परियोजना का नाम:-

चार धाम परियोजना (ऑलवेदर रोड) के अन्तर्गत राष्ट्रीय राजमार्ग-94(134) किं0मी० 0.00 से 24.300 (धरासू बेंड़ से सिलक्यारा बैड) तक दो लेन चौडीकरण हेतु अतिरिक्त डिम्पणं स्थल एवं लैण्ड स्लाईड जोन के उपचार के लिए वन भूमि हस्तान्तरण का पस्ताव।

## परियोजना के निर्माण हेतु भू-वैज्ञानिक की आख्या

प्रमाणित किया जाता है कि प्रस्तावित परियोजना की भू-वैज्ञानिक आख्या संलग्न है।

2130MM

अधिसाशी अभियंता रा0मा0खण्ड, लो0नि0वि0 बड्डकोट, उत्तरकाशी

## कार्यालय प्रमुख अभियन्ता एवं विभागाध्यक्ष उत्तराखण्ड लोक निर्माण विभाग, देहरादून

भू—गर्भीय निरीक्षण आख्या ए०जी०— ३०८ सड़क / पुल / सम्रेखण / उत्तराखण्ड / गढ़वाल—२०२०

Geological assessment of the site proposed for the suitable location of additional dumping zone in Char Dham Highway development project (All weather road) over HN-134 (old no. 94), in Dunda block, distt. Uttarkashi.

10 जुलाई 2020

## Geological assessment of the site proposed for the suitable location of additional dumping zone in Char Dham Highway development project (All weather road) over HN-134 (old no. 94), in Dunda block, distt. Uttarkashi.

Shiv Kumar Rai 10-07-2020

- 1. <u>Introduction:</u> The work of Char Dham Highway development project (All weather road) over NH-134 is in progress where 3 sites were proposed for additional dumping zone. With reference to the letter no. 710/Chardham dated 06.07.2020, Er. Navneet Pandey, Executive Engineer requested to the undersigned for the geological assessment of the above mentioned dumping yards/zone in response to which I carried out the same on 07.07.2020 in the presence of Er.G.S. Reddy, Project Manager and Shri. K.S Negi, Surveyor engaged in the work of the above mentioned Project.
- 2. <u>Location:</u> The proposed site is located at km 13.90, km 13.150 and km 2.850 of Dharasu Yamnoutri (NH-134) motor road, in Dunda Block, distt. Uttarkashi.
- 3. Geological/ Geotechnical Assessment: Geologically, the site proposed for the muck disposal site and its environs lies in the Inner Lands of Lesser Himalayan Belt. The entire basement area and its environs is occupied by the rocks of Jaunsar Group which is bounded by the North Almora Thrust (NAT) and Main Central Thrust (MCT) from south and north direction respectively. The rock type exposed here at the basement are mostly dolomite with intercalation of slate in between. The topography of the area is moderately steep comes under forest but somewhere have civil lands. There is thin cover of overburden cover over the in-situ basement outcrop with cover of pines tree over the hill slope at all the 3 location.
  - (i) At km 13.90 over Dharasu-Yamnotri motor road (NH134)- Over this location, there is moderately steep slope having Sukha nala below it. There is not even monsoon discharge from the back few years with stable hill slope and free from any landslide/mass wasting activity. There is in-situ intact bedrocks are erected with slope angle varying from 35°-40°.
  - (ii) At km 13.150 over Dharasu-Yamnotri motor road (NH-134)— Also, at the above mentioned point, there is intact-insitu erect outcrop with moderate topography have a seasonal discharge gadera in monsoon below. The slope angle varies from 35-45 with stable ground covered by thin cover of overburden material. Therefore, it is essential to channelize the discharge of seasonal gadera with cylindrical/rectangular pipes to avoid the saturation condition or underground erosion of material.
  - (iii) At km 2.580 over Dharasu-Yamnotri motor road (NH-134)—At this location also, there is gentle hill slope with stable ground. Over this location, there is stable ground with stable slope with no seasonal gadera nearby to it. No terrace like cultivated land below or any residence which can be affected by the dumping. There is not even monsoon discharge from above the road with stable hill slope and free from any landslide/mass wasting activity. There is in-situ intact bedrocks are erected with slope angle varying from 30°-35°.



**4.** Conclusion: On the basis of the above studies carried out at the site, the proposed additional dumping zone was geologically found suitable for the construction in Char Dham Highway development project (All weather road) over NH-134 at km 13.90, km 13.150 and km 2.850 of Dharasu —Yamnoutri (NH-134) motor road, in Dunda Block, distt. Uttarkashi.

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