New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation
Bureau of Hazardous Site Control

R

ADDITIONS/CHANGES TO REGISTRY: SUMMARY OF APPROVALS

SITE NAME: TAM CERAMICS, INC. DEC I.D. NUMBER 932028

Current Classification 2a

Activity: ☐ Add as Class ___ ☑ Reclassify to 3 ☐ Delist Category ___ ☐ Modify ___

Approvals:

Regional Hazardous Waste Engineer	Yes	☑	No	☐	
NYSDOH	Yes	☑	No	☐	
DEE	Yes	☑	No	☐	
Construction Services	Yes	n/a	No	☐	
BHSC: a. Investigation Section	Yes	☑	No	☐	
b. Site Control Section	Rolf Maraun		Date	10/2/95	
c. Director	[signature]		Date	10/3/95	
DHWR Assistant Director	(for) [signature]		Date	10/10/95	

Completion Checklist		Completed By: Initials	Date
OWNER NOTIFICATION LETTER?	☑	___	10/24/95
ADJACENT PROPERTY OWNER NOTIFICATION LETTER?	☑	___	11/14/95
ENB/LEGAL NOTICE SENT? (For Deletion Only)	☐	___	___
COMMENTS SUMMARIZED/PLACE IN REPOSITORY	☐	___	___
FINAL NOTIFICATION SENT TO OWNER? (For Deletion Only)			

(For proposed Class 2a sites only) Planned investigative activities & dates: ___

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

8/23/94

SITE INVESTIGATION INFORMATION

1. SITE NAME: TAM Ceramics Inc.	2. SITE NUMBER: 932028	3. TOWN/CITY/VILLAGE: (T) Niagara	4. COUNTY: Niagara

5. REGION: 9	6. CLASSIFICATION:	CURRENT: 2A	PROPOSED: 3	MODIFY:

7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location):

a. Quadrangle: Lewiston NY - Ont
b. Site Latitude: 43° -07'-45" Site Longitude 79°-02'-15"
c. Tax Map Number: 130.11-1-8
d. Site Street Address: 4511 Hyde Park Blvd. Niagara Falls NY 14305-0067

8. BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations):

The TAM Ceramics Inc. facility occupies 30 acres of which 19 are developed. The remaining 11 acres are undeveloped and is the area where waste disposal activity took place. This facility has been in continuous operation since 1906 producing a variety of ceramic and dielectric powders. The undeveloped areas have been used for the storage of obsolete equipment. Furnace linings and various metallic ore residues were deposited as surface fill. This site is immediately adjacent to the Hyde Park Landfill.

a. Area: 30 acres b. EPA ID Number: NYD002102473

c. Projects Completed (X)Phase I ( )Phase II (X) PSA ( )RI/FS ( )PA/SI (X)Other: IRM Exposed Barium Removal

9. HAZARDOUS WASTE DISPOSED:

It is estimated that 3000 tons of waste material were disposed by either storing in waste piles or landfilling on site property. The waste produced on site include: uncalcined titanium oxide, aluminum oxide with titanium impurity, zirconium sodium potassium chloride, ammonium zirconium carbonate, iron carbon titanium alloy, silica fume with motor oil, magnesium chloride and barium waste such as barium titanate.
Based on the data obtained from the site the major contaminants of concern are barium wastes and magnesium chloride.

10. ANALYTICAL DATA AVAILABLE:

a. ( )Air (X)Groundwater ( )Surface Water ( )Sediment (X)Soil (X)Waste ( )Leachate (X)EPTox (X)TCLP

b. Contravention of Standards or Guidance Values

TCLP failures for Barium indicating a characteristic hazardous waste

11. STATEMENT OF CONCLUSION:

Based on the results of the PSA Investigation the presence of volatiles, semi-volatiles and pesticides/herbicide compounds on the site are limited and are not a concern. No PCB's were detected on site. Metals and inorganics were detected at various locations throughout the site. Impacts from the disposal practices are limited to a small area on the eastern side of the property and an area in the southwest corner. The eastern area was addressed by an IRM that removed the exposed barium waste. The remaining waste exhibits elevated radiation levels thatare being addressed by the DHSR Bureau of Radiation. The wastes found in the southwest corner failed TCLP for Barium in only one sample. The groundwater and soil samples collected do not exhibit the characteristics of hazardous waste. Therefore based on the information collected the disposal of hazardous waste has been confirmed but does not constitute a significant threat. The company has agreed to long term groundwater monitoring in the vicinity of the waste

12. SITE IMPACT DATA:

a. Nearest Surface Water: Niagara River Distance: 3000 ft.	Direction: West	Classification: A-SPECIAL
b. Nearest Groundwater: On-site Depth: 10ft	Flow Direction: SW	( )Sole Source ( )Primary ( )Principal (X) Perched
c. Nearest Water Supply: Niagara Falls Distence: >3 miles	Direction: South	Active: (X) Yes ( ) No
d. Nearest Building: Distance: On-site	Direction: West	Use: Industrial
e. In State Economic Development Zone?	( )Y (X)N	i. Controlled Site Access? (X)Y ( )N
f. Are crops or livestock on site?	( )Y (X)N	j. Exposed hazardous waste? ( )Y (X)N
g. Documented fish or wildlife mortality?	( )Y (X)N	k. HRS Score:
h. Impact on special status fish or wildlife resource?	( )Y (X)N	l. For Class 2: Priority Category:

13. SITE OWNER'S NAME:	14. ADDRESS:	15. TELEPHONE NUMBER:
TAM Ceramics Inc.	4511 Hyde Park Blvd. Niagara Falls NY 14305-0067	(716) 278-9400

16. PREPARER:	17. APPROVED:
Signature Date 7/5/95	Signature Date 10/16/95
Michael J. Hinton PE, Environmental Engineer II, NYSDEC DHWR	Name, Title, Organization
Name, Title, Organization	

Charlie - I spoke with Mike Hinton on 10/13 and asked him why this site couldn't be considered a class 4 site. Mike indicated that although the exposed barium in the eastern portion of the site had been removed, drums of barium remain buried in the southwest area of the facility. Although not extensively sampled, this waste did fail TCLP in one instance for barium. TAMS, at the time, did not want to dig up this waste. However, as their business has grown, they are now considering expansion of buildings into this area. Mike feels that they will excavate these drums as a prelude to expansion. Upon the removal of this waste, he feels that a class 4 is appropriate. Please let me know if you would like any adjustments made to the package, or have any further questions.

Dennis F.
10/13/95

10/16

Dennis

OK - had the
old listing on registry page
should be removed to
reflect TCLP Ba.

cmj

OCT 13 1995

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Office of Public Health II University Place Albany, New York 12203-3399

Barbara A. DeBuono, M.D., M.P.H.
Commissioner

Karen Schimke
Executive Deputy Commissioner

August 10, 1995

Mr. Earl Barcomb, P.E. Director
Bureau of Hazardous Site Control
NYS Department of Environmental Conservation
50 Wolf Road, Room 218
Albany, New York 12233

RE: **Site Investigation Information Package**
TAM Ceramics, Inc., Site ID # 932028
Niagara, Niagara County

Dear Mr. Barcomb:

My staff have reviewed the referenced site investigation information package. Based on that review, we have not identified any potential health impacts from site related hazardous wastes and I concur with the proposed reclassification of the site to a Class 3.

However, it is my understanding that the New York State Department of Environmental Conservation's Division of Hazardous Substance Regulation Bureau of Radiation has expressed some concern over the levels of radiation found at test pit-12 and plans to conduct further sampling at the site. The New York State Department of Health's Bureau of Environmental Radiation will review the results of this investigation when they become available to determine if a potential threat to public health exists.

If you have any questions, please call me or Mr. Dan Geraghty at 518-458-6309.

Sincerely,

G. Anders Carlson, Ph.D.
Director
Bureau of Environmental Exposure
Investigation

DRG95212PRO0137

cc: Dr. N. Kim
Mr. A. Wakeman/Mr. M. Rivara
Dr. O. Smith-Blackwell - WRO
Mr. C. O'Connor - WRO
Mr. M. Hinton - DEC Reg 9
Mr. J. Devald - NCHD

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

8/23/94

TENTATIVE & UNOFFICIAL
NON-FINAL INTRA/INTER AGENCY MATERIAL
NOT FOR PUBLIC RELEASE

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a. Area: 30 acres b. EPA ID Number: NYD002102473

c. Projects Completed (X)Phase I ( )Phase II (X) PSA ( )RI/FS ( )PA/SI (X)Other: IRM Exposed Barium Removal

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c. Nearest Water Supply: Niagara Falls Distance: >3 miles	Direction: South	Active: (X) Yes ( ) No
d. Nearest Building: Distance: On-site	Direction: West	Use: Industrial
e. In State Economic Development Zone?	( )Y (X)N	i. Controlled Site Access? (X)Y ( )N
f. Are crops or livestock on site?	( )Y (X)N	j. Exposed hazardous waste? ( )Y (X)N
g. Documented fish or wildlife mortality?	( )Y (X)N	k. HRS Score:
h. Impact on special status fish or wildlife resource?	( )Y (X)N	l. For Class 2: Priority Category:

13. SITE OWNER'S NAME:	14. ADDRESS:	15. TELEPHONE NUMBER:
TAM Ceramics Inc.	4511 Hyde Park Blvd. Niagara Falls NY 14305-0067	(716) 278-9400

16. PREPARER:	17. APPROVED:
Michael J. Hinton 7/5/95	A. G. Carlson 8/10/95
Signature Date	Signature Date
Michael J. Hinton PE, Environmental Engineer II, NYSDEC DHWR	G. A. Carlson, Director, BEEI
Name, Title, Organization	Name, Title, Organization

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York, 14203-2999

MEMORANDUM

TO: Robert Marino, Chief, Site Control Section BHSC

FROM: Dan King, DHWR Region 9

SUBJECT: Site Reclassification - TAM Ceramics, No. 932028

DATE: July 5, 1995

Enclosed for review and processing is a Site Classification Package for TAM Ceramics (Site No. 932028) recommending reclassification from 2A to 3.

As outlined in the enclosed package, factors supporting this reclassification include;

* An IRM to remove exposed Barium wastes was completed in 1994.
* PSA investigation results show limited presence of hazardous wastes.
* PSA investigation results as well as site accessibility and groundwater use suggest limited or no threat to the environment and public health.
* Chemical contaminants migrating from the adjacent Hyde Park Site are being addressed through the remedial actions for that site.
* Elevated radiation levels observed at the site are being addressed by the DHSR Bureau of Radiation.

If you have any questions regarding the reclassification, please contact Mr. Michael Hinton or me at 716/847-7220.

cc: Mr. Joseph Ryan, DEE
Mr. Michael Hinton, DHWR-9

CLASSIFICATION WORKSHEET

Site: TAM Ceramics Inc. County: Niagara Region: 9

1. Hazardous waste disposed? [X]Y (to 2) [ ] N (Stop) [ ]U (Stop)

2. Consequential amount of hazardous waste? [X]Y (to 3) [ ]N (Stop) [ ]U (to 3)

3. Part 375-1.4(a)(1) applies? [X]N (to 4) [ ]U (to 4)
[ ]Y (as checked below;

Class 2; to 5)

[ ]a. endangered or threatened species
[ ]b. streams, wetlands, or coastal zone
[ ]c. bioaccumulation
[ ]d. fish, shellfish, crustacea or wildlife
[ ]e. fire, spill, explosion or toxic reaction
[ ]f. proximity to people or water supplies

4. Part 375-1.4(a)(2) applies? [X]N (Class 3; Stop) [ ]U (Class 2a; Stop)
[ ]Y (Class 2; to 5):

5. Factor(s) considered in making this determination: Numerous samples were collected during the PSA activity to assess soil, groundwater and waste characteristics. Only one sample indicated a characteristic hazardous waste. Therefore due to the limited site access due to site security and fencing, no exposed waste, no nearby residences, no apparent groundwater contamination attributed to the site, it has been determined that waste present does not constitute a significant threat.

SUMMARY:

Consequential Hazardous Waste [X] Yes [ ] No [ ] Unknown

Significant Threat [ ] Yes [X] No [ ] Unknown

Proposed Classification:3 Site Number: 932028

July 5,1995
Date

Michael J. Hunter GE II
Signature and Title

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: 3 **REGION:** 9 **SITE CODE:** 932028
EPA ID#: NYD002102473

NAME OF SITE: TAM Ceramics Inc.

STREET ADDRESS: 4511 Hyde Park Blvd. **EXTENSION:**

TOWN/CITY: (T) Niagara **COUNTY:** Niagara **ZIP:** 14305-0067

SITE TYPE: Open dump- X Structure- Lagoon- Landfill- Treatment pond-

ESTIMATED SIZE: 30 **Acres**

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER NAME.....: TAM Ceramics Inc.

CURRENT OWNER ADDRESS..: 4511 Hyde Park Blvd, Niagara Falls NY 14305-0067

OWNER(S) DURING USE.....: Titanium Alloy Manufacturing/National Lead (NL)

OPERATOR DURING USE.....: TAM Ceramics Inc.

OPERATOR ADDRESS.....: 4511 Hyde Park Blvd.

PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From: 1930 To: 1976

SITE DESCRIPTION:
This is an operating plant site producing various ceramic and dielectric powders for the ceramic and electronic industries. TAM Ceramics final product is used as a raw material for other industries.
The site used for disposal of plant wastes was the undeveloped 11 acres in the rear of the facility. Furnace linings and various metallic ore residues were deposited as surface fill in this area.
This site is immediately adjacent to the Hyde Park Landfill and remedial activity associated with the Hyde Park Facility have been conducted on the TAM property. Soil and groundwater contamination associated with the Hyde Park Landfill have been found at the TAM Ceramics site. In the spring of 1994 TAM Ceramics performed an Interim Remedial Measure (IRM) to remove exposed Barium waste that failed EP Tox. TAM Ceramics completed a Preliminary Site Assessment (PSA) in the spring of 1995 that evaluated the disposal area.

