



# DC Frost Associates, Inc

A Coombs Hopkins Company  
2855 Mitchell Drive, Suite 215  
Walnut Creek, CA 94598

## Quotation

Date	Quote #
12/10/2019	102761-R1

### Bill To

CH2M-Hill (TN Billing)  
usapinvoices@jacobs.com  
125 Broadway Avenue  
Oak Ridge, TN 37830

### Ship To

City of Bisbee, AZ  
Dwayne Wallace (520-227-9478)  
940 Purdy Lane  
Bisbee, AZ 85603

E-mail: christopher.maines@jacobs.com  
Phone:

Model	Equipment	Project/Serial #	FOB	
UV3000Plus	Trojan	511088	Fact. PPA	
Line	Qty	Description	Unit Price	Total
		PARTS BELOW RECOMMENDED BASED ON SITE VISIT 9/17/2019 TO PERFORM THE TROJAN HEALTH CHECK ON THE UV3000 PLUS SYSTEM		
a	12	Part 917341-200, Ballasts, Aluminum End Caps (old #915379)	876.00	10,512.00T
b	1	Part 316135-060, Lampholder, 60 inch	55.75	55.75T
c	4	Part 914238, Module Control Board Assembly (use with Aluminum endcaps)	244.50	978.00T
d	6	Part 907632-04F071BK, Hose Kit, UV3+ MD RET F 71 Black	182.50	1,095.00T
e	6	Part 907632-04M150BK, Hose Kit, UV3+ MD EXT M 150 black	203.50	1,221.00T
f	3	Part 907632-04M066BL, Hose Kit UV3+ EXT M 066 Blue	186.00	558.00T
g	3	Part 907632-04F145BL, Hose Kit UV3+ Ret F 145 Blue	197.50	592.50T
h	9	Part 326411, Cylinder, Wiper UV3+ Gen 2 (This is a hydraulic ram that pushes the wiper drive bar holding the wiper canisters across the module)	1,851.00	16,659.00T
i	1	Part 9067602-1646, Pump Assembly, 1.5 GPM, 460-480/3/60	1,842.00	1,842.00T
j	6	Part 327771-A6350, Wiper Kit, UV3+ 6L 3.5	2,621.28	15,727.68T
k	3	Part 327771-A6351, Wiper Kit, UV3+ 6L 3.5 Sensor	2,680.41	8,041.23T
Quote Prepared By: Debby Patton			<b>Total:</b>	

PRICES QUOTED HEREIN ARE VALID FOR 30 DAYS.

Payment Terms: Net 30

If prices quoted do not include sales or use tax, such taxes, if required, are to be paid by the Purchaser.

DCF Terms & Conditions apply on all orders (copy available upon request).

*We are pleased to offer our quotation on the equipment or service listed above.  
Please contact us if you have any questions.*

  
David M. Smith, Mayor

Emails:  
debby@chcwater.com  
blanca@chcwater.com

Phone: (800) 964-9733  
Fax: (925) 947-6784



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Model		Equipment	Project/Serial #	FOB	
UV3000Plus		Trojan	511088	Fact. PPA	
Line	Qty	Description	Unit Price	Total	
		DC FROST ASSOCIATES, INC. NO LONGER ACCEPTS VERBAL ORDERS.  PLEASE SIGN AND DATE THIS QUOTATION and e-mail or fax to the author of the quote along with a copy of your PO (or you can write the PO number on the signed quote). By doing this, you are authorizing your acceptance of the Quote and giving approval to place the order. Simply include any Quantity changes, Bill To and Ship To changes along with your signature and date below.  SIGNATURE / DATE / PO#:  _____	0.00	0.00	
Quote Prepared By: Debby Patton			<b>Total:</b>	<b>\$68,927.53</b>	

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Model		Equipment	Project/Serial #	FOB	
UV3000Plus		Trojan	511088	Fact. PPA	
Line	Qty	Description	Unit Price	Total	
l	1	Part 915742, Main Power Wire Harness Left side	14.05	14.05T	
m	1	Part 915743, Main Power Wire Harness, Right Side	24.25	24.25T	
n	2	Part 328025, Wire Harness, (MCB to Ballast) Use with 3 ballasts	18.95	37.90T	
o	2	Part 328024-001, Lamp Wire Harness Assemblies (21 inches)	8.55	17.10T	
p	2	Part 328024-002, Lamp Wire Harness Assemblies (40 inches)	12.30	24.60T	
q	2	Part 328024-003, Lamp Wire Harness Assemblies (60 inches)	15.00	30.00T	
r	2	Part 328029-003, Ribbon Cable complete with sockets 3 ballasts, 74" cable length; 4 sockets	44.40	88.80T	
s	1	One week on site for installation of above parts	7,900.00	7,900.00	
		FREIGHT CHARGES ARE EXTRA AND WILL BE ADDED TO ALL INVOICES			
		Sales Tax	3,508.67	3,508.67	
Quote Prepared By: Debby Patton			<b>Total:</b>		

