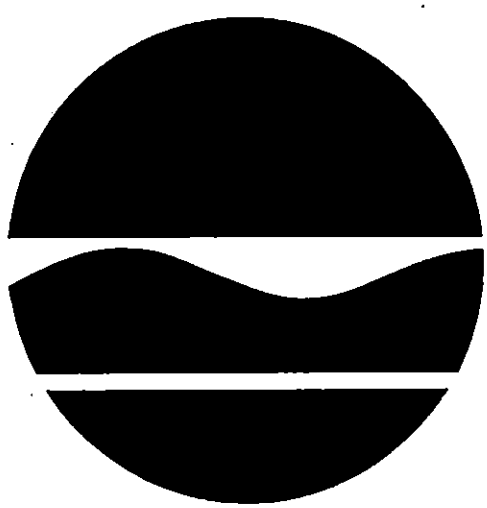
PROPOSED REMEDIAL ACTION PLAN
RCA - ROCKY POINT
Operable Unit No. 02
Town of Brookhaven, Suffolk County
New York
Site No. 152011

August 2006



Prepared by:

Division of Environmental Remediation
New York State Department of Environmental Conservation

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SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

- The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for the RCA - Rocky Point Site, Operable Unit No. 02 (OU-2), the remedial investigation program for the on-site contamination. As more fully described in Sections 3 and 5 of this document, the PCB containing electrical equipment including capacitors and transformers had been operated at the RCA - Rocky Point site for half of a century by the former operator Radio Corporation of America (RCA). A PCB spill occurred outside of a former transformer building (Building #9) which resulted in the disposal of hazardous wastes, including PCBs. These wastes contaminated the soil at the site, and resulted in:

- a significant threat to human health associated with potential exposure to PCBs present in the soil.

- a significant environmental threat associated with the potential impacts of PCB contamination to on-site soils.

- The New York State Department of Environmental Conservation (NYSDEC), implemented several remedial actions to remediate the on-site soil contamination at the RCA - Rocky Point site. As discussed in Section 3.2, the remedies implemented by the Department were effective in remediating the soil contamination. These remedies consisted of the following:

- Excavation of contaminated soil in the PCB spill area at former Building #9.

- Cap construction over the spill area.
- Protection of the spill area by chain-link-fence.

Based on the implementation of the above remedies, and the findings of the investigation of this site indicate that the site no longer poses a significant threat to human health or the environment; therefore No Further Action with following IC/ECs is proposed as the remedy for this site..

A cap covers an area with some residual PCB contaminated soils. The investigation results indicate that the cap is functioning as designed. However, periodic groundwater monitoring of two new monitoring wells is proposed to ensure that past remedial activities and the capping system are protective of underlying groundwater. Long term maintenance of the capping system and the chain-link-fence is also proposed.

The former operator, RCA used a natural kettle hole as a landfill. The analytical results of soil samples indicate that there is a limited amount of PCB contamination in the landfill area. No PCBs were detected in the groundwater samples. There is a surface layer of clean soils already covering the fill. It is proposed that a chain-link-fence be installed around the landfill to help prevent anyone from disturbing the surface cover. It is also proposed that institutional controls be placed on the property to prevent unauthorized excavations. Finally, periodic groundwater monitoring is also proposed to confirm that impacts to the underlying groundwater are not occurring.

The Department received a voluntarily provided statement from a citizen regarding a second hand unconfirmed allegation of buried drums of unknown contents at the RCA - Rocky Point property. The citizen was not the witness to the burying of drums. He reported what was told to him by a former RCA employee, now deceased. This allegation has been evaluated by the Department on several occasions. A geophysical survey with a metal detector and a geophysical investigation by test pit excavation failed to establish the buried drum allegation. Accordingly, no further action is proposed to evaluate the buried drum allegation.

The proposed remedy, discussed in detail in Section 6, is intended to attain the remediation goals identified for this site in Section 6. The remedy must conform with officially promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

This Proposed Remedial Action Plan (PRAP) identifies the preferred remedy and discusses the reasons for this preference. The Department will select a final remedy for the site only after careful consideration of all comments received during the public comment period.

The Department has issued this PRAP as a component of the Citizen Participation Plan developed pursuant to the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375. This document is a summary of the information that can be found in greater detail in the August 2, 2006 "Remedial Investigation Report", the January 26, 2006 "Remedial Investigation Work Plan", and other relevant documents. The public is encouraged to review the project documents, which are available at the following repositories:

Document Repositories:

1) North Shore Public Library
250 Route 25A,
Shoreham, NY 11786-2190
Phone: (631) 929-4488
Hours: Mon.-Fri. 10:00 a.m. to 9:00 p.m.
Sat. 10:00 a.m. to 5:00 p.m.
Sun. 1:00 p.m. to 5:00 p.m.

2) NYS Department of Environmental Conservation - Region 1 Office

Division of Environmental Remediation

SUNY Building - 40

Stony Brook, NY 11790-2356

Contact: Abdur Rahman (Project Manager)

Phone: (631) 444-0247

Hours: Mon.-Fri., 8:30 a.m. to 4:45 p.m.

The Department seeks input from the community on all PRAPs. A public comment period has been set from *October 1, 2006 to October 31, 2006* to provide an opportunity for public participation in the remedy selection process. A public meeting is scheduled for *October 16, 2006* at the *Rocky Point High School located at 82 Rocky Point - Yaphank Road, Rocky Point, New York 11778* beginning at *7:00 p.m.*

At the meeting, the results of the RI will be presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period will be held, during which verbal or written comments may be submitted on the PRAP. Written comments may also be sent to Mr. Rahman at the above address through *October 31, 2006.*

The Department may modify the proposed remedy or select another based on new information or public comments. Therefore, the public is encouraged to review and comment on all of the alternatives identified here.

Comments will be summarized and addressed in the responsiveness summary section of the Record of Decision (ROD). The ROD is the Department's final selection of the remedy for this site.

SECTION 2: SITE LOCATION AND DESCRIPTION

SITE DESCRIPTION :

The RCA Rocky Point site, located in the town of Brookhaven, Suffolk County, New York is currently owned by the New York State Department of Environmental Conservation (Figure - 1). The size of the property is 5,100 acres and the area surrounding the site is wooded. However, only approximately 2 acres of this site, consisting of an old landfill and a capped area with residual PCB contamination, are included in the listed Class 2 site. The landfill area is about 1 acre in size that was placed in a 2-acre natural kettle hole. The PCB capped area is approximately one half of an acre in size. Current use of this resource management area includes hiking, bicycling, horseback riding and hunting. The nearest residential area, the hamlet of Rocky Point, is approximately 1.5 miles to the north. There is one public water supply well approximately 7,000 feet south of the landfill site. There are two USGS observation wells: one 5,000 feet southeast and one 3,500 feet south southwest. The nearest domestic well is approximately 5,000 feet southeast of the landfill site. Since the groundwater flow direction is generally to the north, none of these wells are hydraulically downgradient of the site.

SITE HYDROGEOLOGY:

Groundwater in the area occurs in the wedge-shaped accumulation of unconsolidated sediments of Pleistocene and Upper Cretaceous age which are approximately 1,100 feet in thickness in the vicinity of the site (thickness saturated with fresh groundwater). The basal bedrock on which these sediments lie is of Precambrian age and consists of schists and gneisses which outcrop in western Queens County and dip southeast on the average of about 65 feet per mile, or slightly less than 1°, to an estimated depth of about 2,000 feet in south-central Suffolk County. The surface of the bedrock is approximately 1,000 feet below mean sea level in the vicinity of the site.

The Cretaceous fluvial and deltaic deposits rest directly upon the 100+ ft., clay-like weathered surface of Precambrian bedrock, and are divided into the Raritan Formation and the overlying Magothy Formation.

The Raritan formation is composed of a lower sand member (Lloyd aquifer) and a clay member, both of which are widely distributed on Long Island. The top of the Lloyd aquifer in Suffolk County ranges from 200-1,700 ft. below sea level, and its thickness ranges from 150 ft. in the northwestern part of Suffolk County to over 300 ft. in the southeastern part of the county. This unit has not been widely tapped as an aquifer except in northern Nassau County where it is relatively accessible and on the south shore where saltwater intrusion has threatened overlying aquifers.

The Raritan clay member serves to confine water in the underlying Lloyd aquifer and retards but does not prevent flow between the Lloyd and the overlying Magothy aquifer. The top of the Raritan clay in Suffolk County ranges from 100-1,400 ft. below sea level trending northwest to southeast, respectively, and its thickness ranges from 100-300 ft., following the same trend.

The Magothy Formation, which is utilized as a major aquifer, consists of a great thickness of alternating fine sands, clays, silts, and some coarse beds of sand and gravel. The top of the formation generally ranges from 300 ft. above to 250 ft. below sea level, and ranges in thickness from 330-1,000 ft. in Suffolk County.

The Pleistocene glacial deposits which constitute the upper Glacial aquifer overlie an irregular Magothy surface eroded and scoured by glacial contact. A deeply penetrating well in the vicinity of the site indicates that the glacial deposits extend to a depth of 555 ft. below the National Geodetic Vertical Datum of 1929 (roughly correlative to mean sea level), thus placing the Magothy-Glacial interface at approximately 645-655 ft. below land surface elevation at the site. Such a depth would indicate the presence of a deep glacial scour at the location of the site. Since the conducted investigation was designed to sample the upper ten feet of the water table, the concern on the drilling project was mainly with the sands of the upper Glacial aquifer.

Horizontal groundwater flow direction is to the north to northwest; however, due to the regional groundwater hydraulics and the high permeability of the native soils, a strong vertical flow

component is anticipated. Depths to groundwater are 45 feet at the landfill area and 102 feet at the capped area below the natural grade.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

3.1(A) General:

The site was a transcontinental radio communication station from 1921 to 1978. Much of the property was cleared for antenna arrays which included towers 400 feet tall. The majority of the property was covered by a grid work of timber antenna supports. In 1978, RCA turned the facility over to the New York State Department of Environmental Conservation. All known hazardous waste disposal at this site involved the spilling of PCB fluids contained in the many electrical transformers that were used at the site.