HAZARDOUS WASTE DISPOSED:

TYPE	QUANTITY (units)
uncalcined titanium oxide, ammonium zirconium carbonate, zirconium, aluminum oxide, iron-carbon-titanium alloy, silica fume, barium, magnesium chloride	3000 tons
zirconium tetrachloride	2 tons

SITE CODE: 932028

ANALYTICAL DATA AVAILABLE:

Air:	Surface Water:	Groundwater: X	Soil: X	Sediment:

CONTRAVENTION OF STANDARDS:

Groundwater: X	Drinking Water:	Surface Water:	Air:

LEGAL ACTION:

TYPE:	State- X	Federal-	
STATUS:	Negotiation in Progress-		Order Signed- X

REMEDIAL ACTION:

Proposed-	Under Design-	In Progress-	Completed- X

NATURE OF ACTION:
IRM to remove exposed barium waste

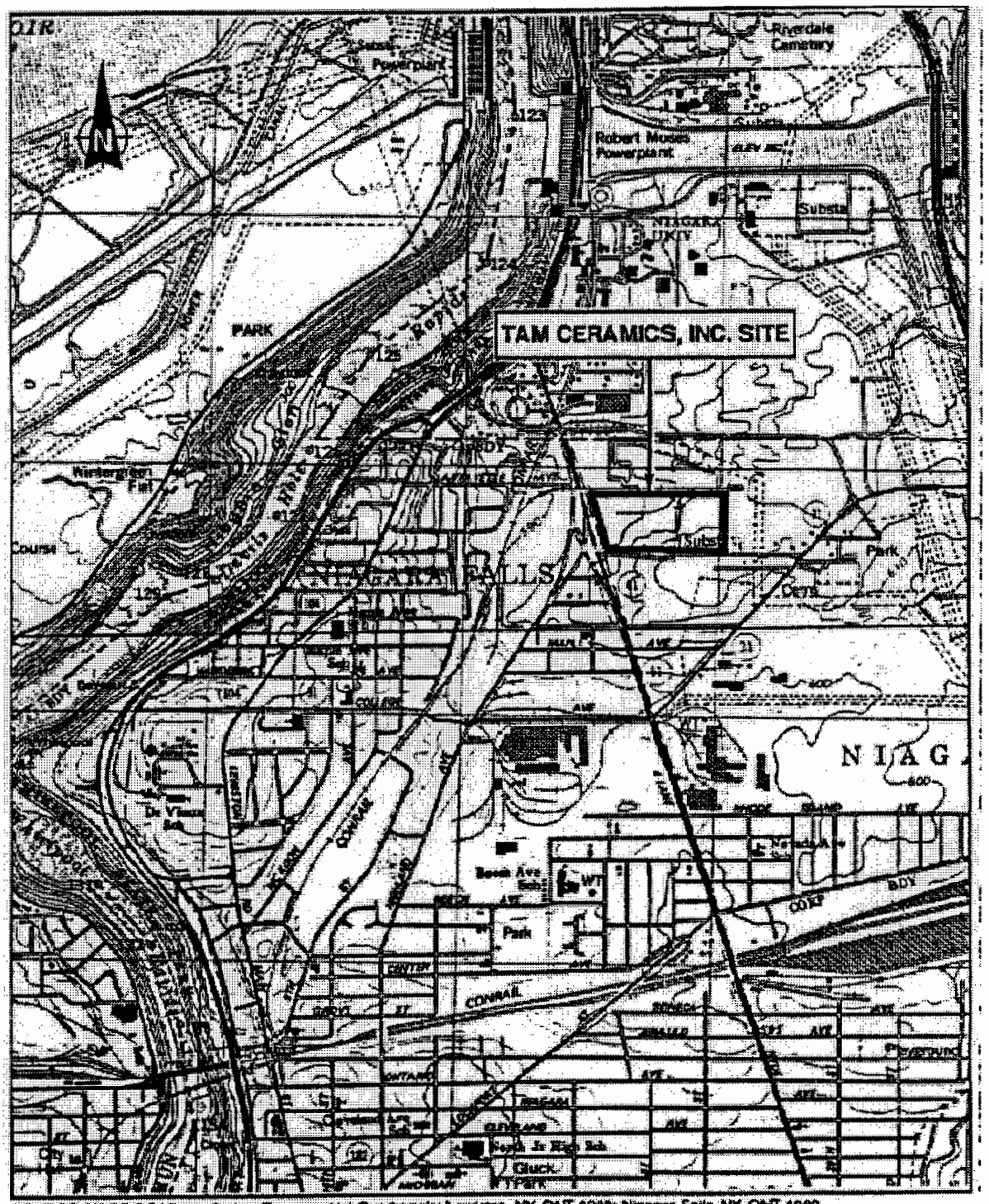
GEOTECHNICAL INFORMATION:

SOIL TYPE: interbedded silty clay, clayey silt, minor sand, gravel

GROUNDWATER DEPTH: 10-15 feet

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:
Materials disposed by the site owner are considered to present little environmental problems. The soil and groundwater have been contaminated by chemicals that migrated from the Hyde Park Facility. OCC has implemented remedial actions to address contamination associated with the Hyde Park facility. Site overburden soils have been contaminated by inorganic compounds associated with the TAM Ceramic facility. No impact on site groundwater can be attributed to TAM Ceramic activities. TAM Ceramics has agreed to implement a long term groundwater monitoring program designed to detect inorganic compounds associated with TAM Ceramics activities.

ASSESSMENT OF HEALTH PROBLEMS:
Access to the site is limited to plant personnel, and is controlled by a fence and 24 hour security. The presence of hazardous waste has been confirmed by waste samples failing TCLP for barium. However since site access is restricted there is little potential for exposure. All area residences are supplied with public water, and private wells down gradient of the site are not being used.



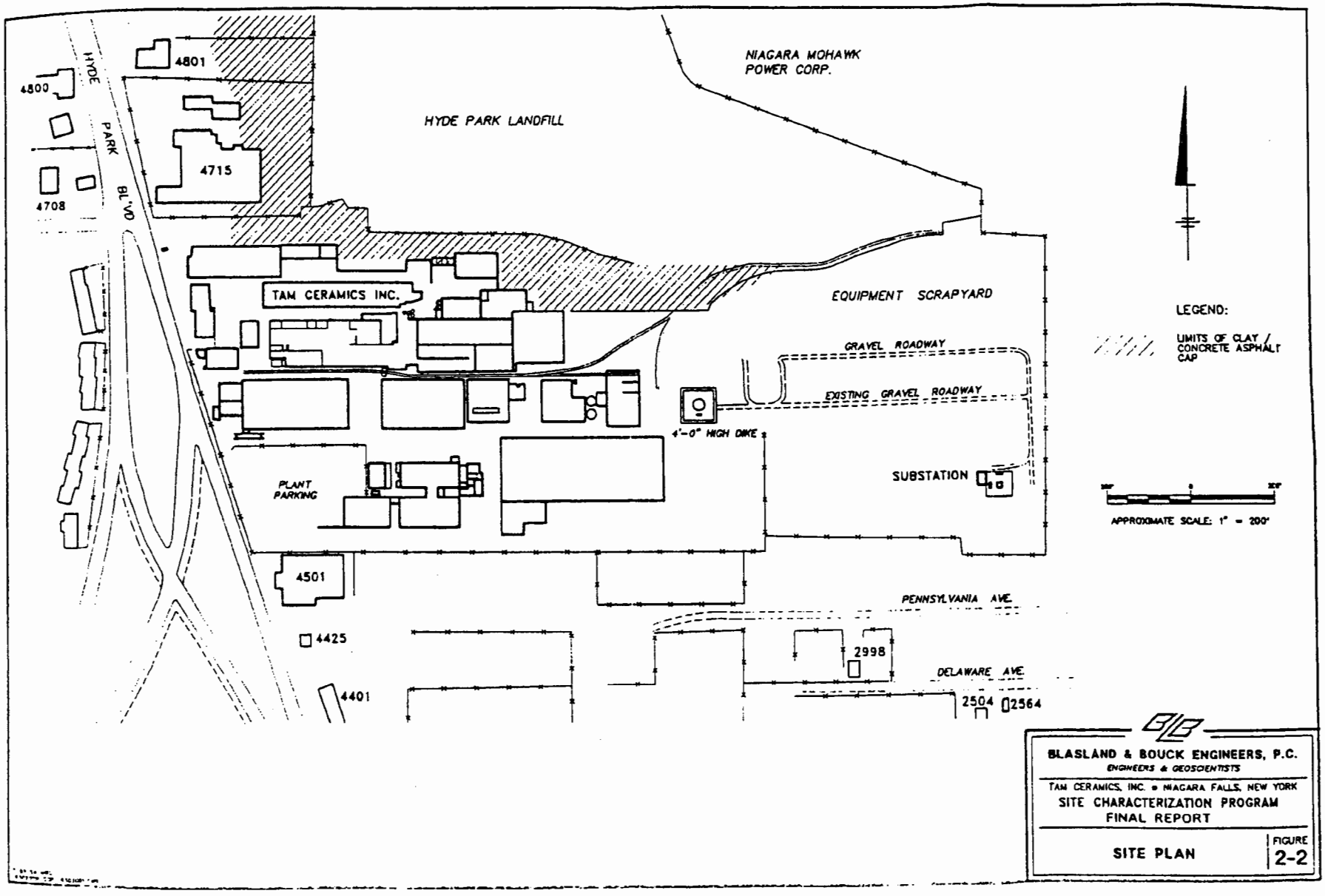
SOURCE: USGS 7.5 Minute Series (Topographic) Quadrangle: Lewiston, NY-ONT 1990; Niagara Falls, NY-ONT 1980.

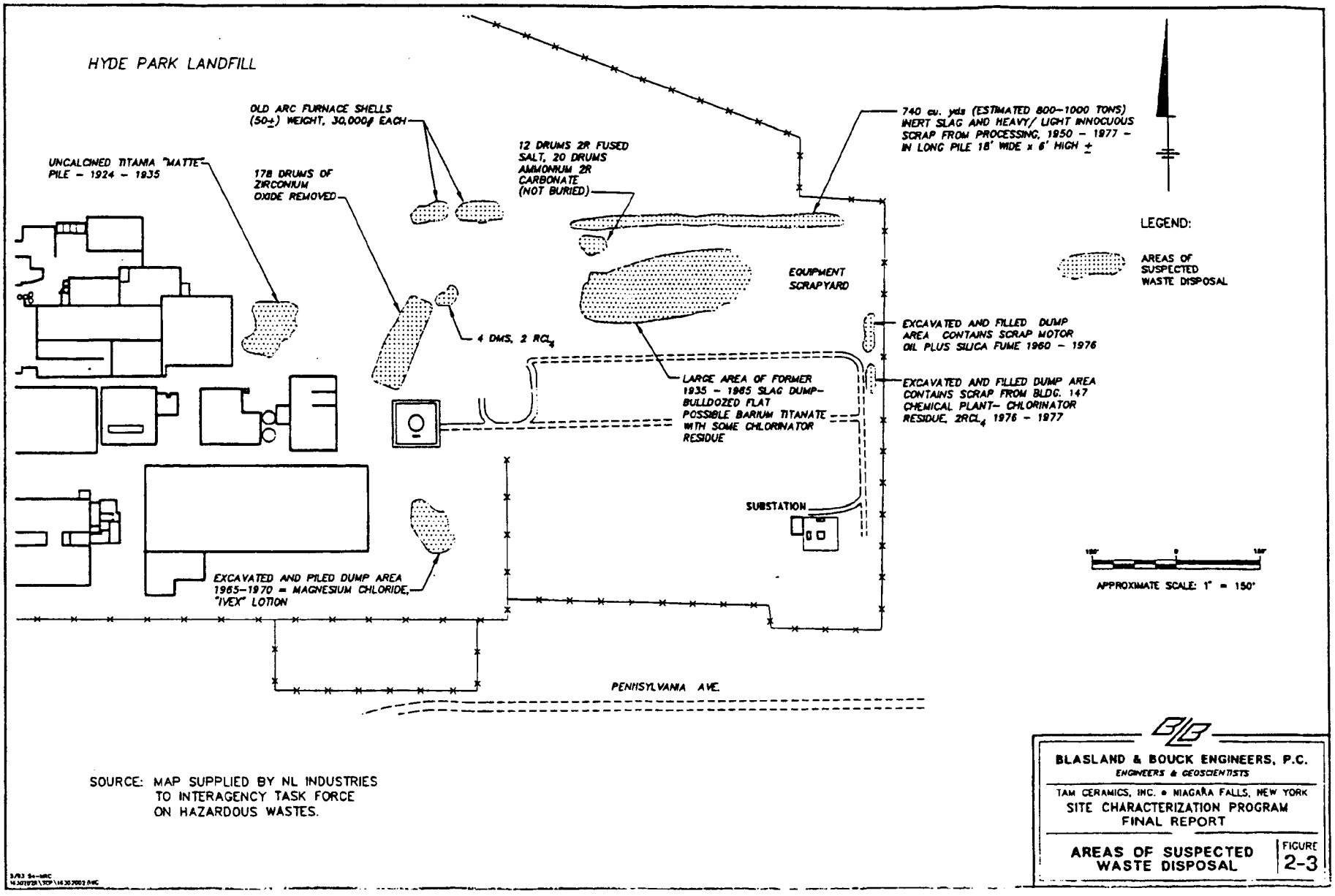
SCALE 1:25,000

0 ½ 1 Mile

0 .5 1 Kilometer

Figure 1-1
LOCATION MAP, TAM CERAMICS, INC. SITE


NIAGARA MOHAWK
POWER CORP.
HYDE PARK LANDFILL
HYDE PARK BLVD
4800
4801
4715
4708
TAM CERAMICS INC.
EQUIPMENT SCRAPYARD
GRAVEL ROADWAY
EXISTING GRAVEL ROADWAY
4'-0" HIGH DIKE
SUBSTATION
PLANT PARKING
4501
4425
4401
PENNSYLVANIA AVE.
2998
DELAWARE AVE.
2504
2564
LEGEND:
LIMITS OF CLAY / CONCRETE ASPHALT CAP
APPROXIMATE SCALE: 1" = 200'
BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS
TAM CERAMICS, INC. • NIAGARA FALLS, NEW YORK
SITE CHARACTERIZATION PROGRAM
FINAL REPORT
SITE PLAN
FIGURE
2-2



