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HRS DOCUMENTATION RECORD

for

Rogers Delinted Cottonseed Colorado City Colorado City, Texas

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Austin, Texas**

March 2005

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by Reducing and
Preventing Pollution*

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**HAZARD RANKING SYSTEM
DOCUMENTATION RECORD**

for

**Rogers Delinted Cottonseed Company,
Colorado City, Mitchell County, Texas
(Volume I of II)**

Prepared by:

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

March 2005

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**HRS
Documentation Record**

**Rogers Delinted Cottonseed Company
Colorado City, Mitchell County, Texas**

Prepared by

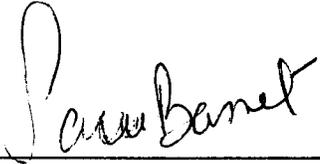
**Texas Commission on Environmental Quality
Superfund Site Discovery and Assessment Program
Austin, Texas**

March 2005

HRS DOCUMENTATION RECORD

ROGERS DELINTED COTTONSEED COMPANY
COLORADO CITY, MITCHELL COUNTY, TEXAS

SIGNATURE PAGE



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

2/25/05

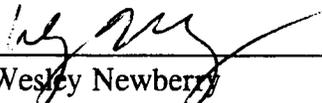
Date



Lloyd Johnson
Texas Commission on Environmental Quality
Superfund Site Discovery and Assessment Program
QA/QC Officer

2/25/05

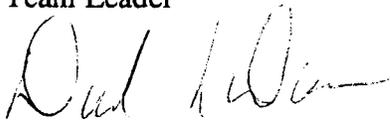
Date



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

2/25/05

Date



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

3/15/05

Date

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HRS DOCUMENTATION RECORD - REVIEW COVER SHEET

SITE NAME: Rogers Delinted Cottonseed Company

CONTACT PERSON:

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

PATHWAYS OF CONCERN:

Groundwater Pathway

Releases of hazardous substances to the groundwater pathway are the major concern for this site. The Groundwater Pathway is being scored based on the actual contamination and potential contamination. The primary constituent of concern evaluated for this HRS documentation record is Arsenic.

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.

Soil Exposure Pathway

The Soil Exposure 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: Rogers Delinted Cottonseed Company

Date Prepared: 02/05

Site Owner: Yazaki, U.S.A. Corporation

Location of Site: Off of Interstate Highway 20

City, County, State: Colorado City, Mitchell County, Texas

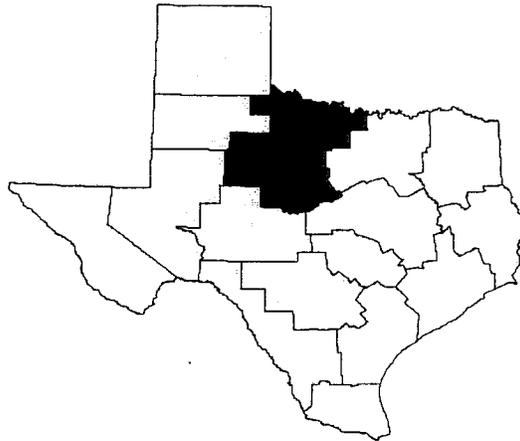
General Location in the State: (see Figure 1, Site Location Map).

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

Latitude: 32° 24' 41.81" North

Longitude: 100° 51' 59.84" West
(see Attachment A, Topographic Maps)

TCEQ Region: 3



Pathway Scores:

Ground Water Migration Pathway - 100.00

Surface Water Migration Pathway - NE

Soil Exposure Pathway - NE

Air Migration Pathway - NE

(NE - Not Evaluated)

