

**INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION
MCDR INSPECTION REPORT
Dehradun regional office**

Mine file No : HP/SOLAN/LST-2

Mine code : 38HPR11004

I GENERAL

A Inspection Details

1	Name of IO	P068 Pushpendra Gaur
2	Date of Inspection	13.06.2018
3	Name of Mine	Baga - Bhalag Limestone Mines
4	Status of operations at the mine on the date of inspection	Working Lease
5	Names and designation of accompanying officials	i) Mr. Amit Kumar Dubey, Asst. Vice President (Mines) ii) Mr. Chandrakant Dandhale

6	Signature(s) of accompanying officials	
7	Assessment Year	2017-18

B Mineral Concession Details

1	Total Lease Area (Ha)	324.4790 Ha.
2	Break up of ML area	
	Non Forest Land(Type of Land and its ownership) (Ha)	100.1353 Ha.
	Forest Land	224.3437 Ha.
3	ML Validity	Valid up to 2057. (28/09/2057)
4	Any Identification of ML like Survey no. ML No. etc.	Survey No. 53 A/15
5	Name of the lessee	M/s UltraTech Cement Limited
	Address with PIN code	Village- Baga, P.O.- kandhar, Tehsil- Arki, Distt.- Solan (H.P.)- 171102
	Phone	01796-223299
	Email	amitk.dubey@adityabirla.com
	Fax	01796-223344
6	Date of Grant of Mining Lease	07.03.2005
7	Date of Execution of Lease deed	29.09.2007 (Deed for transfer of ML from M/s Jaiprakash Associates Limited to M/s UltraTech Cement executed and registered on 12.07.2017 & Fresh ML Deed executed between the State Govt, of HP and M/s UltraTech Cement Limited and registered on 06.01.2018)

8	Date of first Renewal, if applicable and its period & expiry	Not applicable.
9	Date of second Renewal, if applicable and its period & expiry	Not applicable.
10	Date of submission of renewal application if Mining Operations are continuing under deemed extension	ML is executed till 28.09.2057
11	Mineral(s) granted in lease and proved for mining	Limestone and Shale.
12	Captive/Non Captive	Captive.

C Basic Mine Management Details

Sr No	Particular	Details
1	Name of the Mine	Baga - Bhalag Limestone Mines
2	IBM Registration Number under rule 45 of MCDR, 2017	IBM/441/2011
3	Mine code	38HPR11004
4		
5	Method of Mining(Opencast, Underground)	Opencast
6	Category (Fully Mechanized, Others or Manual)	Fully Mechanized.
7	Date of opening of Mine	09.01.2010.
8	Location of Mine	
	Village	Baga
	Taluka/Mandal/Tehseel	Arki
	District	Solan
	Pincode	171102
9	State	Himachal pradesh
10	Post office	Kandhar
11	Nearest police station	Baga
12	Nearest Railway station	kiratpur (Punjab)
13	Co-ordinate of any two lease pillars	
	i) Piller No. 10	31°20' 45.92'' N 76°54' 20.38'' E
	ii) Piller No. 50	31°20' 39.65'' N 76°54' 27.44'' E
14	Co-ordinates of working sites	
	i)	31°19' 8.38'' N 76°53' 10.80'' E
	ii)	31°20' 50.87'' N 76°54' 41.48'' E
15	Address of Mine Office	Unit Baga Cement Works, UltraTech Cement Limited
	Address with PIN code	Village- Baga, P.O.- kandhar, Tehsil- Arki, Distt.- Solan (H.P.)- 171102
	Phone	01796-223208
	Email	amitk.dubey@adityabirla.com
	Fax	01796-223344
	Mobile No	8837418939
16	Nominated Owner details	
	Name of the Nominated Owner	Sh. O. P. Puranmalka
	Date of appointment	12.07.2017

