

NORTHWEST ENVIRONMENTAL SERVICES



December 4, 2017

Kerry Keisel
707 Spring Street
Shelby, IA 51570

Subject: Soil Excavation Plan
Shelby Mini Mart
312 East Street, Shelby, Iowa
Complaint #02/06-07

Dear Mr. Keisel:

This correspondence provides the response to the October 26, 2017 IDNR letter sent to Mr. Keisel on review of our semi-annual monitoring report for the referenced site. Vapor intrusion evaluated for the Shelby Mini Mart and for the Depot building were reviewed on these two buildings and no additional work is required. As for the residential structure between the Shelby Mini Mart and the Depot building at 400 Station Street that we did not gain access to, the IDNR has requested the owners name and they would try to gain access for us.

The IDNR is allowing the termination of free product recovery and has accepted annual monitoring instead of semi-annual monitoring. They have added a well to the monitoring plan and have added OA-2 analysis for all samples. They have turned down natural attenuation monitoring and are requiring a soil excavation work plan be submitted. In addition, the IDNR is requiring that an environmental covenant to prevent chemical of concern exposure to future site occupants.

The resident who lives at 400 Station Street did not answer the door when we knocked. About two hours after we knocked the car that had been sitting in the driveway drove off and did not question our activities. It is our understanding that you have already provided Mr. Cook with the name and contact information for the owner of the residential structure between the Shelby Mini Mart and the Depot building. It is also our understanding that James Pray will provide the environmental covenant to the IDNR.

Our 2012 Corrective Action Plan included several options for remediation of the soils near the source area. One such plan was to install a passive soil remediation trench that would circulate air underground. We are requesting that the IDNR review this plan before accepting our soil excavation plan. We have modified this design to include circulation and with drawl of contaminated air. Included in this plan is a 2-inch screen would circulate air and a 4-inch screen

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that would derive air from the subsurface. Please review the map and graphics presented as Figures 1 and 2.

A soil excavation plan should save uncontaminated overburden. Approximately 5 to 6 feet of soil on an average can be saved from removal. This mean at least 8 feet of soil would likely be removed. With soil removal based on groundwater ingestion of 0.54 ppm benzene, Tier 1 values are difficult to achieve. All three soil borings would have to be included in soil removal and the extent of this excavation is not possible estimate. A soil excavation plan that does not necessarily remove all soil to 0.54 ppm benzene is shown in Figure 3.

Part of the problem with soil excavation is that there is no approved land farm to spread the soil in the Shelby area. It is key for excavation of contaminated soils to identify farmland which could take the soil. The alternative is not viable with the cost for Harrison County Landfill exceeding \$120 per cubic yard. We understand that you have tried to identify a landfarm site with no luck but ask that you try again. We have or attempted to contact several people that can help in locating a landfarm and will pass this information to you as it becomes available.

In order to maintain and not disrupt the favorable trends in natural attenuation, we continue to recommend against any additional corrective action. If you have questions regarding this correspondence, please contact our office at 712/756-4732.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Ruppert", with a stylized flourish at the end.

