Kolimigundla Unit
Kolimigundla Mandal
Nandyal District - Pin 518 123
Andhra Pradesh
Website: www.ramcocements.in
Corporate Identity Number: L26941TN1957PLC003566

THE RAMCO CEMENTS LIMITED

Ref: RCL/NP/MINE/ADS/2023 **Date: 13.02.2023**

To
The Director (Non-Coal Mining),
Government of India,
Ministry of Environment, Forest and Climate Change,
Indira Paryavaran Bhawan,
Ali Ganj, Jor Bagh Road,
New Delhi- 110003.

Sub: **Submission of ADS information:** - Nayanapalli Limestone Mine (ML area: 735.72 Ha.) of M/s. The Ramco Cements Limited for Limestone Production of 2.7 MTPA with total excavation of 2.911 MTPA (Limestone: 2.7 MTPA + Top Soil: 0.211 MTPA) located at Kolimigundla and Petnikota Villages, Kolimigundla Mandal, Kurnool Dist., Andhra Pradesh- Environmental Clearance - reg.

Ref:

1) EAC minutes of meeting dated 17 to 18th January,2023.
2) ADS dated 10.02.2023

Dear Sir,

Our above proposal was recommended by EAC in its meeting held during 17 to 18th January, 2023 for grant of Environmental Clearance. The MoEFCC (Non-Coal Mining) sought certain clarifications/ additional information vide Ref (2).

We are herewith enclosing point wise response to the points raised.

We request the Ministry to kindly issue Environmental Clearance for the project.

Yours faithfully,

For **The Ramco Cements Limited**

R. Nagaraju

Reddy Nagaraju
President (Projects)
Encl: Above

SUBMISSION OF REPLIES FOR ADDITIONAL DETAILS SOUGHT BY MINISTRY DATED 10.02.2023

Proposal No	**:**	**IA/AP/MIN/230981/2021**
File No	**:**	**J-11015/95/2017-IA.II(M)**
Proponent	**:**	The Ramco Cements Limited
Project	**:**	Nayanapalli Limestone Mine
Production	**:**	2.7 MTPA with total excavation of 2.911 MTPA (Limestone: 2.7 MTPA + Top Soil: 0.211 MTPA)
Mining Lease Area	**:**	735.72 Ha
Location	**:**	Kolimigundla and Petnikota Villages, Kolimigundla Mandal, Kurnool Dist., Andhra Pradesh

Sir,

The pointwise replies against the 5th ADS raised on 10.02.2023 are given below:

Sl.No	ADS Point	REPLIES
1	The Patta land is not yet fully in the possession of the Project Proponent.	Out of the above total extent of 735.72 Ha Govt. Land consists of 142.92 Ha and Patta Land consists of 592.80 Ha. Against the above Patta Lands M/s. The Ramco Cements Limited purchased 561.46 Ha and the company is in possession of these lands. Hence out of 735.72 ha, the company is in possession of 704.38 ha Possession Certificate has been obtained from the Revenue Department, (Tahsildar) Govt. of Andhra Pradesh. Vide Letter No. Rc.A.308/2022 and Dated. 07.09.2022 has already been submitted to your good office vide our letter dtd 21.09.2022 (Refer Exhibit-1) Entire area proposed under the approved Mining plan is under the company's possession. Purchase of the balance patta lands of 31.34 ha is also under progress. An undertaking with respect to purchasing of remaining patta lands has already been submitted vide our letter dtd 21.09.2022 (Refer Exhibit-2)
2	Action plan regarding setting up of the Conveyor belt and crushing Unit.	Action plan for setting up the conveyor belt and crushing unit is enclosed as Exhibit No-3

		We will install and commission the crusher along with Conveyor belt within a period of three years i.e., by January 2026. An undertaking in this regard was also submitted to MoEF & CC vide letter dtd 28.01.2023 (Refer Exhibit No-4)
3	The distance of the Mine lease from the School is 500 metres, to submit the impact of mining activity on the School	The impact of Mining on the school located in Nayanapalle village was deliberated earlier in EAC meeting on 16.08.2022 and ADS were sought vide MoM 26.08.2022. Replies on the same was submitted to MoEF vide Point No 7 in our letter No: RCL/NP/MINE/ADS/2022 dtd 21.09.2022 and uploaded in Parivesh portal. The same is again enclosed as Exhibit-5 The following additional safety precautions measures will be taken during mining operations. • Lease Boundary Fencing near school and habitations will be erected to avoid unauthorized entry in the mine. Adequate Dust suppression measures in mine will be in place •7.5m barrier zone with thick plantation will be carried out all along the Mining Lease boundary. A 50m thick plantation barrier zone will be made adjacent to Nayanapalle, Petnikota and Kolimigundla villages. Both these plantations shall act as a strong Noise and dust barriers. • safe zone will be left for the habitation as stipulated by DGMS norms • All safety precautions specified by DGMS will be followed during blasting. A safe code of practice for drilling and blasting will be made and adhere as per DGMS guidelines. • Control Blasting Techniques only will be carried out in accordance with the plan as recommended by NIRM and in accordance with guidelines of DGMS circular No 7 dated 29.08.1997 towards permissible peak particle velocity(mm/s) for structures not belonging to owner.
4	To submit impact of Mining on the archaeological site.	We have obtained NOC from Archaeology & Museums department, Government of Andhra Pradesh vide

		File No.YTC07-17034/5/2022-H 05/05/2022 and submitted to the MOEF&CC after carrying out following detailed studies: 1. We have carried out the study about the impact of Blast induced vibrations by National Institute of Rock Mechanics (NIRM) and the study report has been submitted to MOEF&CC along with EIA report. (Refer EIA pages 167 to 169 enclosed as Exhibit -6) 2. We have carried out the study on extensions of underground passages channels in different direction in belum caves by National Geophysical Research Institute (NGRI), Hyderabad and obtained report for Nayanapalli Limestone Mine and submitted to MOEF&CC along with EIA report. The results revealed that the Belum caves are not extending in direction towards the Proposed Nayanapalle mine whereas it is in different direction away from the mine. The Quartzite deposit between mine and the caves for a width of around 300 mtrs will further act as a safety barrier. No mining activity will be done for a distance of 1.5 Kms from the caves, which has been incorporated in Mining plan and approved by IBM. (Refer EIA pages 169 to 170 enclosed as Exhibit-7) 3. A detailed Hydrogeological study has also been carried out and submitted to MOEF&CC along with EIA Report. (Refer EIA pages 140 to 144 enclosed as Exhibit-8) All the above studies revealed that there is no impact of Mining on the Belum caves, based on which NOC was granted by Archaeological department.(Enclosed as Exhibit-9)

		The same has been well deliberated by the Hon'ble EAC committee and recommended for grant of EC.
5	The production capacity at present for which CTO has been granted?	Since EC is yet to be granted we do not have a CTE/ CTO for this mine.
6	To submit a copy techno-economic feasibility of laying down the Conveyor Belt be governed by environmental considerations?	Yes. The techno economic feasibility study report has been already prepared and submitted along with ADS letter no RCL/NP/MINE/ADS2/ 2023 dated 05.01.2023 enclosed as Exhibit -10 with all the relevant environmental safeguards and considerations. The NPV of the conveying system is costlier than Road transport. However, the electrically operated belt conveying system is more environmental friendly than operating the diesel trucks. Hence, based on the EAC's recommendations, we have also accepted to install the crusher along with conveyor from the mines. As per the ADS raised, we have submitted an undertaking to install the conveyor by January 2026 vide our letter dtd 28.01.2023, uploaded in the Parivesh Portal. The same is enclosed as Exhibit-11 Action Plan for installation is also enclosed as per point 2 above.

Exhibit-1

Tahsildar' s Office
Kolimigundla Mandal
Nandyal District

Rc.A.308 / 2022 ,

Date :07.09.2022

POSSESSION CERTIFICATE

This is to certify that Nayanapalli Limestone Mine belonging to M/s. The Ramco Cements Limited (Formerly known as M/s. Madras Cements Ltd) over an extent of 735.72 Ha in Kolimigundla and Petnikota Villages of Kolimigundla Mandal, Nandyal District (Previously Kurnool Dt.). The mining lease is granted for mining of limestone vide G.O.Ms.No. 137, Dt.15.02.2000, G.O.Ms.No.6, Dt.03.01.2019 & Errata G.O.Ms.No.40, Dt.04.06.2021. This mining lease is in possession of M/s. The Ramco Cements Limited.

Out of the above total extent of 735.72 Ha, Govt. Land consists of 142.92 Ha and Patta Lands consists of 592.80 Ha.

Against the above Patta Lands, M/s. The Ramco Cements Limited have purchased 561.46 Ha and they are in possession of these lands.

This Possession Certificate is issued to submit to MoEF & CC, Delhi for obtaining Environmental Clearance.

Tahsildsar
Kolimigundla Mandal

7.9.2022

TAHSILDAR
Kolimigundla (M)
Nandyal Dt. A.P.

Tahsildar's Office
Kolimigundla Mandal
Dated: 07/09/2022.

Rc.A.308/2022,

Possession Certificate

This is to certify that the following lands of Nayunipalli Mining Block in Kolimigundla & Petnikota Villages in Kolimigundla Mandal are in Possession of M/s Ramco Cements Ltd., Kalvatala Village.

