



Kumarasamy Raja Nagar – 521457
Jaggayyapet Mandal, Krishna District,
Andhra Pradesh, India
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THE RAMCO CEMENTS LIMITED

RCL/PCB-Form-V/238/171

Date: 09.09.2022

The Environmental Engineer,
AP Pollution Control Board,
Regional Office,
Plot No. 41, Kanakadurga Officer's Colony,
Opp. SBI, Gurunanak Road,
VIJAYAWADA – 520 008.

Dear Sir,

Sub: Submission of Environmental Statement in Form - V for Jayanthipuram Limestone Mine (North Band), Jayanthipuram Limestone Mine (South Band), Ravirala Limestone Mine (RF) and Ramco Budawada Limestone Mine (RF) for the Financial Year 2021-2022 - Reg.

Please find enclosed herewith two sets of Environmental Statement in Form - V for the following Captive Mines of us for the financial year 2021-2022 along with relevant enclosures:

- Jayanthipuram Limestone Mine (North Band)
- Jayanthipuram Limestone Mine (South Band)
- Ravirala Limestone Mine (RF)
- Ramco Budawada Limestone Mine (RF)

This is for your information and records please.

Thanking you.

Yours faithfully,
For The Ramco Cements Limited,


(N RAVI SHANKAR)
Sr. President (Manufacturing)

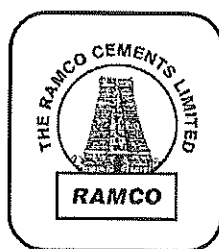
Encl.: As above.

ENVIRONMENTAL STATEMENT (FORM – V)

FOR FINANCIAL YEAR 2021-2022

**JAYANTHIPURAM LIMESTONE MINE (NORTH BAND)
JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)
RAVIRALA LIMESTONE MINE (RF)
RAMCO BUDAWADA LIMESTONE MINE (RF)**

**An
QMS- IS / ISO 9001:2015,
EMS- IS/ ISO 14001:2015,
OHSMS- IS/ISO 45001:2018,
EnMS – ISO 50001:2018
Certified Company**



**THE RAMCO CEMENTS LIMITED,
KUMARASAMY RAJA NAGAR 521457
JAGGAIAHPET (M),
NTR DIST., AP.**

ENVIRONMENTAL STATEMENT (FORM – V)
(See rule 14)
Environmental statement for the financial year
ending the 31st March 2022
PART – A

1.	Name and address of the owner / occupier of the industry operation or process	:	The Ramco Cements Limited Kumarasamy Raja Nagar - 521 457, Jaggiahpet Mandal, NTR Dt., A.P											
	Industry operation or process	:	Captive Limestone Mines: • Jayanthipuram Limestone Mine (North Band) • Jayanthipuram Limestone Mine (South Band) • Ravirala Limestone Mine (RF) • Ramco Budawada Limestone Mine (RF)											
2.	Industry category Primary – (STC Code) Secondary – (SIC Code)													
3.	Production capacity		Production capacities are: <table><tr><td>Mine</td><td>Limestone Capacity, Million TPA</td></tr><tr><td>Jayanthipuram Limestone Mine (North Band)</td><td>1.80</td></tr><tr><td>Jayanthipuram Limestone Mine (South Band)</td><td>1.75</td></tr><tr><td>Ravirala Limestone Mine (RF)</td><td>1.20</td></tr><tr><td>Ramco Budawada Limestone Mine (RF)</td><td>1.10</td></tr></table>		Mine	Limestone Capacity, Million TPA	Jayanthipuram Limestone Mine (North Band)	1.80	Jayanthipuram Limestone Mine (South Band)	1.75	Ravirala Limestone Mine (RF)	1.20	Ramco Budawada Limestone Mine (RF)	1.10
Mine	Limestone Capacity, Million TPA													
Jayanthipuram Limestone Mine (North Band)	1.80													
Jayanthipuram Limestone Mine (South Band)	1.75													
Ravirala Limestone Mine (RF)	1.20													
Ramco Budawada Limestone Mine (RF)	1.10													
4.	Year of Establishment		1986											
5.	Date of the last environment audit report submitted	:	24.09.2021											

PART – B
WATER AND RAW MATERIAL CONSUMPTION

Water consumption m³/day:

Process & greenbelt	458.1 m ³ /day
Total	458.1 m ³ /day

Note: Water consumption is considered for 310 days of mine operation.

Name of the product(s)	Water consumption per unit of products (m ³ /MT of Limestone)	
	During the current financial year (2020-21)	During the current financial year (2021-2022)
Limestone	0.042	0.0344

Note:

- Water consumption for domestic uses is being transported from water treatment plant located in cement plant. This quantity is included in the cement plant domestic use category, hence not mentioned here.
- The limestone production details are given in Annexure – I.

Raw material consumption:

Sl. No.	Name of the raw material	Consumption of raw material	
		During the current financial year (2020-2021)	During the current financial year (2021-2022)
1	Diesel Oil, L	14,93,892	25,09,366
2	Lubricant Oil, L	33,832	27,228
3	Grease, kg	8,818	8,316
4	ANFO, kg	4,50,950	4,74,450
5	Slurry explosives – Large dia. (above 32mm)., kg	1,11,700	2,18,561
6	Electrical Detonators – Ordinary, Nos.	1,560	1,189
7	Electrical Detonators – Delay, Nos.	264	485
8	Nonel Detonators, Nos.	12,938	2,09,451
9	Detonating fuse, m	1,325	3,970

PART- C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

(1) Pollutants	Quantity of Pollutants discharged (mass/day)	Concentrations of Pollutants discharges (Mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water			
p ^H	Auto Garage Oil & Grease Trap Treated Waste Water - Not quantified in the financial year 2021- 2022	7.64 - 7.84	Well within the prescribed limits
TDS		966.1 mg/L	
TSS		81.5 mg/L	
COD		136.5 mg/L	
BOD		42.0 mg/L	
O & G		2.7 mg/L	

(1) Pollutants	Quantity of Pollutants discharged (mass/day)	Concentrations of Pollutants discharges (Mass/volume), $\mu\text{g}/\text{m}^3$	Percentage of variation from prescribed standards with reasons
(b) Air - Ambient Air Quality Monitoring in the nearby areas:			
PM ₁₀	Dharmavarapadu Thanda Village	50.86	Well within the prescribed limits
PM _{2.5}		20.58	
SO ₂		12.73	
NOx		15.38	
CO		212.50	
PM ₁₀	Jayanthipuram Village	51.85	Well within the prescribed limits
PM _{2.5}		20.98	
SO ₂		12.79	
NOx		15.69	
CO		217.21	
PM ₁₀	Chillakallu	50.53	Well within the prescribed limits
PM _{2.5}		20.45	
SO ₂		13.20	
NOx		16.10	
CO		220.75	
PM ₁₀	K Agraharam Village	51.08	Well within the prescribed limits
PM _{2.5}		20.72	
SO ₂		13.59	
NOx		16.34	
CO		222.13	
PM ₁₀	Jaggayyapet	51.86	Well within the prescribed limits
PM _{2.5}		21.13	
SO ₂		13.68	
NOx		16.38	
CO		242.25	
PM ₁₀	Budawada Village	53.69	Well within the prescribed limits
PM _{2.5}		21.64	
SO ₂		13.46	
NOx		16.16	
CO		231.63	
PM ₁₀	Vedadri Village	51.80	Well within the prescribed limits
PM _{2.5}		20.88	
SO ₂		13.28	
NOx		15.83	
CO		212.79	
PM ₁₀	Pochampalli Village	50.50	Well within the prescribed limits
PM _{2.5}		20.58	
SO ₂		13.05	
NOx		15.65	
CO		206.13	
PM ₁₀	Ravirala Village	50.75	Well within the prescribed limits
PM _{2.5}		20.68	
SO ₂		12.83	
NOx		15.78	
CO		209.33	

Note:

- The analysis data of Auto Garage Oil & Grease Trap Treated Waste Water generated for the financial year 2021-2022 is narrated in Annexure - II. No deviation is observed from Prescribed Standards in this period.
- Data on ambient air quality monitoring carried out in the nearby villages (9 locations) in the financial year 2021-2022 (by MoEF&CC approved environmental monitoring agency) is enclosed in Annexure - III. No deviation is observed (with respect to quality) for ambient air quality data (adjacent to plant & in surrounding villages) from Prescribed Standards in the financial year 2021-2022.

PART – D
HAZARDOUS WASTES

As specified under 1[Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008)]

Hazardous Waste	During the previous financial year (2020-2021)	During the current financial year (2021-2022)
Waste oil	Used within the premises. No disposal to outside agencies.	Used within the premises. No disposal to outside agencies.
Waste grease		

- Copy of Form - 4 (submitted to APPCB) - Hazardous Waste generation / receipts and consumption / disposal details for mines for the financial year 2021-2022 is enclosed as Annexure - IV.
- Part of the waste oil / lubricants is used along with fresh grease for reclaimers.

PART – E
SOLID WASTES

Location	During the Previous financial year (2020-2021)	During the current financial year (2021-2022)
(a) From process		
I. Overburden / waste Generation, Tonne		
i. From Jayanthipuram Limestone Mine (North Band)	6,12,590	19,67,881
ii. From Jayanthipuram Limestone Mine (South Band)	23,037	1,39,266
iii. From Ravirala Limestone Mine (RF)	1,09,277	95,464
iv. From Ramco Budawada Limestone Mine	0	0
II. Top Soil Generation, Tonne		
i. From Jayanthipuram Limestone Mine (North Band)	0	0
ii. From Jayanthipuram Limestone Mine (South Band)	0	0
iii. From Ravirala Limestone Mine (RF)	0	0
iv. From Ramco Budawada Limestone Mine	0	0
(b) From pollution control facility (wet drilling, water sprinkling, etc.)	No solid waste generated	
(c) Quantity recycled or re-utilized (for reclamation), Tonne		
i. Jayanthipuram Limestone Mine (North Band)	6,12,590	19,67,881
ii. Jayanthipuram Limestone Mine (South Band)	0	0
iii. Ravirala Limestone Mine (RF)	0	0
iv. Ramco Budawada Limestone Mine	0	0

PART – F

(Please specify the characteristics in terms of concentration and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes

Solid Waste Handling & Reclamation:

- Total solid waste handled in the financial year 2021-2022 is as follows:

Name of the Mine	Solid Waste, Tonne		
	Generated	Used in reclamation	Dumped in dumps
Jayanthipuram Limestone Mine (North Band)	19,67,881	19,67,881	0
Jayanthipuram Limestone Mine (South Band)	1,39,266	0	1,39,266
Ravirala Limestone Mine (RF)	95,464	0	95,464
Ramco Budawada Limestone Mine	0	0	0

- 15.33 ha of area is reclaimed by the end of financial year 2021-2022 at Jayanthipuram Limestone Mine (North Band).
- Details of handling / disposal of various wastes generated from mines, plant and colony are given in Annexure – I.

PART - G

Impact of the pollution control measures taken on concentration of natural resources and on the cost of production

- All the surrounding areas are kept free from pollution.
- No capital expenditure incurred for environmental protection measures in financial year 2021-2022.
- The recurring expenditure incurred for environmental protection measures in financial year 2021-2022 is Rs. 534.79 lakh for all four operating mining leases i.e., nearly Rs. 12.97 per Tonne of limestone production against Rs. 8.11 per Tonne of limestone production in the financial year 2020-2021.
- Various expenditures incurred for environment protection measures for 4 mining leases are listed in Annexure - V.
- An amount of Rs. 310.60 lakh is allocated towards Environment Management Activities for the financial year 2022-2023 towards capital as well as recurring costs for mines and being spent.

PART – H

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

- As part of environmental protection measures, 1.05 ha is reclaimed during the financial year 2021-22 and a cumulative of 15.33 ha by the end of financial year 2021-22 at Jayanthipuram Limestone Mine (North Band).

PART – I

Any other particulars for improving the quality of the environment

Various Management Systems are being implemented in our premises, viz.,

Management System	Implemented from
Quality Management System - IS/ISO 9001:2015	1996
Environmental Management System - IS/ISO 14001:2015	2006
Occupational Health & Safety Management System – IS/ISO 45001:2018	2010
Energy Management System - ISO 50001:2018	2014
Work Place Management - 5S Certification	2016

ENVIRONMENTAL PROTECTION MEASURES

Ramco group of Companies have diversified activities in Cement, Textiles, Fibre-Cement Products, Wind Energy, Software Products, Surgical Dressings, Ready-Mix Concrete and Dry Mortar Plants.

The Ramco Cements Limited (formerly known as Madras Cements Ltd.) is a unit of the Ramco Group which has been growing steadily right from its inception with present capacity 16.5 Million Tonnes / Annum of cement. RCL, which has always been striving for Total Quality Management, possesses International Management Systems Certificates IS/ISO 9001:2015, IS/ISO 14001:2015, IS/ISO 45001:2018, ISO 50001:2018 and 5-S Workplace Management System.

The KSR Nagar plant was presented with an Award in recognition of practicing 'Cleaner Production Measures' from AP Pollution Control Board, Hyderabad for the year 2011-2012 on the eve of World Environment Day – 05th June 2012. Andhra Pradesh Pollution Control Board recommended for 'Better Environmental Practices Award - First in Cement Industry Category for the year 2016-2017 in the State of Andhra Pradesh'.

Captive Limestone Mines are obtaining awards in Mines Environmental & Mineral Conservation Week and in Mines Safety Week celebrations. Captive Mines is using Nonel Delay Detonators, to reduce ground vibration, to avoid fly rocks & fugitive dust. Permanent water sprinkling system is installed on mines haul road to reduce fugitive dust.

PRODUCTION DETAILS:

Name of the Mine	Production Capacities of Mines as per EC, TPA	For Financial Year 2021-2022, Tonne	
		Production	Despatch
Jayanthipuram Limestone Mine (North Band)	18,00,000	17,88,926	17,99,900
Jayanthipuram Limestone Mine (South Band)	17,50,000	8,12,000	8,12,000
Ravirala Limestone Mine (RF)	12,00,000	11,99,500	11,99,500
Ramco Budawada Limestone Mine (RF)	11,00,000	3,23,863	2,38,600

AIR:

Air Pollution Control Measures:

- Permanent water sprinkling system is installed on mines haul road to reduce fugitive dust.
- Non-el delay detonators are used to reduce ground vibration, to avoid fly rocks & fugitive dust.

- Massive greenbelt development all along the haul roads.
- Dozer is used for dozing haul roads regularly.
- Mobile water sprinklers are used for water sprinkling on internal haul roads & muck pile.

Ambient Air Quality Monitoring:

(i) Ambient Air Quality Monitoring by MoEF&CC Approved External Agency – nearby villages:

Data on ambient air quality monitoring carried out in the nearby 9 Nos. of villages (buffer zones of limestone mining leases) in the financial year 2021-2022 is enclosed as Annexure - III. Data on core zone air monitoring carried out in four mining leases in the financial year 2021-2022 is enclosed as Annexure - III. The values are within the specified limits. The average values are:

Location / Norm	Average concentration of pollution type, $\mu\text{g}/\text{m}^3$									
	Financial Year 2020-21					Financial Year 2021-2022				
	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO
Pollution Board Norms	100	60	80	80	2000	100	60	80	80	2000
Dharmavarapadu Thanda	47.18	19.05	12.49	15.12	210.55	50.86	20.58	12.73	15.38	212.50
Jayanthipuram Village	49.66	20.19	12.77	15.51	215.23	51.85	20.98	12.79	15.69	217.21
Chillakallu	52.43	21.22	12.95	15.39	213.36	50.53	20.45	13.20	16.10	220.75
K Agraharam Village	53.56	21.81	12.84	15.66	194.55	51.08	20.72	13.59	16.34	222.13
Jaggayyapet	60.61	24.42	12.99	16.23	278.05	51.86	21.13	13.68	16.38	242.25
Budawada Village	51.42	20.76	12.55	15.42	213.82	53.69	21.64	13.46	16.16	231.63
Vedadri Village	50.85	20.60	12.62	15.54	214.50	51.80	20.88	13.28	15.83	212.79
Pochampalli Village	55.92	22.83	12.50	15.35	205.36	50.50	20.58	13.05	15.65	206.13
Ravirala Village	52.88	21.33	12.78	15.56	208.73	50.75	20.68	12.83	15.78	209.33

Mine	Location	Average concentration, $\mu\text{g}/\text{m}^3$									
		Financial Year 2020-21					Financial Year 2021-22				
		PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO
Pollution Board Norms		100	60	80	80	2000	100	60	80	80	2000
Jayanthipuram Limestone Mine (North Band)	Mines Office	56.25	22.42	12.63	15.55	558.86	58.72	23.78	14.21	16.76	559.42
	Workshop	57.16	23.04	12.72	15.74	578.50	59.17	24.14	14.24	17.09	548.96
	Sub-station	56.69	23.21	12.73	15.48	571.64	57.25	23.37	14.30	17.07	555.38
	Magazine Area	56.75	23.11	12.88	15.45	581.05	57.87	23.52	14.31	17.36	557.54
Jayanthipuram Limestone Mine (South Band)	Mines Office	55.90	22.56	12.94	15.84	586.59	56.63	23.76	14.61	17.11	565.33
	Pump House	56.30	22.96	12.82	15.90	580.77	59.55	24.13	14.71	17.61	558.92
	Haul Road	56.01	22.84	13.03	15.91	570.32	57.96	23.71	14.39	17.14	552.83
	Loading Area	57.11	23.17	13.15	16.00	576.32	60.38	24.54	14.74	17.59	558.71
Ravirala Limestone Mine	Mines Office	55.59	22.44	12.56	15.50	556.91	59.60	24.06	14.18	16.83	568.13
	ML3 Tower Light Area	56.46	23.00	13.11	15.86	551.95	59.78	24.20	14.83	17.88	567.04
	ML4 Tower Light Area	55.82	22.57	12.71	15.59	549.95	58.86	23.90	14.26	17.31	571.67
	View Point Tower Light Area	55.18	22.70	13.18	16.12	550.59	56.98	22.96	14.82	17.87	559.21
Ramco Budawada Limestone Mine	Drilling Area	54.00	21.77	13.75	16.51	548.77	60.58	24.50	15.13	17.68	558.71
	Loading Area	55.02	22.25	13.76	16.67	532.91	59.55	24.29	15.33	18.03	560.71
	Haul Road - 1	55.56	22.55	13.60	16.44	542.86	58.29	23.91	15.07	18.02	560.04
	Haul Road - 2	55.80	22.55	13.65	16.50	547.59	59.26	24.41	15.08	17.73	564.21

(ii) Continuous Ambient Air Quality Monitoring:

2 Nos. of Continuous ambient air quality monitoring stations are installed. On-line monitoring data is being transmitted to APPCB website. The details of Online Continuous Ambient Air Quality Monitoring equipment are:

Location of continuous ambient air monitoring instrument	Parameter	Make of present equipment	Year of installation	Details of earlier equipment, if any
Time Office	PM ₁₀	Metone	2013	
	PM _{2.5}	Metone	2013	
	SO ₂	Horiba	2015	
	NOx	Horiba	2015	
Mines Office	PM ₁₀	Metone	2020	DKK, Japan installed in the year 2010 at Time Office is shifted in the year 2013.
	PM _{2.5}	Metone	2014	
	SO ₂	Horiba	2015	
	NOx	Horiba	2015	

WATER:

Water Requirement:

- Mine seepage water is the source for water requirements.
- By considering 310 days of operation of mines, the total water requirement for Captive Mines is 458.1 m³/day in the financial year 2021-2022 against 405.13 m³/day is consumed for year 2020-2021. Due to COVID-19 pandemic, the limestone production is less in the financial year 2020-2021.

Panchayat Raj & Rural Development Department (nodal agency for Central Ground Water Dept) vide Lr. No. PRR05-11028/45/2018-SLNA-GIS-CORD dated 13.11.2021 (which is valid up to 12.11.2024) accorded permission for mine seepage water withdrawal @ 7000 m³/day, for internal use for Cement Plant and captive mines.

Water Level Data:

Water levels are regularly monitored through piezometers on regular basis at 4 mining leases:

Name of the Mine	No. of Piezometers		
	Manual	Automatic	Total
Jayanthipuram Limestone Mine (North Band)	4 Nos.	---	4 Nos.
Jayanthipuram Limestone Mine (South Band)	---	3 Nos.	3 Nos.
Ravirala Limestone Mine (RF)	1 No.	3 Nos.	4 Nos.
Ramco Budawada Limestone Mine(RF)	3 Nos.	---	3 Nos.

Data on water levels collected in the financial year 2021-2022 is enclosed as Annexure – VI.

Permission to Work Below Water Table:

Panchayat Raj & Rural Development Department (nodal agency for Central Ground Water Dept) accorded permission to work below water table vide:

Mine Name	NOC No., Date of Issue & Valid Up To
Jayanthipuram Limestone Mine (North Band)	No. PRR05-11028/14/2018-SLNA-GIS-CORD dated 19.02.2021, which is valid up to 18.02.2024.
Jayanthipuram Limestone Mine (South Band)	No. PRR05-11028/13/2018-SLNA-GIS-CORD dated 07.07.2020, which is valid up to 06.07.2023
Ravirala Limestone Mine (RF)	No. PRR05-11028/15/2018-SLNA-GIS-CORD dated 07.07.2020, which is valid up to 06.07.2023
Ramco Budawada Limestone Mine (RF)	No. PRR05-11028/16/2019-SLNA-GIS-CORD dated 13.02.2021, which is valid up to 12.02.2024.

