**Analysis of Brownfields Cleanup Alternatives** 

Axles & Gears Facility 4808 South 26<sup>th</sup> Street Omaha, Nebraska

**Prepared For:** 

Metropolitan Area Planning Agency (MAPA) 2222 Cuming Street Omaha, Nebraska 68102

**Prepared By:** 

Alfred Benesch & Company 14748 West Center Road, Ste. 200 Omaha, Nebraska 68144

March 2015

US Environmental Protection Agency Brownfields Assessment Grant Cooperative Agreement Nos. BF 97727801 and BF 97727901





# 1.0 Introduction and Background

This Analysis of Brownfields Cleanup Alternatives (ABCA) report is being prepared on behalf of the Metropolitan Area Planning Agency (MAPA), and for use by Axles & Gears, Inc. (dba C&H Truck Parts), under the South Omaha Brownfields Coalition Assessment Grant administered by MAPA and awarded by the United States Environmental Protection Agency (USEPA).

1.1 Site Location and Description

The facility is located at 4808 South 26<sup>th</sup> Street in Omaha, Nebraska (herein referred to as "the Site"). The Site is depicted on the attached Site Location Map (Figures 1 and 2). The Site is currently occupied by Axles & Gears, Inc. The building is used for truck parts storage, sales, and truck service, repair, and maintenance, while the fenced in lot located to the south and west of the building, is used for storage of truck parts and equipment.

## 1.2 Previous Site Use(s) and any Previous Cleanup/Remediation

The Site has been owned and occupied by several different commercial entities since it was developed in 1936; however, the primary historic use for the Site has been as a truck/auto parts warehouse, salvage yard, and repair facility. Prior to the current development, from circa 1887 to circa 1926, the Site was occupied by numerous businesses including a bakery, hotel, boarding house, and laundry facility, in addition to a public school and stables.

There has been no previous cleanup or remediation performed at the Site.

#### 1.3 Surrounding Land Use(s)

The Site is located in an industrial and commercial area of South Omaha. The Site is surrounded by the following land uses:

- To the north is 'M' Street followed by an on-ramp for U.S. Highway 75 and a parking lot for the nearby Johnny's Steakhouse;
- To the east is South 26<sup>th</sup> Street, followed by the U.S. Highway 75 corridor;
- To the south is a vacant lot followed by an apparent vacant building; and
- To the west is truck washing facility and Rawson & Son's Roofing.

#### 1.4 Site Assessment Findings

A Phase I Environmental Site Assessment (ESA) and a Phase II ESA was previously prepared for the Site, also under the South Omaha Brownfields Coalition Assessment Grant. The Phase I ESA was dated February 2014, which identified Recognized Environmental Conditions (RECs) in regards to the historical use of the Site as an auto/truck repair shop and salvage yard (1936-2013), the historical use of the Site as a laundry cleaning facility (1926), and the location of the Site within the bound of the Omaha Lead Site (OLS), a USEPA National Priority List (NPL) site related to the former Asarco lead smelting plant in downtown Omaha.



The Phase II ESA was conducted in September 2014 to assess for the presence of impacts related to the RECs described in the Phase I ESA. Sixteen soil borings (SB-1 through SB-16) were advanced at potential source areas at the Site, site boundaries, and in areas of potential contaminant migration. Soil samples were collected from select borings and analyzed for Volatile Organic Compounds (VOCs), total RCRA metals, total lead, and total extractable hydrocarbons (TEH), in accordance with the EPA approved Phase II Investigation Work Plan, and site specific Quality Assurance Project Plan (QAPP). Groundwater samples were proposed to be collected; however, groundwater was not encountered during the site investigation and was not sampled. The results exhibited elevated levels of lead in soil in SB-12, located near the northwest corner of the fenced in storage yard, which exceeded Nebraska Department of Environmental Quality (NDEQ) Voluntary Cleanup Program (VCP) industrial standards. Lead was observed in the 0-6" surface sample (4,160 mg/kg) and the 0-3' sample (975 mg/kg). The VCP standard for industrial use is 750 mg/kg. No other constituents were detected in the soil above VCP industrial standards. See the attached Figure 3 (Boring Location Diagram) and Figure 4 (Soil and Gas Exceedance Map) for boring locations and constituent concentrations.

The Phase II ESA concluded that the high levels of lead observed in boring SB-12 are a concern with respect to property liability and/or constructability concerns with the redevelopment or re-use of the project site for industrial use. There is exposure risk to workers at the site due to direct contact with the surface soils in the area of SB-12, and to future workers at the Site in regards to the buried soils if the Site is redeveloped and the soils are excavated.

Characterization, removal, and proper disposal of the lead impacted surface soils was recommended in the Phase II ESA. In addition, it was also recommended that if future excavation occurs in the area of SB-12, that the soils be characterized and handled accordingly.

1.5 Project Goal

The planned future use of the Site is for it to remain an industrial parcel, according to the Site owner. There is no planned residential use or redevelopment of the Site. It is currently zoned Industrial.

# 2.0 Applicable Regulations and Cleanup Standards

2.1 Cleanup Oversight Responsibility

The cleanup will be overseen by Alfred Benesch & Company, or another qualified environmental consultant. There is no immediate threat to human health and the environment; therefore, there will be no regulatory agency oversight (e.g., NDEQ, EPA).

