BEFORE THE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI.

Original Application No.78/2023

Durga Singh Pawar & Ors. …Applicants

Versus

Rajendra Singh Dafoti & Ors. …Respondents

INDEX

	Measures mentioned in EIA Report.	
8.	**ANNEXURE: R5/9** A copy of EMP of the Resp.No.5.	92-96
9.	**ANNEXURE: R5/10** The photographs of the plantation done by the Resp.No.5 under CSR/CER.	97-195
10.	**ANNEXURE: R5/11** A copy of the letter dated 18.09.2023 issued by the Village Pradhan.	106

Through

SUGAM MISHRA
Counsel for Respondent No.5
B-69, Lajpat Nagar-1,
New Delhi -110024
Mob.No. 9999212420,
advsugammishra@gmail.com

PLACE: New Delhi
DATE: 23.09.2023

**BEFORE THE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI.**

Original Application No.78/2023

Durga Singh Pawar & Ors. ...Applicants

Versus

Rajendra Singh Dafoti & Ors. ...Respondents

ADDL AFFIDAVIT ON BEHALF OF RESPONDENT NO.5 IN COMPLIANCE OF ORDER DATED 06.09.2023

I, Rajender Singh Dafoti S/o Shri Nandan Singh Dafoti, aged about 42 years R/o B-54, Judge Farm, Chhoti Mukhani, Mukhani Nainital, Uttarakhand - 263139, do hereby solemnly affirm and states as under;

1. That I am the respondent No. 1 and proprietor of the respondent No. 5 and as such is well conversant with the facts and circumstances of the present case and is competent to swear this present affidavit.

2. That vide order dated 06.09.2023, this Hon'ble Tribunal was pleased to direct the respondent No.5 to file additional affidavit mentioning in detail the remedial measures already taken/ planned with reference to the observation made by the Joint Committee and compliance with EC conditions as well as carrying out CSR activities and Environmental Management Programme under CER.

MEASURES TAKEN/ PLANNED BY RESPONDENT NO.5 WITH REFERENCE TO OBSERVATION MADE BY THE JOINT COMMITTEE.

Observations made by the Joint Committee	Measures taken by the Authorities/ Respondent No.5
1. *Action may be taken* against lease holder according to conditions mentioned in consent/ NoC.	Action has been taken and a total penalty of Rs.14,74,200/- has been imposed by DM, Pithoragarh vide order dated 25.04.2023. The said penalty has been deposited by the Respondent No.5 vide receipts dated 29.04.2023 & 11.07.2023. A copy of the receipts i.e. E-challan i.e. 29.04.2023 for Rs. 7,72,200 and dated 11.07.2023 for Rs. 7,00,000/- (Rupees Seven Lacs) are annexed as **ANNEXURE: R5/3 (Colly).** The Forest Department registered a case u/s 32 & 33 of Indian Forest Act on 15.03.2023 against the respondent No.5 for illegal felling of trees in the ining

NOTARY (INDIA) Y.K. DEVAL Notary, Haldwani Distt. Nainital (UK) R. No. 25(10)/2010 GOVT. OF UTTARAKHAND

	area. Thereafter, on 16.03.2023, the Forest Department, without issuing show-cause and *without seeking* any explanation, imposed a penalty of Rs.3,21,778/ upon the Respondent No.5. A copy of the order dated 16.03.2023 passed by Forest Range Officer, Munsiyari imposing penalty is annexed as **ANNEXURE: R5/4.** Despite repeated request of the respondent No.5 the Forest Department did not provide any details as to how many trees were allegedly fell by Resp. No.5. What was the material before the Forest Range Officer to come to the conclusion that this much of penalty was to be imposed. However, the Respondent

NOTARY ★ GOVT. OF UTTARAKHAND (INDIA) ★
Y. K. DEVAL
Notary, Haldwani
Distt. Nainital (UK)
R. No. 26(10)/2010

	No.5 was left with no option but to deposit the said penalty which was deposited by him on *18.03.2023 and 21.09.2023* for a asum of Rs. 105000 and 216778/- respectively. A copy of the letter dated 21.09.2023 issued by the Forest Range Officer, Munsiyari is annexed as **ANNEXURE: R5/5.** It is important to bring to notice of this Hon'ble Tribunal that the Respondent No.5 conducted the mining activity for the total period of 4 ½ months i.e. from October 2022 to first week of Feb, 2023.
2. Before starting further mining activity retaining wall should be constructed to retain over burden.	The respondent No.5 has not conducted any mining activity till today. Because of stoppage of mining activity and because of rainy season, the repair/

NOTARY
Y. K. DEVAL
Notary, Haldwani
Distt. Nainital (UK)
R. No. 26(10)/2010
23.9.23
GOVT. OF UTTARAKHAND (INDIA)

	construction work of the retaining wall, where ever it is required, could not be completed. However, the respondent No.5 undertakes not to start the mining activity without proper repair/ construction of retaining wall, wherever it is required, so as to avoid slipping of over burden on the downhill. Over burden is kept near the site because the same is utilized for refiling the mined area as per directions of the Govt. between period 15 June to 30 June, every year i.e. before start of rainy season, to avoid any mis happening and storage of water etc. in the mined area. No mining activity is conducted during the period 15 June to 30

NOTARY ★ GOVT. OF UTTARAKHAND (INDIA) ★
Y. K. DEVAL
Notary, Haldwani
Distt. Nainital (UK)
R. No. 26(10)/2010
93.9.23

	September as per the Govt. guidelines. However, during non-rainy season if the rain comes, then also mining is *stopped*.
3. For disposal of rain water, suitable arrangement should be made so that the nearest water body and river Bhujgarh is not affected.	So far as the disposal of rain water is concerned, the same is disposed of through natural passage of water which connects to the nearest gadhera carrying the rain water. As per EC condition there is prohibition on changing the course of the natural flow of the water. It is important to mention that when there is a rain, the dust of soap stone are carried with the water and flow along with gadhera. However, the over burden is retained for refilling the pit. If the rain water is allowed to retain in the mining pit, it may cause serious damage to the nearby area,

	if it spills out from the mining site. That even sometimes, water pumping motor is being used *to take out the* rain water from the mining site which is filled in the mining pit and is connected to the gadhera, otherwise it will cause damage not only to the mining site but also to the nearby area/ houses down the hill, if the entire rainwater is allowed to retain in the pit. However, it is submitted that no hard material/ over burden is allowed to carry through gadhera, it is only the water mixed with the dust of the soap stone that naturally flow with the rain water only in rainy season.
4. For balancing the environmental issues, an action plan may be	In July 2023, the respondent No.5 has carried extensive

prepared and plantation may be done in the unutilized land of revenue and Van panchayat	plantation activity on the Van Panchayat land and unutilized land near the mining site in an area of approx. *2 to 2.5 hectors* about 1000 trees. Further to this, the respondent No.5 also distributed plants to the villagers for plantation on their land which is in their use and control near the mining site. Further, the respondent No.5 has also made an arrangement to ensure that the tree planted are protected. For this purpose the respondent No.5 has employed 2 persons namely: 1. Govind Pawar 2. Kuwar Singh Koranga
5. The District Level task force may be constituted to look after the illegal	The Govt. has constituted special task force to ensure stoppage of any illegal

mining and regular inspection may be ensured	mining in the entire state of Uttarakhand which has become functional. However, since no mining activity has been conducted by the Respondent no.5 since, first week of February, 2023,

3. That the EC was granted to the respondent No.5 on 12.08.2021. A copy of the EC dated 12.08.2021 is annexed as **ANNEXURE R5/6.**

4. That the Respondent No.5 started mining activity in October 2022 and continued the same till first week of February 2023. Thus, the total period of mining conducted by the Respondent No.5 is 4 months. As per the data available on the Mining Lease Monitoring System for the State of Uttarakhand, the total material mined at the site was 3237.760 tons.

5. That so far as the observation made in the Joint Committee Report that maximum area of Distt-Pithoragarh comes in Geotectonic zone is concerned, it is submitted that as per District Survey Report (Soapstone) of Distt-Pithoragarh, Uttarakhand, it is not only the respondent No.5 who is conducting mining activity in Distt-Pithoragarh but there are more than 27 operational soap stone mines in the Distt. with due

permission of all the concerned departments of the State as well as Central Government. A copy of the District Survey Report (Soapstone) of Distt-Pithoragarh, Uttarakhand prepared by Geology and Mining Unit, Directorate of Industry, Uttarakhand 2023, is annexed as **ANNEXURE: R5/7.**

6. That the respondent No.5 is meeting the conditions of EIA and EMP. A copy of relevant Chapter 4 i.e. Anticipate Environmental Impacts and Mitigation Measures mentioned in EIA Report and EMP are annexed as **ANNEXURE: R5/8** and **R5/9** respectively.

7. That so far as the allegation of illegal mining is concerned, there was no reason for the Resp No.5 to mine beyond mining area specially when the mining was just started and the entire lease area was remaining with the Respondent No.5. However, it had happened inadvertently because of fault in demarcation and displacement of marking points by the miscreants in the area who were opposing mining activity in the area and filing frivolous cases against Respondent No.5 before various Forums.

8. That after official respondents came to know that the initial mining was done out of mining area immediately the same was stopped and the order imposing penalty was complied with. Thereafter, the mined area was replenished and filled and plantation has been done by

the Respondent No.5. The photographs of the plantation are annexed as **ANNEXURE: R5/10**.

9. That so far as the allegation of cutting of trees and making road in the forest land is concerned, it is submitted that the Respondent No.5 has not constructed any road which is apparent from the photographs.

10. That the route of transportation of the mined mineral and approach road to the mining site is different and separate. There is a distance of about 2 kms from the pit head to the approach road at Village Bajeta. The mined material is transported from pit head to approach road through mules.

However, it is made clear that the passage (which is not a road) which has been alleged to be constructed by the Respondent No.5 was used only once for carrying machines, as the same could not be brought at site through the path from where the mined material is transported through mules.

NOTARY GOVT. OF UTTARAKHAND (INDIA) Y. K. DEVAL Notary, Haldwani Distt. Nainital (UK) R. No. 26(10)/2010 S. L. No. 199 23.9.20

11. That even otherwise no such notice was ever given by the forest department to Respondent No.5, even when Respondent No.5 requested the copy of the order imposing penalty. All this was done during the time when the Joint Committee was inspecting the site for which the Respondent No.5 has no knowledge.

12. That Respondent No.5 undertakes and reiterates that there is no road constructed by Respondent No.5, nor

does it uses the same for transportation or approach to mining site. Both the approach road where the mined mineral is carried through mules i.e. about 2 km and the alleged passage/ road which has been alleged to be constructed in forest area are in different directions so there is no question of Respondent No.5 using the said passage for any purposes.

13. That so far as the carrying out activity by the Respondent No.5 under CSR/ CER are concerned, the Respondent No.5 has done several works for public welfare for the area of about 8.5 lacs, which has been duly acknowledged by the Village Pradgan Bajeta in letter dated 18.09.2023. A copy of the letter dated 18.09.2023 issued by the Village Pradhan is annexed as **ANNEXURE: R5/11**

14. That the Respondent No.5 undertakes before this Hon'ble Tribunal that it shall be abide by all the conditions of EC, EMP and EIA in letter and spirit. No mining activity shall be conducting at the site without ensuring that adequate measures including making of retaining walls, wherever, it is required.

15. That in view of the aforesaid facts the restraint order passed against the respondent No.5 applying the precautionary principals, may kindly be vacated and the respondent No.6 may be allowed to carry out mining activity strictly in accordance with law, for which act of

kindness the Respondent No.5 shall ever be grateful. It is prayed accordingly.

DEPONENT

VERIFICATION

I, the deponent above named do hereby verify that the contents of this affidavit are true and correct to the best of my knowledge derived from the records and nothing relevant has been concealed therefrom. Verified at Haldwani on this day of September, 2023.

DEPONENT

NOTARY
Y. K. DEVAL
Notary, Haldwani
Distt. Nainital (UK)
R. No. 26(10)/2010
S.L.N-199
22.9.23
GOVT. OF UTTARAKHAND (INDIA)

Certified that Sri/Smt. Rajendra Singh Dafauti
the Deponent Identified by...
Sworned & Verified the in Content of
this Affidavit At... Haldwani
on Dt: 22.9.23 ...at 10:50 A.m.

(Yogesh Kumar Deval) 23.9.23
Notary, Haldwani
Distt. Nainital (UK)

ANNEXURE R/5: 3

IFMS Uttarakhand

e-Challan

Bank Reff. No. - CPACRZTEE6

Treasury Form-209(1)
Financial Handbook Vol. V, Part- II
Form No. 43A(1)
(See Paragraph 417 and 478)
Challan form for depositing amount

Name of the Treasury/Sub-Treasury/Bank/Bank Branch - State Bank Of Indla (Payment Gateway)

Status : (S) Completed Successfully

1	Name of the person (designation if necessary or Organization on whose behalf amount is being paid.	J D MINERALS
2	Address	B - 54 JUDGE FARM CHHOTI MUKHANI HALDWAN, , NAINITAL Uttarakhand 263139
3	Registration Number (if necessary)	
4	Full details of amount to be deposited (for which purpose and in favour of)	Imposed fee charge on illegal Soap stone during Mining at Village Bajeta Teshil Munsyari District Pithoragarh
5	Gross value of Challan	774200
6	Net value of Challan	774200
7	Deaprtment	Director Industries
8	Related office for which challan is to be deposit	District Mine Officer Pithoragarh
9	Full details of Head of Account	0853 - Non-ferrous Mining and Metallurgical Industries
10	13 Digit code of Head of A/c	As per details below

SL No.	Services	Detail Head	Amount
1	Mineral Concession Fee rent and Interest charges	0853001020100	774200
	Total Challan Amount-		774200

Amount (in words) - Rs. Seven Lakh Seventy-Four Thousand Two Hundred only

Signature of departmental officer with seal

For J. D. Minerals

Auth. Signatory

Challan No- 08530423E0054654

Date - 29-APR-2023

Amount in Figure(Rs.) - 774200

Amount in words - Rs. Seven Lakh Seventy-Four Thousand Two Hundred only

Received Through

Bank Reff. No. - CPACRZTEE6

State Bank Of India (Payment Gateway)

IFMS Uttarakhand

e-Challan

Bank Reff. No. - CPACXBIFU2

Treasury Form-209(1)
Financial Handbook Vol. V, Part- II
Form No. 43A(1)
(See Paragraph 417 and 478)
Challan form for depositing amount

Name of the Treasury/Sub-Treasury/Bank/Bank Branch - State Bank Of India (Payment Gateway)

Status : (S) Completed successfully.

1	Name of the person (designation if necessary or Organization on whose behalf amount is being paid.	J D MINERALS
2	Address	B - 54 JUDGE FARM CHHOTI MUKHANI HALDWAN, , NAINITAL Uttarakhand 263139
3	Registration Number (if necessary)	
4	Full details of amount to be deposited (for which purpose and in favour of)	Imposed fee charge on illegal Soap stone during Mining at Village Bajeta Teshil Munsyari District Pithoragarh
5	Gross value of Challan	700000
6	Net value of Challan	700000
7	Deaprtment	Director Industries
8	Related office for which challan is to be deposit	District Mine Officer Pithoragarh
9	Full details of Head of Account	0853 - Non-ferrous Mining and Metallurgical Industries
10	13 Digit code of Head of A/c	As per details below

Sl. No	Services	Detail Head	Amount
1	Mineral Concession Fee rent and interest charges.	0853001020100	700000
	Total Chalan Amount-		700000

Amount (in words) - Rs. Seven Lakh only

Signature of departmental officer with seal

J D MINERALS

Challan No- 08530723E0025630

Amount in Figure(Rs.) - 700000

Date - 11-JUL-2023

Amount in words - Rs. Seven Lakh only

Received Through

Bank Reff. No. - CPACXBIFU2

State Bank Of India (Payment Gateway)

"उत्तराखण्ड वन सदैव आपके संग"

कार्यालय वन क्षेत्राधिकारी वन क्षेत्र मुनस्यारी

Mail Id:- rangeofficemunsyari@gmail.com

पत्रांक 1402/27-1 दिनांक, मुनस्यारी 16 मार्च, 2023

सेवा में,

मै0 जे0डी0 मिनरल्स,
पट्टा धारक,
राजेन्द्र सिंह दफौटी पुत्र नन्दन सिंह दफौटी,
B-54 फार्म छोटी मुखानी, हल्द्वानी,
जिला– नैनीताल।

विषयः– अवैध पातन के सम्बन्ध में।

उपर्युक्त विषयक पत्र के क्रम में सूचित किया जाता है कि आपके द्वारा वन पंचायत बजेता में खड़िया खनन पट्टा क्षेत्र अन्तर्गत वृक्षों का अवैध पातन किया गया पाया, जिस हेतु आपके विरूद्ध भारतीय वन अधिनियम 1927 की धारा 32, 33 प्रसूचना 04, रेंज केस संख्या 14 दिनांक 15.03.2023 दर्ज किया गया। कुल क्षतिपूर्ति रू0 321778/- जमा किया जाना है।

अतः सूचित किया जाता है कि आप रू0 321778/- जमा करना सुनिश्चित करेंगे।

(जगदीश सिंह बिष्ट)
वन क्षेत्राधिकारी
मुनस्यारी

"उत्तराखण्ड वन प्रदेश आपके संग"

कार्यालय वन क्षेत्राधिकारी वन क्षेत्र मुनस्यारी

Mail Id:- rangeofficemunsyari@gmail.com

पत्रांक 355/27-1 दिनांक, मुनस्यारी 21 सितम्बर, 2023

सेवा में,

मै0 जे0डी0 मिनरल्स,
पट्टा धारक,
राजेन्द्र सिंह दफौटी पुत्र नन्दन सिंह दफौटी,
B-54 फार्म छोटी मुखानी, हल्द्वानी,
जिला– नैनीताल।

विषयः– **अवैध पातन के सम्बन्ध में।**

उपर्युक्त विषयक पत्र के क्रम में सूचित किया जाता है कि आपके द्वारा वन पंचायत बजेता में खड़िया खनन पट्टा क्षेत्र अन्तर्गत वृक्षों का अवैध पातन किया गया था, जिस हेतु आपके विरूद्ध भारतीय वन अधिनियम 1927 की धारा 32, 33 प्रसूचना 04, रेंज केस संख्या 14 दिनांक 15.03.2023 दर्ज किया गया। कुल क्षतिपूर्ति रू0 321778/- मध्ये आपके द्वारा प्रथम किश्त रू0 105000/- दिनांक 18.03.2023 को तथा द्वितीय किश्त रू0 216778/- दिनांक 21.09.2023 को जमा कर ली गयी है। इस कार्यालय की रसीद संख्या 942/094159 दिनांक 18.03.2023 तथा रसीद संख्या 942/094163 दिनांक 21.09.2023 से प्राप्त कर ली गयी है।

अतः आपके द्वारा कुल क्षतिपूर्ति रू0 321778/- पूर्ण धनराशि जमा कर ली गयी है।

संलग्नः– रसीद।

(विजय चन्द्र भट्ट)
वन क्षेत्राधिकारी
मुनस्यारी

फार्म संख्या ई – 3

"उत्तरी कुमाऊँ"

वन विभाग, उत्तरी कुमाऊँ वृत्त, उत्तराखण्ड

पुस्तक संख्या– 942 क्रम संख्या 094163

रेंज मुनस्यारी वन प्रभाग पिथौरागढ़ वर्ष 2023-24

श्री राजेन्द्र सिंह दफौटी पुत्र श्री नन्दन सिंह दफौटी पता B-54 फार्म होटी मुखानी हल्द्वानी से रूपया 216778/- (अंकों में) रूपया दो लाख सोलह हजार सात सौ अठहत्तर (शब्दों में) दिनांक 21-09.23 को रैंज मद सं0-14/ मुनस्यारी/2022-23 के भुगतान का प्राप्त किया।

वन पंचायत क्षेत्र के अवैध खनन/पातन 200 द्वितीय, पूर्व निर्धारित वसूली,

दिनांक 21-09-2023

वनाधिकारी
वन क्षेत्राधिकारी
पूरा नाम मुनस्यारी सील

राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण, उत्तराखण्ड, 653, इन्दिरानगर कालोनी, सीमाद्वार रोड, देहरादून– 248006 (पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार, नई दिल्ली द्वारा गठित)
दूरभाषः 0135–3510581
ईमेलः seiaa.seac.uk@gmail.com

सत्यमेव जयते

State Level Environment Impact Assessment Authority, 653, Indiranagar Colony, Seemadwar Road, Dehradun- 248006
(Constituted by Ministry of Environment, Forests and Climate Change Government of India.)
Phone No- 0135-3510581
Email- seiaa.seac.uk@gmail.com

E.C.No-266-01(83)/2019 Dated-12 -08-2021

To,

M/s J.D. Minerals,
Shri Rajendra Singh Dafoti,
R/O-B-54 Judge Farm, Choti Mukhani, Haldwani District-Nainital.

Sub: Environmental Clearance under EIA notification dated 14.09.2006 for Extraction of Soapstone at Vill- Bajeta, Tehsil- Munsari, Dist- Pithoragarh. (Area-17.967 Ha).

Kindly take reference to your online proposal No SIA/UK/MIN/66046/2021 submitted to SEIAA Uttarakhand regarding aforementioned subject. The details about the project site and proposal for EC as per the documents submitted by the project proponent is as under:-.

