TCEQ

Protecting Texas by Reducing and Preventing Pollution

HAZARD RANKING SYSTEM DOCUMENTATION RECORD

for

Mineral Wool Insulation Manufacturing Company a.k.a. Highway 190 Facility, Rogers, Bell County, Texas

Prepared by:

Texas Commission on Environmental Quality
Superfund Site Discovery and Assessment Program
Austin, Texas

August 24, 2005

HRS
Documentation Record

Mineral Wool Insulation Manufacturing Company a.k.a.
Highway 190 Facility
Rogers, Bell County, Texas

Prepared by

Texas Commission on Environmental Quality
Superfund Site Discovery and Assessment Program
Austin, Texas

August 2005

HRS DOCUMENTATION RECORD

MINERAL WOOL INSULATION MANUFACTURING COMPANY
A.K.A. HIGHWAY 190 FACILITY

ROGERS, BELL COUNTY, TEXAS

SIGNATURE PAGE

Saru Basnet — 8/11/05

Saru Basnet
Texas Commission on Environmental Quality
Superfund Site Discovery and Assessment Program
Project Manager

John Syer — 8/22/05

John Syer
Texas Commission on Environmental Quality
Superfund Site Discovery and Assessment Program
QA/QC Officer

Wesley Newberry — 8/22/05

Wesley Newberry
Texas Commission on Environmental Quality
Superfund Site Discovery and Assessment Program
Team Leader

David L. Davis — 8/30/05

David L. Davis
Texas Commission on Environmental Quality
Site Investigation and Community Relations Section
Section Manager

CONTENTS

FIGURES

HRS DOCUMENTATION RECORD - REVIEW COVER SHEET

SITE NAME: Mineral Wool Insulation Manufacturing Company a.k.a. Highway 190 Facility

CONTACT PERSON:

Documentation Record: Saru Basnet - TCEQ Project Manager 512/239-2234

PATHWAYS OF CONCERN:

Soil Exposure Pathway

Releases of hazardous substances to the soil exposure pathway are the major concern for this site. The Soil Exposure Pathway is being scored based on the actual contamination. Nearby threat was not evaluated. The primary constituent of concern evaluated for this HRS documentation record is Beryllium.

PATHWAYS, COMPONENTS, OR THREATS NOT EVALUATED:

Surface Water Pathway

The Surface Water Pathway was not evaluated because the inclusion of this pathway would not significantly affect the score.

Groundwater Pathway

The Groundwater Pathway was not evaluated because the inclusion of this pathway would not significantly affect the site score.

Air Migration Pathway

The Air Migration Pathway was not evaluated because the inclusion of this pathway would not significantly affect the site score.

(Although these pathways have not been evaluated, the TCEQ is concerned for all pathways surrounding the site. However, evaluation of these pathways would not have significantly increased the overall site score.)

NOTES TO THE READER

The following rules were used when citing references in the HRS Documentation Record:

1. All references attached to this report have been stamped with a designated page number (example: Ref. 1, p. 10 = 001 00010). However, if the reference being cited has an original page number, that page number was cited. If the reference being cited has no original page number or the pagination is not complete, then the designated page number is cited.

2. The State predecessor agencies: Texas Natural Resource Conservation Commission (TNRCC), Texas Water Quality Board (TWQB), Texas Department of Water Resources (TDWR), Texas Water Commission (TWC), and Texas Air Control Board (TACB), referred to throughout this report are now known as the Texas Commission on Environmental Quality (TCEQ). The new agency, TCEQ, became effective September 1, 2002, as mandated under House Bill 2912, Article 18 of the 77th Regular Legislative Session.

HRS DOCUMENTATION RECORD

Name of Site: Mineral Wool Insulation Manufacturing Company a.k.a. Highway 190 facility

Date Prepared: 08/05

Site Owner: Nilofer Pervez, Albert Arthur and Elizabeth Arthur

Location of Site: Northeast of Highway 190 at east side of Neroc Rd. and Shaw Rd.

