

### **3.1.4 Anderson Township Landfill**

Facility Name: Anderson Township Landfill

A.K.A: N/A

Location: 8331 Broadwell Road. Southwest corner of Broadwell Road and the railroad tracks in Anderson Township, Ohio.

Parcel(s): 50001620003

Lat, Long: 39.136498 -84.320857

Region: Anderson Township, Ohio

Owner: Anderson Twp Landfill Inc; aka, Rumpke

Operation (yrs): 1963 – December 31, 1986



#### **Facility Overview**

Anderson Township Landfill is located at 8311 Broadwell Road in Anderson Township, Ohio, on the southwest corner of Broadwell Road and the railroad tracks. The Anderson Township Landfill is a grandfathered site, having been in existence before current state regulations on solid waste landfills became effective.

The landfill is comprised of approximately 23 acres. The top of the landfill is approximately 590' above mean sea level while the bordering Broadwell Road to the North and the railroad tracks to the East reside at approximately 540' above mean sea level. A former gravel pit operation borders the site to the South and West (now a small pond). The base of the landfill to the South and West is approximately 500' above mean seal level. Figure 3.1.4-A illustrates the topography of the site below:

**FIGURE 3.1.4-A**



An abandoned gravel pit, Anderson Township Landfill opened in 1963 and was used by Anderson Township, Madeira, Silverton, Mariemont, Terrace Park, Columbia Township, Indian Hill, Fairfax, Newtown and parts of Clermont County for solid waste disposal. Residents along Broadwell Road were opposed to the dump from the beginning. No records on the depth of the gravel pit prior to waste disposal could be found.

In December 1967, the chief county building inspector ordered the dump closed due to the use of large trucks on the residential roads. The operator and owner, Eugene E. Martin, was granted an injunction to remain open by a Common Pleas Court Judge to allow time to apply for a special permit. The zoning hearing took place on January 24, 1968. During the hearing, expert testimony from an engineer and three University of Cincinnati engineers claimed that not only was the dump a nuisance, it poisoned the underground water tables "that supply half of Hamilton County." During testimony by Dr. Warren Huff, PhD., Geology, zoning board member Edward Schumacher said he didn't believe Huff when he said the rock formations were over a million years old. Schumacher said he believed in the Bible and it "says the world just isn't that old." As a result of the hearing, Hamilton County Board of Zoning Appeals granted the special permit to Eugene Martin. Opponents stated they would appeal.

In September 1968, a few months after the above hearing, hundreds of dead fish were reported in the pond located west of the landfill. Residents demanded an investigation. Following the investigation, it was determined that the landfill did pollute the groundwater. An Ohio Department of Health (ODH) letter to the lawyers of those opposed to the landfill recommended those residents with wells on their properties to connect to public water



supply. Another ODH letter dated February 26, 1970, states "if water pollution has occurred from the landfill, it has already taken place and continued use of the disposal site will not reverse any damage that might have been done. Continued use of the landfill at the present grade level above the water table would not cause any problems if operations were conducted appropriately." At that time, the landfill was expected to close in 12 months.

The earliest license on record to operate the Anderson Township Landfill as a solid waste disposal site was issued to Eugene Martin by the Hamilton County Board of Health on January 1, 1969 at a cost of \$250.00. A procedure plan dated June 18, 1969 exists for the landfill. The procedure plan was intended for all existing land disposal sites that have not had detailed engineering plans approved or submitted pending approval by the Ohio Department of Health. The procedure plan was to be used as an alternative to engineering plans until detailed engineering plans were approved or the operation phased out. The 1969 procedure plan notes that the landfill took in 62 trucks a day or approximately 1,100 cubic yards of waste per day. The total acreage was documented as 23, the nearest residence or business was 100 feet from the landfill and a water well existed on the site. The plan also notes that the landfill would remain open for another 1½ years. The landfill however remained licensed through the 1970s.

At some point in the early 1980s, Rumpke became involved with the property. The exact relationship early on is not clear. Some records note that Rumpke utilized the landfill simply to dump their waste while others note that they were co-owners, but not responsible for operations.