HRS SITE SCORE: 50.00



Rogers Delinted Cottonseed
Company, Colorado City,
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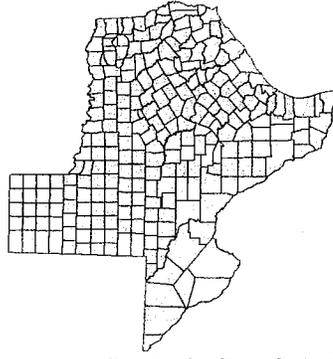
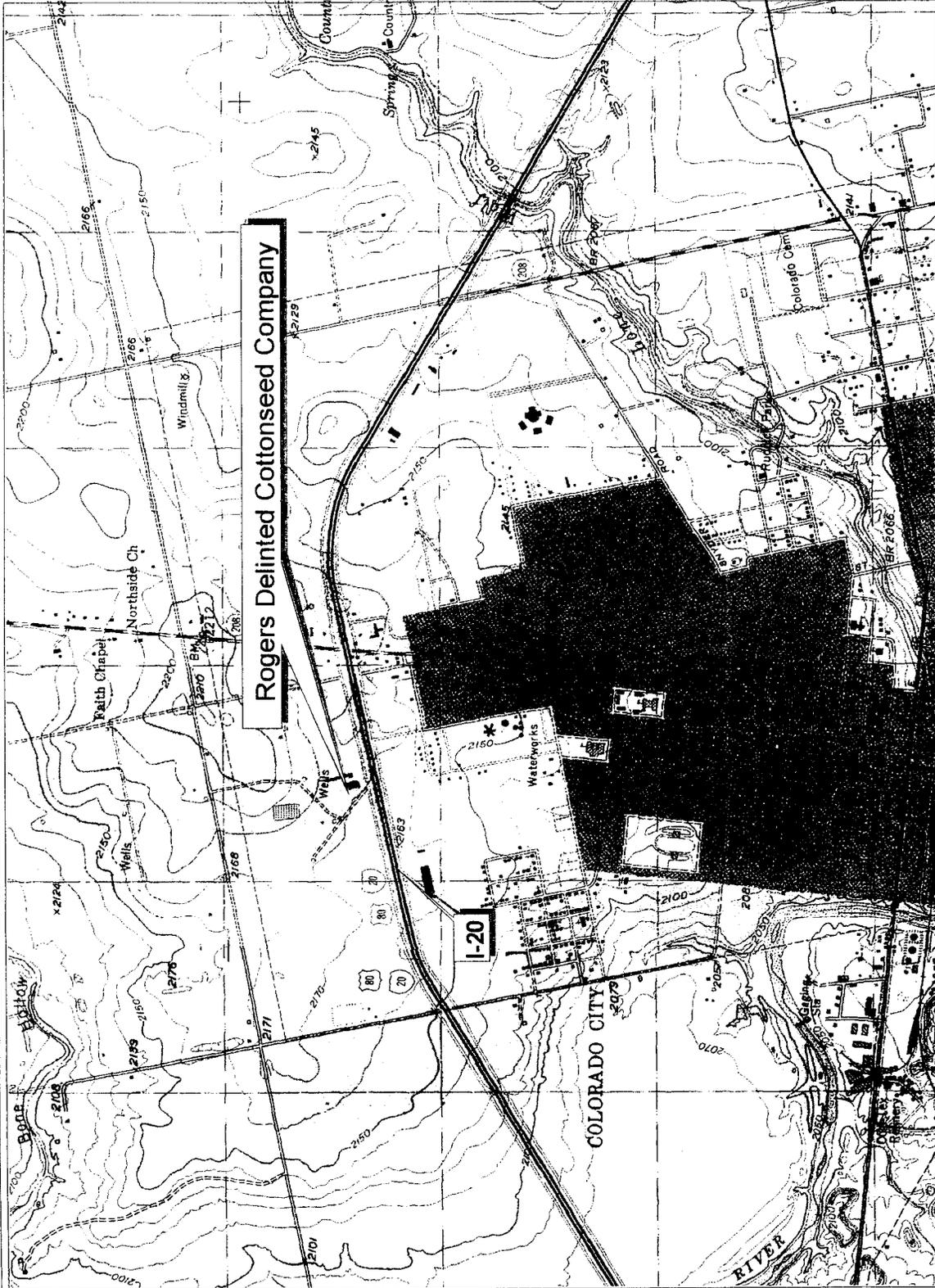
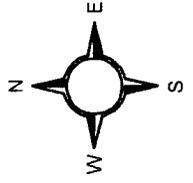


