7419712610
8814027600

Riddhi Siddhi - KSM Resources JV

Khatoni No. 1049, Behind Hotel Mejban, Loharu Road
Charkhi Dadri (Haryana)

Ref. No..... Date.....

To

Date: 19.09.2020

The Advisor, Ministry of Environment & Forests,
Northern Regional Office,
Sector-31, DakshinMarg,
Chandigarh-160030

Sub:Submission of Six Monthly Compliance Report of Stipulated Conditions of Environmental Clearance for Mining of Stone along with associated minor minerals at Kalali and Kalyana,Tehsil- CharkhiDadri, District- Bhiwani, Haryana Having area of 64.40 ha. For submission period of December 2020.

Ref. No.SEIAA/HR/2020/122 dated 17.02.2020

Sir,

In accordance to the EC letter as above stated received from from State Environment Impact Assessment Authority (SEIAA) vide letterSEIAA/HR/2020/122 dated 17.02.2020.We are submitting herewith, six monthly compliance report of stipulated conditions of Environment Clearance (Soft only) along with laboratory analysis results the specific and general conditions and relevant annexure.

We fully assure you that we will comply with all conditions as specified in the Environment clearance granted to us.

For M/s RidhiSidhi KSM Resources

Authorised Signatory.

Name :- Vikas Sharma
Designation:- Director
Email :- accounting@rsksmjv.com
Contact No:- 08814027600

17/12/2020

Copy to:

1. State Environment Impact Assessment Authority (SEIAA), Bay No. 55-58, ParyatanBhavan, Sector-2, Panchkula, Haryana.
2. The Member Secretary, Haryana State Pollution Control Board(HSPCB), Sector-6, Panchkula
3. Ministry of Environment, Forests & Climate Change (IA Division), Indira Paryavaranbhawan, JorBagh Road, New Delhi.

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8814027600

Riddhi Siddhi - KSM Resources JV

Khatoni No. 1049, Behind Hotel Mejban, Loharu Road
Charkhi Dadri (Haryana)

Ref. No..... Date.....

08/12/2020

To

The Advisor, Ministry of Environment & Forests,
Northern Regional Office,
Sector-31, DakshinMarg,
Chandigarh-160030

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Ref. No.SEIAA/HR/2020/122 dated 17.02.2020

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For M/s RidhiSidhi KSM Resources

Authorised Signatory

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3. Ministry of Environment, Forests & Climate Change (IA Division), Indira ParyavaranBhawan, Jorbagh Road, New Delhi

State Environment Impact Assessment Authority Panchkula, Haryana
Receipt No. [illegible]
Date 14/12/20

7419712610
8814027600

Riddhi Siddhi - KSM Resources JV

Khatoni No. 1049, Behind Hotel Mejban, Loharu Road
Charkhi Dadri (Haryana)

Ref. No..... Date.....

To

Date: ~~19.09.2020~~ 08/12/2020

The Advisor, Ministry of Environment & Forests,
Northern Regional Office,
Sector-31, DakshinMarg,
Chandigarh-160030

Sub:Submission of Six Monthly Compliance Report of Stipulated Conditions of Environmental Clearance for Mining of Stone along with associated minor minerals at Kalali and Kalyana,Tehsil- CharkhiDadri, District- Bhiwani, Haryana Having area of 64.40 ha. For submission period of December 2020.

Ref. No.SEIAA/HR/2020/122 dated 17.02.2020

Sir,

In accordance to the EC letter as above stated received from from State Environment Impact Assessment Authority (SEIAA) vide letter**SEIAA/HR/2020/122 dated 17.02.2020.**We are submitting herewith six monthly compliance report of stipulated conditions of Environment Clearance (Soil only) along with laboratory analysis results the specific and general conditions and relevant annexure.

We fully assure you that we will comply with all conditions as specified in the Environment clearance granted to us.

For M/s RiddhiSidhi KSM Resources

Authorised Signatory.

Name - Vikas Sharma
Designation- Director
E-mail - [illegible]
Contact No - 08814027600

Copy to:

1. State Environment Impact Assessment Authority (SEIAA), Regional Office, Parivesh Bhawan, Sector-2, Panchkula, Haryana
2. The Member Secretary, Haryana State Pollution Control Board(HSPCB), Sector-6, Panchkula
3. Ministry of Environment, Forests & Climate Change (IA Division), Indira Paryavaran Bhawan, Aali Ganj Road, New Delhi.

Haryana State Pollution Control Board
C.H. Sector-6, Panchkula

14/12/20

<Dial 18002666868> <Wear Masks, Stay Safe>

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PIN:110003, Lodi Road HO
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<Dial 18002666868> <Wear Masks, Stay Safe>

7419712610
8814027600

KSM Resources JV

Behind Hotel Mejban, Loharu Road
Charkhi Dadri (Haryana)

Ref. No.....

Date.....

To

Date: 08/12/2020 ~~19.09.2020~~

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Northern Regional Office,
Sector-31, DakshinMarg,
Chandigarh-160030

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We fully assure you that we will comply with all conditions as specified in the Environment clearance granted to us.

RIDDHI SIDDHI KSM RESOURCES

For M/s RidhiSidhi KSM Resources

Authorised Signatory

Name - Vikas Sharma
Designation- Director
E-mail - accounts@ridhisidhi.com
Contact No.- 8814027600

Copy to:

1. State Environment Impact Assessment Authority (SEIAA) Regional Office, SS-SR, ParyavaranBhawan, Sector-2, Panchkula, Haryana.
2. The Member Secretary, Haryana State Pollution Control Board(HSPCB), Sector-6, Panchkula.
3. Ministry of Environment, Forests & Climate Change (IA Division), Indira ParyavaranBhawan, JorBagh Road, New Delhi.

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Riddhi Siddhi - KSM Resources JV

Khatoni No. 1049, Behind Hotel Mejban, Loharu Road
Charkhi Dadri (Haryana)

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2. The Member Secretary, Haryana State Pollution Control Board(HSPCB), Sector-6, Panchkula
3. Ministry of Environment, Forests & Climate Change (IA Division), Indira ParyavaranBhavan, JorBagh Road, New Delhi.

SIX MONTHLY ENVIRONMENTAL COMPLIANCE MONITORING REPORT OF STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE
(Period-April 2020 to September 2020)

FOR

"Stone Mine" (Associated Minor Mineral), Village- Kalali & Kalyana, Tehsil- Charkhi Dadri, District- Bhiwani, Haryana.

SUBMITTED BY:

M/s Ridhi Sidhi KSM Resources

Khatoni Number 1049, Behind Hotel Mejban,

Loharu Road, Charkhi Dadri, Haryana.

INDEX

1 INTRODUCTION

1.1 Introduction

M/s Ridhi Sidhi KSM Resources has obtained the Environmental Clearance Letter State Environment Impact Assessment Authority, Haryana for the Mining of Stone along with Associated Minor Minerals of production capacity- 5.8 MTPA, Village- Kalali & Kalyana, Tehsil- Charkhi Dadri, District- Bhiwani (Haryana). Vide Ref. No. **SEIAA/HR/2020/122 on dated: 12-02-2020.**

Total area of the mining site is 64.40 hectares. An approval for the mining scheme and progressive mine closure plan was obtained from the Department of Mines & Geology, Haryana vide Letter no. **DMG/HY /MP /Kalali & Kalyana/3341 to 44** on dated **02.07.2018**.

1.2 Purpose of the Report

As per the "Sub Para (i)" of "Para 10" of EIA Notification 2006, it is stated that "It shall be mandatory for the project management to submit six monthly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year" and as per compliance of condition mentioned in Environment Clearance Letter (i.e. Part B General Condition, point number- 38), Six monthly compliance reports should be submitted to the Regulatory Authority of Central and State Government.
It is mandatory to submit a Six Monthly Compliance Report to show the status & compliance of all the Conditions mentioned in Environment clearance Letter, along with monitoring of various Environmental Parameters (as per CPCB Norms).
The regulatory authorities in this case are MoEF& CC, Delhi, MoEF& CC, Chandigarh and HSPCB, Panchkula. Various scheduled Site Visits were conducted by a team of Experts to Monitor Pollution related parameters as defined by CPCB / HSPCB. Samples for water and soil were also collected for further analysis.

Based on the Specific and General Conditions mentioned in the EC Letter, a Compliance Report was prepared on behalf of Project Proponent; details of which are present in Chapter – 2 entitled "**Adherence of specific and general conditions**".

This report is supposed to submit after every six month as per the conditions stipulated in Environment Clearance Letter. The Environmental assessment has been carried out to verify:

1) That the proposed project has not any adverse effect on the project site as well as its surrounding.
2) That there is compliance with the conditions stipulated in the Environmental Clearance Letter.
3) That the Project proponent is implementing the environmental safeguards and environmental pollution mitigative measures as suggested in approved Mining Plan and Form-1, Environmental Management Plan with true spirit.
4) The non-conformity in the project with respect to the environmental implication.

1.3Methodology for Preparation of Report is as follows:

1) Study of EC Letter & Related Documents,
2) Site Visits by a Team of Experts,
3) Monitoring of Environment Parameters, viz. Ambient Air, Water, Noise, Soil & DG stack emissions,
4) Analysis of Samples collected during Monitoring,
5) Interpretation of Monitoring Results,
6) Preparation of six monthly Environmental Compliance Report.

1.4 Generic Structure of Report:

1. Purpose of the Report, explaining the need of a Compliance Report and Methodology Adopted for preparation of Report.
2. Compliance Report, explaining the entire specific & general conditions given in the EC Letter and providing details w.r.t. each condition/ guideline.
3. Monitoring Reports & Analysis, showing the level of pollution/emission within the project site for various Environment Parameters.
4. Photographs showing status of the project and sampling/monitoring of environmental parameters.
5. Supporting Documents related mandatory for the project.

2 ADHERENCE OF SPECIFIC AND GENERAL CONDITIONS

Part A: Specific Conditions

A	Specific conditions:-	
1.	The PP shall construct the three pucca link roads connected to the SH-17 at the mining site before the start of mining.	Road infrastructure of the link roads for smooth movement of traffic is being developed by the project proponent.
2.	The PP shall constructed the Haul roads of the 10 meter wide as proposed in EIA.	Haul roads of adequate size are being developed by the project proponent.
3.	Traffic management plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of the service roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.	Traffic movement plan has been presented in the EIA report; the same will be complied after implementation of the project.
4.	No tree cutting has been proposed in the project 2500 Plants per hectare should be planted and maintained. The Existing tree will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed the plantation in 30.40 hectare area will be carried out including statutory boundary barrier.	Green area development will be carried out to prevent pollution. Native species will be planted.
5.	The Project Proponent shall obtain all necessary clearance/permission from all relevant agencies before commencement of work.	Necessary permissions from competent authorities will be obtained as and when required.
6.	Consent to establish/operate for the project shall be obtained from the state pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of pollution) Act, 1974.	CTE & CTO have been obtained from HSPCB. Copies collectively enclosed as **Annexure 1.**
7.	The PP shall deposit the half of CER fund in the C.M. Fund and rest shall be used as per the schedule and also to develop 2 ponds in the village Kuleri near Agroha with technical support from the Haryana Pond and Waste Water Authority.	Half of the CER amount will be deposited in CM fund and the other half used for pond development.
8.	The PP shall take precautions to suppress the dust in and around the mining site. The PP shall use mixed cannon water sprinkle for dust suppression instead of conventional sprinkles for efficient dust suppression.	Adequate dust suppression measures are being implanted in and around the mine site.

9.	The PP shall manage the overburden at the mining site.	OB will be managed as per approved mining plan.
10.	The PP shall create environment division unit in the project for implementing the conditions of Environment clearance.	Environment division unit will be create to implementing the EC conditions.
11.	The PP shall obtain the permission regarding withdrawal of ground water from CGWA before the start of the project and also obtained the CTO from HSPCB after the approval from CGWA	CGWA application is enclosed as **Annexure-2.** CTO has been obtained from HSPCB. Copy for the same is enclosed as **Annexure-1.**
12.	Any change in stipulations of EC of the approved mining plan will lead to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance.	Noted and Agreed.
13.	The PP shall adhere to the approved mining plan and approved closure plan by the competent authority.	Noted and Agreed.
14.	Action plan for the public hearing issues shall be compiled in the letter and spirit.	Public hearing issues will be addressed
15.	The proponent will provide adequate sanitary facility in the form of mobile toilets to the labours engaged for the project work.	Adequate sanitary facilities have been provided for labours.
16.	Project proponentshall comply all the measures, conditions suggested in the approved mining plan with post closure mine plan, Environmental Management Plan (EMP) in a letter and spirit.	Noted for compliance
17.	PP shall make channels to divert rain water run-off from surrounding catchment area to enroute water in the excavated pit to ensure water collection for sustained ground water recharge.	Rain water harvesting for ground water recharge will be carried out.
18.	The PP shall restrict maximum mining depth 4meters above the Ground Water Table i.e. up to 214mrl.	Noted
19.	The PP shall divert the first order stream in post mining to save the natural drainage system.	Adequate measures to save natural drainage system will be implemented.

B:	**Statutory compliance:-**	
1.	This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable	Noted and Agreed.
2.	The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Others before commencing the mining operations.	We are compiling with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Others.

3.	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.	There is no illegal mining operation as this is a green field project.
4.	This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.	Not applicable.
5.	This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.	Not applicable as no forest land is involved in the project area.
6.	Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish/Consent to Operate from the concerned State Pollution Control Board/Committee.	CTE & CTO have been obtained from HSPCB. Copies collectively enclosed as **Annexure 1.**
7.	The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS), Mines & Geology Department, Haryana and Indian Bureau of Mines from time to time. Also adhere to Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules. 2012.	Project Proponent has complied with the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. It has adhere to various circulars issued by Directorate General Mines Safety (DGMS), Mines & Geology Department, Haryana and Indian Bureau of Mines from time to time. Also adhere to Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules. 2012.
8.	The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.	Noted & Agreed.
9.	The Project Proponent shall follow the mitigation measures provided in MoEF & CC Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 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 and villages are surrounded by the mine lease area".	There is no habitation within 500 meter and due mitigations measures will be implemented as per the Om No. Z-11013/ 57/2014-IA.II (M), dated 29th October, 2014.
10.	The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.	CGWA application is enclosed as **Annexure-2.**

11.	A copy of EC letter will be marked to concerned Panchayat/ local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.	Noted & Agreed.
12.	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.	Noted.
13.	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF & CC Regional Office for compliance and record.	Public notice regarding grant of EC has been published in local newspapers, copy attached as **Annexure 3.**
14.	The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease of is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.	Noted.

I.	**Air Quality monitoring and preservation**	
i.	The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatologically data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM25, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and Use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.	Ambient air quality monitoring is being carried out by NABL & MOEF approved lab. Reports attached as **Annexure 4.** AAQ sampling machines for monitoring of air pollutants has been installed in due course of time as dust is the only source of air pollution.

ii.	Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM25 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipment/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF & CC/Central Pollution Control Board.	Adequate dust suppression measures are being implanted to ensure that air pollution level conform to the standards prescribed by the MoEF & CC/Central Pollution Control Board.

II.	**Water quality monitoring and preservation**	
i.	In case, immediate mining scheme envisages intersection of the ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF & CC is in place before such mining operations, The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.	Ground water table will not be intersected during the plan period and no dewatering will be required. If ground water will be intersected, prior permission will be obtained from competent authority i.e. CGWA.
ii.	Regular monitoring of the flow rate of the springs and perennial Nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be Incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.	Ground water quality as well as ground water level is being monitored in and around mine area. Reports of water quality attached as **Annexure 4.**
iii.	Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezometer installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.	Ground water quality as well as ground water level is being monitored in and around mine area. Reports of the same are attached as **Annexure 4.** Ground water Level monitoring data in and around the mine area for **Pre monsoon (May)** and **Monsoon (August**) are given **in Table 3.11 of the chapter-3.**

.iv	The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.	Surface water quality is being monitored in and around mine area. Reports of the same are attached as **Annexure 4.**
v.	Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No.J-20012/1/2006- IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.	Not applicable since very insignificant quantity of water is required for mining operations. As such there is no acid mine drainage and metal contamination since our mining operation is for stone along with associated minor minerals.
vi.	Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consulting with Central Groundwater Department. A report on amount of water reached needs to be submitted to Regional Office MoEF &CC annually.	Garland drainage has been made all round the pit as well as around the mining lease area to prevent the entry of surface/ rain water inside the pits.
vii.	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to confirm to the notified standards prescribed from time to time. The standard shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.	There is no significant quantity of industrial waste water generation during mining operation. Water will be used mainly for dust suppression.
viii.	The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/committee.	Water audit will get conducted in due course of time.

III.	**Noise and vibration monitoring and prevention**	
i.	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer will be monitored periodically as per applicable DGMS guidelines.
ii.	The illumination and sound at night at project site disturb the villages in respect of both human and animal population. Consequent sleeping disorder and stress may affect the health in the village located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/mask away from the villagers and keeping the noise level well within the prescribed limits for day/night hours.	The mining will be carried out from 6:00 AM to 6:00 PM only so the biological clock of the villagers will not be disturbed at night. During operation time we will controlled the noise level as per the guidelines. Therefore, we ensured that the noise level well within the prescribed limits for day/night hours.
iii.	The Project Proponent shall take measures for control of noise level below 85 dB(A) in the work environment. The worker engaged in operations of HEMM, etc. should be provided with earplugs / muffs. All personnel including labourers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that worker/ personals/ labourers are working without personal protective equipment.	The Project Proponent has taken measures for control of noise level below 85 dB(A) in the work environment. The worker engaged in operations of HEMM, etc. has been provided with earplugs / muffs. All personnel including labourers working in dusty areas have been provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects.

IV.	**Mining Plan**	
	The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, Which entail adverse environmental impact, even if it is a part of approved mining plan modified after grant of EC granted by State Govt. in the form to short Term Permit (STP), Query license or any other name.	Noted for compliance. Mining will be carried out as per approved mining plan submitted at the time of EC appraisal.

ii.	The project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved form Indian Bureau of Mines/Department of Mining 7 Geology as required under the Provision of the MMDR Act, 1957 and Rules/Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approved of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and climate Change and SEIAA for record and verification.	Approved mining plan along with mine closer plan has already been submitted to SEIAA during EIA appraisal.
iii.	The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation become self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.	Mine reclamation will be carried out as per approved mining plan and progressive mine closure plan.

V.	**Land Reclamation**	
i.	The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only. The physical parameters of the OB dump like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintained the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.	OB Dump site will be earmarked within the mining lease area as per approved mining plan. The topsoil shall be used for land reclamation and plantation.
ii.	The reject/waste generated during the mining operation shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhere to maintain the stability of waste dumps.	The reject/waste generated during the mining operation will be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope is governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations will be strictly adhere to maintain the stability of waste dumps.
iii.	The reclamation of waste dump sites shall be done in scientific manners as per the Approved Mining Plan cum progressive Mine Closure Plan.	The reclamation of waste dump site will be done in scientific manners as per the Approved Mining Plan cum progressive Mine Clouse Plan.

iv.	The slope of dump shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climate parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidates with the help of dozer/ compactors thereby ensuring proper filling/ levelling of dump mass. In critical areas, use of geo textiles/geo-membranes/clay linear/Bentonite etc. shall be undertaken for stabilization of the dump.	Noted.
v.	The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional officer of MoEF&CC/SEIAA.	The Project Proponent will carry out slope stability study in case the dump height is more than 30 meters.
vi.	Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, minerals yards and Top Soil/OB/Waste dumps to prevent run off of water of sediments directly into the water bodies (Nallah/ River/ Pond etc.). the collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. the drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.	Catch drains, settling tanks and siltation ponds of appropriate size will be constructed around the mine working, minerals yards and Top Soil/OB/Waste dumps to prevent run off of water of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water will be utilized for watering the mine area, roads, green belt development, plantation etc. the drains/ sedimentation sumps etc. will be de-silted regularly, particularly after monsoon season, and maintained properly.
vii.	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sedimentation flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structure over and above peak rainfall (based on 50 years data) and maximum discharged in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/silt material. The sedimentation pits/ sumps shall be constructed at the corner of the garland drains.	Check dams of appropriate size, gradient and length will be constructed around mine pit and OB dumps to prevent storm run-off and sedimentation flow into adjoining water bodies. A safety margin of 50% will be kept for designing of sump structure over and above peak rainfall and maximum discharged in the mine and its adjoining area which will also help in providing adequate retention time period thereby allowing proper settling of sediments/silt material. The sedimentation pits/ sumps will be constructed at the corner of the garland drains.

viii.	The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhere to maintained the stability of dumps. The topsoil shall be used land reclamation and plantation purpose.	The top soil, if any, will temporarily be stored at earmarked site(s) within the mine lease only and will not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope is talked as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations will be strictly adhere to maintained the stability of dumps. The topsoil will be used land reclamation and plantation purpose.

