



TSL/SCM/012/FY24

Date: -28-09-2023

**To,**  
**The Member Secretary,**  
**Odisha State Pollution Control Board,**  
**Paribesh Bhawan,**  
**A/118, Nilakantha Nagar, Unit-VIII,**  
**Bhubaneswar-751012**

**Subject:** Submission of Environmental statement in FORM-V for the year ending 31<sup>st</sup> March 2023 in respect of Sukinda Chromite Block of M/S Tata Steel Mining Ltd.

**Reference:** Rule-14 under Environmental (Protection) Amendment Rule, 1993 (G.S.R 386, 22.04.1993)

Dear Sir,

We are hereby submitting the Annual Environmental Statement in "FORM-V" prescribed under the provisions of above referenced statute, in respect of Sukinda Chromite Block of M/s Tata Steel Mining Ltd., At – Sukinda, Po- Kalarangiatta, Dist.- Jajpur, Odisha, for the year ending 31<sup>st</sup> March 2023. A copy of the annual return (annual return submitted to IBM, Govt. of India/Directorate of Mines, Govt. of Odisha) is also attached as Annexure-I.

This is for your kind information and perusal please. Receipt of the same may please be acknowledged.

Thanking You.

Yours faithfully,  
f: Tata Steel Limited

*Ripr G*  
*29.9.23*

Manager  
Sukinda Chromite Block

**Copy to:** 1. Regional Officer, SPCB, Kalinganagar, Dhabalagiri Chowk, Jajpur Road (Odisha)  
2. Integrated Regional Office, MoEF&CC, A/3, Rail Vihar, Chandrasekharpur,  
Bhubaneswar 751023

**TATA STEEL LIMITED**

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Tel 91 22 6665 8282 Fax 91 22 6665 7724 Website [www.tatasteel.com](http://www.tatasteel.com)

Corporate Identity Number L27100MH1907PLC000260



# **Environmental Statement**

**Form - V (FY - 2022 - 23)**

**For**

# **Sukinda Chromite Block**

**Submitted By:**

**Sukinda Chromite Block**

**M/s. Tata Steel Limited**

**At: Sukinda, Po: Kalarangiatta, Block-Sukinda  
District- Jajpur, Odisha -755028**

**FORM-V**

(See Rule 14)

**ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR  
ENDING THE 31<sup>st</sup> MARCH, 2023****SUKINDA CHROMITE BLOCK, M/s. TATA STEEL MINING LIMITED.****PART-A**

<b>i.</b>	<b>Name and address of the owner / occupier of the industry operation or process.</b>	<b>:</b>	Mr. Pankaj Kumar Satija (Owner) M/s. Tata Steel Mining Limited, Plot No. N3/24, IRC Village, Nayapalli, Bhubaneswar, Odisha – 751015
<b>ii.</b>	<b>Industry category Primary – (STC code) Secondary – (SIC Code)</b>	<b>:</b>	Primary (SIC): 1000 (Metal Mining) Secondary (SIC): 1060 (Ferro Alloy Ore)
<b>iii.</b>	<b>Production capacity – Units.</b>	<b>:</b>	Chrome Ore (ROM): 1.36 MTPA
<b>iv.</b>	<b>Year of establishment.</b>	<b>:</b>	2020
<b>v.</b>	<b>Date of the last Environmental Statement submitted.</b>	<b>:</b>	27.09.2022

**PART-B****Water and Raw Material Consumption****A. Water Consumption for FY 2022-23 (April 2022 to March 2023)**

Sl. No	Heads of Consumption		During the previous financial year (2021-22)		During the previous financial year (2022-23)	
			Water consumption (m <sup>3</sup> )	Water consumption (m <sup>3</sup> /day)	Water consumption (m <sup>3</sup> )	Water consumption (m <sup>3</sup> /day)
			2021-22	2021-22	2022-23	2022-23
<b>01</b>	<b>Process</b>	Water sprinkling in the mine pit and haul road	227335	738	2701920	8716
		Plantation	54426	177	54038	174
		Equipment & Vehicle washing	5544	18	4550	18
<b>02</b>	<b>Cooling</b>		670	2.17	945	3
<b>03</b>	<b>Domestic</b>	Drinking Purpose	616000	2000	512181	1652
<b>04</b>	<b>Total Consumption</b>		1017975	3305	3273634	10563

*\*Note: In case of mining operation the water requirement is for dust suppression, plantation & washing of vehicle which has been taken as process consumption of water.*

**B. Specific Water Consumption – (April 2022 to March 2023)**

**(i) Process water consumption per unit of product output**

<b>Name of the Product</b>	<b>Production (MT)</b>	<b>Water consumption per unit of production*</b>
<b>Chrome Ore (ROM)</b>	<b>1309743.862</b>	<b>2.49KL/MT</b>

**(ii) Raw Material Consumption**

The materials consumed during the previous and current financial year are in consumable and supportive ads in nature. The materials which are required for the production of Chrome ore from mine quarry are given below:

<b>Name of material</b>	<b>Name of products</b>	<b>Consumption of material per unit of output</b>	
		<b>During the previous financial year (2021-22)</b>	<b>During the current financial year (2022-23)</b>
Diesel	Chrome Ore (ROM)	6.45 Ltrs/Ton	6.73 Ltrs/Ton
Gas (LPG)		Nil	Nil
Lubricant oil		0.094 Ltrs/Ton	0.087 Ltrs/Ton
Grease		0.0047 Kg/Ton	0.0064 Kg/Ton
Electricity		4.074 KWH/Ton	4.64 KWH/Ton
Explosives		0.48 Kg/Ton	0.57 Kg/Ton

**PART-C**

**{POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT}**

(Parameters as specified in the consent issued)

**1) Water Pollution**

1. The major source of water for undertaking various activities is the mine pit water (rainfall and surface runoff accumulated in the pit and ground water seepage). Mine pit water is collected through stage pumping and drains at the Inlet of the ETP where; it is treated to correct the load of suspended solids, pH, Hexavalent Chromium, etc. Treated effluent is then reused for various purposes such as vehicle washing, haul road dust suppression, greenbelt development and maintenance, chrome ore beneficiation process and the balance treated effluent is discharged beyond the premises conforming to the prescribed norms.
2. Water consumed for industrial cooling (AC Cooling): 100% Recycled.
3. Water Consumed for Vehicle Washing: 100% Recycled at Oil-Water Separation Pit.
4. The only point at which the potential for the discharge of pollutant is with the discharge end (outlet of the ETP) which has been put under real-time monitoring for the analysis of critical parameters such as, TSS, pH and Hexavalent Chromium. The summary of the treated effluent quality is outlined in the Table below:

Sl. No.	Parameters	Unit	Result Average	Maximum Permissible Standard	Variation from the prescribed standard (%)	Remarks for the deviations if any
1.	pH	--	7.32	5.5 -9	0.0	Within the prescribed limit
2.	Suspended Solids	mg/ltr	13-23	100	-(87-77)	Within the prescribed limit
3.	Oil & Grease	mg/ltr	2.72	10	-72.8	Not Detected in any of the samples.
4.	BOD (3) days at 270c	mg/ltr	ND	30	-100	Below detection limit.
5.	COD	mg/ltr	ND	250	-100	Below detection limit
6.	Hexavalent Chromium as Cr +6	mg/ltr	BDL	0.1	-100	Below detection limit
7.	Total Chromium as Cr	mg/ltr	0.020-0.029	2.0	-(90-98)	Detected only in few samples
8.	Nickel as Ni	mg/ltr	BDL	3	-100	Below detection limit
9.	Iron as Fe	mg/ltr	0.15	3	-95	Below detection limit

