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LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT (ESA)
CITY OF WATERLOO COMMUNITY DEVELOPMENT
1400 TO 1406 EAST 4TH STREET
WATERLOO, IOWA
MAXIM REPORT NO. 2004732

MAXIM TECHNOLOGIES, INC.

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

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
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. 2004732

October 13, 2000

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

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

1.0 EXECUTIVE SUMMARY

Drilling activities conducted on July 3, 2000 and sampling activities conducted on July 5, 2000, included advancing two borings and installing temporary monitor wells for water 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 B-1/TMW-1 were found to be above the Iowa Land Recycling Program's Statewide Standards for Arsenic. Additionally, water chemical concentrations of Total Arsenic and Total Selenium in TMW-1 were found to be above the Iowa Land Recycling Program's Statewide Standards for both arsenic and selenium.

Water chemical concentrations of Total Arsenic, Total Chromium, Total Lead, and Total Selenium in TMW-2 were found to be above the Iowa Land Recycling Program's Statewide Standards for Arsenic, Chromium, Lead, and Selenium.

All other analytical parameters in B-1/TMW-1 and TMW-2 were well below this Statewide Standard and the IDNR RBCA Tier 1 Action Levels.

Based on the results of the limited Phase II Environmental Site Assessment, it appears that 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 for sale. Because of the former use of the subject property, the City of Waterloo wished to assess the potential for on-site or off-site contamination in the soil and/or groundwater. Therefore, a limited site assessment was conducted by MAXIM.

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

The data and results in this report are based on visual observation and laboratory analytical results of soil and groundwater samples collected by MAXIM on July 3rd and 5th, 2000, which were analyzed by Nebraska Analytical Testing Laboratory in Omaha, Nebraska.

3.0 OBJECTIVE

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

This Limited 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

AME/GDH:mho

4.0 BORING and SAMPLING METHODOLOGY

A drilling exploration program was undertaken to assess the site for contamination. Boring B-1 was advanced adjacent to the northeast corner of the existing building on the site and a temporary monitoring well TMW-1 was installed. Boring B-2 was advanced along the east side of the existing building, near the former fabrication area on site, and TMW-2 was installed. Both TMW-1 and TMW-2 were located on-site near on proximity to a former metal fabrication operation in the east section of the site building. Based on the site and surrounding area's topography, borings were positioned in the suspected down gradient groundwater flow direction from the on-site environmental concerns.

Drilling and analytical testing were performed to obtain environmental information at the site to determine if contamination was present in soil and/or groundwater due to past releases of chemicals from the site.

On July 3, 2000, two borings were advanced with a truck mounted drill rig. Both B-1 and B-2 were advanced to approximately 21 feet below ground surface. The Site Map, attached in Appendix B, depicts the approximate locations of the borings. MAXIM screened soil borings utilizing a head-space method with a photo ionization detector (PID) at 1.5 foot intervals, approximate. Soil samples were collected and submitted for laboratory analysis based upon results of the PID readings. One soil sample was collected from B-1 at approximately 15 feet below grade. Soil screenings in B-2 were non-detect and, as such, no soil samples were collected from B-2.

During drilling, water was evident at an approximate depth of 10 feet below grade in B-1 and B-2, therefore, Maxim constructed a temporary monitoring well in each boring. Water entering these borings did not exhibit any noticeable chemical odor, discoloration and/or sheen. MAXIM returned to the site on July 5, 2000 to collect groundwater samples from temporary monitoring wells TMW-1 and TMW-2 for chemical analysis. Static water level measurements were collected to determine depth to groundwater on sample collection day.

Drilling equipment was decontaminated prior to project initiation to minimize cross-contamination. Downhole equipment was decontaminated before use with a high temperature, high pressure wash or tap water wash. Soil samples obtained during boring activities were classified by a geologist. Soil samples were collected at 2 foot intervals in the borings. Description of soil observations and rock formations are presented on the Logs of Test Boring attached in Appendix C.

Soil samples collected for laboratory analysis were placed in 4 ounce laboratory cleaned jars with Teflon septa. Groundwater samples collected for laboratory analysis were placed in both 40 milliliter vials cleaned with Teflon septa and 1 liter amber jars cleaned 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. The samples were accompanied by a Chain-of-Custody Record. 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 D.

