



Through E-Mail

दूर की सोच®

MIN/BDR/2023/37

01<sup>st</sup> December, 2023

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 40.236 ha area of Limestone Mine of M/s Prism Johnson Ltd. In Village Bandarakha, Tehsil Rampur Baghelan, Dist. Satna (M.P.)

Ref: Your letter no. vide no. 3080/SEIAA/13, dated 20.03.2013,

Dear Sir,

We are sending enclosed herewith the six monthly compliance report (period April 23 to September 2023) of the environmental clearance granted for limestone deposit at Village- Bandarakha, Tehsil- Rampur Baghelan, Dist. Satna (M.P.) vide the letter no.3080/SIEAA/13, dated 20.03.2013, along with necessary enclosures.

We hope you will find the same in order.

Thanking you.

Yours faithfully,

For Prism Johnson Limited

Mines Manager

Bandarakha Limestone Mines

Encl: As above

**PRISM JOHNSON LIMITED**

(Cement Division)

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



**COMPLIANCE OF CONDITIONS AS STIPULATED BY MoEF LETTER VIDE NO. 3080/SEIAA/13, DATED 20.03.2013, LIMESTONE DEPOSIT OVER 40.236 HECT. AREA IN VILLAGE BANDARAKHA, TEHSIL RAMPUR BAGHELAN, DIST. SATNA (M.P.)**


<b>A. Specific Conditions :-</b>		
	<b>Conditions</b>	<b>Compliance status</b>
1.	If the land belongs to the tribal person the Collector shall ensure that the tribal person gets compensation as per rule 72 of the Mineral Concession Rule 1960 and his interests are safeguarded as per State plicy.	The land of the core area is devoid of any tribal person, therefore not applicable.
2.	Controlled blasting will be done as per guidelines of IBM; delay detonating technique will be adopted and down hole initiation system will be adopted.	Controlled blasting is being practiced using delay detonators and down the hole initiation system.
3.	All pollution control devices will be installed as per guidelines of CPCB/MPPCB.	Air, Noise & Water Quality is monitored regularly and found within the permissible limit. Ambient Air quality and Noise quality data attached as <b>Annexure- 2</b>
4.	Appropriate measures to control the silt shall be taken and reported to avoid the possible disturbance of aquatic eco system of river Tamas.	Garland drain and siltation pond have been constructed to arrest the silt and sediment flow. Garland drain having width 2.0 to 3 meters and depth of 0.75 to 1.2 meter already constructed.
5.	Dense plantation all along the transportation road has to be taken up immediately	Extensive plantation is being done along the road. 575 nos of saplings planted between April 23 to September 23
6.	Mine wise production record shall be maintained at site.	Mine production is being maintained. Mining is being carried out as per approved Mining Plan.
7.	The water reservoir as proposed in 21.12 ha shall be fenced and aesthetically developed.	Will be developed as per approved mining plan and scheme of mining by IBM. Fencing is done around mine boundary.
8.	Afforestation on 17 Ha area with minimum 17,020 numbers of trees as proposed shall be taken up with mining.	Plantation has been done in phase manner annually. Total 4720 plants have been planted on 3.85 ha area maintaining the plantation density as per the condition. 30,000 no.s of substitute plantation on 14 acre area has been done at Satari village

<b>B. GENERAL CONDITIONS:-</b>		
	<b>Conditions</b>	<b>Compliance status</b>
1.	Any addition of mining area, change of Khasra numbers, enhancement of capacity, change in mining technology, modernization and scope of	No changes have been made. Will be complied, if any change is proposed.


	working shall again require prior environment clearance as per EIA notification, 2006.																																			
2.	All activities / mitigate measures proposed by PP in Environmental Impact Assessment and approved by SEAC must be ensured.	<p>All types of mitigation measures are taken by us as per proposed plan and are mentioned below:</p> <table border="1" data-bbox="678 398 1257 1955"> <thead> <tr> <th colspan="2" data-bbox="678 398 1257 510"><b>Mitigation Measures as per REIA</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="678 510 738 589">1</td> <td data-bbox="738 510 1257 589">Wet Drilling or dry drilling with in-built cyclone and bag filter arrangement is being deployed.</td> </tr> <tr> <td data-bbox="678 589 738 667">2</td> <td data-bbox="738 589 1257 667">Water is sprayed on haul roads using water tanker.</td> </tr> <tr> <td data-bbox="678 667 738 786">3</td> <td data-bbox="738 667 1257 786">Maintenance and PUC of vehicles is done regularly to prevent air pollution, smoke and gaseous pollution.</td> </tr> <tr> <td data-bbox="678 786 738 864">4</td> <td data-bbox="738 786 1257 864">Teeth of shovel are kept sharpened to avoid dust emission.</td> </tr> <tr> <td data-bbox="678 864 738 943">5</td> <td data-bbox="738 864 1257 943">Plantation is done in phase manner to prevent dust, smoke etc.</td> </tr> <tr> <td data-bbox="678 943 738 1021">7</td> <td data-bbox="738 943 1257 1021">Plantation is done on dumps for slope stabilization.</td> </tr> <tr> <td data-bbox="678 1021 738 1140">8</td> <td data-bbox="738 1021 1257 1140">Controlled blasting with down the hole initiation is adopted which produces less noise, vibration and better fragmentation.</td> </tr> <tr> <td data-bbox="678 1140 738 1218">9</td> <td data-bbox="738 1140 1257 1218">NONEL system of initiation is followed to minimize noise.</td> </tr> <tr> <td data-bbox="678 1218 738 1296">10</td> <td data-bbox="738 1218 1257 1296">No. of blast holes per day are kept to a minimum.</td> </tr> <tr> <td data-bbox="678 1296 738 1375">11</td> <td data-bbox="738 1296 1257 1375">PPEs are distributed to workers for their safety.</td> </tr> <tr> <td data-bbox="678 1375 738 1453">12</td> <td data-bbox="738 1375 1257 1453">Appropriate subgrade drilling is being followed.</td> </tr> <tr> <td data-bbox="678 1453 738 1532">13</td> <td data-bbox="738 1453 1257 1532">Pattern blasting is being practiced which produces less noise and vibration.</td> </tr> <tr> <td data-bbox="678 1532 738 1650">14</td> <td data-bbox="738 1532 1257 1650">Physical barriers such as bunds/embankment and green belt are developed to prevent noise from going outside.</td> </tr> <tr> <td data-bbox="678 1650 738 1769">15</td> <td data-bbox="738 1650 1257 1769">Garland drains and siltation tank have been constructed to prevent water pollution and in-rush of water.</td> </tr> <tr> <td data-bbox="678 1769 738 1848">16</td> <td data-bbox="738 1769 1257 1848">Water is discharged/stored into adjoining pit after treatment with the settling pond.</td> </tr> <tr> <td data-bbox="678 1848 738 1955">17</td> <td data-bbox="738 1848 1257 1955">Extensive plantation is being carried out around the lease periphery and Tamas River side to prevent air and noise pollution.</td> </tr> </tbody> </table>	<b>Mitigation Measures as per REIA</b>		1	Wet Drilling or dry drilling with in-built cyclone and bag filter arrangement is being deployed.	2	Water is sprayed on haul roads using water tanker.	3	Maintenance and PUC of vehicles is done regularly to prevent air pollution, smoke and gaseous pollution.	4	Teeth of shovel are kept sharpened to avoid dust emission.	5	Plantation is done in phase manner to prevent dust, smoke etc.	7	Plantation is done on dumps for slope stabilization.	8	Controlled blasting with down the hole initiation is adopted which produces less noise, vibration and better fragmentation.	9	NONEL system of initiation is followed to minimize noise.	10	No. of blast holes per day are kept to a minimum.	11	PPEs are distributed to workers for their safety.	12	Appropriate subgrade drilling is being followed.	13	Pattern blasting is being practiced which produces less noise and vibration.	14	Physical barriers such as bunds/embankment and green belt are developed to prevent noise from going outside.	15	Garland drains and siltation tank have been constructed to prevent water pollution and in-rush of water.	16	Water is discharged/stored into adjoining pit after treatment with the settling pond.	17	Extensive plantation is being carried out around the lease periphery and Tamas River side to prevent air and noise pollution.
<b>Mitigation Measures as per REIA</b>																																				
1	Wet Drilling or dry drilling with in-built cyclone and bag filter arrangement is being deployed.																																			
2	Water is sprayed on haul roads using water tanker.																																			
3	Maintenance and PUC of vehicles is done regularly to prevent air pollution, smoke and gaseous pollution.																																			
4	Teeth of shovel are kept sharpened to avoid dust emission.																																			
5	Plantation is done in phase manner to prevent dust, smoke etc.																																			
7	Plantation is done on dumps for slope stabilization.																																			
8	Controlled blasting with down the hole initiation is adopted which produces less noise, vibration and better fragmentation.																																			
9	NONEL system of initiation is followed to minimize noise.																																			
10	No. of blast holes per day are kept to a minimum.																																			
11	PPEs are distributed to workers for their safety.																																			
12	Appropriate subgrade drilling is being followed.																																			
13	Pattern blasting is being practiced which produces less noise and vibration.																																			
14	Physical barriers such as bunds/embankment and green belt are developed to prevent noise from going outside.																																			
15	Garland drains and siltation tank have been constructed to prevent water pollution and in-rush of water.																																			
16	Water is discharged/stored into adjoining pit after treatment with the settling pond.																																			
17	Extensive plantation is being carried out around the lease periphery and Tamas River side to prevent air and noise pollution.																																			




		<table border="1"> <tr> <td data-bbox="671 192 738 309">18</td> <td data-bbox="738 192 1257 309">Limestone and Overburden is properly handled to prevent dust emission and its impact on nearby flora and fauna.</td> </tr> <tr> <td data-bbox="671 309 738 389">19</td> <td data-bbox="738 309 1257 389">There is a school in colony in which children of employees and villagers study.</td> </tr> <tr> <td data-bbox="671 389 738 701">20</td> <td data-bbox="738 389 1257 701">A well-equipped dispensary has been provided with 3 full time medical officers assisted by adequate paramedical staff, for the local villagers. Also, a mobile clinic van along with a doctor and paramedical staff makes regular visits to the nearby villages and provided free medical advice and medicines to the local habitants.</td> </tr> <tr> <td data-bbox="671 701 738 853">21</td> <td data-bbox="738 701 1257 853">A two lane WBM road has been constructed by the lessee connecting the national highway-75 with Sijahtta village via Mankahari and Bamhauri village.</td> </tr> <tr> <td data-bbox="671 853 738 972">22</td> <td data-bbox="738 853 1257 972">Aid is provided to the needy in the villages in the form of scholarships. Donations for conducting sports have been given.</td> </tr> </table>	18	Limestone and Overburden is properly handled to prevent dust emission and its impact on nearby flora and fauna.	19	There is a school in colony in which children of employees and villagers study.	20	A well-equipped dispensary has been provided with 3 full time medical officers assisted by adequate paramedical staff, for the local villagers. Also, a mobile clinic van along with a doctor and paramedical staff makes regular visits to the nearby villages and provided free medical advice and medicines to the local habitants.	21	A two lane WBM road has been constructed by the lessee connecting the national highway-75 with Sijahtta village via Mankahari and Bamhauri village.	22	Aid is provided to the needy in the villages in the form of scholarships. Donations for conducting sports have been given.											
18	Limestone and Overburden is properly handled to prevent dust emission and its impact on nearby flora and fauna.																						
19	There is a school in colony in which children of employees and villagers study.																						
20	A well-equipped dispensary has been provided with 3 full time medical officers assisted by adequate paramedical staff, for the local villagers. Also, a mobile clinic van along with a doctor and paramedical staff makes regular visits to the nearby villages and provided free medical advice and medicines to the local habitants.																						
21	A two lane WBM road has been constructed by the lessee connecting the national highway-75 with Sijahtta village via Mankahari and Bamhauri village.																						
22	Aid is provided to the needy in the villages in the form of scholarships. Donations for conducting sports have been given.																						
3.	All activities / mitigative measures proposed by PP in Environmental Management Plan and approved by SEAC must be ensured.	<p>All types of mitigate measures are taken by us as per proposed plan and are mentioned below:</p> <table border="1"> <thead> <tr> <th colspan="2" data-bbox="671 1077 1257 1115"><b>Mitigation Measures as per EMP</b></th> </tr> </thead> <tbody> <tr> <td colspan="2" data-bbox="671 1115 1257 1176"><b>Air Environment</b></td> </tr> <tr> <td data-bbox="671 1176 738 1451">1</td> <td data-bbox="738 1176 1257 1451">Haulage of overburden to the proposed dumps siding and that of limestone to the crusher is being done by dumpers. Water spraying is used as part of mitigation measures. No local roads are being used, still they are have been converted to WBM roads which are maintained regularly.</td> </tr> <tr> <td data-bbox="671 1451 738 1532">2</td> <td data-bbox="738 1451 1257 1532">Plantation along approach road is done to reduce spread of dust.</td> </tr> <tr> <td data-bbox="671 1532 738 1648">3</td> <td data-bbox="738 1532 1257 1648">Dust masks and other PPEs are provided to workers and it is compulsory to wear them in dusty atmosphere.</td> </tr> <tr> <td data-bbox="671 1648 738 1729">4</td> <td data-bbox="738 1648 1257 1729">Maintenance of vehicles is done regularly to prevent vehicular emissions.</td> </tr> <tr> <td data-bbox="671 1729 738 1767">5</td> <td data-bbox="738 1729 1257 1767">Regular monitoring of air quality is done.</td> </tr> <tr> <td colspan="2" data-bbox="671 1767 1257 1805"><b>Noise Environment</b></td> </tr> <tr> <td data-bbox="671 1805 738 1921">1</td> <td data-bbox="738 1805 1257 1921">Green belt development is in progress and the same will be continued in phased manner.</td> </tr> <tr> <td data-bbox="671 1921 738 2031">2</td> <td data-bbox="738 1921 1257 2031">A major portion of the transportation comes under mine lease area with 200 m minimum distance between the lease and village. Trees</td> </tr> </tbody> </table>	<b>Mitigation Measures as per EMP</b>		<b>Air Environment</b>		1	Haulage of overburden to the proposed dumps siding and that of limestone to the crusher is being done by dumpers. Water spraying is used as part of mitigation measures. No local roads are being used, still they are have been converted to WBM roads which are maintained regularly.	2	Plantation along approach road is done to reduce spread of dust.	3	Dust masks and other PPEs are provided to workers and it is compulsory to wear them in dusty atmosphere.	4	Maintenance of vehicles is done regularly to prevent vehicular emissions.	5	Regular monitoring of air quality is done.	<b>Noise Environment</b>		1	Green belt development is in progress and the same will be continued in phased manner.	2	A major portion of the transportation comes under mine lease area with 200 m minimum distance between the lease and village. Trees	
<b>Mitigation Measures as per EMP</b>																							
<b>Air Environment</b>																							
1	Haulage of overburden to the proposed dumps siding and that of limestone to the crusher is being done by dumpers. Water spraying is used as part of mitigation measures. No local roads are being used, still they are have been converted to WBM roads which are maintained regularly.																						
2	Plantation along approach road is done to reduce spread of dust.																						
3	Dust masks and other PPEs are provided to workers and it is compulsory to wear them in dusty atmosphere.																						
4	Maintenance of vehicles is done regularly to prevent vehicular emissions.																						
5	Regular monitoring of air quality is done.																						
<b>Noise Environment</b>																							
1	Green belt development is in progress and the same will be continued in phased manner.																						
2	A major portion of the transportation comes under mine lease area with 200 m minimum distance between the lease and village. Trees																						




			are being planted on both sides of the approach roads.
		3	Regular maintenance and lubrication of machineries is done.
		4	PPEs like ear plugs are provided to the workers and employees.
		5	Controlled blasting with muffles are used to minimize noise.
		<b>Water Environment</b>	
		1	To reduce suspended solids, coming to mine pits, garland drains are being constructed at around the pit and around the dumps also. All garland drains are connected to the settling tank and the water is being used for dust suppression.
		2	Mine has started its production recently. No area at the pit bottom is completely excavated out till now. The Sump will be developed in due course of time. A siltation pond has already been constructed at earmarked location.
		3	Garland drains are regularly de-silted.
		<b>Land Environment and Solid Waste Management</b>	
		1	Dumps are stabilised by plantation on slopes.
		2	Plantation has been done in phase manner annually. Total 4720 plants have been planted on 3.85 ha area maintaining the plantation density as per the condition.  30,000 no.s of substitute plantation on 14 acre area has been done at Satari village.
		<b>Biological Environment</b>	
		1	Fast growing plants are used.
		2	It has been observed that the species forms dense canopy once grown.
		3	All the species planted are local species.
			

4.	All parameters listed in Environmental Monitoring Plan approved by SEAC must be monitored at approved locations and frequencies.	Monitoring is being done at designated locations and analysis report is being submitted to MPPCB on monthly basis.											
5.	Blast vibration study shall be conducted and submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB within six months. The study shall also provide measures for prevention of blasting associated impact on nearby houses and agricultural fields.	The Blast vibration study has been conducted by AKS University Satna. The recommended blast designs in the report are being followed for day-to-day blasting operations for safe and efficient blasting operations. The copy of the same is attached as <b>Annexure-3</b>											
6.	Controlled blasting techniques with sequential drilling shall be adopted. The blasting shall be carried out in the day time only.	We practice controlled blasting using Non electric delay detonators (Nonel), limiting charge per delay and blast size. Moreover, periodical blasting study is conducted by scientific bodies, like AKS University, to evaluate and establish the safe practice of blasting so as to eliminate/minimize any adverse impact of blasting in nearby surrounding area.  All the suggestion and finding of study are implemented and all the provisions of applicable statutes and all directions/guidelines of approving authorities, like DGMS, IBM are strictly followed.											
7.	Slope of mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of Mines.	Mining benches and ultimate pit limit shall be maintained as per mining scheme approved by Indian Bureau of Mines for ensuing period.											
8.	A final mine closure plan, along with details of Corpus Fund, shall be submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB within 5 years in advance of final mine closure for approval.	Agreed. We will Submit as per stipulation.											
9.	No change in calendar plan including excavation, quantum of mineral and waste shall be made.	No changes have been made. Figures of limestone production to be furnished. <b>Production Plan for last five years for 40.236 ha.</b>											
		<table border="1"> <thead> <tr> <th>SI no.</th> <th>FY</th> <th>Production plan as per SoM</th> <th>Production as per EC limit</th> <th>Actual production</th> <th rowspan="2">Production within EC limits</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>2018-19</td> <td>200000</td> <td>240000</td> <td>192560</td> </tr> </tbody> </table>	SI no.	FY	Production plan as per SoM	Production as per EC limit	Actual production	Production within EC limits	1.	2018-19	200000	240000	192560
SI no.	FY	Production plan as per SoM	Production as per EC limit	Actual production	Production within EC limits								
1.	2018-19	200000	240000	192560									

		2.	2019-20	240000	240000	143684	
		3.	2020-21	240003	240000	239923	
		4.	2021-22	500000	240000	239685	
		5.	2022-23	500013	240000	239390	
10.	Mining will be carried out as per the approved mining plan. In case of any violation of mining plan, the Environmental clearance given by SEIAA will be stand cancelled.	Mining is being carried out as per the approved mining plan by IBM.					
11.	Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.	NOT APPLICABLE. The deposit is single mineral deposit hence, condition not applicable.					
12.	The transportation of the minerals extracted from the mining area shall be limited to day hour time only.	Limestone Mineral is strictly transported during day hours only.					
13.	Maintenance of nearby local roads through which transportation of minerals are undertaken shall be carried out by company regularly at its own expenses. The roads shall be blacked topped.	All transportation is through internal roads which are motorable, rehabilitated with stone chips and stone dust on regular basis. No local roads are being used for mineral transportation and, the roads are maintained regularly.					
14.	Measures of prevention and control of soil erosion and management of slit shall be undertaken. Protection of dumps against erosion shall be carried out with geo textile matting or other suitable mineral and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.	<p>Soil and waste dumps are stacked as per approved scheme of mining and are protected from erosion by carrying out suitable plantation, construction of toe drains and retaining wall. Also, no permanent dumps are present and temporary dumps will be used for backfilling.</p> 					

		
<p>15.</p>	<p>Trenches/garland drains shall be constructed at foot of dumps and coco filters installed at regular intervals to arrest silt from being carried to water bodies. Adequate number of check dams and gully plugs shall be constructed across seasonal/perennial Nallahs, if any, flowing through the ML area and silts arrested. De-silting at regular intervals shall be carried out.</p>	<p>Trenches/garland drains with settling pond is being constructed at foot of dumps and these drains connect to settling pond which is de-silted at regular intervals. There is no water body, streams exist within the ML area neither seasonal nor perennial. The water discharge from the mine is nil. Siltation pond has been constructed to arrest the silt.</p> 
<p>16.</p>	<p>The project proponent will ensure necessary protection measures around the mine pit, waste dumps and garland drain.</p>	<p>Proper berms garland drains and fencing are constructed around mine pit area and garland drains with retaining wall have been provided.</p> 
<p>17.</p>	<p>Top soil / solid waste shall be stacked properly with proper slope and adequate safeguards and shall be utilized for backfilling (where ever applicable) for reclamation and rehabilitation of mined out area. Top soil</p>	<p>Top soil/ solid waste generated during mining is stacked separately &amp; will be used for reclamation of mined out area by spreading it over the waste rock after backfilling. Dumps are maintained as per mine plan. Dumps are temporary. The top soil is being used for greenbelt development. The stored soil will also used for plantation in barrier zones and over backfilled area to be developed in future.</p>

	shall be separately stacked for utilization later for reclamation and shall not be stacked along with over burden.	
18.	Over burden(OB)shall be stacked at earmarked dumpsite(s) only and shall not be kept active for long period., The maximum height of dump shall not exceed 20m, each stage shall preferably be of maximum 10 m and overall slope of the dump shall not exceed 35°. The OB dump shall be backfilled and shall be scientifically vegetated with suitable native species to prevent erosion and surface run off.	<p>The Overburden generated during mining has been stacked at earmarked dump site only and is being stacked in 1 or 2 stages, height of each stack not exceeding 10m and slope not exceeding 35°. The dumps shall be backfilled as approved mine plan by IBM. Plantation is being done on dumps for slope stabilization and to prevent surface runoff.</p> 
19.	Minimum 1000 plants shall be planted in one year and 5000 plants shall be planted in first five years.	<p>Plantation has been done in phase manner annually. Total 4720 plants have been planted on 3.85 ha area maintaining the plantation density as per the condition.</p> <p>30,000 nos of substitute plantation on 14 acre area has been done at Satri village.</p>
20.	Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB on six monthly basis.	Requirement is being complied. The compliance reports are being sent every six months to the Regional Office, MoEF, Gol, Bhopal and MPPCB.
21.	By the end of the lease period 33% of the area should be brought under plantation.	Out of 32.15 ha of broken area, 10.75 ha will be reclaimed and rehabilitated by way of backfilling and plantation at the end of life of the mines.
22.	Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with local DFO/Agricultural Deptt. Herbs / shrubs shall also form a part	Greenbelt is being developed in phased manner. All plants species are selected on recommendations of District Forest Officer and local villagers. The compliance reports are being sent every six months to the Regional Office, MoEF, Gol, Bhopal and MPPCB. Species list from DFO & local villagers