	Address with PIN code	UltraTech Cement Limited, 'B' wing, Ahura Centre, Second Floor, Mahakali Caves Road, Andheri (East), Mumbai- 400093 (MH)
	Phone	01796-223341
	Email	
	Fax	01796-223344
17	Agent details	
	Name of the Agent	Sh. Amit Kumar Dubey
	Date of appointment in mines	12.07.2017
	Address with PIN code	Baga Cement works, Ultratech Cement Limited, Village- Baga, P.O.- kandhar, Tehsil- Arki, Distt.- Solan (H.P.)- 171102
	Phone	01796-223342
	Email	amitk.dubey@adityabirla.com
	Fax	01796-223344
	Mobile no.	8837418939
18	Mine Manager details	
	Name of the Manager	Sh. Chandrakant Dhandale
	Date of appointment in mines	12.07.2017
	Address with PIN code	Baga Cement works, Ultratech Cement Limited, Village- Baga, P.O.- kandhar, Tehsil- Arki, Distt.- Solan (H.P.)- 171102
	Phone	01796-223342
	Email	
	Fax	01796-223344
	Mobile no.	9882002005
19	Mining Engineer Details	Shri Chandrkant Dhandale
	Qualification	BE- Mining
	Total Experience	20 years
	Date of appointment in mines	12.07.2017
20	Geologist Details	Shri Vivek Shukla
	Qualification	M.Tech. (Applied Geology)
	Total Experience	13 years
	Date of appointment in mines	01.12.2017
21	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42	Yes
	Geologist and Mining Engineer carrying out their duties as per rule 43 & 44.	Yes
22	Mining Plan/Modified Mining Plan approval details	Modified Mining Plan
	DATE and No. of Approval Letter.	1. Mining plan approval vide letter ref. No. 614(2) MP-A-216/2005 Dated 01.06.2005. 2. Letter ref. No. 614 (2)/MP-A- 216/05 DDN dated 19.12.2012 area 331.424 Ha. Period = (2012-2014) 3. IBM Dehradun vide letter ref. No. 614 (2)/MP-A- 216/05-DDN dated 05.10.2016 area 324.4790 Ha. Validity period - 2016-2019.
	Mine Plan execution/Excavation plan period	05.10.2016 - 31.03.2019
	specific condition in approval letter, if any.	
23	Scheme of Mining/Modified Scheme of Mining approval details	
	DATE and No. of Approval Letter.	1. IBM approval vide letter ref. No. 614(2) MS-B-245/14-DDN Dated 01.07.2014. Area-331.424 Ha. And validity = 2014-2019.
	Mine Plan execution/Excavation plan period	01.07.2014 to 31.03.2019
	specific condition in approval letter, if any.	
24	FMCP approval details, if any, specially in case of part surrender	Company has surrendered 6.945 Ha. Area (92-06 bighas)
	DATE and No. of Approval Letter.	1. IBM approval vide letter ref. No. 614(2) MP-A-216/05-DDN Dated 05.10.2016. Area-6.945 Ha.
	FMCP execution period, if any.	
	specific condition in approval letter, if any.	

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining.

III GEOLOGY

A Reserve And Resource Details

a)	As mentioned in the latest approved MP/MMP/SOM/MSOM etc., as on	01.04.2016
	Particular	UNFC Code
		Qty in Million tonnes
1	Reserves	
	1.Proved Mineral Resources	111
	2. Probable Mineral Resources	121 & 122
2	Resources	
	1.Feasibility Mineral Resources	211
	2. Pre-feasibility Mineral Resources	221
	3. Measured Mineral Resources	331
	4. Indicated Mineral Resources	332
	5. Inferred Mineral Resources	333
	6. reconnaissance Mineral Resources	334

b) Year wise Depletion of reserves during the intervening period

	Limestone (Ton)	Shale (Ton)	Total (Ton)
2013-14	3351924	410549	3762473
2014-15	3354162	419129	3773291