3.1(B): PCB Capped Area:

Building # 9 was the main transformer building of the RCA transcontinental radio communication station. Commencing in 1927, until 1975, Rocky Point had been used solely as a transmitting station (there was a receiving station at Riverhead). The PCB containing electrical equipment including capacitors and transformers had been operated at this part of the Rocky Point facility for half of a century. During the period of August 1982 to January 1983, a limited remedial activity was performed to remove electrical equipment containing PCBs. During the removal operations, a PCB spill occurred outside of Building #9, which resulted in soil contamination. The concrete floor inside the building was also impacted. Between the period of December, 1984 and June, 1985, approximately 22,000 cubic yards of PCB contaminated soil was removed and properly disposed of off-site. Contaminated concrete was also removed from the floor inside Building # 9 and disposed of off-site. The excavated area outside of the building was subsequently backfilled with clean soil. In the fall of 1988, a cap was placed over the spill area. The capped area is protected by a chain link

fence. The perimeter of the capped area was determined by the PCB concentrations in soils less than 10 ppm at depths of 6 inches and 24 inches. Four samples were taken to evaluate PCB concentrations along the perimeter. Two samples were taken at each location, at depths of 6 inches and 24 inches respectively. All samples exhibited PCB concentrations lower than the 10 ppm action level, as determined by NYSDEC. In April 1989, a testing of the floor of Building #9 revealed that all of the contaminated concrete had not been removed. In September 1989, all of the concrete floor inside the building was removed. Testing revealed that contamination existed in the soil under the floor. This soil was excavated as deeply as possible without undermining the integrity of the building. There was still contamination present but work could not proceed until the building was demolished. In February 1990, Building # 9 was demolished. The foundation was left in the ground. In November 1990, the north wall of the foundation (which was contaminated) and approximately 1,100 tons of contaminated soil were excavated and shipped to a licensed hazardous waste landfill in Utah. Sampling showed that the soil on the bottom of the excavation contained less than 10 ppm of PCBs. The excavation was filled with clean soil.

Two monitoring wells were installed northwest (downgradient) of the cap during the period of capping construction in 1988. The wells were sampled on December 9, 1988 and no PCBs were detected. These two monitoring wells were inspected on August 25, 2005 to determine if they were usable for the planned site investigation and future sampling. Both of these monitoring wells were filled with rocks and could not be repaired. These two monitoring wells were decommissioned and two new replacement wells were installed as part of the remedial investigation which was conducted in March 2006 (Figure - 6). The two new replacement wells at the capped area were sampled on March 23, 2006 for PCBs and no PCBs were detected.

3.1 (C) Landfill Area:

RCA used a natural kettle hole area in the southwest portion of the site as a landfill. It is alleged that part of the landfill area (approximately 200 ft. x 200 ft. x 20 ft. deep) received an unknown quantity of discarded capacitors containing PCBs. As per an estimate by Marshal Etter dated December 12, 1979, about one dozen capacitors were buried in the landfill. It is also alleged that there were PCB

containing condensers disposed of in this landfill. Additionally, the landfill is comprised of bulk debris including old cable, telephone poles, porcelain insulators, wood scraps, hinges, remains of old radios and transmitters, rusted drums, and other assorted debris. In 1980, the Suffolk County Department of Health Services, in cooperation with the NYSDEC, drilled soil borings and installed four monitoring wells in and around the landfill. Seventeen shallow soil borings (between 2.5 and 5 feet), were augured through the filled area. Garbage was encountered in all but three of these borings. One 20-foot boring was drilled through the fill area, and encountered glass, brass, mica, copper wiring and other debris. Three forty-foot borings, completed outside of the fill area were free of debris. Four 2-inch inside diameter steel monitoring wells were also installed as part of this investigation. PCBs were not detected in the groundwater samples collected from these monitoring wells. Three of these monitoring wells were identified and decommissioned during the March 2006 remedial investigation.

A Phase II investigation of the landfill was completed by Roux Associates, Inc. in 1989 and no hazardous wastes were found. Four PVC monitoring wells were installed for this Phase II investigation (Figure - 5). These wells have not been vandalized and were sampled as one of the tasks in the March 2006 remedial investigation. The groundwater samples collected from these four monitoring wells at the landfill area were analyzed for VOCs, SVOCs, PCBs and metals. There were no significant detection in these samples. There were no exceedences of SCGs.

Building #1 was the primary control and communication center, with ancillary buildings and structures around the site providing support services. In 1992, all of these buildings were demolished. All concrete and masonry construction and demolition material from the main building complex, the tower, the diesel building, the three electrical substations and two underground basement areas were disposed of in the landfill area.

In order to determine the nature of the fill at the landfill area, three test pits were excavated on March 20, 2006. The test pits' debris was mainly composed of rolled-up electric cables, porcelain

insulators, masonry debris, wood scraps, metallic scraps, plastic pieces, old G.I. cables, hinges, remains of old radios and transmitters, rusted steel sheets and other assorted debris.

Three soil samples collected from three test pits plus one duplicate soil sample collected from Test Pit #2 (Figure-4) were analyzed for VOCs, SVOCs (Base/Neutrals only), PCBs and metals. PCBs were detected (23 ppm) in the duplicate sample collected from the Test Pit #2 above the regulatory level(10 ppm). In the same test pit (Test Pit #2), the regular sample and the duplicate sample both contained elevated concentrations of copper and zinc. The highest concentrations detected for copper and zinc were 643 ppm and 649 ppm, respectively in this test pit.

3.2: Remedial History

In 1984, the Department first listed the site as a Class 2a site in the Registry of Inactive Hazardous Waste Disposal Sites in New York (the Registry). Class 2a was a temporary classification assigned to a site that had inadequate and/or insufficient data for inclusion in any of the other classifications. In 1985, the Department reclassified the site from a Class 2a site to a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. A Class 2 site is a site where hazardous waste presents a significant threat to the public health or the environment and action is required. The following is a chronology of the remedial activities that were performed at the RCA-Rocky Point site:

1980:

The Suffolk County Department of Health Services, in cooperation with the NYSDEC, drilled soil borings and installed four monitoring wells in and around the landfill. Seventeen shallow soil borings (between 2.5 and 5 feet), were augured through the filled area. Garbage was encountered in all but three of these borings. One 20-foot boring was drilled through the fill area, and encountered glass, brass, mica, copper wiring and other debris. Three forty-foot borings, completed outside of the fill area were free of debris. Four 2-inch inside diameter steel monitoring wells were

also installed as part of this investigation. PCBs were not detected in the groundwater samples collected from these monitoring wells. Three of these monitoring wells were identified and decommissioned during the March 2006 remedial investigation

August 1982 - January 1983:

RCA Globcom commenced testing and removal of all suspect electrical equipment. When the electrical equipment was being removed from Building #9, PCB fluids were spilled onto the ground outside of the building.

1984: Listed as a Class 2a site.

1985:

The Site was reclassified from a Class 2a to a Class 2 site.

RCA Globcom removed approximately 2,200 cubic yards of soil and completed the initial decontamination of spill areas outside of Building # 9. The excavation was backfilled with clean soil.

August, 1988:

The spill area was capped with high density polyethylene. Two monitoring wells were installed downgradient. Contaminated concrete was removed from the floor inside of Building # 9 and was disposed of off-site. The remedial work was performed by Hart Engineers, Inc.

September, 1989:

All of the concrete floor inside the building was removed. The impacted soil was also excavated but there was still contamination present. Work could not proceed until the building was demolished.

November 16, 1989:

Consent Order # T0061885 was executed on November 16, 1989.

1989:

A Phase II investigation of the landfill area performed by Roux Associates failed to detect contamination in soil or groundwater. Four PVC monitoring wells were installed in the landfill area.

February, 1990:

Building # 9 was demolished but the foundation was left in the ground.

November, 1990:

The north wall of the foundation (which was contaminated) and 1,100 tons of contaminated soil were excavated and shipped to a licensed hazardous waste landfill in Utah.

1992:

All of the remaining buildings and structures were demolished. Any site waste that was hazardous was removed from the site in accordance with the State and Federal regulations. All construction and demolition materials from the main building complex, the tower, the diesel building, three electrical substations and two underground basement areas were disposed of in the natural kettle hole that was used by RCA as a landfill.

March 20, 2000:

A citizen voluntarily provided a statement regarding a second hand unconfirmed allegation of buried drums of unknown contents. A more detailed discussion of the buried drum allegation can be found in Section 5.1(b).

March 20, 2003.

The NYSDEC staff visited the site and checked two elevated areas in the northeastern portion to look for any indication of potential buried drums. There was no evidence of buried drums at these locations.

November 28, 2005,

The NYSDEC staff went to the site to check the ten selected areas (based on old aerial photographs) for buried drums with the metal detector. No evidence of a significant amount of buried metals were found in any of the selected areas other than the old landfill area.

January 26, 2006

Remedial Investigation Work Plan - January 26, 2006 was released.

March 13, 2006 - March 28, 2006

Envirotrac Environmental Services began and completed the remedial investigation field work under the NYSDEC oversight. A brief summary of the investigation has been discussed in Section 5.1. A more detailed discussion of this investigation can be found in the Remedial Investigation Report - August 2, 2006.

SECTION 4: ENFORCEMENT STATUS

General Electric Co. (RCA Global Communications Inc.) Signed a NYSDEC consent order on Oct 28, 1988. The consent order was executed by the Department on November 16, 1989 (Consent Order # T0061885). GE agreed to and completed the following:

1. Removal and proper disposal of all above and below ground level tanks.
2. Removal and proper disposal of PCB contaminated concrete at Building # 9.
3. Removal of all electrical equipment.
4. Removal of PCB contaminated soil.
5. Removal of drums and other containment vessels.
6. Installation of groundwater monitoring wells in the vicinity of Building #9 and analytical testing of groundwater samples.
7. Placement of capping systems over selected portions of the site.
8. Removal of antennas and other support structures remaining at the site.

9. Identification of Asbestos-containing products found at the Site for removal.
10. Identification of the various structures remaining at the Site for the planned demolition by the Department.

GE was also supposed to "Develop and implement a field investigation to determine the effectiveness of the remedial program specifically assessing the impact upon groundwater. This was addressed in the Building #9 area with the installation and subsequent testing of two monitoring wells near the capped area of the PCB spill. GE funded this work.

