



PUREFLOW FILTRATION DIV.  
 6739 Washington Ave., P.O. Box 469, Whittier, Ca 90608-0469  
 (800) 926-3426 • (562) 945-3425  
 FAX (562) 693-5257  
 info@pfdiv.com • www.pfdiv.com

## QUOTATION

TO: City of San Luis, AZ  
 1090 E. Union St., P.O. Box 3750  
 San Luis, AZ 85349

PAGE: 1 of 1  
 DATE: March 16, 2016  
 QUOTE NO.: P1603270

ATTENTION: Oscar Lara

SUBJECT: Replacement filter media  
 three (3) filters.

TELEPHONE: (928) 201-7931

REFERENCE: City of San Luis, AZ  
 \Well #3

EMAIL: olara@cityofsanluis.org

**WE ARE PLEASED TO OFFER OUR QUOTATION ON THE FOLLOWING**

### DESCRIPTION

ITEM	QTY	DESCRIPTION	PRICE	EXTENDED
1	3	Complete filter media load for one (1) 42" diameter x 60" straight side shell vertical filter, as follows: support gravel; garnet; Pureflow PM200M catalytic adsorptive media; and anthracite. Inspection during installation of media and start-up instructions included.	\$ 6,830.00	\$ 20,490.00

Price includes freight to San Luis, AZ

Term: See below

Note: Media removal and replacement quotation to follow.

*Represented by REACO Associates LLC  
 18011 W Marshall Ct. Litchfield Park, AZ 85340  
 623-377-6249 Chuck@ReacoAssociates.com*

### NOTE: PRICE DOES NOT INCLUDE ANY TAX UNLESS SPECIFICALLY NOTED

TERMS: 50% deposit with order  
 Balance due upon delivery of items purchased

APPROX. DATE OF SHIPMENT: 4 - 5 weeks

EST. SHIPPING WEIGHT: T.B.D.

F.O.B.: San Luis, AZ

PUREFLOW FILTRATION DIV.

By:

Archie MacDonald

Please sign and return original copy.  
 Retain duplicate copy for your records.

ACCEPTED BY: \_\_\_\_\_

Title

**IMPORTANT** • Prices specified herein are exclusive of all taxes unless specifically noted.  
 • This proposal is subject to all terms and conditions printed on face and reverse side.

### ORIGINAL-PLEASE SIGN AND RETURN

White - Original Please sign and return 2nd White - Customer Copy Retain for your records Yellow - Representative Copy Pink - Pureflow Copy

