PETITION TO DELIST
SKW PROPERTY PORTION OF
THE VANADIUM CORPORATION OF AMERICA SITE
FROM REGISTRY OF
INACTIVE HAZARDOUS WASTE DISPOSAL SITES

CC Metals and Alloys, Inc.
Witmer Road
Niagara Falls, NY

Submitted to:

New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233-1010

Attn: Mr. John P. Cahill
Commissioner

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SINCE 1965
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M Hinton

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Attn: Mr. John P. Cahill
Commissioner

Prepared by:

LAN Associates Engineering, Planning, Architecture, Surveying, Inc.
66 Cuna St.
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LAN Ref. #2.3269.23
February 26, 2001

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New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control, Room 252
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-8807 • **FAX:** (518) 457-8989
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

MEMORANDUM

TO: Peter Buechi, Regional Hazardous Waste Remediation Engineer, Region 9
FROM: Dennis J. Farrar, Acting Chief, Site Control Section
SUBJECT: Petition to Delist Portion, Vanadium Corporation of America, Site ID No. 932001

DATE: MAR - 2 2001

Michael Hinton of your staff has received a copy of a petition from CC Metals and Alloys, Inc. dated February 26, 2001 to delist a portion of the subject site from the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

Please have this petition reviewed for technical sufficiency and submit your comments/recommendations to me no later than March 23, 2001.

If you have any questions, please contact me or Tony Sylvester, of my staff, at 457-0747.

cc: M. Hinton

CCMA
CC Metals and Alloys, Inc.

P.O. Box 217 Calvert City, KY 42029
Phone: (270) 395-7631

February 26, 2001

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
Article No. Z 330 738 828

Mr. John P. Cahill
Commissioner
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233-1010

Re: Petition to Delist CC Metals and Alloys, Inc.'s
(formerly SKW Metals & Alloys, Inc.)
Portion of Vanadium Corporation of America
Inactive Hazardous Waste Site No: 932001

Dear Mr. Cahill:

CC Metals and Alloys, Inc., formerly known as SKW Metals and Alloys, Inc. (CCMA or SKW), owns a portion (SKW Property as specifically defined in the petition below) of the "Vanadium Corporation of America" (Vanadium Site) site No. 932001, which is listed in the New York State Department of Environmental Conservation's (Department) Registry of Inactive Hazardous Waste Disposal Sites (Registry). This letter serves as a Petition to Delist the SKW Property from the Vanadium Site Registry listing pursuant to Section 27-1305(4)(c)(1) of the Environmental Conservation Law and its implementing regulations at 6 NYCRR Section 375-1.9. The petition provides information regarding the SKW Property in accordance with the suggested letter format provided by Mr. William Shaw of the Department's Bureau of Hazardous Site Control.

As demonstrated below in the attached Petition to Delist, extensive investigations and Interim Remedial Measures, overseen and approved by the Department, have shown that an inconsequential amount of hazardous waste is present at the SKW Property, and that the waste does not pose a significant threat to public health or the environment. Accordingly, CCMA/SKW respectfully requests that the Department delist the SKW Property portion of the

Vanadium Site from the Registry in accordance with Section 27-1305(4)(c)(1) of the Environmental Conservation Law and its implementing regulations.

Sincerely,

Edward S. Bredniak
President

ESB:dl
2.3269.23-L-Delisting-010226-esb

Copies to: Mr. William Shaw - NYSDEC Albany Bureau of Hazardous Site Control (3)
Mr. Michael Hinton - NYSDEC Region 9
Mr. Guy Van Doren - LAN Associates, Inc.
Mr. Paul D. Meosky - Hodgson and Russ, LLP

PETITION TO DELIST
SKW PROPERTY PORTION OF
THE VANADIUM CORPORATION OF AMERICA SITE
FROM REGISTRY OF INACTIVE HAZARDOUS WASTE DISPOSAL SITES

LAN Ref. #2.3146.40

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LIST OF ATTACHMENTS

PETITION TO DELIST
SKW PROPERTY PORTION OF
THE VANADIUM CORPORATION OF AMERICA SITE
FROM REGISTRY OF INACTIVE HAZARDOUS WASTE DISPOSAL SITES

1. SITE NAME AND OWNERS (PAST AND PRESENT)

CC Metals and Alloys, Inc. (CCMA), formerly known as SKW Metals and Alloys, Inc. (SKW), is the owner of a 30-acre portion of the 100+ acre inactive hazardous waste disposal site referred to in the Registry as the "Vanadium Corporation of America" site (Vanadium Site). Vanadium Corporation of America (Vanadium) purchased the property in 1920. Vanadium sold 62 acres to Airco Properties, Inc. (Airco), in 1964. Airco, in turn sold 37 acres to SKW in 1979. Stollberg, Inc., purchased 7 of those acres in 1992. Currently, CCMA owns most of the western portion of the Vanadium Site, Stollberg owns the southwestern portion, Airco owns property in the central portion, and Niagara Mohawk Power Corporation (Niagara Mohawk) and the New York Power Authority (NYPA) own property in the northern and eastern portions of the Vanadium Site. For the purpose of this petition, the portion of the Vanadium Site that was owned and operated by SKW (37 acres) is referred to as the SKW Property.

2. SITE NUMBER

The Department has assigned the site number "932001" to the Vanadium Site.

3. SITE LOCATION, CITY, COUNTY, LATITUDE & LONGITUDE, TAX MAP NUMBERS, ETC.

The Vanadium Site is located east of Witmer Road in the Town of Niagara, Niagara County, New York. The latitude of the Vanadium Site is 43° 7'22", and the longitude is 79° 2'1" (see Attachment 1 for site location map). The SKW Property comprises the far western portion of the Vanadium Site. Airco owns property in the central portion of the Vanadium Site. Niagara Mohawk and NYPA own property in the northern and eastern portions of the Vanadium Site. The tax map numbers for the SKW Property are 130.15 – 4 – 10.1 and 130.15 – 4 – 10.2.

4. SIZE (IF KNOWN)

The SKW Property portion of the Vanadium Site is approximately 37 acres in area. The entire Vanadium Site is estimated to be 100+ acres in area.

5. BOUNDARIES (WITH MAP OR SKETCH CLEARLY INDICATING BOUNDARIES)

Attachment 2 contains a 1989 aerial photograph that depicts the Department's estimated boundaries of the Vanadium Site. Also contained in Attachment 2 is a 1999 aerial photograph that shows the SKW Property after the IRM was completed. Attachment 3 contains a property location map showing the boundaries of the 37 acres that comprise the SKW Property. Attachment 3 also contains a survey map showing the SKW and Airco properties.

6. NATURE OF OPERATION (PAST AND PRESENT), AND THE OPERATION'S CONTRIBUTION TO HAZARDOUS WASTE DISPOSAL, IF ANY

6.1 Nature of Operations

Vanadium operated an on-site manufacturing plant from approximately 1920 to 1964. According to the Preliminary Site Assessment (PSA) Report prepared by ABB Environmental Services (ABB) in 1993, Vanadium used portions of the Vanadium Site to dispose of wood, brick, ash, lime slag (calcium hydroxide), ferromanganese slag, ferrochromium silicon slag, ferrochromium silicon dust, and ferrosilicon dust. Airco, after purchasing the Vanadium Site from Vanadium in 1964, disposed of wastes similar to those disposed of by Vanadium, according to the PSA Report.

SKW used the SKW Property for the following operations: 1) a fully engineered, Department-approved disposal facility for baghouse dust produced at its off-site production facility; 2) sorting and crushing operations of ferroalloys produced at its off-site facility; and 3) storage of raw materials used to manufacture ferroalloys at its off-site facility.

As discussed in more detail under Item 9, after purchase of the SKW Property in 1979, SKW constructed and operated a fully engineered, Department-permitted disposal facility on the northeastern portion of its property. According to the PSA

Report, SKW disposed of ferrochromium baghouse dust in Cell #1 and ferrosilicon baghouse dust in Cell #2 of the disposal facility. SKW closed both landfill cells in 1992-1993 in accordance with the Department's 6 NYCRR Part 360 closure requirements. The landfill closure received Department approval in 1994.

From approximately 1979 to 1985, SKW also used the SKW Property for sorting and crushing operations of ferroalloys produced at its off-site facility. This work was completed in the central portion of the SKW Property. During the same period SKW also used portions of the SKW Property for the storage of raw materials used to manufacture alloys at its off-site facility.

6.2 Past Operations' Contribution to Hazardous Waste Disposal

A review of SKW's and its environmental consultant's files revealed no operational record of either characteristic or listed hazardous waste disposal on the SKW Property, other than the material placed in SKW's two permitted landfill cells. At the time the landfill was constructed, the EPA considered ferrochromium silicon and ferrochromium baghouse dust a listed hazardous waste (K090 and K091). On October 20, 1999, the USEPA delisted K090 and K091 waste. The State of New York is currently in the process of adopting USEPA regulatory revisions made through July 1999. It appears that the State will follow the USEPA's delisting K090 and K091 in due course.

Regarding ABB's investigation of waste piles on the Vanadium Site (including waste piles on the SKW Property), ABB stated in its PSA /report:

"Although EP Toxicity extracts (of samples collected from waste piles) *contained detectable levels of arsenic, barium, chromium, lead, and silver, the concentrations did not exceed regulatory limits for the definition of a characteristic hazardous waste."*

Surface water on the Vanadium Site was identified as an area of environmental concern by the Department. The Department's determination was based on the PSA Report that documented elevated pH and hexavalent chromium in the surface water. With regard to surface water on the Vanadium Site, the PSA Report stated:

"Hexavalent chromium was detected and exceeded the Class C Surface Water Standard of 11 ug/L in all samples except for SW-103 and SW-105."

The PSA Report also stated;

"The pH readings in excess of 8.5 indicated a contravention of standards and a significant threat to public health and the environment. The pH reading in excess of 12.5 indicated that the surface water is a characteristic hazardous waste ..."

Of the seven surface water samples collected during the PSA investigation, only one sample (SW-104, which was located on the Airco property) was above the 12.5 TCLP limit with a reported concentration of 12.8 However, the PSA investigation revealed that the waste piles themselves did not contain characteristic hazardous waste. The non-hazardous classification of material contained in the waste piles was reported in the PSA for all the waste piles sampled on the SKW, Airco, Niagara Mohawk, and NYPA properties.

The PSA storm water sampling also showed the pH on the SKW Property was less than 12.5. In addition, surface water accumulation on the SKW Property was limited to a small area in the southeast portion. As discussed in Item 8, the surface water accumulation on the SKW Property was partially the result of runoff and flow from adjacent properties. CCMA has corrected these conditions on the SKW Property through the completion of the IRM, discussed in more detail in the following sections.

7. History of Ownership, Private, Public, Bankrupt, Permitted, Whether It Is Currently Operating or Closed, Etc.

Vanadium owned the 100+ acre Vanadium Site from 1920 to 1964. The Department has identified the Cyprus Mineral Company as the corporate successor to Vanadium. Airco owned 62 acres of the Vanadium Site from 1964 to 1979, when it sold the western 37 acres to SKW while retaining 25 acres. SKW sold seven acres in the southwestern corner of its property to Stollberg, Inc., in 1992, and retained the remaining 30 acres. In 1999, SKW changed its name to CC Metal and Alloys, Inc. (CCMA).

SKW received a 6 NYCRR Part 360 permit from the Department in 1980, to operate a solid waste disposal facility on the SKW Property. SKW closed the landfill in 1992-1993, in accordance with Department regulations. The Department approved the landfill closure in 1994. In 1998, SKW entered into a voluntary consent order with the

Department to complete an IRM on the SKW Property. The IRM addressed the area of the SKW Property that surrounded the permitted landfill cells. The landfill itself was found to be in good condition and did not require investigation or remediation. As part of the consent order, SKW filed a Declaration of Covenants and Restrictions with Niagara County in July 1998 (Attachment 4). The declaration provided disclosure of the existing consent order and its application to any future successor of the property. CCMA intends to file a second Declaration of Covenants and Restrictions with Niagara County that provides documentation that an IRM has been completed and approved by the Department and notification that any alteration of the property must receive prior Department approval.

Currently, the Vanadium Site is separated into three operable units:

Unit 1. SKW Property of which CCMA owns approximately 30 acres in the western portion of the site and Stollberg owns approximately 7 acres in the southwestern portion of the Vanadium Site;

Unit 2. Airco owns approximately 25 acres in the central and eastern portion of the site;

Unit 3. Niagara Mohawk and NYPA, which was formerly known as PASNY, owns the remaining area (approximately 52 acres) in the northern, eastern, and southern portions of the site.

8. History of Investigations Conducted at the Site for Hazardous Waste Disposal, with Copies of Pertinent Data and Information From Those Investigation Reports

8.1 Preliminary Investigations - 1980's and Early 1990's

In the 1980's and early 1990's, the Gradient Group, E. C. Jordan, and ABB conducted investigations of the Vanadium Site, including the SKW Property. The Gradient Group's investigations were conducted on behalf of the USEPA. The other investigations were conducted on behalf of the Department. Based on these reports, the Department's listing of the Vanadium Site changed from a Class 3 to a Class 2 Inactive Hazardous Waste Disposal Site. The Class 2 designation is assigned to a site where the Department believes hazardous waste constitutes a "significant threat" to public health and the environment. ABB identified large areas of exposed waste piles on the Airco and Niagara Mohawk properties as areas of concern. Smaller waste piles were also found on the SKW Property.

Waste piles on all properties were shown to contain elevated metals concentrations, but did not exceed the limits for a characteristic hazardous waste.

ABB identified surface water with elevated pH and hexavalent chromium on the Airco, Niagara Mohawk, and the SKW properties as areas of concern on the Vanadium Site. One surface water sample from the Airco property contained a pH concentration of 12.8. ABB stated, *"the pH readings in excess of 12.5 indicate that the surface water is a characteristic hazardous waste."* The surface water on the SKW Property was limited to a small area located in the southeast portion of the property. ABB also identified groundwater on the Airco property as being a characteristic hazardous waste based on pH levels greater than 12.5. Groundwater on the SKW Property had pH concentrations between 6.95 and 8.12, which is within the New York State groundwater standard.

8.2 Remedial Investigation and Recommended Interim Remedial Measures Report – 1997

A Remedial Investigation and Recommended Interim Remedial Measures Report, prepared by LAN Associates Engineering, Planning, Architecture, Surveying, Inc. (LAN), dated March 17, 1997, identified the causes of the elevated pH and hexavalent chromium in the surface water on the SKW Property. That report stated, in pertinent part:

"Surface water on the SKW property accumulates in low lying areas in the southeastern portion of the property. Water accumulating in this area originates from on-site and off-site surface run-off. Perched groundwater migrating from the Airco property may also discharge to low lying areas. Prior to Airco's construction of a perimeter drainage ditch on the western portion of its property, surface water flowed from the Airco property directly onto the SKW property (Figure 2-3) [Attachment 5 of this Petition]. *As a result, surface water and sediments from the Airco property were deposited on the SKW property. These deposits have had significant impacts on the SKW property.*

Surface water accumulation on the SKW property tends to occur within one or two small isolated areas. During dry periods, these areas stagnate and reduce in size by evaporation and infiltration. The result is an increase in the concentration of ions within the surface water. It is LAN's conclusion that evaporation of surface water in isolated areas on the SKW property is the main

reason for high concentration of metals in the surface water. This problem can be resolved through the control of surface water and the elimination of areas where surface water collects."

In 1997, the Department approved the above description in the Remedial Investigation and Recommended Interim Remedial Measures Report. The approved report also provided conclusions and a recommended course of action for remediating the SKW Property, which are summarized below:

"CONCLUSIONS

1. *The Airco and Niagara Mohawk waste piles are the major sources for chromium and hexavalent chromium concentrations at the Vanadium site.*

2. *Chromium, hexavalent chromium, and pH concentrations in the SKW landfill leachate are relatively low and have not impacted surface water or groundwater.*

3. *The SKW groundwater monitoring results for pH, chromium, and hexavalent chromium are within acceptable ranges.*

4. *The surface water concentration for pH and hexavalent chromium on the SKW property require remedial measures.*

5. *The quality of SKW surface water can be significantly improved through isolation and drainage control.*

RECOMMENDED COURSE OF ACTION

Conceptual Description

Investigations at the SKW property identified, as an area of concern, a low lying area in the southeast portion of the property where surface water accumulates that will require remedial action. Parameters of concern identified in this area are pH and hexavalent chromium in surface water. Surface water flow in this area is minimal and stagnation/evaporation leads to high concentrations of parameters of concern. The conceptual remedial design involves the re-grading of site topography and lining a portion of the area of concern. The

implementation of these remedial actions will achieve the physical isolation and containment of surface water on the SKW property.

All surface water will be controlled on-site and discharged to the City of Niagara Falls storm sewer system. No surface water will be discharged from the SKW site to adjacent properties. The new site drainage plan will be accomplished by re-grading and contouring most of the SKW property. The drainage system will contain approximately six inter-connected detention basins. The discharge from the six detention basins will be a single outfall to the city storm sewer. A portion of the detention basin in the southeast portion of the SKW property (in the area of concern) will be lined with low permeable material. The low permeable material will physically isolate the problematic underlying soil and groundwater from the overlying surface water.

Design Objectives

The specific design objectives include:

1. *isolate surface water so it does not contact underlying soil and groundwater in area of concern on SKW property;*

2. *eliminate off-site surface water runoff by re-grading surface topography and constructing berms on the SKW property;*

3. *develop a site drainage system for the SKW property that will control a 25-year storm event;*

4. *discharge surface water runoff to the* [Town of Niagara] *stormwater sewer system in a controlled manner; and*

5. *monitor surface water quality at the discharge location,"*

The recommended course of action for remediating the SKW Property under the proposed IRM was approved by the Department with the added requirement that a vertical cut-off wall measuring approximately 1,300 feet be constructed around the south and west sides of the area of concern. The IRM was completed in November 1998, with all remedial objectives being met. Department approval of the Revised IRM Completion Report was received.

8.3 Phase I Site Screening Investigation - 1998

In 1998, prior to the commencement of the IRM, a Phase I Site Screening Investigation was conducted by LAN, in accordance with a Site Screening Work Plan approved by the Department. The purpose of the Phase I Site Screening Investigation was to determine if K090 and K091 - listed hazardous wastes - were present on the SKW Property. A Site Screening Report detailing the investigation's results was submitted to the Department in 1999. The report concluded that no K090 or K091 listed hazardous waste was present outside the SKW landfill. The following summarizes this investigation:

"Phase I Interpretation

Elevated concentrations of total chromium (above 700 mg/kg) were detected in 9 out of 15 soil samples collected on the SKW Witmer Road property. Of these nine samples, five appeared to be similar to K090 and K091 hazardous waste. Four samples appeared to be light colored ash or calcium hydroxide and were not considered to be K090 or K091 hazardous waste. Grain size results and XRD results for the five samples that appeared to be K090 and K091 hazardous waste were described in Section 2.2. The results revealed that the materials sampled were not dust, but rather large crystalline, sand size and larger particles. Therefore, the elevated total chromium concentrations are attributed to slag material deposited on the property prior to SKW's purchase of the site. Chromium containing slag is not a K090 or K091 hazardous waste (Attachment 6 contains the pertinent supporting data for this determination*).*

Groundwater monitoring conducted over the past five years is summarized in Appendix G (Attachment 7 of this petition contains updated groundwater monitoring tables). *The monitoring results indicate the groundwater on the SKW property does not pose a significant threat to human health or the environment. Post-IRM sampling results of stormwater discharge to the municipal storm sewer system are included in Appendix H* (Attachment 8 of this petition). *These results indicate that parameters of concern in the stormwater discharged from the SKW property are not a significant threat to human health or the environment."*

8.4 Phase II Investigations Completed During IRM - 1998

The IRM performed in 1998 consisted of subsurface excavation, grading, and re-contouring of the SKW Property. During the course of the Phase II investigations completed during the IRM, no listed K090 or K091 hazardous waste was found outside of the landfill cells and only a small amount of characteristic hazardous waste was found. The following is a summary of the identification, handling, and disposal of materials encountered during the IRM:

"Site Screening Investigations Completed During IRM

Four times during construction, subsurface excavations uncovered potentially hazardous materials. In each case, the materials were handled and removed according to NYSDEC regulations. The NYSDEC was notified each time a problematic material was discovered. The method of handling and disposal was presented to the NYSDEC, and NYSDEC approval was obtained prior to handling and disposal. Of the four instances where potentially hazardous material was found, only one time did the material [baghouse bags] *classify as* [characteristic] *hazardous* [waste] *and require disposal in a hazardous waste landfill.*

Baghouse Bags Removed

During the IRM re-grading and contouring activity, baghouse bags were discovered adjacent to stake #477[See Attachment 9 of this petition]. *The baghouse bags were excavated while the contractor completed the 2.5-foot cut requirement for this location. Before the contractor or the engineer became aware that baghouse bags had been excavated in this area, a dozer pushed some of the material to the east of stake #477. Fortunately, the baghouse bags and associated dust were easily identified. The baghouse dust contained a unique light bluish gray color, which was visible when the dust occurred separately and when the dust was mixed with native soil.*

Once the material was found and its location identified, it was sampled and analyzed for total metals and toxicity characteristic leaching procedure (TCLP) metals. Three samples were collected directly from the dust material contained in the baghouse bags and analyzed for TCLP metals. Twelve mixed soil and dust samples were collected in the original source area surrounding stake #477 and

along the access route to this area. These samples were analyzed for total metals and TCLP metals.

The results from the three dust samples collected directly from the baghouse bags revealed TCLP lead concentrations of 7.9, 8.6, and 13.5 mg/l, which were above the characteristic hazardous waste threshold of 5.0 mg/l. The dust samples were not K090 or K091 waste because their total chromium concentrations were below the known levels of chromium found in K090 and K091 wastes. The 12 mixed soil and dust samples were all non-hazardous. Laboratory reports and sample location maps for the baghouse dust and surface soil samples are included in the Revised IRM Completion Report. (Summary figures and tables documenting the soil and dust results are included in Attachment 9.)

All the observed baghouse bags, baghouse dust, and mixed soil and dust were excavated from their known locations. The material was placed into five covered hazardous waste roll-off containers and later transported to a hazardous waste landfill. Documentation, including hazardous waste manifests and certification of disposal receipts from a hazardous waste landfill, were included in the Revised IRM Completion Report.

After the baghouse bags, baghouse dust and mix dust and soil were removed and disposed of properly, 25 additional test pits were dug in order to determine if any additional baghouse bags or baghouse dust were present in areas of potential concern on the SKW Property. The test pit locations were chosen based on gray or bluish-gray coloration in the surface soil. A total of 60 samples were collected and analyzed for total metals. TCLP metals were analyzed for high total metal results. Based on these criteria, nine samples were analyzed via the TCLP method. These nine samples were all below the parameter threshold. A summary table of total metals results and TCLP results was included in the Revised IRM Completion Report. (Summary figures and tables documenting the additional soil sampling results are included in Attachment 10.)

The additional test pit sampling and analysis led to the conclusion that hazardous concentrations of lead occurred in only the dust contained within the baghouse bags. All other dust and soil samples were not characteristically hazardous. All observed baghouse bags were removed and disposed of properly in a hazardous waste landfill.

Based on the surface and subsurface soil investigations completed after the baghouse bags were discovered, it was shown that all hazardous material identified at the SKW site has been removed and that the materials remaining on site are not characteristically hazardous. Furthermore, TCLP analysis has revealed that the analyzed surface and subsurface soil is not characteristically hazardous. Therefore, no significant quantities of hazardous material remain on site, other than the material contained within the SKW landfill which may or may not be characteristically hazardous."

9. WASTE PRESENT, TYPES, AMOUNTS, DISPOSAL PRACTICES, ETC.

The PSA Report stated that approximately 594,000 tons of wood, brick, ash, lime slag (calcium hydroxide), ferromanganese slag, ferrochromium silicon slag, and ferrochromium silicon dust were disposed of on the Vanadium Site.

In 1980, SKW received a Part 360 permit from the Department to operate a fully engineered solid waste disposal facility on the SKW Property. According to the PSA Report, SKW disposed of ferrochromium baghouse dust in Cell No. 1 and ferrosilicon baghouse dust in Cell No. 2. Both cells have a low permeability liner system and a leachate collection system. Both cells were closed according to Department regulations in 1992-1993. Closure included the capping of the landfill with a 10^{-7} cm/sec, or better, cap material. In addition, a vegetative cover on the landfill has been seeded and maintained. As part of the landfill closure requirements, groundwater monitoring of the landfill site will continue for 30 years after closure of the landfill. The groundwater monitoring system includes four monitoring wells distributed across the 37 acres of the SKW Property.

The Phase I and Phase II Investigations, described under Items 8.3 and 8.4 above, demonstrated that no K090 or K091 listed hazardous waste is present on the SKW Property outside of the landfill cells. K090 and K091 were formerly listed by both EPA and NYSDEC, but are no longer listed by EPA. Delisting of K090 and K091 by the State of New York is anticipated to occur in the future.

The IRM re-contouring project included the cutting and filling of the entire SKW Property, except the landfill cells. This afforded subsurface visual inspection of nearly all of the SKW Property. A small amount of characteristic hazardous waste was found in three baghouse bags during implementation of the IRM. As described in Item 8.4, this material was removed and properly disposed of in a hazardous waste landfill.

Additional investigations, including sampling of suspect areas were completed to determine if additional characteristic hazardous waste occurred outside the landfill cells. These investigations, which were described in Item 8, included the collection and analysis of 37 soil samples. The samples were analyzed for total metals and TCLP metals. The results indicated that none of the 37 additional soil samples contained characteristic hazardous waste.

In addition to the above waste, four other materials were removed from the SKW Property after being classified as non-characteristic hazardous waste. These wastes are described in the Revised IRM Completion Report as follows:

"One Underground Storage Tank, Diesel Fuel and Contaminated Soil

While completing the trench excavation for tie-in piping to the municipal storm sewer system, the excavation encountered an underground storage tank. The tank contained what was identified as No. 2 or No. 4 diesel fuel. The liquid contained in the underground storage tank was pumped out and disposed of by Green Environmental Services. On the following day, Green Environmental excavated and disposed of the tank. The tank was observed to be in good condition. There were no observed holes or cracks in the tank. All visually stained contaminated soil was excavated from the tank pit until visually clean soil was encountered. The excavated soil was stockpiled on-site and completely encapsulated in plastic until it was hauled off and disposed of at a non-hazardous waste landfill. Documentation for the work completed by Green Environmental, including the soil disposal, is included in the Revised IRM Completion Report.

Petroleum Contaminated Soil

While completing the grading cut requirements in the southwest basin, a small area of dark petroleum stained soil was observed. The stained soil also had a distinct diesel fuel odor. This material was excavated until visibly clean soil was observed. It was placed in two roll-off containers and covered. Representative samples from both containers were collected and analyzed for benzene and flash point. Based on the low results, the containers were disposed of at a non-hazardous waste landfill. Documentation of the laboratory analysis, waste manifests, and landfill receipts are included in the Revised IRM Completion Report.

Drum Material

Two drums of what appeared to be metal shot and/or slag were found near stake #473. The material was sampled and analyzed for total metals. Based on the limited amount of material to be disposed, it was determined that all the shot and/or slag material in and around the drums should be excavated and placed in an on-site hazardous waste container. This container was primarily utilized for the disposal of baghouse bags, baghouse dust, and mixed soil and dust. The shot/slag material was disposed of in a hazardous waste landfill along with the baghouse waste as described in the Revised IRM Completion Report

Wash Pad Sediment

A wash pad that had been utilized for washing truck tires prior to leaving the site was de-commissioned and de-mobilized. Prior to demobilization, sediment from the wash pad was sampled for TCLP metals to determine how it should be handled and disposed. After the analysis indicated the sediment was non-hazardous, the stone and sediment contained in the wash pad were excavated and placed in a roll-off container. The material was then transported and disposed of at a non-hazardous waste landfill. Documentation including the analysis, waste manifests, and landfill receipts are included in the Revised IRM Completion Report."

10. RESOURCES AFFECTED (GROUNDWATER, SURFACE WATER, SOILS, ETC.)

The area of concern on the SKW Property was identified by the Department as elevated concentrations of hexavalent chromium and pH in the surface water. Areas of elevated pH and hexavalent chromium in the surface water were also identified by the Department as occurring on other properties at the Vanadium Site. The surface water area of concern on the SKW Property was a small, seasonally intermittent, low-lying area where water occasionally accumulated in the southeast portion of the SKW Property. The soil in the area of concern was partially impacted by runoff from waste piles on the adjacent property to the east (Attachment 5). The runoff contained elevated concentrations of calcium, calcium hydroxide, hexavalent chromium, and elevated pH, which were deposited in the low lying area of concern on the SKW Property. When the accumulated water evaporated the pH, calcium hydroxide, and hexavalent chromium, concentrations increased. The increased surface water concentrations led to precipitation of calcium-based minerals on the surface soils in the area of concern.