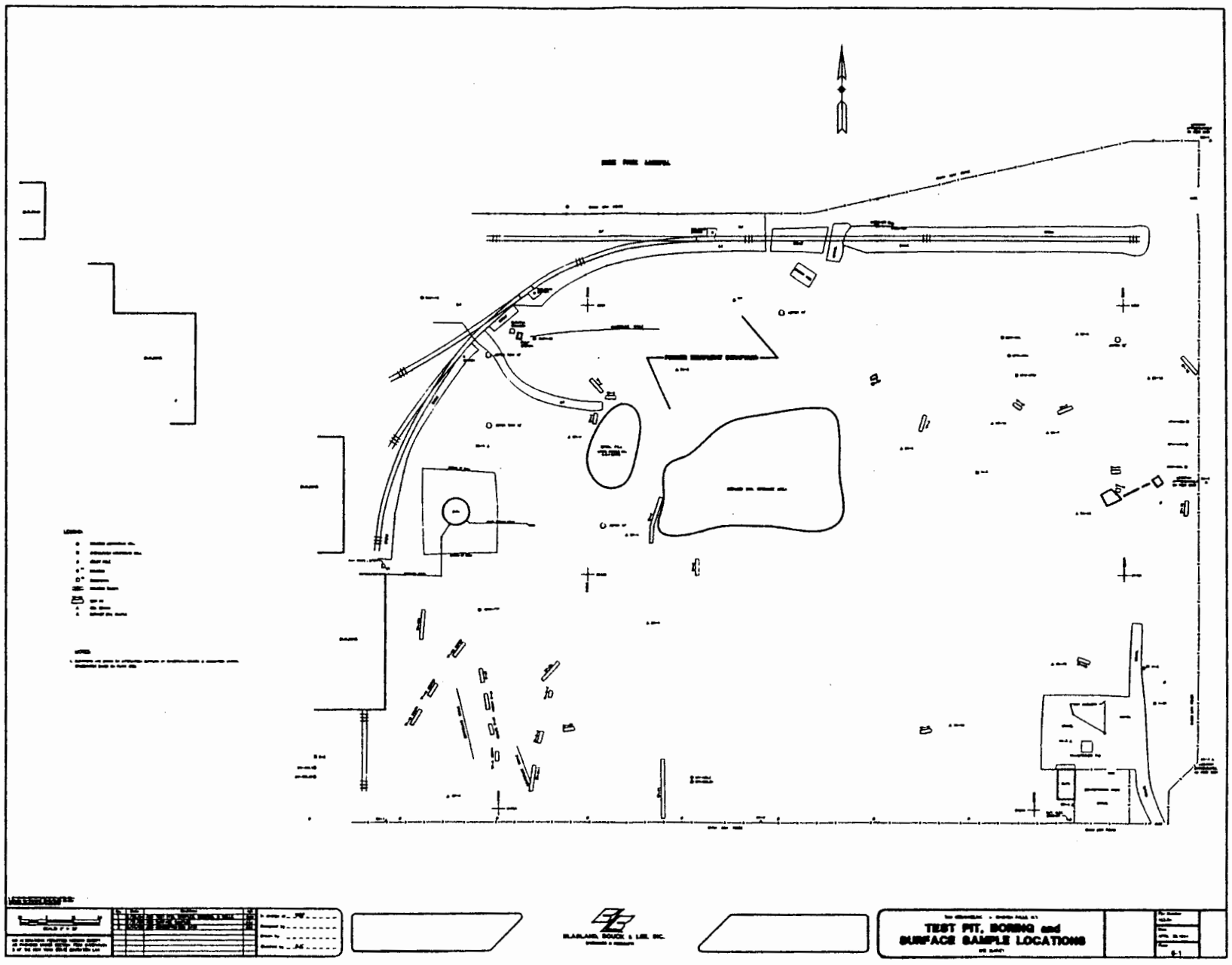
SOURCE: MAP SUPPLIED BY NL INDUSTRIES TO INTERAGENCY TASK FORCE ON HAZARDOUS WASTES.

BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS

TAM CERAMICS, INC. • NIAGARA FALLS, NEW YORK
SITE CHARACTERIZATION PROGRAM
FINAL REPORT

AREAS OF SUSPECTED WASTE DISPOSAL

FIGURE 2-3


TEST PIT, BORING and
SURFACE SAMPLE LOCATIONS

7.0 Discussion of Results

7.1 General

The following section provides a discussion of the analytical results obtained during both phases (non-intrusive and intrusive) of the Site Characterization Program. Analytical results are compared by media and analytical suite to site-specific and regulatory guidelines with regard to concentrations of individual compounds and analytes.

7.2 Geophysical Survey

The geophysical survey was completed by Gartner-Lee as part of the non-intrusive phase of the investigation. The survey indicated that there were discrete anomalies located in various portions of the site. Test pit excavation in both anomalous and non-anomalous areas confirmed the results of the geophysical survey. In addition, analysis of test borings placed in non-anomalous areas downgradient of confirmed waste disposal areas did not indicate any additional areas of waste disposal. Based on physical observations during test pit excavation, the geophysical survey identified all areas of potential waste disposal, and intrusive activities uncovered all subsurface materials within the undeveloped portion of the site.

7.3 Background Soil Samples

Three background soil samples were obtained from upgradient of the site. Samples were analyzed for TAL metals, and analytical results are presented in Table 6-1. Based upon the USEPA's Hazard Ranking System, metals are considered attributable to natural background sources if the maximum observed concentrations are less than three times the maximum observed background concentration. While this guideline is valid for soil samples, we have also taken the conservative approach and applied this to the waste materials encountered, along with the surface soil samples and soil borings. Table 6-1 includes calculations of average and maximum background soil sample concentration for TAL metals.

7.4 Waste Samples

Waste samples were obtained from all test pit excavations which encountered a buried waste. A total of 26 waste samples were obtained from the test pits. Selected samples were analyzed for TAL metals, volatile organic compounds (VOCs), semivolatile organic compounds (SVOs), uranium + thorium, silica and zirconium, Hyde Park Indicator Parameters, TCLP metals and miscellaneous parameters, as physical observation and instrument readings dictated. In addition, a bottle of IVEX solution was analyzed for TAL metals and will be considered a waste for purposes of this discussion.

(a) Volatile Organic Compounds

Two test pit samples (TP13-1 and TP13-3) were analyzed for VOCs. A total of three VOCs were detected in the two samples, as follows:

COMPOUND	TP13-1	TP13-3
Chloromethane	ND	70 ug/kg
Acetone	100 ug/kg	460 ug/kg
Total Xylenes	ND	92 ug/kg

Test pit thirteen contained an unidentifiable gelatinous substance, which provided no PID readings. VOC analysis was only performed because of the gelatinous nature of the substance. Acetone is a common laboratory contaminant, and the other detected compounds are at levels of less than one-tenth of a part per million (ppm).

(b) Semivolatile Organic Compounds

Three test pit samples (TP8-3, TP13-1 and TP13-3) were analyzed for SVOs. No SVOs were detected in any of the three samples.

(c) TAL Metals

A total of 24 test pit samples were analyzed for TAL metals, including six confirmatory (duplicate) samples obtained during the second phase of test pit excavation. Of these 18 sample locations, 14 of the waste sample locations exceeded either three times the maximum background concentration for metals or the 20 times the USEPA maximum TCLP contaminant concentration. The sample locations and concentrations which exceeded either of these limits are indicated on Plate 7-1. Any samples in which the total metals concentration exceeded 20 times the TCLP maximum concentration was reanalyzed during subsequent excavation for TCLP metals.

(d) TCLP Metals

Based upon the analysis of total metals, any sample for which it was possible to exceed the USEPA maximum concentrations for TCLP analysis (e.g., if all of the metal would leach) were reanalyzed using a TCLP procedure. A total of seven test pit samples were analyzed for TCLP Metals (TP4-2, TP7-1, TP9-2, TP10-2, TP31-1, TP13-2). Based on these analyses, only one sample location (TP9-2) exceeded the USEPA guideline concentration for a TCLP metal (682 mg/l of barium versus a limit of 100 mg/l).

(e) Silica and Zirconium

Based on the historical use of silica- and zirconium-based compounds in the manufacture of ceramics and ceramic products, wastes encountered which showed the physical characteristics of zirconium- or silica-based compounds were tested for the presence of such analytes. A total of five waste samples were analyzed for silica, and eleven waste samples for zirconium. Silica results ranged from 1.81 to 14.3 ppm. Zirconium results ranged from 450 to 288,000 ppm zirconium. Both of these samples were yellow to gold, powdered solids which became paste-like when wetted.

(f) Uranium and Thorium

As part of the Health & Safety Program, continuous monitoring for radiation was performed during all intrusive activities at the Site using a Geiger Counter. During the excavation of test pit 12, anomalous readings of approximately five times background radiation readings were observed in the vicinity of a grey-

black powder. A sample was obtained from the waste and analyzed for uranium and thorium (See Table 6-7). Results indicate that approximately 45 cubic yards of the waste would be required to make this a reportable quantity. Based on observations at the test pit, there are approximately 3 cubic yards of the waste present.

(g) Miscellaneous Parameters

During initial excavation of the gelatinous waste in test pit 13, samples were analyzed for TAL metals, VOCs, and SVOs. These analyses did not identify the primary constituents of the material. During additional excavation, samples were obtained for TCLP metals and a battery of miscellaneous physical parameters to aid in the identification of the substance. Table 6-6 presents the results of the 15 physical tests performed on the waste. Results indicated that there are no hazardous components or characteristics to the material.

(h) IVEX Solution

Information presented to the Task Force by NL Industries (see Section 2.0) indicated that IVEX solution, a topical skin cream for the treatment of poison ivy and similar conditions, was disposed of on site. A small bottle of the IVEX solution was analyzed for TAL metals. Analytical results, presented in Table 6-8, indicate elevated concentrations of arsenic, selenium, and silver. In addition, total arsenic and silver concentrations exceed 20 times the USEPA maximum contaminant concentration for TCLP analyses. These results may provide a source for the elevated concentrations of these metals in various locations around the site, since there are no other apparent sources of such constituents in previous manufacturing processes at the facility.

7.5 Soil Boring Samples

A total of 12 soil borings were placed approximately 20 feet downgradient (south-west) of all test pits which contained waste. Continuous split-spoon sampling was performed during advancement of the borings, and samples were obtained based upon field observation and the measurements of direct reading instruments.

A total of 28 soil boring samples were obtained. Samples were analyzed for TAL metals, VOCs, SVOs, silica, Hyde Park Indicator Parameters, and pesticides and PCBs.

(a) Volatile Organic Compounds

Six soil boring samples (SB2-8, SB3-10, SB4-0, SB6-8, SB13-4, and BBL2-4) were analyzed for VOCs. Acetone was detected in only one sample at a concentration of 16 ug/kg (ppb). Acetone is a common laboratory contaminant, and is not of concern at such a low concentration.

(b) Semivolatile Organic Compounds

Four soil boring samples (SB2-8, SB3-10, SB4-0, and BBL2-4) were analyzed for SVOs. All four samples contained detected SVOs, as follows:

COMPOUND	SB2-8	SB3-10	SB4-0	BBL2-4
Di-n-butyl Phthalate	630 ug/kg	780 ug/kg	630 ug/kg	700 ug/kg
Fluoranthene	ND	ND	10 ug/kg	ND

Di-n-butyl phthalate is a common breakdown product of rubber, and may have been carried over from the gloves worn during sampling or during laboratory analysis.

(c) TAL Metals

A total of 27 soil boring samples were analyzed for TAL metals, including one QA/QC duplicate sample. These samples were obtained from 12 boring locations. Seven of the twelve boring locations exceed three times the maximum background concentration for metals. No samples exceeded 20 times the USEPA maximum TCLP contaminant concentration. The sample locations and concentrations which exceeded three times the maximum background concentration are indicated on Plate 7-2.

(d) TCLP Metals

Based upon the analysis of total metals, no samples could exceed the USEPA maximum concentrations for TCLP analysis (e.g., if all of the metal would leach). Therefore, no soil boring samples were analyzed using the TCLP procedure.

(e) Silica and Zirconium

One soil boring sample was analyzed for silica, with a result of 5.31 ppm.

(f) Hyde Park Indicator Parameters

During the placement of the soil borings, several readings were obtained on the photoionization detector (PID) above background at depths directly above the bedrock. Since no readings were observed during test pit excavation, and the borings were located on the northern portion of the site, additional semi-volatile analyses were performed for the "Hyde Park Indicator Parameters." These compounds include a list of long-chain chlorinated compounds indicative of disposal practices at the Hyde Park Landfill. Indicator parameters analyzed were as follows:

- 2-Chlorobenzotrifluoride
- 3,4-Chlorobenzotrifluoride
- 1,2,3,5-Tetrachlorobenzene
- 1,2,4,5-Tetrachlorobenzene
- 1,2,3,4-Tetrachlorobenzene

Six soil boring samples (SB2-8, SB13-4, SB6-8, SB3-10, SB4-0, and BBL2-4) were analyzed for the Hyde Park Indicator Parameters. None of the compounds were detected.

