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DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Brewster Well Field, Village of Brewster, Putnam County, New York

STATEMENT OF PURPOSE

This decision document represents the selected remedial action for the treatment and disposal of a drywell, sediments and soils that are contaminated with volatile halogenated organic compounds (VHO's) and that are the source of contamination of the Brewster Well Field. The selected remedial action was developed in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 USC §9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, and to the extent practicable, the National Oil and Hazardous Substance Pollution Contingency Plan, 40 CFR Part 300.

STATEMENT OF BASIS

This decision is based on the administrative record for the Brewster Well Field site. The attached index identifies the items that comprise the administrative record, upon which the selection of a remedial action is based.

DESCRIPTION OF SELECTED REMEDY

This Record of Decision for the Brewster Well Field site addresses the treatment/disposal of a drywell, sediments, sludge, and soils contaminated with VHO's. This portion of the site has been identified as the source of groundwater contamination that is being addressed under a separate operable unit.

- The drywell sediments, sludge, and soils will be excavated, containerized and transported to a permitted hazardous waste facility where the waste will be incinerated and treated residuals will be disposed of.

- The concrete drywell structure and debris will similarly be removed, decontaminated, transported to a permitted hazardous waste facility and disposed of.

DECLARATIONS

Consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986, and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300, I have determined that the selected remedy is protective of human health and the environment, will attain Federal and State requirements that are applicable, or relevant and appropriate for this remedial action, and is cost-effective. Furthermore, this remedy satisfies the statutory preference for treatment that reduces the toxicity, mobility or volume of hazardous substances as a principal element. Finally, this remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

Because this remedy will not result in hazardous substances remaining on site above health based levels, the five year review will not apply to this action.

The State of New York has been consulted and agrees with the approved remedy.

9-29-88
Date

William J. Muszynski, P.E.
Acting Regional Administrator

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SUMMARY OF
REMEDIAL ALTERNATIVE SELECTION
BREWSTER WELL FIELD

SITE LOCATION AND DESCRIPTION

The Brewster Well Field is located on the northern bank of the East Branch Croton River, 3/4 of a mile east of the Village of Brewster, Town of Southeast in Putnam County, New York. The site is approximately 3 miles west of the Connecticut/New York border and approximately 47 miles north of New York City. Interstate 84 passes just to the west of the site (see Figure 1).

The land to the north of the study area, containing the community of Brewster Hill, is largely residential with some agricultural use. Most of the land south of the study area is occupied by commercial or light industrial facilities. To the west is the residential community of the Village of Brewster.

The 1980 Census records the population of Putnam County as 77,193. Estimated population for the Town of Southeast and the Village of Brewster are 15,500 and 1,700 respectively. The municipal water system serves the Village and several areas in the Town of Southeast, a number of business establishments and the Consolidated Rail Corporation's Putnam Junction Rail Yard. Residential users alone account for an estimated 2,100 people.

Additional potential receptors are downstream users of the East Branch Croton River which contributes to the Croton Falls Reservoir approximately 3.5 miles downstream. The East Branch Croton River flows adjacent to and south of the Well Field. Three thousand feet to the east of the site (upstream) the River is impounded to form the East Branch Reservoir, part of New York City's Croton watershed reservoir system. Three thousand feet from the site to the northeast, Bog Brook, a tributary to the East Branch Croton River, is impounded to form Bog Brook Reservoir, also owned by New York City as shown on Figure 2.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

Beginning in 1954, when Well Field No. 1 was developed, the Village of Brewster has used the aquifers beneath the Village-owned land, in the Town of Southeast, as a source of water for its water supply system. In 1967 Well Field No. 2 was brought on line. The two well fields consist of a total of 18 shallow wells.

Evidence of volatile halogenated organic compound (VHO) contamination first appeared in 1978, and alternative water sources were subsequently added to the water supply system, including a deep bedrock well (DW-2) and two separate shallow wells (SG-1 and SG-2) located as shown on Figure 3. As a result of low yield DW-1 was not connected to the supply system. Two new wells SG-3 and SG-4 were added to the system in 1984. Prior to drought conditions arising in 1981, East Branch Croton River surface water was also used at times to supplement the water supply system.

Since 1979, the Village has had several studies conducted to identify potential alternative groundwater sources and to test spray aeration as a potential treatment method for VHO removal. It has since been concluded that treatment of existing sources is the most promising of the alternatives for solving existing contamination problems in the Well Field. Under a cooperative agreement with the Environmental Protection Agency (EPA), Office of Research and Development, the Village has constructed, tested and in 1984, placed on line, a full scale packed column spray aeration system for treatment of the entire Village supply.

The Brewster Well Field was placed on the National Priorities List (NPL) in December 1982. Superfund work at the Brewster Well Field has been divided into two phases or units, referred to as operable units (OU's). The two operable units at Brewster are:

- OU One: Management of the migration of contamination through the groundwater.
- OU Two: Control of the contamination source.

Under OU One, in 1985, a study (Focused Feasibility Study) was conducted by the New York State Department of Environmental Conservation (NYSDEC), to investigate the feasibility of on-site treatment alternatives for removal of volatile halogenated organic compounds from the Village's water supply. Considering cost, reliability, off-site releases and flexibility, the packed column was adjudged superior to other alternatives.

Concurrent with the Focused Feasibility Study a Remedial Investigation (RI) was initiated by NYSDEC, under OU One, to determine the nature and extent of contamination at and in the vicinity of the site. Volatile halogenated organic compounds have been the primary contaminants detected in the groundwater from the Well Field and in the vicinity of the site. The OU One RI defined a plume of groundwater contaminated with tetrachloroethylene (PCE), trichloroethylene (TCE) and 1,2 dichloroethylene (DCE) (see Figure 4).

PCE, TCE and DCE are suspected carcinogens and known causes of liver and kidney damage and central nervous system depression in humans.

The OU One Feasibility Study (FS), which was completed by NYSDEC in 1986, evaluated alternatives for remediating the contaminated groundwater plume and provided the basis for approval of the first Record of Decision (ROD) for the site, which was signed by EPA on September 30, 1986.

The first ROD called for the design and construction of a groundwater management system (GMS) to extract, treat (by air stripping via a packed tower) and reinject groundwater to expedite the removal of VHO contaminants from the groundwater (see Figure 5). It also cited the need for a supplemental study (OU Two) to identify and recommend remediation measures for the source of the groundwater contamination. It is estimated that the groundwater management system will reduce groundwater cleanup time from 30 years (if left to naturally attenuate) to 10 years (if treated). Groundwater will be treated to meet Federal drinking water standards (Maximum Contaminant Levels or MCL's).

Design of the GMS proceeded under EPA lead and was completed in September 1987. Construction will commence shortly.

OU One essentially addresses contamination in the saturated soil zone. OU Two has therefore been designed to address the unsaturated zone. OU Two is intended to identify and remediate any continuing source for groundwater contamination and eliminate any direct contact health threats.

The OU Two Remedial Investigation (conducted under EPA lead) was completed in March 1988 and has identified a drywell adjacent to Alben Cleaners as the source of the groundwater contamination. It is estimated that 100 cubic yards of material (drywell liquids, sediment, and soil) is contaminated with VHO's to the extent that requires remediation. Based on interviews with the cleaning operator, dry cleaning wastes were disposed of in the drywell, via a floor drain, up until 1983. The principal VHO's, PCE and TCE, are No. F002 listed wastes under 40 CFR 261.31, regulations promulgated under the Resource Conservation and Recovery Act (RCRA).

The OU Two Feasibility Study (also under EPA lead) was completed in July 1988. The FS looked at alternatives for dealing with the source of contamination. The evaluation of those alternatives is discussed in subsequent sections of this ROD.

The supplemental RI/FS has identified the Aiken Cleaners drywell as the source of contamination. Information request letters and subsequent general notice letters have been sent to the property owners and cleaning operator. Remedial design and remedial action will proceed under Superfund. Enforcement activities are continuing in an attempt to identify and locate additional potentially responsible parties (PRP's).

COMMUNITY RELATIONS

An extensive community relations plan was developed under OU One and updated under OU Two. Community relations activities have included fact sheets, interviews with local citizens and officials, and public meetings. A public meeting was held on August 21,1986 to discuss the findings and alternatives for remediating the groundwater contamination studied under OU One. Subsequent fact sheets have announced progress on design and construction under OU One as well the RI/FS under OU Two. Additional interviews with local citizens and officials were conducted and a public meeting was held on August 31, 1988 to discuss the findings and alternatives for remediating the source identified under OU Two. A copy of the responsiveness summary is attached.

SCOPE AND ROLE OF OPERABLE UNIT TWO WITHIN SITE STRATEGY

The objective of OU Two is to identify and, as necessary, remediate the source of the well field contamination. The identification of the source will aid enforcement and cost recovery activities. Remediation of the source will remove any health risks due to direct contact and will ensure the viability of the groundwater clean-up efforts under OU One by eliminating any continuing contribution of contaminants to the aquifer. OU Two is the final operable unit of the overall remediation strategy for this site.

SITE CHARACTERISTICS

The results of the OU One RI can be broken down into six areas: 1) groundwater, 2) water in drainlines in the vicinity of the Site, 3) surface water, 4) private water wells, 5) soil and, 6) air. The results of the investigation are discussed in detail in the OU One RI/FS which includes a discussion of the nature and extent of contamination and potential risks from contaminated media.

The prinicipal findings of the OU One study are that:

-There is a plume of groundwater contaminated with VHO's (maximum concentrations of up to 6000 parts per billion (ppb)) extending from the vicinity of the Alben Cleaners parking lot to the Brewster Well Field.

-The Alben Cleaners drywell is the source of site contamination.

The primary contaminants of concern are PCE and TCE which are No. F002 RCRA listed wastes under 40 CFR 261.31.

The analytical results from the OU Two RI, the objectives of which were to confirm the source of site contamination and investigate soil contamination in the unsaturated zone, can be found in the OU Two RI report dated March 1988, and Risk Assessment (RA) report dated July 1988. The OU Two site investigation included over 100 soil gas probes in the vicinity of Alben Cleaners and other possible source areas; 16 soil borings at suspected source locations, soil gas "hot spots" and the Alben Cleaners dry well; and an additional round of groundwater samples. The RI and RA reports indicate elevated levels of organics in the Alben Cleaners drywell sediments and sludges (at up to 620,000 parts per million (ppm) PCE). Additionally, mildly elevated concentrations (up to 4ppm PCE) of organics were found in soil samples from two other isolated locations in the Alben Cleaners parking lot (see Figure 6 and Table 1). A risk baseline assessment has determined that the incremental cancer risk posed by soils at 4ppm is less than $1x10^{-6}$. These areas were therefore not considered in the alternatives evaluation phase.

