



**HAZARD RANKING SYSTEM
DOCUMENTATION RECORD**

for

**Camtraco Enterprises Inc.,
Pearland, Brazoria County, Texas
TXN000606767; TCEQ SWR# 31896**

Prepared by:

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

August 2008

**Camtraco Enterprises Inc.,
Pearland, Brazoria County, Texas
TXN000606767; TCEQ SWR# 31896**

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HRS DOCUMENTATION RECORD - REVIEW COVER SHEET

Name of Site: Camtraco Enterprises Inc.
Current Contact Person: Mary Shrine, Assistant District Attorney Brazoria County
Documentation Record: Andy Bajwa, TCEQ (713) 422-8926
Pathways of Concern: Groundwater Migration Pathway

Groundwater Pathway

The Camtraco site consists of approximately 3.5 acres of mostly vacant land in the rural part of the county. Residential properties are located south, west and north of the site (Fig. 1; Fig. 2). An active railroad line borders the site to the east with open pasture beyond the railroad line. The source of drinking water for the area residents is groundwater. A water well search conducted utilizing information from a file review and a walking survey indicates two public water supply systems within a mile radius of the site and twenty-seven (27) domestic wells were identified within a quarter mile radius of the site (Ref. 4, Vol. 3, pp. 24, 34-36; p. 26 003 and Table 3).

Observed releases of hazardous substances to the groundwater pathway are of concern for this site. Concentrations of lead exceeding the Maximum Contaminant Level (MCL) have been found in three nearby private wells; the residents supplied by those wells have since been provided bottled drinking water. On-site monitor well sample analysis results have documented observed releases of several hazardous substances to the upper portion of the Chicot Aquifer.

Soil Exposure Pathway

There are documented observed releases of several hazardous substances to the surface soils. During the Screening Site Inspection (SSI), surface soil samples were collected from on-site soils and from the closest properties to the Camtraco site on Amoco Drive (Ref. 4, Vol. 2, pp. 20 001-150; Vol. 3, pp. 20 151-632 & Ref. 4, Vol. 2, pp. 16 001-037). Lead, mercury, nickel, zinc, volatile and semi-volatile organic compounds were detected in on-site soil samples (Ref. 4, Vol. 2 and Vol.3, pp. 20 077-652). Elevated levels of lead at 1,220 mg/kg, arsenic at 65.8 mg/kg and copper at 4,440 mg/kg were detected in samples SO-07 and duplicate sample SO-08, collected from the backyard of a property located at 18813 Amoco Drive (Ref. 4, Vol. 2, pp. 20 108-116). The samples SO-07 and duplicate sample SO-08 were collected from the surface soil (0-6") depth from a 25'x25' grid. The top one foot of the 25'x25' area of grid was excavated and the contaminated soil was transported off-site for disposal (Ref. 4, Vol.2 p. 17 001). The residence backyard shares the fence with the Camtraco site and is within 200 feet of the observed contamination area (Fig. 3).

The site is inactive and the access to the site is restricted by a fence and locked gate, and currently there are no workers at the site. The nearest resident individual is located within 200 feet of observed contamination on 18813 Amoco Drive. The TCEQ excavated the contaminated soil and transported it off site thus eliminating the exposure pathway for the nearest individual. According to the Hazard Ranking System (HRS) Rule, the Soil Exposure Pathway is scored based on current conditions, and currently there are not any targets available for the pathway. Therefore, the pathway was evaluated but was not scored.

Surface Water Pathway

Observed releases of hazardous substances to the surface water pathway is not of concern for this site. During the week of May 5, 2005 the TCEQ conducted an SSI sampling event and collected sediment samples from the ditches near the site (Ref. 4, Vol. 2, pp. 20 01-150; Vol. 3, pp. 20 151-632 & Ref. 4, Vol. 2, pp. 16 01-037). Acetone and bis-2(ethylhexyl)phthalate were detected at low concentrations in sediment samples but these contaminants are usually associated with laboratory analysis and thus an observed release attributable to the site via the overland/flood migration to surface water component was not documented by chemical analysis (Ref. 4, Vol. III, pp. 20 623-632). Therefore, the Surface Water Pathway was not evaluated for the site.

Air Migration Pathway

The Air Migration Pathway was not evaluated since the site is inactive and there is no observed release documented for the Air Migration Pathway.

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

NOTE TO READER

The following State predecessor agencies names were used when citing references in the HRS Documentation Record:

The State predecessor agencies: Texas Water Quality Board (TWQB), Texas Department of Water Resources (TDWR), Texas Water Commission (TWC), Texas Air Control Board (TACB), and Texas Natural Resource Conservation Commission (TNRCC) 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 State House Bill 2912 of the 77th Regular Legislative Session.

HRS DOCUMENTATION RECORD

NAME OF SITE: Camtraco Enterprises, Inc

DATE PREPARED: 07/2008

CERCLIS SITE ID NUMBER: TXN000606767

TCEQ ID#: 31892

SITE LOCATION: 18823 Amoco Drive (see Figure 1, Site Location Map).
Pearland, Brazoria County, Texas 77584

TOPOGRAPHIC MAP: US Geological Survey 7.5 Minute Topographic Map, Pearland,
Tex. (Figure 1).
Latitude: 29° 30' 15.36" North
Longitude: 95° 16' 96" West

TCEQ REGION: 12

SITE CONTACTS:

Owner: Brazoria County

Site Contact: Assistant District Attorney Mary Shrine
Brazoria County Courthouse
111 E Locust Street, Suite 408A
Angleton, Texas 77515
(979) 864-1246

SITE SCORING SUMMARY:

Pathway Scores:

Groundwater Migration Pathway	93.59
Surface Water Migration Pathway-	NE
Soil Exposure Pathway -	NE
Air Migration Pathway -	NE
NE - Not Evaluated	

HRS SITE SCORE: 46.8

SITE SUMMARY

General Description of the Site:

Camtraco operated as or was known by the following names: Beaumont Chemicals, Camtraco Chemical Corporation, Glycols Inc., Mondobello Chemical Services, Picos Chemical Plant, Okemah Hydrocarbons, Southeastern Oil Company (SOC) (SWR 82913- merged with 31896 and Air Account No. BL-0146-K), and Camtraco Enterprises, Inc. (SWR 31896, TXT982814097, Air Account No. BL-0131-G and Air Permit 14589).

The site consists of approximately 3.5 acres of mostly vacant rural land. Residential properties are located south, west, and north of the site. An active railroad line borders the property to the east with open pasture beyond the railroad line. The site is bounded on all sides by a chain link fence. The site has been documented as a fuel storage and fuel blending/distillation facility. The blending/distillation operation employed six (6) 18,000 gallon tanks, seven (7) 10,000 gallon tanks, one (1) 36,000 gallon tank and one (1) 2,000 gallon underground storage tank used as a sump (Ref. Vol. 2, pp. 04 003 & 004). The company also accepted barge-cleaning wastes. Several investigations were conducted by various regulatory agencies during the active life of the site as a result of complaints from the nearby residents. Investigations identified evidence of on-site spills, air violations, and buried drums. The site has been inactive since 1992 and is presently abandoned (Ref. 4, Vol. 1, pp. 04 001; 05 004 and Fig. 2).

Sampling of the on-site and off-site soil and groundwater has detected chemicals such as arsenic, barium, chromium, lead, mercury, bis(2-ethylhexyl)adipate, bis(2-ethylhexyl)phthalate, diethyl phthalate, di-n-butyl phthalate, methylene chloride, 1,4 dichlorobenzene, toluene, and trichloroethene (TCE) (Ref. 4, Vol. 2, pp. 15 003-011, 031, 035-038).

