CON 12-15
Doc #29236

Tetra Tech EM Inc.
8030 Flint Street ♦ Lenexa, Kansas 66214 ♦ (913) 894-2600 ♦ FAX (913) 894-6295

September 12, 2003

Mr. Roy Crossland
START Project Officer
U.S. Environmental Protection Agency, Region 7
901 North 5th Street
Kansas City, Kansas 66101

Subject: **Removal Assessment Report**
Albert City SBA, Albert City, Iowa
EPA Region 7, START Contract No. 68-S7-01-41, Task Order No. 0137
Task Monitor: Randy Schademann, On-Scene Coordinator

Dear Mr. Crossland:

Tetra Tech EM Inc. is submitting this final report for removal assessment activities at the Albert City SBA site. The objective of the removal assessment was to evaluate current concentrations of volatile organic compounds in groundwater and indoor air.

If you have any questions or comments regarding this submittal, please call the project manager at (913) 495-3930.

Sincerely,

For JP

Jeff Pritchard
START Project Manager

Hieu Q. Vu, PE, CHMM
START Program Manager

Enclosures

G9011/0137

REMOVAL ASSESSMENT REPORT

ALBERT CITY SBA, ALBERT CITY, IOWA

Superfund Technical Assessment and Response Team (START) 2

Contract No. 68-S7-01-41, Task Order No. 0137

Prepared For:

U.S. Environmental Protection Agency
Region 7
901 North 5th Street
Kansas City, Kansas 66101

September 12, 2003

Prepared By:

Tetra Tech EM Inc.
8030 Flint Street
Lenexa, Kansas 66214
(913) 894-2600

CONTENTS

TABLES

1.0 INTRODUCTION

Tetra Tech EM Inc. (Tetra Tech) was tasked by the U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division to conduct a removal assessment (RA) at the Albert City Small Business Administration (SBA) site in Albert City, Iowa. Previous investigations have determined that surface soil, subsurface soil, storm sewer pathways, and groundwater have been contaminated with trichloroethene (TCE) and other volatile organic compounds (VOC). In addition, elevated levels of VOCs have been detected in indoor air samples collected from structures overlying areas of contaminated soil and groundwater. A removal action was performed in November 1999 to excavate a limited area of highly contaminated surface soils and re-route a water line which passed through an area of soil contamination. However, the 1999 removal action did not remove all of the contaminated soil, nor did it address the contaminated groundwater or indoor air contamination. The purpose of this investigation was to determine current contaminant concentrations in those media and evaluate movement of the groundwater plume.

2.0 BACKGROUND INFORMATION

This section provides a brief overview of the site location, operational history, and chronology of previous environmental investigations conducted at the site.

2.1 SITE LOCATION AND DESCRIPTION

The Albert City SBA site is located on Orchard Street in the east-central portion of Albert City, Iowa (see Appendix A, Figure 1). The approximate site boundaries are a set of railroad tracks to the east, an alley joining Railroad Street and Second Avenue (halfway between Orchard and Main Streets) to the south, Second Avenue to the west, and an abandoned alley midway between Grape and Orchard Streets to the north (see Appendix A, Figure 2). The site lies within Section 14, Township 92 North, Range 35 West, of Buena Vista County, Iowa. The geographic coordinates for the site are latitude 42° 46' 57.0" north and longitude 94° 56' 50.7" west.

The site is bordered by commercial properties to the south and east and residential areas to the west and north. The site consists of three primary areas: the former Superior Manufacturing Company (SMC) plant property, the former SMC waste storage area, and the former SMC waste staging/loading area.

Past investigations have found that shallow groundwater at the site flows to the west and east, with a groundwater divide located in the central portion of the site. Based on previous findings, most contaminant migration appears to be to the east.

2.2 OPERATIONAL HISTORY

The Albert City SBA site is the location of the former SMC facility, which primarily produced grease guns. Based on historical records, it is known that degreasing solvents were used as part of the manufacturing process at the former SMC plant. Sampling results from this removal assessment and other previous investigations indicate that tetrachloroethene (PCE), TCE, and their degradation products, including cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride, are present in the soil, groundwater, and indoor air at the site and on adjacent properties (E&E 1997).

2.3 PREVIOUS INVESTIGATIONS

Several investigations have been conducted at the site, including the following activities and associated reports:

- 1991 property assessment by SBA
- 1992 preliminary assessment (PA) and site inspection (SI) by Iowa Department of Natural Resources (IDNR)
- 1994 follow-up SI by IDNR
- 1995-1996 expanded site inspection (ESI) by EPA
- August 1996 Phase I RA by EPA
- December 1996 Phase 2 RA by EPA
- April-June 1996 Phase 3 RA by EPA
- April 1998 supplemental Phase 3 RA by EPA
- April 1999 RA report for follow-up work at the Albert City SBA site
- May 2000 EPA-funded removal action at the Albert City SBA site

- May 2000 RA report for follow-up work at the Albert City SBA site
- February 2002 RA report for follow-up work at the Albert City SBA site

3.0 SITE ACTIVITIES

Field activities for this RA were conducted by Tetra Tech START in accordance with the site-specific Quality Assurance Project Plan (QAPP) for the Albert City SBA site, which was submitted and approved by EPA in March 1997. Field activities were conducted on June 3, 2003. EPA On-Scene Coordinator (OSC) Randy Schademann was the site manager. The Tetra Tech START team members were Jeff Pritchard, project manager; and Emily Johnson, sampler. Photographs of the field activities are included in Appendix B.

3.1 GROUNDWATER SAMPLING

Water samples were collected from the two Albert City municipal wells (MW-2 and MW-3), one municipal distribution system location (the Albert City Fire Station's kitchen faucet), and one monitoring well (MW-9B). The locations of the municipal wells, distribution point, and monitoring well are illustrated in Figure 3 of Appendix A.

The primary objective of sampling monitoring well MW-9B was to evaluate horizontal and vertical plume movement northwest of the site, in the direction of the city's municipal wells. The sample was collected from MW-9B using a low-flow purging technique with a submersible bladder pump. Groundwater temperature, pH, conductivity, and turbidity were measured during the purging to ensure that stagnant water in the well was removed. The sample from this well was collected directly from the pump's discharge line into the appropriate sample containers. The monitoring well sample was collected in accordance with Region 7 Standard Operating Procedure (SOP) 4320.15A: "Groundwater Sample Collection."

Prior to collection of samples from the municipal wells and the fire station's distribution line, water was purged from spigots at the well heads and from the fire station's kitchen faucet for 5 minutes to ensure that stagnant water in the wells/water lines was removed. In addition, groundwater temperature, pH, conductivity, and turbidity were measured. The samples were collected directly into the appropriate sample containers. The drinking water samples were collected in accordance with Region 7 SOP 4230.10A: "Drinking Water Sample Collection."

Each water sample was collected in four 40-milliliter (mL) volatile organic analysis (VOA) vials, preserved with hydrochloric acid to a pH below 2, and placed in a cooler with ice. These samples were delivered to the EPA Region 7 laboratory in Kansas City, Kansas, for analysis of VOCs. Field sheets, chain of custody records, and analytical results are included in Appendix C.

