

**PART – II****A periodic progress report regarding Environmental protection measures till 30.09.2023****1. Production Details:**

Sl. No	Year	Coal (in MT)		OB (M.Cu.m)	
		As per EC	Actual	As per EC	Actual
1	2008-09	3.40	Nil	14.32	Nil
2	2009-10	3.40	Nil	25.00	Nil
3	2010-11	3.40	Nil	26.00	0.05
4	2011-12	3.40	Nil	26.00	Nil
5	2012-13	3.40	Nil	26.00	Nil
6	2013-14	3.40	0.330	26.00	3.953
7	2014-15	3.40	0.9	26.00	19.278
8	2015-16	3.40	0.84	26.00	14.014
9	2016-17	3.40	1.714	26.00	24.910
10	2017-18	3.40	1.276	26.00	29.616
11	2018-19	3.40	1.764	26.00	27.799
12	2019-20	3.40	1.960	26.00	21.684
13	2020-21	3.40	0.600	26.00	8.220
14	2021-22	3.40	2.200	26.00	20.554
15	2022-23	3.40	1.881	26.00	18.679
16	2023-24 (Up to Sept-2023)	3.40	0.782	26.00	8.562

**2. Topsoil Management (in L. Cu.m)**

1	Total Topsoil	:	1.571 M. m <sup>3</sup>
2	Topsoil removed so far	:	1.571 M m <sup>3</sup>
3	Topsoil stored in temporary stockyard	:	0.300 M. m <sup>3</sup>
4	Topsoil spread on Dumps	:	1.271M. m <sup>3</sup>
5	Topsoil removed in last six months	:	0.051 M m <sup>3</sup>

**3. Overburden Management (in L.Cu.m)**

1	Total Overburden	:	226.910 M m <sup>3</sup>			
2	Total OB removed since inception	:	170.076 M m <sup>3</sup>			
3	Total OB removed during last six months	:	10.684 M m <sup>3</sup>			
4	Details of External OB dump	:	Area (in Ha)	Details of External OB dump	:	Area (in Ha)
			258.652 Ha	174.823		258.652 Ha
5	Details of Internal dump (Backfilling)	:	Area (in Ha) (w.r.t. Ground level)	Details of Internal dump (Backfilling)	:	Area (in Ha) (w.r.t. Ground level)
			101.923 Ha			101.923 Ha

**4. Plantation:**

1	No of plants planted during last six months.	14000
2	Area covered in Ha	1.05
3	Expenditure incurred in Rs. Lakhs	1.64
4	Total area brought under plantation so far (including beyond mandate plantation) in Ha	346.19
5	Total no of plants planted so far since inception	630370
6	Species of plants planted	Native forest species and Eucalyptus clones
7	Seeds sown so far	1325 kgs.
8	Small plants planted so far	160000
9	Total expenditure in Rs. lakhs	2843.93

**5. Water Balance Sheet:**

Sl. No	Purpose	Quantity
1.	Dust suppression	702 KLD
2.	HEMM washings	50KLD
3.	Domestic	-
4.	Plantation	60 KLD
5.	Excess mine water	2308 KLD
	<b>Total</b>	<b>3120 KLD</b>

**6. The Revenue expenditure details for the period from April-2023 to September-2023**

Sl. No	Description	Expenditure (in Rs:)
1	Air Pollution Prevention & Control measures (Free Gas supply of workers)	19079673
2	Water Pollution Prevention & Control measures	35502192
3	Plantation (Block & Avenue)	6883951
4	Water spraying arrangements	1246005
5	Water cess	-
6	CFO fee	-
	<b>Total:</b>	<b>62711821</b>

**7. Soil Erosion control measures:**

1	Toe wall	6.20 km length is completed and remaining work is under progress
2	Garland drains & deck drain on OB benches	19.05 km garland drain & 4.20 km deck drain
3	Settling ponds	Eight ponds with capacity 4500 to 15000 cu.m each

**8. Micro-meteorological Monitoring:**

Micro-meteorological station was installed on the top of GM's office, Mandamarri. The summary of the monitoring from 01.04.2023 to 30.09.2023 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		

**9. Air Pollution Control Measures:**

- To avoid the dust generation from the drilling operations, wet-drilling and also dust extraction system is provided and maintained.
- Use of appropriate explosives and adopting controlled blasting technique with shock tube, delay action non electrical detonators (NONELs) and also muffling the holes wherever required to control ground vibrations, noise and dust pollution.
- The volume of dust rising from dumps by the action of wind is controlled significantly by planting grasses on slopes and native plants on dumps soon after their formation.
- Black topping of permanent approach roads to coal handling plant, permanent internal roads etc.,
- Water spraying on haul roads and permanent transport routes at required frequencies. Two 28 KL and four 20KL capacity tankers are provided for water spraying along the haul roads regularly in 3 shifts.
- Development of thick green belt along mine boundary, garland drains and also surrounding CHP which serve as a barrier to prevent the dispersion of dust.
- Mist water spraying is arranged at pit head coal handling plant (CHP).
- The exhaust emissions from HEMM containing CO, SO<sub>2</sub> & NO<sub>x</sub> are being controlled by strictly adhering to the scheduled maintenance that includes periodical tuning of engines.

**10. Water Pollution Control Measures:**

Garland drains and deck drains for a length of 19.05 km and 4.20 km respectively are being made and maintained along the Quarry and external dump for which 0.9 Cu.m diesel hydraulic backhoe shovel is provided. (Dimensions of drain: Top width – 5m to 14m, Bottom width - 1.5m to 8m, Depth – 2.0m to 11m).

- Eight settling ponds have been constructed with capacity of 4500 to 15000 Cu.m each to treat the OB runoff. Three Check dams and toe wall for a length of 6.20 km is being constructed and balance will be completed during dry spell of 2018 to reduce silt and suspended solids.
- The mine water is being utilized for dust suppression and plantation etc.

- The excess mine discharge is being treated in settling tanks before discharge in to natural drains.
- Workshop effluents are being treated properly at ETP.

The summary of Surface water quality monitoring data for the period, 01.04.2023 to 30.09.2023 is enclosed as **Annexure-XII**.

**11. Water Conservation Measures**

- Measures are being taken for optimum utilization of mine discharge water for the requirements like dust suppression, washing of HEMM and plantation.
- Phreatic surface levels are being monitored throughout the life of the project and if there is any impact on ground water table then measures will be taken for ground water recharge by construction of rain water harvesting pits or other recharge options.

**12. Noise Pollution Control Measures:**

- Creation of green belts of dense foliage in three rows between mine areas and residential colonies which is acting as noise attenuator.
- Proper maintenance of machinery (including transport vehicles) including fine tuning of engines to reduce noise.
- Protective devices like acoustic wool, earplugs and earmuffs are being provided to the workers working in HEMM where noise levels are above 90 dB(A).
- Controlled blasting techniques using milli-second delay action NONEL detonators is being adopted in this project for minimizing noise and blast vibrations and also muffling the blast holes where ever necessary to control ground vibrations and noise.
- Sound and dust proof AC cabins are being provided in the machines shovels, dumpers, graders and feeder breakers at CHP etc.

**13. 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.

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- 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, "Swachatah 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.
- a) General awareness programme was conducted on “**Plastic waste Management**” on 10.02.2022.

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

Sl. No.	Course	Location	Centre	No of persons
1	Computer DCA course	Mandarri	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
		Mandarri	Mandarri	28
		Yapal	Yapal	34
		Kasipet & Somagudem	Kasipet & Somagudem	25
4	Beautician	Ramakrishnapur	Ramakrishnapur	25
		Mandarri	Mandarri	25
		Yapal	Yapal	25
		Bellampalli	Bellampalli	20
5	Fashion designing course	Ramakrishnapur	Ramakrishnapur	20
		Mandarri	Mandarri	25
		Yapal	Yapal	25
		Bellampalli	Bellampalli	25
6	Meggam work course	Ramakrishnapur	Ramakrishnapur	28
		Mandarri	Mandarri	28
		Yapal	Yapal	40
		Bellampalli	Bellampalli	25
<b>Total:</b>				<b>473</b>

**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 (Sravanpalli OCP)	Tailoring course	22

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2	Amarawadi, Sheshapelli, Doragaripalli & Kyatanpalli (RKPOCP)	Tailoring course	60
3	Lambadi thanda, Dubbagudem	Tailoring course	25
4	Akenapalli (KKOCP)	Tailoring course	25
5	Mamidigattu (Sravanpalli OCP)	Fashion designing	30
6	Mamidigattu, Kasipet & Muthyampalli (KKOCP)	Beautician	60
7	Mamidigattu, Dubbagudem, Amaravadi & RK-4 gadda (KKOCP, RKOCP & Sravanpalli OCP)	Computer DCA	40
8	Jendavenkatapur, Dubbagudem, Mamidigattu, Sravanpalli, Adilpet, Sarangapalli & Erraguntapalli.	LMV (Driving)	60
<b>Total:</b>			<b>322</b>

**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 follows:**

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 Rs:13.43 crores to the Ancillary units during 2017-18.

**Singareni Sewa Samithi Course List 2023-24**  
**(April-2023 to September-2023)**

Sl. No	Name of course	Location	Strength
	<b>TAILORING</b>		

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01		PH colony	25
02		RKP	25
03		Yapal	25
04		Somagudem	25
<b>BEAUTICIAN</b>			
01		RKP	25
02		MM (Yoga hall)	25
<b>FASHION DESIGNING</b>			
01		RKP	25
02		Yapal	25
03		SCHS ground,MM	25
<b>MAGGAM WORK</b>			
01		RKP	20
02		Adilpet	26
03		Yapal	25
04		Peddana palli	25
<b>Total:</b>			<b>321</b>

**Singareni Sewa Samithi Course List 2023-24**  
(April-2023 to September-2023)

SI. No	Name of Course	Location of Centre	No of persons
<b>TAILORING</b>			
01		PH colony	20
02		RKP	19
03		Yapal	26
<b>BEAUTICIAN</b>			
01		RKP	21
02		MM (Yoga hall)	20
<b>FASHION DESIGNING</b>			
01		RKP	20
02		Yapal	21
03		SCHS ground,MM	20
<b>MAGGAM WORK</b>			
01		RKP	20
02		Adilpet	24
03		Yapal	17
04		Peddana pelli	25
<b>Total:</b>			<b>253</b>

**15) 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



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and Muthyampalli 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**

SI. 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
	<b>Total Amount:</b>	<b>14.17</b>

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

SI. 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
	<b>Total:</b>	<b>228.04</b>

**CSR activities during 2017-18:**

**1) Similarly, during the year 2017-18 the following works are being taken up:**

- An amount of Rs.189.64 lakhs for CC Drains & development of roads
- An amount of Rs.60 Lakhs allotted for widening of roads & Central lighting system.
- Hand Pumps worth Rs.17 Lakhs
- Construction of Public Toilets worth Rs.19.37 Lakh and in Bellampalli Town
- An amount of Rs.162.90 lakhs for CC Drains & Roads
- An amount of Rs.100.00 Lakhs for construction of Ambedkar Building

2) On 04.02.2018, a mega medical camp was organized at Sarangapalli Village with medical specialists and medical tests were conducted for nearly 1200 persons and necessary treatment was extended for identified persons. In the coming days also, medical camps will be organized in the project affected villages. 81 persons were identified for cataract surgery which will be done at free of cost.

3) Company has supplied 55 nos. benches to the schools of nearby villages.

