

# The Sandur Manganese & Iron Ores Limited

(An ISO 9001:2015; ISO 14001:2015 and 45001:2018 certified company)  
CIN: L85110KA1954PLC000759; Website: www.sandurgroup.com

o/c

## REGISTERED OFFICE

'SATYALAYA', No.266  
Ward No.1, Palace Road  
Sandur - 583 119, Ballari District  
Karnataka, India  
Tel: +91 8395 260301/ 283173-199  
Fax: +91 8395 260473



## CORPORATE OFFICE

'SANDUR HOUSE', No.9  
Bellary Road, Sadashivanagar  
Bengaluru - 560 080  
Karnataka, India  
Tel: +91 80 4152 0176 - 79 / 4547 3000  
Fax: +91 80 4152 0182

No: SMIORE/MN/110825/2679/SS9 .

11 August 2025

The Environmental Officer,  
Karnataka State Pollution Control Board,  
Ward No.25, 4th Main Road,  
Kuvempu Nagar,  
Ballari - 583104

Dear Sir,


Sub: Submission of reports pertaining to monitoring of environmental parameters for the month of July 2025 in respect of Mining Lease No. 2679.

- Ref: 1. EC Identification No. EC24B0000KA5391575N dated 01 September 2024,  
2. Consent for Operation No. AW-337273 dated 10 April 2023.  
3. Consent for Operation No. AW-348553 dated 29 April 2025.

With reference to the letter cited above, we are enclosing herewith environmental monitoring reports from NABET accredited and MoEF&CC empaneled laboratory M/s Mineral Engineering Services as per stipulated environmental parameters in Environmental Clearance and Consent for Operation-Expansion for the month of July 2025 in respect of Mining Lease No. 2679, Ramghad Manganese & Iron Ore Mine of The Sandur Manganese & Iron Ores Limited.

Kindly request you to acknowledge receipt of the reports and oblige.

Thank you,  
for The Sandur Manganese & Iron Ores Limited,

  
Krishna Reddy  
Vice President - Mines Operations



Encl: Monitoring Reports

MINES OFFICE: Deogiri - 583112, Sandur Taluk, Ballari District  
Tel: +91 8395 271025 / 28 / 29 / 40; Fax: +91 8395 271066

PLANT OFFICE: Metal & Ferroalloy Plant, Vyasanakere, Mariyammanahalli - 583 222, Hosapete Taluk, Ballari District  
Tel: +91 8394 244450 / 244335



National Accreditation Board for  
Testing and Calibration Laboratories

**CERTIFICATE OF ACCREDITATION**

**ENVIRONMENTAL LABORATORY (UNIT OF MINERAL  
ENGINEERING SERVICES LLP)**

has been assessed and accredited in accordance with the standard

**ISO/IEC 17025:2017**

**"General Requirements for the Competence of Testing &  
Calibration Laboratories"**

for its facilities at

#948,2ND CROSS, ST.THOMAS TOWN POST,KAMMANAHALLI MAIN ROAD, BENGALURU, BENGALURU  
URBAN, KARNATAKA, INDIA

in the field of

**TESTING**

Certificate Number: TC-6172

Issue Date: 24/05/2025

Valid Until: 23/05/2027

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.  
(To see the scope of accreditation of this laboratory, you may also visit NABL website [www.nabl-india.org](http://www.nabl-india.org))

Name of Legal Entity: MINERAL ENGINEERING SERVICES LLP

Signed for and on behalf of NABL



  
Anuja Anand  
Director

  
N. Venkateswaran  
Chief Executive Officer



12<sup>th</sup> June 2025

F. No. LB/99/7/2021-INST LAB-HO-CPCB-HO/Pvt./554

Recognition Letter

To,  
The Head of Laboratory,  
M/s Environmental Laboratory (Unit of Mineral Engineering Services),  
948 2<sup>nd</sup> Cross St Thomas Town Post,  
Kammanahalli, Bengaluru-560084,  
Karnataka.

**Subject: Recognition of M/s Environmental Laboratory (Unit of Mineral Engineering Services), 948 2<sup>nd</sup> Cross St Thomas Town Post, Kammanahalli, Bengaluru-560084, Karnataka as Environmental laboratory under the Environmental (Protection) Act- 1986- reg.**

Sir,

With reference to your application dated 19/03/2025 along with acceptance of the terms & conditions of the guidelines for recognition of environmental laboratories under the Environmental (Protection) Act, 1986, submitted to Central Pollution Control Board (CPCB), the Competent Authority of CPCB has accorded approval for renewal of recognition of Environmental laboratory and Govt. Analysts. Subsequently, M/s **Environmental Laboratory (Unit of Mineral Engineering Services), 948 2<sup>nd</sup> Cross St Thomas Town Post, Kammanahalli, Bengaluru-560084, Karnataka** shall be notified considering the current requirement of mandatory accreditation / certifications of the laboratory with a validity up to 23/05/2028 (for three years), subject to validity of ISO/IEC 17025 and IS/ISO 45001.

