EXECUTIVE SUMMARY

(ENGLISH)

FOR

Existing Quartz, Pyrophyllite, Red and Yellow Ochre Mining Project with proposed Crusher (400 TPD),

M.L. No.-08/1982 (Revised- 23/2001) Area: 4.96 Hectare (Govt. Land) located at Khasra No.- 1, 902, 148 & 149

(As per EIA Notification 14th September 2006 and its subsequent amendments till date)

Production Capacity: - 8,00,120 TPA (ROM)

PROJECT COST: - 787.0 Lacs. (Rs.)

Study Period: - Summer Season (March-May,2025)

Near Village- Maharana, Tehsil- Buhana, District- Jhunjhunu (Rajasthan)

APPLICANT	EIA CONSULTANT
M/s. Ashoka Mineral Grinding Mills Correspondence Address- Shahpura Road, Neem Ka Thana, District- Neem Ka Thana, Rajasthan. - 332713	COSMOS ENVIRO CONSULTANCY Office Address: - B-25-B, 10B Scheme, Riddhi Siddhi Chouraha, GopalPura Bypass, Jaipur Rajasthan - 302018 (Raj.)Certificate No.: - NABET/EIA/24-27/IA 0148 {Validity: - 19/11/2027} Email: info.cecjaipur@gmail.com

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1.0 PROJECT DESCRIPTION

1.1 Introduction

Existing Quartz, Pyrophyllite, Red and Yellow Ochre Mining Project with proposed Crusher (400 TPD), M.L. No.-08/1982 (Revised- 23/2001) Area: 4.96 Hectare (Pvt. Land) located at Khasra No.- 1, 902, 148 & 149 Near Village- Maharana, Tehsil- Buhana, District- Jhunjhunu (Rajasthan).

1.2 Type of the Project

Existing Quartz, Pyrophyllite, Red and Yellow Ochre Mining Project with proposed Crusher (400 TPD), M.L. No.-08/1982 (Revised- 23/2001) Area: 4.96 Hectare (Pvt. Land) located at Khasra No.- 1, 902, 148 & 149 Near Village- Maharana, Tehsil- Buhana, District- Jhunjhunu (Rajasthan).

As per EIA Notification dated 14.09.2006, as amended thereof, the project falls under S. No. '1' (Mining of Minerals), Project or Activity '1(a) (4)', Category "B".

Application has been applied for obtaining EC for the First time

1.3 Need of the Project

PP has proposed to obtain EC for his Existing Quartz, Pyrophyllite, Red and Yellow Ochre Mining Project with proposed Crusher (400 TPD), M.L. No.-08/1982 (Revised- 23/2001) Area: 4.96 Hectare (Pvt. Land) located at Khasra No.-1, 902, 148 & 149 Near Village- Maharana, Tehsil- Buhana, District- Jhunjhunu (Rajasthan) and to address the gap between the demand and supply of above said minerals, benefiting consumers. Overall, the project will contribute to the region's economic growth and development.

In India, the minerals Quartz, Yellow Ochre, Red Ochre, and Pyrophyllite play a significant role in both national development and regional livelihoods.

Quartz is widely used in the country's glass, ceramic, and electronics industries, and its demand is growing rapidly due to its applications in solar panels and semiconductors. Major quartz-producing states like Rajasthan, Andhra Pradesh, Tamil Nadu, and Karnataka benefit from mining-related employment and the growth of allied industries.

Yellow Ochre, predominantly found in Rajasthan (especially Jodhpur and Nagaur), is an important natural pigment used in paints, cement coloring, and traditional Indian art forms such as Madhubani and Warli painting. It also holds cultural value, particularly among tribal communities, and supports local craft-based economies.

Red Ochre, similar in composition but richer in hematite content, has both cultural and industrial significance. Historically used in prehistoric cave art like that of Bhimbetka in Madhya Pradesh, it continues to be employed in rural India for rituals, folk art, and natural paints. Rajasthan, Madhya Pradesh, and Andhra Pradesh are key contributors to India's red ochre supply. Its use in natural paint and coatings also creates opportunities for eco-friendly product industries.

Meanwhile, Pyrophyllite, mainly extracted in Madhya Pradesh (especially in Chhatarpur and Tikamgarh), Uttar Pradesh, and Andhra Pradesh, is a vital raw material in ceramics, refractories, paper, insecticides, and paints. It supports regional ceramic clusters and small industries while also contributing to India's export economy, especially to markets in East Asia.

