontal extraction well No. TA-24.



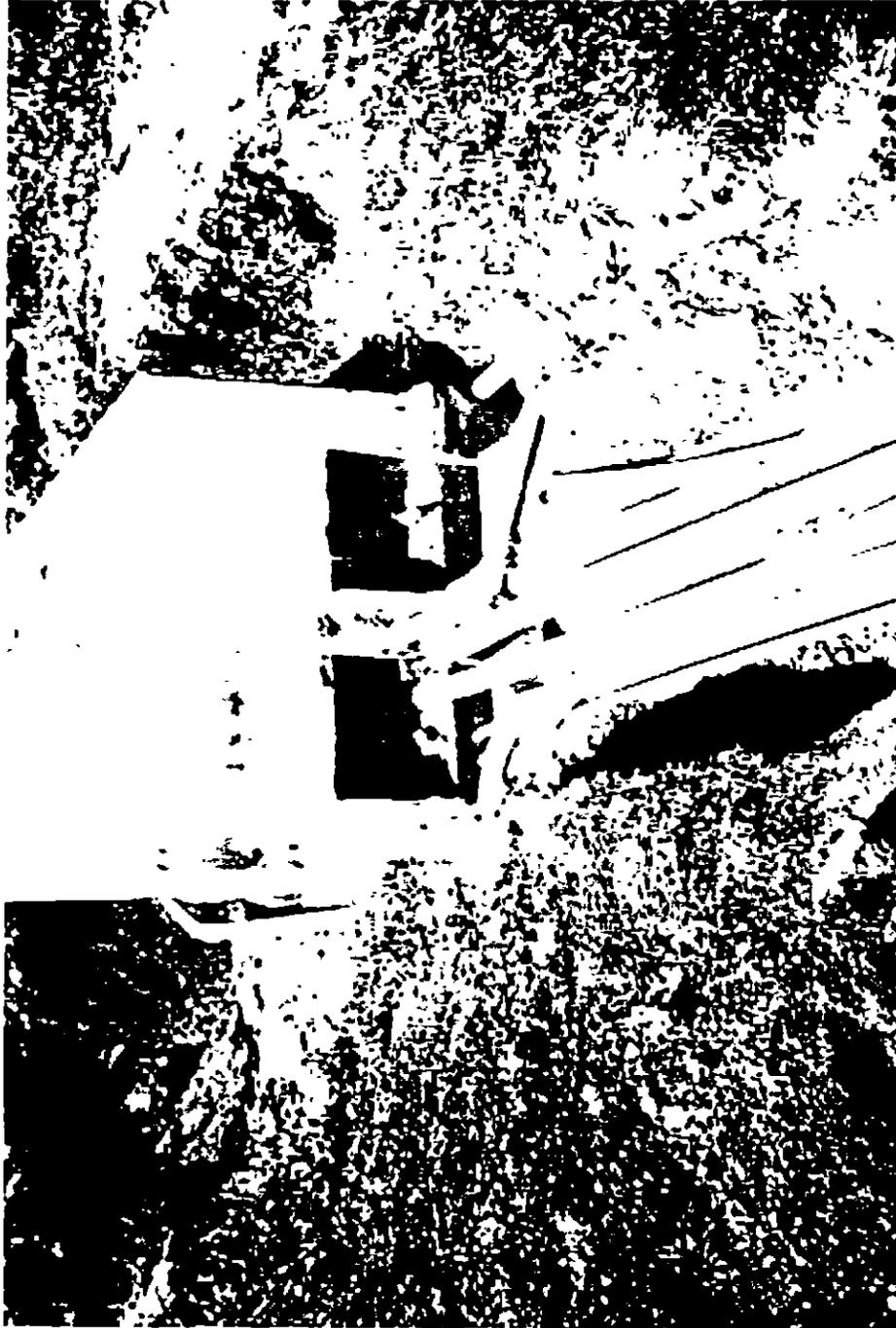
Installation of extraction well-head vault.



