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SUMMARY REPORT DRAFT

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VAN DER HORST CORPORATION OF AMERICA
NEW YORK STATE SUPERFUND
PHASE I SUMMARY REPORT
DRAFT
APRIL 10, 1984

VAN DER HORST CORPORATION OF AMERICA

NEW YORK STATE SUPERFUND

PHASE I SUMMARY REPORT

DRAFT

April 10, 1984

Prepared by:

Recra Research, Inc.
4248 Ridge Lea Road
Amherst, New York 14226

For:

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

Revision 1

VAN DER HORST CORPORATION OF AMERICA

NEW YORK STATE SUPERFUND

PHASE I SUMMARY REPORT

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1.0 EXECUTIVE SUMMARY

The Van Der Horst Corporation Plant No. 1 site is located in the northern section of the City of Olean, New York. Groundwater contamination by chromium in the North Olean area has been identified and documented by the Cattaraugus County Department of Health. Although the chromium-bearing waste stream produced during electroplating operations at Van Der Horst has been discharged to the Olean sanitary sewer system since at least 1952, and possibly since 1940, there are two reports of subsurface waste disposal onsite. Because these reports are generally undocumented, and since there were formerly a number of other industries in the area which produced chromic wastes, it is impossible to determine from available information whether Van Der Horst Corporation Plant No. 1 has caused or contributed to the observed groundwater contamination problem. Since, under natural groundwater flow conditions, the contamination in North Olean lies upgradient from a major municipal well field, its presence is considered to be significant -- regardless of source.

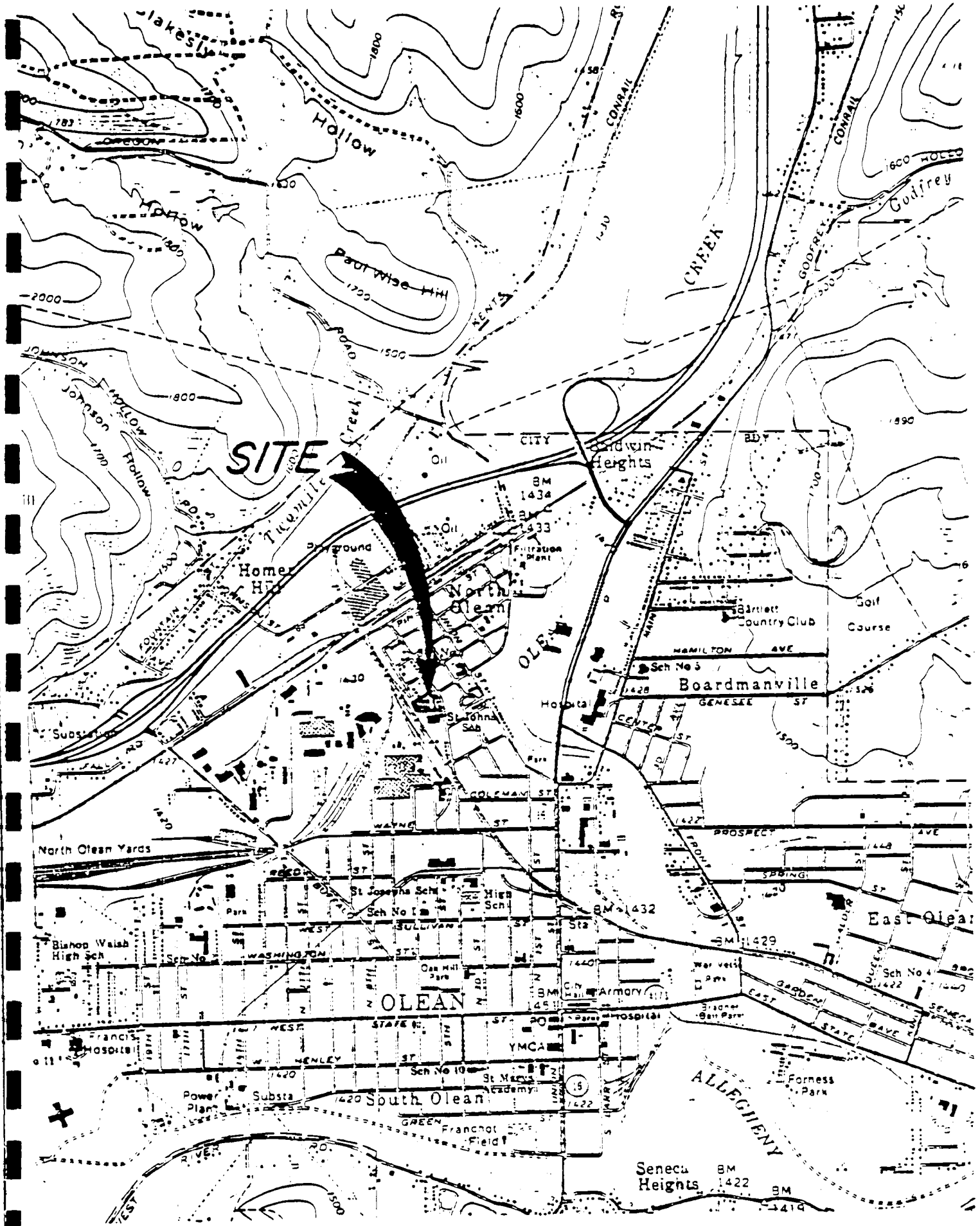
The recommended Phase II Field Investigation includes two primary work tasks. The first involves sampling/analysis of existing and new groundwater monitoring wells in the area, and subsequent evaluations to determine the extent of chromium contamination in North Olean, its present and potential migration routes, and the possible impact of this contamination upon potable and industrial water supply sources in the area. The second work task, which is regarded as being optional,

involves soil sampling and evaluations to determine (if possible) whether the Van Der Horst site has caused or contributed to the observed occurence of chromium contamination in North Olean.

