

**BROWNFIELD SITE SPECIFIC
ASSESSMENT (SSA)**

**CON 12-15
Doc #19939**

**QUALITY ASSURANCE PROJECT
PLAN ADDENDUM**

FOR THE PHASE II SITE INSPECTION

**ALLIED EQUIPMENT, INC.
12TH Ave. & N. GRAND AVE.
CHARLES CITY, FLOYD COUNTY, IOWA**

September 8, 2008



**Prepared by:
Hylton Jackson
Iowa Department of Natural Resources
Contaminated Sites Section**

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**SITE SPECIFIC BROWNFIELD ASSESSMENT
QUALITY ASSURANCE PROJECT
PLAN ADDENDUM APPROVAL**

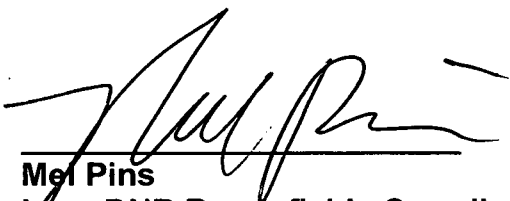
**FOR THE
PHASE II SITE ASSESSMENT**

AT

**ALLIED EQUIPMENT, INC.
CHARLES CITY, IOWA**


Hylton Jackson
Iowa DNR Project Manager

9/11/08
Date


Mel Pins
Iowa DNR Brownfields Coordinator

9-15-08
Date


Cal Lundberg
Iowa DNR Contaminated Sites Section Supervisor

9/15/08
Date


Brian Tormey
Energy and Waste Management Bureau Chief

9/16/08
Date

1. PROJECT MANAGEMENT

1.1 Distribution List

Project Manager: Hylton Jackson
Field Personnel: Bob Drustrup, Dan Cook, Matt Culp, Greg Fuhrman,
Tami Rice
Iowa DNR Brownfields Coordinator: Mel Pins
Contaminated Sites Section Supervisor: Cal Lundberg
Energy and Waste Management Bureau Chief Brian Tormey

1.2 Project /Task Organization

IDNR Project Manager:
Hylton Jackson

IDNR Field Personnel:
Tami Rice
Greg Fuhrman

IDNR QA Officer:
Brian Tormey

2. PROBLEM DEFINITION/BACKGROUND

This is a site-specific addendum for the *IDNR Quality Management Plan, QMP-02, March 14, 2006*. This addendum describes the specific sampling activities for the site described below.

2.1 Site Location and Size:

The subject property is located east of the central business district of Charles City, Iowa, at 12th Ave & N. Grand Ave. The site covers approximately 0.86 acres. The lot lies within the NE ¼ of Section 9, Township 96 North, Range 20 West, Floyd County, Iowa. (See Appendix A, Figure 1.)

The legal description of the subject property is:
Lanes LT 2, LT 12 & LTS 8-9 & E10.5' LT 7 SD LT 12, Block 139
Charles City, Floyd County, Iowa

2.2: Site Description

The rectangular 0.86 acre site is bounded on the north by Lawler Street (abandoned) followed by a parking lot; to the east by a parking lot; to the south by Farmers Feed and Grain; and to the west by a business complex. Historically, tractor and engine manufacturing facilities bordered the site to the west and north. The site is now vacant and covered with grass and trees.

2.3 Operational History and Waste Characteristics

The historic uses of the subject property and that of the surrounding area are reasonably well established. The site was historically used as a coal-fired power plant with a transformer yard. Sanborn Fire Maps list the property as a power plant from 1909 through at least 1947.

