

PERIODIC PROGRESS REPORT REGARDING ENVIRONMENTAL PROTECTION
MEASURES TILL 30.09.2023

PART – II

1. Production Details:

Sl. No	Year	Coal Production	
		As per EC (MTPA)	Actual (MTPA)
1	2019-20	0.180	0.173
2	2020-21	0.180	0.129
3	2021-22	0.180	0.137
4	2022-23	0.180	0.129
5	2023-24 (upto Sep-2023)	0.54	0.066

2. Plantation: (Within Mine take area)

1	No of plants planted during last six months / last year	Nil
2	Area covered in Ha	Nil
3	Expenditure incurred in Rs. Lakhs	Nil
4	Total area brought under plantation so far in Ha	37.22 Ha
5	Total no of plants planted so far since inception	31250 mixed with native species.
6	Species of plants planted	Clones and mixed with native species
7	Total expenditure in Rs. lakhs	8.37

Note: Plan along with details of year wise plantation furnished.

3. Water Balance Statement:

Sl. No.	Description	Quantity in KLD
1	Average quantity of water pumped out of the mine	5615
2	Water used for drinking	370
3	Water used for dust suppression	350
3	Water used for stowing	620
4	Water used for plantation	500
5	Water supplied for nearest township/village for domestic purpose	1125
6	Excess water let out in seasonal nallah for agriculture purpose	2520
7	Point of discharge (as per CFO)	5650 KLD
8	Discharge as per Consent from TSPCB	Mine discharge water after treatment: 5650KLD Domestic Wastewater: 130 KLD

4. Micro-meteorological Monitoring:

Micro-meteorological station was installed on the top of GM's office, Mandamarri. The summary of the monitoring from 01.10.2022 to 31.03.2023 as follows:

S.No	Parameter (s)	Min	Max	Mean
1.	Temperature (°C)	23.2	45.8	30.1
2.	Wind Speed (m/s)	Calm (%) 12.77	6.7	2.3
3.	Relative Humidity (%)	18.7	98.0	67.3
4.	Predominant Wind direction for the study period	South West (SW), followed by South- South West (S-SW)		
5.	Total Rainfall (mm)	578.4mm		

5. Air Pollution Control Measures:

- Adequate water spraying arrangements have been made at all working coal faces and galleries. Water spraying is regularly done at loading and unloading places of tippers and bunkers at pit head on surface.
- Water spraying is regularly done by tractor mounted water tanker, which is exclusively engaged to serve the purpose.
- The underground workings of the mine are well ventilated by adequate ventilation arrangements. The requirements and standards specified in this regard by Director General of Mines Safety (DGMS)

6. Surface Water Quality Monitoring:

Monitoring Data: The summary of the monitoring from 01.04.2023 to 30.09.2023 is enclosed as **Annexure-XIII**.

7. Groundwater Quality Monitoring:

Monitoring Data: The summary of the monitoring from 01.04.2023 to 30.09.2023 is enclosed as **Annexure-VI**.

8. Phreatic surface monitoring: (Range of Water Table)

The summary of the monitoring Ground Water Table from April-2023 to September-2023 is enclosed as **Annexure-V**.

9. Water pollution control Measures:

- The mine discharge water, which may contain coal fines, needs sedimentation, before discharge into the natural water course / open land. The treatment facilities such as sedimentation, filtration and chlorination was provided for mine discharges, so as to conform to the effluent standards as prescribed by MoEF.
- The effluents from service building is being collecting by a sewage system and treatment by means of septic tanks and soak pits. Sewage is discharging after treatment.

- Sewage is being treated in septic tank followed by soak pit for existing townships in Mandamarri Area.

10. Noise Pollution Control Measures:

- The main mechanical ventilator (MV Fan) is provided with evasee which dampens the noise.
- Height of fall has minimized at all coal transfer points and internal lining of bins and chutes were provided.
- Where the high noise intensity working areas / zones earmuffs and earplugs is being providing to the workmen.
- Regular noise level monitoring is being carrying periodically.
- Management of manpower working in high noise level areas such that the assignment is distributed amongst more persons thereby reducing individual exposure to high noise level to fewer hours in a shift and maintaining equivalent noise level exposure a shift is being complied.
- Extensive plantation of green belt and vegetation along the roads and around the offices to create a barrier and screen between the source and the receiver noise is absorbed and the exposure level is minimized.

11. Revenue Expenditure incurred on Environment Management and Pollution Control Measures for the reporting period (April-2023 to September-2023).

1	Air Pollution Prevention & Control measures , (Including free Gas supply of workers)	1620672
2	Water Pollution (Prevention & Control)	3015639
3	Plantation	584739
4	Water spraying arrangements	105839
5	Water Cess	-
6	CFO fee	-
	Total	5326888

12. Socio-economic Measures:

- i. A common central township is provided on a non coal bearing area and it is maintained with such facilities like dispensary, schools, drinking water supply, market place, recreation clubs, Parks, well lighted approach roads and play ground, dust bins etc., at various places in the colony and it is away from mining activity. Sulabh Complexes are constructed in and around mining colonies in addition to individual toilets provided in quarters.
- ii. Existing no of quarters in Mandamarri area : 8098
- iii. Workers are being educated about the importance of family planning and an incentive of Rupees 220.00 for ladies & Rs: 150.00 for gents along with 6 days leave is being given as encouragement.
- iv. Arrangements are being made for giving vaccination to children and adults to protect from diseases and steps are taken to eliminate / control Malaria under effective supervision of Health Officer.

Kasipet-1 Incline HYMR Report from April-2023 to September-2023

- v. All necessary steps are being taken for improving general sanitation of Township/Colony under effective supervision of Health Officer.
- vi. Sports and games are being conducted for workmen and also in the surrounding villages regularly.
- vii. Greenery is being developed in the existing colonies and also avenue plantation along the roads of surrounding villages.
- viii. a) Planting has been done in 70.00 ha with 165700 numbers of seedlings.
b) 84500 fruit bearing plants were disturbed to surrounding villages and to other departments during 2021 monsoon season.
- ix. **Similarly as part of Haritha haram:**
 - 500 nos saplings are planted at Muthyampalli village, Kasipet Mandal.
 - 201463 nos of fruit bearing saplings are planted on 26.09.2020 and 17.02.2021 at monkeys food court at KK-5 mine premises.
 - 2 nos. solar power plants has been installed at Mandamarri area. 1 no 15MW capacity solar power plant (MMR-II) synchronized with TS Transco at Muthyampalli village, Kasipet Mandal, Mancherial district near Kasipet mine on 08.04.2021.
 - 1 no 28 MW capacity solar power plant (MMR-I) synchronized with TS Transco at Mandamarri town, Mancherial district near Kalyan khani no.5 incline on 17.04.2021. **Welfare measures:** New canteens constructed and inaugurated during the year at Shantikhani Longwall project and Kasipeta-2 Underground Mine Project.
 - Installed RO plants at all the mines and departments for supply of purified and hygienic mineral water to all employees.
 - Ayurvedic medical camps conducted for benefit of the employees and their family members.
 - CPRMS-NE: Health cards issued to Ex Employees -3901.
 - HBLIRS availed by 461 employees.
 - Swachta Maha & Swachta hi seva 2021, “Swatchatah Pakhwada,” “Swachta hi seva” “Haritha Haram” programmes conducted.
 - 2100 persons were donated BLOOD at MVTC, Mandamarri area since 2019.
 - Conducted World Yoga Day programme at SCH grounds and other schools of Mandamarri on 21.06.2019 with involvement of 12,141 persons.
 - Conducted CIL Athletic meet wherein 10 companies participated in the event.
 - SEVA ACTIVITIES; Training given to 9000 persons in various works like Tailoring, Beautician, Maggam works, DCA course, motor driving, Security guard training, Army Training, Volvo driving training etc since starting of seva activities in the company .

- As in the part of welfare measures – civil repairs are being taken up regularly for the benefit of employees, as well to the common public.
- Avenue plantation done in KKOC mine premises (2.5 km) -1000 nos and Kasipet-2 approach road (2.5km) -1733 nos.
- As per Govt of India, circular **Bharath Ka Amruth Mahotsav** programmes were conducted on the following topics.
 - a) Fruit bearing plants were distributed to the neighbouring villages Yerraguntapalli and Mamidigudem on 20.10.2021.
 - b) 500 nos Jute bags were distributed to the employees on 20.01.2022.
 - c) General awareness programme was conducted on “Plastic waste Management” on 10.02.2022.

