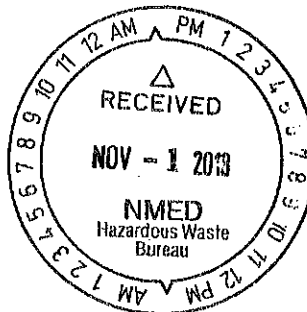




425 NORTH MARTINGALE ROAD, SUITE 1000  
 SCHAUMBURG, IL 60173  
 800.772.7866 847.762.5800  
 FAX 847.762.5820  
 WWW.SPARTON.COM



INDUSTRIES  
 MEDICAL & BIOTECHNOLOGY  
 MILITARY & AEROSPACE  
 INDUSTRIAL & COMMERCIAL

October 31, 2018

**Via Overnight mail (signature required)**

Ms. Anne Idsal  
 Regional Administrator  
 Environmental Protection Agency  
 Region 6  
 1445 Ross Avenue  
 Dallas, Texas 75202

Mr. Butch Tongate  
 Secretary  
 New Mexico Environment Department  
 Harold L. Runnels Building  
 1190 St. Francis Drive  
 Suite N4050  
 Santa Fe, New Mexico 87505

**FINANCIAL ASSURANCE TO PAY FOR WORK  
 UNDER THE CONSENT DECREE OF MARCH 2, 2000  
 IN CITY OF ALBUQUERQUE v, SPARTON TECHNOLOGY, INC., NO. CV-97-0206  
 (D.N.M.) (the "Consent Decree")**

Dear Ms. Idsal and Mr. Tongate:

Pursuant to Paragraph 90 of the above-referenced Consent Decree, Sparton Corporation submits the enclosed financial assurance in the form of a letter of credit and a standby trust agreement to cover payment of the work under the Consent Decree. The letter of credit (a copy is attached) -- No. HACH576326OS issued by BMO Harris Bank N.A. Chicago, dated October 26, 2018, in the amount of \$2,512,170.00 for the facility with an address of 9621 Coors Rd, NW, Albuquerque, Berhallilo County, New Mexico has already been sent to Ms. Idsal by the bank. In accordance with 40 C.F.R. § 264.143(d)(3)(i), an originally signed duplicate of the standby trust agreement is also being submitted with this letter to Ms. Idsal with a copy to Mr. Tongate.

In the past, pursuant to 40 CF.R. § 264.143(f)(10), Sparton Technology, Inc. ("Sparton Technology") has met its financial assurance requirements under the Consent Decree by obtaining and providing a corporate guarantee from its direct parent corporation, Sparton Corporation. However, due to certain one-time events during its just-closed fiscal year ended July 1, 2018, Sparton Corporation is not able to satisfy the financial test requirements in support of Sparton Technology's financial assurance. Sparton Corporation



expects that it will be able to meet the financial test requirements, and thus resume its corporate guarantee at the close of its 2019 fiscal year. Accordingly, pursuant to 40. C.F.R. § 264.143(d), Sparton Corporation is submitting a letter of credit and standby trust agreement on behalf of Sparton Technology.

The standby trust agreement names the Environmental Protection Agency as the Beneficiary of Trust. The New Mexico Environment Department ("NMED") cannot be named as a beneficiary because the wording of the trust agreement and form in 40 C.F.R. § 264.151(a) does not provide for naming NMED.

In accordance with Paragraph 90 of the Consent Decree, the estimated cost of the work is \$2,512,170 as explained in the enclosed letter from MWC Legal & Environmental Consulting.

Please contact either Jim Mahoney at 847.762.5828 or myself at 847.762.5800 should you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Joseph G. McCormack".

Joseph G. McCormack  
Senior Vice-President & Chief Financial Officer



Copies to:

United States Environmental Protection Agency – Region VI  
Technical Section (6EN-HX)  
Compliance Assurance and Enforcement Division  
1445 Ross Avenue  
Dallas, Texas 75202  
Attn: Sparton Technology, Inc., Project Coordinator (via Overnight Mail)

Director  
Water and Waste Management Division  
New Mexico Environment Department  
Harold L. Runnells Building  
1190 St. Francis Drive  
Santa Fe, New Mexico 87505 (via Overnight Mail)

Chief  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6313 (via Overnight Mail)