2. The following analysts have been approved as Government Analysts:

1. Sh. M. Sachin Raju
2. Smt. Arshiya Kousar
3. Smt. Binu Mani

3. The laboratory should compulsorily follow the accepted terms and conditions and may undertake the following tests:

- a) **Physical Tests:** Conductivity, Colour, pH, Fixed & Volatile Solids, Total Solids, Total Dissolved Solids, Total Suspended Solids, Turbidity, Temperature, Velocity & Discharge Measurement of Industrial Effluent Stream, Flocculation Test (Jar Test), Odour, Salinity, Settleable Solids and Sludge Volume Index (SVI).
- b) **Inorganic (General and Non-metallic):** Acidity, Alkalinity, Ammonical Nitrogen, Chloride, Chlorine Residual, Dissolved Oxygen, Fluoride, Total Hardness, Total Kjeldahl Nitrogen (TKN), Nitrite Nitrogen, Nitrate Nitrogen, Phosphate, Sulphate, Cyanide, Silica and Sulphide.
- c) **Inorganic (Trace Metals):** Boron, Cadmium, Calcium, Total Chromium, Chromium Hexavalent, Copper, Iron, Lead, Magnesium, Mercury, Nickel, Potassium, Sodium, Sodium Absorption Ratio (SAR), Zinc, Arsenic, Aluminium, Antimony, Barium, Cobalt, Selenium, Silver, Tin and Vanadium.
- d) **Organics (General) and Trace Organics:** Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Oil and Grease, Phenolic Compounds, Pesticides (each) (Organo-Chlorine and Organo Nitrogen-Phosphorus), Poly-Chlorinated Biphenyl (PCB's) each, Polynuclear Aromatic Hydrocarbon (PAH), Surfactants and Tannin & Lignin.
- e) **Microbiological Test:** Total Coliform, Faecal Coliform, *E. coli*, Faecal Streptococci and Total Plate Count.
- f) **Toxicological Tests:** Bioassay Method for Evaluation of Toxicity Using Fish (90% survival of fish after 96 hrs in 100% effluent) and Measurement of toxicity using *Daphnia* or other organism.

contd.

‘परिवेश भवन’ पर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in



- g) **Biological Test:** Macrophytic Identification, Planktonic Identification Count and Chlorophyll.
- h) **Characterization of Hazardous Waste:** Corrosivity, Ignibility (Flash Point) and Measurement of Heavy Metals/Pesticides in the Waste/Leachate.
- i) **Soil/Sludge/Sediment and Solid Waste:** Boron, Cation Exchange Capacity (CEC), Electrical Conductivity, Nitrogen (Available), Organic Carbon/Matter (Chemical Method), pH, Phosphorous (Available), Phosphate (Ortho), Phosphate (Total), Potassium, SAR in Soil Extract, Sodium, Soil Moisture, TKN, Calorific Value, Ammonia, Bicarbonate, Calcium, Calcium Carbonate, Chloride, Colour, H. Acid, Heavy Metal, Magnesium, Nitrate, Nitrite, Potash(Available), Sulphate, Sulphur, Total Organic Carbon (TOC), Total Water Soluble Salt and Water Holding Capacity.
- j) **Ambient Air/ Fugitive Emissions:** Nitrogen Dioxide (NO<sub>2</sub>), Sulphur Dioxide (SO<sub>2</sub>), Total Suspended Particulate Matter, Respirable Suspended Particulate Matter (PM<sub>10</sub>), Ammonia, Carbon monoxide, Chlorine, Lead, Ozone, Benzene Toluene Xylene (BTX), Polycyclic Aromatic Hydrocarbon (PAH) Benzo-a-Pyrene & others and PM<sub>2.5</sub>.
- k) **Stack Gases/ Source Emission:** Particulate Matter, Sulphur Dioxide, Velocity & Flow, Carbon Dioxide, Carbon Monoxide, Temperature, Oxygen, Oxides of Nitrogen, Acid Mist, Ammonia, Chlorine, Total Hydrocarbon, Hydrogen Sulphide and Carbon Disulphide.
- l) **Noise Level:** Noise level measurement (20 to 140 dba) and Ambient Noise & Source Specific Noise.
- m) **Meteorological:** Ambient Temperature, Wind Direction, Wind Speed, Relative Humidity, Solar Radiation and Rain Fall.
4. The laboratory shall compulsorily participate in the Analytical Quality Control (AQC) Exercise conducted by the CPCB to ascertain the capability of the laboratory and analysts. The lab shall submit quarterly progress report on the sample analysis carried out to CPCB.
5. The surprise inspection / periodic surveillance of the recognized environment laboratory will be undertaken to assess its proper functioning systematic operation and reliability of data generated at the laboratory by a Joint Team as per the Notification.
6. The laboratory should have the mandatory requisite accreditation and certificate of the ISO: 17025 and ISO: 45001 as per rules. This recognition is subject to such accreditations and renewals as applicable and in case of serious non-compliance of any of the terms and conditions, the laboratory may be black listed for a minimum period of two years and civil/criminal proceedings, as applicable, may be initiated for performing functions on behalf of the Government in an unauthorized manner.
7. **M/s Environmental Laboratory (Unit of Mineral Engineering Services), Bengaluru, Karnataka** is required to apply for further renewal of recognition through online using CPCB web portal (<https://cpcbepalab.in/epalab>) before expiry of recognition with mandatory accreditation / certification concerned.