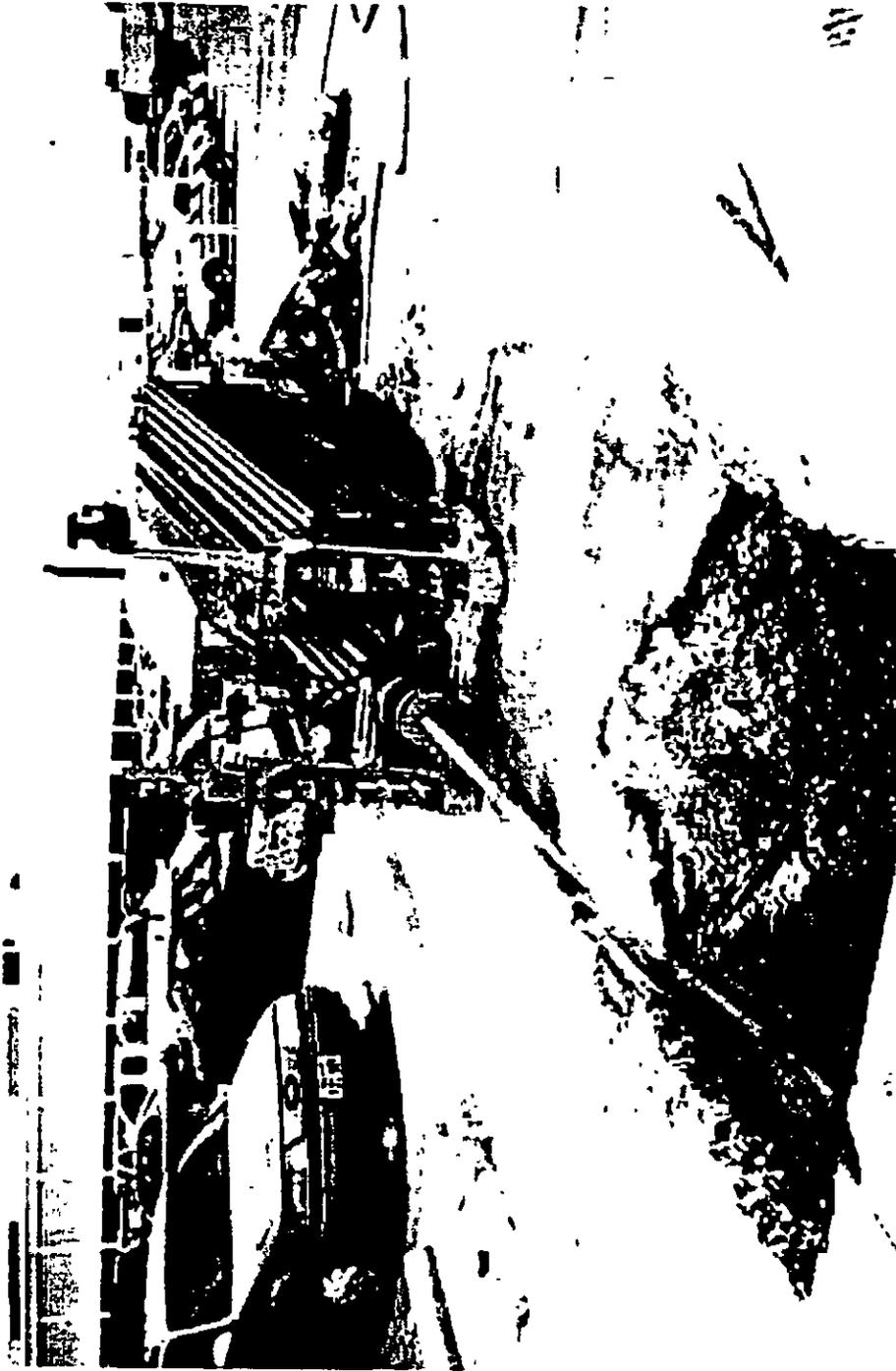
Completed extraction well-head vault.



