

May 30, 2017

Additional Principal Chief Conservator of Forests Ministry of Environment, Forests & Climate Change Regional Office (WCZ), New Secretariat Building, Civil Lines, Nagpur-440 001

Sub: Submission of Six monthly compliance reports for the period October 2016
 March 2017 w.r.t Rowale Bauxite Mine of M/s. Ashapura Minechem Limited, at Village- Rowale, Taluka -Dapoli, District- Ratnagiri, Maharashtra reg.

Ref: Environmental Clearance granted by MoEF vide letter No-J-11015/417/ 2013-IA.II [M] Dated 24.02.2016.

Respected Sir,

With reference to the above cited subject, please find enclosed herewith six monthly compliance reports on environmental clearance conditions for the period October - 2016 to March - 2017, stipulated for Rowale Bauxite Mine of Ashapura Minechem Ltd, at Village Rowale, Taluka Dapoli, Dist. Ratnagiri, Maharashtra.

We hope the above information will fulfill your requirement.

Thanking You,

For Ashapura Minechem Limited

**Authorized Signatory** 

C.C: The Sub Regional Officer, Maharashtra Pollution Control Board, Chiplun, Dist. Ratnagiri, Maharashtra.

### **ENVIRONMENTAL COMPLIANCE STATEMENT**

# FOR THE PERIOD OCTOBER 2016 TO MARCH 2017

Environmental Compliance Statement for submission to the Ministry of Environment, Forests and Climate Change as a part of Environmental Clearance issued by MoEFCC vide No J-11015/417/2013-IA.II [M] for Rowale Bauxite Mine, ML Area 218.825 ha for mining 8.0 LTPA at Village Rowale, Dapoli Taluka, Ratnagiri District, Maharashtra.

BY

ASHAPURA MINECHEM LTD Jeevan Udyog Building,3<sup>rd</sup> Floor,278,D.N.Road,Fort,Mumbai-400 001

SUBMITTED TO

MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE

REGIONAL OFFICE (WESTERN REGION)

NEW SECRETARIAT BUILDING

NAGPUR

## SIX MONTHLY COMPLIANCE REPORT ON ENVIRONMNETAL CLEARANCE CONDITIONS FOR THE PERIOD OCTOBER 2016 TO MARCH 2017

<u>Name of the Project:</u> Rowale Bauxite Mine of M/s Ashapura Minechem Limited, Village- Rowale, Taluka-Dapoli, Dist.- Ratnagiri, Maharashtra State.

**Reference:** Environmental Clearance issued by MoEFCC vide letter No-J-11015/417/ 2013-IA.II [M] Dated 24.02.2016.

### A. Specific Conditions

Sl. No	Condition	Compliance status
(i)	Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Maharashtra and any other Court of Law, if any, as may be applicable to this project.	Will be complied.
(ii)	Environmental clearance is subject to obtaining clearance, if any, under the Wildlife (Protection) Act, 1972 from the Competent Authority, as may be applicable to this project.	Clearance under Wildlife (Protection) Act, 1972 is not applicable as there are no wildlife sanctuaries, National Parks, Biosphere reserves, wildlife corridors within 10 km radius of the project boundary.
(iii)	No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.	Forest clearance is not applicable as the entire lease area is Non-forest private patta land. Also, as per the records of revenue department in 7/12, the survey numbers under which lease falls is non forest land.
(iv)	The project proponent shall obtain Consent to Operate from the State Pollution Control Board, Maharashtra and effectively implement all the conditions stipulated therein.	Consent to Operate for mining 8.0 LTPA has been obtained from MPCB vide Consent No. BO/JD(APC)/EIC No. KP-18257-16/O/10273 dated 21.10.2016 and subsequent amendment vide consent No. BO/JD(APC)/TB-3/Amendment/CC-10273(A) dated 03.02.2017 has been obtained.
(v)	A study from an Institution of Repute may be conducted on the impact of Bauxite dust on Crop Productivity in agricultural land located around mines and mitigation measures to be implemented by PP to reduce the impact.	We have approached National Environmental Engineering Research Institute (NEERI) for the said study and are in the phase of finalizing the scope of study, technical details and financials for the study.
(vi)	Recommendation by the Institute, for crops most suited in this environment and training to the farmers to switch over to new cropping system which will sustain nutrient loading.	Will be complied.
(vii)	Proponent shall carry out occupational Health surveillance for workers engaged in the project and records maintained and necessary remedial / preventive measures to be taken accordingly. Implementation of the recommendations of National Institute for ensuring good occupational environment for mine workers.	Initial medical examination and periodic medical examination of workers is being undertaken on regular basis from authorized medical officer and records are maintained.
(viii)	Use of mechanical devices for excavating the ore	HEMM is being used for excavating the ore.