City, County, State: Rogers, Bell County, Texas

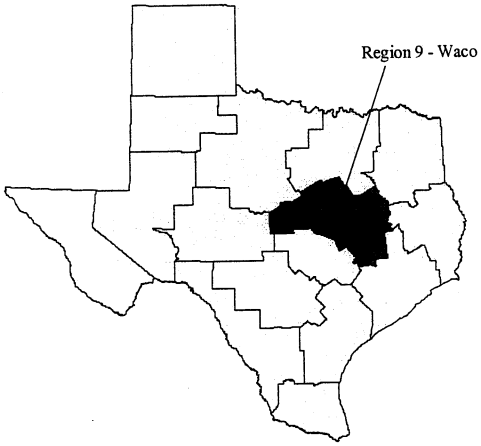
General Location in the State: (see Figure 1, Site Location Map).

Topographic Map(s): US Geological Survey 7.5 Minute Topographic Map, Rogers, TX Quadrangle, Rev. 1979.

Latitude: 30° 56' 41.91" North

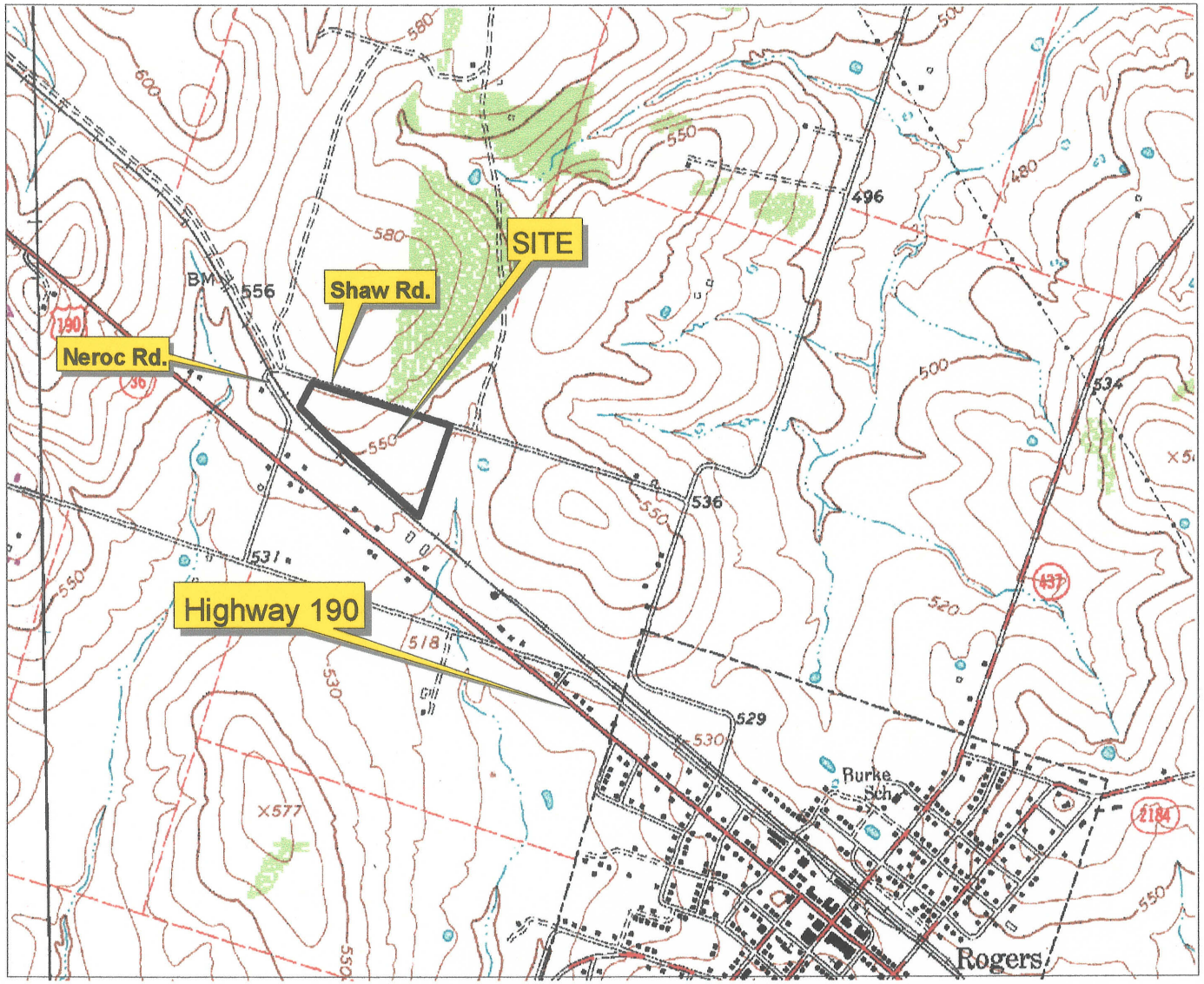
Longitude: 97° 14' 23.65" West
(see Ref. 4 [Ref. 14], Topographic Maps)

