

Your (Half Yearly Compliance Report) has been Submitted with following details

Proposal No	IA/MP/MIN/11289/2006
Compliance ID	138277183
Compliance Number(For Tracking)	EC/M/COMPLIANCE/138277183/2025
Reporting Year	2025
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	29-11-2025
RO/SRO Name	Shri S Senthil Kumar
RO/SRO Email	jk083.ifs@nic.in
State	MADHYA PRADESH
RO/SRO Office Address	Integrated Regional Offices, Bhopal

Note:- SMS and E-Mail has been sent to Shri S Senthil Kumar, MADHYA PRADESH with Notification to Project Proponent.

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 मध्यप्रदेश शासन
 खनिज साधन विभाग
 मंत्रालय

-: आदेश :-

भोपाल, दिनांक - 13/10/10

क्रमांक - एफ 3-234/97/12/1 - यह कि जिला सतना के ग्राम पुरेनी, बारीकला, बराज, नीमी, भुर्जनाकला, बठियाखुर्द, नैना में 1000 हेक्टेयर क्षेत्र पर मेसर्स बिरला जूट इण्डस्ट्रीज लिमिटेड (अब मेसर्स बिरला कार्पोरेशन लिमिटेड) के नाम पर विभागीय आदेश क्रमांक एफ 3-183/76/12/6 दिनांक 22.04.77 द्वारा चूना पत्थर के खनिपट्टे का प्रथम नवकरण स्वीकृत था। प्रथम नवकरण पर खनिपट्टे की अवधि दिनांक 19.10.76 से 18.10.96 तक के लिए स्वीकृत था। उक्त स्वीकृत क्षेत्र 1000 हेक्टेयर में से 939.787 हेक्टेयर क्षेत्र पर मेसर्स बिरला जूट एण्ड इण्डस्ट्रीज लिमिटेड (अब मेसर्स बिरला कार्पोरेशन लिमिटेड) द्वारा आगामी बीस वर्ष की अवधि के लिए द्वितीय नवकरण आवेदन पत्र दिनांक 13.10.95 को प्रस्तुत किया गया है। द्वितीय नवकरण में आवेदित क्षेत्र का ग्रामवार विवरण निम्नानुसार है :-

क्र.	ग्राम का नाम	स्वीकृत क्षेत्र का विवरण (हेक्टेयर में)
01.	पुरेनी	83.980
02.	बारीकला	162.890
03.	बराज	149.600
04.	नीमी	108.500
05.	भुर्जनाकला	227.080
06.	बठियाखुर्द	132.750
07.	नैना	135.200
	योग	1000.000

02. आवेदक कंपनी मेसर्स बिरला जूट कंपनी लिमिटेड का नाम दिनांक 31.03.97 से बिरला पॉवर लिमिटेड हो गया था। इसके पश्चात् दिनांक 27.10.97 से बिरला पॉवर लिमिटेड से बिरला कार्पोरेशन लिमिटेड हो गया है।

03. भारतीय खान ब्यूरो, नागपुर के पत्र क्रमांक एन-11011/17/आर.एम.एल./97/सी.सी.ओ.एम./1277 नागपुर, दिनांक 27.12.07 से द्वितीय नवकरण किये जाने की अनुशंसा की गई है। भारत सरकार, पर्यावरण एवं वन मंत्रालय के पत्र क्रमांक जे-11015/271/2006/आई.ए.-2(एम) दिनांक 27.12.07 से इनवायरमेंटल क्लियरेंस भी पट्टाधारी को प्राप्त है।

04. द्वितीय नवकरण में आवेदित क्षेत्र 939.787 हेक्टेयर क्षेत्र में से 57.000 हेक्टेयर क्षेत्र (142 एकड़ क्षेत्र) वन भूमि था। अपर मुख्य सचिव, वन की अध्यक्षता

समिति के समक्ष इस प्रकरण को दिनांक 26.12.09 को रखा गया था पर समिति द्वारा सर्व सम्मति से यह निर्णय लिया गया था कि नवकरण निर्धारित क्षेत्र के भीतर जो 57,000 हेक्टेयर क्षेत्र वन भूमि है, उसे छोड़कर तथा 7,000 हेक्टेयर की सीमा से चारों ओर की 50.00 मीटर की दूरी का क्षेत्र छोड़कर शेष क्षेत्र उपलब्ध होता हो उस पर नवकरण की कार्यवाही करने में कोई आपत्ति नहीं है। कलेक्टर, सतना से इस सम्बन्ध में प्रतिवेदन प्राप्त करने पर कलेक्टर द्वारा निम्नानुसार 852.50 हेक्टेयर क्षेत्र उपलब्ध होना प्रतिवेदित किया है। यह उपलब्ध क्षेत्र दो खण्डों में है। उपलब्ध क्षेत्र का ग्रामवार विवरण निम्नानुसार है :-

क्र.	ग्राम का नाम	रकबा एकड़ में
1.	पुरैनी	207.00
2.	बराज	288.00
3.	बारीकला	268.10
4.	नीमी	268.10
5.	नैना	333.10
6.	बठियाखुर्द	328.00
7.	भर्जुनाकला	413.30
योग		2105.67 एकड़ 852.50 हेक्टेयर

05. अतः राज्य शासन द्वारा पूर्ण विचारोपरांत खान एवं खनिज (विकास एवं विनियमन) अधिनियम 1957 की धारा 6(1)(सी) के तहत शिथिलीकरण प्रदान करते हुए उक्त उपलब्ध क्षेत्र 852.50 हेक्टेयर (2105.67 एकड़) क्षेत्र पर चूना पत्थर खनिज के खनिजपट्टे का द्वितीय नवकरण निम्नलिखित शर्तों एवं विवरण पर स्वीकृत किया जाता है।

- (1) आवेदक का नाम : मेसर्स बिरला कॉर्पोरेशन लिमिटेड
पॉ. आ. बिरला विकास, सतना म.प्र.
- पिन - 485005।
- (2) स्वीकृत क्षेत्र का विवरण : जिला सतना के ग्राम पुरैनी, बराज, बारीकला, नीमी, नैना, बठियाखुर्द, भर्जुनाकला का कुल रकबा 852.50 हेक्टेयर (2105.67 एकड़) (संलग्न शेड्यूल अनुसार)
- (3) खनिज का नाम : चूना पत्थर
- (4) द्वितीय नवकरण में स्वीकृत अवधि : दिनांक 19.10.96 से 20 वर्ष (बीस वर्ष)
- (5) रायल्टी/डेंडरेंट आदि : नियमों में प्रावधानित दर से
- (6) थियोडोलाइट सर्वे आदि : यदि आवश्यक हो तो किया जावे।

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- (7) अनुबंध निष्पादन के पूर्व यह सुनिश्चित कर लिया जावे कि आवेदक के ऊपर म.प्र. ग्रामीण अवसंरचना तथा सड़क विकास नियम 2005 के तहत देय कर की राशि पूर्णतः जमा हो।
- (8) अनुबंध निष्पादन के पूर्व यह भी सुनिश्चित कर लिया जावे कि आवेदक के ऊपर खनिज राजस्व की राशि/ 1:1.6 परिवर्तन सूत्र के तहत निकाली गई अतिरिक्त राशि में से माननीय न्यायालय द्वारा स्थगित राशि छोड़कर शेष राशि मय ब्याज सहित पूर्णतः जमा हो।
- (9) यह सुनिश्चित कर लिया जावे कि स्वीकृत क्षेत्र वन संरक्षण अधिनियम से 1980 के प्रावधानों से प्रभावित तो नहीं होता है।
- (10) भारत सरकार, वन एवं पर्यावरण मंत्रालय की अधिसूचना दिनांक 14-9-2006 की अपेक्षा अनुसार कार्यवाही की जावे।
- (11) आवेदक द्वारा स्वीकृत क्षेत्र पर ही खनन कार्य किया जावेगा।
- यदि आवेदक को उपरोक्त शर्तें मान्य हो तो नियमानुसार जमानत राशि जमा कराई जाकर छः माह के अंदर अनुबंध का निष्पादन कराया जावे एवं निष्पादित अनुबंध की एक प्रति तत्काल इस विभाग को भेजी जावे।

मध्यप्रदेश के राज्यपाल के नाम से
तथा आदेशानुसार

(एस. के. शिवानी)
अवर सचिव,

म.प्र.शासन, खनिज साधन विभाग

भोपाल, दिनांक - 13/10/10

पृ. क्रमांक - एफ 3-234/97/12/1

प्रतिलिपि -

01. कलेक्टर, जिला सतना म.प्र.।
02. संचालक, भूमिकी तथा खनिकर्म मध्यप्रदेश, भोपाल।
03. डायरेक्टर जनरल ऑफ माइन्स एण्ड सेफ्टी, धनबाद (झारखण्ड)।
04. कंट्रोलर जनरल, इण्डियन ब्यूरो ऑफ माइन्स, नागपुर।
05. क्षेत्रीय खान नियंत्रक, भारतीय खान ब्यूरो, जबलपुर।
06. मेसर्स बिरला कार्पोरेशन लिमिटेड, पो. आ. बिरला विकास, सतना म.प्र. - 485005।

की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित।

07. गार्ड फाईल।


अवर सचिव

म.प्र.शासन, खनिज साधन विभाग

खान एवं खनिज (विकास तथा विनियम) अधिनियम, 1957 संशोधन अध्यादेश 2015
के अधीन खनिपट्टों की अवधि वृद्धि कि संबंध में

पूरक अनुबंध पत्र निष्पादन दिनांक - 19-09-2017

यह पूरक अनुबंध, खान एवं खनिज (विकास तथा विनियम) अधिनियम, 1957 संशोधन अध्यादेश 2015 के अधीन तथा म0प्र0 शासन खनिज साधन विभाग मंत्रालय के आदेश क्रमांक एफ-19-5/2015/12-1 भोपाल दिनांक 12.03.2015 के अनुसार कैप्टिव उपयोग हेतु स्वीकृत खनिपट्टों की मूल स्वीकृति अवधि के स्थान पर 50 वर्ष या अंतिम नवकरण समाप्ति दिनांक से 31.03.2030 इनमें से जो भी बाद में हो स्वीकृत मान्य (Deemed) किये जाने के संबंध में अधिनियम की धारा 8 ए (5) अनुसार किया जा रहा है।

खनिपट्टाधारी मेसर्स बिरला कारपोरेशन लिमिटेड यूनिट-सतना सीमेन्ट वर्क्स, सतना जिला सतना को म0प्र0 शासन खनिज साधन विभाग के द्वारा ग्राम बारीकलां, बराज, पुरैनी, नीमी, बठियाखुर्द, नैना एवं भरजुना कला तहसील रघुराजनगर के रकबा 6101 एकड़ (2469 हेक्टेयर) पर खनिज 20 वर्ष की अवधि के लिए स्वीकृत किया गया था, जिसके अनुबंध का निष्पादन दिनांक 19.10.1956 को हुआ था।

स्वीकृत खनिपट्टा म0प्र0 शासन खनिज साधन विभाग के नवीनीकृत आदेश क्रमांक एफ-3-182/76/12/6 दिनांक 22.04.1977 द्वारा प्रथम नवकरण में रकबा 1000 हेक्टेयर क्षेत्र पर खनिज चूनापत्थर खनिपट्टा 20 वर्ष के लिए नवीनीकृत होकर दिनांक 19.10.1976 से 18.10.1996 तक स्वीकृत व अनुबंधित था। द्वितीय नवीनीकरण आवेदन पत्र दिनांक 13.10.1995 को प्रस्तुत किया गया था स्वीकृत खनिपट्टा म0प्र0 शासन खनिज साधन विभाग के नवीनीकृत आदेश क्रमांक एफ-3-234/97/12/1 दिनांक 13.10.2010 द्वारा द्वितीय नवकरण में रकबा 852.500 हेक्टेयर क्षेत्र पर खनिज चूनापत्थर खनिपट्टा 20 वर्ष के लिए नवीनीकृत होकर दिनांक 19.10.1996 से 18.10.2016 तक स्वीकृत व अनुबंधित था। तृतीय नवीनीकरण आवेदन पत्र दिनांक 31.07.2015 को प्रस्तुत किया गया था।

म0प्र0 शासन खनिज साधन विभाग मंत्रालय के आदेश क्रमांक एफ-19-5/2015/12-1 भोपाल दिनांक 12.03.2015 के अनुसार कैप्टिव उपयोग हेतु स्वीकृत खनिपट्टों के अधिनियम के प्रावधानों के अधीन वृद्धि किये जाने के संबंध में एम.एम.डी.आर. अधिनियम 2015 के नियम 8 ए (5) के अनुसार जबकि खनिज कैप्टिव उपयोग के लिए किया जा रहा है, स्वीकृत लीज दिनांक से 50 वर्ष या अंतिम नवकरण समाप्ति दिनांक से 31 मार्च 2030 इनमें से जो भी बाद में हो, स्वीकृत मान्य (Deemed Renewal) किया जाकर लीज अवधि वृद्धि की जायेगी अर्थात् स्वीकृत खनिपट्टा अंतिम नवकरण समाप्ति दिनांक 18.10.2016 से 31.03.2030 प्रतिस्थापित कर स्वीकृत मान्य समझा (Deemed) जाकर दिनांक 18.10.2016 से कैप्टिव खनिपट्टा के लिए आदेशित न्यूनतम अवधि 31.03.2030 तक विस्तारित खनिपट्टा अवधि हेतु पूरक अनुबंध किया जा रहा है।

खान एवं खनिज (विकास एवं विनियम) संशोधित अधिनियम 2015 के अधीन खनिपट्टों की अवधि वृद्धि के संबंध में शर्तें खनिपट्टा मूल स्वीकृत आदेश, नवीनीकरण स्वीकृत आदेश तथा, खनिपट्टा मूल अनुबंध पत्र तथा नवीनीकरण अनुबंध पत्र के अनुसार यथावत् रहेगी तथा यह पूरक अनुबंध पत्र, मूल अनुबंध पत्र का भाग होगा।

पूरक अनुबंध पत्र स्वीकृत खनिपट्टा की विस्तारित अवधि 18.10.2016 से 31.03.2030 तक कुल 13 वर्ष 5 माह एवं 13 दिन के लिए किया जा रहा है। स्टाम्प ड्यूटी के लिए औसत वार्षिक रायल्टी रुपये 294400000/ हैं। भारतीय स्टाम्प अधिनियम 1899 के तहत स्टाम्प शुल्क रजिस्ट्रीकरण अधिनियम 1908 के तहत रजिस्ट्रेशन फीस जमा किया जाना तथा निष्पादित पूरक अनुबंध का पंजीयन कराया जाना अनिवार्य होगा।

साक्षी

1.

2.

साक्षी : -

1.

2.

Mining Officer
For, Collector
SATNA (M.P.)

कलेक्टर
जिला सतना (म0प्र0)

पट्टेदार

जे.एस. कालरा,

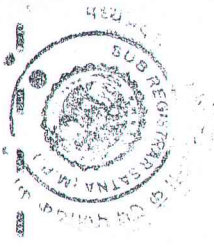
(सीनियर ज्वाइंट प्रेसीडेंट)

वास्ते-मेसर्स बिरला कारपोरेशन लिमिटेड,
यूनिट-सतना सीमेन्ट वर्क्स, सतना



मध्य प्रदेश MADHYA PRADESH

K 459300



File No.

AGREEMENT Dt.

To go with sanctioned Second Renewal Mining Lease for Limestone in Village Puraini, Barikala etc. Teh. Raghuraj Nagar , District Satna over an area of 852.500 Hect. for a Period Twenty years vide Govt. order No.-3-234/97/12/1 Bhopal dated 15.09.2011 in favour of M/s Birla Corporation Ltd., Satna Cement Works Satna (M.P.)

Agreement executed Between the Governor of M.P. through the Collector Satna (M.P.) and M/s Birla Corporation Ltd., Through Shri P.S. Marwah (President) M/s Birla Corporation Ltd. Satna Cement Works Satna (M.P.)

स्वनि अधिकारी
जिला- सतना (म.प्र.)

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works
P.S. Marwah
(P.S. MARWAH)
President



मध्य प्रदेश MADHYA PRADESH

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स्व. शिवराम
निवा. मठवा (म. प्र.)

For: BIRLA CORPORATION LTD.
Unit: Satna Cement Works

P. S. Marwah
(P. S. MARWAH)
President

FORM - K

MODEL FORM OF MINING LEASE

(See Rule 31)



When the Lessee is an Individual

THIS INDENTURE made this 6th day of March 2013 between the Governor of M.P. through the Collector, Satna, the President of India (hereinafter referred to as the State Governments which expression shall where the context so admits be deemed to include the successors and assigns) of the one, part, and _____ (Name of person with address and occupation)(hereinafter referred to as "The Lessee" which expression shall where the context so admits be deemed to include his heirs, executors, administrators, representatives and permitted assigns.

When the Lessee are more than one individual

_____ (Name of person with address and occupation) and _____ (Name of person with address and occupation) (hereinafter to be called as the lessee which expression shall where the context so admits be deemed to include their respective heirs, executors, administrators, representatives and their permitted assigns



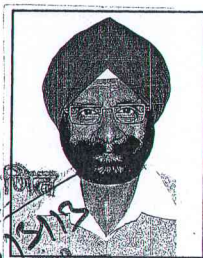
When the Lessee is a Registered Firm

_____ (Name and address of partner) son of _____ of _____ son of _____ of _____ son of _____ of _____ son of _____

all carrying on business in partnership under the firm name and style of _____ (Registered under the Indian Partnership Act 1932 (9 of 1932) and having their registered office at _____ in the town of _____ (hereinafter referred to as 'The Licensee' which expression where the context so admits be deemed to include all the said partners their respective heirs, executors, legal representatives and permitted assigns).

When the Lessee is a Registered Company

M/s BIRLA CORPORATION LIMITED, UNIT: SATNA CEMENT WORKS, SATNA. (Name of Company) a company registered under the COMPANY'S Act 1956 under which incorporated) and having its registered office at 9/1 R.N. Mukherjee Road, Kolkata. (Address) (hereinafter referred to include its successors and permitted assigns) of the other part.



29/3/13
सतना (म.प्र.)

WHEREAS THE Lessee has/have applied to State Government in accordance with the mineral concession Rules 1960 (hereinafter referred to as the said Rules) for a mining lease for LIMESTONE. In respect of the lands described in Part I of the Schedule hereunder written and has/have deposited with the State Government the sum of Rs.1000/- as security, & the sum of Rs.2500/- for meeting the preliminary expenses for a mining lease.

WITNESSETH that in consideration of the rents and royalties covenants and agreements by and in these presents and the schedule hereunder written reserved & contained and on the part of the lessee/lessees to be paid observed and performed the State Government (with the approval of the Central Government) hereby grants and demises unto lessee/lessees.

All those the mines beds/veins seems of LIMESTONE (here the mineral or minerals) [hereinafter and in the schedule referred to as the said rals situated lying and being in or under the lands which are referred to in

For: BIRLA CORPORATION LTD.
Unit : Satna Cement Works

खनि अधिकारी
बिधा- सतना (म.प्र.)

(Signature)
(P. S. MARWAH)
President

उप संचालक (खनि प्रशासन)
कलेक्टर कार्यालय
खनि शाखा, सतना (म.प्र.)

part 1 the said schedule, together with the liberties powers and privileges to be exercised enjoyed in connection herewith which are mentioned in part II of the said Schedule subject to the restriction and conditions as to exercise and enjoyment of such liberty powers and privileges which are mentioned in part III of the said Schedule EXCEPT and reserving out of this demise upto the State Government the liberties, powers privileges mentioned in part IV of the said Schedule TO HOLD the premises here granted and demise unto the lessees from the 19 day October, 1996 for the term of 20 years thence next ensuing YIELDING AND PAY therefore unto the State Government the several rents and royalties mentioned Part V of the said Schedule at the respective times therein specified subject to the provisions contained in Part VI of the said Schedule and lessee/ lessees hereby covenant with the State Government as in part VII of the said Schedule is expression and the State Government hereby covenants with the lessee/lessees as in part VIII the said schedule as expressed AND it is hereby mutually agreed between the part IX hereto as in part IX of the said Schedule is expressed.

IN WITNESS WHERE OF these presents have been executed in manner hereunder appearing day and year first above written

The Schedule above referred to

PART - I
THE AREA OF THIS LEASE

Location and area of the lease:-

All that tract of lands situated at village PURAINI, BARIKALAN, BARAJ, NIMI, BHARJUNAKALAN, BATHIAKHURD, & NAINA Description of area or are 852.50 Hectare in (Pargana) in Reghurainagar the Registration Dist. Satna, Thana Kolgawan bear Cadastral Survey Nos. KHASRA NO.SCHEDULE ENCLOSED containing an area of 8.52 Sq. K.M. or there about delineated on the plan here to annexed and thereon coloured RED and bounded as follows.

- On the North by - **Part of village Bharjunakalan, Barikalan, Baraj and Nimi thereafter Bharjunakhurd and Poindha**
- On the South by - **Part of village Bathiakhurd, Naina, BCL Mining Lease area of Birhuli and Sakaria village.**
- On the East by - **Village Birhuli, Phutaundha and Barikalan**
- and
- On the West by - **Part of village Bathiakhurd, Bharjunakalan and thereafter Umri.**

Hereinafter referred to as "the said lands"

Sl.No.	Name of the Village	Area in Acres	Area in Hectares
01.	Puraini	207.07	84.100
02.	Baraj	288.00	116.630
03.	Barikalan	268.10	108.540
04.	Nimi	268.10	108.540
05.	Naina	333.10	134.860
06.	Bathiakhurd	328.00	132.793
07.	Bharjunakalan	413.30	167.327
	Total	2105.67	852.50

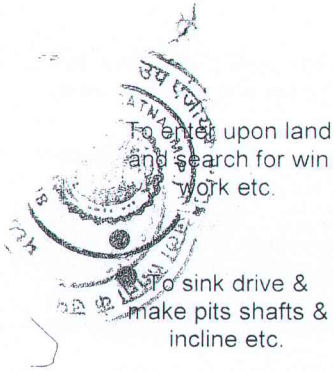
For: BIRLA CORPORATION LTD.
Unit : Satna Cement Works

70
जति अधिकारी
विद्य- पदम (नं १०४)

P. S. Marwah
(P. S. MARWAH)
President

09 संवालीक (खनिज प्रशासन),
अलेक्जेंडर कार्यालय
जति शाखा, सतना (म.प्र.)

PART - II

Liberties, powers and privileges to be exercised and enjoyed by the lessee/lessees subject to the restrictions and conditions in part III.

To enter upon land and search for win work etc.

To sink drive & make pits shafts & incline etc.

To bring and use machinery equipment, etc.

To make roads and ways and use existing roads and ways

To get building and road materials etc.

To use water from streams etc.


To use land for staking heaping depositing purposes.

Beneficiation and conveying away of production.

1. Liberty and power at all times during the term hereby demised to enter upon the said lands and to search for mine bore big drill for win work press process convert carry away and dispose of the said Mineral/minerals.
2. Liberty and power for or in connection with any of the purpose mentioned in this part to sink drive make maintain and use in the said lands any pits shafts inclines drafts levels waterways airways and other works [and to use maintain deepen or extend any existing works of the like nature in the said lands].
3. Liberty and power for or in connection with any of the purposes mentioned in this part to erect construct maintain and use on or under the said lands any engines machinery plant dressing floors furnaces coke ovens brik-kilns workshops store houses bungalows godowns sheds and other buildings and other works and conveniences of the like nature on or under the said lands.
4. Liberty and power for or in connection with any of the purposes mentioned in this part to make any tramways, railways roads, landing grounds and other ways in or over the said lands and to use maintain and go and repass with or without horses cattle wagons aircrafts locomotives or other vehicles over the same (or any existing tramways railways roads and other ways in or over the said lands) on such conditions as may be agreed to.
5. Liberty and power for in connection with any of the purposes mentioned in the part to quarry and get stone gravel and other building and roads materials and clay and to use and employ the same and to manufacture such clay into brisk or tiles and to use such bricks or tiles but not to sell any such material bricks or tiles.
6. Liberty and power for or in connection with any of the purpose mentioned in this part but subject to the right of any existing or future lessees and with the written permission of Deputy Commissioner Collector to appropriate and use water from any streams water sources springs or other sources in or upon the said lands and to divert step up or down any such stream or water source and collect or impound any such water and to make construct and maintain any water-source culverts drains or reservoirs but not as to deprive any cultivated lands, villages, buildings or watering places for livestock of a reasonable supply of water as before accustomed not in any way to foul or pollute any streams or springs. Provided that the lessee/lessees shall not interfere with the navigation in any navigable stream or shall divert such stream without the previous written permission of the State Govt.
7. Liberty and power to enter upon and use a sufficient part of the surface of the such lands for the purpose of stacking heaping storing or depositing therein any produce of the mines or works carried on and any tools equipment earth and materials and substances dug or raised under the liberties & power mentioned in this part.
8. (a) Liberty and power to enter upon and use a sufficient part of the said land to beneficiate any ore produced from the said lands and to carry away such beneficiated ore.

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

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बिना-सुचना (मं. १०)


(P. S. MARWAH)
President

उद्योग विभाग (मिनेस प्रशासन)
कलेक्टर कार्यालय
बिना शाखा, सतना (म.प्र.)

from any reserved canal or other public work such as public road and buildings or inhabited site except with the previous written permission of the Deputy Commissioner/ Collector or any other officer authorised by the State Government in this behalf and other wise in accordance with such instructions, restrictive and condition either general or special which may be attached to such permission. The said distance of 50 metres shall be measured in the case of railway reservoir or canal horizontally from the outer toe of the tank or the outer edge of the cutting as the case may be and in case of a building horizontally from the plinth there of in the case of village roads no working shall be carried on within a distance of the 10 meters of the outer edge of the cutting except with the previous permission of Deputy Commissioner/ Collector or any other officer duly authorised by the State Government in this behalf and otherwise than in accordance with such directions, restrictions and additions, either general or special, which may be attached to such permission.

Explanation - For the purposes of this clause the expression 'Railway Administration shall have the same meaning as it is defined to have in the Indian Railway Act 1880, by clause(6) of section 3 of that Act, 'Public Road' shall mean a road which has been constructed by artificially surfaced as distinct from a track resulting from repeated use, Village road will include any track shown in the Revenue record as village road.

Facilities for adjoining Govt. license & lease

6. The lessee/lessees shall allow existing and future holder of Government licences or leases over any land which is comprised in or adjoins or is reached by the land held by the lessee/lessees reasonable facilities or access thereto.

PROVIDED THAT no substantial hindrance or interference shall be caused by such holders of licences or leases to the operations of the lessee/lessees under these presents and fair compensation [as may be mutually agreed upon or in the event of disagreement as may be decided by the state Government] shall be made to the lessee/lessees for loss or damage sustained by the lessee/lessees by reason of the exercise of this liberty.

PART - IV


Liberties, powers and Privileges reserved to the State Government

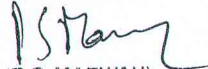
To work, other minerals

1. Liberty and Power for the State Government or to any lessee or persons authorised by it in that behalf of enter into and upon the said lands and to search for win work dig get raise dress process convert and carry away minerals other than the said minerals and any other substances and for those purpose to sink, drive, make, erect, construct maintain and use such pits shafts inclines drifts levels and other lines water ways, airways, water courses, drains, reservoirs, engine, engines machinery plant building canals tramways railways roadways and other works and conveniences as may be deemed necessary or convenient.

PROVIDED THAT in the exercise of such liberty and power no substantial hinderance, or interference shall be caused to or with the liberties powers and privilege of the lessee/lessees under these present and that fair compensation [as may mutually agreed upon or in consequence of disagreement as may be decided by the state Government] shall be made to the lessee/lesses for all loss or damage sustained by the lessee/lessees by reason or in consequence of the exercise of such liberty and power.

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works


स्वनि अधिकारी,
जिला- सतना (म० प्र०)


(P. S. MARWAH)
President

उप संचालक (सतना) का
कार्यालय
स्वनि शाखा, सतना (म.प्र.)

use until the area shall cease to be occupied or used and shall as far as possible rent & the surface land so used to its original condition surface rent and water rate shall be paid as hereinbefore detailed in class 2. PROVIDED THAT NO such rent water rate shall be payable in respect of the occupation and use of the area comprised in any road or ways to which the public have full right of access.

PART - VI

PROVISION RELATING TO THE RENTS AND ROYALTIES

1. The rent water rate and royalties mentioned in Part V of this Schedule shall be paid free from any deductions the State Government at Satna and in such manner as the State Government may prescribe PROVIDED ALWAYS and it is hereby agreed that Rs.1000/- the balance standing to the credit of the lessee/lessees on account of the deposit made by him/ them as a licensee/licensees over area which included the said lands shall be retained and receipted by the State Government in satisfaction of the rents and royalties mentioned in part V until they reach that amount.

2. For the purpose of computing the said royalties the lessee/lessees shall keep a correct account of the mineral/minerals produced and despatched the accounts as well as the weight of the mineral/minerals in stock or in the process of export may be checked by an officer authorised by the Central or State Government.

Here specify the mode of arriving at sale price, prices at pits mouth of mineral/minerals.

3. Should any rent, royalty or other sums due to the State Government under the terms and conditions of these presents be not paid by the lessee/lessees within the prescribed time the same together with a simple interest due thereon at the rate of 15% per annum may be recovered on a certificate of such officer as may be specified by the state Government by general or special order in the same manner as an arrear of land revenue.

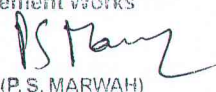
PART - VII

The Covenants of the Lessee/Lessees


1. The lessee/lessees shall pay the rent, water rate and royalties reserved by this lease at such times and in the manner provided in PARTS V & VI of these presents and shall also pay and discharge all taxes, rules, assessments and impositions whatsoever being in the nature of public demands which shall from time to time be charged/assessed or imposed by the authority of the Central and State Govt. upon or in respect of the premises and works of a like nature except demands for land revenues.

2. The lessee/lessees shall at his their own expense erect at all time maintain and keep in repair boundary marks and pillars according to the demarcation to be shown in the plain annexed to this lease. Such marks and pillars shall be sufficiently clear of the shrubs and other obstructions as to allow easy identification.