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TROJAN UV3000PLUS™			Health Check	
Bisbee, AZ		Project #00465		Date of Equipment Commissioning:
Service Advisor: Mike Chew		Date: 09-17-19		
Site Contact Name: Ron Jacobsen		Phone: 520-508-3370		email:ron.jacobsen@jacobs.com
<input checked="" type="checkbox"/> GOOD - Checked ok <input type="checkbox"/> N/A Not Applicable		<input type="checkbox"/> FAIR - Requires Future Attention		<input checked="" type="checkbox"/> REPLACE - Requires immediate attention
Number of Channels 1		1 Number of HSC's		
Number of Banks 3		3 Level Control Type		
Number of Modules per Bank 3		3 Design Dose		
Total Number of Modules 9		9 Design UVT		
Total Number of Lamps 27		27 Disinfection Criteria (fc/100ml)		
System Control Center Inspection				Comments / Recommendations
Screen Condition	<input checked="" type="checkbox"/>	Dose Set point	<input type="checkbox"/>	Settings in HMI were incorrect
Enclosure condition	<input checked="" type="checkbox"/>	UVT	<input type="checkbox"/>	Checked O&M and changed back to spec
Review Active Alarms	<input type="checkbox"/>	HMI settings match equipment configuration	<input checked="" type="checkbox"/>	
Lamp hours	<input checked="" type="checkbox"/>	All banks and wipers are in Remote Auto	<input checked="" type="checkbox"/>	
# Lamp Failures	<input type="checkbox"/>	Confirm communications (PDC's/HSC)	<input checked="" type="checkbox"/>	
# Driver Failures	<input type="checkbox"/>			
Hydraulic System Center (HSC) Inspection				Comments / Recommendations
Reservoir Hydraulic Fluid Level	<input type="checkbox"/>	Wiping HSC pressure (psi) within normal range		Hydraulic Pump is bad. Would not
Changed Hydraulic Filter as per O&M	<input checked="" type="checkbox"/>	Hose condition		build pressure.
Check for Leaks		- Internal	R	PDC manifolds all show signs of
- Internal fittings	<input checked="" type="checkbox"/>	- Black Extend hose	R	leaking from fittings.
- Extend Fittings	<input checked="" type="checkbox"/>	- Blue Retract hose	R	
- Retract Fittings	<input checked="" type="checkbox"/>	Pump health	R	
Condition of pressure gauge	<input checked="" type="checkbox"/>	PDC Manifold	R	
Bank # 1 Inspection		# Modules inspected		Comments / Recommendations
Module clean & free of debris	<input type="checkbox"/>	Hydraulic hose & fitting condition	<input checked="" type="checkbox"/>	Lamps and sleeves need replacing.
Sleeve Condition (no fouling, scratches, etc.)	<input checked="" type="checkbox"/>	Power cord and plug condition	<input checked="" type="checkbox"/>	Hydraulic fittings are rusted where
Trojan genuine parts	<input checked="" type="checkbox"/>	End cap condition	<input checked="" type="checkbox"/>	the hoses meet the metal fitting to



# TROJAN 3000 PLUS™

## Health Check

Bisbee, AZ		Project # 00465		Date of Equipment Commissioning:	
Service Advisor: Mike Chew		Date: 09-17-19			
No leaks or signs of water intrusion	✓	Sensor cable receptacle connection condition	✓		
Bus voltage (Phase to Phase) within specification	✓	Confirm communications are OK	✓		
Bus voltage (Phase to Neutral) within specification	✓	No corrosion inside PDC, on terminals or boards	✓		
Bus voltage (Neutral to Ground) within specification	✓				
<b>Power Distribution Center (PDC) # 2 Inspection</b>				<b>Comments / Recommendations</b>	
Manifold condition	✗	Electrical connection condition	✓	manifolds show signs of leaks	
Lid Seal Condition	✓	Lamp Power plug receptacle condition	✓		
No leaks or signs of water intrusion	✓	Sensor cable receptacle connection condition	✓		
Bus voltage (Phase to Phase) within specification	✓	Confirm communications are OK	✓		
Bus voltage (Phase to Neutral) within specification	✓				
Bus voltage (Neutral to Ground) within specification	✓				

				<h1>Health Check</h1>	
Bisbee, AZ		Project #00465		Date of Equipment Commissioning:	
Service Advisor: Mike Chew		Date: 09-17-19			
Level Control Inspection				Comments / Recommendations	
Cleanliness	✓	Grout condition	✓		
	N/A		N/A		
ALC linkages condition	N/A	Seal Condition	N/A		
ALC Lexan gate condition	N/A	Gate Ease of movement	N/A		
		Actuator condition	N/A		
Sensor Inspection				Comments / Recommendations	
Ultrasonic Level Devices	N/A	Online UVT meter(s)	N/A		
Cleanliness	N/A	Reading match portable device	N/A		
LWL sensor functional	✓	Values match on HMI.	N/A		
LWL Rods intact & clean	✓	OEM service within last year	N/A		
		HACH wiper blade profile ok	N/A		
		HACH unit serviced annually	N/A		
			A		

		<h1 style="margin: 0;">Health Check</h1>
<b>Bisbee, AZ</b>	<b>Project #00465</b>	<b>Date of Equipment Commissioning:</b>
<b>Service Advisor: Mike Chew</b>	<b>Date: 09-17-19</b>	
<b>Additional Comments / Feedbacks</b>		
<b>Recommended Next Steps, including parts customer should consider purchasing</b>		
New sleeves, sleeve nuts, orings, lamps, hydraulic manifolds, hydraulic pump, hydraulic cylinders, hydraulic hoses, and new wiping canisters with the newer style carriage assemblies.		
Two of the modules have bad water damage and will need rebuild kits with all new wiring.		
Site will need to order some replacement ballasts. Six for the two water damaged modules and 6 for backstock.		