2015-16	2707507	335163	3042670
2016-17	2210448	287541	2497989
2017-18	1488319	168075	1656394
2018-19 (Upto 01.06.2108)	315842	36848	352690

c). As on date 01.04.2018

Particular	UNFC Code	Qty in Million tonnes
1 Proved Mineral Reserve	111	229.91
2 Probable Mineral reserve	121 & 122	170.513
1. Feasibility Mineral Resources	211	151
2. Pre-feasibility Mineral Resources	221	150.5
3. Measured Mineral Resources	331	
4. Indicated Mineral Resources	332	
5. Inferred Mineral Resources	333	134.6
6. reconnaissance Mineral Resources	334	

B Exploration Proposals And Achievements

Sr No	Item	Proposal 2017-18	Actual 2017-18	Remarks
1	Exploration carried out for proving mineral existence at Geological axis 1 or 2.	No Proposal	No proposal	Completed exploration wrt. G1 axis.
2	Name of Exploration Agency	Not applicable	Not applicable	
3	Expenditure incurred in lakh Rupees during the year	NIL	NIL	
4	backlog of previous year 2015-16	NIL	NIL	
5	Exploration status of the ML area G1/G2/G3 axis as on date of inspection			Completed exploration wrt. G1 axis.
6	Balance area to be explored to bring Geological axis to G1 or G2			NIL
7	General remarks of inspecting officer on geology, exploration etc.			

C Litho units encountered on faces

IV MINING

A Development

Sr No	Item	Proposal 2017-18	Actual 2017-18	Remarks
1	No. of pits proposed for development	NA	NA	
2	Location of development w.r.t. lease area	<u>Bhalag village</u> :- E/W 13940 to 14360 and N/S 15720 to 16240 <u>crusher side</u> :- E/W 13400 to 13800 and N/S 15920 to 16300	<u>Bhalag village</u> :- E/W 14000 to 14200 and N/S 15850 to 16240 <u>Bhalag Crusher side</u> :- E/W 13350 to 13850 and N/S 15950 to 16200	Minor deviation in the operating area due to some land disputes regarding land acquisition, pending for disposal at various courts.
3	Separate benches in topsoil, overburden and mineral (Rule 15)	<u>Bhalag village</u> :- From 1345 to 1170 (19 Benches) <u>crusher side</u> :- From 1290 to 1180 (11 Benches)	<u>Bhalag village</u> :- From 1300 to 1170 (13 Benches) <u>Bhalag crusher side</u> :- From 1280 to 1160 (12 Benches)	Presently this area is in non working condition.
4	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc			

B Exploitation

Sr No	Item	Proposal 2017-18	Actual 2017-18	Remarks
1	Mine pit details			
	Number of pits	2 Nos	2 Nos	
	Location of pits w.r.t. ML area	Bhalag Block and Baga Block	Bhalag Block and Baga Block	
	Shape of pits - contiguous			
	Central block			
	Approximate size of the pits	Bhalag Block = 400m X 450m Baga Block = 150m X 150m	Bhalag Block = 400m X 450m Baga Block = 150m X 150m	Mine has been worked from 1310mRL to 1170mRL in FY 2017-18 in the benches No. 9 to bench No. 23
	Number of benches in waste	Not proposed	Not proposed	
	Number of benches in mineral/ore	23 Nos	23 Nos	
	Bench Height in mineral	10.00 Mtr	10.00 Mtr	
	Bench height in OB/Top soil etc	Not applicable	Not applicable	
	Pit Slope	45	45	
	Approach to faces/benches	By mine roads	By mine roads	
2	Quantity of ROM mineral production proposed (last 5 years) (In Tonnes)			
	2013-14	5.25 Mio Ton (Limestone= 4.725 & Shale= 0.525)	Year 2013-2014 (Limestone & Shale) 3.55 Mio Ton +0.41 Mio Ton Total 3.70 Mio Ton.	
	2014-15	5.25 Mio Ton (Limestone= 4.725 & Shale= 0.525)	Year 2014-2015 (Limestone & Shale) 3.35 Mio Ton +0.41 Mio Ton Total 3.77Mio Ton.	