S.No	Details	Reply
1	Name of the Proponent	M/s J.D. Minerals Shri Rajendra Singh Dafoti.
2	Project Site	Village: Bajeta, Tehsil - Munsyari, District- Pithoragarh
3	Project Site Coordinates	Latitude - 29°56'44.53"N to 29°57'13.58"N Longitude- 80°13'51.75"E to 80°14'08.96"E
4	Type of project	Mining as per Schedule 1(a) of EIA Notification 2006
5	Mine Lease Area	17.967 Ha
6	Project Category as per EIA Notification 2006	B-1
7	New or Ongoing Site	New Site
8	Letter of Intent	Letter of intent has been issued by state government to M/s J.D. MINERALS vide Letter No Vide LOI no. 2248/VII-1/2018/1(13)/18 dated 12.10.2018 for a period of 50 years.
9	Method of Mining	Opencast Mechanized Method
10	Total Mineable Reserve	250614 Tonnes
11	Estimated Quantity	68231tonnes/annum
12	Thickness of soil	0.20m (average thickness)
13	Mining Shall be carried out from	In pit I 30m (from 1468mRL to 1438mRL) in pit II, 18m (From 1420mRL to 1402mRL).
14	Mine area under cluster	Applied area greater than 5.0hactare.
15	Slopes and ultimate face slope	Face slope of benches shall be 70^0 and the ultimate slope will be 38^0
16	No. of Pits(Proposed Exploration)	Two Pits viz Pit-I & II
17	Project Cost/EMP Cost	₹67.34 Lacs ₹10.52 Lacs
18	Corporate Environment Responsibility (CER)	5 % of the project cost
19	Whether any tree felling is involved	No

The SEAC during its meeting held on 6th August, 2021 had undertaken appraisal of the above project. It has been found that the proposal is classified under Category B1 of EIA Notification 2006. The proponent has submitted PFR, EMP and other relevant documents as desired. After due examination of the relevant documents/certificates submitted by the project proponent and additional clarification furnished in response to its observations earlier, SEAC has recommended the grant of Environmental Clearance for the above project, subject to compliance of the EMP and other stipulated conditions. SEIAA during its meeting dated 10th – 11th August, 2021 considered the above proposal based on the recommendation of SEAC. After due examination and deliberation, the **SEIAA Uttarakhand hereby accords Environmental Clearance** for the above project under category B-1 of

EIA notification 2006 (as amended from time to time) subject to the strict compliance with the General, Specific and other conditions mentioned below:-

1- General Conditions

1. The mining/extraction of mineral and progressive mine closure should be done as per the approved mine plan. The mine plan should have validity till the mining period
2. The Proponent will ensure that mine site should have well demarcated safety zone i.e. mining operation will not be carried out in the vicinity of 100 m from nearby bridges, educational institution or structures of historical importance.
3. The project area shall be strictly used for the activities permitted. The workers will be strictly instructed to not to enter in the adjoining forest and not to harm any wildlife and existing vegetation for their various needs. No work shall be carried out after sunset
4. The overall manpower will be restricted to bare minimum. Though mostly local labour will be deployed, but for the essential manpower staying at site, not fuel wood based support will be provided for cooking purpose.
5. Sufficient numbers of dustbins will be provided to labourers for collection of their daily use garbage, Bio-degradable & solid garbage will be collected in separated bins & proper disposal of these garbage will be ascertained.
6. At no stage mining shall be carried out after exhausting extraction of the estimated mineable quantity as stated above.
7. The mining operation would provide local employment and bring economic benefits to local population.
8. The Proponent should provide Eco-friendly toilets for the workforce. The workers shall be directed to use the sanitation facilities provided at project site and instructed not to litter the project site. Sufficient numbers of Bio-Toilets will be provide to workers at safe distance from river flow bed.
9. Wild Animals being sensitive to noise, no project activities shall be carried out at night (sunset to sunrise) time.
10. All workers shall be imparted basic knowledge regarding the Do's and Don'ts of working within Forest Areas.
11. Photography of the proposed mining site (preferably using Drone) should be done and submitted to SEIAA along with half-yearly compliance report.
12. The project proponent shall submit half yearly compliance report of stipulated conditions of Environment Clearance in soft copy through PARIVESH PORTAL given link: **https://parivesh.nic.in.** The compliance report shall also be e mailed to the Regional Office in Dehradun in moef.ddn@gov.in

2- Conditions for operation phase

1. The project proponent should advertise with basic details at least in two widely circulated local newspapers, within seven (7) days of the receipt of the clearance letter informing that the project has been accorded environmental clearance by the State Environment Impact Assessment Authority, Dehradun and a copy of the same be sent to the Regional Office of Ministry of Environment, Forest and Climate Change, Government of India located at 25 Subhash, Road Dehradun.
2. The legal status of the mining lease area shall remain unchanged and the Environment Clearance shall remain co-terminus with lease period. The mined lease area shall not be used for any purpose other than that specified in the proposal.
3. The mining/extraction of soapstone shall not be done without approved mine plan from designated authority. The mine plan should be revised every 5 years and no fresh mine plan shall be prepared without site inspection by designated authority.
4. The boundary of the mined lease area shall be demarcated on ground by erecting pillars, each inscribed with its serial number, DGPS coordinates, forward and back bearing, and distance from adjoining pillars etc. This demarcation will be ensured by the Revenue Department. A bench mark will be established to monitor depth of the mining. A safety zone of 7.5 mt (surrounding the mine site) shall be left free from mining.
5. The mining shall be carried out by open cast mechanized method without adopting drilling and blasting operation. The use of hand held mechanically driven equipment is permitted. The use of any electrically driven machinery shall remain prohibited and only hand held tools shall be used for extraction of the mineral.
6. Soapstone mining shall be carried out during sunrise to sunset period only. It shall not involve felling of trees and clearance of vegetation. There shall be no permanent construction at the site except temporary erection of first aid room, office, store, drinking water shed, rest shelter etc.
7. The process of mining and quantity of extractable mineral and subsequently progressive mine closure shall be as per the approved mine plan. The mining operation shall be carried out from Upper level to Lower level by formation of benching pattern. The maximum height of benches shall not exceed 1.5 mt and ultimate pit slope shall be kept at 38 degrees.

8. The maximum permissible depth for mining of soapstone shall not exceed 6 meters or depth of ground water table whichever is less. During first five years of mining lease the depth of mining shall not exceed 3 meters. Mining beyond 6 meters will be considered after site visit by SEAC.
9. Extraction of minor mineral is permitted from 1st October of every year to 15th June of the subsequent year. It shall be ensured that no mining activity is carried out during the monsoon season. Workers should be advised and protected against flash flood during 1st June to 15th June and 1st Oct to 31st Oct during which there may be rains in the hills.
10. Reclamation of the mine lease area shall be through back filling, stabilization and cultivation. The waste and top soil generated during mining shall be temporarily stacked in external dump which will be subsequently vacated and back filled in mined out pits. The waste generated in the area will be backfilled during rains and land made suitable for cultivation. Back filling shall be done in a retreating manner from Lower level to Upper level. Mining activity and back filling shall be done simultaneously once space is available.
11. No disturbance to natural drainage system around the mining lease area shall be done. No mixing of wastes is allowed. The dump site shall be kept away from the nearby nallahs/water bodies and maintained at a distance of at least 100 meters. The external dump shall be protected against slide/slip by adopting suitable mechanical and vegetative measures. Proponent should construct a retaining wall, along the nallah side, with suitable height to protect soil erosion. The construction of toe wall, check dam and planting of grass species/soil binding dwarf species in dump yard shall be done.
12. The project proponent shall undertake transportation of mineral from pit head to read head manually or by mule. Further it shall strictly adhere to the norms of Transport Department in refraining from use of polluting and less fuel-efficient vehicles for transporting extracted minerals to final destination. There shall be no over loading of vehicles as against standard norms fixed by Central Government/State Government/Hon'ble Courts from time to time.
13. The project proponent shall regulate and maintain record of the quantity of soapstone extracted during a season. The monitoring shall be ensured by Mines Department/District Administration from time to time.
14. There shall be no labour camp in the mining lease area for the labour engaged in mining of soapstone. The labour engaged in mining shall be provided free fuel wood/alternate source of energy to avoid any pressure on adjoining forest land
15. Proponent should submit surface water quality and ambient air quality monitoring report as committed in EMP, with suitable parameters.
16. Under corporate social responsibility proponent should develop community services such as drinking water, education, housing, sanitation, health, safety and medical facilities, public transportation and communication, social welfare etc.
17. The proponent shall erect eco-friendly mobile toilets for the workforce at site and shall ensure disposal of solid waste as per the existing provisions/rules/guidelines.
18. Minimum 18000 plants will be planted in nearby Van Panchayat first and second year followed by their maintenance in the next three years. The species selection shall be site specific and cater to the demand of the Van Panchayat. The Divisional Forest Officer, Pithoragarh shall ensure the compliance. Besides this the proponent shall develop 5 meter wide dense plantation of shrubs around the mining site.
19. The Geology and Mining department shall identify an agency for regular/periodical monitoring of quality of ground water of existing hand pumps and tube wells in the vicinity of the mining site.
20. The project proponent shall formulate a transparent and unbiased procedure for engagement of laborers for sustainable extraction of the minerals from the mining lease area. The project proponent shall ensure that maximum local labour be engaged and hence opportunities of employment be provided. The project proponent shall follow all safety measures for labour force engaged in accordance with relevant Acts/Rules.
21. The project proponent shall prepare the plan of mining in conformity with the mine lease conditions and the Rules prescribed in this regard thereby clearly delineating the 'No Work Zone' in the mine lease area i.e. at least 100 mt distance from Nallahs/Water Bodies, bridges, educational institution or structures of historical importance.
22. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
23. The project proponent shall provide protective respiratory devices to workers working in dusty areas and they shall also be provided with adequate training and information on safety and health aspects. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained.
24. The proponent shall provide eco-friendly mobile toilets for the workforce at site and shall ensure disposal of solid waste as per the existing provisions/rules/guidelines.

25. The project proponent shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project
26. Photography of the proposed mining site as well as the plantation sites undertaken by the project proponent showing GPS coordinates should be done (preferably using Drone) and submitted to SEIAA and regional office of MoEF&CC, Govt of India at Dehradun along with half-yearly compliance report.
27. Project proponent will strictly comply with EMP/EIA.
28. Project proponent will have to submit EMP/EIA report to Mining Department (Lessee) and Pollution Control Board before getting work order/Consent to Established or Operate.
29. The project proponent shall submit half yearly compliance report of stipulated conditions of Environment Clearance in soft copy through PARIVESH PORTAL given link: **https://parivesh.nic.in.**

3- **Entire Operation**

1) The Environmental Clearance is being granted for mining/extraction of Soapstone in the approved Mine Lease Area. Legal status of the mining lease area shall remain unchanged and the Environmental Clearance is being granted only for the lease period. The mined lease area shall not be used for any purpose other than that specified in the proposal.
2) The maximum permissible depth for mining of Soapstone shall not exceed 6 meter or depth of ground water table whichever is less. During first five years of mining lease the depth of mining shall not exceed 3 meters. Mining beyond 6 meters shall be granted after site visit by SEAC. However, Authority may also visit the site in operational phase, whenever it is found to be necessary.
3) Reclamation of the mine lease area shall be through back filling, stabilization and cultivation. The waste and top soil generated during mining shall be temporarily stacked in external dump which will be subsequently vacated and back filled in mined out pits. The waste generated in the area will be backfilled during rains and land made suitable for cultivation. Back filling shall be done in a retreating manner from Lower level to Upper level. Mining activity and back filling shall be done simultaneously once space is available.
4) The dump site shall be kept away from the nearby nallahs/water bodies and maintained at a distance of at least 100 meters. The external dump shall be protected against slide/slip by adopting suitable mechanical and vegetative measures. The construction of toe wall, check dam and planting of grass species/soil binding dwarf species in dump yard shall be done as given in mining plan.
5) The project proponent shall undertake transportation of mineral from pit head to road head manually or by mule. Further it shall strictly adhere to the norms of Transport Department in refraining from use of polluting and less fuel-efficient vehicles for transporting extracted minerals to final destination. There shall be no over loading of vehicles as against standard norms fixed by Central Government/State Government/Hon'ble Courts from time to time.
6) The project proponent shall regulate and maintain record of the quantity of Soapstone extracted during a season. The monitoring shall be ensured by Mines Department/District Administration from time to time.
7) There shall be no labour camp in the mining lease area for the labour engaged in mining of Soapstone. The labour engaged in mining shall be provided free fuel wood/alternate source of energy to avoid any pressure on adjoining forest land.
8) The project proponent shall formulate a transparent and unbiased procedure for engagement of labourers for sus0tainable extraction of the minerals from the mining lease area. The project proponent shall ensure that maximum local labour be engaged and hence employment opportunity provided. The project proponent shall follow all safety measures for labour force engaged in accordance with relevant Acts/Rules.
9) Under CER, Project Proponent apart from other activities, will also install Solar lights and distribute forest fire fighting equipments to the local groups (Mahilamangal dal/Yuvakmangal dal/Vanpanchayat) in the adjoining villages close to forest areas in consultation with local Forest Officials.
10) The project proponent shall provide protective respiratory devices to workers working in dusty areas and they shall also be provided with adequate training and information on safety and health aspects. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained.
11) The project proponent shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.
12) The above environmental safeguards shall be implemented in letter and spirit. The project proponent shall establishEnvironment Monitoring Cell and also submit six monthly compliance reports to this Authority and regional office of MoEF&CC, Govt of India at Dehradun.
13) The SEIAA reserves the right to include additional safeguard measures if found necessary and also to take action including revoking of the EC granted under provision of EIA Notification 2006. This EC is being granted subject to compliance of Hon'ble Court Orders issued from time to time.

14) Any appeal against this Environment Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under relevant section of the National Green Tribunal Act, 2010.
15) If it is found that if conditions laid down by the Authority are violated, the Authority may suspend or cancel this Environmental Clearance.

4- Specific Conditions:- (To be followed by Director Industry, Geology and Mining Unit, Govt. of Uttarakhand).

1- Mining and Geology department of the State Government should recalculate the maximum production levels and inform the Authority accordingly.
2- A study shall be carried out at least in over a year through mines and geology department to avoid over exploitation of mineral, which may adversely affect the dynamics of site. A copy of said study report shall be submitted to the Regional Office of the Ministry of Environment, Forest and Climate Change at Dehradun and SEIAA, Uttarakhand.
3- The Geology and Mining unit of Industry Department shall identify an agency for regular/periodical monitoring of quality of ground water of existing hand pumps and tube wells in the vicinity of the mining site.
4- Digital processing of the entire lease area using remote sensing technique should be done by Geology and Mining department regularly and report should be submitted to the Ministry of Environment and Forests, Regional office at Dehradun and SEIAA, Uttarakhand.

In view of the COVID-19 scenario, social distancing at work-place shall be maintained, and such other conditions and safeguard shall be ensured as directed by Government of India, Government of Uttarakhand and concerned District Magistrate from time to time.

Your's Faithfully

(Sushanta Kumar Pattnaik)
Member Secretary,
SEIAA, Uttarakhand

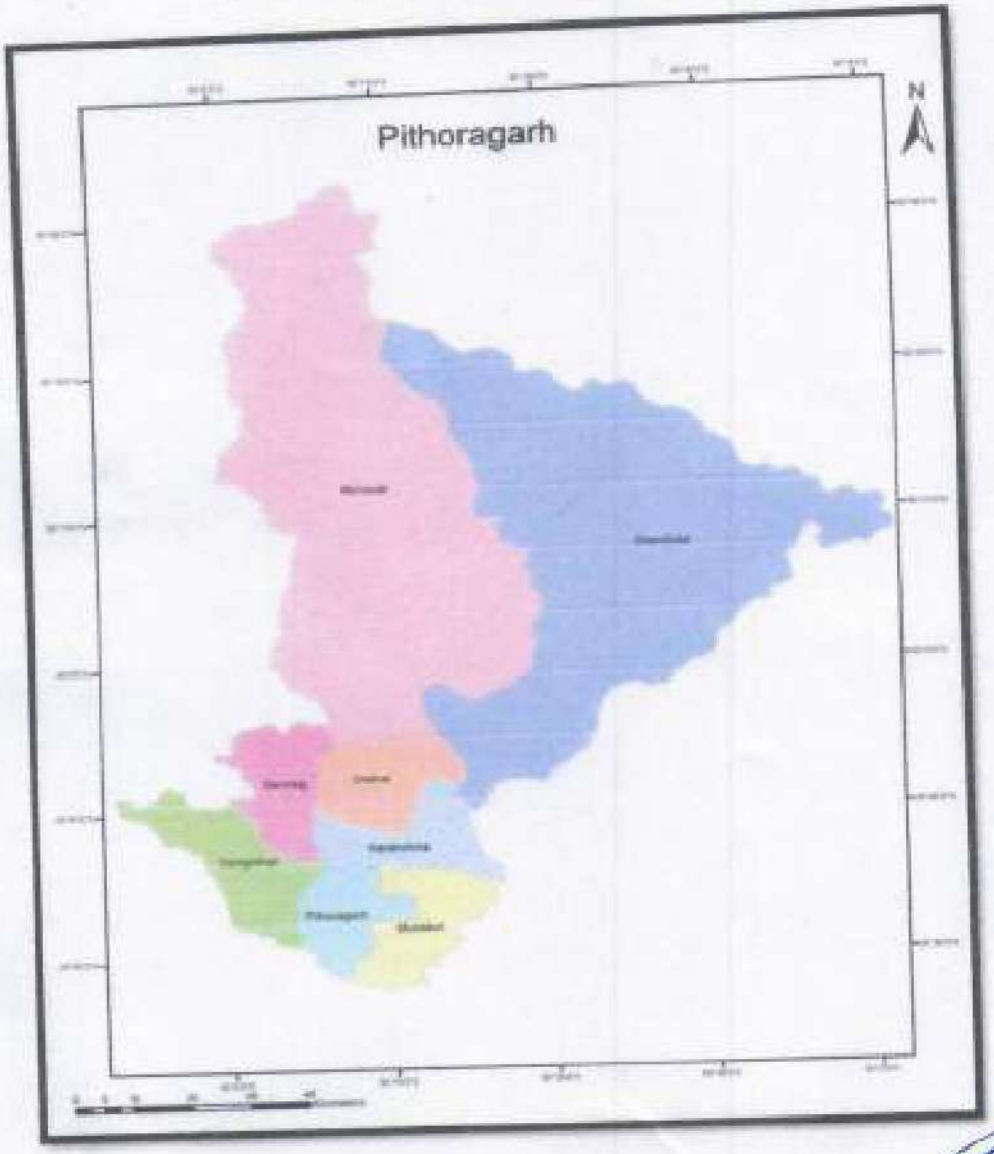
No - 266 01(83)/2019 dated- as above
Copy for information and necessary action to-

1. APCCF, Regional office (Central) MoEFCC Govt of India, 25 Subhash Road, Dehradun.
2. Additional Chief Secretary, Forests & Environment, Government of Uttarakhand, Dehradun.
3. Director Industries, Geology & Mining Unit Govt of Uttarakhand Dehradun
4. District Magistrate, Pithoragarh.
5. Member Secretary, UEPPCB, IT Park Dehradun.
6. Divisional Forest Officer, Pithoragarh.
7. Guard File for uploading in Parivesh Website.

(Sushanta Kumar Pattnaik)
Member Secretary,
SEIAA, Uttarakhand

ANNEXURE: R5/7

DISTRICT SURVEY REPORT
(SOAPSTONE)
OF
DISTRICT PITHORAGARH
UTTARAKHAND



GEOLOGY & MINING UNIT,
DIRECTORATE OF INDUSTRY UTTARAKHAND

2023

In compliance of Ministry of Environment, Forest and Climate Change
Govt. of India Notification, Dated 15th January 2016,

सहनिदेशक / भूवैज्ञानिक
भूतत्व एवं खनिकर्म इकाई
जिला टास्क फोर्स पिथौरागढ़

PREFACE:-

The District survey report of Soapstone and other minor minerals is prepared in compliance to the appendix10 of the Notification issued by the Ministry of Environment, Forest and Climate Change, Dated 25th July, 2018. Efforts have been made to cover mining locations and prepare an overview of Mining activity in the district with all its relevant features pertaining to geology & mineral wealth. The report will be a model and guiding document which is a compendium of available mineral resources, geographical set up, environmental and ecological set up of the District and is based on data of various departments, published reports and government websites. The datasets may vary due to hindrance in themining activity, as an effect of the extreme climatic conditions, natural calamities, or other reasons. Therefore, it is recommended that Sub-Divisional Level Committee may take into consideration all its relevant aspects / data while scrutinizing and recommending the application for EC to the concerned Authority.

उपनिदेशक / भूवैज्ञानिक
भूतत्व एवं खनिकर्म इकाई
जिला डाक्क फोर्ट पिथौरागढ़

1.0 INTRODUCTION:-

Pithoragarh district is the easternmost Himalayan district in the state of Uttarakhand, India. It is naturally landscaped with high Himalayan mountains, snow-capped peaks, passes, valleys, alpine meadows, forests, waterfalls, perennial rivers, glaciers, and springs. The flora and fauna of the area have rich ecological diversity. Pithoragarh has many temples and ruined forts from the once flourishingreign of the warrior Chand Kingdom. "The district is named after its headquarters town, Pithoragarh. Tradition has it that during the reign of the Chand Rajas of Kumaon, one Piru, also called Prithvi Gosain, built a fort here and named it Pithoragarh which, in the course of time, got changed into Pithoragarh.

The geographical area of the district is 7,110 km2 (2,750 sq mi). At the 2011 census, the total population of the district was 485,993. The total literacy rate was 82.93 percent. Pithoragarh town, which is located in Saur Valley, is its headquarters. The district is within the Kumaon division of Uttarakhand state. The Tibet plateau is situated to the north and Nepal is to the east. The Kali River originates from Kalapani and flows south, forming the eastern border with Nepal. The Hindu pilgrimage route for Mount Kailash-Lake Manasarovar passes through this district via Lipulekh Pass inthe greater Himalayas. The district is administratively dividedin to six tehsils Munsiyari; Dharchula, Didihat, Berinag, Gangolihat, and Pithoragarh and new Tehsils are Thal, Devalthal, Kanalicheena, Tezam, Bangapani and ganai gangoli. Naini Saini Airport is the nearest civil airport, but it does not have regular scheduled commercial passenger service. The mineral deposits present in the district are magnesium ore, copper ore, limestone, soap stone and slate.

The Pithoragarh town is located at a height of 1645 meters above sea level. The district lies between 29.4° to 30.3° North latitude and 80° to 81° East longitude along the eastern and southern part of the central Himalayas with Indo-Tibbetan watershed divide in the north and the Kali river forming a continuous border with Nepal in the east. The Pithoragarh district is surrounded by the national boundaries of Almora, Champawat, Bageshwar and Chamoli districts and extends over an area of 7,217.7 sq. Kms. The details of the land utilization are given as below:

There are numerous gay spots to which the prospective tourist may plan excursions like Chandak, Thal Kedar, Gangolihat (77 kms) famous for its kali temple, Patal Bhuvneshwar (99 kms), Berinag (Tea Garden of Chaukori - 11 km away from Berinag), Didihat, Munsyari (base camp for traks to Milam,Ralam and Namik Glacier), Dharchula (base camp for Kailas Mansarover Yatra, Adi Kailash Yatra, Narayan Swami Ashram) and Jauljibi.

1.1 Education:-

Schools in Pithoragarh are run by the state government or private organisations, many of which are

religious. Hindi and English are the primary languages of instruction. Schools in Pithoragarh follow the "10+2+3" plan. After completing their secondary education, students typically enroll in Inter Colleges that have a higher secondary facility and are affiliated with the ICSE, the CBSE or the Department of Education of the Government of Uttarakhand. They usually choose a focus on liberal arts, business, or science.

As of 2011, Pithoragarh has a total of 17 Primary Shools, 20 middle schools, 22 secondary schools, 14 senior secondary schools and 01 degree college. Before independence, during the middle ofnineteenth century when Pithoragarh was part of Almora, there were only two middle schools in Pithoragarh.LSM Govt. Post Graduate College is the only government in the town college providing studies upto post-Graduation. It is affiliated to Kumaun University, Nainital. With the growing impact of I.T. government opened SIT pithoragarh in 2011. Almost a dozen of privately owned Computer Centre opened up later in the town.

1.2 Languages:-

Kumaoni, with its numerous variations, is the most widely spoken language. The language is written in Devanagari script. The Bhotiya tribe speak a dialect called Beyansi (also known as Bhotia or Hunia), which is a language of the Tibeto-Burman family. The Van Rawat tribe speaks theirown unique Kumaoni variant. There are several Sino-Tibetan languages of the West Himalayas branch are spoken in Pithoragarh district. These include the Rawat language, Dharmani language, Chaudansi language, and Byansi language. The Rangas language was formerly spoken in Pithoragarh district and is now extinct.