Sl. No	Condition	Compliance status	
	and reducing use of explosives.	Drilling and blasting is being done to loosen	
		the ore strata only. In order to minimize	
		blasting, ripper dozer is also being practiced.	
(ix)	Concurrent reclamation of mined out areas shall be done.	The reclamation of exhausted pits is being carried out as per Environmental Management Plan. In the year 2016-2017 5.25 Ha of the area has been reclaimed and 3200 nos. of native plant species of Cashew have been planted. Aftercare of the plantation is being taken until it's self-sustainable.	
(xi)	Implementation of action plan on the issues raised during Public Hearing. The proponent shall complete all the tasks as per the action	In order to control the fugitive dust emission during mining operations, following arrangements has been provided:  1. Constructed ~160 m of black topped metalled road near weigh bridge,  2. Permanent water sprinkling system on main haul roads,  3. Constructed metalled road from mobile crusher unit to stack,  4. Water Sprinkling on haul raod inside the lease and outside over the transport road by means of mobile water tankers,  5. Water sprinkling arrangements at the mobile crusher unit,  Please refer Annexure 1 for the Environment Management Practices followed for dust control.  As per the geological profile of the lease area, strata of the area consist of top soil (which is mostly absent) followed by laterite (seen as small capping at places) and Bauxite (average thickness of 4-5 m) followed by lithomarge and Basalt, is hard and compact in nature. Also the mining will be carried out by Open Cast Mining Method with single bench with a maximum working depth of around 6 m. Thus in this case, slope stabilization of mine bench is not required.  Also as mentioned in the IBM approved mining scheme, there is no Topsoil or Overburden present. Thus, slope stabilization of OB dumps is also not required.  The issues raised during public hearing are being implemented in line with the submitted action plan. The proponent has committed to	
	plan submitted with the budgetary provisions during the Public Hearing.	do CSR in the Public Hearing.	
(xii)	The mining operations shall be restricted to	The mining operations are restricted above	
	above ground water table and it should not	ground water table.	

Sl. No	Condition	Compliance status
(viii)	intersect groundwater table. Prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained for mining below water table.	However, as per the Guidelines/Criteria for evaluation of Proposals/ Request for Ground Water Abstraction issued by CGWA effective from 16.11.2015, we have applied to CGWA for NOC to abstract ground water on 19.01.2017. Application copy is attached as <b>Annexure 2</b> . We will submit the copy of NOC for ground water abstraction on receipt of same.
(xiii)	The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operations.	Is complied. No natural watercourse is obstructed due to any mining operations.
(xiv)	Top soil should be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of mined out areas.	The entire mine lease area is having lateritic capping and there is no top soil in the lease area.
(xv)	The entire waste generated shall be backfilled and there shall be no external over burden dump left at the end of the mine life. The entire backfilled area shall be reclaimed by plantation. The backfilling should be carried out in such a manner that it is restored to the normal ground level. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Nagpur on six monthly basis.	No OB is present within lease area. However intercalated waste is generated which is used for backfilling the mine out areas.  In the year 2016-2017 5.25 Ha of the area has been reclaimed and 3200 nos. of native plant species of Cashew have been planted.  Compliance Status in terms of Six Monthly Compliance Report is being submitted to the Regional Office of the MoEF&CC, Nagpur on regular basis.
(xvi)	Catch drains and siltation ponds of appropriate size should be constructed for the working pit, temporary OB dumps, if any and mineral dumps to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine areas, roads, greenbelt development etc. The drains should be regularly desilted, particularly after monsoon, and maintained properly.	During pre-monsoon preparatory work, temporary catch drains / trenches are constructed around the working pits, mineral stacks and waste dumps to channelize the rain water towards mined out pits / rain water harvesting pits. Size, length and gradient of these drains depends upon the slope and distance from the pit.  This water gets collected into the pits where it is allowed for sedimentation under gravity.  Siltation ponds are also provided in the direction of overflow of these pits in order to arrest the silt flowing with the overflow, if any. Please refer <b>Annexure 3</b> for the photographs showing the Environment Management Practices (EMPs) carried out for water conservation.
(xvii)	Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and temporary dumps and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the	Temporary garland drains are constructed around the working pits, mineral stacks and waste dumps to channelize the rain water towards mined out pits / rain water harvesting pits. Size, length and gradient of these drains depends upon the slope and

Sl. No	Condition	Compliance status
	area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.	distance from the pit. Garland drains are desilted at regular intervals.
(xviii)	Dimensions of the retaining wall at the toe of temporary dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.	Retaining wall has been constructed at mining lease. The total length of retaining wall is 131 m.
(xix)	Plantation shall be raised in the specific area including a 7.5 m wide green belt in the safety zone around the mining lease by planting the native species around ML area, backfilled and reclaimed area, around water body, roads etc. in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.	Every year during the monsoon season, plantation is being carried out over backfilled area, boundary of haul roads and also along lease boundary where ever is possible. Saplings of cashew and mango are being planted after consultation with scientist from Konkan Krishi Vidyapeth, Dapoli and also taking the consideration of local villagers. Other saplings like Amla, Kokam, Jamun, Jack Fruit are also being planted. Also after discussion with experts, for better growth of saplings, plantation is being carried out in 4m x 4m area per sapling.  In the year 2016-2017 5.25 Ha of the area has been reclaimed and 3200 nos. of native plant species of Cashew have been planted.  Please refer <b>Annexure 4</b> for Plantation Photographs.
(xx)	Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as haul road, loading and unloading point and transfer points. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	<ul> <li>In order to suppress the dust generation at critical points following are the provision carried out:</li> <li>Provided permanent water sprinkling system at the main haul road,</li> <li>Provided permanent water sprinkling system at the mobile crusher units,</li> <li>Constructed ~160 m black topped metalled road near weigh bridge within lease,</li> <li>Provided metalled road from mobile crusher unit to stack within lease area,</li> <li>Also, deployed mobile water tankers for sprinkling on haul road with lease and transport road outside lease area.</li> <li>Please refer Annexure 1 for the EMPs carried out for Air Pollution Control.</li> <li>Ambient air monitoring is being done by</li> </ul>

