Site Name: 210 Jones Street - Dubuque

CON 12-15
DOC# 32170

Initial Site Screening (ISS)
Project Manager: Matt Culp
Date: 9/12/16

☐ **3931 - Phase II Assessment Review – Brownfield Funded**
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 – Brownfield 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, or

☐ **3321 - Phase II Assessment Review – CERCLA Pre-Remedial Funded**
Phase II submitted that is not part of a real estate transaction

Location: *Latitude: 42.4931* *Longitude: 90.6640* ***County:*** *Dubuque*
(Decimal Degree format)

USGS Quadrant: Dubuque South

Site Size: 0.92

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

Site Alias Name(s): None

Congressional District: Iowa 1st District

Grant Recipient Name, Address & Contact: City of Dubuque 50 West 13th Street, Dubuque, Iowa 52001

Current Owner & Address: 210 Jones L.L.C at 210 Jones Street, Dubuque, Iowa

Responsible Party Name(s) & Address, if different from current owner: same

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown) The site is located within the SE ¼ of the NE ¼ of Section 25, Township 89 North, Range 2 East in Dubuque County, Iowa,

Directions to site: From Des Moines travel east on Interstate highway 80 to state Highway 1 north. Take Highway 1 north Highway 151 north. Take Highway 151 north to Dubuque and merge with highway 61 and exit north onto Jones, turn right on Main Street and left on Jones Street.

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 historic use of the site includes a creamery and dairy supply company that included painting. Also located at this site was a farm implements supply shop and an iron company/lumber yard and a cleaning chemical compound manufacturer. The northwest portion of the site was also identified as 220 Jones Street and listed as an insecticide manufacturer. A railroad siding was located on the eastern side of the site in 1907 through 1970. No tanks, tile field, or lagoon(s) were observed. The site has a 2-story brick building with no basement. The location of the site is shown in Figure 1.

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.)

Four soil borings were completed to depths from 10 to 15 feet. Visual and olfactory evidence of petroleum contamination was detected at soil boring SB1, SB4 and SB5. The presence of contamination was confirmed by field screening soil for organic vapors using a photoionization detector (PID). Based on site history, soil analysis was conducted for polycyclic aromatic hydrocarbons (PAHs), total extractable hydrocarbons (TEH), volatile organic compounds (VOCs) and heavy metals. Samples were collected from shallow soil (0-2 feet) from locations SB2 and SB4 for the analysis for PAHs. One soil sample was collected below 2 feet at soil boring SB4 for metals analysis. A total of 12 PAH compounds and three 3 metals were detected in shallow soil. The concentrations of metals and 11 of the PAH in shallow soil were below applicable Land Recycling program Statewide Standards (SWS). Soil sample results identified benzo(a)pyrene at SB2 and SB4 above SWS. Samples were collected from below 2 feet at SB5 and analyzed for PAHs, VOCs, TEH, and metals; and for insecticide analysis from soil borings SB4 and SB5. Deep soil samples were collected from 7-8, 2-4, 3-5, and 4-5 feet from SB1, SB2, SB4, and SB5, respectively. Soil and groundwater sample locations are depicted on Figure 2. The analytical results for soil are summarized below in Table 1.

All soil borings were converted to temporary monitoring wells to obtain groundwater samples from all sample locations for analysis for VOC, TEH, and metals. Groundwater samples were collected for PAH analysis from SB2, SB4, and SB5 and for insecticides from SB4 and SB5. All PAHs, 3 VOCs, 2 metals, and 1 insecticide were detected below applicable SWSs. Diesel, waste oil, arsenic, and alpha-BHC were detected at concentrations above applicable SWSs and 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,2,3-trichloropropane, and dieldrin were reported as "non-detect" values that were above applicable SWSs (highlighted in yellow in Table 2).

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.