Site History:

On May 26, 1987, the Texas Water Commission (TWC) initiated an investigation at Mondobello Chemical Services located at 18823 Amoco Drive in Pearland (Ref. 4, Vol. 2, p. 04 001).

On October 26, 1987, a Notice of Violation (NOV) was issued to Okemah Hydrocarbons operating at 18823 Amoco Drive. The company owners were Mr. Jack Jones, Mr. Andy Picos, and Mr. Syed Mohuiddin, and the facility was known as SOC (Ref. 4, Vol. 2, p. 04 001).

In October 28, 1988, the TWC conducted an investigation in response to a complaint, regarding approximately 50 drums with unknown contents buried in an earthen pit at the site then known as Okemah Hydrocarbons. Upon arriving at the facility, TWC investigators noted a bulldozer moving dirt on the site. The bulldozer operator, Mr. Patton, stated that on October 27, 1988, Mr. Jones of Okemah had instructed him to bury approximately 50 drums abandoned at the facility. Further, he stated that, acting on Mr. Jones' instructions, he had used the bulldozer to construct a pit, approximately 8' x 10' x 10', flatten the drums, and then push the drums into the pit (Ref. 4, Vol. 2, pp.08 002, 010).

On November 1, 1988, a sampling event in relation to the buried drums was conducted by the TWC District 7 Office, which indicated that industrial solid waste, including chlorinated compounds, were disposed of at the facility (Ref. 4, Vol. 2, pp. 08 010, 014).

On May 10-11, 1989, a complaint investigation was conducted based on allegations concerning Okemah's operations and spills and odors from the tank farm. During a site inspection conducted by the TWC in which Mr. Jones and Mr. Picos participated, the TWC informed Mr. Jones and Mr. Picos that the buried drums must be removed. Mr. Jones stated that he would clean up the spills at the facility (Ref. 4, Vol. 2, p. 08 011).

On June 20, 1989, an anonymous complaint to TWC District 7 Office alleged illicit operation of blending gasoline (toluene, benzene, xylene, and MTBE) with numerous spills (Ref. 4, Vol. 2, p. 04 015).

On July 11, 1989, the TWC conducted a complaint investigation with the Texas Air Control Board (TACB) and State Comptrollers Office, concerning spills at the facility. Evidence that the spills had not been remediated or removed was documented (Ref. 4, Vol. 2, p. 08 002).

In August 1989, investigators sampled tanks, a hose, and a UST on-site. Analytical results showed the presence of benzene, toluene, xylenes, naphthalene, and other hydrocarbons (Ref. 4, Vol. 2, p. 05 005).

On April 25, 1990, the TWC conducted an investigation and noted that the site was in operation and the buried drums remained on-site. The plant operator told the investigator that Mr. Jones employed him. Mr. Mohuiddin contacted the investigator and stated that his company, Southeastern Oil Company, operated the facility. The TWC Investigator gave Mr. Mohuiddin copies of TWC analytical results pertaining to the buried drums. The investigator and Mr. Mohuiddin discussed removal and disposal of the buried drums (Ref. 4, Vol. 2, p.08 003).

On April 30, 1991, a complaint to the TWC District 7 Office alleged that when Picos Chemical Plant loaded and unloaded the chemicals, there was a very bad smell and had noted many spills at the site (Ref. 4, Vol. 2, p. 08 003).

On May 7-9, 1991, the TWC conducted complaint investigation EF9105561 and collected additional samples. Documentation showed that no action to clean up spills or remove the buried drums had been taken and that additional spills had occurred. Documented spills indicated a discharge into the waters of the state. An oil sheen was observed on the water in the stormwater ditch (Ref. 4, Vol. 2, p. 08 004). The TWC issued a NOV on May 9, 1991 (Ref. 4, Vol. 2, pp. 04 001 & 08 003).

The TWC District 7 Office referred a May 17, 1991 Record Review Inspection report, including previous NOV's, to the TWC Hazardous and Solid Waste Enforcement Screening Committee for appropriate action (Ref. 4, Vol. 2, pp. 08 002, 004).

On March 31, 1992, the TACB observed violations of the Texas Clean Air Act and Texas Health and Safety Code (Ref. 4, Vol. 2, pp. 04 002 & 06 002). The investigators documented the inventory of material in the tanks and the underground storage tank and performed limited sampling of the tanks. The

analytical results showed that the contents of Tanks 5 and 9 contained elevated concentrations of chlorinated hazardous substances, which appeared to be hazardous waste. Contents of Tanks 10, 11, and 13 were similar in appearance to Tank 5 and required a hazardous waste determination. Tanks 1, 4, 6, 7 and 8 appeared to contain black waste oil and/or sludge and water. Tank 4 contained chlorinated hazardous substances (Ref. 4, Vol. 2, pp. 06 002-004).

On May 13, 1992, the analytical results from TWC District 7 Office sampling of the tank contents indicated elevated concentrations of chlorinated hazardous substances (Ref. 4, Vol. 2, p.09 001).

On June 2, 1992, TWC District 7 Office conducted an inspection at a facility located on Moonshine Hill Road in the Humble area. A Petroleum Distributors transport truck was documented to be carrying a load of mixed petroleum hydrocarbons that was picked up from the Southeastern Oil Company (also known as Camtraco) site on June 1, 1992 (Ref. 4, Vol. 2, p. 09 001).

On June 5, 1992, two residents filed complaints with the TWC District 7 Office stating that trucks transferred materials at Camtraco during the night, which allegedly caused headaches from odors. The TWC referred the complaints to the TACB for appropriate investigation (Ref. 4, Vol. 2, p. 09 002).

On December 1, 1992, the Texas Natural Resource Conservation Commission (TNRCC), formerly known as the TWC, issued an Executive Director's Preliminary Report (EDPR) and Petition for Order against Mr. Copeland, Mr. Picos, Mr. Mohuiddin and Mr. Jones (Ref. 4, Vol. 2, pp. 05 019).

On December 9, 1992, Rollins Environmental Services, a Camtraco contractor, submitted sampling result data from the site to the TNRCC. The sample results indicated presence of benzene, carbon tetrachloride, and tetrachloroethene (Ref. 4, Vol. 2, p. 05 019).

On June 19, 1993, the State of Texas issued an Agreed Order under the Texas Solid Waste Disposal Act and the Texas Water Code to Camtraco with a separate Agreed Order issued to SOC (Ref. 4, Vol. 2, pp. 04 002, 015; 08 005).

On February 16, 1995, the TNRCC Enforcement Litigation and Coordination Division referred the case to the Office of the Attorney General (OAG) as the agency had not received any of the plans, reports, or payment of the penalty required by the Agreed Order (Ref. 4, Vol. 2, pp. 04 026-028; 08 005).

On July 9, 1996, the State of Texas filed its Original Petition and Application for Temporary and Permanent Injunction against Camtraco and SOC et al. (Ref. 4, Vol. 2, pp. 04 015; 05 005).

On August 21, 2000, the OAG requested confirmation of site conditions by TNRCC Region 12 staff. The TNRCC investigation showed the site was inactive, but there was evidence of unauthorized access (graffiti on the sides of tanks). There was black oily material which had a strong chemical odor leaking from a valve at the base of Tank 4 in an area approximately 15' x 15' and seeping into the ground (Ref. 4, Vol. 2, p. 05 026).

On September 21, 2000, the OAG sent a letter to Mr. Copeland with Notice of Intention to Take Default

Judgment if a response was not received by October 5, 2000 (Ref. 4, Vol. 2, p. 05 024).

On October 5, 2000, the OAG filed a default judgment against Camtraco and served Camtraco with a writ of execution on June 15, 2001 (Ref. 4, Vol. 2, p. 05 005).