Water Quality Analysis:

- Ground water for the samples collected in the nearby villages is being monitored by MoEF&CC approved external agency. Compiled ground water quality data for the samples collected in the nearby villages in the financial year 2021-2022 is enclosed as Annexure – VII.
- Surface water for the samples collected in the nearby sources is being monitored by MoEF&CC approved external agency. Compiled surface water quality data for the samples collected in the financial year 2021-2022 is enclosed as Annexure – VIII.

Waste Water Quality Analysis:

- No process effluent generation from limestone extraction.
- Domestic wastewater generated from mining lease is being treated in respective septic tanks followed by soak pits.
- Mine seepage water is being allowed to settle in mine sump located in respective mine. Mine seepage water quality data for the samples collected in financial year 2021-2022 is enclosed as Annexure – IX. The values are within the specified limits.
- Workshop effluents are being treated in oil & grease trap located and the outlet water is being used for greenbelt development. Compiled data on analysis reports of workshop oil & grease trap outlet water carried out in the financial year 2021-2022 by MoEF&CC approved external agency is enclosed as Annexure - II. The values are within the specified limits. The average values are:

Pollution Type	Unit	Pollution Board Norms	Average Value / Range (2020-21)	Average Value / Range (2021-2022)
p ^H		5.5 - 9.0	7.64 - 7.84	7.64 - 7.84
TDS	mg/L	2100	933.8	966.1
TSS	mg/L	100	87.0	81.5
COD	mg/L	250	134.8	136.5
BOD	mg/L	100	38.1	42.0
O & G	mg/L	10	2.2	2.7

Rain Water Harvesting Pits & Check Dams:

- 48 Nos. of rain water harvesting structures are made to recharge the ground water in the colony by March 2022. 4 Nos. of rain water harvesting structures are made to recharge the ground water in the plant by March 2022. The locations of these pits are listed in Annexure – X.
- 1 No. of check dam is constructed near Jayanthipuram Limestone Mine (North Band) and 1 No. of check dam is located near Ravirala Limestone Mine (RF).
- Check bund is constructed in SE direction of Ravirala Limestone Mine (RF).

Water Conservation:

Water collected in mine pits is being used for:

- Cement plant & power plant process requirements,
- Water sprinkling for dust suppression purpose (plant & mines),
- Greenbelt development purpose,
- Domestic water requirements of plant, mines & colony,
- Domestic water requirements of nearby villages,
- Part of this outlet water is used for agricultural purpose in the nearby areas,
- Part of the excess waste water is being passed to pond (about 0.5 ha area) in our own lands to uplift the water table in the nearby area and
- Balance is being let out.

Drinking Water:

Reverse Osmosis (RO) plant is located at colony and purified water is being distributed to all offices, mines and colony houses. The analysis reports of RO plant inlet and outlet samples in the financial year 2021-2022 are enclosed as Annexure – XI.

NOISE & VIBRATION LEVELS:

- Noise level data collected in the mines areas in the financial year 2021-2022 is listed out in Annexure – XII.

- Vibration levels are being monitored by Minimate instrument regularly. The vibration reports collected while blasting at four mining leases [Jayanthipuram Limestone Mine (North Band), Jayanthipuram Limestone Mine (South Band), Ravirala Limestone Mine (RF) and Ramco Budawada Limestone Mine (RF)] in the financial year 2021-2022 are enclosed as Annexure – XIII.

OCCUPATIONAL HEALTH:

Occupational health check-ups are being carried out for new employees at the time of joining into the organization and occupational health surveillance programme is carried out for all the employees regularly. Full-fledged occupational health centre is established and services are being rendered by qualified occupational health specialist.

Occupational health checkup at the time of recruitment is being carried for all the employees as per Mines Rules, with the following tests:

- Lung function test
- ECG
- Chest X-ray
- Blood analysis test
- Urine analysis test
- Audiometry
- Checking colour blindness
- Stool Analysis
- Sputum (Optional)

The employees who are working at the time of initiation of this programme are covered for these tests. If any person failed in this health checkup at the time of recruitment, he/she won't get recruited. Like so, a baseline data on the health status of workmen in the Pre-recruitment stage was established. The same is being repeated periodically to update and to take action accordingly.

Occupational health surveillance on regular basis is being carried for all the employees, with the following tests:

- Clinical examination including Neurological assessment
- Lung function test
- ECG
- Chest X-ray
- Blood analysis test
- Urine analysis test
- Audiometry
- Checking colour blindness

If any person failed in this health checkup, he will be shifted / transferred to non-hazardous activities. Till now, no such case is observed.

Occupational Health Centre (with qualified Occupational Health Specialist) is established with the following facilities:

- X-ray
- ECG
- Spirometry (lung function test)
- Audiometry
- Semi-auto analyser to carryout bio-chemical tests
- Clinical lab for micro-biological tests (including sputum test)
- Checking colour blindness
- Dental chair
- Ambulance

The first aid box is made available for immediate treatment, at all working mining leases. First aid training is imparted to the selected employees regularly. The list of first aid members is being displayed at strategic places.

WASTE HANDLING & CLEANER PRODUCTION PRACTICES:

Solid Waste Handling & Reclamation:

- Total solid waste handled in the financial year 2021-2022 is as follows:

Name of the Mine	Solid Waste, Tonne		
	Generated	Used in reclamation	Dumped in dumps
Jayanthipuram Limestone Mine (North Band)	19,67,881	19,67,881	0
Jayanthipuram Limestone Mine (South Band)	1,39,266	0	1,39,266
Ravirala Limestone Mine	95,464	0	95,464
Ramco Budawada Limestone Mine	0	0	0

- 15.33 ha of area is reclaimed by the end of financial year 2021-2022 at Jayanthipuram Limestone Mine (North Band).

Various handling and disposal practices of various wastes are:

Type of waste	Quantity handled in 2021-2022	Disposal practice
Top Soil Generation	Nil	No top soil generation in the financial year 2021-2022 from all the mining leases.
Dust generation during drilling	Nil	Controlled by Wet drilling
Dust generation during loading	Nil	Water sprinkling on muck piles

Type of waste	Quantity handled in 2021-2022	Disposal practice
Dust generation during transportation	Nil	Water sprinkling on haul roads (by permanent water sprinkler of 2 km length of main haul roads and by water tanker on minor haul roads)
Sludge collected from STP	26 m ³	Is being used as manure in greenbelt activities, in place of chemical fertilizers.
Colony garbage	11.74 Tonne of compost	By Vermi-composting and compost is being used for greenbelt activities as manure, in place of chemical fertilizers.
Kitchen waste from colony	1148 kg of bio-gas generated	Kitchen waste is being composted in bio-gas plant, which is under commission stage. The generated bio-gas is used in industrial canteen, to partially replace the consumption of LPG.
E-waste from plant & mines	Printer Cartridges – 0.10536 Tonne	Is being disposed to APPCB authorized agencies. Returns are being submitted annually. Copy of the E-waste returns for the financial year 2021-22 is enclosed as Annexure – XIV. Total quantity by the end of FY 2021-2022 are: E-waste - 1.129 Tonne Printer Cartridges – 0.26532 Tonne
Haz. waste – Waste oil & waste grease from mines	No waste oil & waste grease disposed to external agencies.	Waste oil along with fresh fuel is being used for kiln firing while light up & waste grease for reclaimer lubrication. Excess waste oil & waste grease are sold to APPCB authorized agents. Returns are being submitted annually (Annexure – IV).
Plastic waste collected from colony, mines and plant	14.5 T	Being fired in the kilns.
Bio-medical waste from OHC	Yellow – 92.65 kg Red – 71.55 kg White – 9.30 kg Blue – 7.35 kg	Operating Occupational Health Centre (OHC) to provide basic first aid facilities within the premises. Bio-medical waste from this OHC is being regularly collected by APPCB authorized agent, M/s Safenviron Bio-Medical Treatment Plant for onward treatment. The agency collects the bio-medical waste on 48-hour basis. Copy of Bio-Medical Annual Returns submitted for the calendar year 2021 is enclosed as Annexure – XV.

CLEANER PRODUCTION PRACTICES:

To control air emissions as well as fugitive emissions from various sources, various cleaner production practices are initiated. These are:

- Permanent water sprinkler system is installed for a length of nearly 2 km at mines haul road.
- Mobile Water sprinkling on mines internal haul roads.
- Nonel delay detonators instead of conventional detonators.
- Minimate vibration monitor is used to measure the ground vibrations and to control them accordingly.
- Reclamation & rehabilitation initiated at mined out areas.
- For better housekeeping, '5-S - Work Place Management' is implemented.

GREENBELT ACTIVITIES:

Greenbelt developed within ML area as on 31.03.2022 are as follows:

Name of the Mine	Greenbelt Area in Ha. specified in EC	Greenbelt Developed Extent in Ha. up to	
		31.03.2021	31.03.2022
Jayanthipuram Limestone Mine (North Band)	62.39	65.22	65.82
Jayanthipuram Limestone Mine (South Band)	21.07	21.08	21.58
Ravirala Limestone Mine (RF)	3.19	9.79	10.09
Ramco Budawada Limestone Mine	0.0	3.45	3.50

High Density Plantation (Miyawaki method):

High density plantation is initiated in the financial year 2019-2020. The details of high density plantation carried out in the plant, captive mines and colony up to March 2022:

- No. of saplings planted – 22335
- Total area covered – 6040 m².

RECENT SOCIO - ECONOMIC MEASURES CARRIED OUT:

As part of Corporate Social Responsibility, various socio-economic measures are being carried out. Cost of various socio-economic activities for the surrounding villages for the period 2003-2022 (19 years) is Rs. 11,85,77,329.5/- i.e., nearly Rs. 62.41 lakh per annum. The details are enclosed as Annexure – XVI.

Some of the major initiatives taken in the financial year 2021-2022 are as follows:

- Oxygen concentration plant donated to Jaggayyapet PHC.

- Medical camps conducted in nearby villages. Due to COVID-19 pandemic, 3 Nos. of medical camps conducted in nearby villages in the financial year 2021-2022 and medicines are being distributed at free of cost.
- Water supply for agriculture fields at Jayanthipuram Village.
- Water supply for Jayanthipuram village, Dharmavarapupadu Thanda village & Budawada village (in summer season) for safe drinking water.
- Installed Reverse Osmosis (RO) plant at Nawabpet village in the financial year 2021-2022, whereas RO plants installed at Jayanthipuram and Dharmavarapupadu Thanda villages in the financial year 2020-2021.

EXPENDITURE INCURRED FOR ENVIRONMENT PROTECTION:

- The recurring expenditure incurred for environmental protection measures in financial year 2021-2022 is Rs. 534.79 lakh for all four operating mining leases i.e., nearly Rs. 12.97 per Tonne of limestone production against Rs. 8.11 per Tonne of limestone production in the financial year 2020-2021.
- Various expenditures incurred for environment protection measures (other than socio-economic measures) for 4 mining leases [Jayanthipuram Limestone Mine (North Band), Jayanthipuram Limestone Mine (South Band), Ravirala Limestone Mine (RF) and Ramco Budawada Limestone Mine (RF)] for the financial year 2021-22 are listed in Annexure - XVI.
- An amount of Rs. 310.60 lakh is allocated towards Environment Management Activities for the financial year 2021-2022 towards capital as well as recurring costs for mines and being spent.

CELEBRATION OF WORLD ENVIRONMENT DAY:

- On the eve of World Environment Day – 5th June 2021, plantation activity conducted at plant premises, mines premises, colony premises and at surrounding areas.

THE RAMCO CEMENTS LTD, KSR NAGAR
AUTO GARAGE OIL & GREASE TRAP OUTLET QUALITY
PERIOD - APRIL 2021 TO MARCH 2022

Parameter	Unit													Norm	Average / Range	Min.	Max.
		April-2021	May-2021	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22				
p ^H		7.77	7.83	7.79	7.81	7.87	7.81	7.87	7.81	7.87	7.81	7.89	7.84	5.5 - 9.0	7.64 - 7.84	7.8	7.9
Total Dissolved Solids	mg/L	923	942	929	946	959	986	996	981	999	965	958	942	2100	966.1	923.0	999.0
Total Suspended Solids	mg/L	85.4	80.9	78.9	79.3	81.2	83.9	82.7	80.6	83.5	81.9	82.9	79.6	200	81.5	78.9	85.4
Chemical Oxygen Demand	mg/L	119	127	119	126	134	142	149	139	142	135	141	138	250	136.5	119.0	149.0
BOD (for 3 days at 27 °C)	mg/L	38.6	39.3	38.3	39.6	41.1	42.3	43.1	42.7	43.5	42.9	43.5	42.9	100	42.0	38.3	43.5
Oil & Grease	mg/L	2.6	2.4	2.6	2.8	2.9	2.4	2.6	2.5	2.9	2.7	2.9	2.6	10	2.7	2.4	2.9

Note: All values are mentioned as mg/L, except p^H.

THE RAMCO CEMENTS LTD., KSR NAGAR
AMBIENT AIR QUALITY MONITORING DATA - BUFFER ZONE VILLAGES
(PERIOD - APRIL 2021 TO MARCH 2022)

Location	Parameter	Apr-21		May'2021		Jun'2021		Jul'2021		Aug'2021		Sep'2021		Oct'2021		Nov'2021		Dec'2021		Jan'2022		Feb'2022		Mar'2022		Limits
		I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	
Dharmavarapada u Tandi	PM10	54.6	50.2	48.3	45.9	56.3	57.6	60.3	61.2	49.6	50.3	47.3	52.3	45.1	53.7	48.3	46.9	46.1	45.4	47.8	47.1	48.9	52.3	51.2	53.9	100
	PM2.5	22.2	20.2	19.6	18.5	22.9	23.2	24.5	24.7	20.1	20.3	19.2	22.1	18.3	21.6	19.6	18.9	18.7	18.3	19.4	19.0	19.9	21.1	20.8	21.7	20.58
	SO ₂	14.8	14.1	12.1	12.1	15.3	14.7	14.6	13.9	12.1	11.9	12.4	12.1	11.9	12.8	10.6	12.1	10.4	11.9	10.9	12.6	12.5	13.5	13.1	13.1	12.73
	NO _x	17.4	16.8	14.7	14.8	17.9	17.4	17.2	16.6	14.7	14.6	15.0	14.8	14.5	15.5	13.2	14.8	13.0	14.6	13.5	15.3	15.1	16.2	15.7	15.8	15.38
	CO	212	203	221.0	232.0	232	221	286	231	198	196	193	204	201.0	212.0	198.0	196.0	201.0	184.0	209.0	191.0	223.0	205.0	226.0	215.0	212.50
Jayanthipuram	PM10	57.1	52.3	46.9	47.3	58.2	59.3	61.2	58.3	52.3	49.6	53.6	48.6	51.2	49.7	46.9	50.2	43.8	48.9	44.6	51.2	52.3	53.5	54.1	54.1	100
	PM2.5	22.9	21.3	18.8	19.3	23.3	24.2	24.5	23.8	21.0	20.2	21.5	19.8	20.5	20.3	18.8	20.5	17.6	20.0	17.9	20.9	21.0	21.8	21.4	22.1	20.98
	SO ₂	15.6	14.8	11.9	11.6	15.1	14.3	13.9	14.2	13.2	12.6	13.5	13.2	12.9	13.5	11.2	10.6	10.8	11.1	11.2	11.6	11.6	12.9	12.4	13.2	12.79
	NO _x	18.5	17.7	14.8	14.5	18.0	17.2	16.8	17.1	16.1	15.5	16.4	16.1	15.8	16.4	14.1	13.5	13.7	14.0	14.1	14.5	14.5	15.8	15.3	16.1	15.69
	CO	234	242	232.0	245.0	246.0	239.0	287.0	246.0	189.0	201.0	174.0	209.0	182.0	215.0	179.0	178.0	211.0	169.0	218.0	176.0	241.0	223.0	248.0	229.0	217.21
Chillakallu	PM10	54.6	54.6	50.2	46.6	56.1	57.4	59.6	55.9	48.6	48.3	49.3	49.9	50.3	51.3	46.2	48.3	45.1	46.1	47.1	48.9	47.6	49.6	48.9	52.3	50.53
	PM2.5	22.1	22.1	20.3	18.9	22.7	23.2	24.1	22.6	19.6	19.6	19.9	20.2	20.3	20.8	18.7	19.6	18.2	18.7	19.0	19.8	19.2	20.1	19.8	21.2	20.45
	SO ₂	14.9	15.1	12.3	13.1	15.4	15.7	14.5	16.3	12.9	12.3	12.6	12.5	12.8	12.9	10.9	12.3	11.2	11.9	14.2	12.9	12.4	13.2	12.4	13.20	80
	NO _x	17.6	18.2	15.0	16.2	18.1	18.8	17.2	19.4	15.6	15.4	15.3	15.6	15.5	16.0	13.6	15.4	13.9	15.0	16.9	15.6	15.2	15.9	15.5	16.10	80
	CO	245	245	215.0	229.0	249	247	291	251	211	222	201	226	212.0	231.0	185.0	191.0	202.0	187.0	204.0	193.0	215.0	208.0	221.0	216.0	220.75
K.Agraharam Village	PM10	51.3	55.9	47.7	50.3	55.9	56.1	57.1	58.1	47.3	49.6	48.6	51.2	49.8	51.9	47.1	47.1	44.9	45.3	45.3	47.3	53.5	54.3	55.2	55.2	51.08
	PM2.5	20.7	22.8	19.2	20.5	22.9	23.0	23.7	23.0	19.1	20.2	19.6	20.9	20.1	21.2	19.0	19.2	18.1	18.5	18.3	19.3	21.6	22.2	22.2	22.5	20.72
	SO ₂	15.2	15.3	11.6	10.9	15.6	16.1	13.8	16.4	13.6	15.1	13.7	16.2	13.9	16.6	11.1	10.9	11.5	10.2	12.5	10.8	13.5	13.8	13.9	13.9	13.59
	NO _x	18.3	17.7	14.7	13.3	18.7	18.5	16.9	18.8	16.7	17.5	16.8	18.6	17.0	19.0	14.2	13.3	14.6	12.6	15.6	13.2	16.6	16.2	17.0	16.3	16.34
	CO	241	231	219.0	256.0	246.0	242.0	301.0	249.0	242.0	212.0	222.0	221.0	228.0	239.0	191.0	169.0	187.0	154.0	192.0	199.0	249.0	212.0	253.0	222.0	221.13
Jaggayyapet	PM10	54.6	66.7	62.3	64.6	53.5	54.2	56.2	56.2	48.9	47.1	49.3	45.3	51.2	47.2	45.4	48.8	42.1	47.6	44.9	48.6	52.9	51.2	53.6	52.3	51.86
	PM2.5	22.4	26.9	25.6	26.1	22.0	21.9	23.1	22.7	20.1	19.0	20.3	18.3	21.3	19.1	18.7	19.7	17.3	19.2	18.5	19.6	21.7	20.7	22.0	21.1	21.13
	SO ₂	14.6	15.2	15.1	16.2	14.8	16.1	14.5	16.9	12.7	15.4	12.9	16.4	13.1	16.1	10.8	11.6	10.5	11.5	11.2	11.9	12.6	12.6	12.8	12.6	13.68
	NO _x	17	18.2	17.5	19.2	17.2	19.1	17.0	19.9	15.1	18.4	15.3	19.4	15.5	19.1	13.2	14.6	12.9	14.5	13.6	14.9	15.0	15.6	15.2	15.6	16.38
	CO	248	296	311.0	328.0	253	302	287	313	241	256	235	248	241.0	247.0	182.0	171.0	189.0	163.0	195.0	165.0	246.0	221.0	248.0	228.0	242.25
Budawada	PM10	58.9	55.3	49.1	51.2	59.7	61.2	63.4	63.4	53.4	53.9	54.2	51.2	55.1	53.5	50.3	51.6	47.3	50.2	48.6	52.3	50.6	49.8	52.7	51.6	53.69
	PM2.5	23.3	22.7	19.4	21.0	23.6	25.2	25.0	26.1	21.1	22.2	21.4	21.0	21.8	22.0	19.9	21.2	18.7	20.6	19.2	21.5	20.0	20.5	20.8	21.2	21.64
	SO ₂	14.3	14.6	11.5	12.7	15.1	14.9	13.2	15.3	13.1	13.2	13.4	14.1	13.7	14.7	12.9	13.9	11.9	12.6	12.3	12.8	12.8	13.1	13.3	13.7	13.46
	NO _x	17.1	17.2	14.3	15.3	17.9	17.5	16.0	17.9	15.9	15.8	16.2	16.7	16.5	17.3	15.7	16.5	14.7	15.2	15.1	15.4	15.6	15.7	16.1	16.3	16.16
	CO	252	241	227.0	212.0	261.0	248.0	299.0	249.0	229.0	228.0	212.0	236.0	221.0	231.0	201.0	242.0	210.0	212.0	214.0	218.0	242.0	206.0	251.0	217.0	231.63
Vedadri	PM10	56.3	53.6	53.2	48.3	58.2	59.7	61.2	61.2	50.7	50.3	51.2	49.2	52.3	51.6	43.2	45.3	44.9	44.9	45.3	47.1	53.8	52.9	54.2	54.6	51.80
	PM2.5	23	21.3	21.7	19.2	23.7	23.8	25.0	24.4	20.7	20.0	20.9	19.6	21.3	20.5	17.6	18.0	18.3	17.9	18.5	18.7	22.0	21.1	22.1	21.7	20.88
	SO ₂	15.4	15.2	12.3	13.2	15.9	15.8	14.9	16.2	11.6	12.9	11.9	13.6	12.1	13.9	11.1	12.8	10.6	12.9	11.1	13.2	12.1	13.5	12.6	13.9	13.28
	NO _x	17.7	18	14.6	16.0	18.2	18.6	17.2	19.0	13.9	15.7	14.2	16.4	14.4	16.7	13.4	15.6	12.9	15.7	13.4	16.0	14.4	16.3	14.9	16.7	15.83
	CO	212	221	236.0	236.0	222	213	245	226	256	212	241	219	242.0	225.0	174.0	169.0	180.0	158.0	186.0	164.0	219.0	208.0	223.0	219.0	212.79
Pochampalli	PM10	56.8	57.1	51.6	52.7	57.1	58.6	60.3	59.6	48.6	48.3	49.3	47.1	50.7	48.9	41.9	44.9	43.7	43.6	44.1	45.2	48.6	50.6	49.3	53.4	50.50
	PM2.5	23.2	23.2	21.1	21.4	23.4	23.8	24.7	24.2	19.9	19.6	20.2	19.1	20.7	19.9	17.1	18.2	17.9	17.7	18.0	18.4	19.9	20.5	20.2	21.7	20.58
	SO ₂	15.3	14.9	11.6	10.6	15.6	15.5	15.1	15.8	12.9	13.5	13.1	14.0	13.4	14.3	10.2	11.9	10.1	11.6	10.9	11.9	12.7	12.6	12.9	12.8	13.05
	NO _x	18.2	17.2	14.5	12.9	18.5	17.8	18.0	18.1	15.8	15.8	16.0	16.3	16.3	16.6	13.1	14.2	13.0	13.9	13.8	14.2	15.6	14.9	15.8	15.1	15.65
	CO	236	212	212.0	241.0	247	228	274	239	186	221	174	227	179.0	229.0	169.0	162.0	169.0	156.0	174.0	163.0	221.0	208.0	223.0	219.0	212.79
Ravirala	PM10	55.9	55.4	50.2	49.1	58.6	56.6	63.1	61.2	51.2	50.7	53.3	46.3	53.2	48.6	42.7	43.1	44.0	42.7	45.2	44.9	51.1	48.7	53.5	49.6	50.75
	PM2.5	22.8	22.6	20.4	20.0	23.9	23.1	25.7	25.0	20.8	20.7	21.3	18.9	21.7	19.8	17.4	17.6	17.9	17.4	18.4	18.3	20.8	19.9	21.8	20.2	20.68
	SO ₂	14.6	15.3	12.1	11.5	14.1	16.2	14.7	16.3	11.4	12.6	12.2	13.3	12.5	13.6	10.5	12.1	10.3	11.4	10.6	11.8	11.9	13.2	12.3	13.3	12.83
	NO _x	17.6	18.2	15.1	14.4	17.1	19.1	17.7	19.2	14.4	15.5	15.2	16.2	15.5	16.5	13.5	13.5	13.3	14.3	13.6	14.7	14.9	16.1	15.3	16.2	15.78
	CO	241	223	248.0	247.0	251	236	223	245	202	236	189	239	192.0	242.0	158.0	151.0	161.0	149.0	165.0	155.0	208.0	212.0	223.0	228	209.33