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- 4) 14 Unemployed youth were given training in Volvo Truck driving at Bengaluru.
- 5) 87 persons were given training for Army Recruitment.
- 6) Specialized training session has been given to 25 Female & 30 Male unemployed youth so far for police recruitment.
- 7) SCCL authorities have already deposited with District Collector, Mancherial around Rs.215 Crores (from January, 2016 to March, 2018 under D.M.F (District Mineral Foundation) Trust, which will be spent for developments and upliftment of surrounding villages.

**CSR works for the year 2018-19**

**(Rs in Lakhs)**

- 1) Providing second toilet complex at Shanthinagar colony, RK-4 -gadda RKP, MM area : 9.31
- 2) Drilling of 8 nos bore wells with hand pumps to surrounding villages of proposed Kalyanikhani -6 inc project , MM area. : 2.79
- 3) Development works in surrounding habitations of SCCL areas of Bellampalli and MM area under SHAPE-11-12 programme : 6.71
- 4) Providing development works at Mandamarri and its surrounding villages under CSR programme : 13.827
- 5) Infrastructure development works (laying of Roads and construction of Drains etc.) in the surrounding areas of Mandamarri area, Mancherial District : 50.876
- 6) Laying of CC roads and Drains at Kasipet GP in Mancherial District Works sanctioned under CSR.- **Under Corporate Social Responsibility activities (CSR)** : 56.39

**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:**

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

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

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

**17) MINUTES OF THE ENVIRONMENTAL COMMITTEE MEETING:**

Environmental committee meeting of RKPOCP held on 26.09.2023 under the Chairmanship of Shri A.Rajeswar Reddy, SO to GM, Mandamarri and the following executives were attended.

Sl. No.	Name S/Sri	Designation	Administrative set up
1	A.Rajeswar Reddy	SO To GM	Chairman
2	M.Govinda Rao	Project officer	Member
3	Ch.Venkateswarlu	Project Manager	Member
4	J.Naga Raju	Area Engineer(E&M)	Member
5	D.Srinivasulu	Area Engineer(Civil)	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	Hydro geologist	Member
10	J.Kumara Swamy	Area Estates Officer	Member
11	P.Mahender	Project Engineer	Member
12	G.Prashanth Jeevan	Project Environmental Officer	Member
13	M.Sekhar	Project Survey Officer	Member

At outset, the Area Environmental Officer briefed about each condition imposed in Environmental Clearance and for every condition present status reviewed and the ATR vs responsibility of the executive is being furnished as under.

**Minutes of the Meeting**

**Specific conditions:**

S. No	EC condition	Action to be taken	Responsibility
1	(ii) Adequate safety measures shall be implemented for mining in areas where underground	All the requested precautions to be taken as per CMR, 2017 and the DGMS circulars and the Safe Operating Procedures.	Sri.Ch.Venkateswarlu Project Manager

S. No	EC condition	Action to be taken	Responsibility
	mining has been undertaken. Prior permission of the DGMS shall be taken to undertake opencast mining in areas where underground mining has been done.		
2	(iv) OB shall be stacked at earmarked one external OB dumpsite of 264.26 ha within ML area and shall not exceed a maximum height of 90m consisting of 3 benches of 30m each. Balance OB to be generated over the last 3 years of mine life shall be re-handled and backfilling into the quarry. The ultimate slope of the dump shall not exceed 28°. Slope stability studies shall be carried out and monitoring of the stability of the dumps continuously undertaken and particularly during monsoon and post monsoon seasons to ascertain its stability. Monitoring and management of existing reclaimed dumpsites shall be submitted to the Ministry of Environment & Forests and its regional office located at Chennai on yearly basis.	The OB dumping slope should not exceed 28° and the stability of the dumps to be maintained properly during the post-monsoon season.	Sri.Ch.Venkateswarlu Project Manager  Sri.M.Sekhar Project Survey Officer
3	(v) Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilized for watering the mine area, roads green belt development, etc. The drains shall be regularly desilted and maintained properly. Garland drains of suitable size, gradient and length and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also be provided for adequate	The drains around the quarry, deck drains on the dumps should be regularly cleaned and maintained properly.	Sri.Ch.Venkateswarlu Project Manager

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S. No	EC condition	Action to be taken	Responsibility
	retention period to allow proper settling of silt material.		
4	(vii) Crushers at the proposed CHP shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, and transfer points.	Dust suppression arrangements such as water spraying at the crusher, Fog canons along the Pit Head CHP and the mobile water sprinklers and fixed water guns to be kept effectively working and properly maintained.	Sri.P.Mahender Project Engineer
5	(viii) Drills shall be wet operated only.	The drills in the quarry should be operated with Wet only.	Sri.P.Mahender Project Engineer

**General Conditions:**

S. No	EC condition	Action to be taken	Responsibility
6	(iv) Fugitive dust emissions (PM <sub>10</sub> and PM <sub>2.5</sub> ) from all the sources shall be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading and dump trucks (loading and unloading) points shall be provided and properly maintained.	Fugitive dust emissions i.e. PM <sub>10</sub> and PM <sub>2.5</sub> in the Core zone and Buffer zone respectively to be regularly monitor and controlled.	Sri.P.Prabhakar Area Environmental Officer
7	(x) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programmed of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof.	Dust masks to be provided to the workmen exposing to high dust concentration and they must be given training on the wearing of dust masks. The workmen should be sent to initial and periodical medical checkup as per the Mines Rules, 1955 and the DGMS Circulars issued time to time.	Sri.Ch.Venkateswarlu Project Manager

**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	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	Sri. Ch.Venkateswarlu Manager  Sri. M.Shaker Surveyor

their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.”	is fit for growth of fodder, flora, fauna etc.	
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**18) Issues raised during the public hearing and clarification given by the proponent:**

<b>Issue raised by the Public</b>	<b>Clarification given by the Project Proponent</b>	<b>Present Status</b>
Stated that water retaining capacity in the tanks of Doragaripalli and Amarawadi villages may be affected due to the proposed OC mine.	GM Mandamarri clarified that there would not be any problem to the tanks of Doragaripalli and Amarawadi as the existing drainage system would not get disturbed.	There is no effect on retaining capacities of Doragaripalli and Amarawadi tanks. However Amarawadi tank was de-silted and removed 12500 m <sup>3</sup> of silt and formed a bund. In future, the tanks will be regularly de-silted and maintain their water level without any effects on ground water regime.
Stated that the proposed OC mine may lead to depletion of water table in the surrounding villages.	GM, MM informed that there would not be any depletion in the water table as the present proposal is to convert the existing underground mines in to an opencast mine.	Since the present Opencast proposal is exploitation of developed under ground pillars by opencast method. Thus there is no possibility of disturbance for the fresh ground water table; Therefore there is no scope for depletion of water in surrounding areas. However regular water levels in surrounding areas are being monitored.
Informed that paddy fields can not be given for the purpose of OC mine.	GM, MM assured that no paddy field would be taken without the consent of the villagers.	Paddy fields wouldn't be taken without the consent of the villagers.
Informed that there was temperatures rise coal mining areas due to the presence of OC mines at Ramagundam in particular	GM, MM clarified that the temperatures during the last 3 years have come down by 3° C – 4°C at Ramagundam which was just because of the green belt developed by SCCL.	Thick green belt is being developed in the vacant lands by the company i.e., 884 ha block plantation and also the regular efforts have been put continually, as such temperatures are fallen down from 48°C to 44°C during summer season for the last six years.
Stated that many skin disease cases were found in Thallapalli Village due to the opencast mining operations.	GM, MM clarified that there was no such incidence and it is not the fact that the opencast mining operations can result in to such disease.	This may not be the fact, because so far in the opencast mining areas, there is no noticeable incidents of skin diseases recorded and also it is a fact that coal mines activity comes under the purview of “Red-non hazardous” category and will not cause such diseases..
It was stated that this OC mine was not the only way for development of this area and economic progress of the public	In this regard, he illustrated the examples of Bhupalpalli where a lot of development has taken place because of SCCL mining activities.  Further, GM, MM assured that similar development would also taken place in the area.	It is informed that the coal from this project is being linked to STPP, Jaipur of 2 x 600 MW and it is also evident that by establishing such thermal power plants and innumerable other ancillary units is being opened. As such, development of the surroundings caused bringing down the unemployment.
Demanded the management to provide drinking water facilities,	GM, MM said that SCCL is already coping the needs of surrounding villagers under	All village tanks will be de-silted so that existing agriculture will not be hampered. Due to upcoming of the project, various

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Issue raised by the Public	Clarification given by the Project Proponent	Present Status
supply of water to the village tanks for cultivation purposes, employment to the local unemployed people and to make every arrangement for the development of the area.	“Surrounding Habitat Assistance Program (SHAPE)” and the same will be continued in future also.	ancillary units are being established and also present unemployment is being reduced by giving priority to the local people. Further, various trainings is being imparted to the educated youth to stop their migration to various places for searching jobs. 42 nos. drinking water bore wells have provided in the surrounding villages and also water will be supplied through tankers if any village wells go dry in summer season.
Demanded for starting of Old age home and establishing a Nursing College and providing all other amenities required for the work persons.	GM, MM said that SCCL is having a tie up with SRKM Nursing College, Mancheril in which 50% of the Govt. Quota Seats were allocated to the wards of SCCL employees on government fee rates.	SCCL is having a tie up with SRKM Nursing College, Mancheril in which 50% of the Govt. Quota seats were allocated to the wards of SCCL employees on government fee rates. 7u

**19) The compliance of Groundwater Clearance**

Sl. No.	Condition	Compliance Status
1	To prevent any adverse impact of mine, periodical monitoring of ground water levels and quality should be under taken and report submitted to the Director, Ground water Department, Hyderabad under intimation to the Deputy Director, Ground water dept., Nirmal, Adilabad district. Purpose built Peizometers may be constructed for the purpose of water levels and quality monitoring.	Complied the condition and report sent to Dy. Director, TS Ground water department, Mancheril vide letter no MMR/ENV/G-5/2019/141, Date 10.10.2019.
2	Afforestation may be taken up wherever possible in the surrounding project area.	As on date in extent of 884 Ha of Block Plantation, OB Plantation and avenue plantation has been taken up.
3	Provision should be made to maintain the present use/supply of ground water in and around the project area its restoration due to any adverse effect of mining if any in future.	De-siltation of Amarawadi tank was done by removing 12,500 cu.m of silt and further measures are being taken as per progress of development works.
4	Precaution should be taken to prevent polluting of the local surface and ground water.	All mitigative measures are being taken to control pollution and water table as per progress of production.
5	Artificial recharge structures may be taken up at feasible locations.	30nos. of Rain Water Harvesting structures have been constructed at mines, offices and colonies.