6.0 ANALYSES

The following analytical chemistry procedures were performed:

	SOIL	GROUNDWATER	
Boring # / TMW #	B-1(TMW-1)	TMW-1	TMW-2
Sample Depth (ft)	15	13.55	12.71
VOCs[1]	X	X	X
Metals[2]	X	X	X

[1] – Volatile Organic Compounds (EPA 8260).

[2] – Metals: Total Arsenic (EPA, 7060), Total Barium (EPA, 7080), Total Cadmium (EPA, 7130), Total Chromium (EPA, 7190), Total Lead (EPA, 7420), Total Mercury (EPA, 7470 & 7471), Total Selenium (EPA, 7740), and Total Silver (EPA 7760)

7.0 ASSESSMENT FINDINGS

The attached analytical report for the soil samples collected from boring B-1 indicate the following:

Boring Number	**B-1**	**B-2**	**Statewide Standards for Soil#**
Sample Depth (feet)	15	NS	
Total Metals			
Total Aresenic	***3.2 ppm***	NS	1.4
Total Barium	54 ppm	NS	5,500
Total Cadmium	< 0.3 ppm	NS	39
Total Chromium	11 ppm	NS	230
Total Lead	54 ppm	NS	400
Total Mercury	< 0.1 ppm	NS	23
Total Selenium	< 0.5 ppm	NS	390
Total Silver	< 0.5 ppm	NS	390
Volatile Organic Compounds (selected)			**Statewide Standards Soil#**
Benzene	< 0.001	NS	73
Toluene	< 0.001	NS	16000

Maxim Project= 2004732

Boring Number	B-1	B-2	Statewide Standards for Soil#
Ethylbenzene	< 0.001	NS	7800
Xylenes (total)	< 0.002	NS	160000
Other VOCs	All parameters analyzed were found to be below the detection limit of the laboratory.	NS	**
NS – Not Sampled *Ppm =mg/Kg for soils* # - *Iowa Land Recycling Program*			

The attached analytical report for the groundwater samples collected from boring TMW-1 and TMW-2 are summarized in the following table:

Temporary Monitor Well (TMW)	TMW-1	TMW-2	Statewide Standards for Water#
Water Level (feet)	10.92	10.03	
Total Metals			
Total Aresenic	***0.051 ppm***	***0.19 ppm***	0.05
Total Barium	0.35 ppm	0.61 ppm	2
Total Cadmium	< 0.005 ppm	<0.005 ppm	0.005
Total Chromium	0.07 ppm	***0.16 ppm***	0.1
Total Lead	***0.08 ppm***	***0.16 ppm***	0.015 -
Total Mercury	< 0.0004 ppm	0.0005 ppm	0.002
Total Selenium	***0.12 ppm***	***0.073 ppm***	0.05
Total Silver	< 0.01 ppm	< 0.01	0.1
Volatile Organic Compounds)			**Statewide Standards Water#**
Benzene	< 1 ppb	< 1 ppb	5 ppb
Toluene	< 1 ppb	< 1 ppb	1,000 ppb
Ethylbenzene	< 1 ppb	< 1 ppb	700 ppb
Xylenes (total)	< 2 ppb	< 2 ppb	10,000 ppb
Other VOCs	All parameters tested were found to be below the detection limit of the laboratory.		
Ppm =mg/L Ppb=ug/L # - *Iowa Land Recycling Program*			

8.0 CONCLUSIONS

Drilling activities conducted July 3rd, 2000 and sampling activities conducted on July 5th, 2000, included advancing two soil borings and installing two temporary monitoring wells in select locations on-site and analyzing one soil sample and two groundwater samples for metals and volatile organic compounds.

Soil chemical concentrations of Total Arsenic in B-1/TMW-1 were found to be above the Iowa Land Recycling Program's Statewide Standards for Arsenic. Additionally, water chemical concentrations of Total Arsenic, Total Lead and Total Selenium in TMW-1 were found to be above the Iowa Land Recycling Program's Statewide Standards for both arsenic and selenium.

Water chemical concentrations of Total Arsenic, Total Chromium, Total Lead, and Total Selenium in TMW-2 were found to be above the Iowa Land Recycling Program's Statewide Standards for Arsenic, Chromium, Lead, and Selenium.

All other analytical parameters in B-1/TMW-1 and TMW-2 were well below the Iowa Land Recycling Program's Statewide Standards.

Based on the results of the limited Phase II Environmental Site Assessment, it appears that soil and groundwater beneath the subject property has been impacted by heavy metals. 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 respond to the City of any further environmental assessment requirements.

