



राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण, झारखण्ड

State Level Environment Impact Assessment Authority, Jharkhand

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सत्यमेव जयते

पत्रांक:- 273

दिनांक:- 28/09/2023

प्रेषक:

सदस्य सचिव,
राज्य स्तरीय पर्यावरण समाघात निर्धारण
प्राधिकरण (SEIAA), झारखण्ड।

सेवा में,

उपायुक्त,
जिला : गुमला।

विषय : गुमला जिला का पत्थर खनिज से संबंधित DSR के अनुमोदन के संबंध में।

प्रसंग : आपका कार्यालय का पत्रांक-736/एम0, दि0-23.08.2023।

महाशय,

उपर्युक्त विषयक आपके कार्यालय के प्रासंगिक पत्र दिनांक 23.08.2023 द्वारा गुमला जिला का पत्थर खनिज से संबंधित DSR की एक प्रति अनुमोदन हेतु दिनांक 01.09.2023 को SEIAA कार्यालय में समर्पित किया गया।

तदनुसार SEAC, झारखण्ड की 108वीं बैठक दिनांक 19.09.2023 से दिनांक 25.09.2023 में Shri Ramnath Ray, District Mining Officer, Gumla and Shri Rakesh Roshan Panna, Assistant Director, Geology, Gumla की उपस्थिति में दिनांक 20.09.2023 में SEAC के समक्ष Presentation दिया गया, जिसमें DSR के Salient Feature निम्नवत् बताये गये :-

The DSR has been prepared as per the format provided by MoEF & CC vide S.O. no. 3611 (E), dated 25.07.2018. The DSR submitted has been approved by the Sub-Divisional Committee. All the aspects of the notification dated 25.07.2018 are incorporated in the DSR and found to be satisfactory.

SEAC द्वारा उपरोक्त तथ्यों के आलोक में सर्वसम्मति से आपके द्वारा समर्पित DSR को अनुमोदन हेतु SEIAA को अपनी अनुशंसा भेजी गयी।



GOVERNMENT OF JHARKHAND

UPDATED (FINAL) DISTRICT SURVEY REPORT (DSR) FOR MINOR MINERALS (STONE) OTHER THAN SAND MINING OR RIVER BED MINING FOR GUMLA DISTRICT

*As per Notification No.- S.O.3611 (E), dated : 25th July, 2018, of
Ministry of Environment Forest and Climate change, Government of India, New Delhi*

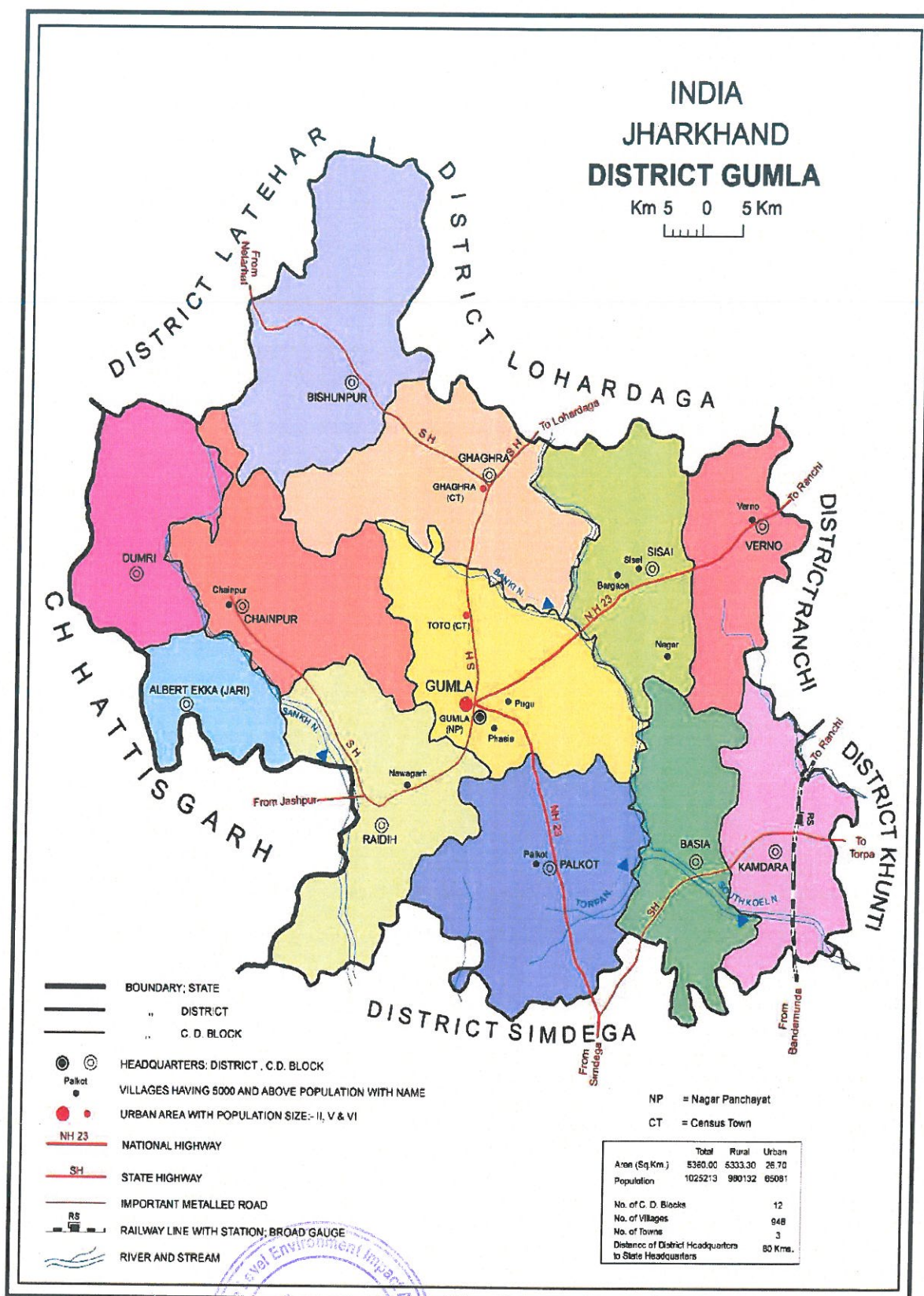


AUGUST, 2023



Prepared by : Sub-Divisional Committee for District Survey Report, Gumla

GUMLA DISTRICT: Updated District Survey Report for Stone



GUMLA DISTRICT: Updated District Survey Report for Stone

A BRIEF INTRODUCTION OF GUMLA DISTRICT

Gumla district was carved out of the old Ranchi district by the government. Bihar Notification No. 7/T-1-204/83 dated 16.5.1983. It acquired an area of 5347.25 sq km from its parent district Ranchi. It is one of the 5 districts of South Chotanagpur division while the other four districts are Lohardaga Ranchi, Khunti and Simdega.

The district is situated between 22.35° to 23.33° North latitude and 84.40° to 85.1° East longitude.

Gumla district consists of 3 sub-divisions, 12 community development blocks as well as 3 census towns (Gumla, Ghaghra and Toto). Gumla is the major city of the district. It is the district headquarters and Gumla Sadar subdivision. CD. Block (12) of Gumla Sadar Subdivision i.e. Bishunpur, Ghaghra, Chainpur, Dumri, Raidih, Gumla, Sisai, Verno, Kamdara, Basia, Palkot and Albert Ekka (Zari).

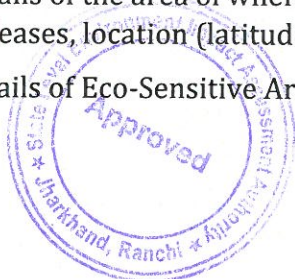
It is primarily a tribal district. It is bounded by Latehar and Lohardaga districts in the north, Ranchi and Khunti districts in the east, Simdega districts in the south and Chhattisgarh state in the west. Various legends are prevalent regarding its name. The most popular one ascribes its word 'gumla' in the Mundari language, which is related to the occupation of the local tribes in rice processing work (Dhan-Kutna). The second story 'Gau-Mela' is related to the cattle fair. A weekly cattle fair was held every Tuesday in Gumla town. In rural areas, Nagpuri and Sadri people still call it 'Gomila'.



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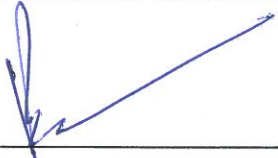
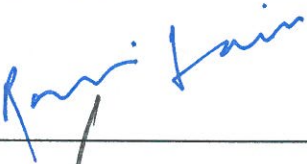
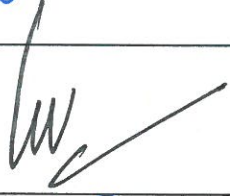
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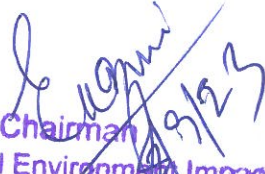


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28/09/23
Member
State Level Environment Impact
Assessment Authority, Jharkhand


28/09/23
Chairman
State Level Environment Impact
Assessment Authority, Jharkhand


28/09/23
Member Secretary
State Level Environment
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Jharkhand

CHAPTER – I INTRODUCTION

1.1 Regulatory Frame Work

EIA notification 1994 published by MoEF & CC mandated that all mining project of all major minerals having lease area more than 5Ha. will have to obtain environment clearance from designated regulatory authority. Mining projects for minor minerals were exempted from obtaining environment clearance.

EIA notification No. S.O. 1533 (E) dated 14/09/2006 mandates that all activities listed in the schedule attached with the notification are required to obtain environment clearance from competent regulators. Mining activities are listed at Sl. No. 1(a) in the schedule. This notification exempted mining activities having lease area less than 5 Ha. from obtaining environment clearance.

Hon'ble Supreme Court in its judgement at 27th February, 2012 in 1A No. 12-13 of 2011 in special leave petition (C) No. 10628-19629 of 2009 in the matter of Deepak Kumar VS State of Haryana & other made prior environment clearance mandatory for minor minerals irrespective of area of mining lease.

In order to comply with judgment of Hon'ble Supreme Court the MoEF & CC issued S.O. 141(E) dt. 15/01/2016. Further the MoEF & CC vide notification S.O. 3611 (E) dt. 25/07/2018 provided the details on structure of DSR for minor mineral.

1.2 Preparation of District Survey Report

PROCEDURE FOR PREPARATION OF DISTRICT SURVEY REPORT OF MINOR MINERALS OTHER THAN SAND MINING OR RIVER BED MINING

The District Survey Report shall be prepared for each minor mineral in the district separately and its draft shall be placed in the public domain by keeping its copy in Collectorate and posting it on district's website for twenty-one days. The comments received shall be considered and if found fit, shall be incorporated in the final Report to be finalised within six months by the SEIAA. The District Survey Report for minor minerals other than sand mining or River bed mining shall be as per structure mentioned below: -

FORMAT FOR PREPARATION OF DISTRICT SURVEY REPORT FOR MINOR MINERALS OTHER THAN SAND MINING OR RIVER BED MINING

- (1) Introduction;
- (2) Overview of Mining Activity in the District;
- (3) General Profile of the District;
- (4) Geology of the District;
- (5) Drainage of Irrigation pattern;
- (6) Land Utilisation Pattern in the District: Forest, Agricultural, Horticultural, Mining etc.



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(7) Surface Water and Ground Water scenario of the district

(8) Rainfall of the district and climatic condition;

(9) Details of the mining leases in the District as per the following format

Sl. No.	Name of the Minera	Name of the Lessee	Address & Contact No. of Lessee	Mining lease Grant Order No. & date	Area of Mining lease (ha)	Period of Mining lease (Initial)		Period of Mining lease (1st/2nd...re newal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10

Date of commencement of Mining Operation	Status (Working / Non Working / Temp. Working for dispatch etc.)	Captive/ Non-Captive	Obtained Environmental Clearance (Yes/No), If Yes Letter No with date of grant of EC.	Location of the Mining lease (Latitude & Longitude)	Method of Mining (Opencast / Underground)
11	12	13	14	15	16

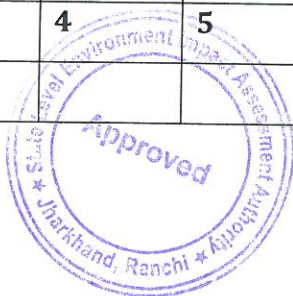
(10) Details of Royalty or Revenue received in last three years;

(11) Details of Production of Minor Mineral in last three years;

(12) Mineral Map of the District;

(13) List of Letter of Intent (LOI) Holders in the District along with its validity as per the following format:-

Sl. No.	Name of the Minera l	Name of the Lessee	Address & Contact No. of Letter of Intent Holder	Letter of Intent Grant Order No. & date	Area of Mining lease to be allotted	Validit y of LoI	Use (Captive / Non-Captive)	Location of the Mining lease (Latitude & Longitude)
1	2	3	4	5	6	7	8	9



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- (14) Total Mineral Reserve available in the District;
- (15) Quality /Grade of Mineral available in the District;
- (16) Use of Mineral;
- (17) Demand and Supply of the Mineral in the last three years;
- (18) Mining leases marked on the map of the district;
- (19) details of the area of where there is a cluster of mining leases viz. number of mining leases, location (latitude and longitude);
- (20) Details of Eco-Sensitive Area, if any, in the District;
- (21) Impact on the Environment (Air, Water, Noise, Soil, Flora & Fauna, land use, agriculture, forest etc.) due to mining activity;
- (22) Remedial Measures to mitigate the impact of mining on the Environment;
- (23) Reclamation of Mined out area (best practice already implemented in the district, requirement as per rules and regulation, proposed reclamation plan);
- (24) Risk Assessment & Disaster Management Plan;
- (25) Details of the Occupational Health issues in the District. (Last five-year data of number of patients of Silicosis & Tuberculosis is also needs to be submitted);
- (26) Plantation and Green Belt development in respect of leases already granted in the District;
- (27) Any other information.

The State Environment Impact Assessment Authority (SEIAA) based on the nature and type of minor mineral in the District may include the additional parameters in the District Survey Report in consultation with the Department of Mines and Geology of the concerned State Government. The District Survey Report shall form the basis for application for environmental clearance, preparation of reports and appraisal of projects. The Report shall be updated once every five years”;



Chapter – II Overview of Mining Activity in the District;

Mainly three type of Minor Minerals constituents such as sand, stone & bajari are required for any type of construction apart from other material like cement & steel. In the earlier time the mud houses / building were constructed with the use of mud. However, with the passage of the time, new techniques of development activities were started. As such the demand of Minor Minerals started on an increasing tread. In order to meet the requirement of raw material for construction, the extraction of sand carried out manually / semi-mechanized process from the river beds. The local residents used to lift sand etc. from the river beds. The local residents used to lift sand, etc. from river beds to meet our their bonafide requirement. However, after coming into being, the Jharkhand Minor Mineral Rules, 2017, the mining is regulated in accordance with the rules.

In Gumla district the important minerals like bauxite and laterite (Aluminium Ore) are found in village Amtipani, Langdatanr, Chirodih, Jalim, Narma, Bahagara & Gurdari of Bishunpur Block, Langatanr, Lupungpat & Chota – agiatu in Chainpur Block and Hunrup, serandag and Jalim in Ghaghara Block. Beside these china clay is also found in some part of the district. Other mining activiteis like stone crusher, brick and stone chips mining are also available in different part of the district.

(Source : Old DSR)

33 Operating Stone Mines in the District.



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Chapter – III General Profile of the District;

Table 1 General Profile

District	Gumla
Headquarter	Gumla
No. of Sub Division	03
No. of Blocks	12
No. of Panchayats	159
No. of Villages	948
Area (Sq. Km.)	5,295.45
No. of Police Stations	14
Water Bodies	Shankh River South Koel River North Koel River
Toposheet	73A/3, 73A/4, 73A/6, 73A/7, 73A/8, 73A/11, 73A/12, 73A/15, 73A/16, 73B/1, 73B/5, 73B/6, 73B/9, 73B/10, 73B/13, 73B/14 & 73F/1
Co-ordinate	22.35° to 23.33° North latitude and 84.40° to 85.1° East
Total Population	10,25,213
Male Population	5,14,390
Female Population	5,10,823
Percentage urban Population	65,081
Percentage Rural Population	91,60,132
Sex Ratio	993
Percentage Literacy	75.60%
Male-	55.90%
Female-	
ST Population	7,06,754



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SC Population	32,459
Total Workers	2,78,731
Total Male Worker	1,76,067
Total Female Worker	1,02,667
Total Main Workers	2,78,731
Total Male Main Workers	1,76,067
Total Female Main Workers	1,02,667
Total Marginal Worker	2,08,577
Total Male Marginal Worker	88,707
Total Female Marginal Worker	1,19,870
Total Non-Worker	2,49,616
Total Male Non-Worker	2,49,616
Total Female Non-Worker	2,88,089

(Source : Census, 2011)



Chapter – IV Geology of the District

Gumla district of Jharkhand is located at 22° 35" to 23° 33" North and 84° 40" to 85° 1" East. It is located on Southern part of the Chota Nagpur Plateau. Gumla District is a part of Ranchi plateau. The northern part of the District has higher plateau region having vast resources of Bauxite deposit of Pleistocene age. The altitude of this region varies between 1000 m to 1200 m. The southern part of the district is comprised with Granite and Granite Gneiss of Archean age.

There are three major rivers, which flows through Gumla district of Jharkhand are South Koel, North Koel and the Sankh.

Geologically, the bauxite bearing plateaus of MP and Jharkhand belt form a part of Precambrian shield of the Indian peninsula. They consist mainly of Chotanagpur Granite Gneiss having inclusions of quartzites and older basic rocks belonging to the Older Metamorphic Group which are occasionally met with it.

The western part of the Ranchi upland is occupied by a raised tract, which is senso stricto form dissected plateau (locally called "pats") varying in heights from 1040 to 1080 m above mean sea level. These dissected plateaus (pats) are invariably capped with laterite and bauxite.

The other Rock type exposed in the District consists of Mica Schist, Amphibolite, Dolerite, Pegmatite and Quartz veins etc. Augen Granite Gneiss is generally occurs as small hillocks. In the uplands, considerable thickness of laterite of Pleistocene age is also found along with the Granite and Gneisses. Alluvium of recent to sub-recent age is found in the river valley. A generalized geological succession of the area is summarized below

Sub - Recent to Recent	-	Alluvium / Soil
Pleistocene	-	Laterite/ Bauxite
Archean	{	Pegmatite& Quartz vein
		Dolerite
		Migmatite & Granite gneiss
		Amphibolite
		Mica & other Schist



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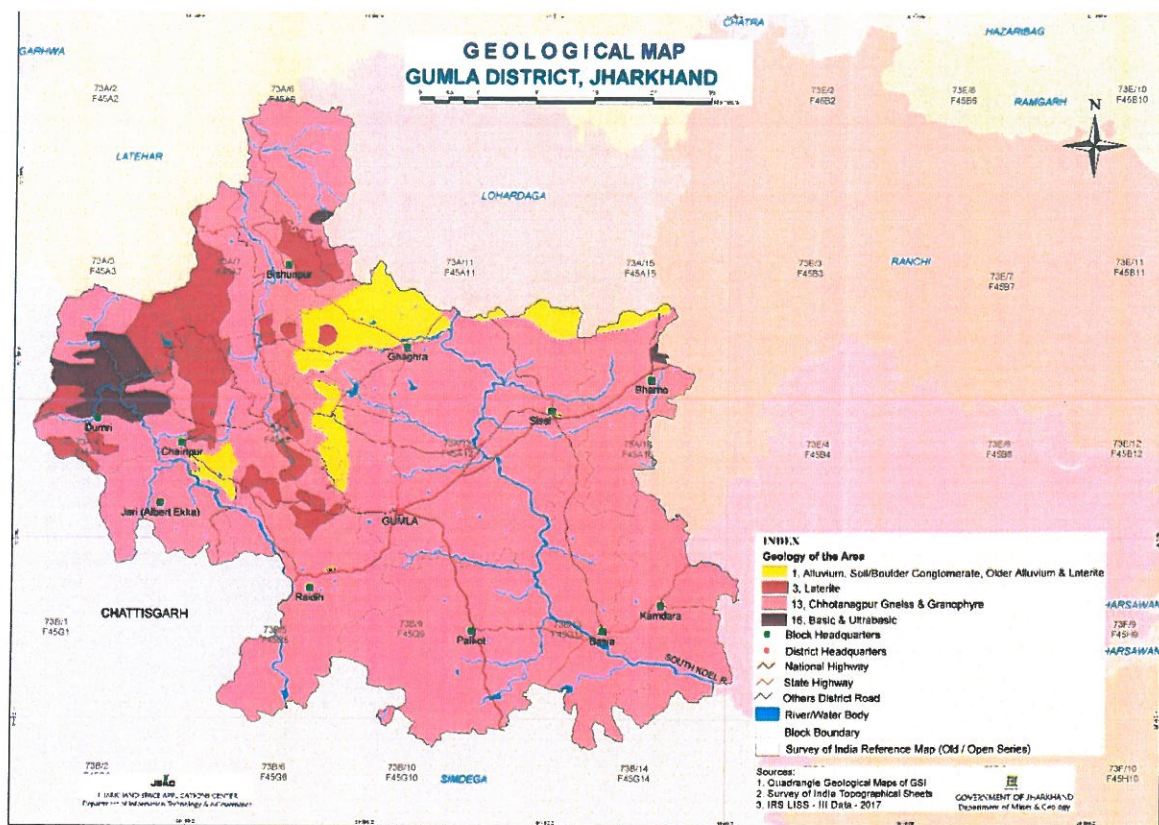


Figure 1 Geological Map of the District (Source- Mines & Geology Website)



Chapter - V Drainage of Irrigation pattern;

Water is the main requisite for irrigation which must be timely and adequately available to maintain the soil water balance to ensure maximum productivity. In Gumla district surface water infrastructure is most inadequate, which is evident from the list of the major and medium surface water irrigation projects, Ultimate, irrigation potential to be created, and irrigation potential created.

Although the rainfall in the district is successfully high (1500 mm / year) but there is no arrangement to conserve the rain fall, which due to undulating topography goes waste as a run off.

The South Koel, the Sankh and the North Koel rivers drains the area of this district, but on account of the steep gradient rivers drain off quickly. The flow in these rivers diminishes during the critical period of crop as and when rainfall is deficient because the area all rain fed rivers. However base flow is present. So, there is acute shortage of water resources in this district causing severe drought. Even the drinking water becomes scarce because of the depletion of ground water level during pre - monsoon period.

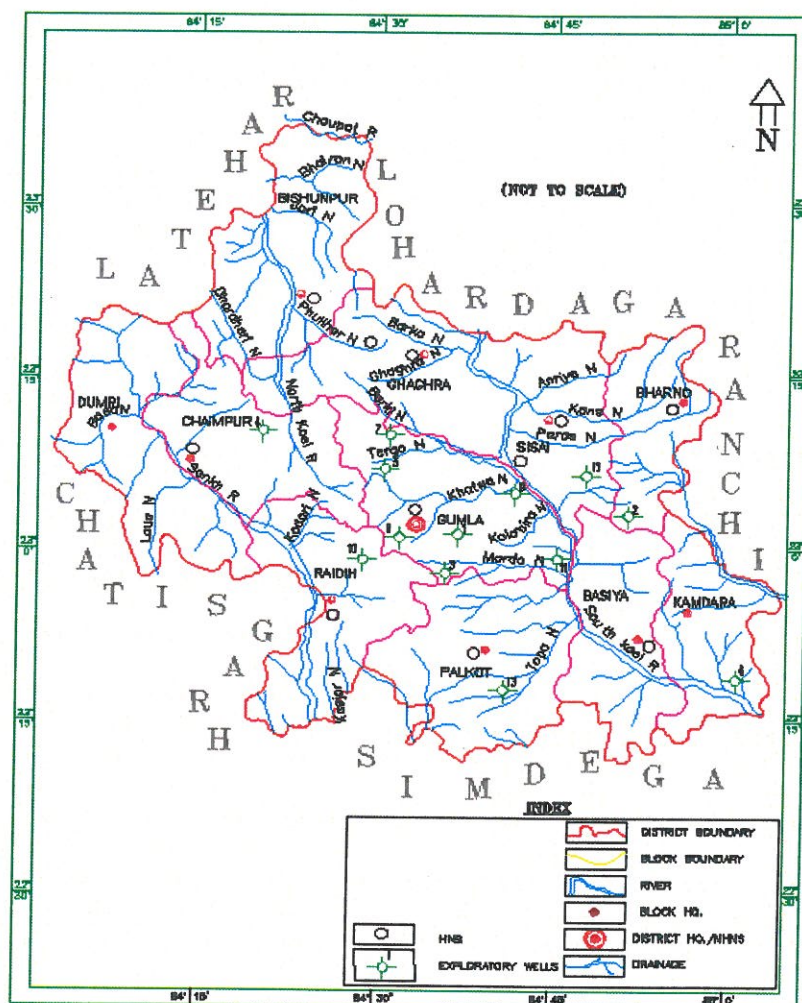


Figure 2 Drainage Map of Gumla District

(Source : Ground Water Information Booklet (September 2013) Published by CGWA)



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Chapter - VI Land Utilisation Pattern in the District: Forest, Agricultural, Horticultural, Mining etc.

Table 2 Land Utilization Pattern in the District

LAND RESOURCES	IN HECTARES
Total area	529546.15
Net Cultivated area	329600.00
Forest land	135600.00
Net Irrigated area	22056.00
Cultivable waste land	31958.00
Non cultivable land	38226.00

Source from District Statistical Office, Gumla (Handbook - 2021)



Chapter – VII Surface Water and Ground Water scenario of the district

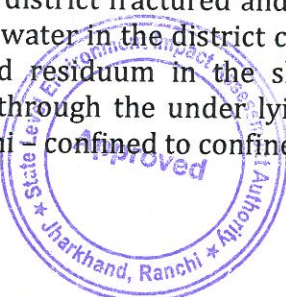
7.1 Surface Water

Rivers in the District					
Sl. No.	Name of the River or Stream	Total Length in the District (in Km)	Place of origin	Altitude at Origin (in AMSL)	Catchment (Sq. Km.)
1.	South Koel River	82	Nagri	788	392.16
2.	Sankh River	86	Barapat	1017	208.62
Dams in the District					
Sl. No.	Name	Purpose	River	Length (m)	Max Height above Foundation (m)
1.	Dhansingoli Dam	Irrigation	South Koel	1068	25.6
2.	Jaipur Dam	Irrigation	Nakti Nallah	914.4	22.5552
3.	Katri Dam	Irrigation	South Koel	1890	23.4
4.	Masaria Dam	Irrigation	Masaria	807.93	21.54
5.	Tapkara Dam	Irrigation	Kukurdoba	350.61	24.23
6.	Kans Dam	Irrigation	Kans	1798.78	20.73
7.	Upper Shankh Dam	Hydroelectric , Irrigation	Shankh	1068	39.69

Source: Water Resources Information System (WRIS)

7.2 Ground Water

Gumla district is mainly a dissected upland of ancient crystalline rocks which covers the major parts of the district. Ground water availability in crystalline rocks is considered to be poor because of the absence of primary porosity which is essential for the free occurrence and movement of ground water. The secondary porosity in the form of fractures, fissures, joints etc. develop due to orogenic movements aided by weathering, making the crystalline rocks potential repository for the occurrence and movement of ground water. The ground water in the district is controlled primarily by the thickness of weathered zone, extent, size openness and interconnection of fractures, geological and topographical setting. Major part of the district fractured and weathered crystalline hard rock form the aquifer. Ground water in the district characterized by the hard rocks is located in the weathered residuum in the shallow depth under unconfined condition and circulates through the underlying fracture system extending to deeper horizon under semi confined to confined conditions (Fig.-4).



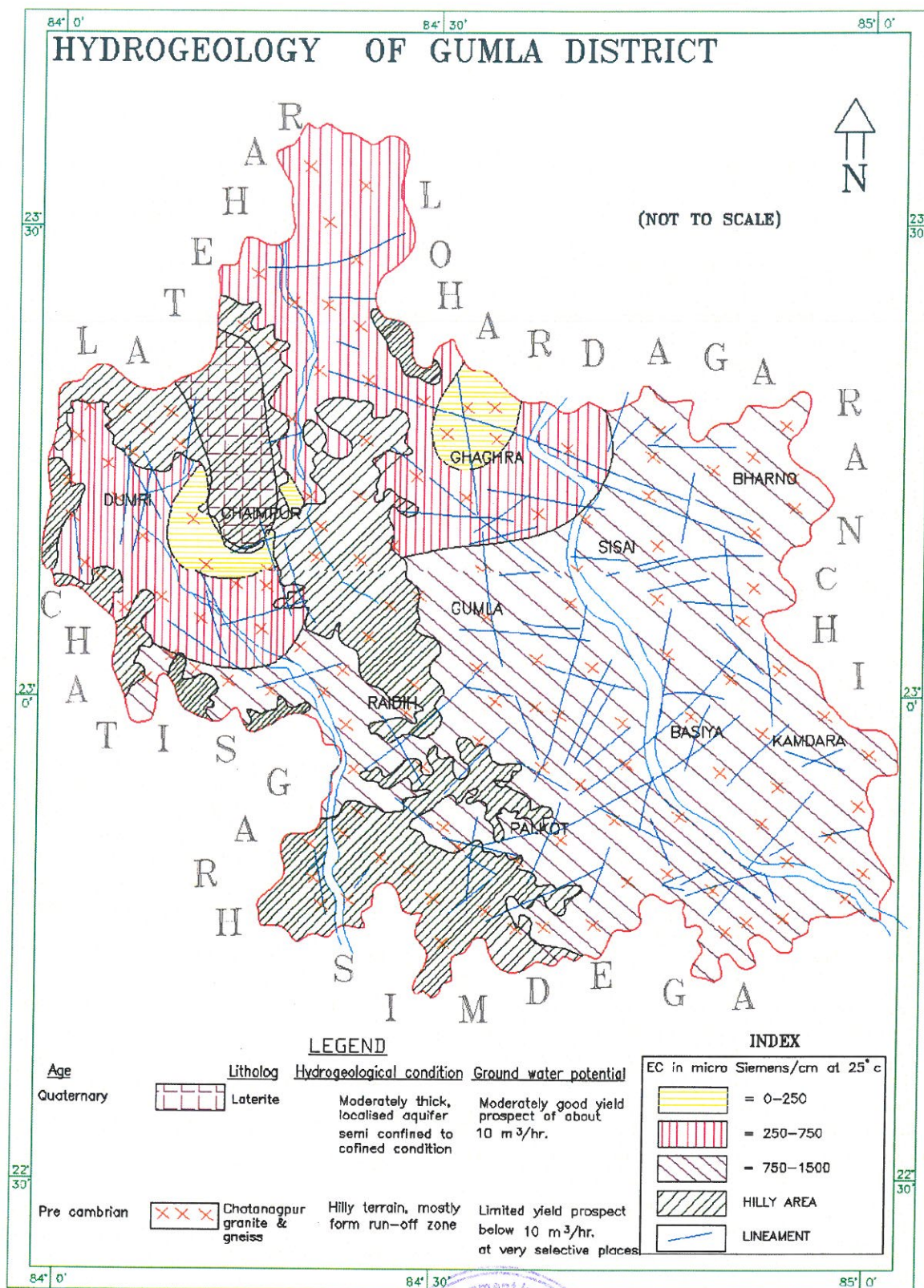


Figure 3 District Hydrogeological Map

(Source : Ground Water Information Booklet (September 2013) Published by CGWA)

7.3 Depth to Water Level

water level scenario of shallow aquifer was generated by utilizing water level data of 57 monitoring wells representing shallow aquifer. The pre monsoon (May 2021) depth to water level monitored between 0.30 to 10.00 mbgl and average 5.04 m bgl. The post monsoon depth to water level (Nov. 2021) in the dug wells ranges from 0.25 to 6.64 mbgl and average 3.72 m bgl respectively. Pre and post monsoon depth to water level maps were prepared for the year 2021 and shown in figure – 4 & 5.

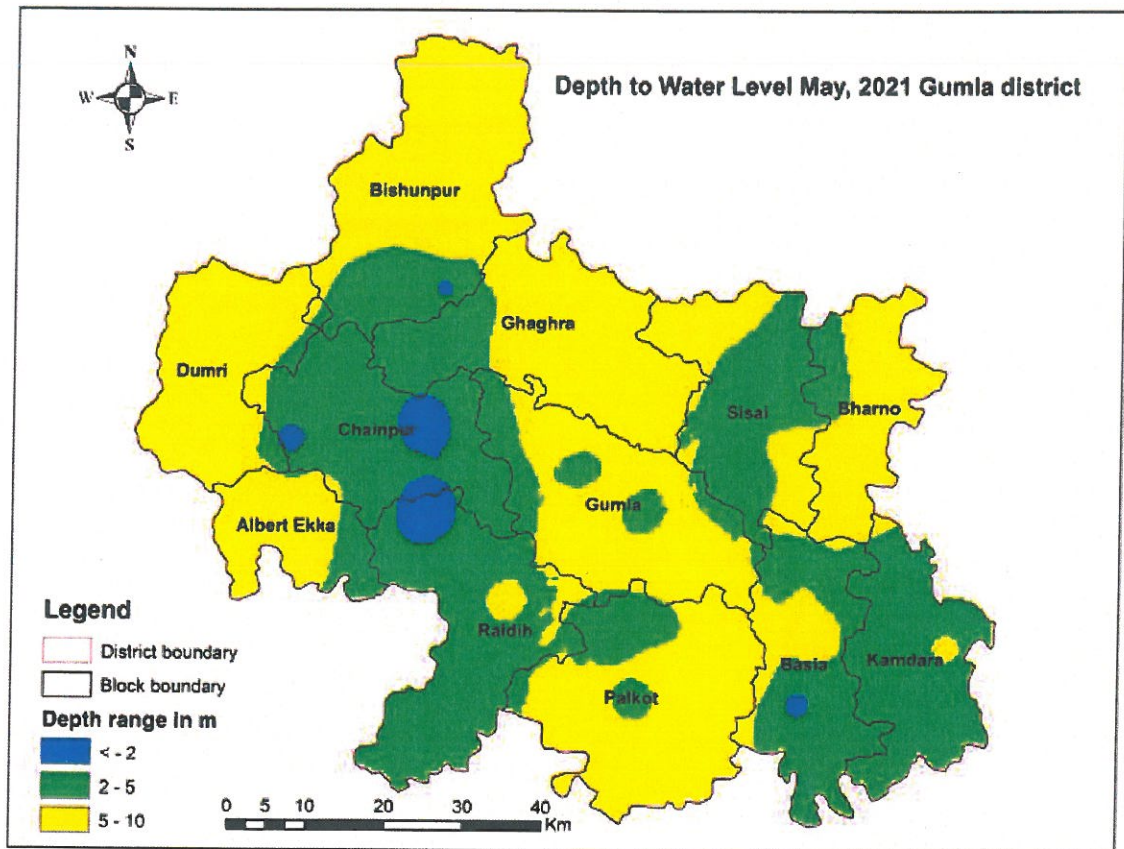


Figure 4 Pre-Monsoon Depth to Water Table

(SOURCE : Aquifer Maps and Ground Water Management Plan of Gumla District, Jharkhand State, Published by CGWB)



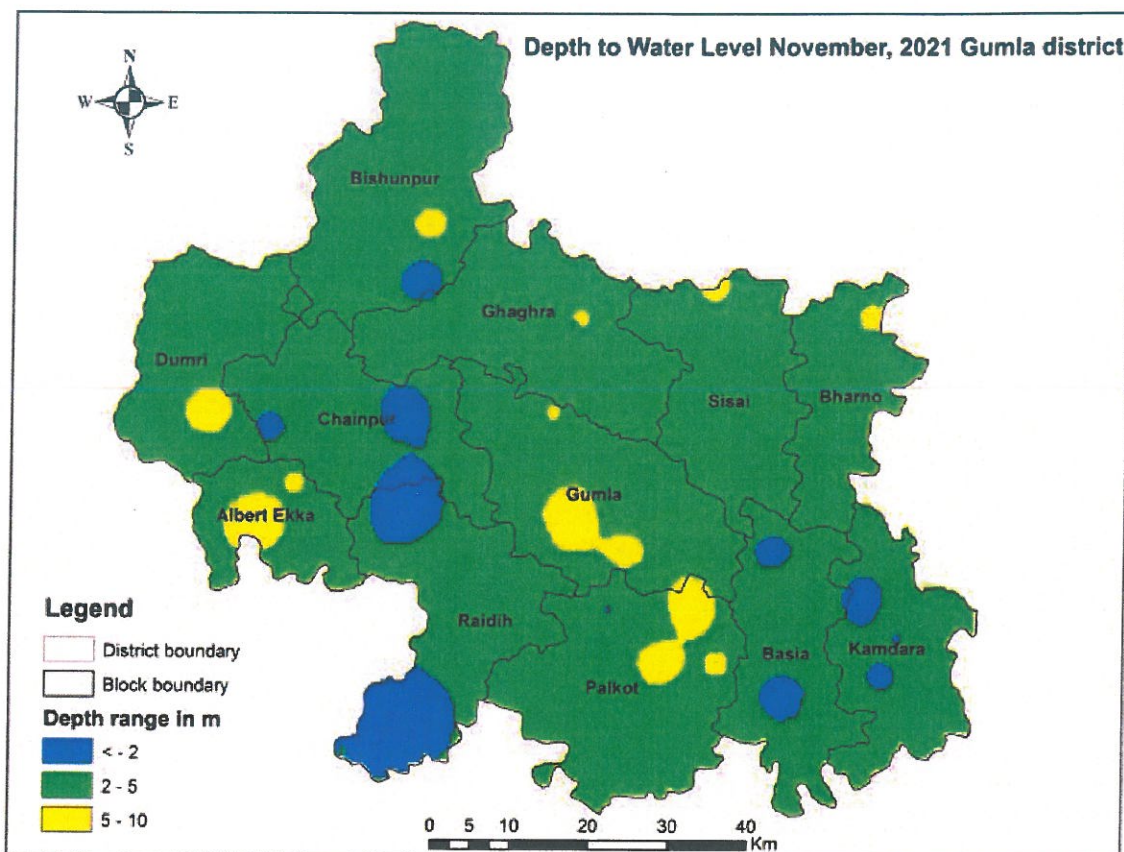


Figure 5 Post monsoon depth to water table

(SOURCE : Aquifer Maps and Ground Water Management Plan of Gumla District, Jharkhand State, Published by CGWB)

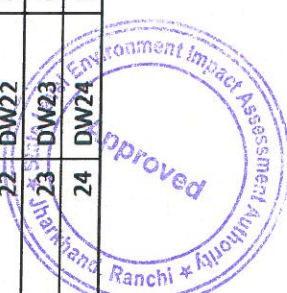


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Table 3 Water Level Data of Key & NHNS Wells of NAQUIM STUDY AREA of Gumla District, Jharkhand, 2021 - 2022

Sl. No	DW no.	Distric	Block	Village	Type of Well	May 2021 DWL mbgl	Nov 2021 mbgl	Fluctuation
1	DW1	Gumla	Kamdara	Kuda Sarnatoli	DW	5.8	4.35	1.45
2	DW2	Gumla	Kamdara	Kamdari	DW	2.05	1.85	0.2
3	DW3	Gumla	Kamdara	Kotbo Saraktoli	DW	4.6	3.1	1.5
4	DW4	Gumla	Kamdara	Kajra	DW	2.9	0.9	2
5	DW5	Gumla	Basia	Pokta	DW	5.2	3.6	1.6
6	DW6	Gumla	Basia	Mamarla	DW	2.5	0.8	1.7
7	DW7	Gumla	Basia	Ambatoli Banagutu	DW	6	4.7	1.3
8	DW8	Gumla	Basia	Kaliga	DW	1.4	1	0.4
9	DW9	Gumla	Basia	Basia	DW	3.6	5.2	
10	DW10	Gumla	Kamdara	Tetartoli	DW	2.7	2.7	0
11	DW11	Gumla	Kamdara	Bakashpur more	DW	4	1.7	2.3
12	DW12	Gumla	Palkot	Nathpur Duratoli	DW	7.7	5.2	2.5
13	DW13	Gumla	Palkot	Palkot	DW	7.99	5.89	2.1
14	DW14	Gumla	Palkot	Baghma	DW	3.8	4.1	
15	DW15	Gumla	Palkot	Marda	DW	8.6	6.2	2.4
16	DW16	Gumla	Palkot	Gurma	DW	2.85	1.9	0.95
17	DW17	Gumla	Raidih	Raidih	DW	5.25	3.35	1.9
18	DW18	Gumla	Raidih	Birkera	DW	4.4	3	1.4
19	DW19	Gumla	Raidih	Konkel	Dw	4.45		
20	DW20	Gumla	Bharno	Samsera	DW	6.1	5.25	0.85
21	DW21	Gumla	Bharno	Bharno	DW	6.97	4.17	2.8
22	DW22	Gumla	Bharno	Duria	DW	5.6	4.6	1
23	DW23	Gumla	Sisai	Charda	Dw	2.55	2	0.55
24	DW24	Gumla	Sisai	Burh	DW	3.2	4.1	



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Sl. No	DW no.	District	Block	Village	Type of Well	May 2021 DWL mbgl	Nov 2021 mbgl	Fluctuation
25	DW25	Gumla	Sisai	Jatnitoli	DW	6.6	4.5	2.1
26	DW26	Gumla	Sisai	Thethal Tanger	DW	10	5	5
27	DW27	Gumla	Sisai	Sisai	DW	3.6	4	
28	DW28	Gumla	Sisai	Samal	DW	2.3	4.4	
29	DW29	Gumla	Bharno	Nagfeni	DW	6.44	5.24	1.2
30	DW30	Gumla	Gumla	Pandarla	DW	5	4	1
31	DW31	Gumla	Gumla	Dhodhara	DW	4.1	3	1.1
32	DW32	Gumla	Gumla	Bairtoli Chotaloro	DW	4.45	4.45	0
33	DW33	Gumla	Gumla	Kharke	DW	6.52	5.07	1.45
34	DW34	Gumla	Gumla	Barkadh Barkatoli	DW	5.4	4.15	1.25
35	DW35	Gumla	Ghaghra	Ghagra	DW	7.644	5.144	2.5
36	DW36	Gumla	Ghaghra	Gamharla	DW	5.8	3	2.8
37	DW37	Gumla	Ghaghra	Shivsereng	DW	5.8	2.9	2.9
38	DW38	Gumla	Ghaghra	Sirkot	DW	6	3.1	2.9
39	DW39	Gumla	Ghaghra	Adar	DW	1.7	0.85	0.85
40	DW40	Gumla	Ghaghra	Pouri	DW	5.3	4.95	0.35
41	DW41	Gumla	Bishunpur	Bishunpur	DW	6.2	5.6	0.6
42	DW42	Gumla	Bishunpur	Baritoli	DW	8	3	5
43	DW43	Gumla	Bishunpur	Banalat	DW	5.5	2.5	3
44	DW44	Gumla	Gumla	Tainsera	DW	7.25	5.65	1.6
45	DW45	Gumla	Palkot	Jallega	DW	4.39	4.39	0
46	DW46	Gumla	Palkot	Keund toli	DW	6.3	4	2.3
47	DW47	Gumla	Gumla	Gumla1	DW	7.04	6.64	0.4
48	DW48	Gumla	Raidih	Katkaya	DW	4.8	3	1.8
49	DW49	Gumla	Raidih	Kashir	DW	0.25	0.3	
50	DW50	Gumla	chainpur	Chainpur1	DW	0.6	1.05	
51	DW51	Gumla	chainpur	Darkana Kurumgarh	DW	0.9	1.4	
52	DW52	Gumla	chainpur	Dahudar Gaon	DW	3.85	3.7	0.15

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Sl. No	DW no.	District	Block	Village	Type of Well	May 2021 DWL mbgl	Nov 2021 mbgl	Fluctuation
53	DW53	Gumla	chainpur	Auratoli	DW	3.55	2.5	1.05
54	DW54	Gumla	Dumri	Ambatoli Rajauri	DW	9.35	2.9	6.45
55	DW55	Gumla	Dumri	Dumri	DW	8.55	6.1	2.45
56	DW56	Gumla	Dumri	Tetartoli	DW	5.7	4.3	1.4
57	DW57	Gumla	Albert Ekka	Vikhampur	DW	7.6	6.15	1.45
58	DW58	Gumla	Albert Ekka	Chatakpur	DW	5.9	5.2	0.7

(SOURCE : Aquifer Maps and Ground Water Management Plan of Gumla District, Jharkhand State, Published by CGWB)



7.4 Hydrogeological Profile of the zones

Present Scenario

In the district, bed rock is igneous and metamorphic rocks of Precambrian age. Ground water has been observed to occur in weathered zone and underlain secondary porosities like fractures, joints and fissures weathered zone varies from 5-20m.

In the district, ground water table in series of open wells lying in the identified potential mining zones were measured in wells on 22/09/2023. Table below gives details of such wells, their location, ground RL, Depth of water ground table & RL of GWT.

Table 4 Ground Water Level (Zone Wise)

Zone	Location		Ground RL (amsl)	Depth of Ground Water Table (m)	Ground Water Table (amsl)
	Latitude	Longitude			
1	23°13'12.51"N	84°29'27.32"E	663	2	661
2	23°14'21.53"N	84°33'33.37"E	660	2	658
	23°14'9.21"N	84°33'34.65"E	663	2	661
	23°14'5.25"N	84°33'28.81"E	660	3	657
	23°14'14.02"N	84°33'35.40"E	660	2	658
	23°14'13.84"N	84°34'40.96"E	655	1	654
3	23°11'3.06"N	84°49'59.01"E	653	6	647
	23° 9'35.35"N	84°50'11.02"E	642	4	638
	23° 9'32.00"N	84°49'52.93"E	642	11	631
	23° 9'45.51"N	84°49'33.93"E	640	6	634
4	23° 6'10.88"N	84°48'19.54"E	625	3	622
5	23° 5'58.57"N	84°40'33.64"E	554	3	551
	23° 4'58.93"N	84°40'41.94"E	558	6	552
	23° 3'5.84"N	84°41'8.89"E	584	5	579
6	23° 4'42.31"N	84°33'43.27"E	610	6	604
	23° 2'59.83"N	84°34'18.22"E	630	5	625
	23° 2'40.18"N	84°34'21.78"E	631	5	626
	23° 2'59.83"N	84°34'18.22"E	630	4	626
7	23° 2'41.66"N	84°40'57.28"E	584	3	581



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	23° 0'52.98"N	84°39'6.59"E	602	5	597
	23° 0'48.30"N	84°38'58.53"E	599	4	595
	23° 0'43.09"N	84°37'43.76"E	601	5	596
8	22°54'54.50"N	84°48'39.49"E	564	2	562
	22°55'7.97"N	84°48'36.53"E	570	2	568
10	22°51'41.79"N	84°48'26.81"E	520	3	517
	22°52'32.18"N	84°49'33.08"E	528	3	525
11	22°51'27.06"N	84°50'42.85"E	505	4	501
12	22°53'1.47"N	84°54'2.55"E	526	4	522
	22°52'55.57"N	84°54'4.74"E	523	4	519
13	22°48'20.74"N	84°54'47.55"E	495	4	491
	22°48'17.44"N	84°55'13.98"E	476	2	474
	22°47'53.04"N	84°55'5.95"E	488	2	486
14	22°54'10.69"N	84°58'15.84"E	546	2	544

Impact on Ground Water

It is proposed to limit mining 1m above Ground Water Table (GWT). Therefore, mining activities are not likely to impact groundwater profile in the district. Also, it is proposed that water demand for other purposes i.e. potable, dust suppression & greenbelt development would be sourced from surface water source. They will be supplied by hired water tankers. Thus, on this account also ground water source will not be impacted.

Water Demand

A stone mine needs water for following purposes;

- ✓ Potable
- ✓ Dust Suppression
- ✓ Greenbelt Development

Average demand for above purpose are;

Potable

On an average number of persons employed for a mine having lease area of 5 Ha. ranges from 40-50. Taking potable water demand as 30 litre per day, purpose works out to 1.5 KLD.

Dust Suppression

Use of water for dust suppression is for haul road and other degraded area. On an average taking 0.2 Ha. as area for haul road and average water demand for dust suppression on haul road is 30 KLD per Ha. Water demand for dust suppression in every mine would be 6 KLD.



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Greenbelt Development

Greenbelt is developed at;

- ✓ Safety zone of mine
- ✓ Avenue plantation on link road

Safety zone is 7.5 m strip around the quarry. In a mine having lease area 5 Ha. safety zone measures 0.6 Ha. to 0.8 Ha.