Soils in the area of concern that were impacted by runoff and surface water were remediated by the implementation of the Department-approved IRM described below in Item 13. All hazardous waste identified in the soil was removed and properly disposed of, with prior approval obtained from the Department. The area of concern was capped with 18 inches of compacted clay to isolate the soil and surface water. A site drainage system was constructed to discharge stormwater to the municipal combined sewer and treatment system. As a result of the completed IRM, there are no longer areas of surface water accumulation on the SKW Property.

Groundwater monitoring at the SKW Property indicates there is no significant effect on the groundwater resources at the SKW Property. There are no drinking water aquifers on or downgradient of the SKW Property. In addition, there is no evidence that the former SKW surface water area of concern significantly impacted the groundwater. During the IRM, groundwater in the area of concern was isolated by the installation of a vertical cut-off wall of compacted clay that measures approximately 1,300 feet.

Near surface and surface soil in other portions of the SKW Property that were also affected by past operations were thoroughly investigated with Department oversight and approval. Full documentation of the SKW Property remediation and waste removal is included in SKW's Revised IRM Completion Report and is summarized in Item 13 below.

11. DEMOGRAPHIC INFORMATION

The SKW Property is situated in an industrialized area near the State Thruway (I-190) and Witmer Road in the Town of Niagara near the border of the City of Niagara Falls.

Adjacent to and surrounding the SKW Property are industrial, commercial, utility, and undeveloped properties which include:

1. Stollberg
2. Airco
3. Union Carbide, Inc.
4. Niagara Mohawk
5. NYPA
6. Cerrone Trucking Company, Inc.
7. New York State Department of Transportation
8. Assorted junkyard and scrap metal yards
9. Retail hardware and construction supply

12. GEOGRAPHIC INFORMATION (AQUIFERS, SURFACE WATER, WETLANDS, ETC.)

There are no drinking water aquifers or elevated class surface waters at the Vanadium Site. On the SKW Property, a shallow perched aquifer is located within buried fill material. The aquifer lies above native clay, which is usually found at approximately 5 to 15 feet below ground surface. The aquifer produces very small quantities of water as observed in landfill monitoring wells that are consistently purged dry prior to sampling. The deeper bedrock aquifer is located below the native clay material in the Lockport limestone. Small to moderate amounts of groundwater occur within bedrock fractures. Neither the perched nor bedrock aquifers are used for drinking, irrigation, or industrial purposes.

There are no surface waters or wetlands on the SKW Property. As previously described, the Vanadium Site is composed mainly of fill material. An IRM was completed on the SKW Property in 1998. The IRM eliminated surface water accumulations on the SKW Property and uncontrolled off-site discharge of surface water. This was completed by changing site draining and providing a single controlled stormwater discharge point to the municipal combined sewer and treatment system.

13. CLEANUP ACTIONS, IF THEY WERE NEEDED, AND ANY AGENCY APPROVALS

In 1992-1993, SKW closed its permitted landfill with a compacted clay cap and a vegetative cover in accordance with Department regulations. Groundwater sampling and analysis of monitoring wells has been completed quarterly at the SKW Property with reports submitted to the Department. The groundwater monitoring results indicate there have been no significant impacts to the groundwater below the SKW Property.

In 1995/1996, SKW completed a general housekeeping on the SKW Property. This cleanup included the removal of surface debris and scrap material.

In 1998, SKW completed Department-approved remedial measures to address conditions of elevated pH and hexavalent chromium in a small area of surface water accumulation in the southeast portion of the SKW Property. Having determined that upgradient and upstream exposed waste piles on property owned by Airco and Niagara Mohawk were partially the cause of the elevated pH and elevated hexavalent chromium concentrations in the southeastern portion of the SKW Property, a remedial option of isolation and control of stormwater was chosen. The SKW Property was re-graded to:

1. eliminate off-site surface water runoff from entering the SKW Property,
2. isolate on-site stormwater so it does not contact underlying soil and groundwater,
3. produce a site drainage system for the SKW Property to control stormwater discharge from the SKW Property, and
4. eliminate on-site low lying areas where surface water can accumulate.

The completion of the IRM has resulted in the creation of a single discharge point for all stormwater leaving the SKW Property to the municipal combined sewer and treatment system. As shown in post-IRM stormwater sampling results (refer to Attachment 8), pH, chromium, and hexavalent chromium in stormwater discharged from the SKW Property have been significantly reduced. The stormwater is within acceptable limits for discharge to the municipal combined sewer system where it is treated prior to final discharge. This effectively eliminated the surface water and stormwater issues at the SKW Property. These conditions are documented in the Revised IRM Completion Report that received Department approval in January 2000.

In addition, a Phase II Site Screening Investigation was completed during the IRM in 1998, resulting in the removal of baghouse bags, dust, and soil as well as other materials such as an underground storage tank, petroleum-contaminated soil and two drums of metal shot and/or slag. This cleanup was documented in the Revised IRM Completion Report approved by the Department and is summarized in Item 8. Confirmational sampling was completed after the baghouse bags were removed to assure that there was no characteristic hazardous waste remaining on the SKW Property. A total of 37 confirmational soil samples were collected in the area where the baghouse bags were found and all other areas suspected of containing dust and/or baghouse bags. The samples were analyzed for total metals and TCLP metals. The sampling results showed that the material was not characteristic hazardous waste.

To ensure the continued benefits of the completed IRM and associated cleanup actions, CCMA will provide long-term operation and maintenance of the CCMA portion of the SKW Property. This area includes the Department approved closed landfill cells, the Department identified area of concern and the Department approved IRM area. Operations and maintenance will include yearly site inspections, yearly storm water monitoring, yearly mowing, and quarterly groundwater monitoring. The site inspections will be conducted to insure proper site conditions such as adequate vegetative cover, no significant soil erosion, no tree growth in capped areas, proper flow of runoff, in-place and functioning culverts, no excess sediment accumulations, proper connection of final discharge to the storm sewer system, property free of litter and trash, and persons have not tampered with or passed through the property's boundary fence.

Routine maintenance work will include yearly mowing of both landfill cells and the surrounding CCMA property. Additional maintenance work will be completed as required by yearly inspections. Routine monitoring will include quarterly groundwater monitoring which is also required as part of the Department's landfill closure requirements. Four groundwater monitoring wells will be sampled each quarter. The wells are distributed across the entire SKW Property with one up gradient well, two wells in the central portion of the CCMA property, and one down gradient well (Attachment 11). A yearly storm water sample will be collected at the discharge to the storm sewer system. Both storm water and groundwater samples will be analyzed for chromium, hexavalent chromium and pH. Documentation of the long term operation and maintenance will be on file with CCMA. Yearly operation and maintenance reports will also be submitted to the Department.

14. BASIS FOR DELISTING

As detailed in this Petition, the SKW Property has undergone extensive investigations and remedial measures in which large portions of the SKW Property outside the Department-approved, engineered landfill cells were excavated, re-contoured, and, in the area of concern, capped with low permeability compacted clay. No K090 or K091 listed hazardous waste was found outside the landfill cells during the investigations and remedial measures. A small amount of characteristic hazardous waste was found outside the landfill cells during the completion of the remedial measures, and this waste was removed and disposed properly off-site. Confirmational waste removal soil sampling and analysis was completed. The analytic results indicated no characteristic hazardous waste remained on the SKW Property.

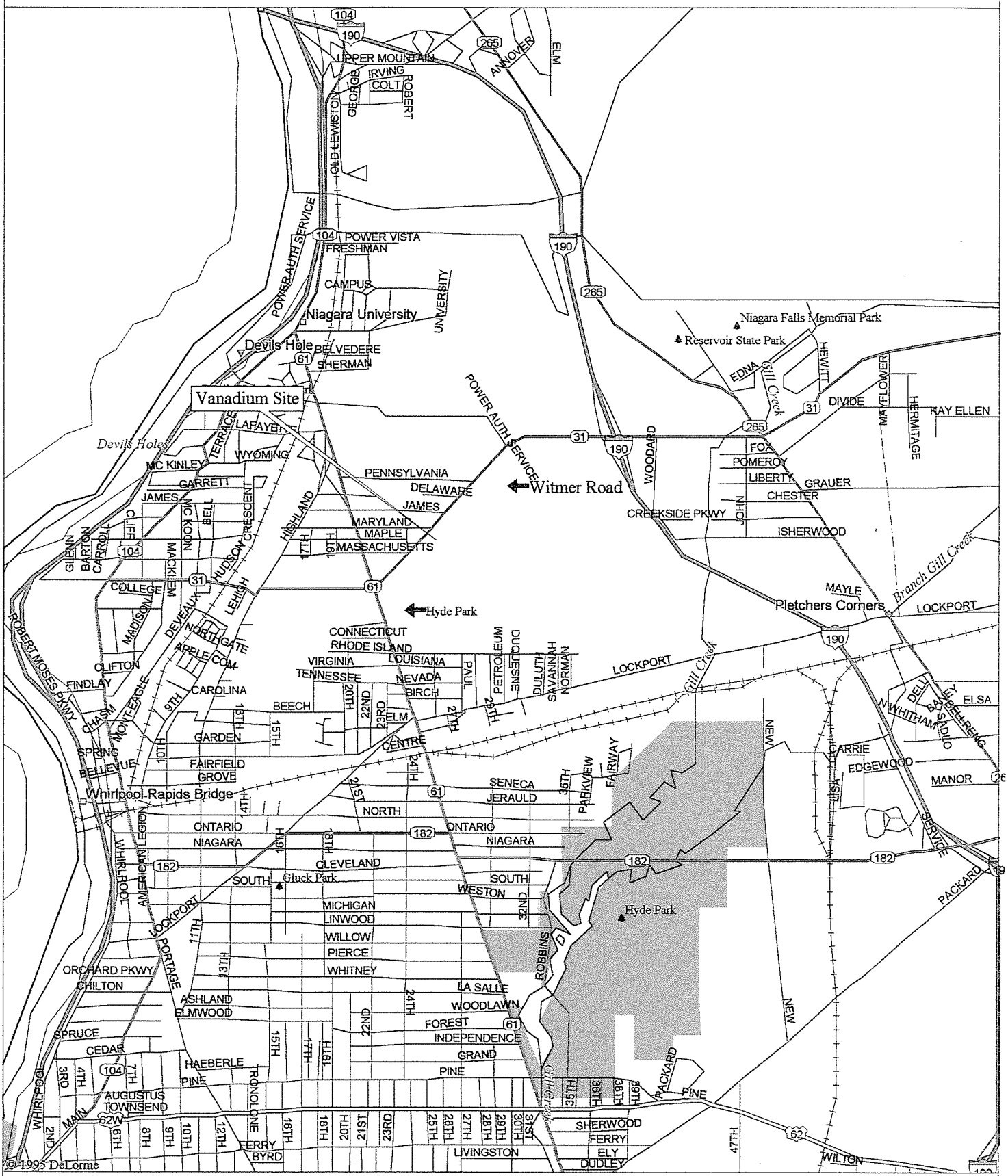
Based on the results of the extensive investigations and remedial measures completed, the SKW Property does not pose a significant threat to the public health or environment. Furthermore, the site screening investigations and Interim Remedial Measures, overseen and approved by the Department, have shown that an inconsequential amount of hazardous waste is present at the SKW Property and that the waste does not pose a significant threat to public health or the environment. Therefore, CCMA respectfully requests that the Department delist the SKW Property from the Registry.

ATTACHMENTS

Attachment 1

Vanadium Site Location Map

Vanadium Site Location Map



Mag 14.00
Wed Feb 21 11:20 2001

Scale 1:31,250 (at center)
2000 Feet
1000 Meters

Secondary SR, Road, Hwy Ramp
State Route

Attachment 2

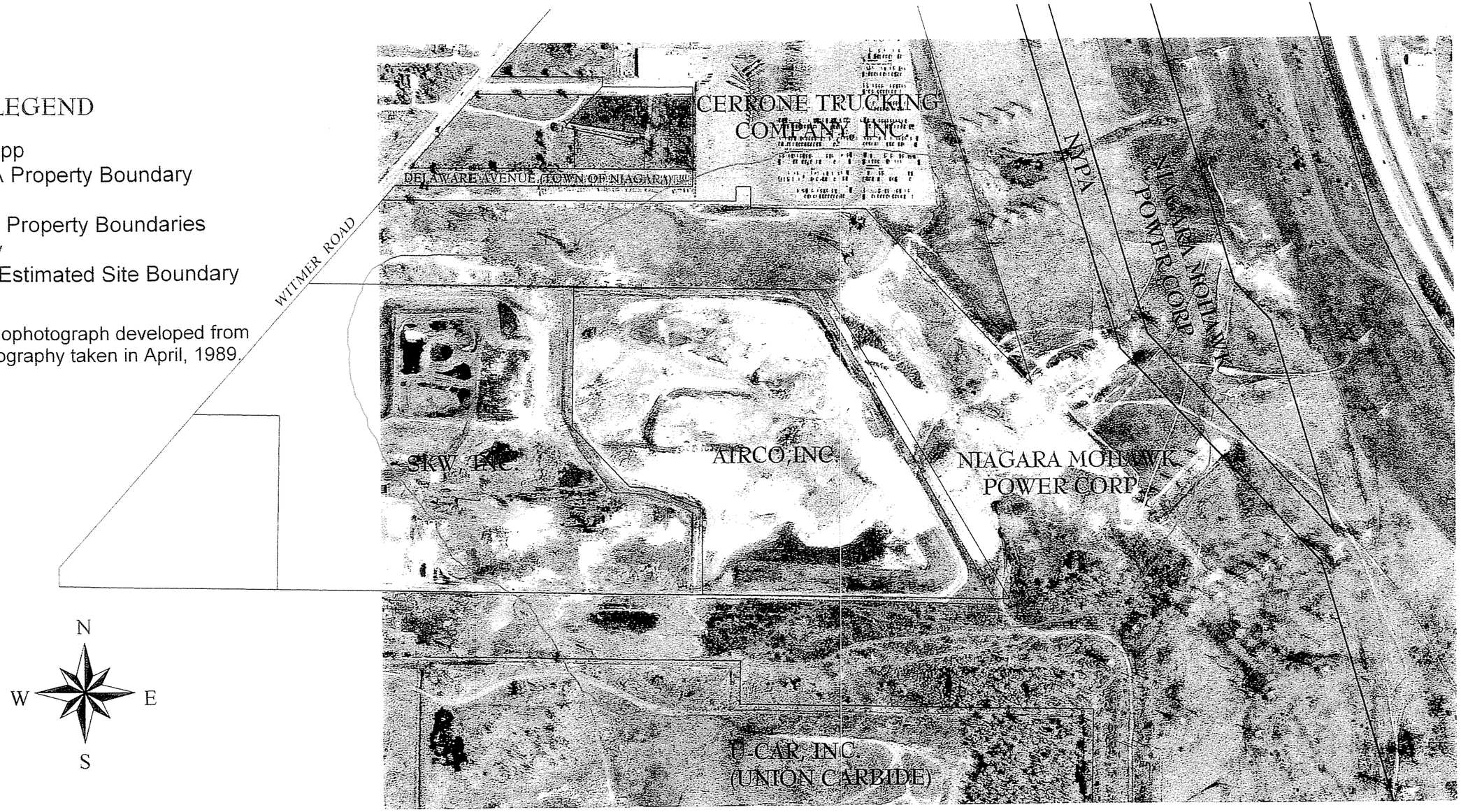
Vanadium Site Estimated Boundary Maps
And
Aerial Photos

NEW YORK POWER AUTHORITY
NIAGARA POWER PROJECT
LAND OWNERSHIP IN THE VICINITY OF THE VANADIUM SITE

LEGEND

Boundary.npp
NYPA Property Boundary
Skwtax.cov
Other Property Boundaries
Decsite.cov
DEC Estimated Site Boundary

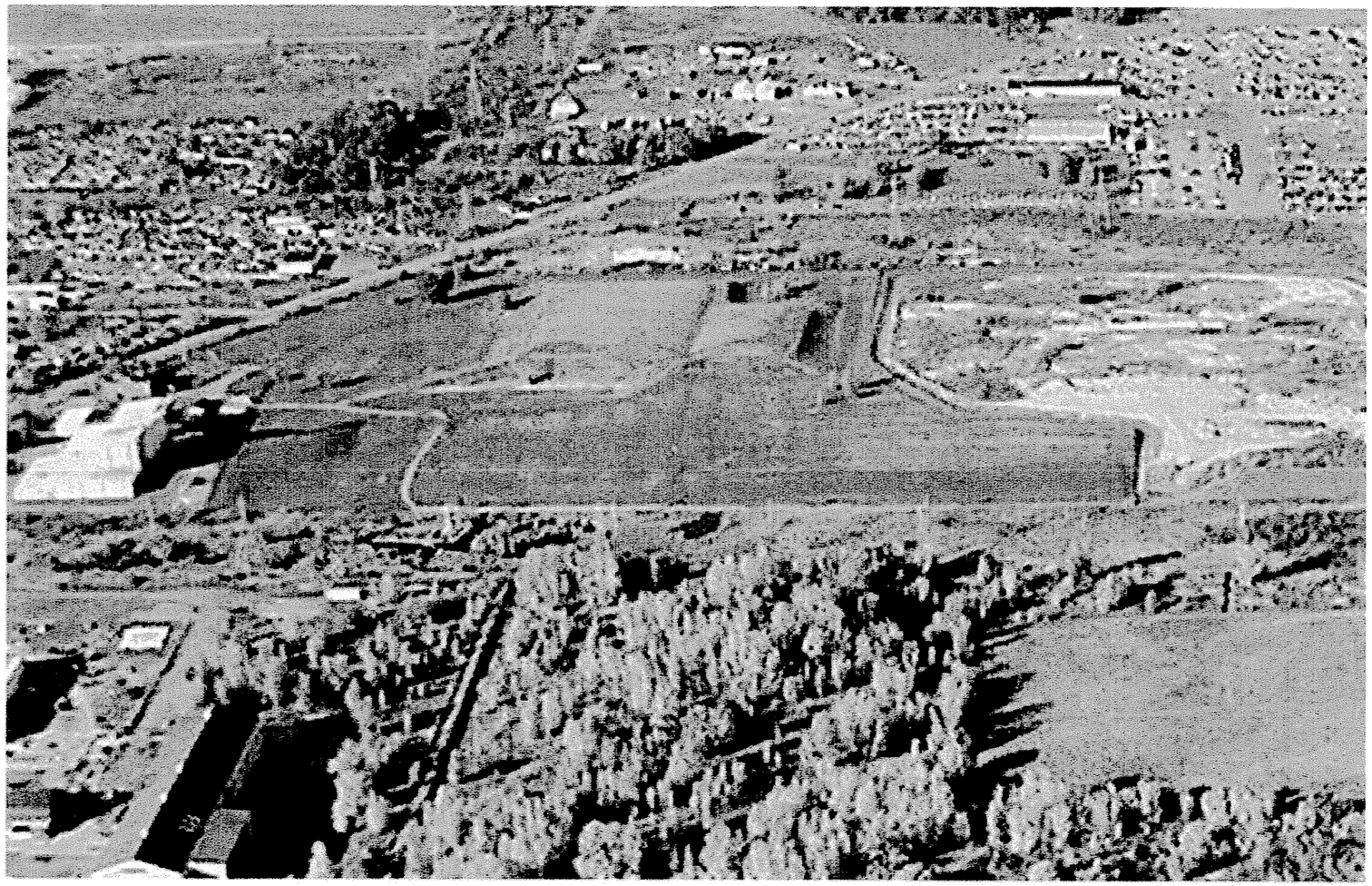
Digital Orthophotograph developed from aerial photography taken in April, 1989.



N
W E
S

200 0 200 400 Feet

November 1999
Oblique Aerial Photo
SKW and Surrounding Properties

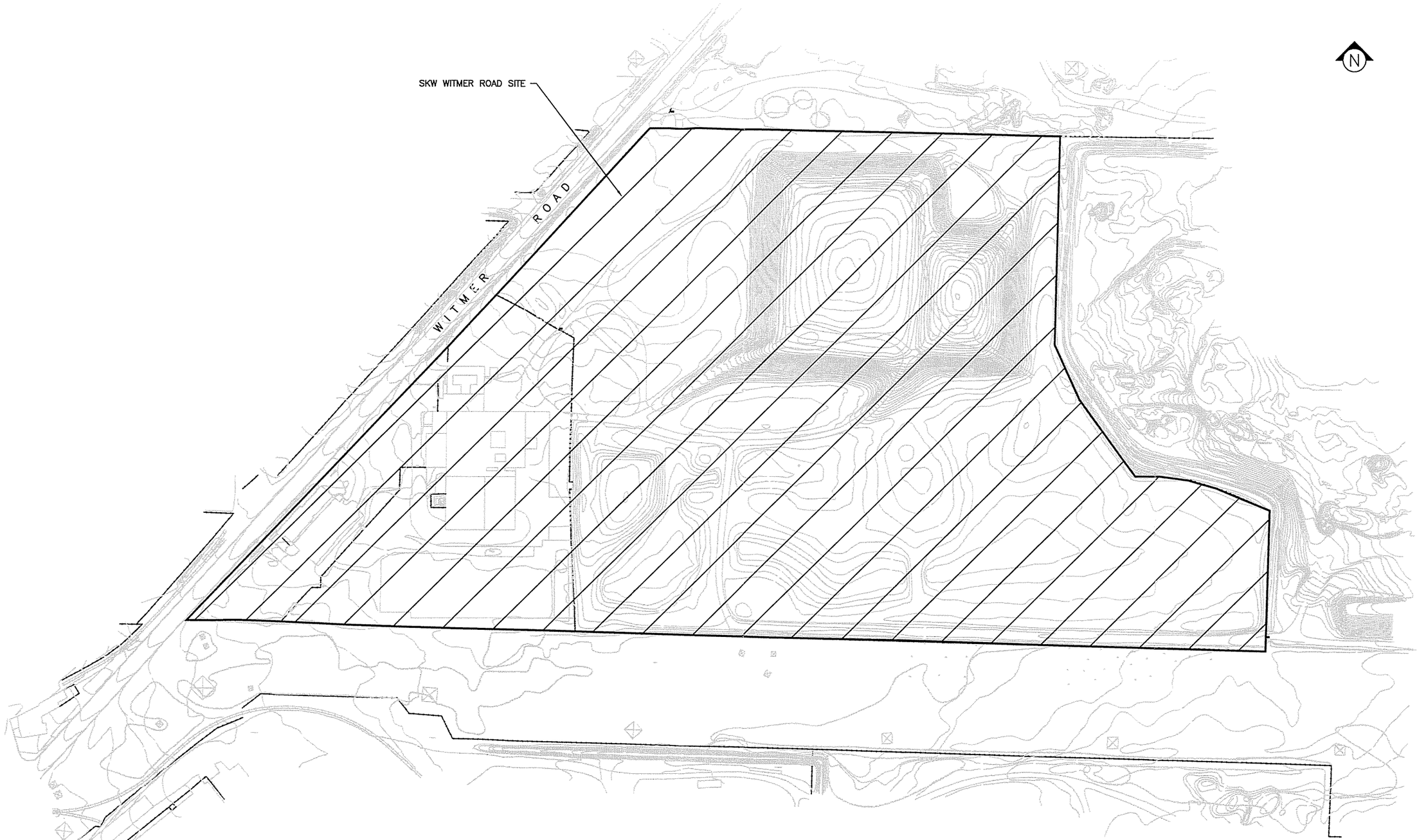


Notes: 1. Digital photo provided by NYSDEC
2. Not to scale

LAN Associates, Inc.
Job # 2.3269.23
February 22, 2001

Attachment 3

SKW Property Boundary Maps



SITE PLAN – PROPERTY LOCATION MAP

SCALE (FT): 100 0 50 100 200 300

SKW METALS & ALLOYS, INC – NIAGARA FALLS, NEW YORK

REVISION :

DATE : 02/15/99

CHECKED : HHH

DRAWN : T JONES

SCALE : PLOT 1:200

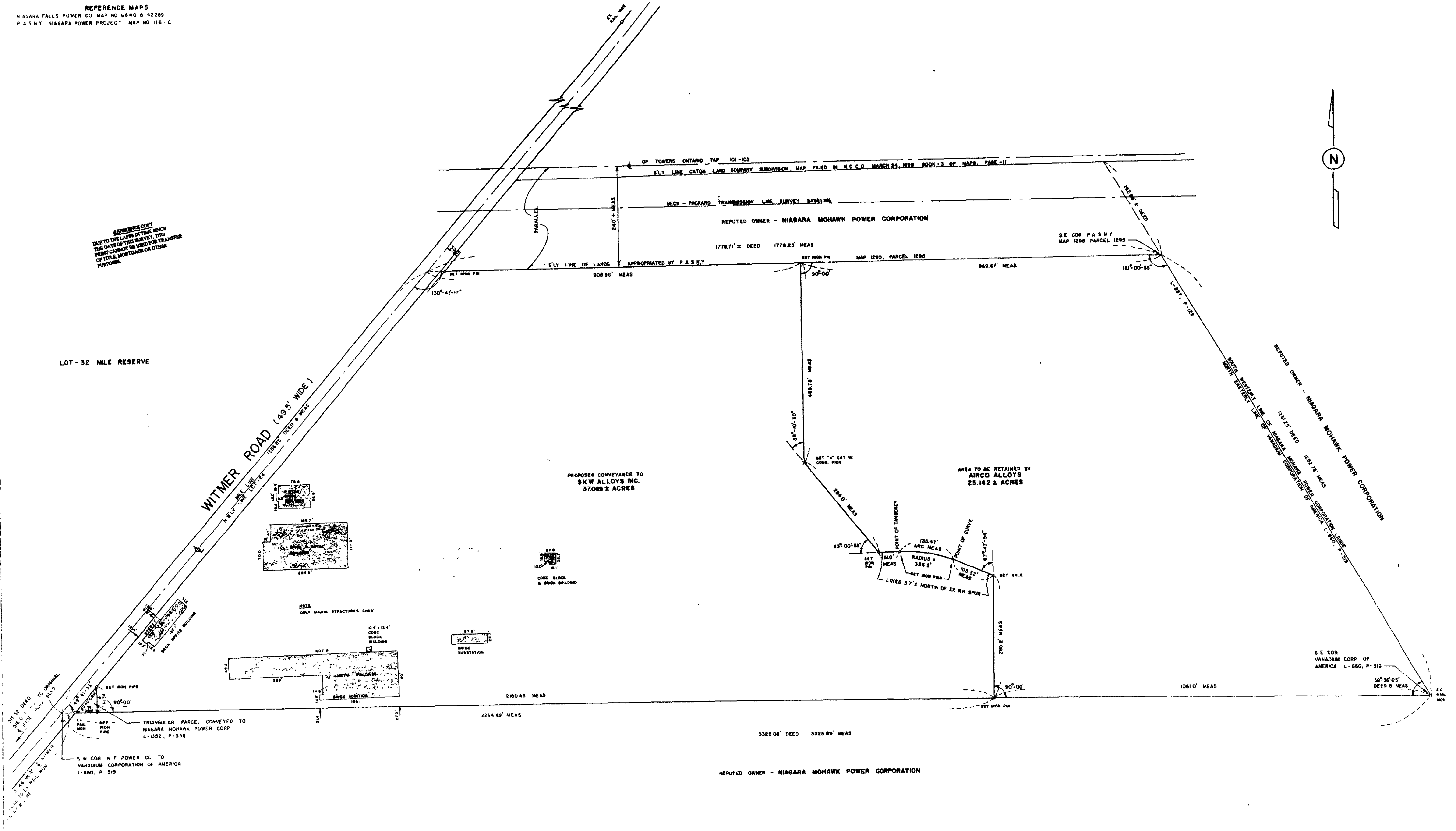
LAN ASSOCIATES, INC.
environmental and facilities engineering
662 GOFFLE ROAD, HAWTHORNE, NJ 07506-3499 (201) 423-0350

JOB NO. 2.3269.22

DWG. FILE CODE 326922021

FIGURE NO. 2-2

Sht. 1 of 1


REFERENCE MAPS
NIAGARA FALLS POWER CO MAP NO 6640 & 42289
P A S N Y NIAGARA POWER PROJECT MAP NO 116-C
LOT-32 MILE RESERVE
WITMER ROAD (49.5' WIDE)
N'LY LINE LOT 24
1386.83' DEED & MEAS
OF TOWERS ONTARIO TAP 101-102
S'LY LINE CATON LAND COMPANY SUBDIVISION MAP FILED IN N.C.C.O MARCH 24, 1899 BOOK-3 OF MAPS PAGE-11
BECK - PACKARD TRANSMISSION LINE SURVEY BASELINE
REPUTED OWNER - NIAGARA MOHAWK POWER CORPORATION
240'± MEAS
PARALLEL
1778.71' ± DEED 1778.23' MEAS
S'LY LINE OF LANDS APPROPRIATED BY P A S N Y
906.56' MEAS
MAP 1295, PARCEL 1296
669.67' MEAS
S.E COR P A S N Y MAP 1295 PARCEL 1296
121°-00'-35"
130°-41'-17"
90°-00'
L-887, P-122
SOUTH WESTERLY LINE OF NIAGARA MOHAWK POWER CORPORATION LANDS
NORTH EASTERLY LINE OF VANADIUM CORPORATION OF AMERICA L-660, P-319
1251.25' DEED 1252.75' MEAS
REPUTED OWNER - NIAGARA MOHAWK POWER CORPORATION
483.75' MEAS
38°-10'-30"
SET "X" CUT IN CONC. PIER
PROPOSED CONVEYANCE TO
SKW ALLOYS INC.
37.069 ± ACRES
AREA TO BE RETAINED BY
AIRCO ALLOYS
25.142 ± ACRES
63°-00'-55"
POINT OF TANGENCY
135.47' ARC MEAS
RADIUS = 326.5'
POINT OF CURVE
87°-47'-54"
105.52' MEAS
SET IRON PIN
SET AXLE
LINES 57'± NORTH OF EX RR SPUR
280.2' MEAS
CONC BLOCK & BRICK BUILDING
NOTE
ONLY MAJOR STRUCTURES SHOWN
10.4' x 13.4' CONC BLOCK BUILDING
BRICK SUBSTATION
407.9
BRICK ADDITION
BRICK OFFICE BUILDING
SET IRON PIPE
90°-00'
2180.43 MEAS
2264.89' MEAS
3325.08' DEED 3325.89' MEAS
1061.0' MEAS
S.E COR VANADIUM CORP OF AMERICA L-660, P-319
59°-36'-25" DEED & MEAS
EX RAIL MON
TRIANGULAR PARCEL CONVEYED TO NIAGARA MOHAWK POWER CORP L-1352, P-358
S.W COR N F POWER CO TO VANADIUM CORPORATION OF AMERICA L-660, P-319
REPUTED OWNER - NIAGARA MOHAWK POWER CORPORATION
516.52' DEED TO ORIGINAL

DATE	REVISIONS
	MEASURED DISTANCES (516.0' & 32.46') & CERTIFICATION ADDED

WE HEREBY CERTIFY TO THE TITLE GUARANTEE COMPANY (A NEW YORK CORPORATION), PIONEER NATIONAL TITLE INSURANCE COMPANY (A CALIFORNIA CORPORATION) & SKW ALLOYS INC THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH CURRENT STANDARDS ADOPTED BY THE NIAGARA FRONTIER LAND SURVEYORS ASSOCIATION

JULY 5, 1979

Ivan R Klettke

IVAN R. KLETTKE
LICENSED LAND SURVEYOR
(SUCCESSOR TO ALEX P. KLETTKE - L.S.)
2470 STOELTING ST (BERGHOLZ), NIAGARA FALLS, NEW YORK 14304 (716) 731-5613

SURVEY OF PART OF LOT-24, TWP-13, R-9 HOLLAND LAND COMPANYS SURVEY	
LOCATION	TOWN OF NIAGARA, NIAGARA COUNTY, NEW YORK
DATE	JUNE 11, 1979 (REVISED JUNE 20, 1979)
SCALE 1"-100'	OWNER: AIR REDUCTION CO. INC. L-1422, P-747
JOB NO 2867-679	SURVEY REQUESTED BY OWNERS

Attachment 4

Declaration of Covenants and Restrictions

DECLARATION OF COVENANTS AND RESTRICTIONS

This Declaration of Covenants and Restrictions is made this 28th day of July, 1998, by SKW Metals and Alloys, Inc., a Delaware corporation having an office at 300 Corporate Parkway, Amherst, New York ("SKW").