Sl No	Village	Survey No	Extent in AC.c	Extent in H.A
1	Kolimigundla	1	3.74	1.514
2	Kolimigundla	2	9.76	3.950
3	Kolimigundla	3	1.87	0.757
4	Kolimigundla	4	0.99	0.401
5	Kolimigundla	5	8.09	3.274
6	Kolimigundla	6	4.28	1.732
7	Kolimigundla	7	3.43	1.388
8	Kolimigundla	9	4.63	1.874
9	Kolimigundla	10	4.42	1.789
10	Kolimigundla	13	3.17	1.283
11	Kolimigundla	14	3.41	1.380
12	Kolimigundla	15	2.64	1.068
13	Kolimigundla	16	8.98	3.634
14	Kolimigundla	17	1.75	0.708
15	Kolimigundla	18	1.06	0.429
16	Kolimigundla	19	4.96	2.007
17	Kolimigundla	20	1.33	0.538
18	Kolimigundla	21	2.74	1.109
19	Kolimigundla	22	3.70	1.497
20	Kolimigundla	23	1.08	0.437
21	Kolimigundla	24	5.60	2.266
22	Kolimigundla	25	3.22	1.303
23	Kolimigundla	27	3.87	1.566
24	Kolimigundla	28	1.29	0.522
25	Kolimigundla	30	0.73	0.295
26	Kolimigundla	31	2.60	1.052
27	Kolimigundla	34	2.30	0.931
28	Kolimigundla	37	4.38	1.773
29	Kolimigundla	38	1.45	0.587

30	Kolimigundla	39	3.38	1.368
31	Kolimigundla	41	3.23	1.307
32	Kolimigundla	42	3.14	1.271
33	Kolimigundla	43	3.32	1.344
34	Kolimigundla	44	8.14	3.294
35	Kolimigundla	45	2.65	1.072
36	Kolimigundla	46	3.28	1.327
37	Kolimigundla	47	2.72	1.101
38	Kolimigundla	49	7.20	2.914
39	Kolimigundla	50	10.12	4.096
40	Kolimigundla	51	6.15	2.489
41	Kolimigundla	52	7.19	2.910
42	Kolimigundla	53	3.05	1.234
43	Kolimigundla	54	5.40	2.185
44	Kolimigundla	58	4.34	1.756
45	Kolimigundla	59	5.00	2.023
46	Kolimigundla	61	6.33	2.562
47	Kolimigundla	62	2.99	1.210
48	Kolimigundla	63	4.64	1.878
49	Kolimigundla	64	2.37	0.959
50	Kolimigundla	65	2.27	0.919
51	Kolimigundla	69	3.47	1.404
52	Kolimigundla	70	1.13	0.457
53	Kolimigundia	267	9.46	3.828
54	Kolimigundla	269	3.90	1.578
55	Kolimigundla	284	2.14	0.866
56	Kolimigundla	285	6.57	2.659
57	Kolimigundla	286	3.91	1.582
58	Kolimigundla	287	1.75	0.708
59	Kolimigundla	288	4.62	1.870
60	Kolimigundla	291	4.61	1.866
61	Kolimigundla	292	2.88	1.166
62	Kolimigundla	293	1.52	0.615
63	Kolimigundla	295	2.66	1.076
64	Kolimigundla	296	3.37	1.364
65	Kolimigundla	297	1.35	0.546
66	Kolimigundla	301	4.06	1.643
67	Kolimigundla	302	5.04	2.040
68	Kolimigundla	11/1	2.09	0.846
69	Kolimigundla	26/1	2.82	1.141
70	Kolimigundla	26/2	3.24	1.311

71	Kolimigundla	268/1	2.32	0.939
72	Kolimigundla	268/2	2.70	1.093
73	Kolimigundla	289/1A	0.72	0.291
74	Kolimigundla	289/1B	0.74	0.299
75	Kolimigundla	289/2	0.54	0.219
76	Kolimigundla	29/1A	0.54	0.219
77	Kolimigundla	29/1B	0.52	0.210
78	Kolimigundla	29/2	0.39	0.158
79	Kolimigundla	290/1	3.48	1.408
80	Kolimigundla	290/2	3.69	1.493
81	Kolimigundla	294/1	0.56	0.227
82	Kolimigundla	294/2	0.95	0.384
83	Kolimigundla	294/3	1.02	0.413
84	Kolimigundla	298/1A	0.49	0.198
85	Kolimigundla	298/1B	2.87	1.161
86	Kolimigundla	298/2	1.02	0.413
87	Kolimigundla	298/3	1.40	0.567
88	Kolimigundla	299/1	2.12	0.858
89	Kolimigundla	299/2	0.98	0.397
90	Kolimigundla	299/3	1.00	0.405
91	Kolimigundla	300/1	1.03	0.417
92	Kolimigundla	300/2	1.04	0.421
93	Kolimigundla	32/1	0.17	0.069
94	Kolimigundla	32/2	1.57	0.635
95	Kolimigundla	32/3	0.73	0.295
96	Kolimigundla	33/1	2.42	0.979
97	Kolimigundla	33/2	2.25	0.911
98	Kolimigundla	36/1	0.55	0.223
99	Kolimigundla	36/2	1.12	0.453
100	Kolimigundla	48/1	5.44	2.202
101	Kolimigundla	48/2	1.16	0.469
102	Kolimigundla	48/3	0.84	0.340
103	Kolimigundla	55/1	0.60	0.243
104	Kolimigundla	55/2	2.63	1.064
105	Kolimigundla	55/3	2.80	1.133
106	Kolimigundla	56/1	3.42	1.384
107	Kolimigundla	56/2	1.20	0.486
108	Kolimigundla	57/1	0.02	0.008
109	Kolimigundla	57/2	0.30	0.121
110	Kolimigundla	57/3	0.08	0.032
111	Kolimigundla	57/4	0.12	0.049

112	Kolimigundla	57/5	0.38	0.154
113	Kolimigundla	57/6	0.10	0.040
114	Kolimigundla	60/1	1.17	0.473
115	Kolimigundla	60/2	1.99	0.805
116	Kolimigundla	66/1	1.16	0.469
117	Kolimigundla	66/2	1.16	0.469
118	Kolimigundla	66/3	0.84	0.340
119	Kolimigundla	66/4	0.84	0.340
120	Kolimigundla	66/5A	0.84	0.340
121	Kolimigundla	66/5B	1.13	0.457
122	Kolimigundla	67/1A	1.31	0.530
123	Kolimigundla	67/1B	1.17	0.473
124	Kolimigundla	67/2	1.94	0.785
125	Kolimigundla	68/1	2.06	0.834
126	Kolimigundla	68/2	1.97	0.797
127	Kolimigundla	71/1	3.20	1.295
128	Kolimigundla	71/2	0.40	0.162
129	Petnikota	16	11.83	4.788
130	Petnikota	18	5.91	2.392
131	Petnikota	19	5.36	2.169
132	Petnikota	20	6.80	2.752
133	Petnikota	21	10.36	4.193
134	Petnikota	22	5.22	2.113
135	Petnikota	24	12.48	5.051
136	Petnikota	25	13.75	5.565
137	Petnikota	26	6.68	2.703
138	Petnikota	27	3.57	1.445
139	Petnikota	28	9.40	3.804
140	Petnikota	29	10.41	4.213
141	Petnikota	31	2.52	1.020
142	Petnikota	32	5.28	2.137
143	Petnikota	34	3.81	1.542
144	Petnikota	36	12.23	4.949
145	Petnikota	38	7.32	2.962
146	Petnikota	40	1.52	0.615
147	Petnikota	41	4.07	1.647
148	Petnikota	42	5.38	2.177
149	Petnikota	43	5.63	2.278
150	Petnikota	44	2.73	1.105
151	Petnikota	46	3.49	1.412
152	Petnikota	47	3.78	1.530

153	Petnikota	48	5.00	2.023
154	Petnikota	49	7.22	2.922
155	Petnikota	50	9.00	3.642
156	Petnikota	51	5.62	2.274
157	Petnikota	52	6.68	2.703
158	Petnikota	53	4.52	1.829
159	Petnikota	55	3.08	1.246
160	Petnikota	56	2.94	1.190
161	Petnikota	57	7.14	2.890
162	Petnikota	58	5.96	2.412
163	Petnikota	59	6.83	2.764
164	Petnikota	60	9.48	3.837
165	Petnikota	62	5.08	2.056
166	Petnikota	63	5.64	2.282
167	Petnikota	64	2.12	0.858
168	Petnikota	65	2.53	1.024
169	Petnikota	66	5.61	2.270
170	Petnikota	68	0.94	0.380
171	Petnikota	69	2.51	1.016
172	Petnikota	70	3.29	1.331
173	Petnikota	74	11.73	4.747
174	Petnikota	75	0.66	0.267
175	Petnikota	77	23.99	9.709
176	Petnikota	78	7.39	2.991
177	Petnikota	81	7.76	3.140
178	Petnikota	82	4.24	1.716
179	Petnikota	83	5.23	2.117
180	Petnikota	84	2.29	0.927
181	Petnikota	85	7.65	3.096
182	Petnikota	86	3.32	1.344
183	Petnikota	87	4.58	1.854
184	Petnikota	88	6.84	2.768
185	Petnikota	90	16.79	6.795
186	Petnikota	91	3.51	1.420
187	Petnikota	92	2.77	1.121
188	Petnikota	95	15.52	6.281
189	Petnikota	96	8.72	3.529
190	Petnikota	98	0.31	0.125
191	Petnikota	101	4.36	1.764
192	Petnikota	102	1.24	0.502
193	Petnikota	103	1.11	0.449

194	Petnikota	104	2.53	1.024
195	Petnikota	105	1.33	0.538
196	Petnikota	106	0.40	0.162
197	Petnikota	107	2.06	0.834
198	Petnikota	108	4.71	1.906
199	Petnikota	109	1.74	0.704
200	Petnikota	112	2.79	1.129
201	Petnikota	114	9.19	3.719
202	Petnikota	115	0.61	0.247
203	Petnikota	119	2.08	0.842
204	Petnikota	121	1.04	0.421
205	Petnikota	122	1.59	0.643
206	Petnikota	123	2.21	0.894
207	Petnikota	124	1.57	0.635
208	Petnikota	126	4.69	1.898
209	Petnikota	127	1.25	0.506
210	Petnikota	128	12.58	5.091
211	Petnikota	129	4.44	1.797
212	Petnikota	131	7.44	3.011
213	Petnikota	132	5.40	2.185
214	Petnikota	133	9.89	4.002
215	Petnikota	134	15.17	6.139
216	Petnikota	136	8.82	3.569
217	Petnikota	138	7.52	3.043
218	Petnikota	139	5.58	2.258
219	Petnikota	140	5.97	2.416
220	Petnikota	141	2.58	1.044
221	Petnikota	142	1.18	0.478
222	Petnikota	143	3.88	1.570
223	Petnikota	144	11.67	4.723
224	Petnikota	145	4.34	1.756
225	Petnikota	146	4.89	1.979
226	Petnikota	148	1.19	0.482
227	Petnikota	149	8.97	3.630
228	Petnikota	150	2.35	0.951
229	Petnikota	152	4.97	2.011
230	Petnikota	154	8.78	3.553
231	Petnikota	155	4.60	1.862
232	Petnikota	156	6.41	2.594
233	Petnikota	158	2.39	0.967
234	Petnikota	159	7.76	3.140

