CON 12-15
Doc #17618

ADDITIONAL PHASE II ESA TESTING
CITY OF WATERLOO COMMUNITY DEVELOPMENT
1400 TO 1406 EAST 4TH STREET
WATERLOO, IOWA
MAXIM PROJECT NO. 1370007

MAXIM TECHNOLOGIES, INC.

2213 LaPorte Road
Waterloo, IA 50702
(319) 232-6591

CITY OF WATERLOO, IOWA

COMMUNITY PLANNING & DEVELOPMENT
620 Mulberry St., Carnegie Annex • Waterloo, IA 50703 • (319) 291-4429 Fax (319) 291-4431

February 14, 2001

Mr. Lambert Nnedi
Department of Natural Resources
Contaminated Sites Section
900 E. Grand Avenue
Des Moines, Iowa 50319

RE: Additional Phase II Environmental Assessment Report
1406 E. 4th Street, Waterloo, Iowa

Dear Mr. Nnedi:

The City of Waterloo is continuing with our plan to demolish the two commercial structures located at 1400-1406 E 4th Street in Waterloo. We are forwarding a copy of the "Additional Testing for Phase II ESA Testing" report dated February 12, 2001, for your review and comments.

This report by MAXIM Technologies, Inc., is in addition to the initial report we forwarded to you for review titled "Limited Phase II ESA" dated October 13, 2000.

If you have any questions or comments, please give me a call at 319-291-9145 or 291-4429. Any assistance that you could provide would be greatly appreciated.

Sincerely,

Jack Fellenzer
Contract Compliance Officer

JFF:an

Enclosure

DNR CLEARANCE FOR 1406 E 4th STREET LETTER #2.rtf

ADDITIONAL PHASE II ESA TESTING
FOR

CITY OF WATERLOO COMMUNITY DEVELOPMENT
1400 TO 1406 EAST 4TH STREET
WATERLOO, IOWA

Prepared for:

CITY OF WATERLOO-COMMUNITY DEVELOPMENT BOARD
C/o MR. RUDY D. JONES
620 MULBERRY STREET
CARNEGIE ANNEX, SUITE 202
WATERLOO, IOWA
50703

MAXIM Project No. 1370007

February 12, 2001

Prepared by
MAXIM Technologies, Inc.®
2213 LaPorte Road
Waterloo, Iowa 50702

TABLE OF CONTENTS

ADDITIONAL PHASE II ESA TESTING
FOR
CITY OF WATERLOO COMMUNITY DEVELOPMENT
1400 TO 1406 EAST 4TH STREET
WATERLOO, IOWA

1.0 EXECUTIVE SUMMARY

Soil sampling activities conducted on January 12, 2001 included advancing four shallow hand auger borings for surface soil sampling. The locations were chosen based on proximity to a former metal fabrication operation in the east section of the site building.

Soil chemical concentrations of Total Arsenic in the four hand auger borings were found to be above the Iowa Land Recycling Program's Statewide Standards for Arsenic. All other metals concentrations in the four hand auger borings were below the Statewide Standards.

Based on the results of the Additional Phase II Environmental Site Assessment testing, it appears that, in addition to the findings of the original Phase II ESA, the near surface soil at this site has been impacted by heavy metals.

2.0 BACKGROUND

It is the understanding of MAXIM that the property at 1400 to 1406 East 4th Street in Waterloo, Iowa, Site Map, Appendix B, is planned for development as a child care facility, with the area tested the proposed outdoor play area. Because of the former use of the subject property, and the findings of the original Limited Phase II ESA, the City of Waterloo wished to further assess the potential for near surface soil contamination. Therefore, additional site assessment activities and soil sampling has been conducted by MAXIM.

The additional assessment was conducted in general accordance with Change Order #1 and MAXIM proposal PR-00-3855 dated May 23, 2000 and the contract between MAXIM and the City of Waterloo. Copy of Change Order #1 may be found in Appendix A.