Available Reports and Documents:

1. Consent Order # T0061885, executed on November 16, 1989.
2. As Built Documentation, Construction Certification, Site Remediation, Rocky Point and Riverhead State Gamelands, Long Island, New York" by Hart Engineers Inc., Pittsburgh, Pennsylvania, January 1989.
3. "Phase 2 Investigation, RCA Rocky Point Landfill, Site No. 152011", by Roux Associates, Huntington, New York, September 1990.
4. "Work Plan, PCB Contaminated Soil Removal, Former Building No. 9, Rocky Point, Long Island, New York" by Hart Engineers, Inc., Pittsburgh, Pennsylvania, October 1990.
5. "Final Report, PCB Contaminated Soil Removal, Former Building No. 9, Rocky Point, Long Island, New York" by McLaren/Hart Environmental Engineering Corporation, Pittsburgh, Pennsylvania.
6. Remedial Investigation Work Plan - January 26, 2006 by the NYSDEC Region 1.
7. Fact Sheet - March 2006, Remedial Investigation Work Plan, January 2006 by the NYSDEC Region 1.
8. Remedial Investigation Report - August 2, 2006 by the NYSDEC Region 1.

SECTION 5: SITE CONTAMINATION

A remedial investigation has been conducted to determine if prior remedial actions were sufficient to remediate this state owned Class 2 inactive hazardous waste disposal site.

5.1.(a) Summary of the Remedial Investigation

NYSDEC Region 1 conducted a remedial investigation in March 2006. The site remedial investigation work plan was finalized on January 26, 2006. Envirotrac Environmental Services, 80 B Air Park Drive, Ronkonkoma, New York 11779 performed the remedial investigation field activities under the NYSDEC oversight. A RI investigation Fact Sheet was distributed to the public contact list prior to the start of any work to inform the public of the proposed investigation. Field work began on March 3, 2006. All field work was completed by March 28, 2006.

There are two areas where the remedial investigation was performed. The first area is by the former location of Building #9 where PCBs were spilled. The PCBs in this area were initially addressed by excavation and off-site disposal at an approved facility Some residual soil contamination by PCBs was then capped. During the RI, two damaged monitoring wells that had been constructed to monitor the groundwater quality downgradient of the cap were properly abandoned and replacement wells were constructed. The replacement wells were developed and sampled during the RI for PCBs. No PCBs were detected in either of these samples. A buffer zone was constructed around these monitoring wells to eliminate the growth of vegetation in the area of the monitoring wells and to create a clear work area for future sampling.

The other area that was investigated during the RI is a small landfill in the middle of woods. The landfill is in a natural kettle hole. Based on an unconfirmed allegation, there was a slight possibility that drums may have been buried at this landfill. It was anticipated that there would be some capacitors and condensers that contain limited amounts of PCBs in the fill. It is unknown whether waste transformers were ever buried in the landfill. The concrete foundations of a former building

(Building #1) and associated construction and demolition (C&D) debris are known to be buried in this landfill. Since the landfill has not been used for waste disposal in over 25 years, no significant amounts of VOCs were expected.

There is a slope downwards to the bottom of the kettle hole. The wastes were primarily buried along this slope. In order to determine the nature of the fill and to investigate the buried drum allegation, three ten feet deep test pits were excavated at three locations in a mildly sloping area of the kettle hole. The nature of the fill discovered in the test pits was recorded. The test pits debris is mainly composed of rolled-up electric cables, porcelain insulators, masonry debris, wood scraps, metallic scraps, plastic pieces, old cables, hinges, remains of old radios and transmitters, rusted steel sheets and other assorted debris.

One soil sample was collected from each of the test pits. A duplicate sample was collected from one of these test pits. The soils used for each sample were selected based on the visual appearance (i.e, staining) of the soils. The samples were analyzed for VOCs, SVOCs, PCBs and metals. PCBs were only detected above the recommended soil cleanup objective of 10 ppm for subsurface soils in the duplicate sample (23 ppm). Additionally, the concentrations of copper and zinc detected in one regular sample and the duplicate were elevated above typical background concentrations for these metals. The highest concentrations of copper and zinc detected in these two samples were 643 ppm and 649 ppm, respectively. There were no other significant detections in the soil samples from the landfill area.

Three two - inch steel monitoring wells that had been installed around the perimeter of the kettle hole during the 1980 investigation by SCDHS were decommissioned. These wells no longer met the established protocol for monitoring wells.

Four existing PVC monitoring wells installed during a Phase II Investigation by Roux Associates in 1989 were renovated to make them better suited for future sampling events. The wells were converted to flush mounted wells and a buffer zone was installed around all monitoring wells.

A GPS survey was performed to determine the GPS coordinates of the two new monitoring wells at the capped area, four monitoring wells at the landfill area and the three test pit locations in the landfill area (Figure - 10).

5.1.(b) Buried Drum Allegation and Geophysical Investigation:

On March 20, 2000, a citizen, who reportedly had second hand knowledge concerning a former RCA worker, voluntarily provided a statement. Approximately twelve years prior to the allegation, the citizen making the allegation had a casual conversation with a person who was reportedly a former bulldozer operator at the RCA Rocky Point site. This former RCA employee reportedly told the informant that on a number of occasions he had buried drums at the site at night. The former employee did not have any idea of the contents in those drums. Unfortunately, when the allegation was reported in 2000, this former employee was deceased, thereby making it impossible to acquire further information about this potential release. There was no information about the burial location(s), the quantity of the drums, the nature of the wastes contained in the drums, or the years when the disposal occurred. Two types of investigations were performed to evaluate the buried drum allegation.

A) Magnetometer Investigation

B) Test Pit Excavation

A) Magnetometer Investigation:

The geophysical survey with a metal detector had essentially been completed by NYSDEC Region 1 staff before the remedial investigation field work activities conducted by the contractor Envirotrac, Inc. This allegation has been evaluated by the NYSDEC on several occasions. Since the site is 5,100 acres in size, it was not feasible to evaluate all areas of the site for potential burial disposal. It was necessary to focus the attention of the evaluation to the most promising locations. Despite many visits to the site by NYSDEC staff during and after the earlier site remedial work in the late 1980's and early 1990's, there has been no area that contained visual evidence of consequential waste

disposal other than the landfill area discussed under section 3.1.(c). To look for other potential areas where the burial of wastes might have occurred, historical aerial photographs were retrieved to look for disturbed areas. Then, the suspected areas were inspected for signs that these areas of interest might have been used for disposal. This was done on a limited basis in March 2003 and was conducted on an expanded basis in the Fall of 2005 during the preparation of the Remedial Investigation Work Plan.

The March 2003 evaluation was centered around the northwestern portion of the site primarily to evaluate elevated areas seen on a topographical map. On March 20, 2003, Region 1 staff John Conover and Bob Stewart visited the site and checked several elevated areas to the west and east of the north-south access road in this portion of the site. These areas were first visually inspected for potential burial locations. All of the elevated areas on the topographic maps appeared to be natural. Next, a metal detector was used to further evaluate selected locations for buried metal. Finally, a hand shovel was used to perform shallow test pits in several different locations to look for buried wastes. Some metallic wires were found in a small area to the west of the road in a slight depression. However, there was no evidence that this area might contain any other buried metal. The finding of wire in the surface soils at this site was not a remarkable occurrence. It is common to find wire at this site since it had formerly contained many antenna arrays which involved the use of large amounts of wire throughout the site. Regardless, this area was re-evaluated again in 2005 to re-check the area for buried metal.

The expanded evaluation in the Fall of 2005 first involved the collection of more historical aerial photographs from different years to look for changes in the photographs that would suggest that a particular area might have been used for landfilling. Cleared areas in the middle of the woods away from areas used as part of the normal site operations were of the most interest. Aerial photographs from 1947, 1962, 1972, 1994 and 1995 were reviewed. Nine disturbed areas and the old landfill area were selected for further evaluation by a geophysical survey with a magnetometer (Figure-8). A magnetometer is often used to detect ferrous metallic objects. It is designed to locate buried metallic objects made of steel or iron such as drums, tanks, pipes, and metallic debris. On November 28,

2005, the NYSDEC staff went to the site to check the ten selected areas for buried drums with the metal detector.

No evidence of an appreciable amount of buried metals were found in any of the selected areas other than the old landfill area.

B) Test Pit Excavation: Test pits are the best way to determine the nature of the fill in landfilled areas. On March 20, 2006, three test pits (TP-1, TP-2, & TP-3 in Figure- 4) to ten feet deep were excavated in the landfill area to determine the nature of the fill. The locations of the three test pits were selected based on positive readings on the metal detector that were suggestive of buried metal at these locations. Several severely rusted drums were discovered in the fill. However, these drums were empty. There were no chemical residues in any of the drums. The soils surrounding the drums were field screened using a PID and did not exhibit any detectable readings.

The geophysical investigation conducted during the RI failed to establish the buried drum allegation.

5.1.1: Standards, Criteria, and Guidance (SCGs)

To determine whether the soil and groundwater contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on the Department's "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.

- Soil SCGs are based on the Department's Soil Cleanup Objectives "Technical and Administrative Guidance Memorandum [TAGM] 4046; Determination of Soil Cleanup Objectives and Cleanup Levels.")

Based on the RI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site required remediation. These are summarized in Section 5.1.2. More complete information can be found in the RI report.

5.1.2: Nature and Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.

As described in the RI report, many soil and groundwater samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main categories of contaminants that exceed their SCGs are PCBs and inorganics (metals). For comparison purposes, where applicable, SCGs are provided for each medium.

Chemical concentrations are reported in parts per billion (ppb) for water and parts per million (ppm) for soil.

Table 1 summarizes the degree of contamination for the contaminants of concern in the on-site soil at the landfill area and compares the data with the SCGs for the site. The following are the media which were investigated and a summary of the findings of the investigation.

Surface Soil

There are surface layers of clean soils already covering the landfill area and the capped area. Consequently, no sampling was done for the exposed surface soil. No site-related surface soil contamination of concern was identified during the RI. Therefore, no remedial alternatives need to be evaluated for surface soil.

