**CON 12-15**
**Doc #16765**

**Site Name: Hardee's, Council Bluffs**

Brownfield Initial Site Screening (ISS)

Project Manager: Tami Rice

Date: August 13, 2007

☒ **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. 2278* *Longitude: -95. 8522* ***County:Pottawattamie***
*(Decimal Degree format)*

***USGS Quadrant: Council Bluffs South***

***Site Size:1***

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

***Site Alias Name(s): None***

***Congressional District: 5***

***Grant Recipient Name, Address & Contact: NA***

***Current Owner & Address: Hardee's Food Systems Inc, PO Box 4349, Anaheim, California 92803***

***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)***
***3200 South Expressway, Council Bluffs, Iowa 51501***

***Directions to site: Take I-80 west toward Omaha. Take the IA-192 north exit, exit 3, toward Council Bluffs / Business District / Lake Manawa. Take the ramp toward Lake Manawa. Merge onto South Expressway. The site is located on the southwest corner at the intersection of South Expressway and 32nd Avenue.***

***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 site is currently developed as a Hardee's restaurant. The site has been utilized as a restaurant since 1987. The site was utilized by a trucking company from about 1960 to 1972. George Coats Leasing Company occupied the site from 1972 to 1978 and Coates Freightways Inc. occupied the site in 1984. Prior to 1960, the site appears to have been vacant. One RCRA Small Quantity Generator (SQG), one closed Leaking Underground Storage Tank (LUST) site, and two Underground Storage Tank (UST) sites were identified adjacent to the site.

***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.)***
The site assessment consisted of three soil borings (B1, B2, and B3) located onsite. Soil samples were continuously collected and field-screened using a photo-ionization detector (PID). One soil sample was collected from the zone exhibiting the highest PID reading. If there was no elevated PID reading, the sample was collected from the capillary fringe zone, the interval exhibiting a change in lithology, from the bottom of the boring, or from the interval of most likely environmental impact based on professional judgment. Soil samples were analyzed for volatile organic compounds (VOCs) and total extractable hydrocarbons (TEH).

The three soil borings were converted into temporary monitoring wells for collection of groundwater samples. Groundwater was measured at depths of 6.5 to 7.5 feet below ground surface. The groundwater samples were analyzed for VOCs and TEH.

***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.***
No soil contamination was detected onsite. TEH as waste oil was detected in groundwater samples B1 and B3 at concentrations of 762 ug/L and 676 ug/L respectively, exceeding the statewide standard of 400 ug/L. In addition, TEH as diesel was detected in groundwater sample B3 at a concentration of 435 ug/L and methyl tert-butyl ether (MTBE) was detected in groundwater sample B1 at a concentration of 1.02 ug/L. The applicable standards for TEH as diesel and MTBE in groundwater are 1,200 ug/L and 21 ug/L respectively.

There were several groundwater analytes with laboratory detection limits that exceeded applicable statewide standards in groundwater. These analytes include: acrylonitrile, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, hexachlorobutadiene, and 1,1,2,2-tetrachloroethane. See Table 1 and Table 2 for additional information.

***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 within a quarter-mile radius of the site and there is one well located between a quarter-mile and a half-mile radius of the site. This well is about 100 feet deep and was permitted in July 1993.

The Missouri River is located about 16,300 feet west of the site. Indian Creek is located about 4,000 feet west of the site and Mosquito Creek is approximately 6,740 feet east of the site. Both creeks flow to the south and discharge into the Missouri River which winds from the west approximately 14,800 feet south of the site. Lake Manawa, which is a public usage lake, is located about 4,800 feet south 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 soil contamination was detected onsite and limited groundwater contamination was found. Specifically, TEH as waste oil was detected in groundwater samples B1 and B3 at concentrations of 762 ug/L and 676 ug/L respectively, exceeding the statewide standard of 400 ug/L. In addition, TEH as diesel was detected in groundwater sample B3 at a concentration of 435 ug/L and methyl tert-butyl ether (MTBE) was detected in groundwater sample B1 at a concentration of 1.02 ug/L. The applicable standards for TEH as diesel and MTBE in groundwater are 1,200 ug/L and 21 ug/L respectively. Based on the lack of nearby receptors and limited contamination found, no additional investigation is required at this time.