**PUREFLOW FILTRATION DIV.  
QUOTATION  
STANDARD TERMS AND CONDITIONS OF SALE**

1. **AGREEMENT.** The terms and conditions set forth below and on the front side hereof constitute the entire Agreement between the customer named on the front side hereof ("Buyer") and Pureflow Filtration Div., a division of California Environmental Controls, Inc., a California corporation ("Seller").
2. **TERMS OF SALE.** (a) **TAXES:** Unless specifically provided on the front side hereof, prices specified herein on the Goods are exclusive of all local, state, and federal taxes including without limitation taxes on manufacturing, sales, receipts, gross income, occupation, use and all similar taxes, or other taxes of any nature. Wherever applicable, such taxes will be invoiced as a separate charge which Buyer agrees to pay the Seller. (b) **TERMS OF PAYMENT:** Net cash due upon receipt of invoice, unless noted on front side of this quotation, to approved credit accounts. The Buyer agrees to pay Seller an additional charge of one and one-half percent (1 and 1/2%) per month (or such lesser amount equal to the maximum rate permitted by law) on any invoices not paid according to these terms. (c) **SECURITY INTEREST:** Until payment in full of the purchase price herein specified, Seller reserves a security interest in the goods securing payment of such purchase price. (d) **DELIVERY:** Prices quoted are f.o.b. point of origin of shipments unless shipping is specifically included in price offered on front page. Prices include domestic packing for rail or commercial shipments only. Shipment and delivery dates are estimates based upon schedules of Seller's suppliers and are computed from the time of settlement of all details and receipt of full approval of drawings where drawing approval is required. (e) **Field Supervision:** Unless specifically provided on the front side hereof, no installation assistance or field supervision by Seller is included in the terms and conditions of this Agreement.
3. **ENTIRE AGREEMENT.** This agreement supersedes all previous representations, statements, promises, agreements or understandings, written or otherwise. This Agreement is intended by the parties as a final expression of their understanding and no casual or prior dealings shall be relevant to explain any of the terms or conditions hereof. The Seller shall not be bound by any agent's or employee's representations, promises, statements or inducements not set forth in the Agreement, if any inconsistency exists between any typed or handwritten materials on the front hereof and these Standard Terms and Conditions, the former shall be controlling.
4. **ACCEPTANCE.** This quotation is an offer upon the terms and conditions herein specified. Acceptance by the Buyer may be effected by signing a copy of this quotation where specified and returning same to the Seller, or by the Buyer issuing a purchase order and delivering same to the Seller, which shall constitute Buyer's acceptance of this quotation and all of the terms and conditions herein specified. Acceptance of this offer is limited to its terms. Acceptances or confirmation which state additional or different terms from this offer shall be operative as acceptances; provided, however, that all such additional or different terms shall be deemed material alterations within the meaning of Section 2207 (2) (b) of the California Commercial Code, and notice of objection to them pursuant to Section 2207 (2) (c) of the California Commercial Code is hereby given.
5. **CANCELLATION.** Orders may be cancelled by the Buyer only with Seller's written consent and upon payment of reasonable and proper cancellation charges, including factory costs and expenses.
6. **INSPECTION.** Buyer agrees to inspect the goods, supplies, merchandise and material covered hereby ("Goods") immediately upon their receipt by Buyer, secure a written acknowledgement from the delivering carrier as to any loss or damage and within three (3) business days of their receipt and to give written notice to the Seller of any claim that the Goods do not conform with the terms of the Agreement. Failure to make such a claim within the stated period shall constitute an irrevocable acceptance of the Goods and an admission that they fully comply with all of the terms and conditions of the Agreement. Buyer expressly waives any right it may have to revoke acceptance after such three (3) day period.
7. **DELAYS.** Seller shall not be liable for any delays or failures in making shipments or deliveries caused by any contingency beyond Seller's control, or the control of Seller's suppliers or manufacturers, including without limitation, delays or delays brought about by, caused by or in any manner arising from (i) labor conditions including strikes and shortages of labor, (ii) shortages of fuel, power, material or supplies, (iii) transportation failures, (iv) acts of God, fires, floods or weather problems, (v) damage to, or destruction in whole or in part of Goods, vehicles or manufacturing plants, (vi) accidents, or (vii) riots, government interference, embargos, regulations, war, insurrection or terrorist acts. The non-occurrence of the above contingencies with respect to Seller, its suppliers and manufacturers is a basic assumption of this agreement.
8. **DELAY IN INSTRUCTIONS.** Buyer agrees to furnish complete shipping instructions in such a manner as to reach the Seller at its main office ten (10) days before the date for any shipment specified herein. Buyer's failure to so furnish complete shipping instructions shall, without notice, automatically extend the shipping date from day to day until the Buyer furnishes complete shipping instructions, or until the Seller exercises its right to terminate the Agreement.
9. **RISK OF LOSS.** Unless Buyer and Seller specifically agree in writing to modify the terms of Paragraph 2, (d), above, all risk or loss shall pass to the Buyer when the Goods are delivered by Seller to the carrier. In the event that Buyer and Seller agree in writing that the Goods are sold f.o.b. destination, Seller's responsibility for loss or damage terminates upon tender of delivery to Buyer by the carrier and the written acknowledgement and claims procedure provided for in Paragraph 5, above, shall be a precondition to any claim by Buyer for loss of damage in transit.
10. **RETURNS.** In no case are any Goods to be returned to Seller without first obtaining the written permission of Seller, which permission Seller may refuse to give at Seller's sole discretion. Only standard unused Goods as currently manufactured or inventoried by Seller which have been invoiced to Buyer within the previous ninety (90) days will be considered by Seller for return. Special items manufactured to order may not be returned under any circumstances. Goods which Seller accepts for return and credit will, in any event, be subject to a minimum handling and service charge of 25% plus all transportation charges. All returned Goods, if Seller accepts the return thereof, must in any case be securely packaged and shipped, freight prepaid, and the risk of loss shall remain with Buyer until the Seller actually receives the Goods.
