



Through – Parivesh Portal

दूर की सोच®

PJL/MIN/BG/2024/1031

01st June, 2024

To,
Director
Ministry of Environment & Forests and Climate Change
Regional Office, Western Region
Kendriya Paryavaran Bhavan
Link Road No. 3
E - 5, Ravishankar Nagar
Bhopal – 462016

Sub: Six Monthly Compliance report of Environment Clearance over 512.317 ha area of Baghai Limestone Mine of M/s Prism Johnson Ltd. In Village Baghai, Tehsil Rampur Baghelan, Dist. Satna (M.P.)

Ref: Environment Clearance Identification No. EC23A001MP123527, Dated – 15.05.2023.

Dear Sir,

We are sending enclosed herewith the six monthly compliance report (period October 23 to March 2024) of the environmental clearance granted for limestone deposit at Village- Baghai, Tehsil- Rampur Baghelan, Dist. Satna (M.P.), related to Environment Clearance Identification No. EC23A001MP123527, Dated – 15.05.2023., along with necessary enclosures.

We hope you will find the same in order.

Thanking you.

Yours faithfully,

For Prism Johnson Limited

Chandra Shekhar Pandit

Sr. GM- Mines & Project Proponent

Encl: As above

PRISM JOHNSON LIMITED

(Cement Division)

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CIN: L26942TG1992PLC014033



BAGHAI Limestone MINES 512.317 Ha ML (PRISM JOHNSON LIMITED)

S.No.	Specific Conditions	Compliance Status
1	This Environmental Clearance will be valid upto the validity of the mine lease period i.e., 27.02.2041.	Agreed.
2	No Nallahs and other water bodies in and around the vicinity of the mine lease area shall not be disturbed at any stage. Regular monitoring on water quality of nallah shall be carried out.	No mining is proposed/conducted within 50 meters from the nallahs and other water bodies. The water quality Monitoring report by NABL/MOEFCC accredited lab is attached as Annexure 1
3	The Project Proponent shall strictly adhere to the mines act and rules w.r.t. habitations, schools, water bodies, roads, railway lines etc., prevailing in the vicinity of the mine lease area and necessary permission shall be obtained from the concerned authorities.	Applicable Acts & Rules are strictly being followed in the entire mining lease area with special emphasis on working near habitations, schools, water bodies, roads, railway lines, etc. DGMS permission to work near habitations, schools, water bodies, roads, railway lines, etc is obtained. Permission is attached as Annexure 2
4	No mining activity shall be undertaken within 500m radius from the railway boundary. Necessary permission from DGMS and NOC shall be obtained from the Railways Dept. before the mining activity approaching to the railway area. The same shall be submitted to the Ministry's Integrated Regional Office.	Necessary permission from DGMS and NOC from the Railways Department has already been obtained. However, no working is going on within 500 m of the railway line at present. The NOC is attached as Annexure 2 & 3
5	The Project Proponent shall construct the boundary wall of adequate height with green fencing and shall undertake dense plantation all along the boundary near the school (restricted part of the mine lease area).	The boundary wall of Baghai School has already been constructed. Photo of the School's Boundary wall is attached as Annexure 4.
6	The Project Proponent shall maintain the distance of 500m radius between the school (restricted part of the mine lease area) and mine lease area throughout the life of the mine. No blasting activity shall be undertaken in this zone.	No work is running within a 500 m radius between the school & Mine boundary. No blasting activity will be undertaken in this zone.
7	The Project Proponent shall carryout the blasting in such a way that the direction of the blasting should be perpendicular to the school.	Agreed. Controlled blasting by non electric detonators and site mix explosive is being used according to the recommendation of Central Institute of Mining And Fuel Research. All the norms as stipulated by the DGMS is being followed in the blasting operations. PP is doing controlled blasting with proper safety and recommendations given by CIMFR Dhanbad after the study. The direction of the blasting will be kept perpendicular to the school.

S.No.	Specific Conditions	Compliance Status
8	The ground induced blasting vibrations shall be monitored regularly for every blast performed and the values of “peak particle velocity” and “Air Over Pressure” shall be maintained below the permissible values prescribed by the DGMS, from time to time. The data needs to be maintained and submitted along with the six monthly compliance report. The implementation status of the scientific study carried out CSIR-CIMFR shall be submitted to the Ministry’s Integrated Regional Office.	Ground vibrations are being monitored regularly. The “Air Over Pressure” (AOP) has been recorded within prescribed limits. All the recorded data (blast vibrations, air overpressures and fly rocks) were well within the safe limit at the houses/structures concerned. No violations regarding the blasting are received from the DGMS regarding blasting operation. The Ground Vibration report as per the scientific study is attached as Annexure 5 .
9	Prior permission from the Irrigation Dept. shall be obtained for ensuring the stability of the canal from the blasting activity.	NOC is obtained copy is attached as Annexure 6 .
10	The Project Proponent should follow the back filling plan strictly as per the approved mining plan. Top soil dumping, preservation and utilization should be carried out as per the approved mining plan	Agreed. Backfilling, topsoil dumping, and its preservation and utilization will be as per the approved mining plan.
11	Protective bund along the mine boundary towards the Canal shall be stabilized by fruit bearing plantation within two years from the issue of this EC. In between bund and plantation retaining wall should be constructed to arrest fine particles.	Agreed. Present working is more than 2 km from the canal. A protective bund will be stabilized by the fruit-bearing plantation and a retaining wall will be constructed between the bund and the plantation to arrest fine particles.
12	The Project Proponent needs to obtain prior permission from the Forest Dept. for cutting down the trees. PP shall approach the Forest Department to visit the site for demarcation of trees with their type. PP shall explore the possibility of tree transplantation before cutting of trees. Trees cannot be transplanted needs to replant the same in consultation with the Forest Dept. Trees cannot be transplanted shall vetted by the Forest Dept. before cutting of trees.	Agreed. Permission will be taken from the appropriate authority as and when required. Wherever possible the trees will be transplanted
13	The Project Proponent shall monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry’s Integrated Regional Office.	Agreed. Air quality, noise level, water quality, water level, and ground vibration report are attached as Annexure 7 .
14	The Project Proponent shall undertake the fruit bearing plantation all along the safety zone of the habitations, schools, railway lines, water bodies and roads within three years from the start of mining operations.	Agreed. Fruit bearing plantation Plantation activity is being done in phased manner with tree guards. Sapplings of fruit bearing plantation are being distributed too, to the nearby villages

S.No.	Specific Conditions	Compliance Status
15	The Project Proponent needs to install the permanent water sprinklers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of atleast 40 m throw shall be installed at various locations in the mine area. Effective dust suppression system shall also be adopted at other parts of the mining lease to arrest the fugitive dust emission.	Agreed. Fog Cannon has been installed at site and installation (Annexure 8) of permanent water sprinklers along the haul road and the approach road is completed.
16	The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, and other areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions. The dense plantation shall be carried out in the vicinity of the crusher. The Stack emission monitoring of the Crusher shall be carried out at periodic intervals.	Agreed. The crusher is not installed yet. All APCEs will be installed with the necessary arrangements to control pollution in the proposed crusher. A dense plantation is also maintained within the vicinity of the crusher. Necessary measures will be adopted to avoid generation of fugitive dust emissions.
17	The Project Proponent needs to complete the entire 7.5 m peripheral plantation, safety barrier plantation and gap plantation within three years from the start of mining operations. The Project Proponent should plant quality sapling of appropriate height of native and fruit bearing species. In case of tall transplants (seedlings) the seedlings should have proper trained root stock with root biomass commensurate with seedling height to ensure good growth after out planting. Plantation shall be undertaken in consultation with the State Forest Department. The Project Proponent shall implement the practice of drip irrigation for plantation.	Agreed. Plantation in 7.5 m zone is under progress.
18	The Project Proponent shall make the actual count on the saplings planted and its survival rate and in case of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Integrated Regional Office.	Agreed. To achieve 95% survival rate makeup plantation will be adopted.
19	The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs 83.32 Lakhs. The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Integrated Regional Office.	Agreed. Will be done as per EMP.

S.No.	Specific Conditions	Compliance Status
20	The Project Proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants within two years of grant of EC. Any non-compliance or infringement should be reported to the concerned authority.	Capex provision for the establishment of a well-equipped environmental laboratory has been taken, and the lab will be established in the upcoming financial year.
21	The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.	Agreed. The audit is in progress and will be submitted once completed.
22	The budget of Rs 2.02 Cr to address the concerns raised by the public in the public hearing to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity out comes. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.	Agreed. Action plan Attached (Annexure - 9)
23	The Project Proponent needs to provide the RO drinking water supply and also by laying network of pipelines to the villages Baghai, Bairiha, Sihata, Tapa, Satri, Medhi at free of cost.	Installation of RO drinking water supply is under process.
24	The Project Proponent needs to construct the boundary wall (250 Feet Length and 5 feet Height) in Primary School located at Medhi Village with allocated budget of Rs 5.0 Lakhs.	This will be done by the lessee, Prism Johnson Limited in the upcoming financial year.
25	The Project Proponent needs to facilitate the online education system in the schools by providing Wi-Fi connectivity, smart classrooms and desktops/ tablets. PP shall construct a library which shall be made available to the school children as well as local people.	Agreed. Compliance is in progress. So far, 20 Nos of smart classes has been developed by the company in the nearby villages. Photos Annexed (Annexure-10)
26	The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with	Agreed. Report with photographs is attached as Annexure 11

S.No.	Specific Conditions	Compliance Status
	photographs, on the measures taken shall also be included in the six monthly compliance report.	
27	The Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years.	Procurement of Electric Vehicles(EVs) is under process.
28	The Project Proponent should implement the Rehabilitation of project affected families (PAFs) and payment of compensation to PAFs in line with the policy and guidelines of the Central/State Government, as provided under the law in such away that the compensation should benefit the current and future generation.	Agreed.
29	The Project Proponent shall also organize employment-based apprenticeship/internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly. The preference shall be given to the local people for the purpose of employment.	Agreed. Driving training, Bag making training, cotton wicks making training, stitching training etc. has been given and will be given in future also.
30	The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance on Silicosis shall be carried through regular occupational health check-up every year for mine workers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.	Agreed. Initial Medical examination (IME) and Periodical Medical Examination (PME)for mine workers is being followed according to the provisions of DGMS. Health Monitoring Report is attached. (Annexure 12)
31	The mining lease holders shall, after ceasing mining operations, undertake regressing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Integrated Regional Office.	Agreed. This would be implemented at the time of the mine closure.

S.No.	Specific Conditions	Compliance Status
Standard Conditions		
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.	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 & Ors before commencing the mining operations.	Agreed
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 Judgement 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.	Agreed
4	The Project Proponent shall follow the mitigation measures provided in MoEFCC, 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 where Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".	Agreed
5	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.	A copy of the EC letter has been sent to the Concerned Panchayat on 19.05.2023. The copy is attached as Annexure 13 . local NGO not participated during the processing of the proposal.
6	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.	Not applicable to PP
7	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 website of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). The advertisement may be	The grant of EC is advertised in three local newspaper on 18.05.2023. Copy of the same are Attached as Annexure 14 .

S.No.	Specific Conditions	Compliance Status
	forwarded to the concerned MoEFCC Regional Office for compliance and record.	
8	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. PP needs to apply for transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.	Agreed.
S.No.	Air quality monitoring and preservation	Compliance Status
9	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 climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant to mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No.8-29016/20/90/PCI/1 dated 18.11.2009 covering the aspects of Mining plan 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 mine site.	Agreed. 1 CAAQMS had been installed at the Mine Site. Photos of the same is attached in Annexure 15
10	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 where high levels of PM-10 and PM2.5 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	Agreed. Dust suppression measures like water sprinkling on the haul road and approach road is being done via water tanker. Photos of the same is attached in Annexure 16

S.No.	Specific Conditions	Compliance Status
	Generals prescribed by the MoEFCC/Central Pollution Control Board.	
S.No.	Water quality monitoring and preservation	Action Plan
11	Incase, 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 groundwater table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC 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.	NOC from CGWA has been obtained for dewatering capacity of 487 m ³ /day vide NOC No.CGWA/NCGWA/NOC/MIN/ORIG/2022/14892 valid from 25/03/22 to 24/03/24. (Annexure 17) Application for renewal for NOC is in progress. Renewal application was submitted on 22.03.2024 having application No. 21-4/1167/MP/MIN/2021
12	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 piezo -meter 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 Ground water Department/State Pollution Control Board.	Regular monitoring of ground water quality and levels is being done 4 times in a year and proper record is maintained. Its reports is being submitted on six monthly basis to the Regional Office of Ministry, CGWA and State Pollution Control Board. Monitoring report is attached as Annexure 7

S.No.	Specific Conditions	Compliance Status
13	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 including upstream and down stream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flowrate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. 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.	Regular monitoring of surface water quality is being undertaken four times in a year and concerned parameters is being monitored and records of monitoring is maintained. Records of the monitored data area is being sent to the concerned authorities on six monthly basis. Monitoring report is attached as Annexure 7
14	Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination 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.J20012/1/2006/IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change, may also be referred in this regard.	Agreed. Concerned parameters is being monitored regularly and monitored records is uploaded on company website. Reports is annexed as Annexure 7 .
15	Project Proponent shall plan, develop and implement rain water harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/State Ground water Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.	Agreed. Rain water harvesting structures is being built to augment groundwater resources in the area, and the report of the same will be submitted to the Regional Office MoEFCC annually.
16	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	Agreed. The effluent generated in the workshop is being collected and treated so as to conform with the standards. (Annexure 18)

S.No.	Specific Conditions	Compliance Status
	Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.	
17	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 MoEF&CC and State Pollution Control Board/Committee.	<p>A detailed Comprehensive Hydrological Study has been conducted and a NOC from CGWA has been obtained for dewatering capacity of 487 m3/day vide NOC No. CGWA/NCGWA/NOC/MIN/ORIG/2022/14892 valid from 25/03/22 to 24/03/24.</p> <p>Application for renewal for NOC is in progress. Renewal application was submitted on 22.03.2024 having application No. 21-4/1167/MP/MIN/2021.</p>
S.No.	Noise and vibration monitoring and prevention	Action Plan
18	The peak particle velocity at 500m distance or within the nearest habitation whichever is closer shall be monitored periodically as per applicable DGMS guidelines.	Agreed. Ground vibration is being measured on regular basis as per DGMS guidelines. Annexure 5.
19	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.	The Illumination is done in such a way that it does not disturb the villagers by orienting it away from the villages. Noise level monitoring (Annexure 7) is being done regularly and all the ambient noise levels (both, at day and night) is well within the prescribed limits of CPCB guidelines
20	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/ personnel/ laborers are working without personal protective equipment.	Agreed. Measures like, HEMM fitted with silencer, controlled blasting, proper maintenance of HEMM will be taken. All the personnel working within dusty areas and with heavy machinery at the mines site is being provided with protective equipment, along with adequate training and health awareness.

S.No.	Specific Conditions	Compliance Status
21	The Project Proponent shall adhere to approved mining plan,including,total excavation (quantum of mineral, waste, overburden, interburden and top soil etc.);mining technology; lease area;scope of working (method of mining, overburden & dump management,OB& dump mining, mineral Mining plan mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land use of the mine lease area at various stages of mining scheme as well as at the end of life ;etc.).	Agreed. Development and production of the mine is being done as per approved mining plan.
22	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-a-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 MoEFCC and its concerned Regional Office.	Agreed. Land use is being done as per approved mining plan and the compliance status will be submitted on halfy early basis to concerned office.
23	The Overburden (O.B.), waste and top soil generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for along period oftime.The physical parameters of the OB / waste dumps / topsoil dump like height,width and angle of slope shall be governed asper the approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The top soil shall be usedfor land reclamation and plantation.	Agreed. Development of the mine is being done as per the approved mining plan. The top soil is stacked separately and will be used for land reclamation and plantation only.
24	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 micro climate. The gullies formed on slopes should be adequately taken care of as it impacts the over all 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 /clayliners/Bentoniteetc. shall be undertaken for stabilizationofthe dump.	Agreed. A slope stability Report is attached as Annexure 20

S.No.	Specific Conditions	Compliance Status
25	Catchdrains, 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 runoff 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 silted regularly, particularly after monsoon season, and maintained properly.	Agreed. Catch drains and siltation ponds of appropriate size is constructed and collected water is being utilized for watering the mine area, roads, Greenbelt development, plantation etc. Photos is attached as Annexure 19 .
26	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 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.	Agreed. Construction of check dams, retaining walls, and garland drains is done as per requirements in the appropriate size around the mine pits and OB dumps. Photos is attached as Annexure 19 .
S.No.	Transportation	Action Plan
27	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. Mining plan 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 Mining plan 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. [If applicable in case of road transport].	Complied. Transportation of the minerals is conducted through a 'bypass' road developed by the company at a safe distance from the villages/ habitations. Dust suppression by the water tankers is done on regular basis. All the vehicles have obtained Pollution Under Control (PUC) certificate from authorized pollution testing centers.

S.No.	Specific Conditions	Compliance Status
28	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 equipment like bagfilters, 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 Mining plan. PP shall take necessary measures to avoid generation of fugitive dust emissions.	Agreed. A permanent water sprinkler system is installed for dust suppression in the main haul road and dust suppression by the water tankers is done on regular basis. Photos are annexed as Annexure 22 & Annexure 16. The crusher is not installed yet. All APCEs will be installed with the necessary arrangements to control pollution in the proposed crusher. A dense plantation is also maintained within the vicinity of the crusher. Necessary measures will be adopted to avoid generation of fugitive dust emissions.
S.No.	Greenbelt	Action Plan
29	The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Greenbelt 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.	Agreed. Work is under progress, will be developed within 5 years of grant of EC.
30	The Project Proponent shall carry out plantation/afforestation in backfilled and reclaimed area of mining lease, around water body, along the road sides, 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.	Agreed. As per CPCB Guidelines plantation or afforestation activities are done in backfilled areas.
31	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.	Agreed.

S.No.	Specific Conditions	Compliance Status
	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.	
S.No.	Public hearing and human health issues	Action Plan
32	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, creche 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 under groundwater.	Agreed.
S.No.	Corporate Environment Responsibility (CER)	Action Plan
33	The Project Proponent shall submit the time bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017- IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.	Agreed. Action Plan is attached as Annexure 9 , the action plan will be implemented within 3 years.
S.No.	Miscellaneous	Action Plan
34	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.	Agreed. The study has already been conducted and the report preparation is under progress
35	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.	Agreed.
36	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEF&CC and its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.	Agreed. Last compliance report was submitted on 01.12.2023 and letter no. PJL/MIN/BG-2023/1002

S.No.	Specific Conditions	Compliance Status
37	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,MoEFCC.	Agreed. 'Environmental Management Cell' with suitable qualified manpower has been set-up under the control of a Senior Executive. The same is enclosed as Annexure 21
38	The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) by furnishing the requisite data/information/monitoring reports.	Agreed.
39	In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.	Agreed.
40	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.	Agreed
41	Concealing factual data failure to comply with any or submission of false/fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986	Agreed.

Sample Number : VTL/SW/03

M/s PRISM JOHNSON LIMITED
Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/W/2312280021/A

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sampling Date : 25/12/2023

Sampling Type : Grab

Sample Quantity : 2 Ltr.

Coordinates : 81.998838 & 24.564754

Name & Address of the Party :

Sample Description : SURFACE WATER

Sampling Location : Nar Nala (Beside Bagahai Mines)

Sample Collected By : VTL Team

Preservation : Suitable Preservation

Method of sampling : IS :3025

S.No.	Test Parameters	Test Method	Results	Unit	Permissible Limit
1	pH value	IS : 3025 (P-11) : 2022	7.38	--	8.5
2	Total Dissolved Solids (TDS)	IS : 3025 (P-16) : 1984, RA 2017	600.0	mg/l	1500
3	Chloride (as Cl)	IS: 3025 (P-32) : 1988, RA 2019	61.0	mg/l	600
4	Sulphate as (SO ₄)	IS: 3025 (P- 24) : 1986, Sec.RA 2022	73.0	mg/l	400
5	Total Suspended Solids (TSS)	IS: 3025 (P-17) : 2022	33.8	mg/l	--
6	Total Hardness (CaCO ₃)	IS: 3025 (P- 21) : 2009, RA 2019	298.0	mg/l	--
7	Fluoride (as F)	APHA 23rd Edition, 4500D, 2017	0.57	mg/l	1.5
8	Nitrate (as NO ₃)	IS: 3025 (P- 34) : 1988 RA 2022	16.0	mg/l	50
9	Phenolic compounds	APHA 23rd Edition, 5530C, 2017	*BLQ(**LOQ- 0.05)	mg/l	0.005
10	Dissolved oxygen (DO)	IS : 3025 (P -38) : 1989, RA 2019	5.2	mg/l	4
11	Biochemical Oxygen Demand (BOD) (3 days at 27°C)	IS: 3025 (P-44) : 1993, RA : 2019	7.8	mg/l	3
12	Chemical Oxygen Demand (COD)	IS : 3025 (P- 58) : 2006 RA 2017	40.0	mg/l	--
13	Total Coliform	IS 15185; 2016	170.0	MPN	5000
14	Iron (as Fe)	APHA 23rd Edition, 3111B, 2017	0.27	mg/l	50
15	Zinc (as Zn)	APHA 23rd Edition, 3030D, 3113B, 2017	0.33	mg/l	15



Checked by



RK Yadav
Lab Incharge
Authorized Signatory



Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

Page No. 1/2

Term & conditions PTO

Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

0141-2954638

bd@vibranttechnolab.com

www.vibranttechnolab.com

**VIBRANT***"Experience the unimaginable"*

Sample Number : VTL/SW/03

TEST REPORT

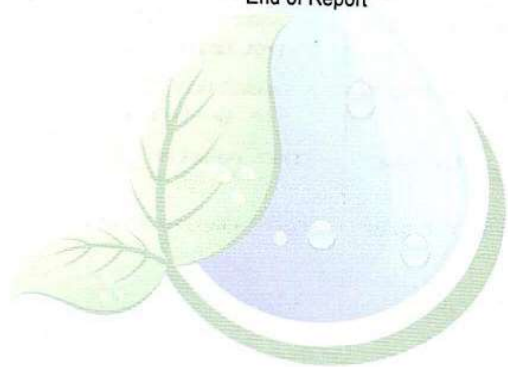
TC-11227

Report No. : VTLW/2312280021/A

S.No.	Test Parameters	Test Method	Results	Unit	Permissible Limit
16	Copper (as Cu)	APHA 23rd edition, 3111B, 2017	*BLQ(**LOQ- 0.02)	mg/l	1.5
17	Lead (as Pb)	APHA 23rd Edition, 3030D,3113B, 2017	*BLQ(**LOQ- 0.005)	mg/l	0.1
18	Arsenic (as As)	APHA 23rd Edition, 3030D,3114C, 2017	*BLQ(**LOQ- 0.005)	mg/l	0.2
19	Boron (as B)	APHA 23rd Edition, 4500D, 2017	*BLQ(**LOQ- 0.2)	mg/l	-
20	Chromium (as Cr)	APHA 23rd Edition,3113B, 2017	*BLQ(**LOQ- 0.02)	mg/l	0.05
21	Cadmium (as Cd)	APHA 23rd Edition,3113B ,2017	*BLQ(**LOQ- 0.002)	mg/l	0.01

*BLQ Blow limit of Quantification **LOQ Limitn of Quantification

End of Report

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Checked by

RK Yadav
Lab Incharge
Authorized Signatory 

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Page No. 2/2

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**VIBRANT***"Experience the unimaginable"***TEST REPORT**

Sample Number : VTL/SW/03

M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Name & Address of the Party :

Sample Description : SURFACE WATER

Sampling Location : Nar Nala (Beside Bagahai Mines)

Sample Collected By : VTL Team

Preservation : Suitable Preservation

Method of sampling : IS :3025

Report No. : VTL/W/2312280021/B

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sampling Date : 25/12/2023

Sampling Type : Grab

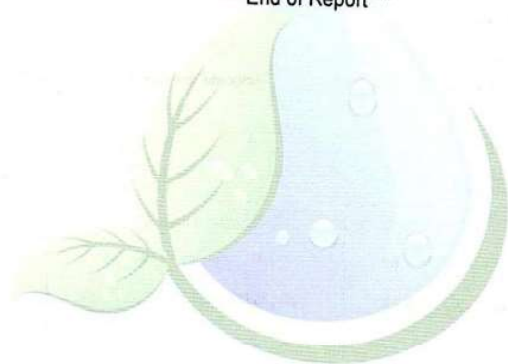
Sample Quantity : 2 Ltr.

Coordinates : 81.998838 & 24.564754

S.No.	Test Parameters	Test Method	Results	Unit	Permissible Limit
1	Colour	IS : 3025 (P-4) : 2021	*BLQ(**LOQ-1)	CU	300
2	Oil & Grease	IS : 3025 (P-39) 1991, RA 2019	*BLQ(**LOQ- 4.0)	mg/l	0.1

*BLQ Blow limit of Quantification **LOQ Limitn of Quantification

End of Report

**VIBRANT**
"Experience the unimaginable"Checked by
[Signature]

RK Yadav

Lab Incharge

Authorized Signatory
[Signature]

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

Page No. 1/1

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भारत सरकार
Govt. of India
श्रम एवं रोजगार मंत्रालय
Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय
Directorate-General of Mines Safety



NO: 361177|WZ|Jabalpur Region|Perm|2023|252895

Date: 13/02/2023

From
Director of Mines Safety,

Jabalpur Region, Jabalpur.

To
The Manager,

Baghai Limestone Mine,
Prism Johnson Limited,

vill-Mankahri, Dist-Satna, M.P.

Subject: Relaxation under Regulation 164(1-B) of the Metalliferous Mines Regulation 1961 to conduct controlled deep hole blasting within 300 m but beyond 100m of temple/hutment/HT line/dwelling/Railway track etc. not belonging to owner and within 300 m but beyond 50 m of PWD roads (Mendhi-Baghai Road) and (Mendhi - Janardanpur road) at Baghai Limestone Mine of M/s Prism Johnson Limited

Please refer to your Online Application ID No. 252895 dated 19.12.2022 ; offline letter No. PJI/MINE/BG/2022/949 dated 19.12.2022 and the report on "Study and advice for optimization of blast design parameters at Baghai Limestone Mine of M/s Prism Cement Limited to control ground vibration within the safe limits for the safety of habitation, road, railway line and water bodies public and private structures in the periphery of the mine" prepared by Central Institute of Mining & Fuel Research, Dhanbad (Project No. CNP/5042/2020-21 dated April 2021) enclosed therewith on the above subject.

The matter has since been examined in the light of particulars and information furnished in the application and shown on the Surface Plan No. PJI/BG/2022/105 dated 19.12.2022 enclosed with the application under reference. In exercise of the powers conferred on the Chief Inspector of Mines (also designated as Director-General of Mines Safety) under the provisions of Regulation 164(1B)(a) of the Metalliferous Mines Regulations, 1961 and by virtue of the authorization granted to the undersigned by the Chief Inspector of Mines (also designated as Director General of Mines Safety) under Section 6(1) of the Mines Act, 1952, I hereby grant relaxation under Regulation 164(1B)(a) of the Metalliferous Mines Regulations, 1961 to conduct controlled deep hole blasting within 300 m but beyond 100 m of temple/hutment/HT line/dwelling/Railway track etc. not belonging to owner and within 300 m but beyond 50 m of PWD roads (Mendhi-Baghai Road) and (Mendhi - Janardanpur road) at Baghai Limestone Mine of M/s Prism Johnson Limited subject to the following conditions being strictly complied with

1.0 No deep hole blasting shall be conducted within 100 m of temple/hutment/HT line/dwelling/Railway track etc. and other surface structures not belonging to the owner and within 50m of PWD road.

1.1 No blasting for any purpose shall be done within 300 m from the boundary of sub station or from the electric supply line of voltage exceeding 650V or tower structure without written permission of the Electrical Inspector of Mines under regulation 65(2) of CEAR amendment, 2015.

2.0 No working shall be made or extended to any point within 45m of any structure not belonging to the owner,

3.0 The management shall indemnify any person who may be affected and the owners of surface structures for any damages or loss to their life and property arising out of mining operation

4.0 A competent person shall inspect all the structures for any damage after each blast and record shall be maintained. The damage, if any, shall be intimated to the Director of Mines Safety, Jabalpur Region forthwith.

5.0 The manager of the mine shall personally work out a pattern of holes to be drilled in such a manner so as to minimize ground vibrations and to control flying fragments within 10m in any direction.

6.0 The maximum charge of explosive per delay and Maximum charge per round shall not exceed the quantities mentioned below, when surface structures were within the danger zone but beyond 50m from any such place of blasting-

Distance of structures from the site of blasting (m)	Maximum Charge/delay (Kg)	Maximum Charge/blasting(Kg)
>100-125	39	470
>125-150	60	730
>150-175	80	1050
>175-200	120	1400
>200-225	150	1850
>225-250	190	2300
>250-275	190	2300
>275-300	190	2300

7.0 (1) No hole shall be blasted without proper muffling. Muffling of shot holes shall be done with old conveyor belt of suitable size overlain by minimum 4 (four) sand bags each of 50kg weight to be placed on each hole.

ii) Two free faces shall always be maintained and blasting material shall be cleared off before commencement of blasting operation.

iii) All loose debris should be removed from the place where drilling and blasting is to be done.

(iv) The Manager should fix the blasting time and it shall be circulated to all concern and

displayed on the Notice Board and as far as possible, blasting shall be done only at the specified time, during day light hours.

(v) The code of blasting signals shall be framed by the manager and shall be followed strictly.

(vi) The type of initiating device for conducting blasting operation shall be shock tubes of Non- electric type (NONEL/RAYDET etc.) or electronic detonator type.