235	Petnikota	160	3.43	1.388
236	Petnikota	161	4.59	1.858
237	Petnikota	162	5.76	2.331
238	Petnikota	163	6.17	2.497
239	Petnikota	165	1.46	0.591
240	Petnikota	166	4.77	1.930
241	Petnikota	172	4.90	1.983
242	Petnikota	174	3.89	1.574
243	Petnikota	177	2.71	1.097
244	Petnikota	178	4.10	1.659
245	Petnikota	179	4.54	1.837
246	Petnikota	180	5.14	2.080
247	Petnikota	183	5.02	2.032
248	Petnikota	184	5.58	2.258
249	Petnikota	185	4.36	1.764
250	Petnikota	186	4.47	1.809
251	Petnikota	523	0.82	0.332
252	Petnikota	525	0.82	0.332
253	Petnikota	540	0.22	0.089
254	Petnikota	541	3.79	1.534
255	Petnikota	542	10.33	4.180
256	Petnikota	543	14.84	6.006
257	Petnikota	545	8.78	3.553
258	Petnikota	546	11.94	4.832
259	Petnikota	547	7.76	3.140
260	Petnikota	549	9.40	3.804
261	Petnikota	550	0.87	0.352
262	Petnikota	551	8.04	3.254
263	Petnikota	553	2.53	1.024
264	Petnikota	556	2.15	0.870
265	Petnikota	557	7.50	3.035
266	Petnikota	559	11.95	4.836
267	Petnikota	560	12.13	4.909
268	Petnikota	561	18.84	7.624
269	Petnikota	566	19.11	7.734
270	Petnikota	600	3.69	1.493
271	Petnikota	601	0.99	0.401
272	Petnikota	1204	0.77	0.312
273	Petnikota	1206	3.00	1.214
274	Petnikota	1228	1.62	0.656
275	Petnikota	111/1	2.19	0.886

276	Petnikota	111/2	2.18	0.882
277	Petnikota	117/2	1.17	0.473
278	Petnikota	1205/A	1.50	0.607
279	Petnikota	1205/B	2.00	0.809
280	Petnikota	125/1	15.35	6.212
281	Petnikota	125/2	4.61	1.866
282	Petnikota	147/1	2.44	0.987
283	Petnikota	147/2	2.66	1.076
284	Petnikota	151/1	8.41	3.403
285	Petnikota	151/2	0.77	0.312
286	Petnikota	151/3	0.84	0.340
287	Petnikota	153/1	1.50	0.607
288	Petnikota	153/2	1.22	0.494
289	Petnikota	153/3	0.43	0.174
290	Petnikota	164/1	0.10	0.040
291	Petnikota	167/1	1.10	0.445
292	Petnikota	167/2	1.09	0.441
293	Petnikota	168/1	0.28	0.113
294	Petnikota	168/10	0.63	0.255
295	Petnikota	168/2	4.85	1.963
296	Petnikota	168/3	1.14	0.461
297	Petnikota	168/4	1.10	0.445
298	Petnikota	168/5	5.60	2.266
299	Petnikota	168/6	0.22	0.089
300	Petnikota	168/7	0.10	0.040
301	Petnikota	168/8	0.12	0.049
302	Petnikota	168/9	0.57	0.231
303	Petnikota	171/1	6.34	2.566
304	Petnikota	171/2	0.55	0.223
305	Petnikota	175/1	2.11	0.854
306	Petnikota	175/2	2.03	0.822
307	Petnikota	176/1	2.46	0.996
308	Petnikota	176/2	2.45	0.992
309	Petnikota	181/1	15.00	6.070
310	Petnikota	181/2	1.38	0.558
311	Petnikota	193/2	2.75	1.113
312	Petnikota	23/1	5.28	2.137
313	Petnikota	23/2	2.80	1.133
314	Petnikota	30/1	5.04	2.040
315	Petnikota	30/2	2.05	0.830
316	Petnikota	33/1	4.47	1.809

317	Petnikota	33/2	3.05	1.234
318	Petnikota	37/1	0.54	0.219
319	Petnikota	37/2	0.51	0.206
320	Petnikota	544/1	1.29	0.522
321	Petnikota	544/2	0.50	0.202
322	Petnikota	548/1	22.78	9.219
323	Petnikota	548/2	7.60	3.076
324	Petnikota	554/2	1.35	0.546
325	Petnikota	555/1A	5.00	2.023
326	Petnikota	555/1A2	5.00	2.023
327	Petnikota	555/1A3	4.12	1.667
328	Petnikota	555/1AB	5.00	2.023
329	Petnikota	555/1B	2.00	0.809
330	Petnikota	555/2	4.53	1.833
331	Petnikota	558/1	2.69	1.089
332	Petnikota	558/2	1.00	0.405
333	Petnikota	562/1	4.23	1.712
334	Petnikota	562/2	7.49	3.031
335	Petnikota	67/1	0.63	0.255
336	Petnikota	67/2	0.21	0.085
337	Petnikota	67/3A	0.77	0.312
338	Petnikota	89/1	2.51	1.016
339	Petnikota	89/2	1.70	0.688
340	Petnikota	93/1	1.82	0.737
341	Petnikota	93/2	1.93	0.781
Total			**1387.37**	**561.46**

Tahsildar
Kolimigundla Mandal

TAHSILDAR
Kolimigundla (M)
Nandyal Dt. A.P.

Copy submitted to the Collector, Nandyal.

THE RAMCO CEMENTS LIMITED

Kalvatala Village,
Kolimigundla Mandal
Kurnool District - Pin: 518 123
Andhra Pradesh.
Phone No: 08510 - 244488
Website : www.ramcocements.in

UNDERTAKING

I **Mr. Reddy Nagaraju,** aged about 62 years son of Sri. Veeranna, authorized signatory of **Nayanapalli Limestone Mine** of M/s. The Ramco Cements Limited, Kalvatala Project, Kalvatala (V), Kolimigundla (M), Nandyal (Dist.), Andhra Pradesh. Do hereby solemnly & affirm and undertaking that,

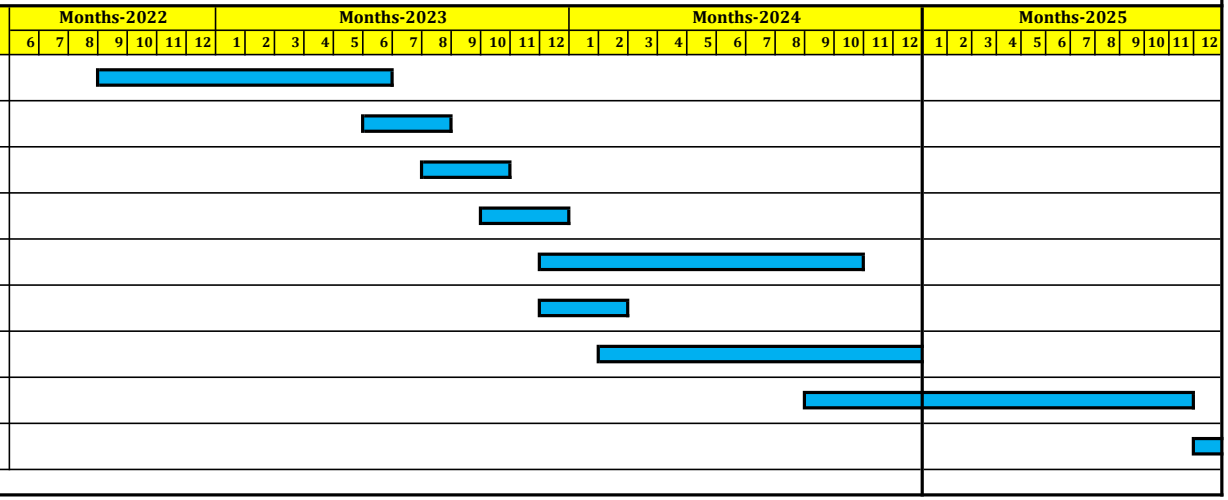
- Out of 735.72 Ha. of Mining lease, a total area of 704.38 Ha (Patta Land: 561.46 Ha. and Government Land:142.92 Ha) surface rights held by the M/s. The Ramco Cements Limited and remaining 31.34 Ha. of Patta land will be purchased within a period of one year from the grant of the Environmental Clearance by the Ministry of Environment, Forest and Climate Change (MoEF&CC), New Delhi.

Place: Kalvatala	
Date: 08.09.2022	R. Nagaraju **Mr. Reddy Nagaraju** **Authorized Signatory** **M/s. The Ramco Cements Limited** Kalvatala Project, Kolimigundla Mandal, Nandyal District, Andhra Pradesh.

The Ramco Cements Limited

Nayanapalli LImestone Mines Crusher and Transport Belt Project Schedule

SN	Activity	Duration in Days	From Date	To Date
1	Getting land	300	1-Sep-22	28-Jun-23
2	Survey work to establish the conveyor alignment and taking contour levels.	60	29-Jun-23	28-Aug-23
3	Preparing Tender and float Enquiry	45	29-Aug-23	13-Oct-23
4	Technical Evolution, Commercial Negotiation and Ordering	60	14-Oct-23	13-Dec-23
5	Equipment Supply	340	14-Dec-23	18-Nov-24
6	Engineering drawing and Civil design Drawings preparation (2 months)	60	14-Dec-23	12-Feb-24
6	Civil foundation work	300	13-Feb-24	9-Dec-24
7	Mechanical & Electrical Erection	400	9-Nov-24	14-Dec-25
8	Testing and commissioning	15	14-Dec-25	29-Dec-25



THE RAMCO CEMENTS LIMITED

Kalvatala Village,
Kolimigundla Mandal
Kurnool District - Pin: 518 123
Andhra Pradesh.
Phone No: 08510 - 244488
Website : www.ramcocements.in

Ref: RCL/NP/MINE/ADS/2023 **Date: 28.01.2023**

To
The Director (Non-Coal Mining),
Government of India,
Ministry of Environment, Forest and Climate Change,
Indira Paryavaran Bhawan,
Ali Ganj, Jor Bagh Road,
New Delhi- 110003.