Table 1: Summary of Shallow Soil Analytical Results – PAHs and RCRA Metals (mg/kg)

Parameter	SWS	SB2 0-2'	SB4 0-2'	Duplicate SB2 - (0-2')
PAHs				
Anthracene	17000	0.459	<0.412	<0.112
Benzo[a]anthracene	3.1	2.59	<0.412	<0.112
Benzo[a]pyrene	0.31	1.91	0.421	<0.112
Benzo[b]fluoranthene	3.1	2.54	0.585	<0.112
Benzo[g,h,i]perylene	170	0.702	<0.412	<0.112
Benzo[k]fluoranthene	31	0.956	<0.412	<0.112
Chrysene	310	1.99	<0.412	<0.112
Dibenz(a,h)anthracene	0.31	0.297 (J)	0.0758 (J)	<0.112
Fluoranthene	2300	3.75	0.609	<0.112
Indeno[1,2,3-cd]pyrene	3.1	0.762	<0.412	<0.112
Phenanthrene	1700	1.00	<0.412	<0.112
Pyrene	1700	3.10	0.585	<0.112
RCRA Metals				
Barium	15000	NS	116	NS
Chromium	190	NS	5.51	NS
Lead	400	NS	96.4	NS

Table 1 continued: Deep Soil Analytical Results – TEHs, PAHs, VOCs, Metals, and Insecticides (mg/kg)

Parameter	SWS	SB1 7-8'	SB2 2-4'	SB4 3-5'	SB5 4-5'	Duplicate
TEHs						**SB2 2-4**
Diesel	28000	2160	<9.70	<9.40	<9.95	<9.52
Waste Oil	9400	2560	148	320	259	126
PAHs						
Anthracene	17000	NS	NS	NS	0.715	NS
Benzo[a]anthracene	3.1	NS	NS	NS	2.12	NS
Benzo[a]pyrene	0.31	NS	NS	NS	**4.22**	NS
Benzo[b]fluoranthene	3.1	NS	NS	NS	**4.34**	NS
Benzo[g,h,i]perylene	170	NS	NS	NS	4.54	NS
Benzo[k]fluoranthene	31	NS	NS	NS	1.67	NS
Chrysene	310	NS	NS	NS	2.56	NS
Dibenz(a,h)anthracene	0.31	NS	NS	NS	**1.24**	NS
Fluoranthene	2300	NS	NS	NS	3.37	NS
Indeno[1,2,3-cd]pyrene	3.1	NS	NS	NS	3.07	NS
2-Methylnaphthalene	230	NS	NS	NS	0.625	NS
Phenanthrene	1700	NS	NS	NS	2.88	NS
Pyrene	1700	NS	NS	NS	3.59	NS
VOCs			**SB2 2-4**			
Acetone	68000	<0.085	0.0689	<0.0518	<0.076	<0.039
n-Butylbenzene	3800	0.00884	<0.00604	<0.00518	<0.0076	<0.0039

sec-Butylbenzene	NC	0.0161	<0.00604	<0.00518	<0.0076	<0.0039
Isopropylbenzene	7600	0.00894	<0.00604	<0.00518	<0.0076	<0.0039
Naphthalene	1100	<0.0425	<0.0302	<0.0259	<0.038	0.0671
Metals			**SB2 2-4**			
Arsenic	17	<10.6	<3.50	9.59	39.9	<4.02
Barium	15000	260	126	104	132	117
Chromium	190	12.1	12.5	11.3	15.7	10.4
Lead	400	311	157	398	277	1270
Mercury	23	4.30	0.959	1.74	0.379	1.16
Insecticides					**SB4 3-5**	
alpha-BHC	0.39	NS	NS	<0.0395	0.00484	<0.0378
beta-BHC	1.3	NS	NS	<0.0395	0.0349	<0.0378
4,4'-DDD	10	NS	NS	0.0413	<0.00447	<0.0378
4,4'-DDT	8.6	NS	NS	0.147	0.00678	<0.0378
Dieldrin	0.15	NS	NS	<0.0395	0.00709	<0.0378
Endosulfan I	370	NS	NS	<0.0395	0.00582	<0.0378
Endosulfan II	370	NS	NS	<0.0395	0.0108	<0.0378
Endrin aldehyde	18	NS	NS	<0.0395	0.0394	<0.0378
Heptachlor epoxide	0.27	NS	NS	<0.0395	0.00875	<0.0378
Methoxychlor	310	NS	NS	<0.0395	0.0224	<0.0378