APPENDIX A
SCOPE OF WORK & RESUMES

CITY OF WATERLOO, IOWA

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

June 2, 2000

Mr. Gaylen Hiesterman
Maxim Technologies, Inc.
2213 LaPorte Road
Waterloo, IA 50702

RE: Community Development Phase II Site Environmental Assessment Bid Results
1400-1406 E.4th Street

Dear Mr. Hiesterman:

Please be informed that you were the lowest responsible bidder for the above referenced project and therefore awarded the contract. Upon receipt of this letter and copy of the executed proposal you are at liberty to begin.

Should you have any questions or comments or need additional assistance, please give me a call at 319-291-4429.

Sincerely,

Rudy D. Jones

Rudy D. Jones
Neighborhood Services Coordinator

RDJ:an

Enclosures

MAXIM
TECHNOLOGIES INC

May 23, 2000

City of Waterloo
Community Development Board
Carnegie Annex, Suite 202
620 Mulberry Street
Waterloo; IA 50703

Subject: Phase II Environmental Site Assessment
1400-1406 East 4th Street
Waterloo, Iowa
Maxim Proposal No. PR-00-3855

Dear Mr. Rudy Jones:

1.0 Introduction

Maxim Technologies, Inc. (Maxim) is pleased to respond to your request for a proposal for the above referenced project. The purpose of Maxim's work is to advance soil borings and collect soil and groundwater samples for analysis at the above referenced properties in Waterloo to determine the potential contamination on site.

Please indicate your acceptance of this proposal, including the attached *Standard Form of Agreement to Engage Services* by endorsing the *Standard Form of Agreement to Engage Services* and initialing the *Terms and Conditions* (backside lower left corner of the gold page) and returning the proposal to Maxim. We will then review, endorse and return the proposal along with client's copy of the *Standard Form of Agreement to Engage Services* and *Terms and Conditions*.

2.0 Project Information

The above referenced properties in Waterloo present "Recognized Environmental Condition" due to potential metals fabrication operations on site. Maxim recommends up to two soil borings be advanced on the site to assess the potential contamination. Maxim recommends a groundwater sample be collected from each boring and analyzed for volatile organic compounds (VOCs) and for 8 RCRA total metals. according to EPA methods. Maxim also recommends a soil sample be collected and analyzed from each boring for VOCs and total metals analysis based on field screening with a photoionization detector (PID).

3.0 Scope of Services

The scope of our services on the project site will include the following tasks:

1. Mobilize a Maxim CME-55 drill rig, crew, environmental professional and necessary drill/sampling supplies to the site.

2. Advance up to two (2) approximately 25 foot deep soil borings and construct a temporary monitoring well in each boring.

3. Collect a groundwater sample from each temporary well for analysis of VOCs and for total metals, according to EPA methods.

4. If field observations indicate potential environmental impact, Maxim recommends also collecting a soil sample from each boring, and analyze the sample(s) for VOCs and for total metals, according to EPA methods.

5. In addition, Maxim will collected limited historical information on the property through city directories. Maxim will analyze all site data and assess soil and water quality.

6. Prepare a Phase II report containing data and recommendations.

4.0 Utilities Clearance and Limit of Liability

Locating underground utilities and structures on site is the responsibility of the client and/or property owner. If the locations of underground utilities cannot be determined, the placement of the boring will be limited. If requested, Maxim will contact the Iowa One-Call utility locating service on client's behalf.

5.0 Estimate of Fees

For the scope of work outlined above, our estimated fee range is:

	1 Boring	2 Borings
Drilling and Temporary Well Supplies	$ 500.00	$1,000.00
Environmental Professional/Equipment	$ 500.00	$ 500.00
VOC Analysis @ $120.00/each	$ 240.00	$ 480.00
Totals Metals Analysis @ $175.00/each	$ 350.00	$ 700.00
Project Management/Phase II Report	$ 350.00	$ 350.00
Estimated Total	**$1,940.00**	**$3,030.00**

If bedrock were encountered prior to groundwater, Maxim would negotiate additional costs with the client. Our fees will be charged on an actual "time and material" basis from our current fee schedule but will not exceed our estimate without your authorization. Estimated total does not include tax, if applicable.

6.0 Schedule

Drilling/field work can be started within seven to ten working days of Maxim receiving the signed

contract. A written report will be submitted within twenty working days following completion of field activities. Verbal results will be provided to the client as soon as possible.

