Initial Site Screening (ISS)

CON 12-15
DOC# 34030

Site Name: TEH- Kwik Trip #704 - Adjacent property

Project Manager: Matt Culp Date: 2/27/2018

☐ **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: (Decimal Degree format)

Latitude: 42. 5711 Longitude: 92.7868 **County:** Butler

USGS Quadrant: Parkersburg

Site Size: 0.381 **Site Dimension:** ☒ Acres ☐ Square Feet ☐ Feet ☐ Square Miles ☐ Miles

Site Alias Name(s): None

Congressional District: Iowa 3rd

Grant Recipient Name: NA

Grant Recipient Address: NA

Grant Recipient Phone: NA **Grant Recipient Email:** NA

Current Owner(s): Kade Hoppenworth

Current Owner Address: Lincoln Savings Bank Cedar Valley Real Estate 3006 Rownd Street \Cedar Falls, IA

If different from current owner:

Responsible Party Name(s): same

Responsible Party Address: same

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)

808 and 810 3rd Street, Parkersburg, Iowa

Directions to site: From Des Moines travel north on Interstate 35 to Highway 20 and turn east. Take Highway 20 to state highway 14 and turn north to Parkersburg. Stay on highway 14 to 3RD street and turn right and the site is on the right

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

The site was originally developed in 1920 for residential use until 2008. In 2008, the residential structure was destroyed by a tornado and was never rebuilt. Although the site is located adjacent to a convenience store (Kwik Trip #704), there are no historical indications that the site ever had any buried waste, underground tanks, spills of chemicals or recognized environmental concerns (RECs) associated with the property (see Site Location Map). However, the destruction of the home by the tornado could have caused a release of fuel or other chemicals. The site is currently a grass covered lot. There is a slab foundation from the previous house and a soil pile from the excavation for a basement on a neighboring property. There also appears to have been a cistern on the site that has been filled.

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 (B-1 through B-3) were completed to a depth of 20 feet. Soil samples were continuously field screened for the presence of volatile organic compounds (VOCs) with a photoionization detector (PID). Soil samples were collected from each soil boring at depths of 4-6 feet in borings B-1 and B-2 and at 5-6 feet in boring B-3 (See boring logs attached). In addition, a soil sample was collected from the on-site soil pile. Groundwater was encounter at around 8 feet. Soil samples were analyzed for VOCs by EPA Method 8260 and for petroleum products by Iowa Method OA-2. The soil borings were converted to temporary monitoring wells to facilitate the collection of groundwater for the same analysis for VOCs by the same analytical methods.

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.

<u>Soil Findings:</u>

Diesel fuel and waste oil were detected in all three soil boings and an estimated detection (J code) was identified in the soil stock pile. The maximum concentrations for both diesel fuel and waste oil were all below Land Recycling program Statewide Standards (SWS). The maximum concentration for diesel fuel was 193 mg/kg in boring B-1. The SWS for diesel fuel in soil is 28,000 mg/kg. The maximum concentration for waste/motor oil was 440 mg/kg also in boring B-1 and the SWS is 9,400 mg/kg.

<u>Groundwater Findings:</u>

Diesel fuel and waste oil were not detected above lab method limits at any of the three groundwater sample locations. A Chloromethane (methyl chloride) estimated (J code) detection was observed in groundwater from temporary monitoring well B-1/TMW-1 at 0.20ug/L and the SWS is 5ug/L. Methyl Chloride is also known as Refrigerant-40, R-40 or HCC 40. It is a chemical compound of the group of organic compounds called halo-alkanes and was once widely used as a refrigerant.

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 on-site actual or potential receptors as the site is a vacant lot. Potential off-site contamination sources include three registered leaking underground storage tanks (LUST) to the southeast. There are three potential receptors (private wells) located within 1,000 feet that are completed to depth of 120 to 165 feet and are probably finished in a bedrock aquifer. The threat level to these wells from the contamination identified at this site is virtually zero.

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

Priority 3

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

A risk calculation for exposure to indoor air was not conducted by DNR because the highest groundwater concentrations of waste oil and diesel fuel are not volatile enough to calculated indoor air concentrations for exposure to indoor air.