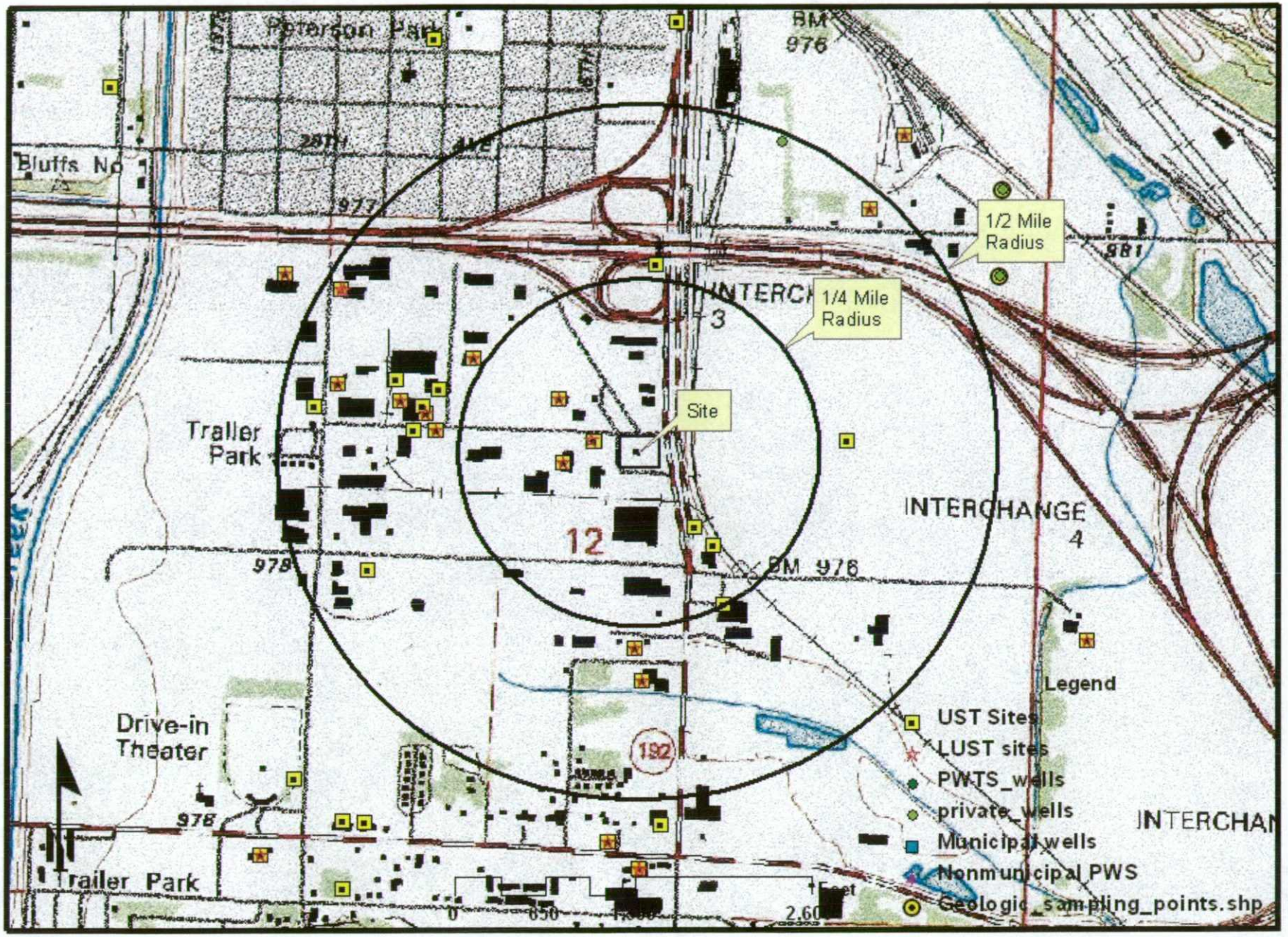
No further action is required under CERCLA or Iowa Chapter 133 at this time and the site is not a candidate for an ESS.