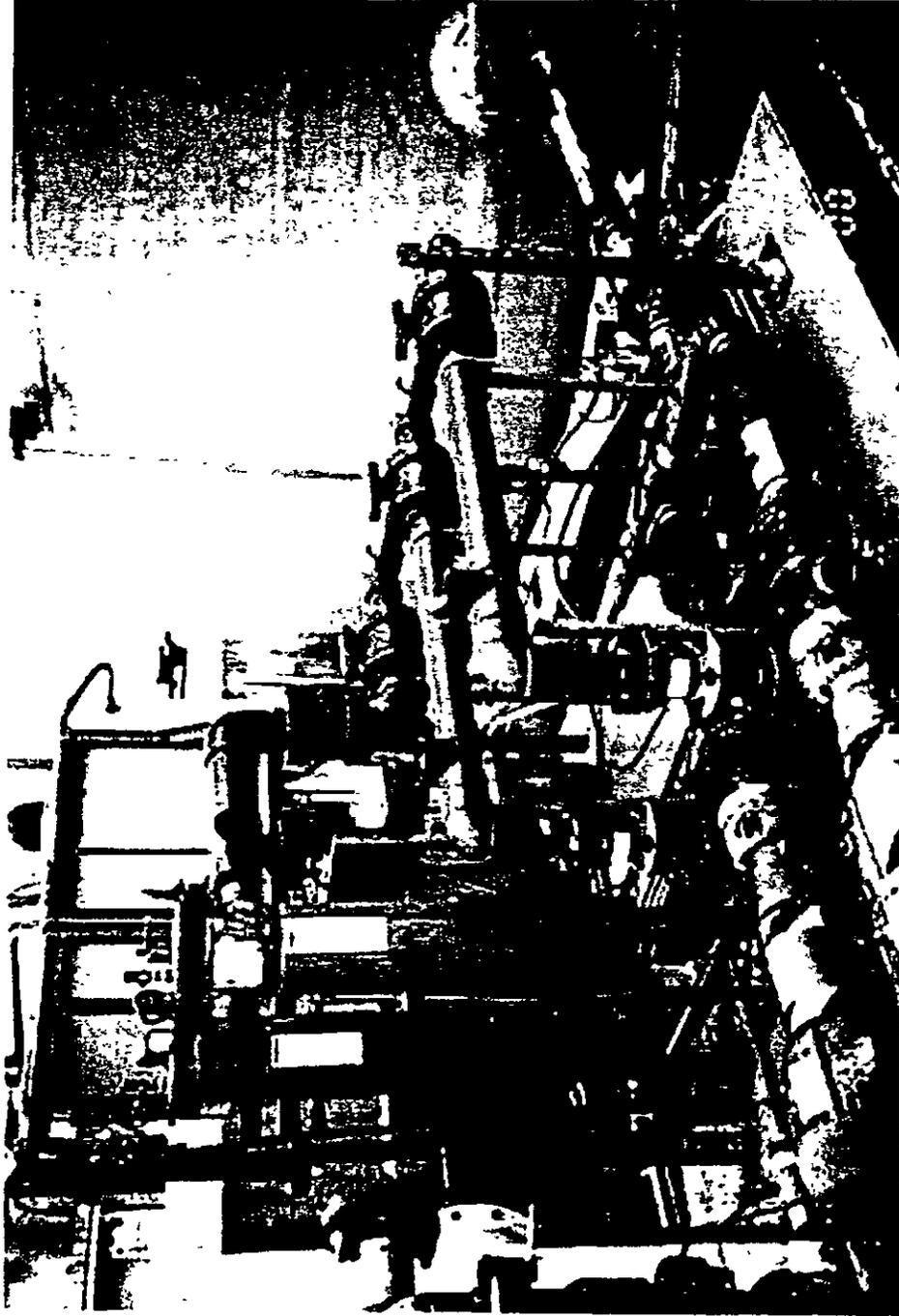
Piping and conduit installation to a well control vault.



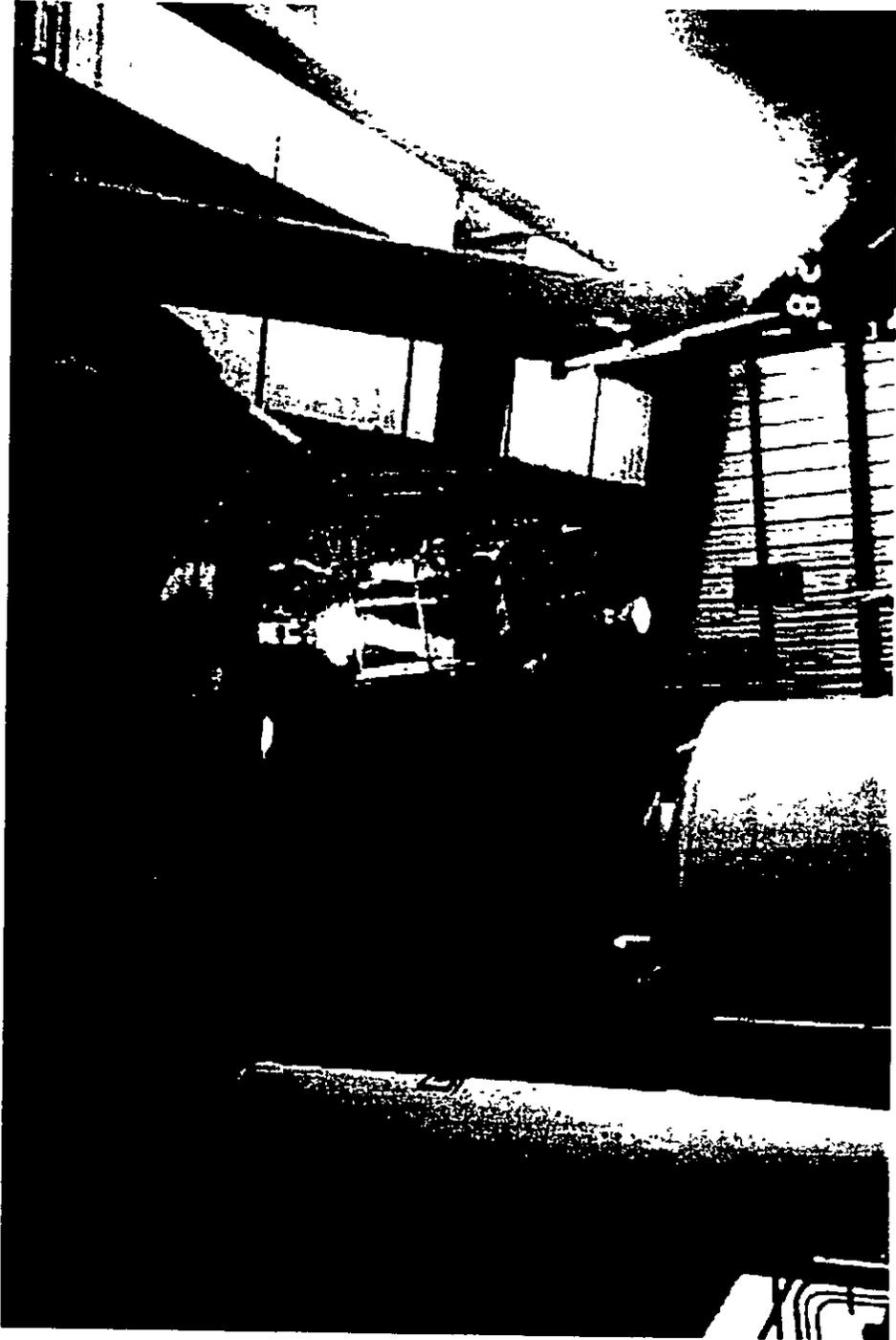