Site recommended for:

- ☒ 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: Anna Davidson **Date Reviewed:** 2-27-18

PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer:

Name/Title Matt Culp Senior Environmental Specialist Date 2/27/2018

Address 502 East 9th Street City/State/Zip Des Moines IA 50319

E-mail matt.culp@dnr.iowa.gov Phone 1-515-725-8337

Site Name: TEH- Kwik Trip #704 - Adjacent Property

Previous Names (if any): none

Site Location:

Address 808 and 810 3rd Street City/State/Zip Parkersburg, IA 50665

Latitude: 42.5711 **Longitude:** 92. 7868

Compare the following checklist. If "yes" is marked, please explain below.	YES	NO
1. Does the site already appear in CERCLIS?	☐	☒
2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	☐	☒
3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	☐	☒
4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	☐	☒
5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	☐	☒
6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	☒	☐
7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	☐	☒
8. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance release have occurred, EPA approved risk assessment completed)?	☐	☒

Please explain all "yes" answer(s), attach additional sheets if necessary:

Item 6: Petroleum release from spill due to tonado.

Site Determination:

☐ Enter the site into CERCLIS. Further assessment is recommended (Explain below).

☒ The site is not recommended for placement into CERCLIS (Explain below).

☐ Further assessment is recommended under PRE-CERCLA (Explain below).

DECISION/DISCUSSION/RATIONALE:

Soil and groundwater contamination (not related to the LUST site) is modest and limited in extent and presents a negligable risk.

Regional EPA Reviewer: _____ _____

Print Name/Signature | Date

State Agency/Tribe: _____ _____

Print Name/Signature | Date

REGION VII
U.S. ENVIRONMENTAL PROTECTION AGENCY

ENFORCEMENT SENSITIVE INFORMATION
FOR INTERNAL USE ONLY

LOCATION FORM

(Required information marked with a * and in red)

*Site Name: TEH- Kwik Trip #704 Adjacent Property *EPA ID:

*Latitude: 42.5711 *Longitude: 92.7868 Measurement Sequence:
Decimal Decree Format (See Comment A)

*Lat/Long Source: ☐ Contractor ☐ Regulated Entity ☐ Private
☐ Dun & Bradstreet ☐ State ☐ SNAP
☐ EPA Region 7 ☐ EPA Headquarters ☐ Tribe
☐ Geograph ☐ Epic ☐ Unknown
☐ Other Federal Agency ☒ Other ☐ (Blank)

Designate Lat/Long: ☐ Primary ☐ NPL Coordinate

*Collection Method:

☐ Address Matching -House Number
☐ Address Matching - Block Face
☐ Address Matching - Street Centerline
☐ Census Block - 1990 - Centroid
☐ Census Block/Group 1990-Centroid
☐ Census Block/Tract - 1990 - Centroid
☐ Census - Other
☐ GPS Carrier Phase Static Relative Position
☐ GPS Carrier Phase Kinematic Relative Position
☐ GPS, with Canadian Active Control System
☐ Interpolation-Digital Map Source (TIGER)
☐ Interpolation-Map
☐ Interpolation -MSS
☐ Address Matching -Nearest Intersection
☐ Address Matching - Primary Name
☐ Address Matching - Digitized
☐ ZIP+2 Centroid
☐ ZIP+4 Centroid
☐ ZIP Code - Centroid
☐ GPS Code (Pseudo Range) Differential
☐ GPS Code (Pseudo Range) Precise Position
☐ GPS Code (Pseudo Range) Standard Position (SA-Off)
☐ GPS Code (Pseudo Range) Standard Position Service SA-On
☐ Interpolation -Photo
☒ Interpolation – Satellite
☐ Interpolation - SPOT
☐ Address Matching - Other
☐ Public Land Survey-Footing
☐ Public Land Survey-Section
☐ Public Land Survey-Quarter Section
☐ Public Land Survey-Eighth Section
☐ Public Land Survey-Sixteenth Section
☐ GPS-Unspecified
☐ Classical Surveying Techniques
☐ LORAN
☐ Unknown
☐ Interpolation-TM
☐ Interpolation - Other