3.2 AIR SAMPLING

Indoor air sampling was conducted at the fire station and at two private residences northwest of the former SMC storage area. Indoor air samples previously collected from the fire station and nearby homes contained elevated concentrations of TCE and cis-1,2-DCE (E&E 2000). During this investigation, indoor air samples were collected from three locations inside the fire station; the kitchen, bathroom, and southwest corner of the garage. In addition, indoor air samples were collected from the basement of 206 Grape Street and the basement and living room of 201 Grape Street. The air samples were collected using Summa canisters, which were fitted with particulate filters and regulators calibrated to collect air samples over an 8-hour period. The samples were labeled and submitted to EPA Region 7 laboratory for analysis of VOCs. One field blank was also collected and submitted for analysis of VOCs. The indoor air sampling locations are illustrated in Appendix A, Figure 4.

4.0 ANALYTICAL RESULTS

All water sample results were compared to the respective federal maximum contaminant levels (MCLs). A low detection limit of 0.5 micrograms per liter (µg/L) was requested for all of the water sample analytes. The complete laboratory data package is included in Appendix C. As indicated in the data package, some of the analytical data have been R-coded, due to calibration results outside of laboratory specifications. These data are considered unusable.

4.1 GROUNDWATER RESULTS

No VOCs were detected in the municipal wells (samples RS07WC/2054-101 and RS07WC/2054-102) or in monitoring well MW-9B (sample RS07WC/2054-103). This is consistent with results from previous sampling activities. The distribution point sample collected from the fire station's kitchen sink (sample RS07WC/2054-104) contained TCE and cis-1,2-DCE at concentrations of 7.3 µg/L and 0.52 µg/L, respectively. The concentration of TCE was above its MCL of 5.0 µg/L. This result was similar to data obtained in October 2001, when TCE and cis-1,2-DCE were in a sample from the fire station's kitchen faucet at concentrations of 6.8 µg/L and 0.57 µg/L, respectively (Tetra Tech 2002). In addition, the

sample from the fire station contained chloroform at 1.9 µg/L. The presence of chloroform is likely a result of the chlorination process used for treating the municipal water supply. This concentration of chloroform is well below its respective MCL of 100 µg/L.

4.2 AIR RESULTS

Table 1 contains selected analytical results for the indoor air samples. Several VOCs were detected in all of the indoor air samples, except for the field blank. However, the majority of the contaminants were detected at low levels, or were not attributable to the site based on the contaminants known to be present in the soil and groundwater. As in previous investigations, TCE and cis-1,2-DCE were the primary site-related contaminants detected in the air samples. All six of the indoor air samples (RS07WC/2054-1 through RS07WC/2054-6) collected from the Grape Street residences and the fire station contained TCE concentrations above the Region 9 Preliminary Remediation Goal (PRG) for ambient air, which is 0.017 micrograms per cubic meter (µg/m^3). As in previous investigations, the highest VOC concentrations were reported in samples collected from the fire station. An indoor air sample collected from the fire station's kitchen in October 2001 contained TCE at 210 µg/m^3, while the kitchen sample collected during this removal assessment contained TCE at 200 µg/m^3. Although cis-1,2-DCE, trans-1,2-DCE, and PCE were also detected in several of the air samples, none of these contaminants were detected at levels above their respective Region 9 PRGs. In addition, methylene chloride was detected in all of the air samples, including the field blank. Methylene chloride is a common laboratory contaminant and is not suspected to be associated with a release at this site.

TABLE 1

ANALYTICAL RESULTS - VOCS IN AIR
ALBERT CITY SBA SITE
ALBERT CITY, IOWA

		Analytes (µg/m^3)			
EPA Sample Number	**Location**	**TCE**	**cis-1,2-DCE**	**trans-1,2-DCE**	**PCE**
RS07WC/2054-1	206 Grape Street - Basement	1.4	0.038 U	0.038 U	0.069
RS07WC/2054-2	Fire Station - Kitchen	200	19	0.89	0.44
RS07WC/2054-3	Fire Station - Bathroom	200	24	0.93	0.49
RS07WC/2054-4	Fire Station - Southwest Corner of Garage	200	25	1	0.37
RS07WC/2054-5	201 Grape Street - Basement	0.6	0.1	0.26	0.068 U

TABLE 1 (Continued)

ANALYTICAL RESULTS - VOCS IN AIR
ALBERT CITY SBA SITE
ALBERT CITY, IOWA

EPA Sample Number	Location	Analytes (µg/m³)			
		TCE	cis-1,2-DCE	trans-1,2-DCE	PCE
RS07WC/2054-6	201 Grape Street - Living Room	0.29	0.044 U	0.044 U	0.076 U
RS07WC/2054-7-FB	Field Blank	0.5 U	0.38 U	0.38 U	0.65 U
EPA Region 9 PRG for Ambient Air		0.017	37	73	0.67

Notes:

Shaded results exceed the Region 9 PRG.

cis-1,2-DCE	cis-1,2-Dichloroethene
EPA	Environmental Protection Agency
FB	Field blank
trans-1,2-DCE	trans-1,2-Dichloroethene
PCE	Tetrachloroethene
PRG	Preliminary Remediation Goal
TCE	Trichloroethene
U	Compound not detected at or above the reporting limit
µg/m³	Micrograms per cubic meter

5.0 SUMMARY AND CONCLUSIONS

RA activities were conducted at the Albert City SBA site in Albert City, Iowa, in June 2003. Tetra Tech START collected samples from two municipal wells, the municipal water distribution system (the fire station's kitchen faucet), and one monitoring well (MW-9B) to determine current contaminant concentrations in groundwater. To evaluate the impact of contaminated groundwater on air quality within structures overlying the plume, six indoor air samples were also collected. The indoor air samples were collected from the fire station, and two nearby residences located northwest of the site.

Results of the sampling activities were generally comparable to previous sampling events. VOCs were detected only in groundwater were detected in the water distribution sample collected from the fire station; this sample contained TCE at 7.3 µg/L and cis-1,2-DCE at 0.52 µg/L. The TCE concentration in this sample was above the MCL of 5.0 µg/L.

Air sampling results were also similar to previous investigations, with TCE being detected above its respective Region 9 PRG of 0.017 $\mu g/m^3$ in all of the samples except the field blank. Concentrations of TCE were highest in air samples collected from the fire station.

5.1 REMOVAL CONSIDERATIONS

A removal action completed in 1999 involved the excavation of soil from three 30- by 30-foot cells. In addition, the water line to the fire station was replaced with new piping and gaskets that were more compatible with contaminants in the soil. However, results of the follow-up removal assessment activities described in this report indicate that additional removal activities are warranted.

A sample of municipal drinking water collected from the fire station contained TCE at 7.3 µg/L. This concentration is above the MCL of 5.0 µg/L, and is an indication that contaminants continue to affect the municipal water supply. It is possible that VOCs remaining in the subsurface have already breached the new gaskets, or that contaminants have entered the water distribution system at a new location (not addressed during the previous removal action). VOC concentrations at the tap may be low enough to allow treatment via an in-line carbon unit; otherwise, an alternate water supply (bottled water) or additional soil removal and water line replacement may be required to provide potable water to the fire station. Additional groundwater monitoring may also be necessary to track migration of contaminants in the future.