Taking safety zone as 0.8 Ha.

Number of plants in 0.8 Ha. will be 1600×0.8 i.e. 1280 Plants.

Norms for water demand for raising greenbelt in safety zone may be taken as 5 KLD per Ha.

Thus, water demand for raising greenbelt works out to 4 KLD.

Water demand raising for avenue plantation on link road may be taken as 1 KLD.

So, water demand for greenbelt would be 5 KLD.

Total Water Demand works out as;

Potable	: 1.5 KLD
Dust Suppression	: 6.0 KLD
Greenbelt Development	: 5.0 KLD
Total	: 12.5 KLD

This water will be sourced from surface water source.

7.5 Ground Water Resources

Ground Water Resource of the area has been estimated block wise based on as on 2020 water year. In the present report GEC 2015 methodology has been used and based on the assessment has been made using appropriate assumptions. This methodology recommends aquifer wise ground water resource assessment of both the Ground water resources components, i.e., Replenishable ground water resources or Dynamic Ground Water Resources and In-storage Resources or Static Resources. The assessment of ground water includes assessment of dynamic and in-storage ground water resources, but the development planning should mainly depend on dynamic resource only as it gets replenished every year. Changes in static or in-storage resources reflect impacts of ground water mining. Such resources may not be replenishable annually and may be allowed to be extracted only during exigencies with proper recharge planning in the succeeding excess rainfall years. Dynamic Ground Water Resource of Gumla district area has been estimated block wise with base year as on March-2020, based on GEC 2015 methodology. The dynamic Ground Water Resources as on 2020 has been assessed by CGWB, SUO, Ranchi in association with State Ground Water Directorate, Jharkhand. Out of Annual Extractable ground water recharge of 17052 Ham, current annual ground water extraction is only for 680 ham. The stage of ground water development is 14.79%.





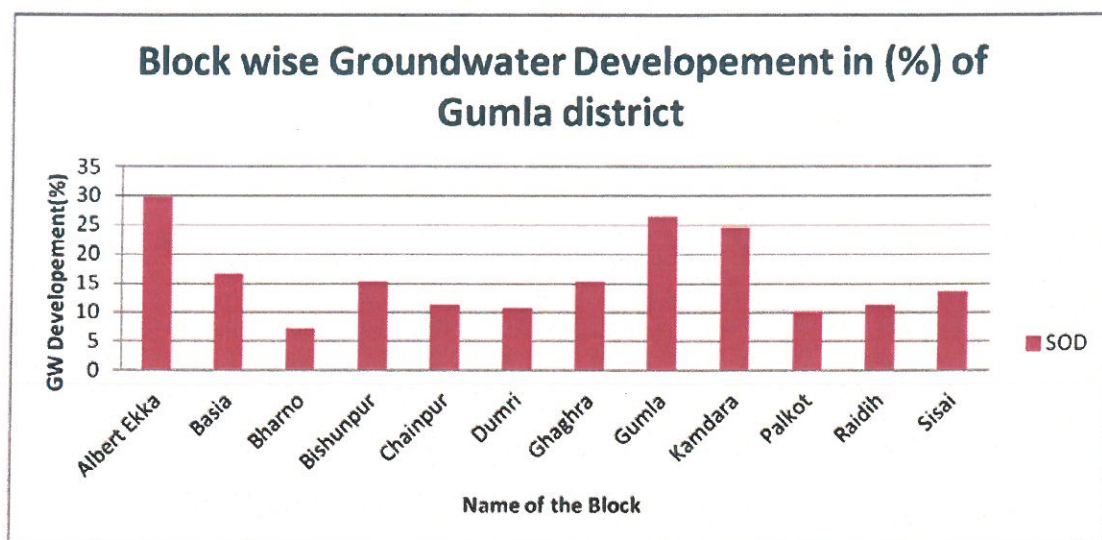


Figure 6 Stage of Groundwater Development

(SOURCE : Aquifer Maps and Ground Water Management Plan of Gumla District, Jharkhand State, Published by CGWB)






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Table 5 Dynamic Ground Water Resources Availability, Draft and Stage of GW Development 2020

Sl. No.	Adm Units	Annual Extractable Ground Water Recharge (ham)	Current Annual Ground Water Extraction for irrigation (ham)	Current Annual Ground Water Extraction for domestic (ham)	Current Annual Ground Water Extraction for industrial (ham)	Current Annual Ground Water Extraction for All uses (ham)	Annual GW Allocation for Domestic Use as on 2025 (ham)	Net Ground Water Availability for future use (ham)	Stage of Ground Water Extraction (%)
1	Albert Ekka	1069.38	276.5	40.81	0	317.31	41.09	751.79	29.67
2	Basia	2603.39	322.125	106.53	0	428.65	107.27	2174	16.47
3	Bharno	1342.32	10.875	84.16	0	95.02	84.74	1246.72	7.08
4	Bishunpur	3196.66	402.5	82.23	0.351	485.08	82.8	2711.01	15.17
5	Chainpur	2250.95	174.75	74.68	0	249.43	75.2	2001	11.08
6	Dumri	1845.43	130.125	64.84	0	194.95	65.29	1650.03	10.56
7	Ghaghra	5318.11	645.5	160.86	6.07	812.45	161.98	4504.54	15.28
8	Gumla	2972.64	553.25	226.21	3.60	783.06	227.78	2188.01	26.34
9	Kamdara	2169.00	403.875	127.34	0	531.21	128.22	1636.91	24.49
10	Palkot	3138.77	206.25	106.70	0	312.95	107.44	2825.08	9.97
11	Raidih	3208.91	262.875	94.27	0	357.14	94.93	2851.11	11.13
12	Sisai	4098.21	400.875	154.18	0	555.05	155.25	3542.09	13.54
Total		33213.77	3789.5	1322.81	10.021	5122.3	1331.99	28082.29	15.42

(UNIT in Hectare Meters = 10,000 Kilo Litre)

(SOURCE : Aquifer Maps and Ground Water Management Plan of Gumla District, Jharkhand State, Published by CGWB)

7.6 Ground Water Quality

The quality of water plays prominent role in promoting both the standards of agriculture production and human health. To evaluate the quality of ground water, samples have been collected from 57 dug wells. The analytical results of water samples dug wells are given in Table 5. The ground water samples were analyzed for major chemical constituents by using standard procedure at chemical laboratory in CGWB, MER, Patna.

These samples have been considered to assess the chemical quality of ground water and its suitability for drinking and irrigational purposes. Since the samples are collected from the dug wells, they represent the quality of Aquifer I (phreatic/shallow zone) and four no. of bore wells.

***SOURCE : Aquifer Maps and Ground Water Management Plan of Gumla District,
Jharkhand State, Published by CGWB***

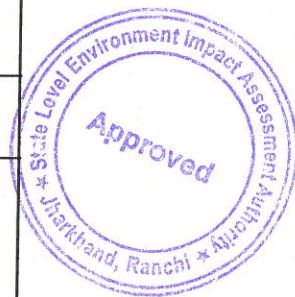


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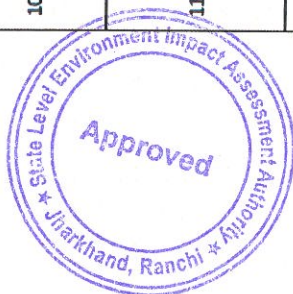
Table 6 Water Quality Data of Gumla District

S.no	BLOCK	LOCATION	Lat	Long	pH	EC	TDS	TH	Ca	Mg	Na	K	CO32-	HCO3-	Cl-	NO3-	SO42-	F	PO43-
1	Kamdara	Near Railway crossing Pokla	22.91	84.95	7.91	285	185.25	90	24	7.29	11.5	20.9	0	103.7	31.95	8.09	2.99	0.63	0.51
2	Kamdara	RHSnear Temple, Thana road kamdara	22.9	84.92	7.85	492	319.8	115	30	9.72	54	12	0	61	74.55	70	30	0.87	0.47
3	Kamdara	In the campus of Sh santial	22.93	84.92	7.96	158	102.7	50	16	2.43	10	3.62	0	54.9	14.2	11	2.06	0.04	0
4	Kamdara	about 5km from Turbul chowk to Govindpur road in the campus of Mashidash barla	22.94	84.87	8.01	83	53.95	25	6	2.43	6.82	0.98	0	18.3	10.65	6.6	5.42	0.02	0
5	Basia	In the village Pokta, RHS, about 5 km from kummar	22.96	84.78	8.14	120	78	40	12	2.43	9.5	0.34	0	24.4	17.75	20.03	2.59	0	0
6	Basia	Starting of village Mamarla RHS, IN THE OPEN PADDY FIELD	23	84.77	7.96	122	79.3	45	14	2.43	6.31	1.7	0	24.4	17.75	17.37	4.39	0	0
7	Basia	Govt, RHS, about 2km from Kumhari to Basia road	22.91	84.8	7.93	145	94.25	50	12	4.86	8.23	2.9	0	36.6	14.2	13	9.94	0	0



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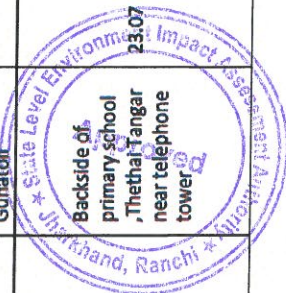
S.no	BLOCK	LOCATION	Lat	Long	pH	EC	TDS	TH	Ca	Mg	Na	K	CO32-	HCO3-	Cl-	NO3-	SO42-	F	PO43-
8	Basia	LHS, Konbir to Kalebira road near culvert and Kaliga signboard	22.84	84.71	7.82	369	239.85	130	44	4.86	22	5.24	0	79.3	39.05	45	23.9	0.34	0
9	Kamdara	LHS from Bakashpur mor to Tetartoli road before starting Tetartoli village	22.8	84.92	8.05	308	200.2	100	36	1.1	23	3.8	0	61	21.3	50	34.5	0.23	0
10	Kamdara	LHS near Bakashpur mor, bakshpur mor to tetartoli road	22.86	84.9	8.16	85	55.25	20	6	1.215	9	1.5	0	24.4	7.1	9.2	5.64	0.13	0
11	Palkot	RHS in the village of Nathpur uratoli, about 7 km from Konbir to Palkot road	22.87	84.71	8.2	157	102.05	40	10	3.645	16	1.86	0	18.3	28.4	27	2.32	0.11	0
12	Palkot	In the premises of Ranthu Gop about 7 km from Baghama to Basia road (poltry farm house is there)	22.94	84.68	8.04	166	107.9	55	18	2.43	12	0.94	0	42.7	21.3	16	2.03	0.07	0
13	Palkot	In the village of Gurma RHS from road	22.93	84.58	8.23	101	65.65	25	6	2.43	11	0.3	0	21	10	6	0.42	0.09	0
14	Raidih	Near Birkera chowk, in front of primary school Birkera	22.89	84.4	7.93	76	49.4	25	8	1.215	6.01	0.02	0	24.4	10.65	0	0	0	0



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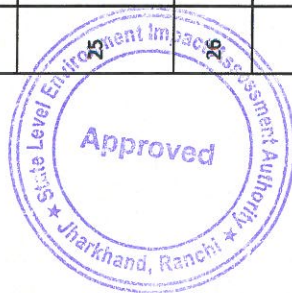
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S.no	BLOCK	LOCATION	Lat	Long	pH	EC	TDS	TH	Ca	Mg	Na	K	CO32-	HCO3-	Cl-	NO3-	SO42-	F	PO43-
15	Raidih	LHS, near mile stone 0 konkel	22.83	84.36	7.82	85	55.25	40	12	2.43	1.22	0.06	0	24.4	14.2	0	0	0	0
16	Bharno	LHS, in the village entrance open ground	23.26	84.88	7.99	90	58.5	40	10	3.645	2.81	0.74	0	30.5	14.2	0	1.79	0	0
17	Bharno	In the village of Duria about 10 km from Darha to Dorma road	23.13	84.85	8.19	261	169.65	90	24	7.29	18	2.46	0	73.2	17.75	47	10	0.03	0
18	Sisai	LHS, about 150 m near Barha 9km mile stone	23.24	84.77	7.73	82	53.3	35	10	2.43	2.43	0.02	0	24.4	14.2	0	0	0	0
19	Sisai	In front of Primary School Burh, about 5km from Barha	23.2	84.78	7.92	69	44.85	30	8	2.43	2.29	0.01	0	24.4	10.65	0	0	0	0
20	Sisai	RHS after crossing Jatnatoli chowk towards Gunatoli	23.13	84.77	7.84	144	93.6	55	18	2.43	7.56	0.54	0	48.8	17.75	8.3	2.13	0	0
21	Sisai	Backside of primary school ,Thethai Yangar near telephone tower	23.07	84.78	8.19	315	204.75	75	18	7.29	35	4.9	0	67.1	53.25	30	2.51	0.08	0



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S.no	BLOCK	LOCATION	Lat	Long	pH	EC	TDS	TH	Ca	Mg	Na	K	CO32-	HCO3-	Cl-	NO3-	SO42-	F	PO43-
22	Sisai	In the agriculture field of Bachan Oraon	23.09	84.73	7.94	330	214.5	120	38	6.075	16.55	7.62	0	79.3	31.95	49	17	0.13	0
23	Gumla	In the village of Pandaria	23.07	84.65	7.93	1584	1029.6	595	70	102.1	76.3	26	0	384.3	227.2	74.86	94.98	0.31	0
24	Gumla	In the village of near Primary School Dhodhara	23.05	84.59	7.85	249	161.85	105	34	4	3.47	2.7	0	73.2	28.4	15.7	7.56	0	0
25	Gumla	LHS about 5km from Gumla to Lohardaga road	23.11	84.53	7.94	122	79.3	45	14	2.43	3.84	3.06	0	30.5	10.65	17.37	3.36	0	0
26	Gumla	In the village of Barkatoli	23.22	84.53	8.21	219	142.35	80	22	6.075	11	5.2	0	42.7	24.85	30.9	14.78	0	0
27	Ghaghra	LHS of road near Primary health centre Gamharia	23.3	84.59	7.63	921	598.65	340	82	32.81	44	19.21	0	201.3	131.4	70.03	52.23	0.46	0
28	Ghaghra	In the campus of the Assembly of God Church	23.25	84.46	8.08	268	174.2	115	36	6.075	7.17	3.2	0	97.6	21.3	17.11	11.33	0.32	0
29	Ghaghra	LHS of road Ghagra to Sasantoli	23.22	84.59	8.13	395	256.75	160	56	4.86	15.4	5.4	0	97.6	56.8	19.57	19.23	0.28	0



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GUMLA DISTRICT: Updated District Survey Report for Stone

S.no	BLOCK	LOCATION	Lat	Long	pH	EC	TDS	TH	Ca	Mg	Na	K	CO32-	HCO3-	Cl-	NO3-	SO42-	F	PO43-
30	Ghaghra	LHS in Pouri village about 5km from Adar	23.33	84.43	7.91	189	122.85	65	22	2.43	5.4	11.35	0	48.8	24.85	16	3.39	0	0
31	Bishunpur	In the village of Baratoli	23.45	84.34	7.95	482	313.3	95	26	7.29	55	23	0	115.9	39.05	78.18	30.5	0.49	0
32	Bishunpur	LHS, Banalat village Market	23.5	84.38	8.13	445	289.25	155	34	17.01	22.37	13.8	0	213.5	24.85	0.71	11.64	0.61	1.3
33	Gumla	In the Gumla Palkot road about 8km from Gumla LHSend of Tainsera village	23	84.6	7.81	137	89.05	45	16	1.215	7.1	3.6	0	30.5	10.65	12.5	11.64	0	0
34	Palkot	In the village of Jaldega in the campus of Lalmoohan Mato after crossing weekly market before bridge	22.85	84.6	7.95	1130	734.5	425	136	20.66	50	24.12	0	451.4	124.3	4.3	12.65	0.87	0.47
35	Palkot	In the village of Keundtoli in the campus of Samuel Tirkey	22.81	84.66	8.07	203	131.95	55	18	2.43	14.39	11.5	0	61	31.95	0	5.05	0	0
36	Raidih	LHS about 3km from Raidih	22.96	84.39	8.06	354	230.1	160	20	26.73	3.72	2.2	0	176.9	10.65	10.35	5.64	0	0



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S.no	BLOCK	LOCATION	Lat	Long	pH	EC	TDS	TH	Ca	Mg	Na	K	CO32-	HCO3-	Cl-	NO3-	SO42-	F	PO43-
37	Chainpur	In the entrance of village after crossing bridge RHS, near Kurumgarh Thana signboard	23.16	84.34	8.08	293	190.45	95	24	8.505	15.97	10.3	0	115.9	14.2	19.83	12.22	0.13	0
38	Chainpur	Near Trijunction of Dahutargaon (in the campus of Boniphus Tirkey)	23.15	84.27	8.16	135	87.75	40	6	6.075	9.78	3.6	0	36.6	24.85	0.5	2.03	0	0
39	Chainpur	In the village of Auratoli	23.19	84.22	8.14	402	261.3	135	30	14.58	24.65	9.12	0	97.6	56.8	19.52	22.18	0.52	0
40	Dumri	In the village of Ambatoli	23.27	84.12	8.19	834	542.1	260	84	12.15	54.61	29.84	0	396.5	53.25	10.96	2.69	0.94	0.56
41	Dumri	Near Trijunction (Dumri, Chainpur, A.Ekka) Dumri to albert ekka road LHS Harsari Pakaritoli	23.16	84.13	8.14	420	273	145	50	4.86	19.88	15.36	0	207.4	14.2	5.74	14.16	0	0



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S.no	BLOCK	LOCATION	Lat	Long	pH	EC	TDS	TH	Ca	Mg	Na	K	CO32-	HCO3-	Cl-	NO3-	SO42-	F	PO43-
42	Dumri	RHS, Dumri to A.Ekka road, Tetartoli near 0 mile stone tetartoli	23.09	84.16	7.93	824	535.6	295	98	12.15	41.47	20.14	0	335.5	28.4	72.25	36.73	0.79	0
43	Albert Ekka	About 200m RHS from Vlkampur chowk to albert Ekka block road to chainpur	23.04	84.18	7.91	135	87.75	50	14	3.645	6.41	2.12	0	30.5	17.75	18.73	3.04		
44	Albert Ekka	Albert Ekka to chainpur road RHS starting village chatkpur	23.08	84.22	7.92	318	206.7	160	42	13.37	15.87	2.16	0	97.6	31.95	69	11.84		
45	Basia	Basia	23.18	84.76	7.91	963	626	270	70	23	85	21	0	110	178	77	75	0.78	0.12
46	Palkot	Palkot	22.87	84.64	8.17	154	100	45	12	3.65	13	3.22	0	55	21	2.62	0.58	0.05	0
47	Palkot	Baghma	22.93	84.63	7.93	398	259	135	42	7.29	27	4.5	0	43	64	49	34	0.13	0
48	Raidih	Raidih	22.95	84.44	7.84	385	250	140	42	8.51	22	2.66	0	73	50	35	30	0.23	0
49	Bharno	Bharno	23.23	84.88	8.17	176	114	45	12	3.65	16	8.1	0	24	28	24	7.32	0	0
50	Sisai	Sisai	23.18	84.76	7.92	1008	655	335	104	18	63	23	0	195	128	98	74	0.68	0.98
51	Bharno	Nagfeni	23.3	84.70	7.96	175	114	60	16	4.86	11	0.98	0	24	18	39	7	0	0
52	Gumla	Kharke	23.16	84.52	8.13	538	350	225	70	12	9.2	15	0	122	85	20	27	0.12	0
53	Ghaghra	Adar	23.31	84.37	7.76	285	185	90	24	7.29	17	9.1	0	116	21	6.03	11	0.15	0
54	Bishunpur	Bishunpur	23.7	84.38	7.82	613	398	195	72	3.65	35	26	0	110	82	77	36	0.58	0
55	Gumla	Gumla 1	23.04	84.55	8.19	148	96	45	16	1.22	10	6.05	0	43	21	5.2	4.9	0	0
56	Raidih	Kashir	23.05	84.35	8.14	140	91	60	20	2.43	4.5	0.8	0	24	11	21	18	0	0
57	Chainpur	Chainpur 1	23.14	84.19	7.83	893	580	260	76	17	74	19	0	268	110	30	42	0.74	0



Chapter – VIII Rainfall of the district and climatic condition;

Table 7 Average Annual Rainfall (2020-21) of Gumla district

Sr. No.	Block	Average annual rainfall in (mm)
1.	Albert Ekka(Jari)	1252.6
2.	Basia	761.8
3.	Bharno	-
4.	Bishunpur	911.6
5.	Chainpur	-
6.	Dumari	688.6
7.	Ghaghara	1290
8.	Gumla	843.8
9.	Kamdara	795.2
10.	Palkot	886.6
11.	Raidih	1398.4
12.	Sisai	-

SOURCE : Aquifer Maps and Ground Water Management Plan of Gumla District, Jharkhand State, Published by CGWB

Climatic Condition in the District

The climate of this district is characterized by dry hot summer, mild humid post monsoon season and well distributed rainfall during the monsoon season. The year may be divided into four seasons. The summer season is from March to first week of June. The period from second week of June to September is the southwest monsoon season. October is a transitional month between southwest monsoon and winter conditions. The winter season is from the end of November to February.

RAINFALL

Records of rainfall in the district are available for eleven rain gauge stations for period ranging from 13 to 46 years. The details of rainfall at these stations and for the district as a whole are given in Tables 1 and 2. The average annual rainfall in the district as a whole is 1277.2 mm. July is the rainiest month of the year with an average rainfall of 335.1 mm. The variation in the rainfall from year to year is large.

About 84% of annual rainfall is received during southwest monsoon months June to September. In the fifty year period from 1951 to 2000, there were 45 years for which annual data is available. Among these, the highest annual rainfall amounting to 170% of the annual normal occurred in 1961, while the lowest annual rainfall which was only 43% of the normal, occurred in 1979. There were nine years in this period when annual rainfall was less than 80% of the normal and there was one occasion each when such a low rainfall occurred in two consecutive years. It is seen from Table 2 that the rainfall was between 1001 mm and 1600 mm in 32 years out of 45.

On an average there are 70 rainy days (i.e. days with rainfall of 2.5 mm or more) in a year in the district. This number varies from 60 at Chainpur to 77 at Palkot.

The heaviest rainfall recorded in 24 hours at any station in the district was 261.1 mm at Chainpur on 06 October 1936.



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TEMPERATURE

As there is no meteorological observatory in the district, the climatological description of the district which follows is based on the data of meteorological data of Ranchi observatory in the neighbouring district, where similar climatological conditions prevail. Temperatures begin to drop rapidly from mid November. January is the coldest month with the mean maximum temperature at about 23°C and the mean minimum temperature at about 10°C. In association with cold waves which affect the district in the winter months in the wake of western disturbances which move across north India, the minimum temperature may go down to 5°C on individual days. Temperatures begin to rise steadily after February till first week of June. May is the hottest month of the year with mean maximum temperature at about 37°C and mean minimum temperature at about 23°C. On some days in latter part of summer and early part of June the maximum temperature may be above 40°C. The weather cools down with the advance of the southwest monsoon into the district by about second week of June. The temperatures begin to drop appreciably with the withdrawal of the monsoon by first week of October.

HUMIDITY

In the southwest monsoon season the air is generally humid with the relative humidity above 80%. The air is generally dry in winter and summer season. The driest part of the year is summer season when the relative humidity is low, especially in the afternoon, when they are about 30%.

CLOUDINESS

During the southwest monsoon months skies are generally heavily clouded to overcast. In the rest of the year skies are generally clear or lightly clouded. On some days in winter, when western disturbances affect the weather of the district, skies are heavily clouded. Cloudiness increases in later part of summer especially in the afternoon.

WINDS

Winds are generally light to moderate with some increase in force in later part of summer and southwest monsoon season and light in the rest of the year. In winter months winds are mainly from northwesterly direction. In April south-westerlies winds begin to appear and become predominant with the advance of the monsoon season. In southwest monsoon season though winds blow from southwesterly or westerly direction, on some days in the afternoon winds blow from directions southeasterly or easterly. In October, northerly and northwesterly winds appear and strengthen in the winter season

SPECIAL WEATHER PHENOMENA

Depressions originating in the Bay of Bengal during the southwest monsoon season affect the weather of the district and its neighbourhood during their northwestward movement after crossing the coast. This causes gusty winds and widespread heavy rain. Thunderstorms occur throughout the year. Its frequency is more in latter part of summer and southwest monsoon season. Thunderstorms during the period February to June are sometimes accompanied by squally weather, less frequently with hail and dust storm. Fog occurs occasionally in winter months.

Source : Climate of Jharkhand, issued by Climatological Publication Section of Indian Meteorological Department, Government of Jharkhand.



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Chapter - IX Details of the Mining Leases in the District

Sl. No.	Name of the Mineral	Name of the Lessee	Address & Contact No. of Lessee	Mining lease Grant Order No. & date	Area of Mining lease (Ha.)	Period of Mining lease (Initial)		Period of Mining lease (1st/2nd... renewal)		Date of commencement of Mining Operation	Status (Working / Non Working / Temp. Working for dispatch etc.)	Captive/ Non-Captive	Obtained Environmental Clearance (Yes/No), If Yes Letter No with date of grant of EC.	Location of the Mining lease (Latitude & Longitude)	Method of Mining (Opencast / Underground)
						From	To	From	To						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Stone	श्री मनीष कुमार लाल, वल्द स्व० श्यामलाल प्रसाद,	ग्राम-डुमरडीह, पो०-अरमई, थाना-जिला-गुमला।	24-05-2015	2.43	15-06-2015	14-06-2025	NA	NA	NA	Working	Non-captive	EC/SEIAA/2014-15 /480/2014/132 9 Ranchi, DATE 17.08.2015	N23°02'00" to N23°03'00" E84°35'30" to E84°36'30"	Opencast
2	Stone	श्री जमील अख्तर, स्व० अब्दुल जब्बार,	खड़ियापाड़ा गुमला	19-09-2015	1.83	NA	NA	05-09-2013	04-09-2023	NA	Working	Non-captive	Letter No. 260 Ranchi, date 31.01.2014 (File No. EC/SEIAA/2013-14/166/2013)	N23°04'15" to N23°04'19" E84°35'59" to E84°36'0.5"	Opencast
3	Stone	श्री महाप्रसाद उरौव, वल्द श्री बंधना उरौव,	ग्राम-असनी तेतरटोली, पो० असनी, थाना-जिला-गुमला।	23-12-2015	1.01	17-03-2016	16-03-2026	NA	NA	NA	Working	Non-captive	EC/SEIAA/2014-15 /619/2015/861 Ranchi, DATE 01.05.2015	N23°03'45.5" to N23°03'49.6" E84°34'00.6" to E84°34'04.0"	Opencast
4	Stone	(1) श्री सत्यनारायण साहु, वल्द श्री देवनाथ साहु, सिलाफारी, गुमला। (2) श्री चमरू साहु, वल्द श्री बुधु साहु, मेसर्स सिंह मिनरल्स, पार्टनर-(1) सुनील कु० सिंह, (2) अभीत कु०	ग्राम-लौंजी, पो०-खोरा, गुमला।	13-12-2016	1.21	23-12-2016	22-12-2026	NA	NA	NA	Working	Non-captive	EC/DEIAA/2016-17 /007/2016/02-GML, DATE 06.12.2016	N23°05'32.21" to N23°05'36.98" E84°40'10.57" to E84°40'13.50"	Opencast
5	Stone		गुमला।	22-09-2017	3.64	21-12-2017	20-12-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2017-18/37/2017/33-GML, DATE 14.09.2017	N23°04'3.21" to N23°04'06.13" E84°38'46.68" to E84°38'52.46"	Opencast

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		सिंह (3) मनोज कुं सिंह,													
6	Stone	सिकन्द साहु, वल्द स्व० तुलसी साहु,	ग्राम-कोयंजारा, पो०-पतिरा, गुमला।	25-06- 2017	4.05	22-12- 2017	21- 12- 2027	NA	NA	NA	Working	Non- captive	EC/DEIAA/2017 - 18/20/2017/M/ GML, DATE 22.06.2017	N23°01'39.22" to N23°01'48.39" E84°41'58.22" to E84°42'08.11"	Opencast
7	Stone	सकलदीप सिंह, वल्द श्री काशीनाथ सिंह,	ग्राम-डोमनडीह, पो० अरमई, गुमला।	28-09- 2017	2.00	03-01- 2018	02- 01- 2028	NA	NA	NA	Working	Non- captive	EC/DEIAA/2017 -18 /44/2017/40/G ML, DATE 14.09.2017	N23°01'41.73" to N23°01'52.12" E84°37'13.13" to E84°37'19.85"	Opencast
8	Stone	नवीन कुमार सिंह, वल्द श्री देवसागर सिंह,	ग्राम-दुन्दुरिया, पो०+थाना+ जिला-गुमला।	22-09- 2017	1.62	09-12- 2017	08- 12- 2027	NA	NA	NA	Working	Non- captive	EC/DEIAA/2017 -18 /33/2017/EC- 29/GML, DATE 14.09.2017	N23°03'39.08" to N23°03'43.99" E84°48'40.17" to E84°48'48.44"	Opencast
9	Stone	रामविलास साहु, वल्द श्री पुरन साहु,	ग्राम-कसीरा, पो०-पतिरा, गुमला।	22-09- 2017	0.40	04-12- 2017	03- 12- 2027	NA	NA	NA	Working	Non- captive	EC/DEIAA/2017 -18 /36/2017/32/G ML, DATE 14.09.2017	N23°02'13.80" to N23°02'15.89" E84°33'07.68" to E84°33'12.05"	Opencast
10	Stone	श्री दुर्गेश कुमार मिश्रा, वल्द श्री कृष्ण कुमार मिश्रा,	ग्राम-दुन्दुरिया, पो०+थाना+जिला-गुम ला।	23-09- 2017	1.80	03-01- 2018	02- 01- 2028	NA	NA	NA	Working	Non- captive	EC/DEIAA/2017 -18 /35/2017/31/G ML, DATE 14.09.2017	N23°03'45.62" to N23°03'50.34" E84°33'10.49" to E84°33'17.68"	Opencast
11	Stone	आर० के० डी० करद्वेशन प्रा० लि०, जेनरल मैनेजर-लक्ष्मण I सेठी, पिता-चन्दन सेठी,	ग्राम+पो०-सानागाढ़ा, थाना+जिला-नयागढ़ (उड़ीसा)	29-08- 2021	2.93	14-09- 2021	13- 03- 2025	NA	NA	NA	Working	Non- captive	EC/SEIAA/2021- 22/2382/2021/ 99 Ranchi, DATE 14.08.2021	N 23°03'38.66" to N 23°03'45.07" E 84°34'0.65" to E 84°34'4.83"	Opencast
12	Stone	श्री अरुण कुमार पाण्डेय,	हुटार, घाघरा गुमला	01-11- 2015	0.40	23-02- 2014	22- 02- 2024	NA	NA	NA	Working	Non- captive	EC/SEIAA/2015- 16/1005/2015/ 1719 Ranchi, DATE 26.10.2015	N23°14'00.75" to N23°13'57.81" E84°29'44.68" to E84°29'46.68"	Opencast
13	Stone	(1) श्री सुरेश भगत (2) श्री बासुदेव भगत (3) श्री बजरंग यादव (4) श्री रंजीत महतो (5) श्री ब्रजराज मोहन शर्मा,	लोहरदगा।	27-01- 2016	2.02	21-04- 2016	20- 04- 2026	NA	NA	NA	Working	Non- captive	EC/SEIAA/2015- 16/1554/2015/ Ranchi, DATE 30.12.2015	N23°18'06.3" to N23°18'08.2" E84°40'45.3" to E84°40'36.7"	Opencast

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14	Stone	श्रीमति सुलेखा देवी, पति श्री प्रदीप कुं साहु,	ग्राम-फसिया बरटोली, पो-करोन्दी, गुमला।	04-11-2017	2.53	04-11-2017	03-11-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2017-18/19/2017/GML, DATE 22.06.2017	N23°18'03.43" to N23°18'12.13" E84°40'34.30" to E84°40'41.88"	Opencast
15	Stone	मेसर्स सार्थक स्टोन, प्रो० कमलकान्त ओहदार, वल्द स्व० मोहर ओहदार,	ग्राम+पो०+थाना-बसिया, गुमला	23-12-2015	2.12	16-03-2016	15-03-2026	NA	NA	NA	Working	Non-captive	EC/SEIAA/2014-15/576/2014/882 Ranchi, DATE 01.05.2015	N22°52'11.2" to N22°52'12.01" E84°50'05.6" to E84°50'08.02"	Opencast
16	Stone	श्री मनोज कुं जयसवाल, वल्द स्व० राजकुमार प्रसाद,	बसिया, गुमला।	07-09-2017	1.62	04-11-2017	03-11-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2016-17/0013/2017/11/GML, DATE 25.03.2017	N22°52'46.65" to N22°52'50.87" E84°48'40.17" to E84°48'48.44"	Opencast
17	Stone	श्री राजकुमार ओहदार, वल्द स्व० मोहर ओहदार,	ग्राम+पो०+थाना-बसिया, गुमला	25-09-2017	3.04	21-12-2017	20-12-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2017-18/29/2017/25/GML, DATE 14.09.2017	N22°52'03.01" to N22°52'10.95" E84°49'58.42" to E84°50'05.05"	Opencast
18	Stone	मेसर्स शिवलया कंस्ट्रक्शन कं० प्रा० लि०, प्रो० श्री अंकित गोयल, वल्द श्री शिवकुमार गोयल,	रोहतक (हरियाणा)	26-09-2016	3.01	29-09-2016	28-09-2026	NA	NA	NA	Working	Non-captive	EC/DEIAA/2016-17/004/2016/GML, DATE 19.09.2016	N22°54'04.2" to N22°53'58.4" E84°58'11.6" to E84°58'03.8"	Opencast
19	Stone	मे० शिवालया कंस्ट्रक्शन कं० लि०, प्रो० संदीप कुमार, वल्द श्री राजकंवर,	ग्राम-सेहरी, पो० खरखोदा, सोनीपथ, हरियाणा।	26-09-2017	3.44	28-11-2017	27-11-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2016-17/0015/2017/13/GML, DATE 24.03.2017	N22°54'04.1" to N22°54'02.5" E84°58'4.5" to E84°58'03.8"	Opencast
20	Stone	मे० सतीश प्रसाद, पार्टनर-सतीश प्रसाद, वल्द स्व० गंगा प्रसाद,	महुआडाँड़, लातेहार।	26-09-2017	1.62	12-12-2017	11-12-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2017-18/22/2017/..../GML, DATE 22.06.2017	N23°27'01.95" to N23°27'10.76" E84°21'15.99" to E84°21'26.37"	Opencast
21	Stone	श्री जगधात्री प्रसाद सिंह, वल्द स्व० ठाकुराई मदन मोहन प्रसाद सिंह,	ग्राम-डी०एस०पी० रोड, मुखली बगीचा, गुमला।	10-01-2020	2.09	25-02-2020	24-02-2030	NA	NA	NA	Working	Non-captive	EC/SEIAA/2018-19/2242/2019/683 Ranchi, DATE 08.11.2019	N22°58'40.22" to N22°48'47.93" E84°21'33.84" to E84°21'34.46"	Opencast
22	Stone	हेमन्त कुमार ओहदार, पिता श्री बसंत कुमार	करोँदाजोर, भरनो	28-09-2015	0.40	12-08-2013	11-08-2023	NA	NA	NA	Working	Non-captive	EC/SEIAA/2014-15/707/2015/147 Ranchi, DATE	N23°06'04.7" to N23°00'07.6" E84°48'32.2" to	Opencast

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		ओहदार,											27.07.2015	E84°48'36.0"	
23	Stone	श्रीमति सरोज मिज, वल्द-श्री रोबर्ट मिज,	ग्राम+पो०-करोन्दाजोर, थाना-भरनो, जिला-गुमला।	20-02-2014	0.81	26-02-2014	25-02-2024	NA	NA	NA	Working	Non-captive	Memo No. 231 Dated 09.01.2014 (File No. EC/SEIAA/2013-14/146/2013)	N23°06'05" to N23°06'09" E84°48'36" to E84°48'40"	Opencast
24	Stone	श्री सुधीर कुमार ओहदार, वल्द श्री बसंत ओहदार,	ग्राम+पो०-करोन्दाजोर, थाना-भरनो, जिला-गुमला।	13-02-2015	0.40	14-02-2015	13-02-2025	NA	NA	NA	Working	Non-captive	EC/SEIAA/2014-15/364/2014/574 Ranchi, DATE 20.11.2014	N23°06'04.7" to N23°06'07.6" E84°48'32.2" to E84°48'36.0"	Opencast
25	Stone	श्री हेमन्त कुमार ओहदार, वल्द श्री बसंत ओहदार,	ग्राम+पो०-करोन्दाजोर, थाना-भरनो, जिला-गुमला।	29-12-2015	2.83	15-03-2016	14-03-2026	NA	NA	NA	Working	Non-captive	EC/SEIAA/2014-15/707/2015/1147 Ranchi, DATE 27.07.2015	N23°00'31.17" to N23°00'35.2" E84°32'33.1" to E84°32'37.5"	Opencast
26	Stone	सरोज मिज, वल्द-श्री रोबर्ट मिज,	ग्राम+पो०-करोन्दाजोर, थाना-भरनो, जिला-गुमला।	23-12-2015	3.64	18-03-2016	17-03-2026	NA	NA	NA	Working	Non-captive	EC/SEIAA/2014-15/539/2014/704 Ranchi, DATE 31.12.2014	N23°06'1.02" to N23°06'1.06" E84°48'4.26" to E84°48'6.13"	Opencast
27	Stone	मेसर्स नारायण कंस्ट्रक्शन, प्रो० रिता देवी, पति श्री नारायण साह,	ग्राम-रातु चट्टी, पो०+थाना-रातु, राँची	23-12-2016	2.02	20-01-2017	19-01-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2016-17/0010/2016/05/GML, DATE 08-12-2016	N23°08'27.77" to N23°08'36.33" E84°51'46.08" to E84°51'49.54"	Opencast
28	Stone	श्री सुधीर कुमार ओहदार,	ग्राम+पो०-करोन्दाजोर, भरनो, गुमला	07-09-2017	2.02	09-11-2017	08-11-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2016-17/0019/2017/15/GML, DATE 25.03.2017	N23°05'58.05" to N23°06'04.4" E84°48'44.2" to E84°44'50.7"	Opencast
29	Stone	सरोज मिज, वल्द-श्री रोबर्ट मिज,	ग्राम+पो०-करोन्दाजोर, थाना-भरनो, जिला-गुमला।	06-09-2017	4.65	30-11-2017	29-11-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2016-17/0017/2017/16/EC, DATE 25.03.2017	N23°05'55.15" to N23°06'32.42" E84°48'35.12" to E84°48'46.57"	Opencast
30	Stone	विपीन बिहारी ओहदार, वल्द श्री कन्दर्पनाथ ओहदार,	ग्राम+पो०-करोन्दाजोर, थाना-भरनो, जिला-गुमला।	07-09-2017	4.65	30-11-2017	29-11-2027	NA	NA	NA	Working	Non-captive	EC/DEIAA/2016-17/0018/2017/12/GML, DATE 25.03.2017	N23°05'51.61" to N23°06'02.12" E84°48'44.89" to E84°48'52.25"	Opencast
31	Stone	मेसर्स प्रिया स्टोन पार्टनर सीताराम प्रसाद वल्द स्व० करधनी साव एवं बिन्दु देवी पति-श्री	ग्राम-सेम्बर बुढ़नी, पो०-अक्सी, थाना- महुआडाड़ जिला- लातेहार।	02-01-2020	1.76	22-01-2020	21-01-2030	NA	NA	NA	Working	Non-captive	EC/SEIAA/2018-19/2269/2019/688 Ranchi, DATE 08.11.2019	N23°19'04.82" to N23°19'12.37" E84°08'58.58" to E84°09'04.77"	Opencast

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		सीताराम प्रसाद													
32	Stone	मौ उत्कर्षिणी कंस्ट्रक्शन एण्ड माईन्स प्रा०लि०, निदेशक श्री हिमांशु कुमार जयसवाल, वल्द श्री मनोज कुमार जयसवाल,	ग्राम-हेहल, रॉंची, मकान नं० 11, स्टाफ बैंक कालोनी, तेल मिल गली, पिस्का मोड़, पो०-हेहल, थाना-पण्डरा, रॉंची (झारखण्ड)	30-09-2022	1.58	14-11-2022	13-11-2027	NA	NA	NA	Working	Non-captive	EC/SEIAA/2021-22 /2547/2021/41 Ranchi, DATE 16.04.2022	N23°19'15.63" to N 23°19'19.66" E84°10'21.48" to E 84°10'24.44"	Opencast
33	Stone	श्रीमति दीपा देवी, पति श्री मनोज कुमार,	ग्राम+पो०-केडेंग, थाना-चैनपुर, जिला-गुमला (झारखण्ड)	02-11-2022	1.21	27-12-2022	26-11-2027	NA	NA	NA	Working	Non-captive	EC/SEIAA/2021-22 /2495/2021/160 Ranchi, DATE 18.08.2022	N23°11'11.21" to N 23°11'16.13" E84°11'21.30" to E 84°11'26.65"	Opencast
34	Stone	मेसर्स महेश्वरी इण्डो प्रो० प्रदीप कुमार साबू	लोहरदगा रोड, गुमला	06-08-2011	2.23	13-01-2012	12-01-2022	NA	NA	NA	Non-Working	Non-Captive	EC/SEIAA/2020-21/2320/2020/46 Dt. - 15.07.2021	N23°03'22.69" to N23°03'27.57" E84°34'49.92" to E84°34'58.24"	Opencast
35	Stone	श्री संजय साहु, पिता श्री गनसु साहु	खोरा पतराटोली, गुमला	21-12-1994	0.81	21-12-2004	20-12-2014	NA	NA	NA	Non-Working	Non-Captive	NA	NA	Opencast
36	Stone	श्री दिनेश उराँव, पिता स्व० फिलिप उराँव	बरिसा, गुमला	25-07-1998	0.40	25-07-09	24-07-2019	NA	NA	NA	Non-Working	Non-Captive	NA	NA	Opencast
37	Stone	श्री दुर्गेश मिश्रा, पिता कृष्ण कुमार मिश्रा	दुन्दुरिया, गुमला	13-01-2003	0.40	13-01-2013	12-01-2023	NA	NA	NA	Non-Working	Non-Captive	EC/SEIAA/2015-16/1640/2015/2361 Dt. - 30.12.2015	N23°03'44.90" to N23°03'48.13" E84°33'14.55" to E84°33'15.93"	Opencast
38	Stone	श्री जगदीश साहु, पिता श्री वासुदेव साहु	खोरा पतराटोली, गुमला	27-02-2003	0.81	27-02-2013	26-02-2013	NA	NA	NA	Non-Working	Non-Captive	EC/SEIAA/2013-14/165/2013/2437 Dt. - 30.12.2015	NA	Opencast
39	Stone	श्री सुनील कुमार सिंह, पिता श्री नाथेश्वर सिंह	लोहरदगा रोड, गुमला	21-05-2004	0.40	21-05-2004	20-05-2004	NA	NA	NA	Non-Working	Non-Captive	NA	NA	Opencast
40	Stone	(1) राम विलास साहु, पिता श्री पूरन साहु, (2) पद्मन साहु, पिता श्री लहुरा साहु	कसीरा, पतिया, गुमला	21-10-2008	0.81	21-10-08	20-10-2008	NA	NA	NA	Non-Working	Non-Captive	NA	NA	Opencast
41	Stone	श्री मेधनाथ चौक बड़ाईक,	ग्राम-बरिसा, पो०-असनी,	06-01-2012	0.81	06-01-2012	05-01-	NA	NA	NA	Non-Working	Non-Captive	NA	NA	Opencast

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		वल्द-श्री कृष्णा चीकबड़ाईक,	थाना-जिला-गुमला।				2017								
42	Stone	1. श्री योगेन्द्र भगत, पिता श्री चड़रा भगत, 2. श्री शिवा भगत, पिता श्री रामधन भगत	घाघरा, गुमला	12-10- 2008	0.40	21-10- 2008	20- 10- 2018	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
43	Stone	श्री हेमन्त कुमार, पिता श्री कामता सिंह	देवी मण्डप रोड, घाघरा, गुमला	10-10- 2008	0.40	10-10- 2008	09- 10- 2018	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
44	Stone	श्री सुनील कुमार सिंह, पिता श्री नाथेश्वर सिंह	लोहरदगा रोड, गुमला।	20-10- 2009	0.61	12-02- 2010	11- 02- 2020	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
45	Stone	मेसर्स बालेचा इंजिनियर्स लि० प्र० मिथिलेश कुमार सिंह	ग्राम-दिवाकर नगर बरियातु, राँची	22-12- 2016	2.02	22-12- 2016	21- 12- 2021	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
46	Stone	श्री जगतपाल उराँव, पिता श्री शंकर उराँव	सिसई, गुमला	09-08- 2003	0.61	09-08- 2003	09- 08- 2003	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
47	Stone	श्री राजकुमार गुप्ता, पिता श्री छेदी साहु	ग्राम+पो.+थाना-बसिया, गुमला	03-01- 2009	0.81	03-01- 2009	02- 01- 2019	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
48	Stone	श्री संजय कुमार, पिता श्री विश्वनाथ साहु	ग्राम-बनागुडु, बसिया, गुमला	03-01- 2009	0.61	03-01- 2009	02- 01- 2019	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
49	Stone	श्री राकेश कुमार, वल्द श्री भोला साहु	ग्राम+पो.+थाना-बसि या, गुमला।	17-08- 1997	0.81	05-03- 2010	04- 03- 2020	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
50	Stone	श्रीमती नीलम कुमारी, पति श्री मधुसूदन ओहदार	कामडारा, गुमला	18-07- 2001	0.61	18-07- 2001	17- 07- 2011	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
51	Stone	श्रीमती सुष्मा देवी, पति स्व० कामेश्वर साहु	कामडारा, गुमला	23-03- 1996	0.40	23-03- 1996	22- 03- 2006	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast
52	Stone	अरविन्द कुमार ओहदार, पिता-श्री कृष्णा	बड़कोईली, सालेगुडु, गुमला	21-01- 2008	0.81	21-01- 2008	20- 01- 2018	NA	NA	NA	Non- Working	Non- Captive	NA	NA	Opencast

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		ओहदार													
53	Stone	महानन्द नाग, पिता-श्री बालचन्द नाग	रायकेरा, पो. पोकला, कामडारा, गुमला	20-03-2008	0.40	20-03-2008	19-03-2018	NA	NA	NA	Non-Working	Non-Captive	NA	NA	Opencast
54	Stone	मेसर्स विनोद कुमार जैन, प्रो० मुकेश कुमार जैन	ग्राम+पो०+थाना+जिला-जशपुर (छ०ग०)	14-12-2016	1.21	22-12-2016	21-12-2021	NA	NA	NA	Non-Working	Non-Captive	EC/DEIAA/2016-17/006/2016/003 Dt.08.12.2016		Opencast
55	Stone	श्री नवीन कुमार चौधरी, पिता श्री मदनमोहन चौधरी	डुमरी, नवाडीह, गुमला	21-10-2008	0.40	21-10-2008	20-10-2013	NA	NA	NA	Non-Working	Non-Captive	NA	NA	Opencast
56	Stone	मे० शिवालय कंस्ट्रक्शन कम्पनी प्रा० लि० श्री संदीप कुमार, वल्द-श्री राजकवर,	ग्राम+पो०- सेहरी थाना- खरखोदा, जिला- सोनीपथ, (हरियाणा)	26-09-2016	2.29	29-09-2016	28-09-2021	NA	NA	NA	Non-Working	Non-Captive	EC/DEIAA/2016-17/002/2016 Dt.19.09.2016	NA	Opencast