Sub: **Submission of ADS information:** - Nayanapalli Limestone Mine (ML area: 735.72 Ha.) of M/s. The Ramco Cements Limited for Limestone Production of 2.7 MTPA with total excavation of 2.911 MTPA (Limestone: 2.7 MTPA + Top Soil: 0.211 MTPA) located at Kolimigundla and Petnikota Villages, Kolimigundla Mandal, Kurnool Dist., Andhra Pradesh- Environmental Clearance - reg.

Ref:
1) EAC minutes of meeting dated 17 to 18th January,2023.
2) ADS dated 27.01.2023

Dear Sir,

Our above proposal was recommended by EAC in its meeting held during 17 to 18th January, 2023 for grant of Environmental Clearance. The MoEFCC raised ADS to submit **undertaking regarding the completion of conveyor system by January 2026**. We are herewith submitting the undertaking of the same for issual of Environmental Clearance.

We request the Ministry to kindly issue Environmental Clearance for the project.

Yours faithfully,

For **The Ramco Cements Limited**

N. Nagaraja

Reddy Nagaraja
President (Projects)
Encl: Above

THE RAMCO CEMENTS LIMITED

Kalvatala Village,
Kolimigundla Mandal
Kurnool District - Pin: 518 123
Andhra Pradesh.
Phone No: 08510 - 244488
Website : www.ramcocements.in

UNDERTAKING

I **Mr. Reddy Nagaraju,** aged about 62 years son of Sri. Veeranna, authorized signatory of **Nayanapalli Limestone Mine** of M/s. The Ramco Cements Limited, Kalvatala Project, Kalvatala (V), Kolimigundla (M), Nandyal (Dist.), Andhra Pradesh. Do hereby solemnly & affirm and undertaking that,

- As per 9th EAC (Non-Coal Mining) meeting held during 17-18 January, 2023 and MoM dated 25.01.2023, as per specific condition No. ii Item No-4 of proposal No. IA/AP/MIN/230981/2021. We will install and commission the crusher along with conveyor belt within a period of three years i.e., by January, 2026.

Place: Kalvatala	
Date: 27.01.2023	**Mr. Reddy Nagaraju** **Authorized Signatory** **M/s. The Ramco Cements Limited** Kalvatala Project, Kolimigundla Mandal, Nandyal District, Andhra Pradesh.

THE RAMCO CEMENTS LIMITED

Kalvatala Village,
Kolimigundla Mandal
Kurnool District - Pin: 518 123
Andhra Pradesh.
Phone No: 08510 - 244488
Website : www.ramcocements.in

Ref: RCL/NP/MINE/ADS/2022 **Date: 21.09.2022**

To,
The Director (Non-Coal Mining),
Government of India,
Ministry of Environment, Forests and Climate Change,
Indira Paryavaran Bhawan,
Jor Bagh Road, Ali Ganj, Lodi Colony,
New Delhi, Delhi 110003

Dear Sir,

Sub: Submission of information sought during EAC Meeting for **Nayanapalli Limestone Mine (ML area: 735.72 Ha.) of M/s. The Ramco Cements Limited** for Limestone Production of 2.70 MTPA with total excavation of 2.911 MTPA (Limestone: 2.70 MTPA + Top Soil: 0.211 MTPA) located at Kolimigundla and Petnikota Villages, Kolimigundla Mandal, Kurnool Dist., Andhra Pradesh-Reg.

Ref:

1. EAC Meeting held on 16.08.2022 Vide Agenda No. 02
2. Additional Details sought (ADS) vide MOM 26.08.2022

M/s. The Ramco Cements Limited submitted the proposal for obtaining Environmental Clearance for Nayanapalli Limestone Mine (ML area: 735.72 Ha.) for Limestone Production of 2.70 MTPA with total excavation of 2.911 MTPA (Limestone: 2.70 MTPA + Top Soil: 0.211 MTPA) located at Kolimigundla and Petnikota Villages, Kolimigundla Mandal, Kurnool Dist., Andhra Pradesh.

The Proposal was considered for appraisal vide Ref (1) wherein the EAC (Non-Coal Mining) has sought additional information vide Ref (2).

We are herewith submitting the point wise response to the points raised in the ADS as Annexure - 1 to this letter.

We request the Ministry to process our proposal for grant of Environmental Clearance as per SO 1533 Notification and subsequent amendments.

Thanking You

Yours faithfully,
For **The Ramco Cements Limited**

N. Nagaraju

Reddy Nagaraju
President (Projects)

Enclosures: as above

Phase – I of The site-specific ground vibration study has been already carried out by National Institute of Rock Mechanics (NIRM), Bengaluru and a report of the same has been submitted to MoEF&CC, New Delhi. From this study, NIRM has predicted that the maximum charge proposed in both the cases will restrict the peak particle velocity at habitation to less than 2mm/sec which is well below the actual permissible limits of 5mm /sec.

Phase- II of The site-specific ground vibration study will be carried out and implemented through National Institute of Rock Mechanics (NIRM), Bengaluru once the mining operations commences involving study of actual vibrations in and around the areas.

POINT – 7 : The Project Proponent needs to submit the strength of the primary school, school timings, time and frequency of blasting and measures taken to protect the school from blasting activity.

TRCL SUBMISSION:

The strength of the primary school is 240 nos. The school timings are 9.00 am to 4.00 pm with a lunch break of 1 hour between 1.00 pm to 2.00 pm.

PRECAUTIONARY MEASURES:

The school is located towards southern side at a distance of 150 mts from the mining lease boundary. However, a safety distance of 300 mts is left from the mining lease boundary adjacent to the village boundary. Hence, the mining activity is far away by distance of 450 mts from school area.

The following safety measures will be taken during mining operations

- 300m safe zone will be left for the habitation as per DGMS guidelines from the villages
- Blasting will be carried out during the lunch break of the school 1pm to 2Pm
- Blasting will be carried out in accordance with the plan as recommended by NIRM and in accordance with guidelines of DGMS circular No 7 dated 29.08.1997 towards permissible peak particle velocity(mm/s) for structures not belonging to owner.
- Control Blasting Techniques like Bottom initiation, Adequate stemming, Noiseless trunkline delays will be practiced in this area.
- All safety precautions specified by DGMS will be followed during blasting.

- Prior approval from DGMS will be obtained to carry out mining operations within safety zone as per MMR, 1961.

POINT – 8 : The Project Proponent needs to revise the budget of public hearing to address the concerns raised during public hearing.

TRCL SUBMISSION:

VARIOUS DEVELOPMENTAL ACTIVITIES PROPOSED AS PER PUBLIC HEARING COMMITMENTS ALONGWITH ACTION PLAN AND BUDGET

S. No	Activity		22-23	23-24	24-25	Total
1	Providing RO plants with infrastructure	Physical Nos (2)	1	1		
		Village	Nayanapalli	Kolimigundla	-	-
		Budget Rs Lakhs	8.0	7.0	-	15.0
2	Avenue plantation will be carried out along corridor road @ 3.5 km with 1400 saplings @ 5 m interval on both sides	Physical Nos (1400)	700	700		
		Village	Road connecting mine boundary to the crusher located in Cement plant			
		Budget Rs Lakhs	1.5	1.5	-	3.0
3	Planation will be carried out in Nayanapalli Petnikota and Kolimigundla schools with 500 saplings.	Physical Nos (500)	500	-	-	
		Village	Nayanapalli, Petnikota & Kolimigundla	-	-	-
		Budget Rs Lakhs	1.5	-	-	1.5
4	Library facilities will be provided in the schools (Purchasing a furniture and books for setting up a library in schools)	Physical Nos (3)	1	1	1	
		Village	Nayanapalli	Kolimigundla	Petnikota	
		Budget Rs Lakhs	2.0	1.5	1.5	5.0
5	Construction of rain water harvesting pits in the schools-10 nos.	Physical Nos (10)	5	3	2	
		Village	Petinkota	Nayanapalli	Kolimigundla	
		Budget Rs Lakhs	3.0	1.5	1.20	5.70
6	Women training – Tailoring and providing sewing machines	Physical Nos (300)	100	100	100	
		Village	Kolimigundla	Nayanapalli	Petnikota	
		Budget Rs Lakhs	4.0	3.0	3.0	10.0
7	Providing education tutor	Physical Nos (3)	1	-	-	

direction. The NGRI study also concluded that there are no extension of Belum caves towards Nayanapalli Limestone Mine.

There are already a number of mines that are in operation located closer to Belum caves and limestone is mined for slab manufacturing. As such no untoward impact has been reported by the authorities of Belum caves due these mining activities.

Detailed Hydrogeological study report is enclosed as **Annexure – 4E.**

The mine will become self-sustainable with rainwater harvesting and no ground water will be drawn for mining purpose which will reduce the ground water resources in the area.

4.9.4 LAND ENVIRONMENT

The mine will not generate any overburden waste and hence no dumps will be formed which will have impact on surface and ground water resources.

Controlled blasting techniques, along with adequate stemming; using NONEL initiation system (Excel down-the-hole detonators as well as surface connectors) and electronic detonators for effective control of blast induced ground vibrations, fly rock and noise, will be adopted.

4.9.4.1 SPECIFIC STUDIES BY NATIONAL INSTITUTE OF ROCK MECHANICS (NIRM)

The Ramco Cements Limited has engaged the services of National Institute of Rock Mechanics (NIRM) to ascertain the feasibility of mining by blasting at the proposed Nayanapalli limestone mine and its probable impact of ground vibration on Belum Caves.
TRCL had proposed two blast designs to be adopted at Nayanapalli limestone mine; one with use of 114mm hole diameters and other with 150mm hole diameter. The proposed maximum charge per delay is 80kg with blast design using 114mm hole diameter. For a maximum charge per delay of 80kg, the estimated peak particle velocity at Belum Caves based on equation 3 happens to be 1.6mm/s. Similarly, the proposed maximum charge per delay is 112kg with blast design using 150mm hole diameter. For a maximum charge per delay of 112kg, the estimated peak particle velocity at Belum Caves based on equation 3

happens to be 1.95mm/s. Therefore, though the recommended permissible peak particle velocity for Belum Caves is 5mm/s, to start with of utmost conservative approach, NIRM suggested to restrict the peak particle velocity to 2mm/s at the Belum Caves till site specific predictor equation is established. NIRM also recommended that during actual blasting operations at Nayanapalli limestone mine, a site-specific vibration study is to be carried out to arrive at site specific predictor equations and to ascertain that the levels are within the stipulated limits and the permissible maximum charge per delay vis-à-vis the distance from Belum Caves be arrived at for the recommended limit of 5mm/s.

