

## DEQ SITE ASSESSMENT SECTION - STRATEGY RECOMMENDATION

Site Name: Keizer Radiator

Site CERCLIS Number: N/A

DEQ ECSI Number: 211

Site Address: 3620/3608 Cherry Ave. NE  
Salem, OR 97303

Recommendation By: Ben Maynard  
Site Assessment Program  
Western Region, Salem

Approved By: Keith Andersen  
Manager, Regional Environmental Solutions  
Western Region, Eugene

Date: February 28, 2002

### **Background**

The referenced site was brought to the Department of Environmental Quality's (DEQ's) attention by a 1984 complaint alleging waste oil disposal in the back of the facility. According to DEQ staff conducting the follow-up inspection, the operator indicated an on-site earthen pit was used for disposal of radiator washwater. The inspecting staff also observed oil and grease in the wastewater. DEQ issued a Notice of Violation for this disposal. Subsequently, DEQ entered the site into its Environmental Cleanup Site Information (ECSI) database (1988), and recommended the site for an evaluation (1994).

The following evaluation summarizes available site information and evaluates the need for further investigation or remedial action at the site, as well as the priority for such action based on potential impacts to human health and the environment. This evaluation is not intended to be a full investigation or characterization of the site. Conditions not identified in this evaluation may exist at the site.

### **Site Description and History**

The site is located in Township 7 South, Range 3 West, Section 11 at Latitude N44° 58.697', Longitude W123° 01.354' (Figure 1). It is located near the boundary of the cities of Salem and Keizer. The site is bordered by a parking lot to the east, Cherry Avenue to the west, an equipment rental facility to the north, and a painting facility and car lot to the south. A 1,170-ft.<sup>2</sup> building and a 2,300-ft.<sup>2</sup> building occupy the site. The former radiator washwater area (fluids are currently recycled) is located outside of the northeast corner of Building 1 (Figure 2). A 230-gallon used oil tank is located adjacent to the east side of Building 2. A well (no longer used) is

located near the southeast corner of Building 2. The site was operated as a radiator repair shop (Keizer Radiator) from 1972 to 1990, and as an automotive repair shop (Broadway Garage) from 1990 to present. The current operating address is 3608 Cherry Ave. NE. The on-site releases reportedly occurred during the radiator shop's operation.

According to the operator, products currently used on-site include motor oil, antifreeze, brake cleaner, carburetor cleaner, and cleaning solvent. Estimates on volumes of much of the products kept on-site were not available. Approximately 200 gallons of used motor oil per year are generated and recycled by Spencer Environmental (a maximum of 230 gallons are stored on-site for recycling). Approximately 150 gallons of antifreeze are used on-site. Waste antifreeze is removed and recycled by Spencer Environmental. No information on generation or handling of waste cleaners and solvents was on file.

### **Hazardous Substance Release Information**

The hazardous substance release at the site includes a formerly used outdoor radiator-flush area near the northeast corner of Building 1. 1984 correspondence with the property owner indicates that an earthen pit was used for the fluids; however according to the current operator (Broadway Garage), there was no surface impoundment for this use, only the ground surface. File information also indicates that oil and grease were apparent in the disposal area.

### **Pathway Information**

**Groundwater:** A well log from the same or an adjacent tax lot describes subsurface materials as yellow silty clay to 18 feet below ground surface (bgs), compacted gravel and clay to 36 feet bgs, and loose gravel to 40 feet bgs, with first water encountered at 36 feet bgs. The topography of the area is generally flat, sloping gently west, toward the Willamette River. Shallow groundwater flow direction is likely to the west.

According to area well log information, types of groundwater use in the vicinity of the site include domestic, irrigation, and community. Completion depths range from 38 to 67 feet bgs. These well installations date from 1939 to 1978. City of Keizer water lines serve this area, which obtains water from deep wells (between 100 and 300 feet deep). The City of Keizer operates two of its public-supply wells within approximately 0.5 miles of the site: one approximately 0.5 miles northwest of the site; and one approximately 0.5 miles north of the site.

A facility-provided map shows an on-site abandoned well. According to the facility operator, the well house and pump have been removed, and the well is capped.

**Surface Water:** The storm drain on Cherry Ave. eventually discharges to the Willamette River. The river is approximately 0.7 miles west of the site. Outdoor surface drainage paths near the radiator flush-water disposal area have not been determined. However, DEQ staff investigating the original complaint noted potential for drainage from the disposal area to the "storm sewer or local drainageway." Topography in this area is generally flat. The facility map shows floor drains connecting to the City of Keizer storm drain system. There have not been allegations of using the drains for disposal purposes; however information on the connection to the storm drain will be forwarded to the City.

**Direct-Contact:** The site is unfenced. There is potential for direct-contact exposure of facility workers, trench workers, or trespassers to any remaining contamination associated with the disposal area.

**Air:** Volatilization of contaminants in the former disposal area is a concern associated primarily with any future trench or excavation work.