Source : District Mining Office, Gumla



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Table 8

List of Stone Blocks in Gumla District Proposed by Department of Geology

Sl. No.	Mouza	Panchayat	Block	Latitude	Longitude
1	Bhaldamchatti	Bhaldamchatti	Gumla	23° 4'4.11"N	84°33'25.12"E
				23° 4'0.80"N	84°33'26.70"E
				23° 3'51.92"N	84°32'53.58"E
				23° 3'54.77"N	84°32'52.78"E
2	Asni	Asni	Gumla	23° 3'53.48"N	84°33'23.67"E
				23° 3'54.89"N	84°33'28.45"E
				23° 3'47.85"N	84°33'30.43"E
				23° 3'46.79"N	84°33'25.44"E
3	Bamhni	Bamhni	Gumla	23° 4'14.58"N	84°35'16.39"E
				23° 4'8.33"N	84°35'16.88"E
				23° 4'10.49"N	84°35'26.10"E
				23° 4'14.79"N	84°35'25.22"E
4	Khora	Khora	Gumla	23° 4'43.46"N	84°36'8.57"E
				23° 4'43.45"N	84°36'24.08"E
				23° 4'36.37"N	84°36'24.07"E
				23° 4'36.40"N	84°36'8.58"E
5	Karaunda	Karaunda	Gumla	23° 4'21.86"N	84°38'44.89"E
				23° 4'24.23"N	84°38'57.15"E
				23° 4'19.93"N	84°38'58.81"E
				23° 4'18.02"N	84°38'43.55"E
6	Karaunda	Karauda	Gumla	23° 4'12.63"N	84°38'40.43"E
				23° 4'15.45"N	84°38'59.90"E
				23° 3'59.11"N	84°39'0.73"E
				23° 3'58.85"N	84°38'41.64"E
7	Kasira	Kasira	Gumla	23° 3'20.95"N	84°41'29.17"E
				23° 3'20.91"N	84°41'43.41"E
				23° 3'12.30"N	84°41'43.43"E
				23° 3'12.87"N	84°41'29.14"E
8	Kolabira	Kolabira	Gumla	23° 3'32.51"N	84°40'49.80"E
				23° 3'31.48"N	84°41'3.29"E
				23° 3'21.71"N	84°41'6.02"E
				23° 3'22.77"N	84°40'49.82"E
9	Kasira	Kasira	Gumla	23° 2'31.03"N	84°40'20.39"E
				23° 2'27.68"N	84°40'26.96"E
				23° 2'9.88"N	84°40'19.42"E
				23° 2'14.19"N	84°40'7.89"E
10	Kharka-II	Kharka	Bharno	23°18'53.52"N	84°51'53.89"E
				23°18'48.35"N	84°52'5.84"E
				23°18'44.40"N	84°52'3.78"E
				23°18'49.98"N	84°51'51.12"E
11	Kharka-III	Kharka	Bharno	23°18'53.35"N	84°51'36.27"E
				23°18'53.63"N	84°51'50.98"E
				23°18'57.97"N	84°51'52.21"E
				23°18'59.03"N	84°51'36.08"E



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12	Ghoratangr	Ghoratangr	Ghaghra	23°13'52.32"N	84°34'21.45"E
				23°13'56.27"N	84°34'33.38"E
				23°13'46.86"N	84°34'37.35"E
				23°13'39.74"N	84°34'26.07"E
13	Kharka-1	Kharka	Gumla	23°18'22.76"N	84°51'25.58"E
				23°18'19.81"N	84°51'30.67"E
				23°18'9.36"N	84°51'21.08"E
				23°18'11.78"N	84°51'15.76"E

Table 9 Proposed Stone Potential Area in the District

अंचल	मौजा	खाता सं०	प्लॉट सं०	रकबा (एकड़ में)
गुमला	बरिसा	32	1231 / 1529	0.60
गुमला	बरिसा	55	1272 / 1531	2.60
गुमला	बरिसा	32	1276 / 1528	0.90
गुमला	बरिसा	43	1247	1.09
गुमला	बरिसा	32	1245, 1381, 1383, 1385, 1380, 1382, 1384	6.43
गुमला	कुलबीरा	51	2256	2.24
कामडारा	भदौरभी	08/16	7 (p), 5, 6, 56, 23	5.31
कामडारा	लोगंगा	63, 07	1205, 1222(P), 1224 (P)	11.04
बसिया	कुम्हारी	117	2086 (P), 2085 (P)	4.17
बसिया	कुम्हारी	119	3576(P)	2.47



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Chapter -X Details of Royalty or Revenue received in last three years;

Unit : Rupess in Lakhs

Minor Mineral	2022-2023	2021-2022	2020-2021
Stone	928.84	757.43	1139.20
Soil / Brick	17.61	33.61	40.51
Sand	6.64	1.53	5.20

(Source: District Mining Office, Gumla)



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GUMLA DISTRICT: Updated District Survey Report for Stone

Chapter – XI Details of Production of Minor Mineral in last three years;

UNIT : CUM

Minor Mineral	2023-2022	2022-2021	2021-2020
Stone	1,91,97,275	3,51,69,600	4,35,70,790
Soil / Brick	10,500	1,06,500	1,06,500
Sand	2,99,350.00	83,21,400.00	10,25,521.00

(Source: District Mining Office, Gumla)



Chapter - XII Mineral Map of the District;

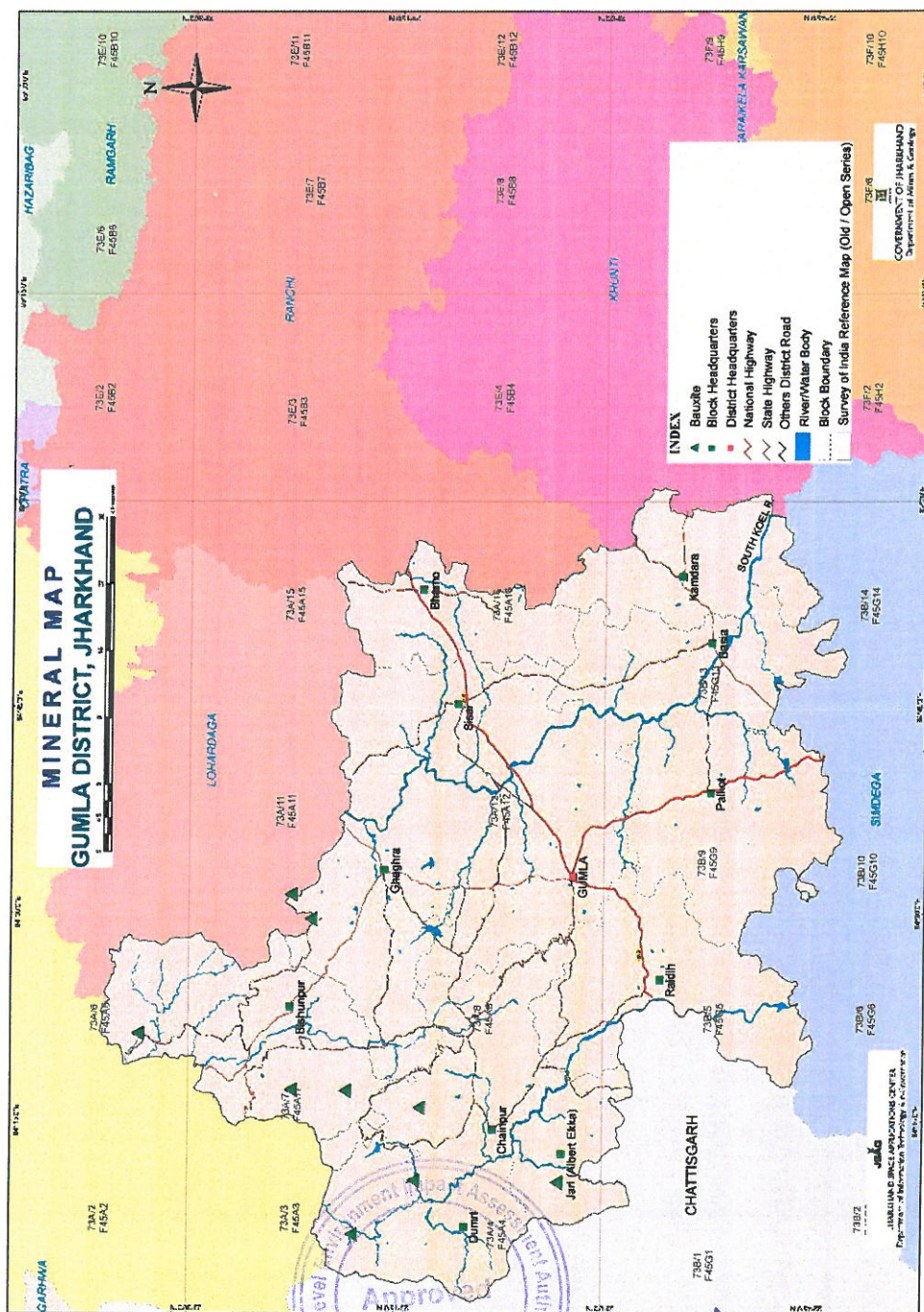


Figure 7 *Mineral Map of the District (Source-JSAC)*

GUMLA DISTRICT: Updated District Survey Report for Stone

Chapter - XIII List of Letter of Intent (LOI) Holders in the District along with its validity as per the following format:-

Sl. No.	Name of the Mineral	Name of the Lessee	Address & Contact No. of Letter of Intent Holder	Letter of Intent Grant Order No. & date	Area of Mining lease to be allotted	Validity of LoI	Use (Captive/ Non-Captive)	Location of the Mining lease (Latitude & Longitude)
1	STONE	Neelam Stone Mines, Smt. Neelam Singh W/o Sanjay Singh	Village - Tarri, P.O - Phasia Thana & District: Gumla (Jharkhand)	Letter No. : 347 Dated : 18/04/2023	2.04 Acres	--	Non-Captive	Plot No. - 2110, 2106, 2107 Khata No. - 137, 166 Mauza - Latu Anchal - Raidih District: Gumla Latitude : 22°58'45.51" to 22°58'49.30" N Longitude : 84°21'13.90" to 84°21'20.92" E
2.	STONE	Neelam Stone Mines, Smt. Neelam Singh W/o Sanjay Singh	Village - Tarri, P.O - Phasia Thana & District : Gumla (Jharkhand)	Letter No. : 348 Dated : 08/04/2023	3.68 Acres	--	Non-Captive	Plot No. - 2083, 2103 Khata No. - 184 Mauza - Latu Anchal - Raidih District: Gumla Latitude : 22°58'42.02" to 22°58'46.55" N Longitude : 84°21'06.16" to 84°21'16.94" E

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3.	STONE	Priya Stone Mines Partner : Shri. Sitaram Prasad S/o Kardhani Saw & Smt. Bindu Devi, W/o Shri. Sitaram Prasad	Village : Sembar Budhni P.O. : Akasi Thana : Mahuadanr District : Latehar	Letter No. : 1586 Dated : 29/12/2022	3.02 Acres	--	Non- Captive	Plot No. - 938 Khata No. - 22 Mauza - Kutlu Anchal - Dumri District : Gumla Latitude : 23°19'7.8679" to 23°19'11.6923" N Longitude : 84°09'2.2324" to 84°09'8.5841"E
4.	STONE	Shri Ishan Partner Vimaan Enterprises	Shop No. 4, R.N. Complex, Upper Bazar, Ranchi	Letter No. :1300 Dated : 13/06/2023	5.50 Acres	--	Non- Captive	Plot No. - 1514 (P) Khata No. - 107 Mauza - Barisa Anchal - Gumla District : Gumla Latitude : 23°03'22.69" - 23°03'27.57" N Longitude : 84°34'49.92" - 84°34'58.24" E



(Source: District Mining Office, Gumla)

GUMLA DISTRICT: Updated District Survey Report for Stone

Table 10 LIST OF APPLICATION FOR LOI

Sl. No.	Applicant & Address	Anchal	Mauza	Khata No.	Plot No.	Area (Acres)	Limiting Coordinate
1.	Asim Paul Minz Village : Katkaya Post Office : Majhatoli Thana : Raidih District : Gumla	Raidih	Latu	189, 191, 176	2111, 2112, 2127	1.69	22°58'43.80"N to 22°58'48.83"N 84°21'18.85"E to 84°21'29.27"E
	Smt. Payal Kumari W/o Ankush Kumar Jaiswal State Bank Colony, Telmil, Piska More, Ranchi	Dumri	Hutap	36	107, 108, 109	4.32	23° 5'51.41"N to 23° 6'1.81"N 84°11'18.36"E to 84°11'30.80"E
3.	Priya Stone Mines Partner : Sitaram Prasad & Bindu Devi Village : Sembar Budhni P.O. : Aksi Thana : Mahuadanr District : Latehar	Dumri	Kutlu	22	1012	5.22	23°18'42.54"N to 23°18'52.79"N 84° 9'15.82"E to 84°9'12.89"E
4.	M/s Balaji Properitor Dheeraj Kumar S/o Jalendra Kumar Sahu Village+ P.O. + P.S. Thorpa , Khunti	Kandara	Loyanga	63 & 7	1205, 1222 (P), 1224 (p)	4.04	22°52'47.89"N to 22°53'3.82"N 84°53'13.85"E to 84°53'24.45"E



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5.	Tijraj Buildcon Partners : Vikash Kumar Sahu S/o Shri. Rajkumar Sahu & Deepak Prasad S/o Bhim Prasad Village + Post Office + Thana : Bano District : Simdega (Jharkhand)	Basia	Dal Madi	75	882 (P)	6.17	22°47'32.86"N to 22°47'54.08"N 84°49'29.89"E to 84°49'57.65"E
6.	Raj Sons Metko Partner : Smt. Upnit Shree W/o Vikash Kumar Sahu Smt. Damyanti Devi W/o Deepak Prasad Village + Post Office + Thana : Bano District : Simdega (Jharkhand)	Basia	Dal Madi	75	882 (P)	6.00	22°47'32.86"N to 22°47'54.08"N 84°49'29.89"E to 84°49'57.65"E

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7.	Jagdish Sahu Village : Khora, P.O. Patratoli, Thana + District : Gumla Gems Sahu Village : Sisai Raod, P.S. : Naditoli, Thana + District : Gumla	Gumla	Barisa	32, 55	1533 (P), 1529, 1531	4.10	23° 3'36.92"N to 23° 3'42.95"N 84°34'16.47"E to 84°34'25.74"E
----	---	-------	--------	--------	----------------------------	------	--

(Source: District Mining Office, Gumla)



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Chapter – XIV Total Mineral Reserve available in the District;

This will be finalized at the time of Preparation of Mining Plan for each block.



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Chapter - XV Quality /Grade of Mineral available in the District;

Stone available in the district is mainly of Building Stone & Aggregates.

(Source : Old DSR)



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Chapter – XVI Use of Mineral

When talking about stone as a mineral, it is widely used in different industries as building materials. Decorative stone and aggregates.

The common uses are mentioned as below;

- ✓ Millions of tones of crushed rock are needed annually for road base, paving, ready mixed concrete and asphalt.
- ✓ Basalt : It is quarried and crushed as “Blue Metal” which is used as road base, and in reinforced concrete as aggregate.
- ✓ Although wood, straw and mud is used for houses in some parts of the world, most buildings are preferred to be built of stone.
- ✓ Building Wells
- ✓ Material for foundation and walling of buildings, dams, bridges, etc.
- ✓ Aggregate
- ✓ Stone Walls
- ✓ Roof tile in the form of slates
- ✓ Material for covering and flooring of road surface.

In Gumla District stone being used in construction works and road projects. Stone from the mine can be directly used as boulders of different sizes for river anti-erosion, dam construction, embankment work, etc. after crushing into different sizes of aggregate, it can be used in construction and road projects.

(Source : Old DSR)



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GUMLA DISTRICT: Updated District Survey Report for Stone

Chapter – XVII Demand and Supply of the Mineral in the last three years;
Demand for the stone and brick was fulfilled by the operational mines in the district.

Last three years production is given below;

UNIT : CUM

Minor Mineral	2023-2022	2022-2021	2021-2020
Sand	299450.00	7043334.004	9593656.040
Stone	14073153.001	23121069.004	28375113.031

(Source: District Mining Office, Gumla)

Demand Forecast for Stone

Major consumes of stone chips are road projects such as National Highway, State Highway, Express ways, Pradhan Mantri Gram Sadak Yojna, Pradhan Mantri Awas Yojna and other infrastructure projects.

A list of government sponsored projects are enclosed in Annexure – I.

All these infrastructural projects of public importance would need stone chips for successful completion.

Average demand for the district during last three years works out to 21856445.012 Cum.

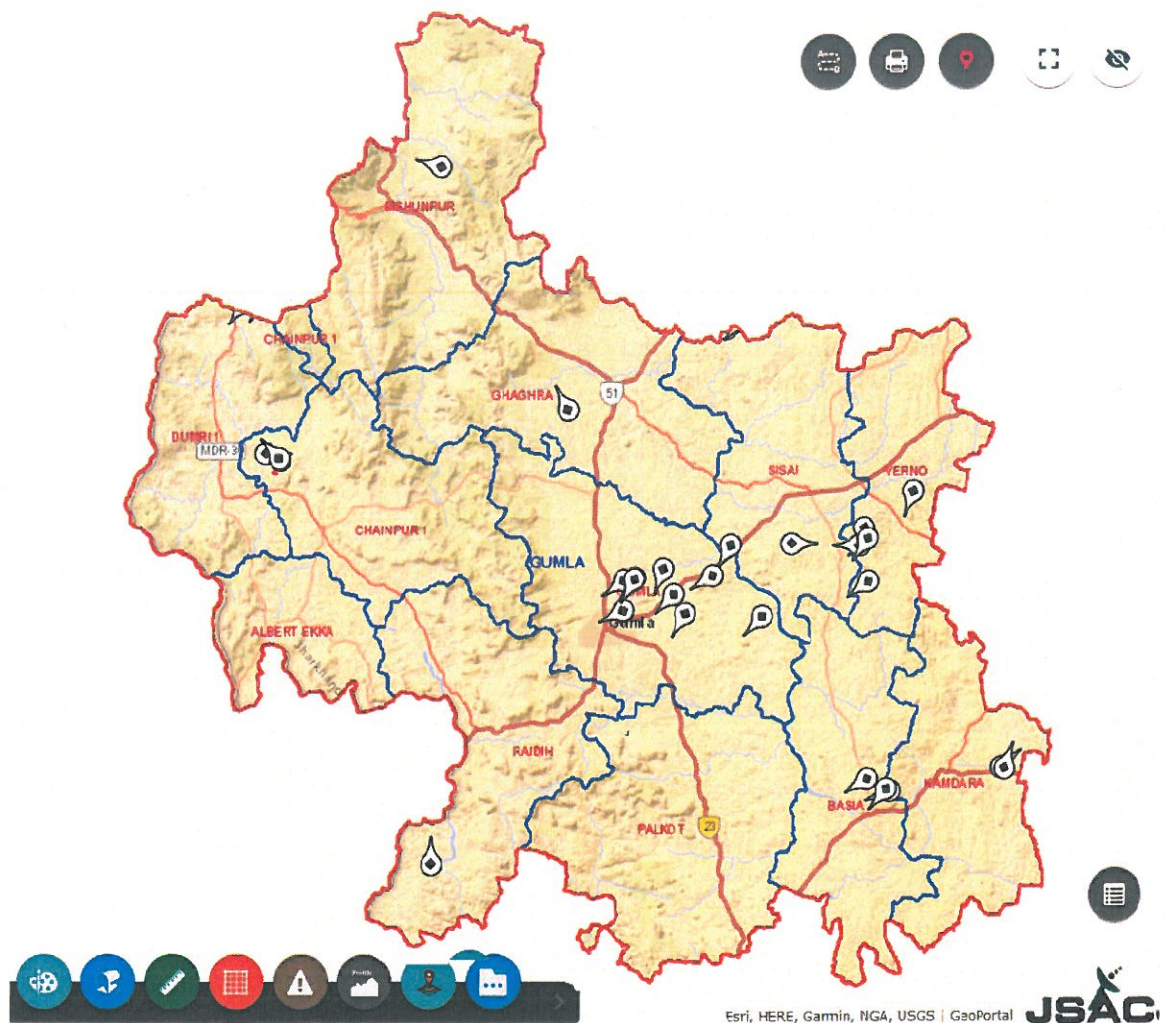
Estimated demand of stone in future may be 3 to 4 times of the current average demand.



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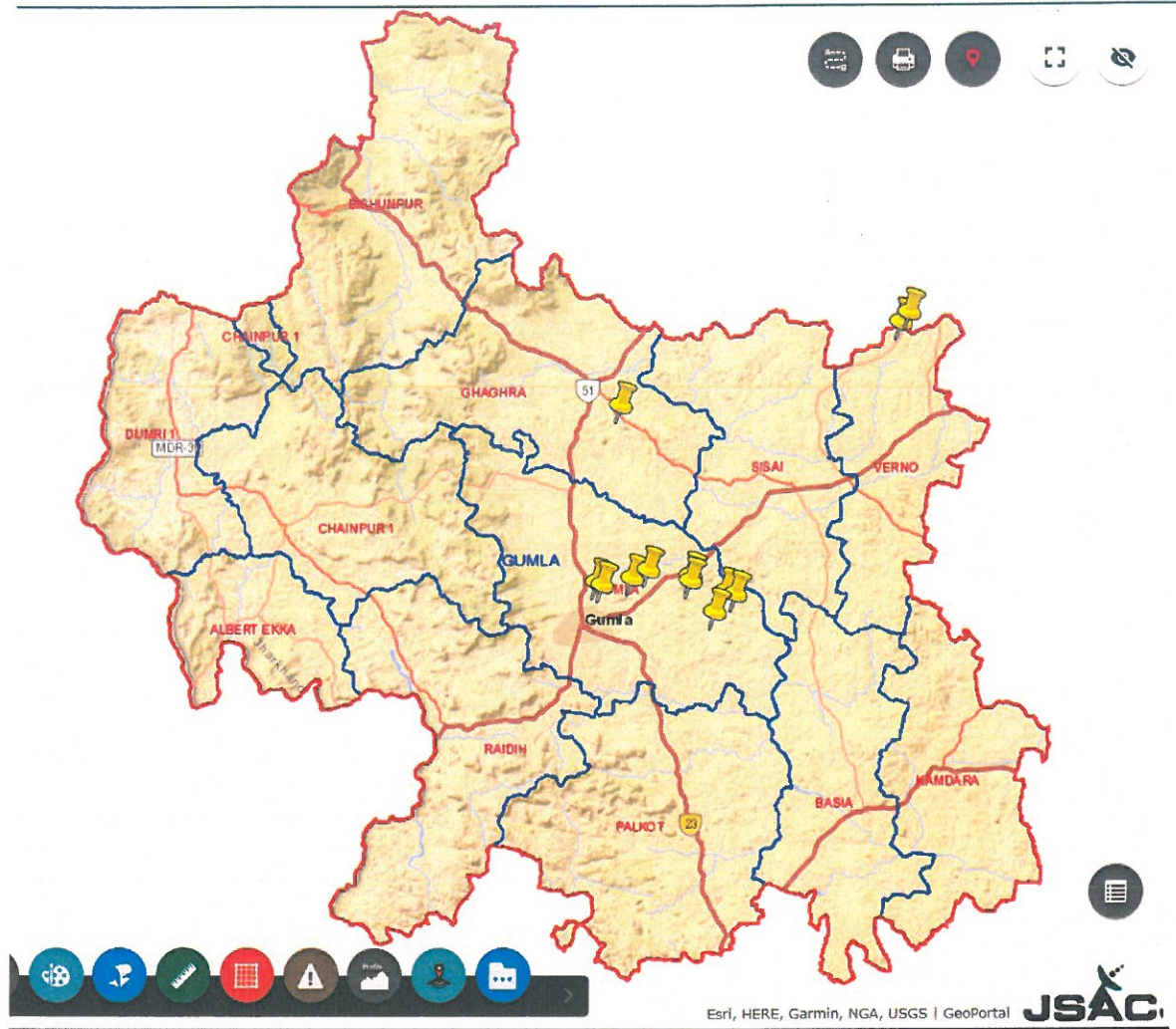
Chapter – XVIII Mining leases marked on the map of the district;



Operational Mine in the District



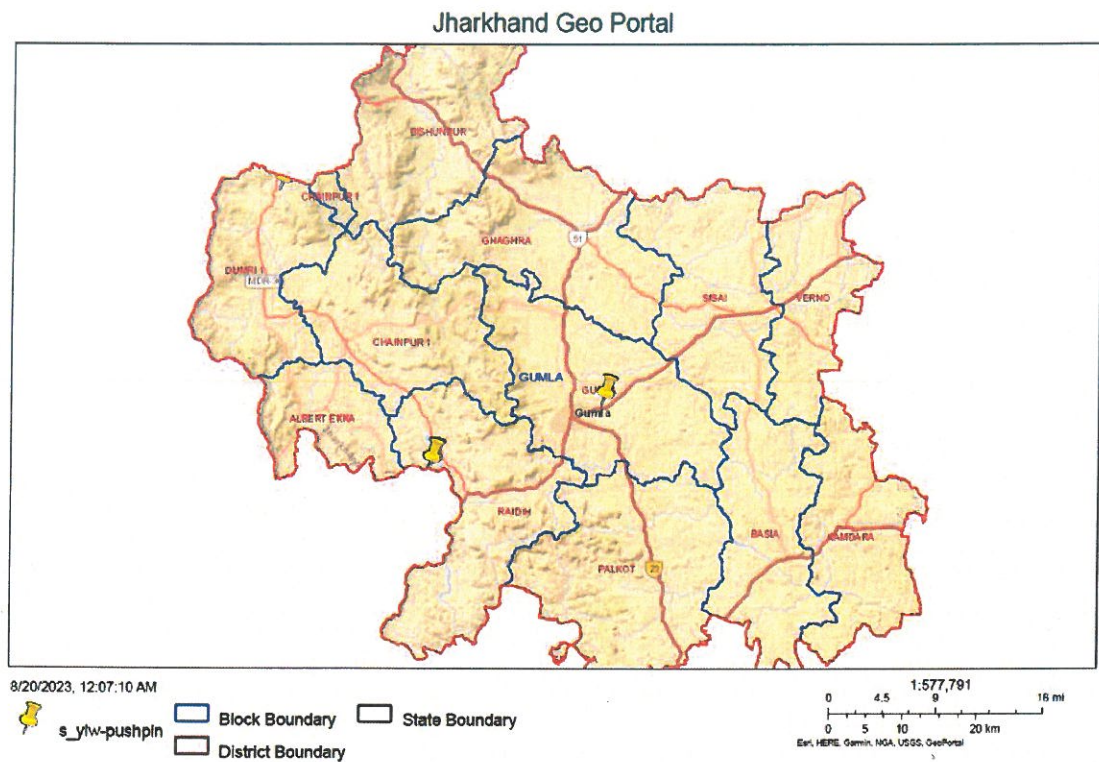
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Proposed Mine in the District



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LOI Holder in the District



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Chapter - XIX **Details of the area of where there is a cluster of mining leases viz. number of mining leases, location (latitude and longitude);**
Cluster of mining lease will be declared by District Mining Officer before Environment Clearance.



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Chapter – XX Details of Eco-Sensitive Area, if any, in the District;

Ministry of Environment, Forest & Climate Change declared an Eco-Sensitive Zone of Palkot Wildlife Sanctuary vide its Notification No. S.O. 2897(E) dated : 9th August, 2019.

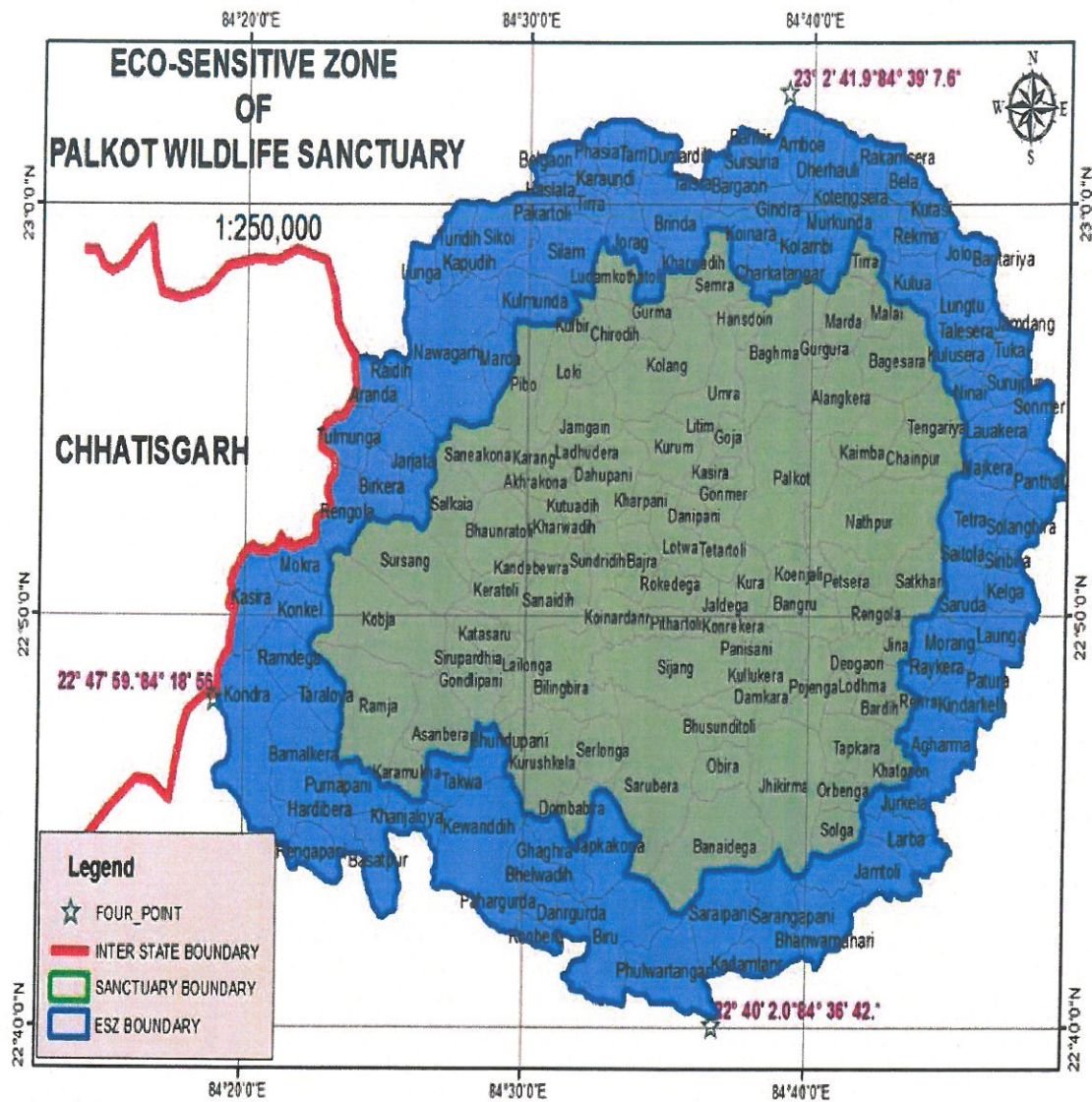


Figure 8 Eco-sensitive zone of Palkot Wildlife Sanctuary.



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Ministry of Environment, Forest & Climate Change declared an Eco-sensitive zone of Palamau Wildlife Sanctuary, Betla National Park & Mahuadanr Wolf Sanctuary vide its Notification No. S.O. 2898 (E) dated : 9th August, 2019.

*Bishanpur Block of Gumla District comes under this ESZ.

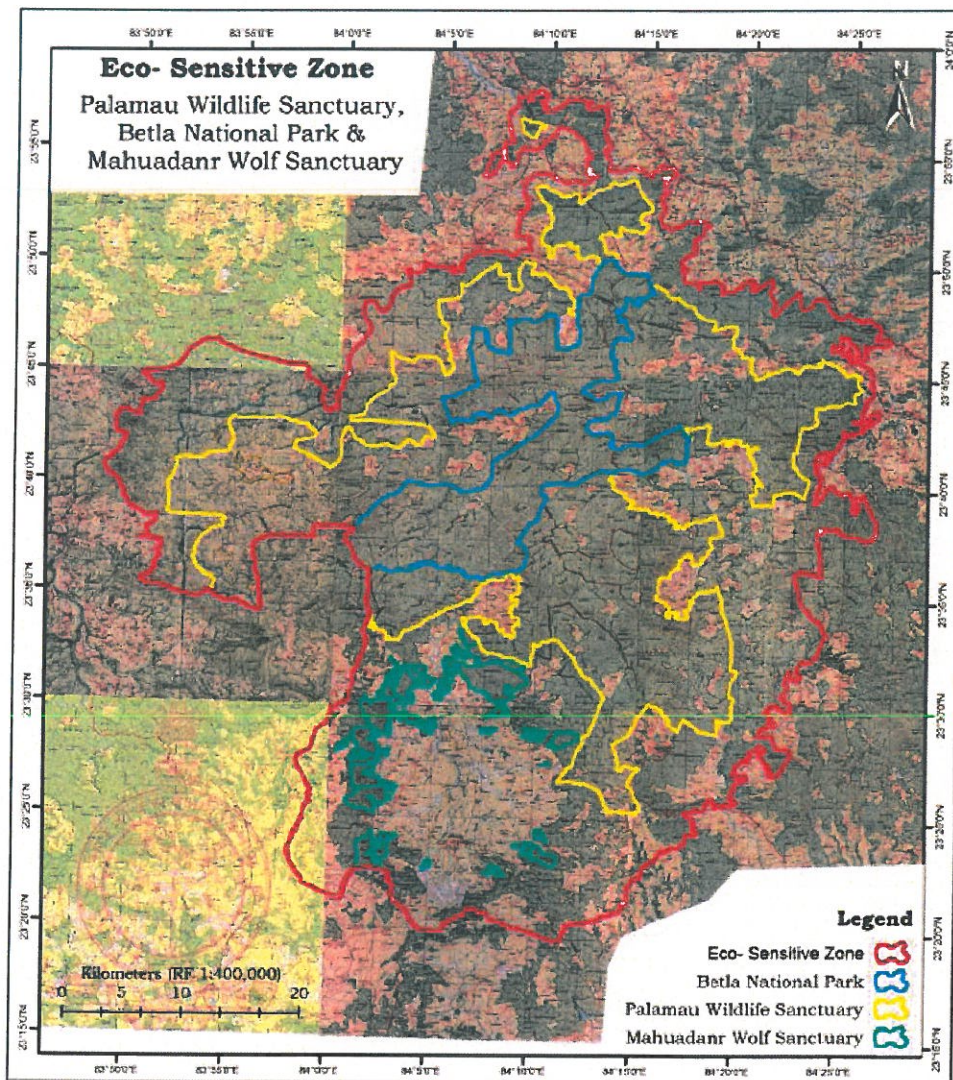


Figure 9 Eco-sensitive zone of Palamau Wildlife Sanctuary, Betla National Park & Mahuadanr Wolf Sanctuary



Chapter - XXI Impact on the Environment (Air, Water, Noise, Soil, Flora & Fauna, land use, agriculture, forest etc.) due to mining activity;

21.1 General

Project activities relating to stone mining projects result into impact on various environmental attributes including land, soil, ambient air, water quality, noise, bio-environment including flora & fauna & socio-economic profile in the area. For stone mining project to be sustainable, on long term basis, these impacts need to be assessed & be mitigated. Extent of impact on environmental attributes in a project would depend on base line environmental quality profile & planned capacity of the mine, method of mining etc. This being so, project environmental impact specific to every project needs to be assessed for their proper mitigation. In this section of the Report effort has been made to identify environmental impacts due to project related activities & mitigation measures to minimise their impact.

21.2 Activities Likely to affect Ambient Air Quality

21.2.1 Site Preparation

In most of cases first project activity is site preparation which involves clearing the site of vegetation including shrubs, trees etc, grading & levelling the site. These activities generate dust & noxious gases on account of use of diesel for operating diesel generated earth moving equipments.

21.2.2 Removal of Overburden

In case there is overburden in from of soil or weathered stone, over the stone deposit, it needs to be removed before mining of stone activity are initiated. In such cases where overburden is soft material, it would be removed by grader without blasting. But if O.B is hard, it would require blasting with use of explosives. Removal of O.B & its transportation & storage would generate dust & noxious gases.

21.2.3 Removal & Storage of Top Soil

Area within the lease over which top soil occurs will be identified. Before the lease area is graded & levelled top soil would be removed and stored for future use. They would be properly stored. This activity of removal, transportation & storage of top soil would generate dust & noxious gases.

(A) Stone Mining

(B) Drilling of blast Holes

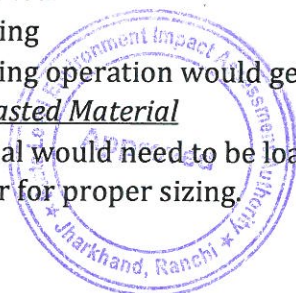
Mining of stone would require blasting using explosive. For this purpose Blast holes need to be drilled using Drill machine. Drilling operation would generate dust & noxious gases if Drill is diesel operated.

(C) Blasting

Blasting operation would generate dust & noxious gases.

Handling of Blasted Material

Blasted Material would need to be loaded into Tipper & its Transportation then to crusher for proper sizing.



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Unreclaimed Over burden dump

Storage of O.B External dump, till it is reclaimed, constitutes a source for dust generation.

Crushing & Screening

Crushing & screening of Run-of-Mine boulders constitute a majors.

Air Environment

Sl. No.	Particular	Activity	Pollutant	Impact
1.	O.B. Removal A. If soft O.B.	Removal by using HEMM	• Dust • Noxious Gases	Rise in Level of air pollution
2.	B. Hard Material	1. Drilling Blast holes 2. Blasting	• Dust • Noxious Gases	
3.	O.B. transport by Road to Dump yard	• Dust • Noxious Gases • OB Handling	• Dust • Noxious Gases	
4. 4.1.	Mining of stone	• Drilling Blast Holes • Dust • Noxious Gases	Rise in level of particulate Matters	
4.2.	Blasting	• Blasting • Dust • Noxious Gases	Do	• Properly designed geometry of Blast holes
4.3	Handling of Run of Mine store			
4.4	Loading Blasted Material on Tippers	• Material on Tippers	Do	
4.5	Transport of Blast Material to crusher cum screening plant		Do	
5.	Sizing of ROM stone	A. CRUSHING B. SCREENING	• Dust • Noxious Gases	Rise in level of particulate Matter in Ambient Air



21.3 Anticipated Environment Impact on Air Environment

Proposed mining of stone by opencast method, their handling i.e., crushing, screening & transportation finished product will result into impact on environmental attributes in the area. Anticipated impact would be on land, ambient air, water, noise level & soil.

However, assessment of these anticipated impact at this stage is constrained by the fact that capacity of individual mine in identified lease is not available.

In this scenario an attempt has been made to identify sources of environment pollution & their impact.

Sources of the air pollution & their emission factor are tabulated below: -

Emission Factor have been taken from AP42 & IPA;

Sl. No.	Activity	Emission Factor
1	Drilling	0.11 Kg/Hole
2	Blasting	0.52 Kg/Blast
3	Loading	$1.4 \times 10^{-0.4}$ Kg/t
4	Transportation	0.4 kg/VKT
5	Crushing	0.056 Kg/t

Impact of above activities on ambient air quality will mostly be confined to release of particulate matter. Release of SO₂ due to use of diesel for haulage vehicles & mining equipment's are likely to below prescribed limit generation of SO₂ may be estimated by following expression;

$$\text{Emission rate of SO}_2 \text{ (gm / day)} = Q \times C / 100 \times M_w / E_w$$

Where;

Q = Fuel use per hour (Litre)

C = Concentration of Pollutant Fuel percent (%)

M_w = Molecular weight of emitted pollutant (Kg/Kg-mol)

E_w = Elemental weight of emitted pollutant in fuel (Kg/Kg-mol)

comparing data relating to prevailing level of PM₁₀ PM_{2.5} SO₂ & Nox of the air pollution with level prescribed by MOEF & CC, it appears that atmosphere has sufficient supporting capacity in term of PM₁₀, PM_{2.5}, SO₂ & NO_x. As such, the new mines are opened with air pollution mitigation measured recommended level of air pollution are likely to remain wither prescribed level.



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21.4 Impact on Water Environment

In opencast mines there is no generation of effluent.

Divines are not likely to intersect ground water table. As such there is no seepage of groundwater into query.

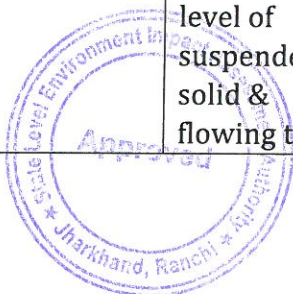
In most cases generation of overburden will be minimal.

However, sources of generation of polluted water will include;

- a) water collected in quarry during monsoon will be pumped out to facilitate mining this water make contain suspended solid. Discharge of pump out water to natural water body will degrade quality of water on choke the natural water courses.
- b) run-off from external over burden dump. Surface run-off generated from external dumps are likely to contain high amount of suspended solid.

Water Environment

Sl. No.	Particular	Activity	Pollutant	Impact
1.	Mining of stone by opencast method of mining	Collection of water in Quarry due to seepage of ground water & its pumping out • Collection of rain water in Quarry • Collection of surface	Suspended solid	High level of suspended solid in water
2.	Mining of stone by opencast method	Provision of wash rooms	Generation of sewage having high level of BOD & other pollutants	Discharge of sewage untreated impact quality of surface & ground water
3.	Mining of stone by opencast method & allied activities	Surface Run-off from lease area during rainy season	Generation of surface Run-off with high level of suspended solid & flowing to	Quality of surface deteriorate of water



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			surface water source near lease area	
--	--	--	--	--

21.5 Impact on Noise Environment

Operation of mining equipment and haulage of stone by road are major source for noise generation.

21.6 Anticipated Impact on Bio-Diversity

Potential sites for mining project have been identified on keeping in consideration guideline prescribed by State Environment Impact Assessment Authority, Jharkhand (JSEIAA) & Jharkhand State Pollution Control Board (JSPCB).

All of them have been located outside forest land and also, they are located 250m away from notified forest. If any mining project will propose inside forest, then it will be regulated through Forest Conservation Act.

Potential sites have been identified away from river & water body.

Compliance to above criteria will minimise Impact on flora & Fauna in the area. However, in some of cases, there might be some tree or shrubs in identified project area. Such trees falling in the lease area may required to be cut. Efforts will be made to minimize such tree cutting. Required permission will be obtained from concerned DFO.

21.7 Impact on Agriculture Land

Care has been taken to identify potential site for mining projects avoiding forest land and agriculture land particularly prime agriculture land (Dhan 1 & Dhan 2). Such anticipated impact on agricultural land will be minimal.

21.7 Impact on Landuse

Project activities including quarry, external overburden dumping, stockyard, development of haul road are likely to after land use pattern in the lease area. As stated, earlier care has been taken in identification of potential mining lease area to avoid forest land, prime agriculture land, etc. In view of this, anticipated impact on land environment would not be substantial.



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Table 11 : YEAR-WISE & BLOCK-WISE AMBIENT AIR QUALITY DATA OF THE DISTRICT

BLOCK	2020				2021			
	PM ₁₀	PM _{2.5}	NOx	SO ₂	PM ₁₀	PM _{2.5}	NOx	SO ₂
BHARNO	--	--	--	--	--	--	--	--
DUMRI	--	--	--	--	--	--	--	--
CHAINPUR	--	--	--	--	--	--	--	--
BISHUNPUR	--	--	--	--	--	--	--	--
GHAGHRA	73.20	44.33	16.17	<10	69.72	27.70	27.12	11.60
PALKOT	--	--	--	--	77.95	49.16	27.75	16.75
RAIDIH	--	--	--	--	--	--	--	--
KAMDARA	--	--	17.93	<10	--	--	--	--
SISAI	--	--	--	--	--	--	--	--
GUMLA	68.46	36.46	23.75	3.53	71.20	--	20.51	18.30
BASIA	91.68	--	27.93	11.91	--	--	--	--

BLOCK	2022				2023			
	PM ₁₀	PM _{2.5}	NOx	SO ₂	PM ₁₀	PM _{2.5}	NOx	SO ₂
BHARNO	--	--	18.50	<10	86.39	53.78	21.47	13.01
DUMRI	72.03	34.73	20.70	9.30	71.02	--	28.80	26.15
CHAINPUR	--	--	--	--	--	--	--	--
BISHUNPUR	--	--	--	--	--	--	--	--
GHAGHRA	78.09	40.93	23.83	9.59	--	--	--	--
PALKOT	--	--	--	--	--	--	--	--
RAIDIH	61.67	33.00	22.50	7.70	--	--	--	--
KAMDARA	66.00	36.67	18.67	7.83	--	--	--	--
SISAI	64.90	0.00	18.40	<10	61.71	0.00	12.76	11.83
GUMLA	73.21	30.60	24.81	12.81	82.15	52.84	25.13	5.38
BASIA	--	--	--	--	82.20	53.11	22.31	7.83

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Table 12 : SUMMARIZED BLOCK – WISE AMBIENT AIR QUALITY DATA OF THE DISTRICT

BLOCK	AVERAGE			
	PM ₁₀	PM _{2.5}	NO _x	SO ₂
Bharno	86.39	53.78	19.99	13.01
Dumri	71.53	34.73	24.75	17.72
Chainpur	0	0	0	0
Bishunpur	69.72	27.70	27.12	11.60
Ghaghra	76.41	44.81	22.58	13.17
Palkot	0	0	0	0
Raidih	61.67	33.00	22.50	7.70
Kamdara	66.00	36.67	18.30	7.83
Sisai	63.30	0.00	15.58	11.83
Gumla	73.76	39.97	23.55	10.00
Basia	86.94	53.11	25.12	9.87
Overall District Average	59.61	29.43	18.13	9.34
Limit as per CPCB	100 µg/m³	80 µg/m³	80 µg/m³	80 µg/m³

Present environment scenario prevailing in the district has been drawn on basis of environmental monitoring data submitted to JSPCB by mine owners in the district. They are enclosed at Annexure – II most of ambient air quality data have been collected at location close to working mines.

Conclusion

Level of PM₁₀ Nere the lease area have been found to vary from 61.71µ/m³ to 91.68µ/m³ level of SO₂ has been found to vary from <10µ/m³ to 26.15µ/m³ level of NO_x has been found to vary from 12.6 µ/m³ to 27.93 µ/m³.

Present Ambient Air Quality Scenario

Present ambient air quality status in the district has been assessed based on measurement of ambient air quality through Air Sampling at each block of the district. The parameters included in the testing programme covers PM₁₀, PM_{2.5}, NO_x & SO₂. These tests have been carried out by M/s Crystal Consultants (NABET Accredited Environment Organization) through JSPCB accredited Laboratories named Vision Earth Consultancy.

A table given below gives the test result in respect of ambient air quality;

It may be seen from above table the level of air pollutants in the atmosphere are below the level prescribed by CPCB / MoEF & CC.

Base on the above data air quality index have been calculated by the prescribed method of CPCB are enclosed in Annexure – III.

This means that the atmosphere has assimilative / supporting capacity to absorbed air pollutants generated by proposed projects in the study area without exceeding the prescribed limits.

However, at the time of the appraisal of the project for grant of EC the effect of project activities on ambient air quality need to be assessed.



Chapter - XXII Remedial Measures to mitigate the impact of mining on the Environment;

22.1 Mitigation Measures on Air Environment

- ✓ It is suggested to adopt a wet drilling system this will reduce dust generation during drilling process
- ✓ Practice controlled blasting to minimise generation of dust.
- ✓ Regular water sprinkling on haul road.
- ✓ Install wet dust suppression system in crushing and screening plant.
- ✓ Raise Green Belt in safety zone.
- ✓ Avenue plantation along a both sides of Link Road

Air Environment

Sl. No.	Particular	Activity	Pollutant	Impact	Mitigation Measures
1.	O.B. Removal A. If soft O.B.	Removal by using HEMM	• Dust • Noxious Gases	Rise in Level of air pollution	• Water sprinkling on area from where OB is to be removed • Proper maintenance of HEMM
2.	B. Hard Material	1. Drilling Blast holes 2. Blasting	• Dust • Noxious Gases		• Water sprinkling on area identified for Drilling, Blasting • Proper, regular maintenance of HEMM
3.	O.B. transport by Road to Dump yard	• Dust • Noxious Gases • OB Handling	• Dust • Noxious Gases		• Water sprinkling on Haul Road • Proper maintenance of transport vehicles
4. 4.1.	Mining of stone	• Drilling Blast Holes • Dust • Noxious Gases	Rise in level of particulate Matters		Water sprinkling on area identified for Drilling
4.2.	Blasting	• Blasting • Dust • Noxious Gases	Do	• Properly designed geometr	• Use of optimum quantity of

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				y of Blast holes	explosives (Powder Factor) • Blasting during noon time
4.3	Handling of Run of Mine store				
4.4	Loading Blasted Material on Tippers	• Material on Tippers	Do		Water sprinkling on Blast Material
4.5	Transport of Blast Material to crusher cum screening plant		Do		• Water sprinkling on Haul Road • Water to be mixed with chemical developed by CMRI for effective dust control
5.	Sizing of ROM stone	C. CRUSHING D. SCREENING	• Dust • Noxious Gases	Rise in level of particulate Matter in Ambient Air	Provide wet type control system. This will have two components ❖ Dust Containment Enclosures • For crusher discharge area • For vibratory / rotary system ❖ Dust Suppression System Spraying water at Key dust generation location



22.2 Mitigation Measures on Water Environment

- ✓ Provide garland drains around quarry to intercept surface runoff from high elevation to quarry and divert it to collection cum desilting pond.
- ✓ Water pump out from quarry will need to be diverted to storage cum desilting pond for treatment.