(a) **Various training programmes have conducted for unemployed surrounding village people and the details in the year 2018-19.**

Sl. No.	Course	Location	Centre	No. of persons
1	Computer DCA course	Mandamarri	Maya computer centre	20
2	Motor Driving (LMV)	SRR Motors, Mandamarri	Jendavenkatapur	40
		Dubbagudem	Dubbagudem	
		Mamidigattu	Mamidigattu	
		Sravanpalli	Sravanpalli	
		Adilpet Sarangapalli	Adilpet Sarangapalli	
		Erraguntapalli	Erraguntapalli	
		Dubbagudem	Dubbagudem	
3	Tailoring	Ramakrishnapur	Ramakrishnapur	25
		Mandamarri	Mandamarri	28
		Yapal	Yapal	34
		Kasipet & Somagudem	Kasipet & Somagudem	25
4	Beautician	Ramakrishnapur	Ramakrishnapur	25
		Mandamarri	Mandamarri	25
		Yapal	Yapal	25
		Bellampalli	Bellampalli	20
5	Fashion designing course	Ramakrishnapur	Ramakrishnapur	20
		Mandamarri	Mandamarri	25
		Yapal	Yapal	25
		Bellampalli	Bellampalli	25
6	Meggam work course	Ramakrishnapur	Ramakrishnapur	28
		Mandamarri	Mandamarri	28
		Yapal	Yapal	40
		Bellampalli	Bellampalli	25
Total:				473

(b) Training given to project affected people in the year 2018-19.

Sl. No.	Project affected peoples	Vocational course	No of students
1	Adilpet village (Sraavanpalli OCP)	Tailoring course	22
2	Amarawadi, Sheshapelli, Doragaripalli & Kyatanpalli (RKPOCP)	Tailoring course	60
3	Lambadi thanda, Dubbagudem	Tailoring course	25
4	Akenapalli (KKOCP)	Tailoring course	25
5	Mamidigattu (Sraavanpalli OCP)	Fashion designing	30
6	Mamidigattu, Kasipet & Muthyampalli (KKOCP)	Beautician	60
7	Mamidigattu, Dubbagudem, Amaravadi & RK-4 gadda (KKOCP, RKOCP & Sraavanpalli OCP)	Computer DCA	40
8	Jendavenkatapur, Dubbagudem, Mamidigattu, Sraavanpalli, Adilpet, Sarangaplli & Erraguntapalli.	LMV (Driving)	60
9	All Mining Projects, Mandamarri	Army training	51
Total:			373

c) To encourage unemployed youth on Entrepreneurs Development Programme for establishment of Ancillary units and from which the products are being utilized in mines and departments and the details are as follow:

Presently, 13 new entrepreneurs were selected for establish new ancillary units i.e. BPA-3, MM-5 and SRP- 05

Entrepreneur Development Programme was conducted to these 14 candidates from 4th June to 14th June 2012 at Yellandu Club, Mandamarri jointly by the Centurion University, Khadi Gramodyog Vidyalay and Officials from Singareni collieries Co Ltd.,

The units proposed are: Roof bolts – 4 persons, motor winding works – 1, House wiring – 3, GI Canisters – 1, Dog nails, bolts & nuts – 1, Fish plates – 1, Fabrication – 2, GI Wire items – 1

Out of these 14 persons, 13 have applied for loan through Prime Minister's Employment Generation Programme as detailed Below:

For Rs 25 lakh: 4 persons
 For Rs 20 lakh: 1 person
 For Rs 10 lakh: 2 persons
 For Rs 7 lakh: 1 person
 For Rs 1 lakh: 5 person

All the above 13 candidates obtained Vendor codes from SCCo Ltd. and got their proposed firms registration. SCCL had given tenders of order value of 13.43 crores to the Ancillary units during 2017-18.

Singareni Sewa Samithi training particulars for the year 2023-24

(April-2023 to September-2023)

Sl. No.	Name of course	Location	Strength
TAILORING			
01		PH colony	25
02		RKP	25
03		Yapal	25
04		Somagudem	25
BEAUTICIAN			
01		RKP	25
02		MM (Yoga hall)	25
FASHION DESIGNING			
01		RKP	25
02		Yapal	25
03		SCHS ground,MM	25
MAGGAM WORK			
01		RKP	20
02		Adilpet	26
03		Yapal	25
04		Peddana palli	25
Total:			321

Singareni Sewa Samithi training particulars for the year 2021-22

(April-2023 to September-2023)

Sl. No.	Name of Course	Location of Centre	No of persons
TAILORING			
01		PH colony	20
02		RKP	19
03		Yapal	26
BEAUTICIAN			
01		RKP	21
02		MM (Yoga hall)	20
FASHION DESIGNING			
01		RKP	20
02		Yapal	21
03		SCHS ground, MM	20
MAGGAM WORK			
01		RKP	20
02		Adilpet	24

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03	Yapal	17
04	Peddana palli	25
Total:		253

13. Development activities (CSR) under SHAPE Programme in the surrounding villages from 2003-04 to 2008-09:

a).Towards school building and compound	: 21.80 lakhs
b).Towards drinking water in the surrounding villages (namely Mandamarri, Amaravadi, Kurmapalli, Kasipet and Muthyam palli etc) for bore holes, overhead tanks and pipe lines	: 24.50 Lakhs
c).Towards BT, CC roads, drainages, bridges & street lighting	: 498.25 Lakhs
Total	: 544.55 Lakhs

CSR works for the year 2014-15

Sl. No.	Description of the work	Amount in Lakhs
1	Miscellaneous civil works to police station building to accommodate CI office room	2.90
2	Drilling of bore holes including fixing of hand pumps under CSR at MM area	2.77
3	White washing and coloring works to police station building at MM area	1.60
4	M&R works to police station building at RKP	1.10
5	Providing dust bins and iron gates to project affected villages of KKOC and sravanapalli OC at Mandamarri area	2.86
6	Providing pipe culvert at Mamidigattu Mandamarri area	2.94
	Total Amount	14.17

CSR works for the year 2015-16 to 16-17

Sl. No	Description of the work	Amount in Lakhs
1	Towards CC road and metal road	111.30
2	Towards CC drains	41.00
3	Drilling of bore holes	45.74
4	Construction of overhead tank	30.00
	Total:	228.04

- 1) laying of CC roads and Drains at Kasipet GP in Mancherial District Works sanctioned under CSR - **Under Corporate Social Responsibility activities (CSR)** : 56.39
- 2) Providing infrastructure to Central Nursery at Patha Bellampally, Mancherial dist : 15.50

- 3) Infrastructure development works in Urban areas such as Development of KCR park at Mandamarri town (orregadda) of Mandamarri Mandal –Mancherial dist. : 200.00

CSR works for the year 2018-19

- 4) Providing second toilet complex at Shanthinagar colony, RK-4 -gadda RKP, MM area : 9.31
- 5) Drilling of 8 nos bore wells with hand pumps to surrounding villages of proposed Kalyankhani -6 inc project , MM area. : 2.79
- 6) Development works in surrounding habitations of SCCL areas of Bellampalli and Mm area under SHAPE-11-12 programme : 6.71
- 7) Providing development works at Mandamarri and its surrounding villages under CSR programme : 13.827
- 8) Infrastructure development works (laying of Roads and construction of Drains etc.) in the surrounding areas of Mandamarri area, Mancherial District : 50.876

CSR works for the year 2019-20:

- 1) Development works such as laying CC/BT roads construction of open GYM, providing Hy- mast solar light planting trees Bellampalli Assembly constituency. : 200.00
- 2) Construction of integrated market at Chennur Municipality of Chennur Assembly constituency. : 150.00

CSR works for the year 2021-22:

- 1) Construction of class rooms and toilet blocks at ZPS school at Orregadda, Mandamarri of Chennur constituency, certain balance works to park at Bellampalli Municipal limits. : 100.00

CSR works for the year 2022-23:

- Install CCTV cameras in Mandamarri Area for the safety and Security of women/public in Mancherial-Dist. : 10.00
 Note no MMR/GMO/G/006/2022/983/5 dt 21.11.2022

Mobile medical camps conducted in nearby villages and the details are as below:

Medical camps/programmes	No of Programmes	No of Beneficiaries
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Medical Camps	2	1300
Mobile Medical Services	1	100
School Health Programmes	7	750
Health Awareness Programmes	15	1600

14. MINUTES OF THE ENVIRONMENTAL COMMITTEE MEETING:

Environmental committee meeting of Kasipet-1 Incline held on 26.09.2023 under the Chairmanship of Shri A.Rajeswar Reddy, SO To GM, Mandamarri Area and the following members were attended.