Sl. No	Condition	Compliance status	
		MoEFCC approved lab and AAQ parameters are within the permissible limits as specified by CPCB. Please refer <b>Annexure 5</b> for Ambient Air monitoring results.	
(xxi)	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board	For recharging groundwater rain water is channelized into the mined out pits by the means of drains/ trenches. Dimensions of rain water harvesting pit = $60m \times 50m \times 3.5$ - $4m$ .	
(xxi1)	Regular monitoring of ground water level and quality should be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year i.e. January, April-May, August, November and the data thus collected may be sent regularly to Ministry of Environment and Forests, its Regional Office, Nagpur; Central Ground Water Authority and Central Ground Water Board.	Regular monitoring of water quality in and around the mining lease is being carried out by MoEFCC approved laboratory. A comprehensive hydrogeological study is also carried out for the entire area by CGWB.  Central ground water Board (CGWB) and Ground water survey and Development Agency (GSDA) has carried out water exploration in district. The report of study carried by CGWB is available at http://cgwb.gov.in/district_profile/maharasht ra/ratnagiri.pdf	
(xxiii)	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	Vehicles are maintained on regular basis to have emission under control. All the vehicles are made mandatory to carry PUC certificate. Transportation of ore is being done through tarpaulin covered trucks only. There will be no overloading of trucks. Weigh bridges are being maintained at the outlet of mine area.	
(xxiv)	Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The Mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Blasting is done only to loosen the strata and is being done during day time only. Controlled blasting operations are carried out.	
(xxv)	Drills shall either by operated with dust extractors or equipped with water injection system.	Drilling is being carried out using dust extractors along with wet drilling. To minimize blasting ripper-dozer is also used at mining site.	
(xxvi)	A final mine closure plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Will be complied.	
B: GENE	RAL CONDITIONS:		
(i)	No change in mining technology and scope of working shall be made without prior approval of Ministry of Environment and Forests.	There is no change in Mining technology.	
(ii)	No change in calendar plan including excavation, quantum of mineral and waste shall be made.	Only calendar year plan as per approved Mining Plan is being followed for excavation	

		quantum of minoral and waste
(iii)	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and ground water for the project.	quantum of mineral and waste.  We are in the process of seeking NOC for abstraction of Ground Water from CGWA. We will submit the copy of NOC for ground water abstraction on receipt of same.
(iv)	Regular monitoring of ground water table to be carried out at the upstream and depth of water available in the dug well to be measured. Monitoring to be done by establishing a network of existing wells and constructing new piezometers.	Regular monitoring of water quality in and around the mining lease is being carried out by MoEFCC approved laboratory. A comprehensive hydrogeological study is also carried out for the entire area by CGWB.  Central ground water Board (CGWB) and Ground water survey and Development Agency (GSDA) has carried out water exploration in district. The report of study carried by CGWB is available at http://cgwb.gov.in/district_profile/maharash tra/ratnagiri.pdf
(v)	Monitoring of ambient air quality to be carried out based on the 2009 Notification, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places i.e. loading and unloading points & transfer point to reduce fugitive emissions.	Ambient air quality monitoring is done in accordance with the notification issued by Central Pollution Control Board in 2009. Water sprinkling is done regularly at loading and unloading points and transfer point to reduce fugitive emission.
(vi)	The upliftment of scheduled caste/ scheduled tribe population, specific programmes have been taken into consideration especially with respect to education, health care, livelihood generation, infrastructure development and promotion of sports & culture for SC/ST population and that these will be intensified in future.	Due to mining activities, employment for the locals (as per their abilities) has been generated in the area.  In-directly, in terms of small business opportunities like, garages for vehicles and equipment maintenance, spare parts shops, hardware shops, food stalls, local dabhas, local conveyance, local grocery shops etc. has been increased in the area.  Also, company has given contracts to local villagers for providing water sprinkling tankers for dust control.  Because of these, there is an increase in the money flow in the locals which eventually strengthen the socio-economic conditions of the area including the SC/ST population.  Villages in the area constitute committees like;  Navtarun Gramasth Mandal, Rowale,  Vidhyadhan Sikhsa Sanstha, Jawle,  Vanjloli Bodhjan Seva Sangh,  Shayadhari Sikhsa Sansthan, Mandiwali etc.  With whom company is in regular discussion to carry out CSR activities depend on their needs.