2015-16	5.25 Mio Ton (Limestone= 4.725 & Shale= 0.525)	Year 2015-2016(Limestone & Shale) 2.70 Mio Ton +0.33 Mio Ton Total 3.04Mio Ton.	
2016-17	4.405 Mio Ton (Limestone= 3.88 & Shale= 0.525)	Year 2016-2017(Limestone & Shale) 2.21 Mio Ton +0.28 Mio Ton Total 2.49Mio Ton.	
2017-18	5.25 Mio Ton (Limestone= 4.725 & Shale= 0.525)	Year 2017-2018 till 31 st March 18, (Limestone & Shale) 1.48 Mio Ton +.16 mio Ton Total 1.65 Mio Ton.	Mine production was halted from Mar, 2017 to July, 2017 in view of the change of ownership of the cement plant and transfer of ML for captive limestone & shale mine in the name of M/s UTCL. Mine development activities has been carried out during this period. Less production wrt. the approval in the mining plan is due to period of change of ownership and less market capitalisation/demand of cement from unit.

Quantity of topsoil removed in m3

2014-15	Not applicable	NIL	No topsoil encountered during operation. However, the scree (a mixture of fragment rock mixed with subgrade soil) of 5400 Tons was appropriately blended with the limestone and used for cement manufacturing at the unit.
2015-16	Not applicable	NIL	
2016-17	Not applicable	NIL	
2017-18 (Till 31.04.2018)	Not applicable	NIL	

Quantity of interburden (Overburden HR) removed in m3

2014-15	Not applicable	NIL
2015-16	Not applicable	NIL
2016-17	Not applicable	NIL
2017-18 (Till 31.04.2018)	Not applicable	NIL

Ore to OB ratio for the mine during the respective year

2014-15	1:0.00	1:0.00	No OB encountered during operation
2015-16	1:0.00	1:0.00	
2016-17	1:0.00	1:0.00	
2017-18 (Till 31.04.2018)	1:0.00	1:0.00	

3 Recovery of salable/usable mineral from ROM production -

4 **Quantity of mineral reject generation removed in tonnes**

2014-15	Not proposed	NIL
2015-16	Not proposed	NIL
2016-17	Not proposed	NIL
2017-18 (Till 31.04.2018)	Not proposed	NIL

5 Grade of mineral reject generation and threshold value declared

6 **Quantity of sub-grade mineral generation**

7	Grade of sub-grade mineral generation	Not applicable	Not applicable
8	Manual / Mechanized method adopted for segregating from ROM	Not applicable	Not applicable
9	Any analysis or beneficiation study proposed & carried out for sub-grade	Not applicable	Not applicable
10	Provision of drilling & blasting in mineral benches	As per MP/SOM	As per MP/SOM
	Provision of drilling & blasting in benches other than mineral as the case may be	As per MP/SOM	As per MP/SOM
11	Provision of mining machineries in mineral benches	As per MP/SOM	As per MP/SOM

	Provision of mining machineries in benches other than minerals as the case may be	NIL	NIL
12	Provision of hauling/transportation from mine to dump/stack yard	NIL	NIL
13	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	As per MMP/SOM	As per MMP/SOM
15	Updation of Plans & sections as per rule 27, 28,29	Updated as on 31.03.2018	Updated as on 31.03.2018
	Date of Survey on Plan	22.03.2018 to 29.03.2018	22.03.2018 to 29.03.2018
16	Manpower engaged		81
	Managerial		5
	Supervisory		13
	Others		1
	Ministerial		1
	Workers		61
14	General remarks of inspecting officer on method of mining etc		

C Solid Waste Management-Dumping

Sr No	Item	Proposal 2017-18	Actual 2017-18	Remarks
1	Spread of dumps within lease area and outside lease area	Not applicable	Not applicable	
	Active Dumps	Not applicable	Not applicable	
	Inactive dumps	Not applicable	Not applicable	
2	Dumping of topsoil, OB & mineral reject	Not applicable	Not applicable	
a)	Topsoil	Not applicable	Not applicable	
	Selection of site is as per rules (Rule Usage of top soil (Rule 32)	Not applicable	Not applicable	
b)	Mineral reject (Rule 16 & 33)	Not applicable	Not applicable	
c)	Selection of site and measures for Overburden and/or Interburden dumping (Rule 16 & 33)	Not applicable	Not applicable	
3	Location of dumps w.r.t. ultimate pit limit (Rule 16) & Number of active & alive dumps	Not applicable	Not applicable	
4	Number of dead dumps	Not applicable	Not applicable	
5	Number of dumps stabilized	Not applicable	Not applicable	
6	Length of Retaining wall or garland drain all along dump (In Meters)	Not applicable	Not applicable	
7	Number of settling ponds	Not applicable	Not applicable	
8	Specific comments of inspecting officer on waste dump management			

