

ENVIRONMENTAL STATEMENT**Environmental statement for the financial year ending 31st March, 2022****Part – A**

**Name & Address of the owner/ occupier:
of the industry operation or process
(Name of the Project Officer/ Sub-Area
Manager & Office address to be given)** **Sri R.S. Gupta,
Project Officer, Samleswari OCP
P.O: Rampur Colliery
Dist.: Jharsuguda (Odisha)
Pin: 768225**

- ii) **Industry Category** : **Primary (Coal Mining Operation)**
- iii) **Production Capacity (Coal production
during the year 2021-22)** : **15 MTPA, (5.192 MT.)**
- iv) **Year of establishment** : **1989**
- v) **Date of the last Environmental
Statement submitted** : **23.09.2021**

Part – B**Water & Raw Material Consumption**

Note: Average Water Consumption (Cu-m/ day) for the whole year is given. Raw material consumption is given per unit of coal produced.

(I) Water Consumption (Cu-m/ day):

Ser No.	Industrial/ Mining	Consumption in Cu-m/ day
a	Haul Road Dust Suppression	2220
b	Dust Suppression at Siding	900
c	Fire Fighting	300
d	Workshop	95
e	Others(Greenbelt, S/M, Drill & other machineries etc.)	2632
f	Domestic	0
g	Total in kℓ/ day	6147

Name of the Product	Water Consumption per unit of product (ℓ/ t)	
	2020-21	2021-22
Coal	464.191	432.091

(II) Raw Material Consumption (per tonne of coal):

Name of Raw Material	Consumption of Raw Material (per tonne of Coal produced)	
	2020-21 (Dept. & Cont.)	2021-22 (Dept. & Cont.)
H.S. Diesel (ℓ/ t)	1.02	0.719
Petrol (ℓ/ t)	Nil	Nil
Lubricants (ℓ/ t)	0.098	0.064
Electricity (Units/ t)	5.393	3.165
Explosives (kg/ t)	0.926	0.940

Part – C**Pollution Discharged to Environment/ Unit of Output****(Parameter as specified in the 'Consent' issued)**

Pollutants	Quantity of pollutants discharged (mass/ day)	Concentrations of pollutants in discharges (mass/ volume)			Percentage variation from prescribed standards with reasons
Water (annual average)					
		Mine Effluent	OGT Outlet	STP Outlet	
TSS (mg/ℓ)	Not possible to quantify	28.33	29	35.39	Within the prescribed limit
BOD mg/ℓ)		-	-	<2.0	
COD (mg/ℓ)		19.33	27	-	
pH		7.365	7.653	7.077	
O & G (mg/ℓ)		<4.0	<4.0	-	
Air (Ambient air quality of one station – annual average) South of the Mine					
SPM ($\mu\text{g}/\text{m}^3$)	Not possible to quantify	236.4			Within the prescribed limit
PM ₁₀ ($\mu\text{g}/\text{m}^3$)		146.1			
PM _{2.5} ($\mu\text{g}/\text{m}^3$)		50.2			
SO ₂ ($\mu\text{g}/\text{m}^3$)		14.7			
NO _x ($\mu\text{g}/\text{m}^3$)		28.2			

Part – D**Hazardous Wastes****As specified under Hazardous Waste (Management & Handling) Rules, 1989.**

Hazardous Waste	Total Quantity (kg)	
	During financial year (2020-21)	During financial year (2021-22)
From process :		
Burnt Oil in Workshops	23100 ℓ	35700 ℓ
ii. Oil soaked filters	1105 Nos.	1614 Nos.
(b)From pollution control facilities:		
i. Oil/ Oil imulsion recovery from Oil & Grease Trap	-	-
ii. Oily sludge	170 (Oily sludge)	150 m ³ (Oily sludge)
Chemical Waste(if any)	-	-

Part – E
Solid Waste (other than hazardous)

Particulars	Total Quantity	
	During - financial year (2020-21)	During - financial year (2021-22)
(a) From process (Top soil and Over burden)	5.192 Mm ³	11.321 Mm ³
(b) From pollution control facilities (STP & Sed-Pond Sludge)	STP - (i) 5.00 m ³ MDTP - (ii) Nil	STP - (i) 4.50 m ³ MDTP - (ii) Nil
(c) 1- Quantity recycled or re-utilized (OB back-filled)	5.192 Mm ³	11.321 Mm ³
2- Sold	-	-
3- Disposed	-	-

Part – F

Please specify the characteristics (in terms of concentration & quantum) of hazardous as well as solid waste and indicate the disposal practice adopted for both these categories of waste.