VI.	**Transportation**	
i.	No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after requires strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution under Control (PUC) certified for all the vehicles from authorized pollution testing centres.	Road infrastructure for smooth movement of traffic is being developed by the project proponent. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling is being carrying out regularly. Vehicular emissions will be kept under control and regularly monitored.
ii.	The main haulage road within the mine lease should be provided with a permanent water sprinkler arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipment like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other ares prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.	Adequate measures for control of dust through various dust suppression techniques will be implemented during mine operation.

VII.	**Green Belt**	
i.	The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.	Project Proponent has started developing greenbelt in 7.5m wide safety zone all along the mine lease boundary.
ii.	The Project Proponent shall carryout plantation/afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also adhered. The density of the tree should be around 2500 sapling per Hectare. Adequate budgetary provision shall be made for protection and care of trees.	Green belt development has been started as per the approved mining plan and EIA report in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/Gram Panchayat.
iii.	The Project Proponent shall make necessary alternative arrangement for livestock feed developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implemented the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/protected against felling and plantation of such trees should be promoted.	The proposed mine lease area is in Kalali village, which bears negligible density and species in the area, which are coming within the mine lease. However PP will make necessary alternative arrangement for livestock feed developing grazing land with a view to compensate those areas which are coming within the mine lease.
iv.	The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt. and implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.	The Project Proponent has prepared and submitted the conservation plan in considering of precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. The Plan is approved by Chief Wild Life Warden of the State Govt. and implemented in consultation with the State Forest and Wildlife Department. **Copy of same is attached as Annexure – 5.**

VIII.	Public Hearing and Human Health Issues	
i.	The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the worker engaged in the mining activities, as per the DGMS guidelines. The record shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. the check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same way may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.	Occupational Health Specialist will be appointed for periodical medical examination of the workers engaged in the project and will maintain records accordingly and necessary remedial /preventive measures will be taken accordingly in due course of time.
ii.	The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risk to health and determine appropriate control measures to protect the health and well being of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighbourhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, and Diarrhoea in children under five, respiratory infection due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.	We are demonstrating commitment to work towards 'Zero Harm' from our mining activities and doing Health Risk Assessment (HRA) for identification workplace hazards and assess the potential risk to health and determining the appropriate control measures to protect the health and wellbeing of workers and nearby community. We maintain accurate and systematic records of the HRA. The HRA for neighbourhood was postpone due to Covid-19 lockdown in which we have to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, and Diarrhoea in children under five, respiratory infection due to bio mass cooking. We will create awareness and educate the nearby community and workers for sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. We will carryout base line HRA for all the category of workers and thereafter every five years.

ii.	The Proponent shall carryout Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigation relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric: for lead exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) estimation in Blood; for Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine test all test would be carried out in a Lab accredited by NABH. Record of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would ne obligatory for the State Mines Department to make arrangements for the safe and secure storage of the records including X-Rays. Only conventional X-Ray must meet ILO criteria (17 x 14 inches and of god quality).	We will carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigation relevant to the exposure by a responsible person. Except routine test all test will be carried out in a Lab accredited by NABL.
iv.	The Proponent shall maintained a record of performance indicators for workers which includes: (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 – 24.9, (b) the final Chest X-Ray compared with the base line X-Ray should not show any capacities, (c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and effect of age, (d) Their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) They should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) They should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.	Records will be maintained as per EC conditions.

v.	The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should be provided with adequate training and information on safety and health aspects.	We are periodically providing protective respiratory devices and adequate training and information to the personnel working in dusty areas on safety and health aspects.
vi.	Project Proponent shall make provision for the housing for workers/labours or shall construct labour campus within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structure, which can be removed after the completion of the project related infrastructure. The domestic wastewater should be treated with STP in order to avoid contamination of underground water.	We are making provision for the housing for workers/labours or construct labour campus locally. However most of the labour comes from nearby villages and does not require housing.
vii.	The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.	The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing will be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame.

IX.	**Corporate Environment Responsibility (CER)**	
i.	The activity and budget earmarked for Corporate Environment Responsibility (CER) as per Ministry O.M No 22-65/2017-I1. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photo graphs, purchase document latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.	The activities proposed for CER will be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photo graphs, purchase document latitude & longitude of infrastructure developed & road constructed will be submitted to Regional Office MoEF&CC annually.
ii.	Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purpose. Year wise expenditure of such funds should be reported to the MoEF&CC and its Concerned Regional Office.	Project Proponent will take care of the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purpose. Year wise expenditure of such funds will be reported to the MoEF&CC and its Concerned Regional Office.
X.	**Miscellaneous**	
1.	The mining lease holders shall, after ceasing mining operation, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.	Re-grassing and mine reclamation will be carried out at as per approved mining plan.

2.	The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.	Project Proponent will prepare digital map (land use & land cover) of the entire lease area purpose of monitoring land use pattern and will submit a report to concerned Regional Office of the MoEF&CC in the end of the 5th year.
3.	The Project Authorities should inform to the Regional Office regarding date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Noted
4.	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environment safeguard to the MoEF&CC & its concerned Regional Office, Central Pollution Board and State Pollution Control Board.	We will submit six monthly compliance reports on the status of the implementation of the stipulated environment safeguard to the MoEF&CC & its concerned Regional Office, Central Pollution Board and State Pollution Control Board.
5.	A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environment Scientists and Mining Engineering shall be appointed and submit a report to RO, MoEF & CC.	A separate 'Environmental Management Cell' with suitable qualified manpower is being setting-up under the control of our senior Executives and directly report to Head of the Organization. Adequate number of qualified Environment Scientists and Mining Engineering has been appointed.
6.	The concerned Regional Office of the MoEF & CC including other authorized organization shall randomly monitor compliance of the stipulated conditions. The project authorities should extent full cooperation to the MoEFF & CC officer(s) including other authorized officer by furnishing the requisite data/information.	We ensure our full cooperation to the MoEFF & CC officer(s) including other authorized officer by furnishing the requisite data/information.
7.	The SEIAA, Haryana reserve the right to add new conditions, modify/annual any of the stipulated conditions and/or revoke the clearance if implementation of any of the condition stipulated by SEIAA, Haryana or any other competent authorities is not satisfactory.	We are abide with the SEIAA, Haryana rights to add new conditions, modify/annual any of the stipulated conditions and/or revoke the clearance if implementation of any of the condition stipulated by SEIAA, Haryana or any other competent authorities is not satisfactory.
8.	Failure to comply with any of the conditions mentioned above may result in withdrawal of the clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.
9.	All the other statutory clearance such as the approvals for storage of diesel from the Chief Controller of Explosives, Fire department, Civil Aviation Department, Forest Conservation Act, 1980 and wildlife (protection) Act, 1972 etc. shall be obtained, as may be applicable, by Project Proponent from the competent authority before the start of mining operation.	All the other statutory clearance have been taken or will be taken as and when required.

10.	That the grant of this EC is issued from the environment angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or nay other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time being in force with the industry/unit/project proponent. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 National Green Tribunal Act, 2010.	Noted

3 DETAILS OF ENVIRONMENTAL MONITORING

3.0 Monitoring Portfolio:

This report is prepared for the period of April 2020 to September 2020 as per EC conditions. Post Environmental Clearance Monitoring was carried out during March 2020. The samples were analyzed at NABL approved Environmental laboratory. Following environmental components has been monitored and analyzed.

1. Ambient Air Quality
2. Noise Quality
3. Water Quality
4. Soil Quality

3.1 AMBIENT AIR QUALITY MONITORING

3.1.1 Ambient Air Quality Monitoring Stations

Ambient air quality monitoring has been carried out at 6 locations as mentioned below. This will enable to have a comparative analytical understanding about air quality and the changes in the air environment in the study area with respect to the condition prevailing. The locations of the ambient air quality monitoring stations are given in **Table 3.1**.

Table 3.1 Details of Ambient Air Quality Monitoring Stations

S. No.	Location Code	Location Name
1.	**AAQ-1**	Up Wind Direction (Near Mine Site)
2.	**AAQ-2**	Down Wind Direction (500 mtr from Mine Site)
3.	**AAQ-3**	Down Wind Direction (Kalyana Village)

AAQ-1: Up Wind Direction (Near Mine Site)
The sampler was placed near mine site and was free from any obstructions. Mine site is selected because due to mining activity pollution should be increase in the nearby area.

AAQ-2: Down Wind Direction (500 mtr from Mine Site)
The sampler was placed 500 mtr from mine site and was free from any obstructions. Surroundings of the sampling site represent Industrial environmental setting.

AAQ-3: Down Wind Direction (Kalyana Village)
The sampler was placed at village- Kalyana, was free from any obstructions. Surroundings of the sampling site represent residential environmental setting.

3.1.2 Ambient Air Quality Monitoring Methodology

Monitoring was conducted in respect of the following parameters:

- Particulate Matter 2.5 (PM 2.5)
- Particulate Matter 10 (PM 10)
- Sulphur Dioxide (SO_2)
- Oxides of Nitrogen (NO_x)

The duration of sampling of PM $_{2.5}$, PM_{10}, SO_2 and NOx was 24 hourly continuous sampling per day. The monitoring was conducted for one day at each location. This is to allow a comparison with the National Ambient Air Quality Standards.

The air samples were analyzed as per standard methods specified by Central Pollution Control Board (CPCB) and IS: 5182. The techniques used for ambient air quality monitoring and minimum detectable levels are given in **Table 3.2**.

Fine Particulate Sampler instruments have been used for monitoring Particulate Matter 2.5 ($PM_{2.5}$ i.e. <2.5 microns), and Respirable Dust Sampler was used for sampling Respirable fraction (<10 microns), gaseous pollutants like SO_2andNO_x.

Table 3.2 Techniques used for Ambient Air Quality Monitoring

S. No.	Parameter	Technique	Technical Protocol
1	**Particulate Matter ($PM_{2.5}$)**	Fine Particulate Sampler, Gravimetric Method	#SOP No. VEL/SOP/01, Section No. SP 63
2	**Particulate Matter (PM_{10})**	Respirable Dust Sampler, with cyclone separator, Gravimetric Method	IS: 5182 (P-23)
3	**Sulphur dioxide (SO_2)**	Modified West and Gaeke	IS: 5182 (P-2)
4	**Oxides of Nitrogen (NO_X)**	Jacob & Hochheiser	IS: 5182 (P-6)

#SOP-Laboratory Standard Operating Procedure

3.1.3 Ambient Air Quality Monitoring Results

The detailed on-site monitoring results of PM $_{2.5}$, PM $_{10}$, SO_2, NO_x are presented as **Table 3.3**

Table 3.3 Ambient Air Quality Monitoring Results

S. No.	Parameter	AAQ1	AAQ2	AAQ3	NAAQS*
1	**Particulate Matter ($PM_{2.5}$), µg/m³**	**43.20**	**48.32**	**45.20**	60
2	**Particulate Matter (PM_{10}), µg/m³**	**81.69**	**86.10**	**85.61**	100
3	**Nitrogen Dioxide (NO_2), µg/m³**	**25.20**	**23.84**	**23.47**	80
4	**Sulphur Dioxide (SO_2), µg/m³**	**12.10**	**12.40**	**12.15**	80

*NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)]16.11.2009

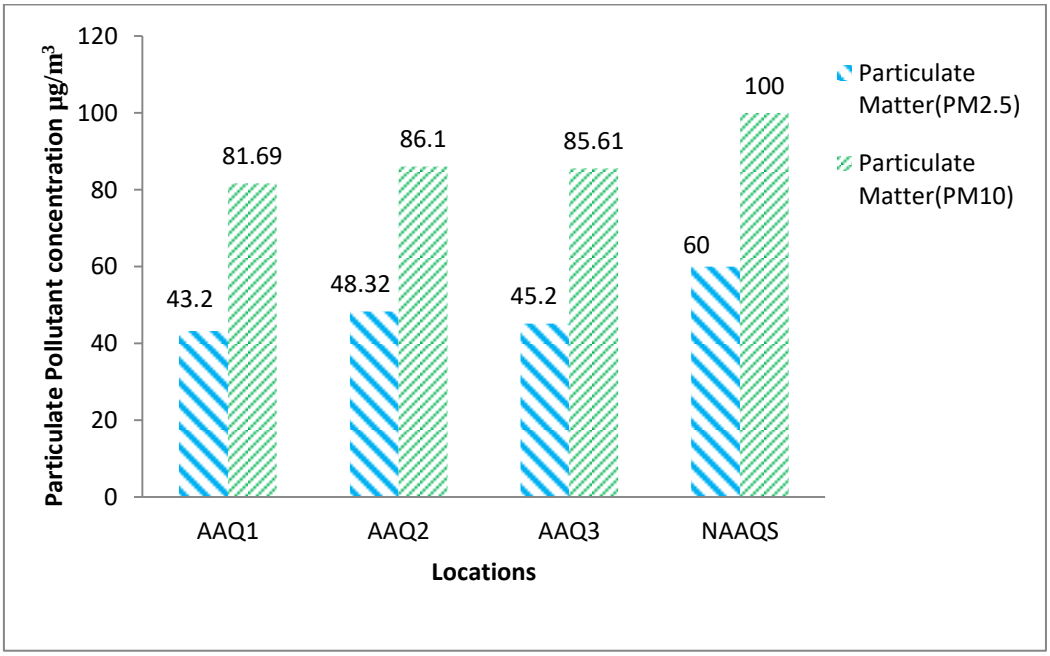

Figure 3.1 Graphical Presentation of Particulate pollutants

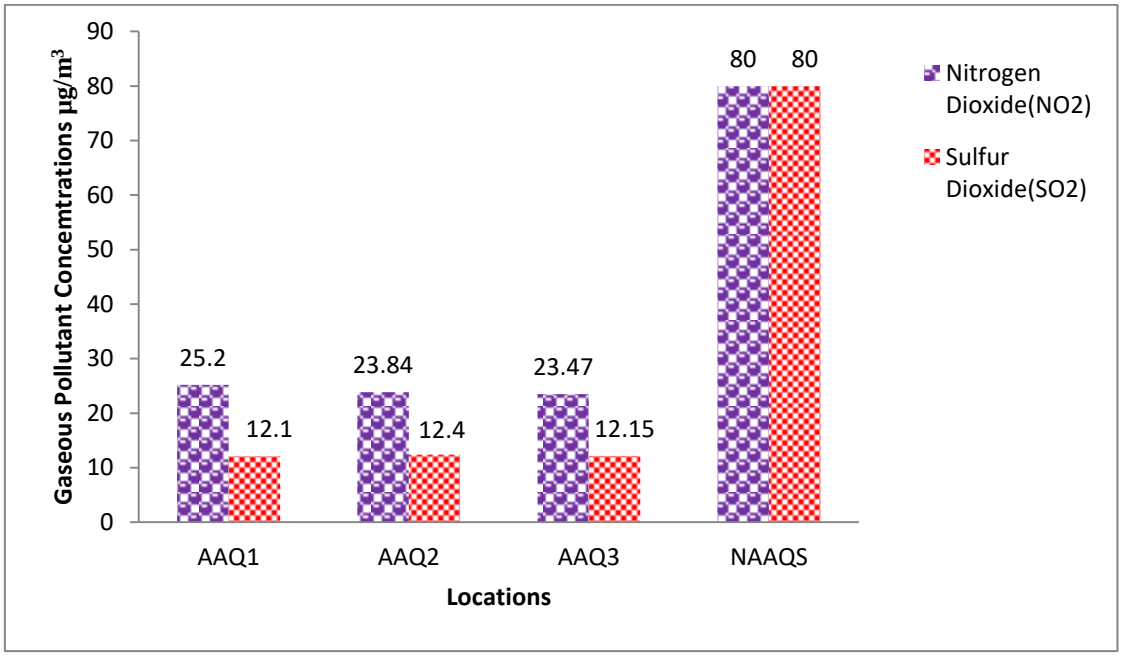

Figure 3.2 Graphical Presentation of Gaseous pollutants

3.1.4 Discussion on Ambient Air Quality in the Study Area

The level of $PM_{2.5}$ and PM_{10} at all locations was found to be in range of 39.45 to 51.90 µg/m^3 and 81.69 to 86.10 µg/m^3 respectively. The level of NO_x and SO_2 at all locations were found to be in range of 18.42 to 25.48 µg/m^3 and 9.72 to 13.74 µg/m^3 respectively. All the results were found to be well within the prescribed NAAQS limits.

3.2 AMBIENT NOISE MONITORING

3.2.1 Ambient Noise Monitoring Locations

The main objective of noise monitoring in the study area is to assess the present ambient noise levels due to various mining allied activities and increased vehicular movement. A preliminary reconnaissance survey has been undertaken to identify the major noise generating sources in the area. Ambient noise monitoring was conducted at 6 locations near the mining area as given in **Table 3.4**.

Table 3.4 Details of Ambient Noise Monitoring Stations

S. No.	Location Code	Location Name
1	**N1**	Up Wind Direction (Near Mine Site)
2	**N2**	Down Wind Direction (500 mtr from Mine Site)
3	**N3**	Down Wind Direction (Kalyana Village)

3.2.2 Methodology of Noise Monitoring

Noise levels were measured using sound level meter. Noise level monitoring was carried out continuously for 24-hours. The noise levels were monitored on working days only. During each hour Leq were directly computed by the instrument based on the sound pressure levels. Monitoring was carried out at 'A' response and fast mode.

3.2.3 Ambient Noise Monitoring Results

The location wise ambient noise monitoring results is summarized in **Table 3.5.** Graphical presentation of location wise variation of ambient noise level is shown in **Figure 3.3.**

Table 3.5 Location Wise variation of ambient Noise Level

Parameter	N1		N2		N3	
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
Lmax	75.2	67.4	76.4	71.4	54.4	44.1
Lmin	62.8	48.9	63.9	57.9	43.2	37.8
Leq	71.36	63.25	69.43	64.20	49.30	41.56
DGMS Limits in dB(A) Leq	75	70	75	70	55	45

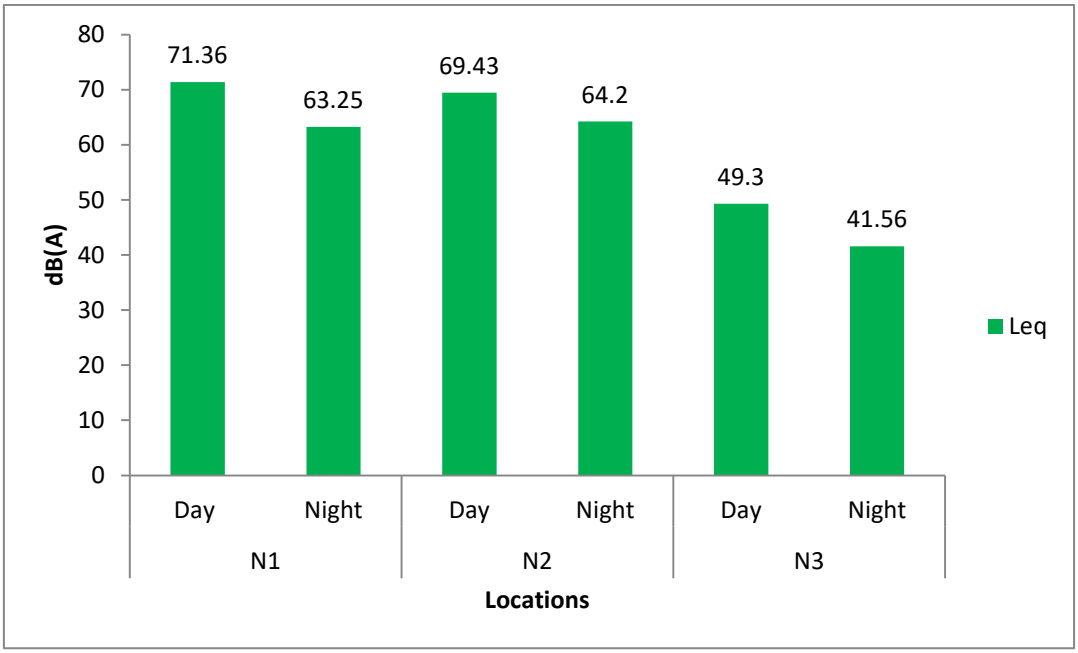

Figure 3.2 Graphical presentation of location wise variation of Ambient Noise Level

3.2.4 Discussion on Ambient Noise Levels in the Study Area

The Equivalent noise levels for day and night was found to be in range of 51.30 to 73.20 dB (A) and 41.48 to 66.54 dB (A) respectively. The noise levels were well within the permissible limits of NAAQS w.r.t Noise.

3.3 WATER QUALITY MONITORING

3.3.1 Ground Water Quality Monitoring Locations

Keeping in view the importance of water as important source to the local population, sample of water were collected from the mine site for the assessment of impacts of the project on the water quality.

Water sample were collected from the Near Mine Site and Village - Kaliyana. The samples were analyzed for various parameters to compare with the standards for water as per IS: 10500-2012. The details of water sampling locations are given in **Table 3.6**.

