



The Complete Solution

CON 12-15  
Doc # 26791

BRANCH ADDRESS  
7241 Gaines Street Court  
Davenport, IA 52806  
Phone: 563-332- 8000  
Toll-Free: 800-728-6900  
Fax: 563-332-9465

September 13, 2013

Mr. Mike Stewart  
River Cities Management L.L.C.  
200 East 90<sup>th</sup> Street  
Davenport, Iowa 52806

Subject: Site Assessment Report 2013  
River Cities Industrial Center  
200 East 90<sup>th</sup> Street, Davenport, Iowa

Dear Mr. Stewart:

In accordance with our contract, on September 3, 2013 Seneca Environmental Services (SES) mobilized to the above referenced site to collect groundwater samples from select monitoring wells. The locations of the wells sampled and other wells that also remain on-site may be found in Attachment 1, Site Plan Map. Prior to sampling, depth to water/product was measured using a free product probe. Free product was not present in the monitoring wells sampled. Groundwater samples were collected after the wells were properly purged using disposable polyethylene bailers. The groundwater was placed into appropriate containers supplied by the laboratory and chilled until relinquished to the laboratory for analysis. All samples were analyzed by the Iowa OA2 Method. The groundwater results, and previous free product measurements, are tabulated in Table 1. The laboratory report is included as Attachment 3.

Because the contaminants of concern are derived from petroleum, test results for this site are compared to those standards utilized by the IDNR leaking underground storage tank program. These standards, as found in the 'Iowa Tier 1 Look-Up Table' in 567 IAC Chapter 135, are the standards above which concentrations of petroleum contaminants for actual and potential receptors present some risk to human health and the environment.

Of the seven wells sampled, two contain current diesel concentrations and waste oil concentrations above the most stringent IDNR Tier 1 target levels of 1,200 ug/L and 400 ug/L for diesel fuel and waste oil, respectively. These target levels are for actual groundwater ingestion, i.e. contaminated drinking water from a drinking water well or other drinking water source. The target level for potential groundwater ingestion receptors, water wells that could be drilled in the future, is 75,000 ug/L. Both of the monitoring wells containing petroleum contamination above Tier 1 standards exceed the potential risk standard also.

Other risk pathways recognized by the IDNR for contaminated groundwater are groundwater vapor to enclosed space, groundwater to water line, and groundwater to surface water. Of the seven wells sampled, two have contaminant concentrations above the threshold values for groundwater to water line and groundwater to surface water, i.e. 75,000 ug/L diesel.

Monitoring in 2013 indicated that previously contaminated monitoring wells exhibited increasing concentrations of diesel fuel and waste oil contamination (MW18, MW19). However, both of these wells have experienced mostly downward trends over the life of sampling. Previously uncontaminated monitoring wells remain uncontaminated. Based on testing results, the groundwater contaminant plume does not appear to be migrating at this time.

Other Branch Locations

Des Moines, IA Corporate Office ♦ Denver, CO ♦ Oreana, IL ♦ Baldwin, MS ♦ Grandview, MO ♦ Sioux City, IA

[www.senecacompanies.com](http://www.senecacompanies.com)

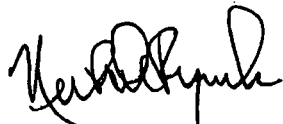
Petroleum Equipment ♦ Petroleum Construction ♦ Petroleum Service ♦ Automotive Service Equipment ♦ Industrial Fluid  
Power & Handling Systems ♦ Electrical Contracting ♦ Environmental Services ♦ Remediation Systems ♦ Waste  
Solutions/Hydro-Blasting

0230 SEP03 11:11:54

Groundwater elevations were determined in each of the seven wells sampled. The elevations of the groundwater surface are presented in Table 1 and contoured in the Groundwater Contour Map, Attachment 2. Projected groundwater flow direction based on groundwater elevations is generally to the north.

Based on the age of the release, the absence of free product, the apparent stability of the contaminant plume and declining concentrations in monitored wells, the site poses little risk to human health or the environment. Consideration should be given to closing the site or allowing a reduced monitoring schedule.

Sincerely,  
**SENECA COMPANIES INC.**



Neil P. DeRynck  
ICGP #1238  
Senior Project Manager

Attachment 1: Site Plan Map  
Attachment 2: Groundwater Contour Map  
Attachment 2: Laboratory Data Sheets