	<p>of afforestation programme besides tree plantation. The company shall involve local people for plantation programme. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB every year.</p>	
23.	<p>Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of minerals and others shall have valid permissions as prescribed under Central Motor Vehicle Rules,1989 and its amendments. The vehicles transporting minerals shall be covered with a tarpaulin or other suitable enclosures so that no dust particles / fine matters escape during the course of transportation. No overloading of minerals for transportation shall be committed. The truck transporting minerals shall not pass through wild life sanctuary, if any in the study area.</p>	<p>Emission from the vehicles engaged in the Prism Cement is kept under control.</p> <p>A centralized workshop has been established. Regular maintenance of all vehicles is done as per manufacturer's maintenance schedule i.e. changing of timely diesel filters, calibration of Fuel pump, overhauling of engines etc.</p> <p>No vehicles without valid PUC area allowed to be deployed inside the plant and mines area.The vehicles engaged in transportation of minerals outside the core zone will be provided with tarpaulin and overloading is not allowed.</p>
24.	<p>For ambient air quality monitoring stations shall be established in core zone as well as in the buffer zone for RSPM,SPM,SO2,NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in</p>	<p>Ambient air quality monitoring for the given parameters will be done as per the directions given and data generated is being uploaded on company website.</p>

	consultation with State Pollution Control Board. The monitored data for criteria pollutants shall be regularly uploaded and displayed on the company's website.																						
25.	Data on ambient air quality (RPM, SPM, SO <sub>2</sub> , and NO <sub>x</sub> ) should be regularly submitted to the Regional Office, MoEF, Gol, Bhopal and state Pollution Control Board / Central pollution control Board once in six months.	Being done.  The compliance reports are being sent every six months to the Regional Office, MoEF, Gol, Bhopal and MPPCB. Ambient air quality monitoring results have been given in <b>Annexure 02</b> .																					
26.	Ambient air quality at the boundary of mine premises shall confirm to the norms prescribed in MoEF notification No. GSR/826(E) dtd. 16.11.09.	Being complied. All Air quality parameters monitored are within NAAQS standards. Ambient air quality monitoring results attached as <b>Annexure 2</b> .																					
27.	Fugitive dust emissions from all sources shall be controlled. Water spraying arrangement on haul, roads, loading and unloading at transfer points shall be provided and properly maintained. The dust emission shall be monitored regularly as per norms and records to be submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB regularly.	Water sprinkling is being done on haul roads for dust suppression. Wet drilling is being practiced. Vehicle speed is limited below 20 km/hr. Regular monitoring of dust emission is being done through NABL/ MoEFCC accredited laboratory. Dust emission norms are being complied and the report is being submitted.  The compliance report are being sent every six months to the Regional Office, MoEF, Gol, Bhopal and MPPCB.																					
28.	Measures shall be taken control of noise level below 75dBA in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs/muffs and health records of workers shall be maintained.	Ambient Noise level is monitored at designated locations and report is being submitted to MPPCB on monthly basis. Noise monitoring report have been given in <b>Annexure- 2</b> .  All the workers engaged in mining activity shall be provided the PPEs including ear plugs and muffs and health checkup is being done and records being maintained.  <table border="1" data-bbox="678 1749 1305 2020"> <thead> <tr> <th colspan="3">Total PPE's for Mines- Jan 23 to Nov 23</th> </tr> <tr> <th>Material</th> <th>Qty.</th> <th>Amount in Rs.</th> </tr> </thead> <tbody> <tr> <td>Dust Mask</td> <td>180</td> <td>2741.4</td> </tr> <tr> <td>Google Safety Glass PVC.</td> <td>60</td> <td>3049.8</td> </tr> <tr> <td>Hand Gloves</td> <td>160</td> <td>5472</td> </tr> <tr> <td>Helmet Industrial Safety</td> <td>65</td> <td>7475</td> </tr> <tr> <td>Jacket fluorescent High Visibility Wear</td> <td>190</td> <td>24130</td> </tr> </tbody> </table>	Total PPE's for Mines- Jan 23 to Nov 23			Material	Qty.	Amount in Rs.	Dust Mask	180	2741.4	Google Safety Glass PVC.	60	3049.8	Hand Gloves	160	5472	Helmet Industrial Safety	65	7475	Jacket fluorescent High Visibility Wear	190	24130
Total PPE's for Mines- Jan 23 to Nov 23																							
Material	Qty.	Amount in Rs.																					
Dust Mask	180	2741.4																					
Google Safety Glass PVC.	60	3049.8																					
Hand Gloves	160	5472																					
Helmet Industrial Safety	65	7475																					
Jacket fluorescent High Visibility Wear	190	24130																					

		Plug Ear muff	280	2240	
		Safety Shoes	330	335940	
		<b>TOTAL</b>	<b>1265</b>	<b>381048.2</b>	
29.	Rain water harvesting shall be undertaken to recharge the ground water source. Status of implementation shall be submitted to the Regional Office, MoEF, Gol, Bhopal and MP PCB within six months and thereafter every year from the next consequent year.	<p>Rainwater harvesting practices have been implemented. 12 Nos of rooftop rainwater harvesting system, 4 abandoned pits and 4 nos of recharge pits have been constructed inside plant, mines and township.</p> <p>Other than this, the company has taken various initiatives like, construction of water harvesting structures on wells, ponds, pond deepening, maintenance of check dams, perforated drum water harvesting structures.</p>			
30.	Regular monitoring of ground and surface water sources for level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried four times a year i.e. pre-monsoon (April-May), Monsoon (August), Post monsoon (November) and winter(January) and the data thus collected shall be regularly sent to the Regional Office, MoEF, Gol, Bhopal and MP PCB, Central Ground Water Authority and Regional Director, Central Ground Water Board.	<p>12 Piezometers have been constructed to monitor ground level. Water level and quality is analyzed in Pre - Monsoon, Monsoon, Post Monsoon, and winter seasons. Report of monitoring is generated and submitted to MoEF-&amp;CC Bhopal, MPPCB, and CGWA &amp; CGWB. Groundwater quality report and level is attached is <b>Annexure- 4</b></p> <p>Since the mine working is restricted above the ground water table, there is no chance of contamination of ground water.</p>			
31.	The waste water from the mine if any shall be treated to conform to the standards prescribed under GSR 422(E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. The oil and grease trap shall be installed for the effluents generated from the workshop, if any, before discharging into the natural stream. The discharged water from tailing	<p>Not Applicable.</p> <p>No workshop in lease area, we have a common workshop for all leases with appropriate arrangements.</p>			



	dam,if any shall be regularly monitored and report submitted to the Regional Office, MoEF, Gol, Bhopal, Central Pollution Control Board, and the State Pollution Control Board.	
32.	Hydro-geological study of the area shall be reviewed by project proponent annually.In case adverse effect on ground water quality and quantity is observed mining shall be stopped and resumed only after mitigating steps to contain any adverse impact on ground water is implemented.	<p>The hydrogeological study of the area is reviewed as required.</p> <p>Excavation of limestone is proposed up to only 16m and currently we are working at a depth of 10m to 14m only. Water table will not be intersected.</p> <p>Regular monitoring of groundwater is carried out via piezometers.</p>
33.	Occupational health checkup for workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipment etc. shall be carried out periodically. Review of impact of various health measures shall be conducted followed by follow up action wherever required. It should be made available for inspection whenever asked. Necessary funds for this also should be earmarked.	<p>Periodical Medical Examinations are conducted for each employee by outside specialists once in every 5 years. Under this scheme each employee undergoes Pathological tests, blood group test, chest X-Rays, Audiometry tests, eye test etc. once every 5 years. Proper records of such tests are maintained.</p> <p>All the workers engaged in mining activityis provided with the PPEs including ear plugs and muffs and health checkup is being done and records being maintained.</p> <p>Awareness training programs related to health and safety is given to all workers at VT centre.</p> <p>The Report of the OHC is attached as <b>Annexure 5</b> for reference.</p>

34.	Project proponent shall ensure appropriate arrangement for shelter and drinking water for the mine workers.	Appropriate arrangements shelter and drinking water is provided in the adjacent mine for all the mine workers. Drinking water is supplied through 20Litre capacity thermo flasks																														
35.	Person working in dusty areas shall be provided with protective respiratory devices and they shall also be imported adequate training and information on safety and health aspects.	<p>PPE's are provided to each employees.</p> <p>Respiratory devices are being used by the persons working in dusty areas.</p> <p>Adequate training on Integrated Management system, safety and health awareness is being provided to workers frequently.</p> <p>PPEs distribution details are as follows:</p> <table border="1" data-bbox="676 779 1305 1167"> <thead> <tr> <th colspan="3">Total PPE's for Mines- Jan 23 to Nov 23</th> </tr> <tr> <th>Material</th> <th>Qty.</th> <th>Amount in Rs.</th> </tr> </thead> <tbody> <tr> <td>Dust Mask</td> <td>180</td> <td>2741.4</td> </tr> <tr> <td>Google Safety Glass PVC.</td> <td>60</td> <td>3049.8</td> </tr> <tr> <td>Hand Gloves</td> <td>160</td> <td>5472</td> </tr> <tr> <td>Helmet Industrial Safety</td> <td>65</td> <td>7475</td> </tr> <tr> <td>Jacket fluorescent High Visibility Wear</td> <td>190</td> <td>24130</td> </tr> <tr> <td>Plug Ear muff</td> <td>280</td> <td>2240</td> </tr> <tr> <td>Safety Shoes</td> <td>330</td> <td>335940</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>1265</b></td> <td><b>381048.2</b></td> </tr> </tbody> </table>	Total PPE's for Mines- Jan 23 to Nov 23			Material	Qty.	Amount in Rs.	Dust Mask	180	2741.4	Google Safety Glass PVC.	60	3049.8	Hand Gloves	160	5472	Helmet Industrial Safety	65	7475	Jacket fluorescent High Visibility Wear	190	24130	Plug Ear muff	280	2240	Safety Shoes	330	335940	<b>TOTAL</b>	<b>1265</b>	<b>381048.2</b>
Total PPE's for Mines- Jan 23 to Nov 23																																
Material	Qty.	Amount in Rs.																														
Dust Mask	180	2741.4																														
Google Safety Glass PVC.	60	3049.8																														
Hand Gloves	160	5472																														
Helmet Industrial Safety	65	7475																														
Jacket fluorescent High Visibility Wear	190	24130																														
Plug Ear muff	280	2240																														
Safety Shoes	330	335940																														
<b>TOTAL</b>	<b>1265</b>	<b>381048.2</b>																														
36.	Commitment towards CSR has to be followed strictly.	<p>Being followed.</p> <p>Various programs for training for community welfare have been taken up by the company. Various social, educational, healthcare and environment initiatives have been taken by the company. Drinking water facility has been provided; Construction of WBM roads, Toilets have been done. Installation of new hand-pumps with borewell, whitewash of Government Middle &amp; Primary School, renovation of Bahuuddeshiya Bhavan has been done. Free consultation &amp; medicines distribution from PCL Medical centre Out door patient to nearby villagers.Organisation eye Camp for cataract patients from nearby villages (20 Nos.). 24 hrs ambulance facility to nearby villagers free of cost and many other activities have been undertaken in CSR.CSR expenditure for the period April 23- March 24 is attached as <b>Annexure-6</b>.</p>																														
37.	Special measures shall be adopted to prevent the nearby settlements from the impacts of mining activities.	There is no nearby settlement in the close vicinity to the mines. the nearest settlement is more than 250m away. All measures is being adopted while mining as per guidelines of MMR 1961 and Mines Act 1952 and as per the benefit of																														

		the community.																																				
38.	The project proponent shall inform to the to the Regional Office, MoEF, Gol, Bhopal and MP PCB regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	The intimation has been sent to MoEF Gol, Bhopal and MPPCB regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work after the start of the project.																																				
39.	The necessary funds as per mandate shall kept for environmental protective measures which should be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Regional Office, MoEF, Gol, Bhopal and MP PCB.	<p>Complying with the given condition, we have earmarked a fund for environmental protection equipment the fund will not diverted for any other purpose.</p> <p>The capital cost and recurring cost annum earmarked for environmental protection is given below:</p> <p>Year wise expenditure is being reported through the six monthly compliance report.</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Particulars</th> <th>Proposed Capital cost</th> <th>Proposed Annual recurring cost</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Pollution Control</td> <td>4.19</td> <td>0.23</td> </tr> <tr> <td>2.</td> <td>Pollution Monitoring</td> <td>-</td> <td>2</td> </tr> <tr> <td>3.</td> <td>Occupational Health &amp; Safety</td> <td>-</td> <td>1.31</td> </tr> <tr> <td>4.</td> <td>Afforestation</td> <td>-</td> <td>1.4</td> </tr> <tr> <td>5.</td> <td>Reclamation / Rehabilitation of mined out area</td> <td>0</td> <td>3</td> </tr> <tr> <td>6.</td> <td>Others ( Fencing and safety)</td> <td>5.76</td> <td>-</td> </tr> <tr> <td>7.</td> <td>Environmental Studies &amp; Fees</td> <td>0.8</td> <td>0.44</td> </tr> <tr> <td colspan="2"><b>Total</b></td> <td><b>10.75</b></td> <td><b>8.38</b></td> </tr> </tbody> </table> <p style="text-align: right;">(in Lac Rupees)</p>	S. No.	Particulars	Proposed Capital cost	Proposed Annual recurring cost	1.	Pollution Control	4.19	0.23	2.	Pollution Monitoring	-	2	3.	Occupational Health & Safety	-	1.31	4.	Afforestation	-	1.4	5.	Reclamation / Rehabilitation of mined out area	0	3	6.	Others ( Fencing and safety)	5.76	-	7.	Environmental Studies & Fees	0.8	0.44	<b>Total</b>		<b>10.75</b>	<b>8.38</b>
S. No.	Particulars	Proposed Capital cost	Proposed Annual recurring cost																																			
1.	Pollution Control	4.19	0.23																																			
2.	Pollution Monitoring	-	2																																			
3.	Occupational Health & Safety	-	1.31																																			
4.	Afforestation	-	1.4																																			
5.	Reclamation / Rehabilitation of mined out area	0	3																																			
6.	Others ( Fencing and safety)	5.76	-																																			
7.	Environmental Studies & Fees	0.8	0.44																																			
<b>Total</b>		<b>10.75</b>	<b>8.38</b>																																			
40.	The Regional Office, MoEF, Gol, Bhopal and MP PCB shall monitor compliance of the stipulated conditions. A	Agreed. The Six monthly Compliance is being submitted to MoEFCC, Bhopal and MPPCB regularly and the same is being monitored as per the norms. The reference letter nos are mentioned in table below:																																				

	<p>complete set of documents including Environment impact Assessment Report, Environmental Management Plan, public Hearing and other relevant documents should be given to the Regional Office, MoEF, Gol, Bhopal and MP PCB.</p>	<table border="1"> <thead> <tr> <th rowspan="2">Year</th> <th colspan="2">Bandarkha Limestone Mine</th> </tr> <tr> <th>Dispatch no.</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td rowspan="2">2019</td> <td>MIN/2019/ BDR/038</td> <td>01.06.2019</td> </tr> <tr> <td>MIN/2019- BDR/90</td> <td>04.12.2019</td> </tr> <tr> <td rowspan="2">2020</td> <td>MIN/2020- BDR/0140</td> <td>01.06.2020</td> </tr> <tr> <td>MIN/2020- BDR/0169</td> <td>02.12.2020</td> </tr> <tr> <td rowspan="2">2021</td> <td>MIN/2021- BDR/087</td> <td>01.06.2021</td> </tr> <tr> <td>MIN/2021- BDR/058</td> <td>01.12.2021</td> </tr> <tr> <td rowspan="2">2022</td> <td>MIN/2022-BDR/31</td> <td>01.06.2022</td> </tr> <tr> <td>MIN/2022-BDR/50</td> <td>01.12.2022</td> </tr> <tr> <td>2023</td> <td>MIN/BDR/2023/22</td> <td>01.06.2023</td> </tr> </tbody> </table>	Year	Bandarkha Limestone Mine		Dispatch no.	Date	2019	MIN/2019/ BDR/038	01.06.2019	MIN/2019- BDR/90	04.12.2019	2020	MIN/2020- BDR/0140	01.06.2020	MIN/2020- BDR/0169	02.12.2020	2021	MIN/2021- BDR/087	01.06.2021	MIN/2021- BDR/058	01.12.2021	2022	MIN/2022-BDR/31	01.06.2022	MIN/2022-BDR/50	01.12.2022	2023	MIN/BDR/2023/22	01.06.2023
Year	Bandarkha Limestone Mine																													
	Dispatch no.	Date																												
2019	MIN/2019/ BDR/038	01.06.2019																												
	MIN/2019- BDR/90	04.12.2019																												
2020	MIN/2020- BDR/0140	01.06.2020																												
	MIN/2020- BDR/0169	02.12.2020																												
2021	MIN/2021- BDR/087	01.06.2021																												
	MIN/2021- BDR/058	01.12.2021																												
2022	MIN/2022-BDR/31	01.06.2022																												
	MIN/2022-BDR/50	01.12.2022																												
2023	MIN/BDR/2023/22	01.06.2023																												
41.	<p>A copy of the environmental clearance shall be submitted by the project proponent to the Heads of the local Bodies, Panchayat and Municipal Bodies, as applicable, in addition to the relevant officers of the Government who in turn has to display the same for 30 days from the date of receipt.</p>	<p>A copy of the environmental clearance already has been submitted to Panchayat and SDO Office, Rampur Baghelan. Attached as <b>Annexure 7</b>.</p>																												
42.	<p>The project proponent shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at website of State Level Environment Impact Assessment Authority (SEIAA) website at <a href="http://www.mpseiaa.nic.in">www.mpseiaa.nic.in</a> and a copy of the same shall be forwarded to the Regional</p>	<p>Complied. News of accorded EC was published in two newspapers on 02.04.13.</p>																												

	Office, MoEF, Gol, Bhopal.																													
43.	The project proponent has to strictly follow directions/guideline issued by MoEF, Gol, CPCB and other Govt. agencies from time to time.	Agreed.																												
44.	Action plan with respect to suggestion/ improvement and recommendations made and agreed during public hearing consultation shall be submitted to the regional Office, , MoEF, Gol, Bhopal and MP PCB and to the competent authority of state govt. within six months.	Complied. Status of suggestions and recommendations received during public hearing is enclosed as <b>Annexure-1</b> .																												
45.	The project proponent has to submit half yearly compliance report of the stipulated prior environmental clearance terms and conditions in hard and soft copy to the regulatory Authority on 1 <sup>st</sup> June and 1 <sup>st</sup> December of each calendar year.	<p>The six monthly Compliance report is submitted twice every year. The reference letter nos are mentioned in table below:</p> <table border="1"> <thead> <tr> <th rowspan="2">Year</th> <th colspan="2">Bandarkha Limestone Mine</th> </tr> <tr> <th>Dispatch no.</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td rowspan="2">2019</td> <td>MIN/2019/ BDR/038</td> <td>01.06.2019</td> </tr> <tr> <td>MIN/2019- BDR/90</td> <td>04.12.2019</td> </tr> <tr> <td rowspan="2">2020</td> <td>MIN/2020- BDR/0140</td> <td>01.06.2020</td> </tr> <tr> <td>MIN/2020- BDR/0169</td> <td>02.12.2020</td> </tr> <tr> <td rowspan="2">2021</td> <td>MIN/2021- BDR/087</td> <td>01.06.2021</td> </tr> <tr> <td>MIN/2021- BDR/058</td> <td>01.12.2021</td> </tr> <tr> <td rowspan="2">2022</td> <td>MIN/2022-BDR/31</td> <td>01.06.2022</td> </tr> <tr> <td>MIN/2022-BDR/50</td> <td>01.12.2022</td> </tr> <tr> <td>2023</td> <td>MIN/BDR/2023/22</td> <td>01.06.2023</td> </tr> </tbody> </table>	Year	Bandarkha Limestone Mine		Dispatch no.	Date	2019	MIN/2019/ BDR/038	01.06.2019	MIN/2019- BDR/90	04.12.2019	2020	MIN/2020- BDR/0140	01.06.2020	MIN/2020- BDR/0169	02.12.2020	2021	MIN/2021- BDR/087	01.06.2021	MIN/2021- BDR/058	01.12.2021	2022	MIN/2022-BDR/31	01.06.2022	MIN/2022-BDR/50	01.12.2022	2023	MIN/BDR/2023/22	01.06.2023
Year	Bandarkha Limestone Mine																													
	Dispatch no.	Date																												
2019	MIN/2019/ BDR/038	01.06.2019																												
	MIN/2019- BDR/90	04.12.2019																												
2020	MIN/2020- BDR/0140	01.06.2020																												
	MIN/2020- BDR/0169	02.12.2020																												
2021	MIN/2021- BDR/087	01.06.2021																												
	MIN/2021- BDR/058	01.12.2021																												
2022	MIN/2022-BDR/31	01.06.2022																												
	MIN/2022-BDR/50	01.12.2022																												
2023	MIN/BDR/2023/22	01.06.2023																												
46.	The SEIAA of MP reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including revoking of the environment clearance under the provisions of the	Agreed.																												

	environmental (protection) Act,1986,to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	
47.	These stipulations would be enforced among others under the provisions of water(Prevention and control of pollution) act,1974,the air(Prevention and control of pollution) Act 1981,the Environment(Protection) Act,1986 the public Liability (insurance) Act 1991 and EIA Notification,2006.	Agreed.
48.	The Ministry or any other competent authority may alter/modify the conditions or stipulate any further condition in the interest of environment Protection.	Agreed.
49.	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may results In withdrawal of this clearance and attract action under the provisions of environment (protection) Act, 1986.	We understand that concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may results In withdrawal of this clearance and attract action under the provisions of environment (protection) Act, 1986.
50.	Any appeal against this prior. Environmental Clearance shall lie with the green tribunal,If necessary, within a period of 30 days as prescribed under section 16 of the national Green tribunal Act, 2010.	Agreed.
51.	All other statutory clearances such as the approvals for storage of diesel from chief	Not applicable.