Horizontal drilling for piping and conduit installation in the east parking lot.



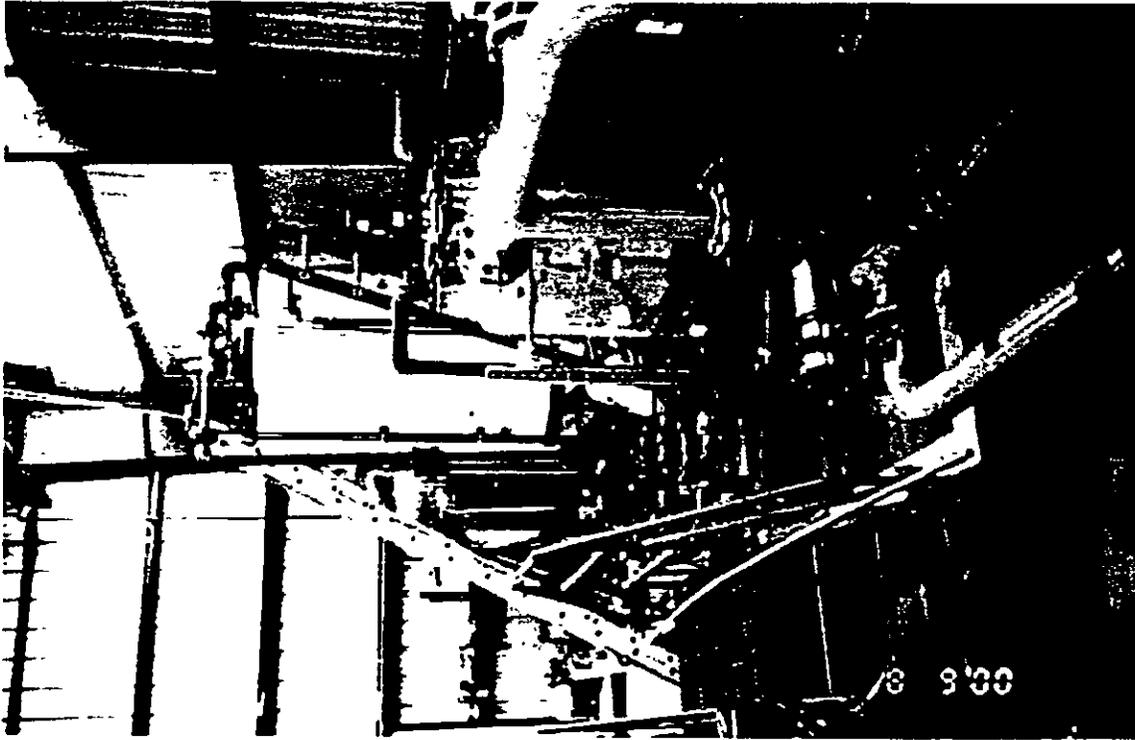
Modification to existing piping to increase system capacity.



