

# Dalmia Bharat Sugar and Industries Limited

[ Formerly : Dalmia cement (Bharat) Limited ]  
SALEM - 636 012 TAMILNADU

To,  
The Member Secretary,  
IA-Division, Ministry of Environment, Forest & Climate Change (Non Coal Mines),  
Indira Paryavaran Bhavan, Jor Bagh Road, Ali ganj, New Delhi-110003.

SL:MM:26150  
Date: 11.03.2022.

Dear Sir,

Sub: Submission of Additional/Essential Details Sought (EDS) as per 43<sup>rd</sup> EAC-Meeting Minutes dated 24.12.2021- Proposal no:IA/TN/MIN/241375/2018 -Agenda item no-43.2.1 for further consideration for issue of EC-reg.,

Ref: Intimation mail from MOEF dated 24<sup>th</sup> Dec 2021 and Agenda published on 24.12.2021 in MOEF & CC website with **Agenda Item no-43.2.1.**

We submit herewith ADS/EDS reply sought as per the Minutes of EAC Meeting held on 15.12.2021 for Non-Coal Mining sector in respect of our Chettichavadi Jaghir Magnesite and Dunite Mines with S/F.No-6 in Chettichavadi Jaghir Village belonging to Dalmia Bharat Sugar & Industries Ltd. We request your good self to consider the proposal for issue of EC.

Thanking You

Yours Faithfully,  
For Dalmia Bharat Sugar and Industries Ltd.

  
P.G.Kalidass,  
Agent and Mines Manager,  
Chettichavadi Jaghir Magnesite and Dunite Mines.

Encl:

1. Annexure I- KML shape files for land use pattern.
2. Annexure II- Description of land cover of the lease hold area./C/o. DALMIA MAGNESITE CORPORATION,  
SALEM-636 012
3. Annexure III- Photos showing plantation, garland drainage, stone parapet wall and boundary pillar in the lease area.

P G. KALIDASS,  
AGENT & MINES MANAGER,  
CHETTICHAVADI JAGHIR MINES  
DALMIA BHARAT SUGAR AND INDUSTRIES LTD.,  
SALEM-636 012

# Dalmia Bharat Sugar and Industries Limited

[ Formerly : Dalmia cement (Bharat) Limited]  
SALEM - 636 012 TAMILNADU

To,  
The Member Secretary  
IA-Division, Ministry of Environment, Forest & Climate Change (Non Coal Mines)  
Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003.

SL:MM:26150  
Date: 11-Mar-2022

Dear Sir,

Sub: EDS for Environmental Clearance for our Chettichavadi Jaghir Magnesite and Dunite Mines-reg.

Ref: (i) Our proposal No-IA/TN/MIN/241375/2018.

(ii) Minutes of Meeting of Expert Appraisal Committee held on 15<sup>th</sup> Dec 2021 Agenda Item No- 43.2.1 Observations & recommendations of the Committee.

In compliance of the observations and recommendations of the Expert Appraisal Committee (EAC) during the meeting held on 15<sup>th</sup> December 2021, we are hereby submitting details as required by EAC for their due consideration and grant of EC to our Chettichavadi Jaghir Magnesite and Dunite Mines Salem Taluk and District, Tamil Nadu.

Our response for each of the recommendation /direction in MOM dated 15<sup>th</sup> Dec 2021 is as under

**1. THE PROJECT PROPONENT NEEDS TO SUBMIT THE REVISED LAND USE-LAND COVER AND DAMAGE CALCULATION NEEDS TO BE RE-WORKED PARTICULARLY DAMAGE TO ECOLOGY AND BIODIVERSITY:**

IMPACT ON LAND ENVIRONMENT DUE TO PRODUCTION OF ORE AND WASTE HANDLING & LAND USE PATTERN OF LEASE AREA IN 1993-94 AND 2018-19 Is Given In The Table As Under:

S. NO	TYPE OF LAND USE	1993-94		2018-2019		Additional Area
		AREA(H)	AREA	AREA (HA)	ARE	
1.	Area of Excavation	356.25	79.28	366.89*	81.6	10.64
2.	Storage for Topsoil	0.5	0.11	0.5	0.11	-
3.	Overburden dumps	44.483	9.89	46.853	10.4	2.37
4.	Mineral Storage	2.51	0.55	3	0.67	0.49
5.	Infrastructure	1	0.19	1	0.22	-
6.	Roads	4.89	0.92	4.89	1.09	-
7.	Greenbelt & Boundary	14.15	3.15	19.23	4.28	-
8.	Area which will remain	25.581	5.69	7.001	1.56	-
Total		449.36	100%	449.364	100	13.20

REGD. OFFICE : DALMIAPURAM(TAMILNADU) - 621 651.  
HEAD OFFICE : HANSALAYA (11<sup>TH</sup>&12<sup>TH</sup> FLOORS)  
15, BARAKHAMBIA ROAD, POST BOX 364  
NEW DELHI - 110 001.