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**Annexure-I**

**Blasting vibrations monitoring data**

**BLASTING VIBRATION READINGS FROM APRIL-2023 TO SEPTEMBER-2023**

Date	RL	No. of Holes	Total Charge	Location of Instrument	Distance Mtrs	PPV mm/sec	AOP db	Remarks
02.04.2023	820	200	6800	Pochamma temple	710	1.167	138.2	
"	750	140	4840	"	840	2.601	138.1	
08.04.2023	830	60	1640	Pochamma temple	740	0.307	116.3	
"	820	280	8880	"	760	0.749	126.8	
15.04.2023	740	309	7470	SHIVALYAM	850	0.528	128	
"	800	172	4787	"	710	3.555	138	
22.04.2023	740	152	4000	Pochamma temple	900	0.347	126.6	
"	825	168	5866	"	700	0.386	131.6	
28.04.2023	793	86	2800	Pochamma temple	800	0.394	123.9	
"	825	75	2575	"	850	0.473	132.2	
03.05.2023	738	180	4600	Pochamma temple	830	0.300	116.7	
"	820	84	3060	"	770	0.930	130.6	
"	740	41	1170	"	860	0.615	122.5	
08.05.2023	790	141	8000	Pochamma temple	750	0.623	128.5	
"	825	78	2230	"	780	0.307	130.5	
"	820	219	7600	"	740	1.103	132.2	

HYMR Report of RKPOCP for the period from April-2023 to September-2023

Date	RL	No. of Holes	Total Charge	Location of Instrument	Distance Mtrs	PPV mm/sec	AOP db	Remarks
12.05.2023	800	279	11607	Pochamma temple	700	1.009	132.6	
"	815	181	5840	"	750	0.504	131.0	
18.05.2023	815	113	4070	Pochamma temple	750	1.096	137.6	
"	735	66	700	"	860	0.37	127.5	
24.05.2023	810	186	5500	Pochamma temple	770	0.426	125.7	
"	820	54	2220	"	760	0.631	121.8	
"	815	172	6572	"	700	0.694	124.5	
29.05.2023	790	131	3700	Pochamma temple	700	0.449	124.0	
"	815	200	6600	"	750	0.662	115.0	
05.06.2023	780	235	9310	Pochamma temple	750	0.473	119.0	
"	815	138	5013	"	700	0.67	123.4	
11.06.2023	820	38	950	Pochamma temple	750	0.631	130.7	
"	814	104	3000	"	760	1.632	133.5	
18.06.2023	800	84	3000	Pochamma temple	760	0.418	135	
"	810	132	3013	"	780	0.701	133.8	
30.06.2023	830	155	6200	Pochamma temple	700	0.552	123.4	
"	780	202	6020	"	750	0.559	124.7	
"	830	356	8880	"	760	1.49	135.1	
04.07.2023	825	64	2100	Pochamma temple	710	1.348	137.8	
"	780	114	3670	"	750	0.567	127.9	

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Date	RL	No. of Holes	Total Charge	Location of Instrument	Distance Mtrs	PPV mm/sec	AOP db	Remarks
13.07.2023	810	169	5000	Pochamma temple	760	0.386	129.9	
"	815	131	3660	"	770	0.363	125.3	
31.07.2023	815	113	4211	Pochamma temple	750	1.151	126.1	
"	810	145	5914	"	740	0.78	132.5	
05.08.2023	810	200	6900	Pochamma temple	720	1.103	124.4	
"	750	236	8000	"	780	0.315	121.4	
"	820	115	3270	"	790	0.922	134.6	
12.08.2023	820	106	2000	Pochamma temple	750	0.686	128.9	
"	810	171	6040	"	760	0.473	127.6	
16.08.2023	810	200	6600	Pochamma temple	780	0.969	130.2	
"	800	113	6720	"	760	1.143	129.1	
"	760	100	3100	"	820	0.615	122.4	
22.08.2023	780	195	5800	Pochamma temple	840	1.222	133.7	
"	760	96	2909	"	820	0.52	126.5	
"	810	149	3800	"	700	1.639	130.8	
27.08.2023	810	259	6380	Pochamma temple	740	1.245	133.6	
"	800	165	4400	"	760	2.459	136.9	
"	760	180	6018	"	810	0.307	120.6	
02.09.2023	815	110	4200	Pochamma temple	700	1.403	132.0	
"	815	102	3410	"	750	1.269	127.0	
"	755	265	7000	"	720	0.394	125.2	
09.09.2023	810	96	2700	Pochamma temple	740	1.340	125.5	

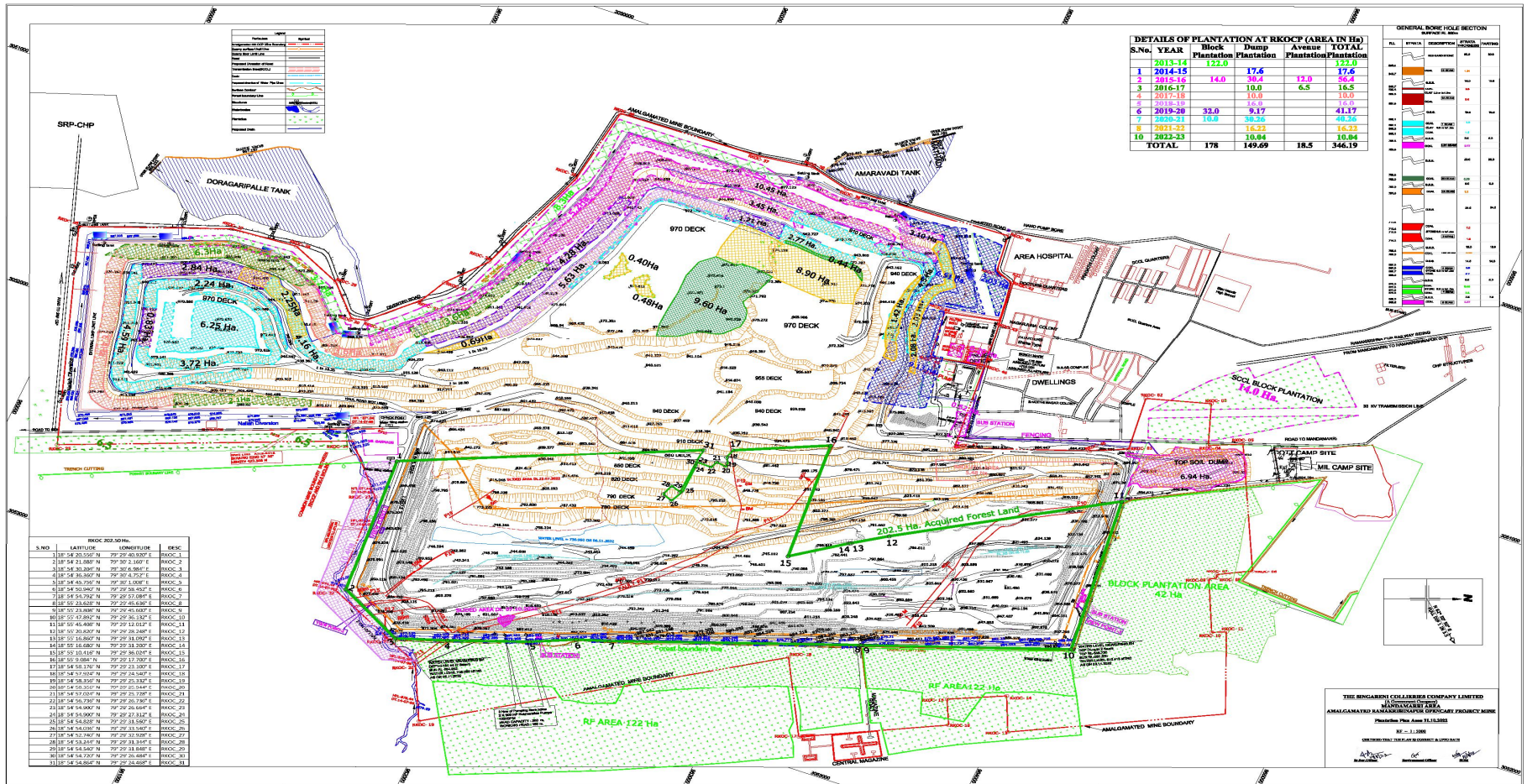
HYMR Report of RKPOCP for the period from April-2023 to September-2023

Date	RL	No. of Holes	Total Charge	Location of Instrument	Distance Mtrs	PPV mm/sec	AOP db	Remarks
"	815	158	4500	"	730	0.355	124.9	
"	760	128	4740	"	800	0.575	122.3	
15.09.2023	757	195	7190	Pochamma temple	810	0.686	–	
"	810	102	3700	"	760	1.088	–	
20.09.2023	755	152	4715	Pochamma temple	830	0.763	128.0	
"	790	149	4900	"	810	1.905	121.0	
"	800	200	6000	"	760	1.143	132.0	
26.09.2023	755	110	3900	Pochamma temple	600	1.524	120.7	
"	800	131	3900	"	650	0.678	90.66	
"	790	166	5450	"	750	1.442	90.86	
30.09.2023	800	107	3500	Pochamma temple	700	0.889	125.5	

**PLANTATION PLAN**

**Annexure-II**

HYMR Report of RKPOCP for the period from April-2023 to September-2023



Annexure-III

HYMR Report of RKPOCP for the period from April-2023 to September-2023

**Ground water quality monitoring data**

**Groundwater Sampling Locations**

Sl. No.	Sampling code	Date of sampling	Sampling Location	Latitude	Longitude
1	GW-2	02.08.2023	Kyatanpalli	N 18°55'24.0"	E 79°27'28.8"
2	GW-3	02.08.2023	Doragaripalli	N 18°53'54.6"	E 79°28'52.3"

**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-2 Kyatanpalli	GW-3 Doragaripalli
1.	Colour	Hazen	2120. B	5	15	5	<5
2.	Odour	TON	2150. B	Agreeable	Agreeable	Agree.	Agree.
3.	pH	--	4500-H <sup>+</sup> B	6.5 to 8.5	No relaxation	7.2	7.2
4.	Taste	FTN	2160. B	Agreeable	Agreeable	Agree.	Agree.
5.	Turbidity	NTU	2130. B	1	5	0.54	0.39
6.	Total Dissolved Solids at 180° C	mg/L	2540.C	500	2000	700	806

**General Parameters Concerning Substances Undesirable in Excessive Amounts**

HYMR Report of RKPOCP for the period from April-2023 to September-2023

S.No.	Parameters	Unit	Test Method	IS: 10500 Requirement (Acceptable Limit)	IS: 10500 Permissible Limit in the absence of alternate source	RESULT	
						GW-2 Kyatanpalli	GW-3 Doragaripalli
1.	Calcium as Ca	mg/L	3500-Ca.B	75	200	89	110
2.	Magnesium as Mg	mg/L	3500-Mg.B	30	100	60	68
3.	Chlorides as Cl-	mg/L	4500-Cl-.B	250	1000	129	130
4.	Sulphates as SO42-	mg/L	4500-SO42- .E	200	400	62	65
5.	Fluoride as F-	mg/L	4500-F-.C	1.0	1.5	0.52	0.49
6.	Nitrates as NO3	mg/L	4500-NO3-.B	45	No relaxation	38	40
7.	Total Alkalinity as CaCO3	mg/L	2320. B	200	600	360	470
8.	Total Hardness as CaCO3	mg/L	2340. C	200	600	469	552
9.	Sulphide as H <sub>2</sub> 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	0.05
16.	Barium as Ba	mg/L	3120. B	0.7	No relaxation	0.10	0.09
17.	Boron as B	mg/L	3120-B	0.5	2.4	0.09	0.14
18.	Iron as Fe	mg/L	3120-B	1.0	No relaxation	0.22	1.3
19.	Zinc as Zn	mg/L	3120-B	5	15	BDL	0.08
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

**Parameters Concerning Toxic Substances**

HYMR Report of RKPOCP for the period from April-2023 to September-2023

S.No.	Parameters	Unit	Test Method	IS: 10500 Requirement (Acceptable Limit)	IS: 10500 Permissible Limit in the absence of alternate source	RESULT	
						GW-2 Kyatanpalli	GW-3 Doragaripalli
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	<b>Pesticides:</b> 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	<b>Polyaromatic Hydrocarbons (PAH's):</b> 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**