Chief  
Groundwater Quality Bureau  
New Mexico Environment Department  
Harold L. Runnells Building  
1190 St. Francis Drive  
Suite N2250  
Santa Fe, New Mexico 87505 (via Overnight Mail)

**TRUST AGREEMENT CREATING THE SPARTON CORPORATION  
STANDBY FINANCIAL ASSURANCE TRUST**

This Trust Agreement, the "Agreement," is entered into as of October 17, 2018 by and between Sparton Corporation, an Ohio Corporation, the "Grantor," and U.S. Bank National Association., the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility, which are applicable to Sparton Technology, Inc., the subsidiary of Grantor, pursuant to the consent decree styled *The City of Albuquerque, et al. v. Sparton Technology, Inc.*, Civil Action No. CIV 97 0206 LH/JHG pending in the United States District Court for the District of New Mexico ( the "Consent Decree"),

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facility identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

*Section 1. Definitions.* As used in this Agreement:

(a) The term "Grantor" means Sparton Corporation who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

(c) The term "EPA Regional Administrator" means the Regional Administrator for EPA Region VI or his designee.

*Section 2. Identification of Facilities and Cost Estimates.* This Agreement pertains to the facility and cost estimates identified on attached Schedule A.

*Section 3. Establishment of Fund.* The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by

the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

*Section 4. Payment for Work Under the Consent Decree.* The Trustee shall make payments from the Fund as the EPA Regional Administrator shall direct, in writing, to provide for the payment of the costs of the work under the Consent Decree for the facility covered by this Agreement, upon a demonstration satisfactory to the Trustee that Grantor has failed to faithfully perform work in accordance with the Consent Decree. The Trustee shall reimburse the Grantor from the Fund for expenditures in connection with work under the Consent Decree in such amounts as the EPA Regional Administrator shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

*Section 5. Payments Comprising the Fund.* Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

*Section 6. Trustee Management.* The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; *except that:*

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government:

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

*Section 7. Commingling and Investment.* The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed,

underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

*Section 8. Express Powers of Trustee.* Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

*Section 9. Taxes and Expenses.* All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

*Section 10. Annual Valuation.* The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

*Section 11. Advice of Counsel.* The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

*Section 12. Trustee Compensation.* The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

*Section 13. Successor Trustee.* The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

*Section 14. Instructions to the Trustee.* All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrator, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions, and this Agreement. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

*Section 15. Notice of Nonpayment.* The Trustee shall notify the Grantor and the appropriate EPA Regional Administrator, by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

*Section 16. Amendment of Agreement.* This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional

Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

*Section 17. Irrevocability and Termination.* Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist, or by notice from the Grantor that it has provided alternate financial assurance as authorized under 40 CFR Part 264, Subpart H. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

*Section 18. Immunity and Indemnification.* The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

*Section 19. Choice of Law.* This Agreement shall be administered, construed, and enforced according to the laws of the State of Illinois.

*Section 20. Interpretation.* As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 264.151(a)(1) as such regulations were constituted on the date first above written except where the language as been changed to clarify that Sparton Corporation is establishing this Trust Agreement for Sparton Technology, Inc, as alternate financial assurance under the referenced Consent Decree and to clarify the obligations of the Trustee.



Sparton Corporation

By: Joseph G. McCormack  
Joseph G. McCormack  
Senior Vice President and Chief Financial Officer

Attest: Robert Grimm  
Robert Grimm  
Director, Finance Business Segments

U.S. Bank National Association

By: Patricia M. Trlak  
Patricia M. Trlak  
Vice President  
Attest: J. Miller  
Vice President

State of Illinois

County of Cook

On this \_\_\_\_\_ [date], before me personally came \_\_\_\_\_  
to me known, who, being by me duly sworn, did depose and say that she/he resides at  
\_\_\_\_\_ [address], that she/he is \_\_\_\_\_ [title] of  
Sparton Corporation, the corporation described in and which executed the above instrument; that  
she/he knows the seal of said corporation; that the seal affixed to such instrument is such  
corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and  
that she/he signed her/his name thereto by like order.

Lori A. McGuire  
[Signature of Notary Public]



## SCHEDULE A

The facility is the land and improvements including all buildings currently owned by Sparton Technology, Inc. and located at 9621 Coors Road, NW, Albuquerque, Bernalillo County, New Mexico.