Table3.6 Details of Ground Water Quality Monitoring Station

S. No.	Location Code	Location Name/ Description
1.	**GW1**	Near Mine Site (Ground Water Sample) in May 2020 and August 2020
2.	**GW2**	Village- Kaliyana (Ground Water Sample) in May 2020 and August 2020

3.3.2 Methodology of Ground Water Quality Monitoring

Sampling of ground water was carried out on May 2020 and August 2020. Samples were collected as grab sample and sampling forms are filled in as per the sampling plan. The preservative sample were properly added to preserve as per standard operating procedures (SOP) and stored immediately in ice boxes, which were ensured for appropriate temperatures. Sample for chemical analysis was collected in polyethylene carboys. Samples collected for metal content were acidified to <2 pH with 1 ml HNO_3. Samples for bacteriological analysis were collected in sterilized glass bottles.

Soon after the completion of sampling, chain of custody sheets for the samples are filled in and then they were transported by road for further analysis. Proper care was taken during packing and transportation of samples. All the samples reached the central laboratory within the holding times for different parameters. After ensuring the same the samples were forwarded immediately for analysis.

The samples were analyzed as per the standard procedures specified in 'Standard Methods for the Examination of Water and Wastewater' published by American Public Health Association (APHA) and CPCB. The analytical techniques and the test methods adopted for testing of water are given in **Table 3.7, 3.8, 3.9 &3.10.**

3.3.3 Ground Water Quality Monitoring Results

The detailed ground water quality monitoring results are presented in **Table 3.7, 3.8, 3.9 &3.10.**

Table 3.7 Ground Water Quality Monitoring Results (May 2020 Pre monsoon) Near Mine site

S. No.	Parameter	Unit	Test-Method	Limits of IS:10500 -2012	
				Requirement (Acceptable Limits)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 ^{0}C)	--	7.28	6.5 to 8.5	No Relaxation
2.	Colour	Hazen	*BDL (**DL 5Hazen)	5	15
3.	Turbidity	NTU	*BDL (**DL 0. 1 NTU)	1	5
4.	Odour	--	Agreeable	Agreeable	Agreeable
5.	Taste	--	Agreeable	Agreeable	Agreeable
6.	Total Hardness as $CaCO_3$	mg/l	157.56	200	600
7.	Calcium as Ca	mg/l	43.20	75	200
8.	Total Alkalinity as $CaCO_3$	mg/l	142.43	200	600
9.	Chloride as Cl	mg/l	51.20	250	1000
10.	Cyanide as CN	mg/l	*BDL(**DL 0.02 mg/l)	0.05	No Relaxation
11.	Magnesium as Mg	mg/l	12.09	30	100
12.	Total Dissolved Solids	mg/l	410.00	500	2000
13.	Sulphate as SO_4	mg/l	41.20	200	400
14.	Fluoride as F	mg/l	0.21	1.0	1.5
15.	Nitrate as NO_3	mg/l	4.52	45	No Relaxation
16.	Iron as Fe	mg/l	0.24	0.3	No relaxation
17.	Aluminium as Al	mg/l	*BDL(**DL 0.03 mg/l)	0.03	0.2
18.	Boron	mg/l	0.35	0.5	1
19.	Chromium as Cr	mg/l	*BDL(**DL 0.03 mg/l)	0.05	No Relaxation
20.	Phenolic Compounds	mg/l	*BDL(**DL 0.001 mg/l)	0.001	0.002
21.	Mineral Oil	mg/l	*BDL(**DL 0.01mg/l)	0.5	No Relaxation
22.	Anionic Detergents as	mg/l	*BDL(**DL 0.02 mg/l)	0.2	1.0
23.	Zinc as Zn	mg/l	0.32	5	15
24.	Copper as Cu	mg/l	0.17	0.05	1.5
25.	Manganese as Mn	mg/l	*BDL(**DL 0.06 mg/l)	0.1	0.3
26.	Cadmium as Cd	mg/l	*BDL(**DL 0.003mg/l)	0.003	No Relaxation
27.	Lead as Pb	mg/l	*BDL(**DL 0.01 mg/l)	0.01	No Relaxation
28.	Selenium as Se	mg/l	*BDL(**DL 0.01 mg/l)	0.01	No Relaxation
29.	Arsenic as As	mg/l	*BDL(**DL 0.01 mg/l)	0.01	0.05
30.	Mercury as Hg	mg/l	*BDL (**DL 0.001 mg/l)	0.001	No Relaxation
31.	Total Coliform	MPN/100ml	<2	Shall not be Detectable in 100ml Sample	
32.	E. Coli	MPN/100ml	Absent	Shall not be Detectable in 100ml Sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit #These parameter are not covered in our NABL scope.

Table 3.8 Ground Water Quality Monitoring Results (May 2020 Pre monsoon) Vill- Kaliyana

S. No.	Parameter	Unit	Test-Method	Limits of IS:10500 -2012	
				Requirement (Acceptable Limits)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 ^{0}C)	--	**7.69**	6.5 to 8.5	No Relaxation
2.	Colour	Hazen	***BDL (**DL 5Hazen)**	5	15
3.	Turbidity	NTU	***BDL (**DL 0. 1 NTU)**	1	5
4.	Odour	--	**Agreeable**	Agreeable	Agreeable
5.	Taste	--	**Agreeable**	Agreeable	Agreeable
6.	Total Hardness as $CaCO_3$	mg/l	**162.30**	200	600
7.	Calcium as Ca	mg/l	**48.12**	75	200
8.	Total Alkalinity as $CaCO_3$	mg/l	**136.40**	200	600
9.	Chloride as Cl	mg/l	**58.25**	250	1000
10.	Cyanide as CN	mg/l	***BDL(**DL 0.02 mg/l)**	0.05	No Relaxation
11.	Magnesium as Mg	mg/l	**10.26**	30	100
12.	Total Dissolved Solids	mg/l	**420.00**	500	2000
13.	Sulphate as SO_4	mg/l	**32.42**	200	400
14.	Fluoride as F	mg/l	**0.51**	1.0	1.5
15.	Nitrate as NO_3	mg/l	**7.44**	45	No Relaxation
16.	Iron as Fe	mg/l	**0.22**	0.3	No relaxation
17.	Aluminium as Al	mg/l	***BDL(**DL 0.03 mg/l)**	0.03	0.2
18.	Boron	mg/l	**0.42**	0.5	1
19.	Chromium as Cr	mg/l	***BDL(**DL 0.03 mg/l)**	0.05	No Relaxation
20.	Phenolic Compounds	mg/l	***BDL(**DL 0.001 mg/l)**	0.001	0.002
21.	Mineral Oil	mg/l	***BDL(**DL 0.01mg/l)**	0.5	No Relaxation
22.	Anionic Detergents as MBAS	mg/l	***BDL(**DL 0.02 mg/l)**	0.2	1.0
23.	Zinc as Zn	mg/l	**0.24**	5	15
24.	Copper as Cu	mg/l	**0.15**	0.05	1.5
25.	Manganese as Mn	mg/l	***BDL(**DL 0.06 mg/l)**	0.1	0.3
26.	Cadmium as Cd	mg/l	***BDL(**DL 0.003mg/l)**	0.003	No Relaxation
27.	Lead as Pb	mg/l	***BDL(**DL 0.01 mg/l)**	0.01	No Relaxation
28.	Selenium as Se	mg/l	***BDL(**DL 0.01 mg/l)**	0.01	No Relaxation
29.	Arsenic as As	mg/l	***BDL(**DL 0.01 mg/l)**	0.01	0.05
30.	Mercury as Hg	mg/l	***BDL (**DL 0.001 mg/l)**	0.001	No Relaxation
31.	Total Coliform	MPN/100ml	**<2**	Shall not be Detectable in 100ml Sample	
32.	E. Coli	MPN/100ml	**Absent**	Shall not be Detectable in 100ml Sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit #These parameter are not covered in our NABL scope.

Table 3.9 Ground Water Quality Monitoring Results (August 2020 Monsoon) Near Mine site

S. No.	Parameter	Unit	Test-Method	Limits of IS:10500 -2012	
				Requirement (Acceptable Limits)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 ^{0}C)	--	**7.41**	6.5 to 8.5	No Relaxation
2.	Colour	Hazen	***BDL (**DL 5Hazen)**	5	15
3.	Turbidity	NTU	***BDL (**DL 0. 1 NTU)**	1	5
4.	Odour	--	**Agreeable**	Agreeable	Agreeable
5.	Taste	--	**Agreeable**	Agreeable	Agreeable
6.	Total Hardness as $CaCO_3$	mg/l	**142.40**	200	600
7.	Calcium as Ca	mg/l	**35.80**	75	200
8.	Total Alkalinity as $CaCO_3$	mg/l	**152.50**	200	600
9.	Chloride as Cl	mg/l	**54.82**	250	1000
10.	Cyanide as CN	mg/l	***BDL(**DL 0.02 mg/l)**	0.05	No Relaxation
11.	Magnesium as Mg	mg/l	**12.90**	30	100
12.	Total Dissolved Solids	mg/l	**369.00**	500	2000
13.	Sulphate as SO_4	mg/l	**42.10**	200	400
14.	Fluoride as F	mg/l	**0.22**	1.0	1.5
15.	Nitrate as NO_3	mg/l	**4.62**	45	No Relaxation
16.	Iron as Fe	mg/l	**0.28**	0.3	No relaxation
17.	Aluminium as Al	mg/l	***BDL(**DL 0.03 mg/l)**	0.03	0.2
18.	Boron	mg/l	**0.42**	0.5	1
19.	Chromium as Cr	mg/l	***BDL(**DL 0.03 mg/l)**	0.05	No Relaxation
20.	Phenolic Compounds	mg/l	***BDL(**DL 0.001 mg/l)**	0.001	0.002
21.	Mineral Oil	mg/l	***BDL(**DL 0.01mg/l)**	0.5	No Relaxation
22.	Anionic Detergents as	mg/l	***BDL(**DL 0.02 mg/l)**	0.2	1.0
23.	Zinc as Zn	mg/l	**0.42**	5	15
24.	Copper as Cu	mg/l	**0.20**	0.05	1.5
25.	Manganese as Mn	mg/l	***BDL(**DL 0.06 mg/l)**	0.1	0.3
26.	Cadmium as Cd	mg/l	***BDL(**DL 0.003 mg/l)**	0.003	No Relaxation
27.	Lead as Pb	mg/l	***BDL(**DL 0.01 mg/l)**	0.01	No Relaxation
28.	Selenium as Se	mg/l	***BDL(**DL 0.01 mg/l)**	0.01	No Relaxation
29.	Arsenic as As	mg/l	***BDL(**DL 0.01 mg/l)**	0.01	0.05
30.	Mercury as Hg	mg/l	***BDL (**DL 0.001 mg/l)**	0.001	No Relaxation
31.	Total Coliform	MPN/100ml	**<2**	Shall not be Detectable in 100ml Sample	
32.	E. Coli	MPN/100ml	**Absent**	Shall not be Detectable in 100ml Sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit #These parameter are not covered in our NABL scope.

Table 3.10 Ground Water Quality Monitoring Results (August 2020 Monsoon) Vill- Kaliyana

S. No.	Parameter	Unit	Test-Method	Limits of IS:10500 -2012	
				Requirement (Acceptable Limits)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 ^{0}C)	--	**7.54**	6.5 to 8.5	No Relaxation
2.	Colour	Hazen	***BDL (**DL 5Hazen)**	5	15
3.	Turbidity	NTU	***BDL (**DL0. 1 NTU)**	1	5
4.	Odour	--	**Agreeable**	Agreeable	Agreeable
5.	Taste	--	**Agreeable**	Agreeable	Agreeable
6.	Total Hardness as $CaCO_3$	mg/l	**142.12**	200	600
7.	Calcium as Ca	mg/l	**36.20**	75	200
8.	Total Alkalinity as $CaCO_3$	mg/l	**144.30**	200	600
9.	Chloride as Cl	mg/l	**340.82**	250	1000
10.	Cyanide as CN	mg/l	***BDL(**DL 0.02 mg/l)**	0.05	No Relaxation
11.	Magnesium as Mg	mg/l	**12.58**	30	100
12.	Total Dissolved Solids	mg/l	**364.00**	500	2000
13.	Sulphate as SO_4	mg/l	**32.87**	200	400
14.	Fluoride as F	mg/l	**0.22**	1.0	1.5
15.	Nitrate as NO_3	mg/l	**4.40**	45	No Relaxation
16.	Iron as Fe	mg/l	**0.20**	0.3	No relaxation
17.	Aluminium as Al	mg/l	***BDL(**DL 0.03 mg/l)**	0.03	0.2
18.	Boron	mg/l	**0.40**	0.5	1
19.	Chromium as Cr	mg/l	***BDL(**DL 0.03 mg/l)**	0.05	No Relaxation
20.	Phenolic Compounds	mg/l	***BDL(**DL 0.001 mg/l)**	0.001	0.002
21.	Mineral Oil	mg/l	***BDL(**DL 0.01mg/l)**	0.5	No Relaxation
22.	Anionic Detergents as	mg/l	***BDL(**DL 0.02 mg/l)**	0.2	1.0
23.	Zinc as Zn	mg/l	**0.33**	5	15
24.	Copper as Cu	mg/l	**0.25**	0.05	1.5
25.	Manganese as Mn	mg/l	***BDL(**DL 0.06 mg/l)**	0.1	0.3
26.	Cadmium as Cd	mg/l	***BDL(**DL 0.003 mg/l)**	0.003	No Relaxation
27.	Lead as Pb	mg/l	***BDL(**DL 0.01 mg/l)**	0.01	No Relaxation
28.	Selenium as Se	mg/l	***BDL(**DL 0.01 mg/l)**	0.01	No Relaxation
29.	Arsenic as As	mg/l	***BDL(**DL 0.01 mg/l)**	0.01	0.05
30.	Mercury as Hg	mg/l	***BDL (**DL 0.001 mg/l)**	0.001	No Relaxation
31.	Total Coliform	MPN/100ml	**<2**	Shall not be detectable in any	
32.	E. Coli	MPN/100ml	**Absent**	Shall not be detectable in any 100 ml sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit. #These parameter are not covered in our NABL scope.

3.3.4 Discussion on Ground water Quality in the Study Area

The Ground water quality of all location were observed to be slightly alkaline in nature with total alkalinity reaching up to 232.34 and 254.10 mg/L against the permissible limit of 600 mg/l. Total Hardness in the water of all location were observed 224.33 mg/L and 248.74 mg/L at project site against permissible limit of 600 mg/L. However, remaining parameters are within the CPCB prescribed limits.

3.3.5 Ground Water Level in and Around the Mine area

Ground water level was monitored villages and locations located approx. 5 Km in and around mine area. Water level of the water sources was measured manually in pre monsoon (month of May) and during monsoon (month of August). The data is given below in table 3.11. This shows significant recharging in pre monsoon season and no impact of mining activities undertaken in the area on ground water.

Table 3.11 Ground Water level in and around the Mine site

Sample Number	Village Name	Location	Water Level (in mbgl) November, 2019)	Water Level (in mbgl) (Jan, 2020)
W1	Mine Site	28°33'3.00"N 76°11'15.65"E	63.69	61.29
W2	Mahra	28°33'27.98"N 76°10'52.35"E	41.36	40.29
W3	Kalali	28°31'23.57"N 76°11'10.72"E	29.44	28.10
W4	Kaliyana	28°33'8.88"N 76°11'49.25"E	34.83	33.30
W5	Mandola	28°31'19.40"N 76°12'38.47"E	20.36	18.92
W6	Kheri Bura	28.589097°N 76.194339°E	20.36	18.85

3.3.6 Surface Water Quality Monitoring Locations

Keeping in view the importance of water as important source to the local population, sample of water were collected from the mine site for the assessment of impacts of the project on the water quality.

Surface water sampling was carried out from Rivers/Ponds present within 10 Km of the project site. The samples were analysed for various parameters to compare with the standards for water as per IS: 3025 (Part 1). The details of water sampling locations are given in **Table 3.12**.

Table 3.12 Details of Ground Water Quality Monitoring Station

S. No.	Location Code	Location Name/ Description
1.	**SW1**	Pond Near Mandoli Village
2.	**SW2**	Pond Near Kalali Village

3.3.7 Methodology of Surface Water Quality Monitoring

Sampling of surface water was carried out on September 2020. Samples were collected as grab sample and sampling forms are filled in as per the sampling plan. The preservative sample were properly added to preserve as per standard operating procedures (SOP) and stored immediately in ice boxes, which were ensured for appropriate temperatures. Sample for chemical analysis was collected in polyethylene carboys. Samples collected for metal content were acidified to <2 pH with 1 ml HNO_3. Samples for bacteriological analysis were collected in sterilized glass bottles.

Soon after the completion of sampling, chain of custody sheets for the samples are filled in and then they were transported by road for further analysis. Proper care was taken during packing and transportation of samples. All the samples reached the central laboratory within the holding times for different parameters. After ensuring the same the samples were forwarded immediately for analysis.

The samples were analysed as per the standard procedures specified in 'Standard Methods for the Examination of Water and Wastewater' published by American Public Health Association (APHA) and CPCB. The analytical techniques and the test methods adopted for testing of water are given in **Table 3.13 & 3.14.**

3.3.8 Surface Water Quality Monitoring Results

The detailed surface water quality monitoring results are presented in **Table 3.13 & 3.14.**

Table 3.13 Surface Water Quality Monitoring Results (March 2020) Pond Near Mandoli Village

S. No.	Parameter	Unit	Test-Method	Result
1.	pH (at 25 ^{0}C)	--	APHA ,4500-H^+ B Electrometric Method	**7.20**
2.	Colour	Hazen	APHA ,2120 B, Visual Comparison	**35.00**
3.	Turbidity	NTU	APHA, 2130 B, Nephlelometric Method	**41.00**
4.	Odour	--	APHA, 2150 B , Threshold Test Method	**Agreeable**
5.	Total Hardness as	--	APHA , 2340 C, EDTA Titrimetric	**215.47**
6.	Calcium as Ca	mg/l	APHA, 3500 Ca B, EDTA Titrimetric	**44.36**
7.	Alkalinity as $CaCO_3$	mg/l	APHA , 2320 B, Titrimetric Method	**161.20**
8.	Chloride as Cl	mg/l	APHA, 4500-Cl^- B, Argentometric	**81.63**
9.	Residual free Chlorine	mg/l	APHA, 4500 Cl^-B Iodometric Method	***BDL(**DL 0.20mg/l)**
10.	Cyanide as CN	mg/l	APHA , 4500 CN^- D	***BDL(**DL 0.02 mg/l)**
11.	Magnesium as Mg	mg/l	APHA , 3500 Mg B, Calculation Method	**25.46**
12.	Total Dissolved Solids	mg/l	APHA , 2540 C, Gravimetric Method	**462.00**
13.	Total Suspended solids	mg/l	APHA,2540 D Gravimetric Method	**78.00**
14.	Dissolved Oxygen	mg/l	APHA,4500 O B Iodometric Method	**5.1**
15.	Sulphate as SO^4	mg/l	APHA , 4500 E, Turbidimetric Method	**42.58**
16.	Fluoride as F	mg/l	APHA , 4500-F^- D, SPADNS Method	**0.45**
17.	BOD (3 Days at 27^{0}C)	mg/l	APHA, 5210 C / IS 3025,P-44	**9.00**
18.	COD	mg/l	APHA, 5220 B, Open Reflux Method	**36.00**
19.	Conductivity	ms/cm	APHA, 2510 B, Conductivity Meter	**770**
20.	Nitrate as NO_3	mg/l	IS 3025 (P-34) ,Chromotropic Method	**22.47**
21.	Sodium as Na	mg/l	APHA,3500 Na B, Flame Photometric	**46.00**
22.	Potassium as K	mg/l	APHA 3500 K B, Flame Photometric	**18.00**
23.	Iron as Fe	mg/l	APHA , 3500-Fe B 1,10 Phenanthroline	**0.33**
24.	Aluminium as Al	mg/l	APHA , 3111 DNitrous Oxide Acetylene Flame Method	***BDL(**DL 0.03 mg/l)**
25.	Boron	mg/l	APHA, 4500B C, Carmine Method	***BDL**
26.	Chromium as Cr	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.01 mg/l)**
27.	Phenolic Compounds	mg/l	APHA, 5530 C Chloroform Extraction Method	***BDL(**DL 0.001 mg/l)**
28.	Mineral Oil	mg/l	Clause 6 of IS:3025(Part 39)	***BDL(**DL 0.01mg/l)**

29.	Anionic Detergents as MBAS	mg/l	APHA, 5540 C MBAS Method	***BDL(**DL 0.02 mg/l)**
30.	Zinc as Zn	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	**1.46**
31.	Copper as Cu	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	**0.69**
32.	Manganese as Mn	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.10 mg/l)**
33.	Cadmium as Cd	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.001 mg/l)**
34.	Total Coliform	MPN/100ml	IS 1622:1981,RA-2019	**1050**
35.	Fecal Coliform	MPN/100ml	IS 1622:1981,RA-2019	**820**

Note: - *BDL-Below Detection Limit, **DL- Detection Limit. #These parameter are not covered in our NABL scope.