## 2) Air Pollution

This is an opencast mine and does not have any potential point sources of emissions or processed stacks emanating pollutants to the environments. Hence, estimation of specific pollution load or air pollutants discharged in Kg/day cannot be ascertained, however ambient air quality for six core zone locations are monitored as per NAAQS-2009 and the summary of the monitoring results for FY 2022-23 is outlined as below in table:

Monitoring Locations	Parameters (Unit)	Results Annual Averages	Prescribed Standards Annual Average (NAAQS-2009)	Prescribed Standards 24hr Average (NAAQS-2009)	Variations from prescribed standards (%) (variation w.r.t annual average)	Reasons for variations from standard value
View Point	PM <sub>10</sub> (µg/m <sup>3</sup> )	63.68	60	100	6.13% higher	Below the 24hr average, but higher than the annual average standard
	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	35.82	40	60	10.45% lower	Below the annual prescribed standard
	SO <sub>2</sub> (µg/m <sup>3</sup> )	9.19	50	80	81.62% lower	
	NO <sub>x</sub> (µg/m <sup>3</sup> )	16.22	40	80	59.5% lower	
	CO (mg/m <sup>3</sup> )	0.54	N/A	4	N/A	Annual average standard not

**Environmental Statement for the Financial Year Ending 31<sup>st</sup> March 2023**

						prescribed in NAAQS-2009 in NAAQS-2009
<b>COB Plant</b>	PM <sub>10</sub> (µg/m <sup>3</sup> )	64.31	40	60	60.78% lower	Below the 24hr average, but higher than the annual average standard
	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	36.45	50	80	27.10% lower	Below the annual prescribed standard
	SO <sub>2</sub> (µg/m <sup>3</sup> )	11.30	40	80	71.75% lower	
	NO <sub>x</sub> (µg/m <sup>3</sup> )	17.87	N/A	4	N/A	
	CO (mg/m <sup>3</sup> )	0.61	40	60	98.48% lower	Annual average standard not prescribed in NAAQS-2009 in NAAQS-2009
<b>Stack yard</b>	PM <sub>10</sub> (µg/m <sup>3</sup> )	64.62	60	100	7.7% higher	Below the 24hr average, but higher than the annual average standard
	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	36.27	40	60	9.32% lower	Below the annual prescribed standard
	SO <sub>2</sub> (µg/m <sup>3</sup> )	11.97	50	80	76.06% lower	
	NO <sub>x</sub> (µg/m <sup>3</sup> )	17.64	40	80	55.9% lower	
	CO (mg/m <sup>3</sup> )	0.52	N/A	4	N/A	Annual average standard not prescribed in NAAQS-2009
<b>Paradeep Gate</b>	PM <sub>10</sub> (µg/m <sup>3</sup> )	<b>64.57</b>	60	100	7.62% higher	Below the 24hr average, but higher than the annual average standard
	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	<b>36.38</b>	40	60	9.05% lower	Below the annual prescribed standard
	SO <sub>2</sub> (µg/m <sup>3</sup> )	<b>10.82</b>	50	80	78.36% lower	
	NO <sub>x</sub> (µg/m <sup>3</sup> )	<b>17.06</b>	40	80	57.35% lower	
	CO (mg/m <sup>3</sup> )	<b>0.55</b>	N/A	4	N/A	Annual average standard not prescribed in NAAQS-2009
<b>Nickel Guest House</b>	PM <sub>10</sub> (µg/m <sup>3</sup> )	<b>63.04</b>	60	100	5.07% higher	Below the 24hr average, but higher than the annual average standard
	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	<b>35.56</b>	40	60	11.1% lower	Below the annual prescribed standard
	SO <sub>2</sub> (µg/m <sup>3</sup> )	<b>11.01</b>	50	80	77.98% lower	
	NO <sub>x</sub> (µg/m <sup>3</sup> )	<b>16.39</b>	40	80	59.02% lower	
	CO (mg/m <sup>3</sup> )	<b>0.53</b>	N/A	4	N/A	Annual average standard not prescribed in NAAQS-2009
<b>Laboratory top</b>	PM <sub>10</sub> (µg/m <sup>3</sup> )	<b>64.41</b>	60	100	7.35% higher	Below the 24hr average, but higher

						than the annual average standard
	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	<b>36.13</b>	40	60	9.67% lower	Below the annual prescribed standard
	SO <sub>2</sub> (µg/m <sup>3</sup> )	<b>11.88</b>	50	80	76.24% lower	
	NO <sub>x</sub> (µg/m <sup>3</sup> )	<b>17.21</b>	40	80	56.97% lower	
	CO (mg/m <sup>3</sup> )	<b>0.45</b>	N/A	4	N/A	Annual average standard not prescribed in NAAQS-2009

**PART-D**

**HAZARDOUS WASTAGES**

**(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)**

Hazardous Waste	Total Quantity	Total Quantity
	During the previous financial year (2021-22)	During the current financial year (2022-23)
<b>(a) From process</b>		
Used/Waste Oil	61.22 KL	62.151 KL
Oil Contamination Waste	147.4 Kg	333 Kg
Oil Filters & filter Materials	1183 Nos	4934
ETP Sludge	304.41 Ton	224.93 Ton
<b>(b) From pollution control facilities</b>	Included in the above-mentioned items	Included in the above-mentioned items

**PART-E**

**Solid Waste**

	Solid Waste	Total Quantity (MT)
		During the current financial year (2022-23)
(a)	From process (Overburden)	16114359 Ton
(b)	From pollution control facility	Nil
(c)	(1) Quantity recycled or re-utilized within the unit	Nil
	(2) Sold	Nil
	(3) Disposed	Nil

**PART-F**

**[Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes.]**

The details composition and characteristics of solid and hazardous waste are given below

<b>Sl. No</b>	<b>Waste Description</b>	<b>Nature of Waste</b>	<b>Composition/ Characteristics</b>	<b>Quantity (2022-23)</b>	<b>Management (Methods of collection and Disposal)</b>
1	Overburden Material	Non-Hazardous (Solid waste)	Quartzite, Laterites, Lateritic soil, Talc schist and serpentine, Nickeliferous limonite	16114359 Ton	The waste material is dumped in non-mineralized area approved by IBM with all environmental protection measures
2	Used /Waste oil	Hazardous Waste (HW-5.1)	Lead, Arsenic, Cadmium, Chromium, Nickel, PAHs etc.	62.151 KL	Collected and securely stored inside 200Ltr MS Barrels and stored above concrete flooring. Sold to M/s Swaraj Lubricants, authorized by SPCB.
3	Oil contaminated waste	Hazardous waste (HW-5.2)	Consists of oil contaminated cotton, Jute, soaked sand etc.	333 Kg	Collected and stored in MS Barrels above concrete flooring for large quantity disposal to authorized agency
4	ETP sludge	Hazardous Waste (HW-34.3)	Composition of Cr, Fe, Al, Si etc.	224.93 Ton	ETP sludge is being disposed through Ramky Enviro Engineers Limited Jajpur

**PART-G**

**[Impact of the pollution measures taken on conservation of natural resources and on the cost production]**

**a) Dust Suppression**

- Regular water spraying is being carried out on mine haul road, working site, waste dump yard, ore stack yard loading and unloading points by water tankers to reduce the dust levels.
- Regular water sprinkling on mineral transportation roads passing through the habitation area as well as other strategic point is being done regularly. The details of concrete road including provision of fixed water sprinkler is outlined

<b>Particulars</b>	<b>Location</b>	<b>Length(m)</b>	<b>Width(m)</b>
Concrete Road	Main Haulage road	1000	13
	COB Plant	100	10
	LOP Plant	200	6
	Workshop	200	6



Fixed water sprinkling system	Main Haulage road	1050	-
	COB Plant	100	-
	LOP Plant	200	-
	Workshop	100	-
	Mining Road	1500	11

- Wet drilling is a common practice during drilling operation to reduce air pollution.
- Pre- wetting of blasting site and controlled blasting is being practiced reducing dust generation.
- The mineral transportation is being carried out by trucks covered with tarpaulin and properly sealed.
- No trucks are overloaded at any point of time to avoid spillage of ore.
- Mist Canon has been placed at stackyard for dust suppression.