	<p>controller of explosives, fire department, civil aviation department, Forest conservation act, 1980 and wildlife (protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective component authorities.</p>																													
<p>52.</p>	<p>The proponent shall upload the status of compliances of stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of MoEF, the respective zonal office of CPCB and the SPCB. The criteria pollutant levels namely,SPM, RSPM,SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projected shall be monitored and displayed at a convenient location near the main gate of the company In the public domain.</p>	<p>The six-monthly EC compliance report is being uploaded on company website.</p> <p>The six monthly Compliance report is submitted twice every year to the regional office of MoEF, the respective zonal office of CPCB and the SPCB.. The reference letter nos are mentioned in table below:</p> <table border="1" data-bbox="767 864 1362 1529"> <thead> <tr> <th rowspan="2">Year</th> <th colspan="2">Bandarkha Limestone Mine</th> </tr> <tr> <th>Dispatch no.</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td rowspan="2">2019</td> <td>MIN/2019/ BDR/038</td> <td>01.06.2019</td> </tr> <tr> <td>MIN/2019- BDR/90</td> <td>04.12.2019</td> </tr> <tr> <td rowspan="2">2020</td> <td>MIN/2020- BDR/0140</td> <td>01.06.2020</td> </tr> <tr> <td>MIN/2020- BDR/0169</td> <td>02.12.2020</td> </tr> <tr> <td rowspan="2">2021</td> <td>MIN/2021- BDR/087</td> <td>01.06.2021</td> </tr> <tr> <td>MIN/2021- BDR/058</td> <td>01.12.2021</td> </tr> <tr> <td rowspan="2">2022</td> <td>MIN/2022-BDR/31</td> <td>01.06.2022</td> </tr> <tr> <td>MIN/2022-BDR/50</td> <td>01.12.2022</td> </tr> <tr> <td>2023</td> <td>MIN/BDR/2023/22</td> <td>01.06.2023</td> </tr> </tbody> </table>	Year	Bandarkha Limestone Mine		Dispatch no.	Date	2019	MIN/2019/ BDR/038	01.06.2019	MIN/2019- BDR/90	04.12.2019	2020	MIN/2020- BDR/0140	01.06.2020	MIN/2020- BDR/0169	02.12.2020	2021	MIN/2021- BDR/087	01.06.2021	MIN/2021- BDR/058	01.12.2021	2022	MIN/2022-BDR/31	01.06.2022	MIN/2022-BDR/50	01.12.2022	2023	MIN/BDR/2023/22	01.06.2023
Year	Bandarkha Limestone Mine																													
	Dispatch no.	Date																												
2019	MIN/2019/ BDR/038	01.06.2019																												
	MIN/2019- BDR/90	04.12.2019																												
2020	MIN/2020- BDR/0140	01.06.2020																												
	MIN/2020- BDR/0169	02.12.2020																												
2021	MIN/2021- BDR/087	01.06.2021																												
	MIN/2021- BDR/058	01.12.2021																												
2022	MIN/2022-BDR/31	01.06.2022																												
	MIN/2022-BDR/50	01.12.2022																												
2023	MIN/BDR/2023/22	01.06.2023																												
<p>53.</p>	<p>The environmental statement for each financial Year ending 31st march in form-V as is mandated to be submitted by the project proponent to the Concerned state pollution control board as Prescribed under the environment (protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the</p>	<p>The environmental statement for financial Year has been submitted to MPPCB Vid letter no. PJI/ENV/2023/722 dated 08/09/2023.</p>																												

	status of compliances of EC condition and shall also be sent to the regional office of MoEF.	
--	--	--



Suggestions received during Public Hearing of 40.236 Ha Badarkha Limestone Mines of M/s Prism Cement Limited at Govt. Primary Shala, Badarkha Dated 07.07.2012

S. No	Name and Address	Query	Reply
1	Shri Chhatrapati Singh, President, Seva Sahkari Samiti Vill-Sijahata	Agree with project implementation, development of the area will take place, social status of general public of the area will be improved	Thanks for your co-operation, employment will be given according to eligibility & requirement
2	Smt. Shanti Kori, Sarpanch, Vill - Himant, Dist - Satna	Requested for employment to villagers, plantation, requested the villagers to cooperate the company in establishing the mines	Thanks for your co-operation. Dense plantation will be done in mines periphery, employment will be given according to eligibility & requirement
3	Shri Jagdish Singh S/O Sukhdev Singh Vill-Badarkha, Distt - Satna	Area will be developed, employment will be given to villagers, no objection in establishing mines	Thanks for your co-operation, employment will be given according to eligibility & requirement
4	Shri Mohit Singh, S/O Shri Ram Charit Singh Vill- Badarkha, Distt - Satna	Area will be developed, employment will be given to villagers	Thanks for your co-operation, employment will be given according to eligibility & requirement
5	Shri Rohini Singh, Vill - Badarkha, Distt - Satna	Agree with project implementation, Area will be developed, employment will be given to villagers	Thanks for your co-operation, employment will be given according to eligibility & requirement
6	Shri Ganesh Singh, Vill - Badarkha, Distt - Satna	Agree with project implementation, Area will be developed, employment will be given to villagers	Thanks for your co-operation, employment will be given according to eligibility & requirement
7	Shri Ramesh Singh, Vill - Badarkha, Distt - Satna	Agree with project implementation, Area will be developed, employment will be given to villagers	Thanks for your co-operation, employment will be given according to eligibility & requirement
8	Shri Hari Shankar Tiwari, Vill - Mau, Distt - Rewa	<ol style="list-style-type: none"> <li>1- Noise Pollution due to blasting – hearing impairment, mental ill health etc.</li> <li>2- Air pollution due to Blasting, cement manufacturing process</li> <li>3- Increase of pollutant matter in air</li> <li>4- Water pollution due to settling of dust, stone and smoke from air into water body, ground water level will also be affected.</li> <li>5- Geological problems – all the living being will be scared of vibration caused due to blasting. Mining will be deeper enough due to which earth strata will become weak, release of poisonous gases,</li> </ol>	<p>Controlled blasting will be done as per guidelines of IBM, delay detonating technique will be adopted due to which no hearing impairment or mental ill health is possible</p> <p>Air pollution control devices will be installed at all the point sources and have been already installed at various locations (emission points) in plant.</p> <p>Wet drilling will be done, water spray on haul roads.</p> <p>All due care will be made to arrest the dust generated at source, ground water level will be improved due to collection of rainy water in abandoned mine pits</p> <p>No mining will be done beyond permitted depth assigned by IBM by which no effect is envisaged on earth strata and no possibility of release of poisonous gases, earthquake and landslide</p>

		<p>earthquake and landslide may be caused</p> <p>6- Mental problems – pollutants released may cause mental ill health, man of an ordinary prudence, thinking ability etc will also be affected.</p> <p>7- Physical problems – mining will cause physical problems in 50 km of radius. Progenies will face problems of infertility, handicapped, dwarfness, annoyance, madness etc.</p> <p>8- Problems of Homes- cracks in walls or collapse of buildings within 10-15 years</p> <p>9- Effects on youths &amp; pregnant ladies- development of infants, youths and pregnant ladies will be affected.</p> <p>10- Effects on farmers – life of farmers will be ill affected who are totally dependent on agriculture</p> <p>11- Affection with parental birth place- people who leaves their homes even without their own will</p>	<p>All the pollution control devices will be installed as per guidelines of CPCB/ MPPCB to avoid the release of pollutant. Cause of mental ill health is not possible.</p> <p>No possibility of any such physical problems</p> <p>Mining will be done as per guidelines of IBM and ground vibration will be monitored regularly, vibration will not be enough to cause harm to the homes as all the guidelines of IBM will be followed</p> <p>Not acceptable, no effect on development of infants, youths and pregnant ladies, with the compliance of statutory guidelines</p> <p>Not acceptable, due to compliance of related guidelines of the Govt., there will be no adverse effect. Life style will be improved.</p> <p>There is no habitation in the lease area hence the allegation is not acceptable</p>
--	--	---	--

Sample Number : VTL/AA/21

M/s PRISM JOHNSON LIMITED

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

Name & Address of the Party :

Report No. : VTL/A/2306170005/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**

Sampling Location : Village - Kulhari (Bandarkha Mine)  
 Sample Collected By : VTL Team  
 Sampling Equipment used : RDS/FPS  
 Instrument Code : VTL/RDS/FPS/03  
 Coordinates : 81.034753 & 24.567341  
 Meteorological condition during monitoring : Clear Sky  
 Date of Monitoring : 12/06/2023 To 13/06/2023  
 Time of Monitoring : 17:30 to 17:30 Hrs.  
 Ambient Temperature (°C) : Min.32° Max 43°  
 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	58.70	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	26.46	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	15.24	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	10.69	µg/m <sup>3</sup>	80

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

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



*[Signature]*

Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory

*[Signature]*



Page No. 1/1

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

**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



Sample Number : VTL/AA/21

M/s PRISM JOHNSON LIMITED

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

Name & Address of the Party :

Report No. : VTL/A/2306170005/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**

Sampling Location : Village - Kulhari (Bandarkha Mine)  
 Sample Collected By : VTL Team  
 Sampling Equipment used : RDS/FPS  
 Instrument Code : VTL/RDS/FPS/03  
 Coordinates : 81.034753 & 24.567341  
 Meteorological condition during monitoring : Clear Sky  
 Date of Monitoring : 12/06/2023 To 13/06/2023  
 Time of Monitoring : 17:30 to 17:30 Hrs.  
 Ambient Temperature (°C) : Min.32° Max 43°  
 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	0.50	mg/m <sup>3</sup>	4

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

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

**VIBRANT**  
"Experience the unimaginable"



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory

Sample Number : VTL/AA/20

M/s PRISM JOHNSON LIMITED

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

Name & Address of the Party :

Report No. : VTL/A/2306170006/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**

Sampling Location : Village - Chulhi (Bandarkha Mine)  
 Sample Collected By : VTL Team  
 Sampling Equipment used : RDS/FPS  
 Instrument Code : VTL/RDS/FPS/02  
 Coordinates : 81.002619 & 24.594461  
 Meteorological condition during monitoring : Clear Sky  
 Date of Monitoring : 12/06/2023 To 13/06/2023  
 Time of Monitoring : 15:20 to 15:20 Hrs.  
 Ambient Temperature (°C) : Min.32° Max 43°  
 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	61.20	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	24.79	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	13.82	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	9.52	µg/m <sup>3</sup>	80

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

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



*[Signature]*

Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory

*[Signature]*



Page No. 1/1

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

**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"

**TEST REPORT**

Sample Number : VTL/AA/20

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

Report No. : VTL/A/2306170006/B  
Format No : 7.8 F-02  
Party Reference No : NIL  
Report Date : 23/06/2023  
Period of Analysis : 17/06/2023-23/06/2023  
Receipt Date : 17/06/2023

Name & Address of the Party :

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**

- Sampling Location : Village - Chulhi (Bandarkha Mine)
- Sample Collected By : VTL Team
- Sampling Equipment used : RDS/FPS
- Instrument Code : VTL/RDS/FPS/02
- Coordinates : 81.002619 & 24.594461
- Meteorological condition during monitoring : Clear Sky
- Date of Monitoring : 12/06/2023 To 13/06/2023
- Time of Monitoring : 15:20 to 15:20 Hrs.
- Ambient Temperature (°C) : Min.32° Max 43°
- 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	0.47	mg/m <sup>3</sup>	4

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

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



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory

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

**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

Sample Number : VTL/AA/19

M/s PRISM JOHNSON LIMITED

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

Name & Address of the Party :

Report No. : VTL/A/2306170007/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**

Sampling Location : Village - Hinauta (Bandarkha Mine)  
 Sample Collected By : VTL Team  
 Sampling Equipment used : RDS/FPS  
 Instrument Code : VTL/RDS/FPS/01  
 Coordinates : 80.985206 & 24.569934  
 Meteorological condition during monitoring : Clear Sky  
 Date of Monitoring : 12/06/2023 To 13/06/2023  
 Time of Monitoring : 14:30 to 14:30 Hrs.  
 Ambient Temperature (°C) : Min.32° Max 43°  
 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	67.06	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	30.21	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	17.00	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	10.00	µg/m <sup>3</sup>	80

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

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



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory





Sample Number : VTL/AA/19

M/s PRISM JOHNSON LIMITED

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

Name & Address of the Party :

Report No. : VTL/A/2306170007/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**

Sampling Location : Village - Hinauta (Bandarkha Mine)  
 Sample Collected By : VTL Team  
 Sampling Equipment used : RDS/FPS  
 Instrument Code : VTL/RDS/FPS/01  
 Coordinates : 80.985206 & 24.569934  
 Meteorological condition during monitoring : Clear Sky  
 Date of Monitoring : 12/06/2023 To 13/06/2023  
 Time of Monitoring : 14:30 to 14:30 Hrs.  
 Ambient Temperature (°C) : Min.32° Max 43°  
 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	0.55	mg/m <sup>3</sup>	4

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

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



Checked by 



RK Yadav   
 Lab Incharge  
 Authorized Signatory



Sample Number : VTL/AA/18

M/s PRISM JOHNSON LIMITED

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

Name & Address of the Party :

Report No. : VTL/A/2306170008/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**

Sampling Location : Village - Badarkha (Bandarkha Mine)  
 Sample Collected By : VTL Team  
 Sampling Equipment used : RDS/FPS  
 Instrument Code : VTL/RDS/FPS/03  
 Coordinates : 80.982443 & 24.584626  
 Meteorological condition during monitoring : Clear Sky  
 Date of Monitoring : 11/06/2023 To 12/06/2023  
 Time of Monitoring : 16:40 to 16:40 Hrs.  
 Ambient Temperature (°C) : Min.31° Max 42°  
 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	72.90	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS:5182 (P- 24)-2019	37.55	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2018	15.97	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2018	11.68	µg/m <sup>3</sup>	80

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

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

VIBRANT  
"Experience the unimaginable"



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Page No. 1/1

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

**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"

TEST REPORT

Sample Number : VTL/AA/18

M/s PRISM JOHNSON LIMITED

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

Name & Address of the Party :

Report No. : VTL/A/2306170008/B

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-

Sampling Location : Village - Badarkha (Bandarkha Mine)  
Sample Collected By : VTL Team  
Sampling Equipment used : RDS/FPS  
Instrument Code : VTL/RDS/FPS/03  
Coordinates : 80.982443 & 24.584626  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 11/06/2023 To 12/06/2023  
Time of Monitoring : 16:40 to 16:40 Hrs.  
Ambient Temperature (°C) : Min.31° Max 42°  
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 <sup>3</sup>	4

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

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

**VIBRANT**  
"Experience the unimaginable"



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory





# VIBRANT

"Experience the unimaginable"

## TEST REPORT



TC-11227

Sample Number : VTL/GW/07

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

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

Sample Description : Water Sample

Sampling Location : Bandakha Village - Borewell

Sample Collected By : VTL Team

Preservation : Suitable Preservation

Method of sampling : IS :3025

Report No. : VTLW/2306170007/A

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sampling Date : 12/06/2023

Sampling Type : Grab

Sample Quantity : 2 Ltr.

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	7.39	--	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 CaCO3)	IS: 3025 (P-21): 2009, RA 2019	250.00	mg/l	200	600
4	Calcium (as Ca)	IS: 3025 (P- 40): 1991 RA 2019	82.16	mg/l	75	200
5	Total Alkalinity (as CaCO3)	IS: 3025 (P-23): 1986, RA 2019	199.50	mg/l	200	600
6	Chloride (as Cl)	IS: 3025 (P-32): 1988, RA 2019	48.81	mg/l	250	1000
7	Magnesium (as Mg)	IS: 3025 (P-46): 1994, RA 2019	10.94	mg/l	30	100
8	Total Dissolved Solids	IS :3025 (P-16): 1984, RA 2017	611.30	mg/l	500	2000
9	Sulphate (as SO4)	IS: 3025 (P-24): 1986, RA 2022	75.08	mg/l	200	400
10	Fluoride (as F)	APHA 23rd Edition ,4500FD :2017	0.29	mg/l	1.0	1.5
11	Nitrate (as NO3)	IS: 3025 (P-34): 1988	13.03	mg/l	45.0	No Relaxation
12	Iron (as Fe)	APHA 23rd Edition , 3111B,2017	0.21	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	0.23	mg/l	5.0	15.0
17	Copper (as Cu)	APHA 23rd Edition 3111B	*BLQ(**LOQ-0.02)	mg/l	0.05	1.5



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Page No. 1/2

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

### 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



# TEST REPORT



## VIBRANT

"Experience the unimaginable"

Sample Number : VTL/GW/07

Report No. : VTLW/2306170007/A

S.No.	Test Parameters	Test Method	Results	Units	IS:10500-2012	
					Acceptable Limit	Permissible Limit
17		2017				
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\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Page No. 2/2

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

### 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





# TEST REPORT

## VIBRANT

"Experience the unimaginable"

Sample Number : VTL/GW/07

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

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

Sample Description : Water Sample

Sampling Location : Bandakha Village - Borewell

Sample Collected By : VTL Team

Preservation : Suitable Preservation

Method of sampling : IS :3025

Report No. : VTLW/2306170007/B

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sampling Date : 12/06/2023

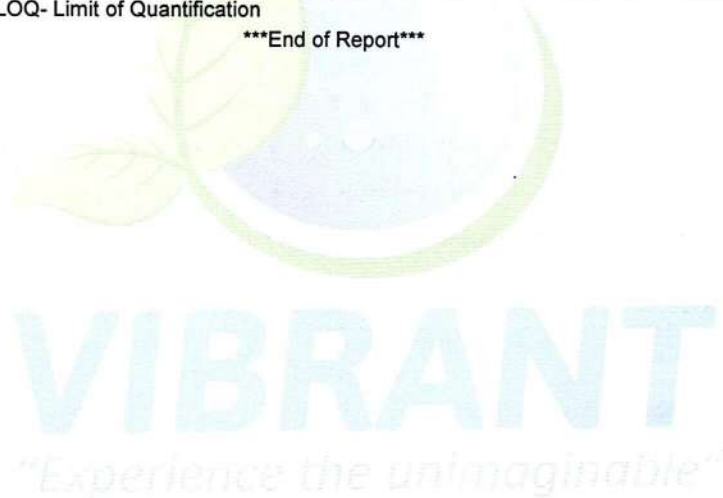
Sampling Type : Grab

Sample Quantity : 2 Ltr.

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\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



**VIBRANT**  
"Experience the unimaginable"

**TEST REPORT**



Sample Number : VTL/AN/13

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

Report No. : VTL/N/2306170013/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Receipt Date : 17/06/2023

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 : Village- Badarkha (Bandarkha Mine)  
Instrument Code : VTL/SLM/03  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 11/06/2023 To 12/06/2023  
Time of Monitoring : 06:00 to 06:00 Hrs.  
Ambient Temperature (°C) : Min.31° Max 42°  
Surrounding Activity : Human, Vehicular & Other Activities  
Parameter Required : As per work order

S.No.	Test Parameters	Protocol	Test Result dB(A)	
			Day Time	Night Time
1	Leq	IS 9989 - 1981 RA:2020	50.6	39.2

**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

- Day Time is from 6.00 AM to 10.00 PM.
  - Night Time is reckoned between 10.00 PM to 6.00 AM.
  - 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

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



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory





Sample Number : VTL/AN/14

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

Report No. : VTL/N/2306170014/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Receipt Date : 17/06/2023

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 : Village- Hinauta (Bandarkha Mine)  
Instrument Code : VTL/SLM/01  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 12/06/2023 To 13/06/2023  
Time of Monitoring : 06:00 to 06:00 Hrs.  
Ambient Temperature (°C) : Min.32° Max 43°  
Surrounding Activity : Human, Vehicular & Other Activities  
Parameter Required : As per work order

S.No.	Test Parameters	Protocol	Test Result dB(A)	
			Day Time	Night Time
1	Leq	IS 9989 - 1981 RA:2020	51.1	40.5

**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

- Day Time is from 6.00 AM to 10.00 PM.
  - Night Time is reckoned between 10.00 PM to 6.00 AM.
  - 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

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



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Sample Number : VTL/AN/15

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

Report No. : VTL/N/2306170015/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Receipt Date : 17/06/2023

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 : Village- Culhi (Bandarkha Mine)  
Instrument Code : VTL/SLM/02  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 12/06/2023 To 13/06/2023  
Time of Monitoring : 06:00 to 06:00 Hrs.  
Ambient Temperature (°C) : Min.32° Max 43°  
Surrounding Activity : Human, Vehicular & Other Activities  
Parameter Required : As per work order

S.No.	Test Parameters	Protocol	Test Result dB(A)	
			Day Time	Night Time
1	Leq	IS 9989 - 1981 RA:2020	52.3	41.8

**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

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



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Page No. 1/1

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

**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



Sample Number : VTL/AN/16

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

Report No. : VTL/N/2306170016/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 23/06/2023

Receipt Date : 17/06/2023

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 : Village- Kulhari (Bandarkha Mine)  
Instrument Code : VTL/SLM/03  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 12/06/2023 To 13/06/2023  
Time of Monitoring : 06:00 to 06:00 Hrs.  
Ambient Temperature (°C) : Min.32° Max 43°  
Surrounding Activity : Human, Vehicular & Other Activities  
Parameter Required : As per work order

S.No.	Test Parameters	Protocol	Test Result dB(A)	
			Day Time	Night Time
1	Leq	IS 9989 - 1981 RA:2020	47.3	37.9

**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

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



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Page No. 1/1

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

**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

**Report on Scientific Study on Controlled Blasting at Badarkha  
Limestone Mines**

**of**

**M/s Prism Johnson Ltd, Dt. Satna (M.P.)**

**Project Number: 31/2018-19**

**Project Leader**

Prof G.K.Pradhan

**Project Collaborators**

Ajeet Mehra, M.Tech(Mining), Asst. Professor

**Department of Mining Engineering**

**December 2019**



**AKS UNIVERSITY  
SATNA (M.P.)**

## Acknowledgement

Department of Mining Engineering, Faculty of Engineering & Technology, AKS University, Satna (MP) acknowledges with thanks the support and cooperation extended by :

1. *Shri Manoj Singh, head-Mines, Prism Johnson Ltd*
2. *Shri C.S.Pandit, Joint General Manager, Prism Johnson Ltd*
3. *Sri Deo Prakash, Mines Manager-cum-Blasting Manager*
4. *Sri Kamlesh Soni, Asst. Manager*

We thank the Management of AKS University, Satna for giving us permission to undertake the Study and the following team members for their active support and co-operation :

1. *Dr B.K.Mishra, Head of the Department, Mining Engineering*
2. *Sri Ajeet Mehra, Asst. Professor (Mining)*
3. *Sri Manish Agarwal, Asst. Prof(Physics), Coordinator, Dean Office*

We are pleased to present our Report on this scientific study based on our field visits and analyses of data collected from the mines vis-à-vis various Regulatory requirements.