Table 3.14 Surface Water Quality Monitoring Results (March 2020) Pond Near Kalali Village

S. No.	Parameter	Unit	Test-Method	Result
1.	pH (at 25 ^{0}C)	--	APHA ,4500-H^+ B Electrometric Method	**7.84**
2.	Colour	Hazen	APHA ,2120 B, Visual Comparison	**32.00**
3.	Turbidity	NTU	APHA, 2130 B, Nephlelometric Method	**41.00**
4.	Odour	--	APHA, 2150 B , Threshold Test Method	**Agreeable**
5.	Total Hardness as	--	APHA , 2340 C, EDTA Titrimetric	**285.00**
6.	Calcium as Ca	mg/l	APHA, 3500 Ca B, EDTA Titrimetric	**65.55**
7.	Alkalinity as $CaCO_3$	mg/l	APHA , 2320 B, Titrimetric Method	**242.70**
8.	Chloride as Cl	mg/l	APHA, 4500-Cl^- B, Argentometric	**126.90**
9.	Residual free Chlorine	mg/l	APHA, 4500 Cl^-B Iodometric Method	***BDL(**DL 0.20mg/l)**
10.	Cyanide as CN	mg/l	APHA , 4500 CN^- D	***BDL(**DL 0.02 mg/l)**
11.	Magnesium as Mg	mg/l	APHA , 3500 Mg B, Calculation Method	**29.51**
12.	Total Dissolved Solids	mg/l	APHA , 2540 C, Gravimetric Method	**580.00**
13.	Total Suspended solids	mg/l	APHA,2540 D Gravimetric Method	**93.00**
14.	Dissolved Oxygen	mg/l	APHA,4500 O B Iodometric Method	**5.3**
15.	Sulphate as SO^4	mg/l	APHA , 4500 E, Turbidimetric Method	**42.54**
16.	Fluoride as F	mg/l	APHA , 4500-F^- D, SPADNS Method	**0.45**
17.	BOD (3 Days at 27^{0}C)	mg/l	APHA, 5210 C / IS 3025,P-44	**11.00**
18.	COD	mg/l	APHA, 5220 B, Open Reflux Method	**37.00**
19.	Conductivity	ms/cm	APHA, 2510 B, Conductivity Meter	**967**
20.	Nitrate as NO_3	mg/l	IS 3025 (P-34) ,Chromotropic Method	**20.85**
21.	Sodium as Na	mg/l	APHA,3500 Na B, Flame Photometric	**43.00**
22.	Potassium as K	mg/l	APHA 3500 K B, Flame Photometric	**17.00**
23.	Iron as Fe	mg/l	APHA , 3500-Fe B 1,10 Phenanthroline	**0.32**
24.	Aluminium as Al	mg/l	APHA , 3111 DNitrous Oxide Acetylene Flame Method	***BDL(**DL 0.03 mg/l)**
25.	Boron	mg/l	APHA, 4500B C, Carmine Method	***BDL**
26.	Chromium as Cr	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.01 mg/l)**
27.	Phenolic Compounds	mg/l	APHA, 5530 C Chloroform Extraction Method	***BDL(**DL 0.001 mg/l)**
28.	Mineral Oil	mg/l	Clause 6 of IS:3025(Part 39)	***BDL(**DL 0.01mg/l)**
29.	Anionic Detergents as MBAS	mg/l	APHA, 5540 C MBAS Method	***BDL(**DL 0.02 mg/l)**

30.	Zinc as Zn	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	**2.15**
31.	Copper as Cu	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	**0.70**
32.	Manganese as Mn	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.10 mg/l)**
33.	Cadmium as Cd	mg/l	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.001 mg/l)**
34.	Total Coliform	MPN/100ml	IS 1622:1981,RA-2019	**1100**
35.	Fecal Coliform	MPN/100ml	IS 1622:1981,RA-2019	**850**

Note: - *BDL-Below Detection Limit, **DL- Detection Limit. #These parameter are not covered in our NABL scope.

3.3.9 Discussion on Surface water Quality in the Study Area

Electrical Conductivity levels was observed in surface water samples are in the range of 770 to 967 mS/cm The Surface water quality of both locations were observed to be slightly alkaline in nature with total alkalinity reaching up to 161.20 and 242.70 mg/L surface water which is found within the permissible limit. Total Hardness in the water of both locations was observed 215.47 mg/L and 285.00 mg/L. However, remaining parameters are within the CPCB prescribed limits.

3.4 SOIL MONITORING

3.4.1 Soil Monitoring Locations

The objective of the soil monitoring is to identify the impacts of ongoing project activities on soil quality and also predict impacts, which have arisen due to execution of various mining activities. Accordingly, a study of assessment of the soil quality has been carried out

To assess impacts of ongoing project activities on the soil in the area, the Physico-chemical characteristics of soils were examined by obtaining soil samples from selected points and analysis of the same. Single sample of soil was collected from the mine site for studying soil characteristics, the location of which is listed in **Table 3.15**

Table 3.15 Details of Soil Quality Monitoring Location

S. No.	Location Code	Location Name/ Description
1.	**S1**	**Near Mine Site**
2.	**S2**	**Village- Kalyana**

3.4.2 Methodology of Soil Monitoring

The sampling has been done in line with IS: 2720 & Methods of Soil Analysis, Part-1, 2nd edition, 1986 of American Society for Agronomy and Soil Science Society of America. The homogenized samples were analyzed for physical and chemical characteristics (physical, chemical and heavy metal concentrations). The soil samples were collected in the month of September 2020.

The samples have been analyzed as per the established scientific methods for Physico-chemical parameters. The heavy metals have been analyzed by using Atomic Absorption Spectro-photometer.

3.4.3 Soil Monitoring Results

Single sample of soil is collected from the site to check the quality of soil of the study area .The Physico-chemical characteristics of the soil, as obtained from the analysis of the soil sample, are presented in **Table 3.16 & 3.17**.

Table 3.16 Physico-Chemical Characteristics of Soil (S1) in the Study Area

S. No.	Parameter	Protocol	Unit	Result
1.	pH (at 25 ^{0}C)	IS : 2720 (P-26) by pH Meter	--	**7.52**
2.	Conductivity	IS:14767 by Conductivity meter	mS/cm	**0.314**
3.	Soil Texture	IS : 2720 (P-22, RA2003)	--	**Sandy**
4.	Color	SOP , SP-78,Issue No.-01& Issue Date-14/02/2013	--	**Brownish**
5.	Water holding capacity	SOP , SP-81,Issue No.-01& Issue Date-14/02/2013	%	**35.10**
6.	Bulk density	SOP , SP-80,Issue No.-01& Issue Date-14/02/2013	gm/cc	**1.61**
7.	Chloride as Cl	SOP , SP-85,Issue No.-01& Issue Date-14/02/2013	mg/100gm	**41.84**
8.	Calcium as Ca	SOP , SP-82,Issue No.-01& Issue Date-14/02/2013	mg/100gm	**42.64**
9.	Sodium as Na	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	mg/100gm	**36.90**
10.	Potassium as K	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	kg/hec.	**130.10**
11.	Organic Matter	IS:2720 (P-22) Titrimetric Method	%	**0.71**
12.	Magnesium as Mg	SOP , SP-83,Issue No.-01& Issue Date-14/02/2013	mg/100gm	**23.84**
13.	Available Nitrogen as N	IS:14684 Distillation Method	kg./hec.	**146.40**
14.	Available Phosphorus	SOP , SP-86,Issue No.-01& Issue Date-14/02/2013	kg./hec.	**23.25**
15.	Zinc as Zn	USEPA 3050B	mg/100gm	**6.42**
16.	Manganese as Mn	USEPA 3050B	mg/100gm	**4.14**
17.	Chromium as Cr	USEPA 3050B	mg/100gm	**1.46**
18.	Lead as Pb	USEPA 3050B	mg/100gm	**1.71**
19.	Cadmium as Cd	USEPA 3050B	mg/100gm	**1.34**
20.	Copper as Cu	USEPA 3050B	mg/100gm	**3.10**

Table 3.17 Physico-Chemical Characteristics of Soil (S2) in the Study Area

S. No.	Parameter	Protocol	Unit	Result
1.	pH (at 25 ^{0}C)	IS : 2720 (P-26) by pH Meter	--	**7.40**
2.	Conductivity	IS:14767 by Conductivity meter	mS/cm	**0.368**
3.	Soil Texture	IS : 2720 (P-22, RA2003)	--	**Sandy**
4.	Color	SOP , SP-78,Issue No.-01& Issue Date-14/02/2013	--	**Brownish**
5.	Water holding capacity	SOP , SP-81,Issue No.-01& Issue Date-14/02/2013	%	**35.10**
6.	Bulk density	SOP , SP-80,Issue No.-01& Issue Date-14/02/2013	gm/cc	**1.61**
7.	Chloride as Cl	SOP , SP-85,Issue No.-01& Issue Date-14/02/2013	mg/100gm	**55.42**
8.	Calcium as Ca	SOP , SP-82,Issue No.-01& Issue Date-14/02/2013	mg/100gm	**36.10**
9.	Sodium as Na	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	mg/100gm	**35.84**
10.	Potassium as K	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	kg/hec.	**148.10**
11.	Organic Matter	IS:2720 (P-22) Titrimetric Method	%	**0.41**
12.	Magnesium as Mg	SOP , SP-83,Issue No.-01& Issue Date-14/02/2013	mg/100gm	**18.62**
13.	Available Nitrogen as N	IS:14684 Distillation Method	kg./hec.	**139.58**
14.	Available Phosphorus	SOP , SP-86,Issue No.-01& Issue Date-14/02/2013	kg./hec.	**25.82**
15.	Zinc as Zn	USEPA 3050B	mg/100gm	**6.10**
16.	Manganese as Mn	USEPA 3050B	mg/100gm	**3.14**
17.	Chromium as Cr	USEPA 3050B	mg/100gm	**1.21**
18.	Lead as Pb	USEPA 3050B	mg/100gm	**1.30**
19.	Cadmium as Cd	USEPA 3050B	mg/100gm	**0.64**
20.	Copper as Cu	USEPA 3050B	mg/100gm	**5.18**

3.4.4 Discussion on Soil Characteristics in the Study Area

The soil in study area is characterized by moderate organic content. The soil quality in the project area has not been affected by the Mining activities.

3.5 MONITORING PHOTOGRAPHS

Ambient Air Quality Monitoring

Noise Monitoring

Noise Monitoring

Water Sprinkling

First Aid Box

Blasting Notice

Loading Point

Plantation

HARYANA STATE POLLUTION CONTROL BOARD
SCF-32, sector 13, HUDA, Bhiwani Ph. 01664-240259
Website: www.hspcb.gov.in E-Mail - hspcb.pkl@sifymail.com
Telephone No.: 0172-2577870-73

No. HSPCB/Consent/ : 313100419CRDCTE6702638 **Dated:19/08/2019**

To.

M/s : Ridhi Sidhi KSM Resources JV
223min,224 to 228 & 72, Village Kalali & Kalyana, District Charkhi Dadri, Haryan
CHARKHI
127306

Sub. : Grant of consent to Establish to M/s Ridhi Sidhi KSM Resources JV

Please refer to your application no. 6702638 received on dated 2019-07-02 in regional office Jind.

With reference to your above application for consent to establish,M/s Ridhi Sidhi KSM Resources JV is here by granted consent as per following specification/Terms and conditions.

Consent Under	AIR/WATER
Period of consent	19/08/2019 - 18/08/2024
Industry Type	Mining and ore beneficiation
Category	RED
Investment(In Lakh)	784.0
Total Land Area (Sq. meter)	644000.0
Total Builtup Area (Sq. meter)	0.0
Quantity of effluent	
1. Trade	0.0 KL/Day
2. Domestic	2.0 KL/Day
Number of outlets	1.0
Mode of discharge	
1. Domestic	Septic tank
2. Trade	
Permissible Domestic Effluent Parameters	
1. BOD	30 mg/l
2. COD	250 mg/l
3. TSS	100 mg/l
Permissible Trade Effluent Parameters	
1. NA	mg/l
Number of stacks	1
Height of stack	
1. NA	

Permissible Emission parameters	
1. PM10	100
2. PM2.5	60
Capacity of boiler	
1. NA	Ton/hr
Type of Furnace	
1. NA	
Type of Fuel	
1. Diesel	KL/day

Regional Officer, Jind

Haryana State Pollution Control Board.

Terms and conditions

1. The industry has declared that the quantity of effluent shall be 2 KL/Day i.e 0KL/Day for Trade Effluent, 0 KL/Day for Cooling, 2 KL/Day for Domestic and the same should not exceed .

2. The above 'Consent to Establish' is valid for 60 months from the date of its issue to be extended for another one year at the discretion of the Board or till the time the unit starts its trial production whichever is earlier. The unit will have to set up the plant and obtain consent during this period.

3. The officer/official of the Board shall have the right to access and inspection of the industry in connection with the various processes and the treatment facilities being provided simultaneously with the construction of building/machinery. The effluent should conform the effluent standards as applicable

4. That necessary arrangement shall be made by the industry for the control of Air Pollution before commissioning the plant. The emitted pollutants will meet the emission and other standards as laid/will be prescribed by the Board from time to time.

5. The applicant will obtain consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21/22 of the Air (Prevention & Control of Pollution) Act,1981 as amended to-date-even before starting trial production

6. The above Consent to Establish is further subject to the conditions that the unit complies with all the laws/rules/decisions and competent directions of the Board/Government and its functionaries in all respects before commissioning of the operation and during its actual working strictly.

7. No in-process or post-process objectionable emission or the effluent will be allowed, if the scheme furnished by the unit turns out to be defective in any actual experience

8. The Electricity Department will give only temporary connection and permanent connection to the unit will be given after verifying the consent granted by the Board, both under Water Act and Air Act.

9. Unit will raise the stack height of DG Set/Boiler as per Board's norms.

10. Unit will maintain proper logbook of Water meter/sub meter before/after commissioning.

11. That in the case of an industry or any other process the activity is located in an area approved and that in case the activity is sited in an residential or institutional or commercial or agricultural area, the necessary permission for siting such industry and process in an residential or institutional or commercial or agricultural area or controlled area under Town and Country Planning laws CLU or Municipal laws has to be obtained from the competent Authority in law permitting this deviation and be submitted in original with the request for consent to operate.

12. That there is no discharge directly or indirectly from the unit or the process into any interstate river or Yamuna River or River Ghaggar.

13. That the industry or the unit concerned is not sited within any prohibited distances according to the Environmental Laws and Rules, Notification, Orders and Policies of Central Pollution control Board and Haryana State Pollution Control Board.

14. That of the unit is discharging its sewage or trade effluent into the public sewer meant to receive trade effluent from industries etc. then the permission of the Competent Authority owing and operating such public sewer giving permission letter to his unit shall be submitted at time of consent to operate.

15. That if at any time, there is adverse report from any adjoining neighbor or any other aggrieved party or Municipal Committee or Zila Parishad or any other public body against the unit's pollution; the Consent to Establish so granted shall be revoked.

16. That all the financial dues required under the rules and policies of the Board have been deposited in full by the unit for this Consent to Establish.

17. In case of change of name from previous Consent to Establish granted, fresh Consent to Establish fee shall be levied.

18. Industry should adopt water conservation measures to ensure minimum consumption of water in their Process. Ground water based proposals of new industries should get clearance from Central Ground Water Authority for scientific development of previous resource.

19. That the unit will take all other clearances from concerned agencies, whenever required.

20. That the unit will not change its process without the prior permission of the Board.

21. That the Consent to Establish so granted will be invalid, if the unit falls in Aravali Area or non conforming area.

22. That the unit will comply with the Hazardous Waste Management Rules and will also make the non-leachate pit for storage of Hazardous waste and will undertake not to dispose off the same except for pit in their own premises or with the authorized disposal authority.

23. That the unit will submit an undertaking that it will comply with all the specific and general conditions as imposed in the above Consent to Establish within 30 days failing which Consent to Establish will be revoked.

24. That unit will obtain EIA from MoEF, if required at any stage.

25. In case of unit does not comply with the above conditions within the stipulated period, Consent to Establish will be revoked.

26. That unit will obtain consent to operate from the board before the start of product activity.

Specific Conditions

Other Conditions :

(I) The previous unit EC is consider temporary for this unit, the said project will submit fresh EC in the said firm name as soon as possible. (II)The unit will apply for consent to operate before starting production activity and will comply with each condition of EC obtained by previous firm from MOEF(III)Unit will apply for HW authorization & make agreement with board authorized agency for safe disposal of Hazardous waste as per HOWM Rules,2016. (IV) Unit will take all necessary clearances from all the concerned departments / agencies. (V) The said unit will make Dust Suppression and wet drilling by using 36 KLD water through sprinklers etc.(VI)Unit will obtain necessary permission from Mines and Geology Department in compliance of Hon'ble Punjab & Haryana High court Chandigarh order dt.27.05.2019. (VII). The unit will abide with the directions/guidelines HSPCB/CPCB/ any court decision/ direction of any competent authority. (VIII). This CTE is prejudice to any action under the provisions of applicable laws / acts / notification / courts order to be taken in respect of any violation at any stage without any claim of the unit. If the unit fails to comply the provisions of water/air act, conditions of CTE, various applicable provisions of concerned departments / agencies / authorities / any relevant decision of court, the consent to establish so granted shall be revoked automatically without giving any notice.

Regional Officer, Jind

Haryana State Pollution Control Board.

HARYANA STATE POLLUTION CONTROL BOARD
SCF-32, sector 13, HUDA, Bhiwani Ph. 01664-240259

E-mail: hspcb.pkl@sify.com

No. HSPCB/Consent/ : 313100419CRDCTO6870943 **Dated:03/09/2019**

To.

M/s :Ridhi Sidhi KSM Resources JV
223min,224 to 228 & 72, Village Kalali & Kalyana, District Charkhi Dadri, Haryan

Subject: Grant of consent to operate to M/s Ridhi Sidhi KSM Resources JV.

Please refer to your application no. 6870943 received on dated 2019-08-21 in regional office Jind.With reference to your above application for consent to operate,M/s Ridhi Sidhi KSM Resources JV is here by granted consent as per following specification/Terms and conditions.

Consent Under	BOTH
Period of consent	29/08/2019 - 30/09/2024
Industry Type	Mining and ore beneficiation
Category	RED
Investment(In Lakh)	784.0
Total Land Area(Sq. meter)	644000.0
Total Builtup Area(Sq. meter)	0.0
Quantity of effluent	
1. Trade	0.0 KL/Day
2. Domestic	1.0 KL/Day
Number of outlets	1.0
Mode of discharge	
1. Domestic	Septic tank
2. Trade	
Domestic Effluent Parameters	
1. BOD	30 mg/l
2. COD	250 mg/l
3. TSS	100 mg/l
4. pH	9.0
Trade Effluent Parameters	
1. BOD	30 mg/l
2. COD	250 mg/l
3. TSS	100 mg/l
Number of stacks	1
Height of stack	
1. NA	

Emission parameters	
1. PM2.5	60
2. PM10	100
Product Details	
1. Rock Stone	4833 Metric Tonnes/day
Capacity of boiler	
1. NA	Ton/hr
Type of Furnace	
1. NA	
Type of Fuel	
1. Diesel	KL/day
Raw Material Details	
Rock Stone	4833 Metric Tonnes/Day

Regional Officer, Jind
Haryana State Pollution Control Board.

Terms and conditions

1. The applicants shall maintain good house keeping both within factory and in the premises. All hose pipelines values, storage tanks etc. shall be leak proof. In plant allowable pollutants levels, if specified by State Board should be met strictly.
2. The applicant/company shall comply with and carry out directive/orders issued by the Board in this consent order at all subsequent times without negligence of his /its part. The applicant/company shall be liable for such legal action against him as per provision of the law/act in case of violation of any order/directives. Issued at any time and or non compliance of the terms and conditions of his consent order.
3. The applicant shall make an application for grant of consent at least 90 days before the date of expiry of this consent.
4. Necessary fee as prescribed for obtaining renewal consent shall be paid by the applicant alongwith the consent application.
5. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above required variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard vary all or such condition and there upon the applicant shall be bound to comply with the conditions so varied.
6. The industry shall provide adequate arrangement for fighting the accidental leakages, discharge of any pollutants gas/liquids from the vessels, mechanical equipment etc. which are likely to cause environment pollution.
7. The industry shall comply noise pollution (Regulation and control) Rules, 2000.
8. The industry shall comply all the direction/Rules/Instructions as may be issued by the MOEF/CPCB/HSPCB from time to time.
9. The industry shall ensure that various characteristics of the effluents remain within the tolerance limits as specified in EPA Standard and as amended from time to time and at no time the concentration of any characteristics should exceed these limits for discharge.