**Table 1  
Groundwater Data<sup>1</sup>**

Boring/ well	Date	Top of Casing Elevation	Static Water Level Elevation	Free Product Thickness (ft.)	Benzene (ug/L)	Toluene (ug/L)	Ethyl benzene (ug/L)	Xylenes (ug/L)	Diesel (ug/L)	Waste Oil (ug/L)
MW2	8/15/95	743.28		0.0	<2	<2	<2	<2	<100	
MW2	6/4/03	743.28	732.95	0.0					<380	<380
MW2	5/2/05	743.28	732.50	0.0					<b>1490</b>	<380
MW2	4/24/07	743.28	732.68	0.0					<300	<300
MW2	7/24/08	743.28	733.60	0.0					<300	<b>717</b>
MW2	8/11/09	743.28	733.13	0.0					<300	<300
MW2	8/10/10	743.28	733.24	0.0					<300	<300
MW2	9/14/11	743.28	732.85	0.0					<300	<300
MW2	9/03/13	743.28	733.34	0.0					<227	<227
MW3	8/16/95	743.40		0.0	<2	<2	<2	<2	<100	
MW3	6/03	743.40	733.10	0.0					<380	<380
MW3	5/2/05	743.40	732.51	0.0					<b>5640</b>	<380
MW3	4/24/07	743.40	732.85	0.0					<300	<300
MW3	7/24/08	743.40	734.30	0.0					<300	<300
MW4	8/15/95	742.99		5.4	1.7	<2	<1	<1	<100	
MW4	6/4/03	742.99	732.92	0.52	830	210	940	940	<b>2900</b>	
MW4	5/2/05	Not located								
MW4	4/24/07	Not located								
MW4	7/24/08	742.99	734.40	0.0					<b>5,800,000</b>	<b>100,000</b>
MW4	8/11/09	742.99	733.94	0.0					<b>12,700,000</b>	<b>240,000</b>
MW4	8/10/10	742.99	733.09	0.0					<b>1,100,000</b>	<30000
MW4	9/14/11	742.99	DRY							
MW4	9/03/13	Not located								
MW5	8/15/95	741.78		0.0	<1	<1	<1	<1	100	
MW5	6/4/03	741.78	731.48	1.01					<b>312,000</b>	<b>18,200</b>
MW5	5/2/05	741.78	732.28	0.0					<b>1,520,000</b>	<b>55,000</b>
MW5	4/24/07	741.78	732.48	0.0 <sup>2</sup>					<b>672,000</b>	<b>15,700</b>
MW5	7/24/08	741.78	733.98	0.0 <sup>2</sup>					<b>359,000</b>	<b>9,640</b>
MW13	9/14/95	743.06		0.0	<1	<1	<1	<1	<100	
MW13	6/4/03	743.06	732.55	0.0					<380	<380
MW13	5/2/05	Well casing plugged								
MW13	4/24/07	743.06	732.94						<300	<300
MW13	7/24/08	743.06	733.51						<300	<300
MW13	8/11/09	743.06	733.26						<300	<300
MW13	8/10/10	743.06	733.53	0.0					<300	<300
MW13	9/14/11	743.06	732.59	0.0					<300	<300
MW13	9/03/13	743.06	733.09	0.0					<227	<227
MW14	9/14/95	743.52		0.0	<1	<1	<1	<1	<100	
MW14	6/4/03	743.52	731.31	0.0					<380	<380
MW14	5/2/05	743.52	730.57	0.0					<b>5550</b>	<380
MW14	4/24/07	743.52	730.67	0.0					<300	<300
MW14	7/24/08	743.52	733.77	0.0					<300	<300
MW16	9/14/95	740.37		0.0	<1	<1	<1	<1	600	
MW16	6/4/03	740.37	730.45	0.0					<380	<380