2.0 SITE DESCRIPTION

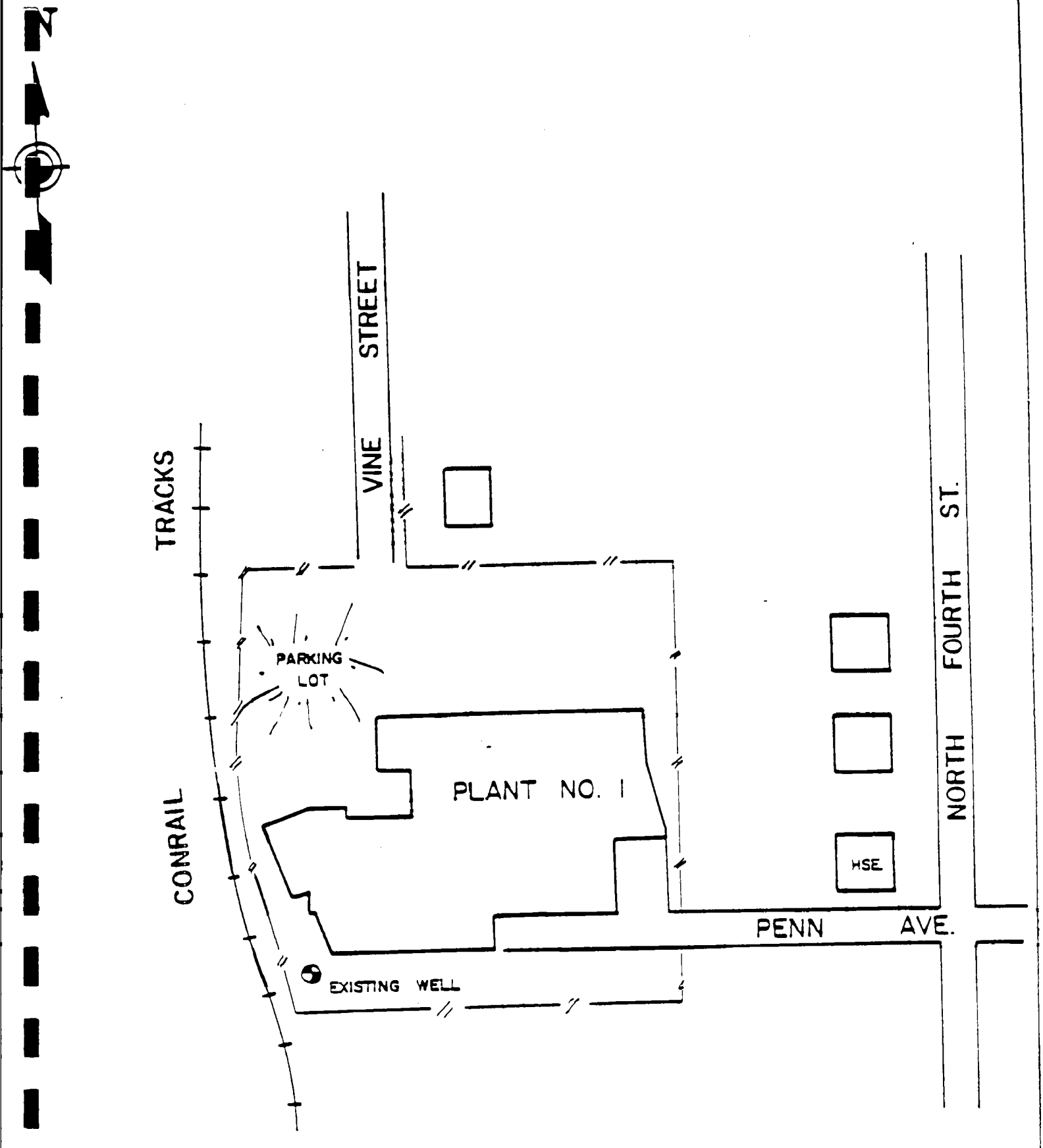
Van Der Horst Corporation Plant No. 1 is a two-acre industrial facility located within the northern section of the City of Olean, New York (Figure 1). The property is bounded by developed residential neighborhoods on its north, east and south, and by an industrial area on its west and southwest. The site is occupied almost entirely by manufacturing buildings and appurtenant facilities (Figure 2). Chromium-contaminated wastewaters, produced at Van Der Horst during its electroplating operations, are presently discharged by direct connection to the Olean sanitary sewer system. The topography of the site is quite flat, and surface runoff drains to the City's storm sewer system.

The principal groundwater aquifer in North Olean is approximately 100 feet deep and is comprised of alluvial deposits of silt, sand and gravel. Chromium contamination of this aquifer has been detected in samples from groundwater wells located on and in the vicinity of the Van Der Horst site. The source and extent of this contamination have not been accurately determined to date. In addition to Van Der Horst, there were at one time a number of other industries located throughout the Olean area which produced chromium-bearing waste streams, including tanning operations and other electroplating facilities. This fact, plus the uncertainty concerning whether Van Der Horst ever disposed of its wastewaters onsite (see Section 4.0), make it impossible to establish from existing information whether Van Der Horst has caused



USGS TOPOGRAPHIC 7.5 MINUTE OLEAN QUAD.	VICINITY MAP VAN DER HORST CORP.	FIGURE 1

A-1552



URS Company, Inc. CONSULTING ENGINEERS NEW YORK NEW JERSEY	SITE MAP VAN DER HORST CORP.	FIGURE 2

or contributed to the observed groundwater contamination by chromium in the North Olean area.

In the following section, a Hazard Ranking System (HRS) score is developed for the Van Der Horst site, and accompanying forms are included, under the working assumption that Van Der Horst may be at least partially responsible for the observed groundwater contamination in North Olean. Although this assumption is necessary for the purpose of developing a HRS score for the site, it should not, in light of the previous discussion, be taken as a conclusion that Van Der Horst is wholly or partially responsible for the existing situation. Rather, this preliminary HRS score should be regarded as a measure of the situation itself, with the understanding that responsibility for this situation cannot presently be determined.

3.0 PRELIMINARY HAZARD RANKING SYSTEM SCORE

Facility Name: Van Der Horst Corporation of America Plant #1

Location: 314 Penn Ave., Olean, Cattaraugus County, NY 14760

EPA Region: 2

Person(s) in Charge of the Facility: Robert Bush, Plant Engineer
Van Der Horst Corp.
Olean, NY 14760

Name of Reviewer: Recra Research, Inc. **Date:** April 6, 1984

General Description of the Facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Active electroplating facility. No present waste discharge to groundwater or surface water. Two (undocumented) reports of subsurface waste disposal prior to 1952. One (documented) surface water discharge to Olean Creek in 1965. Chromic acid is substance of concern. Groundwater in North Olean presently contaminated by chromium.