(J) indicates the concentration as an approximate values. Shaded indicates concentration above Statewide Standards

Table 2: Summary of Groundwater Analytical Results –TEHs, PAHs, VOCs, metals, and Insecticides (mg/L)

Parameter	SWS PG	SWS NPG	SB1	SB2	SB4	SB5	Duplicate
TEHs							**SB1**
Diesel	2.2	44	0.944	<0.221	12.8	6.86	0.938
Waste Oil	0.73	15	<0.221	<0.221	<0.221	5.45	<0.221
PAHs						**SB5**	
Acenaphthene	0.42	2.1	NS	<0.0000735	0.00687	0.000605	0.000644
Acenaphthylene	0.21	1	NS	<0.0000735	0.00109	<0.0000735	<0.0000735
Anthracene	2.1	10	NS	<0.0000735	0.00199	0.000136	0.000185
Benzo[a]anthracene	0.00024	0.0048	NS	<0.0000735	0.000149	<0.0000735	<0.0000735
Benzo[a]pyrene	0.0002	0.001	NS	<0.0000735	0.000113	<0.0000735	<0.0000735
Benzo[b]fluoranthene	0.00024	0.0048	NS	<0.0000735	0.000149	<0.0000735	0.0000865
Chrysene	0.024	0.48	NS	<0.0000735	0.000197	<0.0000735	0.00011
Dibenz(a,h)anthracene	0.000024	0.00048	NS	<0.00000956	0.0000161(J)	<0.00000956	<0.00000956
Fluoranthene	0.28	1.4	NS	<0.0000735	0.00064	0.000217	0.000344
Fluorene	0.28	1.4	NS	<0.0000735	0.00731	0.000254	0.000258
2-Methylnaphthalene	0.028	0.14	NS	<0.000368	0.008	<0.000368	<0.000368
Phenanthrene	0.21	1	NS	<0.0000735	0.00393	0.0000893	0.00011
Pyrene	0.21	1	NS	<0.0000735	0.000807	0.00026	0.000463
Naphthalene	0.1	0.7	NS	<0.000368	0.000462	<0.000368	<0.000368
VOCs			**SB1**				
sec-Butylbenzene	NA	NA	<0.001	<0.001	0.00183	<0.001	<0.001
Isopropylbenzene	0.7	3.5	<0.001	<0.001	0.00196	<0.001	<0.001
N-Propylbenzene	3.4	17	<0.001	<0.001	0.00178	<0.001	<0.001
1,2-Dibromo-3-Chloropropane	0.0002	0.0029	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
1,2-Dibromoethane	0.00005	0.0018	*<0.00013*	*<0.00013*	*<0.00013*	*<0.00013*	*<0.00013*

Table 2: Groundwater Analytical Results continued:

1,2,3-Trichloropropane	0.0000058	0.00012	*<0.00019*	*<0.00019*	*<0.00019*	*<0.00019*	*<0.00019*
Metals							**SB1**
Arsenic Dissolved	0.01	0.05	0.00538	**0.0133**	<0.00200	0.00217	0.00541
Barium Dissolved	2	10	0.643	0.247	0.409	0.265	0.672
Lead Dissolved	0.015	0.075	0.00199	<0.000500	0.00125	0.000773	0.00166
Insecticides							**SB5**
alpha-BHC	0.000028	0.00056	NS	NS	**0.0000921 p**	<0.000032	<0.000032
delta-BHC	0.0021	0.01	NS	NS	0.0000471 **p**	<0.000032	<0.000032
Dieldrin	0.000011	0.00022	NS	NS	*<0.000032*	*<0.000032*	*<0.000032*