NIRM SUGGESTED SAFE MAXIMUM CHARGE PER DEALY

Considering the most conservative vibration limit of 2mm/s, the permissible maximum charge per delay at various distances are recommended. Calculated maximum charge per delay in kg at 95% confidence level is given below:

Distance from blast to Belum Caves, m	Suggested safe maximum charge per delay, kg
750	80.6
775	86.1
800	91.7
825	97.6
850	103.6
875	109.8
900	116.1
1000m and be	138.0

Detailed report of NIRM is enclosed as **Annexure – 2C**. The studies carried out concluded the following.

a. From the analysis of the ground vibration data for the studies carried out by NIRM at different limestone mines, analysis, generalized ground vibration predictor equation and also on the available literature survey, blasting can be carried out at Nayanapalli Limestone Mine without causing any damage to the Belum Caves by restricting the vibrations within the prescribed permissible limits.

b. The recommended permissible peak particle velocity for Belam Caves is 5mm/s. Though the permissible level recommended is 5mm/s, it is suggested to restrict ground vibration level at the Belum Caves to 2mm/s to start with on a conservative approach till site specific predictor equation is established.
c. The proposed blast designs by The Ramco Cements using 114mm diameter and 150mm diameter drill holes (with a maximum charge per delay of 80kg and 112kg respectively) will restrict the ground vibration at Belum Caves within 2mm/s. Therefore, the proposed blast designs can be practiced at Nayanapalli Limestone Mine till site specific studies are carried out.

Further as per the prescribed TOR of MOEFCC vide point no. 8, TRCL will not adopt multiple row blasting in the direction of the Belum Cave. The undertaking of TRCL on the same is enclosed as **Annexure – 4J**.

4.9.4.2 SPECIFIC STUDIES BY NATIONAL GEOPHYSICAL RESEARCH INSTITUTE (NGRI)

NGRI has carried out detailed geological studies in and around Belum caves and further possibility of the southern extension of Belum caves to understand the extension of underground passages or channels in different directions. GSI carried out a detailed geological mapping and exploration of existing borehole data studies and reported that Nayanapalli block beds are dipping towards southerly and quartzite is encountered in the northern side of the block at shallow depth. In contrast, the quartzite band depth increases towards the southern side. Therefore, the thickness of massive limestone is increased at the Nayanapalli block. Further, GSI recommended comprehensive Geophysical studies (Resistivity, Shallow Seismic) between Belum caves and Nayanapalli Limestone block areas to understand the extensions of underground passage/channels at limestone mine lease area**.**

NGRI has carried out integrated geophysical studies consisting of Micro Gravity, Magnetic, Electrical resistivity (ERT) and Ground Penetrating Radar (GPR) studies for mapping of underground passages/ channels within the study area. The integrated geophysical study revealed that the existing caves at the Belum area do not show

b. The recommended permissible peak particle velocity for Belam Caves is 5mm/s. Though the permissible level recommended is 5mm/s, it is suggested to restrict ground vibration level at the Belum Caves to 2mm/s to start with on a conservative approach till site specific predictor equation is established.
c. The proposed blast designs by The Ramco Cements using 114mm diameter and 150mm diameter drill holes (with a maximum charge per delay of 80kg and 112kg respectively) will restrict the ground vibration at Belum Caves within 2mm/s. Therefore, the proposed blast designs can be practiced at Nayanapalli Limestone Mine till site specific studies are carried out.

Further as per the prescribed TOR of MOEFCC vide point no. 8, TRCL will not adopt multiple row blasting in the direction of the Belum Cave. The undertaking of TRCL on the same is enclosed as **Annexure – 4J**.

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NGRI has carried out integrated geophysical studies consisting of Micro Gravity, Magnetic, Electrical resistivity (ERT) and Ground Penetrating Radar (GPR) studies for mapping of underground passages/ channels within the study area. The integrated geophysical study revealed that the existing caves at the Belum area do not show

any continuity towards the Nayanapalli Limestone Mining Lease area. The following conclusions were drawn based on Integrated Geophysical Studies of NGRI:

1. The integrated geophysical study consisting of gravity, magnetic, MASW, ERT and GPR reveals that the existing caves at the Belum area do not show any continuity towards the Nayanapalli Limestone Mining Lease area located at the southern side of Belum Caves.
2. The Belum caves are extending towards NNW direction.
3. There is a quartzite barrier between the Belum caves and the Nayanapalle Mining Lease area for the approximate width of ~300 mts.
4. From gravity and magnetic study, identified areas are associated with massive & flaggy limestone. MASW, ERT and GPR studies revealed that the repeated horizons are interlayered and the intersection of massive and flaggy limestone area and their subsurface structural distortion.
5. Disseminated isolated areas reported in the study area are considered due to the presence of vertical and horizontal joints & laminated areas which are localized in nature due to solution activities occur in the flaggy and massive limestone formation. The interlayered horizons of flaggy and massive limestone in the study area characterized as saturated/ weak /fracture/ structural joints filled with clay material areas.

4.9.5 ECOLOGICAL ENVIRONMENT

The area at present is dry with more than 50 % of the area under waste land. The mining lease area has barren land of 142.92 Ha and Pvt. Agricultural Non-Irrigated Land of 592.80 Ha out of which 561.46 owned by TRCL

TRCL will develop 67.72 Ha covering the following areas under afforestation with 101580 saplings

- 7.5 m barrier along the lease boundary (excluding road safety zone overlap area) - 21.91 Ha
- 50 m safety zone - Public road - 6.50 Ha
- 50 m safety zone for Nala - 12.70 Ha

The drainage pattern in the area is dendritic with two small streams, which remain dry for most part of the year becoming active only during monsoon. Two seasonal nallas originating adjacent to the mining lease area flow towards southern direction and join Pedda vanka and Mada Vagu which are active during rainy season.

PROTECTION MEASURES

During the course of mining these streams will not be disturbed and safety zone of 50 m on either side of the nalas will be provided and greenbelt will be developed. The silt free water will be connected to the drain outside the mining lease area for natural flow.

4.4.2 IMPACTS ON GROUND WATER TABLE & CONTROL MEASURES

Ground water table in the area occurs at a depth of 65-80 m below ground level i.e. 213 to 198 m RL as observed and as per the gathered information in the nearby villages during rainy and summer season.

The workings are expected to reach 48m bgl i.e., 230 m RL as ultimate depth of mining, which is above the water table in the area. Hence there will not be any impact on ground water regime of the lease area and its surroundings.

SCHEMATIC DIAGRAM SHOWING THE ULTIMATE MINING DEPTH AND WATER TABLE

4.4.3 HYDROGEOLOGICAL STUDIES TO ASSESS THE IMPACT ON BELUM CAVES DUE TO THE PROPOSED LIMESTONE MINING AT NAYANAPALLI

A detailed Hydrogeological study along with groundwater modelling is conducted to assess the impact of proposed mining on Belum Caves by M/s. Thrust Geo Consultants Private Limited, Chennai who are Accredited by Accreditation Board of CGWA. Hydrogeological study

report is enclosed as **Annexure – 4E.** Details of the same are furnished below:

The Nayanapalli Limestone Mine is located at a distance of 1.48 Km South West of the Belum Caves.

The Nayanapalli Limestone Mine forms part of Pennar River Basin, Kunderu Sub Basin, Sanjanamala watershed. Based on the physiography of the Nayanapalli Limestone Mine lease area, it is inferred that the Belum cave falls in a different micro watershed as compared to Nayanapalli Limestone Mine. The surface water flow is in different direction in the referred micro watersheds. Hence the mining activity will not have any impact on the surface water flow in the micro watershed wherein the Belum Cave is located.

Integrated Geophysical study conducted by the NGRI to assess the impact on Belum Cave concludes that the Belum caves does not extend towards south west where the proposed Nayanapalli Limestone Mine is located.

Based on the Geological study, it is inferred that the limestone formation is trending towards South with the presence of a fairly thick barrier formation ie., quartzites is present all along the Northern boundary of the Nayanapalli Limestone Mine lease area. The presence of quartzites is also confirmed by the NGRI study establishing the thickness of quartzites to be around 300m, occurring between the Nayanapalli Limestone Mine lease area and Belum caves; TRCL is leaving a safety distance of 1.50 km in North eastern direction towards Belum Caves as per Specific terms of reference condition no 8 of Nayanapalli Limestone Mine. Hence, there will not be any impact on the Belum caves due to the mining operation in the Nayanapalli Limestone Mine.

Rainwater Harvesting potential estimates made by The Water Audit and Groundwater Department, Government of Andhra Pradesh concludes with the feasibility of storing rainwater in the mine pit and the daily safe drawal of 2000 KL. Accordingly, TRCL has planned to store the rainwater in the mine pit and use it for gainful utilization towards mining operation. Hydrogeological study conducted in the Nayanapalli Limestone Mine lease area shows the groundwater flow is

from North West to South and South East, which is totally in the opposite direction to Belum caves.

Drilling of pilot borewell to evaluate the aquifer parameters of limestone formation indicates the presence of flaggy limestone on top followed by massive limestone. Both the formations are dry and groundwater is not encountered during drilling in these formations up to a depth of 60m. Also 185 core boreholes drilled in the Nayanapalli Limestone Mine lease area by TRCL upto 54m has not encountered water table.

Aquifer parameters evaluated for the limestone formation shows very low permeability of 0.007m/day. This also corroborates with the drilling results and the fairly deep-water table in the area.

Groundwater model projected to assess the impact of mining and storing of rainwater in the proposed Nayanapalli Limestone Mine lease area with reference to Belum caves, showed that the groundwater head flow is from the north west / west to south and south eastern side of the Mining lease area. The Belum caves are located in the north eastern part of the proposed mine and there is no reversal of flow. Hence it is clear that the mining activity will not impact the Belum caves.

Considering the above factors, it is concluded that Hydrogeologically, there will not be any impact on the Belum caves due to the mining operation or storing of rainwater in mine pit, in the Nayanapalli mining lease area of M/s. The Ramco Cements Limited.