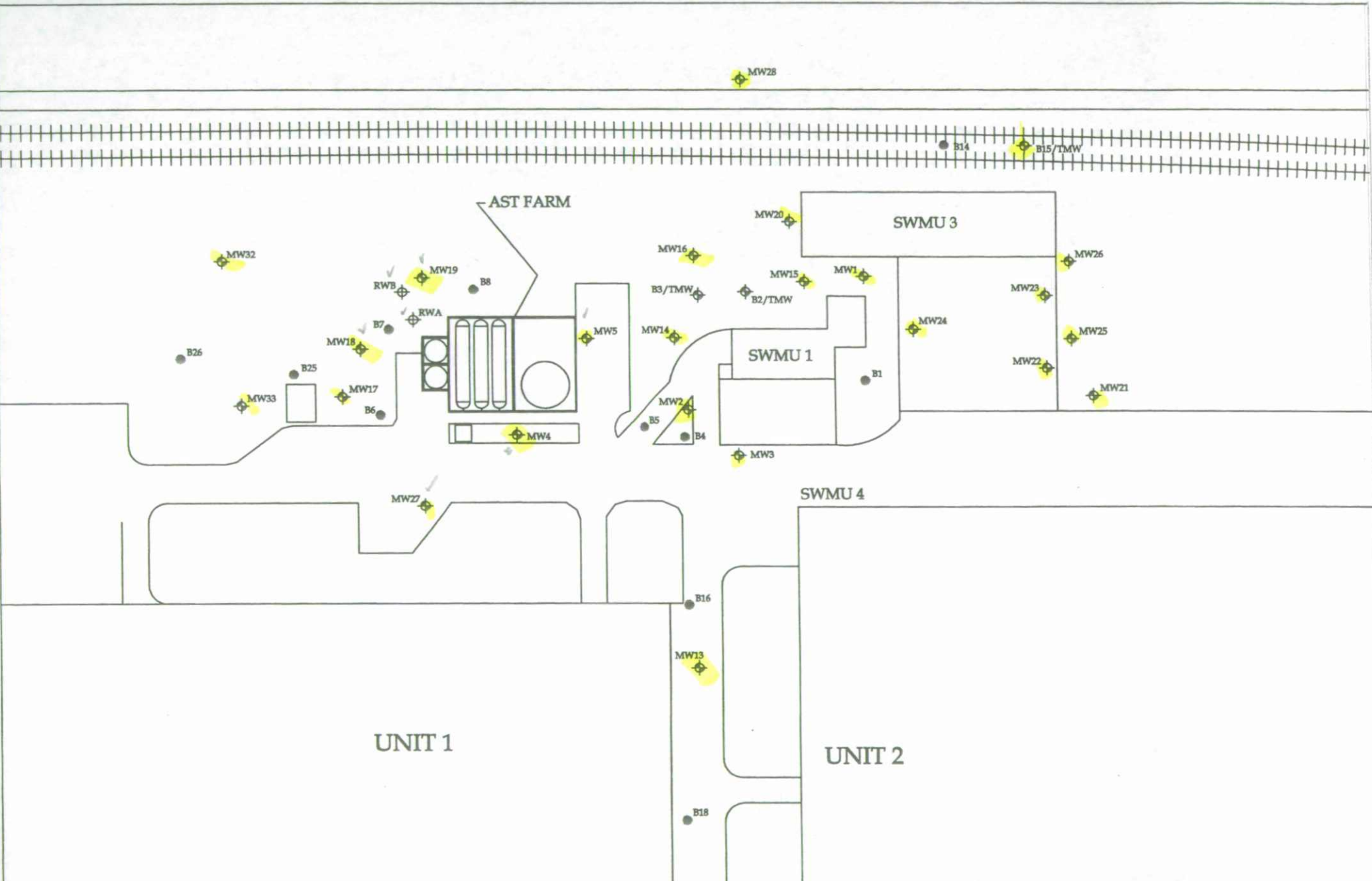
Boring/ well	Date	Top of Casing Elevation	Static Water Level Elevation	Free Product Thickness (ft.)	Benzene (ug/L)	Toluene (ug/L)	Ethyl benzene (ug/L)	Xylenes (ug/L)	Diesel (ug/L)	Waste Oil (ug/L)	
MW16	5/2/05	740.37	730.02	0.0					1610	<380	
MW16	4/24/07	740.37	730.45	0.0					<300	351	
MW16	7/24/08	740.37	732.83	0.0					<300	<300	
MW16	8/11/09	740.37	733.03	0.0					<300	<300	
MW16	8/10/10	740.37	732.97	0.0					<300	<300	
MW16	9/14/11	740.37	731.49	0.0					<300	<300	
MW16	9/03/13	740.37	731.57	0.0					<227	<227	
MW17	11/30/9	744.35		10.7	15.6	1.1	6.4	<3	<100		
MW17	6/4/03	744.35	733.22	0.12					233,000	17,700	
MW17	5/2/05	744.35	732.67	0.23					1,570,000	52,600	
MW17	4/24/07	744.35	733.48	0.0 <sup>2</sup>					245,000	7,010	
MW17	7/24/08	744.35	735.79	0.0 <sup>2</sup>					177,000	3,650	
MW18	9/15/95	743.69		8.85	<1	<1	<1	<1	1100		
MW18	6/4/03	743.69	731.91	0.0						6650	
MW18	5/2/05	743.69	731.37	0.12					3,330,000	223,000	
MW18	4/24/07	743.69	732.01	0.0 <sup>2</sup>					633,000	27,100	
MW18	7/24/08	743.69	734.73	0.0 <sup>2</sup>					865,000	27,800	
MW18	8/11/09	743.69	734.30						383,000	16,600	
MW18	9/14/11	743.69	731.32	0.0					249,000	6,670	
MW18	9/03/13	743.69	731.79	0.0					271,000	17,100	
MW19	9/15/95	742.95		3.03	<1	<1	<1	<1	<100		
MW19	6/4/03	742.95	731.6	0.04					185,000	15,700	
MW19	5/2/05	742.95	731.30	0.0					1,150,000	70,000	
MW19	4/24/07	742.95	731.49	0.0 <sup>2</sup>					441,000	8140	
MW19	7/24/08	742.95	732.62	0.0 <sup>2</sup>					750,000	30,000	
MW19	8/11/09	742.95	732.51						259,000	10900	
MW19	8/10/10	742.97	732.50	0.0					39,400	2,970	
MW19	9/14/11	742.97	731.67	0.0					18200	550	
MW19	9/03/13	742.97	732.38	0.0					90,600	27,000	
MW27	9/22/95	741.95		3.78	<1	<1	<1	<1	<100		
MW27	6/4/03	741.95	734.13	0.18					3,290,000	207,000	
MW27	5/2/05	741.95	733.23	0.32					20,600,000	679,000	
MW27	4/24/07	741.95	733.55	0.0 <sup>2</sup>					3,000,000	22,400	
MW27	7/24/08	741.95	733.45	0.0 <sup>2</sup>					2,460,000	64,800	
MW27	8/11/09	741.95	734.07						615,000	24900	
MW27	8/10/10	741.95	734.15	0.0					111,000	9,510	
MW27	9/14/11	741.95			Well was dry						
MW27	9/03/13	741.95			Well was dry						
MW28	9/22/95	740.31		0.0	<1	<1	<1	<1	<100		
MW28	6/4/03	740.31	728.29	0.0					<380	<380	
MW28	5/2/05	740.31	728.13	0.0					996	<380	
MW28	4/24/07				dry						
MW28	7/24/08	740.31	731.30	0.0					<300	<300	
MW32	6/4/03	745.08		0.0					1810	<380	
MW32	5/2/05	745.08	732.84	0.0					<380	<380	
MW32	4/24/07	745.08	733.30	0.0					<300	<300	