Shaded indicates concentration above Statewide Standard **NA** = Not Applicable. **NS** = Not Sampled. **PGW** = Protected groundwater. **NPGW** = Non-protected groundwater. **J** indicates the result is an approximate value. **P** indicates the laboratory's % relative percent difference between the primary and confirmation column/detector is >40% - the lower value has been reported. **Italics** indicate a non-detect concentration above an applicable SWS (shaded in yellow)

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.

No on-site receptors (wells, utilities) have been identified. No off-site potential or actual receptors (like sensitive public areas, wetlands, cold water streams etc.) were identified. The surrounding area is developed for commercial and industrial activity and mass transit networks (highways, and railroads). The Mississippi River is located approximately 0.33 miles east of the subject property.

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

The site has been rated as a priority 3

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

Based on the Phase II results, the occurrence of contamination in soil and groundwater in excess of SWS is infrequent and at relatively low concentrations. The related threat to actual or potential receptors is also low.

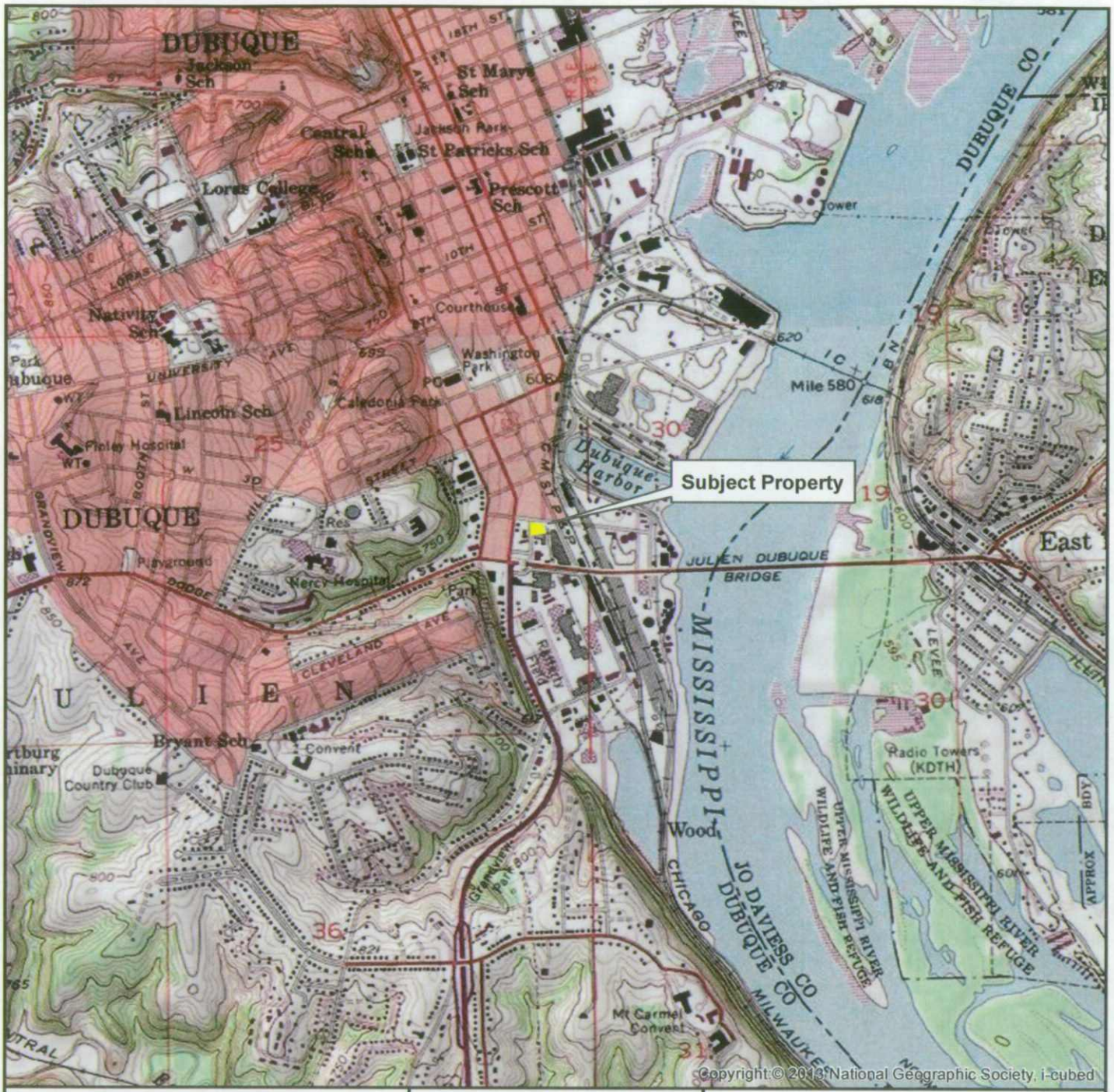
A risk calculation for exposure to indoor air was submitted for DNR. The maximum soil and groundwater contaminant concentrations were screened with Johnson/Ettinger (J&E) model to produce calculated indoor air concentrations that were then entered into the Iowa DNR Risk Calculator for exposure potential to indoor air. The result of the vapor intrusion screening indicate that the site would exceed the cumulative cancer risk for site resident, site worker but passes for the construction worker exposure scenario. The site is currently used for construction material storage. Based on the current usage, additional investigation is not required at this time.