(g) Pesticides and PCBs

Six soil boring samples (SB2-8, SB3-10, SB4-0, SB6-8, SB13-4, and BBL2-4) were analyzed for pesticides and polychlorinated biphenyls (PCBs). One pesticide (4,4'-DDT) was detected in sample SB4-0 at a concentration of 5.3 ug/kg (parts per billion [ppb]). Since this facility has been in operation since the early

1900's and the undeveloped portion of the site has been used for equipment storage, it is possible that pesticides had historically been used on the undeveloped portion of the site. Since this sample was obtained from the surface, and contains very low levels of the pesticide, the presence of pesticides are not a concern.

7.6 Surface-Soil Samples

A total of seven surface-soil samples were obtained from the locations specified in the Supplemental Work Plan, and as indicated on Plate 5-1, including one QA/QC field duplicate. Surface soil samples were obtained from a depth of zero to 6 inches bgs. Samples were analyzed as described in the Supplemental Work Plan, and included TAL metals, VOCs, SVOs, and PCBs.

(a) Volatile Organic Compounds

Two surface soil samples (SS-5 and SS-6) were analyzed for VOCs. Acetone was detected in SS-5 at a concentration of 15 ug/kg. No other VOCs were detected in either sample. Since acetone is a common laboratory contaminant, it is not considered to be a concern at the site.

(b) Semivolatile Organic Compounds

Two surface soil samples (SS-5 and SS-6) were analyzed for SVOs. No SVOs were detected in either sample.

(c) TAL Metals

Five surface soil samples (SS-1, SS-2, SS-5, SS-5D, and SS-6) were analyzed for TAL metals. No metals concentrations in any of the samples exceeded three times the maximum background concentration.

(d) PCBs

Four surface soil samples (SS-3, SS-4, SS-5, and SS-6) were analyzed for PCBs. No PCBs were detected in any of these samples.

7.7 Ground-Water Samples

A total of seven ground-water samples were obtained during the investigation. Three unfiltered and one filtered ground-water sample were obtained during the initial ground-water monitoring, and three unfiltered samples were obtained during the second phase of the investigation. Samples were analyzed for SVOs and metals.

(a) Semivolatile Organic Compounds

Three ground-water samples were analyzed for semi-volatile organic compounds. These samples were obtained during the first phase of ground-water sampling. No semi-volatile organic compounds were detected in any ground-water samples.

(b) TAL Metals

A total of seven ground-water samples were analyzed for TAL metals. As described in the Supplemental Work Plan, the unfiltered sample from OMW-16 is not being considered in this analysis, because the well could not be purged to below 50 NTUs. Two of these samples were upgradient background concentrations. In both upgradient samples, both iron and lead exceed the New York State Part 373 groundwater limits. In the remaining four downgradient ground-water samples, no compounds exceeded the Part 703 groundwater standards.

7.8 Conclusions

Based upon the results of the investigation, the following conclusion can be drawn:

(a) The presence of volatile organic compounds at the site is limited to two compounds (chloromethane and total xylenes) identified in one sample at low concentrations (70 and 92 ug/kg, respectively). Therefore, the presence of volatile organic compounds is not a concern at the TAM Ceramics Site.

(b) The presence of semivolatile organic compounds is limited to one sample in which fluoranthene was detected at 410 ug/kg. Therefore, the presence of semivolatile organic compounds is not a concern

at the TAM Ceramics Site.

(c) No polychlorinated biphenyls were detected in any samples collected. Therefore, the presence of polychlorinated biphenyls is not a concern at the TAM Ceramics Site.

(d) The presence of pesticides/herbicides is limited to a single surface sample from a soil boring, in which 4,4'-DDT was detected at a concentration of 5.3 ug/kg. Based on this data, the presence of pesticides/herbicides is not a concern at the TAM Ceramics Site.

(e) Metals and inorganic compounds were detected at various locations throughout the site. However, impacts from disposal practices are limited to a small area on the eastern side of the site, and an area in the south-western corner of the site. While metal concentrations in the wastes exceed three times the maximum background concentration at some sample locations within these areas, concentrations of the constituents in soil samples surrounding the waste indicate far lower metals concentrations. In addition, only one sample (TP9-2), located in the south-west disposal area, exceeded a USEPA maximum contaminant TCLP concentration (exceeded the 100 mg/l maximum concentration for barium). Soil and ground-water samples obtained downgradient of the disposal area do not show any indication of barium movement through the soil media.

(f) Ground-water samples collected downgradient of the site do not exceed New York State Part 703 ground-water standards for metals.

8.0 Significant Threat Evaluation

8.1 General

This section discusses the site in terms of the factors presented in 6 NYCRR Part 375 Regulations (Inactive Hazardous Waste Sites), Section 1.4 - Significant Threat to the Environment. The Introduction to this section states that:

"The Commissioner may find that hazardous waste disposed at a site constitutes a significant threat to the environment if, after reviewing the available evidence and considering the factors the Commissioner deems relevant. . . ., the Commissioner determines that the hazardous waste disposed at the site results in, or is reasonably foreseeable to results in any of the following..."

Sub-section 8.2, "Considerations", identifies the factors presented in Part 375 which have been deemed "relevant" by the Commissioner. Sub-section 8.3, "Results", identifies foreseeable results which the Commissioner is to consider during his evaluation of the significant threats of the Site. Sub-section 8.4, "Conclusions", presents TAM's judgement of the lack of a significant threat at the Site, based on the information collected as part of this Investigation and presented in this report.

Please note that, based upon the definition of a significant threat as presented above, only hazardous waste has been considered in this evaluation. Therefore, the single sample which exceeded the USEPA maximum TCLP concentration for barium is discussed in this section.

8.2 Considerations

(a) Duration, aereal extent or magnitude of severity of environmental damage

Only one sample (TP9-2C) exceeded the USEPA maximum contaminant concentration for a TCLP analysis. This sample is located in an area where significant disposal activities have taken place (the south-west corner of the site), including a majority of construction and demolition debris, and a number of drums. While a total of four waste samples were taken from this area, only one sample exceeded USEPA maximum TCLP concentrations.

The total area of disposal in the south-west corner of the site is approximately 40,000 square feet (200 feet by 200 feet). However, only a fraction of the waste disposal area is hazardous (based upon the number of samples taken from this area). While the exact extent of disposal cannot be determined, the area may be as small as a single drum.

Soil samples obtained from borings obtained downgradient of the disposal area do not indicate that barium has migrated outside of the disposal area. Ground-water samples obtained down-gradient and cross-gradient of the disposal area also are not adversely impacted by the disposal area.

(b) Type, mobility, toxicity, quantity, bioaccumulation, and persistence of hazardous waste present

Type: The waste sampled which exceeded USEPA maximum TCLP concentrations was a gray-black solid, crystalline material, obtained from the remnants of a drum.

Mobility/Toxicity: TCLP analysis indicated that leachable barium exceeded the limits set forth by the USEPA (682 mg/l sample results versus 100 mg/l USEPA limit). Total barium analysis indicated that the sample was greater than 50% barium (513,000 mg/kg). Therefore, approximately 3% of the barium in the sample is mobile, and therefore, potentially toxic.

Quantity: All drums encountered during excavation which contained waste were sampled. The single sample collected at TP9-2 is the only hazardous waste encountered during the excavation of approximately 200 linear feet of test pits in this disposal area. The drum was corroded and broken when sampled, and did not contain a large quantity of sample (approximately one cubic foot).

Bioaccumulation and Persistence: The USEPA Superfund Chemical Data Matrix Handbook provides the following assigned factor values for Barium:

- For Drinking Water

  Persistence: in River or Lake: 1.0000

- For the Human Food Chain

  Persistence in River or Lake: 1.0000

  Bioaccumulation in fresh or salt water: 0.5

- For the Environment

  Persistence in River or Lake: 1.0000

  Bioaccumulation in fresh or salt water: 0.5

Persistence values of 1.0000 are assigned due to the inorganic, non-volatile, and non-biodegradable nature of elemental barium. A persistence of 1.0000 is common among metallic elements. Bioaccumulation values of 0.5 are the lowest among all TCLP inorganic analytes.

(c) Manner of disposal

It appears that the waste was disposed of through placement of C&D debris and drums. It appears that areas were excavated for waste disposal and covered after waste disposition. Wastes are found from approximately 4 feet bgs to the surface of the bedrock, which varies locally from approximately 8 to 11 feet bgs.

(d) Nature of soils and bedrock

Natural soils above the bedrock are mostly fine to medium sands, silts, and clays. In addition, a variety of fill materials varying from concrete and C&D debris to cobbles to fine silt and sand have also been encountered. A tight clay layer is situated directly above the bedrock and serves as a hydraulic barrier to the weathered and competent bedrock beneath the overburden materials. For a detailed description of overburden conditions, see the boring and test pit logs in Attachments C and D, respectively. Underlying the natural soils is the Lockport Dolomite. Based upon the examination of cores of the Lockport Dolomite, an approximately 6-inch-thick weathered zone occurs at the top of rock, which is underlain by competent rock. A description of the regional geology of the Lockport Dolomite is included in Section 3.0 of this report.

(e) Groundwater hydrology

Overburden ground-water flows were evaluated during this investigation. Additional investigation would have been performed if contamination was identified in the overburden layer. Since this was not the case, this discussion is limited to the overburden hydrology.

The overburden ground-water shows seasonal fluctuations in ground-water elevations. The ground-water elevations vary from approximately one foot above the surface of the bedrock to 4 feet below the surface of the bedrock. It is evident that the upper region of the bedrock contains fractures which allow water to pass through this upper bedrock unit. However, this unit is still considered to be the overburden ground-water unit.

Regional ground-water flow regimes are generally towards the west, towards the Niagara River. The site shows a similar ground-water flow pattern. The overburden collection system at the Hyde Park Landfill has increased the northerly component of ground-water flow on the northern side of the site. The southern side of the site shows a southerly component of ground-water flow.

(f) Location, nature and size of surface waters

The undeveloped portion of the TAM Ceramics facility absorbs all rainwater and runoff waters. Therefore, the surface water pathway is not a concern at the TAM Ceramics site.

The nearest major surface water body is the Niagara River, which is located approximately 0.4 miles west of the site. The Niagara River is a major water body, and most ground-water and surface water in the region flows toward the Niagara River.

(g) Levels of contaminants in groundwater, surface water, air and soils.

Groundwater: Two ground-water samples were obtained in the vicinity of the disposal area. Analytical results do not indicate elevated metals concentrations in the ground-water in either the down-gradient or cross-gradient direction, when compared to upgradient ground-water samples. Ground-water analytical results are presented in Table 6-17.

Surface Water: No surface water is present on the site; therefore, no surface water samples were

obtained as part of the investigation.

Air: Particulate levels in the air were analyzed during all investigative activities. Health-based action levels calculated in the Site Health and Safety Plan presented in the Site Characterization Program Work Plan were not exceeded during any intrusive activities.

Soils: A soil boring (SB9-1) was placed downgradient of the disposal area. The boring did not indicate elevated metals concentrations outside of the disposal area. Soil samples obtained during installation of the monitoring wells (MW-BBL1 and MW-BBL2) indicate slightly elevated concentration of cadmium, iron and potassium, with only cadmium in MW-BBL1 at depths of 2 to 4 feet exceeding three times the maximum background concentration. Since these compounds were not detected at elevated levels within the disposal area, it can be concluded that the elevated concentrations are not due to contaminant migration from the disposal area. Run-off and migration from the automotive junk yard located directly south of the disposal area is the most likely source of the elevated metals concentrations.

Samples obtained from inside the disposal area consisted of waste samples only, and are not considered in the evaluation of soils.

(h) Location of the Site

The site is located in a commercial and industrial area in the Town of Niagara, New York. The site is bordered on the north by Hyde Park Landfill (a Federal National Priority List Site), on the South by an automotive junk yard, on the east by a transport company, and on the west by Hyde Park Boulevard.

(i) Extent to which hazardous wastes / constituents have migrated:

Based upon soil borings obtained downgradient of the area of disposal and ground-water samples obtained upgradient, downgradient, and cross-gradient of the area of disposal, no significant migration of hazardous waste has occurred.

(j) Extent to which hazardous wastes / constituents are reasonable anticipated to migrate:

Since it is estimated that the practice of disposing of wastes on site took place at the TAM Ceramics facility since approximately 1920, and ended in the late 1970's, and based upon the fraction of the barium present in the sample which leached, it is not anticipated that any migration of the hazardous waste or its constituents will occur in the future.

(k) Proximity of site to areas of critical environmental concern:

There are no coastal wetlands, fresh-water wetlands, or critical habitats of an endangered species or national wildlife refuges within one mile of the site.

(l) Potential for wildlife or aquatic exposure:

As previously stated, the waste of concern is located a minimum of 4 feet bgs, which minimizes the potential for wildlife exposure. Burrowing wildlife would be unable to burrow through the C&D debris and be exposed to the hazardous waste.

Since there are no on-site water bodies, and ground-water monitoring has indicated that hazardous constituents are not migrating from the site, there is virtually no potential for aquatic exposure.

(m) Climatic and weather conditions

A complete description of climatic and weather conditions is presented in Section 3.0 of this report.

8.3 Results

(a) Impact on endangered species, threatened species, or species of concern

Based upon the nature and location of the waste disposal area, the disposal area has had no impact on any wildlife species.

(b) Impact upon protected streams, tidal wetlands, freshwater wetlands, or significant fish and wildlife habitat areas.

Based upon the location of the site and the distance to areas of critical environmental concern, the disposal area has had no impact upon protected streams, tidal wetlands, or significant fish and wildlife habitat areas.

(c) Bioaccumulation of contaminants in flora or fauna

Based upon the characteristics of the contaminants of concern, and the location of the source of such contaminants, the bioaccumulation of these contaminants in flora or fauna is not a concern.

