



# GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.

Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.

Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/07131		Test Report Date	04/08/2025
Customer Name and Address	M/s. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I & II, COKE OVEN PLANT I & II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 & 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, & 44/5 OF AMONA VILLAGE, BICHOLIM - GOA.			
Letter Ref./Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.			
Sampling Done By	GPL	Page No.	1 of 1	
Sample Received on	31/07/2025	Analysis Period	31/07/2025 To 04/08/2025	

### SAMPLING DETAILS - STACK EMISSION

Stack Attached to	Bag house of Coke screening plant 1
Date of Sample collection	30/07/2025
Stack Diameter [Meter]	1.250
Height From Ground Level [Meter]	16.5
Shape	Round
Temperature of flue gas [°C]	53
Average flue gas velocity [m/s]	12.9
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	52203

### ANALYSIS REPORT :

Parameters	Unit	Results	Limits *	Methods
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	6.5	30	IS 11255 (Part I) 1985

Limits\*: Consent No.12/2024-PCB/2524810/R00017175

End \_\_\_\_\_

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S PARAB]

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Note :

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6. Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Stack Kit No. Polltech – PEM- SMK10L	03/12/2024	03/12/2025
2	Analytical Balance – Sr. No. GL/EQ/BAL/02	10/06/2025	09/06/2026
3	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
4	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/05/2025	02/08/2025



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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/07130		Test Report Date	04/08/2025
Customer Name and Address	<b>M/s. VEDANTA LIMITED</b> WASTE HEAT RECOVERY PLANT I & II, COKE OVEN PLANT I & II SURVEY NO. 205, 206, 207, 31/1, 33, PART OF 177, 44, 43/1, 43/2, 42/1 & 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, & 44/5 OF AMONA VILLAGE, BICHOLIM - GOA.			
Letter Ref./Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.			
Sampling Done By	GPL	Page No.	1 of 1	
Sample Received on	31/07/2025	Analysis Period	31/07/2025 To 04/08/2025	

### SAMPLING DETAILS - STACK EMISSION

Stack Attached to	WHRPP 1 Boiler 2
Date of Sample collection	30/07/2025
Stack Diameter [Meter]	2.00
Height From Ground Level [Meter]	43
Shape	Round
Temperature of flue gas [°C]	152
Average flue gas velocity [m/s]	11.6
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	92021

### ANALYSIS REPORT :

Parameters	Unit	Results	Limits *	Methods
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	20.5	100	IS 11255 (Part I) 1985
Sulphur Dioxide	Kg/Hr	22.94	500	IS 11255 (Part II) 1985
Oxides of Nitrogen	mg/Nm <sup>3</sup>	29.12	500	IS 11255 (Part VII) 2005

Limits\*: Consent No.12/2024-PCB/2524810/R00017175

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Stack Kit No. Politech – PEM- SMK10L	03/12/2024	03/12/2025
2	Analytical Balance – Sr. No. GL/EQ/BAL/02	10/06/2025	09/06/2026
3	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
4	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/05/2025	02/08/2025



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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/07129		Test Report Date	04/08/2025
Customer Name and Address	<b>M/s. VEDANTA LIMITED</b> <b>WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II</b> <b>SURVEY NO. 205, 206, 207, 31/1, 33, PART OF 177, 44, 43/1, 43/2, 42/1 &amp; 74,</b> <b>SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1,</b> <b>44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>			
Letter Ref./Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.			
Sampling Done By	GPL	Page No.	1 of 1	
Sample Received on	31/07/2025	Analysis Period	31/07/2025 To 04/08/2025	

### SAMPLING DETAILS - STACK EMISSION

Stack Attached to	WHRPP 1 Boiler 1
Date of Sample collection	30/07/2025
Stack Diameter [Meter]	2.00
Height From Ground Level [Meter]	43
Shape	Round
Temperature of flue gas [°C]	149
Average flue gas velocity [m/s]	11.5
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	92056

### ANALYSIS REPORT :

Parameters	Unit	Results	Limits *	Methods
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	21.8	100	IS 11255 (Part I) 1985
Sulphur Dioxide	Kg/Hr	24.73	500	IS 11255 (Part II) 1985
Oxides of Nitrogen	mg/Nm <sup>3</sup>	29.36	500	IS 11255 (Part VII) 2005

Limits\*: Consent No.12/2024-PCB/2524810/R00017175

End \_\_\_\_\_

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1	Stack Kit No. Polltech – PEM- SMK10L	03/12/2024	03/12/2025
2	Analytical Balance – Sr. No. GL/EQ/BAL/02	10/06/2025	09/06/2026
3	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
4	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/05/2025	02/08/2025



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## TEST REPORT

Doc.No : GPL/QF/7.8/02

Test Report No.	GA/VEN/25/07132		Test Report Date	04/08/2025
Customer Name and Address	M/s. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I & II, COKE OVEN PLANT I & II SURVEY NO. 205, 206, 207, 31/1, 33, PART OF 177, 44, 43/1, 43/2, 42/1 & 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, & 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.			
Letter Ref./Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.			
Sampling Done By	GPL	Page No.	1 of 1	
Sample Received on	01/08/2025	Analysis Period	31/07/2025 To 04/08/2025	

### SAMPLING DETAILS - STACK EMISSION

Stack Attached to	WHRPP 2 Boiler 1
Date of Sample collection	31/07/2025
Stack Diameter [Meter]	2.00
Height From Ground Level [Meter]	50
Shape	Round
Temperature of flue gas [°C]	158
Average flue gas velocity [m/s]	12.3
Average volume of flue gas discharged [Nm³/hr]	96547

### ANALYSIS REPORT :

Parameters	Unit	Results	Limits *	Methods
Total Particulate Matter (TPM)	mg/Nm³	21.6	100	IS 11255 (Part I) 1985
Sulphur Dioxide	Kg/Hr	22.12	500	IS 11255 (Part II) 1985
Oxides of Nitrogen	mg/Nm³	38.82	500	IS 11255 (Part VII) 2005

Limits\*: Consent No.12/2024-PCB/2524810/R00017175

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For GADARK LAB PVT. LTD.

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2	Analytical Balance – Sr. No. GL/EQ/BAL/02	10/06/2025	09/06/2026
3	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
4	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/05/2025	02/08/2025



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## TEST REPORT

Doc.No : GPL/QF/7.8/02

Test Report No.	GA/VEN/25/07133		Test Report Date	04/08/2025
Customer Name and Address	M/s. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I & II, COKE OVEN PLANT I & II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 & 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, & 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.			
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Sampling Done By	GPL	Page No.	1 of 1	
Sample Received on	01/08/2025	Analysis Period	01/08/2025 To 04/08/2025	

### SAMPLING DETAILS - STACK EMISSION

Stack Attached to	WHRPP 2 Boiler 2
Date of Sample collection	31/07/2025
Stack Diameter [Meter]	2.00
Height From Ground Level [Meter]	50
Shape	Round
Temperature of flue gas [°C]	154
Average flue gas velocity [m/s]	13.0
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	102346

### ANALYSIS REPORT :

Parameters	Unit	Results	Limits *	Methods
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	18.2	100	IS 11255 (Part I) 1985
Sulphur Dioxide	Kg/Hr	25.09	500	IS 11255 (Part II) 1985
Oxides of Nitrogen	mg/Nm <sup>3</sup>	36.70	500	IS 11255 (Part VII) 2005

Limits\*: Consent No.12/2024-PCB/2524810/R00017175

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2	Analytical Balance – Sr. No. GL/EQ/BAL/02	10/06/2025	09/06/2026
3	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
4	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/05/2025	02/08/2025