A limited environmental assessment was performed by Turkle-Clark Environmental on the site in July of 1996. This was apparently after all structures had been removed from the site. Seven soil samples were collected and analyzed for total extractable hydrocarbons (TEH), polychlorinated biphenyls (PCB), and RCRA metals. A site map showing soil sample locations, drawn on a 1924 Sanborn Map, was included along with lab results and a two-page summary. PCB was the only contaminant detected on-site (in one soil sample) that even marginally exceeded its applicable Statewide Standard. The results of the soil sample laboratory analysis are presented in the table below. One groundwater sample was collected from "the existing well". The groundwater sample was analyzed for benzene, toluene, ethylbenzene and xylene (BTEX, PCBs, and RCRA metals. Barium was the only contaminant detected in groundwater at a concentration above the laboratory detection limit. The barium concentration in the single groundwater sample was 0.048 mg/L, well below the Statewide Standard for Protected Groundwater of 2 mg/L. The location of the well can not be determined from the 1996 assessment.

Soil contaminants detected above laboratory detection limits
Exceedances of Statewide Standard in **Bold**

Contaminant (mg/kg)	Sample Location							Statewide Standard (mg/kg)
	# 1	# 2	# 3	# 4	# 5	# 6	# 7	
TEH	28	80	50	2,950	15	50	37	NA
PCB	ND	ND	ND	2.43	ND	ND	ND	2.2
Arsenic	5.4	6.5	7.3	30	5.9	6.7	5.7	17
Barium	110	102	152	121	156	99	122	15,000
Chromium	7.8	7.9	9.6	52	9.4	6.6	9.1	210 (Cr VI)
Lead	35	58	162	108	7.9	93	68	400
Mercury	ND	ND	ND	1.3	ND	ND	ND	23

2.4 Project/Task Description

Phase of Work: SSA Brownfield

The objective of this site investigation is to determine if contaminants of concern are or have the potential to impact human health or the environment and to determine if further environmental action is required.

Assessment/Oversight

All assessment and oversight activities are in accordance with IDNR Quality Management Plan, QMP-02, March 14, 2006

Schedule:

Iowa One-Call will be contacted by September 24, 2008. The site will have the utility locates completed by September 29, 2008. Field activities are scheduled for September 29 and 30, 2008. Soil and groundwater samples will be collected on both dates. Field activities will be performed in Level D personal protective equipment that will consist of steel-toed boots, safety glasses, hearing protection and a hard hat if needed. IDNR staff will exit the site if Level C personal protective equipment or higher is required.

Quality Objectives and Criteria for Measurement Data

Per IDNR Quality Management Plan, QMP-02, March 14, 2006

:

Special Training

All DNR personnel have received the OSHA 40-hour HAZWOPER training and are current with the 8-hour refresher requirement. All DNR personnel are qualified to operate the Department's Geoprobe® per the Department's SOP.

Documentation and Records

Per IDNR Quality Management Plan, QMP-02, March 14, 2006

3. MEASUREMENT AND DATA ACQUISITION

3.1 Sampling Process Design

Because this is an ASTM Phase II investigation only the presence of soil/groundwater contamination will be determined. An investigation of the extent of contamination will not be conducted.

Shallow soil (6" – 1 foot bgs) samples will be collected from a total of 7 locations. Four soil samples will be collected from 2 to 4 feet bgs. (See Appendix A, Figure 2 for the proposed soil sample locations).

All soil samples will be collected and prepared in a manner consistent with ASTM D4700-91(1998)e1, *Standard Guide for Soil Sampling from the Vadose Zone*, and ASTM D4220-95(2000), *Standard Practices for Preserving and Transporting Soil Samples*. Eleven soil samples will be selected and analyzed for OA-2, PCBs, VOCs, and SVOCs.

Groundwater samples will be collected from four locations. (See Appendix A Figure 2 for the proposed groundwater sample locations.)

All groundwater samples will be collected in a manner utilizing the procedures in ASTM D6001-96e1, *Standard Guide for Direct-Push Water Sampling for Geo-Environmental Investigations*, for the direct push groundwater sampling and ASTM D4448-85a (1992), *Standard Guide for Sampling Groundwater Monitoring Wells*, for existing monitoring wells. All groundwater collecting equipment will be decontaminated after sample collection is complete in accordance with Quality Assurance Project Plan for Iowa Department of Natural Resources Land Quality Bureau Contaminated Sites Section.