1.3 Glaciers of Pithoragarh:-

Locally, glaciers are known as Gal. Some important glaciers of the district are as follows:-

• Milam Glacier • Namik Glacier • Ralam Glacier • Meola Glacier • Dhauli Glacier • Kali Glacier	• Sona Glacier • Panchchuli Glacier • Balati Glacier • Shipu Glacier • Rula Glacier • Kuti Glacier	• Kalabaland Glacier • Lawan Glacier • Bamlas Glacier • Baldunga Glacier • Sobla Tejam Glacier • Yangti Basin Glacier	• Poting Glacier • Talkot Glacier • Sankalpa Glacier • Lassar Glacier • Dhauli Glacier • Baling Golfu Glacier

1.4 Valleys of Pithoragarh:-

Darma valley	Kali valley	Lassar Yangti valley	Kuthi Yangti valley	Kalabaland valley	Chaudans valley

Goriganga valley	Kuthi valley	Ralam valley	Johar Valley	Byans valley	Saur valley

1.5 Waterfalls of Pithoragarh:-

1- Lim Bagudiyar Fall, 2- Birthi Fall, 3- Pilsitti Fall, 4- Garaun Fall.

1.6 Location Map of Pithoragarh District

2.0 OVERVIEW OF MINING ACTIVITY:-

Soap stone (Talc) is a hydrous magnesium silicate. In trade, talc often includes:

(i) The mineral talc in the form of flakes and fibres.

(ii) Steatite, the massive compact cryptocrystalline variety of high-grade talc.

Soapstone, the massive Talcose rock containing variable talc (usually 50%), soft and soapy to feel. Commercial talc may contain other minerals like quartz, calcite, dolomite, magnesite, serpentine, chlorite, tremolite and anthophyllite as impurities. Talc, in pulverized form, is mostly used as a filler in paper, textile, rubber, insecticides and fertilizer industries. Pure talc after calcining, called 'Lava' is

used in the manufacture of low-loss ceramic materials essential for radio, radar, television, etc. In roofing products, such as tar. paper, asphalt shingles and roll roofing, talc acts as a fire retardant and increases weather resistance. Body and face powders (talcum powder) are prepared from the finest quality talc after adding deodorant and perfumes. In District only use semi mechanized mines process for separate of overburden

3.0 GENERAL PROFILE OF THE DISTRICT:-

S. No	Particular	Year	Unit	Statistics
	GEOGRAPHICALFEATURES			
(A)	**Geographical Data**			
	(i) Latitude			29.4° to 30.3°
	(ii) Longitude			80.0° to 81.0°
	(iii) Geographical Area		KM^2	7090
(B)	**Administrative Units**			
	(i) Subdivisions	2016-17	Nos.	08
	(ii) Tehsils	2016-17	Nos.	12
	(iii) Sub-Tehsil	2016-17	Nos.	01
	(iv) Patwar Circle	2016-17	Nos.	150
	(v) Panchayat Simitis	2016-17	Nos.	03
	(vi) Nagarnigam	2016-17	Nos.	---
	(vii) Nagar Palika	2016-17	Nos.	03
	(viii) Nagar Panchyat	2016-17	Nos.	02
	(ix) Gram Panchayats	2016-17	Nos.	690
	(x) Revenue villages	2016-17	Nos.	1608
	(xi) Police Station	2016-17	Nos.	16
	(xii) Assembly Area	2016-17	Nos.	04
(A)	Total Population	2011	Nos.	

(B)	Sex-wise			
	(i) Male	2011	Nos.	239306
	(ii) Female	2011		244133
(C)	Rural Population	2011	Nos.	399467
	AGRICULTURE			
A.	Land utilization			
	(i) Total Area	2015-16	Hectare	746734
	(ii) Forest cover	2015-16	"	540150
	(iii) Non Agriculture Land	2015-16	"	8767
	(iii) Cultivable Barren land	2015-16	"	35092
	FOREST			
	(i) Reserve Forest	2016-17	Km^2	205239
	(iv) Forest Deptt. forest	2016-17	Km^2	755.83
	(iii) Van Panchyat	2016-17	Km^2	2771.75
	(iv) Protect Forest	2016-17	Km^2	4633.74
	(v) Private Forest	2016-17	Km^2	11.93
	LIVESTOCK&POULTRY			
A.	**Cattle**			
	(i) Cows (Female)	2012	Nos.	135689
	(ii) Bull (male)	2012	Nos.	66415
	(ii) Buffaloes	2012	Nos.	50006
	(iv) Yak	2012	Nos.	32
	OTHERLIVE STOCK			
B.	(i) Goats	2012	Nos.	201240
	(ii) Sheeps	2012	Nos.	47336
	(iii) Horse and Ponies	2012	Nos.	1417

	(iv) Mules	2012	Nos.	2750
	(v) Donkeys	2012	Nos.	52
	(vi) Pigs	2012	Nos.	230
	(vii) Poultry	2012	Nos.	40726
	(viii) Ducks	2012	Nos.	72
	(ix) Other Poultry Birds	2012	Nos.	00
	(x) Dogs & Bitches others	2012	Nos.	18806
	(xi) Rabbits	2012	Nos.	1210
	RAILWAYS			
	(i) Length of rail line	2010-11	Kms	No.
	ROADS			
	(a) National Highway	2016-17	Kms	150.00
	(b) State Highway	2016-17	Kms	372.23
	(c) Main District Highway	2016-17	Kms	229.86
	(d) Other district & Rural Roads	2016-17	Kms	109.15
	(e) Rural road/Agriculture Roads	2016-17	Kms	1291.13
	(f) Kachacha Road	2016-17	Kms	73.05
	COMMUNICATION			
	(a) Telephone Connection	2016-17	Nos.	3398
	(b) Post offices	2016-17	Nos.	323
	(c) Telephone Centre	2016-17	Nos.	26
	(d) PCO Rural	2016-17	Nos.	34
	(e) Mobile	2017-17	Nos.	27000
	PUBLIC HEALTH			
	(a) Allopathic Hospital	2019-20	No.	05

(b) Beds in Allopathic Hospital	2019-20	No.	586
(c) Ayurvedic Hospital	2019-20	No.	--
(d) Homeopathic Hospital	2019-20	No.	11
(e) Community health centers	2019-20	No.	07
(f) Primary/ Additional Primaryhealth centers	2019-20	No.	17
(g) Dispensaries	2019-20	No.	33
(h) Sub Health Centers	2019-20	No.	156
(i) Joint Hospital	2019-20	No.	01
(j) Private Hospital	2019-20	No.	---
BANKING COMMERCIAL			
(a) National Bank	2016-17	No.	53
(b) Commercial Bank	2016-17	No.	53
(c) Rural Bank	2016-17	No.	80
(d) Co- Operative Bank	2016-17	No.	18
(e) Regional Rural Bank	2016-17	No.	30
EDUCATION			
(a) Primary school	2016-17	Nos.	1380
(b) Middle schools	2016-17	Nos.	350
(c) Secondary & senior secondary schools	2016-17	Nos.	267
Total Student	2016-17	Nos.	148290
Total Teacher	2016-17	Nos.	7267
(d) Colleges	2016-17	Nos.	07
Total Student	2016-17	Nos.	9471
Total Teacher	2016-17	Nos.	145
(e) Technical University	—	Nos.	—

TOURISM			
(a) Main Tourist Place	2018-19	Nos.	08
(b) Tourist Rest House	2018-19	Nos.	10
(c) Ren Basera	2018-19	Nos.	00
(d) Hotels and Guest House	2018-19	Nos.	130
(e) Home Stay	2018-19	Nos.	141

Physiography of the District:-

District Pithoragarh, is represented by highly rugged topography. The elevation in thearea ranges from 500 to 6400m amsl. The geographical area of the district is 7,110 km2 (2,750 sq mi). At the 2011 census, the total population of the district was 485,993. The total literacy rate was 82.93 percent. Pithoragarh town, which is located in Saur Valley, is its headquarters. The district is within the Kumaon division of Uttarakhand state. The Tibet plateau is situated to the north and Nepal is to the east. The Kali River originates from Kalapaani and flows south, forming the eastern border with Nepal. The Hindu pilgrimage route for Mount Kailash-Lake Manasarovar passes through this district via Lipulekh Pass in the greater Himalayas.

4.0 Geology of the District:-

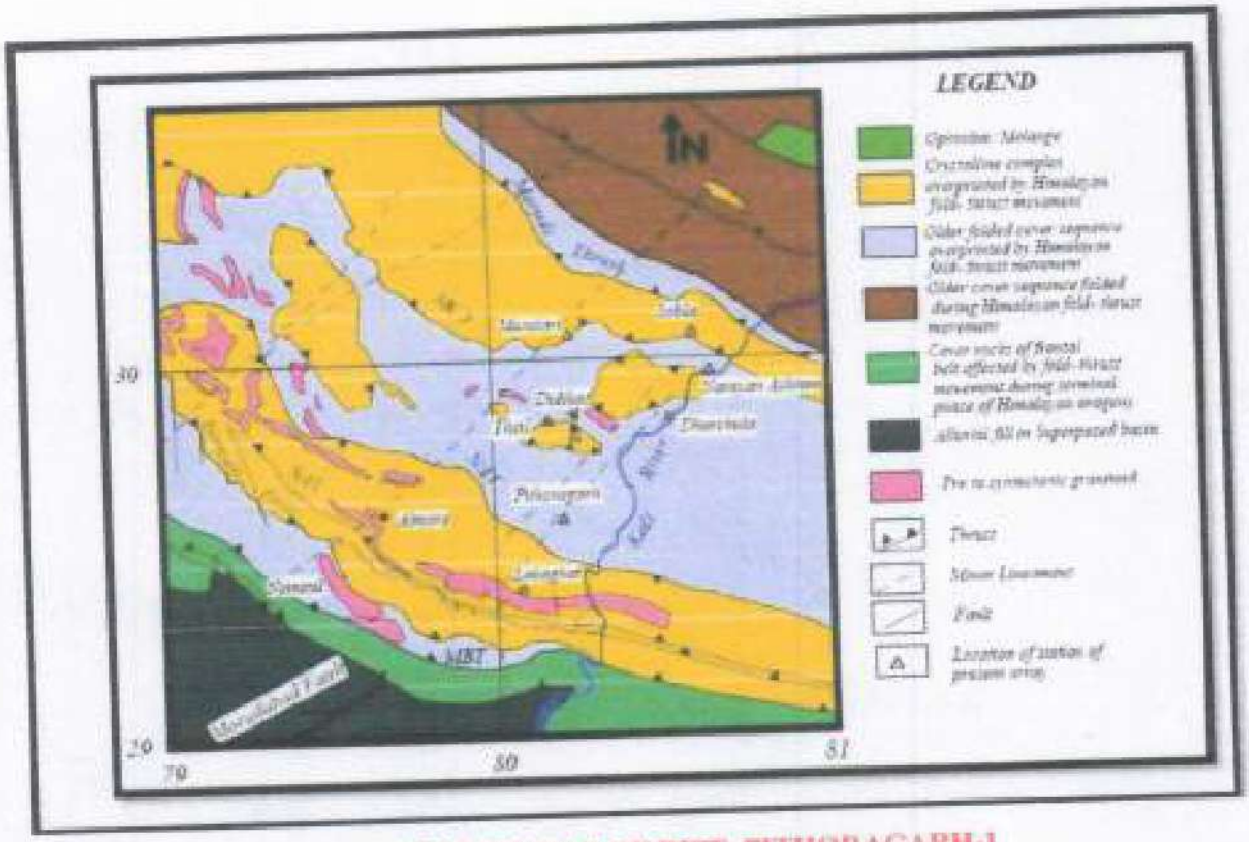
The Kumaon Himalaya, lying between the Kali River in the east and Sutlej in the west, include a stretch of 320 km. of mountainous terrain. Kumaun is one of the two regions and administrative divisions of Uttarakhand, a mountainous state of northern India, the other being Garhwal. It includes the districts of Almora, Bageshwar, Champawat, Nainital, Pithoragarh, and Udham Singh Nagar. It is bounded on the north by Tibet, on the east by Nepal, on the south by the state of Uttar Pradesh, and on the west by the Garhwal region.

The lesser or Lower Himalaya is limited by the Main Boundary Thrust (MBT) to its south and MCT to its north and consists of the late Proterozoic to early Cambrian sediments intruded by some granites and acid volcanic (Valdiya 1980; Srikantia and Bhargava1982). It mainly comprises the marine sequences of late Proterozoic to early Cambrian age and some sedimentary record of transgressing shallow sea during Permian and late Cretaceous to early Eocene periods. The predominant rock types are quartzite's, siltstone, shale and carbonates. There are zone of Phyllite, schist with subordinate impure marbles, metamorphosed mafic rocks and Augenorthogenesis (Valdiya 1980). The MBT separates the northern Lesser Himalayan sediments (hanging wall) from the sediments of the sub-Himalaya (footwall) to the south.

In spite of a lot of good work by many generations of geologists in the Lesser Kumaon Himalaya, many structural and stratigraphic interpretations remain inadequate because of the meagre fossil record. Geological correlation is based almost entirely on stratigraphic evidence. Most workers postulate the existence of regional inversion of sedimentary sequences in the form of two elongated tectonic belts of sedimentary/ metasedimentary rocks separated by an ENE-WSW trending zone of metamorphic rocks – the Almora-Dudhatoli Crystalline Zone. The southern sedimentary belt which occurs south of the Almora-Dudhatoli Crystalline and is called the Outer Sedimentary Belt. The northern sedimentary belt occurring north of the Crystalline is the Inner Sedimentary Belt, which has also been referred to as the Deoban-Tejam Zone (Gansser 1964) or the Jaunsar-Berinag Nappe (Valdiya 1978). The Crystalline zone representing the divide between the two sedimentary belts constituting the Kumaon Lesser Himalaya is itself an inverted sequence of low to very high grade older metamorphic thrust over the younger sedimentaries from the Central Axial Crystalline Zone during the main Himalayan orogeny.

Regional Geology:

The proposed mining area regionally belonges to Lesser Himalayan zone bounded by MCT in the north and by North Almora Thrust in the south. The Lesser Himalaya consists of the sediments of the Precambrian Palaeozoic and locally Mesozoic age, metamorphosed and subdivided by the thrusts with progressively older rocks towards the north. The Pithoragarh region has the exposures of an extensive sedimentary belt including an outer Krol belt and an inner Tejam-Pithoragarh belt. It consists of a thick sequence of argillo-calcareous and arenaceous sediments constituting the Garhwal super group. The Garhwal super group is divisible into three Groups i.e. the lower argillo-calacareous Tejam Group, middle predominantly arenaceous Berinag Group and the upper metamorphites of the Didihat Group.



GEOLGY MAP OF DIST. PITHORAGARH-1

The area forms the part of Calc Zone of Tejam. The stratigraphical sequence of the region asper monumental work (Geology of Lesser Himalayas; 1980 of Prof. K.S. Valdiya is as below:-

Berinag Quartzite

.....Unconformity....

Devban/Gangolihat Formation,

Lithologically major as Dolomite, Dolomitic limestone, Limestone, Megnesite etc

Sor Slates,

Lithologically major as Shale, Slate, Phyllites

RAMESHWAR FORMATION:

The oldest rock unit of this belt is termed the Rameshwar Formation (Ahmad 1978) and consists of slate, siltstone, greywacke, protoquartzite, limestone and phyllite. This formation is correlated with the Rautgara Quartzites (Valdiya 1964) and Hatsila Formation (Misra and Bhattacharya 1972).

PITHORAGARH FORMATION:

The Pithoragarh Formation, overlying the Rameshwar Formation include stromatolite bearing dolomitic limestone with magnesite, talc, chert, pebble beds with some slate and calcareous slates. Three rock units constitute the Pithoragarh Formation namely thalkedar limestone, sor slates and massive gangolihat dolomites.

THALKEDAR LIMESTONE:-

The Thalkedar Limestone constituting the lowermost unit consists of thinly bedded limestone with minor grey shale/slate.

SOR SLATES:-

The Sor Slates overlying this unit consist of grey slate and shale with minor dolomitic bands.

GANGOLIHAT DOLOMITE:-

The topmost unit of the Pithoragarh Formation is the massive Gangolihat Dolomites with stromatolites. These are, in places, phosphatic, and are interbedded with magnesite and talc schists. This zone is apparently the same as the main calcareous unit of the Calc Zone of Pithoragarh (Valdiya 1962; Valdiya 1969), the Calc Zone of Tejam (Heim and Gansser 1939; Gansser 1964), and the Kotaga Banali of Saklani (1971, 1978), as well as the Doya Dolomite (Misra and Bhattacharya, 1972) of Pugar valley and the Jhatkwali Formation.

KANALICHINA FORMATION:

This formation is characterized by the phyllite with interbedded arenaceous and calcareous bands with an approximate 960m thickness. These rocks are the same as, or directly correlatable with the Sailing formation (Bhattacharya 1980) of the Pithoragarh district and the Betalghat Formation (Raina and Dungrakoti 1975) of the Bhimtal-Bhowali area in Nainital district (Farooq 1985).

BERINAG FORMATION

The Berinag Formation constituting the topmost horizon of the Inner Sedimentary Belt is seen surrounding the crystalline masses of the Almora, Askote, and Baijnath units. The rock types consist of fine to coarse grained massive quartzite, often sericitic and schistose, with pebble beds, chlorite beds, and interbedded metabasites. (Sharma and Kumar 1978) has correlated the Berinag Formation with the Kaimur Formation of Upper Vindhyans. The rock formations constituting the Inner Sedimentary Belt have been tightly folded into a few E-W to ESE-WNW trending folds. At places there is strong evidence of thrusting and dislocation by a number of faults. Based on field evidences, some workers (Valdiya 1962; Valdiya 1964; Misra and Kumar 1968; Valdiya 1969; Saklani 1971; Misra and Bhattacharya 1972) are of the opinion that a thrust plane separates the Berinag Formation from the underlying units, and that this sedimentary sequence is inverted. Other workers (Heim and Gansser, 1939; Gansser, 1964; Mehdi et al., 1972; Banerjee and Bisaria,

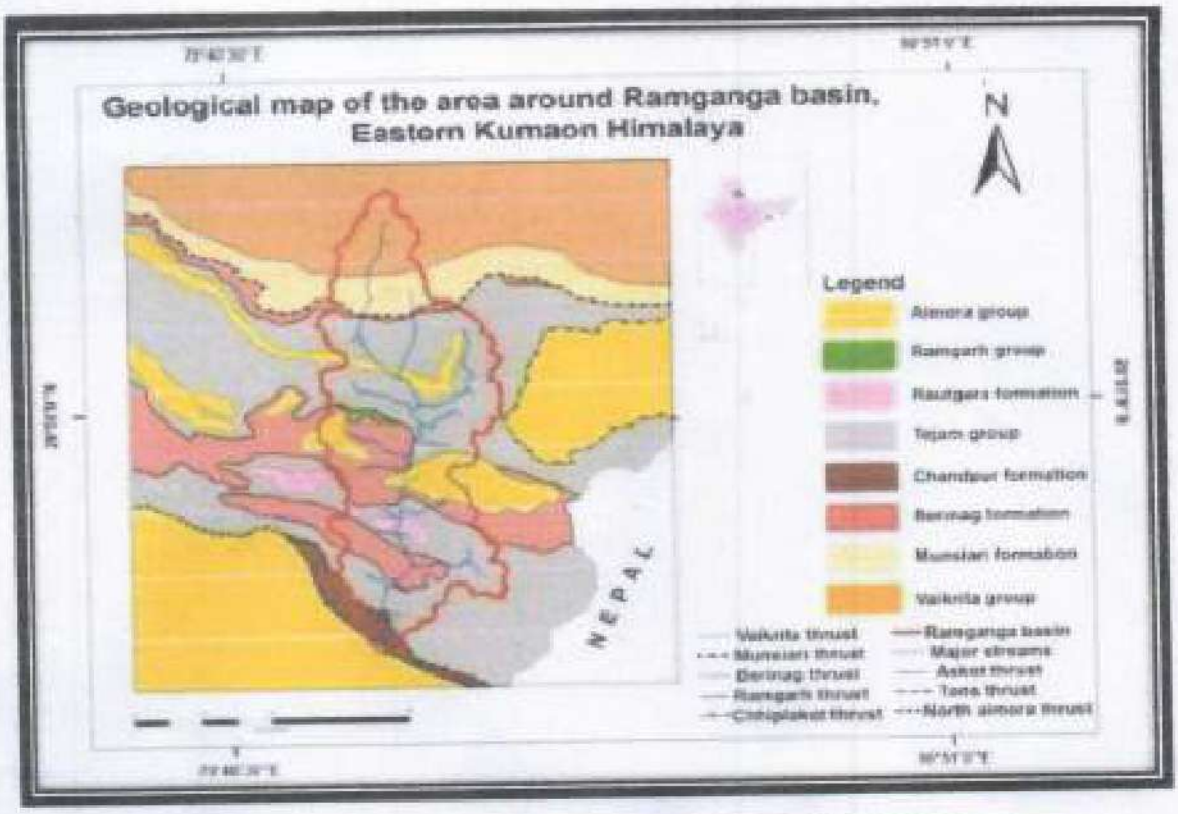
1975; Kumar, 1978; and Bhattacharya, 1980) maintain that the entire sedimentary pile is in a normal position except for locally inverted sequences.

ALMORA-DUDHATOLI AND RELATED CRYSTALLINES

One of the most prominent and typical feature, occurring in the Kumaon and Garhwal Himalaya is the presence of the Crystallines rocks in the form of nappe and klippe. These are Askot crystallines, Chiplakot crystallines, Baijnath crystallines, Satpuli crystallines and the biggest among them Almora Dudhatoli Crystallines. Naming of these crystallines is based on the local name. There are two opinions regarding the crystalline occurrence in the lower Himalaya. One group of researchers (Heim and Gansser 1939; Gansser 1964; Ghose, Chakraborti et al. 1974; Misra and Bhattacharya 1976; Bhanot, Pandey et al. 1977) believe that these crystalline are the remnant of the Central Axial Crystallines Zone of the Higher Himalaya, which were pushed southwards over the younger sedimentaries of the Lesser Himalayas in the past orogenic movement. Another group of researchers (Misra and Sharma 1972; Misra, Sharma et al. 1973; Saxena 1974; Saxena and Rao 1975; Bhattacharya 1980) believe that these crystallines are not the remnant of the Higher Himalaya instead these are autochthonous in nature with their root zone in the North Almora thrust. The Central Crystalline Zone of the Greater Himalaya can, in a generalized way, be described to be the representative of basement rocks in the Himalayan domain. Typically, the foliation of these massive pile of metamorphic rocks show moderate dips northwards (Bhattacharya 2008).