Figure 1
Site Location Map



Source
The base data used is the Cedar Bend and
Colorado City, TX 1:24,000 Digital Raster Graphic
(DRG), which is a scanned image of a U.S.G.S.
topographic map.
UTM NAD 27 Zone 14

SITE SUMMARY

General Description of the Site:

The Rogers Delinted Cottonseed Company (RDCC) site is a 49.1 acre site located near the intersection of Interstate Highway 20 and State Highway 208 in Colorado City, Texas (see Figure 1, Site Location Map). The approximate geographic coordinates of the site are latitude 32° 24' 41.81" North and longitude 100° 51' 59.84" West. The company operated on 9.1 acres of the property and the 40 acres was bought to irrigate the land with the waste water generated during its operation (Ref-4, Ref-5). The operating area consists of the two storage buildings, a small office with weigh station, process building, and two surface impoundments.

Site History:

Between the years of approximately 1965 and 1983, RDCC operated a wet acid cotton seed delinting process at the Colorado City facility to provide seed for planting. The facility incorporated areas for receiving, storing, delinting, applying chemicals, and shipping of cottonseed. The delinting process employed at RDCC facility utilized concentrated sulfuric acid to dissolve cotton fibers from the seed. Used acid and rinse waters containing the decomposing fibers were discharged from the process area to a sump through an underground clay pipe into one of the two surface impoundments north of the facility. The waste water in the larger impoundment was documented to have pH <1. This meets the definition of a corrosive hazardous waste (Ref. 21). Seeds were treated with pesticide or fungicide prior to packing. The larger surface impoundments was lined with a 10- mil polyethylene liner, however it had deteriorated. The smaller surface impoundment was never lined (Ref-5).

RDCC was purchased by Yazaki, USA in March 1984. On November 29, 1984, TDWR conducted a solid waste inspection which noted several violations. The site was referred to the central office for enforcement action. On January 30, 1985, TDWR District 9 representative conducted a follow-up inspection (Ref-6, p. 10, 11). Two samples were collected at the surface impoundments which revealed 0.6 and 0.3 units of pH (Ref-7). The annual solid waste compliance inspection noted that the company continued to fail to meet any Resource Conservation Recovery Act (RCRA) interim status requirements.

On April 22 1985, TWC Central Office referred the site to the Attorney General's Office for enforcement (Ref-6). On May 12, 1986, US EPA conducted a sampling inspection at the site. Samples collected from the sludges in the surface impoundment were reported to have pH values of <1. Total metals detected above detection limit included arsenic, chromium, copper, lead and nickel (Ref-8, p. 1, 58, 72 & 86). On June 10, 1986, The TWC conducted a comprehensive groundwater monitoring evaluation (CME) report in 1987 (Ref-6). This report examined the area, physiography and climate, the site history, activities of waste management units and provided a technical discussion of the regional and local hydrogeology. On June 22, 1987, Attorney General's office filed petition against RDCC. The TWC inspections noted no changes and the facility remained abandoned and in total noncompliance (Ref-6, p. 11, 12).

On June 10, 1991, the Attorney General's Office determined that enforcement was exhausted and the site was referred to Superfund (Ref-9). On August 1991, TWC conducted a Screening Site Inspection (SSI). Low levels of metals were detected in the soil and groundwater samples (Ref-10, p. 21, 33-38). The USEPA-Region 6 Office issued a Superfund Site Strategy Recommendation of "No Further Remedial Action Planned" (NFRAP) in 1992. (Ref. 11).

On June, 2004, the City of Colorado City built a Sports Complex near the facility (Ref. 20). The City representative contacted TCEQ about their concern of the Sports Complex being close to the site and that the access to the site was unrestricted. The surface impoundment with corrosive waste water was easily accessible. TCEQ conducted a site visit in October 11, 2004, to determine any imminent threat to human health and environment. The following conditions were observed (Attachment B, p. 1, 2, 3 & 4):

- the storage building contained tons of chemically treated cottonseeds.
- strong pesticides odor were noted inside storage building, inside process building and the soils between the two buildings.
- there were pesticide drums and containers inside the process building.
- deer bones and bird bones were observed outside of the storage and the process building.
- there were signs of the human activities onsite.
- the larger surface impoundment was filled with water.
- two acids tanks present onsite appeared to be leaking.