Groundwater samples will be analyzed for OA-2, PCBs, VOCs, SVOCs, and RCRA Metals along with a rinsate/equipment blank, and the trip blank. All groundwater samples will be checked for pH and conductivity.

One duplicate groundwater sample will be collected.

3.2 Sample Handling and Custody Requirements

Analytical Methods

All analysis for metals in soil will be analyzed with the Department's NITON® X-Ray Fluorescence Analyzer (XRF) using EPA Method 6200, *Field Portable X-Ray Fluorescence Spectrometry*. Eleven soil samples will be selected and sent to UHL for OA-2, PCB, VOC, and SVOC, analysis.

Four groundwater samples will be sent to UHL for OA-2, PCB, VOC, SVOC, and RCRA Metals analysis along with a rinsate/equipment blank, and the trip blank. All groundwater samples will be checked for pH and conductivity.

Sample containers, preservation, and holding times will be as listed in the *UHL Guidebook*, which describes the required sample submission information for UHL. Each sample will have a label attached to the sample container and a corresponding Sample Collection Field Sheet. Labels will be supplied by UHL with a UHL identification number. The facility, location, or sample identification will be site-specific and descriptive of where the sample was taken. Date, time, and collector's name will also be written on the sample label. All sample labels will be completed in waterproof ink.

Samples will be stored in a cooler at or below 4°Celsius and maintained in the custody of the collector until submitted directly to UHL in Des Moines. Chain-of-Custody (COC) forms will be used to document samples collected and submitted for laboratory analyses. Upon receipt of the samples, laboratory personnel will sign and retain the first two copies of the COC form and the IDNR Project Manager will receive the third (bottom) copy.

Quality Control Requirements

Per IDNR Quality Management Plan, QMP-02, March 14, 2006

Instrument/Equipment Testing, Inspection, and Maintenance Requirements
Per IDNR Quality Management Plan, QMP-02, March 14, 2006 and IDNR
Contaminated Sites equipment SOPs.

Inspection/Acceptance Requirements for Supplies and Consumables
Per IDNR Quality Management Plan, QMP-02, March 14, 2006

Data Acquisition Requirements
Per IDNR Quality Management Plan, QMP-02, March 14, 2006
Data Management. Sample data for this specific project will be produced
internally from IDNR Contaminated Sites analytical equipment and at UHL.

Data Validation and Usability
All data validation will be in accordance with IDNR Quality Management Plan,
QMP-02, March 14, 2006