### **Prof G.K.Pradhan**

Recipient of National Geosciences Award  
Professor of Mining Engineering & Dean  
Faculty of Mining Engineering  
Email: gkpradhan58@gmail.com

## INTRODUCTION

While granting Consent to Operate under section 25 of the Water (Prevention & Control of Pollution) Act, 1974 under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Hazardous and other Waste (Management & Transboundary Movement) Rules, 2011, vide PCB ID : 14462 dated 30.6.2018, it was stated at *Sl. No. 14. Controlled blasting should be practiced with the use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented. Blasting shall be done during day time only.* Copy of the Consent to operate is placed at Annexure I.

The Department of Mining Engineering, AKS University, Satna was entrusted to design, evaluate/supervise/monitor the 'controlled blasting' as per the provisions of MMR 1961 and the Permission granted by Director of Mines Safety, Jabalpur (DGMS Office).

Vide letter no. J.R/Metal/Permission-34/2016/77 dated 6.1.17, DMS Jabalpur Region had granted exemption from the provisions of Metalliferous Mines Regulations (MMR) 1961, 106(2)(b) of MMR, 1961, to work by system of deep hole blasting and deployment of Heavy Earth Moving Machineries. Sl. No. 7.0, 8.0, sl. No. 23(4), (5), (7), indicated various precautions to be taken to ensure safety while blasting. Copy of the Permission is placed at Annexure II. The above Permission was later supplemented with the Deep hole Blasting Permission for use of Bulk SME Explosives.

The scientific study undertaken by AKS University covered –

- a) *Blasting techniques for Over Burden and Limestone benches.*
- b) *Site visits to monitor adoption of safe procedures during handling, transport, and use of explosives and accessories as per S-O-P*
- c) *Study of Explosive use and optimisation*
- d) *Study of Initiation system as a part of Controlled blasting*
- e) *Management of blasting operation and schedule vis-à-vis blasting during daytime.*
- f) *Methods for monitoring, analyses of ground vibrations and associated problems as part of mitigative measure.*
- g) *Study of fly rocks and boulders during blasting and strict implementation of methods to reduce their generation etc.*
- h) *Training the workmen, supervisors and officials attached with blasting.*

## Blasting Manpower

Entire blasting operation is undertaken under the charge of the Mines Manager, holding First Class Mine Manager's Certificate of Competency (UR). He is being assisted by statutory persons as per provisions of MMR 1961, including Blasting Engineer, Blaster, Helpers, Mining Mate and others.

## Selection, Procurement, Storage, Transport and Handling of Explosives

During the study period the various activities involved in explosives and accessories selection, procurement, storage, transport and use have been studied. The Mine holds a valid Explosive Magazine Licence and Explosive Transport by approved type of Explosive vans, as per various provisions of Indian **Explosives Rules, 2008**.

The mine uses only cartridge type explosives and have a system of explosive selection based on

- Density,
- Velocity of Detonation (VOD) etc.

The pattern of procurement is high energy primer 25 % and 75% column charge. The handling, charging and conducting of the blasting operations is done by trained manpower of the mine. Table 1, presents the quantities of different types of explosives used in study in the mine.

**Table 1: Presents the quantities of different types of explosives used in study in the mine**

Year	Large dia Cartridge explosives (kg) (Column charge)	Large dia Cartridge explosives (kg) (Booster charge)	Total Explosives Qty(in kgs)
2018	1450	383.32	1833.32
2019	3987.1	1350.00	5337.1

## Initiation system

Initiation of the primed cartridge of the explosive in 100 to 110 mm dia blast hole drills is an essential feature to trigger any blast. In these blast holes blasting of deep holes column charge is being primed by booster type of explosives. Shock tubes having 7 to 8m length is used down-the-hole, along with the surface trunk line shock tubes. Down-the-delay detonator of 25, 450MS had provided bottom initiation and Trunk line detonators of 17, 25 and 41 MS are used thereby providing hole to hole initiation.

## Use of Shock Tubes(Nonel)

This as entirely non-electric and ultra safe. Shock tubes(Nonel) are safest and offer excellent results in blasting. These have revolutionised initiation by offering true in-hole delay to the booster ensuring better movement of the shock waves and the blasted material. The very low content of explosive material in the plastic tube offers insignificant or no sound during blasting. True bottom priming has enhanced explosive use and also helped in planning large size blasts safely. Trunk line delay detonators in the shock tubes additionally eliminate sound and also ensure perfect blast timings in MS range. Thus there has been a fall in sound level (expressed in dB) as recorded in the blast vibration recorder, control on fly rocks, elimination of misfires, and maintaining MAXIMUM CHARGE PER DELAY which is the single most contributing factor for BLAST VIBRATION level. Table 2, shows the DGMS standard on blast vibration and this is being strictly followed in almost all blasts.

### **Pre and Post Blast Management**

In compliance of provisions under MMR 1961 and Indian Explosives Rules 20008, and various norms set in S-O-P and DMS JR Permissions/DGMS Circulars each and every blast is undertaken. The blast details are recorded and maintained in the mine.

### **Mining Operations**

Figure 1, presents the approved working plan of the mine. The mine had a single overburden bench comprising of top soil and sub soil which is handled purely by dozer and loading machines. The limestone bench below having a thickness of 5 to 15m, is mined in two to three benches. Each bench has been planned with 5 to 6 m height only. Hydraulic Excavators dig the un-blasted as well as blasted material and load into tippers. Figure 1, shows the site plan showing limestone bench where blasting is conducted.



**Controlled blasting is defined as a blast in which –**

- (1) All the blast design parameters at the blasting site.
- (2) Blast which was approved type of explosives.
- (3) Only Delay detonators including Shock tubes(Nonel) or Electronic Delay Detonators to be used *(to control ground vibrations and to arrest flyrocks and boulder generations)*.
- (4) Monitoring of blasts vis-à-vis blast induced ground vibration level & frequency (Hz). Examining the vibration level (mm/s) & frequency with DGMS standards.
- (5) Following all terms and conditions as stated in the Permission granted by Director of Mines Safety , Jabalpur vide J.R/Metal/Permission -34 /2016 dated 06-01-2017 (Copy enclosed).Also following norms of other statutory bodies.
- (6) Flyrock management ,generation and control by proper stemming by assuming proper free face ensuring use of quality and explosives & accessories. There by eliminating MISFIRES.
- (7) Following approval S-O-P for blasting.
- (8) Minimum generation of boulders thereby eliminating secondary blasting . However secondary blasting need to be replaced by use of Hydraulic Rock breakers only be replaced by use of Hydraulic Rock Breakers only.
- (9) Complained free or less complaints from nearby habitants.
- (10) Only during the day time and the blasting time should be prominently displayed in the area.
- (11) Every mine should draw plans to have mitigative measures as per recommendations of the scientific study and provisions of MMR 1961 or DGMS Guidelines.

**Blast Measurement**

InstanTel Inc. Canada make Blast Vibration instrument is being used by the mine management to record blast vibration level, sound level and maintain the soft copy of each and every recorded blasts for analysis and review. From AKS University also InstanTel make Blastmate Instrument is used. These instruments are regularly calibrated by the authorised representative/agency.

**Table 2 : DGMS Standards (1997)**

Type of structure	Dominant excitation frequency, Hz		
	< 8 Hz	8 - 25 Hz	> 25 Hz
<b>(A) Buildings/structures not belonging to the owner</b>			
i) Domestic houses/structures (Kuchha brick and cement)	5	<b>10</b>	15
ii) Industrial Buildings RCC and framed structures)	10	<b>20</b>	25
iii)Objects of historical importance and sensitive structures	2	5	10
<b>(B) Buildings belonging to owner with limited span of life</b>			
i) Domestic houses/structures (Kuchha brick and cement)	10	15	25
ii) Industrial buildings (RCC & framed structures)	15	25	50

**Figure 1 : Showing the Working Plan of the Mine**

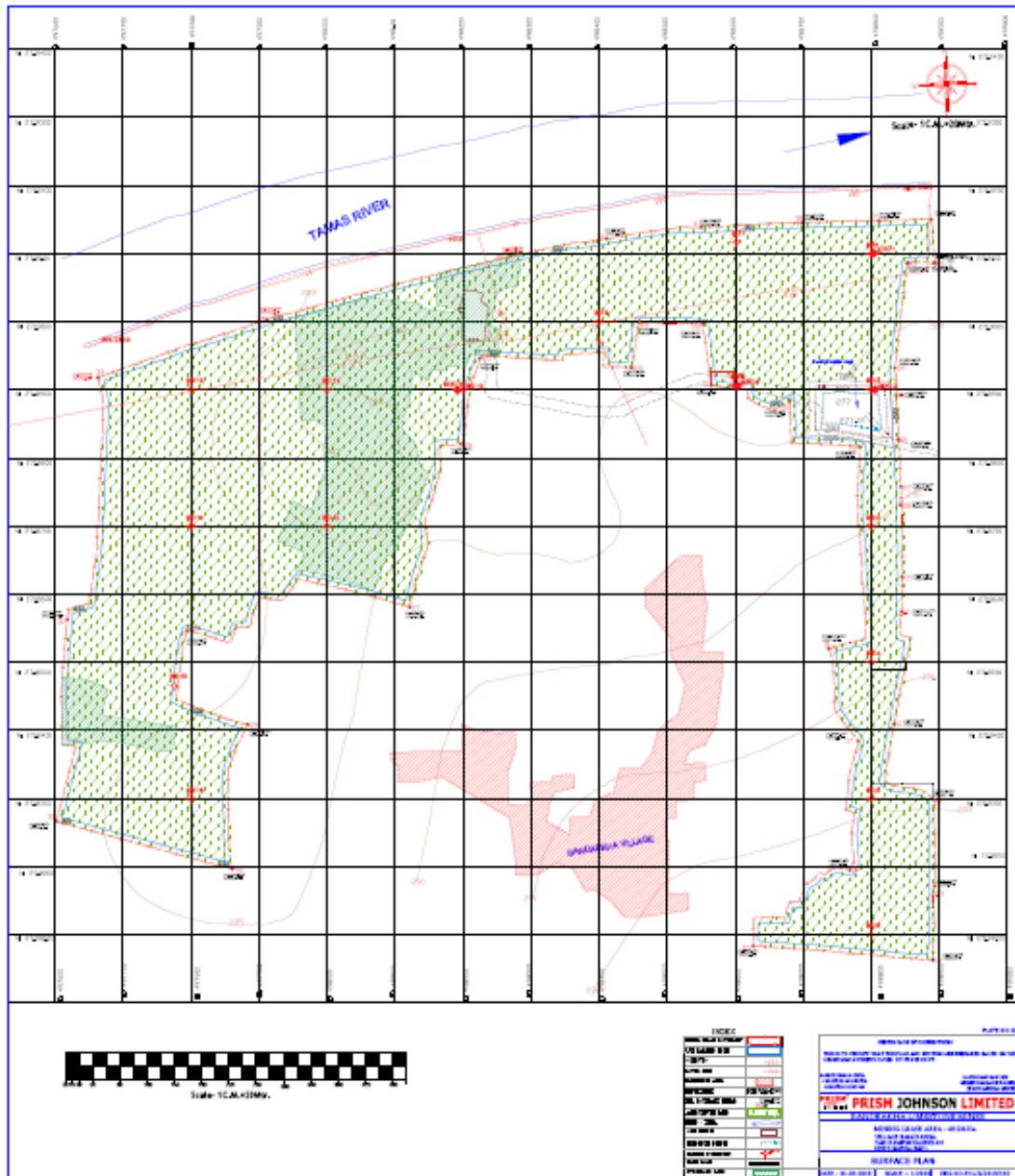


Figure 2, shows the print out of the Blast Vibration and Sound level as recorded at the blast site. The other such reports are placed at Annexure 1. Table 3 : presents the blast design information of the blasts which were studied and monitored by AKS University.



**Table 2 : Blast Design Information's Using Cartridge Explosives**

Hole diameter = 100 to 110 mm

Max. Burden = 4 M

Max. Spacing = 3 M

Average Hole depth = 5 to 6.0 M.

No. of holes = as per blasting block size and maintaining face length and width in 3 : 1 ratio

Drilling pattern = staggered

Average Stemming length = 2 to 3 M

Firing pattern = linear

No. of rows depend on the block size and face conditions

**Explosives**

Prime charge and column charge at an average ratio of : 1: 2.5

**Delay Type**

Surface delay = 17 MS (hole to hole in a row) & 25 MS and/or 42 MS (row to row)

Down the hole delay = 250 ms

Trial blast data was analyzed for arriving at permissible levels of ground vibration and same is presented in Table 3. Table 4, presents the analysis of blast vibration data. Predictor Equation has been drawn based on the field data as recorded.

**Table 3 : SUMMARY OF BLASTS - GROUND VIBRATION RCORDED AT BADARKHA MINE**

Blast No.	Date	Radial distance (m)	Max charge per delay (Q)(kg)	Total weight (TQ) (kg)	PPV (mm/sec. )	Frequency Hz	Burden x Spacing	No. of holes	Avg. Hole Depth (m)
1	06-02-2018	250	16.7	433.32	-----	-----	4x3	30	5
2	08-05-2018	250	13.9	325	-----	-----	4x3	25	5
3	04-12-2018	160	16.70	325	0.126	4.2	4x3	20	5
4	31-12-2018	200	27.78	750	2.52	23	4x3	27	6
5	01-03-2019	180	19.44	725	1.54	15	4x3	37	5
6	05-03-2019	160	22.22	1325	1.927	15	4x3	64	5.5
7	11-03-2019	250	30.56	2211.11	2.136	12	4x3	78	6
8	19-03-2019	200	27.78	1075	5.56	16	4x3	41	6

**Figure 2 : Shows Blast Vibration recording Event report(Other reports at Annexure 1)**

**Date/Time** Tran at 13:41:35 December 31, 2018  
**Trigger Source** Geo: 0.900 mm/s, Mic: 2.000 pa.(L)  
**Range** Geo: 254.0 mm/s  
**Record Time** 5.0 sec at 1024 sps  
**Operator/Setup:** Operator/SSB.mmb

**Serial Number** UM8131 V 10-76 Micromate ISEE  
**Battery Level** 3.8 Volts  
**Unit Calibration** February 26, 2018 by UES New Delhi  
**File Name** UM8131\_20181231134135.IDFW

**Notes**  
 Location:  
 Client:  
 User Name: PRISM JOHNSON LIMITED  
 General:

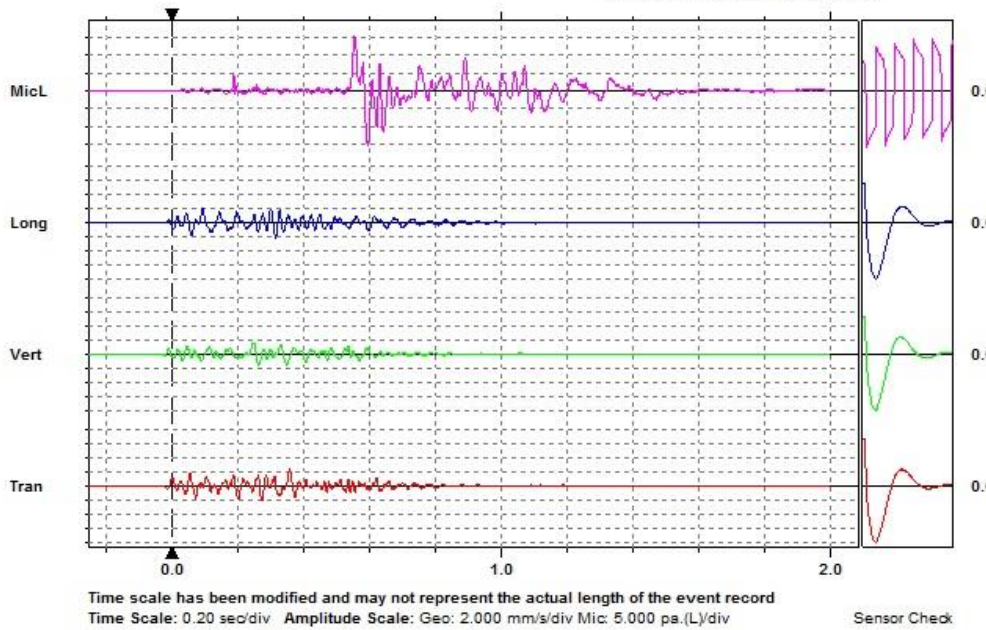
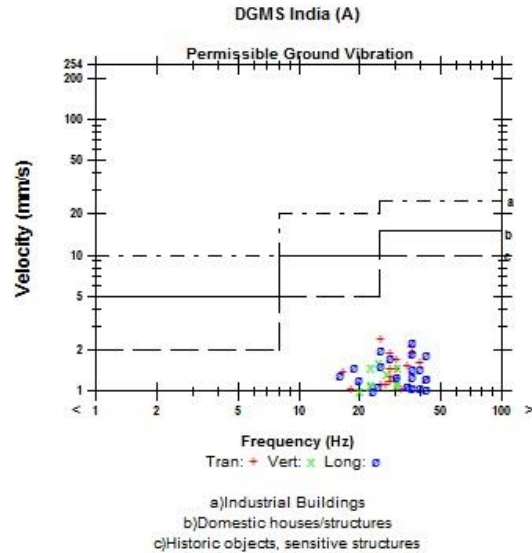
**Post Event Notes**  
 Bandarkha/1st Bench (L/S), No of holes 27 nos, Depth - 8.0 Mtrs.  
 Charge/delay - 27.77 Kg/delay, Observation Distance - 160 mts

**Extended Notes**  
 BANDARKHA LIMESTONE MINE

**Microphone** Linear Weighting  
**PSPL** 15.69 pa.(L) at 0.597 sec  
**ZC Freq** 23 Hz  
**Channel Test** Passed (Freq = 19.7 Hz Amp = 1307 mv )

	Tran	Vert	Long	
PPV	2.396	1.624	2.262	mm/s
PPV (Ponderated)	2.012	1.506	1.745	mm/s
PPV	58.69	55.21	58.09	dB
ZC Freq	26	24	37	Hz
Time (Rel. to Trig)	0.359	0.250	0.317	sec
Peak Acceleration	0.056	0.043	0.054	g
Peak Displacement	0.043	0.011	0.012	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.3	Hz
Overswing Ratio	3.6	3.4	3.7	