The current cost estimate for work under the Consent Decree is \$ 2,512,170.00

The persons that are designated to sign any written orders, requests, and instructions by the Grantor to the Trustee are:

Joseph G. McCormack  
Senior Vice President and Chief Financial Officer

Steven M. Korwin  
Senior Vice President, Quality and Engineering

SCHEDULE B

Letter of Credit No. HACH576326OS in the amount of \$2,512,170.00.

EXHIBIT A

The persons that are designated to sign any written orders, requests, and instructions by the Grantor to the Trustee are:

Joseph G. McCormack  
Senior Vice President and Chief Financial Officer

Steven M. Korwin  
Senior Vice President, Quality and Engineering

STANDBY LETTERS OF CREDIT  
C/O Bank of Montreal  
250 Yonge Street, 11th Floor  
Toronto, Ontario M5B 2L7  
Tel: 1-877-801-0414  
Fax: 1-877-801-7767  
SWIFT: HATRUS44

DOCUMENTARY COLLECTIONS  
C/O Bank of Montreal  
250 Yonge Street, 11th Floor  
Toronto, Ontario, M5B 2L7  
Tel: 1-888-258-6378  
Fax: 1-888-258-0380  
SWIFT: HATRUS44

**Irrevocable  
Standby Letter of Credit No.: HACH576326OS**

Date Issued: October 26, 2018

Beneficiary:  
United States Environmental Protection Agency  
Fountain Place, Suite 1200  
1445 Ross Avenue  
Dallas, TX 75202-2733  
Attn: Anne Idsal  
Regional Administrator  
Region 6

Applicant:  
Sparton Corporation  
425 N. Martingale Rd, Suite 1000  
Schaumburg, IL 60173-2213

Amount: Two Million Five Hundred Twelve Thousand One Hundred Seventy and 00/100's United States Dollars (USD2,512,170.00)

Expiry Date: October 25, 2019

We hereby establish our Irrevocable Standby Letter of Credit No. HACH576326OS in your favor, at the request and for the account of Sparton Corporation on behalf of Sparton Technology, Inc., up to the aggregate amount of Two Million Five Hundred Twelve Thousand One Hundred Seventy and 00/100's United States Dollars (USD2,512,170.00), available upon presentation of:

- (1) Your signed draft, bearing reference to this Letter of Credit No. HACH576326OS, and
- (2) Your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Resource Conservation and Recovery Act of 1976, as amended, because Sparton Technology, Inc. is financially unable to execute its corrective action responsibilities under the Consent Decree in Civil Action No. CIV 97 0206 LH/JHG in the United States District Court for the District of New Mexico."

This Letter of Credit is effective as of October 26, 2018 and shall expire on October 25, 2019, but such expiration date shall be automatically extended for a period of 1 year on October 25, 2019 and on each successive expiration date, unless, at least 120 days before the then current expiration date, we notify you by certified mail or overnight courier service, return receipt requested, that we have decided not to extend this letter of credit beyond the then current expiration date. In the event you are so notified, any unused portion of the letter of credit shall be available upon presentation of your sight draft to us prior to the then expiration date.

Whenever this Letter of Credit is drawn on under and in compliance with the terms of this Letter of Credit, we shall duly honor such draft upon presentation to us and we shall effect payment in accordance with your instructions.

We have been advised by the Applicant that this Letter of Credit is issued to provide financial assurance to United States Environmental Protection Agency as specified in 40 CFR 264.151(d) as such regulations were constituted on the date shown above.

This Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (2007 Revision), International Chamber of Commerce Publication No. 600 (the "UCP 600") and as to matters not covered by the UCP 600 this Letter of Credit will be subject to the Uniform Commercial Code of Illinois



Signing Officer

  
Authorized Signing Officer

**MARINA RADMAN**

**MWC Legal & Environmental Consulting**  
**5427 Windham Springs Court**  
**Houston, Texas 77041**  
**mjcheesman@aol.com**  
**Phone: 361-929-6029**

July 22, 2018

Mr. Ernesto Martinez  
Corporate EHS Manager  
30167 Power Line Road  
Brooksville, FL 34602

Re: Sparton Technology, Inc.  
Albuquerque, New Mexico  
Coors Road Facility Financial Assurance Estimate

Dear Mr. Martinez:

MWC Legal & Environmental Consulting is pleased to provide the attached estimate of financial assurance to be included in the submission by Sparton Technology, Inc. (Sparton) to the Environmental Protection Agency (EPA) and New Mexico Environmental Department (NMED) per Section XXIV, Paragraph 90, of the March 3, 2000 Consent Decree and meets the requirements for cost estimates for closure found under 40 CFR §264.142. The attached estimate of \$2,512,170 is based on an effective value date on July 1, 2018, which is consistent with Sparton's, fiscal year-end and also the RCRA regulatory requirements. This estimate is \$ 306,670 lower than the previous estimate provided to Sparton on July 24, 2017. There were two items reducing the estimate; completion of another year, for a total of 19 of the 30 years of projected time for closure operations and a decrease in electricity cost estimated for the off-site and source containment systems. The estimated contribution for the most recently completed fiscal year was \$417,520 for expenses while the electricity decrease was \$51,700. Increases impacting the estimate include adding another year chromium treatment system operating cost, including additional O&M cost every 3 years for removal of solids from the Source Containment piping, and plugging, abandoning and replacing MW-62, the total being \$162,700. The modifications made as part of the update of the financial assurance estimate, are described both below and in the attached estimate as notes of the changes made. (See Attachment 1 – 11 Year Summary) As in past years, electricity costs were adjusted based on the previous year's actual costs; in this case FY2018.

The starting point for this update was the estimate provided to Sparton on July 24, 2017 with adjustments made to reflect an estimated effective value as of the end of FY2018, July 1, 2018, covering the project through the estimated remaining life of 11 years. Mr. Joseph Lerczak was contacted as part of this update and he provided information, including actual expenses incurred in FY2018 and the 2017 Annual Report, on operations of the systems at the Coors Road Facility. The NMED Corrective Action Fund contractor fee schedule, found under 20.5.17.32.A NMAC, was most recently increased in November, 2011 and was used for

- The average cost of electricity incurred during FY2018 was used to estimate future expenditures. These changes decreased total electricity costs for the remaining 11 years of the project by \$51,700. The Off-Site Containment decreased \$13,200 while the Source Containment Systems decreased \$38,500.
- Chromium levels in the on-site air stripper treatment system exceeded acceptable levels, as noted in the discharge permit. During the second half of 2013. Sparton, working with NMED and EPA installed a chromium treatment system (ion exchange) on a slip stream of the source containment. This estimate expects operation of this treatment system for a total of 5 years, which is one year longer than the most probable estimate in last year's update. The extra year of operation accounts for an increase of \$103,950.
- Solids consistently build up in the piping associated with the Source Containment system requiring a clean out once every 3 years in order to maintain recovery flow. This cost was recognized and included in the update for fiscal years 2021, 2024 and 2027 for a total increase of \$32,100.
- During sampling of MW-62 the bailer became lodged in the well and attempts to recover failed. Sparton proposed plugging and abandoning MW-62 and using instead MW-47. This was rejected by the agency which required replacement of MW-62 in FY2019. The estimate includes \$1,650 to plug and abandon MW-62 and \$25,000 for MW-62R.

Based on the information obtained, original assumptions are still valid, except as noted above, with respect to the end date (FY2029), expected operations and maintenance of various containment systems, project management, closure costs, and other costs associated with evaluation and recommendations.

It has been my pleasure assisting Sparton Corporation with this matter. If you should have questions, please feel free to contact me at 361-929-6029.



Mark W. Cheesman, J.D.  
Principal

cc: Mr. Joseph Lerczak



**11 Year Summary**  
*Attachment 1*

*July 22, 2018*  
*Sparton Technology, Inc.*

**MWC Legal & Environmental Consulting**  
5427 Windham Springs Court  
Houston, Texas 77041  
(361) 929-6029

Sparton Technology, Inc.  
Coors Rd. Facility  
Albuquerque, New Mexico  
Fiscal Year 2019  
11 Year Summary

