

**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 2018-2019)	2.5602 Million Ton
3	Lease Period (After promulgation of Govt. ordinance dt. 12.012015)	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 : 22.05.2019**

Parameters	Unit	Mines Sump Block-1 (S-1)	Mines Sump Block-2 (S-2)	Piezometer (PZ-1)	Piezometer (PZ-3)
pH		7.23	7.38	7.25	7.47
Total Hardness as CaCO3	Mg/Li	106	108	144	104
Total Alkalinity	Mg/Li	76	88	116	96
Total Dissolved Solids	Mg/Li	220	216	288	210
Fluoride (as F)	Mg/Li	0.10	0.20	0.20	0.20
Sulphates as SO4	Mg/Li	24.6	23.80	28.08	22.5
Nitrates as NO3	Mg/Li	0.95	1.08	1.70	0.87
Chloride (as Cl)	Mg/Li	40	29	31.0	22

**Ground Vibration observed (At distance of 110 Mtr) for the event of Blasting at
Morak Limestone Mines (Pit No.-3 ,block-I) on dt 15.02.2019 at 14.22 PM**

Axis	Dominant Frequency (In Hz)	Pea k Particle Velocity(In mm/s)
Radial	128	1.143
Transverse	46.5	1.270
Vertical	42.6	0.762

**Ambient Air Quality Report with in Core and Buffer Zone of Morak Limestone
Mines, Morak Date of Monitoring : 24.05.2019 to 3.06.2019**

Location of Monitoring Station	SPM µg/m3	PM2.5 µg/m3	PM10 µg/m3	SO2 µg/m3	NOX µg/m3
Core Zone :					
Near Nala Pit-1 Block-I	329.56	45.26	74.74	12.96	15.60
Mines Work shop Block-I	354.66	46.74	79.85	11.55	16.53
Near Nala Pit-3 Block-II	395.36	45.68	82.88	13.52	17.45
Near Explosive Magazine	385.14	41.61	81.58	10.26	16.14
Buffer Zone :					
GSS RSEB , Gumanpura	390.73	42.03	78.97	12.87	15.49
GSS RSEB, Chechat	402.33	45.61	72.85	11.00	16.22
Railway Yard, Morak	386.58	43.85	79.29	10.87	17.55
Fatehpur Village Chouraha	391.87	38.39	76.51	12.23	14.53

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

Year	No. of sapling Planted	Rate of Survival %	species
2014-15	9055	82	Neem , Karanj, Subabool,
2015-16	5070	85	Kachnar, PaltaForm, Peepal
2016-17	5688	92	,Bad , Gulmohar, Jamphal,
2017-18	6025	83	Nimbu, Amwala, Bgaun Belia,
2018-19	5774	85	Seerus , Shhesham etc.

June-2019