RECITALS

017927

WHEREAS, SKW has entered into an Order on Consent (the "Order") with the New York State Department of Environmental Conservation ("DEC"), Index No. B9-0470-94-12, covering certain premises in the Town of Niagara, Niagara County, State of New York, which is more particularly described in Schedule A attached hereto (the "Site"); and

WHEREAS, SKW is the owner of the Site;

WHEREAS, a copy of the Order is attached hereto as Schedule B; and

WHEREAS, Paragraph X.A. of the Order provides that within thirty (30) days after the effective date of the Order, SKW shall file a Declaration of Covenants and Restrictions with the Niagara County Clerk's Office for the purposes of providing notice (i) of the Order to all potential future purchasers of any portion or all of the Site, and

(ii) that any successor in title to any portion or all of the Site shall be responsible for implementing the provisions of the Order.

NOW, THEREFORE, SKW makes the following Declaration of Covenants and Restrictions:

1. The Site described in Schedule A and all portions thereof, are subject to the provisions set forth in the Order, and any successor in title to any portion or all of the Site is hereby notified that they shall be responsible for implementing the provisions of the Order.

2. This Declaration of Covenants and Restrictions may be amended by a written instrument jointly signed by (i) SKW and its successors and assigns and (ii) the DEC.

3. The provisions of this Declaration of Covenants and Restrictions touch and concern and run with the lands described in Schedule A.

4. Upon satisfaction of all of the obligations imposed under the Order, this Declaration of Covenants and Restrictions shall automatically terminate. The Order and the obligations imposed under it may be terminated earlier by agreement between SKW and the DEC. Notwithstanding the foregoing, SKW or any successor in title to any portion or all of

the Site shall be entitled to file of record a notice confirming the termination of the Order and/or obligations imposed by it.

IN WITNESS WHEREOF, SKW has made this Declaration as of the day and year first above written.

SKW METALS AND ALLOYS, INC.

By: Edward S. Bredniak
Edward S. Bredniak

COMMONWEALTH OF KENTUCKY)
: SS.
COUNTY OF MARSHALL)

On this 28 day of July, 1998, before me personally came Edward S BREDNIAK, to me personally known, who, being by me duly sworn, did depose and say that he resides at 130 Rosemont in the City of PADUCAH; Commonwealth of Kentucky; that he is the President of SKW Metals and Alloys, Inc., the corporation described in and which executed the foregoing instrument and that he is authorized to execute this document on behalf of the corporation.

Darlene Latta
Notary Public

DARLENE LATTA
NOTARY PUBLIC
STATE OF KENTUCKY
COMM. EXP. 1/27/2000

BL:66092_1 (1EZW_1)

SCHEDULE A

That Tract or Parcel of Land situate in the Town of Niagara, County of Niagara and State of New York, being part of Lot 24, Township 13, Range 9 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at a point in the center line of the Witmer Road at the southwest corner of lands conveyed by the Niagara Falls Power Company to the Vanadium Corporation of America by deed recorded in the Niagara County Clerk's Office in Liber 660 at Page 319.

Running thence easterly along the southerly line of lands so conveyed, a distance of 2264.89' to a point.

Running thence northerly at right angles to the last previous course, a distance of 295.2' to a point.

Running thence northwesterly on a line deflecting to the left 67° 47' 54" from the last previous course, a distance of 105.52' to the point of curve.

Running thence northwesterly and westerly on a curve to the left, said curve having a radius of 326.5', an arc distance of 135.47' to the point of tangency.

Running thence westerly along said line of tangency, a distance of 51.0' to a point.

(The last 3 herein described courses being 5.7'± northerly from the center line of an existing railroad spur.)

Running thence northwesterly, on a line deflecting to the right 53° 00' 55" from the last course, a distance of 284.0' to a point.

Running thence northerly, on a line deflecting to the right 38° 10' 30" from the last previous course, a distance of 483.75' to a point on the southerly line of lands appropriated by the Power Authority of the State of New York as shown on Power Authority of the State of New York Map No. 1295, Parcel 1295.

Running thence westerly at right angles to the last previous course and along the southerly line of lands appropriated by the Power Authority of the State of New York as aforesaid, a distance of 906.56' to the center line of the Witmer Road.

Running thence southwesterly, along the center line of the Witmer Road, said center line being also the Mile Line, a distance of 1386.83' to the point of beginning.

Excepting and reserving a triangular parcel of land in the southwest corner of the above described parcel conveyed to the Niagara Mohawk Power Corporation by deed recorded in Liber 1352 at Page 358, August 31, 1960 described as follows:

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Niagara, County of Niagara and State of New York, being part of Lot 24, Township 13, Range 9 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at the point of intersection of the easterly line of Witmer Road and the southerly line of lands conveyed to Niagara Falls Power Company by deed dated March 22, 1940 recorded in Niagara County Clerk's Office in Liber 660 of Deeds page 319; thence northerly along the easterly line of Witmer Road 80.40 feet to a point; thence southerly along a line which is at right angles to the southerly line of lands conveyed as aforesaid 61.32 feet to a point; thence westerly along said southerly line 52 feet to the point of beginning;

ALSO EXCEPTING therefrom the premises described as follows:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Niagara, County of Niagara and State of New York, being part of Lot No. 24, Township 13, Range 9 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at a point in the center line of Witmer Road at the southwest corner of land conveyed to Vanadium Corporation of America by deed recorded in liber 660 of Deeds at page 319; thence easterly along the south line of land so conveyed a distance of 836.5 feet; thence northerly at a right angle a distance of 598 feet; thence westerly at a right angle a distance of 329.24 feet to the center line of Witmer Road; thence southwesterly along the center line of Witmer Road, said center line being also the Mile Line, a distance of 784.17 feet to the point of beginning.

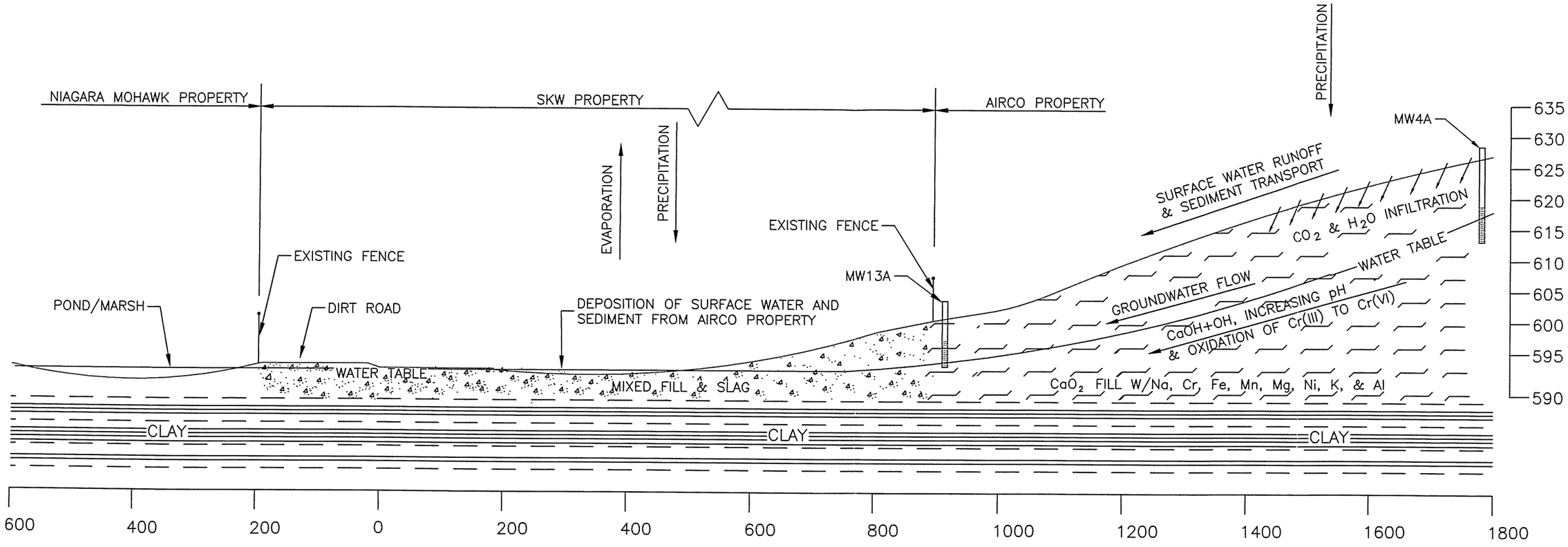
EXCEPTING therefrom a triangular parcel of land in the southwest corner conveyed to Niagara Mohawk Power Corporation by deed recorded in liber 1352 of Deeds at page 358, bounded and described as follows:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Niagara, County of Niagara and State of New York, being part of Lot No. 24, Township 13, Range 9 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at the point of intersection of the southeast line of Witmer Road with the south line of land conveyed to Vanadium Corporation of America by deed recorded in liber 660 of Deeds at page 319; thence northeasterly along the southeast line of Witmer Road a distance of 80.40 feet; thence southerly on a line which is at right angles to the south line of land conveyed as aforesaid a distance of 61.32 feet; thence westerly along said south line a distance of 52 feet to the point of beginning.

Attachment 5

Conceptual Surfacewater Flow Diagram



SURFACE WATER FLOW FROM AIRCO TO SKW PROPERTY PRIOR TO AIRCO'S CONTRUCTION OF WESTERN DRAINAGE DITCH

SCALE – NONE

SKW METALS & ALLOYS, INC., NIAGARA FALLS, – WITMER ROAD

REVISION :

DATE : 03/05/97

CHECKED : HHH

DRAWN : T JONES

SCALE : PLOT 1:200

LAN ASSOCIATES INC
environmental and facilities engineering
662 GOFFLE ROAD, HAWTHORNE, NJ 07506-3499 (201) 423-0350

JOB NO. 2.3269.6

DWG. FILE CODE 32696S24

FIGURE NO. 2–3

Attachment 6

Supporting Data for K090/K091 Evaluation

SITE PLAN – PHASE I TEST PIT LOCATION MAP

SCALE (FT): 100 0 50 100 200 300

SKW METALS & ALLOYS, INC – NIAGARA FALLS, NEW YORK

NOTES:
1) DRAWING BASED ON LOCKWOOD MAPPING, INC. TOPOGRAPHIC SERIES 6781S1 THRU 6781S11
2) SITE GRID POINTS DIVIDED INTO TWO AREAS.
3) SITE GRID POINTS NUMBERED FROM 001 THRU 291.
4) SUB–AREA "A" POINTS NUMBERED FROM A001 THRU A099.
5) GRID POINTS SET ON 50' C/C GRID, TYPICAL BOTH AREAS.
6) SAMPLE LOCATIONS NUMBERS REFER TO STAKE LAYOUT (FILE CODE 3269638)

REVISION :

DATE : 02/08/99
CHECKED : HH
DRAWN : T JONES
SCALE : PLOT 1"=150'

LAN ASSOCIATES, INC
environmental and facilities engineering
66 CUNA STREET, ST. AUGUSTINE, FL 32084-3619 (904)824-6999

JOB NO. 2.3269.22
DWG. FILE CODE 326922014
FIGURE NO. 2–1
Sht. 1 of 1

Summary of Sample Locations and Analysis
SKW Metals and Alloys, Inc.
Niagara Falls, New York

Sample Location	Date Sampled	Parameters Sampled for
Test Pit A071	4/28/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
Test Pit A031	4/28/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
Test Pit A055	4/28/98	Total Cr/Total Cr^{+6}
Test Pit A082	4/28/98	Total Cr/Total Cr^{+6}
Test Pit A012	4/28/98	Total Cr/Total Cr^{+6}
Test Pit A064	4/28/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
Test Pit A048	4/28/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
A048 Soil Pile A	4/28/98	VOC's/Petroleum
A048 Soil Pile B	4/28/98	Semi VOC's
Test Pit A049	4/29/98	Total Cr/Total Cr^{+6}
Test Pit 033	4/29/98	Total Cr/Total Cr^{+6}
Test Pit 114	4/29/98	Total Cr/Total Cr^{+6}
Test Pit 270	4/29/98	Total Cr/Total Cr^{+6}
Test Pit 092	4/29/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
Test Pit 155	4/30/98	Total Cr/Total Cr^{+6}
Test Pit 181	4/30/98	Total Cr/Total Cr^{+6}
Test Pit 154 A&B	4/30/98	VOC's/Semi-VOC's/ Petroleum
Test Pit 266 A&B	4/30/98	VOC's/Semi-VOC's/ Petroleum
Test Pit 281 B&C	5/1/98	VOC's/Semi-VOC's
Test Pit 281 E&F	5/1/98	VOC's/Semi-VOC's
Test Pit 265 A	5/1/98	VOC's/Semi-VOC's
Test Pit 267 A	5/1/98	VOC's/Semi-VOC's
Test Pit 251 A&B	5/1/98	VOC's/Semi-VOC's
Test Pit 281 A	5/1/98	PCB's
Test Pit 281 D	5/1/98	PCB's
Test Pit 265 B	5/1/98	PCB's
Test Pit 267 B	5/1/98	PCB's
Test Pit 251 C	5/1/98	PCB's
Drum 1	7/24/98	Total Metals and TCLP Metals
Drum 2	7/24/98	Total Metals and TCLP Metals
Bag 1	7/29/98	Total Cr & Lead and TCLP Metals
Bag 2	7/29/98	Total Cr & Lead and TCLP Metals
Bag 3	7/29/98	Total Cr & Lead and TCLP Metals
LS-1	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-2	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-3	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-4	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-5	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-6	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-7	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-8	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-9	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-10	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-11	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-12	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
Test Pit #1 (1-3')	9/25/98	Total Metals
Test Pit #1 (3-3.5')	9/25/98	Total Metals
Test Pit #1 (4-4.5')	9/25/98	Total Metals
Test Pit #2 (1-3')	9/25/98	Total Metals
Test Pit #2 (3-5')	9/25/98	Total Metals
Test Pit #3 (1-2.5')	9/25/98	Total Metals
Test Pit #3 (2.5-2.7')	9/25/98	Total Metals
Test Pit #3 (2.7-4.5')	9/25/98	Total Metals
Test Pit #4 (0-16")	9/25/98	Total Metals
Test Pit #4 (16-48")	9/25/98	Total Metals
Test Pit #4 (48-60")	9/25/98	Total Metals
Test Pit #5 (1-3')	9/26/98	Total Metals and TCLP Arsenic
Test Pit #5 (3-5')	9/26/98	Total Metals
Test Pit #5 (5-7')	9/26/98	Total Metals
Test Pit #6 (1-3')	9/26/98	Total Metals
Test Pit #6 (3-5')	9/26/98	Total Metals
Test Pit #7 (1-2')	9/26/98	Total Metals
Test Pit #7 (32-60")	9/26/98	Total Metals
Test Pit #8 (1-2')	9/26/98	Total Metals
Test Pit #8 (24-41")	9/26/98	Total Metals
Test Pit #9 (12-27")	9/26/98	Total Metals
Test Pit #9 (27-51")	9/26/98	Total Metals
Test Pit #9 (54-72")	9/26/98	Total Metals
Test Pit #10 (12-27")	9/26/98	Total Metals
Test Pit #10 (27-51")	9/26/98	Total Metals
Test Pit #11 (12-36")	9/26/98	Total Metals
Test Pit #11 (36-60")	9/26/98	Total Metals
Test Pit #12 (12-31")	9/26/98	Total Metals
Test Pit #12 (3-5')	9/26/98	Total Metals
Test Pit #13 (0-12")	9/26/98	Total Metals
Test Pit #13 (12-36")	9/26/98	Total Metals and TCLP Lead
Test Pit #14 (1-3')	9/26/98	Total Metals
Test Pit #14 (3-5')	9/26/98	Total Metals
Test Pit #15 (0-1')	9/26/98	Total Metals
Test Pit #15 (1-3')	9/26/98	Total Metals
Test Pit #16 (0-28")	9/26/98	Total Metals
Test Pit #16 (28-40")	9/26/98	Total Metals
Test Pit #16 (40-60")	9/26/98	Total Metals
Test Pit #17 (1-3')	9/28/98	Total Metals and TCLP Arsenic
Test Pit #17 (3-5')	9/28/98	Total Metals
Test Pit #18 (27-32")	9/28/98	Total Metals and TCLP Cr
Test Pit #18 (32-41")	9/28/98	Total Metals
Test Pit #18 (41-65")	9/28/98	Total Metals and TCLP Lead
Test Pit #19 (24-30")	9/28/98	Total Metals
Test Pit #19 (30-38")	9/28/98	Total Metals and TCLP Lead
Test Pit #19 (38-62")	9/28/98	Total Metals
Test Pit #20 (0-6")	9/28/98	Total Metals
Test Pit #20 (6-72")	9/28/98	Total Metals and TCLP Arsenic
Test Pit #20 (72-96")	9/28/98	Total Metals and TCLP Cr
Test Pit #21 (0-6")	9/28/98	Total Metals
Test Pit #21 (6-52")	9/28/98	Total Metals
Test Pit #21 (52-76")	9/28/98	Total Metals
Test Pit #22 (12-36")	9/28/98	Total Metals
Test Pit #22 (37-62")	9/28/98	Total Metals
Test Pit #23 (12-35")	9/28/98	Total Metals
Test Pit #23 (36-60")	9/28/98	Total Metals
Test Pit #24 (12-36")	9/28/98	Total Metals
Test Pit #24 (36-60")	9/28/98	Total Metals and TCLP Cr
Test Pit #25 (12-36")	9/28/98	Total Metals
Test Pit #25 (36-60")	9/28/98	Total Metals
Petroleum Soil 1	10/5/98	TCLP Benzene & Flashpoint
Petroleum Soil 2	10/5/98	TCLP Benzene & Flashpoint
Wash Pad	10/24/98	Total Metals and TCLP Metals

Table 2-2
Phase I Test Pit Results
SKW Metals & Alloys, Inc.
Witmer Road Site

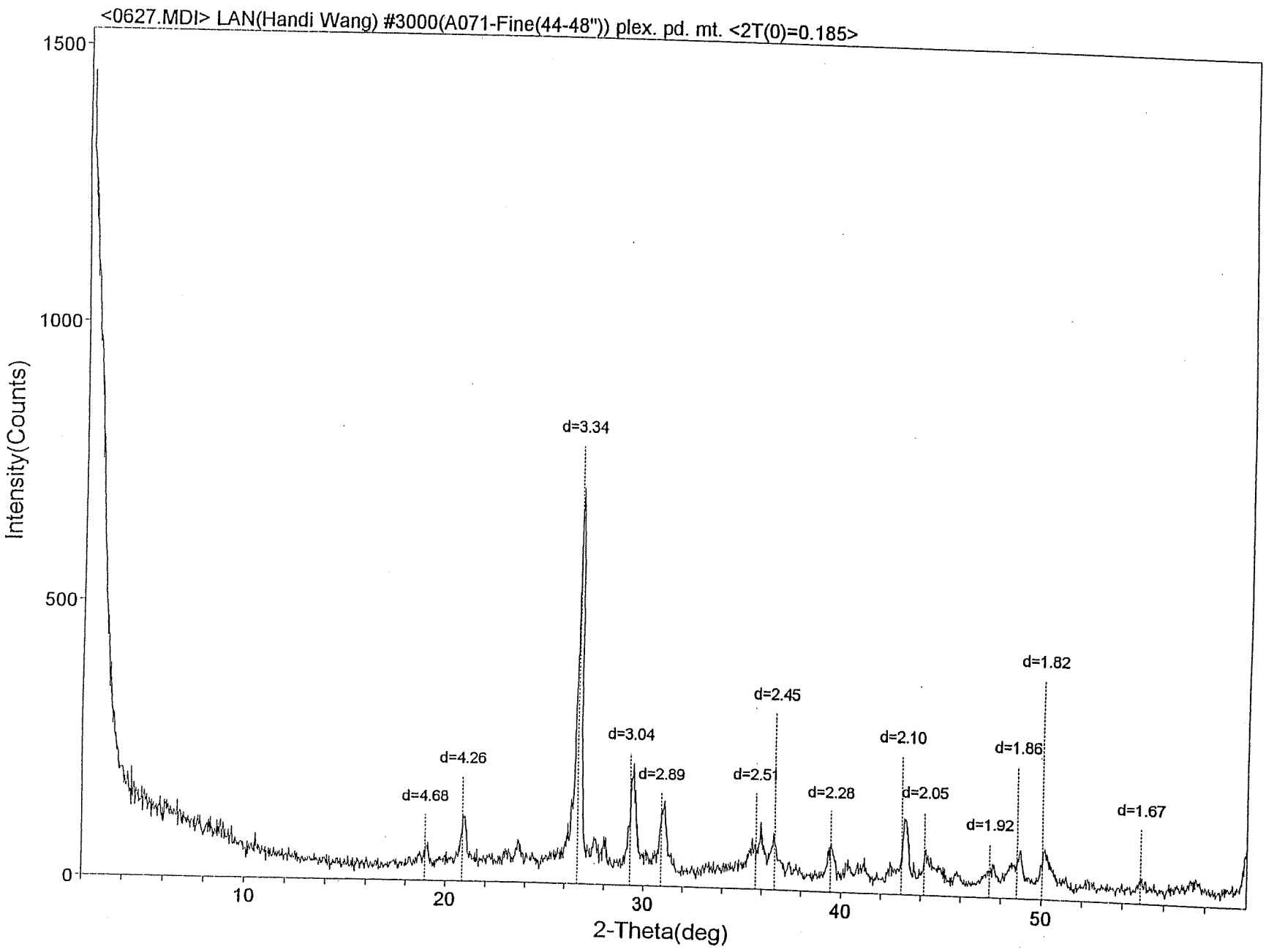
Sample Location	Sample Depth	Date Sampled	Chromium	Total Hexavalent Cr	Total Volatiles (8021)	Total Semi-Volatiles (8270)	Petroleum Products	PCB's	Comments
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
A071	44-46"	4/28/98	1740	0.51					
A031	4-6"	4/28/98	9570	0.68					
A055		4/28/98	1800	0.48					
A082	24-30"	4/28/98	1070	120.00					
A012	12-14"	4/28/98	741	ND					
A064	12-17"	4/28/98	1230	ND					
A048	28-30"	4/28/98	1310	ND					
A049	12-24"	4/29/98	97	ND					
033	8-12"	4/29/98	147	ND					
033	36"	4/29/98	164	ND					
114	16-21"	4/29/98	823	ND					
270	36-48"	4/29/98	14	0.60					
092	20"	4/29/98	2160	81.00					
155	12-16"	4/30/98	7	ND					
181	9'	4/30/98	6.9	ND					
Field Equipment Blank		4/28/98	ND						
Field Equipment Blank		4/29/98	ND						
154 A&B	30"	4/30/98			ND	ND	ND		
266 A&B	20"	4/30/98			9.627	ND	ND		
281 B&C	6-16"	5/1/98			13.135	ND	-		
281 E&F	21"	5/1/98			1.040	1.56	-		
265 A	16"	5/1/98			ND	ND	-		
267 A	6"	5/1/98			3.064	ND	-		
251 A&B	24"	5/1/98			0.362	ND	-		
A048	Soil Pile A	4/28/98			1626.000	-	13		
A048	Soil Pile B	4/28/98			-	33.5	-		
281 A	6-16"	5/1/98						ND	
281 D	21"	5/1/98						ND	
265 B	16"	5/1/98						ND	
267 B	16"	5/1/98						ND	
251 C	24"	5/1/98						ND	