Boring/ well	Date	Top of Casing Elevation	Static Water Level Elevation	Free Product Thickness (ft.)	Benzene (ug/L)	Toluene (ug/L)	Ethyl benzene (ug/L)	Xylenes (ug/L)	Diesel (ug/L)	Waste Oil (ug/L)
MW32	7/24/08	745.08	733.74	0.0					<300	<300
MW32	8/11/09	745.08	733.61						<300	<300
MW32	8/10/10	745.08	733.79	0.0					<300	<300
MW32	9/14/11	745.08	732.81	0.0					<300	<300
MW32	9/03/13	745.08	733.63	0.0					<227	<227
MW33	6/4/03	745.28		0.0					463	<380
MW33	5/2/05	745.28	732.77	0.0					<380	<380
MW33	4/24/07	745.28	732.88	0.0					<300	<300
MW33	7/24/08	745.28	733.05	0.0					<300	<300
MW33	8/11/09	745.28	732.98						<300	<300
MW33	8/10/10	745.28	733.06	0.0					<300	<300
MW33	9/14/11	745.28	732.46	0.0					<300	<300
MW33	9/03/13	745.28	733.13	0.0					<227	<227
RWA	6/4/03			0.13					<b>57,800</b>	<b>12,800</b>
RWA	5/2/05			0.0					<b>11,500</b>	<b>1510</b>
RWA	4/24/07			0.0					<b>21,100</b>	<b>4300</b>
RWA	7/24/08			0.0					<b>56,700</b>	<b>11,600</b>
RWB	6/4/03			0.0						<b>4230</b>
RWB	5/2/05			0.0					<b>17,000</b>	<b>1210</b>
RWB	4/24/07			0.0					<b>85,200</b>	<b>2670</b>
RWB	7/24/08			0.0					<b>56,500</b>	<b>2,140</b>

<sup>1</sup> The concentrations in **bold** are above the lowest IDNR Tier 1 target levels of 1,200 ug/L for diesel and 400 ug/L for waste oil.

<sup>2</sup> Absorbent sock in well.

