



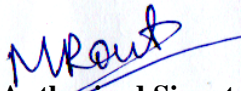
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Accredited by NABET, QCI for EIA Studies as 'A' Category Consultant Organization. Empanelled with PCCF(Wildlife) & CWLW, Odisha
Enlisted in Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India)
MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Reference No : CEMC/ASL/ Oct -A-10/20
Name of Company : Ardent Steel Ltd.
Sample Description : Ambient Air
Date of Monitoring : 15.10.2020
Date of Receiving : 17.10.2020
Date of Analysis : 17.10.2020
Sample Collected by : Mr.B Samantaray

AMBIENT AIR QUALITY TEST REPORT (24 HOURLY AVERAGE)

| Sl. No. | LOCATION | MONITORING REPORT | | | | | |
|----------------------|---|--|---|---|---|--|---|
| | | PM ₁₀ ($\mu\text{g}/\text{m}^3$) | PM _{2.5} ($\mu\text{g}/\text{m}^3$) | SO ₂ ($\mu\text{g}/\text{m}^3$) | NO _x ($\mu\text{g}/\text{m}^3$) | CO (mg/m^3) | NH ₃ ($\mu\text{g}/\text{m}^3$) |
| 1 | At the boundary near the water harvesting pond (East Direction) | 72.4 | 38.8 | 11.6 | 16.8 | 0.44 | <20 |
| 2 | At the Boundary near ESP (South Direction) | 68.2 | 36.4 | 10.4 | 15.6 | 0.42 | <20 |
| 3 | At the Boundary near Coal Fines Stock yard (North Direction) | 73.2 | 39.2 | 12.8 | 17.2 | 0.48 | <20 |
| 4 | Near Ball mill, Iron ore fines stock yard | 72.8 | 38.6 | 12.2 | 17.2 | 0.46 | <20 |
| NAAQ Standard | | 100 ($\mu\text{g}/\text{m}^3$) | 60 ($\mu\text{g}/\text{m}^3$) | 80 ($\mu\text{g}/\text{m}^3$) | 80 ($\mu\text{g}/\text{m}^3$) | 4.0 (mg/m^3) | 400 ($\mu\text{g}/\text{m}^3$) |


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Sample Description : Ambient Air
Date of Monitoring : 15.10.2020
Date of Receiving : 17.10.2020
Date of Analysis : 17.10.2020
Sample Collected by : Mr.B Samantaray

FUGITIVE EMISSION TEST REPORT

| Sl. No. | LOCATION | RESULT | |
|------------------------------|--|-----------------------------------|----------------------------------|
| | | RSPM ($\mu\text{g}/\text{m}^3$) | SPM ($\mu\text{g}/\text{m}^3$) |
| 1 | Proportioning System (Ash & Coke Fines Bunker) | 321 | 1014 |
| 2 | Raw Material Transfer point of Mixture (Mixture Building) | 298 | 995 |
| 3 | Ball Mill (Cool Grinding) | 304 | 1062 |
| 4 | Ball Mill (Flux & Coke Grinding) | 308 | 1084 |
| 5 | Finished Product Transfer points and plant de-dusting system | 285 | 1030 |
| 6 | Travelling Grate & Rotary Kiln | 314 | 981 |
| MoEF Standard for SPM | | -- | 2000* |

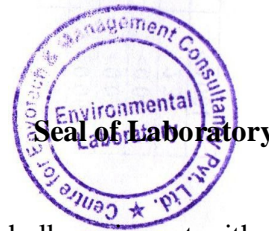
* The standard is applicable at 10 m distance from the source

Mr. B. Samantaray

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Reference No : **CEMC/ASL/Oct-N-10/20**
Name of Company : **Ardent Steel Ltd.**
Sample Description : **Noise Monitoring Report**
Date of Monitoring : **15.10.2020**
Sample Collected by : **Mr.B Samantaray**

NOISE LEVEL STUDY REPORT

| Sl. No. | Location | Noise Level In Day Time dB(A) | Noise Level In Night Time dB(A) |
|---------|---|-------------------------------|---------------------------------|
| 01 | Ball Mill (Cool Grinding) | 74.1 | 65.2 |
| 02 | Raw Material Transfer point of Mixture (Mixture Building) | 72.2 | 68.3 |

NATIONAL STANDARD NOISE LEVEL

| Area Code | Category of Area/Zone | Permissible Limit in dB (A) | |
|-----------|-----------------------|-----------------------------|------------|
| | | Day Time | Night Time |
| A | Industrial Area | 75 | 70 |
| B | Commercial Area | 65 | 55 |
| C | Residential Area | 55 | 45 |
| D | Silence Zone | 50 | 40 |