| Changes |  |                                       |     |        |      |                          |        |         |         | 2019                      | 2020-2024 | 2025-2029   | Totals    |                 |
|---------|--|---------------------------------------|-----|--------|------|--------------------------|--------|---------|---------|---------------------------|-----------|-------------|-----------|-----------------|
| Notes   | O&M Expenditures                                       | Material and Service Expenditures (t) |     |        |      | Labor Expenditures (5,s) |        |         |         | TOTAL TYPICAL ANNUAL COST |           |             |           |                 |
|         | <b>Offsite Containment II</b>                          |                                       |     |        |      |                          |        |         |         |                           | \$191,010 | \$435,300   | \$0       | \$626,310       |
|         | Permits / Licenses                                     |                                       |     |        |      |                          |        |         |         |                           |           |             |           |                 |
|         | Pipeline Easement                                      | LS                                    | 1   | 500    | 0%   |                          |        |         |         | 500                       | 500       | 2500        | 0         |                 |
|         | Arroyos Easement                                       | LS                                    | 1   | 3,000  | 0%   |                          |        |         |         | 3000                      | 3000      | 15000       | 0         |                 |
| 1       | Operate System - Power (45hp) & Utilities              | Month                                 | 12  | 2,867  | 3400 | 10%                      |        |         |         | 37800                     | 37800     | 189000      | 0         |                 |
|         | Influent/Effluent Sampling                             | Sample                                | 24  | 150    | 360  | 10%                      |        |         |         | 3960                      | 3960      | 19800       | 0         |                 |
|         | O&M - Equipment (a)                                    | Month                                 | 12  | 1,500  | 1800 | 10%                      |        |         |         | 19800                     | 19800     | 99000       | 0         |                 |
|         | O&M - Labor (b)  |                                       |     |        |      |                          | 270    | 74.00   | 2020.00 | 10%                       | 22000     | 22000       | 110000    | 0               |
|         | Ground water monitoring - see below                    |                                       |     |        |      |                          |        |         |         |                           |           |             |           |                 |
| 3       | O&M - Chromium Treatment (u)                           | Periodic                              | 12  | 7,000  | 8400 | 10%                      | 108    | 74.00   | 808.00  | 10%                       | 101200    | 101200      | 0         | 0               |
| 4       | Sampling & Analysis for Chromium Treatment (v)         | Sample                                | 36  | 20     | 80   | 11%                      | 24     | 74.00   | 174.00  | 10%                       | 2750      | 2750        | 0         | 0               |
|         | <b>Source Containment</b>                              |                                       |     |        |      |                          |        |         |         |                           | \$76,210  | \$327,450   | \$316,750 | \$720,410       |
| 2       | Operate System - Power                                 | Month                                 | 12  | 1,892  | 2300 | 10%                      |        |         |         |                           | 25000     | 25000       | 125000    | 125000          |
|         | Influent/Effluent Sampling                             | Sample                                | 24  | 150    | 360  | 10%                      |        |         |         | 3960                      | 3960      | 19800       | 19800     |                 |
| 5       | O&M - Equipment (a)                                    | Month                                 | 12  | 775    | 900  | 10%                      |        |         |         |                           | 10200     | 10200       | 61200     | 56100           |
| 5       | O&M - Labor (b)  |                                       |     |        |      |                          | 137    | 74.00   | 1062.00 | 10%                       | 11200     | 11200       | 67200     | 61600           |
|         | Lease of water rights                                  | LS                                    | 1   | 850    | 0%   |                          |        |         |         | 850                       | 850       | 4250        | 4250      |                 |
| 5       | Well Replacement/Deepening (j)                         | Periodic                              | 1   | 45,000 | 5000 | 11%                      |        |         |         |                           | 50000     | 25000       | 50000     | 50000           |
|         | <b>Deep Flow Zone (DFZ) Monitoring Well MW-79 (r)</b>  |                                       |     |        |      |                          |        |         |         |                           |           |             |           |                 |
|         | Complete   |                                       |     |        |      |                          |        |         |         |                           |           |             |           |                 |