SUMMARY OF SITE RISKS

The primary contaminant used in the baseline risk assessment is PCE as the principal contaminant found at the site. The primary health threat posed by contaminated site soils is from direct contact by ingestion of soils or inhalation of dust. Although the site is currently used for light commerce, anticipating that the site might be rezoned for residential use in the future, a baseline risk assessment conservatively calculated that soils containing up to 4ppm of PCE would present excess carcinogenic risks of no more than $1x10^{-6}$ (or one person in a million) for a 17 kg child consuming 50 mg of soil per day over 70 years.

Contaminated soils present a secondary threat as contaminants leach into the groundwater. A groundwater management system which is being constructed under OU One will address this secondary threat by treating the groundwater to safe drinking water standards (MCL's) under the Safe Drinking Water Act.

ALTERNATIVES EVALUATION

The major objective of the OU Two FS was to evaluate alternatives for addressing the source of groundwater contamination at the site. Alternatives were formulated to achieve the following goals:

- Ensure the viability of the groundwater management system to be constructed under OU One by removing any continuing source of contamination.

- Minimize any potential risks associated with direct contact with contaminated residual site soils by removing any soils posing unacceptable health risks.

A comprehensive list of appropriate remedial technologies was identified for source control. These technologies were screened based on the characteristics of the site and the characteristics of the contaminants. The technologies which survived the initial screening were further screened based on effectiveness, implementability and cost. Cost was only used to differentiate between alternative technologies providing similar degrees of overall protectiveness.

Technologies which satisfied the screening requirements were combined to form remedial action alternatives. Containment alternatives were dropped from consideration at this point of the evaluation process. Given the relatively minor volume of readily treatable, highly concentrated waste, the treatment alternatives are clearly more practicable than the non-treatment alternatives. The remaining alternatives included no action and treatment. The alternatives developed are detailed below and are numbered to correspond with the FS report.

Alternative 1 - No Action

The no-action alternative is required by the National Contingency Plan (NCP) to be considered through the detailed analysis. It provides a baseline for comparison of other alternatives. Under the no-action alternative, no source control remedial measures would be undertaken at the Brewster site at the present time.

Although no action would entail no operation or maintenance (O&M) and require no time to implement, unremediated soils would continue to release contaminants into this Class IIA aquifer, thereby extending the period of time over which the drinking and groundwater treatment systems will be required to operate.

Alternative 3 - On-Site Enhanced Volatilization

The major features of this alternative include pumping the pool of liquid waste (sediment and sludge) from the drywell, removal of the concrete drywell structure and removal of contiguous soils with volatile organic concentrations of greater than 4ppm PCE. It is estimated that approximately 100 cubic yards (cy) of waste and debris requires remediation. Waste and soils would be treated on-site in accordance with RCRA by a thermal process to vaporize contaminants from the waste and soils, after which the vaporized contaminants would be destroyed by incineration in an afterburner. The treated soils would be used as backfill. The concrete drywell structure would be decontaminated by steam blasting and disposed of off site at a RCRA Subtitle C facility.

Estimated capital costs for this alternative are $244,420. This alternative will result in the remediation of site soils to health based levels. This remedy could be implemented in a matter of months from the start of remedial action.

Inasmuch as the PCE and TCE wastes were discharged to the drywell by the dry cleaner, reportedly until 1983, the drywell, its contents and contiguous contaminated soils are RCRA wastes under 40 CFR 261. The following standards are applicable to the removal, transport, treatment and disposition of those wastes, and closure of the site.

- 40 CFR 262 - Standards Applicable to Generators of Hazardous Waste
- 40 CFR 263 - Standards Applicable to Transporters of Hazardous Waste
- 40 CFR 264 - Standards of Owners/Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
- 40 CFR 268 - Land Disposal Restrictions

At the completion of remedial action, direct contact health risks posed by residual site soils (at less than 4ppm PCE) would be no greater than $1x10^{-6}$. RCRA regulations, 40 CFR Subpart N (Landfills), Subpart G (Closure and Post Closure Care), and Subpart F (Releases) are applicable to the closure and post closure care of residual site soils contiguous to the drywell excavation. The details of proposed remedial actions for complying with RCRA closure and post closure regulations would be developed as part of remedial design activities.

The removal and abandonment or replacement and permitting of the drywell, if necessary, is subject to UIC Program standards under 40 CFR 144 regulations for underground injection wells.

Standards for dust, particulates and other emissions from response actions are to be considered relative to federal and state air quality regulations (e.g. NYS Air Guide 1, 40 CFR 50).

Alternative 4 - Off-site Incineration

Under this alternative the pool of liquid waste (sediment and sludge) would be removed from the drywell, the concrete drywell structure would be removed, and contiguous soils with volatile organic concentrations of greater than 4ppm PCE would be removed (approximately 100cy). Waste and soils would be taken to a RCRA Subtitle C disposal facility, incinerated and disposed of under appropriate air and land disposal regulations. The site would be backfilled with clean soil from off-site sources. The concrete drywell structure would be decontaminated by steam blasting and disposed of off site at a RCRA Subtitle C facility.

Estimated capital costs for this alternative are $241,940. This alternative will result in the remediation of site soils to health based levels. This remedy could be implemented in a matter of weeks from the start of remedial action.

Inasmuch as the PCE and TCE wastes were discharged to the drywell by the dry cleaner, reportedly until 1983, the drywell, its contents and contiguous contaminated soils are RCRA wastes under 40 CFR 261. The following standards are applicable to the removal, transport, treatment and disposition of those wastes, and closure of the site.

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soils

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The removal and abandonment, or replacement and permitting of the drywell, if necessary, is subject to UIC Program standards under 40 CFR 144 regulations for underground injection wells.

Standards for dust, particulates and other emissions from response actions are to be considered relative to federal and state air quality regulations (e.g. NYS Air Guide 1, 40 CFR 50).

SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

The retained alternatives were evaluated based on the following nine criteria:

- Overall protection of human health and the environment;
- Compliance with all federal and state applicable or relevant and appropriate requirements (ARARs);
- Reduction of toxicity, mobility or volume;
- Short term effectiveness;
- Long term effectiveness;
- Implementability;
- Cost;
- Community Acceptance; and
- State Acceptance.

A summary of the relative performance of the alternatives with respect to each of the nine criteria is provided in this section.

Protection of Human Health and the Environment

Protection of human health and the environment is the central mandate of CERCLA as amended by SARA. Protection is achieved primarily by reducing health and environmental threats to acceptable levels and taking appropriate action to ensure that there will be no unacceptable risks to human health and the environment through any exposure pathways. Without remediation, contaminated soils would present unacceptable direct contact health risks and continue to act as a source for groundwater

contamination, thereby extending the groundwater cleanup period. Both Alternatives 3 and 4 would eliminate these risks. Alternatives 3 and 4 are protective of human health and the environment under the standards mandated by CERCLA as amended by SARA.

Appropriate measures would need to be taken during excavation, handling and transportation, and treatment of waste and soils to protect workers and the community. In addition, prior to implementing treatment, measures would have to be taken to assure that implementation does not pose a threat to human health or the environment. A few of the potential problems are outlined below.

Workers and the residents would be protected through measures outlined in project specific health and safety plans and through contractor adherence to Occupational Safety and Health Act (OSHA) regulations.

Dust and particulate matter could be generated during materials handling and pretreatment. The potential for air releases of products of incomplete combustion also exists. Adjustments in handling and treatment would be made to ensure that all these potential hazards are controlled.

Compliance with ARARs

The drywell and surrounding soils contain PCE and TCE, which are RCRA listed wastes. The wastes were discharged via a floor drain to the drywell until 1983. (They are now recovered by a licensed hauler.) Without remedial action the wastes deposited in the drywell violate RCRA standards applicable to the disposal of hazardous wastes and the drywell violates UIC standards applicable to underground injection wells. Without source control, the remediation of contaminated groundwater under OU One to comply with Federal and State ARARs would be prolonged.

The primary ARARs for source control under OU Two are the RCRA regulations relating to the management of hazardous wastes. Under Alternative 3 treated soils would be disposed of on site as backfill. Under Alternative 4 soils would be removed to a Subtitle C facility, incinerated and the residue landfilled. Both options would be required to comply with RCRA regulations under 40 CFR 262, 263, 264, and 268 for the removal, transport, treatment and disposition (land disposal) of hazardous wastes, and closure of the site.

The drywell would be removed and abandoned, or if necessary, replaced and permitted under UIC standards under 40 CFR 144 (regulations covering underground injection wells). The drywell would be replaced and permitted only if necessary to service the building occupied by the dry cleaner and only if the replacement were paid for by the building owner/PRP's. A decision on whether to abandon or replace the drywell will be made at the time of remedial design after speaking with the building owner/PRP's.

Fugitives (i.e. dust) and emissions from remedial actions are to be considered relative to federal and state air quality regulations (e.g. NYS Air Guide 1). Both the volatilization alternative and incineration alternative are expected to meet these air quality standards.

Reduction of Toxicity, Mobility or Volume

This evaluation criterion relates to the performance of a remedial alternative in terms of eliminating or controlling risks posed by the toxicity, mobility or volume of hazardous substances.

Alternative 3 would accomplish all of these objectives by destroying the volatile organic contaminants by on-site volatilization. Alternative 4 would accomplish this by off-site incineration. Both alternatives would in turn reduce the volume of contaminants leaching into the aquifer to be treated under the OU One groundwater remedy.

Short Term Effectiveness

No action requires no time to implement, nor does it result in short term impacts, but it provides no effectiveness in meeting cleanup goals.

Alternatives 3 and 4 provide a high degree of effectiveness in the short term by achieving prompt protection of human health with little significant adverse impact resulting from the implementation of the remedy. Under both alternatives there is some risk of exposure during excavation of soils and decontamination of the drywell. Under Alternative 3 risks are posed while soils are stockpiled and treated on site and also by exposure to air emissions from afterburning of soils vapors. Measures (such as restricting site access and adjusting the treatment process) would be taken to ensure that these potential hazards are controlled. Under Alternative 4 only minor additional on-site risks are presented during transportation of contaminated materials off site. Alternative 3 could be implemented in months. Alternative 4 could be implemented in weeks.

Long Term Effectiveness

Both Alternatives 3 and 4 are effective in providing long term protection of human health. Both alternatives will remove the drywell (and contents) that is the source of site contamination. This will assure the viability of the groundwater management system to be constructed under OU One by protecting the groundwater from further contamination. The amount of contamination removed directly affects the length of time the OU One groundwater remedy will take to meet clean-up standards. Both alternatives will also remove and treat, thereby permanently destroying contaminants, those most heavily contaminated soils that pose unacceptable health risks.

Implementability

The implementability of alternatives is based on the technical feasibility, administrative feasibility and the availability of services and materials for the alternative. Alternative 3 is somewhat less implementable and technically feasible than Alternative 4 in that Alternative 3 requires on-site mobilization of innovative specialized equipment. The implementation of Alternative 3 could be restricted by the availability of equipment and lack of adequate site space. Incineration, as proposed under Alternative 4, is a common technology with a demonstrated performance record, and it is expected that an off-site facilty, with adequate capacity for the relative minor quantity of waste that will be generated, should be available.