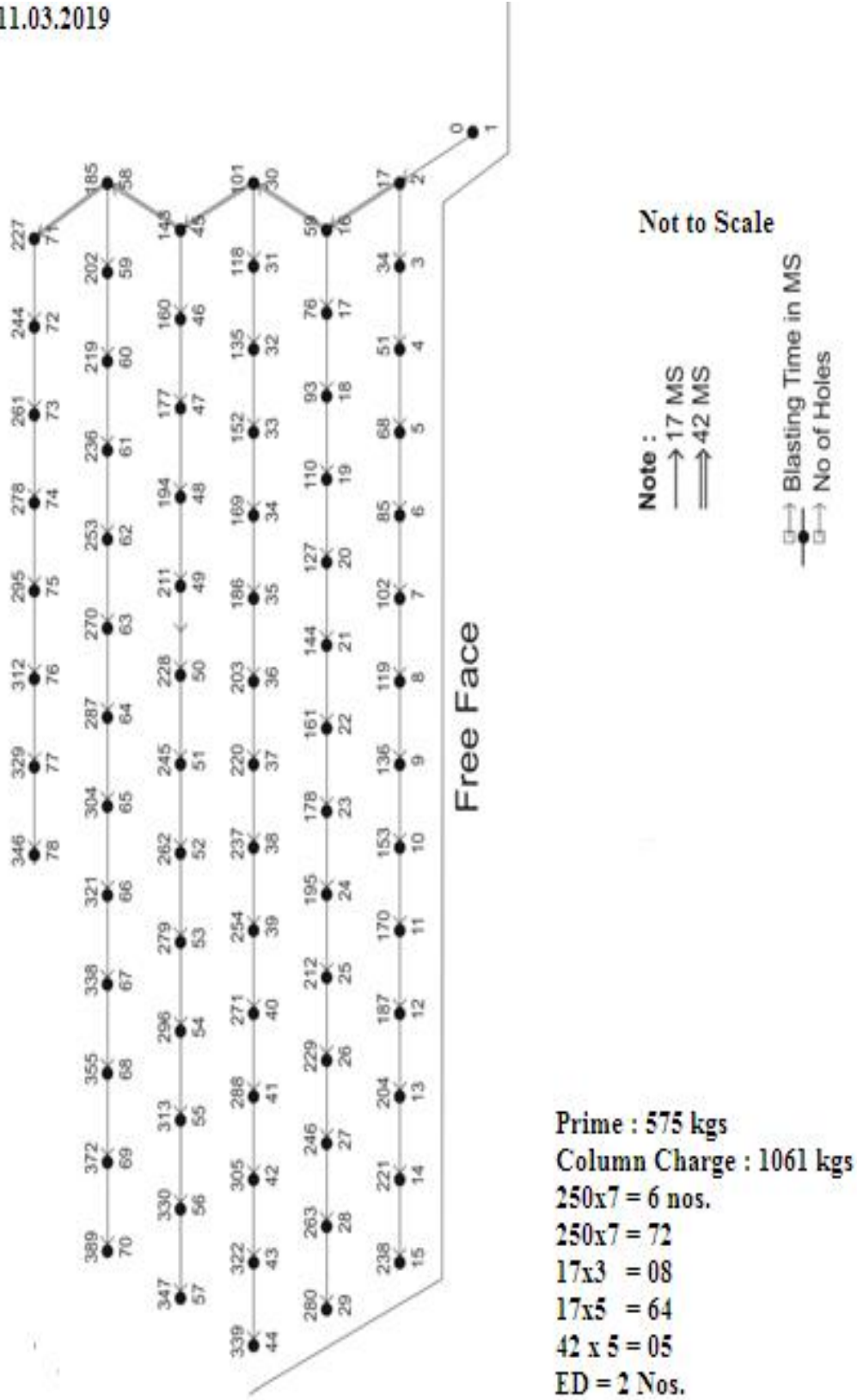
Peak Vector Sum 2.520 mm/s at 0.358 sec



**Figure - 4 :** Below explains the method of blasting using trunk line shock tubes of varying delays and.

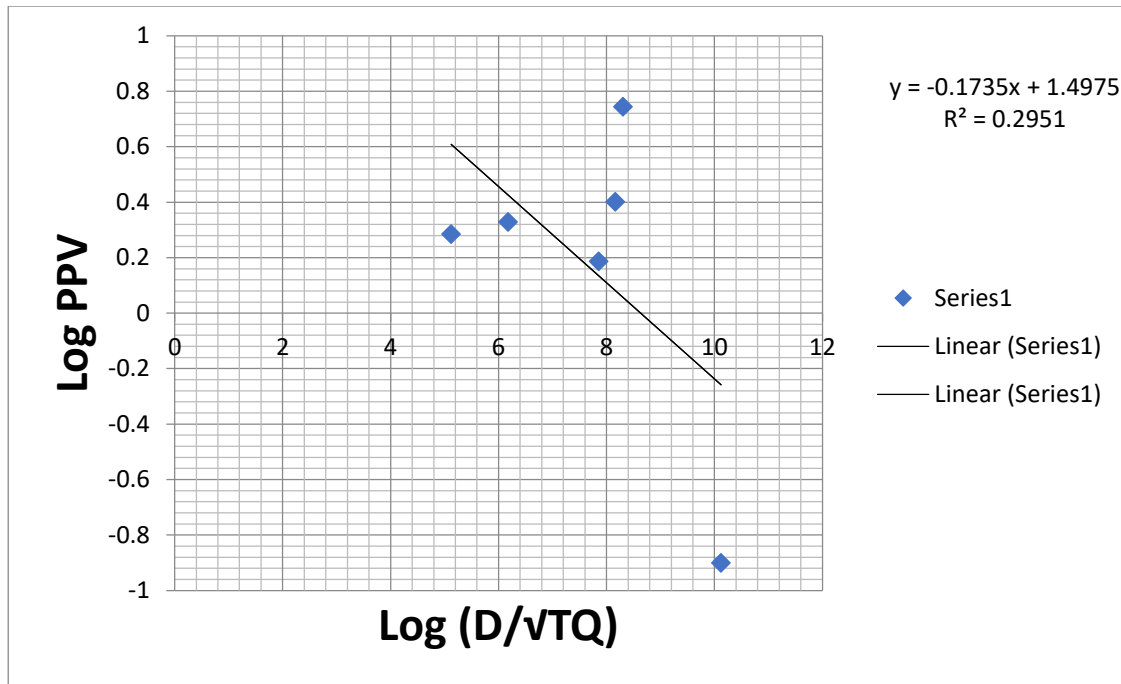
Date : 11.03.2019

# TRIAL BLASTING PATTERN



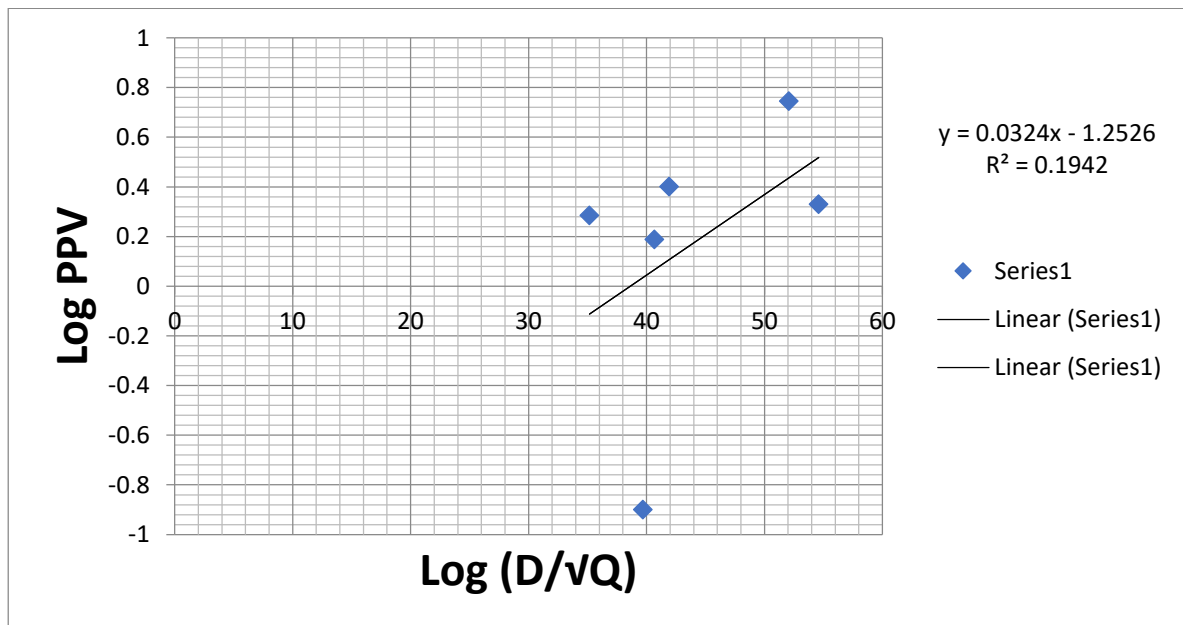
## 1. Vibration predictor equation : For total charge per round (TQ)

$$PPV = 31.40 * \left(\frac{D}{\sqrt{TQ}}\right)^{-0.173}$$



**2. Ground vibration predictor equation : for max charge per delay(Q)**

$$PPV = 0.056 * \left(\frac{D}{\sqrt{Q}}\right)^{0.032}$$



**Table 4 : Analysis of blast monitoring data**

Parameter	Range	Class interval	No. of events	Remark
Max.Charge Per Delay (kg)	14.75 to 27.77	0-20	5	Within stipulated limits
		>20	3	
PPV (mm/sec.)	0.126 to 5.56	<2	5	
		2-6	3	
Distance (m)	160 to 250	160 to 250	8	
Frequency (Hz)	<8Hz		0	More than 71% event recorded more than 8 Hz. This has bearing on fixing allowable PPV.
	8-25Hz		8	
	>25Hz		0	

## RECOMMENDATIONS & SUGGESTIONS

For undertaking blasts with Cartridge Explosives on regular basis on the conclusion/completion of blasts conducted in our presence, as per terms and conditions of the Permission granted by Director of Mines Safety, Jabalpur vide Permission No.J.Region/Metal/Permission-34/2016/77 dated 6.1.17, regarding Relaxation from the provisions of Regulation 106(2)(b) of the Metalliferous Mines Regulations, 1961, to work the mine by system of deep hole blasting and deployment of Heavy Earth Moving Machineries at Badarkha Limestone Mine of M/s Prism Cement Limited and norms of Consent Order of M.P.Pollution Control Board (sl. No. 14 at page no. page 8, '*Controlled blasting should be practiced with the use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented. Blasting shall be done during day time only*').

Some of the salient clauses related to Explosives and Blasting (Shot firing) is stated at Annexure 2 (p.1, 3,4 and 5).

### Blast design parameters

**1.1 Drilling** dia. of 100-110 mm is best suited for 6m high benches. For 100-110 mm dia blast hole the true burden may be 2.5 to 4.0 M and true spacing of 3.0 to 4.5m.

Depth (m)	Hole dia (mm)	Pattern (Maximum)	
		Burden (m)	Spacing (m)
6	110	4	3
5	110	4	3
4	110	4	3
3	110	4	3

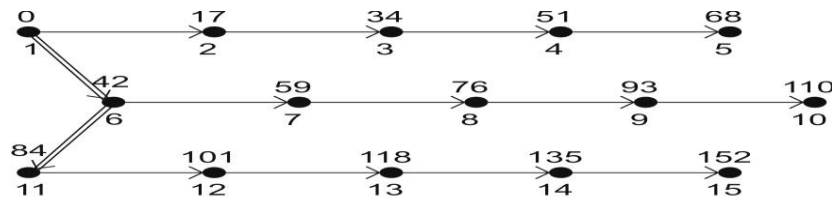
**1.2 No. of Rows** – During the trial blast the length of the blast was more than the width of the blast. In most blasts length of the blasting block has been more than 5 to 6 times the width of the blasted block. In these cases number of rows can result PPV within laid down norms and a maximum of 6 rows are recommended. For example – if length of the blasting block is 100M, and width is 30 M with true burden of 3m then no. of rows should not exceed 9 Rows. This is because more number of rows may result in cut off of the tie-ins.

## 2.0 Initiation arrangements/tie-ins

2.1 NONEL which has been used is best suitable to contain blast induced ground vibration and air blast. Besides, it also give very good fragmentation, less back break, and controlled throw on free face.

2.1.1 The delay between the hole is 17 MS and between rows may be 42 MS (Refer attached figure).-

**FREE FACE SIDE**



**Note :**  
—————> 17 MS  
===== 42 MS

2.1.2 Misfires can be totally eliminated with the use of NONEL or shock tubes.

2.1.3 Using a high delay interval of 250 MS down-the-hole delay with 17/25/42MS surface delay ensures that the detonation of the surface tie line would be several rows or blast holes ahead before the first blasthole gets initiated (after 250MS) and ground movement starts subsequently. This makes the blast free from any misfires due to initiation resulted by cut-off of in hole or downline initiator due to ground movement. Besides, the very geology of the area also indicate near uniformity of geological set up.

**3.0 SUGGESTIONS WHICH WERE IMPLEMENTED AT SITE** – The blast hole initiation pattern should use one delay period of 17 MS between the two holes and 42 MS between the rows.

3.1.1 Initiation pattern – While drilling holes staggered pattern may be adopted. It has been observed that staggered pattern with equilateral triangular give better fragmentation as compared to square pattern. During trial blasts square pattern was adopted and results were quite satisfactory.

3.1.2 Period of blast – The total period of blast from the initiation of the first hole to the last hole should preferably be not more than 1000 MS



#### **4.0 Before commencing Drilling**

4.1 Face preparation before commencement of drilling – The bench must be properly dozed to ensure no flying fragments of the previous blast or boulders are present. On the free face side the face need to be dressed properly so that no loose overhangs are present. The blaster must mark the location of holes after measuring the burden and spacing. The driller must report any deviations observed in burden and spacing and also hole collapse during withdrawal of the drill rod.

4.2 Free Face – The key to success of any safe blast is the free face. It must be noted that the direction of throw must be towards free face. Whenever two free faces are available, the direction of throw can be diagonal for better muckpile and uniform throw.

#### **5.0 Stemming and stemming material**

5.1 To hold the post detonation fumes inside the blasthole is essential to ensure movement and breakage of the in-situ rock. The blasting crew should have specially trained workmen who can ensure tight stemming. If watery holes are encountered it has to be with lot of care so as to ensure settlement of explosive and stemming material. In all the blasts dry drill cuttings were used and care was taken to see no damages to the shock tube down-line.

5.2 It is suggested to measure the stemming column depth so as to ensure proper delivery of planned quantity of explosives.

5.3 Muffling of holes – In all the blasts sand bags were placed on the conveyor belts so as to provide additional precaution to restrict flying fragments' movement. It is therefore suggested that this need to be carried out till the restrictions are overcome.

5.4 Charging of explosives on the last row of holes – In case of more than 3 rows, of blasting on the last row of holes, the quantity of explosive can be reduced by 10 to 15% so as to ensure better stability, reduction in back break, less dressing required before finishing excavation due to less loose overhangs and less overhang areas.,

### **ADDITIONAL PRECAUTIONS**

**6.0 Maximum charge per delay** currently adopted is ultra safe and well within the blast vibration and frequency range stated in DGMS Standards.

6.1 Blast Area Security – The mine management strictly follow blasting time and adequate number of guards were posted on all roads leading to the mine. All the machineries need to be parked at safer distances following parking norms of each machinery. Before blasting 'Safety Warning' is done, and all persons evacuated out of the prescribed "Danger Zone".



6.2 Recording of blast vibration – Follow the instructions of the instrument manufacturer while setting the instrument. Measure the distance of the instrument from the centre of the blast. The instrument need to be properly placed on a firm ground and a place not on the probable flyrock zone.

6.3 The engineer concerned must move to the shelter after setting the instrument with proper time lags etc.

6.4 Secondary Blasting – NEVER ADOPTED in this mine and hydraulic Rock Breakers are being used to break oversize boulders.

**7.0 TRAINING :** Safety awareness and training needs of the blasting crew – The mine management held training programs for engineers and statutory persons to deliberate on various aspects of blast design, charging, field management, blast area security, provisions of MMR and Mine Vocational Training Rules 1966, and other guidelines. Blasting crew had adequate knowledge of safety during handling, charging, stemming, priming, tie-line hook up, following the siren etc.

8.0 PPE – all persons engaged in blasting had been provided PPE and also other essential gadgets like whistle, red flags and hand gloves etc. The same need to be strictly adhered to in all time to come.

9.0 Post Blast Observations : blast vibration, frequency, flyrock range, dust generation/quantum, fumes etc are observed. It has been observed that by systematic stemming of holes, having mats/conveyor belts cover dust and flyrock under control.

10.0 Impact of blasting on health and safety – Use of Shock Tubes(Nonel) had eliminated noise/sound level during blasting due to the technological development in initiation. This also had helped in controlling dust generation and the level of dust during post-blast.

## **CONCLUSION & RECOMMENDATION**

The report presents the details of the blasts designed, monitored and studied using Cartridged explosives, for establishing a blasting pattern and allowable maximum charge per delay and per round based on the ground vibration, air overpressure and other post blast details (like fly rock, muck pile, misfires if any, back break, throw etc).

In view of the successful, safe conclusion of the blasts with cartridged explosives by following norms set in the Permission letter, other guidelines, the mine is fully geared up to hold blasts on regular basis in line with the provisions of CMR 2017 etc.

**Controlled blasting Compliance Status : –**

	<b>Norms</b>	<b>Comments after conclusion of the scientific study</b>
1.	All the blast design parameters at the blasting site.	Being adopted
2.	Blast which was approved type of explosives.	Only approved type of explosives is used.
3.	Only Delay detonators including Shock tubes(Nonel) or Electronic Delay Detonators to be used ( <i>to control ground vibrations and to arrest flyrocks and boulder generations</i> )..	Shock tube is used. Both down-the-hole & trunk line.
4.	Monitoring of blasts vis-à-vis blast induced ground vibration level & frequency (Hz). Examining the vibration level (mm/s) & frequency with DGMS standards	Done at regular basis.
5.	Following all terms and conditions as stated in the Permission granted by Director of Mines Safety , Jabalpur vide J.R/Metal/Permission -34 /2016 dated 06 01-2017 (Copy placed at Annexure 2)	Being followed.
6.	Flyrock management, generation and control by proper stemming by assuming proper free face ensuring use of quality and explosives & accessories. There by eliminating MISFIRES. Also old conveyor belts with sand bags are used to cover the holes to eliminate fly rock and dust.	Proved effective to eliminate dust and fly rocks with cover on the holes.
7.	Following approval S-O-P for blasting	Being followed in line with Safety Management Plan and Guidelines of DGMS.
8.	Minimum generation of boulders thereby eliminating secondary blasting . However secondary blasting need to be replaced by use of Hydraulic Rock breakers only be replaced by use of Hydraulic Rock Breakers only.	Only Hydraulic Breakers used in case of oversize boulders.
9.	Complained free or less complaints from nearby habitants	There have been no complaints from the distant villagers and habitants.
10.	Only during the day time and the blasting time should be prominently displayed in the area.	Being followed.
11.	Every mine should draw plans to have mitigative measures as per recommendations of the scientific study and provisions of statutory authorities or MMR 1961 or DGMS Guidelines.	Being followed while conducting any blast.

**Dr G.K.Pradhan**

Professor of Mining Engineering &amp; Dean

Faculty of Engineering &amp; Technology



Event Report

Date/Time MicL at 13:33:45 December 4, 2018  
 Trigger Source Geo: 0.900 mm/s, Mic: 2.000 pa.(L)  
 Range Geo: 254.0 mm/s  
 Record Time 5.0 sec at 1024 sps  
 Operator/Setup: Operator/SSB.mmb

Serial Number UM8131 V 10-76 Micromate ISEE  
 Battery Level 3.8 Volts  
 Unit Calibration September 6, 2016 by UES New Delhi  
 File Name UM8131\_20181204133345.IDFW

Notes  
 Location:  
 Client:  
 User Name: PRISM JOHNSON LIMITED  
 General:

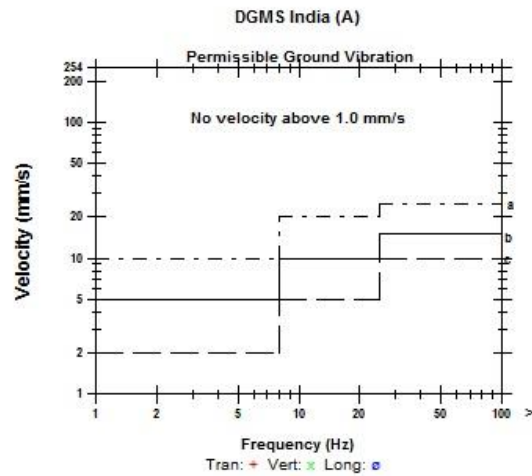
Post Event Notes  
 Bandarkha/1st Bench (L/S), No of holes 20 nos, Depth - 5.0 Mtrs.  
 Charge/delay - 16.25 Kg/delay, Obsevation Distance - 160 mts

Extended Notes  
 BANDARKHA LIMESTONE MINE

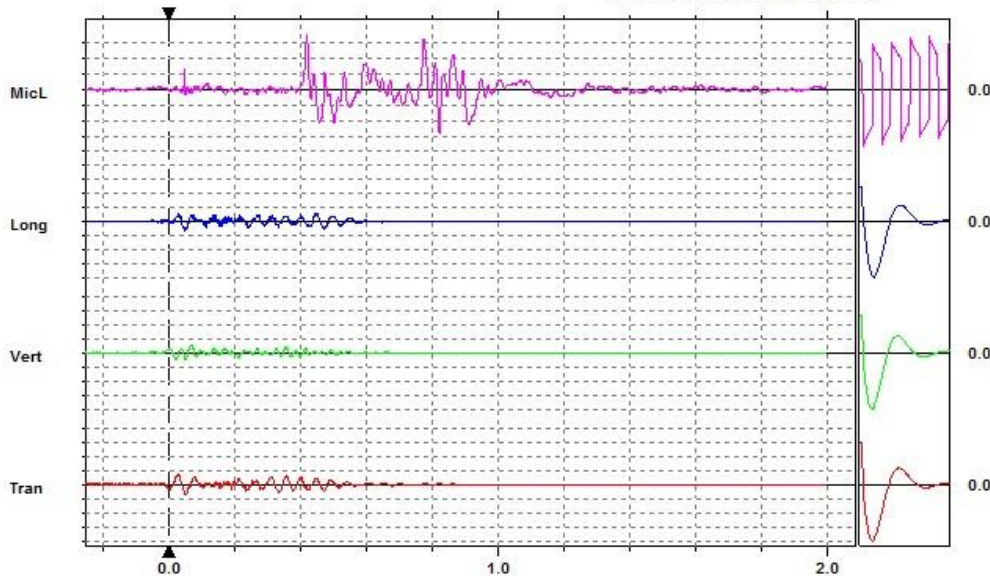
Microphone Linear Weighting  
 PSPL 4,437 pa.(L) at 0.301 sec  
 ZC Freq 4.2 Hz  
 Channel Test Passed (Freq = 19.7 Hz Amp = 1334 mv)

	Tran	Vert	Long	
PPV	0.102	0.102	0.039	mm/s
PPV (Ponderated)	0.026	0.021	0.029	mm/s
PPV	31.21	31.21	22.91	dB
ZC Freq	N/A	N/A	>100	Hz
Time (Rel. to Trig)	-0.112	2.543	1.130	sec
Peak Acceleration	0.005	0.005	0.005	g
Peak Displacement	0.000	0.000	0.000	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.3	Hz
Overswing Ratio	3.6	3.5	3.7	

Peak Vector Sum 0.126 mm/s at -0.112 sec  
 N/A: Not Applicable



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



Time scale has been modified and may not represent the actual length of the event record  
 Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 1.000 pa.(L)/div Sensor Check



