CON 12-15
doc # 4431

Site ID: 174

Site Name: Clinton Engines

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)

Before 1950, the site was owned by The Maquoketa Company and used for agricultural purposes. In 1950, Clinton Engines acquired the property from the Maquoketa Company. From 1950 to 2002, the site was owned by Clinton Engines. The site manufactured outboard boat motors, lawn mowers, and saws. According to the Phase I/II, several underground storage tanks were located on the site. According to the submitted reports, the underground storage tanks stored gasoline, diesel, waste oil, and toluene and were removed in 1986. Three underground storage tanks were removed by Environmental Management Services. Upon removing the tanks, thirteen cubic yards of soil at Tank 3 was excavated and eight soil samples were collected ranging from 9' to 15' bgs. As of 2002, the City of Maquoketa owns the facility. The site includes an office building, active machine shop, and dilapidated foundry structures.

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.)

According to the Phase I, October 1999, nine soil samples were collected and analyzed as follows B1, B4, and B9 for OA1/OA2, B2 for Priority Pollutant (PP) metals/cyanide/PCBs, B3, B7, and B8 for PP Metals/Cyanide, B6 for VOCs. Additionally, groundwater samples were collected and analyzed as follows: B1 and B9 for OA1/OA2, B2 for PP metals/cyanide/PCBs, B3 and B6 for VOCs. An asbestos inspection was performed at the site. Samples were collected from the walls, ceiling tile, thermal insulation, floor tile and mastic, floor tile and mastic, floor board, and roofing material located from the office building and areas of the manufacturing building.

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.

Toluene was detected at concentrations that exceed the statewide standard in groundwater sample B6 at 673 mg/L. The statewide standard for toluene is 7 mg/L. It is noted that, according to the submitted report, the source of toluene concentration is associated with the former tank that stored toluene on site. Additionally, chlorinated solvents have been identified at the site; however, the extent of contamination has not been well characterized. Additionally, beryllium was identified in soil samples B2-3' (0.735 mg/kg), B3-1' (0.623 mg/kg), B7 (0.762 mg/kg), and B8 (0.664 mg/kg). The statewide standard for beryllium is 0.48 mg/kg. Though concentrations exceed statewide standards, the concentrations seem to be near or below background levels. Arsenic was detected in soil samples B2-3' (4.0 mg/kg), B3-1' (4.0), B7-2' (6.0), and B8-1' (4.0). The statewide standard for arsenic is 1.4 mg/kg. Although arsenic concentrations exceed the statewide standards, concentrations seem to be near or below background levels at the site. Organic constituents were detected at concentrations exceeding statewide standards in groundwater samples B3 and B6, specifically, benzene and naphthalene. Dichloroethylene, trichloroethylene, and vinyl chloride were detected also. There are other non-petroleum constituents that appear to be above statewide standards, however; specific concentrations for organic constituents and non-petroleum constituents are not given in the Phase I/II report

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.