Provide foot drain along toe of external dump. Foot drain will collect run of from external dump and divert to storage cum desilting pond for proper treatment.

Water Environment

Sl. No.	Particular	Activity	Pollutant	Impact	Mitigation Measures
1.	Mining of stone by opencast method of mining	Collection of water in Quarry due to seepage of ground water & its pumping out • Collection of rain water in Quarry • Collection of surface	Suspended solid	High level of suspended solid in water	Store pumped out water in Desilting pond for removal of suspended solid.
2.	Mining of stone by opencast method	Provision of wash rooms	Generation of sewage having high level of BOD & other pollutants	Discharge of sewage untreated impact quality of surface & ground water	Provision of septic tank & cess pool
3.	Mining of stone by opencast method & allied activities	Surface Run-off from lease area during rainy season	Generation of surface Run-off with high level of suspended solid & flowing to surface water source near lease area	Quality of surface deterioration of water	Network of open drain in the lease area to intercept surface Run-off & divert it to Desilting pond before discharge to outside lease area



22.3 Mitigation Measures on Noise Environment

- I) mining operation to be confined to day shift only
- An machineries to be repaired and maintain regularly.
- Green Belt in safety zone.

22.4 Mitigation Measures on Bio-Diversity

- a) Mixed plantation would be raised in the safety zone with 1600 trees in per hectare. They would be native species. This will mitigate impact on bio-diversity.
- b) Every lease area will have a waste water management plan consisting of garland drains and desilting pond. This will prevent pollution of natural water course & impact on aqua fauna.

22.5 Mitigation Measures on Agriculture Land

However, in all cases care would be taken to remove & conserve topsoil from mining area before project activities are started.

For proper conservation of topsoil following steps would be taken;

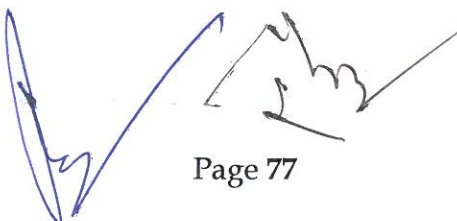
- a) Area for storage of topsoil would be identified.
- b) Edge of topsoil dump would be protected with brick lining.
- c) Grass would be raised on topsoil dump to arrest erosion and to conserve nutrients.

22.6 Mitigation Measures on Landuse

In most of opencast stone mine generation of overburden will be minimal. Hence land degradation on account of storage of overburden will be minimal.

In this scenario it is recommended that;

- ✓ As much as possible at the end of mining operation O.B material stored in external dump will be liquidated and backfilled into quarry void.
- ✓ Quarry void should be reclaimed with water to create a water body with fencing and gates this could be used for agriculture or source of water for local people and it may facilitate in groundwater recharge.



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Chapter – XXIII Reclamation of Mined out area (best practice already implemented in the district, requirement as per rules and regulation, proposed reclamation plan);

23.1 General

In most of cases stone is mined out by opencast method of mining which creates a quarry pit. It constitutes loss of value of a land resource also a potential risk to human being & animal with this consideration, mine pit must be reclaimed after resource is exhausted & mining operations are closed.

23.2 Options for Remediation

Scenario A

In this scenario, stone reserve is overlain by a of layer overburden assisting of soil /weathered rock. Mining of stone should be preceded by removal of 6. B & their storage is non-mining area. At the end of mining operation, this O.B. Dump would be liquidated & material would be back filed into the pit or they would be left as such but reclaimed biologically. Quarry will be reclaimed after it is backfilled.

Scenario B

There is no over burden. In this case, quarry would be reclaimed immediately after mining operations are over.

In both scenario as desorbed above at the end mining operation, to avoid Left mine pit is huge. Even if part of it is particly filled with overburden materials. he avoid created by mining of stone constitutes loss of land Resource a safety hazard & A scan on earth surface in view of above plan for remediation of minded out area. has broadly two objectives;

- Mined out area should be reclaimed for Eco-friendly productive use. On sustainable basis they may converted to a water body. This has number of advantages which includes.
 - This will facilitate in ground water Recharge in this area.
 - This water body may be used for pisci culture.
 - Water may be used for irrigation in nearby area.
- Benches above water level be used for raising plantation.

23.3 Safety measures

Mine pil- filled with water after mining operation are over & mine is closed is a major Source for drowning of people & animals.

Measures must be taken to restrict free access to water body. One quarry must be fenced & wicket gate with locking arrangement must be provided.



Chapter – XXIV Risk Assessment & Disaster Management Plan

24.1 General

Mining activities are associated with risk that can turn into hazard to life & health if not addressed in time & adequately. This need to be identified & mitigation measures are to be provided to prevent it on measures to be taken to minimise its effects.

24.2 Categorisation of Risks

Risk associated with mining projects may be, broadly, categorised into two categories namely on site & off site Risk. They are described below.

24.3 On Site Risks

On site risks that need to be addressed are described, below in brief.

24.3.1 Natural

Risk in mining project may arise due to natural phenomena

- a) Flooding of opencast / underground working due to heavy rains ingress of water from nearby water body i.e. river, reservoir etc.
- b) Earthquake: - Earthquake in the area may cause damage to life & property.
- c) Land slide:- There might be Land slide in external dump or high wall of opencast mine

24.3.2 Mechanical

Operation of mine involves use of a number of Heavy earth moving Machines including Drills, Backhoe, Shovel, dumper etc. Operation of these equipment's may cause accident leading to loss of life or equipment's similarly material including raw material, waste material & product are to be transported by road using dumper, tipper.

Unregulated transportation may Lead to road accident

24.3.3 Electrical

Project operation required operation of electrical equipment. They operated on high voltage & use cables. Use of electrical equipment may cause fire or electrocution

24.3.4 Fire

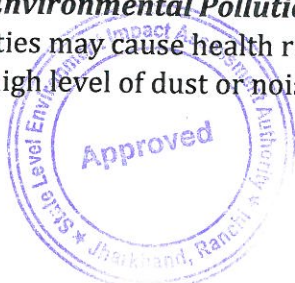
Operation of mine required use of electrical power & diesel oil use of electrical power & oil may cause Fire

24.3.5 Blasting

Operation of mine needs blasting using explosives. Unattended & unplanned blasting may cause accident.

24.3.6 Risk Due to Environmental Pollution

Mining activities may cause health risks for workmen they may be due to exposure to high level of dust or noise in work area.






24.3.7 Offsite Risks

Mining and allied activities may also cause offsite risk. They are briefed below.

24.3.8 Road Accident

Mining operation & allied activities need Transportation of raw material & furnished product on public road. Movement of heavy vehicles may cause road accident.

24.3.9 Ground Vibration

Ill planned blasting may cause ground vibration outside the lease area that may affect stability of structures located in close vicinity

24.3.10 Blasting

Ill planned blasting may produce fly rocks that may cause injury to people/animal in vicinity of lease area.

24.3.11 Environmental Pollution

Project activities may generate environmental pollution that may attest health of people living in vicinity of lease area

24.3.12 Risk and Disaster Management

Kipping above in consideration, proper risk and disaster management plan need to be developed along with mining plan for all mining project. Operated strictly following DGMS rules. D.M.P. Will have following components. All mines should be planned

24.3.13 Flooding

The drainage plan of the mine has to be prepared consideration the maximum rainfall in the area corresponding to maximum quantity of water accumulated in quarry, sufficient capacity of pump need to be prodded for preventing flooding.

24.3.14 Earthquake

If the mine is in zone iii & above of impact of earthquake must be integrated with planning & design of the project.

24.3.15 Land Slide

To prevent land slide in the mine following measures need to be taken nature of rock corresponding to

- i. Proper slope to be provided to advancing bench of the mine
- ii. Proper slope ($45^\circ - 50^\circ$) to be provided for terminal slope to the quarry
- iii. External dump has to be properly planned with proper side slope to prevent slope failure.

External dump should be located on a stable ground with load bearing capacity to support load of external dump.

External dump should be proper drainage plan to prevent building up of internal hydraulic pressure



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24.3.16 Mechanical

- i. Regular training to equipment operator
- ii. Regular repair & maintenance of equipment

24.3.17 Electrical

- Electrical system need to be designed following relevant prevailing rules as per Act.
- Regular maintenance and upkeep of cables, switches etc.

24.3.18 Road Accident

- Proper lay out of internal roads within the lease area.
- Ensure speed limits within lease area.

24.3.19 Vibration and Blasting

- Proper design of Blasting pattern to ensure ground vibration within limit
- Use of optimal quantity of explosives
- Hooter should be used to inform & warn workman before blasting in done.

24.3.20 Environmental Pollution

- All workmen to be provided with ear mutt & mask
- Pollution control measures to minimise environmental pollution
- Regular health check-up of workman as per DGMS Rules.
- Trucks with Pollution under control certificate to be allowed

24.3.21 Disaster Management Plan

- **Provision of Siren:-** Arrangement to be made to provide siren to inform workman about occurrence of accident and instruction that on hearing siren mining activities to be stopped & assemble at pre – determined area
- **First Aid centre:** - A first aid centre to be provided next to mine office.
- **Arrangement for Medical Aid:** - Arrangement shown be in place so that services ambulance can be available for rescue of injured workmen Provided medical attendance to them. For this purpose, Hospital/Nursing homes with ambulance facility need to be identified.
- Arrangement to be made for information to police and local administration
- An executive to be nominated who is responsible for handling disaster situation.
- Mine office should serve as control room with telephone facility phone number of hospital, police station, local administration should be readily available.



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24.4 Risk & their Probability

RISK IDENTIFIED		PROBABILITY
Fire in diesel stored for operation of equipments. In most of places electrical power is not available.		LOW As proponents procure diesel on daily basis in absence of proper storage.
Blasting for mining of stone. On an average a stone mine would produce 250 T / Day in small stone mines. This will use approx. 35 Kg of explosives. This produces ground vibration and fly rock. Vibration may affect stability of structure & fly rock may injure people.		LOW Since mines are located 500m away from habitated area problem of ground vibration & fly rock are of low risk.
Road Accident This may be due to movement of vehicles on road carrying minerals.		LOW As number of vehicles per day in small mine may be 25-30 trips per day. Advice vehicles operator to control speed near habitation area.
Electrocution In case of mines which operated on electrical power. Power cables are used. There is risk of electrocution.		LOW
Environmental Pollution Due to; ✓ Blasting ✓ Drilling ✓ Handling ✓ Transporting		MEDIUM Environmental Pollution can be controlled by suitable mitigative measures including; ✓ Using optimal quantity of explosive. ✓ Water Sprinkling on drilling site. ✓ Trucks carrying product stone to be covered. ✓ Regular water sprinkling on haul road. ✓ Vehicles with pollution under control certificate. ✓ Plantation in safety zone. ✓ Avenue plantation along link road.
Natural Risk		
Earthquake	LOW As district fall in Zone II which is low risk zone.	



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Flood	LOW ✓ All identified potential areas are away from river. ✓ Proper arrangement for dewatering of quarry during the monsoon period.		
Slope Failure	LOW Mineral resource is massive deposit having no shear planes. Hence land slide risk is low. Moreover, running slope will be maintain at 75° to avoid slope failure.		
LOW	MEDIUM	HIGH	
0% to 30%	30% to 60%	60% to 100%	



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Chapter - XXV Details of the Occupational Health issues in the District. (Last five-year data of number of patients of Silicosis & Tuberculosis is also needs to be submitted);

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पत्रांक : 211, गुमला / दिनांक : 22/6/23

प्रेमक,
जिला यक्ष्मा पदाधिकारी,
जिला यक्ष्मा केन्द्र,
एनटीईपी, गुमला।

शेता में,
असीनिक शल्य चिकित्सक -सह-
मुख्य चिकित्सा पदाधिकारी, गुमला।

विषय - गुमला जिला में विगत पांच वर्षों में पाये गये टीबी के मरीजों की संख्या के संबंध में

प्रासंग - आपके ज्ञापांक 4020 दिनांक 24.06.2023 एवं जिला खनन पदाधिकारी, गुमला के पत्रांक 563 दिनांक 23.06.2023

गहाशय,
उपर्युक्त विषयक तथा प्रासंगिक पत्र के आलोक में गुमला जिला में विगत पांच वर्षों में पाये गये टीबी के मरीजों की संख्या विहित प्रपत्र में भरकर भेजी जा रही है, जो निम्नवत है -

Year	No. of patient of Silicosis	No. of patient of Tuberculosis (in dist.)
2019	-	950
2020	-	657
2021	-	809
2022	-	1067
2023 upto March 2023	-	207

विश्वासभाजन
22/6/23
जिला यक्ष्मा पदाधिकारी,
एनटीईपी, गुमला।

ज्ञापांक 0211 / गुमला, दिनांक 27/6/23
प्रतिलिपि - जिला खनन पदाधिकारी, गुमला को सूचनार्थ एवं उनके पत्रांक 563 दिनांक 23.06.2023 के आलोक में अवलोकनार्थ समर्पित।
27/6/23
जिला यक्ष्मा पदाधिकारी,
एनटीईपी, गुमला।

"YES! WE CAN END TB"



Chapter - XXVI Plantation and Green Belt development in respect of leases already granted in the District;

26.1 Status of Plantation & Greenbelt Development in respect of lease already granted in the District

Plantation were raised in safety zone as prescribed in Environment Clearance (EC) & Consent to Operate (CTO) conditions. Average survival rate was 40% - 50%. However, on closure of mine the project site was abandoned. In such circumstances, the tree covers were decreases due to lack of maintenance and absence of security. Only in a few cases some of trees planted in safety zone are available.



A handwritten signature in blue ink, consisting of stylized, flowing lines.

A handwritten signature in black ink, featuring a prominent, sharp peak at the end of the main stroke.



26.2 Propose Plantation and green belt within the lease area and around it serve different purposes including

- Mitigate air pollution
- Minimise the carbon foot print as it serves as sink & sequester carbon di – oxide produce oxygen
- Control soil erosion & helps in maintaining soil moisture
- It has aesthetic function as it screens the sight of the mine
- It also abets noise

26.3 Location

- Plantation / green belt in mining project should be developed at following location
- Safety zone: - 7.5m wide strip aEdge of lease area they should be planted @ 2.5m c/c.
- Backfield area of part of quarry is proposed to be backfield with overburden material removed in course of mining of stone then plantation has to be raised over this area.



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- Upper Benches of Mine - in lease it is proposed to use the quarry for water storage, then at post closure stage upper benches of quarry should be used for raising plantation.
- Unused Area - in those caser remains, unused then that area has to be used for development of green belt
- External dump
External dumps, if not liquidated at closure of mine has to be used for raising plantation.
- Strip Plantation along. Both sides of link road

26.4 Species

Green belt/plantation should be developed using tree & shrubs. Species should be selected on following consideration.

- Native species
- Require less maintenance
- Are resistant to pollution

Species should be selected in consultation with local forest officials.

26.5 Protection & Care

Arrangement for protection of plantation against grazing by animals & other anthropogenic pressure should be made.

Arrangement for proper watering has to be provided.

Plantation needs protection & care for at lease 3 years.



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Chapter - XXVII Other

27.1 Reference

CONTENT as per Notification No.- S.O.3611 (E), dated : 25th July, 2018,	Status	Reference
(1) Introduction;	Complied (Chapter - I)	Sub-Divisional Committee
(2) Overview of Mining Activity in the District;	Complied (Chapter - II)	District Mining Office
(3) General Profile of the District;	Complied (Chapter - III)	1. Census Report, 2011 2. District Statistical Handbook 3. Report on slope, aspect and altitude of Gumla District published by JSAC
(4) Geology of the District;	Complied (Chapter - IV)	Department of Mines & Geology
(5) Drainage of Irrigation pattern;	Complied (Chapter - V)	Ground Water Information Booklet Gumla District, Jharkhand State Published by CGWB
(6) Land Utilisation Pattern in the District: Forest, Agricultural, Horticultural, Mining etc.	Complied (Chapter - VI)	District Statistical Handbook
(7) Surface Water and Ground Water scenario of the district	Complied (Chapter - VII)	1. Aquifer Maps and Ground Water Management Plan of Gumla District, Jharkhand State, Published by CGWB 2. Information Booklet Gumla District, Jharkhand State Published by CGWB 3. Water Resources Information System



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(8) Rainfall of the district and climatic condition;	Complied (Chapter - VIII)	Aquifer Maps and Ground Water Management Plan of Gumla District, Jharkhand State, Published by CGWB India Meteorological Department & Climate of Jharkhand, issued by Climatological Publication Section of Indian Meteorological Department, Government of Jharkhand.
(9) Details of the mining leases in the District as per the following format	Complied (Chapter - IX)	District Mining Office
(10) Details of Royalty or Revenue received in last three years;	Complied (Chapter - X)	District Mining Office
(11) Details of Production of Minor Mineral in last three years;	Complied (Chapter - XI)	District Mining Office
(12) Mineral Map of the District;	Complied (Chapter - XII)	Department of Mines & Geology
(13) List of Letter of Intent (LOI) Holders in the District along with its validity as per the following format:-	Complied (Chapter - XIII)	District Mining Office
(14) Total Mineral Reserve available in the District;	Complied (Chapter - XIV)	District Mining Office
(15) Quality /Grade of Mineral available in the District;	Complied (Chapter - XV)	Department of Mines & Geology
(16) Use of Mineral;	Complied (Chapter - XVI)	Sub-Divisional Committee
(17) Demand and Supply of the Mineral in the last three years;	Complied (Chapter - XVII)	Department of Mines & Geology
(18) Mining leases marked on the map of the district;	Complied (Chapter - XVIII)	Department of Mines & Geology



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(19) details of the area of where there is a cluster of mining leases viz. number of mining leases, location (latitude and longitude);	Complied (Chapter - XIX)	Department of Mines & Geology
(20) Details of Eco-Sensitive Area, if any, in the District;	Complied (Chapter - XX)	Sub-Divisional Committee
(21) Impact on the Environment (Air, Water, Noise, Soil, Flora & Fauna, land use, agriculture, forest etc.) due to mining activity;	Complied (Chapter - XXI)	Sub-Divisional Committee
(22) Remedial Measures to mitigate the impact of mining on the Environment;	Complied (Chapter - XXII)	Sub-Divisional Committee
(23) Reclamation of Mined out area (best practice already implemented in the district, requirement as per rules and regulation, proposed reclamation plan);	Complied (Chapter - XXIII)	Sub-Divisional Committee
(24) Risk Assessment & Disaster Management Plan;	Complied (Chapter - XXIV)	Sub-Divisional Committee
(25) Details of the Occupational Health issues in the District. (Last five-year data of number of patients of Silicosis & Tuberculosis is also needs to be submitted);	Complied (Chapter - XXV)	District TB Officer, Gumla
(26) Plantation and Green Belt development in respect of leases already granted in the District;	Complied (Chapter - XXVI)	Sub-Divisional Committee
(27) Any other information.	Complied (Chapter - XXVII)	



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27.2 Other Details on Mining Lease in the District

Sl. No.	पट्टेदार का नाम/पता और संपर्क नंबर	मौजा	अंचल	प्लॉट सं०	खाता सं०	थाना सं०	रकबा (एकड़ में)
1	श्री मनीष कुमार लाल, वल्द स्व० श्यामलाल प्रसाद, ग्राम-डुमरडीह, पो०-अरमई, थाना+जिला-गुमला।	अरमई	गुमला	149(अंश), 1864(अंश),	65 एव 129	65	6.00
2	श्री जमील अख्तर, स्व० अब्दुल जब्बार, खड़ियापाड़ा गुमला	खोरा, पतराटोली	गुमला	4458(अंश),	399	77	4.52
3	श्री महाप्रसाद उराँव, वल्द श्री बंधना उराँव, ग्राम-असनी तेतरटोली, पो० असनी, थाना+जिला-गुमला।	असनी	गुमला	2717(अंश)	129	70	2.50
4	(1) श्री सत्यनारायण साहु, वल्द श्री देवनाथ साहु, सिलाफारी, गुमला। (2) श्री चमरू साहु, वल्द श्री बुधु साहु, ग्राम-लौंजी, पो०-खोरा, गुमला।	चौली	गुमला	574(अंश) एवं 576(अंश),	74	81	3.00
5	मेसर्स सिंह मिनरल्स, पार्टनर-(1) सुनील कु० सिंह, (2) अमीत कु० सिंह (3) मनोज कु० सिंह, गुमला	पवेया		44(अंश),	61	84	9.00
6	सिकन्दर साहु, वल्द स्व० तुलसी साहु, ग्राम-कोयंजारा, पो०-पतिया, गुमला।	कोयंजारा		2736(अंश),	287	104	10.00
7	सकलदीप सिंह, वल्द श्री काशीनाथ सिंह, ग्राम-डोमनडीह, पो० अरमई, गुमला।	कुम्हरिया		2356(अंश),	169	87	4.95
8	नवीन कुमार सिंह, वल्द श्री देवसागर सिंह, ग्राम-दुन्दुरिया, पो०+थाना+जिला-गुमला।	दुन्दुरिया	गुमला	718(अंश),	117	44	4.00
9	रामविलास साहु, वल्द श्री पुरन साहु, ग्राम-कसीरा, पो०-पतिया, गुमला।	कसीरा	गुमला	1606(अंश),	255	102	1.00
10	श्री दुर्गेश कुमार मिश्रा, वल्द श्री कृष्णा कुमार मिश्रा, ग्राम-दुन्दुरिया, पो०+थाना+जिला-गुमला।	दुन्दुरिया	गुमला	718,	117	44	4.46
11	आर० के० डी० कंस्ट्रक्शन प्रा० लि०, जेनरल मैनेजर-लक्ष्मण सेठी, पिता-चन्दन सेठी, ग्राम+पो०-सानागाढ़ा, थाना+जिला-नयागढ़ (उड़ीसा)	असनी	गुमला	2733(अंश), 2734, 2735, 2737(अंश), 2730(अंश), 2731, 2721, 2722, 2727, 2728,	24, 66 एवं 52	70	7.23



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12	श्री अरुण कुमार पाण्डेय, हुटार, घाघरा गुमला	नौनी	घाघरा	827 (अंश)	76	66	1.00
13	(1) श्री सुरेश भगत (2) श्री बासुदेव भगत (3) श्री बजरंग यादव (4) श्री रंजीत महतो (5) श्री ब्रजराज मोहन शर्मा, लोहरदगा।	गुटवा	सिसई	625(अंश),	63	13	5.00
14	श्रीमति सुलेखा देवी, पति श्री प्रदीप कुं साहु, ग्राम-फसिया बरटोली, पो-करौन्दी, गुमला।	कुलकुपी		672(अंश),	76	10	6.24
15	मेसर्स सार्थक स्टोन, प्रो० कमलकान्त ओहदार, वल्द स्व० मोहर ओहदार, ग्राम+पो+थाना-बसिया, गुमला	बसिया	बसिया	1779(अंश),	249	50	5.25
16	श्री मनोज कुं जयसवाल, वल्द स्व० राजकुमार प्रसाद, बसिया, गुमला।	बसिया	बसिया	08(अंश),	249	50	4.00
17	श्री राजकुमार ओहदार, वल्द स्व० मोहर ओहदार, ग्राम+पो+थाना-बसिया, गुमला	बसिया	बसिया	1816(अंश),	249	50	7.50
18	मेसर्स शिवालया कंस्ट्रक्शन कं० प्रा० लि०, प्रो० श्री अंकित गोयल, वल्द श्री शिवकुमार गोयल, रोहतक (हरियाणा)	दुरुण्डू	कामडारा	1371(अंश),	195	40	7.44
19	मे० शिवालया कंस्ट्रक्शन कं० लि०, प्रो० संदीप कुमार, वल्द श्री राजकंवर, ग्राम-सेहरी, पो० खरखोदा, सोनीपथ, हरियाणा।	दुरुण्डू	कामडारा	प्लॉट सं० 2816(अंश),	195	40	8.50
20	मे० सतीश प्रसाद, पार्टनर-सतीश प्रसाद, वल्द स्व० गंगा प्रसाद, महुआडाँड़, लातेहार।	टिटही		557(अंश),	07	20	4.00
21	श्री जगधात्री प्रसाद सिंह, वल्द स्व० ठाकुराई मदन मोहन प्रसाद सिंह, ग्राम-डी०एस०पी० रोड, मुरली बगीचा, गुमला।	लाटू		3769(अंश), 2174, 2181, 2178, 3770 एवं 2180,	198, 182, 114	10	5.16
22	हेमन्त कुमार ओहदार, पिता श्री बसंत कुमार ओहदार, करौंदाजोर, भरनो	करौंदा जोर	भरनो	2147(अंश),	167	144	1.00
23	श्रीमति सरोज मिंज, वल्द-श्री रोबर्ट मिंज, ग्राम+पो-करौन्दाजोर, थाना-भरनो, जिला-गुमला।	करौन्दा जोर	भरनो	1827(अंश)	167	144	2.00
24	श्री सुधीर कुमार ओहदार, वल्द श्री बसंत ओहदार, ग्राम+पो-करौन्दाजोर, थाना-भरनो, जिला-गुमला।	करौन्दा जोर	भरनो	1827(अंश),	167	144	1.00



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25	श्री हेमन्त कुमार ओहदार, वल्द श्री बसंत ओहदार, ग्राम+पो०-करौन्दाजोर, थाना-भरनो, जिला-गुमला।	करौन्दा जोर	भरनो	2147(अंश),	167	144	7.00
26	सरोज मिंज, वल्द-श्री रोबर्ट मिंज, ग्राम+पो०-करौन्दाजोर, थाना-भरनो, जिला-गुमला।	करौन्दा जोर	भरनो	1827(अंश),	167	144	9.00
27	मेसर्स नारायण कंस्ट्रक्शन, प्रो० रिता देवी, पति श्री नारायण साहु, ग्राम-रातु चट्टी, पो०+थाना-रातु, राँची	डुडिया	भरनो	319(अंश),	106	139	5.00
28	श्री सुधीर कुमार ओहदार, ग्राम+पो०-करौन्दाजोर, भरनो, गुमला	करौन्दा जोर	भरनो	1826(अंश)	167	144	5.00
29	सरोज मिंज, वल्द-श्री रोबर्ट मिंज, ग्राम+पो०-करौन्दाजोर, थाना-भरनो, जिला-गुमला।	करौन्दा जोर	भरनो	1827(अंश),	167	144	11.50
30	बिपीन बिहारी ओहदार, वल्द श्री कन्दर्पनाथ ओहदार, ग्राम+पो०-करौन्दाजोर, थाना-भरनो, जिला-गुमला।	करौन्दा जोर	भरनो	1827(अंश),	167	144	11.50
31	मेसर्स प्रिया स्टोन पार्टनर सीताराम प्रसाद वल्द स्व० करधनी साव एवं बिन्दु देवी पति-श्री सीताराम प्रसाद ग्राम-सेम्बर बुढनी, पो०-अक्सी, थाना- महुआडाड़ जिला- लातेहार।	कुटलू		931	114	23	4.34
32	माँ उत्कर्षिणी कंस्ट्रक्शन एण्ड माईन्स प्रा०लि०, निदेशक श्री हिमांशु कुमार जयसवाल, वल्द श्री मनोज कुमार जयसवाल, ग्राम-हेहल, राँची, मकान नं० 11, स्टाफ बैंक कालॉनी, तेल मिल गली, पिस्का मोड़, पो०-हेहल, थाना-पण्डरा, राँची (झारखण्ड)	हुटाप		768,	05	25	3.91
33	श्रीमति दीपा देवी, पति श्री मनोज कुमार, ग्राम+पो०-केडेंग, थाना-चैनपुर, जिला-गुमला (झारखण्ड)	सुगासरवा		788(अंश),	02	38	3.00
34	मेसर्स महेश्वरी इण्ड० प्रो० प्रदीप कुमार साबू लोहरदगा रोड, गुमला	बरिसा	गुमला	1514(अंश),	107	69	5.50
35	श्री संजय साहु, पिता श्री गनसु साहु खोरा पतराटोली, गुमला	खोरा पतराटोली	गुमला	4498(अंश)	399	77	2.00
36	श्री दिनेश उराँव, पिता स्व० फिलिप उराँव बरिसा, गुमला	बरिसा	गुमला	1244(अंश)	107	69	1.00



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37	श्री दुर्गेश मिश्रा, पिता कृष्ण कुमार मिश्रा दुन्दुरिया, गुमला	दुन्दुरिया	गुमला	718(अंश)	117	44	1.00
38	श्री जगदीश साहु, पिता श्री वासुदेव साहु खोरा पतराटोली, गुमला	खोरा	गुमला	4458(अंश)	399	77	2.00
39	श्री सुनील कुमार सिंह, पिता श्री नाथेश्वर सिंह लोहरदगा रोड, गुमला	दुन्दुरिया	गुमला	718(अंश)	117	44	1.00
40	(1) राम विलास साहु, पिता श्री पूरन साहु, (2) पद्मन साहु, पिता श्री लहुरा साहु कसीरा, पतिया, गुमला	कसीरा	गुमला	1606(अंश)	255	102	2.00
41	श्री मेघनाथ चीक बड़ाईक, वल्द-श्री कृष्णा चीकबड़ाईक, ग्राम-बरिसा, पो०-असनी, थाना+जिला-गुमला।	बरिसा	गुमला	1281(अंश)	107	69	2.00
42	1. श्री योगेन्द्र भगत, पिता श्री चडरा भगत, 2. श्री शिवा भगत, पिता श्री रामधन भगत घाघरा, गुमला	घोडाटाँगर	घाघरा	846(अंश)	62	93	1.00
43	श्री हेमन्त कुमार, पिता श्री कामता सिंह देवी मण्डप रोड, घाघरा, गुमला	बाराडीह	घाघरा	02(अंश)	90	100	1.00
44	श्री सुनील कुमार सिंह, पिता श्री नाथेश्वर सिंह लोहरदगा रोड, गुमला।	हुटार	घाघरा	380(अंश)	52	59	1.50
45	मेसर्स वालेचा इंजिनियरिंग लि० प्रो० मिथिलेश कुमार सिंह ग्राम-दिवाकर नगर बरियातु, राँची	सिरकोट	घाघरा	510 (अंश)	65	101	5.00
46	श्री जगतपाल उराँव, पिता श्री शंकर उराँव सिसई, गुमला	विश्रामपुर	सिसई	139 (अंश)	57		1.50
47	श्री राजकुमार गुप्ता, पिता श्री छेदी साहु ग्रा+पो.+थाना-बसिया, गुमला	बसिया	बसिया	2796(अंश)	249	50	2.00
48	श्री संजय कुमार, पिता श्री विश्वानाथ साहु ग्राम-बनागुट्ट, बसिया, गुमला	फरसामा	बसिया	1123(अंश)	67	107	1.50
49	श्री राकेश कुमार, वल्द श्री भोला साहु ग्राम+पो०+थाना-बसिया, गुमला।	बसिया	बसिया	2796(अंश)	249	50	2.00

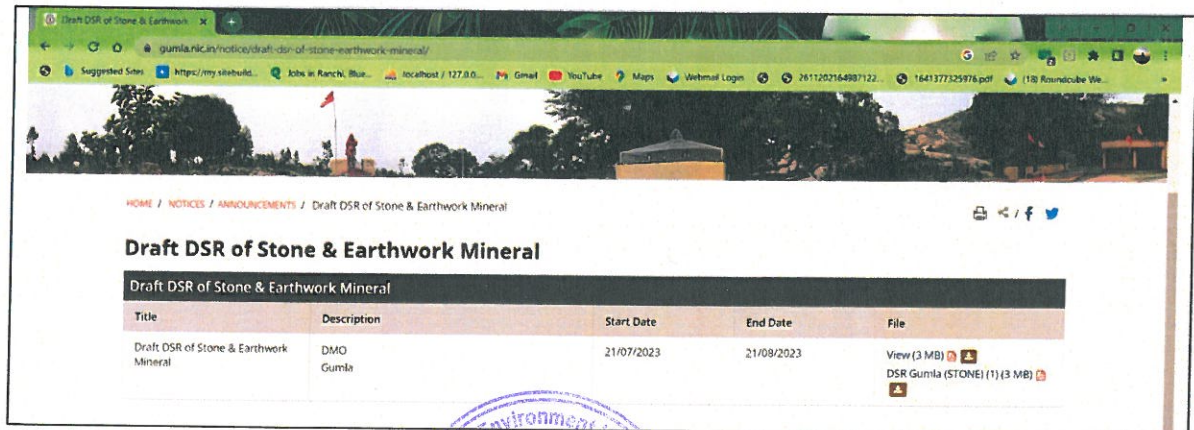


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50	श्रीमती नीलम कुमारी, पति श्री मधुसूदन ओहदार कामडारा, गुमला	बिकमा	कामडारा	142 (अंश)	46	44	1.50
51	श्रीमती सुष्मा देवी, पति स्व० कामेश्वर साहु कामडारा, गुमला	गरई	कामडारा	623 (अंश),	146	57	1.00
52	अरविन्द कुमार ओहदार, पिता-श्री कृष्णा ओहदार बड़कोईली, सालेगुट्टा, गुमला	विकमा	कामडारा	142(अंश),	46	114	2.00
53	महानन्द नाग, पिता-श्री बालचन्द्र नाग रायकेरा, पो. पोकला, कामडारा, गुमला	रायकेरा	कामडारा	1194(अंश),	104		1.00
54	मेसर्स विनोद कुमार जैन, प्रो० मुकेश कुमार जैन ग्राम+पो०+थाना+जिला-जशपुर (छ०ग०)	कुरकुरा	कामडारा	923(अंश),	146	6	3.00
55	श्री नवीन कुमार चौधरी, पिता श्री मदनमोहन चौधरी डुमरी, नवाडीह, गुमला			651(अंश)	31	47	1.00
56	मे० शिवालया कंस्ट्रक्शन कम्पनी प्रा० लि० प्रो० श्री संदीप कुमार, वल्द-श्री राजकवर, ग्राम+पो०- सेहरी थाना- खरखोदा, जिला- सोनीपथ, (हरियाणा)	हथलदा	डुमरी	472, 474, 485(अंश),	43	69	5.67

27.3 Public Consultation

The District Survey Report was prepared for Stone Minor Mineral in the District separately and its draft was placed in the public domain by keeping its copy in Collectorate and posting it on district's website for twenty-one days.



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Figure 10 Public Consultation on NIC Portal



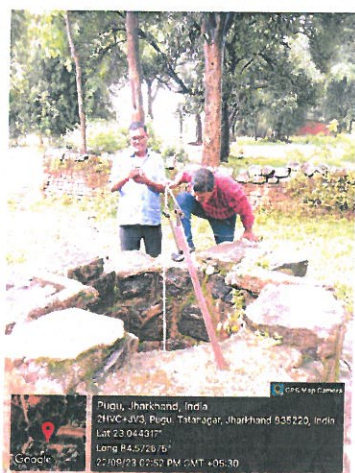
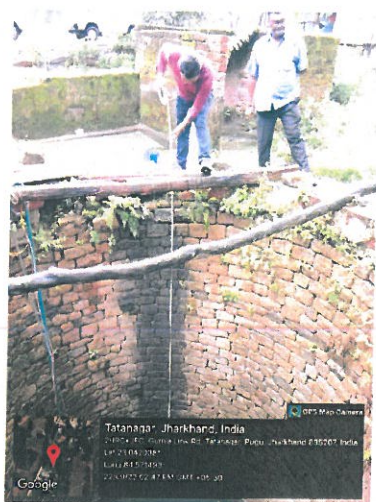
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PHOTOGRAPHS : During Monitoring of Ambient Air Quality (Block Wise)



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During Monitoring of Ground Water Table
(Zone Wise)



कार्यपालक अभियंता का कार्यालय,
ग्रामीण विकास विशेष प्रमण्डल, गुमला।
rdsdgumla123@gmail.com

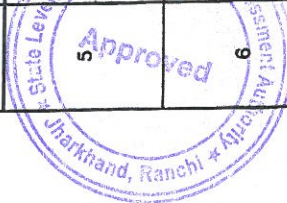
मुख्यमंत्री ग्राम सेतु योजनान्तर्गत अन्तर्गत निर्माण कार्य।

क्र०	कार्यान्वित की जा रही प्रतिशील योजना का नाम	संवैदक का नाम	सामग्री की मात्रा	अभियुक्ति
1	गुमला जिला के विधुनपुर प्रखंड अन्तर्गत हेलता पंचायत के डीपाडीह गांव में पुलझर नदी पर उच्चस्तरीय पुल निर्माण।	मे० अशोक कुमार मल्लोत्रा, लातेहार।	Sand- 1094.90 m ³ Bloder- 289.080 m ³ Aggregate- 2520.08 m ³	5
2	गुमला जिला के घाघरा प्रखंड में ग्राम सिकवार (डुको) एवं सिसई प्रखंड के ग्राम जलका के बीच कोयल नदी पर उच्चस्तरीय पुल निर्माण कार्य	मे० जगन्नाथी प्रसाद सिंह मुरली बगैचा, गुमला।	Sand- 1694.940 m ³ Bloder- 1460.980 m ³ Aggregate- 4440.830 m ³	
3	गुमला जिला के सिसई प्रखंड अन्तर्गत लरंगो पंचायत के ग्राम बरौ में दक्षिण कोयल नदी पर पुल निर्माण।	मे० आर० एम० कन्सद्रक्षान, शास्त्री नगर, गुमला	Sand- 2563.77 m ³ Bloder- 1626.280 m ³ Aggregate- 4606.270 m ³	
4	गुमला जिला के रायडीह प्रखंड अन्तर्गत कोण्डरा एवं कोल्हा पंचायत अंतर्गत गिंजन डाँड़ से जोकारी के बीच डोंगाघाट शंख नदी पर उच्चस्तरीय पुल निर्माण	मे० आर० एम० कन्सद्रक्षान, शास्त्री नगर, गुमला	Sand- 1848.210 m ³ Bloder- 2509.890 m ³ Aggregate- 4403.970 m ³	
5	गुमला जिला के धैनपुर प्रखंड में सोना टोली से डुमरी पथ में शंख नदी पर पुल निर्माण।	मे० आर० एम० कन्सद्रक्षान, शास्त्री नगर, गुमला	Sand- 1354.110 m ³ Chips- 3155.990 m ³ Aggregate- 595.490 m ³	

प्रखण्ड विकास पदाधिकारी-सह-अंचलाधिकारी/ पर्यवेक्षीय/तृतीय/चतुर्थ वर्गीय कर्मचारी आवास निर्माण कार्य।

क्र०	कार्यान्वित की जा रही प्रतिशील योजना का नाम	संवैदक का नाम	सामग्री की मात्रा	अभियुक्ति
1	गुमला जिलान्तर्गत रायडीह प्रखण्ड में प्रखण्ड विकास पदाधिकारी-सह-अंचलाधिकारी/ पर्यवेक्षीय/तृतीय/चतुर्थ वर्ग कर्मचारी आवास निर्माण तथा प्रखण्ड परिसर का विकास एवं विविध कार्य।	मे० आर० एम० कन्सद्रक्षान, शास्त्री नगर, गुमला	Sand- 1505.33 m ³ Chips- 880.56 m ³ Metal- 195.56 m ³	5

2	गुमला जिलान्तर्गत चैनपुर प्रखण्ड में प्रखण्ड विकास पदाधिकारी-सह-अंचलाधिकारी / पर्यवेक्षीय / तृतीय / चतुर्थ वर्ग कर्मचारी आवास निर्माण तथा प्रखण्ड परिसर का विकास एवं विविध कार्य।	अरुण कुमार, कुवर सिंह कौलानी, हिन्नु रंजी	Sand- 1505.33 m3 Chips- 880.56 m3 Metal- 195.56 m3	
3	गुमला जिलान्तर्गत सिसई प्रखण्ड में प्रखण्ड विकास पदाधिकारी-सह-अंचलाधिकारी / पर्यवेक्षीय / तृतीय / चतुर्थ वर्ग कर्मचारी आवास निर्माण तथा प्रखण्ड परिसर का विकास एवं विविध कार्य।	मे० आर० एम० कन्सट्रक्शन, शास्त्री नगर, गुमला	Sand- 1505.33 m3 Chips- 880.56 m3 Metal- 195.56 m3	
4	गुमला जिलान्तर्गत बसिया प्रखण्ड में प्रखण्ड विकास पदाधिकारी-सह-अंचलाधिकारी / पर्यवेक्षीय / तृतीय / चतुर्थ वर्ग कर्मचारी आवास निर्माण तथा प्रखण्ड परिसर का विकास एवं विविध कार्य।	श्री धन्य यादव, सिसई गुमला	Sand- 1505.33 m3 Chips- 880.56 m3 Metal- 195.56 m3	
5	गुमला जिलान्तर्गत कामडारा प्रखण्ड में प्रखण्ड विकास पदाधिकारी-सह-अंचलाधिकारी / पर्यवेक्षीय / तृतीय / चतुर्थ वर्ग कर्मचारी आवास निर्माण तथा प्रखण्ड परिसर का विकास एवं विविध कार्य।		Sand- 1505.33 m3 Chips- 880.56 m3 Metal- 195.56 m3	निविदा की प्रक्रिया में
6	गुमला जिलान्तर्गत भरना प्रखण्ड में प्रखण्ड विकास पदाधिकारी-सह-अंचलाधिकारी / पर्यवेक्षीय / तृतीय / चतुर्थ वर्ग कर्मचारी आवास निर्माण तथा प्रखण्ड परिसर का विकास एवं विविध कार्य।		Sand- 1505.33 m3 Chips- 880.56 m3 Metal- 195.56 m3	निविदा की प्रक्रिया में
7	गुमला जिलान्तर्गत पालकोट प्रखण्ड में प्रखण्ड विकास पदाधिकारी-सह-अंचलाधिकारी / पर्यवेक्षीय / तृतीय / चतुर्थ वर्ग कर्मचारी आवास निर्माण तथा प्रखण्ड परिसर का विकास एवं विविध कार्य।		Sand- 1505.33 m3 Chips- 880.56 m3 Metal- 195.56 m3	निविदा की प्रक्रिया में



कार्य निष्पत्ति/अभियंता,
ग्रामीण विकास विशेष प्रमण्डल,
गुमला।

DIVISION : GUMLA

August-23

Sl. No.	Phase No.	Total roads		Completed		Inprogress		Remarks
		3	4	5	6	7	8	
1	2							
		Nos of Rd	Length in Km	Nos of Rd	Length in Km	Nos of Rd	Length in Km	11
1	RCPLWEA (2020-21)	5	79.50	4	52.5	1	27.00	
2	PMGSY-III (2021-22)	23	219.80	1	15.5	22	204.30	
3	RCPLWEA (2021-22)	8	74.95	1	10.7	7	64.25	
4	Post 5 year Maintenance (2021-22)	16	54.93	10	34.78	6	20.15	
Total =		52	429.18	16	113.48	36	315.70	

**Executive Engineer
RWD, Works Division, Gumla.**



52

315- x 1000

[illegible]

X

PHASE WISE ABSTRACT OF PMGSY ROAD WORKS.