Sl. No.	Name S/Sri	Designation	Administrative set up
1	A.Rajeswar Reddy	SO To GM	Chairman
2	V.Ramadasu	Project Officer	Member
3	Shaik Allauddin	Project Manager	Member
4	Sri J.Nagaraju	Area Engineer(E&M)	Member
5	D.Srinivasulu	Area Civil Engineer	Member
6	Ujjwal Bandopadyaya	Area Survey Officer	Member
7	P.Prabhaker	Area Environmental Officer	Secretary
8	R.V.Ramana Reddy	Area Forest Officer	Member
9	B.Venkanna	Sr. Hydro-geologist	Member
10	J.Kumara Swamy	Area Estate Officer	Member
11	G.Venkateswar Rao	Project Survey Officer	Member
12	G.Bapu	Project Engineer	Member
13	Nikhil	Project Environmental Officer	Member

At outset, Dy. Mgr (ENV) briefed about each condition imposed in Env. Clearance and for every condition present status reviewed and the ATR vs responsibility of the members is being furnished as under.

Minutes of the Meeting**Specific conditions:-**

Sl. No.	EC condition	Actual to be taken	Responsibility
1	(i) SEAC recommended for an amount of Rs.63,50,000 towards Remediation plan and Natural and Community Resource Augmentation plan to be spent within a span of three years. The details of Remediation plan, Natural resource Augmentation plan and Community Resource Augmentation plan with budgetary provision are mention below:	Remediation plan and Natural and Community Resource Augmentation plan works should be completed within 3 years period from 02.06.2023.	Sri D.Srinvasulu Area Civil Engineer Sri J.Nagaraju Area Engineer (E&M) Sri R.Venkata Ramana Reddy Area Forest Officer Sri P.Prabhakar Area Environmental Officer
2	(iv) PP shall obtain CTE/CTO for 0.54 MTPA production capacity.	An online application to be submitted to the TSPCB for the grant of CT/CTO to the 0.54 MTPA production capacity.	Sri P.Prabhakar Area Environmental Officer
3	(v) Transportation of coal on road, shall be carried out by tarpaulin covered trucks	The trucks transporting the coal by the road should be covered with tarpaulin.	Sri Shaik Allauddin Project Manager
4	(vi) Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities.	Ground Water Clearance to be renewed	Sri P.Prabhakar Area Environmental Officer
5	Effective dust suppression system shall be adopted at the transportation site and in the other parts of the mining lease to arrest the fugitive dust emission.	Dust suppression arrangements to be effective at the coal bunker, coal yard and along the coal transport roads.	Sri G.Babu Project Engineer
6	In pursuance to the Ministry Ir.dt.30.09.2020, Project proponent shall an amount of Rs.24.50 Lakhs (equivalent to 1% if Capital Cost) for	The community welfare activities work i.e. laying of road should completed within 2 years form	Sri D.Srinvasulu Area Civil Engineer

Kasipet-1 Incline HYMR Report from April-2023 to September-2023

Sl. No.	EC condition	Actual to be taken	Responsibility
	community welfare activities in surrounding villages within two years period as a commitment to address public hearing issues under EMP.	02.06.2023.	
7	4.1 (b) (iv) Major approach roads shall be black topped and properly maintained.	The major approach roads to be maintained properly.	Sri D.Srinvasulu Area Civil Engineer
8	4.1 (d) (ii) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.	Nose level survey to be carried out as per the prescribe guidelines at the working places of SDL operators and at the main mechanical ventilator operator.	Sri Shaik Allauddin Project Manager
9	4.1 (f) (iii) Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.	Regular monitoring of subsidence movement to be done.	Sri G.Venkateshwara Rao Project Survey Officer
10	4.1 (g) (ii) Greenbelt, consisting of three-tier plantation, of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach roads/coal transportation roads.	For three-tier plantation of width not less than 7.5 m, to be identified in the mining lease area the project.	Sri Shaik Allauddin Project Manager Sri G.Venkateshwara Rao Project Survey Officer Sri R.Venkata Ramana Reddy Area Forest Officer
11	4.1 (h) (i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.	Adequate illumination to be provided in the underground workings and on the surface of the mine at working places as per	Sri G.Babu Project Engineer


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Sl. No.	EC condition	Actual to be taken	Responsibility
		DGMS standards and to be ensured the above lighting standards.	

MoEF & CC O.M.No.22-34/2018-IA.III, dated:16.01.2020.

SI No	Condition	Action to be taken	Responsibility
6	"The mining lease holders shall, after ceasing mining operations, undertake regressing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc."	At the end of mining operations, the mining areas and other areas which were disturbed due to mining will be regrass and restored to the land to a condition which is fit for growth of fodder, flora, fauna etc.	Sri.Shaik Allauddin Manager Sri.G.Venkateshwar rao Surveyor

The above meeting was concluded by expressing thanks to the participants.


 Agent
 KK Group of Mines
 Agent
 KK Group of Mines

Annexure-I

File No.PCCF-WL1/WL14/9/2022-WILD LIFE SECTION

**GOVERNMENT OF TELANGANA
FOREST DEPARTMENT**

Ref:-PCCF Office of the Prl. Chief Conservator of Forests(Head
-WL1/WL14/9-2022 of Forest Force)
Dated:- 05/02/2023 Aranya Bhavan,Saifabad, Hyderabad

Sri. R.M.Dobriyal, I.F.S.,

**Prl.Chief Conservator of Forests (HOFF)
Chief Wildlife Warden(FAC)**

Sub: TSFD- WL - TOR /Environmental clearance, approval of Wildlife Mitigation Plan for Scheduled-I species for existing & proposed expansion mines in Mandamarri Area in Mancherial District of Mancherial forest division - Wildlife Conservation & Mitigation Plan - Approved and Communicated- Reg.

Ref: CCF FDPT KTR Mancherial Rc.no. 7516/2022-D2 dated 22.12.2022

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In the reference cited, the CCF/ FDPT KTR Mancherial has submitted a revised Wildlife Conservation & Mitigation Plan for Mandamarri group of mines i.e Kalyanikhani OCP ,Ravindra Khani OCP, Kasipet-1 Incline, Kasipet - 2 Incline, Kalyankhani-1 Incline, Kalyankhani-5 Incline Mine ,Ravinia Khani - 1A Incline & Shantikhani Longwall Underground Mine duly revising the TOR/ Environmental clearance approval for existing & proposed expansion mines in Mandamarri Area in Mancherial District of Mancherial Forest division for an amount of Rs 554.70 lakhs.

The Wildlife Conservation & Mitigation Plan submitted by FD, KTR is approved for an amount of Rs 554.70 lakhs and is enclosed herewith for further necessary action. The amount of Rs.554.70 lakhs for implementing the wildlife mitigation plan is to be deposited into the BIOSOT account of the Chief Wildlife Warden bearing account no. No.110310100030284, IFSC Code UBIN0811033 in Union Bank of India, Secretariat Bank. A copy of the transaction of the deposit shall to be sent to this office.

CRP/ENV	
I.W. No:	362
Date	20/2/2023

Pr. K. K. K. K.

Annexure-II

Air quality monitoring data

**Ambient Air Quality Monitoring data from April-2023 to September-2023
Air Monitoring Locations**

Station Code	Name of the Stations	Latitude	Longitude
Core Zone			
CA5	Kasipet-1 Incline Site Office	N 19° 02' 03.4"	E 79° 25' 50.0"
Buffer Zone			
BA12	Peddanapalli	N 19° 01' 52.3"	E 79° 27' 46.5"
BA13	Komatichenu	N 19° 02' 26.8"	E 79° 25' 05.2"
BA14	Gundlapadu	N 19° 02' 27.5"	E 79° 26' 20.3"
BA19	Kasipet	N 19° 01' 47.2"	E 79° 25' 50.7"

Air Monitoring Locations

Station Code	Name of the Stations	Latitude	Longitude
Core Zone			
CA5	Kasipet-1 Incline Site Office	N 19° 02' 03.4"	E 79° 25' 50.0"
Buffer Zone			
BA12	Peddanapalli	N 19° 01' 52.3"	E 79° 27' 46.5"
BA13	Komatichenu	N 19° 02' 26.8"	E 79° 25' 05.2"
BA14	Gundlapadu	N 19° 02' 27.5"	E 79° 26' 20.3"
BA19	Kasipet	N 19° 01' 47.2"	E 79° 25' 50.7"

