

# STATE ROAD 114 (HOCKLEY COUNTY) LEVELLAND, TEXAS



**EPA REGION 6**  
**CONGRESSIONAL**  
**DISTRICT 19**

**EPA ID# TXSFN0605177**  
**Site ID: 0605177**

**Contacts:**  
**Vincent Malott 214-665-8313**

**Updated: May 2009**

## **Current Status**

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The remedial action construction continues at the site with a scheduled completion in August 2009. Installation of the ground water extraction wells, monitoring wells, and injection wells were completed in April 2009. The 62 soil vapor extraction (SVE) wells were completed in January 2009 within the former refinery area. The ground water extraction well network in the former refinery area consists of 11 wells and was completed in March 2009. The off-site ground water extraction network consists of 10 wells. The treatment building pad site has been completed and the treatment building is scheduled for completion in mid-May. Installation of the water supply line from the City of Levelland was started in April with a projected completion date in July for all residential and commercial connections. Installation of the final wellheads is scheduled to start in May. All of the subcontract awards have been completed for the remaining construction work at the site. The final remedial design plans for the ground water and soil vapor treatment plant, conveyance piping, soil cleanup, and water supply line from the City of Levelland to the residential area (north of State Highway 114) have been completed.

The selected remedy includes 21 ground water extraction wells, 4 ground water injection wells, and 62 soil vapor extraction wells. The ground water will be treated to remove VOCs through an air stripper and dissolved metals through chemical precipitation. The vapor from the air stripper and SVE system will be collected and condensed using an innovative green technology that utilizes cryogenic compression and condensation (also known as C3) to recover the contaminant vapor as a liquid for potential recycling and resale. The C3 technology will eliminate air emissions from the treatment plant, allow for an accelerated cleanup using the SVE system, and reduce the carbon footprint for the site cleanup.

The Record of Decision selecting the preferred remedy for cleanup of the ground water and soil contamination was signed by the EPA on March 31, 2008. The public comment period for the Proposed Plan closed on Monday, February 11, 2008. The Proposed Plan presented EPA's preferred alternatives for addressing site contamination and consists of: 1) Installation of a water supply line from the City of Levelland to a proposed service area along FM 1490, north of State Highway 114, and adjacent to Levelland. This alternative includes installation of individual connections to homes and businesses with private water supply wells currently or potentially impacted by the ground water contamination. The monthly costs for water usage will be the responsibility of the resident or business at a rate set by the City of Levelland; 2) Installation of a ground water and soil vapor extraction systems to reduce the source area, prevent further migration of the contaminant plume, and restore the Ogallala aquifer for beneficial uses; and, 3) Excavation and on-site burial of an estimated 3,600 cubic yards of contaminated soils and spent catalyst material at the former refinery site. The EPA did not receive any written comments in opposition to the preferred remedy. A public meeting was held on Thursday, January 24, 2008, at 7:00 p.m. at the Levelland City Hall, 1709 Avenue H, Levelland, Texas. The public meeting was held to inform community members of the proposed cleanup strategy and obtain comments on the Proposed Plan and EPA's preferred alternatives for the State Road 114 Ground Water Plume Site in Hockley County, Texas.

## Benefits

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Filtration systems have been installed on 31 impacted private drinking water wells to prevent exposure to the contaminants pending completion of a more permanent solution. The completed remedial investigation has identified the immediate and long-term threats to the local ground water supply, allowing further planning to address the health risks.

## National Priorities Listing (NPL) History

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NPL Inclusion Proposal Date: July 19, 1999  
NPL Inclusion Final Date: October 22, 1999

## Site Description

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The State Road 114 Ground Water Plume site is an area of ground water contamination underlying the western boundary of the City of Levelland, Hockley County, Texas, approximately 31 miles due west of Lubbock. The population of Levelland is approximately 13,000. The land use over the plume area is mostly agricultural with pockets of light commercial or residential development. There are 28 impacted private drinking water wells in the area of the plume.

The site consists of a 1,2-dichloroethane (DCA) and benzene plumes in the Ogallala Aquifer that extends from west to east (in the direction of ground water flow) along State Highway 114 for approximately 1 ½ miles from the former Motor Fuels Corporation (MFC) property to the City of Levelland municipal park. The ground water plume is approximately a mile wide, bounded roughly by Ellis Road to the north and Houston Avenue to the south. Analyses of samples collected during site investigations to date indicate maximum benzene concentrations of 19,000 ppb and maximum DCA concentrations of 380 ppb. EPA has established a maximum contaminant level (MCL) of 5 ppb for both DCA and benzene in drinking water. The businesses and residences in the plume area are dependent on private wells for drinking water or irrigation. The City of Levelland is dependent on ground water for approximately 1/3 of its drinking water supply. The Ogallala aquifer is the only source of high-quality drinking water in the site area. The saturated zone is approximately 150 feet below ground surface and varies in thickness from 40 to 90 feet. Clays form the base of the aquifer. Ground water flow in the aquifer is to the east.

## Wastes and Volumes

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The proposed cleanup goal for DCA and benzene in the ground water is 5 ppb. The DCA/benzene plumes defined by the 5 ppb limit extends approximately 1 ½ miles from the former Motor Fuels refinery, and is over ½ mile wide. The Ogallala aquifer supplies drinking water to private residences and municipalities as well as water for irrigation across West Texas. The land above the plume is not affected by the contamination and remains in active agricultural use as well as residential and light commercial development.