LAN Associates, Inc.
Ref. #2.3269.6
Soil Samples
May 6, 1998

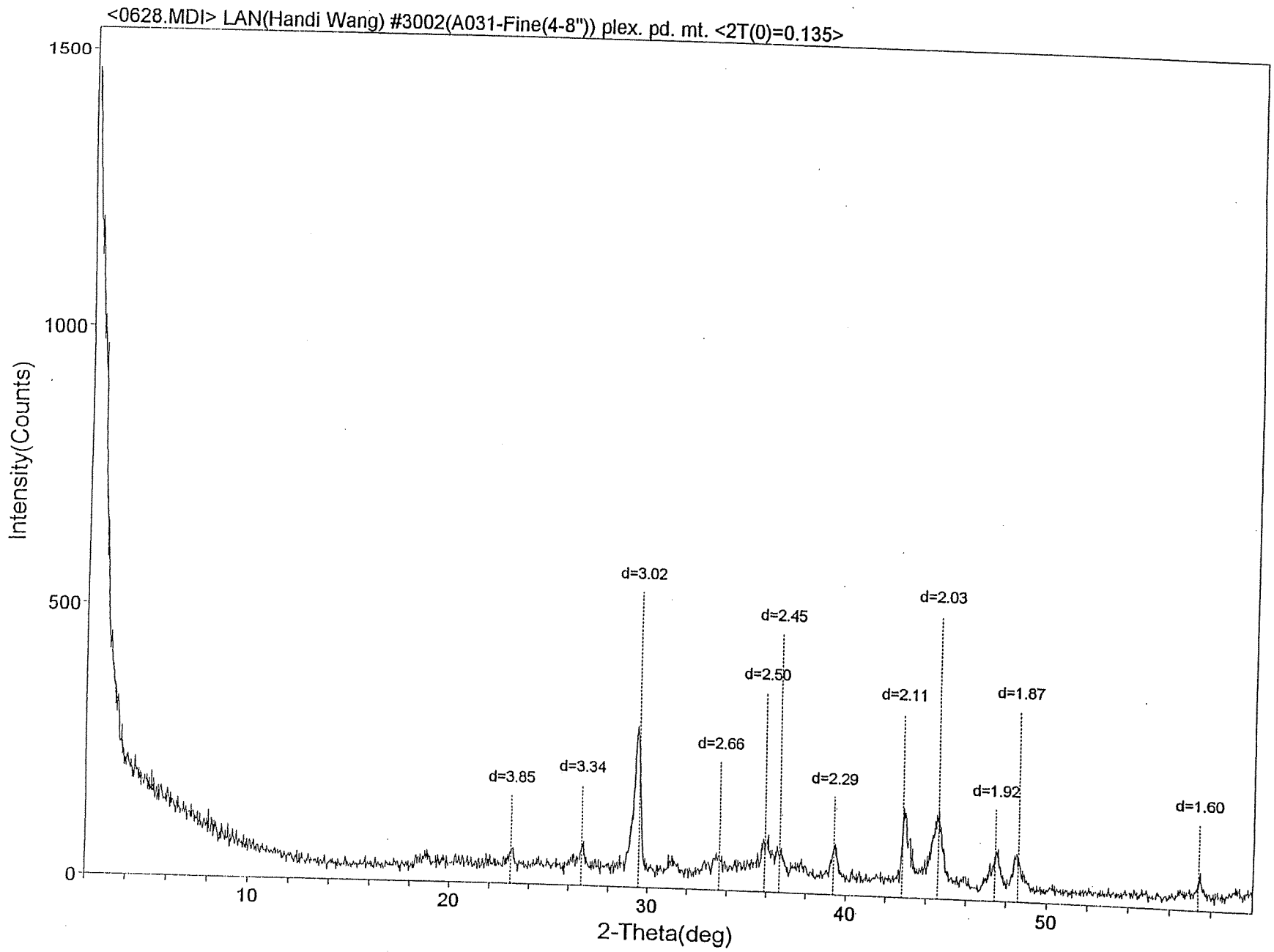
Table 2-3

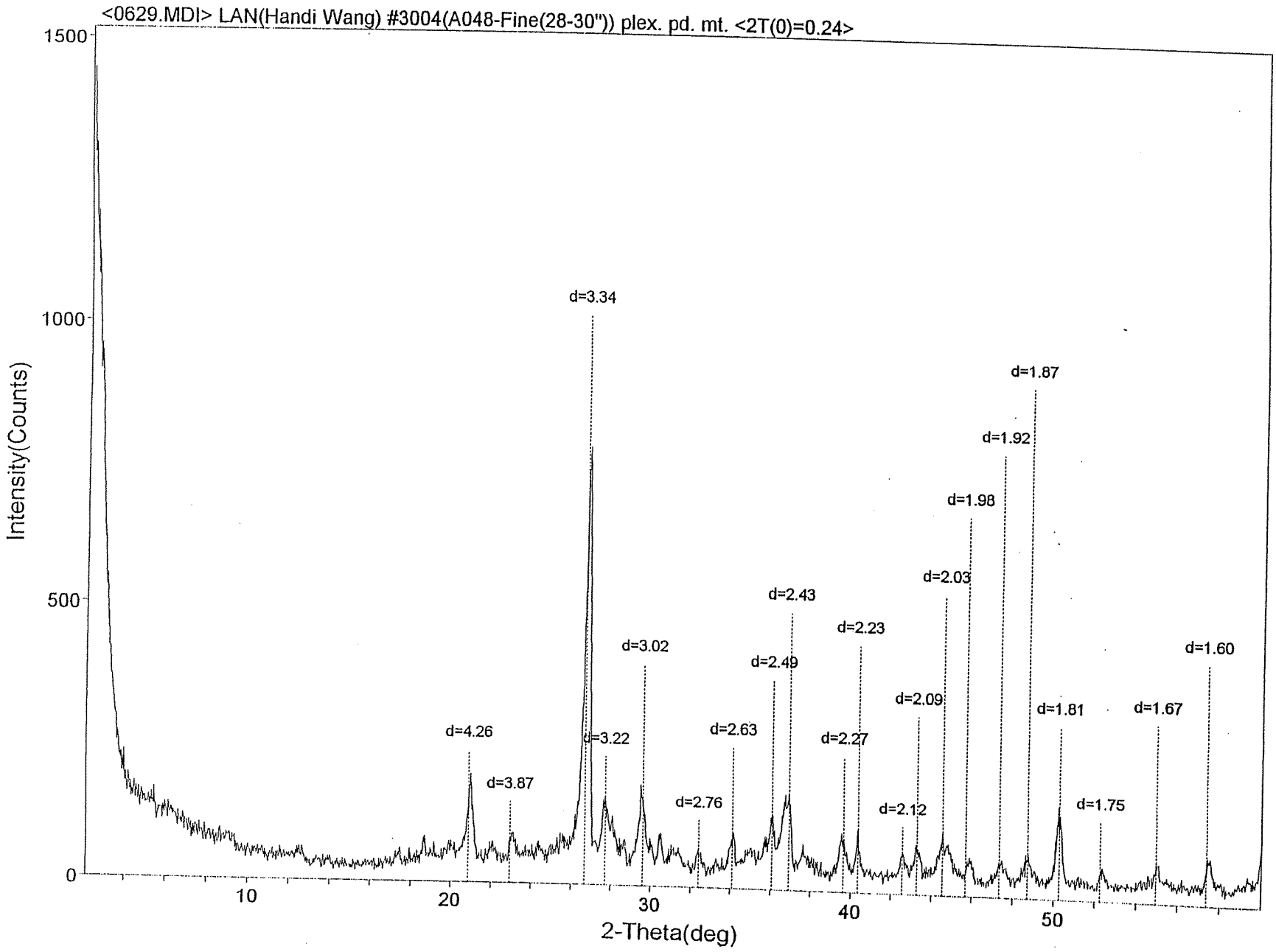
Particle Size Analysis
Selective Witmer Road Landfill Samples, after Na-Acetate Pretreatment
27-May-98

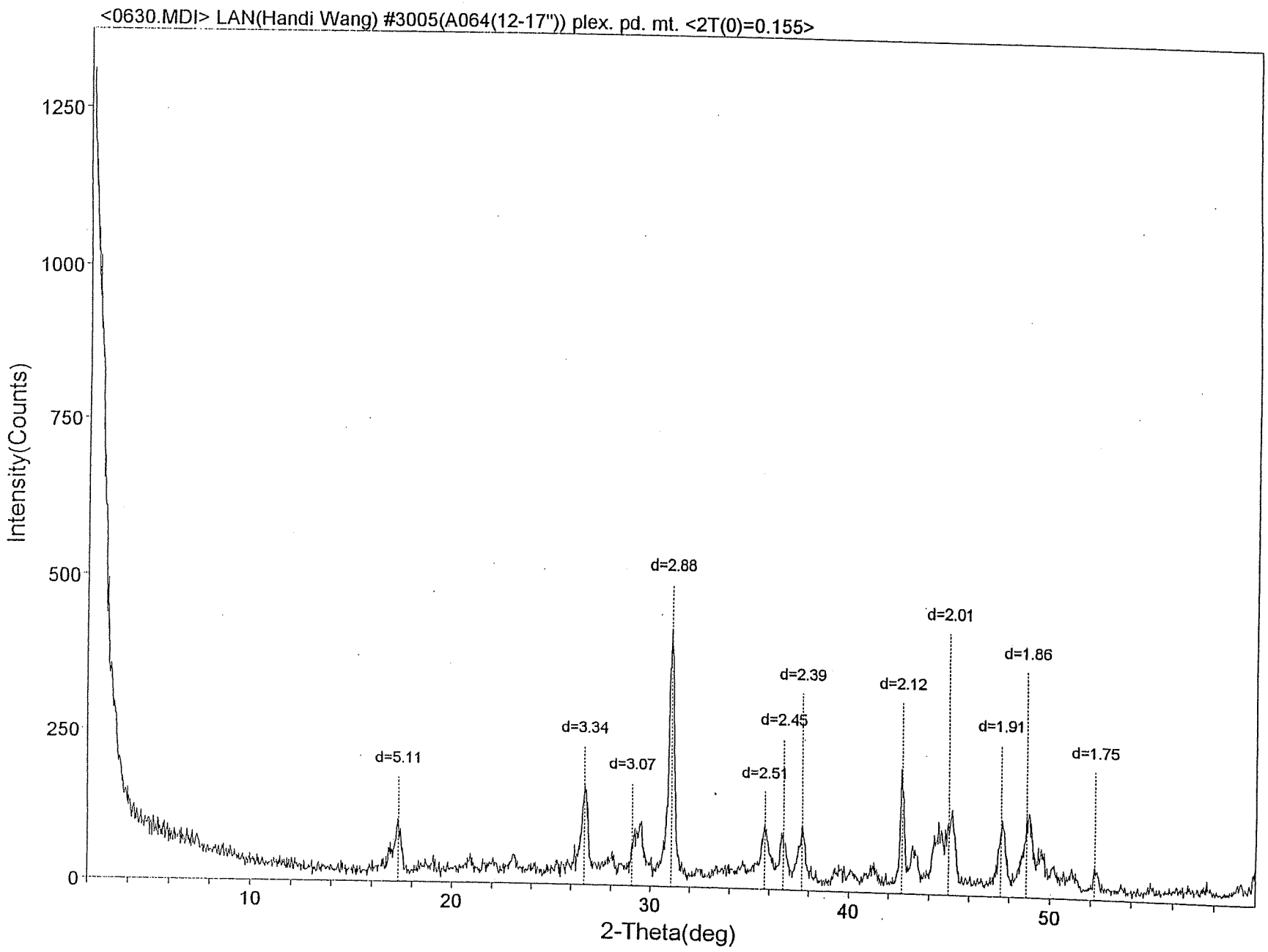
Sample ID	Particles									Comments
	>4 mm	>2mm	>1 mm	>0.5MM	>0.25 mm	>0.1 mm	>0.05 MM	<0.05 MM	Sum	
	gram									
A031	8 29.4	5.94 21.8	4.17 15.3	2.34 6.7	1.82 8.6	2 7.3	1.45 5.3	1.51 5.5	27.23 %	Dark color, pebbles are friable. Possibly ferrochrome Slag
A071	14.56 52.6	3.11 11.2	2.73 9.9	1.89 6.4	1.77 6.8	2.03 7.3	1.03 3.7	0.54 2.0	27.66 %	Yellowish gray fine material, pebbles are gray color with holes, possibly slag material.
A064	18.95 65.2	3.7 12.7	2.23 7.7	1.69 4.0	1.16 5.8	0.8 2.8	0.33 1.1	0.21 0.7	29.07 %	Light yellowish gray fine material, slag pebbles.
A048	5.59 25.30	3.75 17.00	3.9 17.60	3.02 10.60	2.34 13.70	2.01 9.10	1.03 4.70	0.47 2.10	22.11 %	Yellowish gray fine material, some rock gravels and slag pebbles.
092	14.18 62.9	2.08 9.2	3.35 14.9	1.69 3.3	0.75 7.5	0.3 1.3	0.1 0.4	0.08 0.4	22.53 %	Whitish gray material for both fine and pebbles.

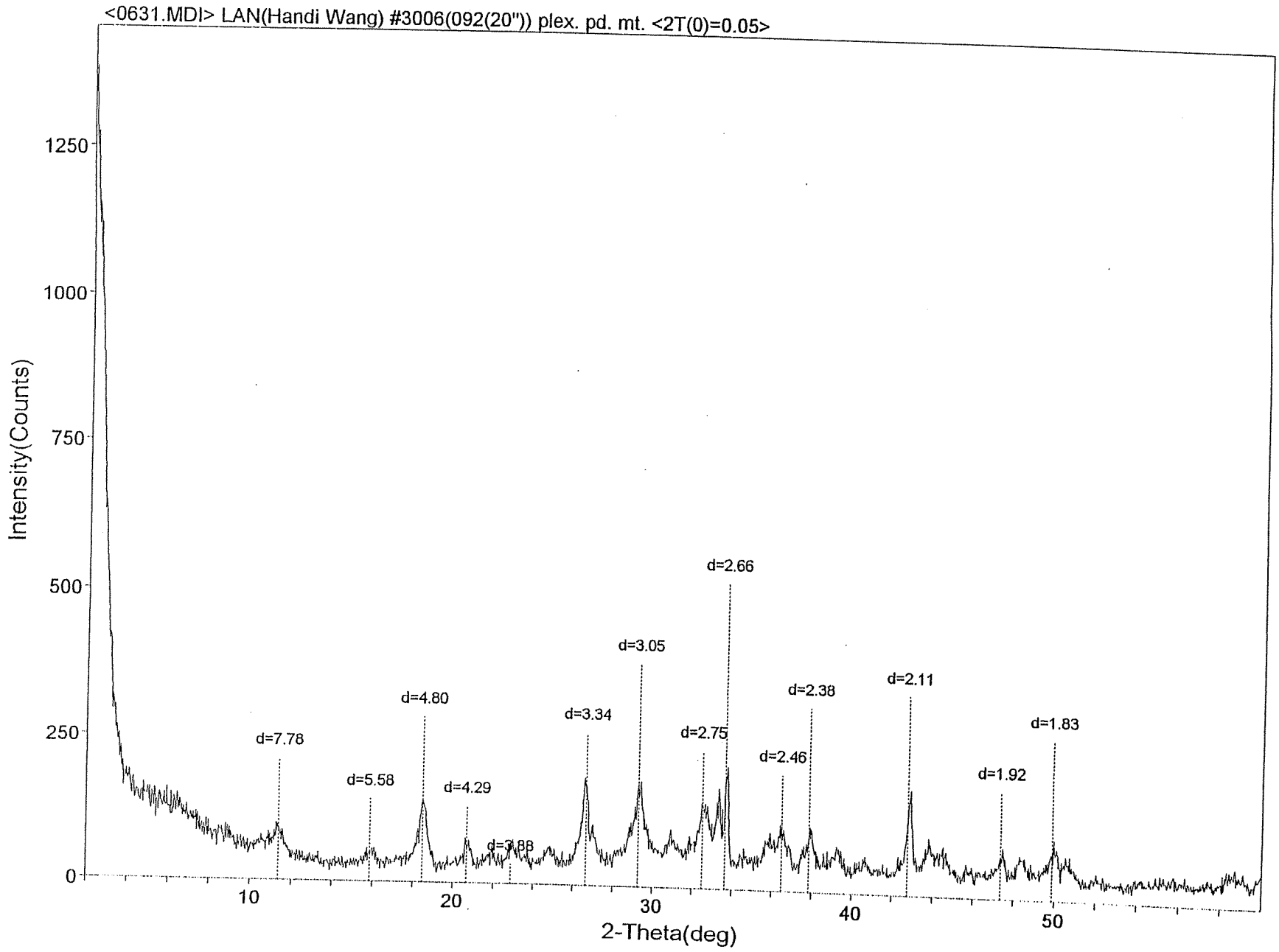


Thursday, Jun 11, 1998 @08:01a

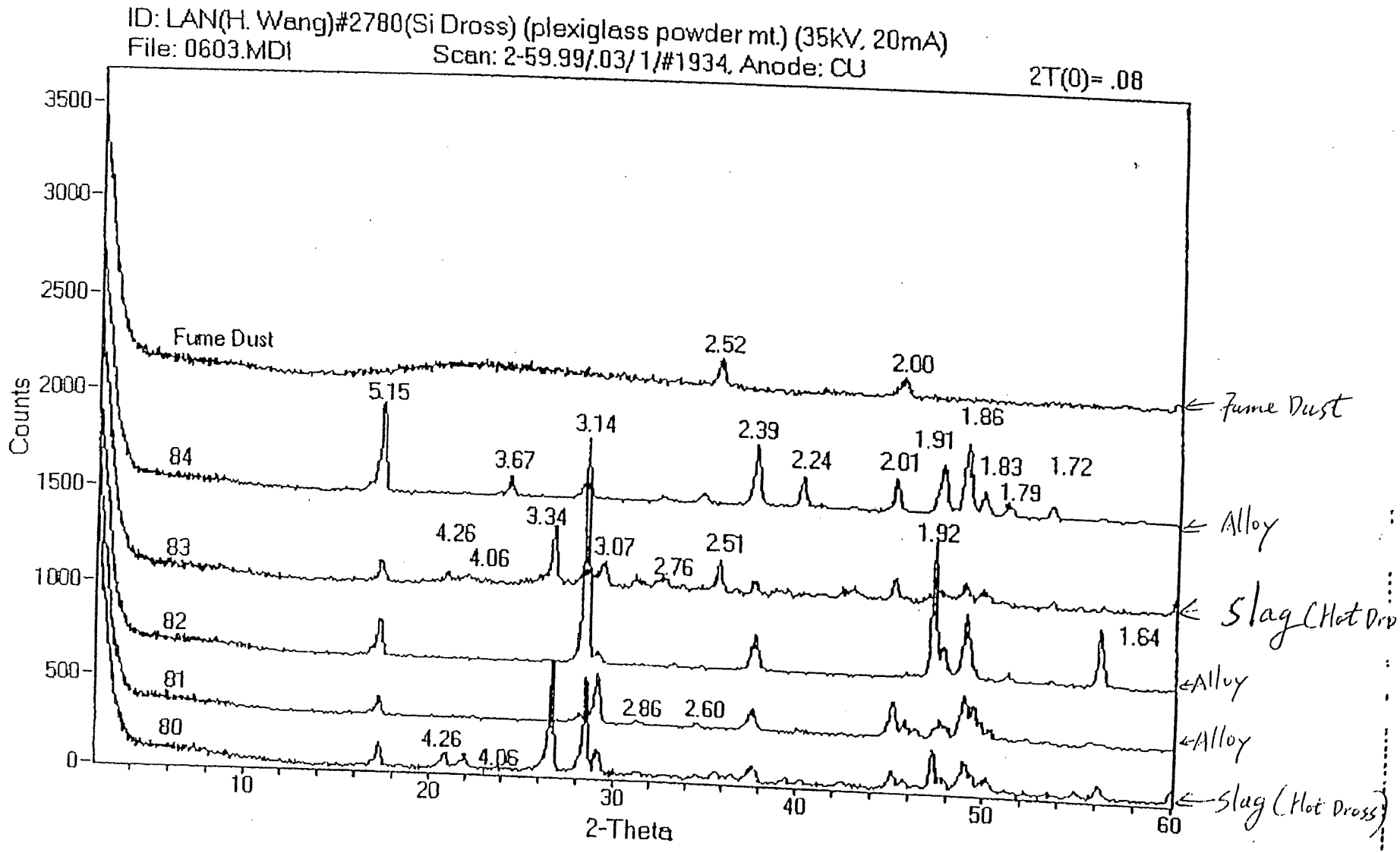

<0628.MDI> LAN(Handi Wang) #3002(A031-Fine(4-8")) plex. pd. mt. <2T(0)=0.135>
Intensity(Counts)
1500
1000
500
0
10
20
30
40
50
2-Theta(deg)
d=3.85
d=3.34
d=3.02
d=2.66
d=2.50
d=2.45
d=2.29
d=2.11
d=2.03
d=1.92
d=1.87
d=1.60


<0629.MDI> LAN(Handi Wang) #3004(A048-Fine(28-30")) plex. pd. mt. <2T(0)=0.24>
Intensity(Counts)
2-Theta(deg)
1500
1000
500
0
10
20
30
40
50
d=4.26
d=3.87
d=3.34
d=3.22
d=3.02
d=2.76
d=2.63
d=2.49
d=2.43
d=2.27
d=2.23
d=2.12
d=2.09
d=2.03
d=1.98
d=1.92
d=1.87
d=1.81
d=1.75
d=1.67
d=1.60


<0630.MDI> LAN(Handi Wang) #3005(A064(12-17")) plex. pd. mt. <2T(0)=0.155>
Intensity(Counts)
1250
1000
750
500
250
0
10
20
30
40
50
2-Theta(deg)
d=5.11
d=3.34
d=3.07
d=2.88
d=2.51
d=2.45
d=2.39
d=2.12
d=2.01
d=1.91
d=1.86
d=1.75


<0631.MDI> LAN(Handi Wang) #3006(092(20")) plex. pd. mt. <2T(0)=0.05>
Intensity(Counts)
1250
1000
750
500
250
0
10
20
30
40
50
2-Theta(deg)
d=7.78
d=5.58
d=4.80
d=4.29
d=3.88
d=3.34
d=3.05
d=2.66
d=2.75
d=2.46
d=2.38
d=2.11
d=1.92
d=1.83

Standard Samples



Summary of Sample Locations and Analysis
SKW Metals and Alloys, Inc.
Niagara Falls, New York

Sample Location	Date Sampled	Parameters Sampled for
Test Pit A071	4/28/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
Test Pit A031	4/28/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
Test Pit A055	4/28/98	Total Cr/Total Cr^{+6}
Test Pit A082	4/28/98	Total Cr/Total Cr^{+6}
Test Pit A012	4/28/98	Total Cr/Total Cr^{+6}
Test Pit A064	4/28/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
Test Pit A048	4/28/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
A048 Soil Pile A	4/28/98	VOC's/Petroleum
A048 Soil Pile B	4/28/98	Semi VOC's
Test Pit A049	4/29/98	Total Cr/Total Cr^{+6}
Test Pit 033	4/29/98	Total Cr/Total Cr^{+6}
Test Pit 114	4/29/98	Total Cr/Total Cr^{+6}
Test Pit 270	4/29/98	Total Cr/Total Cr^{+6}
Test Pit 092	4/29/98	Total Cr/Total Cr^{+6}/Grain Size and XRD
Test Pit 155	4/30/98	Total Cr/Total Cr^{+6}
Test Pit 181	4/30/98	Total Cr/Total Cr^{+6}
Test Pit 154 A&B	4/30/98	VOC's/Semi-VOC's/ Petroleum
Test Pit 266 A&B	4/30/98	VOC's/Semi-VOC's/ Petroleum
Test Pit 281 B&C	5/1/98	VOC's/Semi-VOC's
Test Pit 281 E&F	5/1/98	VOC's/Semi-VOC's
Test Pit 265 A	5/1/98	VOC's/Semi-VOC's
Test Pit 267 A	5/1/98	VOC's/Semi-VOC's
Test Pit 251 A&B	5/1/98	VOC's/Semi-VOC's
Test Pit 281 A	5/1/98	PCB's
Test Pit 281 D	5/1/98	PCB's
Test Pit 265 B	5/1/98	PCB's
Test Pit 267 B	5/1/98	PCB's
Test Pit 251 C	5/1/98	PCB's
Drum 1	7/24/98	Total Metals and TCLP Metals
Drum 2	7/24/98	Total Metals and TCLP Metals
Bag 1	7/29/98	Total Cr & Lead and TCLP Metals
Bag 2	7/29/98	Total Cr & Lead and TCLP Metals
Bag 3	7/29/98	Total Cr & Lead and TCLP Metals
LS-1	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-2	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-3	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-4	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-5	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-6	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-7	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-8	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-9	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-10	8/16/98	Ba, Cd, Cr, Pb, Ag
LS-11	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
LS-12	8/16/98	Ba, Cd, Cr, Pb, Ag and TCLP Metals
Test Pit #1 (1-3')	9/25/98	Total Metals
Test Pit #1 (3-3.5')	9/25/98	Total Metals
Test Pit #1 (4-4.5')	9/25/98	Total Metals
Test Pit #2 (1-3')	9/25/98	Total Metals
Test Pit #2 (3-5')	9/25/98	Total Metals
Test Pit #3 (1-2.5')	9/25/98	Total Metals
Test Pit #3 (2.5-2.7')	9/25/98	Total Metals
Test Pit #3 (2.7-4.5')	9/25/98	Total Metals
Test Pit #4 (0-16")	9/25/98	Total Metals
Test Pit #4 (16-48")	9/25/98	Total Metals
Test Pit #4 (48-60")	9/25/98	Total Metals
Test Pit #5 (1-3')	9/26/98	Total Metals and TCLP Arsenic
Test Pit #5 (3-5')	9/26/98	Total Metals
Test Pit #5 (5-7')	9/26/98	Total Metals
Test Pit #6 (1-3')	9/26/98	Total Metals
Test Pit #6 (3-5')	9/26/98	Total Metals
Test Pit #7 (1-2')	9/26/98	Total Metals
Test Pit #7 (32-60")	9/26/98	Total Metals
Test Pit #8 (1-2')	9/26/98	Total Metals
Test Pit #8 (24-41")	9/26/98	Total Metals
Test Pit #9 (12-27")	9/26/98	Total Metals
Test Pit #9 (27-51")	9/26/98	Total Metals
Test Pit #9 (54-72")	9/26/98	Total Metals
Test Pit #10 (12-27")	9/26/98	Total Metals
Test Pit #10 (27-51")	9/26/98	Total Metals
Test Pit #11 (12-36")	9/26/98	Total Metals
Test Pit #11 (36-60")	9/26/98	Total Metals
Test Pit #12 (12-31")	9/26/98	Total Metals
Test Pit #12 (3-5')	9/26/98	Total Metals
Test Pit #13 (0-12")	9/26/98	Total Metals
Test Pit #13 (12-36")	9/26/98	Total Metals and TCLP Lead
Test Pit #14 (1-3')	9/26/98	Total Metals
Test Pit #14 (3-5')	9/26/98	Total Metals
Test Pit #15 (0-1')	9/26/98	Total Metals
Test Pit #15 (1-3')	9/26/98	Total Metals
Test Pit #16 (0-28")	9/26/98	Total Metals
Test Pit #16 (28-40")	9/26/98	Total Metals
Test Pit #16 (40-60")	9/26/98	Total Metals
Test Pit #17 (1-3')	9/28/98	Total Metals and TCLP Arsenic
Test Pit #17 (3-5')	9/28/98	Total Metals
Test Pit #18 (27-32")	9/28/98	Total Metals and TCLP Cr
Test Pit #18 (32-41")	9/28/98	Total Metals
Test Pit #18 (41-65")	9/28/98	Total Metals and TCLP Lead
Test Pit #19 (24-30")	9/28/98	Total Metals
Test Pit #19 (30-38")	9/28/98	Total Metals and TCLP Lead
Test Pit #19 (38-62")	9/28/98	Total Metals
Test Pit #20 (0-6")	9/28/98	Total Metals
Test Pit #20 (6-72")	9/28/98	Total Metals and TCLP Arsenic
Test Pit #20 (72-96")	9/28/98	Total Metals and TCLP Cr
Test Pit #21 (0-6")	9/28/98	Total Metals
Test Pit #21 (6-52")	9/28/98	Total Metals
Test Pit #21 (52-76")	9/28/98	Total Metals
Test Pit #22 (12-36")	9/28/98	Total Metals
Test Pit #22 (37-62")	9/28/98	Total Metals
Test Pit #23 (12-35")	9/28/98	Total Metals
Test Pit #23 (36-60")	9/28/98	Total Metals
Test Pit #24 (12-36")	9/28/98	Total Metals and TCLP Cr
Test Pit #24 (36-60")	9/28/98	Total Metals
Test Pit #25 (12-36")	9/28/98	Total Metals
Test Pit #25 (36-60")	9/28/98	Total Metals
Petroleum Soil 1	10/5/98	TCLP Benzene & Flashpoint
Petroleum Soil 2	10/5/98	TCLP Benzene & Flashpoint
Wash Pad	10/24/98	Total Metals and TCLP Metals