It was determined that a removal action was necessary to protect human health and environment. The removal action would consist of installation of the high security fence and removal of all drums and containers that contained hazardous materials. Another site visit by TCEQ and its contractor was conducted in December 1, 2004 to determine the area for the proposed fence and to determine what wastes on-site would need to be disposed. TCEQ prepared a scope of work to secure the site for the installation of high-security fence enclosing all of the buildings and the two surface impoundments to eliminate any potential access to the site. The scope of work also incorporated testing of the cottonseed and disposal of all drums and containers that contains hazardous materials. On November 4, 2004, notification letters along with access agreement were sent to Yazaki, Corporation on the two addresses found during file review. Both of the letters were returned with no such address. On December 13, 2004, TCEQ received a report that the acid tanks and the materials from the process building have been taken away by an unknown party. The content of the tanks were dumped onsite. The removal of the contaminated soil resulted by the incident was added in the scope of work of the removal action.

The installation of the security fence around the surface impoundments and all the buildings was completed in January, 2005. The sampling event was conducted on January 4-5, 2005. Twelve (12) soil samples, two (2) surface water and twelve (12) ground water samples were taken including background samples and duplicate samples. The surface water sample collected from the large surface impoundment reported concentration of arsenic at 91.9 µg/l (Ref.-16, p. 31). Arsenic was also detected in the sample from the monitoring well west of the large surface impoundment (Ref-13, p. 57). Two (2) private water wells within 1/4 mile east and west from the site and an irrigation well in the ball field were sampled. Five (5) emergency public water supply wells were sampled, which are located within 1/4 to 1/2 mile south of the site (see Figure 3, PWS Location Map). Out of the five, two of the wells (Well #2 & Well#6) had detection of arsenic.

The public water supply well in Colorado City serves approximately 4,700 people. There are twelve (12) public supply wells approximately 8 miles east of the town which were drilled between the year 1998-2001(Ref-17). These are the primary public supply wells. The five (5) emergency wells are being used mostly during the summer. During their usage, water from these wells go straight to the

distribution line and to the city. These wells are annually inspected, cleaned and tested. For HRS purpose, the population is apportioned equally to all the wells since no water supply unit supplies more than 40 percent(Ref- 18, p.4; Ref-3, p. 179).

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. Arsenic acid was widely used as a defoliant in cotton crops during the company's operation. The area of the waste source include two surface impoundments, the contaminated soils from the spilled pesticide between the buildings, the cottonseeds in the storage building which may be treated with arsenic, pesticide or fungicide compounds.

The two background samples for groundwater were below detection limit for arsenic (Table 1). The concentrations of Arsenic in the onsite monitoring well and in the target wells sample results were greater than the background SQL, thus met the observed release criteria for the HRS (Ref. 3, p. 58).



