

# ROCKWOOL INDUSTRIES Belton, Bell County, Texas

EPA ID# TXD06637964  
Site ID: 0605009



EPA Region 6  
State Congressional District: 11

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## Background

The Rockwool Industries, Inc. (Rockwool) manufactured mineral wool insulation from mid-1950s until February 1987. From 1984 to 1987, Rockwool operated under a Resource Conservation and Recovery Act (RCRA) permit. The facility manufactured two types of mineral wool insulation: blow wool and batt wool. The mineral wool was manufactured in blast furnaces using raw material such as slags from copper and antimony smelting, waste from limestone mining, as well as coke and basalt. The raw material was melted in a coke-fired furnace and then extruded by blowing air over spinning drums to form fibers. The residue left in the furnace from the heating of the slags was a metal Ashot@ type material. This Aspent iron shot@ was the main waste type generated as a part of the Rockwool production process.

The US EPA conducted sampling as a part of the Remedial Investigation/Feasibility Studies (RI/FS) between May and August of 2001. Preliminary data evaluation indicated that contaminants of concern i.e. Arsenic, Antimony, and Selenium in Leon River water has the same value up gradient and down gradient of the site i.e. unaffected by the North Shot Pile. Sediment samples from the Leon River show elevated levels of metals i.e. Arsenic and Antimony adjacent to the North Shot Pile area. Previous fish sampling did not indicate higher than background values for Antimoy in fish tissue. Since no standard values were found for Antimoy in fish tissue there was no remedial goal. Previous rounds of sampling indicated that in order to determine background values, EPA needed to sample fish many more miles upgradient. Thus, fish resampling was done in June-July 2002 with additional 40 fish tissue samples five miles upgradient of the site. Based on the results of resampling in 2002, the analysis showed elevated levels of antimony in the fish tissue in the south bank of Leon River adjacent to the North Shot Pile. Sediments adjacent to the North Shot Pile have higher metal values than down gradient samples in the Leon River. Water samples are not significantly different between up gradient, adjacent, and down gradient areas in the Leon River.

Based on the re-sampling, it was decided the remedy could be based on human health risk assessment by issuing an Interim ROD. Once the Interim ROD was in the RD phase, EPA could perform a bioassay to answer the ecological risk to biota. The bioassay using biota sensitive to metals, one could determine if additional remedial measures were needed to address the ecological risks. The bioassay showed that the Leon River sediments thus additional, remedial measures were not required to address did not affect the biota ecological risks.

## Record of Decision (ROD)

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An Interim ROD based **on the human health risk** assessment was issued on September 23, 2003, after the Proposed Plan was reviewed and public comments were received. No adverse comment on the selected remedy was received by the end of the comment period, which ended on June 16, 2003. Reflecting previous concerns expressed to the EPA community relation personnel, the most common public desire was to see the site cleaned up and returned to tax-generating use. A final ROD was signed on September 30, 2004. The Final ROD had essentially the same remedy as the Interim ROD except an on-site containment remedy was found to be easier to implement and more economic.

## Current Status

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- 1<sup>st</sup> Five Year Review was with USACE, Tulsa District. The Five Year Review by USACE, is being revised by EPA to reflect current realities more accurately. The Five Year review was signed in September 2011.
- EPA's Federal lien on the completion of the remedy was released by means of a comfort letter to the city of Belton.
- In February 2011 defined the NPV for 25 years of 30 year O&M plan which planned monitoring for five years only.
- Site Visit with USACE for 1<sup>st</sup> Five Year Review on March 18, 2011

The Tax district put up the southern 80 acres on "Sheriff's sale" in March 3, 2009. Since there were no bids the City of Belton received the deeded trust. Earlier EPA provided all Rockwool data to Brazos River Authority for waste water plant expansion, south of FM 93. RPM is examining the City of Belton & Temple proposal to expand the BRA waste water treatment plant on Rockwool southern tract. At the end of December EPA and City of Belton is examining the options to lift the lien so redevelopment can start at the remediated site

- Pothole repair was completed in September 2010.
- Repair of the potholes at the periphery of the Matcon was completed in September 2010 under an ERRS contract. The potholes were repaired and the repaired area was covered with rip-raps. The groundwater risk was calculated to be within acceptable limits and quality is not expected to change as it did not undergo any remedial action. Therefore the groundwater sampling may not be necessary for the Five Year Review .