Collectively, these minerals not only strengthen India's industrial base but also enhance rural employment, support traditional art and cultural heritage, and generate export revenues. Their presence in mineral-rich regions ensures a steady source of income for local communities and plays a key role in the socio-economic development of various parts of the country.

1.4 Brief Description of the Project

Table - 1

BRIEF DESCRIPTION OF THE PROJECT

S.No.	PARTICULARS	DETAILS
1.	**Village**	Maharana
2.	**Tehsil**	Buhana
3.	**District**	Jhunjhunu
4.	**State**	Rajasthan
5.	**Khasra No.**	902, 148, 149, 9
6.	**Latitude & Longitude**	

Pillar No.	Latitude(N)	Longitude(E)
A.	28°08'50.94"	75°49'09.23"
B.	28°08'50.57"	75°49'00.15"
C.	28°08'57.06"	75°48'59.82"
D.	28°08'57.43"	75°49'08.09"

Source: Aravalli certificate

7.	**SOI Toposheet No.**	44 P/12, 44P/16

Particulars	Details
ENVIRONMENTAL SENSITIVITY	
Ecological Sensitive Areas (National Park, Wild Life Sanctuary, Biosphere Reserve, etc.) within 10 Km radius	None, within 10 km radius area of the mine lease boundary.
Archaeological Important Place	None, within 10 km radius area of the mine lease boundary.
Inter-District Boundary	None, within 10 km radius area of the mine lease boundary.
Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	None, within 10 km radius area of the mine lease boundary.
River/ Seasonal Nallah	• Sukh Nadi N/v Muradpur is at ~6.8 km towards ESE direction.
Forest Area (Reserve Forest/ Protected Forest) & Water Bodies.	• Gujarwas PF is at ~4.5 km towards SE direction • Kharakhohra PF is at ~6.5 km towards South direction. • Bhodan PF is at ~6.0 km towards ESE direction. • Manota PF is at ~7.5 km towards SE direction. • Singhana Forest- 7.3 towards SSE direction.
Nearest habitation/town/City	Village Maharana is About ~0.60 Km towards South direction.
Nearest Airport	Jaipur International Airport is at ~150.0 Km towards South direction

Nearest Highway

S. No.	Highway	Distance	Direction
1.	SH-13 B	~3.36	East
2.	NH-11	~3.94	SW
3.	NH-311	~6.23	South
4.	MDR64	~8.20	NE

Nearest Railway Station

Chirawa Railway Station is about ~18.34 Km towards NW direction

Seismic zone

Seismic zone–II

EMP Cost

S No.	Description		Measures	EMP COST	
				Capital Cost (in Lacs)	Recurring Cost (in Lacs)
1.	Environment Monitoring	Water Quality Analysis	-----	--	0.3
		Air	(I) Air Pollution Monitoring	--	1
			(ii) Green Belt/Plantation	32.74	6.548
		Noise Pollution Monitoring	---	--	0.2
2.	Water Requirement		Provision for water tankers for water sprinkling on kacha roads and dust suppression at mines, for domestic purpose.	--	2.7
3.	Waste management		Municipal Sewage (Treatment through septic tank, up flow filtration and then disinfection)	2.5	0.5
4.	Construction and maintenances of approach road into metalled road approx. 0.95 km which will be used for mineral transportation till main road.			9.5	0.5
5.	Water Conservation & Management		Construction of Rainwater harvesting structures, berms, siltation pond & its maintenance	1.2	0.2
6.	CSR			15.74	--
7.	Blasting related safeguard expenses (Caution boards, Silencer Blower)			0.2	0.05
Total				**61.88**	**11.998**

1.5 Location Map

1.6.3 Method of Mining

The mine has remained non-operational for an extended period of time.

Mining will be done open cast semi-mechanized method with the help of hydraulic machineries, deep and short hole blasting. The lessee will install the crusher in the lease are with capacity of 400 TPD.

The bench height would not be kept greater then (the statutory provisions of the prevailing Act) the width of the benches, benches of 6m height have been planned with width more than height of the bench. The required Barrier along the Mining lease boundary shall be kept 7.5m.