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works


(P. S. MARWAH)
President

उप संचालक (सलेज प्रशासक)
कलेक्टर कार्यालय
खनि शाखा, सतना (म.प्र.)


स्वनि अधिकारी
जि.दा- सतना (म.प्र.)

Rent and royalties to be free from deductions etc.

Mode of computation of royalty

Course of action if rents & royalties are not paid in time

Lessee to pay rents & royalties taxes etc.

To maintain & keep boundary mark in good order

To report discovery
of other Minerals

9. The lessee/Lessee shall report to the State Government the discovery leased area of any mineral not specified in the lease within sixty days of such discovery alongwith full particulars of the nature and position of each such find. If any mine specified in the lease is discovered in the leased area, the lessee/lessees shall not dispose of such mineral unless such mineral is included in the lease or a separate obtained thereof.

To keep records &
accounts
recording production
& employees etc.

10. The Lessee/Lessee shall at all time during the said terms keep or cause to at an office to be situated upon or near the said lands correct and intelligible accounts, which shall contain entries showing from time to time.

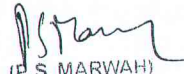
- 1) Quantity and quality of the said mineral/minerals realised from the said lands.
- 2) Quantity of the various qualities or ores beneficiated or converted (for coal converted into coke)
- 3) Quantity of the various qualities of the said mineral/minerals sold and exported separately.
- 4) Quantities of the various qualities of the said mineral/minerals otherwise disposed of and the manner and purpose of such disposal.
- 5) The prices and shall other particulars of said mineral/minerals.
- 6) The number of person employed in the mines or works or upon the said lands specifying nationality, qualifications and pay of the technical personnel.
- 7) Such other facts, particulars and circumstances as the Central or the State Govts. may from time to time require and shall also furnish free of charge to such officers and at such times as the Central and State Governments may appoint true and correct abstracts of all or any such books of accounts and such information and returns to all or any of the matters aforesaid as the State Govt. may prescribe and shall at all reasonable times allow such officers as the Central Govt. or State Govt. shall in their behalf appoint to enter into and have free access to the said officer for the purpose of examining and inspecting the said books of accounts and to make copies thereof and make extracts therefrom.




To maintain plans
etc.

11. The lessee/lessees shall at all times during the said term maintain at the mine office correct intelligible up-to-date and complete plans and section of the mines in the said lands. They shall show all the operations and workings and all the trenches, pits and drillings made by him/them in the course of operations carried on by him/them under the lease, faults and other disturbances encountered and geological data and all such plans and sections shall be amended and filled up by and from actual surveys to be made for that purpose at the end of twelve months or any period specified from time to time and the lessee/lessees shall furnish free of charge to the Central and State Govt. true and correct copies of such plans and Sections whenever these unto required. Accurate records of all trenches, pits and drillings shall show: -

For: BIRLA CORPORATION LTD.
Unit : Satna Cement Works


(P.S. MARWAH)
President

उप संचालक (खनिज प्रशासन,
कालेक्टर कार्यालय
खनि शाखा, सतना (म.प्र.)


खनि अधिकारी
बिधा- सतना (म.प्र.)

14. The lessee/lessees shall allow any person or persons appointed in that behalf by the State Govt. at any time or times during the said term to examine and test every weighing machine to be provided and kept as aforesaid and the weights used there with in order to ascertain whether the same respectively are correct and in good repair and order and if upon any such examination or testing any such weighing machine or weights shall be found incorrect or out of repair order the state Government may require that the same be adjusted repaired and put in order by at the expense of the lessee/lessees and if such requisition be not complied with within fourteen days after the same shall have been made, the State Government may cause such weighing machine or weights to be adjusted repaired and put in order and the expense of so doing shall be paid by the lessee/lessees to the state Government on demand and if upon any such examination or testing as aforesaid any error shall be discovered in any weighing machine or weights to the prejudice of the State Government such error shall be regarded as having existed for three calendar months previous to the discovery thereof from the last occasion of so examining and testing the same weighing machine and weights in case such occasion shall be within such period of three months and the said rent and royalty shall be paid and accounted for accordingly.



To allow test of weighing machine



To pay compensation for injury or third parties

15. The lessee/lessees shall make and pay reasonable satisfaction and compensation for all damage injury or disturbance of person or property situated both in private and Government land which may be done by or on the part of lessee/lessees in exercise of the liberties and power granted by these presents and shall at all times have harmless and keep indemnified the State Govt. from the and against all suits. Claims and demands which may be brought or made by any person or persons in respect of any such damage, injury or disturbances. In case of Govt. Land the lessees shall grant compensation equal to sixty or ninety times of land revenue (that may be assessed in case it has not been assessed) in case of lease upto 20 and 30 years respectively.

Not to obstruct working of other minerals

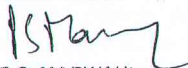
16. The lessee/lessees will exercise the liberties and powers here by granted in such a manner as to offer no unnecessary or reasonably avoidable obstruction or interruption to the development and working within the said land, of any minerals not included in this lease and shall at all times afford to the Central and State Government and to the holders of prospecting licences or mining lease in respect of any such minerals within any land adjacent to the said lands as the said lands as the case may be reasonable means to access and safe and convenient passage upon and across the said lands to such minerals for purpose of getting working developing and carrying away the same provided that the lessee/lessees shall receive reasonable compensation for any damage or injury which he/they may sustain by reason or in consequence of the use of such passage by such lessee or holders of prospecting licences.

17. The lessee/lessees shall not without the previous consent in writing of the State Government.


Transfer of lease

- a) assign, subject, mortgage or in any other manner transfer the Mining lease or any right title or interest therein or

For: BIRLA CORPORATION
Unit : Satna Cement Works


(P. S. MARWAH)
President

~~संयोजक (अभिज्ञ प्रशासन)
संयोजक कार्यालय
(नि. शाखा, सतना (म.प्र.))~~

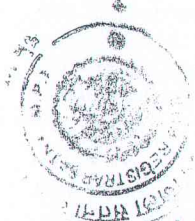

स्वनि अधिकारी
जिला- सतना (म.प्र.)

aforesaid) shall only be entered into or made and shall always be subject to an express condition binding upon the other party or parties there to that on the occasion of a State of Emergency of which the president of India in his discretion shall be the sole judge it shall be terminable if so required in writing by the State Government and shall in the event of any such requisition being made be forth with thereafter determined by the lessee/lessees accordingly.



Lessee shall deposit any additional amount necessary

19. Whenever the security deposit of Rs.1000/- or any part thereof or any further sum thereafter deposited with the State Government in replenishment thereof shall be forfeited or applied by the Central or State Govt. pursuant to the power hereinafter declared in that behalf he lessee/lessees shall deposit with the State Government such further sum as may be sufficient with the unappropriated part thereof to bring the amount in deposit with the State Government upto the sum or Rs.1000/-.



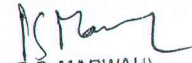
Delivery of working in good order to state Govt. after determination of lease

20. The lessee/lessees shall at the expiration or sooner determination of the said term or any renewal thereof upto the State Government all mines pits shafts inclines drifts levels waterways airways and on or under the said lands except such as have been abandoned with the sanction of the State Government and in any ordinary any fair course of working all engines, machinery, plant buildings, structures, other works and convenience which at the commencement of the said term whereupon or under that said land and all such machinery set up by the lessee/lessees below ground which cannot be removed without causing injury to the mines or work under the said lands except such of the same as may with sanction of the State Government have become discussed and all buildings and structures of bricks or stone erected by the lessee/lessees above ground level in good repair order and conditions and fit al respects for further working of the said mines and said minerals.


Right of pre-exemption

21. (a) The State Government shall from time to time and all times during the said term have the right (t) be exercised by notice in writing to the lessee/lessees laying in or upon the said lands, hereby demised or elsewhere under the control of the lessee/lessees and the lessee/lessees shall with all possible expenditure deliver all minerals or products or minerals purchased by State or pre-emption of the said minerals (and all products Government under the power conferred by this provision in the quantities at the time in the manner and at the place specified in the notice exercising the said right.
- (b) Should the right or pre-emption conferred by this present provision be exercised and vessel chartered to carry the minerals or products thereof procured on behalf of the State Govt. or the Central Govt. be detained on demurrage at the part of loading the lessee/lessees shall pay the amount due for demurrage according to the terms of the chartered party of such vessel unless the state government shall be satisfied that the delay is due to cause beyond the control of the lessee/lessees.
- (c) The price to be paid for all minerals or products of minerals taken in pre-emption by the State Govt. in exercise of the right hereby conferred shall be the fair market price prevailing at the time of pre-emption PROVIDED THAT in order to assist the arriving at the

For: BIRLA CORPORATION LTD.
Unit : Satna Cement Works


(P.S. MARWAH)
President

सालिक (समिज प्रशासन)
लेटर कार्यालय
सातना, सतना (म.प्र.)


स्थानि अधिकारी
जिला- सतना (म.प्र.)

PART - VIII

The covenants of the State Government

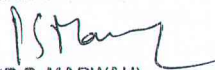
1. The lessee/lessees paying the rents and royalties hereby reserved and observing and performing all the covenants and agreements contained and on the part of the lease/lessees to be observed and performed shall and may quietly hold and enjoy the rights and premises hereby demised for an during the term hereby granted without any unlawful interruption from or by the State Govt. or any person rightfully claiming under it.
2. If in accordance with the provision of Clause 4 of part VII of this Schedule the lessee/lessees shall offer to pay to an occupier of the surface of any part of the said lands compensation for any damage or injury which may arise from the proposed operations of the lessee/lessees and the said occupier shall refuse his consent to the exercise of the right and powers reserved to the State Govt. and demised to the lessee/lessees by these presents and the lessee/lessees shall report the matter to the State Govt. and shall deposit with it the amount offered as compensation and if the Central and State Govt. are satisfied that the amount of compensation offered is fair and reasonable or if it is not so satisfied and the lessee shall have deposited with it such further amount as the State and Central Govt. shall consider fair and reasonable the State Govt. shall order the occupier to allow the lessee/lessees to enter the land and to carry out such operations as may be necessary for the purpose of this lease. In assessing the amount of such compensation the State Govt. shall be guided by the principles of the Land Acquisition Act.
3. The mining lease is renewable in terms of the provisions of the Act. and the rules made thereunder.

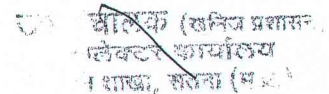
Provided that the State Government may for reasons to be recorded in writing reduce the area applied for.


If the lease is in respect of minerals specified in First Schedule to the Act renewed will be subject to the prior approval of the Central Government.

If the lessee/lessees be desirous of taking a renewed lease of the premises hereby demised or any part or parts of them for a further term from the expiration of the term hereby granted and is otherwise eligible, he/they shall prior to the expiration of the last mentioned term give to the State Govt. six calendar months previous notice in writing and shall pay the rents, rates and royalties hereby reserved and shall observe and perform the several covenants and agreement herein contained and on the part of the lessee/lessees to be .. and performed upto the expiration of the term hereby granted. The State Govt. on receipt of application for renewal shall consider it in accordance with rule 280 the said rules and shall pass orders as it deem fit. If renewal is granted the State Govt. will at the expense of the lessee/lessees and upon his executing and delivering to the State Govt. if required a counterpart thereof execute and delivery to the lessee/lessees a renewed lease of the said premises or part thereof for the further Twenty years at such rents rates and royalties and on terms and subject to such covenants and agreements including the present covenants to renew as shall be in accordance with the mineral concession Rules 1960 applicable to LIMESTONE (Names of minerals) on the day next following the explanation of the term hereby granted.

For: BIRLA CORPORATION LTD.
Unit : Satna Cement Works


(P.S. MARWAH)
President


श्रीलोक (रुनिम प्रसाद)
लेक्चरर कार्यालय
म शाखा, सतना (म.प्र.)


स्वनि अधिकारी
विधा- सतना (म.प्र.)

Lessee/Lessees
may hold enjoy
rights quietly.

Acquisition of lands
of third parties and
compensation
thereof

To Renew

Penalty for repeated
breaches to
covenants

Failure to fulfill the
terms of lease due
to "Force Majeure"

Lessee/Lesseees to
remove his/ their
properties on the
expiry of lease

Forfeiture of
property left more
than six months
after
determination of
lease

Notice

3. In cases of repeated breaches of covenants and agreements by the lessee/lesseees for which notice has been given by the State Government in accordance with clauses (1) and (2) afore mentioned on earlier occasion, the State Government without giving any further notice, may impose such penalty not exceeding twice the amount of the annual deed rent specified in clause 2 part V.
4. Failure on the part of the lessee/lessee to fulfill any of the terms and conditions of this lease shall not give the central of State Government any claim against the lessee/lesseees or be deemed breach of this lease in so far as such failure is considered by the said Government to arise from "Force Majeure" and if through "Force Majeure" the fulfillment by the lessee/lesseees of any of the terms and condition of this lease be delayed the period of such delay shall be added to the period fixed by this lease. In this clause the expression "Force majeure" means Act of God, war, insurrection, riot, civil commotion, strike earthquake, tide, storm, tidal wave flood, lightning, explosion, fire earthquake and any other happening which the lessee/lesseees could not reasonably prevent or control.
5. The lessee/lesseees having first paid and discharged the rent and royalties payable by virtue of those presents may at the expiration or sooner determination of the said term or within six calendar months thereafter (unless the lease shall be determined under clauses 1 and 2 of this part and in that case at any time not less than three calendar months not more than six calendar months after such determination take down and remove for his/their own benefit all or any engines, machinery, plant, building structure tramways, railways and other works, erections and convenience which must have been erected set up or placed by the lessee/lesseees in or upon the said lands and which the lessee/lesseees is are not bound to deliver to the State Government under clause 20 of Part VII of this Schedule and which the State Government shall not desire to purchase.
6. If at the end of six calendar months after the expiration or sooner determination of the said term under the provision contained in clause 4 of Part VIII of this schedule become effective there shall remain in or upon the said land any ²[ore or mineral] engines, machinery plant buildings structures tramways, Railways and other work erections and convenience or other property which are not required by the lessee/lesseees in connection with operations in any other lands hold by him/them under prospecting licence or mining lease the same shall if not removed by the lessee/lesseees within one calendar month after notice in writing requiring their removal has been given to the lessee/lessee by the State Government be deemed to become the property of the State Govt. and may be sold or disposed of in such manner as the State Govt. shall deem fit without liability to pay any compensation or to account to the lessee/lesseees in respect thereof.
7. Every notice by these presents required to be given to the lessee/lesseees shall be given in writing to such person resident on the said lands as the lessee/lesseees may appoint for the purpose of receiving such notices and if there shall have been no such appointment then every such notice shall be sent to the lessee/lesseees by registered post addressed to the lessee/lesseees at the address recorded in this lease or at such other address in India as the lessee/lesseees may from time to time in writing to the State Govt. designate for the receipt of notices and every such service shall be deemed to be proper and valid service upon the lessee/lesseees and shall not be questioned or challenged by him/them.

For: BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P. S. MARWAH)
President

उप संचालक (खनिज प्रशासन),
कलेक्टर कार्यालय
खनि शाखा, सेतना (म.प्र.)

खनि अधिकारी
जिवा-सतना (म.प्र.)



MADHYA PRADESH POLLUTION CONTROL BOARD

Paryawaran Parishad, E-5, Aera Colony, BHOPAL- 462 016

Regd

No. 11834 /TS/MPPCB/2006

Date: 21-5-06

To,

M/s. Birla Corporation Ltd.,
[Unit: Sagmania Lime Stone Mines]
P.O. Birla Vikas,
Distt. Satna-485 005 [M. P.]

Sub: No Objection Certificate for obtaining Environmental Clearance from Govt. of India for proposed expansion of **Captive Lime Stone Mines at Sagmania, P.O. Birla Vikas, Distt. SATNA {M. P.}**.

Ref: Your application No. NIL dated:10/08/2005.

As per requirement under Environmental Impact Assessment Notification 1994 No. 60[E] dated: 27/01/94 [as amended on 04/05/94] and notification No. 318[E] dated: 10/04/97, No objection certificate is hereby issued for proposed expansion of **Captive Lime Stone** for Mining project from **3.3 MTPA to 4.9 MTPA [Three Point Three to Four Point Nine Million Tonnes per Annun]** at Sagmania Teh. Raghurajnagar, Distt. Satna [M. P.], subject to following conditions:

1. The Mine discharge water/domestic waste shall be properly treated and fully utilized in plantation/sprinkling or other useful purpose. No treated/untreated water shall be let out at any point of time outside of mine premises. Treated effluent quality shall meet the standards prescribed by M. P. Pollution Control Board in gazette Notification of M.P. dated: 25/03/88.
2. The construction of effluent treatment plant shall be taken up simultaneously with other civil work. Sewage treatment plant shall be installed for the residential colony. ETP should also be provided for workshop waste water. Mine shall make arrangement of suitable drains/pipe networks to ensure adequate flow for full utilization of treated effluent insides of the premises.
3. Appropriate air pollution control equipments shall be installed at all points of emission sources and shall ensure that these are always kept running and in good working order all the time. Effective steps shall be taken to control fugitive emissions during excavation of mine, its handling/crushing/transportation etc.
4. Crushers at the mine handling plant should be operated with high efficiency bag filters, water sprinkling system should be provided to control fugitive emissions from crushing operations, haulage roads, transfer points etc.
5. Fugitive dust emission from all the sources should be controlled effectively and duely monitored. Water required for in spraying arrangement on haul roads, wagon loading, dump trucks [loading & unloading] points should be provided and properly maintained.



MADHYA PRADESH POLLUTION CONTROL BOARD
Paryawaran Parisar, E-5, Arera Colony, BHOPAL- 462 016

6. Mine shall ensure that the concentration of particulate matter from point sources shall not exceed 150 Mg/Nm³.
7. Ambient air quality at the boundary of the mine premises shall conform to the following limits:

	<u>24 Hours</u>		<u>Annual</u>	
a. Suspended Particulate Matter	300	Microgram/Cubic Meter	500	Microgram/Cubic Meter
b. Sulphur Dioxide [SO ₂]	80	"-	120	"-
c. Nitrogen Oxides [Nox]	80	"-	120	"-
d. Carbon Monoxide [CO]	--	--	5000	"-
e. RSPM	180	"-	250	"-

8. Mines shall take effective steps to check the soil erosion from waste material dumping area and causing siltation problem in nearby nalla/river pond during rainy season. All the slopes of external dumps of over burden should be maintained at a maximum of 28 degrees.
9. The Mine shall take proper action to control the noise pollution. The ambient noise level shall not exceed the limit 75dB [A] during the day time and 70dB [A] during the night time.
10. Extensive tree plantation shall be done on both side of transportation roads and around mining lease area. The tree plantation shall be carried out in phase manner preferably with local species.
11. Mining activity shall be carried out in such a way so that prime land area may not get degraded.
12. Mines shall obtain necessary permission from Central Ground Water Board before start of the Mining activity.
13. Controlled blasting should be practiced with the use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.
14. Vehicular emissions should be kept under control and regularly monitored for compliance of emission norms. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
15. A separate Environmental Cell with suitably qualified technical personnel to carryout various functions should be set up under the control of senior executive who will report directly to head of the organization.
16. Digital processing of the entire lease area using remote sensing techniques should be done regularly once in three years for monitoring land use pattern and report submitted to Board.



MADHYA PRADESH POLLUTION CONTROL BOARD
Paryawaran Parisar, E-5, Arera Colony, BHOPAL- 462 016

17. Good house keeping practice shall be adopted by the Mine.
18. The Board reserves the right to amend cancel any of the above conditions as a whole or in part as and when deemed necessary.

This "No Objection Certificate" is issued only for the purpose of obtaining Environmental clearance from Ministry of Environment & Forests, Govt. of India. This shall not be treated as consent under Water [Prevention & Control of Pollution] Act, 1974 and the Air [Prevention & Control of Pollution] Act, 1981.

The mine shall be required to obtain following permissions from the Board prior to commencement of expansion:

- (a) Consent under the Water [Prevention & Control of Pollution] Act, 1974.
- (b) Consent under the Air [[Prevention & Control of Pollution] Act, 1981.
- (c) Membership of Emergency Response Centre.
- (d) Authorization under the provisions of the manufacture, storage & Impact of Hazardous Chemicals Rules, 1989 [as amended in 2003]

For & on behalf of
M.P. Pollution Control Board


o/c (B. K. Singh)
Member Secretary

Endt No. U 838/TS/MPPCB/2006
Copy to:-

Date: 24-8-06

1. Secretary, Govt. of India, MoEF, CGO Complex, Paryawaran Bhawan, CGO complex, Lodhi Road, **New Delhi** for information please.
2. Regional Officer, M.P. Pollution Control Board, **Satna**.
3. IT Section, M.P. Pollution Control Board, Bhopal.


o/c (B. K. Singh)
Member Secretary

CENTRAL GROUND WATER AUTHORITY

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: cgwa-noc.gov.in

पानी बचाये – जीवन बचाये
SAVE WATER - SAVE LIFE

(Compliance Conditions given overleaf)

This is an auto generated document & need not to be signed.

CENTRAL GROUND WATER AUTHORITY

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

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SAVE WATER - SAVE LIFE

Validity of this NOC shall be subject to compliance of the following conditions:

Mandatory conditions:

- 1) Installation of tamper proof digital water flow meter with telemetry on all the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate.
- 2) Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.
- 3) Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 14 of Guidelines. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in Annexure-II of the guidelines.
- 4) Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.
- 5) In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.
- 6) In case of mining project the firm shall submit water quality report of mine discharge/ seepage from Govt. approved/ NABL accredited lab.
- 7) The firm shall report compliance of the NOC conditions online in the website (www.cgwa-noc.gov.in) within one year from the date of issue of this NOC.
- 8) Industries abstracting ground water in excess of 100 m³/d shall undertake annual water audit through certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three years through appropriate means.
- 9) Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment (Protection) Act, 1986.
- 10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of effluents or any such matter as applicable.

General conditions:

- 11) No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).
- 12) The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).
- 13) Proponents shall install roof top rain water harvesting in the premise as per the existing building bye laws in the premise.
- 14) The project proponent shall take all necessary measures to prevent contamination of ground water in the premises failing which the firm shall be responsible for any consequences arising thereupon.
- 15) In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.
- 16) Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.
- 17) Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.
- 18) Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.
- 19) In case of violation of any NOC conditions, the applicant shall be liable to pay the penalties as per Section 16 of Guidelines.
- 20) This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.
- 21) The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.
- 22) In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.
- 23) This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.
- 24) Proponents, who have installed/constructed artificial recharge structures in compliance of the NOC granted to them previously and have availed rebate of upto 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, shall continue to regularly maintain artificial recharge structures.
- 25) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, pharmaceutical, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution as per Annexure III of the guidelines.
- 26) In case of new infrastructure projects having ground water abstraction of more than 20 m³/day, the firm/entity shall ensure implementation of dual water supply system in the projects.
- 27) In case of infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.
- 28) In case of coal and other base metal mining projects, the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.
- 29) The NOC issued is conditional subject to the conditions mentioned in the Public notice dated 27.01.2021 failing which penalty/EC/cancellation of NOC shall be imposed as the case may be.
- 30) This NOC is issued subject to the clearance of Expert Appraisal Committee (EAC) (if applicable).
- 31) In the self-compliance report, the PP shall submit details of Drilling Agency/ Agencies, which has/ have constructed BW(s)/ TW(s) along with undertaking to the effect that all necessary measures have been taken as per directions of Hon'ble Supreme Court provided in Annexure-VII of guidelines dated 24.09.2020 in respect of abandoned/ failed BW(s)/ TW(s)/Piezometer(s), if any. The PP is advised to engage registered drilling agency/ agencies. In the event of any mishap/ unfortunate incident due to negligence in taking measures for prevention of accident due to falling in Bore Well, both PP and concerned drilling agency shall jointly be held responsible and penal action as per extant Government rules shall be taken.

(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: cgwa-noc.gov.in

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CENTRAL GROUND WATER AUTHORITY
Department of Water Resources, River Development and Ganga Rejuvenation
Ministry of Jal Shakti, Govt. of India

Receipt

(As per the guideline Gazette Notification S.O. 3281(E) regarding the New Guidelines dated 24.09.2020 of CGWA, MoJS, Govt. of India)
<https://cgwa-noc.gov.in>

Application No.:	21-4/1137/MP/MIN/2021	Date of Issuance:	24/02/2025
Name of Firm:	BIRLA CORPORATION LIMITED-SAGMANIA MINES		
AppType Category:	Limestone		
Application Type:	Mining		
PAN/GSTIN No. of Firm/Individual:	/		

S N	Description	Amount (Rs.)
1.	Application Processing Fee	5000.00
2.	Ground Water Abstraction charges	9189863.00
3.	Ground Water Restoration charges	0
4.	Environmental Compensation Charges (ECRGW) (Date From to) Days-	
5.	Penalty for non-Compliance of NOC conditions Condition to be mentioned	200000.00
6.	Adjustment Charges	
7.	Rebate	
8.	Charges for correction/modification in the existing issued No Objection Certificate	
S.No.	Description	Rate
(i)	Change in User ID	Rs. 1000
(ii)	Change in firm Name	Rs. 5000
(iii)	Extension of No Objection Certificate	Rs. 5000
(iv)	Issuance of duplicate No Objection Certificate	Rs. 5000
(v)	Issuance of corrigendum to No Objection Certificate	Rs. 5000
(vi)	Any other items/correction etc.	Rs. 500
Rs. Rupees Ninty Three Lakh Ninty Four Thousand Eight Hundred Sixty Three Only		9394863.00

This is an system generated invoice, hence, does not require ink signed.

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011
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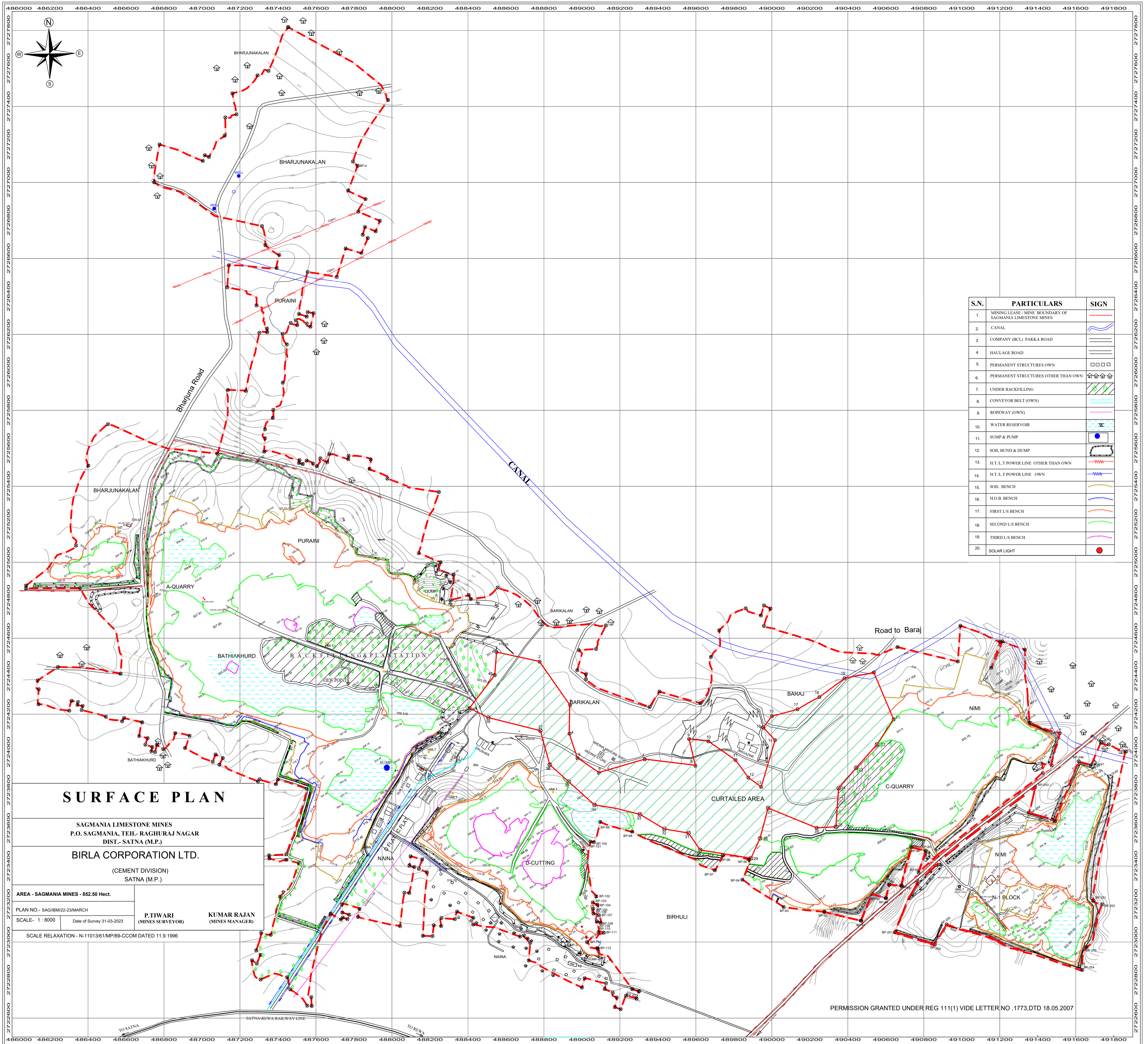
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Term and conditions:

- i. All disputes are subject to Delhi Jurisdiction.
- ii. Any complaint in regard to the rates will not be entertained.

Member-Secretary
CGWA, New Delhi

CENTRAL GROUND WATER AUTHORITY



Water Reservoir



Water Reservoir



Garland & Catch Drains





Bag Filter installed at transfer points



Bag House installed at covered Crusher



Covered hopper to control fugitive emission



Fixed Water Sprinklers along Haul road





Madhya Pradesh Pollution Control Board

Environmental Surveillance Center

Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462016 (M.P.)

