

TEST REPORT

Name and address of the Customer: M/s Utkal Alumina International Ltd,
Tikiri, Rayagada

Customer's reference: 71101388 Dtd-04.08.2016

Ambient Air Quality (AAQ) Monitoring Results Period: Oct'16 - Mar'17 (Monthly Average Values)

| AAQ-1 | Admin Building | PM ₁₀ µg/m ³ | PM _{2.5} µg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO mg/m ³ |
|-------|---------------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|----------------------|
| | Oct-16 | 47.00 | 25.36 | 5.83 | 11.54 | 0.16 |
| | Nov-16 | 49.77 | 33.48 | 7.00 | 11.63 | 0.16 |
| | Dec-16 | 48.10 | 31.80 | 6.50 | 10.90 | 0.13 |
| | Jan-17 | 49.80 | 33.20 | 7.00 | 11.50 | 0.15 |
| | Feb-17 | 52.10 | 34.90 | 6.70 | 12.30 | 0.16 |
| | Mar-17 | 54.4 | 33.6 | 7.0 | 13.1 | 0.16 |
| | Six Months Average | 50.20 | 32.06 | 6.67 | 11.83 | 0.15 |

| AAQ-2 | Nuapada | PM ₁₀ µg/m ³ | PM _{2.5} µg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO mg/m ³ |
|-------|---------------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|----------------------|
| | Oct-16 | 48.60 | 27.10 | 5.87 | 11.80 | 0.15 |
| | Nov-16 | 50.56 | 34.04 | 5.50 | 13.02 | 0.17 |
| | Dec-16 | 52.10 | 35.20 | 5.90 | 14.50 | 0.17 |
| | Jan-17 | 52.60 | 36.50 | 6.40 | 14.80 | 0.18 |
| | Feb-17 | 53.80 | 37.70 | 6.60 | 15.10 | 0.19 |
| | Mar-17 | 53.3 | 35.2 | 6.6 | 15.7 | 0.2 |
| | Six Months Average | 51.83 | 34.29 | 6.15 | 14.15 | 0.18 |

| AAQ-3 | Doraguda | PM ₁₀ µg/m ³ | PM _{2.5} µg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO mg/m ³ |
|-------|---------------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|----------------------|
| | Oct-16 | 47.90 | 27.00 | 5.83 | 11.70 | 0.16 |
| | Nov-16 | 49.78 | 29.51 | 5.70 | 13.80 | 0.17 |
| | Dec-16 | 51.50 | 31.90 | 6.30 | 15.90 | 0.18 |
| | Jan-17 | 52.20 | 33.10 | 6.60 | 16.70 | 0.18 |
| | Feb-17 | 54.25 | 34.05 | 6.70 | 17.50 | 0.19 |
| | Mar-17 | 55.2 | 32.6 | 6.9 | 17.3 | 0.2 |
| | Six Months Average | 51.81 | 31.36 | 6.34 | 15.48 | 0.18 |

TEST REPORT

AAQ-4

| Dimundi Boundary wall | PM ₁₀ µg/m ³ | PM _{2.5} µg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO mg/m ³ |
|---------------------------|------------------------------------|-------------------------------------|-----------------------------------|-----------------------------------|----------------------|
| Oct-16 | 52.10 | 29.70 | 5.40 | 12.20 | 0.18 |
| Nov-16 | 57.44 | 32.20 | 6.10 | 14.11 | 0.19 |
| Dec-16 | 55.50 | 30.60 | 7.10 | 15.30 | 0.19 |
| Jan-17 | 55.70 | 33.10 | 7.80 | 17.30 | 0.19 |
| Feb-17 | 57.60 | 33.90 | 7.70 | 18.40 | 0.20 |
| Mar-17 | 57.1 | 31.9 | 7.5 | 18 | 0.21 |
| Six Months Average | 55.91 | 31.90 | 6.93 | 15.89 | 0.19 |

AAQ-5

| Training Center (Inside plant) | PM ₁₀ µg/m ³ | PM _{2.5} µg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO mg/m ³ |
|--------------------------------|------------------------------------|-------------------------------------|-----------------------------------|-----------------------------------|----------------------|
| Oct-16 | 55.50 | 36.45 | 6.04 | 12.84 | 0.18 |
| Nov-16 | 56.33 | 43.43 | 6.60 | 13.18 | 0.20 |
| Dec-16 | 58.80 | 45.60 | 7.30 | 14.90 | 0.22 |
| Jan-17 | 58.40 | 46.40 | 7.80 | 15.90 | 0.24 |
| Feb-17 | 53.90 | 27.50 | 8.00 | 16.70 | 0.25 |
| Mar-17 | 55.3 | 27.3 | 8.1 | 17.3 | 0.27 |
| Six Months Average | 56.37 | 37.78 | 7.31 | 15.14 | 0.23 |

AAQ-6

| Near BSNL tower (Inside plant) | PM ₁₀ µg/m ³ | PM _{2.5} µg/m ³ | SO ₂ µg/m ³ | NO ₂ µg/m ³ | CO mg/m ³ |
|--------------------------------|------------------------------------|-------------------------------------|-----------------------------------|-----------------------------------|----------------------|
| Oct-16 | 50.38 | 29.66 | 5.90 | 11.88 | 0.17 |
| Nov-16 | 49.89 | 30.11 | 5.70 | 13.18 | 0.18 |
| Dec-16 | 51.80 | 31.90 | 6.20 | 14.70 | 0.20 |
| Jan-17 | 52.44 | 32.80 | 6.50 | 15.60 | 0.20 |
| Feb-17 | 53.50 | 34.00 | 6.60 | 15.70 | 0.21 |
| Mar-17 | 53.7 | 31.7 | 7 | 16.3 | 0.21 |
| Six Months Average | 51.95 | 31.70 | 6.32 | 14.56 | 0.20 |



Kalyani Laboratories

KALYANI LABORATORIES PVT. LTD.

841-A, RASULGARH, BHUBANESWAR-751010, ODISHA

TEST REPORT

Polynuclear aromatic hydro-carbons (as PAH) Monitoring Results

| Sl. No. | Date of sampling | Sampling location | Result |
|---------|------------------|-------------------|------------------------|
| 1 | 29.12.2016 | Training Centre | <1.0 ng/m ³ |
| 2 | 29.12.2016 | Doraguda | <1.0 ng/m ³ |
| 3 | 15.03.2017 | Training Centre | <1.0 ng/m ³ |
| 4 | 15.03.2017 | Doraguda | <1.0 ng/m ³ |

Note : No deviation from the NAAQS is observed and all the values are with in the standard prescribed under National Ambient Air Quality Standards (NAAQS)

Digambar Azukha

Authorized Signatory
Kalyani Laboratories Private Limited