Attachment 7

Groundwater Monitoring Summary Tables

Summary of Groundwater Monitoring Results

SKW Whitmer Road Property
Town of Niagara, New York

1993-2000

Monitoring Well 3R

	Quarter	UNITS	Standard	2ND/93	3RD/93	4TH/93	1ST/94	2ND/94	3RD/94	4TH/94	1ST/95	2ND/95	4TH/95	1ST/96	2ND/96	3RD/96	4TH/96	1ST/97	2ND/97	3RD/97	4TH/97	1ST/98	2ND/98	3RD/98	4TH/98	1ST/99	2ND/99	3RD/99	4TH/99	1ST/00	2ND/00
3R	TOP OF CASING ELEVATION	Feet	none	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74	611.74
3R	WATER LEVEL (FEET)	Feet	none	4.83	8.93	3.62	2.65	2.87	8.05	3.52	2.61	6.44	5.14	2.796	2.44	6.11	3.8	6.54	3.81	7.95	8.02	3.06	6.08	8.34	10.38	7.25	4.98	8.20	6.7	4.22	2.77
3R	WATER ELEVATION (BEFORE PURGE	Feet	none	606.91	602.81	608.12	609.09	608.87	603.69	608.22	609.13	605.3	606.6	608.95	609.3	605.63	607.94	605.2	607.93	603.79	603.72	608.68	605.66	603.40	601.36	604.49	606.76	603.54	605.04	607.52	608.97
3R	WELL BOTTOM (FEET)	Feet	none	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	12.04	11.90	12.02	11.90	12.02	11.95	12	12
3R	SAMPLE DATE		none	6/30/1993	9/10/1993	12/6/1993	3/23/1994	6/28/1994	9/20/1994	12/13/1994	3/16/1995	6/6/1995	10/27/1995	1/25/1996	4/19/1996	7/11/1996	11/1/1996	1/30/1997	4/30/1997	7/30/1997	10/23/1997	1/22/1998	6/18/1998	7/21/1998	10/14/1998	1/27/1999	4/23/1999	7/16/1999	10/21/1999	1/27/2000	4/18/2000
3R	TURBIDITY	NTU	5	19.5	13.8	8.09	60.8	18.1	12.5	92	12	92	24	128	6	11	45	10	5	7	26	0.48	6.06	8.5	209	168	22	5	4	7.8	14.9
3R	Eh	Millivolts	none	10	(-) 44	102	89	0	47	(-)20	135	134	264	116	99	215	128	88	101	7	68	47	NA	170	223	126	292	270	195	217	290
3R	SPECIFIC CONDUCTANCE	umhos/cm	none	825	1140	810	725	800	740	795	823	880	840	1573	940	920	911	1020	1600	858	873	813	756	942	575	715	725	844	1005	674	710
3R	TEMPERATURE	F	none	57	64	48	44	58	62	45	45	54	56	45	50	64	54	43	47	58	54	41	57.2	59	57	49	48	66	62	42	49
3R	PH	Standard	8.5	7.11	7.16	6.99	7.13	7.05	7.15	713	6.77	7.18	7.46	7.13	7.08	7.07	7	7.17	7.1	6.95	7.15	7.07	7.07	7.32	7.50	7.26	7.18	7.11	7.29	7.34	7.13
3R	TOTAL POTASSIUM	mg/L	none	< 1.0	<1.0	<1.0	<1.0	1.5	<1.0	1.7	<1.0	1.4	2.1	1.1	<1	1.8	1.4	1.1	3	<1.0	<1.8	<1.8	3.1	<1.8	<1.8	3.0	<1.8	<1.8	<1.8	<1.8	<1.8
3R	TOTAL SODIUM	mg/L	20	14	14	14	13.3	14	12	18	16	13	40	16	13	15	17	15	12	15	14	14	16	14	14	13	13	27	21	13.9	15
3R	TOTAL IRON	mg/L	0.3	0.49	0.4	0.2	0.1	1	0.19	3.2	0.33	1.6	0.11	0.34	0.08	1	3.1	0.42	0.51	0.11	0.69	0.210	0.328	0.108	7.55	11.2	1.80	<0.060	0.167	0.264	0.516
3R	TOTAL MANGANESE	mg/L	0.3	0.03	0.02	<0.005	<0.005	0.04	0.01	0.13	0.009	0.07	<0.005	0.01	0.005	0.014	0.1	0.015	0.017	0.01	0.015	<0.010	0.039	<0.010	0.255	0.389	0.064	<0.010	0.008	0.009	0.01
3R	TOTAL MAGNESIUM	mg/L	35	47	51	45	42.6	43	45	48	50	48	7.6	49	52	48	50	50	50	52	50	51	50	53	48	53	48	45	47	46.5	55
3R	TOTAL CALCIUM	mg/L	none	100	111	100	89	91	106	103	105	101	27	100	104	100	100	100	99	110	110	101	98	110	100	110	99	78	100	98.1	108
3R	TOTAL LEAD	mg/L	0.025	< 0.005	< 0.005	<0.005	<0.005	0.006	<0.005	0.017	<0.005	0.007	<0.002	<0.002	<0.005	<0.005	0.005	<0.005	<0.005	0.005	<0.002	<0.002	<0.002	<0.002	0.059	0.085	0.015	<0.002	<0.005	<0.005	<0.08
3R	TOTAL CADMIUM	mg/L	0.005	< 0.005	0.0006	<0.001	<0.0005	0.001	0.006	0.005	0.001	0.0004	0.0019	0.0009	<0.005	<0.001		<0.001	<0.001	<0.001	<0.016	<0.016	<0.001	<0.001	0.004	0.004	<0.016	<0.001	<0.002	<0.002	<0.002
3R	AMMONIA, MG/L	mg/L	2	< 0.05	< 0.05	<0.05	<0.05	0.07	0.05	0.13	<0.05	<0.05	0.13	<0.05	<0.05	0.06	<0.05	1.54	0.26	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.5	<0.4
3R	NITRATE, MG/L	mg/L	10	0.07	<0.05	0.08	0.11	0.05	0.1	<0.05	0.22	<0.05	0.07	0.05	0.07	0.09	<0.04	0.15	0.29	<0.04	0.05	0.17	0.09	0.07	0.06	0.08	0.42 D	0.49 D	3.9D	1.29D	1.64
3R	CHEMICAL OXYGEN DEMAND	mg/L	none	8.21	1.3	4.5	<1.00	<1.00	<1.00	1.5	<1.0	<1.0	<1.0	<1.0	<5	<5.0	6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	3.0	19	<5.0	6.2
3R	TOTAL ORGANIC CARBON	mg/L	none	1.32	1.13	8	2.5	1.4	1.7	1.3	1.5	<1.0	2	1.3	<4	<2.0	<2.0	<2.0	2.6	<2.0	<2.0	1.2	<2.0	1.3	2.7	4.1	2.0	<2.0	3.6	3.1	1.7
3R	TOTAL DISSOLVED SOLIDS, MG/L	mg/L	none	730	600	540	550	570	550	550	530	580	590	560	530	568	562	926	542	554	602	554	560	554	506	526	494	582	558	575	572
3R	SULFATE	mg/L	250	90	120	79	110	94	100	110	110	110	93	94	96	97 D	74 D	90 D	85 D	74 D	89 D	72 D	80 D	76 D	82 D	53 D	78 D	110 D	108D	96D	100D
3R	ALKALINITY, MG/L	mg/L	none	370	380	370	360	370	370	380	370	390	365	370	390	370	400	390	390	395	360	405	365	380	355	360	340	385	315	356	380
3R	PHENOLS	mg/L	1	ND	0.003	0.003	0.003	0.007	ND	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.004	<0.004	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
3R	CHLORIDE	mg/L	250	16	18	16	18	19	20	20	19	20	20	22	19	17	17	20	18	18	18	18	16	16	13	10	16	16	17	16 D	18
3R	HARDNESS	mg/L	none	440	490	435	395	403	450	453	467	449	99	450	473	450	460	450	450	490	470	460	450	490	460	490	450	380	443	435	496
3R	CYANIDE, TOTAL	mg/L	0.2	< 0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.08	-	-	-	-	-	<0.04	-	-	-	-	-	<0.04	-	-	-	-
3R	TOTAL ALUMINUM	mg/L	0.1	0.22	-	-	-	-	-	2.9	-	-	-	-	<0.05	-	-	-	-	-	0.17	0.14	-	-	-	-	1.5	-	-	-	-
3R	TOTAL ANTIMONY	mg/L	0.003	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	0.24	0.24	-	-	-	-	0.24	-	-	-	-
3R	TOTAL ARSENIC	mg/L	0.05	< 0.005	-	-	-	-	-	<0.002	-	-	-	-	0.005	-	-	-	-	-	<0.002	<0.002	-	-	-	-	<0.002	-	-	-	-
3R	TOTAL BARIUM	mg/L	1	0.04	-	-	-	-	-	0.05	-	-	-	-	0.02	-	-	-	-	-	0.050	0.028	-	-	-	-	0.062	-	-	-	-
3R	TOTAL BERYLLIUM	mg/L	none	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.002	<0.002	-	-	-	-	<0.002	-	-	-	-
3R	TOTAL CHROMIUM	mg/L	0.05	< 0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.014	<0.014	-	-	-	-	0.027	-	-	-	-
3R	TOTAL COPPER	mg/L	0.2	< 0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.010	<0.010	-	-	-	-	<0.010	-	-	-	-
3R	TOTAL MERCURY	mg/L	0.0007	< 0.001	-	-	-	-	-	<0.0005	-	-	-	-	<0.001	-	-	-	-	-	<0.0004	<0.0004	-	-	-	-	<0.0004	-	-	-	-
3R	TOTAL NICKEL	mg/L	0.1	< 0.02	-	-	-	-	-	<0.02	-	-	-	-	<0.02	-	-	-	-	-	<0.050	<0.050	-	-	-	-	<0.050	-	-	-	-
3R	TOTAL SELENIUM	mg/L	0.01	0.005	-	-	-	-	-	0.002	-	-	-	-	0.005	-	-	-	-	-	0.004	0.004	-	-	-	-	0.004	-	-	-	-
3R	TOTAL SILVER	mg/L	0.05	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.010	<0.010	-	-	-	-	<0.010	-	-	-	-
3R	TOTAL THALLIUM	mg/L	0.008	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	0.05	0.05	-	-	-	-	0.004	-	-	-	-
3R	TOTAL ZINC	mg/L	0.066	0.07	-	-	-	-	-	0.08	-	-	-	-	<0.02	-	-	-	-	-	0.100	0.055	-	-	-	-	0.162	-	-	-	-
3R	TOTAL KJELDAHL NITROGEN, MG/L	mg/L	none	0.7	-	-	-	-	-	0.1	-	-	-	-	3.1	-	-	-	-	-	<0.1	0.55	-	-	-	-	1.3	-	-	-	-
3R	BOD5, MG/L	mg/L	NA	< 2.0	-	-	-	-	-	<2.0	-	-	-	-	<2	-	-	-	-	-	<2.0	<2.0	-	-	-	-	<2.0	-	-	-	-
3R	COLOR, TRUE (Color Units)	COLOR	NA	5	-	-	-	-	-	5	-	-	-	-	<5	-	-	-	-	-	5	<5	-	-	-	-	5	-	-	-	-
3R	BORON, (TOTAL) MG/L	mg/L	1	0.11	-	-	-	-	-	0.11	-	-	-	-	0.08	-	-	-	-	-	0.14	0.15	-	-	-	-	0.11	-	-	-	-
3R	TOTAL HEXAVALENT CHROMIUM, I	mg/L	0.05	0.01	-	-	-	-	-	0.01	-	-	-	-	0.04	-	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
3R	SOLUBLE HEXAVALENT CHROMIUM	mg/L	0.05		-	-	-	-	-	-	-	-	-	-	-	-	<0.04	<0.04	<0.04	<0.04	-	-	<0.04	<0.04	<0.04	<0.04		0.04	<0.04	<0.04	<0.04

Note: Fourth quarter, 1998 results were biased by haigh sample turbidity (209 NTU)

The high turbidity indicates the sample is not representative of true groundwater conditions.

The high turbidity indicates the sample is representative of a mixture of groundwater and sediment.

Analysis of soluble lead was non-detect.

Summary of Groundwater Monitoring Results

SKW Whitmer Road Property
Town of Niagara, New York

1993-2000

Monitoring Well 14N

	Quarter	UNITS	Standard	2ND/93	3RD/93	4TH/93	1ST/94	2ND/94	3RD/94	4TH/94	1ST/95	2ND/95	4TH/95	1ST/96	2ND/96	3RD/96	4TH/96	1ST/97	2ND/97	3RD/97	4TH/97	1ST/98	2ND/98	3RD/98	4TH/98	1ST/99	2ND/99	3RD/99	4TH/99	1ST/00	2ND/00
14N	EVACUATION DATE			6/30/1993	9/10/1993	12/7/1993	3/23/1994	6/28/1994	9/20/1994	12/12/1994	3/16/1995	6/5/1995	10/27/1995	1/24/1996	4/18/1996	7/11/1996	10/31/1996	1/29/1997	4/29/1997	7/29/1997	10/22/1997	1/21/1998	6/17/1998	7/20/1998	10/13/1998	1/26/1999	4/22/1999	7/15/1999	10/20/1999	1/26/2000	4/17/2000
14N	TOP OF CASING ELEVATION	Feet	none	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82	601.82
14N	WATER LEVEL (FEET)	Feet	none	5.19	8.65	5.51	3.53	5.28	7.2	4.75	3.63	6.32	6.21	3.54	3.22	6.65	4.92	4.61	4.65	7.90	8.71	4.89	7.04	9.02	14.72	14.70	10.60	12.85	12.02	9.9	8.38
14N	WATER ELEVATION (BEFORE PURGE	Feet	none	596.63	593.17	596.31	598.29	596.54	594.62	597.07	598.19	595.5	595.61	598.28	598.6	596.17	596.9	597.21	597.17	593.92	593.11	596.93	594.78	592.80	587.10	587.12	591.22	588.97	589.8	591.92	593.44
14N	WELL BOTTOM (FEET)	Feet	none	23	23	23	23	23	23	23	23	23	23	23.45	23.45	23.45	23.45	23	19.2	19.2	19.2	19.2	19.2	19.2	26.90	26.90	26.90	26.90	26.3	26.9	27.02
14N	SAMPLE DATE		none	6/30/1993	9/10/1993	12/7/1993	3/23/1994	6/28/1994	9/20/1994	12/13/1994	3/16/1995	6/6/1995	10/27/1995	3/15/1996	4/19/1996	7/11/1996	11/1/1996	1/30/1997	4/30/1997	7/30/1997	10/23/1997	1/22/1998	6/18/1998	7/21/1998	10/14/1998	1/27/1999	4/23/1999	7/16/1999	10/21/1999	1/27/2000	4/18/2000
14N	TURBIDITY	NTU	5	12.7	66.4	37.5	25.9	23.5	49	NA	7.4	18.5	14	75	9	17	14	33	11	30	48	35	13.55	21.8	24	12	15	8	3	8	4.7
14N	Eh	Millivolts	none	24	(-) 37	39	55	5	43	(-)14	78	32	24	88	41	56	205	134	67	1	75	28	NA	25	201	63	287	272	160	227	300
14N	SPECIFIC CONDUCTANCE	umhos/cm	none	1140	1325	1120	940	1050	1025	1110	1125	1250	1210	1290	1340	1310	1250	1270	1450	1095	1086	1012	995	1160	860	1110	990	1030	1330	927	905
14N	TEMPERATURE	F	none	55	62	51	51	54	59	44	45	54	58	50	54	64	56	51	50	52	52	50	57.2	61	57	50	54	65	59	44	53
14N	PH	Standard	8.5	6.9	6.98	6.89	7.02	7.04	7.1	7.12	6.65	6.97	7.57	7.35	6.82	6.98	6.82	6.87	6.87	6.88	7.08	7.17	6.91	7.19	7.96	7.29	7.12	7.40	7.24	7.78	7.15
14N	TOTAL POTASSIUM	mg/L	none	2.6	3	2.4	1.97	3.25	3.8	2.2	3.2	2.2	3.4	3	2.3	2.7	2.5	1.8	4.8	2.9	3.3	1.8	3.7	3.1	39	2.5	2.7	3.0	2.7	7.06	2.1
14N	TOTAL SODIUM	mg/L	20	49	48	56	39	45	48	50	50	49	49	56	53	46	46	46	42	42	38	41	42	43	74	47	45	48	55	88.2	47
14N	TOTAL IRON	mg/L	0.3	1.4	3	1.5	0.85	0.78	1.1	4.9	0.37	0.73	1	2.5	0.43	0.59	0.72	1.1	0.62	1.3	4.94	0.56	0.700	0.712	0.554	1.81	1.24	2.15	0.953	1.24	2.15
14N	TOTAL MANGANESE	mg/L	0.3	0.14	0.21	0.13	0.11	0.1	0.13	0.21	0.1	0.11	0.11	0.19	0.12*	0.098	0.11	0.14	0.12	0.12	0.376	0.124	0.091	0.094	0.065	0.109	0.098	0.094	0.095	0.015	0.104
14N	TOTAL MAGNESIUM	mg/L	35	55	61	56	45	49	54	52	52	54	52	62	59	51	53	55	56	53	46	51	52	53	14	50	54 D	47	47	35	54
14N	TOTAL CALCIUM	mg/L	none	160	125	150	105	118	140	126	124	146	120	140	138	130	95 D	130	135 D	140 D	150 D	121	120	120	48	120	130 D	93	112	70.5	139D
14N	TOTAL LEAD	mg/L	0.025	< 0.005	<0.005	0.0006	<0.005	<0.005	<0.005	0.008	<0.005	0.004	<0.002	0.044	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.004	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	0.005	<0.005	<0.005	<0.08
14N	TOTAL CADMIUM	mg/L	0.005	< 0.005	<0.0005	<0.001	<0.0005	<0.0005	<0.005	<0.005	0.0006	<0.0002	0.0004	<0.0005	<0.005	0.003		<0.001	<0.001	<0.001	<0.016	<0.016	<0.001	<0.001	0.001	<0.001	<0.016	0.001	<0.002	<0.002	<0.002
14N	AMMONIA, MG/L	mg/L	2	< 0.05	<0.05	<0.05	0.05	0.07	<0.05	0.1	<0.05	0.06	0.41	<0.05	0.12	<0.05	<0.05	1.04	0.62	<0.4	<0.4	<0.4	<0.4	<0.4	0.5	<0.4	<0.4	<0.4	<0.4	<0.5	<0.4
14N	NITRATE, MG/L	mg/L	10	< 0.05	<0.05	0.06	<0.05	0.34	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.04	<0.04	<0.04	0.02	0.07	<0.04	0.041	<0.04	<0.04	0.14	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
14N	CHEMICAL OXYGEN DEMAND	mg/L	none	12.2	8.8	12	3	13	<1.00	5.5	9.9	2.5	<1.0	2.9	<5	<5.0	9.7	<5.0	11	<5.0	<5.0	5.2	<5.0	<5.0	30	<5.0	<5.0	7.1	<5.0	<5	<5
14N	TOTAL ORGANIC CARBON	mg/L	none	2.58	<1.00	1.34	3.8	2.8	3.2	2.5	2.6	2.4	2.2	2.4	<4	3.3	2.6	2.6	3.4	3.5	2.7	2.4	3.1	3.0	11	13	3.2	3.4	5.2	<2.0	3.4
14N	TOTAL DISSOLVED SOLIDS, MG/L	mg/L	none	990	800	830	780	840	770	790	800	840	820	760	770	922	762	784	776	764	752	742	730	750	574	726	714	730	696	728	738
14N	SULFATE	mg/L	250	180	180	180	180	160	180	170	180	180	150	180	170	160 D	160 D	170 D	170 D	180 D	150 D	160 D	150 D	170 D	146 D	120 D	160 D	160 D	160 D	155 D	160 D
14N	ALKALINITY, MG/L	mg/L	none	370	360	360	370	370	370	370	370	380	360	370	380	370	375	370	360	345	310	360	360	365	85	355	335	340	355	337	369
14N	PHENOLS	mg/L	1	ND	0.002	<0.002	0.013	0.007	ND	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.004	<0.004	0.019	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
14N	CHLORIDE	mg/L	250	87	92	92	92	86	100	100	91	93	95	83	87	78 D	82	80 D	77 D	73	64	64	66	68	113	52	83	79	80	92 D	84
14N	HARDNESS	mg/L	none	630	560	605	447	495	572	528	523	586	510	600	587	550	460	550	570	570	550	510	500	530	180	500	550 D	426	472	321	570
14N	CYANIDE, TOTAL	mg/L	0.2	< 0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.08	-	-	-	-	-	<0.04	<0.04	-	-	-	-	<0.04	-	-	-	-
14N	TOTAL ALUMINUM	mg/L	0.1	0.71	-	-	-	-	-	0.2	-	-	-	-	<0.05	-	-	-	-	-	2.9	0.18	-	-	-	-	<0.10	-	-	-	-
14N	TOTAL ANTIMONY	mg/L	0.003	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	0.24	0.24	-	-	-	-	0.24	-	-	-	-
14N	TOTAL ARSENIC	mg/L	0.05	< 0.005	-	-	-	-	-	<0.002	-	-	-	-	<0.005	-	-	-	-	-	<0.002	<0.002	-	-	-	-	0.002	-	-	-	-
14N	TOTAL BARIUM	mg/L	1	0.11	-	-	-	-	-	0.1	-	-	-	-	0.11	-	-	-	-	-	0.12	0.106	-	-	-	-	0.101	-	-	-	-
14N	TOTAL BERYLLIUM	mg/L	none	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.002	<0.002	-	-	-	-	<0.002	-	-	-	-
14N	TOTAL CHROMIUM	mg/L	0.05	< 0.01	-	-	-	-	-	1	-	-	-	-	<0.01	-	-	-	-	-	<0.014	<0.014	-	-	-	-	<0.014	-	-	-	-
14N	TOTAL COPPER	mg/L	0.2	< 0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.01	-	-	-	-	-	0.012	<0.010	-	-	-	-	<0.010	-	-	-	-
14N	TOTAL MERCURY	mg/L	0.0007	< 0.001	-	-	-	-	-	<0.0005	-	-	-	-	<0.001	-	-	-	-	-	<0.0004	<0.0004	-	-	-	-	<0.0004	-	-	-	-
14N	TOTAL NICKEL	mg/L	0.1	< 0.02	-	-	-	-	-	0.45	-	-	-	-	<0.02	-	-	-	-	-	<0.050	<0.050	-	-	-	-	<0.050	-	-	-	-
14N	TOTAL SELENIUM	mg/L	0.01	0.005	-	-	-	-	-	0.002	-	-	-	-	0.005	-	-	-	-	-	0.004	0.004	-	-	-	-	0.004	-	-	-	-
14N	TOTAL SILVER	mg/L	0.05	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.010	<0.010	-	-	-	-	<0.010	-	-	-	-
14N	TOTAL THALLIUM	mg/L	0.008	0.05	-	-	-	-	-	0.08	-	-	-	-	0.05	-	-	-	-	-	0.12	0.05	-	-	-	-	0.004	-	-	-	-
14N	TOTAL ZINC	mg/L	0.066	0.6	-	-	-	-	-	0.5	-	-	-	-	0.57	-	-	-	-	-	0.478	0.701	-	-	-	-	0.583	-	-	-	-
14N	TOTAL KJELDAHL NITROGEN, MG/L	mg/L	none	< 0.1	-	-	-	-	-	<0.1	-	-	-	-	3.6	-	-	-	-	-	0.32	0.61	-	-	-	-	1.4	-	-	-	-
14N	BOD5, MG/L	mg/L	NA	< 2.0	-	-	-	-	-	<2.0	-	-	-	-	<2	-	-	-	-	-	<2.0	<2.0	-	-	-	-	<2.0	-	-	-	-
14N	COLOR, TRUE (Color Units)	COLOR	NA	5	-	-	-	-	-	10	-	-	-	-	5	-	-	-	-	-	10	5	-	-	-	-	10	-	-	-	-
14N	BORON, (TOTAL) MG/L	mg/L	1	0.11	-	-	-	-	-	0.11	-	-	-	-	0.1	-	-	-	-	-	0.10	0.09	-	-	-	-	0.11	-	-	-	-
14N	TOTAL HEXAVALENT CHROMIUM, I	mg/L	0.05	< 0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.04	-	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
14N	SOLUBLE HEXAVALENT CHROMIUM	mg/L	0.05		-	-	-	-	-		-	-	-	-		-	<0.04	<0.04	<0.04	<0.04		<0.04	<0.04	<0.04	<0.04	<0.04		<0.04	<0.04	<0.04	<0.04