Reportable levels of TCE, cis-1,2-DCE, and other site-related VOCs were also detected in indoor air samples collected from the fire station and two private residences (201 and 206 Grape Street). Concentrations of TCE in those samples exceeded the EPA Region 9 PRG, but were well below the permissible exposure limit (PEL) established by the Occupational Safety and Health Administration (OSHA) for workplace exposure. Modifications to the existing ventilation systems in these buildings may mitigate any health risks associated with indoor air quality.

5.2 PRE-REMEDIAL CONSIDERATIONS

Data from previous investigations indicate that this site is eligible for inclusion on the National Priorities List. Previous activities, including a PA/SI and ESI, have addressed pre-remedial considerations at the site.

6.0 REFERENCES

Ecology & Environment, Inc. (E&E). 1997. Phase 3 Removal Assessment, Albert City Small Business Association (SBA) Site, Albert City, Iowa, U.S. Environmental Protection Agency (EPA) Region 7 Superfund Technical Assessment and Response Team (START). TDD: S07-9701-044. Overland Park, Kansas. August 29.

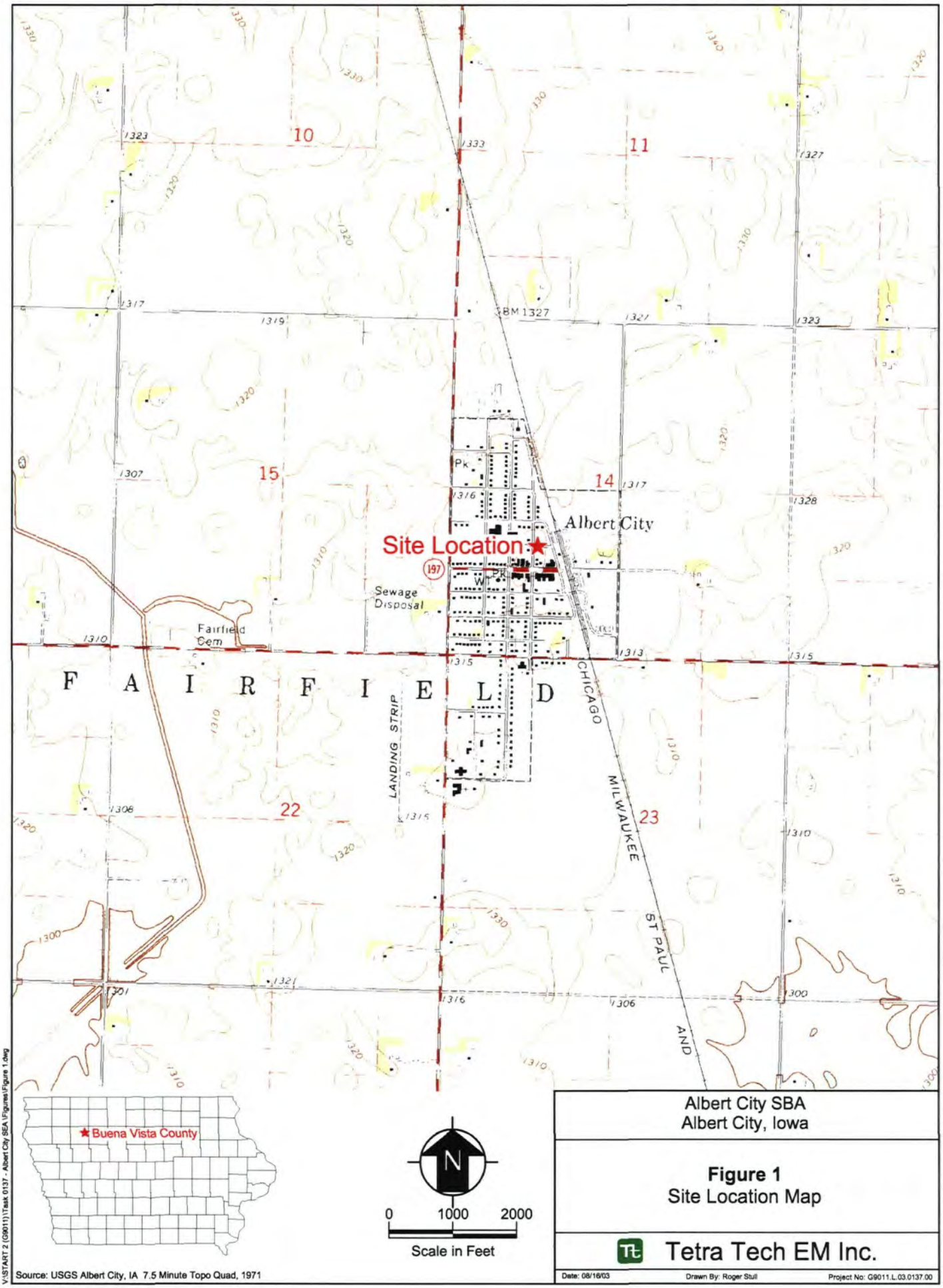
E&E. 2000. Removal Action at the Albert City SBA Site, Albert City, Iowa. EPA Region 7 START. TDD S07-9911-012. Overland Park, Kansas. May 12.

Tetra Tech EM Inc. 2002. Removal Assessment Report, Albert City SBA, Albert City, Iowa. EPA Region 7 START. Task Order No. 0061.

APPENDIX A

FIGURES

(Four Pages)