(d) Acute or chronic effects on fish, shellfish, crustacea, or wildlife

Since the site is located in an industrial/commercial area, with the nearest significant surface water body nearly 0.5 mile to the west (the Niagara River), and the waste of concern which is buried within C&D debris a minimum of 4 feet bgs, and has not migrated through the ground-water, the disposal area has had no significant effects (acute or chronic) on fish, shellfish, crustacea, or wildlife.

(e) Impact due to a fire, spill, explosion or similar incident or reaction

Since there are no known reactive, flammable or explosive compounds on site, and any waste disposed of on-site was a by-product of the manufacture of ceramic powders (inert inorganic materials), there are no impacts due to a fire, spill, explosion or similar incident or reaction.

(f) Site location

Since the site is located in a commercial and industrial area, adjacent to additional industrial facilities and a National Priority List (NPL) Site, site location does not provide a significant risk.

(g) Significant environmental damage

The disposal of a barium-bearing waste in such an area does not constitute environmental damage. In addition, no portion or portions of the waste are leaving the site through the ground-water route. Based

upon the times of disposal, this waste has been in place for a period of time without impacting the ground-water medium.

8.4 Conclusions

(a) No Significant Threat

Based upon this significant threat analysis, the TAM Ceramics site does not present a significant threat to human health and the environment.

(b) Classification

Based upon the determination of no significant threat, the TAM Ceramics facility should be reclassified to a Class 3 Site on the Registry of Inactive Hazardous Waste Sites.

(c) Continued Action

TAM Ceramics proposes to install an additional ground-water monitoring well approximately 10 feet north of SB-9. The well will be an interface well, extending 10 feet into bedrock, with identical construction to MW-BBL1R and MW-BBL2R previously installed during this investigation.

TAM Ceramics proposes to continue monitoring ground-water upgradient (NPW-H2U), down-gradient (MW-BBL1R, and the to be installed MW-BBL3R) and cross-gradient (MW-BBL2R) of the disposal area. Monitoring would consist of ground-water sample collection and analysis for TAL metals. Monitoring will be performed on a quarterly basis for the first year. After one year of sampling, the parameters and frequency of monitoring will be re-evaluated. Statistical analysis will be performed and submitted to the NYSDEC after each sampling event to determine if metals concentrations are significantly increasing outside of the disposal area.

In addition, a letter will be sent from TAM Ceramics to Occidental Chemical regarding the Hyde Park Landfill, advising them of the wells that have been installed on TAM Ceramics property, and informing them of the ground-water monitoring program which will be implemented. This will allow Occidental Chemical the opportunity to monitor the ground water for Hyde Park indicator parameters, as necessary.

TABLE 6-1
BACKGROUND SOIL SAMPLES
ANALYTICAL RESULTS

	BACKGROUND SOIL SAMPLES			AVERAGE BACKGROUND SOIL CONCENTRATION	MAXIMUM BACKGROUND SOIL CONCENTRATION
	BG-1	BG-2	BG-3		
Aluminum	3,360	12,900	13,300	9,850	13,300
Antimony	10.6 UN	12.1 UN	12.0 UN	11.6	12.1
Arsenic	3.88 N*	4.94 N*	4.71 N*	4.51	4.94
Barium	253	111	176	180	253
Beryllium	0.531 U	0.825	0.810	0.722	0.825
Cadmium	1.07	0.607 U	0.572	0.750	1.07
Calcium	141,000 *	4,200 *	19,800 *	55,000	141,000
Chromium	22.8 N*	27.5 N*	37.3 N*	29.2	37.3
Cobalt	5.31 U	11.0	11.5	9.30	11.5
Copper	21.2	19.5	28.2	23.0	28.2
Iron	9,750	25,000	23,600	19,500	25,000
Lead	66.8	26.0	51.1	48.0	66.8
Magnesium	76,800 *	4,950 *	8,830 *	30,200	76,800
Manganese	604	697	870	724	870
Mercury	0.106 U	0.121 U	0.119 U	0.115	0.121
Nickel	23.4 *	24.2 *	41.5 *	29.7	41.5
Potassium	637	1,480	1,850	1,320	1,850
Selenium	0.914	2.60	2.98	2.16	2.98
Silver	1.06 U	1.21 U	1.19 U	1.15	1.21
Sodium	172	60.7 U	92.8	109	172
Thallium	31.9 U	36.4 U	35.8 U	34.7	36.4
Vanadium	9.85 N*	264 N*	26.5 N*	100	264
Zinc	223	91.0	156	157	223

NOTES:

All results are reported in milligrams per kilogram (mg/kg) or parts per million (ppm)
Sample Results Qualifiers are as follows:

U - Not detected above the detection limit.
N - Spiked sample recovery not within control limits (entire batch flagged)
* - Duplicate analysis not within control limits (entire batch flagged)

TABLE 6-2
TEST PIT SAMPLES
ANALYTICAL RESULTS
INORGANICS

COMPOUND / ANALYTE	TP1-1	TP2-1	TP4-1	TP4-2	TP4-2C	TP5-1	TP6-1
Aluminum	4,530	13,045	10,300	2,500	1,780	191	6,170
Antimony	10.9 UN	13.4 UN	11.7 UN	11.6 UN	19.6	12.4 UN	18.4
Arsenic	2.07 N*	5.31 N*	11.1 N*	10.2 N*	11.4 S	6.34 N*	1.28 N
Barium	86	402	290	1,390	311	142	4,870
Beryllium	0.545 U	0.745	0.985	0.637	0.597 U	1.15	0.555 U
Cadmium	0.545 U	0.665 U	0.586 U	0.579 U	0.597 U	0.623 U	0.844
Calcium	43,400 *	4,590 *	28,100 *	3,800 *	12,800	10,700 *	11,600
Chromium	8.34 N*	45.7 N*	33.5 N*	110 N*	135	24.2 N*	25.8
Cobalt	5.45 U	12	13.6	8.85	15.5	15.4	14
Copper	37.4	81.5	70.1	363	91.5	20	161
Iron	28,000	25,000	47,800	167,000	93,900	33,900	22,600
Lead	9.26	38.3	53.7	294	457	38.5	394
Magnesium	76,800 *	4,750 *	7,820 *	356 *	170	8,207 *	3,330
Manganese	313	1,080	1,060	418	410	308	347
Mercury	0.109 U	0.133 U	0.117 U	0.129	0.268	0.125 U	3.87
Nickel	13.1 *	45 *	26.4 *	14 *	9.73	29.5 *	39.5
Potassium	663	1,046	1,770	6,410	6,900	1,990	969
Selenium	2.22	2.63	4.38	8.15	1.48	2.85	0.555 UN
Silver	1.09 U	1.33 U	1.17 U	1.16 U	3.6	1.24 U	38.1
Sodium	39,000	177	712	6,709	5,330	1,330	610
Thallium	32.7 U	39.9 U	70.3 U	348 U	477	37.4 U	111 U
Vanadium	10.1 N*	36.3 N*	58.2 N*	171 N*	196	31.4 N*	31.1
Zinc	119	132	116	77	70.6	180	690
Silica	NA	NA	NA	NA	NA	NA	NA
Zirconium	NA	NA	NA	NA	NA	NA	NA

NOTES:

All results are reported in milligrams per kilogram (mg/kg) or parts per million (ppm)
Sample Results Qualifiers are as follows:

- U - Not detected above the detection limit.
- N - Spiked sample recovery not within control limits (entire batch flagged)
- * - Duplicate analysis not within control limits (entire batch flagged)

TABLE 6-2
TEST PIT SAMPLES
ANALYTICAL RESULTS
INORGANICS

COMPOUND / ANALYTE	TP7-1	TP7-1C	TP8-1	TP8-2	TP8-3	TP9-1	TP9-2
Aluminum	1,650 N*	4,410	1,180 N*	439 N*	709 N*	4,130 N*	2,450 N*
Antimony	13.4 N*	16.6	14.8 UN*	15.8 UN*	18.1 N*	17.6 UN*	34.8 N*
Arsenic	5.52	1.36	24.8	47.7	83.1	55	5.8
Barium	27,400	19,600	52	61	129	272	262,000
Beryllium	0.602 U	0.561 U	0.742 U	0.79 U	0.718	0.882 U	0.551 U
Cadmium	3.1	2.3	0.742 U	0.79 U	0.665 U	0.882 U	1.4
Calcium	10,400	38,000	2,140	6,970	12,800	2,010	26,700
Chromium	15.6	29.9	1.56	1.58 U	6.14	10.7	412
Cobalt	19	20.5	7.42 U	7.9 U	9.39	12.1	94.8
Copper	48.1	70	17.7	22.1	99.7	34.7	49.7
Iron	5,790 *	10,600	9,150 *	11,800 *	107,000	20,400 *	8,630 *
Lead	79.5	65.9	7.42 U	7.9 U	6.65	25.2	3580
Magnesium	2,730	21,900	74,900	197,000	4,690	13,400	8,170
Manganese	130 *	395	148 *	133 *	525 *	453 *	190 *
Mercury	1.42	0.748	0.148 U	0.158 U	0.133 U	0.176 U	5.51
Nickel	22.3	26.6	6.36	6.32 U	31.1	23.3	261
Potassium	295 *	686	263 *	158 U*	225 *	411 *	529 *
Selenium	2.66	0.561 U	18.1	34.9	64.9	44.3	1.54
Silver	32.7	5.84	131	118	441	229	80.3
Sodium	155	152	24,200	79 U	153	234,000	1,380
Thallium	361 U	673	44.5 U	64	43.1	52.9 U	1650 U
Vanadium	14.4	16.1	12.7	8.52	31.9	24.3	20
Zinc	2270 *	1180	12.7 *	12.2 *	27 *	45.2 *	65.5 *
Silica	NA	NA	3.19	7.23	12.9	1.81	14.3
Zirconium	4400	NA	24600	25800	88000	450	7980

NOTES:

All results are reported in milligrams per kilogram (mg/kg) or parts per million (ppm)
Sample Results Qualifiers are as follows:

- U - Not detected above the detection limit.
- N - Spiked sample recovery not within control limits (entire batch flagged)
- * - Duplicate analysis not within control limits (entire batch flagged)

TABLE 6-2
TEST PIT SAMPLES
ANALYTICAL RESULTS
INORGANICS

COMPOUND / ANALYTE	TP9-2C	TP10-1	TP10-2	TP10-2C	TP12-1	TP13-1	TP13-2
Aluminum	1,170	632 N*	221 N*	416	2,620 N*	286 N*	694 N*
Antimony	10.8 U	23.9 UN*	13.3 UN*	16.3 U	12.1 UN	19.1 UN*	78.1 N*
Arsenic	0.541 U	195	6.3	0.813 S	3.43	180	513
Barium	513,000	524	15	709	262	156	408
Beryllium	0.541 U	1.2 U	0.665 U	0.813 U	0.605 U	0.954 U	1.89 U
Cadmium	0.541 U	1.2 U	0.665 U	0.813 U	0.605 U	0.954 U	1.89 U
Calcium	4,830	8,660	449	17,700	2,640	7,630	2,920
Chromium	5.51	23.9	3.94	82	20.8	19.1 U	37.7 U
Cobalt	38.1	12 U	6.65 U	8.13 U	6.05 U	9.54 U	18.9 U
Copper	16.7	34	57.4	27.8	35.6	13.1	20
Iron	6,550	35,900 *	5,820 *	36,100	4,620 *	9,710 *	13,500 *
Lead	996	12 U	6.65 U	110	60.3	16.4	21.2
Magnesium	440	8,950	246,000	255,000	1,370	4,330	2,060
Manganese	48	407 *	237 *	202	143 *	148 *	52 *
Mercury	6.74	0.239 U	0.133 U	0.163 U	0.121 U	0.191 U	0.377 U
Nickel	4.33 U	16.1	9.11	19.2	13	8.38	15.1 U
Potassium	206	256 *	133 U*	163 U	530 *	191 U*	724 *
Selenium	0.541 U	164	0.665 U	0.813 U	0.690	146	419
Silver	60.2	1130	9.72	149	4.21	954	2940
Sodium	1,050	239	137	468	60.5	676	282
Thallium	649	71.8 U	48.5	42.3	36.3 U	572 U	1130 U
Vanadium	7.75	77.3	6.65 U	12.5	15.1	67.8	202
Zinc	19.5	59.1 *	1.33 U*	56.6	52.5 *	18.5 *	11.4 *
Silica	NA	NA	NA	NA	NA	NA	NA
Zirconium	NA	225000	1760	NA	NA	NA	288000

NOTES:

All results are reported in milligrams per kilogram (mg/kg) or parts per million (ppm)
Sample Results Qualifiers are as follows:

U - Not detected above the detection limit.
N - Spiked sample recovery not within control limits (entire batch flagged)
* - Duplicate analysis not within control limits (entire batch flagged)

TABLE 6-2
TEST PIT SAMPLES
ANALYTICAL RESULTS
INORGANICS

COMPOUND / ANALYTE	TP15-1	TP15-1C
Aluminum	1,370 N*	1,260
Antimony	10.8 UN*	10.1 U
Arsenic	8.54	0.504 U
Barium	42,700	3,360
Beryllium	0.541 U	0.504 U
Cadmium	1.94	0.785
Calcium	1,380	6,980
Chromium	12.8	14.7
Cobalt	22.2	11.7
Copper	36.5	165
Iron	6,170 *	7,530
Lead	60.9	176
Magnesium	3,370	2,340
Manganese	177 *	98
Mercury	0.944	1.5
Nickel	12.5	13.2
Potassium	229 *	178
Selenium	6.12	0.504 U
Silver	35.5	13
Sodium	188	387
Thallium	324 U	151
Vanadium	12.5	10.6
Zinc	1570 *	479
Silica	NA	NA
Zirconium	3660	NA

NOTES:

All results are reported in milligrams per kilogram (mg/kg) or parts per million (ppm)
Sample Results Qualifiers are as follows:

- U - Not detected above the detection limit.
- N - Spiked sample recovery not within control limits (entire batch flagged)
- * - Duplicate analysis not within control limits (entire batch flagged)

TABLE 6-3
TEST PIT SAMPLES
ANALYTICAL RESULTS - VOLATILES

COMPOUND / ANALYTE	*TP13-1*	*TP13-3*
Chloromethane	9.6 U	70
Bromomethane	9.6 U	37 U
Vinyl Chloride	9.6 U	37 U
Chloroethane	9.6 U	37 U
Methylene Chloride	9.6 U	37 U
Acetone	100	460
Carbon Disulfide	19 U	74 U
1,1-Dichloroethene	9.6 U	37 U
1,1-Dichloroethane	9.6 U	37 U
trans-1,2-Dichloroethene	9.6 U	37 U
cis-1,2-Dichloroethene	9.6 U	37 U
Chloroform	9.6 U	37 U
2-Butanone (MEK)	19 U	74 U
1,2-Dichloroethane	9.6 U	37 U
1,1,1-Trichloroethane	9.6 U	37 U
Carbon Tetrachloride	9.6 U	37 U
Bromodichloromethane	9.6 U	37 U
1,2-Dichloropropane	9.6 U	37 U
1,3-Dichloropropene	9.6 U	37 U
Trichloroethene	9.6 U	37 U
Dibromochloromethane	9.6 U	37 U
1,1,2-Trichloroethane	9.6 U	37 U
Benzene	9.6 U	37 U
1,3-Dichloropropene	9.6 U	37 U
Bromoform	9.6 U	37 U
4-Methyl-2-pentanone	19 U	74 U
2-Hexanone	19 U	74 U
Tetrachloroethene	9.6 U	37 U
1,1,2,2-Tetrachloroethane	9.6 U	37 U
Toluene	9.6 U	37 U
Chlorobenzene	9.6 U	37 U
Ethylbenzene	9.6 U	37 U
Styrene	9.6 U	37 U
Total Xylenes	9.6 U	92

NOTES:

All results are reported in micrograms per kilogram (ug/kg)
Sample Results Qualifiers are as follows:
U - Not detected above the detection limit.