Ph : 0755-2469180, Fax : 0755-2463742, E-mail : ercmppcb@nic.in, Web : www.erc.mp.gov.in

Real Time Data Acquisition And Monitoring

Custom Report

Industry Name : Birla Corporation Limited

From Date: 2025/09/01 00:00:00 To Date : 2025/09/30 23:59:35

Industry Status: site_status

Description	Quarry_Station_1-PM10_U	Quarry_Station_1-PM2.5_U	Quarry_Station_1-SO2_U	Quarry_Station_1-NOx_U	Quarry_Station_1-CO_U
Prescribed Standards	0 - 100	0 - 60	0 - 80	0 - 80	0 - 4
Maximum Data	56.55	22.11	17.5	9.73	0.88
Minimum Data	56.55	22.11	17.5	9.73	0.88
Geometric Mean	56.55	22.11	17.5	9.73	0.88
Median	56.55	22.11	17.5	9.73	0.88
Standard Deviation	NA	NA	NA	NA	NA
Maximum Value At Time	2025-09-01	2025-09-01	2025-09-01	2025-09-01	2025-09-01
Minimum Value At Time	2025-09-01	2025-09-01	2025-09-01	2025-09-01	2025-09-01
Valid Data Points	1	1	1	1	1
Total Data Points	1	1	1	1	1
Data Availability %	100.0%	100.0%	100.0%	100.0%	100.0%

Sl No	Time	Quarry_Station_1-PM10_U	Quarry_Station_1-PM2.5_U	Quarry_Station_1-SO2_U	Quarry_Station_1-NOx_U	Quarry_Station_1-CO_U
1	2025-09-01	56.55	22.11	17.5	9.73	0.88

Report Details: BCLS | 2025-10-21 16:52:04 | Custom Report



Madhya Pradesh Pollution Control Board

Environmental Surveillance Center

Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462016 (M.P.)

Ph : 0755-2469180, Fax : 0755-2463742, E-mail : ercmppcb@nic.in, Web : www.erc.mp.gov.in

Real Time Data Acquisition And Monitoring

Custom Report

Industry Name : Birla Corporation Limited

From Date: 2025/09/01 00:00:00 To Date : 2025/09/30 23:59:45

Industry Status: site_status

Description	Quarry_Station_2-PM10_U	Quarry_Station_2-PM2.5_U	Quarry_Station_2-CO_U	Quarry_Station_2-SO2_U	Quarry_Station_2-NOx_U
Prescribed Standards	0 - 100	0 - 60	0 - 4	0 - 80	0 - 80
Maximum Data	50.47	30.35	1.5	3.02	25.0
Minimum Data	50.47	30.35	1.5	3.02	25.0
Geometric Mean	50.47	30.35	1.5	3.02	25.0
Median	50.47	30.35	1.5	3.02	25.0
Standard Deviation	NA	NA	NA	NA	NA
Maximum Value At Time	2025-09-01	2025-09-01	2025-09-01	2025-09-01	2025-09-01
Minimum Value At Time	2025-09-01	2025-09-01	2025-09-01	2025-09-01	2025-09-01
Valid Data Points	1	1	1	1	1
Total Data Points	1	1	1	1	1
Data Availability %	100.0%	100.0%	100.0%	100.0%	100.0%

Sl No	Time	Quarry_Station_2-PM10_U	Quarry_Station_2-PM2.5_U	Quarry_Station_2-CO_U	Quarry_Station_2-SO2_U	Quarry_Station_2-NOx_U
1	2025-09-01	50.47	30.35	1.5	3.02	25

Report Details: BCLS | 2025-10-21 16:53:06 | Custom Report

TEST REPORT CODE: VGL/A/25/05/26/002

ULR NO. TC144552400000880F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005,
M. P. INDIA

Sampling Location : A- QUARRY PUMP HOUSE (WEST)

Duration of Sampling : 23.05.2025 TO 24.05.2025

Time of Sampling : 11:10 AM TO 11:10 AM

Sampling Done by : VGL STAFF

Packing Condition : SEALED

Sample Id No. : 002

Environmental Condition Temp.(°C) & RH (%) : 25.5 & 55

Method of Sampling : IS:5182

Sample Receiving Date : 26.05.2025

Sample Processing Date : 27.05.2025 TO 31.05.2025

Equipment Used : RESPIRABLE DUST SAMPLER (PM 10)
FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	46.25	µg/m ³	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	78.96	µg/m ³	100.0
3.	Sulphur Dioxide (SO ₂)	IS 5182 (Part-2)	17.20	µg/m ³	80.0
4.	Nitrogen Dioxides (NO ₂)	IS 5182 (Part-6)	24.49	µg/m ³	80.0
5.	Ozone (O ₃)	IS 5182 (Part-9)	11.4	µg/m ³	180.0
6.	Ammonia (NH ₃)	IS 5182 (Part-25)	10.1	µg/m ³	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m ³	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m ³	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m ³	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.46	mg/m ³	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m ³	1.0
12.	Benzene (C ₆ H ₆)	IS 5182 (Part-11)	<1.0	µg/m ³	5.0

Page 1 of 1

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BDL: Below detection limit.


VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt Ltd.)

D. K. Yadav
Lab In-Charge
Authorised Signatory

TEST REPORT CODE: VGL/A/25/05/26/003

ULR NO. TC14455240000881F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005,
 M. P. INDIA

Sampling Location : ANFO MIXING SHELTER (NORTH)

Duration of Sampling : 24.05.2025 TO 25.05.2025

Time of Sampling : 11:00 PM TO 11:00 PM

Sampling Done by : VGL STAFF

Packing Condition : SEALED

Sample Id No. : 003

Environmental Condition Temp.(°C) & RH (%) : 25.5 & 55

Method of Sampling : IS:5182

Sample Receiving Date : 26.05.2025

Sample Processing Date : 27.05.2025 TO 31.05.2025

Equipment Used : RESPIRABLE DUST SAMPLER (PM 10)
 FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	44.32	µg/m ³	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	74.45	µg/m ³	100.0
3.	Sulphur Dioxide (SO ₂)	IS 5182 (Part-2)	16.35	µg/m ³	80.0
4.	Nitrogen Dioxides (NO ₂)	IS 5182 (Part-6)	24.49	µg/m ³	80.0
5.	Ozone (O ₃)	IS 5182 (Part-9)	10.7	µg/m ³	180.0
6.	Ammonia (NH ₃)	IS 5182 (Part-25)	10.5	µg/m ³	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m ³	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m ³	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m ³	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.54	mg/m ³	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m ³	1.0
12.	Benzene (C ₆ H ₆)	IS 5182 (Part-11)	<1.0	µg/m ³	5.0

Page 1 of 1

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VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt Ltd)

 D. K. Yadav
 Authorised Signatory
 Lab In-charge.

TEST REPORT CODE: VGL/A/25/05/26/004

ULR NO. TC14455240000882F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005,
 M. P. INDIA

Sampling Location : QUARRY DISPENSARY (SOUTH)

Duration of Sampling : 24.05.2025 TO 25.05.2025

Time of Sampling : 11:50 PM TO 11:50 PM

Sampling Done by : VGL STAFF

Packing Condition : SEALED

Sample Id No. : 004

Environmental Condition Temp.(°C) & RH (%) : 25.5 & 55

Method of Sampling : IS:5182

Sample Receiving Date : 26.05.2025

Sample Processing Date : 27.05.2025 TO 31.05.2025

Equipment Used : RESPIRABLE DUST SAMPLER (PM 10)
 FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	48.66	µg/m ³	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	80.14	µg/m ³	100.0
3.	Sulphur Dioxide (SO ₂)	IS 5182 (Part-2)	16.60	µg/m ³	80.0
4.	Nitrogen Dioxides (NO ₂)	IS 5182 (Part-6)	24.53	µg/m ³	80.0
5.	Ozone (O ₃)	IS 5182 (Part-9)	11.6	µg/m ³	180.0
6.	Ammonia (NH ₃)	IS 5182 (Part-25)	13.4	µg/m ³	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m ³	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m ³	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m ³	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.56	mg/m ³	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m ³	1.0
12.	Benzene (C ₆ H ₆)	IS 5182 (Part-11)	<1.0	µg/m ³	5.0

Page 1 of 1

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- Below detection limit.


VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)

 D. K. Yadav
 Authorised Signatory
 Lab In-charge

TEST REPORT CODE: VGL/A/25/09/04/007

ULR NO. TC1445524000002019F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005,
 M. P. INDIA

Sampling Location : LABOUR COLONY (EAST)

Duration of Sampling : 29.08.2025 TO 30.08.2025

Time of Sampling : 09:30 AM TO 09:30 AM

Sampling Done by : VGL STAFF

Packing Condition : SEALED

Sample Id No. : 001

Environmental Condition Temp.(°C) & RH (%) : 25.7 & 58

Method of Sampling : IS:5182

Sample Receiving Date : 04.09.2025

Sample Processing Date : 05.09.2025 TO 15.09.2025

Equipment Used : RESPIRABLE DUST SAMPLER (PM 10)
 FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	24.36	µg/m ³	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	46.85	µg/m ³	100.0
3.	Sulphur Dioxide (SO ₂)	IS 5182 (Part-2)	13.54	µg/m ³	80.0
4.	Nitrogen Dioxides (NO ₂)	IS 5182 (Part-6)	18.24	µg/m ³	80.0
5.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.43	mg/m ³	4.0

Page 1 of 1

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- The above results are related to the tested sample only.
- BDL: Below detection limit.

Review By:

 Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)

 D. K. Yadav
 Lab In-charge 
 Authorised Signatory

TEST REPORT CODE: VGL/A/25/09/04/008

ULR NO. TC144552400002020F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005,
 M. P. INDIA

Sampling Location : **A- QUARRY PUMP HOUSE (WEST)**

Duration of Sampling : 29.08.2025 TO 30.08.2025

Time of Sampling : 11:50 AM TO 11:50 AM

Sampling Done by : VGL STAFF

Packing Condition : SEALED

Sample Id No. : 002

Environmental Condition Temp.(°C) & RH (%) : 25.7 & 58

Method of Sampling : IS:5182

Sample Receiving Date : 04.09.2025

Sample Processing Date : 05.09.2025 TO 15.09.2025

Equipment Used : RESPIRABLE DUST SAMPLER (PM 10)
 FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	23.95	µg/m ³	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	45.36	µg/m ³	100.0
3.	Sulphur Dioxide (SO ₂)	IS 5182 (Part-2)	11.95	µg/m ³	80.0
4.	Nitrogen Dioxides (NO ₂)	IS 5182 (Part-6)	17.84	µg/m ³	80.0
5.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.44	mg/m ³	4.0

Page 1 of 1

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- BDL: Below detection limit.

Review By:


 Authorized Signatory
 VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)

 D. K. Yadav
 Lab In-charge Authorised Signatory

TEST REPORT CODE: VGL/A/25/09/04/009

ULR NO. TC144552400002021F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005,
M. P. INDIA

Sampling Location : ANFO MIXING SHELTER (NORTH)

Duration of Sampling : 30.08.2025 TO 31.08.2025

Time of Sampling : 10:30 AM TO 10:30 AM

Sampling Done by : VGL STAFF

Packing Condition : SEALED

Sample Id No. : 003

Environmental Condition Temp.(°C) & RH (%) : 25.7 & 58

Method of Sampling : IS:5182

Sample Receiving Date : 04.09.2025

Sample Processing Date : 05.09.2025 TO 15.09.2025

Equipment Used : RESPIRABLE DUST SAMPLER (PM 10)
FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	25.06	µg/m ³	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	48.34	µg/m ³	100.0
3.	Sulphur Dioxide (SO ₂)	IS 5182 (Part-2)	12.65	µg/m ³	80.0
4.	Nitrogen Dioxides (NO ₂)	IS 5182 (Part-6)	19.85	µg/m ³	80.0
5.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.48	mg/m ³	4.0

Page 1 of 1

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Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
D. K. Yadav
Lab In-charge

Authorized Signatory

TEST REPORT CODE: VGL/A/25/09/04/010

ULR NO. TC144552400002022F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005,
 M. P. INDIA

Sampling Location : QUARRY DISPENSARY (SOUTH)

Duration of Sampling : 30.08.2025 TO 31.08.2025

Time of Sampling : 12:30 PM TO 12:30 PM

Sampling Done by : VGL STAFF

Packing Condition : SEALED

Sample Id No. : 004

Environmental Condition Temp.(°C) & RH (%) : 25.7 & 58

Method of Sampling : IS:5182

Sample Receiving Date : 04.09.2025

Sample Processing Date : 05.09.2025 TO 15.09.2025

Equipment Used : RESPIRABLE DUST SAMPLER (PM 10)
 FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	22.65	µg/m ³	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	43.25	µg/m ³	100.0
3.	Sulphur Dioxide (SO ₂)	IS 5182 (Part-2)	11.32	µg/m ³	80.0
4.	Nitrogen Dioxides (NO ₂)	IS 5182 (Part-6)	16.59	µg/m ³	80.0
5.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.40	mg/m ³	4.0

Page 1 of 1

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Review By:

 Dr. Raj Mani
 Sr. Analyst

 VIRAT GLOBAL LAB
 Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)


 D. K. Yadav
 Lab In-charge Authorized Signatory



scw/s/2020-21

o/c

Birla Corporation Limited

Unit: Satna Cement Works

P.O.: Birla Vikas, Satna - 485005

Madhya Pradesh

P: 07672 412000/01 F: 07672 257456

E : admin.scw@birlacorp.com

To,
The Regional Director,
Central Ground Water Board,
North Central Region
Block-1, 4th Floor,
Parayawas Bhawan,
Arera Hills, Jail Road,
BHOPAL (M.P.)
PIN- 462011

Date: 21.10.2020

Sub: Seeking guidance/suggestion for developing Suitable rainwater harvesting measures on long term basis at our Sagmania Limestone Mines, Satna, M.P of M/s Birla corporation Ltd., Unit Satna Cement works.

Dear Sir,

Sagmania Limestone is a captive mines of M/s. Birla Corporation Ltd. Unit-Satna Cement Works. Sagmania Limestone Mine started in 1959. The total lease hold area is 852.50 Ha, in village Barikalan, Baraj, Puraini, Bathiakhurd, Bharjunakalan, Nimi & Naina of Raghurajnagar Tehsil, dist. Satna, Madhya Pradesh. This mine is fully mechanized mine & worked in two benches. The average height of 1st bench is about 9m & height of second bench is about 6m. The average mining depth is about 15 mtr. Till date the total opened up area is about 350 Ha. Total 5 pits have been created since inception. The mined out pits are reclaimed either by backfilling supported by plantation or by converting into Rain Water Harvesting pits. Photograph of rain water harvesting in mined out pits is attached as Annexure-1.

In addition to above we have also constructed Ground Water Recharge structure to tune-up ground water level at Colony, Hospital and Nearby School, Villages etc. The details are follows:

- A) 15 Nos of Ground water recharge structures are constructed in Staff colony, SCW plant, R K Missionary School etc.
- B) 17 nos. are planned and work shall start shortly
- C) Under CSR Activities, Construction of check dams and pond deepening at 7 locations have completed with an expenditure of Rs. 38,06,500/- till date.

In this regard we would like to seek your suggestion and guidance for Suitable rainwater harvesting measures on long term basis.

Thanking you,
Yours faithfully,


Authorised Signatory
For, Birla Corporation Ltd.
Unit-Satna Cement Ltd.

Water Reservoir



Recharging Structures



TEST REPORT CODE: VGL/W/25/05/26/001

ULR NO. TC144552500000885F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : NEAR ANFO MIXING SHELTER

Sample Description : GROUND WATER

Date & Time of Sampling : 24.05.2025 11:00 AM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Laboratory Sample Receiving Date : 26.05.2025

Duration of Sample Analysis : 27.05.2025 TO 31.05.2025

Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

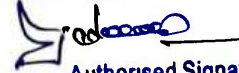
Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.45	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B	762.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	25.6	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	488.4	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	478.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	194.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	190.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	52.7	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	14.2	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	35.1	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	12.5	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.31	mg/L	-	-

Page 1 of 2

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- BDL: Below detection limit.


VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)


Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/001

ULR NO. TC144552500000885F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

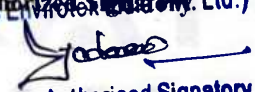
16.	Iron	APHA 3500 Fe B	0.21	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	43.2	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.23	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.


VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)


Authorised Signatory
 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/002

ULR NO. TC14455250000886F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
 SATNA-485005, M. P. INDIA
Location of Sample : BIRHULI OH TANK, SARPANCH GALI
 (PUBLIC WATER SUPPLY)
Sample Description : GROUND WATER
Date & Time of Sampling : 24.05.2025 11:30 AM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 26.05.2025
Duration of Sample Analysis : 27.05.2025 TO 31.05.2025
Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25°C	APHA 4500 H+A+B	7.74	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B	726	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.8	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	462.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	454.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+B	168.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	164.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	44.6	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	12.8	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	25.4	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.5	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.55	mg/L	-	-

Page 1 of 2

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- The above Results are related to the tested sample only.
- BDL: Below detection limit.

Review By:

 Dr. Ashok Kumar
 Technical Manager

VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)


 D. K. Yadav
 Authorised Signatory
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/002

ULR NO. TC14455250000886F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.24	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	30.2	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.23	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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4. The above Results are related to the tested sample only.
5. BDL: Below detection limit


VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)


 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/003

ULR NO. TC144552500000887F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : NAINA VILLAGE (PUBLIC WATER SUPPLY)
Sample Description : GROUND WATER
Date & Time of Sampling : 24.05.2025 12:20 PM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 26.05.2025
Duration of Sample Analysis : 27.05.2025 TO 31.05.2025
Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25°C	APHA 4500 H+A+B	7.42	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	654	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.8	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	442.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	448.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	142.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	150.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	34.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	15.5	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	22.1	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.2	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.22	mg/L	-	-

Page 1 of 2

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VIRAT GLOBAL LAB
Authorized Signatory
(A Division of Aseries Envirotek India Pvt. Ltd.)

[Signature]
D. K. Yadav
Lab In-charge
Authorized Signatory

TEST REPORT CODE: VGL/W/25/05/26/003

ULR NO. TC144552500000887F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.24	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	31.2	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.12	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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5. BDL: Below detection limit


VIRAT GLOBAL LAB
 Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)


 Authorised Signatory

 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/004

ULR NO. TC144552500000888F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : **BARI KALA (PUBLIC WATER SUPPLY)**

Sample Description : GROUND WATER

Date & Time of Sampling : 24.05.2025 12:50 PM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Laboratory Sample Receiving Date : 26.05.2025

Duration of Sample Analysis : 27.05.2025 TO 31.05.2025

Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

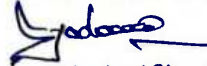
Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25°C	APHA 4500 H+A+B	7.75	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B	654	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	25.4	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	462.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	451.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	148.4	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	144.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	36.4	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	12.9	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	35.2	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.7	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.38	mg/L	-	-

Page 1 of 2

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- BDL: Below detection limit.


VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)


Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/004

ULR NO. TC144552500000888F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.24	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	34.5	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.15	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)


 Authorised Signatory
 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/005

ULR NO. TC14455250000889F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : BHATIA PRIMARY SCHOOL
Sample Description : GROUND WATER
Date & Time of Sampling : 24.05.2025 01:30 PM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 26.05.2025
Duration of Sample Analysis : 27.05.2025 TO 31.05.2025
Method of Sampling : APHA 1060 B & 9060 A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.41	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	674	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	25.8	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	442.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	424.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	164.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	154.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	36.8	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	15.1	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	25.4	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.8	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.51	mg/L	-	-

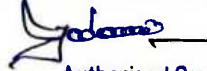
Page 1 of 2

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- BDL: Below Detection Limit.


Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)


D. K. Yadav
Lab In-charge

CORPORATE OFFICE : B - 32
2nd Floor, Sec - 6, Noida, Gautam
Buddha Nagar (UP) - 201301

TESTING FACILITY : KH.NO. 973 Part,
Bijnaur, Sarojini Nagar, Lucknow (UP)
- 226008

+91-9415135012
+91-9990366186
0522-7118739

Viratgloballab@gmail.com
info@viratlab.com
www.viratlab.com

TEST REPORT CODE: VGL/W/25/05/26/005

ULR NO. TC144552500000889F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.26	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	42.5	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.17	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)



 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/006

ULR NO. TC14455250000890F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : PIEZOMETER – 1 NEAR STAR GATE

Sample Description : GROUND WATER

Date & Time of Sampling : 24.05.2025 02:40 PM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Laboratory Sample Receiving Date : 26.05.2025

Duration of Sample Analysis : 27.05.2025 TO 31.05.2025

Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.42	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	655	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.8	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	432.0	mg/L	-	-
8.	Total Dissolved Solids	APHA 2540-C	428.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	136.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	130.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	45.4	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	4.0	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	31.5	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.8	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.31	mg/L	-	-

Page 1 of 2

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VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)

Authorized Signatory



Authorized Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/006

ULR NO. TC144552500000890F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

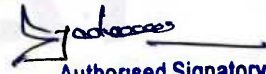
16.	Iron	APHA 3500 Fe B	0.17	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	32.4	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.12	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)


Authorized Signatory
 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/007

ULR NO. TC14455250000891F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : PIEZOMETER – 2 NEAR MINES STORE

Sample Description : GROUND WATER

Date & Time of Sampling : 24.05.2025 03:10 PM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Laboratory Sample Receiving Date : 26.05.2025

Duration of Sample Analysis : 27.05.2025 TO 31.05.2025

Method of Sampling : APHA 1060 B & 9060 A

TEST RESULTS


Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.42	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	754	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.4	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	462.0	mg/L	-	-
8.	Total Dissolved Solids	APHA 2540-C	455.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	164.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	168.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	52.4	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	9.0	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	25.4	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.4	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.46	mg/L	-	-

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VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)


Dr. K. Yashwanth
Authorized Signatory
Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/007

ULR NO. TC144552500000891F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

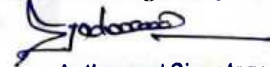
16.	Iron	APHA 3500 Fe B	0.24	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	40.1	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.25	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)


 Authorised Signatory

 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/008

ULR NO. TC14455250000892F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : NEAR MINES MAIN GATE BOREWELL

Sample Description : GROUND WATER

Date & Time of Sampling : 24.05.2025 03:50 PM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Laboratory Sample Receiving Date : 26.05.2025

Duration of Sample Analysis : 27.05.2025 TO 31.05.2025

Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25°C	APHA 4500 H+A+B	7.41	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	667	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.4	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	442.4	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	432.1	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	146.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	144.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	39.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	11.0	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	23.8	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.5	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.31	mg/L	-	-


Page 1 of 2

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- The above Results are related to the tested sample only.
- BDL: Below detection limit.

Review By:

Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
Authorized Signatory
(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
Authorised Signatory
Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/008

ULR NO. TC14455250000892F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.12	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	44.4	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.24	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.) |
 Authorized Signatory


 Authorized Signatory
 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/009

ULR NO. TC14455250000893F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : NEAR MINES TIME OFFICE BOREWELL
Sample Description : GROUND WATER
Date & Time of Sampling : 24.05.2025 04:20 PM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 26.05.2025
Duration of Sample Analysis : 27.05.2025 TO 31.05.2025
Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

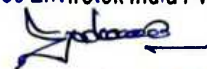
Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.74	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	657	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.8	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	461.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	454.3	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	154.4	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	168.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	46.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	12.6	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	23.8	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.9	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.24	mg/L	-	-

Page 1 of 2

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- BDL: Below detection limit.


VIRAT GLOBAL LAB
Authorized Signatory
(A Division of Aseries Envirotek India Pvt Ltd)


D. K. Yadav
Authorized Signatory
Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/009

ULR NO. TC1445250000893F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

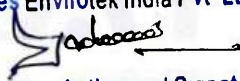
16.	Iron	APHA 3500 Fe B	0.16	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	37.4	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.29	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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VIRAT GLOBAL LAB
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 (A Division of Aseries Envirotek India Pvt. Ltd.)

 D. K. Yadav
 Authorized Signatory
 Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/010

ULR NO. TC14455250000894F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : NEAR MINES HEALTH CENTRE BOREWELL

Sample Description : GROUND WATER

Date & Time of Sampling : 24.05.2025 04:50 PM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Laboratory Sample Receiving Date : 26.05.2025

Duration of Sample Analysis : 27.05.2025 TO 31.05.2025

Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.42	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B	656	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.7	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	428.4	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	420.6	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	125.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	132.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	36.7	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	9.8	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	20.4	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.8	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.11	mg/L	-	-

Page 1 of 2

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Review By:

Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
Authorized Signatory
(A Division of Aseries Envirotek India Pvt. Ltd.)


Dr. K. Yadav
Authorized Signatory
Lab In-charge

TEST REPORT CODE: VGL/W/25/05/26/010

ULR NO. TC14455250000894F

TEST REPORT ISSUE DATE:31.05.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.19	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	32.1	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.28	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

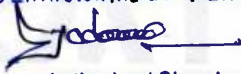
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Review By:


 Dr. Ashok Kumar
 Technical Manager

VIRAT GLOBAL LAB
 Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)


 D. K. Yadav
 Authorised Signatory
 Lab In-charge

TEST REPORT CODE: VGL/WL/25/09/04/024-033

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER LEVEL)

Name & Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
 UNIT- SAGMANIA LIMESTONE MIINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
 SATNA-485005, M. P. INDIA
 Sample Done By : VGL STAFF
 Weather Condition : CLEAR

TEST RESULTS

Sr. No.	Locations	Monitoring Date	Unit	Water Level (Below Ground Level)- Meter
1	Near ANFO Mixing Shelter	01.09.2025	Meter	19.2
2	Birhuli OH Tank, Sarpanch Gali (Public Water Supply)	01.09.2025	Meter	21.9
3	Naina Village (Public Water Supply)	01.09.2025	Meter	19.7
4	Bari Kala (Public Water Supply)	01.09.2025	Meter	20.4
5	Bhatia Primary School	01.09.2025	Meter	22.3
6	Piezometer – 1 near Star Gate	01.09.2025	Meter	21.8
7	Piezometer – 2 near Mines store	01.09.2025	Meter	20.5
8	Near Mines Main Gate Bore well	01.09.2025	Meter	19.9
9	Near Mines Time office Bore well	01.09.2025	Meter	20.5
10	Near Mines Health Center Bore well	01.09.2025	Meter	21.0

Page 1 of 1

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VIRAT GLOBAL LAB
 Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
 Lab In-charge Authorized Signatory

TEST REPORT CODE: VGL/W/25/09/04/027

ULR NO. TC144552500002027F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-
 485005, M. P. INDIA
Location of Sample : NEAR ANFO MIXING SHELTER
Sample Description : GROUND WATER
Date & Time of Sampling : 01.09.2025 10:20 AM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 04.09.2025
Duration of Sample Analysis : 05.09.2025 TO 15.09.2025
Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.36	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	744.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.5	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	464.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	462.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	190.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	184.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	48.3	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	15.4	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	30.4	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	11.6	mg/L	45.0	-
15.	Phosphate	APHA 4500-P-D	0.36	mg/L	-	-

Page 1 of 2

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Authorized Signatory
 VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)
 D. K. Yadav
 Lab In-charge



Authorised Signatory

TEST REPORT CODE: VGL/W/25/09/04/027

ULR NO. TC144552500002027F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.29	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	40.5	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.21	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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Review By:

Authorized Signatory
VIRAT GLOBAL LAB

(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav

Lab In-charge

Authorised Signatory

TEST REPORT CODE: VGL/W/25/09/04/028

ULR NO. TC144552500002028F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA
Location of Sample : BIRHULI OH TANK, SARPANCH GALI
(PUBLIC WATER SUPPLY)
Sample Description : GROUND WATER
Date & Time of Sampling : 01.09.2025 10:45 AM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 04.09.2025
Duration of Sample Analysis : 05.09.2025 TO 15.09.2025
Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.65	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	722	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.4	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	468.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	465.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	160.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	156.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	45.4	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	10.3	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	22.6	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.6	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.50	mg/L	-	-

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VIRAT GLOBAL LAB
Authorized Signatory
(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
Lab. In-charge Authorized Signatory

TEST REPORT CODE: VGL/W/25/09/04/028

ULR NO. TC144552500002028F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.28	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	29.8	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.26	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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Authorized Signatory
VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)
 D. K. Yadav
 Lab In-charge

 Authorised Signatory

TEST REPORT CODE: VGL/W/25/09/04/029

ULR NO. TC144552500002029F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-
 485005, M. P. INDIA
Location of Sample : NAINA VILLAGE (PUBLIC WATER SUPPLY)
Sample Description : GROUND WATER
Date & Time of Sampling : 01.09.2025 11:30 AM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 04.09.2025
Duration of Sample Analysis : 05.09.2025 TO 15.09.2025
Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.12	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	644	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.5	°C	-	-
5.	Odour	APHA 2150-B	Agrecable	-	Agrecable	Agrecable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	432.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	428.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	144.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	148.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	32.4	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	16.3	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	23.5	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	7.9	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.26	mg/L	-	-

Page 1 of 2

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- BDL: Below detection limit.


VIRAT GLOBAL LAB
 Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)


 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/W/25/09/04/029

ULR NO. TC144552500002029F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.23	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	36.2	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.16	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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Authorized Signatory
VIRAT GLOBAL LAB
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 D. K. Yadav
 Lab In-charge 
 Authorised Signatory

TEST REPORT CODE: VGL/W/25/09/04/030

ULR NO. TC144552500002030F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : **BARI KALA (PUBLIC WATER SUPPLY)**
Sample Description : GROUND WATER
Date & Time of Sampling : 01.09.2025 12:20 PM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 04.09.2025
Duration of Sample Analysis : 05.09.2025 TO 15.09.2025
Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.98	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	665	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.9	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	474.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	472.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	160.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	164.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	46.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	11.6	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	39.2	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.6	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.42	mg/L	-	-

Page 1 of 2

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- BDL: Below detection limit.



Review By:

Dr. Raj Mani
Sr. Analyst

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
Lab In-charge

Authorised Signatory

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.29	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	36.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.12	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

Note:

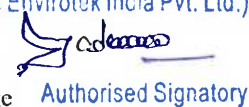
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5. BDL: Below detection limit.