10. The industry would immediately submit the revised application to the Board in the event of any change in the raw material in process, mode of treatment/discharge of effluent. In case of change of process at any stage during the consent period, the industry shall submit fresh consent application alongwith the consent to operate fee, if found due, which may be on any account and that shall be paid by the industry and the industry would immediately submit the consent application to the Board in the event of any change during the year in the raw material, quantity, quality of the effluent, mode of discharge, treatment facilities etc.
11. The officer/official of the Board shall reserve the right to access for the inspection of the industry in connection with the various process and the treatment facilities. The consent to operate is subject to review by the Board at any time.
12. Permissible limits for any pollutants mentioned in the consent to operate order should not exceed the concentration permitted in the effluent by the Board.
13. The industry shall pay the balance fee, in case it is found due from the industry at any time later on.
14. If the industry fails to adhere to any of the conditions of this consent to operate order, the consent to operate so granted shall automatically lapse.
15. If the industry is closed temporarily at its own, they shall inform the Board and obtain permission before restart of the unit.
16. The industry shall comply all the Directions/ Rules/Instructions issued from time to time by the Board.

Specific Conditions :

. (i).That the unit will submit the analysis report from the Board lab within three month from the date of issue of first consent to operate. (ii). That the unit will run and maintain the APCM & green belt. (iii). That the unit will apply for renewal of consent to operate before 90 days from the expiry of this CTO. (iv).The said mining project will make strict compliance of EC granted by MOEF/SEIAA. (v).The said unit will submit half yearly Environment management report as per EC condition & board policy for mining projects.(vi). The previous unit EC is consider temporary for this unit ,the said project will obtain fresh EC from SEIAA and then submit fresh EC in the said firm name as soon as possible . (vii).Unit will apply for HW authorization & make agreement with board authorized agency for safe disposal of Hazardous waste as per HOWM Rules,2016. (viii). The said unit will make Dust Suppression and wet drilling by using water through sprinklers etc.(ix) unit will install AAQMS at three locations within mining lease area for EC compliance (copy of comprehensive inspection report on prescribed Performa along with photographs) (x) Unit will take all necessary clearances from all the concerned departments / agencies. (xi). The unit will abide with the directions/guidelines HSPCB/CPCB/ any court decision/ direction of any competent authority. (xii) This CTO is without prejudice to any action under the provisions of applicable laws / acts / notification / courts order to be taken in respect of any violation at any stage without any claim of the unit. If the unit fails to comply the provisions of EC/CTE/CTO, various applicable provisions of concerned departments / agencies / authorities / any relevant decision of court, the consent to operate so granted shall be revoked automatically without giving any notice.

Regional Officer, Jind
Haryana State Pollution Control Board.

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga Rejuvenation
Central Ground Water Authority (CGWA)
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/2974/HR/MIN/2020

1.	**General Information:**	
	Water Quality:	Fresh Water
	Whether Ground Water Utilization for:	Existing Industry
	Date of Commencement Mine/Project:	19/08/2019
	Date of Expansion:	
	Application Type Category/ Type of Application	Stone
2.	**Name of Mine/Project:**	M/S RIDDHI SIDDHI KSM RESOURCES JV
3.	**Location Details of the Mining Unit- (Attach Site, Approved Mining Plan) ($) :**	
	Address Line 1 :	VPO KALIYANA
	Address Line 2 :	
	Address Line 3 :	
	State:	HARYANA
	District:	BHIWANI
	Sub-District:	DADRI-II
	Village/Town:	Kalyana(145)
	Latitude:	28.332999
	Longitude	76.111564
	Area Type :	Non-Notified
	Area Type Category :	Critical
4.	**Communication Address**	
	Address Line 1:	VPO KALIYANA
	Address Line 2:	
	Address Line 3:	
	State:	HARYANA
	District:	BHIWANI
	Sub-District:	DADRI-II
	Pincode:	127306
	Phone Number with Area Code:	
	Mobile Number:	91 8814027600
	Fax Number:	
	E-Mail:	accounts@rsksmjv.com
5.	**Salient Features of the Activity:**	
	MINES STONES	
6.	**Land Use Details of the Surroundings (km 10 Radius – Outside): ($)**	
	Land Use Details of the Surroundings(km 10 radius):	

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/2974/HR/MIN/2020

7. Land Use Detail of Project Area

Land Use Details	Existing (sq meter)	Proposed (sq meter)	Grand Total (sq meter)
Green Belt Area	5000.00	60000.00	65000.00
Open Land	4000.00	8000.00	12000.00
Road/ Paved Area	2000.00	4000.00	6000.00
Rooftop area of building/ sheds	4000.00	4000.00	8000.00
Total	15000.00	76000.00	91000.00

8.	**Topography of the Area**	
a)	**Regional**	NO
b)	**Project Area**	NO
9.	**Drainage in the Area (River / Nala etc)**	
a)	**Regional**	NO
b)	**Project Area**	NO
10.	**Source of Availability of Surface Water – Furnish Details:**	TUBWELL
11.	**Average Annual Rainfall in the Area (in mm):**	517.00
12.	**Townships/Villages within 10 km radius of the Project:**	VILLAGES

13.	**Whether the Groundwater Table will be Intersected by Activity :-**			No
(a)	**At What Depth (m bgl)**		**Pre-monsoon**	**Post-monsoon**
	Minimum (m bgl)			
	Maximum (m bgl)			
(b)	**Maximum Depth Proposed to Dewater (m bgl)**			
(c)	**Groundwater Flow Direction (Attach Map)($)**			
(d)	**Any Other Information**			
14.	**Total Water Requirment for various Purpose to be Mentioned**		**(m3/day)**	**(m3/year)**
	Ground Water Required through Abstract Structure		132.00	48000.00
	Ground Water Abstracted on account of Dewatering / Mining Seepage			
	Total Ground Water Withdrawal		132.00	48000.00

15. Details of De-Watering Structure

(a) De-Watering Existing Structure

Number of Existing Structures: 0

SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours(Day) / Days (Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA /If so Details Thereof

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga Rejuvenation
Central Ground Water Authority (CGWA)
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/2974/HR/MIN/2020

	(b)	**De-Watering Requirment and Proposed Structure Detail**									
	Number of Proposed Structures:					0					
		SNo.	**Type of Structure Name / Year of Construction**	**Depth (Meter) / Diameter (mm)**	**Depth to Water Level (Meters below Ground Level)**	**Discharge (m3/Hour)**	**Operational Hours(Day) / Days(Year)**	**Mode of Lift Name**	**Horse Power of Pump**	**Whether fitted with Water Meter**	**Whether Permission Registered with CGWA/If so Details Thereof**

16.	**Proposed Utilization of Pumped Water (Please Attach Details)(m3/year) ($)**			
	(a)	**Domestic Use in Mines**	5000.00	
	(b)	**Water Supply**	2000.00	
	(c)	**Agriculture**		
	(d)	**Green Belt Development**	30000.00	
	(e)	**Suppression of Dust**	13000.00	
	(f)	**Recharge**		
	(g)	**Any Other Item**		

17.	**Monitoring of Ground Water Regime (Attach Map($))**		
	(a)	**Location Details of the Wells / Piezometers (Latitute, Longitude, Reduced Level)**	28.332999, 76.1125913
	(b)	**Number of Wells / Piezometers**	0
	(c)	**Attach Details of GW Level of Observation Wells / Piezometers(At Least for One Year)($)**	0
	(d)	**Number of Wells / Piezometers Proposed to Monitor**	0
	(e)	**Number of Piezometers Proposed to Monitor to Construct in Surroundings**	0
	(f)	**General Water Quality Report from NABL accredited lab(in the Arae and Surroundings) ($)**	0
	(g)	**Any Other Item**	0

18.	**Proposed Pump / Pumping Groundwater Outside the Mine Pit for Domestic or Other Use (If so, give Details):**										
	Number of Existing Structures:					0					
		SNo.	**Type of Structure Name / Year of Construction**	**Depth (Meter) / Diameter (mm)**	**Depth to Water Level (Meters below Ground Level)**	**Discharge (m3/Hour)**	**Operational Hours (Day) / Days (Year)**	**Mode of Lift Name**	**Horse Power of Pump**	**Whether fitted with Water Meter**	**Whether Permission Registered with CGWA/If so Details Thereof**
	Number of Proposed Structures:					0					

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga Rejuvenation
Central Ground Water Authority (CGWA)
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/2974/HR/MIN/2020

		SNo.	Type of Structure Name / Year of Construction	Depth (Meter) / Diameter (mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours (Day) / Days (Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA/If so Details Thereof

19.	**Groundwater Availability Report (Please Enclose a Comprehensive Report on Groundwater Condition / Groundwater Quality in and Around 5Km of the Area) Map showing location of groundwater regime monitoringwells, flow chart showing details of water requirment and recycle water use and gainfull of pumped water- ($)**	
	NO	
20.	**Details of Rainwater Harvesting / Artificial Recharge Measures for Groundwater Recharge in the Area. If already Implemented, details may be Furnished. (Attach Report on Comprehensive & Feasible Rainwater Harvesting / Recharge Proposal).- ($)**	
	NO	
21.	**TOR/EC/Approval letter from statutory bodies viz Ministry of Environment & Forest (MoEF) or State Pollution Control Board (SPCB) or State Level Expert Appraisal Committee(SEAC) or State Level Environment Impact Assessment Authority (SLEIAA)- ($)**	
	Attached Referral Letter	**No Record Found!**
	Letter Number	**HSPCB/CONSENT:313100419CRDCTO6870943**
22.	**Have you Applied Earlier for the Same Purpose with CGWA / State Ground Water Authority:**	
	If Yes, so Details thereof with Status:	

MINING USE- Self Declaration

☑ I hereby certify that the data and information furnished above are true to the best of my knowledge and belief and I am aware that if any part of the data / information submitted is found to be false or misleading at any stage, the application will be rejected outright.

I hereby declare that all the mandatory documents prescribed in the application form have been uploaded and no blank /irrelevant documents have been uploaded. I am also aware that any false/ wrong submission /uploading of document will lead to rejection of my application without any notice.

It is to certify that no case related to ground water withdrawal/ contamination is pending against the industry/ project/ unit as on date. Any such case filed against the company/ project/ unit in respect of ground water withdrawal/ contamination during the pendency of this application shall be immediately brought to the notice of CGWA.

I hereby undertake that in case any environmental compensation/ penalty is imposed on the firm by any statutory authority, I shall comply with the decision of such authority.

1. Application Proforma is subject to modification from time to time.

2. Application is submitted online on website http://cgwa-noc.gov.in to following office.

Regional Director,Central Ground Water Board North Western Region, Bhujal Bhawan, Plot No. 3B, Sector 27-A, CHANDIGARH, CHANDIGARH, 160019

3. Incomplete application will be summarily rejected.

Scanned copy of last page of application with signature and seal should be attached at presribed place before submission of application.

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/2974/HR/MIN/2020

4. Reciept of Processing Fee of Rs. 1000.00/- (Rupees One Thousand Only) submitted through NON TAX RECEIPT PORTAL (https://bharatkosh.gov.in) should be attached in online application at prescribed place before submission of application.	
Processing Fee:-	
Bharat Kosh Transaction Ref. No:-	2206200000482
Bharat Kosh Transaction Date:-	22/06/2020
Note:- The Processing Fee is Non-Refundable. Applicant should ensure and Check Eligibility of Submission of Application and Required Documents before Submitting Online Application.	
5. Hard copy of application required:	No

Attached Files:

1). Site Plan : (Refer 3)

No Attachment Found!

2). Approved Mining Plan : (Refer:3)

S.No	Attachment Name	File Name
1	CTO	img690.pdf

3). Toposketch of Surroundings 10 km Radius Outside : (Refer: 3)

No Attachment Found!

4). Document of Ownership of the land : (Refer-7)

No Attachment Found!

5). Source of Availability of Surface Water : (Refer-10)

No Attachment Found!

6). GroundWater flow Direction Map : (Refer: 13-C)

No Attachment Found!

7). Proposed Utilization of Pumped Water : (Refer: 16)

No Attachment Found!

8). Monitoring of Groundwater Regime Map : (Refer: 17)

No Attachment Found!

9). GW Level of Observation Wells / Piezometer : (Refer: 17-C)

No Attachment Found!

10). General Quality of Ground Water in the Area : (Refer: 17-f)

S.No	Attachment Name	File Name
1	SELF DECLRATION	img691.pdf

11). Hydrogeological Report (Previous:Groundwater Availability Report) : (Refer: 19)

Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga Rejuvenation
Central Ground Water Authority (CGWA)
Applications for Issue of NOC to Abstract Ground Water (NOCAP)

Application for Permission to Dewater Ground Water for Mining Industry (Application for New NOC)

Application Number : 21-4/2974/HR/MIN/2020

S.No	Attachment Name	File Name
1	SELF DECLRATION	img691.pdf

12). Rain Water Harvesting/Artificial Recharge proposal (Previous:Details of Rainwater Harvesting and Artificial Recharge Measures) : (Refer: 20)

S.No	Attachment Name	File Name
1	SELF DECLRATION	img691.pdf

13). Authorization Letter (Previous:Authorization) :

S.No	Attachment Name	File Name
1	LICENCE	img692.pdf

15). Extra Attachment :

No Attachment Found!

16). Scanned Mining Application :

No Attachment Found!

17). TOR/EC/Approval Letter :

S.No	Attachment Name	File Name
1	CTE	img689.pdf

18). Bharat Kosh Reciept (Porcessing Fee):

S.No	Attachment Name	File Name
1	FEE RECIEPT	ridhi fee.pdf

19). Application with Signature and Seal:

Error: Subreport could not be shown.

Date : Name & Signature of the applicant

Place : (With official seal)

Associated User : imanil2u

Submitted By User : imanil2u

Submission Date : 24/06/2020

* In case signed by any authorized signatory, the details of the signatory with the authorization shall be enclosed.

...-06-2020 at
...ice Station. If
...found please
...e address.

...C NOTICE
...ALUJA S/O UTTM
...A R/O H NO 169-R
...N TEHSIL & DIS
...EREBY SOLEMNLY
...LEAR THAT I WISH
...THE FOLLOWING
...LANDS DETAILS OF
...LAND OWNED BY
...ONE BUILDERS AND
...PVT LTD. (CIN No.
...P TC063726) Regd
...Patel Nagar, New
...Rakba 6 Kanal 12
...cre) Rectangle and
.../1 (0-14), 7 (5-18)
...age Kabri Tehsil &
...LAND OWNED BY
...ers Pvt Ltd. (CIN No
...PTC138793) Regd
...Vandana Building
...Marg, New Delhi
...30 Kanal 18 Marla
...ectangle and Killa
...6),9(6-4),10(8-18),
...(8-0),Situated at
...sil & Distt Panipat,
...E AGREED TO
...THE ABOVE
...N THE MUTUAL
...ED WITH THE
...UNDERSIGN
...HIS NOTICE FOR
...E TO INVESTIGATE
...WNERSHIP OF
...PROPERTIES AS
...E. ANY PERSON
...JECTION / CLAIM
...ATE WITHIN 15
...NDERSIGNED.NO
...NTERTAIN AFTER
...S OF NOTICE.
...LUJA(email id.)
...a13@gmail.com

...supporting documents within 30 days from the date of publication of this notice, otherwise the Estate Officer may accord permission to transfer / re-allotment of the said property as per HUDA policy and may not entertain subsequent claim, if any.

Name: Kanwal Jeet Kaur
Legal heirs
on behalf of Estate Officer Sirsa

Public Notice

This is to inform that M/s Riddhi Siddhi KSM Resources JV has been accorded Environmental Clearence for Mining of Stone along with associated minor Minerals at Village Kalali and Kalyana District Charkhi Dadri, Haryana (Area 64.40 Hectors) mining project under EIA notification, 2006 by SEIAA Haryana. Copy of EC Letter is available with State Pollution Control Board/ Committee and Website of the Ministry of Environment, Forest and Climate change (www.parivesh.nic.in)

...Late Sh. Gurdial S...
Gurdial Singh who w...
100% share of th...
property/ house has...
on 22.11.2012. ...
intimated that **Sh. G...**
left behind the follow...
(1) Sh. Harmoh...
Pannu - Son (2) Sh...
Pannu - Son
Now **(1) Sh. Harm...**
Pannu - Son (2) S...
Pannu - Son of ...
Singh vide ap...
11.09.2019 have a...
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of Intestate Dea...
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अध्यक्ष
मौके
सफाई
कि
रूआत

झज्जर-गुरुग्राम रोड पर बिना नंबर की एक बलेनो गाड़ी में सवार चार लड़कों ने उनकी गाड़ी के आगे अपनी गाड़ी लगा दी। चालक एवं परिचालक साइड का शीशा तोड़ते हुए गाड़ी छीन ली।

Public Notice

This is to inform that M/s Riddhi Siddhi KSM Resources JV has been accorded Environmental Clearence for Mining of Stone along with associated minor Minerals at Village Kalali and Kalyana District Charkhi Dadri, Haryana (Area 64.40 Hectors) mining project under EIA notification, 2006 by SEIAA Haryana. Copy of EC Letter is available with State Pollution Control Board/ Committee and Website of the Ministry of Environment, Forest and Climate change (www. parivesh.nic.in)

चीन से लोहा लेते हु
हुए 20 वीर सैनि
श्रद्ध

Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/A/01**	**Report No.:**	**VEL/A/2009/17/001**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
		Period of Analysis	**17/09/2020 to 21/09/2020**
Name & address of Project :	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana, Distt- Charkhi Dadri, Haryana.**	**Receipt Date:**	**17/09/2020**
Sample Description :	**Ambient Air Quality Monitoring**		

General Information:-

Sample collected by	: Vardan Enviro Lab Representative
Sampling Location	: **Up Wind Direction(Near Mine Site)**
Instrument Used	: RDS & FPS with all accessories
Instrument Code	: VEL/RDS-FPS/01
Instrument Calibration Status	: Calibrated
Meteorological condition during monitoring	: Clear Sky
Date of Monitoring	: **16/09/2020 to 17/09/2020**
Time of Monitoring	: 09:05 AM to 09:05 AM
Ambient Temperature (°C)	: Min 25℃ Max 36°C
Surrounding Activity	: Human, Vehicular & Mining Activities
Scope of Monitoring	: Regulatory Requirement
Sampling & Analysis Protocol	: **IS: 5182**
Parameter Required	: PM_{10}, $PM_{2.5}$, NO_2 & SO_2

TEST RESULTS

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	**Particulate Matter ($PM_{2.5}$)**	#SOP No. VEL/SOP/01, Section No. SP 63	**43.20**	$\mu g/m^3$	60
2.	**Particulate Matter (PM_{10})**	IS: 5182 (P-23) Gravimetric Method	**81.69**	$\mu g/m^3$	100
3.	**Nitrogen Dioxide (NO_2)**	IS: 5182 (P-6) Jacob & Hochheiser	**25.20**	$\mu g/m^3$	80
4.	**Sulphur Dioxide (SO_2)**	IS: 5182 (P-2) Modified West and Gaeke	**12.10**	$\mu g/m^3$	80

*NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009
SOP-As per Laboratory Standard Operating Procedure.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIRO LAB
(Approved By)
Authorised Signatory

NOTE: a)The results listed refer only to the tested samples & applicable parameters
b) Total liabilities of our lab will be restricted to the invoice amount only
c) The sample will be destroyed after retention time unless otherwise specified
d) This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law

Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/ RS /A/02**	**Report No.:**	**VEL/A/2009/17/002**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
		Period of Analysis	**17/09/2020 to 21/09/2020**
Name & Address of Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana, Distt- Charkhi Dadri, Haryana.**	**Receipt Date:**	**17/09/2020**
Sample Description	**Ambient Air Quality Monitoring**		

General Information:-

Sample collected by	: Vardan Enviro Lab Representative
Sampling Location	: **Down Wind direction (500 mtr from mine site)**
Instrument Used	: RDS & FPS with all accessories
Instrument Code	: VEL/RDS-FPS/02
Instrument Calibration Status	: Calibrated
Meteorological condition during monitoring	: Clear Sky
Date of Monitoring	: **16/09/2020 to 17/09/2020**
Time of Monitoring	: 09:15 AM to 09:15 AM
Ambient Temperature (°C)	: Min 25℃ Max 36°C
Surrounding Activity	: Human, Vehicular & Mining Activities
Scope of Monitoring	: Regulatory Requirement
Sampling & Analysis Protocol	: **IS:5182**
Parameter Required	: PM_{10}, $PM_{2.5}$, NO_2 & SO_2

TEST RESULTS

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	**Particulate Matter ($PM_{2.5}$)**	#SOP No. VEL/SOP/01, Section No. SP 63	**48.32**	$\mu g/m^3$	60
2.	**Particulate Matter (PM_{10})**	IS: 5182 (P-23) Gravimetric Method	**86.10**	$\mu g/m^3$	100
3.	**Nitrogen Dioxide (NO_2)**	IS: 5182 (P-6) Jacob & Hochheiser	**23.84**	$\mu g/m^3$	80
4.	**Sulphur Dioxide (SO_2)**	IS: 5182 (P-2) Modified West and Gaeke	**12.40**	$\mu g/m^3$	80

*NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009
SOP -As per Laboratory Standard Operating Procedure.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIRO LAB ★ Authorised Signatory ★
(Approved By)

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Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/A/03**	**Report No.:**	**VEL/A/2009/17/003**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
		Period of Analysis	**17/09/2020 to 21/09/2020**
Name & Address of Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana, Distt- Charkhi Dadri, Haryana.**	**Receipt Date:**	**17/09/2020**
Sample Description:	**Ambient Air Quality Monitoring**		