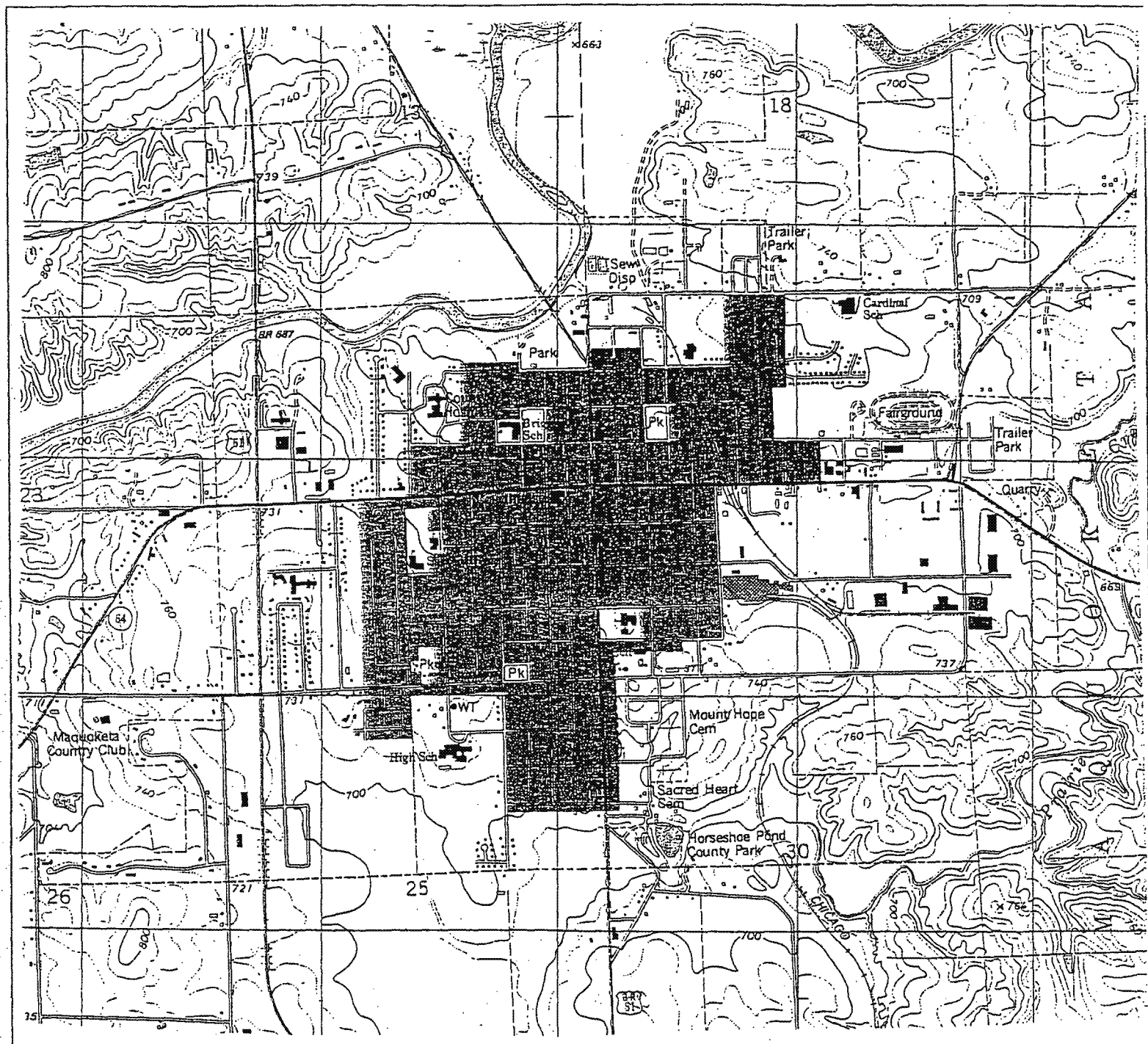
According to the LUST file ~~9LTK92~~ 9LTK72 (TSA), there are no plastic water lines or surface water body within 200' of the site. Also according to the LUST file, the hydraulic conductivity is 0.181 m/d, thus the site is classified as a non-protected groundwater source. According to Iowa Administrative Code, a protected groundwater source is an area in which a drinking water well may be installed because the flow of groundwater is sufficient for water use (i.e., the hydraulic conductivity is greater than 0.44 m/d).

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

2

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

Site was transferred from the LUST Section to the Contaminated Sites Section due to elevated levels of toluene in Tank 1 area. Because of the elevated levels of toluene in the groundwater samples collected and the uncertainty with other samples collected, particularly chlorinated solvents, an ESS investigation needs to be conducted at the site under CERCLA. Toluene free product appears to exist on-site.



SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

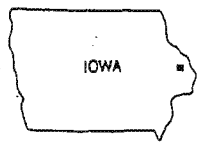
CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

MN
GN
1°33' 28 MILS
3° 53 MILS

UTM GRID AND 1980 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

MAQUOKETA, IOWA
N4200–W9037.5/7.5

1980



QUADRANGLE LOCATION

Site Location Map	Figure 1
Clinton Engines 605 Maple Street Maquoketa, Iowa	Prepared by MSA Missman, Stanley & Associates Civil Engineering Surveying Environmental Consulting Computer Services (319) 344-0260 FAX (319) 344-0263
Drawn By: KLC	MSA No. C99E028
Figure 1. dwg	September 1999

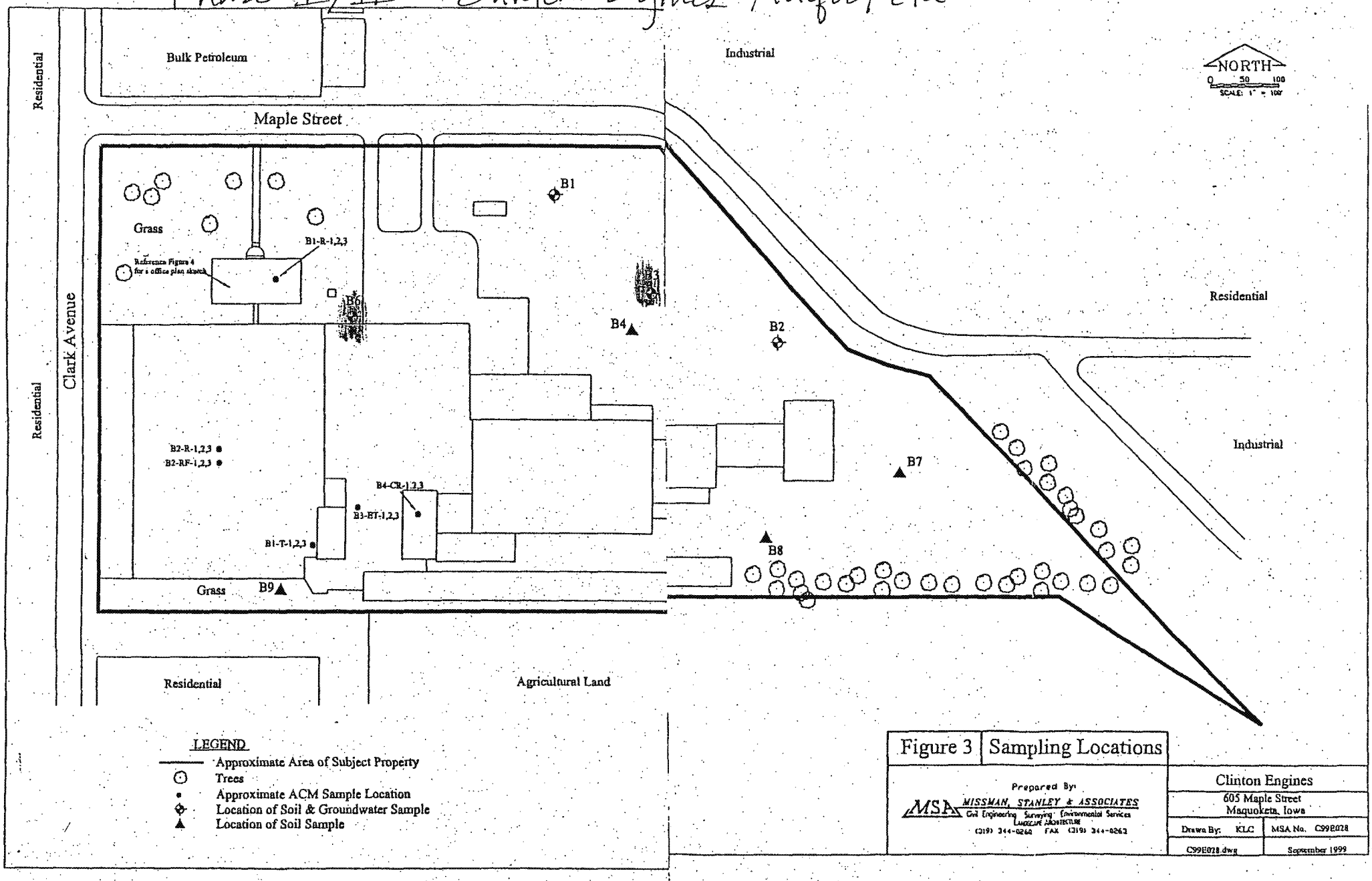


Figure 3 | Sampling Locations

Prepared By:
MSA MISSMAN, STANLEY & ASSOCIATES
Civil Engineering Surveying Environmental Services
Landscape Architecture
(319) 344-0260 FAX (319) 344-0262

Clinton Engines
605 Maple Street
Maquoketa, Iowa

Drawn By: KLC	MSA No. C99E028
C99E028.dwg	September 1999

ED_006017_00001350-00004

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: Jessica Montana, Environmental Specialist (Name/Title) — May 31, 2005 (Date)
900 E. Grand Avenue, Des Moines, Iowa 50319 (Address) — 515-281-8934 (Phone)
jessica.montana@dnr.state.ia.us (E-mail Address)

Site Name: Clinton Engines, Maquoketa

Previous Names (if any):

Site Location: 605 East Maple Street (Street)
Maquoketa (City) — IA (ST) — (Zip)

Latitude: **Longitude:**

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:

N/A

ED_006017_00001350-00005

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:

Toluene was detected at concentrations that exceed the statewide standard in groundwater sample B6 at 673 mg/L. The statewide standard for toluene is 7 mg/L. It is noted that, according to the submitted report, the source of toluene concentration is associated with the former tank that stored toluene on site. The estimated toluene concentration exceeds its water solubility of 530 mg/L. Therefore, it is presumed that toluene free product exists on the property.

Additionally, chlorinated solvents have been identified at the site; however, the extent of contamination has not been well characterized. Organic constituents were detected at concentrations exceeding statewide standards in groundwater samples B3 and B6. Specifically, petroleum consitutents benzene, napthalene, dichloroethylene, trichloroethylene, and vinyl chloride were detected also. There are other non-petroleum constituents that appear to be above statewide standards, however; specific concentrations for organic constituents and non-petroleum constituents are not given in the Phase I/II reports. Therefore, additional investigation is necessary under CERCLA. The Department recommends an ESS be conducted.

