### Geological Assessment of the Proposed Alignment Corridor of Mohan Khal to Kansari Talli Motor Road. Distt. Chamoli

#### Introduction:

The Hi-Tec Engineers & Consultants, request the undersigned to carryout the Geological Assessment of 7,56km long alignment-Corridor of the proposed Mohan Khal to Kansari Talli Motor road under PMGSY CD PWD Pokhri Distt. Chamoli.

# General Geology and Geomorphology of the Mohan Khal to Kansari Talli road alignment:-

The proposed road alignment falls in Survey of India toposheet No. 53 N/3 in Chamoli district of Uttarakhand. The area forms a part of Lesser Himalayan Terrain. In this area the ground elevation vary generally between 1921 to 2170 m above mean sea level. The area consists of high strike ridges and deep valleys. The main drainage in the area is through a NW-SE flowing Kumjia Gad which in turn is joined many perennial and seasonal nalas. All main streams of the area ultimately drain their water in Alaknanda river. The rocks are exposed along the road alignment but at places covered by debris of the rocks exposed in the area. In between there are trees and bushes and soil cover also. The area experiences moderate to cold climate in winters followed by mild summers and rainy season. There are minor landslides also due to weathering and heavy rains during rainy season. The rocks in the area are medium to hard in nature.

#### Geology of the project area:-

The rocks exposed in the area belong to Garhwal Group of rocks, limited by north dipping Main Central Thrust in the north and South dipping North Almora Thrust in the south and forms part of southern limb of SE plunging Maithana syncline.



# **GEO TECHNICAL REPORT**



परियोजना का नाम:- जनपद चमोली में प्र0म0स0यो0 के अन्तर्गत मोहनखाल-तालीकंसारी

मोटर मार्ग निर्माण हेतु वन भूमि हस्तान्तरण प्रस्ताव :-

## मू-वैज्ञानिक द्वारा सुझाव का प्रमाण-पत्र।

प्रमाणित किया जाता है कि प्रस्तावित परियोजना हेतु भू—वैज्ञानिक द्वारा दिये गये सुझावों / शर्तों का निर्माण कार्य के दौरान् याचक विभाग द्वारा पूरी तरह अनुपालन किया जायेगा।

अमीन

नि॰ख॰ लो०नि०वि० पोखरी केनिष्ठं अभियन्ता नि॰ख॰ लो०नि०वि० पोखरी ्सहायक अभियन्ति निन्निःखं लोगिगि०वि० पोष्युंखरी अशिशासी अभियासा निमनिञ्खा लोठनिठ्निठ

पोव (पोखरीन)

# मोटर मार्ग निर्माण हेतु वन भूमि हस्तान्तरण प्रस्ताव :-

# भू-वैज्ञानिक की आख्या

भू-वैज्ञानिक की आख्या संलग्न है।

अमीन

नि॰ख॰ लो०नि०वि० पोखरी केनिष्ट्र अभियन्ता नि०ख० लो०नि०वि० पोखरी

स्सायक् अभियन्ता भिनिञ्खळ लोठनिञ्चिठ के पोखरी

अभियसासी अभियसाता निर्माण्खव्य लोठनिठविठ । पोखपीखंशीली)

### The Geological succession in the area is as follows:-

	Chamoli Formation	- Bhekuna Meta volcanic
Garhwal Group		<ul> <li>Nagnath quartzite, Quartzite &amp; Kaleshwar and Deothan phyllites etc &amp; dolomite and marble</li> </ul>
		<ul> <li>Karanprayag Meta volcanic</li> </ul>

Along the road alignment the rocks encountered are quartzites, Kaleshwar phyllites, Deothan phyllites with minor bands of dolomite and marble at places. There are also thin bands of sericite quartz schist. There are intruded by biotite granite at Mohankhal, and also by epidiorite intrusive. The rocks generally have NW-SE strike and are dipping in North easterly direction the dip vary from 20° to 40°

#### Conclusion and Recommendation:

Rocks in the area range in hardness from medium to hard. The quartzites & granite are comparatively hard as compared to phyllites etc. But in general all are stable and suitable for road construction, considerable part is covered by thin to thick debris of above mentioned rocks.

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