Note: All values are mentioned in µg/m³

THE RAMCO CEMENTS LTD., KSR NAGAR
CORE ZONE AIR QUALITY MONITORING DATA - JAYANTHIPURAM LIMESTONE MINE (NORTH BAND)
(PERIOD - APRIL 2021 TO MARCH 2022)

Location	Parameter	Apr-21		May'2021		Jun'2021		Jul'2021		Aug'2021		Sep'2021		Oct'2021		Nov'2021		Dec'2021		Jan'2022		Feb'2022		Mar'2022		Average	Limits
		I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night		
Mines office	PM 10	66.9	63.8	62.9	65.1	68.3	64.1	65.4	65.3	57.6	59.8	59.3	61.2	57.1	58.1	48.9	53.5	46.3	51.2	51.2	54.2	53.8	58.3	55.3	61.6	58.72	100
	PM 2.5	27	25.9	25.4	26.4	27.6	26.0	26.4	26.5	23.3	24.3	24.0	24.8	23.1	23.6	19.8	21.7	18.7	20.8	20.7	22.0	21.7	23.7	22.3	25.0	23.78	60
	SO ₂	15.3	14.7	15.3	15.6	16.3	15.2	18.2	16.3	14.2	12.6	13.9	11.9	12.9	12.1	12.3	12.9	11.6	11.6	13.1	13.8	14.2	15.2	15.5	16.4	14.21	80
	NO _x	17.9	17.2	17.9	18.1	18.9	17.7	20.8	18.8	16.8	15.1	16.5	14.4	15.5	14.6	14.9	15.4	14.2	14.1	15.7	16.3	16.8	17.7	18.1	18.9	16.76	80
Workshop	CO	612	627	623.0	636.0	623.0	631.0	621.0	642.0	586.0	589.0	592.0	552.0	563	562	474	489	452	471	478	501	512	521	529	540	559.42	2000
	PM 10	65.3	64.1	65.6	62.7	69.3	66.3	71.2	68.2	62.9	57.3	64.6	58.9	52.3	56.3	51.2	54.9	49.6	52.3	48.9	55.3	52.6	56.8	54.6	58.9	59.17	100
	PM 2.5	26.5	26.3	26.6	25.7	28.1	27.2	28.9	28.0	25.5	23.5	26.2	24.1	21.2	23.1	20.8	22.5	20.1	21.4	19.9	22.7	21.4	23.3	22.2	24.1	24.14	60
	SO ₂	14.6	15.2	14.1	14.9	15.8	15.9	16.3	15.9	13.9	13.1	14.2	14.2	13.6	13.2	11.9	13.7	11.1	12.9	13.9	13.9	15.3	13.5	16.2	14.5	14.24	80
Substation	NO _x	17.5	18	17.0	17.7	18.7	18.7	19.2	18.7	16.8	15.9	17.1	17.0	16.5	16.0	14.8	16.5	14.0	15.7	16.8	16.7	18.2	16.3	19.1	17.3	17.09	80
	CO	589	609	649.0	629.0	596.0	628.0	616.0	639.0	578.0	576.0	589.0	569.0	573	529	423	456	414	448	431	512	535	518	546	523	548.96	2000
	PM 10	63.6	60.2	63.7	63.1	65.6	62.3	64.3	64.6	53.7	56.2	55.1	57.1	53.6	55.2	50.3	52.1	48.6	50.6	47.1	53.6	54.5	60.2	56.2	62.6	57.25	100
	PM 2.5	26	24.5	26.1	25.7	26.8	25.4	26.3	26.3	22.0	22.9	22.5	23.2	21.9	22.5	20.6	21.2	19.9	20.6	19.3	21.8	22.3	24.5	23.0	25.5	23.37	60
Magazine Area	SO ₂	15.1	14.3	16.2	15.3	16.2	15.3	16.4	16.4	14.1	12.9	13.8	12.1	12.7	12.9	13.2	12.6	12.6	12.1	14.1	14.2	14.9	14.9	15.3	15.5	14.30	80
	NO _x	17.8	17.2	18.9	18.2	18.9	18.2	19.1	19.3	16.8	15.8	16.5	15.0	15.4	15.8	15.9	15.5	15.3	15.0	16.2	17.1	17.6	17.8	18.0	18.4	17.07	80
	CO	601	606	612.0	621.0	612.0	626.0	635.0	636.0	596.0	563.0	612.0	542.0	601	534	452	474	438	469	459	521	524	522	538	535	555.38	2000
	PM 10	62.9	65.1	62.9	65.4	63.6	67.3	62.9	68.9	54.6	51.3	57.2	52.4	57.9	51.7	47.9	56.2	45.6	54.9	47.3	54.1	58.3	58.9	60.2	61.4	57.87	100
Magazine Area	PM 2.5	25.7	26.3	25.7	26.4	26.0	27.2	25.7	27.8	22.3	20.7	23.4	21.2	23.7	20.9	19.6	22.7	18.7	22.2	19.3	21.9	23.8	23.8	24.6	24.8	23.52	60
	SO ₂	14.9	14.1	14.8	13.9	15.1	15.2	16.2	15.8	14.7	12.7	14.5	13.5	13.1	13.8	15.2	14.0	14.6	12.8	14.8	13.9	13.6	13.9	14.1	14.2	14.31	80
	NO _x	17.9	17.2	17.8	17.0	18.1	18.3	19.2	18.9	17.7	15.8	17.5	16.6	16.1	16.9	18.2	17.1	17.6	15.9	17.8	17.0	16.6	17.0	17.1	17.3	17.36	80
	CO	633	645	627.0	646.0	635.0	653.0	639.0	664.0	587.0	588.0	591.0	574.0	546	536	414	483	402	472	437	523	515	519	526	526	557.54	2000

Note: All values are mentioned in µg/m³

THE RAMCO CEMENTS LTD., KSR NAGAR
CORE ZONE AIR QUALITY MONITORING DATA - JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)
(PERIOD - APRIL 2021 TO MARCH 2022)

Location	Parameter	Average																								Limits	
		Apr-21		May'2021		Jun'2021		Jul'2021		Aug'2021		Sep'2021		Oct'2021		Nov'2021		Dec'2021		Jan'2022		Feb'2022		Mar'2022			
		I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night		
Mines office	PM 10	69.8	63.4	65.1	63.7	72.3	62.6	70.4	65.1	60.1	53.6	61.2	55.1	60.3	52.1	49.6	53.5	46.9	51.6	51.3	55.3	54.6	5.9	55.1	60.5	56.63	100
	PM 2.5	28.2	25.6	26.3	25.7	29.2	25.3	28.4	26.3	24.3	21.7	24.7	22.3	24.4	21.0	20.0	21.6	18.9	20.8	20.7	22.3	22.1	23.8	22.3	24.4	23.76	60
	SO ₂	15.1	16.3	14.9	15.3	16.2	16.8	17.3	17.3	15.2	14.3	15.2	13.9	13.8	12.3	12.7	12.9	11.9	12.6	13.6	13.4	14.2	14.2	15.6	15.6	14.61	80
	NO _x	17.4	19	17.2	18.0	18.5	19.5	19.6	20.0	17.5	17.0	17.5	16.6	16.1	15.0	15.0	15.6	14.2	15.3	15.9	16.1	16.5	16.9	17.9	18.3	17.11	80
	CO	671	635	681.0	653.0	681.0	642.0	696.0	658.0	578.0	546.0	571.0	551.0	561	531	454	492	449	487	471	491	491	521	521	536	565.33	2000
Pump House	PM 10	68.3	66.9	67.3	65.1	69.6	67.1	71.2	69.2	59.2	58.4	62.3	54.6	59.6	50.2	51.3	50.6	49.8	48.9	52.4	52.3	55.3	60.2	58.3	61.2	59.55	100
	PM 2.5	27.8	27	27.4	26.2	28.3	27.0	29.0	27.9	24.1	23.5	25.4	22.0	24.3	20.2	20.9	20.4	20.3	19.7	21.3	21.1	22.5	24.3	23.7	24.7	24.13	60
	SO ₂	16.5	15.9	16.2	16.9	16.1	16.3	18.2	16.9	14.1	12.1	14.9	12.8	14.1	13.1	13.2	13.2	12.7	12.9	13.4	13.6	13.9	15.3	15.4	15.4	14.71	80
	NO _x	19.2	19	18.9	20.0	18.8	19.4	20.9	20.0	16.8	15.2	17.6	15.9	16.8	16.2	15.9	16.3	15.4	16.0	16.1	16.7	16.6	18.4	18.1	18.5	17.61	80
	CO	649	649	672.0	689.0	653.0	653.0	637.0	661.0	556.0	589.0	563.0	578.0	549	529	423	486	411	456	486	457	508	513	518	529	558.92	2000
Haul Road	PM 10	64.6	63.7	66.9	69.3	67.3	65.3	68.3	68.3	57.3	56.7	59.6	58.3	61.9	51.9	48.3	52.4	46.2	40.6	53.1	42.4	53.8	58.6	52.7	63.5	57.96	100
	PM 2.5	26.5	26	27.4	28.3	27.6	26.6	28.0	27.9	23.5	23.1	24.4	23.8	25.4	21.2	19.8	21.4	18.9	16.6	21.8	17.3	22.1	23.9	21.6	25.9	23.71	60
	SO ₂	15.4	16.8	15.3	14.1	15.3	17.1	17.3	17.4	15.4	13.9	14.3	13.5	13.9	12.6	12.9	11.6	12.1	11.1	12.9	11.4	14.2	14.9	16.2	15.8	14.39	80
	NO _x	18	19.7	17.9	17.0	17.9	20.0	19.9	20.3	18.0	16.8	16.9	16.4	16.5	15.5	15.5	14.5	14.7	14.0	15.5	14.3	16.8	17.8	18.8	18.7	17.14	80
	CO	636	636	652.0	621.0	641.0	642.0	652.0	647.0	601.0	574.0	574.0	563.0	558	536	441	469	429	454	454	461	521	496	523	487	552.83	2000
Loading Area	PM 10	66.7	71.2	62.3	64.6	65.1	72.3	66.9	74.2	56.8	61.7	57.1	60.2	58.6	57.2	50.6	55.1	48.9	53.9	55.4	54.6	54.2	61.2	56.2	64.1	60.38	100
	PM 2.5	27.1	28.9	25.4	26.2	26.5	29.4	27.2	30.1	23.1	25.1	23.2	24.4	23.9	23.2	20.6	22.4	19.9	21.9	22.5	22.2	22.1	24.8	22.9	26.0	24.54	60
	SO ₂	16.8	16.1	16.9	16.7	17.4	16.6	18.2	16.9	13.7	12.6	13.8	12.9	14.2	12.4	13.1	13.4	12.6	12.8	13.4	13.4	14.5	14.5	15.3	15.5	14.74	80
	NO _x	19.7	18.9	19.8	19.5	20.3	19.4	21.1	19.7	16.6	15.4	16.7	15.7	17.1	15.2	16.0	16.2	15.5	15.6	16.3	16.2	17.4	17.3	18.2	18.3	17.59	80
	CO	651	638	683.0	646.0	659.0	649.0	663.0	653.0	598.0	562.0	588.0	558.0	562	542	423	478	412	469	436	477	513	501	524	524	558.71	2000

Note: All values are mentioned in µg/m³

THE RAMCO CEMENTS LTD., KSR NAGAR
CORE ZONE AIR QUALITY MONITORING DATA - RAVTRALA LIMESTONE MINE (RESERVE FOREST)
(PERIOD - APRIL 2021 TO MARCH 2022)

Location	Parameter	Apr-21		May 2021		Jun 2021		Jul 2021		Aug 2021		Sep 2021		Oct 2021		Nov 2021		Dec 2021		Jan 2022		Feb 2022		Mar 2022		Average	Limits
		I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night		
Mines Office	PM 10	68.9	62.6	65.3	66.9	69.3	64.1	71.2	68.4	60.8	57.6	62.3	54.2	60.5	52.9	51.2	53.6	49.6	51.2	51.2	52.4	57.1	58.1	59.3	61.6	59.6	100.0
	PM 2.5	27.9	25.2	26.4	27.0	28.1	25.8	28.8	27.6	24.6	23.2	25.2	21.8	24.5	21.3	20.7	21.6	20.1	20.6	20.7	21.1	23.1	23.4	24.0	24.8	24.1	60.0
	SO ₂	17.1	14.1	15.6	16.1	18.5	15.1	19.2	16.2	12.3	12.6	12.8	12.9	13.1	13.2	12.9	12.9	11.9	11.7	12.3	12.4	13.5	14.2	14.2	15.4	14.2	80.0
	NO _x	19.8	16.7	18.3	18.7	21.2	17.7	21.9	18.8	15.0	15.2	15.5	15.5	15.8	15.8	15.6	15.5	14.6	14.3	15.0	15.0	16.2	16.8	16.9	18.0	16.8	80.0
	CO	639.0	612.0	647.0	651.0	641.0	623.0	659.0	629.0	592.0	574.0	588.0	561.0	561.0	542.0	496.0	515.0	486.0	496.0	487.0	514.0	512.0	536.0	539.0	535.0	568.1	2000.0
ML3 Tower Light Area	PM 10	69.7	63.9	71.2	73.5	72.3	65.9	74.6	67.1	57.6	55.3	56.2	53.1	61.3	56.1	50.3	50.9	48.9	48.9	53.1	51.2	54.2	60.2	55.6	63.5	59.8	100.0
	PM 2.5	27.9	26.1	28.6	30.1	29.0	27.0	29.9	27.4	23.1	22.6	22.5	21.7	24.6	22.9	20.2	20.8	19.6	20.0	21.3	20.9	21.7	24.6	22.3	26.0	24.2	60.0
	SO ₂	18.3	15.2	17.3	18.2	19.1	15.8	18.3	16.5	12.5	13.1	13.1	13.5	12.7	13.1	13.2	13.1	12.8	12.9	13.1	13.5	13.9	15.3	15.3	16.1	14.8	80.0
	NO _x	21.9	17.7	20.9	20.7	22.7	18.3	21.9	19.0	16.1	15.6	16.7	16.0	16.3	15.6	16.8	15.6	16.4	15.4	16.7	16.0	17.5	17.8	18.9	18.6	17.9	80.0
	CO	646.0	641.0	639.0	642.0	652.0	651.0	653.0	636.0	586.0	552.0	574.0	548.0	523.0	529.0	485.0	523.0	469.0	504.0	453.0	521.0	532.0	549.0	549.0	552.0	567.0	2000.0
ML4 Tower Light Area	PM 10	65.1	65.7	66.9	68.2	67.1	68.3	68.9	69.6	55.3	58.1	52.3	59.2	55.1	51.7	48.6	54.1	47.3	51.6	49.6	52.3	58.3	58.6	61.2	59.6	58.9	100.0
	PM 2.5	26.1	27.0	26.8	28.0	26.9	28.1	27.6	28.6	22.2	23.9	21.0	24.3	22.1	21.2	19.5	22.2	19.0	21.2	19.9	21.5	23.4	24.1	24.5	24.5	23.9	60.0
	SO ₂	16.9	13.9	16.1	16.9	17.3	14.6	19.1	15.9	11.6	12.9	12.8	12.4	13.8	12.9	13.1	12.5	12.6	12.1	13.4	12.9	13.8	14.9	14.2	15.7	14.3	80.0
	NO _x	19.8	17.1	19.0	20.1	20.2	17.8	22.0	19.1	14.5	16.1	15.7	15.6	16.7	16.1	16.0	15.7	15.5	15.3	16.3	16.1	16.7	18.1	17.1	18.9	17.3	80.0
	CO	659.0	632.0	656.0	659.0	666.0	646.0	674.0	651.0	549.0	563.0	551.0	552.0	542.0	536.0	473.0	541.0	487.0	521.0	486.0	523.0	521.0	521.0	548.0	563.0	571.7	2000.0
View Point Tower Light Area	PM 10	65.2	59.8	70.4	71.6	68.6	61.6	70.6	63.8	52.1	52.7	50.6	51.6	52.3	50.5	51.8	49.8	50.2	47.3	52.4	48.4	56.9	54.6	58.9	55.9	57.0	100.0
	PM 2.5	26.1	24.3	28.2	29.1	27.4	25.0	28.2	25.9	20.8	21.4	20.2	20.9	20.9	20.5	20.7	20.2	20.1	19.2	21.0	19.7	22.8	22.2	23.6	22.7	23.0	60.0
	SO ₂	19.6	16.2	18.6	18.7	18.2	16.8	17.9	17.6	13.2	12.2	13.4	12.1	13.9	13.7	12.5	11.9	12.1	11.2	12.9	11.6	14.1	15.8	15.3	16.2	14.8	80.0
	NO _x	22.4	19.5	21.4	22.0	21.0	20.1	20.7	20.9	16.0	15.5	16.2	15.4	16.7	17.0	15.3	15.2	14.9	14.5	15.7	14.9	16.9	19.1	18.1	19.5	17.9	80.0
	CO	635.0	639.0	670.0	678.0	642.0	642.0	623.0	658.0	571.0	529.0	576.0	518.0	558.0	521.0	499.0	501.0	459.0	487.0	474.0	496.0	496.0	504.0	523.0	522.0	559.2	2000.0