Summary/conclusions of the hydrogeological study is given below:

1. Physiographically, the Nayanapalli Limestone Mine of The Ramco Cements Limited is in an elevated terrain and forms part of a surface water divide separated from the Belum caves area. The Nayanapalli Limestone Mine of The Ramco Cements Limited and Belum caves are located in two separate micro watersheds and their surface water flow is in different direction. Hence there will not be any impact as such on the surface water flow with regards to mining activity and Belum Caves.

2. Geologically, it is inferred that in the Northern part of Nayanapalli Limestone Mine, it comprises of quartzites which forms the base of Narji Limestone. The presence of quartzites is established all along the northern boundary of the Nayanapalli Limestone Mine through the drilling of core bore holes by The Ramco Cements Limited.

3. Quartzites acts as barrier formation as they are observed to be hard and compact. Detailed geophysical study conducted during 2021 in the site by NGRI establishes the width of the quartzites by about 300m separating the Nayanapalli Limestone Mine from the Belum Caves. Though Belum caves are also located in the Narji Limestone, it is well separated from the Nayanapalli Limestone Mine by the presence of fairly thick quartzite formation.

4. Drilling of pilot borewell in the limestone formation indicates the presence of flaggy limestone on top followed by massive limestone. Both the formations are dry and groundwater is not encountered during drilling in these formations up to a depth of 60m. Also 185 core boreholes drilled in the Nayanapalli Limestone Mine lease area by TRCL upto 54m has not encountered water table.

5. Aquifer parameters in the study area indicates very poor hydraulic conductivity of the Narjis and the flow rate is also very low. Hence storing of rainwater in the mine pit will not cause any harmful effect on the Belum caves. Test borewell drilled upto a depth of 60m depth has not encountered groundwater in the study area.

6. The groundwater flow direction is observed to flow towards South East whereas the Belum caves are located to the North East of the Nayanapalli Limestone Mine which is altogether in a different direction. The NGRI study also concluded that there are no extension of Belum caves towards Nayanapalli Limestone Mine of M/s. The Ramco cements Limited.

7. Detailed Hydrogeological study conducted by the AP groundwater department has concluded that it is possible to extract 2000 KL per day of rainwater that can be stored in the proposed mine pit and used for gainful utilization of the mining activity. The same was established with the estimation of rainwater harvesting potential month wise for the study area.

8. With limited hydraulic conductivity of limestone, observed groundwater flow towards South East, thick quartzite barrier in North and with the adoption of leaving a safety distance of 1.5 km between Belum Cave & active mining area, there will not be any impact on Belum caves due to the storage of rainwater in the proposed mine pit.

9. There are already a number of mines that are in operation located closer to Belum caves and limestone is mined for slab manufacturing. As such no untoward impact has been reported by the authorities of Belum caves due these mining activities.

10. Groundwater Modelling conducted covering the study area shows that the regional groundwater flow direction is from west/northwest to east / south east. The top soil is completely dry and groundwater occurs in the flaggy limestone formation. The recharge to the aquifer unit is from rainfall and lateral component i.e., from northwestern portion and from the contact of quartzite with limestone. The Belum caves are located in the north eastern part of the proposed mine and there is no reversal of flow. Hence it is clear that the mining activity will not impact the Belum caves.

4.4.4 WATER CONSUMPTION AND WASTEWATER GENERATION

Total water requirement in the mining lease will be 100 m^3/day. The requirement is for domestic, dust suppression and afforestation in mines which will be initially met from Cement Plant. Later the rain water collected in the mine pit will be used. Permission obtained from Water Resources Department, Govt of Andhra Pradesh for utilization of 2500 KLD of surface water from Owk Reservoir, vide Letter No. EE/SRBC Divn.No3/Owk/IWS/186 m dated 27/05/2019. **(Enclosed as Annexure – 4F).** No ground water will be used for the project.
Water balance of the mine activity is shown in **Table – 4.15**.

TABLE – 4.15
WATER BALANCE TABLE (m^3/day)

S no	Application	Required quantity	Loss	Waste water
1	Dust Suppression	70	70	-
2	Drinking & Sanitation	10	2	8
3	Greenbelt	20	20	-
Total		**100**	**92**	**8**

File No.YTC07-17034/5/2022-H SECTION-A&M ANNEXUERE-2B

Government of Andhra Pradesh

Office of the Commissioner, Archaeology and Museums, Vijayawada

File No.YTC07-17034/5/2022-H 05/05/2022

Sub.: Archaeology and Museums Department – M/s Ramco Cements Limited request to issue of **No Objection Certificate** for proposed cement plant along with captive power plant at Kalvatala Village, Kolimigundla mandal, Kurnool District for mining near at Nayanampalli Lime stone Belum Caves, Kurnool District, Andhra Pradesh –NOC issued – Regarding.

Ref.: 1. The Ramco Cements limited Letter No. RCL/08/2018-19/1, Dt.07-08-2018.
2. The Ramco Cements limited Letter dt.31-08-2018.
3. The Assistant Director (Tech), Anantapuram Lr.No.136/2016, Dt.05-09-2018.
4. The Ramco Cements limited Letter dt.30-10-2018.
5. File No.YTC07-17034/44/2018-A Section-A&M dated 27-11- 2018
6. TRCL/NP/2021-22/887, Dated: 26.11.2021, Report submitted by Ramco Cements Limited, Kalvatala Village, Kolimigundla Mandal, Kurnool District.
7. File No.YTC07-17034/5/2022-H SECTION-A&M dated 27-01-2022 from Commissioner to the Director, Mines and Geology.
8. Lr.No.5457969/D10/2012 dated 16-02-2022 from the Director, Mines and Geology to the Commissioner of Archaeology.
9. The Ramco Cements limited Letter dt.22-03-2022.

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While inviting your attention to the subject and references cited that, in the reference 2nd cited, the Ramco Cements limited proposed to set up one more

major Green field Cement plant with clinker capacity of 3.15 MTPA Clinker. 2.0 MTRA Cement and 2 x 25 MW Thermal Power Plant, in Kalvatala Village, Kolimigundla Mandal, Kurnool district and they have four captive Limestone Mines and requested this department to issue No objection Certificate for four Captive Limestone Mines for the Manufacturing of the cement at the above said plant. Four captive Limestone Mines namely -

1. Chintalayapalli ML block(south side) at a distance of 7.16Kms.
2. Kanakadripalli block (South and West) at a distance of 7.06Kms.
3. Kolimigundla block (South and East) at a distance of 4.0Kms.
4. Nayanapalli ML block(South West) at a distance of 1.48Kms.

As per reference 5th cited, Under Andhra Pradesh Ancient and Historical Monuments and Archaeological sites and Remains Act & Rules 1960, No objection is issued to Ramco Cements limited Green feld Cement plant with clinker capacity of 3.15 MTPA Clinker. 2.0 MTRA Cement and 2x25 MW Thermal Power Plant in Kalvatala Village, Kolimigundla Mandal, Kurnool district for three Lime stone Mines only, they are (1) Kanakadripalli Lime Stone Mine, (2) Kolimigundla Lime Stone Mine (3) Chintalayapalli Lime Stone Mine.

Further stated that NOC was not given to the Nayanapalli ML block (South West) Lime Stone Mine, because it is situated at a distance of 1.48Kms (nearest) from the Belum Caves. This department suggested the Ramco Cements to submit reports to be obtained from the National Institute of Rock Mechanics (NIRM), Kolar, and DGMS mining safety, particularly about the impact of vibrations and the impact of the lime stone Mines regarding Nayanapalli ML block (South West) Lime Stone Mine. Report on extensions of underground passages channels in different directions in Belum caves have to be assessed by GSI too.

In the reference 6th cited, the Ramco Cements Limited submitted reports of National Institute of Rock Mechanics(NIRM) and National Geophysical Research Institute (Council of Scientific and Industrial Research).

Final Report of National Institute of Rock Mechanics(NIRM) which contains 19 pages. Conclusions (12.0) says that –

1) From the analysis of the ground vibration data for the studies carried out by NIRM at different limestone mines, analysis, generalized ground vibration predictor equation and also on the available literature survey, blasting can be carried out at Nayanapalli Limestone Mine without causing any damage to the Belum Caves by restricting the vibrations within the prescribed permissible limits.

2) The recommended permissible peak particle velocity for Belam Caves is 5mm/s. Though the permissible level recommended is 5mm/s. it is suggested to restrict ground vibration level at the Belum Caves to 2mm/s to start with on a conservative approach till site specific predictor equation is established.

3) The proposed blast designs by The Ramco Cements using 114mm diameter and 150mm diameter drill holes (with a maximum charge per delay of 80kg and 112kg respectively) will restrict the ground vibration at Belum Caves within 2mm/s. Therefore, the proposed blast designs can be practiced at Nayanapalli Limestone Mine till site specific studies are carried out.

Conclusions of Executive Summary of CSIR – National Geophysical Research Institute which contains 6 pages says -

1).The integrated geophysical study consisting of gravity, magnetic, MASW ERT and GPR reveals that the existing caves at the Belum area do not show any continuity towards the Nayanapalli Limestone Mining Lease area of M/s The Ramco Cements Limited located at the southern side of Belum Caves.

2). The Belum caves extending towards NNW direction.

3). There is a quartzite barrier between the Belum caves and the Nayanapalle Mining Lease for the approximate width of-300 mts.

4). From gravity and magnetic study, identified areas are associated with massive & flaggy limestone MASW ERT and GPR studies revealed that the repeated horizons are interlayered and the intersection of massive and flaggy limestone area and their subsurface structural distortion.

5). Disseminated isolated areas reported in the study area are considered due to the presence of vertical and horizontal joints & laminated areas which are localized in nature due to solution activities occur in the flaggy and massive limestone formation. The interlayered horizons of flaggy and massive limestone

in the study area characterized as saturated weak /fracture/ structural joints filled with clay material areas.

In the reference 7th cited this department forwarded the two reports i.e. National Institute of Rock Mechanics(NIRM) and National Geophysical Research Institute (Council of Scientific and Industrial Research) to the Director, Dept. of Mines and Geology, Ibrahimpatnam, Vijaywada, Gov. Of A.P. and requested to study the above two reports and to give suggestions regarding the issue of NOC for mining at Nayanapalli Lime stone mine which is nearer to Belum caves.