TABLE 6-4
TEST PIT SAMPLES
ANALYTICAL RESULTS - SEMIVOLATILES

COMPOUND / ANALYTE	TP8-3	TP13-1	TP13-3
Phenol	890 U	1,300 U	2,600 U
2-Chlorophenol	890 U	1,300 U	2,600 U
2-Nitrophenol	890 U	1,300 U	2,600 U
2,4-Dimethylphenol	890 U	1,300 U	2,600 U
2,4-Dichlorophenol	890 U	1,300 U	2,600 U
4-Chloro-3-methylphenol	890 U	1,300 U	2,600 U
2,4,6-Trichlorophenol	890 U	1,300 U	2,600 U
2,4-Dinitrophenol	1,800 U	2,600 U	5,100 U
4-Nitrophenol	1,800 U	2,600 U	5,100 U
2-Methyl-4,6-dinitrophenol	1,800 U	2,600 U	5,100 U
Pentachlorophenol	1,800 U	2,600 U	5,100 U
2-Methylphenol	890 U	1,300 U	2,600 U
4-Methylphenol	890 U	1,300 U	2,600 U
2,4,5-Trichlorophenol	890 U	1,300 U	2,600 U
N-Nitrosodimethylamine	440 U	640 U	1,300 U
Bis (2-chloroethyl) ether	440 U	640 U	1,300 U
1,3-Dichlorobenzene	440 U	640 U	1,300 U
1,4-Dichlorobenzene	440 U	640 U	1,300 U
1,2-Dichlorobenzene	440 U	640 U	1,300 U
2,2-oxybis(1-Chloropropane)	440 U	640 U	1,300 U
N-Nitroso-Di-n-propylamine	440 U	640 U	1,300 U
Hexachloroethane	440 U	640 U	1,300 U
Nitrobenzene	440 U	640 U	1,300 U
Isophorone	440 U	640 U	1,300 U
bis(2-choroethoxy)methane	440 U	640 U	1,300 U
1,2,4-Trichlorobenzene	440 U	640 U	1,300 U
Naphthalene	440 U	640 U	1,300 U
Hexachlorobutadiene	440 U	640 U	1,300 U
Hexachlorocyclopentadiene	440 U	640 U	1,300 U
2-Chloronaphthalene	440 U	640 U	1,300 U
Dimethyl Phthalate	440 U	640 U	1,300 U
Acenaphthylene	440 U	640 U	1,300 U
Acenaphthene	440 U	640 U	1,300 U
2,4-Dinitrotoluene	440 U	640 U	1,300 U
2,6-Dinitrotoluene	440 U	640 U	1,300 U
Diethyl Phthalate	440 U	640 U	1,300 U
4-Chlorophenyl-phenylether	440 U	640 U	1,300 U
Fluorene	440 U	640 U	1,300 U
1,2-Diphenylhydrazine	440 U	640 U	1,300 U
N-Nitrosodiphenylamine	440 U	640 U	1,300 U
4-Bromophenyl-phenylether	440 U	640 U	1,300 U
Hexachlorobenzene	440 U	640 U	1,300 U
Phenanthrene	440 U	640 U	1,300 U
Anthracene	440 U	640 U	1,300 U
Di-n-butyl phthalate	440 U	640 U	1,300 U
Fluranthene	440 U	640 U	1,300 U
Pyrene	440 U	640 U	1,300 U
Butyl benzyl phthalate	440 U	640 U	1,300 U
3-3'-Dichlorobenzidine	440 U	640 U	1,300 U
Benzo(a)anthracene	440 U	640 U	1,300 U
Bis (2-ethylhexyl)phthalate	440 U	640 U	1,300 U
Chrysene	440 U	640 U	1,300 U
Di-n-octyl phthalate	440 U	640 U	1,300 U
Benzo(b)Fluoranthene	440 U	640 U	1,300 U
Benzo(k)Fluoranthene	440 U	640 U	1,300 U
Benzo(a)pyrene	440 U	640 U	1,300 U
Indeno(1,2,3-cd)pyrene	440 U	640 U	1,300 U
4-Chloroaniline	440 U	640 U	1,300 U
2-Methyl Naphthalene	440 U	640 U	1,300 U
2-Nitroaniline	440 U	640 U	1,300 U
3-Nitroaniline	440 U	640 U	1,300 U
Dibenzofuran	440 U	640 U	1,300 U
4-Nitroaniline	440 U	640 U	1,300 U
Carbazole	440 U	640 U	1,300 U

NOTES:

All results are reported in micrograms per kilogram (ug/kg)
Sample Results Qualifiers are as follows:
U - Not detected above the detection limit.

TABLE 6-5
TEST PIT SAMPLES
ANALYTICAL RESULTS - TCLP ANALYSES

	TCLP Limit	*TP4-2C*	*TP7-1C*	*TP9-2C*	*TP10-2C*	*TP13-1C*	*TP13-2*	*TP15-1C*
Arsenic	5	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Barium	100	1.00 U	4.34	**682**	1.00 U	2.22	1.37	3.87
Cadmium	1	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Chromium	5	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Lead	5	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Mercury	0.2	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U
Selenium	2	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Silver	5	0.100 U	0.100 U	0.205	0.100 U	0.100 U	0.100 U	0.100 U

NOTES:

All results are reported in milligrams per liter (mg/l)
Sample Results Qualifiers are as follows:
U - Not detected above the detection limit.

TABLE 6-9
SOIL BORINGS
ANALYTICAL RESULTS
INORGANICS

	SB1-0	SB1-8	SB2-10	SB3-2	SB3-4	SB3-4D	SB3-10	SB4-0
Aluminum	16,600	11,800	2,950	18,600	20,500	24,800	4,560	21,000
Antimony	11.4 UN	11.5 UN	11.0 UN	11.9 UN	12.2 UN	11.9 UN	12.0 UN	12.0 UN
Arsenic	6.39	5.68	5.16	4.75	5.66	5.77	5.64	5.50
Barium	485.0 *	65.0 *	12.8 *	114.0 *	151.0 *	170.0 *	15.2 *	114.0 *
Beryllium	0.569 U	0.574 U	0.551 U	0.795	0.769	1.020	0.600 U	0.718
Cadmium	4.94	2.47	1.85	4.28	4.43	3.65	1.66	3 06
Calcium	30,200	80,700	150,000	4,600	87,500	14,200	173,000	2,130
Chromium	80.60	13.90	5.44	24.30	27.10	33.10	5.40	25.10
Cobalt	20.30	8.77	5.51 U	15.10	15.00	16.60	6.00 U	20.40
Copper	101.00	16.20	9.74	23.00	39.30	32.20	5.55	18.40
Iron	36,000	18,100	5,750	29,600	23,900	31,400	5,890	27,000
Lead	28.9	10.9	34.6	8.21	12.2	12.4	16.7	17.6
Magnesium	8,280	27,300	82,600	7,510	13,400	10,100	101,000	5,000
Manganese	2,060	544	455	614	606	701	346	1,300
Mercury	0.29	0.115 U	0.11 U	0.329	0.122 U	0.119 U	0.12 U	0.12 U
Nickel	42.6	16.2	4.56	26.7	28.6	32.2	5.73	24.3
Potassium	1,360 N	1,860 N	656	1,640 N	2,760 N	2,530 N	719 N	1,330 N
Selenium	5.67 N	2.89 N	2.07 N	4.08 N	4.72 N	4.23 N	2.01 N	4.39 N
Silver	1.17	28.4	1.1 UN	1.19 U	4.88 U	1.19 U	4.8 U	1.2 U
Sodium	268	217	190	171	196	191	247	79.4
Thallium	34.2 U	34.4 U	33 U	35.6 U	36.6 U	35.6 U	36 U	35.9 U
Vanadium	43.3	18.5	6.91	30.8	34.2	38.5	9.09	36.6
Zinc	107	131	234	60.1	77.3	77.8	267	94.1
Silica	N/A	N/A	5.31	N/A	N/A	N/A	N/A	N/A
Zirconium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES:

All results are reported in milligrams per kilogram (mg/kg) or parts per million (ppm)
Sample Results Qualifiers are as follows:

U - Not detected above the detection limit.
N - Spiked sample recovery not within control limits (entire batch flagged)
* - Duplicate analysis not within control limits (entire batch flagged)

TABLE 6-9
SOIL BORINGS
ANALYTICAL RESULTS
INORGANICS

	SB4-8	SB6-4	SB6-6	SB6-8	SB7-0	SB7-2	SB9-6	SB13-4
Aluminum	5,740	20,400	14,400	3,540	27,300	18,500	5,580	19,200
Antimony	11.9 UN	12.1 UN	11.7 UN	11.1 UN	11.7 UN	11.7 UN	11.1 UN	10.6 UN
Arsenic	7.83	5.91	4.16	5.89	5.77	5.41	2.10	6.27
Barium	16.0 *	198.0 *	85.6 *	20.4 *	165.0 *	102.0 *	90.7 *	86.7 *
Beryllium	0.597 U	0.850	0.609	0.554 U	1.170	0.622	0.556 U	0.626
Cadmium	1.64	3.54	2.75	2.97	3.70	3.53	1.64	2.73
Calcium	190,000	30,800	44,400	155,000	3,640	55,500	19,300	65,200
Chromium	7.06	32.30	24.10	5.38	30.80	22.10	12.90	18.60
Cobalt	6.00 U	16.40	12.60	5.54 U	23.40	14.80	6.43	8.21
Copper	12.20	28.60	20.10	10.30	26.80	22.40	10.90	20.30
Iron	4,930	30,700	23,800	7,050	34,200	26,300	12,100	21,400
Lead	80.3	18	5.69	14.6	12.3	21.6	8.74	54.8
Magnesium	112,000	16,300	9,570	91,400	8,110	14,700	11,900	40,800
Manganese	256	752 *	582	666	651	750	501	745
Mercury	0.119 U	0.121 U	0.117 U	0.111 U	0.117 U	0.117 U	0.111 U	0.106 U
Nickel	6.05	32.2	23	5.09	34	28	9.32	20.3
Potassium	809 N	2,750 N	2,490 N	620 N	3,500 N	3,450 N	1,150 N	2,220
Selenium	2.12 N	5 N	3.57 N	1.82 N	4.86 N	3.73 N	1.96 N	3.69 N
Silver	2.39 U	25.6	1.17 U	2.22 N	1.17 U	1.17 U	1.11 U	1.06 UN
Sodium	264	138	149	188	90.6	15.2	117	160
Thallium	35.8 U	36.4 U	35.1 U	33.3 U	35 U	35.2 U	33.3 U	31.8
Vanadium	10.9	33.7	24.4	8.27	33.2	28.3	13.9	26.3
Zinc	335	90	54.6	105	84	238	46.2	168
Silica	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zirconium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES:

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Sample Results Qualifiers are as follows:

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* - Duplicate analysis not within control limits (entire batch flagged)