(vii) No blasting shall be done in crushed, broken or sliced ground.

(viii) Charging of explosives shall be such as to ensure continuity of the explosive column Where deck charging is done, continuity shall be ensured for each deck of explosive charge

ix) The cartridge of explosives shall be lowered carefully into the shot-holes so as to avoid sticking of cartridges in the shot holes thereby causing air spaces in column of explosive charge. After charging each hole with explosive, the length of the remaining hole shall be measured to ensure that the cartridges are in close contact with each other and there is no air gap between any two cartridges of explosives. In case of the length of uncharged portion of the hole is not found as per the calculation thereby indicating the presence of air space, attempt may be made to push down the charge (in case of slurry explosives only), The remaining hole shall then be stemmed with moist sand before blasting the shot-hole.

x) The area of the loaded holes shall be conspicuously marked by visible bright red flags during day light hours. The entire area shall be cordoned off to prevent unauthorized or inadvertent entry.

(xi) Before deep-holes are charged, stemmed and fired, sufficient warning by siren or other suitable means shall be given to warn persons within a radius of 500 m, including to the habitants of structures and dwellings, not belonging to owner of the mine

(xii) Two-way communication by wireless or walkie-talkie sets shall be provided to the Assistant Manager in-charge of blasting, blasting foreman, and to the assistants of the blaster. The sets, including mobile phones in possession of blasting personnel, if any, shall remain switched off during handling and charging of explosives.

(xiii) It shall be ensured that no person remains in the dwellings/structures falling within a radial distance of 500 m of the place of firing at the time of blasting, unless the dwelling/structure provides adequate/proper shelter from flying fragments resulting out of blasting. Guards shall be posted to ensure that no person inadvertently enters the danger zone, and to ensure that all persons within the danger zone have taken proper shelter. All precautions provided under Regulation 164 of the Metalliferous Mines Regulations, 1961, regarding taking shelter, shall be complied with.

8.0 Barricades/drop gates on either end of roads within 300m radius of the site of blasting shall be maintained and guards shall be posted to stop any inadvertent entry of persons/vehicles on the road during the blasting period.

9.0 To ascertain the efficacy of the blasting performance, measurement of ground vibrations of every blast by suitable Instrument shall be done and record thereof maintained in the bound paged book kept for the purpose. The record maintained shall show the size, depth, pattern of shot-holes, amount of charge per round, charge/delay, sequences of blasting and observations made, in a prescribed format in bound paged book. All entries in the bound-paged book shall be duly signed by the Assistant Manager In-charge of blasting operations and shall also be countersigned by the Manager.

9.1 The result of record of frequency and PPV (peak particle velocity) measured shall be recorded for every blast and kept maintained. For the purpose, required instrument/seismo-graph/vibro-graph, triggered by geo-phone and capable of giving digital output duly calibrated shall be made, kept available, and used at the mine. The record shall be signed by the blasting incharge and counter signed by the manager of the mine.

9.2 If the PPV (peak particle velocity) measured at any time exceeds the permitted value, it shall be immediately informed to the Director of Mines Safety, Jabalpur Region and the scientific agency for further guidance.

10.0 The provisions of Regulation 164(1A) & 164(1B) of the Metalliferous Mines Regulations 1961 shall be strictly complied with subject to the conditions as stipulated in the permission letter. DGMS Cir. Tech. 7/1997 shall be strictly followed.

11.0 (i) The entire operations of transport of the explosives to the site of its use, drilling, stemming and blasting operations shall be placed under the direct personal supervision of an Assistant Manager appointed by the owner of the mine holding First Class Manager's Certificate of Competency in accordance with the guidance and directives issued by the Manager.

(ii) Only those shot firers who are fully trained in controlled blasting technique shall be deputed for shot firing operations.

(iii) A Code of 'Safe Practices for Controlled Deep-hole Blasting and Unsafe Practices Prohibited' shall be framed and implemented under the direct personal supervision of the "Blasting Officer (Assistant Manager In-charge of Blasting).

12.0 The place, where drilling has been done shall be thoroughly cleaned so that all loose debris and loose rocks lying in the area and in the vicinity of the shot-holes are removed.

13.0 (i) Explosives shall be used in the order of the dates of manufacture

(ii) Explosives shall not be used after expiry of the shelf-life.

14.0 (i) Explosive when transported in vehicles shall be carried in an explosive van approved by the Chief Controller of Explosives.

(ii) Explosive vans used for transport of explosives shall be in safe operating condition and

should be driven by the competent licensed drivers

(iii) The explosive van shall be kept in isolated locations while loaded which shall be properly guarded and attended.

(iv) The explosive vans shall be well locked except during times of placements and removal of stocks therefrom

v) No smoking or open flame shall be permitted in or near the explosive van containing explosives

15.0 All detonators and primed cartridges shall be kept in secure receptacles at a safe distance from the detonating fuse and the explosive until actually required for use.

16.0 The case or container of explosives shall not be opened unless the holes are ready for charging in every respect.

17.0 The holes shall be charged and fired as soon as possible after the explosive is transported to the site of blasting. All normal precautions for charging and firing as laid down under the provisions of Regulations shall be strictly observed.

18.0 The explosive charge shall not be allowed to sleep over in the shot holes unless express permission to that effect has been obtained in writing from this Directorate.

19.0 (i) Explosive cartridge shall not be slit or deformed.

(ii) Adequate amount of cap sensitive explosive shall be used with non-cap sensitive explosive charge to ensure complete detonation of the explosive charge.

20.0 In case of any actual or apprehended danger of any sort arising out of the blast is observed or noticed, the blasting shall be stopped forthwith and this Office shall be informed immediately.

21.0 Please note that this permission is subject to the following additional conditions:

21.1 In the event of any change in the circumstances likely to affect the safety of persons and stability of the structure, this permission shall be deemed to have been withdrawn with immediate effect

21.2 If at any time, any one of the conditions subject to which this permission has been granted is violated or not complied with, this permission shall be deemed to have been revoked with immediate effect

21.3 This permission is being issued specifically under the provisions of the Regulations mentioned above without prejudice to any other provisions of law, which may be or may become applicable at any time.

21.4 The above permission may be amended or withdrawn at any time if considered necessary in the interest of safety.

22.0 This permission shall remain valid for a period of **three years** from the date of issue of this letter.

Your Faithfully



ASHOK KUMAR (DIRECTOR - JABALPUR REGION)



पश्चिम मध्य रेल
West Central Railway

मंडल रेल प्रबंधक कार्यालय
इंजीनियरिंग शाखा, जबलपुर
DRM office
Engineering Branch, Jabalpur
Phone: 0761-2625935

No. JBPW/PLG/GENI/02

Date: 18.05.2023

GM (Mines)
Prism Johnson Limited

Sub: No Objection Certificate to carry out controlled deep hole blasting beyond 100m but not within 100m from STA-REWA Railway Line.

Ref: Your application dated 25.04.2023.

In reference to your application in the subject matter dated 25.04.2023, it is informed that various stipulations of subject matter along with impact mitigation measures to carry out blasting as listed by DGMS, has been studied and competent authority has accorded his approval for grant of NOC for carrying out mining operations with controlled deep hole blasting beyond 100m but not within 100m from STA-REWA Railway Line passing nearby Baghai Limestone Mining lease boundary of your firm at village-Baghai, Tehsil-Rampur Baghela, Dist.- Satna, MP, with the condition that:

"Agreed in principle but damage (if any) during blasting should be recovered from the firm."

This is for your kind information please.

Muhammad
18.05.2023
DEN (North) JBP

C/- DRM/JBP: for kind information please.

C/- Sr. DEN (Co) JBP: for kind information please.

C/- ADEN/North/STA: for information and necessary action please.

C/- SSE (PW) Rewa: for information and necessary action please.

C/- SSE (Works) North/STA: for information and necessary action please.



Baghai School Boundary

Date/Time Tran at 14 07 42 October 23, 2023
 Trigger Source Geo 0 500 mm/s, Mic 2 000 pa (L)
 Range Geo 254 0 mm/s
 Record Time 1 5 sec (Auto=7Sec) at 1024 sps
 Operator/Setup: Operator/BGM mmb

Serial Number UM8131 V 10-76 Micromate ISEE
 Battery Level 3.8 Volts
 Unit Calibration December 24, 2022 by UES New Delhi
 File Name _TEMP EVT

Post Event Notes

Instument Distance from Blasting Face =250 mtr, No of Hole 32 nos,
 Charge /Hole =30.40kg, Charge/Delay=30 40 kg

Notes

Location BAGHAI Limestone MINES
 Client
 User Name PRISM JOHNSON LIMITED
 General

Extended Notes

BAGHAI Limestone MINE

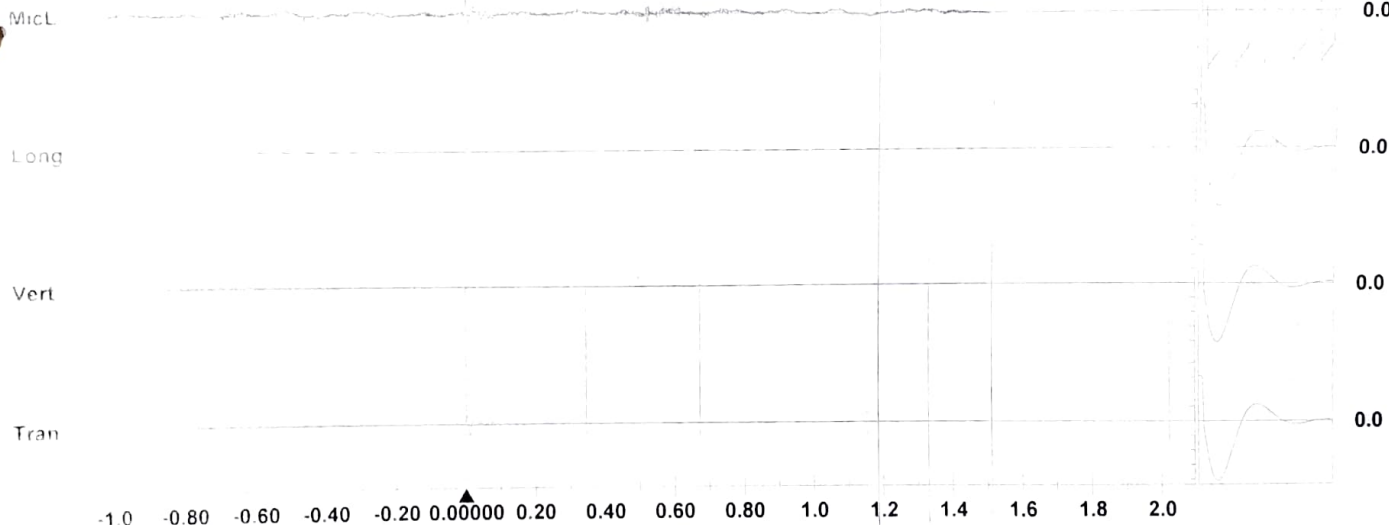
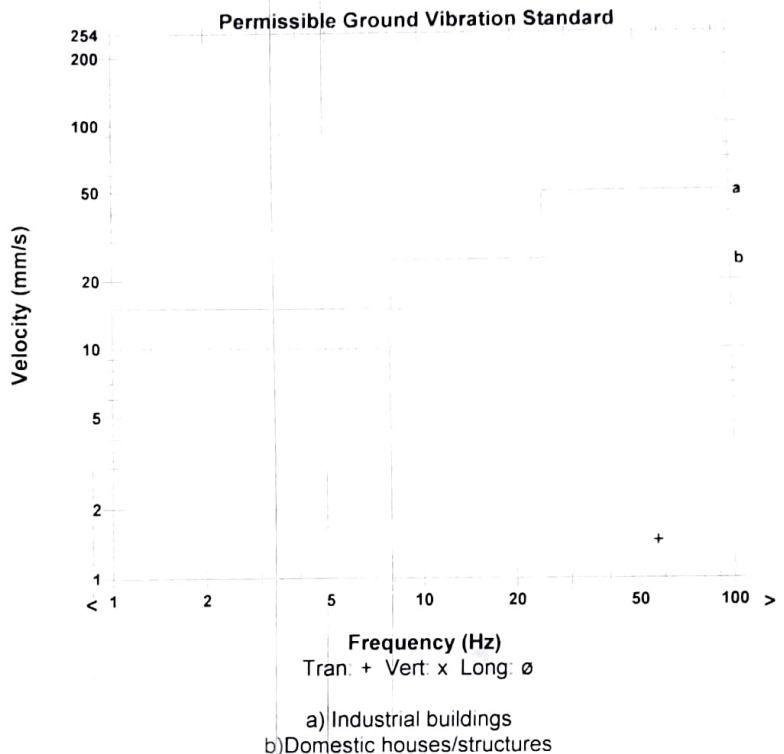
Microphone Linear Weighting
 PSPL 0 838 pa (L) at 0 009 sec
 ZC Freq 73 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 1356 mv)

	Tran	Vert	Long	
PPV	1.450	0.276	0.560	mm/s
ZC Freq	57	N/A	30	Hz
Time (Rel. to Trig)	0.012	-0.980	0.009	sec
Peak Acceleration	0.058	0.012	0.021	g
Peak Displacement	0.091	0.088	0.045	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.1	Hz
Overswing Ratio	3.6	3.4	3.7	

Peak Vector Sum 1.487 mm/s at 0.012 sec

N/A: Not Applicable

DGMS India (B)



Sensor Check

Date/Time Tran at 13:56:58 November 29, 2023
 Trigger Source Geo: 0.500 mm/s, Mic: 2.000 pa (L)
 Range Geo: 254.0 mm/s
 Record Time 1.0 sec (Auto=7Sec) at 1024 sps
 Operator/Setup: Operator/BGM mmb

Serial Number UM8131 V 10-76 Micromate ISEE
 Battery Level 3.8 Volts
 Unit Calibration December 24, 2022 by UES New Delhi
 File Name TEMP EVT

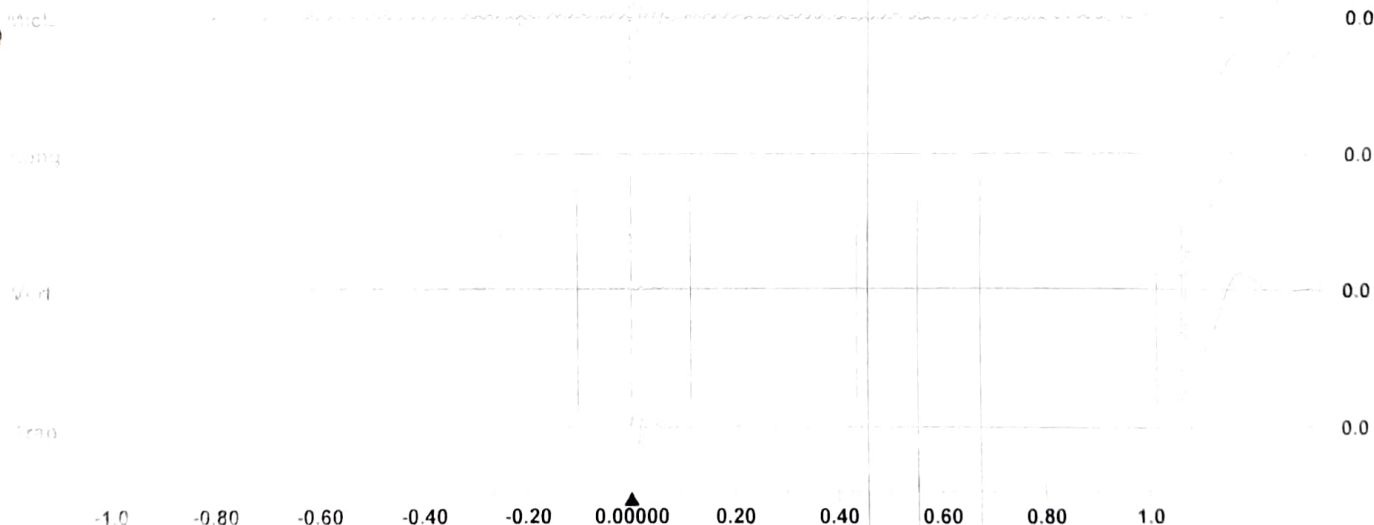
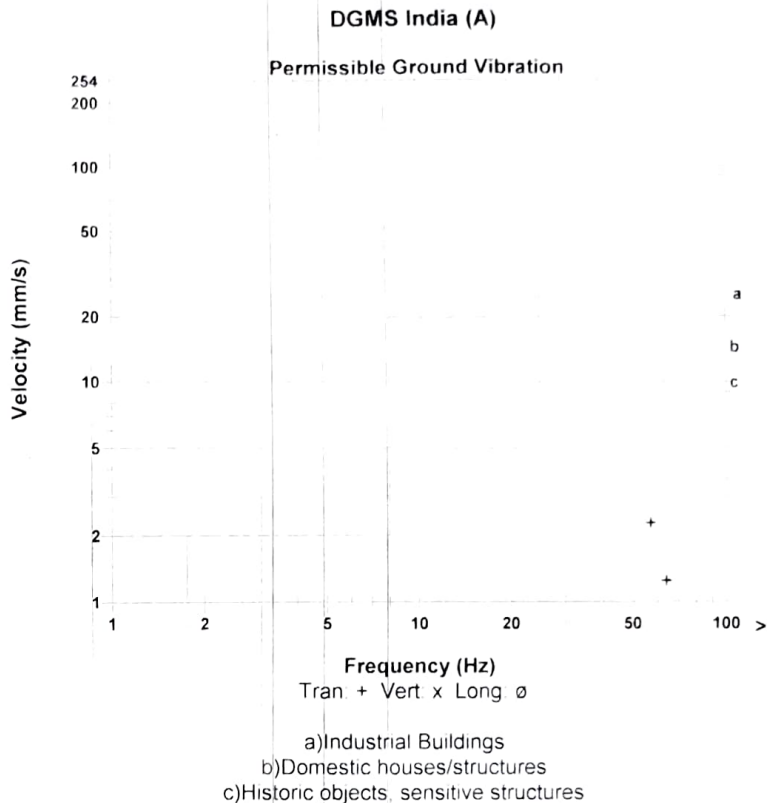
Notes
 Location BAGHAI LIME STONE MINES
 Client
 User Name PRISM CEMENT LIME STONE MINES
 General

Extended Notes
 BAGHAI LIMESTONE MINES

Microphone Linear Weighting
 PSPL 0.900 pa (L) at 0.009 sec
 ZC Freq 64 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 1435 mv)

	Tran	Vert	Long	
PPV	2.270	0.465	0.520	mm/s
ZC Freq	57	32	30	Hz
Time (Rel. to Trig)	0.013	0.020	0.018	sec
Peak Acceleration	0.073	0.022	0.016	g
Peak Displacement	0.102	0.102	0.062	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.1	Hz
Overswing Ratio	3.7	3.5	3.7	

Peak Vector Sum: 2.314 mm/s at 0.013 sec



Date/Time Tran at 13:47:10 December 8, 2023
 Trigger Source Geo: 0.500 mm/s, Mic: 2.000 pa.(L)
 Range Geo: 254.0 mm/s
 Record Time 2.5 sec (Auto=7Sec) at 1024 sps
 Operator/Setup: Operator/BGM.mmb

Serial Number UM8131 V 10-76 Micromate ISEE
 Battery Level 3.8 Volts
 Unit Calibration December 24, 2022 by UES New Delhi
 File Name TEMP.EVT

Notes
 Location: BAGHAI LIME STONE MINES
 Client:
 User Name: PRISM CEMENT LIME STONE MINES
 General:

Extended Notes
 BAGHAI LIMESTONE MINES

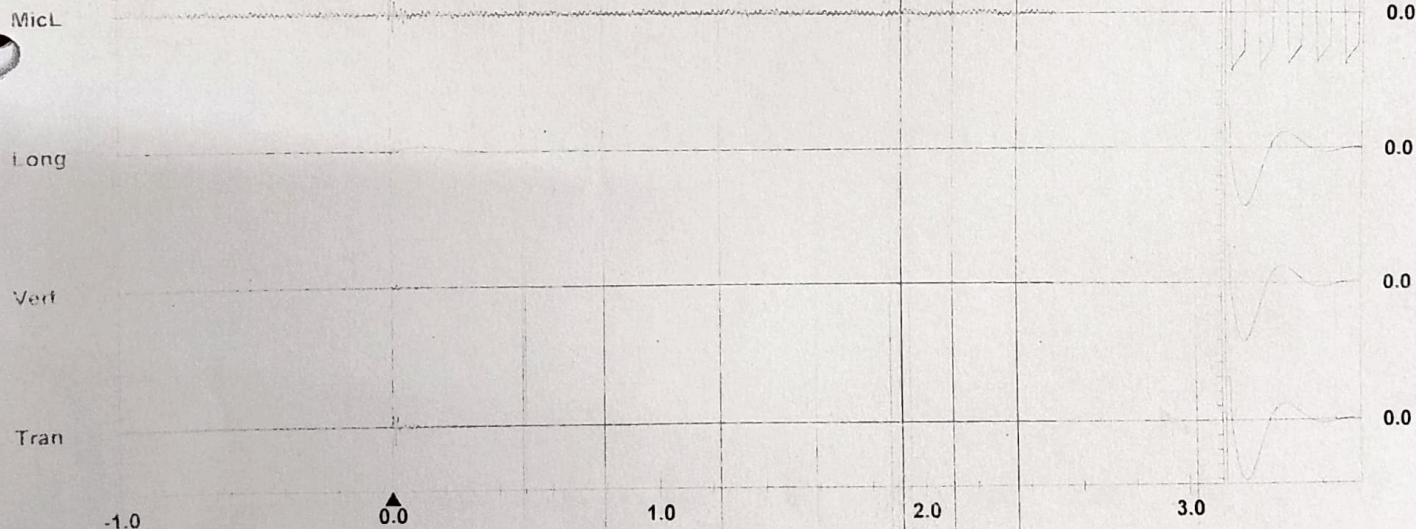
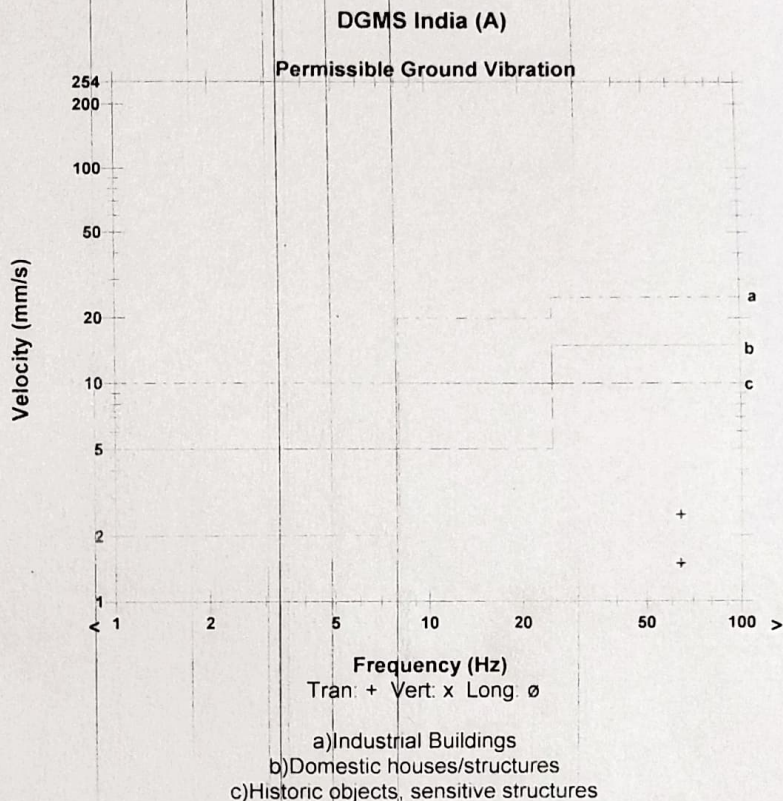
Microphone Linear Weighting
 PSPL 1.055 pa.(L) at 0.008 sec
 ZC Freq 64 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 1437 mv)

	Tran	Vert	Long	
PPV	2.491	0.504	0.757	mm/s
ZC Freq	64	37	1.7	Hz
Time (Rel. to Trig)	0.013	0.019	0.128	sec
Peak Acceleration	0.090	0.023	0.013	g
Peak Displacement	0.080	0.085	0.063	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.1	Hz
Overswing Ratio	3.7	3.5	3.7	

Peak Vector Sum 2.513 mm/s at 0.013 sec

Post Event Notes

Insument Distance From From Blasting Face =250 mtr ,No of Hole =21 nos ,Charge/Hole=36.9kg, Charge/Delay=36.9 kg



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 1.000 pa.(L)/div
 Trigger = ▶ ◀

Sensor Check

कार्यालय मुख्य अभियन्ता गंगा कछार जल संसाधन विभाग रीवा (म0प्र0)

पत्र प्रति, कमांक गंगा/कार्य/ 782-133 का 2023/2994 रीवा, दिनांक 01/05/2023.

मेसर्स प्रिज्म जॉनसन लिमिटेड
305 लक्ष्मी निवास अपार्टमेन्ट
हैदराबाद (म0प्र0)।

विषय- जिला सतना के ग्राम बगहाई, तहसील रामपुर बघेलान अंतर्गत मेसर्स प्रिज्म जॉनसन लिमिटेड के पक्ष में रकबा 512.317 हे. स्वीकृत खनिपट्टा क्षेत्र से गुजरने वाली मुख्य पुरवा नहर के दोनो ओर 100 मीटर का प्रतिबंधित क्षेत्र छोड़कर खनिज चूनापत्थर के खनन का कार्य करने के संबंध में।

सन्दर्भ- आपका पत्रक्रमांक PJM/MRM/2023-24/22 दिनांक 24.03.2020.

-00-

विषयान्तर्गत म0प्र0 शासन खनिज साधन विभाग मंत्रालय भोपाल के आदेशक्रमांक एफ 3-7/06/12/1 भोपाल दिनांक 16.09.2008 द्वारा जिला सतना के ग्राम बगहाई, तहसील रामपुर बघेलान अंतर्गत मेसर्स प्रिज्म जॉनसन लिमिटेड के पक्ष में रकबा 512.317 हे. क्षेत्र में खनिपट्टा स्वीकृत किया गया है।

अतः आपके आवेदन के परिप्रेक्ष्य में खनिज रियायत नियम 1960 में विहित प्रावधान तथा म0प्र0 राजपत्र (असाधारण) दिनांक 23 मार्च 2013 में प्रकाशित मध्यप्रदेश गौण खनिज नियम 1966 में किए गये संशोधन अनुसार पुरवा नहर संरचना के दोनों ओर 100-100 मीटर का प्रतिबंधित क्षेत्र छोड़कर खनन कार्य किए जाने हेतु सहमति प्रदान की जाती है। इस अनुमति से यदि विभागीय संरचना प्रभावित होती है तब कम्पनी को विभाग के निर्देशों का पालन करना होगा।

सहपत्र-शून्य

(जे0एस0 कुसरे)

मुख्य अभियन्ता

गंगा कछार जल संसाधन विभाग

रीवा (म0प्र0)

पृ. कमांक गंगा/कार्य/ 782-133 का 2023 2995 रीवा, दिनांक 01/05/2023.