D Solid Waste Management-Backfilling

Sr No	Item	Proposal 2017-18	Actual 2017-18	Remarks
1	Status on part or full extraction of mineral from mined out area before starting backfilling (In Ha.)	Not applicable	Not applicable	
2	Area under backfilling of mined out area (In Ha.)	Not applicable	Not applicable	
3	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32) M ³	Not applicable	Not applicable	
4	Total area fully reclaimed & rehabilitated (In Ha.)	Not applicable	Not applicable	
5	General remarks of inspecting officer on backfilling, reclamation etc			

V ENVIRONMENT & PROGRESSIVE MINE CLOSURE PLAN

A Progressive Mine Closure Plan

Sr No	Item	Proposal 2017-18	Actual 2017-18	Cumulative so far
1	Whether Annual report on PMCP submitted on time and correctly - Rule 23E(2). Details should be given in the format as given in Annexure-20.	As per PMCP proposal	Submitted to IBM Regional office	
2	Reclamation of dumps			
i)	area afforested			
ii)	No of saplings planted	Not applicable	Not applicable	
iii)	Cumulative no. of plants			
iv)	Cost incurred on watch & care during the year			
3	Management of worked/mined out benches			
i)	Area available for rehabilitation (Ha)	Not applicable	Not applicable	
ii)	Afforestation done (Ha)			
iii)	No. of saplings planted during the year			
iv)	Cumulative no. of plants			
v)	Any other specific method of rehabilitation			
vi)	Cost incurred on post care and maintenance of plantation (Rs.)			

4	Compliance on reclamation and				
i)	Voids available for backfilling (L X B X		Not applicable		Not applicable
ii)	Void filled by waste/tailings (Ha.)				
iii)	Afforestation on the backfilled area				
iv)	Rehabilitation by making water reservoir				
v)	Any Other specific means				
5	Compliance of Rehabilitation of waste				
i)	Afforestation				
ii)	Area rehabilitated (ha)				
iii)	Method of of rehabilitation				
6	Total area covered under (Land use pattern)/Land put to use under various heads	Proposal in latest approved doc		Actual 2017-18	Remarks
i)	Excavation/pits (Ha.)	4.93		1.66	
ii)	Top soil storage (Ha.)	Nil		Nil	
iii)	Waste/Ob/IB dumps (Ha.)	Nil		Nil	
iv)	Mineral rejects (Ha.)	Nil		Nil	
v)	Sub grade mineral stacks (Ha.)	Nil		Nil	
vi)	Mineral stacks (Ha.)	Nil		Nil	
vii)	Plants, buildings, Infrastructure etc. (Ha.)	Nil		Nil	
viii)	Others (Specify) Road & green belt	Nil		0.66	Greenbelt development
ix)	Total area put in use under different heads at the end of year For which FA given (Ha.)	4.93		2.32	
x)	Whether Land put to use is within area for which FA given, if NO then the excess area put to use. (Ha.)			YES	
7	General remarks of inspecting officer on PMCP compliance & progressive closure operations				
B	Environment				
1	Topography and landscape of the ML area			Hilly	
2	Public building, places of worship, monuments, protected historical place, place of tourist within ML area, details			NIL	
3	Water regime			NIL	
	Surface			NIL	
	Ground			NIL	
	Stored water in excavated pits			NIL	
4	Human settlement in ML area			Exists	
	How far the human settlement from active mine area			300m	
5	Environmental monitoring Last monitoring dates			Mar-18	
i)	Air	with in Limit.		Mar-18	
ii)	Water	with in Limit.		Mar-18	
iii)	Noise	with in Limit.		Mar-18	
iv)	Ground Vibration	with in Limit.		Mar-18	
v)	Soil				
vi)	Surface subsidence				
vii)					
6	Key result of such Environmental monitoring				
i)	Air Respirable particulate matter (RPM) (Size less than 10 microns)			Within Limit	
ii)	Water				
iii)	Noise			Within Limit	
iv)	Ground Vibration			Within Limit	
v)	Soil				
vi)	Surface subsidence				
vii)	Acid Mine Drainage				
7	Precaution against Air pollution (rule 37)				
8	Precaution against Ground Vibration (rule 35)				
9	General remarks of inspecting officer on aesthetic beauty in and around mines				
VI	MINERAL CONSERVATION				
Sr No	Item	Proposal		Actual Work	Remarks
1	ROM Mineral dispatch or grade-wise sorting within lease area	Not applicable		Not applicable	
2	Method of grade-wise mineral sorting i.e. manual or mechanical	Not applicable		Not applicable	
3	Different grade of mineral sorted out at mines	Not applicable		Not applicable	
4	Any beneficiation process at mines	Not applicable		Not applicable	
5	General remarks of inspecting officer on Mineral conservation & beneficiation				
VII	COMPLIANCE OF RULE 45				
Sr No	Item	Comments			