**ATTACHMENT 1**  
Site Plan Map



- ◆ MONITORING WELL
- ◇ PREVIOUS MONITORING WELL
- SOIL BORING



FILE NAME:  
RIVER CITIES

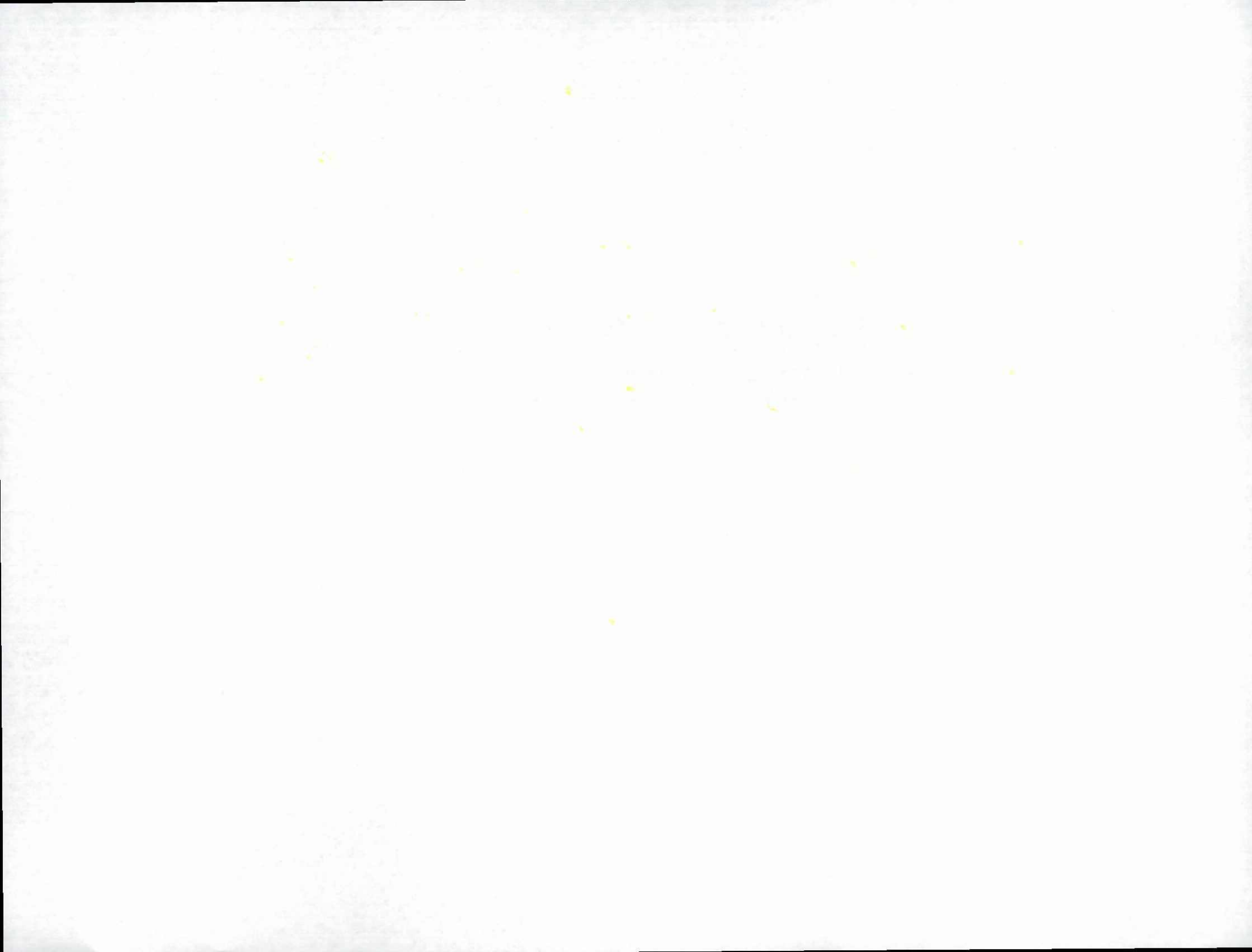
PROJECT NO:  
6273406



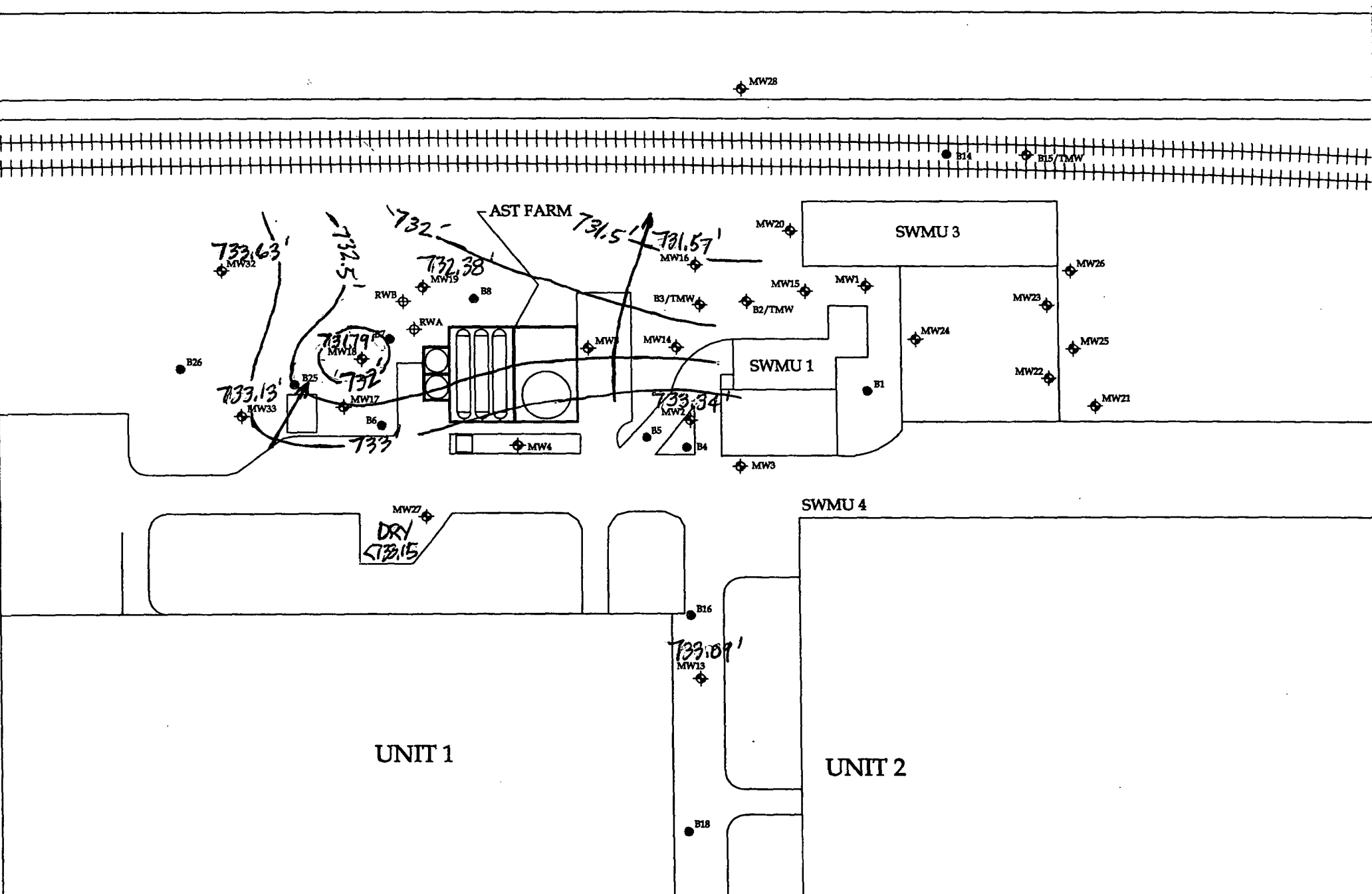
**Seneca**  
Environmental Services

SITE: RIVER CITIES INDUSTRIAL CENTER  
200 EAST 90th STREET  
DAVENPORT, IOWA  
SITE PLAN MAP

REVISD:	
DATE:	5/27/05
REVIEWED BY:	KH
DRAWN BY:	RLH
LUST NUMBER:	N/A
SCALE:	1" = 100'