Summary of Groundwater Monitoring Results

SKW Whitmer Road Property
Town of Niagara, New York

1993-2000

Leachate

	Quarter	UNITS	Standard	2ND/93	3RD/93	4TH/93	1ST/94	2ND/94	3RD/94	4TH/94	1ST/95	2ND/95	4TH/95	1ST/96	2ND/96	3RD/96	4TH/96	1ST/97	2ND/97	3RD/97	4TH/97	1ST/98	2ND/98	3RD/98	4TH/98	1ST/99	2ND/99	3RD/99	4TH/99	1ST/00	2ND/00
Leacha	TOP OF CASING ELEVATION	Feet	none	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Leacha	WATER LEVEL (FEET)	Feet	none	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Leacha	WATER ELEVATION (BEFORE PURGE	Feet	none	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Leacha	WELL BOTTOM (FEET)	Feet	none	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Leacha	SAMPLE DATE		none	6/30/1993	9/10/1993	12/7/1993	3/23/1994	6/28/1994	9/20/1994	12/13/1994	3/16/1995	6/6/1995	10/27/1995	1/25/1996	4/19/1996	7/11/1996	11/1/1996	1/30/1997	4/30/1997	7/30/1997	10/23/1997	1/22/1998	6/18/1998	7/21/1998	10/14/1998	1/27/1999	4/23/1999	7/16/1999	10/21/1999	1/27/2000	4/18/2000
Leacha	TOTAL KJELDAHL NITROGEN, MG/L	mg/L	none	0.4						0.3					3.4															
Leacha	AMMONIA, MG/L	mg/L	2	< 0.05	<0.05	<0.05	0.05	0.08	<0.05	0.14	<0.05	<0.05	0.12	<0.05	0.07	<0.05	<0.05	0.42	<0.1	<0.4	0.6	0.79						<0.8		
Leacha	NITRATE, MG/L	mg/L	10	< 0.05	1.1	0.52	0.51	0.8	0.8	0.32	0.44	0.87	2.8	0.93	0.06	0.19	0.18	0.04	0.1	0.25	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.5	<0.4
Leacha	CHEMICAL OXYGEN DEMAND	mg/L	none	48.9	33	55	34.1	20	19	51	42	27	39	33	5.4	14	37	24	27	25	0.13 D	0.18 D	0.24	0.26	1.03 D	1.3 D	0.18	1.1 D	1.5D	0.370 D	0.21
Leacha	BOD5, MG/L	mg/L	NA	< 2.0	-	-	-	-	-	<2.0					2.8	<0.001					28	7.2	11	14	33	22	34	42	26	29	31
Leacha	TOTAL ORGANIC CARBON	mg/L	none	13.8	7.34	15.2	12	6.9	7.6	15	12	10	13	12	7.7	11	15	9.5	8.3	10	<2.0	<2.0					<2.0			
Leacha	TOTAL DISSOLVED SOLIDS, MG/L	mg/L	none	1900	1100	1900	1100	680	930	1800	1500	1200	1800	1100	660	750	950	738	636	676	13	10	11	8.9	11	11	13	15	17	16	14
Leacha	SULFATE	mg/L	250	520	310	550	360	200	210	560	430	260	350	310	140	150 D	200 D	140 D	140 D	126 D	864	726	628	730	650	632	732	627	708	760	662
Leacha	ALKALINITY, MG/L	mg/L	none	260	180	330	260	140	180	330	270	220	250	270	310	350	420	365	310	280	180 D	131	120 D	110 D	140 D	150 D	380 D	170 D	190D	166 D	120 D
Leacha	PHENOLS	mg/L	1	ND	0.004	0.005	0.003	0.008	ND	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.004	0.007	<0.008	250	370	270	305	245	140	280	250	290	327	369
Leacha	CHLORIDE	mg/L	250	330	260	420	270	140	200	380	320	250	260	200	70	55	110	80 D	100 D	94	<0.008	<0.008	<0.008	<0.008	<0.008	0.034	<0.008	<0.008	<0.008	<0.008	<0.008
Leacha	HARDNESS	mg/L	none	520	360	600	377	198	270	550	440	332	390	380	360	260	430	420	250	350	130	64	74	68	64	60	81	72	72	66 D	114
Leacha	TURBIDITY	NTU	5	4.3	1.5	0.5	2.8	2.1	4.5	3	5.8	2.3	3	11	2	1.5	7	4	4	4	370	384	320	380	330	340	400	337	388	398	427
Leacha	eH	Millivolts	none	26	(-) 60	67	71	90	84	(-)99	94	90	13	56	54	-88	124	70	73	-62	24	1.7	3.33	15	13	4	1	2	2	3.4	2.7
Leacha	SPECIFIC CONDUCTANCE	umhos/cm	none	3000	1900	3000	1560	1100	1260	4250	1870	2160	2070	2080	1190	1066	1500	1270	1300	1200	9	8	NA	150	230	55	286	270	270	224	260
Leacha	TEMPERATURE	F	none	64	64	49	45	66	67	45	49	68	58	44	46	65	53	41	46	65	1235	1190	895	1142	740	880	945	962	1300	1040	845
Leacha	pH	Standard	8.5	8.5	8.37	8.47	8.44	8.5	8.53	8.59	8.69	8.64	8.55	9.26	9.75	8.82	8.12	8.24	8.13	8.34	55	49	62.6	68	66	46	51	67	60	40	48
Leacha	COLOR, TRUE (Color Units)	COLOR	NA	25	-	-	-	-	-	30	-	-	-	-	20	-	-	-	-	-	8.34	8.38	8.12	8.21	8.6	8.33	8.11	8.14	8.3	-	-
Leacha	BORON, (TOTAL) MG/L	mg/L	1	0.46	-	-	-	-	-	0.5	-	-	-	-	0.4	-	-	-	-	-	25	15	-	-	-	-	15	-	-	-	-
Leacha	TOTAL POTASSIUM	mg/L	none	240	167	300	194	104	143	271	220	190	190	160	76	79	110	64	55	61	0.64	0.52	-	-	-	-	0.40	-	-	-	-
Leacha	TOTAL SODIUM	mg/L	20	150	99	180	111	62	82	172	135	110	110	97	54	47	70	45	38	44	89	69	54	55	57	63	60	43	62	60.7	51
Leacha	TOTAL IRON	mg/L	0.3	0.27	0.07	0.03	0.19	0.2	0.21	<0.05	0.43	0.16	21	0.16	0.32	0.19	0.1	0.07	0.24	0.1	63	47	40	39	35	38	47	42	46	34.6	37
Leacha	TOTAL MANGANESE	mg/L	0.3	0.01	0.008	0.02	0.06	27	0.01	0.29	0.05	0.009	0.05	0.02	0.17	0.016	0.03	0.26	0.084	0.02	0.170	0.082	0.213	0.113	0.209	0.14	0.210	<0.060	0.217	0.34	0.467
Leacha	TOTAL MAGNESIUM	mg/L	35	91	61	104	65	32	44	96	76	56	63	62	62	43	74	69	61	57	0.018	0.047	0.024	<0.010	<0.010	0.013	0.021	0.010	0.036	0.03	0.029
Leacha	TOTAL LEAD	mg/L	0.025	< 0.005	<0.005	0.006	<0.005	0.007	<0.005	0.002	<0.005	0.003	0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	60	63	52	62	51	53	65	56	61	63.4	71
Leacha	TOTAL CADMIUM	mg/L	0.005	< 0.005	<0.0005	<0.001	<0.0005	<0.0005	<0.005	<0.005	<0.0005	<0.0002	0.0005	<0.0005	<0.005	-	-	<0.001	<0.001	<0.001	<0.002	<0.002	0.002	0.005	<0.002	0.003	<0.002	<0.002	<0.005	<0.005	<0.08
Leacha	TOTAL SILVER	mg/L	0.05	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.016	<0.016	<0.001	<0.001	<0.001	<0.001	<0.016	0.001	<0.002	<0.002	<0.002
Leacha	TOTAL ALUMINUM	mg/L	0.1	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	<0.010	<0.010	-	-	-	-	<0.010	-	-	-	-
Leacha	TOTAL CALCIUM	mg/L	none	57	44	69	44	27	38	63	52	41	54	52	43	35	53	51	47	45	0.1	0.1	-	-	-	-	0.1	-	-	-	-
Leacha	TOTAL ANTIMONY	mg/L	0.003	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	50	50	42	49	49	50	54	43	55	54.7	54
Leacha	TOTAL ARSENIC	mg/L	0.05	0.02	-	-	-	-	-	0.028	-	-	-	-	<0.005	-	-	-	-	-	0.24	0.24	-	-	-	-	0.24	-	-	-	-
Leacha	TOTAL BERYLLIUM	mg/L	none	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	0.007	0.007	-	-	-	-	0.007	-	-	-	-
Leacha	TOTAL BARIUM	mg/L	1	0.02	-	-	-	-	-	0.02	-	-	-	-	<0.005	-	-	-	-	-	<0.002	<0.002	-	-	-	-	<0.002	-	-	-	-
Leacha	TOTAL HEXAVALENT CHROMIUM, I	mg/L	0.05	0.02	-	-	-	-	-	0.01	-	-	-	-	0.04	-	0.05	0.04	0.04	0.04	<0.002	0.027	-	-	-	-	0.035	-	-	-	-
Leacha	SOLUBLE HEXAVALENT CHROMIUM	mg/L	0.05		-	-	-	-	-		-	-	-	-		-	-	<0.04	<0.04	<0.04	0.04	0.04	0.04	0.04	0.12	0.16	0.04	0.08	-	-	-
Leacha	TOTAL COPPER	mg/L	0.2	< 0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.01	-	-	-	-	-	-	-	<0.04	<0.04	0.11	0.14		0.06	-	-	-
Leacha	TOTAL CHROMIUM	mg/L	0.05	0.03	-	-	-	-	-	0.01	-	-	-	-	0.01	-	-	-	-	-	<0.010	<0.010	-	-	-	-	<0.010	-	-	-	-
Leacha	TOTAL MERCURY	mg/L	0.0007	< 0.001	-	-	-	-	-	<0.0005	-	-	-	-	<0.001	-	-	-	-	-	0.061	0.024	-	-	-	-	0.063	-	-	-	-
Leacha	TOTAL NICKEL	mg/L	0.1	< 0.02	-	-	-	-	-	<0.02	-	-	-	-	<0.02	-	-	-	-	-	<0.0004	<0.0004	-	-	-	-	<0.0004	-	-	-	-
Leacha	TOTAL SELENIUM	mg/L	0.01	0.02	-	-	-	-	-	0.023	-	-	-	-	0.005	-	-	-	-	-	<0.050	<0.050	-	-	-	-	<0.050	-	-	-	-
Leacha	TOTAL THALLIUM	mg/L	0.008	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	0.007	0.004	-	-	-	-	0.021	-	-	-	-
Leacha	TOTAL ZINC	mg/L	0.066	0.14	-	-	-	-	-	<0.02	-	-	-	-	<0.02	-	-	-	-	-	0.05	0.05	-	-	-	-	0.004	-	-	-	-
Leacha	CYANIDE, TOTAL	mg/L	0.2	< 0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.08	-	-	-	-	-	<0.016	0.018	-	-	0.12	0.16	<0.016	-	-	-	-
																					<4.0	<0.04	-	-	0.11	0.14	<0.04	-	-	-	-

Summary of Groundwater Monitoring Results

SKW Whitmer Road Property
Town of Niagara, New York

1993-2000

Monitoring Well 12

	Quarter	UNITS	Standard	2ND/93	3RD/93	4TH/93	1ST/94	2ND/94	3RD/94	4TH/94	1ST/95	2ND/95	4TH/95	1ST/96	2ND/96	3RD/96	4TH/96	1ST/97	2ND/97	3RD/97	4TH/97	1ST/98	2ND/98	3RD/98	4TH/98	1ST/99	2ND/99	3RD/99	4TH/99	1ST/00	2ND/00
12	TOP OF CASING ELEVATION	Feet	none	597.52	597.52	597.62	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52	597.52
12	WATER LEVEL (FEET)	Feet	none	8.14	10.15	7.82	7.18	7.57	9.94	7.61	7.24	6.26	9.01	7.5	6.52	9.03	7.9	7.99	8.02	12.99	12.69	10.35	11.39	12.62	14.47	13.27	11.08	12.58	11.7	10.28	8.7
12	WATER ELEVATION (BEFORE PURGE	Feet	none	589.38	587.37	589.7	590.34	589.95	587.58	589.91	590.28	591.26	588.51	590.02	591	588.49	589.62	589.53	589.5	584.53	584.83	587.17	586.13	584.9	583.05	584.25	586.44	584.94	585.82	587.24	588.82
12	WELL BOTTOM (FEET)	Feet	none	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	23	23	23	23	23	23	19.66	19.55	19.64	19.67	19.62	19.83	19.49
12	SAMPLE DATE		none	6/30/1993	9/10/1993	12/7/1994	3/23/1994	6/28/1994	9/20/1994	12/13/1994	3/16/1995	6/6/1995	11/1/1995	1/25/1996	4/19/1996	7/11/1996	11/1/1996	1/30/1997	4/30/1997	7/30/1997	10/23/1997	1/22/1998	6/18/1998	7/21/1998	10/14/1998	1/27/1999	4/23/1999	7/16/1999	10/21/1999	1/27/2000	4/18/2000
12	TURBIDITY	NTU	5	6.9	10.6	12.66	27	27	25.4	22	30	14.5	19	140	41	18	69	63	17	17	35	21	30.6	900	996	62	5	32	14	13.9	27.1
12	Eh	Millivolts	none	(-) 149	(-) 82	27	8	(-) 83	(-) 170	(-)19	(-)96	(-)145	41	98	51	59	42	72	77	-15	64	30	NA	-20	242	193	284	274	226	227	260
12	SPECIFIC CONDUCTANCE	umhos/cm	none	1750	1825	1750	1500	1575	1520	2600	1630	1890	1700	1215	1870	1910	1790	1920	2450	1640	1392	1328	1190	1510	930	1290	1220	1340	1760	1210	1180
12	TEMPERATURE	F	none	52	61	51	48	52	58	50	46	50	58	46	48	59	54	47	52	52	51	47	53.6	57	58	52	48	58	55	45	50
12	PH	Standard	6.5 - 8.5	7.01	6.84	6.99	7.16	7.01	7.01	7.2	7.3	7.11	6.52	7.32	6.89	7.02	6.86	6.94	7.02	6.89	7.14	7.11	7.11	7.24	7.32	7.13	7.04	6.98	7.02	7.19	7.13
12	DISSOLVED OXYGEN	mg/L	none																												
12	TOTAL POTASSIUM	mg/L	none	9.4	9.6	8.7	8.3	8.8	9.7	9.2	11	8	17	9.3	8.5	10	8.7	7.8	8.4	7.3	7.0	5.6	8.2	9.3	11	8.5	7.1	6.7	7.7	7.49	4.9
12	TOTAL SODIUM	mg/L	20	131	133	135	108	109	120	114	119	113	91	100	122	120	120	120	114	120	87	84	94	91	88	89	91	88	101	76.3	76
12	TOTAL IRON	mg/L	0.3	0.56	0.87	0.48	0.69	0.74	0.93	2	0.61	0.7	<0.05	3.2	1.5	1.1	2.3	2.3	0.93	1.5	1.12	0.806	1.58	22.4	23.1	10.5	0.431	1.01	0.97	1.11	1.35
12	TOTAL MANGANESE	mg/L	0.3	0.45	0.17	0.2	0.32	0.33	0.2	0.18	0.33	0.35	<0.005	0.38	0.32	0.3	0.22	0.37	0.29	0.22	0.143	0.219	0.257	1.41	0.876	0.599	0.320	0.272	0.229	0.379	0.249
12	TOTAL MAGNESIUM	mg/L	35	84	90	77	72	72	75	74	75	78	6.8	69	74	70	68	70	70	72	62	64	64	110	78 D	75 D	60 D	57	58	56.9	75
12	TOTAL CALCIUM	mg/L	none	188	154	150	122	131	145	135	136	143	28	130	143	140	110 D	140	145 D	140 D	130 D	130 D	130	290 D	190 D	190 D	130 D	112	126	126	150 D
12	TOTAL LEAD	mg/L	0.025	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	0.005	<0.002	0.003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	0.017	0.014	0.013	<0.002	0.002	<0.005	<0.005	<0.08
12	TOTAL CADMIUM	mg/L	0.005	< 0.005	<0.0005	<0.001	<0.0005	<0.0005	<0.005	0.005	<0.0005	<0.0002	<0.0002	<0.0005	<0.005	<0.001		0.002	<0.001	<0.001	<0.016	<0.016	<0.001	<0.001	0.019 D	0.001	<0.016	0.001	<0.002	<0.002	<0.002
12	AMMONIA, MG/L	mg/L	2	0.05	0.08	0.06	0.11	0.13	0.06	0.21	<0.05	0.08	0.18	0.09	0.12	0.1	0.28	0.56	0.18	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.5	<0.4
12	NITRATE, MG/L	mg/L	10	< 0.05	0.07	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.04	<0.04	<0.04	0.02	<0.04	<0.04	0.094	<0.04	<0.04	0.05	<0.04	<0.04	<0.04	<0.04	0.03	<0.04
12	CHEMICAL OXYGEN DEMAND	mg/L	none	12.2	12	12	<1.00	11	<1.00	5.5	17	6.3	<1.0	4.9	5.4	<5.0	<5.0	<5.0	11	<5.0	<5.0	5.2	<5.0	<5.0	<5.0	6.9	5.9	11	<5.0	5.4	14
12	TOTAL ORGANIC CARBON	mg/L	none	3.2	3.39	2.62	3.4	3.7	3.4	2.9	3.6	3.1	2.5	2.7	<4	<2.0	3.7	4.3	4.9	3.9	2.9	3.2	3.9	4.2	4.4	5.9	4.1	3.5	5.3	9.6	5.5
12	TOTAL DISSOLVED SOLIDS, MG/L	mg/L	none	1400	1200	1200	1100	1300	1200	1100	1100	1200	1100	950	1000	1220	1096	582	1094	1206	976	904	1030	1020	940	882	928	916	932	906	930
12	SULFATE	mg/L	250	240	260	220	240	220	220	230	220	180	180	200	220	270 D	250 D	250 D	290 D	310 D	190 D	180 D	220 D	200 D	170 D	140 D	210 D	220 D	210D	190 D	210 D
12	ALKALINITY, MG/L	mg/L	none	390	380	380	390	400	400	400	390	400	420	380	330	370	370	370	375	380	360	380	375	385	385	380	370	370	370	361	411
12	PHENOLS	mg/L	1	0.003	0.003	0.003	0.003	0.008	0.003	<0.002	<0.002	<0.002	0.002	<0.002	<0.004	<0.004	<0.004	<0.004	0.006	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
12	CHLORIDE	mg/L	250	310	320	300	270	260	280	270	270	260	230	190	220	220 D	220	220 D	210 D	210 D	160 D	130	185 D	160	160 D	160 D	158	140 D	155D	144 D	132 D
12	HARDNESS	mg/L	none	820	755	690	600	622	670	640	622	755	98	610	660	640	550	640	650	650	590	590	600	1200	790 D	630 D	570 D	514	554	550	683
12	CYANIDE, TOTAL	mg/L	0.2	< 0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.08	-	-	-	-	-	<0.04	<0.04	-	-	-	-	<0.04	-	-	-	-
12	TOTAL ALUMINUM	mg/L	0.1	0.05	-	-	-	-	-	0.25	-	-	-	-	0.7	-	-	-	-	-	0.54	0.37	-	-	-	-	0.1	-	-	-	-
12	TOTAL ANTIMONY	mg/L	0.003	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	0.24	0.24	-	-	-	-	0.24	-	-	-	-
12	TOTAL ARSENIC	mg/L	0.05	< 0.005	-	-	-	-	-	<0.002	-	-	-	-	<0.005	-	-	-	-	-	<0.002	<0.002	-	-	-	-	<0.002	-	-	-	-
12	TOTAL BARIUM	mg/L	1	0.1	-	-	-	-	-	0.04	-	-	-	-	0.04	-	-	-	-	-	0.036	0.047	-	-	-	-	0.041	-	-	-	-
12	TOTAL BERYLLIUM	mg/L	none	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.002	<0.002	-	-	-	-	<0.002	-	-	-	-
12	TOTAL CHROMIUM	mg/L	0.05	0.01	-	-	-	-	-	0.34	-	-	-	-	0.01	-	-	-	-	-	0.014	0.014	-	-	-	-	0.014	-	-	-	-
12	TOTAL COPPER	mg/L	0.2	< 0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.010	<0.010	-	-	-	-	<0.010	-	-	-	-
12	TOTAL MERCURY	mg/L	0.0007	< 0.001	-	-	-	-	-	<0.0005	-	-	-	-	<0.001	-	-	-	-	-	<0.0004	<0.0004	-	-	-	-	<0.0004	-	-	-	-
12	TOTAL NICKEL	mg/L	0.1	0.02	-	-	-	-	-	0.09	-	-	-	-	0.02	-	-	-	-	-	0.05	0.05	-	-	-	-	0.05	-	-	-	-
12	TOTAL SELENIUM	mg/L	0.01	0.005	-	-	-	-	-	0.002	-	-	-	-	0.005	-	-	-	-	-	0.004	0.004	-	-	-	-	0.004	-	-	-	-
12	TOTAL SILVER	mg/L	0.05	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.010	<0.010	-	-	-	-	<0.010	-	-	-	-
12	TOTAL THALLIUM	mg/L	0.008	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	0.05	0.05	-	-	-	-	0.004	-	-	-	-
12	TOTAL ZINC	mg/L	0.066	0.09	-	-	-	-	-	<0.02	-	-	-	-	<0.02	-	-	-	-	-	<0.016	0.036	-	-	-	-	0.018	-	-	-	-
12	TOTAL KJELDAHL NITROGEN, MG/L	mg/L	none	0.2	-	-	-	-	-	0.2	-	-	-	-	3.8	-	-	-	-	-	0.56	0.75	-	-	-	-	1.2	-	-	-	-
12	BOD5, MG/L	mg/L	NA	< 2.0	-	-	-	-	-	2.3	-	-	-	-	<2	-	-	-	-	-	<2.0	<2.0	-	-	-	-	<2.0	-	-	-	-
12	COLOR, TRUE (Color Units)	COLOR	NA	5	-	-	-	-	-	10	-	-	-	-	10	-	-	-	-	-	5	5	-	-	-	-	10	-	-	-	-
12	BORON, (TOTAL) MG/L	mg/L	1	0.18	-	-	-	-	-	0.16	-	-	-	-	0.16	-	-	-	-	-	0.16	0.16	-	-	-	-	0.18	-	-	-	-
12	TOTAL HEXAVALENT CHROMIUM, I	mg/L	0.05	< 0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.04	-	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-
12	SOLUBLE HEXAVALENT CHROMIUM	mg/L	0.05		-	-	-	-	-		-	-	-	-		-	<0.04	<0.04	<0.04	<0.04			<0.04	<0.04	<0.04	<0.04		<0.04	<0.04	-	-

Summary of Groundwater Monitoring Results

SKW Whitmer Road Property
Town of Niagara, New York

1993-2000

Point 7

	Quarter	UNITS	Standard	2ND/93	3RD/93	4TH/93	1ST/94	2ND/94	3RD/94	4TH/94	1ST/95	2ND/95	4TH/95	1ST/96	2ND/96	3RD/96	4TH/96	1ST/97	2ND/97	3RD/97	4TH/97	1ST/98	2ND/98	3RD/98	4TH/98	1ST/99	2ND/99	3RD/99	4TH/99	1ST/00	2ND/00
7	TOP OF CASING ELEVATION	Feet	none			N/A	N/A	N/A		N/A	N/A		N/A	N/A	N/A		N/A	NA	NA		NA	NA								
7	WATER LEVEL (FEET)	Feet	none			N/A	N/A	N/A		N/A	N/A		N/A	N/A	N/A		N/A	NA	NA		NA	NA								
7	WATER ELEVATION (BEFORE PURGE	Feet	none			N/A	N/A	N/A		N/A	N/A		N/A	N/A	N/A		N/A	NA	NA		NA	NA								
7	WELL BOTTOM (FEET)	Feet	none			N/A	N/A	N/A		N/A	N/A		N/A	N/A	N/A		N/A	NA	NA		NA	NA								
7	SAMPLE DATE		none			12/7/1993	3/23/1994	6/28/1994		12/13/1994	3/16/1995		10/27/1995	1/24/1996	4/19/1996		11/1/1996	1/30/1997	4/30/1997		10/23/1997	1/22/1998								
7	TURBIDITY	NTU	5			8.28	67.5	215		15	16.2		10	15	8		100	45	5		29	39								
7	eH	Millivolts	none			(-) 66	(-) 23	(-) 77		(-)323	(-)110		(-)53	(-)68	-76		-64	-34	-126		-136	-168								
7	SPECIFIC CONDUCTANCE	umhos/cm	none			1940	1950	1850		7500	1870		3670	5570	2710		5450	8410	6600		7410	6700								
7	TEMPERATURE	F	none			42	51	75		43	57		52	42	58		44	41	58		52	40								
7	PH	Standard	6.5 - 8.5			12.41	12.3	12.2		12.78	13.63		11.84	15.19	13.6		11.88	12.77	12.68		12.5	12.38								
7	DISSOLVED OXYGEN	mg/l	none							3.37	4.6		9.95	3.45	7		5.65	2.45	4.31		9.69	3.96								
7	TOTAL POTASSIUM	mg/L	none			17	40	21		21	92		26	93	9.2		72	57	59		48	61								
7	TOTAL SODIUM	mg/L	20			41	45	54		70	84		40	78	67		65	60	56		58	64								
7	TOTAL IRON	mg/L	0.3			0.09	0.3	0.95		<0.05	0.28		0.11	<0.05	<0.05		0.59	3.8	0.11		0.402	0.530								
7	TOTAL MANGANESE	mg/L	0.3			<0.005	0.02	0.12		<0.005	<0.005		<0.005	<0.005	<0.005		0.02	0.2	0.006		0.025	0.028								
7	TOTAL MAGNESIUM	mg/L	35			2	3.5	5.2		1.7	<0.05		0.54	0.93	1.2		3.2	11	0.27		0.80	2.2								
7	TOTAL CALCIUM	mg/L	none			170	184	187		201	439		480	390	190		260 D	710 D	600 D		600 D	590 D								
7	TOTAL LEAD	mg/L	0.025			<0.005	<0.005	0.01		<0.002	<0.005		0.002	0.005	0.005		0.008	0.008	<0.005		0.002	0.003								
7	TOTAL CADMIUM	mg/L	0.005			<0.001	<0.0005	<0.0005		<0.005	<0.0005		<0.0002	<0.0005	<0.005			<0.001	<0.001		<0.016	<0.016								
7	AMMONIA, MG/L	mg/L	2			3	7.5	4		6.7	15		8.1	16	1		8.9 D	3.36	1.3		3.3	1.4								
7	NITRATE, MG/L	mg/L	10			0.43	0.72	0.6		0.29	1.7		0.4	2.5	0.2		0.04	0.94	0.92		0.72 D	0.94								
7	CHEMICAL OXYGEN DEMAND	mg/L	none			23	7.4	43		26	30		32	11	9.3		21	31	<5.0		<5.0	13								
7	TOTAL ORGANIC CARBON	mg/L	none			6.98	5.5	15		7	6.2		8.2	6.2	6.5		6.6	8.9	4.9		4.0	5.0								
7	TOTAL DISSOLVED SOLIDS, MG/L	mg/L	none			610	640	550		790	1400		960	1300	630		1230	1480	1462		1630	1490								
7	SULFATE	mg/L	250			24	77	30		30	84		54	120	28		66 D	14	27		14	18								
7	ALKALINITY, MG/L	mg/L	none			310	480	390		610	1200		680	1100	430		990	1740	1630		1370	1550								
7	PHENOLS	mg/L	1			0.013	0.013	0.034		0.014	0.017		0.01	0.02	0.01		0.01	0.014	0.016		0.029	0.028								
7	CHLORIDE	mg/L	250			50	43	70		110	60		48	40	93		41	37 D	46 D		40 D	30 D								
7	HARDNESS	mg/L	none			435	474	488		508	1097		1200	980	480		660	1840	1500		1500	1480								
7	CYANIDE, TOTAL	mg/L	0.2							<0.010					<0.08						<0.04	<0.04								
7	TOTAL ALUMINUM	mg/L	0.1							<0.05					<0.05						0.23	0.23								
7	TOTAL ANTIMONY	mg/L	0.003							<0.05					<0.05						<0.24	<0.24								
7	TOTAL ARSENIC	mg/L	0.05							<0.002					<0.005						<0.002	<0.002								
7	TOTAL BARIUM	mg/L	1							0.2					0.11						0.333	0.344								
7	TOTAL BERYLLIUM	mg/L	none							<0.005					<0.005						<0.002	<0.002								
7	TOTAL CHROMIUM	mg/L	0.05							<0.01					0.25						0.705	0.72								
7	TOTAL COPPER	mg/L	0.2							<0.01					<0.01						0.018	0.010								
7	TOTAL MERCURY	mg/L	0.0007							<0.0005					<0.001						<0.0004	<0.0004								
7	TOTAL NICKEL	mg/L	0.1							<0.02					<0.02						<0.050	<0.050								
7	TOTAL SELENIUM	mg/L	0.01							0.006					<0.005						0.035	0.033								
7	TOTAL SILVER	mg/L	0.05							<0.005					<0.005						<0.010	<0.010								
7	TOTAL THALLIUM	mg/L	0.008							<0.05					<0.05						<0.05	<0.05								
7	TOTAL ZINC	mg/L	0.066							<0.02					<0.02						<0.016	<0.016								
7	TOTAL KJELDAHL NITROGEN, MG/L	mg/L	none							7					9.2						4.0	0.73								
7	BOD5, MG/L	mg/L	NA							2.7					9.4						4.3	2.9								
7	COLOR, TRUE (Color Units)	COLOR	NA							20					20						20	20								
7	BORON, (TOTAL) MG/L	mg/L	1							0.06					0.05						0.07	0.06								
7	SOLUBLE HEXAVALENT CHROMIUM	mg/L	0.05															0.72	0.78		0.68	0.72								
7	TOTAL HEXAVALENT CHROMIUM, I	mg/L	0.05							0.32					0.24		0.38	0.64	0.75											

