

hyd-RO-dosetm

WATER CHEMISTRY SUMMARY AT 75.0 % RECOVERY

WATER CHEMISTRY

CATIONS (mg/L)	Raw	Feed	Product	Brine
Calcium(as Ca)	107.00	107.00	0.285	427.14
Magnesium(as Mg)	34.00	34.00	0.136	135.59
Barium(as Ba)	0.0400	0.0400	0.00139	0.156
Strontium(as Sr)	1.20	1.20	0.00160	4.80
Sodium(as Na)	370.00	370.00	9.87	1450
Potassium(as K)	12.00	12.00	0.272	47.18
Lithium(as Li)	0.00	0.00	0.00	0.00
Iron(as Fe)	0.00	0.00	0.00	0.00
Ammonia(as NH ₃)	0.00	0.00	0.00	0.00
Aluminum(as Al)	0.00	0.00	0.00	0.00
Boron(as B)	0.00	0.00	0.00	0.00
ANIONS (mg/L)				
Chloride(as Cl)	470.00	470.00	11.28	1846
Sulfate(as SO ₄)	34.00	34.00	0.544	134.37
Dissolved CO ₂ (as CO ₂)	9.61	8.09	8.09	8.09
Bicarbonate(as HCO ₃)	151.89	153.40	5.60	570.28
Carbonate(as CO ₃)	1.44	1.45	< 0.001	31.91
Silica(as SiO ₂)	8.00	8.00	0.171	31.49
Phosphate(as PO ₄)	0.00	0.00	0.00	0.00
H ₂ S (as H ₂ S)	0.00	0.00	0.00	0.00
Fluoride(as F)	0.900	0.900	0.0252	3.52
Nitrate(as NO ₃)	496.98	496.98	13.25	1948

pH CONTROL FEED TO RAW WATER(mg/L)
 93% Sulfuric Acid -0.399

SCALE POTENTIAL AND CONTROL

SATURATION LEVEL	Raw	Feed	Product	Brine	
Calcite	CaCO ₃	1.26	1.27	0.00	31.18
Aragonite	CaCO ₃	1.10	1.11	0.00	27.16
Witherite	BaCO ₃	0.00	0.00	0.00	0.01
Strontianite	SrCO ₃	0.05	0.05	0.00	1.29
Magnesite	MgCO ₃	0.31	0.31	0.00	7.88
CaSO ₄	Anhydrite	0.01	0.01	0.00	0.06
Gypsum	CaSO ₄ *2H ₂ O	0.02	0.02	0.00	0.09
Barite	BaSO ₄	0.14	0.14	0.00	0.86
Celestite	SrSO ₄	0.00	0.00	0.00	0.02
Tricalcium phosphate	Ca ₃ (PO ₄) ₂	0.00	0.00	0.00	0.00
Hydroxylapatite	Ca ₅ (PO ₄) ₃ (OH)	0.00	0.00	0.00	0.00
Fluorite	CaF ₂	0.00	0.00	0.00	0.06
Silica	SiO ₂	0.07	0.07	0.00	0.27
Brucite	Mg(OH) ₂	0.00	0.00	0.00	0.00
Magnesium silicate	MgSiO ₃	0.00	0.00	0.00	0.06
Ferric hydroxide	Fe(OH) ₃	0.00	0.00	0.00	0.00
Siderite	FeCO ₃	0.00	0.00	0.00	0.00
Strengite	FePO ₄	0.00	0.00	0.00	0.00

SIMPLE INDICES

INDEX	Raw	Feed	Product	Brine
Langelier Saturation	0.14	0.15	N/A	1.61
Ryznar Stability	7.32	7.31	N/A	4.85
Puckorius(Practical)	7.30	7.28	N/A	4.42
Larson-Skold	5.50	5.45	3.59	5.27
Stiff Davis Index	-0.04	-0.04	-5.65	1.50

PARAMETERS

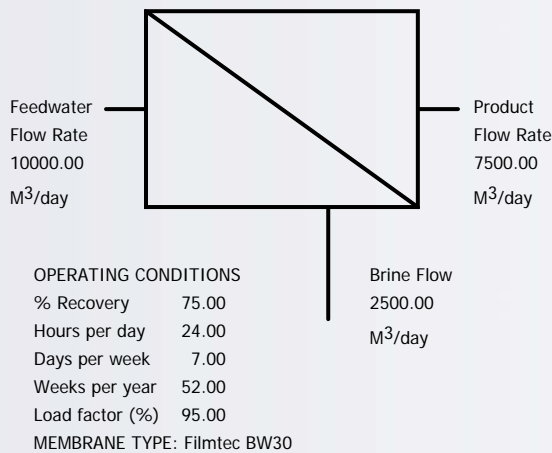
PARAMETER	Raw	Feed	Product	Brine
pH	7.60	7.60	5.94	8.06
Temperature(°C)	25.00	25.00	25.00	25.00
Calculated T.D.S.	1702	1702	51.14	6658
Calculated Cond.	2578	2578	66.06	8605

DOSAGE

ATMP 40%(mg/L)	0.775	3.10
kg/day to Feedwater	7.36	

SYSTEM SPECIFICATIONS

Used in Dosage and Feed Rate Calculations



SYSTEM IDENTIFICATION

hyd-RO-dose Printout Example
 Customization Available

Sample ID: 0
 Report Date: 06-02-2009
 Sample Date: 06-02-2009 at 1700

