

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

S. No.	Item	Description
1	Mining lease Area	895.42 Hectors
2	Limestone Production ( During 2020-2021 )	2.0696 Million Ton (up to 31.12.2020)
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 : 06.11.2020**

Parameters	Unit	Mines Sump Block-1 (S-1 )	Mines Sump Block-2 (S-2 )	Piezometer (PZ-2A)	Piezometer (PZ-3)
pH		6.89	7.28	7.01	6.99
Total Hardness as CaCO3	Mg/L	96	88	188	124
Total Alkalinity	Mg/L	100	98	138	128
Total Dissolved Solids	Mg/L	184	188	412	220
Fluoride (as F)	Mg/L	0.20	0.20	0.20	0.20
Sulphates as SO4	Mg/L	18.2	18.9	35.4	20.6
Nitrates as NO3	Mg/L	1.1	0.91	3.1	0.90
Chloride ( as Cl )	Mg/L	22	28	59	18

**Ground Vibration observed (At distance of 100 Mtr ) for the event of Blasting at Morak Limestone Mines (Pit No.-2 ,block-II ) on dt 23.11.2020 at 13.33 PM**

Axis	Dominant Frequency (In Hz)	Pea k Particle Velocity( In mm/s )
Radial	32.0	2.286
Transverse	18.90	2.032
Vertical	46.50	1.524

**Ambient Air Quality Report with in Core and Buffer Zone of Morak Limestone Mines, Morak Date of Monitoring : 6.11.2019 to 7.11.2020**

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	356.73	40.52	77.76	14.71	18.50
Mines Work shop Block-I	362.78	44.13	78.10	11.65	14.89
Near Nala Pit-3 Block-II	392.33	42.69	79.81	12.60	16.39
Near Explosive Magazine	388.17	41.26	78.12	10.23	14.38
<b>Buffer Zone:</b>					
GSS RSEB , Gumanpura Village	403.66	39.08	78.55	10.65	15.28
GSS RSEB, Chechat Village	406.51	35.45	71.72	11.37	14.95
Railway Yard, Morak Village	393.12	38.60	77.57	9.86	12.77
Fatehpur Village Chouraha	389.88	35.60	72.38	11.75	14.23

**Details of Plantation of last 6-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, Palash ,
2019-20	5644	83	Astronia etc.
2020-21 (Up to Dec)	5270	(Under Progress)	

Dec-2020