Site Name: Canadian Pacific, Moravia

Initial Site Screening (ISS)

Project Manager: Hylton Jackson

Date: 3/18/2013

CON 12-15
Doc #28201

☐ **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: 40.8934 *Longitude:* 92.8167 ***County:*** Appanoose
(Decimal Degree format)

USGS Quadrant: Moravia 7.5'

Site Size: 18

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

Site Alias Name(s): _____

Congressional District: 2

Current Owner & Address: Seven different addresses, primarily owned by;
Canadian Pacific
501 Marquette Avenue
Minneapolis, MN 55402

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)
Railyard/Railroad Right-of-Way
Extending 0.6 mi. north of County Road J18 and 0.4 mi. south of J18
Moravia, Iowa 52571

Directions to site:
From Iowa Highway 5 on the west side of Moravia turn east on County Road J18, proceed 0.7 mi. Arrive at the railroad crossing at J18, the approximate center of the one mile long site.

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 located in a residential, commercial, and agricultural area of Moravia, Iowa. The railyard is primarily used as a right-of way area and has existed at least since 1918. Section maintenance storage activities occur at the railyard and a small maintenance shed (~ 110 ft^2) exists onsite. A track car garage with associated petroleum storage once existed onsite. A Standard Oil Company oil tank, oil house, and warehouse were present at one time east of the yard portion of the right-of-way. Aerial photographs indicate that all were removed sometime between 1974 and 1994. A 2,000 gallon fuel oil spill was reported on or about April 27, 1987.
The Phase I identified four RECs;

- REC 1 – Former Standard Oil Company
- REC 2 - Onsite petroleum contamination
- REC 3 – Former onsite gasoline tank
- REC 4 – Onsite fuel oil spill

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.)

A Phase I ESA was performed for the site in September of 2010 and an initial Phase II ESA was completed in 2011. Sampling activities designed to investigate the four RECs included advancing soil borings at 18 locations (HA-1 through HA-7, MW-1 through MW-3, and SB-1 through SB-8). A total of 29 soil samples were collected from varying depths and, depending on location, analyzed for some combination of TEH, BTEX, VOCs, SVOCs, and lead. Three monitoring wells were installed from 16.5 to 17 feet bgs in the area identified as REC-2. Groundwater was encountered at depths ranging between 5.5 to12 feet bgs. Monitoring wells were not installed in any other areas. Slug test data shows K values of 0.5 to 0.6 feet per day (~0.16 m/day). Groundwater flow direction is to the east/southeast. One groundwater sample (collected in September of 2011) was collected from each of the three wells and analyzed for TEH and BTEX. The results from these original Phase II soil and groundwater sampling activities were summarized in the supplemental Phase II which was submitted to the Department for review. The new data in the supplemental Phase II consists of two rounds of groundwater sample data from MW-1, MW-2, and MW-3 (collected on 3/6/2012 and 7/10/2012). All six samples were analyzed for OA-1, OA-2, VOCs, SVOCs and RCRA Metals (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.

Soil;

Lead concentrations ranged from non-detect to a high of 177 mg/kg which is below the Statewide Standard of 400 mg/kg.

TEH concentrations (non-speciated) ranged from non-detect to a high of 148 mg/kg from HA-1 at 1-2 feet bgs which is below the most conservative Tier 1 Standard of 3,800 mg/kg for TEH Diesel. No groundwater investigation was conducted in this area

Groundwater – Original Phase II results;

The groundwater samples collected during the original Phase II investigation (in September of 2011) and analyzed for TEH and BTEX did not detect any contaminant at concentrations that exceeded the reporting limits.

Groundwater - Supplemental Phase II results – collected 3/6/2012 and 7/10/2012;

Arsenic was detected in one filtered groundwater sample from MW-3 at a concentration of 0.00132 mg/L. The Statewide Standard is 0.01 mg/L.