Cost

The capital cost for Alternative 3 is $244,420 and Alternative 4 is $241,940 (see Table 2). Site operation and maintenance costs are covered under the OU One groundwater response action.

Community Acceptance

The community supports Alternative 4 as the preferred alternative. Community comments can be reviewed in the public meeting transcript which is included in the Administrative Record. A responsiveness summary which summarizes all comments received during the public comment period is attached.

State Acceptance

The State of New York, through the New York State Department of Environmental Conservation (NYSDEC), has been actively involved in remedial activities at the Brewster Well Field site. NYSDEC concurs with EPA's selected alternative. A copy of NYSDEC's letter of concurrence is attached.

SELECTED REMEDY

Based upon available data and analyses conducted to date, EPA has selected Alternative 4 as the most appropriate solution for meeting the goals of Operable Unit Two at the Brewster Well Field site. Alternative 4 was chosen as being more effective in the short term and as being more readily implementable than Alternative 3. The primary elements of Alternative 4 are:

- The alternative removes the drywell (and contents) that is the source of site contamination.

- The alternative removes and treats site soils that pose unacceptable health risks. Site soils and sediment, including those contiguous to the drywell and site drainage systems, will be tested during response actions, and those materials containing more than 4ppm PCE will be remediated.

By eliminating the source of groundwater contamination, the selected alternative ensures the viability of the groundwater management system to be installed under Operable Unit One. Groundwater remediation under OU One can be expected in 10 years as opposed to 30 years or more if contaminant migration were not controlled and the source not removed. It is estimated that approximately 100 cubic yards of contaminated debris and soil will be excavated, decontaminated or incinerated, and disposed of at a RCRA Subtitle C facility. This action will reduce health risks due to direct contact with contaminated site soils to $1x10^{-6}$ and comply with RCRA regulations for the closure and post closure care of residual site soils.

STATUTORY DETERMINATIONS

EPA believes that this remedy will satisfy the statutory requirements of providing protection of human health and the environment, will be cost-effective, will utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable, and will satisfy the preference for treatment as a principal element.

Protection of Human Health and the Environment

The selected remedy eliminates all outstanding threats posed by the site. It reduces contamination of site materials down to health based levels. It removes a continuing threat to groundwater thereby ensuring the achievement of groundwater remediation under OU One in approximately 10 years as opposed to 30 years or more if migration and source controls were not instituted.

Attainment of ARAR's

At the completion of response actions the selected remedy will have complied with all of the following ARARs and considerations.

- 40 CFR 262 - Standards Applicable to Generators of Hazardous Waste, Subparts A through D, for the management of RCRA hazardous waste, are applicable.

- 40 CFR 263 - Standards Applicable to Transporters of Hazardous Waste, Subpart A (General), Subpart B (Manifests and Recordkeeping), and Subpart C (Hazardous Waste Discharges), for handling of RCRA hazardous waste off-site, are applicable.

- 40 CFR 264 - Standards for Owners/Operators of Hazardous Waste Treatment, Storage and Disposal Facilities, Subpart I (Containers) and Subpart L (Waste Piles), for storage/treatment of hazardous waste; Subpart O (Incinerators), for off-site incineration; Subpart F (Releases), for groundwater monitoring; and Subpart G (Closure and Post-Closure Care), for closure and post closure care; Subpart N (Landfills); are all applicable.

- 40 CFR 268 - Land Disposal Restrictions, for treatment standards for land disposal of hazardous waste, are applicable.

- 40 CFR 144 Underground Injection Control Program, for removal and abandonment, or replacement and permitting, of the drywell, are applicable.

- New York State Air Guide 1 Control of Ambient Air Contaminants, 40 CFR 50 Ambient Air Quality Standards, 40 CFR 264 Standards for Owners/Operators of Hazardous Waste Treatment, Storage and Disposal Facilities, for control of fugitives from excavation and emissions from incineration, are to be considered.

Cost Effectiveness

Selected Alternative 4 provides overall effectiveness proportionate to its cost. It is slightly less costly than Alternative 3 yet it offers comparable performance, is more implementable and is more effective in the short-term.

Utilization of Permanent Solutions and Alternative Treatment Technologies or Resource Recovery Technologies to the Maximum Extent Possible.

Incineration under Alternative 4 will completely destroy the contaminants of concern found in the source soils and debris.

Alternative 4 is comparable to Alternative 3 with respect to long-term effectiveness and the degree of permanence afforded, reduction in toxicity, mobility and volume achieved, but poses fewer on-site short-term impacts, is more implementable, slightly less costly and preferred by the community.

Preference for Treatment as a Principal Element

The incineration remedy satisfies the statutory preference for treatment as a principal element in that it addresses, to health based levels, the principal threat posed by the site, i.e. the drywell that is the source of site contamination.

FIGURES

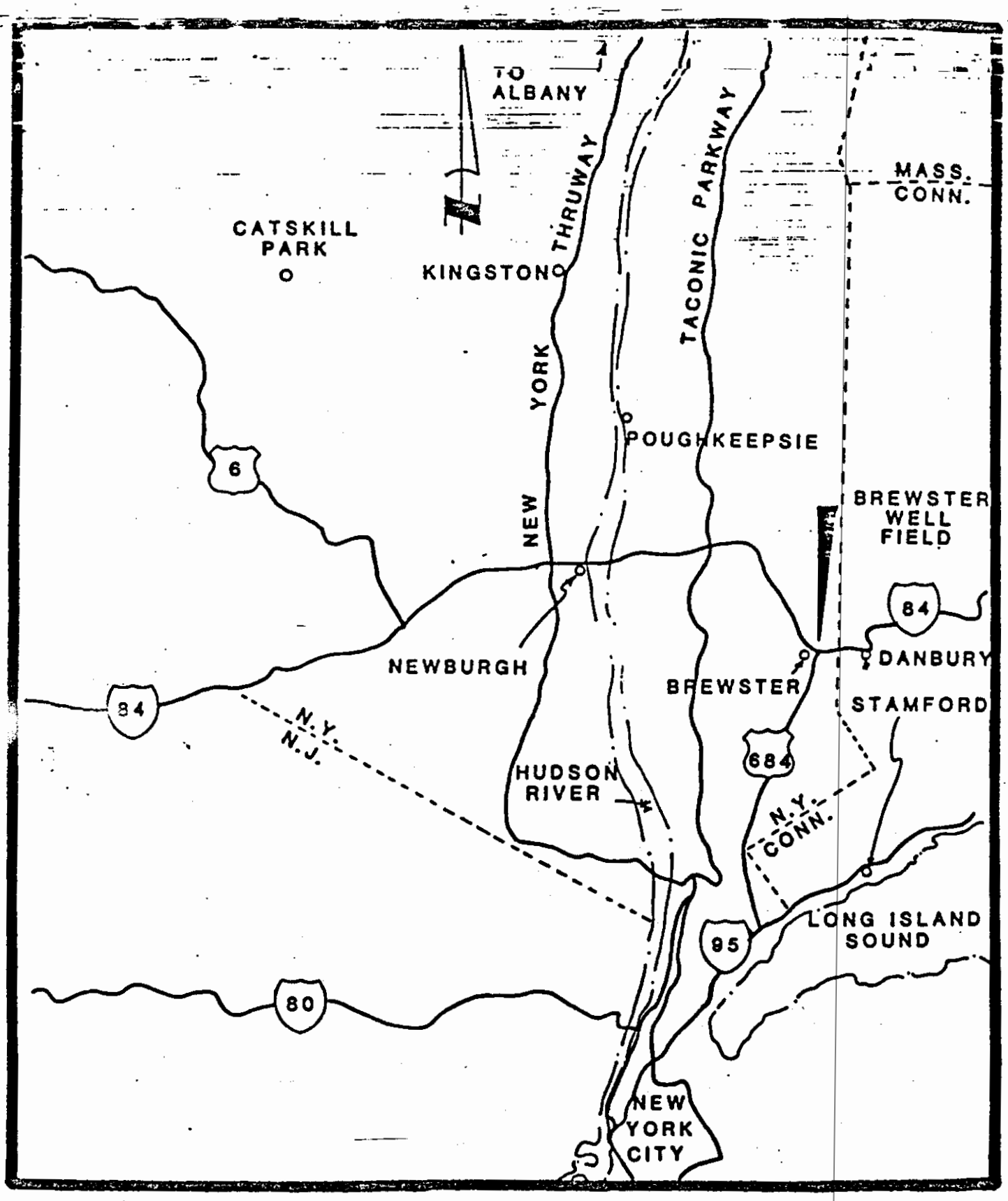
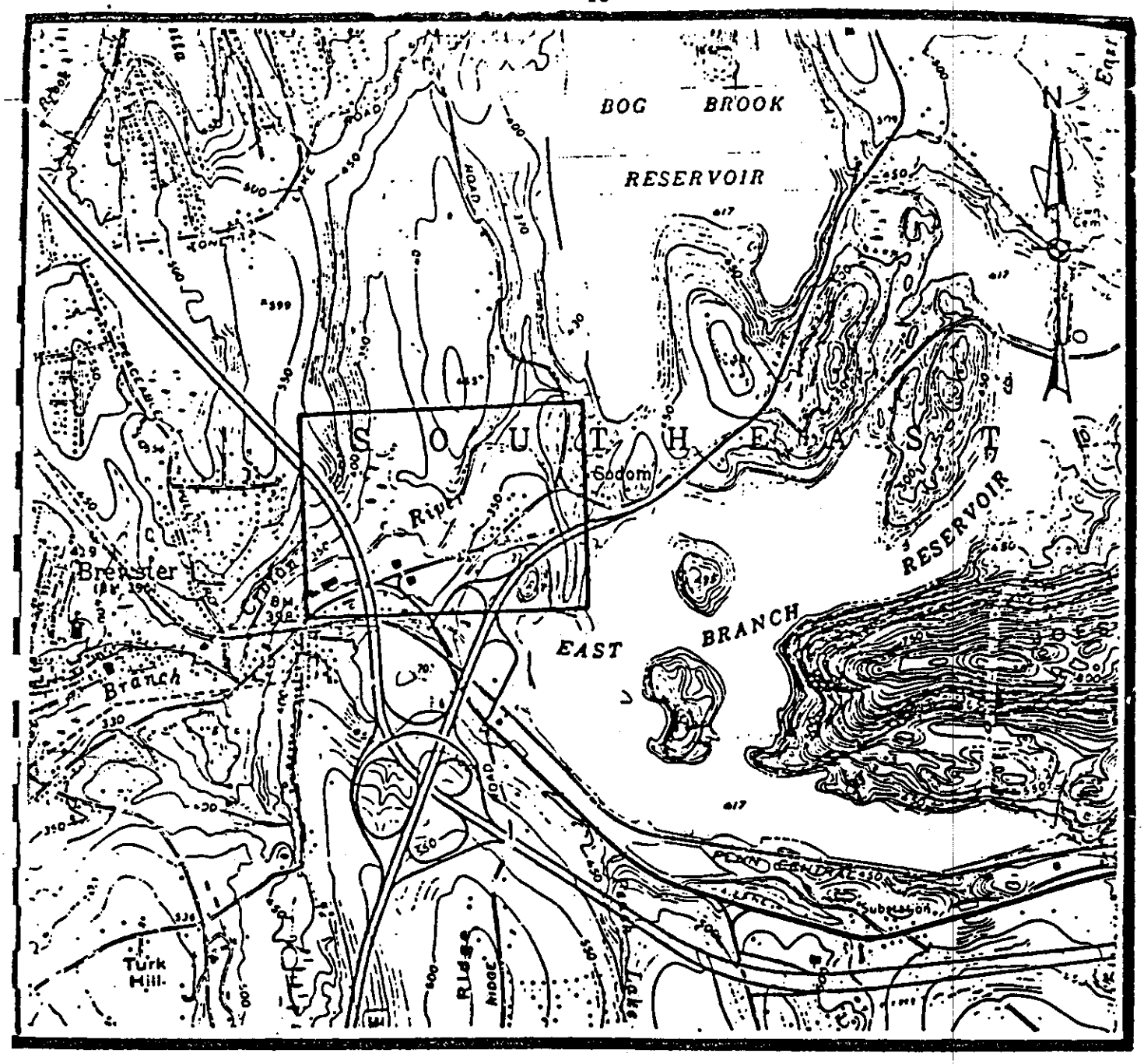


