

Winflows3.x v. 1.2.30 w

Input Data Summary

13-Nov-2008 15:06

Project: Propmech Corp
Project File
Analysis File: PROPMECH.DSI
Element File Date: May-28-1999

Engineer: Randy Leathers
Analysis Name: User Defined

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Project Information

Description: Propmech Corp
Client Name: Propmech Corp
Location: Manila Philippines
Engineer: Randy Leathers
Comments: 36000 gpd RO

Flowsheet Configuration

Flowsheet Type: Single Pass Flowsheet
Feed Predosing? Yes
Feed Afterdosing? No
Product Dosing? No
Feed CO2 Stripping? No
Product CO2 Stripping? No
Raw Feed Bypass? No
First Pass Recycle? No

Feed Information

Temperature, Deg C: 20.0
Feed pH: 7.2
Silt Density Index: 2.0
Fouling Allowance: 0.90
Feed Stream Composition (mg/l)
Calcium 40.04
Iron 1.09
Potassium 8.30
Magnesium 5.34
Manganese 15.80
Sodium 39.64
Chloride 2.80
Bicarbonate 298.68
Nitrate 0.01
Sulfate 0.40
Silica 103.00
Carbonate 0.25
Carbon Dioxide 31.03

Flow Rate Specifications

Product Flow: 36,000.0 Gal/day
Array Recovery: 60.0%

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Array Data

Interbank Pressure Loss: 0.00 Psi

Interbank Pressure Boost: 0.00 Psi

Bank	Housings	Elements	Element Type	Element Age
1	4	3	AG4040F	0.00 Years
2	3	3	AG4040F	0.00 Years

Chemical Dosing Specifications

First Feed Dosing to 6.5 pH using Sulfuric Acid

Pump Specifications

Feed Pump Selection:

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Results Summary

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Flow Data	Gal/day	Analytical Data	mg/L
RO/NF Feed	60,000.0	RO/NF Feed TDS	515.4
Treated Permeate	36,000.0	Treated Permeate TDS	4.2
System Conc	24,000.0	System Conc TDS	1,233.5

System Data	Single Pass Design		
Temperature:	20.0	Deg C	
Overall Recovery:	60.0%		

			Array Data		
Pass/Stage Recovery:	60.0%	Concentrate TDS:	1,234	Conc. Flow:	24,000.0

Bank	Total Housings	Total Elem	Element Type	Feed Flow Gal/day	Perm Flow Gal/day	Feed Psi	Delta Psi	Perm TDS mg/L
1	4	12	AG4040F	60,000.0	21,083.1	194.6	8.3	3.4
2	3	9	AG4040F	38,916.9	14,981.9	186.3	6.5	5.3
Total	7	21		60,000.0	36,000.0			4.2

Analytical Data (mg/L)

	Perm	Feed	Conc		Perm	Feed	Conc
Ca	0.2	40.0	100.1	HCO3	2.3	298.7	495.3
Mg	0.0	5.3	13.3	CO3	0.0	0.3	0.2
Na	0.6	39.6	98.5	Cl	0.0	2.8	7.0
K	0.1	8.3	20.6	SO4	0.2	0.4	199.0
Ba	0.0	0.0	0.0	F	0.0	0.0	0.0
Sr	0.0	0.0	0.0	NO3	0.0	0.0	0.0
NH4	0.0	0.0	0.0	PO4	0.0	0.0	0.0
Fe	0.0	1.1	2.7	SiO2	0.7	103.0	257.2
Mn	0.1	15.8	39.5	CO2	103.1	31.0	103.1
TDS	4.2	515.4	1,233.5	pH	4.6	7.2	6.9
Saturation Data							
CaSO4	0.0%	0.0%	4.7%	BaSO4	0.0%	0.0%	0.0
CaF2	0.0%	0.0%	0.0%	SiO2	0.5%	89.6%	274.5
LSI	-7.6	-0.2	0.0	SrSO4	0.0%	0.0%	0.0

DISCLAIMER: This design does not represent a guarantee of performance & is provided solely as a service. The data contained herein should be used consistent with good engineering judgement. For tech assistance call Osmonics/Desal at 1.800.423.3725.

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Process Data Sheet

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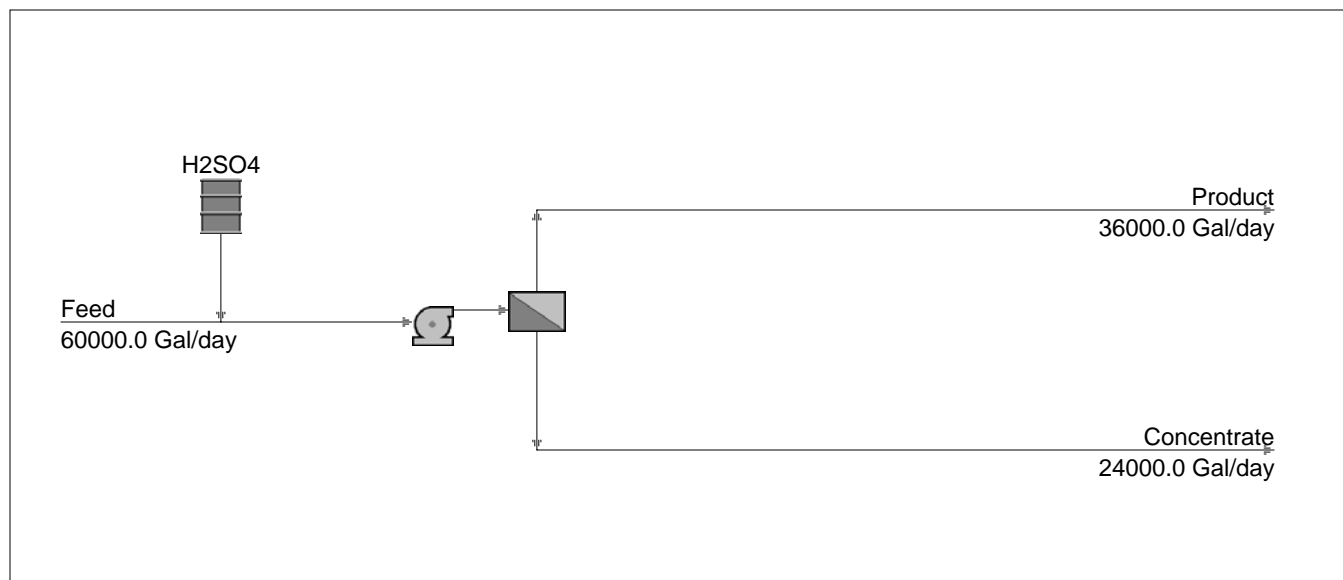
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System Conc	24,000.0	System Conc TDS	1,233.5

System Data	Single Pass Design	
Temperature	20.0	Deg C
Fouling Allowance	90.0	Percent
Feed Pressure	194.6	Psi
Interbank Boost	0.00	Psi
Interbank Loss	0.00	Psi
Element Age	0.00	Years

Pumping Summary	Gal/day	DP, Psi	kW @ 65.0% Efficiency
Feed	60,000.0	194.64	5.4
Interbank Boost	-----	0.00	0.0

Chemical Usage	Chemical	Lb/Day	Kg/Day	pH or ppm TH
Feed Predosing	Sulfuric Acid	40.4	18.4	5.0

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Errors and Warnings

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WARNING!! Concentrate silica exceeds saturation.

Warning! - The feed water analysis was balanced with added Na or Cl.