

**Jasper Creosoting Company  
Jasper, Jasper County, Texas**

**EPA REGION 6  
CONGRESSIONAL DISTRICT 8**

**EPA ID# TXD008096240  
Site ID: 0601735**



**Contact: Robert Sullivan  
214-665-2223**

**Updated: March 2012**

## **Background**

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The Jasper Creosoting site is located at 601 N. McQueen Street in the City of Jasper, Jasper County, Texas. The geographic coordinates of the center of the site are approximately 93° 58' 56" west longitude and 30° 56' 06" north latitude.

Jasper Creosoting is a former wood treatment facility, which utilized coal-tar creosote and pentachlorophenol (PCP). The site occupies approximately 11 acres and is bounded on the east by the Burlington Northern & Santa Fe (BNSF) Railway, on the west by N. McQueen Street, on the south by State Highway 776, and on the north by commercial property.

Drainage from the site flows to a ditch along the eastern boundary of the site (east drainage ditch). The ditch flows south along the site until reaching a culvert that runs east beneath the BNSF railroad tracks into the unnamed wetland area (drainage inlet). The wetland area continues about 500 feet to another culvert beneath Highway 776 (drainage outlet) where surface water drains into a small ditch. The ditch flows southeast another 500 feet into Big Sandy Creek, which is a tributary to B.A. Steinhagen Lake, approximately 12 miles west of the site.

The site is located on the outcrop of the Jasper Aquifer, a continuous 1,200-foot deep aquifer that serves as the primary source of drinking water for the Upper Jasper County Water Authority and supplies water to residential users. There are 27 drinking water wells located within four miles of the site. These wells range in depth from 22 feet to 640 feet BGL. All of these wells draw from the Jasper Aquifer. The nearest drinking water well to the site is a City of Jasper municipal water supply well located seven tenths of a mile southeast and hydraulically down-gradient from the site.

The approximate population of the City of Jasper is 8,247 people. Approximately 1,100 people live within a one-mile radius of the site.

## **Current Status**

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The site is in the Long-Term Remedial Action (LTRA) phase of the Superfund process. The EPA signed the Preliminary Close-Out Report on September 12, 2008, documenting the Construction Completion at the site. The EPA and State of Texas completed the Final Inspection at the site on August 12, 2008.

A time-critical removal action was conducted between July 7, 2005 and March 1, 2006 to address the immediate threats to human health and the environment that were identified during the RI/FS. The removal action implemented components of the Selected Remedy for contaminated soil and sediment, as described in the ROD. This removal action is consistent with all actions considered in the ROD.

In August 2006, EPA completed a Proposed Plan and held a public meeting to discuss the preferred remedial alternative for the site. A Record of Decision was signed on September 20, 2006.

## Benefits

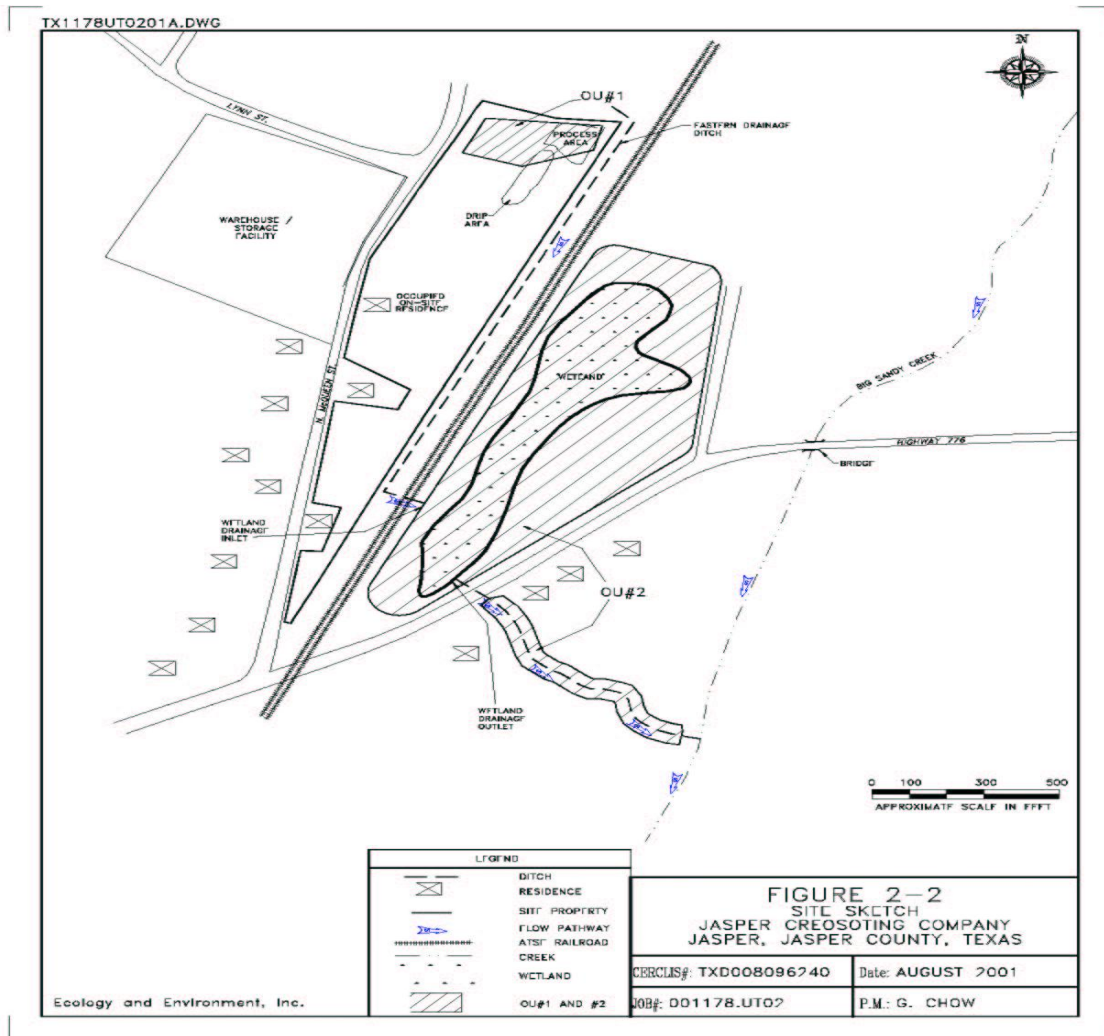
The remediation of the contamination present at the Jasper Creosoting Company Superfund site will ensure the protection of human health and the environment and encourage reuse of the property.