Review By:


Dr. Raj Manj
Sr. Analyst

VIRAT GLOBAL LAB
Authorized Signatory
(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
Lab In-charge


Authorized Signatory

TEST REPORT CODE: VGL/W/25/09/04/031

ULR NO. TC144552500002031F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : BHATIA PRIMARY SCHOOL

Sample Description : GROUND WATER

Date & Time of Sampling : 01.09.2025 01:10 PM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Laboratory Sample Receiving Date : 04.09.2025

Duration of Sample Analysis : 05.09.2025 TO 15.09.2025

Method of Sampling : APHA 1060 B & 9060 A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25°C	APHA 4500 H+A+B	7.65	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	684	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.6	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	436.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	432.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	124.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	118.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	24.6	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	13.7	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	24.3	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.5	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.42	mg/L	-	-

Page 1 of 2

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VIRAT GLOBAL LAB
Authorized Signatory
(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
Lab, In-charge 

Authorized Signatory

TEST REPORT CODE: VGL/W/25/09/04/031

ULR NO. TC144552500002031F

TEST REPORT ISSUE DATE: 15.09.2025

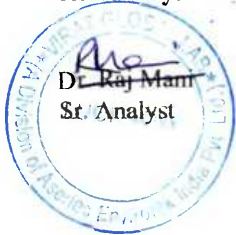
TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.23	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	40.6	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.15	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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5. BDL: Below detection limit.

Review By:

VIRAT GLOBAL LAB
 Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)

 D. K. Yadav
 Lab In-charge Authorised Signatory

TEST REPORT CODE: VGL/W/25/09/04/032

ULR NO. TC144552500002032F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
 SATNA-485005, M. P. INDIA
Location of Sample : PIEZOMETER – 1 NEAR STAR GATE
Sample Description : GROUND WATER
Date & Time of Sampling : 01.09.2025 02:20 PM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 04.09.2025
Duration of Sample Analysis : 05.09.2025 TO 15.09.2025
Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25°C	APHA 4500 H+A+B	7.84	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	665.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.3	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	438.0	mg/L	-	-
8.	Total Dissolved Solids	APHA 2540-C	435.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	144.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	140.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	41.3	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	8.9	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	26.5	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.2	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.11	mg/L	-	-

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VIRAT GLOBAL LAB
 (Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.))

 D. K. Yadav
 Lab In-charge
 Authorised Signatory

TEST REPORT CODE: VGL/W/25/09/04/032

ULR NO. TC144552500002032F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.13	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	29.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.16	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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Authorized Signatory
VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)

 D. K. Yadav
 Lab In-charge **Authorised Signatory**

TEST REPORT CODE: VGL/W/25/09/04/033

ULR NO. TC144552500002033F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
 SATNA-485005, M. P. INDIA
Location of Sample : PIEZOMETER – 2 NEAR MINES STORE
Sample Description : GROUND WATER
Date & Time of Sampling : 01.09.2025 02:50 PM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 04.09.2025
Duration of Sample Analysis : 05.09.2025 TO 15.09.2025
Method of Sampling : APHA 1060 B & 9060 A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.84	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	756	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.6	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	468.0	mg/L	-	-
8.	Total Dissolved Solids	APHA 2540-C	464.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+B	168.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	170.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	48.3	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	12.0	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	23.6	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.8	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.36	mg/L	-	-


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VIRAT GLOBAL LAB
 Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)

 D. K. Yadav
 Lab In-charge


 Authorised Signatory

TEST REPORT CODE: VGL/W/25/09/04/033

ULR NO. TC144552500002033F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.20	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	39.4	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.23	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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VIRAT GLOBAL LAB
 Authorised Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav 
 Lab In-charge Authorised Signatory

TEST REPORT CODE: VGL/W/25/09/04/034

ULR NO. TC144552500002034F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-
485005, M. P. INDIA

Location of Sample : NEAR MINES MAIN GATE BOREWELL

Sample Description : GROUND WATER

Date & Time of Sampling : 01.09.2025 03:30 PM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Laboratory Sample Receiving Date : 04.09.2025

Duration of Sample Analysis : 05.09.2025 TO 15.09.2025

Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25°C	APHA 4500 H+A+B	7.48	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	660.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.9	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	450.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	448.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	140.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	136.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	35.2	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	11.7	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	22.6	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.6	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.62	mg/L	-	-

Page 1 of 2

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VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav Authorised Signatory
Lab In-charge

TEST REPORT CODE: VGL/W/25/09/04/034

ULR NO. TC144552500002034F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.35	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	40.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.26	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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Authorized Signatory
VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)
 D. K. Yadav
 Lab In-charge **Authorised Signatory**

TEST REPORT CODE: VGL/W/25/09/04/035

ULR NO. TC144552500002035F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : M/S. BIRLA CORPORATION LIMITED
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : NEAR MINES TIME OFFICE BOREWELL

Sample Description : GROUND WATER

Date & Time of Sampling : 01.09.2025 04:00 PM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Laboratory Sample Receiving Date : 04.09.2025

Duration of Sample Analysis : 05.09.2025 TO 15.09.2025

Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.80	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	664	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	28.3	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	468.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	465.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	160.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	168.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	42.3	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	15.1	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	22.6	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.3	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.32	mg/L	-	-

Page 1 of 2

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- BDL - Below detection limit.


VIRAT GLOBAL LAB
Authorized Signatory
(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
Lab In-charge

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.18	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	32.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.24	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Page 2 of 2

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Authorized Signatory
VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)
 D. K. Yadav
 Lab In-charge

 Authorised Signatory

TEST REPORT CODE: VGL/W/25/09/04/036

ULR NO. TC144552500002036F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)

Name and Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-
485005, M. P. INDIA

Location of Sample : **NEAR MINES HEALTH CENTRE BOREWELL**

Sample Description : **GROUND WATER**

Date & Time of Sampling : **01.09.2025 04:35 PM**

Sample Collected by : **VGL STAFF**

Weather Condition : **CLEAR**

Laboratory Sample Receiving Date : **04.09.2025**

Duration of Sample Analysis : **05.09.2025 TO 15.09.2025**

Method of Sampling : **APHA 1060B & 9060A**

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25°C	APHA 4500 H+A+B	7.09	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	612	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.3	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	416.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	412.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	124.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	128.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	26.3	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	15.1	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	18.3	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	7.3	mg/L	45.0	-
15.	Phosphate	APHA 4500-P-D	0.17	mg/L	-	-

Page 1 of 2

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VIRAT GLOBAL LAB
Authorized Signatory (A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
Lab In-charge Authorized Signatory

TEST REPORT CODE: VGL/W/25/09/04/036

ULR NO. TC144552500002036F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WATER)
TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.13	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	39.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.22	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	


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 Authorized Signatory
 (A Division of Aseries Envirotek India Pvt. Ltd.)

 D. K. Yadav
 Lab In-charge


 Authorised Signatory

Date/Time Vert at 12:32:37 October 19, 2025
Trigger Source Geo: 0.800 mm/s
Range Geo: 254.0 mm/s
Record Time 2.0 sec at 1024 sps
Job Number: 1

Serial Number BE16620 V 10.72-1.1 Minimate Blaster
Battery Level 6.1 Volts
Unit Calibration March 6, 2025 by UES New Delhi
File Name R620LAJE.UD0

Post Event Notes

A Quarry MF WS,
 Distance from blasting site to monitoring station-200m

Notes

Location:
 Client:
 User Name:
 General:

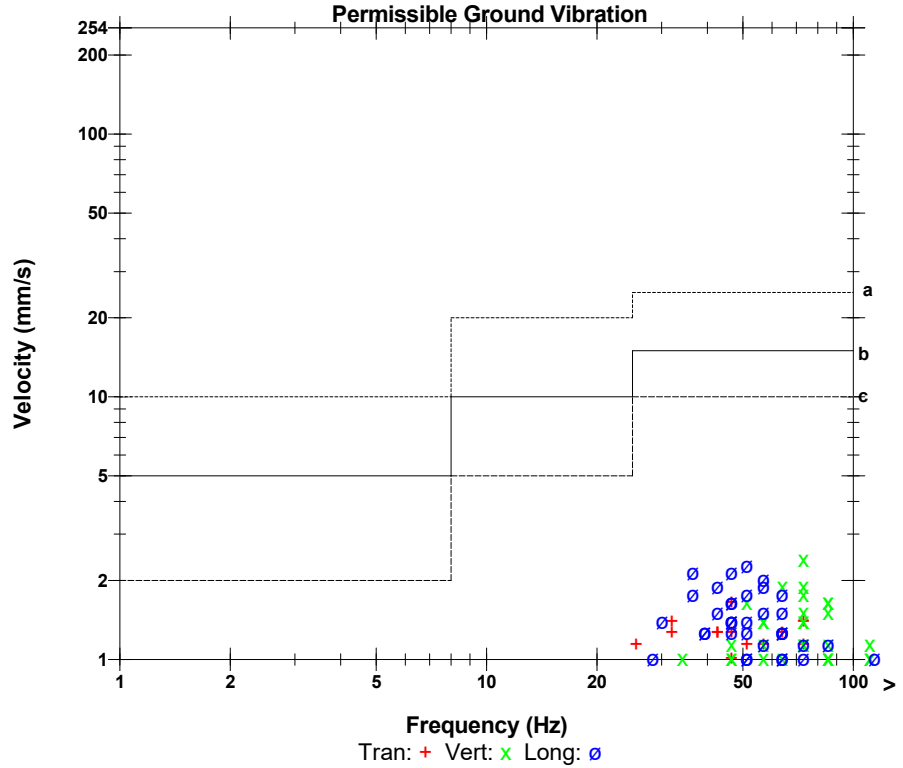
Extended Notes

Blast vibration monitoring.

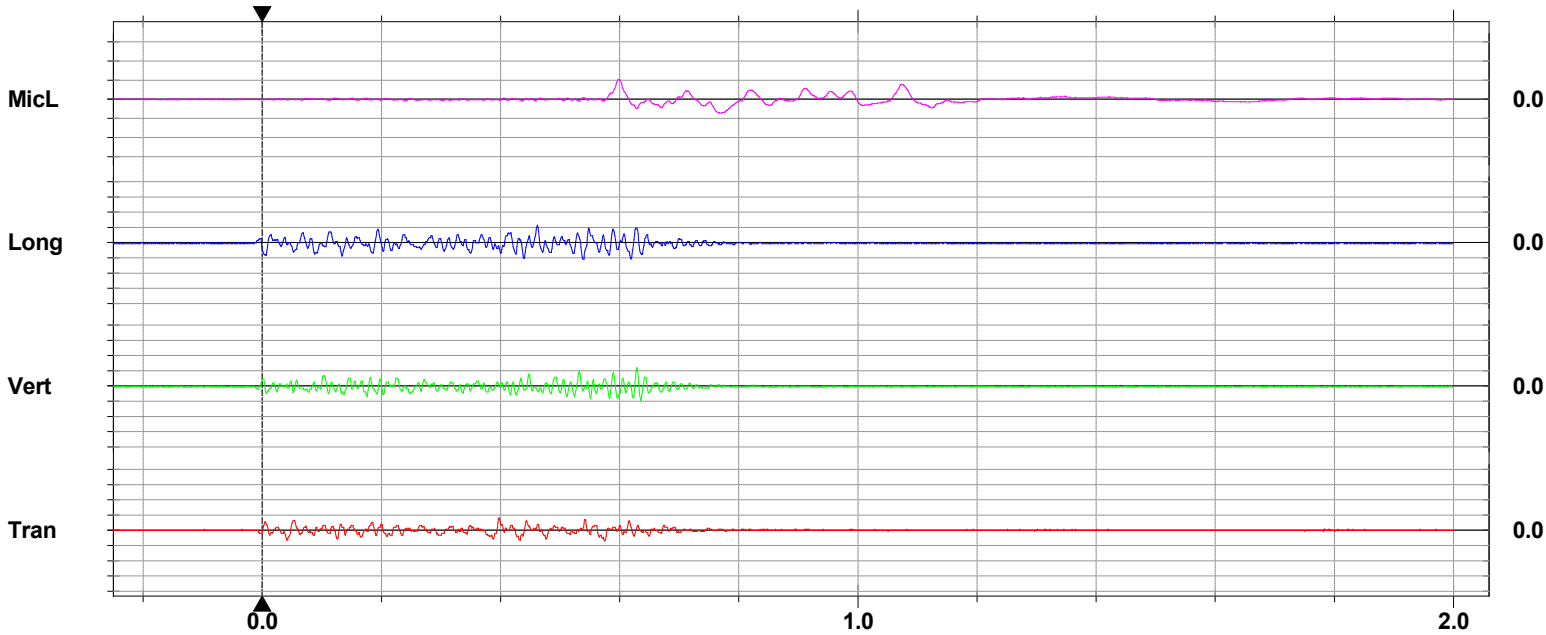
Microphone Linear Weighting
PSPL 114.2 dB(L) at 0.598 sec
ZC Freq 13 Hz
Channel Test Passed (Freq = 19.7 Hz Amp = 443 mv)

	Tran	Vert	Long	
PPV	1.651	2.413	2.286	mm/s
ZC Freq	47	73	51	Hz
Time (Rel. to Trig)	0.397	0.629	0.462	sec
Peak Acceleration	0.066	0.093	0.093	g
Peak Displacement	0.006	0.005	0.008	mm
Sensor Check	Passed	Passed	Passed	
Peak Vector Sum	3.021 mm/s at 0.629 sec			

DGMS India (A)



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





Consent Order

RED-LARGE

CCA-Renewal

PCB ID: 19445

Order No:122115.05/02/2025

Consent No:AW-61699

The Occupier,
M/s. Birla Corporation Ltd.(Sagmania Lime Stone Mines),
Village:- Sagmania, Tehsil- Raghurajnagar, Dist. Satna (M.P.),
Latitude : 24.6257 Longitude : 80.8934

Subject: Grant of Renewal of Consent under section 25 of the Water (Prevention & Control of Pollution) Act,1974 under section 21 of the Air (Prevention & Control of Pollution) Act,1981

Ref: Renewal of Consent Application R No. 1401721 Dt. 26/12/2024 and last communication received on Dt.23/01/2025

With reference to your above application for Renewal of Consent has been considered under the aforesaid Acts and existing rules therein. The M. P. Pollution Control Board has agreed to grant consent up to 31/03/2027, subject to the fulfillment of the terms & conditions, enclosed with this letter and-

SUBJECT TO THE FOLLOWING CONDITIONS :-

- a. Location: Village:- Sagmania, Tehsil- Raghurajnagar, Dist. Satna (M.P.)
b. Mining Lease area: 939.78 Hect.
c. Product & Production Capacity:

Table with 2 columns: Activity / Product, Qty / year. Row 1: Mining of Limestone, 4.90 Million Ton Per year

- (1) For any change in above industry shall obtain fresh consent from the Board. Grant of this Consent & Authorisation do not indicate that Mine Management has not violated any Environmental laws in past, Hence What so ever may be the decision of the Hon'ble court shall be binding on Mine Management & this Board.
(2) PP shall ensure that mining is done in sanctioned lease area as per valid mining plan presently approved by Regional Controller of Mines IBM Jabalpur for period till 31.03.2026 vide letter No. RMP-22/20-21/3482 dated 24.12.2020 & PP to ensure that mining after 31.03.26 shall be done after the IBM grants approval of the mining plan for period beyond 31.03.2026. PP shall ensure compliance of the conditions laid in EC granted by MOEF & CC vide No. J-11015/271/2006- IA. II (M.) dated 27.12.2007. If EC is granted without Public hearing, then PP shall ensure revision of this EC in time bound manner through the MoEF&CC GOI, in compliance of the directives given by The Hon ble NGT & the Supreme Court of India in this regard.
(3) The project proponent shall follow the mitigation measures as provided in the MoEFCC GoI OM No. Z-11013/5712014-IA.II(M) dated 29thOctober 2014, titled ' Impact of mining activities on habitations - issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations & villages are surrounded by the mine lease area.' PP shall also have to abide by the directives of Hon. Supreme Court/High Court/NGT and as incorporated in EC granted by the MoEF&CC /SEIAA regarding providing offset from the roads (kuchha or pucca) and development of plantations/green belt.
(4) PP shall have to abide by the directives of Hon. Supreme Court/High Court/NGT and as incorporated in the EC granted by the MoEF&CC / SEIAA, pertaining to distance of mining activity from any residential/public buildings, inhabited sites, National/State Highways/district roads, Railway lines/area, ropeways, bridges, dams /reservoirs or any other water body. Mining to be done as per the site specific guidelines of the DGMS & Explosives department of the GOI . The regulations for danger zone (500 Metres) prescribed by Directorate General of Mines Safety shall also be complied compulsorily and necessary measures should be taken to minimise the impact of mining generated dust, noise and vibrations on the environment.
(5) Solid waste generated during mining process shall be stacked at earmarked site which shall be properly surrounded by garland drains & settling pits of adequate sizes so that no Soil/Silt/waste rock is discharged outside the mine lease area/ nearby water body blocking the natural flow of any nallah/river/pond. Top Soil / OB dump shall be biologically reclaimed.
(6) Evacuation of mineral shall not be through any village or forest area. PP shall provide pucca (Concreted/Ashphalted) approach road from main road to the mine site & ensure thick plantation on both side of this road to prevent dust/noise pollution.
(7) The dust generated during transportation of mineral & deposited on Approach/Haul roads shall be regularly removed by the road sweeping machines & suppressed by intermittent sprinkling of water on roads using pressurized water tankers of adequate capacity. PP shall practice regular compaction of loose material of haulage road & regular water sprinkling shall be done for control of generated fugitive emissions. Main haulage Road shall be provided with mist forming permanent water sprinklers on both sides to ensure control of dust during mineral transportation.

The Validity of the consent is up to 31/03/2027 and has to be renewed before expiry of consent validity. Online application through XGN with annual license fees in this regard shall be submitted to this office 6 months before expiry of the consent/Authorization. Board reserves the right to amend/cancel / revoke the above condition in part or whole as and when required.

Enclosures:-

* Conditions under Water Act* Conditions under Air Act* General conditions

- CC to :- 1.District Mining Officer, (Mining Section), Collector office, Satna Dist. Satna (M.P.) for information.
2.Director, Geology & Mining Khanij Bhawan 29-A, Arera Hills, , Bhopal (M.P.) for necessary action
3 Regional officer, Regional office, MPPCB, Satna (M.P.)

By the order of Chairman, MPPCB

Achyut Mishra (Signature)

ACHYUT ANAND MISHRA
Member Secretary



(Organic Authentication on AADHAR from UIDAI Server)
TPAV # XFPSWMLX3Q

CONDITIONS PERTAINING TO WATER (PREVENTION & CONTROL OF POLLUTION) ACT 1974 :-

Sector Specific Water condition:-

- 1 Mines shall take effective steps to check the soil erosion from waste material dumping area to prevent silting problem in near by nalla/river pond during rainy season. All the slopes of external dumps of over burden should be maintained at a maximum of 28 degrees. The check bunds shall be constructing for control of surface run off .
- 2 a. Arrangements for overhead sprinklers with solar pumps / water tankers should be provided for dust suppression at the exit of the lease area and fixed types sprinklers on the evacuation road.
 - b. Mine water should not be discharged from the lease and be used for sprinkling & plantations. For surface runoff and storm water garland drains and settling tanks of suitable sizes shall be provided.
 - c. Mine shall have to take effective steps to check the soil erosion from over burden/waste material dumping area, causing silting problem into nearby nallah/ river/ pond during the rainy season. Mine shall have to inform about the progress regularly to the Board.
 - d. All garland drains shall be connected to settling tanks through settling pits and settled water shall be used for dust suppression, green belt development and other beneficial purposes..
 - e. Regular de-silting of drains and pits should be carried out. Adequate provisions of water for irrigating the plantations shall be made by PP.
- 3 Water sprinkling with adequately designed nozzle which produces tiny droplets of water should be provided during raw materials unloading.
- 4 a. PP shall ensure that blasting is done in compliance of various directives issued by Department of Explosives Govt. Of India. No mining to be done within 100 meters of any residential housing establishment.
 - b. Controlled blasting should be practiced with use of delay detonators only during day time between 10.0 AM to 4.0 PM.
 - c. To avoid vibration, no overcharging shall be carried out during blasting, and muffle blasting shall be adopted.
 - d. Top soil/solid waste shall be stacked with proper slope and adequate safeguards; it shall be utilized for backfilling (wherever applicable) for reclamation and rehabilitation of mined out area.
 - e. Top soil shall be separately stacked for biological reclamation and shall not be stacked along with over burden. Top soil shall be simultaneously used for plantations within the lease area and no OB/dump shall be stacked outside the lease area.

1. The daily quantity of trade effluent of the unit shall not exceed 0.000 KL/day, and the daily quantity of sewage of the unit shall not exceed 5.500 KL/day.

2. Trade Effluent Treatment:-

The applicant shall operate and maintain effluent treatment system properly to achieve following standards-

pH	Between	5.5 – 9.0	TDS	Not exceed	2100 mg/l.
Suspended Solids	Not exceed	100 mg/l.	Chlorides	Not exceed	1000 mg/l.
BOD ₅ Days 27 °C	Not exceed	30 mg/l.			
COD	Not exceed	250 mg/l.			
Oil and grease	Not exceed	10 mg/l.			

For other parameters general standards of discharge as notified under EP Act 1986 shall be applicable.

3. Sewage Treatment :- The applicant shall operate and maintain Sewage Treatment System properly to achieve following standards-

pH	Between	5.5 – 9.0
Suspended Solids	Not exceed	100 mg/l.
BOD ₅ Days 27 °C	Not exceed	30 mg/l.
COD	Not exceed	250 mg/l.
Oil and grease	Not exceed	10 mg/l.
fecal coliform	Not exceed	1000 MPN/100 ml

Sr	Water Code (Qty in klpd - Kilo Ltr per Day)	WC 500.000	WWG : 5.500	Water Source	Remark
1	Domestic Purpose	6.000	5.500	Borewell	Eff .treated through Septic Tank Soak pit.
2	Dust Suppression	290.000	0.000	Mine Water	Mine pit water to be used on priority.
3.	Plantation/Other	204.000	0.000	Mine Water	plantation, mine spray & supply to colony/plant.

4. The effluent shall be treated up to prescribed Standards and reuse in the process, for cooling and for green belt devolvement/gardening within premises. Hence zero discharge condition shall be practiced. In no case treated effluent shall be discharged outside of industry/unit premises.

5. Any change in production capacity, process, raw material used etc. and for any enhancement of the above prior permission of the Board shall be obtained. All authorized discharges shall be consistent with terms and conditions of this consent. Facility expansions, production increases or process modifications which result new or increased discharges of pollutants must be reported by submission of a fresh consent application for prior permission of the Board.

Consent No:AW-61699

6. All treatment/control facilities/systems installed or used by the applicant shall be regularly maintained in good working order and operate effectively/efficiently to achieve compliance of the terms and conditions of this consent

7. The Consent does not authorize or approve the Construction of any physical structures or facilities or the undertaking of any work in any water course or within its high flood level (HFL) area

8. The specific effluent limitations and pollution control systems applicable to the discharge permitted herein are set forth as above conditions.

9. Compilation of Monitoring data-

i. Samples and measurements taken to meet the monitoring requirements specified above shall be representative of the volume and nature of monitored discharge. ii. Following promulgation of guidelines establishing test procedures for the analysis of pollutants, all sampling and analytical methods used to meet the monitoring requirements specified above shall conform to such guidelines unless otherwise specified sampling and analytical methods shall conform to the latest edition of the Indian Standard specifications and where it is not specified the guidelines as per standard methods for the examination of Water and Waste latest edition of the American Public Health Association, New York U.S.A. shall be used.

10. Recording of Monitoring Activities & Results-

i. The applicant shall make and maintain online records of all information resulting from monitoring activities by this Consent.

ii. The applicant shall record for each measurement of samples taken pursuant to the requirements of this Consent as follows:

- (i) The date, exact place and time of sampling
- (ii) The dates on which analysis were performed
- (iii) Who performed the analysis?
- (iv) The analytical techniques or methods used and
- (v) The result of all required analysis

iii. If the applicant monitors any Pollutant more frequently as is by this Consent he shall include the results of such monitoring in the calculation and reporting of values required in the discharge monitoring reports which may be prescribed by the Board. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.

iv. The applicant shall retain for a minimum of 3 years all records of monitoring activities including all records of Calibration and maintenance of instrumentation and original strip chart regarding continuous monitoring instrumentation. The period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the applicant or when requested by Central or State Board or the court.

11. Reporting of Monitoring Results:-

Monitoring Information required by this Consent shall be summarized and reported by submitting a Discharge Monitoring report on line to the Board.

12. Limitation of discharge of oil Hazardous Substance in harmful quantities:-

The applicant shall not discharge oil or other hazardous substances in quantities defined as harmful in relevant regulations into natural water course. Nothing in this Consent shall be deemed to neither preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities, or penalties to which the applicant is or may be subject to clauses.

13. Limitation of visible floating solids and foam:

During the period beginning date of issuance the applicant shall not discharge floating solids or visible foam.

14. Disposal of Collected Solid waste/sludge-

All hazardous waste/sludge shall be disposed of as per the Authorization issued under Hazardous & other waste (M&TM) Rules 2016. And/other Solids Sludge, dirt, silt or other pollutant separated from or resulting from treatment shall be disposed of in such a manner as to prevent any pollutant from such materials from entering any such water Any live fish, Shall fish or other animal collected or trapped as a result of intake water screening or treatment may be returned to eaters body habitat.

15. Provision for Electric Power Failure-

The applicant shall assure to the consent issuing authority that the applicant has installed or provided for an alternative electric power source sufficient to operate all facilities utilized by the applicant to maintain compliance with the terms and conditions of the Consent.

16. Prohibition of Bypass system of treatment facilities-

The diversion or by-pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this Consent is prohibited except:

- i. where unavoidable to prevent loss of life or severe property damage, or
- ii. Where excessive storm drainage or run off would damage any facilities necessary for compliance with the terms and conditions of this Consent. The applicant shall immediately notify the consent issuing authorities in writing of each such diversion or by-pass in accordance with the procedure specified above for reporting non-compliance.

17. Industry/Institute/mine management shall submit the information online through XGN in reference to compliance of consent conditions.

CONDITIONS PERTAINING TO AIR (PREVENTION & CONTROL OF POLLUTION) ACT 1981 :-

1. The applicant shall operate and maintain air pollution control system to achieve the level of pollutants to the following standards:-

Name of section	Capacity	Control equipment to be installed	SPM/RSPM/SO ₂ /NO _x (Time weighted Average)* (µg/Nm ³)
Loading-unloading, Haul road, Transportation etc,	Fugitive Emission	Dust Collector, Dust Suppressor, Green Belt, Water Sprinkler, Wind Breaking Wall,	Annual average : 430 / 215/80/80 24 hour average : 600/300/120/120

2. The Ambient air quality norms are prescribed in MoEF gazette notification no. GSR/826(E), dated: 16/11/09. Some of the parameters are as follows:

- Particulate Matter (less than 10 micron) - 100 µg/m³ (PM10 µg/m³ 24 hrs. basis)
- Particulate Matter (less than 2.5 micron) - 60 µg/m³ (PM2.5 µg/m³ 24 hrs. basis)
- Sulphur Dioxide [SO₂] (24 hrs. Basis) - 80 µg/m³
- Nitrogen Oxides [NO_x] (24 hrs. Basis) - 80 µg/m³
- Carbon Monoxide [CO] (8 hrs. Basis) - 2000 µg/m³

3. The industry shall take adequate measures for control of noise level generated from industrial activities within the premises less than 75 dB(A) during day time and 70 dB(A) during night time.

4. The industry/unit shall make the necessary arrangements for control of the fugitive emission from any source of emission/section/activities.

5. All other fugitive emission sources such as leakages, seepages, spillages etc shall be ensured to be plugged or sealed or made airtight to avoid the public nuisance.

6. The industry/ unit shall ensure all necessary arrangements for control of odour nuisance from the industrial activities or process within premises

7. All the internal roads shall be made pucca to control the fugitive emissions of particulate matter generated due to transportation and internal movements. Good housekeeping practices shall be adopted to avoid leakages, seepages, spillages etc.

8. Industry shall take effective steps for extensive tree plantation preferably in 03 rows of the local tree species with minimum spacing of 2X2 meters within or around the industry/unit premises for general improvement of environmental conditions and as stated in below.

Sector Specific Air condition:-

- Controlled blasting should be practiced with the use of delay detonators and only during daytime. The meditative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented. Only wet drilling of holes shall be practiced.
- Extensive tree plantation shall be carried out in open area available within and around the mine premises and also over burden dumps in consultation with expert agency; Good housekeeping practice shall be adopted.
- The mine management shall take preventive measures to control Fugitive dust emission from all the sources should be controlled effectively and duly monitored.
- Water spraying arrangement on haul roads, dump trucks (loading & unloading) point should be provided and properly maintained.
- Mines management shall have to make suitable arrangement for handling and disposal of solid waste, over burden etc.
- Vehicular emissions should be kept under control and regularly monitored for compliance of emission norms. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.

GENERAL CONDITIONS:

1. The non hazardous solid waste arising in the industry/unit/unit premises sweeping, etc. be disposed off scientifically so as not to cause any nuisance/pollution. The applicant shall take necessary permission from civic authorities for disposal to dumping site. If required.

Non Hazardous Solid wastes:-

Type of waste	Quantity	Disposal
Scrap/ Plastic packing material wood, card board, gunny bags etc		Re-Use/Sale to M.P. Pollution Control Board's authorized party

2. The applicant shall allow the staff of Madhya Pradesh Pollution Control Board and/or their authorized representative, upon the representation of credentials:

- a. To inspect raw material stock, manufacturing processes, reactors, premises etc to perform the functions of the Board.
- b. To enter upon the applicant's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this Consent.
- c. To have access at reasonable times to any records required to be kept under the terms and conditions of this Consent.
- d. To inspect at reasonable times any monitoring equipment or monitoring method required in this Consent: or,
- e. To sample at reasonable times any discharge or pollutants.