प्रतिलिपि-

1- अधीक्षण यंत्री बाणसागर नहर मण्डल रीवा।

2- कार्यपालन यंत्री पुरवा नहर संभाग क्र2 सतना।

की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

सहपत्र-शून्य।

हस्ता/

(जे0एस0 कुसरे)

मुख्य अभियन्ता

गंगा कछार जल संसाधन विभाग

रीवा (म0प्र0)



VIBRANT
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TEST REPORT

Sample Number : VTL/AA/13

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/A/2312280008/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : Nr. Boundary Pillar No.64, Bagahai (Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/03
Coordinates : 81.043743 & 24.577705
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 22/12/2023 To 23/12/2023
Time of Monitoring : 10:30 to 10:30 Hrs.
Ambient Temperature (°C) : Min.09° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Carbon Monoxide (as CO)	Lab SOP no. VTL/STP/02:2022, STP-08	0.65	mg/m ³	4

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

End of Report

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MS



RK Yadav
Lab Incharge
Authorized Signatory

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Sample Number : VTL/AA/10

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Report No. : VTL/A/2312280009/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : South Side of working pit (Bagahai Mines)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/04
Coordinates : 81.044145 & 24.561192
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 22/12/2023 To 23/12/2023
Time of Monitoring : 10:40 to 10:40 Hrs.
Ambient Temperature (°C) : Min.09° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Particulate Matter (as PM10)	IS:5182 (P- 23)-2006, RA. 2017	82.23	µg/m³	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	41.51	µg/m³	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	21.23	µg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	10.00	µg/m³	80

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

End of Report

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Sample Number : VTL/AA/10

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/A/2312280009/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : South Side of working pit (Bagahai Mines)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/04
Coordinates : 81.044145 & 24.561192
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 22/12/2023 To 23/12/2023
Time of Monitoring : 10:40 to 10:40 Hrs.
Ambient Temperature (°C) : Min.09° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Carbon Monoxide (as CO)	Lab SOP no. VTL/STP/02:2022, STP-08	0.59	mg/m ³	4

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

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Page No. 1/1

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Sample Number : VTL/AA/11

Name & Address of the Party : M/s PRISM JOHNSON LIMITED
Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Report No. : VTL/A/2312280010/A
Format No : 7.8 F-02
Party Reference No : NIL
Report Date : 08/01/2024
Period of Analysis : 28/12/2023-08/01/2024
Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : At Baisan Tola (Nr. Bagahai ML Area)(Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/01
Coordinates : 81.051734 & 24.559126
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 23/12/2023 To 24/12/2023
Time of Monitoring : 10:20 to 10:20 Hrs.
Ambient Temperature (°C) : Min.10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Particulate Matter (as PM10)	IS:5182 (P- 23)-2006, RA. 2017	67.58	µg/m³	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	36.42	µg/m³	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	18.37	µg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	9.10	µg/m³	80

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

End of Report

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TEST REPORT

Sample Number : VTL/AA/11

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/A/2312280010/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : At Baisan Tola (Nr. Bagahai ML Area)(Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/01
Coordinates : 81.051734 & 24.559126
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 23/12/2023 To 24/12/2023
Time of Monitoring : 10:20 to 10:20 Hrs.
Ambient Temperature (°C) : Min.10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Carbon Monoxide (as CO)	Lab SOP no. VTL/STP/02:2022, STP-08	0.56	mg/m ³	4

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

End of Report

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[Signature]



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Page No. 1/1

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Sample Number : VTL/AA/12

Name & Address of the Party : M/s PRISM JOHNSON LIMITED
Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Report No. : VTL/A/2312280011/A
Format No : 7.8 F-02
Party Reference No : NIL
Report Date : 08/01/2024
Period of Analysis : 28/12/2023-08/01/2024
Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : Adiwasi Tola (Nr. Bagahai ML Area)(Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/02
Coordinates : 81.053377 & 24.564937
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 23/12/2023 To 24/12/2023
Time of Monitoring : 10:30 to 10:30 Hrs.
Ambient Temperature (°C) : Min.10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Particulate Matter (as PM10)	IS:5182 (P- 23)-2006, RA. 2017	79.26	µg/m³	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	38.42	µg/m³	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	20.13	µg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	9.89	µg/m³	80

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

End of Report

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**VIBRANT***"Experience the unimaginable"***TEST REPORT**

Sample Number : VTL/AA/12

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/A/2312280011/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : Adiwasi Tola (Nr. Bagahai ML Area)(Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/02
Coordinates : 81.053377 & 24.564937
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 23/12/2023 To 24/12/2023
Time of Monitoring : 10:30 to 10:30 Hrs.
Ambient Temperature (°C) : Min.10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Carbon Monoxide (as CO)	Lab SOP no. VTL/STP/02:2022, STP-08	0.52	mg/m ³	4

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

End of Report

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Sample Number : VTL/GW/16

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

ULR No. : TC112272400000328F

Report No. : VTL/W/2402270021/A

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 06/03/2024

Period of Analysis : 27/02/2024-06/03/2024

Receipt Date : 27/02/2024

Sampling Date : 23/02/2024

Sampling Type : Grab

Sample Quantity : 2 Ltr.

Sample Description : Drinking Water

Sampling Location : Bagahai Limestone Mine Site office D. Water

Sample Collected By : VTL Team

Preservation : Suitable Preservation

Method of sampling : IS :3025

Coordinates : 81.998838 & 24.564754

S.No.	Test Parameters	Test Method	Results	Units	IS:10500-2012	
					Acceptable Limit	Permissible Limit
1	pH (at 25°C)	IS : 3025 (P-11) : 2022	7.29	--	6.5 to 8.5	No Relaxation
2	Turbidity	IS : 3025: (P-10)1984, RA 2017	*BLQ(**LOQ-1.0)	NTU	1	5
3	Total Hardness (as CaCO ₃)	IS: 3025 (P-21): 2009, RA 2019	190.0	mg/l	200	600
4	Calcium (as Ca)	IS: 3025 (P- 40): 1991 RA 2019	51.1	mg/l	75	200
5	Total Alkalinity (as CaCO ₃)	IS: 3025 (P-23): 1986, RA 2019	145.0	mg/l	200	600
6	Chloride (as Cl)	IS: 3025 (P-32): 1988, RA 2019	32.5	mg/l	250	1000
7	Magnesium (as Mg)	IS: 3025 (P-46): 1994, RA 2019	15.19	mg/l	30	100
8	Total Dissolved Solids	IS :3025 (P-16): 1984, RA 2017	490.0	mg/l	500	2000
9	Sulphate (as SO ₄)	IS: 3025 (P-24): 1986, RA 2022	44.1	mg/l	200	400
10	Fluoride (as F)	APHA 23rd Edition ,4500FD :2017	0.27	mg/l	1.0	1.5
11	Nitrate (as NO ₃)	IS: 3025 (P-34): 1988	14.1	mg/l	45.0	No Relaxation
12	Iron (as Fe)	APHA 23rd Edition , 3111B,2017	0.24	mg/l	1.0	No Relaxation
13	Aluminium (as Al)	IS 3025 (P-55): 2003, RA 2019	*BLQ(**LOQ-0.03)	mg/l	0.03	0.2
14	Boron (as B)	APHA 23rd Edition, 4500B,2017	*BLQ(**LOQ-0.2)	mg/l	0.5	1.0
15	Total Chromium (as Cr)	APHA 23rd Edition 2017 3113 B, 2017	*BLQ(**LOQ-0.02)	mg/l	0.05	No Relaxation
16	Zinc (as Zn)	APHA 23rd Edition,3030D, 3113 B , 2017	0.36	mg/l	5.0	15.0
17	Copper (as Cu)	APHA 23rd Edition 3111B 2017	*BLQ(**LOQ-0.02)	mg/l	0.05	1.5



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RK Yadav
Lab Incharge
Authorized Signatory



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Vibrant Techno Lab Pvt. Ltd.

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**VIBRANT***"Experience the unimaginable"***TEST REPORT**

TC-11227

Sample Number : VTL/GW/16

ULR No. : TC1122724000000328F

Report No. : VTLW/2402270021/A

S.No.	Test Parameters	Test Method	Results	Units	IS:10500-2012	
					Acceptable Limit	Permissible Limit
18	Manganese (as Mn)	APHA 23rd Edition, 3030D, 3111 B, 2017	*BLQ(**LOQ-0.05)	mg/l	0.1	0.3
19	Cadmium (as Cd)	APHA 23rd Edition, 3030D, 3113 B, 2017	*BLQ(**LOQ-0.002)	mg/l	0.003	No Relaxation
20	Lead (as Pb)	APHA 23rd Edition, 3030D, 3113 B, 2017	*BLQ(**LOQ-0.005)	mg/l	0.01	No Relaxation
21	Arsenic (as As)	APHA 23rd Edition, 3114C, 2017	*BLQ(**LOQ-0.005)	mg/l	0.01	0.05
22	Mercury (as Hg)	APHA 23rd edition, 3114C 2017	*BLQ(**LOQ-0.001)	mg/l	0.001	No Relaxation
23	Total Coliform	IS : 15185 : 2016	Absent	per 100 ml	Shall not be detectable in any 100 ml sample	--
24	E.Coli	IS : 15185 : 2016	Absent	per 100 ml	Shall not be detectable in any 100 ml sample	--
25	Sulphide	IS 3025 (P-29) :1986 RA 2019 Idometric	*BLQ(**LOQ-0.1)	mg/l	0.05	No Relaxation
26	Nickel as Ni	APHA 23rd Edition, 3030D, 3113B 2017	*BLQ(**LOQ-0.01)	mg/l	0.02	No relaxation
27	Free Residual Chlorine	IS 3025 (P-26):2021	*BLQ(**LOQ-0.2)	mg/l	0.2	1.0

*BLQ-Below Limit Of Quantification, **LOQ- Limit of Quantification

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Page No. 2/2

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Sample Number : VTL/GW/16

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/W/2402270021/B

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 06/03/2024

Period of Analysis : 27/02/2024-06/03/2024

Receipt Date : 27/02/2024

Sampling Date : 23/02/2024

Sampling Type : Grab

Sample Quantity : 2 Ltr.

Coordinates : 81.998838 & 24.564754

Sample Description : Drinking Water
Sampling Location : Bagahai Limestone Mine Site office D. Water
Sample Collected By : VTL Team
Preservation : Suitable Preservation
Method of sampling : IS :3025

S.No.	Test Parameters	Test Method	Results	Units	IS:10500-2012	
					Acceptable Limit	Permissible Limit
1	Colour	IS : 3025:(P-4)1983, :RA 2017	*BLQ(**LOQ-5.0)	Hazen	5	15
2	Odour	IS : 3025 (P-5) : RA 2018	Agreeable	--	Agreeable	Agreeable
3	Taste	IS :3025 (P-8): 1984 RA 2017	Agreeable	--	Agreeable	Agreeable

*BLQ-Below Limit Of Quantification, **LOQ- Limit of Quantification

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Sample Number: VTL/WL/01-11
Name & Address of the Party: M/s PRISM JOHNSON LIMITED
Village- Mankahari, Tehsil- Rampur
Baghelan, Dist.- Satna (M.P.)
Sample Collected By: VTL Team
Sample Description: Ground Water Level Monitoring
Report No.: VTL/WL/ 2402270001-12/B
Format No.: 7.8 F-01
Party Reference No.: NIL
Report Date: 08/01/2024
Receipt Date: 28/12/2023
Date of Monitoring: 21-22/12/2023

S.No.	Location	Depth (In meter)
1.	Near Colony Gate	11.46
2.	Behind B Block colony	14.00
3.	Behind C Block colony	3.80
4.	Auto Work Shop	15.84
5.	In Front Den	5.38
6.	Western Block Mines	7.30
7.	Near New Magazine Mines	13.30
8.	Majhiyar Village	9.74
9.	Mines near Ramprasan	14.56
10.	Medhi Mines	9.86
11.	Mankahari Mines	18.65


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Sample Number : VTL/AN/08
Name & Address of the Party : M/s PRISM JOHNSON LIMITED
Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Report No. : VTL/N/2312280006/A
Format No : 7.8 F-04
Party Reference No : NIL
Report Date : 08/01/2024
Receipt Date : 28/12/2023
Sampling Duration : 24 Hrs.
Sample Collected : VTL Team
Instrument : Calibrated
Calibration Status

Sample Description : Ambient Noise Level Monitoring
Scope of Monitoring : Regulatory Requirement
Protocol Used : IS 9989
Instrument Used : SLM

General Information:-

Sampling Location : Near Boundary Pillar No. 64 Bagahai (Bagahai Mine)
Instrument Code : VTL/SLM/02
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 22/12/2023 To 23/12/2023
Time of Monitoring : 06:00 to 06:00 Hrs.
Ambient Temperature (°C) : Min.10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Parameter Required : As per work order
Coordinates : 80.99117 & 24.56758

S.No.	Test Parameters	Protocol	Test Result dB(A)	
			Day Time	Night Time
1	Leq	IS 9989 - 1981 RA:2020	50.3	42.3

Ambient Noise Quality Standards as per Noise Pollution (Regulation and Control) Rules, 2000

Area Code	Category of Area/Zone	Limits in dB(A) Leq*	
		Day Time	Night Time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.

2. Night Time is reckoned between 10.00 PM to 6.00 AM.

3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Sample Number : VTL/AN/07

Name & Address of the Party : M/s PRISM JOHNSON LIMITED
Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Sample Description : Ambient Noise Level Monitoring
Scope of Monitoring : Regulatory Requirement
Protocol Used : IS 9989
Instrument Used : SLM

Report No. : VTL/N/2312280007/A
Format No : 7.8 F-04
Party Reference No : NIL
Report Date : 08/01/2024
Receipt Date : 28/12/2023
Sampling Duration : 24 Hrs.
Sample Collected : VTL Team
Instrument : Calibrated
Calibration Status

General Information:-

Sampling Location : South Side of Working pit (Bagahai Mine)
Instrument Code : VTL/SLM/03
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 22/12/2023 To 23/12/2023
Time of Monitoring : 06:00 to 06:00 Hrs.
Ambient Temperature (°C) : Min.10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Parameter Required : As per work order
Coordinates : 80.99117 & 24.56758

S.No.	Test Parameters	Protocol	Test Result dB(A)	
			Day Time	Night Time
1	Leq	IS 9989 - 1981 RA:2020	53.2	44.1

Ambient Noise Quality Standards as per Noise Pollution (Regulation and Control) Rules, 2000

Area Code	Category of Area/Zone	Limits in dB(A) Leq*	
		Day Time	Night Time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.

2. Night Time is reckoned between 10.00 PM to 6.00 AM.

3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Sample Number : VTL/AN/06

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Sample Description : Ambient Noise Level Monitoring

Scope of Monitoring : Regulatory Requirement

Protocol Used : IS 9989

Instrument Used : SLM

Report No. : VTL/N/2312280008/A

Format No : 7.8 F-04

Party Reference No : NIL

Report Date : 08/01/2024

Receipt Date : 28/12/2023

Sampling Duration : 24 Hrs.

Sample Collected : VTL Team

Instrument : Calibrated

Calibration Status

General Information:-

Sampling Location : At Baisan Tola (Near Bagahai ML Area) (Bagahai Mine)

Instrument Code : VTL/SLM/01

Meteorological condition during monitoring : Clear Sky

Date of Monitoring : 23/12/2023 To 24/12/2023

Time of Monitoring : 06:00 to 06:00 Hrs.

Ambient Temperature (°C) : Min.11° Max 24°

Surrounding Activity : Human, Vehicular & Other Activities

Parameter Required : As per work order

Coordinates : 80.99117 & 24.56758

S.No.	Test Parameters	Protocol	Test Result dB(A)	
			Day Time	Night Time
1	Leq	IS 9989 - 1981 RA:2020	52.8	43.1

Ambient Noise Quality Standards as per Noise Pollution (Regulation and Control) Rules, 2000

Area Code	Category of Area/Zone	Limits in dB(A) Leq*	
		Day Time	Night Time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.

2. Night Time is reckoned between 10.00 PM to 6.00 AM.

3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Sample Number : VTL/AN/05

Name & Address of the Party : M/s PRISM JOHNSON LIMITED
Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Sample Description : Ambient Noise Level Monitoring
Scope of Monitoring : Regulatory Requirement
Protocol Used : IS 9989
Instrument Used : SLM

Report No. : VTL/N/2312280009/A
Format No : 7.8 F-04
Party Reference No : NIL
Report Date : 08/01/2024
Receipt Date : 28/12/2023
Sampling Duration : 24 Hrs.
Sample Collected : VTL Team
Instrument : Calibrated
Calibration Status

General Information:-

Sampling Location : Adiwasi Tola (Near Bagahai ML Area) (Bagahai Mine)
Instrument Code : VTL/SLM/02
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 23/12/2023 To 24/12/2023
Time of Monitoring : 06:00 to 06:00 Hrs.
Ambient Temperature (°C) : Min.11° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Parameter Required : As per work order
Coordinates : 80.99117 & 24.56758

S.No.	Test Parameters	Protocol	Test Result dB(A)	
			Day Time	Night Time
1	Leq	IS 9989 - 1981 RA:2020	49.8	38.2

Ambient Noise Quality Standards as per Noise Pollution (Regulation and Control) Rules, 2000

Area Code	Category of Area/Zone	Limits in dB(A) Leq*	
		Day Time	Night Time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.

2. Night Time is reckoned between 10.00 PM to 6.00 AM.

3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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TEST REPORT

Sample Number : VTL/AA/13

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/A/2312280008/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : Nr. Boundary Pillar No.64, Bagahai (Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/03
Coordinates : 81.043743 & 24.577705
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 22/12/2023 To 23/12/2023
Time of Monitoring : 10:30 to 10:30 Hrs.
Ambient Temperature (°C) : Min.09° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Carbon Monoxide (as CO)	Lab SOP no. VTL/STP/02:2022, STP-08	0.65	mg/m ³	4

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

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Sample Number : VTL/AA/10

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Report No. : VTL/A/2312280009/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : South Side of working pit (Bagahai Mines)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/04
Coordinates : 81.044145 & 24.561192
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 22/12/2023 To 23/12/2023
Time of Monitoring : 10:40 to 10:40 Hrs.
Ambient Temperature (°C) : Min.09° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Particulate Matter (as PM10)	IS:5182 (P- 23)-2006, RA. 2017	82.23	µg/m³	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	41.51	µg/m³	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	21.23	µg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	10.00	µg/m³	80

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

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Sample Number : VTL/AA/10

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/A/2312280009/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : South Side of working pit (Bagahai Mines)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/04
Coordinates : 81.044145 & 24.561192
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 22/12/2023 To 23/12/2023
Time of Monitoring : 10:40 to 10:40 Hrs.
Ambient Temperature (°C) : Min.09° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Carbon Monoxide (as CO)	Lab SOP no. VTL/STP/02:2022, STP-08	0.59	mg/m ³	4

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

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Sample Number : VTL/AA/11

Name & Address of the Party : M/s PRISM JOHNSON LIMITED
Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Report No. : VTL/A/2312280010/A
Format No : 7.8 F-02
Party Reference No : NIL
Report Date : 08/01/2024
Period of Analysis : 28/12/2023-08/01/2024
Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : At Baisan Tola (Nr. Bagahai ML Area)(Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/01
Coordinates : 81.051734 & 24.559126
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 23/12/2023 To 24/12/2023
Time of Monitoring : 10:20 to 10:20 Hrs.
Ambient Temperature (°C) : Min. 10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Particulate Matter (as PM10)	IS:5182 (P- 23)-2006, RA. 2017	67.58	µg/m³	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	36.42	µg/m³	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	18.37	µg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	9.10	µg/m³	80

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

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TEST REPORT

Sample Number : VTL/AA/11

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Report No. : VTL/A/2312280010/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : At Baisan Tola (Nr. Bagahai ML Area)(Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/01
Coordinates : 81.051734 & 24.559126
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 23/12/2023 To 24/12/2023
Time of Monitoring : 10:20 to 10:20 Hrs.
Ambient Temperature (°C) : Min.10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Carbon Monoxide (as CO)	Lab SOP no. VTL/STP/02:2022, STP-08	0.56	mg/m ³	4

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

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Sample Number : VTL/AA/12

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Report No. : VTL/A/2312280011/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : Adiwasi Tola (Nr. Bagahai ML Area)(Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/02
Coordinates : 81.053377 & 24.564937
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 23/12/2023 To 24/12/2023
Time of Monitoring : 10:30 to 10:30 Hrs.
Ambient Temperature (°C) : Min.10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Particulate Matter (as PM10)	IS:5182 (P- 23)-2006, RA. 2017	79.26	µg/m³	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	38.42	µg/m³	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	20.13	µg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	9.89	µg/m³	80

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

End of Report

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RK Yadav
Lab Incharge
Authorized Signatory



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Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

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**VIBRANT***"Experience the unimaginable"***TEST REPORT**

Sample Number : VTL/AA/12

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/A/2312280011/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : Adiwasi Tola (Nr. Bagahai ML Area)(Bagahai Mine)
Sample Collected By : VTL Team
Sampling Equipment used : RDS/FPS
Instrument Code : VTL/RDS/FPS/02
Coordinates : 81.053377 & 24.564937
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 23/12/2023 To 24/12/2023
Time of Monitoring : 10:30 to 10:30 Hrs.
Ambient Temperature (°C) : Min.10° Max 24°
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Method of Sampling : IS :5182
Sampling Duration : 24 Hrs.
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009
1	Carbon Monoxide (as CO)	Lab SOP no. VTL/STP/02:2022, STP-08	0.52	mg/m ³	4

*BLQ-Below Limit Of Quantification, **LOQ-Limit Of Quantification

End of Report

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Sample Number : VTL/GW/16

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

ULR No. : TC112272400000328F

Report No. : VTL/W/2402270021/A

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 06/03/2024

Period of Analysis : 27/02/2024-06/03/2024

Receipt Date : 27/02/2024

Sampling Date : 23/02/2024

Sampling Type : Grab

Sample Quantity : 2 Ltr.

Sample Description : Drinking Water

Sampling Location : Bagahai Limestone Mine Site office D. Water

Sample Collected By : VTL Team

Preservation : Suitable Preservation

Method of sampling : IS :3025

Coordinates : 81.998838 & 24.564754

S.No.	Test Parameters	Test Method	Results	Units	IS:10500-2012	
					Acceptable Limit	Permissible Limit
1	pH (at 25°C)	IS : 3025 (P-11) : 2022	7.29	--	6.5 to 8.5	No Relaxation
2	Turbidity	IS : 3025: (P-10)1984, RA 2017	*BLQ(**LOQ-1.0)	NTU	1	5
3	Total Hardness (as CaCO ₃)	IS: 3025 (P-21): 2009, RA 2019	190.0	mg/l	200	600
4	Calcium (as Ca)	IS: 3025 (P- 40): 1991 RA 2019	51.1	mg/l	75	200
5	Total Alkalinity (as CaCO ₃)	IS: 3025 (P-23): 1986, RA 2019	145.0	mg/l	200	600
6	Chloride (as Cl)	IS: 3025 (P-32): 1988, RA 2019	32.5	mg/l	250	1000
7	Magnesium (as Mg)	IS: 3025 (P-46): 1994, RA 2019	15.19	mg/l	30	100
8	Total Dissolved Solids	IS :3025 (P-16): 1984, RA 2017	490.0	mg/l	500	2000
9	Sulphate (as SO ₄)	IS: 3025 (P-24): 1986, RA 2022	44.1	mg/l	200	400
10	Fluoride (as F)	APHA 23rd Edition ,4500FD :2017	0.27	mg/l	1.0	1.5
11	Nitrate (as NO ₃)	IS: 3025 (P-34): 1988	14.1	mg/l	45.0	No Relaxation
12	Iron (as Fe)	APHA 23rd Edition , 3111B,2017	0.24	mg/l	1.0	No Relaxation
13	Aluminium (as Al)	IS 3025 (P-55): 2003, RA 2019	*BLQ(**LOQ-0.03)	mg/l	0.03	0.2
14	Boron (as B)	APHA 23rd Edition, 4500B,2017	*BLQ(**LOQ-0.2)	mg/l	0.5	1.0
15	Total Chromium (as Cr)	APHA 23rd Edition 2017 3113 B, 2017	*BLQ(**LOQ-0.02)	mg/l	0.05	No Relaxation
16	Zinc (as Zn)	APHA 23rd Edition,3030D, 3113 B , 2017	0.36	mg/l	5.0	15.0
17	Copper (as Cu)	APHA 23rd Edition 3111B 2017	*BLQ(**LOQ-0.02)	mg/l	0.05	1.5



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**VIBRANT***"Experience the unimaginable"***TEST REPORT**

TC-11227

Sample Number : VTL/GW/16

ULR No. : TC1122724000000328F

Report No. : VTLW/2402270021/A

S.No.	Test Parameters	Test Method	Results	Units	IS:10500-2012	
					Acceptable Limit	Permissible Limit
18	Manganese (as Mn)	APHA 23rd Edition, 3030D, 3111 B, 2017	*BLQ(**LOQ-0.05)	mg/l	0.1	0.3
19	Cadmium (as Cd)	APHA 23rd Edition, 3030D, 3113 B, 2017	*BLQ(**LOQ-0.002)	mg/l	0.003	No Relaxation
20	Lead (as Pb)	APHA 23rd Edition, 3030D, 3113 B, 2017	*BLQ(**LOQ-0.005)	mg/l	0.01	No Relaxation
21	Arsenic (as As)	APHA 23rd Edition, 3114C, 2017	*BLQ(**LOQ-0.005)	mg/l	0.01	0.05
22	Mercury (as Hg)	APHA 23rd edition, 3114C 2017	*BLQ(**LOQ-0.001)	mg/l	0.001	No Relaxation
23	Total Coliform	IS : 15185 : 2016	Absent	per 100 ml	Shall not be detectable in any 100 ml sample	--
24	E.Coli	IS : 15185 : 2016	Absent	per 100 ml	Shall not be detectable in any 100 ml sample	--
25	Sulphide	IS 3025 (P-29) :1986 RA 2019 Idometric	*BLQ(**LOQ-0.1)	mg/l	0.05	No Relaxation
26	Nickel as Ni	APHA 23rd Edition, 3030D, 3113B 2017	*BLQ(**LOQ-0.01)	mg/l	0.02	No relaxation
27	Free Residual Chlorine	IS 3025 (P-26):2021	*BLQ(**LOQ-0.2)	mg/l	0.2	1.0

*BLQ-Below Limit Of Quantification, **LOQ- Limit of Quantification

End of Report

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Sample Number : VTL/GW/16

Name & Address of the Party : M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Report No. : VTL/W/2402270021/B

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 06/03/2024

Period of Analysis : 27/02/2024-06/03/2024

Receipt Date : 27/02/2024

Sampling Date : 23/02/2024

Sampling Type : Grab

Sample Quantity : 2 Ltr.

Coordinates : 81.998838 & 24.564754

Sample Description : Drinking Water
Sampling Location : Bagahai Limestone Mine Site office D. Water
Sample Collected By : VTL Team
Preservation : Suitable Preservation
Method of sampling : IS :3025

S.No.	Test Parameters	Test Method	Results	Units	IS:10500-2012	
					Acceptable Limit	Permissible Limit
1	Colour	IS : 3025:(P-4)1983, :RA 2017	*BLQ(**LOQ-5.0)	Hazen	5	15
2	Odour	IS : 3025 (P-5) : RA 2018	Agreeable	--	Agreeable	Agreeable
3	Taste	IS :3025 (P-8): 1984 RA 2017	Agreeable	--	Agreeable	Agreeable

*BLQ-Below Limit Of Quantification, **LOQ- Limit of Quantification

End of Report

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Sample Number: VTL/WL/01-11
Name & Address of the Party: M/s PRISM JOHNSON LIMITED
Village- Mankahari, Tehsil- Rampur
Baghelan, Dist.- Satna (M.P.)
Sample Collected By: VTL Team
Sample Description: Ground Water Level Monitoring
Report No.: VTL/WL/ 2402270001-12/B
Format No.: 7.8 F-01
Party Reference No.: NIL
Report Date: 08/01/2024
Receipt Date: 28/12/2023
Date of Monitoring: 21-22/12/2023

S.No.	Location	Depth (In meter)
1.	Near Colony Gate	11.46
2.	Behind B Block colony	14.00
3.	Behind C Block colony	3.80
4.	Auto Work Shop	15.84
5.	In Front Den	5.38
6.	Western Block Mines	7.30
7.	Near New Magazine Mines	13.30
8.	Majhiyar Village	9.74
9.	Mines near Ramprasan	14.56
10.	Medhi Mines	9.86
11.	Mankahari Mines	18.65


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Fog Cannon at Baghai Mines Site

Public Hearing dated 4th Feb., 2022 at Baghai Limestone Mine of M/s. Prism Johnson Limited, Satna
Proposed Physical targets for addressing issues of during public hearing as per MoEF&CC, OM dated 30.09.2020 & 20.10.2020

Proposed Physical targets for addressing issues of drinking public hearing as per MOC/F&CC, OM dated 30.09.2020 & 20.10.2020

S. No.	Activities	Budget (Rs. In Lakh)	Year wise Budget (Rs. In Lakh)			Recurring Cost (Rs. In Lakh)
			Year-1 (FY 22-23)	Year-2 (FY 23-24)	Year-3 (FY 24-25)	
Infrastructure Development						
1	Boundary wall construction of Primary School in Medhi Village (250 Feet Length and 5 feet Height)	5.0	5.0	-	-	-
2	Community Sochalaya Development in Bagahai Village	2.0	2.0	-	-	0.50
3	Solar Street light in Villages Bagahai (10), Bairiha (10), Sijhata (7), Tapa (5), Satri (5), Medhi (3) (Total 40 Solar Street Lights)	10.0	Bagahai & Bairiha 5.0	Sijhata & Tapa 3.0	Satri & Mendhi 2.0	0.50
4	Development of playground in Sijhata Village Sports Complex development at Bagahai Village	15.0 30.0	Playground Development 15.0	Sports Complex Development 30.0	-	-
Education						
5	Computers and Internet Facilities, Smart boards -4 in Govt. Schools of Bagahai - 5, Bairiha-5, Sijhata-2, Tapa-3 (Total No. 15)	10.0	Computers with Internet Facilities, Smart boards in Govt. Schools of Bagahai, Bairiha, Sijhata, Tapa 10.0	Arrangement of teachers for the subjects of English, Computer, Sports & Science in Bagahai School 10.0	-	-
	Arrangement of teachers for the subjects of English, Computer, Sports & Science in Bagahai School	10.0				0.60
Drinking Water						
6	Provision of Drinking water facilities in Villages Bagahai, Bairiha, Sijhata, Tapa, Satri, Medhi (One Borewell in each Village)	12.0	Bagahai & Bairiha 4.0	Sijhata & Tapa 4.0	Satri & Mendhi 4.0	-
Skill Development						
7	Employment based training like Driving training, Motor Mechanic, Mobile Repairing, Electric Motor Binding etc. for Youth in Bagahai, Bairiha, Sijhata, Tapa, Satri, Medhi	12	Bagahai & Bairiha 4.0	Sijhata & Tapa 4.0	Satri & Mendhi 4.0	1.00
8	Awareness and training to farmer for increase cash crops & agriculture production, modern practices, good quality seeds etc.	6.0	Bagahai & Bairiha 2.0	Sijhata & Tapa 2.0	Satri & Mendhi 2.0	2.00
Plantation in Nearby Areas						
9	Plantation along the road side in Villages i.e. - Bagahai, Bairiha, Sijhata, Tapa, Satri, Medhi (1000 Species in each Village Total nos. of saplings 6000)	12.0	Bagahai & Bairiha 4.0	Sijhata & Tapa 4.0	Satri & Mendhi 4.0	2.0
Healthcare Facilities						
10	Sub - Health Center Development in Bagahai Village Health care facilities for COVID at Rampur Baghelan for needful medical equipment and mass- awareness program in villages	50.0 25.0	10.0	50.0 10.0	5.0	-
11	Sanitary Napkin Awareness training and 10 Sanitary Napkin Machine to be provide in Bagahai,Sijhata and Bairiha villages	3.0	3.0	-	-	1.5
	Total	202.0	64.0	117.0	21.0	8.10



Smart Board with Solar Backup

प्रिज्म जॉनसन लिमिटेड में 50 वां विश्व पर्यावरण दिवस समारोह

प्रिज्म जॉनसन लिमिटेड सतना प्लांट हमेशा से ही पर्यावरण के संरक्षण एवं सुधर के लिए प्रयासरत रहा है। इसी कड़ी को आगे बढ़ाते हुए प्लांट में पर्यावरण सप्ताह का आयोजन बहुत ज़ोर शोर से किया गया था। विश्व पर्यावरण दिवस 2023 के लिए मेजबान देश कोत दिव्वार था और इस वर्ष की थीम थी **“Solution to Plastic Pollution”**.