Yours faithfully,

*MNSI*  
*12/6/2024*  
Divisional Head  
Instrumentation Laboratory

फा. सं. एलबी-2021/7/99/इंस्टलैब-एचओ-सीपीसीबी-एचओ / प्राइवेट / 554

मान्यता पत्र

सेवा में,

प्रयोगशाला प्रमुख,  
मैसर्स एनवायरनमेंटल लैबोरेटरी (यूनिट ऑफ मिनरल इंजीन्यरिंग सर्विसेस एलएलपी),  
948 दूसरी क्रॉस सेंट थॉमस टाउन पोस्ट,  
कम्पनहल्ली, बेंगलुरु-560084,  
कर्नाटक।

विषय: पर्यावरण (संरक्षण) अधिनियम, 1986 के अंतर्गत पर्यावरणीय प्रयोगशाला के रूप में मैसर्स एनवायरनमेंटल लैबोरेटरी (यूनिट ऑफ मिनरल इंजीन्यरिंग सर्विसेस एलएलपी), 948 दूसरी क्रॉस सेंट थॉमस टाउन पोस्ट, कम्पनहल्ली, बेंगलुरु-560084, कर्नाटक की मान्यता के बारे में।

महोदय,

केंद्रीय प्रदूषण नियंत्रण बोर्ड (के.प्र.नि.बोर्ड) को पर्यावरण (संरक्षण) अधिनियम, 1986 के अंतर्गत पर्यावरण प्रयोगशालाओं की मान्यता के लिए दिशानिर्देशों के निबंधन और शर्तों की स्वीकृति के साथ आपके दिनांक 19/03/2025 के प्रस्तुत आवेदन के संदर्भ में, के.प्र.नि.बोर्ड के सक्षम प्राधिकारी ने पर्यावरण प्रयोगशाला और सरकार के विश्लेषक की मान्यता के नवीनीकरण को अनुमोदन प्रदान किया है। तदनुसार, मैसर्स एनवायरनमेंटल लैबोरेटरी (यूनिट ऑफ मिनरल इंजीन्यरिंग सर्विसेस एलएलपी), 948 दूसरी क्रॉस सेंट थॉमस टाउन पोस्ट, कम्पनहल्ली, बेंगलुरु-560084, कर्नाटक को भारत की राजपत्र अधिसूचना में प्रयोगशाला की अनिवार्य प्रत्यायन/प्रमाणन की वर्तमान अपेक्षा को ध्यान में रखते हुए दिनांक 23/05/2028 (तीन साल) तक आईएसओ/ आईईसी 17025 और आईएस/आईएसओ 45001 की वैधता के साथ अधिसूचित किया जाएगा।

2. निम्नलिखित विश्लेषकों को सरकारी विश्लेषक के रूप में अनुमोदित किया गया है:

1. श्री. एम. सचिन राजू
2. श्रीमती अर्शिया कौसर
3. श्रीमती. बिनु मणि

3. प्रयोगशाला अनिवार्य रूप से स्वीकृत निबंधन और शर्तों का पालन करते हुए निम्नलिखित परीक्षणों करेगी:

- क. **भौतिक परीक्षण:** चालकता, रंग, पीएच, स्थिर और वाष्पशील ठोस, कुल ठोस, कुल विलीन ठोस, कुल निलंबित ठोस, आविलता, तापमान, वेग एवं निर्वहन औद्योगिक बहिःस्राव धारा का विसर्जन मापन, फ्लोक्यूलेशन टेस्ट (जार टेस्ट), गंध, लवणता, निपटान योग्य ठोस और आपंक वॉल्यूम इंडेक्स (एसवीआई)।
- ख. **अकार्बनिक (सामान्य और गैर-धात्विक):** अम्लता, क्षारीयता, अमोनिकल नाइट्रोजन, क्लोराइड, क्लोरीन अवशिष्ट, विलीन ऑक्सीजन, फ्लोराइड, कुल कठोरता, कुल केजेलडहल नाइट्रोजन (टीकेएन), नाइट्राइट नाइट्रोजन, नाइट्रेट नाइट्रोजन, फॉस्फेट, सल्फेट, साइनाइड, सिलिका और सल्फाइड।
- ग. **अकार्बनिक (सूक्ष्म मात्रिक धातु):** बोरोन, कैडमियम, कैल्शियम, टोटल क्रोमियम, क्रोमियम हेक्सावैलेंट, तांबा, लोहा, सीसा, मैग्नीशियम, पारा, निकल, पोटेशियम, सोडियम, सोडियम अवशोषण अनुपात (एसएआर), जिंक, आर्सेनिक, एल्युमीनियम, एंटीमनी, बेरियम, कोबाल्ट, सेलेनियम, सिल्वर, टिन और वैनेडियम।
- घ. **ऑर्गेनिक्स (सामान्य) और ट्रेस ऑर्गेनिक्स:** बायोकेमिकल ऑक्सीजन डिमांड (बीओडी), रासायनिक ऑक्सीजन डिमांड (सीओडी), तेल और ग्रीस, फेनोलिक यौगिक, कीटनाशक (प्रत्येक) (ऑर्गेनो-क्लोरीन और ऑर्गेनो नाइट्रोजन-फॉस्फोरस), पॉली-क्लोरिनेटेड बाइफिनाइल (पीसीबी) (प्रत्येक), पॉलीन्यूक्लियर एरोमैटिक हाइड्रोकार्बन (पीएच), सर्फेक्टेंट और टैनिन & लिग्निन।
- ङ. **सूक्ष्म जीवविज्ञान परीक्षण:** टोटल कोलीफॉर्म, फीकल कोलीफॉर्म, ई.कोली, फीकल स्ट्रेप्टोकोक्की, स्ट्रेप्टोकोक्की और टोटल प्लेट काउंट।
- च. **आविष विज्ञानी परीक्षण:** मछली का उपयोग करके विषाक्तता के मूल्यांकन के लिए जैव परख विधि (100% प्रवाह में 96 घंटे के बाद मछली का 90% जीवित रहना), और डैफ़निया या अन्य जीव का उपयोग करके विषाक्तता का मापन।

जारी.