7.0 Insurance

Maxim's employees at the site will be covered by Workman's Compensation insurance required by law. In addition, the company maintains comprehensive general liability and comprehensive automobile liability insurance. As part of our professional coverage, we also carry Pollution Legal Liability. If required, Maxim will provide you with a certificate of insurance documenting the coverage.

8.0 EEO Compliance

Maxim complies fully with all applicable EEO requirements. If required, we will provide a current certificate documenting this compliance, or a copy of our EEO program.

9.0 Remarks

Maxim appreciates the opportunity to submit this proposal and looks forward to working with you on your project. If you have any questions or need additional information, please contact us at 319/232-6591.

Sincerely,

MAXIM TECHNOLOGIES, INC.

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

GDH/mho

Attachments: Standard Form of Agreement/General Conditions

Maxim Project Number: 2004732

MAXIM TECHNOLOGIES INC

STANDARD FORM OF AGREEMENT TO ENGAGE THE SERVICES OF MAXIM TECHNOLOGIES, INC.

THIS AGREEMENT, entered into on the 23 day of MAY, 2000 by Community Development Board ("**Client**"), and Maxim Technologies, Inc . ("**Maxim**"), located at: 2213 LaPorte Road Waterloo, Ia 50702

A. The "**Project**" is described as:

Phase II Environmental Site Assessment
1400-1406 East 4th Street
Waterloo, Iowa

B. Maxim will perform professional services for Client as follows:

As stated in the attached proposal;
Proposal No. PR-00-3855

C. Client will compensate Maxim for services as follows:

As stated in the attached proposal;
Proposal No. PR-00-3855

This price is valid for thirty days from date above. Invoices are due upon receipt. A late payment FINANCE CHARGE will be charged at the periodic rate of 1.5% per month (or the maximum allowed by law) on any balance remaining unpaid 30 days after the date of the invoice.

D. Client Contact:

MAXIM TECHNOLOGIES, INC.
A Delaware corporation

By: Gaylen Hiesterman
Name: Gaylen Hiesterman
Title: Branch Manager

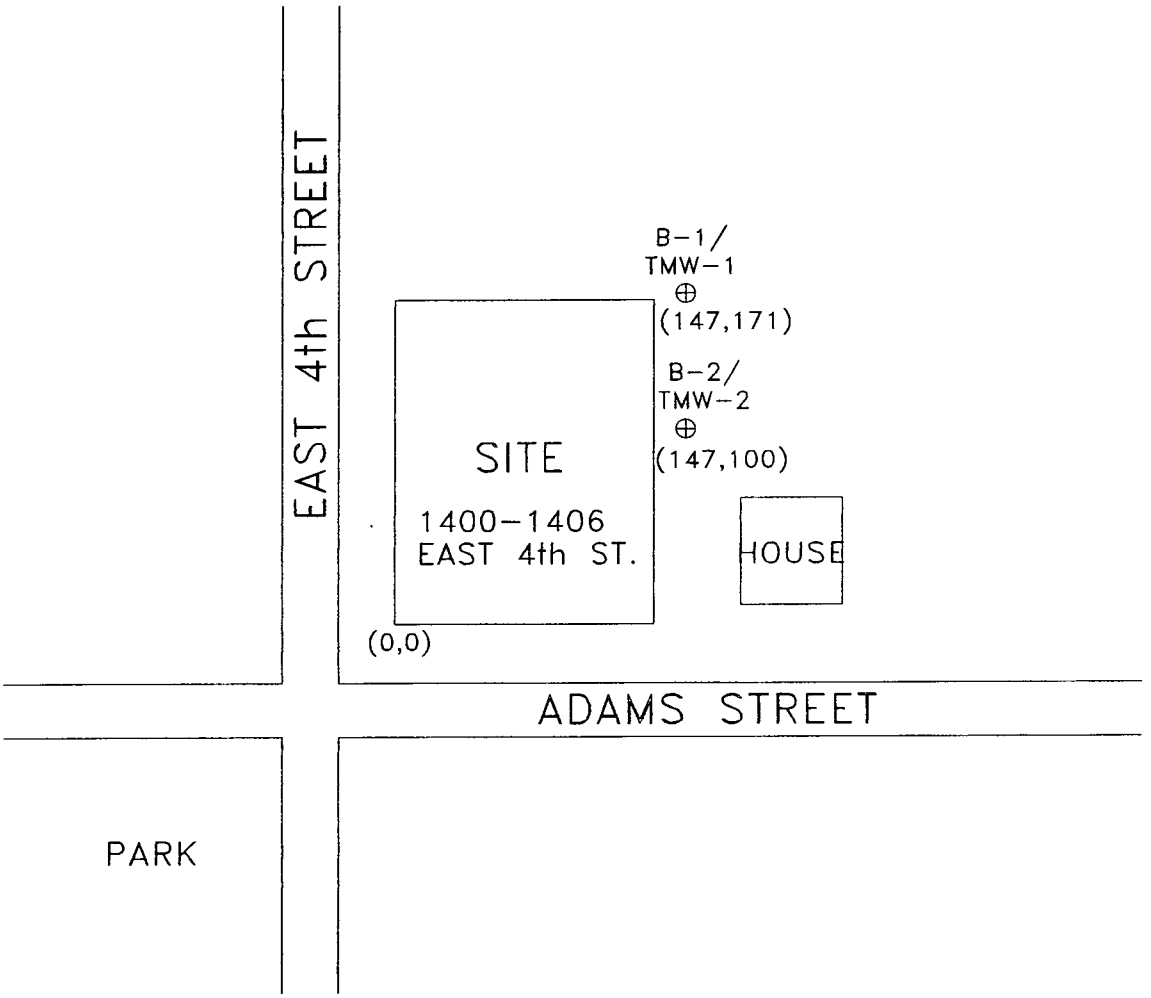
CLIENT: WATERLOO COMMUNITY DEVELOPMENT BOARD