Subsurface Soil

The analytical results of soil samples collected in the landfill area as part of this investigation indicate that there is a limited amount of PCB contamination in the landfill area. Of the two samples collected from test pit location #2 in (Figure - 4), only one of them exceeded the soil cleanup objective. These composite soil samples included a very limited amount of slightly stained soils in the vicinity of a few small capacitors and condensers. Since these small pieces of electrical equipment are expected to contain a very limited amount of dielectric fluid (PCBs), it is expected that the total mass of PCBs in the landfill is very limited. PCBs are not mobile so that this small amount of PCBs would not be expected to impact the underlying groundwater. This hypothesis is supported by the results of the groundwater sampling. No PCBs were detected in any of the groundwater samples.

Since impacts to groundwater are unlikely and there are no potential users of the groundwater near to the landfill area, the primary concern at the landfill area is to prevent potential direct contact with the wastes buried there. Since there is a surface layer of clean soils already covering the fill, it is recommended that a chain-link fence be installed around the landfill to help prevent anyone from disturbing the surface cover. In addition, it is recommended that institutional controls be placed on the property to prevent unauthorized excavations that would expose the wastes buried there and to

Groundwater

The on-site groundwater has been sampled numerous times prior to the RI 2006. There were no significant detections in any of the previous investigation. As part of the remedial investigation conducted in March 2006, another round of groundwater sampling was performed from the two new monitoring wells at the capped area and the four PVC wells at the landfill area (Figure - 5) to determine the current groundwater quality at the site.. The two groundwater samples collected from the capped area were analyzed for PCBs and failed to detect any PCB compounds. Each of the four groundwater samples and a blind duplicate sample collected from the landfill area were analyzed

for VOCs, SVOCs (base/neutrals ony), PCBs and metals. There were no significant detections of VOCs, SVOCs, PCBs and metals in any of the groundwater samples collected from the landfill area.

No site-related groundwater contamination of concern was identified during the RI. Since the analytical results of soil samples as part of this investigation indicate that there is a limited amount of PCB contamination remaining in the soil at the site, a groundwater monitoring program will be instituted to confirm that impacts to the underlying groundwater are not occurring.

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS

An IRM was not needed or conducted during this RI..

5.3: Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The

route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

In the past, people were probably exposed to PCB contaminated soil. Building # 9 was the main transformer building of the RCA transcontinental radio communication station. The PCB containing electrical equipment had been operated at this part of the Rocky Point facility for half of a century. Between the period of August 1982 and January 1983, during the removal operations of PCB containing electrical equipment, a PCB spill occurred outside of Building #9, which resulted in soil contamination. The concrete floor inside the building was also impacted. Between the period of December 1984 and June 1985, approximately 22,000 cubic yards of PCB contaminated soil was removed and properly disposed of off-site. The excavated area outside of the building was subsequently backfilled with clean soil. In the fall of 1988, a cap was placed over the spill area. The capped area is protected by a chain link fence. In November 1990, approximately1,100 tons of contaminated soil were excavated and shipped to a licensed hazardous waste landfill in Utah. The excavation was filled with clean soil. The exposures to PCB contaminated soil would have ended in 1990 when the PCB contaminated soil was completely remediated. There was no groundwater contamination at the site and people were not exposed to contaminated water. The two monitoring wells at the capped area were sampled in March 2006 for PCBs and no PCBs were detected. Currently, no exposure pathways are known to be completed at the capped area of the RCA-Rocky Point site.

There is a limited amount of PCB contamination in the subsurface soil in the landfill area. No PCBs were detected in the groundwater at the landfill area. Since impacts to groundwater are unlikely and there are no potential users of the groundwater near to the landfill area, the primary

concern at the landfill area is to prevent potential direct contact with the wastes exist there. Since there is a surface layer of clean soils already covering the fill, an exposure pathway does not exist. A chain-link fence be installed around the landfill to prevent direct contact with the wastes.

The Site is located within a 5,100 acres New York State Department of Environmental Conservation resource management area where public access is by permit only. The hazardous waste materials present at the site have been removed or covered. The capped area is already fenced and the landfill area is proposed for fencing. The underlying groundwater does not contain any contamination above regulatory limits. Due to the restricted use of the property, exposures to site related contaminants are not expected.

5.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site prior to the past remediaiton. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

Site contamination impacted the soil at the capped area which was remediated by 1990. Site contamination has impacted the subsurface soil at the landfill area to a smaller extent. Surface soil has not been impacted.

The contamination has not impacted the groundwater resources beneath either of the two areas of concern. The nearest domestic well is approximately 5,000 feet southeast of the landfill site. Since the groundwater flow direction is generally to the north, this well is not hydraulically downgradient of the site. The nearest public supply well (S 82174) downgradient of the impacted landfill area is approximately 11,000 feet northeast of the landfill area.

Although the areas of concern are located in the middle of a heavily wooded forest area, there are no wildlife impacts associated with the on-site portions of the site being addressed under OU-2.

There is no surface water body immediately adjacent to the site. Consequently, the RCA - Rocky Pont site contamination has not impacted any surface water body or wetland. There are no fish and aquatic receptors associated with the site contamination.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS AND PROPOSED REMEDY

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous wastes disposed at the site through the proper application of scientific and engineering principles.

Prior to the completion of the site remediation described in Section 3.2, the remediation goals for this site were to eliminate or reduce to the extent practicable:

- exposures of persons at or around the site to PCBs in the soil at the site;
- environmental exposures of flora or fauna to PCBs in the site soil;
- the release of contaminants from soil into groundwater that may create exceedances of groundwater quality standards; and
- The off-site migration of the on-site soil contamination.

The following remedies have been implemented at the site:

1. After the land was gifted to NYS, the equipment and antennas were dismantled. When electrical equipment was being removed from Building # 9, PCB fluids were spilled onto the ground outside the building. This spill was remediated by excavating 2,200 cubic yards of contaminated soil with PCB levels exceeding 50 ppm All materials were removed to properly permitted disposal facilities.

The excavation was filled with clean soil and the area was capped with High Density Polyethylene (40 mils) to prevent infiltration of rainwater. This work was completed in 1988.

2. There was also PCB contamination in and under the floor of Building 9. The floor was removed and soil was excavated. After the building was demolished, more soil was excavated. Approximately 1,100 tons of PCB contaminated soil and concrete was excavated and shipped to a licensed hazardous waste disposal landfill in Utah. The cleanup goal of 10ppm was met. The excavation was filled with clean soil. This work was completed in 1990.

The main SCGs applicable to this project are as follows:

- GA groundwater standards for the for the underlying groundwater.

- Technical and Administrative Guidance Memorandum [TAGM] 4046; Determination of Soil Cleanup Objectives and Cleanup Levels.

The Department believes that the remediation has accomplished the remediation goals and satisfied the SCGs for the site.

Based on the results of the investigations at the site, the remediation that has been performed, and the evaluation presented here, the Department is proposing No Further Action with following IC/ECs as the remedy for this site.

- The Department would perform periodic maintenance of the capping system and chain-link fence at the capped area.

- There is a limited amount of PCB contamination in the subsurface soil at the landfill area. The Department would install and maintain a chain-link fence around the landfill area.

- The Department would maintain the clearings within the fences in both of the areas by periodic landscaping.

- The Department would display the appropriate "HAZARDOUS AREA" warning signs in both the protected areas. The protected areas should be locked.

- Imposition of an institutional controls in the form of an environmental easement that would restrict excavation of soil and use of groundwater.

- The Department would arrange an annual inspection of the site by a professional engineer or an environmental professional , which would certify that the engineering and institutional controls are put in place.

A periodic groundwater monitoring of six monitoring wells is proposed to ensure that the selected remedy is protective of underlying groundwater.

The elements of the selected remedy are as follows:

- This program will monitor the effectiveness of prior remedial measures and will be a component of the operation and maintenance for the site. Additionally, the Department will reclassify the site from a Class 2 to a Class 4 on the New York State Registry of Inactive Hazardous Waste Disposal Sites. A Class 4 site is a site that has been properly closed but requires continued operation, maintenance, and/or monitoring.

- The RI confirmed the site specific groundwater flow direction. Based upon these results, groundwater samples will be collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-1 CA and MW-2 CA on an annual basis for a minimum of three years. Groundwater samples will be analyzed for VOCs, SVOCs, PCBs and metals by a NYSDOH certified laboratory. Water levels will also be taken from this suite of monitoring wells for calculation and confirmation of groundwater flow direction. Data will be evaluated annually. If groundwater samples exhibit significant detections of VOC, SVOC, and PCB compounds or metals, the Department may consider the need for further investigation and/or further remediation of the site. At the end of the three year monitoring period, a determination will be made as to whether to continue or modify the groundwater monitoring program.

The Department conducted several investigations to evaluate the buried drum allegation. The investigations failed to establish the allegation. No Further Action is proposed to address the buried drum allegation.

TABLE -1

Nature and Extent of PCBs in On-Site Subsurface Soil (Landfill)

Contaminants of Concern	Concentration (ppm)	SCG (ppm)	Exceeding SCG (ppm)
Aroclor-1016	ND	10	
Aroclor-1221	ND	10	
Aroclor-1232	ND	10	
Aroclor-1242	ND	10	
Aroclor-1248	ND	10	
Aroclor-1254	**23**	10	**13**
Aroclor-1260	ND	10	

TABLE -2

Nature and Extent of PCBs in On-Site Grounwater (Landfill)