Note: All values are mentioned in $\mu\text{g}/\text{m}^3$

THE RAMCO CEMENTS LTD., KSR NAGAR
CORE ZONE AIR QUALITY MONITORING DATA - RAMCO BUDAWADA LIMESTONE MINE (RESERVE FOREST)
(PERIOD - APRIL 2021 TO MARCH 2022)

Location	Parameter	Apr'21		May'2021		Jun'2021		Jul'2021		Aug'2021		Sep'2021		Oct'2021		Nov'2021		Dec'2021		Jan'2022		Feb'2022		Mar'2022		Average	Limits
		I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night	I Fort- night	II Fort- night		
		64.2	65.2	65.9	63.6	63.9	66.3	65.1	68.9	60.1	60.5	63.5	61.9	60.2	58.3	51.3	58.3	48.3	56.9	59.6	52.3	55.1	62.3	58.6	63.5	60.58	100
Drilling Area	PM 10	26.1	26.3	26.8	25.6	25.9	26.7	26.4	27.8	24.4	24.4	25.8	24.9	24.4	23.5	20.8	23.5	19.6	22.9	24.0	21.2	22.4	25.1	23.8	25.6	24.50	60
	PM 2.5	18.2	16.9	16.3	15.3	17.3	17.1	15.4	16.9	13.9	13.8	14.6	14.1	13.2	13.7	14.5	13.7	13.9	12.9	14.1	13.9	15.6	15.2	16.3	16.2	15.13	80
	SO ₂	21.0	19.2	19.1	17.6	20.1	19.4	18.2	19.2	16.7	16.1	17.4	16.4	16.0	16.0	17.3	16.0	16.7	15.2	16.4	16.7	18.4	17.5	19.1	18.5	17.68	90
	NO _x	581.0	563.0	596.0	586.0	581.0	563.0	612.0	612.0	593.0	586.0	581.0	592.0	542	546	501	536	498	521	541	512	542	523	559	542	558.71	2000
Loading Area	PM 10	66.3	61.7	68.3	65.7	67.1	60.6	69.2	62.6	59.6	58.6	61.2	57.1	58.9	56.9	50.2	56.9	47.6	54.6	56.8	51.3	56.8	61.6	57.3	62.4	59.55	100
	PM 2.5	26.8	25.4	27.6	27.1	27.1	25.0	28.0	25.8	24.1	24.1	24.7	23.5	23.8	23.4	20.3	23.4	19.2	22.5	23.4	20.7	22.9	25.4	23.1	25.7	24.29	60
	SO ₂	17.1	16.3	15.9	16.9	17.8	16.8	18.3	17.4	15.1	15.1	15.3	14.9	14.1	14.2	13.6	14.2	13.1	13.5	13.6	14.1	14.9	14.6	15.9	15.3	15.33	80
	NO _x	19.8	19.0	18.6	19.6	20.5	19.5	21.0	20.1	17.8	17.8	18.0	17.6	16.8	16.9	16.3	16.9	15.8	16.2	16.3	16.8	17.6	17.3	18.6	18.0	18.03	80
Haul Road-1	CO	543.0	552.0	612.0	591.0	543.0	552.0	642.0	638.0	586.0	559.0	592.0	563.0	553	529	521	541	514	539	549	531	529	552	563	563	560.71	2000
	PM 10	64.1	61.4	70.6	61.6	66.2	58.3	68.3	59.3	62.7	51.6	60.9	53.5	61.6	51.6	54.3	51.6	50.7	50.3	53.4	52.9	54.6	60.3	56.9	62.3	58.29	100
	PM 2.5	26.4	25.1	29.1	25.1	27.3	23.8	28.1	24.2	25.8	21.1	25.1	21.8	25.4	21.1	22.4	21.1	20.9	20.5	21.8	21.8	22.5	24.6	23.4	25.4	23.91	60
	SO ₂	16.3	15.4	17.1	15.1	16.9	14.9	17.1	15.3	14.2	14.6	15.1	13.2	14.3	13.1	15.1	13.1	14.2	12.6	13.8	14.9	16.3	15.9	16.8	16.4	15.07	80
Haul Road-2	NO _x	19.1	18.5	19.9	18.2	19.7	18.0	19.9	18.4	17.0	17.7	17.9	16.3	17.1	16.2	17.9	16.2	17.0	15.7	16.9	17.7	19.1	19.0	19.6	19.5	18.02	80
	CO	623.0	539.0	589.0	601.0	623.0	539.0	639.0	546.0	590.0	576.0	599.0	581.0	521	536	503	529	502	521	536	521	546	563	567	551	560.04	2000
	PM 10	67.8	66.8	66.7	62.8	68.7	62.7	70.2	63.4	60.6	55.7	62.3	50.6	54.6	52.9	52.9	52.9	49.8	52.7	54.6	53.8	58.3	59.6	60.2	61.6	59.26	100
	PM 2.5	27.7	27.8	27.2	26.1	28.0	26.1	28.6	26.4	24.7	23.2	25.4	21.0	22.3	22.0	21.6	22.0	20.3	21.9	22.7	22.0	23.8	24.8	24.6	25.6	24.41	60
Haul Road-2	SO ₂	17.2	16.7	14.6	17.9	17.6	16.1	18.2	16.2	14.8	15.9	14.9	13.0	13.9	12.9	12.9	12.9	12.1	12.3	13.9	13.5	15.8	15.5	16.6	16.5	15.08	80
	NO _x	19.7	19.5	17.1	20.7	20.1	18.9	20.7	19.0	17.3	18.7	17.4	15.8	16.4	15.7	15.4	15.7	14.6	15.1	16.7	16.0	18.3	18.3	19.1	19.3	17.73	80
	CO	629.0	551.0	621.0	568.0	629.0	551.0	641.0	523.0	571.0	591.0	586.0	578.0	540	540	512	534	512	514	528	538	553	580	562	589	564.21	2000

Note: All values are mentioned in µg/m³



Kumarasamy Raja Nagar – 521457
Jaggayyapet Mandal, Krishna District,
Andhra Pradesh, India
Phone: 08654 224400-04
Fax: 08654 222352
E-mail: mcilpm@ramcocements.co.in

THE RAMCO CEMENTS LIMITED

RCL/PCB/12/2022-2023

06th May 2022

The Environmental Engineer,
A .P. Pollution Control Board,
Regional Office, Plot No: 41,
Gurunanak Road,
Sri Kanakadurga Officers Colony,
Vijayawada – 521 018.

Dear Sir,

Sub: Submission of Annual Returns of Hazardous Wastes – Form – 4 for our
Limestone Mines for the financial year 2021-2022 - Reg.

Ref: CFO order for mines No. APPCB/VJA/VJA/488/HO/CFO/2021 dated
04.01.2022.

Please find enclosed herewith duly filled in Form – 4 - 'Form for Filling Annual
Returns' of Hazardous Wastes for our following Limestone Mines for the financial
year 2021-2022:

- a. Jayanthipuram Limestone Mine (North Band)
- b. Jayanthipuram Limestone Mine (South Band)
- c. Ravirala Limestone Mine (RF)
- d. Ramco Budawada Limestone Mine (RF)

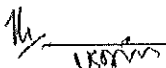
This is for your kind information please.

Thanking you,

Yours faithfully,
for The Ramco Cements Limited,


(N RAVI SHANKAR)
Sr. President (Mfg.)

Encl.: As above.



FORM 4

[See rules 6 (5), 13(8), 16(6) and 22 (2)]

FORM FOR FILLING ANNUAL RETURNS

[To be submitted to State Pollution Control Board by 30th June of every year for the preceding period April to March]

1	Name and address of facility:	The Ramco Cements Limited, Kumarasamy Raja Nagar - 521 457, Jaggayyapet (M), Krishna Dist																				
2	Authorization No. and Date of issue:	Authorization No. APPCB/VJA/VJA/488/HO/CFO/2021 and dated 04.01.2022																				
3	Name of the authorized person and full address with telephone, fax number and e-mail:	N Ravi Shankar, Sr. President (Mfg.), The Ramco Cements Limited, Kumarasamy Raja Nagar - 521 457, Jaggayyapet (M), Krishna Dist. Telephone: 08654 - 224400 to 04, Fax: 08654 - 222352, e-mail: mcljpm@ramcocements.co.in																				
4	Production during the year (product wise), whether applicable:	<table border="1"> <thead> <tr> <th>Type of Product</th> <th>Unit</th> <th>Quantity in 2021-2022</th> </tr> </thead> <tbody> <tr> <td>Limestone:</td> <td></td> <td></td> </tr> <tr> <td>Jayanthipuram Limestone Mine (North Band)</td> <td>Tonne</td> <td>17,88,926</td> </tr> <tr> <td>Jayanthipuram Limestone Mine (South Band)</td> <td>Tonne</td> <td>8,12,000</td> </tr> <tr> <td>Ravirala Limestone Mine (RF)</td> <td>Tonne</td> <td>11,99,500</td> </tr> <tr> <td>Ramco Budawada Limestone Mine (RF)</td> <td>Tonne</td> <td>3,23,863</td> </tr> </tbody> </table>			Type of Product	Unit	Quantity in 2021-2022	Limestone:			Jayanthipuram Limestone Mine (North Band)	Tonne	17,88,926	Jayanthipuram Limestone Mine (South Band)	Tonne	8,12,000	Ravirala Limestone Mine (RF)	Tonne	11,99,500	Ramco Budawada Limestone Mine (RF)	Tonne	3,23,863
Type of Product	Unit	Quantity in 2021-2022																				
Limestone:																						
Jayanthipuram Limestone Mine (North Band)	Tonne	17,88,926																				
Jayanthipuram Limestone Mine (South Band)	Tonne	8,12,000																				
Ravirala Limestone Mine (RF)	Tonne	11,99,500																				
Ramco Budawada Limestone Mine (RF)	Tonne	3,23,863																				

Part A. To be filled by hazardous waste generators

1	Total quantity of waste generated category wise:	From limestone mines:		
		Type of hazardous waste	Quantity (in Tonne / kL / Nos.)	
		Waste Oil	Nil	
		Waste Grease	Nil	
2	Quantity dispatched:			
(i)	To disposal facility:	Not applicable		
(ii)	To recycler to co-processors or pre-processor:	From cement plant, thermal power plant, waste heat recovery plant and limestone mines:		
		Type of hazardous waste	Recycler	Quantity (in Tonne / kL / Nos.)
		Waste Oil	NA	Nil
		Waste Grease	NA	Nil
(iii)	Others:	Not applicable		

3	Quantity utilized in-house, if any:	The waste oil & waste grease generated in the cement plant, thermal power plant, waste heat recovery plant and limestone mines are totally re-used within the premises for: • Waste grease for lubrication of reclaimers chains along with fresh grease. • Waste oil for kiln light-up along with fresh HSD.						
4	Quantity in storage at the end of the year:	From cement plant, thermal power plant, waste heat recovery plant and limestone mines: <table><tr><th>Type of hazardous waste</th><th>Quantity (in Tonne / kL / Nos.)</th></tr><tr><td>Waste oil</td><td>Nil</td></tr><tr><td>Waste Grease</td><td>Nil</td></tr></table>	Type of hazardous waste	Quantity (in Tonne / kL / Nos.)	Waste oil	Nil	Waste Grease	Nil
Type of hazardous waste	Quantity (in Tonne / kL / Nos.)							
Waste oil	Nil							
Waste Grease	Nil							

Part B. To be filled by Treatment, storage and disposal facility operators

1	Total quantity of received:	Not applicable
2	Quantity in stock at the beginning of the year:	
3	Quantity treated:	
4	Quantity disposed in landfills as such and after treatment:	
5	Quantity incinerated (if applicable):	
6	Quantity processed other than specified above:	
7	Quantity in storage at the end of the year:	

Part C. To be filled by recyclers or co-processors or other users

1	Quantity of waste received during the year:	Not applicable as co-processing in limestone mines
(i)	Domestic sources:	
(ii)	Imported (if applicable):	
2	Quantity in stock at the beginning of the year:	
3	Quantity recycled or co-processed or used:	
4	Quantity of products dispatched (wherever applicable):	
5	Quantity of waste generated:	
6	Quantity of waste disposed:	
7	Quantity re-exported (whether applicable):	
8	Quantity in storage at the end of the year:	

Date: 06.05.2022
Place: KSR Nagar


Signature:
Designation: Sr. President (Mfg.)

THE RAMCO CEMENTS LIMITED
JAYANTHIPURAM GROUP OF LIMESTONE MINES
ENVIRONMENTAL PROTECTION ACCOUNT - RECURRING EXPENDITURE DETAILS - FINANCIAL YEAR 2021-22

Capital / Recurring	Description	For the year 2021-2022, Lakh Rs.				For the year 2021- 2022, Rs	Projected for 2022-2023, Lakh Rs.				Total
		Jayanthipuram Limestone Mine (North Band)	Jayanthipuram Limestone Mine (South Band)	Ravirala Limestone Mine (RF)	Ramco Budawada Limestone Mine (RF)		Jayanthipuram Limestone Mine (North Band)	Jayanthipu ram Limestone Mine (South Band)	Ravirala Limestone Mine (Forest)	Ramco Budawada Limestone Mine (RF)	
Recurring	Pollution Control - None! detonators	12.23	3.75	5.96	2.13	2407000	12.00	6.00	8.00	0.50	26.50
	Pollution Control - Water Sprinkling	28.93	7.32	16.71	4.18	5714000	22.00	7.00	20.00	1.00	50.00
	Pollution Monitoring	1.71	1.59	1.55	1.29	612400	1.80	1.60	1.60	1.30	6.300
	Wet drilling	0.60	0.20	0.37	0.05	122000	0.60	0.40	0.70	0.10	1.80
	Greenbelt	8.80	12.45	5.93	8.37	3555000	7.00	10.00	4.00	5.00	26.00
	Reclamation	410.69	0.00	0.00	0.00	41069000	200.00	0.00	0.00	0.00	200.00
Total		462.96	25.31	30.52	16.02	53479400	243.40	25.00	34.30	7.90	310.60

THE RAMCO CEMENTS LIMITED
WATER LEVEL DATA - JAYANTHIPURAM LIMESTONE MINE (NORTH BAND)
PERIOD - APRIL 2021 TO MARCH 2022

I. PIEZOMETER DETAILS:

Location: Bore Well Footwall Side
RL - (+)40.013m
Latitude - N16° 52' 28.4" Longitude - E80° 06' 42.1"
Depth of well - 20.1 m

Location: Open Well Near X Road
RL - (+)40.01m
Latitude - N16° 51' 29.4 Longitude - E80° 07' 19.3
Depth of well - 20.0 m

Location: Near Magazine
RL - (+)42m
Latitude - N16° 51' 40.10 Longitude - E80° 07' 20.00
Depth of well - 50.0 m

Location: Pit-2 Area
RL - (+)48m
Latitude - N 16° 52' 39.0 Longitude - E 80° 06' 15.5
Depth of well - 50.0 m

II. WATER LEVEL DATA

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	4.85
2	30.04.2021	4.89
3	16.05.2021	4.86
4	31.05.2021	4.67
5	16.06.2021	3.58
6	30.06.2021	2.95
7	16.07.2021	2.26
8	31.07.2021	2.94
9	16.08.2021	3.15
10	31.08.2021	3.60
11	16.09.2021	3.61
12	30.09.2021	3.65
13	16.10.2021	3.41
14	31.10.2021	3.44
15	16.11.2021	3.47
16	30.11.2021	3.65
17	16.12.2021	3.85
18	31.12.2021	4.05
19	16.01.2022	4.33
20	31.01.2022	4.41
21	16.02.2022	4.45
22	28.02.2022	4.51
23	16.03.2022	4.53
24	31.03.2022	4.68

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	1.25
2	30.04.2021	1.49
3	16.05.2021	1.85
4	31.05.2021	2.15
5	16.06.2021	1.76
6	30.06.2021	1.34
7	16.07.2021	0.95
8	31.07.2021	0.91
9	16.08.2021	0.86
10	31.08.2021	0.77
11	16.09.2021	1.00
12	30.09.2021	1.05
13	16.10.2021	0.98
14	31.10.2021	1.00
15	16.11.2021	1.02
16	30.11.2021	1.05
17	16.12.2021	1.00
18	31.12.2021	1.01
19	16.01.2022	1.05
20	31.01.2022	1.01
21	16.02.2022	1.03
22	28.02.2022	1.04
23	16.03.2022	1.10
24	31.03.2022	1.25

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	9.29
2	30.04.2021	9.75
3	16.05.2021	9.89
4	31.05.2021	10.26
5	16.06.2021	9.77
6	30.06.2021	9.69
7	16.07.2021	9.66
8	31.07.2021	9.24
9	16.08.2021	8.85
10	31.08.2021	8.60
11	16.09.2021	8.55
12	30.09.2021	8.94
13	16.10.2021	8.74
14	31.10.2021	8.80
15	16.11.2021	8.91
16	30.11.2021	8.99
17	16.12.2021	8.95
18	31.12.2021	8.99
19	16.01.2022	9.00
20	31.01.2022	9.25
21	16.02.2022	9.35
22	28.02.2022	9.58
23	16.03.2022	9.65
24	31.03.2022	9.71

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	5.86
2	30.04.2021	6.29
3	16.05.2021	6.98
4	31.05.2021	7.42
5	16.06.2021	7.78
6	30.06.2021	7.30
7	16.07.2021	6.99
8	31.07.2021	6.21
9	16.08.2021	5.86
10	31.08.2021	5.01
11	16.09.2021	5.00
12	30.09.2021	5.54
13	16.10.2021	5.44
14	31.10.2021	5.25
15	16.11.2021	5.10
16	30.11.2021	5.21
17	16.12.2021	6.89
18	31.12.2021	6.93
19	16.01.2022	7.08
20	31.01.2022	7.10
21	16.02.2022	7.13
22	28.02.2022	7.14
23	16.03.2022	7.21
24	31.03.2022	7.24

THE RAMCO CEMENTS LIMITED
WATER LEVEL DATA - JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)
PERIOD - APRIL 2021 TO MARCH 2022

I. PIEZOMETER DETAILS:

Location: West Side Bore Well, Near Substation

RL - (+)36.00m

Latitude - N 16° 51' 32.4" Longitude - E 80° 06' 36.0"

Depth of well - 35.05 m

Location: North Side of ML

RL - (+)37.00m

Latitude - N 16° 51' 29.0" Longitude - E 80° 06' 44.3"

Depth of well - 50.00 m

Location: South Side of ML

RL - (+)43.20m

Latitude - N 16° 51' 02.8" Longitude - E 80° 06' 22.3"

Depth of well - 27.44 m

II. WATER LEVEL DATA

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	12.09
2	30.04.2021	12.13
3	16.05.2021	12.25
4	31.05.2021	12.37
5	16.06.2021	12.28
6	30.06.2021	12.29
7	16.07.2021	12.20
8	31.07.2021	11.72
9	16.08.2021	11.92
10	31.08.2021	11.88
11	16.09.2021	12.31
12	30.09.2021	11.04
13	16.10.2021	12.34
14	31.10.2021	12.28
15	16.11.2021	12.35
16	30.11.2021	12.32
17	16.12.2021	12.67
18	31.12.2021	12.68
19	16.01.2022	12.46
20	31.01.2022	12.69
21	16.02.2022	12.80
22	28.02.2022	12.78
23	16.03.2022	12.82
24	31.03.2022	12.72

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	19.00
2	30.04.2021	19.05
3	16.05.2021	19.21
4	31.05.2021	19.28
5	16.06.2021	19.22
6	30.06.2021	18.85
7	16.07.2021	18.71
8	31.07.2021	18.50
9	16.08.2021	18.74
10	31.08.2021	18.91
11	16.09.2021	19.00
12	30.09.2021	19.45
13	16.10.2021	19.60
14	31.10.2021	19.10
15	16.11.2021	19.24
16	30.11.2021	19.33
17	16.12.2021	19.32
18	31.12.2021	19.34
19	16.01.2022	19.36
20	31.01.2022	19.35
21	16.02.2022	19.37
22	28.02.2022	19.38
23	16.03.2022	19.39
24	31.03.2022	19.41

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	7.50
2	30.04.2021	7.51
3	16.05.2021	7.49
4	31.05.2021	7.46
5	16.06.2021	7.46
6	30.06.2021	7.47
7	16.07.2021	7.45
8	31.07.2021	7.45
9	16.08.2021	6.97
10	31.08.2021	6.46
11	16.09.2021	6.44
12	30.09.2021	9.68
13	16.10.2021	7.14
14	31.10.2021	7.01
15	16.11.2021	7.21
16	30.11.2021	7.37
17	16.12.2021	7.55
18	31.12.2021	7.58
19	16.01.2022	7.55
20	31.01.2022	7.52
21	16.02.2022	7.55
22	28.02.2022	7.58
23	16.03.2022	7.62
24	31.03.2022	7.65

THE RAMCO CEMENTS LIMITED
WATER LEVEL DATA - RAVIRALA LIMESTONE MINE (RESERVE FOREST)
PERIOD - APRIL 2021 TO MARCH 2022

I. PIEZOMETER DETAILS:

Location: South Side of Lease
 RL - (+) 51.00m
 Latitude - N 16° 50' 27.6" Longitude - E80° 07' 58.2"
 Depth of well - 45.0 m