Barium was detected in the filtered groundwater samples from each well at concentrations that ranged from 0.0824 mg/L to 0.171 mg/L. The Statewide Standard is 2 mg/L.

Selenium was detected in one filtered groundwater sample from MW-2 at a concentration of 0.0106 mg/L. The Statewide Standard is 0.05 mg/L.

No other RCRA Metals, VOCs, or SVOCs were detected at a concentration that exceeded the reporting limit. No reporting limits exceed their respective Statewide Standard.

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.

The site is located in a residential, commercial, and agricultural area of Moravia, Iowa. The nearest residence would be within 50 feet of the site. An active well and pump are located onsite and, while not described in the Supplemental Phase II narrative, would appear to be City of Moravia Municipal Well # 4 (see attached Sample Locations figure). Records indicate this well is 2,400 feet deep. City of Moravia Municipal Well # 1 is an apparently active well located 1,300 feet south of the onsite monitoring wells (the southernmost part of the investigation) and 900 feet southeast of the closest portion of the right-of way. This well is listed as 128 feet deep. Moravia wells # 2 and # 3 appear to be inactive. No source water protection area is delineated for the municipal wells.

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

Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.
No soil or groundwater contaminants were detected at any concentration that approaches their respective Statewide Standards for soil or protected groundwater. Four RECs were identified in the Phase I and, assuming that the information presented is accurate, an attempt was made to investigate potential environmental impacts. The extent of the groundwater investigation consists solely of three monitoring wells placed around REC-2. No soil or groundwater samples were collected offsite. The summarized data does not indicate a significant threat to human health or the environment. No further assessment is required at this time.

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

Form Reviewed: _____ **Date Reviewed:** 3/18/13

Revised 11/2012

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: Hylton Jackson, Environmental Specialist (Name/Title) 3/12/2013 (Date)
502 East 9th Street, Des Moines, IA50319 (Address) 515 242 5084 (Phone)
Hylton.Jackson@dnr.iowa.gov (E-mail Address)

Site Name: Canadian Pacific, Moravia

Previous Names (if any):

Site Location: County Road J18
Moravia (City) IA (ST) 52571 (Zip)

Latitude: 40.8934 **Longitude:** 92.8167

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:

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:
No soil or groundwater contaminants were detected at any concentration that approaches their respective Statewide Standards for soil or protected groundwater. Four RECs were identified in the Phase I and, assuming that the information presented is accurate, an attempt was made to investigate potential environmental impacts. The extent of the groundwater investigation consists solely of three monitoring wells placed around REC-2. No soil or groundwater samples were collected offsite. The summarized data does not indicate a significant threat to human health or the environment. No further assessment is required at this time.

Regional EPA Reviewer:

Print Name/Signature | Date

State Agency/Tribe:

CAL LUNDBERG | 3/18/13
Print Name/Signature | Date

REGION VII
U.S. ENVIRONMENTAL PROTECTION AGENCY

ENFORCEMENT SENSITIVE INFORMATION
FOR INTERNAL USE ONLY

LOCATION FORM - *(Required information highlighted in red)*

SITE NAME: Canadian Pacific, Moravia **EPA ID:** _____

Latitude: 40.8934 **Longitude:** 92.8167 **Measurement Sequence:** _____
(Decimal Decree format) (See Comment A)

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

Designate Lat/Long: ☒ Primary ☐ NPL Coordinate

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

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

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

Accuracy Meters +/-: _____ ☒ **Accuracy Unknown** **Collection Date:** 03/12/2013

Verification Method:
- ☐ Ground Truth Conducted
- ☐ Point in Polygon (Zip)
- ☐ Proximity to Polygon Centroid(Other)
- ☐ Verified Relative to Map Features (1:100K/Tiger)
- ☐ Verified Relative to Map Features (Other)
- ☐ Proximity to Polygon Centroid (County)
- ☐ Point In Polygon (County)
- ☐ Proximity to Alternative Facility Coordinate)
- ☐ Proximity to Polygon Centroid (Zip Code)
- ☐ Verified Relative to Map Features (1:24K)
- ☐ Verified, Unknown Method
- ☐ Point in Polygon (Other)
- ☐ Blank
- ☒ Not Verified