◆ In August 2007 made a trip to the site to meet with contractor Tetrattech to do minor repair of the Matcon cap. Pothole on the periphery of the Matcon cap was not covered under the warranty.

The remedy in the September 2004 Final ROD was excavation of top 2 feet of wastes from the North Shot Pile area and partial excavation in the Cemetery - Geer area and consolidation in a Matcon covered cell in the Central Property located south of the Taylor Valley Road. The excavated areas in the North area were to be covered with clay and topsoil. In the South Shot Pile area, the original plan was to excavate to clean soil. However, during the construction, the amount of excavation required to reach clean soil was approximately 69,000 cubic yards, which would have exceeded the Matcon cell capacity. Thus, partial excavation was undertaken in the South Shot pile and adjacent areas. Those areas not excavated to clean soil were covered with a minimum of 2 feet of clay and topsoil. The unexcavated areas of South Shot Pile were covered with clay and soil to prevent industrial workers and terrestrial animals from contacting unexcavated waste. The clay covered areas throughout the site was marked for Institutional Control (IC). The essential parts of the remedy (construction) were completed by September 29, 2005. Detailed surveying to define areas of IC and planting of vegetative cover was completed by the end of November 2005. Monitoring of the reduced number of wells will begin in the mid part of 2006. The formal Remedial Action (RA) Report from Tetra tech was approved on May 1, 2006 indicating that the RA was performed in accordance with approved Workplans, Remedial Design and Final Record of Decision (ROD)

◆ A Baseline O&M survey was completed by EA Engineering , for EPA Region 6 in January 2007. The baseline survey will determine what kind of minor repairs are needed. The shallow aquifer is a perched **aquifer and was not a part of the remediation**. The perched aquifer will dry up due to inflow being restricted where the site is covered with clay caps.

- The 1<sup>st</sup> Five Year Review was delayed by minor drainage modification to the southern periphery of

the Matcon Containment Cell (CC). After the completion of the drainage improvement the 1<sup>st</sup> Five Year Review was signed on September 28, 2011.

## **Benefits**

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Remediation of the contaminated media will reduce the health and ecological risk associated with the contaminants. EPA has extended a Superfund Redevelopment grant to the City of Belton for returning the site for beneficial industrial reuse. The city of Belton has planned a 900,000 square feet set of buildings with light manufacturing facility, office show rooms, anchor stores, and inline store facilities after clean up. When developed, the City of Belton estimates \$50,000,000 per year of pay roll revenue making a major economic impact around Belton, Texas.

## **National Priorities List**

NPL Inclusion Proposal Date:	March 6, 1998
NPL Inclusion Final Date:	September 29, 1998
NPL Deletion Proposal Date:	N/A
NPL Final Deletion Date:	N/A

## **Site Description**

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**Location:** The Rockwool site is an approximately 100 acre tract of land located at 1741 Taylors Valley Road, 1/4 mile east of Interstate Highway 35, and 1 2 miles east of downtown Belton, Bell County, Texas. The city of Belton is located in central Texas between Waco and Austin.

**Setting:** The area surrounding the site is primarily industrial. There are several businesses, a gas station, a fast food restaurant, and two residences within 1/4 mile of the site. Approximately 3,000 citizens live within a one-mile radius of the site.

**Population:** The Rockwool facility operated as a mineral wool insulation manufacturing plant from mid-1950 until February 1987. The site has been inactive since February 1987. The population of the city of Belton is an estimated 14,500, and the population of Bell County is approximately 226,000.