Location: East Side of Mining Lease near 7-2 BH pillar
 RL - (+) 61.00m
 Latitude - N16° 50' 20.4" Longitude - E80° 08' 55.1"
 Depth of well - 24.50 m

Location: West Side of Haul road
 RL - (+) 44.00m
 Latitude - N16° 50' 33.2" Longitude - E80° 08' 05.7"
 Depth of well - 35.0 m

Location: South Side Near BH No. 3-7A
 RL - (+) 55.00m
 Latitude - N16° 50' 11.5" Longitude - E80° 08' 39.1"
 Depth of well - 50.0 m

II. WATER LEVEL DATA

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	17.88
2	30.04.2021	18.07
3	16.05.2021	18.06
4	31.05.2021	17.97
5	16.06.2021	17.33
6	30.06.2021	16.88
7	16.07.2021	16.21
8	31.07.2021	15.51
9	16.08.2021	15.45
10	31.08.2021	15.60
11	16.09.2021	15.42
12	30.09.2021	15.30
13	16.10.2021	14.25
14	31.10.2021	13.98
15	16.11.2021	13.39
16	30.11.2021	14.52
17	16.12.2021	14.98
18	31.12.2021	15.24
19	16.01.2022	16.01
20	31.01.2022	16.79
21	16.02.2022	17.18
22	28.02.2022	17.20
23	16.03.2022	17.35
24	31.03.2022	17.67

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	18.59
2	30.04.2021	18.62
3	16.05.2021	18.63
4	31.05.2021	18.68
5	16.06.2021	18.63
6	30.06.2021	18.14
7	16.07.2021	17.98
8	31.07.2021	16.72
9	16.08.2021	17.55
10	31.08.2021	17.71
11	16.09.2021	17.47
12	30.09.2021	15.96
13	16.10.2021	17.46
14	31.10.2021	17.70
15	16.11.2021	17.72
16	30.11.2021	17.89
17	16.12.2021	17.99
18	31.12.2021	18.02
19	16.01.2022	18.21
20	31.01.2022	18.51
21	16.02.2022	18.77
22	28.02.2022	19.16
23	16.03.2022	19.18
24	31.03.2022	19.19

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	20.92
2	30.04.2021	21.83
3	16.05.2021	22.50
4	31.05.2021	22.86
5	16.06.2021	22.87
6	30.06.2021	21.94
7	16.07.2021	22.34
8	31.07.2021	21.17
9	16.08.2021	19.76
10	31.08.2021	19.58
11	16.09.2021	20.15
12	30.09.2021	18.22
13	16.10.2021	17.51
14	31.10.2021	17.40
15	16.11.2021	17.20
16	30.11.2021	18.15
17	16.12.2021	18.76
18	31.12.2021	19.24
19	16.01.2022	20.01
20	31.01.2022	20.58
21	16.02.2022	21.14
22	28.02.2022	21.19
23	16.03.2022	21.21
24	31.03.2022	21.29

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	24.88
2	30.04.2021	25.34
3	16.05.2021	25.57
4	31.05.2021	25.76
5	16.06.2021	25.73
6	30.06.2021	25.31
7	16.07.2021	24.83
8	31.07.2021	22.54
9	16.08.2021	22.24
10	31.08.2021	22.29
11	16.09.2021	22.10
12	30.09.2021	19.96
13	16.10.2021	19.85
14	31.10.2021	20.10
15	16.11.2021	22.11
16	30.11.2021	22.46
17	16.12.2021	22.59
18	31.12.2021	23.15
19	16.01.2022	24.05
20	31.01.2022	24.38
21	16.02.2022	25.01
22	28.02.2022	25.33
23	16.03.2022	25.78
24	31.03.2022	26.04

THE RAMCO CEMENTS LIMITED

WATER LEVEL DATA - RAMCO BUDAWADA LIMESTONE MINE (RESERVE FOREST)

PERIOD - APRIL 2021 TO MARCH 2022

Location: North Side of Lease
 RL - (+)51.00m
 Latitude N 16 51 48.0
 Depth of well - 45.0 m

Longitude - E80 04 34.7

Location: South West Side of Lease
 RL - (+)51.00m
 Latitude - N 16 51 17.7
 Depth of well - 45.0 m

Longitude - E80 04 01.6

Location: West Side of Lease
 RL - (+)51.00m
 Latitude - N 16 51 30.2
 Depth of well - 45.0 m

Longitude -E80 03 47.7

II. WATER LEVEL DATA

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	23.05
2	30.04.2021	25.10
3	16.05.2021	24.28
4	31.05.2021	23.49
5	16.06.2021	22.30
6	30.06.2021	21.75
7	16.07.2021	21.53
8	31.07.2021	13.67
9	16.08.2021	8.72
10	31.08.2021	8.55
11	16.09.2021	8.10
12	30.09.2021	7.86
13	16.10.2021	7.79
14	31.10.2021	11.01
15	16.11.2021	13.85
16	30.11.2021	16.71
17	16.12.2021	18.90
18	31.12.2021	20.01
19	16.01.2022	21.04
20	31.01.2022	21.26
21	16.02.2022	22.73
22	28.02.2022	23.15
23	16.03.2022	23.59
24	31.03.2022	24.14

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	13.68
2	30.04.2021	16.27
3	16.05.2021	15.08
4	31.05.2021	13.42
5	16.06.2021	11.36
6	30.06.2021	10.97
7	16.07.2021	10.33
8	31.07.2021	4.38
9	16.08.2021	0.95
10	31.08.2021	0.80
11	16.09.2021	0.75
12	30.09.2021	0.42
13	16.10.2021	0.05
14	31.10.2021	2.35
15	16.11.2021	4.24
16	30.11.2021	5.91
17	16.12.2021	6.89
18	31.12.2021	9.12
19	16.01.2022	11.89
20	31.01.2022	11.92
21	16.02.2022	12.15
22	28.02.2022	12.68
23	16.03.2022	13.74
24	31.03.2022	14.53

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2021	21.64
2	30.04.2021	23.40
3	16.05.2021	22.24
4	31.05.2021	21.86
5	16.06.2021	21.08
6	30.06.2021	21.02
7	16.07.2021	20.83
8	31.07.2021	12.49
9	16.08.2021	7.09
10	31.08.2021	7.05
11	16.09.2021	6.95
12	30.09.2021	6.85
13	16.10.2021	6.74
14	31.10.2021	8.24
15	16.11.2021	11.37
16	30.11.2021	13.66
17	16.12.2021	14.78
18	31.12.2021	16.01
19	16.01.2022	18.87
20	31.01.2022	18.99
21	16.02.2022	19.71
22	28.02.2022	21.25
23	16.03.2022	22.45
24	31.03.2022	23.26

S. No	Parameter	Unit	Chikankot Open Well Water												Kadavankot Bore Well Water												Potampudi Bore Well Water												Jayanthinallu Village Bore Well Water												Naravali Village Bore Well Water												Vaddoli Village Bore Well Water												Bodamudi Bore Well Water												Jagavysset Bore Well Water												IS 15000:2012 Drinking water standards in mg/L																																																																																																																																																																																																																																																																																																																																																																																
			Apr-21 to Sep-21				Oct-21 to Mar-22				Apr-21 to Sep-21				Oct-21 to Mar-22				Apr-21 to Sep-21				Oct-21 to Mar-22				Apr-21 to Sep-21				Oct-21 to Mar-22				Apr-21 to Sep-21				Oct-21 to Mar-22				Apr-21 to Sep-21				Oct-21 to Mar-22				Apr-21 to Sep-21				Oct-21 to Mar-22																																																																																																																																																																																																																																																																																																																																																																																																																												
			Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22		Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22	Apr-21 to Sep-21	Oct-21 to Mar-22

THE RAMCO CEMENTS LIMITED
SURFACE WATER QUALITY DATA - JAYANTHIPURAM LIMESTONE MINE (NORTH BAND)
PERIOD - APRIL 2021 TO MARCH 2022

S. No	Parameter	Unit	Upstream				Downstream				Limits
			Apr-21 to Jun-21	Jul-21 to Sep-21	Oct-21 to Dec-21	Jan-22 to Mar-22	Apr-21 to Jun-21	Jul-21 to Sep-21	Oct-21 to Dec-21	Jan-22 to Mar-22	
1	pH	-	7.29	7.32	7.32	7.37	7.41	7.39	7.39	7.47	6.5 - 8.5
2	Colour	Hazen	<2.0	<2.0	<2.0	<2.0	<2	<2.0	<2.0	<2.0	5-15
3	Temperature	°C	23.7	26.1	26.10	27.60	24.1	25.2	25.20	29.10	NS
4	Turbidity	NTU	2.0	2	2.00	1.50	2.0	2	2.00	1.20	1-5
5	Residual Chloride	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2-1
6	Dissolved Oxygen	mg/L	3.7	3.1	3.10	4.30	3.9	3.4	3.40	4.70	NS
7	Total Suspended Solids	mg/L	43	45.1	45.10	42.90	40	40.1	40.10	40.30	NS
8	Electrical Conductivity	µmhos/cm	738	746	746.00	746.00	812	823	823.00	823.00	NS
9	Total Dissolved Solids	mg/L	392	399	399.00	415.00	542	556	556.00	564.00	500-2000
10	Total Hardness (as CaCO ₃)	mg/L	183	176	176.00	192.00	272	281	281.00	281.00	200-600
11	Calcium Hardness	mg/L	92.7	93.6	93.60	93.60	141	147	147.00	149.00	NS
12	Magnesium Hardness	mg/L	83.1	85.1	85.10	85.10	119	123	123.00	123.00	NS
13	Calcium (as Ca)	mg/L	35.2	36.1	36.10	37.40	55.6	57.1	57.10	56.90	250-1000
14	Magnesium (as Mg)	mg/L	18.9	19.6	19.60	19.70	23.1	22.9	22.90	24.60	30-No Relaxation
15	Sodium (as Na)	mg/L	33.7	32.1	32.10	35.10	52.3	53.8	53.80	53.60	NS
16	Potassium (as K)	mg/L	1.01	1.04	1.04	1.07	1.08	1.07	1.07	1.09	NS
17	Chloride (as Cl)	mg/L	94.1	93.7	93.70	95.30	129	132	132.00	131.00	250-1000
18	Sulphate (as SO ₄)	mg/L	28.6	29.1	29.10	29.70	42.3	43.5	43.50	43.60	200-400
19	Total Alkalinity (as CaCO ₃)	mg/L	83.6	85.1	85.10	85.10	121	127	127.00	128.00	200-600
20	BOD (for 3 days at 27 °C)	mg/L	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<4.0	NS
21	Chemical Oxygen Demand	mg/L	27.3	28.6	28.60	28.90	28.1	29.3	29.30	29.60	NS
22	Oil & Grease	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NS
23	Iron (as Fe)	mg/L	0.19	0.22	0.22	0.46	0.21	0.24	0.24	0.37	0.3 No Relaxation
24	Fluoride (as F)	mg/L	0.28	0.31	0.31	0.28	0.50	0.7	0.70	0.46	1.0-1.5
25	Nitrate (as NO ₃)	mg/L	0.8	0.9	0.90	0.70	1.1	1.2	1.20	1.30	45 No Relaxation
26	Phosphates (as PO ₄)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS
27	Cyanide (as CN)	mg/L	Nil	<0.01	<0.01	<0.01	Nil	<0.01	<0.01	<0.01	0.05 No Relaxation
28	Pesticides (as Malathoin)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS
29	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	Nil	<0.01	<0.01	<0.01	Nil	<0.01	<0.01	<0.01	0.001-0.002
30	Manganese (as Mn)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1-0.3
31	Chromium (as Cr ⁺⁶)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 No Relaxation
32	Copper (as Cu)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05-1.5
33	Selenium as Se	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01 No Relaxation
34	Aluminium (as Al)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03-0.2
35	Cadmium (as Cd)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03 No Relaxation
36	Arsenic as As	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01-0.05
37	Boron (as B)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.5-1.0
38	Mercury (as Hg)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001- No Relaxation
39	Lead (as Pb)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001- No Relaxation
40	Zinc (as Zn)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	5-15
41	Percent Sodium	%	35.7	36.9	36.90	42.30	38.1	37.2	37.20	39.80	NS
42	Total Coliforms	MPN/100 mL	73.6	72.6	72.60	75.10	84.6	85.1	85.10	85.30	Shall not be present in any 100ml.
43	Faecal Coliforms	MPN/100 mL	27.3	28.1	28.10	28.60	32.9	33.6	33.60	33.60	Shall not be present in any 100ml.
44	E.Coli	MPN/100 mL	19	21	21.00	23.00	27	29	29.00	29.00	Shall not be present in any 100ml.

THE RAMCO CEMENTS LIMITED, KSR NAGAR
SURFACE WATER QUALITY DATA - JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)
PERIOD - APRIL 2021 TO MARCH 2022

S. No	Parameter	Unit	Upstream				Downstream				Limits
			Apr-21 to Jun-21	Jul-21 to Sep-21	Oct-21 to Dec-21	Jan-22 to Mar-22	Apr-21 to Jun-21	Jul-21 to Sep-21	Oct-21 to Dec-21	Jan-22 to Mar-22	
1	p ^H	-	7.49	7.57	7.57	7.53	7.52	7.59	7.59	7.55	6.5 - 8.5
2	Colour	Hazen	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5-15
3	Temperature	°C	29.6	28.3	28.30	32.30	29.9	31.2	31.20	30.60	NS
4	Turbidity	NTU	2.5	2.4	2.40	2.70	2.4	2.6	2.60	2.30	1-5
5	Residual Chloride	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2-1
6	Dissolved Oxygen	mg/L	3.2	3.4	3.40	4.70	3.90	4.1	4.10	4.30	NS
7	Total Suspended Solids	mg/L	44	41.6	41.60	41.60	43.6	45.1	45.10	45.40	NS
8	Electrical Conductivity	µmhos/cm	721	714	714.00	749.00	829	846	846.00	868.00	NS
9	Total Dissolved Solids	mg/L	389	374	374.00	396.00	523	514	514.00	542.00	500-2000
10	Total Hardness (as CaCO ₃)	mg/L	171	168	168.00	183.00	253	247	247.00	261.00	200-600
11	Calcium Hardness	mg/L	93.6	92.1	92.10	95.10	141	145	145.00	139.00	NS
12	Magnesium Hardness	mg/L	82.7	80.6	80.60	85.10	122	131	131.00	119.00	NS
13	Calcium (as Ca)	mg/L	39.6	38.3	38.30	37.30	58.9	59.6	59.60	57.10	250-1000
14	Magnesium (as Mg)	mg/L	17.1	16.9	16.90	18.90	25.6	24.3	24.30	24.30	30-No Relaxation
15	Sodium (as Na)	mg/L	31.6	32.8	32.80	32.60	54.1	55.2	55.20	55.10	NS
16	Potassium (as K)	mg/L	1.07	1.07	1.07	1.05	1.08	1.07	1.07	1.06	NS
17	Chloride (as Cl)	mg/L	98.9	97.3	97.30	99.60	142	152	152.00	153.00	250-1000
18	Sulphate (as SO ₄)	mg/L	27.3	28.6	28.60	28.90	42.3	41.6	41.60	41.60	200-400
19	Total Alkalinity (as CaCO ₃)	mg/L	83.3	82.1	82.10	81.60	136	129	129.00	129.00	200-600
20	BOD (for 3 days at 27 °C)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
21	Chemical Oxygen Demand	mg/L	24.1	25.2	25.20	25.30	28.9	28.3	28.30	27.10	NS
22	Oil & Grease	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NS
23	Iron (as Fe)	mg/L	0.19	0.22	0.22	0.22	0.17	0.21	0.21	0.18	0.3 No Relaxation
24	Fluoride (as F)	mg/L	0.21	0.24	0.24	0.25	0.39	0.39	0.39	0.41	1.0-1.5
25	Nitrate (as NO ₃)	mg/L	0.67	0.65	0.65	0.64	0.88	0.84	0.84	0.82	45 No Relaxation
26	Phosphates (as PO ₄)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS
27	Cyanide (as CN)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 No Relaxation
28	Pesticides (as Malathion)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS
29	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001-0.002
30	Manganese (as Mn)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1-0.3
31	Chromium (as Cr ⁺⁶)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 No Relaxation
32	Copper (as Cu)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05-1.5
33	Selenium as Se	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01 No Relaxation
34	Aluminum (as Al)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03-0.2
35	Cadmium (as Cd)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03 No Relaxation
36	Arsenic as As	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01-0.05
37	Boron (as B)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.5-1.0
38	Mercury (as Hg)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001- No Relaxation
39	Lead (as Pb)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001- No Relaxation
40	Zinc (as Zn)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	5-15
41	Percent Sodium	%	33.1	31.9	31.90	34.60	35.1	34.2	34.20	36.80	NS
42	Total Coliforms	MPN/100 mL	72.7	73.2	73.20	75.10	81.6	80.7	80.70	83.70	Shall not be present in any 100ml.
43	Faecal Coliforms	MPN/100 mL	31.3	32.4	32.40	33.90	32.3	33.7	33.70	33.90	Shall not be present in any 100ml.
44	E.Coli	MPN/100 mL	16.9	17.2	17.20	17.10	19.1	18.9	18.90	20.60	Shall not be present in any 100ml.

THE RAMCO CEMENTS LIMITED
MINE DISCHARGE WATER QUALITY DATA
PERIOD - APRIL 2021 TO MARCH 2022

S. No	Parameter	Unit	Limits												
			Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	
I. JAYANTHIPURAM LIMESTONE MINE (NORTH BAND)															
1	p ^H		7.81	7.79	7.87	7.89	7.88	7.81	7.87	7.92	7.97	7.86	7.78	7.84	5.5 - 9.0
2	Total Suspended Solids	mg/L	49.3	51.60	51.20	53.60	52.60	50.30	51.6	50.6	52.3	53.6	50.2	52.3	10
3	Total Dissolved Solids	mg/L	974	963	989	996	951	949	959	912	935	949	929	937	100
4	Chlorides (as Cl)	mg/L	301	312	296	312	296	271	279	299	301	323	312	326	2100
5	Sulphates (as SO ₄)	mg/L	84.3	85.60	80.60	81.70	76.80	74.30	75.3	61.6	63.5	65.1	60.6	58.3	30
6	BOD (for 3 days at 27 °C)	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	250
7	Chemical Oxygen Demand	mg/L	17.4	16.30	16.30	17.20	16.50	16.10	16.80	15.40	15.90	16.70	15.90	16.60	1000
8	Oil & Grease	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2
9	Iron (as Fe)	mg/L	0.32	0.34	0.34	0.38	0.34	0.32	0.34	0.29	0.35	0.38	0.32	0.31	1000
10	Fluoride (as F)	mg/L	0.58	0.59	0.52	0.59	0.51	0.50	0.52	0.47	0.52	0.54	0.51	0.49	30
II. JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)															
1	p ^H		7.77	7.69	7.63	7.68	7.51	7.57	7.59	7.64	7.69	7.86	7.97	7.94	5.5 - 9.0
2	Total Suspended Solids	mg/L	59.3	56.20	51.60	53.10	52.40	53.90	54.1	53.5	55.6	57.3	58.6	56.3	10
3	Total Dissolved Solids	mg/L	752	749	741	756	731	726	729	736	740	781	796	781	100
4	Chlorides (as Cl)	mg/L	186	181	173	189	174	181	187	189	193	199	212	223	2100
5	Sulphates (as SO ₄)	mg/L	71.6	69.30	70.70	72.30	69.30	67.30	68.1	67.2	69.1	72.4	73.5	71.2	30
6	BOD (for 3 days at 27 °C)	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	250
7	Chemical Oxygen Demand	mg/L	15.2	14.80	14.60	15.10	15.90	16.20	16.80	15.90	16.20	17.30	18.20	19.10	1000
8	Oil & Grease	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2
9	Iron (as Fe)	mg/L	0.21	0.23	0.23	0.25	0.27	0.28	0.29	0.27	0.29	0.34	0.35	0.31	1000
10	Fluoride (as F)	mg/L	0.41	0.42	0.45	0.49	0.41	0.40	0.42	0.39	0.43	0.45	0.47	0.42	30
III. RAVTRALA LIMESTONE MINE															
1	p ^H		7.78	7.83	7.83	7.89	7.89	7.78	7.79	7.81	7.87	7.82	7.89	7.92	5.5 - 9.0
2	Total Suspended Solids	mg/L	57.1	56.90	63.50	67.10	60.30	63.70	64.10	62.9	63.5	63.5	65.1	63.6	10
3	Total Dissolved Solids	mg/L	792	786	829	842	824	821	836	827	836	838	842	851	100
4	Chlorides (as Cl)	mg/L	203	209	226	236	221	223	229	218	224	209	223	238	2100
5	Sulphates (as SO ₄)	mg/L	87.1	88.60	89.60	91.20	87.10	86.90	89.2	87.3	89.6	84.2	85.1	84.2	30
6	BOD (for 3 days at 27 °C)	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	250
7	Chemical Oxygen Demand	mg/L	17.9	18.30	18.30	19.60	18.30	18.90	19.20	18.90	19.80	17.90	18.20	17.90	1000
8	Oil & Grease	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2
9	Iron (as Fe)	mg/L	0.49	0.41	0.53	0.57	0.54	0.54	0.57	0.55	0.57	0.47	0.49	0.52	1000
10	Fluoride (as F)	mg/L	0.58	0.59	0.62	0.69	0.61	0.59	0.61	0.59	0.62	0.52	0.55	0.57	30

Note: All values are mentioned as mg/L, except p^H.