(I) Hazardous Waste:

Name of Hazardous Waste	Quantity generated in the year 2021-22	Disposal Practices
Burnt Oil, etc. (ℓ) (from W/Shop)	35700 Liters.	Deposited to Regional Store from where it is disposed to authorized parties by auction
Oil soaked filters(kg) (from W/Shop)	1614 Nos.	Disposed into impervious lined pit
Oil & Grease (kg) (from ETP/ OGT)		Stored at unit store for further deposition to Regional Store
Oily Sludge (te.) (from ETP/ OGT)	150 m ³	Disposed into impervious lined pit
Oil emulsion	Nil	-
Chemical Waste if any (kg)	Nil	-
Battery (nos.)	67 nos.	Deposited to Regional Store from where it is disposed to authorized parties by auction

Note: A detailed note on disposal practices of the above should be given separately.

(II) Solid Waste:

Solid Waste	Quantity generated in the year 2021-22	Disposal Practices
Top Soil (m ³)	0.538 Mm ³	Spread over backfilled area
OB (m ³)	10.783 Mm ³	Filled in quarry voids
STP & Sed-Pond Sludge	STP - (i) 4.50 m ³ MDTP - (ii) Nil	(i)Used as manure within the premises of STP for gardening

Land Reclamation & OB disposal – progressive till March, 2022:

	Area (ha.)	OB Volume/ Nos. of Plants
1) External OB dump	24.86	4.06 Mm ³
2) Excavated land	543.56	217.47 Mm ³
3) Land affected (1+2)	568.42	-
4) Backfilled (out of 2)	394.30	213.41 Mm ³
5) Land physically reclaimed (out of 3)	119.77	-
6) Land biologically reclaimed (out of 3)	128.73*	261600 Nos.

In the year 2020-21 the figure 141.63 ha. was including biological reclaimed area of external OB dump.

*The figure 128.73 ha include external OB dump area of 24.86 ha.

Part – G

Impact of pollution control measures on conservation of natural resources and consequently on cost of production.

In order to carry out mining in an eco-friendly manner, a detailed Environmental Management Plan (EMP) was prepared by Regional Institute-VII of CMPDIL. The main pollution control measures suggested in EMP along with the measures implemented so far have been summarized in the Table-1.1 to 1.3.

Table – 1.1
Air Pollution Control Measures

Sl. No.	EMP Provisions	Whether provided or not	Remarks
1	Water sprinkling and grading of all roads to minimize air-borne dust from vehicles.	Provided	By mobile water sprinkler and fog canons.
2	Biological reclamation of land.	Provided	-
3	Green belt around mine & infrastructures.	Provided	By plantation
4	Drills fitted with dust control devices.	Provided	-
5	Dust suppression/ dust extraction system to be provided in CHP.	Provided	At present CHP is dismantled
6	Improved maintenance of plant & machinery.	Provided	By scheduled maintenance
7	Mechanized coal transportation system.	Provided	-
8	Wheel Washing System	Provided	-
9	Continuous Ambient Air Quality Monitoring System	Provided	-