- The KML Shape files for land use pattern in respect of our Chettichavadi Jaghir Mines is enclosed as Annexure No-I
- Description of land cover in the lease hold area is enclosed as Annexure No-II
- Photos showing Plantation, Garland Drainage, Stone Parapet Wall and Boundary Pillar in the lease area is enclosed as Annexure No- III.
- We have also submitted Bank Guarantee of Rs.22.468 Crores valid for 5 years upto 31.3.2026 in the name of RCOM, IBM, Chennai.

The additional land use area during the period (1994-2019)	= 13.20 Hectares
Cost of damage on land environment @ 5 Lakhs per Ha (as per IBM rate)	= Rs 66.00 Lakhs.
Cost of damage on Ecology and Biodiversity @ Rs 75 Per tree for density of 1500 Trees per Ha for 13.20 Ha of damage land	= Rs 14.85 Lakhs.
<b>Total</b>	<b>= Rs 80.85 Lakhs.</b>

The damage cost for Land environment was Rs.13,50,000 and is revised to Rs80.85 Lakhs.

**2. THE PROJECT PROPONENT NEEDS TO SUBMIT THE REVISED ENVIRONMENTAL MANAGEMENT PLAN BUDGET. ALSO, 3% OF EMP BUDGET NEEDS TO BE ADDED IN THE COST OF DAMAGE ASSESSMENT.**

The Project Cost, EMP Budget, Environmental Monitoring Budget during the operational stage are given in the following table:

**PROJECT COST**

Description	Project Cost (Rs. In Lakhs)	Public Grievances Redressal cost (Rs. In Lakhs) @2% for CER
Public Grievances Redressal as per OM dated 20.09.2020	Rs. 1,957.07	Rs. 39.14
<b>Total Cost Allocation</b>	<b>Rs. 1,957.07</b>	<b>Rs. 39.14</b>

**EMP BUDGET**

S. No	Description	Budget
1	Safety kits for 320 persons @ Rs 1000 per head	Rs. 3,20,000
2	Water Sprinkling & Spraying	Rs.15,00,000
3	Afforestation for @ 75 per tree	Rs. 2,00,000
4	Noise & Vibration	Rs. 1,00,000
5	Drainage- Parapet -Retention Wall	Rs. 5,00,000
<b>Total</b>		<b>Rs 26.2 Lakhs</b>

3% of EMP Budget for non-compliance since 1993-94 to 2018-19=26.2 x 3%= Rs.20.43 Lakhs, and this cost is added in the cost of damage assessment.

## ENVIRONMENTAL MONITORING BUDGET

S. No	Environmental Monitoring Program	No. of samples per year	Cost per sample	Cost
1	Ambient Air Quality monitoring	12	Rs 3500	Rs 42,000
2	Water quality	12	Rs 2150	Rs 25,800
3	Soil quality	12	Rs 3500	Rs 42,000
4	Noise Monitoring	12	Rs 1000	Rs 12000
5	Ground Vibration Test due to Blasting	2	Rs 30000	Rs 60000
	<b>Total</b>			<b>Rs 1,81,800</b>
	<b>Contingency @ 10%</b>			<b>Rs 18,200</b>
	<b>Grand Total</b>			<b>Rs 2,00,000</b>

## ENVIRONMENTAL RECURRING EXPENDITURE

S. No	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Air Pollution (Prevention & Control)	Rs.0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50	Rs. 0.50
2	Water Pollution (Prevention & Control)	Rs. 0.22	Rs. 0.22	Rs. 0.25	Rs. 0.25	Rs. 0.25	Rs. 0.22	Rs. 0.22	Rs. 0.22	Rs. 0.22	Rs. 0.22	Rs. 0.22	Rs. 0.22	Rs. 0.22
3	Noise Pollution (Prevention & Control)	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21	Rs. 0.21
4	Safety equipment's, Plant & Machinery for environment protection	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00	Rs. 3.00
5	Post project env. monitoring	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32	Rs. 1.32
6	Reclamation/ plantation	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00	Rs. 4.00
7	Vibration studies	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50	Rs. 2.50
8	Miscellaneous	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20	Rs. 8.20
<b>Total</b>		<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>	<b>Rs. 20</b>

- Annual Expenditure during 2006-19 for EMP = Rs 20.00 Lakhs per annum.
- Proposed Annual EMP budget = Rs 26.20 Lakhs per annum.