		<ul> <li>Activities like;</li> <li>Distribution of free text books, guide books &amp; provision of Digital Classroom in Primary Schools,</li> <li>Free medical camp in study area,</li> <li>Donation for Construction of Community centers, water pipeline, compound wall etc in the study area,</li> <li>Donation for the promotion of sports activities.</li> <li>Educational Aids to the schools, has been performed in the area on regular basis for the upliftment of society.</li> <li>Please refer Annexure 6 for the photographic presentation of the CSR activities carried out in the area.</li> </ul>
(vii)	Plantation shall be raised in a 7.5 m wide greenbelt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	Every year during the monsoon season, plantation is being carried out over backfilled area, boundary of haul roads and also along lease boundary where ever is possible. Saplings of cashew and mango are being planted after consultation with scientist from Konkan Krishi Vidyapeth, Dapoli and also taking the consideration of local villagers. Other saplings like Amla, Kokam, Jamun, Jack Fruit are also being planted. Also after discussion with experts, for better growth of saplings, plantation is being carried out in 4m x 4m area per sapling.  In the year 2016-2017 5.25 Ha of the area has been reclaimed and 3200 nos. of native plant species of Cashew have been planted.  Please refer <b>Annexure 4</b> for Plantation Photographs.
(viii)	Dimension of the retaining wall at the toe of over burden dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	Retaining wall has been constructed at mining lease. The total length of retaining wall is 131 m.
(ix)	Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	<ul> <li>In order to suppress the dust generation at critical points following are the provision carried out:</li> <li>Provided permanent water sprinkling system at the main haul road,</li> <li>Provided permanent water sprinkling system at the mobile crusher units,</li> <li>Constructed ~160 m black topped metalled road near weigh bridge within lease,</li> </ul>

		<ul> <li>Provided metalled road from mobile crusher unit to stack within lease area,</li> <li>Also, deployed mobile water tankers for sprinkling on haul road with lease and transport road outside lease area.</li> <li>Please refer Annexure 1 for the EMPs carried out for Air Pollution Control.</li> <li>Ambient air monitoring is being done by MoEFCC approved lab and AAQ parameters are within the permissible limits as specified</li> </ul>
		by CPCB. Please refer <b>Annexure 5</b> for Ambient Air monitoring results.
(x)	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained. Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest & Climate Change, its Regional Office, Nagpur, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.	No springs and perennial nallahs are flowing in and around the lease area. Thus monitoring of spring and perennial nallahs is not envisaged.  Regular monitoring of water quality and level is being carried out by MoEFCC approved lab and the report of the same is submitted to MoEFCC, Regional Office and MPCB, Chiplun on regular basis.
(xi)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year – Pre Monsoon (April – May), Monsoon (August), post – monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest & Climate Change and its regional office, Nagpur, Central Ground Water Authority and Regional Director, Central Ground Water Board.	Regular monitoring of water quality in and around the mining lease is being carried out by MoEFCC approved laboratory and the report is sent regularly to MoEFCC, Nagpur and to the Sub-Regional Office, MPCB, Chiplun. A comprehensive hydrogeological study is also carried out for the entire area by CGWB. Central ground water Board (CGWB) and Ground water survey and Development Agency (GSDA) has carried out water exploration in district. The report of study carried by CGWB is available at <a href="http://cgwb.gov.in/district_profile/maharashtra/ratnagiri.pdf">http://cgwb.gov.in/district_profile/maharashtra/ratnagiri.pdf</a>
(xii)	The critical parameters such as $PM_{10}$ (size less than 10 micro meter), $PM_{2.5}$ (size less than 2.5 micro meter), $NO_X$ in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [TDS, DO, PH and total suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the company in public domain. The circular No, J-20012/1/2006-IA.II(M) dated	Regular monitoring of PM10, PM2.5, SOX and NOX is carried out regularly by MoEFCC approved laboratory and the report of same is submitted to MoEFCC, Regional Office, Nagpur and Sub-Regional Office, MPCB, Chiplun regularly. No discharge of water takes places from mining lease.  The monitored data is uploaded on company's website.