Site recommended for:

- [x] No further action under CERCLA
- [ ] Additional investigation under state program (activity code 2824)
- [ ] Additional investigation under CERCLA (Extended Site Screening)
- [ ] Transfer to LUST/UST

Form Reviewed: Ami Davidson **Date Reviewed:** 9-15-16

Revised 3/2015



Legend

Subject Property

Figure 1

Site Vicinity Map

Phase II ESA

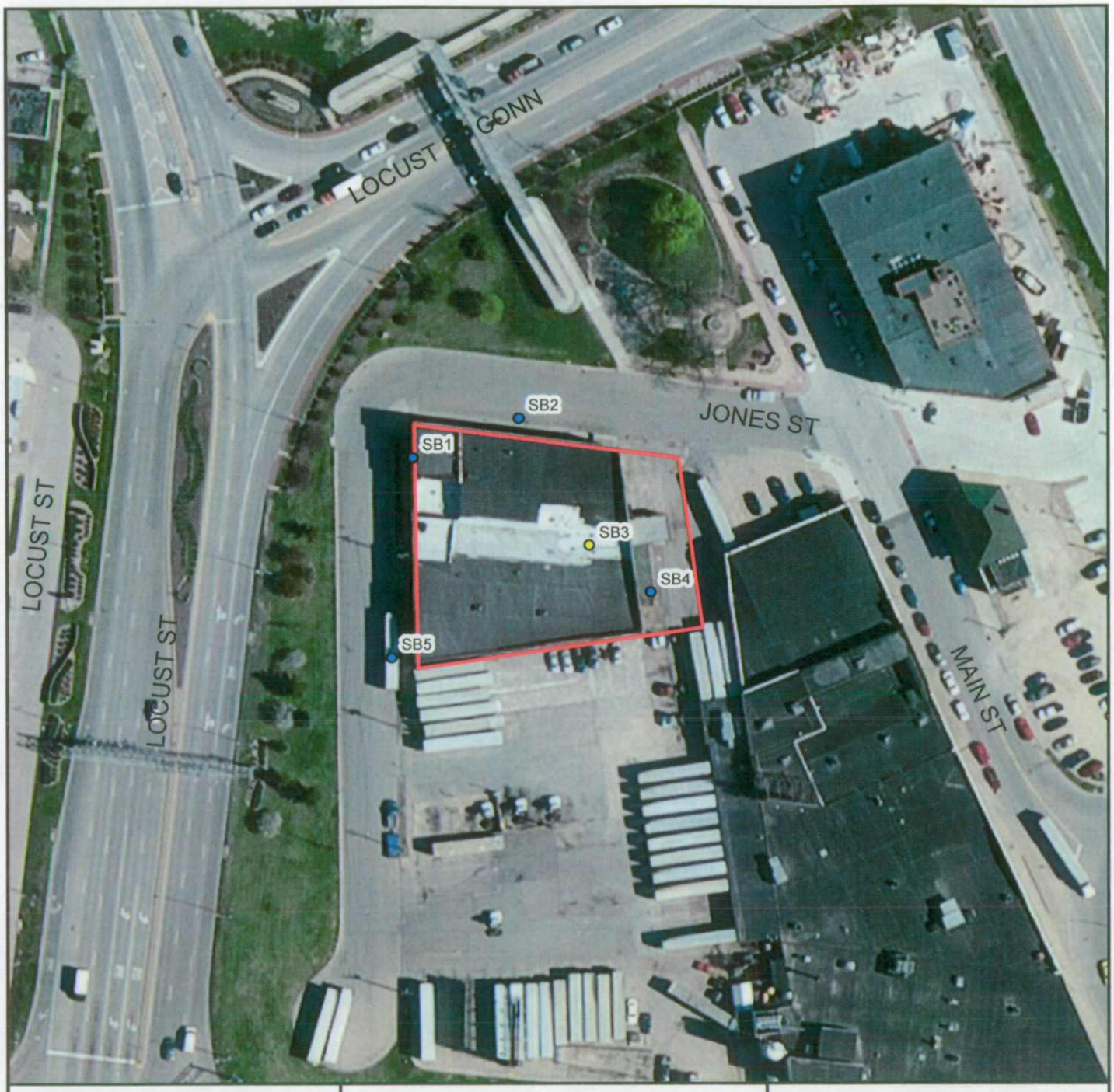
210 Jones Street
Dubuque, IA

0 1,000 2,000 Feet

1 inch = 1,838 feet

N
W E
S

HRGreen



Legend

- Sample Location
- Sample Location - SB3
- Subject Property

THE CITY OF DUBUQUE