On April 10, 2001, the OAG's letter to the District Clerk concerning the October 5, 2000, Writ of Permanent Injunction was returned to the OAG unserved since the Defendant had moved. The OAG provided a new address for Mr. Copeland (Ref. 4, Vol. 2, p. 05 024).

On May 29, 2002, and June 10, 2002, TNRCC Region 12 investigators conducted a Case Development Investigation. The facility was documented as inactive with the following:

The tank farm consisted of six (6) 18,000 gallon and seven (7) 10,000 gallon tanks. The tanks were sitting on a flat concrete slab with a soil berm surrounding the tank farm. The tanks had little or no liquid contents and appeared to be in good shape with some rusting. Contamination was observed on the tank pads and the valve was open on Tank 5 with a slight amount of material having been discharged from the valve. Upon opening the six (6) 18,000 gallon tank hatches, moderate hydrocarbon odors were detected and the three (3) vessels on the eastern side stored undeterminable amounts of liquid. During the inspection it could not be determined if the tanks on the western side contained any material. However, the hydrocarbon odors detected indicated that some residual materials remained in the tanks (Ref. 4, Vol. 2, p. 04 001-003). Five (5) unlabeled steel drums were observed rusting and overturned under a shed attached to what appeared to be an office building or process area. One of the upright drums was open and appeared to contain liquid, likely rainwater (Ref. 4, Vol. 2, p. 04 003). A steel aboveground 36,000 gallon storage tank was located at the north end of the tank farm. At one time, there may have been an earthen berm around this tank but most of the berm had disappeared. The top openings could not be safely observed and dense vegetation prevented the base of the tank from being inspected for any leakage. Upon further inspection of the tank, it was determined that the vessel had little or no liquid contents (Ref. 4, Vol. 2, pp. 04 001-003). A 2,000-gallon UST with a short vent pipe was documented north of the 36,000 gallon AST. In some documentation, this tank was referred to as a sump with a riser. This area had limited vegetative growth and the soil was slightly sunken. The vent or riser pipe was not visible due to the surrounding area's vegetative growth (Ref. 4, Vol. 2, pp. 04 001-003).

On June 3, 2002, the Commission requested that the OAG institute the appropriate legal action against Camtraco for failure to comply with the District Court Order (Ref. 4, Vol. 2, p. 05 005).

On February 2, 2003, the OAG filed a Motion for Contempt of Permanent Injunction against Camtraco Enterprises, Inc. (Ref. 4, Vol. 2, p. 05 005).

On February 14, 2005, a complaint was filed to the TCEQ Region 12 Office alleging that drinking water wells may be impacted by the buried drums (Ref. 4, Vol. 2, p. 05 024).

On March 1, 2005, the OAG notified the Commission that "all viable enforcement avenues have been exhausted in this case" (Ref. 4, Vol. 2, p. 05 005).

On March 11, 2005, the TCEQ requested that the OAG close its file on this case (Ref. 4, Vol. 2, p. 05 005).

On February 17, and March 11, 2005, the TCEQ Region 12 Office conducted an investigation at the site. All of the ASTs were inspected and appeared to be empty. The site was heavily overgrown and the investigator noted that there was no visual evidence of recent activity at the site. No known operational activity was documented since the last TCEQ investigation in June 2002 (Ref. 4, Vol. 2, pp. 05 002, 008).

On February 18 and 19, 2005, and March 4, 2005, the TCEQ Emergency Response contractor collected groundwater samples from private drinking water wells near the Camtraco site. Detections included lead, bis(2-ethylhexyl)adipate, bis(2-ethylhexyl)phthalate, and TCE (Ref. 4, Vol. 2, pp. 15 003-011, 031, 035-038). Although the TCE was detected in the private well located at 18815 Amoco Drive, the detection was below the (MCL) of 5 µg /L (Ref. 4, Vol. 2, pp. 15-31).

On March 30, 2005, the Litigation Division of the TCEQ referred the case to the Remediation Division. Before the referral of the case and pursuant to a request by the Remediation Division, the TCEQ Houston Region Office conducted an investigation at Camtraco to evaluate the status (Ref. 4, Vol. 2, p. 05 001).

TCEQ Remediation Division conducted a federal SSI Investigation in May 2005. The May 2005 SSI consisted of sampling of on-site and off-site soils and sediments and collecting drinking water samples from nearby residential wells.

During the week of May 5, 2005, the TCEQ conducted the SSI sampling and collected on-site and off-site soil samples, sediment samples and off-site private and public drinking water samples (Ref. 4, Vol. 2, pp. 20 001-150; Vol. 3, pp. 20 151-632 and Ref. 4, Vol. 2, pp. 16 001-037). Cadmium, lead, mercury, nickel, zinc and cyanide were detected in on-site source samples SO-29, SO-30, SO-31, SO-32, SO-33 and SO-40 (Ref. 4, Vol. 3, pp. 020-308). Lead, acetone and dichloromethane were detected in on-site source soil samples SO-29 and SO-39 (Ref. 4, Vol. 3, pp. 20 218-221 and 267-271). Elevated levels of lead (1,490 mg/kg), copper (5189 mg/kg) and arsenic (77.5 mg/kg) were detected in a release soil sample SO-07 and the duplicate sample SO-8 in the backyard of a residence located at 18813 Amoco Drive (Ref. 4, Vol. 2, pp. 20 113-116).

The sampling results from the SSI did not document any releases of hazardous substances to the surface water, or to the private and public drinking water wells (Ref. 4, Vol. 3, pp. 20 358-701).

In August 2005, TCEQ instructed its contractor, URS, to conduct a Removal Action (RA) at the Camtraco site. The RA consisted of demolition of fourteen (14) above ground storage tanks (ASTs) from the tank farm and removal of an underground storage tank (UST) (Ref. 4, Vol. 2, pp. 17 001-056); Fig. 2). The tank farm consisted of six (6) 18,000 gallon, seven (7) 10,000 gallon and one (1) 36,000 gallon tank (Ref. Vol. 2, p. 04 001-003). The tanks were noted to be sitting on a flat concrete slab with a soil berm surrounding

the tank farm. The tanks were sampled in March 1992 to determine the contents. Sludge samples results indicated benzene at 415 mg/kg, 2-butanone (methyl ethyl ketone) at 518 mg/kg, tetrachlorethene at 383 mg/kg, 1,1,1 trichloroethane at 3600 mg/kg in one of the tanks and 1,1,1-trichloroethane at 5100 mg/kg in an other tank (Ref. Vol. 2, p. 06 002).

During the removal of the UST, staining and odor were noted in the soil surrounding the UST. It was also noted that the bottom of UST had developed a hole due to severe corrosion. Analytical results of soil samples collected from the UST basin indicated acetone at 720 ug/kg, tetrachloroethene at 8 ug/kg, cis-1,1-dichloroethene at 5 ug/kg, MTBE at 48,000 ug/kg and toluene at 80,000 ug/kg (Ref. 4, Vol. 2, pp. 17 025, 035). To determine the vertical extent of soil contamination, four soil borings were advanced to 12 feet below ground around the UST basin. In addition, soil samples were collected from the UST basin. Analytical results of soil samples from the soil boring indicated an acetone concentration of 44,000 ug/kg, TCE at 370,000 ug/kg, cis-1,2-dichloroethene at 80,000 ug/kg, MTBE at 48,000 ug/kg and vinyl chloride at 14,000 ug/kg between a depth of four feet to ten feet (Ref. 4, Vol. 2, pp. 17 025,035).

