La BOUNTY SITE
(Charles City, Iowa)

GENERAL DESCRIPTION

The site covers 12-acres within the corporate limits of Charles City, Iowa. It is located on the Cedar River and is generally described as the NE 1/4 of the SW 1/4 of Section 7, T95N, R15W, Floyd County, Iowa. The site was entered on the Registry in 1984. The site was put on the National Priorities List in 1983 and removed in 1993.

SITE CLASSIFICATION

In 1996 the site was re-classified to "d" Site Properly Closed Requires Continued Management.

TYPE AND QUANTITY OF HAZARDOUS WASTE

Between 1953 and 1977 Salsbury Laboratories disposed of about 240,000 cubic yards of waste at the site. The waste is estimated to have included 3,000 tons of arsenic, 140 tons of nitrobenzene, 35 tons of 1,1,2-trichloroethane, and 13.5 tons of phenols. Twenty-three hazardous substances have been identified from groundwater monitoring.

SUMMARY OF HEALTH AND ENVIRONMENTAL CONCERNS

Leaching of chemicals from the site has caused contamination of the Upper Cedar Valley Aquifer in the immediate area of the site. The contaminated part of the aquifer is not used as a source of drinking water. After flowing through the site, the groundwater discharges to the Cedar River. The diversion wall has reduced the amount of groundwater flow through the site in the Upper Cedar Valley Aquifer.

SUMMARY OF ASSESSMENT, MONITORING OR REMEDIAL ACTIONS

The EPA is responsible for oversight. Initial investigations by the EPA and the department showed that the site was releasing arsenic, 1,1,2-trichloroethane, and other contaminants to the Cedar River. As a result of these investigations, the EPA required Salsbury to complete a two-phase remedial action and monitoring program.

Phase I of the remedial action plan (completed in 1979) initiated monitoring the Cedar River and ground water. Salsbury implemented Phase II in 1980, which included capping the site with clay and diverting surface water around the site.

A 1982 National Enforcement Investigation Center report determined additional remedial measures were necessary. The report concluded capping had not effectively reduced the leaching of contaminants during groundwater flow through the site. In 1985 a feasibility study

determined a groundwater control structure would be the most appropriate remedial measure. This “wall” was designed to reduce the amount of groundwater flow through the site.

A 1985 EPA consent order required the construction of this wall, and water withdrawal from the upgradient side of the wall. The wall was completed in January 1986. Three Cedar Valley Aquifer monitoring wells and six cutoff monitoring wells also were completed in January 1986. Arsenic concentrations in the Cedar River are higher downstream of the LaBounty site that they are upstream of the site. However, downstream concentrations of arsenic have averaged less than 10 ug/L in recent years compared to the Iowa Stream Water Quality Standard of 50 ug/L. The site continues to be monitored quarterly for groundwater and monthly for surface water. Inspections are conducted quarterly to insure the integrity of monitoring wells and other site features.

Current Activities

The EPA conducts an in-depth review of the site every 5 years. The most recent 5-year review was completed in July of 2015. This fifth 5-year review concluded monitoring data results indicate that high elevated concentrations of dissolved arsenic are in downgradient monitoring wells. Currently site information does not evaluate arsenic concentrations or quantify potential exposures to aquatic life in the Cedar River.

A protectiveness determination of the site cannot be made at this time until further information is obtained. Further information will be obtained by taking the following actions: (1) characterization of interchange and effects of arsenic discharges to the Cedar River directly adjacent to the site, and (2) investigation into the vapor intrusion pathway.

2015: In addition to the five-year review in 2015, Zoetis proposed changes to the Monitoring and Maintenance Plan in 2015. The proposed changes are under review by EPA and IDNR with completion in 2016. The 5th Five Year Review was completed and initial review of proposed changes to Maintenance and Monitoring Plan is underway.

2016: The protective measures work plan was approved.

2018: The 2017 Annual Report was completed. The RP Response to the Fifth 5-Year Review was submitted.

2019: A Monitoring and Maintenance Plan which includes sampling the Cedar River was completed in February. Flood photos were requested by EPA in April and supplied by he Field Office. The 6th Five-Year Review was kicked off in July (to be completed in 2020).

2020: 6th 5YR signed in May 2020

2021: A pilot study of a discontinuation of the GW cut-off wall and collection system was initiated in fall 2020. An evaluation report was submitted on 10/27/2021. Annual sampling will continue.

2022: Slide presentation to EPA and IDNR on LaBounty Tile Drain (LBTD) shutdown proposal. Response to EPA comments on proposal (3/3/2022). @022 Pore Water/Surface Water sampling results received 12/7/2022

2023: Tile drain system decommissioned and closure report submitted along with well plugging reports. EPA project manager changed. Surface water sampling report completed and submitted.