Scores: S_M = 49.2 (S_{gw} = 84.6 S_{sw} = 9.2 S_a = 0)

S_{FE} = N/A

S_{DC} = 0

GROUND WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1	OBSERVED RELEASE	0 (45)	1	45	45	3.1
	If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2	ROUTE CHARACTERISTICS					3.2
	Depth to Aquifer of Concern	0 1 2 (3)	2	6	6	
	Net Precipitation	0 1 (2) 3	1	2	3	
	Permeability of the Unsaturated Zone	0 1 (2) 3	1	2	3	
	Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score			13	15	
3	CONTAINMENT	0 1 2 (3)	1	3	3	3.3
4	WASTE CHARACTERISTICS					3.4
	Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
	Hazardous Waste Quantity	0 1 2 3 (4) 5 6 7 8	1	4	8	
	Total Waste Characteristics Score			22	26	
5	TARGETS					3.5
	Ground Water Use	0 1 2 (3)	3	9	9	
	Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 (40)	1	40	40	
	Total Targets Score			49	49	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				57,330	48,510
7	Divide line 6 by 57,330 and multiply by 100			S_{GW} = 84.6		

GROUNDWATER ROUTE WORK SHEET

SURFACE WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	OBSERVED RELEASE	0 (45)	1	45	45	4.1
	If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2	ROUTE CHARACTERISTICS					4.2
	Facility Slope and Intervening Terrain	0 (1) 2 3	1	1	3	
	1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
	Distance to Nearest Surface Water	0 1 2 3	2		6	
	Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score				15	
3	CONTAINMENT	0 1 2 (3)	1	3	3	4.3
4	WASTE CHARACTERISTICS					4.4
	Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
	Hazardous Waste Quantity	0 1 2 3 (4) 5 6 7 8	1	4	8	
	Total Waste Characteristics Score			22	26	
5	TARGETS					4.5
	Surface Water Use	0 1 (2) 3	3	6	9	
	Distance to a Sensitive Environment	(0) 1 2 3	2	0	6	
	Population Served/ Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
	Total Targets Score			6	55	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				64,350	5,940
7	Divide line 6 by 64,350 and multiply by 100			S_{sw} = 9.2		

SURFACE WATER ROUTE WORK SHEET

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section
1 OBSERVED RELEASE	(0) 45	1		45	5.2
Date and Location:					
Sampling Protocol:					
If line 1 is 0, then S_a = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 WASTE CHARACTERISTICS					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 TARGETS					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
Total Targets Score				39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100			S_a = ( )		

AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	84.6	7,157.2
Surface Water Route Score (S_{sw})	9.2	84.6
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		7,241.8
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		85.1
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73$ (S_M)		49.2

WORK SHEET FOR COMPUTING S_M

FIRE AND EXPLOSION WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Target Score				24	
4 Multiply [1] x [2] x [3]				1,440	
5 Divide line [5] by 1,440 and multiply by 100			S_{FE} = N/A		

FIRE AND EXPLOSION WORK SHEET

DIRECT CONTACT WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Incident	(0) 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 (1) 2 3	1	1	3	8.2
3 Containment	(0) 15	1	0	15	8.3
4 Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4
5 Targets					8.5
Population within a 1-mile radius	0 1 2 3 (4) 5	4	16	20	
Distance to a critical habitat	(0) 1 2 3	4	0	12	
Total Targets Score			16	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				21,600	0
7 Divide line 6 by 21,600 and multiply by 100			S_{DC} = 0		

DIRECT CONTACT WORK SHEET

3.1 Documentation Records for Hazard Ranking System

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: Van Der Horst Corporation of America (Plant #1)

LOCATION: 314 Penn Avenue, Olean, Cattaraugus County, New York 14760

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Chromium (Trivalent and Hexavalent) (Refs 1-2)

Rationale for attributing the contaminants to the facility:

Two generally undocumented reports concerning subsurface waste disposal onsite prior to 1952, one via injection well (Refs 5, 28), and the other via an isolated discharge incident (Ref 13)

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

Bedrock consists of the Northeast Shale member of the Canadaway Formation (shale with interbedded siltstone). Most of the available, high quality groundwater is located in thick, unconsolidated valley deposits (overburden aquifer) (Refs 3-4).

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

20 feet (Ref 3)

when Felmont Oil production wells adjacent to site are in use, water table surface below site located at approximately 50 feet depth (Ref 27)

Depth from the ground surface to the lowest point of waste disposal/ storage:

Undocumented reports of disposal at depth of approximately 40-50 feet (Refs 5, 28)

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No containment
(undocumented reports of wastes disposed of in onsite well) (Refs 5, 28)

Method with highest score:

See above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Cr^{3+} (Ref 5)
Cr^{6+} (from chromic acid)

Compound with highest score:

Cr^{6+} : Combined Toxicity/Persistence Score = 18 (Ref. 10)

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Approximately 45,000 gallons of chromic acid via an alleged injection well, plus 1500 gallons via a one-time discharge in 1965

Basis of estimating and/or computing waste quantity:

Assumptions*: 193,000 gpd discharged at Plant #1 (Ref. 11)
70 ppm chrome in wastewater (Ref 12)
Plant operates 260 days per year
Injection** well used 13 years (1940-1952)

$(193{,}000\ gpd)(70\ ppm)(260\ days/yr)(13\ yrs) = 45{,}664\ gallons$

* Assumptions are speculative; well injection is generally

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

38.17 inches per year (Ref. 6)

Mean annual lake or seasonal evaporation (list months for seasonal):

27.0 inches per year (Ref. 7)

Net precipitation (subtract the above figures):

11.17 inches

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Chenango gravelly silt loam
(deep, well drained soils on glacial outwash plains)(Ref. 8)

Permeability associated with soil type:

10^{-3} to 10^{-5} cm/sec

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Undocumented disposal of liquid (Ref 9)

* * *

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Industrial (Ref 5)
Drinking water (Ref. 14)

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

Van Der Horst Plant #1
314 Penn Avenue

Distance to above well or building:

Approximately 50 feet

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Olean west well field (7,280 residents)
Allegany Village water supply wells (6,000 including college students
Van Der Horst (40 employees)
Other wells are also used in area for industrial/commercial purposes (Ref. 14)

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

0 Acres (Ref. 15)
0 served

Total population served by ground water within a 3-mile radius:

13,320+ residents, students and employees

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Hexavalent Chromium (Ref. 16)

Rationale for attributing the contaminants to the facility:

Discharge by Van Der Horst acknowledged (Ref 16)

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

0-3% (Estimated from USGS quad map)

Name/description of nearest downslope surface water:

Olean Creek

Average slope of terrain between facility and above-cited surface water body in percent:

Approximately 5% (estimated)

Is the facility located either totally or partially in surface water?

No

Is the facility completely surrounded by areas of higher elevation?

No

1-Year 24-Hour Rainfall in Inches

2.3 inches (Ref 17)

Distance to Nearest Downslope Surface Water

Approximately 1100 feet

Physical State of Waste

Liquid (Ref 9)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No containment
(based upon undocumented reports of well disposal)
(Refs 5, 26)

Method with highest score:

See above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Cr^{3+} (Ref 5)

Cr^{6+} (from chromic acid)

Compound with highest score:

Cr^{6+} ; Combined Toxicity/Persistence Score = 18 (Ref 10)

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Approximately 45,000 gallons of chromic acid via an alleged injection well, plus 1500 gallons via a one-time discharge in 1943 (±)

Basis of estimating and/or computing waste quantity:

The above estimate based on sketchy information See groundwater route for details

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

City of Olean water filtration plant is located less than one-half mile upstream from point on Olean Creek nearest site

Recreational uses

Is there tidal influence?

