CON 12-15
Doc #24215

Site Name: 100 1st Avenue NW, Cedar Rapids

Brownfield Initial Site Screening (ISS)

Project Manager: John Woodland

Date: 4/21/11

☒ **3931 - Phase II Assessment Review - standard**
Phase II submitted as part of standard real estate development, pre-purchase agreement, or other due diligence, not a part of a community grant project, or

☐ **3837 - Phase II Assessment – grant funded**
Phase II submitted as part of an EPA grant funded community-wide or targeted assessment project – see Mel Pins if questions on this determination

Location:

Latitude: 41.976066 Longitude: -91.673282 ***County****: Linn*
(Decimal Degree format)

USGS Quadrant: _____

Site Size: 0.57 (approx.)

Site Dimension: ☒ Acres ☐ Square Feet ☐ Feet ☐ Square Miles ☐ Miles

Site Alias Name(s): N/A

Congressional District: 2

Grant Recipient Name, Address & Contact: N/A

Current Owner & Address: BSP Properties II, LLC
228 E Main Street
Sun Prairie, WI 53590

Responsible Party Name(s) & Address, if different from current owner:
Unknown at this time

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)
100 1st Avenue NW
Cedar Rapids, Iowa 52404

Directions to site:

Travel on I-80 E toward Davenport
Take exit 239B for US-218 N/IA-27 N/I-380 N toward Cedar Rapids/Waterloo
Merge onto IA-27 N/US-218 N
Continue onto I-380 N
Take exit 19A toward U.S. 151 Business/5th Ave SW/Diagonal Dr/Downtown
Merge onto 3rd St SW
Turn right at 1st Ave W
Destination will be on the left

Summarize the site history (past usages, past ownerships, wastes, known or suspected contamination pathways such as tanks, septic tank/tile field, lagoon, land applications, S.W. burial, etc)

The property was first developed as a gas station and convenience store, built in 1971, which closed due to the flood in 2008.

The Phase I Environmental Site Assessment (ESA) indentified the following recognized environmental conditions (RECs):

- The subject property was used as a gas station from 1971 to 2008. Three underground storage tanks remain on the property. The tank capacities are 15,000, 10,000 and 6,000 gallons.
- The property to the west was formerly a service station.
- The property farther west was a service station from 1931 to 1973.
- The property to the north at 118 1st Street NW was formerly a bottling works, a tire company and vulcanizing company, which had a 500-gallon gas tank.

Briefly describe the site assessment that was conducted (number of borings, monitoring wells, number of samples, depth of soil samples and monitoring wells, analysis, etc.)

Three soil borings were advanced on the site. The borings were advanced to a depth of 16-feet below ground surface (bgs). The borings were placed in the following locations on the site:

- Boring B-1/TMW-1 was advanced to the southwest of the pump islands.
- Boring B-2/TMW-2 was advanced to the northeast of the pump islands.
- Boring B-3/TMW-3 was advanced along the southeastern boundary of the underground storage tanks.

Soil samples were collected between 12 to 14-feet below ground surface for laboratory analysis from the three boring locations on the site. The soil samples were field-screened using a photoionization detector (PID) to indicate the presence of volatile organic compounds.

Groundwater samples were collected from the three borings. The water level in the monitoring wells was at 12 to 13-feet below ground surface. Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), total extractable hydrocarbons (TEH), and Resource Conservation and Recovery Act (RCRA) metals. There is no indication in the Phase II ESA report that the groundwater samples collected for RCRA metals analysis were field-filtered.

Summarize the findings and conclusions regarding the contaminants found and their extent and concentrations. Relate those values to known criteria such as statewide standards, MCLs, water quality standards, background levels or other benchmarks used to determine site priority.

Laboratory analyses of soil samples B-1 and B-2 did not detect TEH contaminants. Concentrations of TEH as diesel and gasoline were detected in soil sample B-3, but the concentration of 29.7 mg/kg of TEH as diesel was below the IDNR Tier I Look-up value for Soil Leaching to Groundwater Actual of 3800 mg/kg. There is no IDNR Tier I Look-up value for TEH as gasoline.

VOC contaminants were not detected in soil samples B-1 and B-2. VOC contaminants detected in soil sample B-3 are below statewide standards.