DIVISION : GUMLA

BRIDGE WORKS

Sl. No.	Phase No.	Total Bridge			Completed			Inprogress			Month - August-2023	Remarks	
		Nos of Bridge	Length in Mt.	Agreement Amount (In Lakh)	Nos of Bridge	Length in Mt.	Agreement Amount (In Lakh)	Expenditure (In Lakh)	Nos of Bridge	Length in Mt.	Agreement Amount (In Lakh)	Expenditure (In Lakh)	
1	PMGSY-I (2016-17)	3	215.70	479.49	2	128.1	355.896	193.82	1	87.60	123.6	75.59	
2	RCPLWEA (2020-21)	1	60.04	160.96	0	0	0	0	1	60.040	160.96	73.11	
3	RCPLWEA (2021-22)	7	386.12	1632.48	0	0	0	0	7	386.120	1632.48	696.43	
4	PMGSY-III (2022-23)	3	139.77	957.16	0	0	0	0	3	139.770	957.16	0.00	
Total =		14	801.63	3230.09412	2	128.1	355.896	193.82	12	673.53	2874.20	845.14	



Executive Engineer
RWD, Works Division, Gumla

प्रपत्र-11

ग्रामीण कार्य विभाग अन्तर्गत मुख्यमंत्री ग्राम सड़क योजना अन्तर्गत पथ मरम्मत कार्य के योजनाओं का प्रगति प्रतिवेदन का सारांश

1. प्रमंडल:- ग्रामीण कार्य विभाग, कार्य प्रमंडल गुमला।
2. जिला गुमला।
3. अवतल:- ग्रामीण कार्य विभाग, कार्य अंचल रौंघी।
4. माह : अगस्त- 2023

(रु० लाख में)																			
प्रपण्ड त	प्रका र	वर्ष	कुल योजना ओं की संख्या	लम्बाई कि० मी०	तकनीकी स्वीकृति की राशि	प्रशासनिक स्वीकृति की राशि	एकराशनामा की राशि	वित्तीय प्रगति				भौतिक प्रगति				अभ्युक्ति			
								31 मार्च 2023 तक व्यय	2023-24 में आवंटन	2023-24 में व्यय	कुल व्यय	वित्तीय रुप से संख्या	लम्बाई	भौतिक रुप से संख्या	लम्बाई		प्रगतिशील >50% %	निविदा प्रक्रियाधीन योजनाओं की संख्या	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		2021-22	5	12.50	272.089	272.089	271.877	271.60	0.00	0.00	271.6030	5	12.50	0	0	0	0	0	
गुमला पथ		2022-23	13	60.93	2991.594	2991.594	0.000	0.00	0.00	0.00	0.0000	0	0.00	0	0	0	0	0	13 CS अनुमोदन हेतु मुख्य अभियंता कार्यालय में समर्पित।
		2023-24	175	624.04	0.000	0.000	0.000	0.00	0.00	0.00	0.0000	0	0.00	0	0	0	0	0	स्वीकृति की प्रक्रिया में।
	Total			193	697.47	3263.683	3263.683	271.877	271.60	0.00	0.00	271.6030	5	12.50	0	0.00	0	0	0

गुमला पथ

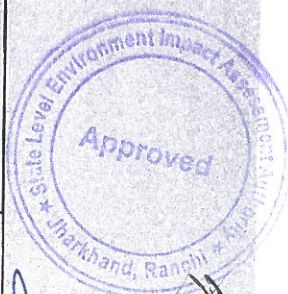


कार्यपालक अभियंता,
ग्रामीण कार्य विभाग, कार्य प्रमंडल, गुमला।

कार्यपालक अभियंता का कार्यालय, ग्रामीण कार्य विभाग, कार्य प्रमण्डल, गुमला।
मुख्यमंत्री ग्राम सड़क योजना शीर्ष 2515 का प्रगति प्रतिवेदन

माह- अगस्त-2023

क्र.सं.	स्वीकृत वर्ष/प्रसंग	स्वीकृत योजना का नाम	प्रखण्ड का नाम	लम्बाई (कि० मी०)	प्रशासनिक स्वीकृति की राशि (रु० लाख में)	संवेदक का नाम	एकराशना की राशि (रु० लाख में)	एकराशना की संख्या एवं तिथि	वित्तीय उपलब्धि			भौतिक उपलब्धि					अभियुक्ति		
									31 मार्च 23 तक व्यय (रु० लाख में)	वित्तीय वर्ष 2023-24 में व्यय (रु० लाख में)	कुल व्यय (रु० लाख में)	मिट्टी कार्य (कि० मी०)	सब बेस कार्य (कि० मी०)	बेस कार्य (कि० मी०)	Black Top (K.M.)	P.C./CD/ GW (K. M.)			
																		PCC	CD
1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19		
1	514 स्कीम दि० 30.03.22	जोडाटांड से लड्डोटोली तक पथ मरम्मत कार्य।	गुमला सदर	2.35	59.022	अमन कुमार	59.02189	12/12/2022-23/ 29-8-2022	59.021	0.000	59.021	2.35 2.35	2.05 2.05	2.05 2.05	2.05 2.05	0.30 0.30		कार्य पूर्ण।	
2	517 स्कीम दि० 30.03.22	पंडरानी से श्यानचेगरी तक पथ मरम्मत कार्य।	सिसई	3.50	81.634	कुमार विरेन्द्र बल्लभ।	81.61663	11/12/2022-23/26-8-2022	81.617	0.000	81.617	3.50 3.50	0.000	Pot patch= 3.00km/ 3.00km	3.00 3.00	0.50/ 0.50	110/ 110m	कार्य पूर्ण।	
3	520 स्कीम दि० 30.03.22	चण्डीपाठ से तातेहार बोर्डर तक पथ मरम्मत कार्य।	डुमरी	4.65	91.504	कुमार विरेन्द्र बल्लभ।	91.40146	13/12/2022-23/ 05-9-2022	91.375	0.000	91.375	4.10 4.10	4.10 4.10	4.10 4.10	4.10 4.10	0.000	0.000	30m	कार्य पूर्ण।
4	545 स्कीम दि० 31.03.22	पीठबुडौडी रोड से चापाटोली तक पथ मरम्मत कार्य।	विशुनपुर	1.00	19.353	रविन्द्र यादव	19.30849	05/12/2022-23/ 8-7-2022	19.063	0.000	19.063	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0.000	0.000		कार्य पूर्ण।
5	546 स्कीम दि० 31.03.22	बनारी से सालम तक पथ मरम्मत कार्य।	विशुनपुर	1.00	20.576	रविन्द्र यादव	20.52867	04/12/2022-23/ 8-7-2022	20.527	0.000	20.527	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0.000	0.000	15m	कार्य पूर्ण।
		Total=		12.50	272.089		271.87714		271.603	0.000	271.603								



कार्यपालक अभियंता,
ग्रामीण कार्य विभाग, कार्य प्रमण्डल, गुमला।

कार्यपालक अभियंता का कार्यालय, ग्रामीण कार्य विभाग, कार्य प्रमण्डल, गुमला।
मुख्यमंत्री ग्राम सड़क योजना शीर्ष 2515 का प्रगति प्रतिवेदन

माह- अगस्त-2023

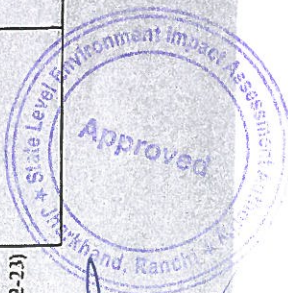
क्र० स०	स्वीकृत वर्ष/प्रसंग	स्वीकृत योजना का नाम	प्रखण्ड का नाम	लम्बाई (कि० मी०)	प्रशासनिक स्वीकृति की राशि (रु० लाख में)	संवेदक का नाम	एकराशनामा की की राशि (रु० लाख में)	एकराशनामा की संख्या एवं तिथि	वित्तीय उपलब्धि			भौतिक उपलब्धि					अभियुक्ति	
									31 मार्च 23 तक व्यय (रु० लाख में)	वित्तीय वर्ष 2023-24 में व्यय (रु० लाख में)	कुल व्यय (रु० लाख में)	मिट्टी कार्य (कि० मी०)	सब बेस कार्य (कि० मी०)	बेस कार्य (कि० मी०)	Black Top (K.M.)	P.C.C/ CD/ GW (K. M.)		
																PCC		CD
1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	
1		नकटीटोली से बी०पी०डी०पी० रोड भाया मगरू रागिचा के विशेष मरम्मति कार्य।	पालको ट	5.03	226.013					0.000							CS अनुमोदन हेतु मुख्य अभियंता कार्यालय में समर्पित।	
2		प्राईमरी स्कूल हरहरी (अरहरी) से रामतोल्या पथ। का विशेष मरम्मति कार्य।	कामडार	4.00	225.105					0.000							CS अनुमोदन हेतु मुख्य अभियंता कार्यालय में समर्पित।	
3		तेलगाँव से कोनाटोली पथ का विशेष मरम्मति कार्य।	गुमला सदर	3.00	138.175					0.000							CS अनुमोदन हेतु मुख्य अभियंता कार्यालय में समर्पित।	

733/स्की०
दि० 24.01.2023
(SRPKG-
01/2022-23)

State Level

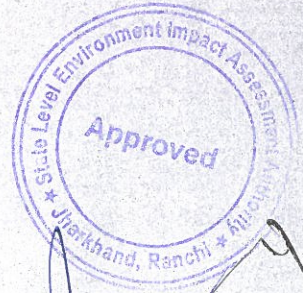
733/स०
दि० 24.01.2023

(SR) PKG-
01/2022-23)



माह- अगस्त-2023

स्वीकृत वर्ष/प्रसंग	स्वीकृत योजना का नाम	प्रखण्ड का नाम	लम्बाई (कि० मी०)	प्रशासनिक स्वीकृति की राशि (रु० लाख में)	संवेदक का नाम	एकराशनामा की की राशि (रु० लाख में)	एकराशनामा की संख्या एवं तिथि	वित्तीय उपलब्धि			भौतिक उपलब्धि					अभियुक्ति		
								31 मार्च 23 तक व्यय (रु० लाख में)	वित्तीय वर्ष 2023-24 में व्यय (रु० लाख में)	कुल व्यय (रु० लाख में)	मिट्टी कार्य (कि० मी०)	सब वेस कार्य (कि० मी०)	वेस कार्य (कि० मी०)	Black Top (K.M.)	P.C./CD/ GW (K. M.)	अभियुक्ति		
1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18		19
18	पैकेज सं०-03	भलमण्डा अम्वाटोली से साईटोली भाया नारोटोली वासुदेव कोना तक पथ का विशेष मरम्मति कार्य।	रायडीह	5.50	554.429					0.000								CS अनुमोदन हेतु मुख्य अभियंता कार्यालय में समर्पित।
13		जारदा से सिंगपुर भाया तिलहाटोली तक पथ का विशेष मरम्मति कार्य।	जारी	4.90						0.000								CS अनुमोदन हेतु मुख्य अभियंता कार्यालय में समर्पित।
		Total=		60.93	2991.594		0		0.000	0.000	0.000							

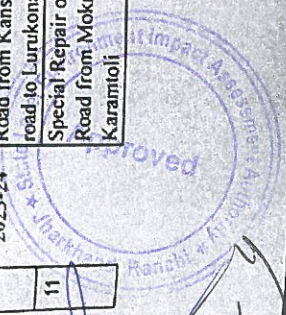


कार्यपालक अभियंता,
ग्रामीण कार्य विभाग, कार्य प्रमंडल, गुमला।

कार्यपालक अभियंता का कार्यालय, ग्रामीण कार्य विभाग, कार्य प्रमण्डल, गुमला।
मुख्यमंत्री ग्राम सड़क योजना शीर्ष 2515 का प्रगति प्रतिवेदन

माह- अगस्त-2023

क्र.सं.	स्वीकृत वर्ष/प्रसंग	स्वीकृत योजना का नाम	प्रखण्ड का नाम	लम्बाई (कि० मी०)	प्रशासनिक स्वीकृति की राशि (रु लाख में)	संवेदक का नाम	एकरचना की राशि (रु लाख में)	एकरचना की संख्या एवं तिथि	वित्तीय उपलब्धि				भौतिक उपलब्धि					अभियुक्त
									31 मार्च 23 तक व्यय (रु लाख में)	वित्तीय वर्ष 2023-24 में व्यय (रु लाख में)	कुल व्यय (रु लाख में)	मिट्टी कार्य (कि० मी०)	ग्रास बेस कार्य (कि० मी०)	वेस कार्य (कि० मी०)	Black Top (K.M.)	P.C.C/CD/GW (K.M.)		
																PCC	CD	
1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	
1	GUM/SR-01 2023-24	REO Road Natawal Dina via Kathgaon Road	Dumri	8.00														
2		Bhandar Kutlu to Hutap	Dumri	3.50														
3		Jairagi to Sakho	Dumri	3.40														
4	GUM/SR-02 2023-24	Ambatoli- Sikri	Dumri	6.00														
5		Jari-Bitari	Dumri	2.40														
6		Sattar More-Kamte Border	Dumri	3.40														
7		REO Road Bhikampur-Sankhsordih	Dumri	3.20														
8		Meral to Asro	Dumri	4.00														
9		REO Road to Kandapat	Dumri	6.40														
10	GUM/SR-03 2023-24	Special Repair of Road from Kansir road to Lurukona.	Raidih	2.72														
11		Special Repair of Road from Mokra to Karamtoli	Raidih	4.00														



माह- अगस्त-2023

क्र.सं.	स्वीकृत योजना का नाम	प्रखण्ड का नाम	लम्बाई (कि० मी०)	प्रशासनिक स्वीकृति की राशि (रु लाख में)	संवेदक का नाम	एकराशनामा की की राशि (रु लाख में)	एकराशनामा की संख्या एवं तिथि	वित्तीय उपलब्धि				भौतिक उपलब्धि				अभियुक्ति	
								31 मार्च 23 तक व्यय (रु लाख में)	वित्तीय वर्ष 2023-24 में व्यय (रु लाख में)	कुल व्यय (रु लाख में)	मिट्टी कार्य (कि० मी०)	सब बेस कार्य (कि० मी०)	बेस कार्य (कि० मी०)	Black Top (K.M.)	P.C./CD/ GW (K. M.)		
																	PCC
1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19
168		Kharwadli to Goidhara	Palkot	2.90													
169		Rokdeda To Bhawratoli	Palkot	12.20													
170	GUM/SR-27	Rerwa Ohmunda Road- Asro	Sisai														
171	2023-24	Rerwa Ohmunda Road- Dikdon	Sisai	3.00													
172		T03-Jogiya	Sisai	3.60													
173		Darha Chharda- Tetarkochra	Sisai	4.65													
174		Sisai Shive Mandir- Karamtoli via Basti Part-B	Sisai	1.70													
175		T02 Nimraha - Dobitoli via Merangbira	Sisai	1.15													
		Total=		624.04													



कार्यपालक अभियंता,
ग्रामीण कार्य विभाग, कार्य प्रमंडल, गुमला।

झारखंड राज्य के गुमला जिले के अंतर्गत राष्ट्रीय राजमार्ग 43 के छत्तीसगढ़/झारखंड सीमा (सैतनगर टोली) से गुमला खण्ड के कि० मी० 0.000 से 32.400 योजना का गुमला अंचल अन्तर्गत पड़ने वाले भूमि में प्राकलित राशि।

क्र०	जिला का नाम	अंचल का नाम का नाम	मौजा का नाम का नाम	कुल अर्जित भूमि	कुल प्राकलित राशि
1	2	3	4	5	6
1	गुमला	गुमला	घटगांव	61.8815	₹ 5,50,35,244.00
2	गुमला	गुमला	नदीटोली	9.5111	₹ 94,17,970.00
3	गुमला	गुमला	खोरा	50.9966	₹ 8,61,35,330.00
4	गुमला	गुमला	काटासारू	12.7951	₹ 1,33,14,258.00
5	गुमला	गुमला	कासीटोली	8.1978	₹ 1,50,86,185.00
6	गुमला	गुमला	भरदा	2.2423	₹ 3,52,431.00
7	गुमला	गुमला	जोराटांड	26.9844	₹ 2,59,60,651.00
8	गुमला	गुमला	असनी	29.8622	₹ 10,44,02,504.00
9	गुमला	गुमला	बरिसा	17.5213	₹ 3,08,76,102.00
10	गुमला	गुमला	चंदाली	15.4787	₹ 8,21,62,376.00
कुल				235.471	₹ 42,27,43,051.00



झारखण्ड राज्य के गुमला जिला के बसिया एवं तहसील में राष्ट्रीय राजमार्ग संख्या 143व (सम्बलपुर - राँची ईकोनामीक कारिडोर के जामटोली - राँची खण्ड) के कि.मी 69.200 से 103.756 कि.मी. तक योजना

क्र०	जिला का नाम	अंचल का नाम का नाम	मौजा का नाम का नाम	कुल अर्जित भूमि	कुल प्राकलित राशि
1	2	3	4	5	6
1	गुमला	बसिया	किनिरकेला	22.6379	
2	गुमला	बसिया	कुड़लगा	20.5315	
3	गुमला	बसिया	डोलंगसेरा	12.1317	
4	गुमला	बसिया	ससिया	29.8188	
5	गुमला	बसिया	खटखूरा	0.3044	
6	गुमला	बसिया	कुरूम	24.387	
7	गुमला	बसिया	रामडीह	28.7334	
8	गुमला	बसिया	कोनसकेली	22.279	
कुल				160.8237	



जिला खनन कार्यालय, गुमला

पत्रांक 727/एम०, दिनांक 19-8-23

प्रेषक,

जिला खनन पदाधिकारी,
गुमला।

सेवा में,

क्षेत्रीय पदाधिकारी,
झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद,
क्षेत्रीय कार्यालय, राँची।विषय : गुमला जिला में अवस्थित ईकाईयों का परिवेशीय, वायु की गुणवत्ता का
विश्लेषण प्रतिवेदन उपलब्ध कराने के संबंध में।

महाशय,

उपर्युक्त विषयक कहना है कि जिलान्तर्गत लघु खनिज पत्थर एवं मिट्टी का
DSR तैयार किया जा रहा है जिसमें गुमला जिला में अवस्थित ईकाईयों का परिवेशीय,
वायु की गुणवत्ता का विश्लेषण प्रतिवेदन सम्मिलित किया जाना है।अतः अनुरोध है कि उक्त प्रतिवेदन यथाशीघ्र उपलब्ध कराने की कृपा की
जाय ताकि उसे DSR में शामिल किया जा सके।

विश्वी सभाजन

जिला खनन पदाधिकारी,
गुमला।



झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद
JHARKHAND STATE POLLUTION CONTROL BOARD
REGIONAL OFFICE, C.T.I. COLONY, E-1, DHURWA, RANCHI

पत्रांक-479

राँची, दिनांक 19.08.2023

प्रेषक,

गोपाल कुमार,
क्षेत्रीय पदाधिकारी, राँची,

सेवा में,

जिला खनन पदाधिकारी,
गुमला

विषय : गुमला जिला में अवस्थित इकाईयों का परिवेशीय, वायु की गुणवत्ता का विश्लेषण प्रतिवेदन उपलब्ध कराने के संबंध में।

प्रसंग – आपका कार्यालय पत्रांक-727/एम0 दिनांक-19.08.2023

महाशय,

उपर्युक्त विषयक आपके द्वारा मांगी गई गुमला जिला में अवस्थित इकाईयों का परिवेशीय, वायु की गुणवत्ता का विश्लेषण प्रतिवेदन संलग्न कर आवश्यक कार्रवाई हेतु ई.मेल द्वारा भेजी जा रही है।

अनु0-यथो

विश्वासभाजन

19/8/23

(गोपाल कुमार)
क्षेत्रीय पदाधिकारी, राँची।





Sun-Tech

40 P Tupudana Industrial Area, Ranchi-834003, Jharkhand

TEL.- 7808266661/2/3

Accredited as per ISO/IEC 17025: 2017 by NABL



TC-5432

TEST REPORT

Test Report No.	ST/TR/23/01/6066	ULR No.	TC543222000006166F	Job Code:	M1290123
Date of receipt	20-01-2023	Date of Issue of Test Report		21-01-2023	
Customer's Name & Address	M/S AMAN BRICKS VILLAGE - TOTO, THANA - TOTO, DIST - GUMLA.				
Customer's Letter No.	LETTER REF. NO.:- NIL			DATE:-20/01/2023	

SAMPLE DETAILS:

Sample No.	A11764, A11765, A11766, A11767	Material/ Item:	ABSORBED POLLUTANT IN GFA & IMPINGER FROM SITE
Material Condition	GOOD	Environmental condition:	Laboratory Temperature at time Analysis 27°C
Standard Applicable for testing	IS: 5182(P-23):2006, IS: 5182 (P-2): 2001, IS: 5182 (P-6): 2006, IS: 5182 (P-24):2019	Deviation in testing from Standard	NO
Application No	15308724	Application Date & time	16/01/2023 (01:08)
Nature of Industry	BRICKS MANUFACTURER	Date of Sampling	19/01/2023 - 20/01/2023
SAMPLING	Done by Laboratory	Done by Customer	
IF, SAMPLING DONE BY LAB:ORATORY	Sampling Location	N: 23°7'37"	E: 84°31'31"
	Sampling Method/ Sampling Plan	ST/SOP/AAQ/01	
	Environmental Condition	Temperature: 23°C	
	Sample Collected by	SUKANTA, TANMAY	
Sample analysis Start date:	20-01-2023	Sample analysis End date:	21-01-2023

TEST RESULTS

MATERIAL		AMBIENT AIR		Discipline/ Group		CHEMICAL / ATMOSPHERIC POLLUTION		
SAMPLE NO	Test Parameters	OUTLET				Method Reference	REQUIREMENT (ACCEPTABLE LIMITS)	Conformity
		NEAR LABOUR ROOM	NEAR ENTRANCE	NEAR STOCK YARD	AVERAGE			
A11764	Particulate Matter (PM ₁₀), µg/m ³	80.27	84.75	81.44	82.15	IS: 5182 (P-23):2006	100 µg/m ³ , Max.	YES
A11765	Sulphur Dioxide (SO ₂), µg/m ³	5.62	5.47	5.04	5.38	IS: 5182 (P-2): 2001	80 µg/m ³ , Max.	YES
A11766	Nitrogen Dioxide (NO ₂), µg/m ³	25.66	25.54	24.20	25.13	IS: 5182 (P-6): 2006	80 µg/m ³ , Max.	YES
A11767	Particulate Matter (PM _{2.5}), µg/m ³	53.04	52.44	53.05	52.84	IS: 5182 (P-24):2019	60 µg/m ³ , Max.	YES

Note:- *As per National Ambient Air Quality Standards by Central Pollution Control Board (CPCB) Notification, New Delhi 18/11/2009

REMARK (if any) :- OK

*****END OF REPORT*****

Done By:- SUKANTA, TANMAY

SR. SCIENTIST:-SUKANTA MAHATO

SR. SCIENTIST ASSTT.: TANMAY DUTTA

Declarations: 1. Sample will be retained for three months from the testing. 2. The test results relates only to the sample as received or sampled for testing and as per applicable parameters. 3. The report can not be used as an evidence in the court of law, without written approval of Laboratory can provide assurance that parts of a report are not taken out of context. 4. All disputes subject to Ranchi Jurisdiction only.



Reviewed By:

Page No.1 of 1

Authorised Signato



SCIENTIFIC RESEARCH LABORATORY

An ISO 9001:2015 (QMS) & OHSAS 45001:2018 Certified Organization

Recognized by Jharkhand State Pollution Control Board

Analytical & Environmental Engineering Laboratory

C- 144, Aman Green City, Pundag, Ranchi- 834 004, Jharkhand

Tele No.: 0651 2999971, Mobile: 94701 30700, E-mail: nirajksingh2003@yahoo.co.in

Report No. : SRL/ASC-AC/AAQ/APR-01/2022

Date: 11.04.2022

Application No. 12932535 dated 05/04/2022

TEST REPORT

1. Name and Address of the Unit : M/s Amit Stone Crusher (M/s Amit Construction)
At.: Plot No. 1745, Khata No.: 69
Mauza: Jirhul, P.S.: Bharno,
District: Gumla, Jharkhand
(Occupier: Sri Amit Kumar)
2. Date of Monitoring : 06.04.2022 & 07.04.2022
3. Ambient Temperature : 40°C
4. Average Relative Humidity : 24 %
5. Meteorological Condition : Clear
6. Results of Ambient Air Quality :

Sl. No.	Monitoring Location	Results in $\mu\text{g}/\text{m}^3$		
		Suspended Particulate Matter (SPM)	Nitrogen dioxide (NO _x)	Sulphur dioxide (SO ₂)
1.	Northern Side of Crusher Unit (Approx. 10 M from Hopper)	516	18.60	<10
2.	Western Side of Crusher Unit (Approx. 10 M from Crushing Unit)	542	19.40	<10
3.	Southern Side of Crusher Unit (Approx. 10 M from Conveyer Unit)	560	17.50	<10

Norms: National Ambient Air Quality Standards (NAAQS) for Industrial area as per MoEF&CC, New Delhi vide notification dated 18th November, 2009 for 24 hours averages are as follows:

Industrial Area: SPM – 600 $\mu\text{g}/\text{m}^3$; NO_x – 80 $\mu\text{g}/\text{m}^3$; SO₂ – 80 $\mu\text{g}/\text{m}^3$

for Scientific Research Laboratory,

Niraj

(Dr. Niraj Kumar Singh)
In-charge, Jharkhand office.



[Signature]



SCIENTIFIC RESEARCH LABORATORY

An ISO 9001:2015 (QMS) & OHSAS 45001:2018 Certified Organization
Recognized by Jharkhand State Pollution Control Board
Analytical & Environmental Engineering Laboratory
C- 144, Aman Green City, Pundag, Ranchi- 834 004, Jharkhand
Tele No.: 0651 2999971, Mobile: 94701 30700, E-mail: nirajksingh2003@yahoo.co.in

**M/S AMIT STONE CRUSHER
(M/S AMIT CONSTRUCTION)
AT.: PLOT NO. 1745, KHATA NO.: 69
MAUZA: JIRHUL, P.S.: BHARNO
DISTRICT: GUMLA, JHARKHAND**

AMBIENT AIR NOISE MONITORING DATA (DAY TIME)

Report No.: SRL/ASC-AC/N/APR-01/2022

Date of Reporting: 11.04.2022

Sl. No.	Monitoring Location	Date of Monitoring	Sound Pressure Level, dB(A)	Remarks
1.	Northern Side of Crusher Unit (Approx. 10 M from Hopper)	06.04.2022	67.8	Monitored noise levels were found within the prescribed limit.
2.	Western Side of Crusher Unit (Approx. 10 M from Crushing Unit)	06.04.2022	72.3	
3.	Southern Side of Crusher Unit (Approx. 10 M from Conveyer Unit)	06.04.2022	66.9	

Norms: National Ambient Air Quality Standards (NAAQS) in respect of Noise as per CPCB, New Delhi;
Industrial Area: Day Time 75 dB (A) Leq and Night Time 70 dB (A) Leq

Norms: OSHA Norms in work place for 8 hr. exposure: 90 dB (A)

for Scientific Research Laboratory,

Niraj

(Dr. Niraj Kumar Singh)
In-charge, Jharkhand Office





ENVIRONMENTAL LABORATORIES &



PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA
HATIA, RANCHI-834003 (JHARKHAND)

Email: info@elespl.com ; eles.ranchi@gmail.com

CIN: U74999JH2018PTC011125

GST NO:- 20AAECE9713D1Z4 ☎ : 0651-2290103, 9931289451

ENGINEERING SERVICES PVT. LTD.

ISO 9001:2015 CERTIFIED, OHSAS 18001:2007 CERTIFIED

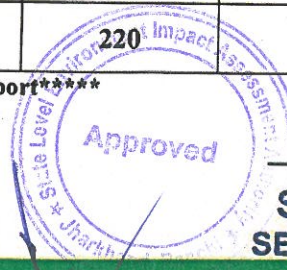
NABL Accredited & JSPCB Certified Lab. for

Environmental Pollution Monitoring & Analysis

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : ELES/RNC/2021/0641			Report Release Date : 21.04.2021			
Application No. :10215282			Work Order Date : 11.03.2021			
CUSTOMER DETAILS			SAMPLE DETAILS			
Customer Name	: Amtipani Bauxite Mines (190.95 Hect) Hindalco		Sampling Date	: 19.04.2021 to 20.04.2021		
Address	:Amtipani, Dist.-Gumla		Sample Received Date	: 20.04.2021		
			Type of Sample	: Ambient Air		
			Sampling Procedure	: ELES/DOC/SMPL/02		
			Sample Drawn By	: ELES Pvt. Ltd.		
Plant Status	: Operational		Period of Analysis	: 20.04.2021 to 21.04.2021		
METEOROLOGICAL INFORMATION						
1	Average Temperature (°C) : 30		2	Barometric Pressure (mmHg) : 748		
3	Relative Humidity (%) : 58		4	Weather Condition : Clear		
Parameters			Particulate Matter (PM10)	Suspended Particulate Matter (SPM)	Sulphur Di-Oxide (SO ₂)	Nitrogen Di-Oxide (NO ₂)
Test Protocol			IS 5182 (P-23)	IS:5182 (P-4)	IS 5182 (P-2)	IS 5182 (P-6)
Locations	Limits		100	500	80	80
	Time	Unit	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Near Entrance Gate	09:45 – 13:43		78	351	14.2	32.5
	13:43 – 17:39				13.5	34.8
	17:45 – 21:41		65	217	11.1	35.7
	21:41 – 01:38				13.6	30.4
Sample ID ELES/RNC/PCB/AA/2639	01:44 – 05:39		73	249	5.5	32.0
	05:39 – 09:38				14.9	35.1
Latitude:23°20'42.71"N	Average		72	272	12.1	33.4
Longitude :84°15'16.28"E						
Near Main Gate	09:52 – 13:51		71	212	10.5	30.2
	13:51 – 17:49				12.2	29.5
	17:56 – 21:47		66	134	9.8	33.3
	21:47 – 01:49				10.1	31.8
Sample ID ELES/RNC/PCB/AA/2640	01:57 – 05:48		70	178	10.5	28.2
	05:48 – 09:48				12.5	32.5
Latitude:23°20'36.64"N	Average		69	175	10.9	30.9
Longitude :84°15'29.19"E						
Mines Near Quarry - 10	10:04 – 14:01		73	311	12.4	33.5
	14:01 – 18:05				10.2	34.2
	18:11 – 22:08		58	155	9.2	30.8
	22:08 – 02:01				12.8	29.1
Sample ID ELES/RNC/PCB/AA/2641	02:09 – 06:11		69	193	9.5	28.4
	06:11 – 10:00				13.2	32.8
Latitude:23°20'12.77"N	Average		67	220	11.2	31.5
Longitude :84°15'25.22"E						

*****End of Report*****



Authorised Signatory
SANDIP BERA
SENIOR MANAGER
ELES PVT. LTD.

Note

- *Any observations or complaints regarding the reports shall be done within 15 days from the date of report received.*
 - *After 15 days no complaints will be accepted.*
 - *The test report should not be reproduced without the written approval of the laboratory.*
 - *All time mentioned are in 24 hours format.*
 - *Abbreviation :*
 - N/A (Not Applicable)*
 - BDL (Below Detection Limit)*
 - D.L (Detection Limit)*
-





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Analytical & Environmental Engineering Laboratory

C- 144, Aman Green City, Pundag, Ranchi- 834 004, Jharkhand

Tele No.: 0651 2950060, Mobile: 94701 30700, E-mail: nirajksingh2003@yahoo.co.in

Report No. : SRL/BJ/AAQ/MAY-04/2020

Date: 25.06.2020

TEST REPORT

1. Name and Address of the Unit : M/s Bala Jee (Stone Crusher)
Plot No. 143, Khata No.: 56
Mouza: Bikma, P.O. & P.S.: Kamdara,
District: Gumla, Jharkhand.
(Occupier: Sri Dhiraj Kumar)
2. Date of Monitoring : 18.06.2020 & 19.06.2020
3. Ambient Temperature : 34°C
4. Average Relative Humidity : 56 %
5. Meteorological Condition : Partly Cloudy (Light Rain)
6. Results of Ambient Air Quality :

Sl. No.	Monitoring Location	Results in $\mu\text{g}/\text{m}^3$		
		Suspended Particulate Matter (SPM)	Nitrogen dioxide (NOx)	Sulphur dioxide (SO ₂)
1.	Northern Side of Hopper (Approx. 10 M from Hopper)	518	19.00	<10
2.	Eastern Side of Crusher Unit (Approx. 10 M from Crusher Plant)	533	18.20	<10
3.	South - West Side of Screening Unit (Approx. 10 M from Screening Unit)	556	16.60	<10

Norms: National Ambient Air Quality Standards (NAAQS) for Industrial area as per MoEF&CC, New Delhi vide notification dated 18th November, 2009 for 24 hours averages are as follows:

Industrial Area: SPM – 600 $\mu\text{g}/\text{m}^3$; NOx – 80 $\mu\text{g}/\text{m}^3$; SO₂ – 80 $\mu\text{g}/\text{m}^3$

for Scientific Research Laboratory,

Niraj

(Dr. Niraj Kumar Singh)
In-charge, Jharkhand office.





SCIENTIFIC RESEARCH LABORATORY

An ISO 9001:2015 (QMS) & OHSAS 45001:2018 Certified Organization

Recognized by Jharkhand State Pollution Control Board

Analytical & Environmental Engineering Laboratory

C- 144, Aman Green City, Pundag, Ranchi- 834 004, Jharkhand

Tele No.: 0651 2950060, Mobile: 94701 30700, E-mail: nirajksingh2003@yahoo.co.in

M/S BALA JEE (STONE CRUSHER)
PLOT NO.: 143, KHATA NO.: 56,
MOUZA: BIKMA, P.O. & P.S.: BIKMA
DISTRICT: GUMLA, JHARKHAND
(OCCUPIER: SRI DHIRAJ KUMAR)

AMBIENT AIR NOISE MONITORING DATA (DAY TIME)

Report No. : SRL/BJ/N/2020

Date of Reporting: 25.06.2020

Sl. No.	Monitoring Location	Date of Monitoring	Sound Pressure Level, dB(A)	Remarks
1.	Northern Side of Hopper (Approx. 10 M from Hopper)	18.06.2020	65.4	Monitored noise levels were found within the prescribed limit.
2.	Eastern Side of Crusher Unit (Approx. 10 M from Crusher Plant)	18.06.2020	68.1	
3.	South - West Side of Screening Unit (Approx. 10 M from Screening Unit)	18.06.2020	63.7	

Norms: National Ambient Air Quality Standards (NAAQS) in respect of Noise as per CPCB, New Delhi;
Industrial Area: Day Time 75 dB (A) Leq and Night Time 70 dB (A) Leq

Norms: OSHA Norms in work place for 8 hr. exposure: 90 dB (A)

for Scientific Research Laboratory,

Niraj

(Dr. Niraj Kumar Singh)
In-charge, Jharkhand Office





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by: - NABL accredited testing laboratory vide certificate Number TC-4032
Jharkhand State Pollution Control Board (JSPCB)
Certified by: - ISO 9001:2015 & ISO 45001:2018



TC-4032



Test Certificate

ULR (Unique Lab Report) No.		T C 4 0 3 2 2 2 0 0 0 0 0 1 3 7 9 F																			
Discipline	Chemical	Group	Atmospheric Pollution				Sample Description				Ambient Air Quality										
Report Release Date		22 nd July, 2022				Report ID				YBAEEL-220614-163108-A01											
W. Order/ JSPCB App. No.		13469175				Work Order Date				13.06.2022											
Type of Industry (If any)		Stone Crusher				Job code/ Ref. no.				YBAEEL/WA/L/A/Jul-22/24											
Report issue to		M/s BLUE STONE CHIPS Mauza -Kasira, Dist.-Gumla, Jharkhand.																			
Sampling Period		19/07/2022- 20/07/2022				Mode of sample collection				By YBAEEL Team											
Sampling Protocol		IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)																			
Sampling Locations		A. North-East Direction				23°02'08.14"N, 84°40'32.77"E															
		B. South-East Direction				23°02'07.67"N, 84°40'31.16"E															
		C. North-West Direction				23°02'08.37"N, 84°40'31.77"E															
Meteorological Cond. of Field		W.C.- Cloudy				RH % - 74				Temp. - 30°C				W.D.- East-West							
Sample receipt Date		20/07/2022				Analysis Started on				20/07/2022				Analysis completed on				22/07/2022			

*****Test Results*****

Parameters	Test Methods	Units	MU %	Sampling Location			Limits
				Site A	Site B	Site C	
Particulate matter (PM ₁₀)	IS:5182 (P-23) 2006, RA 2017	µg/m ³	2.68	61.4	64.5	71.5	100
Particulate matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	2.60	28.7	30.3	32.8	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2) 2001 RA 2017	µg/m ³	7.84	7.1	9.1	11.1	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2017	µg/m ³	4.17	18.7	22.9	24.3	80

*****End of Report*****

Note:- Plant was not in Operation during sampling.

Limit is specified as	Environmental (Protection) Rule - 1986
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C)
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limits.

Sample Drawn By - Niraj Kumar
Tested By - Akash Khalkho (Lab Analyst)

Only CONCERN for
Jharkhand State Pollution Control Board
Application No. 13469175
Allotted Date 13.06.2022
Submission Date 22.07.2022

Verified by Amit Kumar Sinha Authorized Signatory	Issued by Umesh Das Technical Manager
---	---

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Approved
Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office :- Jamshedpur Dhanbad Hazaribag Pakur

Main Office : Namkum Post Office, Sidgaul, Ranchi - 834010, Jharkhand
Ph : 09835-97960, 098357-86677, Email - ybaeel@gmail.com; Web - https://ybaeel.in





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Certified by :- ISO 9001:2015 & ISO 45001:2018



TC-4032



Test Certificate

ULR (Unique Lab Report) No.		T C 4 0 3 2 2 2 0 0 0 0 0 1 3 8 0 F																						
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Ambient Noise											
Report Release Date		22 nd July, 2022					Report ID					YBAEEL-220614-163108-N01												
W. Order / JSPCB App. No.		13469175					Work Order Date					13.06.2022												
Type of Industry (If any)		Stone Crusher					Job code/ Ref. no.					YBAEEL/WA/L/A/Jul-22/24												
Report Issue to		M/s BLUE STONE CHIPS Mauza -Kasira, Dist.-Gumla, Jharkhand.																						
Sampling Period		19/07/2022- 20/07/2022					Mode of sample collection					By YBAEEL Team												
Sampling Protocol		IS 9989:1981 (RA 2020)																						
Meteorological Cond. of Field		W.C.- Cloudy					RH % - 74					Temp. - 30°C												
Sample receipt Date		20/07/2022					Analysis Started on					20/07/2022					Analysis completed on					22/07/2022		

*****Test Results*****

Sl	Locations	Parameters	Units	MU %	Day Time (6.00 a.m. to 10.00 p.m.)	Night Time (10.00 p.m. to 6.00 a.m.)	Limits
1.	North-East Direction	Leq	dB (A)	3.32	45.9	36.3	Day - 75 Night - 70
2.	South-East Direction	Leq	dB (A)	3.32	47.8	38.6	
3.	North-West Direction	Leq	dB (A)	3.32	48.2	37.6	

*****End of Report*****

Note:- Plant was not in Operation during sampling.

- Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority. - Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority. - dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale(A) which is relatable to human hearing.	Area	Unit	Day Time	Night time
	A Industrial Area	dB (A)	75.0	70.0
	B Commercial Area	dB (A)	65.0	55.0
	C Residential Area	dB (A)	55.0	45.0
	D Silence Zone	dB (A)	50.0	40.0

Limit is specified as	Noise pollution (Regulation & Control) Rules, 2000.
Abbreviation	MDL - Minimum detection limit; BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining, Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing areas as per IS 196:1966 (C)
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise The liability of the laboratory is limited to the invoiced amount All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limit.

Sample Drawn By - Niraj Kumar
Tested By - Akash Khalkho (Lab Analyst)

Only CONCERN for
Jharkhand State Pollution Control Board
Application No. 13469175
Allotted Date 13.06.2022
Submission Date 22.07.2022

Verified by Amit Kumar Sinha Authorized Signatory	Issued by Umesh Das Technical Manager
---	---

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidpoul, Ranchi - 834010, Jharkhand
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TC-4032

Test Certificate

ULR (Unique Lab Report) No.		T C 4 0 3 2 2 2 0 0 0 0 0 1 3 7 9 F																		
Discipline	Chemical	Group	Atmospheric Pollution				Sample Description				Ambient Air Quality									
Report Release Date	22nd July, 2022				Report ID				YBAEEL-220614-163108-A01											
W. Order/ JSPCB App. No.	13469175				Work Order Date				13.06.2022											
Type of Industry (If any)	Stone Crusher				Job code/ Ref. no.				YBAEEL/WA/LA/Jul-22/24											
Report Issue to	M/s BLUE STONE CHIPS Mauza -Kasira, Dist.-Gumla, Jharkhand.																			
Sampling Period	19/07/2022- 20/07/2022				Mode of sample collection				By YBAEEL Team											
Sampling Protocol	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)																			
Sampling Locations	A. North-East Direction				23°02'08.14"N, 84°40'32.77"E															
	B. South-East Direction				23°02'07.67"N, 84°40'31.16"E															
	C. North-West Direction				23°02'08.37"N, 84°40'31.77"E															
Meteorological Cond. of Field	W.C.- Cloudy				RH % - 74				Temp. - 30°C				W.D.- East-West							
Sample receipt Date	20/07/2022				Analysis Started on				20/07/2022				Analysis completed on				22/07/2022			

*****Test Results*****

Parameters	Test Methods	Units	MU %	Sampling Location			Limits
				Site A	Site B	Site C	
Particulate matter (PM ₁₀)	IS:5182 (P-23) 2006, RA 2017	µg/m ³	2.58	61.4	64.5	71.5	100
Particulate matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	2.60	28.7	30.3	32.8	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2) 2001 RA 2017	µg/m ³	7.84	7.1	9.1	11.1	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2017	µg/m ³	4.17	18.7	22.9	24.3	80

*****End of Report*****

Note:- Plant was not in Operation during sampling.

Limit is specified as	Environmental (Protection) Rule - 1986
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C)
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Remarks	Samples comply with prescribed limits.

Sample Drawn By - Niraj Kumar
Tested By - Akash Khalkho (Lab Analyst)

Only CONCERN for
Jharkhand State Pollution Control Board
Application No. 13469175-
Allotted Date 13.06.2022
Submission Date 22.07.2022

Verified by Amit Kumar Sinha Authorized Signatory	Issued by Umesh Das Technical Manager
---	---

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
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Branch Office :- Jamshedpur Dhanbad Hazaribag Pakur

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TC-4032



Test Certificate

ULR (Unique Lab Report) No.	T	C	4	0	3	2	2	2	0	0	0	0	0	1	3	8	0	F							
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Ambient Noise												
Report Release Date	22 nd July, 2022					Report ID					YBAEEL-220614-163108-N01														
W. Order / JSPCB App. No.	13469175					Work Order Date					13.06.2022														
Type of Industry (If any)	Stone Crusher					Job code/ Ref. no.					YBAEEL/WA/LA/Jul-22/24														
Report issue to	M/s BLUE STONE CHIPS Mauza -Kasira, Dist.-Gumla, Jharkhand.																								
Sampling Period	19/07/2022- 20/07/2022					Mode of sample collection					By YBAEEL Team														
Sampling Protocol	IS 9989:1981 (RA 2020)																								
Meteorological Cond. of Field	W.C.- Cloudy					RH % - 74					Temp. - 30°C														
Sample receipt Date	20/07/2022					Analysis Started on					20/07/2022					Analysis completed on					22/07/2022				

*****Test Results*****

Sl	Locations	Parameters	Units	MU %	Day Time (6.00 a.m. to 10.00 p.m.)	Night Time (10.00 p.m. to 6.00 a.m.)	Limits
1.	North-East Direction	Leq	dB (A)	3.32	45.9	36.3	Day - 75 Night - 70
2.	South-East Direction	Leq	dB (A)	3.32	47.8	38.6	
3.	North-West Direction	Leq	dB (A)	3.32	48.2	37.6	

*****End of Report*****

Note:- Plant was not in Operation during sampling.

- Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority. - Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority. - dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale(A) which is relatable to human hearing.	Area		Unit	Day Time	Night time
	A	Industrial Area	dB (A)	75.0	70.0
	B	Commercial Area	dB (A)	65.0	55.0
	C	Residential Area	dB (A)	55.0	45.0
	D	Silence Zone	dB (A)	50.0	40.0

Limit is specified as	Noise pollution (Regulation & Control) Rules, 2000.
Abbreviation	MDL : Minimum detection limit. BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C)
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	The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Samples comply with prescribed limit.

Sample Drawn By - Niraj Kumar
Tested By - Akash Khalkho (Lab Analyst)

Only CONCERN for

Jharkhand State Pollution Control Board

Application No. 13463175

Allotted Date 13.06.2022

Submission Date 22.07.2022

Verified by Amit Kumar Sinha Authorized Signatory	Issued by Umesh Das Technical Manager
---	---

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Approved
Technical Manager
Yugantar Bharati Analytical &
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Branch Office :- Jamshedpur Dhanbad Hazaribag Pakur

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INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

ECO ENVIRO LAB

ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); NABL & JSPCB Accreditation

A-13, Saket Vihar, Harmu Housing Colony, Ranchi, Jharkhand – 834012.

Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Test Report

Ambient Air Quality

Client Name & Address: Dunduria Stone Deposit, Vill- Dunduria, PS- Gumla, Dist- Gumla	Sample Details: Type of Plant: Stone Mines Sample Description: Ambient Air Sampling Date: 03/01/2022-04/02/2022 Sample Registration Date: 04/02/2022
Test Report No: IEM/EEL/RAN/AAQ/0560A Application No: 12450112, Date: 02.02.2022, Time: 03:13 Report Issue Date: 05/02/2022 Protocol: IS Method & CPCB Guideline	Customer Rept.: Mr. Naveen Kumar Singh Sample Drawn by: Rajiv Kumar Singh & team

METEROLOGICAL INFORMATION				
Average Temp(°C)	Average Relative Humidity (%)	Average Barometric Pressure (mm of Hg)	Weather Condition	Wind Direction
18	68	760	Partly Sunny	NW
Concentration in Ambient Air (Industrial, Residential, Rural and Other Area) Time Weighted Average- 24 Hours				
Parameters		SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)
Method Name		Improved West & Gaeke method	Jackob & Hochheiser Modified Method	Gravimetric Method
NAAQMS/36/2012-13		IS 5182 (Part-02)	IS 5182 (Part-06)	IS 5182 (Part-23)
Location (Inside the Plant Premises)	Sampling Point Coordinates	Concentration in Ambient Air as per NAAQS- 2009 For 24 Hours		
		80	80	100
Near North Corner	23°3'41.11"N 84°33'10.06"E	9.23	10.78	82
Near West Corner	23°3'39.19"N 84°33'8.09"E	9.67	10.46	80
Near South East Corner	23°3'37.33"N 84°33'12.05"E	8.42	9.56	78

----End of Report----

Shreyansh

Tested by
Analyst

(Signature)

Checked By
(Sunil Kumar Singh)
(Lab In charge cum Technical Manager)



Authorized Signatory
(Dr. S. C. Jain)
(Director & QC Manager)

Note: -1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for a maximum of 7 days on request from the date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

ECO ENVIRO LAB

ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); NABL & JSPCB Accreditation

A-13, Saket Vihar, Harmu Housing Colony, Ranchi, Jharkhand – 834012.

Email ID – iem2012@rediffmail.com, Mob. No. – 8407804253

Monitoring Report

Ambient Noise levels

Client Name & Address: Dunduria Stone Deposit, Vill- Dunduria, PS- Gumla, Dist- Gumla	Sample Details: Type of Plant: Stone Mines Sample Description: Ambient Noise Sampling Date: 03/01/2022-04/02/2022 Sample Registration Date: 04/02/2022
Test Report No: IEM/EEL/RAN/NOISE/0560B Application No: 12450112, Date: 02.02.2022, Time: 03:13 Report Issue Date: 05/02/2022 Protocol: IS Method & CPCB Guideline	Customer Rept.: Mr. Naveen Kumar Singh Sample Drawn by: Rajiv Kumar Singh & team

METEROLOGICAL INFORMATION				Location & Co-ordinate	
Average Temp (°C)	Average Relative Humidity (%)	Average Barometric Pressure (mm of Hg)	Weather Condition:	N ₁	Near North Corner 23°3'41.31" N 84°35'10.26" E
				N ₂	Near South East Corner 23°3'38.75" N 84°33'8.30" E
18	68	760	Partly Sunny	N ₃	Near South East Corner 23°3'37.81" N 84°33'12.15" E

CPCB Limit in dB(A)			
Area Code	Category of Area Zone	Day Time	Night Time
		(6 AM to 10 PM)	(10 PM to 6 AM)
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Result (4 hours Interval) L _{eq}								
Equivalent Continuous Sound Level (L _{eq}) in dB								
Time Weighted Average 'A' of the level of Sound in decibels on scale A								
Sound Level-L _{eq} dB(A)								
Sampling Points	Day Time (6 AM to 10 PM)					Night Time (10 PM to 6 AM)		
	(06 AM-10 AM)	(10 AM-02 PM)	(02 PM-06 PM)	(06 PM-10 PM)	Avg.	(10 PM-02 AM)	(02 AM-06 AM)	Avg.
N ₁	63.47	69.52	66.34	60.32	64.91	54.31	47.28	50.80
N ₂	65.98	71.47	68.21	62.17	66.96	56.28	49.82	53.05
N ₃	64.19	70.69	67.25	61.27	65.85	55.48	48.16	51.82

-----End of Reports-----

Remarks: - Average values are observed well within the prescribed limit for Industrial Area.