Mr. B. Samantaray

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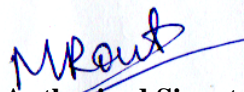
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Reference No : **CEMC/ASL/ Oct -ST-10/20**
Name of Company : **Ardent Steel Ltd.**
Sample Description : **Stack Monitoring**
Date of Monitoring : **15.10.2020**
Sample Collected by : **Mr.B Samantaray**
Stack Height : **30m**

STACK EMISSION REPORT

| Sl. No. | Location of Sampling | Flue Gas Temp. in K | Concentration of Particulate Matter (PM) in mg/Nm ³ |
|---------|----------------------|---------------------|--|
| | | | Result |
| 01 | ESP | 396 | 48.2 |


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Reference No : **CEMC/ASL/Oct-GW-10/20**
Name of Company : **Ardent Steel Ltd.**
Sample Description : **Ground Water**
Date of Monitoring : **15.10.2020**
Date of Receiving : **17.10.2020**
Date of Analysis : **17.10.2020**
Sample Collected by : **Mr.B Samantaray**
Sample Location : **Canteen(RO Water)**

GROUND WATER TEST REPORT

| Sl. No | Parameter | Unit | Desired Limit of drinking water (BIS:10500:2012) | Permissible Limit of drinking water (BIS:10500:2012) | Result |
|--------|--|-------|--|--|--------|
| 1 | Colour | Hazen | 5 | 15 | <5 |
| 2 | Odour | - | Agreeable | Agreeable | AL |
| 3 | Taste | - | Agreeable | - | AL |
| 4 | Turbidity | NTU | 1 | 5 | <1 |
| 5 | pH Value @ 25°C | - | 6.5-8.5 | No Relaxation | 6.54 |
| 6 | Total Dissolved Solid | mg/l | 500 | 2000 | 80 |
| 7 | Alkalinity as CaCO ₃ | mg/l | 200 | 600 | 36 |
| 8 | Total Hardness as CaCO ₃ | mg/l | 200 | 600 | 40 |
| 9 | Iron as Fe | mg/l | 0.3 | No Relaxation | 0.082 |
| 10 | Nitrate as NO ₃ ⁻ -N | mg/l | 45 | No Relaxation | 0.44 |
| 11 | Sulphate as SO ₄ | mg/l | 200 | 400 | 1.26 |
| 12 | Fluoride as F | mg/l | 1.0 | 1.5 | <0.05 |
| 13 | Calcium as Ca | mg/l | 75 | 200 | 10.82 |
| 14 | Chloride as Cl ⁻ | mg/l | 250 | 1000 | 4.9 |

N.B: AL – Agreeable

Mr. B. Samantaray

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Reference No : CEMC/ASL/Oct-SW-10/20
Name of Company : Ardent Steel Ltd.
Sample Description : Surface Water
Date of Monitoring : 15.10.2020
Date of Receiving : 17.10.2020
Date of Analysis : 17.10.2020
Sample Collected by : Mr.B Samantaray
Sample Location : Reservoir

SURFACE WATER TEST REPORT

| Sl. No | Parameter | Unit | GSR 422E Standards | Result |
|--------|--|-------|--------------------|--------|
| 1 | Colour | Hazen | -- | 5 |
| 2 | Odour | - | -- | U/O |
| 3 | pH Value @ 25°C | - | 5.5-9.0 | 7.32 |
| 4 | Total Dissolved Solid | mg/l | 2100 | 320 |
| 5 | Iron as Fe | mg/l | 3.0 | 0.48 |
| 6 | Sulphate as SO ₄ | mg/l | 1000 | 17.6 |
| 7 | Nitrate as NO ₃ ⁻ -N | mg/l | 50 | 15.4 |
| 8 | Boron as B | mg/l | 2.0 | 0.24 |
| 9 | BOD for 3 days @ 27 ⁰ C | mg/l | 30 | 2.6 |
| 10 | COD | mg/l | 250 | 24 |

N.B: U/O- Un-objectionable

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Reference No : CEMC/ASL/Oct -WW-10/20
Name of Company : Ardent Steel Ltd.
Sample Description : Waste Water
Date of Monitoring : 15.10.2020
Date of Receiving : 17.10.2020
Date of Analysis : 17.10.2020
Sample Collected by : Mr.B Samantaray
Sample Location : STP Outlet

ANALYSIS RESULT

| Sl. No. | Parameter | Unit | Effluent Discharge Standard | Testing Method | Result |
|---------|-------------------------|------|-----------------------------|----------------------------|--------|
| 1. | pH Value @ 25°C | -- | 6.5-9.0 | APHA 4500 H ⁺ B | 7.12 |
| 2. | Total Suspended Solids | mg/l | <20 | APHA 2540 D | 14.6 |
| 3. | B.O.D for 3 days @ 27°C | mg/l | <10 | APHA 5210 B | 8.2 |
| 4. | COD | mg/l | <50 | APHA 5220 C | 46 |
| 5. | Oil & Grease | mg/l | -- | APHA 5520 B | 2.0 |

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