In the reference 8th cited the Director Mines and Geology, Vijayawada replied to the Commissioner of Archaeology and Museums to NOC for mining at Nayanapalli Limestone mine in Kurnool District subject to following recommendations;-

1).The mining operations shall be carried out as per the Approved Mining Plan by IBM duly maintaining a safe margin of 1.5 km distance between active mining lease area and Belum caves.

2).The proposed blast design suggested by NIRM should only be followed in the Mining Lease area by restricting the ground vibration levels at 2 mm/s to start with on a conservative approach till site specific studies are carried out.

In the reference 9th cited that, M/s Ramco Cements Limited has given under taking that your will not do Mining with in 1.5 km Radiation from the Belum caves and also incorporate the same in the next review of mining plan of your Nayanampalli limestone Mine.

Therefore, after a careful examination of the recommendations ,Based on National Institute of Rock Mechanics(NIRM) and National Geophysical Research Institute (Council of Scientific and Industrial Research), Dept. of Mines and Geology, Gov. Of A.P. No objection is issued to Ramco Cements limited Green field Cement Plant for mining at Nayanapalli Limestone mine in Kurnool District subject to following conditions -

1. The above permission is not transferable.

2. No damage should be caused to the monument during the above Mining.
3. Must Follow the recommendations of the National Institute of Rock Mechanics (NIRM), National Geophysical Research Institute (Council of Scientific and Industrial Research), and Dept. of Mines and Geology, Gov. Of A.P.
4. Must Maintain the distance of 1.5 Km from Belum caves to Mining area and followed in the Mining Lease area by restricting the ground vibration levels at 2 mm/s to start with on a conservative approach till site specific studies are carried out.
5. Must obtain of the Geological Survey of India report regarding the actual distance of extension of Caves.
6. Extracting of lime stone from these Mines should strictly follow DGMS. Mining Safety norms and standards Technical studies of effects of vibrations should conducted by the competent Authority to ensure that there is no cases not effected in any way.
7. Must full fill National Institute of Rock Mechanic standards regarding vibrations while extracting lime stone.
8. The Assistant Director should observe the above mining operations and strictly follow the Archaeological norms.
9. The Commissioner of Archaeology & Museums, Government of Andhra Pradesh, Vijayawada, is empowered to stop or to cancel these orders in case emergency or necessity that may arise without notice or without assigning any reasons.

Vani Mohan Gali

COMMISSIONER

To

Mr. Reddy Nagaraju, Authorised Signatory,
M/s Ramco Cements Ltd, Kalvatala project,
-Kolimigundla Mandal, Kurnool District, Pin:518123,
Andhra Pradesh, Ph.No.08510-244488.

Copy to

The Assistant Director (Tech), Anantapuram.

THE RAMCO CEMENTS LIMITED
Project: Nayanapalle Limestone Mine (735. 72 Ha)
<u>Cost Benefit Analysis</u> - Crusher and conveyor from Nayanapalle Limestone Mine site to cement Plant vs Tipper transport in Black topped Private road to crusher at factory.

Nayanapalle Limestone Mine (735.72 Ha)

SL No	Nature of Activity	Assumptions / Basis of workings	Remarks	Relevant Document
1	Distance	Mine Pit head to Factory Distance	3.5 Kms	Measured / surveyed.
2	Black topped Road	Mine Pit head to Factory Distance	3.5 Kms	Measured / surveyed.
		Road width	7.5 Mtrs	As per standards
		Lands for drains , Plantation, safety fencing, (Both sides inclusive)	11.25 mtrs	As required for safety
		Area of the Lands in Acres	16.22 acre	Calculated
		cost of Lands/ Acre	2000000	Prevailing rates.
		Transport by tipper, capacity / trip	35 Tons	Prevailing…
		Mileage- Kms / litre	1	Compared with our other units, similar lead and lifts.
		Tipper productivity in Trips/ hour	0.75	
		Landed cost of tipper in lakhs	55 lakhs	Purchase order in Dec 2021, 5% esclation added
		Cost of bridge	1.79 crore	Cost for 20m long bridge. Actual data from the site.
		Normative cost of road per km-7.5m wide(2018 data)	2.26 crore	As per NHAI normative costs circular No RW/NH-24036/27/2010-PPP Minsitry of Road Transports & Highways
		Fuel cost Rs /litre	94.24	Present rates.
3	Crusher with conveyor	Land width for conveyor structure in mtres	7.5 Mtrs	Design criteria
		Mine Pit head to Factory Distance	3.5 Kms	Measured / surveyed.
		Area of the Lands in Acres	16.22 acre	Calculated
		Installation of conveyor for 3.5 Kms calculated as Rs in crores, along with adjoing roads and lands for the same.	217.18	as per actuals in KGL certified by CA and offers received.
		Mine Pit head to Factory Distance	3.5 Kms	Measured / surveyed.
		Road width	7.5 Mtrs	Design criteria
		Cost of bridge	1.79 crore	Cost for 20m long bridge. Actual data from the site.
		Normative cost of road per km-7.5m wide(2018 data)	2.26 crore	As per NHAI normative costs circular No RW/NH-24036/27/2010-PPP Minsitry of Road Transports & Highways
		Lands for drains , Plantation, safety fencing, (Both sides inclusive)	11.25 mtrs	As required for safety
		Area of the Lands in Acres	16.22 acre	Calculated
		cost of Lands/ Acre in Rupees	2000000	Prevailing rates.

THE RAMCO CEMENTS LIMITED, CHENNAI				
MOVEMENT OF LIMESTONE FROM MINES THROUGH CONVEYOR OR TRANSPORTATION THROUGH ROAD				
Project: Nayanapalle Mines to Plant				
Key Information for evaluation				
Particulars		**UOM**	**Conveyor**	**Transport**
Conveyor(land, equipments, civil, mechanical, Electrical Cost & its installation)		Rs. in Crores	200.87	-
Cost of Road laying for 3.5 KM from Nayanapalle Mine to Plant crusher		Rs. in Crores	₹ 13.07	13.07
Cost of Land for Road laying		Rs. in Crores	3.24	3.24
Total Capex		**Rs. in Crores**	**217.18**	**16.31**
Useful Life of Asset		In Years	15	15
Scrap Value at the end of its useful life		Rs. in Crores	13.29	3.24
Volume moved for first two years per annum	1 to 2 years	In Tons	27,00,000	27,00,000
Volume moved for next five years per annum	3 to 7 years	In Tons	53,00,000	53,00,000
Volume moved for remaining years per annum	8 years to 15 years	In Tons	89,80,000	89,80,000
Escalation rate assumed		In %	5%	5%
Power cost		KwH per Ton	3.00	Not Applicable
O & M Charges		Rs. per Ton	7.00	Not Applicable
Average Power cost per unit		Rs. per KwH	6.50	Not Applicable
Operating Cost per ton of Material on Year 0 mines to factory		Rs. per Ton	26.50	36.86
Discount Rate assumed (Post tax)		In %	6.73%	6.73%

Present Value of Cash Flows	**Rs. in Crores**	**347.49**	**250.07**

97.42

Year	Cash Flow for Conveyor System						DCF @ 6.73%	Discounted Cash Flow
	Capex	Opex	Tax savings on Opex	Tax savings on Depreciation	Scrap Value realised	Net Cash Flow		
0	217.18	-	-	-	-	217.18	1.0000	217.18
1	-	7.16	1.80	8.08	-	-2.72	0.9369	-2.55
2	-	7.51	1.89	6.87	-	-1.25	0.8779	-1.10
3	-	15.48	3.90	5.84	-	5.74	0.8225	4.72
4	-	16.26	4.09	4.96	-	7.21	0.7706	5.56
5	-	17.07	4.30	4.22	-	8.55	0.7221	6.17
6	-	17.93	4.51	3.58	-	9.84	0.6765	6.66
7	-	18.82	4.74	3.05	-	11.03	0.6339	6.99
8	5.23	33.48	8.43	2.59	-	27.69	0.5939	16.44
9	-	35.16	8.85	2.40	-	23.91	0.5564	13.30
10	-	36.92	9.29	2.04	-	25.59	0.5214	13.34
11	-	38.76	9.76	1.73	-	27.27	0.4885	13.32
12	-	40.70	10.24	1.47	-	28.99	0.4577	13.27
13	-	42.74	10.76	1.25	-	30.73	0.4288	13.18
14	-	44.87	11.29	1.06	-	32.52	0.4018	13.07
15	-	47.12	11.86	0.90	13.29	21.07	0.3764	7.93
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
								347.49

Cash Flow for Transportation System by Tipper						DCF @ 6.73%	Discounted Cash Flow
Capex	Opex	Tax savings on Opex	Tax savings on Depreciation	Scrap Value	Net Cash Flow		
16.31	-	-	-	-	16.31	1.0000	16.31
-	9.95	2.50	0.49	-	6.96	0.9369	6.52
-	10.45	2.63	0.42	-	7.40	0.8779	6.50
-	21.54	5.42	0.36	-	15.76	0.8225	12.96
-	22.61	5.69	0.30	-	16.62	0.7706	12.81
-	23.75	5.98	0.26	-	17.51	0.7221	12.64
-	24.93	6.27	0.22	-	18.44	0.6765	12.48
-	26.18	6.59	0.19	-	19.40	0.6339	12.30
5.23	46.57	11.72	0.16	-	39.92	0.5939	23.71
-	48.90	12.31	0.33	-	36.26	0.5564	20.18
-	51.35	12.92	0.28	-	38.15	0.5214	19.89
-	53.92	13.57	0.24	-	40.11	0.4885	19.59
-	56.61	14.25	0.20	-	42.16	0.4577	19.30
-	59.44	14.96	0.17	-	44.31	0.4288	19.00
-	62.41	15.71	0.15	-	46.55	0.4018	18.70
-	65.53	16.49	0.13	3.24	45.67	0.3764	17.19
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
							250.07