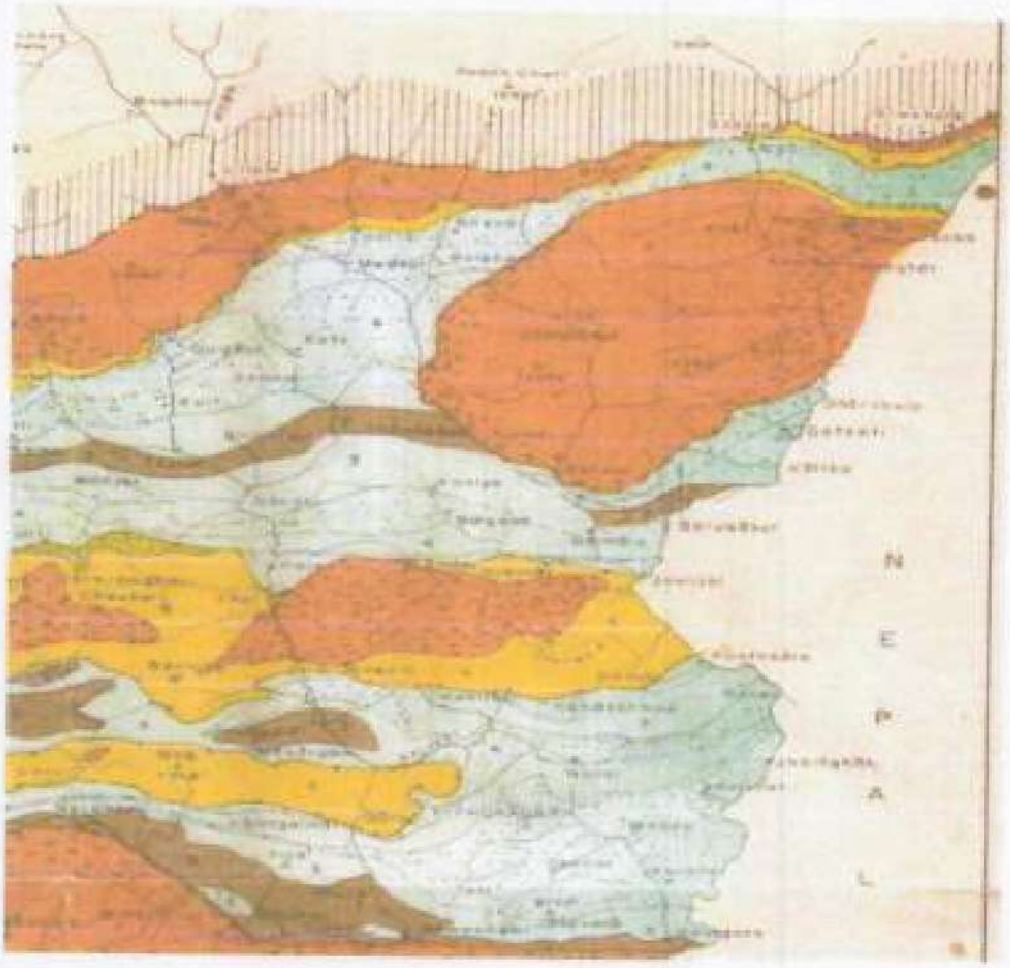
TETHYS SEDIMENTS:-

The Tethys Himalayan sedimentary zone is one of the major tectonic domains within the Himalayan orogen. The Tethys Himalaya contains a complete record of fossiliferous sediments from Cambrian to Tertiary. The nature of the Tethyan Fault is described differently by different workers. The contact with the overlying metasedimentary and sedimentary sequence of rocks was earlier described as either conformable or as thrust, at different places () but now it is described as a normal fault (Gansser 1964; Herren 1987).



GEOLOGICAL MAP OF PITHORAGARH DISTRICT-2

GEOLOGICAL MAP OF PITHORAGARH DISTRICT-3



GEOLOGICAL MAP OF PITHORAGARH DISTRICT-4

5.0 DRAINAGE OR IRRIGATION PATTERN

Surface Drainage Pattern

Saryu River, Kali Ganga River, Ramganga River, Gori Ganga, Dhauli Ganga River and their tributaries drain the district. Prominent of the tributaries are Mandakni River, Simkhola River, and many nalas and gaderas in uphill direction of rivers. The main drainage patterns are dendritic, sub-dendritic, trellis, sub-rectangular and rectangular. The major rivers i.e. Saryu River, Kali Ganga River, Ramganga River, Gori Ganga, Dhauli Ganga River are of antecedent type; where as the drainage in the structurally disturbed area is of subsequent type.

Name of River	Tehsil
Saryu River	Gangolihat/Pithoragarh
Kali Ganga River	Didihat/Dharchula
Ramganga River	Thal/Gangolihat/Pithoragarh
Gori Ganga River	Bangapani
Dhauli Ganga River	Dhrchula
Gurji Gad	Didihat

SALIENT FEATURE OF IMPORTANT RIVERS AND STREAMS

S. No.	Name of the River or Stream	Total Length inthe District (in Km) Tentative Distance	Place of origin	Altitude at Origin (m)
1	Saryu River	150-160	Sarmal, 15 km southof Nandakot	3000
2	Kali Ganga River	252	Kala Pani	3600
3	Ramganga River	200-230	Namik Glacier	3600
4	Gori Ganga River	190-200	Milam Glacier	5500
5	Dhauli Ganga River	80-90	Dhauli Glacier	5945

6.0 Land Utilization Pattern in the District: Forest, Agricultural, Horticultural, Mining, etc.

Districts wise land use pattern of Uttarakhand

Source: Statistical hand book, Uttarakhand, 2008-2007 and Pargain, 2010

Districts	Reporte darea	Land use Categories (area in %)								
	(Ha.)	Forest land	Uncultivable	Other than	Cultivabl ewaste land	Pasture land	Tree, bushes	Curre nt	Other fellow	Net Sown Area
Uttarkashi	812415	88.39	4.63	0.64	0.28	1.01	0.53	0.47	0.69	3.36
Chamoli	837580	60.42	18.93	0.95	5.74	4.75	4.83	0.11	0.11	4.16

Tehri	485766	66.29	1.12	1.09	10.08	0.12	0.06	7.45	1.18	12.61
Dehradun	368993	54.7	0.99	5.91	7.35	0	14.1	2.09	2.07	12.79
Pauri	671852	57.31	5.33	2.3	5.57	5.23	8.34	1.16	2.71	12.05
Rudraprayag	235421	76.41	3.08	1.27	3.4	1.82	4.92	0.29	0	8.81
Haridwar	231116	31.33	1.07	11.53	0.89	0.16	0.23	1.12	1.68	51.99
Pithoragarh	**410692**	**49.98**	**5.07**	**2.45**	**9.48**	**12.98**	**6.94**	**0.33**	**1.06**	**11.71**
Almora	465858	50.7	5.51	2.17	9.1	6.33	5.84	0.94	1.67	17.74
Nainital	406333	73.42	0.06	2.28	6.57	0.11	4.38	0.98	0.74	11.46
U S Nagar	281070	33.35	0.35	8.99	1.16	0.08	0.44	0.89	1.02	53.72
Bageshwar	238378	55.51	2.27	1.97	6.39	8.02	11.13	1.22	2.84	10.65
Champawat	227311	58.21	3.54	2.07	7.42	8.39	0.09	10	1.23	9.05
Uttarakhand	**5672785**	**61.47**	**5.5**	**2.68**	**6.79**	**3.73**	**4.38**	**0.73**	**1.2**	**13.52**

7.0 SURFACE WATER AND GROUND WATER SCENARIO OF THE DISTRICT.

GROUND WATER SCENARIO

The district Pithoragarh is mainly occupied by Himalayan Mountain ranges. Around 50% of the area is perennially covered under snow. Hence there is no scope of ground water development in the area. However, at lower reaches, there is scope of ground water development through hand pumps. For this, hydro geological investigation is required at micro level so as to decipher the rock formation, which has sufficient secondary porosity like joints, fractures, lineaments etc. These discontinuous aquifers along with favorable physiographical set-up can help to develop ground water by hand pumps.

Besides, there are number of natural springs which can be utilized to cater the need for drinking and irrigation. There are numerous springs with sufficient discharge; the water of these springs can be channelized for irrigation. During non-monsoon period, the discharge of springs gets reduced. To augment the discharge and sustainability of these springs, small surface water reservoir can be developed at suitable locations on higher level. The reservoir can be developed by constructing gully plugs, check dams, gabion structures etc. at suitable places. These reservoirs will not only provide surface water availability but will also help in recharging the aquifers. In Pithoragarh district, four valleys have been identified with sufficient thickness of valley fill deposits. Ground water in these valleys can be developed by constructing large diameter dug wells and shallow tube wells. The large diameter dug wells and shallow tube wells will able to sustainthe discharges between 250 to 1000 lpm.

HYDROGEOLOGY:- Groundwater is the primary source of water supply in the district for drinking as well as agriculture purpose. Groundwater in the major part of the district occurs as localized, disconnected aquifer bodies under favorable geo hydrological conditions such as in channel and alluvial terraces of river valleys, joints, fractures and fissures of crystalline and met sedimentary rocks. The occurrence and movement of groundwater depend not only on the nature of the litho units and the nature of the interspaces, but also on the degree of interconnection between them, the vertical and aerial extension of joints, faults and shear zones and the local and regional geomorphology. Groundwater emergences as springs and seepages under favorable physiographic conditions such as in gently sloping areas, broad valleys of river sand along the Litho logical contacts.

HARD ROCK

Rainfall is the principal source of the groundwater replenishment. Pithoragarh district receives very good amount of rainfall, which in filtrates into ground through soil and plants, some considerable part of the precipitation flows as surface runoff, some apart from in the form ofevapo transpiration. The aquifers occur within Ramgarh, Almora and parts of Siwalik Group as localized and disconnected water bodies. Groundwater in these areas occurs generally under unconfined to semi-confined conditions in the sedimentary and low-grade metamorphic rocks. Aquifer characteristics are not available in this area, as no pumping tests have been carried out so far. However, a study of the springs indicates that in general, the yield is low and varies from 1 to 15 lpm. The occurrence of springs is a natural phenomenon in the district Pithoragarh. The moving groundwater surfaces out as springs at the contacts of different rock types through joints/fractures etc. the topographical breaks also are the favorable location for spring formations. The springs are locatedon roadside slopes and their discharge during pre-monsoon and post monsoon period ranges from 2 to 12 lpm and from 3 to 15 lpm respectively. The temperature of spring water varies in pre-monsoon and post monsoon from 13 to 16°C and from 10 to 15°C respectively. The seasonal fluctuation, in thesprings ranges from 1.0 to 3.0 lpm respectively. The discharge and temperature of the springs fluctuate throughout the year depending upon its recharge and discharge factor. During the rains the favorablehydro geological structures get recharged and resulting in higher discharge of spring and gadheras after monsoons. During the post-monsoon period their discharge reduces gradually with time and space, thus, gets minimum in pre-monsoon period. In general, the cold-water springs are of gravitational type, and are not deep seated as in the case of hot/thermal springs. The springs have been developed for drinking and irrigation water supplies. The groundwater budgeting (water resources) in the hilly terrain is not possible due to slope more than 20%, rugged topography andhydro geological discontinuity.

ALLUVIUM:

Alluvium occurs along the river courses and in their flood plains. The alluvial deposits are generally thinner than the hard rocks. These are unconsolidated deposits. Alluvium mainly consists of sand, gravel, silt and clay. At places, big boulders are buried within the alluvium. The alluvial thickness is more where the valleys are broad and ground slope is gentle. The alluvium is both porous and permeable and hence suitable for groundwater development. In alluvial formation, groundwater occurs in the valley fill deposits, terraces, river terraces and weathered rock cover and inmoraines and glacial deposits. On the hill slope groundwater mostly occurs in the form of seepages, springs and gadheras under gravity and favourable geological structures intercepting the topography.

The Bhahbar Formation is exposed in the southern part of the district. It is essentially constituted of alluvial deposits lying on the sloping plains in the Himalayan foothills, exposed immediately south of the Siwaliks. Primarily it consists of unconsolidated sediments like sand,gravel, boulder and clays. Groundwater in these areas occurs generally under unconfined to confined conditions. The aquifer is continuous and homogenous compared to hilly terrain. In general, the waterlevels are deeper in Bhabars, compared to the Tarai formations, further south of the district; however, it is out of the study area. Thus, overall in the district, there is no homogenous aquifer system having wide aerial extent. In the hilly part groundwater occurs along the thrust plains, strike slip fault/normalfault plains, tensile joints, synclinal folds, tensile fractures and at the contact of two different rock formations etc. The pre monsoon and post monsoon water levels in hand pumps, ranges from 5.48 to 32.28 m bgl and 4.63 to 31.06 m bgl respectively. The seasonal fluctuation range from 0.85 to 1.22 m, and is mentioned in Table 5. The depth to water levels of two dug well for pre monsoon and post monsoon ranges from 7.13 to 11.43 m bgl and from 6.83 to 10.96 m bgl respectively. The seasonal fluctuation ranges from 0.30 to 0.47 m. The discharge of two exploratory well at Tanakpur and Chandni are 2683 and 3100 lpm respectively with drawdown 9.68 and 3.94 m. The aquifer characteristics i.e. Transmissivity ranges from 7484 to 14140 m 2/day, hydraulic conductivity ranges from 32.94 to 171.8 m/day and field permeability is 119.8 to 175.2 m/ m 2/day. The groundwater is developed through tube wells, hand pumps and dug wells. The groundwater resource estimationcould not be carried out as the area is hilly (with slope >20%) and in major part aquifers are small, isolated bodies).

GROUND WATER:-The district Pithoragarh is mainly occupied by Himalayan Mountain ranges. Around 50% of the area is perennially covered under snow. There are number of natural springs which can be utilized to cater the need for drinking and irrigation. There are numerous springs with sufficient discharge; the water of these springs can be channelized for irrigation. During non-monsoon period, the discharge of springs gets reduced. To augment the discharge and sustainability of these springs,

small surface waterreservoir can be developed at suitable locations on higher level. The reservoir can be developed by constructing gully plugs, check dams, gabion structures etc. at suitable places. These reservoirs will not only provide surface water availability but will also help in recharging the aquifers.

8.0 Rainfall of the district and climatic condition:- The elevation of the district ranges from 500 m above sea level in the valleys to over 6400 min the snow bound Himalayas in the north and north-west. The climate therefore, largely depends on altitudes and varies according to aspect and elevation. Although tropical heat may be experienced in the southern valleys during the summer, the winters are severe. As most of the district is situated on the southern slopes of the Himalayas, monsoon currents penetrate through the deep valleys and rainfall is at the maximum in the monsoon season (June to September), particularly in the southern half of the district. The northern half of the district also gets considerable rain during the winter season which lasts from mid-November to March. The rainfall generally increases from the south towards the north and owing to the nature of the terrain it is highly variable from place to place.Most of it occurs during the monsoon period, being between 75 percent and 85 percent of the annualprecipitation in the south and between 50 per cent and 70 percent in the extreme north and north- east. In the monsoon season there are a few occasions when there are spurts of heavy rains in the hills causing floods in the rivers. According the Town Directory in the reference year 2009 the actual rainfall was 1296.6mm.

Variations in temperature are considerable from place to place and depend upon elevation as well as aspect. January is the coldest month with a mean maximum temperature of 100C, at heights of 2000 m. above sea level, the mean minimum temperature being at the freezing point (00C). Cold waves in the wake of western disturbances often make winter conditions rigorous. With the onset of monsoon towards the end of June, day temperatures fall by about 30C to 50C and with the withdrawal of it towards the third or fourth week of September, day and night temperatures begin to decrease, January being the coldest month. Depending upon the altitude topography and location, temperature variations from place to place are considerable, ranging between the maximum of 30.3°C and minimum (-) 1.7°C.

Humidity is highest during the monsoon months and particularly so during the rainy months of July and August. Skies are heavily clouded during the monsoon months. Owing to the nature of terrain, local effects are pronounced and when the general winds are not too strong to mask these effects, there is a tendency for diurnal reversal of winds which blow up the slopes during the day and down the slopes at night.

LAST FIVE YEAR RAINFALL, DISTRICT PITHORAGARH

S N	TEHSIL	YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
1	Pithoragarh	2018	36	58	71	16	25.5	82	361.3	64	84	43	0	45	886.80
2	Didihat		17	61	72	20	43	271	401	420	197	37	0	55	1594.00
3	Dharchula		0	63.5	97	0	0	310.5	565.6	729.8	404.9	38.6	0	24.6	2234.00
4	Berinag		58	62.4	48.6	39.6	44.2	81.2	541.43	235.1	133.8	34.6	0	60.8	1339.73
5	Munsyri		28.5	90	67.5	82.5	59	138.5	517.6	464.05	206.5	56	2	13	1731.15
6	Gangolihat		19	26	30	18	18	70	463	120	167	36	4	4	975.00
	total		**158.50**	**366.90**	**383.10**	**176.10**	**189.70**	**953.20**	**2849.93**	**2035.95**	**1193.20**	**245.20**	**6.00**	**200.40**	**8761.18**
	average		**26.40**	**61.15**	**64.35**	**29.35**	**31.62**	**158.87**	**474.99**	**339.33**	**198.87**	**40.87**	**1.00**	**33.40**	**1460.20**

S N	TEHSIL	YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
1	Pithoragarh	2019	50	39	113	41	52	158.5	188.1	126.2	18.4	13	0	0	799.20
2	Gangolihat		42	22	107.08	60	13.4	219	172.2	235.3	34.5	5	0	0	875.98
3	Berinag		54	33.6	113.2	27.8	39.6	159.8	246.7	276.2	51	18.2	0	0	1010.10
4	Didihat		62	28.5	68.5	64	39.5	209	333	400	126	14	0	0	1344.50
5	Munsyri		95	128	132	103.7	59.5	235.5	286.5	350.5	89.50	15	1.5	17	1424.20
6	Dharchula		86.4	107.4	170.1	110.9	50.8	211.5	322	398	181	15.09	0	0	1653.19
	total		**389.40**	**358.50**	**703.88**	**407.40**	**244.80**	**1193.30**	**1548.50**	**1786.20**	**376.40**	**80.29**	**1.50**	**17.00**	**7107.17**
	average		**64.90**	**59.75**	**117.31**	**67.90**	**40.80**	**198.88**	**258.08**	**297.70**	**94.10**	**13.38**	**0.25**	**2.83**	**1215.90**

S N	TEHSIL	YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
1	Pithoragarh	2020	3.9	4.01	21.7	12	231.8	113.9	297	228.5	81.5	5.2	0	6.1	1005.61
2	Gangolihat		1.1	10	66	2	65.8	90.4	236.9	172.5	27.5	0	0	1.5	693.70
3	Berinag		4.6	20.2	28.9	0	87.1	150.8	400.4	248	128.6	10	0	0.2	1087.80
4	Didihat		4	19	32.2	4	83.5	292.5	750.9	348.7	113.1	18	0	2.5	1690.90
5	Munsyri		19.5	43	66	22.2	188.5	255.5	560	305	110.5	44	0	7	1621.20
6	Dharchula		2	2	8	2.5	178.3	893.3	900.8	489.6	283	93.1	0	2.2	2454.80
	total		**35.10**	**118.21**	**222.80**	**42.70**	**835.00**	**1396.40**	**3155.00**	**1792.30**	**744.20**	**170.30**	**0.00**	**42.00**	**8554.01**
	average		**5.85**	**19.70**	**37.13**	**7.12**	**139.17**	**232.73**	**525.83**	**298.72**	**124.03**	**28.38**	**0.00**	**7.00**	**1425.67**

SN	TEHSIL	YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
1	Pithoragarh	2021	20.50	4.40	19.20	35.30	136.20	111.80	355.70	143.00	68.90	0.00	0.00	7.50	902.50
2	Gangolihat		15.50	3.00	13.00	15.00	83.50	102.00	367.50	134.00	73.00	0.00	0.00	3.00	809.50
3	Berinag		22.00	7.00	36.60	101.10	103.40	119.60	602.70	153.80	58.10	0.00	0.00	5.00	1209.30
4	Didihat		17.20	4.00	24.10	53.70	111.40	149.50	561.10	643.10	49.00	0.00	0.00	10.00	1623.10
5	Munsyri		48.00	22.50	74.00	205.50	126.00	175.50	572.00	768.20	210.00	51.00	2.00	17.50	2272.20
6	Dharchula		28.40	18.00	60.50	107.90	156.90	291.80	1094.60	697.00	218.30	41.40	0.00	26.00	2740.80
	total		**151.60**	**58.90**	**227.40**	**519.00**	**717.40**	**950.20**	**3553.60**	**2539.10**	**677.30**	**92.40**	**2.00**	**69.00**	**9557.50**
	average		**25.27**	**9.82**	**37.90**	**86.42**	**119.57**	**158.37**	**592.27**	**423.18**	**112.88**	**15.40**	**0.33**	**11.50**	**1592.80**

TEHSIL	YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
Pithoragarh		11.62	20.10	18.30	116.51	67.40	62.50	190.70	218.90	98.70	0.00	15.50	3.20	820.41
Gangolihat	2	15.00	15.26	7.0	76.30	54.50	136.00	148.00	268.50	122.40	0.00	12.00	0.50	848.50
Berinag	0	19.7	14.60	33.10	109.40	141.80	152.80	300.20	358.80	159.00	5.00	8.00	1.00	1294.40
Didihat	2	15.00	25.00	89.00	68.10	71.70	157.50	464.40	506.50	172.70	0.00	15.00	9.50	1334.40
Munsyri	2	15.00	22.00	42.00	18.50	112.50	367.50	1061.90	823.40	296.00	7.00	38.00	11.00	2906.80
Dharchula		28.00	24.10	68.00	50.10	157.20	388.00	897.90	725.40	402.40	21.00	20.20	2.60	2781.90
total		84.30	122.10	211.40	528.91	605.10	1264.30	3063.10	2900.50	1240.20	31.00	108.70	26.80	10186.41
everage		14.05	20.35	35.23	88.15	100.85	210.72	510.52	483.42	206.70	5.17	18.12	4.47	1697.76

(9) DETAILS OF THE MINING LEASES IN THE DISTRICT AS PER THE FOLLOWING FORMAT: -

S N	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
1.	Soapstone	Sh. Sushant Pant	S/O Sh. Devi Dutt Pant, Vill. Lohakot, Tehsil Didihat, District **Pithoragarh**	G.O. 1744/VII/2004/ 196-*fl*@01, Dated 05/10/2004 Duration 20 years	**Area-4.715 Ha.** Vill. Lohakot, Tesil Didihat, District Pithoragarh	16.03.2005	20 years		
	Date of commencement of Mining Operation	**Status (Working /Non-Working /Temp. Working for dispatch etc.**		**Captive/Non-Captive**	**Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC**	**Location of the Mining Lease (Latitude & Longitude)**		**Method of Mining (Opencast/ Underground)**	
	April 2008	W		Non-Captive	Yes, EC no.791-1(765)/2015 dated 03 October 2015	29° 41' 40.11" 80° 12'50.63"		Opencast	