	27.05.2009 issued by Ministry of Environment, Forests & Climate Change, which is available on the website of the Ministry <a href="www.emvfor.nic.in">www.emvfor.nic.in</a>	
	shall also be referred in this regard for its compliance.	
(xiii)	Four ambient air quality- monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO <sub>2</sub> , NO <sub>x</sub> 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 consultation with the State Pollution Control Board. Data on ambient air quality should be regularly submitted to the Ministry including its Regional Office located at Nagpur and the State Pollution Control Board/ Central Pollution Control Board once in six months.	Four ambient air quality monitoring stations are established in core zone as well as in the buffer zone.  Locations:  a. Near Mining Pit, b. Near Mobile Crusher Unit, c. On Haul Road, d. In Respective Village  Results of these are being submitted to the Sub-Regional Office, MPCB, Chiplun office on regular basis.
(xiv)	Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	<ul> <li>In order to suppress fugitive dust following are the provision carried out:</li> <li>Provided permanent water sprinkling system at the main haul road,</li> <li>Provided permanent water sprinkling system at the mobile crusher units,</li> <li>Constructed ~160 m black topped metalled road near weigh bridge within lease,</li> <li>Provided metalled road from mobile crusher unit to stack within lease area,</li> <li>Also, deployed mobile water tankers for sprinkling on haul road with lease and transport road outside lease area.</li> <li>Please refer Annexure 1 for the EMPs carried out for Air Pollution Control.</li> </ul>
(xv)	Measures shall be taken for control of noise level below 85 dB (A) in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs / muffs.	Adequate measures are taken to minimize the noise level by doing regular maintenance of all machineries. Workers engaged in operation of HEMM are provided with Ear Muffs.
(xvi)	Industrial Waste water (workshop & waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December, 1993 or as amended from time to time. Oil and Grease trap shall be installed before discharge of workshop effluents.	We have not established any workshop within the mining lease. Maintenance of all the vehicles and machineries are done at nearby town Dapoli in private garages. Waste water from the mine is not discharged into surface water and diverted to settling pond.
(xvii)	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	Personnel working in dusty areas are provided with respiratory devices like masks and goggles. The information and training is provided to all on use of these devices.
(xviii)	Occupational health surveillance program of the workers should be undertaken periodically to	Initial medical examination and periodic medical examination of workers is being

	shows any contractions due to amorphe to duet	undontalian on mas	rulan basis from sutherized	
	observe any contractions due to exposure to dust and take corrective measures, if needed.		gular basis from authorized I records are maintained.	
(xix)	A separate environmental management cell with		nmental Management cell is	
()	suitable qualified personnel shall be set up under		vironment is appointed and	
	the control of a Senior Executive, who will report		orting to the head of the	
	directly to the Head of the Organization.	organization.		
(xx)	The funds earmarked for environmental	The funds earm	arked for Environmental	
	protection measures shall be kept in separate		is kept separately. The	
	account and should not be diverted for other	*	rred for above said job	
	purpose. Year wise expenditure shall be reported		th is <b>Rs. 35,78,240/-</b>	
	to the ministry and its Regional Office located at	Particular of the	- W. (D.)	
	Nagpur.	job	Expenditure (Rs.)	
		Afforestation &	1,40,740/-	
		Aftercare	,	
		Environmental	3,20,400/-	
		Monitoring Water Sprinkling		
		(Dust	26,51,375/-	
		suppression)	20,31,3737	
		Garland drains /		
		Settling ponds	1,19,094/-	
		Others (Road	2.46.624.4	
		maintenance)	3,46,631/-	
		TOTAL	35,78,240/-	
(xxi)	The project authorities should inform to the	We are using our own resources and this		
	Regional office located at Nagpur regarding date	clause is not applic	able.	
	of financial closure and final approval of the			
	project by the concerned authorities and the date			
(::)	of start of land development work.	The services and	havitian avill autord an	
(xxii)	The Regional office of this Ministry located at Nagpur shall monitor compliance of the			
	stipulated conditions. The project authorities	furnishing the requ		
	should extend full co-operation to the officer (s)	furnishing the requ	nisite data.	
	of the Regional office by furnishing the requisite			
	data / information / monitoring reports.			
(xxiii)	The project proponent shall submit six monthly	Six monthly repo	ort on the status on the	
, ,	report on the status of the implementation of the	implementation	of the stipulated	
	stipulated environmental safeguards to the	environmental sa	feguards is submitted to	
	Ministry of Environment, Forest and Climate	, .	Office and MPCB, Chiplun	
	Change, its regional Office, Nagpur, Central	on regular basis.		
	Pollution Control Board and State Pollution			
( ) )	Control Board.	C' (1.1		
(xxiv)	The project proponent shall submit six monthly		ort on the status on the	
	report on the status of the implementation of the stipulated environmental safeguards to the	implementation	of the stipulated	
	Ministry of Environment, Forest and Climate		feguards is submitted to Office and MPCB, Chiplun	
	Change, its Regional Office, Nagpur, Central	on regular basis.	office and Mi CD, Chipiun	
	Pollution Control Board and State Pollution	on regular basis.		
	Control Board.			
(xxv)	A copy of Clearance letter will be marked to	Complied.		
	concern Panchayat / local NGO, if any, from	•		
	whom suggestion / representation has been			
ı	received while processing the proposal.			

(xxvi)	State Pollution Control Board should display a copy of the clearance letter at the Regional office, District industry Centre and collector's office /	Not Applicable
	Tehsildars office for 30 days.	
(xxvii)	The project authorities 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 and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at http:// envfor.nic.in and a copy of the same shall be forwarded to the Regional Office of this Ministry located at Nagpur.	Complied.
Date: 3	0.05.2017	For Ashapura Minechem Limited
Place: 1	Mumbai	Authorized Signatory