THE RAMCO CEMENTS LTD., KSR NAGAR
DETAILS OF RAIN WATER HARVESTING PITS

S. No.	LOCATION	TO ACCOMMODATE	PIT NUMBERING	No. OF PITS	ROOF TOP ARAES (m ²)	PAVED AREA (m ²)	UNPAVED AREA (m ²)	PIT DIMENSIONS		LATITUDE	LONGITUDE
								LENGTH, m	WIDTH, m		
I.	COLONY AREA										
1	C+ Qtrs buildings(C+1 -C+8)	Building roof top & Open yard	10	4	1200			3.45	1.5	16°52'26.55" N	80°07'45.85" E
			11					3.45	1.5	16°52'24.84" N	80°07'45.61" E
			12					3.45	1.5	16°52'25.05" N	80°07'44.10" E
			13					3.45	1.5	16°52'26.86" N	80°07'44.32" E
2	New school building	Building roof top & Open yard	1	4	3075			3.2	1.6	16°52'33.29" N	80°07'48.71" E
			2					3.1	1.6	16°52'32.42" N	80°07'46.66" E
			3					3.3	2.7	16°52'30.19" N	80°07'49.25" E
			4					2.2	3.2	16°52'28.98" N	80°07'47.78" E
3	Occupational Health Centre	Building roof water	6	2	200			3.3	1.7	16°52'28.03" N	80°07'39.85" E
			7					3.1	2.2	16°52'29.01" N	80°07'39.94" E
4	New Administration building	Building roof top & Open yard	9	1	540			3.2	2.4	16°52'30.10" N	80°07'35.84" E
5	Reading room	Building roof top water	8	1	120			1.1	1.8	16°52'26.79" N	80°07'41.36" E
6	D40 area	D40 quarter open yard	23	1			500	2.3	2.3	16°52'17.46" N	80°07'34.77" E
7	B Type quarter area (near B2 1 No. and B4 backside 1 No.)	School ground	21	2			1000	2.7	2.2	16°52'18.27" N	80°07'36.65" E
			22					1.7	1.7	16°52'20.10" N	80°07'36.08" E
8	C30	Open yard	15	1			200	2.3	2.5	16°52'28.13" N	80°07'43.14" E
9	Near Volley Ball ground	East of play ground	16	1		200		3.8	2	16°52'24.58" N	80°07'41.27" E
10	Near culvert @ Cricket ground	Open land near C ground	5	1			3000	3.4	2.7	16°52'32.07" N	80°07'44.40" E
11	Bachelor hostel area	Rain water collection pit through natural ground	14	2		550		2.1	2.3	16°52'26.75" N	80°07'31.59" E
			20					1.7	2.6	16°52'25.34" N	80°07'31.05" E
12	CMD guest house area	Building roof top & Open yard	17	3	1000			1.5	1.5	16°52'24.0" N	80°07'44.43" E
			18					0.6	0.9	16°52'23.71" N	80°07'43.52" E
			19					0.7	0.7	16°52'23.56" N	80°07'44.53" E
13	D - 1 block Apartment	D41 - D44 block roof top and open land	39	1	200			3	1.6	16°52'16.74" N	80°07'33.50" E
14	D - 2 block Apartment	D45 - D48 block roof top and open land	40	1	200			3.4	2.1	16°52'16.59" N	80°07'32.04" E
15	D - 3 block Apartment	D49 - D52 block roof top and open land	41	1	200			3.3	1.7	16°52'16.66" N	80°07'32.15" E
16	D - 4 block Apartment	D53 - D56 block roof top and open land	42	1	200			2.6	1.8	16°52'16.55" N	80°07'33.28" E
17	D - 5 block Apartment	D57- D60 block roof top and open land	43	1	200			2.8	1.8	16°52'16.41" N	80°07'34.34" E
18	D - 6 block Apartment	D61 - D64 block roof top and open land	44	1	200			2	2	16°52'16.75" N	80°07'32.10" E
19	D - 7 block Apartment	D64 - D68 block roof top and open land	45	1	200			2.5	2	16°52'18.46" N	80°07'33.31" E
20	E - 1 Block Apartment	E41 - E52 block roof top and open land	27	2	295			3.3	1.7	16°52'20.92" N	80°07'30.66" E
			28					3.2	1.6	16°52'19.92" N	80°07'30.12" E
21	E - 2 Block Apartment	E53 - E64 block roof top and open land	25	2	295			3.3	2.1	16°52'22.31" N	80°07'30.97" E
			26					3.3	2.1	16°52'21.23" N	80°07'30.77" E
22	F - 1 Block Apartment	F75 - F86 block roof top and open land	29	2	293			3	2	16°52'18.04" N	80°07'30.41" E
			30					3.4	2.2	16°52'19.35" N	80°07'30.39" E
23	F - 2 Block Apartment	F87 - F98 block roof top and open land	31	2	293			3	2.1	16°52'16.38" N	80°07'30.18" E
			32					3	2.1	16°52'17.76" N	80°07'30.27" E
24	F - 3 Block Apartment	F99 - F110 block roof top and open land	33	2	293			3.3	2.3	16°52'16.53" N	80°07'28.64" E
			34					3	2.1	16°52'17.75" N	80°07'28.85" E
25	F - 4 Block Apartment	F111 - F122 block roof top and open land	35	2	293			2.9	1.3	16°52'18.33" N	80°07'28.98" E
			36					2.6	1.8	16°52'19.53" N	80°07'28.99" E
26	F - 5 Block Apartment	F123 - F134block roof top and open land	37	2	293			2.9	1.3	16°52'19.96" N	80°07'29.10" E
			38					2.4	1.5	16°52'21.09" N	80°07'29.33" E
27	STP Area	Rain water collection pit through natural ground	46	1		400	1000	1.5	1.5	16°52'20.61" N	80°07'34.85" E
28	C-Type quarters area	Rain water collection pit through natural ground	47	1			500	2.8	2.7	16°52'22.97" N	80°07'39.48" E
29	C-18 Quarter backside	Rain water collection pit through natural ground	48	1			1000	2.5	2.5	16°52'22.06" N	80°07'40.37" E
30	E3& E4 Block Apartments	Roof tp and open land	49	1	305			1.2	1.3	16°52'23.53" N	80°07'30.43" E
	COLONY TOTAL			48							
II.	PLANT AREA										
31	CCR	Roof top and open land	1	1	1100			3	2	16°52'33.16" N	80°07'19.21" E
32	Mines office	Roof top and open land	2	2	350			1.4	1.4	16°52'21.07" N	80°07'11.11" E
			3					1.5	1.5	16°52'21.58" N	80°07'11.82" E
33	Thermal Power Plant area	Cooling tower building surrounding surface water	4	1				1.5	1.5	16°52'26.34" N	80°07'11.11" E
	PLANT TOTAL			4							
	Total			52	11345	1150	7200				

Government of Andhra Pradesh
Rural Water Supply & Sanitation Department
State Level Water Testing Laboratory
O/o The Project Director
State Water Supply & Sanitation Mission
 "C" Block, Vasudha shelter, LIC colony, Gollapudi, Vijayawada - 521225

TEST REPORT ON CHEMICAL ANALYSIS OF WATER(DRINKING)

General Physico- Chemical Parameters

Name and address : The Ramco Cements Ltd.

Location : Jayanthipuram, Jaggayyapeta(Md), Krishna Dist

Test Report ID No : SLL/SWSM/RWS/ P/093

Description of the test items: Water Sample

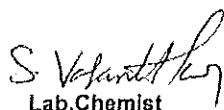
Date of Collection : 23/02/2022

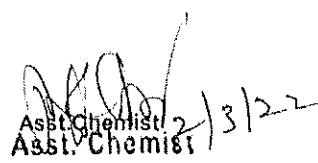
Date of Analysis : 23/02/2022

Date of Receipt : 23/02/2022

Date of issue: 02/03/2022

Sl.No.	Physico-Chemical Parameters	Units	Test report of water sample	As per IS (10500 - 2012)	
				Requirement (Acceptable Limit)	Permissible Limit (in the absence of alternative source)
1	Colour	Pt-Co	0	5	15
2	Turbidity	NTU	0	1	5
3	pH		6.58	6.5-8.5	No relaxation
4	Electrical Conductivity	micromhos/cm	135	-	-
5	Total Dissolved Solids	mg/lit	87	500	2000
6	Salinity	gm/lit	0.08	0.48	1.836
7	Total Alkalinity as CaCO ₃	mg/lit	43	200	600
8	Total Hardness as CaCO ₃	mg/lit	46	200	600
9	Calcium as Ca ⁺⁺	mg/lit	10	75	200
10	Magnesium as Mg ⁺⁺	mg/lit	5	30	100
11	Fluoride as F ⁻	mg/lit	0.19	1.0	1.5
12	Chloride as Cl ⁻	mg/lit	28	250	1000
13	Nitrate as NO ₃ ⁻	mg/lit	1.3	45	No relaxation
14	Sulphate as SO ₄ ⁻²	mg/lit	10	200	400
15	Total Iron as Fe	mg/lit	0.23	1.0	No relaxation
16	Sodium Na ⁺	mg/lit	23	-	-
17	Potassium K ⁺	mg/lit	0.06	-	-
18	Silica	mg/lit	1.2	-	-


 Lab. Chemist


 Asst. Chemist
 State Level Water Testing Laboratory
 Rural Water Supply & Sanitation Dept. A.P
 VIJAYAWADA.

Government of Andhra Pradesh
Rural Water Supply & Sanitation Department
State Level Water Testing Laboratory

O/o The Project Director,
State Water & Sanitation Mission,
"C" Block Vasudha shelters, Lic Colony, Gollapudi, Vijayawada -521225

Report on Bacteriological Parameters of Water (Drinking)

Date of Collection : 24.02.2022

Received Date : 24.02.2022

Received From : The Ramco Cements Ltd.,

Location : K.S.R. Nagar ,Jayanthipuram Village,Jaggayyapeta (MD),Krishna Dist

Date Of Issue : 02.03.2022

Sl. No.	Lab Ref no	Source	H2S - producing Bacteria	MPN of Coliform bacteria/ 100ml	MPN of E.Coli/10 0 ml	Residual Free Chlorine
1	SLL/BCT/Private/024	R.O Water	Negative	<2	0	Nil

Results: In the above water sample presence of Sulfur proteins bacteria, Total Coliform bacteria and E.coli bacteria is not detected.

Remarks: As per Drinking water - specification (IS 10500:2012), the total coliform bacteria and E.Coli or Thermo tolerant Coliform bacterial shall not be detected in any 100 ml. of water sample, which is intended for drinking purpose.

Note : The above said test results are related to the samples tested.

T.V. Sander 02/03/22
Lab. Microbiologist


Assistant chemist
Asst. Chemist
State Level Water Testing Laboratory
Rural Water Supply & Sanitation Dept. A.P.
VIJAYAWADA.

**THE RAMCO CEMENTS LIMITED,
NOISE LEVEL MONITORING - JAYANTHIPURAM LIMESTONE MINES
PERIOD - APRIL 2021 TO MARCH 2022**

Sl. No	Date of monitoring	Name Of the Mine	Machine / Location	Day time (6AM to 10PM)	Permissible Limit dB(A)	Night time (10PM to 6AM)	Permissible Limit dB(A)
1	23.09.2021	Ravirala Limestone Mine (Reserve Forest)	Drilling area	70.3	< 75	64.3	< 70
2			Loading area	71.4	< 75	63.9	< 70
3			Haul road	70.8	< 75	63.1	< 70
4			Unloading area	70.1	< 75	62.9	< 70
5			Mines office	52.9	< 75	39.6	< 70
6			Dumping area	50.3	< 75	41.2	< 70
7			Pump house	62.1	< 75	46.2	< 70
8			Weigh bridge	61.1	< 75	45.1	< 70
9			Ravirala View point	66.3	< 75	47.7	< 70
10			Near ML-4 Tower Light	61.2	< 75	44.3	< 70
1	22.09.2021	Jayanthipuram Limestone Mine (North Band)	Drilling area	72.6	< 75	64.3	< 70
2			Loading area	72.1	< 75	64.1	< 70
3			Haul road	70.3	< 75	62.7	< 70
4			Unloading area	70.4	< 75	62.9	< 70
5			Mines office	51.5	< 75	38.3	< 70
6			Crusher Hopper	62.9	< 75	54.6	< 70
7			Sub Station	62.3	< 75	53.7	< 70
8			Pump House	71.4	< 75	61.8	< 70
9			Weigh Bridge	63.6	< 75	53.6	< 70
10			PMC Camp	55.1	< 75	42.3	< 70
1	23.09.2021	Jayanthipuram Limestone Mine (South Band)	Drilling area	70.3	< 75	65.4	< 70
2			Loading area	71.2	< 75	62.9	< 70
3			Haul road	71.4	< 75	61.1	< 70
4			Unloading area	72.3	< 75	60.3	< 70
5			Mines office	53.6	< 75	38.9	< 70
6			Dump Yard	52.4	< 75	56.8	< 70
7			RSMS Camp	66.3	< 75	51.3	< 70
8			R&B road	71.6	< 75	50.4	< 70
9			Pump House	62.9	< 75	52.7	< 70
10			SB Bund Area	55.7	< 75	46.1	< 70
1	22.09.2021	Ramco Budawada Limestone Mine (Reserve Forest)	Drilling area	70.2	< 75	66.9	< 70
2			Loading area	72.3	< 75	61.6	< 70
3			Haul road - 1	70.9	< 75	60.7	< 70
4			Haul road - 2	71.4	< 75	59.1	< 70
5			Rest Shelter	50.3	< 75	36.2	< 70

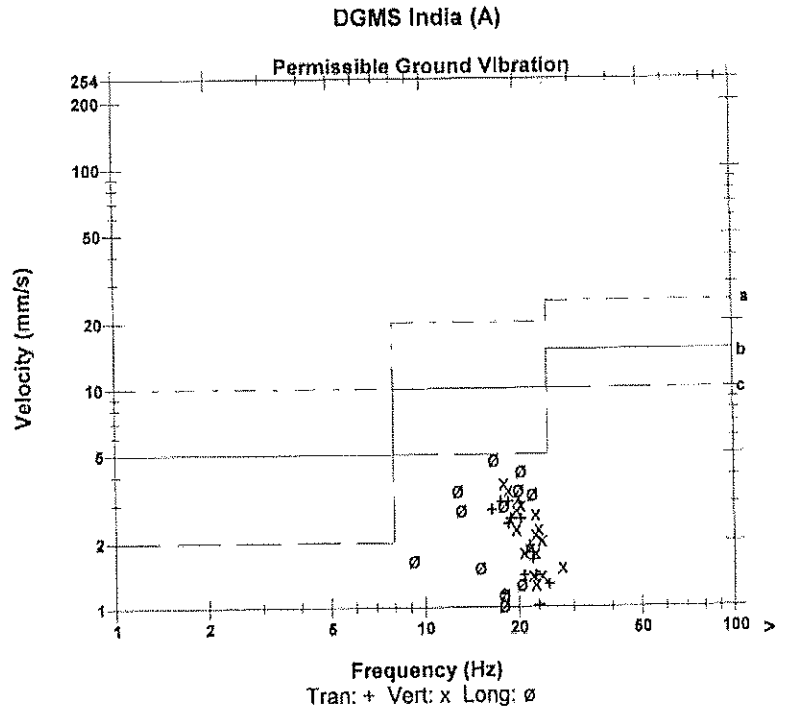
Date/Time Tran at 12:19:05 February 9, 2022
 Trigger Source Geo: 0.510 mm/s, Mic: 131 dB(L)
 Range Geo : 254 mm/s
 Record Time 2.0 sec at 2048 sps
 Job Number: 445
 Notes
 Location: JPM LST Mine Pit 3 bench West
 Client: M/s. The Ramco Cements Limited
 User Name: R SRUJAN
 General:

Serial Number BE15430 V 10.72-1.1 Minimate Blaster
 Battery Level 6.0 Volts
 Unit Calibration March 30, 2021 by UES New Delhi
 File Name TEMP.EVT
 Scaled Distance 15.0 (100.0 m, 44.7 kg)

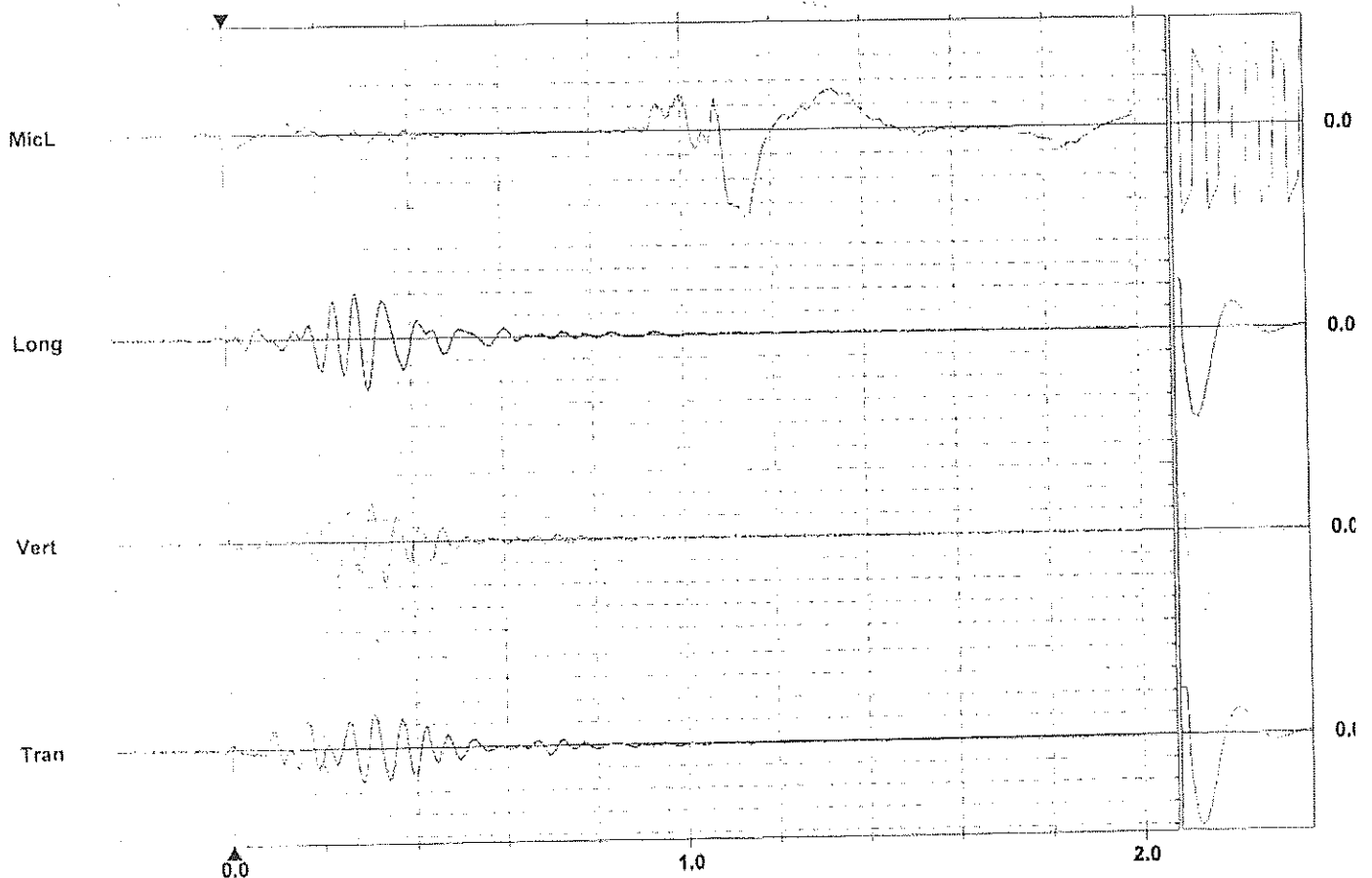
Microphone Linear Weighting
 PSPL 125.0 dB(L) 35.8 pa.(L) at 1.145 sec
 ZC Freq 4.4 Hz
 Channel Test Passed (Freq = 20.1 Hz Amp = 450 mv)

	Tran	Vert	Long	
PPV	3.05	3.68	4.70	mm/s
PPV (Ponderated)	3.10	3.62	4.63	mm/s
PPV	60.7	62.3	64.4	dB
ZC Freq	17.7	18.0	16.8	Hz
Time (Rel. to Trig)	0.282	0.338	0.307	sec
Peak Acceleration	0.0530	0.0795	0.106	g
Peak Displacement	0.0281	0.0316	0.0445	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.4	7.4	Hz
Overswing Ratio	3.8	3.6	3.6	

Peak Vector Sum 6.41 mm/s at 0.309 sec



a) Industrial Buildings
 b) Domestic houses/structures
 c) Historic objects, sensitive structures



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.00 mm/s/div Mic: 10.00 pa.(L)/div
 Trigger =

Sensor Check

~~J.A.Y.A.N.T.H.P.P.U.R.A.M.~~ LIMESTONE MINE
THE RAMCO CEMENTS LIMITED

BLASTING REPORT

SB1-BSTLS

Date: 09/02/22 Time: 1:00 PM Blast No. JPM/381/9/21-22
Distance of Instrument from Blasting site: 100mtrs
Distance of village from Blasting site: 400mtrs
Blast Location: Pit - III III Bench west.