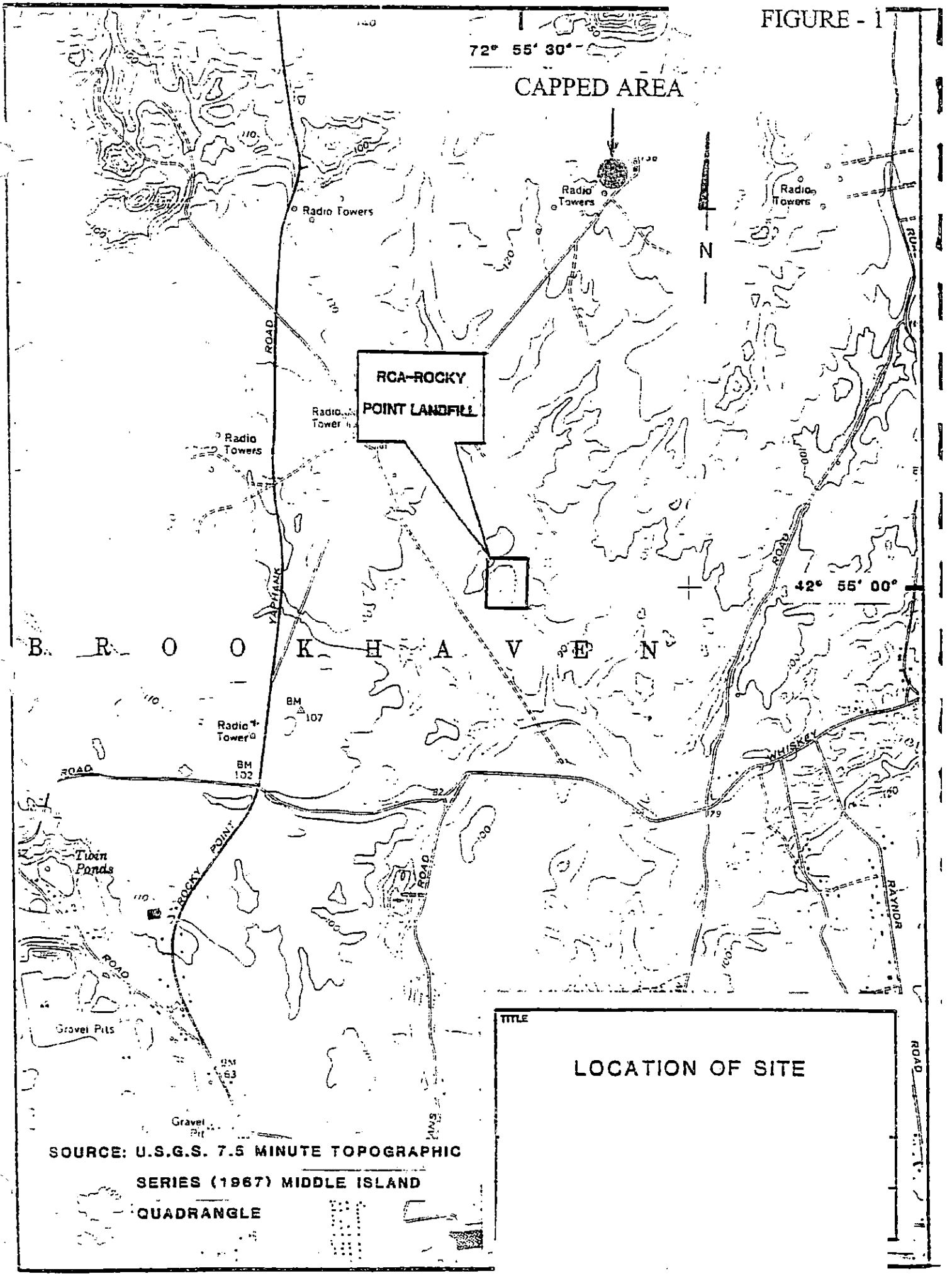
Contaminants of Concern	Concentration (µg/l)	SCG (µg/l)	Exceeding SCG (µg/l)
Aroclor-1016	ND	0.09	0
Aroclor-1221	ND	0.09	0
Aroclor-1232	ND	0.09	0
Aroclor-1242	ND	0.09	0
Aroclor-1248	ND	0.09	0
Aroclor-1254	ND	0.09	0
Aroclor-1260	ND	0.09	0

TABLE - 3

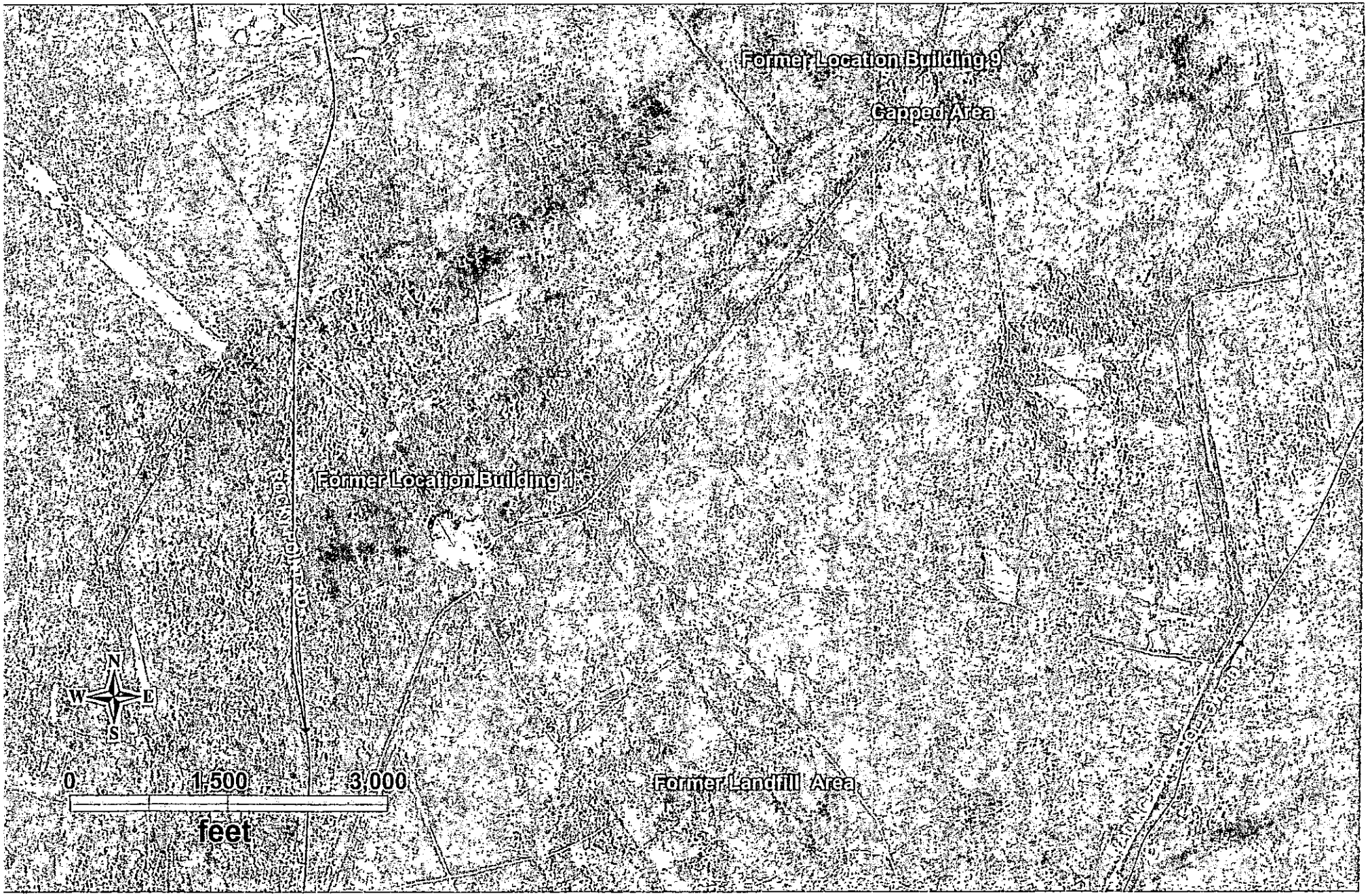
Nature and Extent of PCBs in On-Site Grounwater (Capped Area)

Contaminants of Concern	Concentration (µg/l)	SCG (µg/l)	Exceeding SCG (µg/l)
Aroclor-1016	ND	0.09	0
Aroclor-1221	ND	0.09	0
Aroclor-1232	ND	0.09	0
Aroclor-1242	ND	0.09	0
Aroclor-1248	ND	0.09	0
Aroclor-1254	ND	0.09	0
Aroclor-1260	ND	0.09	0

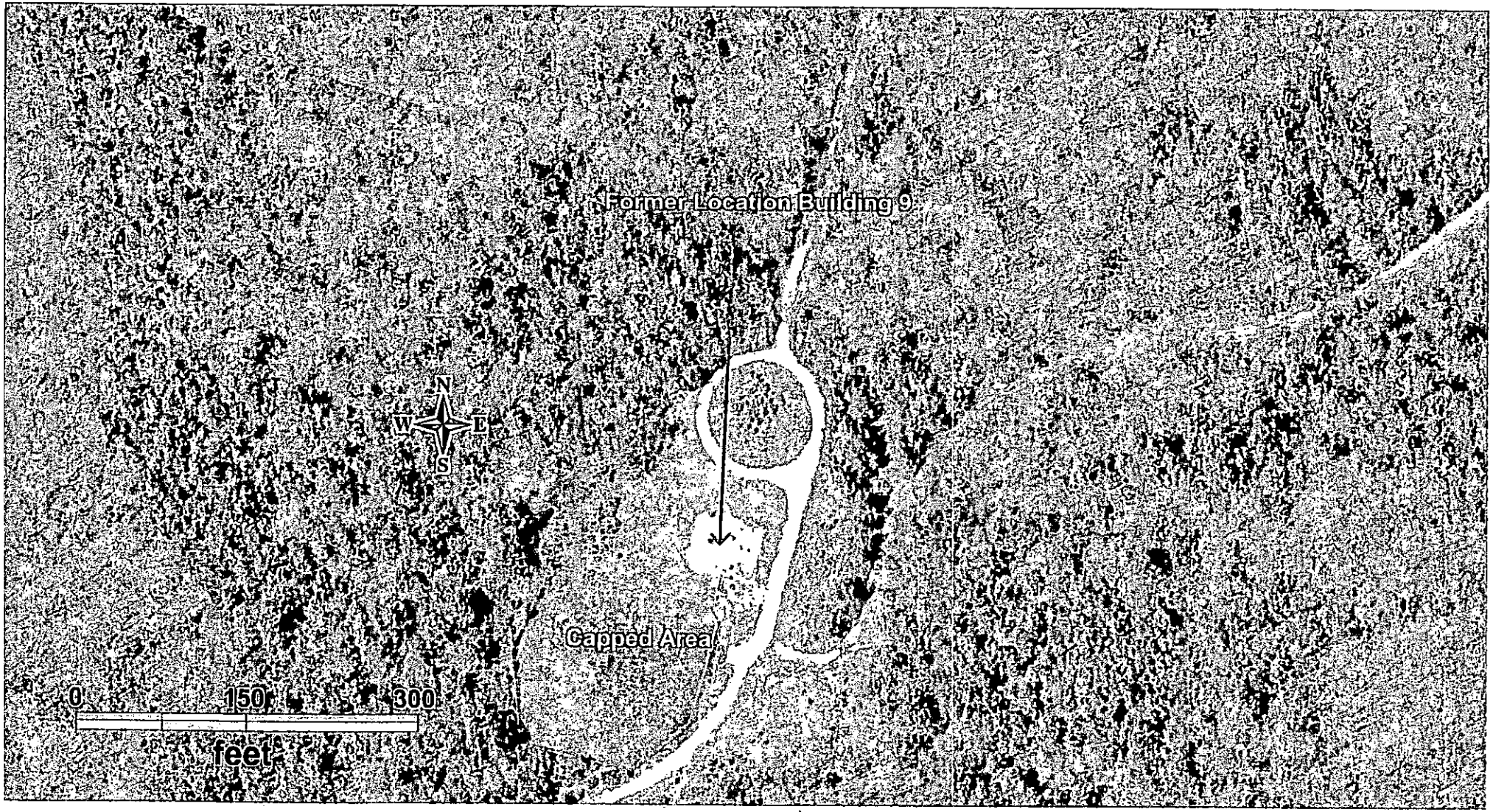
FIGURE - 1



SOURCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC SERIES (1967) MIDDLE ISLAND QUADRANGLE



LOCATIONS OF SITE (CAPPED AREA AND LANDFILL AREA) IN AERIAL MAP.