General Information:-

Sample collected by	: Vardan Enviro Lab Representative
Sampling Location	: **Down Wind direction (Kaliyana Village)**
Instrument Used	: RDS & FPS with all accessories
Instrument Code	: VEL/RDS-FPS/03
Instrument Calibration Status	: Calibrated
Meteorological condition during monitoring	: Clear Sky
Date of Monitoring	: **16/09/2020 to 17/09/2020**
Time of Monitoring	: 09:35 AM to 09:35 AM
Ambient Temperature (°C)	: Min 25℃ Max 36°C
Surrounding Activity	: Human, Vehicular & Other Activities
Scope of Monitoring	: Regulatory Requirement
Sampling & Analysis Protocol	: **IS:5182**
Parameter Required	: PM_{10}, $PM_{2.5}$, NO_2 & SO_2

TEST RESULTS

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	**Particulate Matter ($PM_{2.5}$)**	#SOP No. VEL/SOP/01, Section No. SP 63	**45.20**	$\mu g/m^3$	60
2.	**Particulate Matter (PM_{10})**	IS: 5182 (P-23) Gravimetric Method	**85.61**	$\mu g/m^3$	100
3.	**Nitrogen Dioxide (NO_2)**	IS: 5182 (P-6) Jacob & Hochheiser	**23.47**	$\mu g/m^3$	80
4.	**Sulphur Dioxide (SO_2)**	IS: 5182 (P-2) Modified West and Gaeke	**12.15**	$\mu g/m^3$	80

*NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009
SOP -As per Laboratory Standard Operating Procedure.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIRO LAB ★ Authorised Signatory ★
(Approved By)

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Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/AN/01**	**Report No.:**	**VEL/AN/2009/17/001**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
		Receipt Date:	**17/09/2020**
Name & Address of Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana, Distt- Charkhi Dadri, Haryana.**		
Sample Description:	**AMBIENT NOISE LEVEL MONITORING**		

General Information:-

Sample collected by	: Vardan EnviroLab Representative
Sampling Location	: **Up Wind Direction (Near Mine Site)**
Instrument Used	: Sound Level Meter
Instrument Calibration Status	: Calibrated
Meteorological condition during monitoring	: Clear Sky
Date of Monitoring	: **16/09/2020 to 17/09/2020**
Time of Monitoring	: 06:00 AM to 06:00AM
Surrounding Activity	: Human, Vehicular & Mining Activities
Scope of Monitoring	: Regulatory Requirement
Sampling & Analysis Protocol	: **IS-9989**
Sampling Duration	: 24 Hours
Parameter Required	: L_{max}, L_{min}, & L_{eq}

S. No.	Parameters	Protocol	Test Result dB (A)		Unit
			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	
1.	**L_{max}**	IS-9989	**75.2**	**67.4**	dB(A)
2.	**L_{min}**	IS-9989	**62.8**	**48.9**	dB(A)
3.	**L_{eq}**	IS-9989	**71.36**	**63.25**	dB(A)
4.	**As per #DGMS Limits in dB(*A) Leq (Mining Area)**	-	**75.00**	**70.00**	dB(A)

Note- * A "decibel" is a unit in which noise is measured. #DGMS-Directorate General of Mines & Safety.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIROLAB
(Approved By)
Authorised Signatory

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Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/AN/02**	**Report No.:**	**VEL/AN/2009/17/002**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
Name & Address of Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana, Distt- Charkhi Dadri, Haryana.**	**Receipt Date:**	**17/09/2020**
Sample Description :	**AMBIENT NOISE LEVEL MONITORING**		

General Information:-

Sample collected by	: Vardan Enviro Lab Representative
Sampling Location	: **Down Wind Direction (500 mtr from mine site)**
Instrument Used	: Sound Level Meter
Instrument Calibration Status	: Calibrated
Meteorological condition during monitoring	: Clear Sky
Date of Monitoring	: **16/03/2020 to 17/03/2020**
Time of Monitoring	: 06:00 AM to 06:00AM
Surrounding Activity	: Vehicular & Mining Activities
Scope of Monitoring	: Regulatory Requirement
Sampling & Analysis Protocol	: **IS-9989**
Sampling Duration	: 24 Hours
Parameter Required	: L_{max}, L_{min}, & L_{eq}

S. No.	Parameters	Protocol	Test Result dB (A)		Unit
			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	
1.	**L_{max}**	IS-9989	**76.4**	**71.4**	dB(A)
2.	**L_{min}**	IS-9989	**63.9**	**57.9**	dB(A)
3.	**L_{eq}**	IS-9989	**69.43**	**64.20**	dB(A)
4.	**As per #DGMS Limits in dB(*A) Leq (Mining Area)**	-	**75.00**	**70.00**	dB(A)

Note- * A "decibel" is a unit in which noise is measured. #DGMS-Directorate General of Mines & Safety.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIRO LAB ★ Authorised Signatory ★
(Approved By)

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Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/AN/03**	**Report No.:**	**VEL/AN/2009/17/003**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
Name & Address of Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana, Distt- Charkhi Dadri, Haryana.**	**Receipt Date:**	**17/09/2020**
Sample Description :	**AMBIENT NOISE LEVEL MONITORING**		

General Information:-

Sample collected by	: Vardan Enviro Lab Representative
Sampling Location	: **Down Wind Direction (Kaliyana Village)**
Instrument Used	: Sound Level Meter
Instrument Calibration Status	: Calibrated
Meteorological condition during monitoring	: Clear Sky
Date of Monitoring	: **16/03/2020 to 17/03/2020**
Time of Monitoring	: 06:00 AM to 06:00AM
Surrounding Activity	: Human & Vehicular Activities
Scope of Monitoring	: Regulatory Requirement
Sampling & Analysis Protocol	: **IS-9989**
Sampling Duration	: 24 Hours
Parameter Required	: L_{max}, L_{min}, & L_{eq}

S. No.	Parameters	Protocol	Test Result dB (A)		Unit
			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	
1.	**L_{max}**	IS-9989	**54.4**	**44.1**	dB(A)
2.	**L_{min}**	IS-9989	**43.2**	**37.8**	dB(A)
3.	**L_{eq}**	IS-9989	**49.30**	**41.56**	dB(A)
4.	**CPCB Limits in dB(*A) Leq (Residential Area)**	-	**55.00**	**45.00**	dB(A)

Note- * A "decibel" is a unit in which noise is measured.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIRO LAB ★ Authorised Signatory ★
(Approved By)

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Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/S/01**	**Report No.:**	**VEL/S/2009/17/001**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
Name & Address of Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana , Distt- Charkhi Dadri, Haryana.**	**Period of Analysis:**	**17/09/2020 to 21/09/2020**
		Receipt Date:	**17/09/2020**
		Sampling Date:	**17/09/2020**
Sample Description:	**Soil Sample**	**Type of Sampling:**	**Composite**
Sampling Location:	**Near Mine Site**	**Sampling Quantity:**	**2.0 Kg**
Sampling & Analysis Protocol:	**IS 2720, USEPA 3050B & USDA**	**Packing Status:**	**Temp Sealed**

S. No.	Parameter	Test-Method	Result	Unit
1.	**pH (at 25 ^{0}C)**	IS : 2720 (P-26) by pH Meter	**7.52**	--
2.	**Conductivity**	IS:14767 by Conductivity meter	**0.314**	mS/cm
3.	**Soil Texture**	IS : 2720 (P-22, RA2003)	**Sandy**	--
4.	**Color**	SOP , SP-78,Issue No.-01& Issue Date-14/02/2013	**Brownish**	--
5.	**Water holding capacity**	SOP , SP-81,Issue No.-01& Issue Date-14/02/2013	**35.10**	%
6.	**Bulk density**	SOP , SP-80,Issue No.-01& Issue Date-14/02/2013	**1.61**	gm/cc
7.	**Chloride as Cl**	SOP , SP-85,Issue No.-01& Issue Date-14/02/2013	**41.84**	mg/100g
8.	**Calcium as Ca**	SOP , SP-82,Issue No.-01& Issue Date-14/02/2013	**42.64**	mg/100g
9.	**Sodium as Na**	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	**36.90**	mg/kg
10.	**Potassium as K**	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	**130.10**	kg/hec.
11.	**Organic Matter**	IS:2720 (P-22) Titrimetric Method	**0.71**	%
12.	**Magnesium as Mg**	SOP , SP-83,Issue No.-01& Issue Date-14/02/2013	**23.84**	mg/100g
13.	**Available Nitrogen as N**	IS:14684 Distillation Method	**146.40**	kg./hec.
14.	**Available Phosphorus**	SOP , SP-86,Issue No.-01& Issue Date-14/02/2013	**23.25**	kg./hec.
15.	**Zinc (as Zn)**	USEPA 3050B	**6.42**	mg/kg
16.	**Manganese (as Mn)**	USEPA 3050B	**4.14**	mg/kg
17.	**Lead (as Pb)**	USEPA 3050B	**1.46**	mg/kg
18.	**Cadmium (as Cd)**	USEPA 3050B	**1.71**	mg/kg
19.	**Chromium (as Cr)**	USEPA 3050B	**1.34**	mg/kg
20.	**Copper (as Cu)**	USEPA 3050B	**3.10**	mg/kg

*SOP-Laboratory standard operating procedure.

Ruchi Chaudhary
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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/S/02**	**Report No.:**	**VEL/S/2009/17/002**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
		Period of Analysis:	**17/09/2020 to 21/09/2020**
Name & Address of Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana , Distt-Charkhi Dadri, Haryana.**	**Receipt Date:**	**17/09/2020**
		Sampling Date:	**17/09/2020**
		Type of Sampling:	**Composite**
		Sampling Quantity:	**2.0 Kg**
Sample Description:	**Soil Sample**	**Packing Status:**	**Temp Sealed**
Sampling Location:	**Village - Kalyana**		
Sampling & Analysis Protocol:	**IS 2720, USEPA 3050B & USDA**		

S. No.	Parameter	Test-Method	Result	Unit
1.	**pH (at 25 ^{0}C)**	IS : 2720 (P-26) by pH Meter	**7.40**	--
2.	**Conductivity**	IS:14767 by Conductivity meter	**0.368**	mS/cm
3.	**Soil Texture**	IS : 2720 (P-22, RA2003)	**Sandy**	--
4.	**Color**	SOP , SP-78,Issue No.-01& Issue Date-14/02/2013	**Brownish**	--
5.	**Water holding capacity**	SOP , SP-81,Issue No.-01& Issue Date-14/02/2013	**35.10**	%
6.	**Bulk density**	SOP , SP-80,Issue No.-01& Issue Date-14/02/2013	**1.61**	gm/cc
7.	**Chloride as Cl**	SOP , SP-85,Issue No.-01& Issue Date-14/02/2013	**55.42**	mg/100g
8.	**Calcium as Ca**	SOP , SP-82,Issue No.-01& Issue Date-14/02/2013	**36.10**	mg/100g
9.	**Sodium as Na**	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	**35.84**	mg/kg
10.	**Potassium as K**	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	**148.10**	kg/hec.
11.	**Organic Matter**	IS:2720 (P-22) Titrimetric Method	**0.41**	%
12.	**Magnesium as Mg**	SOP , SP-83,Issue No.-01& Issue Date-14/02/2013	**18.62**	mg/100g
13.	**Available Nitrogen as N**	IS:14684 Distillation Method	**139.58**	kg./hec.
14.	**Available Phosphorus**	SOP , SP-86,Issue No.-01& Issue Date-14/02/2013	**25.82**	kg./hec.
15.	**Zinc (as Zn)**	USEPA 3050B	**6.10**	mg/kg
16.	**Manganese (as Mn)**	USEPA 3050B	**3.14**	mg/kg
17.	**Lead (as Pb)**	USEPA 3050B	**1.21**	mg/kg
18.	**Cadmium (as Cd)**	USEPA 3050B	**1.30**	mg/kg
19.	**Chromium (as Cr)**	USEPA 3050B	**0.64**	mg/kg
20.	**Copper (as Cu)**	USEPA 3050B	**5.18**	mg/kg

Ruchi Chaudhary
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ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/W/01**	**Report No.:**	**VEL/W/2005/05/003**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**11/05/2020**
		Period of Analysis:	**05/05/2020 to 11/05/2020**
Name & Address of Project	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalali & Kalyana, Distt- Charkhi Dadri, Haryana.**	**Receipt Date:**	**05/05/2020**
		Sampling Date:	**05/05/2020**
		Sampling Quantity:	**2.0 Ltr**
Sample Description:	**Ground Water Sample**	**Sampling Type:**	**Grab**
Sampling Location:	**Near Mine Site**	**Preservation:**	**Refrigerated**
Sample Collected by	**Vardan Enviro Lab representative**	**Parameter Required:**	**As Per Work Order**
Sampling & Analysis Protocol:	**IS &APHA**		

S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 ^{0}C)	APHA ,4500-H^+ B Electrometric Method	7.28	--	6.5 to 8.5	No Relaxation
2.	Colour	APHA ,2120 B, Visual Comparison Method	*BDL (**DL 5Hazen)	Hazen	5	15
3.	Turbidity	APHA, 2130 B, Nephlelometric Method	*BDL (**DL 0. 1 NTU)	NTU	1	5
4.	Odour	APHA, 2150 B , Threshold Test Method	Agreeable	--	Agreeable	Agreeable
5.	Taste	APHA , 2160 B, Threshold Test Method	Agreeable	--	Agreeable	Agreeable
6.	Total Hardness as $CaCO_3$	APHA , 2340 C, EDTA Titrimetric Method	157.56	mg/l	200	600
7.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	43.20	mg/l	75	200
8.	Alkalinity as $CaCO_3$	APHA , 2320 B, Titrimetric Method	142.43	mg/l	200	600
9.	Chloride as Cl	APHA, 4500-Cl^- B, Argentometric Method	51.20	mg/l	250	1000
10.	#Cyanide as CN	APHA , 4500 CN^- D	*BDL(**DL 0.02 mg/l)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	12.09	mg/l	30	100
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	410.00	mg/l	500	2000
13.	Sulphate as SO_4	APHA , 4500 E, Turbidimetric Method	41.20	mg/l	200	400
14.	Fluoride as F	APHA , 4500-F^- D, SPADNS Method	0.21	mg/l	1.0	1.5
15.	Nitrate as NO_3	IS 3025 (P-34) ,Chromotropic Method	4.52	mg/l	45	No Relaxation
16.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	0.24	mg/l	0.3	No relaxation
17.	Aluminium as Al	APHA , 3111 B	*BDL(**DL 0.03 mg/l)	mg/l	0.03	0.2
18.	Boron	APHA, 4500B C, Carmine Method	0.35	mg/l	0.5	1
19.	Total Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.03 mg/l)	mg/l	0.05	No Relaxation

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ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample No.: **VEL/RS/W/01**						**VEL/W/2005/05/003**
S. No	**Parameter**	**Test-Method**	**Result**	**Unit**	**Limits of IS:10500-2012**	
					Requirement (Acceptable) Limit	**Permissible limit in the Absence of Alternate Source**
20.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	*BDL(**DL 0.001 mg/l)	mg/l	0.001	0.002
21.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	*BDL(**DL 0.01mg/l)	mg/l	0.5	No Relaxation
22.	#Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	*BDL(**DL 0.02 mg/l)	mg/l	0.2	1.0
23.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.32	mg/l	5	15
24.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.17	mg/l	0.05	1.5
25.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.06 mg/l)	mg/l	0.1	0.3
26.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.003mg/l)	mg/l	0.003	No Relaxation
27.	Lead as Pb	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
28.	Selenium as Se	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
29.	Arsenic as As	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	0.05
30.	Mercury as Hg	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL (**DL 0.001 mg/l)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 1622,1981,RA-2019	<2	MPN/100ml	Shall not be detectable in any 100 ml sample	
32.	E. Coli	IS 1622,1981, RA-2019	Absent	MPN/100ml	Shall not be detectable in any 100 ml sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit
#These parameter are not covered in our NABL scope.

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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/W/02**	**Report No.:**	**VEL/W/2005/05/004**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	
		Period of Analysis:	**11/05/2020**
Name & Address of Project	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalali & Kalyana, Distt- Charkhi Dadri, Haryana.**	**Receipt Date:**	**05/05/2020 to 11/05/2020**
		Sampling Date:	**05/05/2020**
		Sampling Quantity:	**2.0 Ltr**
Sample Description:	**Ground Water Sample**	**Sampling Type:**	**Grab**
Sampling Location:	**Village- Kaliyana**	**Preservation:**	**Refrigerated**
Sample Collected by	**Vardan Enviro Lab representative**	**Parameter Required:**	**As Per Work Order**
Sampling & Analysis Protocol:	**IS &APHA**		

S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 ^{0}C)	APHA ,4500-H^+ B Electrometric Method	7.69	--	6.5 to 8.5	No Relaxation
2.	Colour	APHA ,2120 B, Visual Comparison Method	*BDL (**DL 5Hazen)	Hazen	5	15
3.	Turbidity	APHA, 2130 B, Nephlelometric Method	*BDL (**DL 0. 1 NTU)	NTU	1	5
4.	Odour	APHA, 2150 B , Threshold Test Method	Agreeable	--	Agreeable	Agreeable
5.	Taste	APHA , 2160 B, Threshold Test Method	Agreeable	--	Agreeable	Agreeable
6.	Total Hardness as $CaCO_3$	APHA , 2340 C, EDTA Titrimetric Method	162.30	mg/l	200	600
7.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	48.12	mg/l	75	200
8.	Alkalinity as $CaCO_3$	APHA , 2320 B, Titrimetric Method	136.40	mg/l	200	600
9.	Chloride as Cl	APHA, 4500-Cl^- B, Argentometric Method	58.25	mg/l	250	1000
10.	#Cyanide as CN	APHA , 4500 CN^- D	*BDL(**DL 0.02 mg/l)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	10.26	mg/l	30	100
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	420.00	mg/l	500	2000
13.	Sulphate as SO_4	APHA , 4500 E, Turbidimetric Method	32.42	mg/l	200	400
14.	Fluoride as F	APHA , 4500-F^- D, SPADNS Method	0.51	mg/l	1.0	1.5
15.	Nitrate as NO_3	IS 3025 (P-34) ,Chromotropic Method	7.44	mg/l	45	No Relaxation
16.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	0.22	mg/l	0.3	No relaxation
17.	Aluminium as Al	APHA , 3111 B	*BDL(**DL 0.03 mg/l)	mg/l	0.03	0.2
18.	Boron	APHA, 4500B C, Carmine Method	0.42	mg/l	0.5	1
19.	Total Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.03 mg/l)	mg/l	0.05	No Relaxation

Ruchi Chaudhary
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ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample No.: **VEL/RS/W/02**					**VEL/W/2005/05/004**	
S. No	**Parameter**	**Test-Method**	**Result**	**Unit**	**Limits of IS:10500-2012**	
					Requirement (Acceptable) Limit	**Permissible limit in the Absence of Alternate Source**
20.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	*BDL(**DL 0.001 mg/l)	mg/l	0.001	0.002
21.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	*BDL(**DL 0.01mg/l)	mg/l	0.5	No Relaxation
22.	#Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	*BDL(**DL 0.02 mg/l)	mg/l	0.2	1.0
23.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.24	mg/l	5	15
24.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.15	mg/l	0.05	1.5
25.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.06 mg/l)	mg/l	0.1	0.3
26.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.003mg/l)	mg/l	0.003	No Relaxation
27.	Lead as Pb	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
28.	Selenium as Se	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
29.	Arsenic as As	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	0.05
30.	Mercury as Hg	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL (**DL 0.001 mg/l)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 1622,1981RA 2019	<2	MPN/100ml	Shall not be detectable in any 100 ml sample	
32.	E. Coli	IS 1622,1981 RA 2019	Absent	MPN/100ml	Shall not be detectable in any 100 ml sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit
#These parameter are not covered in our NABL scope.

