2002 through 2006
FACT SHEET
An Update on Sparton Technology's Coors Road Facility, Albuquerque, New Mexico.

Sparton Technology, Inc., a New Mexico corporation (Sparton Technology) wishes to provide you with information concerning the progress of the current and planned environmental remediation activities at their former plant at 9621 Coors Road. Sparton Technology operated a defense electronics component manufacturing plant at this location from 1961 through 1994. In the late 1980's it was determined that several industrial solvents had impacted soil and groundwater. A series of investigations over the ensuing years detailed the nature and extent of the solvent contamination. Trichloroethylene (TCE), 1,1,1-trichloroethane (TCA) and lesser amounts of methylene chloride (MC), acetone, and 1,1-dichlorethylene (DCE) were the primary constituents impacting soil, soil gas, and groundwater. Groundwater sampling further indicated that these constituents had migrated off site up to one-half mile to the northwest of the plant. Various studies have indicated that the contaminant plume has not impacted any existing supply wells.

Sparton Technology began environmental remediation activities at the plant in 1983. In late 1988 Sparton installed a groundwater recovery and treatment system on site. During the next 10 years extensive investigation, installation of monitoring wells, and negotiations among various interested parties to establish appropriate remediation measures were undertaken. In 1998, additional remediation activities were implemented. All cleanup activities are now being implemented pursuant to the requirements reached between Sparton Technology, the United States Environmental Protection Agency, the City of Albuquerque, the Bernalillo County Commissioners, the New Mexico Environment Department, the New Mexico Attorney General's Office, and the New Mexico Office of the Natural Resources Trustee, as documented in a Consent Decree [CIV 97 0206 LH/JHG (D.N.M.)] dated March 3, 2000, which is filed with the U.S. District Court for the District of New Mexico. These remedial measures consisted of:

(a) The installation and operation of an off-site containment system;
(b) The operation of an on-site, 400-cfm Soil Vapor Extraction (SVE) system[1] for an aggregate period of one year;
(c) The installation and operation of a source containment system.

The goals of these remedial measures are:

(a) To control hydraulically the migration of the off-site plume;
(b) To reduce contaminant concentrations in vadose-zone[2] soils in the on-site area and thereby reduce the likelihood that these soils would contribute to any groundwater contamination;
(c) To control hydraulically any potential source areas that may be continuing to contribute to groundwater contamination at the on-site area;
(d) In the long-term, to achieve the performance standards described in the Consent Decree.

[1] The Soil Vapor Extraction system used a vacuum pump to remove vapors of contaminant from the soil pores above the zone of saturation.
[2] The vadose zone is that portion of the soil below the ground surface and above the zone of saturation.

The installation of the off-site containment system, consisting of a containment well, a treatment system, an infiltration gallery, and associated conveyance and monitoring components, began in late 1998 and was completed in early May 1999. The off-site containment well began operating on December 31, 1998. Except for a brief interruption in late April and early May 1999 to connect it to the treatment system and infiltration gallery, the well has been in operation since that date.

The 400-cfm SVE system began operation on April 10, 2000, and completed an aggregate of one full year of operation on June 15, 2001. Performance monitoring of the system was conducted in September and October, 2001.

Construction of the source (on-site) containment system began in February 2001 and was completed in December 2001.

Activities that occurred during 1999, 2000, and 2001 were reported in Fact Sheets that were prepared during each year and distributed after approval by the regulatory agencies. The purpose of this Fact Sheet is to provide an update and summary of activities that occurred during 2002 through 2006.

2002 - 2006 Activities: During this five-year period, considerable progress was made towards achieving the goal of the remedial measures:

- The off-site containment well was operated 98.4 percent of the time available during this period at a rate sufficient to contain the plume. The pumped water was treated and discharged to the infiltration gallery.

- The source containment well began operating on January 3, 2002 and was operated 97.0 percent of the time available between that date and the end of 2006. The pumped water was treated and discharged to the rapid infiltration ponds.

- Based on the results of performance monitoring, the SVE system was deemed to have met the termination criteria specified in the Consent Decree and was dismantled in May 2002.

- Groundwater monitoring was conducted as specified in Attachment A to the Consent Decree. Water levels in all accessible wells and/or piezometers, and the Corrales Main Canal were measured quarterly. Samples were collected for water-quality analyses from monitoring wells and from the influent and effluent of the air stripper at the frequency specified in the Consent Decree and applicable permits. Water samples were analyzed for TCE, DCE, TCA and total chromium.

- A groundwater flow and transport model that was developed in 1999 to simulate the hydrogeologic system underlying the site was recalibrated and adjusted each year, and used to simulate TCE concentrations in the aquifer from start-up of the off-site containment well in December 1998 through November 2006.