- छ. **जैविक परीक्षण:** मैक्रोफाइटिक पहचान, प्लवक पहचान गणना और क्लोरोफिल।
- ज. **परिसंकटमय अपशिष्ट का लक्षण वर्णन:** संक्षारकता, ज्वलनशीलता (फ्लैश प्वाइंट) और अपशिष्ट & निक्षालक में भारी धातुओं/पीड़कनाशियों का मापन।
- झ. **मृदा/आपंक/तलछट और ठोस अपशिष्ट:** बोरॉन, कटियन एक्सचेंज क्षमता (सीईसी), विद्युत चालकता, नाइट्रोजन (उपलब्ध), कार्बनिक कार्बन/पदार्थ (रासायनिक विधि), पीएच, फास्फोरस (उपलब्ध), फॉस्फेट (ऑर्थो), फॉस्फेट (कुल), पोटेशियम, मृदा के अर्क में एसएआर, सोडियम, मृदा की नमी, टीकेएन, कैलोरी मान, अमोनिया, बाइकार्बोनेट, कैल्शियम, कैल्शियम कार्बोनेट, क्लोराइड, रंग, एच एसिड, भारी धातु, मैग्नीशियम, नाइट्रेट, नाइट्राइट, पोटेश (उपलब्ध), सल्फेट, सल्फर, कुल कार्बनिक कार्बन (टीओसी), कुल पानी में घुलनशील नमक और जल धारण क्षमता।
- ञ. **परिवेशी वायु/पलायक उत्सर्जन:** नाइट्रोजन डाइऑक्साइड (एनओ<sub>2</sub>), सल्फर डाइऑक्साइड (एसओ<sub>2</sub>), कुल निलंबित विविक्त कण, श्वसन योग्य निलंबित कण पदार्थ (पीएम<sub>10</sub>), अमोनिया, कार्बन मोनोऑक्साइड, क्लोरीन, सीसा, ओजोन, बेंजीन टोल्यूनि जाइलीन (बीटीएक्स), पॉलीसाइक्लिक एरोमैटिक हाइड्रोकार्बन (पीएच) बेंजो-ए-पाइरिन और अन्य और पीएम<sub>2.5</sub>।
- ट. **चिमनी गैसें/स्रोत उत्सर्जन:** पार्टिकुलेट मैटर, सल्फर डाइऑक्साइड, वेग और प्रवाह, कार्बन डाइऑक्साइड, कार्बन मोनोऑक्साइड, तापमान, ऑक्सीजन, नाइट्रोजन के ऑक्साइड, एसिड धुंध, अमोनिया, कुल हाइड्रोकार्बन, हाइड्रोजन सल्फाइड और कार्बन डाइसल्फाइड।
- ठ. **रव (शोर) स्तर:** शोर स्तर माप (20 से 140 डीबीए) और परिवेश रव & स्रोत विशिष्ट रव।
- ड. **मौसम संबंधी:** परिवेश का तापमान, हवा की दिशा, हवा की गति, सापेक्ष आर्द्रता, सौर विकिरण और वर्षा।

4. प्रयोगशाला और विश्लेषकों की क्षमता का पता लगाने के लिए प्रयोगशाला को के.प्र.नि. बोर्ड द्वारा आयोजित विश्लेषणात्मक गुणवत्ता नियंत्रण) एक्ज्यूसी (अभ्यास में अनिवार्य रूप से भाग लेना होगा। प्रयोगशाला किए गए नमूना विश्लेषण पर के.प्र.नि. बोर्ड को तिमाही प्रगति रिपोर्ट प्रस्तुत करेगी।
5. अधिसूचना के अनुसार, एक संयुक्त दल द्वारा मान्यता प्राप्त पर्यावरण प्रयोगशाला का औचक निरीक्षण/आवधिक निगरानी उस के उचित कामकाज, व्यवस्थित प्रचालन और प्रयोगशाला में तैयार किए गए आंकड़ों की विश्वसनीयता का निर्धारण करने के लिए की जाएगी।
6. प्रयोगशाला के पास नियमानुसार ISO/IEC: 17025)2017 ( और IS/ ISO: 45001 का अपेक्षित प्रत्यायन और प्रमाण पत्र होना चाहिए। यह मान्यता यथा लागू प्रत्यायन और नवीनीकरण के अधीन है और किसी भी निबंधन और शर्तों के गंभीर गैर-अनुपालन के मामले में, प्रयोगशाला को न्यूनतम दो साल की अवधि के लिए ब्लैकलिस्ट किया जा सकता है और सरकार की ओर से अनधिकृत तरीके से कार्य करने के लिए, यथा लागू सिविल/आपराधिक कार्यवाही शुरू की जा सकती है।
7. **मैसर्स एनवायरनमेंटल लैबोरेटरी (यूनिट ऑफ मिनरल इंजीनियरिंग सर्विसेस एलएलपी), बेंगलुरु, कर्नाटक** को संबंधित अनिवार्य प्रत्यायन/प्रमाणीकरण के साथ मान्यता की समाप्ति से पूर्व केंद्रीय प्रदूषण नियंत्रण बोर्ड के वेबपोर्टल (<https://cpcbepalab.in/epalab>) का उपयोग कर के ऑनलाइन मान्यता के नवीनीकरण के लिए आवेदन करना अपेक्षित है।