3. This consent / authorisation is transferable in nature, in case of any change in ownership / management, the new owner / partner / directors / proprietor shall immediately apply for the consent with new requisite information.

4. The issuance of this Consent does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorise any invasion of personal rights, nor any infringement of Central, State or local laws or regulations.

5. This consent is granted in respect of Water pollution control Act 1974 or Air Pollution Control act, 1981 or Authorization under the provisions of Hazardous and other Waste (Management & Transboundary movement) Rules 2016 only and does not relate to any other Department/Agencies. License required from other Department/Agencies have to be obtained by the unit separately and have to comply separately as per there Act / Rules.

6. Balance consent/authorisation fee, if any shall be recoverable by the Board even at a later date.

7. The applicant shall submit such information, forms and fees as required by the board not later than 180 day prior to the date of expiration of this consent/authorisation

8. Knowingly making any false statement for obtaining consent or compliance of consent conditions shall result in the imposition of criminal penalties as provided under the section 42(g) of the Water Act or section 38 (g) of the Air Act.

9. After notice and opportunity for the hearing, this consent may be modified, suspended or revoked by the Board in whole or in part during its term for cause including, but not limited to, the following:

- (a) Violation of any terms and conditions of this Consent.
- (b) Obtaining this Consent by misrepresentation or failure to disclose fully all relevant facts.
- (c) A change in any condition that requires temporary or permanent reduction or elimination of the authorized discharge.

10. This consent may not be taken as a measure of proof that mine has not violated pollution control law at any period of time in the past.

11. Mine Management shall comply with all the relevant Acts/Rules, directions, guidelines issued by MoEF/CPCB/ MPPCB from time to time as required and (if applicable).

12. Mine Management shall comply with the direction of Hon'ble Supreme Court, National Green Tribunal & Hon;ble High Court issued in the relevant writ petitions.

13. Mine shall have to close down mining activities in case there is any public complaint regarding health & environmental degradation and Board find the facts correct and direct the mine to do so at any time.

14. On violation of any of the above-mentioned conditions the consent granted will automatically be taken as canceled and necessary action will be initiated against the industry.

Consent/authorization as required under the Water (Prevention & Control of Pollution) Act, 1974, The Air (Prevention & Control of Pollution) Act, 1981 is granted to your industry subject to fulfillment of all the conditions mentioned above. For renewal purpose you shall have to make an application to this Board through XGN at least Six months before the date of expiry of this consent/authorisation. The applicant without valid consent (for operation) of the Board shall not bring in to use any outlet for the discharge of effluent and gaseous emission.

By the order of Chairman, MPPCB
For and on behalf of
M.P. Polluti



ACHYUT ANAND MISHRA
Member Secretary



(Organic Authentication on AADHAR from UIDAI Server)
TPAV # XFPSWMLX3Q

Consent No:AW-61699

REPORT DATE :13/04/2024**DETAILED DIESEL REPORT**

DEALER CODE : BIRLA/01

DEALER NAME : BIRLA CORPORATION LIMITED UNIT SATNA
ADDRESS : BIRLA CORPORATION LIMITED UNIT SATNA CEMENT

For Duration from : MM/DD/YYYY- 13/04/24 to 12/10/24,14/04/2024 to 13/10/2024 PUC Checked From:00047/00067/From- 00068/00090

PTC No.	V. Reg. No.	Test Date Time	Valid UpTo	Make	Model	Category	Reg. Year	% HSU	Result
47	MP19GA0847	13/04/2024 08:07AM	12-10-2024	TATA MOTORS	EXPLOSIVE 1613	TRUCK	06-11-2009	52.04%	PASS
48	MP19GA1091	13/04/2024 08:12AM	12-10-2024	TATA MOTORS	TATA 407 BS2	MINI TRUCK	23-12-2010	45.40%	PASS
49	MP19GA2737	13/04/2024 08:19AM	12-10-2024	TATA MOTORS	TATA 407 BS4	MINI TRUCK	21/11/2014	41.60%	PASS
50	MP19GA3725	13/04/2024 08:26AM	12-10-2024	TATA MOTORS	TATA 407 BS4	MINI TRUCK	16-10-2017	30.60%	PASS
52	MKA-9708 (NO-1)	13/04/2024 08:55AM	12-10-2024	TATA MOTORS	EXPLOSIVE VAN- 1210 S	TRUCK	02-10-1989	62.90%	PASS
56	MP19-9845 (NO-2)	13/04/2024 09:10AM	12-10-2024	HMT	TRACTOR	TRACTOR	14/11/1991	62.03%	PASS
57	MBA-7239	13/04/2024 09:18AM	12-10-2024	FORD	TRACTOR	TRACTOR	14/10/1983	60.05%	PASS
58	MP19AB2956	13/04/2024 09:18AM	12-10-2024	ESCORT	FARM TRACTOR NO.1	TRACTOR	15-01-2009	54.04%	PASS
59	MP19AB4177	13/04/2024 09:48AM	12-10-2024	ESCORTS	FARM TRACTOR 65	TRACTOR	03-05-2011	38.04%	PASS
61	VOLVO NO-1	13/04/2024 10:30AM	12-10-2024	VOLVO	EC750 DL	VOLVO	24-11-2016	40.06%	PASS
62	VOLVO NO-2	13/04/2024 10:52AM	12-10-2024	VOLVO	EC750 DL	VOLVO	22-11-2019	22.04%	PASS
63	DOZER NO-10	13/04/2024 11:10AM	12-10-2024	KOMATSU	D155A	DOZER	07-12-2006	50.02%	PASS
64	DOZER NO-12	13/04/2024 11:21AM	12-10-2024	KOMATSU	D155A	DOZER	16/03/2009	51.01%	PASS
65	DOZER NO-13	13/04/2024 11:32AM	12-10-2024	KOMATSU	D155A	DOZER	16/03/2009	55.09%	PASS

66	DOZER NO-14	13/04/2024 11:42AM	12-10-2024	CAT	D8R	DOZER	09-12-2011	54.03%	PASS
67	DOZER NO-15	13/04/2024 11:52AM	12-10-2024	CAT	D8R	DOZER	19/12/2013	45.04%	PASS
68	DRILL NO-7	14/04/2024 12:12PM	13-10-2024	ATLAS COPCO	IR IBH-10	DRILL	06-11-2000	58.07%	PASS
69	DRILL NO-9	14/04/2024 12:26PM	13-10-2024	ATLAS COPCO	IR IBH-10	DRILL	04-05-2004	40.08%	PASS
70	DRILL NO-10	14/04/2024 12:39PM	13-10-2024	ATLAS COPCO	ATLAS COPCO IBH-12	DRILL	18/10/2005	58.03%	PASS
71	DRILL NO-11	14/04/2024 12:49PM	13-10-2024	ATLAS COPCO	ATLAS COPCO IBH-12	DRILL	18/06/2008	50.80%	PASS
72	DRILL NO-12	14/04/2024 01:09PM	13-10-2024	ATLAS COPCO	ROC L8	DRILL	11-03-2012	45.12%	PASS
73	EXCAVATOR P-5	14/04/2024 01:22PM	13-10-2024	L&T	L&T 300 CK	EXCAVATOR	16-04-2009	48.55%	PASS
74	EXCAVATOR PC-1	14/04/2024 01:33PM	13-10-2024	KOMATSU	K-PC1250-7	EXCAVATOR	14-07-2009	47.02%	PASS
75	LOADER NO-9	14/04/2024 01:46PM	13-10-2024	CAT	20-21 Z BAR	LOADER	09-09-2008	53.19%	PASS
76	LOADER	14/04/2024 02:16PM	13-10-2024	CAT	LWL988H	LOADER	05-10-2011	51.28%	PASS
77	ROCK BREAKER-3	14/04/2024 02:35PM	13-10-2024	L&T	90CK	ROCK BREAKER	00/12/2005	55.24%	PASS
78	ROCK BREAKER-4	14/04/2024 02:48PM	13-10-2024	L&T	90CK	ROCK BREAKER	08-12-2008	45.55%	PASS
79	ROCK BREAKER-5	14/04/2024 03:08PM	13-10-2024	L&T	300CK	ROCK BREAKER	28-03-2011	51.45%	PASS
80	TATA HITACHI	14/04/2024 03:22PM	13-10-2024	TATA HITACHI	ZX650H	TATA HITACHI	06-12-2013	52.14%	PASS
81	CAT DUMPER NO-2	14/04/2024 03:35PM	13-10-2024	CATERPILLAR	CAT773D	CAT DUMPER	18-12-2008	45.43%	PASS
82	CAT DUMPER NO-3	14/04/2024 03:47PM	13-10-2024	CATERPILLAR	CAT773D	CAT DUMPER	19-01-2009	40.27%	PASS
83	CAT DUMPER NO-4	14/04/2024 03:57PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	24-02-2011	42.26%	PASS

84	CAT DUMPER NO-5	14/4/2024 04:07PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	24-02-2011	53.42%	PASS
85	CAT DUMPER NO-6	14/04/2024 04:17PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	14-03-2011	56.45%	PASS
86	CAT DUMPER NO-7	14/04/2023 04:17PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	16-01-2017	38.61%	PASS
87	CAT DUMPER NO-8	14/04/2024 04:30PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	18-01-2018	29.24%	PASS
88	CAT DUMPER NO-9	14/04/2024 04:48PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	18-02-2019	24.16%	PASS
89	CAT DUMPER NO-10	14/04/2024 05:18PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	25-03-2022	16.29%	PASS
90	CAT DUMPER NO-1	14/04/2024 05:38PM	13-10-2024	CATERPILLAR	CAT773D	CAT DUMPER	18-12-2008	56.76%	PASS

	MP19CB1866	07/11/2023 07:40AM	13-10-2024	MAHINDRA & MAHINDRA	JEEP	JEEP	04-06-2015	47.77%	PASS
	MP19CA7115	07/11/2023 08:09AM	13-10-2024	MAHINDRA & MAHINDRA	XYLO	CAR	28/02/2013	34.58%	PASS
	MP19CA9591	07/11/2023 08:21AM	13-10-2024	MAHINDRA & MAHINDRA	BOLERO EX BS3	JEEP	13-12-2013	40.66%	PASS
	MP19L0369	07/11/2023 08:22AM	13-10-2024	TATA MOTORS	WINGER BS2	JEEP	14-10-2009	46.89%	PASS
	MP19CC6297	07/11/2023 08:34AM	13-10-2024	MAHINDRA & MAHINDRA	BOLERO B6 (O) BS6	JEEP	16-02-2021	19.10%	PASS
	MP19CB6624	07/11/2023 08:35AM	13-10-2024	MAHINDRA & MAHINDRA	BOLERO EX BS4	JEEP	31-08-2017	27.26%	PASS
	MP19CA8438	07/11/2023 08:37AM	13-10-2024	MAHINDRA & MAHINDRA	BOLERO EX BS3	JEEP	18-02-2013	44.88%	PASS
NEW VEHICLE (BS-6)	MP19ZB9515	08/05/2023 1:20PM	13-10-2024	MAHINDRA & MAHINDRA	SCORPIO CLASSIC S MT 7S	JEEP	27-02-2023		PASS
							TOTAL :		47



M.P. Pollution under control certificate

(ALL INDIA VALID)

(authorized by transport department govt. of m.p. certified that the vehicleco. Initial level conform to the

Prescribed under rule 115 (2) of cmv rule 1989)

CENTRE NAME : PREM MOBILE PUC CENTRE

COMPUTERISED EMISSION TEST CERTIFICATE (Rule163 B(3) OF BMV 1992)

S.NO:04025

100 RS	150 RS	250 RS	300 RS	500 RS

CENTRE NAME:PREM MOBILE PUC CENTRE
Near RTO OFFICE KARGIL DHABA SATNA.(M.P)

Pollution Checking Centre Code Number

P U C 0 7 S T N 2 0 2 3

Type of Vehicle		Accurate Limit	Measure Limit
Emission by petrol vehicle to ideling c.e.o limit	2/3 vehicle wheel	Volume of 4.5%	
	4 wheeler vehicle	volume of 3%	
Density of all vehicle implication dicenaree	volume of dicenaree	65% volume of hydric unit	54.04%
	C.O.	14 gm/kwh	
	H.C -	35 gm/kwh	
	N.O.	gm/kwh	

DIST.-----SATNA

VEHICLE REGI. NO.-----CAT DUMPER NO.2

OWNER NAME-----M/S BIRLA CORPORATION LTD

MAKE-----CATERPILLAR

MODEL-----CAT773E

Catogery-----HGV

YEAR-----2008

Checking fees -----500RS

Checkingdate-----14/10/2024

Time-----01:15PM

Fuel uses-----DIESEL

Validity-----13/04/2025

Again checking the vehicle after 90 days, then any problem
For you to please contact transport department.



Authorized by
MR. PREMCHANDRA SAHU



M.P. Pollution under control certificate

(ALL INDIA VALID)

(authorized by transport department govt. of m.p. certified that the vehicle co. Initial level conform to the

Prescribed under rule 115 (2) of cmv rule 1989)

CENTRE NAME : PREM MOBILE PUC CENTRE

COMPUTERISED EMISSION TEST CERTIFICATE (Rule 163 B(3) OF BMV 1992)

S.NO:04011

100 RS	150 RS	250 RS	300 RS	500 RS

CENTRE NAME:PREM MOBILE PUC CENTRE
Near RTO OFFICE KARGIL DHABA SATNA.(M.P)

Pollution Checking Centre Code Number

P U C 0 7 S T N 2 0 2 3

Type of Vehicle	Accurate Limit	Measure Limit
Emission by petrol vehicle to ideling c.e.o limit	2/3 vehicle wheel	Volume of 4.5%
	4 wheeler vehicle	volume of 3%
Density of all vehicle implication dicensaree	volume of dicensaree	65% volume of hydric unit
	C.O.	14 gm/kwh
	H.C -	35 gm/kwh
	N.O.	gm/kwh

DIST.-----SATNA
VEHICLE REGI. NO.-----DOZER NO.15
OWNER NAME-----M/S BIRLA CORPORATION LTD
MAKE-----CAT LTD
MODEL-----D8R
Catogery-----HGV
YEAR-----2013
Checking fees -----500RS
Checkingdate-----13/10/2024
Time-----11:32AM
Fuel uses-----DIESEL
Validity-----12/04/2025



Again checking the vehicle after 90 days, then any problem
For you to please contact transport department.

Authorized by
MR. PREMCHANDRA SAHU

File No: J-11015/271/2006-IA.II (M) dated 27.12.2007_Submission of digital processing of lease area of Sagmania Limestone Mines of M/s Birla Corporation Ltd

Rajeev Kr Pradhan <admin.scw@birlacorp.com>

Wed 9/20/2023 5:47 PM

To:rowz.bpl-mef@nic.in <rowz.bpl-mef@nic.in>

Cc:Ashwani Karwariya <ashwani.karwariya@birlacorp.com>;Rajesh Chaubey <rajesh.chaubey@birlacorp.com>

 1 attachments (2 MB)

Digital Processing report_Sagmania Limestone Mines.pdf;

Dear Sir,

With reference to the above subject matter and condition laid down in the Environment Clearance, please find attached the Digital processing report of entire lease area by using remote sensing technique for monitoring of land use pattern based on satellite imagery of Sagmania Lime Stone Mines of M/s Birla Corporation Limited, Unit: Satna Cement Works, Dist. Satna (M.P.) for your kind information and compliance purpose.

Thanking You,

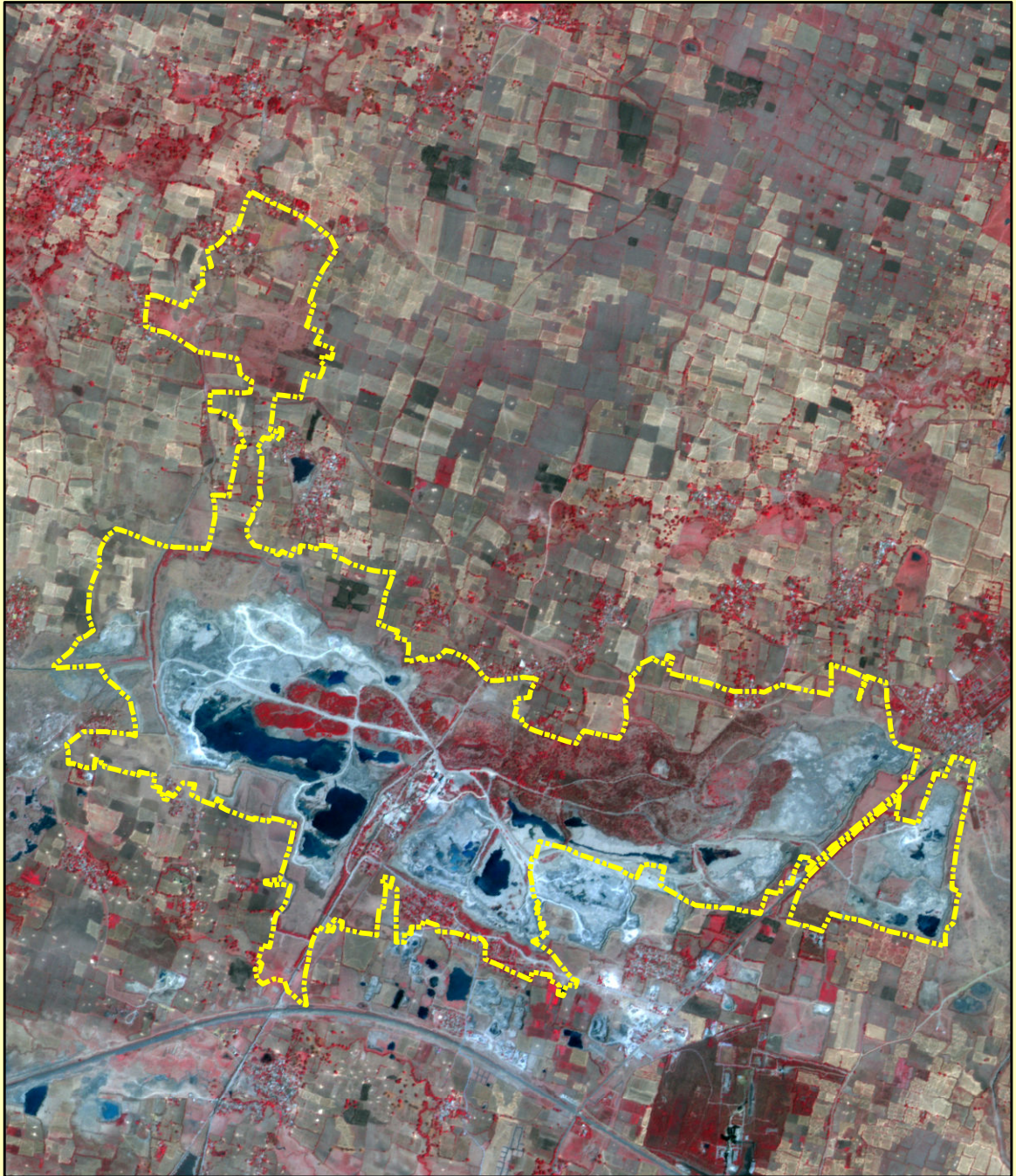
For, Birla Corporation Limited

Unit: Satna Cement Works,

Sunil Sood

Unit Head

Land Use / Land Cover Analysis for Mine Lease of Sagmania Limestone Mines of Birla Corporation Limited



Client :
Birla Corporation Limited

Prepared by :
CompuSense Automation, Ahmedabad

September 2023

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1. Introduction	2
2. Objectives.....	3
3. Data Used	3
4. Methodology	4
5. Classification System	5
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1. Introduction

Present study of mapping Land Use / Land Cover using remote sensing data for Sagmania Limestone Mines near Sagmania village and surrounding in Raghurajnagar Tehsil of Satna district is carried out on behalf of Birla Corporation Limited. Now a days, it has become mandatory to carry out a Land Use / Land Cover analysis of the project site using satellite data similar to preliminary site survey. Comprehensive and chronological Land Use/ Land Cover information is very vital for management of land. Accurate & precise compilation of this information helps in deciding the proper use of the land. Optimum economic use in accordance with minimal disturbance of the present ecology should be the prime objective of any industrial activity. Remote Sensing technology because of synoptic, repetitive and multi spectral characteristics becomes very vital technology for mapping Land Use and Land Cover. In addition to this, such studies provide the facility of constant monitoring of any particular area. Geographic Information System (GIS) is a tool, which allows the integration of spatial data with non - spatial data.

Systematic and comprehensive compilation of Land Use / Land Cover maps and data is necessary for planned development of agriculture, forest, grasslands, rural settlements, urban spread, Industries and a host of other land based programs and activities. Land Use refers to the various ways, the land is being utilized for different purposes by man mainly to generate income as well as for residential purpose. Whereas, 'Land Cover' refers to the natural surrounding present on the area under study. The existing information on Land Use / Land Cover is largely in the form of statistics based on compilation of village records. Whatever information available in the form of maps, suffers from the problems of spotty coverage, lack of consistency and a large time gap between data compilation and map publication.

In the present study, Land Use and Land Cover information of the mine lease, has been mapped using the digital data as detailed in Table 1.

Data has been corrected geometrically and radiometrically. This corrected data has been used for classifying the image. Various major categories like agriculture, wasteland, water body, forest, etc. were identified and mapped. Area statistics was calculated for different Land Use / Land Cover categories along with generating of pie charts. A thematic map was generated depicting various classes with different symbols.

2. Objectives

Main objectives of this analysis are:

- To analyze Land Use / Land Cover of the study area using latest remote sensing satellite data .
- To generate statistics of Land Use / Land Cover classes and thematic map.

3. Data Used

Data shown in following table was selected and procured from NRSC, Hyderabad.

Table 1

Satellite	Sensor	Path-Row	Date
Resourcesat-II	L4FMX	100_54D	21 st April 2023

4. Methodology

General methodology using Multi-temporal digital data for one season, to derive Land Use / Land Cover.

The methodology comprises the following functional component.

Data loading and image preparation

Three bands of data were downloaded from FTP and stacked to form a false colour composite (FCC). This raw data was georeferenced and projected in Universal Transverse Mercator (UTM), zone 44N projection. This projection was adopted from National Spatial Framework (NSF). This data was radiometrically enhanced for ease of interpretation.

Delineation of study area

Mine lease area boundaries were taken from the surface plan in UTM Coordinates provided by Birla Corporation Limited.

Base map features mapping

Mapping of base map feature like roads, river, nala, water bodies and drainage were done using standard remote sensing data interpretation methods.

Maps and Statistics

Statistics for buffer zones was generated in Arc GIS software and different base maps, Land Use maps, reference and location maps are composed in Arc Map software.

5. Classification System

A three level classification system based on Environmental Impact Assessment Guidance Manual for mineral beneficiation prepared by Administrative Staff College of India, Hyderabad. (February 2010) has been adopted as shown in table 2.

TABLE - 2 LAND USE / LAND COVER CLASSIFICATION SYSTEM

	Level – I	Level - II
1	Built-up land	Residential
		Industrial
		Transportation
2	Agricultural land	Agricultural land
3	Forest Land	Dense Forest
		Open Forest
4	Waste land	Dense Scrub
		Open Scrub
		Stony Waste
5	Water bodies	River/Canal
		Lake/ Pond
6	Others	Mining Pit
		Afforestation/Plantation
		Mining Dump
		Plantation on Dump
		Mine Sump
		Back Filled Area
		Plantation on Back Filled Area
		Stone Quarry

Following sections describe various classes.

5.1 Built up Land

Built-up Residential

It generally refers to an area, which is not cultivated and is used for human residential purpose. Villages come under this category. Vacant land within or near by settlements used for industrial activities are also considered under this broad category.

Built-up Industrial

These are areas where the human activity is observed in the form of manufacturing along with other supporting establishments of maintenance. Heavy metallurgical industry, thermal, cement, petrochemical, engineering plants etc., are included under this. Certain built-up

structures found in mining area like mine office, workshop are further classified in Infrastructure sub category.

Transportation

Land used for transportation and communication purpose like roads,railway and airport is also categories as built-up land.

5.2 Agricultural land

This areas are primarily used for raising agricultural crops, fiber, vegetables, fruits, cultivated fodder and other plant material of medicinal and commercial value.

Afforestation

These areas are separable from cropland, especially with the data acquired during rabi / Jayad seasons. Afforestation appears in dark-red to red tone of different sizes with regular and sharp edges indicating the presence of a fence around. Forests are different from plantations characterized by big contiguous patches often having shape similar to natural or topographical features.

5.3 Forest Land

Forests are defined as, “all lands bearing vegetative association dominated by trees of any size, exploited or not, capable of producing wood or other forest products and exerting an influence on climatic or water regimes or providing shelter for wild life and live stock”.

Dense Forest

This category includes all the forest areas where the canopy cover/crown density range between 40-70%.

Open Forest

This category includes all the forest areas where the canopy cover/crown density range between 10-40%.

5.4 Wastelands

Wasteland is described as degraded land which is currently not used for cultivation and is deteriorating for lack of appropriate water and soil management.

Dense Scrub

The area mainly covered by dense scrub is classified under this category. This area is appears vegetated through out the year.

Open Scrub

The area mainly covered by scrub which is sparse is classified as open scrub. It is land devoid of any vegetation and appears barren.

Stony waste

These are rock exposures of varying lithology often barren and devoid of soil and vegetation cover. Such lands can be easily discriminated from other categories of wastelands because of their characteristics spectral response. They appear in greenish blue to yellow to brownish in color depending on the rock type.

5.5 Water bodies

This class comprises areas of surface water found in the form of ponds, lakes, reservoirs.

River

This is a natural course of water flowing on the land surface along a definite channel and may be seasonal or perennial.

Lake / Pond

These are accumulation of water in a depression of various sizes either natural or man made.

5.6 Others

Excavated area (Mining pits)

These are the areas subjected to removal of different earth material (both surfacial and sub surfacial) by manual and mechanized operations.

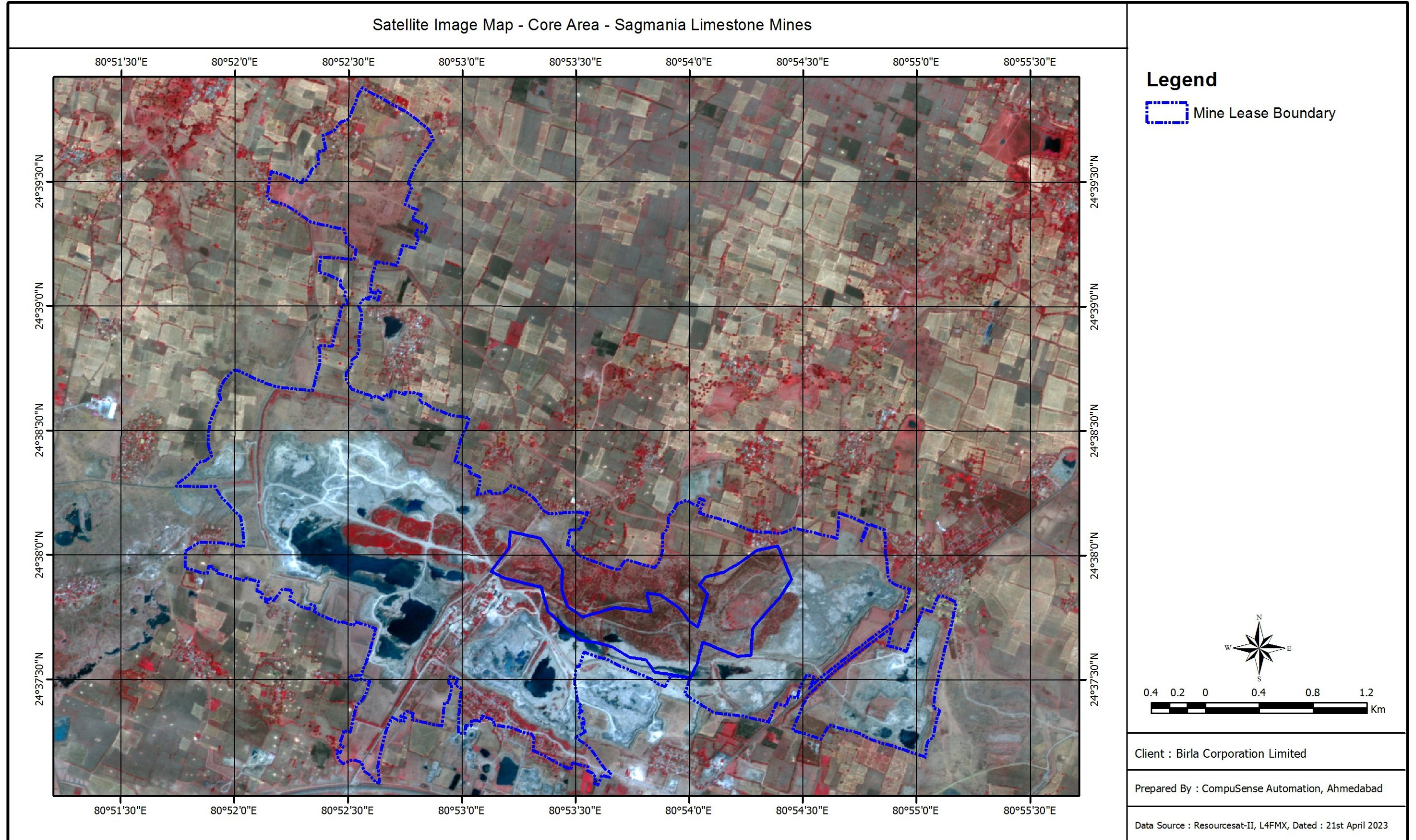
Mining Dump

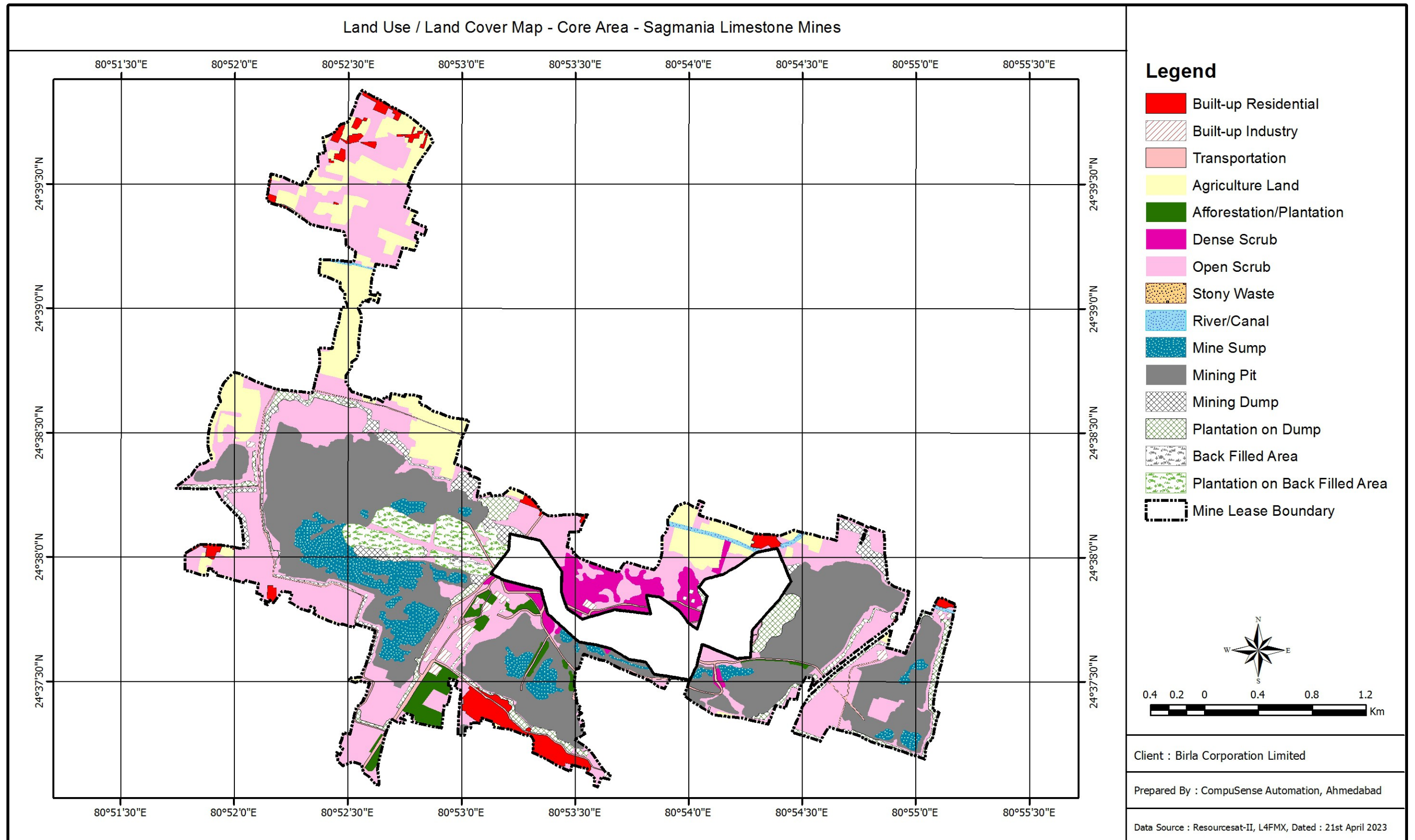
Dumps are those areas where debris is accumulated after extraction of required minerals. Generally, these lands are confined to the surrounding of the active mining area.