## Health Considerations

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EPA installed 25 filtration units on private water supply wells in the project area impacted by DCA contamination over the MCL of 5 ppb. TCEQ maintains and monitors the water quality at each of these wells.

## Record of Decision (ROD)

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The Record of Decision was signed on March 31, 2008.

## Site Contacts

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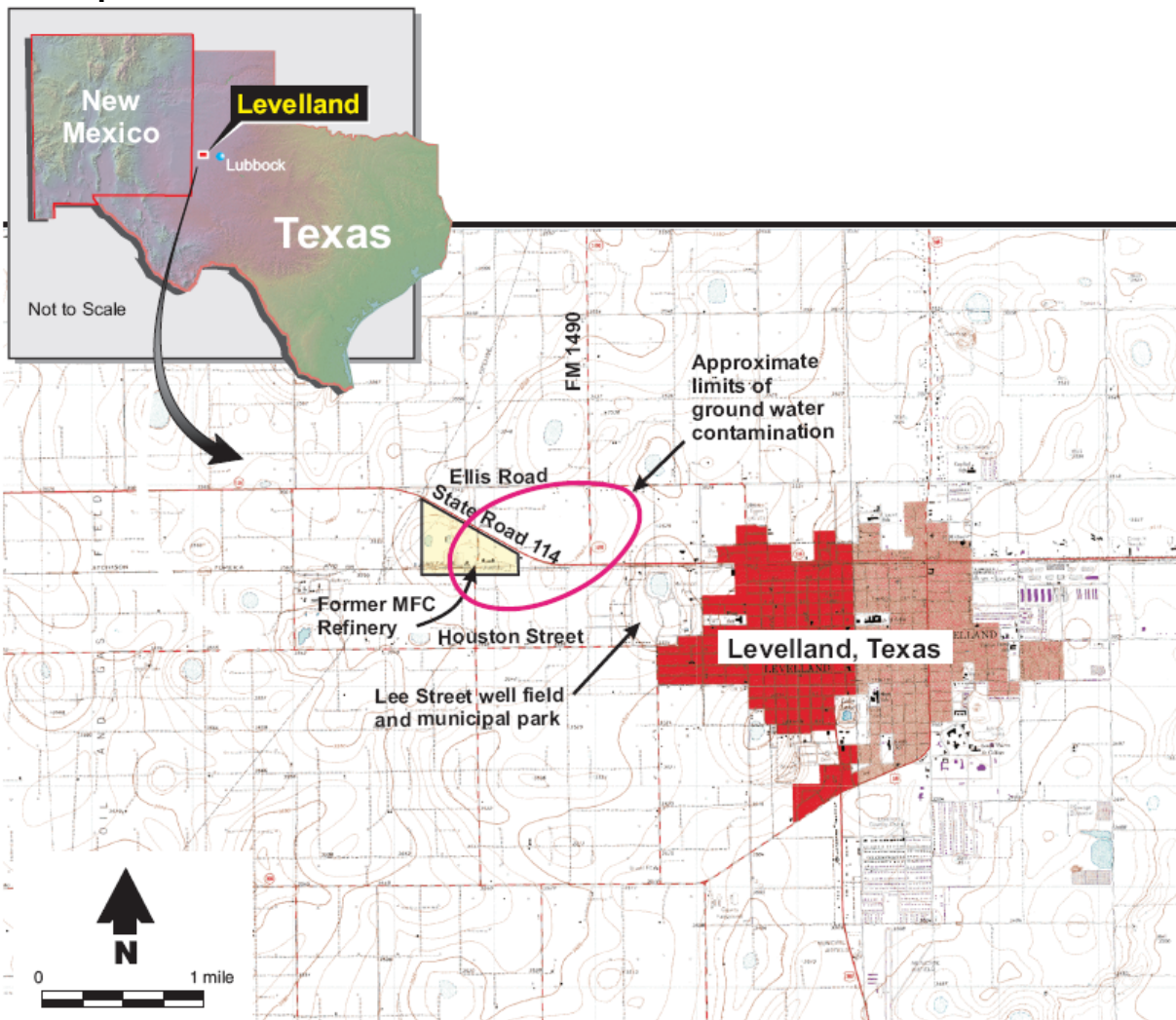
EPA Remedial Project Manager:	Vincent Malott	214-665-8313
EPA Community Involvement Coordinator	Jason McKinney	214-665-8132
EPA Site Attorney:	Joseph Compton	214-665-8506
EPA Regional Public Liaison:	Donn Walters	214-665-6483
TCEQ Project Manager	Sugam Shrestha	512-239-4136

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

**Information Repository:** Hockley County Library, 802 Houston Street, Suite 108, Levelland, Texas 79336 (806) 894-6750

## Site Map

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The locations of the planned ground water extraction, injection, and new monitoring wells are located on the following figure.



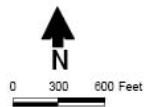
**Explanation**

**Proposed monitor wells**

- ▲ Well screened in the shallow zone
- ◆ Well screened in the intermediate zone
- Well screened in the deep zone

⊕ Proposed recovery well

▲ Proposed injection well



Distribution of the soil vapor extraction wells within the former refinery area, now located at the Farmers Cooperative Elevator Association.