2.2 Cleanup Standards for Major Contaminants

The NDEQ VCP Standards for Industrial Use will be used as cleanup standards for lead in soils.

2.3 Laws & Regulations Applicable to the Cleanup



Laws and regulations that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, USEPA Resource Conservation and Recovery Act (RCRA) Hazardous Waste Regulations, and state and local regulations.

In addition, all appropriate permits (e.g., utility locate, soil transport/disposal manifests) will be obtained prior to the work commencing.

# 3.0 Evaluation and Cleanup Alternatives

## 3.1 Cleanup Alternatives Considered

To address the lead in soils contamination at the Site, the three following alternatives were considered: Alternative #1- No Action; Alternative #2- Capping the area of concern; Alternative #3- Excavation of soils with offsite disposal, and placement of clean soil cap.

## 3.2 Cost Estimate of Cleanup Alternatives

To satisfy EPA requirements, the effectiveness, implementability, and cost of each alternative must be considered prior to selecting a recommended cleanup alternative.

## **Effectiveness**

- Alternative #1- No Action. This alternative is not effective in controlling or preventing worker exposure to contaminants at the Site.
- Alternative #2- Capping the area of concern. This alternative is an effective way to prevent workers from coming into contact with contaminated soils at the Site. However, some contaminated soil removal and grading activities will need to occur to level out the area in order to place the cap material (clean soil or concrete), resulting in impacted soils that would still need to handled appropriately and disposed of offsite.
- Alternative #3- Excavation of soils with offsite disposal, and placement of clean soils. This alternative is an effective way to eliminate the risk at the Site, since the contaminants will be removed from the site.

## **Implementability**

- Alternative #1- No Action is easy to implement since no actions will be taken.
- Alternative #2- Capping is relatively easy to implement; however, excavation of impacted surface soils will be required, which will then need to be handled appropriately.
- Alternative #3- Excavation with offsite disposal will be relatively easy to implement. In addition, it is anticipated that the amount of soils to be removed and the area that will be excavated and removed will be relatively small.

<u>Cost</u>

- Alternative #1- No Action: There will be no costs incurred with the alternative.
- Alternative #2- Capping (with concrete): This alternative will cost approximately \$9,000.



- Alternative #3- Excavation with offsite disposal, and placement of clean soils: This alternative will cost approximately \$6,000.
- Note- These costs reflect an area of 10' x 10' and are subject to change after delineation of the area and characterization of the soils is completed.

#### 3.3 Recommended Cleanup Alternative

The recommended cleanup alternative is Alternative #3- Excavation with offsite disposal, and placement of clean soil cap. Alternative #1 is not being considered because it does not address the risks. Alternative #2 is not being considered because in order to place the cap, soil grading, excavation and removal will likely need to occur, resulting still in impacted soils that will need to be disposed of. Based on costs and the relatively small area of soils that will be removed, Alternative #3- Excavation with offsite disposal is the recommended alternative.



# **FIGURES**







50

Feet

# **BORING LOCATION DIAGRAM - FIGURE 3**

MAPA Brownfields South Omaha Redevelopment Area Axles & Gears Phase II ESA 4808 S. 26th Street T. 14N, R. 13E, S. 4 Omaha, Douglas County, NE

Path: Y:\omaha\120100S\00120137.00 & 00120138.00\00120137.00\Reports\4808 S. 26th Axles and Gears\Figures\4908 S 26th St Axles & Gears\Site Diagram Figure 3 PHASE II.mxd

0

benesch engineers - scientists - planners

12.5

25

SB-12 Soli: Costituent Results Results Reduktivitied   0-3' Lead 4,160 mg/kg 200 mg/kg 50 mg/kg   0-3' Lead 925 mg/kg 100 mg/kg 50 mg/kg   0-3' Chromium 4.4.4 mg/kg 0.29 mg/kg 55 mg/kg   0-3' Chromium 4.4.4 mg/kg 0.29 mg/kg 55 mg/kg   12 0 10	A STATE
Constituent Results <th>1</th>	1
0-3   ieda   750 mg/kg   100 mg/kg   750 mg/kg   100 mg/kg	
0-3" Arsenic 17.3 mg/kg 0.39 mg/kg 16 mg/kg   0-3" Chromium 44.4 mg/kg 0.29 mg/kg 55 mg/kg   12 12 10 10 10   12 10 10 10 10 10   12 10 10 10 10 10 10   10	1
Canopy (removed) 12 12 12 12 12 12 12 12 12 12	-
SB-11 Soil:	
Depth (bgs) Constituent Results RG RG RG	
Image:	



50

Feet

MAPA Brownfields South Omaha Redevelopment Area Axles & Gears Phase II ESA 4808 S. 26th Street T. 14N, R. 13E, S. 4 Omaha, Douglas County, NE

Path: Y:lomaha\120100S\00120137.00 & 00120138.00\00120137.00\Reports\4808 S. 26th Axles and Gears\Figures\4908 S 26th St Axles & Gears\Soil and Gas Exceedance Figure 4.mxd

0

benesch

12.5

25