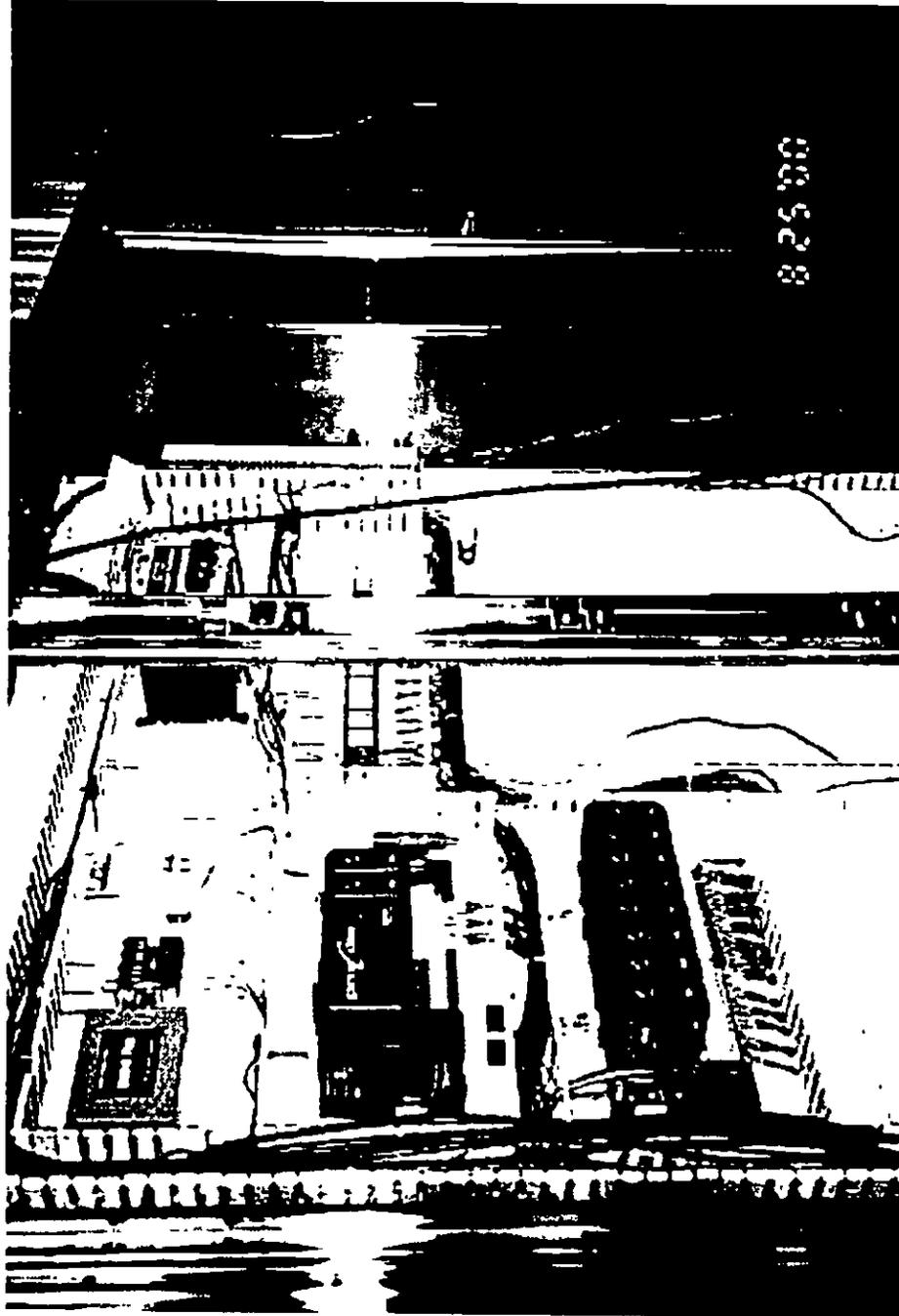
Installation of the fire suppression system.