Source: USGS Albert City, IA 7.5 Minute Topo Quad, 1971

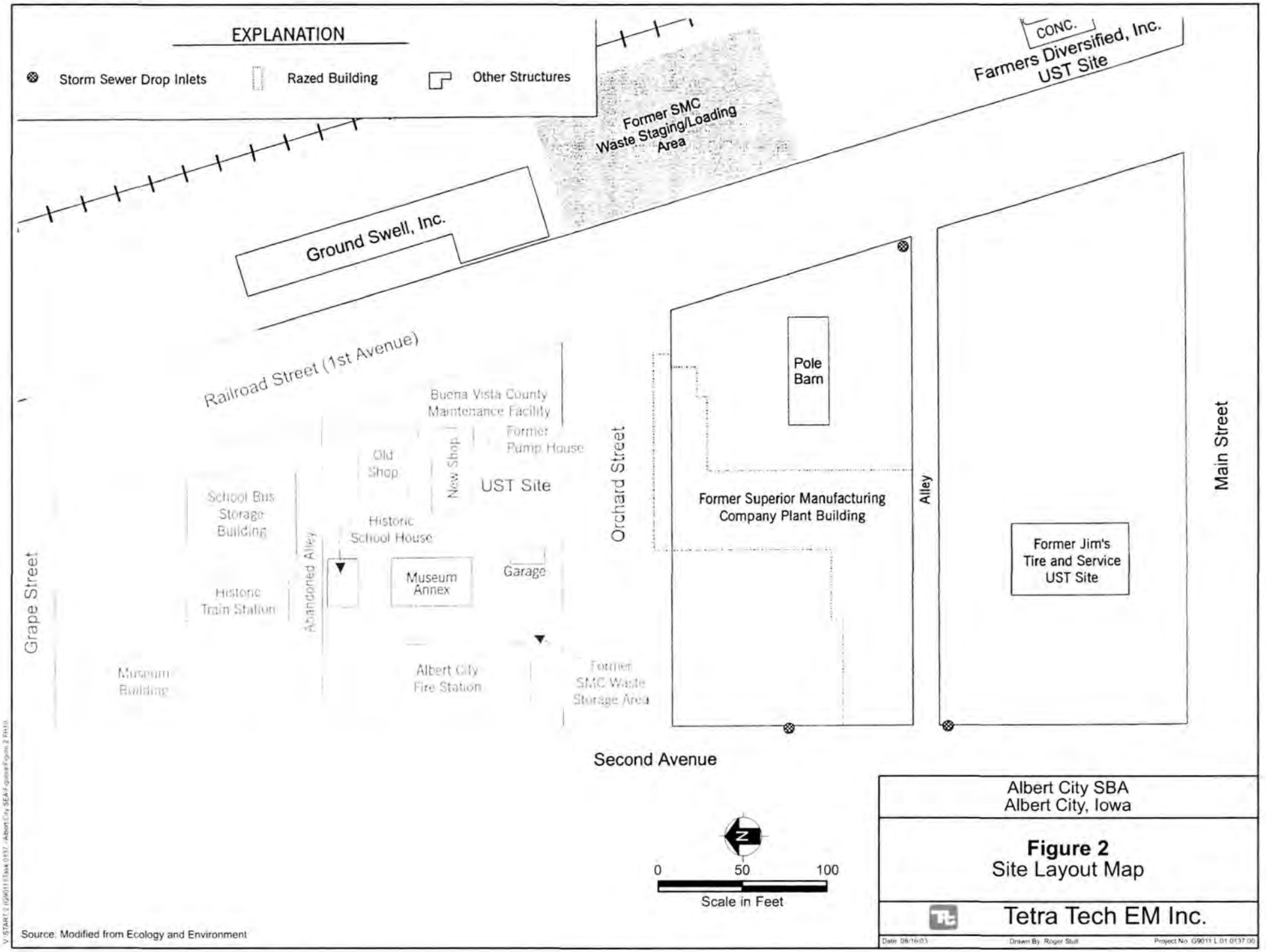
Albert City SBA
Albert City, Iowa

Figure 1
Site Location Map

Tetra Tech EM Inc.

Date: 08/18/03 Drawn By: Roger Stull Project No: G9011.L.03.0137.00

V:\START 2 (G9011)\Task 0137 - Albert City SEA \Figures\Figure 1.dwg



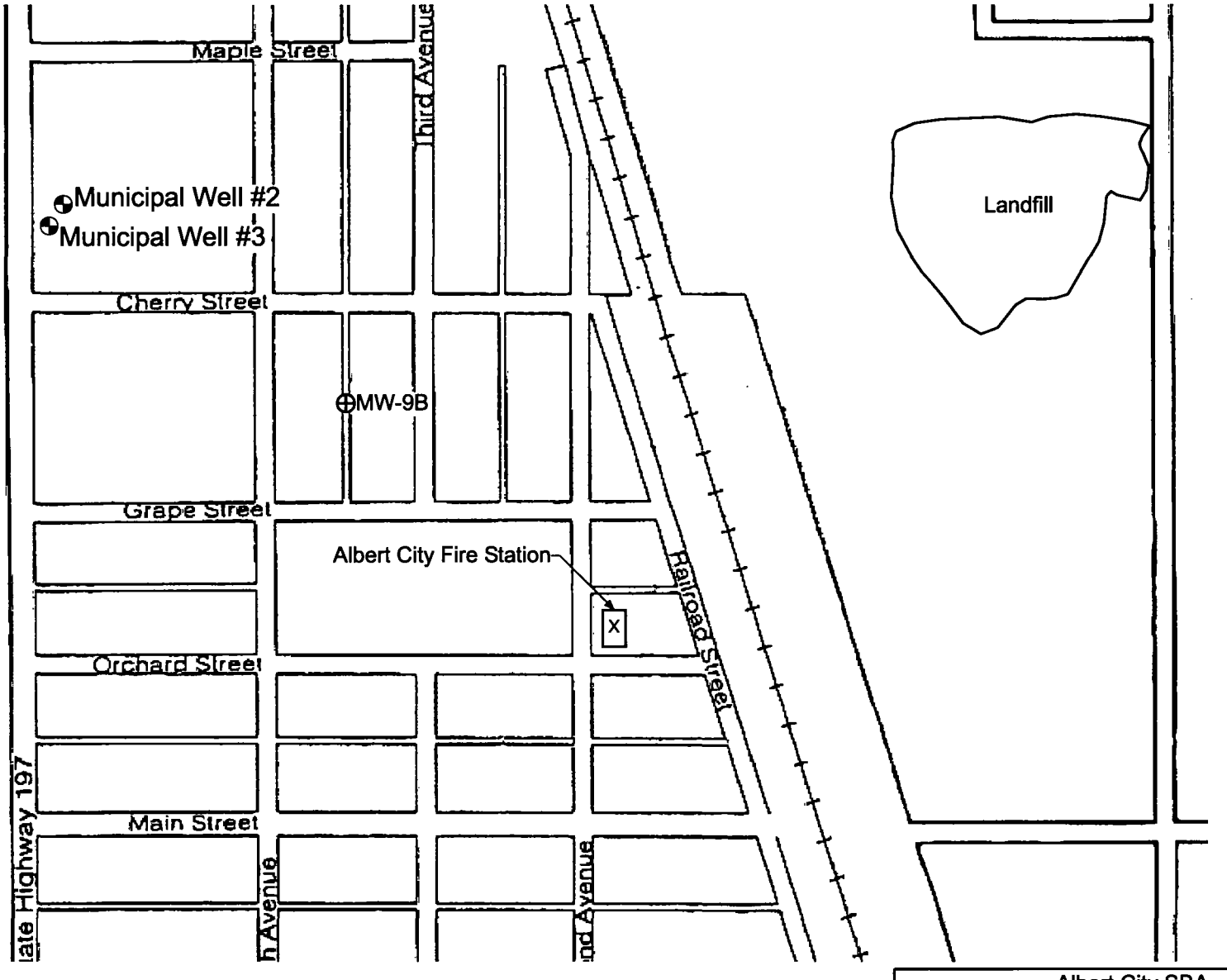
Source: Modified from Ecology and Environment

Albert City SBA
Albert City, Iowa

Figure 2
Site Layout Map

Tetra Tech EM Inc.