11. **DEFAULTS.** In the event Buyer fails to comply with any of the terms of the Agreement; or becomes bankrupt or insolvent or Buyer's financial condition becomes impaired or unsatisfactory to Seller, Seller may do any or all of the following: (a) Terminate the Agreement upon written notice thereof to Buyer without prejudice to Seller's rights to receive any amount then due under the Agreement; (b) Withhold all further deliveries under the Agreement; (c) require that Buyer pay for all future shipments in advance or provide other satisfactory security or guarantees to Seller that all existing and future invoices will be paid on or before their due dates; (d) Make partial shipments only to Buyer, which Buyer agrees to accept; (e) Recall any Goods then in transit and retake the same and repossess all Goods which may be stored with Seller in which case Buyer consents that all Goods so recalled, retaken or repossessed shall become the absolute property of Seller, provided that Buyer is given full credit therefor; (f) Upon written notice to Buyer revise the stated credit terms, if any, contained in this Agreement; (g) Without limitation, exercise any rights or remedies available to Seller under the Uniform Commercial Code as in force and effect on the date of the Agreement; or (h) Without limitation, exercise any other rights or remedies available to Seller under any applicable federal, state or local law.
12. **ATTORNEY'S FEES.** In the event of a default by Buyer of any of the terms or conditions of the Agreement, Buyer agrees to pay all costs of collection and enforcement incurred by Seller including, without limitation, Seller's reasonable attorney's fees and court costs.
13. **RETENTION LIMITATION** Retention, if any is accepted by Pureflow Filtration Div., shall be limited to a maximum of ten percent (10%) of the contract price. All monies retained shall be paid, in full, upon successful "start-up" of the equipment supplied, or ninety (90) days after shipment of said goods, whichever date first occurs. The payment of monies retained under the terms of this paragraph is not conditioned upon any factors, issues, events or contingencies which are not specifically delineated in this quotation. The right of Pureflow Filtration Division to payment is NOT subject to any payment provisions enforced upon Buyer by the terms of any other contract with either Pureflow or a third party.
14. **CONSEQUENTIAL / LIQUIDATED DAMAGES.** The Buyer agrees that notwithstanding the form in which any legal or equitable action, proceeding or position may be brought or asserted by Buyer against Seller including without limitation claims based upon actual or alleged delays or breaches of warranty, that Seller's liability, if any, arising out of or in any way related to this Agreement, shall be limited to actual money damages in an amount not to exceed the total amount actually paid for the Goods by Buyer. Buyer further agrees that seller shall not, in any event, be liable for indirect, special, consequential or liquidated damages or penalties, whether based upon contract, warranty, tort, or negligence.
15. **PROPRIETARY MATERIAL.** All drawings, patterns, specifications, and information included in this proposal, and all information otherwise supplied by Pureflow Filtration Div. relating to the design, erection, operation, and maintenance of the goods, including filter media and all treatment processes, is the proprietary and/or confidential material or information of Pureflow Filtration Div. Purchaser shall not disclose such material or information to others or allow others to use such material or information without express written permission from an officer of Pureflow Filtration Div.
16. **GOVERNING LAW / CONSENT TO JURISDICTION:** (a) The terms and conditions set forth herein shall be construed under and in accordance with the laws of the State of California. The parties hereto consent to the jurisdiction and venue of any court of general jurisdiction in the Southeast District of Los Angeles County and the United States District Court for the Central District of California; with respect to any proceedings arising out of or in connection with the Agreement or any purchase hereunder, and further agree that mailing to either party by certified or registered mail shall constitute lawful and valid service of process. (b) No Waiver: No waiver by Seller of any default by Buyer shall be deemed a waiver of any subsequent default by Buyer. (c) Severability: Should any of the terms or conditions of the Agreement be declared invalid or unenforceable, it shall not affect the validity or enforceability of any of the remaining terms and conditions.
17. **VALIDITY** The price quoted is firm for thirty (30) days, unless otherwise identified on the front of this quotation.
18. **ERRORS.** Pureflow Filtration Div. California Environmental Controls, Inc. reserves the right to correct or identify any stenographic or clerical errors in the quotation without any liability to Pureflow Filtration Div. California Environmental Controls, Inc.
19. **TECHNICAL ADVICE.** Upon Buyer's request, Seller may furnish technical advice with reference to the use of the material sold hereunder, to such extent as Seller has such information conveniently available; however, it is expressly agreed that there is no obligation to furnish any such advice, and that if any advice or assistance is furnished, which will be without charge, it shall be given and accepted at Buyer's risk, and Seller shall not be responsible or liable for the advice or assistance given or results thereof.
20. **WARRANTIES:** Except as provided below, Seller warrants that equipment or parts thereof delivered hereunder meet Seller's standard specification for the equipment or parts, or such other specifications as have been expressly made as part of this Agreement. Equipment and parts sold, but not manufactured, by Seller are warranted to the extent of the manufacturer's original warranty. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED. SELLER MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE BUYER WILL MAKE NO WARRANTY OR MODIFY ANY EXISTING WARRANTY TO ANY CUSTOMER BEYOND ANY WARRANTY STATED BY SELLER'S SPECIFICATIONS. NO LIABILITY WILL RESULT TO EITHER PARTY FROM DELAY IN PERFORMANCE OR NON-PERFORMANCE CAUSED BY CIRCUMSTANCES BEYOND THE CONTROL OF THE PARTY AFFECTED. THE MEASURE OF DAMAGES RECOVERABLE BY BUYER SHALL NOT EXCEED THE PURCHASE PRICE PAID BY BUYER TO SELLER. THIS IS BUYER'S SOLE REMEDY AGAINST SELLER. SELLER SHALL NOT BE LIABLE FOR ANY INDIRECT OR PROSPECTIVE, CONSEQUENTIAL OR SPECIAL DAMAGES NOTWITHSTANDING THE FOREGOING. NO EQUIPMENT OR PARTS SHALL BE RETURNED WITHOUT INSTRUCTIONS FROM SELLER'S HOME OFFICE.