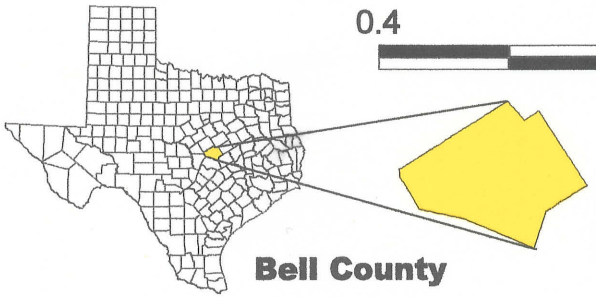
TCEQ Region: 9



Pathway Scores:
Ground Water Migration Pathway - NE
Surface Water Migration Pathway - NE
Soil Exposure Pathway - 13.52
Air Migration Pathway - NE
(NE - Not Evaluated)

HRS SITE SCORE: 6.76





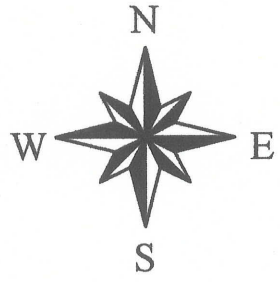
The base data used is the Rogers Digital Raster Graphic (DRG) which is a scanned image of the U.S. Geological Survey topographic maps. UTM NAD 27 Zone 14

TCEQ

Figure 1

Site Location Map

Mineral Wool Insulation Manufacturing Company, Inc.
a.k.a. Highway 190 Facility
TX0000605376
Rogers, Texas
Bell County



SITE SUMMARY

General Description of the Site:

The Mineral Wool Insulation Manufacturing Company, Inc. site (the "site")a.k.a. Highway 190 Facility located on Shaw Road in Rogers, Bell County, Texas is about a nineteen (19) acre property which consists of several waste piles which have merged into one larger area on the east side of the site. On the northern portion of the site is an abandoned warehouse and an illegal dump of household waste and tires. In the central and southern areas of the property are two cooling ponds, a cooling tank, blast furnace and an above ground storage tank (see Figure 2).The site is located in a mixed agricultural/residential area within the city limits of Rogers, Bell County, Texas as shown in Figure 1. Residential areas are located along the east and southern perimeter of the site and railroad tracks are located at the southern property boundary. There are inactive agricultural fields to the north and west of the site. The nearest adjacent residence is located near the southern boundary on the other side of the railroad tracks from the site. The entrance of the site is located at Latitude 30° 56' 41.91008" North and Longitude 97° 14' 23.65089" West and the approximate site elevation is 650 feet mean sea level (Ref. ArcView GPS coordinates) (Ref. 4, p. 3).