No Sample Available

No Sample - dry

Summary of Groundwater Monitoring Results

SKW Whitmer Road Property
Town of Niagara, New York

1993-2000

Point 6A

	Quarter	UNITS	Standard	2ND/93	3RD/93	4TH/93	1ST/94	2ND/94	3RD/94	4TH/94	1ST/95	2ND/95	4TH/95	1ST/96	2ND/96	3RD/96	4TH/96	1ST/97	2ND/97	3RD/97	4TH/97	1ST/98	2ND/98	3RD/98	4TH/98	1ST/99	2ND/99	3RD/99	4TH/99	1ST/00	2ND/00
6A	TOP OF CASING ELEVATION	Feet	none	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA		NA	NA									
6A	WATER LEVEL (FEET)	Feet	none	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA		NA	NA									
6A	WATER ELEVATION (BEFORE PURGE	Feet	none	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA		NA	NA									
6A	WELL BOTTOM (FEET)	Feet	none	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA		NA	NA									
6A	SAMPLE DATE		none	6/30/1993		12/7/1993	3/23/1994	6/28/1994	9/20/1994	12/13/1995	3/16/1995	6/6/1995	10/27/1995	1/25/1996	4/19/1996	7/11/1996	11/1/1996	1/30/1997	4/30/1997		10/23/1997	1/22/1998									
6A	TURBIDITY *	NTU	5	21.5		6.08	18.5	115	14.5	23	8.8	16.9	31	11	74	4	7	14	12		48	8									
6A	eH *	Millivolts	none	(-) 132		(-) 73	(-) 15	(-) 78	(-) 108	(-)312	(-)86	(-)101	(-)95	(-)68	-57	153	-30	-25	-150		-134	-168									
6A	SPECIFIC CONDUCTANCE *	umhos/cm	none	7500		1175	1125	1950	7000	4600	1180	8070	4070	3530	2710	8050	2300	6250	4550		2450	4900									
6A	TEMPERATURE *	F	none	60		40	44	74	66	23	57	85	52	35	58	78	47	34	58		36	40									
6A	PH *	Standard	6.5 - 8.5	12.53		12.09	12.13	12.31	12.67	12.6	13.2	12.35	11.*99	12.92	13.6	12.91	11.65	12.67	12.37		12.24	12.35									
6A	DISSOLVED OXYGEN	mg/L	none	1.74 *			9.06	3.66	1.26	6.61	6.1	2.7	5.9	9.17	7.3	2.16	7.6	2.51	7.99		6.04	6.54									
6A	TOTAL POTASSIUM	mg/L	none	64		30	15	37	54	38	23	64	33	29	30	65	23	87	33		26	77									
6A	TOTAL SODIUM	mg/L	20	77		37	44	60	72	72	86	74	47	55	64	66	33	70	75		39	64									
6A	TOTAL IRON	mg/L	0.3	0.31		0.46	0.1	1.4	0.07	4.6	0.05	0.05	0.42	0.16	1	0.15	0.09	0.45	0.16		0.152	<0.060									
6A	TOTAL MANGANESE	mg/L	0.3	0.03		<0.005	0.02	0.09	<0.005	0.1	0.01	0.009	0.03	0.01	0.04	0.012	<0.005	0.007	0.007		<0.010	<0.010									
6A	TOTAL MAGNESIUM	mg/L	35	1.3		6.1	3.8	3.9	0.08	376	3.7	1.9	2.9	1	1.6	1.1	<0.05	0.4	1.9		0.65	0.50									
6A	TOTAL CALCIUM	mg/L	none	810		126	82	330	588	376	127	71	300	250	280	440 D	120 D	410 D	230 D		180 D	410 D									
6A	TOTAL LEAD	mg/L	0.025	< 0.005		<0.005	<0.005	0.014	0.015	<0.002	<0.005	0.008	0.005	0.002	0.006	<0.005	<0.005	<0.005	<0.005		<0.002	<0.002									
6A	TOTAL CADMIUM	mg/L	0.005	< 0.005		<0.001	<0.0005	<0.0005	<0.005	<0.005	<0.0005	<0.0002	<0.0002	<0.0005	<0.005	<0.001		<0.001	<0.001		<0.016	<0.016									
6A	AMMONIA, MG/L	mg/L	2	5		<0.05	1.5	3.4	4.6	4.2	3.9	9.4	3.5	2.6	2.5	2.9 D	2.1	14.2	1.5		1.2	7.9									
6A	NITRATE, MG/L	mg/L	10	0.3		0.32	0.3	0.8	0.8	0.2	0.35	1.5	0.3	0.69	0.34	0.22	0.30 D	3.32	0.06		6.8 D	2.7 D									
6A	CHEMICAL OXYGEN DEMAND	mg/L	none	23.2		23.35	7.4	30	21	20	33	14	29	27	9.3	<5.0	18	31	23		12	16									
6A	TOTAL ORGANIC CARBON	mg/L	none	5.73		7.59	6	9.6	5.6	5.6	8.6	6.5	8.3	5.9	8.2	11	8.3	6.2	7.6		6.5	4.6									
6A	TOTAL DISSOLVED SOLIDS, MG/L	mg/L	none	1600		400	350	570	1600	1200	630	1600	1000	830	830	1700	644	1310	992		592	1340									
6A	SULFATE	mg/L	250	16		10.8	42	26	13	21	48	18	24	21	35	16	47 D	84 D	54 D		31	104 D									
6A	ALKALINITY, MG/L	mg/L	none	1600		250	210	460	1700	1100	310	1600	660	590	410	1600	400	1150	735		330	1140									
6A	PHENOLS	mg/L	1	0.032		0.009	0.009	0.026	0.04	0.013	0.012	0.018	0.01	0.01	0.009	0.02	<0.004	0.018	0.007		0.01	0.015									
6A	CHLORIDE	mg/L	250	42		32	55	55	73	60	130	38	430	43	60	31 D	38	46 D	102 D		50 D	40 D									
6A	HARDNESS	mg/L	none	2000		975	220	841	1470	940	333	188	760	630	706	1100	300	1000	570		450	1020									
6A	CYANIDE, TOTAL	mg/L	0.2	< 0.010						<0.010					<0.08						<0.04	<0.4 **									
6A	TOTAL ALUMINUM	mg/L	0.1	0.2						<0.05					0.18						0.23	<0.10									
6A	TOTAL ANTIMONY	mg/L	0.003	< 0.05						<0.05					<0.05						<0.24	<0.24									
6A	TOTAL ARSENIC	mg/L	0.05	<0.005						<0.002					<0.005						<0.002	<0.002									
6A	TOTAL BARIUM	mg/L	1	0.4						0.24					0.18						0.178	0.382									
6A	TOTAL BERYLLIUM	mg/L	none	< 0.005						<0.005					<0.005						<0.002	<0.002									
6A	TOTAL CHROMIUM	mg/L	0.05	0.92						1.5					0.44						0.530	0.55									
6A	TOTAL COPPER	mg/L	0.2	< 0.01						<0.01					0.01						0.013	<0.010									
6A	TOTAL MERCURY	mg/L	0.0007	< 0.001						<0.0005					<0.001						<0.0004	<0.0004									
6A	TOTAL NICKEL	mg/L	0.1	< 0.02						0.48					<0.02						<0.050	<0.050									
6A	TOTAL SELENIUM	mg/L	0.01	0.04						<0.002					<0.005						0.009	0.015									
6A	TOTAL SILVER	mg/L	0.05	< 0.005						<0.005					<0.005						<0.010	<0.010									
6A	TOTAL THALLIUM	mg/L	0.008	< 0.05						0.05					<0.05						<0.05	<0.05									
6A	TOTAL ZINC	mg/L	0.066	0.13						<0.02					<0.02						<0.016	<0.016									
6A	TOTAL KJELDAHL NITROGEN, MG/L	mg/L	none	5						5.5					8.3						1.9	8.9									
6A	BOD5, MG/L	mg/L	NA	2.8						2					<2						5.0	<2.0									
6A	COLOR, TRUE (Color Units)	COLOR	NA	30						25					30						30	15									
6A	BORON, (TOTAL) MG/L	mg/L	1	0.05						0.15					0.07						0.09	0.06									
6A	SOLUBLE HEXAVALENT CHROMIUM	mg/L	0.05															0.4	0.51		0.54	0.56									
6A	TOTAL HEXAVALENT CHROMIUM, I	mg/L	0.05	0.84						0.57					0.36		0.32	0.42	0.28												

Not Sampled

No Sample Available

Summary of Groundwater Monitoring Results

SKW Whitmer Road Property
Town of Niagara, New York

1993-2000

Monitoring Well 5R

	Quarter	UNITS	Standard	2ND/93	3RD/93	4TH/93	1ST/94	2ND/94	3RD/94	4TH/94	1ST/95	2ND/95	4TH/95	1ST/96	2ND/96	3RD/96	4TH/96	1ST/97	2ND/97	3RD/97	4TH/97	1ST/98	2ND/98	3RD/98	4TH/98	1ST/99	2ND/99	3RD/99	4TH/99	1ST/00	2ND/00
5R	TOP OF CASING ELEVATION	Feet	none	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67	601.67
5R	WATER LEVEL (FEET)	Feet	none	7.47	9.7	6.9	6.14	6.54	9.32	6.79	8.11	8.29	7.56	6.37	6.79	8.19	7.08	6.99	7.42	10.26	9.67	7.42	9.51	10.86	12.78	12.19	9.53	11.25	10.27	8.2	7.18
5R	WATER ELEVATION (BEFORE PURGE	Feet	none	594.2	591.97	594.77	595.53	595.13	592.35	594.88	593.56	593.38	594.02	595.3	594.88	593.48	594.59	594.68	594.25	591.41	592.00	594.25	592.16	590.81	588.89	589.48	592.14	590.42	591.4	593.47	594.49
5R	WELL BOTTOM (FEET)	Feet	none	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	19.84	19.82	19.82	19.82	19.83	19.9	19.94
5R	SAMPLE DATE		none	6/30/1993	9/10/1993	12/7/1993	3/22/1994	6/28/1994	9/20/1994	12/13/1994	3/16/1995	6/6/1995	10/27/1995	1/25/1996	4/19/1996	7/11/1996	11/1/1996	1/30/1997	4/30/1997	7/30/1997	10/23/1997	1/22/1998	6/18/1998	7/21/1998	10/14/1998	1/27/1999	4/23/1999	7/16/1999	10/21/1999	1/27/2000	4/18/2000
5R	TURBIDITY	NTU	5	13.5	8.2	9.65	25.9	13.8	7	120	8.5	15.4	8	24	11	8	10	23	10	36	34	21	3.21	4.7	8	26	26	4	5	17.7	3.9
5R	Eh	Millivolts	none	11	(-) 39	84	55	111	45	(-)48	36	103	155	(-)5	52	182	122	72	68	-9	-3	15	NA	135	227	29	290	265	232	229	285
5R	SPECIFIC CONDUCTANCE	umhos/cm	none	1620	1840	1640	940	1525	1450	2700	1653	1810	1800	1950	1810	1530	1358	1720	1750	1162	1346	1309	1110	1320	690	805	915	871	1120	955	1070
5R	TEMPERATURE	F	none	59	62	48	51	62	62	52	45	52	58	47	47	62	53	46	49	57	54	47	55.4	57	59	50	49	59	58	40	50
5R	PH	Standard	8.5	7.81	7.47	8.15	7.02	7.89	8.05	770	8.72	7.97	8.38	7.97	9.35	7.78	6.76	8.24	7.48	7.37	7.96	7.44	7.12	7.52	8.20	7.82	7.43	7.96	7.76	7.52	7.71
5R	TOTAL POTASSIUM	mg/L	none	19	18	19	1.97	20	19	26	34	38	42	59	62	66	71	78	67	60	66	72	43	46	3.1	46	37	28	36	40.8	58
5R	TOTAL SODIUM	mg/L	20	127	115	139	39	138	142	156	158	156	150	150	155	130	120	130	115	105	120	114	100	82	120	82	82	88	80	85.7	98
5R	TOTAL IRON	mg/L	0.3	0.64	0.71	0.53	0.85	0.41	0.3	6.2	0.35	0.57	0.44	0.4	0.45	0.12	0.46	0.72	0.34	0.42	0.343	0.389	1.44	0.125	6.58	1.60	1.10	0.299	0.776	0.823	0.209
5R	TOTAL MANGANESE	mg/L	0.3	0.36	0.25	0.22	0.11	0.28	0.15	0.3	0.1	0.26	0.2	0.07	0.07	0.067	0.11	0.19	0.059	0.08	0.092	0.033	0.496	0.057	0.293	0.187	0.111	0.084	0.121	0.179	0.033
5R	TOTAL MAGNESIUM	mg/L	35	61	57	64	45	52	49	50	45	43	34	36	34	23	16	23	22	17	19	24	24	15	38	15	15	18	12	22.3	25
5R	TOTAL CALCIUM	mg/L	none	114	106	125	105	108	109	108	99	103	82	92	92	62	50	77	70	57	73	83	71	45	89	54	54	48	41	81.8	83
5R	TOTAL LEAD	mg/L	0.025	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	0.005	<0.002	0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	0.007	0.008	0.005	0.002	<0.005	<0.005	<0.08
5R	TOTAL CADMIUM	mg/L	0.005	< 0.005	<0.0005	0.002	<0.0005	0.0039	<0.005	<0.005	<0.0005	0.002	0.0006	0.0009	<0.005	<0.001		<0.001	<0.001	<0.001	<0.016	<0.016	<0.001	<0.001	0.002	0.001	<0.016	0.001	<0.002	<0.002	<0.002
5R	AMMONIA, MG/L	mg/L	2	0.06	<0.05	<0.05	0.05	0.14	<0.05	0.17	0.1	0.14	2.5	0.22	0.24	0.59	0.37	0.56	0.26	<0.4	0.44	<0.4	<0.4	<0.4	0.5	<0.4	<0.4	<0.4	<0.4	5.1	<0.4
5R	NITRATE, MG/L	mg/L	10	< 0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	0.05	0.06	<0.05	0.05	0.21	0.06	0.15	0.09	0.07	0.14 D	0.19	0.06	<0.04	0.04	0.20	0.04	<0.04	<0.04	<0.4	0.113
5R	CHEMICAL OXYGEN DEMAND	mg/L	none	36.6	41	23	3	37	24	33	33	24	5.2	14	27	16	35	37	46	25	14	28	36	<5.0	14	27	28	36	15	27	35
5R	TOTAL ORGANIC CARBON	mg/L	none	8.72	10.4	3.9	3.8	10.4	9.2	9.9	9.9	10	8.5	11	10	10	11	12	11	8.4	10	10	12	12	4.7	30	10	16	11	10	14
5R	TOTAL DISSOLVED SOLIDS, MG/L	mg/L	none	1100	1100	1200	780	1200	1000	1100	1200	1100	1000	1000	1000	880	826	1070	824	782	868	860	736	528	702	546	534	550	564	714	824
5R	SULFATE	mg/L	250	320	330	320	180	330	310	350	380	330	270	360	320	270 D	250 D	280 D	240 D	220 D	250 D	250 D	210 D	180 D	90 D	160 D	190 D	180 D	200 D	228 D	280 D
5R	ALKALINITY, MG/L	mg/L	none	220	220	200	370	160	190	130	110	120	130	100	110	65	80	90	75	80	60	105	85	100	370	80	95	100	85	89	83
5R	PHENOLS	mg/L	1	0.002	ND	0.003	0.013	0.006	ND	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.004	0.013	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	0.009	<0.008	<0.008	<0.008	<0.008
5R	CHLORIDE	mg/L	250	270	260	280	92	300	280	300	320	300	260	270	270	190 D	210	230 D	215 D	150 D	210 D	200	170 D	116	108	102	110	121	121	162 D	190 D
5R	HARDNESS	mg/L	none	530	500	575	447	483	472	475	432	434	340	380	370	250	190	290	265	210	260	306	280	170	380	190	200	194	151	295	310
5R	CYANIDE, TOTAL	mg/L	0.2	< 0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.08	-	-	-	-	-	<0.04	<0.04	-	-	-	-	<0.04	-	-	-	-
5R	TOTAL ALUMINUM	mg/L	0.1	0.1	-	-	-	-	-	0.32	-	-	-	-	0.26	-	-	-	-	-	0.22	0.13	-	-	-	-	0.94	-	-	-	-
5R	TOTAL ANTIMONY	mg/L	0.003	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	0.24	0.24	-	-	-	-	0.24	-	-	-	-
5R	TOTAL ARSENIC	mg/L	0.05	< 0.005	-	-	-	-	-	<0.002	-	-	-	-	<0.005	-	-	-	-	-	0.003	0.004	-	-	-	-	0.004	-	-	-	-
5R	TOTAL BARIUM	mg/L	1	0.04	-	-	-	-	-	<0.005	-	-	-	-	0.05	-	-	-	-	-	0.048	0.055	-	-	-	-	0.054	-	-	-	-
5R	TOTAL BERYLLIUM	mg/L	none	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.002	<0.002	-	-	-	-	<0.002	-	-	-	-
5R	TOTAL CHROMIUM	mg/L	0.05	< 0.01	-	-	-	-	-	1.1	-	-	-	-	<0.01	-	-	-	-	-	<0.014	<0.014	-	-	-	-	<0.014	-	-	-	-
5R	TOTAL COPPER	mg/L	0.2	< 0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.010	<0.010	-	-	-	-	<0.010	-	-	-	-
5R	TOTAL MERCURY	mg/L	0.0007	< 0.001	-	-	-	-	-	<0.0005	-	-	-	-	<0.001	-	-	-	-	-	<0.0004	<0.0004	-	-	-	-	<0.0004	-	-	-	-
5R	TOTAL NICKEL	mg/L	0.1	< 0.02	-	-	-	-	-	0.6	-	-	-	-	<0.02	-	-	-	-	-	<0.050	<0.050	-	-	-	-	<0.050	-	-	-	-
5R	TOTAL SELENIUM	mg/L	0.01	0.005	-	-	-	-	-	0.002	-	-	-	-	0.005	-	-	-	-	-	0.004	0.005	-	-	-	-	0.004	-	-	-	-
5R	TOTAL SILVER	mg/L	0.05	< 0.005	-	-	-	-	-	<0.005	-	-	-	-	0.01	-	-	-	-	-	<0.010	<0.010	-	-	-	-	<0.010	-	-	-	-
5R	TOTAL THALLIUM	mg/L	0.008	0.05	-	-	-	-	-	0.05	-	-	-	-	0.05	-	-	-	-	-	0.05	0.05	-	-	-	-	0.004	-	-	-	-
5R	TOTAL ZINC	mg/L	0.066	0.11	-	-	-	-	-	0.02	-	-	-	-	0.02	-	-	-	-	-	0.016	0.016	-	-	-	-	0.023	-	-	-	-
5R	TOTAL KJELDAHL NITROGEN, MG/L	mg/L	none	0.6	-	-	-	-	-	0.1	-	-	-	-	0.66	-	-	-	-	-	0.72	0.71	-	-	-	-	1.3	-	-	-	-
5R	BOD5, MG/L	mg/L	NA	< 2.0	-	-	-	-	-	<2.0	-	-	-	-	4.3	-	-	-	-	-	<2.0	<2.0	-	-	-	-	<2.0	-	-	-	-
5R	COLOR, TRUE (Color Units)	COLOR	NA	10	-	-	-	-	-	15	-	-	-	-	10	-	-	-	-	-	10	<5	-	-	-	-	15	-	-	-	-
5R	BORON, (TOTAL) MG/L	mg/L	1	0.15	-	-	-	-	-	0.14	-	-	-	-	0.14	-	-	-	-	-	0.25	0.26	-	-	-	-	0.24	-	-	-	-
5R	TOTAL HEXAVALENT CHROMIUM, I	mg/L	0.05	< 0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.04	-	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
5R	SOLUBLE HEXAVALENT CHROMIUM	mg/L	0.05		-	-	-	-	-		-	-	-	-		-	<0.04	<0.04	<0.04	<0.04			<0.04	<0.04	<0.04	<0.04		<0.04	<0.04	<0.04	<0.04

Attachment 8

Post-IRM Stormwater Monitoring Results

SKW ALLOYS

LANDFILL ANALYSIS

ADDITIONAL TESTING OF WELL ~~X X &~~ 3R
And Stormwater Outfall
48 HOUR AND 72 HOUR RE-COLLECTION

SAMPLE DATES: 01/28-29/99

February 3, 1999
REF: DTT1917L/100B
Lab ID No. 10233

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: 3R (48hr) Resample
COLLECTION METHOD: Grab
COLLECTION DATE(S): 01/28/99
SAMPLE TYPE: Groundwater

AES CLIENT ID: DTT
AES SAMPLE ID: 917L-1

PROJECT ID: 917L

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	14	NTU	0.1	EPA 180.1
Total Potassium	ND	mg/L	1.8	EPA 200.7
Total Sodium	12	mg/L	0.08	EPA 200.7
Total Iron	0.408	mg/L	0.060	EPA 200.7
Total Manganese	0.016	mg/L	0.010	EPA 200.7
Total Magnesium	46	mg/L	0.14	EPA 200.7
Total Calcium	95	mg/L	0.08	EPA 200.7
Total Lead	0.004	mg/L	0.002	EPA 239.2
Total Cadmium	ND	mg/L	0.001	EPA 213.2
Hardness	430	mg/L	1.0	EPA 200.7

* Analysis performed in the field.

CLIENT: SKW Alloys
SAMPLE ID: 3R (72hr) Resample
COLLECTION METHOD: Grab
COLLECTION DATE(S): 01/29/99
SAMPLE TYPE: Groundwater

AES CLIENT ID: DTT
AES SAMPLE ID: 917L-2

PROJECT ID: 917L

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	61.5	NTU	0.1	EPA 180.1
Total Potassium	ND	mg/L	1.8	EPA 200.7
Total Sodium	11	mg/L	0.08	EPA 200.7
Total Iron	2.31	mg/L	0.060	EPA 200.7
Total Manganese	0.094	mg/L	0.010	EPA 200.7
Total Magnesium	49	mg/L	0.14	EPA 200.7
Total Calcium	100	mg/L	0.08	EPA 200.7
Total Lead	0.010	mg/L	0.002	EPA 239.2
Total Cadmium	ND	mg/L	0.001	EPA 213.2
Hardness	460	mg/L	1.0	EPA 200.7

* Analysis performed in the field.

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Outfall 1 (72hr) resap
COLLECTION METHOD: Grab
COLLECTION DATE(S): 01/29/99
SAMPLE TYPE: Groundwater

AES CLIENT ID: DTT
AES SAMPLE ID: 917L-3

PROJECT ID: 917L

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Turbidity *	92.5	NTU	0.1	EPA 180.1
pH *	6.57	Std.	0.01	EPA 150.1
Total Hexavalent Chromium	0.05	mg/L	0.04	SW 846 7196
Total Chromium	0.200	mg/L	0.014	EPA 200.7

* Analysis performed in the field.

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: METHOD BLANK
COLLECTION METHOD:
COLLECTION DATE(S):
SAMPLE TYPE:

AES CLIENT ID: DTT

PROJECT ID: 917L

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Total Potassium	ND	mg/L	1.8	EPA 200.7
Total Sodium	ND	mg/L	0.08	EPA 200.7
Total Iron	ND	mg/L	0.060	EPA 200.7
Total Manganese	ND	mg/L	0.010	EPA 200.7
Total Magnesium	ND	mg/L	0.14	EPA 200.7
Total Calcium	ND	mg/L	0.08	EPA 200.7
Total Lead	ND	mg/L	0.002	EPA 239.2
Total Cadmium	ND	mg/L	0.001	EPA 213.2
Hardness	ND	mg/L	1.0	EPA 200.7
Total Hexavalent Chromium	ND	mg/L	0.04	SW 846 7196
Total Chromium	ND	mg/L	0.014	EPA 200.7

CLIENT: SKW Alloys

AES CLIENT ID: DTT
PROJECT ID: 917L

ACCURACY

Analytical Parameter(s)	Method	Sample ID	Type	Percent Recovery
Total Potassium	EPA 200.7	---	Independent Standard	104
Total Sodium	EPA 200.7	---	Independent Standard	101
Total Iron	EPA 200.7	---	Independent Standard	101
Total Manganese	EPA 200.7	---	Independent Standard	101
Total Magnesium	EPA 200.7	---	Independent Standard	102
Total Calcium	EPA 200.7	---	Independent Standard	100
Total Lead	EPA 239.2	---	Independent Standard	104
Total Cadmium	EPA 213.2	---	Independent Standard	106
Hardness	EPA 200.7	---	Independent Standard	101
Total Hexavalent Chromium	SW 846 7196	---	Independent Standard	104
Total Chromium	EPA 200.7	---	Independent Standard	100

ADVANCED ENVIRONMENTAL SERVICES
P.O. Box 165
2186 Liberty Drive
Niagara Falls, New York 14304
(716) 283-3120
FAX (716) 283-4727

Destination Fax number: (904) 824-0726

02/15/99

Attention : Skip Hutton
SKW Alloys
LAN Associates
66 Cuna St.
St Augustine, FL 32084

From : Jonathan

Number of Pages (including cover sheet): 6

Ref: 91AE

Surface Water Analysis
Sample Date: February 12, 1999

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Outfall 1
COLLECTION METHOD: Grab
COLLECTION DATE(S): 02/12/99
SAMPLE TYPE: Water

AES CLIENT ID: DTT
AES SAMPLE ID: 91AE-1

PROJECT ID: 91AE

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
pH *	7.98	Standard	0.1	EPA 150.1
Turbidity *	58.5	NTU	0.1	EPA 180.1
Total Hexavalent Chromium	ND	mg/L	0.04	SW 846 7196
Total Chromium	ND	mg/L	0.014	EPA 200.7

* Analysis performed in the field.

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Pond Bank
COLLECTION METHOD: Grab
COLLECTION DATE(S): 02/12/99
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 91AE-2

PROJECT ID: 91AE

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
pH *	6.58	Standard	0.1	SW 846 9045
Total Chromium	16.4	mg/kg	1.4	SW 846 6010

* Analysis performed in the field.

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Swamp Area
COLLECTION METHOD: Grab
COLLECTION DATE(S): 02/12/99
SAMPLE TYPE: Water

AES CLIENT ID: DTT
AES SAMPLE ID: 91AE-3

PROJECT ID: 91AE

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
pH *	7.89	Standard	0.1	EPA 150.1
Turbidity *	60.6	NTU	0.1	EPA 180.1
Total Hexavalent Chromium	1.25 D	mg/L	0.04	SW 846 7196
Total Chromium	1.41	mg/L	0.014	EPA 200.7

* Analysis performed in the field.

ADVANCED ENVIRONMENTAL SERVICES, INC.
QUALITY CONTROL REPORT

CLIENT: SKW Alloys

AES CLIENT ID: DTT
PROJECT ID: 91AE

ACCURACY

Analytical Parameter(s)	Method	Sample ID	Type	Percent Recovery
Total Hexavalent Chromium	SW 846 7196	91AE-1	Matrix Spike	104
Total Hexavalent Chromium	SW 846 7196	91AE-3	Matrix Spike	103
Total Chromium	EPA 200.7	91AE-1	Matrix Spike	92
Total Chromium	EPA 200.7	91AE-3	Matrix Spike	93
Total Chromium	SW 846 6010	91AE-2	Matrix Spike	92

ADVANCED ENVIRONMENTAL SERVICES, INC.
QUALITY CONTROL REPORT

CLIENT: SKW Alloys

AES CLIENT ID: DTT
PROJECT ID: 91AE

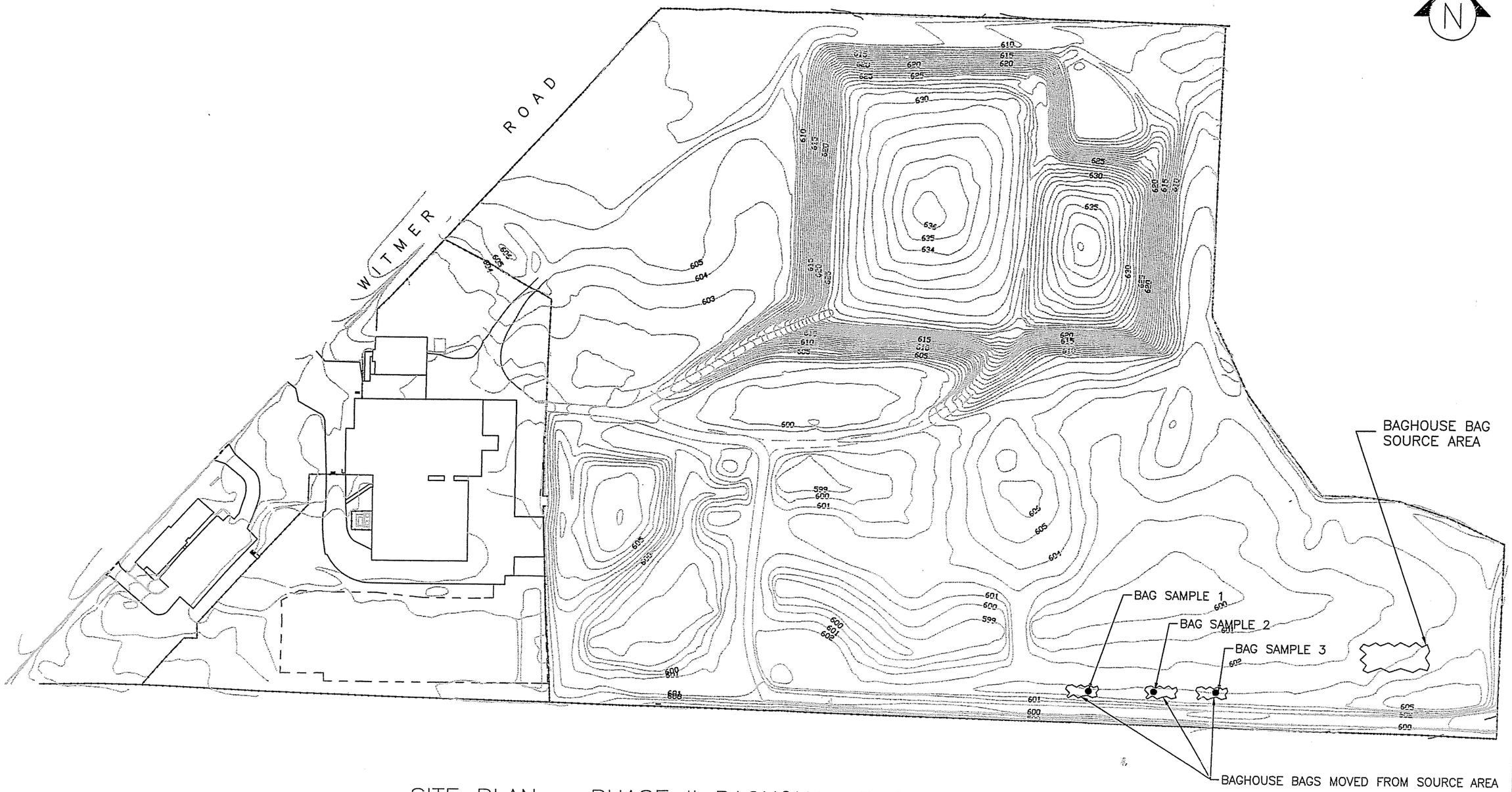
PRECISION

Analytical Parameter(s)	Method	Sample ID	Type	Relative % Difference
Total Hexavalent Chromium	SW 846 7196	91AE-1	Duplicate	NA
Total Hexavalent Chromium	SW 846 7196	91AE-3	Duplicate	9.9
Total Chromium	EPA 200.7	91AE-1	Duplicate	NA
Total Chromium	EPA 200.7	91AE-3	Duplicate	0.7
Total Chromium	SW 846 6010	91AE-2	Duplicate	12