**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

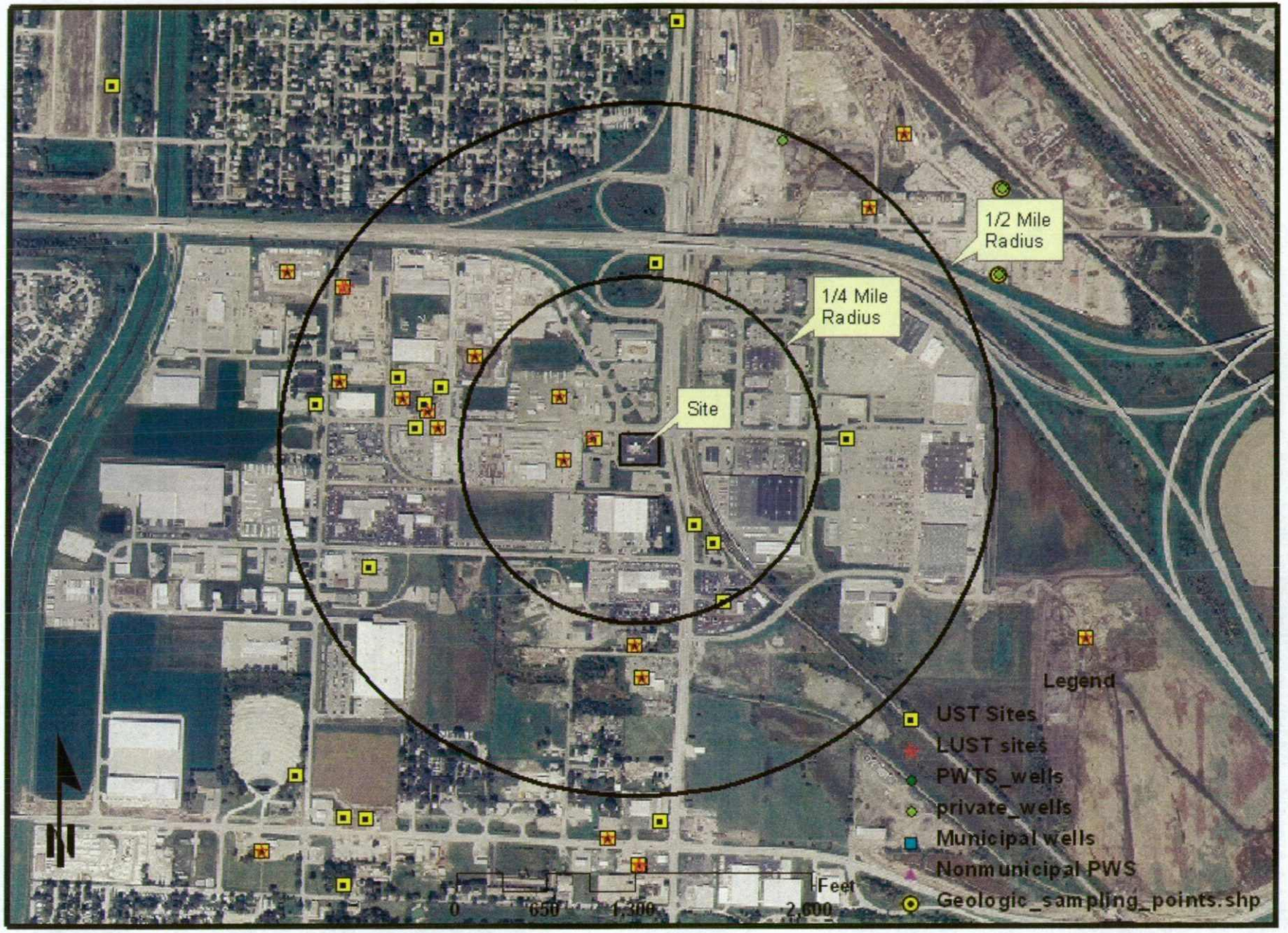
**Form Reviewed:** _____ **Date Reviewed:** 8/17/07