The UST basin and surrounding contaminated soils were excavated and transported off-site for disposal and the excavated area was backfilled with the clean fill. A total of 3,600 cubic yards of contaminated soil was transported off-site for disposal (Ref. 4, Vol. 2, pp. 17 007-17 015).

As part of the RA, approximately fifty (50) buried drums that had been discovered during a Complaint Inspection in October 1988 were excavated and transported off-site for disposal (Ref. 4, Vol. 2, pp. 17 014; 08 008).

The surface soil in one area (approximate 625 square feet) of the backyard at the 18813 Amoco Drive property was excavated (approx. 50 cubic yard) and the excavated surface soil was transported off-site for disposal. (Ref. 4, Vol. 2, pp. 20 113-116; 17 008).

In an effort to investigate the releases or potential releases to the groundwater from the Camtraco operations, TCEQ drilled six on-site monitor wells since May 2006. The first set of four wells, MW-01, MW-02, MW-03 and MW-04 were installed in May 2006. Monitor wells, MW-7 and MW-8, were drilled in August 2007. All six monitor wells are shallow wells with approximate depths between 45 feet to 50 feet. On-site monitor wells have routinely been sampled since May 2006.

On May 18, 2006, water samples were collected from the on-site monitor wells and the sample analyses detected TCE in wells MW-03 and MW-04. The levels were significantly above the background and Sample Quantification Limit (SQL) (Ref. 2, p. 93-98). The background sample results were below the SQL for this chemical (Ref. 4, Vol. 3, pp. 20 355-358).

On March 21, 2007 on-site monitor wells were re-sampled and samples analyses detected cis-1,2-dichloroethene, 2-butanone, MTBE and TCE in wells MW-02, MW-03 and MW-07 (Ref. 3, pp. 620-627). The levels were above the background and SQL (Ref. 4, Vol. 3, pp. 20 355-358).

On July 30 2007, on-site monitor wells were re-sampled and acetone, 2-butanone, cis-1,2- dichloroethene, MTBE, TCE and toluene were detected in MW-01, MW-02 and MW-03 (Ref. 3, pp.69-73).

On-site monitor wells sample analysis results documented observed releases of several hazardous substances to the upper portion of Chicot Aquifer (Ref. 4, Vol. 3, pp. 21 010; Ref. 3, pp. 842-853).

In November 2005, in order to determine the extent of soil contamination, five direct push soil borings were advanced to a depth of 20 feet in a contaminated area 30 feet west and north of the former UST basin (Ref. 2, pp. 2 35-40). Subsurface samples from the soil borings (SB-11 through SB-14) were collected from every 5 foot depth interval and the sample analyses data documents concentrations of TCE at 370,000 µg/kg and cis-1,2-dichloroethene at 80,000 µg/kg in boring SB-10 at a depth between 5'-10' (Ref. 2, pp. 2 692-693). Similarly in boring SB-10, TCE was detected at 360,000 µg/kg and cis-1,2-dichloroethene at 23,000 µg/kg at a depth between 15'-20' (Ref. 2, pp. 2 695-697). Elevated levels of TCE and cis-1,2-dichloroethene were also detected in SB-13 at 15'-20' depth (Ref. 2, pp. 2 710-711). Elevated levels were also detected in SB- 14 in shallow samples (Ref. 2, pp. 2 713-715).

In May 2006, three on-site monitor wells were drilled and in addition, one deep soil boring was advanced in the contaminated soil zone, west of the former UST. TCE was detected at 5,400 µg/kg in SB-10 between 7.5'-10' depth and at 630 µg/kg in SB-11 between 25'-30' depth (Ref. 2, pp. 2 160-162;165-167).

On December 17, 2007, the U.S EPA recommended a No Further Remedial Action Planned under the Federal Superfund Program for the Camtraco site and referred the site for state investigation.

On-site Source

Camtraco Enterprises has three sources, (1) above ground storage tanks, (2) buried drums, and (3) on-site contaminated soil. For the first source, the total volume of the tanks was added based on the volume of the individual tanks and equaled 214,000 gallons (Ref. 4, Vol. 1, p. 9). The total volume of the second source, the buried drums, was 2,500 gallons. Since the hazardous constituents' quantity and wastestream quantity could not be adequately determined, the volumes were used to calculate the Hazardous Waste Quantity for the first and the second source. For the third source, contaminated soil, the transported volume from the manifests was added up to a total of 3,600 cubic yards. The Hazardous Waste Quantity (HWQ) was determined to be 433 from Ref. 1, HRS Table 2-5.

Table 1 lists the monitor well water sample results. Analyses were not performed under EPA Contract Laboratory Program. Various certified laboratories were employed at different sampling events to analyze the samples. Laboratories have used different terms to report the lowest concentration of a hazardous substance that can be detected reliably in the sample. Sample results are listed as reported by the laboratories.

Table 1. Hazardous Substances Detected in Monitoring Wells Water										
	MW-03	SQL	MW-04	SQL	MW-01	SDL*	MW-02	SDL*	MW-03	SDL*
Constituents (µg/L)/ Date Sampled	5/18/06	5/18/06	5/18/06	5/18/07	7/30/07	7/30/07	7/30/07	7/30/07	7/30/07	7/30/07
2-Butanone	U	0.30	U	0.30	U	0.30	49	0.30	U	0.30
2-Hexanone	U	0.20	U	0.20	U	0.20	0.48 J	0.2	U	0.20
Acetone	U	0.50	U	0.50	U	0.50	44	0.5	U	0.50
cis-1,2- Dichloroethene	U	0.12	U	0.12	U	0.12	0.495	0.12	U	0.12
MTBE	U	0.20	U	0.20	U	0.20	U	0.20	46	0.20
Toluene	U	0.10	U	0.10	U	0.10	0.89 J	0.10	U	0.10
TCE	230	2.5	310	2.50	0.53 J	0.10	0.48 J	0.10	7.10	0.1
References	Ref. 2, p. 93		Ref. 2, p.98		Ref.3, p. 71		Ref. 3, p. 69-70		Ref. 3, p. 73	

Table 1 (Continued) Hazardous Substances Detected in Monitoring Wells Water								
	MW-01	SQL	MW-02	SQL	MW-03	SQL	MW-07	SQL
Constituents (µg/L)/Date Sampled	3/21/07	3/21/07	3/21/07	3/21/07	3/21/07	3/21/07	3/21/07	3/21/07
2-Butanone	U	0.1	1.5	0.1	U	0.1	U	0.1
cis-1,2- Dichloroethene	0.37 J	0.12	0.40 J	0.12	U	0.12	U	0.12
MTBE	U	0.2	U	0.2	36	0.2	U	0.2
TCE	0.37	0.1	1.5	0.1	6.8	0.1	6.7	0.1
References	Ref. 3, pp. 628-629		Ref. 3, pp. 626-627		Ref. 3, pp. 620-621		Ref. 3, pp. 623-624	

Table 1 (Continued) Hazardous Substances Detected in Monitoring Wells Water										
	MW-1	SDL*	MW-2	SDL*	MW-3	SDL*	MW-7	SDL	MW-8	SDL*
Constituents (µg/L)/Date Sampled	12/18/07	12/18/07	12/18/07	12/18/07	12/18/07	12/18/07	12/18/07	12/18/07	12/18/07	12/18/07
2-Butanone	U	0.30	U	0.30	U	0.30	2.40	0.30	U	0.30
2-Hexanone	U	0.20	U	0.20	U	0.20	0.81	0.20	U	0.20
Acetone	U	0.50	U	0.50	U	0.50	10	0.50	1.40 J	0.50
cis-1,2- Dichloroethene	U	0.12	0.65 J	0.12	U	0.12	U	0.12	U	0.12
MTBE	U	0.20	U	0.20	75	0.20	U	0.20	U	0.20
Toluene	U	0.10	U	0.10	U	0.10	0.21	0.10	0.16 J	0.10
TCE	0.43	0.10	1.20	0.10	8	0.10	U	0.10	U	0.10
Vinyl chloride	U	0.11	U	0.11	U	0.11	0.20	0.11	0.65	0.11
References	Ref. 3, pp. 848- 849		Ref. 3, pp. 842- 843		Ref. 3, pp. 844- 845		Ref. 3, pp. 850-851		Ref. 3, pp. 852- 853	

Bolded= Sample results at or above the SQL, SDL SQL= Sample Quantification Limit

J= Result is estimated between SQL and MQL SDL= Sample detection Limit

MW= Monitor well sample.