TABLE 6-9
SOIL BORINGS
ANALYTICAL RESULTS
INORGANICS

	SB15-2	SB15-4	SB15-6	SB16-2	SB16-4	BBL1-2	BBL1-4	BBL1-6
Aluminum	22,800	22,000	11,600 *	29,000	20,800	21,700	17,300	13,200
Antimony	11.7 UN	12.0 UN	12.1 UN	12.3 UN	10.9 UN	11.3 UN	11.7 UN	12.0 UN
Arsenic	4.93	5.53	4.19 N*	5.20	5.20	6.16	4.39	4.65
Barium	159.0 *	171.0 *	101.0 *	176.0 *	138.0 *	128.0 *	128.0 *	71.5 *
Beryllium	0.993	0.986	0.603 U	0.944	0.678	0.792	0.584 U	0.598 U
Cadmium	3.45	3.82	4.62 N*	3.44	2.74	3.26	2.69	2.58
Calcium	6,920	38,300	37,200	70,600	58,900	37,400	58,200	47,200
Chromium	29.70	28.20	14.70 *	35.70	25.90	26.50	22.40	18.10
Cobalt	15.20	21.60	11.50 *	16.10	12.10	15.50	13.10	12.00
Copper	25.20	27.80	15.70 *	23.70	19.00	23.80	18.50	19.00
Iron	31,900	32,700	18,800	31,400	23,000	29,400	24,100	22,200
Lead	11.9	11.8	21.1	10.9	20.1	10.9	8.17	7.08
Magnesium	9,650	12,600	26,300 *	12,900	24,600	13,100	12,300	11,500
Manganese	410	1,100	1,230 *	555	646	495	508	566
Mercury	0.117 U	0.12 U	0.121 U	0.123 U	0.109 U	0.113 U	0.117 U	0.12 U
Nickel	31.2	40.9	22.2 *	33.2	25.4	30.2	24.9	24.3
Potassium	3,390 N	3,830 N	1,450 N	5,970	4,240 N	4,080 N	3,290 N	2,620 N*
Selenium	4.73 N	4.66 N	3.1 N	4.84 N	4.18 N	4.17 N	3.7 N	3.34 N
Silver	1.17 U	16.2	4.83 U	1.22 UN	1.09 U	1.13 U	1.17 U	1.2 U
Sodium	136	178	124 *	223	162	296	271	243
Thallium	35 U	36 U	36.2 U	36.8	32.8 U	33.9 U	35 U	35.9 U
Vanadium	33.6	34.7	19.7 *	40.6	29	31	27.8	23.4
Zinc	74.2	74.3	550 *	75.3	92.2	75.3	58.4	54.6
Silica	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zirconium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES:

All results are reported in milligrams per kilogram (mg/kg) or parts per million (ppm)
Sample Results Qualifiers are as follows:

U - Not detected above the detection limit.
N - Spiked sample recovery not within control limits (entire batch flagged)
* - Duplicate analysis not within control limits (entire batch flagged)

TABLE 6-9
SOIL BORINGS
ANALYTICAL RESULTS
INORGANICS

	BBL1-8		*BBL2-2*		*BBL2-4*	
Aluminum	4,670		14,500		9,690	
Antimony	11.7	UN	11.7	UN	11.6	UN
Arsenic	1.08		4.42		4.34	
Barium	15.3	*	99.4	*	59.5	*
Beryllium	0.584	U	0.585	U	0.580	U
Cadmium	1.41		2.74		2.37	
Calcium	22,700		55,800		58,500	
Chromium	6.58		18.80		12.80	
Cobalt	5.84	U	11.70		9.62	
Copper	7.34		22.90		30.40	
Iron	10,200		19,500		17,700	
Lead	5.84	U	5.85	U	5.8	U
Magnesium	4,190		9,170		9,920	
Manganese	479	*	571		647	
Mercury	0.117	U	0.117	U	0.116	U
Nickel	8.73		20.8		14.6	
Potassium	944	N	2,330	N	1,320	N
Selenium	1.22	N	3.15	N	2.84	N
Silver	1.17	U	1.17	U	1.16	U
Sodium	130		271		133	
Thallium	35	U	35.1	U	34.8	U
Vanadium	9.1		28		20.1	
Zinc	75.5		55.4		145	
Silica	N/A		N/A		N/A	
Zirconium	N/A		N/A		N/A	

NOTES:

All results are reported in milligrams per kilogram (mg/kg) or parts per million (ppm)
Sample Results Qualifiers are as follows:

- U - Not detected above the detection limit.
- N - Spiked sample recovery not within control limits (entire batch flagged)
- * - Duplicate analysis not within control limits (entire batch flagged)

TABLE 6-10
BORING SAMPLES
ANALYTICAL RESULTS - VOLATILES

COMPOUND / ANALYTE	*SB2-8*	*SB3-10*	*SB4-0*	*SB6-8*	*SB13-4*	*BBL2-4*
Chloromethane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Bromomethane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Vinyl Chloride	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Chloroethane	6,800 U	12 U	12 U	11 U	11 U	12 U
Methylene Chloride	6,800 U	12 U	12 U	11 U	11 U	12 U
Acetone	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Carbon Disulfide	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
1,1-Dichloroethene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
1,1-Dichloroethane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
trans-1,2-Dichloroethene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
cis-1,2-Dichloroethene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Chloroform	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
2-Butanone (MEK)	6,800 U	12 U	12 U	11 U	11 U	12 U
1,2-Dichloroethane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
1,1,1-Trichloroethane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Carbon Tetrachloride	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Bromodichloromethane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
1,2-Dichloropropane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
1,3-Dichloropropene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Trichloroethene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Dibromochloromethane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
1,1,2-Trichloroethane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Benzene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
1,3-Dichloropropene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Bromoform	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
4-Methyl-2-pentanone	6,800 U	12 U	12 U	11 U	11 U	12 U
2-Hexanone	6,800 U	12 U	12 U	11 U	11 U	12 U
Tetrachloroethene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
1,1,2,2-Tetrachloroethane	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Toluene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Chlorobenzene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Ethylbenzene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Styrene	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U
Total Xylenes	3,400 U	6.0 U	6.0 U	5.6 U	5.3 U	5.8 U

NOTES:

All results are reported in micrograms per kilogram (ug/kg)
Sample Results Qualifiers are as follows:
U - Not detected above the detection limit.

TABLE 6-11
SOIL BORING SAMPLES
ANALYTICAL RESULTS - SEMIVOLATILES

COMPOUND / ANALYTE	SB2-8	SB3-10	SB4-0	BBL2-4
Phenol	730 U	800 U	790 U	730 U
2-Chlorophenol	730 U	800 U	790 U	730 U
2-Nitrophenol	730 U	800 U	790 U	730 U
2,4-Dimethylphenol	730 U	800 U	790 U	730 U
2,4-Dichlorophenol	730 U	800 U	790 U	730 U
4-Chloro-3-methylphenol	730 U	800 U	790 U	730 U
2,4,6-Trichlorophenol	730 U	800 U	790 U	730 U
2,4-Dinitrophenol	1500 U	1600 U	1600 U	1600 U
4-Nitrophenol	1500 U	1600 U	1600 U	1600 U
2-Methyl-4,6-dinitrophenol	1500 U	1600 U	1600 U	1600 U
Pentachlorophenol	1500 U	1600 U	1600 U	1600 U
2-Methylphenol	730 U	800 U	790 U	730 U
4-Methylphenol	730 U	800 U	790 U	730 U
2,4,5-Trichlorophenol	730 U	800 U	790 U	730 U
N-Nitrosodimethylamine	360 U	400 U	400 U	390 U
Bis (2-chloroethyl) ether	360 U	400 U	400 U	390 U
1,3-Dichlorobenzene	360 U	400 U	400 U	390 U
1,4-Dichlorobenzene	360 U	400 U	400 U	390 U
1,2-Dichlorobenzene	360 U	400 U	400 U	390 U
2,2-oxybis(1-Chloropropane)	360 U	400 U	400 U	390 U
N-Nitroso-Di-n-propylamine	360 U	400 U	400 U	390 U
Hexachloroethane	360 U	400 U	400 U	390 U
Nitrobenzene	360 U	400 U	400 U	390 U
Isophorone	360 U	400 U	400 U	390 U
bis(2-choroethoxy)methane	360 U	400 U	400 U	390 U
1,2,4-Trichlorobenzene	360 U	400 U	400 U	390 U
Naphthalene	360 U	400 U	400 U	390 U
Hexachlorobutadiene	360 U	400 U	400 U	390 U
Hexachlorocyclopentadiene	360 U	400 U	400 U	390 U
2-Chloronaphthalene	360 U	400 U	400 U	390 U
Dimethyl Phthalate	360 U	400 U	400 U	390 U
Acenaphthylene	360 U	400 U	400 U	390 U
Acenaphthene	360 U	400 U	400 U	390 U
2,4-Dinitrotoluene	360 U	400 U	400 U	390 U
2,6-Dinitrotoluene	360 U	400 U	400 U	390 U
Diethyl Phthalate	360 U	400 U	400 U	390 U
4-Chlorophenyl-phenylether	360 U	400 U	400 U	390 U
Fluorene	360 U	400 U	400 U	390 U
1,2-Diphenylhydrazine	360 U	400 U	400 U	390 U
N-Nitrosodiphenylamine	360 U	400 U	400 U	390 U
4-Bromophenyl-phenylether	360 U	400 U	400 U	390 U
Hexachlorobenzene	360 U	400 U	400 U	390 U
Phenanthrene	360 U	400 U	400 U	390 U
Anthracene	360 U	400 U	400 U	390 U
Di-n-butyl phthalate	630	780	630	700
Fluoranthene	360 U	400 U	410	390 U
Pyrene	360 U	400 U	400 U	390 U
Butyl benzyl phthalate	360 U	400 U	400 U	390 U
3-3'-Dichlorobenzidine	360 U	400 U	400 U	390 U
Benzo(a)anthracene	360 U	400 U	400 U	390 U
Bis (2-ethylhexyl)phthalate	360 U	400 U	400 U	390 U
Chrysene	360 U	400 U	400 U	390 U
Di-n-octyl phthalate	360 U	400 U	400 U	390 U
Benzo(b)Fluoranthene	360 U	400 U	400 U	390 U
Benzo(k)Fluoranthene	360 U	400 U	400 U	390 U
Benzo(a)pyrene	360 U	400 U	400 U	390 U
Indeno(1,2,3-cd)pyrene	360 U	400 U	400 U	390 U
4-Chloroaniline	360 U	400 U	400 U	390 U
2-Methyl Naphthalene	360 U	400 U	400 U	390 U
2-Nitroaniline	360 U	400 U	400 U	390 U
3-Nitroaniline	360 U	400 U	400 U	390 U
Dibenzofuran	360 U	400 U	400 U	390 U
4-Nitroaniline	360 U	400 U	400 U	390 U
Carbazole	360 U	400 U	400 U	390 U
2-Chlorobenzotrifluoride (*)	730 U	800 U	790 U	780 U
3,4-Chlorobenzotrifluoride (*)	730 U	800 U	790 U	780 U
1,2,3,5-Tetrachlorobenzene (*)	730 U	800 U	790 U	780 U
1,2,4,5-Tetrachlorobenzene (*)	730 U	800 U	790 U	780 U
1,2,3,4-Tetrachlorobenzene (*)	730 U	800 U	790 U	780 U

NOTES:

(*) - Hyde Park Indicator Parameters

All results are reported in micrograms per kilogram (ug/kg)
Sample Results Qualifiers are as follows:
U - Not detected above the detection limit.

TABLE 6-12
SOIL BORING SAMPLES
ANALYTICAL RESULTS - PESTICIDES AND PCBs

COMPOUND / ANALYTE	*SB2-8*	*SB3-10*	*SB4-0*	*SB6-8*	*SB13-4*	*BBL2-4*
Alpha BHC	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
Beta BHC	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
Gamma BHC (Liindane)	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
Heptachlor	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
Delta BHC	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
Aldrin	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
Heptachlor Epoxide	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
Alpha - Endosulfan	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
4,4'-DDE	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
dieldrin	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
Endrin	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
4,4'-TDE (DDD)	1.8 U	2.0 U	2.0 U	1.9 U	1.8 U	1.9 U
Beta-Endosulfan	3.6 U	4.1 U	4.0 U	3.7 U	3.5 U	3.9 U
4,4'-DDT	3.6 U	4.1 U	5.3	3.7 U	3.5 U	3.9 U
Endrin Aldehyde	3.6 U	4.1 U	4.0 U	3.7 U	3.5 U	3.9 U
Endosulfan Sulfate	3.6 U	4.1 U	4.0 U	3.7 U	3.5 U	3.9 U
Methoxychlor	7.2 U	8.1 U	7.9 U	7.4 U	7.1 U	7.8 U
Endrin Ketone	3.6 U	4.1 U	4.0 U	3.7 U	3.5 U	3.9 U
Chlordane	7.2 U	8.1 U	7.9 U	7.4 U	7.1 U	7.8 U
Toxaphene	36 U	41 U	40 U	37 U	35 U	39 U
PCB 1016	18 U	20 U	20 U	19 U	18 U	19 U
PCB 1221	18 U	20 U	20 U	19 U	18 U	19 U
PCB 1232	18 U	20 U	20 U	19 U	18 U	19 U
PCB 1242	18 U	20 U	20 U	19 U	18 U	19 U
PCB 1248	18 U	20 U	20 U	19 U	18 U	19 U
PCB 1254	18 U	20 U	20 U	19 U	18 U	19 U
PCB 1260	18 U	20 U	20 U	19 U	18 U	19 U

NOTES:

All results are reported in micrograms per kilogram (ug/kg)
Sample Results Qualifiers are as follows:
U - Not detected above the detection limit.

TABLE 6-13
SURFACE SOIL SAMPLES
ANALYTICAL RESULTS - INORGANICS

	SS-1	SS-2	SS-5	SS-5D	SS-6
Aluminum	6,870	10,700	13,600	122	11,800
Antimony	11.2 U	12.6 U	15.2	11.6 U	11.4 U
Arsenic	4.72	7.92	3.84	3.1	3.81
Barium	594	278	14,200	20,700	265
Beryllium	0.559 U	0.704	0.782	0.804	0.682
Cadmium	1.64	2.12	1.79	1.55	2.35
Calcium	2413	3,840	19,800	20,600	50,700
Chromium	33	83.4	24.1	27.5	23.9
Cobalt	6	9.59	16.6	21.3	8.45
Copper	35.3	50.9	34.9	37.9	30.3
Iron	33000	25,400	25,500	24,700	25,000
Lead	58	65.2	49.7	77.6	42.8
Magnesium	2180	3,390	10,900	9,940	19,200
Manganese	521	1100	745	723	704
Mercury	0.16	0.529	0.269	0.393	0.114 U
Nickel	33.4	49.7	26.8	29.4	25.9
Potassium	735	1,330	1,500	1,470	1,890
Selenium	2	2.66	3.53	3.85	2.18
Silver	1.18	1.26 U	21.2	34	1.23
Sodium	55.9 U	62.8 U	171	181	90.4
Thallium	33.5	37.7	345 U	350 U	34.1
Vanadium	17.6	27.4	28.3	31	23.2
Zinc	397	136	145	164	142

NOTES:

All results are reported in milligrams per kilogram (mg/kg) or parts per million (ppm)
Sample Results Qualifiers are as follows:

U - Not detected above the detection limit.

