



SSAB:N TERÄSPAALUPÄIVÄ

21.1.2021

POHJARAKENTAMISEN YKKÖSTAPAHTUMA

SSAB



Threaded RDT270-320 piles in deep Norwegian clay

Sondre Smeland

SSAB - Norway

SSAB

Threaded RDT270-320 piles in deep Norwegian clay

► Threaded piles saw the “First Light” in: 2011

► New thread design and loose splice for all dimensions: 2019

– Extended portfolio to:

- RDT270

- RDT320

► First big project with splices on new dimensions: 2020

– Amount: 348 ton

– Lengths: 3665 m



Movie «New Threads - SSAB»



RDT — RD[®]

Pile with new threaded sleeve splice.

Project; Aasgardsplass – Sandefjord, Norway

- ▶ **Developer:** Bolig Norge
(Swedish owners)
- ▶ **Contractor:** HENT
- ▶ **Piling contractor:** SørNorsk Boring AS
(Owned by Aarsleff)
- ▶ **Construction:** 7 500 m²
5 story's high



Project; Aasgardsplass – Sandefjord, Norway



► Time

- Demolition: March 2019
- Piling: June 2020
- Ready to use: Q1 2022

► Cost:

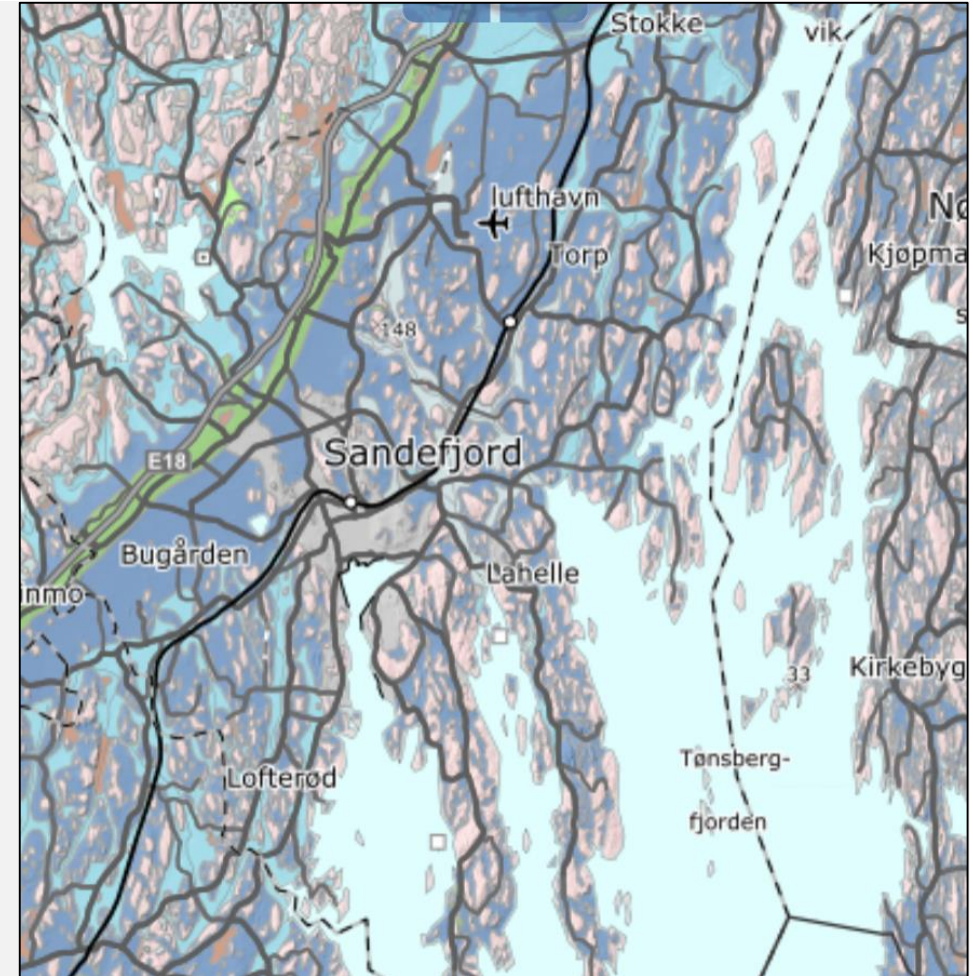
35 mill EUR

► Purpose:

- 40 care homes with different service providers
- Outdoor café
- 10 private apartments
- 2200 m² commercial real estate

Geotechnical challenges and solutions!