**3. THE PROJECT PROPONENT NEEDS TO CALCULATE THE NET PROFIT BY FINANCE WHICH ALSO NEEDS TO BE A PART OF DAMAGE ASSESSMENT (3% OF NET PROFIT HAS TO BE CONSIDERED IN CRAP)**

YEAR	ACTUAL PRODUCTION MAGNESITE	VALUE OF MAGNESITE AS PER IBM RATE	TOTAL PRODUCTION * IBM COST (MAGNESITE) 2*3	ACTUAL PRODUCTION DUNITE	VALUE OF DUNITE AS PER IBM RATE	TOTAL PRODUCTION * IBM COST (DUNITE) 5*6	TOTAL PRODUCTION COST OF MAGNESITE AND DUNITE (4+7)	TOTAL EXPENSE INCURRED FOR MINE DEVELOPMENT ACTIVITY (C)	NET PROFIT / LOSS Rs.	3% of Net Profit
1993-94	53760.1	910.25	48935131.03	0	80.25	0	48935131.03	62784025	-13848893.98	0
1994-95	106724.42	968	103309238.6	0	88.54	0	103309238.6	81047294	22261944.56	667858.34
1995-96	96671.64	1067	103148639.9	150	101.48	15222	103163861.9	85994600	17169261.88	515077.86
1996-97	105983.46	1165	123470730.9	60	118	7080	123477810.9	109990466	13487344.9	404620.35
1997-98	102472.79	1264	129525606.6	200	136.41	27282	12952888.6	118809072	10743816.56	322314.50
1998-99	88041.01	1216	107057868.2	1459	149.29	217814.11	107275682.3	119832016	-12556333.73	0.00
1999-2000	87357.84	1337	116797432.1	1329	152.91	203217.39	117000649.5	116092977	907672.47	27230.17
2000-01	87932.88	1177	103496999.8	0	125.383	0	103496999.8	119838815	-16341815.24	0.00
2001-02	66005.44	1337	88249273.28	0	138.6	0	88249273.28	104222826	-15973552.72	0.00
2002-03	42187.428	1390	58640524.92	1749.722	187.5	328072.875	58968597.8	78863690	-19895092.21	0.00
2003-04	31432.453	1422	44696948.17	1822.818	235.92	430039.2226	45126987.39	84048048	-38921060.61	0.00
2004-05	42374.484	983	41654117.77	1096.242	225	246654.45	41900772.22	77201119	-35300346.78	0.00
2005-06	26887.14	1178	31673050.92	7994.527	132.44	1058795.156	32731846.08	78295400	-45563553.92	0.00
2006-07	18671.43	1551	28959382.93	2565	133.41	342196.65	29301584.58	61621383	-32319798.42	0.00
2007-08	29554.628	1413.5	41775466.68	1850	150	277500	42052966.68	60395010	-18342043.32	0.00
2008-09	42227.866	1504	63510710.46	1430	200	286000	63796710.46	80469835	-16673124.54	0.00
2009-10	61738.768	1574.83	97228064.01	13850	300	4155000	101383064	99092814	2290250.009	68707.50
2010-11	41698.568	1823	76016489.46	5610	300	1683000	77699489.46	94623810	-16924320.54	0.00
2011-12	27482.87	1841.58	50611903.73	3900	500	1950000	52561903.73	80473917	-27912013.27	0.00
2012-13	6651.081	2549.25	16955268.24	15150	647.5	9809625	26764893.24	70572649	-43807755.76	0.00
2013-14	4124.538	3082.5	12713888.39	9355	750	7016250	19730138.39	53085526	-33355387.62	0.00
2014-15	16596.206	3172.92	52658433.94	47500	800	38000000	90658433.94	77067533	13590900.94	407727.03
2015-16	15038.052	2977.75	44779559.34	37815	800	30252000	75031559.34	74035624	995935.343	29878.06
2016-17	10343.074	3817	39479513.46	11620	800	9296000	48775513.46	53052478	-4276964.542	0.00
2017-18	3404.934	3857	13132830.44	11720	800	9376000	22508830.44	53210803	-30701972.56	0.00
2018-19	1167.487	3899	4552031.813	131	800	104800	4656831.813	43847561	-39190729.19	0.00
<b>TOTAL (Rs)</b>									<b>-380457632.3</b>	<b>2443413.80</b>

3% of Net Profit by finance during 1993-94 to 2018-19 = Rs 24.43 Lakhs is considered in CRAP.