|         | Evaluation, Analysis & Recommendation                  |                                       |     |        |      |                          |        |         |         |                           | \$61,050  | \$338,250   | \$321,750 | \$721,050       |
|         | Quality Check (c)                                      |                                       |     |        |      | 20                       | 80.00  | 200.00  | 13%     | 1800                      | 1800      | 9000        | 9000      |                 |
|         | Aquifer Model (Estimate) (d)                           |                                       |     |        |      | 150                      | 100.00 | 1500.00 | 10%     | 16500                     | 0         | 33000       | 16500     |                 |
|         | Annual Reports (e)                                     |                                       |     |        |      | 50                       | 80.00  | 400.00  | 10%     | 4400                      | 4400      | 22000       | 22000     |                 |
|         | Ground Water Monitoring and Sampling                   |                                       |     |        |      |                          |        |         |         |                           |           |             |           |                 |
|         | Data Collection and Sampling (f)                       |                                       |     |        |      | 320                      | 74.00  | 2420.00 | 10%     | 26100                     | 26100     | 130500      | 130500    |                 |
|         | Sampling Equipment (g)                                 | Sample                                | 100 | 44.00  | 450  | 10%                      |        |         |         | 4850                      | 4850      | 24250       | 24250     |                 |
|         | Analysis (Lab Costs) (h)                               | Sample                                | 100 | 190    | 2000 | 11%                      |        |         |         | 21000                     | 21000     | 105000      | 105000    |                 |
|         | QA/QC and Data Analysis (i)                            |                                       |     |        |      | 26                       | 100.00 | 300.00  | 12%     | 2900                      | 2900      | 14500       | 14500     |                 |
|         | Analysis of Additional Modeling Information - Complete |                                       |     |        |      | 180                      | 100.00 | 1800.00 | 10%     | 19800                     | 0         | 0           | 0         |                 |
|         | <b>Closure</b>   |                                       |     |        |      |                          |        |         |         |                           | \$1,650   | \$0         | \$116,050 | \$117,700       |
| 6       | Plug and Abandon 65 wells                              | Well                                  | 64  | 1,500  | 9600 | 10%                      |        |         |         | 105600                    | 1650      | 0           | 105600    |                 |
|         | Remove Piping (LS)                                     |                                       |     |        |      |                          |        |         |         |                           | 2200      | 0           | 2200      |                 |
|         | Closure Certification Report (k)                       |                                       |     |        |      | 60                       | 125.00 | 750.00  | 10%     | 8250                      | 0         | 0           | 8250      |                 |
|         | Soil Sampling at Infiltration Galleries (l)            |                                       |     |        |      |                          |        |         |         |                           |           |             |           |                 |
|         | <b>Project Management</b>                              |                                       |     |        |      |                          |        |         |         |                           | \$29,700  | \$148,500   | \$148,500 | \$326,700       |
|         | Management (m)   |                                       |     |        |      | 170                      | 100.00 | 1700.00 | 10%     | 18700                     | 18700     | 93500       | 93500     |                 |
|         | Data Tabulation (n)                                    |                                       |     |        |      | 25                       | 100.00 | 250.00  | 10%     | 2750                      | 2750      | 13750       | 13750     |                 |
|         | Monthly Reporting (o)                                  |                                       |     |        |      | 25                       | 100.00 | 250.00  | 10%     | 2750                      | 2750      | 13750       | 13750     |                 |
|         | Annual Reporting (p)                                   |                                       |     |        |      | 50                       | 100.00 | 500.00  | 10%     | 5500                      | 5500      | 27500       | 27500     |                 |
|         | <b>Total O&amp;M Expenditure</b>                       |                                       |     |        |      |                          |        |         |         |                           | \$359,620 | \$1,249,500 | \$903,050 | \$2,512,170     |
|         | <b>Summary</b>   |                                       |     |        |      |                          |        |         |         |                           |           |             |           |                 |
|         | Total O&M Expenditure                                  |                                       |     |        |      |                          |        |         |         |                           | \$359,620 | \$1,249,500 | \$903,050 | \$2,512,170 (q) |

