

## Main Stack 1

Monitoring Location No: 1  
 Monitoring Type: Continuous  
 Sample Type: Air  
 Description: Exit point from Stack 1 to atmosphere

Opacity						
Period: 6 Minutes		Limit: 20.00 %				
Start Time	End Time	Cause	Operational State	Explanation	Corrective Action	Max Reading
04/07/23 09:54	04/07/23 12:12	Recovery Boiler A ESP1/ESP2	RB A Scheduled Start-up/Shut-down	Planned shut and also had to take the ash mixing tank off line for level transmitter issues causing the Precipitators to be offline for the duration.	Ash mixing tank back online and precipitators restarted and stabilized.	43.70
06/07/23 12:24	06/07/23 12:30	Lime Kiln A	RB A Un Scheduled Start-up/Shut-down	Plant stopped to clean the ID Fan due to vibration	Plant restarted and stabilized	21.55
18/07/23 10:54	18/07/23 11:00	Lime Kiln B	Lime Kiln B Scheduled Start-up/Shut-down	Planned shut on Kiln B	Plant restarted and stabilized after maintenance was completed	22.47
19/07/23 13:06	19/07/23 14:54	Recovery Boiler B ESP1	Normal (Steady State)	Precipitator 1 Cross chain conveyor motor/ gearbox key failed causing the shutdown of the ESP.	Reduce boiler firing to 5kg/s and shut Precipitator down while maintenance replaced the key and precipitator then returned to service.	89.49
24/07/23 13:54	24/07/23 14:00	Lime Kiln A	Normal (Steady State)	Exceedance due to Kiln Stopping for ID fan cleaning	Plant restarted and stabilized	30.33
27/07/23 19:30	27/07/23 19:36	Lime Kiln B	Normal (Steady State)	Issues with a blocked feed screw, chute was unblocked and dumped a large amount of lime into the kiln resulting in the exceedance.	Chute unblocked and process stabilized.	20.35

31/07/23 07:06	31/07/23 07:24	Power Boiler EP	Normal (Steady State)	Opacity exceedance due to upset with wet NCG gas spraying into boiler increasing flue velocity, this was caused by issues in the Evaporation plant and gas diverted to Power boiler.	Evaporation plant issues resolved with a card failure causing a huge upset in the evaporation plant affecting process valves, card replaced, and plant stabilized.	44.33
----------------	----------------	-----------------	-----------------------	--	--	-------

Sulphur Dioxide (SO2)      Period: 60 Minutes      Limit: 250.00 mg/Nm3						
Start Time	End Time	Cause	Operational State	Explanation	Corrective Action	Max Reading
04/07/23 07:00	04/07/23 17:00	Power Boiler EP	Burning NCG/Stripper Gases in Power Boiler	Planned Shut on RBA	Plant restarted and gasses diverted back to RBA	499.85
04/07/23 17:00	04/07/23 18:00	Power Boiler EP	Burning NCG/Stripper Gases in Power Boiler	Planned Shut on RBA	Plant restarted and gasses diverted back to RBA	383.70
05/07/23 12:00	05/07/23 15:00	Power Boiler EP	Burning NCG/Stripper Gases in Power Boiler	Divert gasses to power boiler to measure the gas nozzle as this has burned off on the natural gas burner.	Nozzle measured up and burner back in service.	473.48
18/07/23 06:00	18/07/23 15:00	Power Boiler	Burning NCG/Stripper Gases in Power Boiler	NCG gasses diverted due to a planned shut on A boiler	Shut completed and gasses diverted back to RBB	492.60
19/07/23 14:00	19/07/23 15:00	Power Boiler	Burning NCG/Stripper Gases in Power Boiler	Reducing the Recovery boiler for the Precipitator outage required the NCG gasses to be diverted to the Power boiler for the duration.	Precipitator repaired and gasses returned to the Recovery boiler	410.60

## Main Stack 2

Monitoring Location No: 22  
Monitoring Type: Continuous  
Sample Type: Air  
Description: Exit point from Stack 2 to atmosphere

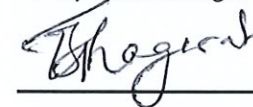
Hydrogen Chloride (HCl)      Period: 60 Minutes      Limit: 50.00 mg/Nm3						
Start Time	End Time	Cause	Operational State	Explanation	Corrective Action	Max Reading
16/07/23 02:00	16/07/23 03:00	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	51.70

Opacity      Period: 6 Minutes      Limit: 20.00 %						
--	--	--	--	--	--	--

Start Time	End Time	Cause	Operational State	Explanation	Corrective Action	Max Reading
01/07/23 09:12	01/07/23 09:18	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	23.71
02/07/23 09:12	02/07/23 09:18	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	20.13
07/07/23 09:06	07/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	22.13
08/07/23 09:06	08/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	21.72
09/07/23 09:06	09/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	22.51
10/07/23 09:06	10/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	23.75
11/07/23 09:06	11/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	21.99
12/07/23 09:06	12/07/23 09:12	Recovery Boiler B ESP1/ESP2	Normal (Steady State)	Auto Calibration	n/a	21.58
13/07/23 09:06	13/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	23.94
14/07/23 09:06	14/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	22.64
15/07/23 09:06	15/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	23.45
16/07/23 09:06	16/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	23.14
17/07/23 09:06	17/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	23.17
18/07/23 09:06	18/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	23.14
19/07/23 09:06	19/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	23.89
20/07/23 09:06	20/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	22.87
21/07/23 09:06	21/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	24.69
22/07/23 09:06	22/07/23 09:12	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	22.23
27/07/23 09:00	27/07/23 09:06	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	21.65
28/07/23 09:00	28/07/23 09:06	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	22.60
29/07/23 09:00	29/07/23 09:06	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	22.88
30/07/23 09:00	30/07/23 09:06	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	21.88
31/07/23 09:00	31/07/23 09:06	Auto Zero Span Verification	Normal (Steady State)	Auto Calibration	n/a	21.07

Authorised By:

**Uday Bhagwat**  
Pulp Mill Manager



**Johan Stoltz**  
General Manager