FIGURE 1

REGIONAL LOCATION

APPROXIMATE SCALE 1"-14 MILES



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

BREWSTER, N. Y. – CONN.
N4122.5--W7330/7.5

1958
PHOTOREVISED 1970
AMS 6266 I NE-SERIES V821

FIGURE 2

BREWSTER STUDY AREA LOCATION

QUADRANGLE LOCATION

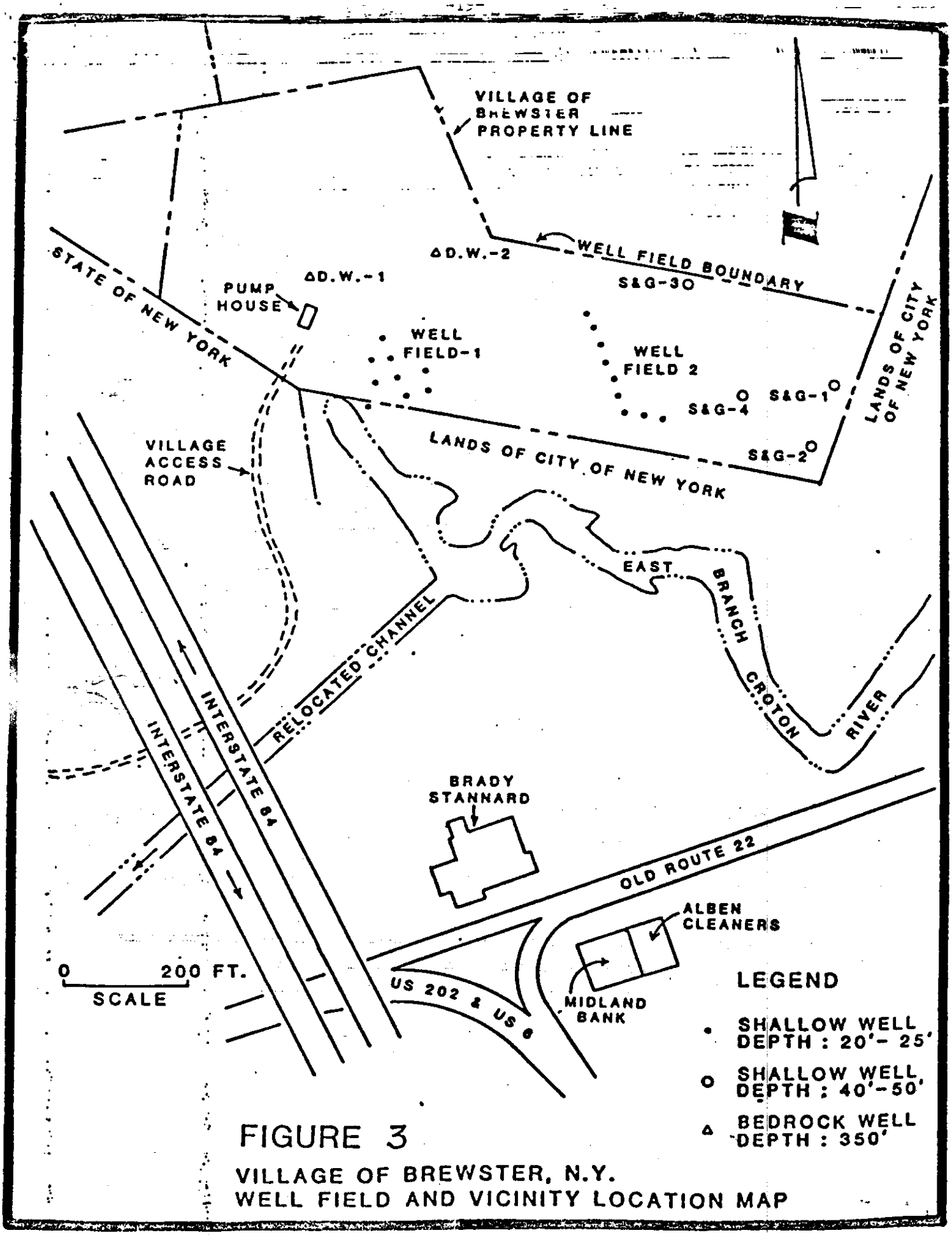


FIGURE 3

VILLAGE OF BREWSTER, N.Y.
WELL FIELD AND VICINITY LOCATION MAP

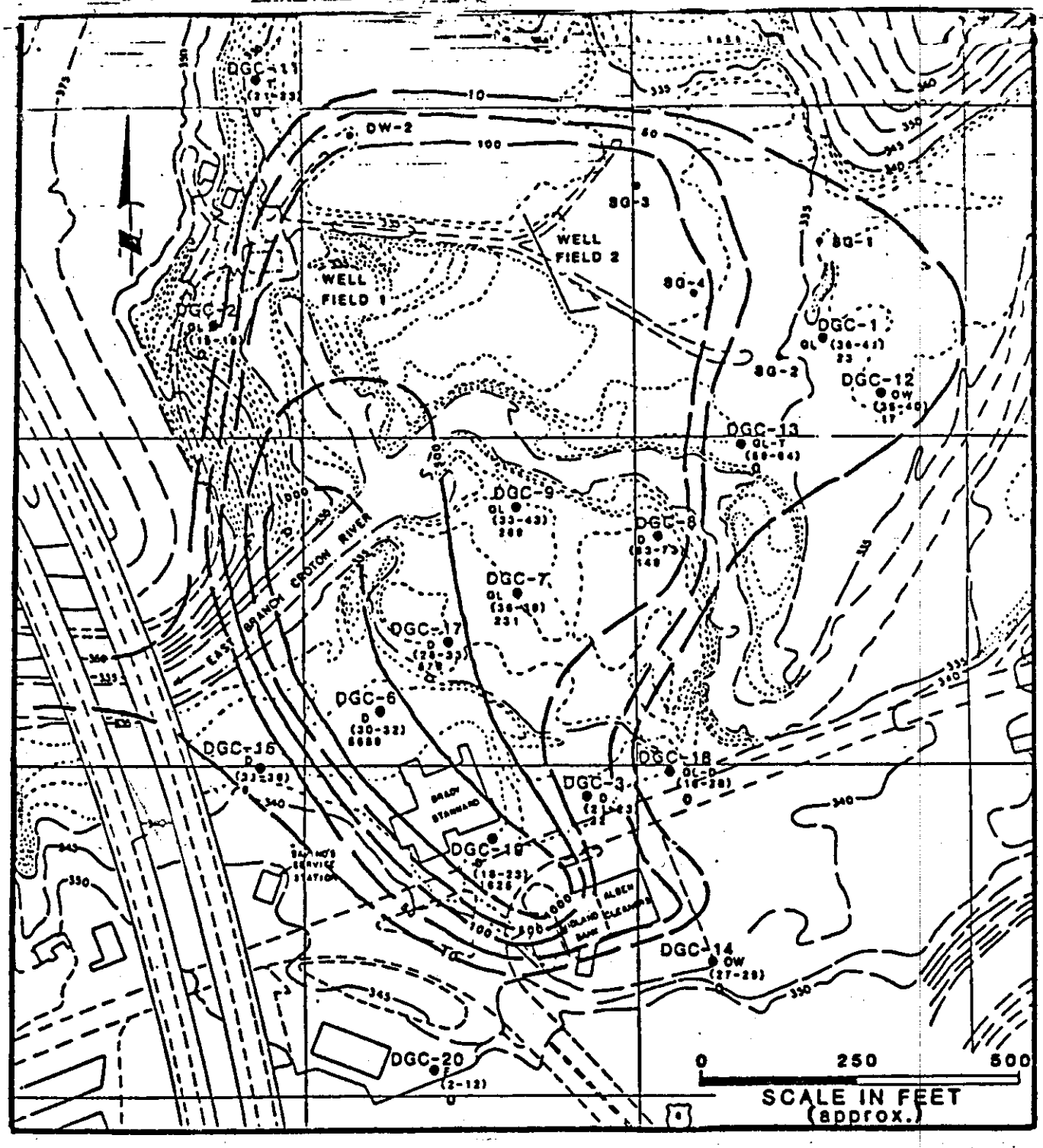


FIGURE 4

ISOCONCENTRATION MAP, TOTAL CONCENTRATION OF VHO AT MONITORING WELL LOCATIONS BASED ON SAMPLE ROUND NO. 1 (OCTOBER, 1985)

LEGEND

DGC-7 MONITORING WELLS

(10-20) SCREENED INTERVAL TO NEAREST FOOT

15 - TOTAL VHO

F - FILL
T - GLACIAL TILL
GL - GLACIOLACUSTRINE
D - GLACIOFLUVIAL-DELTAIC
OW - GLACIOFLUVIAL-OUTWASH
SG - SAND/GRAVEL SUPPLY WELL
DW- DEEP SUPPLY WELL