HYMR Report of RKPOCP for the period from April-2023 to September-2023

S.No.	Parameters	Unit	Test Method	IS: 10500 Requirement (Acceptable Limit)	IS: 10500 Permissible Limit in the absence of alternate source	RESULT	
						GW-2 Kyatanpalli	GW-3 Doragaripalli
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*

**Annexure-IV**

**Peizometric & Phreatic monitoring data**  
**Attitude of phreatic surface in Peizometric wells**  
**Mandamarri**

HYMR Report of RKPOCP for the period from April-2023 to September-2023

Block/mine: RKP OCP

S. No.	Location	Depth (m)	Dia (m)	Measuring point (m)	Period	Depth to water (m)					
						2018	2019	2020	2021	2022	2023
1	In front of Alphonsa school, about 400m from western edge of quarry excavation limit.	50	0.1	0.4	Winter	4.65	4.74	4.23	4.19	3.82	4.59
					Pre-monsoon	4.78	4.72	5.08	5.73	5.44	5.24
					Monsoon	2.98	3.92	3.45	3.65	2.39	3.54
					Post-monsoon	3.93	3.95	3.89	3.73	3.79	
2	In Central Magazine, About 500m from Eastern edge of quarry excavation limit.	50	0.1	0.4	Winter	6.63	6.63	7.13	7.08	5.50	5.42
					Pre-monsoon	6.74	6.32	8.28	8.33	7.59	6.89
					Monsoon	5.23	7.01	6.41	5.43	2.90	3.34
					Post-monsoon	5.93	7.05	6.89	5.46	3.74	
3	Near RKP-CHP Filter bed, About 1.3km from NW corner of quarry excavation limit.	50	0.1	0.5	Winter	3.94	4.08	4.10	4.14	3.97	3.82
					Pre-monsoon	4.41	4.44	4.38	4.46	4.56	4.32
					Monsoon	2.11	2.08	3.15	3.18	3.27	3.32
					Post-monsoon	2.18	2.12	3.81	3.86	3.73	
4	In Dip side forest land, About 260m from NE corner of quarry excavation limit.	50	0.1	0.4	Winter	NA	NA	NA	NA	NA	NA
					Pre-monsoon	NA	NA	NA	NA	NA	NA
					Monsoon	NA	NA	NA	NA	NA	NA
					Post-monsoon	NA	NA	NA	NA	NA	NA
5	In RKP Area Hospital, About 1 km from NW of the excavation limit.	50	0.1	0.4	Winter	10.33	10.83	10.78	10.82	10.59	10.07
					Pre-monsoon	11.24	11.00	11.27	NA	11.61	10.29
					Monsoon	9.95	8.73	9.67	7.84	8.14	7.63
					Post-monsoon	10.73	2.12	10.32	3.86	8.61	
6	Near Check post of CHP-SRP, About 1400m from	50	0.1	0.5	Winter	19.57	19.63	19.81	19.79	19.21	19.00

HYMR Report of RKPOCP for the period from April-2023 to September-2023

S. No.	Location	Depth (m)	Dia (m)	Measuring point (m)	Period	Depth to water (m)					
						2018	2019	2020	2021	2022	2023
	south side excavation limit.				Pre-monsoon	19.78	19.73	19.96	20.27	20.02	16.45
					Monsoon	17.61	17.53	17.03	15.84	10.71	14.48
					Post-monsoon	18.94	19.76	19.10	17.81	11.28	
7	RKPOCP along diverted road	50	0.1	0.5	Winter	2.43	2.44	2.41	2.42	NA	NA
					Pre-monsoon	3.42	3.45	3.41	NA	NA	NA
					Monsoon	NA	NA	NA	NA	NA	NA
					Post-monsoon	NA	NA	NA	NA	NA	NA

**ATTITUDE OF PHREATIC SURFACE IN GODAVARI VALLEY COAL FIELD**

Area:Mandamarri

Well	Name of	Location	Type of	Dimensions	Total	Geology	Measuring	Period	YEAR	Nearest
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Mandamarri Area

HYMR Report of RKPOCP for the period from April-2023 to September-2023

No.	village		well	(m)	depth (m)		point (m)		2018	2019	2020	2021	2022	2023	mine & dist. (km)
1	Rama Krishnapur	Near old Check Post	Domestic	1.0	7.0	Talchir Fm.	0.60	Winter	AB	AB	AB	AB	AB	AB	RKPOC
								Pre-monsoon	AB	AB	AB	AB	AB	AB	
								Monsoon	AB	AB	AB	AB	AB	AB	
								Post-monsoon	AB	AB	1.84	AB	AB	AB	0.5
2	Rama Krishnapur	B zone X-Road	Domestic	1.0	6.0	Talchir Fm.	0.60	Winter	1.73	1.81	2.20	4.63	2.50	2.41	RKPOC
								Pre-monsoon	Dry	2.16	2.80	4.80	3.90	3.18	
								Monsoon	1.57	1.42	1.77	1.78	1.41	2.67	
								Post-monsoon	1.93	0.60	1.84	1.78	1.98		0.6
3	Ketanpalli	Near Rly Gate towards RKP	Domestic	3.0	9.3	Sullavai Fm.	0.20	Winter	8.88	8.87	6.11	8.52	5.03	5.23	RKPOC
								Pre-monsoon	Dry	Dry	8.87	8.64	7.90	7.87	
								Monsoon	2.72	1.88	1.80	2.50	2.00	2.64	
								Post-monsoon	5.38	0.20	3.84	3.22	3.54		2.25
4	Adilpet	Near rice mill	Domestic	1.8	11/7.0	Kamthi Fm.	0.50	Winter	5.07	5.11	5.46	5.47	AB	AB	RKPOC
								Pre-monsoon	6.87	6.94	6.83	AB	AB	AB	
								Monsoon	2.35	2.16	4.15	AB	AB	AB	
								Post-monsoon	2.77	0.50	4.88	AB	AB	AB	5.50
5	Adilpet	Centre of the village	Domestic	3.0	11.0/12.0	Kamthi Fm.	0.50	Winter	Dry	7.73	6.57	7.67	5.53	5.47	RKPOC
								Pre-monsoon	Dry	Dry	Dry	10.57	10.43	<b>5.50*</b>	
								Monsoon	5.25	5.00	6.22	4.45	2.10	2.22	
								Post-monsoon	6.89	0.50	6.54	5.26	5.03		5.5
6	Mamidigattu	Village road junction	Domestic	2.8	9/7.7	Kamthi Sst	G.L	Winter	Dry	Dry	6.65	6.68	6.33	5.80	RKPOC
								Pre-monsoon	Dry	Dry	Dry	7.10	7.15	<b>6.60*</b>	
								Monsoon	5.25	5.20	4.05	6.23	2.55	4.96	
								Post-monsoon	6.87	6.60	5.86	6.28	4.48		6.3
7	Avudam	In the village	Domestic	3.0	7.5	Kamthi Fm.	G.L	Winter	5.13	6.93	Dry	6.81	5.26	5.38	RKPOC
								Pre-monsoon	Dry	Dry	Dry	6.87	7.24	5.47	
								Monsoon	4.35	0.30	3.73	1.80	1.15	2.23	

HYMR Report of RKPOCP for the period from April-2023 to September-2023

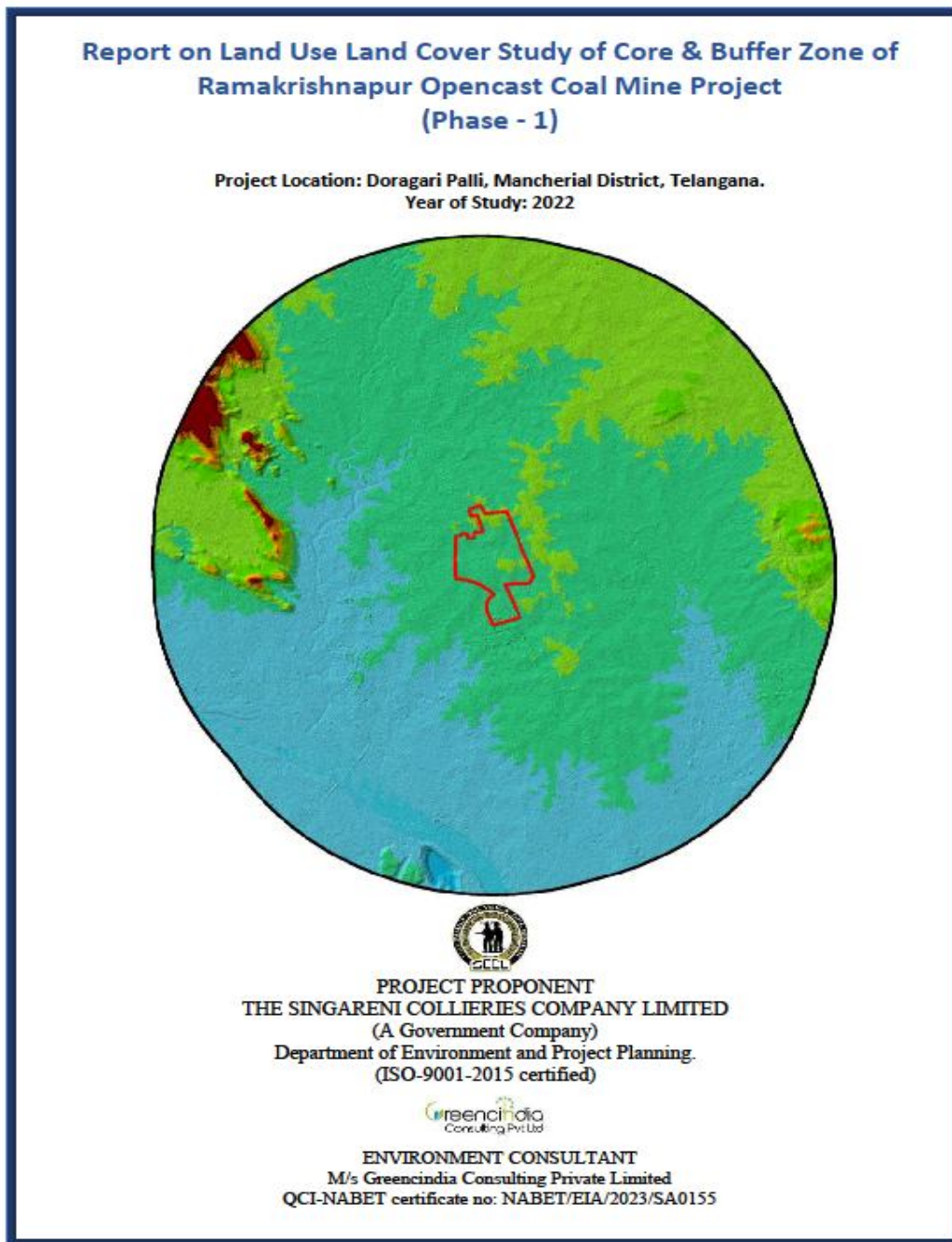
Well No.	Name of village	Location	Type of well	Dimensions (m)	Total depth (m)	Geology	Measuring point (m)	Period	YEAR						Nearest mine & dist. (km)
									2018	2019	2020	2021	2022	2023	
8	Avudam	Road side towards village	Agriculture	4.5	6.0	Kamthi Fm.	G.L	Post-monsoon	5.16	5.00	4.39	4.92	3.98		RKPOC
								Winter	6.49	6.51	5.57	6.68	3.26	3.55	
								Pre-monsoon	7.16	6.93	7.01	7.07	5.98	5.07	
								Monsoon	1.50	0.30	3.59	2.10	1.15	2.08	
9	Sarangapalli	Main road	Domestic	1.3	10.0	Barren Measures Fm.	0.50	Post-monsoon	2.13	4.43	3.63	3.11	2.92		RKPOC
								Winter	1.32	1.41	1.36	1.51	1.94	2.08	
								Pre-monsoon	4.52	AB	4.55	4.46	3.97	2.60	
								Monsoon	0.77	0.62	0.67	1.10	1.13	1.23	
							Post-monsoon	1.22	1.20	1.28	1.89	1.73		3.80	