**a) Environment Management at associated mineral storage areas:**

- Plantation of 5-20 m width has also been raised in between colony and mines to minimize any air borne problems to the inhabitants. All parameter w.r.t ambient air quality is complying with the prescribed limit.
- Garland drains around the mines of 15,755m stretch have been constructed and is maintained regularly at the toe of dumps, periphery of the quarries, stack yard and camp area.

**b) Environment management: OB dump reclamation:**

- The maximum height of the overburden dumps from its toe to the top of the dump on sloping ground is being maintained within 110 m.
- Each level of dump is provided with garland drain and water from upper level flow to next level via concrete patch path (channel) provided for same purpose at areas were feasible. The concrete patch path ensures less soil erosion and flow of water from designated path. Further, coir matting and vetiver plantation has been done on the dump slopes to prevent wash off during the monsoon.
- Garland drains with 10 nos. of settling pits for silt collection of 1.5 m-2m width and 1m-1.5m deep have been constructed on the toe of all the OB dumps to collect the surface run-off during rainy season. The collected run-off is treated in newly installed ETP of capacity 4500 m<sup>3</sup>/hr and is then discharged beyond the lease boundary.

**Environment management: Solid Waste Management:**

- The strategy for solid waste management basically focuses at Reduction and Source followed by proper segregation to explore the possibility of re-use /recycle and ultimately disposal in case becomes inevitable.
- Each work place has been provided with containers for segregation of solid wastes depending on its characteristics for proper management and all the houses in the camp have

been provided with two separate buckets for storage of degradable and non-degradable waste separately for safe disposal.

**c) Water Conservation: Treatment & Recycling**

- For the workshop effluents: An oil -Water Separation Pit equipped with belt skimmer is in place for trapping the oil and grease splits in the effluents generated from the vehicle washing.
- The system of treatment for Mine Pit Water consists of an ETP of 4500 m<sup>3</sup>/hr (108MLD) having the facilities like, settling pit, flash mixture, clari-flocculator, automatic dosing system, dry sludge collection system, multi sand filters etc as per the Direction of State Pollution Control Board.
- Rain-water harvesting study had been conducted and one roof top harvesting structure had been constructed inside General Office premises which will be also extended to other buildings.

**d) Environmental monitoring:**

- An amount of Rs. 35.9 Lakh (INR) was spent towards monitoring of various environmental parameters in FY 2022-23. This consists of air quality monitoring at a frequency of twice in a week with 24 hourly sampling and water quality monitoring once in a month for all the parameters as prescribed under various applicable statute
- Weather monitoring is done through automatic weather monitoring station and compiled report on rainfall, humidity, temperature, wind speed, wind direction etc. Monitoring has been entrusted to one of the Odisha State Pollution Control Board empaneled category A consultant.

**F) Prevention of Land Contamination**

- The entire area of the HEMM maintenance workshop had been “Epoxy Flooring” for preventing any oil to reach the soil or ground and practices of using movable oil collection tray with built in pneumatic oil pump during any kind of HEMM maintenance to reduce oil leakage incidents.
- Targets have been put at various concerned locations to reduce the leakage/ spillage of oil which are monitored in as per the laid down EMS procedure.
- Introduction of barrel handler for handling of oil barrels to reduce oil leakage and spillage.

**G) Afforestation:**

For the FY 2022-23, as per the approved mine plan we did the plantation at 2 Ha of Area.

**H) Noise Monitoring:**

- Noise monitoring is being done once in three months both in work zone and in ambient. The data on noise level for the period April’21 to March’22 indicate that the values of noise levels are well within the prescribed limits of 85dB(A) at all the workplaces.

- Due precautions at source and at the receiver end are being taken adequately. DG sets have also been provided with acoustic enclosures to prevent noise propagation.
- The operator’s cabin of all the HEMM’s including drills and dozers has been made air conditioned which serves as acoustic barriers. Controlled blasting technique like presplit blasting, use of Nonel and SME (Site Mixed Emulsion) is being followed as per CIMFR, Dhanbad’s recommendation minimize noise pollution and fly rock generation. However, the people working in the noisy areas are provided with personal protective appliances to reduce exposure of high noise. Regular test of all the vehicles is being carried out to check whether the vehicles are meeting pollution under control (PUC) norms.

**I) Medical facilities and health monitoring**

- All the employees undergo periodical medical checkup like IME & PME.
- Mobile health checking is also being done regularly as part of occupational health surveillance program.
- One Dispensary center is created at Sukinda Mines for local community and employee of three mines.

**PART-H**

**[Additional measures/investment proposal for environmental protecting including abatement of pollution, preservation of pollution]**

The management of sukinda chromite mines plans to undertake the environmental protection measures aiming at specific areas with defined budgetary provisions earmarked towards the environmental protection measures every year. Funds earmarked for this purpose for the year 2022-23 is outlined in the table below.

<b>SL NO.</b>	<b>Expenditure</b>	<b>Amount (In Lakhs)</b>
1	ETP operation cost	
	a) Manpower	44.21
	b) ETP Electricity cost	46.43
	c) Chemical cost	235.19
	d) Renovation work of ETP	27.21
	e) ETP sludge disposal	12.53
	f) Calibration & Maintenance of sensors & RT-DAS system	4.95
2	Water sprinkling cost for haul road management	139.84
3	Display of Board (Env. Management)	0.65
4	Monitoring & Analysis cost of Air, Water & Noise	35.9
	<b>Total</b>	<b>546.91</b>

**PART-I**

**Any other particular for improving the quality of the environment:**

The management of Tata Steel Mining is committed for prevention of the pollution inside and surrounding the lease hold area. Environmental monitoring is being done in core & buffer zones of the lease area to ascertain & to take preventive measure to keep the parameters within stipulated norms.