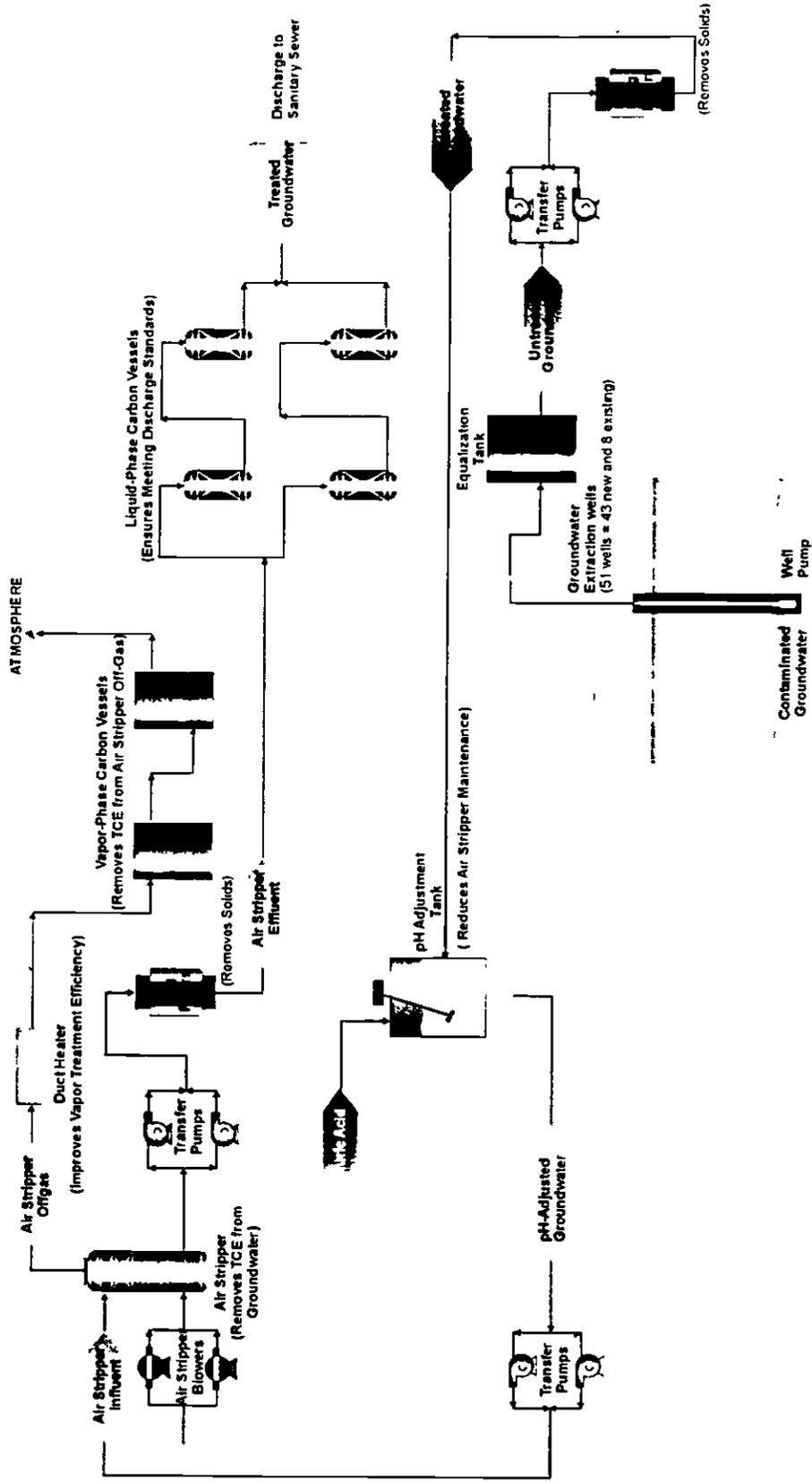
Installation of tanks and
piping in the acid
containment area.



Installation of distributed control system (DCS).



Groundwater Treatment System – Process Flow Diagram



FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE