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RECORD OF DECISION

Operable Unit 1

Goldisc Recordings

Holbrook, Suffolk County, New York

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Goldisc Recordings
Holbrook, Suffolk County, New York

STATEMENT OF BASIS AND PURPOSE

This Record of Decision (ROD) documents the U.S. Environmental Protection Agency's (EPA's) selection of the remedial action for the Goldisc Recordings Superfund site in accordance with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §9601 et seq. and to the extent practicable the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300. An administrative record for the site, established pursuant to the NCP, 40 CFR 300.800, contains the documents that form the basis for EPA's selection of the remedial action (see Appendix III).

The New York State Department of Environmental Conservation (NYSDEC) has been consulted on the planned remedial action in accordance with CERCLA §121(f), 42 U.S.C. §9621(f), and it concurs with the selected remedy (see Appendix IV).

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from the site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The selected remedy pertains to the first of two operable units for the site and addresses the contaminated sediments and soils located on the Goldisc property.

The major components of the selected remedy include the following:

- Excavation via a vacuum truck and off-site disposal of approximately 56 cubic yards of sediments and soils from the six dry wells in that portion of the site designated as Area of Environmental Concern 2 and drywell DW-2 in Area of Environmental Concern 14;

- Excavation and off-site disposal of approximately 215 cubic yards of surface soils within Area of Environmental Concern 8;

- Abandonment of the on-site production well including excavation and off-site disposal of sediments and soils from the well vault; and

- Taking steps to secure the placement of a deed restriction be placed on the property to limit it to a nonresidential use.

Although a groundwater investigation was included in the first operable unit investigation, it has been determined that selection of a groundwater remedy should be deferred until additional groundwater monitoring data can be collected and evaluated. A remedy for groundwater will be selected in a second operable unit ROD subsequent to additional groundwater monitoring.

DECLARATION OF STATUTORY DETERMINATIONS

The selected remedy meets the requirements for remedial actions set forth in CERCLA §121, 42 U.S.C. §9621: (1) it is protective of human health and the environment; (2) it attains a level or standard of control of the hazardous substances, pollutants and contaminants, which at least attains the legally applicable or relevant and appropriate requirements (ARARs) under federal and state laws; (3) it is cost-effective; (4) it utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable; and (5) it satisfies the statutory preference for remedies that employ treatment to reduce the toxicity, mobility, or volume of the hazardous substances, pollutants or contaminants at a site.

Although this alternative would result in no contamination remaining on-site above health-based levels for the current property use, the remedy does not allow for unlimited use and unrestricted exposure; therefore, a review of the remedial action pursuant to CERCLA §121(c), 42 U.S.C. §9621(c), will be conducted five years after the commencement of the remedial action to ensure that the remedy continues to provide adequate protection to human health and the environment.

Jeanne M. Fox
Regional Administrator

9/29/95
Date

RECORD OF DECISION
DECISION SUMMARY

Goldisc Recordings

Holbrook, Suffolk County, New York

United States Environmental Protection Agency
Region II
New York, New York
September 1995

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ATTACHMENTS

SITE NAME, LOCATION AND DESCRIPTION

The Goldisc Recordings Superfund site (Site) is located at the northeast corner of Veterans Memorial Highway and Broadway Avenue in the Village of Holbrook, Town of Islip, New York. The 34-acre Site consists of two one-story buildings that occupy six acres, three acres of pavement surrounding the buildings, and twenty-five acres of undeveloped land (see Figure 1 for the general Site vicinity). Current zoning at the Site is commercial/industrial. The area surrounding the Site is primarily residential and mixed forest, with some commercial and light industrial development. The Village of Holbrook has an estimated population of 20,525. The Site is bordered to the north and east by mixed forest, to the south by Veterans Memorial Highway, and to the west by Broadway Avenue (see Figure 2 for the Site layout).

A municipal water supply wellfield, which provides drinking water for the Suffolk County Water Authority (SCWA), is located approximately 1,200 feet south of the Site on Church Street. All residents of the Town of Islip depend on groundwater as their potable water supply. The closest dwellings are located about 700 feet north of the Site. A New York State and federally regulated wetland is located approximately one-half mile south of the Site. A Sunoco gasoline station is located on the southeast corner of Veterans Memorial Highway and Broadway Avenue, just south of the Site. Soil and groundwater remediation systems are currently in operation at the station, to address a release of petroleum product to the groundwater.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

From 1968 to 1990, the two buildings were occupied by several different companies that generated and stored hazardous substances on the Site. These companies included Goldisc Recordings, Inc. (Goldisc), which produced phonographic records; ElectroSound Group, Inc. (Electrosound), a company that manufactured audio visual and optical devices; and Genco Auto Electric, Inc. (Genco), which rebuilt automotive engine parts. The First Holbrook Company (First Holbrook) owned the property from 1973 to 1985. In 1985, the Red Ground Corporation became the owner of the property. In 1989, Red Ground Corporation sold the property to a partnership named Red Ground Company. The two tenants occupying the buildings since 1990 are dry goods merchants and do not perform any manufacturing.

The substances known to have been disposed of on the Site between 1968 and 1990 include wastewater from the various production processes, waste oils, metals, solutions containing high concentrations of xylene and trichloroethylene, and other degreasing agents. These substances were reportedly discharged to the environment through dry wells, leaching pools, storm drains, and leaking storage containers located around the buildings.

Since the late 1970s, the Suffolk County Department of Health Services (SCDHS), the New York State Department of Environmental Conservation (NYSDEC), and EPA have conducted various inspections and environmental protection enforcement activities at the Site. In 1978, a representative from the SCDHS inspected the Site and noted stains, puddles, and leaking drums suspected to be related to industrial wastes. In the early 1980s, the SCDHS collected samples from leaching pools, storm drains, and cesspools located on the Site. Laboratory analyses of the samples revealed violations of New York State Groundwater Effluent Guidelines. Between 1981 and 1983, laboratory analyses of groundwater samples collected from monitoring wells located on-site revealed elevated levels of solvents and metals, including: trichloroethane, trichloroethylene, tetrachloroethylene, lead, nickel, chromium, and silver. Analyses of samples obtained from the Church Street wellfield showed concentrations of tetrachloroethylene slightly exceeding the state and federal Maximum Contaminant Level (MCL) of 5 parts per billion (ppb) for public drinking water. Based on these findings, the Site was proposed for inclusion on the National Priorities List (NPL) in October 1984 and was added to the NPL in June 1986.

In 1988, DEC entered into an Administrative Order on Consent (AOC) with two of the potentially responsible parties (PRPs), namely, First Holbrook and ElectroSound. The AOC required the two PRPs to conduct an RI at the Site. The RI (Phase I RI) was conducted in 1988 and included the investigation of nineteen areas of potential contamination. Groundwater and soil samples were collected and analyzed to determine the nature and extent of contamination in these areas. Elevated levels of lead and tetrachloroethylene were found in groundwater samples. Soil samples were found to contain elevated levels of several metals, volatile organic compounds, and semi-volatile organic compounds.

Based on a review of the results, EPA and DEC determined that additional information was necessary in order to better define the extent of contamination at the Site. In late 1990, DEC requested that EPA take over as lead agency for the Site. EPA notified First Holbrook, ElectroSound, Genco, and Red Ground of their potential liability at the Site and requested they finance or undertake the continuing RI/FS. Subsequently, in 1991, EPA entered into an AOC with First Holbrook and ElectroSound. This AOC specifically required the PRPs to conduct a supplemental RI/FS (or Phase II RI/FS). A subsequent notification of potential liability was issued on August 17, 1995 to an additional seven individuals who are partners of First Holbrook.

HIGHLIGHTS OF COMMUNITY PARTICIPATION

The RI, FS, and Baseline Risk Assessment reports, as well as the Proposed Plan, for the Site were released to the public for comment on August 26, 1995. These documents were made available to the public at information repositories located at the Islip Town Hall and Sachem Public Library. The notice of availability for the above-referenced documents was published in the Suffolk County News on September 7, 1995 and a press release was issued on August 30, 1995. The public comment period on these documents was held from August 26, 1995 to September 26, 1995.

On September 11, 1995, EPA conducted a public meeting at the Islip Town Hall West Auditorium to inform local officials and interested citizens about the Superfund process, to review current and planned remedial activities at the Site, and to respond to any questions from area residents and other attendees.

Responses to the comments received at the public meeting and in writing during the public comment period are included in the Responsiveness Summary (see Appendix V).

SCOPE AND ROLE OF OPERABLE UNIT

It was EPA's original intention to supplement previous data collected under state and county investigations in order to address sediment, soil and groundwater contamination at the Site. However, due to circumstances which occurred as the Phase II RI/FS progressed, EPA and DEC have decided to defer the decision regarding groundwater remediation. The MCL for nickel, which is the primary contaminant at the Site, was remanded in February 1995. In addition, the concentration of nickel has fluctuated in the groundwater. While the Church Street wellfield has been impacted by nickel contamination, recent data indicate that nickel concentrations have dropped below the current (July 10, 1995) Interim Health Advisory level of 100 ppb. As a result, EPA and DEC decided to postpone the selection of a remedy for the groundwater until additional information and data on the nickel contamination in the groundwater are obtained. This remedy will be documented in a second operable unit Record of Decision (ROD).

The selected remedy described in this document addresses the contamination associated with Site sediments and soils.

SUMMARY OF SITE CHARACTERISTICS

Under the direction of EPA, the PRPs' contractor, ERM-Northeast, implemented the Phase II RI to characterize further the sediments and soils, and groundwater at the Site. The intent of the study was to fill data gaps identified during review of the DEC Phase I RI report. Sediments and soils data collected as part of both

the Phase I and Phase II RI/FS are provided below, as are data for groundwater.

Sediments, Soils, Storm Drains, and Drywells

The Phase I RI identified 19 separate soil Areas of Environmental Concern (AEC) (see Figure 2), which included storm drains, drywells, a sump, drum storage areas, sanitary discharge areas, a transfer pad area, and a former production well. Phase I sampling of AECs 3, 4, 6, 7, 9, 17, and 18 determined that these areas had not been significantly impacted. Therefore, no additional Phase II sampling was performed in these areas. Likewise, Phase I sampling adequately defined the impacts to AECs 2, 11, and 12. Therefore, no additional Phase II sampling was performed in these areas.

The Phase I data indicated that the highest levels of contamination were found in AEC 2 (see Table 1). AEC 2 consists of an interconnected system of six drywells which allegedly received direct discharges from the Goldisc building, as well as spillage from a drum storage area. Chromium was detected in sediments and soils at levels ranging from 30 parts per million (ppm) to 195 ppm. Nickel was found at levels ranging from 25 ppm to 1,120 ppm.

Phase I data indicated the presence of total petroleum hydrocarbons (TPHCs) ranging from 31 ppm to 2,980 ppm in surface soils in AEC 11, where a concrete pad once holding an electrical transformer is located.

Phase I data indicated the presence of heavy metals above typical background ranges in AEC 12, which is the location of the former production well. A sediment sample collected from the base of the concrete vault housing the well detected nickel at 606 ppm.

Phase II involved the collection of additional surface and subsurface soil samples from 9 AECs. During May 1993, seven soil borings were drilled, three test trenches were excavated, and 46 surface and subsurface samples were collected for physical and chemical analyses. Together with earlier data, Phase II sampling data confirmed that AECs 1, 5, 8, 10, 13, and 14 were also impacted by Site-related contamination. Based on the Phase II data, AECs 1a, 15 and 16 were not considered to have been significantly impacted.

The Phase II results for AEC 1 confirmed the presence of TPHCs in the three solid-bottom storm drains and the base of the receiving drywell.

Previous data for AEC 5 indicated nickel in sediments slightly above Site background and TPHCs at levels up to 93,000 ppm at the drainage pipe outfall. Phase II involved collection of samples

from the base of two drywells and two storm drains to characterize the TPHC content. The samples contained TPHCs ranging from 406 ppm to 5,780 ppm. In addition, it appeared that the drainage system had been impacted by a petroleum release emanating from the oil-fired boilers within the former Goldisc building. Because response actions for petroleum releases are excluded under CERCLA, this AEC has been referred to the NYSDEC spills program for evaluation and possible remediation.

Locations which previously indicated high levels of nickel and chromium in AEC 8 were resampled. Maximum detected levels for nickel and chromium in Phase II sampling were 33 ppm and 80 ppm, respectively, in surface soils. Phase I and Phase II results confirm that this reported discharge area had contamination related to Site operations.

A soil boring was taken and analyzed for TPHCs in AEC 10. The highest concentration of TPHCs was detected in the 10-foot to 12-foot interval at 9,240 ppm. Concentrations decreased significantly with depth to 84 ppm in the 20-foot to 22-foot interval, and were not detected at lower intervals.

Phase II analyses were performed to complete the delineation of soils impacted by TPHCs in AEC 13. In one boring, the TPHCs extended to the water table. It is believed that oil reached this area through the Area 5 drainage system pipe. This AEC has also been referred to the DEC spills program. In the event that further testing identifies additional Site related hazardous wastes, EPA may reconsider addressing these areas.

Phase II sampling for AEC 14 included borings and analyses from three drywells. The uppermost sediments contained several metals at concentrations slightly above background. Deeper samples were within background ranges. The highest VOC detected was acetone at 0.44 ppm. Polychlorinated biphenyls (PCBs) were detected in all three drywells, the highest concentration at 0.41 ppm. Drywell 2 (DW-2) in this area contained levels of chrysene at a concentration of 0.77 ppm and benzo(a)anthracene at a concentration of 0.5 ppm in the 15-foot to 17-foot interval, above the recommended New York State cleanup guidelines of 0.4 ppm and 0.224 ppm, respectively (see Table 2).

Groundwater

The Phase I RI involved the collection of groundwater samples from 18 on-site monitoring wells, one on-site production well, one off-site upgradient well, and the three SCWA Church Street supply wells (see Figure 3 for groundwater well locations). Of the 18 on-site monitoring wells sampled, 14 are shallow (less than 50 feet deep), two are intermediate (75 to 90 feet deep), and two are deep (over 100 feet deep). All on-site monitoring wells are installed in the shallow aquifer, the Upper Glacial

aquifer. The thickness of the Upper Glacial underlying the Site is approximately 135 feet. Depth from the surface to the water table ranged across the Site from 18 to 32 feet. Church Street wells #1 and #2 (CS-1 and CS-2) are both shallow; installed in the Upper Glacial aquifer. Church Street well #3 (CS-3) is much deeper, screened in the lower Magothy aquifer. The groundwater flow direction in the northern portion of the Site is generally south to southeast. However, the southeast portion of the Site shows a shift in flow direction to the southwest in response to the radial drawdown resulting from to operation of the Church Street supply wellfield. The groundwater flow velocity, ranging between 1.3 to 1.7 feet/day during nonpumping periods, increases to 2.4 to 2.9 feet/day during Church Street pumping operations.

The initial Phase II groundwater sampling effort, performed in April 1993, included collection of samples from eight of the on-site monitoring wells. Two of these monitoring wells required replacement. The groundwater samples were analyzed for Target Analyte List (TAL) metals and/or Target Compound List (TCL) volatile organic compounds (VOCs), to fill data gaps or to confirm Phase I analytical results. After review of these results, an additional round of groundwater samples was collected from 15 on-site wells in order to investigate further the presence of heavy metals. In September 1994, ERM-Northeast collected samples from the 15 monitoring wells and analyzed these samples for nickel, chromium, iron, and manganese. All 15 samples were split with ICF Technology Corp., EPA's oversight contractor, and analyzed by EPA for all TAL metals.

Comparison of the Phase II groundwater sampling results with Phase I indicated that the VOC concentrations had decreased. For the Phase II data, the only VOC detected at a concentration above its drinking water standard was carbon disulfide in monitoring well 17D (MW-17D). Analytical results for the split sample from MW-17D did not indicate the presence of carbon disulfide above its drinking water standard. Carbon disulfide has been determined to be a laboratory artifact and not a contaminant of concern.

Results of the Phase II first round of metal analyses of samples collected from eight monitoring wells did not indicate the presence of metals above any drinking water standards (see Table 3). The Phase II second round of metals analysis, performed on samples collected from 15 monitoring wells, detected high levels of nickel, ranging from 13.3 ppb to 959 ppb (see Tables 4a and 4b). At the time the sampling was performed, the federal MCL for nickel, which had become effective on June 17, 1992, was 100 ppb. In February 1995, in response to on-going litigation over its validity, EPA filed a joint motion to remand the nickel MCL voluntarily. On June 29, 1995, EPA issued a Federal Register notice formally removing the nickel MCL from the Code of Federal Regulations. Currently, no federal or state

drinking water standard exists for nickel. However, on July 10, 1995, EPA issued a Health Advisory of 100 ppb for nickel, while a new MCL for nickel is being reestablished. This Health Advisory is intended to serve as informal technical guidance only and is not to be construed as setting legally enforceable federal standards. Of the fifteen wells sampled during Phase II, only 3 had levels of nickel above 100 ppb, namely, MW-11 (140 ppb), MW-12 (959 ppb) and MW-16 (278 ppb). Since an MCL for nickel does not exist, a health-based action level was developed for the Site utilizing Superfund risk assessment methodologies. This health-based action level, detailed further in the risk discussion, was calculated to be 730 ppb. Only one sample, collected from MW-12 (959 ppb), exceeded this level.

In late 1993, routine monitoring performed by SCWA on the Church Street wellfield detected the presence of nickel in CS-2 in excess of the then existing 100 ppb MCL. This prompted SCWA to remove CS-2 from service and conduct testing to determine a suitable method of remediation for the well. Sampling of CS-2 in July 1995 and August 1995 revealed decreasing nickel concentrations of 98 ppb and 95 ppb, respectively. Since the remand of the nickel MCL, SCWA has put CS-2 back into service, blending it with the other wells, resulting in drinking water which is still well below the former MCL and current Health Advisory level of 100 ppb.

Based on its frequent detection at elevated concentrations at the Site, its former MCL, and the impact to the Church Street wellfield, nickel has been deemed to be the major contaminant of concern at the Site.

The Phase II second round of metal analyses also detected the presence of both iron and manganese above their respective secondary drinking water standards. Split samples verified these results. The secondary federal and state MCLs for iron and manganese are both based on aesthetic properties and are intended to prevent potential problems, such as poor taste, odor, and staining of plumbing fixtures, and do not specifically present a health risk. The highest concentrations were reported for the unfiltered sample collected from MW-11R. For this sample, iron was detected at a concentration of 34,900 ppb and manganese at a concentration of 2,840 ppb. The federal secondary MCLs for iron and manganese are 300 ppb and 50 ppb, respectively. A filtered sample collected from MW-11R detected iron and manganese at reduced levels of 185 ppb and 459 ppb, respectively. In the filtered sample, manganese was still in excess of the drinking water standard. However, manganese is not a contaminant of concern and does not present a risk; the levels detected represent background conditions in the area.

SUMMARY OF SITE RISKS

Based upon the results of the RI, a baseline risk assessment was conducted to estimate the risks associated with current and future site conditions. The baseline risk assessment estimates the human health and ecological risk which could result from the contamination at the site, if no remedial action were taken.

Human Health Risk Assessment

A four-step process is utilized for assessing site-related human health risks for a reasonable maximum exposure scenario: Hazard Identification--identifies the contaminants of concern at the Site based on several factors such as toxicity, frequency of occurrence, and concentration. Exposure Assessment--estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g, ingesting contaminated well-water) by which humans are potentially exposed. Toxicity Assessment--determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response). Risk Characterization--summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk) assessment of site-related risks.

EPA conducted a baseline risk assessment to evaluate the potential risks to human health and the environment associated with the Goldisc Recordings property in its current state. The Risk Assessment began with selecting contaminants of concern which would likely pose significant risks to human health and the environment. These contaminants included tetrachloroethylene, 1,1-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, benzo(a)anthracene, chrysene, cadmium, copper, lead, nickel, and zinc (see Table 5).

Four exposure pathways were evaluated under possible on-site present and future land use conditions; it was assumed that the property's current zoning status as commercial/industrial would not change. The exposure pathways considered were: dermal absorption of chemicals in the soil by children trespassing on the Site, direct contact (including incidental ingestion and dermal absorption) with soils by on-site commercial/industrial employees, direct contact with soil by future short-term construction workers, and domestic use of groundwater (including ingestion and inhalation of volatiles by nearby residents using the Church Street wellfield as the exposure point). All pathways were based on current Site conditions, except the future short-term construction worker scenario.

EPA's acceptable cancer risk range is 10^{-4} to 10^{-6} which can be interpreted to mean that an individual may have a one in ten

thousand to a one in a million increased chance of developing cancer as a result of a site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at a site. The results of the baseline risk assessment indicate that the soils and groundwater at the Site pose no unacceptable carcinogenic risk to human health. The overall carcinogenic risk for on-site workers, through direct contact with soils, is estimated to be 8.5×10^{-8} (risk of 8.5 in 100 million) (see Table 6). The overall carcinogenic risk for future construction workers, through ingestion and dermal contact with soils, is estimated to be 4.3×10^{-9} (risk of 4.3 in a billion) (see Table 7). The overall carcinogenic risk for domestic use of groundwater, through ingestion and inhalation, is estimated to be 9.5×10^{-5} (risk of 9.5 in a million) (see Table 8). Much of this risk is attributable to vinyl chloride, which was not detected in recent sampling events at the Church Street supply wellfield or on the Site. The preceding risk values indicate that the Site poses no unacceptable carcinogenic risk to human health. The dermal exposure pathway for children was evaluated but not quantified, as there were no contaminants of concern detected which are considered to be potential carcinogens via dermal exposure. Therefore, no adverse carcinogenic effects are expected to result from chronic exposure to chemicals from the Site.

To assess the overall potential for noncarcinogenic effects posed by the contaminants at a site, EPA has developed the hazard index (HI). The HI measures the assumed simultaneous subthreshold exposures to several chemicals which could result in an adverse health effect. When the HI exceeds 1.0, there may be concern for potential noncarcinogenic health effects.

The calculated HI values for the dermal absorption and direct contact pathways were all calculated to be less than 1. Dermal absorption by nearby children contributed to an HI value of 0.0002 (see Table 9), direct contact by on-site workers contributed to an HI value of 0.002 (see Table 10) and direct contact by future workers contributed to an HI value of 0.03 (see Table 11). Domestic use of groundwater contributed to an HI value of 0.26 (see Table 12); nickel was the major contributor to this HI. As noted below, this calculation assumes that there are no appreciable sources of nickel exposure outside of groundwater ingestion.

As noted in the Summary of Site Characteristics section, the MCL for nickel was remanded in February 1995. Due to the fact that significant nickel contamination exists in the Upper Glacial Aquifer, potential risks related to this contamination were closely evaluated. An acceptable health-based action level was developed for nickel in groundwater at the Site. Assuming that the groundwater would be used for domestic purposes, it was determined that groundwater concentrations of nickel below 730

ppb would result in an acceptable HI for the Site (i.e., an HI less than or equal to 1.0); conversely, levels above 730 ppb could present an unacceptable noncarcinogenic risk for the Site. Consistent with EPA guidance for conducting Superfund risk assessments, this calculated value assumes that there are no other significant sources of nickel exposure from other environmental media (e.g., air, soil, diet). As a point of reference, the 95% Upper Confidence Level (UCL) of the arithmetic mean, calculated utilizing nickel data from all of the on-site wells sampled during Phase II was 480 ppb, well below the 730 ppb action level. As noted previously, EPA has issued a Health Advisory for nickel of 100 ppb which is the same level as the former MCL. The Health Advisory incorporates additional conservative safety factors to account for potential nickel exposure from media other than drinking water; this very conservative level of safety assumes that drinking water only contributes 20% of the expected nickel exposure.

Ecological Assessment

The ecological risk assessment considered potential exposure routes of Site contamination to terrestrial wildlife. Much of the Site is paved or covered by structures and there is little, if any, potential for wildlife to be exposed to contaminated subsurface soils on-site. The only potential route of exposure to wildlife in the Site vicinity is if contaminants were transported through groundwater and discharged via groundwater into surface waters, particularly the state wetland located one-half mile south of the Site. Phase II sampling shows that the wetland has not been impacted by Site contaminants. Therefore, it was determined that no significant effects on aquatic organisms in the wetland in the vicinity of the Site could be attributed to groundwater discharge from the Site.

Since significant contamination, specifically nickel, was detected in the soils at the Site, there is a high potential for cross-media impacts as nickel can migrate into the groundwater via fluctuations of the water table and precipitation. This is supported by the detection of high levels of nickel in the groundwater. The maximum concentration of nickel in one on-site well was detected at 959 ppb. Furthermore, Site-related nickel contamination has impacted the nearby Church Street supply wells. Due to these circumstances, remedial action alternatives were developed for the Site sediments and soils.

Uncertainties

The procedures and inputs used to assess risks in this evaluation, as in all such assessments, are subject to a wide variety of uncertainties. In general, the main sources of uncertainty include:

- environmental chemistry sampling and analysis
- environmental parameter measurement
- fate and transport modeling
- exposure parameter estimation
- toxicological data.

Uncertainty in environmental sampling arises in part from the potentially uneven distribution of chemicals in the media sampled. Consequently, there is significant uncertainty as to the actual levels present. Environmental chemistry-analysis error can stem from several sources including the errors inherent in the analytical methods and characteristics of the matrix being sampled.

Uncertainties in the exposure assessment are related to estimates of how often an individual would actually come in contact with the chemicals of concern, the period of time over which such exposure would occur, and in the models used to estimate the concentrations of the chemicals of concern at the point of exposure.

Uncertainties in toxicological data occur in extrapolating both from animals to humans and from high to low doses of exposure, as well as from the difficulties in assessing the toxicity of a mixture of chemicals. These uncertainties are addressed by making conservative assumptions concerning risk and exposure parameters throughout the assessment. As a result, the Risk Assessment provides upper-bound estimates of the risks to populations near the Site, and is highly unlikely to underestimate actual risks related to the Site.

More specific information concerning public health risks, including a quantitative evaluation of the degree of risk associated with various exposure pathways, is presented in the Risk Assessment Report.

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in the ROD, may present an imminent and substantial endangerment to the public health, welfare, or the environment.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives are specific goals to protect human health and the environment. These objectives are based on available information and standards such as ARARs and risk-based levels established in the risk assessment.

The following remedial action objective was established:

- minimize leaching of contaminants, particularly nickel, in the subsurface soils and sediments to the groundwater.

DESCRIPTION OF REMEDIAL ALTERNATIVES

CERCLA §121(b)(1), 42 U.S.C. §9621(b)(1), mandates that a remedial action must be protective of human health and the environment, cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ, as a principal element, treatment to permanently and significantly reduce the volume, toxicity, or mobility of the hazardous substances, pollutants and contaminants at a site. CERCLA §121(d), 42 U.S.C. §9621(d), further specifies that a remedial action must attain a level or standard of control of the hazardous substances, pollutants, and contaminants, which at least attains ARARs under federal and state laws, unless a waiver can be justified pursuant to CERCLA §121(d)(4), 42 U.S.C. §9621(d)(4).

This ROD evaluates, in detail, two remedial alternatives for addressing contaminated sediments and soils associated with the Goldisc Recordings Superfund site. The time to implement a remedial alternative reflects only the time required to construct or implement the remedy and does not include the time required to design the remedy, negotiate with the responsible parties, or procure contracts for design and construction, or conduct operation and maintenance at the site.

The remedial alternatives are:

Alternative SR-I: No Action

Capital Cost: $ 0
O & M/yr Cost: $ 0
Present Worth: $ 0
Time to Implement: N/A

The Superfund program requires that the No Action alternative be considered as a baseline for comparison with other soil alternatives. Under this alternative, the contaminated sediments and soils would be left in place without treatment. Since this alternative would not allow for unlimited use and unrestricted exposure, CERCLA requires that the Site be reviewed every five years. If justified by the review, remedial actions may be implemented.

Alternative SR-II: Limited Action

Capital Cost: $ 250,322
O & M/yr Cost: $ 2,020
Present Worth: $ 277,062
Time to Implement: 2 months

This alternative includes measures which would reduce the leaching of contaminants, particularly nickel, to the groundwater. The specific measures include: removal of contaminated soils/sediments in the six drywells in AEC 2 and drywell DW-2 in AEC 14, and removal of surface soils within AEC 8, a reported discharge area which has shown TPHCs and metals related to Site operations. In addition, this alternative would include decommissioning and cleanup of the on-site production well. This action would be taken as a conservative measure to eliminate potential exposure to contaminated groundwater at the Site. The areas to be remediated are detailed on Figure 4.

The top three feet of soils/sediments would be removed via a vacuum truck from the six dry wells in AEC 2 and drywell DW-2 in AEC 14. The drywell structures would be left in-place and backfilled with clean soil. New drywells would be installed in an adjacent area for storm water runoff. The amount of material to be removed from these structures is estimated to be approximately 56 cubic yards; this material represents the most significant source of nickel contamination on the Site. In addition, approximately 215 cubic yards of surface soils from specific areas within AEC 8 would be removed. Also, the soils/sediments in the on-site production well vault would be removed via a vacuum truck. An additional source of nickel would be removed by this action. The well borehole would be sealed and capped, and the well casing and concrete vault would be removed. All materials removed during these measures would be transported off-site for treatment (as necessary) and disposal in accordance with federal and state requirements. Steps would also be taken to try to secure the placement of a deed restriction on the property so that the use of the property would be restricted to its current commercial/industrial use. Although this alternative would result in no contamination remaining on-site above health-based levels for the current property use, the remedy does not allow for unlimited use and unrestricted exposure; therefore, five-year reviews would be required.

SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

In selecting a remedy, EPA considered the factors set out in CERCLA §121, 42 U.S.C. §9621, by conducting a detailed analysis of the viable remedial alternatives pursuant to the NCP, 40 CFR §300.430(e)(9) and OSWER Directive 9355.3-01. The detailed analysis consisted of an assessment of the individual alternatives against each of nine evaluation criteria and a comparative analysis focusing upon the relative performance of each alternative against those criteria.

The following "threshold" criteria must be satisfied by any alternative in order to be eligible for selection:

1. Overall protection of human health and the environment addresses whether or not a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

2. Compliance with Applicable, or Relevant and Appropriate Requirements (ARARs) addresses whether or not a remedy would meet all of the applicable (legally enforceable), or relevant and appropriate (requirements that pertain to situations sufficiently similar to those encountered at a Superfund site such that their use is well suited to the site) requirements of federal and state environmental statutes and requirements or provide grounds for invoking a waiver.

The following "primary balancing" criteria are used to make comparisons and to identify the major trade-offs between alternatives:

3. Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.

4. Reduction of toxicity, mobility, or volume via treatment refers to a remedial technology's expected ability to reduce the toxicity, mobility, or volume of hazardous substances, pollutants or contaminants at the site.

5. Short-term effectiveness addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation periods until cleanup goals are achieved.

6. Implementability refers to the technical and administrative feasibility of a remedy, including the availability of materials and services needed.

7. Cost includes estimated capital and operation and maintenance costs, and the present-worth costs.

The following "modifying" criteria are considered fully after the formal public comment period on the Proposed Plan is complete:

8. State acceptance indicates whether, based on its review of the RI/FS and the Proposed Plan, the State supports, opposes, and/or has identified any reservations with the preferred alternative.

9. Community acceptance refers to the public's general response to the alternatives described in the Proposed Plan and the RI/FS reports. Factors of community acceptance to be discussed include support, reservation, and opposition by the community.

A comparative analysis of the remedial alternatives based upon the evaluation criteria noted above follows.

- Overall Protection of Human Health and the Environment

  Alternative SR-II would meet the remedial objective of preventing cross-media impacts to the groundwater from the source of contamination. Alternative SR-I would not prevent the continued migration of nickel into the underlying groundwater and, therefore, would not be as protective as Alternative SR-II.

- Compliance with ARARs

  Federal and state regulations dealing with the handling and transportation of any wastes to an off-site disposal facility for Alternative SR-II would be followed. Wastes would be treated using specific technologies or specific treatment levels, as appropriate, to comply with land disposal restrictions. Alternative SR-I would not be subject to any ARARs, although, potential excursions of groundwater/drinking water standards could occur under this alternative, due to cross-media impacts resulting from contaminants remaining in the soil.

- Long-Term Effectiveness and Permanence

  Alternative SR-II would remove the principal source of nickel to prevent leaching of contamination to the Upper Glacial Aquifer. Alternative SR-I would not reduce the potential long-term leaching to groundwater.

- Reduction in Toxicity, Mobility, or Volume via Treatment

  Treatment may be employed at the off-site facility to reduce the toxicity, mobility, and potentially volume of contaminants, especially nickel, in soils/sediments under Alternative SR-II; otherwise off-site disposal will achieve the same reductions without treatment. Alternative SR-I would provide no reduction in contaminant mobility, toxicity, or volume.

- Short-Term Effectiveness

  There is the potential for a temporary increase in risk to the community and workers due to dust generation during the

soil removal activities of Alternative SR-II. However, health and safety measures, along with the use of a vacuum truck for soil collection, would be implemented to mitigate the potential for risk. Workers would also be protected through the use of respirators (if needed). The implementation of Alternative SR-I would result in no additional risk to the community or workers during implementation.

- Implementability

  Components of Alternative SR-II would utilize relatively common construction equipment and materials. The services and technologies needed to implement this work are readily available. Use restrictions via zoning are in place at the Site and are not expected to change, however EPA would seek to have a deed restriction put on the property so as to restrict the property to commercial/industrial uses. Because no construction activities are associated with Alternative SR-I, this alternative would be easier to implement than Alternative SR-II.

- Cost

  The no action alternative has no associated costs. Alternative SR-II is estimated to cost $277,062.

- State Acceptance

  The State of New York concurs with the selected remedy.

- Community Acceptance

  The community concurs with the selected remedy. Specific responses to public comments are addressed in the Responsiveness Summary section of the ROD.

SELECTED REMEDY

EPA and NYSDEC have determined, after reviewing the alternatives and public comments, that Alternative SR-II is the appropriate remedy for the Site, because it best satisfies the requirements of CERCLA §121, 42 U.S.C. §9621, and the NCP's nine evaluation criteria for remedial alternatives, 40 CFR §300.430(e)(9).

The major components of the selected remedy are as follows:

- Excavation via a vacuum truck and off-site disposal of approximately 56 cubic yards of sediments and soils from the six dry wells in AEC 2 and drywell DW-2 in AEC 14;

- Excavation and off-site disposal of approximately 215 cubic yards of surface soils within AEC 8;

- Abandonment of the on-site production well including excavation and off-site disposal of sediments and soils from the well vault; and

- Taking steps to secure the placement of a deed restriction on the property to limit it to a nonresidential use.

STATUTORY DETERMINATIONS

As previously noted, CERCLA §121(b)(1), 42 U.S.C. §9621(b)(1), mandates that a remedial action must be protective of human health and the environment, cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ treatment to permanently and significantly reduce the volume, toxicity, or mobility of the hazardous substances, pollutants, or contaminants at a site. CERCLA §121(d), 42 U.S.C. §9621(d), further specifies that a remedial action must attain a degree of cleanup that satisfies ARARs under federal and state laws, unless a waiver can be justified pursuant to CERCLA §121(d)(4), 42 U.S.C. §9621(d)(4).

For the reasons discussed below, EPA has determined that the selected remedy meets the requirements of CERCLA §121, 42 U.S.C. §9621:

Protection of Human Health and the Environment

The selected remedy is considered to be fully responsive to this criterion and to the identified remedial action objective. Excavation and appropriate off-site treatment and disposal of the contaminated Site sediments and soils will prevent cross-media impacts by removal of a continuous source of contaminants to the underlying groundwater.

Compliance with ARARs

At the completion of the response action, the selected remedy will have complied with all applicable ARARs, including:

Action-Specific ARARs:

- 40 Code of Federal Regulations (CFR) Part 61 - National Ambient Air Quality Standards for Hazardous Air Pollutants

- 40 CFR Part 254.25 - Excavation and Fugitive Dust Emissions

- 40 CFR Part 262.1 - Standards for Generators of Hazardous Waste

- 40 CFR Part 263 - Standards Applicable to Transport of Hazardous Waste
- 40 CFR Part 264 - Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
- 40 CFR Part 268 - Land Disposal Restrictions
- 6 New York Code of Rules and Regulations (NYCRR) Part 200.6 - Ambient Air Quality Standards
- 6 NYCRR Part 372 - Hazardous Waste Manifest System & Related Standards for Generators, Transporters and Facilities
- 6 NYCRR Subpart 373 - Final State Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
- 12 NYCRR Subpart 753 - New York Industrial Code Rule # 53 for Notification Requirements on Buried Pipeline
- Occupational Safety and Health Act (OSHA) - 20 CFR Part 1910 - General Industry Standards
- OSHA - 20 CFR Part 1926 - Safety and Health Standards
- OSHA - 20 CFR Part 1904 - Record-Keeping, Reporting, and Related Regulations
- Department of Transportation (DOT) - 49 CFR Parts 107, 171.1 - 172.5-58 - Rules for Transportation of Hazardous Materials

Chemical-Specific ARARs:

- 40 CFR Part 268 - RCRA Universal Treatment Standards

Location-Specific ARARs:

- None applicable.

To Be Considered:

- New York State Technical and Administrative Guidance Memorandum (TAGM) - HWR-94-4046

  USEPA Interim Draft Health Advisory for Nickel

Cost-Effectiveness

The selected remedy is cost-effective in that it provides overall effectiveness proportional to its cost. The total cost of the remedy is $277,062; very little long-term operation and maintenance

costs are expected. With respect to the total cost, approximately 50% of the cost is attributed to sediments and soils removal, backfilling, and regrading activities; the remaining 50% is attributed to post-excavation sampling, soil classification, and disposal. A detailed breakdown of the costs associated with this remedy is provided in Tables 13a and 13b.

Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

The selected remedy utilizes permanent solutions and treatment technologies to the maximum extent practicable. The selected remedy represents the best balance of trade-offs among the alternatives with respect to the evaluation criteria. The State of New York and the community also support the selected remedy.

The selected remedy employs removal of the inorganic and organic contaminated sediments and soils on the Site through excavation and appropriate off-site treatment (as necessary) and disposal. The potential for future releases of contaminants to the underlying groundwater will be eliminated. Removal and treatment of the contaminated sediments and soils will, over the long term, reduce the toxicity, mobility, and volume of contaminants in the groundwater underlying the Site and prevent further degradation of area groundwater.

No short-term adverse impacts and threats to human health and the environment are foreseen as the result of implementing the selected remedy. However, to minimize and/or prevent worker exposure to contaminants, personal protection equipment will be utilized.

Preference for Treatment as a Principal Element

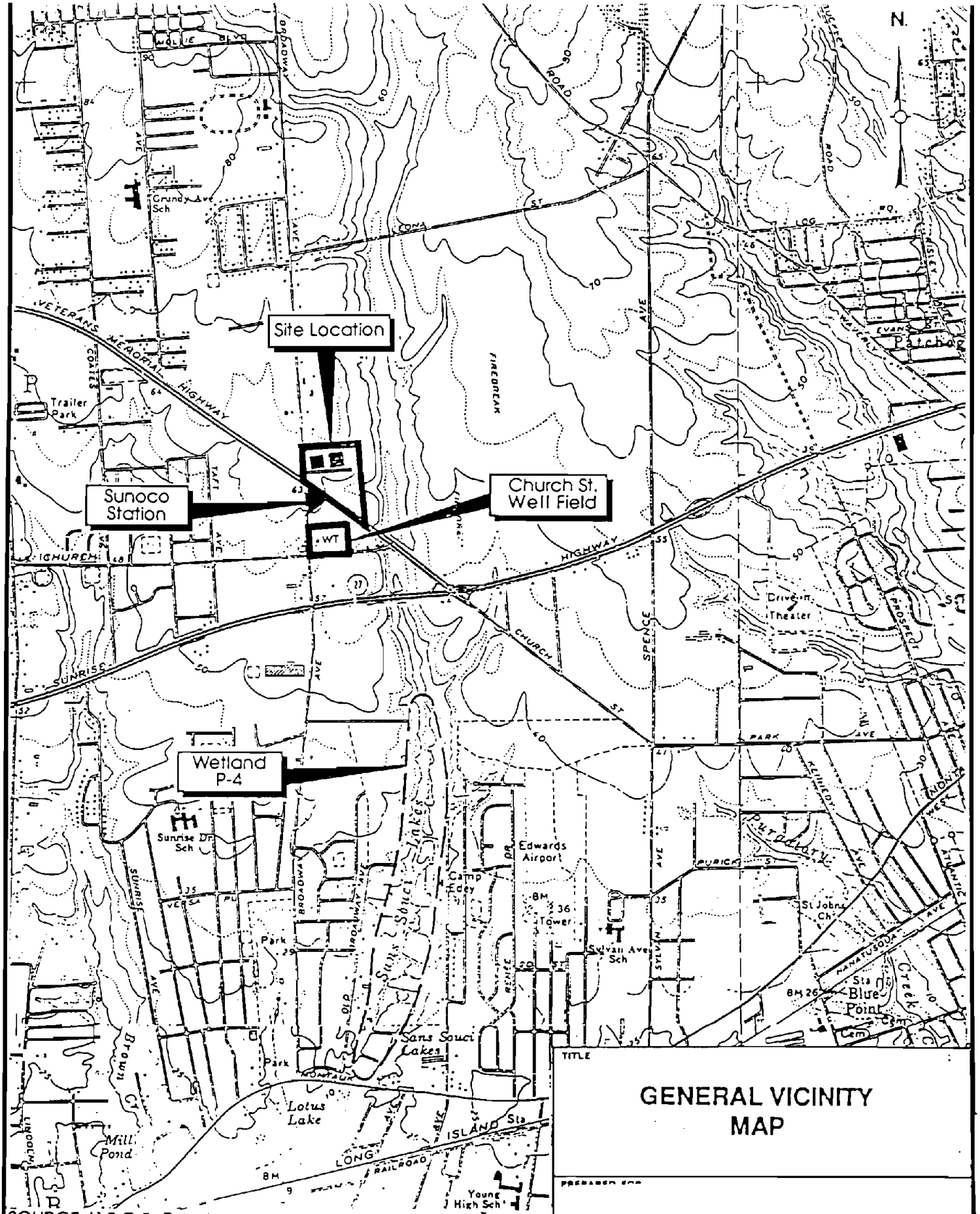
The selected remedy requires that the prinicipal threats posed by the Site, nickel-contaminated sediments and soils, be excavated and transported off-site for treatment (as necessary) and disposal in accordance with applicable requirements. Although the remedy does not require treatment, it is anticipated that these materials will require treatment prior to disposal. If off-site treatment is required, the remedy will satisfy the preference for treatment as a principal element.

DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan for the Site sediments and soils, identifying the selected remedy as Alternative SR-II; was released to the public on August 26, 1995. There are no significant changes from the preferred alternative as presented in the Proposed Plan.

APPENDIX I

FIGURES



SOURCE: U.S.G.S. Quadrangle Maps, Patchogue & Sayville, NY

SCALE: 1"= 2000'

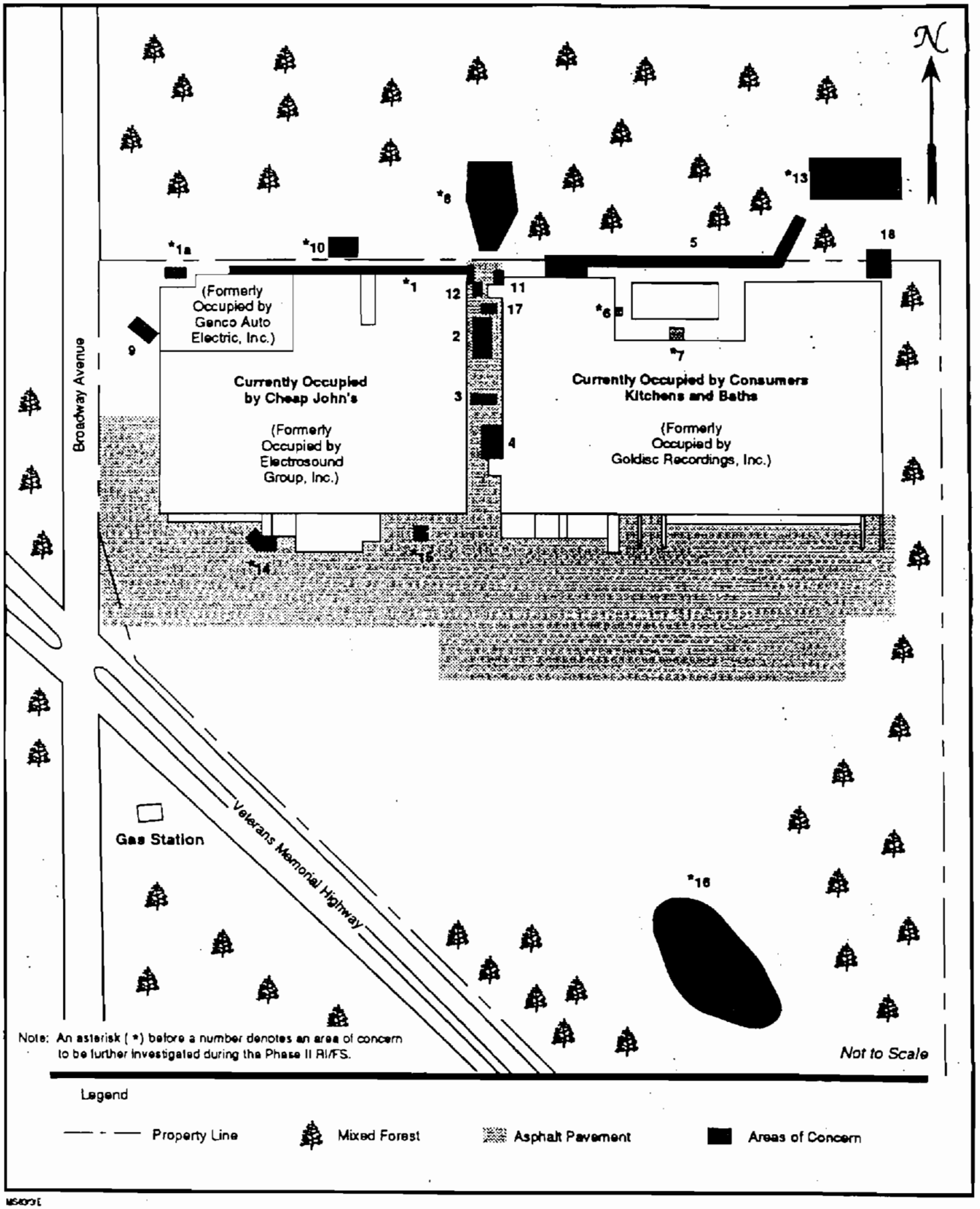
TITLE

GENERAL VICINITY MAP

PREPARED FOR

FIGURE 1

Figure 2.
Goldisc Recordings Study Area



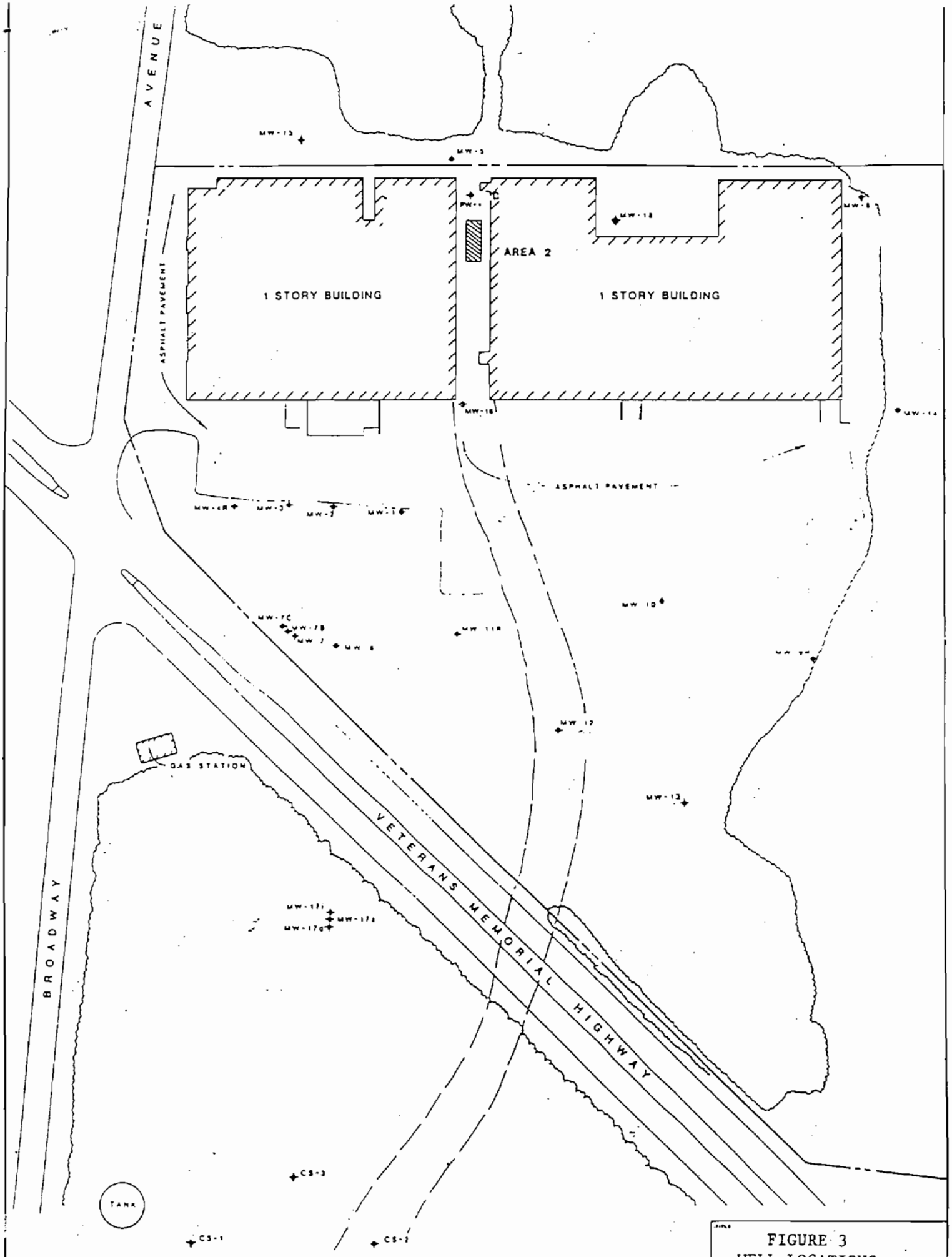
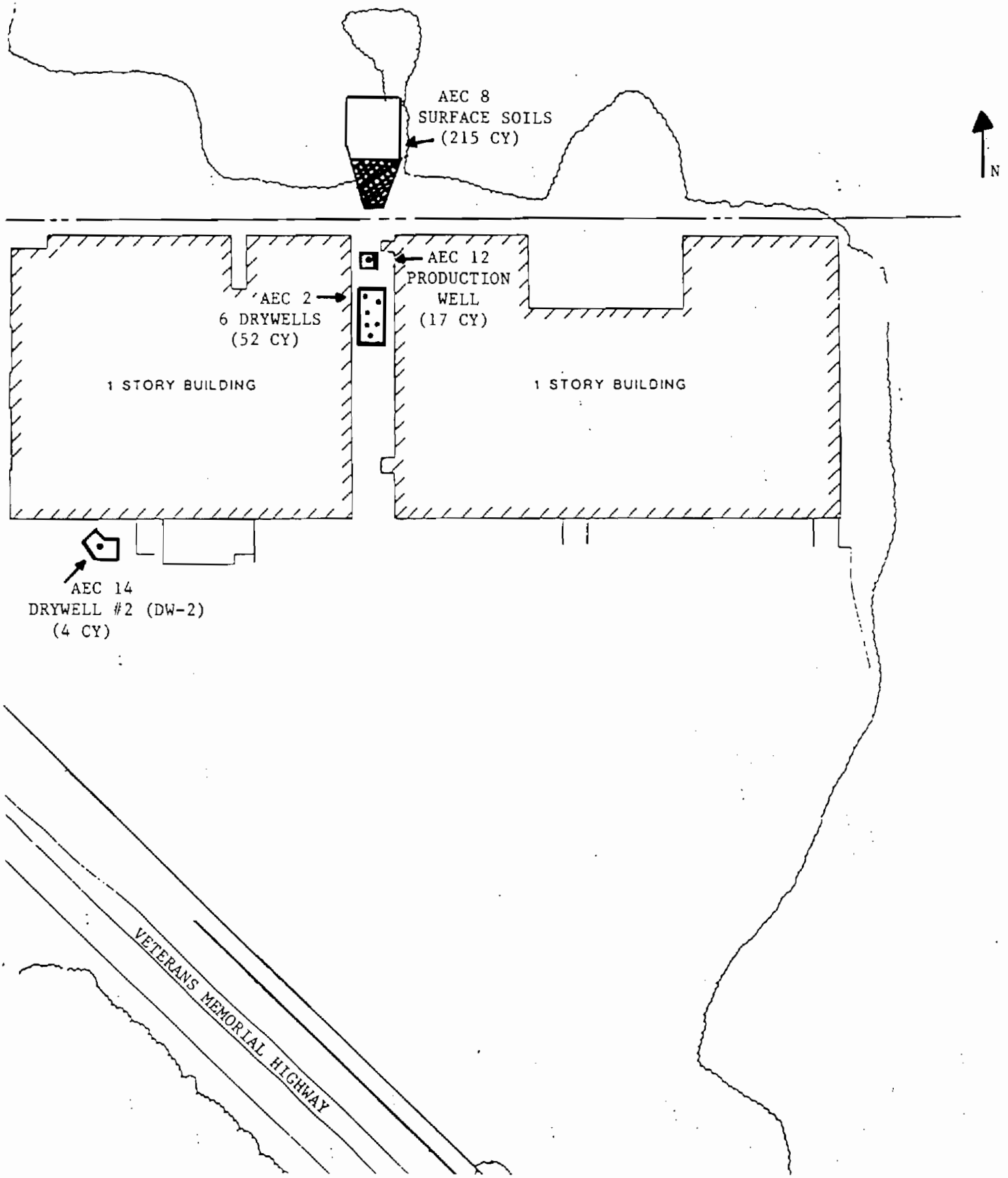


FIGURE 3
WELL LOCATIONS

FIGURE 4

AREAS TO BE REMEDIATED



APPENDIX II

TABLES

TABLE 1
PHASE I ANALYTICAL RESULTS FOR AREA 2 SOIL SAMPLES
FORMER GOLDISC SITE
HOLBROOK, NEW YORK

	Area 2 EC2-1 15-17'	Area 2 EC2-2 15-17'	Area 2 EC2-2 17-19'	Area 2 EC2-3 12-14'	Area 2 EC2-3 14-16'	Area 2 EC2-3 16-18'
Date Collected	6/29/88	6/30/88	6/30/88	6/30/88	6/30/88	6/30/88
Aluminum	1590	999	NA	1750	NA	NA
Barium	<23.26	<26.32	NA	<24.1	NA	NA
Beryllium	<0.58	<0.66	NA	<0.6	NA	NA
Cadmium	1.9	2.9	NA	<1.2	NA	NA
Calcium	<581	<658	NA	1170	NA	NA
Chromium	47.4 J	195.0	NA	102	10.7	NA
Cobalt	<3.49	13.7 J	NA	<3.61	NA	NA
Copper	118	68.7	NA	97.2	NA	NA
Iron	3290	4120	NA	6490	NA	NA
Lead	54.7 J	41.7 J	NA	73.2 J	NA	NA
Magnesium	<581	<658	NA	1340	NA	NA
Manganese	78.8 J	17.6	NA	64.6	NA	NA
Mercury	0.19 B	0.16	NA	0.10	NA	NA
Nickel	75.1 J	999	24.2	1120	107	25.6 J
Potassium	<581	<658	NA	<602	NA	NA
Silver	<1.16	<1.32	NA	4.3	NA	NA
Vanadium	9.6	<6.58	NA	17	NA	NA
Zinc	65.3 J	159 J	NA	108 B	NA	NA

	Area 2 EC2-4 9-11'	Area 2 EC2-4 11-13'	Area 2 EC2-4 13-15'	Area 2 EC2-5 12-14'	Area 2 EC2-5 14-16'	Area 2 EC2-6 15'-17'
Date Collected	6/30/88	6/30/88	6/30/88	6/30/88	6/30/88	6/30/88
Aluminum	1300 J	NA	NA	812	NA	1029
Barium	<25.64	NA	NA	<23.53	NA	<24.1
Beryllium	<0.64	NA	NA	<0.59	NA	<0.6
Cadmium	<1.28	NA	NA	<1.18	NA	2
Calcium	717	NA	NA	<588	NA	<602
Chromium	50.5 J	NA	NA	30.3	NA	41.6 J
Cobalt	<3.85	NA	NA	<3.53	NA	<3.16
Copper	24.7 J	NA	NA	45.6	NA	95.2
Iron	2440 J	NA	NA	1600	NA	1870
Lead	13.3 J	NA	NA	34.7 J	NA	64.6 J
Magnesium	<64.1	NA	NA	<588	NA	<602
Manganese	33.2 J	NA	NA	22.7	NA	14.8 J
Mercury	0.08	NA	NA	<0.05	NA	0.14 B
Nickel	726.0 J	107	70.9 J	193	70.2	41.5 J
Potassium	<641	NA	NA	<588	NA	<602
Silver	1.9 J	NA	NA	3.9	NA	<1.2
Vanadium	<6.41	NA	NA	<5.88	NA	<6.02
Zinc	122.0 J	NA	NA	34.2 B	NA	50.5 J

NOTES:

Units are milligrams per kilogram.
U: Undetected.
J: Estimated concentration.

NA: Not Analyzed.
B. [illegible]nd also detected in blank.

TABLE 2
PHASE II ANALYTICAL RESULTS FOR AREA 14 SOIL SAMPLES
FORMER GOLDISC SITE
HOLBROOK, NEW YORK

Semi-volatiles (cont.)	DW-1 9-11'	DW-1 13-15'	DW-1 17-19'	DW-2 15-17'	DW-2 17-19'	DW-2 27-29'	DW-3 16-18'	DW-3 24-26'	DW-3 26-30'	DW-3 28-30'	DW-3 Split
Date Collected	5/2/93	5/2/93	5/2/93	5/2/93	5/2/93	5/2/93	5/2/93	5/2/93	5/2/93	5/2/93	5/2/93
Pentachlorophenol	120 J	<870	<870	<1600	<900 J	<880 J	230 J	1000	<980	NA	<950 U
Phenanthrene	<500	<350	<350	<650	<360	<350	220 J	<410	<390	NA	<390 U
Anthracene	<500	<350	<350	450 J	<360	<350	<930 J	<410	<390	NA	<390 U
Carbazole	<500	<350	<350	<650	<360	<350	<930 J	<410	<390	NA	<390 U
Di-n-butylphthalate	<500	<350	<350	<650	<360	<350	<930 J	<410	<390	NA	43 J
Fluoranthene	54 J	<350	<350	1000	<360	<350	500 J	<410	<390	NA	<390 U
Pyrene	190 J	96 J	<350	1200	<360 J	<350 J	400 J	<410	<390	NA	<390 U
Butylbenzlphthalate	<500	<350	<350	<650	<360	<350	250 J	<410	<390	NA	<390 U
3,3'-Dichlorobenzidine	<500	<350	<350	<650	<360	<350	<930 J	<410	<390	NA	<390 U
Benzo(a)anthracene	<500	<350	<350	500 J	<360	<350	170 J	<410	<390	NA	<390 U
Chrysene	<500	<350	<350	770	<360	<350	210 J	<410	<390	NA	<390 U
bis(2-Ethylhexyl)phthal	170 J	79 J	42 J	510 J	<360	42 J	460 J	<410	<390	NA	<390 U
Di-n-octylphthalate	<500	<350	<350	150 J	<360	<350	<930 J	<410	<390	NA	<390 U
Benzo(b)fluoranthene	<500	<350	<350	860	<360	<350	140 J	<410	<390	NA	<390 U
Benzo(k)fluoranthene	<500	<350	<350	510 J	<360	<350	110 J	<410	<390	NA	<390 U
Benzo(a)pyrene	<500	<350	<350	260 J	<360	<350	<930 J	<410	<390	NA	<390 U
Indeno(1,2,3-cd)pyrene	<500	<350	<350	460 J	<360	<350	<930 J	<410	<390	NA	<390 U
Dibenz(a,h)anthracene	<500	<350	<350	290 J	<360	<350	<930 J	<410	<390	NA	<390 U
Benzo(g,h,i)perylene	<500	<350	<350 J	400 J	<360	<350	<930 J	<410 J	<390 J	NA	<390 U

NOTES:
Units are micrograms per kilogram for volatile organics, semi-volatiles, and PCBs.
Units are milligrams per kilogram for metals.
TICs: Tentatively Identified Compounds.
D: Concentration determined at a secondary dilution factor.
U: Undetected.
J: Estimated concentration.
NA: Not Analyzed.
R: Value rejected by data validation review.
Split - Split sample comparison results

TABLE 3
PHASE II ANALYTICAL RESULTS FOR 1993 GROUND WATER SAMPLES - METALS
FORMER GOLDISC SITE
HOLBROOK, NEW YORK

	STD.	MW-2	MW-4R	MW-8R	MW-9	MW-10R	MW-17S	MW-17I	MW-17D
Date Collected		4/22/93	4/21/93	4/21/93	4/22/93	4/21/93	4/21/93	4/21/93	4/21/93
Aluminum	---	NA	NA	NA	NA	NA	166	187	16.7
Antimony	6 M	NA	NA	NA	NA	NA	<2.4	<2.4	<2.4
Arsenic	50	NA	NA	NA	NA	NA	2.2 J	2.6	2.9 J
Barium	2000	NA	NA	NA	NA	NA	12.8 J	17.8 J	10.6 J
Beryllium	1 M	NA	NA	NA	NA	NA	<0.8	<0.8	<0.8
Cadmium	5	NA	NA	NA	NA	NA	<3.3	<3.3	<3.3
Calcium	---	NA	NA	NA	NA	NA	8090	10,100	9990
Chromium	100	<9.7	<9.7	NA	<9.7	<9.7	<9.7	<9.7	<9.7
Cobalt	---	NA	NA	NA	NA	NA	<12.6	<12.6	<12.6
Copper	---	NA	NA	NA	NA	NA	3.1	5.0	5.1
Iron	300	NA	NA	NA	NA	NA	186 J	65.0	101 J
Lead	50	NA	NA	1.5 J	NA	NA	1.6 J	3.0 J	2.9 J
Magnesium	---	NA	NA	NA	NA	NA	2060	3980	2230
Manganese	300	NA	NA	NA	NA	NA	6.5	55.6	54.1
Mercury	2	NA	NA	NA	NA	NA	<0.2	<0.2	<0.2
Nickel	---	NA	NA	NA	31.0	<13.6	<13.6	<13.6	<13.6
Potassium	---	NA	NA	NA	NA	NA	1460 J	2150 J	872 J
Selenium	10	NA	NA	NA	NA	NA	1.4 J	<1.2 J	<1.2 J
Silver	50	NA	NA	NA	NA	NA	<0.2 J	<2.0 J	<2.0 J
Sodium	---	NA	NA	NA	NA	NA	18,500	15,900	9840
Thallium	2 M	NA	NA	NA	NA	NA	<0.4 J	<0.4 J	<0.79 J
Vanadium	---	NA	NA	NA	NA	NA	5.6	7.7	8.6
Zinc	5000	NA	NA	NA	NA	NA	33.8	32.4	30.9

NOTES: Units are micrograms per liter.
NA: Not Analyzed.
STD: New York State drinking water standard, except those followed by M, which are USEPA MCLs.
U: Undetected.
J: Estimated concentration.

TABLE 4a

PHASE II ANALYTICAL RESULTS FOR 1994 GROUND WATER SAMPLES - METALS

FORMER GOLDISC SITE

HOLBROOK, NEW YORK

	STD.	MW-2	MW-2 Split	MW-5	MW-5 Split	MW-7A	MW-7A Split	MW-7B	MW-7B Split	MW-7C	MW-7C Split	MW-8R	MW-8R Split	MW-9R	MW-9R Split	MW-10R	MW-10R Split	MW-11R	MW-11R Split
DATE		9/7/94	9/7/94	9/8/94	9/8/94	9/7/94	9/7/94	4/21/94	9/7/94	9/7/94	9/7/94	9/6/94	9/6/94	9/7/94	9/7/94	9/7/94	9/7/94	9/8/94	9/8/94
Silver	—	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U
Aluminum	6 M	NA	<200 U	NA	22900	NA	531	NA	260 U	NA	<200 U	NA	390	NA	<200 U	NA	<200 U	NA	22900
Arsenic	50	NA	<10 U	NA	12.1	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	12.1
Barium	2000	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U
Beryllium	1 M	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U
Calcium	5	NA	15	NA	15	NA	13	NA	13	NA	8	NA	<5 U	NA	8	NA	14	NA	15
Cadmium	—	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U
Cobalt	100	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U
Chromium	—	<9.7	12	<9.7	31	<9.7	<10 U	<9.7	11	<9.7	11	<9.7	23	<9.7	<10 U	<9.7	17	10.8	31
Copper	—	NA	<25 U	NA	42	NA	<25 U	NA	<25 U	NA	<25 U	NA	<25 U	NA	<25 U	NA	<25 U	NA	42
Iron	300	28.2 B	<100 U	16 B	35100 U	97 B	199	18.6 B	<100 U	34.4 B	<100 U	97.8 B	151	32.2 B	<100 U	25.2 B	<100 U	34900	35100
Mercury	50	NA	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	<.2 U	NA	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	<0.2 U
Potassium	—	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U
Magnesium	300	NA	<5 U	NA	5	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	5
Manganese	2	2 B	<15 U	1.6 B	2940	128	128	64.2	62	2.4 B	<15 U	231	226	239	233	6.6 B	<15 U	2840	2940
Sodium	100 M	NA	30	NA	12	NA	16	NA	14	NA	11	NA	<5 U	NA	<5 U	NA	<5 U	NA	12
Nickel	—	17.6 J B	<40 U	<12.3	127	<12.3	<40 U	<12.3	<40 U	<12.3	<40 U	40.8 J	42	<12.3	<40 U	<12.3	<40 U	140 J	127
Lead	10	NA	<3 U	NA	25.4	NA	<3 U	NA	<3 U	NA	<3 U	NA	<3 U	NA	<3 U	NA	<3 U	NA	25.4
Antimony	50	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U
Selenium	—	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U
Thallium	2 M	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U
Vanadium	—	NA	<50 U	NA	51	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	51
Zinc	5000	NA	<20 U	NA	40	NA	<20 U	NA	112 U	NA	<20 U	NA	109	NA	<20 U	NA	<20 U	NA	40

NOTES: Units are micrograms per liter. U: Undetected.

NA: Not Analyzed. J: Estimated concentration.

STD: New York State drinking water standard, except those followed by M, which are USEPA MCLs.

Split- Split sample comparison results

TABLE 4b
PHASE II ANALYTICAL RESULTS FOR 1994 GROUND WATER SAMPLES - METALS
FORMER GOLDISC SITE
HOLBROOK, NEW YORK

	STD.	W-11RF	MW-11RF Split	MW-12	MW-12 Split	MW-13	MW-13 Split	MW-16	MW-16 Split	MW-17S	MW-17S Split	MW-17I	MW-17I Split	MW-17D	MW-17D Split
DATE		9/8/94	9/8/94	9/7/94	9/7/94	9/8/94	9/8/94	9/7/94	9/7/94	9/6/94	9/6/94	9/6/94	9/6/94	9/6/94	9/6/94
Silver	50	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U
Aluminum	—	NA	671	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U
Arsenic	50	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U
Barium	2000	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U	NA	<200 U
Beryllium	1 M	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U
Calcium	—	NA	15	NA	28	NA	15	NA	10	NA	12	NA	10	NA	11
Cadmium	5	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U
Cobalt	—	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U
Chromium	100	<9.7	<10 U	39.7	52	<9.7	<10 U	<9.7	21	<9.7	17	<9.7	12	<9.7	<10 U
Copper	—	NA	56	NA	<25 U	NA	<25 U	NA	<25 U	NA	<25 U	NA	<25 U	NA	<25 U
Iron	300	185	576	259	334	<11.0	<100 U	28.7 B	<100 U	36.9 B	160	54.5 B	113	133	119
Mercury	2	NA	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	<0.2 U
Potassium	—	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	6	NA	<5 U	NA	<5 U
Magnesium	—	NA	<5 U	NA	5	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U
Manganese	300	459	222	40.4	39	14.3 B	<15 U	18.8	19	1 B	<15 U	31.6	33	36.3	37
Sodium	—	NA	12	NA	<5 U	NA	<5 U	NA	<5 U	NA	81	NA	15	NA	8
Nickel	---	63.1 J	41	959	980	<12.3	<40 U	278	277	13.3 J B	<40 U	16.2 J B	<40 U	<12.3	<40 U
Lead	50	NA	76	NA	<3 U	NA	<3 U	NA	<3 U	NA	<3 U	NA	4.1	NA	<3 U
Antimony	6M	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U	NA	<60 U
Selenium	10	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U	NA	<5 U
Thallium	2 M	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U	NA	<10 U
Vanadium	—	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U	NA	<50 U
Zinc	5000	NA	112	NA	<20 U	NA	<20 U	NA	<20 U	NA	<20 U	NA	<20 U	NA	<20 U

NOTES: Units are micrograms per liter.
NA: Not Analyzed.
STD: New York State drinking water standard, except those followed by M, which are USEPA MCLs.
Split-Split sample comparison results

U: Undetected.
J: Estimated concentration.

TABLE 5

GOLDISC RECORDINGS SITE

CHEMICALS OF POTENTIAL CONCERN

Volatile Organic Compounds

1,1-dichloroethane
tetrachloroethene
1,1,1-trichloroethane
vinyl chloride

Semi-Volatile Organic Compounds

benzo(a)anthracene
chrysene

Metals

cadmium
copper
lead
nickel
zinc

TABLE 6

Direct Contact with Site Soil by On-Site Commercial/Industrial Employees

Calculation of Potential Carcinogenic Risk

Chemicals	*Average Daily Intake Oral (mg/kg-day)*	*Oral Potency Factor (mg/kg-day)-1*	*Potential Cancer Risk (--)*
1,1-dichloroethane	9.61E-10	---	na
tetrachloroethene	2.27E-09	5.20E-02	1.18E-10
1,1,1-trichloroethane	9.61E-10	---	na
vinyl chloride	9.44E-10	1.90E+00	1.79E-09
benzo(a)anthracene	1.13E-07	7.30E-01	8.23E-08
chrysene	1.13E-07	7.30E-03	8.24E-10
cadmium	1.03E-07	---	na
copper	1.65E-06	---	na
lead	4.08E-06	---	na
nickel	4.43E-06	---	na
zinc	3.56E-06	---	na
TOTAL			8.50E-08

TABLE 7

Direct Contact with Site Soil by Future Short-Term Construction Workers
Calculation of Potential Carcinogenic Risk

Chemical	*Oral*		*Potential Cancer Risk (--)*
	Average Daily Intake (mg/kg-day)	*Potency Factor (mg/kg-day)-1*	
1,1-dichloroethane	1.43E-10	---	---
tetrachloroethene	3.31E-10	5.20E-02	1.72E-11
1,1,1-trichloroethane	1.43E-10	---	---
vinyl chloride	3.31E-10	1.90E+00	6.30E-10
benzo(a)anthracene	5.01E-09	7.30E-01	3.65E-09
chrysene	6.37E-09	7.30E-03	4.65E-11
cadmium	1.29E-07	---	---
copper	6.17E-06	---	---
lead	2.17E-06	---	---
nickel	3.56E-06	---	---
zinc	3.31E-06	---	---
TOTAL			4.34E-09

TABLE 8

Domestic Use of Ground Water

Calculation of Potential Carcinogenic Risk

Chemical	*Oral Risk*			*Inhalation Risk*			*Total Pathway Risk (--)*
	Average Daily Intake (ADI) (mg/kg-day)	*Potency Factor (mg/kg-day)-1*	*Oral Risk (--)*	*Average Daily Intake (ADI) (mg/kg-day)*	*Potency Factor (mg/kg-day)-1*	*Inhalation Risk (--)*	
1,1-dichloroethane	1.17E-05	---		4.40E-05	---		
tetrachloroethene	9.39E-06	5.20E-02	4.88E-07	3.52E-05	2.03E-03	7.15E-08	5.60E-07
1,1,1-trichloroethane	4.23E-05	---		1.59E-04	---		
vinyl chloride	2.94E-06	1.90E+00	5.59E-06	1.10E-05	3.00E-01	3.30E-06	8.89E-06
benzo(a)anthracene	8.81E-08	7.30E-01	6.43E-08	3.30E-07	na		6.43E-08
chrysene	2.70E-08	7.30E-03	1.97E-10	1.01E-07	na		1.97E-10
cadmium	2.94E-05	---		1.10E-04	na		
copper	1.53E-06	---		5.72E-06	na		
lead	2.81E-05	---		1.06E-04	na		
nickel	2.08E-03	---		7.79E-03	na		
zinc	1.17E-04	---		4.40E-04	na		
TOTAL							9.51E-06

na=not applicable, inhalation exposure evaluated for volatile organics only

TABLE 9

Dermal Absorption of Chemicals in Soil by Children

Calculation of Chronic Hazard Index

(Noncarcinogenic Effects)

Chemical	*Absorbed Dose Dermal (mg/kg-day)*	*Dermal Reference Dose (mg/kg-day)*	*Hazard Index (HI) (--)*
cadmium	8.80E-08	5.00E-04	1.76E-04

TABLE 10

Direct Contact with Site Soil by On-Site Commercial/Industrial Employees

Calculation of Chronic Hazard Index

(Noncarcinogenic Effects)

	Oral			*Dermal*			*Total Pathway Hazard Index (HI) (--)*
Chemical	*Average Daily Intake (mg/kg-day)*	*Reference Dose (mg/kg-day)*	*Oral Hazard Index (--)*	*Absorbed Dose (mg/kg-day)*	*Reference Dose (mg/kg-day)*	*Dermal Hazard Index (--)*	
1,1-dichloroethane	2.69E-09	1.00E-01	2.69E-08		---		2.69E-08
tetrachloroethene	6.36E-09	1.00E-02	6.36E-07		---		6.36E-07
1',1,1-trichloroethane	2.69E-09	---			---		na
vinyl chloride	2.64E-09	---			---		na
benzo(a)anthracene	3.16E-07	---			---		na
chrysene	3.16E-07	---			---		na
cadmium	2.89E-07	5.00E-04	5.78E-04	3.30E-07	5.00E-04	6.60E-04	1.24E-03
copper	4.62E-06	---			---		na
lead	1.14E-05	---			---		na
nickel	1.24E-05	2.00E-02	6.20E-04		---		6.20E-04
zinc	9.98E-06	3.00E-01	3.33E-05		---		3.33E-05
TOTAL							1.89E-03

TABLE 11

Direct Contact with Site Soil by Future Short-Term Construction Workers
Calculation of Chronic Hazard Index
(Noncarcinogenic Effects)

	Oral			Dermal			
Chemicals	*Average Daily Intake (mg/kg-day)*	*Reference Dose (mg/kg-day)*	*Oral Hazard Index (--)*	*Absorbed Dose (mg/kg-day)*	*Reference Dose (mg/kg-day)*	*Dermal Hazard Index (--)*	*Hazard Index (HI) (--)*
1,1-dichloroethane	1.00E-08	1.00E-01	1.00E-07	---	---		1.00E-07
tetrachloroethene	2.32E-08	1.00E-02	2.32E-06	---	---		2.32E-06
1,1,1-trichloroethane	1.00E-08	---		---	---		---
vinyl chloride	2.32E-08	---		---	---		---
benzo(a)anthracene	3.50E-07	---		---	---		---
chrysene	4.46E-07	---		---	---		---
cadmium	9.00E-06	5.00E-04	1.80E-02	1.11E-06	5.00E-04	2.23E-03	2.02E-02
copper	4.32E-04	---		---	---		---
lead	1.52E-04	---		---	---		---
nickel	2.49E-04	2.00E-02	1.25E-02	---	---		1.24E-02
zinc	2.32E-04	3.00E-01	7.73E-04	---	---		7.72E-04
TOTAL							3.34E-02

TABLE 12

Domestic Use of Ground Water

Calculation of Chronic Hazard Index

(Noncarcinogenic Effects)

	Oral			*Inhalation*			
Chemical	*Average Daily Intake (mg/kg-day)*	*Reference Dose (mg/kg-day)*	*Oral Hazard Index (--)*	*Average Daily Intake (ADI) (mg/kg-day)*	*Reference Dose (mg/kg-day)*	*Dermal Hazard Index (--)*	*Hazard Index (HI) (--)*
1,1-dichloroethane	2.74E-05	1.00E-01	2.74E-04	1.03E-04	1.43E-01	7.20E-04	9.94E-04
tetrachloroethene	2.19E-05	1.00E-02	2.19E-03	8.22E-05	---		2.19E-03
1,1,1-trichloroethane	9.86E-05	---		3.70E-04	2.86E-01	1.29E-03	1.29E-03
vinyl chloride	6.85E-06	---		2.57E-05	---		
benzo(a)anthracene	2.05E-07	---		7.71E-07	---		
chrysene	6.30E-08	---		2.36E-07	---		
cadmium	6.85E-06	5.00E-04	1.37E-02	2.57E-05	na		1.37E-02
copper	3.56E-06	---		1.34E-05	na		
lead	6.58E-05	---		2.47E-04	na		
nickel	4.85E-03	2.00E-02	2.43E-01	1.82E-02	na		2.43E-01
zinc	2.74E-04	3.00E-01	9.13E-04	1.03E-03	na		9.13E-04
TOTAL							2.62E-01

na=not applicable, inhalation exposure evaluated for volatile organics only

Table 13a

Cost Estimate

Former Goldisc Recordings Facility, Holbrook, New York

Soil Remedial Alternative Limited Action

Item Description	Unit	Quantity	Unit Cost	Cost	Total Cost
Capital Costs					
Soil Removal from All Area 2 Dry Wells and Area 14 Dry Well DW-2					
(soil removal and disposal costs for production well sediment also included in this task cost)					
Soil Removal Labor and Equipment					
Supervisor	hr	160	65	10,400	
Technicians (2 persons)	hr	320	42	13,440	
Project Manager	hr	80	80	6,400	
Field Vehicle	day	16	105	1,680	
Hand Tools	day	16	35	560	
Hardware	day	16	35	560	
Super Sucker	day	8	2,000	16,000	
Super Sucker Mob	ls	1	600	600	
Confined Space Entry	day	8	2,000	16,000	
					$65,640
Dry Well Dewatering Labor and Equipment					
Labor	gal	13,310	0.50	6,655	
Vacuum Truck	day	5	1,500	7,500	
Vacuum Truck Mob	each	3	600	1,800	
					$15,955
Soil Classification Sampling	ls	1	1,700	1,700	$1,700
Soil Disposal	cy	56	225	12,600	$12,600
Dry Well Water Classification Sampling	sample	3	150	450	$450
Dry Well Water Disposal	ls	1	8,886	8,886	$8,886
				Task Subtotal	$105,231
Abandonment of the Production Well					
Abandonment of the Production Well	ls	1	4000	4,000	$4,000
				Task Subtotal	$4,000

Table 13b

Cost Estimate

Former Goldisc Recordings Facility, Holbrook, New York

Soil Remedial Alternative Limited Action

Item Description	Unit	Quantity	Unit Cost	Cost	Total Cost
Excavation of Surface Soil in Area 8					
Clearing and Grubbing	day	1	2,500	2,500	
Excavation	days	2	2500	5,000	
Backfill and Regrade	cy	215	23	4,945	
Post-Excavation Sampling					
Senior Project Hydrogeologist	hours	4	90	360	
Project Hydrogeologist	hours	10	55	550	
Expenses	ls	1	150	150	
Analysis for Nickel	sample	15	35	525	
Soil Classification Sampling	ls	1	1,000	1,000	
Soil Disposal	cy	215	225	48,375	
				Task Subtotal	$63,405
				Subtotal of Capital Costs for SR-II	$172,636
				Engineering and Contingencies (45%)	$77,686
				Total Capital Costs for SR-II	$250,322
Operating Costs					
Access and Use Restrictions					
Pavement and Foundation Maintenance	ls	1,760	1	1,760	
Site Inspections	year	260	1	260	
				Subtotal Annual Costs	$2,020
				Present Worth (20 yrs, 7%, PWF=10.59)	$21,392
				Contingency (25%)	$5,348
				Total Present Worth of Remedial Action Annual Costs	$26,740
				Total Cost, Soil Remedial Alternative SR-II wo/Contingency Area 2 Soil Study Cost	$277,062

APPENDIX III

ADMINISTRATIVE RECORD INDEX

GOLDISC RECORDINGS SITE
ADMINISTRATIVE RECORD FILE
INDEX OF DOCUMENTS

1.0 SITE INVESTIGATION

1.4 Site Investigation Reports

P. 100001 - 100304 Report: Engineering Investigations at Inactive Hazardous Waste Sites in the State of New York, Phase 1 - Preliminary Investigation, Final Report, Goldisc Recordings, Inc. Site, prepared for Division of Solid Waste, New York State Department of Environmental Conservation, prepared by Woodward-Clyde Consultants, Inc., September 20, 1984.

3.0 REMEDIAL INVESTIGATION

3.1 Sampling and Analysis Plans

P. 300001 - 300311 Report: Final Field Operations Plan, Phase II Remedial Investigation, Former Goldisc Recordings Facility, Holbrook, New York, prepared by ERM-Northeast, November, 1992.

P 300312 - 300320 Report: Final Field Operations Plan, Phase II Remedial Investigation, Former Goldisc Recordings Facility, Holbrook, New York, Appendix J: October 28, 1992 Response to EPA Comments, prepared by ERM-Northeast, November, 1992.

3.2 Sampling and Analysis Data/Chain of Custody Forms

P. 300321 - 300364 Report: Split Sample Data Comparison Report, Goldisc Recordings Site, Islip, New York, RI/FS Compliance Oversight, prepared for U.S. EPA, prepared by TRC Environmental Corporation, January 24, 1994. (Note: This document is CONFIDENTIAL. It is located at U.S. EPA Superfund Records Center, 290 Broadway, 18th floor, N.Y., N.Y. 10007-1866.)

P. 300365 - 300379 Letter to Mr. Robert Finke, ICF Technologies, from Mr. John Birri, Chief, Inorganic Chemistry Section, Technical Support Branch, U.S. EPA, Region II, re: Enclosed results of the Goldisc Recording sampling survey conducted by ICF Technologies during the week of September 5, 1994, November 4, 1994. (Attached: Sampling data for the Goldisc Recording Site, November 4, 1994.)

3.3 Work Plans

P. 300380 - 300551 Report: Final Phase II Work Plan, Remedial Investigation and Feasibility Study, Former Goldisc Recordings Facility, Holbrook, New York, Volume 1 of 2, prepared for Electrosound Group, prepared by ERM Northeast, December, 1991.

P. 300552 - 300566 Report: Final Phase II Work Plan, Remedial Investigation and Feasibility Study, Former Goldisc Recordings Facility, Holbrook, New York, Volume 2 of 2, prepared for Electrosound Group, prepared by ERM Northeast, December, 1991.

3.4 Remedial Investigation Reports

P. 300567 - 300596 Report: Site Analysis, Goldisc Recording, Inc., Holbrook, New York, prepared by Ms. Melissa Simpson, Imagery Analyst, The Bionetics Corporation, December, 1987.

P. 300597 - 300741 Report: Final Field Oversight Summary Report, RI/FS Compliance Oversight, Goldisc Recordings, Islip, New York, prepared for U.S. EPA, prepared by TRC Environmental Corporation, April 12, 1994. (Note: This document is CONFIDENTIAL. It is located at U.S. EPA Superfund Records Center, 290 Broadway, 18th floor, N.Y., N.Y. 10007-1866.)

P. 300742 - 300744 Federal Register, Vol. 60, No. 125, Rules and Regulations, Thursday, June 29, 1995.

P. 300745 - 300839 Report: Final Baseline Risk Assessment, Former Goldisc Recordings Facility, Holbrook, New York, prepared for Electrosound Group, prepared by ERM-Northeast, August, 1995.

P. 300840 - 301278 Report: Phase II Remedial Investigation Report Former Goldisc Recordings Facility, Holbrook, New York, prepared for Electrosound Group, prepared by ERM-Northeast, August, 1995.

4.3 FEASIBILITY STUDY

4.3 Feasibility Study Reports

P. 400001 - 400331 Report: Final Feasibility Study Report, Former Goldisc Recordings Facility, Holbrook, New York, prepared for Electrosound Group, prepared by ERM-Northeast, August 15, 1995.

7.0 ENFORCEMENT

7.3 Administrative Orders

P. 700001 - 700042 Administrative Order on Consent for Remedial Investigation/Feasibility Study, in the Matter of: The Goldisc Recording Site, First Holbrook Company, Electrosound Group, Inc., Respondents, Index No. II CERCLA-10218, June 27, 1991.

8.0 HEALTH ASSESSMENT

8.3 Correspondence

P. 800001 - 800002 Memorandum to addressees, from Tudor T. Davies, Director, Office of Science and Technology (4301), re: Interim Draft Health Advisory for Nickel, July 10, 1995.

10.0 PUBLIC PARTICIPATION

10.2 Community Relations Plans

P. 1000001- 1000042 Plan: Community Relation Plan, Community Relations Support, Goldisc Recordings, Islip, New York, prepared for U.S. EPA, prepared by TRC Environmental Corporation, February 9, 1993.

10.9 Proposed Plan

P. 1000043 - 1000052 Plan: Superfund Proposed Plan, Goldisc Recordings Site, Town of Islip, Suffolk County, New York, prepared by U.S. EPA, Region II, August, 1995.

APPENDIX IV

STATE LETTER OF CONCURRENCE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York 12233

Michael D. Zagata
Commissioner

SEP 28 1995

Ms. Kathleen Callahan
Director
Emergency & Remedial Response Division
U.S. Environmental Protection Agency
Region II
290 Broadway
New York, NY 10007-1866

Re: Goldisc Recordings Site ID No. 152022
Record of Decision

Dear Ms. Callahan:

The New York State Department of Environmental Conservation has reviewed the record of decision for the Goldisc Recordings site. The Department concurs with the selected remedy of Alternative SR-II, Limited Action, as it is detailed in the above-referenced document.

If you have any questions, please contact Mr. Jeffrey McCullough, of my staff, at (518) 457-3976.

Sincerely,

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

95 SEP 26 PM 1:22 DIRECTOR'S OFFICE

Post-it® Fax Note 7671		Date 9/28	# of pages ▶ 1
To K. Callahan		From M. O'Toole	
Co./Dept. USEPA		Co. NYSDEC	
Phone # (212) 637-4340		Phone # (518) 457-3976	
Fax # (212) 637-4439		Fax # (518) 485-8404	

APPENDIX V

RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY

Goldisc Recordings Superfund Site

INTRODUCTION

A responsiveness summary is required by Superfund regulation. It provides a summary of citizens' comments and concerns received during the public comment period, and the United States Environmental Protection Agency's (EPA's) responses to those comments and concerns. All comments summarized in this document have been considered in EPA's final decision for selection of a remedial alternative for the Goldisc Recordings Superfund site (Site).

SUMMARY OF COMMUNITY RELATIONS ACTIVITIES

Community involvement at the Site has been low. EPA took over as the lead Agency for community relations and remedial activities at the Site in 1991. EPA initiated its community relations activities on March 10, 1991 with in-person interviews with local officials and residents of Holbrook and Islip. Based on these interviews, the key issue of concern centered around the possibility of contamination of the Suffolk County Water Authority (SCWA) Wellfield, which is located only 1200 feet downgradient of the Site.

The remedial investigation, feasibility study, and baseline risk assessment reports, as well as the Proposed Plan for the Site, were released to the public for comment on August 26, 1995. These documents were made available to the public in the administrative record file at the EPA Docket Room in Region II, New York and the information repositories at the Islip Town Hall and the Sachem Public Library. A press release announcing the proposed action was issued on August 30, 1995 to local media outlets. The notice of availability for the above-referenced documents was published in the Suffolk County News on September 7, 1995. The public comment period on these documents was held from August 26, 1995 to September 26, 1995.

On September 11, 1995, EPA conducted a public meeting at the Islip Town Hall West Auditorium, to inform local officials and interested citizens about the Superfund process, to discuss remedial alternatives for the Site, to present EPA's preferred remedial alternative, and to provide an opportunity for the interested parties to present oral comments and questions to EPA.

Attached to the Responsiveness Summary are the following Appendices:

Appendix A - Proposed Plan

Appendix B - Public Notice

Appendix C - September 11, 1995 Public Meeting Attendance Sheets

Appendix D - Letters Submitted During the Public Comment Period

SUMMARY OF COMMENTS AND RESPONSES

Comments expressed at the public meeting and written comments received during the public comment period from counsel and the consultant representing ElectroSound Group, Inc. and the First Holbrook Company, as well as counsel representing the Red Ground Corporation, have been categorized as follows:

A. Selected Remedy Issues

B. Health Effects Issues

C. General Enforcement Issues

D. Groundwater Issues

A summary of the comments and EPA's responses to the comments is provided below.

A. Selected Remedy

Comment #1: A resident asked how the cubic volume of soil to be removed from the Site was determined and if that amount corresponded to the amount of wastes known to have been discharged on the Site.

Response #1: There are three distinct areas targeted for sediments and/or soil removal on the Site. For sediments and soils in the various drywells, the analytical data were used to determine the depth of removal. It was determined that removal of the first three feet from each of the six drywells in Area of Environmental Concern (AEC) 2 and drywell (DW) 2 in AEC 14 would remove the most significant contamination. Post removal levels of nickel remaining in AEC 2 would be below 70 parts per million (ppm), which is within typical background ranges. Removal of the top two feet from DW-2 in AEC 14 would remove concentrations of benzo(a)anthracene and chrysene to below the New York State recommended cleanup levels for protection of groundwater. A total of approximately 39 cubic yards of sediments and/or soils would be removed from these features for off-site disposal.

Analytical data collected from nine separate sampling locations were used to determine which surface soil locations within AEC 8 required remediation. The estimate of soil to be removed was based on excavating soils to a depth of two feet, around the first four sampling locations (approximately 2900 square feet), which detected

the highest levels of nickel and chromium. This would result in the removal of approximately 215 cubic yards of surface soils which would be transported off-site for disposal. In addition, approximately 17 cubic yards of sediments would be removed from the former production well vault, designated as AEC 12. This estimate is based on the presence of approximately three feet of contaminated sediment in a 10 feet by 15 feet vault.

In total, the three areas targeted for removal would result in approximately 271 cubic yards of sediments/soils requiring removal for off-site treatment (as necessary) and disposal.

It is not possible to determine exact quantities of illegal or inappropriate discharges that were made on the Site by previous operators 15 to 25 years ago. It is important to note that sediments/soil targeted for removal and off-site disposal represents the most significant contamination currently found on the Site. It is EPA's intention that removal of this material will prevent further cross-media impacts to the underlying groundwater.

Comment #2: A resident asked where the contaminated sediments and soils that are to be removed from the Site will be disposed.

Response #2: The final disposal facility will be selected during the remedial design or remedial action phase of the project. EPA and the New York State Department of Environmental Conservation (NYSDEC) will ensure that the selected facility is fully permitted to handle the sediments/soils and is in full compliance with all applicable laws governing its operations.

Comment #3: A resident asked why, if no unacceptable risks exist with the on-site sediments and soils, is EPA proposing to remove any of the sediments and soils from the Site.

Response #3: Most of the sediments and soils targeted for removal from the Site are inaccessible. Because of this, the risk assessment performed concluded that the sediments and soils do not pose any unacceptable additional risks. However, EPA believes that contamination detected in these sediments and soils continues to impact the underlying groundwater. The major contaminant in the sediments and soils, nickel, has been detected at very high levels in the underlying groundwater. It is EPA's intent to prevent further cross-media impacts, i.e., continuing degradation of the underlying groundwater from sources of nickel in the Site sediments and soils.

Comment #4: A resident asked whether EPA had tested the Sans Souci Lakes, downgradient of the Site and, if so, what the findings were.

Response #4: The Sans Souci Lakes, a state and federally designated wetland, is located approximately 1/2 mile south of the Site. The NYSDEC surface water classification for Sans Souci is

Class B, which means the waters are best suited for recreational purposes and not a source of drinking water. The Phase I RI involved collection of surface water and sediment samples from four separate locations. During the Phase II RI, samples were collected from five additional locations. Results of sampling indicated that the only contaminant detected at levels which could have potential impacts to the wetland was lead; the levels of lead found were typical of soils collected near major roadways. Lead is not a contaminant of concern at the Site. Therefore, it was concluded that there has been no impact to the wetland from the Goldisc Recordings site.

B. Health Effects Issues

Comment #1: A resident asked what the dangers are to children playing in the wooded area to the north of the two on-site buildings.

Response #1: The wooded area north of the two on-site buildings was sampled during both Phase I and Phase II of the RI. A risk assessment conducted during Phase I evaluated potential impacts resulting from children ingesting soil at the Site, including those soils north of the building; the assessment indicated that the soils did not pose an unacceptable risk. A second assessment was performed during Phase II to supplement the Phase I assessment. This supplemental work assessed the impacts posed to children from dermal contact with soil; the assessment indicated that these soils did not pose an unacceptable risk.

Comment #2: A former Goldisc Recordings employee inquired about the health risk to those working in the facility at the height of its operations.

Response #2: The risk assessment performed for the Site evaluated data collected during the Phase I and Phase II remedial investigations and only addressed current and potential future risks. In order to assess risks of past exposure, EPA would need historical data from the time frame of concern. Because EPA is not in possession of the necessary historical data and information, this determination cannot be made.

C. General Enforcement Issues

Comment #1: A resident asked about who would pay for implementation of the remedy, and if there were any legal actions EPA could take against the former owners of the Site.

Response #1: Both the Phase I and Phase II remedial investigations and feasibility studies have been performed by two potentially responsible parties (PRPs), namely, ElectroSound Group, Inc. (parent company to Goldisc Recordings) and the First Holbrook Company (past owner of the property). These PRPs have cooperated

with both NYSDEC and EPA and have signed Orders on Consent for performance of these tasks. After selection of the remedy, EPA will notify these two PRPs, and the other PRPs at the Site, of their liability at the Site, and request that the PRPs voluntary finance or implement the remedy. If the PRPs fail to voluntarily agree to finance or implement the remedy, EPA can order the PRPs to do so. Alternatively, EPA can utilize the Superfund to finance the remedy and subsequently take legal actions to recoup costs incurred in implementing the remedy.

D. Groundwater Issues

Although the Proposed Plan only addressed remedy selection for sources of contamination at the Site, there were significant comments made by interested parties regarding the Site's contribution to the contamination of the groundwater, the impacts of this contamination on the SCWA's Church Street Wellfield, and EPA's decision to defer the selection of a remedy for groundwater. During the public meeting EPA was assisted in responding to a number of these concerns by representatives from the Suffolk County Department of Health Services (SCDHS) and the SCWA. EPA also received written comments from the PRPs and the PRP's consultant on related issues. The key concerns raised are summarized below.

Comment #1: Residents questioned whether any agencies involved in the site investigation could explain the condition or quality of the local drinking water during the height of Goldisc's operations, and when the leaching of contaminants, particularly nickel, from the Site into the groundwater had begun to pose a problem at the Church Street Wellfield.

Response #1: It was noted that a Safe Drinking Water Act maximum contaminant level (MCL) did not exist for nickel until 1992 (note: this MCL was subsequently remanded and replaced with a Health Advisory set at the same level). During the conduct of the Phase II RI, nickel levels in Church Street (CS) well number 2 (CS-2), a well in the Upper Glacial Aquifer, did exceed the MCL; nickel was also detected in CS-1 (also in the Upper Glacial Aquifer) at levels well below the MCL; nickel was not detected in CS-3, which draws water from the deeper Magothy Aquifer. Nickel is the only Site contaminant that is known to have impacted the wellfield. It was first determined to be a problem in CS-2 in sampling conducted in 1993, however, the well was not in service at that time due to an organic contamination problem associated with a nearby Sunoco gasoline station. The water from CS-2 has subsequently been used at times of peak demand; in such instances it is blended with water from CS-1 or CS-3 prior to distribution. Sampling of CS-2 in August of 1995 indicated that the levels of nickel had decreased to below 100 ppb which is the former MCL and current Health Advisory level.

During the public meeting, Mr. Miller from SCWA noted that the authority was not required to test for nickel as part of its routine monitoring program prior to 1993. The Authority did do some random sampling for nickel prior to that date, and as noted previously, first identified nickel levels of concern in 1993. Mr. Miller noted that while significant information is not available regarding the presence of nickel prior to 1993, it is unlikely that people were exposed to significant levels of nickel due to the way in which the water is distributed by SCWA. He explained that the wellfield has utilized three wells since the early 1970's, and that on most occasions the water from the wells is blended prior to distribution. In fact there are fifteen wells located within five miles of the Church Street Wellfield which are often blended under various scenarios prior to distribution.

Mr. Steven Calobufo, senior hydrogeologist with SCWA, indicated that he did not believe that there was a contamination problem at the wellfield prior to the detection of nickel in 1993. He indicated that it would take at least 15 years for the contamination to travel from the Site to the intakes for the wellfield.

Since the levels found at CS-2 have been very close to (and most recently below) the Health Advisory, it is unlikely that residents were exposed to levels above the Health Advisory, and if they were, the frequency/extent of exposure was likely to be inconsequential. This is because MCLs and Health Advisories are developed using very conservative assumptions. It is typically assumed that the population drinks 2 liters of water each day for thirty years over a seventy-year lifetime and, in the case of the nickel MCL and Health Advisory, that the population would obtain no more than 20% of its daily acceptable nickel consumption from drinking water.

Comment #2: Counsel for ElectroSound and First Holbrook, their consultant ERM, and Red Ground Co./Red Ground Corp. (Red Ground) provided written comments explaining their objections to EPA's decision to defer remedy selection for Site groundwater. These parties claim that EPA's decision to bifurcate the remediation is arbitrary and capricious. Red Ground further contends that there is no technical or scientific basis for this bifurcation.

Response #2: EPA's decision to defer remedy selection for Site groundwater is appropriate, within our discretion and supported by case law. It is appropriate for EPA to defer the decision for several reasons that were described in the Proposed Plan and at the public meeting. These include: the concentration of nickel (deemed to be the major contaminant of concern at the Site) in the groundwater increased dramatically as evidenced by the 1994 sampling event (which indicated a maximum nickel concentration in the groundwater of approximately 959 ppb); the Church Street Wellfield has and continues to be impacted by nickel contamination; and the groundwater modeling as performed by the PRPs consultant

(ERM) indicates that levels of nickel reaching the wellfield could potentially triple in the future. It is appropriate for EPA to defer its decision until such time when additional test results better define whether additional measures are warranted. EPA's decision arises out of a legitimate concern for the public health, and is a fair and reasonable approach for ensuring the protection of the Church Street Wellfield given the need for additional information and the uncertain accuracy of groundwater modeling efforts.

Comment #3: The parties, identified in Comment #2 above, were concerned that EPA has not specified any reasonable timetable in which to gather the additional information nor recommended any alternate remedy which may be implemented within a specified time frame. Red Ground also claimed that deferring the remedy could impact EPA's ability to recover response cost from two of the bankrupt PRPs, and could also impact Red Ground's ability to sell the property.

Response #3: It is anticipated that a groundwater monitoring program will be initiated this fall and continue for approximately a year. After such time, the sampling data will be evaluated and remedies explored; remedial alternatives to be evaluated are expected to include at a minimum, those identified in the Feasibility Study (FS). It is envisioned that the results of the additional work would be documented in a brief addendum to the FS; any new alternatives would also be documented in this addendum. The remedial action for groundwater, if one is authorized by EPA, will then be implemented as soon as Site data and information make it possible.

It is our position that the further monitoring is necessary given the factors stated above and will address the many uncertainties associated with the site that may be impeding the financing or sale of the property. While cost recovery is an important issue for EPA, it does not take precedence over our duty to protect the health and safety of the public.

Comment #4: The parties identified in Comment #2 believed that EPA failed to identify any particular threat or harm to public health. They also indicated their belief that EPA was relying on a Health Advisory to make the determination to defer groundwater remedy selection, and objected to the use of the Health Advisory for this purpose. Additionally, they allege that EPA's actions in deferring selection of the remedy are inconsistent with its own regulations and procedure.

Response #4: The highest level of nickel found at the site was found in the most recent sampling event (September 1994). This level of 980 ppb was confirmed via a duplicate sample which indicated 959 ppb. This level exceeds the risk based number of 730 ppb which was developed in accordance with EPA guidance for

conducting risk assessments at Superfund sites.

Samples collected from several wells also exceeded the nickel MCL of 100 ppb which was in effect when the September 1994 sampling event was conducted. As noted above, this MCL was remanded in February 1995 and subsequently replaced with an interim Health Advisory set at the same level. The MCL and Health Advisory were set at more stringent levels than the Site specific risk based number due to more conservative assumptions utilized during the development of the number. Concentrations of nickel have been detected at two of the Church Street wells, namely, CS-1 and CS-2. Levels detected at CS-2 have exceeded the Health Advisory, causing the SCWA to modify its water distribution operations. SCWA continues to modify its operations, based upon direction being provided by the New York State Department of Health, the State agency responsible for ensuring that water distributed to communities is safe for consumption.

Although the levels of nickel in both of the impacted wells were recently determined to be below the Health Advisory (the levels at CS-2, 95 ppb and 98 ppb, were only slightly below the Health Advisory) there is still significant concern that the highest levels of contamination have not yet reached the wellfield. In fact, the PRPs consultant, ERM, notes in the FS that the plume has moved a considerable distance since 1989 and that "solute transport groundwater modeling of the nickel plume at the Site, conducted for the FS and presented in Section D1.4.1 of Appendix D to this document, indicates that "... the maximum future nickel concentration in groundwater at the Church Street Wellfield will be 325 ug/l." This level is 3 times the Health Advisory and former MCL and higher than any level yet seen at the wellfield.

While the Health Advisory is intended to serve as informal technical guidance and not a legally enforceable federal standard, the Agency had identified the Health Advisory as a "to be considered" (TBC) criterion. In arriving at a decision to defer the groundwater remedy, EPA has not only considered this Health Advisory, but has taken several other factors into account as well, including the Site-specific risk assessment, the increasing concentrations of nickel found in the latest round of sampling, the existing impacts and burden placed upon the SCWA as a result of contamination reaching the wellfield, and the uncertainties related to modeling the potential future impacts to the wellfield. Given the above, EPA believes it is prudent, appropriate, and consistent with its regulations and procedures to defer the groundwater remedy until the fate and transport of the nickel in the groundwater can be better defined.

APPENDIX A

PROPOSED PLAN

Superfund Proposed Plan

Goldisc Recordings Site

Town of Islip
Suffolk County, New York

EPA
Region 2

August 1995

PURPOSE OF PROPOSED PLAN

This Proposed Plan describes the remedial alternatives considered for addressing contaminated sediments and soils at the Goldisc Recordings Superfund site and identifies the preferred remedial alternative with the rationale for the preference. The Proposed Plan was developed by the U.S. Environmental Protection Agency (EPA), as lead agency, with support from the New York State Department of Environmental Conservation (DEC). EPA is issuing the Proposed Plan as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C. §§ 9601-9675, and the National Contingency Plan (NCP), 40 C.F.R. § 300.430(f). The alternatives summarized here are described in the feasibility study report which should be consulted for a more detailed description of all the alternatives.

This Proposed Plan is being provided as a supplement to the remedial investigation and feasibility study (RI/FS) reports to inform the public of EPA's and DEC's preferred remedy and to solicit public comments pertaining to all the remedial alternatives evaluated, as well as the preferred alternative.

The remedy described in this Proposed Plan is the preferred remedy for the site. Changes to the preferred remedy or a change from the preferred remedy to another remedy may be made, if public comments or additional data indicate that such a change will result in a more appropriate remedial action. The final decision regarding the selected remedy will be made after EPA has taken into consideration all public comments. We are soliciting public comment on all of the alternatives considered in the detailed analysis of the RI/FS because such comments may influence EPA's and DEC's selection of the final remedy.

COMMUNITY ROLE IN SELECTION PROCESS

EPA and DEC rely on public input to ensure that the concerns of the community are considered in selecting an effective remedy for each Superfund site. To this end, the RI/FS reports, Proposed Plan, and supporting documentation have been made available to the public for a public comment period which begins on August 26, 1995 and concludes on September 26, 1995.

Copies of the RI/FS reports, Proposed Plan and supporting documentation are available at the following locations:

Islip Town Hall
655 Main Street
Islip, New York 11751
Tel. (516) 224-5490
Hours: Mon-Fri: 8:30 am to 5:00 pm

Sachem Public Library
150 Holbrook Road
Holbrook, New York 11741
(516) 588-5024
Hours: Mon-Thurs: 9:00 am to 9:00 pm
Fri & Sat: 9:30 am to 6:00 pm
Sun: 12:00 pm to 4:00 pm

A public meeting will be held during the public comment period at the Islip Town Hall West, 401 Main Street, on Monday, September 11, 1995 at 7:00 p.m. to present the conclusions of the RI/FS, to elaborate further on the reasons for recommending the preferred remedial alternative, and to receive public comments.

Comments received at the public meeting, as well as written comments, will be documented in the Responsiveness Summary section of the Record of Decision (ROD), the document which formalizes the selection of the remedy.

DATES TO REMEMBER

August 26, 1995 to September 26, 1995
Public comment period on RI/FS report and Proposed Plan

September 11, 1995 - 7:00 p.m.
Public meeting at the
Islip Town Hall West Auditorium
401 Main Street
Islip, New York

All written comments should be addressed to:

Janet Cappelli
Project Manager
U.S. Environmental Protection Agency
290 Broadway, 20th Floor
New York, New York 10007
(212) 637-4270

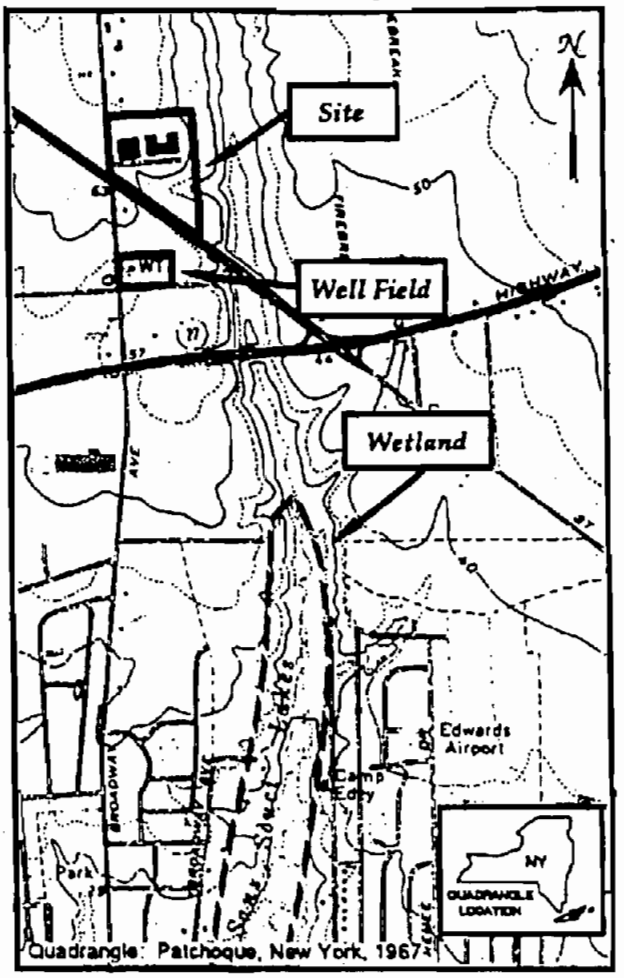
SITE BACKGROUND

The Goldisc Recordings Superfund site (Site) is located at the intersection of Veterans Memorial Highway and Broadway Avenue in Islip, New York. The 34-acre Site consists of two one-story buildings that occupy six acres, three acres of pavement surrounding the buildings, and twenty-five acres of undeveloped land. Current zoning at the Site is retail/commercial. The area surrounding the Site is primarily residential and mixed forest, with some commercial and light industrial development. The Site is bordered to the north and east by mixed forest, to the south by Veterans Memorial Highway, and to the west by Broadway Avenue (see Figure 1).

A municipal water supply wellfield, which provides drinking water for the Suffolk County Water Authority, is located approximately 1,200 feet south of the Site on Church Street. The closest dwellings are located about 700 feet north of the Site. A New York State regulated wetland is located approximately one-half mile south of the Site. A Sunoco gasoline station is located on the southeast corner of Veterans Memorial Highway and Broadway Avenue, just south of the Site. Soil and groundwater remediation systems are currently in operation at the station, to address a release of petroleum product to the groundwater.

From 1968 to 1990, the two buildings were occupied by several different companies that generated and stored hazardous substances on the Site. These companies included Goldisc Recordings, Inc. (Goldisc), which produced phonographic records; ElectroSound Group, Inc. (Electrosound), a company that manufactured

Figure 1.
Goldisc Recordings Superfund Site



audio visual and optical devices; and Genco Auto Electric, Inc. (Genco), which rebuilt automotive engine parts. The First Holbrook Company (First Holbrook) owned the property from 1973 to 1985. In 1985, the Red Ground Corporation became the owner of the property. The two tenants occupying the buildings since 1990 are dry goods merchants and do not perform any manufacturing.

The substances known to have been disposed of on the Site between 1968 and 1990 include wastewater from the various production processes, waste oils, metals, solutions containing high concentrations of xylene and trichloroethylene, and other degreasing agents. These substances were reportedly discharged to the environment through dry wells, leaching pools, storm drains, and leaking storage containers located around the buildings.

Since the late 1970s, the Suffolk County Department of Health Services (SCDHS), DEC, and EPA have conducted various inspections and

environmental protection enforcement activities at the Site. In 1978, a representative from the SCDHS inspected the Site and noted stains, puddles, and leaking drums suspected to be related to industrial wastes. In the early 1980s, the SCDHS collected samples from leaching pools, storm drains, and cesspools located on the Site. Laboratory analyses of the samples revealed violations of New York State Groundwater Effluent Guidelines. Between 1981 and 1983, laboratory analyses of groundwater samples collected from monitoring wells located on-site revealed elevated levels of solvents and metals, including: trichloroethane, trichloroethylene, tetrachloroethylene, lead, nickel, chromium, and silver. Analyses of samples obtained from the Church Street wellfield showed concentrations of tetrachloroethylene slightly exceeding the Maximum Contaminant Level (MCL) of 5 parts per billion (ppb) for public drinking water. Based on these findings, the Site was added to the EPA National Priorities List (NPL) in June 1986.

In 1988, DEC entered into an Administrative Order on Consent (AOC) with two of the potentially responsible parties (PRPs), namely, First Holbrook and ElectroSound. The AOC required the two PRPs to conduct an RI at the Site as required under CERCLA. The RI (Phase I RI) was conducted in 1988 and included the investigation of nineteen areas of potential contamination. Groundwater and soil samples were collected and analyzed to determine the nature and extent of contamination in these areas. Elevated levels of lead and tetrachloroethylene were found in groundwater samples. Soil samples were found to contain elevated levels of several metals, volatile organic compounds, and semi-volatile organic compounds.

Based on a review of the results, EPA and DEC determined that additional information was necessary in order to better define the extent of contamination at the Site. In late 1990, DEC requested that EPA take over as lead agency for the Site. EPA notified First Holbrook, ElectroSound, and Red Ground of their potential liability at the Site and requested they finance or undertake the continuing RI/FS. Red Ground refused to enter into negotiations with EPA to conduct additional RI/FS activities. Subsequently, in 1991, EPA entered into an AOC with First Holbrook and ElectroSound. This AOC specifically required the PRPs to conduct a supplemental RI/FS (or Phase II RI/FS).

SCOPE AND ROLE OF ACTION

It was EPA's original intention to supplement previous data collected under state and county investigations in order to address both sediments and soils contamination and contaminated groundwater attributable to the Site. However, due to circumstances which occurred as the Phase II RI/FS progressed, EPA and DEC have decided to defer the decision regarding groundwater remediation. The MCL for nickel, which is the primary contaminant at the Site, was remanded in February 1995. In addition, the concentration of nickel has fluctuated in the groundwater. While the Church Street wellfield has been impacted by nickel contamination, recent data indicate that nickel concentrations have dropped below the current Health Advisory level of 100 ppb. As a result, EPA and DEC decided to obtain additional information and data on the nickel contamination in the groundwater.

The proposed remedy described in this document addresses the contamination associated with Site sediments and soils. The remedial goal is to ensure that concentrations of contaminants in the sediments and soils are at levels which are protective of human health and the environment. EPA intends to collect additional information and data on nickel contamination in the aquifer in order to identify appropriate remedial measures to address this contamination.

REMEDIAL INVESTIGATION SUMMARY

Under the direction of EPA, the PRPs' contractor, ERM-Northeast, implemented a supplemental RI to characterize further the sediments and soils, and groundwater at the Site. The intent of the study was to fill data gaps identified during review of the DEC Phase I RI report. Groundwater data collected as part of the Phase II RI/FS is provided below, as is data for sediments and soils.

Sediments, Soils, Storm Drains, and Drywells

The Phase I RI identified 19 separate soil Areas of Environmental Concern (AEC), which included storm drains, drywells, a sump, drum storage areas, sanitary discharge areas, a transfer pad area, and a former production well. Phase I sampling of AECs 3, 4, 6, 7, 17, and 18 determined that these areas had not been significantly impacted. Therefore, no additional Phase II sampling was performed in these areas. Likewise, Phase I sampling adequately defined the impacts to AECs 2, 9, 11, and 12. Therefore, no additional

Phase II sampling was performed in these areas.

The Phase I data indicated that the highest levels of contamination were found in AEC 2. AEC 2 consists of an interconnected system of 6 drywells which allegedly received direct discharges from the Goldisc building, as well as spillage from a drum storage area. Chromium was detected in sediments and soils at levels ranging from 30 parts per million (ppm) to 195 ppm. Nickel was found at levels ranging from 25 ppm to 1,120 ppm. Phase II involved the collection of additional surface and subsurface soil samples from 9 AECs. During May 1993, 7 soil borings were drilled, 3 test trenches were excavated, and 46 surface and subsurface samples were collected for physical and chemical analyses. Together with earlier data, Phase II sampling confirmed that AECs 1, 5, 8, 10, 13, and 14 were also impacted by Site-related contamination. Based on the Phase II data, AECs 1a, 15 and 16 were not considered to have been significantly impacted.

The Phase II results for AEC 1 confirmed the presence of total petroleum hydrocarbons (TPHCs) in the three solid-bottom storm drains and the base of the receiving drywell.

Previous data for AEC 5 indicated nickel in sediments slightly above Site background and TPHCs at levels up to 93,000 ppm at the drainage pipe outfall. Phase II involved collection of samples from the base of 2 drywells and 2 storm drains to characterize the TPHC content. The samples contained TPHCs ranging from 406 ppm to 5,780 ppm. In addition, it appeared that the drainage system had been impacted by a petroleum release emanating from the oil-fired boilers within the former Goldisc building. Petroleum releases are not actionable under CERCLA. Therefore, this AEC has been referred to the DEC spills program for evaluation and possible remediation.

Locations previously showing high levels of nickel and chromium in AEC 8 were resampled. Maximum detected levels for nickel and chromium in Phase II sampling were 33 ppm and 80 ppm, respectively, in surface soils. Phase I and Phase II results confirm that this reported discharge area had contamination related to Site operations.

A soil boring was taken and analyzed for TPHCs in AEC 10. The highest concentration of TPHCs was detected in the 10-foot to 12-foot interval at 9,240 ppm. Concentrations decreased significantly with depth to 84 ppm in the 20-foot to 22-foot interval, and were not detected at lower intervals.

Phase II analyses were performed to complete the delineation of soils impacted by TPHCs in AEC 13. In one boring, the TPHCs extended to the water table. It is believed that oil reached this area through the Area 5 drainage system pipe. This AEC has also been referred to the DEC spills program.

Phase II sampling for AEC 14 included borings and analyses from three drywells. The uppermost sediments contained several metals at concentrations slightly above background. Deeper samples were within background ranges. The highest VOC detected was acetone at 0.44 ppm. Polychlorinated biphenyls (PCBs) were detected in all three drywells, the highest concentration at 0.41 ppm. Drywell #2 in this area contained levels of chrysene at a concentration of 0.77 ppm and benzo(a)anthracene at a concentration of 0.5 ppm in the 15-foot to 17-foot interval, above the recommended New York State cleanup guidelines of 0.4 ppm and 0.224 ppm, respectively.

Groundwater

The Phase I RI involved the collection of groundwater samples from 18 on-site monitoring wells, 1 on-site production well, 1 off-site upgradient well, and the 3 SCWA Church Street supply wells. Of the 18 on-site monitoring wells sampled, 14 are shallow (less than 50 feet deep), 2 are intermediate (75 to 90 feet deep), and 2 are deep (over 100 feet deep). All on-site monitoring wells are installed in the shallow aquifer, the Upper Glacial aquifer. The thickness of the Upper Glacial underlying the Site is approximately 135 feet. Depth from the surface to the water table ranged across the Site from 18 to 32 feet. Church Street wells #1 and #2 (CS-1 and CS-2) are both shallow; installed in the Upper Glacial aquifer. Church Street well #3 (CS-3) is much deeper, screened in the lower Magothy aquifer. The groundwater flow direction in the northern portion of the Site is generally south to southeast. However, the southeast portion of the Site shows a shift in flow direction to the southwest in response to the radial drawdown resulting from to operation of the Church Street supply wellfield. The groundwater flow velocity, ranging between 1.3 to 1.7 feet/day during nonpumping periods, increases to 2.4 to 2.9 feet/day during Church Street pumping operations.

The initial Phase II groundwater sampling effort, performed in April 1993, included collection of samples from 8 of the on-site monitoring wells.

Two of these monitoring wells required replacement; they were abandoned and new monitoring wells installed in their place. The groundwater samples were analyzed for Target Analyte List (TAL) metals and/or Target Compound List (TCL) volatile organic compounds (VOCs), to fill data gaps or to confirm Phase I analytical results. After review of these results, an additional round of groundwater samples was collected from a greater number of on-site wells in order to investigate further the presence of heavy metals. In September 1994, ERM-Northeast collected samples from 15 on-site monitoring wells and analyzed these samples for nickel, chromium, iron, and manganese. All 15 samples were split with ICF Technology Corp., EPA's oversight contractor, and analyzed by EPA for all TAL metals.
Comparison of the Phase II groundwater sampling results with Phase I indicated that the VOC concentrations had decreased. For the Phase II data, the only VOC detected at a concentration above its drinking water standard was carbon disulfide in monitoring well 17D (MW-17D). Analytical results for the split sample from MW-17D did not indicate the presence of carbon disulfide above its drinking water standard. Carbon disulfide has been determined to be a laboratory artifact and not a contaminant of concern.

Results of the Phase II first round of metals analysis collected from eight monitoring wells did not indicate the presence of metals above any drinking water standards. The Phase II second round of metals analysis, performed on samples collected from 15 monitoring wells, detected high levels of nickel, ranging from 13.3 ppb to 959 ppb. At the time the sampling was performed, the federal MCL for nickel, which had become effective on June 17, 1992, was 100 ppb. In February 1995, in response to on-going litigation over its validity, EPA filed a joint motion to remand the nickel MCL voluntarily. On June 29, 1995, EPA issued a Federal Register notice formally removing the nickel MCL from the Code of Federal Regulations. Currently, no federal or state drinking water standard exists for nickel. However, on July 10, 1995, EPA issued a Health Advisory of 100 ppb for nickel, while a new MCL for nickel is being reestablished. This Health Advisory is intended to serve as informal technical guidance only and is not to be construed as setting legally enforceable federal standards. Of the fifteen wells sampled during Phase II, only 3 had levels of nickel above 100 ppb, namely, MW-11 (140 ppb), MW-12 (959 ppb) and MW-16 (278 ppb). Since an MCL for nickel does not exist, a health-based action level was developed for the Site utilizing Superfund risk assessment methodologies. This health-based action level, detailed further in the risk discussion, was calculated to be 730 ppb. Only one sample, collected from MW-12 (959 ppb), exceeded this level.

In late 1993, routine monitoring performed by SCWA on the Church Street wellfield detected the presence of nickel in Church Street well #2 (CS-2) in excess of the then existing 100 ppb MCL. This prompted SCWA to remove CS-2 from service and conduct testing to determine a suitable method of remediation for the well. Sampling of CS-2 in July 1995 and August 1995 revealed decreasing nickel concentrations of 98 ppb and 95 ppb, respectively. Since the remand of the nickel MCL, SCWA has put CS-2 back into service, blending it with the other wells, resulting in drinking water which is still well below the former MCL and current Health Advisory level of 100 ppb.

Based on its frequent detection at elevated concentrations at the Site, its former MCL, and the impact to the Church Street wellfield, nickel has been deemed to be the major contaminant of concern at the Site.

The Phase II second round of metals analysis also detected the presence of both iron and manganese above their respective secondary drinking water standards. Split samples verified these results. The secondary federal and state MCLs for iron and manganese are both based on aesthetic properties and are intended to prevent potential problems, such as poor taste, odor, and staining of plumbing fixtures, and do not specifically present a health risk. The highest concentrations were reported for the unfiltered sample collected from MW-11R. For this sample, iron was detected at a concentration of 34,900 ppb and manganese at a concentration of 2,840 ppb. The federal secondary MCLs for iron and manganese are 300 ppb and 50 ppb, respectively. A filtered sample collected from MW-11R detected iron and manganese at reduced levels of 189 ppb and 459 ppb, respectively. In the filtered sample, manganese was still in excess of the drinking water standard. However, manganese is not a contaminant of concern and does not present a risk; the levels detected represent background conditions in the area.