## **Environmental Management**

### **COVERING OF LOADED TRUCK BY TARPAULIN**



### **Concrete Road**



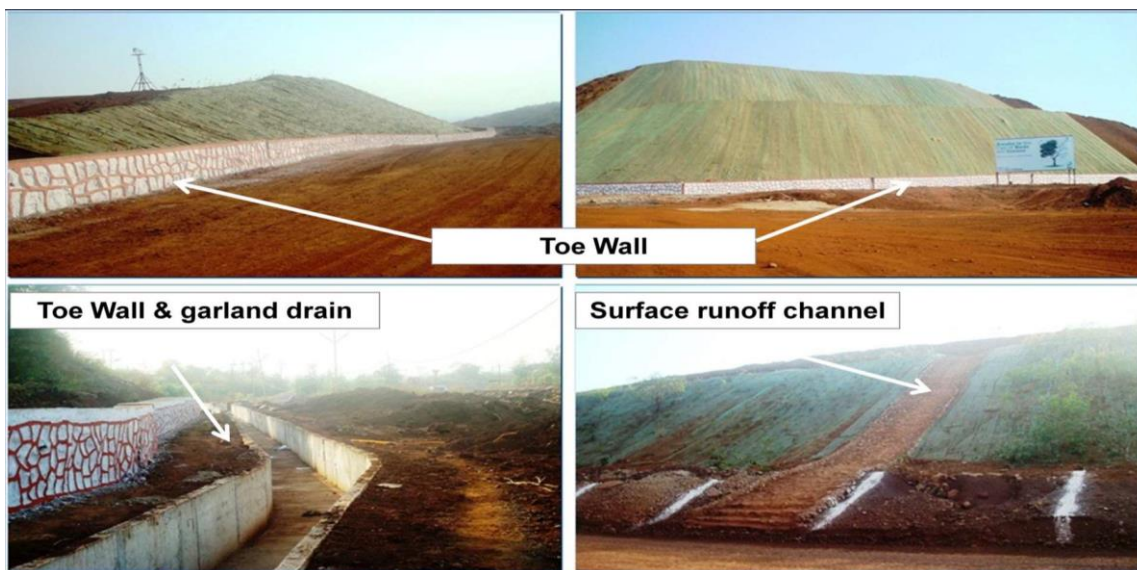
### **HAUL ROAD DUST SUPPRESSION SYSTEM:**



**RAIN - WATER HARVESTING STRUCTURE:**



**Toe wall, Garland Drain and Surface Runoff Channel**



**EFFLUENT TREATMENT PLANT (4500m<sup>3</sup>/hr)**



**Oil-Water separation pit**







A handwritten signature in blue ink, appearing to be 'D. S. S.' or similar, written in a cursive style.

Manager  
Sukinda Chromite Block  
M/s. Tata Steel Limited.



**FORM G-1**

[See rule 45(5)(c)(i)]

**For the financial Year 1<sup>st</sup> April, 2022 to 31<sup>st</sup> March, 2023****ANNUAL RETURN**

[To be used for minerals other than Copper, Gold, Lead, Pyrites, Tin, Tungsten, Zinc and precious and semi-precious stones]

To

- (i) The Regional Controller of Mines  
Indian Bureau of Mines  
Bhubaneshwar Region,  
PIN:  
*(Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under rule 66 of the Mineral Conservation and Development Rules, 2017)*
- (ii) The State Government of Odisha

**PART - I (General)**

<b>1. Details of Mine:</b>	
(a) Registration number allotted by Indian Bureau of Mines <i>(to give registration number of the Lessee-Owner)</i>	IBM/5765/2011
(b) Mine Code (allotted by Indian Bureau of Mines)	11ORI19028
(c) Name of the Mineral	CHROMITE
(d) Name of Mine	SUKINDA CHROMITE MINE
(e) Name(s) of other mineral(s), if any, produced from the same mine	PYROXENITE
<b>2. Location of the Mine :</b>	
Village	SUKINDA
Post Office	KALARANGIATTA
Tahsil-Taluk	KALIAPANI
District	JAJAPUR
State	ODISHA
PIN Code	755028
Fax No. :	0000000000
Phone No. :	9438887778
E-mail:	minemanager.sukinda@tatasteel.com
Mobile:	9438887778

<b>3. Name and address of Lessee-Owner (along with fax no. and e-mail):</b>	
Name of Lessee-Owner	M/s. Tata Steel Mining Limited
Address	N-3/24IRC VILLAGE, NAYAPALLI, Bhubaneswar
District	KHORDHA
State	ODISHA
PIN Code	751015
Fax No. :	
Phone No. :	06742551045
E-mail:	minemanager.sukinda@tatasteel.com
Mobile:	9438887778
4. Registered Office of the Lessee:	Tata Steel Mining Limited, N-3/24, IRC Village, Nayapalli, Bhubaneswar, Odisha, 751015
5. Director in charge :	PANKAJ KUMAR SATIJA (MANAGING DIRECTOR)
6. Agent :	BIBHUDUTTA MOHANTY
7. Manager :	SHAMBHU NATH JHA
8. Mining Engineer in charge:	SHAMBHU NATH JHA
9. Geologist in charge :	VIRAJ A. VERLEKAR
10. Transferor (previous owner), if any, and date of transfer:	TATA STEEL LIMITED 23/07/2020

#### Uploaded Document

Upload PMCP Table in Excel: [PMCP\\_Sukinda\\_Chromite\\_Block.xlsx](#)

Upload UAV Survey (KML/KMZ File) : [Sukinda\\_TSML.kmz](#)

#### 11. Particulars of area operated-Lease

(Furnish information on items (i) to (vi) lease-wise in case mine workings cover more than one lease)

<b>Lease - 1</b>	
(i) Lease number allotted by the State Government	1872000017
(ii) Area under lease (hectares):	
Under Forest	404.669 hectares
Outside Forest	1.331 hectares
Total	406.000 hectares
(iii) Date of execution of mining lease deed	23/07/2020
(iv) Period of lease	50
(v) Area for which surface rights are held (hectares)	
Under Forest	404.669 hectares
Outside Forest	1.331 hectares
Total	406.000 hectares

(vi) Date and period of renewal (if applicable)	0		
(vii) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced	Mine Name	Mine Code	Mineral Name
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<b>12. Lease area (surface area) utilisation as at the end of year (hectares):</b>	Under forest	Outside forest	Total
(i) Already exploited and abandoned by opencast (O-C) mining	0.000	0.000	0.000
(ii) Covered under current (O-C) Workings	157.870	0.210	158.080
(iii) Reclaimed-rehabilitated	12.700	0.000	12.700
(iv) Used for waste disposal	98.720	0.260	98.980
(v) Occupied by plant, buildings, residential, welfare buildings and roads	81.259	0.460	81.719
(vi) Used for any other purpose (specify) Green Belt, Nala, Safety zone, etc.	54.388	0.133	54.521
(vii) Work done under progressive mine closure plan during the year	2.000	0.000	2.000
13. Ownership-exploiting Agency of the mine: (Public Sector-Private Sector-Joint Sector)	Private Sector		

## PART-II (Employment and Wages)

1.Number of supervisory staff employed at the mine		
Description	Wholly employed	Partly employed
(i) Graduate Mining Engineer	13	0
(ii) Diploma Mining Engineer	26	0
(iii) Geologist	3	0
(iv) Surveyor	2	0
(v) Other administrative and technical supervisory staff	48	0
Total:	92	0
2. (i) Number of days the mine worked:		310
(ii) No. of shifts per day:		3
(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .	Reasons	No. of days
	Weekly off	52
	Holidays	2
	Others	1

### 3. Employment and salary-wages paid #:

Maximum number of persons employed on any one day during the year:								
(i) In workings below ground on (date) (a) ( number) 0								
(ii) In all in the mine on (date) 27/12/2022 (a) ( number) 1275								
Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed			Total Wages - Salary for the year (₹)
	Direct	Contract	Total		Male	Female	Total	
(1)	2(A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
Below Ground	0	0	0	310	0	0	0	0.00
Opencast	18533	245509	264042	310	848	3	851	256009205.00
Above Ground	7943	111783	119726	310	367	19	386	82756170.00
Total:	26476.0	357292.0	383768.0	310.000	1215.0	22.0	1237.0	338765375.00

# To include all employees exclusive to the mine and attached factory, workshop or mineral dressing plant at the mine site