Site History:

The Mineral Wool Insulation Manufacturing Company, Inc. site operated from approximately February 1981, when the water meter on-site was read by the Bell-Milam-Falls Water Supply Corporation for the first time (Ref. 6, p.13). Mineral Wool Insulation Manufacturing Company, Inc. manufactured and produced blow wool and batt wool using blast furnaces from raw material such as slags from copper and antimony smelting, waste from limestone mining, as well as coke and basalts. 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 "shot" type material. This "spent iron shot" was the main waste type generated as part of the mineral wool process (Ref. 4[Ref 7, p. 4]).

In 1996, Sidney Laughlin was the property owner and failed to pay the property taxes for Mineral Wool Insulation Manufacturing Company, Inc. site located on Shaw Road, Rogers, Bell County, Texas. On January 6, 1997, the sheriff of Bell County placed an ad in a weekly newspaper for potential buyers of the property. The first Tuesday in February 1997, Nilofer Pervez, Elizabeth M. Arthur, and Albert A. Arthur bought the property for $8,900.00 (Ref 5).

In February 1980 an air sampling event was conducted by Ralph J. Claypool, an environmental consultant to the Mineral Wool Insulation Manufacturing Company, Inc. site. Air samples documented in Claypool's report exceeded the allowable emission rate for sulfur dioxide (Ref. 4[Ref. 17, pp. 7, 12; Ref. 18; Ref. 19]).

The Mineral Wool Insulation Manufacturing Company, Inc. site is currently inactive with no residents or workers on-site. The TCEQ Solid Waste Registration Number for the site is SWR # 31764 and the TCEQ Air Permit Numbers are C-5460 and C-8363.

Two types of waste were generated on-site and reported to the TCEQ. The first type of waste was solid form of residue and waste rock in the form of shot, waste fiber, and iron slugs was deposited as fill material throughout the property. The second type of waste was a slurry or wastewater which was circulated through settling tanks (cooling ponds). The wastewater was produced at

approximately 300 gallons per minute (Ref. 20, p. 3).

This site was initially identified by the EPA and investigated by the TCEQ in 1999. A Pre-CERCLIS Screening Report was completed in September 1999 for the site (Ref. 4[Ref.5]). The Screening Sampling Inspection (SSI) was conducted later in November 2002. During this sampling event, soil and sediment samples were collected from on-site and off-site locations to characterize the source and to establish a release to residential properties (Ref. 4, p. 8). The USEPA-Region 6 Office issued a Superfund Site Strategy Recommendation of "No Further Remedial Action Planned" (NFRAP) on April 1, 2005 (Ref. 7).