Table – 1.2
Water Pollution Control Measures

Sl. No.	EMP Provisions/ Additional precautions	Whether provided or not	Remarks
1	Mine water is to be collected in central sump on dip side of pit. This will act as sedimentation lagoon.	Provided	-
2	Run-off around reclamation area will be controlled by providing catch drains and sedimentation lagoon combination.	Provided	-
3	Surface run-off from external dump would be collected through a series of contour drains which would be connected to a water retention pond. The clear water from this pond will be re-utilized	Provided	-
4	Domestic waste water will be treated in screens, oxidation pond/ aerated lagoon. Sanitary waste to be disposed off into septic tank & soak-pit.	Provided	STP Provided
5	Workshop effluents will be treated in oil & grease trap & sedimentation tank.	Provided	ETP Provided
6	Zero discharge from mine shall be maintained.	Mine water discharged with the permission of OSPCB	CWQMS has been Installed at the mine discharge point
7	Piezometers shall be installed for measurement of underground water depth and its quality	Provided	MIP-04: Near Believers Church School, Brajrajnagar

Table – 1.3
Land Reclamation

Sl. No.	EMP Provisions	Whether provided or not	Remarks
1	Top soil Management: Proper stripping, Storage, and Relocation of top soil.	Provided	-
2	Physical Reclamation of OB Dump: Proper reshaping and regrading of top surface, Providing drainage arrangements and top soil spreading on external and internal dumps.	Provided	-
3	Biological Reclamation: Plantation of suitable species of herbs, shrubs & indigenous trees over technically reclaimed dumps.	Provided	-

IMPACT OF POLLUTION CONTROL MEASURES ON COST OF PRODUCTION

COST OF ENVIRONMENTAL MANAGEMENT DURING 2021-22 was Rs. 63.86 per tonne of Coal

Part – H

Additional measures/ investment proposal for environmental protection including abatement of pollution, prevention of pollution.

Head	Amount Rs. (approx)
Distribution of plants to peripheral villagers	50000.00
Operation & Maintenance of ETP	100000.00
Repairing and other works of MDTP	300000.00
Operation , maintenance of STP	200000.00
Plantation on back-filled area	500000.00
Construction of Coal Corridor	1500000000.00
Routine Environmental Monitoring by CMPDIL	7004000.00
Procurement of Fog cannons	20000000.00
Fixed Water Sprinkler along the Coal Transportation road	150000.00
Cleaning and maintenance of Recharge Pits	300000.00
Maintenance of CAAQMS	100000.00

Part – I

Any other particulars for improving the quality of the environment.