*Reference Point:

☐ Administrative Building	☐ Facility/Station Bldg Entrance	☐ Other	☐ Solid Waste Trtmnt/Disp. Unit
☐ Air Monitoring Station	☐ Intake Point	☐ Plant Entrance (Freight)	☐ Storage Tank
☐ Air Release Stack	☐ Lagoon or Settling Pond	☐ Plant Entrance (General)	☐ SW Corner of Land Parcel
☐ Air Release Vent	☐ Liquid Waste Treatment Unit	☐ Plant Entrance (Personnel)	☐ Treatment/Storage Plant
☐ Atmos. Emissions Trtmnt Unit	☐ Loading Area Centroid	☐ Process Unit Area Centroid	☐ Unknown
☐ Boundary Point	☐ Loading Facility	☐ Process Unit	☐ Water Monitoring Station
☐ Building Entrance	☐ Monitoring Point	☐ Release Point	☐ Water Release Pipe
☒ Facility/Centroid Cent	☐ NE Corner of Land Parcel	☐ SE Corner of Land Parcel	☐ Well
	☐ NW Corner of Land Parcel	☐ Solid Waste Storage Area	☐ Well Protection Area

*Reference Datum: ☐ NAD27 ☐ NAD83 ☐ Other ☒ Unknown ☐ WGS84

*Accuracy Meters +/-: ☒ *Accuracy Unknown *Collection Date:

Verification Method:

☐ Ground Truth Conducted	☐ Proximity to Polygon Centroid (County)	☐ Verified Relative to Map Features (Other)
☐ Point In Polygon (County)	☐ Proximity to Polygon Centroid (Other)	☐ Verified, Unknown Method
☐ Point in Polygon (Zip)	☐ Proximity to Polygon Centroid (Zip Code)	☒ Not Verified
☐ Point in Polygon (Other)	☐ Verified Relative to Map Features (1:100K/Tiger)	☐ Blank

☐ Proximity to Alternative Facility Coordinate
☐ Verified Relative to Map Features (1:24K)

*Point/Line/Area: ☐ AREA ☐ LINE ☒ POINT ☐ REGION ☐ ROUTE ☐ BLANK

*Source Map Scale:

☐ 1:10,000	☐ 1;20,000	☐ 1:50,000	☐ 1:100,000	☐ 1:500,000
☐ 1:12,000	☐ 1:24,000	☐ 1:62,500	☐ 1:125,000	☐ NONE
☐ 1:15,840	☐ 1:25,000	☐ 1:63,360	☐ 1:250,000	☐ UNKNOWN

☐ OTHER

COMMENTS:

Signatures:

RPM/OSC: Date:

Branch Chief: Date:

Comment A: A sequential number to indicate the order in which points on a line or area are connected. For an area, the maximum point is connected to the first. Required if the feature is polygonal or linear 3 numeric.

REGION VII U.S. EPA SUPERFUND
NO DISCOVERY DATE

PRE-CERCLIS INITIATION FORM

(Required information marked with a * and in red)
NPL Status = O-Not a Valid Site or Incident

*Site Name: TEH-Kwik Trip #704 Adjacent Property *Identified By: ☐ Removal ☒ Site Assessment ☐ Federal Facilities ☐ States ☐ Other Federal Agency Check if: ☐ FUD Site

*Address: 808 and 810 3rd Street *County: Butler

*City, State, Zip: Parkersburg IA 50665 State ID (if one exists): Congressional District: Iowa 4th

NPL Status = O-Not a Valid Site or Incident Federal Facility Indicator: ☐ Federal Facility ☒ Not a Federal Facility ☐ Status Undetermined

*Section:

☐ C-(STAR) SPFD Technical Assistance/Re-Use Branch ☐ L-(EFLR) Enfr/Fund Lead RV Branch ☐ F-(FFSE) Federal Facilities/Special Emphasis Branch
☐ M-(MOKS) MO/KS remedial Branch ☒ I-(IANE) IA/NE Remedial Branch ☐ O-(ER&R) Emergency Response & RV Branch