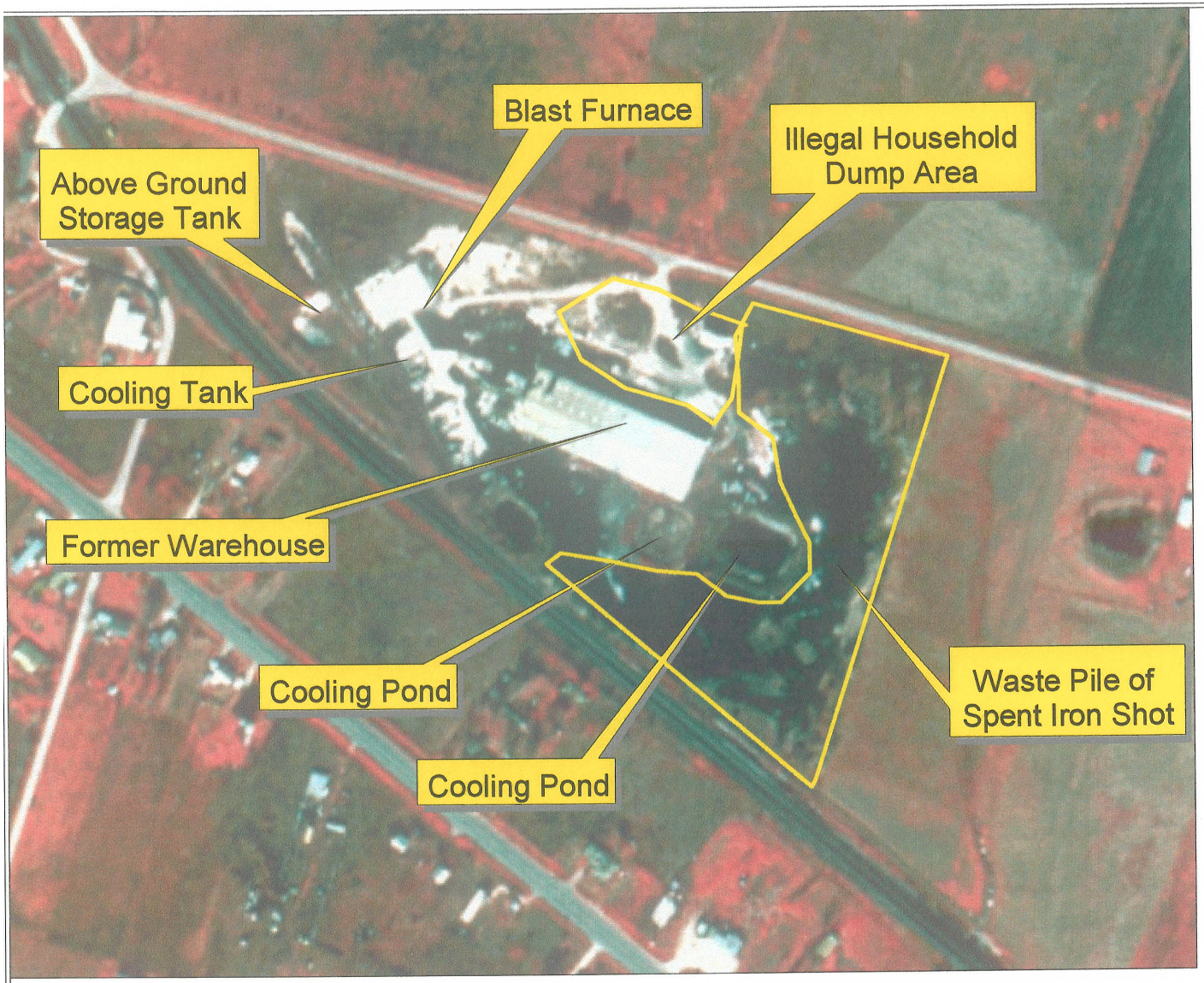
A site visit was conducted on July 6, 2005 at the site. The site consists of several waste piles consolidated into one larger area on the east side of the property. On the northern portion of the site is an abandoned warehouse and an illegal dump of household waste and tires. In the central and southern areas of the property are two cooling ponds, a cooling tank, blast furnace and an above ground storage tank. The following conditions were observed during the site visit.

- Contaminated soil near the above-ground tank was observed on the northwest portion of the facility. The tank was in poor condition and rusting in several places.
- Surface impoundments were noted in the south central portion of the facility. These were two cooling ponds, which were noted to contain water during the site visit.
- Contaminated soil was noted on the eastern half of the site. Dark-colored "spent iron shot" soil was observed during the site visit.
- A burn pit/landfill was noted in the north central portion of the property near the entrance to the facility. An illegal household waste dump was noted close to the entrance of the facility. A former burn pit was also noted in the area of the dump site.
- A collapsed warehouse adjacent to the burn/pit landfill that has domestic waste.

