

**PAB OIL & CHEMICAL  
SERVICE, INC.  
(Vermilion Parish)  
LOUISIANA**



**EPA REGION 6  
CONGRESSIONAL DISTRICT 07**

**Contacts:  
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**EPA ID# LAD980749139  
Site ID: 0600576**

**Updated: February 2012**

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## **Background**

The Pab Oil & Chemical Service, Inc. (PAB) site is located in Vermilion Parish, Louisiana approximately 3 miles north of the town of Abbeville. The site covers 16.7 acres.

From 1978 to approximately 1983, the site was operated as a disposal facility for oil field drilling mud and saltwater. The waste oil skimmed from the oil-based drilling mud separation/disposal pits, was sold to re-claimers. In 1980, the State passed an amendment which established new requirements for offsite drilling mud and saltwater disposal facilities. Investigations triggered by a citizens' complaint of illegal discharges determined the majority of the onsite contamination was a direct result of the drilling mud and fluids, produced water, work-over fluids, and tank bottoms the facility received from oil and gas exploration and production.



The PAB site was placed on the NPL on March 31, 1989.

In 1991, it was discovered that an immediate threat was posed by ignitable waste contained in one of four onsite storage tanks that was structurally damaged. In 1992, a removal action was implemented by the PAB Remediation Group, L.L.C. (PAB Group). The removal action included relocation of waste from the four storage tanks, dismantling the tanks, and treatment and disposal of the waste off site. All of the contaminants found at the site were related to drilling muds, drilling fluids, produced water, and other associated wastes such as work over fluids and tank bottoms. The contaminants of concern were VOCs, SVOCs, and/or metals. Contaminants detected in the pit soil/sludge, pond sediment, and surface water included petroleum hydrocarbons such as ethylbenzene, fluorine, methylnaphthalene, phenanthrene, toluene, and xylene; and heavy metals such as arsenic, barium, chromium, copper, lead, and zinc.

EPA signed a ROD on September 22, 1993. The selected remedy called for surface water treatment, excavation, biological treatment, residuals solidification/stabilization, onsite disposal, a clay cover, and groundwater monitoring.

On March 12, 1997, an Explanation of Significant Differences was issued that modified the selected remedy. This modification occurred after improved laboratory procedures were able to achieve cPAH and PAH method detection limits that were below the RAOs established for the Site. Biological treatment, therefore, was deemed unnecessary as part of the RA. All aspects of the remedy remained the same, with the exception of biological treatment,

The site was deleted from the National Priorities List on January 3, 2000.

The primary land use near the PAB site is agricultural and residential. In the past 5 years, there has been increased residential development immediately south of the site. Additionally, Vermilion Chateau Subdivision was developing the adjacent north property, which would contain single family residences. Three city wells in Abbeville provide drinking water to approximately 18,000 people. Private wells within 3 miles of the site serve an additional 2,100 people. A representative of Keller Williams indicated public water would be supplied to the Vermilion Chateau Subdivision by Vermilion Parish Water District 1.

## Current Status

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EPA initiated a Second Five Year Review on January 18, 2007. EPA completed the Second Five Year Review on July 24, 2007. The Second Five Year Review concluded that the remedy was still protective of human health and the environment.

The Agency for Toxic Substances and Disease Registry (ATSDR) issued a Health Consultation on September 19, 2006, concerning potential effects from Hurricanes Katrina and Rita. The ATSDR report concluded that there were no adverse effects from the site as a result of the hurricanes.

EPA issued a Five Year Review Addendum on February 14, 2011. The conclusion of the Five Year Review Addendum was, while various invalid ground water data were included in historical reports used in the First and Second Five Year Reviews, this information was not used in assessing the protectiveness of the remedy and therefore, the remedy remains protective of human health and the environment. Appropriate changes to the Operations and Maintenance (O&M) Plan have been made to ensure that valid ground water data are collected and reported.



## Benefits

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- About 20,000 cubic yards of waste and 10,000,000 gallons of surface water were treated at the site.
- Remediation reduced environmental risk for over 15,000 people within a four-mile radius of the site.
- The off-site treatment and disposal of all wastes contained in the four on-site disposal storage tanks reduced the threat to off-site drainage systems and residents.
- Remediation has made the site suitable for certain types of redevelopment.

## National Priorities Listing (NPL) History

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### NPL LISTING HISTORY

Site HRS Score: 38.94  
Proposed Date: 6/24/88  
Final Date: 3/31/89  
NPL Update: No. 7

**Deleted from NPL:  
January 3, 2000**

## Site Description

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- Location: - Vermilion Parish in Southern Louisiana.  
- Site is located three miles north of Abbeville along Highway 167.
- Population: - 13,000 in Abbeville (nearest town).  
- 50,000 in Vermilion Parish.
- Setting: - Primary land use in the vicinity of the site is agricultural and residential.  
- Three Abbeville city wells located within three miles of the site provide water for 18,000 people.  
- Private wells within three miles of the site serve another 2,100 people.  
- Facility used for disposal of oil based drilling mud and other oil field related wastes.  
- Located on a 17-acre plot of land and consists of three disposal pits and four steel holding tanks.  
- Site pits cover an area of approximately 300 feet by 360 feet.
- Hydrology: - Underlying the site is a series of over-consolidated clays and sands.  
- Major aquifer underlying the site is the Chicot aquifer.  
- Normal ground water flow is west/northwest.
- Photographs: - [PAB Photos](#)

## The Remediation Process

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- Property is owned by the Edmond Mouton estate.
- Operated as a disposal facility for oil field waste from 1979 until 1983 by a lease agreement with PAB Oil and Chemical Services, Inc.
- Citizens' complaints of site operations in 1980 led to EPA investigations of the site.
- March 1982- PAB sold to Worldwide Services, Inc., who later tried to cancel its purchase due to

the lawsuits, but PAB refused to refund the initial payment.

