

Lakeland Tanning Site
US Highway 92 and Reynolds Road
Lakeland, Florida
County: Polk
District: Northeast
Site Lead: Waste Cleanup Program
Approved for Cleanup: May 10, 1999
HWC # 124

Site Description and History

The Lakeland Tanning site is located on the southeast corner of the intersection of US Highway 92 and Reynolds Road in Lakeland, Florida in Township 28S, Range 24E, Section 14 at 28° 02' 47.7929" N, 81° 53' 21.4741" W. The site is approximately 21-acres and is divided into two parcels. Two areas of the site are included in the National Wetland Inventory; A marshy area, approximately 100 feet in diameter, in the center of the site and a wetland on the eastern parcel. A portion of the factory building foundation remains on the western parcel of site. Land use in the area within a ¼ mile radius of the site is primarily light industrial, residential, or farmland.

Tanning operations began at the site in 1946. Although the exact method of tanning is unknown, the onsite activity consisted of tanning cattle hides. The facility ceased operations in August 1966, when the factory was destroyed by fire. At the time of the fire, the facility was known as Imperial Polk Leathers, Inc.

Various companies owned the property between 1966 and 1985. Based on records located on the Polk County Property Appraiser's website, H&O Food Sales, purchased the site in 1985. It appears that H&O Food Sales stopped paying property taxes at some point after the 1985 purchase. The approximately 10-acre western parcel was purchased by Prodigal Corporation in 1996 in a tax deed sale. The eastern parcel, owned by Lisa Johnson, was purchased in 1995 and used as a golf driving range but is now vacant.

Threat

There are remaining areas of soil contaminated with lead, chromium, and arsenic at concentrations above the industrial/commercial Soil Cleanup Target Levels (SCTLs). Arsenic, cadmium, lead, sulfate and sodium, were detected above the Groundwater Cleanup Target Level (GCTL) in groundwater samples collected in March and May 2015. A groundwater sampling collected from an existing monitoring well offsite to the south of the property indicated that sodium impacts extend offsite in the groundwater.

Response Strategy and Status (June 2016)

In 1987, two nearby business owners filed complaints regarding possible contaminant sources coming from the former Lakeland Tanning site. In response to these complaints, the United States Environmental Protection Agency (EPA) conducted a Preliminary Assessment.

In 1987, H&O Food Sales contracted with Environmental Engineering Consultants (EEC) to assess the property. EEC completed a Phase II Environmental Audit in May 1990. EEC installed four

shallow monitoring wells and sampled them along with four existing EPA wells. Concentrations of chromium in three groundwater samples exceeded the maximum contaminant level (MCL) in effect at the time of the assessment (0.05 mg/L).

In 1989, a Final Screening Site Inspection was conducted for the EPA by NUS. Sample results confirmed the presence of high levels of chromium contamination in onsite soil and sediment taken from the old impoundments. Chromium was also detected in onsite groundwater samples.

In 1990, the EPA finalized an Interim Final Listing Site Inspection Report. Soil, sediment, groundwater, and surface water samples were collected and analyzed. Chromium, lead, arsenic, and mercury were detected in soil and sediment samples collected from the site. Surface water samples collected from the impoundments contained chromium, lead, and mercury. The EPA determined that the Lakeland Tanning site would not be included on the National Priorities List because these findings could not support migration of site-related contaminants.

In April 1992, EEC completed a Contamination Assessment Report (CAR) to assess the impact of wastewater activities on the onsite sludge and soil. The soil beneath the sludge layers indicated that the sludge had not leached chromium. Based upon this information, it was estimated that 8,000 cubic yards of sludge and topsoil were contaminated with chromium. The groundwater samples indicated that chromium was present above the GCTL. Three groundwater samples were analyzed for hexavalent chromium, but only one sample yielded a detectable value.

In November 1992, EEC completed a Solidification Project Remedial Work Plan for H&O Food Sales, which proposed immobilization of the waste and installation of a monitoring well network to demonstrate chromium was not leaching into the groundwater.

In 1996, the South West Florida Water Management District (SWFWMD) requested that the site be considered for State-funded cleanup. The Lakeland Tanning site was approved for State-funded cleanup in June 1999. In March 2000, the Florida Department of Environmental Protection (DEP) contracted with Groundwater Technology, Inc. to conduct a historical activity report.