NO

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

None in area

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

None within one mile (Ref. 18)

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

None in area. (Ref. 19)

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

None (Ref. 14)

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

0 Acres (Ref. 15)
0 served

Total population served:

0 served

Name/description of nearest of above water bodies:

Distance to above-cited intakes, measured in stream miles.

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

N/A

Date and location of detection of contaminants

N/A

Methods used to detect the contaminants:

N/A

Rationale for attributing the contaminants to the site:

N/A

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

N/A

Most incompatible pair of compounds:

N/A

Toxicity

Most toxic compound:

N/A

Hazardous Waste Quantity

Total quantity of hazardous waste:

N/A

Basis of estimating and/or computing waste quantity:

N/A

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi 0 to 1 mi 0 to 1/2 mi 0 to 1/4 mi

N/A

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

N/A

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

N/A

Distance to critical habitat of an endangered species, if 1 mile or less:

N/A

Land Use

Distance to commercial/industrial area, if 1 mile or less:

N/A

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

N/A

Distance to residential area, if 2 miles or less:

N/A

Distance to agricultural land in production within past 5 years, if 1 mile or less:

N/A

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

N/A

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

N/A

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 905008

II. SITE NAME AND LOCATION

01 SITE NAME	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Van Der Horst Corp of America	314 Penn Avenue				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Olean	NY	14760	Cattaraugus		
09 COORDINATES LATITUDE: 42 05 25.0	LONGITUDE: 078 26 20.0				

10 DIRECTIONS TO SITE: Plant #1 located directly at end of Penn Avenue

III. RESPONSIBLE PARTIES

01 OWNER	02 STREET		
Van Der Horst Corp of America	314 Penn Avenue		
03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Olean	NY	14760	(716) 372-5200
07 OPERATOR	08 STREET		
Same			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			( )

13 TYPE OF OWNERSHIP
☒ A. PRIVATE ☐ B. FEDERAL: _____ ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE
☐ A. RCRA 3001 DATE RECEIVED: / / MONTH DAY YEAR ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: / / MONTH DAY YEAR ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES ☐ NO DATE 9 9 83 MONTH DAY YEAR
BY: ☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☒ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____
CONTRACTOR NAME(S): Recra Research, Inc

02 SITE STATUS
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
1940 BEGINNING YEAR | Current ENDING YEAR ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Chromic Acid (Cr^{3+}, Cr^{6+})

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Chromium wastes have contaminated groundwater used for drinking and industrial purposes

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION
☐ A. HIGH ☐ B. MEDIUM ☒ C. LOW ☐ D. NONE

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)			03 TELEPHONE NUMBER
Richard L. Crouch	Recra Research, Inc.			(716) 668-6200
04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
C. Mark Hanna	—	URS Co Inc	7161883-5525	4 16 84 MONTH DAY YEAR

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE: NY | 02 SITE NUMBER: 905008

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [ ] A. SOLID (POWDER, FINES)
- [ ] B. POWDER, FINES
- [ ] C. SLUDGE
- [ ] D. OTHER (Specify)
- [ ] E. SLURRY
- [X] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS: see below

CUBIC YARDS:

NO OF DRUMS:

03 WASTE CHARACTERISTICS (Check all that apply)

- [ ] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [ ] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [ ] G. FLAMMABLE
- [ ] H. IGNITABLE
- [ ] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	45,000	Gal	Chromic Acid
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01. CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Chromic Acid		Sanitary Sewer Undocumented reports of well disposal		

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Cattaraugus County Health Dept
NYSDEC Region 9

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NV | 02 SITE NUMBER: 905008

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [X] OBSERVED (DATE: 1967) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 13,000+
04 NARRATIVE DESCRIPTION
Chromium contaminated groundwater detected during 1967

01 [X] B. SURFACE WATER CONTAMINATION — 02 [X] OBSERVED (DATE: 7/20/1965) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0
04 NARRATIVE DESCRIPTION
Discharge of chromic acid to sewer reached Olean Creek causing large fishkill.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

01 ☐ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

01 [X] F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) [X] POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: — (Acres)
04 NARRATIVE DESCRIPTION
Chromic acid allegedly discharged via onsite injection well and one isolated dumping incident. Reports undocumented

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 905008

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
NARRATIVE DESCRIPTION (Include name(s) of species)

☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 13,000+

IV. COMMENTS

Migration of contaminants in area of site being held in check due to high volume pumping of groundwater by adjacent industry.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Cattaraugus County Health Dept
NYSDEC Region 9

EPA FORM 2070-12 (7-81)

3.3 EPA Site Inspection Report (Form 2070-13)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 905008

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Van Der Horst Corp. of America	314 Penn Avenue				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST.
Olean	NY	14760	Cattaraugus		

09 COORDINATES: LATITUDE 42 05 35.0 | LONGITUDE 078 26 20.0

10 TYPE OF OWNERSHIP (Check one): [X] A. PRIVATE [ ] B. FEDERAL ____ [ ] C. STATE [ ] D. COUNTY [ ] E. MUNICIPAL [ ] F. OTHER ____ [ ] G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
9 9 83 (MONTH DAY YEAR)	[X] ACTIVE [ ] INACTIVE	1940 (BEGINNING YEAR) Current (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
[ ] A. EPA [ ] B. EPA CONTRACTOR ____ (Name of firm) [ ] C. MUNICIPAL [ ] D. MUNICIPAL CONTRACTOR ____ (Name of firm)
[ ] E. STATE [X] F. STATE CONTRACTOR Recra Research Inc (Name of firm) [ ] G. OTHER ____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
C. Mark Hanna	Project Engineer	URS Co Inc	716 883-5525

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
			( )
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
Robert Bush	Plant Engineer	Van Der Horst Plant #1 Olean NY 14760	(716) 372-5200
Gino Lorenzini	Maint. Super.	Same	Same
Alfred Anzivine	Exec V. P.	Same	Same
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
[X] PERMISSION [ ] WARRANT	10:00 AM	Sunny, warm (70°F)

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Richard L. Crouch	Recra Research Inc	(716) 858-6200

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
C. Mark Hanna	—	URS Co Inc	716-883-5525	4 6 84 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

EPA

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	905008

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [ ] A. SOLID
- [ ] B. POWDER, FINES
- [ ] C. SLUDGE
- [ ] D. OTHER _____ (Specify)
- [ ] E. SLURRY
- [X] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS: See below

CUBIC YARDS: _____

NO. OF DRUMS: _____

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [X] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [ ] G. FLAMMABLE
- [ ] H. IGNITABLE
- [ ] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	45,000	Gal	Chromic Acid
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Chromic Acid	—	Santary Sewer		
			Undocumented reports of well disposal		

V. FEEDSTOCKS (See Appendix for CAS numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Cattaraugus County Health Dept