## PART-II A (Capital Structure)

<b>1. Value of Fixed Assets* (₹ 1949438503)</b>						
(in respect of the mine, beneficiation plant, mine work-shop, power and water installation)						
In case this information is furnished as combined information in another mine's return please specify Mine Code-Mine Name:						
Mine Name		Mine Code		Mineral Name		
--		--		--		
Description	At the beginning of the year (₹)	Additions during the Year (₹)	Sold or discarded during the year (₹)	Depreciation during the year (₹)	Net closing Balance (₹) (2+3)-(4+5)	Estimated market value** (₹)
1	2	3	4	5	6	7
(i) Land***	0	0	0	0	0	0
(ii) Building:						
Industrial	31652092	227800	0	1460972	30418920	0
Residential	12770397	0	0	30916	12739481	0
(iii) Plant and Machinery including transport equipment	355970778	36200000	0	54734037	337436741	0
(iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc. (As prescribed under Income Tax Act)	1596883260	7237776	0	35277675	1568843361	0
<b>Total:</b>	<b>1997276527</b>	<b>43665576</b>	<b>0</b>	<b>91503600</b>	<b>1949438503</b>	<b>0</b>

\* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mine's return. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

\*\* Optional and may be furnished in respect of items (i), (ii) and (iii) if the mine owner desires.

\*\*\* Including any non-recurring expenditure incurred on the acquisition of land.

<b>2. Source of Finance ( at the end of the year ) :</b>		
(i) Paid up Share Capital (₹)	0	
(ii) Own Capital (₹)	0	
(iii) Reserve and Surplus (All Types)(₹)	0	
(iv) Long Term loans outstanding (#)(₹)	0	
Name of the Institution-Source	Amount of Loan (₹)	Rate of Interest
0	0	0

(#) Indicate the names of the lending institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

<b>3. Interest and Rent (₹)</b>	
(i) Interest paid during the year	0
(ii) Rents (excluding surface rent) paid during the year	0

### PART-III (Consumption of Materials)

1. Quantity and cost of material consumed during the year				
Description	Unit	Quantity	Value (₹)	
<b>(i) Fuel</b>				
(a) Coal	Tonnes	0	0	
(b) Diesel Oil	Ltrs.	8820656	856929708	
(c) Petrol	Ltrs.	0	0	
(d) Kerosene	Ltrs.	0	0	
(e) Gas	Cu.M	0	0	
<b>(ii) Lubricant</b>				
(a) Lubricant oil	Ltrs.	114077	30813042	
(b) Grease	Kgs.	8451	3022885	
<b>(iii) Electricity</b>				
(a) Consumed	Kwh	6086850	43567135	
(b) Generated	Kwh	10560	257545	
(c) Sold	Kwh	0	0	
<b>(iv) Explosives (furnish full details in Part IV)</b>			67474348	
<b>(v) Tyres</b>		Nos.	839	42819112
<b>(vi) Timber and Supports</b>			0	
<b>(vii) Drill rods and kits</b>		Nos.	58	2340387
<b>(viii) Other spares and stores</b>			143296248	

2. Royalty, Rents and Payments made to DMF and NMET (₹):		
	Paid for current year	Paid towards past arrears
(a) Royalty	2711892309	117208324
(b) Dead rent	163735	0
(c) Surface rent	6078169	9967987
(d) Payment made to DMF	277891972	20533590
(e) Payment made to NMET	55578475	4106510
3. Compensation paid for felling trees during the year (₹)		1025067
4. Depreciation on fixed assets (₹)		91503600

5. Taxes and cesses		
	Amount in Rupees paid during the year to:	
	Central Govt.	State Govt.
(i) Sales Tax	2987722940	1472645541
(ii) Welfare cess	0	0
(iii) Other taxes and cesses:-		
(a) Mineral cess	0	0
(b) Cess on dead rent	0	0
(c) Others (please specify) ELECTRICITY DUTY, USER FEE, APPLICATION FEE, VEHICLE TAX, WEIGHMENT CHARGES, SURFACE RENT	0	22204673
6. Other expenses (₹):		
(i) Overheads		127111055
(ii) Maintenance		0
(iii) Money value of other benefits paid to workmen		0
(iv) Payment made to professional agencies		0

### PART-IV (Consumption of Explosives)

Licensed capacity of magazine: (specify unit separately in kg-tonne, numbers, metres )		Item	Unit	Capacity	
		Explosives	Kg.	19000	
		Detonators	No.s	44000	
		Fuses	Mts	5500	
Classification of Explosives	Unit	Quantity consumed during the year		Estimated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1. Gun Powder	Kg.	0		0	
2. Nitrate Mixture					
a. Loose ammonium nitrate	Kg.	0	0	0	0
b. Ammonium nitrate in cartridge form	Kg.	0	0	0	0
3. Nitro compound	Kg.	0	0	0	0
4. Liquid Oxygen soaked cartridges	Kg.	0	0	0	0
5. Slurry explosives (Mention different trade names) Emul boost 150gm	Kg.	2240	0	4589	0
6. Detonators					
i) Ordinary	No.s	19044		21267	
ii) Electrical					
(a) Ordinary	No.s	500		846	
(b) Delay	No.s	0		0	
7. Fuse					
(a) Safety Fuse	Mts	0		0	
(b) Detonating Fuse	Mts	0		0	
8. Plastic ignition cord	Mts	0		0	
9. Others (specify) Site Mixed Emulsion Explosive and Cartridge Explosives	Kg	754110		709286	

Different sizes of soaked liquid oxygen cartridges to be reported in equivalent kg. as per manufacturer's instruction.



## PART-V (General Geology & Mining)

(Items 2 and 3 to be submitted separately for each mineral)

### 1. Exploration

1(i) Exploration activities during the year:

		At the beginning of the year	During the year	Cumulative	Grid spacing-Dimension
Drilling	No of holes	0	0	0	0
	Metrage	0	0	0	0
Pitting	No of pits	0	0	0	0
	Excavation (in m <sup>3</sup> )	0	0	0	0
Trenching	No of trenches	0	0	0	0
	Excavation (in m <sup>3</sup> )	0	0	0	0
	Length covered (in metre)	0	0	0	0
Expenditure on exploration (₹)		0	0	0	0

1(ii). Any other exploration activity during the year: NA

### 2. Reserves and Resources estimated (in tonnes) (CHROMITE).

Classification	Code	At the beginning of the year 1.4.2022 as per latest approved mining plan- scheme	Assessed during the year	Depletion of reserves during the year	Balance resources as on 31.3.2023
(1)	(2)	(3)	(4)	(5)	(6)= (3+4-5)
<b>A. Mineral Reserve</b>					
1. Proved Mineral Reserve	111	4507777	0	1309744	3198033
2. Probable mineral Reserve	121	0	0	0	0
	122	0	0	0	0
3. Total Reserves		4,507,777.00	0.00	1,309,744.00	3,198,033.00
<b>B. Remaining Resources</b>					
1. Feasibility mineral Resource	211	0	0	0	0
2. Prefeasibility mineral resource	221	3729354	0	0	3729354
	222	23208188	0	0	23208188
3. Measured mineral resource	331	1307447	0	0	1307447
4. Indicated mineral resource	332	23106499	0	0	23106499
5. Inferred mineral resource	333	35139985	0	0	35139985
6. Reconnaissance mineral resource	334	0	0	0	0
7. Total remaining Resources		86,491,473.00	0.00	0.00	86,491,473.00
<b>Total (A+B)</b>		90,999,250.00	0.00	1,309,744.00	89,689,506.00