By: Rudy D. Jones
Name: RUDY D. JONES
Title: NEIGHBORHOOD SERVICES COORDIN.

By signing this Agreement, Client assents to the terms and conditions set forth above and on the reverse side hereof.

WHITE–LEGAL YELLOW–FILE PINK–ACCOUNTING GOLDENROD–CLIENT

APPENDIX B
SITE MAP



LEGEND

⊕ – TEMPORARY MONITORING PLAN MAP

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: 10/17/00	SCALE: 1"=100'

APPENDIX C
LOGS OF TEST BORINGS

SOIL BORING LOG & MONITORING WELL CONSTRUCTION DIAGRAM

Boring/Well # B1/TMW1	Facility Name 1400-1406 E 4th 2004732	Facility Address Waterloo, IA
Boring Depth (Feet) x Diameter (Inches) 21 x 7'		Drilling Method 3.25"HSA
Well Contractor Name: Registration #: 40616		Logged by: Troy Niedert
Ground Surface Elevation (ASL)		Top of Casing Elevation (ASL)
Date & Time Start 7-3-00 1020	Date & Time End 7-3-00 1125	UST Number / LUST Number

Depth in Feet	Well Construction Details	Blow Count If Applicable	Sample No.	Sample Type*	PID/FID Reading	Rock Formations, Soil Color and Classifications, Observations (moisture, etc.)
			1	HSA		FILL, mostly SILTY SAND, dark brown with 4" concrete at the surface.
			2	SS	0.0	2.0
						SILTY CLAY, black (ML/CL)
						4.0
5			3	SS	0.0	SAND, fine grained, red brown, dense (SP)
			4	SS	0.0	
						9.0
10			5	SS	0.0	SILTY SAND, dark brown (SM)
			6	SS	0.0	
						14.0
15			7	SS	3*	SAND, fine to medium grained, dark grey with traces of gravels (SP)
			8	SS	0.0	
20			9	SS	0.0	
						21.0
						END OF BORING INSTALLED TEMPORARY WELL

*SS (split spoon) HS (hollow stem auger) FA (flight auger) HA (hand auger) AR (air)

OBSERVATIONS:	Date :	07/05/00					
WATER LEVELS--Measured from Top of Casing	Level :	10.92'					
Static Water Level Symbol ▼	Time :						

SOIL BORING LOG & MONITORING WELL CONSTRUCTION DIAGRAM

Boring/Well # B2/TMW2	Facility Name 1400-1406 E 4th 2004732	Facility Address Waterloo, IA
Boring Depth (Feet) x Diameter (Inches) 21 x 7'		Drilling Method 3.25"HSA
Well Contractor Name: Registration #: 40616		Logged by: Troy Niedert
Ground Surface Elevation (ASL)		Top of Casing Elevation (ASL)
Date & Time Start 7-3-00 1200	Date & Time End 7-3-00 1245	UST Number / LUST Number