### Annexure 1: Environment Management Practices for Dust Control



Mobile Water Tanker in Rowale Mines



Water Sprinkling Arrangements on Main Road at Rowale Mines



Sprinkling System at Mobile Crusher Unit



Metalled Girt Road wihin lease



Metalled Road from Mobile Crusher unit to Stock



Transportation by tarpaulin covered trucks



Manual Air Quality Monitoring in Rowale Mines

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

Application Number: 21-4/731/MH/MIN/2017

P.D	plication Number: 21-4/	731/WIH/WIIN/2017			
٩.	General Information:				
	Water Quality:	Fresh Water			
	Whether Ground Water Utilization for:	Existing Industry			
	Date of Commencement Mine/Project:	14/05/2014			
	Date of Expansion:				
	Application Type Category/ Type of Application	Mineral Products			
2.	Name of Mine/Project:	VELAS SAKHRI SAKHRI UMBERSHET ROWALE KAVDOLI AND UTTAMBER BAUXITE MINE DHANWATE JETTY CONVEYOR BELT			
3.	Location Details of the M Radius Outside) (\$):	Location Details of the Mining Unit- (Attach Site, Approved Mining Plan, Toposketch of Surrounding 10km Radius Outside) (\$):			
	Address Line 1:	VILLAGE UMBERSHET			
	Address Line 2:	POST KELSHI			
	Address Line 3:	TALUKA DAPOLI, DISTRICT RATNAGIRI,			
	State:	MAHARASHTRA			
	District:	RATNAGIRI			
	Sub-District:	DAPOLI			
13	Village/Town:	Umbarshet			
5	Area Type :	Non-Notified			
	Area Type Category:	Safe			
4.	Communication Address				
	Address Line 1:	M/S. ASHAPURA MINECHEM LTD			
	Address Line 2:	. 278, JEEVAN UDYOG BUILDING, 3RD FLOCR D.N.ROAD, FORT,			
	Address Line 3:	MUMBAI - 400 001			
	State:	MAHARASHTRA			
	District:	MUMBAI			
	Sub-District:	MUMBAI			
5	Pincode:	400001			
	Phone Number with Area Code:	91 22 66651700			
	Mobile Number:	91 9619834764			
	Fax Number:	91 22 22079395			
	E-Mail:	krishnat@ashapura.com			
-	Salient Factures of the A-	4114			

### 5. Salient Features of the Activity:

Six Bauxite mines are working without intersection of ground water with surface RL ranging between 320 to the depth of mining is between 2 and 6 m bgl. The water table in mines are in the rage of 150 to 10 m msl. Which is much below the working depth. The total mining capacity is 1.912 Million Ton Per Year.



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6. Land Use Details of the Surroundings (km 10 Radius - Outside): (\$)

		roundings(km 10 km2	km Buffer zone area of 314 km2 2 on land. Total land area constit 6 Culturable waste and remainir	tute less than 1 % under irrig	ation, 30 % un-						
7.	Lan	d Use Detail of Project Are	ea								
		Land Use Details	Existing (sq meter)	Proposed (sq meter)	Grand To	tal (sq meter)					
	Gre	en Belt Area	121300.00		0.00	121300.00					
	Ope	n Land	5543306.00		0.00	5543306.00					
	Roa	d/ Paved Area	66573.00		0.00	66573.00					
	Roo	ftop area of building/	2290.00		0.00	2290.00					
	Tota	al .	5733469.00		0.00	5733469.00					
8.	Тор	ography of the Area									
100	a)	Regional		Topography is generally sloping elevation of ground various from 320 m above msl to 25 m above msl. The slop is towards Arabian sea.							
	b)	Project Area		Topography is generally flat an elevation from 10 to 15 m a msl the slope of ground is towards creek.							
9.	Drai	inage in the Area (River / I	Vala etc)								
	a)	Regional		There is well defined drainage system having dendrilic drainage pattern Savitri, Bharja and Maharwadi River are present which drain the rainwater towards Arabian Sea.							
	b)	Project Area		Near pumping station there is nala which confluence into creek.							
10.		rce of Availability of Surfa	ace Water	creek- Arabian Sea							
11.	Ave	rage Annual Rainfall in the	e Area (in mm):	3118.00							
12.	Tow	nships/Villages within 10	km radius of the Project:	Velas Sakhri, Sakhri, Umbershet, Rowale, Kavdoli, Uttamber and more given in Key Plan as Annexure 1							
13.	Whet	ther the Groundwater Tab	le will be Intersected by Activ	ity :-	No						
	(a)	At What Depth (m bgl)		Pre-monsoon	Post-r	Post-monsoon					
	ı	Minimum (m bgl)									
	1	Maximum (m bgl)									
	(b) I	Maximum Depth Proposed	d to Dewater (m bgl)								
	(c) (	Groundwater Flow Direction	on (Attach Map)(\$)								
	(d) A	Any Other Information									
4.	Total	Water Requirment for va	rious Purpose to be Mentione	d (m3/day)	(m3	3/year)					
	Grou	nd Water Required throug	h Abstract Structure	280.00							
	Grou Seep		ccount of Dewatering / Mining	3							
	Total	Ground Water Withdrawa	ıl	280	00	67200.00					