विश्व पर्यावरण दिवस के उपलक्ष्य में विभिन्न कार्यक्रम, प्रतियोगिताएँ व जागरूकता अभियान किये गए।

PRISM JOHNSON LIMITED
World Environment Week
Theme – Solution to Plastic Pollution
#BeatPlasticPollution

PRISM CEMENT
दूर की सोच
NITI Aayog

 No Vehicle Day MAY 31st 2023	 No Single Use Plastic Day JUNE 1st 2023	 Online Environmental Summit JUNE 2nd 2023
 Quiz Competition & Interactive Games JUNE 3rd 2023		 Run for Environment & Plantation JUNE 4th 2023

Decorative icons at the bottom: recycling, water drop, tree, leaf, and others.

1) नो वेहिकल डे :- पर्यावरण सप्ताह कि शुरुआत दिनांक 31 मई को **नो वेहिकल डे** से हुई। जिसमे अधिकंश अधिकारी और अन्य कर्मचारी पैदल एवं साइकिल से प्लांट आये। इस मुहिम का उद्देश्य लोगों को मोटर वाहनों से हो रहे वायु प्रदुषण के बारे में जागरूक कराना था। सभी अधिकारी एवं अन्य कर्मचारियों को फूल प्रदान कर प्रेरित किया गया व यह संदेश दिया गया की साइकिल का उपयोग वातावरण और स्वस्थ दोनों के लिए अच्छा है।



2) नो सिंगल यूज़ प्लास्टिक :- पर्यावरण सप्ताह का दूसरा दिन 1 जून को जोश और उत्साह के साथ प्रारंभ हुआ। इस दिन को **नो सिंगल यूज़ प्लास्टिक** के नाम से मनाया गया। प्रिज़्म सीमेंट प्लांट को प्लास्टिक फ्री जोन बनाने के लिए प्लांट के अंदर सभी दुकानों में पॉलिथीन का उपयोग रोकने और सिंगल यूज़ प्लास्टिक के घातक परिणामों के बारे में जागरूकता फैलाई गई। प्लास्टिक के प्रयोग से बचने के लिए कॉलोनी के निवासियों एवं कर्मचारियों को हर साल की तरह इस साल भी मै जूट बैग के थैले बांटे गए।



3) विश्व पर्यावरण दिवस बैठक :- पर्यावरण सप्ताह के तीसरे दिन 2 जून को जागरूकता बैठक रखी गयी जिसमे विश्व पर्यावरण दिवस के बारे में सारी जानकारी दी गयी। साथ ही हमारी फैक्ट्री द्वारा पर्यावरण संरक्षण के लिए उठाये गए कदमों को बताया गया। इस बैठक की मेज़बानी सुमिताभ द्विवेदी जी द्वारा की गयी जिसमें कई अधिकारियों व कर्मचारियों ने भाग लिया और अपने विचार रखे। बैठक का मुख्य उद्देश्य काम कर रहे कर्मचारियों को बताना था की कैसे वे अपने व्यक्तिगत जीवन की आदतों में बदलाव लाकर पर्यावरण संरक्षण में योगदान दे सकते है।

4) क्रिज कॉम्पीटीशन और खेल मनोरंजन :- पर्यावरण सप्ताह के तीसरे दिन 3 जून कई प्रकार की प्रतियोगिताये आयोजित की गई जैसे क्रिज कॉम्पीटीशन, पोस्टर कॉम्पीटीशन, स्लोगन कॉम्पीटीशन तथा बूझो तो जाने जैसे खेल कराये गए जिसमे अधिकारीयों और कर्मचारियों ने बढ़-चड़कर हिस्सा लिया और इन प्रतियोगिताओं को सफल बनाने मे अपना योगदान दिया | इन प्रतियोगिताओं का मक़सद लोगों मै पर्यावरण के प्रति जागरूकता फैलना था |



5) वॉक फॉर एनवायरनमेंट और वृक्षारोपण :- 4 जून विश्व पर्यावरण दिवस में “वॉक फॉर एनवायरनमेंट” और वृक्षारोपण करके मनाया गया। प्रिज्म एनवायरनमेंट टीम ने वॉक फॉर एनवायरनमेंट का आयोजन प्रिज्म कॉलोनी की महिलाओं के लिए कराया जिसमें कॉलोनी की महिलाओं ने उत्साह के साथ हिस्सा लिया, वॉक के दौरान महिलाओं ने पोस्टर के द्वारा पर्यावरण के प्रति जागरूकता फैलाई। अंत में कॉलोनी की महिलाओं, समस्त अधिकारियों एवं कर्मचारियों ने वृक्षारोपण किया और इसी के साथ पर्यावरण सप्ताह और दिवस का समापन हुआ।



6) मिशन लाइफ :- विश्व पर्यावरण दिवस के उपलक्ष्य में प्रधानमंत्री नरेंद्र मोदी ने गुजरात के केवडिया में मिशन लाइफ की शुरुआत की। मिशन लाइफ का अर्थ ऐसे अभियान से है जिससे पर्यावरण संरक्षण हो। इसमें हर एक इंसान को अपनी जिम्मेदारी समझने की अपील की गई है। वर्ष 2022-28 की अवधि में पर्यावरण संरक्षण के लिए व्यक्तिगत और सामूहिक करवाई हेतु काम-से-काम एक बिलियन भारतीयों को जुटाना व सभी गांव और शहरी निकाओं को एनवायरनमेंट फ्रेंडली बनने के लिए जागरूक करना शामिल है। मिशन लाइफ में अपना योगदान देने हेतु प्रिज्म जॉनसन द्वारा गांवों में जागरूकता अभियान चलाये गए और एनवायरनमेंट फ्रेंडली रहने के तरीके व फायदे बताये गए।



ग्राम – महुरख दिनांक – २०.०४.२०२३



ग्राम – चोरमारी दिनांक – २१.०४.२०२३



ग्राम – बघाई दिनांक – २४.०४.२०२३

Mission LiFE – Life Style for Environment Awareness Program



एडमिन ऑफिस प्रिज्म जॉनसन लिमिटेड दिनांक - २७.०४.२०२३

Deotale Diagnostic

(we care)

Consultation Diagnostics Health Check- Ups Immunization.

Clinic: Vinayak Apt. 3rd floor Dhantoli Lokmat Chowk Nagpur

For any assistance call at : 9860204241, 0712-2424868

Email ID : deotaledeepak19577@gmail.com

MEDICAL CHECK-UP

SR.NO	82
CERTIFICATE NO.	82
EMPLOYEES CODE	503332
DESIGNATION	Machine Attender
DEPARTMENT	Mines
CONTRACTOR NAME	PCL
MOB NO	9407017937
CHECK-UP DATE	13-12-2023

EMPLOYEES NAME : Ramayan Singh

Gender: Male Age: 56 Yrs. Ht: 163 cms Wt: 70 Kg BMI: 26.35

Company Address: PRISM JOHNSON LIMITED, MANKAHARI, PO: BATHIA, DIST: SATNA, MADHYA PRADESH

Personal H/O ALCOHOL: NO TABACCO: YES SMOKING: NO GUTKHA: NO

General Exam:- Teeth: N. / Tonsils: N. / Nails: N. / Tongue: N. / L. Glands: N.

BP.: 110/70 mmHg	Pulse: 82 bps
C.V.S.: N	R/S: N CNS: N SP/LIVER: N/P

Abdomen: Soft

BLOOD TEST

Random Blood Sugar: 139 mg/dl	BLOOD GROUP: O+ve	Hb %: 14.2 gm/dl	ESR: 5 MM/Hr
TLC: 8100 /Cumm	N.: 67 %	L.: 27 %	E.: 2 % M.: 4 %
S. Cholesterol: 179 mg/dl	Triglyceride: 148 mg/dl	HDL: 44.1 mg/dl	
LDL: 105.3 mg/dl	VLDL: 29.6 mg/dl	CHO/HDL Ratio: 4.1	
Sr. Urea: 24 mg/dl		Sr. Creatinine: 0.8 mg/dl	
Urine Pus Cell: NIL	Urine ALB: NIL	Urine Sugar: NIL	

ECG: WNL	SPIROMETRY: WNL
Colourblindness: NORMAL	X-RAY: WNL
AUDIOMETRY: RT. WNL	LF. WNL
Vision:	Unaided - Dist. Rt - 6/12 Dist. Lf - 6/12
	Unaided - Near Rt - N/24 Near Lf - N/24
	With Spect Dist. Rt - With Spect Dist. Lf -
	With Spect Near. Rt - With Spect Near. Lf -
MEDICAL CHECK - UP:- NORMAL	
	Refractive error can be corrected by spectacle

DR. DEEPAK P. DEOTALE
M.B.B.S. A.F.I.H. (Reg. No. 48366)

Dr. Deepak Deotale
MBBS, AFIH
Reg. No. 48366

(FORM - O)
(See rule 29F (2) and 29L)
Report of medical examination under rule 29B (To be issued in triplicate)

** Certificate No..... Certified that Shri/Shrimati*... Ramayan Singh.....
employed as mach helper In Ban Sarkla mines..... mine,
Form B No. 30..... has been examined for an initial/periodical medical
examination. He/she* appears to be 56..... years of age.

The findings of the examining authority are given in the attached sheet. It is considered
that Shri/Shrimati*..... Ramayan Singh.....

✓(a)* is medically fit for any employment in mines.

(b)* is suffering from..... and is medically unfit for
(i) any employment in mine; or
(ii) any employment below ground; or
(iii) any employment or work.....

(c)* is suffering from..... is should get this disability* cured/controlled
and should be again examined within a period of months. He/She will appear
for re-examination with the result of test of and the opinion of
Specialist from He/She may be permitted/not* permitted to carry on his
duties during this period.



Dr. Deepak Deotale
MBBS, AFIH
Reg. No. 48366

Signature of the examining authority
Name and designation in Block letters

Place : Satna
Date : 13-12-23

* Delete whatever is not applicable.

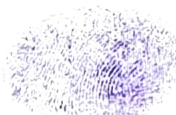
** One copy of the certificate shall be handed over to the person concerned and
another copy shall be sent to the manager of the mine concerned by registered post;
and the third copy shall be retained by the examining authority,

Report of the examining authority

(to be filled in for every medical examination whether initial or periodical or re -
examination or after cure/control of disability).

Annexure to Certificate No. 82..... as result of medical examination on

Identification Mark.....



Left thumb impression of the candidate

1. General development- Good/Fair/Poor

2. Height 163 Cms.

3 Weight 70 kg.

4 Eyes : (i) Visual acuity-Distant vision (with or without glasses).

Right eye..... 6/12 N/24 Left eye..... 6/12 N/24

(ii) any organic disease of eyes NO

(iii) night blindness NO

(iv) Colour blindness NO

(v) Squint (* to be tested in special cases)

Inserted vide notification No.GSR 656 dated 5.6.1980 NO

5 Ears : Hearing : Right ear..... WNL Left ear WNL...

Any organic diseases. NO

6.Respiratory system. Chest measurement : (i) After full inspiration 38cms.
(ii) After full expiration..... 40cms.

7. Circulatory system: (i) Blood Pressure (ii) Pulse

8. Abdomen : Tenderness NO
Liver. NO
Spleen. NP
Tumour. NO

9. Nervous system:

History of fits or epilepsy NO

Paralysis NO

Mental health. Good

10.Locomotory system : N

11. Skin. : N

12. Hydrocele. : NO

13. Hernia. : NO

14. Any other abnormality : NO

15. Urine : Reaction. N
Albumin..... NO
Sugar..... NO

16. Skiagram of chest. : NAD

17. Any other test considered necessary by the examining authority. : —

18. Any opinion of specialist considered necessary. —

Place: Satna

Signature of the examining authority

Dr. Deepak Deotale

MBBS, AFIH

Reg. No. 48366

Report of Medical Examination under Mines Rule 29B
(To be used in continuation with Form O)

Certificate No.

82

Name :

Ramaya Singh

Identification Marks: Blacemole on chest

Result of Lung Function Test (Spirometry)

Parameters	Predicted Value	Performed Value	% of Predicted
Forced Vital Capacity (FEV)	02.88	04.16	144
Forced Vital Capacity FEV1	02.21	04.16	188
FEV 1/ FVC	76.74	100.00	130
Peak Expiratory Flow	07.79	07.09	091

Spirometry Report enclosed.

Dr. Deepak Deotale
MBBS, AFH
Reg No. 48366

Signature of the Examination Authority

Report of Medical Examination as per the recommendations of National Safety
Conferences in Mines
(To be used in continuation with Form O)

Certificate No.

82

Name :

Ramayan Singh

Identification Marks:

1. Cardiological Assessment

Auscultation	S1	N	Performed Value	% of Predicted
	S2	N		
	Additional Sound			
FEV1/ FVC				
Electrocardiograph(12leads) findings		Normal/Abnormal		Normal

Enclosed ECG

2. Neurological Assessment

Findings	Normal/Abnormal
Superficial Reflexes	Normal
Deep Reflexes	Normal
Peripheral Circulation	Normal
Neurological Syndromes	Normal

3. ILO Classification of Chest Radiograph

Profusion of Pneumoconiotic Opacities	Grades	Types
Present /Absent		

Enclosed Chest Radiograph

4. Audiometry Findings:

Conduction Type	Left Ear	Right Ear
Ear Conduction	✓ Normal/Abnormal	✓ Normal/Abnormal
Bone Conduction	✓ Normal/Abnormal	✓ Normal/Abnormal

Enclosed Audiometry Report

5. Pathological/Microbiological Investigations:

S.No.	Tests	Findings
1.	Blood-Tc,Dc,Hb,ESR,Platelets	✓ WNL/Abnormal
2.	Blood Sugar-Fasting & P.P.	✓ WNL/Abnormal
3.	Lipid Profile	✓ WNL/Abnormal
4.	Blood Urea, Creatinine	✓ WNL/Abnormal
5.	Urine Routine	✓ WNL/Abnormal
6.	Stool Routine	WNL/Abnormal

Enclosed Investigation Reports

6. Special Tests for Mn Exposure:

Behavioral Disturbances		Present/Not Present
Neurological Disturbances	Speech Defect	Present/Not Present ✓
	Tremor	Present/Not Present ✓
	Adiadocokinesia	Present/Not Present ✓
	Emotional Changes	Present/Not Present ✓

Enclosed ECG

7. Any other Special Tests Required:

Dr. Deepak Deotale

MBBS, AFIH

Reg. No. 48366

Signature of the Examination Authority
Seal

AMAYAN SINGH

Sex: Male

DOB:

ID: 82P

Acq. Date: 13-Dec-23

Acq. Time: 12:04:50 PM

Exp. Index: 659

R

15cm

CHEST

HA

W: 4096, 0:12048

Scale: 0.13

MAYA DIAGNOSTICS

MAYA DIAGNOSTICS

Scale: 0.13

MAYA DIAGNOSTICS

Low

Relax

Allengers Global Healthcare Pvt Ltd.,

1810037955 / 92 RAMAYAN SINGH / 56 Yrs / M / 163Cms. / 70Kgs. / Non Smoker
1 Lead: Rate: 77 bpm / Testbed Ch: 13-Da-23 13 03:22 / HF 0.05 Hz / LF 100 Hz / Notch 50 Hz / SN 1.00 cm/mV / SW 25 mm/s

ECG

WIRU
ACUPL



Dr. Deepak Neerale

MBBS / FIM

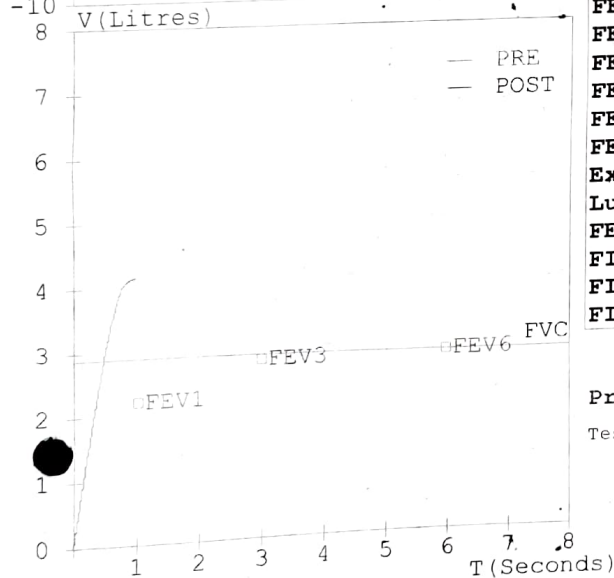
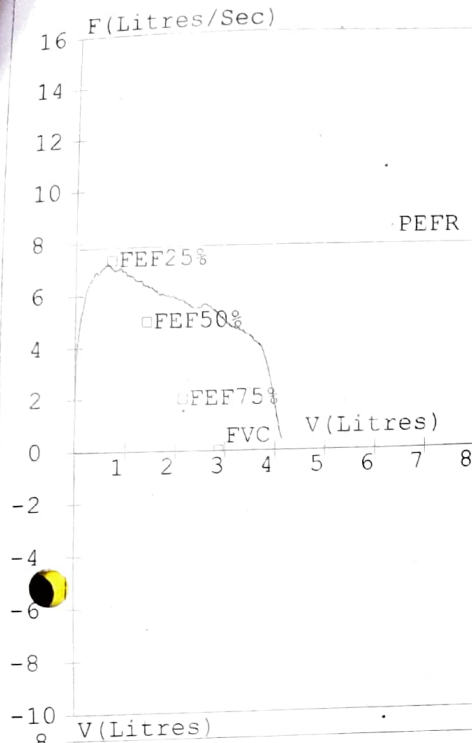
Reg. No. 48366

DEOTALE DIAGNOSIS CENTRE

VINAYAK APARTMENT, 3RD FLOOR, DHANTOLI, NAGPUR

Patient: RAMAYAN SINGH
Refd. By:
Pred. Eqns: RECORDERS
Date : 13-Dec-2023 03:20 PM

Age : 56 Years Gender : Male
Height : 163 Cms Smoker : Yes
Weight : 70 Kgs Eth. Corr: 100
ID: 82C Temp :



FEV1 %Pred	COPD SEVERITY
150	
125	OBS NORM
100	
75	MODERATE
50	SEVERE
25	VERY SEVERE RES
0	
	25 50 75 100 125 150
	(FEV1/FVC) %Pred

FVC %Pred	Interpretation
150	
125	OBS NORM
100	
75	
50	
25	MIXED RES
0	
	25 50 75 100 125 150
	(FEV1/FVC) %Pred

Spirometry (FVC Results)

Parameter	Pred	M. Pre	%Pred	M. Post	%Pred	%Imp
FVC (L)	02.88	04.16	144	-----	---	---
FEV1 (L)	02.21	04.16	188	-----	---	---
FEV1/FVC (%)	76.74	100.00	130	-----	---	---
FEF25-75 (L/s)	03.09	05.67	183	-----	---	---
PEFR (L/s)	07.79	07.09	091	-----	---	---
FIVC (L)	-----	---	---	-----	---	---
FEV.5 (L)	-----	03.03	---	-----	---	---
FEV3 (L)	02.79	04.16	149	-----	---	---
PIFR (L/s)	-----	---	---	-----	---	---
FEF75-85 (L/s)	-----	04.44	---	-----	---	---
FEF.2-1.2 (L/s)	05.44	06.68	123	-----	---	---
FEF 25% (L/s)	07.32	06.68	091	-----	---	---
FEF 50% (L/s)	04.96	05.71	115	-----	---	---
FEF 75% (L/s)	01.97	04.70	239	-----	---	---
FEV.5/FVC (%)	-----	72.84	---	-----	---	---
FEV3/FVC (%)	96.88	100.00	103	-----	---	---
FET (Sec)	-----	01.00	---	-----	---	---
ExptTime (Sec)	-----	00.06	---	-----	---	---
Lung Age (Yrs)	056	007	012	-----	---	---
FEV6 (L)	02.88	-----	---	-----	---	---
FIF25% (L/s)	-----	02.48	---	-----	---	---
FIF50% (L/s)	-----	02.48	---	-----	---	---
FIF75% (L/s)	-----	02.48	---	-----	---	---

Pre Test COPD Severity

Test within normal limits

Pre Medication Report Indicates
Spirometry within normal limits as (FEV1/FVC)%Pred >95 and FVC%Pred >80.

Dr. Deepak Deotale
MBBS, AFH
Reg. No. 48366

Deotale Diagnostic Centre (we care)

Consultation Diagnostics Health Check-Up Immunization.

Clinic: Vinayak Apt. 3rd floor Dhantoli Lokmat Chowk Nagpur

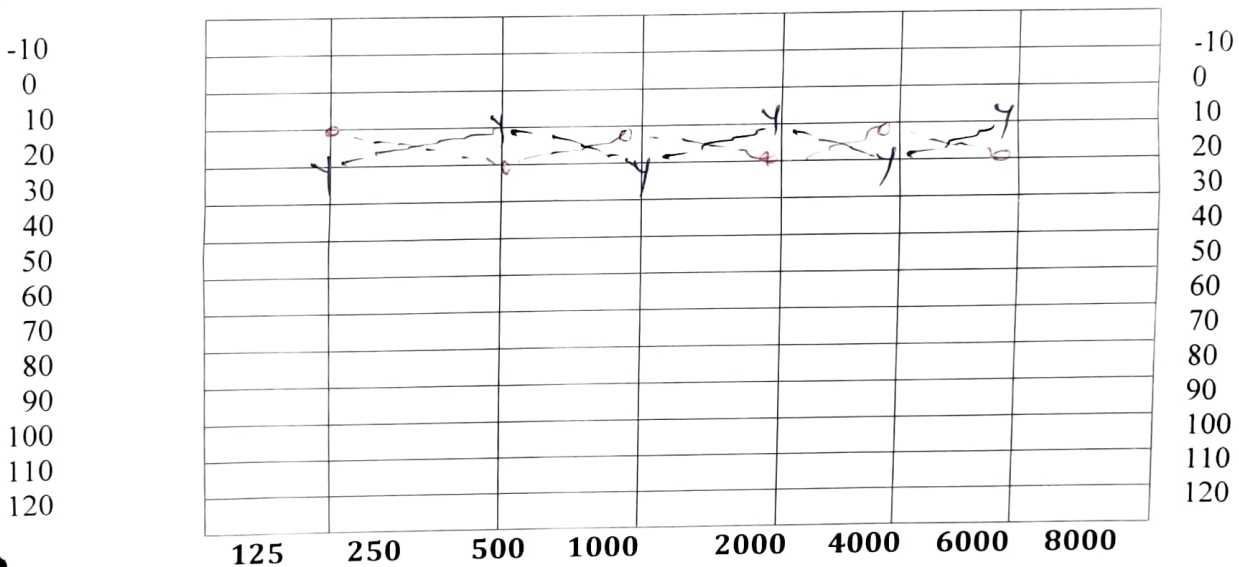
Resi:- 1B, Prashant Nagar Wardha-Road Nagpur (Clinic Reg. No. 699)

For any assistance call at . 9860204241, 0712-6610595

Date: 13-12-2023

AUDIOLOGICAL EVALUATION

1. SR.NO:82	CERTIFICATE NO: 82	2. EMPLOYEES CODE: 503332
3. DEPARTMENT: Mines		4. DESIGNATION: Machine Attender
5. NAME : Ramayan Singh		6. CONTRACTOR NAME: PCL
7. SEX : Male		8. AGE: 56 yrs
9. ADDRESS : PRISM JOHNSON LIMITED, MANKAHARI, PO: BATHIA, DIST: SATNA, MADHYA PRADESH		
10. DIAGNOSIS: LT: WNL	11. RT: WNL	



TEST FREQUENCY

Air O	= LEFT EAR :	<u>WNL</u>
Y	= RIGHT EAR :	<u>WNL</u>
Masking		
No Response: Audiologists Remarks		

Dr. DEEPAK DEOTALE
M.B.B.S. A.F.I.H.
Reg. No. 48366

Dr. Deepak Deotale
MBBS, AFH
Reg. No. 48366



82

TEST NO

82

MAYA HOSPITAL & RESEARCH INSTITUTE

Add.: Plot .P 78, Opposite State Bank of India, MIDC
Butibori (Nagpur)
Ph 07103-684885

Deotale Diagnostic Center We Care

Consultation Diagnostics Health Check-Ups Immunization

Dr. Deepak P. Deotale M.B.B.S., A.F.I.H. (Associated fellow Of industrial health) Certifying Surgeon Reg .No. 48366	SR.NO	82
	CERTIFICATE NO	82
	EMPLOYEES CODE	503332
	NAME	Ramayan Singh
Clinic : Vinayak Apt. 3 rd floor Dhantoli, Lokmat Chowk ,Nagpur (Clinic Reg. No. 699)	GENDER	Male
	DEPARTMENT	Mines
	DESIGNATION	Machine AttenderMachine Attender
	Check Up Date	13-12-2023
Mob. No .8007771341	MOB NO	9407017937
Email ID: deotaledeepak19577@gmail.com	Company Name: PRISM JOHNSON LIMITED, MANKAHARI,PO: BATHIA, DIST: SATNA, MADHYA PRADESH	

Deotale Diagnostic Centre (we care)

Consultation Diagnostics Health Check- Ups Immunization.

Clinic: Vinayak Apt. 3rd floor Dhandoli Lokmat Chowk Nagpur

For any assistance call at : 9860204241, 0712-2424868

Email ID : deotaledeepak19577@gmail.com

MEDICAL CHECK-UP

SR.NO	92
CERTIFICATE NO.	92
EMPLOYEES CODE	101632
DESIGNATION	Dy General Manager
DEPARTMENT	Mines
CONTRACTOR NAME	PCL
MOB NO	9584460221
CHECK-UP DATE	12-12-2023

EMPLOYEES NAME : Rangnath Rai

Gender: Male Age : 47 Yrs. Ht: 177 cms Wt: 77 Kg BMI : 24.58

Company Address: PRISM JOHNSON LIMITED, MANKAHARI, PO: BATHIA, DIST: SATNA, MADHYA PRADESH

Personal H/O ALCOHOL : NO TABACCO : NO SMOKING : NO GUTKHA : NO

General Exam:- Teeth : N. / Tonsils : N. / Nails : N. / Tongue : N. / L. Glands: N.

BP : 133/98 mmHg Pulse : 72 bps
C.V.S.: N R/S : N CNS: N SP/LIVER : N/P

Abdomen : Soft

BLOOD TEST

Random Blood Sugar: 169 mg/dl	BLOOD GROUP: B+ve	Hb %: 12.4 gm/dl	ESR: 5 MM/Hr
TLC: 6200 /Cumm	N.: 68 %	L.: 24 %	E.: 5 %
S. Cholesterol: 170 mg/dl	Triglyceride: 153 mg/dl	HDL: 46 mg/dl	M.: 3 %
LDL: 101.6 mg/dl	VLDL: 30.6 mg/dl	CHO/HDL Ratio : 3.9	
Sr. Urea: 24 mg/dl		Sr. Creatinine: 0.8 mg/dl	
Urine Pus Cell : +	Urine ALB : NIL	Urine Sugar : NIL	

ECG: WNL	SPIROMETRY : WNL
Colour blindness: NORMAL	X-RAY : WNL
AUDIOMETRY : RT. WNL	LF : WNL
Vision:	Unaided - Dist. Rt - 6/6
	Unaided - Near Rt - N/8
	With Spect Dist. Rt -
	With Spect Near. Rt -
	Dist. Lf - 6/6
	Near Lf - N/8
	With Spect Dist. Lf -
	With Spect Near. Lf -
MEDICAL CHECK - UP:- NORMAL	
Refractive error can be corrected by spectacle	

DR. DEEPAK P. DEOTALE
M.B.B.S. A.F.I.H. (Reg. No. 48366)

Dr. Deepak P. Deotale
M. B. B. S.
Reg. No. 48366

(FORM - O)
(See rule 29F (2) and 29L)

Report of medical examination under rule 29B (To be issued in triplicate)

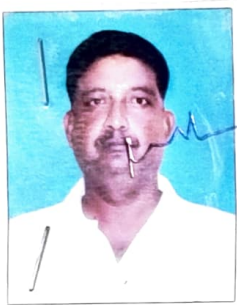
** Certificate No. Certified that Shri/Shrimati* Ragnath Rai
employed as muchang In Baghai mine,
Form B No. 1 has been examined for an initial/periodical medical
examination. He/she* appears to be 47 years of age.

The findings of the examining authority are given in the attached sheet. It is considered
that Shri/Shrimati*

(a)* is medically fit for any employment in mines.

(b)* is suffering from and is medically unfit for
(i) any employment in mine; or
(ii) any employment below ground; or
(iii) any employment or work

(c)* is suffering from is should get this disability* cured/controlled
and should be again examined within a period of months. He/She will appear
for re-examination with the result of test of and the opinion of
Specialist from He/She may be permitted/not* permitted to carry on his
duties during this period.



Dr. Deepak Deotale
MBBS, AFIH
Reg. No. 48366

Signature of the examining authority
Name and designation in Block letters

Place :

Date : 12-12-23

* Delete whatever is not applicable.