TABLE 6-14
SURFACE SOIL SAMPLES
ANALYTICAL RESULTS - VOLATILES

COMPOUND / ANALYTE	*SS-5*	*SS-6*
Chloromethane	5.7 U	5.7 U
Bromomethane	5.7 U	5.7 U
Vinyl Chloride	5.7 U	5.7 U
Chloroethane	5.7 U	5.7 U
Methylene Chloride	5.7 U	5.7 U
Acetone	16	11 U
Carbon Disulfide	11 U	11 U
1,1-Dichloroethene	5.7 U	5.7 U
1,1-Dichloroethane	5.7 U	5.7 U
trans-1,2-Dichloroethene	5.7 U	5.7 U
cis-1,2-Dichloroethene	5.7 U	5.7 U
Chloroform	5.7 U	5.7 U
2-Butanone (MEK)	11 U	11 U
1,2-Dichloroethane	5.7 U	5.7 U
1,1,1-Trichloroethane	5.7 U	5.7 U
Carbon Tetrachloride	5.7 U	5.7 U
Bromodichloromethane	5.7 U	5.7 U
1,2-Dichloropropane	5.7 U	5.7 U
1,3-Dichloropropene	5.7 U	5.7 U
Trichloroethene	5.7 U	5.7 U
Dibromochloromethane	5.7 U	5.7 U
1,1,2-Trichloroethane	5.7 U	5.7 U
Benzene	5.7 U	5.7 U
1,3-Dichloropropene	5.7 U	5.7 U
Bromoform	5.7 U	5.7 U
4-Methyl-2-pentanone	11 U	11 U
2-Hexanone	11 U	11 U
Tetrachloroethene	5.7 U	5.7 U
1,1,2,2-Tetrachloroethane	5.7 U	5.7 U
Toluene	5.7 U	5.7 U
Chlorobenzene	5.7 U	5.7 U
Ethylbenzene	5.7 U	5.7 U
Styrene	5.7 U	5.7 U
Total Xylenes	5.7 U	5.7 U

NOTES:

All results are reported in micrograms per kilogram (ug/kg)
Sample Results Qualifiers are as follows:

U - Not detected above the detection limit.

TABLE 6-15
SURFACE SOIL SAMPLES
ANALYTICAL RESULTS - SEMIVOLATILES

COMPOUND / ANALYTE	SS-5	SS-6
Phenol	770 U	760 U
2-Chlorophenol	770 U	760 U
2-Nitrophenol	770 U	760 U
2,4-Dimethylphenol	770 U	760 U
2,4-Dichlorophenol	770 U	760 U
4-Chloro-3-methylphenol	770 U	760 U
2,4,6-Trichlorophenol	770 U	760 U
2,4-Dinitrophenol	1,500 U	1,500 U
4-Nitrophenol	1,500 U	1,500 U
2-Methyl-4,6-dinitrophenol	1,500 U	1,500 U
Pentachlorophenol	1,500 U	1,500 U
2-Methylphenol	770 U	760 U
4-Methylphenol	770 U	760 U
2,4,5-Trichlorophenol	770 U	760 U
N-Nitrosodimethylamine	380 U	380 U
Bis (2-chloroethyl) ether	380 U	380 U
1,3-Dichlorobenzene	380 U	380 U
1,4-Dichlorobenzene	380 U	380 U
1,2-Dichlorobenzene	380 U	380 U
2,2-oxybis(1-Chloropropane)	380 U	380 U
N-Nitroso-Di-n-propylamine	380 U	380 U
Hexachloroethane	380 U	380 U
Nitrobenzene	380 U	380 U
Isophorone	380 U	380 U
bis(2-choroethoxy)methane	380 U	380 U
1,2,4-Trichlorobenzene	380 U	380 U
Naphthalene	380 U	380 U
Hexachlorobutadiene	380 U	380 U
Hexachlorocyclopentadiene	380 U	380 U
2-Chloronaphthalene	380 U	380 U
Dimethyl Phthalate	380 U	380 U
Acenaphthylene	380 U	380 U
Acenaphthene	380 U	380 U
2,4-Dinitrotoluene	380 U	380 U
2,6-Dinitrotoluene	380 U	380 U
Diethyl Phthalate	380 U	380 U
4-Chlorophenyl-phenylether	380 U	380 U
Fluorene	380 U	380 U
1,2-Diphenylhydrazine	380 U	380 U
N-Nitrosodiphenylamine	380 U	380 U
4-Bromophenyl-phenylether	380 U	380 U
Hexachlorobenzene	380 U	380 U
Phenanthrene	380 U	380 U
Anthracene	380 U	380 U
Di-n-butyl phthalate	380 U	380 U
Fluranthene	380 U	380 U
Pyrene	380 U	380 U
Butyl benzyl phthalate	380 U	380 U
3-3'-Dichlorobenzidine	380 U	380 U
Benzo(a)anthracene	380 U	380 U
Bis (2-ethylhexyl)phthalate	380 U	380 U
Chrysene	380 U	380 U
Di-n-octyl phthalate	380 U	380 U
Benzo(b)Fluoranthene	380 U	380 U
Benzo(k)Fluoranthene	380 U	380 U
Benzo(a)pyrene	380 U	380 U
Indeno(1,2,3-cd)pyrene	380 U	380 U
4-Chloroaniline	380 U	380 U
2-Methyl Naphthalene	380 U	380 U
2-Nitroaniline	380 U	380 U
3-Nitroaniline	380 U	380 U
Dibenzofuran	380 U	380 U
4-Nitroaniline	380 U	380 U
Carbazole	380 U	380 U

NOTES:

All results are reported in micrograms per kilogram (ug/kg)
Sample Results Qualifiers are as follows:
U - Not detected above the detection limit.

TABLE 6-16
SURFACE SOIL SAMPLES
ANALYTICAL RESULTS - PCBs

COMPOUND / ANALYTE	*SS-3*	*SS-4*	*SS-5*	*SS-6*
PCB 1016	300 U	300 U	290 U	280 U
PCB 1221	300 U	300 U	290 U	280 U
PCB 1232	300 U	300 U	290 U	280 U
PCB 1242	300 U	300 U	290 U	280 U
PCB 1248	300 U	300 U	290 U	280 U
PCB 1254	300 U	300 U	290 U	280 U
PCB 1260	300 U	300 U	290 U	280 U

NOTES:

All results are reported in micrograms per kilogram (ug/kg)
Sample Results Qualifiers are as follows:
U - Not detected above the detection limit.

TABLE 6-17
GROUND-WATER SAMPLES
ANALYTICAL RESULTS - INORGANICS

COMPOUND / ANALYTE	TAM-GW2 (upgradient)	TAM-GW1 (downgradient)	TAM-GW3 (downgradient)	TAM-GW3A [filtered] (downgradient)	NPW-H2U (upgradient)	MW-BBL1R (downgradient)	MW-BBL2R (downgradient)	PART 703 GW LIMIT
Aluminum	0.99	0.604	67.1	0.213	2.96	0.242	0.118	N/A
Antimony	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.103	N/A
Arsenic	0.0050 U	0.0050 U	0.0102	0.0050 U	0.0094	0.0066	0.03	0.025
Barium	0.0876	0.0748	6.85	0.145	0.0355	0.0200 U	0.0812	1
Beryllium	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	N/A
Cadmium	0.0050 U	0.0050 U	0.0052	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.01
Calcium	145	74.6	100	36.9	129	90.9	192	N/A
Chromium	0.010 U	0.010 U	0.108	0.010 U	0.010 U	0.010 U	0.010 U	N/A
Cobalt	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	N/A
Copper	0.0200 U	0.200 U	0.188	0.0200 U	0.0200 U	0.0200 U	0.0200 U	1
Iron	3.48	0.692	0.108	0.191	5.64	0.316	0.0973	1
Lead	0.0477	0.0050 U	0.382	0.0050 U	0.103	0.0068	0.0050 U	0.025
Magnesium	57.2	24	39.2	8.16	57.3	35	152	N/A
Manganese	0.122	0.0561	1.71	0.0155	0.127	0.010 U	0.010 U	0.3
Mercury	0.00010 U	0.00010 U	0.00010 U	0.00010 U	0.00020 U	0.00020 U	0.00020 U	0.002
Nickel	0.0400 U	0.0400 U	0.118	0.0400 U	0.0400 U	0.0400 U	0.0400 U	N/A
Potassium	2.9	4.87	16.9	3.19	1.57	1.00 U	6.3	N/A
Selenium	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.02
Silver	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.05
Sodium	47.8	27.4	12.5	10.8	12.1	7.83	284	N/A
Thallium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	N/A
Vanadium	0.0050 U	0.0050 U	0.161	0.0050 U	0.0050 U	0.0500 U	0.0500 U	N/A
Zinc	0.847	0.0323	1.25	0.010 U	0.364	0.0634	0.703	5

NOTES:

All results are reported in milligrams per liter (mg/l)
Sample Results Qualifiers are as follows:
U - Not detected above the detection limit.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

NOV 14 1995

Michael Zagata
Commissioner

This letter was sent to the people on the attached list.

Dear :

The Department of Environmental Conservation (DEC) maintains a Registry of sites where hazardous waste disposal has occurred. Property located at 4511 Hyde Park Boulevard in the Town of Niagara and County of Niagara and designated as Tax Map Number 130.11-1-8 as recently reclassified as a Class 3 in the Registry. The name and site I.D. number of this property as listed in the Registry is TAM Ceramics, Inc., Site #932028.

The Classification Code 3 means that the site does not pose a significant threat to the environment or public health -- action may be deferred.

We are sending this letter to you and others who own property near the site listed above, as well as the county and town clerks. We are notifying you about these activities at this site because we believe it is important to keep you informed.

If you currently are renting or leasing your property to someone else, please share this information with them. If you no longer own the property to which this letter was sent, please provide this information to the new owner and provide this office with the name and address of the new owner so that we can correct our records.

The reason for this recent classification decision is as follows:

- A site investigation revealed the presence of volatiles, semi-volatiles and pesticide/herbicide compounds on site at low concentrations. Although, no PCB's were detected, metals and inorganics were detected at various locations throughout the site. Impacts from past disposal practices are limited to a small area on the eastern site of the property and an area in the southwest corner. The eastern area was addressed by an interim remedial measure that removed the exposed barium waste. The wastes found in the southwest corner failed TCLP for barium in only one sample. The groundwater and soil samples collected do not exhibit the characteristics of hazardous waste. Therefore, based on the information collected, the disposal of a consequential amount of hazardous waste has been confirmed, but that waste does not constitute a significant threat. Long term groundwater monitoring will be conducted in the vicinity of the waste to document the attenuation of remaining groundwater contaminants.

If you would like additional information about this site or the inactive hazardous waste site remedial program, call:

DEC's Inactive Hazardous Waste Site Toll-Free Information Number 1-800-342-9296 or New York State Health Department's Health Liaison Program (HeLP) 1-800-458-1158, ext. 402.

Sincerely,

Robert L. Marino
Chief
Site Control Section
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation

bcc: R. Marino
T. Reamon
M. Podd, R/9
A. Sylvester
A. Carlson
L. Ennist

AS/srh

A. Sylvester

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

Michael Zagata
Commissioner

OCT 24 1995

TAM Ceramics, Inc.
4511 Hyde Park Boulevard
Niagara Falls, New York 14305-0067

Dear Sir/Madam:

As mandated by Section 27-1305 of the Environmental Conservation Law (ECL), the New York State Department of Environmental Conservation (NYSDEC) must maintain a Registry of all inactive disposal sites suspected or known to contain hazardous waste. The ECL also mandates that this Department notify the owner of all or any part of each site or area included in the Registry of Inactive Hazardous Waste Disposal Sites as to changes in site classification.

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of change in the classification of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

DEC Site No.: 932028
Site Name: TAM Ceramics Inc.
Site Address: 4511 Hyde Park Blvd., Niagara, New York 14305-0067

Classification Change from 2a to 3

The reason for the change is as follows:

- A site investigation revealed the presence of volatiles, semi-volatiles and pesticides/herbicide compounds on site at low concentrations. Although, no PCB's were detected, metals and inorganics were detected at various locations throughout the site. Impacts from past disposal practices are limited to a small area on the eastern site of the property and an area in the southwest corner. The eastern area was addressed by an interim remedial measure that removed the exposed barium waste. The wastes found in the southwest corner failed TCLP for Barium in only one sample. The groundwater and soil samples collected do not exhibit the characteristics of hazardous waste. Therefore, based on the information collected, the disposal of a consequential amount of hazardous waste has been confirmed, but that waste does not constitute a significant threat. Long term groundwater monitoring will be conducted in the vicinity of the waste to document the attenuation of remaining groundwater contaminants.

Enclosed is a copy of the New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry and Annual Report, and an explanation of the site classifications. The Law allows the owner and/or operator of a site listed in the Registry to petition the Commissioner of the New York State Department of Environmental Conservation for deletion of such site, modification of site classification, or modification of any information regarding such site, by submitting a written statement setting forth the grounds of the petition. Such petition may be addressed to:

Michael Zagata
Commissioner
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-0001

For additional information, please contact me at (518) 457-0747.

Sincerely,

Robert L. Marino
Chief
Site Control Section
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation

Enclosures

bcc: w/o Enc.
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w/Enc. (Copy of Site Report form only)
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AS/srh