भवदीय,  
 12/6/2024  
 प्रभागप्रमुख  
 उपकरणीय प्रयोगशाला

# ENVIRONMENTAL MONITORING REPORT

Project	<b>Ramgad Manganese Ore Mine ML No. 2679</b>
Location	Ramgad village, Sandur Taluk, Ballari Dist, Karnataka
Client	M/s. The Sandur Manganese & Iron Ores Limited
Office Address	Sandur, Ballari District, Karnataka
Monitoring Month	July -2025

## **ENVIRONMENTAL LABORATORY**

**(Unit of Mineral Engineering Services LLP)**

(Accredited by NABL & MOEF&CC Under E(P) Act 1986)

#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,

St Thomas Town Post,

Bangalore- 560 084, Karnataka

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(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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## TEST REPORT

Table No.1

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
 Name of the Project : Mining Lease No. 2679  
 Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
 Particulars of sample collected : A1 - ML Area (Core Zone)  
 Duration : 24 Hrs  
 Issue date : 02.08.2025  
 Reference IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N003225071	7	9	53	28	0.32
05.07.2025	N002625072	9	10	45	25	0.21
11.07.2025	N026425072	8	12	40	23	0.2
12.07.2025	N000625073	7	9	39	22	0.25
14.07.2025	N007125073	6	14	50	25	0.21
15.07.2025	N013425073	9	11	51	27	0.36
23.07.2025	N018325074	11	12	35	18	0.28
24.07.2025	N022025074	7	9	40	23	0.42
30.07.2025	N016525075	6	8	39	18	0.25
31.07.2025	N019325075	9	10	46	23	0.45
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

*Arshiyahousar*  
 ARSHIYAHOUSAR  
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## TEST REPORT

Table No.2

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
 Name of the Project : Mining Lease No. 2679  
 Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
 Particulars of sample collected : A2 - Core Zone (Myadara Banda Block)  
 Station & Code : & A2  
 Duration : 24 Hrs  
 Issue date : 02.08.2025  
 Reference IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N003425071	11	12	50	27	0.33
05.07.2025	N002825072	6	9	54	28	0.21
11.07.2025	N026625072	5	8	39	30	0.26
12.07.2025	N000825073	4	9	37	28	0.25
14.07.2025	N007325073	9	11	45	24	0.21
15.07.2025	N013625073	10	13	43	24	0.31
23.07.2025	N018525074	9	11	49	25	0.25
24.07.2025	N022225074	11	12	50	27	0.21
30.07.2025	N016725075	10	11	42	23	0.28
31.07.2025	N019525075	7	9	40	22	0.23
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

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## TEST REPORT

Table No.3

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2679  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Particulars of sample collected : A3 - Core Zone (Governor Point)  
Duration : 24 Hrs  
Issue date : 02.08.2025  
Reference IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N003525071	9	11	36	29	0.22
05.07.2025	N002925072	6	9	37	28	0.20
11.07.2025	N026725072	12	15	35	19	0.31
12.07.2025	N000925073	11	12	47	25	0.25
14.07.2025	N007425073	6	9	43	23	0.27
15.07.2025	N013725073	8	11	30	18	0.23
23.07.2025	N018625074	9	11	44	24	0.31
24.07.2025	N022325074	6	9	54	29	0.25
30.07.2025	N016825075	5	7	38	18	0.42
31.07.2025	N019625075	6	9	48	26	0.25
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

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## TEST REPORT

Table No.4

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
 Name of the Project : Mining Lease No. 2679  
 Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
 Particulars of sample collected : A4 - Core Zone (Neerlabi)  
 Duration : 24 Hrs  
 Issue date : 02.08.2025  
 Reference IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N003625071	11	12	46	24	0.32
05.07.2025	N003025072	7	9	37	21	0.28
11.07.2025	N026825072	10	13	38	18	0.36
12.07.2025	N001025073	7	9	48	24	0.44
14.07.2025	N007525073	9	11	53	28	0.35
15.07.2025	N013825073	6	7	50	26	0.33
23.07.2025	N018725074	7	9	39	18	0.25
24.07.2025	N022425074	4	10	43	23	0.21
30.07.2025	N016925075	9	11	30	20	0.20
31.07.2025	N019725075	7	11	53	27	0.23
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

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## TEST REPORT

Table No.5

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited						
Name of the Project : Mining Lease No. 2679						
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)						
Particulars of sample collected : A5 - Ramghad village						
Duration : 24 Hrs						
Issue date : 02.08.2025						
Reference IS 5182 & Lab SOP						
Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N003725071	11	15	39	20	0.21
05.07.2025	N003125072	12	14	43	23	0.31
11.07.2025	N026925072	9	11	46	25	0.25
12.07.2025	N001125073	12	15	40	22	0.45
14.07.2025	N007625073	4	11	36	18	0.38
15.07.2025	N013925073	7	10	38	22	0.26
23.07.2025	N018825074	5	9	50	28	0.31
24.07.2025	N022525074	7	11	35	16	0.25
30.07.2025	N017025075	6	7	40	22	0.22
31.07.2025	N019825075	7	9	43	24	0.25
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr
Note : * Parameters monitored for period of 1 hr						