## 2. Reserves and Resources estimated (in tonnes) (PYROXENITE).

Classification	Code	At the beginning of the year 1.4.2022 as per latest approved mining plan- scheme	Assessed during the year	Depletion of reserves during the year	Balance resources as on 31.3.2023
(1)	(2)	(3)	(4)	(5)	(6)= (3+4-5)
<b>A. Mineral Reserve</b>					
1. Proved Mineral Reserve	111	0	0	0	00
2. Probable mineral Reserve	121	0	0	0	0
	122	0	0	0	0
3. Total Reserves		0.00	0.00	0.00	0.00
<b>B. Remaining Resources</b>					
1. Feasibility mineral Resource	211	0	0	0	0
2. Prefeasibility mineral resource	221	0	0	0	0
	222	0	0	00	0
3. Measured mineral resource	331	0	0	00	0
4. Indicated mineral resource	332	0	0	0	0
5. Inferred mineral resource	333	0	0	0	0
6. Reconnaissance mineral resource	334	0	0	0	0
7. Total remaining Resources		0.00	0.00	0.00	0.00
<b>Total (A+B)</b>		0.00	0.00	0.00	0.00

## 3. Subgrade-Mineral Reject (in tonnes) (CHROMITE)

(Information to be given in respect of mineral fractions generated and stacked- dumped below cut-off grade and above threshold value, if prescribed, having no immediate sale value)

Generation of subgrade-mineral reject (in tonnes)	At the beginning of the year	Generated during the year	Disposed during the year	Total stacked at the end of the year	Average grade of the mineral reject generated
from unprocessed ore	0	0	0	0	0
from processed ore	0	0	0	0	0

## 3. Subgrade-Mineral Reject (in tonnes) (PYROXENITE)

(Information to be given in respect of mineral fractions generated and stacked- dumped below cut-off grade and above threshold value, if prescribed, having no immediate sale value)

Generation of subgrade-mineral reject (in tonnes)	At the beginning of the year	Generated during the year	Disposed during the year	Total stacked at the end of the year	Average grade of the mineral reject generated
from unprocessed ore	0	0	0	0	0
from processed ore	0	0	0	0	0

#### 4. Overburden and Waste (in m<sup>3</sup>)

(Information to be given in respect of overburden- waste and mineral fractions generated below threshold value, if prescribed)

At the beginning of the year	Generated during the year	Disposed in dumps during the year	Backfilled during the year	Total at the end of the year
83593830	7006243	0	7006243	90600073

#### 5. Trees planted- survival rate

Description	Within lease area	Outside lease area
i) Number of trees planted during the year	5015	0
ii) Survival rate in percentage	90	0
iii) Total no. of trees at the end of the year	716045	0

**6. Type of Machinery:** Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc.

Type of machinery	Capacity of each type of machinery	Unit (in which capacity is reported)	No. of machinery	Electrical Non-electrical (specify)	Used in opencast underground (specify)
DUMPER	60.000	TONNE	12	Non Electrical	Opencast
DUMPER	50.000	TONNE	5	Non Electrical	Opencast
DUMPER	40.000	TONNE	13	Non Electrical	Opencast
DUMPER	35.500	TONNE	1	Non Electrical	Opencast
SHOVEL (HYDRAULIC)	4.260	CUM	3	Non Electrical	Opencast
SHOVEL (HYDRAULIC)	2.450	CUM	7	Non Electrical	Opencast
SHOVEL (HYDRAULIC)	1.800	CUM	1	Non Electrical	Opencast
SHOVEL (HYDRAULIC)	1.220	CUM	1	Non Electrical	Opencast
SHOVEL (HYDRAULIC)	0.800	CUM	1	Non Electrical	Opencast
TIPPER	19.500	CUM	25	Non Electrical	Opencast
TIPPER	18.000	CUM	8	Non Electrical	Opencast
TIPPER	14.000	CUM	1	Non Electrical	Opencast
DOZER	236.000	HP	3	Non Electrical	Opencast
DOZER	360.000	HP	3	Non Electrical	Opencast
DOZER	200.000	HP	1	Non Electrical	Opencast
BLAST HOST DRILL	152.000	MM	2	Non Electrical	Opencast
CRANE	30.000	TONNE	1	Non Electrical	Opencast
BACK HOE	1.100	CUM	2	Non Electrical	Opencast
MOTOR GRADER	150.000	HP	2	Non Electrical	Opencast
WHEEL LOADER	3.500	CUM	1	Non Electrical	Opencast

WHEEL LOADER	1.700	CUM	2	Non Electrical	Opencast
WHEEL LOADER	3.050	CUM	1	Non Electrical	Opencast
AIR COMPRESSOR	8.800	CUM/MN	2	Electrical	Opencast
AIR COMPRESSOR	2.200	CUM/MN	2	Electrical	Opencast
JEEP/TRACTOR	62.950	HP	21	Non Electrical	Opencast
JEEP/TRACTOR	68.000	HP	2	Non Electrical	Opencast
JEEP/TRACTOR	140.000	HP	1	Non Electrical	Opencast
OTHERS (NON-ELEC.)	8.970		19	Non Electrical	Opencast
OTHER HEM MACHINERY	1.800		1	Non Electrical	Opencast
GENERATOR (DIESEL)	800.000	KWH	4	Non Electrical	Opencast
WATER TANKER	18000.000	LITRE	5	Non Electrical	Opencast
WATER TANKER	28000.000	LITRE	2	Non Electrical	Opencast
PUMPS (ELEC.)	2500.000	L/MN	3	Electrical	Opencast
PUMPS (ELEC.)	3333.000	L/MN	3	Electrical	Opencast
PUMPS (ELEC.)	2850.000	L/MN	2	Electrical	Opencast
PUMPS (ELEC.)	2916.000	L/MN	2	Electrical	Opencast
PUMPS (ELEC.)	10000.000	L/MN	2	Electrical	Opencast

**7(i) Details of mineral Treatment Plant, if any (CHROMITE):** Give a brief description of the process capacity of the machinery deployed and its availability. (Submit Flow Sheet and Material Balance of the Plant separately).

NA

**(ii) Furnish following information:**

Item	Tonnage	Average Grade
Feed:	0	0
Concentrates-processed products :	(mention name)	0
By-products-Co-products:	(mention name)	0
Tailings:	0	0

**7(i) Details of mineral Treatment Plant, if any (PYROXENITE):** Give a brief description of the process capacity of the machinery deployed and its availability. (Submit Flow Sheet and Material Balance of the Plant separately).