No. of Holes : 29
Bench Height (Mtrs) : 8.5
Total Meterage (Mtrs) : 262.8 (Two Hundred and sixty two point eight only)
Avg. Depth of Holes (Mtrs) : 9.06
Burden (Mtrs) : 3.0
Spacing (Mtrs) : 4.0
ROM Blasted (Expected Tons) : 7400
Production (Ton / Mtr) : 28.15

Explosive & Accessories Used

Non Cap Sensitive 83mm (Kg) : —
Cap Sensitive 83mm (Kg) : —
ANFO (Kg) : 1750

IED (Nos) : 01

EDD (Nos) : —

cord (Mtrs) : —

Nonels (Nos) : 29

Boost 25 mm (Kg) : —

Cast Booster (Kg) : 8.7

Powder Factor (Tons / Kg) : 4.20

Total Explosive : 1758.7

Nonels :

1. S-det: 12mtr: 29 nos
- 2.
- 3.
- 4.

Maximum charge/ Delay: 181 Kg.

Remarks: Blasting site is not in danger zone.

PPV : 4.70 mm/sec.

if BOP : 125.0 dB(L)

Play Rock from Distance: 9mtr.

Direction of Instrument from Blasting site: west.

Blasting Foreman

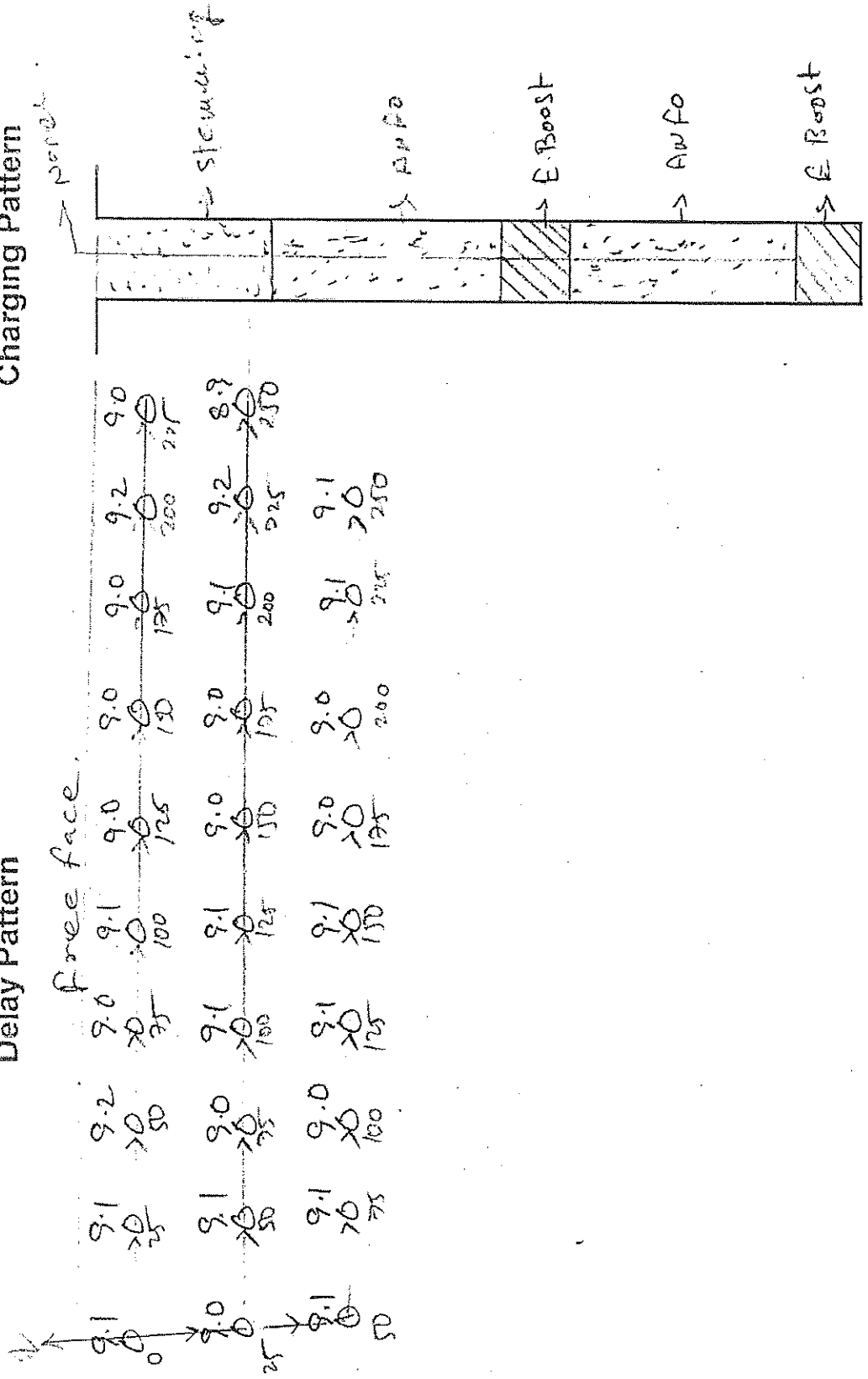
9/2/22

Asst Manager (D&B)

Mines Manager.

Delay Pattern

Charging Pattern



Date/Time Vert at 15:43:12 February 7, 2022
 Trigger Source Geo: 0.510 mm/s, Mic: 131 dB(L)
 Range Geo: 254 mm/s
 Record Time 2.0 sec at 2048 sps
 Job Number: 443

Serial Number BE15430 V 10.72-1.1 Minimate Blaster
 Battery Level 6.1 Volts
 Unit Calibration March 30, 2021 by UES New Delhi
 File Name TEMP.EVT
 Scaled Distance 15.0 (100.0 m, 44.7 kg)

Notes

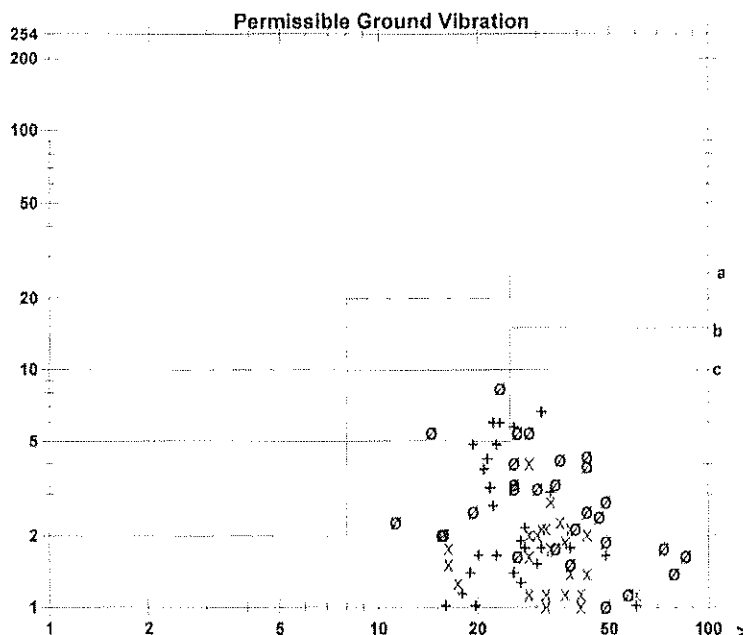
Location: Ravirala LST Mine V bench East
 Client: M/s. The Ramco Cements Limited
 User Name: R SRUJAN
 General:

Microphone Linear Weighting
 PSPL 126.6 dB(L) 42.8 pa.(L) at 0.980 sec
 ZC Freq 3.8 Hz
 Channel Test Passed (Freq = 20.1 Hz Amp = 482 mv)

	Tran	Vert	Long	
PPV	6.60	4.06	8.38	mm/s
PPV (Ponderated)	6.00	3.76	7.96	mm/s
PPV	67.4	63.2	69.5	dB
ZC Freq	31	28	23	Hz
Time (Rel. to Trig)	0.261	0.345	0.351	sec
Peak Acceleration	0.159	0.0795	0.133	g
Peak Displacement	0.0407	0.0218	0.0595	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.3	7.5	Hz
Overswing Ratio	3.7	3.6	3.4	

Peak Vector Sum 9.98 mm/s at 0.349 sec

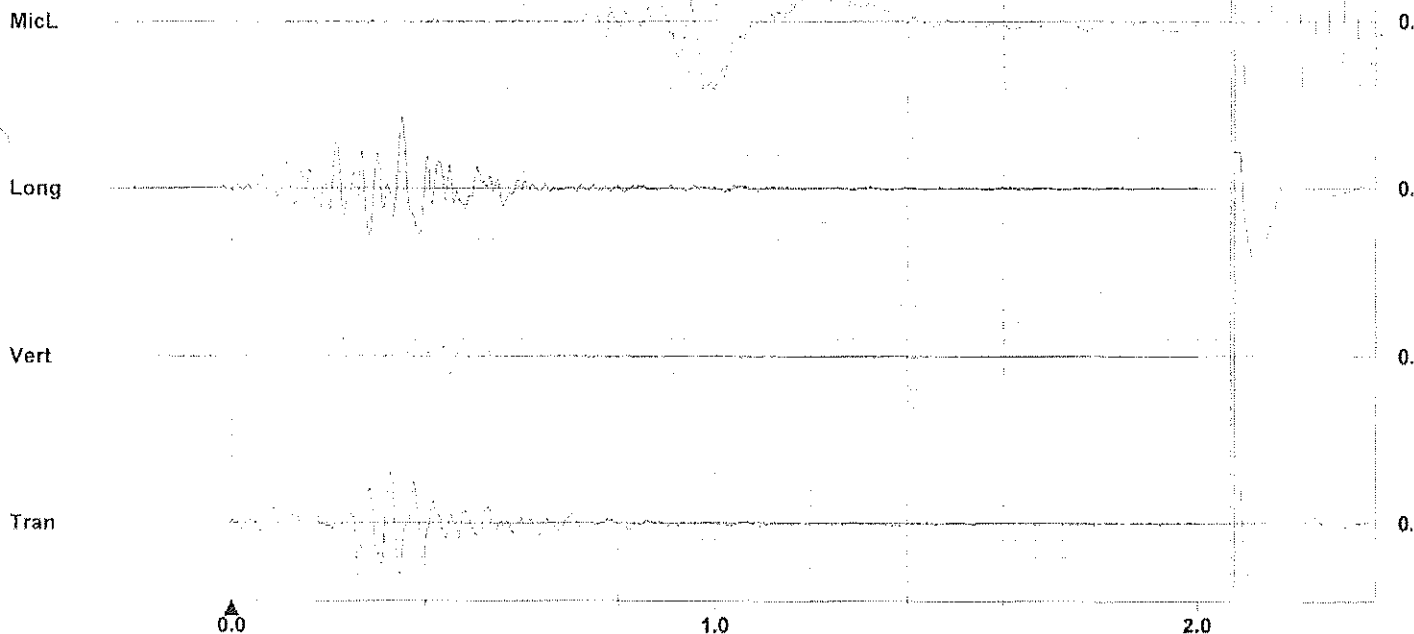
DGMS India (A)



Frequency (Hz)

Tran: + Vert: x Long: o

- a) Industrial Buildings
- b) Domestic houses/structures
- c) Historic objects, sensitive structures



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.00 mm/s/div Mic: 10.00 pa.(L)/div
 Trigger = ▶

Sensor Check

.....Kavirala.....LIMESTONE MINE
THE RAMCO CEMENTS LIMITED

BLASTING REPORT

PR1-BSTCS

Date: 03/02/2022 Time: 1:40 PM. Blast No.: PR/119/D/21-22.
Distance of Instrument from Blasting site: 100 mtrs
Distance of village from Blasting site: 2.8 kms
Blast Location: VI Bench, south.

No. of Holes : 53
Bench Height (Mtrs) : 8.0
Total Meterage (Mtrs) : 424.6 (Four Hundred and twenty
Avg. Depth of Holes (Mtrs) : 8.01 four point size only.)
Burden (Mtrs) : 3.5
Spacing (Mtrs) : 5.0
ROM Blasted (Expected Tons) : 18550
Production (Ton / Mtr) : 43.68

Explosive & Accessories Used

Non Cap Sensitive 83mm (Kg) : —

Solo Cap Sensitive 83mm (Kg) : 225

ANFO (Kg) : 2200

IED (Nos) : 02

EDD (Nos) : —

cord (Mtrs) : —

Nonels (Nos) : 53

Boost 25 mm (Kg) : —

Cast Booster (Kg) : 1230

Powder Factor (Tons / Kg) : 7.31

Total Explosive : 2537.3

Nonels :

1. Excel 12 mts : 41 nos
2. Excel 13 mts : 12 nos
3. 53 nos
- 4.

Maximum charge/Delay : 143 kg.

Remarks : Blasting site is not in danger zone

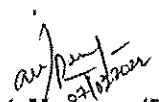
P PV : 8.38 m/sec.

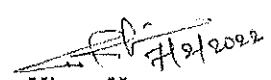
A DOB : 126.6 dB(L)

fly rock distance : 8 mtrs

Direction of Instrument from Blasting site: south.


Blasting Foreman


Asst. Manager (D&B)


Mines Manager.

Charging Pattern

Delay Pattern

Free face.

8.0	8.1	8.5	8.1	8.2	8.0	8.0	8.0	8.0	8.1	8.1	8.1	8.2
0	0	0	0	0	0	0	0	0	0	0	0	0
8.1	8.0	8.0	8.0	8.2	8.1	8.0	8.1	4.6	8.5	8.5	8.0	8.0
0	0	0	0	0	0	0	0	0	0	0	0	0
8.0	8.1	8.0	8.0	8.0	8.0	8.0	8.0	7.9	8.0	8.0	7.8	8.1
0	0	0	0	0	0	0	0	0	0	0	0	0
8.0	8.1	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.2
0	0	0	0	0	0	0	0	0	0	0	0	0

8.0

8.1

8.2

8.0

Date/Time Tran at 09:30:33 April 21, 2021
 Trigger Source Geo: 0.510 mm/s
 Range Geo : 254 mm/s
 Record Time 2.0 sec at 1024 sps
 Job Number: 319

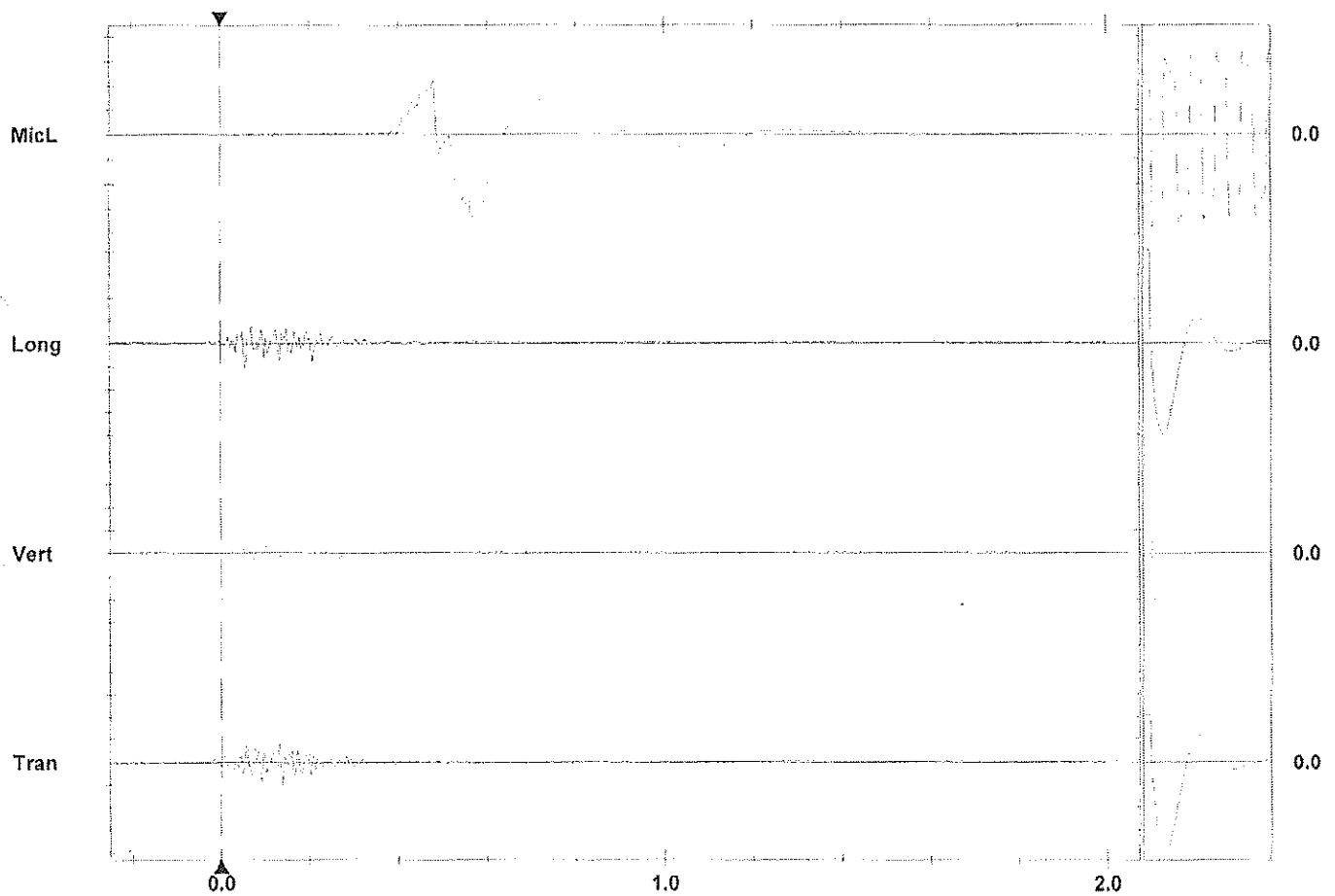
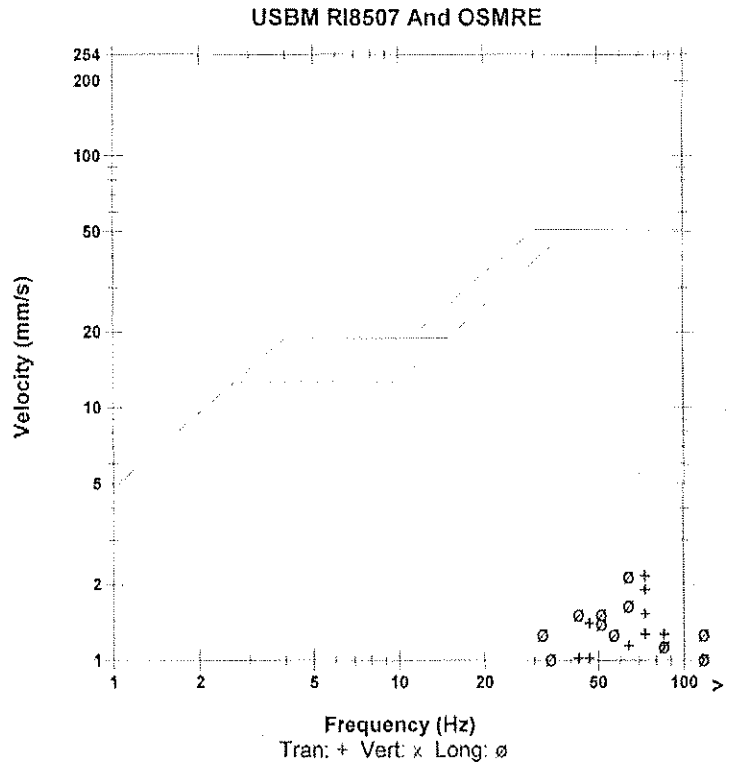
Serial Number BE15430 V 10.72-1.1 Minimate Blaster
 Battery Level 6.1 Volts
 Unit Calibration March 30, 2021 by UES New Delhi
 File Name Q430IY2F.QX0

Notes
 Location: Ramco Budawada LST Mine 1st Bench/N
 Client: M/s. The Ramco Cements Limited
 User Name: S.RAVI KUMAR
 General:

Microphone Linear Weighting
 PSPL 125.2 dB(L) at 0.570 sec
 ZC Freq 4.0 Hz
 Channel Test Passed (Freq = 20.1 Hz Amp = 449 mv)

	Tran	Vert	Long	
PPV	2.16	0.889	2.16	mm/s
ZC Freq	73	>100	64	Hz
Time (Rel. to Trig)	0.138	0.096	0.054	sec
Peak Acceleration	0.0928	0.0530	0.0928	g
Peak Displacement	0.00465	0.00229	0.00521	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.3	7.7	Hz
Overswing Ratio	3.6	3.5	3.4	

Peak Vector Sum 2.42 mm/s at 0.055 sec



Sensor Check

Ramco Bodawadla LIMESTONE MINE

M/s THE RAMCO CEMENTS LIMITED
MADRAS CEMENTS LTD.,

BLASTING REPORT

RB - BSTLS

Date : 21/04/2021

Time : 11:00pm

Blast No. :

Distance of Instrument from Blast Site: 10 mtrs RB/ 016/D/21022

Distance of Village from Blast Site: 4 Kms.