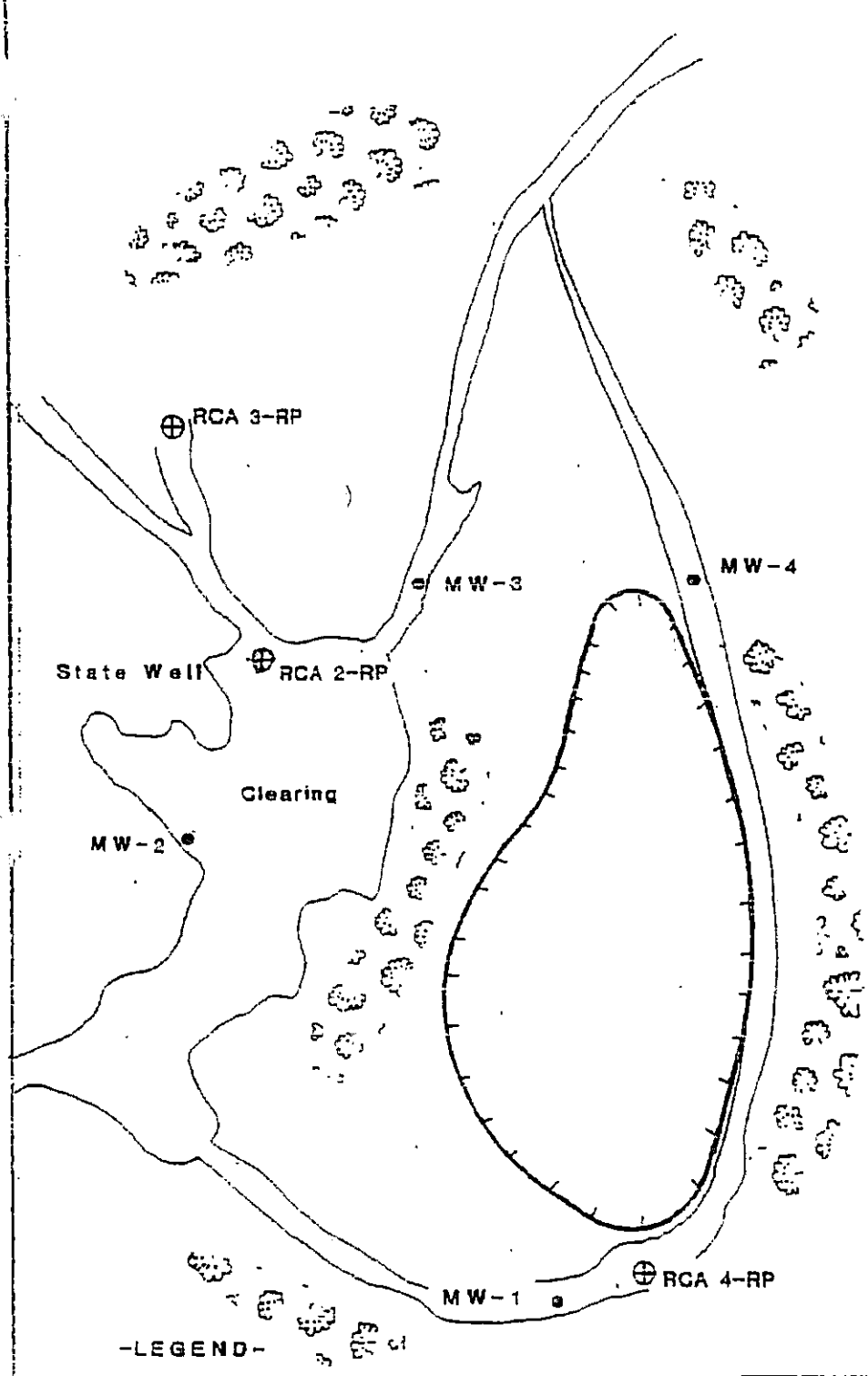


LOCATION OF SITE (CAPPED AREA) IN AERIAL MAP

FIGURE - 3

FIGURE - 4

FIGURE - 5



TITLE

LOCATIONS OF MONITORING WELLS AND SHALLOW SOIL SAMPLES

PREPARED FOR

GIBBS AND HILL / NYSDEC

ROUX ASSOCIATES, INC. Consulting Ground-Water Geologists

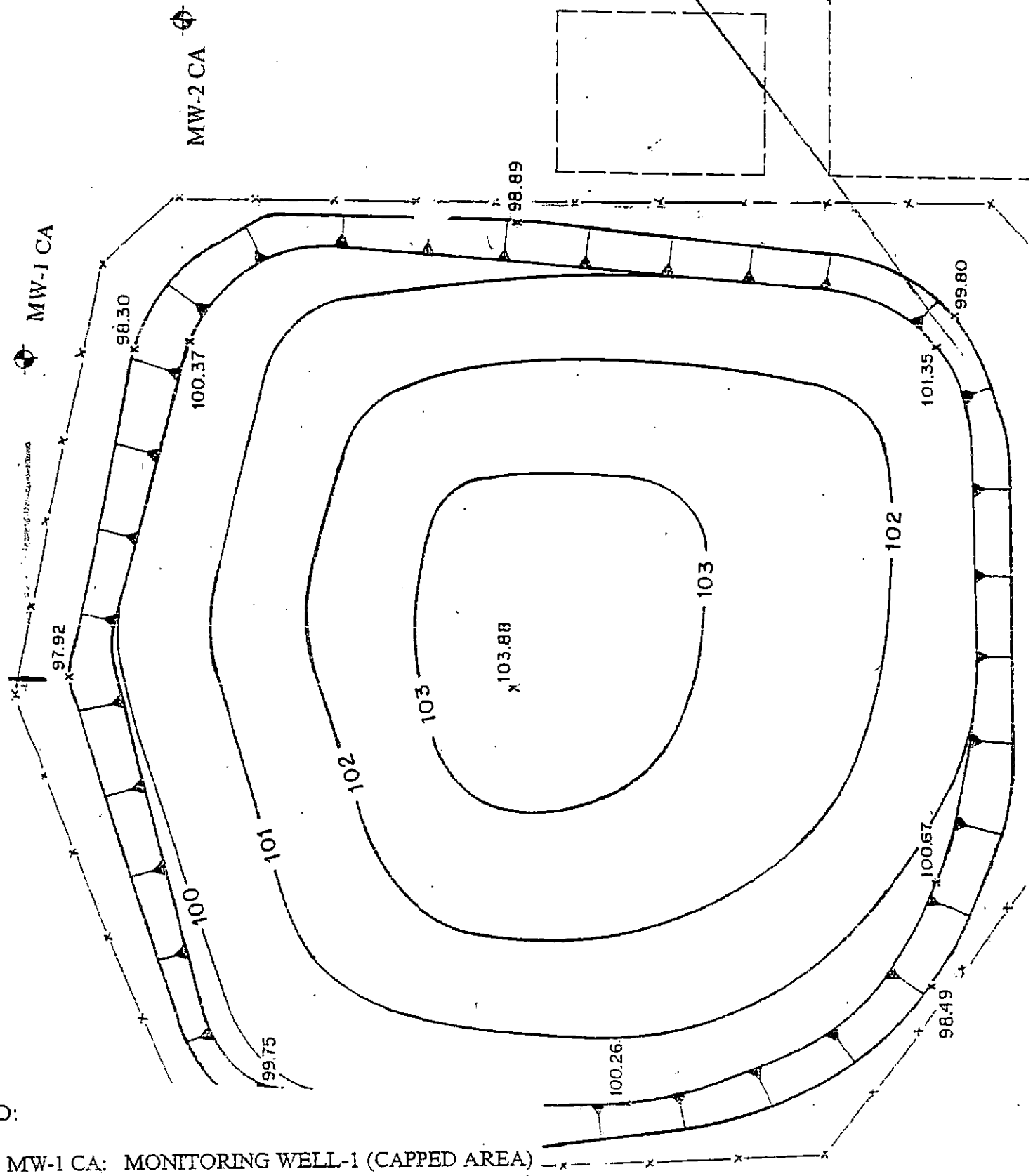