List Site Alias Name(s): none

Directions to Site: From Des Moines travel north on Interstate 35 to Highway 20 and turn east. Take Highway 20 to state highway 14 and turn north to Parkersburg. Stay on highway 14 to 3RD street and turn right and the site is on the right

Site Description: The site is a vacant lot

*Latitude: 42.5711 *Longitude: 92.7868 USGS Quadrant: Parkersburg USGS Hydro Unit:

(Decimal Degree Format) (with release of 3.17 see attached required location data form

Lat/Long Accuracy: ☐ Seconds ☒ Degrees ☐ Minutes ☐ Miles ☐ Feet ☐ Kilometers ☐ Meters

*Owner Operator Type:
☐ Federally-Owned ☐ Other ☐ Trustee, Federal
☐ Bank/Loan Company ☐ Former Federally Owned or Operated ☒ Private ☐ Trustee, State
☐ Brownfields/Public ☐ Government Owned/Contractor Operated ☐ Privately Owned/Government Operated ☐ Unknown
☐ County Owned ☐ Mixed Ownership ☐ Property Defaulted Back to Government
☐ District Owned ☐ Municipality ☐ State Owned

*Operational Status: ☐ Active ☒ Inactive ☐ Unknown ☐ Blank Native American Interest: ☐ Yes ☐ No

*Non-NPL Status (Choose one): ☒ Not a Valid Site or Incident ☐ Not a Valid Site or Incident: RCRA Lead ☐ Not a Valid Site or Incident: State Lead ☐ Not a Valid Site or Incident: NRC Lead ☐ Not a Valid Site or Incident: Tribal Lead

*Add Action: OU 00 *PRE-CERCLIS SCREENING: *Planned Complete: *Actual Complete:

*Lead code (choose one) ☐ F-EPA Fund Financed ☐ FF - Federal Facility ☐ S - State, Fund Financed

SCAP Note:

Add below Action (if No Further Action): OU 00 Lead: EP ☐ PRE-CERCLIS ARCHIVE Actual Complete:

SCAP Note: Comments: ☐ Site or ☐ Action:

*Site Type: (Choose all that apply; for every main category chosen, in bold, at least one sub-category must be selected; if more than one main and sub-category is selected indicate which is primary)

Primary Designation: OT

☐ **MP-Manufacturing/Processing/Maintenance** - *Applicable sub-categories:*
- ☐ CA-Chemicals and allied products
- ☐ CG-Coal gasification
- ☐ CP-Coke production
- ☐ EP-Electric power generation and distribution
- ☐ FT-Fabrics/textiles
- ☐ EE-Electronic/electrical equipment
- ☐ LW-Lumber and wood products/pulp and paper
- ☐ WP-Lumber and wood products/ wood preserving/ preserving/ treatment
- ☐ MF-Metal fabrication/finishing/coating and allied industries
- ☐ OR-Oil and gas refining
- ☐ OP-Ordnance production
- ☐ OT-Other-Description (needed):
- ☐ PR-Plastics and rubber products
- ☐ PM-Primary metals/mineral processing
- ☐ RA-Radioactive products
- ☐ TA-Tanneries
- ☐ TS-Trucks/ships/trains/aircraft and related components

☐ **RE-Recycling** - *Applicable sub-categories*
- ☐ AT-Automobiles/tires
- ☐ BS-Batteries/scrap metals/secondary smelting/precious metal recovery
- ☐ CC-Chemicals/chemical waste (e.g., solvent recovery)
- ☐ DT-Drums/tanks
- ☐ OT-Other-Description (needed):
- ☐ WO-Waste/used

☐ **MI-Mining** - *Applicable sub-categories*
- ☐ CO-Coal
- ☐ ME-Metals
- ☐ NM-Non-metal minerals
- ☐ OG-Oil and Gas
- ☐ OT-Other-Description (needed):

☐ **WM-Waste Management** - *Applicable sub-categories*
- ☐ CL-Co-disposal landfill (municipal and industrial)
- ☐ ID-Illegal disposal/open dump
- ☐ IF-Industrial waste facility (non-generator)
- ☐ MD-Mine tailings disposal
- ☐ OT-Other-Description (needed):
- ☐ ML-Municipal solid waste landfill
- ☐ RW-Radioactive waste treatment, storage, disposal (non-generator)