**Hydrology** Leon River forms the northern end of the site. The shallow ground water is located at 20 to 35 feet below ground surface in the Quarternary alluvium. The shallow ground water zone was being pumped by recovery wells and evaporated in an Evaporation lagoon. The shallow groundwater was located in the top 2 to 3 feet of the underlying George Town fractured limestone. The shallow perched ground water zone has very low water saturation. The shallow alluvial perched aquifer has very low yield. The Site is underlain by a Quarternary alluvium followed George Town formation, Edwards formation (saline in the area) followed by Walnut Comanche Peak formation, and the Glen Rose Formation. Potable aquifer underlying the site is located in the Hosston member of Travis Peak formation. Thus the shallow perched aquifer cannot contaminate the deeper Hosston formation located 600+/- feet bgs. There are minor seeps in the shallow perched aquifer unloading in to the south bank of the Leon River, which may carry contaminants of concern into the Leon River.

## **Wastes and Volumes**

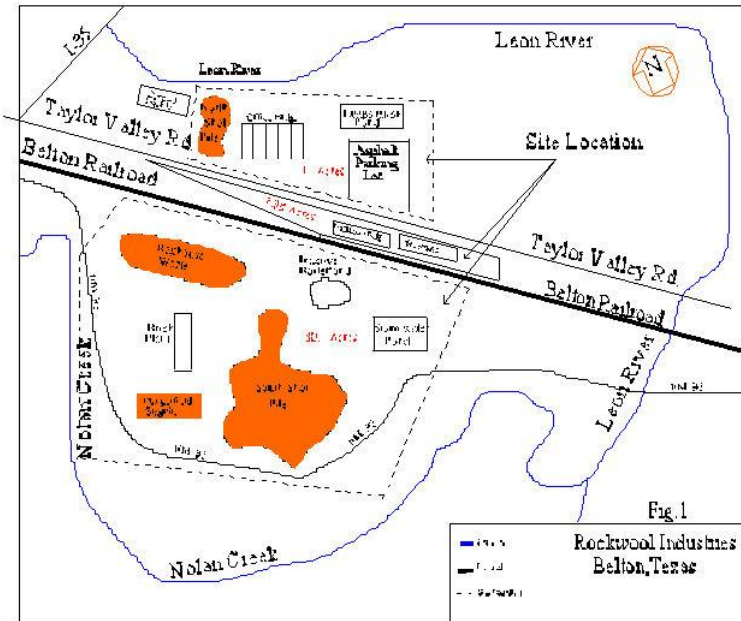
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The main wastes at the Rockwool site are located in the North and South Shot Piles with estimated volumes of 15,000 to 18,000 cubic yards (CY) 20,000 to 30,000 cubic yards respectively of Aspent iron shot@ as a by product of the manufacture of mineral wool insulation. During construction, the South Shot Pile was found to have nearly 70,000 CY against a pre-construction estimate of 51,900 CY of waste material. Spent Shot material is found on the northwestern edge of the site near the Geer-Cemetery

property

## Site Map

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## Site History

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## Human Health and Ecological Risk Assessment

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## Community Involvement

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### Community Involvement Plan:

A Draft Community Involvement Plan to support the long term Remedial Investigation/Feasibility Study (RI/FS) for the site was prepared by the EPA Region 6 in November 1999.

### EPA Hosted Community Meetings

- 9/2/99: Members of the EPA Community Involvement Team conducted community interviews at businesses and residences near the Rockwool site.
- 10/27/99: The EPA briefed City Officials from Belton and Temple on the status of the Rockwool site.
- 12/14/99: The EPA briefed the City of Belton council members and held an Availability Session after the Belton City Council meeting.

04/24/01: The EPA Project Manager explained the Superfund Process and upcoming sampling and investigation event at Rockwool at the Belton City Council meeting and held an Availability Session after the City Council Meeting. Sam Murphy of Rep Chet Edwards office was present urging EPA not to allow any slow down of the cleanup process.

08/09/01 The EPA RPM presented preliminary results of sampling to Mayor Holmes and City Manager Sam Listi at the end of sampling and data collection by August 1, 2010.

10/16/01 RPM and Barbara Greenfield of Superfund Redevelopment visited the site with Mayor Holmes and Manager Sam Listi to facilitate early action for site redevelopment.

8/08/2002 Draft Final RI/FS.

9/23/2002 Rockwool received a \$50,000 Superfund Redevelopment study grant in September 2002. City will generate a RFQ report with the grant.