1 **Status of submission of Monthly and Annual returns**

S.N.	Item	Details GIVEN in A.R.	Observation of I/Officer
2	Name of mine	Baga Bhalag Limestone Mine	
3	Address of mine	Baga Bhalag Limestone Mines, M/s UltraTech Cement Limited, Village- Baga, P.O.-kandhar, Tehsil- Arki, Distt.- Solan (H.P.)- 171102	
4	On consumption of diesel and explosives in particular	Submitted/complied for FY 2016-17	
5	Mineral reserve wrt approved SOM if diff (in case of routine depletion then the reason)	NIL	
6	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Done/ return accepted for FY 2016-17	
7	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Done/ return accepted for FY 2016-17	
8	Scrutiny of Annual return on afforestation	Done/ return accepted for FY 2016-17	
9	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Done/ return accepted for FY 2016-17	
10	Scrutiny of Annual return on ROM stock and/or graded ore	Done/ return accepted for FY 2016-17	
11	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Done/ return accepted for FY 2016-17	
12	Scrutiny of Annual return on fixed assets 9k Scrutiny of Annual return on mining machineries	Done/ return accepted for FY 2016-17	
VIII MCDR COMPLIANCE PAST AND PRESENT			
1	Previous date of inspection	25.01.2018	
2	Violations pointed out in previous inspection	<p>1. Under Rule 11(1) - Mining operations were not carried out in accordance with the mining plan approved vide letter no. 614(2)/MP/-A-216/05-DDN dated 05.10.2016 to the extent that ramp between section 16000N-16100N and 13900E-14000E & between 1300-1280mrl were of gradient steeper than 1 in 16 further at places at the operating benches the berm of adequate height was not there.</p> <p>2. Under Rule 33 - The holder of the mining lease shall, on or before the 30th day of June every year submit to the authorized officer a digital copy along with a print copy of the surface geological plans and sections maintained under rule 32. However the lessee has not submitted the copies of plans and sections as per rules.</p>	<p>Complied.</p> <p>1. Road gradient corrected to not less than 1 in 16 and appropriate berms provided along the bench edges and at the mine faces under advancement.</p> <p>2. Re-submitted the print copy and digital copy of plans and sections.</p>
3	Check Compliance status of complied violations	Complied	
4	Pending violations	NIL	
5	Status of compliance of MCDR,2017, including therewith the rectification of outstanding violation of rules	Complied	
6	Violation Detected And Pointed Out During This Inspection	11(1), 31, 32(1) (b), 45(5) (b), 45(5) (c)	

Date :

Pushpender Gaur

Indian Bureau of Mines