2024: Completed a site walkover with EPA, city, and RP as an intro to the upcoming 5 year review. Inspected all monitoring wells after recent flooding, and also inspected integrity of the cap and overall site condition. No significant issues noted. Received reports for surface water sampling (arsenic) and biological assessment of the river, both showing no significant impact related to the site.

2025: EPA Remedial Project Manager transfer to Haley Hart. Received reports for surface water sampling (arsenic). Received the 2024 Annual Monitoring Report and EPA Response letter for the Annual Monitoring Report. No significant changes were made. The 7th Five Year Review was submitted by the EPA and a DNR response letter was sent accepting the report. The Report calls for:

- Additional investigation to determine if contamination is migrating downgradient or across the Cedar River.
- Possible redesignation of the UCVA and Alluvial Aquifer to Class II aquifers (potential drinking water source), requiring restoration for beneficial use and reevaluation of the existing remedy.
- Completing a baseline Human Health Risk Assessment as one was not previously completed for the site.

The DNR has requested additional information regarding the rationale for redesignation of the aquifers.

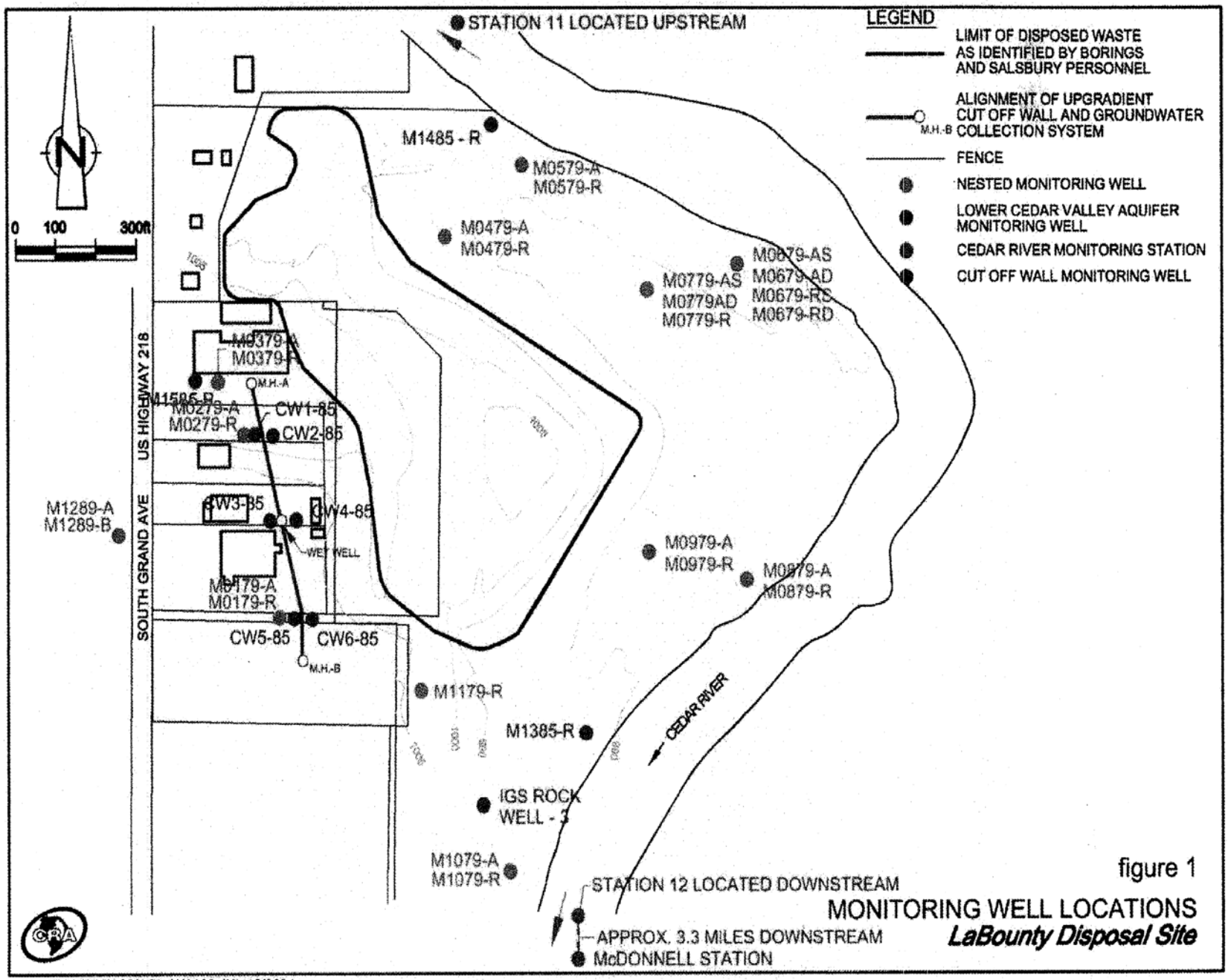


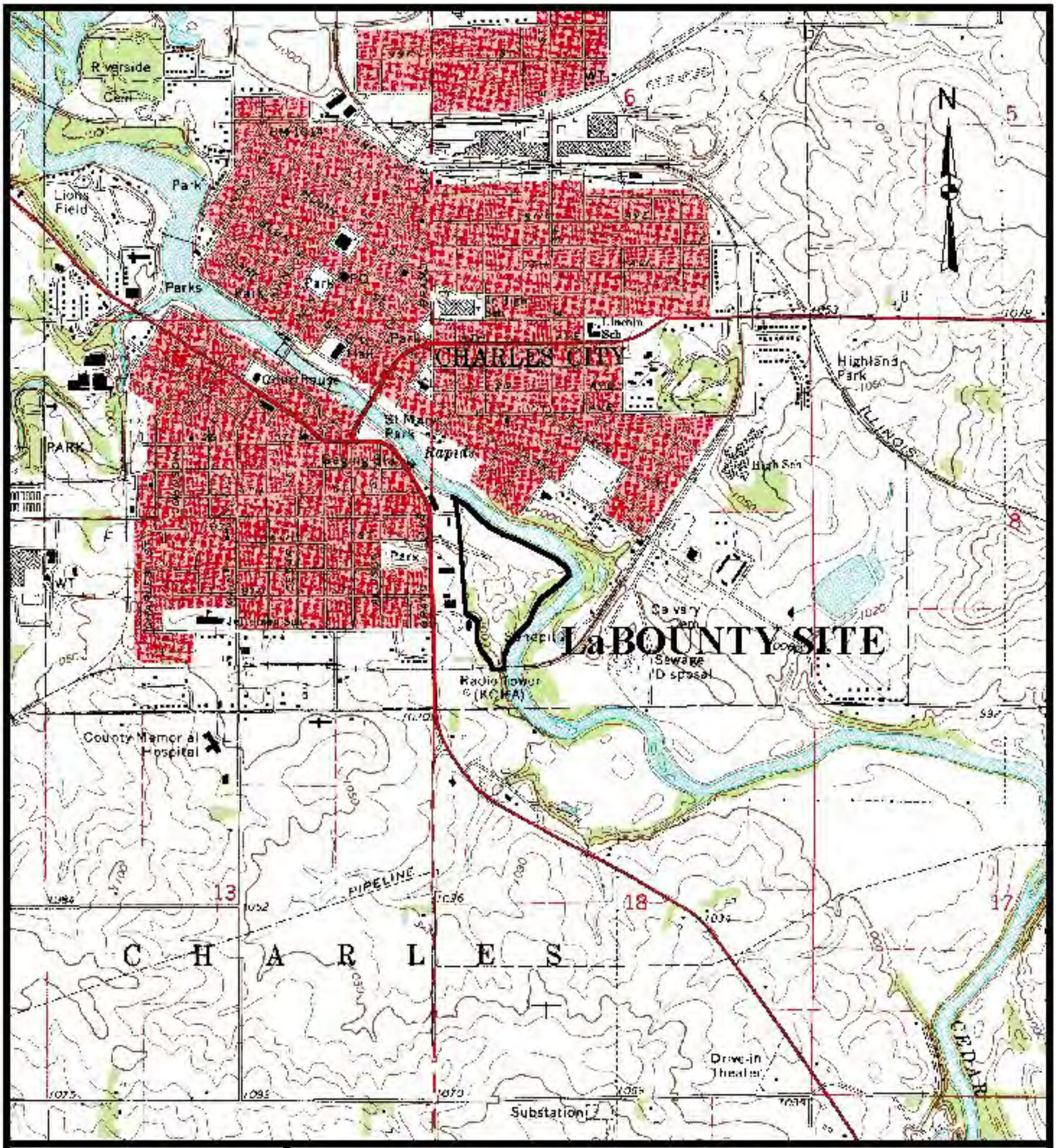
figure 1

MONITORING WELL LOCATIONS

LaBounty Disposal Site

10884-00(PRES008)GN-WA009 JUL 12/2004

(LaBounty Site)



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