Air quality monitoring data

The summary of the Air Quality monitoring Data from April-2023 to September-2023 as follows:

Ambient Air Quality at Kasipet-1 Incline Site Office (CA5)

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Area : Mandamarri Nature of Area : Core Zone
 Period of : April 2023– Sampling : 24hrs period
 Monitoring : September 2023 Duration

S.No.	Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
Coal mine standards, GSR 742(E), Dated 25.09.2000		250	-	120	120
1.	03.04.2023	177	70.0	17.0	20.4
2.	18.04.2023	180	78.0	16.7	20.1
3.	03.05.2023	177	73.8	16.1	19.9
4.	17.05.2023	182	75.6	16.8	19.4
5.	02.06.2023	178	78.7	17.1	20.7
6.	17.06.2023	172	70.0	16.8	19.7
7.	03.07.2023	176	69.4	16.1	19.0
8.	18.07.2023	167	61.5	15.6	18.9
9.	02.08.2023	170	70.0	15.0	18.1
10.	17.08.2023	175	75.6	15.8	19.1
11.	02.09.2023	168	68.3	15.2	18.8
12.	18.09.2023	172	71.2	16.0	19.2
Min		167.0	61.5	15.0	18.1
Max		182.0	78.7	17.1	20.7
Average		174.5	71.8	16.2	19.4
98 Percentile		181.6	78.5	17.1	20.6

Ambient Air Quality at Peddanapalli (BA12)

Area : Mandamarri Nature of Area : Buffer Zone
 Period of : April 2023– Sampling : 24hrs period
 Monitoring : September 2023 Duration

S.No.	Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
NAAQ Standards, CPCB Dated : 18.11.2009		100	60	80	80
1.	04.04.2023	53	26.5	10.1	13.2
2.	19.04.2023	57	27.5	9.5	12.8
3.	04.05.2023	51	24.0	9.0	12.3
4.	18.05.2023	58	27.3	9.7	13.0
5.	03.06.2023	62	28.0	10.2	13.5
6.	19.06.2023	56	28.6	9.6	12.7
7.	03.07.2023	52	26.5	9.0	12.1
8.	18.07.2023	47	23.3	8.6	11.7
9.	03.08.2023	45	22.9	9.5	12.3
10.	18.08.2023	55	23.8	10.0	13.3
11.	04.09.2023	49	24.0	9.1	12.5
12.	19.09.2023	52	26.3	9.5	12.9
Min		45.0	22.9	8.6	11.7
Max		62.0	28.6	10.2	13.5
Average		53.1	25.7	9.5	12.7
98 Percentile		61.1	28.5	10.2	13.5

Ambient Air Quality at Komatichenu (BA13)

Area : Mandamarri Nature of Area : Buffer Zone
 Period of : April 2023– Sampling : 24hrs period
 Monitoring : September 2023 Duration

Kasipet-1 Incline HYMR Report from April-2023 to September-2023

S.No.	Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
NAAQ Standards, CPCB Dated : 18.11.2009		100	60	80	80
1.	04.04.2023	54	23.5	11.8	15.2
2.	19.04.2023	58	28.0	10.6	13.8
3.	04.05.2023	54	27.5	10.0	13.1
4.	18.05.2023	57	28.3	11.3	14.5
5.	03.06.2023	61	28.6	11.8	14.7
6.	19.06.2023	54	27.3	10.6	13.2
7.	03.07.2023	50	23.8	10.3	13.9
8.	18.07.2023	44	22.2	9.6	12.7
9.	03.08.2023	52	24.2	10.4	13.5
10.	18.08.2023	56	27.0	10.9	14.1
11.	04.09.2023	51	25.9	9.5	12.2
12.	19.09.2023	57	27.8	9.9	13.2
	Min	44.0	22.2	9.5	12.2
	Max	61.0	28.6	11.8	15.2
	Average	54.0	26.2	10.6	13.7
	98 Percentile	60.3	28.5	11.8	15.1

Ambient Air Quality at Gundlapadu (BA14)

Area : Mandamarri **Nature of Area** : Buffer Zone
Period of Monitoring : April 2023– September 2023 **Sampling Duration** : 24hrs period

Sl. No.	Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
NAAQ Standards, CPCB Dated : 18.11.2009		100	60	80	80
1.	03.04.2023	50	23.1	9.3	12.2
2.	18.04.2023	56	27.8	9.7	12.7
3.	03.05.2023	52	26.5	9.1	11.9
4.	17.05.2023	59	28.0	9.9	13.4
5.	02.06.2023	55	26.1	10.1	13.8
6.	17.06.2023	51	23.1	9.1	12.5
7.	03.07.2023	54	27.5	8.4	11.3
8.	18.07.2023	45	22.6	7.6	10.6
9.	02.08.2023	48	23.5	8.0	11.4
10.	17.08.2023	53	24.2	8.5	12.3
11.	02.09.2023	47	22.9	7.8	10.7
12.	18.09.2023	51	24.0	8.3	11.5
	Min	45.0	22.6	7.6	10.6
	Max	59.0	28.0	10.1	13.8
	Average	51.8	24.9	8.8	12.0
	98 Percentile	58.3	28.0	10.1	13.7

Ambient Air Quality at Kasipeta (BA19)

Area : Mandamarri **Nature of Area** : Buffer Zone
Period of Monitoring : April 2023– September 2023 **Sampling Duration** : 24hrs period

Kasipet-1 Incline HYMR Report from April-2023 to September-2023

Sl. No.	Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
NAAQ Standards, CPCB Dated : 18.11.2009		100	60	80	80
1.	04.04.2023	46	23.5	10.5	14.3
2.	19.04.2023	52	22.9	9.9	13.6
3.	04.05.2023	55	26.1	9.2	12.9
4.	18.05.2023	60	29.4	10.2	13.8
5.	03.06.2023	56	25.9	10.7	13.2
6.	19.06.2023	52	23.8	9.3	12.4
7.	04.07.2023	47	22.9	9.7	12.3
8.	19.07.2023	42	21.4	9.0	11.9
9.	03.08.2023	49	24.0	9.5	12.2
10.	18.08.2023	57	26.5	10.2	13.0
11.	04.09.2023	52	25.6	9.8	12.4
12.	19.09.2023	55	27.0	10.5	13.3
Min		42.0	21.4	9.0	11.9
Max		60.0	29.4	10.7	14.3
Average		51.9	24.9	9.9	12.9
98 Percentile		59.3	28.9	10.7	14.2

Annexure-III

Effluent monitoring data

Effluents sampling locations

Sl.No.	Sample code	Name of the Location	Latitude	Longitude
1.	EW12	Kasipet-1 Mine Discharge	N 19° 02' 03"	E 79° 25' 51.4"

Characteristics of Effluents – Kasipeta Mine Discharge (EW12)

Sl. No.	Date of Sampling	pH	TSS at 105°C	TDS at 180°C	COD	BOD	Oil & Grease
	Unit	--	mg/L	mg/L	mg/L	mg/l	mg/L
	Test Method	4500-H+B	2540-D	2540-C	5220-D	IS 3025	5520-B
	MoEF GSR 742 (E) and GSR 801(E) Effluent Standards for coal mines	5.5 to 9.0	100	--	250	30	10
1	14.04.2023	7.9	29	856	24	2.2	<1
2	29.04.2023	8.2	23	1015	19	2.1	<1
3	15.05.2023	7.6	21	922	12	2.2	<1
4	31.05.2023	7.6	25	716	12	1.9	<1
5	08.06.2023	7.7	27	832	19	1.6	1.0
6	30.06.2023	7.5	16	644	15	2.7	<1
7	14.07.2023	6.9	22	784	23	3.7	<1
8	29.07.2023	7.2	15	905	19	2.7	<1
9	14.08.2023	7.6	21	922	15	2.7	<1
10	25.08.2023	7.9	26	1077	23	3.2	<1
11	12.09.2023	7.5	30	871	27	4.2	<1
12	27.09.2023	7.3	37	914	31	5.1	<1