Tested by
Analyst

Checked By
(Sunil Kumar Singh)
(Lab In charge cum Technical Manager)

Approved
(Director & QC Manager)

Authorized Signatory
(Dr. S. C. Jain)
(Director & QC Manager)

Note: -1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for a maximum of 7 days on request from the date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission in writing. 4. All disputes are subjected to the Ranchi jurisdiction



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 Certified by: - An ISO 9001:2015 & BS OHSAS 18001 : 2007

Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Atmospheric Pollution Test Report		URL (Unique Lab Report) No.	TC78132120000307P
Report Release Date	03 rd April, 2021	Report ID	YBAEEL- 210312 - 104438-A01
Sample Description	Ambient Air Quality	Job code/ Ref. no.	YBAEEL/WA/LIA/Mar. -21/44
Type of Industry	Bauxite Mines	Work Order No./ Date	JSPCB Application No.- 10215213
Issue to	M/s Hindalco Industries Limited – Kujam I Kujam I Bauxite Mines, PO – Jovhipat, Dist. – Gumla, Jharkhand.		
Sampling Period	23/03/2021 – 24/03/2021	Mode of sample collection	By YBAEEL Team
Sampling Protocol	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)		
Sampling Locations	A. Kujam Quarry 430 (23°18'30.17"N, 84°19'09.46"E)	B. Talab Khanta 4 A13 (23°18'21.76"N, 84°18'56.50"E)	
	C. Football Ground 4 A11 (23°17'48.77"N, 84°18'47.03"E)	D. Camp (23°17'39.60"N, 84°18'42.75"E)	
Meteorological Cond.	W.C.- Clear	RH % - 45%	Temp. - 30°C
Sample receipt Date	24/03/2021	Analysis Started on	24/03/2021
		Analysis completed on	02/04/2021

Test Results

Parameters	Test Method	Units	Sampling Location				NAAQS (2009)
			Site A	Site B	Site C	Site D	
Particulate matter (PM ₁₀)	IS:5182 (P-23) 2006	µg/m ³	63.5	66.2	73.9	76.8	100
Particulate matter (PM _{2.5})	USEPA -40 CFR (PART 50) (50.7)	µg/m ³	25.4	26.2	28.8	30.4	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2) 2001 RA 2012	µg/m ³	9.4	10.6	13.0	14.2	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2012	µg/m ³	17.8	19.7	25.4	26.3	80
Carbon Monoxide (CO)*	IS:5182 (P-10) 1999 RA 2003	mg/m ³	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	04

End of Report

Remarks	Samples Comply with the prescribed specification as per NAAQS 2009.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
Note	The parameters marked with * are not accredited by NABL.
Specific contractual notes	All values are expressed in as unit.
	The results listed refer only to the tested sample and applicable parameter.
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law
	This report cannot be reproduced, except when in full, without the written permission of the Lab in-charge
	The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount
	All disputes are subjected to the Ranchi Jurisdiction

Tested by Amit Kumar Sinha Lab Analyst	Verified by Brij Nandan Kumar Section In-Charge	Authorized Signatory Atmospheric Pollution Technical Manager
		Issued by Umesh Das

Branch Office :- Jamshedpur Dhanbad Yugantar Bharati Analytical & Environmental Engineering Laboratory

Main Office : Namkum Post Office, Sidra, Ranchi - 834010, Jharkhand
 Ph : 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in





ENVIRONMENTAL LABORATORIES &



PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA
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Website : www.elespl.co.in

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Environmental Pollution Monitoring & Analysis

CIN: U74999JH2018PTC011125

GST NO:- 20AAECE9713D124 Q : 0651-2290103, 9931289451

TEST REPORT

Test Report No. : ELES/RNC/2022/0226	Report Release Date : 10.02.2022
Application No. : 12284417	Application Date : 22.01.2022

CUSTOMER DETAILS		SAMPLE DETAILS	
Customer Name	: Jharkhand Bauxite Minerals	Sampling Date	: 24.01.2022 to 25.01.2022
Address	: Mouza-Rampur, Dist.-Gumla	Sample Received Date	: 27.01.2022
		Type of Sample	: Ambient Air
		Sampling Procedure	: ELES/DOC/SMPL/02
		Sample Drawn By	: ELES Pvt. Ltd.
Plant Status	: Non Operational	Period of Analysis	: 27.01.2022 to 04.02.2022

METEOROLOGICAL INFORMATION

1	Average Temperature (°C) : 20	2	Barometric Pressure (mmHg) : 747
3	Relative Humidity (%) : 57	4	Weather Condition : Clear

Parameters			Particulate Matter (PM10)	Fine Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO ₂)	Nitrogen Di-Oxide (NO ₂)
Test Protocol			IS 5182 (P-23)	USEPA CFR40	IS 5182 (P-2)	IS 5182 (P-6)
Locations	Limit	Unit	100	60	80	80
			µg/m ³	µg/m ³	µg/m ³	µg/m ³
Station No.01	10:12 – 14:13		73	39	9.9	20.3
	14:13 – 18:06				9.3	20.0
	18:13 – 22:11		59		7.0	18.4
	22:11 – 02:02				7.4	18.7
Latitude:22°46'55.17"N	02:10 – 06:11		68	34	8.7	19.6
Longitude :84°52'27.30"E	06:11 – 10:05				8.3	19.1
Sample ID						
ELES/RNC/PCB/AA/4064	Average		67		8.4	19.4
Station No.02	10:23 – 14:21		64	34	8.5	19.2
	14:21 – 18:12				8.0	18.7
	18:20 – 22:18		55		7.3	17.9
	22:18 – 02:11				6.8	17.1
Latitude:22°46'55.12"N	02:19 – 06:15		67	34	7.1	17.7
Longitude :84°52'28.22"E	06:15 – 10:09				8.6	18.9
Sample ID						
ELES/RNC/PCB/AA/4065	Average		62		7.7	18.3

Page 1 of 2

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CIN: U74999JH2018PTC011125

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PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA
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Email: info@elespl.co.in; eles.ranchi@gmail.com

Website : www.elespl.co.in

GST NO:- 20AAECE9713D124 Q : 0651-2290103, 9931289451



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Environmental Pollution Monitoring & Analysis

TEST REPORT

Test Report No.	: ELES/RNC/2022/0226	Report Release Date	: 10.02.2022
Application No.	: 12284417	Application Date	: 22.01.2022

Parameters			Particulate Matter (PM10)		Fine Particulate Matter (PM2.5)		Sulphur Di-Oxide (SO ₂)		Nitrogen Di-Oxide (NO ₂)			
Test Protocol			IS 5182 (P-23)		USEPA CFR40		IS 5182 (P-2)		IS 5182 (P-6)			
Locations	Limit	Unit	100	µg/m ³	60	µg/m ³	80	µg/m ³	80	µg/m ³		
Station No.03	10:34 – 14:22		77	37	7.9	18.8						
	14:22 – 18:21											
	18:27 – 22:18	61	7.1				18.3					
	22:18 – 02:18											
Latitude:22°46'54.42"N	02:28 – 06:24	70						6.9	17.7			
Longitude :84°52'27.98"E	06:24 – 10:18									6.0	17.3	
Sample ID	Average	8.4		19.0								
ELES/RNC/PCB/AA/4066					8.1	18.8						
	69		37				7.4					18.3

Authorized Signatory

SANDIP BERA**SENIOR MANAGER****ELES PVT. LTD.**

****End of Report****

Authorized Signatory

Dr. Deependra Kumar Sinha

Ph. D. Environmental Engg.

ELES PVT. LTD. Technical Manager

Page 2 of 2

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PLOT NO-30, MANSAROVAR ENCLAVE, TUPUDANA
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GST NO:- 20AAECE9713D1Z4 P : 0651-2290103, 9931289451

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TEST REPORT

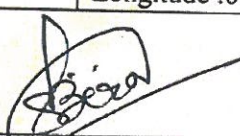
Test Report No.	: ELES/RNC/2022/0227	Report Release Date	: 10.02.2022
Application No.	: 12284417	Application Date	: 22.01.2022

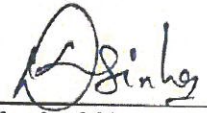
CUSTOMER DETAILS		SAMPLE DETAILS	
Customer Name	: Jharkhand Bauxite Minerals	Sample Date	: 24.01.2022 to 25.01.2022
Address	: Mouza-Rampur, Dist.-Gumla	Sampling Received Date	: 27.01.2022
		Type of Sample	: Ambient Noise
		Sampling procedure	: ELES/DOC/SMPL/03
		Sample Drawn By	: ELES Pvt. Ltd.
Plant Status	: Non Operational	Period of Analysis	: 27.01.2022 to 04.02.2022

METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	: 20	2	Barometric Pressure (mmHg)	: 747
3	Relative Humidity (%)	: 57	4	Weather Condition	: Clear

Location	Unit	Test Protocol	Result			Regulatory Limit
Station No.01	dB(A)	IS 9989:1981, RA 2001	L _{Max}	L _{Min}	L _{eq}	75 dB(A) Day Time & 70 dB(A) Night Time
Sample ID: ELES/RNC/PCB/AN/4067			71.4	39.6	64	
Latitude:22°46'55.17"N						
Station No.02	dB(A)	IS 9989:1981, RA 2001	L _{Max}	L _{Min}	L _{eq}	
Sample ID: ELES/RNC/PCB/AN/4068			74.4	40.4	64	
Latitude:22°46'55.12"N						
Station No.03	dB(A)	IS 9989:1981, RA 2001	L _{Max}	L _{Min}	L _{eq}	
Sample ID: ELES/RNC/PCB/AN/4069			70.4	41.4	62	
Latitude:22°46'54.42"N						


Authorized Signatory
SANDIP BERA
SENIOR MANAGER
ELES PVT. LTD.

****End of Report****

Authorized Signatory
Dr. Deependra Kumar Sinha
Ph. D. Environmental Engg.
ELES Pvt. Ltd. Technical Manager

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Sun-Tech

40 P Tupudana Industrial Area, Ranchi-834003, Jharkhand

TEL.- 7808266661/2/3

Accredited as per ISO/IEC 17025: 2017 by NABL



TC-5432

TEST REPORT

Test Report No.	ST/TR/23/03/6854	ULR No.	TC543222000006954F	Job Code:	M0010323
Date of receipt	01-03-2023	Date of Issue of Test Report		02-03-2023	
Customer's Name & Address	KARONDAJOR STONE CRUSHER AT - KARONDAJOR, DIST - GUMLA.				
Customer's Letter No.	LETTER REF. NO.: NIL			DATE:-01/03/2023	

SAMPLE DETAILS:

Sample No.	A12475, A12476, A12477, A12478	Material/ Item:	ABSORBED POLLUTANT IN GFA & IMPINGER FROM SITE
Material Condition	GOOD	Environmental condition:	Laboratory Temperature at time Analysis 27°C
Standard Applicable for testing	IS: 5182(P-23):2006, IS: 5182 (P-2): 2001, IS: 5182 (P-6): 2006, IS: 5182 (P-24):2019	Deviation in testing from Standard	NO
Application No	15694458	Application Date & time	27/02/2023 (01:49)
Nature of Industry	STONE CRUSHER	Date of Sampling	28/02/2023 -01/03/2023
SAMPLING	Done by Laboratory		Done by Customer
IF, SAMPLING DONE BY LAB:ORATORY	Sampling Location	N: 23°5'59"	E: 84°48'59"
	Sampling Method/ Sampling Plan	ST/SOP/AAQ/01	
	Environmental Condition	Temperature: 31°C	
	Sample Collected by	TANMAY, DHEERAJ	
Sample analysis Start date:	01-03-2023	Sample analysis End date:	02-03-2023

TEST RESULTS

MATERIAL		AMBIENT AIR		Discipline/ Group		CHEMICAL / ATMOSPHERIC POLLUTION		
SAMPLE NO	Test Parameters	OUTLET				Method Reference	REQUIREMENT (ACCEPTABLE LIMITS)	Conformity
		NEAR OFFICE ROOM	NEAR STOCK YARD	BACK SIDE	AVERAGE			
A12475	Particulate Matter (PM ₁₀), µg/m ³	82.67	88.25	87.59	86.17	IS: 5182 (P-23):2006	100 µg/m ³ , Max.	YES
A12476	Sulphur Dioxide (SO ₂), µg/m ³	7.01	7.21	6.67	6.96	IS: 5182 (P-2): 2001	80 µg/m ³ , Max.	YES
A12477	Nitrogen Dioxide (NO ₂), µg/m ³	21.44	21.23	21.92	21.53	IS: 5182 (P-6): 2006	80 µg/m ³ , Max.	YES
A12478	Particulate Matter (PM _{2.5}), µg/m ³	52.17	56.64	52.52	53.78	IS: 5182 (P-24):2019	60 µg/m ³ , Max.	YES

Note:- *As per National Ambient Air Quality Standards by Central Pollution Control Board (CPCB) Notification, New Delhi 18/11/2009

REMARK (if any) :- OK

*****END OF REPORT*****

Done By:- TANMAY, DHEERAJ

SR. SCIENTIST:-TANMAY DUTTA

SR. SCIENTIST ASSTT.: DHEERAJ PATRA

Declarations: 1. Sample will be retained for three months from the testing. 2. The test results relates only to the sample as received or sampled for testing and as per applicable parameters. 3. The report can not be used as an evidence in the court of law, without written approval of Laboratory can provide assurance that parts of a report are not taken out of context. 4. All disputes subject to Ranchi Jurisdiction only.

Doc. No F01(7.8) Amnd 08



Reviewed By:

Page No.1 of 1

Authorised Signatory



Sun-Tech

40 P Tupudana Industrial Area, Ranchi-834003, Jharkhand

TEL:- 7808266661/2/3

Accredited as per ISO/IEC 17025: 2017 by NABL



TC-5432

TEST REPORT

Test Report No.	ST/TR/23/03/6855	ULR No.	TC543222000006955F	Job Code:	M0010323
Date of receipt	01-03-2023	Date of Issue of Test Report		02-03-2023	
Customer's Name & Address	KARONDAJOR STONE CRUSHER AT - KARONDAJOR, DIST - GUMLA.				
Customer's Letter No.	LETTER REF. NO.: - NIL			DATE:-01/03/2023	

SAMPLE DETAILS:

Sample No.	A12479	Material/ Item:	NOISE QUALITY RECORDED IN SOUND LEVEL METER AT SITE	
Material Condition	GOOD	Environmental condition:	Laboratory Temperature at time Analysis : 27°C	
Standard Applicable for testing	IS: 9989 - 1981	Deviation in testing from Standard	NO	
Application No	15694458	Application Date & time	27/02/2023 (01:49)	
Operational Status	YES	Types OF Noise (Indoor/Outdoor)	OUTDOOR	
Date of Monitoring	28/02/2023 - 01/03/2023	Weather Condition During Observation	CLEAR	
Time of Observation	DAY & NIGHT			
SAMPLING	Done by Laboratory		Done by Customer	
IF, SAMPLING DONE BY LABORATORY	Sampling Location		N: 23°5'59" E: 84°48'59"	
	Sampling Method/ Sampling Plan		ST/SOP/NQ/01	
	Environmental Condition		Temperature: 31°C	
	Sample Collected by		TANMAY, DHEERAJ	
Sample analysis Start date:		01-03-2023	Sample analysis End date:	02-03-2023

TEST RESULTS

MATERIAL		NOISE		Discipline/ Group		CHEMICAL / ATMOSPHERIC POLLUTION		
S. No	Test Parameters	Unit of Measurement	Result			Method Reference	Requirement (Acceptable Limits) As Per IS: 9989 - 1981.	Conformity
			NEAR OFFICE ROOM	NEAR STOCK YARD	BACK SIDE			
1	Ambient Noise Level in Leq (DAY)	dB (A) Leq	68	70	71	IS: 9989 - 1981.	75 dB (A)Leq Day/Time & 70dB (A)Leq Night/Time	YES
2	Ambient Noise Level In Leq (NIGHT)	dB (A) Leq	45	47	49		YES	

*****END OF REPORT*****

Done By:- TANMAY, DHEERAJ

SR. SCIENTIST:-TANMAY DUTTA

SR. SCIENTIST ASSTT.DHEERAJ PATRA

Declarations: 1. Sample will be retained for three months from the testing. 2. The test results relates only to the sample as received or sampled for testing and as per applicable parameters. 3. The report can not be used as an evidence in the court of law, without written approval of Laboratory can provide assurance that parts of a report are not taken out of context. 4. All disputes subject to Ranchi Jurisdiction only.

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Reviewed By:

Page No.1 of 1

Authorised Signator



JHARKHAND STATE POLLUTION CONTROL BOARD

Central Laboratory, Hatia, Ranchi, Phone: - 0651- 2291449

Ref. No.:134/21

Ranchi, Dated

R&D AMBIENT AIR QUALITY REPORT

Name of the Industry : M/s Kasira Stone Deposit, At- Kasira,
Post-Patia, P.S.+Dist- Gumla

Date of Sampling : 22-23/10/2021

Weather Condition : Clear

No. of Sampling Points : 3

Sampling Position :

1. Near East Side
2. Near West North Side
3. Near West South Side

Time	SO ₂	NO _x	RSPM
Point 1			
1.00 P.M. to 5.00 P.M.	12.15	14.21	69.15
5.00 P.M. to 9.00 P.M.	14.13	15.61	
9.00 P.M. to 1.00 A.M.	13.11	15.07	67.24
1.00 A.M. to 5.00 AM.	12.10	14.78	
Maximum	14.13	15.61	69.15
Average	12.87	14.92	68.20
Point 2			
1.15 P.M. to 5.15 P.M.	12.35	14.91	73.24
5.15 P.M. to 9.15 P.M.	13.65	15.81	
9.15 P.M. to 1.15 A.M.	12.09	14.98	70.78
1.15 A.M. to 5.15 AM.	12.11	14.61	
Maximum	13.65	15.81	73.24
Average	12.55	15.08	72.01
Point 3			
1.30 P.M. to 5.30 P.M.	12.41	15.01	76.98
5.30 P.M. to 9.30 P.M.	13.75	15.17	
9.30 P.M. to 1.30 A.M.	12.25	14.24	72.89
1.30 A.M. to 5.30 AM.	12.61	14.07	
Maximum	13.75	15.17	76.98
Average	12.76	14.62	74.94

Note : All values are expressed in micro gram/cubic metre :

Remarks - The value of all parameters were found within the prescribed limit.

(S.K. Singh)
ASO

(R.N. Kashyap)
Board Analyst

Ambient Air Quality 2021/79





JHARKHAND STATE POLLUTION CONTROL BOARD
Central Laboratory, Mano Balram Bhawan, Hatia, Ranchi ,Phone: - 0651- 2291449

Lab. Ref. No.- 134N /21

Ranchi, Dated

R&D

Ambient Noise Level monitoring report in LAeqdB(A) at various locations in premises of M/s. Kasira Stone Deposit, At- kasira, Post- Patia, P.S.+Dist- Gumla at day time on 22/10/2021

Sl. No.	Monitoring Location	Status of unit Operation/No n- Operation	Time Duration 10 Minute interval	Avg. Noise level LAeq/dB (A)	Prescribed limit in day time LAeqdb(A)
1	Near West North Side	Operation	3.30 PM to 3.40 PM	65.2	75db(A)
2	Near West South Side	Operation	3.45 PM to 3.55 PM	66.0	75db(A)
3	Near East Side	Operation	4.00 PM to 4.10 PM	67.9	75db(A)

Remarks : Noise Level of all points were found within the prescribed limit.


29.10.21
(S.K. Singh)
ASO


01/11/2021
(R.N. Kashyap)
Board Analyst





JHARKHAND STATE POLLUTION CONTROL BOARD

Central Laboratory, Hatia, Ranchi, Phone: - 0651- 2291449

Ref. No.: 155
Application No.-15719757
Date : 01.03.2023

Ranchi, Dated 10/03/23

R&D AMBIENT AIR QUALITY REPORT

Name of the Industry : Kutlu Stone Deposit of M/s Priya Stone Mine
At- Kutlu, PO- Jairagi, P S- Dumri, Dist- Gumla
Date of Sampling : 03-04/03/2023
Weather Condition : Clear

No. of Sampling Points : 3
Sampling Position :
1. Near West Side
2. Near East South Side
3. Near East North Side

Time	SO ₂	NO _x	RSPM
Point 1			
1.00 P.M. to 5.00 P.M.	31.16	30.80	79.67
5.00 P.M. to 9.00 P.M.	29.14	33.61	
9.00 P.M. to 1.00 A.M.	27.12	27.71	72.81
1.00 A.M. to 5.00 AM.	19.19	23.12	
Maximum	31.16	33.61	79.67
Average	26.66	28.81	76.24
Point 2			
1.15 P.M. to 5.15 P.M.	28.18	32.58	74.93
5.15 P.M. to 9.15 P.M.	31.19	30.61	
9.15 P.M. to 1.15 A.M.	24.82	26.76	62.89
1.15 A.M. to 5.15 AM.	21.59	24.81	
Maximum	31.19	32.58	74.93
Average	26.46	28.69	68.91
Point 3			
1.30 P.M. to 5.30 P.M.	29.60	34.80	68.14
5.30 P.M. to 9.30 P.M.	27.28	31.38	
9.30 P.M. to 1.30 A.M.	24.61	27.59	67.68
1.30 A.M. to 5.30 AM.	19.81	21.84	
Maximum	29.60	34.80	68.14
Average	25.32	28.91	67.91

Note : All values are expressed in micro gram/cubic metre :

Remarks :- The Average value of RSPM (PM₁₀) at all points were found within the prescribed standard limit of 100 µg/m³.


10/03/2023
(S.K. Mahto)
FA

Ambient Air Quality 2022/115




10/03/2023
(R.N. Anjaan)
Board Analyst



JHARKHAND STATE POLLUTION CONTROL BOARD
Central Laboratory, Mano Balram Bhawan, Hatia, Ranchi, Phone: - 0651- 2291449

Lab. Ref. No.- 155
Application No.- 15719757
Date : 01.03.2023

Ranchi, Dated 10/03/23

R&D

Equivalent Noise Level monitoring report in Leq dB(A) at various locations in premises Kutlu Stone Deposit of M/s Priya Stone Mine, At- Kutlu, PO- Jairagi, P S- Dumri, Dist- Gumla at day time on 03/03/2023

Sl. No.	Monitoring Location	Status of unit Operation/No n- Operation	Time Duration 10 Minute interval	Avg. Noise level Leq dB (A)	Prescribed limit in day time Leq dB(A)
1	Near West Side at distance of 5 feet	Operation	3.00 PM to 3.10 PM	70.6	75db(A)
2	Near East South Side at distance of 5 feet	Operation	3.15 PM to 3.25 PM	71.9	75db(A)
3	Near East North Side at distance of 5 feet	Operation	3.30 PM to 3.40 PM	68.3	75db(A)

Remarks : The Noise Level of all points were found within the prescribed limit.

S.K. Mahto
10/03/2023
(S.K. Mahto)
FA

R.N. Anjaan
10/03/2023
(R.N. Anjaan)
Board Analyst





SCIENTIFIC RESEARCH LABORATORY

An ISO 9001:2015 (QMS) & OHSAS 45001:2018 Certified Organization
Recognized by Jharkhand State Pollution Control Board
Analytical & Environmental Engineering Laboratory
C- 144, Aman Green City, Pundag, Ranchi- 834 004, Jharkhand
Tele No.: 0651- 2950060, Mobile: 94701 30700, E-mail: nirajksingh2003@yahoo.co.in

Report No.: SRL/PE/AAQ/AUG-07/20

Date: 31.08.2020

TEST REPORT

1. Name and Address of the Unit : M/s Prem Engineering (Site for Proposed Stone Crusher)
At.: Plot No.- 844, Khata No.- 24
Mauza: Nauni, P.O.: Hutar, P.S.: Ghaghra
District: Gumla, Jharkhand
2. Date of Monitoring : 25.08.2020 to 26.08.2020
3. Average Temperature : 29°C
4. Average Relative Humidity : 54 %
5. Meteorological Condition : Cloudy
6. Results of Ambient Air Quality :

Sl. No.	Monitoring Location	Results in $\mu\text{g}/\text{m}^3$			
		Respirable Particulate Matter (PM_{10})	Respirable Particulate Matter ($\text{PM}_{2.5}$)	Nitrogen dioxide (NO_x)	Sulphur dioxide (SO_2)
1.	Western Boundary of Proposed Plot Area	77.40	47.00	17.20	<10
2.	Near South – East Boundary of Proposed Plot Area	73.70	44.00	15.80	<10
3.	Near North – East Boundary of Proposed Plot Area	68.50	42.00	15.50	<10

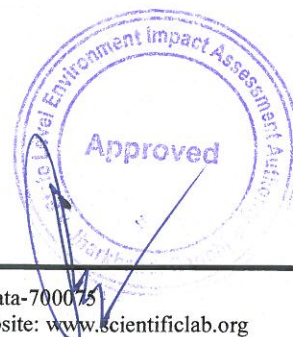
Norms: National Ambient Air Quality Standards (NAAQS) for Industrial area as per MoEF&CC, New Delhi vide notification dated 16th November, 2009 for 24 hours averages are as follows:

Industrial Area: $\text{RSPM} (\text{PM}_{10}) - 100 \mu\text{g}/\text{m}^3$; $\text{RSPM} (\text{PM}_{2.5}) - 60 \mu\text{g}/\text{m}^3$;
 $\text{NO}_x - 80 \mu\text{g}/\text{m}^3$; $\text{SO}_2 - 80 \mu\text{g}/\text{m}^3$

for Scientific Research Laboratory

Niraj

(Dr. Niraj Kumar Singh)
In-charge, Jharkhand office.





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by : - NABL accredited testing laboratory vide certificate Number TC-4032
Jharkhand State Pollution Control Board (JSPCB)
Certified by : - ISO 9001:2015 & ISO 45001:2018



TC-4032



Test Certificate

ULR (Unique Lab Report) No.		T C 4 0 3 2 2 2 0 0 0 0 1 3 9 2 F																		
Discipline	Chemical	Group	Atmospheric Pollution				Sample Description				Ambient Air Quality									
Report Release Date	27 th July, 2022				Report ID				YBAEEL-220321-113811-A01											
W. Order/ JSPCB App. No.	12763388				Work Order Date				11.03.2022											
Type of Industry (if any)	Sand Stock Yard (CTO Renewal)				Job code/ Ref. no.				YBAEEL/WA/LA/Jul-22/29											
Report issue to	M/s Priya Stone Mine Mauza - Kutlu, PS - Dumri, Dist. - Gumla, Jharkhand.																			
Sampling Period	23/07/2022 - 24/07/2022				Mode of sample collection				By YBAEEL Team											
Sampling Protocol	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)																			
Sampling Locations	A. North-East Direction				23°19'12.9"N, 84°08'52.8"E															
	B. East Direction				23°19'12.83"N, 84°08'51.7"E															
	C. West Direction				23°19'11.5"N, 84°08'50.0"E															
Meteorological Cond. of Field	W.C.- Semi-Cloudy				RH % - 69				Temp. - 29°C				W.D.- SE-NW							
Sample receipt Date	25/07/2022				Analysis Started on				25/07/2022				Analysis completed on				27/07/2022			

*****Test Results*****

Parameters	Test Methods	Units	MU %	Sampling Location			Limits
				Site A	Site B	Site C	
Particulate matter (PM ₁₀)	IS:5182 (P-23) 2006, RA 2017	µg/m ³	2.68	67.3	70.5	78.3	100
Particulate matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	2.60	31.4	35.3	37.5	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2) 2001 RA 2017	µg/m ³	7.84	7.5	11.8	8.6	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2017	µg/m ³	4.17	18.2	22.7	21.2	80

*****End of Report*****

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limits.

Sample Drawn By - Angad Munda
Tested By - Akash Khalkho (Lab Analyst)

Only CONCERN for

Jharkhand State Pollution Control Board
Application No. 12763388
Allotted Date 11.03.2022
Submission Date 27.07.2022

Verified by Amit Kumar Sinha Authorized Signatory	Issued by Umesh Das Technical Manager
---	---

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office : - Jamshedpur Dhanbad Hazaribag Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
Ph : 09835-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in





INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); JSPCB Accreditation

A-13, Saket Vihar, Harmu Housing Colony, Near Sohrai Bhawan, Ranchi, Jharkhand – 834002.

Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Formate No.- IEM-EEL-F-049

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 22-11-2022	Test Report No.: RN-220916001A1	
Sample ID: 221121-AP-0001	Sample Description: Ambient Air	
Challan No./P.O. No.: 14289015	Challan No./ P.No. Date: 16-09-2022	
Issued to: M/S R.K. Stone, At - Chauli, PO - Khora, PS - Gumla, District - GUMLA		
Type of Industry: Stone Crusher	Customer Representative: Satyanarayan Sahu	
Sample Drawn by: IEM and Team	Sampling Date: 20-11-2022 to 21-11-2022	
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near North-West Corner		Co-Ordinates: 23°05'37.87"N 84°40'07.52"E
Field Meteorological Information	A. Tem. (°C): 26	R.H. (%): 64
	W.C.: Clear	W.D.: North to South
Sample Receiving date: 21-11-2022	Testing Started: 21-11-2022	Testing Ended: 22-11-2022

----Test Results----

Sl. No.	Parameters	Test Method	Unit	Result	Limits
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	µg/m ³	76.98	100
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	µg/m ³	13.04	80
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	µg/m ³	28.28	80

----End of Report----

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule – 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Arjun Besra and team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



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Email ID – iem2012@rediffmail.com, Mob. No. – 8407804253.

Formate No.- IEM-EEL-F-049

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 22-11-2022	Test Report No.: RN-220916001A2	
Sample ID: 221121-AP-0002	Sample Description: Ambient Air	
Challan No./P.O. No.: 14289015	Challan No./ P.No. Date: 16-09-2022	
Issued to: M/S R.K. Stone, At - Chauli, PO - Khora, PS - Gumla, District - GUMLA		
Type of Industry: Stone Crusher	Customer Representative: Satyanarayan Sahu	
Sample Drawn by: IEM and Team	Sampling Date: 20-11-2022 to 21-11-2022	
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near South Corner	Co-Ordinates: 23°05'36.83"N 84°40'07.95"E	
Field Meteorological Information	A. Tem. (°C): 26	R.H. (%): 64
	W.C.: Clear	W.D.: North to South
Sample Receiving date: 21-11-2022	Testing Started: 21-11-2022	Testing Ended: 22-11-2022

---Test Results---

Sl. No.	Parameters	Test Method	Unit	Result	Limits
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	µg/m ³	72.07	100
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	µg/m ³	11.22	80
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	µg/m ³	25.93	80

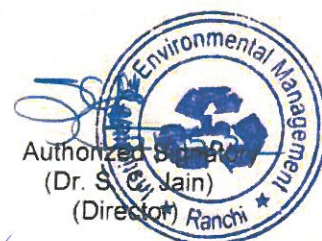
---End of Report---

Env.Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule – 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Arjun Besra and team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



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Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Formate No.- IEM-EEL-F-049

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 22-11-2022	Test Report No.: RN-220916001A3	
Sample ID: 221121-AP-0003	Sample Description: Ambient Air	
Challan No./P.O. No.: 14289015	Challan No./ P.No. Date: 16-09-2022	
Issued to: M/S R.K. Stone, At - Chauli, PO - Khora, PS - Gumla, District - GUMLA		
Type of Industry: Stone Crusher	Customer Representative: Satyanarayan Sahu	
Sample Drawn by: IEM and Team	Sampling Date: 20-11-2022 to 21-11-2022	
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near North East Corner		Co-Ordinates: 23°05'37.87"N 84°40'07.52"E
Field Meteorological Information	A. Tem. (°C): 26	R.H. (%): 64
	W.C.: Clear	W.D.: North to South
Sample Receiving date: 21-11-2022	Testing Started: 21-11-2022	Testing Ended: 22-11-2022

----Test Results----

Sl. No.	Parameters	Test Method	Unit	Result	Limits
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	µg/m ³	79.21	100
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	µg/m ³	14.56	80
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	µg/m ³	30.18	80

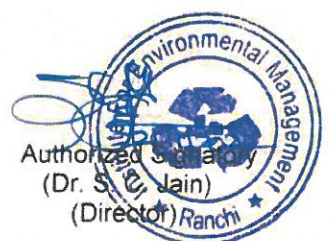
----End of Report----

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Arjun Besra and team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



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Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Format No. IEM-EEL-F-051

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Noise Levels (Excluding Vibration)
Report Issue Date: 22-11-2022	Test Report No.: RN-220916001N1	
Sample ID: 221121-AP-0004	Sample Description: Ambient Noise	
Challan No./P.O. No.: 14289015	Challan No./ P.No. Date: 16-09-2022	
Issued to: M/S R.K. Stone, At - Chauli, PO - Khora, PS - Gumla, District - GUMLA		
Type of Industry: Stone Crusher	Customer Representative: Satyanarayan Sahu	
Sample Drawn by: IEM and Team	Sampling Date: 20-11-2022 to 21-11-2022	
Protocol: CPCB Guideline & IS Method 9989:1981		
Sampling Location: Near North-West Corner	Co-Ordinates: 23°05'37.87"N 84°40'07.52"E	
Field Meteorological Information	A. Tem. (°C): 26	R.H. (%): 64
	W.C.: Clear	W.D.: North to South
Sample Receiving date: 21-11-2022	Testing Started: 21-11-2022	Testing Ended: 22-11-2022

---Test Result---

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	57.0	50.8	D-75 N-70

---End of Reports---

Note: -

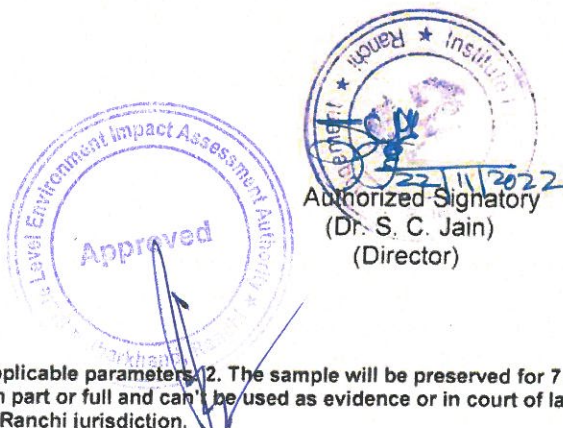
1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
6. Leq: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature $27 \pm 2^{\circ}\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per Noise Pollution (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Arjun Besra and team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



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Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Format No. IEM-EEL-F-051

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Noise Levels (Excluding Vibration)
Report Issue Date: 22-11-2022	Test Report No.: RN-220916001N2	
Sample ID: 221121-AP-0005	Sample Description: Ambient Noise	
Challan No./P.O. No.: 14289015	Challan No./ P.No. Date: 16-09-2022	
Issued to: M/S R.K. Stone, At - Chauli, PO - Khora, PS - Gumla, District - GUMLA		
Type of Industry: Stone Crusher	Customer Representative: Satyanarayan Sahu	
Sample Drawn by: IEM and Team	Sampling Date: 20-11-2022 to 21-11-2022	
Protocol: CPCB Guideline & IS Method 9989:1981		
Sampling Location: Near South Corner	Co-Ordinates: 23°05'36.83"N 84°40'07.95"E	
Field Meteorological Information	A. Tem. (°C): 26	R.H. (%): 64 W.C.: Clear W.D.: North to South
Sample Receiving date: 21-11-2022	Testing Started: 21-11-2022	Testing Ended: 22-11-2022

---Test Result---

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	54.7	49.9	D-75 N-70

---End of Reports---

Note: -

1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
6. Leq: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature $27 \pm 2^{\circ}\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per Noise Pollution (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Arjun Besra and team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



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Email ID – iem2012@rediffmail.com, Mob. No. – 8407804253.

Format No. IEM-EEL-F-051

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Noise Levels (Excluding Vibration)
Report Issue Date: 22-11-2022	Test Report No.: RN-220916001N3	
Sample ID: 221121-AP-0006	Sample Description: Ambient Noise	
Challan No./P.O. No.: 14289015	Challan No./ P.No. Date: 16-09-2022	
Issued to: M/S R.K. Stone, At - Chauli, PO - Khora, PS - Gumla, District - GUMLA		
Type of Industry: Stone Crusher	Customer Representative: Satyanarayan Sahu	
Sample Drawn by: IEM and Team	Sampling Date: 20-11-2022 to 21-11-2022	
Protocol: CPCB Guideline & IS Method 9989:1981		
Sampling Location: Near North East Corner	Co-Ordinates: 23°05'37.87"N 84°40'07.52"E	
Field Meteorological Information	A. Tem. (°C): 26	R.H. (%): 64
	W.C.: Clear	W.D.: North to South
Sample Receiving date: 21-11-2022	Testing Started: 21-11-2022	Testing Ended: 22-11-2022

---Test Result---

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	55.0	50.1	D-75 N-70

---End of Reports---

Note: -

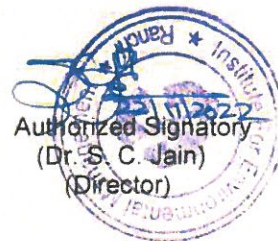
1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
6. Leq: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per Noise Pollution (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Arjun Besra and team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



PLOT NO-30, MANSROVAR ENCLVE, TUPUDANA
HATIA, RANCHI-834003 (JHARKHAND)
Email: eles.ranchi@gmail.com
GST NO:- 20AAECE9713D1Z4

ENGINEERING SERVICES PVT. LTD.
ISO 9001:2015 CERTIFIED, OHSAS 18001:2007 CERTIFIED
Jharkhand State Pollution Control Board, Certified Lab.
Environmental Pollution Monitoring & Analysis

Dispatch No: ELES/FM/PCB/48/84

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Report Release Date : 28/01/2020	Sample Ref. No. : ELES/RNC/PCB/AA/84
Test Report No : ELES/TR/PCB/84/2020	Source of Sample : Stone Crusher
Type of Sample : Particulate Matters & Gases	Sampling Date : 23/01/2020 to 24/01/2020
Sample Collected by : Biren & Team	Period of Analysis : 25/01/2020 to 27/01/2020
Sample details : Ambient air	Sample Condition : Sealed & preserved
Plant Status : Operational	Remarks : -----
Name & Address : M/s Rakesh Kumar Stone Crusher	Sample Drawn By : ELES Pvt Ltd.
At-Basia, Dist.- Gumla, Jharkhand.	Sampling Plan & Procedure: ELES/SOP/01
	Deviation if any : -----

METEOROLOGICAL INFORMATION

1. Average Temperature	19°C	2. Barometric Pressure	755 mm of Hg
3. Average Relative Humidity	67%	4. Weather Condition	Clear

AMBIENT AIR QUALITY ANALYSIS REPORT

TEST METHOD	IS:5182 (part -2)	IS:5182 (part -6)	IS:5182 (part -23)	IS:5182 (part -4)
PARAMETERS	SO ₂ in µg/m ³	NO ₂ in µg/m ³	PM ₁₀ (µg/m ³)	SPM(µg/m ³)
Permissible Limit	80	80	100	500
1. Sampling Location: Near Office Lat: 23°32'18.94"N Long: 85°29'30.84"E				
10:10AM-06:10PM	13.73	29.03	101.51	487.77
06:20PM-02:20AM	11.04	27.67	89.24	412.38
02:25AM-10:25AM	11.60	26.65	94.11	445.85
Average	12.12	27.79	94.95	448.67
2. Sampling Location: Near Crusher Machine Lat: 23°32'18.13"N Long: 85°29'30.52"E				
10:20AM-06:20PM	11.23	29.32	98.05	490.17
06:25PM-02:25AM	10.39	27.13	85.37	413.42
02:30AM-10:30AM	13.46	28.46	87.28	461.43
Average	11.7	28.30	90.23	455.01
3. Sampling Location: Near Raw Material Area Lat: 23°32'18.88"N Long: 85°29'30.92"E				
10:30AM-06:30PM	13.52	28.58	91.66	502.82
06:35PM-02:35AM	11.04	26.52	87.02	401.85
02:40AM-10:40AM	11.18	28.01	90.86	493.98
Average	11.91	27.70	89.85	466.22

*****End of Report*****

1. Test Report is based on the sample observations.
2. Samples will be destroyed after 7 days from date of issue of the Report.
3. The Test Report shall not be reproduced, without the written approval of laboratory



Dr. Deependra Kumar Sinha
Authorised Signatory
Dr. Deependra Kumar Sinha
Ph. D. Environmental Engg.
ELES Pvt. Ltd. Technical Manager

"Saving Environment will only save the Future"



PLOT NO-30, MANSROVAR ENCLVE, TUPUDANA
HATIA, RANCHI-834003 (JHARKHAND)
Email: eles.ranchi@gmail.com
GST NO:- 20AAECE9713D1Z4

ENGINEERING SERVICES PVT. LTD.
ISO 9001:2015 CERTIFIED, OHSAS 18001:2007 CERTIFIED
Jharkhand State Pollution Control Board, Certified Lab.
Environmental Pollution Monitoring & Analysis

Dispatch No: ELES/FM/PCB/48/85

TEST REPORT OF AMBIENT NOISE QUALITY MONITORING

Report Release Date : 28/01/2020	Sample Ref. No. : ELES/RNC/PCB/AN/85
Test Report No : ELES/TR/PCB/85/2020	Source of Sample : Stone Crusher
Type of Sample : Noise	Sampling Date : 23/01/2020
Sample Collected by : Biren & Team	Period of Analysis : 25/01/2020
Sample details : Ambient Noise	Sample Condition : ----
Plant Status : Operational	Remarks : ----
Name & Address : M/s Rakesh Kumar Stone Crusher At-Basia, Dist.- Gumla, Jharkhand.	Sample Drawn By : ELES Pvt Ltd.
	Sampling Plan & Procedure: ELES/SOP/01
	Deviation if any : ----

METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	19°C
2	Average Relative Humidity (%)	67 %
3	Barometric Pressure (mm of Hg)	755 mm of Hg
4	Weather Condition	Clear

AMBIENT NOISE QUALITY REPORT (24 hours basis)

Sampling Location	NOISE LEVEL in dB(A)		
	Minimum	Leq-Mean	Maximum
1. Near Crusher	40	61.1	70.8

*****End of Report*****

1. Test Report is based on the sample observations.
2. Samples will be destroyed after 7 days from date of issue of the Report.
3. The Test Report shall not be reproduced, without the written approval of laboratory

Authorised Signatory
Dr. Deependra Kumar Sinha
Ph. D. Environmental Engg.
ELES Pvt. Ltd. Technical Manager



"Saving Environment will only save the Future"

TEST REPORT

Test Report No.	ST/TR/20/06/345	Date of Receipt of Test Item	11-06-2020
Job Code	M0290620	Page	1 of 1
Report Date	12-06-2020	Date of Completion of Test	12-06-2020
ULR	T C 5 4 3 2 2 0 0 0 0 0		
Customer's Name & Address	M/S RAVINDRA CHOUDHARY AT- BARISA, PO- BARISA, DISTT.- GUMLA.		
Reference & date	NIL		
Discipline	CHEMICAL	Group	ATMOSPHERIC POLLUTION
Material/ Item	ABSORBED POLLUTANT IN GFA & IMPINGER FROM SITE		
Sampling Location	NORTH:- 23°3'40"		EAST:- 84°34'10"
Nature of Industry	Crusher		
Date of Sampling	11-06-2020		

CHEMICAL ANALYSIS OF AMBIENT AIR QUALITY

S. NO.	SAMPLE NO.	POLLUTANT	TEST METHOD	OUTLET				LIMIT*
				20M EAST FROM CRUSHER	20M NORTH-WEST FROM CRUSHER	NEAR OFFICE	AVERAGE	
1	81612	Particulate Matter (PM ₁₀), µg/m ³	IS: 5182 (P-23):2006	67.39	69.07	68.93	68.46	100 µg/m ³ , Max.
2	81613	Sulphur Dioxide (SO ₂), µg/m ³	IS: 5182 (P-2): 2001	3.84	3.48	3.27	3.53	80 µg/m ³ , Max.
3	81614	Nitrogen Dioxide (NO _x), µg/m ³	IS: 5182 (P-6): 2006	23.45	23.81	23.99	23.75	80 µg/m ³ , Max.
4	81615	Particulate Matter (PM _{2.5}), µg/m ³	IS: 5182 (P-23):2006	35.33	38.09	35.97	36.46	60 µg/m ³ , Max.

Note: *As per National Ambient Air Quality Standards by Central Pollution Control Board (CPCB) Notification, New Delhi 18/11/2009

REMARK (if any) :- OK

*****END OF REPORT*****

Done By:- Aril, Sidheshwar, Anu

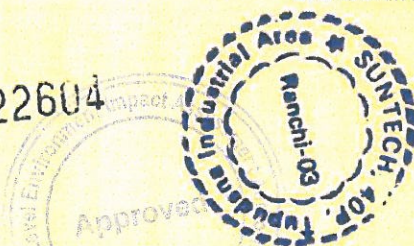
Sidheshwar

SR. SCIENTIST: SIDHESHWAR

Aril Barjo

SR. SCIENTIST ASSTT.: ARIL BARJO

322604



Preeti Varma

Preeti Varma
Authorized Signatory

DECLARATION:

1. Sample will be retained for three months
2. The test results relates only to the sample submitted for testing and as per applicable parameters. Product endorsement is neither inferred nor implied.
3. Total liability of our work is limited only to invoiced amount
4. The report can not be used as an evidence in the court of law without written approval of Laboratory
5. This report cannot be reproduced except in full without prior written approval from the Laboratory Director
6. All disputes subject to Ranchi Jurisdiction only
7. The results out of NABL Scope are * marked
8. Test report without Hologram is INVALID



Sun-Tech

40 P Tupudana Industrial Area, Ranchi-834003, Jharkhand

TEL.- 7808266661/2/3



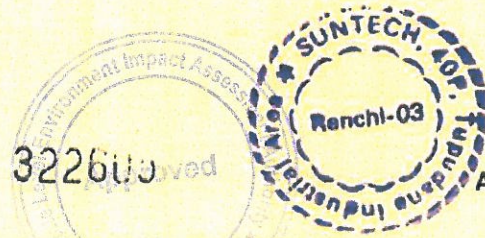
TEST REPORT

Test Report No.	ST/TR/20/06/ 346	Date of Receipt of Test Item	11-06-2020
Job Code	M0290620	Page	1 of 1
Report Date	12-06-2020	Date of Completion of Test	12-06-2020
ULR	T C 5 4 3 2 2 0 0 0 0 0		
Customer's Name & Address	M/S RAVINDRA CHOUDHARY AT- BARISA, PO- BARISA, DISTT.- GUMLA.		
Reference & date	NIL		
Discipline	CHEMICAL	Group	ATMOSPHERIC POLLUTION
Material/ Item	NOISE QUALITY RECORDED IN SOUND LEVEL METER AT SITE		
Operational Status	YES		
Date of Monitoring	11-06-2020		
RESULT OF NOISE QUALITY		SAMPLE No.:- 81616	
S.No.	PARAMETERS	NOISE LEVEL	REMARKS
1	Ambient Noise Level in Leq db (A)	63	OK
2	Ambient Noise Level in Leq db (A)	63	OK
Note :- Limit:-75 dB, as per IS: 9989 - 1981.			
*****END OF REPORT*****			

Done by: Aril Bajro.

Aril Bajro
SR. SCIENTIST: ARIL BAJRO

Sidheswar
SR. SCIENTIST ASSTT.:- SIDHESWAR RAKSHIT



Preeti Varma
Authorized Signatory

DECLARATION:

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- 8 Test report without Hologram is INVALID

Doc. No.F01(7.8) Amnd.03



JHARKHAND STATE POLLUTION CONTROL BOARD

Central Laboratory, Hatia, Ranchi, Phone: - 0651- 2291449

Ref. No.:130/21

Ranchi, Dated

R&D AMBIENT AIR QUALITY REPORT

Name of the Industry : M/s RKD Construction Pvt. Ltd. (Asni Stone Mine) No. of Sampling Points : 3
At- Asni, PO- Asni, PS- Gumla, Dist- Gumla Sampling Position :
Date of Sampling : 04-05/10/2021 1. Near East Side
Weather Condition : Clear 2. Near West Side
3. Near South Side

Time	SO ₂	NO _x	RSPM
Point 1			
11.00 A.M. to 3.00 P.M.	14.19	15.98	73.94
3.00 P.M. to 7.00 P.M.	15.16	16.86	
7.00 P.M. to 11.00 P.M.	14.07	15.19	67.65
11.00 P.M. to 3.00 AM.	13.17	14.71	
Maximum	15.16	16.86	73.94
Average	14.15	15.69	70.80
Point 2			
11.15 A.M. to 3.15 P.M.	17.21	18.61	75.86
3.15 P.M. to 7.15 P.M.	16.61	17.66	
7.15 P.M. to 11.15 P.M.	15.24	16.68	69.24
11.15 P.M. to 3.15 AM.	14.12	15.91	
Maximum	17.21	18.61	75.86
Average	15.80	17.22	72.55
Point 3			
11.30 A.M. to 3.30 P.M.	16.17	17.81	71.24
3.30 P.M. to 7.30 P.M.	15.29	16.68	
7.30 P.M. to 11.30 P.M.	13.98	14.91	66.18
11.30 P.M. to 3.30 AM.	13.24	14.19	
Maximum	16.17	17.81	71.24
Average	14.67	15.90	68.71

Note : All values are expressed in micro gram/cubic metre :

Remarks - The value of all parameters were found within the prescribed limit.


(S.K. Singh)
ASO

Ambient Air Quality 2021/70




(R.N. Kashyap)
Board Analyst



SCIENTIFIC RESEARCH LABORATORY

An ISO 9001:2015 (QMS) & OHSAS 18001:2007 Certified Organization

Recognized by Jharkhand State Pollution Control Board

Analytical & Environmental Engineering Laboratory

C- 144, Aman Green City, Pundag, Ranchi- 834 004, Jharkhand

Tele No.: 0651- 2999971, Mobile: 94701 30700, E-mail: nirajksingh2003@yahoo.co.in

Report No.: SRL/RKDCPL/AAQ/JUNE-29/2022

Application No.: 13552555 dated 21/06/2022

Date: 28.06.2022

TEST REPORT

1. Name and Address of the Unit : M/s RKD Construction Private Limited (Proposed Site).
At.: Plot No. 16 & 30, Khata No. 05 & 09,
Mauza: Redwa, P.S.: Sisai, District: Gumla,
Jharkhand.
(Occupier: Sri Laxman Sethi)
2. Date of Monitoring : 24.06.2022
3. Ambient Temperature : 36°C
4. Average Relative Humidity : 48 %
5. Meteorological Condition : Partly Cloudy (Light Rain)
6. Results of Ambient Air Quality :

Sl. No.	Monitoring Location	Results in $\mu\text{g}/\text{m}^3$		
		Respirable Particulate Matter (RSPM)	Nitrogen dioxide (NO _x)	Sulphur dioxide (SO ₂)
1.	Near Main Entry Area of Proposed Plant	67.50	19.40	<10
2.	Near Northern Boundary of Proposed Plant Area	61.80	17.60	<10
3.	Near Western Boundary of Proposed Plant Area	65.40	18.20	<10

Norms: National Ambient Air Quality Standards (NAAQS) for Industrial area as per MoEF&CC, New Delhi vide notification dated 16th November, 2009 for 24 hours averages are as follows:

Industrial Area: RSPM (PM₁₀) – 100 $\mu\text{g}/\text{m}^3$; NO_x – 80 $\mu\text{g}/\text{m}^3$; SO₂ – 80 $\mu\text{g}/\text{m}^3$

for Scientific Research Laboratory,

Niraj

(DR. NIRAJ KUMAR SINGH)
In-charge, Jharkhand Office.