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

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

COMMENTS:_____

Signatures:

RPM/OSC: _____ **Date:** ___/___/___ **BRANCH CHIEF:** _____ **Date:** ___/___/___

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
NPL Status = O-NOT A VALID SITE OR INCIDENT

Site Name: Canadian Pacific, Moravia **Identified By:** ☐ Removal ☒ Site Assessment ☐ Federal Facilities ☐ States ☐ Other Federal Agency Check if: ☐ FUD Site

Address: J18 **County Name:** Appanoose

City, State, Zip: Moravia, IA 52571 State ID (if one exists): _____ Congressional District: 2

NPL Status: = : 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): _____

Directions to Site: From Iowa Highway 5 on the west side of Moravia turn east on County Road J18, proceed 0.7 mi. Arrive at the railroad crossing at J18, the approximate center of the one mile long site.

Site Description: 18 acre, active rail line

USGS Quadrant: Moravia 7.5' USGS Hydro Unit: _____

Latitude: 40.8934 **Longitude:** 92.8167
(Decimal Degree format) (with release of 3.17 see attached required location data form)

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

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

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: NRC Lead
☐ Not a Valid Site or Incident: State Lead
☐ Not a Valid Site or Incident: Tribal Lead

Add Action: OU 00
PRE-CERCLIS SCREENING: **Planned Complete:** 03/12/2013

Actual Complete: 03/12/2013

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: 03/12/2013
SCAP Note: _____
Comments: ☐ Site or ☐ Action: _____

Signatures:
States: _____ Date: 3/18/13 RPM/OSC/SAM: _____ Date __/__/__

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: _____

☐ **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
- ☐ PR-Plastics and rubber products
- ☐ PM-Primary metals/mineral processing
- ☐ RA-Radioactive products
- ☐ TA-Tanneries ☐ OT-Other-Description(needed):_____
- ☐ TS-Trucks/ships/trains/aircraft and related components

☐ **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-Desc.(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-Desc (needed):_____
- ☐ GP-Ground water plume site with no identifiable source
- ☐ MO-Military/Other Ordinance
- ☐ PS-Product Storage/distribution
- ☐ RD-Research,development,and testing facility
- ☐ RC-Retail/commercial
- ☐ 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