1.6.4 Extent of Mechanization

Following mines machinery arranging on hire basis. The details of loading equipments are as follows: -

Table - 3
Machinery & Equipment

S. No.	Machines	Nos.
1.	Hydraulic Excavator/Loader	3
2.	Excavator fitted with rock breaker	1 or 2
3.	Long hole drill	1
4.	Wire Saw	1 and 1 standby
5.	Jack Hammers	2
6.	Tractor Trolley	2
7.	Tippers	8
8.	Tractor tanker	1
9.	Crusher	1
14.	Drill Machine	1

Source: Approved Cluster Mining Plan & Approved Mining Plan with PMCP

2.0 DESCRIPTION OF THE ENVIRONMENT

2.1 Presentation Of Results (Air, Noise, Water & Soil)

Baseline study of the study area was conducted during Summer Season, 2025 (March to May, 2025).

Ambient Air Quality Monitoring reveals that the concentrations of PM10 for all the 08 AAQM stations were found between 93.5 to 61.7 µg/m^3 and of PM2.5 were found to be between 54.3 to 30.2 µg/m^3.

As far as the gaseous pollutants SO2 and NOx are concerned, the prescribed CPCB limit of µg/m3 has never surpassed at any station. The concentrations of SO2 were found to be in range of 19.4 to 10.1 µg/m3.The concentrations of NOx were found to be in range of 35.9 to 17.3 µg/m3.

Ambient noise levels were measured at 8 locations around the Mine site. Noise levels varies from 58.6 to 49.9 Leq dB (A) during day time and during night time noise levels ranges from 44.3 to 39.2 Leq dB (A).

The ground water from all sources remains suitable for drinking purposes as per drinking water standards IS: 10500-2012.

Soil Samples collected from identified locations indicate pH value ranging from 7.71 to 8.34, which shows that the soil is neutral to slightly alkaline in nature. Organic Carbon ranges from 0.274 to 0.569 in the soil samples. Phosphorous ranges from 50 mg/kg to 62 mg/kg, respectively.

2.2 Biological Environment

Flora: Tree species which are most commonly found in the study area are:

Khejri , Neem , Ber , Amaltas , Peepal , Ardu *etc.*

Fauna: Animals which are most commonly found in the study area are:

Nilgai, Indian Peafowl, Bengal Monitor, Common Myna *etc.*

2.3 Socio-Economic Environment

- The female literacy rate of the study area is comparatively lower than the male literacy rate which is quite alarming. Therefore, there is an urgent need for proper education facilities for girl child along with General Awareness Programs to eliminate gender discrimination, which is being a general practice.
- Education Awareness program can be conducted to make the population aware and better treatment for livelihood.
- Vocational training session can be organized to provide self-employment to the women and unemployed youth.
- Education and public awareness campaigns must be put in place to curb the pollution of water sources to promote the conservation of fresh water.
- Some of the techniques include incentives for installation of rainwater collection.
- Challenge of the lack of education must remain focused on creating competencies and learning achievements.
- Health care centre and ambulance facility can be provided to make the population get easy medical facilities.
- Natural Resource Management and Environmental Conservation.
- On the basis of qualification and skills local youths can be employed.
- Long term and short term employments can be generated.
- Maternity facility can be made available to avoid going far off places and unnecessary risks to get treatment at Tehsil headquarters.

3.0 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact on air–

The key air emissions from the mining activities (excavation, loading, haulage and transportation) will be particulate matter. Uses of proper mitigation measures will be taken like water sprinkling during transport activities & green area development along the road sides to control pollution.

Impact on water environment –

Impact on Surface Water–

There is no surface water body within the mining lease area. No waste water will be generated during mining operation. Garland drains will be provided around the working pits and dumps, surface run off channelized in the lower most benches of the mine pit. The rain water collected in mining pit will be used for plantation and dust suppression. Waste water generated from rest shelter disposed in soak pits. There is not any significant impact on surface water.

Impact on Ground Water-

Mining in the area is above ground water table. The water table range from 60-70 m bgl, while Ultimate Working Depth 20 m bgl.

There will be no toxic element in the mined out material, which may contaminate ground/ surface water.

There will be no significant impact on groundwater resources of buffer zone envisaged due to mining activity, as it is confined to a very small area and above water table.

Impact of Noise : –

Major noise generating sources of the mining activity will be hydraulic excavator and vehicles used for transportation of mineral. The plantations also check propagation of noise in the surrounding areas. All the vehicles will be used for transportation are maintained regularly and checked for Pollution under Control.

Impact on land environment –

Opencast mining activities may alter the landscape of the lease area but not have any effect on the surface features of the surrounding areas.