The concentrations of RCRA metals detected (arsenic, barium, and chromium) in all three soil samples are below their respective statewide standards.

As shown in Table 1, arsenic concentrations in groundwater samples were above the statewide standard and barium concentrations in groundwater samples were below the statewide standard. Results of laboratory analysis for detected TEH contaminants and VOCs in groundwater samples are shown in Table 1. The bolded concentrations in Table 1 exceed their respective statewide standard.

Table 1- Detected Sample Results for Groundwater (mg/L)

Contaminant	B-1	B-2	B-3	IDNR Statewide Standard for a Protected Groundwater Source
RCRA Metals				
Arsenic	**0.0666**	**0.0125**	**0.0118**	0.01
Barium	1.01	1.34	0.47	2
Volatile Organic Compounds				
Benzene	<0.005L	<0.005	**0.0944**	0.005
n-Butylbenzene	0.0109	<0.001	0.0504	2.1
sec-Butylbenzene	0.0063	<0.001	0.0109	0.08
Ethylbenzene	0.0434	<0.001	**2.290**	0.7
Hexane	<0.001	<0.001	0.211	0.42
Isopropylbenzene	0.0481	<0.001	0.0831	0.7
Naphthalene	0.0811	0.00589	0.376	0.1
n-Propylbenzene	0.0971	<0.001	0.306	0.7
Styrene	<0.001	<0.001	0.0589	0.1
Toluene	<0.001	<0.001	**3.060**	1
1,2,4-Trimethylbenzene	0.0029	<0.001	**1.790**	0.35
1,3,5-Trimethylbenzene	<0.001	<0.001	**0.467**	0.35
Xylenes	0.015	<0.003	9.650	10
Total Extractable Hydrocarbons				**Tier 1 Values**
Gasoline	1.310	<0.3	20.0	NA
Diesel	<0.3	<0.3	0.425	1.2

Identify on-site or off-site potential and actual targets (e.g., municipal wells, private wells, drinking water intakes). What is known of the neighboring area, i.e., are there residences, businesses, public use areas, etc.? Are there utility lines that could be impacted by site contaminants? Identify any other use/location issues that deserve consideration.

There are no wells located on this property. Within a ¼ mile radius beyond the site, there are eleven commercial wells between 420 and 1490-feet deep; of these wells, seven appear to be inactive and four are plugged. Within a ½ mile radius (beyond the ¼ mile radius) there are fifteen plugged wells, twenty-two commercial wells between 420 and 1550-feet deep, one municipal well that is 2225-feet deep, and one shallow monitoring well used by the USGS.

The Cedar River is located 220-feet east of the site. The nearest well is located approximately 700-feet northwest of the site.

Rate the site on a scale of 1 to 4, in decreasing order of severity or priority.
3

Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.

No significant concentrations of contaminants were detected in soil samples.