NA = NOT AVAILABLE - ORIGINAL AND/OR DUPLICATE RESULTS ARE BELOW REPORTED LIMITS

Attachment 9

Summary Figures and Tables Documenting Soil Sampling Results



SITE PLAN – PHASE II BAGHOUSE BAG LOCATION MAP

SCALE (FT): 100 0 50 100 200 300

SKW METALS & ALLOYS, INC – NIAGARA FALLS, NEW YORK

NOTE:
1) DRAWING BASED ON LOCKWOOD MAPPING, INC. TOPOGRAPHIC SERIES 7235S1 THRU 7235S4

REVISION :

DATE : 02/16/99
CHECKED : HHH
DRAWN : T JONES
SCALE : PLOT 1"=150'

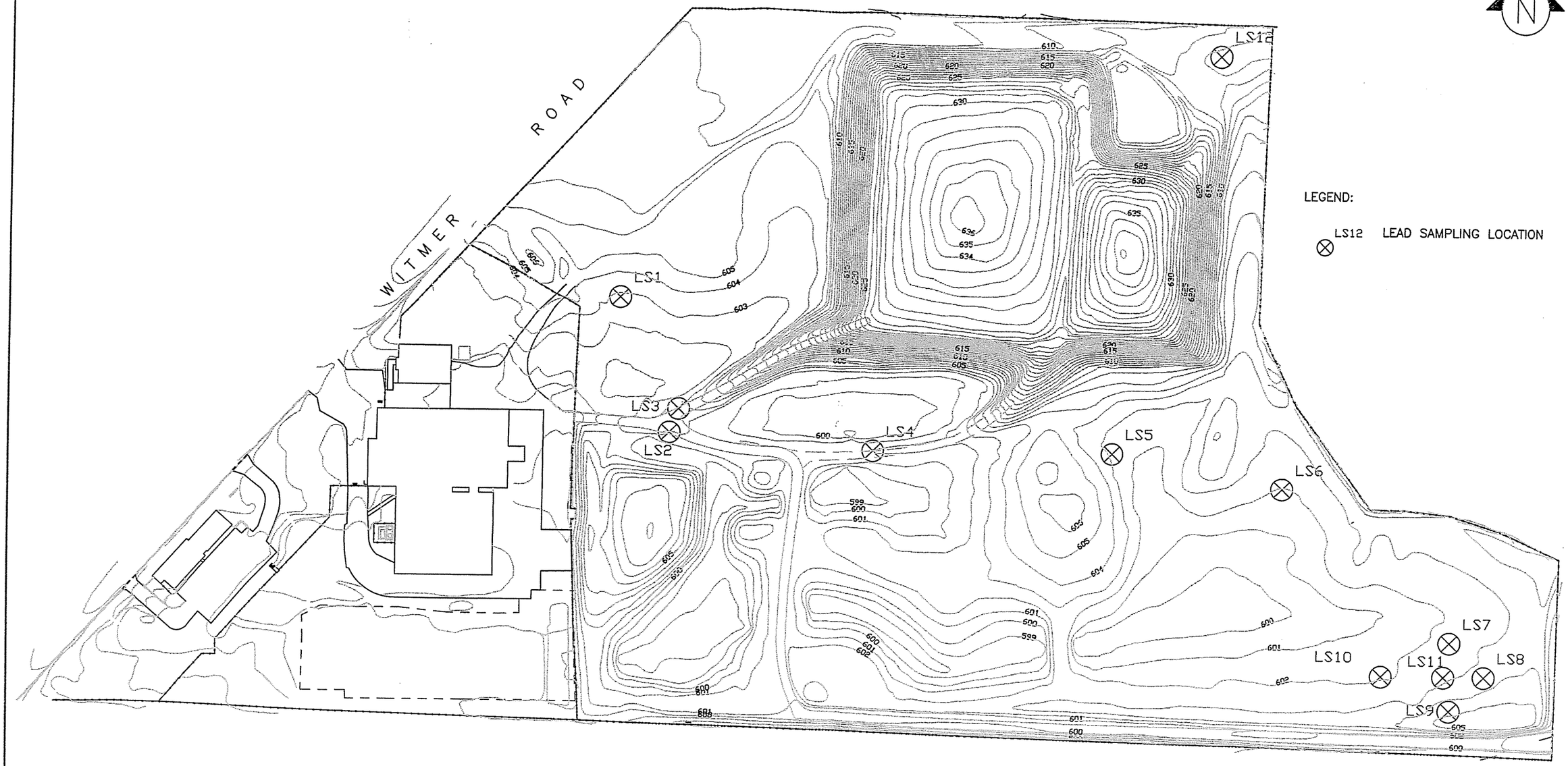
LAN ASSOCIATES, INC
environmental and facilities engineering
662 GOFFLE ROAD, HAWTHORNE, NJ 07506-3499 (201) 423-0350

JOB NO. 2.3269.22
DWG. FILE CODE 326922026
FIGURE NO. 8-12
Sht. 1 of 1

Summary of Phase II Baghouse Dust Results
CC Metals and Alloys, Inc.
Niagara Falls, New York

July 29, 1998

Location	Total Chromium	Total Lead	TCLP Arsenic	TCLP Barium	TCLP Cadmium	TCLP Chromium	TCLP Lead	TCLP Mercury	TCLP Selenium	TCLP Silver
	mg/kg		mg/l							
Bag #1	110	1940	0.25	ND	0.05	0.12	7.91	ND	0.17	ND
Bag #2	126	2200	0.31	ND	0.06	0.12	8.6	ND	0.23	ND
Bag #3	111	2210	0.16	ND	0.04	0.19	13.5	ND	ND	ND



LEGEND:

⊗ LS12 LEAD SAMPLING LOCATION

SITE PLAN – PHASE II SURFACE SOIL SAMPLING LOCATIONS

SCALE (FT): 100 0 50 100 200 300

SKW METALS & ALLOYS, INC – NIAGARA FALLS, NEW YORK

NOTE:
DRAWING BASED ON LOCKWOOD MAPPING, INC.
TOPOGRAPHIC SERIES 6781S1 THRU 6781S11

REVISION :

DATE : 02/16/99
CHECKED : HHH
DRAWN : T JONES
SCALE : PLOT 1:150

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environmental and facilities engineering
662 GOFFLE ROAD, HAWTHORNE, NJ 07506-3499 (201) 423-0350

JOB NO. 2.3269.22
DWG. FILE CODE 326922027
FIGURE NO. 8-13

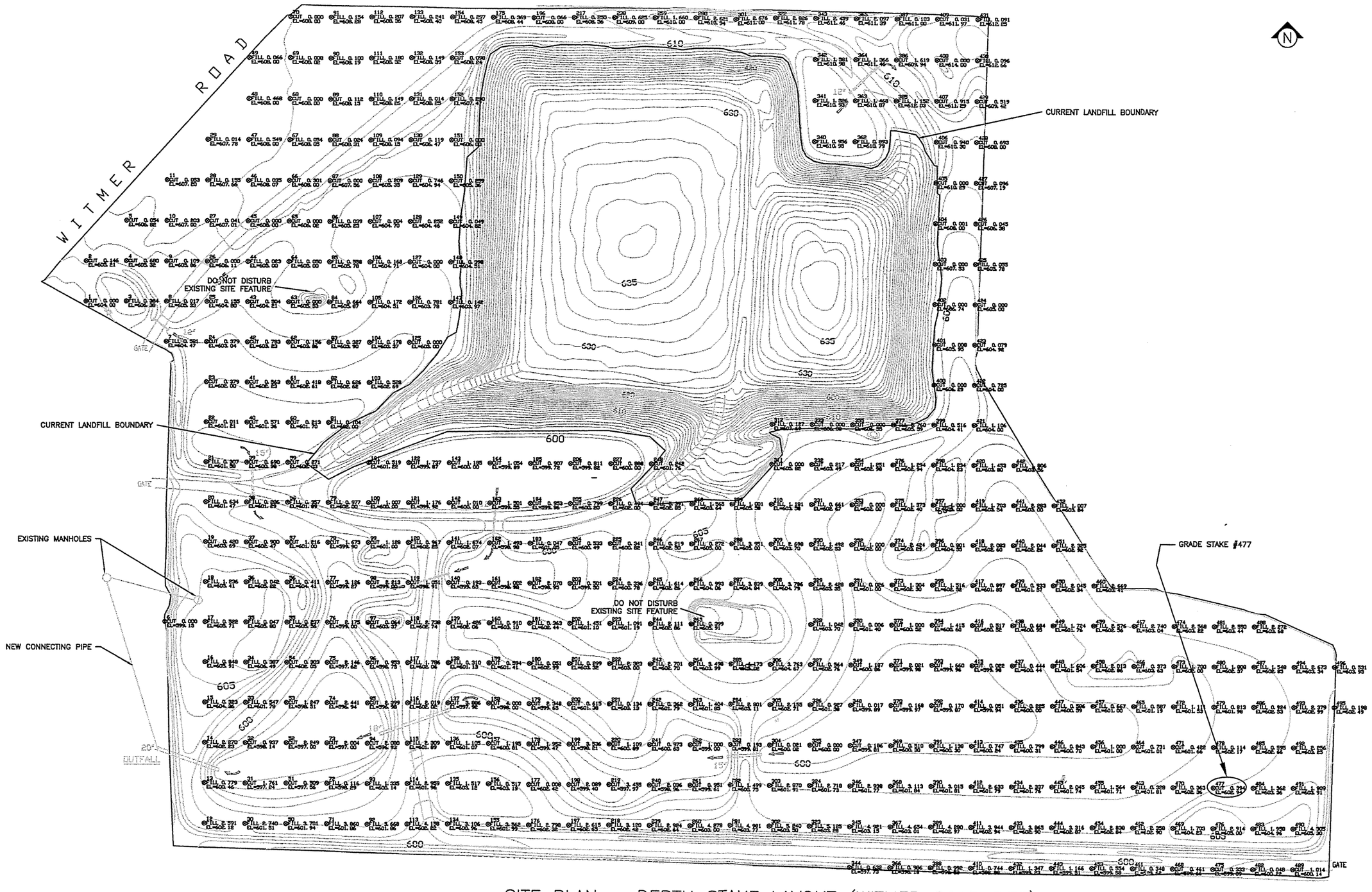
Sht. 1 of 1

Table 8-2

Phase II Surface Soil Sampling Results
Total Metals and TCLP Metals

CC Metals and Alloys, Inc.
Witmer Road

Sample Location	Date Sampled	Total Arsenic	Total Barium	Total Cadmium	Total Chromium	Total Lead	Total Mercury	Total Selenium	Total Silver	TCLP Arsenic	TCLP Barium	TCLP Cadmium	TCLP Chromium	TCLP Lead	TCLP Mercury	TCLP Selenium	TCLP Silver
Limit										5.0	100	1.0	5.0	5.0	0.2	1.0	5.0
LS-1	8/16/98		276	ND	1640	79.8			ND								
LS-2	8/16/98		435	1.94	1690	464			ND	0.23	ND	ND	0.09	ND	ND	ND	ND
LS-3	8/16/98		182	1.81	510	777			ND	0.23	ND	ND	0.04	0.09	ND	ND	ND
LS-4	8/16/98		1080	2.46	642	262			ND	ND	ND	ND	0.08	ND	ND	ND	ND
LS-5	8/16/98		46	ND	87	18			ND								
LS-6	8/16/98		512	5.1	1750	550			ND	0.24	ND	ND	ND	ND	ND	ND	ND
LS-7	8/16/98		220	3.1	398	142			ND								
LS-8	8/16/98		136	2.7	807	322			ND								
LS-9	8/16/98		51	2.3	403	280			ND								
LS-10	8/16/98		237	3.0	953	143			ND								
LS-11	8/16/98		104	3.1	598	322			ND	ND	1.0	0.05	0.10	0.07	ND	ND	ND
LS-12	8/16/98		63	ND	3300	890			ND	0.18	ND	ND	0.24	0.06	ND	ND	ND



SITE PLAN – DEPTH STAKE LAYOUT (WITMER ROAD SITE)

SCALE: 0 50 100

CCMA (CALVERT CITY METALS & ALLOYS), INC.
NIAGARA FALLS, NEW YORK

NOTE:
DRAWING BASED ON AERIAL PHOTOGRAPH BY
LOCKWOOD MAPPING OF ROCHESTER, NY
MARCH 17, 1996

REVISION :

DATE : 02/14/01
CHECKED : HHH
DRAWN : T JONES
SCALE : AS NOTED

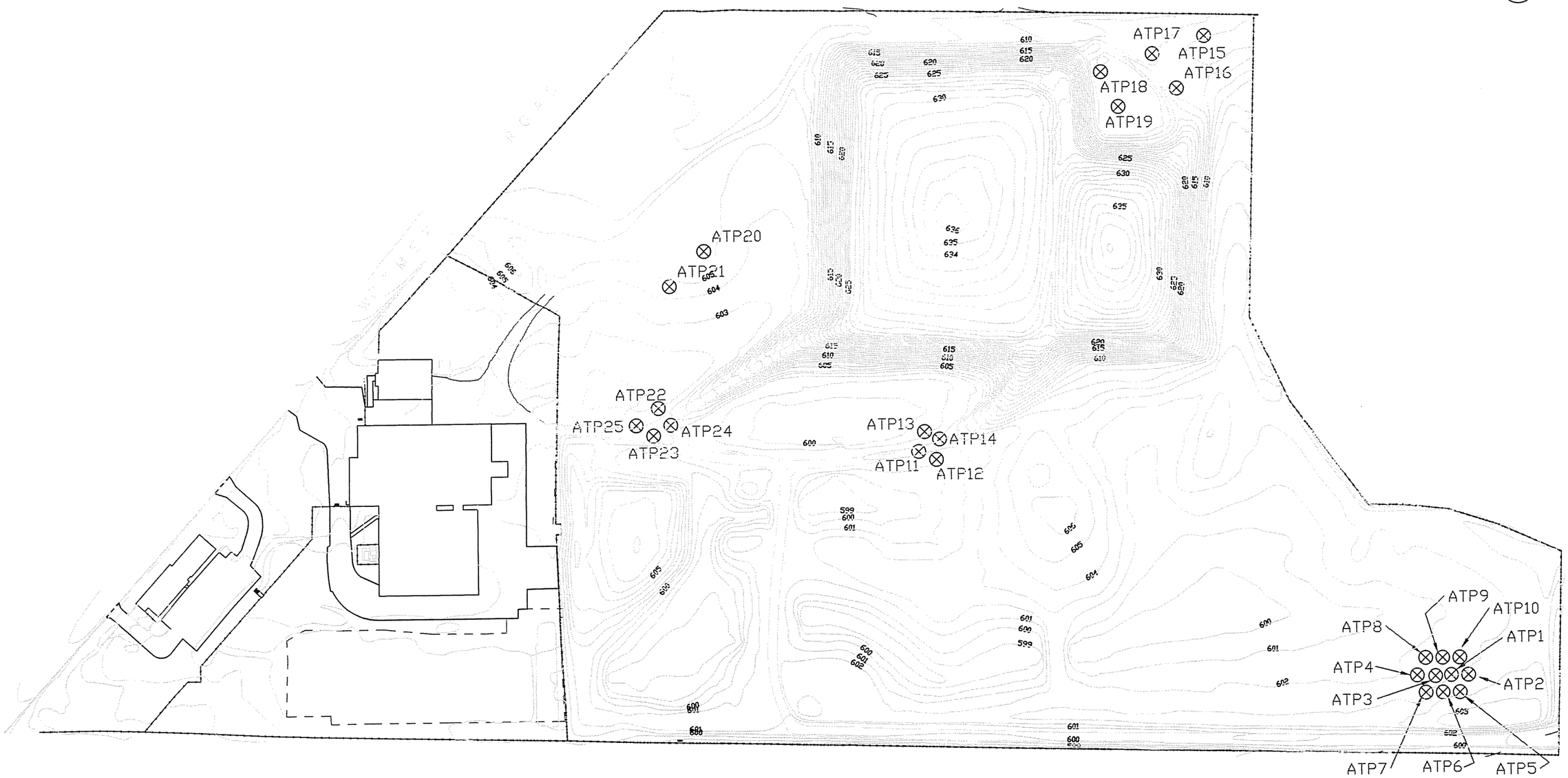
LAN ASSOCIATES INC.
environmental and facilities engineering
66 CUNA STREET, ST. AUGUSTINE, FL 32084-3619 (904)824-6999

JOB NO. 2.3269.23
DWG. FILE CODE 326923001
FIGURE NO.

Sht. 1 of 1

Attachment 10

Summary Figures and Tables Documenting Additional Soil Sampling Results



SITE PLAN – PHASE II TEST PIT LOCATION MAP

SCALE (FT): 100 0 50 100 200 300

SKW METALS & ALLOYS, INC – NIAGARA FALLS, NEW YORK

NOTE:
DRAWING BASED ON LOCKWOOD MAPPING, INC.
TOPOGRAPHIC SERIES 6781S1 THRU 6781S11

REVISION :

DATE : 12/16/98
CHECKED : HHH
DRAWN : T JONES
SCALE : PLOT 1:150

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environmental and facilities engineering
662 GOFFLE ROAD, HAWTHORNE, NJ 07506-3499 (201) 423-0350

JOB NO. 2.3269.22
DWG. FILE CODE 326922008
FIGURE NO. 3-3
Sht. 1 of 1

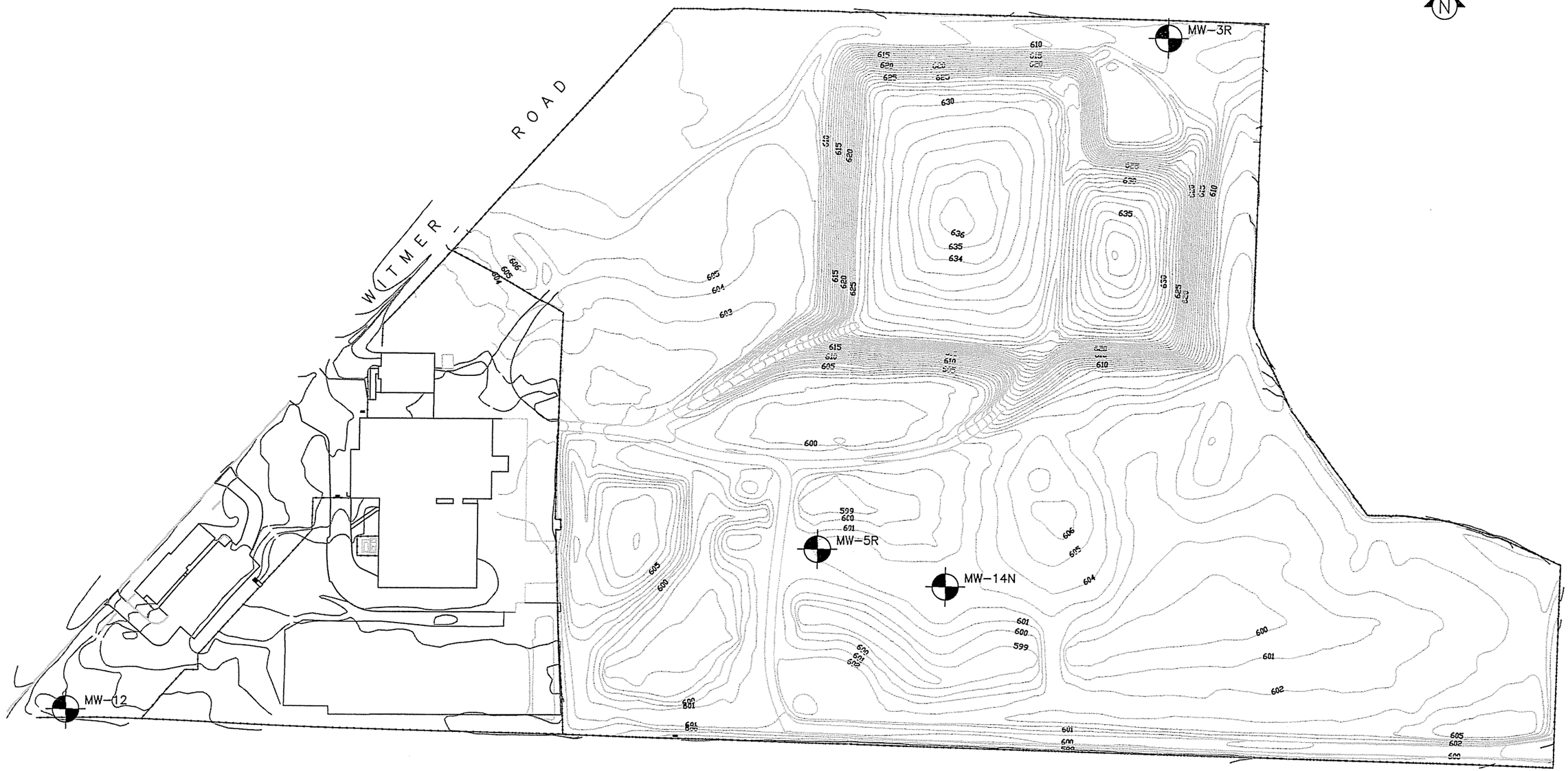
Phase II Test Pit Results
Total Metals and TCLP Metals
CC Metals and Alloys, Inc.
Witmer Road

Test Pit #	Depth	Date Sampled	Total Arsenic	Total Barium	Total Cadmium	Total Chromium	Total Lead	Total Mercury	Total Selenium	Total Silver	TCLP Arsenic	TCLP Barium	TCLP Cadmium	TCLP Chromium	TCLP Lead	TCLP Mercury	TCLP Selenium	TCLP Silver
Limit											5.0	100	1.0	5.0	5.0	0.2	1.0	5.0
1	1-3′	9/25/1998	53	30	ND	870	150	ND	ND	ND								
1	3-3.5′	9/25/1998	56	57	3.5	800	410	ND	ND	ND								
1	4-4.5′	9/25/1998	96	110	ND	78	34	ND	ND	ND								
2	1-3′	9/25/1998	72	87	ND	88	29	ND	ND	ND								
2	3-5′	9/25/1998	71	150	ND	930	150	ND	ND	ND								
3	1-2.5′	9/25/1998	41	46	ND	1030	160	ND	ND	ND								
3	2.5-2.7′	9/25/1998	70	60	1.7	59	30	ND	ND	ND								
3	2.7-4.5′	9/25/1998	86	34	ND	1140	290	ND	ND	ND								
4	0-16"	9/25/1998	72	55	ND	670	220	ND	ND	ND								
4	16-48"	9/25/1998	38	47	ND	980	60	ND	ND	ND								
4	48-60"	9/25/1998	58	93	ND	110	23	ND	ND	ND								
5	1-3′	9/26/1998	140	120	ND	100	39	ND	ND	ND	ND							
5	3-5′	9/26/1998	57	180	ND	800	38	ND	ND	ND								
5	5-7′	9/26/1998	82	190	2.8	1350	170	ND	ND	ND								
6	1-3′	9/26/1998	61	89	2.8	680	310	ND	ND	ND								
6	3/5′	9/26/1998	80	80	ND	68	47	ND	ND	ND								
7	1-2′	9/26/1998	72	57	2.1	1000	380	ND	ND	ND								
7	32-60"	9/26/1998	100	110	ND	85	37	ND	ND	ND								
8	1-2′	9/26/1998	70	150	1.8	1000	150	ND	ND	ND								
8	24-41"	9/26/1998	54	70	ND	1200	27	ND	ND	ND								
9	12-27"	9/26/1998	79	73	ND	21	25	ND	ND	ND								
9	27-51"	9/26/1998	32	54	ND	1150	37	ND	ND	ND								
9	54-72"	9/26/1998	58	220	3.3	200	410	ND	ND	ND								
10	12-27"	9/26/1998	66	110	ND	920	140	ND	ND	ND								
10	27-51"	9/26/1998	35	25	ND	12	12	ND	ND	ND								
11	12-36"	9/26/1998	90	530	2	560	170	ND	ND	ND								
11	36-60"	9/26/1998	77	74	ND	19	27	ND	ND	ND								
12	12-31"	9/26/1998	95	82	ND	22	27	ND	ND	ND								
12	3-5′	9/26/1998	74	140	ND	490	140	ND	ND	ND								
13	0-12"	9/26/1998	110	130	ND	26	42	ND	ND	ND								
13	12-36"	9/26/1998	63	277	ND	1000	550	ND	ND	ND					ND			
14	1-3′	9/26/1998	98	86	ND	77	31	ND	ND	ND								
14	3-5′	9/26/1998	75	180	2.5	480	130	ND	ND	ND								
15	0-1′	9/26/1998	59	21	ND	2000	510	ND	ND	ND								
15	1-3′	9/26/1998	110	86	ND	28	29	ND	ND	ND								
16	0-28"	9/26/1998	14	28	20	260	53	ND	ND	ND								
16	28-40"	9/26/1998	87	53	ND	2300	49	ND	ND	ND								
16	40-60"	9/26/1998	110	94	ND	21	33	ND	ND	ND								
17	1-3′	9/28/1998	130	100	ND	25	34	ND	ND	ND	ND							
17	3-5′	9/28/1998	70	93	ND	1900	70	ND	ND	ND								
18	27-32"	9/28/1998	91	52	ND	3900	17	ND	ND	ND								
18	32-41"	9/28/1998	100	95	ND	22	26	ND	ND	ND				0.694				
18	41-65"	9/28/1998	31	22	ND	1600	750	ND	ND	ND					ND			
19	24-30"	9/28/1998	72	58	ND	930	66	ND	ND	ND								
19	30-38"	9/28/1998	37	85	ND	490	770	ND	ND	ND					0.057			
19	38-62"	9/28/1998	90	110	ND	22	35	ND	ND	ND								
20	0-6"	9/28/1998	52	91	ND	2000	37	ND	ND	ND								
20	6-72"	9/28/1998	110	200	ND	22	29	ND	ND	ND	ND							
20	72-96"	9/28/1998	47	35	ND	2200	15	ND	ND	ND				0.924				
21	0-6"	9/28/1998	98	66	ND	22	24	ND	ND	ND								
21	6-52"	9/28/1998	47	76	ND	1600	31	ND	ND	ND								
21	52-76"	9/28/1998	70	100	ND	1700	59	ND	ND	ND								
22	12-36"	9/28/1998	120	130	2.2	25	32	ND	ND	ND								
22	37-62"	9/28/1998	55	100	ND	700	87	ND	ND	ND								
23	12-35"	9/28/1998	74	200	3.7	700	88	ND	ND	ND								
23	36-60"	9/28/1998	130	130	ND	28	39	ND	ND	ND								
24	12-36"	9/28/1998	98	200	1.8	3200	140	ND	ND	ND								
24	36-60"	9/28/1998	100	110	ND	25	35	ND	ND	ND				ND				
25	12-36"	9/28/1998	120	100	ND	28	34	ND	ND	ND								
25	36-60"	9/28/1998	85	420	2.8	1200	47	ND	ND	ND								

Notes: 1. Total results in mg/kg.
2. TCLP results in mg/l.
3. TCLP completed on 3 highest arsenic, chromium, and lead results.

Attachment 11

Monitoring Well Location Map



SITE PLAN – MONITORING WELL LOCATION MAP

SCALE (FT): 100 0 50 100 200 300

NOTE:
DRAWING BASED ON LOCKWOOD MAPPING, INC.
TOPOGRAPHIC SERIES 7235S1 THRU 7235S4
WELL LOCATIONS ARE APPROXIMATE

CALVERT CITY METALS & ALLOYS (CCMA), INC – CALVERT CITY, KENTUCKY
WITMER ROAD SITE – NIAGARA FALLS, NEW YORK

REVISION :

DATE : 02/22/01
CHECKED : HHH
DRAWN : T JONES
SCALE : AS NOTED

LAN ASSOCIATES INC.
environmental and facilities engineering
66 CUNA STREET, ST. AUGUSTINE, FL 32084-3619 (904)824-6999

JOB NO. 2.3296.23
DWG. FILE CODE 326923002
FIGURE NO. ATT 11
Sht. 1 of 1