

3Q/2013 Newsletter

In the News:

Wanted Water or Wastewater Operator

Remote Location, Harsh Conditions, 687 Day years

Lets face it, its just a matter of time before you see a Job posting come up for a water treatment operator on Mars. In the news:

By now, we probably all know that there was once significant quantities of water on the Martian surface and, although the red planet is bone dry by terrestrial standards, water persists as ice just below the surface to this day.

Now, according to a series of new papers published in the journal Science, NASA's Mars Science Laboratory rover Curiosity has found that the Mars topsoil is laced with surprisingly high quantities of the wet stuff. As wriiten in an article from discovery.com.

Curiosity landed, with the explicit mission to seek out habitable environments for life, past and present. Using a sophisticated suite of instrumentation during science operations.

After analyzing the very first scoop of material from a wind-blown ripple in the soil, it appears that Curiosity's Sample Analysis at Mars (SAM) had detected something quite profound. One of the most exciting results from this very first solid sample ingested by Curiosity is the high percentage of water in the soil.

"About 2 percent of the soil on the surface of Mars is made up of water, which is a great resource, and interesting scientifically." By scooping and heating up the soil, the water can be extracted and further treated for human consumption.

Source: <http://news.discovery.com/space/this-scoop-of-mars-soil-is-two-percent-water-130926.htm>

Maintenance Reminder.

Small Leaks will become Big Leaks! – inspect and fix leaks in your operation..

Featured Product

CSRO Series – Reverse Osmosis



The CSRO Series includes up to (8) 4" membrane models to choose from. The CSRO comes standard with options like electronic control box, permeate and concentrate flow meters, throttle valve and more. Additional options are available. These models are designed to produce up to 12,000 GPD

Standard Features Include:

Control Box (includes, Dry Contacts, on/off switch for Pretreatment Lockout, Tank Level, Auto – Restart, Function Lights, Low Pressure Protection)
Inlet Solenoid Valve
High Rejection TFC Membrane
SS or FRP Pressure Vessel
SS Concentrate Control Valve
Slimline Aluminum Frame
Stainless Steel Centrifugal Pump
5 Micron Prefilter
Throttle Valve
Concentrate Pressure Gauge
Flowmeters (Permeate, Concentrate)

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Optional Features

- Digital TDS Monitor (on Permeate)
- Concentrate Recycle Package (includes flow meter)
- First Array Pressure Gauge
- Prefilter In/Out Pressure Gauges
- Auto Flush
- pH meter on permeate
- Wall mount brackets
- ORP Meter on feed

Pilot Testing from Con-Serv Manufacturing.

Con-Serv Manufacturing often gets involved in pilot testing process water from various sources to confirm technologies selected will achieve the desired treated water quality. We work with multiple laboratories to provide the qualified tests and results to assist in choosing the proper treatment for your problem water.

Give us a call:

A reminder that our Trouble shooting guide below and many other resources are available on the web at http://www.con-servwater.com/Table_of_Contents.html

Reverse Osmosis System Trouble-shooting Quick Guide

PROBLEM	SYMPTOM	REMEDY
EXCESSIVE RO PUMP PRESSURE: <i><u>RO Pump Pressure should not exceed 200 PSI</u></i>	Constant high pressures may indicate blockage or severe membrane fouling. Pressures in excess of those shown will reduce the useful life of the membranes and system components and may cause a hazardous situation resulting in injury or death.	Check RO Pump pressure weekly or more often if use warrants and adjust or clean as indicated.
PUMP CYCLES ON AND OFF:	Pump cycles on and off every few seconds.	A defective pressure switch could cause the pump to cycle rapidly on all models. Check for leaks in the product line. If there is a pressure tank in the line, be sure it is properly pressurized.
RO UNIT:	Not making enough water.	Reject ratio too low.
		Product flow controller restriction.
		Product line blocked.
		Pressure too low.
		TDS too high.
		Membrane fouled.
		Pre-filter plugged.
	Pressure tank has too much air (if used).	
	Making too much water.	O-ring by-pass on membranes.
		Chlorine damage to membranes.
Temperature increase.		
Permeate TDS too high; (Possible Reasons:)	Reverse flow through membrane (causing a rupture in the membrane).	
	O-ring by-pass in ROMAS.	
	Chlorine damage to membranes.	
	Membrane fouling.	
	Ruptured membrane.	
	Increase in feed water TDS.	
	High pH in feed water (over 9.0).	

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Con-Serv Technologies:

Auto Backwashing Filters . Particle Separation . Media Filtration

Chemical Dosing . Pump Skids . Reverse Osmosis . Ozone

Repressurization Systems . Biocide Injection . Ultrafiltration

Flocculation . Oil/Water Separation . Physical Conditioners

Jokes Corner

Dictionary of Construction Terminology

Contractor - A gambler who never gets to shuffle, cut or deal.

Bid Opening - A poker game in which the losing hand wins.

Bid - A wild guess carried out to two decimal places.

Low Bidder - A contractor who is wondering what he left out.

Engineer's Estimate - The cost of construction in heaven.

Project Manager - The conductor of an orchestra in which every musician is in a different union.

Critical Path Method - A management technique for losing your shirt under perfect control.

OSHA - A protective coating made by half-baking a mixture of fine print, red tape, split hairs and baloney--usually applied at random with a shotgun.

Strike - An effort to increase egg production by strangling the chicken.

Delayed Payment - A tourniquet applied at the pockets.

Completion Date - The point at which liquidated damages begin.

Liquidated Damages - A penalty for failing to achieve the impossible.

Auditor - Person who goes in after the war is lost and bayonets the wounded.

Lawyer - Person who goes in after the auditors to strip the bodies.