NYSDEC Region 9

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 905008

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION | 02 [X] OBSERVED (DATE: 1967) | [ ] POTENTIAL | [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 13,000+ | 04 NARRATIVE DESCRIPTION
Chromium contaminated groundwater detected during 1960's
Contamination exists at present

01 [X] B. SURFACE WATER CONTAMINATION | 02 [X] OBSERVED (DATE: 9/20/1965) | [ ] POTENTIAL | [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 | 04 NARRATIVE DESCRIPTION
Discharge of chromic acid to sewer reached Olean Creek causing a large fishkill

01 [ ] C. CONTAMINATION OF AIR | 02 [ ] OBSERVED (DATE:) | [ ] POTENTIAL | [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: | 04 NARRATIVE DESCRIPTION

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS | 02 [ ] OBSERVED (DATE:) | [ ] POTENTIAL | [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: | 04 NARRATIVE DESCRIPTION

01 [ ] E. DIRECT CONTACT | 02 [ ] OBSERVED (DATE:) | [ ] POTENTIAL | [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: | 04 NARRATIVE DESCRIPTION

01 [X] F. CONTAMINATION OF SOIL | 02 [ ] OBSERVED (DATE:) | [X] POTENTIAL | [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: (Acres) | 04 NARRATIVE DESCRIPTION
Chromic acid allegedly discharged via onsite injection well and one isolated dumping incident. Reports undocumented

01 [ ] G. DRINKING WATER CONTAMINATION | 02 [ ] OBSERVED (DATE:) | [ ] POTENTIAL | [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: | 04 NARRATIVE DESCRIPTION

01 [ ] H. WORKER EXPOSURE/INJURY | 02 [ ] OBSERVED (DATE:) | [ ] POTENTIAL | [ ] ALLEGED
03 WORKERS POTENTIALLY AFFECTED: | 04 NARRATIVE DESCRIPTION

01 [ ] I. POPULATION EXPOSURE/INJURY | 02 [ ] OBSERVED (DATE:) | [ ] POTENTIAL | [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: | 04 NARRATIVE DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	905008

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include number of dead fish)

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 13,000 +

IV. COMMENTS

Migration of contaminants in area of site being held in check due to high volume pumping of groundwater by adjacent industry

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Cattaraugus County Health Dept.
NYSDEC Region 9

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	905008

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☒ I. OTHER (Specify) *	45000	Gal

04 TREATMENT (Check all that apply)
☐ A. INCINERATION
☐ B. UNDERGROUND INJECTION
☐ C. CHEMICAL/PHYSICAL
☐ D. BIOLOGICAL
☐ E. WASTE OIL PROCESSING
☐ F. SOLVENT RECOVERY
☐ G. OTHER RECYCLING/RECOVERY
☐ H. OTHER (Specify)

05 OTHER
☒ A. BUILDINGS ON SITE

06 AREA OF SITE
2 (Acres)

* undocumented reports of well disposal

07 COMMENTS

Alleged (but undocumented) subsurface waste disposal via injection

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Cattaraugus County Health Dept

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 905008

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING WATER SUPPLY (Check as appropriate)

	SURFACE	WELL
COMMUNITY	A. X	B. X
NON-COMMUNITY	C. ☐	D. X

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. X	B. ☐	C. X
D. X	E. X	F. ☐

03 DISTANCE TO SITE
A. 1.3 (mi)
B. on site (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)
☐ A. ONLY SOURCE FOR DRINKING ☒ B. DRINKING (Other sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other water sources available) ☐ D. NOT USED, UNUSEABLE
COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)

02 POPULATION SERVED BY GROUND WATER: 13,000+
03 DISTANCE TO NEAREST DRINKING WATER WELL: 1.3 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
approx 10 (ft)	Southwest	10 (ft)	(gpd)	☒ YES ☐ NO

09 DESCRIPTION OF WELLS (Including acreage, depth, and location relative to population and buildings)
Community and Industrial wells highly used downgradient of site

10 RECHARGE AREA		11 DISCHARGE AREA	
☒ YES ☐ NO	COMMENTS	☐ YES ☐ NO	COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)
☒ A. RESERVOIR, RECREATION, DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Olean Creek	☐	0.5 (mi)
Allegheny River	☐	1.5 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 5,000± NO. OF PERSONS	B. 15,000± NO. OF PERSONS	C. 25,000± NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 0.1 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 5,000±
04 DISTANCE TO NEAREST OFF-SITE BUILDING: 0.1 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)
Site located on edge of residential area of Olean, N.Y. (C)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE: NY | 02 SITE NUMBER: 905008

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☐ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
(ft)	(ft)		

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
+17 (in)	2.3 (in)	0-3 %	SW	0-3 %

09 FLOOD POTENTIAL

SITE IS IN 500 YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. _____ (mi) OTHER: B. 2 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO: COMMERCIAL/INDUSTRIAL | RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES | AGRICULTURAL LANDS: PRIME AG LAND | AG LAND

A. on-site (mi) B. 0.1 (mi) C. _____ (mi) D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site lies on flood plain of Olean Creek near its confluence with Allegheny River.

Surrounding topography similar to site.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDEC Region 9

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	905008

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	Numerous	NYS Dept Health	at Present
SURFACE WATER	6	NYS Conservation Dept	at Present
WASTE			
AIR			
RUNOFF			
SPILL	3	NYS Conservation Dept	at Present
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☐ AERIAL

02 IN CUSTODY OF _____ (Name of organization or individual)

03 MAPS ☐ YES ☐ NO

04 LOCATION OF MAPS _____

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

NYS DEC Region 9

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	905008

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	08 NAME (PARENT COMPANY)	09 D+B NUMBER
Van Der Horst Corp		RG Scott Corp	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
314 Penn Ave		1114 Harrison St	

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
Olean	NY	14760	San Francisco	CA	94142

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) / IV. REALTY OWNER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Van Der Horst Corporation of America

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	905008

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
NONE	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (if applicable)

10 NAME	11 D+B NUMBER
—	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATORS' PARENT COMPANIES (if applicable)

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
Van Der Horst Corp		RG Scott Corp	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
314 Penn Avenue		1114 Harrison St	

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
Olean	NY	14760	San Francisco	CA	94142

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
11	Same

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Van Der Horst Corp
Cattaraugus County Health Dept

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	905008

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Van Der Horst Corp	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
314 Penn Avenue	
06 CITY	08 STATE / 07 ZIP CODE
Olean	NY / 14760

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NONE			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
06 CITY	08 STATE / 07 ZIP CODE	06 CITY	08 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
06 CITY	08 STATE / 07 ZIP CODE	06 CITY	08 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NONE			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
06 CITY	08 STATE / 07 ZIP CODE	06 CITY	08 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
06 CITY	08 STATE / 07 ZIP CODE	06 CITY	08 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Cattaraugus County Health Dept.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	905008

II. PAST RESPONSE ACTIVITIES

01 ☒ A. WATER SUPPLY CLOSED — 02 DATE 6/1/1982 — 03 AGENCY CATT COUNTY HEALTH D
04 DESCRIPTION
Health Dept. issued warning to stop drinking groundwater near site.