Mine Sump

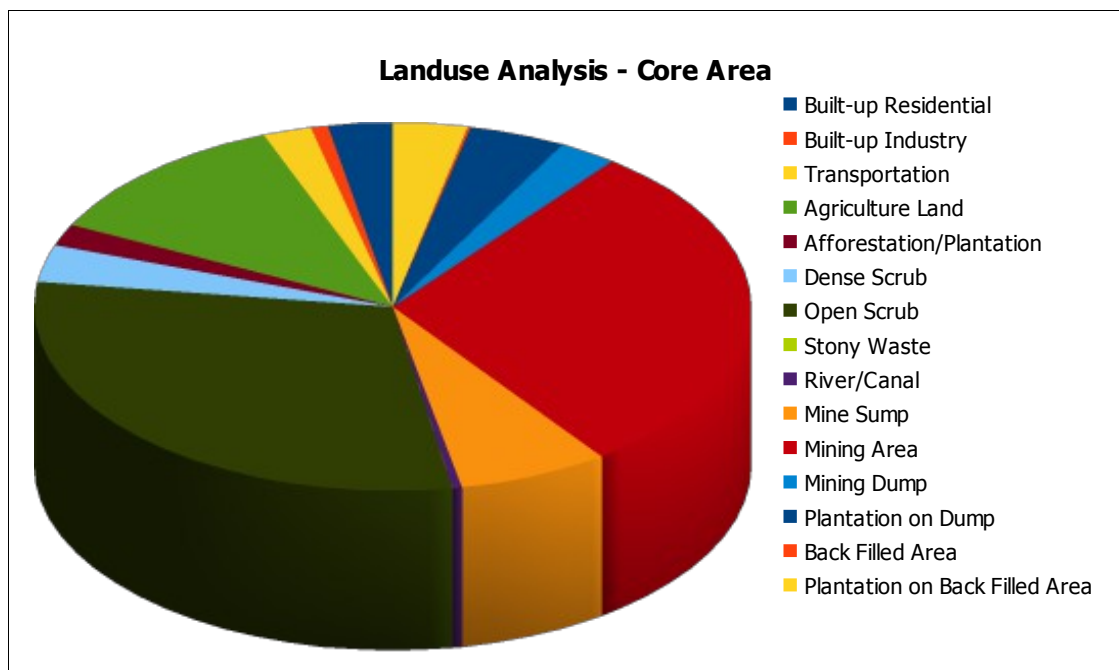
Excavated area in mines where rain water is harvested.

6. Maps and Statistics – Sagmania Limestone Mines





Land Use/Land Cover Statistics – Core Area			
CLASSIFICATION			
LEVEL – I	LEVEL – II	% Area	Area (Ha)
Built-up	Built-up Residential	2.90	24.74
	Built-up Industry	0.78	6.61
	Transportation	2.19	18.65
	Sub-total	5.87	50.00
Agriculture Land	Agriculture Land	11.83	100.88
	Sub-total	11.83	100.88
Wastelands	Dense Scrub	3.26	27.78
	Open Scrub	29.84	254.41
	Stony Waste	0.01	0.05
	Sub-total	33.11	282.25
Water bodies	River/Canal	0.42	3.59
	Sub-total	0.42	3.59
Others	Mining Pit	29.60	252.31
	Mine Sump	6.81	58.04
	Afforestation/Plantation	1.86	15.86
	Mine Dump	2.65	22.58
	Plantation on Dump	4.36	37.19
	Back Filled Area	0.13	1.10
	Plantation on Back Filled Area	3.37	28.70
	Sub-total	48.77	415.78
Total		100.00	852.50



Annexure : 1 Projection Parameters

- **Projection Type** :Universal Transverse Mercator zone 44N
- **Spheroid Name** :WGS84
- **Datum** :WGS84
- **Parameters**
- **False_Easting** : 500000.000000
- **False_Northing** : 0.000000
- **Central_Meridian** : 81.000000
- **Scale_Factor** : 0.999600
- **Latitude_Of_Origin**: 0.000000
- **Linear Unit** : Meter (1.000000)
- **Geographic Coordinate System**: GCS_WGS_1984
- **Angular Unit**: Degree (0.017453292519943299)
- **Prime Meridian**: Greenwich (0.000000000000000000)
- **Datum**: D_WGS_1984
- **Spheroid**: WGS_1984
- **Semimajor Axis** : 6378137.000000000000000000
- **Semiminor Axis** : 6356752.314245179300000000
- **Inverse Flattening** : 298.257223563000030000

Annexure : 2 Interpretation Key**Land Use / Land Cover Interpretation Key Using Satellite Imagery**

Sr. No.	Land Use / Land Cover Category	Tone / Colour	Size	Shape	Texture	Pattern
1	Built-up Land	Dark bluish green in the core and bluish on the periphery	Small to big	Irregular & Discontinuous	Coarse & mottled	Clustered to Scattered & non-contiguous
2	Transportation	Very dark to dark bluish green, light yellow for minor roads , red if vegetation along the road	Small in width for roads and narrow for rail	Regular with straight/sharp and smooth curves	Smooth to fine	Linear to sinuous and contiguous
3	Crop Land	Bright red to red	Varying in size	Regular to irregular	Medium to smooth	Contiguous to non-contiguous
4	Fallow Land	Yellow to greenish blue (depending on soil type and moisture)	Small to large	Regular to irregular	Medium to smooth	Contiguous to non-contiguous
5	Afforestation (Plantation)	Dark red to red	Small to medium	Regular with sharp edges	Coarse to medium	Dispersed, contiguous
6	Dense Forest	Bright red to dark red	Varying in size	Irregular, discontinuous	Smooth to medium depending up on crown density	Contiguous to non contiguous
7	Open Forest	Light yellow to light brown	Small	Regular to irregular	Coarse to mottled	Non-contiguous dispersed /scattered
8	Land with or without scrub	Light yellow to brown to greenish blue(subject to surface moisture and cover	Varying in size	Irregular-discontinuous	Coarse to mottled (Subject to vegetation cover)	Contiguous dispersed in patches
9	River	Light blue to dark blue	Long narrow to wide	Irregular, Sinuous	Smooth to medium	Contiguous, nonlinear to dendritic/ sub-dendritic etc.
10	Lake/Pond	Light blue to dark blue(subject to weeds/vegetation)	Small/medium to large	Regular to irregular	Smooth to mottled	Non-contiguous dispersed

Interpretation keys may change for different satellite sensors depending upon their band combinations and enhancement made.

Photographs of STP & ETP

Sewage Treatment Plant



Effluent Treatment Plant



Drilling machine equipped with dust extraction system



EV vehicle along with vehicle charging station





Birla Corporation Limited

Unit: Satna Cement Works

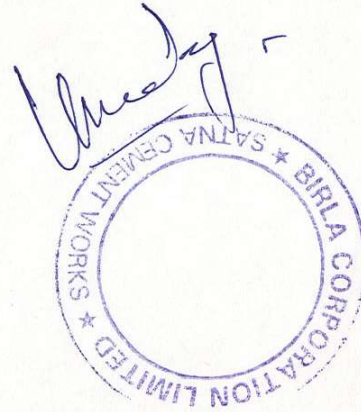
P.O.: Birla Vikas, Satna - 485005

Madhya Pradesh

P: 07672 412000/01 F: 07672 257456

E : admin.scw@birlacorp.com

Year	Sagmania Mines
2025-26	Production (Tons)
April-2025	190453
May-2025	211124
June-2025	207080
July-2025	187370
August-2025	213812
September-2025	200118
Total	1209957



LIST OF FLORA AND FAUNA

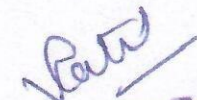
Core Zone and Buffer Zone of Sagmania Limestone Mines (852.50 Ha)

List of Flora

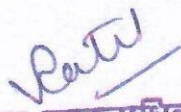
SL. NO	SCIENTIFIC NAME	COMMON NAME
TREE		
1.	<i>Acacia catechu</i>	Katha
2.	<i>Acacia nilotica</i>	Babul
3.	<i>Aegle marmelos</i>	Bael
4.	<i>Ailanthus excelsa</i>	Maharukh
5.	<i>Albizia lebbeck</i>	Siris
6.	<i>Alstonia scholaris</i>	Devils Tree
7.	<i>Annona squamosa</i>	Sita phal
8.	<i>Anogeissus latifolia</i>	Dhaora
9.	<i>Anthocephalus kadamba</i>	Kadamb
10.	<i>Azadirachta indica</i>	Neem
11.	<i>Boswellia serrata</i>	Salai
12.	<i>Bridelia retusa</i>	Kasai
13.	<i>Buchanania lanzan</i>	Chironji
14.	<i>Butea monosperma</i>	Palas
15.	<i>Caesaria tomentosa</i>	Chilla
16.	<i>Calotropis gigantea</i>	Safed
17.	<i>Cassia fistula</i>	Amaltas
18.	<i>Dalbergia latifolia</i>	Kala shisam
19.	<i>Dalbergia paniculata</i>	Dhobein
20.	<i>Diospyros melanoxylon</i>	Tendu
21.	<i>Emblica officinalis</i>	Amla

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SL. NO	SCIENTIFIC NAME	COMMON NAME
22.	<i>Eucalyptus angophora</i>	Liptus
23.	<i>Eucalyptus grandis</i>	Eucalyptus
24.	<i>Feronia limonia</i>	Kaitha
25.	<i>Ficus bengalensis</i>	Banyan
26.	<i>Ficus glomerata</i>	Gular
27.	<i>Ficus racemosa</i>	Cluster Fig
28.	<i>Ficus religiosa</i>	Peepal
29.	<i>Holarrhena antidysenterica</i>	Kurchi
30.	<i>Lagerstroemia parviflora</i>	Landia
31.	<i>Lannea coromandelica</i>	Gunja
32.	<i>Leucaena leucocephala</i>	Jumbay
33.	<i>Madhuca indica</i>	Mahua
34.	<i>Madhuca longifolia</i>	Mahua
35.	<i>Mangifera indica</i>	Anacardiaceae
36.	<i>Miliusa tomentosa</i>	Kari
37.	<i>Mitragyna parviflora</i>	Lendi
38.	<i>Neolamarckia cadamba</i>	Kadamba
39.	<i>Nyctanthes arbor-tristis</i>	Parijat
40.	<i>Ougeinia oojeinensis</i>	Sandan
41.	<i>Peltophorum pterocarpum</i>	Yellow Flame Tree
42.	<i>Pithecellobium dulce</i>	Vilayati Imli
43.	<i>Pongamia pinnata</i>	Karanj/Indian Beech
44.	<i>Prosopis juliflora</i>	Vilayati Babul
45.	<i>Salmalia malabarica</i>	Semal
46.	<i>Samanea saman</i>	Gulabi Siris
47.	<i>Schleichera oleosa</i>	Kusum
48.	<i>Shorea robusta</i>	Sal


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SL. NO	SCIENTIFIC NAME	COMMON NAME
49.	<i>Syzygium cumini</i>	Jamun
50.	<i>Syzygium heyneanum</i>	Chhoti jamun
51.	<i>Tectona grandis</i>	Teak
52.	<i>Terminalia arjuna</i>	Arjun
53.	<i>Terminalia bellerica</i>	Bahera
54.	<i>Terminalia elliptica-tomentosa</i>	Saaj
55.	<i>Terminalia tomentosa</i>	Saja
56.	<i>Woodfordia floribunda</i>	Dhataki
57.	<i>Wrightia tinctoria</i>	Dudhi
58.	<i>Zizyphus jujuba</i>	Ber
SHRUB		
59.	<i>Butea superba</i>	Palas lata
60.	<i>Hyptis suaveolens</i>	Pignut
61.	<i>Lantana camara</i>	Raimuniya
62.	<i>Nerium indicum</i>	Oleander
63.	<i>Ziziphus oenoplia</i>	Jackal jujube
64.	<i>Calotropis procera</i>	Madar
65.	<i>Zizyphus nummularia</i>	Jharberi
66.	<i>Ziziphus xylopyrus</i>	Ghont
HERBS & GRASSES		
67.	<i>Apluda mutica</i>	Mauritian Grass
68.	<i>Argemone mexicana</i>	Satynashi
69.	<i>Cenchrus ciliaris</i>	Foxtail buffalo grass
70.	<i>Chlorophytum borivilianum</i>	Safed
71.	<i>Commelina benghalensis</i>	Bengal Day flower
72.	<i>Convolvulus sabatius</i>	Hiran Khuri
73.	<i>Cyano dactylon</i>	Bermuda grass

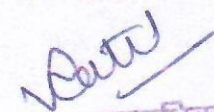

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SL. NO	SCIENTIFIC NAME	COMMON NAME
74.	<i>Cymbopogon martini</i>	Lemon grass
75.	<i>Cynodon dactylon</i>	Bermuda grass
76.	<i>Cyperus rotundus</i>	Nut grass
77.	<i>Dendrocalamus strictus</i>	Bans/Bamboo
78.	<i>Dichanthium annulatum</i>	Marvel Grass
79.	<i>Heteropogon contortus</i>	Khad Grass
80.	<i>Hyptis suaveolens</i>	Van tulsi
81.	<i>Ichnocarpus frutescens</i>	Kali Dhudhi
82.	<i>Justicia ovata</i>	Walter
83.	<i>Leucas aspera</i>	Dudhi
84.	<i>Nicotiana tobacum</i>	Tobacco
85.	<i>Parthenium hysterophorus</i>	Gajar grass
86.	<i>Sida acuta</i>	Bala
87.	<i>Tephrosia purpurea</i>	Sarphunka
88.	<i>Themeda quadrivalvis</i>	Grader Grass
89.	<i>Tridax procumbens</i>	Mexican Daisy
90.	<i>Vetiver zizanioides</i>	Vetiver grass
CLIMBER		
91.	<i>Bauhinia vahlii</i>	Camel foot climber
92.	<i>Cissus quadrangularis</i>	Hathjod
93.	<i>Abrus precatorius</i>	Crab Eye seeds
94.	<i>Tinospora cordifolia</i>	Gulvel
95.	<i>Cocculus hirsutus</i>	Broom Creeper
96.	<i>Clitorea ternatea</i>	Shankapusphi

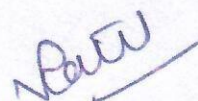
List of Fauna

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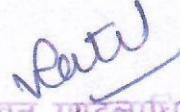

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
AMPHIBIANS			
1.	<i>Bufo melanostictus</i>	Toad	-
2.	<i>Hoplobatrachus tigerinus</i>	Bullfrog	IV
REPTILES			
3.	<i>Calotes versicolor</i>	Garden lizard	-
4.	<i>Chameleon zeylanicus</i>	Chameleon	II
5.	<i>Hemidactylus flaviviridis</i>	Northern House	-
6.	<i>Hemidactylus frenatus</i>	Common house gecko	-
7.	<i>Naja naja</i>	Cobra	II
8.	<i>Ptyas mucosa</i>	Rat snake	II
MAMMALS			
9.	<i>Bandicota indica</i>	Greater Bandicoot	IV
10.	<i>Bos indicus</i>	Cow	-
11.	<i>Boselaphus tragocamelus</i>	Blue Bull or Nilgai	III
12.	<i>Bubalus bubalis</i>	Domestic buffalo	-
13.	<i>Canis aureus</i>	Jackal	II
14.	<i>Canis lupus familiaris</i>	Common dog	-
15.	<i>Capra hircus aegagrus</i>	Goat	-
16.	<i>Felis chaus</i>	Jungle Cat	II
17.	<i>Felis silvestris catus</i>	Common cat	-
18.	<i>Fumanbulus palamarum</i>	Three Striped Palm Squirrel	IV
19.	<i>Herpestes edwardsii</i>	Common Mongoose	II
20.	<i>Herpestes javanicus</i>	Asian small mongoose	II
21.	<i>Lepus nigricollis</i>	Black Naped Indian Hare	IV
22.	<i>Macaca mulatta</i>	Rhesus Macaque	II
23.	<i>Mus booduga</i>	Indian field mouse	IV
24.	<i>Mus musculus</i>	House mouse	IV
25.	<i>Presbytis entellus</i>	Hanuman Langur	II


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SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
26.	<i>Pteropus giganteus</i>	Fruit Bats	V
27.	<i>Rattus rattus</i>	Common rat	IV
28.	<i>Sus scrofa</i>	Wild Boar	III
29.	<i>Vulpes bengalensis</i>	Indian Fox	II
AVES			
30.	<i>Acridotheres tristis</i>	Common myna	-
31.	<i>Adreola grayii</i>	Pond Heron	IV
32.	<i>Aegithina tiphia</i>	Common lora	IV
33.	<i>Alcedo atthis</i>	Common kingfisher	IV
34.	<i>Anas acuta</i>	Common Teal	IV
35.	<i>Anhinga melanogaster</i>	Indian Darter	IV
36.	<i>Anser indicus</i>	Bar Headed Goose	IV
37.	<i>Anthulus rufulus</i>	Paddy Field Pipit	IV
38.	<i>Apus affinis</i>	House Swift	IV
39.	<i>Athene brama</i>	Spotted owlet	IV
40.	<i>Aythya ferina</i>	Common Poachard	IV
41.	<i>Bubulcus ibis</i>	Cattle egret	IV
42.	<i>Centropus sinensis</i>	Crow pheasant	IV
43.	<i>Charadius hiaticula</i>	Common Ringed Plover	IV
44.	<i>Columba livia</i>	Blue Rock Pigeon	V
45.	<i>Columba livia domestica</i>	Pigeon	IV
46.	<i>Coracias benghalensis</i>	Indian Roller	IV
47.	<i>Corvus macrorhynchos</i>	Jungle crow	IV
48.	<i>Corvus splendens</i>	Common Crow	V
49.	<i>Cuculus micropterus</i>	Indian cuckoo	IV
50.	<i>Dicrurus macroeercus</i>	Black drongo	IV
51.	<i>Ergetta garzetta</i>	Little Egret	IV
52.	<i>Eudynamys scolopacea</i>	Asiatic Koel	IV


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SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
53.	<i>Francolinus pondicerianus</i>	Grey Partridge	IV
54.	<i>Fulica atra</i>	Common Coots	IV
55.	<i>Gallus gallus</i>	Red Jungle Fowl	IV
56.	<i>Halcyon smyrnensis</i>	The white breasted Kingfisher	IV
57.	<i>Himantopus himantopus</i>	Black Winged Stilt	IV
58.	<i>Hirundo rustica</i>	Barn Swallow	IV
59.	<i>Hydrophasianus chirurgus</i>	Pheasant tailed Jacana	IV
60.	<i>Lanius cristatus</i>	Brown Shrike	IV
61.	<i>Lonchura malabarica</i>	White throated Munia	IV
62.	<i>Lonchura punctulata</i>	Spotted Munia	IV
63.	<i>Megalaima haemacephala</i>	Copper Smith Barbets	IV
64.	<i>Merops orientalis</i>	Asian green bee-eater	IV
65.	<i>Merops orientalis</i>	Green Bee Eater	IV
66.	<i>Mesophoyx intermedia</i>	Median Egret	IV
67.	<i>Microcarbo niger</i>	Little Cormorant	IV
68.	<i>Molpastes cafer</i>	Red vented Bulbul	IV
69.	<i>Motacilla cinerea</i>	Grey Wagtail	IV
70.	<i>Nectarinia asiatica</i>	Purple Rumped Sunbird	IV
71.	<i>Oriolus oriolus</i>	Golden Oriole	IV
72.	<i>Orthotomus sutorius</i>	Tailor Bird	IV
73.	<i>Passer domesticus</i>	Domestic sparrow	IV
74.	<i>Pavo Cristatus</i>	Pea fowl	I
75.	<i>Ploceus philippinus</i>	Baya Weaver	IV
76.	<i>Prinia socialis</i>	Ashy prinia	IV
77.	<i>Psittacula krameri</i>	Rose Ringed parakeet	IV
78.	<i>Pycnonotus cafer</i>	Red vented bulbul	IV
79.	<i>Rhipidura albogularis</i>	White spotted fintail	IV
80.	<i>Sterna aurantia</i>	Indian River Tern	IV


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SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
81.	<i>Streptopelia chinensis</i>	Spotted Dove	IV
82.	<i>Sturnus roseus</i>	Rosy Starling	IV
83.	<i>Tyto alba</i>	Barn Owl	IV
84.	<i>Upupa epops</i>	Hoopoe	IV
85.	<i>Vanellus indicus</i>	Red Wattled- Lapwing	IV

Wanted
वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

M/s Birla Corporation Limited.

CONSERVATION PLAN

FOR

Pavo cristatus(Indian Peafowl)



Rantu
वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

<u>PROJECT PROPONENT</u>	<u>ENVIRONMENTAL CONSULTANT</u>
<p>M/s Birla Corporation Limited</p> <p>Address - Village: Barikalan, Baraj, Puraini, Bathiakhurd, Bharjunakalan, Nimi & Naina, Tehsil: Raghurajnar, District: Satna State: Madhya Pradesh</p> <p>Name -Sunil Sood</p> <p>Designation - Authorized Signatory</p> <p>Email- admin.scw@birlacorp.com</p> <p>Phone No- 07672-412000</p>	<p>M/s Perfect Enviro Solutions Pvt. Ltd.</p> <p>Certificate-NABET/EIA/2225/RA 0284</p> <p>(An ISO 9001:2015 & ISO 14001:2015 Certified Company)</p> <p>5th Floor, NN Mall, Mangalam Place, Sector-3, Rohini, New Delhi-110085</p> <p>Email: info@perfectgroup.in</p>

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1. Conservation and Development

Conservation is the act of preventing injury, decay, waste or loss of both natural and cultural heritage. Conservation may also refer to the careful utilization of a natural resource in order to prevent depletion and the preservation and restoration of works of cultural significance. Whereas development is the process of economic and social transformation that is based on complex cultural and environmental factors and their interactions. Development may also be understood as the systematic use of natural laws (science) and cultural knowledge to meet specific objectives or requirements of a society.

Historically, conservation and developmental goals have been at opposing ends of the spectrum, and still are in many ways. The prospect of a blend of conservation and human welfare, therefore, has the appeal of a panacea. Over the past few decades, there has been a move in the field of conservation to a more pragmatic approach that could address generating alternatives and improving livelihoods and compensation for lost benefits. There has been increased emphasis on working with the weakest and on improving governance and institutions as increasing evidence has questioned age-old and entrenched assumptions about poverty-environment interactions.

“There has been a lot of wishful thinking about a win-win solution for conservation, in the context of livelihoods and conservation. There can be win-win but they are effective when they come with perspectives of both sides, the local people and conservationists. There have been assumptions that good forests would be good for livelihoods.

1.1 Forestry Scenario

According to the Forest Department of Madhya Pradesh, Gol, the state's forest vegetation and as per the Champion & Seth Classification of Forest Types (1968), the forests in Maharashtra belong to twenty one (21) forest types on the basis of zonation against rainfall variations in respect to both spatial and temporal aspects along with the other factors as topography, soil, temperature and the types of forests are namely, (1) 3B/C1c Slightly Moist Teak Forest (2) 3B/C2 Southern Moist Mixed Deciduous Forest (3) 3C/DS1 Moist Sal Savannah (4) 3C/C2e (i) Moist Peninsular High Level Sal (5) 4E/RS1 Riparian Fringing Forest (6) 5/1S2 Khair-Sissu Forest (7) 5/E1/DS1 *Anogeissus pendula* Scrub (8) 5/DS1 Dry Deciduous Scrub (9) 5/DS2 Dry Savannah Forest (10) 5/DS4 (Dry Grass Land) (11) 5/E1 *Anogeissus pendula* Forest (12) 5/E2 *Boswellia* Forest (13) 5/E5 *Butea* Forest (14) 5/E9 Dry Bamboo Brake (15) 5A/C1a Very Dry Teak Forest (16) 5A/C1b Dry Teak Forest (17) 5A/C3 Southern Dry Mixed Deciduous Forest (18) 5B/C1c Dry Peninsular Sal Forest (19) 5B/C2 Northern Dry Mixed Deciduous Forest (20) 6B/C2 Ravine Thorn Forest (21) 8A/C3 Central Indian Subtropical Hill Forest (India State Forest Report, 2019).

2. Conservation Plan – Thoughts and Processes

2.1. About the project

The proposed project of the Sagmania Limestone Mine of M/s. Birla Corporation Limited is located at Village: Barikalan, Baraj, Puraini, Bathain Khurd, Bharjunakalan, Nimi & Naina, Tehsil: Raghurajnar, District: Satna State: Madhya Pradesh, India.

2.1. Objectives of the Plan

Broad objectives this Wild Life Plan attempts to address can be verbalized as follows:

- To provide a relatively stress-free habitat to wildlife in the Impact Area that would be capable of meeting the basic needs of resident wildlife.
- To provide habitat supplement to the spill over population of wild animals from the Project Area to the Impact Area.
- To provide safe spill over corridors for wildlife from Impact Area to relatively rich neighboring forest areas.
- To provide safeguarding measures and protection of wildlife from unsavory elements.
- Providing site specific, need based, and participatory eco-development inputs to local stakeholders for reducing their resource dependency on forests and for eliciting their support towards conservation in the area.
- Capacity Building of local people, particularly Eco-Development Committee members.
- To provide the local Forest Department officials / staff with required resources to help implement this plan.
- While increasing man-animal conflict is an outcome of shrinkage, fragmentation and deterioration of habitats, it has caused destruction of wildlife and generated animosity against wild animals and protected areas. This is a crucial management issue, which needs to be addressed through innovative approaches.

2.2. The Need of the Conservation Plan

Endangered and threatened animals of India have been listed in the Schedule I of the Wildlife (Protection) Act, 1972 (amended in 2002), one (1) schedule I Species is reported in the Buffer zone.

2.3. Scope of the Plan

This Conservation Plan is specifically for the conservation of the wildlife of the 10 km Impact Area around the proposed Plant. This Conservation Plan tries to take into consideration the various related & apparently unrelated factors that affect Wildlife and their intricate relationships.

The plan intends to make prescriptions that would minimize such negative effects on the habitat in general and the wild animals in particular. Further, this plan is designed for 5 years and would need revision thereafter considering the improvement in the forest-in-question or degradation for the said Impact Area.

2.4. The Integrated Approach

This Wildlife Conservation Plan is prepared for the Impact Area especially. There may be other old/new projects nearby the study area which may have their own impacts and this project for the Impact Area of 10 km surrounding the site probably would not be sufficient for entire area conservation.

In a large-scale view this Conservation Plan suggests that any Conservation Plan / Plans for any kind of developmental activities in the vicinity of the area must definitely take into consideration the prescriptions and the approach of the present plan. A holistic & integrated approach by redefining the Integrated Impact Area which would include impact areas of future mine allocations and or developmental activities should be the cornerstone of future conservation planning for wildlife in and around the area.