Date: 08/16/03 Drawn By: Roger Stull Project No: G9011.L.01.0137.00



Legend

- Municipal well
- Monitoring well
- MW-9B Monitoring well ID
- X Municipal distribution system location

N

0 150 300

Scale in Feet

Source: Modified from Ecology and Environment

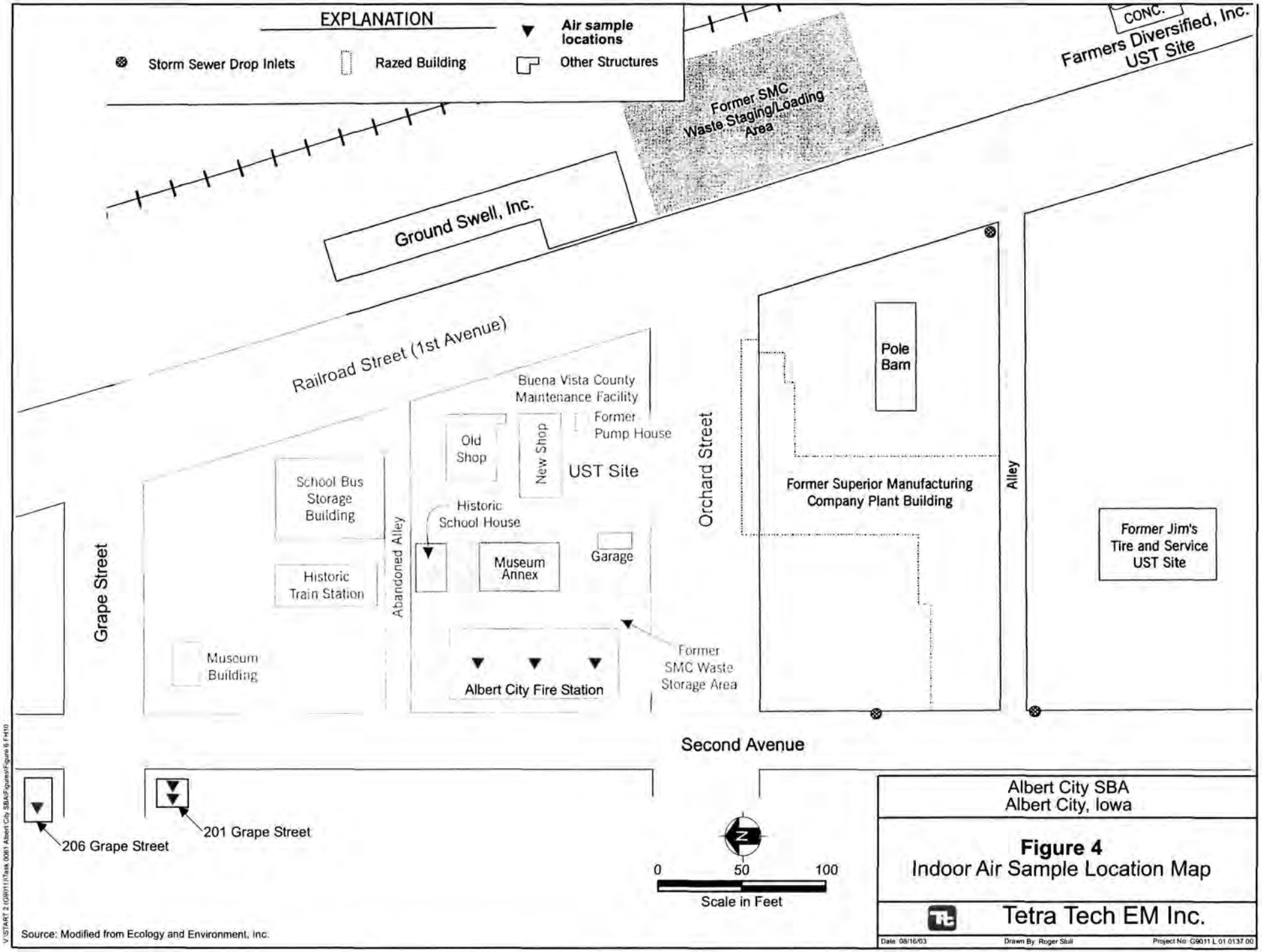
Albert City SBA
Albert City, Iowa

Figure 3
Groundwater Sample Location Map

Tetra Tech EM Inc.

Date: 09/11/03 Drawn By: Roger Stull Project No: G9011.L.03.0137.00

V:\START 2 (G9011)\Task 0137 - Albert City SEA\Figures\Figure 3.FH10

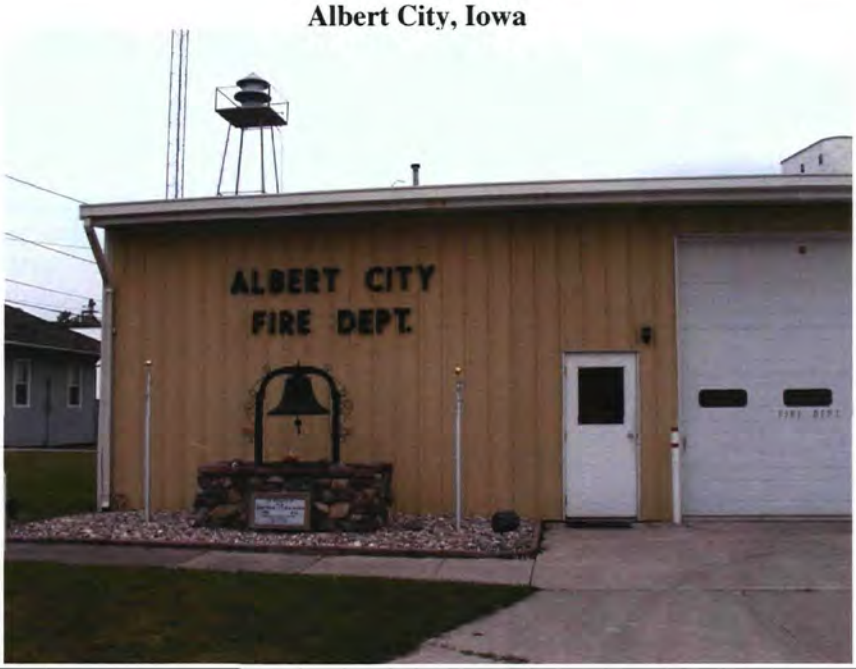

EXPLANATION
Air sample locations
Storm Sewer Drop Inlets
Razed Building
Other Structures
CONC.
Farmers Diversified, Inc.
UST Site
Former SMC
Waste Staging/Loading
Area
Ground Swell, Inc.
Railroad Street (1st Avenue)
Buena Vista County
Maintenance Facility
Former
Pump House
Old
Shop
New Shop
UST Site
School Bus
Storage
Building
Historic
School House
Historic
Train Station
Museum
Annex
Garage
Abandoned Alley
Grape Street
Orchard Street
Pole
Barn
Former Superior Manufacturing
Company Plant Building
Alley
Former Jim's
Tire and Service
UST Site
Museum
Building
Albert City Fire Station
Former
SMC Waste
Storage Area
Second Avenue
206 Grape Street
201 Grape Street
N
0
50
100
Scale in Feet
Source: Modified from Ecology and Environment, Inc.
Albert City SBA
Albert City, Iowa
Figure 4
Indoor Air Sample Location Map
Tetra Tech EM Inc.
Date: 08/16/03
Drawn By: Roger Sbil
Project No: G9011.L.01.0137.00
V:\START 2 (G9011)\Task 0061 Albert City SBA\Figures\Figure 6 F-H10