## Event Report

**Date/Time** Tran at 13:41:35 December 31, 2018  
**Trigger Source** Geo: 0.900 mm/s, Mic: 2.000 pa.(L)  
**Range** Geo: 254.0 mm/s  
**Record Time** 5.0 sec at 1024 sps  
**Operator/Setup:** Operator/SSB.mmb

**Serial Number** UM8131 V 10-76 Micromate ISEE  
**Battery Level** 3.8 Volts  
**Unit Calibration** February 26, 2018 by UES New Delhi  
**File Name** UM8131\_20181231134135.IDFW

### Notes

Location:  
 Client:  
 User Name: PRISM JOHNSON LIMITED  
 General:

### Post Event Notes

Bandarkha/1st Bench (L/S), No of holes 27 nos, Depth - 6.0 Mtrs.  
 Charge/delay - 27.77 Kg/delay, Observation Distance - 160 mts

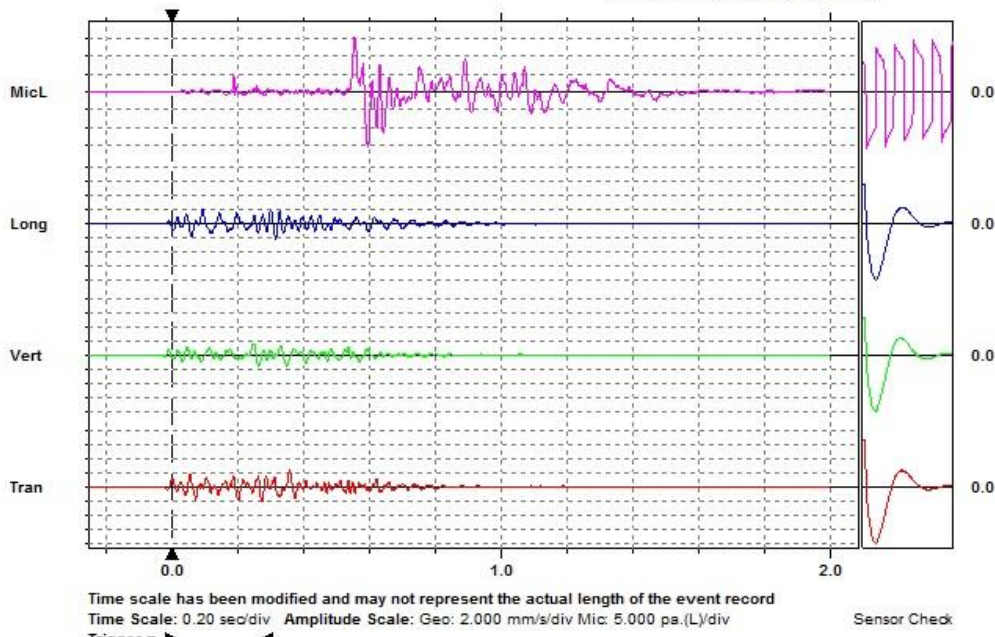
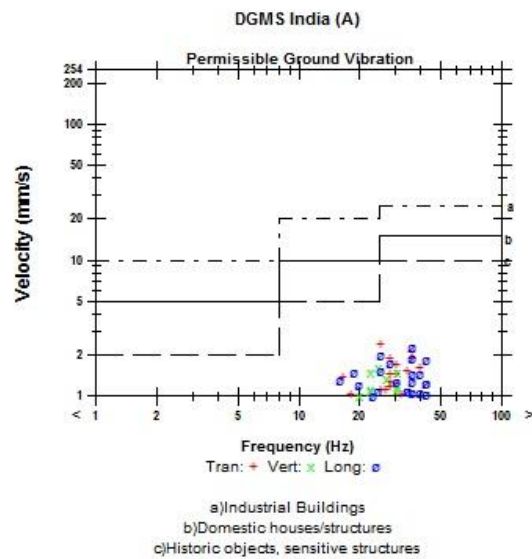
### Extended Notes

BANDARKHA LIMESTONE MINE

**Microphone** Linear Weighting  
**PSPL** 15.69 pa.(L) at 0.597 sec  
**ZC Freq** 23 Hz  
**Channel Test** Passed (Freq = 19.7 Hz Amp = 1307 mv)

	Tran	Vert	Long	
PPV	2.396	1.624	2.262	mm/s
PPV (Ponderated)	2.012	1.506	1.745	mm/s
PPV	58.59	55.21	58.09	dB
ZC Freq	26	24	37	Hz
Time (Rel. to Trig)	0.359	0.250	0.317	sec
Peak Acceleration	0.056	0.043	0.054	g
Peak Displacement	0.043	0.011	0.012	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.3	Hz
Overswing Ratio	3.6	3.4	3.7	

Peak Vector Sum 2.520 mm/s at 0.358 sec







**Date/Time** Long at 13:41:18 March 1, 2019  
**Trigger Source** Geo: 0.900 mm/s, Mic: 2.000 pa.(L)  
**Range** Geo: 254.0 mm/s  
**Record Time** 5.0 sec at 1024 sps  
**Operator/Setup:** Operator/SSB.MMB

**Serial Number** UM8131 V 10-76 Micromate ISEE  
**Battery Level** 3.8 Volts  
**Unit Calibration** February 26, 2018 by UES New Delhi  
**File Name** UM8131\_20190301134118.IDFW

**Notes**  
 Location:  
 Client:  
 User Name: PRISM JOHNSON LIMITED  
 General:

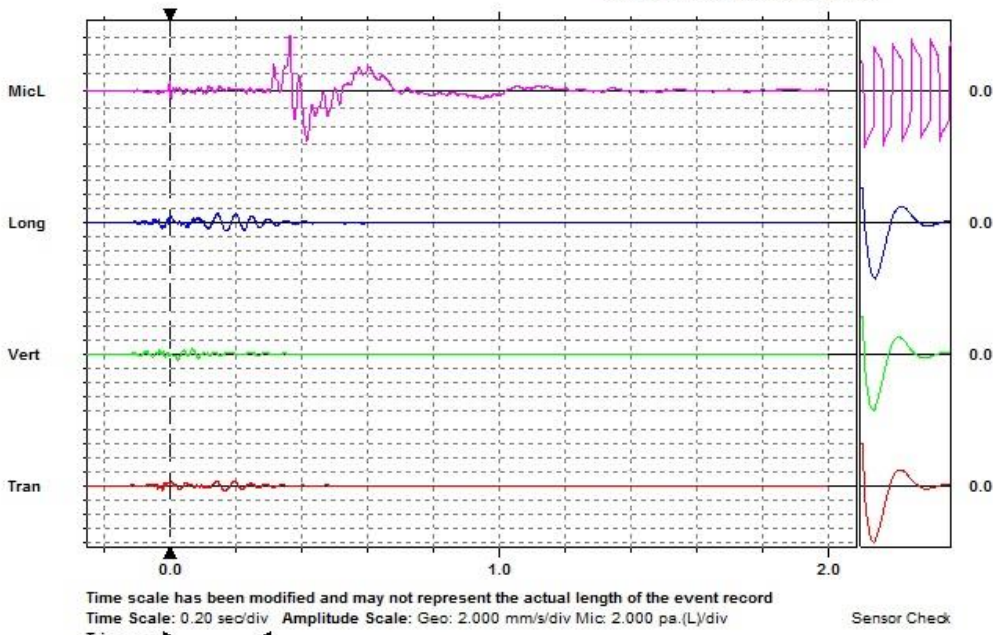
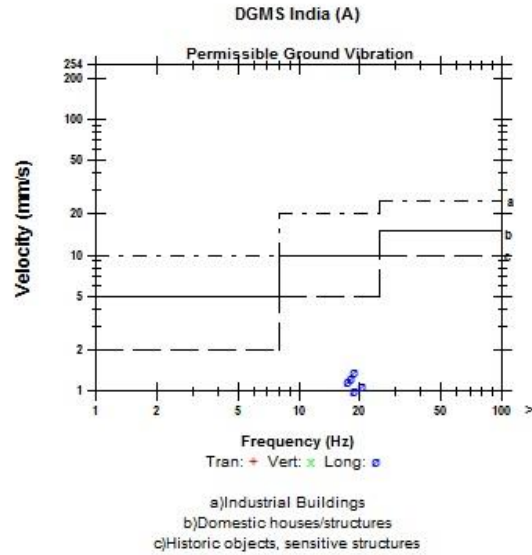
**Post Event Notes**  
 Bandarkha/1st Bench (L/S), No of holes 37 nos, Depth - 8.0 Mtrs.  
 Charge/delay - 19.59 Kg/delay, Observation Distance - 160 mts

**Extended Notes**  
 BANDARKHA LIMESTONE MINE

**Microphone** Linear Weighting  
**PSPL** 8,237 pa.(L) at 0.365 sec  
**ZC Freq** 15 Hz  
**Channel Test** Passed (Freq = 19.7 Hz Amp = 1334 mv )

	Tran	Vert	Long	
PPV	0.780	0.867	1.387	mm/s
PPV (Ponderated)	0.700	0.741	1.348	mm/s
PPV	48.85	49.76	53.84	dB
ZC Freq	18	28	19	Hz
Time (Rel. to Trig)	0.144	0.069	0.146	sec
Peak Acceleration	0.026	0.021	0.036	g
Peak Displacement	0.022	0.015	0.011	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	6.9	Hz
Overswing Ratio	3.6	3.4	3.7	

Peak Vector Sum 1.540 mm/s at 0.146 sec



**Date/Time** Tran at 13:38:21 March 5, 2019  
**Trigger Source** Geo: 0.500 mm/s, Mic: 2.000 pa.(L)  
**Range** Geo: 254.0 mm/s  
**Record Time** 10.749 sec (Auto=10Sec) at 1024 sps  
**Operator/Setup:** Operator/SSB.MMB

**Serial Number** UM8131 V 10-76 Micromate ISEE  
**Battery Level** 3.8 Volts  
**Unit Calibration** February 26, 2018 by UES New Delhi  
**File Name** UM8131\_20190305133821.IDFW

**Notes**  
 Location:  
 Client:  
 User Name: PRISM JOHNSON LIMITED  
 General:

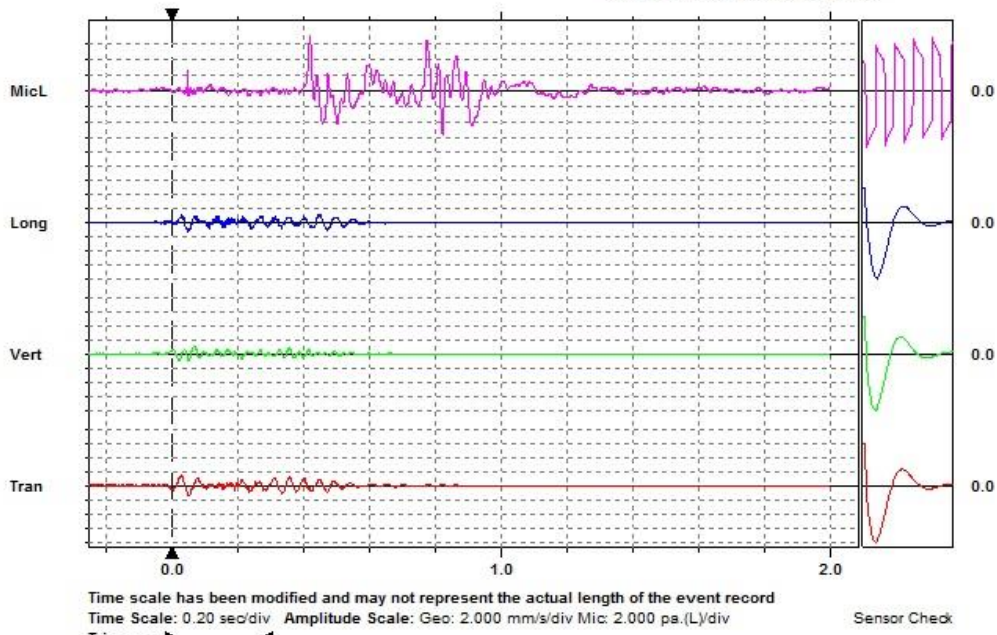
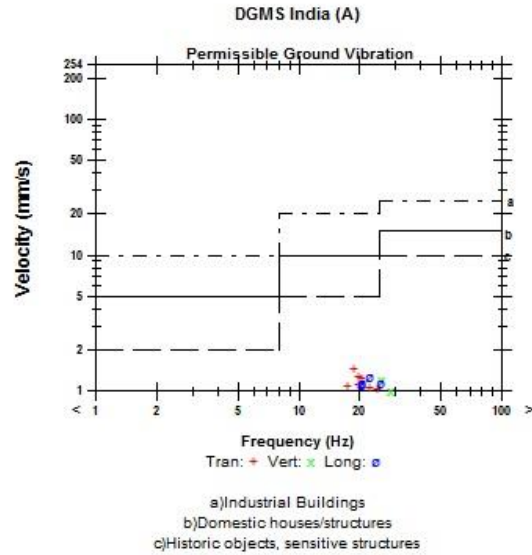
**Post Event Notes**  
 Bandarkha/1st Bench (L/S), No of holes 64 nos, Depth - 6.0 Mtrs.  
 Charge/delay - 20.70 Kg/delay, Observation Distance - 160 mts

**Extended Notes**  
 BANDARKHA LIMESTONE MINE

**Microphone** Linear Weighting  
**PSPL** 7,013 pa.(L) at 0.421 sec  
**ZC Freq** 15 Hz  
**Channel Test** Passed (Freq = 19.7 Hz Amp = 1307 mv )

	Tran	Vert	Long	
PPV	1.466	1.206	1.277	mm/s
PPV (Ponderated)	1.372	1.055	1.249	mm/s
PPV	54.32	52.63	53.12	dB
ZC Freq	19	26	22	Hz
Time (Rel. to Trig)	0.031	0.068	0.051	sec
Peak Acceleration	0.039	0.023	0.050	g
Peak Displacement	0.093	0.061	0.040	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	6.9	Hz
Overswing Ratio	3.5	3.4	3.6	

Peak Vector Sum 1.927 mm/s at 0.051 sec



**Date/Time** Long at 13:39:47 March 11, 2019  
**Trigger Source** Geo: 0.500 mm/s, Mic: 2.000 pa.(L)  
**Range** Geo: 254.0 mm/s  
**Record Time** 19.0 sec (Auto=10Sec) at 1024 sps  
**Operator/Setup:** Operator/SSB.MMB

**Serial Number** UM8131 V 10-76 Micromate ISEE  
**Battery Level** 3.6 Volts  
**Unit Calibration** February 26, 2018 by UES New Delhi  
**File Name** UM8131\_20190311133947.IDFW

**Notes**  
 Location:  
 Client:  
 User Name: PRISM JOHNSON LIMITED  
 General:

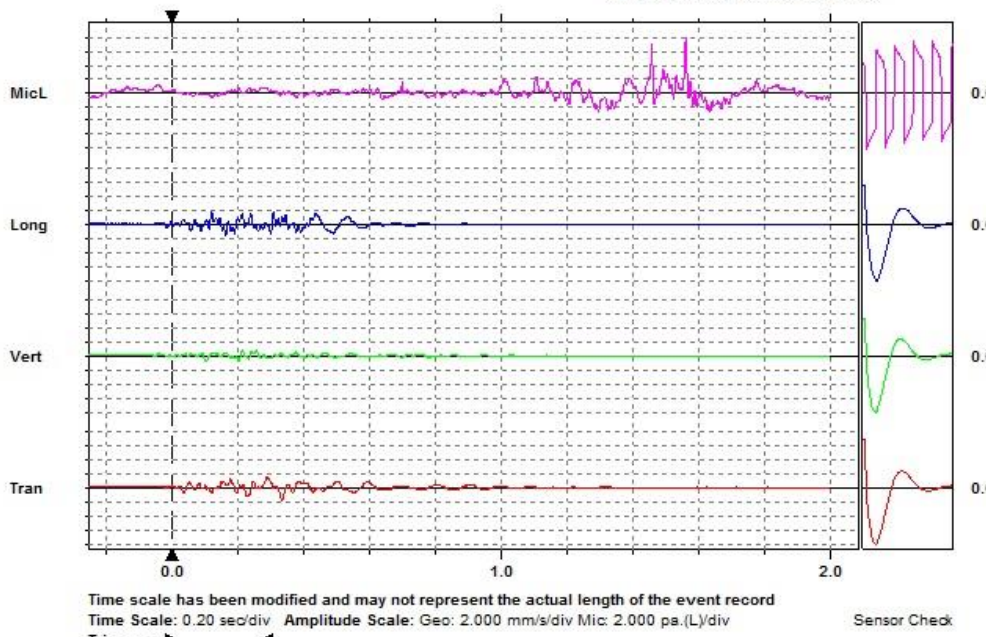
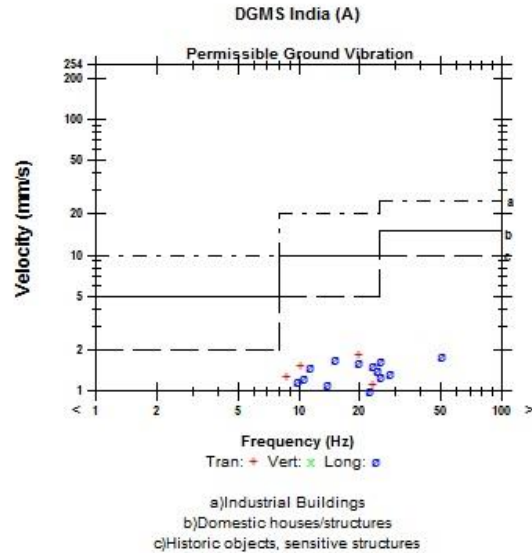
**Post Event Notes**  
 Bandarkha/1st Bench (L/S), No of holes 78 nos, Depth - 8.0 Mtrs.  
 Charge/delay - 20.97 Kg/delay, Observation Distance - 300 mts

**Extended Notes**  
 BANDARKHA LIMESTONE MINE

**Microphone** Linear Weighting  
**PSPL** 8.177 pa.(L) at 1.561 sec  
**ZC Freq** 12 Hz  
**Channel Test** Passed (Freq = 19.7 Hz Amp = 1332 mv )

	Tran	Vert	Long	
PPV	1.829	0.875	1.797	mm/s
PPV (Ponderated)	1.785	0.700	1.345	mm/s
PPV	56.24	49.84	56.09	dB
ZC Freq	20	24	51	Hz
Time (Rel. to Trig)	0.335	0.215	0.311	sec
Peak Acceleration	0.029	0.026	0.060	g
Peak Displacement	0.116	0.101	0.077	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.1	Hz
Overswing Ratio	3.5	3.4	3.6	

Peak Vector Sum 2.136 mm/s at 0.336 sec





Annexure 2



भारत सरकार / Govt. of India  
श्रम एवं रोजगार मंत्रालय / Ministry of Labour & Employment  
खान सुरक्षा महा-निदेशालय  
Directorate-General of Mines Safety  
जबलपुर-क्षेत्र / Jabalpur Region

पंजीकृत डाक द्वारा



प्लान न. 1936 से 1949, जे. डी. ए. स्कीम न. 5,  
जॉय हायर सेकेंडरी स्कूल के पिछे,  
विजय नगर, जबलपुर (म.प्र.) 482 002  
फोन : कार्यालय - 0761 2640365,  
फेक्स - 0761 2640414

संख्या : ज.क्षे./मेटल/अनुमति-34/2016/ 77 /जबलपुर, दिनांक 6/1/17

प्रेषक:

निदेशक खान सुरक्षा  
जबलपुर क्षेत्र

सेवा में

अभिकर्ता,  
बंदर्खा चुनापत्थर खान,  
मेसर्स प्रिज्म सीमेंट लिमिटेड,  
राजदीप, रीवा रोड,  
जिला: सतना (म प्र) 485 001

विषय: Relaxation from the provisions of Regulation 106(2)(b) of the Metalliferous Mines Regulations, 1961, to work the mine by system of deep hole blasting and deployment of Heavy Earth Moving Machineries at Bandarkha Limestone Mine of M/s Prism Cement Limited.

महोदय,

Please refer to your application vide letter No. MIN/2016-17/BDR/007 dated 23.08.2016 and subsequent correspondence resting with your letter No. MIN/2016-17/BDR/010 dated 15.10.2016 and the plan and enclosures enclosed therewith, on the above subject.

The matter has since been examined in this Directorate on the basis of information furnished and also shown on the plan enclosed therewith.

In exercise of the powers conferred on the Chief Inspector of Mines (also designated as Director General of Mines Safety) under Regulation 106(2)(b) of the Metalliferous Mines Regulations, 1961 and by virtue of the authorization granted to me 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 you relaxation from the provisions of Regulation 106(2)(b) of the Metalliferous Mines Regulations, 1961, to work the mine by system of deep hole blasting and deployment of Heavy Earth Moving Machineries at Bandarkha Limestone Mine of M/s Prism Cement Limited, as shown in red dotted colour line bounded by A-B-C-D-E-F-G-H-I-J-K-L-M-N-O-P-Q-R-S-T-U-V-W-X-Y-Z-A on plan No. PCL/B/2016/102 dated 16.08.2016 enclosed with the application, subject to the following conditions being strictly complied with:

- 1.0 Except where otherwise provided for in this conditional permission, all provisions of the Metalliferous Mines Regulations, 1961, relating to opencast workings, use of explosives and machinery, etc., shall be strictly complied with.

रिजिस्ट्रार



- (5) No road shall have a gradient more than 1 in 16. Ramps with 1 in 10 gradients should not be more than 10m at one stretch and permissions shall be obtained from Directorate.
- (6) Where any road existing above level of surrounding area it shall be provided with strong parapet wall/embankment of following dimensions.
  - i. Width at top-not less than 1 m.
  - ii. Width at bottom-not less than 2.5m.
  - iii. The height not less than the diameter of tyre of largest vehicle playing on road.

It may be noted that just dumping of mud or Overburden shall not be treated as strong parapet wall.

- (7) The portion of the surface haul road in the mine premises where there is heavy traffic of men and machines shall be provided with a separate lane properly fenced off from the haul road for pedestrian, two wheelers and light vehicles.