The off-site containment well operated at an average rate of about 223 gpm during this five-year period, preventing expansion of the contaminant plume throughout this period. A total of about 580 million gallons were pumped from the well during these five years. The total

volume of water pumped between the start of the well operation on December 1998 and the end of 2006 was about 920 million gallons.

The source containment well operated at an average rate of about 50 gpm during this five-year period, preventing the off-site migration of contaminants from the site throughout this period. A total of about 130 million gallons were pumped from the well between the start of its operation on January 3, 2002 and the end of 2006.

Thus, the total volume of water pumped during this five-year period by both the off-site and source containment wells was about 710 million gallons. This volume of pumped water represents about 62.6 percent of the initial volume of contaminated groundwater (pore volume). The total volume of water pumped by both wells between the start of the off-site containment well operation and the end of 2006 was about 1.05 billion gallons, and represents about 93 percent of the initial pore volume.

Approximately 2,890 kg (6,360 lbs) of contaminants consisting of about 2,720 kg (5,990 lbs) of TCE, 160 kg (350 lbs) of DCE, and 9.4 kg (21 lbs.) of TCA were removed from the aquifer by the off-site containment well during this five-year period. The total mass that was removed since the beginning of the off-site containment well operation was about 4,290 kg (9,460 lbs) consisting of about 4,060 kg (8,940 lbs) of TCE, 225 kg (500 lbs) of DCE, and 9.4 kg (21 lbs.) of TCA.

Approximately 200 kg (440 lbs) of contaminants consisting of about 170 kg (375 lbs) of TCE, 24 kg (53 lbs) of DCE, and 3.4 kg (7.5 lbs.) of TCA were removed from the aquifer by the source containment well during these first five years of its operation.

Thus, the total mass of contaminants removed from the aquifer during this five-year period by the off-site and source containment wells was about 3,090 kg (6,800 lbs) consisting of about 2,890 kg (6,360 lbs) of TCE, 180 kg (400 lbs) of DCE, and 13 kg (29 lbs) of TCA. The total mass of contaminants removed by both wells between the start of the off-site containment well operation on December 1998 and the end of 2006 was about 4,490 kg (9,900 lbs) consisting of about 4,230 kg (9,320 lbs) of TCE, 250 kg (550 lbs) of DCE, and 13 kg (29 lbs) of TCA. This represents about 61 percent of the contaminant mass estimated in 2006 as being dissolved in groundwater prior to the start of pumping from the off-site containment well.

While the mass of dissolved contaminants has been substantially reduced, as exemplified by the reduction of contaminant concentrations observed in most monitoring wells, the areal extent of the TCE plume, and hence the volume of contaminated groundwater, did not change significantly during these five years.

On January 6, 2005, USEPA/NMED approved a Work Plan for installation of a third deep flow zone monitoring well. From February 3, 2005 to October 5, 2005, Sparton representatives worked with the City of Albuquerque representatives to obtain an easement to access the monitoring well site. The easement was obtained, and the third deep zone monitoring well (well MW-79) was installed just west of the off-site containment well treatment building during January and February 2006. Groundwater samples taken from this well did not contain any contaminants related to the Sparton site. As per the USEP/NMED approved Work Plan, MW-79 will be sampled on a semi-annual frequency.

Future Plans: Data collection will continue in accordance with the Groundwater Monitoring Program Plan and site permits, and as necessary for the evaluation of the performance of the remedial systems. As additional data are being collected, calibration and improvement of the flow and transport model developed to assess aquifer remediation will continue.

The off-site containment system will continue to operate at the current average operating rate of 215 to 225 gpm.

The source containment system will continue to operate at the current average operating rate of 45 to 55 gpm.

Sparton, through its off-site containment system, has prevented further expansion of the ground water contaminant plume and has removed a considerable amount of mass from the plume. The source containment system, which became fully operational as of January 3, 2002 will continue to prevent contaminants that remain in the groundwater under the site from migrating off-site and thus accelerate the restoration of the aquifer at the off-site areas.

Copies of the Consent Decree and its associated remediation work plans as well as historical investigation/remedial work plans and reports submitted to the City, County, NMED, and EPA are available for review at the:

Taylor Ranch Public Library, (Telephone # 505 897-8816) located at:
5700 Bogart NW, Albuquerque, NM 87120.

City of Albuquerque Department of Public Works, (Telephone # 505 768-2561) located at:
One Civic Plaza NW, Albuquerque, NM 87103

New Mexico Environment Department
(Telephone # 505 428-2500) located at:
2905 Rodeo Park Drive East, Building 1, Santa Fe, NM 87505-6303

Alternatively, you may contact Mr. Tony Hurst, Sparton Technology's representative, at (303) 388-8613 or Ms. Susan Widener of Sparton Technology at (517) 796-0256.