9 to 11/02 Revisions to the RI/FS Report.

1/24/03 Final approval of RI/FS from TCEQ.

6/5/2003 Presentation of the Proposed Plan.

9/23/2003 Interim ROD (based on human health risk assessment) signed.

10/08/2003 Start of the Remedial Design (RD).

Preliminary results of treat ability studies show recycling of contaminated soil would work as proposed in the Interim ROD. In addition, bioassay of six sediment samples collected in December 2003 show the sediments to be non-toxic thus not requiring development of cleanup levels to protect ecology of the Leon River. The bioassay was conducted on *Hyalella azteca*, which is known to be particularly sensitive to metals. Thus, removal of sediments by visual inspection will preemptively remove the source of possible contamination of the biota in Leon River.

The Final Proposed Plan was sent for a 30-day public comment on August 20, 2004. By September 18, 2004, the only written comment was from the City of Belton wanting the Containment Cell (CC) to be located away from the FM 93 where it was proposed. The City's concern was incorporated in the Final ROD issued on September 30, 2004. Because of non-toxic nature of the Leon River sediments, the remedy remained the same as in the Interim ROD. No additional remedial measures were needed to address the ecological risk. The Remedial Design was completed by February 2005. The Remedial Action (RA) to implement the remedy in the RD was started by February 15, 2005. The final RD was modified to place a Matcon cover for the CC and stabilize the Leon River Bank using Articulated Concrete Blocks to finish the construction by the end of August, as well as providing greater protectiveness to the Leon River. Construction of the Containment Cell (CC) started the week of April 11 and the total remedy was completed by September 29, 2005. During the construction, the RD was changed dynamically to change the design based on the field data. For example, during excavation of the CC, additional waste was discovered in the western end. The excavation depth and bottom slope was changed to conform to the field realities. This was possible because the RPMs and TCEQ held weekly meetings at the construction site and any change decisions were evaluated and implemented without loss of time. In the South Shot pile area, the design anticipated 51,000 cubic yards (cy) of excavation. However, to reach clean soil/bedrock as recommended in the Final 2004 ROD, the amount to be excavated was 84,000 cy. The additional 33,000 cy could not be accommodated in the CC with capacity of 69,000 cy. Thus, an ESD was signed to stop further excavation where clean soil had not been reached and cover it with 1 foot of impermeable clay and 6 inches of top soil as done in the north area of the site.

#### **Dates Related to the Remedy**

2/2005 Completion of the RD for the September 2004 Final ROD

4/11/2005 Beginning of Remedial Action (Construction)

9/29/2005 Signing of the Preliminary Close Out Report denoting the completion of the Remedial Action (Construction Completion)

#### **Public Notice Announcing the Placement of Rockwool on the NPL: 12/2/99**

**Fact Sheets:** 9/2/99, 11/11/99, 4/3/00, 6/03/03, 11/15/03

**Public Meeting:** Was conducted at the conclusion of the RI/FS and the start of the public comment period for the Proposed Plan for an Interim ROD on June 5, 2003.

**Constituency Interest:** Because the site is mostly removed from downtown Belton and poses no immediate health risks to the community, there is minimal citizen concern for the site. The citizens interviewed did, however, ask to be kept informed of site activities through either mailings or publications in the Belton Journal.

Site Repository:  
City of Belton City Hall  
333 East Avenue A  
Belton, TX 76513  
(254) 933-5816

## **Technical Assistance Grant**

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Availability Notice: Public Notice on December 2, 1999  
Letters of Intent Received: None  
Final TAG Application received: N/A  
Grant Award Date: N/A  
Current Status: N/A

## **Site Contacts**

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United States Environmental Protection Agency

Remedial Project Manager:	Shawn Ghose M.S., P.E, 214-665-6782
Site Attorney (Contact for Legal Questions):	George Malone 214-665-8030, Mail Code: 6RC-S
State Contact (TCEQ)	Alvie Nichols (512) 239-2439
Region 6 Public Liaison:	Donn R. Walters (214) 665-6483
Superfund Region 6 Toll Free Number:	1-800-533-3508