2.	Soapstone	Sh. Bhupendra Singh Mahra	S/O Sh. Kishan Singh Mahra, Vill. Cinema Line, District Pithoragarh	G.O. 5480/77-5-99-5(89)/95, Dated 11/01/2000 Duration 20 years	Area-1.73 Ha. Vill. Chaupata, Tehsil Didihat, District Pithoragarh	11/01/2000	20 years		
	Date of commencement of Mining Operation	**Status (Working /Non-Working /Temp. Working for dispatch etc.**		**Captive/Non-Captive**	**Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC**	**Location of the Mining Lease (Latitude & Longitude)**		**Method of Mining (Opencast/ Underground)**	
	April 2008	NW		**Non-Captive**	EC process to update of Quantity	-------		Opencast	

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
3.	Soapstone	Sh. Basant Singh Samant	S/O Late Sh. Lal Singh Samant, Devalthal, Tehsil Didihat, District Pithoragarh	G.O. 3960/77-5-2000-449/83, Dated 26/08/2000 Duration 20 years	**Area-3.71 Ha.** Vill.Lohakot and Chaupata (Devalthal), Tehsil Didihat, District Pithoragarh	26/08/2000	20 years		
4.	Soapstone	Sh. Lalit Mohan Petsal	Village Chitai, Post Chitai, Tehsil and District Almora	G.O. 44/VII/13-I/2004, Dated 15/07/2004 Duration 20 years	**Area- 1.41 Ha.** Village Raiaagar, Tehsil Didihat, District Pithoragarh	08/12/2004	20 years		

	Date of commencement of Mining Operation	Status (Working /Non-Working	Captive/Non-Captive	Obtain Environment Clearance (Yes/No), if Yes	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast/ Undergrou

		/Temp. Working for dispatch etc.		Letter No. with date of grant of EC		nd)
	11	12	13	14	15	16
	April 2008	NW	Non-Captive	EC on Peocess	29º 41' 36.69" 80º 12'53.90"	Opencast
	April 2008	NW	Non-Captive	EC on Peocess	29º 43' 46.52" 80º 03'24.89"	Opencast

S N	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
5.	Soapstone	Sh. Harish Chandra Joshi	Village and Post Bhatkatiya, District Pithoragarh	G.O. 5030/77-5-2000-5(431) /94, Dated 17/10/2000 Duration 20 years	Area-8.30 Ha. Vill. Pukhroda, Tehsil Didihat, District Pithoragarh	17/10/2000	20 years		
6.	Soapstone	M/S Bhagwati Minerals	Village Silkot, Tehsil Gangolihat, District Pithoragarh	G.O. 2241/vk0fo0/152-[k/2001, Dated 18/10/2001 Duration 20 years	Area-6.47 Ha. Vill. Silkot, Tehsil Didihat, District Pithoragarh	18/10/2001	20 years		

	Date of commencement of Mining Operation	Status (Working /Non-Working /Temp. Working for dispatch etc.	Captive/ Non-Captive	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast/Underground)
	11	12	13	14	15	16
	April 2008	NW	Non-Captive	EC on Peocess	29°41'20.12"N 80°13'48.76"E	Opencast
	April 2008	NW	Non-Captive	EC on Peocess	29º 43' 01.08" 79º 56'51.73"	Opencast

S N	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
7.	Soapstone	Sh. Harendra Singh	S/O Sh. Narayan Singh Mehra, Vill. and Post Jadapani, District Pithoragarh	G.O, 322/*fir*/15-*fl*/ 2004, Dated 24/09/2004 Duration 20 years	**Area-4.445** Ha. Vill. Boraagar, Tehsil Didihat, District Pithoragarh	31.03.2009	2029		
8.	Soapstone	Bharat Mines **Mining Lease Transfer** Manoj Danga (Partnership)	Prop. Sh. Bhagwan Singh Rawal S/O Sh. Dhan Singh Rawal, Village Sainj, Patti Baidibgarh, Tehsil and District Bageshwar	G.O. 3809/VII-I-07/212-*fl*/2004, Dated 07/09/2007 Duration 20 years G.O. 2234/VII-I/212-*fl*/04, Dated 09/06/2008 Duration 20 years	**Area-4.128 Ha.** Vill. Sanarkhola Gaud, Tehsil Gangolihat, District Pithoragarh	25.09.2007	2027		

	Date of commencement of Mining Operation	Status (Working /Non-Working /Temp. Working for dispatch etc.	Captive/Non-Captive	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast/Under ground)
	11	12	13	14	15	16
	April 2009	NW	**Non-Captive**	EC on Process	29° 43' 31.58" 80° 03'45.63"	**Opencast**
	April 2008	NW	**Non-Captive**	Yes, EC no.769-1(739)/2015 dated 20 September 2015	29° 45' 10.1" 79° 56'06.6"	**Opencast**

S N	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
9.	Soapstone	Sh. Trilok Singh Manral	S/O Sh. Narayan Singh Manral, Vill. Jawahar Jyoti (Damuwadhanga), Kathgodam, Haldwani, District Nainital	G.O. 1293/VII-I-09/199-f/2004, Dated 12/08/2009 Duration 20 years	Area- 4.049 Ha. Vill. Bhanyadi, Tehsil Gangolihat, District Pithoragarh	22.09.2009	2029		
10.	Soapstone	Sh. Devendra Kumar Nainwal **Mining Lease Transfer** Partnership firm M/S K.S. Soapstone Mines, Gora Padaw, Bareily road, Haldwani Nainital	S/O Sh. Hari Krishna Nainwal, house no. 5/605, Malla Gorakhpur, Haldwani, District Nainital **Mining Lease Transfer** (Sh. Sushant Pant, S/O Sh. Devi Dutt Pant, Chhota Mukhani, Rautela Colony, Tehsil Haldwani, District Nainital And Sh.Mujib, S/o Sh. Nasir Ahmed Warsi, Railway Bazar, Tehsil Haldwani, District Nainital)	G.O. 892/VII-I-07/203-f/2001, Dated 15/05/2007 **Mining Lease Transfer** G.O. 426/VII-I-10/203-f/2001, Dated 25/02/2010 Duration 20 years	**Area- 4.582 Ha.** Village Malli Sangari, Tehsil Didihat, District Pithoragarh	09.08.2007	2027		

	Date of commencement of Mining Operation	Status (Working /Non-Working /Temp. Working for dispatch etc.	Captive/Non-Captive	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast/Underground)
	11	12	13	14	15	16
	October 2009	W	**Non-Captive**	Yes, EC no.02-DEIAA//2017-18, dated 28 Feb 2018	29° 45' 26.21" 79° 55'-39.35"	**Opencast**

	June 2008	NW	Non-Captive	No.		Opencast

S N	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
11.	Soapstone	Sh. Pradeep Chandra Joshi	S/O Sh. P.C. Joshi, Vill. Chimsyanaula, G.I.C. Road, District Pithoragarh	G.O. 3810/VII-I-07/199-fl/2001, Dated 24/09/2007 Duration 20 years	Area-4.303 Ha. Village Joshigaon (GaulaChaura), Tehsil Gangolihat, District Pithoragarh	05.10.2007	2027		
12.	Soapstone	Sh. Mohan Chandra Sharma	S/O Sh. JaiKishan Sharma, Vill. Baste, Tehsil and District Pithoragarh	G.O. 775/VII-I-10/168-fl/2001, Dated 31/03/2010 Duration 20 years	Area-4.89 Ha. Village Harali, Tehsil Didihat, District Pithoragarh	13.04.2010	2030		

	Date of commencement of Mining Operation	Status (Working /Non-Working /Temp. Working for dispatch etc.	Captive/Non -Captive	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast /Underground)
	11	12	13	14	15	16
	April 2008	W	Non-Captive	Yes, EC no.805-1(780)/2015 dated 04 January 2015	29° 43' 23.36" 79° 56'38.79"	Opencast
	may 2008	NW	Non-Captive	EC on Process	29°41'10.52"N 80°12'29.72"E	Opencast

S N	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
13.	Soapstone	Sh. Indra Singh Karki and Partner	Vill. Pipaltad, Tehsil Didihat, District Pithoragarh	G.O. 1426/VII-I-10/131-*fl*/ 2009, Dated 16/08/2011 Duration 20 years	**Area-4.492 Ha.** Village Thanda, Tehsil Berinag, District Pithoragarh	01.09.2011	2032		
14.	Soapstone	Sh. Bhupendra Singh Mahra	S/O Sh. Kishan Singh Mahra, Vill. Cinema Line, District Pithoragarh	G.O. 1105/VII-I-11/214-*fl*/2004 Dated 27/05/2011 Duration 20 years	**Area-4.346 Ha.** Village Myauli, Tehsil Didihat, District Pithoragarh	14.06.2011	2031		

	Date of commencement of Mining Operation	Status (Working /Non-Working /Temp. Working for dispatch etc.	Captive/Non-Captive	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast/Under ground)
	11	12	13	14	15	16
	September 2011	W	**Non-Captive**	Yes, EC no.751-1(724)/2015 dated 20 September 2015	29° 45' 35.7" 80° 06'36.7"	**Opencast**
	June 2011	W	**Non-Captive**	Yes, EC no.796-1(767)/2015 dated 03 October 2015	29° 41' 18.41" 80° 11'15.13"	**Opencast**

S N	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
15.	Soapstone	Sarv Sh. D.D. Associate	Prop. Smt. Sawaraj Sahani, Ghantakaran , District Pithoragarh	G.O. 2605/ VI0fo0/159-ft/2001 Dated 12/12/2001 Duration 20 years	**Area-3.8 acres i.e. 1.53 Ha.** Vill. Lohakot, Tehsil Didihat, District Pithoragarh	12.12.2001	2031		
16.	Soapstone	Sarv Sh. Sikhar Minerals Sh. Mohan Chandra Joshi,	S/O Sh. Pitambar Joshi, Vill. Bhardwari, Post GaulaChaura, District Pithoragarh	G.O. 20/VI0fo0/222-ft/2001 Dated 09/02/2004 Amended G.O. no. 3293/ fr /04/222&ft/01, dated 28/12/2004 Duration 20 years	**Area- 4.15 Ha.** Village Sanarkhola, Tehsil Gangolihat, District Pithoragarh	29.02.2004	2024		

	Date of commencement of Mining Operation	Status (Working /Non-Working /Temp. Working for dispatch etc.	Captive/ Non-Captive	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast/ Underground)
	11	12	13	14	15	16
	April 2008	April	**Non-Captive**	No.	29° 41' 31.7" 80° 12'40.2"	**Opencast**
	April 2008	W	**Non-Captive**	Yes, EC no.766-1(750)/2015 dated-20 September 2015	29° 45' 37.38" 79° 56'45.96"	**Opencast**

S N	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
17.	Soapstone	Sh. Pitambar Pandey	S/O Sh. Bhawani Dutt Pandey, Vill. Hudeti, Post and District Pithoragarh	G.O. 181M/18-12-M 447/72, Dated 05/02/1973	**Area-12.94 Ha.** Village Toli, District Pithoragarh	05/02/1973	04/02/1993	25/09/1993	24/09/2013 then 31/03/2030
						Renewal G.O. 36/18-12-94-5(419) /92, Dated 01/02/1994 Para-1 of the above G.O. amended via G.O. 714/ vn0fo0/03-318-ft /03, Dated 05/11/2003, sentence "dated 25 September, 1993 for ten years duration" to be read as "dated 25 September, 1993 for twenty years duration" Duration 20 years			
18.	Soapstone	M/S Maa Bhagwati Minerals, Prop. Sh. Manoj Sahani	S/O Late Sh. Ravindra Sahani, Vill. Punetha Bhawan, Ghantakaran, District Pithoragarh	G.O. 2646/VII-I-10/94-ft (T.C.)/2004 Dated 16/12/2010 Duration 20 years	**Area-4.203 Ha.** Village Badmoli, Tehsil Didihat, District Pithoragarh	15.01.2011	2031		

	Date of commencement of Mining Operation	Status (Working /Non-Working /Temp. Working for dispatch etc.	Captive/ Non-Captive	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast/ Underground)
	11	12	13	14	15	16
	April 2008	NW	**Non-Captive**	EC on Peocess	29° 49' 42.04" 80° 22'06.9"	**Openeast**
	Janary 2011	W	**Non-Captive**	Yes, EC no.807-1(783)/2015 dated 04 January, 2015	29° 43' 09.42" 80° 11'53.44"	**Opencast**

Sr. No.	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To

1	2	3	4	5	6	7	8	9	10
19.	Soapstone	Sh. Manik Chandra Pandey	Vill. Khadkot, Tehsil and District Pithoragarh	G.O. 821/VII-II-/191-*fl*/ 2001, Dated 03/02/2011 Duration 20 years	**Area-1.575 Ha.** Village Chaupata, Tehsil and District Pithoragarh	12.09.2011	2031		
20.	Soapstone	Sh. Thakur Singh Dasila	Vill. Wasikhet, Post Devradi Gangolihat, District Pithoragarh	G.O. 1383/VII-II-/19-*fl*/2001 Dated 12/08/2011 Duration 20 years	**Area-4.321 Ha.** Village Wasikhet, Post Devradi Gangolihat, District Pithoragarh	30.12.2011	2031		

	Date of commencement of Mining Operation	Status (Working /Non-Working /Temp. Working for dispatch etc.	Captive/Non-Captive	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast /Underground)
	11	12	13	14	15	16
	January 2012	W	**Non-Captive**	Yes, EC no.822-1(785)/2015 dated 24 January, 2016	29° 41' 26.32" 80° 13'22.74"	**Opencast**
	April 2012	NW	**Non-Captive**	Yes, EC no.804-1(789)/2015 dated 04 January, 2016	29° 45' 27.57" 79° 54'56.21"	**Opencast**

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Period of mining lease (Initial)		Period of mining lease (1st /2nd ....renewal)	
						From	To	From	To
1	2	3	4	5	6	7	8	9	10
21.	Soapstone	Sh. Daan Singh or Chandra Singh	S/O Sh. Trilok Singh, Vill. Reetha, Tehsil Berinag, District	G.O. 888/VII-I-/2014/202-*fl*/2009 Dated 27/05/2014 Duration 20 years	**Area-4.855 Ha.** Village Reetha, Tehsil Berinag, District	22/08/14	20 years		

			Pithoragarh		Pithoragarh				
22.	Soapstone	Sh. Harendra Singh Mehra	S/O Sh. Narayan Singh Mehra Vill. and Post Jadapani, Tehsil Gangolihat, District Pithoragarh	G.O. no. 762/VII-I/2015/14-*fl*/2004 Dated 05/06/2015 Executed by G.O. no. 1142/VII-I/2015/14-*fl*/2004 Dated 05/06/2015 Registration date 21/08/2015 Duration 20 years	**Area-19.250 Ha.** Villages Mangarh Haat Bhandar, Peepali, Rawal Gaon of Tehsil Berinag, District Pithoragarh	21/08/2015	20 years		

	Date of commencement of Mining Operation	**Status (Working /Non-Working /Temp. Working for dispatch etc.**	**Captive/Non-Captive**	**Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC**	**Location of the Mining Lease (Latitude & Longitude)**	**Method of Mining (Opencast/ Underground)**
	11	**12**	**13**	**14**	**15**	**16**
	October 2014	W	**Non-Captive**	Yes, EC no.888-I(814)/2016 dated 01 March, 2016	29° 45' 16.15" 80° 6'02.13"	**Opencast**
	April 2016	W	**Non-Captive**	Yes, EC no.891-I(584)/2014 dated 01 March, 2016	29° 41' 05.59" 80° 07'25.21"	**Opencast**

S N	**Name of the Mineral**	**Name of the Lessee**	**Address & contact no. Lessee**	**Mining lease Grant Order No. & date**	**Area of Mining Lease (ha.)**	**Period of mining lease (Initial)**		**Period of mining lease (1st /2nd ….renewal)**	
						From	**To**	**From**	**To**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
23.	Soapstone	Sh. Mahipal Singh Dangi	S/O Late Sh. Darwan Singh Dangi Vill. Puranathal, Tehsil Berinag, District Pithoragarh	G.O. no. 1326/VII-I/2015/35-*fl*/2004, Dated 16/09/2015 Executed by G.O. no. 502/VII-I/2015/35-	**Area-4.220 Ha.** Village Beldaagar (Raiaagar), District Pithoragarh	06/05/2016	20 years		

				/I/2004 Dated 20/05/2016 Duration 20 years					
24.	Soapstone	Sh. Ganesh Chandra Bhatt	S/O Sh. Lakshmidatt Bhatt Mahadev Bhatt Colony, Nawabi Road, Haldwani, District Nainital	G.O. no. 1602/VII-I/2014/89-/I/2012, Dated 29/10/2015 Executed by G.O. no. 1134/VII-I/2014/89-/I/2012 Dated 13/07/2016 Duration 20 years	**Area-4.487 Ha.** Village Batgeri, Tehsil Gangolihat, District Pithoragarh	13/07/2016	20 years		

	Date of commencement of Mining Operation	**Status (Working /Non-Working /Temp. Working for dispatch etc.**	**Captive/ Non-Captive**	**Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC**	**Location of the Mining Lease (Latitude & Longitude)**	**Method of Mining (Opencast/Underground)**
	11	**12**	**13**	**14**	**15**	**16**
	May 2016	W	**Non-Captive**	Yes, EC no.833-1(797)/2016 dated 11 February, 2016	29° 43' 44.8" 80° 02'53.7"	**Opencast**
	August 2016	W	**Non-Captive**	Yes, EC no.893-1(827)/2016 dated 01 March, 2016	29° 46' 23.94" 79° 49'57.01"	**Opencast**

S N	**Name of the Mineral**	**Name of the Lessee**	**Address & contact no. Lessee**	**Mining lease Grant Order No. & date**	**Area of Mining Lease (ha.)**	**Period of mining lease (Initial)**		**Period of mining lease (1st /2nd ....renewal)**	
						From	**To**	**From**	**To**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
25	Soapstone	M/s Sahani and Company	Dhmaura, near Radhika Public	G.O. no. 1442/VII-I/2015/44-/I/2010, Dated 14/10/2015 Executed by G.O. no.	**Area-1.74** Ha. Village Toli of Tehsil	17/09/2018	31st March, 2020		

			School, Aicholi, District Pithoragarh	1755/VII-I/2018/44-fjV /2016 Dated 17/09/2018 Duration- till 31st March, 2020	Dharchula, District Pithoragarh				
26	Soapstone	M/s CMD Mines and Minerals	6/865 Blutiya Building, Badripura, Haldwani, District Nainital	Industrial Development , Section –I, G.O. no. 1690/VII-I/2018/38Soapstone/16, Dated 09/10/2018 Duration- 50 years	**Area- 11.827** Ha. Village Sanarkhola of Tehsil Gangolihat, District Pithoragarh	09/10/2018	50 years		

	Date of commencement of Mining Operation	**Status (Working /Non-Working /Temp. Working for dispatch etc.**	**Captive/Non-Captive**	**Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC**	**Location of the Mining Lease (Latitude & Longitude)**	**Method of Mining (Opencast/ Underground)**
	11	12	13	14	15	16
	April 2008	W	**Non-Captive**	Yes, EC no. EC08/DEIAA/-EC/2017-18 dated 28 February, 2018	29° 49' 24.12" 80° 22'27.90"	**Opencast**
	Mine under EC Process Not Working		**Non-Captive**	No, awaited	29° 45' 16.90" 79° 56'8.91"	**Opencast**

S N	**Name of the Mineral**	**Name of the Lessee**	**Address & contact no. Lessee**	**Mining lease Grant Order No. & date**	**Area of Mining Lease (ha.)**	**Period of mining lease (Initial)**		**Period of mining lease (1st /2nd ….renewal)**	
						From	**To**	**From**	**To**
1	2	3	4	5	6	7	8	9	10
27.	Soapstone	Sh. Thakur Singh Dasila	S/O Sh. Sher Singh Dasila, Vill. Basikhet, Post Devradi Pant, District Pithoragarh	Industrial Development , Section –I, G.O. no. 1252/VII-I/2018/19/L/10, Dated 03/07/2018 Executed by G.O. no. 557/VII-	**Area- 2.295 Ha out of 3.255 Ha** Area lying in Villages Danu and Oliya of Tehsil Ganai Gangoli, District Pithoragarh	06/03/2019	25 years		

				I/2018/19ख /10, Dated 06/03/2019 Duration- 25 years					

	Date of commencement of Mining Operation	Status (Working /Non-Working /Temp. Working for dispatch etc.	Captive/ Non-Captive	Obtain Environment Clearance (Yes/No), if YesLetter No. with date of grant ofEC	Location of the Mining Lease (Latitude & Longitude)	Method of Mining (Opencast/ Underground)
	11	12	13	14	15	16
	Mine under Deed Process Not Working		Non-Captive	Yes, EC no. 5/DEIAA/2017-18 dated 28 February, 2018	29º 45' 27.57" 79º 54'56.21"	Opencast

(10) DETAILS OF SOAPSTONE ROYALTY OR REVENUE RECEIVED IN LAST THREE YEARS:-

SR. NO.	YEAR	Royalty (IN RS.)
1.	2019-20	93,18,207.00
2.	2020-21	1,90,60,231.00
3.	2021-22	1,22,97,412.00

(11) DETAILS OF PRODUCTION OF MINOR MINERAL (SOAPSTONE) IN LAST THREE YEARS:-

SR.NO.	YEAR	MINERAL (IN MT.) Tentative Figure
1.	2019-20	26623.44
2.	2020-21	54457.80
3.	2021-22	35135.46

(12) MINERAL MAP OF THE DISTRICT;

(MINERAL MAP OF THE DISTRICT)

(13) LIST OF LETTER OF INTENT (LOI) HOLDERS AND NEW APPLIED AREAS IN THE DISTRICT ALONG WITH ITS VALIDITY AS PER THE FOLLOWING FORMAT:-

S N	Name of the Mineral	Name of the Lessee	Address & Contact No. of Letter of Intent Holder	Letter of Intent Grand Order No. & Date	Area of Mining lease to be allotted	Validity of LOI	Use (Captive/ Non-Captive)	Location of the Mining Lease (Latitude & Longitude)
1	2	3	4	5	6	7	8	9
1	Soapstone	M/s S.R.B. Mines, Aashirwad Bhawan,	Shivaji Colony, Rampur Road, Haldwani, District Nainital **Partner-** S/O	G.O. 1051/VII-I/203-[illegible] 2009, Dated 29/07/2016, 25 years	**Area 4.571 Ha.**	Duration 25 years	Non-Captive	Vill.Silkot/Daulapreti, Patti Chaudmanya, Tehsil Berinag District