Depth in Feet	Well Construction Details	Blow Count If Applicable	Sample No.	Sample Type*	PID/FID Reading	Rock Formations, Soil Color and Classifications, Observations (moisture, etc.)
			1	HSA		TOPSOIL, SILTY CLAY, black with organics and grass at the surface, (ML/CL)
			2	SS	0.0	
						4.0
5			3	SS	0.0	SILTY SAND, fine grained, dark brown, dense. Damp at 9.5' to 11'. (SM)
			4	SS	0.0	
10			5	SS	0.0	
						12.0
			6	SS	0.0	SAND, fine to medium grained, dark brown, waterbearing, trace of gravels. (SP)
15			7	SS	0.0	
			8	SS	0.0	
20			9	SS	0.0	
						21.0
						END OF BORING INSTALLED TEMPORARY WELL

*SS (split spoon) HS (hollow stem auger) FA (flight auger) HA (hand auger) AR (air)

OBSERVATIONS:	Date :	07/05/00				
WATER LEVELS--Measured from Top of Casing	Level :	10.03'				
Static Water Level Symbol ▼	Time :					

APPENDIX D
CHAIN-OF-CUSTODY
ANALYTICAL TEST RESULTS

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

REPORT OF VOLATILE ORGANIC COMPOUND ANALYSIS

Project:	Volatile Organic Compounds in Water	Job No:	MWA-00-31
Location:	East 4th Street, 1400-1406 E. 4th Street, Waterloo, IA	Project No:	20--04732
		Lab No.:	C 554
Client:	City of Waterloo	Sample I.D.:	TMW-1
	Attn: Rudy Jones	Sample Type:	Water
	620 Mulberry Street		
	Waterloo, IA		
Ordered by:	G. Hiesterman/ MWA	Date Rec'd:	7-7-00
		Report Date:	7-31-00
Submitted by:	Maxim- Waterloo		
	319-232-6591		
Test Method	EPA Method 8260		

TEST RESULTS

Bromomethane	<1	cis-1,2-Dichloroethene	<1
Chloroethane	<1	trans-1,2-Dichloroethene	<1
Chloromethane	<1	1,3-Dichloropropane	<1
Dichlorodifluoromethane	<1	2,2-Dichloropropane	<1
Trichlorofluoromethane	<1	Hexachlorobutadiene	<2
Vinyl Chloride	<1	Isopropyl benzene (Cumene)	<1
Bromobenzene	<1	4-Isopropyltoluene	<1
Bromochloromethane	<1	Methylene Chloride	<5
Bromodichloromethane	<1	Naphthalene	<5
Bromoform	<1	n-Propylbenzene	<1
n-Butylbenzene	<1	Styrene	<1
sec-Butylbenzene	<1	1,1,1,2-Tetrachloroethane	<1
tert-Butylbenzene	<1	1,1,2,2-Tetrachloroethane	<1
Carbon Tetrachloride	<1	Tetrachloroethene	<1
Chlorobenzene	<1	1,2,3-Trichlorobenzene	<1
Chlorodibromomethane	<1	1,2,4-Trichlorobenzene	<1
Chloroform	<1	1,1,1-Trichloroethane	<1
2-Chlorotoluene	<1	1,1,2-Trichloroethane	<1
4-Chlorotoluene	<1	Trichloroethene	<1
1,2-Dibromo-3-chloropropane	<5	1,2,3-Trichloropropane	<1
1,2-Dibromoethane	<2	1,2,4-Trimethylbenzene	<1
Dibromomethane	<1	1,3,5-Trimethylbenzene	<1
1,2-Dichlorobenzene	<1	Benzene	<1
1,3-Dichlorobenzene	<1	Ethylbenzene	<1
1,4-Dichlorobenzene	<1	Toluene	<1
1,1-Dichloroethane	<1	Xylene (total)	<2
1,2-Dichloroethane	<1		
1,1-Dichloroethene	<1	Analyst/Date	SF/7-18
1,2-Dichloropropane	<1		

Comments: All concentrations are µg per Liter.