NA

**(ii) Furnish following information:**

Item	Tonnage	Average Grade
Feed:	0	0
Concentrates-processed products :	(mention name)	0
By-products-Co-products:	(mention name)	0
Tailings:	0	0

**PART-VI (PRODUCTION, DESPATCHES AND STOCKS) (CHROMITE)**

(To be submitted separately for each mineral)

(Unit of Quantity in Tonnes)

**1. Type of ore produced:***(Applicable for Iron ore only; tick mark whichever is applicable)***2. Production and Stocks of ROM ore at Mine-head**

Category	Opening stock	Production	Closing stock
(a) Open Cast workings	0.000	1309743.862	0.000
(b) Underground Workings	0.000	0.000	0.000
(c) Dump workings	0.000	0.000	0.000

**3(i) Grade-wise ROM ore despatches from mine head (\$):**

Grade of ROM	Despatches from mine-head	Ex-mine Price (₹)
(a) Below 40% Cr <sub>2</sub> O <sub>3</sub> ROM	0.000	0.00
(b) 40% to below 52 % Cr <sub>2</sub> O <sub>3</sub> ROM	0.000	0.00
(c) 52% and above Cr <sub>2</sub> O <sub>3</sub> ROM	0.000	0.00

*(\$): Applicable for iron ore and chromite only. For other minerals data of dispatches to be reported in 3(ii)***3(ii) Grade-wise Production, Dispatches, Stocks and Ex-mine prices:**

Grades**	Opening stock at mine-head	Production	Despatches from mine-head	Closing stock at mine-head	Ex-mine price (₹-Tonne)
<b>(i) Lumps</b>					
(a) Below 40% Cr <sub>2</sub> O <sub>3</sub>	0.000	0.000	0.000	0.000	0.00
(b) 40% to below 52 % Cr <sub>2</sub> O <sub>3</sub>	0.000	0.000	0.000	0.000	0.00
(c) 52% and above Cr <sub>2</sub> O <sub>3</sub>	0.000	0.000	0.000	0.000	0.00
<b>(ii) Fines</b>					
(a) Below 40% Cr <sub>2</sub> O <sub>3</sub>	367645.221	352381.574	408705.320	311321.475	6234.57
(b) 40% to below 52 % Cr <sub>2</sub> O <sub>3</sub>	66168.603	476730.420	444547.540	98351.483	14231.37
(c) 52% and above Cr <sub>2</sub> O <sub>3</sub>	62475.044	480631.868	460997.480	82109.432	19092.42
<b>(iii) CONCENTRATES</b>					
(a) CONCENTRATES	0.000	0.000	0.000	0.000	0.00

**3(iii) In case the mineral is being pulverized in own factory, please give the following particulars (\*):**

Grade**	Total quantity of mineral Pulverized (in tonnes)	Total quantity of pulverized mineral produced (for each mesh size)		Total Quantity of pulverized mineral sold during the month		
		Mesh size	Quantity (tonne)	Mesh size	Quantity (tonne)	Ex-factory Sale value (₹)

### 3(iv) Average cost of pulverization (\*) : ₹ per tonne

(\*): Not applicable for Iron ore, Manganese ore, Bauxite and Chromite

### 4. Details of deductions made from sale value for computation of Ex-mine price (₹- Tonne)

Deduction claimed #	Amount ( in ₹- Tonne)	Remarks
(a) Cost of transportation (indicate loading station and distance from mine in remarks)	2914.00	SUKINDA TO VIZAG 546 KM.
(b) Loading and unloading charges	125.00	LOADING CHARGES
(c) Railway freight, if applicable (indicate destination and distance)	0.00	NA
(d) Port Handling charges- export duty (indicate name of port)	7796.59	526 PORT HANDLING CHARGE & 7270.59 EXPORT DUTY
(e) Charges for sampling and analysis	46.50	RS 40 FOR BULK EXPORT AND RS 53 FOR CONTAINER EXPORT
(f) Rent for the plot at Stocking yard	0.00	INCLUDED IN PORT HANDLING CHARGES
(g) Other charges (specify clearly)	0.00	NA
Total (a) to (g)	10882.09	

# Not applicable for captive dispatches and ex-mine sales

### 5. Sales- Despatches effected for Domestic Purposes and for Exports:

Grade	Nature of Despatch (indicate whether Domestic Sale or Domestic Transfer or Captive consumption or Export)	For Domestic Purposes				For export		
		Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Consignee name ##	Quantity	Sale value (₹)	Country	Quantity	F.O.B Value (₹)
Below 40% Cr2O3,Fines	EXPORT					CHINA P RP	1924.000	31954274.79
40% to below 52 % Cr2O3,Fines	EXPORT					CHINA P RP	28196.490	683898059.38
52% and above Cr2O3,Fines	EXPORT					CHINA P RP	2007.010	57901318.15
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5307/2011	AARTI STEELS LIMITED	54319.250	1038589125.58			

52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/527/2011	FACOR ALLOYS LTD	39466.450	766574924.69			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/4376/2011	Tata Steel Limited	39978.720	763100358.09			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5664/2011	NAVA LIMITED	14703.860	272878544.40			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/240/2011	Shyam Metalics & Energy Limited	11358.700	222859263.28			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/4376/2011	Tata Steel Limited	87976.300	1708830660.85			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5771/2011	Tirumala Balaji Alloys Private Limited	25971.950	494745890.42			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5157/2011	ROHIT FERRO TECH LIMITED	13890.280	272550850.35			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5307/2011	AARTI STEELS LIMITED	53833.910	842897499.87			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/527/2011	FACOR ALLOYS LTD	32511.830	511247911.03			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/4376/2011	Tata Steel Limited	42781.890	676027086.51			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5664/2011	NAVA LIMITED	27395.930	435828252.54			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/240/2011	Shyam Metalics & Energy Limited	6345.980	108997987.87			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/4376/2011	Tata Steel Limited	72575.520	1160654679.36			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5771/2011	Tirumala Balaji Alloys Private Limited	26916.870	415419625.94			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5157/2011	ROHIT FERRO TECH LIMITED	12548.200	211031607.40			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/127/2011	AMCD TRANSPORT & MINERAL PVT. LTD.	0.600	9293.40			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5307/2011	AARTI STEELS LIMITED	28443.790	170573175.38			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/527/2011	FACOR ALLOYS LTD	22748.360	136629517.82			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/4376/2011	Tata Steel Limited	28607.800	169011890.53			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5664/2011	NAVA LIMITED	7932.230	50762439.92			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/240/2011	Shyam Metalics & Energy Limited	3982.390	27930740.25			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/4376/2011	Tata Steel Limited	48842.460	303736655.91			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5771/2011	Tirumala Balaji Alloys Private Limited	16302.840	96075722.16			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5157/2011	ROHIT FERRO TECH LIMITED	5802.100	40062873.62			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/538/2011	JAI BALAJI INDUSTRIES LIMITED	11267.290	242040389.63			

52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/20901/2011	JINDAL STAINLESS (HISAR) LIMITED	4181.180	76941944.66			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/1129/2011	Jindal Stainless Limited	25946.460	462836364.40			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/367/2011	Visa Steel Limited	12252.640	231010674.81			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/93/2011	ORISSA CHROME EXPORT & MINING COMPANY LIMITED	284.850	6166162.22			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/19350/2015	Prime Industries	1486.250	30656193.06			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/4301/2011	S.A.L. STEEL LIMITED	985.950	17458689.93			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/318/2011	METSIL EXPORTS PRIVATE LIMITED	14308.200	270146969.98			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/4197/2011	Misrilal Mines Pvt. Ltd.	10370.510	219904777.44			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/62/2011	BALASORE ALLOYS LIMITED	4978.640	106864667.11			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/765/2011	RASHMI CEMENT LIMITED	8553.420	151333328.74			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/5771/2011	Tirumala Balaji Alloys Private Limited	9072.750	148500904.61			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/20901/2011	JINDAL STAINLESS (HISAR) LIMITED	7498.080	121834846.96			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/1129/2011	Jindal Stainless Limited	18908.140	318865252.40			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/367/2011	Visa Steel Limited	16728.900	257533007.82			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/4200/2011	Indian Metals & Ferro Alloys Ltd	2486.970	44050604.31			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/62/2011	BALASORE ALLOYS LIMITED	4375.400	82954695.98			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/527/2011	FACOR ALLOYS LTD	5973.960	107185011.32			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/5110/2011	KHEMKA REFRACTORIES PRIVATE LIMITED	692.150	10951522.64			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/4563/2011	RAJU	598.660	10327172.36			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/765/2011	RASHMI CEMENT LIMITED	989.270	18584455.90			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/538/2011	JAI BALAJI INDUSTRIES LIMITED	4939.810	30153808.00			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/20901/2011	JINDAL STAINLESS	3859.440	24380199.17			