SCALE SHOWN

DATE 11/88

FIGURE 2

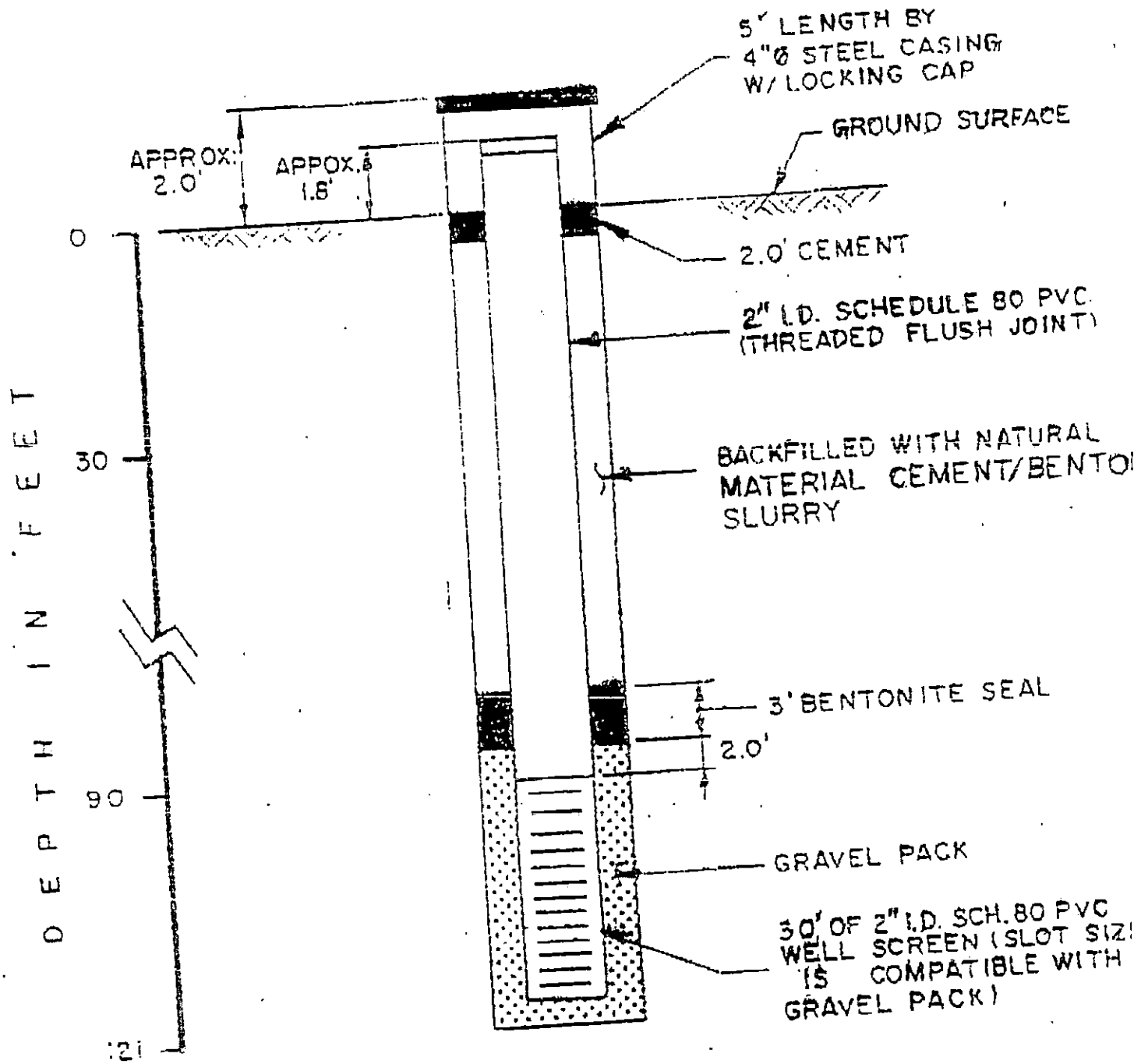
FIGURE - 6

LOCATIONS OF MONITORING WELLS (CAPPED AREA)



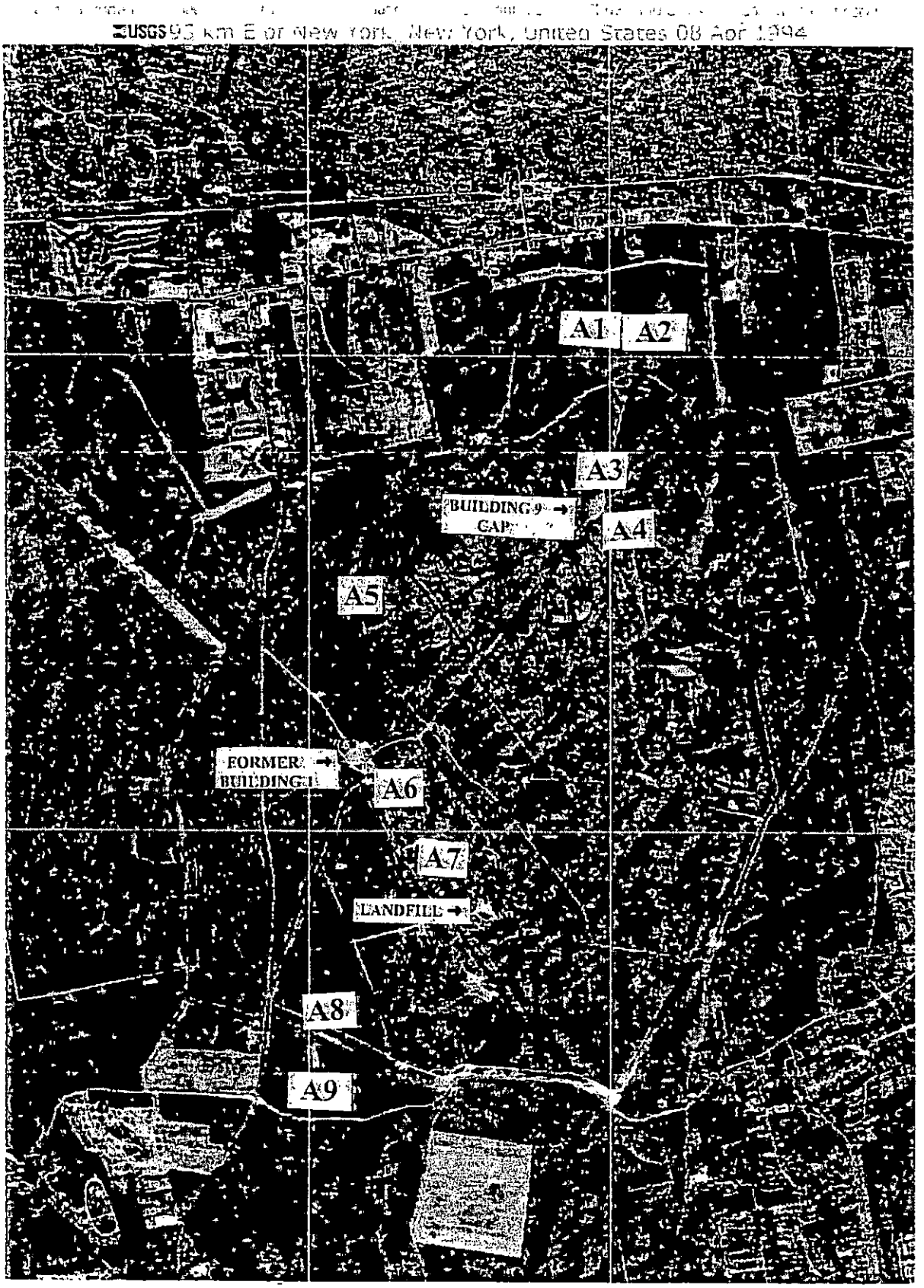
D:

MW-1 CA: MONITORING WELL-1 (CAPPED AREA)
MW-2 CA: MONITORING WELL-2 (CAPPED AREA)



MONITORING WELL DETAILS AT CAPPED AREA
(TO BE DECOMMISSIONED)