**4) THE PROJECT PROPONENT NEEDS TO REVISE THE NRAP AND CRAP ACCORDINGLY. PARTICULARLY, AIR QUALITY ASSESSMENT NEEDS TO BE REVISED IN THE PLAN.**

**REVISED DAMAGE COST FOR EMISSION OF AIR POLLUTANTS:**

Year	Excess Production (Tonnes)	Total emission from various activities as per Table 2 (kg/day)				Cost per Kg of Emission (in Rs.)				Revised Damage cost per annum (inRs.)
		PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	
1994-95	1183764	4.28	36.69	0.002	10.067	524	340	165	96	Rs. 31,23,565.54
1995-96	1318728	2.84	25.51	0.002	6.794					Rs. 32,89,835.97
1996-97	1398430	3.10	27.42	0.002	7.373					Rs. 35,44,078.61
1997-98	1291858	2.88	25.37	0.002	6.827					Rs. 37,80,021.14
1998-99	724860	1.72	14.69	0.001	4.043					Rs. 19,11,098.94
1999-2000	661528	1.60	13.54	0.001	3.748					Rs. 17,64,439.55
2000-01	672660	1.61	13.69	0.001	3.777					Rs. 17,82,619.90
2001-02	962352	1.80	17.47	0.001	4.417					Rs. 22,22,259.85
2002-03	260244	0.97	6.75	0.000	2.135					Rs. 9,15,054.47
2003-04	267732	0.86	6.11	0.000	1.914					Rs. 8,51,721.37
2004-05	440532	1.28	9.85	0.001	2.898					Rs. 13,10,592.38
2005-06	267912	0.88	6.42	0.000	1.956					Rs. 8,63,720.33
2006-07	228168	0.65	5.12	0.000	1.484					Rs. 6,69,397.24
2007-08	331416	0.95	7.42	0.000	2.163					Rs. 9,74,656.54
2008-09	915188	2.15	18.65	0.001	5.076					Rs. 24,02,061.04
2009-10	118228	0.50	3.61	0.000	1.103					Rs. 4,83,767.76
2010-11	881832	2.51	21.33	0.001	5.884					Rs. 23,10,501.64
2011-12	353088	0.97	7.68	0.000	2.225					Rs. 10,23,945.85
2012-13	144500	0.51	3.65	0.000	1.127					Rs. 4,90,226.65
2013-14	76623	0.29	2.06	0.000	0.641					Rs. 2,77,978.89
2014-15	65176	0.88	4.31	0.000	1.758	Rs. 6,39,631.18				
2015-16	179064	0.94	5.73	0.000	1.977	Rs. 8,04,259.35				
2016-17	116372	0.46	3.13	0.000	0.998	Rs. 4,30,348.31				
2017-18	27761	0.23	1.28	0.000	0.465	Rs. 1,83,005.68				
2018-19	21848	0.04	0.33	0.000	0.081	Rs. 42,366.02				
<b>Total</b>										<b>Rs. 1,55,89,154.01</b>

**DAMAGE COST OF AIR POLLUTION IS REVISED FROM RS.3.18 CRORES TO RS.3.55 CRORES.**

- The Damage Cost due to Air quality during the violation period was revised from 3.15 Crores to 3.55 Crores and this cost of 3.55 Crore considered in NRAP & CRAP.
- The damage cost due to water environment and solid waste management remains the same as shown in Chapter-13 of the EIA/EMP Report.

The summary of the DAMAGE ASSESMENT COST IS AS SHOWN HEREUNDER:

**SUMMARY OF DAMAGE ASSESMENT COST:**

S.No	Environmental Activity	Previously proposed Damage Cost	Revised Damage Cost
1	Land Environment	Rs. 13,50,000	Rs. 66,00,000
2	Ecology & Bio-Diversity	-	Rs. 14,85,000
3	3 % of EMP cost saved in the past 26 years	Rs. 2,00,000	Rs. 20.43,000
4	3 % of Net Profit during Violation Period	-	Rs. 24,43,413
5	Air Environment	Rs. 3,18,68,661	Rs. 3,55,89,154
6	Water Environment	Rs. 84,15,493	Rs. 84,15,493
7	Solid waste Management	Rs. 41,18,610	Rs. 41,18,610
	<b>TOTAL:</b>	<b>Rs. 4,59,52,764 /-</b>	<b>Rs. 6,06,94,670/-</b>



**REVISED REMEDIATION PLAN :**

Remediation Plan (Cost in Rs.Lakhs)										
Sl. No.	Component Remediation	Remediation Proposed	Description	Locations	Unit Rate in Rs.	Total Qty.	Total Cost in Lakhs	Phasing years in Lakhs		
								Year-I	Year-II	Year-III
1a.	Air & Noise Environment	Dust suppression	Providing Wind Barrier And Vertical Greenery To Villages Adjacent / Running Parallel To ML Area	Chettichavadi	Rs. 10,00,000/- per 100 meter	650 Meters	Rs. 65.00	Rs. 20.00	Rs. 20.00	Rs. 25.00
1b.	Noise Environment and Ecology	Avenue Plantation	Plantation of total 6500 Nos. of native plants at Rs. 1500 per sapling, including maintenance for 3 years in nearby villages and periphery of the project	Chettichavadi Velakkalpatti Kondapanayakanpatti Senaigowandanur Karuppur	Rs. 1500 per Plant	6500	Rs. 97.50	Rs. 32.50	Rs. 32.50	Rs. 32.50
<b>Sub-Total - A (1a+1b)</b>							<b>Rs. 162.5</b>	<b>Rs. 52.5</b>	<b>Rs. 52.5</b>	<b>Rs. 57.5</b>