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 905008

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Cattaraugus County Health Dept

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE: NY | 02 SITE NUMBER: 905008

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDEC Region 9
Cattaraugus County Health Dept.

4.0 SITE HISTORY

The Van Der Horst Corporation began electroplating operations in 1940 at Plant No. 1, which had previously been used as a machine shop for the construction of hydraulic presses (Refs. 20,31). Operations were expanded in 1942 when the company was awarded a United States Navy Contract. During its history of operations in Olean, there are two reported instances of subsurface process wastewater disposal at Van Der Horst Plant No. 1. One account has described a one-time dumping of 500-1,500 gallons of iron-contaminated chromic acid into a shallow hole onsite sometime during the early 1940's, possibly in 1943 (Refs. 13, 31). Also, reference is made in the files of the Cattaraugus County Department of Health to an onsite wastewater disposal well at Van Der Horst, which was in operation until approximately 1952 (Ref. 5). Recent correspondence from the Health Department, however, indicates that documentation concerning this well is lacking, and that there is no substantial evidence that well disposal of chromium wastes ever took place at Van Der Horst (Ref. 28). Officials from Van Der Horst deny the existence of such a well (Refs. 20,31). In any case, there has been no reported subsurface waste disposal at the site since 1952.

The occurrence of chromium contamination in the water supply aquifer in North Olean has been documented by the Cattaraugus County Department of Health. This agency reported (Ref. 5) that an onsite Van Der Horst process supply well (46 foot depth) was contaminated with chromium by 1959. Use of this well was discontinued in 1960. On April

5, 1962 a new 91-foot-deep process well was installed. This deeper well showed the presence of chromium in low part-per-million (ppm) concentrations by 1967. In 1966, the Felmont Oil Corporation developed a well field adjacent to the Van Der Horst site. Felmont Well No. 5 also began producing chromium- contaminated water by 1967 (Refs. 1-2). Subsequently, a press release was made by the Cattaraugus County Department of Health on June 1, 1967 cautioning the public in the Olean area against the use of groundwater from private wells in the vicinity for drinking water purposes (Ref. 21).

An isolated surface water discharge occurred from Van Der Horst during July of 1965, which resulted in a substantial fishkill in Olean Creek (Ref. 16). An employee of Van Der Horst had emptied the chromic acid contaminated contents of a large tank into the plant's sanitary sewer connection, but the waste flow was too high and an overflow to a storm sewer occurred. As a result, wastewaters reaching the Creek by way of the storm sewer killed at least 10,000 fish, many of which were sport species (Ref. 16).

Van Der Horst was directed by the Cattaraugus County Health Department in 1967 to implement a chromium destruction wastewater treatment system, such that its wastewater discharge to the City sewer system would meet an effluent limitation on hexavalent chromium (Ref. 22). During late 1967, the County Health Department also initiated an extensive chromium monitoring program (Ref. 23). This program was aimed at

developing a chromium profile for the surface waters and groundwater in the Olean area.

Presently, groundwater underlying and in the vicinity of the Van Der Horst site is contaminated with chromium (Refs. 29-30). Migration of chromium has not been detected beyond the Felmont well field to date, apparently due to the extensive pumping there (approximately 6 to 10 million gallons per day) (Ref. 14).

5.0 SITE DATA

5.1 Site Area Surface Features

5.1.1 Topography and Drainage - The Van Der Horst Corporation Plant No. 1 site lies in an area which slopes very gently toward the Allegheny River to the southwest. This site is quite small (approximately 2 acres), and exists almost entirely as an industrial facility, except for the plant's parking lot. The topography of the surrounding area is of very low relief, except to the east, where the land surface slopes toward the Olean Creek channel. The site lies within the Allegheny River drainage basin, and all streams in the immediate area flow southward and eventually discharge to the river. Surface runoff from the site is discharged to the City of Olean's storm sewer system.

5.1.2 Environmental Setting - This site is not in the vicinity of either a designated wetland (Ref. 18) or the critical habitat of any endangered species (Ref. 19), nor does it lie within the 100-year flood boundary of either Olean Creek or the Allegheny River, as designated by the Federal Emergency Management Agency (Refs. 24-25).

5.2 Hydrogeology

5.2.1 Geology - The Van Der Horst site is located in an area in which the sedimentary bedrock formations are characteristic of the Upper Devonian Series. Specifically, the uppermost deposits are

comprised of the Northeast shale member of the Canadaway Formation of the Awkwright Group (Ref. 4). The Northeast member, which consists of medium gray shales and silty shales with considerable interbedded gray siltstone layers, exhibits the direct effects of glaciation. The general trend for the bedrock in Cattaraugus County is to dip gently to the south. The site itself is covered by alluvial deposits comprised of sand, silt and gravel to a depth of approximately 80 feet (Ref. 27).

5.2.2 Soils - The overburden soil of the site consists primarily of Chenango gravelly silt loam (Ref. 8). This soil type is derived from glacial deposits formed on outwash plains in water-sorted materials. These soils are characterized as being very channery and very acidic, with a low organic matter content. contains thin flat fragments of sandstone or limestone

5.2.3 Groundwater - The deep, unconsolidated glacial deposits in the vicinity of the site serve as the main source of groundwater there. Groundwater flow beneath the site is toward the Allegheny River to the southwest when the adjacent Felmont Oil Corporation wells are not in use. Historic water level data indicate that prior to the installation of the Felmont well field, groundwater occurred at depths of approximately 15-20 feet (Ref. 3). However, when Felmont is withdrawing groundwater (at a rate of approximately 6 to 10 million gallons per day), the cone of depression from the well field extends beneath the Van Der Horst site (Ref. 26). The present onsite depth to the water table while Felmont is pumping is approximately 50 feet (Ref. 27). This situation would indicate that the potential for

both bedrock contamination and contaminant migration to downgradient water supply wells is greatly reduced. In fact, a nitrogen compound contamination study has determined that migration within the overburden aquifer of nitrogen compounds is held in check by Felmont groundwater withdrawal (Ref. 26). Should this pumping ever be stopped for any reason, it is expected that contaminant migration toward downgradient water supply wells would resume.

5.3 Previous Sampling and Analysis

5.3.1 Groundwater Quality Data - As part of a continuing USGS investigation into the migration of chemical contaminants in the groundwater beneath Olean, numerous wells are being monitored in the North Olean area (Refs. 26-27). This study has been in progress since 1967, and consequently, most of the data are already available. Some of the results are presented on the colored pages following this section along with a figure indicating the location of some of the monitored wells.