☒ **OT-Other** - *Applicable sub-categories*
- ☐ AG-Agricultural (e.g., grain elevator)
- ☐ CS-Contaminated sediment site with no identifiable source
- ☐ DC-Dust control
- ☐ OT-Other-Description (needed):
- ☐ GP-Ground water plume site with no identifiable source
- ☐ MO-Military/Other Ordinance
- ☐ PS-Product Storage/distribution
- ☐ RC-Retail/commercial
- ☐ RD-Research, development, and testing facility
- ☒ SE-Spill or other one-time event
- ☐ TP-Transportation (e.g., railroad yards, airport, barge docking, site)
- ☐ TW-Treatment works/septic tanks/other sewage treatment

Signatures:
States: Amii Davidson Date: 2-27-18
RPM/OSC/SAM: Date:

SITE LOCATION

Kwik Trip 704 - Adjacent ■ Parkersburg, IA
July 27, 2017 ■ Terracon Project No. 13177059

Terracon GeoReport

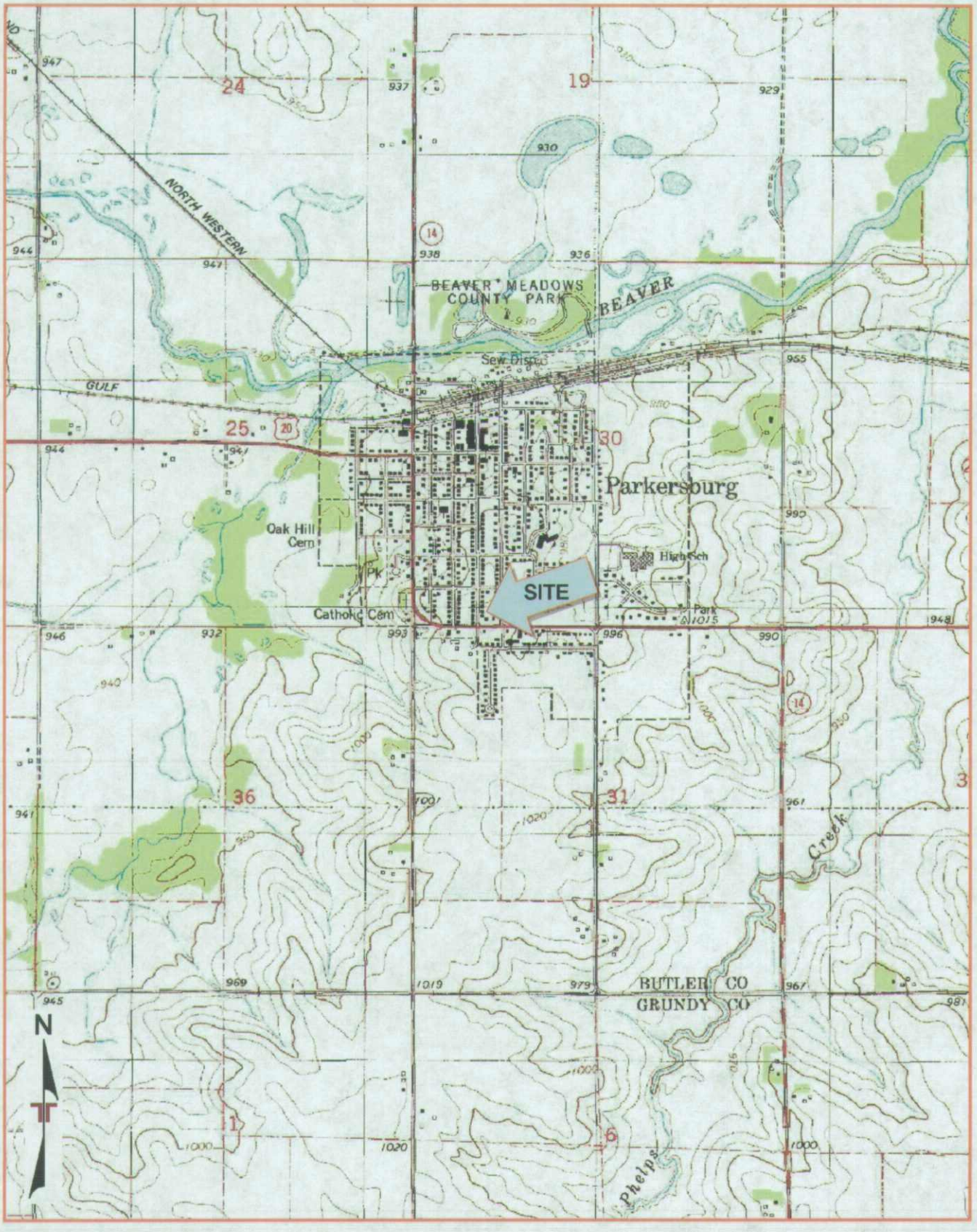


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
QUADRANGLES INCLUDE: PARKERSBURG, IA (1/1/1980).

EXPLORATION PLAN

Kwik Trip 704 - Adjacent ■ Parkersburg, IA

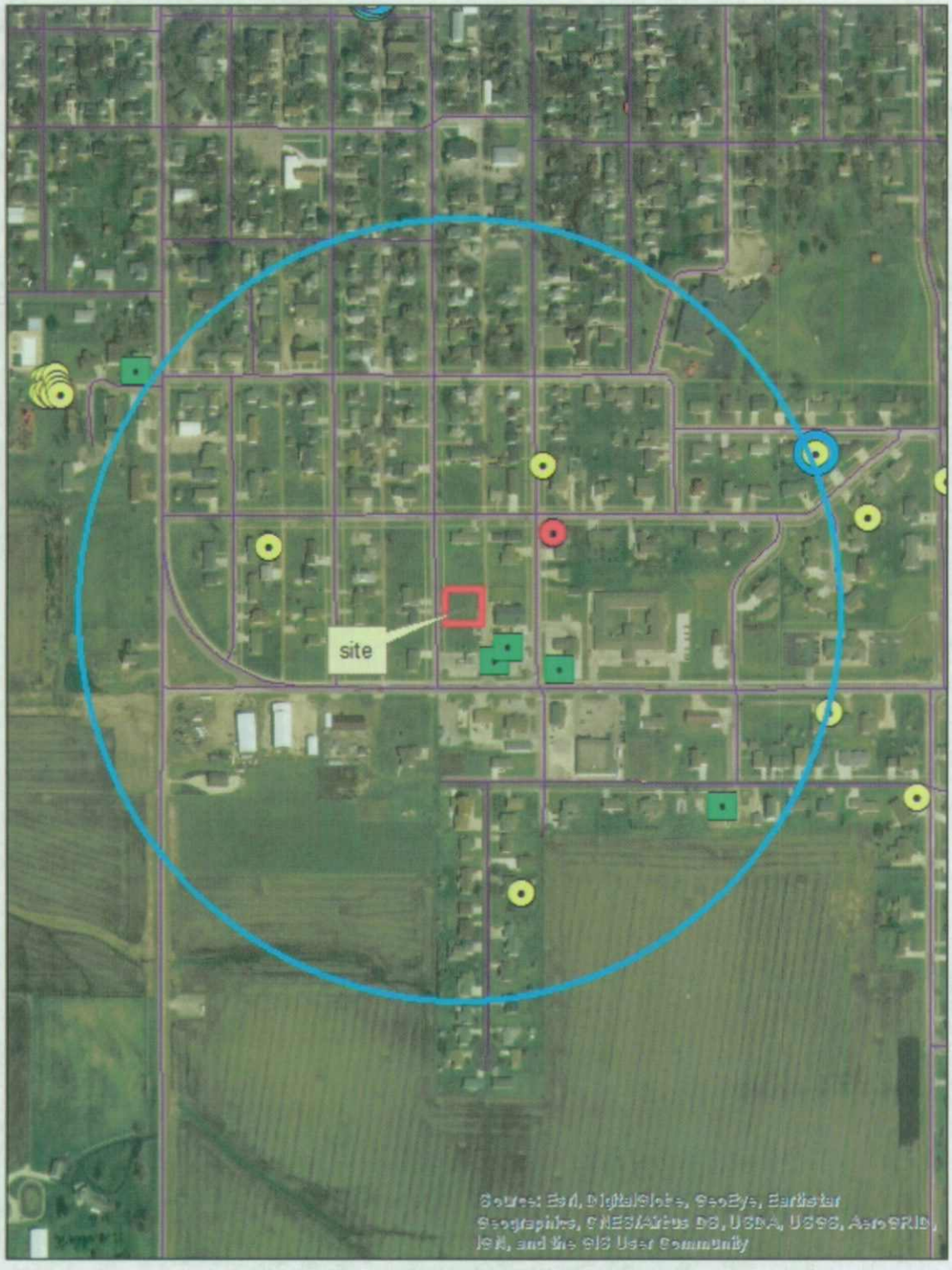
July 27, 2017 ■ Terracon Project No. 13177059