SUMMARY OF SITE RISKS

Using the RI data, a baseline risk assessment was conducted to estimate the risks associated with current and future Site conditions. The baseline risk assessment estimates the human health and

ecological risk which could result from the contamination at the Site, if no remedial action were taken.

Health Assessment

As part of the baseline risk assessment, the following four-step process is utilized for assessing site-related human health risks for a reasonable maximum exposure scenario: *Hazard Identification*–identifies the contaminants of concern at the Site based on several factors such as toxicity, frequency of occurrence, and concentration. *Exposure Assessment*--estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g, ingesting contaminated well-water) by which humans are potentially exposed. *Toxicity Assessment*--determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response). *Risk Characterization*--summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk) assessment of site-related risks.

The baseline risk assessment began with selecting contaminants of concern which would be representative of Site risks. These contaminants included tetrachloroethylene, 1,1-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, benzo(a)anthracene, chrysene, cadmium, copper, lead, nickel, and zinc.

Four exposure pathways were evaluated under possible on-site present and future land use conditions. The site was assumed to retain its current zoning status of commercial/industrial. The exposure pathways considered were: dermal absorption of chemicals in the soil by children trespassing on the Site, direct contact (including incidental ingestion and dermal absorption) with soils by on-site commercial/ industrial employees, direct contact with soil by future short-term construction workers, and domestic use of groundwater (including ingestion and inhalation of volatiles by nearby residents using the Church Street wellfield as the exposure point).

EPA's acceptable cancer risk range is 10^{-4} to 10^{-6} which can be interpreted to mean that an individual may have a one in ten thousand to a one in a million increased chance of developing cancer as a result of a site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at a site. The results of the baseline risk assessment indicate that the soils and groundwater at the Site pose no unacceptable carcinogenic risk to human health. The overall carcinogenic risk for on-site workers, through direct contact with soils, is estimated to be 8.5×10^{-6} (risk of 8.5 in 100 million). The overall carcinogenic risk for future construction workers, through direct contact with soils, is estimated to be 4.3×10^{-9} (risk of 4.3 in a billion). The overall carcinogenic risk for domestic use of groundwater, through ingestion and inhalation, is estimated to be 9.5×10^{-5} (risk of 9.5 in a million). Much of this risk is attributable to vinyl chloride, which was not detected in recent sampling events at the Church Street supply wellfield or on the Site. The preceding risk values indicate that the Site poses no unacceptable carcinogenic risk to human health. The dermal exposure pathway for children was not evaluated for carcinogenic health effects because there were no contaminants of concern detected which are potential carcinogens via dermal exposure. Therefore, no adverse effects are expected to result from chronic exposure by these pathways to chemicals from the Site based on their carcinogenic properties.

To assess the overall potential for noncarcinogenic effects posed by the contaminants at a site, EPA has developed the hazard index (HI). The HI measures the assumed simultaneous subthreshold exposures to several chemicals which could result in an adverse health effect. When the HI exceeds 1.0, there may be concern for potential noncarcinogenic health effects.

The calculated HI values for the dermal absorption and direct contact pathways were all calculated to be less than 1. Dermal absorption by nearby children contributed to an HI value of 0.0002, direct contact by on-site workers contributed to an HI value of 0.002 and direct contact by future workers contributed to an HI value of 0.03. Domestic use of groundwater contributed to an HI value of 0.26; nickel was the major contributor to this HI. As noted below, this calculation assumes that there are no appreciable sources of nickel exposure outside of groundwater ingestion.

As noted in the RI Summary section, the MCL for nickel was remanded in February 1995. Due to the fact that significant nickel contamination exists in the Upper Glacial Aquifer, potential risks related to this contamination were closely evaluated. An acceptable health-based action level was developed for nickel in groundwater at the Site.

Assuming that the groundwater would be used for domestic purposes, it was determined that groundwater concentrations of nickel below 730 ppb would result in an acceptable HI for the Site (i.e., an HI less than or equal to 1.0); conversely, levels above 730 ppb could present an unacceptable noncarcinogenic risk for the Site. Consistent with EPA guidance for conducting Superfund risk assessments, this calculated value assumes that there are no other significant sources of nickel exposure from other environmental media (e.g., air, soil, diet). As a point of reference, the 95% Upper Confidence Level (UCL) of the arithmetic mean, calculated utilizing nickel data from all of the on-site wells sampled during Phase I was 480 ppb, well below the 730 ppb action level. As noted previously, EPA has issued a Health Advisory for nickel of 100 ppb which is the same level as the former MCL. The Health Advisory incorporates additional conservative safety factors to account for potential nickel exposure from media other than drinking water; this very conservative level of safety assumes that drinking water only contributes 20% of expected nickel exposure.

Ecological Assessment

The ecological risk assessment considered potential exposure routes of Site contamination to terrestrial wildlife. Much of the Site is paved or covered by structures and there is little, if any, potential for wildlife to be exposed to contaminated subsurface soils on-site. The only potential route of exposure to wildlife in the Site vicinity is if contaminants were transported through groundwater and discharged via groundwater into surface waters, particularly the state wetland located one-half mile south of the Site. Phase II sampling shows that the wetland has not been impacted by Site contaminants. Therefore, it was determined that no significant effect on aquatic organisms in the wetland in the vicinity of the Site could be attributed to groundwater discharge from the Site.

Actual or threatened releases of hazardous substances from this Site, if not addressed by the preferred alternative or one of the other active measures considered, may present a current or potential threat to the environment through leaching of contaminants in the Site's sediments and soils into the groundwater.

Since significant contamination, specifically nickel, was detected in the soils at the Site, there is a high potential for cross-media impacts as nickel can migrate into the groundwater via fluctuations of the water table and precipitation. This is supported by the detection of high levels nickel in the groundwater. The maximum concentration of nickel in one on-site well was detected at 959 ppb. Furthermore, Site-related nickel contamination has impacted the nearby Church Street supply wells.

Due to these circumstances, remedial action alternatives were developed for the Site sediments and soils.

REMEDIAL ACTION OBJECTIVES

Remedial Action objectives are specific goals to protect human health and the environment. These objectives are based on available information and standards such as applicable or relevant and appropriate requirements (ARARs) and risk-based levels established in the risk assessment.

The following remedial action objective was established for Site sediments and soils:

(1) prevent leaching of contaminants, particularly nickel, in the subsurface soils and sediments to the groundwater.

SUMMARY OF REMEDIAL ALTERNATIVES

CERCLA requires that each selected site remedy be protective of human health and the environment, be cost-effective, comply with other statutory laws, and utilize permanent solutions and alternative technologies and resource recovery alternatives to the maximum extent practicable. In addition, the statute includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

The remedial alternatives discussed below are for Site sediments and soils. While the FS also includes preliminary remedial alternatives for groundwater, as stated previously, EPA has decided to defer a decision on groundwater remediation. Therefore, no groundwater remedial alternatives are presented in this Proposed Plan.

The remedial alternatives considered in the FS were screened based on implementability, effectiveness, and cost. The screening resulted in remedial alternatives upon which a detailed analysis was performed. The alternatives considered in detail are discussed below. "Time to implement" is defined as only the period of time needed to implement the remedy, and does not include the time required to design the remedy,

procure contracts for design and construction or to negotiate with responsible parties for implementation of the remedy, conduct operation and maintenance, or conduct long-term monitoring.

Alternative SR-I: No Action

Capital Cost: $ -0-
O & M/yr Cost: $ -0-
Present Worth: $ -0-
Time to Implement: N/A

The Superfund program requires that the No Action alternative be considered as a baseline for comparison with other soil alternatives. Under this alternative, the contaminated soil would be left in place without treatment. Since this alternative would involve no contaminant removal, CERCLA requires that the Site be reviewed every five years. If justified by the review, remedial actions may be implemented to remove or treat the wastes.

Alternative SR-II: Limited Action

Capital Cost: $ 250,322
O & M/yr Cost: $ 2,020
Present Worth: $ 277,062
Time to Implement: 2 months

This alternative includes measures which would reduce the leaching of contaminants, particularly nickel, to the groundwater. The specific measures include: removal of contaminated soils/sediments in the 6 drywells in AEC 2 and drywell DW-2 in AEC 14, and removal of surface soils within AEC 8, a reported discharge area which has shown TPHCs and metals related to Site operations. In addition, this alternative would include decommissioning and cleanup of the on-site production well. This action would be taken as a conservative measure to eliminate potential exposure to contaminated groundwater at the Site.

The top three feet of soils/sediments would be removed via a vacuum truck from the 6 dry wells in AEC 2 and drywell DW-2 in AEC 14. The drywell structures would be left in-place and backfilled with clean soil. New drywells would be installed in an adjacent area for storm water runoff. The amount of material to be removed is estimated to be approximately 56 cubic yards; this material represents the most significant source of nickel contamination on the Site. In addition, surface soils would be removed from the top 2 feet of locations within AEC 8. The amount of material here to be removed is estimated to be approximately 215 cubic yards. Also, the soils/sediments in the on-site production well vault would be removed via a vacuum truck. The well borehole would be sealed and capped, and the well casing and concrete vault would be removed. All materials removed during these measures would be transported off-site for treatment (as necessary) and disposal in accordance with federal and state requirements. It would also be recommended that the use of the property be restricted to its current commercial/industrial use. Although this alternative would result in no contamination remaining on-site above health-based levels for the current property use, since the remedy does not allow for unlimited use and unrestricted exposure, five-year reviews would be required.

EVALUATION OF ALTERNATIVES

During the detailed evaluation of remedial alternatives, each alternative is assessed against nine evaluation criteria, namely overall protection of human health and the environment; compliance with applicable or relevant and appropriate requirements (ARARs); short-term effectiveness; long-term effectiveness and permanence; reduction of toxicity, mobility, or volume; implementability; cost; community and state acceptance.

- Overall protection of human health and the environment addresses whether or not a remedy provides adequate protection and describes how risks are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

- Compliance with ARARs addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements and/or provide grounds for invoking a waiver.

- Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.

- Reduction of toxicity, mobility, or volume through treatment is the anticipated performance of the treatment technologies a remedy may employ.

- Short-term effectiveness addresses the period of time needed to achieve protection from any adverse impacts on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.

- Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.

- Cost includes both estimated capital and operation and maintenance costs, and net present worth costs.

- State acceptance indicates whether, based on its review of the RI/FS reports and Proposed Plan, the State concurs with, opposes, or has no comment on the preferred alternative.

- Community acceptance will be assessed in the ROD and refers to the public's general response to the alternatives described in the RI/FS report and the Proposed Plan.

Comparison of Alternatives

The following discussion compares the relative performance of each alternative using the specific evaluation criteria listed previously.

- Overall Protection of Human Health and the Environment

  Alternative SR-II would meet the remedial objective of preventing cross-media impacts to the groundwater from the source of contamination. Alternative SR-I would not prevent the continued migration of nickel into the underlying groundwater and, therefore, would not be as protective as Alternative SR-II.

- Compliance with ARARs

  Federal and state regulations dealing with the handling and transportation of any wastes to an off-site disposal facility for SR-II would be followed. Wastes would be treated using specific technologies or specific treatment levels, as appropriate, to comply with land disposal restrictions. Alternative SR-I would not be subject to any ARARs, although, potential excursions of groundwater/drinking water standards could occur under SR-I, due to cross-media impacts resulting from contaminants remaining in the soil.

- Long-term Effectiveness and Permanence

  Alternative SR-II would remove the principal source of nickel to prevent leaching of contamination to the Upper Glacial aquifer. Alternative SR-I would not reduce the potential long-term leaching to groundwater.

- Reduction in Toxicity, Mobility, or Volume Through Treatment

  Through removal and off-site disposal, SR-II would reduce the toxicity, mobility, and volume of contaminants, especially nickel, soils/sediments located at the Site. Alternative SR-I would provide no reduction in contaminant mobility, toxicity, or volume.

- Short-term Effectiveness

  The potential for a temporary increase of risk to the community and workers due to dust generation during the soil removal activities of SR-II would be mitigated by the use of a vacuum truck for soil collection. Workers would also be protected through the use of respirators (if needed). The implementation of Alternative SR-I would result in no additional risk to the community or workers during implementation.

- Implementability

  Components of Alternative SR-II would utilize relatively common construction equipment and materials. The services and technologies needed to implement this work are readily available. Use restrictions via zoning are in place at the Site and are not expected to change, however EPA will recommend to the current property owner to amend the deed restricting residential use. Because no construction activities are associated with Alternative SR-I, this alternative would be easier to implement than Alternative SR-II.

- Cost

  The no action alternative has no associated costs. Alternative SR-II is estimated to cost $277,062.

- Community Acceptance

  Community acceptance of the preferred soil alternative will be assessed in the ROD following a review of the public comments received on the RI/FS report and the Proposed Plan.

- State Acceptance

DEC concurs with the preferred alternative.

PREFERRED REMEDY

Based upon an evaluation of the various alternatives, EPA and DEC recommend Alternative SR-II (Limited Action) as the preferred alternative for contaminated sediments and soils. Alternative SR-II is designed to be protective by removing sediments/soils containing the principal source of nickel contamination.

The preferred alternative will provide the best balance of trade-offs among alternatives with respect to the evaluating criteria. Based on the information available at this time, EPA and DEC believe that the preferred alternative will be protective of human health and the environment, comply with ARARs, be cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.

In addition, EPA will conduct a monitoring program of the groundwater. Sampling results from both on-site wells and those at the Church Street wellfield will be evaluated to better define the vertical extent of the nickel plume, to identify any trends in the concentration of nickel at the Site and at the wellfield, and to determine whether the proposed removal of nickel contaminated sediments and soils has an impact on nickel concentrations in the groundwater. Additional modelling will be conducted to ensure that the contaminant plume emanating from the Site does not result in the contravention of appropriate health based levels of nickel in water distributed for consumption at the Church Street wellfield. It should be noted that the NYSDOH is currently using the federal Health Advisory level of 100 ppb for nickel in its supervision of public drinking water supplies in New York state. Subsequent to the completion of this monitoring effort, EPA and DEC will propose a preferred remedial alternative for addressing the groundwater contamination in a second Proposed Plan.

APPENDIX B

PUBLIC NOTICES

APPENDIX C

SEPTEMBER 11, 1995 PUBLIC MEETING ATTENDANCE SHEETS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
Goldisc Recordings Superfund Site
Islip, New York

Monday, September 11, 1995
ATTENDEES

(Please Print Clearly)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING
Marsden Chen	50 Wolf Rd	Albany	12233	518 457-3976	NYSDEC
PAUL PONTURO	225 Rabro Dr E	Hauppauge	11788	~~516~~ 516-853-3192	SCDOHS
ROBERT DASSLER	3525 SUNRISE HIGHWAY	OAKDALE	11769	516-563-0317	SCWA
Irene Jordan	1125-6 Locust Ave	Bohemia	NY 11716		The Hedges at Bohemia
~~[illegible]~~					
HERMAN MILLER	4060 Sunrise Hwy	OAKDALE	11769	516-563-0203	SCWA
Steven Colabufo	3525 Sunrise	Oa H. Great River		563-0320	SCWA
Lorraine Manaso	137 Glensummer Rd	Holbrook	11741	472-3110	Holbrook Civic Assoc
CAROL MILLER	522 RACE PLACE	OAKDALE	[illegible]	563 7617	SELF

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
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Islip, New York

Monday, September 11, 1995
ATTENDEES

(Please Print Clearly)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING
John Iannone C/o EPA	475 Park Ave So.	New York, NY	10016	(212)447-1900	
Jeremy O'Keeffe	867-7 Church ST	Patchogue NY	11716		Bridgeview Publications
Anthony Howard	23 Cadec Ave	Sayville NY	11782	(516)589-6200	Suffolk County News
Dan Battisti	59 Wellbridge Dr	Holbrook	11741	516-567-4469	self
Tom Hamlin	100 Hetchinson Ave	Ronkonkoma	11779	516-471-2528	SEQF
Veronica Wunderlich	134 W 4th St.	Ronkonkoma	11779	516-5889459	self (worked at Goldisc)
Sasha Harding	PO Box 174	Holbrook	NY 11741	516 981-0964	Holbrook Civic Assn

APPENDIX D

LETTERS SUBMITTED DURING THE PUBLIC COMMENT PERIOD

PERICONI & ROTHBERG, P.C.

ATTORNEYS AT LAW

DEBRA L. ROTHBERG*
JAMES J. PERICONI
SARAH P. FLANAGAN**

*ALSO MEMBER OF NJ BAR
**ALSO MEMBER OF MASS. BAR

SUITE 615
230 PARK AVENUE
NEW YORK, NEW YORK 10169
(212) 490-2220
FAX (212) 490-2330

September 26, 1995

BY TELECOPIER & FEDERAL EXPRESS

Ms. Janet Cappelli
New York/Caribbean Superfund Branch I
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
Region II
290 Broadway – 17th floor
New York, NY 10007-1866

Re: **Comments on USEPA Superfund Proposed Plan for Former Goldisc Recordings Superfund Site**

Dear Ms. Cappelli:

These comments to the Superfund Proposed Plan for the Goldisc Site (the "Proposed Plan"), issued by the United States Environmental Protection Agency ("USEPA") are submitted on behalf of Red Ground Co., the current owner of the Goldisc Recordings Superfund Site ("Goldisc Site") and Red Ground Corporation, a former owner (collectively, "Red Ground"). Red Ground requests that these comments be docketed and made a part of the administrative record in this matter.

1. Introduction

The USEPA states that the Proposed Plan is being provided as a supplement to the remedial investigation and feasibility study ("RI/FS") reports, to inform the public of the preferred remedy for the Site and solicit public comments. Proposed Plan, p. 1. However, while the RI/FS addresses both Site sediments and soils, and Site groundwater, the Proposed Plan addresses only the contamination associated with sediments and soil. Moreover, data collection for Site groundwater, as well as for sediments and soils, was completed under the RI, and remedial alternatives were identified for both in the FS. Nevertheless, the USEPA and the New York State Department of Environmental Conservation ("NYSDEC") have decided to defer the decision regarding groundwater contamination for the indefinite future. Proposed Plan, p. 3. As described below, Red Ground objects to this decision, and finds it to be arbitrary and capricious, because: 1) there is no technical or scientific basis for deferring

remedy selection for groundwater; 2) the USEPA's actions are inconsistent with its own regulations and procedures and with the RI/FS; and 3) deferring the remedy creates uncertainty and delay for affected parties and the public.

Further, the Proposed Plan contains an inaccurate reference to Red Ground's participation in this matter. Red Ground wishes to correct the record with regard to its own support, cooperation and participation in the RI/FS.

2. The USEPA Lacks Any Technical or Scientific Basis to Defer Its Selection of a Remedy for Groundwater

Red Ground has reviewed the comments prepared by ERM-Northeast ("ERM"), dated September 26, 1995 and submitted in this matter on behalf of the ElectroSound Group, Inc. ("ESG"), former operator of the Goldisc Site, and agrees with ERM's evaluation of the Proposed Plan. Without relinquishing any rights Red Ground may have with regard to claims or causes of action against ESG and the First Holbrook Company ("First Holbrook"), Red Ground concurs with the following points made by ERM in response to the USEPA's explanation of its flawed decision to postpone the selection of a groundwater remedy for the Site.

a. The USEPA has stated that additional monitoring is needed to explain trends in nickel concentrations in Site groundwater. However, the Site groundwater has been fully characterized by groundwater sampling and analysis performed over a 13-year period, from 1981 through September 1994. As part of that process, changes in nickel concentrations have been sufficiently characterized through sampling and modeling of groundwater flow and chemical fate and transport.

b. The USEPA has also stated that additional monitoring is needed to define the vertical extent of the groundwater contamination. Yet during the review by the USEPA and the NYSDEC of the work plans for the Phase I and Phase II remedial investigations, neither the USEPA nor the NYSDEC raised this concern. Moreover, if the USEPA or the NYSDEC now conclude that this additional monitoring is necessary, this concern is fully addressed within the context of one of the remedial alternatives described and recommended in the FS, the "No Action with Monitoring" alternative.

c. The USEPA refers repeatedly to an interim draft Health Advisory issued on July 10, 1995, which establishes a Health Advisory for nickel of 100 micrograms per liter ("ug/L"), and on which the New York State Department of Health ("NYSDOH") evidently relies in supervising public drinking water supplies. These references imply that the 100 ug/L level is applicable or relevant and appropriate to the USEPA's evaluation of groundwater remedies at the Site. However, the interim draft Health Advisory is an informal standard that is not legally enforceable. Thus, the Health Advisory level for nickel should not be a factor in

the assessment of a groundwater remedy. The federal Maximum Contaminant Level ("MCL") for nickel, also 100 ug/L, was remanded to the Agency in February, 1995, and therefore is also not relevant to the remedy selection process. The appropriate target clean-up level is the site-specific health-based level developed during the RI/FS in accordance with USEPA regulations and guidance for performing risk assessments.