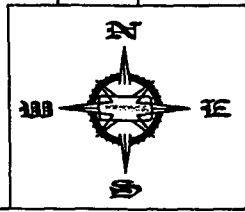



**ATTACHMENT 2**  
Groundwater Contour Map



DIRECTION OF GW FLOW →  
 CONTOUR INTERVAL = 0.5'  
 DATA IN FEET AMSL

- ◆ MONITORING WELL
- ⊕ PREVIOUS MONITORING WELL
- SOIL BORING



FILE NAME: RIVER CITIES	 <b>Seneca</b> Environmental Services	REVISED:
PROJECT NO: 6273406		DATE: 5/27/05
SITE: RIVER CITIES INDUSTRIAL CENTER 200 EAST 90th STREET DAVENPORT, IOWA		REVIEWED BY: KH
GROUNDWATER CONTOUR MAP		DRAWN BY: RLH
LUST NUMBER: N/A		SCALE: 1" = 100'

**ATTACHMENT 3**  
Laboratory Data Sheets

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Cedar Falls  
704 Enterprise Drive  
Cedar Falls, IA 50613  
Tel: (319)277-2401

TestAmerica Job ID: 310-14972-1  
TestAmerica Sample Delivery Group: 6273406  
Client Project/Site: River Cities Industrial Center

For:  
Seneca Companies  
7241 Gaines Street Court  
Davenport, Iowa 52806

Attn: Neil Derynck

*Angela Muehling*

Authorized for release by:  
9/12/2013 4:17:15 PM

Angela Muehling, Project Manager I  
angela.muehling@testamericainc.com

### LINKS

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Expert**

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

1

2

3

4

5

6

7

8

9

# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Case Narrative .....	3
Sample Summary .....	4
Client Sample Results .....	5
Chronicle .....	12
Definitions .....	14
Certification Summary .....	15
Method Summary .....	16
Chain of Custody .....	17
Receipt Checklists .....	19



## Case Narrative

Client: Seneca Companies  
Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
SDG: 6273406

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**Job ID: 310-14972-1**

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**Laboratory: TestAmerica Cedar Falls**

### Narrative

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**Job Narrative**  
310-14972-1

### Comments

No additional comments.

### Receipt

The samples were received on 9/5/2013 9:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6° C.

### GC Semi VOA

No analytical or quality issues were noted.

### Organic Prep

No analytical or quality issues were noted.

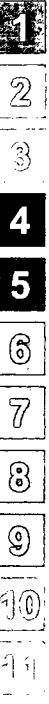


# Sample Summary

Client: Seneca Companies  
Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
SDG: 6273406

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-14972-1	MW-2	Ground Water	09/03/13 11:01	09/05/13 09:05
310-14972-2	MW-13	Ground Water	09/03/13 10:50	09/05/13 09:05
310-14972-3	MW-16	Ground Water	09/03/13 11:08	09/05/13 09:05
310-14972-4	MW-18	Ground Water	09/03/13 11:23	09/05/13 09:05
310-14972-5	MW-19	Ground Water	09/03/13 11:18	09/05/13 09:05
310-14972-6	MW-32	Ground Water	09/03/13 11:30	09/05/13 09:05
310-14972-7	MW-33	Ground Water	09/03/13 11:35	09/05/13 09:05



# Client Sample Results

Client: Seneca Companies  
 Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
 SDG: 6273406

**Client Sample ID: MW-2**

**Lab Sample ID: 310-14972-1**

Date Collected: 09/03/13 11:01

Matrix: Ground Water

Date Received: 09/05/13 09:05

Sampler Name: Garrett Boelkes

Sampler Phone Number: 563-332-8000

**Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)**

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<227		227		ug/L			09/06/13 10:10	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<227		227		ug/L		09/06/13 15:04	09/10/13 03:46	1
Diesel	<227		227		ug/L		09/06/13 15:04	09/10/13 03:46	1
Waste Oil	<227		227		ug/L		09/06/13 15:04	09/10/13 03:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	87		45 - 140				09/06/13 15:04	09/10/13 03:46	1



# Client Sample Results

Client: Seneca Companies  
 Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
 SDG: 6273406

**Client Sample ID: MW-13**

**Lab Sample ID: 310-14972-2**

Date Collected: 09/03/13 10:50

Matrix: Ground Water

Date Received: 09/05/13 09:05

Sampler Name: Garrett Boelkes

Sampler Phone Number: 563-332-8000

**Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)**

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<227		227		ug/L			09/06/13 10:10	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<227		227		ug/L		09/06/13 15:04	09/10/13 04:28	1
Diesel	<227		227		ug/L		09/06/13 15:04	09/10/13 04:28	1
Waste Oil	<227		227		ug/L		09/06/13 15:04	09/10/13 04:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	93		45 - 140				09/06/13 15:04	09/10/13 04:28	1



# Client Sample Results

Client: Seneca Companies  
 Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
 SDG: 6273406

**Client Sample ID: MW-16**

**Lab Sample ID: 310-14972-3**

Date Collected: 09/03/13 11:08

Matrix: Ground Water

Date Received: 09/05/13 09:05

Sampler Name: Garrett Boelkes

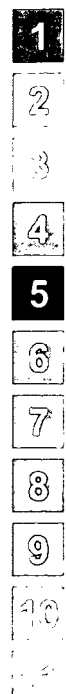
Sampler Phone Number: 563-332-8000

**Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)**

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<227		227		ug/L			09/06/13 10:10	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<227		227		ug/L		09/06/13 15:04	09/10/13 05:10	1
Diesel	<227		227		ug/L		09/06/13 15:04	09/10/13 05:10	1
Waste Oil	<227		227		ug/L		09/06/13 15:04	09/10/13 05:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	81		45 - 140	09/06/13 15:04	09/10/13 05:10	1



# Client Sample Results

Client: Seneca Companies  
 Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
 SDG: 6273406