Rogers Delinted Cottonseed
Company, Colorado City,
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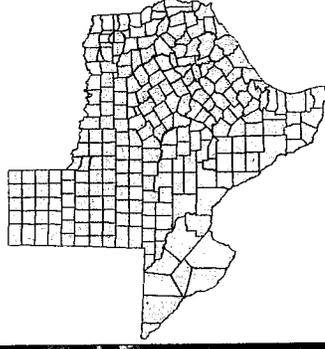
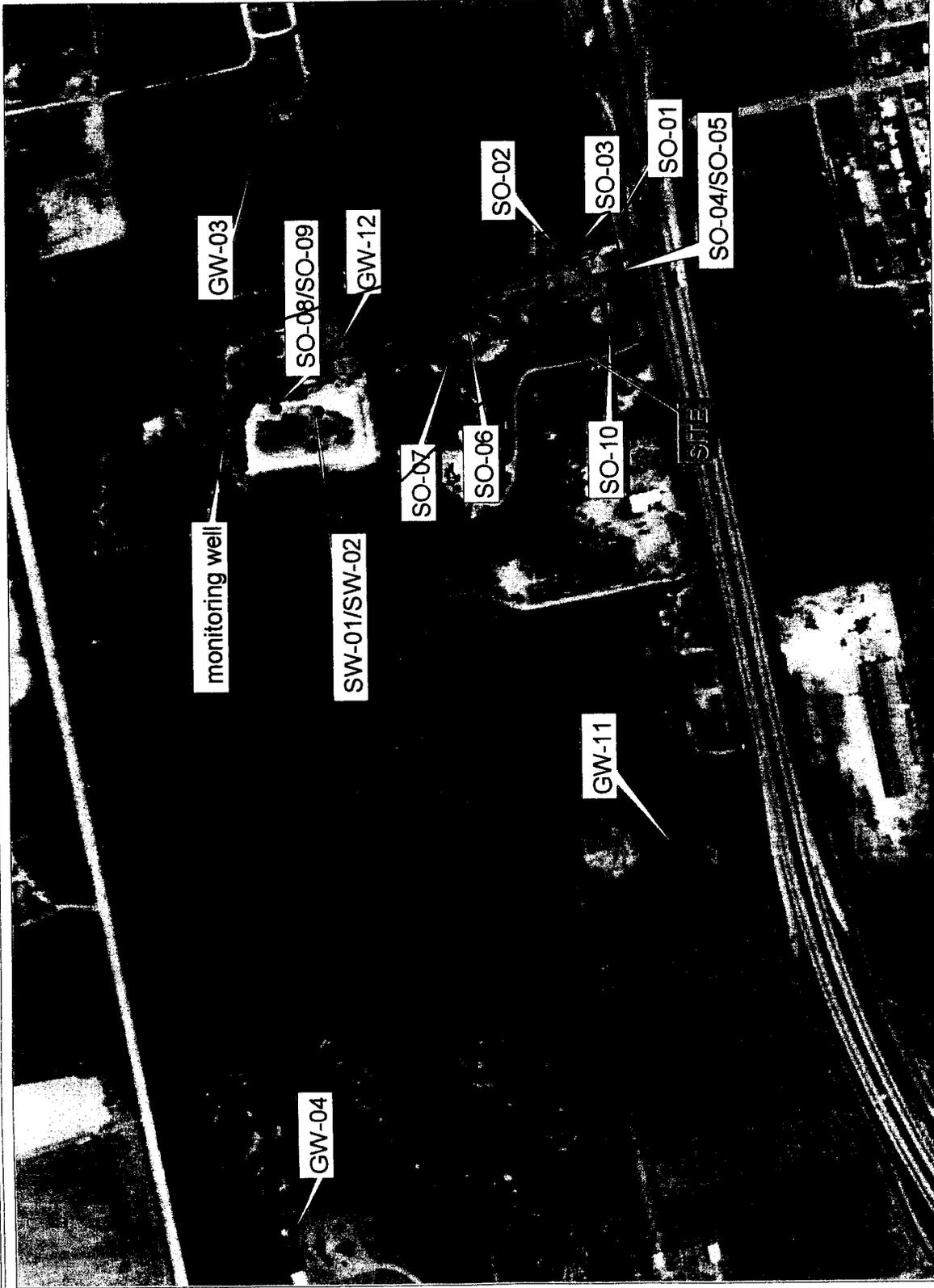
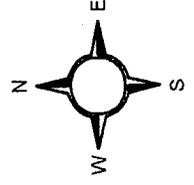


Figure 2
Sample Location Map



0.3 Miles



Source

The base data used is the Cedar Bend SE & Colorado City SW Digital Orthoquarter Quad (DOQQ), which is a digital version of an aerial photograph. This DOQQ was produced by the TCEQ using USGS Guidelines. UTM NAD 83 Zone 15