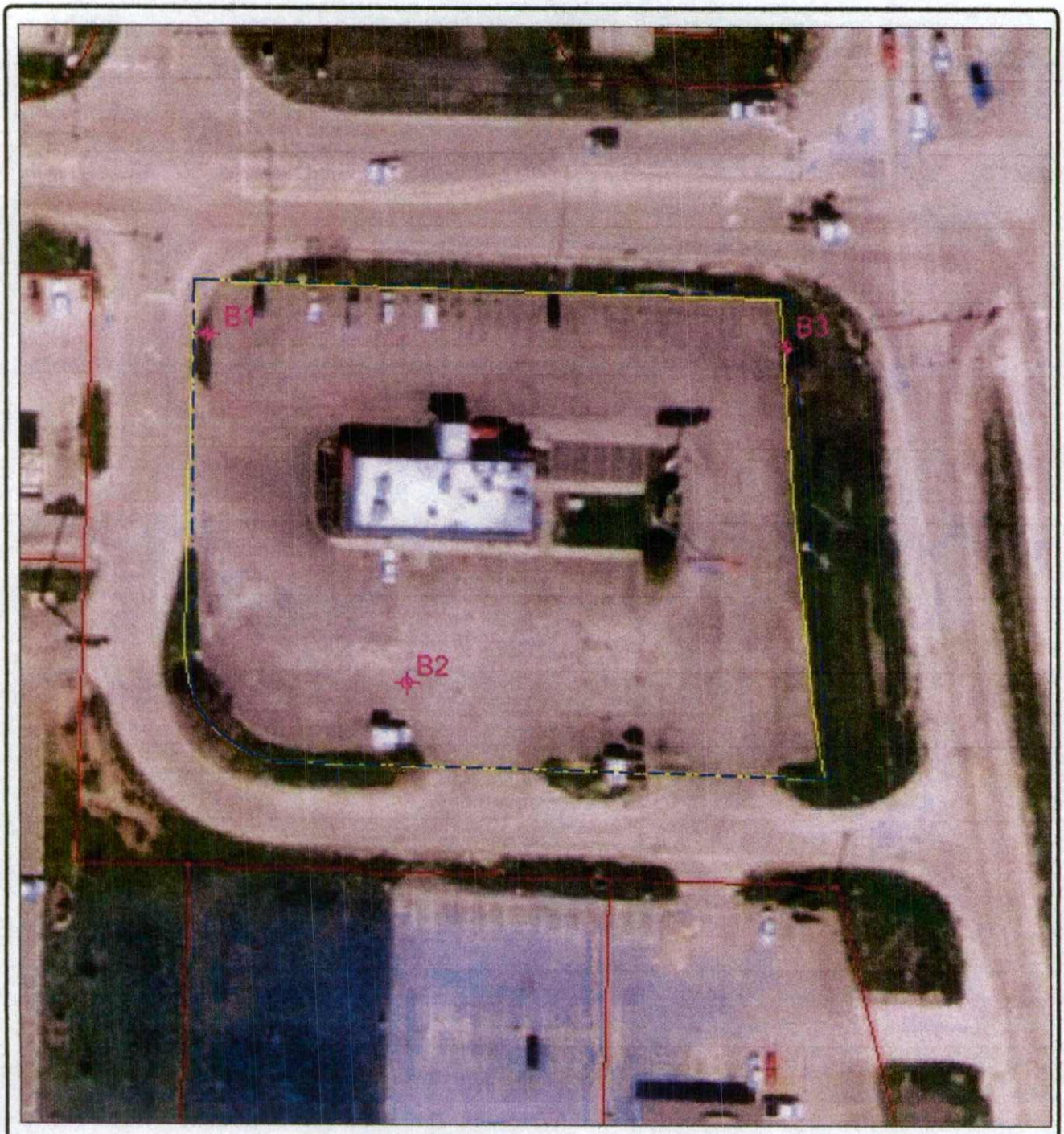
**Revised 6/2007**

# Hardee's, Council Bluffs



# Hardee's, Council Bluffs






## LEGEND

N

APPROXIMATE PROPERTY BOUNDARY

B2 BORING LOACTION

THIS DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

SITE DIAGRAM
LIMITED SITE INVESTIGATION
HARDEE'S
3200 S EXPRESSWAY
COUNCIL BLUFFS, IOWA

| | | | |
|---|---|---|---|
| Project Mngr: | EDB | Terracon | Project No. 06077094 |
| Designed By: | EDB | | Scale: NTS |
| Drawn By: | EDB | 5855 Willow Creek Drive Southwest | File No. 7094 |
| Checked By: | EDB | Cedar Rapids, Iowa 52404 | Date: JUNE 2007 |
| Approved By: | EDB | Figure No. | 2 |