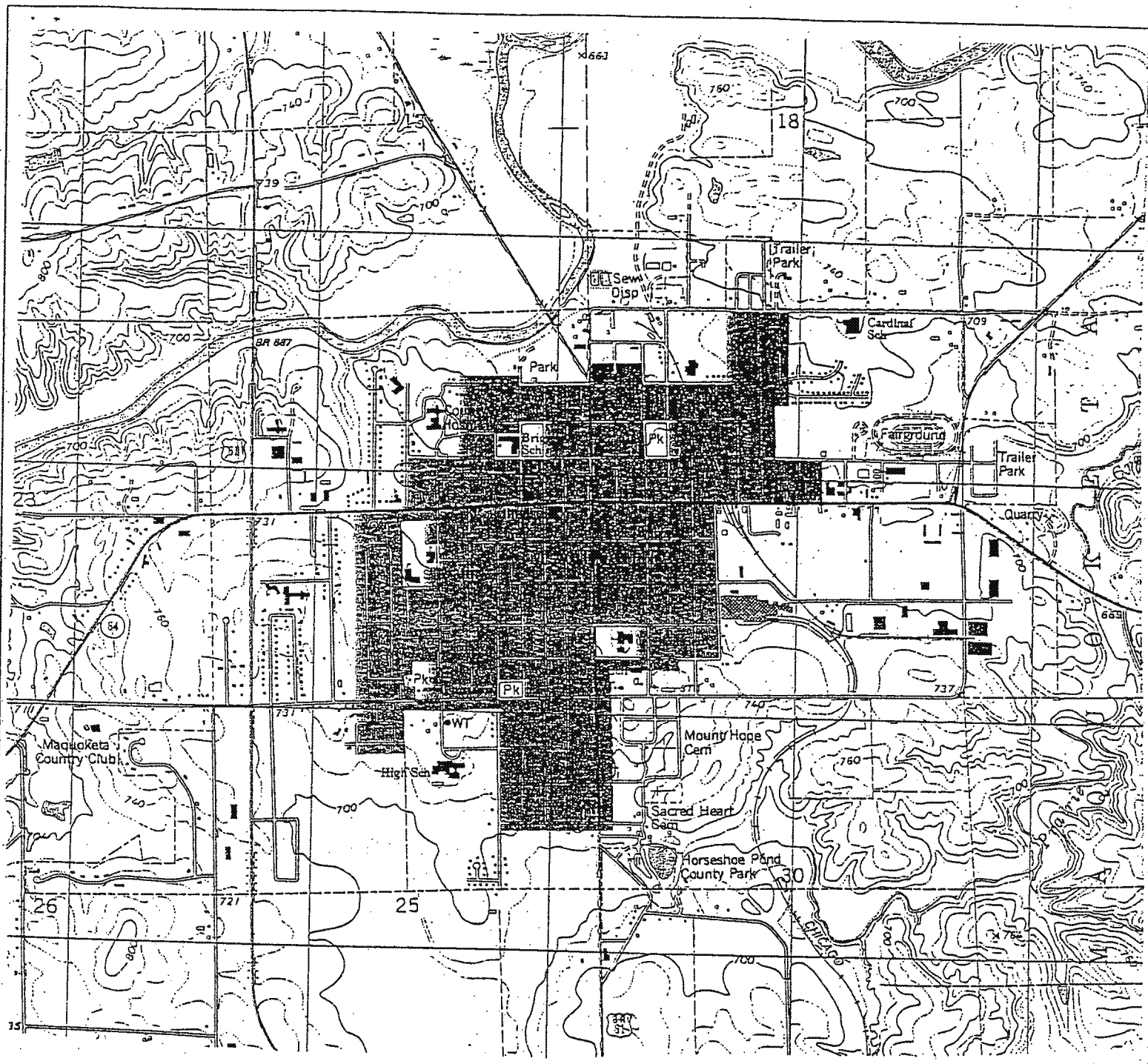
Regional EPA Reviewer: _____

Print Name/Signature Date

State Agency/Tribe: CAL LUNDBERG 6/2/05

Print Name/Signature Date

ED_006017_00001350-00006



SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

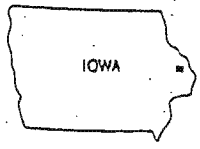
CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