### **Data Gaps**

- No environmental samples have been collected at the site.
- The surface runoff path from the disposal area has not been identified or sampled.
- No information on whether an on-site septic system has served the site is available. City of Salem sanitary sewer lines currently serve the vicinity of the site.
- The condition of the on-site well needs to be evaluated for potential risks it poses to the groundwater pathway.

### **Contaminants of Concern**

Contaminants associated with petroleum and oil and grease include volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PAHs). Metals are also associated with waste petroleum.

Contaminants associated with antifreeze and radiators include ethylene glycol and lead.

### **Recommendation/Action**

Current file information indicates historic on-site impacts from petroleum and antifreeze. Sampling and further evaluation of the historically used radiator flush-water disposal area, and potentially affected exposure pathways, is required. The site is a medium priority for an Expanded Preliminary Assessment, based on risks to human health and the environment.

Coordination with the DEQ's Hazardous Waste Section is recommended to ensure that investigation and cleanup-derived wastes (for example, any excavated soils) are managed and disposed of in accordance with applicable RCRA requirements.

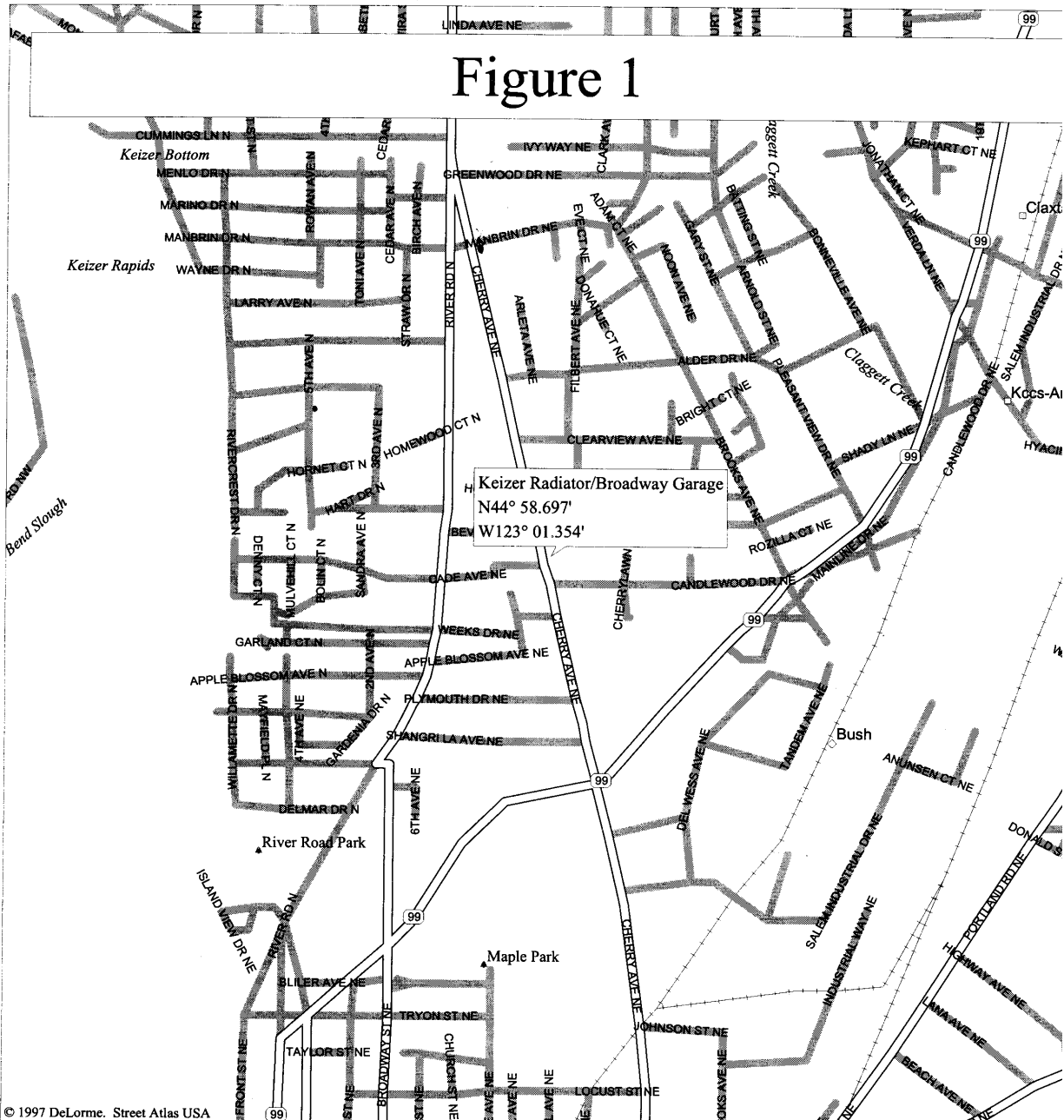
### **Referrals Within or Outside DEQ**

Site information will be forwarded to the Oregon Water Resources Department for requirements associated with the on-site well. Site information will also be forwarded to the City of Keizer regarding facility floor drains connecting to the city's storm-drain system.