CC: (2) Client

Submitted by: 7/31/00
Seth Frishman, Chief Scientist
SF/pt

NEBRASKA ANALYTICAL TESTING LABORATORIES OFFICIAL COPY

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

REPORT OF VOLATILE ORGANIC COMPOUND ANALYSIS

Project:	Volatile Organic Compounds in Water	Job No:	MWA-00-31
Location:	East 4th Street, 1400-1406 E. 4th Street, Waterloo, IA	Project No:	20-04732
		Lab No.:	C 555
Client:	City of Waterloo Attn: Rudy Jones 620 Mulberry Street Waterloo, IA	Sample I.D.:	TMW-2
		Sample Type:	Water
Ordered by:	G. Hiesterman/ MWA	Date Rec'd:	7-7-00
		Report Date:	7-31-00
Submitted by:	Maxim- Waterloo 319-232-6591		
Test Method	EPA Method 8260		

TEST RESULTS

Bromomethane	<1	cis-1,2-Dichloroethene	<1
Chloroethane	<1	trans-1,2-Dichloroethene	<1
Chloromethane	<1	1,3-Dichloropropane	<1
Dichlorodifluoromethane	<1	2,2-Dichloropropane	<1
Trichlorofluoromethane	<1	Hexachlorobutadiene	<2
Vinyl Chloride	<1	Isopropyl benzene (Cumene)	<1
Bromobenzene	<1	4-Isopropyltoluene	<1
Bromochloromethane	<1	Methylene Chloride	<5
Bromodichloromethane	<1	Naphthalene	<5
Bromoform	<1	n-Propylbenzene	<1
n-Butylbenzene	<1	Styrene	<1
sec-Butylbenzene	<1	1,1,1,2-Tetrachloroethane	<1
tert-Butylbenzene	<1	1,1,2,2-Tetrachloroethane	<1
Carbon Tetrachloride	<1	Tetrachloroethene	<1
Chlorobenzene	<1	1,2,3-Trichlorobenzene	<1
Chlorodibromomethane	<1	1,2,4-Trichlorobenzene	<1
Chloroform	<1	1,1,1-Trichloroethane	<1
2-Chlorotoluene	<1	1,1,2-Trichloroethane	<1
4-Chlorotoluene	<1	Trichloroethene	<1
1,2-Dibromo-3-chloropropane	<5	1,2,3-Trichloropropane	<1
1,2-Dibromoethane	<2	1,2,4-Trimethylbenzene	<1
Dibromomethane	<1	1,3,5-Trimethylbenzene	<1
1,2-Dichlorobenzene	<1	Benzene	<1
1,3-Dichlorobenzene	<1	Ethylbenzene	<1
1,4-Dichlorobenzene	<1	Toluene	<1
1,1-Dichloroethane	<1	Xylene (total)	<2
1,2-Dichloroethane	<1		
1,1-Dichloroethene	<1	Analyst/Date	SF/7-18
1,2-Dichloropropane	<1		

Comments: All concentrations are μg per Liter.

CC: (2) Client

Submitted by: 7/31/00
Seth Frishman, Chief Scientist
SF/pt

NEBR. ANALYTICAL TESTING LABORATORIES OFFICIAL COPY IN RED

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

REPORT OF VOLATILE ORGANIC COMPOUND ANALYSIS

Project:	Volatile Organic Compounds in Soil	Job No:	MWA-00-31
Location:	East 4th Street, 1400-1406 E. 4th Street, Waterloo, IA	Project No:	20-04732
		Lab No.:	C 556
Client:	City of Waterloo	Sample I.D.:	B-1
	Attn: Rudy Jones	Sample Type:	Soil
	620 Mulberry Street		
	Waterloo, IA		
Ordered by:	G. Hiesterman/ MWA	Date Rec'd:	7-7-00
		Report Date:	7-31-00
Submitted by:	Maxim- Waterloo		
	319-232-6591		
Test Method	EPA Method 8260		

TEST RESULTS

Bromomethane	<1	cis-1,2-Dichloroethene	<1
Chloroethane	<1	trans-1,2-Dichloroethene	<1
Chloromethane	<1	1,3-Dichloropropane	<1
Dichlorodifluoromethane	<1	2,2-Dichloropropane	<1
Trichlorofluoromethane	<1	Hexachlorobutadiene	<2
Vinyl Chloride	<1	Isopropyl benzene (Cumene)	<1
Bromobenzene	<1	4-Isopropyltoluene	<1
Bromochloromethane	<1	Methylene Chloride	<5
Bromodichloromethane	<1	Naphthalene	<5
Bromoform	<1	n-Propylbenzene	<1
n-Butylbenzene	<1	Styrene	<1
sec-Butylbenzene	<1	1,1,1,2-Tetrachloroethane	<1
tert-Butylbenzene	<1	1,1,2,2-Tetrachloroethane	<1
Carbon Tetrachloride	<1	Tetrachloroethene	<1
Chlorobenzene	<1	1,2,3-Trichlorobenzene	<1
Chlorodibromomethane	<1	1,2,4-Trichlorobenzene	<1
Chloroform	<1	1,1,1-Trichloroethane	<1
2-Chlorotoluene	<1	1,1,2-Trichloroethane	<1
4-Chlorotoluene	<1	Trichloroethene	<1
1,2-Dibromo-3-chloropropane	<5	1,2,3-Trichloropropane	<1
1,2-Dibromoethane	<2	1,2,4-Trimethylbenzene	<1
Dibromomethane	<1	1,3,5-Trimethylbenzene	<1
1,2-Dichlorobenzene	<1	Benzene	<1
1,3-Dichlorobenzene	<1	Ethylbenzene	<1
1,4-Dichlorobenzene	<1	Toluene	<1
1,1-Dichloroethane	<1	Xylene (total)	<2
1,2-Dichloroethane	<1		
1,1-Dichloroethene	<1	Analyst/Date	SF/7-16
1,2-Dichloropropane	<1		