The data and results in this report are based on visual observation and laboratory analytical results of soil samples collected by MAXIM on January 12, 2001, which were analyzed by Nebraska Analytical Testing Laboratory in Omaha, Nebraska.

3.0 OBJECTIVE

The objective of the Additional Phase II ESA testing was to gather intrusive soil chemistry data and render an opinion on the environmental contaminants discovered.

This Additional Phase II ESA was performed in accordance with generally accepted practices of the profession undertaking similar studies at the same time and in the same geographical area. MAXIM observed that degree of care and skill generally exercised by the profession under similar circumstances and conditions.

Maxim's observations, findings, and opinions must not be considered as scientific certainties but solely as opinions based upon our professional judgement concerning the significance of the limited data gathered during the course of the site assessment. Specifically, MAXIM does not and cannot represent that the site contains no hazardous or toxic materials, asbestos, or other latent conditions beyond that discovered by MAXIM during its site assessment. Further, the services herein shall in no way be construed, designed, or intended to be relied upon as legal interpretation or advice.

This study and report has been prepared on behalf of and for the exclusive use by the City of Waterloo, solely for use and reliance in the environmental assessment of this site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent from the City of Waterloo and MAXIM. Notwithstanding anything to the contrary herein, any third party reliance is limited to the agreed upon scope of work by and between MAXIM and the City of Waterloo.

Prepared by:

Ginger Romig
Environmental Scientist

Reviewed by:

Gaylen D. Hiesterman
Geologist/Project Manager
Certified Groundwater Professional #1619

GLR/GDH:mho

4.0 BORING and SAMPLING METHODOLOGY

A soil sampling program was undertaken to assess the site for additional near surface soil contamination. Hand auger borings HA-1, HA-2, HA-3 and HA-4 were advanced adjacent to the east side of the existing building on the site. The shallow borings were located on-site near previously identified soil and groundwater contamination and in proximity to the metal fabrication operation formerly operated in the east section of the site building.

Soil sampling and analytical testing were performed to obtain environmental information at the site to determine if contamination was present in the surface soil due to past usage of the site.

On January 12, 2001, four shallow borings were advanced utilizing a three-inch hand auger. The four borings were advanced to approximately 2 feet below ground surface. The Site Map, attached in Appendix B, depicts the approximate locations of the borings. One composite sample was collected from each boring location of the top 2 feet of soil.

Soil samples collected for laboratory analysis were placed in 4-ounce laboratory cleaned jars with Teflon septa. Samples were sent in a cooled container to Nebraska Analytical Testing Laboratories in Omaha, Nebraska.

5.0 CHAIN-OF-CUSTODY

The sampling program included Chain-of-Custody documentation to ensure against manipulation and/or contamination of samples. When the samples are shipped to the laboratory a Chain-of-Custody Record is included. When transferring the possession of samples, the individual(s) relinquishing and receiving the samples signed and dated the Chain-of-Custody Record. The Chain-of-Custody procedures document the custody of the sample and provide a written tracking mechanism that lists the person responsible for the sample, before its final destination to the laboratory for analysis. Chain-of-Custody documentation for this project is attached, Appendix C.

6.0 ANALYSES

The following analytical chemistry procedures were performed:

	SOIL			
Boring # / TMW #	HA-1	HA-2	HA-3	HA-4
Sample Depth (ft)	0-2'	0-2'	0-2'	0-2'
Metals[1]	X	X	X	X

[1] – Metals: Total Arsenic (EPA. 7060). Total Barium (EPA. 7080). Total Cadmium (EPA. 7130). Total Chromium (EPA. 7190). Total Lead (EPA. 7420). Total Mercury (EPA. 7471). Total Selenium (EPA. 7741) and Total Silver (EPA. 7760)

7.0 ASSESSMENT FINDINGS

The attached analytical report for the soil samples collected from borings HA-1, HA-2, HA-3 and HA-4 indicate the following:

Sample Location	HA-1	HA-2	HA-3	HA-4	Statewide Standard#
Sample Depth (ft)	0-2	0-2	0-2	0-2	
Total Metals					
Total Arsenic	*4.4*	*7.6*	*6.6*	*5.7*	1.4
Total Barium	146	205	145	144	5,500
Total Cadmium	1.0	1.4	1.1	0.4	39
Total Chromium	22	49	25	26	230
Total Lead	72	201	83	52	400
Total Mercury	0.89	0.22	<0.1	<0.1	23
Total Selenium	0.4	0.5	0.5	0.4	390
Total Silver	<0.5	<0.5	<0.5	<0.5	390
Ppm = mg/Kg for Soil # = Iowa Land Recycling Program					

8.0 CONCLUSIONS

Soil sample activities conducted January 12, 2001 included advancing four shallow hand auger borings on-site and analyzing four soil samples for eight heavy metals.

Soil chemical concentrations of Total Arsenic in all four surface soils samples were found to be above the Iowa Land Recycling Program's Statewide Standards for Arsenic.

Based on the results of the additional Phase II Environmental Site Assessment, it appears that the surface soils at the subject property have been impacted with the heavy metal arsenic. Maxim recommends the City of Waterloo forward a copy of this report to the Iowa DNR, Contaminated Sites Section, to inform them of the existence of metals contamination exceeding current standards of the State of Iowa. The Iowa DNR will then review the report and will notify the City of any further environmental assessment requirements.

APPENDIX A
SCOPE OF WORK

MAXIM
TECHNOLOGIES INC

December 15, 2000

Mr. Rudy Jones
City of Waterloo
Community Development Board
620 Mulberry Street
Carnegie Annex, Suite 202
Waterloo, IA 50703

Subject: Change Order #1
Additional Testing for Limited Phase II ESA
1400 to 1406 East 4th Street
Waterloo, Iowa
Maxim Project #2004732

Dear Mr. Jones:

Maxim submits the following change order for necessary fieldwork and analytical tests to be performed in association with the above referenced project. Based on Maxim's initial findings, outlined in the Limited Phase II ESA date October 13, 2000, total metals concentrations were identified in soil and groundwater exceeding State of Iowa standards.

Based of the total metals concentration on site, the Iowa DNR has requested the City to obtain additional soil sample data. Maxim agrees with the Iowa DNR request for advancing four shallow soil borings along the exterior of the building for the collection of soil samples. The soil samples will be analyzed for the eight RCRA metals according to EPA methods. Upon receipt of the analytical results for the soil samples, Maxim will prepare an addendum to the Limited Phase II ESA report.

Maxim's estimate for the additional field activities, analytical testing and associated report preparation for the above referenced project is as follows:

Soil Sample Collection/Equipment	$ 700.00
Total Metals Analysis @$175.00/ea	$ 700.00
Update Limited Phase II ESA Report	$ 200.00
CHANGE ORDER TOTAL	$1,600.00

Please indicate your acceptance of the above outlined change order by providing written authorization for Maxim to proceed according to the above work scope and cost estimate (see bottom of page). The fieldwork and testing services provided by Maxim for this phase of the City of Waterloo project will proceed under previously agreed to "Terms and Conditions" detailed in Maxim Proposal No. PR-00-3855 and agreed to by the City of Waterloo on June 2, 2000. Maxim will await your written authorization before proceeding with completion of the additional fieldwork and sample analysis.

If you should have any questions, please call me at (319) 232-6591.