AREA WORKSHOP EFFLUENTS QUALITY REPORT

Characteristics of Effluents – Area Workshop

Sl. No.	Date of Sampling	pH	TSS at 105 ^o C	TDS at 180 ^o C	COD	BOD	Oil & Grease
	Unit	--	mg/L	mg/L	mg/L	mg/l	mg/L
	Test Method	4500-H ⁺ B	2540-D	2540-C	5220-D	IS 3025	5520-B
	MoEF GSR 742 (E) and GSR 801(E) Effluent Standards for coal mines	5.5 to 9.0	100	--	250	30	10
1.	14.04.2023	7.5	62	1042	56	10.6	2.6
2.	29.04.2023	7.3	58	1254	51	12.2	3.2
3.	15.05.2023	8.1	78	1142	55	14.4	3
4.	31.05.2023	7.9	41	1026	43	12.8	2.4
5.	08.06.2023	7.7	73	1184	23	5.2	1.6
6.	30.06.2023	8.2	59	992	51	14.4	3
7.	14.07.2023	7.7	63	916	59	12.4	3.2
8.	29.07.2023	7.9	50	877	63	13.4	2.8
9.	14.08.2023	8.1	78	1142	51	14.4	3
10.	25.08.2023	8.1	69	984	59	9.4	3.8
11.	12.09.2023	7.6	56	1091	47	11.2	3
12.	27.09.2023	7.8	71	1197	56	12.6	4.4

Annexure-V

Peizometric & Phreatic Monitoring Data

ATTITUDE OF PHREATIC SURFACE IN GODAVARI VALLEY COAL FIELD
Area: Mandamarri

Well No.	Name of village	Location	Dimensions (m)	Depth	Period	Year						Nearest mine & dist. (km)
						2018	2019	2020	2021	2022	2023	
1	Sandrallapet	Near temple	2.1	11.0	Winter	8.73	8.87	9.02	8.81	5.45	7.38	KSPT
					Pre-monsoon	Dry	Dry	10.61	8.81	8.65	8.86	
					Monsoon	5.55	5.28	6.44	3.36	3.38	3.47	
					Post-monsoon	6.35	3.44	8.45	4.57	6.15		
2	Sandrallapet	Road side towards village	5.4	8.0	Winter	3.12	3.18	3.48	5.18	2.41	4.38	KSPT
					Pre-monsoon	7.10	3.63	6.11	5.18	5.42	4.45	
					Monsoon	6.30	6.21	5.08	1.64	1.48	1.51	
					Post-monsoon	6.38	3.44	5.11	2.30	2.18		
3	Kasipet	X road	1.5	13.5	Winter	9.53	10.09	9.82	10.89	10.37	9.91	KSPT
					Pre-monsoon	9.93	Dry	9.98	10.89	12.03	8.75	
					Monsoon	9.45	9.33	7.69	9.25	7.73	7.51	2.3
					Post-monsoon	9.68	9.70	9.58	9.36	8.94		
4	Kasipet	ward -1	1.0	13.0	Winter	10.91	11.03	11.02	10.96	6.10	9.68	
					Pre-monsoon	11.95	11.55	11.51	10.96	9.92	6.35	
					Monsoon	10.51	10.32	9.91	5.20	2.25	2.30	
					Post-monsoon	10.97	10.82	10.93	7.03	7.00		

Kasipet-1 Incline HYMR Report from April-2023 to September-2023

Well No.	Name of village	Location	Dimensions (m)	Depth	Period	Year						Nearest mine & dist. (km)
						2018	2019	2020	2021	2022	2023	
5	Kasipet	Opp. MRO Office.	1.0	15.0/10.0	Winter	AB	AB	AB	AB	AB	AB	KSPT
					Pre-monsoon	AB	AB	AB	AB	AB	AB	
					Monsoon	AB	AB	AB	AB	AB	AB	0.8
					Post-monsoon	AB	AB	AB	AB	AB	AB	
6	Muttampalli	Behind mine compound	5.5	10.0	Winter	7.28	7.31	7.37	7.35	7.51	6.27	KSPT
					Pre-monsoon	7.55	Dry	7.78	7.35	7.51	6.35	
					Monsoon	3.87	3.40	4.87	4.25	4.03	4.17	0.4
					Post-monsoon	4.81	7.73	7.31	6.38	4.78		

Note: * indicates new well started adjacent to the previous existing well

NA : Not approachable

NR : Not Recorded

Ground Water Quality Monitoring Data**Groundwater Sampling Locations**

Sl. No.	Sampling code	Date of sampling	Sampling Location	Latitude	Longitude
1	GW-7	02.08.2023	Kasipet	N 19°01'47.0"	E 79°25'50.7"
2	GW-8	02.08.2023	Muthyampalli	N 19°01'36.8"	E 79°26'14.0"

**Physico-Chemical, Bacteriological Characteristics of Groundwater Collected within the Study Area
Organoleptic and Physical Parameters**

S. No.	Parameters	Unit	Test Method	IS: 10500:2012 Requirement (Acceptable Limit)	IS: 10500:2012 Permissible Limit in the absence of alternate source	RESULT	
						GW-7 Kasipet	GW-8 Muthyampalli
1.	Colour	Hazen	2120. B	5	15	5	5
2.	Odour	TON	2150. B	Agreeable	Agreeable	Agree.	Agree.
3.	pH	--	4500-H+B	6.5 to 8.5	No relaxation	7.2	7.3
4.	Taste	FTN	2160. B	Agreeable	Agreeable	Agree.	Agree.
5.	Turbidity	NTU	2130. B	1	5	0.72	0.63
6.	Total Dissolved Solids at 180°C	mg/L	2540.C	500	2000	1099	982

General Parameters Concerning Substances Undesirable in Excessive Amounts

S.No.	Parameters	Unit	Test Method	IS: 10500 Requirement (Acceptable Limit)	IS: 10500 Permissible Limit in the absence of alternate source	RESULT	
						GW-9 (Kasipet)	GW-10 (Muthyampalli)
1	Calcium as Ca	mg/L	3500-Ca.B	75	200	60	66
2	Magnesium as Mg	mg/L	3500-Mg.B	30	100	43	37
3	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	250	1000	106	177
4	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	200	400	45	39
5	Fluoride as F ⁻	mg/L	4500-F ⁻ .C	1.0	1.5	0.71	0.82
6	Nitrates as NO ₃	mg/L	4500-NO ₃ ⁻ .B	45	No relaxation	78	67
7	Residual free chlorine	mg/L	4500-Cl ⁻ .B	0.2	1.0	BDL	BDL
8	Phenolic compounds as C ₆ H ₅ OH	mg/L	5530-D	0.001	0.002	BDL	BDL
9	Total Alkalinity as CaCO ₃	mg/L	2320. B	200	600	475	525
10	Total Hardness as CaCO ₃	mg/L	2340. C	200	600	400	480
11	Aluminium as Al	mg/L	3120-B	0.03	0.2	0.05	BDL
12	Barium as Ba	mg/L	3120. B	0.7	No relaxation	0.28	0.4
13	Boron as B	mg/L	3120-B	0.5	2.4	0.18	0.13
14	Iron as Fe	mg/L	3120-B	1.0	No relaxation	0.66	0.73
15	Zinc as Zn	mg/L	3120-B	5	15	0.16	0.23
16	Copper as Cu	mg/L	3120-B	0.05	1.5	BDL	BDL
17	Manganese as Mn	mg/L	3120-B	0.1	0.3	BDL	BDL
18	Selenium as Se	mg/L	3120-B	0.01	No relaxation	BDL	BDL
19	Silver as Ag	mg/L	3120. B	0.1	No relaxation	BDL	BDL

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Parameters Concerning Toxic Substances

S.No.	Parameters	Unit	Test Method	IS: 10500 Requirement (Acceptable Limit)	IS: 10500 Permissible Limit in the absence of alternate source	RESULT	
						GW-7 Kasipet	GW-8 Muthyampalli
1.	Calcium as Ca	mg/L	3500-Ca.B	75	200	106	125
2.	Magnesium as Mg	mg/L	3500-Mg.B	30	100	67	79
3.	Chlorides as Cl-	mg/L	4500-Cl-.B	250	1000	245	192
4.	Sulphates as SO42-	mg/L	4500-SO42-.E	200	400	84	78
5.	Fluoride as F-	mg/L	4500-F-.C	1.0	1.5	1.28	1.1
6.	Nitrates as NO3	mg/L	4500-NO3-.B	45	No relaxation	48	42
7.	Total Alkalinity as CaCO3	mg/L	2320. B	200	600	555	505
8.	Total Hardness as CaCO3	mg/L	2340. C	200	600	538	638
9.	Sulphide as H ₂ S	mg/L	4500-S2-F&D	0.05	No relaxation	BDL	BDL
10.	Total Ammonia-N	mg/L	IS 3025 (Part 34)	0.5	No relaxation	BDL	BDL
11.	Phenolic compounds as C6H5OH	mg/L	5530-D	0.001	0.002	BDL	BDL
12.	Residual free chlorine	mg/L	4500-Cl-.B	0.2	1.0	BDL	BDL
13.	Mineral oil	mg/L	IS:3025 (part 39)	0.5	No relaxation	absent	absent
14.	Anionic Detergents (as MBAS)	mg/L	IS:13428:2005K	0.2	1.0	<0.2	<0.2
15.	Aluminium as Al	mg/L	3120-B	0.03	0.2	BDL	0.09
16.	Barium as Ba	mg/L	3120. B	0.7	No relaxation	BDL	0.26
17.	Boron as B	mg/L	3120-B	0.5	2.4	0.19	0.20
18.	Iron as Fe	mg/L	3120-B	1.0	No relaxation	0.16	0.28
19.	Zinc as Zn	mg/L	3120-B	5	15	0.06	0.37
20.	Copper as Cu	mg/L	3120-B	0.05	1.5	BDL	BDL
21.	Manganese as Mn	mg/L	3120-B	0.1	0.3	BDL	BDL
22.	Selenium as Se	mg/L	3120-B	0.01	No relaxation	BDL	BDL
23.	Silver as Ag	mg/L	3120. B	0.1	No relaxation	BDL	BDL