3. Impact Area & Project Impacts

3.1. Project Introduction

The proposed project of the Sagmania Limestone Mine of M/s. Birla Corporation Limited is located at Village: Barikalan, Baraj, Puraini, Bathain Khurd, Bharjunakalan, Nimi & Naina, Tehsil: Raghurajnagar, District: Satna State: Madhya Pradesh, India.

3.2. Brief description of Project

It is a Limestone Mine with production capacity of 4.9 MTPA in the mine lease area of 852.50 Ha, located at Village- Puraini, Bharjunakala, Bathain Khurd, Naina, Nimi, Baraj & Barikalan, Taluka Raghurajnagar, District Satna, State - Madhya Pradesh by M/s Birla Corporation Limited. The present proposal falls under item 1(a) of mining under category A project as per EIA Notification dated 14.09.2006 subsequent amendment thereof.

3.3. Project Location

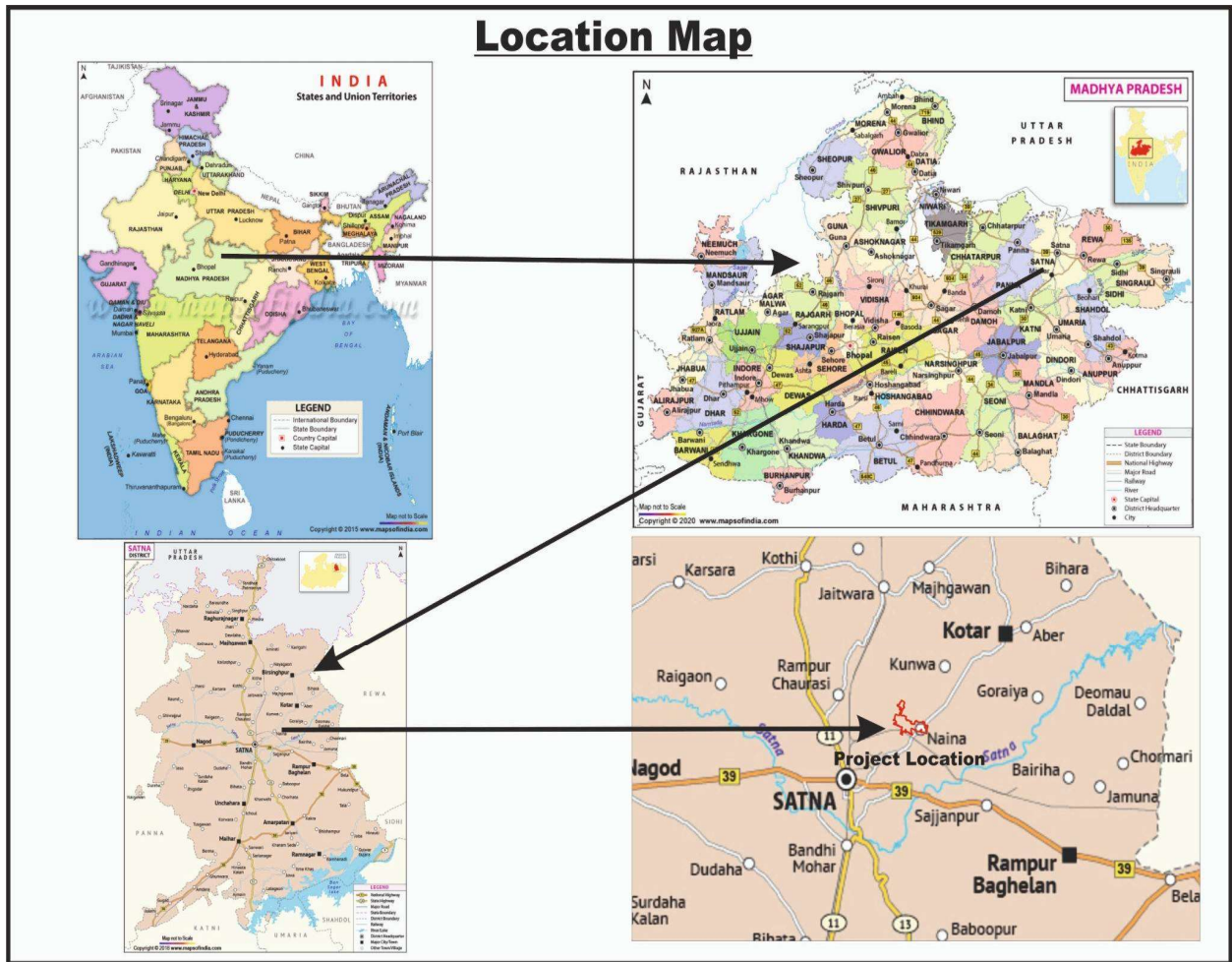


Figure 1. Project Location

Table 1. Connectivity

Roads/Highways	Aerial Distance (Km)
NH - 75	3.55 Km East
Panna- Khajuraho road	5.30 Km SSW
Sakariya Railway Station	1.69 km SE
Khajuraho Airport -	97.99 km WNW

3.4. Topographical Map



Figure 2. Topographical map

3.5. Environmental Sensitivity

Table 2. Environmental Sensitivity

Water bodies	Aerial Distance and Directions
Badkhar Nala	1.26 Km SSE
Talab near Chakmurar	2.48 Km SE
Pond near Muran	3.83 Km SE
Magardaha N	5.08 km NW
Chuhar N	5.20 Km NW
Satna River	5.22 km SE
Tons or Tamasa River	5.29 km SE
Sindhi Comp Talab	5.30 Km SW
Simrawal Nadi	5.49 Km NE
Narayan Talab	6.03 Km SSW
Bagha Pond (Talab)	6.23 km SW
Gahira N	6.51 Km S
Jagat Dev Talab	6.83 km SW
Hathia N	7.28 km NNE
Rani Talao	7.55 Km SSE
Choker N	7.80 Km N

Lagna Nala	8.04 km NNW
Dhawari Talab	9.45 Km SW
Canal near Ganesha	9.55 km SE

Table 3. Reserve Forest

Forest	Distance
Reserved Forest near Khamharia	2.74 Km
Reserved Forest near Bhatpurwa	2.93 Km
Reserved Forest near Khamhariya payasin	3.79 Km
Jamori Reserved Forest	3.95 Km
Reserved Forest near Khajurehara	6.23 Km
Reserved Forest near Bandarkha	8.10 Km
Reserved Forest near Hinauta	8.15 KM
Reserved Forest near R F Majhiar	8.53 Km
Reserved Forest near Majhiar	8.91 Km
Reserved Forest near Chulhi	9.19 Km

4. Methodology for the study of Flora and Fauna-

During the study, the floral composition of the area was evaluated through a primary questionnaire based survey. The study area was divided according to habitat types followed by the random identification of flora species, exploration of the area, collection of species, and preparation of specimens for later identification if required. Faunal species were observed with the help of methods like standard walk transect, visual encounter survey, etc at different times of the day.

Primary and Secondary data collected was cross-checked with the traditional knowledge of the people of the study region and cross-checked with forest data and other secondary resources.

Cropping pattern

The crops sown during Kharif season are soybean, rice, maize, bajra and tur etc., and in Rabi season wheat, gram, mustered and vegetables. Bananas are also grown in some districts.

Forest Type

According to the Champion & Seth Classification of Forest Types (1968), the forests in Maharashtra belong to twenty one (21) forest types on the basis of zonation against rainfall variations in respect to both spatial and temporal aspects along with the other factors as topography, soil, temperature and the types of forests are namely, (1) 3B/C1c Slightly Moist Teak Forest (2) 3B/C2 Southern Moist Mixed Deciduous Forest (3) 3C/DS1 Moist Sal Savannah (4) 3C/C2e (i) Moist Peninsular High Level Sal (5) 4E/RS1 Riparian Fringing Forest (6) 5/1S2 Khair-Sissu Forest (7) 5/E1/DS1 Anogeissus pendula Scrub (8) 5/DS1 Dry Deciduous Scrub (9) 5/DS2 Dry Savannah Forest (10) 5/DS4 (Dry Grass Land) (11) 5/E1 Anogeissus pendula Forest (12) 5/E2 Boswellia Forest (13) 5/E5 Butea Forest (14) 5/E9 Dry Bamboo Brake (15) 5A/C1a Very Dry Teak Forest (16) 5A/C1b Dry Teak Forest (17) 5A/C3 Southern Dry Mixed Deciduous Forest (18) 5B/C1c Dry Peninsular Sal Forest (19) 5B/C2 Northern Dry Mixed Deciduous Forest

(20) 6B/C2 Ravine Thorn Forest (21) 8A/C3 Central Indian Subtropical Hill Forest (India State Forest Report, 2019).

4.1. Flora of core Zone

Existing Plantation detail

Plantation around 2,73,550 has been done in an area of 102 Ha. The major species planted is Sagaun, Kesia Semia, Karanj, Neem etc.



4.2. Flora of the Buffer Zone

In the Buffer Zone varieties of trees, shrubs, and grasses are found for which Primary survey and Public consultation was carried out in the 10 Km Buffer Zone. A secondary survey (including literature review) for the same was carried out.

Table 4. Flora of the Buffer Zone

Sl. No	Scientific Name	Common Name
Tree		
1.	<i>Acacia catechu</i>	Katha
2.	<i>Acacia nilotica</i>	Babul
3.	<i>Aegle marmelos</i>	Bael
4.	<i>Ailanthus excelsa</i>	Maharukh
5.	<i>Albizia lebbek</i>	Siris
6.	<i>Alstonia scholaris</i>	Devils Tree
7.	<i>Annona squamosa</i>	Sita phal
8.	<i>Anogeissus latifolia</i>	Dhaora
9.	<i>Anthocephalus kadamba</i>	Kadamb
10.	<i>Azadirachta indica</i>	Neem
11.	<i>Boswellia serrata</i>	Salai
12.	<i>Bridelia retusa</i>	Kasai
13.	<i>Buchanania lanzan</i>	Chironji
14.	<i>Butea monosperma</i>	Palas
15.	<i>Caesaria tomentosa</i>	Chilla
16.	<i>Calotropis gigantea</i>	Safed
17.	<i>Cassia fistula</i>	Amaltas

Sl. No	Scientific Name	Common Name
18.	<i>Dalbergia latifolia</i>	Kala shisam
19.	<i>Dalbergia paniculata</i>	Dhobein
20.	<i>Diospyros melanoxylon</i>	Tendu
21.	<i>Embllica officinalis</i>	Amla
22.	<i>Eucalyptus angophora</i>	Liptus
23.	<i>Eucalyptus grandis</i>	Eucalyptus
24.	<i>Feronia limonia</i>	Kaitha
25.	<i>Ficus bengalensis</i>	Banyan
26.	<i>Ficus glomerata</i>	Gular
27.	<i>Ficus racemosa</i>	Cluster Fig
28.	<i>Ficus religiosa</i>	Peepal
29.	<i>Holarrhena antidysenterica</i>	Kurchi
30.	<i>Lagerstroemia parviflora</i>	Landia
31.	<i>Lannea coromandelica</i>	Gunja
32.	<i>Leucaena leucocephala</i>	Jumbay
33.	<i>Madhuca indica</i>	Mahua
34.	<i>Madhuca longifolia</i>	Mahua
35.	<i>Mangifera indica</i>	Anacardiaceae
36.	<i>Miliusa tomentosa</i>	Kari
37.	<i>Mitragyna parviflora</i>	Lendi
38.	<i>Neolamarckia cadamba</i>	Kadamba
39.	<i>Nyctanthes arbor-tristis</i>	Parijat
40.	<i>Ougeinia oojeinensis</i>	Sandan

Sl. No	Scientific Name	Common Name
41.	<i>Peltophorum pterocarpum</i>	Yellow Flame Tree
42.	<i>Pithecellobium dulce</i>	Vilayati Imlı
43.	<i>Pongamia pinnata</i>	Karanj/Indian Beech
44.	<i>Prosopis juliflora</i>	Vilayati Babul
45.	<i>Salmalia malabarica</i>	Semal
46.	<i>Samanea saman</i>	Gulabi Siris
47.	<i>Schleichera oleosa</i>	Kusum
48.	<i>Shorea robusta</i>	Sal
49.	<i>Syzygium cumini</i>	Jamun
50.	<i>Syzygium heyneanum</i>	Chhoti jamun
51.	<i>Tectona grandis</i>	Teak
52.	<i>Terminalia arjuna</i>	Arjun
53.	<i>Terminalia bellerica</i>	Bahera
54.	<i>Terminalia elliptica-tomentosa</i>	Saaj
55.	<i>Terminalia tomentosa</i>	Saja
56.	<i>Woodfordia floribunda</i>	Dhataki
57.	<i>Wrightia tinctoria</i>	Dudhi
58.	<i>Zizyphus jujuba</i>	Ber
Shrub		
59.	<i>Butea superba</i>	Palas lata
60.	<i>Hyptis suaveolens</i>	Pignut
61.	<i>Lantana camara</i>	Raimuniya
62.	<i>Nerium indicum</i>	Oleander

Sl. No	Scientific Name	Common Name
63.	<i>Ziziphus oenoplia</i>	Jackal jujube
64.	<i>Calotropis procera</i>	Madar
65.	<i>Zizyphus nummularia</i>	Jharberi
66.	<i>Ziziphus xylopyrus</i>	Ghont
Herbs & Grasses		
67.	<i>Apluda mutica</i>	Mauritian Grass
68.	<i>Argemone mexicana</i>	Satynashi
69.	<i>Cenchrus ciliaris</i>	Foxtail buffalo grass
70.	<i>Chlorophytum borivilianum</i>	Safed
71.	<i>Commelina benghalensis</i>	Bengal Day flower
72.	<i>Convolvulus sabatius</i>	Hiran Khuri
73.	<i>Cyano dactylon</i>	Bermuda grass
74.	<i>Cymbopogon martini</i>	Lemon grass
75.	<i>Cynodon dactylon</i>	Bermuda grass
76.	<i>Cyperus rotundus</i>	Nut grass
77.	<i>Dendrocalamus strictus</i>	Bans/Bamboo
78.	<i>Dichanthium annulatum</i>	Marvel Grass
79.	<i>Heteropogon contortus</i>	Khad Grass
80.	<i>Hyptis suaveolens</i>	Van tulsi
81.	<i>Ichnocarpus frutescens</i>	Kali Dhudhi
82.	<i>Justicia ovata</i>	Walter
83.	<i>Leucas aspera</i>	Dudhi
84.	<i>Nicotiana tobacum</i>	Tobacco

Sl. No	Scientific Name	Common Name
85.	<i>Parthenium hysterophorus</i>	Gajar grass
86.	<i>Sida acuta</i>	Bala
87.	<i>Tephrosia purpurea</i>	Sarphunka
88.	<i>Themeda quadrivalvis</i>	Grader Grass
89.	<i>Tridax procumbens</i>	Mexican Daisy
90.	<i>Vetiver zizanioides</i>	Vetiver grass
Climber		
91.	<i>Bauhinia vahlii</i>	Camel foot climber
92.	<i>Cissus quadrangularis</i>	Hathjod
93.	<i>Abrus precatorius</i>	Crab Eye seeds
94.	<i>Tinospora cordifolia</i>	Gulvel
95.	<i>Cocculus hirsutus</i>	Broom Creeper
96.	<i>Clitorea ternatea</i>	Shankapusphi

(Source: Primary Survey and Public consultation)

4.3. Fauna of Buffer zone:

Table 5. Fauna of Buffer zone

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
AMPHIBIANS			
1.	<i>Bufo melanostictus</i>	Toad	-
2.	<i>Hoplobatrachus tigerinus</i>	Bull frog	IV
REPTILES			
3.	<i>Calotes versicolor</i>	Garden lizard	-

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
4.	<i>Chameleon zeylanicus</i>	Chameleon	II
5.	<i>Hemidactylus flaviviridis</i>	Northern House	-
6.	<i>Hemidactylus frenatus</i>	Common house gecko	-
7.	<i>Naja naja</i>	Cobra	II
8.	<i>Ptyas mucosa</i>	Rat snake	II
MAMMALS			
9.	<i>Bandicota indica</i>	Greater Bandicoot	IV
10.	<i>Bos indicus</i>	Cow	-
11.	<i>Boselaphus tragocamelus</i>	Blue Bull or Nilgai	III
12.	<i>Bubalus bubalis</i>	Domestic buffalo	-
13.	<i>Canis aureus</i>	Jackal	II
14.	<i>Canis lupus familiaris</i>	Common dog	-
15.	<i>Capra hircus aegagrus</i>	Goat	-
16.	<i>Felis chaus</i>	Jungle Cat	II
17.	<i>Felis silvestris catus</i>	Common cat	-
18.	<i>Fumanbulus palamarum</i>	Three Striped Palm Squirrel	IV
19.	<i>Herpestes edwardsii</i>	Common Mongoose	II
20.	<i>Herpestes javanicus</i>	Asian small mongoose	II
21.	<i>Lepus nigricollis</i>	Black Naped Indian Hare	IV
22.	<i>Macaca mulatta</i>	Rhesus Macaque	II
23.	<i>Mus booduga</i>	Indian field mouse	IV

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
24.	<i>Mus musculus</i>	House mouse	IV
25.	<i>Presbytis entellus</i>	Hanuman Langur	II
26.	<i>Pteropus giganteus</i>	Fruit Bats	V
27.	<i>Rattus rattus</i>	Common rat	IV
28.	<i>Sus scrofa</i>	Wild Boar	III
29.	<i>Vulpes bengalensis</i>	Indian Fox	II
AVES			
30.	<i>Acridotheres tristis</i>	Common myna	-
31.	<i>Adreola grayii</i>	Pond Heron	IV
32.	<i>Aegithina tiphia</i>	Common lora	IV
33.	<i>Alcedo atthis</i>	Common kingfisher	IV
34.	<i>Anas acuta</i>	Common Teal	IV
35.	<i>Anhinga melanogaster</i>	Indian Darter	IV
36.	<i>Anser indicus</i>	Bar Headed Goose	IV
37.	<i>Anthulus rufulus</i>	Paddy Field Pipit	IV
38.	<i>Apus affinis</i>	House Swift	IV
39.	<i>Athene brama</i>	Spotted owlet	IV
40.	<i>Aythya ferina</i>	Common Poachard	IV
41.	<i>Bubulcus ibis</i>	Cattle egret	IV
42.	<i>Centropus sinensis</i>	Crow pheasant	IV
43.	<i>Charadius hiaticula</i>	Common Ringed Plover	IV
44.	<i>Columba livia</i>	Blue Rock Pigeon	V
45.	<i>Columba livia domestica</i>	Pigeon	IV

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
46.	<i>Coracias benghalensis</i>	Indian Roller	IV
47.	<i>Corvus macrorhynchos</i>	Jungle crow	IV
48.	<i>Corvus splendens</i>	Common Crow	V
49.	<i>Cuculus micropterus</i>	Indian cuckoo	IV
50.	<i>Dicrurus macrocercus</i>	Black drongo	IV
51.	<i>Ergetta garzetta</i>	Little Egret	IV
52.	<i>Eudynamys scolopacea</i>	Asiatic Koel	IV
53.	<i>Francolinus pondicerianus</i>	Grey Partridge	IV
54.	<i>Fulica atra</i>	Common Coots	IV
55.	<i>Gallus gallus</i>	Red Jungle Fowl	IV
56.	<i>Halcyon smyrnensis</i>	The white breasted Kingfisher	IV
57.	<i>Himantopus himantopus</i>	Black Winged Stilt	IV
58.	<i>Hirundo rustica</i>	Barn Swallow	IV
59.	<i>Hydrophasianus chirurgus</i>	Pheasant tailed Jacana	IV
60.	<i>Lanius cristatus</i>	Brown Shrike	IV
61.	<i>Lonchura malabarica</i>	White throated Munia	IV
62.	<i>Lonchura punctulata</i>	Spotted Munia	IV
63.	<i>Megalaima haemacephala</i>	Copper Smith Barbets	IV
64.	<i>Merops orientalis</i>	Asian green bee-eater	IV
65.	<i>Merops orientalis</i>	Green Bee Eater	IV
66.	<i>Mesophoyx intermedia</i>	Median Egret	IV
67.	<i>Microcarbo niger</i>	Little Cormorant	IV

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
68.	<i>Molpastes cafer</i>	Red vented Bulbul	IV
69.	<i>Motacilla cinerea</i>	Grey Wagtail	IV
70.	<i>Nectarinia asiatica</i>	Purple Rumped Sunbird	IV
71.	<i>Oriolus oriolus</i>	Golden Oriole	IV
72.	<i>Orthotomus sutorius</i>	Tailor Bird	IV
73.	<i>Passer domesticus</i>	Domestic sparrow	IV
74.	<i>Pavo Cristatus</i>	Pea fowl	I
75.	<i>Ploceus philippinus</i>	Baya Weaver	IV
76.	<i>Prinia socialis</i>	Ashy prinia	IV
77.	<i>Psittacula krameri</i>	Rose Ringed parakeet	IV
78.	<i>Pycnonotus cafer</i>	Red vented bulbul	IV
79.	<i>Rhipidura albogularis</i>	White spotted fintail	IV
80.	<i>Sterna aurantia</i>	Indian River Tern	IV
81.	<i>Streptopelia chinensis</i>	Spotted Dove	IV
82.	<i>Sturnus roseus</i>	Rosy Starling	IV
83.	<i>Tyto alba</i>	Barn Owl	IV
84.	<i>Upupa epops</i>	Hoopoe	IV
85.	<i>Vanellus indicus</i>	Red Wattled- Lapwing	IV

(Source: Primary survey & Secondary Data)

Buffer Zone: Primary survey and Public consultation was carried out in the 10 Km Buffer Zone. Secondary literature sources were also referred.

ENDANGERED SPECIES

There are 1 Schedule I species found in the study area i.e. 10 km of the buffer zone named as; Peacock (*Pavo cristatus*).

5. Principle of Wildlife Conservation

Wildlife resources share a vital relationship with the human species and have been an important issue all over the world. Today, the wildlife habitats are under intense human pressure which is directly linked to constraints on and declines in biodiversity. Protected areas with strict biodiversity conservation objectives significantly lower the human pressure. Since every one of us depends on flora and fauna for all vital components of our welfare, it is more than a matter of convenience that they continue to exist. As living units of the ecosystem, flora and fauna contribute to human welfare by means of providing

- material benefit to human life;
- knowledge about genetic resources and their preservation;
- Recreational Activities

The Presence or absence of flora and fauna in a particular region is determined by ecological factors and historical factors. Flora and Fauna are living indicators of the characteristics of their environment; their range marks the region where environmental factors are the same or familiar. To interpret the range of a species properly, it is necessary to know, in detail, the conditions required for the species to live and thrive. The science of zoogeography has both ecological and historical factors. On this basis, the world can be divided into six zoogeographical realms

- Nearctic: North America and Greenland
- Palaearctic: Eurasia, without India

- Ethiopian: Africa, south of the Sahara
- **Oriental: India and Indochina**
- Australian: Australia and New Zealand
- Neotropical: South and Central America, and the Antilles

India is further ecologically divided into three main regions, the Himalayan Mountain system, the peninsular India subregion (woodlands and desert); and the tropical rain forest region. Earlier, the Indian subcontinent was once blessed with relatively rich biodiversity as compared to the present scenario. Years of increasing intensity and frequency of humans have led to mismanagement of ecosystems. Today, India contains 172 species (2.9% of the world's overall number) of fauna that are considered to be globally threatened by the IUCN. These include 53 species of mammals, 69 species of birds, 23 species of reptiles, and 3 species of amphibians.

Success in evolution is measured in terms of survival rate: failure, by species extinction. Most recent extinctions can be attributed, either directly or indirectly, to human demographic and technological expansion, commercialized exploitation of species, and human-caused environmental change. These factors, in turn, have affected the reproductive rate of endangered species and their adaptability to changing environmental conditions.

6. Need of Wildlife Conservation & Management

- Several species of flora and fauna in the country are highly threatened due to over exploitation, habitat degradation and loss. Of these, many have been pushed to the brink of extinction. Such species, especially endangered and critically endangered, need immediate conservation measures by way of conducting status surveys, preparation of recovery plans, and identification and protection of critical habitats.

- Conservation of threatened species of flora especially local endemics and highly traded species such as medicinal plants and orchids have received relatively less attention so far.
- Climate change is expected to make major impacts on global biodiversity through drivers such as carbon dioxide, changes in fire frequencies, insect and pathogen attacks, latitudinal and altitudinal shifts in species distributions, and altered community interactions resulting in changes in species abundance. The present-day boundaries of major terrestrial ecosystems or vegetation types would change significantly. Freshwater, coastal and marine ecosystems would be similarly impacted.
- With a rich diversity of flora and fauna, India has always been a target of the illegal wildlife trade as a source country. It has emerged as one of the most serious threats to wildlife. The international trade in wildlife and its derivatives is an organized and established global criminal activity with hubs and trade routes spanning countries and continents. International efforts such as CITES, CAWT, TRAFFIC: THE WILDLIFE TRADE MONITORING NETWORK, etc. have been great steps by the global leaders in containing the international wildlife trade and its derivatives to ascertain extent.
- India as a nation is well-known for its demonstrated concern for conservation of wildlife and biodiversity, further its national laws to protect wildlife (for eg. Wildlife Protection Act 1972) are some of the most stringent in the region . It thus assumes greater responsibility and leadership even in the global conservation of natural heritage. The country is obliged to undertake necessary steps to prevent illegal trade or transfer of wildlife and wildlife articles which are regulated under various appendices of CITES.
- Although the wildlife protection laws and policies of the country are one of the best of its kind in the world, the implementation of these laws and policies is a major

problem. The conviction rate in wildlife crime cases is very low, resulting in persistence of habitual offenders in the illegal wildlife trade. Preventive measures along with enforcement of deterrent law are necessary to ensure the reduction of incidents of wildlife crime across the country. To make this a reality, appropriate policies need to be evolved, and put in place urgently.

7. Indian Peafowl (*Pavo cristatus*)

7.1 Introduction

The Indian Peafowl (*Pavo cristatus*) has been an integral part of the people of India and their culture for centuries. From religion and mythology to civilization and socio-culture, the Indian Peafowl occupies an important place in the lives of the people. In addition to this, the Indian Peafowl is well recognized for its ecological and aesthetic values, and hence aptly declared as the 'National Bird' of India in the year 1963. Since the early 1990s, there have been reports of increasing illegal trade in peafowl feathers, large-scale mortalities due to increased use of insecticides/pesticides in agricultural lands, poaching, and retaliatory killings by people due to alleged crop depredation by peafowl. Several peafowl strong hold areas in the country are now concerned about the current declining status. Peacock which is in schedule-I of the wildlife (protection) Act 1972 is reported in the study area.

Taxonomy

Table 6. Taxonomy.

Kingdom	Animalia
Phylum	Chordata
Class	Aves

Order	Galliformes
Family	Phasianidae
Sub family	Phasianinae
Genus	<i>Pavo</i>
Species	<i>cristatus</i>
Vernacular Name	Mor or Peacock

7.2 General description

Peacock or Indian peafowl (*Pavo cristatus*) is a familiar and universally known large pheasant. It is the National bird of India. The term “Peacock” is commonly used to refer to birds of both sexes. Technically, males are Peacock, females are peahens and together they are called peafowl. The male has spectacular glossy green long tail feathers that may be more than 60 percent of the bird's total body length. These feathers have blue, golden green and copper colored a celli (eyes). The long tail feathers are used for mating rituals like courtship displays. The feathers are arched into a magnificent shape across the back of the bird and almost touching on both sides. Females do not have these graceful tail feathers. They have the fan-like crest with a whitish face and throat, chestnut brown crown and hind neck, metallic green upper breast and mantle, white belly and brown back rump and tail. Their primaries are dark brown.

7.3 Morphology

Table 8. Morphology

Scientific Name	<i>Pavo cristatus</i>
Type	Bird

Diet	Omnivore
Size (L)	86 cm-107 cm (34in- 42in)
Wing span	120 cm-300 cm (47in-118in)
Weight	2.7 Kg-6 Kg (6lbs-13.2lbs)
Top speed	16 Km/h (10 mph)
Life span	12-20 years
Lifestyle	Solitary
Conservation Status	Schedule I (As per Wildlife protection act, 1972)
Average clutch size	6
Main Prey	Grains, Seeds, Insects
Predators	Dogs, Tigers, Wild Cats, Raccoon
Distinctive features	Long tail feathers and Colorful tail of Males

7.4 Habitat

It is found in moist and dry-deciduous forests, but can adapt to live in cultivated regions and around human habitations and is usually found where water is available. Size of the male tail feathers, its coloration and eyes determine the dominance of the male in the peacock hierarchy. The females are believed to be attracted towards the male with the longest and most colorful tail feathers.

7.5 Physical Characteristics

The male Indian Peafowl, commonly known as the peacock, is one of the most recognizable birds in the world. The brightly coloured Indian peacock birds have a distinctive crest and an ornamental train. The train (1.4-1.6 meters in length) accounts for more than 60% of their total body length (2.3 meters). Combined with a large wingspan (1.4-1.6 meters), this train makes the male peafowl one of the largest flying birds in the world. The train is formed by 100-150 highly specialized upper tail coverts. Each of these feathers sports an eyespot, and has long disintegrated barbs, giving the feathers a loose, fluffy look. When displaying to a female, the peacock bird erects this train into a spectacular fan, presenting the ocelli to their best advantage (Fowler, 2011). Size of the male tail feathers, its coloration and numbers of eyes present determine the dominance of the male in the peacock hierarchy. The females are believed to be attracted towards the male with the longest and most colorful tail feathers (Kushwaha & Kumar, 2016).

Other physical Characteristics of peacock

Table 8. Physical Characteristics of Peacock

Body length	Male 110-230 cm, Female: 85 cm
Weight	2750-6000 gm
Habitat	In the undergrowth in deciduous forests near streams and neighbourhoods of villages and cultivated countries and tall trees for roosting.

7.6 Behavior

In the breeding season they are usually seen in small parties of one male three to five females whereas in the non-breeding season they remain in separate parties of adult males and females with juveniles. Peacocks roost in tall trees and emerge from the dense thickets to feed in fields and open in forest fields.