City Of San Luis - Dept. Of Public Works  
1311 N. 4th Avenue  
San Luis, AZ 85349  
Phone: (928) 201-7931  
Email: [olara@cityofsanluis.org](mailto:olara@cityofsanluis.org)

## Project Estimate

Monday, March 28, 2016

**Prepared For:** Oscar Lara

**Prepared By:** Norman Sandler

### **DESCRIPTION:** City Of San Luis - Layne Ox Media

Thank you and Antonio for taking time to visit with David and I last week; it was a pleasure meeting you both.

Attached is the requested quote for replacement media, both under-bedding and LayneOx media, for the Layne water treatment system for WS #3. The City being able to remove and dispose of the old media will be a substantial help and greatly reduce the overall cost of the project.

One of the main questions had to do with the condition of the media; a sample was collected. In speaking with the Layne engineers, this topic had been examined back in December of last year. There does seem to be an issue with sand getting into the filter vessel, in fact, the level of "media" in the vessel appeared to be higher than expected, indicating that sand is entering the vessel, but not be washed out.

This sand can "grind" the media into very small particles (fines) that essentially renders the media non-functioning. The addition of a pre-filter would help address this issue, i.e., saving media from destruction and high pressure drops.

Thank you for choosing Layne as your water treatment and supply partner; your support is greatly appreciated,

Norm Sandler

**NORMAN J. SENDLER, JR.**

Water Treatment Specialist, Water Technologies, Water Resources

LAYNE | water + mineral + energy

*Thank you for the opportunity to be your water resource solution.*





## Terms & Conditions

**LIABILITY OF CONTRACTOR:** Contractor shall not be liable for any bodily injury, death, or injury to or destruction of tangible property except, as the same may have been caused by the negligence of Contractor. In no event shall Contractor be liable for any delays or special, indirect, incidental or consequential damages. Purchaser agrees that the total limit of Contractor's liability (whether based on negligence, warranty, strict liability or otherwise) hereunder, shall not exceed the aggregate amount due Contractor for services rendered under this contract. All claims, including claims for negligence or any other cause whatsoever, shall be deemed waived unless made in writing and received by Contractor within one (1) year after Contractor's completion of work hereunder.