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S. No.	Parameters	Unit	Test Method	IS: 10500 Requirement (Acceptable Limit)	IS: 10500 Permissible Limit in the absence of alternate source	RESULT	
						GW-7 Kasipet	GW-8 Muthyampalli
1	Cadmium as Cd	mg/L	3120-B	0.003	No relaxation	BDL	BDL
2	Cyanide as CN-	mg/L	4500-CN.F	0.05	No relaxation	BDL	BDL
3	Lead as Pb	mg/L	3120-B	0.01	No relaxation	BDL	BDL
4	Molybdenum as Mo	mg/L	3120. B	0.07	No relaxation	BDL	BDL
5	Nickel as Ni	mg/L	3120-B	0.02	No relaxation	BDL	BDL
6	Total Arsenic as As	mg/L	3120-B	0.01	0.05	BDL	BDL
7	Total Chromium as Cr	mg/L	3120-B	0.05	No relaxation	BDL	BDL
8	Mercury as Hg	µg/L	3500-Hg.B	0.001	No relaxation	BDL	BDL
9	Pesticides: α-BHC, β-BHC, γ-BHC, δ-BHC, o, p-DDT, p, p' -DDT, Endosulfan, β- Endosulfan, Aldrin, Dieldrin	µg/L	6630. D	Absent	0.001	ND	ND
	2,4-D, Carbaryl (Carbonate) Malathion Methyl Parathion Anilophos, Chloropyriphos	Qualitative Analysis	6630. D	Absent	0.001	ND	ND
10	Polyaromatic Hydrocarbons (PAH's): Acenaphthene, Acenaphthylene, Anthracene, B(a)A, B(a)P, B(b)F, B(k)F, Pyrene, Dibenz (a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-(d) Pyrene, Naphthalene, Phenanthrene, Pyrene, Methyl Naphthalene	µg/L	6440.C	-	-	ND	ND

Bacteriological Quality of Drinking Water

S. No.	Parameters	Unit	Test Method	IS: 10500 Requirement (Acceptable Limit)	IS: 10500 Permissible Limit in the absence of alternate source	RESULT	
						GW-7 Kasipet	GW-8 Muthyampalli
1	Total Coliforms	MPN/100 mL	9221 B	-	-	<1.8	<1.8
2	Fecal Coliforms	MPN/100 mL	9221 E	-	-	<1.8	<1.8

NTU – Nephelometric Turbidity Unit; TON – Threshold Odour Number; FTN – Flavor Threshold Number; BDL – Below Detection Limit, Detection Limit – Phenols – 0.1 mg/L; Mercury – 20 µg/L; Cyanide – 0.05 mg/L; Hex. Chromium – 0.05 mg/L; Copper – 0.02 mg/L; Manganese – 0.01 mg/L; Cadmium – 0.01 mg/L; Selenium – 0.04 mg/L; Arsenic – 0.04 mg/L; Lead – 0.04 mg/L; Aluminum – 0.04 mg/L; Chromium – 0.03 mg/L; Nickel – 0.03 mg/L; Residual free chlorine – 1 mg/L; Nitrites – 0.01 mg/L; Orthophosphates – 0.05 mg/L; ND-Not Detected; Detection Limit : Pesticides– 1 ppm; PAHs – 1 ppm

Noise Levels monitoring data

Noise Monitoring Locations

Station Code	Name of the Stations	Latitude	Longitude
Core Zone			
CN8	Kasipet-1 Pit Office	N 19° 03' 26.2"	E 79° 25' 17.5"
Buffer Zone			
BN7	Kasipeta Village	N 19° 01' 47.2"	E 79° 25' 50.7"
BN8	Muthyampalli Village	N 19° 01' 36.8"	E 79° 26' 14.0"

Summary of Noise Levels

Location Code	Monitoring stations	Standard limits of Noise		Apr-2023 1 st Fortnight			April-2023 2 nd Fortnight		
				Noise levels in dB (A)					
				Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling
Core Zone									
CN8	Kasipet-1 Pit Office	75	70	03.04.2023	58.9	49.3	18.04.2023	58.2	48.5
Buffer Zone									
BN7	Kasipet Village	55	45	04.04.2023	49.6	39.7	19.04.2023	49.0	38.8
BN8	Muthyampalli Village	55	45	03.04.2023	48.5	38.7	18.04.2023	48.9	38.2

Note: 1. Day time is reckoned in between 6 a.m and 10 p.m

2. Night time is reckoned in between 10 p.m and 6 a.m

Location Code	Monitoring stations	Standard limits of Noise		May-2023 1 st Fortnight			May-2023 2 nd Fortnight		
				Noise levels in dB (A)					
				Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling
Core Zone									
CN8	Kasipet-1 Pit Office	75	70	03.05.2023	59.5	47.0	17.05.2023	59.9	48.0
Buffer Zone									
BN7	Kasipet Village	55	45	04.05.2023	48.8	38.1	18.05.2023	49.4	39.2
BN8	Muthyampalli Village	55	45	03.05.2023	48.1	37.7	17.05.2023	49.5	38.3

Location Code	Monitoring stations	Standard limits of Noise		June-2023 1 st Fortnight			June-2023 2 nd Fortnight		
				Noise levels in dB (A)					
				Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling
Core Zone									
CN8	Kasipet-1 Pit Office	75	70	02.06.2023	58.1	48.7	17.06.2023	58.6	47.5
Buffer Zone									
BN7	Kasipet Village	55	45	03.06.2023	49.8	39.8	19.06.2023	48.1	38.0
BN8	Muthyampalli	55	45	02.06.2023	49.9	38.8	17.06.2023	48.9	37.8

Kasipet-1 Incline HYMR Report from April-2023 to September-2023

Village									
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Location Code	Monitoring stations	Standard limits of Noise		July-2023 1 st Fortnight			July-2023 2 nd Fortnight		
				Noise levels in dB (A)					
		Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
Core Zone									
CN8	Kasipet-1 Pit Office	75	70	03.07.2023	57.8	47.0	18.07.2023	57.1	46.6
Buffer Zone									
BN7	Kasipet Village	55	45	04.07.2023	48.6	38.9	19.07.2023	48.0	38.1
BN8	Muthyampalli Village	55	45	03.07.2023	48.4	37.3	18.07.2023	47.7	36.9

Note: 1. Day time is reckoned in between 6 a.m and 10 p.m 2. Night time is reckoned in between 10 p.m and 6 a.m

Location Code	Monitoring stations	Standard limits of Noise		August-2023 1 st Fortnight			August-2023 2 nd Fortnight		
				Noise levels in dB (A)					
		Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
Core Zone									
CN8	Kasipet-1 Pit Office	75	70	02.08.2023	57.7	47.1	17.08.2023	58.1	47.7
Buffer Zone									
BN7	Kasipet Village	55	45	03.08.2023	48.9	38.7	18.08.2023	49.5	39.3
BN8	Muthyampalli Village	55	45	02.08.2023	47.2	37.0	17.08.2023	48.1	37.7