APPENDIX B

PHOTOGRAPHIC DOCUMENTATION

(Five Pages)

Albert City SBA Site
Albert City, Iowa



TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of entrance to Albert City Fire Station.	1
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: East	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

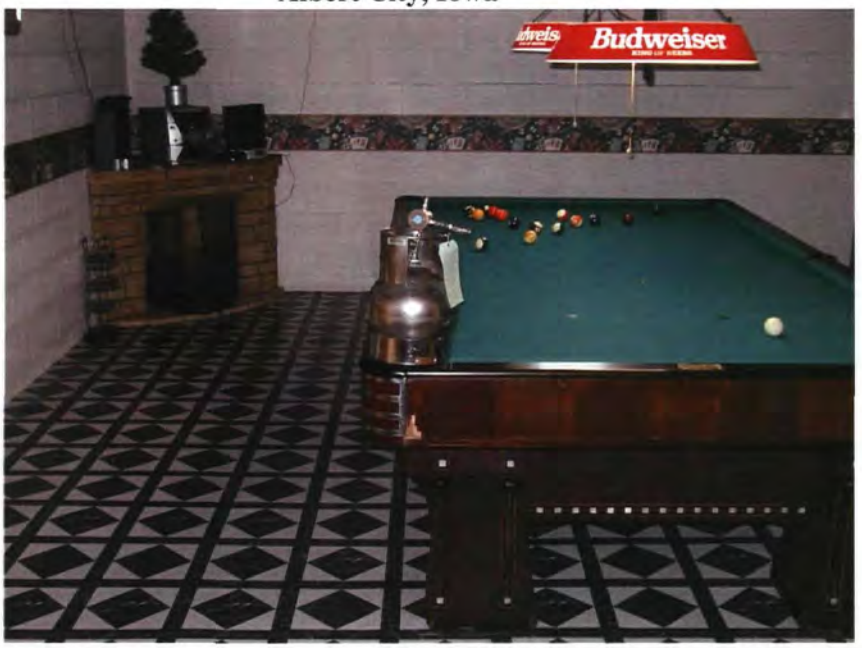
TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of low-flow purging at MW-9B.	2
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: East	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

Albert City SBA Site
Albert City, Iowa

TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of low-flow purging at MW-9B.	3
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: North	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of START member recording water quality data at MW-9B.	4
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: NA	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

Albert City SBA Site
Albert City, Iowa



TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of Summa air canister located in the basement of 206 Grape Street.	5
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: East	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

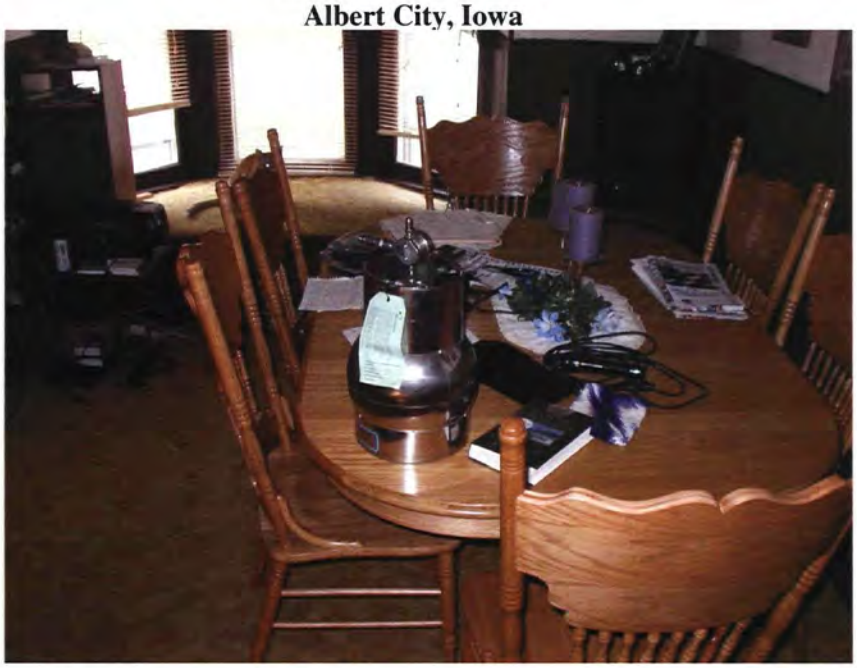
TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of Summa air canister located in the kitchen of the Albert City Fire Station.	6
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: West	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

Albert City SBA Site
Albert City, Iowa

TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of Summa air canister located in the bathroom of the Albert City Fire Station.	7
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: North	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of Summa air canister located in the southeast corner of the Albert City Fire Station's garage.	8
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: East	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

Albert City SBA Site
Albert City, Iowa



TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of Summa air canister located in the living room at 201 Grape Street.	9
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: East	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

TETRA TECH PROJECT NO. G9011.03.0137.00	DESCRIPTION	Photograph of Summa air canister located in the basement at 201 Grape Street.	10
	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: North	PHOTOGRAPHER	Jeff Pritchard	6/03/2003

APPENDIX C

CHAIN OF CUSTODY RECORDS, FIELD SHEETS, AND ANALYTICAL RESULTS

(23 Pages)

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

Date: 07/07/2003

Subject: Transmittal of Sample Analysis Results for ASR #: 2054

Project ID: RS07WC

Project Description: Albert City SBA sampling

From: Dale I. Bates, Director
Regional Laboratory, Environmental Services Division

To: Randy Schademann
SUPR/ER&R

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition memo for this ASR.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Randy Schademann **Org:** SUPR/ER&R **Phone:** 913-551-7331
Project ID: RS07WC
Project Desc: Albert City SBA sampling
Location: Albert City **State:** Iowa **Program:** Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07WC **Site OU:** 00
Purpose: Site Characterization

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FB = Field Blank

Units: Specific units in which results are reported.

ug/L = Micrograms per Liter
ug/m3 = Micrograms per Cubic Meter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
R = The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.
U = The analyte was not detected at or above the reporting limit.

ASR Number: 2054 **Sample Information Summary** **07/03/2003**

Project ID: RS07WC **Project Desc:** Albert City SBA sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1	- __	Air	Basement air canister sample - 206 Grape Street (canister #009)		06/03/2003	07:53	06/03/2003	16:00	06/05/2003
2	- __	Air	Break Room - Firestation air canister sample (canister #277)		06/03/2003	08:15	06/03/2003	16:15	06/05/2003
3	- __	Air	Bathroom - Firestation air canister sample (canister #412)		06/03/2003	08:16	06/03/2003	16:16	06/05/2003
4	- __	Air	Garage (SE corner) - Firestation air canister sample (canister #287)		06/03/2003	08:17	06/03/2003	16:17	06/05/2003
5	- __	Air	Basement - 201 Grape Street air canister sample (canister #021)		06/03/2003	10:02	06/03/2003	17:18	06/05/2003
6	- __	Air	Family room - 201 Grape Street air canister sample (canister #035)		06/03/2003	10:05	06/03/2003	17:17	06/05/2003
7	- FB	Air	Air canister Blank sample		06/03/2003	16:25			06/05/2003
101	- __	Water	City water pump/Municipal Well #2		06/03/2003	08:40	06/03/2003	08:40	06/05/2003
102	- __	Water	Municipal Well #3		06/03/2003	08:52	06/03/2003	08:52	06/05/2003
103	- __	Water	MW-9B		06/03/2003	10:45			06/05/2003
104	- __	Water	Kitchen sink - Firestation water sample		06/03/2003	11:06			06/05/2003
105	- FB	Water	LDL VOA Trip Blank sample		06/03/2003	11:20			06/05/2003

Analysis	Comments About Results For This Analysis

1 VOCs in Air at Ambient Levels by GC/MS

Lab: RECAP Contract Lab (Out-Source)

Method: Similar to EPA Region 7 RLAB Method 3230.4D (see comments)

Samples: 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-FB

Comments:

1 VOCs in Water by GC/MS for Low Detection Limits

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 101-__ 102-__ 103-__ 104-__ 105-FB

Comments:
Methyl acetate in samples -101, -102, -103, -104, and -105FB was invalidated due to unacceptably low relative response factors (RRFs).