**INSURANCE:** Contractor shall provide worker's compensation insurance, public liability and property damage insurance covering its employees and operation. Purchaser, at its option, may maintain such insurance as will protect it against claims arising out of the work.

**PRICE ADJUSTMENT:** Any cost estimates or time frames stated herein are subject to equitable adjustment in the event of differing or unforeseeable conditions, changes in applicable laws after the date of this contract, unforeseeable delays or difficulties caused by acts of God, Purchaser or any third parties. Prices of goods acquired by Contractor from others shall be adjusted to reflect Contractor's price in effect at time of shipment. The price of Contractor's goods will be adjusted to the price in effect at time of shipment in accordance with Contractor's current escalation policies or as specifically covered in this contract.

**TERMS:** Due upon Receipt. For extended projects, Contractor shall submit invoices on a monthly basis for any and all work completed and materials or equipment provided during the previous month. Past due invoices shall be subject to a delinquency charge of one and one-half percent (1-1/2%) per month (eighteen percent (18%) per annum) unless a lower charge is required under applicable law, in which case the lower rate shall apply. Purchaser agrees to pay all collection fees, attorneys' fees and costs incurred in the collection of any past due amounts arising out of this contract. Contractor shall have the right to immediately terminate this contract without further liability if Purchaser fails to make timely payment or otherwise materially breaches this contract.

**MATERIAL SHORTAGES AND COST INCREASES:** If any portion of materials or equipment which Contractor is required to furnish becomes unavailable, either temporarily or permanently, through causes beyond the control and without the fault of Contractor, then in the case of temporary unavailability any completion time frames shall be extended for such period of time as Contractor shall be delayed by such above-described unavailability, and in the case of permanent unavailability Contractor shall be excused from the requirement of furnishing such materials or equipment. Purchaser agrees to pay Contractor any increase in cost between the cost of the materials or equipment, which become permanently unavailable and the cost of the closest substitute, which is then reasonably available.

**DELAYS:** If Contractor is delayed at any time in the progress of work by labor disputes, fire, unusual delays in transportation, unavoidable casualties, weather, or any cause beyond Contractor's reasonable control, then any completion time frames shall be extended by a reasonable period of time, at least equal to the period of delay.

**CHANGED CONDITIONS:** The discovery of any hazardous waste, substances, pollutants, contaminants, underground obstructions or utilities on or in the job-site which were not brought to the attention of Contractor prior to the date of this contract will constitute a materially different site condition entitling Contractor, at its sole discretion to immediately terminate this contract without further liability.

**GUARANTEE AND LIABILITY:** Contractor warrants that its labor supplied hereunder shall be free from defect and shall conform to the standards of care in effect in its industry at the time of performance of such labor for a period of twelve (12) months after substantial completion of Contractor's work. Contractor agrees, to the extent it is permitted, to pass on any warranties provided by the manufacturers of materials and/or equipment furnished under this contract. Contractor itself provides no warranty, express, implied or otherwise, on any such materials or equipment. Contractor will not be responsible for, work done, material or equipment furnished or repairs or alterations made by

For any breach hereunder, Contractor shall be liable only for the values of the installation work or, if it wrongfully fails to install, then its liability is limited to the difference between the contract price herein, and the value of other similar installation work. If Contractor's breach damages any materials or equipment furnished hereunder, Contractor shall only be liable for the value of such materials or equipment. Under no circumstances will Contractor be liable for consequential, special or indirect damages, including without limitation, any crop loss or damage to other equipment, structures or property, nor for any other similar or dissimilar damages or losses whether due to delay, failure to furnish or install, delay in installation, defective material or equipment, defective workmanship, defective installation, delay in replacing, nor for any cause or breach whatsoever. In any event, Contractor's total liability towards Purchaser for alleged faulty performance or nonperformance under this contract shall be limited to the total contract price. No materials, equipment or services contracted herein carries any guarantee not mentioned in this contract. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES,

EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED.