			(HISAR) LIMITED					
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/1129/2011	Jindal Stainless Limited	56042.560	358444354.60			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/93/2011	ORISSA CHROME EXPORT & MINING COMPANY LIMITED	36561.230	233967929.39			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/4200/2011	Indian Metals & Ferro Alloys Ltd	39727.020	287924648.75			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/19350/2015	Prime Industries	14160.570	97269728.18			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/21253/2017	PJ MINERALS INTERNATIONAL PVT LTD	10520.890	67567145.49			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/21555/2017	CHROME SAGAR	1999.950	15924321.89			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/4178/2011	ANAND EXPORTS	6229.510	35471757.75			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/318/2011	METSIL EXPORTS PRIVATE LIMITED	7823.100	47208087.86			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/4197/2011	Misrilall Mines Pvt. Ltd.	2787.680	17726378.98			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/62/2011	BALASORE ALLOYS LIMITED	1699.280	10640806.42			
52% and above Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5765/2011	Tata Steel Mining Limited	48971.610	936532521.77			
52% and above Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5765/2011	Tata Steel Mining Limited	27737.960	531375702.28			
40% to below 52 % Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5765/2011	Tata Steel Mining Limited	45369.970	718180986.78			
40% to below 52 % Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5765/2011	Tata Steel Mining Limited	27999.600	421653788.06			
Below 40% Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5765/2011	Tata Steel Mining Limited	34588.980	215224155.65			
Below 40% Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5765/2011	Tata Steel Mining Limited	23154.360	132196566.53			

## To indicate separately if more than one buyer.

NOTE:- Mine owners are required to substantiate domestic sale value- FOB value for each grade of ore quoted above with copy of invoices (not to be submitted with the return; to be produced whenever required)

**6. Give reasons for increase-decrease in production-nil production, if any, during the year compared to the previous year.**

- a) (I) PRODUCTION CARRIED OUT AS PER APPROVED MINING PLAN.(II) 746.470 TONNE OF 40 TO BELOW 52 % CR2O3 AND 24.970 TONNE OF BELOW 40 % CR2O3 LEFT AT VIJAG PORT FOR EXPORT PURPOSE.

**7. Give reasons for increase-decrease in grade wise ex-mine price, if any, during the year compared to the previous year.**

a) EX-mine price is higher than the previous year due to increase in market demand.

**Final Submitted**

## PART-VI (PRODUCTION, DESPATCHES AND STOCKS) (PYROXENITE)

(To be submitted separately for each mineral)

(Unit of Quantity in Tonnes)

### 1. Type of ore produced:

(Applicable for Iron ore only; tick mark whichever is applicable)

### 2. Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings	0.000	0.000	0.000
(b) Underground Workings	0.000	0.000	0.000
(c) Dump workings	0.000	0.000	0.000

### 3(i) Grade-wise ROM ore despatches from mine head (\$):

Grade of ROM	Despatches from mine-head	Ex-mine Price (₹)

(\$): Applicable for iron ore and chromite only. For other minerals data of despatches to be reported in 3(ii)

### 3(ii) Grade-wise Production, Dispatches, Stocks and Ex-mine prices:

Grades**	Opening stock at mine-head	Production	Despatches from mine-head	Closing stock at mine-head	Ex-mine price (₹-Tonne)
(a) PYROXENITE	0.000	0.000	0.000	0.000	0.00

### 3(iii) In case the mineral is being pulverized in own factory, please give the following particulars (\*):

Grade**	Total quantity of mineral Pulverized (in tonnes)	Total quantity of pulverized mineral produced (for each mesh size)		Total Quantity of pulverized mineral sold during the month		
		Mesh size	Quantity (tonne)	Mesh size	Quantity (tonne)	Ex-factory Sale value (₹)
	0.000		0.000		0.000	0.00

### 3(iv) Average cost of pulverization (\*) : ₹ 0.00 per tonne

(\*): Not applicable for Iron ore, Manganese ore, Bauxite and Chromite

### 4. Details of deductions made from sale value for computation of Ex-mine price (₹- Tonne)

Deduction claimed #	Amount ( in ₹- Tonne)	Remarks
(a) Cost of transportation (indicate loading station and distance from mine in remarks)	0.00	NA
(b) Loading and unloading charges	0.00	NA
(c) Railway freight, if applicable (indicate destination and distance)	0.00	NA
(d) Port Handling charges- export duty (indicate name of port)	0.00	NA
(e) Charges for sampling and analysis	0.00	NA
(f) Rent for the plot at Stocking yard	0.00	NA
(g) Other charges (specify clearly)	0.00	NA
Total (a) to (g)	0.00	

# Not applicable for captive dispatches and ex-mine sales

### 5. Sales- Despatches effected for Domestic Purposes and for Exports:

Grade	Nature of Despatch (indicate whether Domestic Sale or Domestic Transfer or Captive consumption or Export)	For Domestic Purposes				For export		
		Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Consignee name ##	Quantity	Sale value (₹)	Country	Quantity	F.O.B Value (₹)
NIL	NIL	0	NIL	0.000	0.00		0.000	0.00

## To indicate separately if more than one buyer.

NOTE:- Mine owners are required to substantiate domestic sale value- FOB value for each grade of ore quoted above with copy of invoices (not to be submitted with the return; to be produced whenever required)

### 6. Give reasons for increase-decrease in production-nil production, if any, during the year compared to the previous year.

a) NA

### 7. Give reasons for increase-decrease in grade wise ex-mine price, if any, during the year compared to the previous year.

a) NA

**PART-VII: COST OF PRODUCTION**  
**Cost of production per tonne of ore-mineral produced**


Sl. No.	Item	Cost per tonne (₹)
(i)	Direct Cost	1484.82
	(a) Exploration	0.00
	(b) Mining	1484.82
	(c) Beneficiation(Mechanical Only)	0.00
(ii)	Over-head cost	97.05
(iii)	Depreciation	69.86
(iv)	Interest	0.00
(v)	Royalty	2184.34
(vi)	Payments made to DMF	218.43
(vii)	Payments made to NMET	43.69
(viii)	Taxes	0.00
(ix)	Dead Rent	0.00
(x)	Others (specify) BID-PREMIUM	13673.80
	Total	17771.99

Note: Information given under Part VII will be kept confidential. The Government, however, will be free to utilize the information for general studies without revealing the identity of the firm.

Mineral Name	Production proposal for financial year 2022 - 2023	Production reported during the financial year 2022 - 2023	Difference
CHROMITE	1309746	1309743.862	2
PYROXENITE	0	0	0

I Certify that the information furnished above is correct and complete in all respects.

Place:  
 Dist: JAJAPUR, ODISHA  
 Pin: 755028  
 Date:

Signature   
 Name in full: **NIKAR RANJAN MITRA**  
 Designation: **MANAGER**  
 Owner-Agent-Mining Engineer-Manager  
 Sukinda Chromite Block  
 Tata Steel Mining Limited

**From: 136.226.233.5 at 2023-06-30 14:24:35**

Esigned by: Guest  
 Date: 30/06/2023 02:24:37 PM