GW- Groundwater sample
SW- Surfawc Water Sample
SO- Soil Sample



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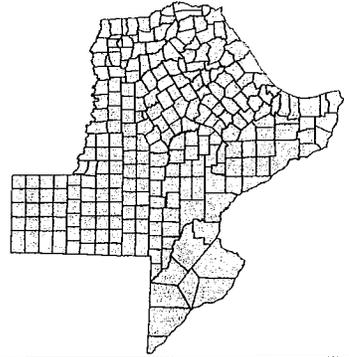
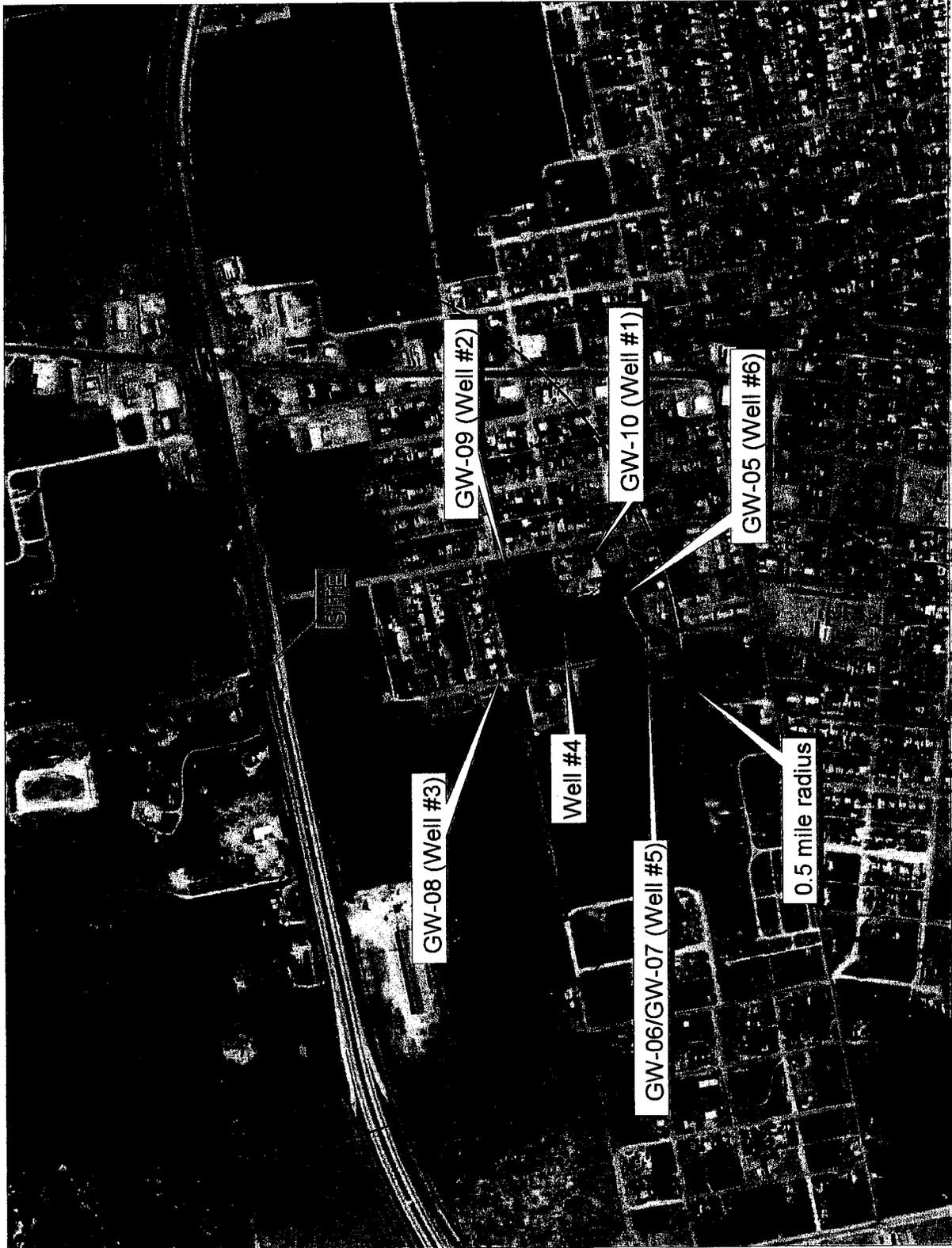
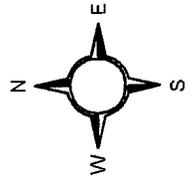


Figure 3
PWS Location Map



Source
The base data used is the Cedar Bend SE &
Colorado City SW Digital Orthoquarter Quad
(DOQQ), which is a digital version of an aerial
photograph. This DOQQ was produced by the
TCEQ using USGS Guidelines.
UTM NAD 83 Zone 15