5.3.2 Surface Water Quality Data - As part of the study mentioned above, the surface waters in the vicinity of the site have also been monitored for their chromium content. In addition, Olean Creek was sampled following the fishkill caused by the Van Der Horst wastewater discharge in 1965. The results of these analytical procedures are also presented on the following colored pages.

5.3.3 Air Quality Data - There has been no sampling of the atmosphere related to the release of chemical contaminants from this site.

5.3.4 Other Analytical Data - No other analytical results are available for this site

6.0 ADEQUACY OF AVAILABLE DATA

The existing data base for the Van Der Horst site is inadequate in the following major respects:

- Although chromium contamination of the groundwater aquifer in North Olean has been established, the extent of this contamination and its migration characteristics are generally unknown. Considering the extensive reliance placed upon groundwater as a source of potable water supply in the Olean area, this question is quite an important one. Of particular relevance is the effect which the Felmont Oil Corporation has upon groundwater movement in the area, and, conversely, the potential impact of discontinuing groundwater withdrawal by Felmont.

- The source of chromium contamination is likewise unknown. Former industrial activity in Olean, some dating back to the previous century (e.g., tanning industries), creates the possibility that the observed contamination results from multiple sources. This multiplicity of potential sources, in addition to the time factor itself, may render source determination difficult or impossible. Nevertheless, certain investigative methods are available -- but have not been utilized to date -- which <u>may</u> provide some information as to

whether or not specific potential sources have contributed to the overall problem.

7.0 PROPOSED PHASE II WORK PLAN

7.1 Objectives

The objectives of the Phase II Field Investigation are twofold, with the second objective being optional, as discussed below. The initial and primary objective is to determine the extent of chromium contamination in North Olean, its present migration route and the potential impact of this contamination upon potable and industrial water supply sources in the area (both with and without continued groundwater withdrawal by the Felmont Oil Corporation). A secondary objective is to determine whether or not the Van Der Horst Corporation Plant No. 1 site has caused or contributed to the chromium contamination problem. Although an investigative approach for accomplishing this secondary objective is outlined in the following section, it is recommended that it be regarded as an optional work task for the following reasons:

- Although field investigation methods may indicate a likely source of chromium contamination, the probability that they will provide any conclusive determination is considered to be quite low. There are a number of reasons for this, including: age of alleged disposal occurrences (30 to 40 years ago); uncertainty regarding disposal circumstances (e.g, acidity of the waste stream containing chromium, which would greatly influence the

subsurface migration and/or chemical precipitation characteristics of the waste); and potential multiplicity of sources (which would tend to "mask" the effect of any particular source and create the appearance that chromium is indigenous to groundwater in the area.)

- Even if a source could be identified, the now-widespread nature of the problem might render this information of little value from a remedial solution standpoint.

It should be noted that the proposed Phase II Investigation addresses groundwater contamination by chromium only, since chromium wastes are the only known potential substance of concern with respect to Van Der Horst. Other contaminants, particularly nitrogen compounds, have been identified in the North Olean aquifer.

7.2 Scope of Work

7.2.1 Task 1 - Task 1 is intended to evaluate the extent, fate and potential impact of groundwater contamination by chromium in the North Olean area. The task involves the following work items:

- Identify 12 existing wells in the vicinity of the Van Der Horst/Felmont Oil sites for sampling and analysis. These wells should be chosen in consultation with local, state and

federal agencies who have installed and/or monitored wells in the area on a regular basis, including the Cattaraugus County Department of Health, New York State Department of Environmental Conservation and United States Geological Survey. The monitoring wells should be located so as to provide the best possible chromium concentration profiles in the area, with particular emphasis upon a profile through the Van Der Horst site, toward Felmont Oil.

- Install four (4) new groundwater monitoring wells downgradient from the Van Der Horst/ Felmont Oil sites, between this industrial area and the Olean municipal supply wells. Again, the location of these new wells should be chosen in consultation with involved government agencies. If it is necessary to supplement the chromium concentration profiles mentioned above, one of these new wells may be located at or upgradient from the industrial area (e.g. upgradient from Van Der Horst). During the installation of these wells, interval soil samples should be obtained for subsequent use in groundwater flow analyses. After the wells have been installed and developed, slug tests

should be performed in them to determine the approximate hydraulic conductivities of the major stratigraphic units encountered.

- Obtain groundwater samples from each of the 12 existing and four (4) new monitoring wells, on two (2) separate occasions. Water elevations should first be measured in each well to determine the water table surface. Representative groundwater samples should then be collected after the wells have been fully evacuated or a volume equal to three times the well contents has been removed. Evacuation of water from the wells will be accomplished with an ISCO Model 2600 pump, using separate low-density polyethlene tubing for each well and changing the silicon rubber tubing within the ISCO between wells. Samples will be obtained from each well using designated, bottom-filling, stainless steel bailers. Upon collection of the sample, field pH, temperature and conductivity measurements should be recorded. The samples should be placed in appropriate pre-cleaned bottles/septa vials, labeled, preserved, chilled and immediately returned to Recra's Tonawanda, New York

laboratory for preservation and analysis of the hexavalent and total chromium contents. The procedure to be utilized for analyses of all samples during this investigation should be in basic accordance with one or more of the following reference texts:

- Methods for Chemical Analysis of Water and Wastes, United States Environmental Protection Agency,
- NIOSH Manual of Analytical Methods, 2nd Edition, United States Department of Health, Education and Welfare,
- Standard Methods for the Examination of Water and Wastewater, 14th Edition, APHA, AWWA, WPCF.

The analytical work should also be in conformance with the overall Quality Assurance Program previously submitted by Recra Research, Inc. to NYSDEC, entitled, "Operation Manual - Field and Analytical Services".

o Collect and collate all existing and new subsurface data, including pumping drawdown data from Felmont (if available), for the purpose of establishing a physical

hydrogeological model of the area. Utilize this model to analyze groundwater flow in North Olean under alternate conditions of pumping and no-pumping at the Felmont Oil well field. This analysis should be either by approximate analytical methods or numerical simulation, as warranted by the available and assembled data base.

- Prepare a detailed engineering report, including the results of the previous work items, which evaluates the present extent of chromium contamination in North Olean, its path and rate of movement (with and without Felmont pumping) and its potential impact upon downgradient water supply wells. Unless collected data indicate otherwise, the movement of chromium in the aquifer should be assumed to be by simple advection, with chromium being regarded as a conservative substance within the aquifer. (If the data should suggest a more detailed contaminant transport model, the scope of work should be redefined at that time.)

7.2.2 Task 2 (Optional) - Task 2 is intended to evaluate the probability that Van Der Horst Corporation Plant No. 1 is a source

of the observed groundwater contamination in North Olean. The task involves the following work items:

- o Evaluate the groundwater chromium contamination profiles developed as part of Task 1 to determine if there is any measurable change in groundwater quality as flow through the aquifer passes beneath the Van Der Horst site.