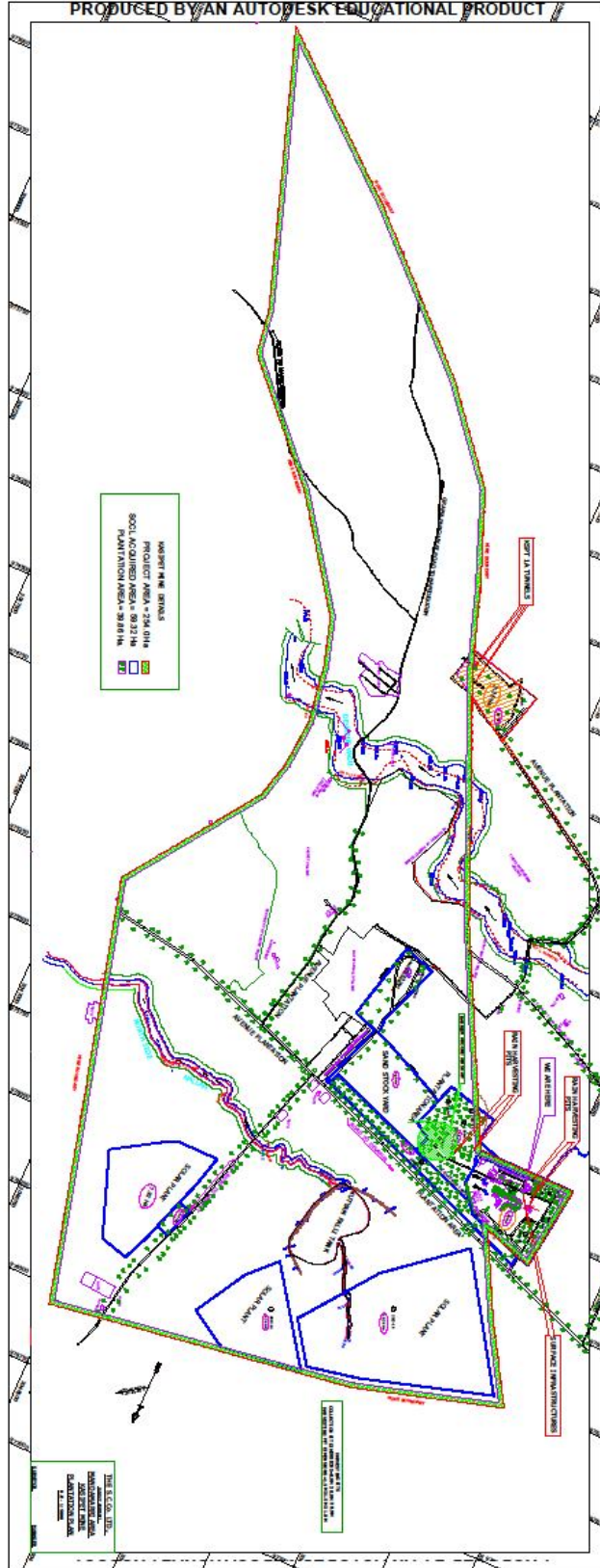
Note: 1. Day time is reckoned in between 6 a.m and 10 p.m 2. Night time is reckoned in between 10 p.m and 6 a.m

Location Code	Monitoring stations	Standard limits of Noise		September-2023 1 st Fortnight			September-2023 2 nd Fortnight		
				Noise levels in dB (A)					
		Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
Core Zone									
CN8	Kasipet-1 pit office	02.09.2023	75	70	57.6	47.0	18.09.2023	58.2	48.0
Buffer Zone									
BN7	Kasipeta village	04.09.2023	55	45	48.8	38.6	19.09.2023	48.7	38.6
BN8	Muthyampalli village	02.09.2023	55	45	47.6	36.8	19.09.2023	49.0	39.0

Note: 1. Day time is reckoned in between 6 a.m and 10 p.m 2. Night time is reckoned in between 10 p.m and 6 a.m

PLANTATION PLAN

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT



Annexure-IX



The Singareni Collieries Company Limited

Secretarial Department

Ref. No: CRP / CS / 054 / 889

Date:23.11.2011.

GM (Environment)

The extract of Minute No.505:5:4 of Board of Directors meeting held on 11.11.2011 at Hyderabad is furnished below:

Sub: Environmental Policy of SCCL.

5:4. The Board considered the note placed before it. After deliberation the Board accorded approval to the Environmental Policy of SCCL and its objectives as brought out in the note placed before it.

Action taken/ status of implementation **on each point of the above minute** may be intimated to the undersigned at the earliest as per the guidelines issued by the C&MD vide circular No.CRP/CS/58/200 dt.22.3.2002 for apprising the same to the Board in the next meeting.


GM (C.A) &
Company Secretary

Environmental Policy of SCCL

“To be a role model in protection of environment for sustainable development, SCCL is committed to implement the best global practices in all its operations through prevention / mitigation of pollution, proper disposal / recycling of wastes and bringing awareness among all the stake holders for continual improvement in environmental performance”

Annexure-X



ANDHRA PRADESH POLLUTION CONTROL BOARD
HUDA Complex, Maitrivanam, IInd Floor, S.R. Nagar, HYDERABAD-500 038.

291120
Phones : Off : General : 228206
Direct : 223507
Telex : 0425 - 6581 APCB IN
Grams : Kalushya Nivarana

Lr.No. 3 /PCB/NOC/RO/NOZM/AEE-N/95/- 2929 Dt. 21.08.1995

The Director (Corporate Planning & Projects),
M/s.The Singareni Collieries Co.Ltd.,
Kothagudem Collieries - 507 101,
Bhadrachalam Road,
KHAMMAM DIST.

Sir,

Sub : NO OBJECTION CERTIFICATE OF THE BOARD -
ISSUED - REGARDING.

Ref : 1.Your application dated 11.8.1993

I. In the reference cited, you have submitted an application for NO OBJECTION CERTIFICATE for carrying out underground coal mining at Kasipet Block, Mandamari area, Adilabad Dist., in a total land of 205 hectares.

II. The A.P. Pollution Control Board does not have any objection as far as water and air pollution control measures are concerned, provided the following conditions are fulfilled by the industry.

1) This NOC is issued considering water and air pollution control point of view only, zoning and other regulations are not considered. The industry shall obtain necessary permissions from the concerned departments before starting civil constructions.

CGM (APP)
ms
ms

2) Trees shall be planted and maintained in the vacant spaces of the premises, atleast in an area of 4 times the built up area of the industry. Tree plantation shall be the first item to be taken up before starting construction.

GM (APP)
ms

3) The industry shall treat the effluents to the inland surface water standards stipulated under Environmental (Protection) Rules, 1986 as amended upto date, notified under Environment (Protection) Act., 1986 by Ministry of Environment and Forest, Govt., of India.

4) The industry shall discharge the treated effluents on land for ground water recharge and irrigation after recycling the effluents to the maximum extent possible.

CP&P Dept.
I. W. No. 1036
Date : 7/10/95

Y. S. R. V. S. N. Kumar
H. S. K. Rao
6/9/95

Office of the Director
2220
29 SEP 1995
CS. Ltd., Hyd.

Office of The General Manager
Inward
No. 1750
Dt. 9/10/95
Protect Planting

10.9



TELANGANA STATE POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN, A - 3, INDUSTRIAL ESTATE,
SANATHNAGAR, HYDERABAD - 500 018

Phone: 23867900
 Fax: 040 - 23815831
 Website: tspcb.cgg.gov.in

CONSENT ORDER (RENEWAL)
RED CATEGORY

Consent Order No : 210822208198

Date :21.10.2022

{Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof, Operation of the plant under section 21/22 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof.

CONSENT is hereby granted under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, under section 21/22 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof, (hereinafter referred to as 'the Acts', 'the Rules' and the rules and orders made there under to M/s. Singareni Collieries Co. Ltd., Kasipet - 1 Incline Mine, Mandamarri Area, Mandamarri (V & M), Mancherla District (hereinafter referred to as 'the Applicant /Industry') and the mine is authorized to operate the industrial plant to discharge the Effluents from the outlets, as detailed below.

i) Out lets for discharge of Effluents :

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal
1	Mine discharge water after treatment	5515	After treatment for dust suppression and agricultural use / gardening.
2	Domestic wastewater	135	Shall be treated in the STP followed by on-land use / gardening.
	Total	5650	

This consent order is valid for Mining of Coal In Mine lease area of 356.00 ha for the following capacity:

S. No.	Line of activity	Capacity
1	Coal (underground mining)	0.18 Million Tons Per Annum (MTPA)

This order is subject to the provisions of 'the Acts' and the Rules' and amendments made thereunder and further subject to the terms and conditions incorporated in the schedule A and B enclosed to this order.

This order of Consents is valid for a period upto 30th September, 2024.