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## TEST REPORT

Table No.6

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2679  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Particulars of sample collected : A6 - Dharmapura village  
Duration : 24 Hrs  
Issue date : 02.08.2025  
Reference IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N003825071	10	13	50	27	0.23
05.07.2025	N003225072	9	11	46	26	0.24
11.07.2025	N027025072	11	13	37	19	0.32
12.07.2025	N001225073	9	9	40	22	0.21
14.07.2025	N007725073	7	9	33	18	0.25
15.07.2025	N014025073	6	7	45	24	0.32
23.07.2025	N018925074	9	10	38	17	0.25
24.07.2025	N022625074	11	13	48	22	0.45
30.07.2025	N017125075	9	11	52	27	0.23
31.07.2025	N019925075	11	12	35	21	0.25
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

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## TEST REPORT

Table No.7

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2679  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Particulars of sample collected : A7 - Garaga village  
Duration : 24 Hrs  
Issue date : 02.08.2025  
Reference IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N003925071	9	12	51	25	0.31
05.07.2025	N003325072	9	11	40	22	0.22
11.07.2025	N027125072	7	9	45	24	0.2
12.07.2025	N001325073	8	9	36	18	0.21
14.07.2025	N007825073	6	10	40	22	0.23
15.07.2025	N014125073	5	9	51	27	0.25
23.07.2025	N019025074	10	12	46	25	0.31
24.07.2025	N022725074	6	9	40	22	0.28
30.07.2025	N017225075	8	10	48	24	0.23
31.07.2025	N020025075	10	12	52	28	0.25
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

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## TEST REPORT

Table No.8

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited						
Name of the Project : Mining Lease No. 2679						
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)						
Particulars of sample collected : A8 - Yeswanthanagar						
Duration : 24 Hrs						
Issue date : 02.08.2025						
Reference IS 5182 & Lab SOP						
Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N002925071	10	12	36	18	0.28
05.07.2025	N002325072	12	11	47	25	0.45
07.07.2025	N009825072	5	<9	39	20	0.26
08.07.2025	N014525072	9	10	50	27	0.32
18.07.2025	N027425073	7	8	45	26	0.21
19.07.2025	N001925074	9	10	54	28	0.22
21.07.2025	N008325074	6	9	40	24	0.35
22.07.2025	N013725074	10	11	50	27	0.45
28.07.2025	N005425075	6	7	45	25	0.25
29.07.2025	N011325075	7	9	43	20	0.31
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr
Note : * Parameters monitored for period of 1 hr						

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## TEST REPORT

Table No.9

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2679  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Particulars of sample collected : A9 - Subbarayanahalli  
Duration : 24 Hrs  
Issue date : 02.08.2025  
Reference IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N002525071	9	12	53	28	0.22
05.07.2025	N001925072	12	15	49	26	0.31
07.07.2025	N009425072	9	11	46	24	0.25
08.07.2025	N014125072	10	13	54	28	0.31
18.07.2025	N027025073	8	12	50	26	0.42
19.07.2025	N001525074	7	11	36	20	0.38
21.07.2025	N007925074	13	15	52	27	0.21
22.07.2025	N013325074	10	13	47	24	0.45
28.07.2025	N005025075	7	9	45	22	0.23
29.07.2025	N010925075	9	12	50	28	0.21
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

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## TEST REPORT

Table No.10

### AMBIENT AIR QUALITY

Name of the Client : The Sandur Manganese & Iron Ores Limited  
Name of the Project : Mining Lease No. 2679  
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)  
Particulars of sample collected : A10 - Siddapura village  
Duration : 24 Hrs  
Issue date : 02.08.2025  
Reference IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Particulate Matter		Carbon Monoxide* (CO), mg/m <sup>3</sup>
				PM <sub>10</sub> , (µg/m <sup>3</sup> )	PM <sub>2.5</sub> , (µg/m <sup>3</sup> )	
04.07.2025	N003325071	10	11	50	28	0.36
05.07.2025	N002725072	7	9	48	26	0.21
11.07.2025	N026525072	8	9	35	18	0.28
12.07.2025	N000725073	9	12	40	24	0.45
14.07.2025	N007225073	4	7	33	18	0.33
15.07.2025	N013525073	6	11	36	19	0.28
23.07.2025	N018425074	11	17	45	25	0.21
24.07.2025	N022125074	8	9	41	22	0.23
30.07.2025	N016625075	7	8	34	18	0.45
31.07.2025	N019425075	9	11	46	23	0.28
Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : \* Parameters monitored for period of 1 hr

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## TEST REPORT

Table No. 11

### Fugitive Emission

Name of the Client	: The Sandur Manganese & Iron Ores Limited		
Name of the Project	: Mining Lease No. 2679		
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)		
Duration	: 08 Hrs		
Issue Date	: 02.08.2025		
Particulars of sample collected	Date of sample	Report No	Particulate mater ( $\mu\text{g}/\text{m}^3$ )
FA1, Loading point	11.07.2025	N027225072	251
FA2, Dumping point	11.07.2025	N027325072	288
FA3, Haulage Road	11.07.2025	N027425072	265
FA4, Stack Yard	12.07.2025	N001425073	193
FA5, Drilling Point	12.07.2025	N001525073	321
FA6, Waste Dumping Point	12.07.2025	N001625073	300
Ref	: Environmental (Protection) Rules, 2010 (Sixth Amendment)		
Permissible limits for Fugitive Emissions	Particulate mater ( $\mu\text{g}/\text{m}^3$ ) 600 $\mu\text{g}/\text{m}^3$		