**TITLE AND OWNERSHIP:** In case of default on Purchaser's part, Contractor shall have the right to enter the premises upon which any material or equipment furnished herein have been installed and retake such goods not then paid for and pursue any further remedy provided by law, including recovery of attorney's fees and any deficiency to the maximum extent and in the manner provided by law. Such materials and equipment shall retain their character as personal property of Contractor until Contractor receives payment in full, regardless of their mode of attachment. Unless prior specific written instructions are received to the contrary, surplus and replaced materials and equipment resulting from repair of installation work shall become the property of Contractor.

**DELIVERY:** Shipment schedules and dates, express or implied, are contingent on normal conditions. Contractor will not be responsible for any delays in shipment or completion caused by factors beyond its control such as, but not limited to, suppliers' failures, accidents, work stoppages or operation of or changes in the law. Shipments will be made as promptly as Contractor's ability to obtain materials and/or equipment and scheduling will permit. No delay in shipments or variances from shipping schedule shall be cause of cancellation or any claim for damage. Any changes in layout or design requested after acceptance of this contract will be made at Purchaser's additional cost. Any such change and/or time taken to supply engineering data or to approve drawings will automatically extend shipping schedules. Equipment will be shipped "knocked down" to the extent Contractor considers necessary, with small parts stripped from equipment and crated. On and after delivery to the carrier for transportation to the Purchaser's site, Purchaser shall be responsible for all loss or damage to materials or equipment due to any cause, including but not limited to loss or damage resulting from casualty.

**INDEMNIFICATION:** Purchaser agrees to indemnify and hold Contractor, its directors, officers, stockholders, employees, agents and subcontractors, harmless from and against any and all claims, demands, causes of action (including third party claims, demands or causes of actions for contribution or indemnification), liability and costs (including attorneys' fees and other costs of defense) asserted and/or filed by Purchaser or any third party(ies), including without limitation Purchaser's employees, and arising out of or as a result of: (i) the presence of Contractor or its subcontractors at the job-site, (ii) the work performed by Contractor or its subcontractors, or (iii) any negligent act or omission of Purchaser, its employees, agents, consultants, or other contractors or any person or entity under Purchaser's control, except to the extent that such claims, demands, causes of action, liabilities or costs are caused by the negligence of Contractor or its subcontractors.

**INTERPRETATION:** This contract shall be governed by and construed in accordance with the laws of the state of the job-site location. In any term, provision or condition contained herein shall, to any extent, be invalid or unenforceable, pursuant to state law or otherwise, the remainder of the terms, provisions and conditions herein (or the application of such term, provision, or condition to persons or circumstances other than those in respect of which it is invalid or unenforceable) shall not be affected thereby, and each term, provision and condition of this contract shall be valid and enforceable to the fullest extent permitted by law.

**ASSIGNMENT AND SUBLETTING:** Purchaser shall not have the right to transfer or assign its rights and/or obligations under this contract to any third party, related or unrelated, without the express written consent of Contractor. Contractor shall have the right to transfer, assign or sublet all or any portion of its rights or obligations hereunder, but such transfer, assignment or subletting shall not relieve Contractor from its full obligations to Purchaser unless such transfer, assignment or subletting is pursuant to the sale of Contractor, or the division of Contractor responsible for this contract, to a third party.

**FUEL:** A fuel surcharge will be applied to all hourly charges (except for equipment rates stated without fuel). The fuel surcharge is a 0.75% increase in hourly rates for every \$0.10 cost increase in the average cost of diesel fuel above the \$4.00 baseline. The cost of fuel over the billing period is defined as the average Retail On-Highway Diesel Prices for the region where the work was completed, published by the Energy Information Administration, posted on [eia.doe.gov](http://eia.doe.gov).

Based on the defined scope of work we estimate the fuel surcharge for this project to be \$0.00. The fuel surcharge will appear on your final bill as a separate line item.

**OPERATING COST:** An operating supply charge of 1% of the applicable rig operating hourly rates will be added to the invoice to cover daily expendable items (lubricants, rags).

**MISCELLANEOUS:** The terms and conditions set forth herein constitute the entire understanding of the parties relating to the work to be performed, and materials and equipment to be provided, by Contractor for the Purchaser. All previous proposals, offers and other communications relative to the provisions of the subject work, oral or written, are hereby superseded, except to the extent that they have been expressly incorporated herein. Any modifications or revisions of any provisions herein or any additional provisions contained in any purchase order, acknowledgement, or other form of the Purchaser are hereby expressly objected to by Contractor and shall not operate to modify this contract. This contract shall take effect upon acceptance and execution by both parties.