Comments: All concentrations are µg per Kilogram

CC: (2) Client

Submitted by: 7/31/00
Seth Frishman, Chief Scientist
SF/pt

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4123 South 67th Street ▪ Omaha, NE 68117
402-331-0935 ▪ FAX: 402-331-8779

INORGANICS REPORT

Project Name:	Soil Analysis for Metals		
Location:	East 4th Street, 1400-1406 E. 4th Street, Waterloo, IA		
Client:	City of Waterloo Attn: Rudy Jones 620 Mulberry Street Waterloo, IA	Job No.: Project No: Lab No.:	MWA-00-31 20-04732 C 554-556
Ordered by:	Gaylen Hiesterman/ Maxim-Waterloo	Date Rec'd: Report Date: Fax Date:	7-7-00 7-21-00 7-21-00
Submitted by:	Maxim-Waterloo 319-232-6591		
Test Method:	EPA Methods: 7060 (As); 7080 (Ba); 7130 (Cd); 7190 (Cr); 7420 (Pb); 7470 & 7471 (Hg); 7740 (Se); 7760 (Ag)		

TEST RESULTS

Lab No.:	C 554	C 555	C 556
Sample I.D.:	TMW-1	TMW-2	B-1
Sample Type:	Water	Water	Soil
Sample Depth:	NA	NA	15'
Sample Date:	7-5-00	7-5	7-3
Total Arsenic (as As):	0.051	0.19	3.2
Total Barium (as Ba):	0.35	0.61	54
Total Cadmium (as Cd):	<0.005	<0.005	<0.3
Total Chromium (as Cr):	0.07	0.16	11
Total Lead (as Pb):	0.08	0.16	54
Total Mercury (as Hg):	<0.0004	0.0005	<0.1
Total Selenium (as Se):	0.012	0.073	<0.5
Total Silver (as Ag):	<0.01	<0.01	<0.5

Note: Results are ppm = mg/Kg for soil; mg/L = ppm for water

CC: (2) Client

Submitted by:

Thomas H. Paper, Supervisor Inorganics
THP/pt

SAMPLE IDENTIFICATION/FIELD CHAIN OF CUSTODY RECORD

Lab Project No. NWA-00-31

Client: City of Waterloo	P.O. No.
Address: 620 Mulberry St.	Project No. 2004732
Client Contact: Rudy Jones	Project Name: East 4th St.
Phone/Fax: 319-291-4429	Project Location: 1400-1406 E. 4th Waterloo
Comments: Maxim contact: Gaylen Hiesterman (319)232-6591	Sampled By: J. Bartak

ANALYSIS: VOC; Metals - 6 RCRA

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.	VOC	Metals - 6 RCRA	Lab I.D.
1. TMW-1		1245	7/5/00	H_2O	4		X	X	C554
2. TMW-2		1315	7/5/00	H_2O	4		X	X	C555
3. B-1	15'	1125	7/3/00	Soil	1		X	X	C556
4.									
5.									
6.									
7.									
8.									
9.									
10.									

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Angela Ehardt	7/6/00 17:12		

Hazardous Material Suspected? Yes / (No)

Disposal by Lab? (Yes) / No

Shipment Method: UPS Next Day Air Saver

Expected turnaround time: STANDARD

Received for lab by (signature): Patti Jerry Date/Time: 7/7/00 @ 1149 RECEIVING LABORATORY: Please return original after signing for receipt of samples.

Nebraska Analytical Testing Laboratories, Inc

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* Filter 1X