MN
GN
1°33′ 28 MILS
3° 53 MILS

UTM GRID AND 1980 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

MAQUOKETA, IOWA
N4200–W9037.5/7.5

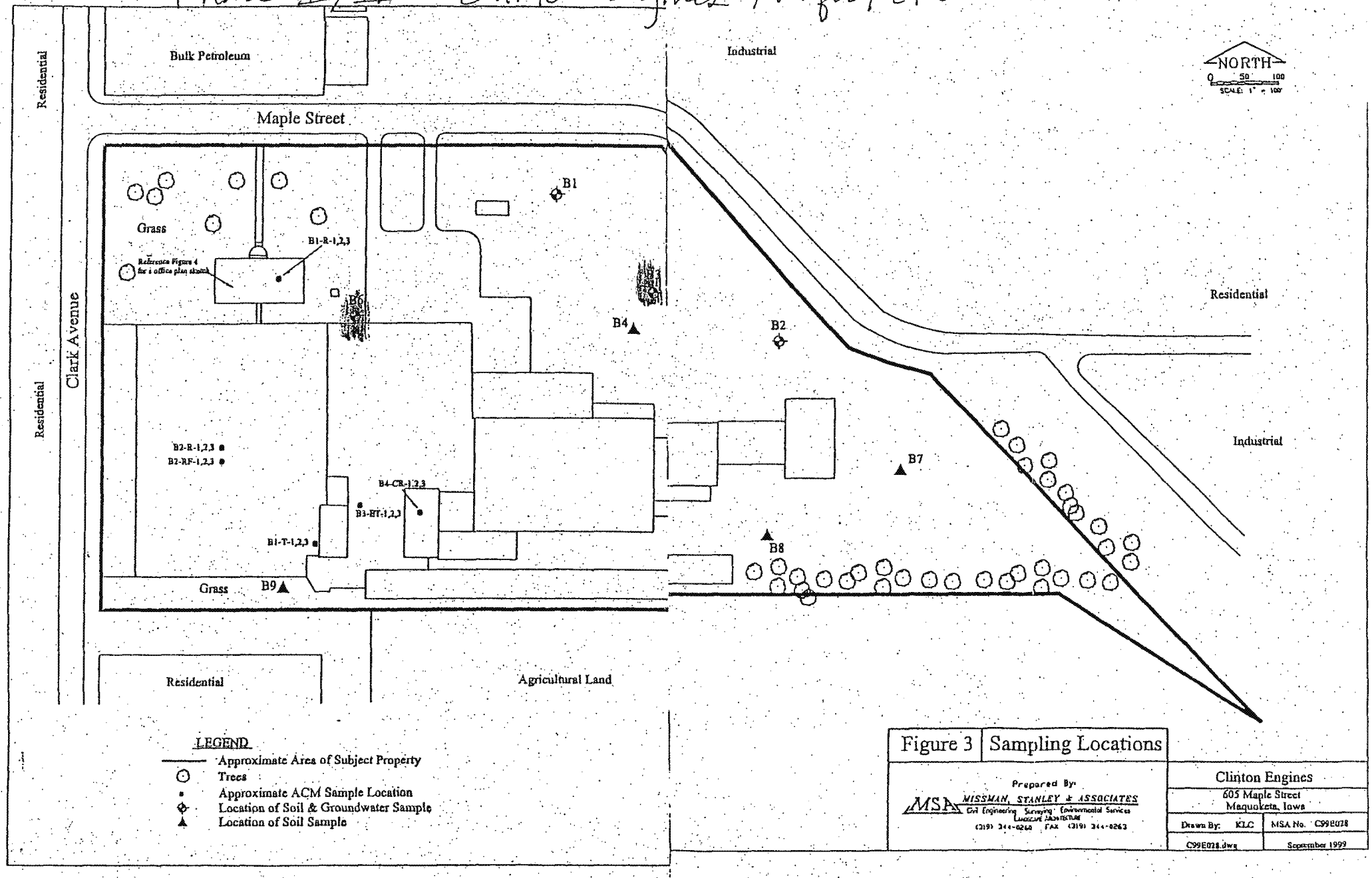
1980



QUADRANGLE LOCATION

Site Location Map	Figure 1
Clinton Engines 605 Maple Street Maquoketa, Iowa	Prepared by MSA Missman, Stanley & Associates Civil Engineering Surveying Environmental Consulting Computer Services (319) 344-0200 FAX (319) 344-0263
Drawn By: KLC	MSA No. C99E028

Phase I/II Clinton Engines Maquoketa



LEGEND

- Approximate Area of Subject Property
- Trees
- Approximate ACM Sample Location
- Location of Soil & Groundwater Sample
- Location of Soil Sample

Figure 3	Sampling Locations
Prepared By: MSA MISSMAN, STANLEY & ASSOCIATES Civil Engineering Surveying Environmental Services Landscape Architecture (319) 344-0260 FAX (319) 344-0263	Clinton Engines 605 Maple Street Maquoketa, Iowa
	Drawn By: KLC — MSA No. C99E078
	C99E078.dwg — September 1999

ED_006017_00001350-00008