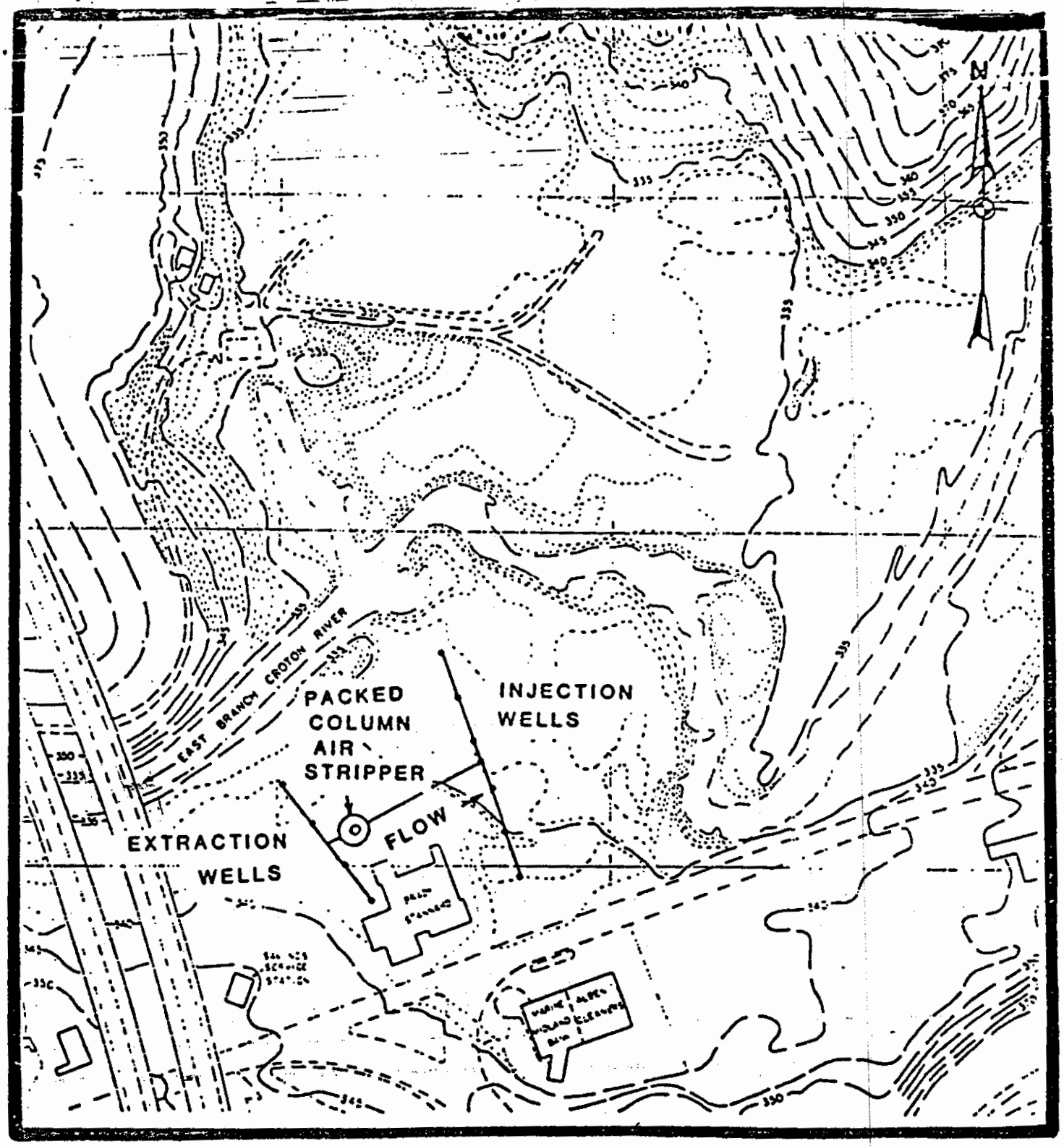
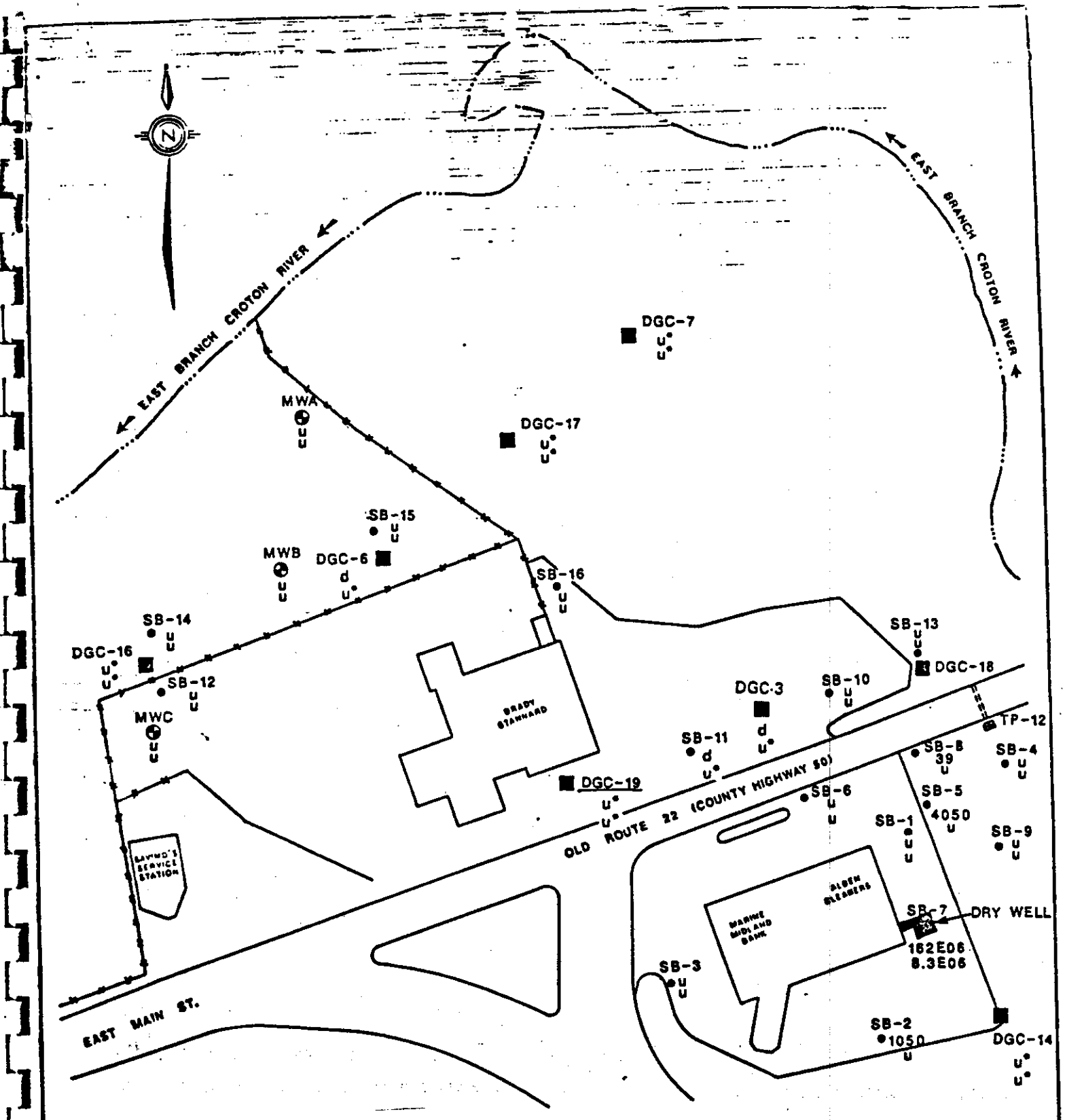


FIGURE 5

PRELIMINARY SCHEMATIC-ALTERNATIVE III

APPROX. SCALE 1":200'



EXPLANATION:

WELL/SOIL BORING
PCE (ppb)
TCE (ppb)

u–UNDETECTED

u°–UNDETECTED, SEMIQUANTITATIVE

SB-1 SOIL BORING (EBASCO 1987)

MW-A MONITORING WELL (EBASCO 1987)

DGC-6 MONITORING WELL (GHR 1985)

TP-12 TEST PIT (GHR 1985)

d–DETECTED,SEMIQUANTITATIVE

ENVIRONMENTAL PROTECTION AGENCY

BREWSTER WELL FIELD

FIGURE 6

AVERAGE SOIL CONTAMINATION ABOVE THE WATERTABLE AND IN THE DRYWELL

EBASCO SERVICES INCORPORATED

TABLES

TABLE 1

BREWSTER WELL FIELD
SELECTED VHO CONCENTRATIONS IN SOIL BORINGS NEAR ALBEN CLEANERS
PRESENT STUDY

APPROX. DEPTH (feet)	VHO Compounds ppb	SB-1	SB-2 (VOA vial)	SB-2	SB-3	SB-4	SB-5	SB-5-5a	SB-6	SB-7 (AUG)	SB-7 (SEP)	SB-8 (VOA Vial)	SB-8	SB-9	SB-10	SB-11	SB-13	SB-15	SB-16
0-2	DCE	-	u	u	-	u	u	-	u	-	-	u	u	u	u	u	-	u	u
	TCE	-	u	u	-	u	u	-	u	-	-	u	u	u	u	u	-	u	u
	PCE	-	1,200	1,200	-	u	4,100	-	u	-	-	27	12	u	u	u	-	u	u
2-4	DCE	-	-	-	-	-	-	u	7	-	-	u	u	u	u	-	u	u▼	u
	TCE	-	-	-	-	-	-	u	53	-	-	u	u	u	u	-	u	u	u
	PCE	-	-	-	-	-	-	u	u	-	-	u	u	u	u	-	u	u	u
4-6	DCE	-	-	-	u	u	-	u	-▼	-	-	-	u	u	-▼	u	u▼	u	u▼
	TCE	-	-	-	u	u	-	u	-	-	-	-	u	u	-	u	u	u	u
	PCE	-	-	-	u	u	-	4,000	-	-	-	-	79	u	-	u	u	u	u
6-8	DCE	-▼	-	u	u	u	-▼	u▼	-	-	-	-	-	-	-	u	-	-	-
	TCE	-	-	u	u	u	-	u	-	-	-	-	-	-	-	u	-	-	-
	PCE	-	-	93	u	u	-	u	-	-	-	-	-	-	-	u	-	-	-
8-10	DCE	830	u	u	u	u	-	-	-	-	-	-	-	u▼	-	-▼	-	-	-
	TCE	1,100	u	u	u	u	-	-	-	-	-	-	-	u	-	-	-	-	-
	PCE	7,400	1,700	u	u	u	-	-	-	-	-	-	-	u	-	-	-	-	-
10-12	DCE	-	-▼	-▼	-▼	-▼	-	-	-	u	u	-▼	101▼	-	-	-	-	-	-
	TCE	-	-	-	-	-	-	-	-	4.1×10^4 J	3.0×10^5	-	u	-	-	-	-	-	-
	PCE	-	-	-	-	-	-	-	-	2.1×10^6	5.7×10^6	-	u	-	-	-	-	-	-
12-14	DCE	-	-	-	-	-	-	-	-	u	u	-	-	-	-	-	-	-	-
	TCE	-	-	-	-	-	-	-	-	7.2×10^5	3.2×10^7	-	-	-	-	-	-	-	-
	PCE	-	-	-	-	-	-	-	-	1.9×10^7	6.2×10^8	-	-	-	-	-	-	-	-

u = undetected
J = estimated value, detected below contract required detection limits
- = no sample collected
▼ = watertable

7033b

TABLE 2

CAPITAL COST ESTIMATES (1988 Dollars)
ALTERNATIVE 3 - ON-SITE ENHANCED VOLATILIZATION

Facility/Construction	Estimated Quantities	Material Unit Price	Material Cost	Installation Unit Price	Installation Cost	Direct Construction Cost
1. Site Preparation & Sample Monitoring						
a. Site Preparation						$ 6,000
b. Field Portable GS (Lease)	1	1,000/wk	4,000	500/day	15,000	$ 19,000
2. Removal of Asphalt Pavement & Excavation Around Dry Well	42 cy			33.4 cy		$ 1,400
3. Sheet Piles						
a. Lease of Sheet Piles	32 ton	200/ton	6,400			$ 6,400
b. Installation of Sheet Piles	1,200 sf			8.83/Sf	10,600	$ 10,600
4. Removal of Dry Well						
a. Saw Cut					2,270	$ 2,270
b. Removal	15 cy				1,520	$ 1,520
5. Decontamination of Dry Well						
a. Steamblasting	800 sf				740	$ 740
6. Off-Site RCRA Disposal of Decontaminated Concrete Debris						
a. Hauling & Transportation	15 cy				4,300	$ 4,300
b. RCRA Landfill Disposal	22.5 ton			350/ton	7,880	$ 7,880

TABLE 2 (Cont'd)

CAPITAL COST ESTIMATES (1988 Dollars)
ALTERNATIVE 3 - ON-SITE ENHANCED VOLATILIZATION

Facility/Construction	Estimated Quantities	Materials Unit Price	Materials Cost	Installation Unit Price	Installation Cost	Direct Construction Cost
7. Removal of Liquid Waste and Sludge						
a. Settling Tank (Lease 2 weeks)	3,000 gal					$ 3,000
b. Pumping					1,000	$ 1,000
c. Settled Wastewater Hauling Tanker Truck (Lease 1 Week)	3,000 gal				3,200	$ 3,200
8. Excavation of Contaminated Soil	63 cy			29.60 cy	1,870	$ 1,870
9. On-Site Enhanced Volatilization						
a. Mobilization & Demobilization						$ 60,000
b. Low Temperature Thermal Stripping	135 ton			300/ton	40,500	$ 40,500
10. Site Restoration						
a. Backfill & Compaction of Treated Soil	90 cy			10/cy	900	$ 900
b. Borrowed Fill & Compaction	15 cy	15/cy	225	5/cy	75	$ 300
c. Asphalt Pavement	250 sf	2/sf	500	3/sf	750	$ 1,250
				Total Construction Cost (TDCC)		$ 172,130
				Contingency @ 25% of TDCC		$ 43,030
				Engineering @ 15% of TDCC		$ 25,820
				Legal & Administrative @ 2% of TDCC		$ 3,440
				Total Construction Cost		$ 244,420

Cont'd

TABLE 2

CAPITAL COST ESTIMATES (1988 Dollars)
ALTERNATIVE 4 - OFF-SITE INCINERATION

Facility/Construction	Estimated Quantities	Materials Unit Price	Materials Cost	Installation Unit Price	Installation Cost	Direct Construction Cost
1. Site Preparation & Sample Monitoring						
a. Site Preparation						$ 3,000
b. Field Portable GS (Lease)	1	1,000/wk	2,000	500/day	5,000	$ 7,000
1. Removal of Asphalt Pavement & Excavation Around Dry Well (See Table B-1)						$ 1,400
2. Sheet Piles						
a. Lease of Sheet Piles (See Table B-1)						$ 6,400
b. Installation of Sheet Piles (See Table B-1)						$ 10,600
3. Removal of Dry Well						
a. Saw Cut (See Table B-1)						$ 2,270
b. Removal (See Table B-1)						$ 1,520
4. Decontamination of Dry Well						
a. Steamblasting (See Table B-1)						$ 740
5. Off-Site Dispoal of Decontaminated Concrete Debris						
a. Hauling & Transportation (See Table B-1)						$ 4,300
b. Municipal Landfill Disposal (See Table B-1)						$ 7,880

TABLE 2 (Cont'd)

CAPITAL COST ESTIMATES (1988 Dollars)
ALTERNATIVE 4 - OFF-SITE INCINERATION

Facility/Construction	Estimated Quantities	Materials Unit Price	Materials Cost	Installation Unit Price	Installation Cost	Direct Construction Cost
6. Removal of Liquid Waste and Sludge						
a. Settling Tank (See Table B-1)						$ 3,000
b. Pumping (See Table B-1)						$ 1,000
c. Settled Wastewater Hauling (See Table B-1)						$ 3,200
7. Excavation of Contaminated Soil (See Table B-1)						$ 1,870
8. Contaminated Soils Containerization, Hauling and Transportation						
a. Drumming and Hauling	135 tons	30/drum	11,300	33.5/ton	4,520	$ 15,820
b. Transportation	7 load 500 mile			3.5/mile/load	12,250	$ 12,250
9. Off-Site Incineration	130 ton			700/ton	130,000	$ 91,000
10. Site Restoration						
a. Borrowed Fill & Compaction	105 cy	15/cy	1,580	5 cy	525	$ 2,100
b. Asphalt Pavement	250 Sf	2/sf	500	3/sf	750	$ 1,250
				Total Direct Construction Cost (TDCC)		$ 176,600
				Contingency @ 20% of TDCC(*)		$ 35,320
				Engineering @ 15% of TDCC		$ 26,490
				Legal & Adminsitration @ 2% of TDCC		$ 3,530
				Total Construction Cost		$ 241,940

(*) A 20% contingency factor is assumed for this case as compared to 25% for the on-site mobile enhanced volatilization operation because of the higher potential for operation problems and down time associated with a mobile unit as compared to a stationary unit.

APPENDIX A

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

SEP 27 1988

Mr. Stephen D. Luftig, P.E.
Director
Office of Emergency and Remedial Response
U. S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, NY 10278

Dear Mr. Luftig:

The New York State Department of Environmental Conservation (NYSDEC) reviewed the Remedial Investigation (RI) report and the Feasibility Study (FS) for the Second Operable Unit of the Brewster Well Field site. We concur with the U. S. Environmental Protection Agency's selection of Alternative 4, off-site incineration of contaminated soils and off-site landfilling of decontaminated concrete, as the preferred remediation alternative.

The draft Record of Decision (ROD) states, "Site soils and sediments, including those contiguous to the drywell and site drainage systems, will be tested during response actions, and those materials containing more than 4 ppm PCE (tetrachloroethylene) will be remediated." Please be aware that NYSDEC and the New York State Department of Health (NYSDOH) define this "drainage system" as one that begins at the catch-basins on site and continues through the culvert out-wash to the northeast of Alben Cleaners (see enclosure).

Also, please be advised that Air Guide I is not an Applicable or Relevant and Appropriate Requirement (ARAR). Rather, it is a tool to be used while examining the NYSDEC air regulations which must be considered ARARs for all remedial programs. The NYSDEC regulations relating to air quality which are considered ARARs include: 6 NYCRR, Parts 200.6, 201, 211.2, 212, and 257.

An estimate of emissions from the remedial activities must be made during the design phase of this project. During these activities, monitoring of off-site emissions shall be conducted. Any emissions deemed unacceptable by NYSDEC will be cause for emission controls necessary to bring these emissions to an acceptable level.

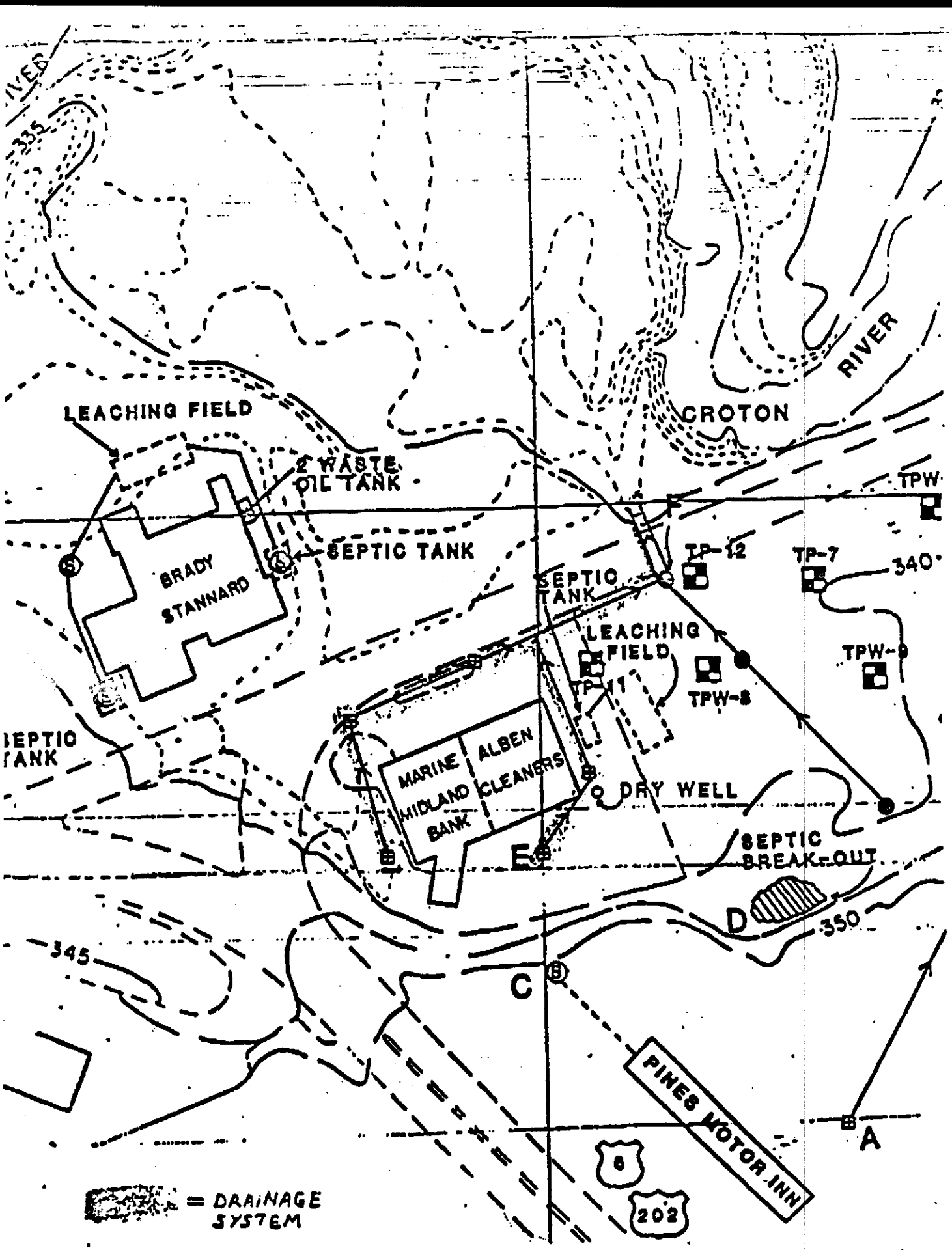
If you have any questions, please call me at (518) 457-5861 or James Quinn, of my staff, at (518) 457-1708.

Sincerely,

for Charles M. Sullivan

Michael J. O'Toole, Jr., P.E.
Director
Division of Hazardous Waste
Remediation

Enclosure


335
RIVER
LEACHING FIELD
WASTE OIL TANK
BRADY STANNARD
SEPTIC TANK
CROTON
RIVER
TPW
TP-12
TP-7
340
SEPTIC TANK
LEACHING FIELD
TP-11
TPW-8
TPW-9
SEPTIC TANK
MARINE MIDLAND BANK
ALBEN CLEANERS
DRY WELL
SEPTIC BREAK-OUT
E
D
350
345
C
PINES MOTOR INN
A
6
202
= DRAINAGE SYSTEM

APPENDIX B

RESPONSIVENESS SUMMARY

A public comment period was held from August 18, 1988 through September 12, 1988 to receive comments from the public on the draft FS and EPA's preferred remedial alternative for the Brewster Well Field site. A public meeting for the site was held on August 31, 1988 at 7:00 p.m. at the Brewster, N.Y. Village Hall. The meeting was attended by EPA officials, a representative of EPA's consultant engineer, state, county and local officials, media representatives, and a limited number of local citizens. The purpose of the meeting was to present and discuss the draft FS for the site, to apprise local officials and residents of the agency's preferred alternative for remediating the site, and to provide an opportunity for interested parties to present oral comments and questions to EPA. Comments received during the comment period are categorized below by topic.

A. Liability of potentially responsible parties (PRP's).
B. Origin, nature and extent of contamination.
C. Other concerns.

A. LIABILITY OF POTENTIALLY RESPONSIBLE PARTIES

1. Comment: A local official wanted to know if past and present property owners and tenants at the source location were notified of the site contamination and their potential liability.

   EPA Response: Site contamination and response actions have been widely publicized in public fact sheets and press releases. Notice letters have been mailed to PRP's including the property owner and Alben Cleaners. Enforcement efforts are continuing. If identified, additional PRP's will be notified.

2. Comment: The site owner asked whether, as a buyer of the property, he was liable for waste disposal practices of past owners or tenants.

   EPA Response: Innocent property owners are not normally liable for disposal practices of past owners or tenants. A determination as to his innocence will be made in the future. Also see comment 4 below.

3. Comment: A local official asked whether the village is considered a PRP.

   EPA Response: We presently have no reason to believe that the village is a PRP.

4. Comment: The site owner asked that Superfund's "de minimis" rule be explained.

   EPA Response: When practicable and in the public interest settlements can be reached with PRPs if the settlement involves a minor portion of the response cost, and the amount and toxicity is minimal, or the PRP is the owner of the site but did not conduct or permit the generation, transportation, storage, treatment or disposal of hazardous substances and did not contribute to the release.

5. Comment: The site owner asked whether Alben Cleaners, as the operator, is solely responsible.

   EPA Response: Not necessarily. Costs may also be recovered from past and present site owners and, possibly, other tenants (e.g. under subleasing arrangements.)

6. Comment: A local official asked whether New York City (NYC) or the New York State Department of Transportation (DOT) are considered PRPs since the contaminated groundwater plume is located under NYC and DOT property.

   EPA Response: No; not by virtue of the location of the plume. The plume represents the migration, but not the source, of contamination.

B. ORIGIN, NATURE AND EXTENT OF CONTAMINATION

1. Comment: A local official questioned whether the contaminated source materials (i.e. drywell and contents) pose any dangers to the building occupants.

   EPA Response: The source is presently effectively buried and presents no direct contact danger but would be a danger if left in place and accidently exposed (e.g. as a result of excavation) in the future.

2. Comment: The site owner asked when the drywell was installed.

   EPA Response: We don't know for certain. Records indicate that an adjacent septic tank was installed in 1949. The drywell may have been installed at that same time.

8. Comment: The owner asked whether the drywell system was tested when installed.

EPA Response: We don't know. Typically, county or local agencies run percolation tests on septic and drywell systems.

9. Comment: A local official asked how much waste would be excavated at the source and how long it would take.

EPA Response: We expect that approximately 100 cubic yards (cy) of wastes will be removed and that the response action will take a matter of weeks from the start of excavation.

10. Comment: A local official asked whether the adjacent East Branch River is being contaminated.

EPA Response: No. Only one surface water sample at the discharge from the culvert from the Alben parking lot showed trace amounts (4ppb) of PCE.

11. Comment: The site owner questioned whether a large (4-8ft.) culvert from the interstates ran under the site and whether a highway spill, via the culvert, could have been the cause of site contamination.

EPA Response: A culvert that large would terminate in an endwall at the river or large drainage basin and none is evident at the site. Such a culvert would probably have been constructed by DOT. We have coordinated our remedial efforts with DOT and are not aware of any large culvert. Finally, in the absence of a drainage basin, a spill to a storm drain would discharge to the river, and not the groundwater aquifer.

12. Comment: The owner asked where the drywell is physically located.

EPA Response: Records indicated that the drywell is located approximately 25 feet east of the southeast corner of the Alben building. A soil boring taken during the remedial investigation confirms this.

13. Comment: The owner asked if we could determine how long the contamination has been accumulating in the drywell.

    EPA Response: There are too many variables (e.g. groundwater flow, geology, rate of discharge) to determine, from data, just how long the discharge took place or has been accumulating, with any meaningful accuracy.

14. Comment: The owner asked whether relatively recent highway construction could have affected groundwater conditions in the area since 1960.

    EPA Response: Construction may have mildly affected the local recharge of surface water to groundwater but would not have substantially affected pre-existing groundwater conditions.

15. Comment: One commenter asked how many gallons of contaminants it took to contaminate the site.

    EPA Response: Theoretically five gallons of a pure contaminant, such as the volatile organic compounds found at the Brewster site, could contaminate one billion gallons of water to maximum contaminant levels (MCLs) under the Safe Drinking Water Act (e.g. 5ppb for TCE). It is unlikely that the contaminants were disposed of in pure form, but rather as an unknown part of a total waste. As a result of pumping and natural attenuation some unknown part of the contamination has been removed or lost. Therefore we could not, with any reasonable accuracy, estimate the quantity of waste that was disposed of at the site.

C. OTHER CONCERNS

1. Comment: A local official asked who will pay for and operate the groundwater management system.

   EPA Response: EPA will pay for 90% and the State will pay for 10% of the costs of construction and the ten year remediation effort. The State will pay for operation and maintenance after ten years if it is necessary. The State is also responsible for physically running the system but may arrange for local authorities to do so.

2. Comment: The site owner asked whether any programs were in place in the late 1970's that regulated the disposal of hazardous wastes such as those from a dry cleaner.

   EPA Response: The Resource Conservation and Recovery Act (RCRA) of 1976 typically regulates the discharge of hazardous waste depending on the quantity generated. There may also be State, local, and industry regulations or guidelines that have application to dry cleaning waste disposal.

3. Comment: A local official asked why the effluent from the groundwater management system is going to be reinjected into the groundwater rather than be pumped into the distribution system.

   EPA Response: Pumping to distribution would have required that the discharge be piped across the river and would have been more difficult to implement and more costly. Reinjection of the effluent dilutes the groundwater contamination and creates a barrier to the migration of further contamination.

4. Comment: A local official asked when the groundwater management system will be built.

   EPA Response: Funding for construction is shared 90% by EPA and 10% by the State. Federal funding has been obligated. It is expected that the State cost share will be approved shortly. Construction should take approximately six to nine months.

5. Comment: A local engineer asked what the groundwater management system well construction will be.

   EPA Response: The groundwater management wells will be gravel packed wells.

6. Comment: The engineer asked what the groundwater management system capacity will be.

   EPA Response: The system is designed to operate at 50 gallons per minute (gpm).

7. Comment: The engineer asked how deep the groundwater management wells will be.

   EPA Response: The groundwater management wells will vary from 20 to 40 feet deep.

8. Comment: A local official asked whether town permission was necessary to construct the groundwater management system.

   EPA Response: With regard to property access, the system is to be constructed on DOT, NYC, and Brady Stannard property, from whom we have permission or conditional permission to construct the system. Local construction permits, if necessary, will be obtained by the construction contractor.

9. Comment: A local official asked whether NYC was apprised of the construction of the groundwater management system.

   EPA Response: NYC has been so advised and supports EPA's remedial efforts.

10. Comment: A local official asked whether health risks due to emissions from the groundwater management system packed tower air stripper were re-evaluated as part of the most recent study.

    EPA Response: Data from the most recent study indicates that calculated air pathway health risks have decreased. This is due to a corresponding decrease found in groundwater contamination.

11. Comment: The site owner asked whether any other local properties were listed on any Superfund type lists.

    EPA Response: The commenter was advised to call both State and Federal environmental offices for a list of sites.

APPENDIX C

Document Number: BRE-001-0748 To 1023 Parent: BRE-001-0600 Date: / /

Title: Feasibility Study Report Brewster Well Field Site Volume II: Appendices

Type: PLAN
Author: none: GHR Engineering
Recipient: none: NY Dept of Environmental Conservation

Document Number: BRE-001-1383 To 1405 Date: / /

Title: Community Relations Plan Brewster Well Field Site

Type: PLAN
Author: none: none
Recipient: none: none

Document Number: BRE-001-1792 To 1792 Parent: BRE-001-1024 Date: 01/25/79

Title: (Letter regarding required cleanup of oil contaminated soil and water at the facility)

Type: CORRESPONDENCE
Author: Manfredi, Cesare J: NY Dept of Environmental Conservation
Recipient: Moesch, Donald: Brady-Stannard Auto Company

Document Number: BRE-001-1793 To 1793 Parent: BRE-001-1024 Date: 01/26/79

Title: (Letter regarding waste disposal operations at the facility)

Type: CORRESPONDENCE
Condition: INCOMPLETE
Author: Manfredi, Cesare J: NY Dept of Environmental Conservation
Recipient: Moesch, Donald: Brady-Stannard Auto Company

Document Number: BRE-001-1794 To 1795 Parent: BRE-001-1024 Date: 01/30/79

Title: (Letter regarding steps to be taken to improve waste disposal operations at the facility)

Type: CORRESPONDENCE
Author: Prentiss, John H: Brady-Stannard Auto Company
Recipient: Manfredi, Cesare J: NY Dept of Environmental Conservation

Document Number: BRE-001-1796 To 1797 Parent: BRE-001-1024 Date: 02/21/79

Title: (Letter regarding steps taken to improve waste disposal operations and requesting official clearance)

Type: CORRESPONDENCE
Condition: MISSING ATTACHMENT
Author: Prentiss, John H: Brady-Stannard Auto Company
Recipient: Manfredi, Cesare J: NY Dept of Environmental Conservation

---

Document Number: BRE-001-1798 To 1798 Parent: BRE-001-1024 Date: 03/23/79

Title: (Letter acknowledging corrective action taken at the facility)

Type: CORRESPONDENCE
Author: Manfredi, Cesare J: NY Dept of Environmental Conservation
Recipient: Moesch, Donald: Brady-Stannard Auto Company

Document Number: BRE-001-0022 To 0028 Date: 01/01/81

Title: Village of Brewster Water Supply Investigation and Spray Aeration Tests Progress Report - Review of Existing Water Quality Data

Type: PLAN
Condition: INCOMPLETE
Author: none: Nathan L Jacobson & Associates
Recipient: none: none

Document Number: BRE-001-0029 To 0036 Date: 06/23/81

Title: Health Center Final Reports (for lab samples)

Type: DATA
Condition: ILLEGIBLE
Author: Knapp, D: NY Dept of Health
Recipient: none: NY Dept of Environmental Conservation

Document Number: BRE-001-0001 To 0021 Date: 07/01/83

Title: (Site summary and) Documentation Records for Hazard Ranking System

Type: PLAN
Author: none: US EPA
Recipient: none: none

Document Number: BRE-001-1229 To 1275 Date: 05/09/85

Title: Remedial Investigation/Feasibility Study Quality Assurance Project Plan

Type: PLAN
Author: Gushue, John J: GHR Engineering
Recipient: none: NY Dept of Environmental Conservation

Document Number: BRE-001-1407 To 1468 Parent: BRE-001-1406 Date: 07/01/85

Title: Detailed Work and Site Operations Plan Remedial Investigation

Type: PLAN
Author: none: GHR Engineering
Recipient: none: NY Dept of Environmental Conservation

Document Number: BRE-001-0765 To 0845 Parent: BRE-001-0500 Date: 05/30/86

Title: Focused Exposure and Risk Assessment for the Well Fields in Brewster NY

Type: PLAN
Author: none: Gradient Corporation
Recipient: none: GHR Engineering

Document Number: BRE-001-0847 To 0879 Parent: BRE-001-0500 Date: 06/01/86

Title: Brewster Well Field Summary of Health and Environmental Effects for Thirteen Compounds

Type: PLAN
Author: none: Szepatowski Associates (SAI)
Recipient: none: none

Document Number: BRE-001-1276 To 1382 Date: 06/01/86

Title: Final Focused Feasibility Study - Air Stripping and Alternatives for VHC Removal

Type: PLAN
Author: none: GHR Engineering
Recipient: none: NY Dept of Environmental Conservation

Document Number: BRE-001-0600 To 0747 Date: 07/01/86

Title: Final Feasibility Study Report Brewster Well Field Site Volume I

Type: PLAN
Author: none: GHR Engineering
Recipient: none: NY Dept of Environmental Conservation
Attached: BRE-001-0748 BRE-001-0765 BRE-001-0947 BRE-001-0882

Document Number: BRE-001-1024 To 1228 Date: 07/01/86

Title: Remedial Investigation Report Volume I

Type: PLAN
Author: none: GHR Engineering
Recipient: none: NY Dept of Environmental Conservation
Attached: BRE-001-1469 BRE-001-1473 BRE-001-1792 BRE-001-1793 BRE-001-1794 BRE-001-1796 BRE-001-1798

Document Number: BRE-001-1469 To 1799 Parent: BRE-001-1024 Date: 07/01/86

Title: Remedial Investigation Report Volume II: Appendices

Type: PLAN
Author: none: GHR Engineering
Recipient: none: NY Dept of Environmental Conservation

Document Number: BRE-001-1473 To 1531 Parent: BRE-001-1024 Date: 07/01/86

Title: Report on Preliminary Two-Dimensional Groundwater Modeling for the Brewster Well Field Site with Recommendations

Type: PLAN
Author: Hare, Paul William: Dunn Geoscience
Recipient: none: GHR Engineering

Document Number: BRE-001-0892 To 1000 Parent: BRE-001-0600 Date: 07/28/86

Title: Report and Addendum on Three-Dimensional Groundwater Flow and Transport Modeling for the Brewster Well Field Site

Type: PLAN
Author: Hare, Paul William: Dunn Geoscience
Recipient: none: GHR Engineering

Document Number: BRE-001-0598 To 0599 Date: 08/01/86

Title: (Brewster Wellfield Superfund Site Information Sheet inviting public comments and announcing a public meeting to be held 08/21/86)

Type: CORRESPONDENCE
Author: Eberle, William F: NY Dept of Environmental Conservation
Recipient: none: none

Document Number: BRE-001-0543 To 0597 Date: 09/30/86

Title: Record of Decision Remedial Alternative Selection

Type: LEGAL DOCUMENT
Author: Daggett, Christopher J: US EPA
Recipient: none: none

Document Number: BRE-001-0245 To 0273 Parent: BRE-001-0211 Date: 04/27/87

Title: Site-Specific Health and Safety Plan

Type: PLAN
Author: Birnbaum, Leslie: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-0209 To 0469 Parent: BRE-001-0211 Date: 07/01/87

Title: Field Operations Plan - Supplemental Remedial Investigation/Feasibility Study

Type: PLAN
Author: Verdibello, Mario S: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-0214 To 0220 Parent: BRE-001-0211 Date: 07/01/87

Title: Site Management Plan - Supplemental Remedial Investigation/Feasibility Study

Type: PLAN
Author: Verdibello, Mario S: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-0222 To 0243 Parent: BRE-001-0211 Date: 07/01/87

Title: Field Sampling and Analysis Plan - Remedial Investigation/Feasibility Study

Type: PLAN
Author: Sayres, Mindy: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-0471 To 0542 Parent: BRE-001-0473 Date: 07/01/87

Title: Final Supplemental Remedial Investigation/Feasibility Study Workplan

Type: PLAN
Author: Verdibello, Mario S: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-0211 To 0212 Date: 07/14/87

Title: (Letter forwarding Final Field Operations Plan)

Type: CORRESPONDENCE
Author: Sachdev, Dev R: Ebasco Services
Recipient: Alvi, M Shaheer: US EPA
Attached: BRE-001-0209 BRE-001-0214 BRE-001-0222 BRE-001-0245

Document Number: BRE-001-0473 To 0475 Date: 07/14/87

Title: (Letter forwarding Final Work Plan - Supplemental RI/FS)

Type: CORRESPONDENCE
Author: Sachdev, Dev R: Ebasco Services
Recipient: Alvi, M Shaheer: US EPA
Attached: BRE-001-0471

Document Number: BRE-001-1954 To 2203 Date: 08/01/87

Title: Groundwater Management System Remedial Design Specificaitons and Soil Borings

Type: PLAN
Author: Verdibello, Mario S: Ebasco Services
Recipient: none: none

Document Number: BRE-001-1406 To 1406 Date: 09/23/87

Title: (Letter forwarding the first operable unit workplan for the RI/FS)

Type: CORRESPONDENCE
Author: Eberle, William F: NY Dept of Environmental Conservation
Recipient: Wing, Robert: US EPA
Attached: BRE-001-1407

Document Number: BRE-001-1950 To 1953 Date: 11/01/87

Title: (EPA Fact Sheet Superfund Update titled: EPA to Conduct Supplemental Investigation)

Type: CORRESPONDENCE
Author: Funcia, Isabel: US EPA
Recipient: none: none

Document Number: BRE-001-0182 To 0208 Parent: BRE-001-0185 Date: 02/01/88

Title: Final Community Relations Plan for the Brewster Well Field Site

Type: PLAN
Author: Verdibello, Mario S: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-1938 To 1949 Date: 02/01/88

Title: (Blueprints relating to) Remedial design of Groundwater Management Facilities for Brewster Well Field Site

Type: GRAPHIC
Author: Verdibello, Mario S: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-0185 To 0186 Date: 02/15/88

Title: (Letter forwarding Final Community Relations Plan)

Type: CORRESPONDENCE
Author: Sachdev, Dev R: Ebasco Services
Recipient: Johnson, Lillian D: US EPA
Attached: BRE-001-0182

Document Number: BRE-001-0037 To 0181 Parent: BRE-001-0039 Date: 03/01/88

Title: Final Supplemental Remedial Investigation Report

Type: PLAN
Author: Verdibello, Mario S: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-2204 To 2212 Date: 03/01/88

Title: Health and Safety Requirements (Proposed for Contractors)

Type: OTHER
Author: none: none
Recipient: none: none

Document Number: BRE-001-0039 To 0040 Date: 03/21/88

Title: (Letter forwarding Final Supplemental Remedial Investigation Report)

Type: CORRESPONDENCE
Author: Sachdev, Dev R: Ebasco Services
Recipient: Alvi, M Shaheer: US EPA
Attached: BRE-001-0037

Document Number: BRE-001-1800 To 1885 Parent: BRE-001-1801 Date: 07/01/88

Title: Final Supplemental Feasibility Study Report

Type: PLAN
Condition: DRAFT
Author: Verdibello, Mario S: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-1886 To 1937 Parent: BRE-001-1886 Date: 07/01/88

Title: Final Supplemental Risk Assessment

Type: PLAN
Author: Verdibello, Mario S: Ebasco Services
Recipient: none: US EPA

Document Number: BRE-001-1801 To 1802 Date: 07/27/88

Title: (Letter forwarding Final Supplemental Feasibility Study)

Type: CORRESPONDENCE
Author: Sachdev, Dev R: Ebasco Services
Recipient: Alvi, M Shaheer: US EPA
Attached: BRE-001-1800

Document Number: BRE-001-1888 To 1889 Date: 07/27/88

Title: (Letter forwarding Final Supplemental Risk Assessment)

Type: CORRESPONDENCE
Author: Sachdev, Dev R: Ebasco Services
Recipient: Alvi, M Shaheer: US EPA
Attached: BRE-001-1886

Document Number: BRE-001-2296 To 2301 Date: 08/01/88

Title: (EPA Superfund Update re Proposed Remedial Action Plan for site)

Type: CORRESPONDENCE
Author: Wing, Robert: US EPA
Recipient: none: none

Document Number: BRE-001-2213 To 2295 Date: 08/31/88

Title: (Transcript of public meeting re site RI/FS)

Type: LEGAL DOCUMENT
Author: Levinson, Debra: AM Court Reporting
Recipient: none: none