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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/W/01**	**Report No.:**	**VEL/W/2008/04/003**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**11/08/2020**
		Period of Analysis:	**04/08/2020 to 11/08/2020**
Name & Address of Project	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana Distt-Charkhi Dadri, Haryana.**	**Receipt Date:**	**04/08/2020**
		Sampling Date:	**04/08/2020**
		Sampling Quantity:	**2.0 Ltr**
Sample Description:	**Ground Water Sample**	**Sampling Type:**	**Grab**
Sampling Location:	**Near Mine Site**	**Preservation:**	**Refrigerated**
Sample Collected by	**Vardan Enviro Lab representative**	**Parameter Required:**	**As Per Work Order**
Sampling & Analysis Protocol:	**IS &APHA**		

S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 ^{0}C)	APHA ,4500-H^+ B Electrometric Method	7.41	--	6.5 to 8.5	No Relaxation
2.	Colour	APHA ,2120 B, Visual Comparison Method	*BDL (**DL 5Hazen)	Hazen	5	15
3.	Turbidity	APHA, 2130 B, Nephlelometric Method	*BDL (**DL 0. 1 NTU)	NTU	1	5
4.	Odour	APHA, 2150 B , Threshold Test Method	Agreeable	--	Agreeable	Agreeable
5.	Taste	APHA , 2160 B, Threshold Test Method	Agreeable	--	Agreeable	Agreeable
6.	Total Hardness as $CaCO_3$	APHA , 2340 C, EDTA Titrimetric Method	142.40	mg/l	200	600
7.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	35.80	mg/l	75	200
8.	Alkalinity as $CaCO_3$	APHA , 2320 B, Titrimetric Method	152.50	mg/l	200	600
9.	Chloride as Cl	APHA, 4500-Cl^- B, Argentometric Method	54.82	mg/l	250	1000
10.	#Cyanide as CN	APHA , 4500 CN^- D	*BDL(**DL 0.02 mg/l)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	12.90	mg/l	30	100
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	369.00	mg/l	500	2000
13.	Sulphate as SO_4	APHA , 4500 E, Turbidimetric Method	42.10	mg/l	200	400
14.	Fluoride as F	APHA , 4500-F^- D, SPADNS Method	0.22	mg/l	1.0	1.5
15.	Nitrate as NO_3	IS 3025 (P-34) ,Chromotropic Method	4.62	mg/l	45	No Relaxation
16.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	0.28	mg/l	0.3	No relaxation
17.	Aluminium as Al	APHA , 3111 B	*BDL(**DL 0.03 mg/l)	mg/l	0.03	0.2
18.	Boron	APHA, 4500B C, Carmine Method	0.42	mg/l	0.5	1
19.	Total Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.03 mg/l)	mg/l	0.05	No Relaxation

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIROLAB ★ Authorised Signatory ★
(Approved By)

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Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample No.: **VEL/RS/W/01** — **VEL/W/2008/04/003**

S. No	Parameter	Test-Method	Result	Unit	Limits of IS:10500-2012	
					Requirement (Acceptable) Limit	Permissible limit in the Absence of Alternate Source
20.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	*BDL(**DL 0.001 mg/l)	mg/l	0.001	0.002
21.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	*BDL(**DL 0.01mg/l)	mg/l	0.5	No Relaxation
22.	#Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	*BDL(**DL 0.02 mg/l)	mg/l	0.2	1.0
23.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.42	mg/l	5	15
24.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.20	mg/l	0.05	1.5
25.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.06 mg/l)	mg/l	0.1	0.3
26.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.003 mg/l)	mg/l	0.003	No Relaxation
27.	Lead as Pb	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
28.	Selenium as Se	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
29.	Arsenic as As	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	0.05
30.	Mercury as Hg	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL (**DL 0.001 mg/l)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 1622,1981	<2	MPN/100ml	Shall not be detectable in any 100 ml sample	
32.	E. Coli	IS 1622,1981	Absent	MPN/100ml	Shall not be detectable in any 100 ml sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit
#These parameter are not covered in our NABL scope.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

(Approved By)
Authorised Signatory

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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	VEL/RS/W/02	**Report No.:**	VEL/W/2008/04/004
Issued To:	M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana	**Format No.:**	7.8 F-01
		Party Reference No.:	NIL
		Reporting Date:	11/08/2020
		Period of Analysis:	04/08/2020 to 11/08/2020
Name & Address of Project	Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana, Distt-Charkhi Dadri, Haryana.	**Receipt Date:**	04/08/2020
		Sampling Date:	04/08/2020
		Sampling Quantity:	2.0 Ltr
Sample Description:	Ground Water Sample	**Sampling Type:**	Grab
Sampling Location:	Village- Kalyana	**Preservation:**	Refrigerated
Sample Collected by	Vardan Enviro Lab representative	**Parameter Required:**	As Per Work Order
Sampling & Analysis Protocol:	IS & APHA		

S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 ^{0}C)	APHA ,4500-H^+ B Electrometric Method	7.54	--	6.5 to 8.5	No Relaxation
2.	Colour	APHA ,2120 B, Visual Comparison Method	*BDL (**DL 5Hazen)	Hazen	5	15
3.	Turbidity	APHA, 2130 B, Nephlelometric Method	*BDL (**DL0. 1 NTU)	NTU	1	5
4.	Odour	APHA, 2150 B , Threshold Test Method	Agreeable	--	Agreeable	Agreeable
5.	Taste	APHA , 2160 B, Threshold Test Method	Agreeable	--	Agreeable	Agreeable
6.	Total Hardness as $CaCO_3$	APHA , 2340 C, EDTA Titrimetric Method	142.12	mg/l	200	600
7.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	36.20	mg/l	75	200
8.	Alkalinity as $CaCO_3$	APHA , 2320 B, Titrimetric Method	144.30	mg/l	200	600
9.	Chloride as Cl	APHA, 4500-Cl^- B, Argentometric Method	340.82	mg/l	250	1000
10.	#Cyanide as CN	APHA , 4500 CN^- D	*BDL(**DL 0.02 mg/l)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	12.58	mg/l	30	100
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	364.00	mg/l	500	2000
13.	Sulphate as SO_4	APHA , 4500 E, Turbidimetric Method	32.87	mg/l	200	400
14.	Fluoride as F	APHA , 4500-F^- D, SPADNS Method	0.22	mg/l	1.0	1.5
15.	Nitrate as NO_3	IS 3025 (P-34) ,Chromotropic Method	4.40	mg/l	45	No Relaxation
16.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	0.20	mg/l	0.3	No relaxation
17.	Aluminium as Al	APHA , 3111 B	*BDL(**DL 0.03 mg/l)	mg/l	0.03	0.2
18.	Boron	APHA, 4500B C, Carmine Method	0.40	mg/l	0.5	1
19.	Total Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.03 mg/l)	mg/l	0.05	No Relaxation

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIRO LAB ★ Authorised Signatory ★
(Approved By)

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b
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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample No.: **VEL/RS/W/02**				Report No. **VEL/W/2008/04/004**		
S. No	**Parameter**	**Test-Method**	**Result**	**Unit**	**Limits of IS:10500-2012**	
					Requirement (Acceptable) Limit	**Permissible limit in the Absence of Alternate Source**
20.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	*BDL(**DL 0.001 mg/l)	mg/l	0.001	0.002
21.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	*BDL(**DL 0.01mg/l)	mg/l	0.5	No Relaxation
22.	#Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	*BDL(**DL 0.02 mg/l)	mg/l	0.2	1.0
23.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.33	mg/l	5	15
24.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.25	mg/l	0.05	1.5
25.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.06 mg/l)	mg/l	0.1	0.3
26.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.003 mg/l)	mg/l	0.003	No Relaxation
27.	Lead as Pb	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
28.	Selenium as Se	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
29.	Arsenic as As	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	0.05
30.	Mercury as Hg	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL (**DL 0.001 mg/l)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 1622,1981	<2	MPN/100ml	Shall not be detectable in any 100 ml sample	
32.	E. Coli	IS 1622,1981	Absent	MPN/100ml	Shall not be detectable in any 100 ml sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit
#These parameter are not covered in our NABL scope.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

(Approved By)
VARDAN ENVIROLAB ★ Authorised Signatory ★

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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/W/01**	**Report No.:**	**VEL/W/2009/17/001**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
Name of the Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana, Distt- Charkhi Dadri, Haryana.**	**Reporting Date:**	**21/09/2020**
Sample Description:	**Surface water Sample**	**Period of Analysis:**	**17/09/2020-21/09/2020**
Sampling Location:	**Pond Near Mandoli Village**	**Receipt Date:**	**17/09/2020**
Sample Collected by:	**Vardan Enviro Lab Representative**	**Sampling Date:**	**17/09/2020**
Preservation:	**Refrigerator**	**Sampling Quantity:**	**2.0 Ltr**
Sampling and Analysis Protocol:	**IS-2296-1982, APHA & SOP**	**Sampling Type:**	**Composite**

S. No.	Parameter	Test-Method	Result	Unit
1.	pH (at 25 ^{0}C)	APHA ,4500-H^+ B Electrometric Method	**7.20**	--
2.	Colour	APHA ,2120 B, Visual Comparison Method	**35.00**	Hazen
3.	Turbidity	APHA, 2130 B, Nephlelometric Method	**41.00**	NTU
4.	Odour	APHA, 2150 B , Threshold Test Method	**Agreeable**	--
5.	Total Hardness as $CaCO_3$	APHA , 2340 C, EDTA Titrimetric Method	**215.47**	mg/l
6.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	**44.36**	mg/l
7.	Alkalinity as $CaCO_3$	APHA , 2320 B, Titrimetric Method	**161.20**	mg/l
8.	Chloride as Cl	APHA, 4500-Cl^- B, Argentometric Method	**81.63**	mg/l
9.	Residual free Chlorine	APHA, 4500 Cl^-B Iodometric Method	***BDL(**DL 0.20mg/l)**	mg/l
10.	#Cyanide as CN	APHA , 4500 CN^- D	***BDL(**DL 0.02 mg/l)**	mg/l
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	**25.46**	mg/l
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	**462.00**	mg/l
13.	Total Suspended solids	APHA,2540 D Gravimetric Method	**78.00**	mg/l
14.	Dissolved Oxygen	APHA,4500 O B Iodometric Method	**5.1**	mg/l
15.	Sulphate as SO^4	APHA , 4500 E, Turbidimetric Method	**42.58**	mg/l
16.	Fluoride as F	APHA , 4500-F^- D, SPADNS Method	**0.45**	mg/l
17.	BOD (3 Days at 27^{0}C)	APHA, 5210 C / IS 3025,P-44	**9.00**	mg/l
18.	COD	APHA, 5220 B, Open Reflux Method	**36.00**	mg/l

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIROLAB ★ Authorised Signatory ★
(Approved By)

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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample No.: **VEL/RS/W/01**			Report No.: **VEL/W/2009/17/001**	
S. No.	**Parameter**	**Test-Method**	**Result**	**Unit**
19.	Conductivity	APHA, 2510 B, Conductivity Meter Method	**770**	ms/cm
20.	Nitrate as NO_3	IS 3025 (P-34) ,Chromotropic Method	**22.47**	mg/l
21.	Sodium as Na	APHA,3500 Na B, Flame Photometric Method	**46.00**	mg/l
22.	Potassium as K	APHA 3500 K B, Flame Photometric Method	**18.00**	mg/l
23.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	**0.33**	mg/l
24.	Aluminium as Al	APHA , 3111 DNitrous Oxide Acetylene Flame Method	***BDL(**DL 0.03 mg/l)**	mg/l
25.	Boron	APHA, 4500B C, Carmine Method	***BDL**	mg/l
26.	Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.01 mg/l)**	mg/l
27.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	***BDL(**DL 0.001 mg/l)**	mg/l
28.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	***BDL(**DL 0.01mg/l)**	mg/l
29.	#Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	***BDL(**DL 0.02 mg/l)**	mg/l
30.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	**1.46**	mg/l
31.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	**0.69**	mg/l
32.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.10 mg/l)**	mg/l
33.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.001 mg/l)**	mg/l
34.	Total Coliform	IS 1622:1981,RA-2019	**1050**	MPN/100ml
35.	Fecal Coliform	IS 1622:1981,RA-2019	**820**	MPN/100ml

Note: -*BDL-Below Detection Limit, **DL- Detection Limit, #These parameter are not covered in our NABL scope.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

(Approved By)
VARDAN ENVIROLAB ★ Authorised Signatory ★

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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/W/02**	**Report No.:**	**VEL/W/2009/17/002**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
Name of the Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana, Distt- Charkhi Dadri, Haryana.**	**Reporting Date:**	**21/09/2020**
Sample Description:	**Surface water**	**Period of Analysis:**	**17/09/2020-21/09/2020**
Sampling Location:	**Pond Near Kalali Village**	**Receipt Date:**	**17/09/2020**
Sample Collected by:	**Vardan Enviro Lab Representative**	**Sampling Date:**	**17/09/2020**
Preservation:	**Refrigerator**	**Sampling Quantity:**	**2.0 Ltr**
Sampling and Analysis Protocol:	**IS-2296-1982, APHA & SOP**	**Sampling Type:**	**Composite**

S. No.	Parameter	Test-Method	Result	Unit
1.	pH (at 25 ^{0}C)	APHA ,4500-H^+ B Electrometric Method	**7.84**	--
2.	Colour	APHA ,2120 B, Visual Comparison Method	**32.00**	Hazen
3.	Turbidity	APHA, 2130 B, Nephlelometric Method	**41.00**	NTU
4.	Odour	APHA, 2150 B , Threshold Test Method	**Agreeable**	--
5.	Total Hardness as $CaCO_3$	APHA , 2340 C, EDTA Titrimetric Method	**285.00**	mg/l
6.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	**65.55**	mg/l
7.	Alkalinity as $CaCO_3$	APHA , 2320 B, Titrimetric Method	**242.70**	mg/l
8.	Chloride as Cl	APHA, 4500-Cl^- B, Argentometric Method	**126.90**	mg/l
9.	Residual free Chlorine	APHA, 4500 Cl^-B Iodometric Method	***BDL(**DL 0.20mg/l)**	mg/l
10.	#Cyanide as CN	APHA , 4500 CN^- D	***BDL(**DL 0.02 mg/l)**	mg/l
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	**29.51**	mg/l
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	**580.00**	mg/l
13.	Total Suspended solids	APHA,2540 D Gravimetric Method	**93.00**	mg/l
14.	Dissolved Oxygen	APHA,4500 O B Iodometric Method	**5.3**	mg/l
15.	Sulphate as SO^4	APHA , 4500 E, Turbidimetric Method	**42.54**	mg/l
16.	Fluoride as F	APHA , 4500-F^- D, SPADNS Method	**0.45**	mg/l
17.	BOD (3 Days at 27^{0}C)	APHA, 5210 C / IS 3025,P-44	**11.00**	mg/l
18.	COD	APHA, 5220 B, Open Reflux Method	**37.00**	mg/l

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample No.: **VEL/RS/W/02**			Report No.: **VEL/W/2009/17/002**	
S. No.	**Parameter**	**Test-Method**	**Result**	**Unit**
19.	Conductivity	APHA, 2510 B, Conductivity Meter Method	**967**	ms/cm
20.	Nitrate as NO_3	IS 3025 (P-34) ,Chromotropic Method	**20.85**	mg/l
21.	Sodium as Na	APHA,3500 Na B, Flame Photometric Method	**43.00**	mg/l
22.	Potassium as K	APHA 3500 K B, Flame Photometric Method	**17.00**	mg/l
23.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	**0.32**	mg/l
24.	Aluminium as Al	APHA , 3111 DNitrous Oxide Acetylene Flame Method	***BDL(**DL 0.03 mg/l)**	mg/l
25.	Boron	APHA, 4500B C, Carmine Method	***BDL**	mg/l
26.	Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.01 mg/l)**	mg/l
27.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	***BDL(**DL 0.001 mg/l)**	mg/l
28.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	***BDL(**DL 0.01mg/l)**	mg/l
29.	#Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	***BDL(**DL 0.02 mg/l)**	mg/l
30.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	**2.15**	mg/l
31.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	**0.70**	mg/l
32.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.10 mg/l)**	mg/l
33.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	***BDL(**DL 0.001 mg/l)**	mg/l
34.	Total Coliform	IS 1622:1981,RA-2019	**1100**	MPN/100ml
35.	Fecal Coliform	IS 1622:1981,RA-2019	**850**	MPN/100ml

Note: -*BDL-Below Detection Limit, **DL- Detection Limit, #These parameter are not covered in our NABL scope.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIROLAB
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Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/S/01**	**Report No.:**	**VEL/S/2009/17/001**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
Name & Address of Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana , Distt- Charkhi Dadri, Haryana.**	**Period of Analysis:**	**17/09/2020 to 21/09/2020**
		Receipt Date:	**17/09/2020**
		Sampling Date:	**17/09/2020**
Sample Description:	**Soil Sample**	**Type of Sampling:**	**Composite**
Sampling Location:	**Near Mine Site**	**Sampling Quantity:**	**2.0 Kg**
Sampling & Analysis Protocol:	**IS 2720, USEPA 3050B & USDA**	**Packing Status:**	**Temp Sealed**

S. No.	Parameter	Test-Method	Result	Unit
1.	**pH (at 25 ^{0}C)**	IS : 2720 (P-26) by pH Meter	**7.52**	--
2.	**Conductivity**	IS:14767 by Conductivity meter	**0.314**	mS/cm
3.	**Soil Texture**	IS : 2720 (P-22, RA2003)	**Sandy**	--
4.	**Color**	SOP , SP-78,Issue No.-01& Issue Date-14/02/2013	**Brownish**	--
5.	**Water holding capacity**	SOP , SP-81,Issue No.-01& Issue Date-14/02/2013	**35.10**	%
6.	**Bulk density**	SOP , SP-80,Issue No.-01& Issue Date-14/02/2013	**1.61**	gm/cc
7.	**Chloride as Cl**	SOP , SP-85,Issue No.-01& Issue Date-14/02/2013	**41.84**	mg/100g
8.	**Calcium as Ca**	SOP , SP-82,Issue No.-01& Issue Date-14/02/2013	**42.64**	mg/100g
9.	**Sodium as Na**	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	**36.90**	mg/kg
10.	**Potassium as K**	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	**130.10**	kg/hec.
11.	**Organic Matter**	IS:2720 (P-22) Titrimetric Method	**0.71**	%
12.	**Magnesium as Mg**	SOP , SP-83,Issue No.-01& Issue Date-14/02/2013	**23.84**	mg/100g
13.	**Available Nitrogen as N**	IS:14684 Distillation Method	**146.40**	kg./hec.
14.	**Available Phosphorus**	SOP , SP-86,Issue No.-01& Issue Date-14/02/2013	**23.25**	kg./hec.
15.	**Zinc (as Zn)**	USEPA 3050B	**6.42**	mg/kg
16.	**Manganese (as Mn)**	USEPA 3050B	**4.14**	mg/kg
17.	**Lead (as Pb)**	USEPA 3050B	**1.46**	mg/kg
18.	**Cadmium (as Cd)**	USEPA 3050B	**1.71**	mg/kg
19.	**Chromium (as Cr)**	USEPA 3050B	**1.34**	mg/kg
20.	**Copper (as Cu)**	USEPA 3050B	**3.10**	mg/kg

*SOP-Laboratory standard operating procedure.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIROLAB
(Approved By)
Authorised Signatory

NOTE: a)The results listed refer only to the tested samples & applicable parameters
b) Total liabilities of our lab will be restricted to the invoice amount only
c) The sample will be destroyed after retention time unless otherwise specified
d) This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law

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Vardan EnviroLab
Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	**VEL/RS/S/02**	**Report No.:**	**VEL/S/2009/17/002**
Issued To:	**M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana**	**Format No.:**	**7.8 F-01**
		Party Reference No.:	**NIL**
		Reporting Date:	**21/09/2020**
		Period of Analysis:	**17/09/2020 to 21/09/2020**
Name & Address of Project:	**Stone Mine (Associated Minor Mineral), Producion Capacity -5.8 MTPA, at Kalai & Kalyana , Distt-Charkhi Dadri, Haryana.**	**Receipt Date:**	**17/09/2020**
		Sampling Date:	**17/09/2020**
		Type of Sampling:	**Composite**
		Sampling Quantity:	**2.0 Kg**
Sample Description:	**Soil Sample**	**Packing Status:**	**Temp Sealed**
Sampling Location:	**Village - Kalyana**		
Sampling & Analysis Protocol:	**IS 2720, USEPA 3050B & USDA**		

S. No.	Parameter	Test-Method	Result	Unit
1.	**pH (at 25 ^{0}C)**	IS : 2720 (P-26) by pH Meter	**7.40**	--
2.	**Conductivity**	IS:14767 by Conductivity meter	**0.368**	mS/cm
3.	**Soil Texture**	IS : 2720 (P-22, RA2003)	**Sandy**	--
4.	**Color**	SOP , SP-78,Issue No.-01& Issue Date-14/02/2013	**Brownish**	--
5.	**Water holding capacity**	SOP , SP-81,Issue No.-01& Issue Date-14/02/2013	**35.10**	%
6.	**Bulk density**	SOP , SP-80,Issue No.-01& Issue Date-14/02/2013	**1.61**	gm/cc
7.	**Chloride as Cl**	SOP , SP-85,Issue No.-01& Issue Date-14/02/2013	**55.42**	mg/100g
8.	**Calcium as Ca**	SOP , SP-82,Issue No.-01& Issue Date-14/02/2013	**36.10**	mg/100g
9.	**Sodium as Na**	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	**35.84**	mg/kg
10.	**Potassium as K**	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	**148.10**	kg/hec.
11.	**Organic Matter**	IS:2720 (P-22) Titrimetric Method	**0.41**	%
12.	**Magnesium as Mg**	SOP , SP-83,Issue No.-01& Issue Date-14/02/2013	**18.62**	mg/100g
13.	**Available Nitrogen as N**	IS:14684 Distillation Method	**139.58**	kg./hec.
14.	**Available Phosphorus**	SOP , SP-86,Issue No.-01& Issue Date-14/02/2013	**25.82**	kg./hec.
15.	**Zinc (as Zn)**	USEPA 3050B	**6.10**	mg/kg
16.	**Manganese (as Mn)**	USEPA 3050B	**3.14**	mg/kg
17.	**Lead (as Pb)**	USEPA 3050B	**1.21**	mg/kg
18.	**Cadmium (as Cd)**	USEPA 3050B	**1.30**	mg/kg
19.	**Chromium (as Cr)**	USEPA 3050B	**0.64**	mg/kg
20.	**Copper (as Cu)**	USEPA 3050B	**5.18**	mg/kg

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager

VARDAN ENVIROLAB ★ Authorised Signatory ★
(Approved By)

NOTE: a)The results listed refer only to the tested samples & applicable parameters
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Forest Department, Government of Haryana
O/o P.C.C.F. cum Chief Wildlife Warden, Haryana
Van Bhawan, C-18, Sector-6, Panchkula-134109 Phone/Fax 0172-2561224, E-mail- apccfwl@gmail.com

No. 2316 Dated 9/10/2018

To,

M/s Ridhi Sidhi-KSM Resourcce-JV,
Khatoni No. 1049, Behind Hotel Mejban,
Loharu Road, Charkhi Dadri, Haryana.