		Partner- Sh. Rahul Varshanaya	Sh. Dayashankar Varshanaya Vardaan Shivaji Colony, Rampur Road Haldwani					Pithoragarh
2.	Soapstone	M/s Associate Soapstone Distributing Company Pvt. Ltd.	Golcha Garden, Agra Road, Jaipur	G.O. 1782/VII-I/2016/03-ƒ@11, Dated 27/12/2016, 25 years	**Area 4.511 Ha.**	Duration 25 years	Non-Captive	Village Bhanyadi, Tehsil Gangolihat (Ganai-Gangol) District Pithoragarh **29° 45' 22.67"N 79° 55' 25.52"E**
3.	Soapstone	Smt. Kamla Bora,	W/O Late Sh. Kedar Singh Bora, Village Sikdani, Cadaak, Tehsil and District Pithoragarh	G.O. 1359/VII-I/23-Soapstone/2016, Dated 20/12/2016, 25 years	**Area 4.788 Ha.**	Duration 25 years	Non-Captive	Village Chaupata, Tehsil Didihat, District Pithoragarh **29° 41' 28.70"N 80° 13' 1.31"E**
4.	Soapstone	M/S K.S. Minerals	Gora Padaw, Bareily Road, Haldwani, District Nainital	G.O. 1078/VII-I/2015 /177ƒ/2010, Dated 30/07/2015 G.O. 1305/VII-I/177ƒ /2010, Dated 05/09/2016, 20 years	**Area 11.160 Ha.**	Duration 50 years	Non-Captive	Village Bhardwari, Gol Pokhari, Tehsil Gangolihat, District Pithoragarh
5.	Soapstone	Sh. Manoj Kumar Joshi	S/O Sh. Girish Chandra Joshi Village Bhingarhi, Tehsil Gangolihat, District Pithoragarh. Present resident of Tehsil Road, District Bageshwar	G.O. 1519/VII-I/2015/96-ƒ@2009, Dated 30/10/2015, 20 years	**Area 4.463 Ha.**	20 years	Non-Captive	Village Bhingarhi, Tehsil Gangolihat District Pithoragarh **29° 45' 03.8"N 79° 57' 31.4"E**

6.	Soapstone	M/s J.D. minerals Prop. Rajendra Singh Dafauti	S/O Late Sh,. Nandan Singh Dafauti, B-54 Judge Farm, Chhota Mukhani, Haldwani, District Nainital	G.O. 2248/VII-I/2018/1(13)/18, Dated 12/10/2018 Duration 50 years	**Area 17.967 Ha.**	50 years	Non-Captive	Village Bajeta, Tehsil Munsiari, District Pithoragarh **29° 56' 44.53"N 80° 13' 52.85"E**
7.	Soapstone	B & J Soapstone Mines	KamluwaGaja Mehta (Bora Colony) Haldwani, District Nainital	G.O. 2020/VII-I/2018/1(8)/18, Dated 07/12/2018 Duration 25 years	**Area 4.774 Ha.**	25 years	Non-Captive	Tok Ganv of Village Raya, Tehsil Munsiari, District Pithoragarh **29° 56' 12.3"N 80° 13' 42.2"E**
8.	Soapstone	Maa Durga Devi Soapstone Mines	Kamluwa Gaja Mehta (Bora Colony) Haldwani, District Nainital	G.O. 2021/VII-I/2018/1(8)/18, Dated 10/12/2018 Duration 25 years	**Area 4.930 Ha.**	25 years	Non-Captive	Tok GolGanv of Village Raya, Tehsil Munsiari, District Pithoragarh **29° 56' 05.6"N 80° 13'35.3"E**
9	Soapstone	Mr.Raghu datt joshi	Ancholi, Pithoragarh.	Mine Under Process to LOI	**Area 7.45 Ha.**	50 years	Non-Captive	Village toli.tehsil dharchula, distt.pithoragarh
10	Soapstone	Mr.Harish joshi	Ancholi, Pithoragarh	Mine Under Process to LOI	**Area 6.30 Ha.**	50 years	Non-Captive	Village toli.tehsil dharchula, distt.pithoragarh
11	Soapstone	Mr. khushal singh pipaliya	Pithoragarh.	Mine Applied Jun 2019 Inspection under process	**Area 23.345 Ha.**	50 years	Non-Captive	Village toli.tehsil dharchula, distt.pithoragarh
12	Soapstone	Vishnu minerals Pro. Gaurab Manral	Haldwani, Nainital	Mine under EC Processing in SEIAA	**Area 4.860 Ha.**	25 years	Non-Captive	Village bhanyadi Tehsil gangolihat, District Pithoragarh **29° 45' 27.22"N**

								79° 55'34.29"E
13	Soapstone	Mr. Chamu singh	Pithoragarh	Mine under Processing Deed	**Area 4.803 Ha.**	25 years	Non-Captive	Village banoli Tehsil berinag, District Pithoragarh
14	Soapstone	Tayal minerals	Vill- Bamdoli, Pithoragarh	Mine under Processing Demarcation.	**Area 13.133 Ha**	50 years	Non-Captive	Village bamdoli Tehsil didihat, District Pithoragarh **29° 42' 56.5"N 80° 11'20.4"E**
15	Soapstone	Mrs. Nina Mahra	Sinema Line, Pithoragarh.	Mine Applied Jun 2019 Inspection under process	**Area 4.798 Ha**	25 years	Non-Captive	Village Myoli Tehsil didihat, District Pithoragarh
16.	Soapstone	M/s Maa Bhagwati	Village-Nakhanauli, Post Office-Bungachhina, Tehsil-Dewalthal, District-Pithoragarh	Letter of Intent No. 1895/VII-A-1/2021-01(45)/2021, Dated 07-01-2022	**Area 4.994 Ha**	25 years	Non-Captive	Village-Nakhanauli, Post Office-Bungachhina, Tehsil-Dewalthal, District-Pithoragarh
17.	Soapstone	Shri Pushkar Singh Bhaat S/o Ganesh Chandra Bhaat	R/o Mhadev Bhat Colony Navabi Road Haldwani, District-Nainital	LOI Application under process	**Area 2.649 Ha**	25 years	Non-Captive	Village- Batgeri. Tehsil- Ganai Gangoli, District-Pithoragarh
18.	Soapstone	Shri Harish Chandra Joshi	Village & Post Bhadkatiya, Tehisl & District-Pithoragarh	Lease been Transferred to Shri Harish Chandra Joshi vide letter No:- *95/VII-A-1/2021-192-Kha/2021*	**Area 4.698 Ha**	25 years	Non-Captive	Village- Ushel Tehsil- Didihat District-Pithoragarh

(14) TOTAL MINERAL RESERVE AVAILABLE IN THE DISTRICT;

SN	Total Lots	Tentative Quantity (Minable)
1-	13 Running Lots	1,98,821.00 Tonnes
2-	12 Closed Lots	90,428.00 Tonnes
3-	Applied Area / Processing Files	2,00,000.00 Tonnes
4-	Tentative other Possibility of Minerals Available in Tehsils	
	Dharchula	30,000.00 Tonnes
	Didihat	60,000.00 Tonnes
	Berinag	70,000.00 Tonnes
	Gangoligat	90,000.00 Tonnes
	Munsiyari	70,000.00 Tonnes
	Grant Total	**8,09,249.00 Tonnes**

15. QUALITY /GRADE OF MINERAL AVAILABLE IN THE DISTRICT:-

Pithgoragarh Soapstone: The deposits of soapstone in the district are Grade B (It is known as thesecond quality material. The color is pale-greenish to white. The whiteness is in the range from 85 to 90 %.) & Grade C (It is known as the third quality material. The color is light greenish-grey. Whiteness isin the range from 78 to 85 %.)

16. USE OF MINERAL:-

Soapstone: Soapstone/Talc in pulverised form is mostly used as afiller in paper, textile, rubber, insecticides and fertilizer industries. Pure talc after calcining, called 'Lava', is used in the manufacture oflow-loss ceramic materials essential for radio, radar, television, etc. In roofing products, suchas, tar, paper, asphalt shingles and roll roofing, talc acts as a fire retardant and increases weather resistance. Body and face powders (talcum powder) are prepared from the finest quality talc after adding deodorant and perfumes. Massive steatite when cut into panels is used for switchboards and acidprooftabletops in laboratory, laundry and kitchen sinks, in tubs and tanks as well as for lining alkalitanks in Paper Industry. Due to its high melting point (1630°C), soapstone can be used inrefractories and fire places. It is also quite useful in sculpturing.

17. DEMAND AND SUPPLY OF THE MINERAL IN THE LAST THREE YEARS;

SN	Year	Demand of Minerals Tentative Quantity	Supply of Minerals
1	2019-20	30,000.00	26623.44
2	2020-21	70,000.00	54457.80
3	2021-22	90,000.00	35135.46

18. MINING LEASES MARKED ON THE MAP OF THE DISTRICT:-

(MINING LEASES MARKED ON THE MAP OF THE DISTRICT PITHORAGARH)

(19) DETAILS OF THE AREA OF WHERE THERE IS A CLUSTER OF MINING LEASES VIZ. NUMBER OF MINING LEASES, LOCATION (LATITUDE AND LONGITUDE);

1- Cluster- Devalthal Mine(1)

S N	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)
1.	Soapstone	Sh. Sushant Pant	S/O Sh. Devi Dutt Pant, Vill. Lohakot, Tehsil Didihat, District **Pithoragarh**	G.O. 1744/VII/2004 /196-*f*@01, Dated 05/10/2004 Duration 20 years	**Area-4.715 Ha.** Vill. Lohakot, Tesil Didihat, District Pithoragarh	Yes, EC no.791-1(765)/2015 dated 03 October 2015	29° 41' 40.1" 80° 12'50.6"
2.	Soapstone	Sh. Basant Singh Samant	S/O Late Sh. Lal Singh Samant, Devalthal, Tehsil Didihat, District Pithoragarh	G.O. 3960/77-5-2000-449/83, Dated 26/08/2000 Duration 20 years	**Area-3.71 Ha.** Vill.Lohakot and Chaupata (Devalthal), Tehsil Didihat, District Pithoragarh	EC on Process	29° 41' 36.6" 80° 12'53.9"
3.	Soapstone	Sarv Sh. D.D. Associate	Prop. Smt. Sawaraj Sahani, Ghantakaran, District Pithoragarh	G.O. 2605/ vi0fo0/159-*f*/2001 Dated 12/12/2001 Duration 20 years	**Area-3.8 acres i.e. 1.53 Ha.** Vill. Lohakot. Tehsil Didihat, District Pithoragarh	No.	29° 41' 31.7" 80° 12'40.2"
4.	Soapstone	Smt. Kamla Bora,	W/O Late Sh. Kedar Singh Bora, Village Sikdani, Cadaak, Tehsil and District Pithoragarh	G.O. 1359/VII-I/23-Soapstone/2016, Dated 20/12/2016, 25 years	**Area 4.788 Ha.**	EC on Process	29° 41' 28.7" 80° 13' 1.3"

2- Cluster- Devalthal Mine (2)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)
1-	Soapstone	Sh. Bhupendra Singh Mahra	S/O Sh. Kishan Singh Mahra, Vill. Cinema Line, District Pithoragarh	G.O. 5480/77-5-99-5(89)/95, Dated 11/01/2000 Duration 20 years	**Area-1.73 Ha.** Vill. Chaupata, Tehsil Didihat, District Pithoragarh	EC for Update Process	29°41'27.9" 80°13'46.7"
2-	Soapstone	Sh. Harish Chandra Joshi	Village and Post Bhatkatiya, District Pithoragarh	G.O. 5030/77-5-2000-5(431)/94, Dated 17/10/2000 Duration 20 years	**Area-8.30 Ha.** Vill. Pukhroda, Tehsil Didihat, District Pithoragarh	EC on Process	29°41'20.1" 80°13'48.7"

3- Cluster- Devalthal Mine (3)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)
1.	Soapstone	Sh. Bhupendra Singh Mahra	S/O Sh. Kishan Singh Mahra, Vill. Cinema Line, District Pithoragarh	G.O. 1105/VII-I-11/214-*f*/2004 Dated 27/05/2011 Duration 20 years	**Area-4.346 Ha.** Village Myauli, Tehsil Didihat, District	Yes, EC no.796-1(767)/2015 dated 03 October 2015	29° 41' 18.4" 80° 11'15.1"

					Pithoragarh		
2.	Soapstone	Mrs. Nina Mahra	Sinema Line, Pithoragarh.	Mine Applied Jun 2019 Inspection under process	**Area 4.798 Ha**	No.	Area Under Applied

4- Cluster- Devalthal Mine (4)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)
1.	Soapstone	M/S Maa Bhagwati Minerals, Prop. Sh. Manoj Sahani	S/O Late Sh. Ravindra Sahani, Vill. Punetha Bhawan, Ghantakaran, District Pithoragarh	G.O. 2646/VII-I-10/94-*fl* (T.C.)/2004 Dated 16/12/2010 Duration 20 years	**Area-4.203 Ha.** Village Badmoli, Tehsil Didihat, District Pithoragarh	Yes, EC no.807-1(783)/2015 dated 04 January, 2015	29° 43' 09.4" 80° 11'53.4"
2.	Soapstone	Tayal minerals	Vill- Bamdoli, Pithoragarh	Mine under District Lavel	Area 13.133 Ha	No.	29° 42' 56.5" 80° 11'20.4"

5-Cluster- Gangolihat Mine (1)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)

1.	Soapstone	Bharat Mines **Mining Lease Transfer** Manoj Danga (Partnership)	Prop. Sh. Bhagwan Singh Rawal S/O Sh. Dhan Singh Rawal, Village Sainj, Patti Baidibgarh, Tehsil and District Bageshwar	G.O. 3809/VII-I-07/212-*fl*/2004, Dated 07/09/2007 Duration 20 years G.O. 2234/VII-I/212-*fl*/04, Dated 09/06/2008 Duration 20 years	**Area-4.128 Ha.** Vill. Sanarkhola Gaud, Tehsil Gangolihat, District Pithoragarh	Yes, EC no.769-1(739)/2015 dated 20 September 2015	29° 45' 10.1" 79° 56'06.6"
2.	Soapstone	Sarv Sh. Sikhar Minerals Sh. Mohan Chandra Joshi,	S/O Sh. Pitambar Joshi, Vill. Bhardwari, Post GaulaChaura, District Pithoragarh	G.O. 20/*vkQfo*/222-*fl*/2001 Dated 09/02/2004 Amended G.O. no. 3293/ *ftr* /04/222&*fl*/01, dated 28/12/2004 Duration 20 years	**Area- 4.15 Ha.** Village Sanarkhola, Tehsil Gangolihat, District Pithoragarh	Yes, EC no.766-1(750)/2015 dated- 20 September 2015	29° 45' 37.3" 79° 56'45.9"
3.	Soapstone	M/s CMD Mines and Minerals	6/865 Blutiya Building, Badripura, Haldwani, District Nainital	Industrial Development , Section –I, G.O. no. 1690/VII-I/2018/38Soapstone/16, Dated 09/10/2018 Duration- 50 years	**Area-11.827** Ha. Village Sanarkhola of Tehsil Gangolihat, District Pithoragarh	No, awaited	29° 45' 16.9" 79° 56' 08.9"

6- Cluster- Gangolihat Mine(2)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)

1.	Soapstone	Sh. Trilok Singh Manral	S/O Sh. Narayan Singh Manral, Vill. Jawahar Jyoti (Damuwadhanga), Kathgodam, Haldwani, District Nainital	G.O. 1293/VII-I-09/199-*fl*/2004, Dated 12/08/2009 Duration 20 years	Area-4.049 Ha. Vill. Bhanyadi, Tehsil Gangolihat, District Pithoragarh	Yes, EC no.02-DEIAA//2017-18, dated 28 Feb 2018	29° 45' 26.2" 79° 55'39.3"
2.	Soapstone	M/s Associate Soapstone Distributing Company Pvt. Ltd.	Golcha Garden, Agra Road, Jaipur	G.O. 1782/VII-I/2016/03-*fl*@11, Dated 27/12/2016, 25 years	Area 4.511 Ha.	No, awaited	29° 45' 22.6" 79° 55' 25.5"
3.	Soapstone	Vishnu minerals Pro. Gaurab Manral	Haldwani, Nainital	Mine under EC Processing in SEIAA	Area 4.860 Ha.	No, awaited	29° 45' 27.22" 79° 55'34.29"

7- Cluster- Gangolihat Mine (3)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)
	Soapstone	Sh. Pradeep Chandra Joshi	S/O Sh. P.C. Joshi, Vill. Chimsyanaula, G.I.C. Road, District Pithoragarh	G.O. 3810/VII-I-07/199-*fl*/2001, Dated 24/09/2007 Duration 20 years	**Area-4.303 Ha.** Village Joshigaon (GaulaChaura), Tehsil Gangolihat, District Pithoragarh	Yes, EC no.805-I(780)/2015 dated 04 January 2015	29° 43' 23.36" 79° 56'38.79"

	Soapstone	Sh. Manoj Kumar Joshi	S/O Sh. Girish Chandra Joshi Tehsil Road, District Bageshwar	G.O. 1519/VII-I/2015/96-fl@2009, Dated 30/10/2015, 20 years	Area 4.463 Ha. Village Bhingarhi, Tehsil Gangolihat, District Pithoragarh	Yes, EC no.06-DEIAA//2017-18, dated 28 Feb 2018	29° 45' 03.8" 79° 57' 31.4"
	Soapstone	M/S K.S. Minerals	Gora Padaw, Bareily Road, Haldwani, District Nainital	G.O. 1078/VII-I/2015 /177fl/2010, Dated 30/07/2015 G.O. 1305/VII-I/177fl /2010, Dated 05/09/2016, 20 years	Area 11.160 Ha.	No, awaited	29^0 -45' 31.5" 79^0 -56' 47.7"

8- Cluster- Gangolihat Mine(4)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)
1.	Soapstone	Sh. Thakur Singh Dasila	Vill. Wasikhet, Post Devradi Gangolihat, District Pithoragarh	G.O. 1383/VII-II-/19-fl/2001 Dated 12/08/2011 Duration 20 years	**Area-4.321 Ha.** Village Wasikhet, Post Devradi Gangolihat, District Pithoragarh	Yes, EC no.804-1(789)/2015 dated 04 January, 2016	29° 45' 27.5" 79° 54'56.2"
2.	Soapstone	Sh. Thakur Singh Dasila	S/O Sh. Sher Singh Dasila, Vill. Basikhet, Post Devradi	G.O. no. 1252/VII-I/2018/19fl/10, Dated 03/07/2018 Executed by G.O. no. 557/VII-I/2018/19fl/10, Dated 06/03/2019	**Area-2.295 Ha out of 3.255 Ha** Area lying in Villages Danu and Oliya of Tehsil Ganai	Yes, EC no. 5/DEIAA/2017-18 dated 28 February, 2018	29° 45' 27.5" 79° 54'56.2"

			Pant, District Pithoragarh	Duration- 25 years	Gangoli, District Pithoragarh		

9- Cluster- Dharchula Mine (1)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)
1.	Soapstone	M/s Sahani and Company	Dhmaura, near Radhika Public School, Aicholi, District Pithoragarh	G.O. no. 1442/VII-I/2015/44-*fjV*/2010, Dated 14/10/2015 Executed by G.O. no. 1755/VII-I/2018/44-*fjV* /2016 Dated 17/09/2018 Duration- till 31st March, 2020	Area-1.74 Ha. Village Toli of Tehsil Dharchula, District Pithoragarh	Yes, EC no. EC08/DEIAA/-EC/2017-18 dated 28 February, 2018	29° 49' 24.1" 80° 22'27.9"
2.	Soapstone	Mr. khushal singh pipaliya	Pithoragarh.	Mine Applied Jun 2019 Inspection under process	Area 23.345 Ha.	Mine Under Application Stage and Inspections awaited.	

10- Cluster- Dharchula Mine(2)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)
	Mr.Raghudatt joshi	Ancholi, Pithoragarh.	Mine Under Process to LOI	Mine under LOI Process	Area 7.45 Ha.	Mine Under LOI Stage and MP and EC awaited.	

	Mr. Harish joshi	Ancholi, Pithoragarh	Mine Under Process to LOI	Mine under LOI Process	**Area 6.30 Ha.**	Mine Under LOI Stage and MP and EC awaited

11- Cluster- Munsiari Mine (1)

SN	Name of the Mineral	Name of the Lessee	Address & contact no. Lessee	Mining lease Grant Order No. & date	Area of Mining Lease (ha.)	Obtain Environment Clearance (Yes/No), if Yes Letter No. with date of grant of EC	Location of the Mining Lease (Latitude & Longitude)
1.	B & J Soapstone Mines	KamluwaGaja Mehta (Bora Colony) Haldwani, District Nainital	G.O. 2020/VII-I/2018/1(8)/18, Dated 07/12/2018 Duration 25 years	Mine under Demarcation Process	**Area 4.774 Ha.** Tok Malan of Village Raya, Tehsil Munsiari, District Pithoragarh	No, awaited	29° 56' 12.3" 80° 13' 42.2"
2.	Maa Durga Devi Soapstone Mines	Kamluwa Gaja Mehta (Bora Colony) Haldwani, District Nainital	G.O. 2021/VII-I/2018/1(8)/18, Dated 10/12/2018 Duration 25 years	Mine under Demarcation Process	**Area 4.930 Ha.** Tok Gol Gaon of Village Raya, Tehsil Munsiari, District Pithoragarh	No, awaited	29° 56' 05.6" 80° 13'35.3"

20. DETAILS OF ECO-SENSITIVE AREA, IF ANY, IN THE DISTRICT:-

Askot Wildlife sanctuary 54 km from Pithoragarh, Patal Bhubneshwar (limestone caves) 14 km north of Gangolihat. Milam, Namik and Ralam Glacier, Munsiyari Bugyal, etc. are some of the eco-sensitive zones in Pithoragarh district.

Air: Anthropogenic sources of air pollution due to mining are divided into two categories:

(i) **Mobile sources:** Include automobiles, transport trucks etc. in the applied area

Stationary sources: Includes open cast manual mining, loading and unloading points, blasting sites, loading/unloading of minerals from pits to dumps etc., and road/ tracks, crushing and dust generated from grinding units of ore, beneficiation plants and power generation plants attached to mines. Once the pollutant enters the atmosphere, many interactions occur. Winds then act to transport the pollutants or promote additional mixing. Most of the pollutants in the ambient air are the fines suspended particles and gases that cannot be seen.

Water: The main source of water pollution will be the run-off water from the mines joining the nearby river/nala/water body. The increased ppm due to the dissolved mineral content will have an adverse

effect on consumption as potable water and for agricultural use. The rainwater, accumulated in the openpits may also invite the possibility of area being infested by insects such as mosquitoes, etc. The seepage from the beneficiation ground may also affect the quality of underground water.

Noise and vibrations: Long term exposure to high noise levels can cause damage to hearing, headache, fatigue and disorders to blood pressure etc. The mining activities using blasting techniques may affect the noise level of the area. Also, the mechanised mines, may contribute significantly to the noise level. The continuous vibrations, due to blasting, may induce cracks in the neighbouring buildings.

Soil: The soil/loose overburden when removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar or manually to stack on the dump yard may spread dust in the area causing difficulty in respiration, visibility, etc.

21. Land use/Agriculture/Forest/Flora & Fauna:

The dust, noise level, diversion of water channel, clearing of the forest/vegetation cover, creation of dumping sites, etc. may adversely affect the flora and fauna of the area. Change in the land use pattern is one of the major concerns in opencast mining. The removal of overburden may result in the agricultural land loose its productive soil cover which supports its agricultural activities.