**Client Sample ID: MW-18**

**Lab Sample ID: 310-14972-4**

Date Collected: 09/03/13 11:23

Matrix: Ground Water

Date Received: 09/05/13 09:05

Sampler Name: Garrett Boelkes

Sampler Phone Number: 563-332-8000

**Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)**

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	291000		2270		ug/L			09/06/13 10:10	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	2930	Z	227		ug/L		09/06/13 15:04	09/10/13 05:51	1
Diesel	271000		2270		ug/L		09/06/13 15:04	09/11/13 14:43	10
Waste Oil	17100	Z	2270		ug/L		09/06/13 15:04	09/11/13 14:43	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	110		45 - 140				09/06/13 15:04	09/10/13 05:51	1



# Client Sample Results

Client: Seneca Companies  
 Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
 SDG: 6273406

**Client Sample ID: MW-19**

**Lab Sample ID: 310-14972-5**

Date Collected: 09/03/13 11:18

Matrix: Ground Water

Date Received: 09/05/13 09:05

Sampler Name: Garrett Boelkes

Sampler Phone Number: 563-332-8000

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)										
Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac	
Total Extractable Hydrocarbons	118000		2270		ug/L			09/06/13 10:10	1	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline	782	Z	227		ug/L		09/06/13 15:04	09/10/13 06:33	1	
Diesel	90600		2270		ug/L		09/06/13 15:04	09/11/13 14:01	10	
Waste Oil	27000	Z	227		ug/L		09/06/13 15:04	09/10/13 06:33	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
n-Octacosane	104		45 - 140				09/06/13 15:04	09/10/13 06:33	1	



# Client Sample Results

Client: Seneca Companies  
 Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
 SDG: 6273406

**Client Sample ID: MW-32**

**Lab Sample ID: 310-14972-6**

Date Collected: 09/03/13 11:30

Matrix: Ground Water

Date Received: 09/05/13 09:05

Sampler Name: Garrett Boelkes

Sampler Phone Number: 563-332-8000

**Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)**

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<0.227		0.227		ug/L			09/06/13 10:10	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<227		227		ug/L		09/06/13 15:04	09/10/13 07:14	1
Diesel	<227		227		ug/L		09/06/13 15:04	09/10/13 07:14	1
Waste Oil	<227		227		ug/L		09/06/13 15:04	09/10/13 07:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	95		45 - 140				09/06/13 15:04	09/10/13 07:14	1



# Client Sample Results

Client: Seneca Companies  
 Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
 SDG: 6273406

**Client Sample ID: MW-33**

**Lab Sample ID: 310-14972-7**

Date Collected: 09/03/13 11:35

Matrix: Ground Water

Date Received: 09/05/13 09:05

Sampler Name: Garrett Boelkes

Sampler Phone Number: 563-332-8000

**Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)**

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<0.227		0.227		ug/L			09/06/13 10:10	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<227		227		ug/L		09/06/13 15:04	09/10/13 07:55	1
Diesel	<227		227		ug/L		09/06/13 15:04	09/10/13 07:55	1
Waste Oil	<227		227		ug/L		09/06/13 15:04	09/10/13 07:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane	90		45 - 140				09/06/13 15:04	09/10/13 07:55	1



# Lab Chronicle

Client: Seneca Companies  
Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
SDG: 6273406

**Client Sample ID: MW-2**

**Lab Sample ID: 310-14972-1**

Date Collected: 09/03/13 11:01

Matrix: Ground Water

Date Received: 09/05/13 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-2		1	24202	09/06/13 10:10	EEE1	TAL CF
Total/NA	Prep	3510C			24250	09/06/13 15:04	ELS	TAL CF
Total/NA	Analysis	OA-2		1	24357	09/10/13 03:46	BKT	TAL CF

**Client Sample ID: MW-13**

**Lab Sample ID: 310-14972-2**

Date Collected: 09/03/13 10:50

Matrix: Ground Water

Date Received: 09/05/13 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-2		1	24202	09/06/13 10:10	EEE1	TAL CF
Total/NA	Prep	3510C			24250	09/06/13 15:04	ELS	TAL CF
Total/NA	Analysis	OA-2		1	24357	09/10/13 04:28	BKT	TAL CF

**Client Sample ID: MW-16**

**Lab Sample ID: 310-14972-3**

Date Collected: 09/03/13 11:08

Matrix: Ground Water

Date Received: 09/05/13 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-2		1	24202	09/06/13 10:10	EEE1	TAL CF
Total/NA	Prep	3510C			24250	09/06/13 15:04	ELS	TAL CF
Total/NA	Analysis	OA-2		1	24357	09/10/13 05:10	BKT	TAL CF

**Client Sample ID: MW-18**

**Lab Sample ID: 310-14972-4**

Date Collected: 09/03/13 11:23

Matrix: Ground Water

Date Received: 09/05/13 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-2		1	24202	09/06/13 10:10	EEE1	TAL CF
Total/NA	Prep	3510C			24250	09/06/13 15:04	ELS	TAL CF
Total/NA	Analysis	OA-2		1	24357	09/10/13 05:51	BKT	TAL CF
Total/NA	Prep	3510C			24250	09/06/13 15:04	ELS	TAL CF
Total/NA	Analysis	OA-2		10	24603	09/11/13 14:43	BKT	TAL CF