#### 6.0 Precautions-while drilling.

- (1) The position of every deep hole to be drilled shall be distinctly marked by the Mine Foreman so as to be readily seen by the drillers.
- (2)
  - (a) No drilling shall be commenced in an area where shots have been fired, until the blaster has made a thorough examination at all places, including remaining sockets of old deep holes, for unexploded charges that the drill may strike.
  - (b) No drill or bore rod or pick shall be inserted in sockets of old deep holes even if an examination under Clause (a) has failed to reveal presence of explosives.
- (3) No person shall be permitted to remain within a radius of 20 m or within 60 m on the same bench where charging of holes with explosives is being carried out.

#### 7.0 Transport of Explosives: Where explosives are transported in bulk for deep hole blasting the following precautions shall be taken:

- (1) Transport of explosives from the magazine to the priming station or the site of blasting shall not be done except in the original wooden or cardboard packing cases. The quantity of explosive transported at one time to the site of blasting shall not exceed the actual quantity required for use in one round of shots. The explosives shall be transported to the site of blasting not more than 90 minutes before the commencement of charging of the holes.
- (2)
  - (a) No mechanically propelled vehicle shall be used for the transport of explosives unless it is of a type approved in writing by the Chief Inspector provided that a Jeep or Land Rover may be used for the transport of detonators from magazines to 'priming stations' subject to the following conditions:
    - (i) Not more than 200 detonators are transported in a vehicle at a time;
    - (ii) The detonators are packed suitably in a wooden box
    - (iii) The wooden box containing detonators is placed inside an outer metal case of construction approved by the Chief Inspector;
    - (iv) The outer metal case shall be suitably bolted to the floor of the vehicle or otherwise fixed in a wooden frame so that the container does not move about

21/5/18 (11/4)

- while the vehicle is in motion; and
- (v) No person shall ride on the rear portion of the vehicle.
  - (vi) Every vehicle used for the transport of explosive shall be marked or placarded on both sides and ends with the word "Explosives" in white letters not less than 15 centimeters high on a red background.
  - (vii) Every mechanically propelled vehicle transporting/explosives shall be provided with not less than two fire extinguishers (one of carbon tetrachloride type for petroleum fire and the other of carbon dioxide under pressure type for electrical fire) suitably placed for convenient use.
- (3) (a) The vehicle used for the transport of explosives shall not be overloaded and in no case shall the explosive cases be piled higher than the sides of its body.
  - (b) Explosives and detonators shall not be transported in the same vehicle, at the same time.
- (4) (a) No person other than the driver and his helper (not below 18 years of age) shall ride on a mechanically propelled vehicle used for the transport of explosives.
  - (b) A vehicle loaded with explosive shall not be left unattended.
  - (c) The engine of a vehicle transporting explosives shall be stopped and the brakes set securely before it is unloaded or left standing.
  - (d) A vehicle transporting explosives shall not be driven at a speed exceeding 25 kilometers per hour.
  - (e) A vehicle loaded with explosives shall not be taken into garage or repair shop and shall not be parked in a congested place.
  - (f) A vehicle transporting explosives shall not be refueled except in emergencies and then only when its engine is stopped and other precautions taken to prevent accidents.
  - (g) No trailer shall be attached to a vehicle transporting explosives.
- (5) (a) Every vehicle used for the transport of explosives shall be carefully inspected once in every 24 hours by a competent persons to ensure that:
    - (i) Fire extinguishers are filled and in place;
    - (ii) The electric wiring is well-insulated and firmly secured;
    - (iii) The chassis, engine and body are clean and free from surplus oil and grease;
    - (iv) The fuel tank and feed lines are not leaking; and
    - (v) Lights, brakes and steering mechanism are in good working order.
  - (b) All report of every inspection made under sub-clause (a) shall be signed and dated by competent person making the inspection.
- (6) All operations connected with the transport of explosives shall be conducted under the personal supervision of a foreman solely placed in charge of blasting operations under overall charge of a Asstt. Manager at the mine.
  - (7) The blaster shall personally search every person engaged in the transport and use of explosives and shall satisfy himself that no person so engaged has in his possession any cigarette, 'biri' or other smoking apparatus, or any match or any other apparatus of any kind capable of producing a light, flame or spark. .

#### **8.0 Precautions during shot-firing:**

- (1) (a) Shots shall not be fired except during the hours of day-light. All holes charged on any one day shall be fired on the same day.

- (b) As far as practicable the blasting shall be carried out either between shifts or during the rest interval or at the end of work for the day.
- (2) During the approach and progress of an electric storm, the following precautions shall be taken:-
  - (a) No explosive, particularly detonators shall be handled.
  - (b) If charging operations have begun, the work shall be discontinued until the storm has passed.
  - (c) If the blast is to be fired electrically all exposed wires shall be coiled up and if possible placed in the mouth of the holes, or kept covered by something other than a metal plate.
  - (d) All wires shall be removed from contact with the steel rails of a haulage track so as to prevent the charge being exploded prematurely by a local strike of the lightning.
- (3) Blasting operation in the mine shall be placed under the charge of an Assistant manager and no blasting shall be done in the mine in the absence of the Assistant Manager.
- (4) No deep hole blasting shall be undertaken within 300m of the any structure not belonging to owner unless permission in writing is obtained from this Directorate as required under the provision of Reg. 164 of MMR, 1961.





# VIBRANT

"Experience the unimaginable"

## TEST REPORT



TC-11227

Sample Number : VTL/GW/07

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

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

Sample Description : Water Sample

Sampling Location : Bandakha Village - Borewell

Sample Collected By : VTL Team

Preservation : Suitable Preservation

Method of sampling : IS :3025

Report No. : VTLW/2306170007/A

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sampling Date : 12/06/2023

Sampling Type : Grab

Sample Quantity : 2 Ltr.

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	7.39	--	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 <sub>3</sub> )	IS: 3025 (P-21): 2009, RA 2019	250.00	mg/l	200	600
4	Calcium (as Ca)	IS: 3025 (P- 40): 1991 RA 2019	82.16	mg/l	75	200
5	Total Alkalinity (as CaCO <sub>3</sub> )	IS: 3025 (P-23): 1986, RA 2019	199.50	mg/l	200	600
6	Chloride (as Cl)	IS: 3025 (P-32): 1988, RA 2019	48.81	mg/l	250	1000
7	Magnesium (as Mg)	IS: 3025 (P-46): 1994, RA 2019	10.94	mg/l	30	100
8	Total Dissolved Solids	IS :3025 (P-16): 1984, RA 2017	611.30	mg/l	500	2000
9	Sulphate (as SO <sub>4</sub> )	IS: 3025 (P-24): 1986, RA 2022	75.08	mg/l	200	400
10	Fluoride (as F)	APHA 23rd Edition ,4500FD :2017	0.29	mg/l	1.0	1.5
11	Nitrate (as NO <sub>3</sub> )	IS: 3025 (P-34): 1988	13.03	mg/l	45.0	No Relaxation
12	Iron (as Fe)	APHA 23rd Edition , 3111B,2017	0.21	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	0.23	mg/l	5.0	15.0
17	Copper (as Cu)	APHA 23rd Edition 3111B	*BLQ(**LOQ-0.02)	mg/l	0.05	1.5



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Page No. 1/2

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

### 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





# TEST REPORT



## VIBRANT

"Experience the unimaginable"

Sample Number : VTL/GW/07

Report No. : VTLW/2306170007/A

S.No.	Test Parameters	Test Method	Results	Units	IS:10500-2012	
					Acceptable Limit	Permissible Limit
17		2017				
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\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Page No. 2/2

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

### 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



# TEST REPORT

## VIBRANT

"Experience the unimaginable"

Sample Number : VTL/GW/07

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

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

Sample Description : Water Sample

Sampling Location : Bandakha Village - Borewell

Sample Collected By : VTL Team

Preservation : Suitable Preservation

Method of sampling : IS :3025

Report No. : VTLW/2306170007/B

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 23/06/2023

Period of Analysis : 17/06/2023-23/06/2023

Receipt Date : 17/06/2023

Sampling Date : 12/06/2023

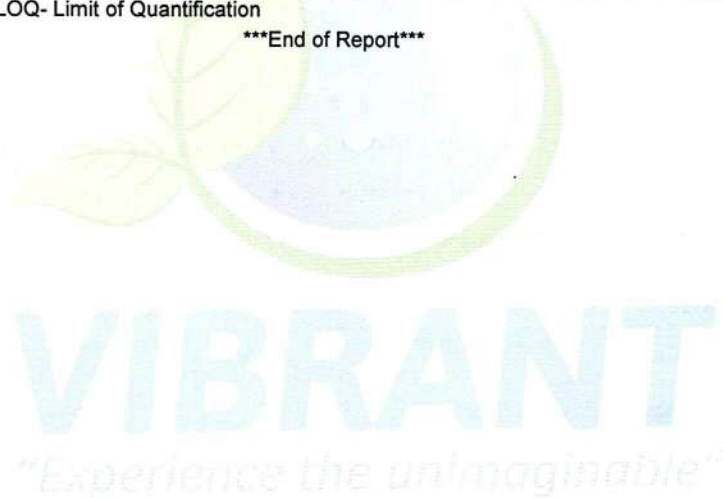
Sampling Type : Grab

Sample Quantity : 2 Ltr.

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\*\*\*



  
Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory 



## TEST REPORT



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

Sample Number:	VTL/WL/01	Report No.:	VTL/WL/ 2309140001-12
Name & Address of the Party:	M/s PRISM JOHNSON LIMITED Village- Mankahari, Tehsil- Rampur Baghelan, Dist.- Satna (M.P.)	Format No.:	7.8 F-01
Sample Collected By	VTL Team	Party Reference No.:	NIL
Sample Description:	Ground Water Level Monitoring	Report Date:	20/09/2023
		Receipt Date:	14/09/2023
		Date of Monitoring	12/09/2023

S.No.	Location	Depth (In meter)
1.	Near Colony Gate	13.46
2.	Behind B Block colony	1.55
3.	Behind C Block colony	13.60
4.	Auto Work Shop	13.50
5.	In Front Den	8.26
6.	Rose Garden near Boundary	16.32
7.	Western Block Mines	8.18
8.	Near New Magazine Mines	11.0
9.	Chulhi Majhiyar Mines	5.48
10.	Mines near Ramprasan	9.10
11.	Medi Mines	8.63
12.	Mankahari Mines	15.43

Checked By 



Lab Incharge  
RK Yadav   
Authorized Signatory

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

**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



# Deotale Diagnostic Centre (we care)

Consultation      Diagnostics      Health Check- Ups      Immunization.

Clinic: Vinayak Apt. 3<sup>rd</sup> floor Dhantoli Lokmat Chowk Nagpur

For any assistance call at : 9860204241

Email ID : deotaledepak19577@gmail.com

## MEDICAL CHECK-UP

SR NO	109
TEST NO	112
Emp Code	503956
Department	Mines
Designation	Operator
Mobile NO	9617140901
Contractor Name	Bandarkha
CHECK-UP DATE	14-11-22

EMPLOYEES NAME: Ganesh Singh

Gender: Male	Age : 52 Yrs	Ht: 170 cms	Wt: 85 Kg
BMI: 29.41	Chest : 94 Inch / Inspiration	Chest : 91 Inch/Expiration	

Company Address: Prism Johnson Limited Cement Division Village : Mankahari  
P.O. Bathia Tehsil : Rampur Baghelan Dist : Satna Madhya Pradesh Pin : 485111

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

General Exam:- Good	BP : 134/84 mmHg	Pulse : 78 /min
---------------------	------------------	-----------------

C.V.S.: N      R/S: N      CNS:N      SP/LIVER: N/P

## BLOOD TEST

Random Blood Sugar: 95mg/dl	Blood Group: O-ve	Hb %: 13.4 gm/dl	ESR: 2 MM/Hr
TLC: 9600 /Cumm	N.: 78 %	L.: 19%	E.: 2%      M.: 1 %
S. Cholesterol: 168mg/dl	Triglyceride: 158 mg/dl		HDL: 47 mg/dl
LDL: 89.4 mg/dl	VLDL: 31.6 mg/dl		CHO/HDL Ratio: 3.6
SGOT : 33 IU/L	SGPT : 26 IU/L	Sr. Creatinine: 1.1 mg/dl	Sr. UREA : 33 mg/dl
Urine Pus Cell : NIL	Urine ALB : NIL	Urine Sugar : NIL	

ECG : WNL	Colour-blindness : NO
K-RAY : WNL	SPIROMETRY : WNL
AUDIOMETRY : RT . WNL	AUDIOMETRY: LF . WNL
Vision:	Unaided - Dist. Rt - 6/6
	Unaided - Near Rt - N/6
	With Spect Dist . Rt -
	With Spect Near . Rt -
	Unaided Dist. Lf - 6/6
	Unaided Near Lf - N/6
	With Spect Dist . LF -
	With Spect Near . LF -

MEDICAL CHECK UP : NORMAL

Refractive error can be corrected by spectacle

Opinion: He is physically & mentally fit .He is not suffering from any infectious or contagious diseases

Dr. DEEPAK 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\*.....Ganesh Singh.....  
employed as W.P...... In Barn Dakher..... mine,  
Form No. A.S.3..... has been examined for an initial/periodical medical  
examination. He/she appears to be 53..... years of age.

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

✓  
Space for affixing  
Passport  
Size Photograph  
of the  
Candidate.

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

Signature of the examining authority  
Name and designation in Block letters

Place : PCL  
Date : 14/11/2022

\* 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..... as result of medical examination on .....

Identification Mark...Cut mark on Left Leg.



Left thumb impression of the candidate  
(Ganesh Singh)



1. General development- Good/Fair/Poor

2. Height ..... 170 ..... Cms.

3. Weight ..... 85 ..... kg.

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

Right eye..... 6/6..... Left eye..... 6/6.....

(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 ..... 106 ..... cms.  
(ii) After full expiration..... 104 ..... cms.

7. Circulatory system: (i) Blood Pressure ..... 131/84 ..... (ii) Pulse ..... 78 bpm,

8. Abdomen : Tenderness ..... No .....  
Liver. .... N.P .....  
Spleen. .... N.P .....  
Tumour. .... No, .....

9. Nervous system:  
History of fits or epilepsy ..... No .....  
Paralysis ..... No .....  
Mental health. .... Good .....

10. Locomotory system : ..... Normal .....

11. Skin. : ..... Normal .....

12. Hydrocele. : ..... No .....

13. Hernia. : ..... No .....

14. Any other abnormality : ..... No .....

15. Urine : Reaction ..... Neutral .....  
Albumin ..... No .....  
Sugar ..... No .....

16. Skiagram of chest. : WNL,

17. Any other test considered necessary by the examining authority. : No,

18. Any opinion of specialist considered necessary. No,

Place:

Signature of the examining authority

Dr. Deepak Dootale  
MBBS, AFM  
Reg No: 48366



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

Certificate No.

Name : *Gomesh Singh*

Identification Marks: *cut mark on left leg*

**Result of Lung Function Test (Spirometry)**

Parameters	Predicted Value	Performed Value	% of Predicted
Forced Vital Capacity (FEV)	<i>03.27</i>	<i>02.80</i>	<i>086</i>
Forced Vital Capacity FEV1	<i>02.56</i>	<i>02.59</i>	<i>101</i>
FEV 1/ FVC	<i>78.29</i>	<i>92.50</i>	<i>118</i>
Peak Expiratory Flow	<i>08.40</i>	<i>03.44</i>	<i>041</i>

Spirometry Report enclosed.

*92*  
 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.

Name : *Gomesh Singh*

Identification Marks: *cut mark on left leg*

**1. Cardiological Assessment**

Auscultation	S1	Performed Value	% of Predicted
	<i>Normal</i>		
	S2		
	<i>Normal</i>		
	Additional Sound	<i>NO</i>	
FEV1/ FVC		<i>92.50</i>	<i>118</i>
Electrocardiograph(12leads) findings		<i>Normal/Abnormal</i>	

Enclosed ECG

**2. Neurological Assessment**

Findings	Normal/Abnormal
Superficial Reflexes	<i>Normal</i>
Deep Reflexes	<i>Normal</i>
Peripheral Circulation	<i>Normal</i>
Vibrational Syndromes	<i>Normal</i>



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

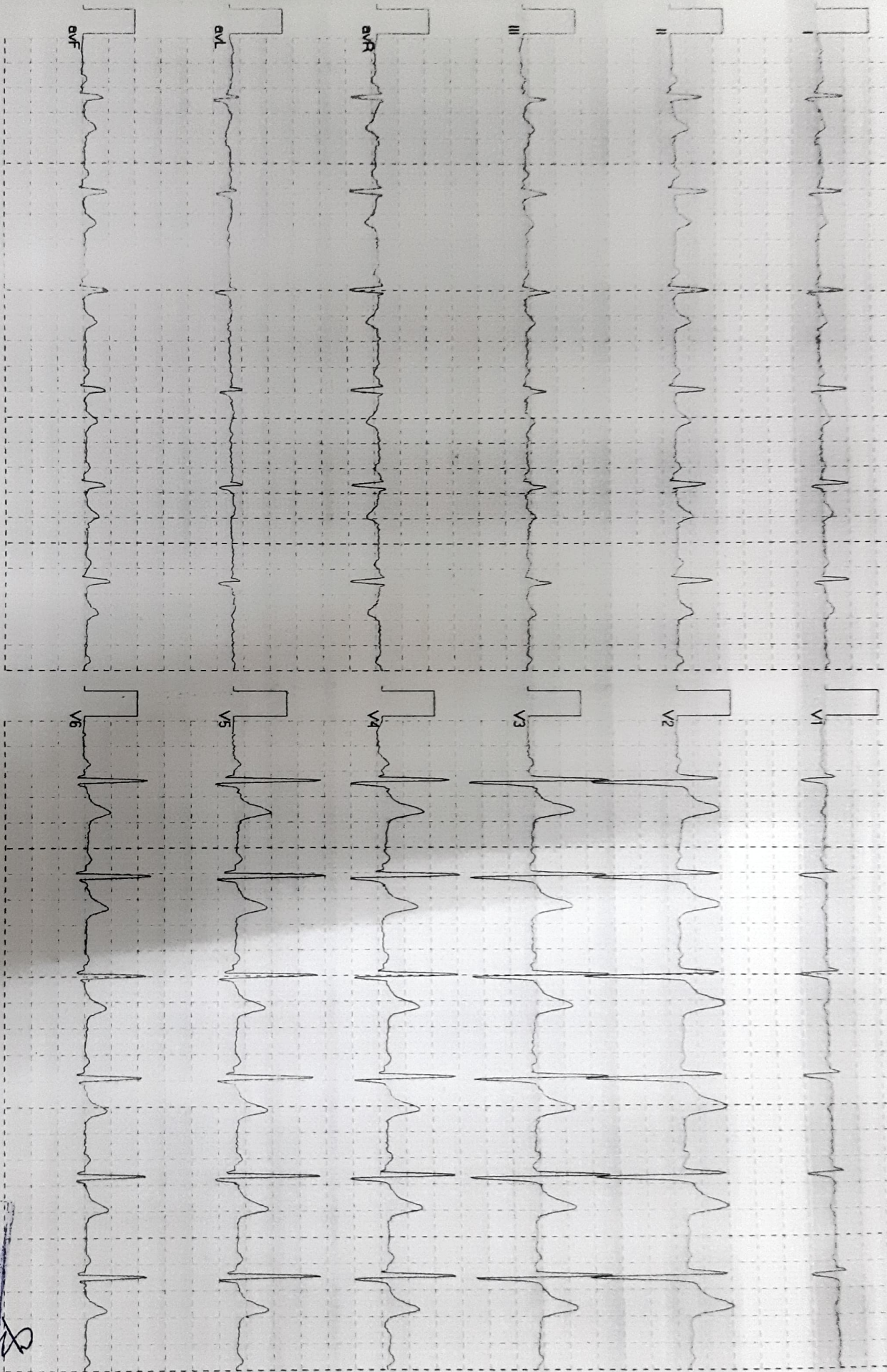
7. Any other Special Tests Required: *No,*

*92*  
 Dr. Deepak Deotale  
 MBBS, AFIH  
 Reg. No: 48366

Signature of the Examination Authority  
 Seal



P112 / GANESH SINGH / 63 Yrs / M / 86Kgs / Non Smoker  
Heart Rate : 78 bpm / Tested On : 14-Nov-22 17:14:48 / HF 0.05 Hz - LF 100 Hz / Notch 60 Hz / Sn 1.00 Cm/mV / Sw 26 mm/s



Allengers ECG (Pscs)(PIS212160118)

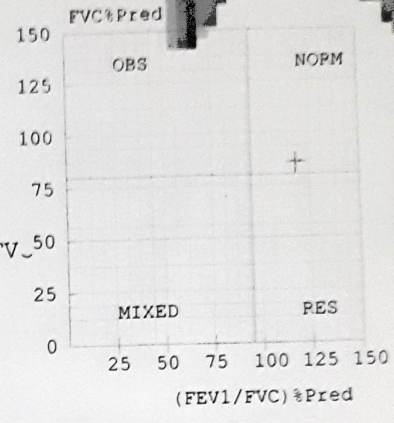
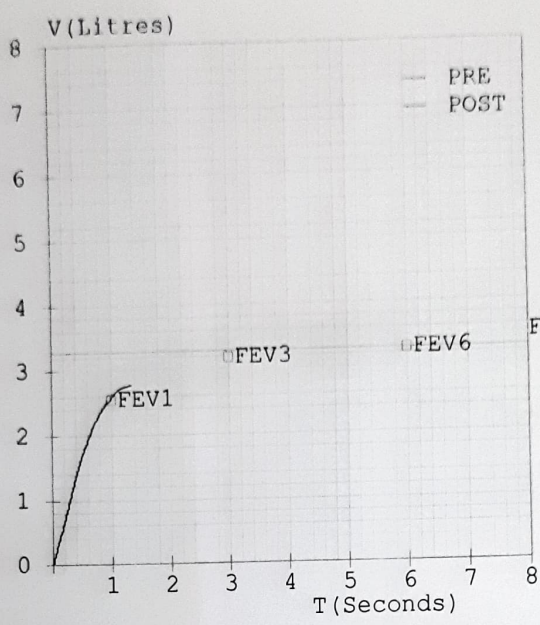
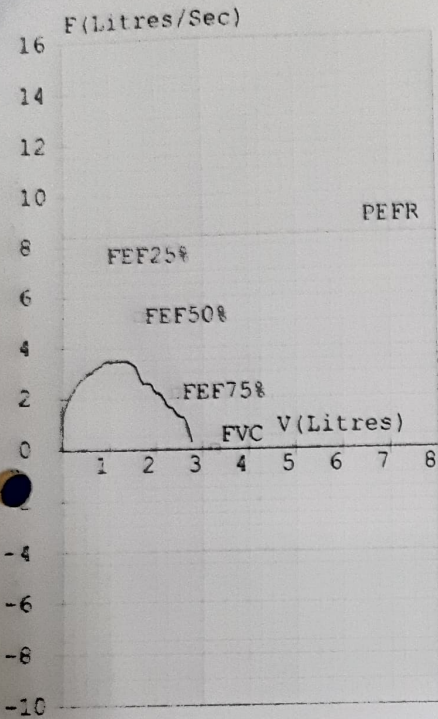
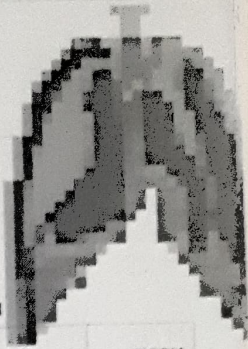
Dr. Deepak Deotale  
MBBS, AFM  
Reg. No: 48356