22. Remedial Measures to mitigate the impact of mining on the Environment:

Air: Soapstone is a talcose rock mineral composed of hydrous magnesium silicate. The specific gravity is around 1. The emissions due to mineral handling during mining operation are not much and restricted to the lease area only. Air pollution is caused mainly due to dust generation added with gaseous emission from transportation activities along with mining operation like evacuation, loading, haulage etc. The soapstone is mined in lumps and also no beneficiation of the mineral is done at the mining site. The mineral is segregated and packed in bags for transportation. The transport vehicle is also covered to minimize the effect of air pollution. Proper mitigation measures are practiced during mining activities to control air pollution level below the prescribed limits.

Some measures for dust suppression are as follows:

- Use of Personal Protection Equipments (PPE) like dust masks, ear plugs etc. by the mineworkers.
- No Blasting will be done.
- Regular water sprinkling on haul roads & loading points will be carried out.
- Development of green belt/plantation around the lease boundary, roads, dumps etc.
- Vehicles carrying mineral will be covered with tarpaulin sheet. This will prevent dust emission

Also, since the applied area is in remote hilly Lesser Himalayan region without any industry/mechanized operations around and the mining block is more than 500m away from nearest road head. The manual mining operation will not cause any significant air pollution. However, adequate measures are taken to ensure the air quality within the permissible threshold value.

Water:- The deposit is situated in the lesser Himalayan region and has a moderate rainfall. The deep water table in maximum areas is not interfered by the mining operations. Places where there are chances of interaction with the water table are suitably planned for final disposal of mine water. No water problem is envisaged in the working pits since the rain water will be coursed through the drains provided on the upper side of the lease area and drainage on the benches provided on the hillside by slight slopping of the benches. The only source of the water shall be the rain water which shall flow along the natural slopes. No soapstone mining is allowed near any river/nala following the guidelines ofstate & central Govt. Mostly, the water bodies near the mines are of seasonal nature and the mining is not allowed during the monsoon season. Hence, the pollution due to run-off water is negligible. The mines with steep slope towards the water body are provided with check dams to course the water and control the flow of the scree material into the Nala in order to check water pollution.

Measures to minimize Noise pollution and Vibration:

Long term exposure to high noise levels can cause damage to hearing, headache, fatigue and disorders to blood pressure etc. No such disorders have been reported from district Pithoragarh mining leases because the exposure to cause of noise is comparatively short and volume of noise is quite low. In the soapstone leasehold area since is bedded, jointed and fractured in nature, it can be easily mined. Mostly nature of the overburden is silty clayey soil embedded with dolomite & magnesite boulders up to 1m size generally. Therefore blasting is not required both in soapstone as well as overburden. The sources of noise are excavation operations and mineral transportation which is limited because of small size of mining operations. Most of the mines are opencast and semi-mechanised Since, mining operation/excavation activity are carried without drilling and blasting, hence, there will be no impact on vibration level due to blasting. Transportation of mineral from mine site to road head will be done manually or with mules. To keep the noise level to the minimum, Green Belts shall be provided around the mining area and other blank area near of mine. Therefore, the noise level from mining of soapstone is within the bearable decibel level.

Soil: The soil removed with the help of machine/manually is stacked on the dump yard. The spread of stacks are maintained at an average dump height of 1.5m. The top soil and interburden dump are temporary in nature & when pit crosses the economical depth; all the quantities will be used in backfilling to restore the maximum topography of the area. Also, part of the stack of soil and rejects is utilized in construction and maintenance of retaining walls, parapet walls, check dams and other construction works while, the remaining dump yard rejects is backfilled to restore back the fertile soil layer.

Land use/Agriculture/Forest/Flora & Fauna:

The area under soapstone mining is agriculture/*nap land, with* sparsely occurring trees and scattered patches of grass generally Dub etc. The forests in the nearby area are covered with some specific trees like *Banj, Kweral, Timila,* & Pine, etc.

Flora: The area is basically used for agricultural regime. It is therefore devoid of trees concentration zone. Some trees are generally present on shrub or grazing Land. All the mining activities are mainly concentrated on agricultural/Banjar land having sparsely scattered trees. The mining is performed with semi mechanized method, without drilling and blasting, so the existing tree will not be disturbed.

Fauna: The types of fauna consist of snakes, rabbits, wild cats, fowls and jackals etc found in and around area. Ghoral (A goat like stocky animal), Kakar (barking deer), hares, Stag & Bhalu, black hill partridges, chakor and wild fowls are sometimes sighted in the buffer zone. There is no trace of any major wild life in the mining area. Domestic animal like cows, buffaloes, goats, ponies etc. are seen in areas close to the villages.

23. Reclamation of Mined out area (best practice already implemented in the district,requirement as

The top soil removed with the help of machines/manually and stacked separately. The soil intermixed with fragments and inter-burden is classified as rejects. Part of these rejects is utilized in construction and maintenance of retaining walls, parapet walls, check dams and other construction work. Remaining rejects left in the dump yard, are backfilled to restore the topography.

The site for dumping the waste are selected keeping in mind the ultimate pit limit, proximity to roads and lead from working benches. The dump yards are prepared with adequate capacity to accommodate the waste production without rehandling except backfilling. Drainage from the dumps remain natural i.e., water shall be passed under the solid dumps. The built up of waste has been shown on the yearly mining plan and section. The top soil and interburden dump are temporary in nature & when pit will reach the economical depth; all the quantities will be used in backfilling to restore the maximum topography of the area.

24. Proposal for reclamation of land affected by mining activities:

The mining will commence from the lower levels and will advance towards higher levels. Intermittent backfilling will commence from the lower levels and subsequently advance towards the higher elevations so that terraced agricultural fields is undertaken in such a manner that original land usewill be restored i.e. before the onset of monsoon will be handed over to cultivators for cultivation. The final backfilling will be started once the ultimate benches are formed and pit reaches the optimum economic depth.

The Mines safety Department of Government of India regularly visits for checking and following of the safety parameters. To increase the awareness for environment protection and safety the Indian Bureauof Mines conducts the Mines safety and protection week every year in which a team of experts from the field of mining, mines safety and environment visits the mines to check and then grade the mines accordingly awarding the best mines in the zone.

25. Risk Assessment & Disaster Management Plan:

Mining is associated with several hazards that pose impacts not only on habitation and habitants, but also the workers in the mine area, the landuse, topography and the environment. Hence, adequate Risk assessment and planning of Disaster management along with implementation of Safety and health becomes a necessity in mine areas. Risk Assessments an important aspect in the planning of Disaster Management. The Department officers critically examine the mine for its proneness to any natural hazard and assessment regarding danger of hazard and precautions are reviewed and updated yearly preferably before the onset of monsoon so that water will not affect the benches & chances of slope failures are minimized. The slope stability of the mining area is checked by providing benches at regular intervals. The benches are kept moderately sloping and are properly retained. When the mining will reaches up the optimum economical depth then the excavated pit is backfill to restore the topography of the area. The mining faces are dressed properly to avoid the falling of hanging boulders/loose material that may create fatal accidents to the laborers while working in the pit. The mining is not done in the rainy season, limiting the chances of flooding during mining operation in monsoons.

Through sustainable mining activities are allowed but still in case of accidents like landslides, seismic activities, check dam failures, fires and inundation etc. proper provision for meeting such eventualities are taken care of. both at the time of mine operation and in the event of mine closure.

In case of any disaster, effective communication between the mine owners and the Department officials may be established for safe withdrawal of persons from the mines. For effective implementation of the disaster management plan, it is mandatory for the mine owners to have adequate information of the nearby hospitals, fire station, police station, village panchayat heads, taxy stands, medical shop, district revenue authorities etc., and use them efficiently during the case of emergency. Afirst-aid kit and vehicle for transportation in case of medical emergency is provided at the mine site. Each worker employed in the mine will be provided helmets and shoes. Safety belts will be used for working in the top of the benches. An experienced Permit Manager/Mines Foreman will be employed for the supervision of mining operations. Regular health camps for health check-ups of mine workers are organized by mine owners as per the guidelines issued by the Government.

The maintenance of record of overburden, soil cover, production, haulage, dumping zone, etc. is under

taken periodically. The impact due to mining, dumping and other activities to local people is also regularly checked.

Adequate measures to ensure that persons and animals do not stray into the workingpits/excavations and other surface openings and to prevent any type of accidents like flooding of pits, etc. are undertaken in the mine area. Also proper backfilling and protective works like fences, parapet walls, garland drains are provided before the mine/pit is abandoned.

26. Plantation and Green Belt development in respect of leases already granted in the District:-

Development of green belt/plantation around the lease boundary, roads, dumps etc.

To keep the noise level to the minimum, Green Belts shall be provided around the mining area.

Yearly, a fund for the plantation and development of the green belt in the mining areas is transferred tothe Forest Department of the State.

27. Any other information:

Opencast method of mining causes some land degradation and disturbs the ecology of the area. Therefore, the mining plans are emphasized to give importance to environmental protection so as to minimize the adverse impact on the present environmental status. This has been made possible by planning the mine workings in the most systematic, safe and scientific manner with due regard to conservation of mineral as well as on restoring the ecology of the area as much as is possible.

The District Mineral Fund (DMF), collected from operating mines in the area, is utilized for addressing the various issues of health, societal benefit, education, etc. in area influenced by the mining activities. The planning for the utilization of fund is done as per the guidelines laid by the Central and State Government.

उपनिदेशक / भूवैज्ञानिक
भूतत्व एवं खनिकर्म इकाई
जिला टास्क फोर्स पिथौरागढ़

FINAL ENVIRONMENTAL IMPACT ASSESSMENT REPORT
AND
ENVIRONMENTAL MANAGEMENT PLAN (EMP)

FOR
BAJETA SOAPSTONE MINING PROJECT
LOCATED AT
VILLAGE –BAJETA, TEHSIL – MUNSHYARI
DISTRICT – PITHORAGARH, UTTRAKHAND

LEASE AREA: 17.967 Hectare.

Maximum Proposed Capacity: 68231 Tonnes (in Five Year)

PROJECT PROPONENT DETAILS:

M/S J.D. MINERALS
SHRI RAJENDRA SINGH DAFOTI
B-54 JUDGE FARM, CHOTI MUKHANI,
HALDWANI DISTRICT-NAINITAL (U.K.)

PREPARED AND SUBMITTED BY:

COGNIZANCE RESEARCH INDIA PRIVATE LTD
(Accredited by QCI/NABET)
Corporate Office: GT-20, Sector – 117, Noida – 201301

Email id: cripl.info@gmail.com
Website: www.cognizanceindia.com

CRIPL
CREATING SOLUTION

CHAPTER-4

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

4.1 Details of the Investigated Environmental Impacts

This Chapter provides a brief overview of the potential impacts on various environmental components due to the proposed opencast mining activities. The opencast mining operations in general cause environmental degradation and if adequate control measures are not taken to prevent/mitigate the adverse environmental impacts, these operations may cause irreversible damage to the eco- system. The environmental parameters most commonly affected by mining activities are:

- Topography and drainage;
- Air quality including Climate
- Noise levels
- Water resources and quality;
- Land use Pattern
- Soil quality
- Flora and Fauna
- Socio-Economic conditions
- Occupational Health

Various environmental impacts, which have been identified due to the mining activities, are discussed in the following sections and mitigation measures are suggested.

4.2 Impact on Drainage

The surrounding area characterized by steep slopes, narrow ridges & forms the mountainous topography. The rainy water flows through the slopes & meet the seasonal drainages. All the seasonal drainages meet & ultimately influence in to river which is the main catchment zone within the buffer area. Garland drains will be all along the proposed pits will be made for proper drainage. Thus, there will be no impact on drainage pattern of the area

4.3 WATER ENVIRONMENT

(a) Impact on Water Resources & Surface Water Resources:

The topography of the area will not be largely changed in view of the proposed concurrent reclamation. No surface water body exists and passes through the lease area. During the mining activity period, there is a possibility of mixing of freshly disturbed material with the rain water. To take care of such events, retaining walls have been provided along the backfilled pits and

along the soil and inter-burden dumps. Before the commencement of rain all the mining pits shall be backfilled so that rain water does not accumulate in the mining pits. Rain water will be channelized along the slopes it shall not carry suspension to natural streams.

Groundwater Resources: The water table in hills is usually very deep and does not have any relevance with mining activities. However, concurrent restoration to original topography will not disturb the percolating water.

The Pre-monsoon Depth to Water (DTW) ranges from 9.06 to 60.75 mBGL whereas the Post- monsoon DTW ranges from 1.02 to 55.90 mBGL.

Table-4.1 Site Elevation and Working Depth Details

Particulars	Details
Elevation	1619.30 – 1335.20 mRL
Ground Water Table	9.06 to 60.75m bgl
Ultimate working depth	12Meter

(b) Impact on Water Quality

Mining activities cause adverse impacts due to mine drainage, siltation due to storm water and contaminated water from workshops and domestic sewage water. Various components have been identified for study of impact of the mine operations.

(c) Impact on Surface Water Quality

As there no perennial and seasonal *nalla* or water body within the leasehold area, therefore no change will be observed due to mining operation.

Due to mining activities it is anticipated that over burden and mineral fines flowing with water may cause siltation and affect the flow of drainage courses. Mining activity and degradation of land and subsequent flow of water is likely to disturb the drainage course. The quality of water flowing in these drainages will also be polluted. Therefore to safeguard the existing drainages in the area following precautions are proposed:-

- The mining pits will be properly benched; and waste dumps will be properly terraced with retaining walls at the toe so that there is no land slide during the rains.
- Premature backfilling shall be carried out before the commencement of monsoon & all the quantities of inter burden & soil shall be filled back in the mining pit, leveled & it shall be used for agricultural purpose
- The benches of mining pits, terraces of waste dumps will have grass plantation during the

- rains and if possible local cultivators will be allowed to grow vegetables and other seasonal crops so that it will also reduce the land degradation and will provide additional income to the local people. Cultivated land reduces the soil erosion and this aspect will be utilized for reducing the soil erosion and also the effect of siltation on drainages.
- The over burden and mineral is non-toxic and not going to have any effect on quality of water flowing in these drainages.
- Check dams will also be constructed so that speed of water flowing during rains does not increase abruptly to cause land slide and degradation of land and these check dams will also works for settlement of the silts before the clean water flows out of the lease area.
- Regular monitoring of quality of water and surface water flow in these drainages are proposed to take care of adverse impact due to mining.

Analysis results of surface water samples collected from rivers and *nallas* in the buffer zone indicate that the pH, total dissolved solids (TDS) are well below the prescribed limits.

No adverse impact was noticed. Backfilling will be done before the onset of monsoon.

(d) Impact on Ground Water Quality

The proposed bottom level of working pit will not affect the water table. Extraction of water for mining operation is not anticipated. Therefore project will not affect the ground hydrogeology and water depth. The source of water will be under the govt. scheme Swajal Dhara Yojna.

(e)Wastewater Generation, Treatment & Disposal

The total water consumption in the proposed Soapstone Mine is about 33.91 KLD. The water is used in the following purposes.

- For dust suppression
- For domestic consumption
- For greenbelt development

It is proposed to obtain water for drinking and plantation from spring under the scheme of Swajal Dhara (Govt. of India).

There will be no waste water generation from Mining activities. However, a small amount of domestic wastewater generation will happen as a result of water used by humans. The domestic and service building effluents will be disposed through eco-friendly mobile toilet.

There will no settlement near the site as the workers will be hired from nearby villages so no significant liquid effluent will be generated.

(f) Surface Water

There is a possibility of mixing of freshly disturbed material with the rain water. To take

care of such happenings, retaining walls have been provided along the backfilled pits and along the soil and inter burden dumps.

Monitoring of water will be carried out periodically. Water analysis will be carried out seasonally.

(g) Ground Water Pollution

Regular monitoring of water levels and quality in the existing open wells and bore wells in the vicinity will be carried out. If found necessary, additional observation wells will be sunk for monitoring the water levels and quality around the mine representing both upstream and downstream conditions. No springs are reported within the site, therefore chances of surface runoff mixing with ground water is negligible.

Mostly local labors are employed for mining operation, thus small value of waste water from domestic source are anticipated. The waste water generated from toilets at site will be routed to septic tanks.

4.4 IMPACT ON LAND USE

Land use Pattern in Core Zone

The proposed opencast mine will result in change of land use pattern of the ML area. The land degradation is expected during mining activities like excavation, overburden dumping, soil extraction etc. Land requirement for the project has been assessed considering functional needs.

The potential adverse impact of opencast mining is the change in land use pattern. So reclamation of mined out land will be given due importance as a step for land resource management.

4.5 IMPACT ON SOIL

The quantum of soil removed during the mining will be very less. Soil will lose its compactness. Present, End of the 25 years & Conceptual land use pattern land use pattern is given in mine plan attached as annexure III.

4.6 IMPACT ON AIR QUALITY

Proposed Soapstone mine where PM 10 will be the main pollutants generated in mining activities. The emissions of Sulphur dioxide (SO_2), Oxides of Nitrogen (NOx) contributed by diesel operated equipment and vehicles movement were considered marginal as branded make and vehicles with PUC certificate will be operated only. Fugitive dust and particulates are major pollutants which will occur in the mining activities. Fugitive emissions will be settled by 70-80% by use of multiple water sprinklers. Prediction of impacts on air environment will be made

with proposed production and net increase in PM 10 emissions at the proposed site and at the 10 km radius of study area due to mining activities.

Air pollution sources in the operating mine was classified into two categories

- Impact due to wind erosion & road maintenance
- Loading and unloading of mineral and OB, IB
- Transportation on the mule and haul road

Water tankers with spraying arrangement of sprinklers with high efficiency will be used for regular water sprinkling on the mule and haul roads to ensure effective dust suppression. The trucks and tippers are well maintained so that exhaust smoke does not contribute abnormal values of noxious gases and un-burnt hydrocarbons.

(a) Emissions Details

Road maintenance due to mining activities, loading - unloading and transportation of ores and overburden, inter burden will be the main polluting sources in the proposed mining activities releasing Particulate Matter (PM_{10}) affecting Ambient Air Quality of the area. Transportation of the ore by tucks on the haul road was calculated by the area source which was combination of line sources with each truck loaded with ore transported over the haul road of the mining area.

4.7 PROPOSED MITIGATION MEASURES FOR DUST SUPPRESSION

Soapstone is a talcose rock mineral composed of hydrous magnesium silicate: **3** MgO-$4Si0_2$- H_20. The specific gravity is around 1. Therefore emissions due to mineral handling during mining operation are not much and restricted to the lease area only. Air pollution is caused mainly due to dust generation added with gaseous emission from transportation activities along with mining operation like evacuation, loading, haulage etc. Proper mitigation measures will be practiced during mining activities to control air pollution load below the prescribed limits. The same are as follows:

Control of Fugitive Emissions

- Use of Personal Protection Equipments (PPE) like dust masks, ear plugs etc. by the mine workers.
- No Blasting will be done.
- Regular water sprinkling on haul roads & loading points will be carried out.
- Development of green belt/plantation around the lease boundary, roads, dumps etc.
- Ambient Air Quality Monitoring will be conducted on regularly basis to assess the quality of ambient air.

Prevention and control of Gaseous Pollution

- In mining activities, the sources of gaseous emissions would be through truck

movements

- Proper maintenance of vehicles improves combustion process & makes reduction in the pollution. Good maintenance and monitoring of fuel and oil will not allow significant addition in the gaseous emission.
- All the vehicles used will have PUC certificate.
- Taxi mode of vehicles carrying mined out material while loading and unloading will not be allowed.
- Vehicles carrying mineral will be covered with tarpaulin sheet. This will prevent dust emission.

The sources of pollutants from mining activities are given in **Table-4.3**

Table-4.3 Sources of Pollutants

Sr. No.		Source	Type of Pollutant
1	Transport of Overburden or soil for dumping/ backfill		SPM
2	Dumping		SPM
3	Loading of ore		SPM
4	Transportation of ore		SPM, NOx

4.8 IMPACT ON NOISE ENVIRONMENT

Noise Environment

As mining will be done by machine, noise will only be generated due evacuation, transportation activities. The noise generated by the mining activity dissipates within the mine. There is no major impact of the mining activity on the nearby villages. However, pronounced effect of above noise levels is felt only near the active working area.

The impact of noise on the villages is negligible as the villages are far located from the mine workings. Since there is no involvement of machinery, the impact of noise levels will be minimal.

(a) Noise Abatement and Control

In this mine the noise level will be up to tolerable limit (70 dB (A)) and the noise level can be reduced by:

- Proper maintenance, oiling and greasing of transport vehicles at regular intervals will be done to reduce the generation of noise.
- Adequate silencers will be provided in all the diesel engines.
- Plantation along the sides of approach roads, around office building and mine area will

be done to minimize the propagation of noise.

- Personal Protective Equipments (PPE) like earmuffs/earplugs will be provided to all operators and employees working near miningmachineries or at higher noise zone.
- Periodical noise level monitoring will be done.

Frequency levels and associated mental and physical response of humans are given in Table-4.4.

Table-4.4: Noise Exposure Levels & Its Effects

Noise Levels	Exposure Time	Effects
85	Continuous	Safe
85-90	Continuous	Annoyance and irritation
90-100	Short term	Temporary shift in hearing threshold, generally with complete recovery
Above 100	Continuous	Permanent loss of hearing
	Short term	Permanent hearing loss can be avoided
100-110	Several years	Permanent deafness
110-120	Few months	Permanent deafness
120	Short term	Extreme discomfort
140	Short term	Discomfort with actual pain
150 and above	Single exposure	Mechanical damage to the ear

4.9 GREENBELT AND PLANTATION

Proposed Plantation at the Mine Site

The main aim of plantation in the mined out areas is to stabilize the land to protect it from rain wash off and wind erosion. The plantation scheme broadly covers the following areas:

Greenbelt around peripheral portions of the ML and Plantation will be raised along the boundaries of the mining lease by planting the native species around ML area, backfilled and reclaimed area, around water body, etc. in consultation with the local DFO/Agriculture department. Around 6000 plants will be planted in the first 2 year and next 3 year it will be maintain.

Greenbelt Development in ML area

The entire plantation will be done on the periphery of the reclaimed area. Precautionary

measures will be taken for care of the forestation made by regular watering in the plantation area, to protect from grazing animals and proper manuring.

Trees to be planted: Peach (Khumani), Pears (Nashpati), Apricot (Aaru), Faliyat, Surai etc. **Shrubs:** Kilmora, Hisalu, etc.

Further trees will be also selected from the plants recommended for afforestation is as per Guidelines for Developing Greenbelts, CPCB, and March 2000.