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## TEST REPORT

Table No. 12

### Analysis Report of Dust Fall Measurement

1	Name of the Client	The Sandur Manganese & Iron Ores Limited
2	Name of the Project	Mining Lease No. 2679
3	Month	01.07.2025 to 31.07.2025
4	Sample Type	Total Dust Fall Rate
5	Duration of Monitoring	One Month
6	Issue Date	02.08.2025

#### Result

Code	Particulars of sample collected	Result	unit	Reference Method
DF1	Mine Office Area	0.025	g/m <sup>2</sup> month	IS 5182 (Part 01) : 2006
DF2	Near Crusher Area	0.036	g/m <sup>2</sup> month	IS 5182 (Part 01) : 2006

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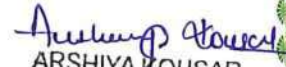
## TEST REPORT

Table No. 13

### AMBIENT NOISE LEVEL DATA

Report No : ELMES0222507

Name of the Client	: The Sandur Manganese & Iron Ores Limited						
Name of the Project	: Mining Lease No. 2679						
Particulars of Sample	: Noise levels						
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)						
Date of monitoring	: 11.07.2025						
Issue Date	: 02.08.2025						
Code No.	Monitoring stations	Day			Night		
		L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>	L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>
<b>Corezone</b>							
N1	Core zone ML Area	40.0	54.0	60.0	35.0	45.3	50.2
N2	Myadara Banda Block	38.0	55.2	62.1	35.1	44.0	47.0
N3	Goerner Point	36.0	55.6	64.0	34.0	43.3	49.5
N4	Neerlabbi	41.0	55.5	64.2	35.0	47.2	56.2
<b>Buffer zone</b>							
N5	Ramgad village	37.0	51.7	57.5	34.0	40.9	46.5
N6	Dharmapura	38.0	48.2	54.2	35.0	41.4	44.8
N7	Garaga village	36.0	45.5	52.3	35.0	41.1	43.2
N8	Yeshwanthanagar	37.0	51.9	58.0	35.0	43.9	48.0
N9	Subbarayanahalli	38.0	52.5	57.2	35.3	43.0	47.2
N10	Siddapura	39.0	50.8	58.2	34.0	41.9	46.2
<b>Permissible Limits of Ambient Noise Levels as per CPCB Guidelines</b>							
		Leq. Limit dB(A)					
		Day	Night				
Industrial areas		75	70				
Commercial area		65	55				
Residential area		55	45				

  
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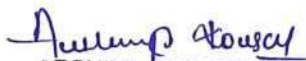
## TEST REPORT

Table No. 14

### NOISE LEVEL DATA

Report No : ELMES0232507

<b>Name of the Client</b> : M/s. Sandur Manganese & Iron Ores Limited					
<b>Name of the Project</b> : Mining Lease No. 2679					
<b>Particulars of Sample</b> : Noise levels					
<b>Sample Collected by</b> : Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
<b>Date of monitoring</b> : 12.07.2025					
<b>Issue Date</b> : 02.08.2025					
Code No.	Monitoring stations	Day			Remarks
		L <sub>min</sub>	L <sub>eq</sub>	L <sub>max</sub>	
<b>Source</b>					
N1	Loading Point	38.0	61.9	66.2	During operation
N2	Dumping Point	40.0	71.0	76.2	During operation
N3	Haulage Road	42.0	71.3	77.0	During operation
<b>Permissible Limits of Ambient</b>					
<b>Noise Levels as per CPCB Guidelines</b>					
<b>Leq. Limit dB(A)</b>					
<b>Day                      Night</b>					
Industrial areas		75		70	
<b>Heavy Earth Moving Machineries</b>					
N4	Wheel Loader	52.0	80.2	86.0	During operation in side of the cabin
		42.0	74.6	81.0	During operation 10mts outside of the cabin
N5	Tata Hitachi 200LC	43.0	73.0	79.0	During operation in side of the cabin
		41.0	68.3	74.0	During operation 10mts outside of the cabin
<b>Permissible limits as per ILO Code of Practice</b>					
For Unprotected ear - 8 hrs working shift					
Warning limit - 85 dB(A)					
Danger limit - 90 dB(A)					
Worker not to be exposed for more than 115 dB(A)					
With ear protection -					
130 dB(A) 'Impulse' or 120 dB(A) 'Fast'					
No entry when noise level exceeds 140 dB(A)					

  
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## TEST REPORT

Table No.15


Name of the Client	: The Sandur Manganese & Iron Ores Limited
Name of the Project	: Mining Lease No. 2679
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Particulars of sample collected	: SW1 - Ragavapura kere water, SW2 - Dhananayakana kere water : SW3 - Narihalla Upstream water, SW4 - Narihalla Downstream water
Date of sample collection	: 11.07.2025
Date of sample receipt	: 12.07.2025
Issue Date	: 02.08.2025
Ref : IS : 2296, Water Quality Standards	