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

NA : Not approachable

NR : Not Recorded

**LAND USE LAND COVER**



HYMR Report of RKPOCP for the period from April-2023 to September-2023

**Annexure-VI**

**ESCROW BANK STATEMENT DETAILS**

MCP Summary for FY 2022-23											
Sl.No.	Name of the mine as per approved MP	Account No	ROI	Face Value of Deposits up to 31.03.2022	Total Interest upto 31.03.2022	Amount withdrawn till 31.03.2022	Closure Cost deposited in 2022-23	Amount Withdrawn during 2022-23	Accrued from 01.04.2022 to 31.03.2023	TDS deducted from 01.04.2022 to 31.03.2023	Balance as on 31.03.2023
Name of Company											
The Singareni Collieries company Ltd.	Kasipet-1 Indine	41794082BS8	6J0%	4,34,00,000	1,00.89,643	67,39,627	25,80,000	67,39,627	11,61,907	1,19,943	4A6,32,353
The Singareni Collieries company Ltd.	Godavarikhani No.1&3 Indines	41794083851	6A0%	1,29,00,000	2B,4A,702	18,08.402	16,40,000	1g,08,402	4,20,236	43600	1,41,44,334
The Singareni Collieries company Ltd.	Godavarikhani Coal Mine(No.2 &ZA and No.5)	41794079640	6I096	42.42,60,000	2,19,63,178		10.86,40,000		2,34,20,73S	29,09,728	57A3,74,169
The Singareni Collieries company Ltd.	Kakatiya Khani OC III Project	41794073252	650%	17,06,40,000	2,03,22,389		5.s4,30.000		1,00,22,388	12,50,067	2 1,6»,710 5
The Singareni Collieries company Ltd.	COK-7 LEP	417940847IS	6A0%	2,72,40,000	58,64,627	38,40,003	52J0.000	38,40,002	7,36,111	77,715	3,13,33,018
The Singareni Collieries CompDny Ltd.	KTK-6 Indine	40886378M6	5.4596	1,33,00,000	28,72,778	37,30.432	19.00.000		6,9g,543	70,126	1,49,70,763
The Singareni Collieries company Ltd.	ROI7 & NT	40886379342	5.45&		1,10,37,413	1.47,56.714			27,S5,504	2,76,S79	5,89,59,624
The Singareni Collieries company Ltd.	Srirampur -L Indine	408B6Z80007	5.45%	2,76,00,000	66,45,255	88,55.7T2	74,00,000		14,25,424	1,41,336	2,66,73,S51
The Singareni Collieries company Ltd.	Srirampur 3&3A Inclines	4DBB6381363	5.45%	2,40,00,000	51,86.731	66.87,954	34,00,000		12,63,133	1,26,789	2,70,35,121
The Singareni Collieries company Ltd.	Prakashamkhani OC Mine	41794074619	6	60,26,70,000	16,38.13,S0S		24,89,50,000		4,02.30,932	50,31.B43	1.05,06,32A98
The Singareni Collieries company Ltd.	RG DC-III Expansion Project	41794075498	6.50%	61,49,00,000	23,03,18,250		1S,1S,90,000		4,43.63,583	55,03.803	1.07,56,68,030
The Singareni Collieries company Ltd.	Khairagura Opencast Expansion Project	4179407647S	6J0%	77,60,00,000	18,37,14,498	10,82,21,913	10.92,00.000	10,82,21,912	3,59,83,509	43,08,354	88,41,45,828
The Singareni Collieries company Ltd.	Ramagundam Coal Mine	40886382855	5.45%	1,30,93,70,000	29,89,33,492	50,S8,90,820	13,23.40.000		6,15,37,862	61,72,024	1,29,01,18,510
The Singareni Collieries company Ltd.	Dorli OC II	41794077304	6.50%	22,38,00,000	8,39,26,749				1,61,51,826	19,66.039	32,19,12,436
The Singareni Collieries company Ltd.	Dorji ocP - i Expansion	40107327610	5.30%	45,90,90,000	12,95,49,537	8,13,14,77S	9,17,40,000		2,74.47,942	27,85.313	62,37,27,391
The Singareni Collieries company Ltd.	JalaSam Ven\$ala Rao Openest Mine(I&II Expansioni	41794077972	6.50f	40,80,40,000	14,63,12,338		7,29,30,000		2,94,89,917	35,63,1	65.32,o9,æi
The Singareni Collieries company Ltd.	Koyagudem OC-II Project	41794086535	6.50%	46,65,D0,000	10,64,40,293	640,63,6S7	6,56,00.0E10	6,S0,63,6S7	1,28,L9,876	13,39,617	51,98,93,M8
The Singareni Collieries company Ltd.	Kakatiyakhani 2 OC (Covering KTK 2&2A Indine and KTK OC Sector -I)	39238634495	5.90s	2600.00,000	9.15,42.836		4,91,40,000		2,12,01,405	21,44,302	41,97.39,939

**HYMR Report of RKPOCP for the period from April-2023 to September-2023**

	The Singareni Collieries company Ltd.	RKPOC Project Phase-I Project	40886384579	S.45a	58,32,00,000	13,04,67,173	16A679,550	8,21,00,000		3,09,36,424	31,04,746	66,09,69,401
20	The Singareni Collieries company Ltd.	Venkatesh Khani Coal Mine	40108837007	SP	62,24,90,000	18,10,34,157	3,44,00,000	4,46,20,000		17,96,376	42,74,630	85,12,65,913
21	The Singareni Collieries company Ltd.	Goleti OC Mine	42794080522	6.50a	20,8d,40,000	3,37,72,694		9,67,90,000		1,38,42,460	15,47,801	35,12,97,453
22	The Singareni Collieries company Ltd.	JKOC Mine	40107328943	5.30d	47,60,10,000	11,03,31,668	9,96,23,920	740,2B,000		2,63,79,432	26,67,346	58,54,57,934
23	The Singareni Collieries company Ltd.	Ravindra Khani No.6Incline	40886385903	5.45S	3,71,70,000	2,21,76,051	99,29,326	52,30,000		21W,012	2,14,822	5,65,69,915
24	The Singareni Collieries company Ltd.	KK-1Indine	41794087482	6.50X	5,89,00,000	1,30,35,421	81,12,323	83,00,000	81,12,322	16,21,305	1,64,064	6,54,68,017
25	The Singareni Collieries company Ltd.	Ravindra Khani No.5 Incline	40886d86837	5.45%	5,94,00,000	1,16,63,690	1,83,14,940			29,81,185	2,96,052	5,54,33,883
26	The Singareni Collieries company Ltd.	KTK 1& 1A Indine	408B6d87784	5.45%	1,89,40,000	32,67,401	50,59,934	26,60,000		9,68,145	97,330	2,06,78,282
27	The Singareni Collieries company Ltd.	Medapa11i Opencast Project	41794082133	6.50%	1,02,02,80,000	21,91,81,874		21,61,60,000		7,21,91,927	80,32,527	1,51,98,01,274
28	The Singareni Collieries company Ltd.	KK -5 Incline	41794088271	6.50%	7,03,40,000	1,68,61,421	1,27,16,292		177,16,291	18,04,673	1,86,463	6,33,87,148
29	The Singareni Collieries company Ltd.	Kalyanikhani Opencan Project(KKOCP)	39237601674	5.90%	20,40,00,000	2,31W,316		6,33,40,000		1,37,13,028	14,02,445	30,28,04,899
30	The Singareni Collieries company Ltd.	Manuguru Mining Lease(Manuguru OC Mine)	39238634053	5.90N	34,89,50,000	4,25,54,578		9,84,10,000		2,36,21,545	24,20,540	51,11,05,583
31	The Singareni Collieries company Ltd.	GDK-11 Indine	41794119030	6JOfi	2,23,00,000	32,85,302		39,20,000	82,04,500	12,67,259	15,284	2,25,52,777
32	The Singareni Collieries company Ltd.	RK 1AIndine	40884334187	5.45%	2,81,70,000	28,86,888		65,10,000		17,43,606	1,72,217	3,91,38,277
33	The Singareni Collieries company Ltd.	Ravindrakhani No.8 Indine(RR No.8Indine)	40884244771	5.45%	240,30,000	35,96,992		64,10,000		16,07,186	1,58,929	3,64,85,249
	The Singareni Collieries company Ltd.	Shanthikhani LW Project (Shanthikhani tension BLOCK)	40884255057	5.45%	5,11,60,000	52,35,375		1,18,20,000		31,66,167	3,12,724	7,10,68,818
35	The Singareni Collieries company Ltd.	Kondapuram UG Mine	4088425Q1E	5.455	2,61,80,000	30,55,716		51,60,000		16,41,361	1,61,679	3,58,75,398
36	The Singareni Collieries company Ltd.	KTK 5 Incline	40884329202	5.45yt	5,02,70,000	75,18,742		10,00,000		32,44,394	3,15,403	6,17,17,733
37	The Singareni Collieries company Ltd.	Indaram Mining Lease	40884Z57688	5.45%	14,17,40,000	73,16,272		5,73,60,000		83,68,364	8,38,40g	21,39,46,228
38	The Singareni Collieries company Ltd.	SRP OC II Expansion Project	40884331426	5A59t	40,64,00,000	4,67,51,100		8,78,90,000		2,54,40,949	25,09,591	56,39,72,458
39	The Singareni Collieries company Ltd.	Kasipet 2 Indine	4088425Z205	5.45N	63,40,000	5,66,861		17,90,000		3,87,768	38,456	90,46,173
	The Singareni Collieries company Ltd.	Naini Coal Mine	3B88So6131J	6.25H	2,98,0,000	3,68,065		2,6360,000		1g,77,694	1,21,936	5,74,83,823
41	The Singareni Collieries company Ltd.	Kistaram OCP	3B885062344	6.25N	9,24,80A00	52,79,087		3,9960,000		62,54,642	3,81,227	14,36,12,502
42	The Singareni Collieries company Ltd.	PV Narasimha Rao Opencast Mine	4D122186227	5.309t	10,00,000	48,656				56,693	5,670	10,99,679
<b>Total</b>					<b>10,50,46,80,000</b>	<b>2,41,47,67,809</b>	<b>1,15,76,35,20B,86,0a,000</b>	<b>21,7,0s,zzs</b>	<b>sz,81,81,7*2</b>	<b>was,z</b>	<b>1*,*s, 5,7,622</b>	



**Annexure-VII****REVENUE EXPENDITURE**

<b>Sl. No</b>	<b>Description</b>	<b>Expenditure (in Rs:)</b>
1	Air Pollution Prevention & Control measures (Free Gas supply of workers)	19079673
2	Water Pollution Prevention & Control measures	35502192
3	Plantation (Block & Avenue)	6883951
4	Water spraying arrangements	1246005
5	Water cess	-
6	CFO fee	-
	<b>Total:</b>	<b>62711821</b>

