

**Physical Data of Morak LimeStone Mines, of M/s Mangalam Cement Ltd. Morak ,  
Tehsil -Ramganjmandi ,Distt Kota ( Raj)**

S. No.	Item	Description
1	Mining lease Area	895.42 Hectors
2	Limestone ROM Production ( During 2023-2024 up to 31 <sup>st</sup> Dec.)	2.106 Million Ton
3	Lease Period (After promulgation of Govt. ordinance dt. 12.01.2015)	21.02.1977 to 31.03.2030
4	Date of commencement of Work	1st January ,1980

**Quality of stored rain water in mined out pits sump & Piezometers within Morak  
Limestone Mines. Date of Monitoring : 28.11.2023**

Parameters	Unit	Mines Sump Block-1 (S-1 )	Mines Sump Block-2 (S-2 )	Piezometer (PZ-2A)	Piezometer (PZ-3)
pH		7.19	7.40	7.31	7.24
Total Hardness as CaCO3	Mg/Li	122.0	96.0	182.0	76.0
Total Alkalinity	Mg/Li	104.0	90.0	158.0	82.0
Total Dissolved Solids	Mg/Li	268.0	286.0	368.0	198.0
Fluoride ( as F )	Mg/Li	0.30	0.42	0.65	0.30
Sulphates as SO4	Mg/Li	29.40	27.20	31.8	21.70
Nitrates as NO3	Mg/Li	2.30	2.80	2.8	2.10
Chloride ( as Cl )	Mg/Li	26.0	53.0	41.0	18.0

**Ground Vibration observed (At distance of 52.5 Mtr ) for the event of Blasting at  
Morak Limestone Mines (Pit No.-3 ,block-II ) on dt 31.10.2023 at 13.46 PM**

Axis	Dominant Frequency (In Hz)	Peak Particle Velocity( In mm/s )
Radial	36.5	36.1
Transverse	73.1	994.1
Vertical	46.5	7.8

**Ambient Air Quality Report with in Core and Buffer Zone of Morak Limestone  
Mines, Morak Date of Monitoring : 27.11.2023 to 28.11.2023**

Location of Monitoring Station	SPM µg/m3	PM2.5 µg/m3	PM10 µg/m3	SO2 µg/m3	NOX µg/m3
<b>Core Zone :</b>					
Near Nala Pit-1 Block-I	336.79	29.91	58.31	8.32	10.68
Mines Work shop Block-I	343.62	30.97	61.61	8.08	11.30
Near Nala Pit-3 Block-II	362.54	34.75	63.33	11.23	14.76
Near Explosive Magazine	372.66	33.30	65.82	11.26	13.30
<b>Buffer Zone :</b>					
GSS RSEB , Gumanpura	354.75	35.04	61.97	8.91	10.38
GSS RSEB, Chechat	354.23	34.97	68.44	8.15	10.36
Railway Yard, Morak	358.89	33.57	68.30	9.35	12.65
Fatehpur Village Chouraha	341.45	32.41	65.38	7.58	9.65

**Details of Plantation of last 7-year within Mining Lease area**

Year	No. of sapling Planted	Rate of Survival %	species
2017-18	6025	83	Neem, Karanj, Subabool, Kachnar, PaltaForm, Peepal, Bad, Gulmohar, Jamphal, Nimbu, Amwala, Bgaun Belia, Seerus , Shhesham , Palash etc. <a href="#">Dec-2023</a>
2018-19	5774	85	
2019-20	5644	83	
2020-21	6075	84	
2021-22	6070	82	
2022-23	6373	89.86	
2023-24	4506	Under Observation	