## REVISED NATURAL RESOURCE AUGMENTATION:

Natural Resource Augmentation Plan (Cost In Rs.Lakhs)										
Sl. No.	Component Remediation	Proposed Activity	Description	Locations	Unit Rate in Rs.	Total Qty.	Total Cost	Phasing years		
								Year-I	Year-II	Year-III
2a.	Natural Resource Augmentation Plan	Water Management & Ground Water Recharge	Development of Rain Water Harvesting and ground water recharge structure 5 Nos Each in nearby 5 villages	1. Chettichavadi- 10 Nos 2. Velakkalpatti -10 Nos 3. Kondapanayakanpatti -10 Nos 4. Senaigowandanur -10 Nos 5. Karuppur-10 Nos	Rs.57000/one unit	50 nos.	Rs. 28.5	Rs. 9.5	Rs. 9.5	Rs. 9.5
			Restoration and Cleaning of water bodies like ponds, Nallahs, Streams, etc in and around the lease area	1. Chettichavadi Village 2. Velakkalpatti Village 3. Kondapanayakanpatti Village.	Rs. 13,00,000/each village	5 nos.	Rs. 65.00	Rs. 21.66	Rs. 21.66	Rs. 21.66
2b.		Construction of Check Dams of size 4 Mtr Length X 2 Mtr Height X 1 Metre Width in nearby villages	1. Chettichavadi Village 2. Velakkalpatti Village 3. Kondapanayakanpatti Village.	Rs. 13,00,000/each village	5 nos.	Rs. 65.00	Rs. 21.66	Rs. 21.66	Rs. 21.66	
2c.	Energy Conservation by adapting Green Energy technology	Providing 40 W Solar Street Lighting (including panels, inverters, wiring, structure, connectors, junction boxes, etc.) in nearby villages @ Rs.77,500 per unit.	1. Chettichavadi Village – 20 Nos 2. Outside area Around ML area – 30 Nos 3. Sides of Public roads connecting ML Boundary gate till factory gate - 50 Nos	Rs.77,500/one unit	100 nos.	Rs. 77.5	Rs. 25.83	Rs. 25.83	Rs. 25.83	
Sub-Total – A (2a+2b+2c)							Rs. 236.00	Rs. 78.65	Rs. 78.65	Rs. 78.7

### Revised Community Resource Augmentation Plan:

Community Resource Augmentation Plan (Cost in Rs.Lakhs)

Sl No	Component Remediation	Proposed Activity	Description	Locations	Unit Rate in Rs.	Total Qty.	Total Cost	Phasing years		
								Year -I	Year- II	Year- III
3a.	Community Resource Augmentation Plan	Development of infrastructure	Construction / expansion of following as per requirement from local village panchayats or municipality in nearby villages at Rs 50,00,000/- per village - Public Toilets / Bath Rooms, Overhead Water storage Tanks, Compound Wall around Buildings at nearby Government Schools, Bus stops, Public Library, Public Children park, Primary Health centre	Chettichavadi Village Velakkalpatti Village Kondapanaickanpatti Village Karuppur Town Panchayat	Rs 50,00,000/- per village	4 Nos Villages	Rs. 132.00	Rs. 44.00	Rs. 44.00	Rs. 44.00
3b.		Supply of Equipment's	Provision of following in nearby government schools, Sports Materials @ Rs 1.5 Lacs Lump Sum cost 1 Nos Water Purifiers @ Rs 0.5 each cost Computers with Network facility facilitating Smart Class @ Rs 3 Lacs Lump Sum cost	Chettichavadi Village - 2 Schools Velakkalpatti Village - 1 School	Rs 5,00,000/- per School	3 Nos	Rs. 15.00	Rs. 5.00	Rs. 5.00	Rs. 5.00
3c.		Improving socio-economic & Health conditions	Providing following medical equipment's to nearby Primary Health Centres, 5 Nos Patient Beds with height adjustment @Rs 0.25 Lac each unit 1 Nos ECG Machine @ Rs 0.5 Lacs Each unit, 1 Nos Portable X-Ray Machine @ Rs 1.5 Lacs each unit 5 Nos Vital Monitors @ Rs 1.00 Lac Each 8 Nos SHYCOGAN (Viral Attenuation Device including COVID 19) @ Rs 0.30 Lacs each	Chettichavadi Village Velakkalpatti Village Kondapanaickanpatti Village Karuppur Town Panchayat	Rs 10,24,000 /- per village	6 Nos	Rs. 61	Rs. 18.35	Rs. 18.34	Rs. 18.34
Sub-Total - C (3a+3b+3c)							Rs. 208.44	Rs. 69.48	Rs. 69.48	Rs. 69.48
Grand Total A +B +C (Rs.)							Rs. 606.94	Rs. 200.63	Rs. 200.63	Rs. 205.68

