



Hourly & Shiftwise Process Analysis Data

TAMILNADU NEWSPRINT AND PAPERS LTD

Biomethanation plant

DATE: 17/01/07

Time	Flow M ³ /hr		pH						Data Scanner (Modbus RTU)															
	Raw Eff.	Raw Eff.	CLA Out	BT	RA outlet	RB outlet	R1 Feed	R2 Feed	R1 Feed	R2 Feed	NT Out	Biogas												
06.30	475	4.46	6.52	6.68	7.47	7.50	318	308	32.0	32.0	6.5	772												
8.30	481	4.42	6.50	6.73	7.48	7.49	300	298	33.0	33.0	6.2	877												
10.30	451	4.44	6.68	6.81	7.49	7.50	301	308	34.0	34.0	6.9	910												
12.30	460	4.46	6.72	6.93	7.48	7.51	312	300	35.0	35.0	6.6	925												
14.30	475	4.78	6.67	6.87	7.49	7.50	310	312	35.0	35.0	6.5	873												
16.30	469	4.60	6.71	6.90	7.52	7.50	307	309	34.5	34.5	6.7	868												
18.30	477	4.57	6.66	6.84	7.52	7.48	305	307	34.0	34.0	6.6	884												
20.30	471	4.61	6.59	6.94	7.50	7.51	313	310	33.5	33.5	6.8	829												
22.30	456	4.55	6.55	6.88	7.53	7.47	307	299	33.0	33.0	6.5	840												
00.30	460	4.55	6.69	6.94	7.52	7.47	300	302	32.5	32.5	6.7	862												
02.30	462	4.45	6.58	6.80	7.50	7.45	304	309	32.0	32.0	6.6	917												
04.30	460	4.47	6.65	6.86	7.50	7.43	310	308	31.0	31.0	6.5	922												
SHIFT	COD mg / l						VOLATILE FATTY ACIDS meq / lit						ALKALINITY meq / lit						TOTAL SUSPENDED SOLIDS mg / l					
	Raw Eff	Clar.O/L	B.T.O/L	RA.O/L	RB.O/L	Raw Eff	Clar.O/L	B.T.O/L	RA.O/L	RB.O/L	Raw Eff	Clar.O/L	B.T.O/L	RA.O/L	RB.O/L	Raw Eff	Clar.O/L	Decant./L	Decant./O/L	Cake C/g	Ash %	RA.O/L	RB.O/L	
A	3920	3360	3280	468	376	38.37	36.23	38.27	7.77	6.77	-ve	4.00	2.00	28.00	28.00	460	500	50900	220	16.91	-	1920	1910	
B	3280	2960	2080	492	504	32.42	34.24	30.17	10.63	9.80	-ve	2.0	6.00	25.0	27.0	520	550	50200	250	17.14	-	1960	2010	
C	4400	4080	3680	508	468	44.66	40.35	30.13	8.77	7.76	-ve	-ve	10.0	29.0	29.0	580	510	51100	290	17.20	-	2040	1960	
Average	3866	3466	3013	489	449	38.48	36.94	32.65	9.12	8.11	-ve	2.0	6.0	27.33	28.00	520	520	50733	253	17.08	-	1973	1960	

Cumulative M³ : RAW - 173700 GAS - 231200

DATE: 17/01/07

Cumulative M³: RAW - 173700 GAS - 231200 Kilo - 210400 Boiler - 20800 Flared - Lime - 62735 Tonnes.

4.53 6.62 6.85 7.50 7.48

6329

Raw Effluent	:	3600	m ³
Gas Production	:	6700	m ³
Gas to Kiln	:	6700	m ³

GPF	:	0.63	-
HLR	:	90.00	%
OLR	:	63.00	%
RECYCLE :	"B"		

MOL	:	9165 - 9145 = 20	m ³
CAO	:	90.44	gpl
Lime	:	1.808	T

*1) Judge heading to Buffer Tank:
07:30 - 10:30 (3.0) hours.

Raw Effluent	:	3600	m ³
Gas Production	:	6900	m ³
Gas to Kiln	:	6900	m ³

Bagasse CLA I/L Flow : 7750 m³

GPf	: 0.77	-
HLR	: 90.0	%
OLR	: 55.55	%

RECYCLE : A

	m^3
MOL	9185-9165: 20
CAO	88-77
Lime	1.775

* Shdgs leading to B.T
15.00 - 18.00 : 3 hrs

CH4- 86.1
CO2- 14.1

Raw Effluent	:	3700
Gas Production	:	6900
Gas to Kiln	:	6900

Bagasse CLA I/L Flow: 6788 / 20438

GPF	: 0.51	-
HLR	: 92.50	%
OLR	: 78.62	%

RECYCLE : B

MOL : 9205 ÷ 9165 = 20 60
CAO : 89.32 : 89.51
Lime : 1.786 : 5.369

22.30 - 01.30: 3 hrs
 flyback heading to BQ

Raw Effluent	:	109.00	m ³
Gas Production	:	2.0500	"
Gas to Kiln	:	2.0500	"

	mg / lit
INLET COD	3460
OUTLET COD	469
COD REDUCTION	86.4%
OLR :	65.58
HLR :	90.83
GPF :	0.62

M³/Kg COD Reduced

Urgency-
CHEMIST

SE

Q. P. Ray
CHEMIST

SE 4

CHEMIST