4.0 POST PROJECT ENVIRONMENTAL MONITORING PROGRAMME

Environmental Monitoring Programme will be conducted for various environmental components as per conditions stipulated in Environmental Clearance Letter issued by SEIAA, Rajasthan & Consent to Operate issued by RSPCB. Six monthly compliance reports will be submitted on regular basis on 1st of June & 1st of December. Quarterly compliance Report for conditions stipulated in Consent to Operate will be submitted to SPCB on regular basis. Details of the Environmental Monitoring schedule, which will be undertaken for various environmental components, are detailed below:

Table - 4

POST PROJECT MONITORING

S. No.	DESCRIPTION	FREQUENCY OF MONITORING
1.	Ambient Air Quality at project site	Quarterly/ Half Yearly
2.	Water Quality	Quarterly/ Half Yearly
3.	Noise Level Monitoring	Quarterly/ Half Yearly
4.	Soil Quality	Half Yearly/Yearly
5.	Health Check- up	As per the guideline

5.0 ADDTIONAL STUDIES

The Additional Studies as per Terms of References prescribed by the SEAC, Rajasthan Vide letter No. SIA/RJ/MIN/536489/2025 Date-08.07.2025 & the same has been incorporated in the Draft EIA/EMP Report.

6.0 PROJECT BENEFITS

The project activity will help in combating the growing demand of mineral in the market & hence will help in the economic growth of the country. The project will help in improve living standards of workers from the nearby villages thus will be increase the social status of the villagers.

7.0 ENVIRONMENT MANAGEMENT PLAN

7.1 Air Pollution Control Masures

Following measures will be taken to control air/fugitive emission during mining operation:

- Mineral is soft & easily mine able so no Drilling & Blasting is required.
- Regular water spraying on the haul roads will be done.
- Workers will be provided with suitable PPEs as and when required.
- Green belt /plantation will be developed outside the lease area to control dust pollution.
- Periodical AAQ monitoring will be carried out.

7.2 Water Quality Management

- No waste water will be generated during the mining activities.
- Domestic waste water generated from office toilet is disposed in soak pits via septic tank.
- Garland drains will be provided around the working pits.
- The rain water collected in mining pit will be used for plantation, dust suppression requirements.

7.3 Noise Management

- Drilling will be done with sharp drill bits.
- Proper maintenance of all machineries will be carried out which will be help in reducing generation of noise during operations.
- Workers will be exposed to high noise levels provided with ear muffs/plugs & will be persuaded to use the same.
- Adequate silencers will be provided in all the diesel engines.
- Green belt will be developed around the lease boundary to minimize noise propagation.
- Periodic noise level monitoring will be done.

7.4 Solid waste Management

- Waste will be stacked as per approved Cluster Mining Plan & Mining Plan with PMCP
- All safety measures will be taken to stabilize waste dumps. Retaining wall will be made at the towards lower side.

7.5 Management of Land Use Pattern

Total 1637 saplings will be planted over an area of 1.637-hectare area out of which 1.35 ha will be planted in 7.5 m safety barrier zone of the mine lease area and unworked area and remaining 0.287 ha will be planted outside the lease area, which will be 33% of total mining lease area.

7.6 Greenbelt Development and Plantation Programme

Table - 5

Green Belt Development for Shri Vinay Prakash S/o Shri Shriram Verma

Year	7.5 mtr. Safety barrier of the lease area & Unworked Area		Outside the lease area		Total	
	Area (Ha.)	No. of Trees	Area (Ha.)	No. of Trees	Area (Ha.)	No. of Trees
Existing	0.10	10	--	--	--	--
Plantation destroyed by local habitants during the long-closed period						
1st	0.20	200	0.287	287	0.487	487
2nd	--	--	--	--	--	--
3rd	--	--	--	--	--	--
Maintenance & Replacement of plants						
6th	1.15	1150	--	--	1.15	1150
End of life of mine	Maintenance & Replacement of plants					

Total	1.35	1350	0.287	287	1.637	1637

- *Total greenbelt/plantation will be developed in area equivalent to 33% of the lease area which will be completed in first years of mining.*
- *Native species which are more suitable to the local environment are preferred to be planted such as Neem (Azadirachtaindica), Kher(Acacia catechu), etc.*
- *Note:- As per O.M. dated 16.01.2020 "The Mining Lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc."*
- *The same will be maintained & enhanced in future.*
- *The plant species will be selected in consultation with forest department.*

7.7 Socio-Economic Environment

- As the mining activities increase, better employment opportunity.
- Company recruits the semi skilled & unskilled workers from the nearby villages thus increasing the social status of the villagers.