Terracon GeoReport

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

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

Potential Receptor Map
Kwik Trip adjacent property
Parkersburg, Ia



N
W
E
S

Legend

- LUST_sites
- UST_sites
- st_wells
- private_well_test
- geologic_sampling_points
- Contaminated_sites_facility
- water_use_wells
- roads_2006_12

BORING LOG NO. B-1/TMW-1

PROJECT: Kwik Trip 704 - Adjacent

CLIENT: Kwik Trip Inc
La Crosse, WI

SITE: 808 and 810 Third Street
Parkersburg, IA

LOCATION: See Exhibit A-2

Latitude: 42.57118° Longitude: -92.78696°

Surface Elev.: 101.08 (Ft.)

INSTALLATION DETAILS
Top Casing Elev: 101.0

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	PID Reading
				X	2	3-3-4-5 N=7	ND
		5		X	3	2-2-10-15 N=12	ND
			▼	X	16	3-4-6-7 N=10 4500 (HP)	ND
		10		X	24	3-5-5-7 N=10 3500 (HP)	ND
				X	24	6-8-14-18 N=22 7000 (HP)	ND
		15		X	24	5-13-25-26 N=38 5000 (HP)	ND
			▽	X	24	6-9-13-17 N=22 9000 (HP)	ND
		20		X	24	6-8-13-15 N=21 9000 (HP)	ND

FILL - SANDY LEAN CLAY, with gravel, concrete, brick, glass rubble, and zones of sand, trace organics, dark brown and brown — 7.0 / 94

SANDY LEAN CLAY (CL), trace gravel, light brown and light gray, very stiff — 11.5 / 89.5

SANDY LEAN CLAY (CL/SC), trace gravel, with sand layers, gray and light brown, hard — 16.5 / 84.5

SANDY LEAN CLAY (CL), trace gravel, gray brown, hard — 21.0 / 80

Boring Terminated at 21 Feet

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

ND (Non-Detectable)

Advancement Method:
Solid Stem Auger

Abandonment Method:
Temporary well removed and boring backfilled with soil cuttings and bentonite chips upon completion on 7/18/17.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:
Soil sample from 4-6 feet sent to lab
Water sample from 8.3 feet sent to lab

WATER LEVEL OBSERVATIONS

None observed while drilling or after drilling at 12:00

▽ *18' observed at 14:00*

▼ *8.39' observed on 7/18/17 at 11:25*

Terracon
3105 Capital Way Ste 5
Cedar Falls, IA

Boring Started: 7/17/2017 | Boring Completed: 7/17/2017

Drill Rig: # 872 | Driller: WE

Project No.: 13175086

BORING LOG NO. B-2/TMW-2

PROJECT: Kwik Trip 704 - Adjacent

CLIENT: Kwik Trip Inc
La Crosse, WI

SITE: 808 and 810 Third Street
Parkersburg, IA

LOCATION: See Exhibit A-2

Latitude: 42.57103° Longitude: -92.78696°

Surface Elev.: 100.10 (Ft.)