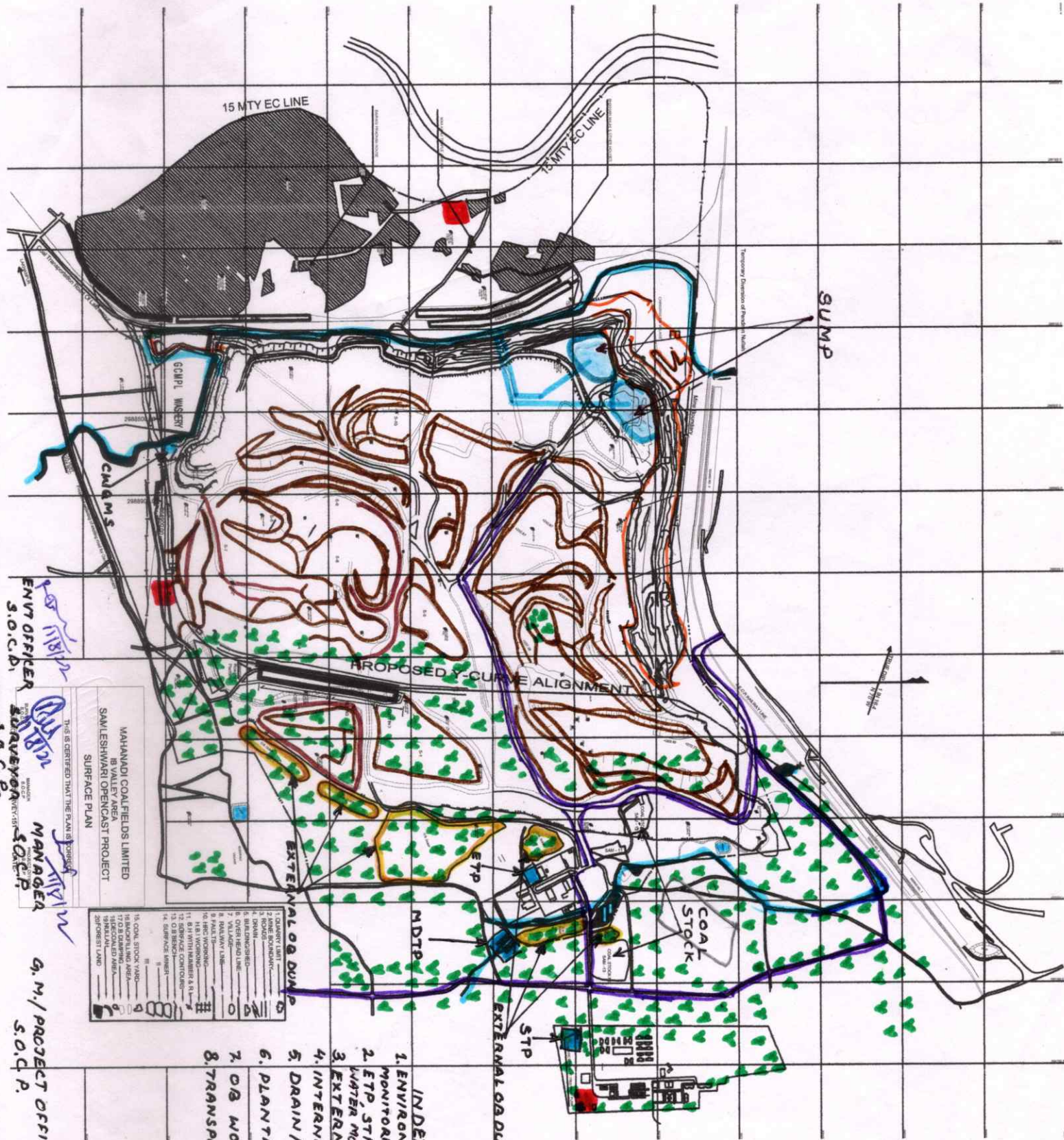
Note: Please attach a plan showing the relevant features like Present Working/ Quarry, External Dump, Back-filling, Plantation, Sedimentation Pond/ MDTP, Oil & Grease Trap/ ETP, Workshop, CHP, STP, etc. and Environmental Monitoring Stations.

Plan - enclosed

Signature of the Project Officer.

(With seal)

PROJECT OFFICER
SAMLESHWARI OPENCAST PROJECT
IN VALLEY AREA, BRAJRAINAGA*



- INDEX**
- 1. ENVIRONMENTAL MONITORING STATIONS →
 - 2. ETP, STP, NDTP WATER MONITORING STATIONS →
 - 3. EXTERNAL O/D DUMP →
 - 4. INTERNAL O/D DUMP →
 - 5. DRAIN/NULLAH →
 - 6. PLANTATION →
 - 7. O/D WORKING →
 - 8. TRANSPORT ROAD →

CONTRACT	
1. ROAD	→
2. RAILWAY LINE	→
3. DRAIN	→
4. OTHER HEAD LINE	→
5. VILLAGE	→
6. RAILWAY LINE	→
7. H.B.I. WORKING	→
8. H.B.I. WORKING	→
9. H.B.I. WORKING	→
10. H.B.I. WORKING	→
11. H.B.I. WORKING	→
12. H.B.I. WORKING	→
13. O/D WORKING	→
14. SURFACE DRAIN	→
15. COAL STOCK	→
16. EXTERNAL O/D DUMP	→
17. O/D WORKING	→
18. EXTERNAL O/D DUMP	→
19. EXTERNAL O/D DUMP	→
20. EXTERNAL O/D DUMP	→
21. EXTERNAL O/D DUMP	→
22. EXTERNAL O/D DUMP	→
23. EXTERNAL O/D DUMP	→
24. EXTERNAL O/D DUMP	→
25. EXTERNAL O/D DUMP	→
26. EXTERNAL O/D DUMP	→
27. EXTERNAL O/D DUMP	→
28. EXTERNAL O/D DUMP	→
29. EXTERNAL O/D DUMP	→
30. EXTERNAL O/D DUMP	→