# Table 1 - Soil Results (mg/kg)

| | B-1 (10-12') | B-2 | B-3 (18-20') | Standards |
|---|---|---|---|---|
| TEH-gas | <10 | <10 | <10 | - |
| TEH-diesel | <10 | <10 | <10 | 3,800 |
| TEH-oil | <10 | <10 | <10 | - |
| | | | | |
| Acetone | <0.149 | <0.162 | <0.251 | 68,000 |
| Acrylonitrile | <0.149 | <0.162 | <0.251 | 5.7 |
| Benzene | <0.0149 | <0.0162 | <0.0251 | 88 |
| Bromobenzene | <0.0149 | <0.0162 | <0.0251 | - |
| Bromochloromethane | <0.0149 | <0.0162 | <0.0251 | 760 |
| Bromodichloromethane | <0.0149 | <0.0162 | <0.0251 | 50 |
| Bromoform | <0.0297 | <0.0324 | <0.0501 | 390 |
| Bromomethane | <0.0595 | <0.0649 | <0.1 | 110 |
| 2-butanone (MEK) | <0.149 | <0.162 | <0.251 | 46,000 |
| n-Butylbenzene | <0.0149 | <0.0162 | <0.0251 | - |
| sec-Butylbenzene | <0.0149 | <0.0162 | <0.0251 | - |
| tert-Butylbenzene | <0.0149 | <0.0162 | <0.0251 | - |
| Carbon disulfide | <0.0149 | <0.0162 | <0.0251 | 7,600 |
| Carbon tetrachloride | <0.0149 | <0.0162 | <0.0251 | 24 |
| Clorobenzene | <0.0149 | <0.0162 | <0.0251 | 1,500 |
| Chlorodibromomethane | <0.0149 | <0.0162 | <0.0251 | - |
| Chloroethane | <0.0595 | <0.0649 | <0.1 | - |
| Chloroform | <0.0149 | <0.0162 | <0.0251 | 510 |
| Chloromethane | <0.0595 | <0.0649 | <0.1 | 240 |
| 2-Chlorotoluene | <0.0149 | <0.0162 | <0.0251 | 1,500 |
| 4-Chlorotoluene | <0.0149 | <0.0162 | <0.0251 | 1,500 |
| 1,2-Dibromo-3-Chloropropane | <0.149 | <0.162 | <0.251 | 2.2 |
| 1,2-Dibromoethane | <0.149 | <0.162 | <0.251 | 1.5 |
| Dibromomethane | <0.0149 | <0.0162 | <0.0251 | 760 |
| 1,2-Dichlorobenzene | <0.0149 | <0.0162 | <0.0251 | 5,500 |
| 1,3-Dichlorobenzene | <0.0149 | <0.0162 | <0.0251 | 5,500 |
| 1,4-Dichlorobenzene | <0.0149 | <0.0162 | <0.0251 | 610 |
| Dichlorodifluoromethane | <0.0446 | <0.0487 | <0.0752 | 15,000 |
| 1,1-Dichloroethane | <0.0149 | <0.0162 | <0.0251 | 15,000 |
| 1,2-Dichloroethane | <0.0149 | <0.0162 | <0.0251 | 34 |