AGPUR

Pat: GANESH SINGH  
 Performed By: RECORDERS  
 Date: 14-11-2022 05:22 PM

Age : 53 Years Gender : Male  
 Height : 170 Cms Smoker : No  
 Weight : 85 Kgs Eth. Corr: 100  
 ID: PA 112 Temp : degrees




**FVC Results**

Parameter	Pred	M. Pre%Pred	M. Post %Pred	%Imp
FVC (L)	03.27	02.80	086	---
FEV1 (L)	02.56	02.59	101	---
FEV1/FVC (%)	78.29	92.50	118	---
FEF25-75 (L/s)	03.36	02.93	087	---
PEFR (L/s)	08.40	03.44	041	---
FIVC (L)	-----	---	---	---
FEV.5 (L)	-----	01.67	---	---
FEV3 (L)	03.17	02.80	088	---
PIFR (L/s)	-----	---	---	---
FEF75-85 (L/s)	-----	01.72	---	---
FEF.2-1.2 (L/s)	06.01	02.94	049	---
FEF 25% (L/s)	07.62	03.10	041	---
FEF 50% (L/s)	05.23	03.38	065	---
FEF 75% (L/s)	02.19	02.11	096	---
FEV.5/FVC (%)	-----	59.64	---	---
FEV3/FVC (%)	96.94	100.00	103	---
FET (Sec)	-----	01.38	---	---
ExplTime (Sec)	-----	00.29	---	---
Lung Age (Yrs)	053	052	098	---
FEV6 (L)	03.27	-----	---	---

**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 Dectale**  
 MBBS, AFH  
 Reg. No: 48366



# Deotale Diagnostic Centre (we care)

Consultation • Diagnostics Health Check- Ups • Immuniza

Unit: Anand Apt. 3<sup>rd</sup> Floor Dhanoli Lokmat Chowk Nagpur

Ph: Anand Apt. Nagpur: 9833294241, 8129754361, 9807771341, 0712-242486

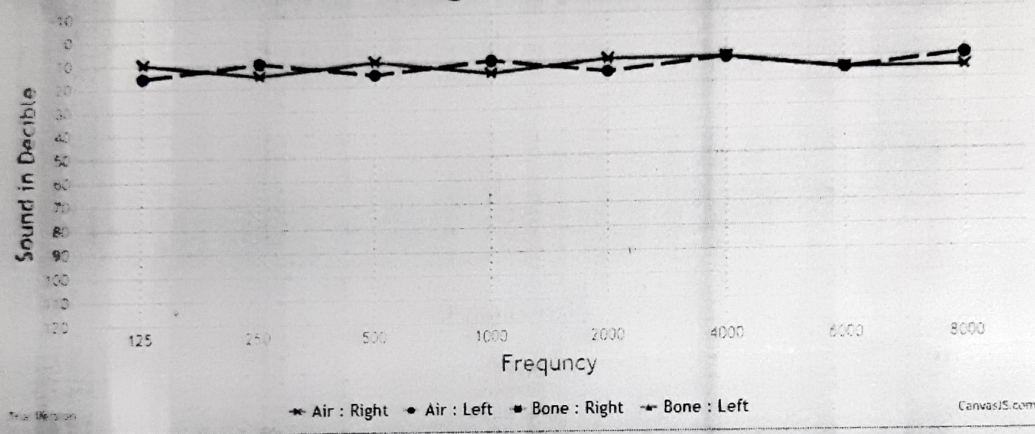
### Patient Details

Name: GANESH SINGH  
Contact:  
Company:  
Designation:

Age: 53  
Address:  
Contractor:  
CPF: 112

Sex: Male  
Department:  
Date: 14-11-22

### Audiological Evaluation



### TEST FREQUENCY

**Air Conduction Test**  
PTA Right (X) 12.5

PTA Left (●) 12.625

**Bone Conduction Test**  
PTA Right (■) 0

PTA Left (▲) 0

Note: NORMAL

*Deotale*  
Dr. DEEPAK DEOTALE  
M.B.B.S. A.F.L.H. (Reg. No. 483)

**PRISM JOHNSON LIMITED**  
**CSR Activities Roadmap Summary FY 2023-24**

S.N.	Category under Schedule VII	Description of Activity	Proposed Budget Amount Rs. In Crore				
			Q-1	Q-2	Q-3	Q-4	Total
1	Availability of drinking water Schedule VII (i))	Availability of potable water through installation of hand pumps with bore well, supply through water tankers	0.03	0.03	0.02	0.02	0.10
2	Environment, water Conservation and Promoting renewable energy Schedule VII (iv)	Plantation and survival, construction of water harvesting structures, deepening of ponds, development of social forestry	0.36	0.33	0.11	0.04	0.84
3	Health & Hygiene Schedule VII (i)	Free medical facility, camps and free ambulance service	0.03	0.02	0.04	0.05	0.14
4	Promoting Education Schedule VII (ii)	Repairing & maintenance of school buildings, slogan writing, Construction of boundarywall	0.03	0.03	0.09	0.02	0.17
5	Rural Infrastructure Development Schedule VII (X)	Renovation of community centers, Construction of drainage in villages	0.02	0.07	0.13	0.05	0.27
6	Social Welfare Schedule VII (iii, iv & vi)	Support to old age home, animal Welfare and other assistance required as per development activity	0.04	0.02	0.02	0.01	0.09
7	Vocational Skill Development Schedule VII (ii)	Vocational skill development trainings, livelihood support	0.00	0.00	0.01	0.02	0.03
	<b>Total</b>		<b>0.51</b>	<b>0.50</b>	<b>0.42</b>	<b>0.21</b>	<b>1.64</b>

Prakash Pandey  
Prepared By

Devendra Mishra  
Checked BY

M. P. Tripathi  
Functional Head

**PRISM JOHNSON LTD.**  
**PROPOSED CSR ACTIVITIES ACTION PLAN FY 2023-24**

Sl. No.	CSR Project Name/ Activities Undertaken	Category under Schedule VII	Whether the Project to be undertaken in collaboration with any other company	Implementation / Execution Modality (Directly or through Implementing Agency)	Name of Implementing Agency	Implementation Agency complying Rule 4(1) of CSR Rules (Y/N)*	Type of Implementation Agency as per Rule 4(1)	Modalities of Utilization of Funds	Location	Ongoing project (Y/N)	If ongoing, duration of the project (in years)	Project start year & end year	Implementation Schedule during FY 2022-23 in crore				Monitoring & Reporting Mechanism	Total Rs in crore	Whether impact assessment applicable	Need of impact assessment (Project outlay of Rs.1 cr and above / any other reason)	Impact assessment due after (please mention date/ FY which is 1 year after completion of project)	FY in which impact Assessment proposed to be undertaken	If project is in collaboration with any other company who would undertake impact assessment	
													Q1	Q2	Q3	Q4								Total
<b>A. Availability of drinking water Schedule VII (i)</b>																								
1	Drinking water supply through Water Tanker at nearby villages	Availability of drinking water Schedule VII (i)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.02	0.01	0.02	0.02	Demand & Supply	0.07	No	No	No	No	No	
2	Installation of 05 new hand pumps at Richhahari, Hinauti, Mahurachh, Malgaon and Bairiha	Availability of drinking water Schedule VII (i)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.01	0.02	0	0	Selection of area in association with panchayats	0.03	No	No	No	No	No	
<b>SUB TOTAL</b>													<b>0.03</b>	<b>0.03</b>	<b>0.02</b>	<b>0.02</b>	<b>0.10</b>							
<b>B. Environment, water Conservation and Promoting renewable energy</b>																								
<b>Plantation for Environment Conservation Schedule VII (iv)</b>																								
3	Road side plantation with 250 treeguards at Satna	Plantation for Environment Conservation Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0	0.05	0.05	0	Close monitoring of project cost, time limit, MIS	0.10	No	No	No	No	No	
4	Survival of 53000 saplings at Khamhariya Forest Land plantation	Plantation for Environment Conservation Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.02	0.02	0.03	0.04	Close monitoring of project cost, time limit, MIS	0.11	No	No	No	No	No	
5	Survival of 20000 saplings at Chulhi Jamodi Forest Land plantation under CSE/CSR redeforestation Scheme	Plantation for Environment Conservation Schedule VII (iv)	No	Yes	No	NA	NA	NA	Satna	No	NA	2023-24	0.04	0.00	0.00	0	Close monitoring of project cost, time limit, MIS	0.04	No	No	No	No	No	
6	Distribution of 50,000 Fruit Plants to villagers	Plantation for Environment Conservation Schedule VII (iv)	No	Yes	No	NA	NA	NA	Satna	No	NA	2023-24	0.06	0.07	0.03	0	Close monitoring of project cost, time limit, MIS	0.16	No	No	No	No	No	
<b>Conservation of Natural Resources Schedule VII (iv)</b>																								
7	Desilting of 2950 M3 Pond near Anganvadi at Mahurachh	Conservation of Natural Resources Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.03	0.01	0	0	Close monitoring of project cost, time limit, MIS	0.04	No	No	No	No	No	
8	De-silting of 3500 M3 Pond at Baghai	Conservation of Natural Resources Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.04	0.01	0	0	Close monitoring of project cost, time limit, MIS	0.05	No	No	No	No	No	
9	Desilting of 250 M waterways channel at Bamahuri	Conservation of Natural Resources Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.03	0.01	0	0	Close monitoring of project cost, time limit, MIS	0.04	No	No	No	No	No	
10	De silting of 7800 M3 Ramvan pond at Ramvan Sajjanpur	Conservation of Natural Resources Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.05	0.04	0	0	Close monitoring of project cost, time limit, MIS	0.09	No	No	No	No	No	



Sl. No.	CSR Project Name/ Activities Undertaken	Category under Schedule VII	Whether the Project to be undertaken in collaboration with any other company	Implementation / Execution Modality (Directly or through Implementing Agency)	Name of Implementing Agency	Implementation Agency complying Rule 4(1) of CSR Rules (Y/N)*	Type of Implementation Agency as per Rule 4(1)	Modalities of Utilization of Funds	Location	Ongoing project (Y/N)	If ongoing, duration of the project (in years)	Project start year & end year	Implementation Schedule during FY 2022-23 in crore				Monitoring & Reporting Mechanism	Total Rs in crore	Whether impact assessment applicable	Need of impact assessment (Project outlay of Rs.1 cr and above / any other reason)	Impact assessment due after (please mention date / FY which is 1 year after completion of project)	FY in which Impact Assessment proposed to be undertaken	If project is in collaboration with any other company who would undertake impact assessment		
<b>Water Conservation Schedule VII (iv)</b>																									
11	Construction of 04 Single Bore shaft water harvesting structures in nearby villages Belahati, Shankarpur, Tikuri and Satari	Water Conservation Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.03	0.03	0	0	Close monitoring of project cost, time limit, MIS	0.06	No	No	No	No	No		
12	Construction of 02 double bore shafts water harvesting structures at villages	Water Conservation Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.03	0.02	0	0	Close monitoring of project cost, time limit, MIS	0.05	No	No	No	No	No		
13	Construction of 200 perforated drum based water harvesting structures at Hinauti, Sijahata, Baghai and Chormari	Water Conservation Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.03	0.07	0	0	Close monitoring of project cost, time limit, MIS	0.10	No	No	No	No	No		
<b>SUB TOTAL</b>													<b>0.36</b>	<b>0.33</b>	<b>0.11</b>	<b>0.04</b>	<b>0.00</b>	<b>0.84</b>							
<b>C. Health &amp; Hygiene Schedule VII (i)</b>																									
14	Free consultation & medicines distribution from PCL Medical centre Out door patient to nearby villagers (Approx. 20000 patients)	Health & Hygiene Schedule VII (i)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.01	0.01	0.01	0.02	Nos. patients attended, registered	0.05	No	No	No	No	No		
15	24 hrs. ambulance facility will be provided to nearby villagers free of cost. (Approx. 2000 patients)	Health & Hygiene Schedule VII (i)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.02	0.01	0.02	0.02	Nos. patients attended, registered	0.07	No	No	No	No	No		
16	Operation & Maintenance of Sulabh Complex at Mahurachh Turning (12 months)	Health & Hygiene Schedule VII (i)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.00075	0.00075	0.0008	0.00075	Project cost, time line,	0.00	No	No	No	No	No		
17	Construction of 10 ODF toilets at Mnakahari village	Health & Hygiene Schedule VII (i)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0	0	0.01	0.01	Project cost, time line,	0.02	No	No	No	No	No		
<b>SUB TOTAL</b>													<b>0.03</b>	<b>0.02</b>	<b>0.04</b>	<b>0.05</b>	<b>0.14</b>								
<b>D. Promoting Education Schedule VII (ii)</b>																									
18	Renovation of Government Middle School Hinauti	Promoting Education Schedule VII (ii)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0	0	0.03	0	Close monitoring of project cost, time limit, MIS	0.03	No	No	No	No	No		
19	Construction of 252 M Boundary wall at Government Middle School Harshnagar Rampur Baghelan	Promoting Education Schedule VII (ii)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.02	0.03	0.06	0.02	Close monitoring of project cost, time limit, MIS	0.13	No	No	No	No	No		
20	200 Awareness Wall paintings and slogans writing pertaining to different social themes at Sajjanpur, Ghunghunchihai, Goraiya and Ramasthan	Promoting Education Schedule VII (ii)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.01	0	0	0	Close monitoring of project cost, time limit, MIS	0.01	No	No	No	No	No		
<b>SUB TOTAL</b>													<b>0.03</b>	<b>0.03</b>	<b>0.09</b>	<b>0.02</b>	<b>0.17</b>								

Sl. No.	CSR Project Name/ Activities Undertaken	Category under Schedule VII	Whether the Project to be undertaken in collaboration with any other company	Implementation / Execution Modality (Directly or through Implementing Agency)	Name of Implementing Agency	Implementation Agency complying Rule 4(1) of CSR Rules (Y/N)*	Type of Implementation Agency as per Rule 4(1)	Modalities of Utilization of Funds	Location	Ongoing project (Y/N)	If ongoing, duration of the project (in years)	Project start year & end year	Implementation Schedule during FY 2022-23				Monitoring & Reporting Mechanism	Total Rs in crore	Whether impact assessment applicable	Need of impact assessment (Project outlay of Rs.1 cr and above / any other reason)	Impact assessment due after (please mention date / FY which is 1 year after completion of project)	FY in which Impact Assessment proposed to be undertaken	If project is in collaboration with any other company who would undertake impact assessment
<b>E. Rural Infrastructure Development Schedule VII (X)</b>																							
21	Renovation of community Center at Sijahata	Rural Infrastructure Development Schedule VII (X)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0	0	0.02	0	Close monitoring of project cost, time limit, MIS	0.02	No	No	No	No	No
22	Renovation of Community Center at Satna	Rural Infrastructure Development Schedule VII (X)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0	0.04	0.06	0.03	Close monitoring of project cost, time limit, MIS	0.13	No	No	No	No	No
23	Construction of pathway at Pond Mankahari	Rural Infrastructure Development Schedule VII (X)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0	0	0.03	0.02	Project cost, time line,	0.05	No	No	No	No	No
24	Construction of 200 running meter drainage at Bamhauri	Rural Infrastructure Development Schedule VII (X)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.02	0.03	0.02	0	Close monitoring of project cost, time limit, MIS	0.07	No	No	No	No	No
				<b>SUB TOTAL</b>									<b>0.02</b>	<b>0.07</b>	<b>0.13</b>	<b>0.05</b>		<b>0.27</b>					
<b>F. Social Welfare Schedule VII (iii, iv &amp; vi)</b>																							
25	Support to Old Age Home, Dr. Lalta Prasad Khare Charitable Trust	Social Welfare Schedule VII (iii)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.02	0.02	0.01	0.01	Support by providing financial assistance	0.06	No	No	No	No	No
26	Assistance Measures for development of societies, war widows, social weaker section of society, promoting art and culture etc	Social Welfare Schedule VII (iii)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0	0	0.01	0	Selection of beneficiaries, time limit	0.01	No	No	No	No	No
27	Fodder arrangement for 100 cows at Goshala Mahurachh	Animal Welfare Schedule VII (iv)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0.02	0	0	0	Close monitoring of project cost, time limit, MIS	0.02	No	No	No	No	No
				<b>SUB TOTAL</b>									<b>0.04</b>	<b>0.02</b>	<b>0.02</b>	<b>0.01</b>		<b>0.09</b>					
<b>G. Vocational Skill Development Schedule VII (ii)</b>																							
28	Driving Training program with license making to 50 youth from nearby villages	Vocational Skill Development Schedule VII (ii)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0	0	0	0.01	Close monitoring of project cost, time limit, MIS	0.01	No	No	No	No	No
29	Stitching/Beautician Training program for 25 women from nearby villages.	Vocational Skill Development Schedule VII (ii)	No	Direct	No	NA	NA	NA	Satna	No	NA	2023-24	0	0	0.01	0.01	Selection of beneficiaries, Attendance, time limit, MIS	0.02	No	No	No	No	No
				<b>SUB TOTAL</b>									<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>		<b>0.03</b>	No	No	No	No	No
				<b>TOTAL</b>									<b>0.51</b>	<b>0.50</b>	<b>0.42</b>	<b>0.21</b>		<b>1.64</b>					



## PRISM CEMENT LIMITED

Works : Vill-Mankahari, P.O.-Bathia, Dist.-Satna - 485111 (M.P.) India  
Tel. : (07672) 275301-2, 275621-22, Fax : 275303  
Corsp. Add. : 'Rajdeep', Rewa Road, Satna - 485 001 (M.P.) India  
Tel. : (07672) 402726, Fax : 402710



दिनांक: 01.04.2013

प्रति,

सरपंच महोदय

ग्राम-पंचायत-हिनीती, विकास खण्ड-रामपुर बाघेलान

जिला-सतना (म०प्र०)

विषय: मौजा बदरखा में प्रिज्म सीमेंट लिमिटेड मनकहरी के लीज पर पर्यावरण अनापत्ति प्रमाण पत्र के संबंध में।

मान्यवर,

सादर निवेदन है कि मध्य प्रदेश शासन के राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण भोपाल, म०प्र० द्वारा पत्र क्र० 3080/SEIAA/13 Dated 20.03.2013 के मौजा बदरखा में प्रिज्म सीमेंट लिमिटेड मनकहरी को स्वीकृत माइनिंग लीज रकवां 40.236 हेक्टेयर पर राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण भोपाल, म०प्र० पर्यावरण अनापत्ति प्रमाण पत्र दिया गया है।

अस्तु उपरोक्त जानकारी आपकी ओर सम्प्रेषित है।

संलग्न: पत्र की छायाप्रति संलग्न है।

काशी धारकिया  
१/४/१३

शान्ती  
सरपंच

ग्राम पंचायत हिनीती  
व.प. रामपुर बाघेलान, जिला सतना (म.प्र.)



वास्ते-प्रिज्म सीमेंट लिमिटेड





## PRISM CEMENT LIMITED

Works : Vill-Mankahari, P.O.-Bathia, Dist.-Satna - 485111 (M.P.) India  
Tel. : (07672) 275301-2, 275621-22, Fax : 275303  
Corsp. Add. : 'Rajdeep', Rewa Road, Satna - 485 001 (M.P.) India  
Tel. : (07672) 402726, Fax : 402710



दिनांक: 01.04.2013

प्रति,

विकास खण्ड अधिकारी, (मुख्य अफिसर, मनकहरी)

विकास खण्ड-रामपुर बाघेलान

जिला-सतना (म0प्र0)

विषय: मौजा बदरखा में प्रिज्म सीमेंट लिमिटेड मनकहरी के लीज पर पर्यावरण अनापत्ति प्रमाण पत्र के संबंध में।

मान्यवर,

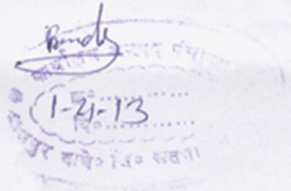
सादर निवेदन है कि मध्य प्रदेश शासन के राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण भोपाल, म0प्र0 द्वारा पत्र क्र0 3080/SEIAA/13 Dated 20.03.2013 के मौजा बदरखा में प्रिज्म सीमेंट लिमिटेड मनकहरी को स्वीकृत माइनिंग लीज रकवां 40.236 हेक्टेयर पर राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण भोपाल, म0प्र0 पर्यावरण अनापत्ति प्रमाण पत्र दिया गया है।

अस्तु उपरोक्त जानकारी आपकी ओर सम्प्रेषित है।

संलग्न: पत्र की छायाप्रति संलग्न है।



वास्त-प्रिज्म सीमेंट लिमिटेड



Registered Office : 305, Laxmi Niwas Apartments, Ameerpet, Hyderabad - 500 016.

Corporate Office : "Rahejas", Main Avenue, V. P. Road, Santacruz (W), Mumbai - 400 054.