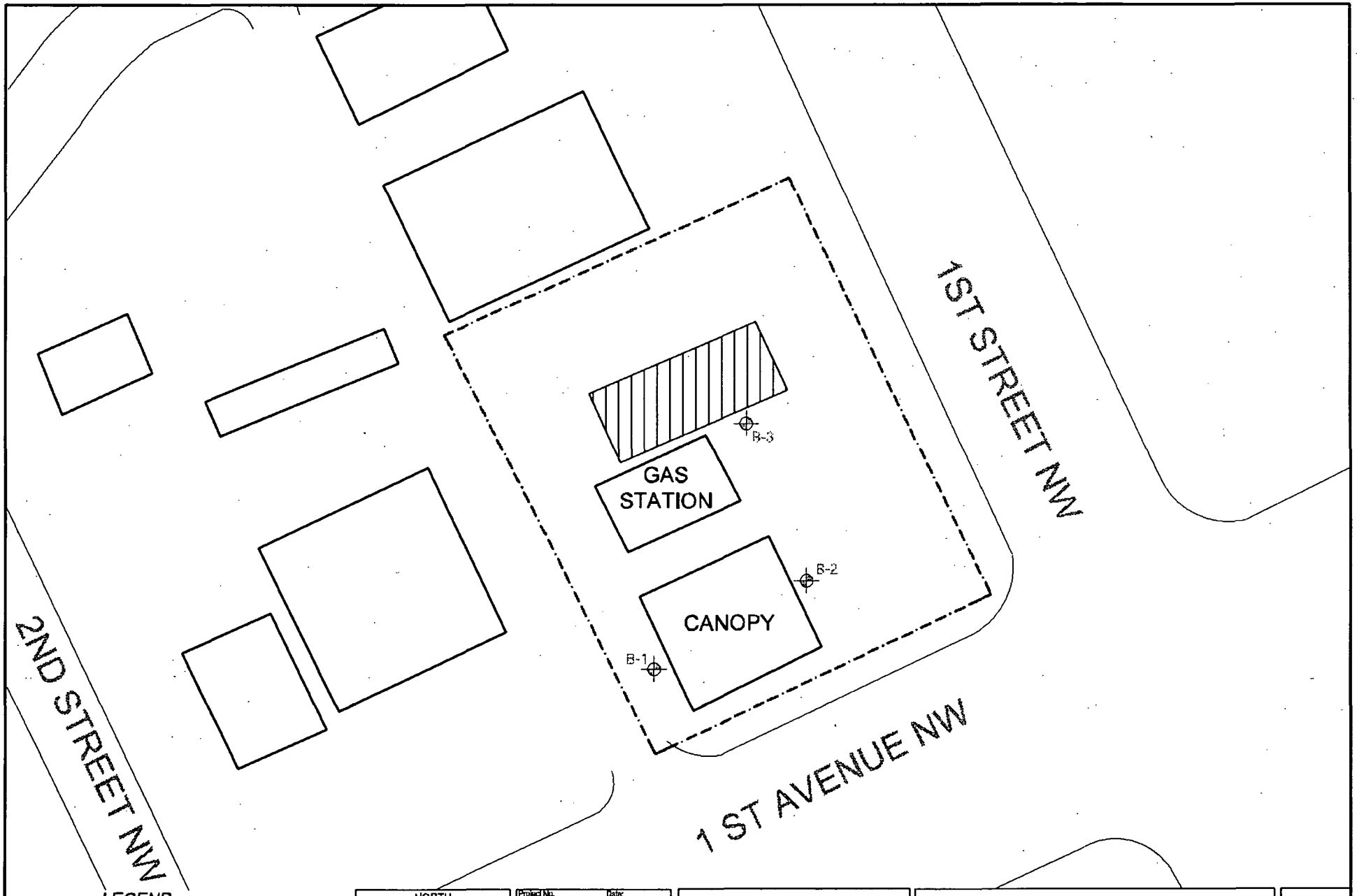
Concentrations of the RCRA metal, arsenic identified in all three groundwater samples are above IDNR Statewide Standard for a Protected Groundwater. The groundwater samples were not field-filtered, which could influence the results of the RCRA metals analysis. Five VOCs identified in groundwater sample B-3 are above IDNR Statewide Standard for a Protected Groundwater.

Based on the relatively low concentrations of arsenic, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene detected in groundwater onsite and no active drinking water wells nearby, additional investigation is not required at this time.

This site is also regulated by the Underground Storage Tank (UST) Section of the IDNR, because of the USTs onsite; therefore, the Contaminated Sites Section is not commenting further on BTEX and TEH specifically at this time and will refer this site to the UST Section for follow-up.

Site recommended for:
- ☒ No further action
- ☐ Additional investigation under state program (activity code 2824)
- ☐ Additional investigation under CERCLA (Extended Site Screening)
- ☐ Additional investigation by responsible party
- ☐ Transfer to LUST/UST

Form Reviewed: Carl Lundblad **Date Reviewed:** 4/25/11



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE BORING LOCATION
- EXISTING TANK BASIN

NORTH

0 100'

APPROXIMATE DRAWING SCALE

Project No.: 06117026	Date: MAR 2011
Project Mngr.: DMG	Drawn By: RJC
File Name: 06117026.dwg	
Layout Name: Fig 2	