The preceding points demonstrate that there is no rational basis for the USEPA to defer remedy selection because of the need for additional monitoring. Moreover, the USEPA may not consider or rely upon the informal draft Health Advisory, and its references to the Health Advisory 100 ug/L level are therefore inappropriate. This is particularly true because the 100 ug/L level is precisely that of the remanded, and therefore null and void, MCL.

3. The USEPA's Actions in Deferring the Selection of a Remedy Are Inconsistent With Its Own Regulations and Procedures and With the RI/FS Results

As described above, there is no technical basis for the USEPA's proposed course of action with respect to groundwater. Further, the Agency's actions in deferring the selection of a remedy are also inconsistent with its own regulations and procedures, and with the results reached in the RI/FS. This decision by the USEPA is arbitrary and capricious, and undermines the RI/FS process and the USEPA's own authority.

In support of deferring its decision on a remedy for groundwater, the USEPA points to the fact that there is currently no MCL for nickel, which is a contaminant of concern at the Site and has been detected in the groundwater at the Church Street water supply well downgradient from the Site. Yet MCLs have not been established for numerous chemicals commonly found at Superfund Sites. In such cases, the USEPA relies on the risk assessment procedures outlined in the National Contingency Plan ("NCP") and in USEPA guidance documents to establish clean up levels. ERM properly followed these risk assessment procedures in selecting the nickel clean up standards employed in the FS to arrive at the groundwater remedial alternatives. To now reject the results of ERM's extensive site specific risk assessment, which the USEPA approved, because of the absence of a generic standard is without support or authority.

The USEPA's unusual action in deferring proposal of a groundwater remedy is evidently based on objections raised by the NYSDOH relating to its reliance on the draft interim Health Advisory for nickel of 100 ug/L in supervising drinking water supplies. Since the USEPA cannot legally apply this informal 100 ug/L standard, it is inappropriate to delay the remedy selection on this basis, i.e., simply because the NYSDOH is not satisfied with the site-specific health-based levels developed during the RI/FS. According to USEPA Guidance for preparing the Proposed Plan, any dispute arising during the remedial process between the lead and support agencies should be resolved in a timely manner, and, "[r]egardless of the

process utilized, the result should be an equitable resolution of the outstanding issues." "Guidance on Preparing Superfund Decision Documents," OSWER Directive #9355.3-02 (July 1989) at 3-7. Where final resolution cannot be reached, however, "the Region should use its discretion as to whether to proceed with publication of the Proposed Plan." Id. at 3-8. Where, as in this case, the State's concerns are unsupported by science or law, the USEPA should exercise its discretion and proceed with publication of a proposed remedy for groundwater in addition to Site sediments and soils.

Instead, the USEPA's purported resolution to the absence of an MCL for nickel is its proposal to monitor groundwater at the Site and perform additional modeling, and, at some unspecified future point, propose a remedial alternative for groundwater. Ironically, this course of action is essentially the No Action With Monitoring alternative proposed and recommended by ERM, but without the critical components of an effective monitoring plan as set forth in ERM's proposal. If the USEPA supports the alternative of no current active remediation but ongoing monitoring, it should have proposed the No Action With Monitoring alternative, so the remedy could proceed in proper form. The USEPA has the authority to address the possible need for future response actions relating to Site groundwater pursuant to the terms of a reopener provision.

The purpose of the Proposed Plan is to supplement the RI/FS and provide the public with an opportunity to comment on the preferred alternative for a remedial action as well as the other alternatives considered. 40 C.F.R. § 300.430(f)(2). The Proposed Plan should direct the public to the RI/FS report as the primary source of detailed information on the remedial alternatives analyzed, as well as other site-specific information. OSWER Directive #9355.3-02 at 2-1. In this instance, instead of supplementing the Goldisc RI/FS, the Proposed Plan contradicts and conflicts with the RI/FS. While the Plan describes in detail the groundwater investigation and the baseline risk assessment for human health risks related to groundwater contamination, it then completely omits any discussion of the groundwater alternatives. This is likely to confuse members of the public, and, even worse, deprives the public of an opportunity to understand the options available to the USEPA and thus, to comment upon the wisdom of the deferral of groundwater remedy selection. The USEPA's statement in the Proposed Plan that changes may be made in the selected remedy based on public comment is an empty offer with respect to groundwater remediation, as the public has not been fully informed regarding the remedial alternatives.

As explained in the NCP at 40 C.F.R. § 300.430(a), the purpose of the remedy selection process is to implement remedies that eliminate, reduce or control risks to human health and the environment. Thus, "[r]emedial actions are to be implemented as soon as site data and information make it possible to do so." Id. (emphasis added). At the Goldisc Site, extensive data has in fact been gathered under the close direction of the USEPA during the performance of comprehensive Phase I and Phase II remedial investigations at the Site. The data and information are currently available, and it is incumbent upon the USEPA to propose

and select the appropriate remedy for groundwater, which is the No Action With Monitoring alternative.

4. EPA's Failure to Propose a Remedy for Groundwater Creates Uncertainty and Does Not Benefit Public Health or the Environment

The ongoing bankruptcy proceedings of ESG, former Site operator and signatory, along with First Holbrook, to an Administrative Order on Consent ("AOC") governing the performance of the RI/FS, presents further reason for the USEPA to proceed with selection of a remedy at the Site. In failing to do so, the Agency is creating an unnecessary degree of uncertainty, prejudicing its own ability to recover funds necessary to perform the clean-up, as well as the rights of other parties to the bankruptcy proceeding, particularly Red Ground.

On or about May 9, 1994, ESG and two of its subsidiaries filed petitions under Chapter 11 of the United States Bankruptcy Code, 11 U.S.C. § 101 et seq., in the United States Bankruptcy Court for the Eastern District of New York.

In December, 1994, the United States Department of Justice filed a proof of claim with respect to the bankruptcy proceedings of ESG ("Proof of Claim"). The Proof of Claim stated that the debtor, ESG, is liable to reimburse the United States for all past and future response costs for actions taken and to be taken at the Site by the USEPA. Proof of Claim, ¶¶ 5, 9. The Proof of Claim further stated that the USEPA "anticipates that remediation of the contaminated soil and groundwater may be required," and that the agency "presently estimates that the future costs for cleanup of the soil and groundwater at the site may range between $4 million and $6 million." Proof of Claim, ¶ 9.

While the USEPA has delayed to date quantifying its claim, the Government should now make every effort to assert its rights in ESG's bankruptcy proceedings so as to secure the maximum amount of funds possible from the bankrupt estate to fund the clean up of the Site. It should not be necessary to point out that the refusal of the USEPA to select a remedy for groundwater, and thus be able to quantify its claim in the ESG bankruptcy may complicate the Government's ability to obtain those funds. Red Ground recognizes that First Holbrook, which is not in bankrutcy, is also a potentially responsible party for the Goldisc Site. Nevertheless, without the ESG monies, the public health and the environment may suffer. In this time of financial cutbacks for the USEPA, it is fiscally irresponsible for the Agency to delay its decision. This is particularly true since, as noted by ERM, the USEPA has identified the Goldisc Site as one at which because of the recent reduction in the USEPA's budget, no funds will be available for clean up oversight, which makes it highly unlikely that any monies will be available for the proposed additional monitoring and modeling.

Moreover, the deferral of Site groundwater remedy selection has a direct

detrimental impact on Red Ground Company, as the owner of the Site. The Site was listed by the USEPA on the National Priorities List ("NPL") in June 1986. Almost ten years later, Red Ground Co. continues to face delays in Site remediation. The encumbrance placed upon the property by the NPL listing and the uncertainty surrounding the clean up have given rise to difficulties in financing or selling the property, and evidently will continue to do so for the indefinite future. As discussed below, Red Ground Co. has filed for bankruptcy, due in large part to the condition of the Site and the slow progress of the remediation. Further delays exacerbate the inequitable impact upon Red Ground Co. of this exceptionally drawn-out process.

5. Red Ground Has Appropriately Cooperated with the USEPA in the RI/FS Process

In the Site Background section of the Proposed Plan, the USEPA asserts that it notified First Holbrook, ESG and Red Ground of their potential liability at the Site and requested that they finance the RI/FS. It continues: "Red Ground refused to enter into negotiations with EPA to conduct additional RI/FS activities. Subsequently, in 1991, EPA entered into an AOC with First Holbrook and ElectroSound." Proposed Plan, p. 3. This characterization of the events that transpired in 1991 is totally incorrect.

In fact, in early May 1991, the USEPA transmitted to Red Ground a draft AOC, with an attached draft Statement of Work in connection with the Goldisc Site. Shortly thereafter, counsel for ESG advocated to the USEPA that Red Ground Corporation be included as a party to the AOC. In response, by letter dated May 28, 1991, Red Ground explained to the USEPA that pursuant to the Contract of Sale between Red Ground and First Holbrook for the Goldisc property, First Holbrook and ESG were legally obligated to undertake all necessary measures to remediate the Goldisc property, and Red Ground would rely on that Contract. The May 28, 1991 letter further noted that ESG and First Holbrook had already submitted to the Agency a good faith offer to conduct the supplemental RI/FS activities. Finally, while not stated in the letter, Red Ground would have been in breach of this Contract of Sale if it signed the AOC, and thus would have risked losing the benefits of the Contract.

In response to this letter, the USEPA continued negotiations with ESG and First Holbrook, eventually reaching final agreement in an AOC that became effective on July 3, 1991. Red Ground, as appropriate, is not a party to that AOC.

However, as owner of the property and pursuant to the contract of sale with First Holbrook, Red Ground has fully cooperated with the USEPA and has participated through its counsel in the remedial investigation process. As the USEPA is aware, Red Ground has taken every step possible to persuade ESG and First Holbrook to fulfill their commitments to Red Ground, including the commencement of a civil action against ESG and First Holbrook in the Supreme Court, Suffolk County. Red Ground has also made every effort to cooperate with the Agency to implement the remedial program, and in fact has

assisted the USEPA in obtaining the cooperation and performance of ESG and First Holbrook. Given the continued responsibility of First Holbrook and ESG, and the fact that ESG caused the contamination at the Site, Red Ground's actions have been appropriate and Red Ground has acted in good faith.

6. Red Ground Co. Bankruptcy and Reservation of Rights

On March 11, 1993, Red Ground Co., the current owner of the Site, filed a voluntary petition pursuant to Chapter 11 of the United States Bankruptcy Code, 11 U.S.C. § 101 et seq. The NPL listing of the Site and the slow progress of the remediation has made it difficult for Red Gound to obtain financing or sell the property. Now, after an extended RI/FS process, the results of which were approved by the USEPA, the Agency proposes to extend the uncertain status of the Site indefinitely. This inequitable course of action promises to continue the harm to the Site owner and keep the property out of productive use for further, unknown years of delay.

Red Ground Co. hereby reserves all its rights in this matter.

7. Conclusion

Red Ground objects to the decision of the USEPA, made in consultation with the NYSDEC, to defer selection of a remedy for groundwater contamination at the Goldisc Site. This decision is arbitrary and capricious because it is without any technical or scientific basis, is inconsistent with the USEPA's regulations and procedures, and creates uncertainty and delay for affected parties and the public. The results of the RI/FS show that the No Action With Monitoring alternative is the appropriate remedy for Site groundwater. The USEPA should revise the Proposed Plan to propose this alternative, so that the public may comment on this alternative and the remedy can proceed in a timely manner.

Sincerely,

Periconi & Rothberg, P.C.
Attorneys for Red Ground Corporation
and Red Ground Company

By: Debra L. Rothberg
Debra L. Rothberg, Esq.

REISMAN, PEIREZ, REISMAN & CALICA, L.L.P.
COUNSELORS AT LAW
1301 FRANKLIN AVENUE
GARDEN CITY, N.Y. 11530

(516) 746-7799
(212) 997-1977

FACSIMILE
(516) 742-4946

SEYMOUR J. REISMAN
DAVID H. PEIREZ*
JEROME REISMAN
ROBERT M. CALICA
MICHAEL J. ANGELO

JOSEPH CAPOBIANCO
ANN P. ZYDERT
SUSAN T. KLUEWER
EDWARD M. ROSS*
ANTHONY C. ACAMPORA
LYDIA A. MILONE°

COUNSEL
MARK S. CHARWAT

* MEMBER NY AND FL BAR
° MEMBER NY AND CT BAR

September 25, 1995

VIA FEDERAL EXPRESS

Ms. Janet Cappelli
Project Manager
U.S. Environmental Protection Agency
290 Broadway, 20th Floor
New York, New York 10007

Re: EPA Superfund Proposed Plan - Goldisc Recordings Site, August 1995 ("Plan")

To The EPA, Region II:

This firm has acted as special legal counsel to ElectroSound and First Holbrook, two of the potentially responsible parties (PRPs), signatories to the Administrative Order on Consent ("AOC"). In fact, the undersigned negotiated the AOC with the EPA in 1991, and has provided special legal advice to the PRPs with regard to all environmental legal issues from time to time.

The Plan's proposed remedial action with regard to the preferred alternative for contaminated sediments and soils is acceptable, but the decision of the EPA to conduct a monitoring program of the groundwater in order to better define the vertical extent of the nickel plume, to identify any trends in the concentration of nickel and, thus, to defer decisions regarding groundwater remediation is legally indefensible and constitutes an arbitrary and capricious action by the EPA.

SUMMARY OF LEGAL CONCLUSION

The arbitrary and capricious characteristics of the Plan are:

1. The lack of any reasonable timetable or schedule in which to gather information;

2. A failure to recommend any alternate remedy which may be implemented within a specified time frame;

3. A failure to identify any reasonable proposal in the light of currently existing technology;

4. A failure to identify any particular threat or harm to the public health;

5. The EPA's decision to effectively ignore the recent judicial decision rejecting the Federal standard for nickel levels in groundwater ("MCL"), thus circumventing the U.S. Circuit Court by, in effect, adopting and relying upon a Health Advisory which is not legally binding, which reliance directly violates the NCP (the governing Federal body of regulations).

DISCUSSION

First, we note the written comments just submitted by ERM Northeast ("ERM") to the Plan, on behalf of ElectroSound. ERM correctly points out that the nickel, detected in groundwater at the Church Street well, is even below the current level of the Health Advisory, and that the Site groundwater has been fully and properly characterized.

The Health Advisory is neither applicable nor relevant and appropriate, is "not legally enforceable" by its own terms, and, clearly is inconsistent with the NCP, (see 40 CFR 300.5). As ERM particularizes, health advisories are no more than "informal guidance", and cannot be construed to be legally enforceable Federal standards or regulations.

It is arbitrary and capricious for the EPA to "bootstrap" the failed (and judicially rejected) MCL by deferring a decision on groundwater at this Site, after 15 years of EPA/DEC supervised Site investigation[1], simply because the EPA and DEC are now

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[1] The arbitrary and endless nature of governmental activity can be seen in the fact that the Site has been subjected to nearly 15 years, i.e., from 1981 to date, of testing, sampling and reporting. Comprehensive remedial investigations were performed according to a number of plans submitted to and approved by the EPA and the NYSDEC. These agencies have had, as noted by ERM in its comments, " ... more than adequate opportunity to request and receive additional groundwater data if they decided it was necessary to properly characterize groundwater conditions at the Site."

Neither agency made such a request because such a request was totally unnecessary. The now-proposed further required monitoring for the purposes of determining whether additional remedial activities are needed for groundwater on the Site is, after 15 years, "cruel and unusual", which the courts will clearly see as arbitrary and capricious.

going to proceed to develop a new MCL for nickel. The bootstrapping is exacerbated by the fact that it leaves the PRP's "hanging" in mid-air without any time frame or scientific parameters to apply or use in determining whether, or to what extent, a groundwater remedy may be necessary or selected for the Site.

In all evaluations of the appropriateness of an EPA promulgated remedial action, whether by a proposed plan or in a Record of Decision ("ROD"), the essential factor is whether or not the action to be taken arises out of a legitimate concern, which must be rational, and where the public health may be endangered. A ROD, is not to be an academic exercise or a theoretical approach for general scientific investigation. This is precisely what the EPA has done here by deferring a decision on groundwater remedy. It is dead wrong. It is by legal standards and previous court decisions "arbitrary and capricious".

US v. Cannons En'g Corp., 720 F. Supp. 1027 (District of Mass. 1989), aff'd 899 F.2d 79 (1st Cir. 1990) and US v. Akzo Coatings of America, Inc., 949 F.2d 1409 (6th Cir. 1991) are two informative decisions which discuss when a remedial action plan is rational and whether the remedies fashioned are fair, reasonable and adequate, and, consistent with CERCLA. Among the criteria the courts have announced are: i) the nature and extent of the hazards at a site; ii) the degree to which the remedy will address the hazards at a site; iii) the degree to which the public interest is served. In this case, the hazard at issue is simply whether or not and to what degree there is nickel in the groundwater. Nickel is neither a priority pollutant nor is there a validly existing MCL. The previous MCL was recently rejected, scientifically and procedurally, by the U.S. Federal Circuit Court. The so-called "remand" was hardly voluntary on the part of the EPA, see, 1995 WL 118042 [D.C. Cir., per curiam decision].

One of the earliest cases examining the legality of an open-ended remedy, such as the proposed Plan, was U.S. v. Hooker Chemicals, 540 F. Supp. 1067 (WDNY 1982). There the court did approve the open ended remedy proposal. However, that case dealt with very substantial toxic wastes with a grave potential danger to the public welfare because of the likelihood of enormous amounts of toxic chemicals migrating from a landfill into the Niagara River and Lake Ontario. Nothing like that is present here. Indeed, in this case, the possible presence of nickel, and the migration factor, limited to a single public well is refuted by the fact that the well is in service and water is being drawn for the public use. Thus, the Hooker case is inapposite.

The open-ended Plan in this case utterly fails to establish a reasonable timetable or schedule for information gathering, has no specified time frame whatsoever, and in light of currently

existing technology, the proposal is unreasonable. The latter is so because the EPA wrongfully relies upon a Health Advisory only, which is no more than a recirculated version of the judicially rejected MCL for nickel.

Simply put, there are no sound justifications for leaving open the remedy for groundwater treatment. The EPA currently possesses adequate toxicological information and the requisite knowledge to prepare a final Plan with regard to groundwater. When viewed in conjunction with the absence of a currently valid Federal standard (i.e., an MCL), and the recent judicial rejection of the former Federal standard, it is clear that the EPA proposal to defer decision on groundwater remediation until after additional monitoring and modeling is unjustified and based on insubstantial evidence. In short, the Plan, as proposed, is an exercise in academia which the PRPs will be subjected to, after nearly 15 years of government-supervised Site investigation.

Since the EPA has, i) failed to define any parameters; ii) set no time frame for its proposed testing program; and iii) been provided with sufficient data to render a final decision now, the Plan leaves the matter in limbo, and stalls a final implementation simply to allow the government to satisfy an urge to develop a new standard for nickel groundwater. This contravenes sound stated judicial policy as set forth in U.S. v. Cannons En'g. Corp., 899 F.2d at 88, supra.

The bottom line is that the Church Street well was returned to service, and water is being provided to the public with nickel levels well below even the Health Advisory of 100 mgl. Thus, the EPA has itself demonstrated that there is no adverse condition at the public well. There is simply no health-based threat to the public, the Health Advisory is unenforceable, and the nickel at the Site is both contained and in decline. With the removal of the soil, that fact will be further strengthened and is self-confirming.

CONCLUSION

For all of the above reasons, there appears to be no basis to support the EPA's groundwater proposal, which we suspect is the result of unjustified pressure from the State DEC and Dept. of Health. It is wrong, wrong scientifically, and wrong legally. We have recommended that unless the EPA reverses its present proposed decision to defer a remedy on groundwater treatment, and use this Site as the "guinea pig" to develop a new Federal MCL standard for nickel, the PRPs seek relief in the Federal Court upon the basis that the ROD is arbitrary and capricious.