Daniel Ruppert
Certified Groundwater Professional

cc: Mr. Dan Cook, IDNR Contaminated Sites Section

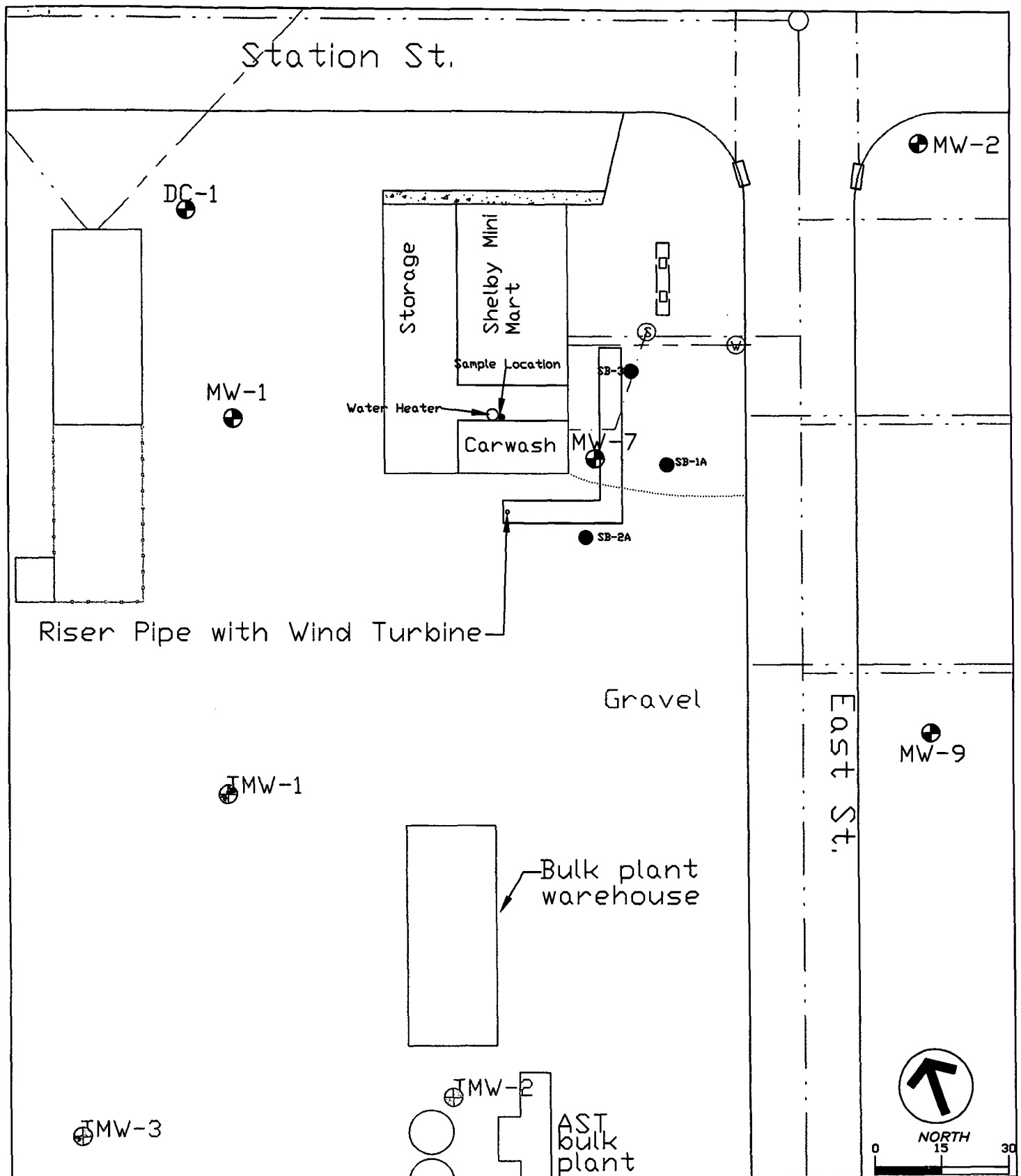


Figure 1: Proposed Soil Remediation Trench Layout
 Shelby Mini Mart
 Shelby, Iowa

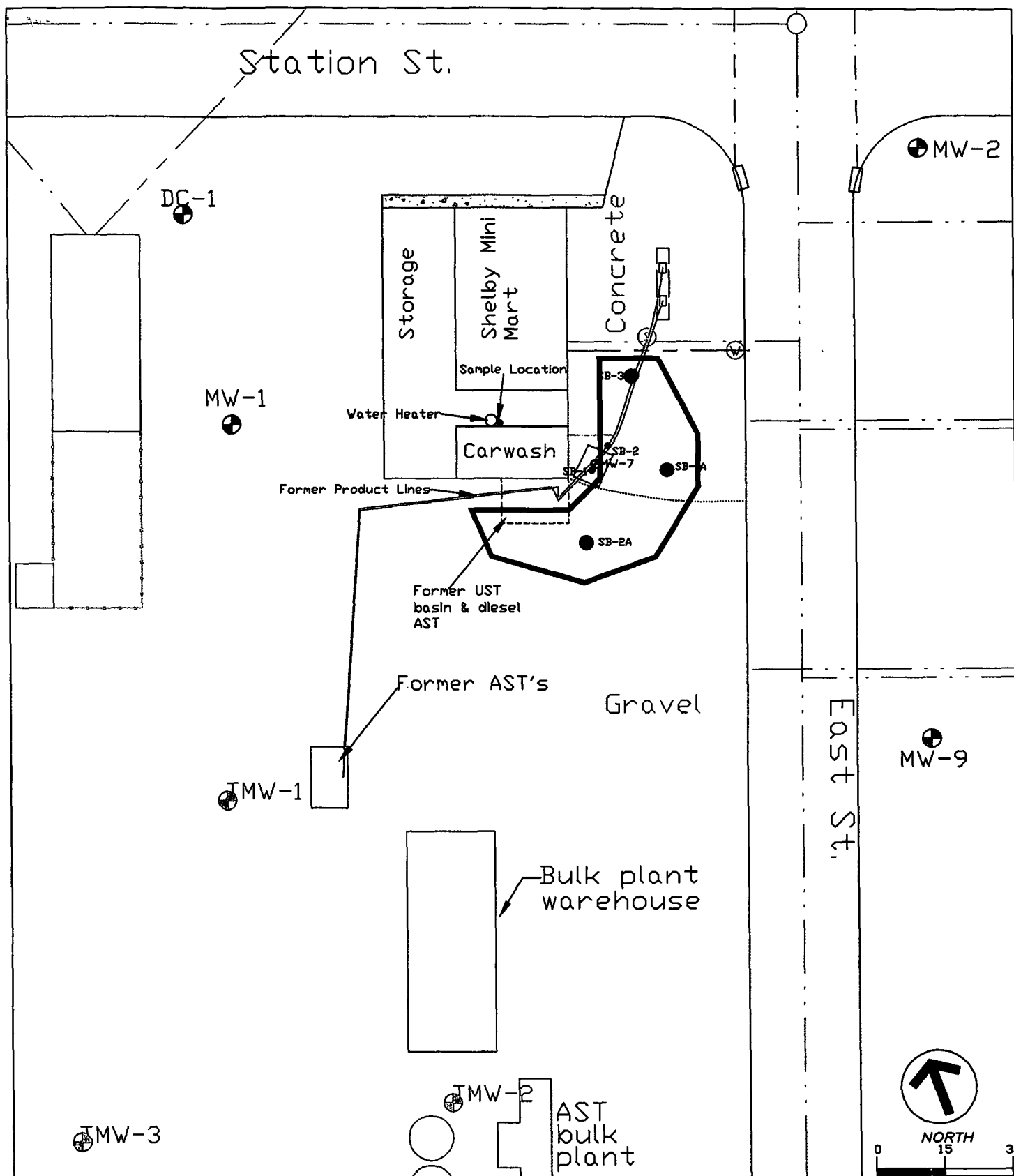


Figure 2: Proposed Limits of Excavation
Shelby Mini Mart
Shelby, Iowa

--- Storm Sewer
- - - Sanitary Sewer
— Water Line