Analyses were not performed under EPA Contract Laboratory Program.

*When the sample analysis is not performed under the EPA Contract Laboratory Program (CLP), use of the Method Detection Limit (MDL) or Sample Detection Limit (SDL) in place of SQL is permitted (HRS Table 2-3).

Groundwater Pathway

Observed releases of hazardous substances to the groundwater pathway are of concern for this site. Concentrations of lead exceeding the Maximum Contaminant Level (MCL) have been found in three nearby private wells; the residents supplied by those wells have since been provided bottled drinking water. On-site monitor well sample analysis results have documented observed releases of several hazardous substances to the upper portion of the Chicot Aquifer.

The two primary drinking water aquifers in the area are the Chicot and Evangeline aquifers. The aquifers are hydraulically connected and function as a single aquifer in Brazoria County (Ref. 4, Vol. 3, pp. 21 08-012).

Observed releases to the Beaumont formation portion of the Chicot Aquifer of several volatile organic compounds are documented by chemical analysis. On-site monitor wells MW-01, MW-02, MW-03, MW-04, and MW-07 had detected TCE in the samples collected on May 18, 2006, March 21, 2007 and July 30, 2007. Monitor wells MW-04 and MW-03 had detected TCE at concentrations of 310 µg/L and 230 µg/L respectively in the sample collected on May 18, 2006; TCE was not detected in the background well sample GW-01 (Table 1).

Cis-1,2-dichloroethene, 2-butanone and methyl tert-butyl ether (MTBE) were detected in monitor wells MW-02, MW-03 and MW-07 in the samples collected on March 21, 2007; these chemicals were not detected in the background well sample GW-01 (Ref. 4, Vol. 3, pp. 20 355-359; Ref. 3, pp. 623-629).

Acetone, 2-butanone, cis-1,2-dichloroethene and MTBE were detected in monitor wells MW-01, MW-02 and MW-03 in the samples collected on July 30, 2007; these chemicals were not detected in the background well sample GW-01 (Ref. 4, Vol. 3, pp. 20 355-358; Ref. 3, pp. 69-73).

Prior to purging three well volumes in preparation of sampling, each monitor well was gauged and the water level ranged between 7.5 feet and 8.5 feet from the top of the monitor wells. Monitor well depth ranged between 49 feet to 52 feet (Ref. 3, pp. 3 895-894). Monitor wells MW-01, MW-02 and MW-03 are located near the former UST and the monitor wells MW-04 is located approximately 270 feet south of the former UST area (Fig. 2). Monitor well MW-07 is located approximately 230 feet west of the former UST and MW-08 is located 300 north from the UST area (Fig. 2)

Observed releases to the Beaumont formation of the Chicot Aquifer consist of several volatiles and organic are documented by chemical analysis. The hazardous substances with the highest groundwater toxicity values are lead and TCE (Ref. 6). Since hazardous substances meet the criteria for an observed release by chemical analysis to the aquifer, a mobility factor value of 1 is assigned (Ref. 1, Sec. 3.2.1.2). The resulting groundwater toxicity/mobility factor value assigned is 10,000 (Ref. 1, Table 3-9).

Groundwater Targets

The source of drinking water for the area residents is groundwater. A water well search conducted utilizing information from a file review and a walking survey indicates two public water supply systems within a mile radius of the site and twenty-seven (27) domestic wells were identified within a quarter mile radius of the site (Ref. 4, Vol. 3, pp. 24, 34-36; p. 26 003; Table 3).

Sixty-eight wells were identified within an one mile radius and 274 wells were identified within two mile radius of the site. Based on LandView 6, Version 1.0, a viewer for EPA, s, the total population calculated as follows (Ref. 4, Vol. III, pp. 25 002-007): 0-0.25 mile: 57, 0.25-0.50 mile: 123, and 0.50-1.0 mile: 243.

The City of Pearland has a network of 12 wells, and the nearest city well (G020008F) is located within a three-mile radius of the site (Ref. Fig. 4). The City wells (G020008 E and B) are located within a four-mile radius of the site. A total population of 80,503 is supplied by the City of Pearland's 12 active, blended public supply wells (Ref. 5, p. 5 014). Each well supplies approximately 6,682 people (Ref. 5, pp. 7 014).

Private wells within an one-half mile radius have been routinely sampled since February 2005 (Ref. Table 2). Observed releases to the Chicot Aquifer of volatile and inorganic constituents are documented by chemical analysis of drinking water samples (Ref. 4, Vol. 2, pp. 15-31; Ref. 3, pp 3 208-698).

Private wells were sampled on February 25, 2005, and March 4, 2005, and one well located at 18815 Amoco Drive had detected TCE at 0.62 µg/L and 0.94 µg/L respectively; above the SQL (Ref. 4, Vol. 2, pp. 15-31, Ref. 3, pp. 3 208 698).

The wells were resampled on May 5, 2005 as part of the Screening Site Inspection (SSI) and the sampling results indicated no constituents were detected above the MCL. However, the well located at 18815 Amoco Drive was not sampled during the SSI sampling and follow up sampling because the residence had been unoccupied and well equipment had been removed since March 2005 sampling. The well is within an one quarter mile radius of the site (Fig. 4).

TCE was detected in a private well, GW-29 at 0.91 µg/L and 0.64 µg/L during November 7, 2006, and March 19, 2007, sampling events. TCE was not detected in background well GW-01 (Ref. 3, pp. 3 771, 883). The well is located within one half mile radius of the site (Ref. Fig. 4).

Table 2 lists the drinking water sample results. Analyses were not performed under EPA Contract Laboratory Program. Various certified laboratories were employed at different sampling events to analyze the samples. Laboratories have used different terms to report the lowest concentration of a hazardous substance that can be detected reliably in the sample. Sample results are listed as reported by the laboratories.

Table 2. Release Sample Results Drinking Water Wells Volatile Organic Compound (VOCs) in Private Drinking Water Wells						
	18815 Amoco Drive/Gutierrez (VOC-1)	PQL*	18815 Amoco Drive/Gutierrez (VOC-2)	PQL*	18815 Amoco Drive/Gutierrez	SQL
Constituents (µg/L) /Date Sampled	3/4/05	3/4/2005	3/4/05	3/4/2005	2/25/05	2/25/05
TCE	0.94	0.5	0.76	0.5	0.62	0.20
References	Ref. 4, Vol.2, p. 15-31		Ref. 4, Vol.2, p. 15-33		Ref. 4, Vol.2, p. 15-08	

Table 2 (Continued). Release Sample Results Drinking Water Wells Inorganics in Private Drinking Water Wells					
	GW-9	SQL	GW-01	GW-27	SQL
Constituents (mg/L) /Date Sampled	3/19/07	3/19/07	3X Highest Concentration	8/1/07	8/1/07
Lead	0.0425	0.000105	U	0.0816	0.00029
References	Ref. 3. p. 698	Ref. 3. pp. 202, 204,820, 698	Ref. 4, Vol 3, pp. 20 355-358	Ref. 3. p.208	Ref. 3. p. 208