On June, 2005, notification letters along with access agreement were sent to all three property owners who were identified during deed search (Ref. 5). For HRS purposes, the data collected during the SSI in 2002 has been used to score the site (Ref. 4). The primary pathway of concern evaluated is soil exposure pathway. During SSI, 21 soil samples were collected in which three (3) were background, ten (10) were source samples and eight (8) were release samples from residential properties. The sample results from this SSI revealed a very high concentration of arsenic and lead on-site (Ref 4, p. 31, 44-46). Beryllium was found at the site in the source samples and also detected off-site in five of the residential properties (Ref. 4, 26-34, 53-56). Beryllium is found in the mineral rock and coal which was used as a fuel for burning raw materials during its operation (Ref. 6, Ref. 4, p. 6).

The site was identified to have multiple waste sources, where hazardous substances had been stored, deposited, or disposed, plus soils that may have become contaminated from migrating hazardous substances. The area of the waste source include two surface impoundments, the contaminated soils, illegal dump site and piles of "spent iron shot" (Ref. 4, 15-19).

The three background samples for soil were below detection limit for Beryllium (Table 1). The concentrations of beryllium in the target soil sample results were greater than the background SQL, thus met the observed release criteria for the HRS (Ref. 2, p. 58).



TCEQ

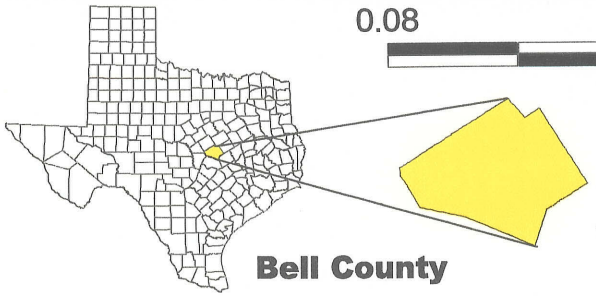
Figure 2

Site Feature Map

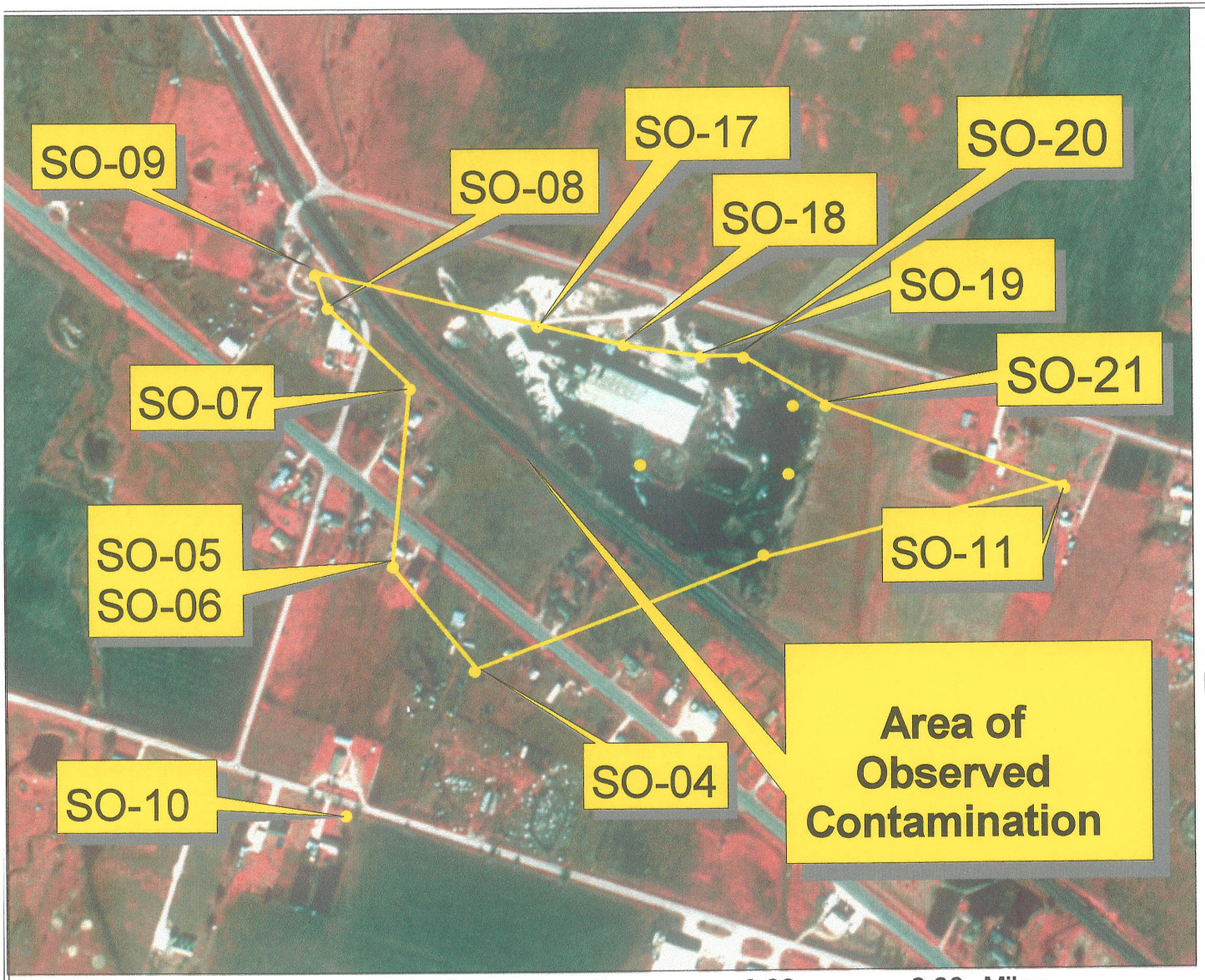
Mineral Wool Insulation Manufacturing Company, Inc. a.k.a. Highway 190 Facility
TX0000605376
Rogers, Texas
Bell County