APPENDIX A

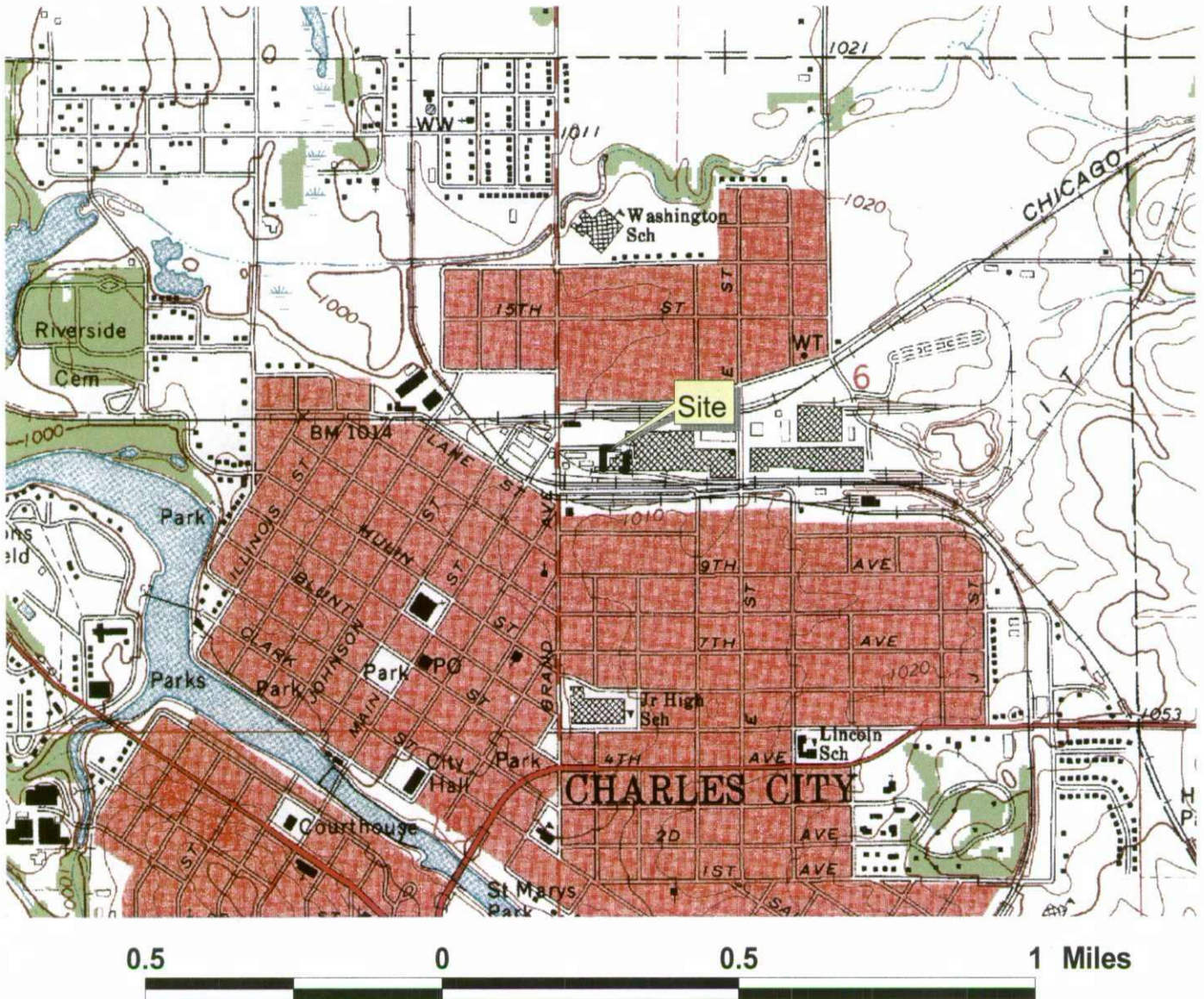
FIGURES

Figure 1 Site Location
Figure 2 Sample Locations

ALLIED EQUIPMENT SSA

Allied Equipment, Charles City

Figure 1

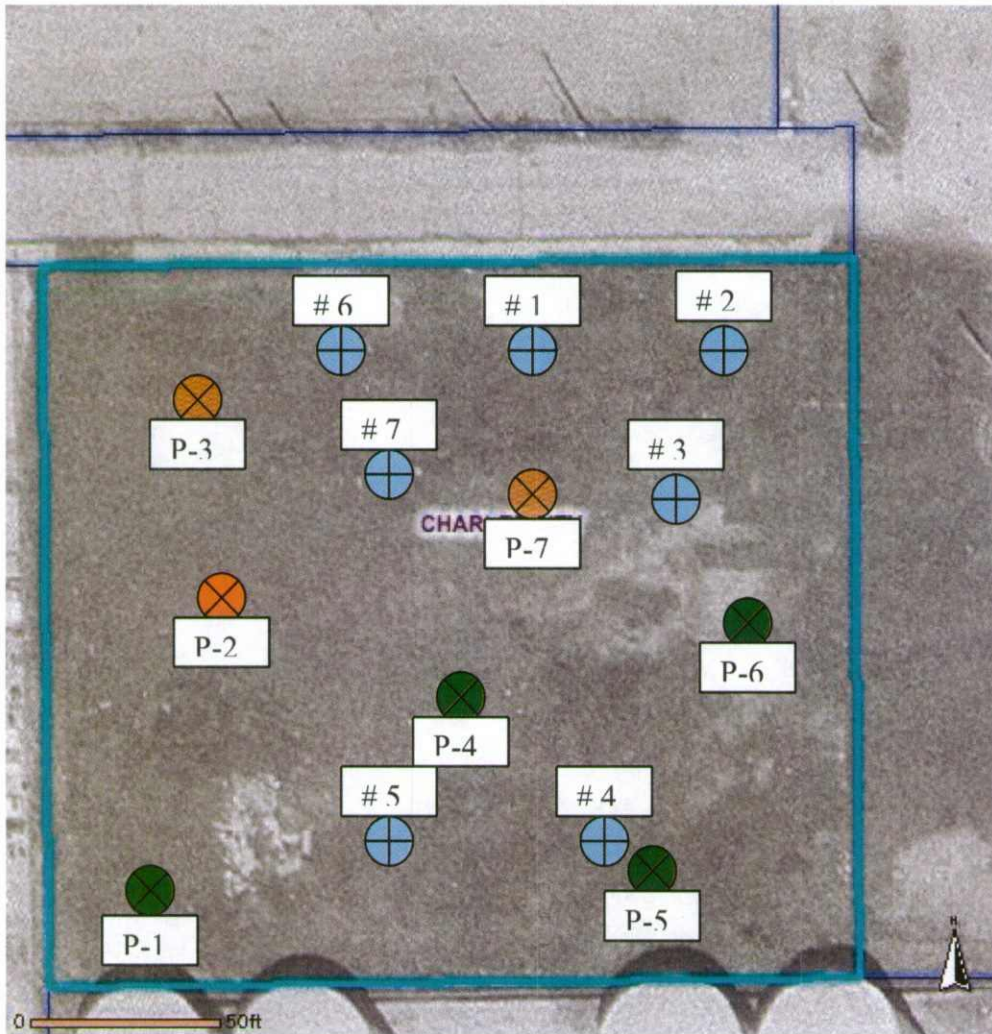


Site is located northeast of downtown Charles City.
East of North Grand Avenue and north of
12th Avenue



Allied Equipment, Charles City

Figure 2



1 - #7: 1996 Soil Sample Locations



P-2, P-3, & P-7: Proposed Soil Sample Locations



P-1, P-4, P-5, & P-6: Proposed Soil and Groundwater Sample Locations

APPENDIX B

HEALTH AND SAFETY PLAN

ALLIED EQUIPMENT SSA

Health and Safety Plan
Allied Equipment, Inc., Charles City

Operation of Field Equipment

Operation of all equipment (GeoProbe™) during fieldwork will follow safety recommendations described by the manufacturer and as referenced in the Department's Quality Management Plan.

Personal Protection

All IDNR staff participating in fieldwork will have Level D Personal Protection to include safety glasses, hearing protection, hardhat, long-sleeve shirt, long pants and safety shoes. IDNR personnel will evacuate the area if any condition is encountered that would require a higher level of personal protection.

Route to Nearest Hospital

The hospital nearest to the allied Equipment site in Charles City, Iowa is the **Floyd County Memorial Hospital** located at 800 11th St., Charles City, IA.

From the Allied Equipment site on 12th Avenue, turn left on North Grand Avenue, proceed 0.8 miles.

Turn right onto US-18/2nd Street., proceed 0.3 miles.

Turn left onto US-18/South Main Street, proceed 0.8 miles.

End at 800 11th Street, Charles City.

(See attached map)

First Aid

All Field Staff are familiar with the location and contents of the first aid kit on-board the GeoProbe™ vehicle, the route to the hospital, and have had the 40-hour HAZWOPER training w/ the 8-hour refresher training.

Daily Safety Meetings

All Field Staff will participate in daily "Tail Gate" safety meetings to review safety issues on site and each member will sign the safety log.



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