Table 1 Background Groundwater Sample Table				
Organic Constituent	Station ID	Highest Concentration MCL ($\mu\text{g/L}$) [PQL]	3 x Highest Background Concentration $\mu\text{g/L}$	Reference
Arsenic	GW-01	ND [2.00]	NA	Ref. 12, p. 4
Arsenic	GW-02	ND [2.00]	NA	Ref. 12, p. 7

Table 2 Source Table (Sample Date: Week of Jan 3rd)				
Sample Location	Background SQL or PQL	3 x Highest Background Concentration $\mu\text{g/L}$	Arsenic ($\mu\text{g/l}$)	Reference
SW-01	2.00	NA	88.3	Ref. 16, p. 27
SW-02	2.00	NA	91.9	Ref. 16, p. 31

Table 3 Release Table (Sample Date: Week of Jan 3rd)				
Sample Location	Background SQL or PQL	3 x Highest Background Concentration $\mu\text{g/L}$	Arsenic ($\mu\text{g/l}$)	Reference
GW-12	2.00	NA	2.7J	Ref. 13, p. 57
GW-05	2.00	NA	2.90	Ref. 12, p. 10
GW-09	2.00	NA	2.07	Ref. 12, p. 22

J- Analyte detected between SQL and RL

NA- Not Applicable

SQL- Sample Quantitation Limit

RL- Reporting Limit

PQL- Practical Quantitation Limit

SUMMARY SCORESHEET

Site Name: Rogers Delinted Cottonseed Company Region: 3
 City, County, State: Colorado City, Mitchell, TX Evaluator: Saru Basnet
 EPA ID#: : TXD 981054257 Date: 02/18/05
 Lat/Long: 32° 24' 41.81" North 100° 51' 59.84" West T/R/S:
 Congressional District: 11

This Scoresheet is for: Groundwater Pathway

Scenario Name:

Description: The Rogers Delinted Cottonseed Company (RDCC) site is a 49.1 acre site located near the intersection of Interstate Highway 20 and State Highway 208 in Colorado City, Texas (see Figure 1, Site Location Map). The company operated on 9.1 acres of the 40.1 acre site. The 40 acre was bought to irrigate the land with the waste water generated during its operation. The operating area consists of the two storage buildings, a small office with weigh station, a process building, and the two surface impoundments. The two background samples for groundwater were below detection limit for arsenic (Table 1). The concentrations of arsenic in the onsite monitoring well and in the target wells sample results were greater than the background SQL, thus met the observed release criteria for the HRS (Table 2 & Table 3). The main source for drinking water is the groundwater. The City of Colorado City serves drinking water to approximately 6,908 (city population of 4700 + prison population of 2208) (Ref. 17, Ref. 18). The City has altogether 17 wells. Since no single well supplies more than 40 percent of the system's water, the population is apportioned equally to all the wells (Ref. 18). There are five wells within target distance limit (TDL) in which two are subject to Level II and the other three are subject to potential contamination.

	S pathway	S ² pathway
Ground Water Migration Pathway Score (S _{gw})	100	10000
Surface Water Migration Pathway Score (S _{sw})		
Soil Exposure Pathway Score (S _s)		
Air Migration Score (S _a)		
$S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2$		10000
$(S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4$		2500
$\sqrt{(S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4}$		50

* Pathways not assigned a score (explain):