**BUDGET FOR REMEDIATION PLAN, NATURAL RESOURCE AUGMENTATION PLAN AND COMMUNITY RESOURCE AUGMENTATION PLAN:**

Sl. No.	Description	Previously proposed Cost (Rs. in Lakhs)	Estimated cost (Rs. in Lakhs)
1	Remediation Plan	127.50	162.50
2	Natural Resources Augmentation Plan	155.00	236.00
3	Community Resources Augmentation Plan	177.60	208.44
Sub-Total		460.10	606.94
4	2% Contribution from Capital Cost against community welfare activities under OM dated 30/09/2020 based on PH requirements (CER)	34	39.14
<b>Grand Total-</b>		<b>494.10</b>	<b>646.08/-</b>

We will respond to the observation and recommendation of 46<sup>th</sup> EAC Meeting in respect of Amedment of TOR under proposal no: IA/TN/MIN/254214/2022 held on 15 Feb 2022 seperately, later on.

Thanking You.



Encl: As above.

Yours Faithfully,  
For Dalmia Bharat Sugar & Industries Ltd,

P.G.Kalidass, 11.3.2022

Agent & Mines Manager,

Chettichavadi Jaghir Magnesite and Dunite Mines.

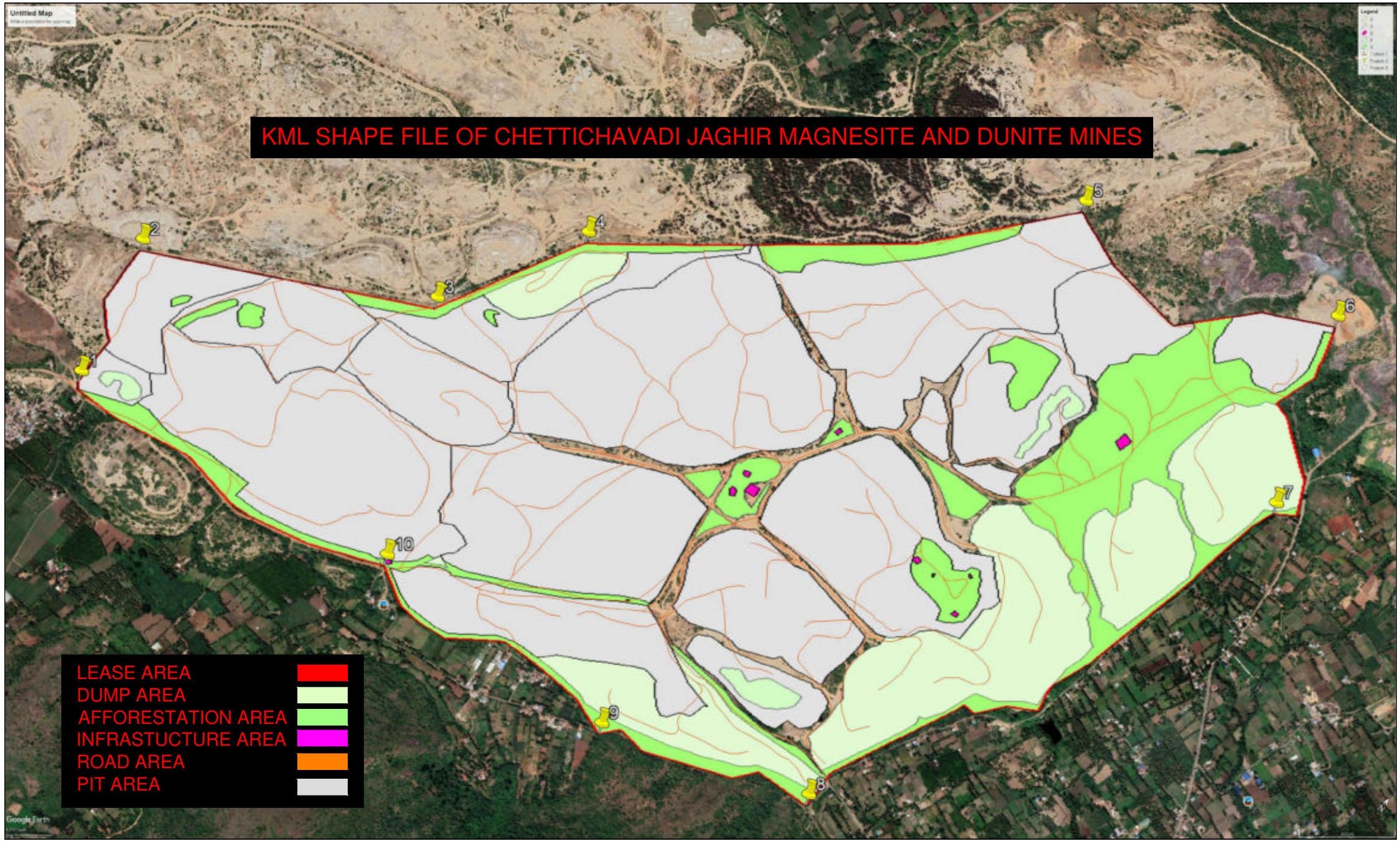
P. G. KALIDASS,  
AGENT & MINES MANAGER,  
CHETTICHAVADI JAGHIR MINES,  
DALMIA BHARAT SUGAR AND INDUSTRIES LTD.,  
A COMPANY OF DALMIA MAGNESITE CORPORATION,  
SALEM-636 012