- In November 1982, the State ordered the site properly closed; however, the company claimed it had no money for closure.
- The site was proposed for inclusion on the National Priorities List in June 1988 and finalized for inclusion in March 1989.
- EPA started Fund-lead RI/FS work in June 1990; findings included elevated levels of barium, arsenic and PAHs in wastes and soils.
- October 1991 - Potentially Responsible Parties (PRPs), with EPA oversight, addressed a possibly dangerous problem from a damaged storage tank.
- The RI/FS was completed and the Record of Decision signed in September 1993.
- A Unilateral Administrative Order was signed on November 2, 1994 whereby EPA orders the PRPs to begin the Remedial Design work. This work began on November 17, 1994.
- EPA negotiated settlements with several of the PRPs who did not contribute significantly to the release of hazardous substances at the site.
- While preparing the Remedial Design, the PRPs requested that EPA review the methodology that had been used in determining the PAH contaminant levels, since new analytical methods had been developed with lower detection limits. The sludge material and soils were resampled in both 1993 and 1995 by the PRPs utilizing the advanced methodology. The results showed that it would not be necessary for the material to be bioremediated. EPA agreed and prepared an Explanation of Significant Differences (ESD), which was signed in March 1997. The ESD resulted in taking the bioremediation out of the remedy, but leaving the original dewatering and stabilization phases.
- The Remedial Design was finalized on May 30, 1997 and Remedial Action fieldwork began on June 9, 1997.
- The site saltwater pond was completely dewatered of approximately 6 million gallons in August 1997. The water was treated in an electroprecipitation unit prior to discharge to a drainage ditch. The water was analyzed at regularly scheduled intervals to insure that the discharge water met the regulatory parameters. There were no exceedances of discharge requirements throughout the process.
- A community open house was conducted on November 8, 1997 in Abbeville to provide the community with a status report relative to the history and the current remedial action activities.
- Pond bottom sampling revealed total barium exceeding the remedial action objectives. The PRP removed the top 6" for treatment and disposal into the pit areas with the stabilized/solidified sludge that will be covered with a final cap. Verification sampling of the pond bottom was conducted after the top layer was removed to insure that no contamination remained prior to backfilling and final grading.
- The sludge stabilization/solidification phase of the remedial action kicked off in late September 1997. All sludge processing was completed in May 1998 after which the clay cap was installed. Final grading of the saltwater pond occurred concurrently with installation of the cap.
- A pre-final site inspection of the site was conducted on May 27, 1998 at which time a "punch list" of outstanding items was developed. The main items included final grading and revegetation of the site and development of an Operations and Maintenance (O&M) plan for 30 years of ground water monitoring.
- The PRP contractor demobilized from the site on June 20, 1998.
- The remedial action was considered complete in August 1998. The PRP prepared a Remedial Action Report to document the activities that occurred during the remedial response action. An Operations and Maintenance Plan was also developed.
- EPA's Close-Out Report was signed by the Regional Administrator on August 28, 1998.
- The approved Operations and Maintenance Plan (September 1998) was implemented for the first quarter of O & M on October 23, 1998. Because this inspection was conducted in the fourth quarter of calendar year 1998, it is called the Fourth Quarter 1998 inspection. The inspection report was received on December 14, 1998. The First Quarter 1999 inspection was conducted on January 26 and 27.
- The First Quarter 1999 inspection and monitoring report was received by EPA in March 1999. This report included ground water monitoring data. Most of the constituents were below detection

limits, including all volatile and semi-volatile organics. The results for metals showed some metals detected. The Second Quarter 1999 inspection was conducted on April 19, 1999.

- The Third and Fourth Quarter 1999 inspections were conducted in July and October, respectively. The July report included ground water monitoring data. Most of the constituents were below detection limits, including all volatile and semi-volatile organics. The results for metals showed some metals detected, none, however, above their maximum contaminant limits (MCLs). In the Fourth Quarter report, the PRP proposes to change the settlement survey measurements from a quarterly event to an annual event since no settlement has occurred in the first four quarters of measurement.
- A Notice of Intent to Delete (the site from the National Priorities List) was published in the Federal Register in August 1999 and was open for public comment until the end of September. The State had concurred with this notice prior to it being published. No comments were received from the public.
- The Third Quarter 2000 inspection, which included ground water monitoring, took place in July 2000. The site was deleted from the National Priorities List on January 3, 2000.
- EPA conducted split sampling of the ground water while the semi-annual ground water monitoring was being conducted. The results from the EPA lab and the PRP's laboratory were comparable.
- The Fourth Quarter 2000 Operations and Maintenance Inspection Report was received in December 2000. The inspection activities took place in October 2000 and included inspecting the conditions of monitoring wells, site drainage, site roads, site security, site vegetation, and the clay cap.
- Operations and Maintenance inspection activities include measurement of groundwater elevations of all site wells, annual clay cap settlement monument survey, collection of groundwater samples from selected wells, analysis of the groundwater samples and a complete site inspection of site conditions.
- EPA conducted a five-year review of the remedy. The report was completed on July 24, 2002.

## Contacts

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| State Contact:            | Todd Thibodeaux | 225/765-0487, LDEQ         |
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| Prime EPA Contractor:     | USACE           |                            |
| EPA Public Liaison        | Donn R. Walters | 214-665-6483               |