

MD-109
Baltimore City

In 1946, Conoco Chemical Company converted the property from a petroleum refinery to petroleum storage and specialty chemical production.

In April 1984, MDE conducted a Preliminary Assessment.

In July 1984, Vista Chemical Company purchased Conoco Chemical Company.

In December 1984, Vista Chemical Company was issued Site Complaint SC-0-85-223, requiring them to conduct a groundwater investigation.

In December 1986, Vista Chemical signed Consent Order CO-0-87-129 that detailed their groundwater assessment.

In March 1996, Vista Chemical Company became Condea Vista Company.

Conoco Chemical Company
Baltimore, Maryland

Site Location

The former Conoco Chemical Company property is located at 3441 Fairfield Road in the heavily industrialized section of southeast Baltimore City known as Curtis Bay. Fairfield Road is the northwest border of the site, and the Patapsco River forms the southeast border. A vacant paved lot owned by the Mobil Oil Company is located south of the property and the Chevron USA/Baltimore Terminal is located to the north.

The 59.2-acre, flat site is mostly paved and developed for bulk storage and mixing of petroleum and chemical products. There are several office, maintenance and process buildings, and dozens aboveground storage tanks and pipelines on-site. A former boat slip once occupied the southeast area of the site along the Patapsco River, but has since been closed off and filled with sediment. Railroad tracks trending southeast to northwest transect the center of the property.

Site History

From 1915 until 1945, Prudential Oil Company and later Conoco Chemical Company, operated a petroleum refinery on property now divided between the former Conoco Chemical Company and Chevron USA to the north. In 1946, Conoco Chemical Company sold the portion of their property now owned by Chevron USA, and converted the remaining area for use in a variety of industrial purposes, including the storage of petroleum products and the production of specialty chemicals such as alkylates, sodium xylene sulfonate, and others. A variety of chemical compounds are used and produced in the above chemical production processes, which generate hydrochloric acid and "sulfones" as by-products. The hydrochloric acid (HCl) is neutralized in concrete pits through the addition of calcium carbonate and discharged off-site. Sulfones were disposed of into two containment pits. In 1980, the containment pits were excavated as required by Conoco Chemical Company's Controlled Hazardous Substance permit. Approximately 29,000 tons of material was removed from the property and disposed of at the Solley Road Landfill.

Vista Chemical Company purchased Conoco Chemical Company in July 1984. In March 1996, Vista Chemical Company became Condea Vista Company. The site

currently operates under MDE's Oil Control Permit #95-OP-0975 and Air and Radiation Management Administration Permit #1998-24-00100. Prior to 1998, the facility operated under Water Management Administration's Industrial Discharge Permit #93DP0117.

Environmental Investigations

In May 1984, MDE conducted a Preliminary Assessment in response to the potential for hazardous wastes leaching into groundwater during the excavation of the sulfone waste disposal pits. Since approximately 29,000 tons of material was removed during the excavation of the pits, no further action involving the containment pit removal occurred.

In December 1984, after several inspections and site visits by the Hazardous Waste Enforcement Division, Vista Chemical Company was issued Site Complaint SC-0-85-223 citing the discharge of acids and oils into the groundwater. The violation notice called for a groundwater monitoring system to be installed to determine the extent of the contamination. Vista Chemical Company then contracted Woodward-Clyde Consultants to perform the groundwater investigation.

In January 1986, Woodward-Clyde Consultants completed a hydrogeologic assessment of the site. Sampling results detected several priority pollutant volatile and acid-base/neutral compounds, as well as lead and chromium in the groundwater. The irregular distribution of the contaminants over the site suggests that a number of sources exist.

In response to the Woodward-Clyde report, Vista Chemical Company signed Consent Order CO-0-87-129 in December 1986 and contracted Environmental Resources Management, Inc. to further characterize the groundwater quality and assess the effects of past and present on-site and off-site operations. The groundwater investigation revealed three distinct dissolved organic contaminant plumes at the site. The first plume, which is located near the center of the site, contains benzene in concentrations up to 280,000 parts per billion (ppb), and is migrating in a northeast direction. Its source is believed to be an acid sewer line leak. The second plume, emanating from a boat slip area on the easternmost edge of the property, consists primarily of benzene in concentrations up to 13,000 ppb. Its origin is the boat slip area. This plume is migrating to the southeast and becomes integrated with the baseflow of the Patapsco River. The third plume, located in the western portion of the site, consists mostly of 1,2-dichloroethene (110 ppb) and trichloroethene (56 ppb). The source for this southward migrating plume could originate from the upgradient Chevron USA property to the north or from an on-site truck maintenance shop.

During the 1980s and 1990s, numerous petroleum and hazardous material spills and releases have occurred at the site, as well as several explosions. The site is currently being monitored by MDE's Oil Control Program. Case number 9-0770BC3, related to a spill on July 22, 1999, remains open. MDE's Hazardous Waste Enforcement Division is

overseeing the VOC plumes on-site and reviews the quarterly sampling reports taken from the on-site monitoring wells.

Current Status

Under the MDE Preliminary Assessment/Site Inspection (Superfund) Cooperative Agreement with the EPA, the MDE is conducting a site survey of the CONOCO Chemical Company. The Site Survey Initiative was proposed to reassess the status of those sites that were previously designated No Further Remedial Action Planned by the EPA. This initiative is intended to determine if site conditions have remained stable, provide a current description of the site, and identify and address any new pathways for contamination. The initiative is also intended to determine whether the State should recommend further investigation by the EPA, oversight by the State and no further investigation by the EPA or no further action to be taken by the EPA, or the State and the State designate the site as a “Formerly Investigated Site.”