Blast location : Bodawadla I Bench (North)

No. of Holes : 35

Bench height (Mtrs) : 3.2

Total meterage (Mtrs) : 111.30 (one hundred and Eleven

Avg. depth of holes (Mtrs) : 3.1 point three zero only)

Burden (Mtrs) : 3

Spacing (Mtrs) : 3

ROM blasted (Expected Tons) : 2440 MT

Production (Ton/mtr) : 21.92

Explosive & accessories used

Kelvex Boost 83mm (Kg) : 100

ANFO (kg) : 250

IED (nos) : -

EDD (Nos) : 02

Premier Cord (Mtrs) : -

Nonels (Nos) : 35

Book 25 mm (Kg) : -

Powergel boost (Kg) : -

Powder factor (Tons/Kg) : 6.9

Nonels

Exel Amt - 35 nos

Total Explosive : 350 Kgs

Max charge/delay : 40 Kgs. Charge / hole : 10 Kgs.

Remarks : Blasting site is not in danger zone

P.P. V: 2.16 mm/sec

ABOP: 125.2 db(A) at 0.570 sec

Fly Rock distance : 10 mtrs

Direction of Instrument from Blast Site:

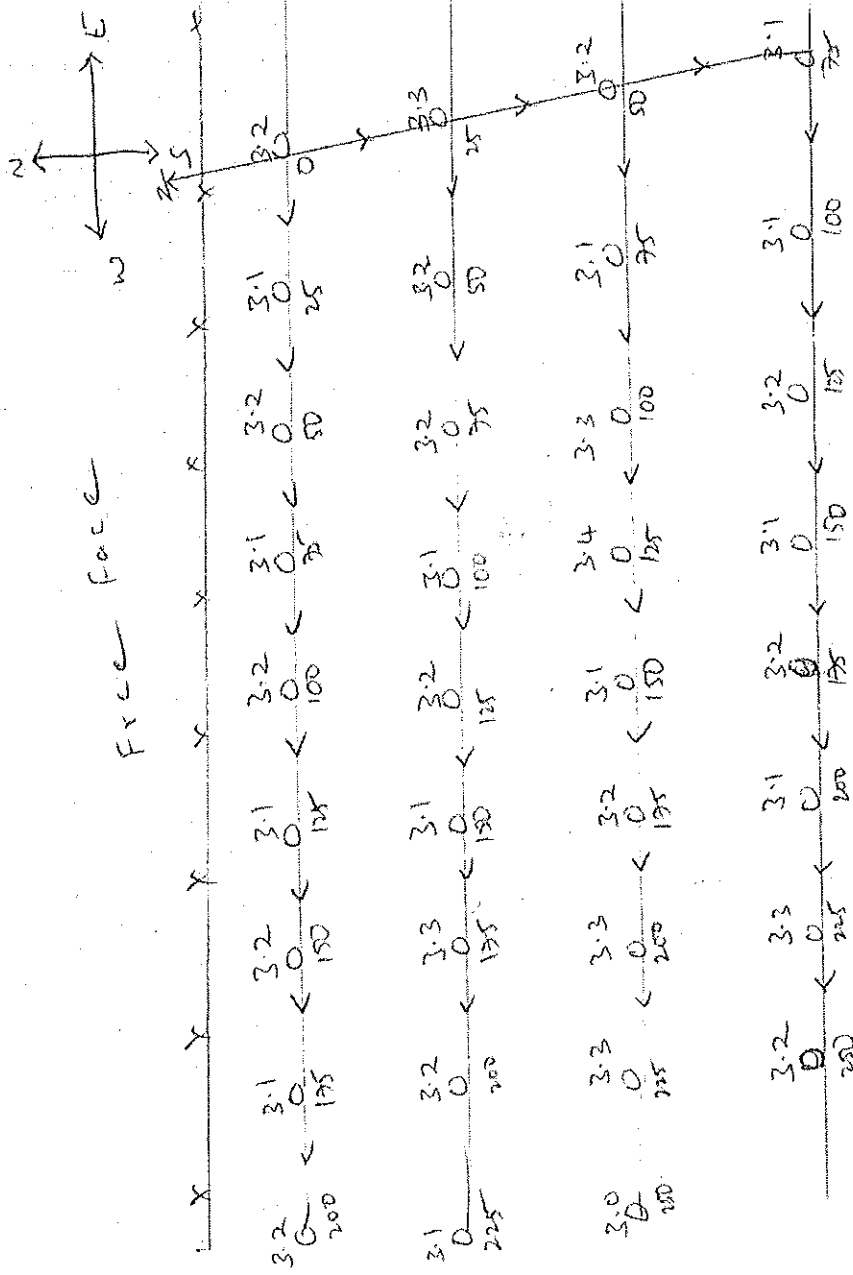
gk. Hameed
Blasting Foreman

Asst. Manager (D&B)

Mines Manager.

Delay Pattern

Charging Pattern





ISO 9001 ISO 14001 ISO 45001 ISO 50001
Certified Company

Kumarasamy Raja Nagar – 521457
Jaggayyapet Mandal, Krishna District,
Andhra Pradesh, India
Phone: 08654 224400-04
Fax: 08654 222352
E-mail: mclpm@ramcocements.co.in

THE RAMCO CEMENTS LIMITED

RCL/PCB/10/2022-2023

05th May 2022

The Environmental Engineer,
A .P. Pollution Control Board,
Regional Office, Plot No: 41,
Gurunanak Road,
Sri Kanakadurga Officers Colony,
Vijayawada – 18.

Dear Sir,

Sub: Submission of Annual Returns of E-Wastes – Form – 3 for our Limestone Mines for the Financial Year 2021-2022 - Reg.

Ref: CFO order for mines No. APPCB/VJA/VJA/488/HO/CFO/2021 and dated 04.01.2022.

Please find enclosed herewith duly filled in Form – 3 - 'Form for Filing Annual Returns' of E-Wastes for our following Limestone Mines for the financial year 2021-2022:

- Jayanthipuram Limestone Mine (North Band)
- Jayanthipuram Limestone Mine (South Band)
- Ravirala Limestone Mine (RF)
- Ramco Budawada Limestone Mine (RF)

This is for your kind information please.

Thanking you,

Yours faithfully,
for The Ramco Cements Limited,

N Ravi Shankar
(N RAVI SHANKAR)
Sr. President (Mfg.)

Encl.: As above.

Th. V. S. S. S.

FORM-3

[See rules 4(5), 5(5), 8(6), 9(4), 10(8), 11(9), 13 (1) (xi), 13(2)(v), 13(3)(vii) and 13(4)(v)]

FORM FOR FILING ANNUAL RETURNS

[To be submitted by producer or manufacturer or refurbisher or dismantler or recycler by 30th day of June following the financial year to which that return relates].

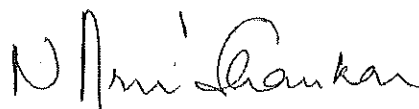
Quantity in Metric Tonnes (MT) and numbers

1	Name and address of the producer or manufacturer or refurbisher or dismantler or recycler	The Ramco Cements Limited, Kumarasamy Raja Nagar - 521 457, Jaggayyapet (M), Krishna Dist Capitve Limestone Mines: a. Jayanthipuram Limestone Mine (North Band) b. Jayanthipuram Limestone Mine (South Band) c. Ravirala Limestone Mine (RF) d. Ramco Budawada Limestone Mine (RF)									
2	Name of the authorised person and complete address with telephone and fax numbers and e-mail address	N Ravi Shankar, Sr. President (Mfg.), The Ramco Cements Limited, Kumarasamy Raja Nagar - 521 457, Jaggayyapet (M), Krishna Dist. Telephone: 08654 – 224400 to 04, Fax: 08654 – 222352, e-mail: mcljpm@ramcocements.co.in.									
3	Total quantity of e-waste collected or channelised to recyclers or dismantlers for processing during the year for each category of electrical and electronic equipment listed in the Schedule I (Attach list) by PRODUCERS										
	Details of the above										
3(A)*	BULK CONSUMERS: Quantity of e-waste	Cumulative quantity of generation in the financial year 2021-2022 for cement plant, thermal power plant & limestone mines: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 40%;">Type</th><th style="width: 30%;">Quantity</th><th style="width: 30%;">No.</th></tr> </thead> <tbody> <tr> <td>E-waste</td><td>Nil</td><td></td></tr> <tr> <td>Printer Cartridges</td><td>0.10536 Tonne</td><td></td></tr> </tbody> </table>	Type	Quantity	No.	E-waste	Nil		Printer Cartridges	0.10536 Tonne	
Type	Quantity	No.									
E-waste	Nil										
Printer Cartridges	0.10536 Tonne										
3(B)*	REFURBISHERS: Quantity of e-waste:										

3(C)*	DISMANTLERS: i. Quantity of e-waste processed (Code wise); ii. Details of materials or components recovered and sold; iii. Quantity of e-waste sent to recycler; iv. Residual quantity of e-waste sent to Treatment, Storage and Disposal Facility.							
3(D)*	RECYCLERS: i. Quantity of e-waste processed (Code wise); ii. Details of materials recovered and sold in the market; iii. Details of residue sent to Treatment, Storage and Disposal Facility							
4	Name and full address of the destination with respect to 3(A)-3(D) above	In the financial year 2021-2022, e-waste is not disposed to any external agency, as the quantity is very low.						
5	Type and quantity of materials segregated or recovered from e-waste of different codes as applicable to 3(A)-3(D)	Cumulative quantity available as on 31.03.2022 with respect to cement plant, thermal power plant & limestone mines: <table border="1"> <thead> <tr> <th>Type</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>E-waste</td> <td>1.129 Tonne</td> </tr> <tr> <td>Printer Cartridges</td> <td>0.26532 Tonne</td> </tr> </tbody> </table>	Type	Quantity	E-waste	1.129 Tonne	Printer Cartridges	0.26532 Tonne
Type	Quantity							
E-waste	1.129 Tonne							
Printer Cartridges	0.26532 Tonne							

✓ Enclose the list of recyclers to whom e-waste have been sent for recycling.

Place: KSR Nagar
Date: 05.05.2022


Signature of the authorised person

Note:-

- (1) * Strike off whichever is not applicable.
- (2) Provide any other information as stipulated in the conditions to the authoriser.,
- (3) In case filing on behalf of multiple regional offices, Bulk Consumers and Producers need to add extra rows to 1 & 3(A) with respect to each office.



ISO 9001 ISO 14001 ISO 45001 ISO 50001
Certified Company

Kumarasamy Raja Nagar – 521457
Jaggayyapet Mandal, Krishna District,
Andhra Pradesh, India
Phone: 08654 224400-04
Fax: 08654 222352
E-mail: mcljpm@ramcocements.co.in

THE RAMCO CEMENTS LIMITED

RCL/PCB/73/2020-2021

17th January 2022

The Environmental Engineer
AP Pollution Control Board,
Regional Office, Plot No. 41,
Gurunanak Road,
Sri Kanakadurga Officers' Colony,
Vijayawada – 521 008.

Dear Sir,

Sub: Submission of Form – IV – Bio-Medical Waste Returns – Calendar Year 2021
– Reg.

Ref: Authorization Lr. No. BMW/APPCB/RO-VJA/2021-419 dated 05.08.2021.

This has reference to the above cited Bio-Medical Authorization letter issued for our Occupational Health Centre located at our cement plant. Please find enclosed herewith duly filled-in Form – IV – Bio-Medical Waste Returns for the period January 2021 to December 2021.

This is for your kind information and perusal please.

Thanking you,

Yours faithfully,
For The Ramco Cements Limited,

N RAVI SHANKAR
Sr. President (Mfg.)

Encl.: As above

Form – IV
(See rule 13)
ANNUAL REPORT

[To be submitted to the prescribed authority on or before 30th June every year for the period from January to December of the preceding year, by the occupier of Health Care Facility (HCF) or Common Bio-Medical Waste Treatment Facility (CBMWTF)]

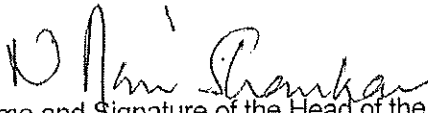
S. No.	Particulars	
1	Particulars of the Occupier	
	(i) Name of the authorised person (occupier or operator of facility)	Authorized Person - N Ravi Shankar Operator of Facility – Dr. S Raja Kesava Prasad
	(ii) Name of HCF or CBMWTF	Occupational Health Centre (The Ramco Cements Limited)
	(iii) Address for Correspondence	Kumarasamy Raja Nagar – 521 457,
	(iv) Address of Facility	Jaggaiahpet Mandal, Krishna Dist., AP.
	(v) Tel. No, Fax. No	Tel. No.: 08654 – 224400 - 04 Fax No.: 08654 - 222352
	(vi) E-mail ID	mclipm@ramcocements.co.in
	(vii) URL of Website	www.ramcocements.in
	(viii) GPS coordinates of HCF or CBMWTF	N - 16° 52' 28.7" E - 80° 07' 40.0"
	(ix) Ownership of HCF or CBMWTF	The Ramco Cements Limited (State Government or Private or Semi Govt. or any other)
	(x) Status of Authorisation under the Bio-Medical Waste (Management and Handling) Rules	Authorisation No. BMW/APPCB/RO-VJA/2021-419 dated 05.08.2021 valid up to 30.09.2024.
	(xi) Status of Consents under Water Act and Air Act	Valid up to: 31.01.2027
2	Type of Health Care Facility	
	(i) Bedded Hospital	No. of Beds: 06 – Occupational Health Centre
	(ii) Non-bedded hospital (Clinic or Blood Bank or Clinical Laboratory or Research Institute or Veterinary Hospital or any other)	NA
	(iii) License number and its date of expiry	Factory Licence No. 9538 Expiry date: 31.12.2022
3	Details of CBMWTF	NA
	(i) Number healthcare facilities covered by CBMWTF	
	(ii) No. of beds covered by CBMWTF	
	(iii) Installed treatment and disposal capacity of CBMWTF	
	(iv) Quantity of biomedical waste treated or disposed by CBMWTF	
4	Quantity of waste generated or disposed in kg per annum (on monthly average basis)	Record of bio-medical waste generation is being maintained. Consolidated report (on month wise details) for the calendar year 2021 is enclosed as Annexure – I.
		Yellow Category: 120.4
		Red Category: 87.5

S. No.	Particulars																												
		White: 10.55																											
		Blue Category: 11.2																											
		General Solid waste: NA																											
5	Details of the Storage, treatment, transportation, processing and Disposal Facility																												
	(i) Details of the on-site storage facility	Size: Bins – 4 Nos.																											
		Capacity: 20 L each – 4 Nos.																											
		Provision of on-site storage (cold storage or any other provision) - Disposed to authorized treatment facility within stipulated time																											
	disposal facilities	<table border="1"> <thead> <tr> <th>Type of treatment equipment</th><th>No. of units</th><th>Capacity, kg/day</th><th>Quantity treated or disposed in kg per annum</th></tr> </thead> <tbody> <tr> <td>Incinerators</td><td colspan="3" rowspan="2">Not authorized</td></tr> <tr> <td>Plasma Pyrolysis Autoclaves</td></tr> <tr> <td>Microwave</td><td colspan="3" rowspan="2">Not authorized</td></tr> <tr> <td>Shredder</td></tr> <tr> <td>Needle tip cutter or destroyer</td><td>01</td><td>----</td><td>----</td></tr> <tr> <td>Sharps encapsulation or concrete pit Deep burial pits</td><td>01</td><td>----</td><td>----</td></tr> <tr> <td>Chemical disinfection</td><td colspan="3" rowspan="2">Not authorized</td></tr> <tr> <td>Any other treatment equipment</td></tr> </tbody> </table>	Type of treatment equipment	No. of units	Capacity, kg/day	Quantity treated or disposed in kg per annum	Incinerators	Not authorized			Plasma Pyrolysis Autoclaves	Microwave	Not authorized			Shredder	Needle tip cutter or destroyer	01	----	----	Sharps encapsulation or concrete pit Deep burial pits	01	----	----	Chemical disinfection	Not authorized			Any other treatment equipment
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	(iii) Quantity of recyclable wastes sold to authorized recyclers after treatment in kg per annum	Consolidated report (on month wise details) recyclable waste sold to authorized recyclers after treatment for the calendar year 2021 is enclosed as Annexure – I.																											
	(iv) No. of vehicles used for collection and transportation of biomedical waste	Vehicle of authorized treatment facility is used for transportation of biomedical waste.																											
	(v) Details of incineration ash and ETP sludge generated and disposed during the treatment of wastes in kg per annum	<table border="1"> <thead> <tr> <th></th><th>Quantity generated</th><th>Where disposed</th></tr> </thead> <tbody> <tr> <td>Incineration ash</td><td colspan="2" rowspan="2">Not authorized</td></tr> <tr> <td>ETP sludge</td></tr> </tbody> </table>		Quantity generated	Where disposed	Incineration ash	Not authorized		ETP sludge																				
	Quantity generated	Where disposed																											
Incineration ash	Not authorized																												
ETP sludge																													
	(vi) Name of the Common Bio-Medical Waste Treatment Facility Operator through which wastes are disposed of	M/s Safenviro Bio-Medical Treatment Plant, D. No. 29-3-14, Governorpet, 1 st Venkateswara Rao Street, Vijayawada, Krishna District.																											
	(vii) List of member HCF not handed over bio-medical waste	NA																											
6	Do you have bio-medical waste management committee? If yes, attach minutes of the meetings held during the reporting period	No.																											
7	Details trainings conducted on BMW																												

S. No.	Particulars	
	(i) Number of trainings conducted on BMW Management	Routine BMW awareness training programme is done to paramedics at our OHC. Any changes / amendments in the BMW Rules will be updated during consequent training programmes.
	(ii) number of personnel trained	06
	(iii) number of personnel trained at the time of induction	06
	(iv) number of personnel not undergone any training so far	NIL
	(v) whether standard manual for training is available?	Yes
	(vi) any other information	NA
8	Details of the accident occurred during the year	
	(i) Number of Accidents occurred	NIL
	(ii) Number of the persons affected	NIL
	(iii) Remedial Action taken (Please attach details if any)	NA
	(iv) Any Fatality occurred, details	NIL
9	Are you meeting the standards of air Pollution from the incinerator? How many times in last year could not met the standards?	Not authorized
	Details of Continuous online emission monitoring systems installed	Not authorized
10	Liquid waste generated and treatment methods in place. How many times you have not met the standards in a year?	Not authorized
11	Is the disinfection method or sterilization meeting the log 4 standards? How many times you have not met the standards in a year?	Not authorized
12	Any other relevant information	No

Certified that the above report is for the period from 01.01.2021 to 31.12.2021.

Date: 17.01.2022
Place: KSR Nagar


Name and Signature of the Head of the Institution
N Ravi Shankar
Sr. President (Mfg.)

The Ramco Cements Limited, Kumarasamy Raja Nagar
Details of Bio Medical Waste Handled
(Period - January 2021 to December 2021)

Sl. No	Month	Weight (in kilogram) of Used Linen & Dressing material (Yellow)	Weight (in kilogram) of Used Disposable Syringes (without needles & fixed needle syringes) & Intravenous sets (Red)	Weight (in kilogram) of Used Needles, needles from needle tip cutter & blades (White)	Weight (in kilogram) of Broken or discarded glass medicine vials & Ampoules (Blue)
1	Jan-20	16.1	9.9	0.5	3.2
2	Feb-20	14.6	10.6	0.8	0.8
3	Mar-20	11.5	6.8	1.5	0.8
4	Apr-20	7.3	5.3	0.9	0.6
5	May-20	6.6	4.5	0.7	0.6
6	Jun-20	9.7	7.4	0.7	0.7
7	Jul-20	9.4	7.9	0.7	0.7
8	Aug-20	9.4	7.25	0.8	0.8
9	Sep-20	9.7	7.3	1.2	0.6
10	Oct-20	6.7	6	0.8	0.5
11	Nov-20	9.5	7.35	1	1
12	Dec-20	9.9	7.2	0.95	0.9
	Grand Total	120.4	87.5	10.55	11.2
	Monthly average	10.03	7.29	0.88	0.93

ANNEXURE -1

Annexure : XVI

THE RAMCO CEMENTS LIMITED, KSR NAGAR	
CSR EXPENDITURE FOR THE FINANCIAL YEARS 2003-2022 (19 YEARS)	
Year	Amount, Rs.
2003-2014 (11 years)	40579555.44
2014-2015	5417753.13
2015-2016	4240135
2016-2017	8560037.82
2017-2018	10530418.37
2018-2019	10254827.83
2019-2020	8476147.31
2020-2021	13820286.62
2021-2022	16698168
Total for 19 years (2003-2022)	118577329.52
Average for 19 years (2003-2022)	6240912.08