N
W E
S

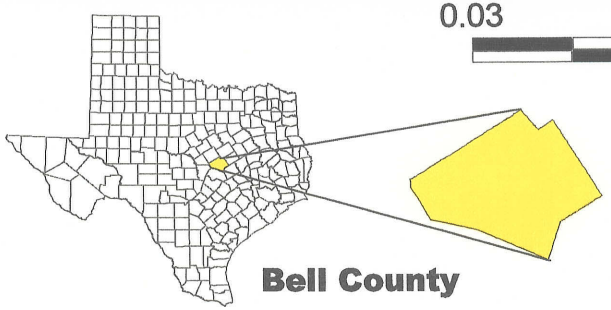
0.08 0 0.08 0.16 Miles



The base data used is the Rogers NW Digital Orthophoto Quadrangle (DOQ) which is a Digital version of an aerial photograph. This DOQ was produced by the TCEQ using USGS guidelines. UTM NAD 83 Zone 14



0.03 0 0.03 0.06 Miles



The base data used is the Rogers NW Digital Orthophoto Quadrangle (DOQ) which is a Digital version of an aerial photograph. This DOQ was produced by the TCEQ using USGS guidelines. UTM NAD 83 Zone 14

TCEQ

Figure 3

Area of Observed Contamination Map

Mineral Wool Insulation Manufacturing Company, Inc.
a.ka. Highway 190 Facility
TX0000605376
Rogers, Texas
Bell County

N
W E
S

Highway 190 a.k.a Mineral Wool Insulation Manufacturing Company

Site Name: Highway 190

Region: 9

City, County, State: Rogers, Bell County, TX

Evaluator: Saru Basnet

EPA ID#: TX0000605376

Date: 08/09/05

Lat/Long: Latitude 30° 56' 41.91008" North
Longitude 97° 14' 23.65089" West

T/R/S:

Congressional District: 31

This Scoresheet is for: HRS Package

Scenario Name:

Description: The Mineral Wool Insulation Manufacturing Company, Inc. site operated from approximately February 1981, when the water meter on-site was read by the Bell-Milam-Falls Water Supply Corporation for the first time. Mineral Wool Insulation Manufacturing Company, Inc. site manufactured and produced blow wool and batt wool using blast furnaces and raw material such as slags from copper and antimony smelting, waste from limestone mining, as well as coke and basalts. 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 "shot" type material. This "spent iron shot" was the main waste type generated as part of the mineral wool process. The primary pathway of concern is soil exposure pathway. Beryllium was documented as a release during SSI investigation in 2002 (Table 3).