INSTALLATION DETAILS
Top Casing Elev: 99.9

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	PID Reading
		FILL - SANDY LEAN CLAY, trace gravel, brown and dark brown						
					X	10	3-3-3-2 N=6	ND
			5		X	13	2-2-2-2 N=4	1
6.0	94			▼	X	24	2-2-2-3 N=4 1000 (HP)	ND
		SANDY LEAN CLAY (CL), trace gravel, with sand seams, light brown and light gray, medium stiff to stiff	10		X	24	1-1-3-3 N=4 3000 (HP)	1
11.5	88.5				X	24	2-4-8-11 N=12 1500 (HP)	1
14.0	86	**SANDY LEAN CLAY (CL)**, trace gravel, gray and light brown, hard						
		SANDY LEAN CLAY (CL), trace gravel, gray, hard	15	▽	X	22	5-8-9-13 N=17 9000 (HP)	1
					X	24	13-13-14-15 N=27 9000+ (HP)	1
21.0	79		20		X	24	6-10-13-14 N=23 9000+ (HP)	1
		Boring Terminated at 21 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

ND (Non-Detectable)

Advancement Method:
Solid Stem Auger

Abandonment Method:
Temporary well removed and boring backfilled with soil cuttings and bentonite chips upon completion on 7/18/17.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:
Soil sample from 4-6 feet sent to lab
Water sample from 7.2 feet sent to lab

WATER LEVEL OBSERVATIONS

None observed while drilling or after drilling at 13:00

▽ *17.4' observed at 14:02*

▼ *7.39' observed on 7/18/17 at 11:45*

Terracon
3105 Capital Way Ste 5
Cedar Falls, IA

Boring Started: 7/17/2017 | Boring Completed: 7/17/2017

Drill Rig: # 872 | Driller: WE

Project No.: 13175086

BORING LOG NO. B-3/TMW-3

PROJECT: Kwik Trip 704 - Adjacent

CLIENT: Kwik Trip Inc
La Crosse, WI

SITE: 808 and 810 Third Street
Parkersburg, IA

LOCATION: See Exhibit A-2

Latitude: 42.57095° Longitude: -92.78678°

Surface Elev.: 99.49 (Ft.)

INSTALLATION DETAILS
Top Casing Elev: 99.1

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	PID Reading
FILL - SANDY LEAN CLAY, trace gravel and organics, dark brown							
				X	12	3-2-3-4 N=5	ND
4.5	95						
SANDY LEAN CLAY (CL), trace gravel, light gray and light brown, stiff		5		X	16	3-5-3-3 N=8 2500 (HP)	ND
				X	24	2-3-3-4 N=6 3000 (HP)	ND
9.0	90.5		▼ ▽				
SANDY LEAN CLAY (CL), trace gravel, with sand seams, light brown and light gray, medium stiff		10		X	24	1-2-2-6 N=4 1000 (HP)	ND
11.5	88						
SANDY LEAN CLAY (CL), trace gravel, with sand seams, gray brown, hard				X	24	4-8-18-21 N=26 9000+ (HP)	ND
15.5	84	15		X	21	10-9-13-13 N=22 6000 (HP)	1
16.0 SANDY LEAN CLAY (CL), trace gravel, with peat zone, gray, hard	83.5						
SANDY LEAN CLAY (CL), trace gravel, gray, hard				X	24	7-9-13-13 N=22 9000+ (HP)	ND
		20		X	24	6-9-14-14 N=23 9000+ (HP)	1
21.0	78.5						
Boring Terminated at 21 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

ND (Non-Detectable)

Advancement Method:
Solid Stem Auger

Abandonment Method:
Temporary well removed and boring backfilled with soil cuttings and bentonite chips upon completion on 7/18/17.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:
Soil sample from 5-6 feet sent to lab
Water sample from 7.9 feet sent to lab

WATER LEVEL OBSERVATIONS

▽ *9' observed while sampling*

None observed after drilling

▼ *8.28' observed on 7/18/17 at 12:00*

Terracon
3105 Capital Way Ste 5
Cedar Falls, IA

Boring Started: 7/17/2017 | Boring Completed: 7/17/2017

Drill Rig: # 872 | Driller: WE

Project No.: 13175086