In the spring of 1982, methane, linked to the landfill, was discovered seeping beneath the building of the Didier Taylor Refractories Corp (formerly located at today's Evans Warehouse, east of the landfill across the railroad tracks). At this time, Rumpke immediately took over operations of the landfill in an attempt to properly vent the gas and control the problem. On May 3, 1983 at 6:05 a.m., an explosion occurred at a residential house formerly addressed as 8339 Broadwell Road. The house was located near the eastern corner of the landfill between the landfill and the railroad tracks. In Figure 3.1.4-B three structures are apparent in this area during 1981 while only two are present in 1986. The explosion caused \$30,000 worth damage and moved the two-story frame house off its foundation. No one was injured, a 17 year-old woman residing upstairs at the time escaped.

**FIGURE 3.1.4-B**



Immediately following the May 3, 1983 explosion, Soil & Material Engineers Inc. conducted an investigation of gas migration at the residence and adjacent yard. It concluded that combustible gases originating from the Anderson Township sanitary landfill had migrated into the property. As a result, methane monitoring surrounding the site was initiated and continues today. As of November 2008, Rumpke is approved by Ohio EPA to conduct

semi-annual explosive gas monitoring of all probes, on and off-site. Off-site probes exist east of the site to monitor under the slab of the Evans warehouse (referred to as the "Office" in several reports) and a methane detector is located north of the site in the firehouse.

The facility submitted a letter to the health department in November 1985 that stated the landfill would be closing "in the latter part of 1986 around December 31, 1986. An inspection completed on October 7, 1986 it was noted that waste was not being accepted and final cover was being placed. Placement of final cover continued through 1987.

#### SAMPLING RESULTS

Monitoring of methane gas at the Anderson Closed Landfill was completed on a biannual basis in 2021 at the locations (Figure 3.1.4-C) indicated in the facility's explosive gas monitoring plan. Sampling has been completed on a biannual basis since the beginning of 2009. In 2021 sampling was completed on May 18, 2021 and November 19, 2021. The second annual monitoring event began on November 16, 2021 and methane was detected in gas probe AGP-3R at a concentration of 90.6%. Additional monitoring was completed on the warehouse property adjacent to the landfill during which no additional detection of methane occurred. This monitoring including punchbar monitoring, monitoring of storm water drains, and monitoring inside the warehouse. During inspection of the wellfield, flare, and cutoff trench it was discovered that EW-4 had been bumped during mowing resulting in "*minor vacuum loss*". EW-4 was repaired and adjustments were made to the well field and cutoff trench. Additional monitoring of AGP-3R occurred on November 17, 2021 which detected methane concentrations below the exceedance threshold. The annual monitoring event was completed on November 19, 2021, during which all locations (including AGP-3R) were monitored and no detection of methane occurred at any location. The facility was subsequently allowed to continue monitoring on a biannual basis.

Prior to 2021, the last time methane was detected was during November 2014 monitoring. Methane was detected (50 % LEL) in AGP-2R. After adjustments were made to the cutoff trench, this location was rechecked on November 12, 2014 and no gas was detected.

In November of 2012 there was an explosive gas threshold exceedance at AGP-3R. As a result of the exceedance adjustments were made to the gas collection system. Gas monitoring was performed the next day on November 20, 2012 and again explosive gas was detected in AGP-3R. As required by the facility's Explosive Gas Monitoring Program weekly monitoring was implemented. A required 30 day report was submitted December 18, 2012. The report indicated that additional adjustments and repairs had been made to the gas collection system. In the report it was also documented that no detection of explosive gas had occurred since November 28, 2012, meaning no explosive gas had been detected for four successive monitoring events over a three week period. Therefore the 30 day report dated December 18, 2012, was also submitted to satisfy the final report requirements and sampling frequency was returned to a semi-annual basis.

Prior to the 2012 detection, the most recent detections of methane gas had been January 21, 2003 and February 15, 2002. During these monitoring events AGP-12R had detectable levels of 0.9% and 1.7% methane respectively. No gas has been detected in AGP-12R since January 2003. Monitoring will continue to be done by Rumpke on a semi-annual basis for all monitoring locations. (*Data for this landfill is in the files at Hamilton County Public Health*).

### FACILITY INSPECTIONS

The site was last inspected by HCPH on October 12, 2021. The inspector noted that the cap appeared to be in good condition and no violations or nuisance conditions were observed on the site.

### SITE PRESENT DAY

Today, the landfill is covered with grass and weeds. Several gas extraction wells exist throughout the landfill and a flare is situated on the Northeast corner of the property. Present day photographs taken of the site follow:





Figure 3.1.4-C

# Anderson Township Closed Landfill

- = Approximate Limits of Waste
- ▲ = Gas Monitoring Location