Sl.No.	Parameters	Report No	M010725072	M010825072	M010425072	M010525072	Limits	Method of Testing
		Samples Code	SW1	SW2	SW3	SW4		
			Results					
1	pH		7.60	7.77	7.58	7.84	6.5 to 8.5	IS:3025(Part-11)2022
2	Colour (Hazen Units), Max		5	5	10	5	300	IS 3025 (Part 11) 2022
3	Odour		Agreeable	Agreeable	Agreeable	Agreeable	-	IS:3025 (P-5) 2018
4	Total Dissolved Solids (mg/l), Max		120	162	396	400	1500	IS 3025 (Part 16) 2023
5	Total Suspended Solids, mg/l		8.0	10.0	20	10	-	IS 3025 (Part 17) 2023
6	Dissolved Oxygen (as O <sub>2</sub> ), mg/l,		5.60	5.50	5.30	5.20	Min 4	IS:3025(Part-38)1989RA 2019
7	Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l		<3.0	<3.0	<3.0	<3.0	3	IS 3025 (Part 44) 2023
8	Total Hardness (as CaCO <sub>3</sub> ),mg/l,Max		170	186	210	280	-	IS:3025 (P-21):2009 RA 2023
9	Sulphates as SO <sub>4</sub> (mg/l), Max		10.0	18.0	45.0	48.0	400	APHA (24th Edition ):4110B
10	Phosphates (as P), mg/l		<0.05	<0.05	<0.05	<0.05	-	IS 3025 (P-31) Sec 1 2022 1976
11	Chloride (as Cl),mg/l, Max		15.0	22.0	100.0	105.0	600	IS:3025(Part-32) 1988RA2019
12	Fluoride (as F),mg/l, Max		0.50	0.66	0.12	0.38	1.5	IS 3025 (Part 60-Sec1) 2023
13	Sulphide (as H <sub>2</sub> S), mg/l, Max		<0.01	<0.01	<0.01	<0.01	-	IS:3025 (P-29) 2022
14	Boron (as B), mg/l, Max		<0.1	<0.1	<0.1	<0.1	-	IS:3025 (Part-57) 2021
15	Iron (as Fe),mg/l, Max		<0.005	<0.005	<0.005	<0.005	50	IS 3025 (Part 65) 2022
16	Percent of Sodium (%)		11	8	22.0	24.0	-	IS 2488 part 5
17	Residual Sodium Carbonate (meq/l)		<0.05	<0.05	<0.5	<0.5	-	IS 11624 .2009
18	Total Coliform, MPN/100ml		109	172	120	109	5000	IS 15185 2016 RA 2021

"END OF REPORT"

  
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## TEST REPORT

Table No. 16

### Stack Monitoring Report

Name of the Client :	The Sandur Manganese & Iron Ores Limited
Name of the Mine :	RAMGAD MANGANESE & IRON ORE MINE (ML NO. 2679)
Location :	Mining Lease No. 2679
Stack ID & Capacity :	DG Set 35 KVA Ramgad-KK1 Mines
Sample Collected by :	Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Instrument used for sampling :	Emissions collected through stack sampler
Date of Collection :	12.07.2025
Date of Sample Receipt :	13.07.2025
Report No :	N000125073
Issue date :	01.08.2025

#### STACK DETAILS

1	Fuel Used	Diesel
2	Ambient Temperature (°C)	27
3	Stack Temperature (°C)	149
4	Velocity (m/s)	7.98
5	Stack diameter (M)	0.15
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	337
7	Sample Condition When Received	Satisfactory
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
9	Serial No. of the Equipment	338 DTH 14
10	Calibration due date	15.07.2026
11	Test Method	IS 11255 & flue gas analyser

#### Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.115	<0.2
2	CO	g/Kw-hr	0.106	<3.5
3	NOx +HC	g/Kw-hr	0.366	<4.0

INFERENCE	As per KSPCB
	Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

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## TEST REPORT

Table No. 17

### Stack Monitoring Report

Name of the Client :	The Sandur Manganese & Iron Ores Limited
Name of the Mine :	RAMGAD MANGANESE & IRON ORE MINE (ML NO. 2679)
Location :	Mining Lease No. 2679
Stack ID & Capacity :	DG Set 20 KVA Ramgad Mines
Sample Collected by :	Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Instrument used for sampling :	Emissions collected through stack sampler
Date of Collection :	12.07.2025
Date of Sample Receipt :	13.07.2025
Report No :	N000225073
Issue date :	01.08.2025

#### STACK DETAILS

1	Fuel Used	Diesel
2	Ambient Temperature (°C)	27
3	Stack Temperature (°C)	145
4	Velocity (m/s)	7.99
5	Stack diameter (M)	0.15
6	Quantity of flue Gas Discharged into atmosphere (Nm <sup>3</sup> /hr)	340
7	Sample Condition When Received	Satisfactory
8	Model of the Equipment used for Monitoring	Vayubodhan Stack Sampler VSS1
9	Serial No. of the Equipment	338 DTH 14
10	Calibration due date	15.07.2026
11	Test Method	IS 11255 & flue gas analyser

#### Pollutional Parameters (Result)

Sl.No	Parameters	Unit	Results	Standard
1	Particulate Matter	g/Kw-hr	0.119	<0.2
2	CO	g/Kw-hr	0.256	<3.5
3	NOx +HC	g/Kw-hr	0.700	<4.0

INFERENCE	As per KSPCB
	Report Status - The measured values for the above parameters for those standards have been specified were observed to be within the said standards

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