

**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 Production (During 2021-2022 up to 31 st Dec.)	2.3171 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 : 25.11.2021**

Parameters	Unit	Mines Sump Block-1 (S-1)	Mines Sump Block-2 (S-2)	Piezometer (PZ-2A)	Piezometer (PZ-3)
pH		6.91	7.24	7.20	7.26
Total Hardness as CaCO ₃	Mg/Li	98	84	174	118
Total Alkalinity	Mg/Li	94	94	158	120
Total Dissolved Solids	Mg/Li	224	202	382	230
Fluoride (as F)	Mg/Li	0.30	0.20	0.30	0.30
Sulphates as SO ₄	Mg/Li	17.3	21.4	32.6	21.4
Nitrates as NO ₃	Mg/Li	1.3	0.92	3.9	1.2
Chloride (as Cl)	Mg/Li	16	28	46	17

**Ground Vibration observed (At distance of 87 Mtr) for the event of Blasting at
Morak Limestone Mines (Pit No.-2 ,block-II&III) on dt 14.12.2021 at 13.44 PM**

Axis	Dominant Frequency (In Hz)	Pea k Particle Velocity(In mm/s)
Radial	73.1	2.286
Transverse	73.1	2.667
Vertical	51.2	1.905

**Ambient Air Quality Report with in Core and Buffer Zone of Morak Limestone
Mines, Morak Date of Monitoring : 24.11.2021 to 25.11.2021**

Location of Monitoring Station	SPM µg/m ³	PM _{2.5} µg/m ³	PM ₁₀ µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³
Core Zone :					
Near Nala Pit-1 Block-I	350.94	40.52	69.46	13.57	15.74
Mines Work shop Block-I	361.11	43.05	70.70	10.03	12.99
Near Nala Pit-3 Block-II	370.59	45.20	74.19	12.27	14.05
Near Explosive Magazine	371.66	38.76	72.11	10.89	13.99
Buffer Zone :					
GSS RSEB , Gumanpura	397.29	39.25	75.09	11.70	15.74
GSS RSEB, Chechat	393.27	35.53	66.45	12.06	16.17
Railway Yard, Morak	387.05	38.68	71.31	10.54	13.96
Fatehpur Village Chouraha	395.56	34.40	67.91	12.11	15.45

Details of Plantation of last 5-year within Mining Lease area

Year	No. of sapling Planted	Rate of Survival %	species
2016-17	5688	92	Neem, Karanj, Subabool, Kachnar, PaltaForm, Peepal ,Bad, Gulmohar,Jamphal, Nimbu, Amwala, Bgaun Belia, Seerus , Shhesham etc.
2017-18	6025	83	
2018-19	5774	85	
2019-20	5644	83	
2020-21	6075	84	
2021-22	6070	Under Observation	

Dec-2021