FIGURE - 8

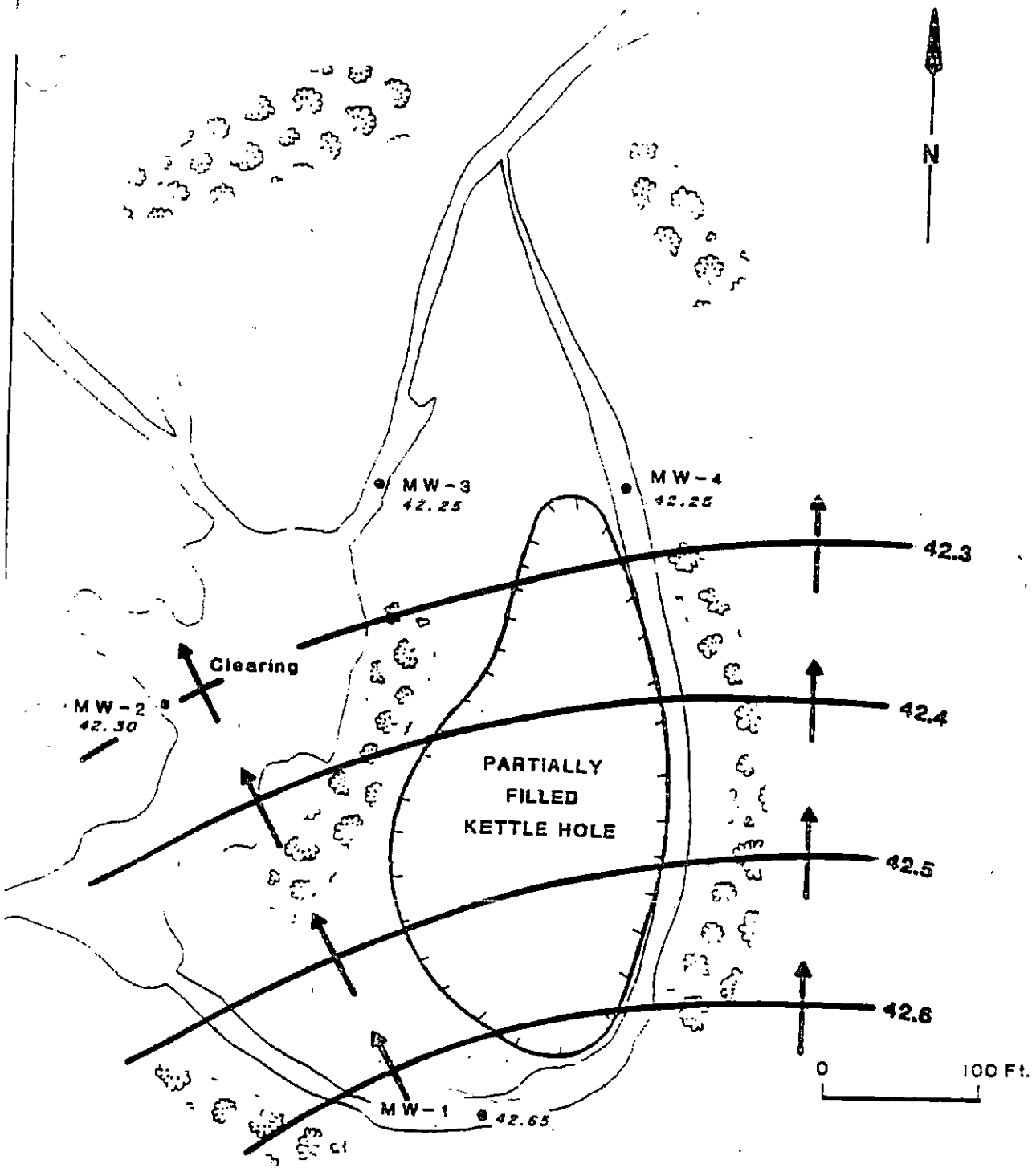


GEOPHYSICAL SURVEY LOCATIONS

RCA ROCKY POINT, SITE # 152011

A1 - SURVEY LOCATION 1

FIGURE - 9



LEGEND

MW-1 ⊕ MONITORING WELL LOCATION AND DESIGNATION

42.65 ELEVATION OF THE WATER TABLE IN FEET RELATIVE TO A COMMON DATUM

LINE OF EQUAL ELEVATION OF THE WATER TABLE IN FEET RELATIVE TO A COMMON DATUM

DIRECTION OF GROUND-WATER FLOW

TITLE

WATER TABLE ELEVATION

NOVEMBER 3, 1989

PREPARED FOR

GIBBS AND HILL / NYSDEC

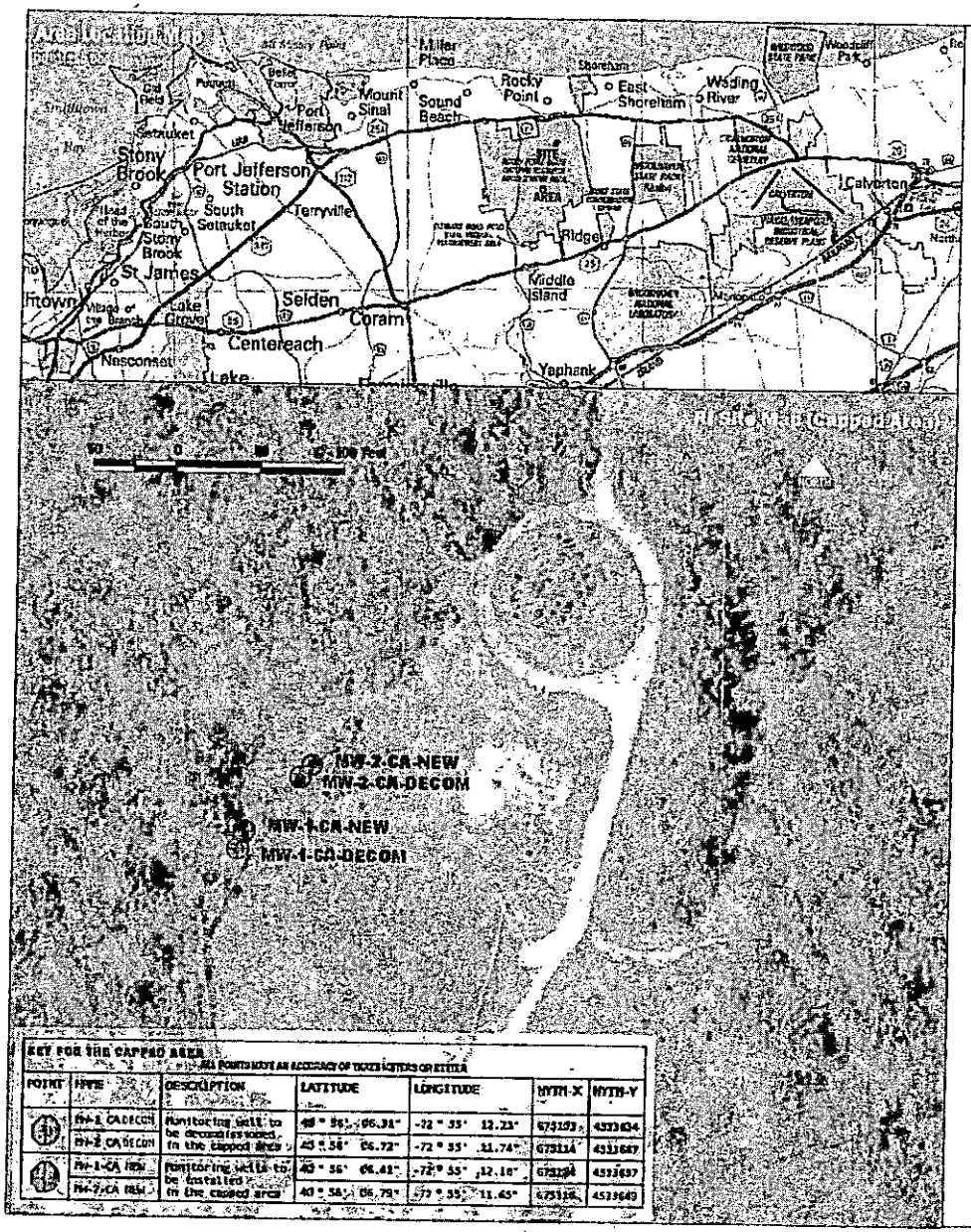
ROUX Consulting Ground-water Geologists ROUX ASSOCIATES INC

SCALE SHOWN

DATE 5/89

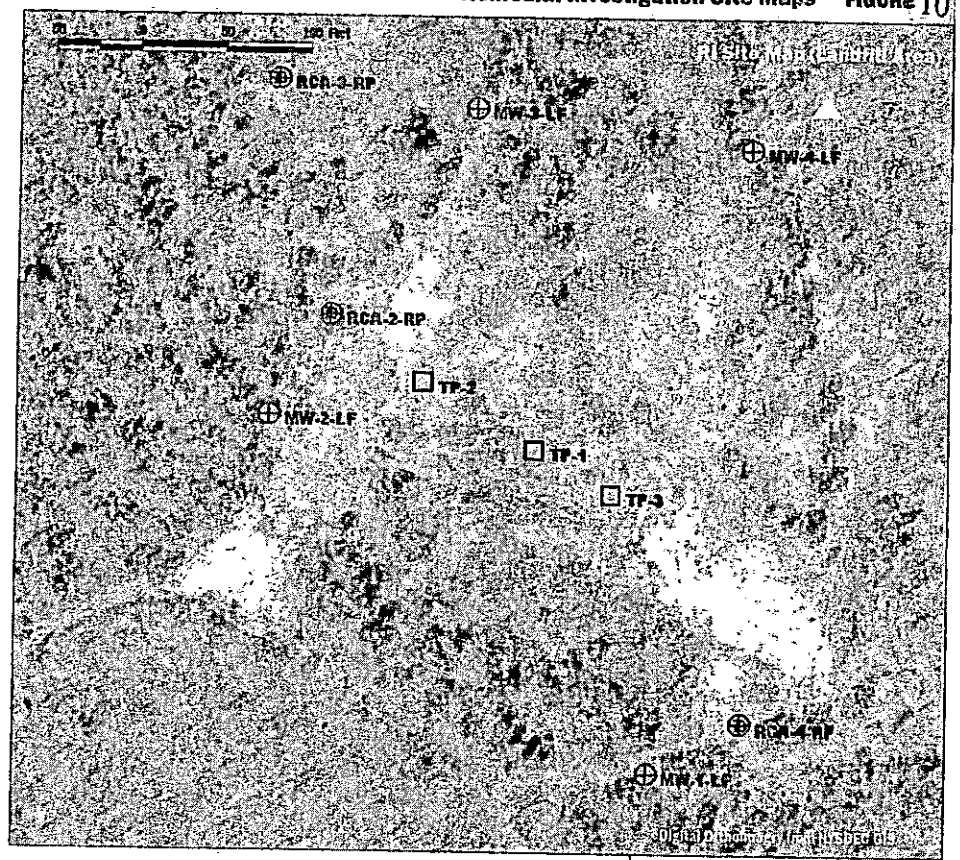
FIGURE 3.

Remedial Investigation Site Maps FIGURE 10



KEY FOR THE CAPPED AREA
ALL POINTS HAVE AN ACCURACY OF THREE METERS OR BETTER

POINT	NAME	DESCRIPTION	LATITUDE	LONGITUDE	NYTM-X	NYTM-Y
⊕	MW-1-CA DECOM	Monitoring wells to be decommissioned in the capped area	40° 56' 06.31"	-72° 55' 12.23"	673193	4533634
⊕	MW-2-CA DECOM		40° 56' 06.72"	-72° 55' 11.74"	673134	4533647
⊕	MW-1-CA NEW	Monitoring wells to be installed in the capped area	40° 56' 06.41"	-72° 55' 12.18"	673194	4533637
⊕	MW-2-CA NEW		40° 56' 06.79"	-72° 55' 11.65"	673116	4533649



KEY FOR THE LANDFILL AREA
ALL POINTS HAVE AN ACCURACY OF THREE METERS OR BETTER

POINT	NAME	DESCRIPTION	LATITUDE	LONGITUDE	NYTM-X	NYTM-Y
⊕	MW-1 LF	Landfill area monitoring wells to be sampled	40° 54' 57.15"	-72° 55' 37.74"	674559	4531497
⊕	MW-2 LF		40° 54' 59.28"	-72° 55' 40.63"	674488	4531551
⊕	MW-3 LF		40° 55' 01.03"	-72° 55' 38.99"	674525	4531606
⊕	MW-4 LF		40° 55' 00.76"	-72° 55' 36.86"	674575	4531599
⊕	RCA-2 RP	2" steel monitoring wells in landfill area to be decommissioned	40° 54' 59.05"	-72° 55' 40.63"	674499	4531569
⊕	RCA-3 RP		40° 55' 01.32"	-72° 55' 40.53"	674489	4531611
⊕	RCA-4 RP		40° 54' 57.43"	-72° 55' 37.61"	674574	4531496
▨	TP-1	Test pit to be dug in landfill area	40° 54' 59.05"	-72° 55' 38.57"	674538	4531545
▨	TP-2		40° 54' 59.45"	-72° 55' 39.41"	674516	4531557
▨	TP-3		40° 54' 58.76"	-72° 55' 37.98"	674580	4531537