Sd/-
MEMBER SECRETARY

To
 M/s. Singareni Collieries Co. Ltd.,
 Kasipet - 1 Incline Mine, Mandamarri Area,
 Mandamarri (V & M), Mancherla District

///T.C.F.B.O///

M. Phani
 21/10/2022

SENIOR ENVIRONMENTAL ENGINEER
(CFO - UNIT-II)

THE NEW INDIA ASSURANCE CO. LTD.
(Government of India Undertaking)



POLICY SCHEDULE FOR PUBLIC LIABILITY (Act Only) INSURANCE

UIN NUMBER - IRDAN190P0076100001

Insured's Name	: THE SINGARENI COLLIERIES COMPANY LIMITED.		
Insured's Details		Issuing Office Details	
Customer ID	: PO48890629	Office Code	: KOTHAGUDEM BO (613601)
Address	: CORPORATE OFFICE:KOTHAGUDEM BHADRADRI KOTHAGUDEM DIST. KHAMMAM ,TELANGANA, 507101	Address	: D.NO: 5-15-93/94, OPP: URDU GHAR, M.G. ROAD, KOTHAGUDEM, KHAMMAM DIST. TELANGANA STATE .507101
Phone No	:	Phone No	: 08744241233
E-mail/Fax	: fad_crp@sccimines.com, /	E-mail/Fax	: nia.613601@newindia.co.in /
PAN No	: AAAC8873F	S.Tax Regn. No	: AAACN4165CST178
GSTIN/UIN	: 36AAACT8873F1Z1 / NA	GSTIN	: 36AAACN4165C3ZQ
		SAC	: 997139 (Other non-life insurance services excl RI)

Policy Details			
Policy Number	: 61360136233300000001	Business Source Code	
Period of Insurance	: From: 30/04/2023 12:00:01 AM To: 29/04/2024 11:59:59 PM	Dev.Off. level/Broker/Corp. Agent/Web Aggregator/CPSC User	: Mr. SHOBAN KORRA 9032384639 - (DE00002352)
Date of Proposal	: 30-Apr-23	Agent/Bancassurance/S pecified Person	:
Prev. Policy no.	:	Phone No	: NA / 08744241233, 9032384639
Client Type	: Non-Corporate	E-mail/Fax	: / /

Premium(₹)	ERF Premium(₹)	GST(₹)	Total (₹)	Total (₹ in words)	Receipt No. & Date
60611	60610	10,910	1,32,131	RUPEES ONE LAC THIRTY-TWO THOUSAND ONE HUNDRED THIRTY-ONE ONLY	6136018123000000016 3 - 18/04/23

Details of risk covered under current year policy:

Retrospective Date	Paid Up Capital	No Of Locations Involved	AOA	AOA:AOY	AOY	Annual Turnover - Previous Year	Annual Turnover - Proposed Year	Deductible s	No of workmen	No of Other Employee
30/04/2023	<= 15 Crore	11	50000000	1:3	150000000	20495100000	26517890000	43672		0

Retrospective Dates

Retrospective Date Details	Date	Paid Up Capital	No Of Locations Involved	AOA	AOA:AOY	AOY	Annual Turnover - Previous Year	Annual Turnover - Proposed Year	Deductible es	No of workmen	No of Other Employee
RETROACTIVE DATE 1	30/04/2023	<=15Crore	11	5000000	1.3	15000000	20495100000	26517890000	43672		0

RETRO-DATE IS SUBJECT TO LESSER OF LIMITS - NARROWER OF COVER.

Extensions under the Policy

Name of the Extension	Sub Limit of the Extension	Deductibles of the Extension
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Policy No. : 61360136233300000001 Document generated by 39879 at 18/04/2023 13:46:41 Hours.
Regd. & Head Office: New India Assurance Bldg., 87 M.G. Road, Fort, Mumbai - 400 001. TOLL FREE No. 1 800 209 1415.

Surface Water quality monitoring data**Surface Water Sampling Locations**

Sl. No.	Sampling code	Date of sampling	Sampling Location	Latitude	Longitude
1	SW-7	02.08.2023	Devapur Vagu U/S	N 19°02'30.7"	E 79°22'44.3"
2	SW-8	02.08.2023	Devapur Vagu D/S	N 19°01'41.5"	E 79°25'56.1"

Physico-Chemical and Bacteriological Characteristics of Surface Water**Physico-Chemical and Bacteriological Characteristics of Surface Water as per CPCB Water Quality Criteria**

Sl.No	Parameters	Unit	Test Method	CPCB Water Quality Criteria					RESULT	
				Class A	Class B	Class C	Class D	Class E	SW-7 Devapur Vagu U/S	SW-8 Devapur Vagu D/S
1	pH	-	4500-H ⁺ B	6.5-8.5	6.5-8.5	6.0 – 9.0	6.5-8.5	6.0-8.5	8.2	8.1
2	Electrical Conductivity	µmhos/cm	2510-B	-	-	-	-	2250 µmhos/cm	550	510
3	Dissolved Oxygen (DO)	mg/L	4500-O.C	6 mg/l or more	5 mg/l or more	4 mg/l or more	4 mg/l or more	-	6.4	5.1
4	Bio chemical Oxygen Demand (3 days 27° C)	mg/L	IS: 3025	2 mg/l or less	3 mg/l or less	3 mg/l or less	-	-	2.6	3.2
5	Total Coliforms	MPN/100mL	9221 B	50 or less	500 or less	5000 or less	-	-	220	240
6	Free Ammonia (as N)	mg/L	4500-NH ₃ -F	-	-	-	1.2 mg/L or less	-	BDL	BDL
7	Boron as B	mg/L	3120-B	-	-	-	-	Less than 2 mg/L	0.09	0.11
8	SAR	-	-	-	-	-	-	Less than 26	1.86	1.24

Kasipet-1 Incline HYMR Report from April-2023 to September-2023

Physico-Chemical Characteristics of Surface Water at Selected Locations in the Study Area

S. No	Parameters	Unit	Test Method	SW-7 Devapur Vagu U/S	SW-8 Devapur Vagu D/S
1	Colour	Hazen	2120. B	5	5
2	Odour	TON	2150. B	No odour observed	No odour observed
3	Temperature	°C	2550. B	25.1	25.0
4	Turbidity	NTU	2130. B	2.14	1.54
5	Total Dissolved Solids at 180° C	mg/L	2540.C	321	302
6	Total Suspended Solids at 105° C	mg/L	2540. D	41	38
7	Chemical Oxygen Demand	mg/L	5220. D	8	28
8	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	65	44
9	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	27	32
10	Fluoride as F ⁻	mg/L	4500-F ⁻ .C	0.47	0.5
11	Calcium as Ca	mg/L	3500-Ca.B	29	31
12	Magnesium as Mg	mg/L	3500-Mg.B	21	22
13	Sodium as Na	mg/L	3500-Na.B	54	37
14	Potassium as K	mg/L	3500-K.B	1.1	4.3
15	Nitrites as NO ₂	mg/L	4500-NO ₂ ⁻ .B	0.17	0.19
16	Nitrates as NO ₃	mg/L	4500-NO ₃ ⁻ .B	6.3	6.2

Kasipet-1 Incline HYMR Report from April-2023 to September-2023

S. No	Parameters	Unit	Test Method	SW-7 Devapur Vagu U/S	SW-8 Devapur Vagu D/S
17	Total Phosphates	mg/L	4500-P-D	0.14	0.31
18	Ammonical Nitrogen as NH ₃ -N	mg/L	4500-NH ₃ -C	BDL	BDL
19	Phenolic compounds as C ₆ H ₅ OH	mg/L	5530-D	BDL	BDL
20	Oil & Grease	mg/L	5520. B	<1	<1
21	Carbonates as CO ₃	mg/L	2320. B	nil	nil
22	Bi-carbonates as HCO ₃	mg/L	2320. B	180	190
23	Fecal Coliforms	MPN/100mL	9221 E	11	23
24	Zinc as Zn	mg/L	3120. B	0.07	0.09
25	Iron as Fe	mg/L	3120. B	0.28	3.4
26	Arsenic as As	mg/L	3120. B	BDL	BDL
27	Lead as Pb	mg/L	3120. B	BDL	BDL
28	Cadmium as Cd	mg/L	3120. B	BDL	BDL
29	Total Chromium as Cr	mg/L	3120. B	BDL	BDL
30	Nickel as Ni	mg/L	3120. B	BDL	BDL
31	Copper as Cu	mg/L	3120-B	BDL	BDL
32	Selenium as Se	mg/L	3120-B	BDL	BDL