Masterpiece on the Mississippi

Figure 2

Sample Location Map

Phase II ESA

210 Jones Street

City of Dubuque
Dubuque County, Iowa

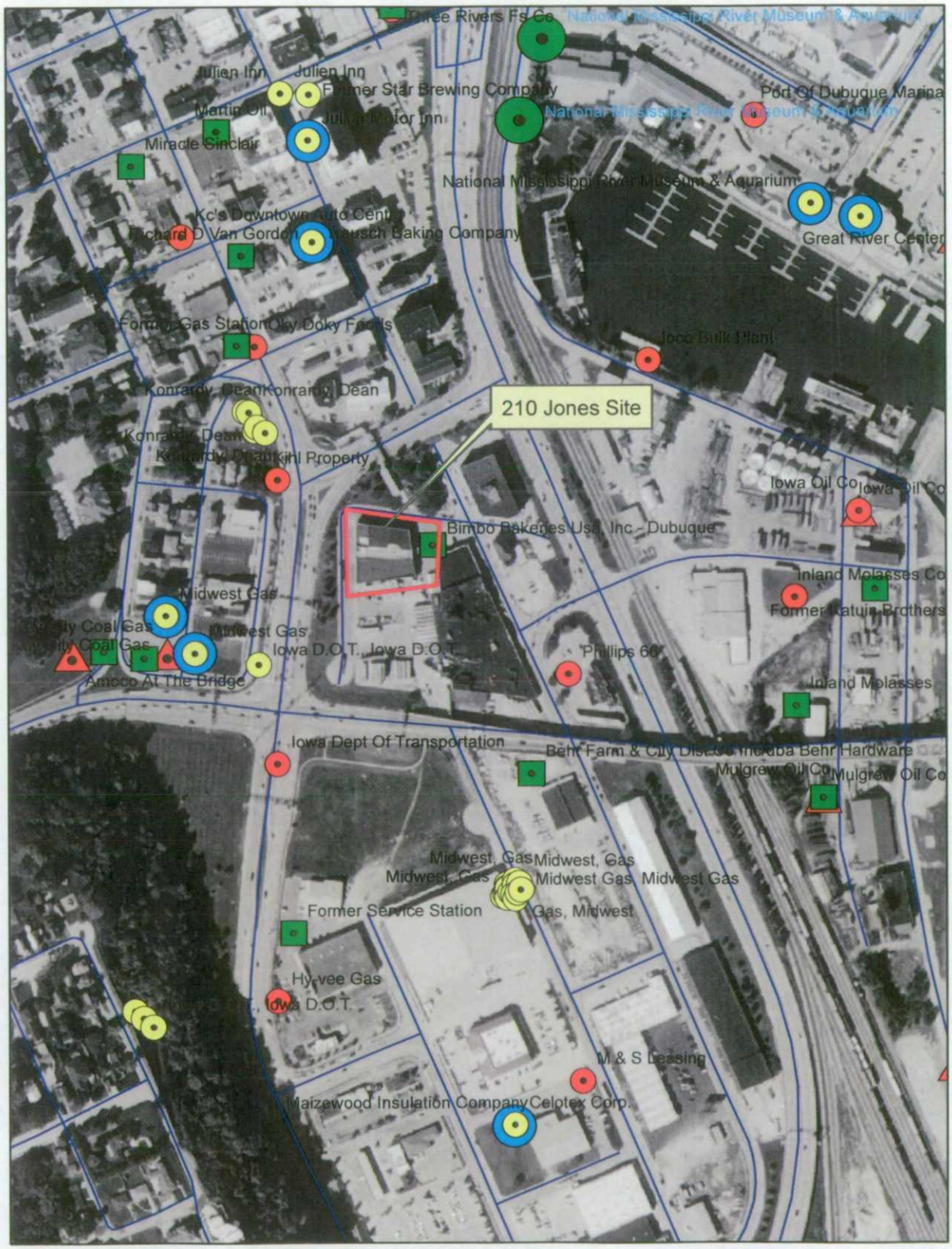
N
W E
S

0 50 100
Feet

1 inch = 100 feet

HRGreen

210 Jones Street Site - Dubuque
Contamination Source and Receptor Map



Legend

- LUST_sites
- UST_sites
- private_well_test
- Agricultural Drainage Wells
- IGS well database
- Permitted private wells
- Private well tracking system
- Public water supply intakes
- Public wells
- Registered abandoned wells
- SDWIS well
- Water Use Permit Wells
- Wells registered for testing
- surface_water_intake_public
- Contaminated_sites_facility
- water_use_wells
- national_priority_list
- private_well_test
- geologic_sampling_points
- Leaking Gas Tank
- roads_2006_31
- roads_2006_57
- roads_2000_77
- county
- groundwater_capture_zones
- County
- Iowa_border

USGS_quads_77.sid - Band_1
Value
High : 255
Low : 109

USGS_quads_77.sid - Band_2
Value
High : 255
Low : 76

USGS_quads_77.sid - Band_3
Value
High : 255
Low : 84

Airphotos_2015_NAIP_31.sid - Band_1
Value
High : 184
Low : 0

Airphotos_2015_NAIP_31.sid - Band_2
Value
High : 185
Low : 0

Airphotos_2015_NAIP_31.sid - Band_3
Value
High : 177
Low : 0

N
W
E
S