**Applied  
Products  
Group, L.L.C.**

23623 N. Scottsdale Road  
Suite D3270  
Scottsdale, AZ 85255  
**Phone** 480/595-9739  
**Fax** 480/595-1633

## Proposal

**Proposal #** RMDCQ5502  
**Date** 03/31/16  
**Sales Rep.** Ron Clark

**To:**

City of San Luis  
Oscar Lara  
1311 N. 4th Ave.  
P O Box 3750  
San Luis, AZ 85349  
United States of America

**Ship To:**

City of San Luis  
Oscar Lara  
1311 N. 4th Ave.  
P O Box 3750  
San Luis, AZ 85349  
United States of America

***We are pleased to offer the following equipment and services for your consideration;***

Qty	Part Number	Description
120		Well 3 filter media for 3 vessels. Each vessel will require 40 cubic feet of media.
1		Freight

SubTotal	\$24,400.00
Sales Tax	\$1,860.30
Shipping	\$0.00
<b>Total</b>	<b>\$26,260.30</b>

This proposal is based on well data supplied by the city. Please confirm quantities.

Taxes are included  
Freight is Prepay and add.



# Layne Christensen Company

LayneOx™ is a high rate, granular filter media used for removing Arsenic, Hydrogen Sulfide, Iron and Manganese from water supplies. LayneOx™ operates both as a classical filter and as a catalyst in conjunction with an oxidant as water enters the media bed. The oxidized compounds enter the media bed then precipitate and adsorb to the LayneOx™. The precipitate is then backwashed to a small sand drying bed and disposed of as non-hazardous waste.

### Advantages:

- Ability to process high flow rates with low pressure drop
- Continuous regeneration
- Ability to be utilized with common oxidants including:
  - MIOX, Ozone, Cl<sub>2</sub>, Sodium Hypochlorite, Potassium Permanganate
- Instantaneous Reaction time with oxidant additive
- Converts:
  - Ferric Iron to Ferrous Iron, Arsenite to Arsenate, H<sub>2</sub>S to Sulfur, Manganese to MnO<sub>2</sub>
- Allows adequate reaction time for the formation of Ferric Hydroxide and Ferric Arsenate
- Allows for adsorption and physical straining of floc until media requires backwashing

### Product Specification:

- Trade name LayneOx™
- Color Black
- Form Particulate
- Bound Moisture Content Less than 5% as shipped
- Bulk Density-Loose Packed 110-115 pounds/cu foot
- Hardness 97 -Ball Pan
- Manganese Dioxide 80% Average throughout media matrix
- Uniformity Coefficient 1.45
- Particle Size Range 8x20 mesh
- ANSI/NSF 61 Certified without limitations for use in potable water
- Preconditioning Washed and Screened to size
- Percent finer than 20 mesh 5% max
- Percent coarser than 8 mesh 5% max
- Packaging Super sacks or 55 pound bags

### Operating Conditions:

- pH range 6 - 9
- Temperature Groundwater ambient
- Surface loading rate 8-15 gpm/ft<sup>2</sup>
- Pressure drop (bed & under drain) 2 psig @ 15 gpm/ft<sup>2</sup>
- Terminal Δ P 10 psig
- Bed depth 36 - 48 inches
- Media contact time 2 minutes
- Air Scour rate 3 scfm/ft<sup>2</sup>
- Backwash rate (w/ air scour) 12-15 gpm/ft<sup>2</sup> for 5-10 minutes
- Backwash rate (w/o air scour) 30 gpm/ft<sup>2</sup> for 3 minutes
- Backwash frequency typically once every 24-48 hours
- Bed expansion freeboard 70% of bed depth
- Media Life Over 10 years
- Regeneration Continuous w/ oxidant addition
- Removal efficiency 90%-Arsenic, 95-99%-Iron, 99%-Manganese
- Oxidant point of addition Inlet to LayneOx™ filter
- Oxidant Dosage 0.5 - 2 ppm