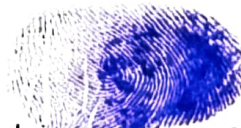
** One copy of the certificate shall be handed over to the person concerned and
another copy shall be sent to the manager of the mine concerned by registered post;
and the third copy shall be retained by the examining authority,

Report of the examining authority

(To be filled in for every medical examination whether initial or periodical or re -
examination or after cure/control of disability).

Appendix to Certificate No. 92 as result of medical examination on

Identification Mark



Left thumb impression of the candidate

1. General development- Good/Fair/Poor

2. Height 177 Cms.

3 Weight 77 kg.

4 Eyes : (i) Visual acuity-Distant vision (with or without glasses).

Right eye..... 6/6 N/8 Left eye..... 6/6 N/8

(ii) any organic disease of eyes NO

(iii) night blindness NO

(iv) Colour blindness NO

(v) Squint (* to be tested in special cases)

Inserted vide notification No.GSR 656 dated 5.6.1980 NO

5 Ears : Hearing : Right ear..... W N' L Left ear

Any organic diseases. NO

6.Respiratory system. Chest measurement : (i) After full inspiration 38 cms.
(ii) After full expiration..... 2 cms.

7. Circulatory system: (i) Blood Pressure (ii) Pulse

8. Abdomen : Tenderness NO
Liver. NO
Spleen. NO
Tumour. NO

9. Nervous system:

History of fits or epilepsy NO

Paralysis NO

Mental health. Good

10.Locomotory system : N

11. Skin. : N

12. Hydrocele. : NO

13. Hernia. : NO

14. Any other abnormality : NO

15. Urine : Reaction. N
Albumin..... NO
Sugar..... NO

16. Skiagram of chest. : N/A

17. Any other test considered necessary by the examining authority.

18. Any opinion of specialist considered necessary.

Place: Satna

Signature of the examining authority

Dr. Deepak Deotale

MBBS, AFIH

Reg. No. 48386

Report of Medical Examination under Mines Rule 29B
(To be used in continuation with Form O)

Certificate No.

92

Name :

Rangnath Rai

Identification Marks:

mole on right hand

Result of Lung Function Test (Spirometry)

Parameters	Predicted Value	Performed Value	% of Predicted
Forced Vital Capacity (FEV)	03.70	03.22	087
Forced Vital Capacity FEV1	02.96	03.19	108
FEV 1/ FVC	80.00	99.07	124
Peak Expiratory Flow	09.10	05.01	055

Spirometry Report enclosed.

Dr. Deepak Deotale

MBBS, AFIH

Reg. No. 48366

Signature of the Examination Authority

Report of Medical Examination as per the recommendations of National Safety
Conferences in Mines
(To be used in continuation with Form O)

Certificate No.

92

Name :

Rangnath Rai

Identification Marks:

1. Cardiological Assessment

Auscultation	S1	N	Performed Value	% of Predicted
	S2	N		
	Additional Sound	NO		
FEV1/ FVC	80.00		99.07	124
Electrocardiograph(12leads) findings	Normal/Abnormal		Normal	

Enclosed ECG

2. Neurological Assessment

Findings	Normal/Abnormal
Superficial Reflexes	Normal
Deep Reflexes	Normal
Peripheral Circulation	Normal
Vibrational Syndromes	Normal

3. ILO Classification of Chest Radiograph

Profusion of Pneumoconiotic Opacities Present /Absent	Grades	Types
--	--------	-------

Enclosed Chest Radiograph

4. Audiometry Findings:

Conduction Type	Left Ear	Right Ear
Ear Conduction	✓ Normal/Abnormal	✓ Normal/Abnormal
Bone Conduction	✓ Normal/Abnormal	✓ Normal/Abnormal

Enclosed Audiometry Report

5. Pathological/Microbiological Investigations:

S.No.	Tests	Findings
1.	Blood-Tc,Dc,Hb,ESR,Platelets	✓ WNL/Abnormal
2.	Blood Sugar-Fasting & P.P.	✓ WNL/Abnormal
3.	Lipid Profile	✓ WNL/Abnormal
4.	Blood Urea, Creatinine	✓ WNL/Abnormal
5.	Urine Routine	✓ WNL/Abnormal
6.	Stool Routine	WNL/Abnormal

Enclosed Investigation Reports

6. Special Tests for Mn Exposure:

Behavioral Disturbances		Present/Not Present ✓
Neurological Disturbances	Speech Defect	Present/Not Present ✓
	Tremor	Present/Not Present ✓
	Adiadocokinesia	Present/Not Present ✓
	Emotional Changes	Present/Not Present ✓

Enclosed ECG

7. Any other Special Tests Required:

Dr. Deepak Deotale

MBBS, AFH

Reg. No. 48366

Signature of the Examination Authority
Seal

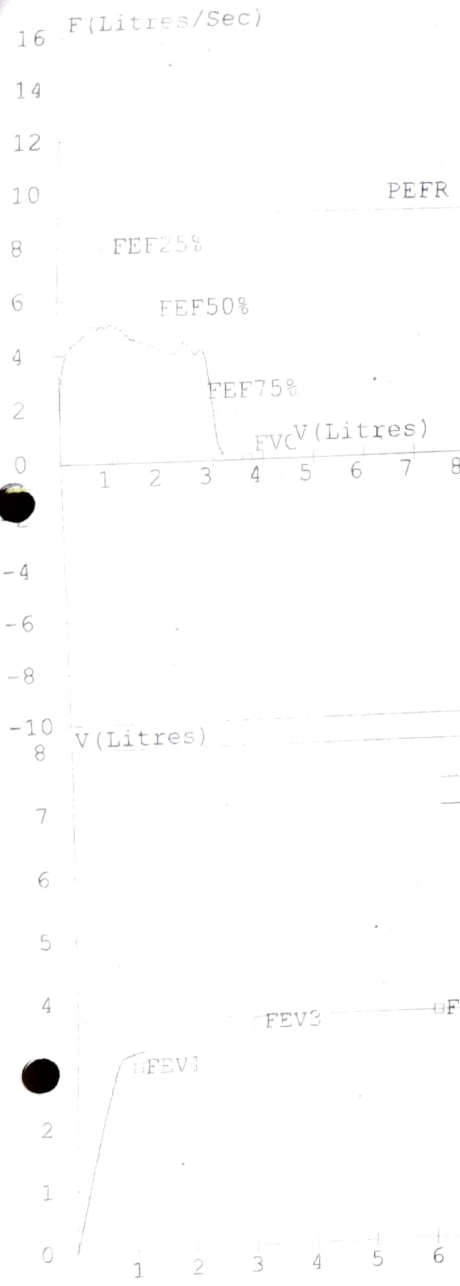
y: Rangnath rai
 qns: RECORDERS
 : 12-Dec-2023 09:30
 +6 P/Clr/Tes/Sec
 14

DEOTALE DIAGNOSIS CENTRE

VINAYAK, APARTMENT, 3RD FLOOR, DHANTOLI, NAGPUR

Ant: Rangnath rai
d. By:
red. Eqns: RECORDERS
Date : 12-Dec-2023 09:30 AM

Age : 47 Years Gender : Male
Height : 177 Cms Smoker : Yes
Weight : 77 Kgs Eth. Corr: 100
ID: 92c Temp :



150	FEV1 %Pred COPD SEVERITY	150	FVC%Pred Interpretation
125	OBS NORM	125	OBS NORM
100		100	
75	MODERATE	75	
50	SEVERE	50	
25	VERY SEVERE RES	25	MIXED RES
0		0	
25 50 75 100 125 150		25 50 75 100 125 150	
(FEV1/FVC) %Pred		(FEV1/FVC) %Pred	

Spirometry (FVC Results)

Parameter	Pred	M. Pre	%Pred	M. Post	%Pred	%Imp
FVC (L)	03.70	03.22	087	-----	---	---
FEV1 (L)	02.96	03.19	108	-----	---	---
FEV1/FVC (%)	80.00	99.07	124	-----	---	---
FEF25-75 (L/s)	03.76	04.36	116	-----	---	---
PEFR (L/s)	09.10	05.01	055	-----	---	---
FIVC (L)	-----	-----	---	-----	---	---
FEV.5 (L)	-----	02.29	---	-----	---	---
FEV3 (L)	03.59	03.22	090	-----	---	---
PIFR (L/s)	-----	-----	---	-----	---	---
FEF75-85 (L/s)	-----	03.95	---	-----	---	---
FEF.2-1.2 (L/s)	06.77	04.69	069	-----	---	---
FEF 25% (L/s)	07.98	04.90	061	-----	---	---
FEF 50% (L/s)	05.59	04.39	079	-----	---	---
FEF 75% (L/s)	02.53	04.16	164	-----	---	---
FEV.5/FVC (%)	-----	71.12	---	-----	---	---
FEV3/FVC (%)	97.03	100.00	103	-----	---	---
FET (Sec)	-----	01.27	---	-----	---	---
ExptTime (Sec)	-----	00.14	---	-----	---	---
Lung Age (Yrs)	047	043	091	-----	---	---
FEV6 (L)	03.70	-----	---	-----	---	---
FIF25% (L/s)	-----	02.00	---	-----	---	---
FIF50% (L/s)	-----	02.00	---	-----	---	---
FIF75% (L/s)	-----	02.00	---	-----	---	---

Pre Test COPD Severity
Test within normal limits

Pre Medication Report Indicates
Early Small Airway Obstruction as FEF 25-75 %Pred or PEFr %Pred < 70
Spirometry within normal limits as (FEV1/FVC) %Pred > 95 and FVC %Pred > 80.

Dr. Deepak Deotale
MBBS, AFIR
Reg. No 48366

Allengers Global Healthcare Pvt Ltd..

1940037870 / 92 rangnath rai / 47 Yrs / M/ Non Smoker

Heart Rate : 166 bpm / Tested On : 12-Dec-23 09:52:48 / HF 0.05 Hz - LF 100 Hz / Notch 50 Hz / Sn 1.00 Cm/mV / Sw 25 mm/s

ECG

ACHPL

Dr. Dipak Nath

Ray No 46366



ATHI RAI

Male

Age:

22P

Acq. Date: 12-Dec-23
Acq. Time: 11:04:51 AM
Exp. Index: 690

R

16cm

CHEST

PA

W: 4096, C: 2048

Scale: 0.13

MAYA DIAGNOSTICS

Deotale Diagnostic Centre (we care)

☒ Consultation ☒ Diagnostics ☒ Health Check- Up: ☒ Immunization.
Clinic: Vinayak Apt. 3rd floor Dhantoli Lokmat Chowk Nagpur

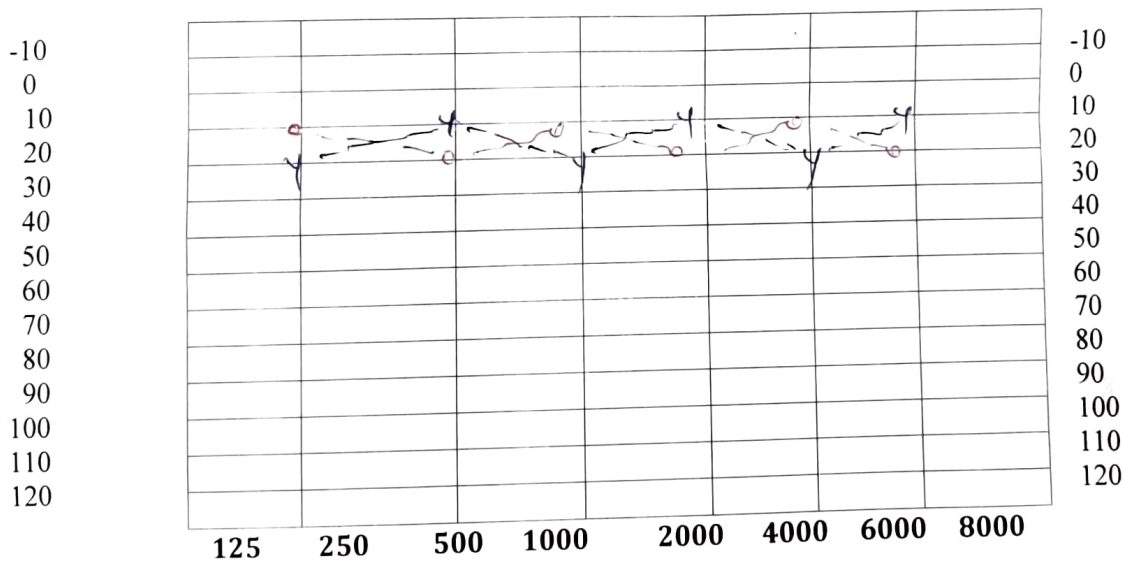
Resi:- 1B, Prashant Nagar Wardha-Road Nagpur (Clinic Reg. No. 699)

For any assistance call at . 9860204241, 0712-6610595



Date: 12-12-2023

AUDIOLOGICAL EVALUATION

1. SR.NO:92	CERTIFICATE NO: 92	2. EMPLOYEES CODE: 101632
3. DEPARTMENT: Mines		4. DESIGNATION: Dy General Manager
5. NAME : Rangnath Rai		6.CONTRACTOR NAME: PCL
7. SEX : Male		8. AGE: 47 yrs
9. ADDRESS : PRISM JOHNSON LIMITED, MANKAHARI,PO: BATHIA, DIST: SATNA, MADHYA PRADESH		
10. DIAGNOSIS: LT: WNL		11.RT: WNL



TEST FREQUENCY

Air O	= LEFT EAR :		<u>WNL</u>
Y	= RIGHT EAR :		<u>WNL</u>
Masking			
No Response: Audiologists Remarks			

Dr. DEEPAK DEOTALE Dr. Deepak Deotale
M.B.B.S. A.F.I.H. MBBS, AFIH
Reg. No. 48366 Reg. No. 48366



92

TEST NO

92

MAYA HOSPITAL & RESEARCH INSTITUTE

Add.: Plot .P 78, Opposite State Bank of India, MIDC
Butibori (Nagpur)
Ph 07103-684885

Deotale Diagnostic Center We Care

= Consultation = Diagnostics Health = Check-Ups = Immunization

Dr. Deepak P. Deotale
M.B.B.S., A.F.I.H.
(Associated fellow Of industrial
health)
Certifying Surgeon Reg .No. 48366

Clinic : Vinayak Apt. 3rd floor
Dhantoli,
Lokmat Chowk ,Nagpur
(Clinic Reg. No. 699)

Mob. No .8007771341

Email ID:

deotaledeepak19577@gmail.com

SR.NO	92
CERTIFICATE NO	92
EMPLOYEES CODE	101632
NAME	Rangnath Rai
GENDER	Male
DEPARTMENT	Mines
DESIGNATION	Dy General ManagerDy General Manager
Check Up Date	12-12-2023
MOB NO	9584460221

Company Name: PRISM JOHNSON LIMITED, MANKAHARI, PO: BATHIA,
DIST: SATNA, MADHYA PRADESH

Ref. No.: PJI/MIN/BG/2023/977

दूर की सोच

प्रति

Date 19.05.2023

सरपंच महोदय

ग्राम पंचायत - बगहाई, विकास खंड - रामपुर बाघेलान
जिला - सतना (म.प्र.)


विषय: ग्राम पंचायत बगहाई तहसील रामपुर बाघेलान में मे० प्रिज्म जॉनसन लिमिटेड मनकहरी के 512.317 हेक्टेयर लीज के खनन क्षमता विस्तार पर पर्यावरणीय स्वीकृति पत्र के सम्बन्ध में।

मान्यवर,

उपरोक्त विषय के सम्बन्ध में आपको यह सूचित किया जाता है कि भारत सरकार के पर्यावरण, वन एवं जलवायु मंत्रालय के पत्र क्र० J-11015/25/2019-IA.II(M) dated 15/05/2023 द्वारा ग्राम पंचायत बगहाई, तहसील रामपुर बाघेलान में मेसर्स प्रिज्म जॉनसन लिमिटेड, मनकहरी, सतना की स्वीकृत माइनिंग लीज रकवा 512.317 हेक्टेयर के चूना पत्थर उत्तखनन क्षमता विस्तार हेतु पर्यावरणीय स्वीकृति प्रदान की गई है।

जानकारी महोदय को सूचनार्थ प्रेषित है।

संलग्नक: भारत सरकार के पर्यावरण, वन एवं जलवायु मंत्रालय द्वारा जारी पत्र क्र० J-11015/25/2019-IA.II(M) dated 15/05/2023 की छायाप्रति।


Authorized Signatory

वास्ते प्रिज्म जॉनसन लिमिटेड,


सरपंच
ग्राम पंचायत बगहाई
ज.प. रामपुर बाघे, जिला सतना (म.प्र.)

PRISM JOHNSON LIMITED

(FORMERLY PRISM CEMENT LIMITED)
(Cement Division - Unit II)

Works: Village Mankahari, P.O.-Bathia, Dist. Satna - 485 111 (M.P.) India T: +91-07672-275301 / 302600
Corres. Add.: 'Rajdeep', Rewa Road, Satna - 485 001 (M.P.) India. T: +91-07672-402726

Registered Office: Prism Johnson Limited, 305, Laxmi Niwas Apartments, Ameerpet, Hyderabad - 500 016, India.
w: www.prismjohnson.in, www.cement.prismjohnson.in, E: info@prismjohnson.in

CIN: L26942TG1992PLC014033



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Asst VP Mines
PRISM JOHNSON LTD.

Village mankhari, PO bathia, Tehsil Rampur- baghelan, District- Satna
MP., Satna, Madhya Pradesh-485111

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/MP/MIN/403008/2022 dated 29 Mar 2023. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|--|
| 1. EC Identification No. | EC23A001MP123527 |
| 2. File No. | J-11015/25/2019-IA.II(M) |
| 3. Project Type | Expansion |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Expansion In Limestone Production Capacity From 1.3 Million TPA To 5.0 Million TPA, Top Soil: 2.322 Million TPA & OB/SB/IB: 5.590 Million TPA (Total Excavation: 12.912 Million TPA) and Installation Of New Crusher Of 1200 TPH Capacity (ML Area: 512.317 Ha) at Village: Baghai, Tehsil: Rampur Baghelan, District: Satna, Madhya Pradesh |
| 7. Name of Company/Organization | PRISM JOHNSON LTD. |
| 8. Location of Project | Madhya Pradesh |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 15/05/2023

(e-signed)
Pankaj Verma
Scientist E
IA - (Non-Coal Mining sector)



Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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(Signature)
सरपंच

ग्राम पंचायत बगहाई
ज.पं. रामपुर बाघे, जिला सतना (म.प्र.)

आम - सूचना

सर्वसाधारण को सूचित किया जाता है कि प्रिज्म जॉनसन लिमिटेड, ग्राम मनकहरी, जिला- सतना को पर्यावरण एवं जलवायु परिवर्तन मंत्रालय (MOEF&CC), भारत सरकार द्वारा पत्र क्रमांक J-11015/25/2019-IA.II(M) दिनांक 15.05.2023 के माध्यम से जिला- सतना के तहसील रामपुर बघेलान अंतर्गत ग्राम बगहाई में खनिज चूना पत्थर उत्खनन क्षमता विस्तार हेतु 512.317 हेक्टेयर क्षेत्र परपर्यावरणीय स्वीकृत प्रदान की गयी है। पर्यावरणीय स्वीकृत की प्रति/विस्तृत जानकारी म.प्र. प्रदूषण नियंत्रण बोर्ड एवं पर्यावरण और जलवायु परिवर्तन मंत्रालय (MOEF&CC), भारत सरकार की वेबसाइट (www.parivesh.nic.in), पर उपलब्ध है। सूचना सर्वसाधारण की जानकारी हेतु प्रकाशित की जा रही है।

वास्ते- प्रिज्म जॉनसन लिमिटेड
मनकहरी, जिला सतना (म.प्र.)

आम सूचना

सर्व साधारण को सूचित किया जाता है कि प्रिज्म जॉनसन लिमिटेड, ग्राम मनकहरी, जिला-सतना को पर्यावरण एवं जलवायु परिवर्तन मंत्रालय (MOEF&CC), भारत सरकार द्वारा पत्र क्रमांक J-11015/25/2019-IA.II(M) दिनांक 15.05.2023 के माध्यम से जिला-सतना के तहसील रामपुर बघेलान अंतर्गत ग्राम बगहाई में खनिज चूना पत्थर उत्तखनन क्षमता विस्तार हेतु 512.317 हेक्टेयर क्षेत्र पर पर्यावरणीय स्वीकृत प्रदान की गयी है।

पर्यावरणीय स्वीकृत की प्रति/विस्तृत जानकारी म.प्र. प्रदूषण नियंत्रण बोर्ड एवं पर्यावरण और जलवायु परिवर्तन मंत्रालय (MOEF&CC), भारत सरकार की वेबसाइट (www.parivesh.nic.in) पर उपलब्ध है। सूचना सर्व साधारण की जानकारी हेतु प्रकाशित की जा रही है।

वास्ते - प्रिज्म जॉनसन लिमिटेड
मनकहरी जिला-सतना (म.प्र.)

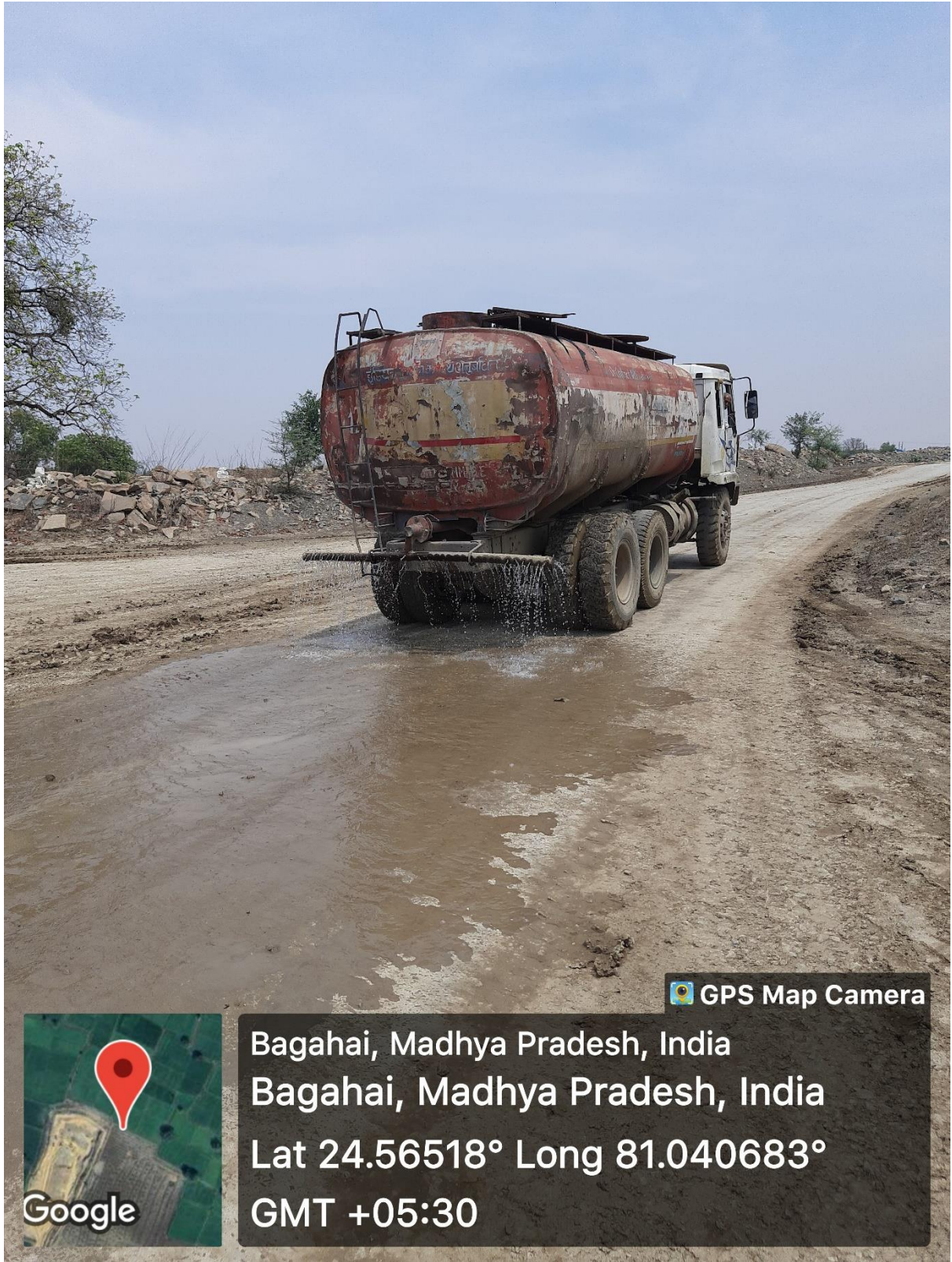
आम सूचना


सर्व साधारण को सूचित किया जाता है कि प्रिज्म जॉनसन लिमिटेड, ग्राम मनकहरी, जिला- सतना को पर्यावरण एवं जलवायु परिवर्तन मंत्रालय (MOEF&CC), भारत सरकार द्वारा पत्र क्रमांक J-11015/25/2019-IA.II(M) दिनांक 15/05/2023 के माध्यम से जिला सतना के तहसील रामपुर बघेलान अंतर्गत ग्राम बगहाई में खनिज चूना पत्थर उत्तखनन क्षमता विस्तार हेतु 512.317 हेक्टेयर क्षेत्र पर पर्यावरणीय स्वीकृत प्रदान की गयी है। पर्यावरणीय स्वीकृत की प्रति / विस्तृत जानकारी म.प्र. प्रदूषण नियंत्रण बोर्ड एवं पर्यावरण और जलवायु परिवर्तन मंत्रालय (MOEF&CC), भारत सरकार की वेबसाइट (www.parivesh.nic.in) पर उपलब्ध है। सूचना सर्व साधारण की जानकारी हेतु प्रकाशित की जा रही है।

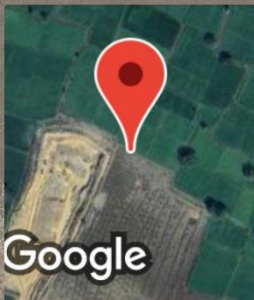
वास्ते - प्रिज्म जॉनसन लिमिटेड
मनकहरी जिला- सतना (म.प्र.)



CAAQMS



 GPS Map Camera



Bagahai, Madhya Pradesh, India
Bagahai, Madhya Pradesh, India
Lat 24.56518° Long 81.040683°
GMT +05:30



भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
केन्द्रीय भूमि जल प्राधिकरण
Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Ground Water Authority

(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:	Bagahai Limestone Mine (ml Area- 512.317 Ha)		
Project Address:	Villages Baghai, Tehsil Rampur Baghelan, District Satna		
Village:	Bagahai	Block:	Rampur Baghelan
District:	Satna	State:	Madhya Pradesh
Pin Code:			
Communication Address:	Rajdeep, Rewa Road, Satna, Rampur Baghelan, Satna, Madhya Pradesh - 485001		
Address of CGWB Regional Office :	Central Ground Water Board North Central Region, Block-1, 4th Floor, Paryawas Bhawan, Area Hills, Jail Road, Bhopal, Madhya Pradesh - 462011		

1. NOC No.:		CGWA/NOC/MIN/ORIG/2022/14892													
2. Application No.:		21-4/1167/MP/MIN/2021					3. Category: (GWRE 2020)		Semi Critical						
4. Project Status:		Existing Project					5. NOC Type:		New						
6. Valid from:		25/03/2022					7. Valid up to:		24/03/2024						
8. Ground Water Abstraction Permitted:															
Fresh Water				Saline Water				Dewatering				Total			
m³/day		m³/year		m³/day		m³/year		m³/day		m³/year		m³/day		m³/year	
0.00		0.00						487.00		177755.00					
9. Details of ground water abstraction /Dewatering structures															
Total Existing No.:0								Total Proposed No.:0							
				DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu
Abstraction Structure*				0	0	0	0	0	2	0	0	0	0	0	0
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit;MPu-Mine Pumps															
10. Ground Water Abstraction/Restoration Charges paid (Rs.):								444387.50							
11. Number of Piezometers(Observation wells) to be constructed/ monitored & Monitoring mechanism.							No. of Piezometers		Monitoring Mechanism						
									Manual		DWLR**		DWLR With Telemetry		
**DWLR - Digital Water Level Recorder							1		0		1		0		

(Compliance Conditions given overleaf)

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

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

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: cgwa-noc.gov.in

पानी बचाये - जीवन बचाये
SAVE WATER - SAVE LIFE

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

Mandatory conditions:

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

General conditions:

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

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

Sample Number : VTL/WW/03

M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. - Satna (M.P.)

