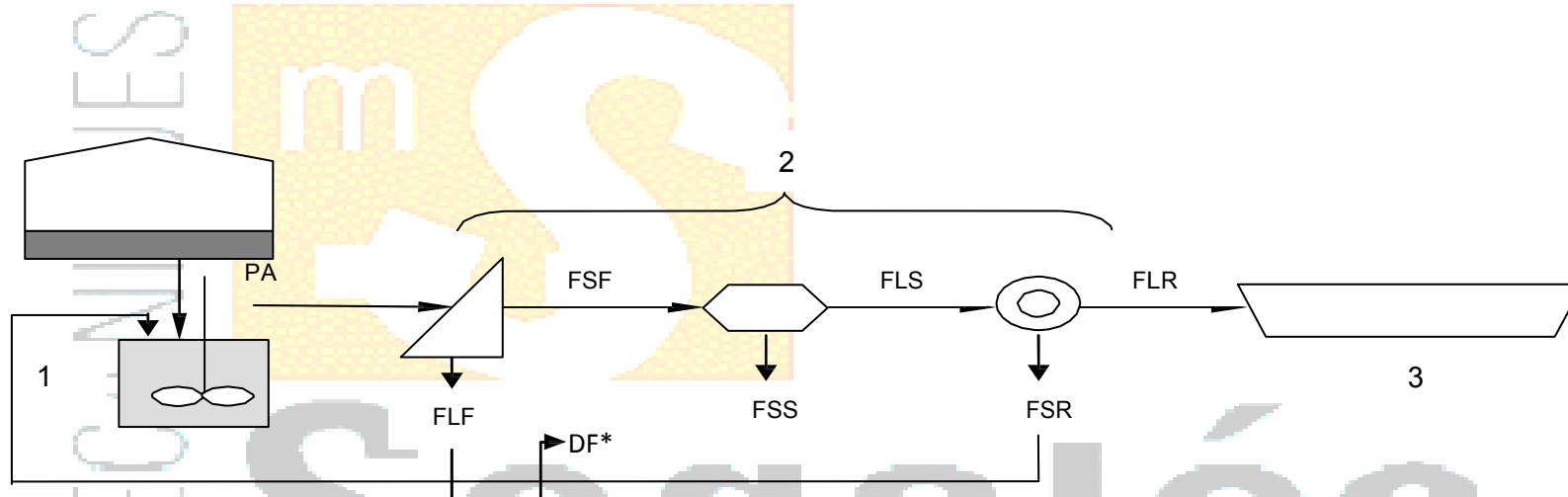


## STUDY OF THE TREATMENT OF SLURRY SEPARATION



Flow chart of the separation treatment of the studied parts.

The basic flow chart link one first stage of reception and equalization, where PA or affluent slurry is storage, trying to avoid the differences and avoiding the solid sedimentation, and one second stage of separation treatment.

DF

The slurry goes to the first filter (first-filtering ramp) that runs for gravity, taking out a solid part (FSF) with a high humidity level and low capacity to hold water. The liquid filtered part (FLF) obtained by the ramp can be used or, as in this case, be dropped to a rotating filter (with a 250 micron screen) to do a second filtering. So, it's possible that has a optional destination (DF\*).

The solid fraction of the filtration (FSF) goes to a separation process with press (press separator). After that, we obtain another liquid part (FLS), which follows with a treatment and a solid separation (FSS), which looks like dryer and with a high capacity to hold water than the treated solid part. The liquid part obtained in this process goes to a rotating filter with a 250 micron screen.

From the last separation operation and with the rotating filter aid, with one or, like in this case, from the previous liquid parts both or global liquid part (FLG) we obtain another liquid which we'll call FLR. We can consider it as the liquid effluent treated in the installation. We hold this liquid in a storage pit. For the solid part, we have a solid part (FSR) which will be returned to the equalization pit.

PARAMETERS		SAMPLES						
		PA	FLF	FSF	FLS	FSS	FLR	FSR
pH		7,78	7,92	7,75	7,61	8,30	7,57	7,67
CE	dS/m	22,10	18,51	18,75	17,55	13,40	18,15	16,54
ST	g/kg	36,85	25,61	109,71	28,40	233,40	25,91	44,95
SV	g/kg	19,03	12,56	85,80	15,08	187,96	12,43	29,45
SST	g/kg	20,28	14,90	-	15,09	-	14,00	-
SSV	g/kg	15,84	12,40	-	14,36	-	12,60	-
NKT	gN/kg	3,75	3,08	4,66	2,91	7,47	2,96	3,37
N-NH <sub>4</sub> <sup>+</sup>	gN/kg	2,91	2,38	2,60	2,20	3,13	2,38	2,28
Norg	gN/kg	0,84	0,70	2,06	0,70	4,33	0,59	1,09
DQO	gO <sub>2</sub> /kg	44,16	22,95	-	19,52	-	19,95	-
Cox	gC/kg	7,06	2,11	17,59	9,09	62,36	0,59	14,12
P	gP/kg	1,40	1,08	1,79	1,04	2,52	1,10	1,02
K	gK/hg	2,29	1,85	2,84	1,66	2,41	1,84	1,46