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 VOCs in Air at Ambient Levels by GC/MS					
cis-1,2-Dichloroethene	ug/m3	0.038 U	19	24	25
trans-1,2-Dichloroethene	ug/m3	0.038 U	0.89	0.93	1
Methylene Chloride	ug/m3	53	23	4.2	3.2
Tetrachloroethene	ug/m3	0.069	0.44	0.49	0.37
Trichloroethene	ug/m3	1.4	200	200	200
Vinyl Chloride	ug/m3	0.024 U	0.025 U	0.023 U	0.023 U

Analysis/ Analyte	Units	5-__	6-__	7-FB	101-__
1 VOCs in Air at Ambient Levels by GC/MS					
cis-1,2-Dichloroethene	ug/m3	0.1	0.044 U	0.38 U	
trans-1,2-Dichloroethene	ug/m3	0.26	0.044 U	0.38 U	
Methylene Chloride	ug/m3	1.5	0.64	0.95 U	
Tetrachloroethene	ug/m3	0.068 U	0.076 U	0.65 U	
Trichloroethene	ug/m3	0.6	0.29	0.5 U	
Vinyl Chloride	ug/m3	0.025 U	0.029 U	0.24 U	
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L				5.0 U
Benzene	ug/L				0.50 U
Bromochloromethane	ug/L				0.50 U
Bromodichloromethane	ug/L				0.50 U
Bromoform	ug/L				0.50 U
Bromomethane	ug/L				0.50 U
2-Butanone	ug/L				5.0 U
Carbon Disulfide	ug/L				0.50 U
Carbon Tetrachloride	ug/L				0.50 U
Chlorobenzene	ug/L				0.50 U
Chloroethane	ug/L				0.50 U
Chloroform	ug/L				0.50 U
Chloromethane	ug/L				0.50 U
Cyclohexane	ug/L				0.50 U
1,2-Dibromo-3-Chloropropane	ug/L				0.50 U
Dibromochloromethane	ug/L				0.50 U
1,2-Dibromoethane	ug/L				0.50 U
1,2-Dichlorobenzene	ug/L				0.50 U
1,3-Dichlorobenzene	ug/L				0.50 U
1,4-Dichlorobenzene	ug/L				0.50 U
Dichlorodifluoromethane	ug/L				0.50 U
1,1-Dichloroethane	ug/L				0.50 U
1,2-Dichloroethane	ug/L				0.50 U
1,1-Dichloroethene	ug/L				0.50 U
cis-1,2-Dichloroethene	ug/L				0.50 U
trans-1,2-Dichloroethene	ug/L				0.50 U
1,2-Dichloropropane	ug/L				0.50 U
cis-1,3-Dichloropropene	ug/L				0.50 U
trans-1,3-Dichloropropene	ug/L				0.50 U
Ethyl Benzene	ug/L				0.50 U
2-Hexanone	ug/L				5.0 U
Isopropylbenzene	ug/L				0.50 U
Methyl Acetate	ug/L				N/A R
Methyl tert-butyl ether	ug/L				0.50 U
Methylcyclohexane	ug/L				0.50 U
Methylene Chloride	ug/L				0.50 U
4-Methyl-2-Pentanone	ug/L				5.0 U
Styrene	ug/L				0.50 U

Analysis/ Analyte	Units	5-__	6-__	7-FB	101-__
1,1,2,2-Tetrachloroethane	ug/L				0.50 U
Tetrachloroethene	ug/L				0.50 U
Toluene	ug/L				0.50 U
1,2,3-Trichlorobenzene	ug/L				0.50 U
1,2,4-Trichlorobenzene	ug/L				0.50 U
1,1,1-Trichloroethane	ug/L				0.50 U
1,1,2-Trichloroethane	ug/L				0.50 U
Trichloroethene	ug/L				0.50 U
Trichlorofluoromethane	ug/L				0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L				0.50 U
Vinyl Chloride	ug/L				0.50 U
total Xylene	ug/L				0.50 U

Analysis/ Analyte	Units	102-__	103-__	104-__	105-FB
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromomethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Carbon Tetrachloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	ug/L	0.50 U	0.50 U	1.9	0.50 U
Chloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Dibromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromoethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.52	0.50 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Ethyl Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Acetate	ug/L	N/A R	N/A R	N/A R	N/A R
Methyl tert-butyl ether	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U

Analysis/ Analyte	Units	102-__	103-__	104-__	105-FB
Trichloroethene	ug/L	0.50 U	0.50 U	7.3	0.50 U
Trichlorofluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl Chloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
total Xylene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U

ASR # 2054
Ict # RS07WC

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Randy Schadesmann	Albert City SBA	03 / 06 / 03	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VOA SET (4 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER				4						
2054-101					1	X					LDL VOAs
-102					1	X					" "
-103					1	X					" "
-104					1	X					" "
-105-FB					1	X					" "

Waters Complete 6-5-03

Clr. Temp. Iced Int. 3-5°C

DESCRIPTION OF SHIPMENT

_____ PIECE(S) CONSISTING OF _____ BOX(ES)

_____ ICE CHEST(S); OTHER _____

MODE OF SHIPMENT

_____ COMMERCIAL CARRIER: _____

_____ COURIER

X SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] ☐ SEALED ☐ UNSEALED ☑	6-5-03		Micah Robb ☐ SEALED ☐ UNSEALED ☑	Analy
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

ISR # 2054
Activity # RS07WC

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Randy Schademan	Albert City SBA	03 / 06 / 03	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	1-6L Summa BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other: Air	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
2054-1		1								X	VOC in Air at Ambient Le
-2		1								X	"
-3		1								X	"
-4		1								X	"
-5		1								X	"
-6		1								X	"
-7-FB		1								X	"

Air samples Complete
6-5-03

No temp. Required

DESCRIPTION OF SHIPMENT

_____ PIECE(S) CONSISTING OF _____ BOX(ES)

_____ ICE CHEST(S); OTHER _____

MODE OF SHIPMENT

_____ COMMERCIAL CARRIER: _____

_____ COURIER

X SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] SEALED / UNSEALED X	6-5-03	1020	Micah Robb SEALED / UNSEALED X	[signature]
RELINQUISHED BY SEALED / UNSEALED	DATE	TIME	RECEIVED BY SEALED / UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY SEALED / UNSEALED	DATE	TIME	RECEIVED BY SEALED / UNSEALED	REASON FOR CHANGE OF CUSTODY

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 1 **QC Code:** __ **Matrix:** Air **Tag ID:** 2054-1-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07WC **Site OU:** 00

Location Desc: Basement - 206 Grape St.