	S pathway	S^2 pathway
Ground Water Migration Pathway Score (S_{gw})		
Surface Water Migration Pathway Score (S_{sw})		
Soil Exposure Pathway Score (S_s)	13.52	182.7904
Air Migration Score (S_a)		
$S^2_{gw} + S^2_{sw} + S^2_s + S^2_a$		182.7904
$(S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4$		45.6976
$\sqrt{(S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4}$		6.76

TABLE 5-1 --SOIL EXPOSURE PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Likelihood of Exposure:			
1. Likelihood of Exposure (Ref. 4, 26-34, 53-56)	550		550
Waste Characteristics:			
2. Toxicity (Ref. 2)	(a)	10000	
3. Hazardous Waste Quantity (Table 4, Ref-1-Section 2.4.2.2)	(a)	100	
4. Waste Characteristics	100		32
Targets:			
5. Resident Individual	50	45	
6. Resident Population:			
6a. Level I Concentrations	(b)		
6b. Level II Concentrations (Table 4)	(b)	13.4	
6c. Population (lines 6a + 6b)	(b)	13.4	
7. Workers	15	5	
8. Resources	5		
9. Terrestrial Sensitive Environments	(c)		
10. Targets (lines 5 + 6c + 7 + 8 + 9)	(b)		63.4
Resident Population Threat Score			
11. Resident Population Threat Score (lines 1 x 4 x 10)	(b)		1115840
Nearby Population Threat			
Likelihood of Exposure:			
12. Attractiveness/Accessibility	100		
13. Area of Contamination	100		
14. Likelihood of Exposure	500		0
Waste Characteristics:			
15. Toxicity	(a)		
16. Hazardous Waste Quantity	(a)		
17. Waste Characteristics	100		0
Targets:			
18. Nearby Individual	1		
19. Population Within 1 Mile	(b)		
20. Targets (lines 18 + 19)	(b)		0
Nearby Population Threat Score			
21. Nearby Population Threat (lines 14 x 17 x 20)	(b)		0
Soil Exposure Pathway Score:			
22. Pathway Score[d] (S_s), [lines (11+21)/82,500, subject to max of 100]	100		13.52

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] No specific maximum value applies to factor. However, pathway score based solely on terrestrial sensitive environments is limited to a maximum of 60
[d] Do not round to nearest integer

REFERENCES

Reference Number	Description of the Reference

1. U.S. Environmental Protection Agency, 40CFR Part 300, *Hazard Ranking System*, Appendix A, 55 FR 51583, December, 1990. 1 page.

2. U.S. Environmental Protection Agency, *Superfund Chemical Data Matrix (SCDM)*. January, 2004. 1 page.

3. U.S. Environmental Protection Agency. *Hazard Ranking System Guidance Manual*, EPA 540-R-92-026, OSWER Publication 9345.1-07, November 1992. 1 page

4. Screening Site Inspection Report, Highway 190 Facility a.k.a. Mineral Wool Insulation Manufacturing Company, Inc site. April 2003. 62 pages with attachments.

5. Sheriff's Deed. The State of Texas, County of Bell. Volume 3590, p. 536.

6. Agency for Toxic Substances and Disease Registry. ToxFaQs for Beryllium. 4 pages

7. United States Environmental Protection Agency. Superfund Site Strategy Recommendation-Region 6. 2 pages.