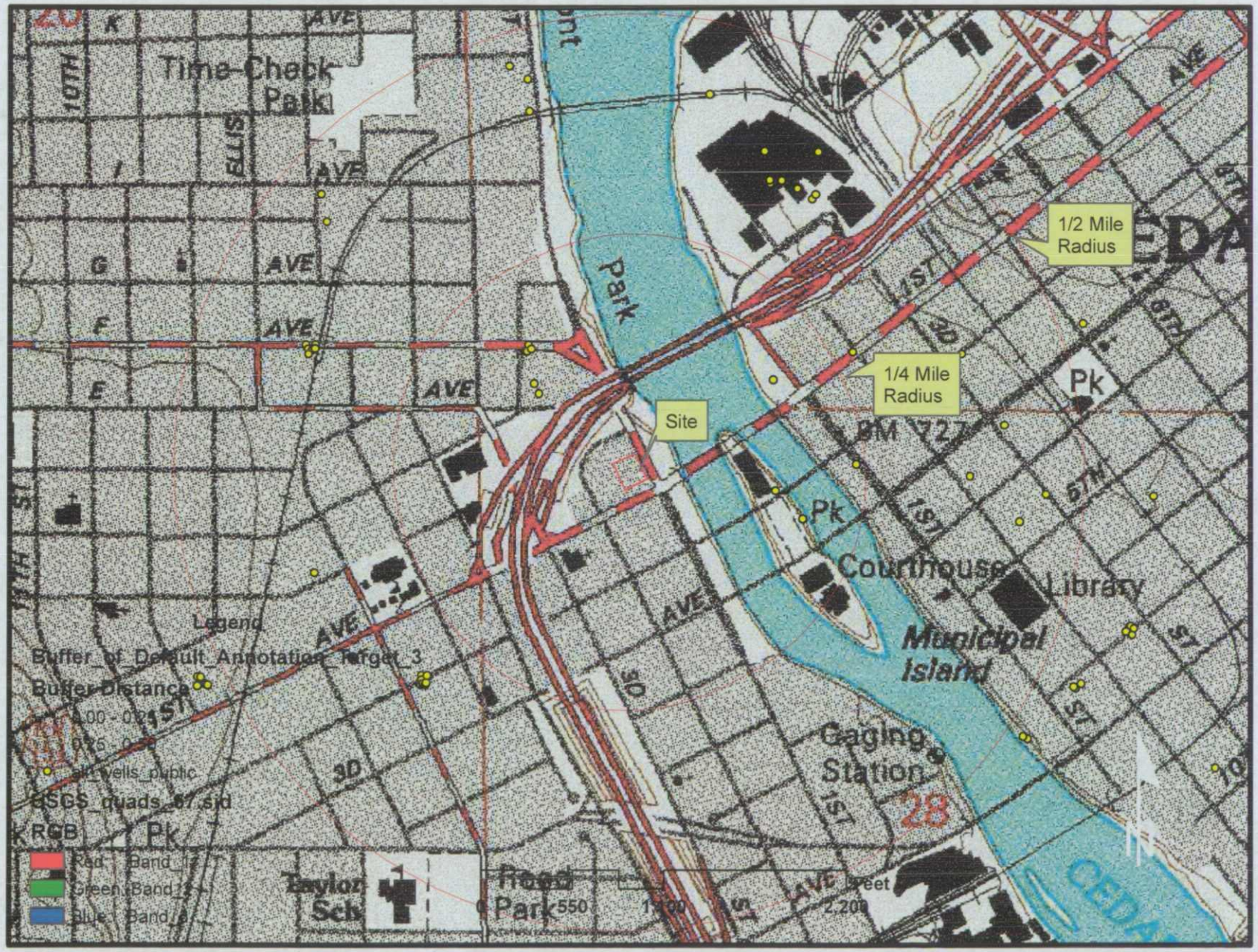
Terracon
Consulting Engineers and Scientists
2340 12TH STREET SW CEDAR RAPIDS, IOWA 52404
PH. (319) 366-8321 FAX. (319) 366-9032

BORING LOCATION DIAGRAM

LIMITED SITE INVESTIGATION
FORMER FILLING STATION
100 1ST AVENUE NW
CEDAR RAPIDS, IOWA

FIG. No. 2

100 1st Avenue NW, Cedar Rapids



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