## National Priorities Listing (NPL) History

NPL Proposal Date: March 6, 1998

NPL Final Date: July 28, 1998

## Site Map



## Wastes and Volumes

The principal contaminants at the site include creosote [semi-volatile organic compounds (SVOCs),

primarily polynuclear aromatic hydrocarbons (PAHs)], pentachlorophenol (PCP) and dioxins/furans.

Historical operations performed at the site employed coal tar creosote and PCP dissolved in diesel to treat railroad ties and utility poles. Coal tar creosote, a listed hazardous waste (U051), is manufactured through the distillation of coal tar and is the most widely used wood preservative in the United States. It is a thick, oily liquid, typically amber to black in color, with a specific gravity of 1.03 to 1.09. Creosote contains over 300 different chemical compounds. One important group of environmentally significant compounds present in creosote is the PAHs. There are 16 PAHs routinely encountered at wood treating sites, seven of which have been identified as probable human carcinogenic polycyclic aromatic hydrocarbons (CPAHs). Although elevated levels of volatile organic compounds (VOCs) and metals were not expected to be as prevalent in environmental media at the site, testing was performed on a subset of the soil and sediment samples, and all water samples, to ascertain the significance of these compounds, if present. The major chemicals of potential concern include PAHs, PCP, and dioxins/furans.

The RI ground water hydro-geologic investigation included sampling of seven existing monitor wells and nine new monitor wells. During the June 2006 SRI, six new monitor wells were constructed. TPAH concentrations in shallow ground water samples varied widely. Concentrations were highest in the area bounded by the onsite source area, but showed significant decreases down-gradient (southeast) of this area. The elevated concentrations onsite can be attributed to free-phase creosote present. Naphthalene concentrations account for the majority of the TPAH present. In the deep ground water zone, TPAH concentrations were significantly lower. Comparison of vertical TPAH concentrations shows significant vertical attenuation of the contaminant plume over a distance of 65 feet. This trend also occurs further down-gradient where TPAH concentrations declined 10 fold over a vertical distance of approximately 50 feet.

Biota/fish tissue samples were collected from crayfish, green sunfish, bass and catfish. PAHs were detected in the fish and crayfish sample collected downstream of the Site. The TPAH concentration was greater than the screening value for benthic invertebrates. However, the detection limits of three non-detect PAHs are greater than the screening value, while detected concentrations are lower than the screening value, as are the detection limits of all other PAHs. Two PAHs were detected in the sample from the reference area at concentrations greater than those from the sample downstream of the Site. The TPAH concentrations are below the screening value. Thus, PAH concentrations that have accumulated in benthic invertebrate tissue downstream of the Site warrant no additional concern.

## Health Considerations

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The chemicals of potential concern for the site include SVOCs/PAHs, phenolic compounds (i.e. PCP), and dioxins/furans. PAHs and phenolic compounds are the primary components of coal tar creosote, while dioxins/furans are contaminants of chlorinated phenols, in particular PCP. PAHs are carcinogens, capable of causing cancer at the point of contact i.e., on the skin, and are known to adversely affect the skin upon dermal exposure. In addition, many non-carcinogenic adverse effects are known to occur because of exposure to creosote, including lung, liver, kidney, thymus, adrenal glands, colon, and skin effects.

There is a potential for receptors to experience adverse effects from exposure to PAHs, metals, and dioxins. The risk conclusions indicate that Sandy Creek and the un-named tributary present no risk to human health or ecological receptors. The drainage ditch presented risk to both human health and ecological receptors from PAHs, dioxins, carbazole, dibenzofuran, 4,6-dinitro-2-methylphenol, and PCP. The forested wetland presents risk to both human health and ecological receptors from PAHs, dioxins, carbazole, and PCP. However, re-evaluation of the sediment data collected during the SRI reveals that the remaining ecological risk posed by the wetland sediment, after completion of the 2005 EPA removal action, is acceptable.

The upland process area presents risk to human health from PAHs and dioxins. Ground water presents risk to human health from PAHs, dioxins, carbazole, benzene, and PCP. There is also potential future risk

to ecological receptors in Sandy Creek based on the comparison of ground water data to surface water screening values.

## Record of Decision (ROD)

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The ROD was signed on September 20, 2006.

Major components of the selected remedy include:

Install a non-aqueous phase liquid (NAPL) recovery system to remove free phase and residual NAPL from the saturated zone to the extent practicable.

Install a hydraulic containment system to prevent plume expansion and/or protect Sandy Creek surface water.

## Site Contacts

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EPA Superfund Region 6 Toll Free Number: 1-800-533-3508

Community Relations Plan: February 2000

Site Repository: Jasper Public Library  
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Jasper, TX  
409-384-3791