Call: Kee-ow, Kee-ow, Ka-an, Ka-an, Ka-an, Kok-kok, Kok-Kok, cain-kok, may-yow c calls at dusk and dawn, also loud nasal calls and cackles, very noisy during the rains, when breeding.

Nesting: On tall Trees.

Breeding: Peak season in southern India is April to May and June in Northern India.

Other habits: Male sheds its colorful tail feathers during winters which grow again till autumn.

7.7 Food Habit

Peacocks are ground feeders. Indian peafowl do most of their foraging early in the morning and shortly before sunset. They retreat to the shade and security of the trees for the hottest portion of the day. They make a meal of grains, drupes of wild and some cultivated crops. They can also eat insects, small reptiles and small mammals (Fowler, 2011).

7.8 Conservation and relationship with man

The great beauty and popularity of the Indian Peafowl has ensured its protection throughout most of its native ranges. It enjoys the grace of the National Bird of India. The Peafowl is prominent in the mythology and folklore of the Indian people. The Hindus consider the bird to be sacred because of its association with Lord Krishna, who used to wear its feather as crown (Mor Mukut). It is also associated with the God Kartikey, son of Lord Shiva and Parvati and brother of Lord Ganesha. It is "Vaahan " (transport) of Lord Kartikeya. This long and close association with humans has proven the Peafowl's

adaptability to human altered landscapes. In villages where it is protected, it becomes quite tame, but is very shy and secretive where hunted. Peacock is generally protected by the local people.

7.9 Population threats to Endangered Species

Biodiversity is facing severe threats from multiple factors that may be anthropogenic and natural. A number of references have been cited for various factors that are threatening our biodiversity such as, Habitat loss through degradation and fragmentation, Urban development (Population growth and Habitat is lost through conversion to agriculture and housing), Over exploitation of natural resources leads to Pollution, Invasive species, Climate change, Weak enforcement of law, Stochastic events and Poaching & Killing (for wildlife products like Ivory & Fur).

This report presents a conservation strategy for 1 endangered species around the project buffer zone. This species is not endemic or native to this area however they must have migrated to this area due to loss of habitat in another nearby area. Therefore, it is critical that this species should be properly conserved with proper mitigation measures.

The following guidelines and policies will be followed:

1. Wild life Protection Act, 1972 as amended during 1991.
3. Forest (Conservation) Act, 1980.
4. Environment (Protection) Act, 1986.
5. National Forest Policy, 1988.
6. Guidelines for the preparation of working plans issued by the Government of India.
7. Directives of the Supreme Court of India on encroachments and reservation of 10% of areas under protected area network.
8. Policy on wildlife management, 1990.
9. Report of the Expert committee-I constituted for identification of 'Forests' 1997.

10. Report of the Expert Committee-IS constituted to determine the sustainability of forests, 1997.

11. Guidelines on policies and procedures to be applied to all working plans.

12. State government's policy decisions on working plans through a series of workshops and discussions held with senior officers and guidance received from time to time.

13. State government's policy decisions on working plans through a series of workshops and discussions held with senior officers and guidance received from time to time like Climate change, Carbon Sink Projects, CDM and REDD+ etc.

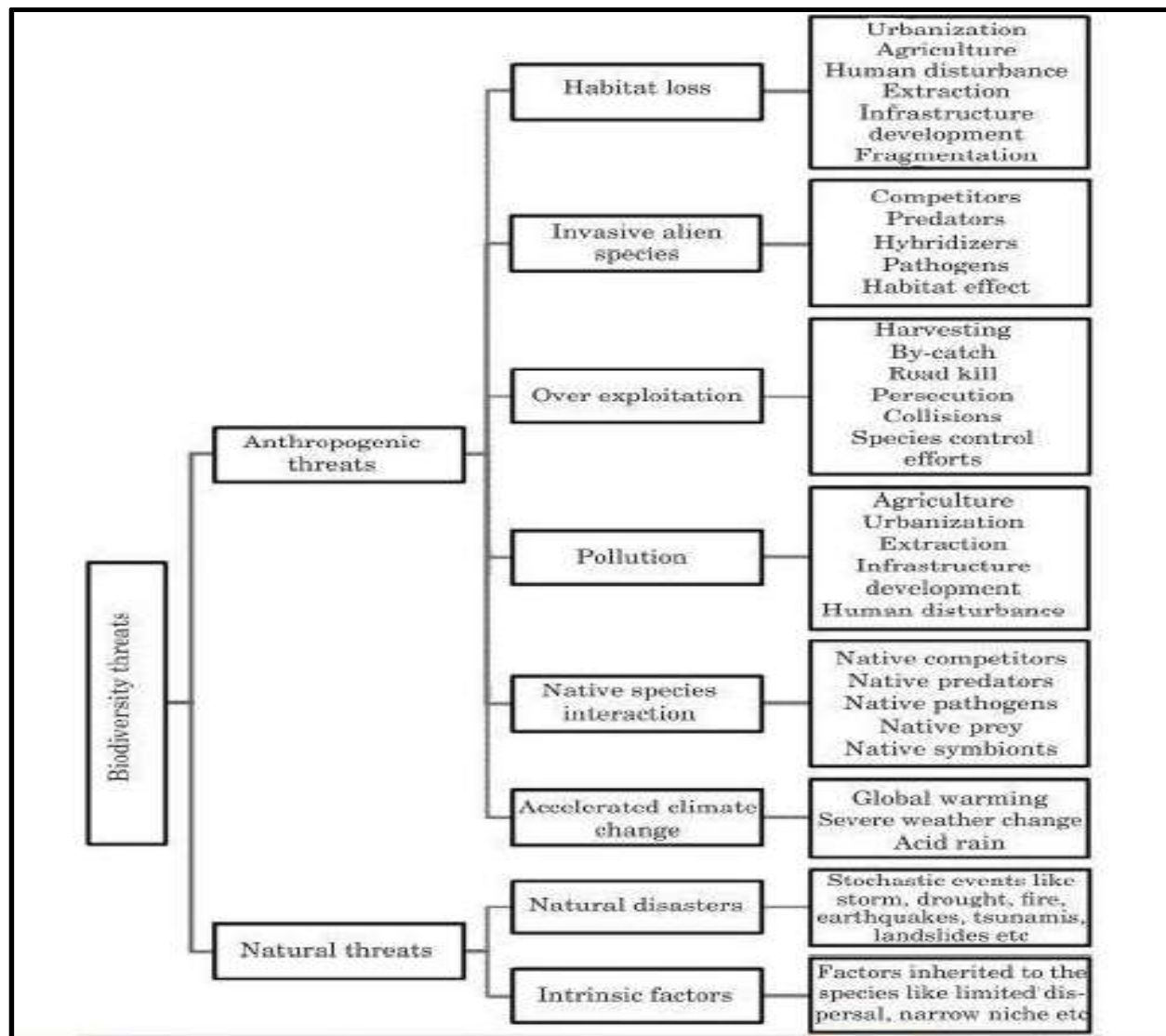
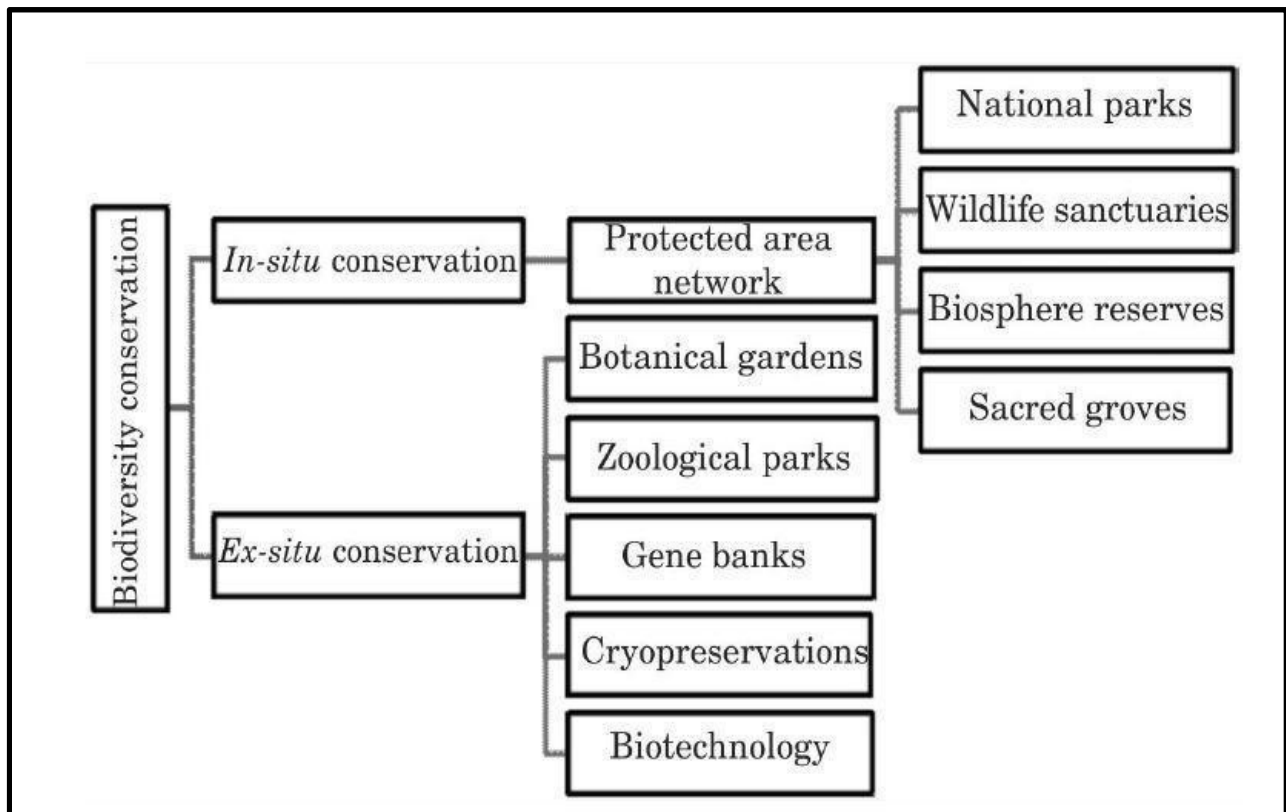


Figure 4. Biodiversity Threats

8. Conservation strategies for biodiversity

The conservation strategies can be broadly classified into two categories; namely, in-situ conservation and ex-situ conservation, which are equally important and both of the conservation practices are used in a complementary manner to conserve biodiversity and to make them available for potential utilization. The conservation strategies for



biodiversity can be classified into two categories *In- site* and *Ex-situ* Conservation.

Details given below.

8.1. Specific Conservation Measures to be taken in consultation with forest department

- a) **Plantation details and programs:** Plantation details and programs: (In consultation with forest department) Preferred roosting trees for the herbivorous species and Native or fruit bearing species plantation would be specially taken up in the green belt area of the project and nearby area.
- b) Small earthen
- c) material lined water tanks will be created in the Core-zone Green area as well as select areas in the Buffer Zone to ensure availability of clean drinking water to the Peacocks. The availability of clean water will ensure a permanent stay of peafowl in these areas because peafowl are effectively confined to undisturbed water sources during the dry months.
- d) **Awareness program:** Gardeners and farmers would be encouraged to use natural manure such as cow dung and vermicompost (compost prepared by earthworms which convert organic waste into manure) instead of chemical fertilizers and pesticides to maintain flower beds and plants that mostly kill insects and seasonal weeds which limit food supply. Insects are an important prey-item during the incubation period and for juvenile's growth. Awareness generation like in schools, setting up of interpretation zones, etc. for next five years. (includes farmers and local villagers)

9. Project Budget

The Proponent has proposed a sum of Rs 5.0 Lakh for conservation of species under the following heads with a time frame of 5 years. The total financial plan is presented below:

Table 9. Project Budget

S. N.	Activity & Provision	1 st year (in thousand s)	2 nd year (in thousand ds)	3 rd Year (in thousand ds)	4th Year (in thousand s)	5th Year (in thousand s)	Total Cost (in lakhs)
1	Improvement of water availability- Construction maximum number of water sources such as earthen tanks, and small ponds and maintain a number of water sources every year.	40,000	40,000	40,000	40,000	40,000	2
2	Food Availability and improvement of Habitat-Plantation of edible fruit bearing trees (In consultation with the Forest Department) for herbivorous animals which will lead to the improvement of habitat. Also provision of availability of food grains near the water bodies will be provided.	30,000	30,000	30,000	30,000	30,000	1.5
3	Awareness generation like in schools, setting up of interpretation zones, etc. for the next 05 years. (includes farmers and local villagers)	30,000	30,000	30,000	30,000	30,000	1.5
Total							5.0 Lakhs

Water sprinkling on haul roads



Fixed water sprinklers installed at mine roads



Water spray system installed at conveyor belt



Fixed water sprinklers installed at mine haul roads



TEST REPORT CODE: VGL/N/25/05/26/005-010

ULR NO. TC14455250000904F

TEST REPORT ISSUE DATE: 31.05.2025

TEST REPORT (WORK NOISE)

Name And Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-
 485005, M. P. INDIA
Duration Of Monitoring : 8 HOURS
Monitoring Done By : VGL STAFF
Sampling Method : IS 9876
Instrument Used : NOISE DOSIMETER

TEST RESULT

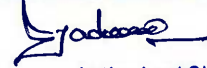
Test Parameters			Work Noise Level- Day Time	
Unit			dB(A)	
Standard as per OHSAS			90	
Test Method			IS: 9876	
Sl. N	Location	Monitoring Date	Time Weight Average dB(A)	
1	Near 1200 TPH CRUSHER LIMESTONE	23.05.2025	Inside	75.2
			Outside	80.4
2	MINE CRUSHER HOPPER	23.05.2025	Outside	81.2
3	NEAR MINE OFFICE	23.05.2025	Inside	54.6
			Outside	68.5
4	NEAR DUMPER GARAGE	24.05.2025		64.2
5	1200 TPH CRUSHER INSIDE CCR	24.05.2025		62.2
6	NEAR DRILLING AND OPERATOR CABIN	25.05.2025		61.3

Page 1 to 1

Note:-

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2. The sample will be destroyed after 15 days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15 Days.
4. The above results are related to the tested sample only.


VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)



 Authorised Signatory
 D. K. Yadav
 Lab In-charge

TEST REPORT CODE: VGL/N/25/09/04/051-054

ULR NO. TC144552500002023F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (AMBIENT NOISE)

Name And Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
 SATNA-485005, M. P. INDIA

Duration Of Monitoring : 24 HOURS

Monitoring Done By : VGL STAFF

Sampling Method : IS 9989

Sampling Machine Placed at Height : ABOVE 1.5 METER FROM GROUND LEVEL

TEST RESULT

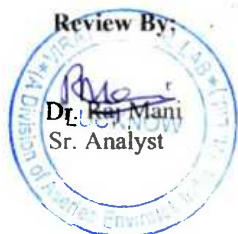
Test Parameters				Noise Level- Day Time			Noise Level- Night Time		
Unit				Leq dB(A)			Leq dB(A)		
Test Method				IS: 9989			IS: 9989		
Sl. No.	Location	Monitoring Date	Sample ID	Leq dB(A)	Max. dB(A)	Min. dB(A)	Leq dB(A)	Max. dB(A)	Min. dB(A)
Limit (as Per CPCB)- Industrial Area				75			70		
1	LABOUR COLONY (EAST)	29.08.2025	N-001	51.5	52.7	41.3	41.6	43.4	39.5
2	A- QUARRY PUMP HOUSE (WEST)	29.08.2025	N-002	50.8	56.3	49.1	44.3	49.3	43.4
3	ANFO MIXING SHELTER (NORTH)	30.08.2025	N-003	51.3	54.4	50.4	43.4	48.7	42.6
4	QUARRY DISPENSARY (SOUTH)	30.08.2025	N-004	55.6	59.3	51.6	45.9	50.6	41.3

Page 01 of 01

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M
 Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

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Authorized Signatory
 VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
 Lab In-charge Authorized Signatory

TEST REPORT CODE: VGL/N/25/09/04/055-060 ULR NO. TC144552500002043F TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WORK NOISE)

Name And Address of Customer : M/S. BIRLA CORPORATION LIMITED
 UNIT- SAGMANIA LIMESTONE MINES
 (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-
 485005, M. P. INDIA
Duration Of Monitoring : 8 HOURS
Monitoring Done By : VGL STAFF
Sampling Method : IS 9876
Instrument Used : NOISE DOSIMETER

TEST RESULT

Test Parameters			Work Noise Level- Day Time	
Unit			dB(A)	
Standard as per OHSAS			90	
Test Method			IS: 9876	
Sl. N	Location	Monitoring Date	Time Weight Average dB(A)	
1	Near 1200 TPH CRUSHER LIMESTONE	30.08.2025	Inside	73.5
			Outside	78.4
2	MINE CRUSHER HOPPER	30.08.2025	Outside	79.3
3	NEAR MINE OFFICE	30.08.2025	Inside	56.6
			Outside	64.6
4	NEAR DUMPER GARAGE	30.0.2025		62.4
5	1200 TPH CRUSHER INSIDE CCR	30.08.2025		61.6
6	NEAR DRILLING AND OPERATOR CABIN	30.08.2025		60.5

Page 1 of 1

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- Any discrepancy in test result should be reported within 15Days.
- The above results are related to the tested sample only.
- BDL.- Below Detection Limit.

Review By:


 Authorized Signatory
 VIRAT GLOBAL LAB
 (A Division of Aseries Envirotek India Pvt. Ltd.)

 D. K. Yadav
 Lab In-charge Authorized Signatory

TEST REPORT CODE: VGL/WW/25/09/04/005

ULR NO. TC144552400002024F

TEST REPORT ISSUE DATE: 15.09.2025

TEST REPORT (WASTE WATER)

Name and Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-
485005, M. P. INDIA

Location of Sample : **ETP WATER**

Sample Description : **EFFLUENT TREATED WATER (WASTE WATER)**

Date & Time of Sampling : 02.09.2025 & 04:20 PM

Sample Collected by : VGL STAFF

Weather Condition : CLEAR

Sample Id No. : 001

Laboratory Sample Receiving Date : 04.09.2025

Duration of Sample Analysis : 05.09.2025 TO 15.09.2025

Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

SL. NO.	TESTS	UNIT	PROTOCOL	RESULT	SPECIFICATION/LIMIT (AS PER CPCB)
1	pH at 25° C	--	APHA 4500-B	7.54	6.5-9.0
2	Suspended Solids	mg/L	APHA 2540-D	12.6	100
3	Total Dissolved Solid as TDS	mg/L	APHA 2540-C	612.0	2100
4	Oil & Grease as (O & G)	mg/L	APHA 5520-B	5.9	10
5	Biological Oxygen Demand as (BOD 3days 27°C)	mg/L	IS: 3025 (Part-44)	7.0	30
6	Chemical Oxygen Demand as (COD)	mg/L	APHA 5220-A+C	36.0	250
7	Chloride as Cl	mg/L	APHA 4500 Cl A+B	54.4	1000

Page 1 of 1

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VIRAT GLOBAL LAB
Authorized Signatory
(A Division of Aseries Envirotek India Pvt. Ltd.)


D. K. Yadav
Lab In-charge
Authorised Signatory

Participation Record

Programme Title : General Safety - Mines
 Date : 10/05/2025
 Venue : V.T. Centre

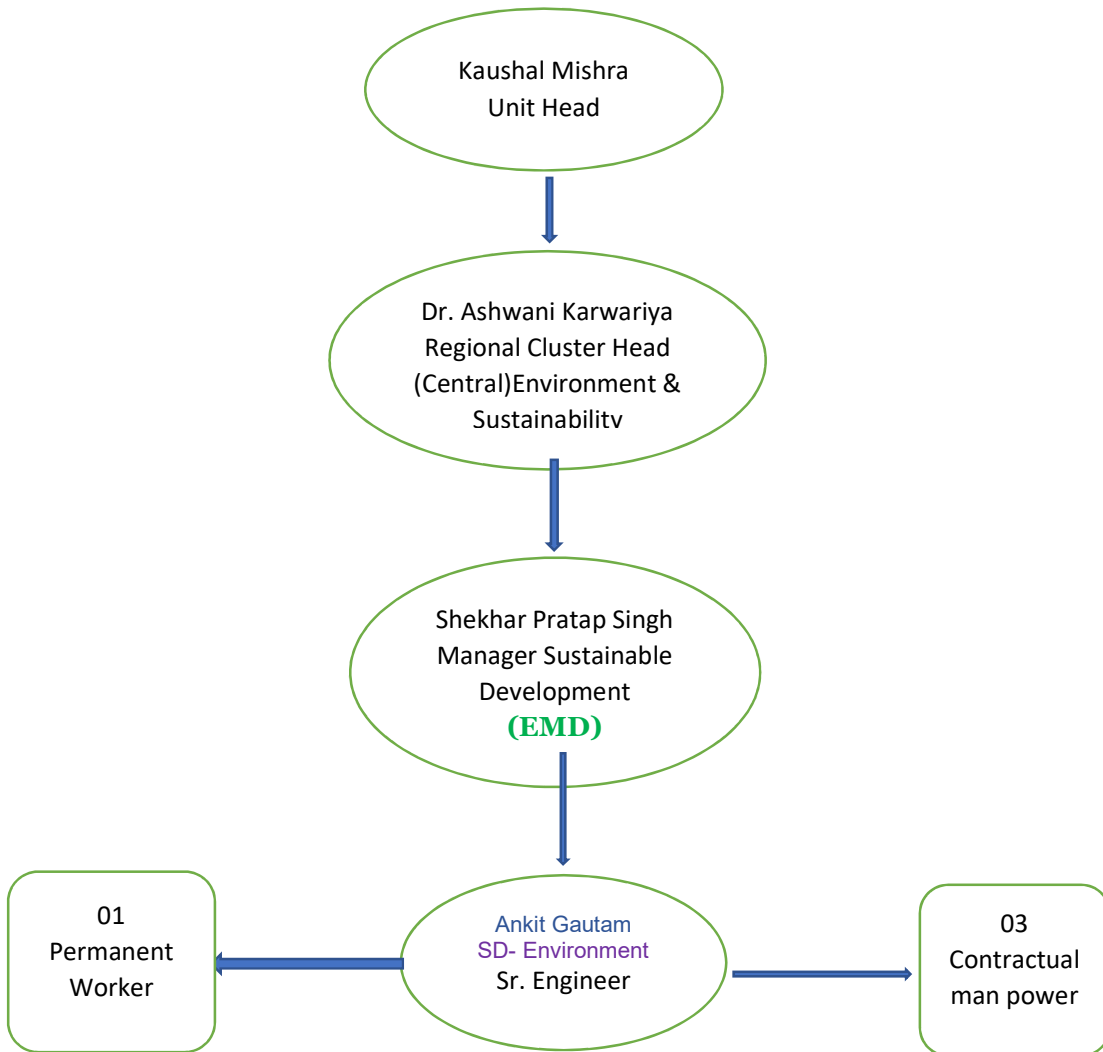
SN	Code	Name	Designation	Signature
1.	97428	Dhurooj Singh	watchman	
2.	97429	Dilip Singh	Dumper driver	
3.	97430	Ramesh Mr. Dubey	Campier driver	
4.	97434	Ramchandra Pan	shovel operator	
5.	97435	Janeesh P. Bankar	shovel operator	
6.	97436	Anand Kol	Dumper driver	
7.	97438	Sartash Sahu	Dumper driver	
8.	97440	Rajman Kol	Dumper driver	
9.	97442	Rajatam Kol	Dumper driver	
10.	101125	Sandeep	shovel operator	
11.	101119	Amit Mr. Bohijwa	Helpers	
12.	101118	Anek Singh	Dumper driver	
13.	101123	Shyam Jain	Supervisor	
14.	102478	Ranveer Mr. Verma	Supervisor	
15.	106296	Prakash Kol	Dumper driver	
16.	106297	Shima Kol	Dumper driver	
17.	106298	Deepak Rawat	Dumper driver	
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				

Fully equipped Environmental Lab





Environment Structure



Annexure-GC-12.

S. N.	Description (April 2025-sept 2025)	Amount (In Lacs)
1	Green Belt development Maintenance & Security	30.5795
2	Water Tanker (5KL)	0.822
3	Water Tanker (35KL)	15.07655
4	Water Tanker (10KL)	0.49856
5	Environment Monitoring Charges	3.44
Total Expenses		50.42

Date : 10.01.2008

To,
District Collector
Satna (M.P.)

Subject: Sagmania Limestone Mining Project of M/s Birla Corporation Limited located in Village Sagmania, Tehsil Raghuraj Nagar, District-Satna, Madhya Pradesh- Environmental Clearance req.

Dear Sir,

We thankfully acknowledge the receipt of letter No.J-11015/271/2006-IA.II(M) dated 27 December,2007 from Government of India, Ministry of Environment and Forest, New Delhi regarding Environmental Clearance of our Sagmania Limestone Mining Project of M/s Birla Corporation Limited located in Village-Sagmania, Tehsil-Raghuraj Nagar, District-Satna, Madhya Pradesh. Subsequently what action we are required to take, a copy of the same is enclosed for your kind reference.

As per the General Condition No. (XVII) laid down in the above referred letter, we request you to please display the copy of the said Environmental clearance letter in the notice board of your Office for 30 days.

Thanking you,

Yours faithfully,
for BIRLA CORPORATION LIMITED
(CEMENT DIVISION) SATNA


(D.ROY)

GENERAL MANAGER(MINES)

Encl.As above.

Date : 10.01.2008

To,
District Industry Center
Satna (M.P.)

Subject: Sagmania Limestone Mining Project of M/s Birla Corporation Limited located in Village Sagmania, Tehsil Raghuraj Nagar, District-Satna, Madhya Pradesh-Environmental Clearance reg.

Dear Sir,

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As per the General Condition No. (XVII) laid down in the above referred letter, we request you to please display the copy of the said Environmental clearance letter in the notice board of your Office for 30 days.

Thanking you,

Yours faithfully,
for BIRLA CORPORATION LIMITED
(CEMENT DIVISION) SATNA


(D.ROY)

GENERAL MANAGER(MINES)

Encl.As above.

8.6 FINANCIAL ASSURANCE:

The Financial assurance has been submitted in form of Bank Guarantee of Rs 137409000 only for the area 458.03 Hect. For period up to 31.03.2021.

This is a 'A' category mine and hence the amount has been calculated as under.

467.21 Ha x Rs. 3 Lacs per Ha = Rs. 140163000/- = say Rs. 14.0163 Million

Table indicating the break-up of areas in the Mining Lease for calculation of Financial Assurance

Sl. No.	Head	Area put on use at start of Scheme of Mining (ha)	Additional requirement during Plan period (ha)	Total Area (ha)	Area considered as fully reclaimed & rehabilitated (ha)	Net area considered for calculation (ha)
(a)	(b)	(c)	(d)	(c+d)=e	(f)	(e-f)=g
1	Area under mining	372.35	49.27	421.62	-	421.62
2	Storage for top soil	8.0	1.76	9.76	-	9.76
3	Waste dump site	17.5	8.80	26.30	-	26.30
4	Mineral storage	0.5	0	0.5	-	0.5
5	Infrastructure Workshop administrative building etc.	2.0	-	2.0	-	2.0
6	Roads	2.03	-	2.03	-	2.03
7	Railways	-	-	-	-	-
8	Tailing pond	-	-	-	-	-
9	Effluent Treatment Plant	-	-	-	-	-
10	Mineral Separation Plant	-	-	-	-	-
11	Township area	5.0	-	5.0	-	5.0
12	Others (specify) Protective Bund	-	-	-	-	-
	Grand Total	407.38	59.83	467.21	-	467.21



अनुमोदित / APPROVED

REGIONAL CONTROLLER OF MINES
भारतीय खान ब्यूरो
INDIAN BUREAU OF MINES
जबलपुर / JABALPUR

Dmy

Rajan

सं. 11/2007/2007-2008

आम सूचना

सर्व साधारण को सूचित किया जाता है कि बिरला कार्पोरेशन लिमिटेड की ग्राम सगमनिया, तहसील रघुराजनगर, जिला सतना (म.प्र.) स्थित सगमनिया लाईम स्टोन माइन्स को पर्यावरण एवं वन मंत्रालय, भारत सरकार, नई दिल्ली द्वारा अपने पत्र क्रमांक J-11015/271 / 2006 / IA. II (M) दिनांक 27 दिसम्बर 2007 द्वारा लाईम स्टोन के उत्खनन की क्षमता 3.3 MTPA से 4.9 MTPA करने की स्वीकृति प्रदान की गई है। सगमनिया लाईम स्टोन माइन्स का माईनिंग लीज एरिया 939.78 हेक्टेयर है। उपरोक्त पत्र की प्रति मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड (सतना), जिला उद्योग केन्द्र (सतना), कलेक्ट्रेक्ट आफिस (सतना) एवं पर्यावरण एवं वन मंत्रालय की वेबसाईट <http://envfor.inc.in> पर उपलब्ध है।

108

आम सूचना

सर्व साधारण को सूचित किया जाता है कि बिरला कार्पोरेशन लिमिटेड की ग्राम सगमनिया, तहसील रघुराजनगर, जिला सतना (म.प्र.) स्थित सगमनिया लाईम स्टोन माइन्स को पर्यावरण एवं वन मंत्रालय, भारत सरकार, नई दिल्ली द्वारा अपने पत्र क्रमांक J-11015/271/2006/IA. II (M) दिनांक 27 दिसंबर 2007 द्वारा लाईम स्टोन के उत्खनन की क्षमता 3.3 MTPA से 4.9 MTPA करने की स्वीकृति प्रदान की गई है. सगमनिया लाईम स्टोन माइन्स का माईनिंग लीज एरिया 939.78 हेक्टेयर है.

उपरोक्त पत्र की प्रति मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड (सतना), जिला उद्योग केन्द्र (सतना), कलेक्ट्रेट ऑफिस (सतना) एवं पर्यावरण एवं वन मंत्रालय की वेबसाइट <http://envfor.inc.in> पर उपलब्ध है.