



Project Title: PDA Testing Lower Eel Creek Bridge, Cumberland County, NS

Client: NSTPW

Project Description:

GEMTEC Limited was retained by NSTPW to undertake dynamic pile testing (PDA) for a two span bridge structure crossing Eel Creek in Cumberland County, Nova Scotia. All piles driven were 406 by 12.7 mm steel pipe piles. Piles were finalized into bedrock using a DELMAG D-15 diesel pile-driving hammer.

The following PDA testing was undertaken by GEMTEC between October and November 2004:

- One pile PDA tested at the south abutment
- One pile PDA tested at the north abutment
- Two piles PDA tested at the centre pier

The purpose of the dynamic testing program was to:

1. Confirm axial capacity in compression (1500 kN)
2. Detect bedrock relaxation
3. Set finalization criteria while evaluating hammer performance and pile stresses

Finalization criteria were established in the field during PDA monitored driving. CAPWAP analyses were completed on each PDA tested pile.