Name & Address of the Party :

Sample Description : Waste Water

Sampling Location : Mine Workshop

Sample Collected By : VTL Team

Coordinates : 81.998838 & 24.564754

Report No. : VTL/WW/2312280003/A

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

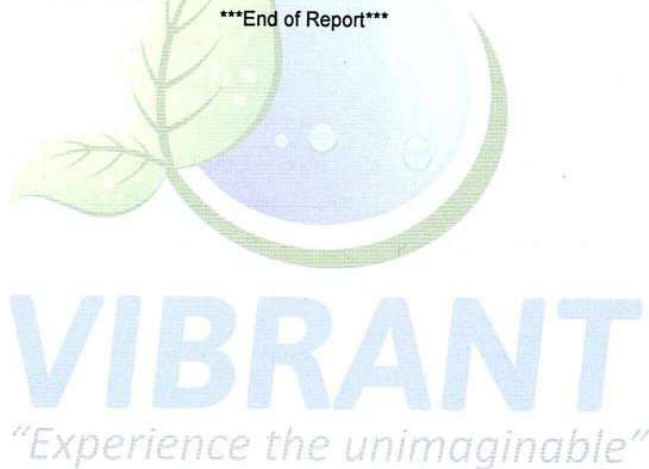
Sampling Date : 25/12/2023

Parameter Required : As per work Order

S.No.	Test Parameters	Test Method	Result	Unit	Limits
1	pH	IS: 3025 (P-11): 2022	7.51	-	5.5 to 9.0
2	Total Suspended Solids (TSS)	IS: 3025 (P-17): 2022	33.0	mg/l	100
3	Total Dissolved Solids (TDS)	IS:3025 (P-16): 1984, RA 2017	970.0	mg/l	2100
4	Oil & Grease	IS:3025 (P-39): 2021	*BLQ(**LOQ-4.0)	mg/l	10
5	Biochemical Oxygen Demand (BOD) (3 days @ 27°C)	IS: 3025 (P-44): 1993, RA: 2019	11.0	mg/l	30
6	Chemical oxygen Demand (COD)	IS : 3025 (P-58) : 2006 RA: 2017	45.0	mg/l	250

*BLQ-Below Limit OF Quantification, **LOQ- Limit Of Detection

End of Report



Checked by



RK Yadav
Lab Incharge
Authorized Signatory



Term & conditions PTO

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

Page No. 1/1

Vibrant Techno Lab Pvt. Ltd.

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TEST REPORT

Sample Number : VTL/WW/03

M/s PRISM JOHNSON LIMITED

Village- Mankahari, Tehsil- Rampur Baghelan, Dist. -
Satna (M.P.)

Name & Address of the Party :

Sample Description : Waste Water

Sampling Location : Mine Workshop

Sample Collected By : VTL Team

Coordinates : 81.998838 & 24.564754

Report No. : VTL/WW/2312280003/B

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 08/01/2024

Period of Analysis : 28/12/2023-08/01/2024

Receipt Date : 28/12/2023

Sampling Date : 25/12/2023

Parameter Required : As per work Order

S.No.	Test Parameters	Test Method	Result	Unit	Limits
1	Fecal Coliform	IS 1622, 2009	30.0	MPN/100 ml	--

*BLQ-Below Limit OF Quantification, **LOQ- Limit Of Detection

End of Report



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Checked by
[Signature]



RK Yadav
Lab Incharge
Authorized Signatory
[Signature]

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

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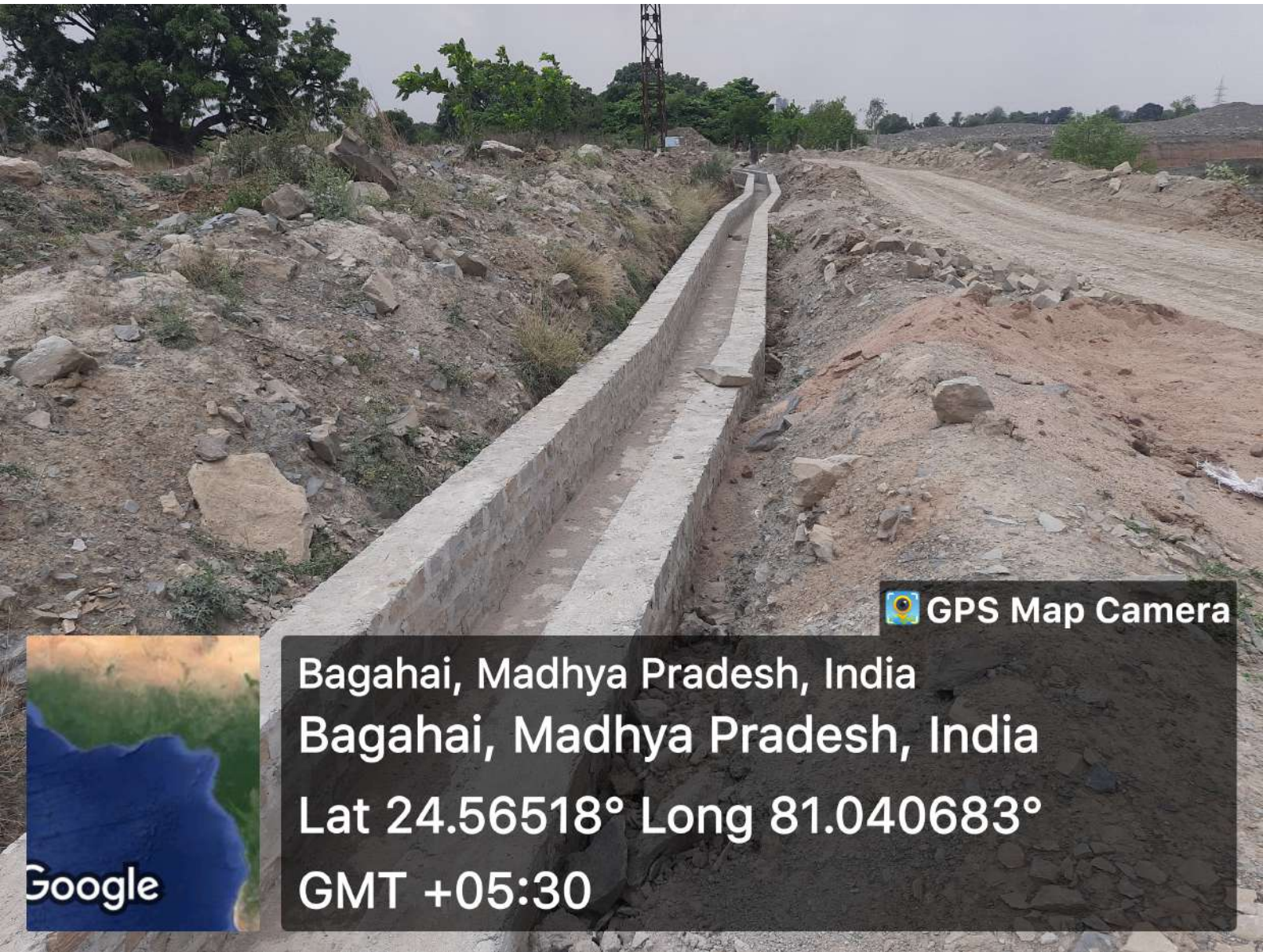
www.vibranttechnolab.com




GPS Map Camera



Baghai, Madhya Pradesh, India
Unnamed Road, Baghai, Madhya Pradesh 485111,
India
Lat 24.56685° Long 81.037314°
GMT +05:30



 GPS Map Camera

Bagahai, Madhya Pradesh, India

Bagahai, Madhya Pradesh, India

Lat 24.56518° Long 81.040683°

GMT +05:30



Annexure XII B Slope Stability Report

Confidential

REPORT ON
SLOPE STABILITY STUDY
OF
BAGHAI Limestone MINE, PRISM JOHNSON LTD
DISTRICT – SATNA, M.P.



DEPARTMENT OF MINING ENGINEERING
AKS, UNIVERSITY, SATNA (M.P.)
March-April 2022

ACKNOWLEDGEMENT

Department of Mining Engineering of Faculty of Engineering & Technology (FE&T), AKS University is thankful to the management of M/s **PRISM JOHNSON LIMITED**, for entrusting the study of executing the project on Slope Stability.

We also express sincere thanks to **Asst. Vice President Mines, Shri Manoj Kumar, and GM-Mines Sri C.S.Pandit** for inviting us to conduct this Study at the mines and also for the support provided during the study.

We are also thankful to Shri Kousik Das(Mines Manager) and other officials/engineers for the wholehearted support, hospitality and the courtesies extended to the study team during the study.

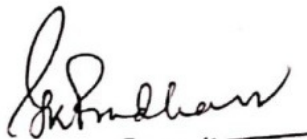
The study team constituted of the following officer from the Faculty of Engineering & Technology

Dr. B. K. Mishra, Head of the Department, Mining Engineering

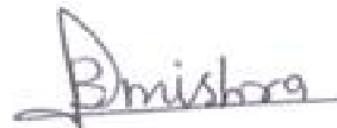
Dr. G. K. Pradhan, Dean, Faculty of Engineering and Technology

DISCLAIMER

This is to state that neither the day-to-day operations would be under the control of the investigators/authors of this report, nor it is possible to have any such control on mining operations. The author(s) of this Report would in no way be held responsible for any untoward incidents, which might occur due to the implementation of the recommendations of this report. This report is Confidential and no part of the same may be reproduced and circulated to any outside agency without obtaining prior permission from authors except Prism Johnson Ltd and concerned mine management. The authors reserve the right to publish the results of the study on academic/research interest for the benefit of the industry.



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Recipient of National Geoscience Award
Co-Principal Investigator (Co PI)
Professor of Mining Engineering & Dean,
Faculty of Engineering &Technology (FE&T)



Dr. B. K. MISHRA
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CONTENTS

S.N.	Descriptions	Page
1	Acknowledgement	01
2	Contents	02
3	List of Figures & Tables	03
4	Abstract	04
5	Objectives & Scope of Work	04
6	Introduction	05-06
7	Assessment of joints	06
8	Regional geology	06
9	Mining lease status	09
10	Local geology	09
11	Description of rock types	10
12	Method of Mining	11
13	Status of dumps at present	11
14	Observations in field and presentation of data	12
15	Schmidt Hammer Data analysis	13
16	Slope Stability analysis with Digital Elevation Model (DEM)	16-25
17	Slope Stability Analysis Using Flac	29
18	Dump Stability	27
19	Conclusion & recommendations	33-34
17	References	32
18	Annexure 1 The Metalliferous Mines Regulations, 1961(relevant Rules related to bench configuration)	33-34
19	DGMS Instructions	35
20	DGMS Circular (References)	35

LIST OF FIGURES & TABLES

Figures	Descriptions	Page
Figure 1	Location map of the study area	8
Figure 2	Field photograph showing analyse the Schmidt Hammer reading	12,15
Figure 3	Elevation Vs Cumulative Percentage of the area	16
Figure 4	Proportion Basin Height Vs Proportion of the area	17
Figures 5	Elevation Vs Cumulative Percentage of the area	17
Figure 6	Elevation Vs Number of Points	18
Figure 7	Resolution of the area Vs Surface area	19
Figure 8	Aspect map of the area	20
Figure 9	Aspect direction Vs No of Values	20
Figure 10	Aspect distribution	21
Figure 11	Cumulative Percentage Vs Slope 8 %	22
Figure 12	Average Slope (weight%) Vs Elevation	22
Figure 13	Percentage of Region Vs Elevation (meter)	22
Figure 14	Slope Vs Number of values	23
Figure 15	Region Box Size (m) Vs Relief (m)	24
Figure 16	Elevation map of the area	25
Table 1	Geological Succession of the Vindhyan Super Group	07
Table 2	Drilling Blasting	11
Table 2	Schmidt Hammer Reading in the area	14
Table 3	Triangular prism fractal dimension, N24E081.HGT	18

1.0 ABSTRACT

The issues concerned with slope stability in the open cast mines have come to forefront in the mining operations due to increasing pit depth. The slope stability has the most prominent influence in the productivity and longevity of a mine, collapse of which can lead enormous damages to man and machinery. A comprehensive study is necessitated to ensure stable slopes which are aided by numerical, analytical, physical, kinematic and empirical analyses. In the present study Baghai Limestone Mine of M/s PRISM JOHNSON LIMITED, Baghai Vill. District – Satna, M.P., have been analysed. The study has involved the classification and prediction the probable failure mode of the slope mass using slope mass rating and kinematic analysis. The analysis results have matched well with the field observations and can help to protect the slope and ensure the safety for better productivity.

DGMS has also issued several Technical Circulars outlining the safety to be ensured while mining for waste and ore.

1.1 OBJECTIVES & SCOPE OF WORK

Open cast mines call for the excavation of the earth surface to reach the underlying minerals of economic utility. The excavation process requires cut slopes to be formed on an earlier plain earth surface. Stability of the cut slopes is crucial for the safe and economical mining operations. The slope stability is governed by the local geological and geo-technical characteristics of the slope forming mass and the prevailing ground water conditions.

The design of the open pit mine slopes is a deciding factor for efficient exploitation of minerals as well as for the safety of the mine and the mineworkers which control the economics of the operations. The ever increasing pit depths and production requirements from opencast mines subject the design engineers and planners to work under the constraints of two conflicting requirements of stability and production. Economics could be improved by steepening the slope thereby reducing the amount of waste excavation on the other side, excessive steepening of slope could result in failure leading to loss of life and damage to property.

This scenario poses a big question as to how to achieve an optimum design – a compromise between a slope that is flat enough to be safe and steep enough to be economically acceptable. The consequences of a slope failure could be quite serious in terms of safety and economics and are governed by the location and extent of failure. Hence, the design of the steepest slope with desired stability asks for a detailed and reliable geotechnical investigation.

The factors, which mainly influence the stability of a typical opencast slope, are

- **The shear strength parameters of slope forming material**
- **The presence and characteristics of structural discontinuities in the slope mass**
- **The ground water conditions (Singh and Monjezi, 2000; Singh et al. 2008).**

2.0 INTRODUCTION

M/s. Prism Johnson Cement Limited is a Public Limited company with its registered office at 306, Laxmi Niwas Apartment Ameerpeth Hyderabad (A.P.). The company was initially incorporated under the name of Karan Cement Ltd. in March 1992 under the Indian Companies Act, 1956 as a joint venture between Raheja Group of Mumbai, F.L. Smidth and Co. Denmark and Industrialization Fund for Developing Countries, Denmark. The name of the company is subsequently changed to Prism Cement Limited (PCL) in September 1994. M/s. Prism Cement Limited has successfully set up and commissioned a 2 million tonnes per annum capacity cement plant at village Mankahari, Tehsil Rampur Baghelan in Satna District of Madhya Pradesh in the year 1997. Subsequently, the capacity has been increased **to 2.5 million** tonnes Clinker per annum.

In addition to this, Prism Cement had set up second Cement Plant of 3.00 MTPA clinker capacity. Total requirement of limestone for second Cement Plants is 4.50 million tonnes per annum. As per the New EIA Notification dated 14.09.2006 and circular dated 06.02.07, this integrated project falls in category 'A' Section (3) with 1 (a) (3).

Bagahai Limestone Mine is spread over a lease area of 512.317 ha.

Top soil - 0 to 5m

Limestone bench - Height: 6-7 m Width: >12 m

Ultimate working depth – will reach 271 m RL(at present) and will reach 255 mRL

OB dump - Max. height of waste rock and soil dump : 12 m. And likely to reach within 20m and will be in benching fashion/terraced each of less than 10 m.

Spread of the soil dump : 2.17 ha

Spread of the waste rock dumps. : 3.06 ha (waste rock generated in 1st year is being stored in an existing external dump and will be used for backfilling of the mined out area at the end of IV and V year.).

Land Use Pattern

512.317 ha (New Mine) Baghai Total 512.317(Govt. 1.017 Ha), ha Rampur Baghelan Satna(M.P.)

Geology

The Baghai Limestone mine is situated at Satna in the state of Madhya Pradesh (India). The mining lease area lies between longitude 81°01'47" to 81°04'20" East and Latitude 24°33'14" to 24°34'44" North and longitude 80°57'31" to 80°58'28" East and Latitude 24°36'47" to 24°37'16" North respectively (Geological Survey of India topo sheet No. 63 H/2). Geologically, this area forms part of the Rewa Plateau belonging to the upper Vindhyan Supergroup and the limestone deposit of the mine falls in the Bhander series of Upper Vindhyan System and is Upper Vindhyan in age. The general topography of the area is without any remarkable relief and forms a more or less flat terrain with a general dip of approximately 2°- 6° towards South between S10oW to S5oE. The area is completely devoid of any forest and the topographic elevation varies from 324 to 291.4 m above MSL. The overview of the Baghai Limestone Mines of Prism Cement is presented in Photograph 1.

3.0 ASSESSMENT OF JOINTS

Limestone forms the dominant rock type in the area. The beds are mostly horizontal with dips seldom exceeding 2° to 6° towards south. The rock is competent and no prominent joints could be observed. In engineering application joints are important not only because they limit the strength of the rock mass, but also because they control bulk deformation and the flow of ground water.

4.0 REGIONAL GEOLOGY

Geologically, this area forms part of the Rewa Plateau belonging to the Upper Vindhyan Super group of rock formations in Indian stratigraphy. The Vindhyan formations are broadly classified into lower calcareous and an upper arenaceous facies. The upper arenaceous rocks however, have a calcareous horizon - the Bhander Limestone varying in thickness from about 5 to 15 mtrs. The Limestone deposit of the area belongs to the Bhander series. The general trend of Bhander Limestone is East – North-East to West – South-West having low Southerly dipping of less than 50 Degrees.

Table: 1 Geological Succession of the Vindhyan Super Group

UPPER VINDHYANS	BHANDER SERIES	UPPER BHANDER SANDSTONE SIRBU SHALE LOWER BHANDER SANDSTONE
		BHANDER LIMESTONE
		GANUGRAH SHALE
DIAMOND BEARING CONGLOMERATES.....	
	REWA SERIES	UPPER REWA SANDSTONE JHIRI SHALES LOWER REWA SANDSTONE PANNA SHALES
DIAMOND BEARING CONGLOMERATES.....	
	KAIMUR SERIES	MAINLY SANDSTONE & QUARTZITE WITH MINOR SHALE
.....UNCONFORMITY.....		

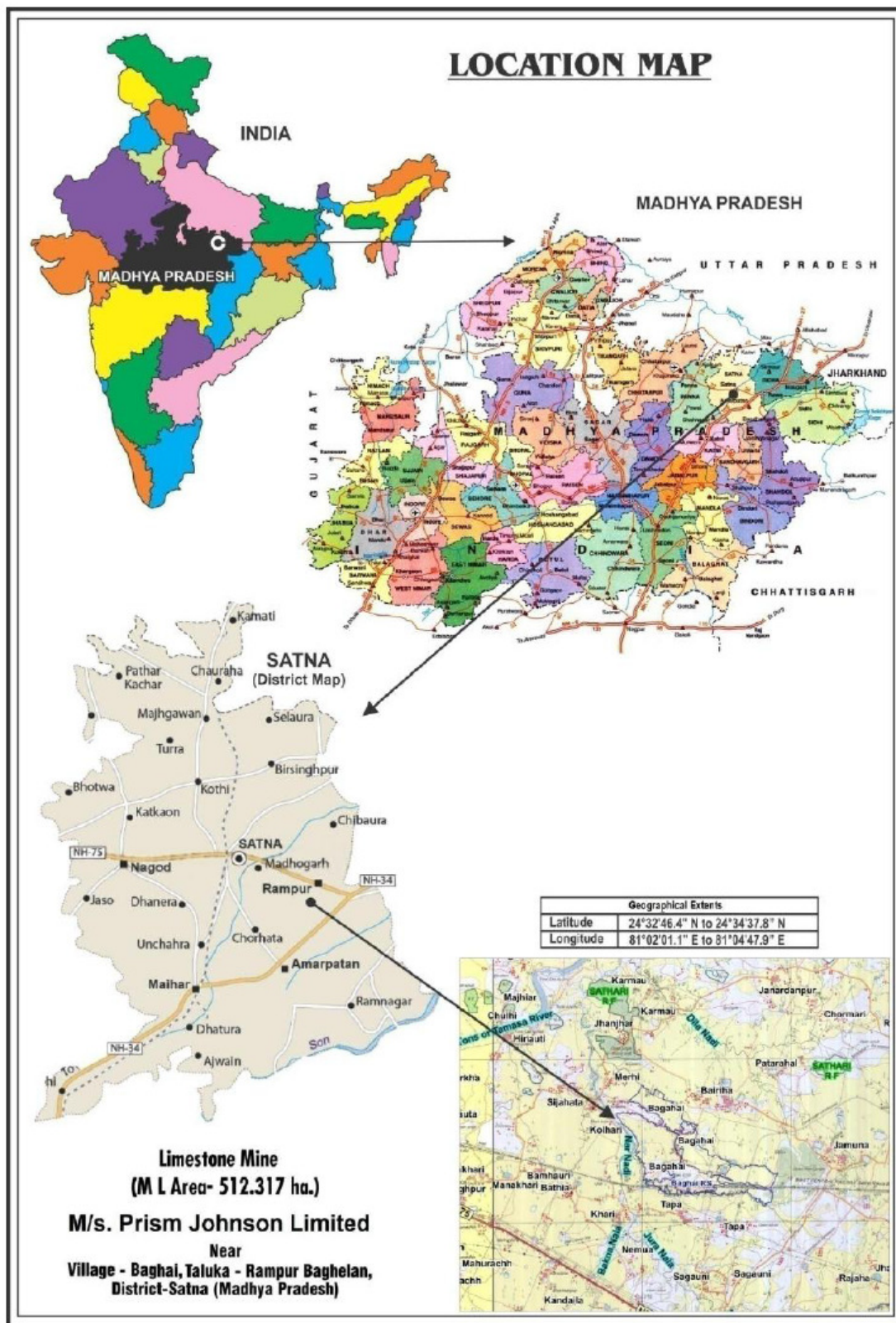


Figure 1 : Location Map of the Mines of Prism Johnson

5.0 MINING LEASE STATUS

Letter of Intent has been issued by State Government in favour of M/s Prism Cement Limited over an area of 512.317 ha vide letter no 3-07/2006/12/2 dated 08.08.2006. Mining Lease was granted in favor of M/s. Prism Cement Limited for 30 years vide letter no. F3-07/06/12/1 Bhopal dated 16.9.2008. Mining Lease deed was executed on 14.2.2011 effective from 28.02.2011, for the period of 30 years till 27.2.2041. Meanwhile name of Company was changed from M/s. Prism Cement Limited to M/s. Prism Johnson Limited vide letter No 4397/1825/2018/12/1 dated 20.9.2018. Subsequently amendment was done in the lease deed. As per section 8A of Amendment MMDR Act, 2015 mining lease has been extended for 50 years as provided by section 8A.

1. Villages Baghai
2. Tehsil Rampur Baghelan
3. District Satna
4. State Madhya Pradesh
5. Coordinates Latitude: 24°32'46.4" N to 24°34'37.8" N Longitude: 81°02'01.1" E to 81°04'47.9" E
6. Toposheet No. G44U14 & G44V2

7.0 LOCAL GEOLOGY

Except few isolated outcrops of limestone, the major part of the area on the surface is covered with soil. In all limestone outcrops trending along NE-SW direction have been demarcated during geological mapping of the area. Keeping in view the regional stratigraphic sequence and data obtained from drilling, the following sequence of formations has been established for the area:-

- Soil
- Overburden shale (Upper Green Shale)
- Limestone
- Bottom Shale

8.0 DESCRIPTION OF ROCK TYPES

Top & Overburden Soil:

The major part of the area on surface is covered with soil. At places, soil occurs on top of shale. Soil is found to occur on top of limestone bed. The thickness of soil ranges from 0.00 to 7.5 meters.

Overburden Shale:

This type of formation is mainly encountered in the southern part of the area. It is generally overlain by soil. It is red to light greenish grey in colour and hard in nature. On weathering, it becomes friable and breaks into thin laminae on application of force. Shale has a thickness ranging from 8.00 to 15.00 meters.

Limestone:

Limestone is both overlain and underlain by shale. It is fine-grained, light grey to dark grey in colour. It is generally intercalated with shale bands. Depending on CaO content, limestone has been classified into two grades, namely, Cement grade and sub grade. High magnesia limestone and limestone analyzing below 34% is treated as reject. Limestone has thickness ranging from 11.00 to 22.00 meters.

Structures:

The local geology of the area is free from significant structural disturbances. The general strike of limestone and all the associated formations in the adjoining area is horizontal with a variable dip from 4° to 9° . Two distinct sets of vertical joints planes are also observed in the area. The area does not appear to be disturbed by any major tectonic activity. Regionally some minor wraps have been occurred in the area due to uneven gravitative settlement of huge thick sediments and give the appearance of synformal trough and antiforms. The bedding planes are common and can be easily recognized and some minor foliations can also be found in the area. The joint planes are haphazardly arranged and do not follow any particular pattern. There are not much structured features like folding & faulting and beds are horizontal. The availability of deposition of the various rock types is dependent mostly on the topography, or, in other words, lower the ground – the rocks of older formations are available and, conversely – the more high the ground the occurrence of the rock of younger formations in the area. As in a common calcareous formation, sedimentary structure like lenticular and irregular bedding, cross laminations and mud cracks etc. have been observed in the deposit, which has given way to flowing water to cause solution cavities.

9.0 METHOD OF MINING

Mining is done by mechanized opencast method adopting a system of benches. Hydraulic excavators is being deployed for progressing benches and for handling ore/waste material. Drilling and controlled blasting is also adopted. Dumpers are being used for loading and dumping of waste material/ore. Transportation of limestone from working face to crusher hopper is being carried out by dumpers.

Drilling & Blasting

S. No.	Particulars	Details
1.	Method of mining	Opencast mechanized Mining
2.	Total Geological Reserves	42.416 Million Tonnes
3.	Total Mineable reserves	30.856 Million Tonnes
4.	Life of the Mine	~11 years based on mineable reserve
5.	Bench Height	6-8 m
6.	Bench width	18 m
7.	No. of Benches & Pits	5 Pits with 5 benches in each pit
8.	Pit limit	250 m AMSL
9.	Ultimate pit Slope	45°
10.	Water table	Pre-monsoon: 273 to 286 m AMSL (25-28 m bgl) & Post-monsoon: 276 to 281 m AMSL (20-25 m bgl).
11.	Elevation Range	298 m AMSL to 324 m AMSL
12.	General Ground Level	301 m AMSL
13.	Mineral: Waste Ratio (cum :cum.)	1:0.74
14.	Number of Working Days	300 days/year
15.	Number of shifts per day	3 (16 working hours)

The mining method is the conventional drilling and blasting followed by loading. Drilling is done by larger diameter 102 & 115 mm drills. The type of explosives used is SME and/or Cartridge explosives. Loading is done by hydraulic excavators. Based on the nature of the limestone deposit, the blast hole parameters adopted are as follows:

Hole dia - 115 mm, Burden..3.0m, Spacing 3.5 m, Depth – 4.5 to 6.0 M PF – 6 to 7 T/kg.

Excavator Capacity ; 1.2 M³

Tipper / dumper 20/40 T

Rock Breaker 1500 MPa is used for breaking oversize boulders.

10.0 STATUS OF DUMPS AT PRESENT

The Ultimate Capacity of the Dump

The Mine had made provision for separate stacking of topsoil and the stability of which was also studied with respect to the volume and height. At regular intervals the sub-benches in the dump is stabilised..

Bench formation in different pits

Photographs showing the bench formation showing the configuration and slope angle, is presented below



Field photograph showing the dump and bench

11.0 OBSERVATIONS IN FIELD AND PRESENTATION OF DATA

The Rock Mass Rating (RMR) System - RMR is a geo-mechanical classification system for rocks, developed by Z. T. Bieniawski between 1972 and 1973. It combines the most significant geologic parameters of influence and represents them with one overall comprehensive index of rock mass quality, which is used for the design and construction of excavations in rock, such as tunnels, mines, slopes and foundations.

The following six parameters are used to classify a rock mass using the RMR system

- Uniaxial compressive strength of rock material
- Rock quality designation (RQD)
- Spacing of discontinuities
- Condition of discontinuities.
- Groundwater conditions
- Orientation of discontinuities

Each of the six parameters is assigned a value corresponding to the characteristics of the rock. These values are derived from field surveys and laboratory tests. The sum of the six parameters is the "RMR value", which lies between 0 and 100.

$$\mathbf{RMR = J_{A1}+J_{A2}+J_{A3}+J_{A4}+J_{A5}+J_B}$$

Where the

J_{A1}	=	Strength of Intact Rock Material
J_{A2}	=	Drill Core Quality – RQD
J_{A3}	=	Spacing of Discontinuities
J_{A4}	=	Condition of Discontinuities
J_{A5}	=	Groundwater
J_B	=	Rating Adjustment for Discontinuity Orientations

12.0 CLASSIFICATION OF PARAMETERS AND THEIR RATINGS

Strength of Intact Rock Material (J_{A1})- In this Mine, strength of intact rock material (J_{A1}) rating is **12**. The rocks are classified as Very strong as per the following study parameters. The details of parameters are given below:

12.1 Schmidt Hammer Data analysis

The Schmidt hammer has been widely used for testing the quality of concrete and rocks. It has been increasingly used worldwide because of its simplicity, rapidity, non-destructiveness and portability. The Schmidt hammer is a light hand-held device which consists of a spring-loaded mass inside a piston that is released when the hammer is pressed orthogonally onto a surface.

Table:2 Schmidt Hammer Reading in the area			
S.N.	Latitude	Longitude	Value N
1	24.575303°	81.044724°	55
2	24.575288°	81.04465°	56
3	24.575304°	81.044718°	52
4	24.575288°	81.04465°	60
5	24.575272°	81.044658°	58
6	24.575446°	81.04469°	52
7	24.575446°	81.044697°	60
8	24.57544°	81.044699°	58
9	24.57544°	81.044698°	60
10	24.575614°	81.044915°	55
11	24.57561°	81.044915°	58
12	24.575465°	81.045292°	60
13	24.575465°	81.0445292°	62
14	24.575465°	81.045292°	55
15	24.575405°	81.045316°	60
16	24.575405°	81.045316°	62
17	24.575401°	81.045314°	58
18	24.575299°	81.045381°	55
19	24.575311°	81.045383°	60
20	24.5751°	81.04532°	62
21	24.575103°	81.044955°	60
Average N Value: 58 Average Compressive strength value = 148 MPa			



Fig. 2 Field photograph showing analyse the Schmidt Hammer reading

13.0 SLOPE STABILITY ANALYSIS WITH DIGITAL ELEVATION MODEL (DEM)

Slope is a measure of change in elevation. Calculate the percent slope, divide the difference between the elevations of two points by the distance between them, and then multiply the quotient by 100. The difference in elevation between points is called the rise. The distance between the points is called the run. The study area elevation varies between 80 to 95 percent curvatures. The maximum slopes of side area is 9.03 % and average slope are 1.08%. Slope std. deviation of the area are 73.24 %, average elevation of the area is 314.08m+/- 10.