TABLE 3-1 --GROUND WATER MIGRATION PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned
Aquifer Evaluated:		
Likelihood of Release to an Aquifer:		
1. Observed Release (Ref. 13, p. 57,)	550	550
2. Potential to Release:		
2a. Containment		0
2b. Net Precipitation		0
2c. Depth to Aquifer		
2d. Travel Time		
2e. Potential to Release [(lines 2a(2b + 2c + 2d)]		0
3. Likelihood of Release (higher of lines 1 and 2e)	550	550
Waste Characteristics:		
4. Toxicity/Mobility (Ref 1-Table 3-9; Ref 2)	(a)	10000
5. Hazardous Waste Quantity (Table 3, Ref 1- Section 2.4.2.2)	(a)	100
6. Waste Characteristics	100	32
Targets:		
7. Nearest Well	(b)	45
8. Population:		
8a. Level I Concentrations	(b)	
8b. Level II Concentrations (Ref.-3, Section 3.3.2.3, Table 3-12; Ref. 12, p. 10, Ref. 12, p. 22, Ref. 18)	(b)	812
8c. Potential Contamination (Ref.-3, Section 3.3.2.4, Table 3-12, Ref. 18));	(b)	101.3
8d. Population (lines 8a + 8b + 8c)	(b)	913.3
9. Resources	5	
10. Wellhead Protection Area	20	
11. Targets (lines 7 + 8d + 9 + 10)	(b)	958.3
Ground Water Migration Score for an Aquifer:		
12. Aquifer Score [(lines 3 x 6 x 11)/82,5000] ^c	100	100.00
Ground Water Migration Pathway Score:		
13. Pathway Score (S_{gw}), (highest value from line 12 for all aquifers evaluated) ^c	100	100.00

^a Maximum value applies to waste characteristics category

^b Maximum value not applicable

^c Do not round to nearest integer

REFERENCES

Reference

- | <u>Number</u> | <u>Description of the Reference</u> |
|---------------|--|
| 1. | U.S. Environmental Protection Agency, 40CFR Part 300, <i>Hazard Ranking System</i> , Appendix A, 55 FR 51583, December, 1990. 1 page. |
| 2. | U.S. Environmental Protection Agency, <i>Superfund Chemical Data Matrix (SCDM)</i> . January, 2004. 1 page. |
| 3. | U.S. Environmental Protection Agency. <i>Hazard Ranking System Guidance Manual</i> , EPA 540-R-92-026, OSWER Publication 9345.1-07, November 1992. 1 page |
| 4. | Yazaki USA Corporation and Mercantile National Bank, Dallas. Memorandum of Collateral Assignment and Security Agreement. March 9, 1984. 3 pages. |
| 5. | Facility Management Plan. Rogers Cottonseed Company, Inc.-Colorado Facility, Colorado City, Texas. July 10, 1986. 2pages. |
| 6. | Comprehensive Groundwater Monitoring Evaluation (CME) Report, Texas Water Commission. July 27, 1987. 12 pages with attachments. |
| 7. | Wesley Newberry, Environmental Quality Specialist, District 9 to Bryan Dixon, Chief, Solid Waste and Spill Response, Enforcement and Field Operations Division, Texas Department of Water Resources. Interoffice Memorandum. February 6, 1985. 1 page. |
| 8. | Sam Becker, Chief, Hazardous Waste Compliance Branch. Environmental Protection Agency to Bryan W. Dixon, Director, Hazardous and Solid Waste Division, Texas Water Commission. Correspondence. 1 page with attachments. |
| 9. | Nancy N. Lynch, Assistant Attorney General, Chief, Environmental Protection Division, Office of Attorney General to Allen Beinke, Executive Director, Texas Water Commission. Correspondence. June 10, 1991. 2pages. |
| 10. | Screening Site Inspection Report, Rogers Delinted Cottonseed Company, TXD 981054257, Mitchell County, Texas prepared for Texas Water Commission prepared by Engineering -Science, Inc. September 1991. 25 pages with attachments. |
| 11. | Superfund Information Systems, Archived Sites: Rogers Delinted Cottonseed Co., U.S. Environmental Protection Agency. 2 pages |
| 12. | LCRA Environmental Laboratory Services to Shaw Environmental & Infrastructure, Inc., Order No. 0501095. January 19, 2005. 56 pages. |
| 13. | DHL Analytical to Shaw Environmental & Infrastructure, Order No. 0501026. January 14, 2005. 103 pages. |

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19. **United States Department of the Interior Geological Survey, Colorado City Quadrangle, 7.5 Minute Series, Topographic Map. Photorevised 1979. 1 Sheet.**
20. **Saru Basnet, Texas Commission on Environmental Quality to Sue Young, Mitchell County Economic Development, Colorado City. Telephone Memo. February 10, 2005. 1 page.**
21. **Code of Federal Regulations, Protection of Environment, 40 Parts 261.22, page 57. Revised as of July 1, 2002. 2 pages.**