Sincerely,

MAXIM TECHNOLOGIES, INC.®

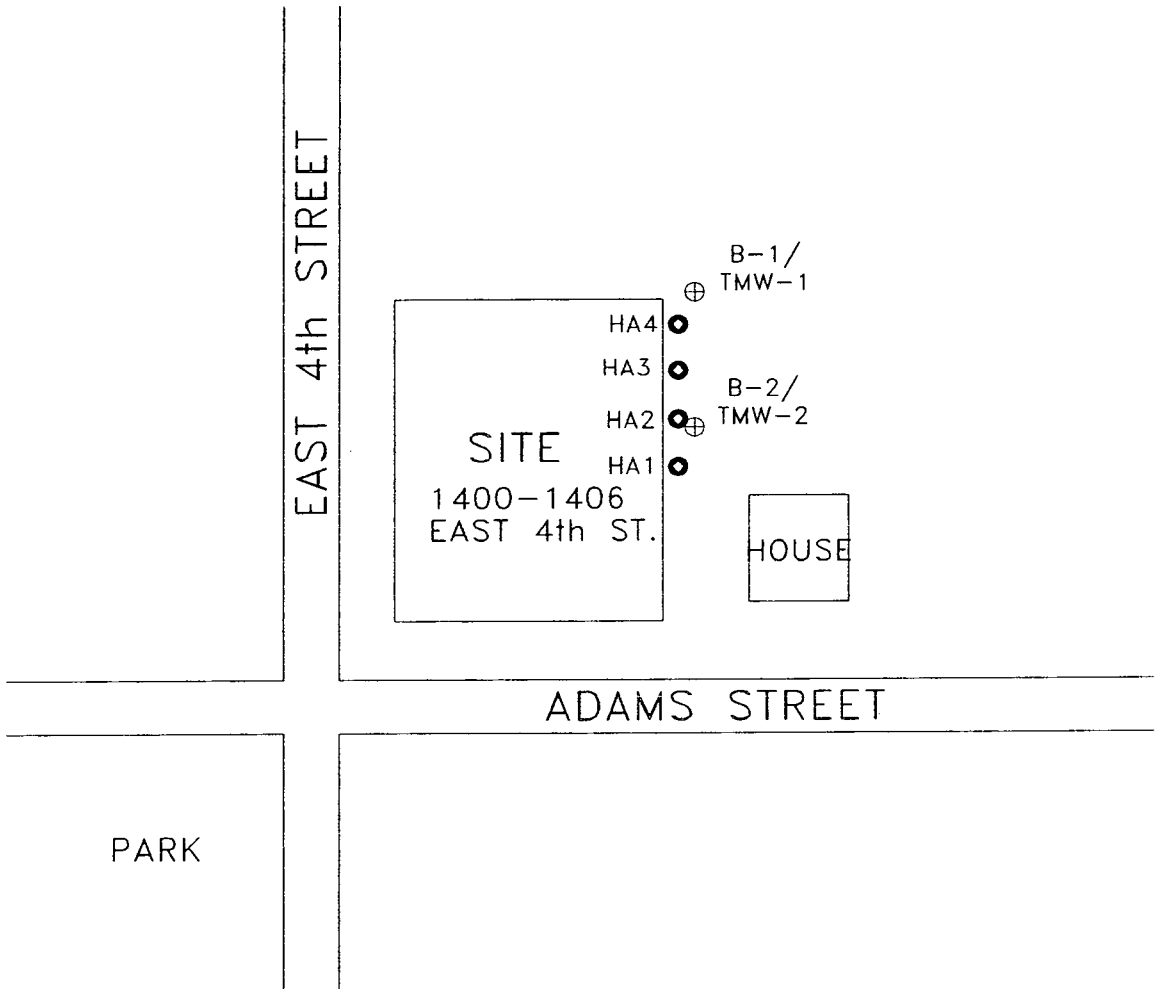
Gayler D. Hiesterman
Geologist/Project Manager

GDH/mho

Please acknowledge your understanding and acceptance of the foregoing by signing below and returning one copy of this change order request to our office.

Name: Rudy D. Jones
Title: Neighborhood Services Coordinator

APPENDIX B
SITE MAP



LEGEND

⊕ – TEMPORARY MONITORING PLAN ~~MAP~~

⊗ – HAND AUGER SAMPLE

SITE MAP

PHASE II SURVEY
1400 TO 1406 EAST 4th STREET
WATERLOO, IOWA

MAXIM TECHNOLOGIES INC.