**Changes made from FY2018 Estimate:**

1. Offsite Containment O&M Expenditures to operate system - Power & Utilities has decreased from \$3,035/unit to \$2,867/unit with an annual contingency of \$3,400  
This was based on using the average monthly actual electricity cost in FY2018 adjusted for operating 100% of the time.
2. O&M Expenditures to Operate System - Power has decreased from \$2,158/unit to \$1,892/unit with contingency of \$2,300 based on average FY2018 monthly actual electricity costs, adjusted for operating 100% of the time.
3. Chromium Treatment for 1 more year. Decreased changes to one per month at a cost of \$7000 plus 10% contingency and reduced labor accordingly.
4. Decreased sampling to 36 samples per year at \$20 per sample to reflect monthly versus every 3 week change outs.
5. Reflects solids build up on piping. Provided for an increase in O&M costs on a 3 year period; 2021, 2024 and 2027 for system clean-out.
6. Plug and abandon MW-62 in FY2019 and replace with MW-62R per 2017 Annual Report.

**Notes**

- (a) The equipment cost of \$19,800 per year each for offsite systems and \$10,200 per year for the onsite system no longer includes money to replace wells. Replacement of wells is now a separate line item (see (j) below).
- (b) Labor cost for operation and maintenance of the containment systems (off-site and source) assumes \$74/hour plus a minimum contingency of 10%. The labor requirement assumes performing routine inspection on each of the two systems an average of 3 hours per week for the offsite and 2.25 hours per week for the onsite, not including 15 minute inspections each week included in sampling labor. This is consistent with past experience and the experience of Sparton. The inspection and monitoring program will entail checking and recording information related to the status of the system. The parameters that will be monitored are listed in Appendix K of the System O&M Manual. Included 114 hours of labor for off-site containment equipment and 20 hours for source containment equipment due to age. For years 2021, 2024 and 2027 increased O&M cost to reflect experience with solids build-up and need to clean out to maintain rates.
- (c) Quality Check entails additional evaluation of previously collected analytical data, resulting in 20 hours of work annually for a staff scientist (\$80/hour) plus a minimum of 10% contingency.
- (d) Aquifer Modeling will be done every 3 years with next update in 2018 at 150 hours per update. Modeling will be executed by a Project Scientist (\$100/hr) plus 10% contingency.
- (e) The preparation of annual reports includes performance evaluation. Due to the data generated throughout the process, with costs contained in other sections of the budget (i.e. modeling, data analysis, etc.), 50 hours annually are allocated to prepare the Annual Report for a Staff Engineer (\$80/hour). A minimum of 10% contingency and additional review by a Senior Engineer are included in a total contingency not to exceed \$700.00.
- (f) Data collection for 55 wells and sampling for the 55 wells (100 total samples) located both on and off-site require 320 hours annually for a field technician (\$74/hour), plus a minimum of 10% contingency.
- (g) Assumes 40 days for rental of pH/specific conductance/temperature meter (\$70/day), water level indicator (\$30/day), disposable bailers (\$4/day), miscellaneous equipment (gloves, tape, replacement drums, etc., \$6/day), which averages about \$44.00/sample.
- (h) Number of samples based on 55 wells, some sample annually, other semi-annually and others quarterly for a total of 100 samples.
- (i) Quality Assurance and Control of data analysis results consists of 1 hour every other week for a Project Engineer (\$100/hour) plus a minimum of 10% contingency.
- (j) Includes a line item for new or replacement wells. Estimated cost of \$50,000 with first being MW-80 in FY2011 and 1 every 5 years thereafter. Exception is MW-62R in FY2019.
- (k) Closure Certification Report entails compiling historical data and a written analysis of 30 years of progress, as a result of the remedial actions, by a Senior Engineer (\$125/hour) plus a minimum of 10% contingency.
- (l) Task to be completed only if significant exceedances of discharge limits occur, thus no expenditure is anticipated. If this expenditure is required, the contingency for closure is ample to cover the anticipated sampling cost (\$1000).
- (m) "Management" consists of meetings with agency representatives, consultants and individuals from Sparton Technologies, in addition to handling routine administrative tasks. the total estimate for these tasks is 170 hours per year.
- (n) "Data Tabulation" is assumed to be on a quarterly basis for about 6 hours per quarter.
- (o) "Monthly Reporting" is assumed to be about 2 hours per month.
- (p) "Annual Reporting" is assumed to be 50 hours annually.
- (q) Total includes contingency.
- (r) New deep flow zone well was installed and tested in FY2006 with data analysis completed in 2008. Sampling and O&M costs included above.
- (s) Labor rates per August, 2011 (most current version) update of 20.5.17.32 NMAC Contractor Fee Schedule for maximum hourly rates for professional services.
- (t) Field equipment rates per August 2011 (most current version) update of 20.5.17.32 NMAC for field equipment.
- (u) Chromium treatment ion exchange resin replacement/regeneration 12 times per year at a cost of \$7000 each. 108 hours of field technician time for system O&M. Total includes 10% contingency.
- (v) 36 additional samples at a cost of \$20 per sample. Field technician time of 24 hours per year. Total includes 10% contingency.