The DEP obtained site access from the Prodigal Corporation in 2001, and tasked GTI to conduct a soil assessment. Assessment activities began in January 2002. Soil assessment results indicated that industrial/commercial Soil Cleanup Target Levels (SCTLs) were exceeded for chromium, arsenic, lead, and mercury. Most of the soil samples exceeding the industrial/commercial SCTLs were collected in what is described as a “sludge” that represents the tanning wastes.

In September 2002, Shaw Environmental (now CB&I) conducted a groundwater investigation. During the groundwater assessment, Shaw collected samples from 19 monitoring wells and the industrial supply well. The results for several monitoring wells exceed the GCTLs for cadmium and sodium. Shaw also noted several areas of standing water related to the impoundments as well as areas outside the impoundments where the ground was saturated. Surface water and sediment samples were collected from areas with standing water. Mercury, arsenic, and barium exceeded the surface water cleanup criteria and chromium concentrations in sediment samples ranged from 26,000 to 89,000 mg/kg.

The details of the 2002 groundwater assessment were summarized in a Groundwater Assessment Report submitted in February 2003. The report also contained a preliminary evaluation of remedial alternatives. Among the possible remedial alternatives were excavation with offsite disposal, clean soil cover, and onsite consolidation of contaminated soil.

In September 2003, Shaw submitted a work plan, with a scope of work for delineation of the horizontal and vertical extent of contaminated soil and sludge at the site, and identification of disposal options and related costs for excavation of the contaminated soil. Shaw conducted additional soil sampling to better define the areas for excavation and concluded that barium and vanadium concentrations were similar to concentrations detected offsite and are likely naturally occurring.

In September 2010, the DEP and property owners signed a restrictive covenant allowing the DEP to cleanup to commercial/industrial SCTLs.

In March 2011, Shaw began excavating contaminated soil. During the excavation, contamination over the original scope of work was discovered including a large quantity of construction debris, asbestos containing material (ACM) and approximately 500 tons of decaying leather. The discovery of impacted sludge and soil above the original scope of work resulted in the DEP moving to a phased approach to complete the excavation. Shaw submitted an Asbestos Abatement Plan in February 2012, making it possible to complete phase three of the excavation.

Excavation reports for phases 1 through 5 have been approved. Phase 5 of the remedial excavation involved the removal of additional impacted soil in the vicinity of several large trees on the western parcel of the site. The trees were removed and disposed of by the property owner. Confirmatory soil samples collected during the excavation exceeded the commercial/industrial SCTLs for total chromium and arsenic. To date approximately 21,928 tons of contaminated soil/sludge and 220 tons of concrete debris have been excavated and disposed of.

Based on the results of phase 5 confirmatory soil sampling, the DEP requested a Sampling Analysis Plan to complete the soil removal action on the western parcel. Soil sampling was completed in August 2014. The results showed additional areas of soil contamination above the commercial/industrial SCTL for chromium and arsenic. The data was incorporated in to a source removal plan to address remaining areas of contaminated soil on the western parcel.

Offsite contamination notification was completed based on data collected in March and May 2015. At the request of the Department, a three well cluster was installed on the western parcel to assist in contaminant plume delineation.

The Interim Source Removal for the final phase of soil excavation on the western parcel was completed between September and December 2015. A total of 6,480 tons of impacted material was removed during the final phase of excavation on the western parcel. Additionally, the contents of a concrete structure partially located on the western parcel were removed and disposed of under a separate Interim Source Removal Work Plan prepared by HSW Engineering.

A comparison of pre and post excavation site elevations on the western parcel was completed to ensure the excavation has been completed in accordance with the Agreement to Allow Excavation and Removal of Certain Trees. The elevation in excavated areas has been restored to match the previous elevation as closely as possible. Site restoration field work on the western parcel was completed in June 2016 with an application of hydroseed.

Site assessment on the eastern parcel was completed in July 2016. The results of the assessment work will be summarized in a report that is due in September 2016.

Schedule

The soil remedy on the western parcel has been completed. The Department will continue to monitor the area periodically to ensure the hydroseed application was successful.

The site assessment report for the eastern parcel is due in September 2016. The Department requested a Wetland Boundary Survey Report. The report is being reviewed by the Department.