# KML SHAPE FILE OF CHETTICHAVADI JAGHIR MAGNESITE AND DUNITE MINES

- LEASE AREA
- DUMP AREA
- AFFORESTATION AREA
- INFRASTRUCTURE AREA
- ROAD AREA
- PIT AREA

Untitled Map

Legend



### **KML Shape File:**

- 1 The Chettichavadi Jaghir Magnesite & Dunite Mines named after the village Chettichavadi forms part of the reputed Chalk hills of Salem. The Chalk hills of Salem is comprised of two detached Magnesite belts, a smaller one to the South and a larger one to the North East separated by Nagarmalai and Karunkaradu Hills. The Chettichavadi Jaghir Mines lies in the North Eastern Belt. The area is a plateau region situated between the foot hills of Shevaroy's Hill range and the Salem City.
- 2 This area is slightly elevated than its surroundings. There are some hillocks being apart and the rest of the terrain forms low undulating ridges and mounds and hence it has no drainage problem. The highest reduced level on the hillock is about 400m above MSL and the lowest reduced level 340 m above MSL in the low lying area.
- 3 The lease hold area has got a common boundary in the west with the SAIL Refractory Co. Ltd mining area and in the North there is kurumbapatti Reserved Forest lying at the South Western Foot of the Shevaroy Hills where active mining is carried out by the Tamilnadu Magnesite Ltd.
- 4 Mining of Magnesite is carried out in the Chalk hills belt for the past one century by the opencast method. The Chettichavadi Jaghir Mines is being operated by M/s.Dalmia Bharat Sugar & Industries Ltd for the past 60 Years.
- 5 The ore bearing area lies in the western and northern part of the lease hold and on the east and south there is a barren zone separated by ore- non ore contact. All the waste dumps are situated in the barren zone in the east and south. The existing spoil banks are started from the lease boundary leaving a barrier zone of 7.5 m and are advanced westwards upto their maximum holding capacity. The waste dumps have reached 25-30m height with an angle of repose 37 degree from the horizontal.

- 6 Wherever required step dumping is started with a height of 15-10m leaving a width of about 10m between the stages.
- 7 Wherever the spoil banks have reached the ultimate limits in the East and South, we have planted trees on the slopes of the spoil banks to prevent solid wash off during heavy rains.
- 8 Further stone parapet wall of 1.5m height is constructed around the toe of the spoil banks for a length of 1805m in the present mining lease area and trenches are dug outside the parapet walls to prevent flow of the spoil during rains. These trenches act as the garland drains around the toe of the spoil banks.
- 9 The disposal of spoil is made in the non ore being areas approved by IBM. No residential area, human settlement or township is located in the mining lease hold area.
- 10 All the spoil banks are active and would not reach their full holding capacity by the end of the lease period (i.e.) 31.03.2030.
- 11 Afforestation is carried out by planting tree saplings on the slopes of the spoil banks. Further the avenue plantation is also carried out along sides of the haulage and approach roads, vacant lands, in Mines Magazine areas, Office Premises, Workshop Premises, canteen premises and on the 7.5 mtr barrier zone etc. The total area covered is around 98 Hectare and total no of trees planted since 1987 till date are 62674 Nos.

P.G.Kalidass,  
Agent & Supdt of Mines.