Table 2 (Continued). Release Sample Results Drinking Water Wells Volatile Organic (VOCs) in Private Drinking Water Wells					
	GW-29	SQL	GW-01	GW-29	SQL
Constituents (µg/L) /Date Sampled	11/7/2006	11/7/2006	3X Highest Background	3/19/2007	3/19/2007
TCE	0.91	0.04	U	0.64	0.04
References	Ref.3, p. 3-883	Ref.3, p. 3-883	Ref. 4, Vol. 3, pp.20-355-358	Ref.3, p. 3-771	Ref.3, p. 3-771

Table 2 (Continued). Release Sample Results Drinking Water Wells Inorganic in Private Drinking Water Wells					
	GW-52	SQL	GW-52	SQL	GW-01
Constituents (mg/L)/Date Sampled	11/7/06	11/7/06	3/21/07	3/21/07	3 X Highest Background Concentration
Lead	0.0767	0.00015	0.022	0.00029	U
References	Ref. 3. p.3-765	Ref. 3, p.3- 886	Ref. 3, p.3- 886	Ref. 4, Vol. 3, pp.20-355-358	

SQL= Sample Quantification Limit PQL= Practical Quantification Limit

Bold and shaded= Sample results at or above the benchmark (MCL). Bold= Sample results are at or above the SQL or PQL

Analyses were not performed under EPA Contract Laboratory Program.

*When the sample analysis is not performed under the EPA Contract Laboratory Program (CLP), use of the Method Detection Limit (MDL) or Sample Detection Limit (SDL) in place of SQL is permitted (HRS Table 2-3).

Well locations are presented on Figure 4. Detailed groundwater samples description is provided in Ref. 4, Vol.1, pp. 31-32. MCL for TCE for drinking water pathway is 5 µg/L.

Texas-Specific Soil Background concentration for arsenic is 5.9 mg/kg, copper 15 mg/kg and lead is 15 mg/kg.

For groundwater, Brazoria County-Specific Background concentration for arsenic is less than 2 µg/L, lead is less than 1 µg/L and copper is less than 2 µg/L.

Lead was detected in GW-52 at 0.022 mg/L and 0.076 mg/L respectively in November 7, 2006 and March 21, 2007 sampling events (Ref. 3, pp. 3 886, 765). Since the lead level was above the MCL of 0.015 mg/L, the residents were supplied with bottled water and the wells were resampled. Lead was detected above the MCL in the re-sample analysis results of well GW-52, and the residents were provided with bottled water. MCL for lead for drinking water pathway is 15 mg/L.

Private wells were sampled in March 21, 2007 and lead was detected in private well GW-09 at 0.0425 mg/L, above the MCL (Ref. 3, pp. 698, 765, 767). Since the lead level detected in the well was above the MCL, the residents were supplied with bottled water.

Private wells were sampled between July 30 and August 1, 2007 and lead was detected in private wells GW-09, GW-27 and GW-52 at 0.0425 mg/L, 0.0220 mg/L and 0.0229 mg/L respectively, all above the MCL (Ref. 3, pp. 698, 765, 767). Since the lead levels in the wells were above the MCL, the residents are being supplied with bottled water.

Private wells were sampled in December 18, 2007 and the sampling data indicated that all wells sampled were below MCL for lead (Ref. 7, pp. 7 004-099). The three households (GW-09, GW-27 and GW-52) where the lead had been detected above the MCL in previous sampling will continue to be provided with bottled drinking water until the levels are established to remain below the MCL.

The site is evaluated using actual contamination at Level I and Level II Contamination. The private well GW-09 serves a population of nine (9), GW-27 serves a population of four (4) and GW-52 serves a population of two (2). These fifteen (15) residents are counted as subject to Level I contamination (Ref. 5, pp.000,003,008).

The exact population served by the private well GW-29 is not known, therefore the Brazoria County Average of 2.82 people per household is used (Ref. 5, pp. 032-033) and this population is counted as subject to Level II contamination. A distance-weighted population of 2359 is counted as subject to potential target.

Groundwater population target details are noted in Table 3.

Table 3: Groundwater Population Targets

Distance Range from Site	Drinking Water Use Wells: Level I Contamination	Drinking Water Use Wells: Potential [Population in ()]	Distance Weighted Population: Potential
0 to 0.25 miles	GW-52: 2, GW-09:9 & GW-27:4 (lead) Total: 15 (Level I)	GW-08 (2.82); GW-09 (9),GW-11 (6); GW-13 (14); GW-17 (15); GW-18&19 (11)GW-35 (7); GW-37 (1); GW-52 (3); GW-57 (3 may have switched to bottled water); GW-41 (1); Total 72.82 (minus GW-09 & GW-52):60.82	53
		Ref. 7, pp. 7 002-017& Fig. 4	Ref.1, Table 3-12
0.25 to 0.50 miles	GW-29: 2.82 (TCE). Total 2.82 (Level II) Ref. 7, pp. 7 002-017	GW-25 (14), GW-27 (4), GW-28 (2.82); Total: 20.82 (GW-27)= 18	11
		Ref. 7, pp. 7 002-017	Ref.1, Table 3-12
0.50 to 1 mile		Ryan Long PWS 0200108 = 54; Total 54	17
1 to 2 miles		PWS 0200189 = 117; PWS 0200542 = 200; PWS 0200341 (Village Trace) = 345; PWS 0200353 Cedar Grove = 435; PWS 0200242 = 120; Total 1217	294
		Ref. 7, pp. 7 002-017	Ref.1, Table 3-12
2 to 3 miles		PWS 0200218 = 159; PWS 0200094 = 135; PW 0200226 = 132; PW 0200227 = 129; PWS 0200349 = 102; PWS 0200248 = 45; PWS 0200337 = 195; PWS 0200347 = 348; PWS 0200144 = 63; PWS 0200151 = 48; PWS 0200153 = 45; PWS 0200526 = 200; PWS 0200191 = 54; PWS 0200055 = 60; PWS 0200181 = 60; PWS 0200211 = 30; PWS 0200223 = 75; PWS 0200419 = 318; PWS 0200008 1 well serves 6681.75; Total 8879.75	678
		Ref. 7, pp. 7 002-017	Ref.1, Table 3-12
3 to 4 miles		PWS 0200024 = 537; PWS 0200258 = 60; PWS 0200271 = 93; 0200295 = 100; PWS 0200008 2 wells serve 13375.5; Total 14165.5	1306
		Ref. 7, pp. 7 002-017	Ref.1, Table 3-12
SubTotal	Level 1=15, Level 2= 2.82		2359
Targets: Level I Contamination	15x10= 150		150
Targets: Level II Contamination	2.82		2.82
Targets: Potential Contamination (Total x0.10)	2359 x .1= 235.9		235.9
Total Inserted in HRS Scoring	388.72		388.72