N24E081.HGT Elevations

Pts in DEM: 1442401

Non zero points in DEM: 1442401

Range: 84 to 720

Range (0.1 to 99.9%): 99 to 625

Range (0.2 to 99.8%): 101 to 594

Range (0.5 to 99.5%): 103 to 542

Range (1.0 to 99.0%): 105 to 502

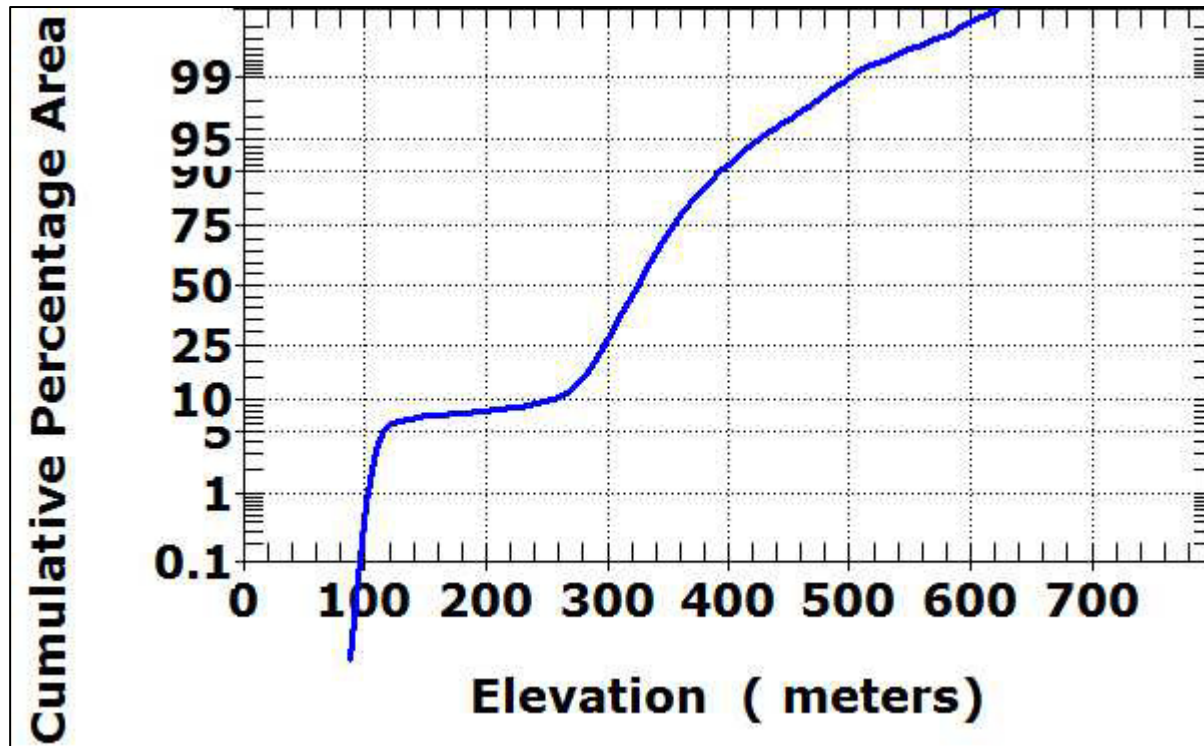


Fig. 3 Elevation Vs Cumulative Percentage of the area

Fig. 4 Proportion Basin Height Vs Proportion of the area

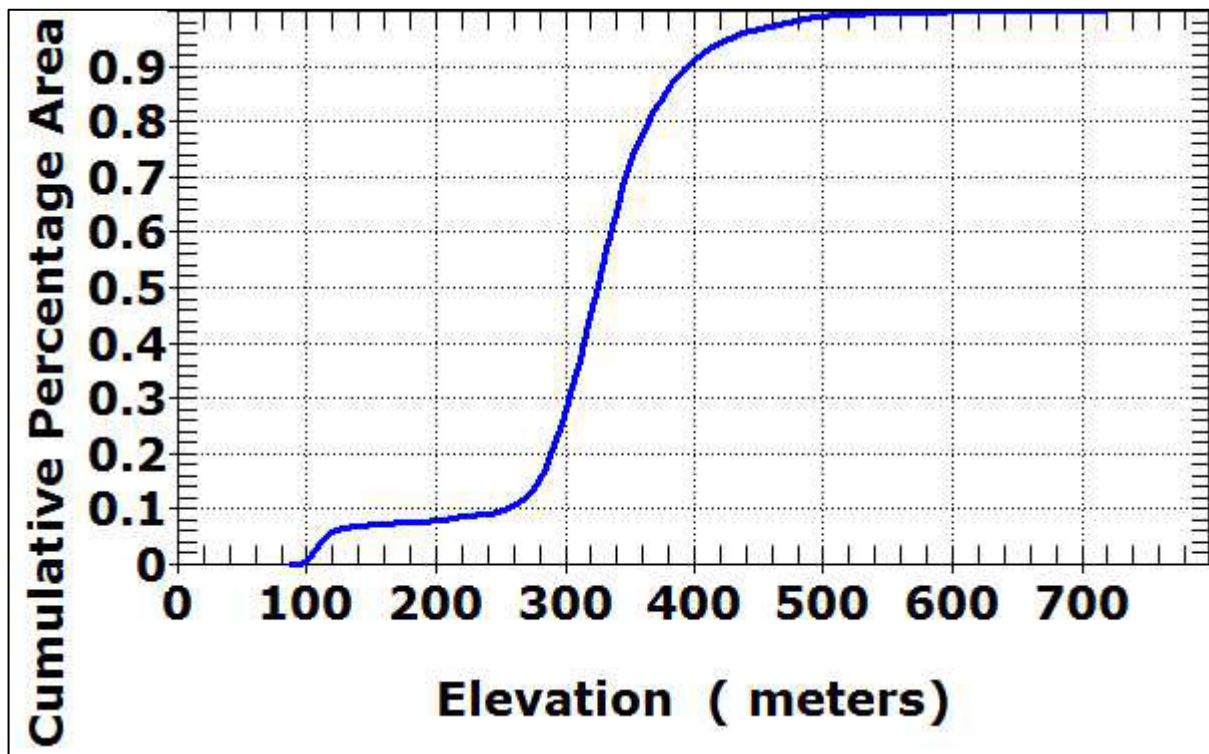
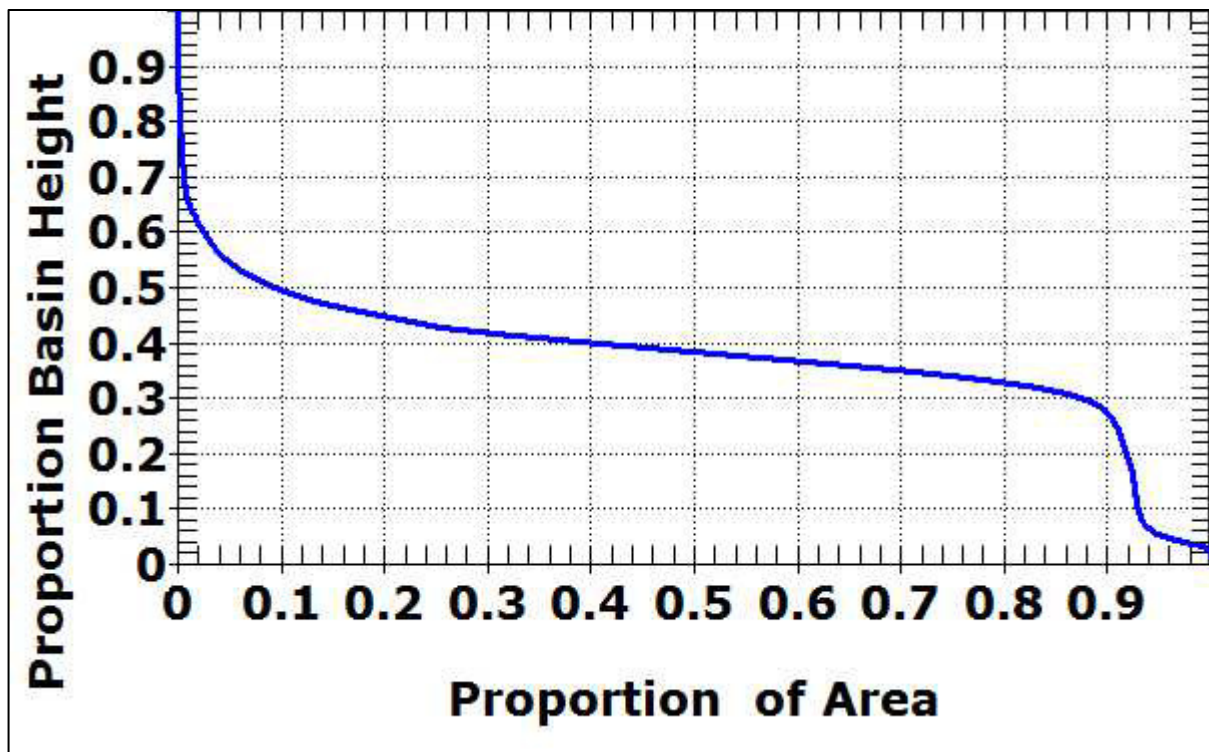


Fig. 5 Elevation Vs Cumulative Percentage of the area



Avg (mean): 322.27

Std Dev: 76.93

Table 3 Triangular prism fractal dimension, N24E081.HGT

Boxes	Holes	Size (m)	Hole	Edge	Raw area	Corrected Area
=====						
1435204	0	88.4	1.00	1.00	6836281.66	6859126.36
358801	0	176.7	1.00	1.00	5805098.70	5824497.51
89401	0	353.4	1.00	1.01	4737844.78	4769589.05
22201	0	706.9	1.00	1.01	3794600.36	3845705.52
5476	0	1413.7	1.00	1.03	3017076.71	3099170.29
1369	0	2827.5	1.00	1.03	2373342.79	2437920.60
324	0	5654.9	1.00	1.09	1852880.88	2010504.43
81	0	11309.9	1.00	1.09	1563650.22	1696669.07
16	0	22619.7	1.00	1.37	1081453.90	1485150.92
4	0	45239.4	1.00	1.37	1068385.40	1467204.08
1	0	90478.9	1.00	1.37	1074602.78	1475742.35

Fractal dimension: 2.12

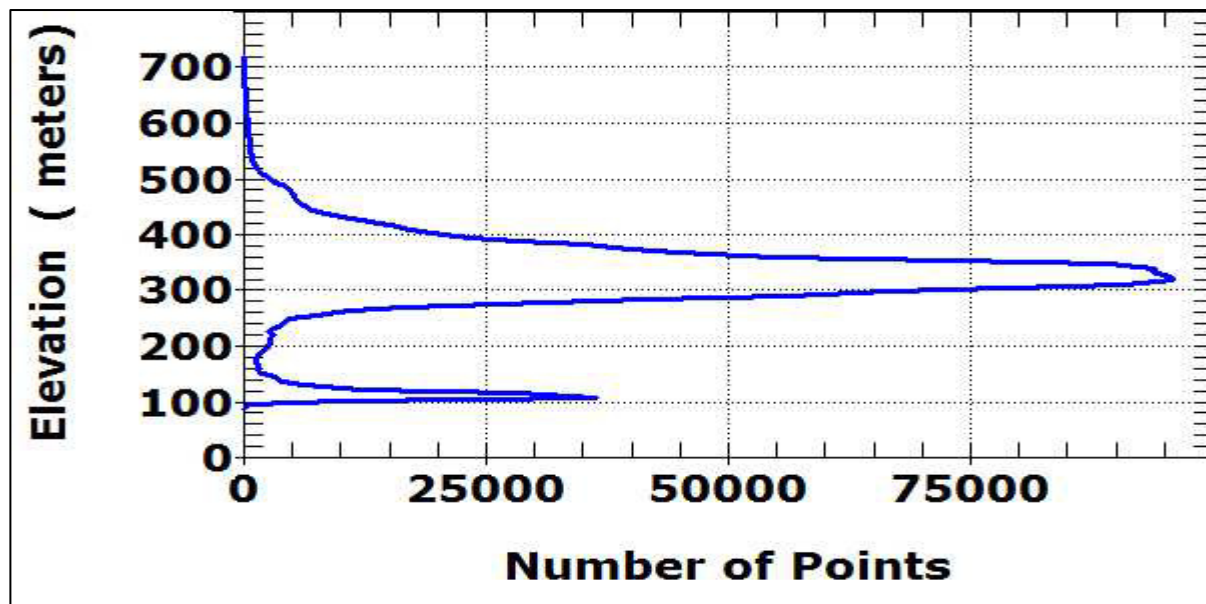


Fig. 6 Elevation Vs Number of Points

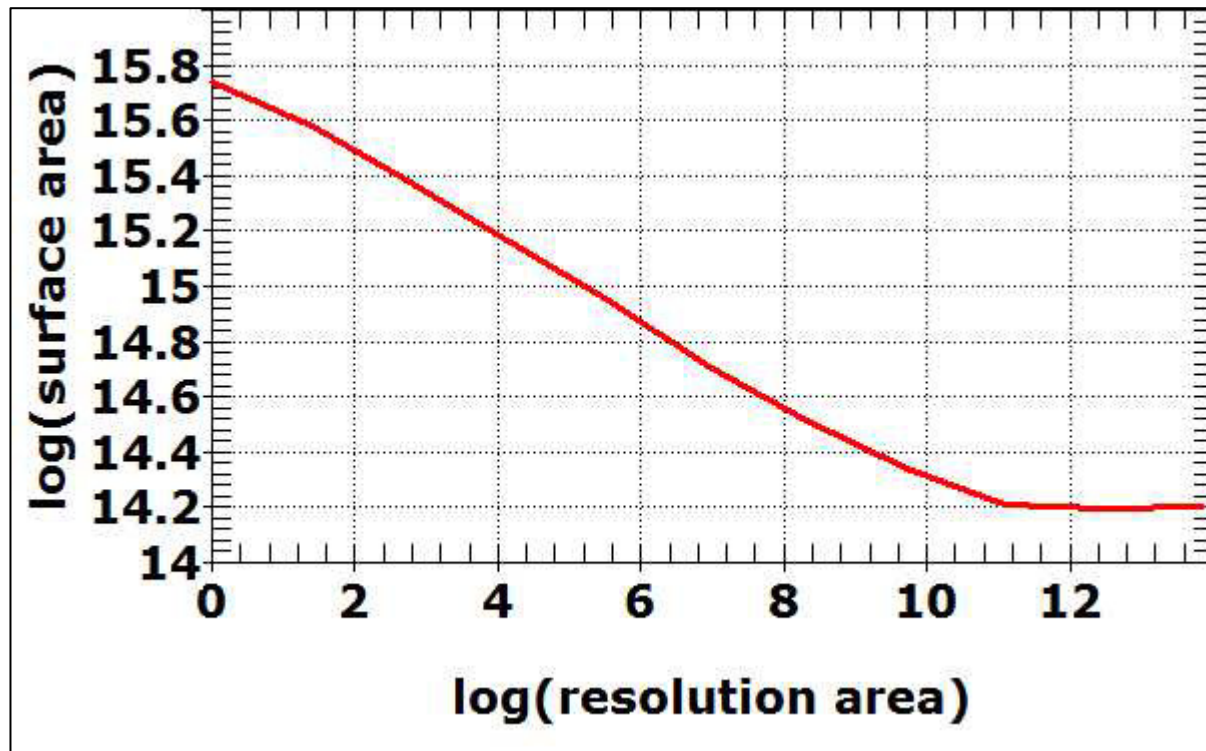


Fig. 7 Resolution of the area Vs Surface area

Variogram Slopes and fractal Dimensions

N-S: -999.0000 -496.500

NE-SW: -999.0000 -496.500

E-W: -999.0000 -496.500

SE-NW: -999.0000 -496.500

N24E081.HGT n=1343281

Avg elev: 324.08 m std dev= 73.24

Avg slope: 1.08% std dev= 1.28

Max slope: 9.03%

Eigenvalues:

1342913.7721 258.0214 109.2064

Normalized eigenvalues:

0.9997 0.0002 0.0001

Log Ratios:

$\ln(S1/S2)$: 8.56

$\ln(S2/S3)$: 0.86

Shape Indicator: 9.95

Strength Indicator: 9.42

Eigen vectors:

V1 89.8681° toward 8.3°

V2 0.1205° toward 164.2°

V3 0.0538° toward 254.2°

Queen's aspect ratio: 1.518

Fig. 8 Aspect map of the area

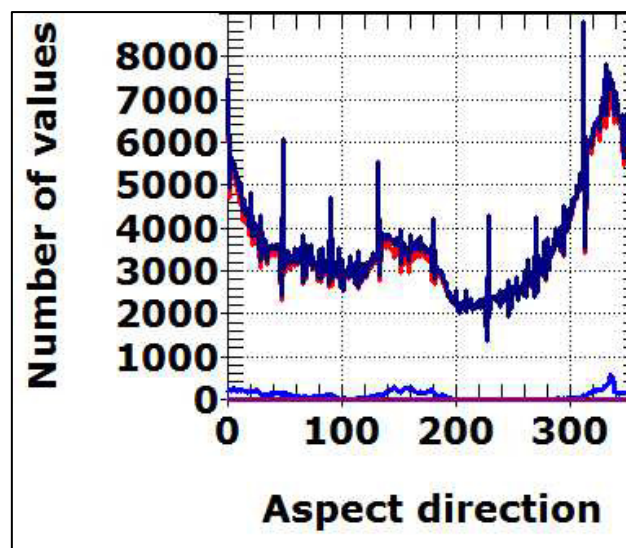
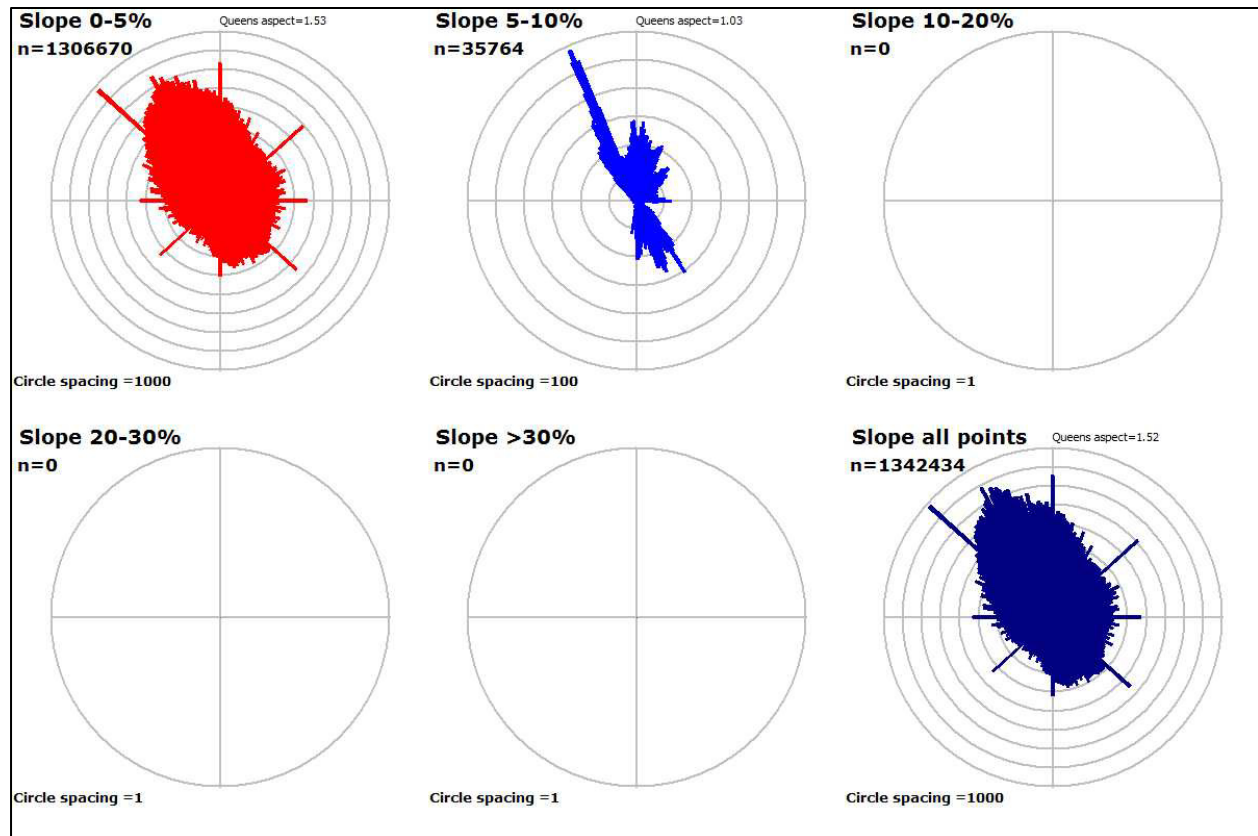


Fig. 9 Aspect direction Vs No of Values

Slope method: 8 neighbors (weight) N24E081.HGT

Max slope: 9.03% 5.2°

Average slope: 1.08% 0.6°

Standard deviation: 1.28 (%)

RMS 1.67 (%)

Fig. 10 Aspect distribution

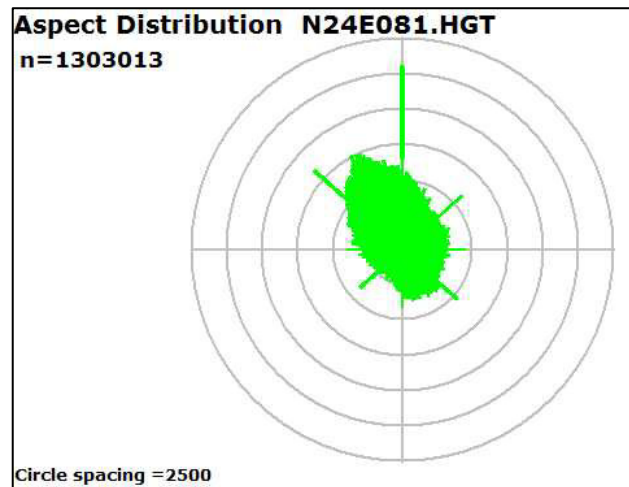


Fig. 11 Cumulative Percentage Vs Slope 8 %

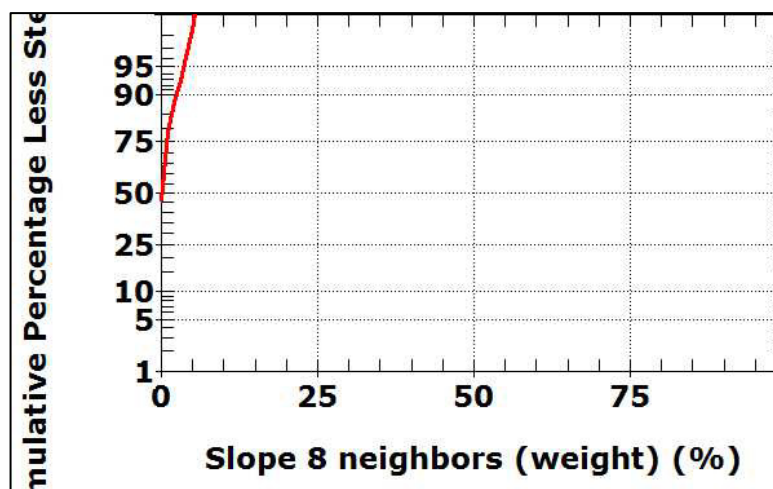


Fig. 12 Average Slope (weight%) Vs Elevation

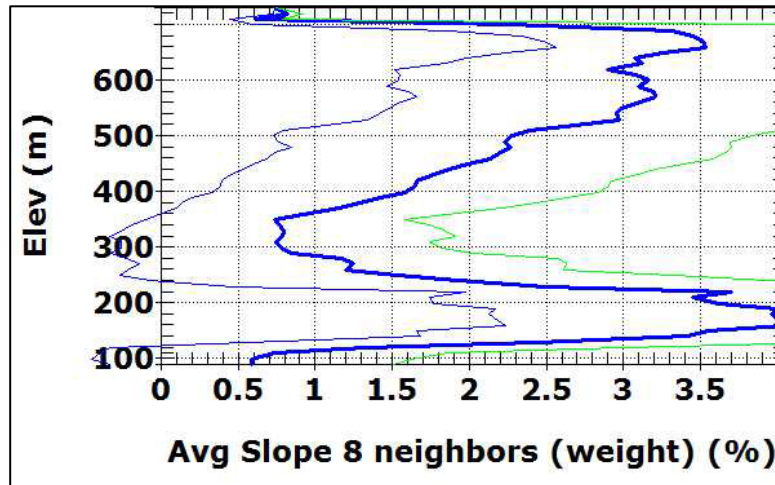


Fig. 13 Percentage of Region Vs Slope 8 neighbours (weight)

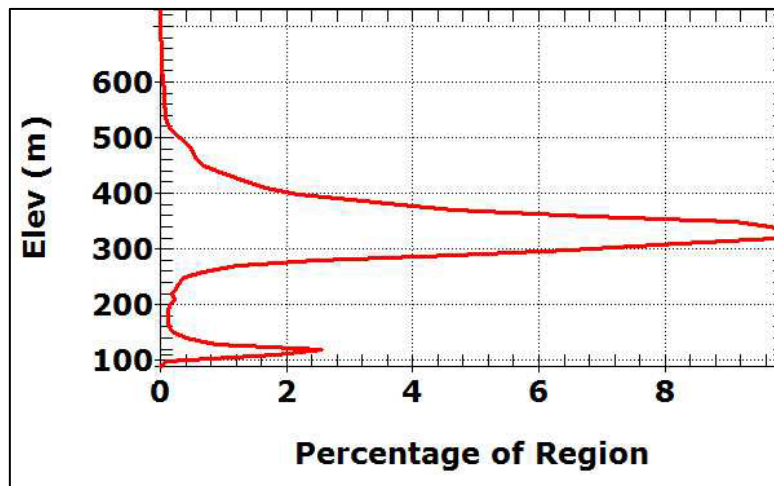
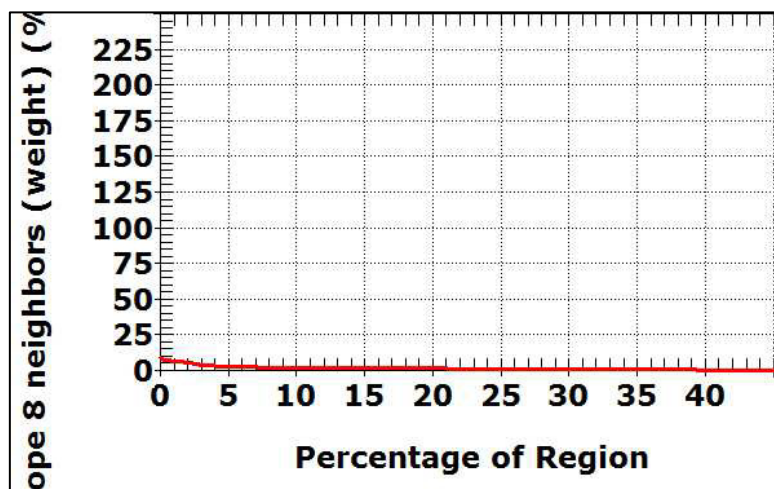


Fig. 14 Percentage of Region Vs Elevation (meter)