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

Application Number: 21-4/731/MH/MIN/2017 15. Details of De-Watering Structure (a) De-Watering Existing Structure **Number of Existing Structures:** Horse Whether Whether SNo Type of Depth(Meter) / Depth Discharge Operational Mode Permission Structure Diameter(mm) (m3/Hour) Hours(Day) of Power fitted to Lift with of Registeredwith Water Name / Year Days(Year) Name Pump Water CGWA /If so of Level Construction (Meters Meter Details Thereof below Ground Level) (b) De-Watering Requirement and Proposed Structure Detail **Number of Proposed Structures:** SNo. Depth(Meter) / Depth Discharge Operational Mode Horse Whether Whether Type of Power fitted Structure Hours(Day) / Permission Diameter(mm) to (m3/Hour) of Name / Year Water Days(Year) Lift of with Registered of Level Name Pump Water with Meter CGWA/If Construction (Meters below SO Ground Details Thereof Level) 16. Proposed Utilization of Pumped Water (Please Attach Details)(m3/year) (\$) (a) Domestic Use in Mines 8880.00 Annexure 3 (b) Water Supply (c) Agriculture (d) Green Belt Development 12960.00 Annexure 3 (e) Suppression of Dust 44160.00 Annexure 3 (f) Recharge (g) Any Other Item Industrial activity 1200 given in Annexure 3 17. Monitoring of Ground Water Regime (Attach Map(\$)) (a) Location Details of the Wells / Piezometers Details given in Hydrogeological Report attached as (Latitute, Longitude, Reduced Level) Annexure 4 (b) Number of Wells / Piezometers Details given in Hydrogeological Report attached as Annexure 4 (c) Attach Details of GW Level of Observation Wells / Details given in Hydrogeological Report attached as Piezometers( At Least for One Year )(\$) Annexure 4 (d) Number of Wells / Piezometers Proposed to 10 Monitor (e) Number of Piezometers Proposed to Monitor to Construct in Surroundings (f) General Quality of GW in the Area & Potable Surroundings (\$) (g) Any Other Item None

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

Application Number: 21-4/731/MH/MIN/2017

If Yes, so Details thereof with Status:

18.	Proposed Pump / Pumping Groundwater	Outside the Mine Pit for Domestic or Other Use (If so, give Det	tails):

	Numbe	r of Existing S	Structures:			0							
	SN	o. Type of Structure Name / Yea of Construction	ar		(m3/Hou	pe Operation r) Hours(Da / Days(Yea	y) of Lift	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA/If so Details Thereof			
N	lumber	of Proposed S	Structures:			1							
	SNo.	Type of Structure Name / Year of Construction	Depth(Meter) / Diameter(mm)	Depth to Water Level (Meters below Ground Level)	Discharge (m3/Hour)	Operational Hours(Day) / Days(Year)	Mode of Lift Name	Horse Power of Pump	Whether fitted with Water Meter	Whether Permission Registered with CGWA/If so Details Thereof			
	1	Dugwell / 2017	15.00 / 5000	1.00	25.00	12 / 240	Submersible Pump	7.50	Yes	Yes / Being applied			
19.	Ground	dwater Quality	ility Report ( Pl	5Km of th			Report / Note	on Groun	idwater Co	ndition /			
	Hydrog	eological Repo	rt attached as Ar	nexure 4									
	Firm ha	s Proposed to	Harvesting and take up Rainw y / Agency whe ttach Report on	ater Harvere the Har	esting and vesting Me	Recharge ou asures are P	tside the Pre	mises, th	en provide plemented	NOC from Details			
	Rainwa	ter Harvesting	Report attached	as Annexu	ire 5								
	Copy of Referral Letter seeking NOC from Board / Bureau of Indian Standards / Milbe Annexed (\$)												
	Attache	ed Referral Le	tter										
	S.I	No Attache	ed Referral Lette	er Att	achment N	ame		File Name					
		State Pollu	tion Control Boar	rd Anne	exure 6 Refe	erral Annexi	rral Annexure 6 Referral Letters.pdf						



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

Application Number: 21-4/731/MH/MIN/2017

#### MINING USE- Self Declaration

- It is to Certify that the Data and Information Furnished Above are True to the Best of My Knowledge and Belief and I am Aware that if any Part of the Data / Information Submitted is Found to be False or Misleading at any Stage the Application will be Rejected Out Rightly.
- 1. Application Proforma is subject to modification from time to time.
- 2. Application should be submitted to Regional Office.

Regional Director, Central Ground Water Board Central Region, N.S. Building, Civil Lines, NAGPUR, MAHARASHTRA, 440001

3. Incomplete Application will be Summarily Rejected.

Submitted Application will not be Processed till the Print Out of the Signed Complete Application is Submitted to Regional Office.

4. Applicant has to Submit Processing Fee of Rs. 1000.00/- (Rupees One Thousand Only) in the form of Demand Draft drawn in Favour of PAO, CGWB and Payable at Faridabad, Haryana.

#### **Demand Draft Details:-**

D.D. No.	Dated :	
Bank Name:	Amount:	

Note:- The Processing Fee is Non-Refundable. Applicant should ensure and Check Eligibility of Submission of Application and Required Documents before Submitting Online Application.