### **References**

- ECSI file #211
- Oregon Water Resources Department, GRID database.

# Figure 1



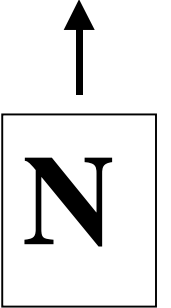
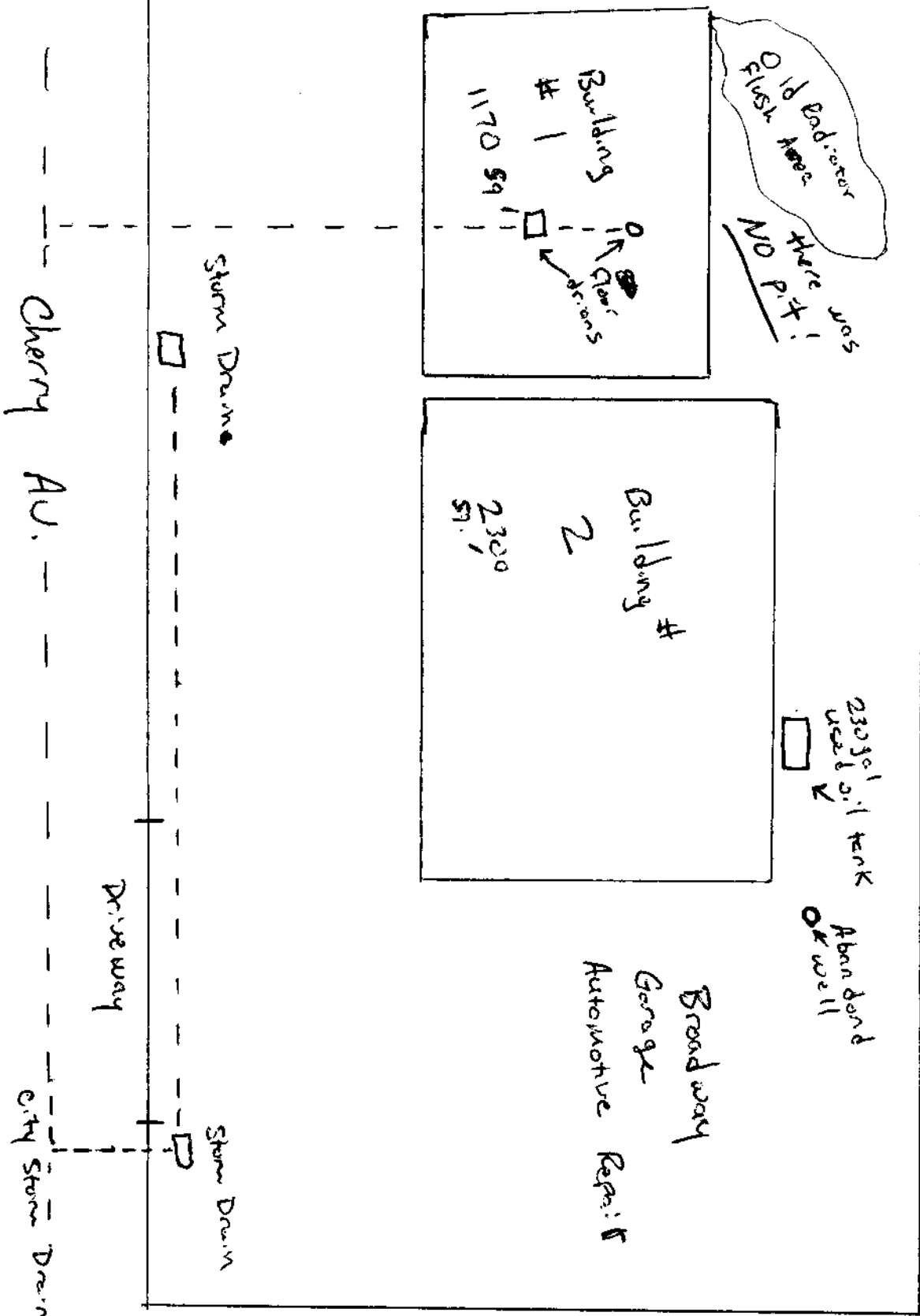
Keizer Radiator/Broadway Garage  
 N44° 58.697'  
 W123° 01.354'

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Mag 15.00  
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 Scale 1:15,625 (at center)  
 1000 Feet  
 500 Meters

- |                     |                   |
|---------------------|-------------------|
| — Local Road        | — County Boundary |
| — Major Connector   | — Land            |
| — State Route       | — Water           |
| — Railroad          | — River/Canal     |
| □ Point of Interest |                   |
| ◆ Small Town        |                   |
| ▲ Park/Reservation  |                   |
| ◇ Locale            |                   |

Figure 2



Not to Scale