Figure 2: Camtraco Enterprises, Inc. Site Features Map

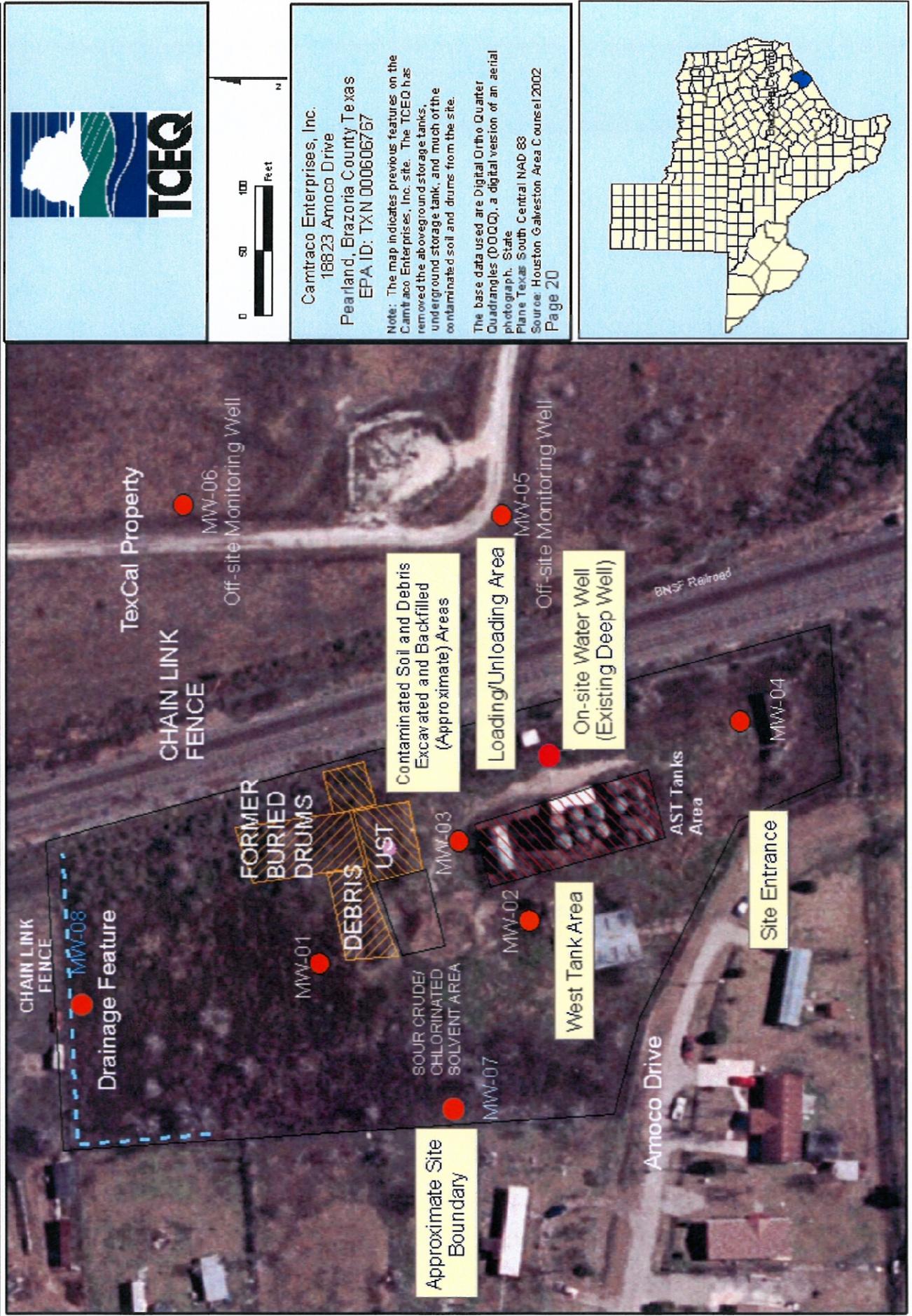


Figure 3: Camtraco Enterprises, Inc. Soil Sample Location Map

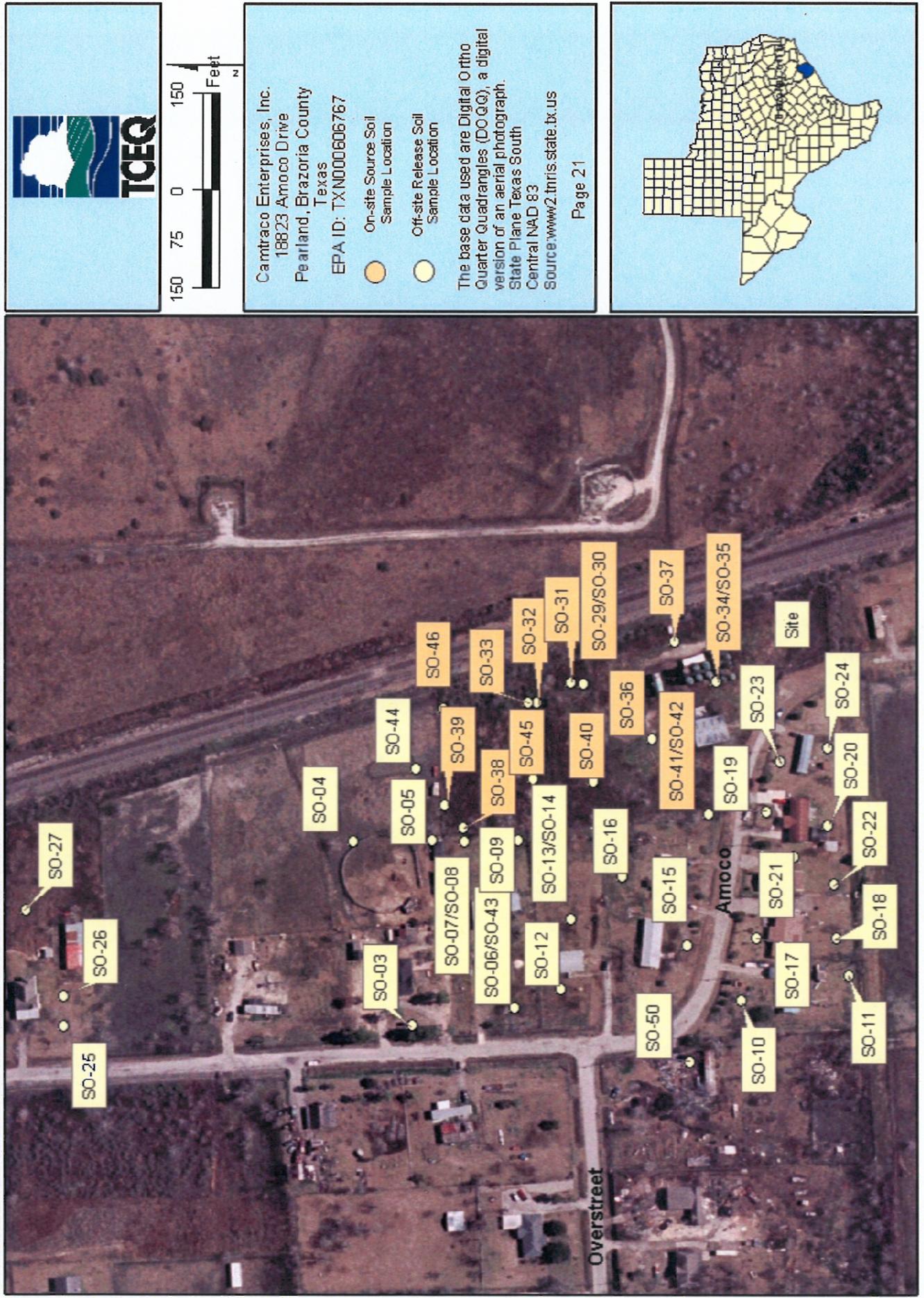
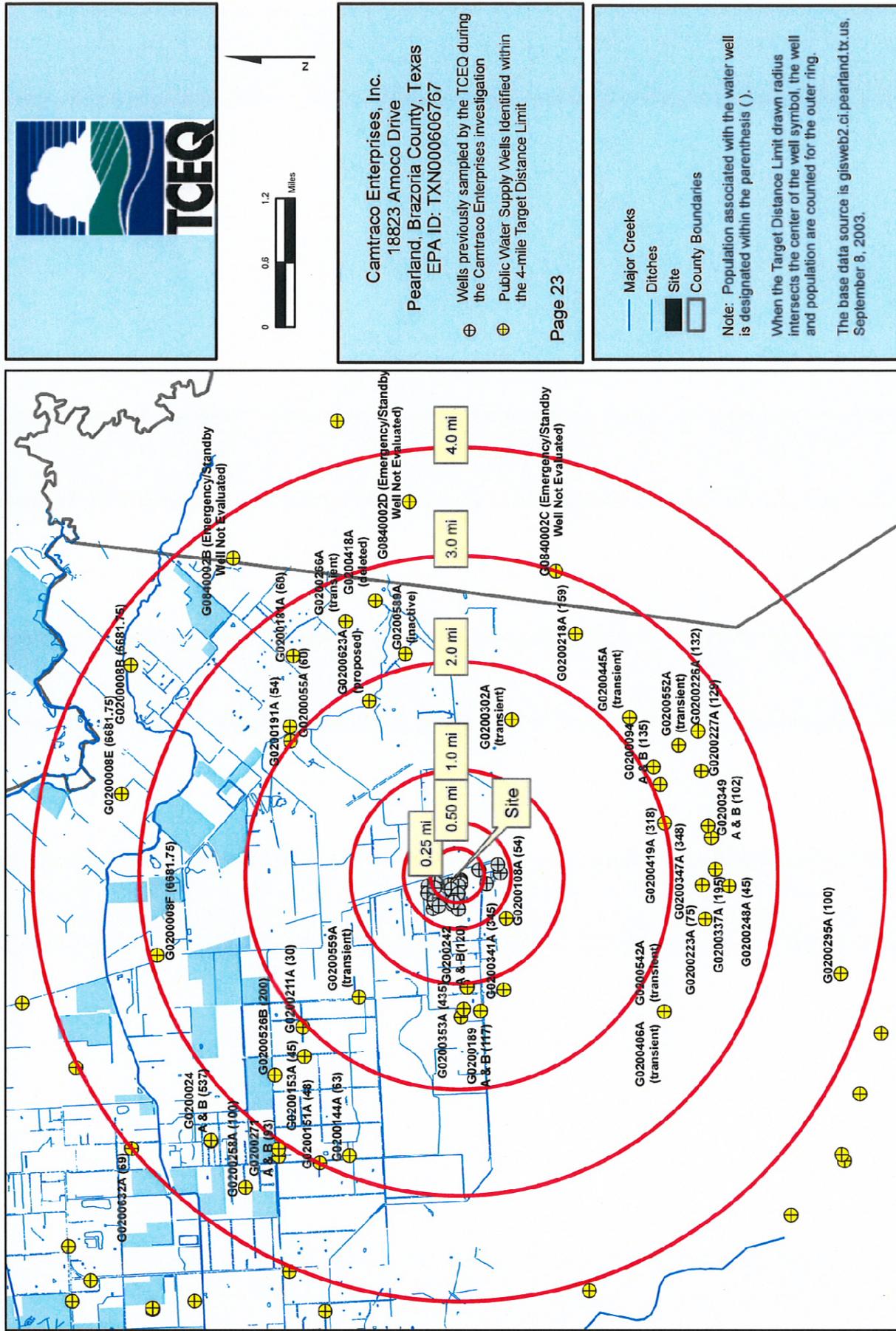