**Client Sample ID: MW-19**

**Lab Sample ID: 310-14972-5**

Date Collected: 09/03/13 11:18

Matrix: Ground Water

Date Received: 09/05/13 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-2		1	24202	09/06/13 10:10	EEE1	TAL CF
Total/NA	Prep	3510C			24250	09/06/13 15:04	ELS	TAL CF
Total/NA	Analysis	OA-2		1	24357	09/10/13 06:33	BKT	TAL CF
Total/NA	Prep	3510C			24250	09/06/13 15:04	ELS	TAL CF

TestAmerica Cedar Falls

# Lab Chronicle

Client: Seneca Companies  
 Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
 SDG: 6273406

**Client Sample ID: MW-19**

Date Collected: 09/03/13 11:18

Date Received: 09/05/13 09:05

**Lab Sample ID: 310-14972-5**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-2		10	24603	09/11/13 14:01	BKT	TAL CF

**Client Sample ID: MW-32**

Date Collected: 09/03/13 11:30

Date Received: 09/05/13 09:05

**Lab Sample ID: 310-14972-6**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-2		1	24202	09/06/13 10:10	EEE1	TAL CF
Total/NA	Prep	3510C			24250	09/06/13 15:04	ELS	TAL CF
Total/NA	Analysis	OA-2		1	24357	09/10/13 07:14	BKT	TAL CF

**Client Sample ID: MW-33**

Date Collected: 09/03/13 11:35

Date Received: 09/05/13 09:05

**Lab Sample ID: 310-14972-7**

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-2		1	24202	09/06/13 10:10	EEE1	TAL CF
Total/NA	Prep	3510C			24250	09/06/13 15:04	ELS	TAL CF
Total/NA	Analysis	OA-2		1	24357	09/10/13 07:55	BKT	TAL CF

**Laboratory References:**

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401



# Definitions/Glossary

Client: Seneca Companies  
Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
SDG: 6273406

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
Z	The chromatographic response does not resemble a typical fuel pattern.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



# Certification Summary

Client: Seneca Companies  
Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
SDG: 6273406

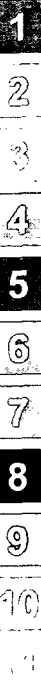
## Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA	IHLAP		101044	11-01-14
Illinois	NELAP	5	200024	11-29-13
Iowa	State Program	7	7	12-01-13
Kansas	NELAP	7	E-10341	01-31-14
Minnesota	NELAP	5	019-999-319	12-31-13
North Dakota	State Program	8	R-186	09-29-13 *
Oregon	NELAP	10	IA100001	09-29-13 *
Wisconsin	State Program	5	999917270	08-31-13 *

\* Expired certification is currently pending renewal and is considered valid.

TestAmerica Cedar Falls



# Method Summary

Client: Seneca Companies  
Project/Site: River Cities Industrial Center

TestAmerica Job ID: 310-14972-1  
SDG: 6273406

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Method	Method Description	Protocol	Laboratory
OA-2	Iowa - Extractable Petroleum Hydrocarbons (GC)	Iowa DNR	TAL CF

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**Protocol References:**

Iowa DNR = Iowa Department of Natural Resources

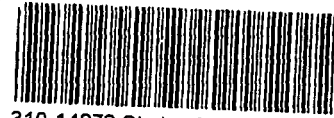
**Laboratory References:**

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401



**TestAmerica TestAmerica Sample Receipt and Cedar Falls Facility**

THE LEADER IN ENVIRONMENTAL TESTING  
704 Enterprise Drive • Cedar Falls, IA 50613  
Tel 319-277-2401 • Fax 319-277-2425



310-14972 Chain of Custody

Client: Seneca Project: River Cities Ind. Cr.

City: \_\_\_\_\_ State: \_\_\_\_\_

Date: 9-5-13 Receiver's Initials: CH Time (Delivered): 9:05

**Temperature Record:**

Cooler ID# (If Applicable)  
Dayton

Uncorrected Temp:  
0.6 °C

Corrected Temp:  
0.6 °C

**Thermometer:**

IR "E" - 111531506  
 IR "Front" - 61854108  
 IR "G" - 130195822  
 IR "H" - 130195853  
 Other: \_\_\_\_\_

**Courier:**

UPS  TA Courier  
 FedEx  TA Field Services  
 FedEx Ground  Client  
 US Postal Service  Other: \_\_\_\_\_  
 Spee-Dee

Temperature blank  
 Temperature out of compliance

**Coolant Record:**

Received on ice  
 Wet ice  
 Blue ice  
 Dry ice  
 Other: \_\_\_\_\_  
 NONE

**Exceptions Noted:**

Sample(s) not received in cooler  
 Sample(s) received same day of sampling  
 Evidence of chilling process  
 Temp blank <0°C, samples NOT FROZEN  
 Temp blank <0°C, samples FROZEN  
 Temperature not taken: (indicate reason) \_\_\_\_\_  
 Non-Conformance Report Started

**Custody Seals:**

<p>Cooler Custody Seals Present?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Cooler Custody Seals Intact?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Sample Custody Seals Present?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Sample Custody Seals Intact?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</p>

Document No.: CF-LG-WI-002  
Revision: 20  
Date: 7/31/2013





## Login Sample Receipt Checklist

Client: Seneca Companies

Job Number: 310-14972-1

SDG Number: 6273406

Login Number: 14972

List Number: 1

Creator: Facciani, Melene K.

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\neq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