SCIENTIFIC RESEARCH LABORATORY

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Analytical & Environmental Engineering Laboratory

C- 144, Aman Green City, Pundag, Ranchi- 834 004, Jharkhand

Tele No.: 0651- 2999971, Mobile: 94701 30700, E-mail: nirajksingh2003@yahoo.co.in

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Date: 28.06.2022

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1. Name and Address of the Unit : M/s RKD Construction Private Limited (Proposed Site).
At.: Plot No. 16 & 30, Khata No. 05 & 09,
Mauza: Redwa, P.S.: Sisai, District: Gumla,
Jharkhand.
(Occupier: Sri Laxman Sethi)
2. Date of Monitoring : 24.06.2022
3. Ambient Temperature : 36°C
4. Average Relative Humidity : 48 %
5. Meteorological Condition : Partly Cloudy (Light Rain)
6. Results of Ambient Air Quality :

Sl. No.	Monitoring Location	Results in $\mu\text{g}/\text{m}^3$		
		Respirable Particulate Matter (RSPM)	Nitrogen dioxide (NOx)	Sulphur dioxide (SO ₂)
1.	Near Main Entry Area of Proposed Plant	67.50	19.40	<10
2.	Near Northern Boundary of Proposed Plant Area	61.80	17.60	<10
3.	Near Western Boundary of Proposed Plant Area	65.40	18.20	<10

Norms: National Ambient Air Quality Standards (NAAQS) for Industrial area as per MoEF&CC, New Delhi vide notification dated 16th November, 2009 for 24 hours averages are as follows:

Industrial Area: RSPM (PM₁₀) – 100 $\mu\text{g}/\text{m}^3$; NOx – 80 $\mu\text{g}/\text{m}^3$; SO₂ – 80 $\mu\text{g}/\text{m}^3$

for Scientific Research Laboratory,

Niraj

(DR. NIRAJ KUMAR SINGH)
In-charge, Jharkhand Office.





JHARKHAND STATE POLLUTION CONTROL BOARD

Central Laboratory, Hatia, Ranchi, Phone: - 0651- 2291449

Ref. No.: 133(A)
Application No.-15415028
Date : 27.01.2023

Ranchi, Dated

R&D AMBIENT AIR QUALITY REPORT

Name of the Industry : M/s Saroj Minj Crushers Pvt. Ltd.
At+Mauza-Karoundajor, Ps-Bharno, Dist-Gumla
Date of Sampling : 28-29/01/2023
Weather Condition : Clear
No. of Sampling Points : 3
Sampling Position :
1. Near West Side
2. Near East South Side
3. Near East North Side

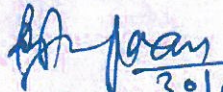
Time	SO ₂	NO _x	RSPM
Point 1			
11.00 A.M. to 3.00 P.M.	21.12	23.81	97.81
3.00 P.M. to 7.00 P.M.	20.24	22.45	
7.00 P.M. to 11.00 P.M.	16.88	19.51	76.15
11.00 P.M. to 3.00 AM.	14.29	15.97	
Maximum	21.12	23.81	97.81
Average	18.13	20.44	86.98
Point 2			
11.15 A.M. to 3.15 P.M.	22.17	24.67	95.97
3.15 P.M. to 7.15 P.M.	21.75	22.79	
7.15 P.M. to 11.15 P.M.	17.89	19.69	75.79
11.15 P.M. to 3.15 AM.	15.08	20.02	
Maximum	22.17	24.67	95.97
Average	19.22	21.79	85.88
Point 3			
11.30 A.M. to 3.30 P.M.	23.71	25.39	96.24
3.30 P.M. to 7.30 P.M.	21.79	23.94	
7.30 P.M. to 11.30 P.M.	17.15	19.97	77.69
11.30 P.M. to 3.30 AM.	16.56	18.75	
Maximum	23.71	25.39	96.24
Average	19.80	22.01	86.97

Note : All values are expressed in micro gram/cubic metre :

Remarks :- The Average value of RSPM (PM₁₀) at all points were found within the prescribed standard limit of 100 µg/m³.


(S.K. Singh)
ASO-Cum-Lab I/C

Ambient Air Quality 2022/92


(R.N. Anjaan)
Board Analyst
30/01/2023





JHARKHAND STATE POLLUTION CONTROL BOARD
Central Laboratory, Mano Balram Bhawan, Hatia, Ranchi, Phone: - 0651- 2291449

Lab. Ref. No.- 177/N
Application No.- 15415028
Date : 27.01.2023

Ranchi, Dated

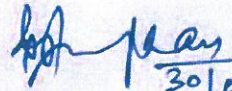
R&D

Ambient Noise Level monitoring report in LAeqdB(A) at various locations in premises M/s Saroj Minj Crushers Pvt. Ltd., At+Mauza-Karoundajor, Ps-Bharno, Dist-Gumla at day time on 28/01/2023

Sl. No.	Monitoring Location	Status of unit Operation/No n- Operation	Time Duration 10 Minute interval	Avg. Noise level LAeq/dB (A)	Prescribed limit in day time LAeqdB(A)
1	Near West Side at distance of 5 feet	Operation	3.00 PM to 3.10 PM	68.2	75db(A)
2	Near East South Side at distance of 5 feet	Operation	3.15 PM to 3.25 PM	71.3	75db(A)
3	Near East North Side at distance of 5 feet	Operation	3.30 PM to 3.40 PM	72.5	75db(A)

Remarks : Noise Level of all points were found within the prescribed limit.


30.1.23
(S.K. Singh)
ASO-Cum-Lab I/C


30/01/2023
(R.N. Anjaan)
Board Analyst





GEMS PROJECTS PVT.LTD.

(ENVIRONMENTAL LABORATORY DIVISION)
APPROVED BY JHARKHAND STATE POLLUTION CONTROL BOARD, GOVT OF JHARKHAND

TEST REPORT

Sample Description	Ambient Air Quality	Sampling Details	
Job Registration ID	G/JRN/210319/AR-03	Sampling Date	17th-18th Mar.2021
ULR Number		Sample collected by	Mukesh & Team
Report Release Date	22-03-2021	Sample Code	IS 5182 Part(2,6 & 23)
Issue to:		Industry Type	Bauxite Mine
M/s Serangdag Bauxite Mines(140.07 Hect.),HIL		Company Status	Operating
At- Hindalco Ind. Ltd		Metrological Information	
Dist- Gumla(Jharkhand)		Average Temperature(°C)	38
		Weather Condition	Clear
		Relative Humidity %	76

Test Method	IS 5182 (part-2)	IS 5182 (part-6)	IS 5182 (part-23)	CPCB (Gravimetric)
Time	SO ₂ µg/m ³	Nox µg/m ³	PM ₁₀ µg/m ³	P.M 2.5 µg/m ³
Sampling Location 1	Mine Pit Quarry No. 2B			
2:00 PM 06:00 PM	18	26		
06:00 PM 10:00 PM	21	28	78.69	
10:00 PM 02:00 AM	20	31		
02:00 AM 06:00 AM	19	29	60.47	
06:00 AM 10:00 AM	16	22		
10:00 AM 02:00 PM	14	20	89.31	42.37
Maximum	21	31	89.31	42.37
Average	18	26	76.16	42.37
Sampling Location 2	Near Baisbhatan Village			
2:15 PM 06:15 PM	15	34		
06:15 PM 10:15 PM	17	31	83.64	
10:15 PM 02:15 AM	18	30		
02:15 AM 06:15 AM	16	28	63.24	
06:15 AM 10:15 AM	14	23		
10:15 AM 02:15 PM	12	21	90.16	50.63
Maximum	18	34	90.16	50.63
Average	15	28	79.01	50.63
Sampling Location 3	Block 2A (Prohopat Village)			
2:30 PM 06:30 PM	17	25		
06:30 PM 10:30 PM	20	32	81.78	
10:30 PM 02:30 AM	18	31		
02:30 AM 06:30 AM	17	29	61.87	
06:30 AM 10:30 AM	15	24		
10:30 AM 02:30 PM	13	22	94.79	48.67
Maximum	20	32	94.79	48.67
Average	17	27	79.48	48.67

***** End of Report *****

- Remarks
- 1) Test values are found Within the prescribed limit of NAAQ 2009.
 - 2) The Test Report is in accordance with sample received and the test parameters
 - 3) Any dispute is subject to Ranchi Jurisdiction Only.
 - 4) The Test report should not be reproduced partially or whole for advertising or Legal entity.
 - 5) The Test report should not be reproduced without the written approval of Laboratory In-charge.

Aril Barjo
22/3/2021

Aril Barjo
Tested By
(Analyst)



Rohit Kumar Deep
22/03/2021
Checked by
(Section In-charge)



Sanjeev Kumar Singh
22/03/2021

Issued By
Lab In-Charge

Gems Projects Pvt. Ltd

1236/2 Lajpat Nagar, Near Lala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand- 834004

Mobile - +91-9431115961 +91-9934307900

E-mail: gems.projects@yahoo.in, md@gemsgroup.in, info@gemsgroup.in, gemslab17@gmail.com | Website - www.gemsgroup.in



GEMS PROJECTS PVT.LTD.

(ENVIRONMENTAL LABORATORY DIVISION)
APPROVED BY JHARKHAND STATE POLLUTION CONTROL BOARD, GOVT OF JHARKHAND

TEST REPORT

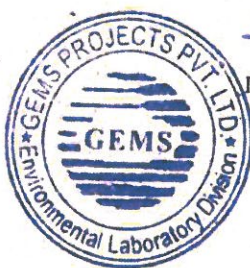
Sample Description	Ambient Air Quality	Sampling Details	
Job Registration ID	G/JRN/210319/AR-03	Sampling Date	17th-18th Mar.2021
ULR Number		Sample collected by	Mukesh & Team
Report Release Date	22-03-2021	Sample Code	IS 5182 Part(2,6 & 23)
Issue to:		Industry Type	Bauxite Mine
M/s Serangdag Bauxite Mines(110.07 Hect.),HIL		Company Status	Operating
At- Hindalco Ind. Ltd		Metrological Information	
Dist- Gumla(Jharkhand)		Average Temperature(°C)	38
		Weather Condition	Clear
		Relative Humidity %	76

Test Method	IS 5182 (part-2)	IS 5182 (part-6)	IS 5182 (part-23)	CPCB (Gravimetric)
Time	SO ₂ µg/m ³	Nox µg/m ³	PM ₁₀ µg/m ³	P.M 2.5 µg/m ³
Sampling Location 1	Harup Block C(Proposed)			
2:45 PM 06:45 PM	14	27		
06:45 PM 10:45 PM	16	29	80.58	
10:45 PM 02:45 AM	18	32		
02:45 AM 06:45 AM	20	34	59.45	
06:45 AM 10:45 AM	19	30		
10:45 AM 02:45 PM	17	28	91.41	54.98
Maximum	20	34	91.41	54.98
Average	17	30	77.15	54.98

***** End of Report*****

- Remarks
- 1) Test values are found Within the prescribed limit of NAAQ 2009.
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Aril Barjo
22/3/2021
Tested By
(Analyst)



Rohit Kumar Deep
22/03/2021
Checked by
(Section In-charge)

Sanjeev Kumar Singh
22/03/2021
Issued By
Lab In-Charge
Gems Projects Pvt. Ltd



1236/2 Lajpat Nagar, Near Lala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand- 834004
Mobile - +91-9431115961, +91-9934307900

E-mail: gems.projects@yahoo.in, md@gemsgroup.in, info@gemsgroup.in, gemslab17@gmail.com | Website - www.gemsgroup.in



GEMS PROJECTS PVT.LTD.

(ENVIRONMENTAL LABORATORY DIVISION)

APPROVED BY JHARKHAND STATE POLLUTION CONTROL BOARD, GOVT OF JHARKHAND

TEST REPORT

Sample Description	Ambient Air Quality	Sampling Details	
Job Registration ID	G/JRN/210319/AR-03	Sampling Date	17th-18th Mar.2021
ULR Number		Sample collected by	Mukesh & Team
Report Release Date	22-03-2021	Sampling Protocol	CPCB & Indophenol Method
Issue to:		Industry Type	Bauxite Mine
M/s Serangdag Bauxite Mines(140.07 Hect.),HIL		Company Status	Operating
At- Hindalco Ind. Ltd		Metrological Information	
Dist- Gumla(Jharkhand)		Average Temperature(°C)	38
		Weather Condition	Clear
		Relative Humidity %	76

Parameters	Test Method	Unit	Sampling Location				NAACS (2009)
			Mine Pit Quarry No. 2B	Near Baisbhatan Village	Block 2A (Prohopat Village)	Harup Block C(Proposed)	
Ozone(O ³)	CPCB guideline	µg/m ³	9.2	7.0	8.4	6.8	180 µg/m ³
Carbon Monoxide (CO)	CPCB (Non Dispersive Infrared Method)	mg/m ³	0.27	0.07	0.24	0.20	2 mg/m ³
Ammonia (NH ³)	Indophenol Method	µg/m ³	4.6	6.2	4.1	3.8	400 µg/m ³

***** End of Report*****

- Remarks: 1) Test values are found Within the prescribed limit of NAAQ 2009.
 2) The Test Report is in accordance with sample received and the test parameters.
 3) Any dispute is subject to Ranchi Jurisdiction Only.
 4) The Test report shall not be reproduced partially or whole for advertising or Legal entity.
 5) The Test report shall not be reproduced , without the written approval of laboratory In-charge.

Aril Barjo
22/3/2021
Aril Barjo
Tested By
Analyst



Rohit Kumar Deep
22/03/2021
Rohit Kumar Deep
Checked by
(Section In-charge)



Sanjeev Kumar Singh
22/03/2021
Sanjeev Kumar Singh
Issued By
(Lab In-Charge)
Lab In-Charge
Gems Projects Pvt. Ltd

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Sun-Tech

40 P Tupudana Industrial Area, Ranchi-834003, Jharkhand

TEL.- 7808266661/2/3

Accredited as per ISO/IEC 17025: 2017 by NABL



TC-5432

TEST REPORT

Test Report No.	ST/TR/23/02/6663	ULR No.	TC543223000006763F	Job Code:	M1490223
Date of receipt	18-02-2023	Date of Issue of Test Report		20-02-2023	
Customer's Name & Address	SHIV NARAYAN MINES AND CONSTRUCTION PVT LTD. AT - BASIA, PS - BASIA, GUMLA, JHARKHAND, DIST - GUMLA.				
Customer's Letter No.	LETTER REF. NO.:- NIL			DATE:-18/02/2023	

SAMPLE DETAILS:

Sample No.	A12259, A12260, A12261, A12262	Material/ Item:	ABSORBED POLLUTANT IN GFA & IMPINGER FROM SITE	
Material Condition	GOOD	Environmental condition:	Laboratory Temperature at time Analysis 27°C	
Standard Applicable for testing	IS: 5182(P-23):2006 , IS: 5182 (P-2): 2001, IS: 5182 (P-6): 2006, IS: 5182 (P-24):2019	Deviation in testing from Standard	NO	
Application No	15188541	Application Date & time	12-02-2023 (11:55)	
Nature of Industry	STONE CRUSHER	Date of Sampling	15/02/2023 - 16/02/2023	
SAMPLING	Done by Laboratory		Done by Customer	
IF, SAMPLING DONE BY LAB:ORATORY	Sampling Location		N: 22°52'44" E: 84°48'40"	
	Sampling Method/ Sampling Plan		ST/SOP/AAQ/01	
	Environmental Condition		Temperature: 30°C	
	Sample Collected by		SUKANTA, TANMAY	
Sample analysis Start date:		18-02-2023	Sample analysis End date:	20-02-2023

TEST RESULTS

MATERIAL		AMBIENT AIR		Discipline/ Group		CHEMICAL / ATMOSPHERIC POLLUTION		
SAMPLE NO	Test Parameters	OUTLET				Method Reference	REQUIREMENT (ACCEPTABLE LIMITS)	Conformity
		NEAR PANEL ROOM	NEAR WEIGHT ROOM	BACK SIDE	AVERAGE			
A12259	Particulate Matter (PM ₁₀), µg/m ³	87.36	86.40	84.71	86.16	IS: 5182 (P-23):2006	100 µg/m ³ , Max.	YES
A12260	Sulphur Dioxide (SO ₂), µg/m ³	6.43	6.28	6.29	6.33	IS: 5182 (P-2): 2001	80 µg/m ³ , Max.	YES
A12261	Nitrogen Dioxide (NO ₂), µg/m ³	22.26	22.11	22.66	22.34	IS: 5182 (P-6): 2006	80 µg/m ³ , Max.	YES
A12262	Particulate Matter (PM _{2.5}), µg/m ³	52.31	52.40	52.60	52.44	IS: 5182 (P-24):2019	60 µg/m ³ , Max.	YES

Note:- *As per National Ambient Air Quality Standards by Central Pollution Control Board (CPCB) Notification, New Delhi 18/11/2009

REMARK (if any) :- OK

*****END OF REPORT*****

Done By:-SUKANTA, TANMAY

SR. SCIENTIST:- SUKANTA MAHATO

SR. SCIENTIST ASSTT.: TANMAY DUTTA

Declarations: 1. Sample will be retained for three months from the testing. 2. The test results relates only to the sample as received or sampled for testing and as per applicable parameters. 3. The report can not be used as an evidence in the court of law, without written approval of Laboratory can provide assurance that parts of a report are not taken out of context. 4. All disputes subject to Ranchi Jurisdiction only.



Doc. No.F01(7.8) Amnd. 08

Reviewed By:

Page No.1 of 1

Authorised Signatory



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TEL. - 7808266661/2/3

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TC-5432

TEST REPORT

Test Report No.	ST/TR/23/01/5927	ULR No.	TC543222000006027F	Job Code:	M06100123
Date of receipt	11-01-2023	Date of Issue of Test Report		12-01-2023	
Customer's Name & Address	M/S SONAL BRICKS MAUZA - KURLAGA, PO - LASIA, DIST - GUMLA.				
Customer's Letter No.	LETTER REF. NO.: - NIL			DATE:-11/01/2023	

SAMPLE DETAILS:

Sample No.	A11590, A11591, A11592		Material/ Item:		STACK EMISSION MONITORING	
Material Condition	GOOD		Environmental condition:		Laboratory Temperature at time of Analysis : 27°C	
Standard Applicable for testing	IS: 11255 (Part-1): 1985 , IS: 11255 (Part-2): 1985, IS: 11255 (Part-7): 2005		Deviation in testing from Standard		NO	
Application No	14964139		Application Date & time		10/12/2022(02:25)	
Stack Name	CHIMNEY	Production Capacity	6 LAKHI/ YEAR		Stack Dia (m)	2.4
Stack Height from ground level	33 Meter	Height of Sampling point from ground level(m)	15		Stack Temp.	100° C
Average Velocity (m/sec.)	6.38	Fuel Used	COAL		Flow rate (Nm³/Min.)	18.00
Control Measure	-		Total No.Oven		-	
Nature of Industry	BRICKS MANUFACTURER	Stack Shape	CIRCULAR		Date of Sampling	10-01-2023
SAMPLING	Done by Laboratory			Done-by-Customer		
IF, SAMPLING DONE BY LABORATORY	Sampling Location					
	Sampling Method/ Sampling Plan			ST/SOP/SE/01		
	Environmental Condition			Temp.24°C		
	Sample Collected by			SUKANTA, SANUP		
Sample analysis Start date:		11-01-2023		Sample analysis End date:		12-01-2023

TEST RESULTS

MATERIAL		STACK		Discipline/ Group		CHEMICAL /ATMOSPHERIC POLLUTION	
S. No.	Sample No	Test Parameters	Unit of Measurement	Result	Method Reference	Requirement (Acceptable)	Conformity
1	A11590	PM (Particulate Matter)	mg/Nm³	77.89	IS: 11255 (Part-1): 1985	-	-
2	A11591	SO₂ (Sulphur Dioxide)	mg/Nm³	20.86	IS: 11255 (Part-2): 1985	-	-
3	A11592	NO₂ (Oxide of Nitrogen)	mg/Nm³	11.72	IS: 11255 (Part-7): 1985	-	-

REMARK (if any) :- OK

*****END OF REPORT*****

Done by:- SUKANTA, SANUP

SR. SCIENTIST: SUKANTA MAHATO

SR. SCIENTIST ASSTT.: SANUP . KR . MAHTO

Declarations: 1. Sample will be retained for three months from the testing. 2. The test results relates only to the sample as received or sampled for testing and as per applicable parameters. 3. The report can not be used as an evidence in the court of law, without written approval of Laboratory can provide assurance that parts of a report are not taken out of context. 4. All disputes subject to Ranchi Jurisdiction only.

Doc. No.F01(7.8) Amnd. 08



Reviewed By: *Sutta*

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40 P Tupudana Industrial Area, Ranchi-834003, Jharkhand

TEL.- 7808266661/2/3

Accredited as per ISO/IEC 17025: 2017 by NABL



TC-5432

TEST REPORT

Test Report No.	ST/TR/23/01/5926	ULR No.	TC543222000006026F	Job Code:	M06100123
Date of receipt	11-01-2023	Date of Issue of Test Report		12-01-2023	
Customer's Name & Address	M/S SONAL BRICKS MAUZA - KURLAGA, PO - LASIA, DIST - GUMLA.				
Customer's Letter No.	LETTER REF. NO.: NIL			DATE:-11/01/2023	

SAMPLE DETAILS:

Sample No.	A11585, A11586, A11587, A11588	Material/ Item:	ABSORBED POLLUTANT IN GFA & IMPINGER FROM SITE
Material Condition	GOOD	Environmental condition:	Laboratory Temperature at time Analysis : 27°C
Standard Applicable for testing	IS: 5182(P-23):2006 , IS: 5182 (P-2): 2001, IS: 5182 (P-6): 2006, IS: 5182 (P-24):2019	Deviation in testing from Standard	NO
Application No	14964139	Application Date & time	10/12/2022 (02:25)
Nature of Industry	BRICKS MANUFACTURER	Date of Sampling	09/01/2023 - 10/01/2023
SAMPLING	Done by Laboratory	Done by Customer	
IF, SAMPLING DONE BY LAB:ORATORY	Sampling Location		ST/SOP/AAQ/01
	Sampling Method/ Sampling Plan		Temperature: 23°C
	Environmental Condition		SUKANTA, SANUP
	Sample Collected by		
Sample analysis Start date:	11-01-2023	Sample analysis End date:	12-01-2023

TEST RESULTS

MATERIAL		AMBIENT AIR		Discipline/ Group		CHEMICAL / ATMOSPHERIC POLLUTION		
SAMPLE NO	Test Parameters	OUTLET				Method Reference	REQUIREMENT (ACCEPTABLE LIMITS)	Conformity
		NEAR ENTRANCE	NEAR LABOUR ROOM	NEAR MAKING AREA	AVERAGE			
A11585	Particulate Matter (PM ₁₀), µg/m ³	82.37	81.08	84.23	82.56	IS: 5182 (P-23):2006	100 µg/m ³ , Max.	YES
A11586	Sulphur Dioxide (SO ₂), µg/m ³	5.18	5.35	5.76	5.43	IS: 5182 (P-2): 2001	80 µg/m ³ , Max.	YES
A11587	Nitrogen Dioxide (NO ₂), µg/m ³	23.16	23.86	24.09	23.70	IS: 5182 (P-6): 2006	80 µg/m ³ , Max.	YES
A11588	Particulate Matter (PM _{2.5}), µg/m ³	53.16	52.96	55.18	53.77	IS: 5182 (P-24):2019	60 µg/m ³ , Max.	YES

Note:- *As per National Ambient Air Quality Standards by Central Pollution Control Board (CPCB) Notification, New Delhi 18/11/2009

REMARK (if any) :- OK

*****END OF REPORT*****

Done By:- SUKANTA, SANUP

SR. SCIENTIST:-SUKANTA MAHATO

SR. SCIENTIST ASSTT.: SANUP . KR. MAHTO

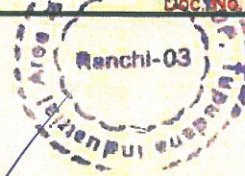
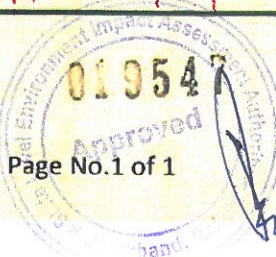
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Reviewed By: *Butta*

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Authorised Signatory



Sanup Kr. Mahto



ENVIRONMENTAL LABORATORIES &



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TEST REPORT

Test Report No.	: ELES/RNC/2022/1048	Report Release Date	: 18.05.2022
Application No.	: 13187867	Application Date	: 12.05.2022

CUSTOMER DETAILS		SAMPLE DETAILS	
Customer Name	: Stockyard for Keradih Sand Mine JSMD	Sampling Date	: 15.05.2022 to 16.05.2022
Address	: Mauza- Keradih, Anchal- Raidih Dist- Gumla	Sample Received Date	: 17.05.2022
		Type of Sample	: Ambient Air
		Sampling Procedure	: ELES/DOC/SMPL/02
		Sample Drawn By	: ELES Pvt. Ltd.
Plant Status	: Non Operational	Period of Analysis	: 17.05.2022 to 18.05.2022

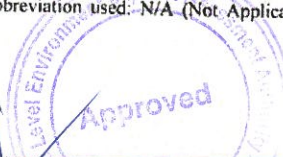
METEOROLOGICAL INFORMATION

1	Average Temperature (°C)	: 37	2	Barometric Pressure (mmHg)	: 735
3	Relative Humidity (%)	: 51	4	Weather Condition	: Clear

Parameters			Particulate Matter (PM10)		Fine Particulate Matter (PM2.5)		Sulphur Di-Oxide (SO ₂)		Nitrogen Di-Oxide (NO ₂)	
Test Protocol			IS 5182 (P-23)		IS 5182 (P-24)		IS 5182 (P-2)		IS 5182 (P-6)	
Locations	Limit	Unit	100	µg/m ³	60	µg/m ³	80	µg/m ³	80	µg/m ³
East Side of Stock Yard	10:11 – 14:15	68		33		8.2	29.4			
	14:15 – 18:06					10.6	34.2			
	18:12 – 22:19	56	8.3			24.1				
	22:19 – 02:09		<5.0			17.3				
	02:15 – 06:20	60	<5.0			15.6				
	06:20 – 10:08		5.5			22.3				
Sample ID ELES/RNC/PCB/AA/4651	Average	61	33	6.9	23.8					
North West of Stock Yard	10:24 – 14:26	64	30	9.5	19.6					
	14:26 – 18:16			12.2	24.4					
	18:22 – 22:27	55		10.8	21.5					
	22:27 – 02:16			5.7	23.3					
	02:21 – 06:25	55		<5.0	20.5					
	06:25 – 10:16			<5.0	23.2					
Sample ID ELES/RNC/PCB/AA/4652	Average	59	30	7.8	22.1					

Page 1 of 2

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Environmental Pollution Monitoring & Analysis

TEST REPORT

Test Report No. : ELES/RNC/2022/1048	Report Release Date : 18.05.2022
Application No. : 13187867	Application Date : 12.05.2022

Parameters			Particulate Matter (PM10)		Fine Particulate Matter (PM2.5)		Sulphur Di-Oxide (SO ₂)		Nitrogen Di-Oxide (NO ₂)	
Test Protocol			IS 5182 (P-23)		IS 5182 (P-24)		IS 5182 (P-2)		IS 5182 (P-6)	
Locations	Limit	Unit	100	µg/m ³	60	µg/m ³	80	µg/m ³	80	µg/m ³
South West of Stockyard	10:44 – 14:50		69		36		13.1		19.8	
	14:50 – 18:43						9.7		24.3	
	18:48 – 22:53		59				6.8		20.5	
	22:53 – 02:43						7.3		18.9	
	02:49 – 06:55		67				<5.0		21.5	
	06:55 – 10:47						8.8		24.7	
Sample ID ELES/RNC/PCB/AA/4653	Average		65		36		8.4		21.6	

Rekha Saxena
Authorized Signatory
Rekha Saxena
B. Sc, M. Sc. (Botany)
Director
ELES Pvt. Ltd.

****End of Report****

Sandip Bera
Authorized Signatory
SANDIP BERA
SENIOR MANAGER
ELES PVT. LTD.

Page 2 of 2

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TEST REPORT

Test Report No. : ELES/RNC/2022/1049	Report Release Date : 18.05.2022
Application No. : 13187867	Application Date : 12.05.2022

CUSTOMER DETAILS		SAMPLE DETAILS	
Customer Name	: Stockyard for Keradih Sand	Sampling Date	: 15.05.2022 to 16.05.2022
Address	Mine JSMD	Sampling Received Date	: 17.05.2022
	: Mauza- Keradih, Anchal- Raidih	Type of Sample	: Ambient Noise
	Dist- Gumla	Sampling procedure	: ELES/DOC/SMPL/03
		Sample Drawn By	: ELES Pvt. Ltd.
Plant Status	: Non Operational	Period of Analysis	: 17.05.2022 to 18.05.2022

METEOROLOGICAL INFORMATION

1	Average Temperature (°C) : 37	2	Barometric Pressure (mmHg) : 735
3	Relative Humidity (%) : 51	4	Weather Condition : Clear

Location	Unit	Test Protocol	Result			Regulatory Limit
East Side of Stockyard	dB(A)	IS 9989:1981, RA 2001	L _{Max}	L _{Min}	L _{Eq}	75 dB(A) Day Time & 70 dB(A) Night Time
Sample ID: ELES/RNC/PCB/AN/4654			68.2	37.5	63	
North West of Stockyard	dB(A)	IS 9989:1981, RA 2001	L _{Max}	L _{Min}	L _{Eq}	
Sample ID: ELES/RNC/PCB/AN/4655			69.7	36.1	61	
South West of Stockyard	dB(A)	IS 9989:1981, RA 2001	L _{Max}	L _{Min}	L _{Eq}	
Sample ID: ELES/RNC/PCB/AN/4656			69.1	38.5	60	

Rekha Saxena
Authorized Signatory

Rekha Saxena
B. Sc, M. Sc. (Botany)
Director
ELES Pvt. Ltd.

****End of Report****

Sandip Bera
Authorized Signatory
SANDIP BERA
SENIOR MANAGER
ELES PVT. LTD.

Page 1 of 1

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JHARKHAND STATE POLLUTION CONTROL BOARD

Central Laboratory, Hatia, Ranchi, Phone: - 0651- 2291449

Ref. No.: 181(A)
Application No.-16851393
Date : 20.07.2023

Ranchi, Dated 25/07/2023

R&D AMBIENT AIR QUALITY REPORT

Name of the Industry : Sulekha Devi Stone Crusher
Vill.- Kulkuppi, Ps.- Puso, Dist-Gumla
Date of Sampling : 22-23/07/2023
Weather Condition : Clear

No. of Sampling Points : 3
Sampling Position :
1. Near Main Gate
2. Near Stock Yard
3. Near Office

Time	SO ₂	NO _x	RSPM
Point 1			
11.00 A.M. to 3.00 P.M.	12.91	13.89	69.15
3.00 P.M. to 7.00 P.M.	11.68	12.91	
7.00 P.M. to 11.00 P.M.	11.24	12.39	60.24
11.00 P.M. to 3.00 AM.	10.09	11.53	
Maximum	12.91	13.89	69.15
Average	11.48	12.68	64.70
Point 2			
11.15 A.M. to 3.15 P.M.	13.09	13.24	65.18
3.15 P.M. to 7.15 P.M.	12.01	12.91	
7.15 P.M. to 11.15 P.M.	11.89	12.68	58.24
11.15 P.M. to 3.15 AM.	10.24	11.81	
Maximum	13.09	13.24	65.18
Average	11.81	12.66	61.71
Point 3			
11.30 A.M. to 3.30 P.M.	13.34	13.95	62.24
3.30 P.M. to 7.30 P.M.	12.39	12.51	
7.30 P.M. to 11.30 P.M.	11.94	13.01	55.18
11.30 P.M. to 3.30 AM.	11.12	12.24	
Maximum	13.34	13.95	62.24
Average	12.20	12.93	58.71

Note : All values are expressed in micro gram/cubic metre :

Remarks :- The Average value of RSPM (PM₁₀) at all points were found within the prescribed standard limit of 100 µg/m³.

Wd
25-07-2023
(Kumari Usha)
ASO

R.N. Anjaan
25/07/2023
Board Analyst

Ambient Air Quality 2022/134





JHARKHAND STATE POLLUTION CONTROL BOARD
Central Laboratory, Mano Balram Bhawan, Hatia, Ranchi ,Phone: - 0651- 2291449

Lab. Ref. No.- 181(A)
Application No.- 16851393
Date : 20.07.2023

Ranchi, Dated 25/07/2023

R&D

**Equivalent Noise Level monitoring report in Leq dB(A) at various locations
in premises Sulekha Devi Stone Crusher, Vill.- Kulkuppi, Ps.- Puso, Dist-
Gumla at day time on 22/07/2023**

Sl. No.	Monitoring Location	Status of unit Operation/No n- Operation	Time Duration 10 Minute interval	Avg. Noise level Leq dB (A)	Prescribed limit in day time Leq dB(A)
1	Near West Side at distance of 5 feet	Operation	3.00 PM to 3.10 PM	71.8	75db(A)
2	Near East South Side at distance of 5 feet	Operation	3.15 PM to 3.25 PM	69.1	75db(A)
3	Near East North Side at distance of 5 feet	Operation	3.30 PM to 3.40 PM	68.5	75db(A)

Remarks : The Noise Level of all points were found within the prescribed limit.

Usha
25.07.2023

(Kumari Usha)
ASO

R.N. Anjaan
25/07/2023
(R.N. Anjaan)
Board Analyst





INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); JSPCB Accreditation
A-13, Saket Vihar, Harmu Housing Colony, Near Sohrai Bhawan, Ranchi, Jharkhand – 834002.
Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Formate No.- IEM-EEL-F-049

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 12-10-2022	Test Report No.: RN-220919001A1	
Sample ID: 221010-AP-0001	Sample Description: Ambient Air	
Challan No./P.O. No.: 14310021	Challan No./ P.No. Date: 19-09-2022	
Issued to: Sunil Bricks At.-Rampur, Po-Toto, District - GUMLA		
Type of Industry: Brick kilns	Customer Representative: Natheswar Prasad Singh	
Sample Drawn by: IEM Team	Sampling Date: 08-10-2022 to 09-10-2022	
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near North Corner	Co-Ordinates: 23°08'31.79"N 84°31'30.77"E	
Field Meterological Information	A. Tem.(°C): 25	R.H.(%): 78 W.C.: Partly Cloudy W.D.: South South West
Sample Receiving date: 10-10-2022	Testing Started: 10-10-2022	Testing Ended: 12-10-2022

----Test Results----

Sl. No.	Parameters	Test Method	Unit	Result	Limits
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	µg/m ³	68.86	100
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	µg/m ³	14.35	80
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	µg/m ³	25.93	80

----End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule – 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Deepak Kumar Singh & Team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



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Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Formate No. - IEM-EEL-F-049

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 12-10-2022	Test Report No.: RN-220919001A2	
Sample ID: 221010-AP-0002	Sample Description: Ambient Air	
Challan No./P.O. No.: 14310021	Challan No./ P.No. Date: 19-09-2022	
Issued to: Sunil Bricks At.-Rampur, Po-Toto, District - GUMLA		
Type of Industry: Brick kilns	Customer Representative: Natheswar Prasad Singh	
Sample Drawn by: IEM Team	Sampling Date: 08-10-2022 to 09-10-2022	
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near West Corner	Co-Ordinates: 23°08'30.24"N 84°31'25.25"E	
Field Meteorological Information	A. Tem.(°C): 25	R.H.(%): 78 W.C.: Partly Cloudy W.D.: South South West
Sample Receiving date: 10-10-2022	Testing Started: 10-10-2022	Testing Ended: 12-10-2022

----Test Results----

Sl. No.	Parameters	Test Method	Unit	Result	Limits
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	µg/m ³	72.08	100
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	µg/m ³	15.94	80
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	µg/m ³	28.09	80

----End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Deepak Kumar Singh & Team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi Jurisdiction.



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A-13, Saket Vihar, Harmu Housing Colony, Near Sohrai Bhawan, Ranchi, Jharkhand – 834002.

Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Formate No.- IEM-EEL-F-049

TEST REPORT

Discipline: Chemical		Group: Atmospheric Pollution		Sub-Group: Ambient Air	
Report Issue Date: 12-10-2022			Test Report No.: RN-220919001A3		
Sample ID: 221010-AP-0003			Sample Description: Ambient Air		
Challan No./P.O. No.: 14310021			Challan No./ P.No. Date: 19-09-2022		
Issued to: Sunil Bricks At.-Rampur, Po-Toto, District - GUMLA					
Type of Industry: Brick kilns			Customer Representative: Natheswar Prasad Singh		
Sample Drawn by: IEM Team			Sampling Date: 08-10-2022 to 09-10-2022		
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series					
Sampling Location: Near South East Corner			Co-Ordinates: 23°08'27.77"N 84°31'34.44"E		
Field Meterological Information		A. Tem.(°C): 25	R.H.(%): 78	W.C.: Partly Cloudy	W.D.: South South West
Sample Receiving date: 10-10-2022		Testing Started: 10-10-2022		Testing Ended: 12-10-2022	

----Test Results----

Sl. No.	Parameters	Test Method	Unit	Result	Limits
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	µg/m ³	70.71	100
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	µg/m ³	15.15	80
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	µg/m ³	27.81	80

----End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Deepak Kumar Singh & Team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



REDUCE • REUSE
RECYCLE • RESPECT

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

ECO ENVIRO LAB

ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); JSPCB Accreditation

A-13, Saket Vihar, Harmu Housing Colony, Near Sohrai Bhawan, Ranchi, Jharkhand – 834002.

Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Format No.- IEM-EEL-F-050

INSPECTION REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Stack Emission
Report Issue Date: 12-10-2022	Test Report No.: RN-220919001A4	
Sample ID: 221010-AP-0007	Sample Description: Stack Emission	
Challan No./P.O. No.: 14310021	Challan No./ P.No. Date: 19-09-2022	
Issued to: Sunil Bricks At.-Rampur, Po-Toto, District – GUMLA		
Type of Industry: Brick kilns	Customer Representative: Natheswar Prasad Singh	
Sample Drawn by: IEM Team	Sampling Date: 08-10-2022	
Protocol: CPCB Guideline (LATS/80/2013-14) & IS Method 11255 Series		
Field Meteorological Information	A. Tem.(°C): 25	R.H.(%): 78
	W.C.: Partly Cloudy	W.D.: South South West
Sample Receiving date: 10-10-2022	Testing Started: 10-10-2022	Testing Ended: 12-10-2022

General Physical Information

Stack Identification	Common	Stack Height from Ground Level (m)	35
Emission Due to	--	Port Hole Height from Ground Level (m)	10
Plat Form	Temporary	Inner Dimension of Stack	03
Stack Description	Stack-01	Type of Fuel Used	Coal
Shape of Stack	Circular	Quantity of Fuel	--
Construction Material	Brick	Production Capacity	6 L/Y
Sampling Port	Available	Pollution Control Device (if any)	--

Test Result

Sl. NO.	Parameters	Test Methods	Unit	Result	Limits
1.	Flue Gas Temperature	IS 11255 (Part-3)	°K	--	--
3.	Flue Gas Velocity	IS 11255 (Part-3)	m/s	--	--
4.	Flue Gas Volumetric Flow Rate	IS 11255 (Part-3)	Nm ³ /hr.	--	--
5.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	--	--
6.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³	--	--
7.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm ³	--	--

---End of Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	--
Remark	--

The Stack Was not operational During Sampling.

Sample Drawn By: Deepak Kumar Singh & Team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi Jurisdiction.



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ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); JSPCB Accreditation

A-13, Saket Vihar, Harmu Housing Colony, Near Sohrai Bhawan, Ranchi, Jharkhand – 834002.

Email ID – iem2012@rediffmail.com, Mob. No. – 8407804253.

Format No. IEM-EEL-F-051

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Noise Levels (Excluding Vibration)			
Report Issue Date: 12-10-2022		Test Report No.: RN-220919001N1			
Sample ID: 221010-AP-0004		Sample Description: Ambient Noise			
Challan No./P.O. No.: 14310021		Challan No./ P.No. Date: 19-09-2022			
Issued to: Sunil Bricks At.-Rampur, Po-Toto, District - GUMLA					
Type of Industry: Brick kilns			Customer Representative: Natheswar Prasad Singh		
Sample Drawn by: IEM Team			Sampling Date: 08-10-2022 to 09-10-2022		
Protocol: CPCB Guideline & IS Method 9989:1981					
Sampling Location: Near North Corner			Co-Ordinates: 23°08'31.57"N 84°31'31.71"E		
Field Meterological Information	A. Tem.(°C): 25	R.H.(%): 78	W.C.: Partly Cloudy	W.D.: South South West	
Sample Receiving date: 10-10-2022		Testing Started: 10-10-2022		Testing Ended: 12-10-2022	

---Test Result---

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	58.9	46.8	D-75 N-70

---End of Reports---

Note: -

1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
6. Leq : It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per Noise Pollution (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Deepak Kumar Singh & Team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



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ISO 9001:2015 (QMS), ISO 45001:2018 (OHSAS); JSPCB Accreditation

A-13, Saket Vihar, Harmu Housing Colony, Near Sohrai Bhawan, Ranchi, Jharkhand – 834002.

Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Format No. IEM-EEL-F-051

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Noise Levels (Excluding Vibration)
Report Issue Date: 12-10-2022	Test Report No.: RN-220919001N2	
Sample ID: 221010-AP-0005	Sample Description: Ambient Noise	
Challan No./P.O. No.: 14310021	Challan No./ P.No. Date: 19-09-2022	
Issued to: Sunil Bricks At.-Rampur, Po-Toto, District - GUMLA		
Type of Industry: Brick kilns		Customer Representative: Natheswar Prasad Singh
Sample Drawn by: IEM Team		Sampling Date: 08-10-2022 to 09-10-2022
Protocol: CPCB Guideline & IS Method 9989:1981		
Sampling Location: Near West Corner		Co-Ordinates: 23°08'29.42"N 84°31'25.19"E
Field Meterological Information	A. Tem.(°C): 25	R.H.(%): 78
	W.C.: Partly Cloudy	W.D.: South South West
Sample Receiving date: 10-10-2022	Testing Started: 10-10-2022	Testing Ended: 12-10-2022

---Test Result---

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	56.1	48.1	D-75 N-70

----End of Reports----

Note: -

1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
6. Leq : It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per Noise Pollution (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Deepak Kumar Singh & Team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



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Email ID – iem2012@Rediffmail.com, Mob. No. – 8407804253.

Format No. IEM-EEL-F-051

TEST REPORT

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Noise Levels (Excluding Vibration)			
Report Issue Date: 12-10-2022		Test Report No.: RN-220919001N3			
Sample ID: 221010-AP-0006		Sample Description: Ambient Noise			
Challan No./P.O. No.: 14310021		Challan No./ P.No. Date: 19-09-2022			
Issued to: Sunil Bricks At.-Rampur, Po-Toto, District - GUMLA					
Type of Industry: Brick kilns			Customer Representative: Natheswar Prasad Singh		
Sample Drawn by: IEM Team			Sampling Date: 08-10-2022 to 09-10-2022		
Protocol: CPCB Guideline & IS Method 9989:1981					
Sampling Location: Near South East Corner			Co-Ordinates: 23°08'28.47"N 84°31'34.91"E		
Field Meterological Information	A. Tem.(°C): 25	R.H.(%): 78	W.C.: Partly Cloudy	W.D.: South South West	
Sample Receiving date: 10-10-2022		Testing Started: 10-10-2022		Testing Ended: 12-10-2022	

---Test Result---

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	54.5	47.0	D-75 N-70

---End of Reports---

Note: -

1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
6. Leq : It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per Noise Pollution (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Deepak Kumar Singh & Team

Checked By
(B. N. Kumar)
(Technical Manager)



Specific Contractual Note: 1. The results refer only to the tested sample of applicable parameters. 2. The sample will be preserved for 7 days on date of issue of the certificate. 3. The certificate shall not be reproduced in part or full and can't be used as evidence or in court of law without prior permission of MD in writing. 4. All disputes are subjected to the Ranchi jurisdiction.



JHARKHAND STATE POLLUTION CONTROL BOARD

Central Laboratory, Hatia, Ranchi, Phone: - 0651- 2291449

Ref. No.:79/21

Ranchi, Dated

R&D AMBIENT AIR QUALITY REPORT

Name of the Industry : M/s Tanya Stone Works, Mauza -
Dunduria, PS - Gumla, Dist - Gumla
Date of Sampling : 19-20/02/2021
Weather Condition : Clear

No. of Sampling Points : 3
Sampling Position :
1. Near Pannel Room
2. Near Pet Pehari
3. Near Office

Time	SO ₂	NO _x	SPM
Point 1			
11.00 A.M. to 3.00 P.M.	33.18	36.12	571.12
3.00 P.M. to 7.00 P.M.	32.02	32.18	
7.00 P.M. to 11.00 P.M.	30.11	30.07	402.18
11.00 P.M. to 3.00 AM.	25.06	27.17	
Maximum	33.18	36.12	571.12
Average	30.09	31.39	486.65
Point 2			
11.15 A.M. to 3.15 P.M.	31.17	35.18	567.02
3.15 P.M. to 7.15 P.M.	30.27	33.16	
7.15 P.M. to 11.15 P.M.	25.15	29.58	432.71
11.15 P.M. to 3.15 AM.	20.16	27.63	
Maximum	31.17	35.18	567.02
Average	26.69	31.39	499.87
Point 3			
11.30 A.M. to 3.30 P.M.	29.98	33.16	498.15
3.30 P.M. to 7.30 P.M.	27.15	30.61	
7.30 P.M. to 11.30 P.M.	23.02	27.57	401.26
11.30 P.M. to 3.30 AM.	20.17	22.02	
Maximum	29.98	33.16	498.15
Average	25.08	28.34	449.71

Note : All values are expressed in micro gram/cubic metre :

Remarks :- The value of all parameters were found within the prescribed limit.

(S.K. Singh)
ASO

Ambient Air Quality 2016/487



(R.N. Kashyap)
Board Analyst



JHARKHAND STATE POLLUTION CONTROL BOARD
Central Laboratory, Mano Balram Bhawan, Hatia, Ranchi, Phone: - 0651- 2291449

Lab. Ref. No.- 79N /21

Ranchi, Dated

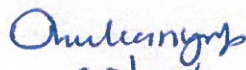
R&D

Ambient Noise Level monitoring report in LAeqdB(A) at various locations in premises of M/s. Tanya Stone Works, Mauza - Dunduria, PS - Gumla, Dist - Gumla at day time on 19/02/2021

Sl. No.	Monitoring Location	Status of unit Operation/No n- Operation	Time Duration 10 Minute interval	Avg. Noise level LAeq/dB (A)	Prescribed limit in day time LAeqdb(A)
1	Near Pannel Room	Operation	4.30 PM to 4.40 PM	72.0	75db(A)

Remarks : Noise Level was found within the prescribed limit.