Figure 5: Camtraco Enterprises, Inc. Potential Groundwater Population Targets



REFERENCES

<u>Reference Number</u>	<u>Description of the Reference</u>
1	U.S. Environmental Protection Agency, 40 CFR Part 300, <i>Hazard Ranking System</i> , Appendix A, 55 FR 51583, December 1990. 1 page.
2	Final Removal Action Report Camtraco Enterprises Site Pearland, Brazoria County, Texas August 18, 2006 (Report and analytical data). 976 pages.
3	ECS Environmental Chemistry Services, Camtraco Site Sampling Data July-November 2005, March and April 2007, May 2006, December 2007 and Field Notes. 905 pages.
4	Screening Site Inspection Report (SSI), Camtraco Enterprises, Inc. April 2007, Volume I, II and Vol. III.
5	Telephone Memos, Water Well Survey Forms, Well Data and U.S Census Bureau Data for Brazoria County, Texas. 33 pages.
6	U. S. Environmental Protection Agency, <i>Superfund Chemical Data Matrix (SCDM)</i> . January 28, 2004. 1 page.
7	ECS Environmental Chemistry Services, Camtraco Site Sampling Data July-November 2005, March and April 2007, May 2006, December 31, 2007. 100 pages.

Work Sheet for HRS Site Score

Site Name: Camtraco Enterprises, Inc. Region: 12
 City, County, State: Pearland, Brazoria TX Evaluator: Andy Bajwa
 EPA ID#: TXN0000606767 Date: 5/28/2008
 Lat/Long: 29° 30'15.36"N, 95°16'12.96" T/R/S:
 Congressional District: 22
 This Scoresheet is for: HRS Package
 Scenario Name: Level I & II Contamination
 Description: Lead and TCE in drinking water wells

	S pathway	S ² pathway
Ground Water Migration Pathway Score (S _{gw})	93.59	8759.0881
Surface Water Migration Pathway Score (S _{sw})		
Soil Exposure Pathway Score (S _s)		
Air Migration Score (S _a)		
$S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2$		8759.0881
$(S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4$		2189.772025
$\sqrt{(S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2)/4}$		46.8

TABLE 3-1 --GROUND WATER MIGRATION PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned
Aquifer Evaluated: Chicot/Evangeline		
Likelihood of Release to an Aquifer:		
1. Observed Release	550	550
2. Potential to Release:		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	5
2d. Travel Time	35	35
2e. Potential to Release [(lines 2a(2b + 2c + 2d)]	500	460
3. Likelihood of Release (higher of lines 1 and 2e)	550	550
Waste Characteristics:		
4. Toxicity/Mobility (Lead and TCE has the same value)	(a)	10000
5. Hazardous Waste Quantity	(a)	100
Tier C – Tanks and containers other than drums		
7 tanks x 10,000 gallons = 70,000 , 6 tanks x 18,000 gallons =108,000		
1 tank x 36,000 gallons = 36,000		
Total volume = 214,000 gallons		
1 cu yd = 200 gallons		
214,000/200 = 1070 cu yds		
HWQ =1070/2.5 (from Table 2-5) = 428		
Drums: 50x50=2500 /500= 5 (from Table 2-5)		
Tier C: Contaminated Soil (UST and AST Area : 300 x 12(each truck load carried 12 Cu yard):3600		
HWQ: 3600/2500 (from Table 2-5= 1.04 (from Table 2-5)		
Total: 428+5+1.04= 433		
HWQF = 100 (Table 2-6)		
6. Waste Characteristics	100	32
Targets:		
7. Nearest Well	(b)	50
8. Population:		
8a. Level I Concentrations (Table 3)	(b)	150
8b. Level II Concentrations (Table 3)	(b)	2.82
8c. Potential Contamination (Table 3-12)	(b)	235.9
8d. Population (lines 8a + 8b + 8c)	(b)	388.72
9. Resources	5	0
10. Wellhead Protection Area	20	0
11. Targets (lines 7 + 8d + 9 + 10)	(b)	438.72
Ground Water Migration Score for an Aquifer:		
12. Aquifer Score [(lines 3 x 6 x 11)/82,5000] ²	100	93.59

The applicable scoring benchmarks were provided from the Superfund Chemical Data Matrix (SCDM). The MCL value for lead is 15 mg/L. The SCDM Cancer Risk value for TCE is 0.2129 µg/L and non-Cancer Risk is 10.95 µg/L.