#### Attached Files:

1). Site Plan: (Refer 3)

S.No	Attachment Name	File Name						
1	Annexure 1 Site Plan Key Plan	Annexure 1 Site Plan Key Plan.pdf						

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

S.No	<b>Attachment Name</b>	File Name
1	Annexure 2 SoM Approval Letter	Annexure 2 SoM Approval Letter.pdf

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

No Attachment Found!

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

No Attachment Found!

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

No Attachment Found!

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

No Attachment Found!

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

S.No	Attachment Name	File Name
1	Annexure 3 Utilization of Groundwater	Annexure 3 Utilization of Groundwater.pdf
		Bishnel &

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

Application Number: 21-4/731/MH/MIN/2017

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

No Attachment Found!

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

No Attachment Found!

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

No Attachment Found!

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

S.No	Attachment Name	File Name
1	Annexure 4 - Ground Water Availability report	Annexure 4 - Ground Water Availability report.pdf

12). Details of Rainwater Harvesting and Artificial Recharge Measures: (Refer: 20)

S.No	Attachment Name	File Name	
1	Annexure 5 - Rainwater Harvesting	Annexure 5 -Rainwater Harvesting.pdf	

13). Authorization:

No Attachment Found!

15). Extra Attachment:

No Attachment Found!

16). Scanned Mining Application:

No Attachment Found!

Date:

Place:

Associated User: shantanupuranik
Submitted By User: shantanupuranik

Submission Date: 19

19/01/2017

[Krishnal Belekar]

Name & Signature of the applicant

(With official seal)

ASHAPURA MINECHEM LIMITED

Jeevan Udyog Building, 3rd Floor,

278, D. N. Road, Fort, Mumbai-400 001, INDIA.

<sup>\*</sup> In case signed by any authorized signatory, the details of the signatory with the authorization shall be enclosed.

# <u>Annexure 3: Environment Management Practices for Water</u> <u>Conservation</u>





Bund around Stack to check run-off



Drains to collect and channelize the rain water around bunds





Retention Walls within lease area







Water after de-siltation coming from retention wall

**Annexure 4: Plantation Photographs** 











Plantation carried out in backfilled area within lease

**Annexure-5: Ambient Air quality Monitoring Results 2016-2017** 

S.No.		October 2016				November 2016			December 2016				January 2016				February 2016				
	Locations	Parameters (µg/m³)			Parameters (μg/m³)			Parameters ( $\mu$ g/m <sup>3</sup> ) Parameters ( $\mu$ g/m <sup>3</sup> )			Parameters (µg/m³)				]	Paramete	rs (µg/m³)	)			
		PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>X</sub>	NO <sub>X</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>X</sub>	NO <sub>X</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>X</sub>	NO <sub>X</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>X</sub>	NO <sub>X</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>	NO <sub>X</sub>
1.	Crushing Plant	63.97	49.19	22.24	11.07	63.86	48.85	24.04	10.75	63.82	49.35	24.34	18.19	67.89	50.10	26.95	18.66	72.23	52.93	26.29	20.47
2.	Haulage Road	64.66	33.31	20.22	10.06	62.32	32.32	20.56	9.94	60.79	32.25	26.07	13.55	61.12	30.42	23.76	17.65	57.99	28.87	22.63	16.84
3.	Near Mining Pit	64.23	31.04	20.88	10.67	64.86	30.87	20.60	11.84	71.37	32.85	24.56	20.04	71.11	29.84	25.64	20.07	71.66	30.90	27.57	18.08
4.	Umbershet Village	59.26	29.68	19.39	11.84	61.16	30.32	18.61	12.24	72.10	40.04	25.95	17.96	73.26	36.60	24.83	18.96	71.94	30.31	20.67	16.06
5.	Rowale Village	60.81	31.29	17.83	11.11	65.06	31.91	19.82	10.47	74.35	41.55	27.40	23.86	73.93	39.78	26.88	21.03	73.82	38.17	25.13	20.30
6.	Kavadoli Village	58.59	22.50	16.89	10.16	54.35	28.20	17.67	8.86	72.95	41.74	29.04	19.85	21.03	72.04	40.21	19.85	72.74	38.05	27.67	18.32

Permissible limits as per NAAQS Standards

 $\begin{array}{ll} PM_{10} & 100 \ \mu\text{g/m}^3 \\ PM_{2.5} & 60 \ \mu\text{g/m}^3 \\ SO_X & 80 \ \mu\text{g/m}^3 \end{array}$ 

 $NO_X$  80  $\mu$ g/m<sup>3</sup>

**Annexure 6: Corporate Social Responsibility** 



Donation for the Construction of Water Shed , Rowale Village



Renovation of Temple, Village Rowlae



Monthly Cleaning of Kelshi Beach









Donation for the Construction of School Floor, Rowale Village



Donation for the Construction of Community Hal, Ilne Village



Donation for the Constrcution of Community, Vanjloli Village







Opening of Digital Classroom, Ambavali Primary School



Donation for the Constrction of School Veranda, Rowale Primary School



Distribution of SYSKA LED Street Lights, Kelhi



Donation for the Construction of Pipeline, Sakhari Village



Donation for School Building, Mandivali School