| | B-1 (10-12') | B-2 | B-3 (18-20') | Standards |
|---|---|---|---|---|
| 1,1-Dichloroethene | <0.0149 | <0.0162 | <0.0251 | 380 |
| cis-1,2-Dichloroethene | <0.0149 | <0.0162 | <0.0251 | 760 |
| trans-1,2-Dichloroethene | <0.0149 | <0.0162 | <0.0251 | 1,500 |
| 1,2-Dichloropropane | <0.0149 | <0.0162 | <0.0251 | 46 |
| 1,3-Dichloropropane | <0.0149 | <0.0162 | <0.0251 | 31 |
| 2,2-Dichloropropane | <0.0595 | <0.0649 | <0.1 | - |
| 1,1-Dichloropropene | <0.0149 | <0.0162 | <0.0251 | - |
| cis-1,3-Dichloropropene | <0.0149 | <0.0162 | <0.0251 | - |
| trans-1,3-Dichloropropene | <0.0149 | <0.0162 | <0.0251 | - |
| Ethylbenzene | <0.0149 | <0.0162 | <0.0251 | 7,600 |
| Hexachlorobutadiene | <0.0743 | <0.0811 | <0.125 | 31 |
| Hexane | <0.743 | <0.0811 | <0.125 | 4,600 |
| Isopropylbenzene | <0.0149 | <0.0162 | <0.0251 | - |
| p-Isopropyltoluene | <0.0149 | <0.0162 | <0.0251 | - |
| Methylene Chloride | <0.149 | <0.162 | <0.251 | 410 |
| Methyl tert-butyl ether | <0.0149 | <0.0162 | <0.0251 | 2,300 |
| Naphthalene | <0.0743 | <0.0811 | <0.125 | 1,100 |
| n-Propylbenzene | <0.0149 | <0.0162 | <0.0251 | - |
| Styrene | <0.0149 | <0.0162 | <0.0251 | 15,000 |
| 1,1,1,2-tetrachloroethane | <0.0149 | <0.0162 | <0.0251 | 230 |
| 1,1,2,2-tetrachloroethane | <0.0149 | <0.0162 | <0.0251 | 15 |
| Tetrachloroethene | <0.0149 | <0.0162 | <0.0251 | 5.7 |
| Toluene | <0.0149 | <0.0162 | <0.0251 | 6,100 |
| 1,2,3-trichlorobenzene | <0.0743 | <0.0811 | <0.125 | - |
| 1,2,4-trichlorobenzene | <0.0743 | <0.0811 | <0.125 | 760 |
| 1,1,1-trichloroethane | <0.0149 | <0.0162 | <0.0125 | 2,700 |
| 1,1,2-trichloroethane | <0.0149 | <0.0162 | <0.0251 | 54 |
| Trichloroethene | <0.0149 | <0.0162 | <0.0251 | 7.7 |
| Trichlorofluoromethane | <0.0595 | <0.0649 | <0.1 | 23,000 |
| 1,2,3-trichloropropane | <0.0149 | <0.0162 | <0.0251 | 0.44 |
| 1,2,4-trimethylbenzene | <0.0149 | <0.0162 | <0.0251 | 3,800 |
| 1,3,5-trimethylbenzene | <0.0149 | <0.0162 | <0.0251 | 3,800 |
| Vinyl Chloride | <0.0446 | <0.0487 | <0.0752 | 2.1 |
| Xylenes | <0.0446 | <0.0487 | <0.0752 | 15,000 |