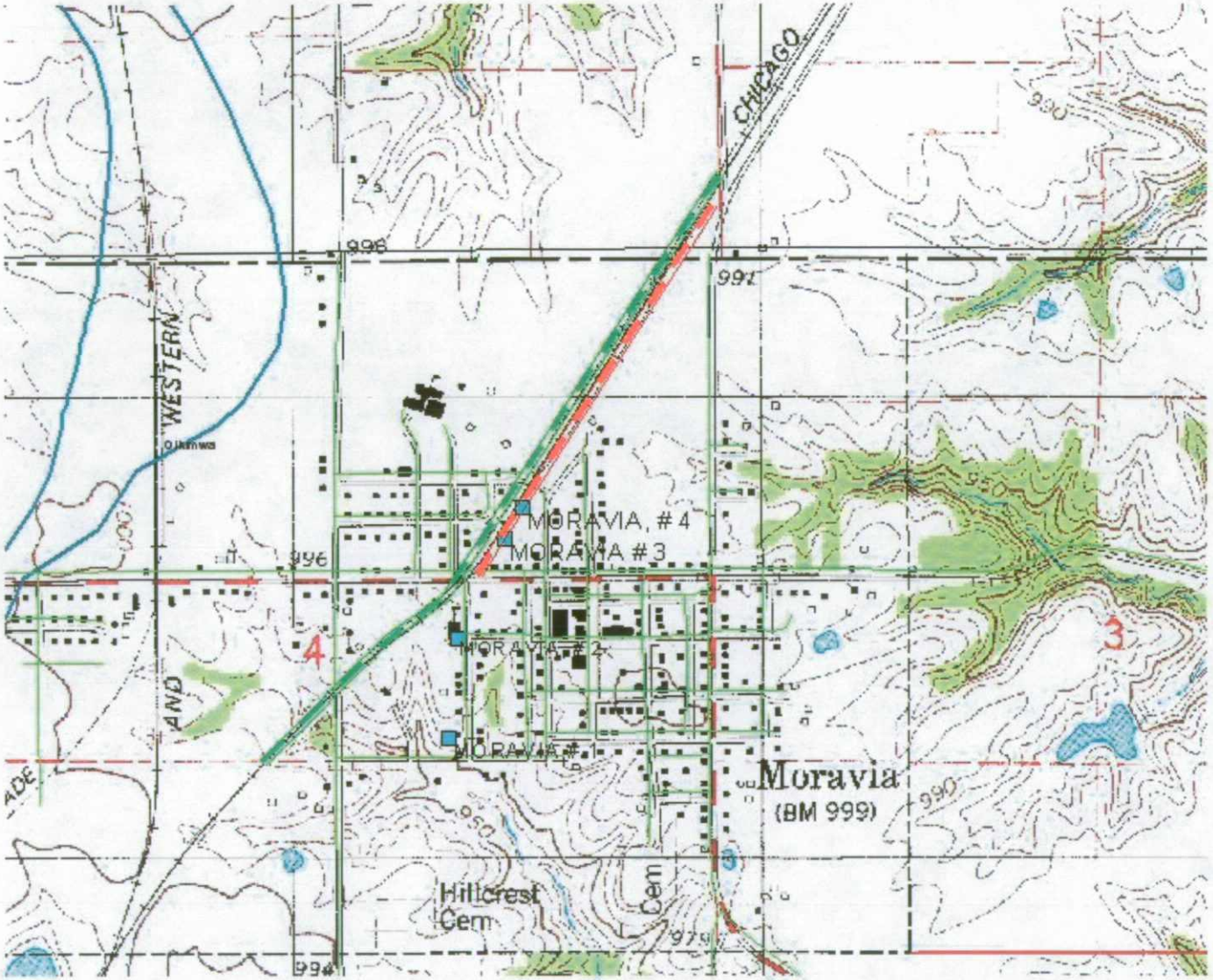
☐ **RE-Recycling** - *Applicable sub-categories*
- ☐ AT-Automobiles/tires ☐ DT-Drums/tanks ☐ WO-Waste/used
- ☐ BS-Batteries/scrap metals/secondary smelting/precious metal recovery
- ☐ CC-Chemicals/chemical waste (e.g., solvent recovery)
- ☐ OT-Other-Description(needed):_____

Updated by The Newberry Group/Last Update: 01/08/2008

(NOTE: Data analysts will send form to records center after data entry and QA.)

Updated by Systems Research Group 03MAR06

Canadian Pacific, Moravia



Length of Site

Area of Investigation

roads_2006_04.shp - Appanoose Co.

Municipal wells

Source Water Protection Area

- 2-year
- 5-year
- 10-year
- 2500-foot
- 1-mile
- primary protection area
- surface runoff area
- hydrologic boundary
- County