Slope with region size: 1

Slope

Average= 4.43
Average dev= 3.85
Standard dev= 6.79
Skewness= 4.2146
Curtosis= 24.7277

n=1432477

Slope with region size: 2

Slope

Average= 3.51
Average dev= 3.23
Standard dev= 5.59
Skewness= 3.8782
Curtosis= 19.0306

n=1427762

Slope with region size: 3

Slope

Average= 3.02
Average dev= 2.82
Standard dev= 4.80
Skewness= 3.7138
Curtosis= 16.9253

n=1422993

Slope with region size: 5

Slope

Average= 2.45
Average dev= 2.30
Standard dev= 3.81
Skewness= 3.4662
Curtosis= 14.5135

n=1413470

Slope with region size: 7

Slope

Average= 2.12
Average dev= 1.98
Standard dev= 3.18
Skewness= 3.2418
Curtosis= 12.5449

n=1403975

Slope with region size: 10

Slope

Average= 1.80
Average dev= 1.65
Standard dev= 2.57
Skewness= 2.9598
Curtosis= 10.1287

n=1389791

Slope with region size: 15

Slope

Average= 1.48
Average dev= 1.32
Standard dev= 1.97
Skewness= 2.6265
Curtosis= 7.5746

n=1366311

Slope with region size: 20

Slope

Average= 1.28
Average dev= 1.11
Standard dev= 1.61
Skewness= 2.3947
Curtosis= 6.0779

n=1343031

Fig. 14 Slope Vs Number of values

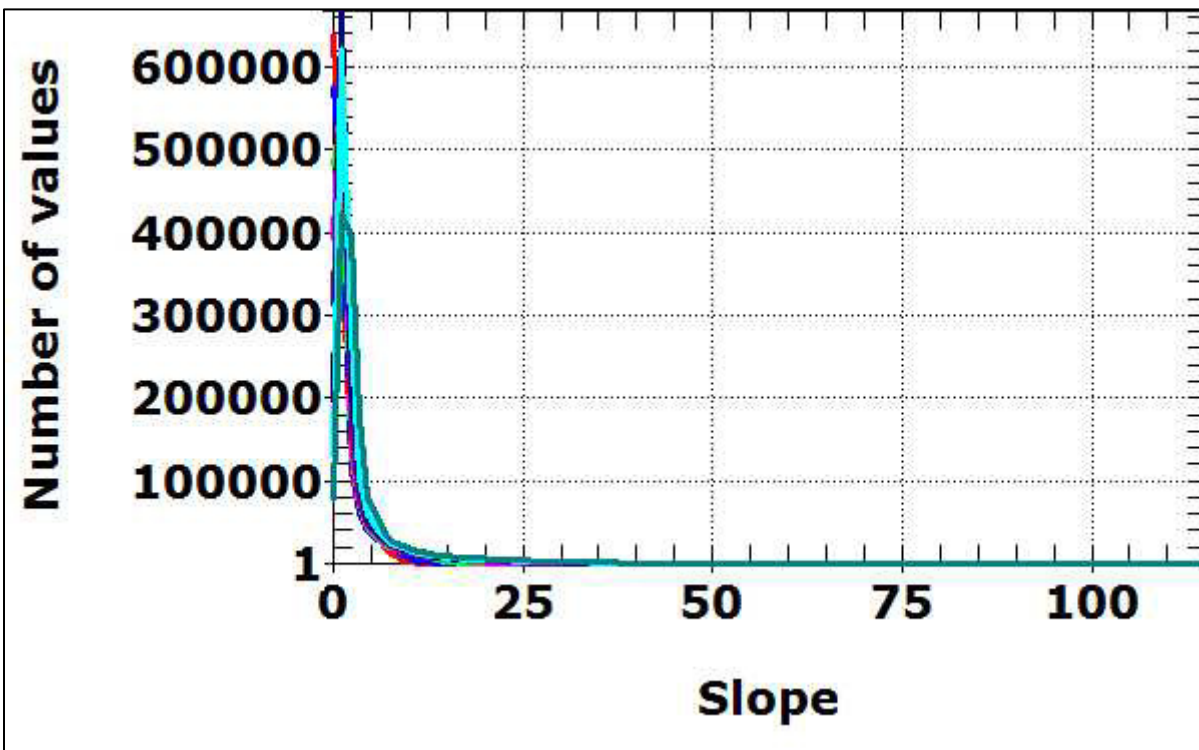


Fig. 15 Region Box Size (m) Vs Relief (m)

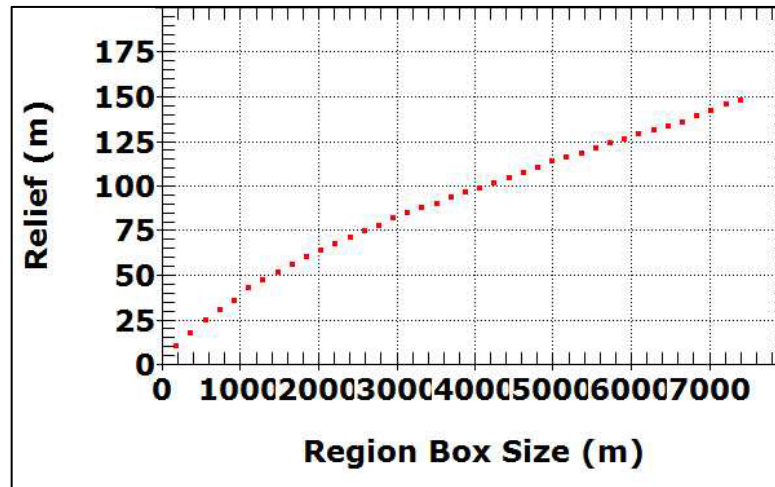
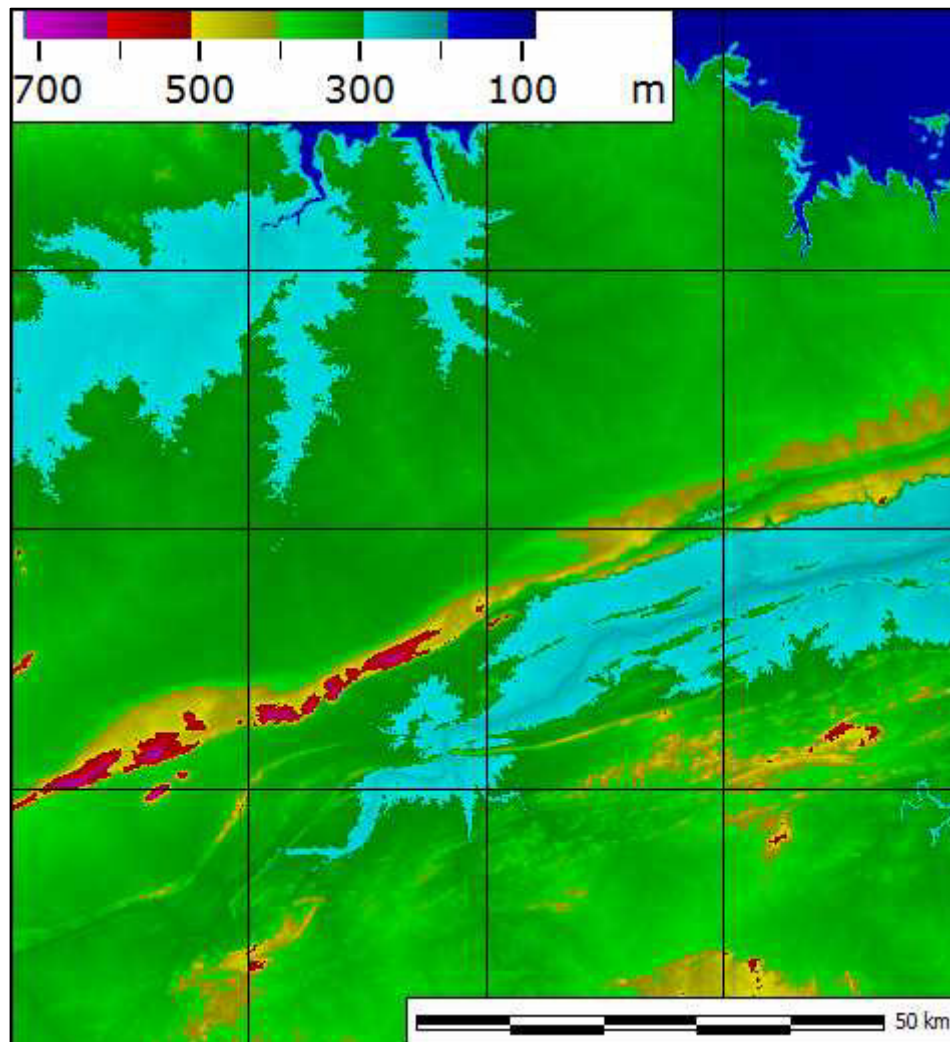


Fig. 16 Elevation map of the area



14.0 Slope Stability Analysis Using Flac

The stability of slopes is traditionally estimated using 2D limit equilibrium methods (LEM). However, these methods have several disadvantages and may neglect some important factors. Due to the rapid development of computing efficiency, several numerical methods are gaining increasing popularity in slope stability engineering. Finite Element Method (FEM) and Finite Difference Method (FDM) are very often used for that purpose.

The factor of safety (FS) for slope may be computed *by reducing shear strength of rock* or soil in stages until the slope fails. This method is called shear strength reduction technique (SSR). **FLAC code** is often applied for estimating FS for rock slopes or even foliated rock slopes. FLAC is also widely used for analyzing stability of soil slopes. Sometimes FLAC is even used for slope stability engineering in combination with other methods.

To understand the impact of shear strength of stability of the slope, height of the dump, number of benches in the dump for better stability, etc, samples collected from the Dump was tested for its shear strength, moisture content, and specific gravity.

Figure 17 : Shows Direct Shear Strength Testing Unit





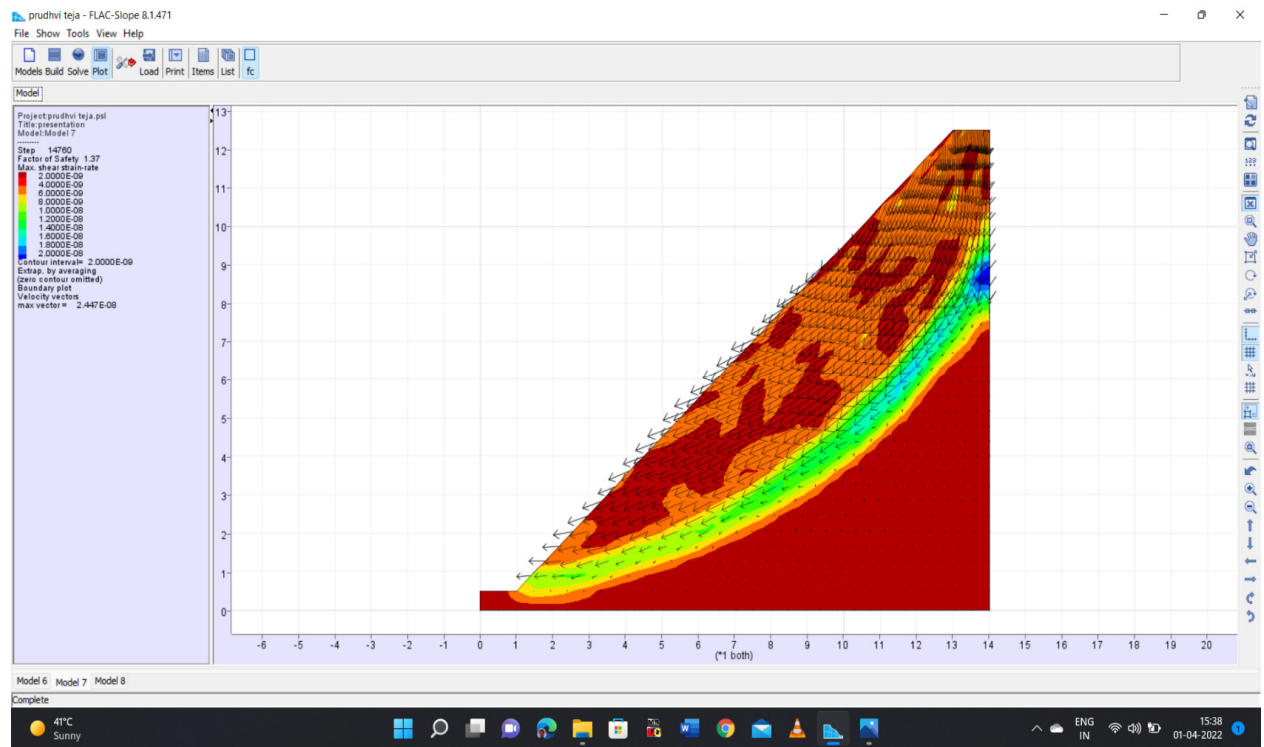
Figure 18 : Shows Direact Shearing of the Soil Sample (samples from the Dump)

15.0 DUMP STABILITY ANALYSIS BASED ON FLAC

Direct Shear Test Results	Units	Test result
Cohesion (C)	Kpa	18
Angle of internal friction ϕ	degree	30

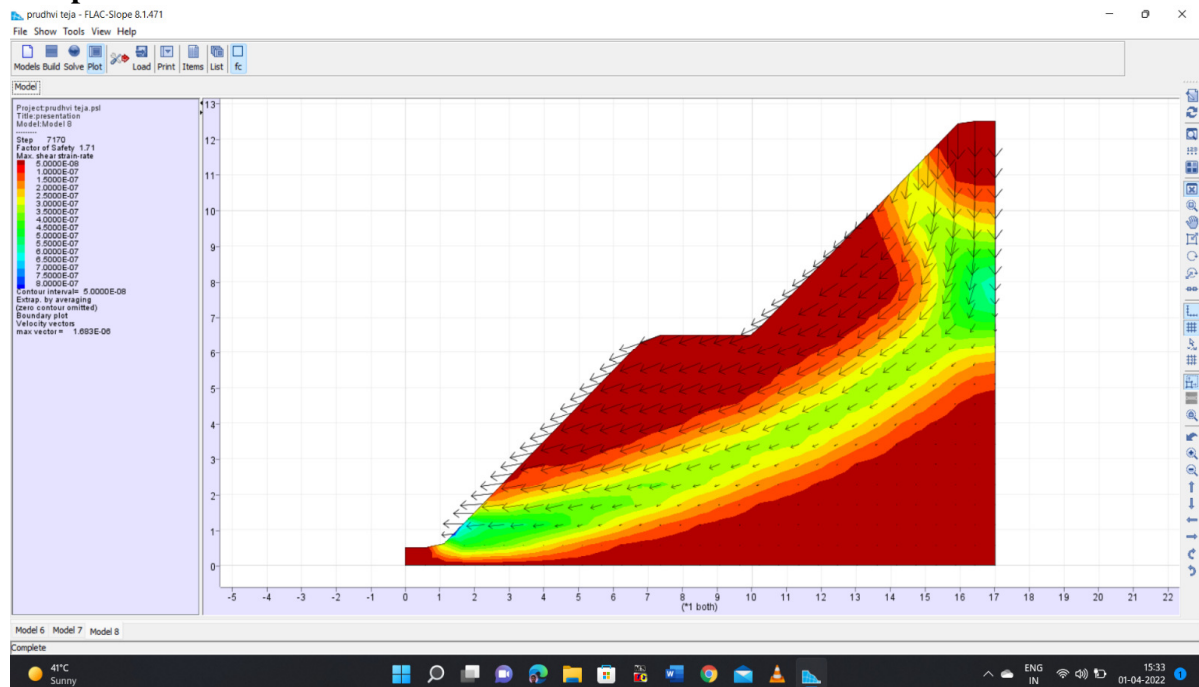
Based on the test results in respect of Cohesion, Angle of Internal Friction, the following FLAC assisted data was generated

(A) Dump with single bench



Bench height ; 12 meter
Slope angle; 45 degree
Density of material; 1880 kg/m^3
Cohesion; 18 kpa
Factor of Safety obtained ; 1.37

(B) Dump with 2 benches



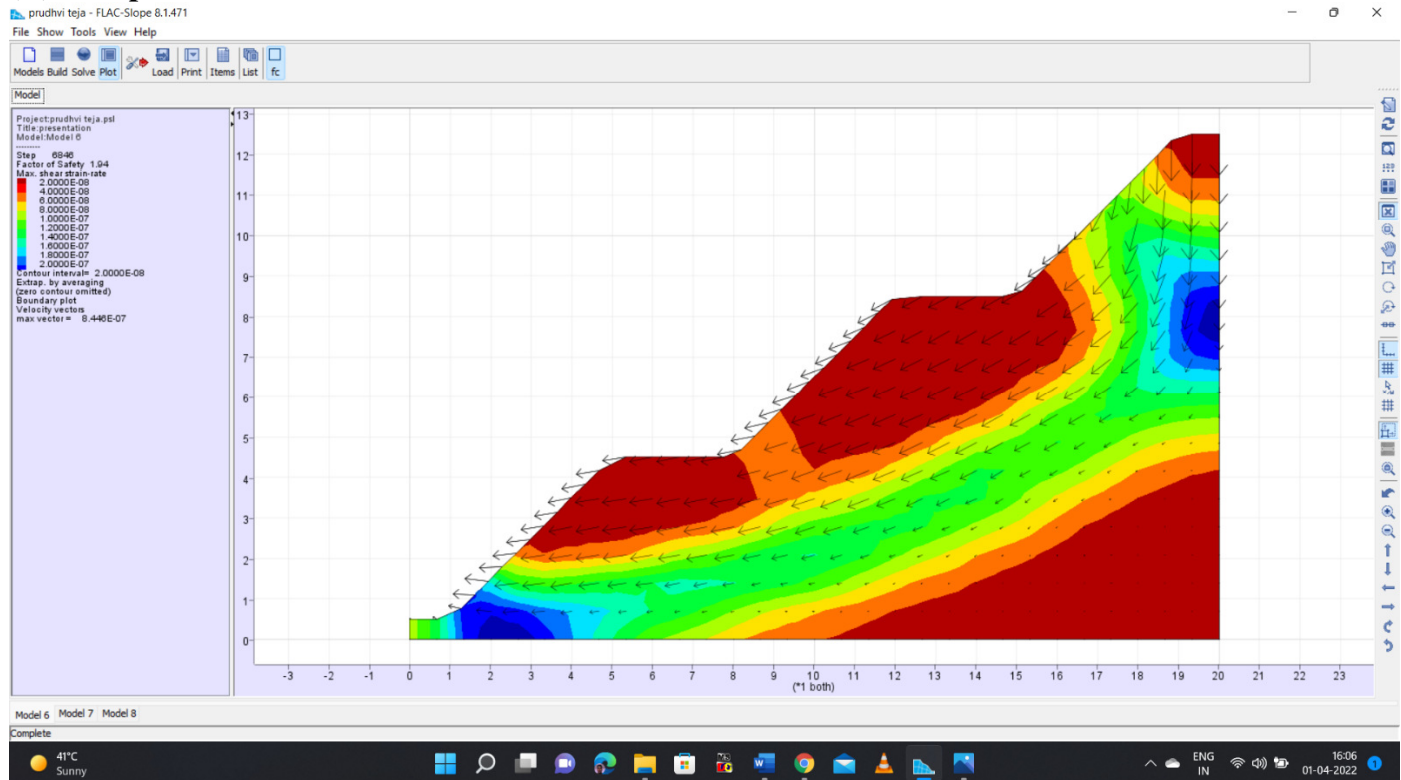
Bench height ; 6 meter

Slope angle; 45 degree

Density of material; 1880 kg/m^3
Factor of Safety obtained ;1.71

Cohesion; 18 kpa

(C) Dump with 3 benches



Bench height ;4 meter
Slope angle; 45 degree
Density of material; 1880 kg/m^3
Cohesion; 18 kpa
Factor of Safety obtained : 1.94.

15.0 CONCLUSION & RECOMMENDATIONS

The Geology and Geotechnical parameters play a vital role in Pit Slope Design. The Study emphasizes the importance of a geology and geotechnical aspects in order to address the slope design in Baghai Limestone Mine whose stability is largely controlled by geological structures.

The study area is free from major structural disturbances like fault, fold and joints and the area is tectonically stable.

The intact rocks of limestone are categorized as –

Strong rock based on the Uni-axial compressive strength.

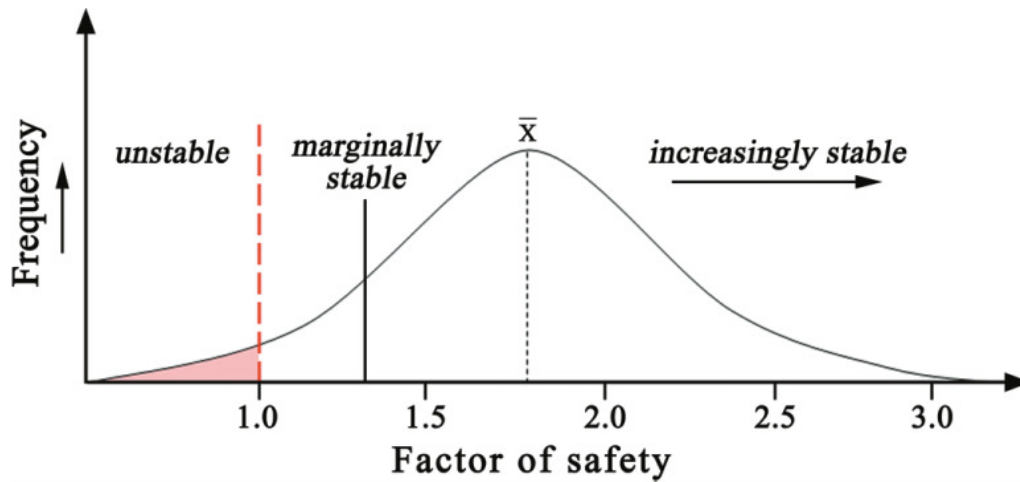
Thus it can be concluded that –

- The area is good for stable pit slope.
- There is No structural disturbance present in this area, which can affect pit slope stability.
- The Mining is above the Groundwater; hence the groundwater doesn't affect rock strength by any means.
- The depth of Limestone is about 22 meter.

Stable benches have been created maintaining the ultimate pit geometry. At the ultimate pit limit it is recommended to maintain a pit slope of 55 to 60°.

Considering the above-mentioned facts and the study of pit slope stability, the proposed Pit slope from the top bench to the ultimate pit depth is to maintain an angle of 55-60°.

Using FLAC it is also concluded that more the number of benches created on the existing Dump mostly having clay the factor of safety is increasing. As stated above, the Factor of Safety(FS) beyond 1.5 is marginally to increasingly stable.



This pit slope angle and design is safe and economical for limestone mining in this Mine. The inclination to be maintained is well within stipulations made under MMR 1961 at Rule 106 & 114 (Annexure I)

Dr. G.K. PRADHAN

Recipient of National Geoscience Award

Co-Principal Investigator (Co PI)

Professor of Mining Engineering & Dean,
Faculty of Engineering & Technology (FE&T)

Dr. B. K. MISHRA

Principal Investigator (PI)

Head of the Department

Mining Engineering

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Annexure 1

THE METALLIFEROUS MINES REGULATIONS, 1961

CHAPTER-XI

Mine Workings

106. Opencast workings – In opencast workings, the following precautions shall be observed, namely: -

(1) In alluvial soil, morum gravel, clay, debris or other similar ground -

(a)(i) the sides shall be sloped at an angle of safety not exceeding 45 degrees from the horizontal or such other angle as the Regional Inspector may permit by an order in writing and subject to such conditions as he may specify therein; or

(ii) the sides shall be kept benched and the height of any bench shall not exceed 1.5 metres and the breadth thereof shall not be less than the height:

Provided that the Regional Inspector may, by an order in writing and subject to such conditions as he may specify therein, exempt from the operation of this clause any working in the case of which special difficulties exist, which in his opinion make compliance with the provisions thereof not reasonably practicable; and

(b) where any pillar is left 'in situ' for the purpose of measurement, its height shall not exceed 2.5 metres; and where the height of such pillar exceeds 1.25 metres, the base of the pillar shall not be less than 1.6 metres in diameter.

(2) (a) Where 'float' or other similar deposit is worked by manual means on a sloping face, the face shall be benched and the sides shall be sloped at an angle of not more than 60 degrees from the horizontal. The height of any bench shall not exceed six metres and the breadth thereof shall not be less than the height:

Provided that where the ore-body consists of comparatively hard and compact rock, the Regional Inspector may, by an order in writing and subject to such conditions as he may specify therein, permit the height of the bench to be increased up to 7.5 metres while its width is not less than six metres :

Provided further that in case of a mine or part where special difficulties exist, the Chief Inspector may, by an order in writing and subject to such conditions as he may specify therein, relax the provisions of this sub-regulation.

(b) Where in any mine or part it is proposed to work by a system of deep-hole blasting and/or with the help of heavy machinery for its digging, excavation and removal in such manner as would not permit of compliance with the requirement of sub-regulation (1) the owner, agent or manager shall, not less than 60 days before starting such work, give notice in writing of the method of working to the Chief Inspector and the Regional Inspector; and no such work shall be commenced or carried out except in accordance with such conditions as the Chief Inspector may specify by an order in writing. Every such notice shall be induplicate, and shall give the details of the method of working including the precautions that are proposed to be taken against the danger from falls of sides and material.

(3) In an excavation in any hard and compact ground or in prospecting trenches or pits, the sides shall be adequately benched, slopped or secured so as to prevent danger from fall of sides.

(4) No tree, loose stone or debris shall unless otherwise permitted in writing by the Chief Inspector be allowed to remain within a distance of three metres from the edge or side of the excavation.

(5) No person shall undercut any face or side or cause or permit such undercutting as to cause any overhanging.

xxxx

114. Steep workings – (1) In workings having an inclination of 30 degrees or more from the horizontal adequate precautions shall be taken to prevent danger to persons from falling or rolling of timber, tools or other appliances or material.

(2) No person shall work or be permitted to work at any place having an inclination of 45 degrees or more from the horizontal, where he is likely to slip or overbalance, unless he is secured by a safety belt or lifeline or is otherwise safeguarded.

DGMS (Tech.) (S&T) Circular No. 02 Dhanbad, Dated 06.07.2010 on ‘Design, Control and Monitoring of Pit and Dump Slopes in Opencast Mines’.

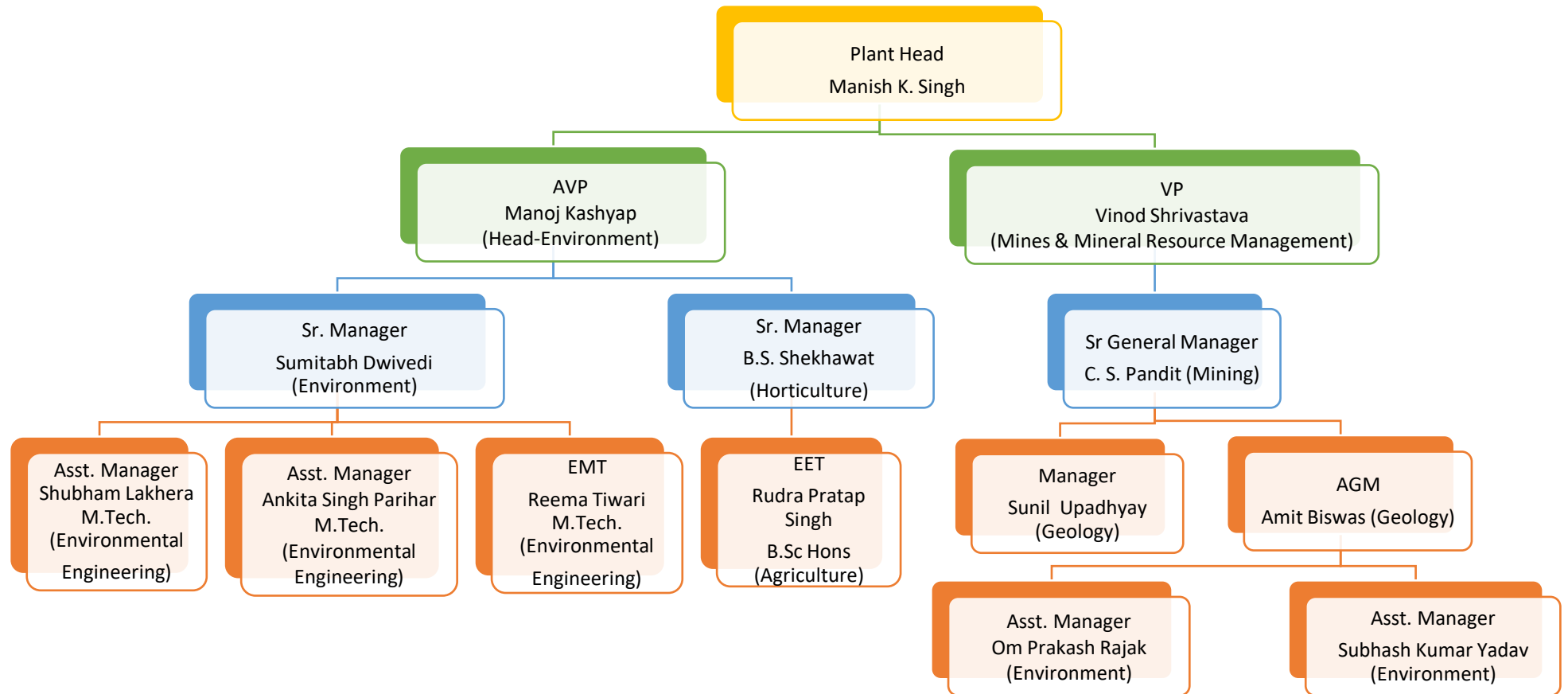
4.0 Conclusion and Recommendation:

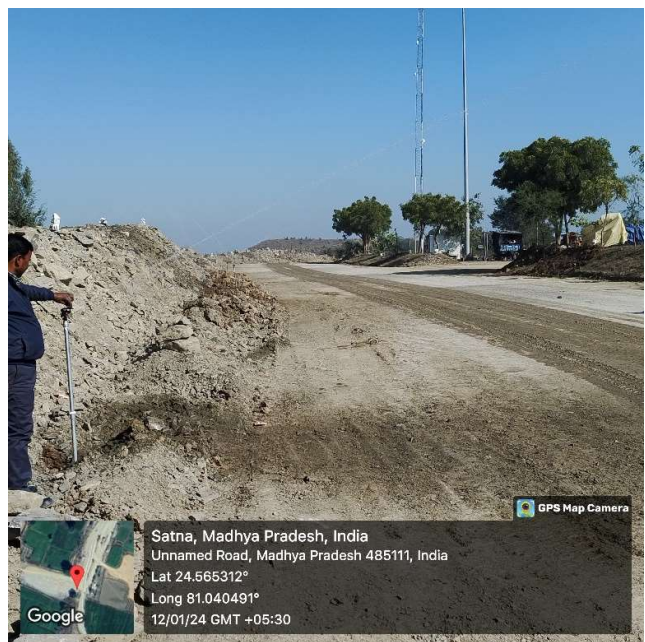
In view of the scenario explained above, it is essential to take following steps immediately:

- (i) Design mine and the pit as well as dump slope scientifically taking into consideration of geotechnical parameters of rock and the dumps including hydro geologic and weather conditions to ensure stable Pit and Dump slope profile not only during mining but also thereafter; and***
- (ii) Deploy Slope Stability Radar (SSR) with integrated visual imaging system or any similar such technology giving a real time monitoring of displacements of strata or dumps well in advance of any failure and providing mine management sufficient time to safely withdraw men and machinery from such prone areas. Such systems would not only increase safety but also the productivity and efficiency of opencast operations.***

Prism Johnson Limited

ENVIRONMENT MANAGEMENT CELL





Water Sprinkling System Along Haul Road