Subject: Approval of Conservation Plan the Proposed Project of Mining of Stone along with the associated Minor Minerals over an area of 64.40 ha. in village Kallai & Kalyana, Tehsil & District Charkhi Dadri by M/s Ridhi Sidhi-KSM Resources-JV.

The project site was inspected on 20-07-2018 by a team comprising Chief Conservator of Forest (WL), Gurugram, DFO (T), Bhiwani and DWLO, Hisar:-

1 This is proposed Mining Project named M/s Ridhi Sidhi-KSM Resourcce-JV and it is located at village kalai & kalyana Tehsil and District Charkhi Dadri. The lease of an area 64.40 ha was granted by Mining Officer, for Director Mines & Geology Haryana vide Memo No. DMG/HY/ML/Kalali & Kalyana/2018/1491 dated Chandigarh, the 26.03.2018.

2 There is no National Park and Wildlife Sanctuary with in the 10 Km radius of project site and project site is outside National Park, Sanctuary, Biosphere Reserve, Tiger/Elephant Reserve or notified Eco-sensitive zones falling within territory of in Haryana boundary.

3 Main vegetation found in the area are Acacia leacophloea, Acacia nilotica Var. Indiaca, Acacia Senegal, Acacia tortilis, Ailanthus excels, Albizia lebbek, Azardiracha indica, Anogeissu pendula, Dalbergia sissoo, Eucalyptus camaldulensis, Ficusn bengalensis, Ficus religiosa, Holoptelea integrifolia, Melia azedarach, Prospis cineraria, Prosopis juliflora, Tecomella undulate, Zyziphus mouritiana etc.

4 Prominent fauna of mining area and buffer zone of 10 km. it is stated that the said area in village kalai & kalyana Tehsil and District Charkhi Dadri, Haryana is situated in the middle of a continuous chain of Aravalli hills and its surrounding Aravalli plantation area are regular habitat for Wildlife and is a part of corridor for wildlife movement on Aravalli chain. Main species found here are Chinkara, Leopard (Occasional Visitor), Hyena, Indian Fox, Jungle

Cat, Langoor, Common Monkey, Peafowl and various reptiles such as Cobra, Krait and monitor lizard etc. This area is an important ecological area as far as various flora and fauna is concerned.

5 The committee has perused the conservation plan submitted by the project proponent. The conservation plan (copy attached) prepared for Schedule-I and Schedule-II animal found in the area is in order hence acceptable as it includes all the necessary interventions required for the conservation of the local fauna included in schedule I and II of Wildlife Protection Act, 1972. The species of Schedule-I and Schedule- II includes Peafowl, Black Partridge, Leopard – (Occasional Visitor), Chinkara, Jackal, Indian Fox Jungle Cat, common Mongoose, common monkey, Langoor, Spiny tailed lizard or sanda, Indian cobra, Russell's viper, Common Indian Krait, Veranus sps, (Indian Monitor Lizard), Spiny Tailed Lizard, Common Rat snake. The interventions in the proposed area include construction of water holes (small water points) in the surrounding villages and regular filling of water, plantation and its maintenance in the buffer zone area. Besides this, habitat improvement activities, ensuring food availability for wildlife, awareness generation of labor and local people, distribution of posters, pamphlets, using signage etc. The proposed conservation plan will be implemented in a phased manner with a total cost of Rs. 325.00 lac within a period of Eighteen (18) years. You are hereby directed to deposit the conservation plan cost with DWLO, Hisar before implementation of work.

6 The mining activities at proposed site will have negative impact on the local flora and fauna. The possible adverse impact includes hampering of natural & regeneration, the tree grooves, making available water to the wild animals by taking necessary measures. cost of Plantation/trench etc.

7 The clearance of the forest related laws, rules and instructions may be obtained from the Conservator of Forests (Forests Conservation).

8 The project proponent will seek necessary/mandatory permissions from the other concerned department as applicable and will not violate the Hon'ble Court order, if any.

9 The Project Proponent shall carry out mining operations strictly in accordance with the orders of the Hon'ble Supreme Court, dated the 4th August, 2006 in the matter of T.N. Godavaman Thirumulpad Vs. Union of India in Writ Petition

(Civil) No. 202 of 1995 and dated the 21st April, 2014 in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 435 of 2012.

10 The project proponent shall furnish an undertaking on 100 rupees non judicial stamp paper regarding deposition of cost of conservation plan and other conditions mentioned in this letter. The undertaking must be duly signed by the authorized person of the firm and attested by notary.

P.C.C.F. cum
Chief Wildlife Warden,
Haryana, Panchkula.

Endst. No. Dated

A copy is forwarded to following for information & necessary action :-

1 CF (Wildlife), Gurugram
2 DWLO, Hisar
3 DFO (T), Bhiwani .

– Sd –
P.C.C.F. cum
Chief Wildlife Warden,
Haryana, Panchkula.

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY HARYANA
Bay No. 55-58, Prayatan Bhawan, Sector-2, PANCHKULA.

No. SEIAA/HR/2020/122 Dated: 17.02.2020

To

M/s Ridhi Sidhi KSM Resources,
Khatoni Number 1049, Behind Hotel Mejban,
Loharu Road, Charkhi Dadri, Haryana

Subject: **Environment Clearance for Mining of Stone along with associated minor minerals of Production Capacity- 5.8 MTPA at Kalali and Kalyana mining Project.**

This letter is in reference to your application addressed to M.S. SEIAA, Haryana received on 02.05.2019 and subsequent letters dated 20.05.2019 & 15.06.2019 seeking prior Environmental Clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., Form-1, Pre-feasibility report, copy of approved Mining Plan, EIA/EMP on the basis of approved TOR which was approved by MoEF & CC, GoI on 10.05.2018 and the additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC) constituted by MoEF & CC, GoI vide their Notification dated 30.01.2019, in its meeting held on 13.06.2019 & 30.08.2019.

[2] The SEAC has examined the application and noted that the proposal Mining of Stone along with associated minor minerals of Production Capacity- 5.8 MTPA at Kalali and Kalyana having Mine Lease area 64.40 hectares.

1.	Area of the project	64.40 hectares
2.	Date of approval of ToR by MoEF & CC, GoI	10.05.2018
3.	Date of LoI granted by Mines & Geology Department, Haryana	26.03.2018
4.	Date of approval of Mining plan granted by Mines & Geology Department, Haryana	02.07.2018
5.	Location of Project	Village Kalali and Kalyana, Charkhi-Dadri, Haryana
6.	Project Details Khasra No	Mining of Stone alongwith Associated Minor Minerals 223 min, 224 to 228 & 72
7.	Project Cost	784 lakh
8.	Water Requirement	132 KLD For Dust suppression: 36 KLD For Plantation: 92 KLD For Drinking: 4 KLD
9.	Source of water	Water tankers
10.	Total cost of the project	784 lakhs
11.	Capital Cost and Recurring Cost for Air Pollution Control Measures	Capital Cost- 138.3 lakh Recurring cost- 253.8 lakhs including Monitoring cost.
12.	Capital Cost and Recurring Cost for Green Belt Development	Capital Cost-917.38 lakhs Recurring Cost-957.38 lakhs

13.	CER Budget	22.3 lakhs
14.	Production	5.8 MTPA The elevation of the hill top is 361 mRL, the ground level is 252 mRL and working is proposed 40 mts below ground level i.e. up to 212 mRL.
15.	Depth of the mining	40 mbgl
16.	Corner Coordinates of the lease area	Block: Latitude: 28° 33' 2.999" N to 28° 33' 1.930" N; Longitude: 76° 11'15.646" E to 76° 11' 15.303" E
17.	Green belt/ plantation	30.40 Ha
18.	Machinery required	Opencast Mechanized Method, Required Machinery: Shovel, Back Hoe, Rear Dumpers, Dozer etc.
19.	Power Requirement	30 KVA
20.	Power Back up	40 KVA
21.	Incremental Load in respect of: i) $PM_{2.5}$ ii) PM_{10} iii) SO_2 iv) NO_2	Maximum 0.40867 $\mu g/m^3$ 12.70720 $\mu g/m^3$ 2.58924 $\mu g/m^3$ 21.68 $\mu g/m^3$

The SEIAA in its 122nd meeting held on 22.01.2020 decided to agree with the recommendations of SEAC to accord Environment Clearance to this project by imposing the following conditions.

A: <u>Specific conditions</u>:-

1. The PP shall construct the three pucca link roads connected to the SH-17 at the mining site before the start of mining.
2. The PP shall construct the Haul roads of 10 meters wide as proposed in EIA
3. Traffic management plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is marinated and improved upon after the implementation of the project.
4. No tree cutting has been proposed in the project. 2500 Plants per hectare should be planted and maintained. The Existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed the plantation in 30.40 hectares area will be carried out including statutory boundary barrier,
5. The Project Proponent shall obtain all necessary clearance/permission from all relevant agencies before commencement of work.
6. Consent to establish/operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
7. The PP shall deposit the half of CER fund in the C.M. Fund and rest shall be used as per the schedule and also to develop 2 ponds in the village Kuleri near Agroha with technical support from the Haryana Pond and Waste Water Authority.
8. The PP shall take precautions to suppress the dust in and around the mining site. The PP shall use mixed cannon water sprinkle for dust suppression instead of conventional sprinkles for efficient dust suppression.
9. The PP shall manage the overburden at the mining site.
10. The PP shall create environment division unit in the project for implementing the conditions of Environment clearance.

11. The PP shall obtain the permission regarding withdrawal of ground water from CGWA before the start of the project and also obtained the CTO from HSPCB after the approval from CGWA
12. Any change in stipulations of EC of the approved mining plan will lead to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance
13. The PP shall adhere to the approved mining plan and approved closure plan by the competent authority.
14. Action plan for the public hearing issues shall be complied in letter and spirit.
15. The Proponent will provide adequate sanitary facility in the form of mobile toilets to the labours engaged for the project work.
16. Project proponent shall comply all the measures, conditions suggested in the approved mining plan with post closure mine plan, Environmental Management Plan (EMP) in a letter and spirit.
17. PP shall make channels to divert rain water run-off from surrounding catchment area to enroute water in the excavated pit to ensure water collection for sustained ground water recharge
18. The PP shall restrict maximum mining depth 4meters above the Ground Water Table i.e. upto 214mrl .
19. The PP shall divert the first order stream in post mining to save the natural drainage system.

B: Statutory compliance:-

1. This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
2. The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Others before commencing the mining operations.
3. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors.
4. This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
5. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
6. Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish/Consent to Operate from the concerned State Pollution Control Board/Committee.
7. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS), Mines & Geology Department, Haryana and Indian Bureau of Mines from time to time.. Also adhere to Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012.

8. The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
9. The Project Proponent shall follow the mitigation measures provided in MoEF & CC Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 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 and villages are surrounded by the mine lease area".
10. The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
11. A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
12. State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
13. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF & CC Regional Office for compliance and record.
14. The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

I. Air quality monitoring and preservation

i. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatologically data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM_{10}, $PM_{2.5}$, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

ii. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM_{10} and $PM_{2.5}$ are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF & CC/Central Pollution Control Board.

II. Water quality monitoring and preservation

i. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF & CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

ii. Regular monitoring of the flow rate of the springs and perennial Nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

iii. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezometer installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

iv. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial Nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

v. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

vi. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in

consultation with Central Ground Water Board/State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF &CC annually.

vii. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

viii. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF& CC and State Pollution Control Board/Committee.

III. Noise and vibration monitoring and prevention

i. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

ii. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/masks away from the villagers and keeping the noise levels well within the prescribed limits for day/night hours.

iii. The Project Proponent shall take measures for control of noise levels below 85 dba in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

IV. Mining Plan

i. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.

ii. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change and SEIAA for record and verification.

iii. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas

until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

V. Land Reclamation

i. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.

ii. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

iii. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.

iv. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/geo-membranes/clay liners/Bentonite etc. shall be undertaken for stabilization of the dump.

v. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC/SEIAA.

vi. Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

vii. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

viii. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

VI. Transportation

i. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for

the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.

ii. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

VII. <u>Green Belt</u>

i. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

ii. The Project Proponent shall carryout plantation/afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/Tribal Welfare Department/Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

iii. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

iv. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt. and implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

VIII. Public Hearing and Human Health Issues

i. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.

ii. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.

iii. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminum, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

iv. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.

v. The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

vi. Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

vii. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

IX. Corporate Environment Responsibility (CER)

i. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

ii. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF & CC and its concerned Regional Office.

X. Miscellaneous

i. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

ii. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF & CC.

iii. The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

iv. The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEF&CC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.

v. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF & CC.

vi. The concerned Regional Office of the MoEF & CC including other authorized organization shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF & CC officer(s) including other authorized officer by furnishing the requisite data/information.

vii. The SEIAA, Haryana reserves the right to add new conditions, modify/annual any of the stipulated conditions and/or to revoke the clearance if implementation of any of the condition stipulated by SEIAA, Haryana or any other competent authorities is not satisfactory.

viii. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

ix. All the other statutory clearances such as the approvals for storage of diesel from the Chief Controller of Explosives, Fire department, Civil Aviation Department,

Forest Conservation Act, 1980 and Wildlife (protection) Act, 1972 etc. shall be obtained, as may be applicable, by Project proponent from the competent authority before the start of mining operation.

x. That the grant of this EC is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time being in force, rests with the industry/unit/project proponent. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of National Green Tribunal Act, 2010.

Chairman,
State Level Environment Impact
Assessment Authority, Haryana, Panchkula.

Endst. No. SEIAA/HR/2020/ Dated:.....

A copy of the above is forwarded to the following:

1. The Director (IA Division), MoEF&CC, GoI, Indra Paryavaran Bhavan, Zor bagh Road-New Delhi.
2. The Regional office, Ministry of Environment, Forests & Climate Change, Govt. of India, Bay's no. 24-25, Sector 31-A, Dakshin Marg, Chandigarh.
3. The Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Pkl.
4. The Director General, Mines & Geology Department Haryana, Chandigarh.

Chairman,
State Level Environment Impact
Assessment Authority, Haryana, Panchkula.

FOREST DEPARTMENT GOVT. OF HARYANA
O/o Divisional Forest Officer, Bhiwani

Meham Road, Vidya Nagar, Bhiwani, Tel. No. 01664-242430, E-mail:-dfo.bhiwani@yahoo.com

क्रमांक/ ..... 1820 ..... दिनांक/ 20-11-2018

सेवा मेः– **M/s. Ridhi Sidhi KSM Resources-JV,**
Khatoni number 1049, Behind Mejban,
Loharu road, Charkhi Dadri, Haryana.

विषयः **NOC/Clarification regarding the applicability of forest laws on Non-forest land for Kalali and Kalyana stone along with associated minor minerals mining project of M/s. Ridhi Sidhi KSM Resources-JV over an area of 64.40 hectares falling in Khasra No. 223 min.224 to 228 and 72 of Village Kalali & Kalyana in Tehsil & Distt. Charkhi Dadri.**

संदर्भः **आपका प्रार्थना पत्र दिनांक 10.9.2018 के संदर्भ में।**

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संदर्भांकित पत्र के विषय में अवगत करवाया जाता है कि गांव कलाली/कलियाणा तहसील व जिला चरखी दादरी स्थित खसरा नं0 223 min, 224 To 228 and 72 का कुल क्षेत्र 64.40 हैक्टेयर अरावली पौधारोपण क्षेत्र में नहीं आता व किसी प्रकार की वन भूमि (Forest Land) का पार्ट भी नहीं हैं। अतः रिकार्ड अनुसार वन विभाग द्वारा गांव कलाली–कलियाणा गैर मुमकीन पहाड़ के खसरा नं0 223 min, 224 To 228 and 72 के कुल 64.40 हैक्टेयर ऐरिया में खनन से सम्बन्धित गतिविधियां चलाने की अनुमति निम्न शर्तों के आधार पर दी जाती हैः–

1. मौका पर भारतीय वन संरक्षण अधिनियम 1980 की पालना सुनिश्चित करनी होगी तथा अरावली पौधारोपण क्षेत्र/वन भूमि को गैर वन वानिकी उद्देश्य हेतु प्रयोग करने से पूर्व नियमानुसार वन विभाग से अनुमति लेनी होगी।
2. खनन ऐरिया सैक्शन–4 (सामान्य) के तहत आता है। इसलिये मौका पर पंजाब भू–संरक्षण अधिनियम 1900 तथा भारतीय वन अधिनियम 1927 की पालना सुनिश्चित करनी होगी।
3. मौका पर खनन क्षेत्र के साथ लगते हुये अरावली पौधारोपण को कोई हानि नहीं पहुंचाई जाएगी।
4. यूजर एजेंसी द्वारा मौका पर खनन क्षेत्र में लगवाये गये पिल्लरों पर जी0पी0एस0 कोर्डिनेट अंकित करवाये जायेंगे व इन पिल्लरों के भीतर ही खनन कार्य किया जायेगा।
5. भारतीय वन्य प्राणी अधिनियम 1972 की सभी शर्तों की पालना की जाएगी।

इसके अतिरिक्त मौका पर उपरोक्त शर्तों के अलावा पर्यावरण को क्षति पहुंचाने की कोई भी गतिविधि/उल्लंघना पाई गई तो वन विभाग द्वारा यह अनापत्ति प्रमाण पत्र रद्द किया जा सकता।

वन मण्डल अधिकारी,
भिवानी ।

पृ0क्रमांक : दिनांकः

इसकी एक प्रति वन राजिक अधिकारी दादरी को मौका पर वन अधिनियमों की पालना सुनिश्चित करने हेतु प्रेषित है।

वन मण्डल अधिकारी
भिवानी ।

Gen.Letter729

MINING PLAN AND PROGRESSIVE MINE CLOSURE PLAN
OF
STONE ALONG WITH ASSOCIATED MINOR MINERALS

VILLAGE: KALALI & KALYANA
DISTRICT: CHARKI DADRI
STATE: HARYANA
(Area-64.40 Hectares)

खान एंव भूविज्ञान विभाग, हरियाणा, चण्डीगढ़
Department of Mines and Geology
Haryana: Chandigarh
APPROVED
With Conditions
शर्तों के साथ अनुमोदित
DMG/HY/SK/Kalali&Kalyana/3391-94
Vide Letter No.....
दिनांक / Dated 02-07-2018
राज्य खनन अभियन्ता
State Mining Engineer

TO: DMG, HARYANA (JUNE-2018)

APPLICANT

M/S Ridhi Sidhi-KSM Resources JV, Chakhi Dadri
Haryana

PREPARED BY

S.N. SHARMA
RQP/DDN/0135/2001-A

CHAPTER -2

GENERAL DETAILS

1.0. General:

1.1 Name of the Applicant: M/s Ridhi Sidhi KSM Resources-JV

Address: Khatoni number 1049, Behind Hotel Mejban
Loharu Road. Charkhi Dadri, Haryana

Telephone No: 7056667112

E-mail: riddhisiddhiksmjv@gmail.com

1.2 Status of the Applicant:-This is Joint Venture Company named as Riddhi Siddhi – KSM Resources JV, Khatoni No.1049, Behind Hotel Majban, Loharu Road, Charkhi Dadri, Haryana.

1.3 Mineral or Minerals for which the Applicant has a mining lease:

"Stone along with Associated Minor Minerals"

1.4 Details of the land covered in the 'M.L. Area' is as under: -

District: Charkhi Dadri

State: Haryana.

Tehsil : Dadri.

Village	Khasra no.	Area in hect.
Kalali&Kalyana	223min,224 to 228 & 72.	64.40 hectares

Latitude and Longitude of the project:

Latitude: 28° 33' 2.999"N to 28° 31' 45.671"N
Longitude: 76° 10'35.126"E to 76° 11' 29.468"E

Department of Mines & Geology Haryana, Chandigarh
APPROVED
P. K. Sharma
S.M.E.
खनन एवं भूविज्ञान विभाग हरियाणा, चण्डीगढ़