Table-4.6: Species Suggested for Plantation

Sl.No.	Species	Family	Habit
1.	*Alternanthera paronychioides*	Amaranthaceae	Herb
2.	*Alternanthera pungens*	Amaranthaceae	Herb
3.	*Amaranthus spinosus*	Amaranthaceae	Herb
4.	*Colocasia esculenta*	Araceae	Herb
5.	*Ageratum conyzoides*	Asteraceae	Herb
6.	*Grangea maderaspatana*	Asteraceae	Herb
7.	*Parthenium hysterophorus*	Asteraceae	Herb
8.	*Cassia tora*	Fabaceae	Herb
9.	*Cannabis sativa*	Cannabaceae	Herb
10.	*Chenopodium album*	Chenopodiaceae	Herb
11.	*Argemone Mexicana*	Papaveraceae	Herb
12.	*Brachiaria ramose*	Poaceae	Herb
13.	*Cynodon dactylon*	Poaceae	Herb
14.	*Eleusine indica*	Poaceae	Herb
15.	*Eragrostis tenella*	Poaceae	Herb
16.	*Saccharum spontaneum*	Poaceae	Herb
17.	*Physalis minima*	Solanaceae	Herb
18.	*Calotropis procera*	Asclepiadaceae	Shrub
19.	*Cassia occidentalis*	Fabaceae	Shrub
20.	*Croton bonplandianum*	Euphorbiaceae	Shrub
21.	*Abutilon indicum*	Malvaceae	Shrub
22.	*Bougainvillea spectabilis*	Nyctaginaceae	Shrub
23.	*Ziziphus mauritiana*	Rhamnaceae	Shrub
24.	*Datura innoxia*	Solanaceae	Shrub
25.	*Solanum virginianum*	Solanaceae	Shrub
26.	*Lantana camara*	Verbenaceae	Shrub

27.	*Berberis vulgaris*	Berberidaceae	Shrub
28.	*Mangifera indica*	Anacardiaceae	Tree
29.	*Ficus racemosa*	Moraceae	Tree
30.	*Cassia fistula*	Fabaceae	Tree
31.	*Ricinus communis*	Euphorbiaceae	Tree
32.	*Albizia lebbeck*	Fabaceae	Tree
33.	*Bauhinia acuminate*	Fabaceae	Tree
34.	*Butea monosperma*	Fabaceae	Tree
35.	*Bombax ceiba*	Malvaceae	Tree
36.	*Azadirachta indica*	Meliaceae	Tree
37.	*Quercus leucotricophera*	Lauraceae	Tree
38.	*Melia azedarach*	Meliaceae	Tree
39.	*Luecena leucocephala*	Fabaceae	Tree
40.	*Bauhinia variegate*	Fabaceae	Tree
41.	*Terminalia bellerica*	Combretaceae	Tree
42.	*Terminalia chebula*	Combretaceae	Tree
43.	*Morus alba*	Moraceae	Tree
44.	*Delonix regia*	Fabaceae	Tree
45.	*Pinus roxburgii*	Pinaceae	Tree
46.	*Celtis australis*	Cannabaceae	Tree
47.	*Grewia optiva*	Tiliaceae	Tree
48.	*Holoptelea integrifolia*	Ulmaceae	Tree

4.10 BIOLOGICAL ENVIRONMENT

The baseline flora and fauna has been depicted in Chapter-3. There is no National Parks, Sanctuary, Breeding, roosting places or ecologically sensitive areas within the 10 km periphery of the mine lease area. However, most of the area surrounding to project site are covered with forest land.

No loss of forest resource is envisaged due to the project. No medicinal plants exist in the area.

Impact on Biodiversity

Present data have been collected through direct inventory as well as various Government Departments such as forests, agriculture, fisheries, animal husbandry and various offices to establish the pre-project biological environmental conditions. There are no endangered species, wildlife sanctuary, wildlife corridors, faunal migratory routes or eco-sensitive area near the whole study area. Save the flora/fauna around the project area, is one of the basic objective of

present project. For this, mine owner agency will plant a good roadside plantation along both side of the mine road.

4.11 SOCIO - ECONOMIC ENVIRONMENT

The mine area does not cover any habitation. Hence the mining activity does not involve any displacement of human settlement. The mining operation will not disturb/ relocate any village or need resettlement. Thus no adverse impact is anticipated.

The impact of mining activity in the area is positive on the socio-economic environment of the region. Proposed project will provide employment to local population and preference will be given to the local people whenever there is requirement of man power.

PROBABLE IMPACT ASSESSMENT

Impact on population composition

The impact of the proposed mining project on population composition will be marginal as there will be no major immigration of people from distant areas. Only few skilled and managerial staff will be recruited from outside and the rest will be recruited locally. The PP will ensure that all the unskilled workers deployed for mining activities are local recruits. Further, no mining operation will be carried till it is assured that local people has been recruited and deployed for mining operation.

Impact on employment generation

The proposed mining project is expected to provide Direct and Indirect employment opportunities to local people of different skills and trades. It is a positive impact that needs to be encouraged. It has been estimated that 34 workers of various categories will be employed directly.

The employment potentiality of the project is expected to ameliorate the economic condition of the families of those persons who will get employed in the proposed mining project. Further, the project will provide indirect employment to people who will be involved in segregation of extracted mining materials, petty business and service oriented industries.

Impact on consumption pattern

The field survey has revealed that people in the study generally poverty ridden. Increased household income may slightly change and enhance the consumption pattern of few who are burdened with poverty.

Impact on road development

Movement of trucks and other vehicles to and fro the quarry is expected to increase, when

mining will start. There is mule road connectivity from the quarry to existing road. The existing roads connecting the quarry with the state highways are mostly narrow mud roads. There will be mud slide and traffic bottle neck if these roads are not widened and their conditions are not improved by making them paved roads. Hence, there is ample scope for road development in and around the mining areas. It is suggested that concerned department in the Government of the state to undertake widening and strengthening of existing roads connecting the mining sites on priority basis. There should also be budgetary support for road development in and around the mining areas.

Impact on law & Order

As local people will be employed to run the quarry, no law & order problem is envisaged. It is expected that the workers will attend to their duties from their residence and return to their homes after the day's work is over. There would have been law & order problem if the workers were migrants and lived in shanties closed to the mining area.

4.12 OCCUPATIONAL HAZARDS AND SAFETY

Occupational safety and health is very closely related to productivity and good employer-employee relationship. The factors of occupational health in soapstone Mining project are mainly dust and land degradation. Safety of employees during operation and maintenance etc. shall be as per Mines rules and regulations.

To avoid any adverse effect on the health of workers due to various pollutants, sufficient measures relating to safety and health will also be practiced:

- Provision of rest shelters for mine workers with amenities like drinking water etc.
- All safety measures like use of safety appliances, such as dust masks, helmets, shoes, safety awareness programs, awards, posters, slogans related to safety etc.
- Safety belts will be provided to workers on working on top benches.
- Training of employees for use of safety appliances and first aid in vocational training center.
- Regular maintenance and testing of all equipment as per manufacturers' guidelines.
- Periodical Medical Examination (PME) of all workers by a medical Officer
- First Aid facility is provided at the mine site.
- The mine area will be properly fenced to avoid any inadvertent entry in the mining pit.
- Warning boards and working hours will be displayed at conspicuous places.

4.13 PUBLIC HEALTH IMPLICATIONS

With the mitigation measures in relation to air pollution, water pollution, soil contamination and noise pollution proposed to be adopted at the mine along with green belt plantation along the periphery of Mining Lease boundary, it is expected that there will be no impact of mining on the population in the impact zone. However, the following measures shall be adopted:

Health check of all villagers in the immediate vicinity of the mine shall be carried out periodically. Surface water management shall be adopted to ensure that run-off from the mining are does not adversely affect natural water streams or other water bodies.

All water bodies e.g. wells and surface water sources in the vicinity of the mine, shall be periodically tested for any pollution related to mining operations and remedial action taken, if warranted. Operators of all transport vehicles shall be instructed not to honk unnecessarily and not over speed while passing through villages or near schools.

4.14 CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility (CSR) refers to responsibility of a company to ensure positive impact on environment, consumers, employees, communities, stakeholders and all other members of public sphere. The CSR activities are increasingly being taken up by the project proponents not only as fulfilling of mandatory provisions but also for the formation and or enhancement of brand image. Besides the above, CSR is seen more as a responsibility towards society rather than a business promotion activity. It is the need of the day for expansion of occupational welfare. The activities to be undertaken for the local people under CSR have already been identified. It is expected that this will improve the socio-economic status of the local people and at the same time the popularity of the mining project will enhance. It is proposed to spend five percent of the total cost of the project for the benefits of the local community under CSR activities. The amount earmarked for CSR activities has been worked out to Rs.4.16 Lacs. It is proposed to spend the above amount during the first five years of the commissioning of the mining project. Based on 'Community Needs Survey' conducted in the study area by the Consultant appointed by the company the following activities are proposed to be taken up for the benefits of the local community.

The list of activities proposed to be taken up is indicated below:

- Health Camps
- Construction of Bus stop shelters
- Distribution of Books and Notebooks among meritorious girl child belonging to Scheduled Caste and Scheduled Tribe population
- Cleaning of Tanks in selected villages
- Repair and Painting of School Building in the project village

Table 4.7: funds allocation of for the various activities proposed to be taken up under CER programme

S. No.	Activities	Allocation of Fund (Rs. Lacks)
1	Health Camps	1.46
2	Up gradation of toilets of government school in nearby villages	1.20
3	Distribution of Books and Notebooks among meritorious girl child belonging to Scheduled Caste and Scheduled Tribe population.	0.80
4	Repair and Painting of School Building in the project village	0.70
	Total	**4.16**

For each activity the funds to be earmarked by the proponent will be decided after discussion with the local authority and the beneficiaries. It has been planned to undertake a concurrent evaluation of the activities to be taken up under the CER programme.

ANNEXURE: R5/9

ENVIRONMENT MANAGEMENT PLAN

"SOAPSTONE MINING"
AT
VILLAGE- BAJETA, TEHSIL-MUNSYARI,
DISTRICT- PITHORAGARH,
STATE- UTTARAKHAD
(AREA- 17.967 Ha)

Submitted by

M/S J.D. MINERALS
SHRI RAJENDRA SINGH DAFOTI
R/O-B-54 JUDGE FARM, CHOTI MUKHANI,
HALDWANI DISTRICT-NAINITAL (U.K.)

Prepared by

COGNIZANCE RESEARCH INDIA PRIVATE LIMITED
GT-20, Sector-117, Noida-201301. (U.P)
Contact: +91-9910047760, +91-9415102339
Certificate No. NABET/EIA/1922/RA0151, Valid Till: Fab3,2022

ENVIRONMENT MANAGEMENT PLAN

1.0 INTRODUCTION

The environmental management must be integrated into the process of mine planning so that ecological balance of the area is maintained and adverse effects are minimized. The Environmental Management Plan (EMP) consists of a set of monitoring programme, mitigation measures, and management control strategies to minimize adverse environmental impacts.

In order to minimize impacts of mining on different environmental parameters and to keep air and water quality within prescribed limits of CPCB, an EMP has been prepared which is to be implemented in the project and covers the following phases of the project:

- Land Environment
- Water Environment
- Air Environment
- Noise Environment
- Biological Environment
- Socio-economic environment

The environment management plan has been developed with a view to bring down the levels of impacts during proposed mining activities. In each of the areas of impact, measures have to be taken to reduce potentially significant adverse impacts and where these are beneficial in nature, such impacts are to be enhanced/ augmented so that the overall adverse impacts are reduced to as low level as possible. Measures to be taken for each of the impact areas are detailed below.

2.0 LAND ENVIRONMENT

Deviation from planned mining procedure can lead to pits, degradation of land, causing loss of properties and degradation surrounding of landscape. Present land use pattern of the lease area is agricultural land and at the conceptual stage the land use pattern will be changed as it will be utilized for plantation.

MANAGEMENT

Thus for environment friendly mining the following control/abatement measures willbe followed:

- The pits from where the material will be picked should not get deeper than 3.0 meter.
- Digged out pits will be backfilled after closure of the mine.
- Mined out land will be utilized for plantation purpose.

3.0 WATER ENVIRONMENT

During the operational phase of mine no waste water or industrial effluent will be generated.

MANAGEMENT

The environmental management for water pollution control includes:

- Water requirements for drinking, plantation and dust suppression will be met by tanker

supply.

- Local people will be employed and no permanent housing will be done so no permanent drainage pattern for sewerage system is required as mobile toilets.
- Mining in the area will be done up to water level &will not be intersect the ground water table, therefore impact on water regime is not anticipated.
- Monitoring of water quality of nearby surface water, ground water and domestic water will be conducted once in every season except monsoon to evaluate the performance of the mitigation measures.
- Garland drain will be constructed on all sides of quarry along with settling pond to remove the suspended solids from storm water. The collected water shall be used in plantation and spraying on haul roads. Settling ponds will be designed on the basis of silt loading, slope of the lease, detention time required etc.

4.0 AIR POLLUTION CONTROL MEASURES

During the course of Soapstone mining, no toxic substances are released into the atmosphere, so there seems to be no potential threat to health of human beings. In Soapstone mining activities, dust will be generated during mining, loading and transportation. The only source of fugitive gaseous emission during mining is vehicles which will be used for transportation.

MANAGEMENT

The environmental management for air pollution control includes:

- The un-metalled haul roads should be adequately compacted before being put into use.
- Water should be sprinkled on these roads periodically every-day (twice in a day), to wet the surface.
- Over loading of transport equipments should be avoided to prevent spillage.
- Transportation of minerals should be in covered vehicles to prevent fugitive dust emission.
- Regular checking and maintenance of vehicles should be conducted once in every two months and pollution under control certificate be obtained.
- It will be ensured that all transportation vehicles carry a valid PUC certificate.
- Masks will be provided to the workers daily during working hours (8 hrs) of the mine.
- Plantation will be taken up along the approach roads and vicinity of mine lease. The plantation arrests dust.

5.0 NOISE ENVIRONMENT

Open cast Mechanized method mining will be done in the proposed project of Soapstone mining which will create momentary noise. Minimal noise will be generated during the operational phase of mine due to transportation and hand equipments to be used for mining purpose.

MANAGEMENT

The environmental management for noise pollution control includes:

- Proper maintenance of hand equipments will be carried out every month, which will help in reducing generation of noise during operations.
- Regular checking and maintenance of vehicles should be conducted once in every two month to avoid noise pollution.

- Ear plugs will be provided to workers during the operational hours of mine.
- Periodical monitoring of noise will be done to adopt corrective actions wherever needed.
- Plantation will be taken up along the approach roads and vicinity of mine lease. The plantation minimizes propagation of noise and also arrests dust.

6.0 BIOLOGICAL ENVIRONMENT

The mining activity will have insignificant affect on the existing flora and fauna. Data have been collected from various Government Departments such as forests, agriculture, fisheries, animal husbandry and various offices to establish the pre project biological environmental conditions. It was found that the Soapstone mining activity will not have any significant impact on the biological environment of the region. Mine lease is a private agricultural land with patches of common herbs and shrubs. These herbs may get cleared due to the proposed project.

MANAGEMENT

There is a requirement to establish a stable ecosystem with both ecological and economic returns. Minimization of soil erosion and dust pollution enhances the beauty of the core and the buffer zone. To achieve this it is planned to increase plantation activities. The basic objectives of plantations are as follows:-

- Improvement of Soil quality
- Quick vegetative cover to check soil erosion
- Conservation of biological diversity
- Provide forage and browse for wild life

7.0 SOCIO-ECONOMIC ENVIRONMENT

This project operation will provide livelihood to the poorest section of the society. The overall impact of Soapstone mining on the social economics of the area shall be a very positive one, as not only it will generate employment opportunities for local population at mine site but also in associated activities for transportation of mined material, etc . It will also give a good boost to the general economy of the area.

MANAGEMENT

During mining, employment will be given to locals and after mining; land will be utilized for plantation purpose which will provide aesthetic surrounding. About 54persons shall be employed at mine site and local villagers are to be benefited directly or indirectly by the project. Sanitation, drinking & medical facilities will be provided to the mine workers and nearby needy people through CER activities of the project proponent.

8.0 ENVIRONMENTAL MONITORING PROGRAM

The proponent shall follow the standard methods for six monthly monitoring various environmental parameters i.e. Air, Water, Noise and Soil through accredited laboratory and submit the compliance report as per EC conditions.

9.0 COST OF EMP

The total EMP cost for the proposed project is Rs. 26.40Lakhs. Break up of EMP cost is given below:

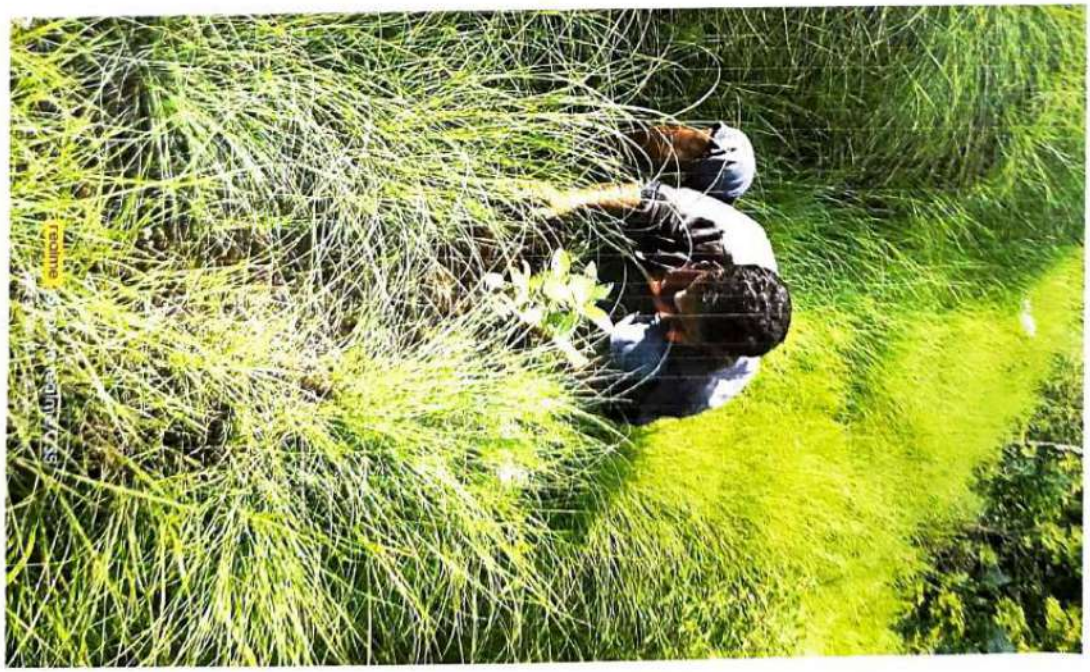
Budget allocation for EMP implementation

COST OF EMP

B. Break-up of Expenditure on Environment Protection & Environment Management		
Haulage Road Repair & Maintenance • Filling, Leveling and widening of the road up to width of 6m and length of 200 m. • Setting & Fixing of Cut Stone on the leveled road.	Annual 200 m (L) x 6 m (W)	2,00,000
Water Sprinkling on Haulage Road for Dust Suppression	Assuming Rs.1000/day for 240 days of working Tanker Cost: Rs. 1000/Tanker Tanker Capacity: 5000 liter, No. of Tankers required: 1	2,40,000
Plantation along the road side & post plantation care	Plantation@300/sapling (6000sapling in 1st &2 Year) (in next 3 yr post plantation care will be done) ***Note: Annual cost will increase with increase in no. of sapling.Note: Annual cost will increase with increase in no. of sapling.***	18,00,000
Environmental Monitoring & Compliances.	➢ **Half Yearly Monitoring of Environmental Parameters viz. Air, water, Noise & Soil.** ➢ Half Yearly Submission of Compliances.	4,00,000
Total Environment Protection & Management Cost (B)		**Rs. 26,40,000 (26.40 Lakhs)**

10.0 CONCLUSION

All possible environment aspects have been adequately assessed and necessary control measures have been formulated to meet statutory requirements. Thus implementing this project will not have any appreciable negative impacts.



भावना देवी
ग्राम प्रधान - बजेता
विकास खण्ड - मुनस्यारी

ग्राम पंचायत - बजेता
तहसील - मुनस्यारी
जिला – पिथौरागढ़, उत्तराखंड

पत्राक.08/जे. डी/2023 दिनांक .18.09.2023

हमे प्राप्त पत्रांक मैसर्स जे.डी. मिनरल्स दिनाक ०८/सितम्बर/२०२३ के द्वारा माननीय राष्ट्रीय हरित प्राधिकरण नई दिल्ली में विचाराधीन वाद संख्या-ओ.ए नंबर.७८ ऑफ़ २०२३ में पारित अंतरिम आदेश ०६/०९/२०२३ में सी.एस .आर और सी.इ.आर मद में कंपनी द्वारा किये गए कार्यो के सम्बन्ध में चाही गयी जानकारी निम्नलिखित हैं:-

१- कंपनी के द्वारा बच्चो की सरकारी प्राथमिक पाठशाला में धूल तथा वन्य जीवो से बचाव के लिए स्कूल की खिडकियों में जाली लगायी गयी एवं पाठशाला के चारदीवारी में भी जाली लगायी गयी.
२- कंपनी के द्वारा गाँव के सोंदर्यकरण तथा भुस्खलन और भूमि कटाव से बचाव के लिए हमारी ग्राम सभा में छायादार ,फलदार वृक्षों को लगाया गया एवं ग्राम वासियों को भी वृक्ष वितरित किये गए.
३- कंपनी के द्वारा ग्रामसभा के जरुरतमंद लोगो को हल्द्वानी नैनीताल के अच्छे प्राइवेट हॉस्पिटल मे इलाज करवाया गया.
४- कंपनी के द्वारा ग्राम सभा एवं पास के गाँव के मंदिरों के सौंदर्यकरण और पूजा पाठ एवं भगवत कथा के आयोजन के लिए सहयोग प्रदान किया जाता है.
५- उपरोक्त कंपनी द्वारा हमारे बच्चो को खेल कूद में प्रोत्साहित करने के लिए खेल कूद का सामान एवं सहयोग प्रदान किया जाता है.
६- कंपनी के द्वारा गरीब कन्या विवाह के लिए उचित सहयोग किया जाता है.
७- कंपनी द्वारा ग्राम सभा में मछलीपालक को हुए व्यवसाय में हुए नुकसान के लिए सहयोग किया गया.
८- कंपनी के द्वारा तत्परता से ग्रामसभा में अन्य सामाजिक कार्यो एवं पर्यावरण के लिए भी आगे आ के कार्य किये जाते रहे है.
९- जे.डी.मिनरल्स कंपनी द्वारा ग्रामवासियों की आर्थिक स्थिती को बढाने के लिए उनको माइनिंग में सबसे पहले रोज़गार प्रदान किया जाता है .उनको अपनी कंपनी के अंदर माइंस में नौकरी देकर या उनके लिए खाद्य सामग्री की दुकान खुलवाकर.

उपरोक्त सी.एस.आर. और सी.ई.आर. मद में कंपनी जे.डी.मिनरल्स द्वारा क्रम संख्या १ से लेकर ९ तक लगभग ८,५०,०००/-रुपये का व्यय वित्तियी वर्ष २०२२-२०२३ में किया गया है. एवं आगे भी किया जायेगा.

ग्राम प्रधान
भावना देवी
ग्राम सभा – बजेता
दिनाक :- १८/०९/२०२३