PROJECT #: 2004732	FIGURE:
DRAWN BY: TJP	REVIEWED BY: GDH
DATE: 2/12/01	SCALE: 1"=100'

APPENDIX C
CHAIN-OF-CUSTODY
ANALYTICAL TEST RESULTS

Nebraska Analytical Testing Laboratories
4123 South 67th Street ■ Omaha, NE 68117
402-331-0935 ■ FAX: 402-331-8779

INORGANIC REPORT

Project Name:	Analysis of Soil for Metals Fabrication Facility, Waterloo, IA		
Client:	City of Waterloo c/o Rudy Jones 620 Mulberry Street Waterloo, IA 50206	Job No.: Project No: Lab No.:	MWA-00-90 1370007 C 2252-2255
Ordered by:	Gaylen Hiesterman/MWA	Date Rec'd: Report Date:	1-15-01 1-25-01
Submitted by:	Maxim-Waterloo 319-232-6591	Fax Date:	1-25-01
Test Method:	See Below		

TEST RESULTS

Lab No.:	C 2252	C 2253	C 2254	C 2255	
Sample ID:	HA-1	HA-2	HA-3	HA-4	
Sample Type:	Soil	Soil	Soil	Soil	
Sample Depth:	0-2'	0-2'	0-2'	0-2'	
Sample Date:	1-12-01	1-12	1-12	1-12	Test Method
Total Arsenic as As:	4.4	7.6	6.6	5.7	EPA 7060
Total Barium as Ba:	146	205	145	144	EPA 7080
Total Cadmium as Cd:	1.0	1.4	1.1	0.4	EPA 7130
Total Chromium as Cr:	22	49	25	26	EPA 7190
Total Lead as Pb:	72	201	83	52	EPA 7420
Total Mercury as Hg:	0.89	0.22	<0.1	<0.1	EPA 7471
Total Selenium as Se:	0.4	0.5	0.5	0.4	EPA 7741
Total Silver as Ag:	<0.5	<0.5	<0.5	<0.5	EPA 7760
Analyst/Date:	THP/1-24/25-01	→ →	→ →	→ →	

Comments: Results are in mg/Kg = ppm.

pc: (2) Client

Submitted by:

Thomas H. Paper, Supervisor Inorganics
THP/pt

RESULTS SHOWN ARE RESULTS OBTAINED ON SAMPLES BY METHOD SHOWN, AND DO NOT NECESSARILY CONSTITUTE APPROVAL BY US OF THE SOURCE OR PRODUCT FROM WHICH SAMPLE WAS TAKEN.

NEBRASKA ANALYTICAL TESTING LABORATORIES

SAMPLE IDENTIFICATION/FIELD CHAIN OF CUSTODY RECORD

Lab Project No. MWA-00-90

Client City of Waterloo	P.O. No.
Address c/o Mulberry St.	Project No. 1310007
Waterloo	Project Name Fab. Facility
Client Contact Rudy Towes	Project Location
Phone/Fax 291-2462	
Comments:	
	Sampled By AB

ANALYSIS: 8 RCRA Metals

Preservative
A: None
B: HNO_3
C: H_2SO_4
D: NaOH
E: HCl

	Sample I.D.	Sample Depth	Time Sampled	Date Sampled	Sample Type	No. of containers	Preserv.		Lab I.D.
1.	HA-1	0-2	11:30	1/12/01	soil	1		X	C2252
2.	HA-2	0-2	12:00	"	"	1		X	C2253
3.	HA-3	0-2	12:45	"	"	1		X	C2254
4.	HA-4	0-2	1:45	"	"	1		X	C2255
5.									
6.									
7.									
8.									
9.									
10.									

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Andrew Beers	1/12/00 3:30		

Hazardous Material Suspected?	Yes / No
Disposal by Lab?	Yes / No
Shipment Method:	UPS Ground
Expected turnaround time:	Standard

Received for lab by (signature) Patti Terry Date/Time 1-15-01 @ 1050 RECEIVING LABORATORY: Please return original after signing for receipt of samples.

Nebraska Analytical Testing Laboratories, Inc

4123 So. 67th Street • Omaha, NE 68117 • 402-331-0935 • FAX: 402-331-8779