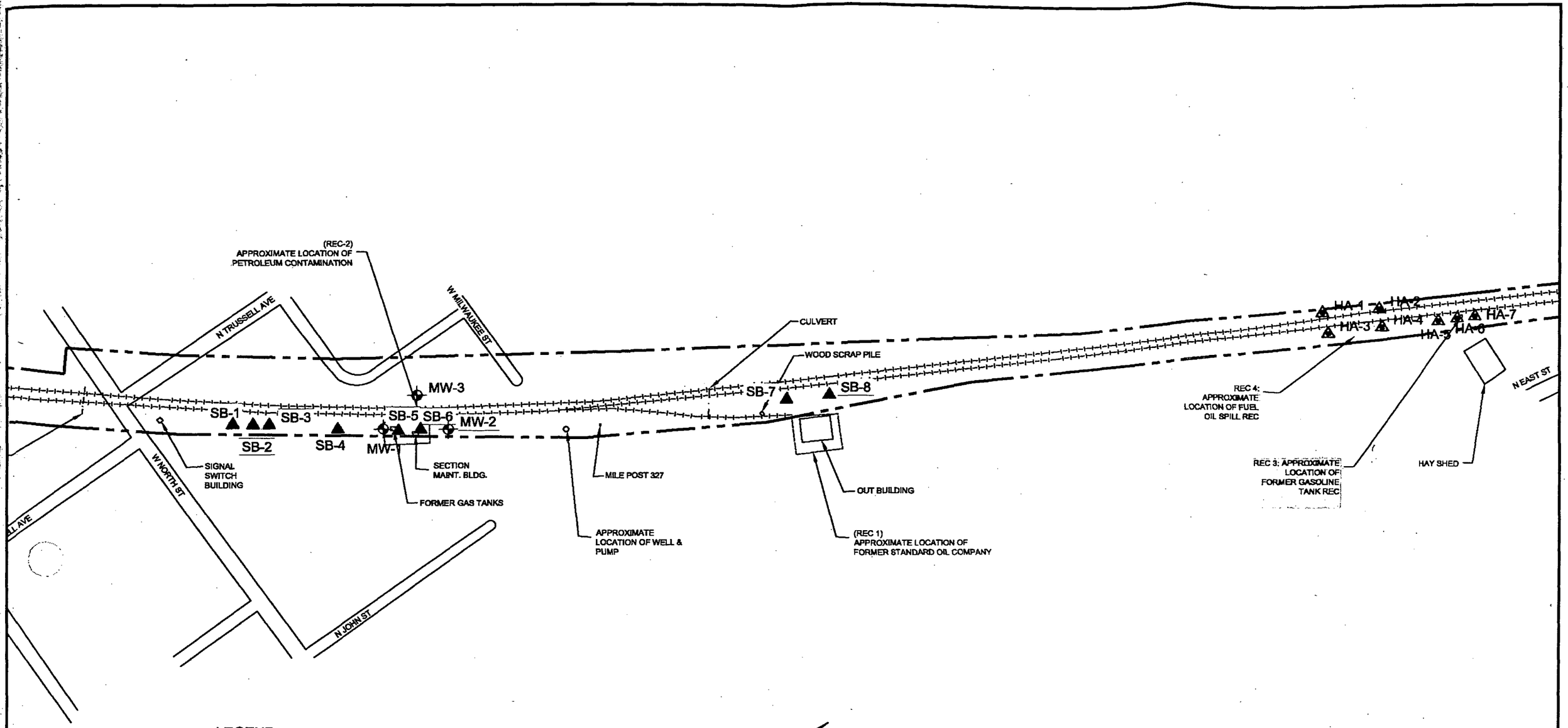
0.5 0 0.5 1 Miles

N

W E

S

File: J:\Projects and Proposal\Canadian Pacific\Morovia and Seymour\60157184 DM&E Phase I ESA - Morovia, IA - MSP\CAD\Fig 2 sample locations.dwg Layout: ANSI_A1-CP User: muellerteitek Plotted: Dec 13, 2011 - 9:34am Xref's:



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD TRACKS
- PHASE II ESA SOIL BORING
- PHASE II ESA MONITORING WELL
- PHASE II ESA HAND AUGER

100 0 200

1"=200'

AECOM

Canadian Pacific Moravia, Iowa Project # 60215947.500			Sample Locations
DATE: 11/17/11	DRWN: T.C./STP		Figure 2