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

**Air Monitoring Locations**

Station Code	Name of the Stations	Latitude	Longitude
CA7	RKP CHP	N 18° 56' 11.6"	E 79° 28' 31.1"
CA8	RKP OC BWS	N 18° 55' 16.5"	E 79° 28' 55.6"
CA9	RKP OC Pit Head CHP	N 18° 55' 21.5"	E 79° 28' 58.0"
CA10	300 Hp Pumping Station	N 18° 53' 24"	E 79° 29' 55"
BA4	Sarangapalli	N 18° 56' 40.6"	E 79° 30' 46.2"
BA5	RKP Colony	N 18° 56' 17.5"	E 79° 28' 14.8"
BA6	Amarvadi	N 18° 55' 08.6"	E 79° 28' 22.6"
BA7	Venkatapuram	N 18° 54' 34.4"	E 79° 32' 03.1"

**Air Monitoring Locations**

Station Code	Name of the Stations	Latitude	Longitude
<b>Core Zone</b>			
CA7	RKP CHP	N 18° 56' 11.6"	E 79° 28' 31.1"
CA8	RKP OC BWS	N 18° 55' 16.5"	E 79° 28' 55.6"
CA9	RKP OC Pit Head CHP	N 18° 55' 21.5"	E 79° 28' 58.0"
CA10	300 Hp Pumping Station	N 18° 53' 24"	E 79° 29' 55"
<b>Buffer Zone</b>			
BA4	Sarangapalli	N 18° 56' 40.6"	E 79° 30' 46.2"
BA5	RKP Colony	N 18° 56' 17.5"	E 79° 28' 14.8"
BA6	Amarvadi	N 18° 55' 08.6"	E 79° 28' 22.6"
BA7	Venkatapuram	N 18° 54' 34.4"	E 79° 32' 03.1"

**Ambient Air Quality at RKP CHP (CA7)**

HYMR Report of RKPOCP for the period from April-2023 to September-2023

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

S.No.	Date of Sampling	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )
<b>Coal mine standards, GSR 742(E), Dated 25.09.2000</b>		<b>250</b>	<b>-</b>	<b>120</b>	<b>120</b>
1.	08.04.2023	192	83.6	19.1	22.0
2.	24.04.2023	196	86.4	18.4	21.7
3.	09.05.2023	191	90.0	18.8	21.1
4.	23.05.2023	199	92.3	19.2	22.9
5.	08.06.2023	202	95.0	19.8	22.0
6.	23.06.2023	195	87.8	18.2	21.1
7.	08.07.2023	189	78.7	17.3	20.7
8.	24.07.2023	179	70.6	16.2	19.7
9.	08.08.2023	183	76.3	16.8	19.2
10.	23.08.2023	187	81.3	17.1	20.2
11.	08.09.2023	184	77.6	16.7	19.8
12.	23.09.2023	190	80.0	17.0	20.3
<b>Min</b>		<b>179.0</b>	<b>70.6</b>	<b>16.2</b>	<b>19.2</b>
<b>Max</b>		<b>202.0</b>	<b>95.0</b>	<b>19.8</b>	<b>22.9</b>
<b>Average</b>		<b>190.6</b>	<b>83.3</b>	<b>17.9</b>	<b>20.9</b>
<b>98 Percentile</b>		<b>201.3</b>	<b>94.4</b>	<b>19.7</b>	<b>22.7</b>

**Ambient Air Quality at RKP OC BWS (CA8)**

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

S.No.	Date of Sampling	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )
<b>Coal mine standards, GSR 742(E), Dated 25.09.2000</b>		<b>250</b>	<b>-</b>	<b>120</b>	<b>120</b>
1.	08.04.2023	188	84.3	19.8	22.9
2.	24.04.2023	191	85.0	19.0	22.1
3.	09.05.2023	185	82.9	19.4	22.8
4.	23.05.2023	192	81.6	20.2	23.8
5.	08.06.2023	196	88.5	20.9	23.1
6.	23.06.2023	189	85.0	19.8	22.9
7.	08.07.2023	181	76.9	18.2	21.8
8.	24.07.2023	172	67.8	16.8	20.0
9.	08.08.2023	178	75.0	17.1	20.7
10.	23.08.2023	182	73.2	17.6	21.0
11.	08.09.2023	177	75.6	16.9	19.6
12.	23.09.2023	183	78.7	17.4	20.5
<b>Min</b>		<b>172.0</b>	<b>67.8</b>	<b>16.8</b>	<b>19.6</b>
<b>Max</b>		<b>196.0</b>	<b>88.5</b>	<b>20.9</b>	<b>23.8</b>
<b>Average</b>		<b>184.5</b>	<b>79.5</b>	<b>18.6</b>	<b>21.8</b>
<b>98 Percentile</b>		<b>195.1</b>	<b>87.7</b>	<b>20.7</b>	<b>23.6</b>

- No standard was specified for PM<sub>2.5</sub> in core zone

**Ambient Air Quality at RKP OC Pit Head CHP (CA9)**

**Area** : Mandamarri **Nature of Area** : Core Zone

HYMR Report of RKPOCP for the period from April-2023 to September-2023

**Period of Monitoring** : April 2023– September 2023  
**Sampling Duration** : 24hrs period

S.No.	Date of Sampling	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )
<b>Coal mine standards, GSR 742(E), Dated 25.09.2000</b>		<b>250</b>	<b>-</b>	<b>120</b>	<b>120</b>
1.	08.04.2023	194	85.0	19.3	22.4
2.	24.04.2023	189	83.6	18.5	22.9
3.	09.05.2023	183	82.2	18.9	21.5
4.	23.05.2023	195	87.1	19.1	22.7
5.	08.06.2023	199	90.7	19.9	22.9
6.	23.06.2023	191	86.4	18.0	21.4
7.	08.07.2023	186	80.0	17.5	20.4
8.	24.07.2023	176	71.8	16.0	19.6
9.	08.08.2023	181	78.2	16.4	19.3
10.	23.08.2023	187	82.9	17.0	20.0
11.	08.09.2023	182	79.3	16.2	19.1
12.	23.09.2023	188	81.3	16.9	19.7
<b>Min</b>		<b>176.0</b>	<b>71.8</b>	<b>16.0</b>	<b>19.1</b>
<b>Max</b>		<b>199.0</b>	<b>90.7</b>	<b>19.9</b>	<b>22.9</b>
<b>Average</b>		<b>187.6</b>	<b>82.4</b>	<b>17.8</b>	<b>21.0</b>
<b>98 Percentile</b>		<b>198.1</b>	<b>89.9</b>	<b>19.8</b>	<b>22.9</b>

**Ambient Air Quality at 300 Hp Pumping Station (CA10)**

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

S.No.	Date of Sampling	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )
<b>Coal mine standards, GSR 742(E), Dated 25.09.2000</b>		<b>250</b>	<b>-</b>	<b>120</b>	<b>120</b>
1.	08.04.2023	175	68.8	18.8	21.7
2.	24.04.2023	179	74.4	17.7	20.9
3.	09.05.2023	173	73.2	17.1	20.3
4.	23.05.2023	178	76.8	18.0	21.3
5.	08.06.2023	182	83.6	18.6	21.8
6.	23.06.2023	179	75.0	17.5	20.9
7.	08.07.2023	175	70.6	16.7	20.0
8.	24.07.2023	163	60.5	15.1	18.1
9.	08.08.2023	168	65.0	15.7	18.6
10.	23.08.2023	171	70.0	16.2	19.2
11.	08.09.2023	166	65.5	15.4	18.4
12.	23.09.2023	173	69.4	15.9	19.0
<b>Min</b>		<b>163.0</b>	<b>60.5</b>	<b>15.1</b>	<b>18.1</b>
<b>Max</b>		<b>182.0</b>	<b>83.6</b>	<b>18.8</b>	<b>21.8</b>
<b>Average</b>		<b>173.5</b>	<b>71.1</b>	<b>16.9</b>	<b>20.0</b>
<b>98 Percentile</b>		<b>181.3</b>	<b>82.1</b>	<b>18.8</b>	<b>21.8</b>

**Ambient Air Quality at at Sarangapalli (BA4)**

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

HYMR Report of RKPOCP for the period from April-2023 to September-2023

S.No.	Date of Sampling	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )
<b>NAAQ Standards, CPCB Dated : 18.11.2009</b>		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>
1.	06.04.2023	56	27.8	10.2	13.7
2.	21.04.2023	59	27.3	9.9	12.9
3.	03.05.2023	52	26.5	9.1	11.9
4.	20.05.2023	58	27.5	10.0	13.2
5.	06.06.2023	61	28.8	10.7	14.0
6.	21.06.2023	57	27.5	9.7	12.9
7.	06.07.2023	51	26.3	9.1	12.0
8.	21.07.2023	45	22.4	8.7	11.8
9.	05.08.2023	49	23.8	8.0	11.1
10.	21.08.2023	54	27.3	9.0	12.2
11.	06.09.2023	50	27.5	8.5	11.9
12.	21.09.2023	47	24.0	8.0	11.2
<b>Min</b>		<b>45.0</b>	<b>22.4</b>	<b>8.0</b>	<b>11.1</b>
<b>Max</b>		<b>61.0</b>	<b>28.8</b>	<b>10.7</b>	<b>14.0</b>
<b>Average</b>		<b>53.3</b>	<b>26.4</b>	<b>9.2</b>	<b>12.4</b>
<b>98 Percentile</b>		<b>60.6</b>	<b>28.6</b>	<b>10.6</b>	<b>13.9</b>

**Ambient Air Quality at RKP Colony (BA5)**

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

S.No.	Date of Sampling	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )
<b>NAAQ Standards, CPCB Dated : 18.11.2009</b>		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>
1.	08.04.2023	60	28.0	11.1	14.0
2.	24.04.2023	63	32.1	10.7	13.5
3.	04.05.2023	47	23.5	8.9	12.4
4.	23.05.2023	64	31.3	11.0	14.4
5.	08.06.2023	68	33.0	11.5	14.8
6.	23.06.2023	62	31.0	10.4	13.9
7.	08.07.2023	58	27.3	10.0	13.2
8.	24.07.2023	51	23.1	9.6	12.3
9.	08.08.2023	57	27.8	10.1	13.1
10.	23.08.2023	60	28.3	10.8	13.6
11.	08.09.2023	55	27.0	9.9	12.6
12.	23.09.2023	59	28.6	10.3	13.4
<b>Min</b>		<b>47.0</b>	<b>23.1</b>	<b>8.9</b>	<b>12.3</b>
<b>Max</b>		<b>68.0</b>	<b>33.0</b>	<b>11.5</b>	<b>14.8</b>
<b>Average</b>		<b>58.7</b>	<b>28.4</b>	<b>10.4</b>	<b>13.4</b>
<b>98 Percentile</b>		<b>67.1</b>	<b>32.8</b>	<b>11.4</b>	<b>14.7</b>

**Ambient Air Quality at Amarvadi (BA6)**

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

S.No.	Date of Sampling	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )
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HYMR Report of RKPOCP for the period from April-2023 to September-2023