05.3.21
(S.K. Singh)
ASO


09/03/2021
(R.N. Kashyap)
Board Analyst





Sun-Tech

40 P Tupudana Industrial Area, Ranchi-834003, Jharkhand

TEL.- 7808266661/2/3

Accredited as per ISO/IEC 17025: 2017 by NABL



TC-5432

TEST REPORT

Test Report No.	ST/TR/22/09/4148	ULR No.	TC543222000004248F	Job Code:	M0970922
Date of receipt	23-09-2022	Date of Issue of Test Report		24-09-2022	
Customer's Name & Address	M/S UDAY BRICKS AT- CHADHYA, PO- GHAGRA, DIST- GUMLA, DIST- GUMLA.				
Customer's Letter No.	LETTER REF. NO.: NIL			DATE:-23/09/2022	

SAMPLE DETAILS:

Sample No.	A10112, A10113, A10114, A10115	Material/ Item:	ABSORBED POLLUTANT IN GFA & IMPINGER FROM SITE
Material Condition	GOOD	Environmental condition:	Laboratory Temperature at time Analys 27°C
Standard Applicable for testing	IS: 5182(P-23):2006 , IS: 5182 (P-2): 2001, IS: 5182 (P-6): 2006, IS: 5182 (P-24):2019	Deviation in testing from Standard	NO
Application No	14310103	Application Date & time	19/09/2022(02:49)
Nature of Industry	BRICKS MANUFACTURE	Date of Sampling	21-09-2022 - 22-09-2022
SAMPLING	Done by Laboratory	Done by Customer	
IF, SAMPLING DONE BY LAB:ORATORY	Sampling Location	N: 23°15'45"	E: 84°30'36"
	Sampling Method/ Sampling Plan	ST/SOP/AAQ/01	
	Environmental Condition	Temperature: 30°C	
	Sample Collected by	SUKANTA, TANMAY, DHEERAJ	
Sample analysis Start date:	23-09-2022	Sample analysis End date:	24-09-2022

TEST RESULTS

MATERIAL		AMBIENT AIR		Discipline/ Group		CHEMICAL / ATMOSPHERIC POLLUTION		
SAMPLE NO	Test Parameters	OUTLET				Method Reference	REQUIREMENT (ACCEPTABLE LIMITS)	Conformit
		SOUTH SIDE	NORTH EAST SIDE	SOUTH WEST SIDE	AVERAGE			
A10112	Particulate Matter (PM ₁₀), µg/m ³	83.09	81.81	80.10	81.46	IS: 5182 (P-23):2006	100 µg/m ³ , Max.	YES
A10113	Sulphur Dioxide (SO ₂), µg/m ³	7.80	7.23	7.34	7.46	IS: 5182 (P-2): 2001	80 µg/m ³ , Max.	YES
A10114	Nitrogen Dioxide (NO ₂), µg/m ³	20.21	20.18	19.48	19.96	IS: 5182 (P-6): 2006	80 µg/m ³ , Max.	YES
A10115	Particulate Matter (PM _{2.5}), µg/m ³	40.21	40.15	42.42	40.93	IS: 5182 (P-24):2019	60 µg/m ³ , Max.	YES

Note:- *As per National Ambient Air Quality Standards by Central Pollution Control Board (CPCB) Notification, New Delhi 18/11/2009

REMARK (If any) :- OK

*****END OF REPORT*****

Done By:-SUKANTA, TANMAY

SR. SCIENTIST:-SUKANTA MAHATO

SR. SCIENTIST ASSTT.: TANMAY DUTTA

Declarations: 1. Sample will be retained for three months from the testing. 2. The test results relates only to the sample as received or sampled for testing and as per applicable parameters. 3. The report can not be used as an evidence in the court of law, without written approval of Laboratory can provide assurance that parts of a report are not taken out of context. 4. All disputes subject to Ranchi Jurisdiction only.



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Reviewed By:

Page No.1 of 1

Authorised Signator



Sun-Tech

40 P Tupudana Industrial Area, Ranchi-834003, Jharkhand

TEL.- 7808266661/2/3

Accredited as per ISO/IEC 17025: 2017 by NABL



TC-5432

TEST REPORT

Test Report No.	ST/TR/22/09/4149	ULR No.	TC54322200004249F	Job Code:	M0970922
Date of receipt	23-09-2022	Date of Issue of Test Report		24-09-2022	
Customer's Name & Address	M/S UDAY BRICKS AT- CHADHYA, PO- GHAGRA, DIST- GUMLA, DIST- GUMLA.				
Customer's Letter No.	LETTER REF. NO.:- NIL			DATE:23/09/2022	

SAMPLE DETAILS:

Sample No.	A10116	Material/ Item:	NOISE QUALITY RECORDED IN SOUND LEVEL METER AT SITE	
Material Condition	GOOD	Environmental condition:	Laboratory Temperature at time Analysis : 27°C	
Standard Applicable for testing	IS: 9989 - 1981.	Deviation in testing from Standard	NO	
Application No	14310103	Application Date & time	19/09/2022(02:49)	
Operational Status	YES	Types OF Noise (Indoor/Outdoor)	OUTDOOR	
Date of Monitoring	21-09-2022 - 22-09-2022	Weather Condition During Observation	CLEAR	
Time of Observation	DAY & NIGHT			
SAMPLING	Done by Laboratory		Done by-Customer	
IF, SAMPLING DONE BY LABORATORY	Sampling Location		N: 23°15'45" E: 84°30'36"	
	Sampling Method/ Sampling Plan		ST/SOP/NQ/01	
	Environmental Condition		Temperature: 30°C	
	Sample Collected by		SUKANTA, TANMAY	
Sample analysis Start date:		23-09-2022	Sample analysis End date:	24-09-2022

TEST RESULTS

MATERIAL		NOISE		Discipline/ Group	CHEMICAL / ATMOSPHERIC POLLUTION	
S. No	Test Parameters	Unit of Measurement	Result	Method Reference	Requirement (Acceptable Limits) As Per IS: 9989 - 1981.	Conformity
1	Ambient Noise Level in Leq (DAY)	dB (A) Leq	56	IS: 9989 - 1981.	75 dB (A)Leq Day/Time & 70dB (A)Leq Night/Time	YES
2	Ambient Noise Level in Leq (NIGHT)	dB (A) Leq	40		YES	

*****END OF REPORT*****

Done By:-SUKANTA, TANMAY

SR. SCIENTIST:-SUKANTA MAHATO

SR. SCIENTIST ASSTT.: TANMAY DUTTA

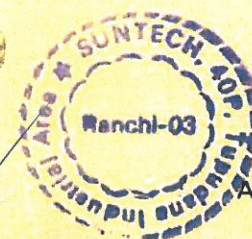
Declarations: 1. Sample will be retained for three months from the testing. 2. The test results relates only to the sample as received or sampled for testing and as per applicable parameters. 3. The report can not be used as an evidence in the court of law, without written approval of Laboratory can provide assurance that parts of a report are not taken out of context. 4. All disputes subject to Ranchi Jurisdiction only.

Doc. No.F01(7.8) Amnd. 08



Reviewed By:

Page No.1 of 1



Authorised Signator



Sun-Tech

40 P Tupudana Industrial Area, Ranchi-834003, Jharkhand

TEL.- 7808266661/2/3

Accredited as per ISO/IEC 17025: 2017 by NABL



TEST REPORT

Test Report No.	ST/TR/22/09/4150	ULR No.	TC54322200000	Job Code:	M0970922
Date of receipt	23-09-2022	Date of Issue of Test Report		24-09-2022	
Customer's Name & Address	M/S UDAY BRICKS AT- CHADHYA, PO- GHAGRA, DIST- GUMLA, DIST- GUMLA.				
Customer's Letter No.	LETTER REF. NO.:- NIL			DATE:-23/09/2022	

SAMPLE DETAILS:

Sample No.	A10117, A10118, A10119		Material/ Item:		STACK EMISSION MONITORING	
Material Condition	GOOD		Environmental condition:		Laboratory Temperature at time of Analysis : 27°C	
Standard Applicable for testing	IS: 11255 (Part-1): 1985 , IS: 11255 (Part-2): 1985, IS: 11255 (Part-7): 2005		Deviation in testing from Standard		NO	
Application No	14310103		Application Date & time		19/09/2022(02:49)	
Stack Height from ground level	35 Meter		Height of Sampling point from ground level(m)	10	Stack Temp.	85° C
Average Velocity (m/sec.)	5.41		Fuel Used	COAL	Flow rate (Nm³/Min.)	19.25
Stack Name	CHIMNEY	Production Capacity	-	Stack Dia	3 M	
Nature of Industry	BRICK MANUFACTURER		Date of Sampling		22-09-2022	
SAMPLING	Done by Laboratory			Done-by-Customer		
IF, SAMPLING DONE BY LABORATORY	Sampling Location			N: 23°15'45" E: 84°30'36"		
	Sampling Method/ Sampling Plan			ST/SOP/SE/01		
	Environmental Condition			Temp.30°C		
	Sample Collected by			SUKANTA, TANMAY		
Sample analysis Start date:		23-09-2022		Sample analysis End date:		24-09-2022

TEST RESULTS

MATERIAL		STACK		Discipline/ Group	CHEMICAL /ATMOSPHERIC POLLUTION		
S. No.	Sample No	Test Parameters	Unit of Measurement	Result	Method Reference	Requirement (Acceptable Limits)	Conformity
1	A10117	PM (Particulate Matter)	mg/Nm ³	74.71	IS: 11255 (Part-1): 1985	-	-
2	A10118	SO ₂ (Sulphur Dioxide)	mg/Nm ³	27.69	IS: 11255 (Part-2): 1985	-	-
3	A10119	NO ₂ (Oxide of Nitrogen)	mg/Nm ³	11.72	IS: 11255 (Part-7): 1985	-	-

REMARK (if any) :- OK

*****END OF REPORT*****

Done by:- Sukanta, Tanmay

SR. SCIENTIST: SUKANTA MAHATO

SR. SCIENTIST ASSTT.: TANMAY DUTTA

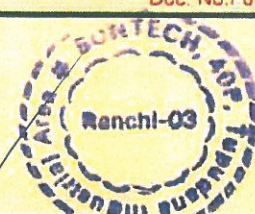
Declarations: 1. Sample will be retained for three months from the testing. 2. The test results relates only to the sample as received or sampled for testing and as per applicable parameters. 3. The report can not be used as an evidence in the court of law, without written approval of Laboratory can provide assurance that parts of a report are not taken out of context. 4. All disputes subject to Ranchi Jurisdiction only

Doc. No.F01(7.8) Amnd. 08



Approved

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Reviewed By: Sukanta

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Authorised Signator

Calculation of AQI						
Date	Station					
23-Sep-23	City	State				
			BASIA			
Pollutants	concentration in $\mu\text{g}/\text{m}^3$ (except for CO)	Sub-Index	check	Air Quality Index		
PM10	24-hr avg 56.00	56	1	57		
PM2.5	24-hr avg 34.00	57	1			
SO2	24-hr avg 6.70	8	1			
NOx	24-hr avg 25.60	32	1			
*CO (mg/m3)	max 8-hr 0.00	0	0			
O3	max 8-hr 0.00	0	0	AQI =		
NH3	24-hr avg 0.00	0	0			
* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5 * The check displays "1" when a non-zero value is entered						
Good (0-50)	Minimal Impact	Poor (201-300)	Breathing discomfort to people on prolonged exposure			
Satisfactory (51-100)	Minor breathing discomfort to sensitive people	Very Poor (301-400)	Respiratory illness to the people on prolonged exposure			
Moderate (101-200)	Breathing discomfort to the people with lung, heart disease, children and older adults	Severe (>401)	Respiratory effects even on healthy people			



Calculation of AQI

Date 23-Sep-23	Station City State		BHARNO	
Pollutants	concentration in $\mu\text{g}/\text{m}^3$ (except for CO)	Sub-Index	check	Air Quality Index
PM10	24-hr avg 60.00	60	1	60
PM2.5	24-hr avg 29.00	48	1	
SO2	24-hr avg 7.10	9	1	
NOx	24-hr avg 25.20	32	1	
*CO (mg/m3)	max 8-hr 0.00	0	0	
O3	max 8-hr 0.00	0	0	
NH3	24-hr avg 0.00	0	0	

* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5

* The check displays "1" when a non-zero value is entered

Good (0-50)	Minimal Impact	Poor (201-300)	Breathing discomfort to people on prolonged exposure
Satisfactory (51-100)	Minor breathing discomfort to sensitive people	Very Poor (301-400)	Respiratory illness to the people on prolonged exposure
Moderate (101-200)	Breathing discomfort to the people with lung, heart disease, children and older adults	Severe (>401)	Respiratory effects even on healthy people



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Calculation of AQI

Date

23-Sep-23

Station

City

State

BISHUNPUR

Pollutants

concentration in
µg/m³
(except for CO)

Sub-Index

Air Quality Index

check

1

1

1

1

0

0

0

AQI =

60

PM10

24-hr avg

54.00

54

PM2.5

24-hr avg

36.00

60

SO2

24-hr avg

6.80

9

NOx

24-hr avg

26.30

33

*CO (mg/m³)

max 8-hr

0.00

0

O3

max 8-hr

0.00

0

NH3

24-hr avg

0.00

0

* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5

* The check displays "1" when a non-zero value is entered

Minimal Impact

Poor
(201-300)

Breathing discomfort to people on prolonged exposure

Satisfactory
(51-100)

Minor breathing discomfort to sensitive people

Respiratory illness to the people on prolonged exposure

Moderate
(101-200)

Breathing discomfort to the people with lung, heart disease, children and older adults

Respiratory effects even on healthy people



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Calculation of AQI

Date

23-Sep-23

Station

City

State

CHAINPUR

Pollutants

concentration in
µg/m3
(except for CO)

Sub-Index

Air Quality Index

check

PM10

24-hr avg

59.00

59

1

PM2.5

24-hr avg

40.00

67

1

SO2

24-hr avg

7.70

10

1

NOx

24-hr avg

20.60

26

1

*CO (mg/m3)

max 8-hr

0.00

0

0

O3

max 8-hr

0.00

0

0

NH3

24-hr avg

0.00

0

0

* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5

* The check displays "1" when a non-zero value is entered

AQI =

67

Minimal Impact

Good
(0-50)

Satisfactory
(51-100)

Moderate
(101-200)

Minor breathing discomfort to sensitive people

Breathing discomfort to the people with lung, heart disease, children and older adults

Poor
(201-300)

Very Poor
(301-400)

Severe
(>401)

Breathing discomfort to people on prolonged exposure

Respiratory illness to the people on prolonged exposure

Respiratory effects even on healthy people



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Calculation of AQI					
Date	Station				
23-Sep-23	City	State			
			DUMRI		
Pollutants	concentration in $\mu\text{g}/\text{m}^3$ (except for CO)	Sub-Index	check	Air Quality Index	
PM10	24-hr avg 55.00	55	1	55	
PM2.5	24-hr avg 30.00	50	1		
SO2	24-hr avg 7.20	9	1		
NOx	24-hr avg 25.20	32	1		
*CO (mg/m3)	max 8-hr 0.00	0	0		
O3	max 8-hr 0.00	0	0		
NH3	24-hr avg 0.00	0	0		
* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5 * The check displays "1" when a non-zero value is entered					
Good (0-50)	Minimal Impact		Poor (201-300)	Breathing discomfort to people on prolonged exposure	
Satisfactory (51-100)	Minor breathing discomfort to sensitive people		Very Poor (301-400)	Respiratory illness to the people on prolonged exposure	
Moderate (101-200)	Breathing discomfort to the people with lung, heart disease, children and older adults		Severe (>401)	Respiratory effects even on healthy people	



Calculation of AQI

Date
23-Sep-23

Station
City
State

GHAGHRA

Pollutants

concentration in
µg/m3
(except for CO)

Sub-Index

Air Quality Index

check

1

1

1

1

0

0

0

AQI =

53

1

1

1

1

0

0

0

*CO (mg/m3)

max 8-hr

0.00

0

0

O3

max 8-hr

0.00

0

0

NH3

24-hr avg

0.00

0

0

* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5

* The check displays "1" when a non-zero value is entered

Minimal Impact

Good
(0-50)

Satisfactory
(51-100)

Moderate
(101-200)

Minor breathing discomfort to sensitive people

Breathing discomfort to the people with lung, heart disease, children and older adults

Poor
(201-300)

Very Poor
(301-400)

Severe
(>401)

Breathing discomfort to people on prolonged exposure

Respiratory illness to the people on prolonged exposure

Respiratory effects even on healthy people



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Calculation of AQI

Date 23-Sep-23	Station City State		GUMLA	
Pollutants	concentration in $\mu\text{g}/\text{m}^3$ (except for CO)	Sub-Index	check	Air Quality Index
PM10	24-hr avg 63.00	63	1	63
PM2.5	24-hr avg 35.00	58	1	
SO2	24-hr avg 8.10	10	1	
NOx	24-hr avg 25.60	32	1	
*CO (mg/m3)	max 8-hr 0.00	0	0	
O3	max 8-hr 0.00	0	0	
NH3	24-hr avg 0.00	0	0	
* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5 * The check displays "1" when a non-zero value is entered				
Good (0-50)	Minimal Impact	Poor (201-300)	Breathing discomfort to people on prolonged exposure	
Satisfactory (51-100)	Minor breathing discomfort to sensitive people	Very Poor (301-400)	Respiratory illness to the people on prolonged exposure	
Moderate (101-200)	Breathing discomfort to the people with lung, heart disease, children and older adults	Severe (>401)	Respiratory effects even on healthy people	



Calculation of AQI

Date
23-Sep-23

Station
City
State

KAMDARA

Pollutants

concentration in
µg/m3
(except for CO)

Sub-Index

Air Quality Index

check

PM10 24-hr avg 53.00 53 1

PM2.5 24-hr avg 35.00 58 1

SO2 24-hr avg 6.10 8 1

NOx 24-hr avg 22.50 28 1

*CO (mg/m3) max 8-hr 0.00 0 0

O3 max 8-hr 0.00 0 0

NH3 24-hr avg 0.00 0 0

* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5
* The check displays "1" when a non-zero value is entered

AQI =

58

Minimal Impact

Minor breathing discomfort to sensitive people

Breathing discomfort to the people with lung, heart disease, children and older adults

Poor
(201-300)

Very Poor
(301-400)

Severe
(>401)

Breathing discomfort to people on prolonged exposure

Respiratory illness to the people on prolonged exposure

Respiratory effects even on healthy people



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Calculation of AQI

Date

23-Sep-23

Station

City

State

Palkot

Pollutants

concentration in
µg/m3
(except for CO)

Sub-Index

Air Quality Index

check

24-hr avg

61.00

61

1

24-hr avg

38.00

63

1

24-hr avg

6.90

9

1

24-hr avg

23.00

29

1

*CO (mg/m3)

max 8-hr

0.00

0

0

max 8-hr

0.00

0

0

NH3

24-hr avg

0.00

0

0

* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5

* The check displays "1" when a non-zero value is entered

AQI =

63

Minimal Impact

Good
(0-50)

Satisfactory
(51-100)

Moderate
(101-200)

Minor breathing discomfort to sensitive people

Breathing discomfort to the people with lung, heart disease, children and older adults

Poor
(201-300)

Very Poor
(301-400)

Severe
(>401)

Breathing discomfort to people on prolonged exposure

Respiratory illness to the people on prolonged exposure

Respiratory effects even on healthy people



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Date

23-Sep-23

Station

City

State

Raidih

Pollutants

concentration in $\mu\text{g}/\text{m}^3$
(except for CO)

Sub-Index

PM10

24-hr avg

62.00

62

check

1

PM2.5

24-hr avg

32.00

53

1

SO2

24-hr avg

6.60

8

1

NOx

24-hr avg

20.60

26

1

*CO (mg/m3)

max 8-hr

0.00

0

0

O3

max 8-hr

0.00

0

0

NH3

24-hr avg

0.00

0

0

* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5

* The check displays "1" when a non-zero value is entered

Good
(0-50)

Minimal Impact

Satisfactory
(51-100)

Minor breathing discomfort to sensitive people

Moderate
(101-200)

Breathing discomfort to the people with lung, heart disease, children and older adults

Poor
(201-300)

Breathing discomfort to people on prolonged exposure

Very Poor
(301-400)

Respiratory illness to the people on prolonged exposure

Severe
(>401)

Respiratory effects even on healthy people

Air Quality Index

62

AQI =



Calculation of AQI

Date

23-Sep-23

Station

City

State

SISAI

Pollutants

concentration in
µg/m³
(except for CO)

Sub-Index

Air Quality Index

check

PM10

24-hr avg

59.00

59

1

PM2.5

24-hr avg

37.00

62

1

SO₂

24-hr avg

6.70

8

1

NO_x

24-hr avg

24.50

31

1

*CO (mg/m³)

max 8-hr

0.00

0

0

O₃

max 8-hr

0.00

0

0

NH₃

24-hr avg

0.00

0

0

* Concentrations of minimum three pollutants are required; one of them should be PM10 or PM2.5

* The check displays "1" when a non-zero value is entered

AQI =

62

Minimal Impact

Good
(0-50)

Minor breathing discomfort to sensitive people

Satisfactory
(51-100)

Breathing discomfort to the people with lung, heart disease, children and older adults

Moderate
(101-200)

Poor
(201-300)

Breathing discomfort to people on prolonged exposure

Very Poor
(301-400)

Respiratory illness to the people on prolonged exposure

Severe
(>401)

Respiratory effects even on healthy people



[Signature]

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Annexure - IV

Potential Resource Area	Limiting Co-ordinate
Zone - 1	23°13'18.53"N to 23°14'54.11"N 84°29'14.15"E to 84°30'24.81"E
Zone - 2	23°11'15.01"N to 23°14'26.79"N 84°32'55.24"E to 84°36'53.51"E
Zone - 3	23° 6'19.11"N to 23°11'48.31"N 84°49'2.39"E to 84°53'37.88"E
Zone - 4	23° 5'8.78"N to 23° 6'40.87"N 84°47'42.92"E to 84°50'17.58"E
Zone - 5	23° 2'53.62"N to 23° 6'9.19"N 84°37'31.81"E to 84°42'14.36"E
Zone - 6	23° 2'5.95"N to 23° 4'52.99"N 84°32'42.49"E to 84°37'10.25"E
Zone - 7	23° 0'34.72"N to 23° 2'47.88"N 84°37'4.01"E to 84°42'38.39"E
Zone - 8	22°54'56.50"N to 22°56'14.44"N 84°48'24.11"E to 84°50'3.03"E
Zone - 9	22°58'3.35"N to 22°58'46.58"N 84°51'50.54"E to 84°52'32.99"E
Zone - 10	22°51'16.90"N to 22°54'14.39"N 84°47'53.96"E to 84°50'30.81"E
Zone - 11	22°50'18.05"N to 22°52'1.84"N 84°50'30.93"E to 84°53'15.08"E
Zone - 12	22°52'17.51"N to 22°53'23.61"N 84°53'6.75"E to 84°54'6.50"E
Zone - 13	22°46'40.69"N to 22°48'54.74"N 84°54'8.71"E to 84°57'21.59"E
Zone - 14	22°53'42.39"N to 22°54'29.19"N 84°57'54.91"E to 84°58'42.11"E





VISION EARTH CONSULTANCY (VEC)

(ENVIRONMENTAL LABORATORY DIVISION)

Accredited By: - Jharkhand State Pollution
Control Board (JSPCB) B-2062

Certified By: - ISO 14001: 2015, ISO 45001: 2018,



TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/103	Report Release Date : 23.09.2023				
Work Order No : ---	Work Order Date : 20.09.2023				
CUSTOMER DETAILS					
Customer Name	BHARNO				
Address					
Plant Status					
Operational	SAMPLE DETAILS				
	Sampling Date : 22.09.2023				
	Sample Received Date : 23.09.2023				
	Type of Sample : Ambient Air				
	Sampling Procedure : VEC/DOC/SMPL/01				
	Sample Drawn By : VEC				
Period of Analysis : 23.09.2023 to 23.09.2023					
METEOROLOGICAL INFORMATION					
1 Average Temperature (°C) : 26 °C	2 Barometric Pressure (mmHg) : 754 mmHg				
3 Relative Humidity (%) : 56%	4 Weather Condition : Clear				
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)	
Test Protocol	IS 5182 (P23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limits				
	Time Unit	µg/m ³	µg/m ³	µg/m ³	
BHARNO	10:34AM-14:40PM	100	60	80	
	14:40PM-18:36PM	59	29	9.5	
	18:41PM-22:39PM	61		9.1	
	22:39PM-2:15AM			6.8	
	02:21AM-6:39AM			5.3	
	6:39AM-10:29AM			60	5.9
Latitude: 23°14'3.08"N			6.2	30.3	
Longitude: 84°53'27.15"E	Average	60	29	7.1	25.2

*****End of Report*****

4. Remarks: - All values are observed will within the limit.
5. Abbreviation:- MDL: Minimum Detection Limit, BDL: Below Detection Limit
6. Environmental Condition of the Lab: Temperature: 25 ± 2°C, Relative Humidity - 40% ± 20% in all testing areas as per IS 196

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(Quality Manager)

Krishna Kumar
Quality Manager



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Certified By: - ISO 14001: 2015, ISO 45001: 2018,



TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/104	Report Release Date : 23.09.2023				
Work Order No : ---	Work Order Date : 20.09.2023				
CUSTOMER DETAILS					
Customer Name	DUMRI				
Address					
Plant Status : Operational					
SAMPLE DETAILS					
Sampling Date	: 22.09.2023				
Sample Received Date	: 23.09.2023				
Type of Sample	: Ambient Air				
Sampling Procedure	: VEC/DOC/SMPL/01				
Sample Drawn By	: VEC				
Period of Analysis	: 23.09.2023 to 23.09.2023				
METEOROLOGICAL INFORMATION					
1 Average Temperature (°C) : 30 °C	2 Barometric Pressure (mmHg) : 755 mmHg				
3 Relative Humidity (%) : 61%	4 Weather Condition : Clear				
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)	
Test Protocol	IS 5182 (P23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limits	100	60	80	80
	Time	Unit	µg/m³	µg/m³	µg/m³
DUMRI	10:28AM-14:36PM	50	30	8.3	23.1
	14:36PM-18:29PM	52		8.9	24.6
	18:38PM-22:39PM			7.4	22.6
	22:39PM-2:28AM			6.2	25.8
	02:37AM-6:39AM			55	5.8
	6:39AM-10:46AM	6.9			30.3
Latitude: 23°59'35.72"N	Average	52	30	7.2	25.2
Longitude : 86° 0'50.34"E					

*****End of Report*****

4. Remarks: - All values are observed will within the limit.

5. Abbreviation:- MDL: Minimum Detection Limit, BDL: Below Detection Limit.

6. Environmental Condition of the Lab: Temperature: 25 ± 2°C, Relative Humidity : 40% ± 20% in all testing areas as per IS 196:1986

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TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/105	Report Release Date : 23.09.2023				
Work Order No. : ---	Work Order Date : 20.09.2023				
CUSTOMER DETAILS					
Customer Name	CHAINPUR				
Address					
Plant Status : Operational					
SAMPLE DETAILS					
Sampling Date	: 22.09.2023				
Sample Received Date	: 23.09.2023				
Type of Sample	: Ambient Air				
Sampling Procedure	: VEC/DOC/SMPL/01				
Sample Drawn By	: VEC				
Period of Analysis	: 23.09.2023 to 23.09.2023				
METEOROLOGICAL INFORMATION					
1 Average Temperature (°C) : 24°C	2 Barometric Pressure (mmHg) : 754 mmHg				
3 Relative Humidity (%) : 57%	4 Weather Condition : Clear				
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)	
Test Protocol	IS 5182 (P23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limits	100	60	80	80
	Time Unit	µg/m ³	µg/m ³	µg/m ³	µg/m ³
CHAINPUR	10:28AM-14:26PM	60	40	7.4	20.6
	14:26PM-18:27PM			9.6	21.8
	18:34PM-22:28PM			8.2	19.6
	22:28PM-2:29AM	7.3		20.9	
	02:37AM-6:38AM	6.6		19.8	
	6:38AM-10:42AM	7.1		20.6	
Latitude: 23° 8'9.99"N	Average	59	40	7.7	20.6
Longitude : 84°14'17.57"E					

*****End of Report*****

4. Remarks: - All values are observed will within the limit.
5. Abbreviation:- MDL: Minimum Detection Limit, BDL: Below Detection Limit.
6. Environmental Condition of the Lab: Temperature: 25 ± 2°C, Relative Humidity: 40% ± 20%
in all testing areas as per IS 196:1996

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Certified By: - ISO 14001: 2015, ISO 45001: 2018,



TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/106	Report Release Date : 23.09.2023			
Work Order No : ---	Work Order Date : 20.09.2023			
CUSTOMER DETAILS				
Customer Name	BISHUNPUR			
Address				
Plant Status : Operational				
SAMPLE DETAILS				
Sampling Date	: 22.09.2023			
Sample Received Date	: 23.09.2023			
Type of Sample	: Ambient Air			
Sampling Procedure	: VEC/DOC/SMPL/01			
Sample Drawn By	: VEC			
Period of Analysis	: 23.09.2023 to 23.09.2023			
METEOROLOGICAL INFORMATION				
1 Average Temperature (°C) : 26 °C	2 Barometric Pressure (mmHg) : 755 mmHg			
3 Relative Humidity (%) : 54%	4 Weather Condition : Clear			
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)
Test Protocol	IS 5182 (P-23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)
Locations	Limits			
	Time Unit	µg/m³	µg/m³	µg/m³
BISHUNPUR	10:00AM-2:00PM	100	60	80
	2:15PM-6:15PM	52		80
	6:20PM-10:00PM			
	10:05PM-2:05AM	54	36	
	2:10AM-6:10AM			
	6:15AM-10:15AM	57		
Latitude: 23°25'30.60"N				
Longitude : 84°20'21.24"E	Average	54	36	6.8
			6.8	26.3

*****End of Report*****

1. Remarks: - All values are observed will within the limit.
2. Abbreviation:- MDL: Minimum Detection Limit, BDL: Below Detection Limit.
3. Environmental Condition of the Lab: Temperature: 25 ± 2°C, Relative Humidity - 40% ± 20% in all testing areas as per IS 196:1996

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TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/107	Report Release Date : 23.09.2023				
Work Order No : ---	Work Order Date : 20.09.2023				
CUSTOMER DETAILS					
Customer Name	GHAGHRA				
Address					
Plant Status					
Operational					
SAMPLE DETAILS					
Sampling Date	: 22.09.2023				
Sample Received Date	: 23.09.2023				
Type of Sample	: Ambient Air				
Sampling Procedure	: VEC/DOC/SMPL/01				
Sample Drawn By	: VEC				
Period of Analysis	: 23.09.2023 to 23.09.2023				
METEOROLOGICAL INFORMATION					
1 Average Temperature (°C) : 24 °C	2 Barometric Pressure (mmHg) : 755 mmHg				
3 Relative Humidity (%) : 59%	4 Weather Condition : Clear				
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)	
Test Protocol	IS 5182 (P23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limits	100	60	80	
	Time	Unit	µg/m³	µg/m³	
GHAGHRA	10:10AM-2:10PM	56	31	9.9	22.3
	2:20PM-6:20PM			9.5	20.1
	6:25PM-10:25PM	51		8.3	21.2
	10:30PM-2:30AM	52		5.3	21.3
	2:35AM-6:35AM			6.1	21.1
	6:40AM-10:40AM			7.4	20.3
Latitude: 23°16'1.87"N	Average	53	31	7.7	21.0
Longitude : 84°33'3.75"E					

*****End of Report*****

1. Remarks: - All values are observed will within the limit.
2. Abbreviation:- MDL: Minimum Detection Limit, BDL: Below Detection Limit.
3. Environmental Condition of the Lab: Temperature: 25 ± 2°C, Relative Humidity - 40% ± 20% in all testing areas as per IS 196:1996

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TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/108	Report Release Date : 23.09.2023				
Work Order No : ---	Work Order Date : 20.09.2023				
CUSTOMER DETAILS					
Customer Name	Address				
Palkot					
SAMPLE DETAILS					
Sampling Date	: 22.09.2023				
Sample Received Date	: 23.09.2023				
Type of Sample	: Ambient Air				
Sampling Procedure	: VEC/DOC/SMPL/01				
Sample Drawn By	: VEC				
Plant Status	Operational				
Period of Analysis	: 23.09.2023 to 23.09.2023				
METEOROLOGICAL INFORMATION					
1 Average Temperature (°C) : 28 °C	2 Barometric Pressure (mmHg) : 754 mmHg				
3 Relative Humidity (%) : 57%	4 Weather Condition : Clear				
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)	
Test Protocol	IS 5182 (P23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limits	100	60	80	80
	Time	Unit	µg/m³	µg/m³	µg/m³
Palkot	10:20AM-2:20PM	61	38	8.2	24.6
	2:25PM-6:25PM			7.1	23.3
	6:30PM-10:30PM	58		6.5	22.2
	10:35PM-2:35AM			5.3	23.3
	2:40AM-6:40AM	63		6.8	21.5
	6:45AM-10:45AM			7.6	23.1
Latitude: 22°52'42.17"N	Average	61	38	6.9	23.0
Longitude : 84°38'49.73"E					

*****End of Report*****

1. Remarks: - All values are observed will within the limit.
2. Abbreviation:- MDL: Minimum Detection Limit, BDL: Below Detection Limit.
3. Environmental Condition of the Lab: Temperature: 25 ± 2°C, Relative Humidity – 40% ± 20% in all testing areas as per IS 196/1996

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TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/109		Report Release Date : 23.09.2023			
Work Order No : --		Work Order Date : 20.09.2023			
CUSTOMER DETAILS		SAMPLE DETAILS			
Customer Name	Raidih	Sampling Date	: 22.09.2023		
Address		Sample Received Date	: 23.09.2023		
		Type of Sample	: Ambient Air		
		Sampling Procedure	: VEC/DOC/SMPL/01		
		Sample Drawn By	: VEC		
Plant Status	Operational	Period of Analysis	: 23.09.2023 to 23.09.2023		
METEOROLOGICAL INFORMATION					
1	Average Temperature (°C) : 25°C	2	Barometric Pressure (mmHg) : 755 mmHg		
3	Relative Humidity (%) : 58%	4	Weather Condition : Clear		
Parameters		Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO ₂)	Nitrogen Di-Oxide (NO ₂)
Test Protocol		IS 5182 (P23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)
Locations	Limits	100	60	80	80
	Time Unit	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Raidih	10:11AM-02:13PM	69	32	7.4	20.6
	02:13PM-06:15PM			8.9	21.8
	06:20PM-10:22PM			6.2	19.6
	10:22PM-02:24AM	5.4		20.9	
	02:29AM-06:31AM	5.1		19.8	
	06:31AM-10:33AM	6.9		20.6	
Latitude: 22°57'6.66"N	Average	62	32	6.6	20.6
Longitude : 84°27'30.61"E					

*****End of Report*****

1. Remarks: - All values are observed will within the limit.
2. Abbreviation:- MDL: Minimum Detection Limit, BDL: Below Detection Limit.
3. Environmental Condition of the Lab: Temperature: 25 ± 2°C, Relative Humidity: 40% ± 20% in all testing areas as per IS 196:1996

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TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/110	Report Release Date : 23.09.2023				
Work Order No : ---	Work Order Date : 20.09.2023				
CUSTOMER DETAILS					
Customer Name	KAMDARA				
Address					
Plant Status : Operational					
SAMPLE DETAILS					
Sampling Date	: 22.09.2023				
Sample Received Date	: 23.09.2023				
Type of Sample	: Ambient Air				
Sampling Procedure	: VEC/DOC/SMPL/01				
Sample Drawn By	: VEC				
Period of Analysis	: 23.09.2023 to 23.09.2023				
METEOROLOGICAL INFORMATION					
1 Average Temperature (°C) : 28 °C	2 Barometric Pressure (mmHg) : 754 mmHg				
3 Relative Humidity (%) : 56%	4 Weather Condition : Clear				
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)	
Test Protocol	IS 5182 (P-23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limits				
	Time	Unit			
		µg/m ³	µg/m ³	µg/m ³	
KAMDARA	10:16AM-02:18PM	54	7.2	24.6	
	02:18PM-06:20PM		6.4	21.8	
	06:25PM-10:27PM	49	6.1	22.4	
	10:27PM-02:29AM		5.4	23.2	
	02:34AM-06:36AM	56	5.1	22.4	
	06:36AM-10:38AM		6.7	21.1	
Latitude: 22°54'11.69"N	Average	53	35	6.1	22.5
Longitude : 84°55'9.39"E					

*****End of Report*****

1. **Remarks:** - All values are observed will within the limit.
2. **Abbreviation:-** MDL: Minimum Detection Limit, BDL: Below Detection Limit.
3. **Environmental Condition of the Lab:** Temperature: 25 ± 2°C, Relative Humidity: 40% ± 20% in all testing areas as per IS 196:1996

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TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/111	Report Release Date : 23.09.2023				
Work Order No. : ---	Work Order Date : 20.09.2023				
CUSTOMER DETAILS					
Customer Name	SISAI				
Address					
Plant Status					
Operational					
SAMPLE DETAILS					
Sampling Date	: 22.09.2023				
Sample Received Date	: 23.09.2023				
Type of Sample	: Ambient Air				
Sampling Procedure	: VEC/DOC/SMPL/01				
Sample Drawn By	: VEC				
Period of Analysis	: 23.09.2023 to 23.09.2023				
METEOROLOGICAL INFORMATION					
1 Average Temperature (°C) : 26 °C	2 Barometric Pressure (mmHg) : 755 mmHg				
3 Relative Humidity (%) : 63%	4 Weather Condition : Clear				
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)	
Test Protocol	IS 5182 (P23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limits	100	60	80	80
	Time	Unit	µg/m³	µg/m³	µg/m³
SISAI	10:14AM-02:16PM	60	37	8.5	26.6
	02:16PM-06:18PM			7.3	24.3
	06:23PM-10:25PM	58		6.5	23.2
	10:25PM-02:27AM	59		6.1	25.3
	02:32AM-06:34AM			5.2	23.5
	06:34AM-10:36AM			6.7	24.1
Latitude: 23°10'3.20"N	Average	59	37	6.7	24.5
Longitude : 84°45'49.31"E					

*****End of Report*****

1. **Remarks:** - All values are observed will within the limit.
2. **Abbreviation:-** MDL: Minimum Detection Limit, BDL: Below Detection Limit.
3. **Environmental Condition of the Lab:** Temperature: 25 ± 2°C, Relative Humidity - 40% ± 20% in all testing areas as per IS 196:1996


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TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/112	Report Release Date : 23.09.2023				
Work Order No. : ---	Work Order Date : 20.09.2023				
CUSTOMER DETAILS					
Customer Name	GUMLA				
Address					
Plant Status : Operational					
SAMPLE DETAILS					
Sampling Date	: 22.09.2023				
Sample Received Date	: 23.09.2023				
Type of Sample	: Ambient Air				
Sampling Procedure	: VEC/DOC/SMPL/01				
Sample Drawn By	: VEC				
Period of Analysis	: 23.09.2023 to 23.09.2023				
METEOROLOGICAL INFORMATION					
1 Average Temperature (°C) : 26 °C	2 Barometric Pressure (mmHg) : 754 mmHg				
3 Relative Humidity (%) : 57%	4 Weather Condition : Clear				
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)	
Test Protocol	IS 5182 (P23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limits	100	60	80	80
	Time	Unit	µg/m³	µg/m³	µg/m³
GUMLA	10:20AM-14:28PM	65	35	9.5	24.1
	14:28PM-18:15PM			10.4	26.6
	18:20PM-22:28PM	62		8.6	20.6
	22:28PM-2:14AM			7.4	27.8
	02:21AM-6:25AM	63		6.3	25.7
	6:25AM-10:18AM			6.9	29.3
Latitude: 23° 2'11.37"N	Average	63	35	8.1	25.6
Longitude : 84°32'11.78"E					

*****End of Report*****

- Remarks: - All values are observed will within the limit.
- Abbreviation:- MDL: Minimum Detection Limit, BDL: Below Detection Limit.
- Environmental Condition of the Lab: Temperature: 25 ± 2°C, Relative Humidity: 40% ± 20% in all testing areas as per IS 196:1996

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Control Board (JSPCB) B-2062

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TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Test Report No. : VEC/RNC/23-24/113	Report Release Date : 23.09.2023				
Work Order No : ---	Work Order Date : 20.09.2023				
CUSTOMER DETAILS					
Customer Name	BASIA				
Address					
Plant Status					
Operational					
SAMPLE DETAILS					
Sampling Date	: 22.09.2023				
Sample Received Date	: 23.09.2023				
Type of Sample	: Ambient Air				
Sampling Procedure	: VEC/DOC/SMPL/01				
Sample Drawn By	: VEC				
Period of Analysis	: 23.09.2023 to 23.09.2023				
METEOROLOGICAL INFORMATION					
1 Average Temperature (°C) : 26 °C	2 Barometric Pressure (mmHg) : 754 mmHg				
3 Relative Humidity (%) : 56%	4 Weather Condition : Clear				
Parameters	Particulate Matter (PM10)	Particulate Matter (PM2.5)	Sulphur Di-Oxide (SO₂)	Nitrogen Di-Oxide (NO₂)	
Test Protocol	IS 5182 (P23)	IS 5182 (P-24)	IS 5182 (P-2)	IS 5182 (P-6)	
Locations	Limits	Time	Unit	µg/m³	
BASIA	10:23AM-14:38PM	57	60	80	
	14:38PM-18:25PM	34	8.3	24.1	
	18:30PM-22:39PM		7.1	26.6	
	22:39PM-2:24AM		6.5	20.6	
	02:31AM-6:35AM		5.2	27.8	
	6:35AM-10:40AM	60	6.1	25.7	
Latitude: 22°51'57.97"N			7.4	29.3	
Longitude : 84°48'57.04"E	Average	56	34	6.7	25.6

*****End of Report*****

1. Remarks: - All values are observed will within the limit.
2. Abbreviation:- MDL: Minimum Detection Limit, BDL: Below Detection Limit.
3. Environmental Condition of the Lab: Temperature: 25 ± 2°C, Relative Humidity: 40% ± 20% in all testing areas as per IS 196:1996

KRISHNA KUMAR
(Quality Manager)

Krishna Kumar
Quality Manager



AJAY KUMAR SINGH
Issued By

An expertise consultancy house for Geology, Mining, Environment, Forest, Survey, CTE/CTO Ground Water Studies & Environment Lab etc.

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Zone - 1

Limiting Co-ordinate

Latitude : 23°13'18.53" N to 23°14'54.11" N
Longitude : 84°29'14.15" E to 84°30'24.81" E

Legend

PRA

Google Earth

Image © 2023 Airbus
Map © 2023 Maxar Technologies

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State * Jharkhand

1.5

Zone - 2

Limiting Co-ordinate

Latitude : 23°11'15.01"N to 23°14'26.79"N

Longitude : 84°32'55.24"E to 84°36'53.51"E

Legend

PRA

Google Earth

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Authority

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Zone - 3

Limiting Co-ordinate

Latitude : 23° 8'19.11"N to 23°11'48.31"N

Longitude : 84°49'2.39"E to 84°53'37.88"E

Legend

PRA

Google Earth

Image © 2023 Airbus

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Stamp: 13/05/2023

Stamp: Authorised

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5 km

North arrow pointing up



Zone - 4

Limiting Co-ordinate

Latitude : 23° 58.78"N to 23° 6'40.87"N

Longitude : 84°47'42.92"E to 84°50'17.58"E

Legend

PRA

Google Earth

Image © 2003 Airbus

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1 km



Zone - 5

Limiting Co-ordinate

Latitude : 23° 2'53.62"N to 23° 8'9.19"N

Longitude : 84° 37'31.81"E to 84° 42'14.36"E

Legend

PRA



Google Earth

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Images © 2023 Maxar Technologies

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3 km

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Zone - 6
Limiting Co-ordinate
Latitude : 23° 2'5.95"N to 23° 4'52.99"N
Longitude : 84° 32'42.49"E to 84° 37'10.25"E

Latitude: 23° 2'5.95"N to 23° 4'52.99"N

Longitude : 84°32'42.49"E to 84°37'10.25"E

Legend

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PRA

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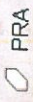
Zone - 7

Limiting Co-ordinate

Latitude : 23° 0'34.72"N to 23° 2'47.88"N

Longitude : 84°37'4.01"E to 84°42'38.39"E

Legend
PRA



Google Earth

Image © 2020 Maxar Technologies

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District Star Jharkhand

13

11

2 km



Zone - 8

Limiting Co-ordinate

Latitude : 22°54'56.50"N to 22°56'14.44"N
Longitude : 84°48'24.11"E to 84°50'3.03"E

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Google Earth

Image © 2013 Google

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Zone - 9

Limiting Co-ordinate

Latitude : 22°58'3.35"N to 22°58'46.58"N

Longitude : 84°51'50.54"E to 84°52'32.99"E

Legend

PRA



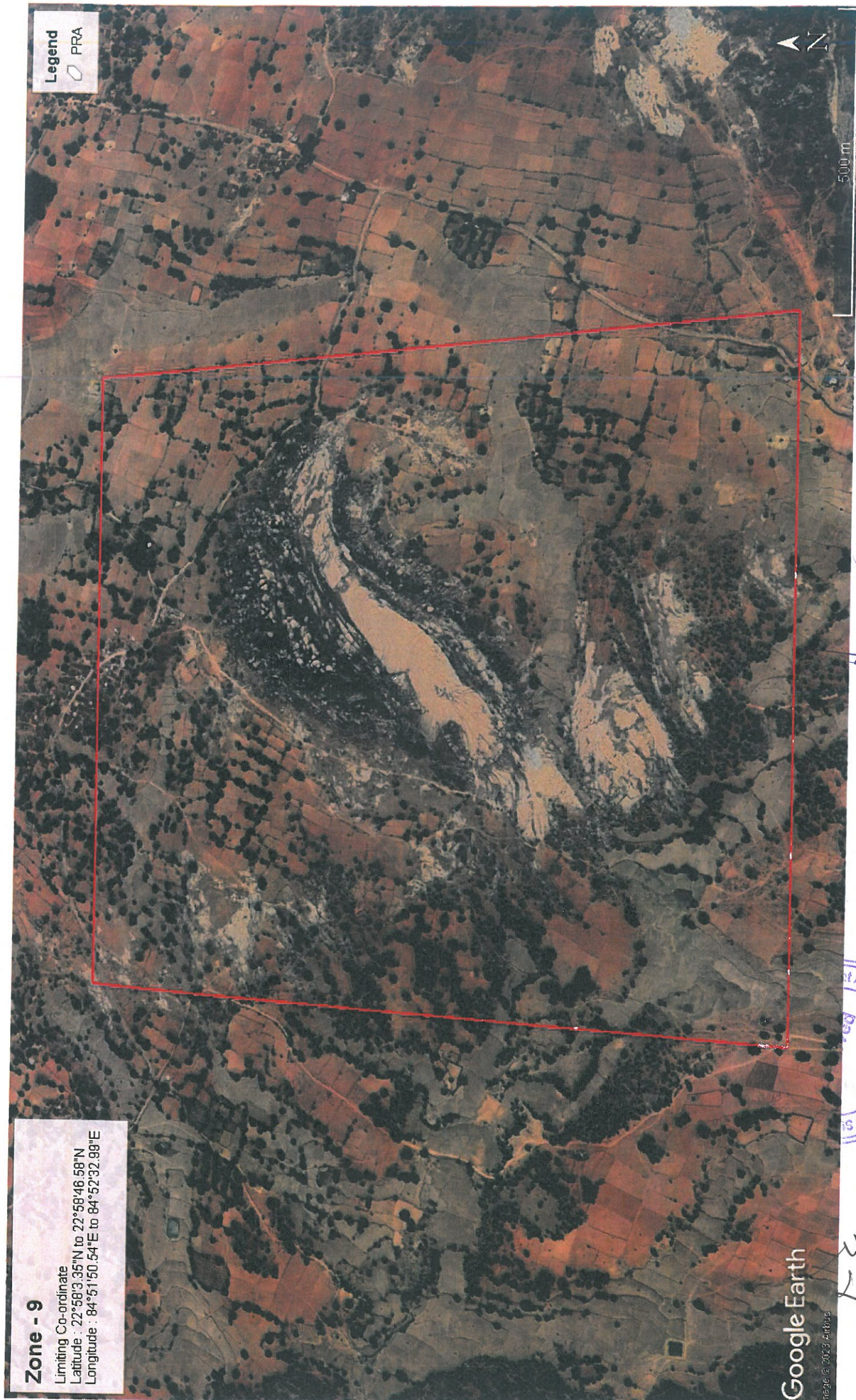
Google Earth

Image © 2023 Airbus

Authority
Jharkhand

500 m

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Zone - 10

Limiting Co-ordinate

Latitude : 22°51'16.90"N to 22°54'14.39"N

Longitude : 84°47'53.96"E to 84°50'30.81"E

Legend

PRA



Google Earth

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2 km



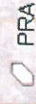
Zone - 11

Limiting Co-ordinate

Latitude: 22°50'18.05"N to 22°52'1.84"N

Longitude: 84°50'30.93"E to 84°53'15.08"E

Legend



PRA

Google Earth

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1 km

Z



Zone - 12

Limiting Co-ordinate

Latitude : 22°52'17.51"N to 22°53'23.61"N

Longitude : 84°53'6.75"E to 84°54'6.50"E

Legend



PRA



Google Earth

Image © 2023 Airbus

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1 km



Zone - 13

Limiting Co-ordinate

Latitude : 22°46'40.69"N to 22°48'54.74"N
Longitude : 84°54'18.71"E to 84°57'21.59"E

Legend

○ PRA

Google Earth

Image © 2013 Earthstar

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1 km

Zone - 14

Limiting Co-ordinate

Latitude : 22°53'42.38"N to 22°54'29.19"N

Longitude : 84°57'54.91"E to 84°58'42.11"E

Legend

○ PRA



Google Earth

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