The Ramco Cements Limited, Kalvatala, Andhra Pradesh

Cost working for Intermine Limestone Transportation Nayanapalle Mine

PARTICULARS for cost estimates	Nayanapalli Mines Pit head To Factory Lead -7 km (To & Fro) 12 Wheel tippers, 35 T / trip Diesel Price - 94.24/liter
A. OWNING COST	
Total Landed cost in Rupees	55,00,000.00
Own Finance in Rupees	9,62,500.00
Life of the machine (Hours)	42,336.00
Life of the machine (Hours) for one year	6,048.00
No. of Operating Years (Years)	7.00
Interest per annum considered %	0.09
Cost of Interest over life time of machine in Rupees	28,58,625.00
Insurance Cost Rupees	4,01,578.73
Road Tax Rupees	1,71,080.00
Total Owning Cost Rupees	89,31,283.73
Salvage value @30% on landed cost Rupees	16,50,000.00
Net Owning Cost Rupees	72,81,283.73
Net Owning Cost per Hr	INR 171.99
Output expected per hour TPH (Vehicle actual load X Trips per hour)	35.00
Output expected per hour (TPH)	26.25
Owning Cost per ton - (A)	**INR 6.55**
B. OPERATING COST:	
B1. Fuel Cost	
Diesel Cost per lit	INR 94.24
Distance (Kms)	7.00
Trips per Hour	0.75
Mileage (Kms)	1.00
Diesel Consumption per hr	5.25
Diesel Consumption cost	INR 494.77
Fuel Cost per ton	**INR 18.85**
B2. Tyre Cost	
No.of Tyres Required - 5 Sets	12.00
Cost of One Tyre	13,916.02
Total Cost of Tyres	1,66,992.19
Life of Tyres (Kms)	25,250.00
Life in Hours	4,809.52
Cost of Tyre per hour	INR 34.72
Cost of Tyre per ton	**INR 1.32**
B3. Consumable Cost	
Oil service per Hr	
Gear Oil service per Hr	
Crown Oil service	
Grease per hr	
Total Consumable cost Per hr	INR 18.82
Consumable Cost per ton	**INR 0.72**
B4. Wear Parts Cost	
Wear Part Cost	
Expected Life Hrs	
Wear Cost per ton	
B4. Spare Parts Cost	
Spare Part Consumption per hr	INR 33.07
Spare Part Consumption per ton	**INR 1.26**
B5. Manpower Cost	
Operator, Helper wages per month (30 Days)	45,000
Manpower Cost per Hour	INR 89.29
Manpower Cost per ton	**INR 3.40**
Operating cost per ton - (B)	**INR 25.55**
D. Administrative expenses:	
Sup/managerial Cost per month	10,250.00
Conveyance per month	0.00
Statutory Obligations/Safety &Training per month	1,500.00
Safety	1,057.45
FC and other Jobs per month	5,000.00
Welfare	2,669.50
Administration Expenses per hr	40.63
Administration Expenses per Ton (D)	**1.55**
E. Profit Margin: 10% of (A +B)	**3.21**
F. Total Rate for Transportation (A+B+D+E)	**₹ 36.86**

Capital Expenditure for Conveyor Method

CONVEYOR		
Cost of mechanical	₹	1,21,34,20,615
Cost of civil works	₹	56,30,00,000
Cost of E&I works (LS crusher)	₹	21,93,00,000
Cost of conveyor to factory	₹	-
Cost of land	₹	1,29,73,013
Total cost for conveyor laying	₹	**2,00,86,93,628**

Extra Land near by road for Conveyor			
width required for conveyor	m		7.5
total length	km		3.5
area of land	m2		26250
area of land	acre		6.49
cost per acre	Rupee	₹	20,00,000
Cost of land	Rupee	₹	**1,29,73,013**

Capital Expenditure forTipper transport by Road

length of road(new)	**km**	**3.5**
width of road(carriageway)	**m**	5.5
shoulder width on either side	**m**	1
embankment	**m**	1
width of road and shoulder	**m**	7.5
Total width of road & extra land	**m**	18.75
area of road	**m2**	65,625.00
total area of land	**acre**	16.22

cost per acre	₹	20,00,000
total cost of land area	**₹**	**3,24,32,531**
cost of bridge (10m width)(20m span)	₹	1,78,89,000
no of bridges		2.00
normative cost per km (7.5 m	₹	2,26,00,000
cost escalation(20%), hence cost per	₹	2,71,20,000
total cost for laying 3.5 km (7.5 m width)	**₹**	**13,06,98,000**

MECHANICAL PROJECT COST - Nayanapalle Mine crusher & Overland Belt conveyor from Pit head crusher to Cement plant	
Description	**BELT CONVEYOR - 1000 mm ST Belt**
Equipment	
LS Crusher	80000000
Circular Stacker & Reclaimer	75000000
Environmental Safeguards & Other equipments	10000000
Belt Conveyors	55276000
Over land Belt Conveyors	421400000
Structural	
Crusher	50000000
Belt Conveyors in Crusher circuit	75360000
Overland Belt Conveyor	376384615
Prefabricated roof for Circular yard	70000000
TOTAL COST IN Rupees	**₹ 1,21,34,20,615**

Estimate for Kalvatala Crusher and allied works at Mines and Conveyor foundations.		
Sl no	**Description of works**	**Estimated cost in Crores**
1	LS Crusher	21
2	Crusher ramp	6
3	LS Circular yard	15
4	Crusher MCC	4.3
5	Conveyor foundations	9
6	Approach road towards conveyor	1
	Total In Crores of Rupees	**56.3**

E&I Budget Estimation for Nayanapalle MIne with Overland Belt Conveyor		
S.No	**Equipment**	**E&I Budget**
I	**Estimated cost for Crusher in Mines**	
1	HT motors	48.00
2	LT motors	24.10
3	HT Panel	63.53
4	LV busducts	19.26
5	Battery charger	10.00
6	iMCC	80.26
7	Automation	74.60
8	2.5 MVA Distribution Transformer	29.45
9	HT LRS	17.36
10	LV VFD	8.30
11	HT Capacitors, LT Capacitor and APFC panel	27.72
12	UPS & CVCF	14.09
13	Field Instruments	20.00
14	E&I Erection and Supply Material	100.00
15	Earthing & Lightning System	36.00
16	HT Cables - 680mtrs	8.82
17	LT cables - 40KMS	173.12
18	C&I Cable - 30KMS	58.08
19	Light Fixtures	9.40
20	P&V	43.43
21	Fire alarm system	25.00
22	A/C	18.39
23	Telephone exchange	7.00
24	PA system	5.00
25	Cable Trays	57.39
26	Other Accessories	50.00
27	E&I Consultancy	25.00
Grand Total (in Lacs)		**1053.30**

II	**Estimated cost for Overland Belt Conveyor**	
1	Substation Cost (3No's) each with HT Panel, Trafo, PCC & VFD panel	240.00
2	LT cables and OFC cable with HDPE pipe	8.45
3	LT Motor	15.63
4	Light Fixtures	6.06
5	Cable Trays	69.51
6	Fire alarm system	15.00
7	Earthing & Lightning System	15.00
8	E&I Erection and Supply Material	37.50
Grand Total (in Lacs)		**407.15**
III	**Estimated cost for Power supply from plant to mines**	
1	Power supply estimation cost from plant to mines (11KV - Stepup to 33KV - UG Cable - Stepdown to 11KV)	**367.29**
IV	**Estimated cost for Power supply from APSPDCL to mines**	
1	Power supply estimation cost from APSPDCL (Ankireddypalli 33KV SS) to mines - Estimated line length - 8KMs	**479.95**
Grand Total (in Lacs) with power supply from plant		1827.74
Grand Total with 20% contingency (in Lacs)		**2193.29**
Grand Total (in Lacs) with power supply from APSPDCL		1940.40
Grand Total with 20% contingency (in Lacs)		**2328.48**

THE RAMCO CEMENTS LIMITED

Kalvatala Village,
Kolimigundla Mandal
Kurnool District - Pin: 518 123
Andhra Pradesh.
Phone No: 08510 - 244488
Website : www.ramcocements.in

Ref: RCL/NP/MINE/ADS/2023 **Date: 28.01.2023**

To
The Director (Non-Coal Mining),
Government of India,
Ministry of Environment, Forest and Climate Change,
Indira Paryavaran Bhawan,
Ali Ganj, Jor Bagh Road,
New Delhi- 110003.

Sub: **Submission of ADS information:** - Nayanapalli Limestone Mine (ML area: 735.72 Ha.) of M/s. The Ramco Cements Limited for Limestone Production of 2.7 MTPA with total excavation of 2.911 MTPA (Limestone: 2.7 MTPA + Top Soil: 0.211 MTPA) located at Kolimigundla and Petnikota Villages, Kolimigundla Mandal, Kurnool Dist., Andhra Pradesh- Environmental Clearance - reg.

Ref:
1) EAC minutes of meeting dated 17 to 18th January,2023.
2) ADS dated 27.01.2023

Dear Sir,

Our above proposal was recommended by EAC in its meeting held during 17 to 18th January, 2023 for grant of Environmental Clearance. The MoEFCC raised ADS to submit **undertaking regarding the completion of conveyor system by January 2026**. We are herewith submitting the undertaking of the same for issual of Environmental Clearance.

We request the Ministry to kindly issue Environmental Clearance for the project.

Yours faithfully,

For **The Ramco Cements Limited**

N. Nagaraju

Reddy Nagaraju
President (Projects)
Encl: Above

THE RAMCO CEMENTS LIMITED

Kalvatala Village,
Kolimigundla Mandal
Kurnool District - Pin: 518 123
Andhra Pradesh.
Phone No: 08510 - 244488
Website : www.ramcocements.in

UNDERTAKING

I **Mr. Reddy Nagaraju,** aged about 62 years son of Sri. Veeranna, authorized signatory of **Nayanapalli Limestone Mine** of M/s. The Ramco Cements Limited, Kalvatala Project, Kalvatala (V), Kolimigundla (M), Nandyal (Dist.), Andhra Pradesh. Do hereby solemnly & affirm and undertaking that,

- As per 9th EAC (Non-Coal Mining) meeting held during 17-18 January, 2023 and MoM dated 25.01.2023, as per specific condition No. ii Item No-4 of proposal No. IA/AP/MIN/230981/2021. We will install and commission the crusher along with conveyor belt within a period of three years i.e., by January, 2026.

Place: Kalvatala	
Date: 27.01.2023	**Mr. Reddy Nagaraju** **Authorized Signatory** **M/s. The Ramco Cements Limited** Kalvatala Project, Kolimigundla Mandal, Nandyal District, Andhra Pradesh.