<b>NAAQ Standards, CPCB Dated : 18.11.2009</b>		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>
1.	07.04.2023	55	27.5	9.8	12.9
2.	22.04.2023	58	28.3	8.9	12.1
3.	08.05.2023	53	27.3	8.3	11.8
4.	22.05.2023	61	29.1	9.0	12.5
5.	07.06.2023	64	32.1	9.8	13.0
6.	22.06.2023	59	29.1	8.8	12.0
7.	07.07.2023	55	23.3	8.1	11.7
8.	22.07.2023	50	23.5	7.9	10.7
9.	07.08.2023	58	27.5	8.5	11.3
10.	22.08.2023	61	28.8	9.3	12.1
11.	07.09.2023	56	27.8	8.7	11.5
12.	22.09.2023	51	25.9	8.1	11.1
<b>Min</b>		<b>50.0</b>	<b>23.3</b>	<b>7.9</b>	<b>10.7</b>
<b>Max</b>		<b>64.0</b>	<b>32.1</b>	<b>9.8</b>	<b>13.0</b>
<b>Average</b>		<b>56.8</b>	<b>27.5</b>	<b>8.8</b>	<b>11.9</b>
<b>98 Percentile</b>		<b>63.3</b>	<b>31.4</b>	<b>9.8</b>	<b>13.0</b>

**Ambient Air Quality at Venkatapuram (BA7)**

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

<b>S.No.</b>	<b>Date of Sampling</b>	<b>PM<sub>10</sub> (µg/m<sup>3</sup>)</b>	<b>PM<sub>2.5</sub> (µg/m<sup>3</sup>)</b>	<b>SO<sub>2</sub> (µg/m<sup>3</sup>)</b>	<b>NO<sub>2</sub> (µg/m<sup>3</sup>)</b>
<b>NAAQ Standards, CPCB Dated : 18.11.2009</b>		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>
1.	07.04.2023	50	22.2	9.7	12.8
2.	22.04.2023	54	23.5	9.1	12.2
3.	08.05.2023	57	28.3	9.8	13.0
4.	22.05.2023	60	28.8	10.1	13.7
5.	07.06.2023	58	27.8	10.8	13.9
6.	22.06.2023	52	26.8	9.5	12.8
7.	07.07.2023	49	23.5	8.7	11.9
8.	22.07.2023	41	21.2	8.0	11.1
9.	07.08.2023	45	23.1	8.8	11.9
10.	22.08.2023	50	24.0	9.2	12.4
11.	07.09.2023	43	23.8	8.3	11.8
12.	22.09.2023	40	22.9	7.8	10.9
<b>Min</b>		<b>40.0</b>	<b>21.2</b>	<b>7.8</b>	<b>10.9</b>
<b>Max</b>		<b>60.0</b>	<b>28.8</b>	<b>10.8</b>	<b>13.9</b>
<b>Average</b>		<b>49.9</b>	<b>24.7</b>	<b>9.2</b>	<b>12.4</b>
<b>98 Percentile</b>		<b>59.6</b>	<b>28.7</b>	<b>10.6</b>	<b>13.9</b>

**Annexure-IX**

**Consent for Establishment**

ANDHRA PRADESH POLLUTION CONTROL BOARD  
 PARYAVARAN BHAVAN, A-3, INDUSTRIAL ESTATE,  
 SANATHNAGAR, HYDERABAD - 500 045

Phone: 23867500  
 Fax: 040 - 23812031  
 Grams: Kalushya Nivaranu  
 Website: www.appcb.ap.nic.in

REGD. POST WITH ACK. DUE

**CONSENT ORDER FOR ESTABLISHMENT**

Order No. 60/PCB/CFE/RO-NZB/HO/2010 / 1922

DL. 12.10.2010

Sub: PCB - CFE - M/s. Singareni Collieries Co. Ltd., Ramakrishnapur Open cast Project (RKP OCP Phase-1), Mandamarri area, Near Doragaripally (V), Mancherla (M), Adilabad District - Consent for Establishment of the Board under Sec.25 of Water (P & C of P) Act, 1974 and Under Sec 21 of Air (P&C of P) Act, 1981 - issued - Reg

- Ref:
- 1) Public Hearing conducted on 22-10-2009 at Near Doragaripally (V), Mancherla (M), Adilabad District.
  - 2) Environmental Clearance dt. 16.3.2010 issued by MOE&F, GOI.
  - 3) Industry's application received on 12.7.2010
  - 4) R.O's inspection report dt. 25.8.2010
  - 5) CFE Committee meeting held on 21.9.2010


1. In the reference 1st cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for Ramakrishnapur Open cast coal mining Project (RKP OCP Phase-1) to produce the following products with installed capacities as mentioned below, with a project cost of Rs. 209.78 Crores

Sl. No.	Line of activity	Capacity
1.	Coal from open cast mining	2.50 million TPA with a peak production of 3.4 million TPA

2. As per the application, the above activity is to be located at Mandamarri area, Near Doragaripally (V), Mancherla (M), Adilabad District in an area of 637.52 Ha. The mining is open cast by mechanized method involving shovel dumper.
3. The above site was inspected by the Environmental Engineer and Asst. Environmental Engineer, Regional office, Nizamabad, A.P Pollution Control Board on 17.7.2010 and found that the site is surrounded by
  - North : RK-IA & RF
  - South : Srirampur to Mandamarri road
  - East : Open lands
  - West : Open lands & Srirampur to Mandamarri road
4. The Board, after careful scrutiny of the application and verification report of Regional Officer, hereby issues **CONSENT FOR ESTABLISHMENT** to your activity Under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. **This order is issued to the activity as mentioned at para (1) only.**

**Annexure-X**

**Consent for Operation**

	<p style="text-align: center;"><b>TELANGANA STATE POLLUTION CONTROL BOARD</b>                  Paryavarana Bhavan, A-3, Industrial Estate,                  Sanathnagar, Hyderabad – 500018</p> <p style="text-align: right;">Ph: 040-23887500                  Fax: 040- 23815631                  Website: tspcb.cgg.gov.in</p>
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**CONSENT & AUTHORISATION ORDER**

**Consent Order No :210522811648**

**Date:25.02.2021**

(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 and Operation of the plant under section 21 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 and under section 21 of Air (Prevention & Control of Pollution) Act 1981 (hereinafter referred to as 'the Acts') and the rules and orders made thereunder to

**M/s. SCCL, Ramakrishnapur Open Cast Project (RKP OCP Phase -1),  
 Mandamarri Area, Near Doragaripally (V),  
 Mancheril (M),  
 Adilabad District.  
 E:Mail Id: env\_mmr@scclmines.com**

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of Emissions per hour from the chimneys as detailed below.

**i. Outlets for discharge of effluents:**

Outlet No.	Outlet Description	Max Daily Discharge KLD	Point of Disposal
1.	Excess Mine discharge	1622	Treatment in settling ponds. The supernatant shall be utilized for dust suppression, vehicle washings, plantations & domestic purpose. The rest of the supernatant shall be discharged into nearby irrigation tanks.
2.	Vehicle Washings	64	After treatment, the treated water shall be reused for dust suppression and cleaning purpose.
2.	Domestic	19	Septic tank followed by soak pit.
<b>TOTAL</b>		<b>1705 KLD</b>	

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



HYMR Report of RKPOCP for the period from April-2023 to September-2023

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@scclmines.com, /	E-mail/Fax	nla.613601@newindia.co.in /
PAN No	AAACT8873F	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 peoified 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:

Retroactive 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

Retroactive Dates

Retroactive 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	50000000	1.3	150000000	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.

**Annexure-XII****Surface water quality monitoring data****Surface Water Sampling Locations**

Sl. No.	Sampling code	Date of sampling	Sampling Location	Latitude	Longitude
1	SW-1	02.08.2023	Tank near Doragaripalli Village	N 18°53'55.9"	E 79°29'13.4"
2	SW-2	02.08.2023	Tank near Amaravadi	N 18°55'04.1"	E 79°28'38.4"

Sl. No	Parameters	Unit	Test Method	CPCB Water Quality Criteria					RESULT	
				Class A	Class B	Class C	Class D	Class E	SW-1 Tank near Doragaripalli Village	SW-2 Tank near Amaravadi
1	pH	-	4500-H <sup>+</sup> B	6.5-8.5	6.5-8.5	6.0 – 9.0	6.5-8.5	6.0-8.5	7.7	7.8
2	Electrical Conductivity	µmhos/cm	2510-B	-	-	-	-	2250 µmhos/cm	1120	550
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	-	5.8	5.5
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	-	-	3.0	2.9
5	Total Coliforms	MPN/100mL	9221 B	50 or less	500 or less	5000 or less	-	-	540	280
6	Free Ammonia (as N)	mg/L	4500-NH <sub>3</sub> -F	-	-	-	1.2 mg/L or less	-	BDL	BDL
7	Boron as B	mg/L	3120-B	-	-	-	-	Less than 2 mg/L	BDL	0.04
8	SAR	-	-	-	-	-	-	Less than 26	1.28	0.76

HYMR Report of RKPOCP for the period 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-1 Tank near Doragaripalli Village	SW-2 Tank near Amaravadi
1	Colour	Hazen	2120. B	5	5
2	Odour	TON	2150. B	No odour observed	No odour observed
3	Temperature	°C	2550. B	25.2	25.1
4	Turbidity	NTU	2130. B	3.38	0.56
5	Total Dissolved Solids at 180° C	mg/L	2540.C	657	324
6	Total Suspended Solids at 105° C	mg/L	2540. D	22	16
7	Chemical Oxygen Demand	mg/L	5220. D	16	20
8	Chlorides as Cl <sup>-</sup>	mg/L	4500-Cl <sup>-</sup> .B	78	65
9	Sulphates as SO <sub>4</sub> <sup>2-</sup>	mg/L	4500-SO <sub>4</sub> <sup>2-</sup> .E	93	50
10	Fluoride as F <sup>-</sup>	mg/L	4500-F <sup>-</sup> .C	1.1	0.72
11	Calcium as Ca	mg/L	3500-Ca.B	85	54
12	Magnesium as Mg	mg/L	3500-Mg.B	71	39
13	Sodium as Na	mg/L	3500-Na.B	66	30
14	Potassium as K	mg/L	3500-K.B	3.7	2.1
15	Nitrites as NO <sub>2</sub>	mg/L	4500-NO <sub>2</sub> <sup>-</sup> .B	0.92	1.01
16	Nitrates as NO <sub>3</sub>	mg/L	4500-NO <sub>3</sub> <sup>-</sup> .B	0.3	4.1
17	Total Phosphates	mg/L	4500-P-D	0.12	0.09
18	Ammonical Nitrogen as NH <sub>3</sub> -N	mg/L	4500-NH <sub>3</sub> -C	BDL	BDL

HYMR Report of RKPOCP for the period from April-2023 to September-2023

S.No	Parameters	Unit	Test Method	SW-1 Tank near Doragaripalli Village	SW-2 Tank near Amaravadi
19	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	5530-D	BDL	BDL
20	Oil & Grease	mg/L	5520. B	<1	<1
21	Carbonates as CO <sub>3</sub>	mg/L	2320. B	nil	Nil
22	Bi-carbonates as HCO <sub>3</sub>	mg/L	2320. B	415	246
23	Fecal Coliforms	MPN/100mL	9221 E	46	23
24	Zinc as Zn	mg/L	3120. B	0.06	0.04
25	Iron as Fe	mg/L	3120. B	0.16	0.55
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

**Annexure-XIII**

**Effluents monitoring data**

HYMR Report of RKPOCP for the period from April-2023 to September-2023

**Effluents sampling locations**

Sl. No.	Sample code	Name of the Location	Latitude	Longitude
1	EW1	RKP OCP Mine Discharge	N 18° 54' 45.2"	E 79° 30' 00.9"
2	EW2	RKP OC Base Workshop ETP Outlet	N 18° 55' 09.0"	E 79° 29' 01.0"
3	EW3*	RKP OC OB Dump Runoff/ Settling Pond Outlet	N 18° 54' 08.0"	E 79° 29' 21.6"