**PLANTATION, STONE PARAPET WALL, GARLAND DRAIN AND BOUNDARY PILLAR  
ALL ALONG THE SPOIL BANKS ON EASTERN SIDE OF THE LEASE BOUNDARY :**



**PHOTOGRAPH NO- 1**



**PHOTOGRAPH NO- 2**



**PHOTOGRAPH NO- 3**



**PHOTOGRAPH NO- 4**



**PHOTOGRAPH NO-05**



**PHOTOGRAPH NO- 06**



**PHOTOGRAPH NO-07**



**PHOTOGRAPH NO- 08**



**PHOTOGRAPH NO- 09**



**PHOTOGRAPH NO- 10**



**PHOTOGRAPH NO- 11**



**PHOTOGRAPH NO- 12**



**PHOTOGRAPH NO- 13**



**PHOTOGRAPH NO- 14**



**PHOTOGRAPH NO- 15**



**PHOTOGRAPH NO-16**





**PHOTOGRAPH NO- 17**



**PHOTOGRAPH NO-18**



**PHOTOGRAPH NO- 19**

**PLANTATION ALL ALONG SIDE OF THE APPROACH ROAD:**



**PHOTOGRAPH NO- 01**



**PHOTOGRAPH NO- 02**



**PHOTOGRAPH NO- 03**



**PHOTOGRAPH NO- 04**



**PHOTOGRAPH NO- 05**



**PHOTOGRAPH NO- 06**



**PHOTOGRAPH NO- 07**



**PHOTOGRAPH NO- 08**



**PHOTOGRAPH NO- 09**



**PHOTOGRAPH NO- 10**



**PHOTOGRAPH NO- 11**



**PHOTOGRAPH NO- 12**





**PHOTOGRAPH NO- 13**



**PHOTOGRAPH NO- 14**



**PHOTOGRAPH NO- 15**



**PHOTOGRAPH NO- 16**



**PHOTOGRAPH NO- 17**



**PHOTOGRAPH NO- 18**



**PHOTOGRAPH NO-19**

**PLANTATION AROUND MINES OFFICE PREMISES:**



**PHOTOGRAPH NO- 01**



**PHOTOGRAPH NO- 02**



**PHOTOGRAPH NO- 03**



**PHOTOGRAPH NO- 04**



**PHOTOGRAPH NO- 05**

**PLANTATION ON THE PERIPHERY OF THE ABANDONED WORKING PITS:**



**PHOTOGRAPH NO- 01**



**PHOTOGRAPH NO- 02**





**PHOTOGRAPH NO- 03**

**PHOTOGRAPH NO- 04**

## **PLANTATION AROUND MAGAZINE:**



**PHOTOGRAPH NO- 01**



**PHOTOGRAPH NO- 02**



**PHOTOGRAPH NO- 03**



**PHOTOGRAPH NO- 04**



**PHOTOGRAPH NO- 05**



**PHOTOGRAPH NO- 06**

**PLANTATION ,STONE PARAPET WALL,GARLAND DRAINAGE & BOUNDARY PILLAR ALL ALONG THE SPOIL BANK ON SOUTHERN SIDE OF THE LEASE BOUNDARY:**



**PHOTOGRAPH NO- 01**



**PHOTOGRAPH NO- 02**



**PHOTOGRAPH NO- 03**



**PHOTOGRAPH NO- 04**



**PHOTOGRAPH NO- 05**



**PHOTOGRAPH NO- 06**



**PHOTOGRAPH NO- 07**



**PHOTOGRAPH NO- 08**





**PHOTOGRAPH NO- 09**



**PHOTOGRAPH NO- 10**



**PHOTOGRAPH NO- 11**



**PHOTOGRAPH NO- 12**



**PHOTOGRAPH NO- 13**



**PHOTOGRAPH NO- 14**



**PHOTOGRAPH NO- 15**



**PHOTOGRAPH NO- 16**



**PHOTOGRAPH NO- 17**



**PHOTOGRAPH NO-18**



**PHOTOGRAPH NO- 19**



**PHOTOGRAPH NO- 20**



**PHOTOGRAPH NO- 21**



**PHOTOGRAPH NO- 22**



**PHOTOGRAPH NO- 23**



**PHOTOGRAPH NO- 24**





**PHOTOGRAPH NO-25**



**PHOTOGRAPH NO- 26**



**PHOTOGRAPH NO- 27**

# **PLANTATION ALL ALONG THE VACANT LAND:**



**PHOTOGRAPH NO- 01**



**PHOTOGRAPH NO- 02**



**PHOTOGRAPH NO- 03**



**PHOTOGRAPH NO- 04**



**PHOTOGRAPH NO- 05**



**PHOTOGRAPH NO- 06**



**PHOTOGRAPH NO- 07**



**PHOTOGRAPH NO- 08**