- o Install eight (8) soil borings on and in the vicinity of the Van Der Horst site, emanating at or near the two alleged locations of subsurface waste disposal and progressing away from these two locations. Obtain soil samples at selected intervals or field-determined depths from each of these borings, and analyze these samples under established protocol for total chromium content. The results of these analyses should be evaluated to determine possible "hot spots" onsite, or any potential pattern of chromium precipitation (or related chemical reactions) in moving away from the potential source(s) in an offsite direction.

- o Prepare a summary report outlining the results and conclusions of the above work items.

7.3 Estimated Costs

The following are estimated costs to perform the Phase II Field Investigation in the preceding section:

Task 1	
Well Installation	$ 16,000
Sampling and Analysis	4,000
Model/Evaluation/Report	35,000
TOTAL TASK 1	$ 55,000
Task 2 (Optional)	
Soil Borings	$ 15,000
Sampling and Analysis	1,000
Evaluation/Report	5,000
TOTAL TASK 2	$ 21,000

APPENDIX A

DATA SOURCES AND REFERENCES

1. NYS Dept. Health, Results of Chemical Examination of Water, May 31, 1967.

2. USGS, Analytical Statement, June 6, 1967.

3. M.H. Frimpter, USGS, "Groundwater Resources, Allegheny River Basin and Part of the Lake Erie Basin, New York", Basin Planning Report ARB-2, 1974.

4. I.H. Tesmer, "Geology of Cattaraugus County, New York", Buffalo Society of Natural Sciences, Bulletin No. 27, 1975.

5. C.R. Halgas, Cattaraugus County Dept. Health, "Interim Report - Underground Chromium Contamination - Olean (C)", June 14, 1967.

6. National Weather Service, NOAA, Cooperative Weather Station at Olean STP, Precipitation Records.

7. US Dept. Commerce, National Climatic Center, "Climatic Atlas of the United States", 1979.

8. US Dept. Agriculture, Soil Conservation Service, "Soil Survey, Cattaraugus County, New York", 1940.

9. R. Scott and L. Keup, Federal Water Pollution Control Admin., Trip Report, July 20, 1967.

10. N.I. Sax, "Dangerous Properties of Industrial Materials", Reinhold Book Corp., 1968.

11. URS Company, Inc., Data from the "Infiltration/Inflow Study for the City of Olean, Cattaraugus County, New York", May 1983.

12. A. Baum, Van Der Horst Corp., Letter to C.R. Halgas, Cattaraugus County Dept. Health, September 28, 1965.

13. A. Baum, Van Der Horst Corp., (Retired), Personal interview, September 13, 1983.

14. C.R. Halgas, Cattaraugus County Health, Personal interview, September 9, 1983.

15. R. Halbohm, Soil Conservation Service, Telephone interview, August 31, 1983.

16. A. L. Cooper, NYSDEC, Pollution Report to G. E. Burdick, August 23, 1965.

17. U.S. Dept. Commerce, "Rainfall Frequency Atlas of the United States", Technical Paper 40, 1963.

18. NYSDEC, Preliminary map of regulated wetlands in Cattaraugus County.

19. J. Snyder, NYSDEC, Telephone interview, July 27, 1983.

20. R. Bush, Van Der Horst Corp., Personal interview, September 9, 1983.

21. G. Bender, M.D., Cattaraugus County Health Commissioner, Press release, June 1, 1967.

22. A. H. Baum, Van Der Horst Corp., Letter to C.R. Halgas, Cattaraugus County Health Dept., June 27, 1967.

23. C. R. Halgas, Cattaraugus County Health Dept., "Interim Report, Chromium Contamination, Olean (C)", November 20, 1967.

24. NYSDEC, "Flood Plain Information, Allegheny River, Cattaraugus County, New York", August 1976.

25. Federal Emergency Management Agency, "Flood Insurance Study, City of Olean, Cattaraugus County, New York", November 1978.

26. A. D. Randall, USGS, "Groundwater Pollution by Nitrogen Compounds at Olean, New York - Progress Report, June 1977", Open File Report 78-304, March 1978.

27. A. D. Randall, USGS, "Groundwater Flow and Pollution at a Well Field, Olean, New York", Open File Report 76-397, June 1976.

28. C. R. Halgas, Cattaraugus County Department of Health, correspondence to Mr. Bruce L. Jernigan (Recra Research, Inc.), March 22, 1984.

29. NYS Department Health, Results of Chemical Examination of Water, April 22, 1982.

30. G. Keller, Van Der Horst Corp., Internal Correspondence, March 31, 1980.

31. Van Der Horst Corporation, Correspondence to Recra Research, Inc., Received by Recra Research, Inc. March 8, 1984.

APPENDIX B

HAZARDOUS WASTE DISPOSAL SITE REPORT

REVISED

Code: C

Site Code: 905008

Name of Site: Van Der Horst Corporation of America

Region: 9

County: Cattaraugus

Town/City: Olean (C)

Street Address: 314 Penn Avenue, Olean, New York, 14760

Status of Site:

- Active industrial facility located adjacent to residential section of Olean. Pre-1952 disposal practices allegedly included injection well disposal of wastewaters and one-time dumping of waste chromic acid in a shallow hole onsite. Surface runoff onsite drains to city storm sewer.

- Nearby surface waters include Two-mile Creek, Olean Creek and Allegheny River. All private residential wells in area no longer in use. Adjacent and other nearby industries use groundwater as water supply. City of Olean and Village of Allegany use aquifer downgradient of site for municipal supply.

- Seasonal high water table within 20 feet of ground surface. Soil type is Chenango gravelly silt loam. Overburden aquifer approximately 80 feet deep and comprised of alluvial deposits of silt, sand and gravel. No wetlands in vicinity.

Type of site: Well injection

Estimated Size: 2 acres

Hazardous Wastes Disposed? Subsurface disposal undocumented.

Type and Quantity of Hazardous Wastes: Unknown quantities of chromic acid-contaminated wastewaters and 1,500 gallons of waste chromic acid.

Present Owner: Van Der Horst Corporation of America
314 Penn Avenue, Olean, New York 14760

Time Period Site Was Used: 1940 to 1952

Site Status: Active electroplating facility - No onsite waste disposal since 1952

Types of Samples: Groundwater, surface water

Remedial Action: None

Status of Legal Action: None

Permits Issued: None

Assessment of Environmental Problems: Contamination of groundwater confirmed. Source cannot be established from present information.

Assessment of Health Problems: Contamination located upgradient from community water supply wells.

Persons Completing This Form: C. Mark Hanna (URS Co., Inc.) on behalf of Recra Research Inc.

Date: Revised April 10, 1984