# Table 2 - Groundwater Results (ug/L)

| | B1 | B2 | B3 | Standards |
|---|---|---|---|---|
| TEH-gas | <300 | <300 | <300 | - |
| TEH-diesel | <300 | <300 | 435 | 1,200 |
| TEH-waste oil | 762 | <300 | 676 | 400 |
| | | | | |
| Acetone | <10 | <20 | <10 | 6,300 |
| Acrylonitrile | **<10** | **<20** | **<10** | 0.32 |
| Benzene | <0.5 | <1 | <0.5 | 5 |
| Bromobenzene | <1 | <2 | <1 | - |
| Bromochloromethane | <5 | <10 | <5 | 80 |
| Bromodichloromethane | <1 | <2 | <1 | 80 |
| Bromoform | <5 | <10 | <5 | 80 |
| Bromomethane | <4 | <8 | <4 | 10 |
| 2-Butanone (MEK) | <10 | <20 | <10 | 4,000 |
| n-Butylbenzene | <1 | <2 | <1 | - |
| sec-Butylbenzene | <1 | <2 | <1 | - |
| tert-Butylbenzene | <1 | <2 | <1 | - |
| Carbon disulfide | <1 | <2 | <1 | 700 |
| Carbon tetrachloride | <2 | <4 | <2 | 5 |
| Clorobenzene | <1 | <2 | <1 | 100 |
| Chlorodibromomethane | <5 | <10 | <5 | 60 |
| Chloroethane | <4 | <8 | <4 | - |
| Chloroform | <1 | <2 | <1 | 80 |
| Chloromethane | <3 | <6 | <3 | 30 |
| 2-Chlorotoluene | <1 | <2 | <1 | 100 |
| 4-Chlorotoluene | <1 | <2 | <1 | 100 |
| 1,2-Dibromo-3-Chloropropane | **<10** | **<20** | **<10** | 0.2 |
| 1,2-Dibromoethane | **<10** | **<20** | **<10** | 0.05 |
| Dibromomethane | <1 | <2 | <1 | 70 |
| 1,2-Dichlorobenzene | <1 | <2 | <1 | 600 |
| 1,3-Dichlorobenzene | <1 | <2 | <1 | 600 |
| 1,4-Dichlorobenzene | <1 | <2 | <1 | 75 |
| Dichlorodifluoromethane | <3 | <6 | <3 | 1,000 |
| 1,1-Dichloroethane | <1 | <2 | <1 | 140 |
| 1,2-Dichloroethane | <1 | <2 | <1 | 5 |
| 1,1-Dichloroethene | <2 | <4 | <2 | 7 |
| cis-1,2-Dichloroethene | <1 | <2 | <1 | 70 |
| trans-1,2-Dichloroethene | <1 | <2 | <1 | 100 |
| 1,2-Dichloropropane | <1 | <2 | <1 | 5 |
| 1,3-Dichloropropane | <1 | **<2** | <1 | 1.8 |
| 2,2-Dichloropropane | <4 | <8 | <4 | - |
| 1,1-Dichloropropene | <1 | <2 | <1 | - |
| cis-1,3-Dichloropropene | <5 | <10 | <5 | - |
| trans-1,3-Dichloropropene | <5 | <10 | <5 | - |
| Ethylbenzene | <1 | <2 | <1 | 700 |
| Hexachlorobutadiene | **<5** | **<10** | **<5** | 1 |
| Hexane | <1 | <2 | <1 | 420 |
| Isopropylbenzene | <1 | <2 | <1 | - |
| p-Isopropyltoluene | <1 | <2 | <1 | - |
| Methylene Chloride | <5 | <10 | <5 | 5 |
| Methyl tert-butyl ether | 102 | <2 | <1 | 21 |
| Naphthalene | <5 | <10 | <5 | 100 |
| n-Propylbenzene | <1 | <2 | <1 | - |
| Styrene | <1 | <2 | <1 | 100 |

| | B1 | B2 | B3 | Standards |
|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | <1 | <2 | <1 | 70 |
| 1,1,2,2-tetrachloroethane | **<1** | **<2** | **<1** | 0.3 |
| Tetrachloroethene | <1 | <2 | <1 | 5 |
| Toluene | <1 | <2 | <1 | 1000 |
| 1,2,3-trichlorobenzene | <5 | <10 | <5 | - |
| 1,2,4-trichlorobenzene | <5 | <10 | <5 | 70 |
| 1,1,1-trichloroethane | <1 | <2 | <1 | 200 |
| 1,1,2-trichloroethane | <1 | <2 | <1 | 5 |
| Trichloroethene | <1 | <2 | <1 | 5 |
| Trichlorofluoromethane | <4 | <8 | <4 | 2,000 |
| 1,2,3-trichloropropane | <1 | <2 | <1 | 40 |
| 1,2,4-trimethylbenzene | <1 | <2 | <1 | 350 |
| 1,3,5-trimethylbenzene | <1 | <2 | <1 | 350 |
| Vinyl Chloride | <1 | <2 | <1 | 2 |
| Xylenes | <3 | <6 | <3 | 10,000 |