\*found to be dry

**Characteristics of Effluents – RKPOCP Mine Discharge (EW1)**

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 <sup>+</sup> 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	24	933	20	2.2	1
2	29.04.2023	7.6	16	890	23	2.6	1.2
3	15.05.2023	7.5	20	811	27	3.2	1
4	31.05.2023	7.6	18	964	16	2.3	<1
5	08.06.2023	7.8	22	862	19	2.0	<1
6	30.06.2023	8.1	23	897	23	3.2	1.2
7	14.07.2023	7.7	16	644	27	4.2	1
8	29.07.2023	7.7	27	808	31	5.2	1.4
9	14.08.2023	7.5	20	913	29	4.2	1
10	25.08.2023	7.9	31	1012	35	5.1	1.2
11	12.09.2023	7.2	42	785	27	3.8	<1
12	27.09.2023	7.6	23	983	32	5.4	1.4

RKPOCP HYMR Report from April-2023 to September-2023

Annexure-XIV

Characteristics of Effluents – RKPOC Base Workshop ETP Outlet (EW2)

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 <sup>+</sup> B	2540-D	2540-C	5220-D	IS 3025	5520-B
	MoEF GSR 742 (E) and Effluent Standards for coal mines	5.5 to 9.0	100	--	250	30	10
1	14.04.2023	7.7	73	1154	60	14.6	3.4
2	29.04.2023	7.8	68	1024	67	16.2	3.2
3	15.05.2023	7.2	51	1191	63	14.4	3.6
4	31.05.2023	7.3	37	1372	35	8.8	2.0
5	08.06.2023	7.7	45	1249	27	6.0	1.2
6	30.06.2023	7.9	71	981	52	15.4	3.6
7	14.07.2023	7.9	64	1210	59	14.4	3.2
8	29.07.2023	7.4	45	1343	63	15.4	3
9	14.08.2023	7.2	51	1091	73	14.4	3.6
10	25.08.2023	8.2	67	1156	55	10.6	4
11	12.09.2023	7.6	58	965	51	12.4	2.8
12	27.09.2023	7.1	71	1147	60	13.3	4.4

**Annexure-XV**

**Noise quality monitoring data**

**Noise monitoring locations**

<b>Station Code</b>	<b>Name of the Stations</b>	<b>Latitude</b>	<b>Longitude</b>
CN1	RKPOCP Project Office	N 18° 55' 21.5"	E 79° 28' 58.0"
CN2	RKPOCP Base Workshop	N 18° 55' 16.5"	E 79° 28' 55.6"
BN1	RKP Colony	N 18° 56' 17.5"	E 79° 28' 14.8"
BN2	Sarangapalli	N 18° 56' 40.6"	E 79° 30' 46.2"

**Noise monitoring locations**

<b>Station Code</b>	<b>Name of the Stations</b>	<b>Latitude</b>	<b>Longitude</b>
<b>Core Zone</b>			
CN1	RKPOCP Project Office	N 18° 55' 21.5"	E 79° 28' 58.0"
CN2	RKPOCP Base Workshop	N 18° 55' 16.5"	E 79° 28' 55.6"
<b>Buffer Zone</b>			
BN1	RKP Colony	N 18° 56' 17.5"	E 79° 28' 14.8"
BN2	Sarangapalli	N 18° 56' 40.6"	E 79° 30' 46.2"

RKPOCP HYMR Report from April-2023 to September-2023

**Noise quality monitoring data**  
**Summary of Noise Levels**

Location Code	Monitoring stations	Standard limits of Noise		April-2023 1 <sup>st</sup> Fortnight			April-2023 2 <sup>nd</sup> Fortnight		
				Noise levels in dB (A)					
		Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
<b>Core Zone</b>									
CN1	RKPOCP Project Office	75	70	08.04.2023	62.1	50.9	24.04.2023	62.6	51.3
CN2	RKPOCP Base Workshop	75	70	08.04.2023	63.0	51.9	24.04.2023	63.4	51.2
<b>Buffer Zone</b>									
BN1	RKP Colony	55	45	08.04.2023	50.0	40.7	24.04.2023	50.6	40.4
BN2	Sarangapalli	55	45	06.04.2023	48.8	38.0	21.04.2023	48.4	39.1

Note: 1. Daytime 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 <sup>st</sup> Fortnight			May-2023 2 <sup>nd</sup> Fortnight		
				Noise levels in dB (A)					
		Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
<b>Core Zone</b>									
CN1	RKPOCP Project Office	75	70	09.05.2023	60.9	50.4	23.05.2023	62.3	51.3
CN2	RKPOCP Base Workshop	75	70	09.05.2023	61.9	50.5	23.05.2023	62.2	50.9
<b>Buffer Zone</b>									
BN1	RKP Colony	55	45	09.05.2023	49.5	38.6	23.05.2023	50.2	40.1
BN2	Sarangapalli	55	45	06.05.2023	47.8	37.8	20.05.2023	48.4	38.1



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Location Code	Monitoring stations	Standard limits of Noise		June-2023 1 <sup>st</sup> Fortnight			June-2023 2 <sup>nd</sup> Fortnight		
				Noise levels in dB (A)					
		Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
<b>Core Zone</b>									
CN1	RKPOCP Project Office	75	70	08.06.2023	63.0	51.9	23.06.2023	61.3	50.1
CN2	RKPOCP Base Workshop	75	70	08.06.2023	63.1	51.2	23.06.2023	62.3	50.4
<b>Buffer Zone</b>									
BN1	RKP Colony	55	45	08.06.2023	50.7	40.6	23.06.2023	49.6	39.8
BN2	Sarangapalli	55	45	06.06.2023	48.8	38.6	21.06.2023	47.9	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		July-2023 1 <sup>st</sup> Fortnight			July-2023 2 <sup>nd</sup> Fortnight		
				Noise levels in dB (A)					
		Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
<b>Core Zone</b>									
CN1	RKPOCP Project Office	75	70	08.07.2023	62.1	50.8	24.07.2023	61.4	50.1
CN2	RKPOCP Base Workshop	75	70	08.07.2023	62.8	51.3	24.07.2023	61.8	50.3
<b>Buffer Zone</b>									
BN1	RKP Colony	55	45	08.07.2023	49.0	39.1	21.07.2023	47.5	37.6
BN2	Sarangapalli	55	45	06.07.2023	48.1	37.1	18.07.2023	47.8	37.5

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

RKPOCP HYMR Report from April-2023 to September-2023

Location Code	Monitoring stations	Standard limits of Noise		August-2023 1 <sup>st</sup> Fortnight			August-2023 2 <sup>nd</sup> Fortnight		
				Noise levels in dB (A)					
		Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
<b>Core Zone</b>									
CN1	RKPOCP Project Office	75	70	08.08.2023	61.9	51.1	23.08.2023	62.3	51.7
CN2	RKPOCP Base Workshop	75	70	08.08.2023	62.2	50.7	23.08.2023	62.7	49.9
<b>Buffer Zone</b>									
BN1	RKP Colony	55	45	08.08.2023	49.2	39.1	23.08.2023	49.7	39.8
BN2	Sarangapalli	55	45	05.08.2023	48.0	38.0	21.08.2023	48.6	38.6

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 <sup>st</sup> Fortnight			September-2023 2 <sup>nd</sup> Fortnight		
				Noise levels in dB (A)					
		Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
<b>Core Zone</b>									
CN1	RKPOCP Project Office	75	70	08.09.2023	60.9	50.8	23.09.2023	61.5	50.2
CN2	RKPOCP Base Workshop	75	70	08.09.2023	61.9	49.2	23.09.2023	62.1	50.1
<b>Buffer Zone</b>									
BN1	RKP Colony	55	45	08.09.2023	48.9	38.8	23.09.2023	49.1	38.3
BN2	Sarangapalli	55	45	06.09.2023	47.9	37.4	21.09.2023	47.2	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

Vehicular emissions monitoring data

Vehicular Exhaust Emissions study has been monitored for Heavy Earth Moving Machinery (HEMM) in Mandamarri (RKOCP) Area.

Smoke density is measured in HSU % light absorption coefficient is measured in  $\text{Km}^{-1}$

Standard HSU % is 65 %, light absorption coefficient is  $2.45 \text{ Km}^{-1}$



## Vehicular Emissions Study

**Introduction:**

Vehicular Exhaust Emissions study has been monitored for Heavy Earth Moving Machinery (HEMM) in Mandamarri Area. The parameter measured is smoke density (K). Smoke density is a function of the number of smoke particles per unit volume, the size distribution of the smoke particles, and the light distribution and the light absorption study. Smoke density is also known as Light Extinction Coefficient and Light Absorption Coefficient. By convention, smoke density is expressed on a per meter basis ( $m^{-1}$ ). Smoke density is measured in HSU % and light absorption coefficient is measured K in  $m^{-1}$

The Automotive Exhaust Monitor used in this emissions study (Make: AVL India Private Limited, Model AVL 437C), approved by Automotive Research Association of India (ARAI), Pune. The observed values are compared with standards prescribed by Ministry of Road transport and highway as per Act. CMVR - 115(2) (C). The standards are presented in Table 0.1. HEMM Vehicular emissions results in Mandamarri area are presented in Table 0.2.

Test Method	Limits for Vehicular emissions	
<b>Free acceleration test for turbo charged engine and naturally aspirated engine</b>	Hatridge Smoke Units (%)	Light absorption Coefficient (K) in $m^{-1}$
	<b>65</b>	<b>2.45</b>

## RKPOCP HYMR Report from April-2023 to September-2023

<b>RKPOCP</b>									
1	Motor Grader	MG-1	BEML	25.11.2020	7988	29.08.2023	29.4	0.27	PASS
2	Water Tanker	WS-3	BEML	1.10.2021	29545	„	60.5	2.10	PASS
3	Loader	L-1	Volvo	11.10.2021	14532	„	28.5	1.05	PASS
4	Shovel pc-450	Godavari	Komat	1.10.20220	38733	„	31.2	0.74	PASS
5	Shovel	Saraswathi	BEML	23.11.2020	14129	„	28.5	0.42	PASS
6	DUMPER-60T	B-5	BEML	25.11.2020	19166	„	32.4	0.18	PASS
7	DUMPER-60T	C-7	CATER	30.08.2016	30273	„	29.5	0.04	PASS
8	DUMPER-60T	C-8	CATER	30.01.2016	31514	30.08.2023	28.5	0.17	PASS
9	Dozer	D-4	BEML	16.06.2021	14560	„	51.4	0.85	PASS
10	Dozer	D-2	BEML	17.04.2013	13436	„	54.2	0.31	PASS
11	Tyre handler	TH-1	BEML	17.04.2017	799	„	50.1	0.75	PASS
12	CRANE-12T	Cr-1	Escort	29.04.2016	7051	„	32.1	0.42	PASS
13	CRANE-12T	Cr-2	ACE	11.01.2019	5421	„	34.2	0.47	PASS
14	Dozer	D-4	Komat	14.10.2019	14560	„	29.2	0.40	PASS

Total no of vehicles	14
No of vehicles tested	14
Passed vehicles	14
Failed vehicles	0
break down vehicles (B/D)	0

### 0.2 Summary of Vehicular emission data:

The Total number of HEMM vehicles studied in Mandamarri area were 14, for all HEMM vehicles the Smoke density has exceeded the stipulated limit of 65% Hatridge smoke Units (%),