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/3/03 7:55
Longitude: ___ ___ ___ **End:** 6/3/03 16:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:
(N/A)

Kelly Archer (1 adult, 2 child)
206 Grape St.
Albert City, IA 50510

Canister # 009

Time 755

Beg Pressure 28"
End Pressure 10"

Sample Collected By: Pritchard / Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 2 **QC Code:** __ **Matrix:** Air **Tag ID:** 2054-2-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07WC **Site OU:** 00

Location Desc: Fire Station Break Room

External Sample Number: _____

		Date	Time(24 hr)
Expected Conc:	(or Circle One: Low Medium High)		
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/3/03	8:15
Longitude: ___ ___ ___	**End:**	6/3/03	16:15

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Canister # 277
Time 8:15

Beg Pressure 28
End Pressure 10

Albert City Fire Station
Albert City, IA 50510
Attn: Jay Erlenson

Sample Collected By: Pritchard / Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 3 **QC Code:** __ **Matrix:** Air **Tag ID:** 2054-3-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07W C **Site OU:** 00

Location Desc: Fire Station Bathroom

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/3/03 8:16
Longitude: ___ ___ ___ **End:** 6/3/03 16:16

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Canister # 412

Time 8:16

Albert City Fire Station
Albert City, IA 50510

Beg Pressure 28

End Pressure 7

Sample Collected By: Pritchard / Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 4 **QC Code:** __ **Matrix:** Air **Tag ID:** 2054-4-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07WC **Site OU:** 00

Location Desc: Fire Station Garage SE corner

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/3/03	8:17
Longitude: ___ ___ ___	**End:**	6/3/03	1628 ET :17

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Canister 287
Time 8:17
Beg Pressure 28
End Pressure 6°

Albert City Fire Station
Albert City, IA 50510

Sample Collected By: Pritchard / Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 5 **QC Code:** __ **Matrix:** Air **Tag ID:** 2054-5-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07WC **Site OU:** 00

Location Desc: Basement - 201 Grape St.

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/2/03	10:02
Longitude: ___ ___ ___	**End:**	6/3/03	17:18

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Canister 021
Initial 28 psi
End 8 psi

Jones (2 adults)
201 Grape St.
Albert City, IA 5051

Sample Collected By: Pritchard / Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 6 **QC Code:** __ **Matrix:** Air **Tag ID:** 2054-6-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07W C **Site OU:** 00

Location Desc: Family Room - 201 Grape St.

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/3/03	10:05
Longitude: ___ ___ ___	**End:**	6/3/03	17:17

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

29 inthal psi 10 end psi
Canister #035

James
201 Grape St.
Albert City, IA 50

Sample Collected By: Pritchard / Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 7 **QC Code:** FB **Matrix:** Air **Tag ID:** 2054-7-FB

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07WC **Site OU:** 00

Location Desc: Air canister Field Blank sample

External Sample Number: _____

Expected Conc: (or Circle One: (Low) Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/3/03	~~15:25~~ EP
Longitude: ___ ___ ___	**End:**	__/__/__	16:25 __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)
Canister # 422

* EP JP

Trip Blank

Sample Collected By: Pritchard / Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 101 **QC Code:** __ **Matrix:** Water **Tag ID:** 2054-101-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07W C **Site OU:** 00

Location Desc: City Water Pump Municipal Well #2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/3/03	8:40
Longitude: ___ ___ ___	**End:**	6/3/03	8:40

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A) start 8:30

8:32 pH - 6.40
Cond - 1.48 ms/cm
Temp - 11.8
Turb - 0

8:35 pH - 6.86
Cond. 1.40 ms/cm
Temp - 10.8
Turb - 0

8:38 pH. 7.01
Cond - 1.39 ms/cm
Temp - 10.6
Turb - 0

Property Owner
City of Albert City
Attn. Jay Erlandson
Albert City, IA 50510

Sample Collected By: Pritchard | Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 102 **QC Code:** __ **Matrix:** Water **Tag ID:** 2054-102-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07W C **Site OU:** 00

Location Desc: Municipal Well #3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/3/03	8:52
Longitude: ___ ___ ___	**End:**	6/3/03	8:52

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A) Start 8:42

8:45 pH - 7.02
cond - 1.41 ms/cm
turb - 0
temp - 10.6

8:48 pH - 6.92
cond - 1.42 ms/cm
turb - 0
temp - 10.4

8:51 pH - 6.91
cond - 1.41 ms/cm
turb - 0
temp - 10.4

City of Albert City,
Attn. Jay Erlandson
Albert City, IA 50510

Sample Collected By: Pritchard/Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 103 **QC Code:** __ **Matrix:** Water **Tag ID:** 2054-103-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07W C **Site OU:** 00

Location Desc: MW-9B

External Sample Number: _____

Expected Conc: (or Circle One) Low Medium High

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/3/03	10:45
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:
(N/A) Start 10:25 Water level 40.3 ft.

10:25
pH - 7.03
cond - 1.21 ms/cm
turb - 0
temp - 11.6

10:30
pH - 7.00
cond - 1.23 ms/cm
turb - 3
temp - 12.1

10:35
pH - 7.05
cond - 1.26 ms/cm
turb - 2
temp - 12.4

10:40
pH - 7.10
cond - 1.26 ms/cm
turb - 1
temp - 12.5

10:45
pH - 7.09
cond - 1.28 ms/cm
turb - 1
temp - 12.3

* Low flow sample method

City of Albert City
Attn: Jay Erlandson
Albert City, IA 50510

Sample Collected By: Pritchard/Johnson

* GW smelled like sulfur

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 104 **QC Code:** __ **Matrix:** Water **Tag ID:** 2054-104-__

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07W C **Site OU:** 00

Location Desc: Fire Station kitchen sink

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/3/03 11:06

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2 + Sodium Thiosulfate	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A) Start 11:05

pH - 7.35
cond - 1.41 MS/cm
turb - 0
temp - 16.8

* chlorinated sample - added Sodium Thiosulfate

Albert City Fire Station
Attn. Jay Erlenbusch
A-C- IA 50510

Sample Collected By: Pritchard / Johnson

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 2054 **Sample Number:** 105 **QC Code:** FB **Matrix:** Water **Tag ID:** 2054-105-FB

Project ID: RS07WC **Project Manager:** Randy Schademann
Project Desc: Albert City SBA sampling
City: Albert City **State:** Iowa
Program: Superfund
Site Name: ALBERT CITY SBA - LOTS - Site Evaluation/Disposition **Site ID:** 07WC **Site OU:** 00

Location Desc: LDL VOA Trip Blank sample

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/3/03 11:20
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A)

EPA Trip Blank

Sample Collected By: Pritchard / Johnson