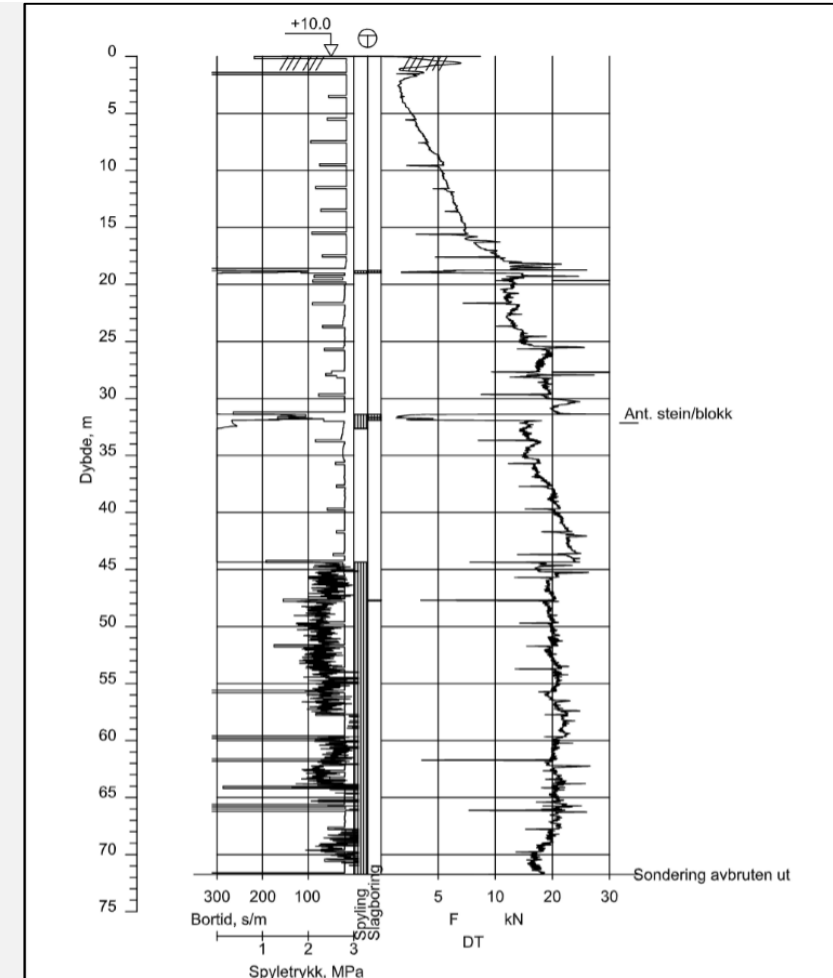
► Underground condition's:



Geotechnical challenges and solutions!

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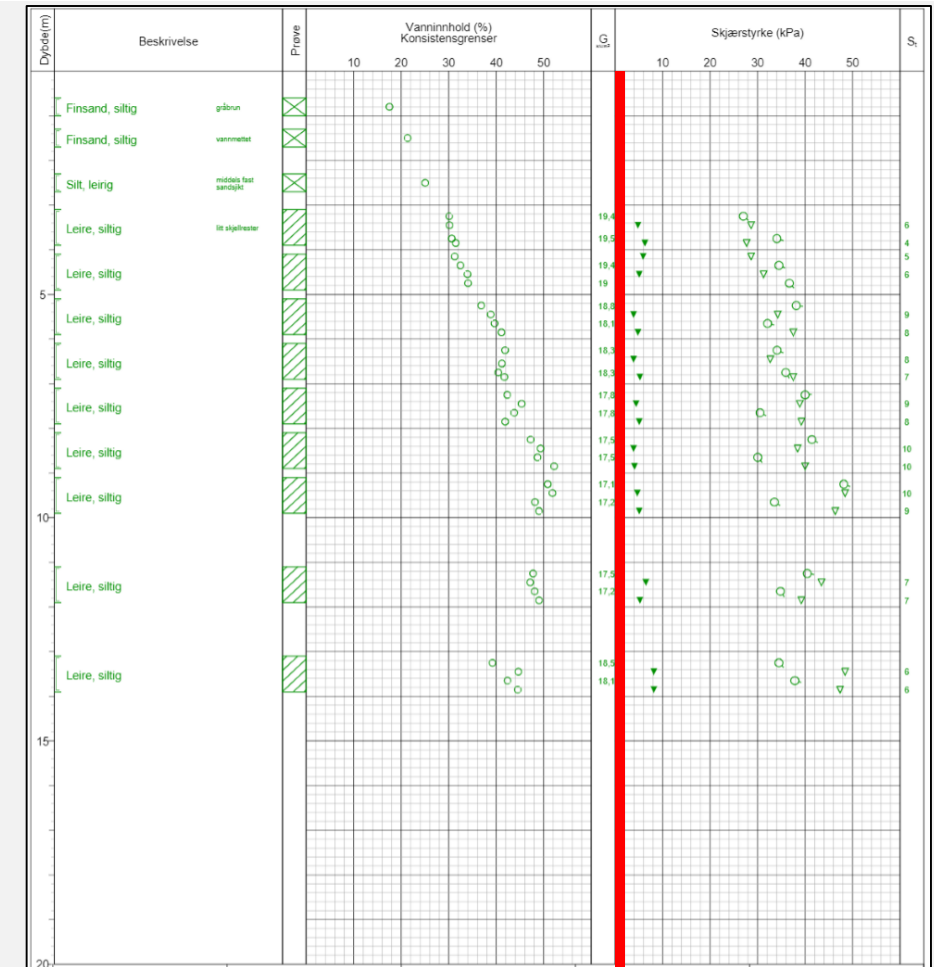
- To bedrock 64-89 m
- Moraine < 10 m thick
- Clay < 80 m thick
- Sand and silt < 4 m thick



Geotechnical challenges and solutions!

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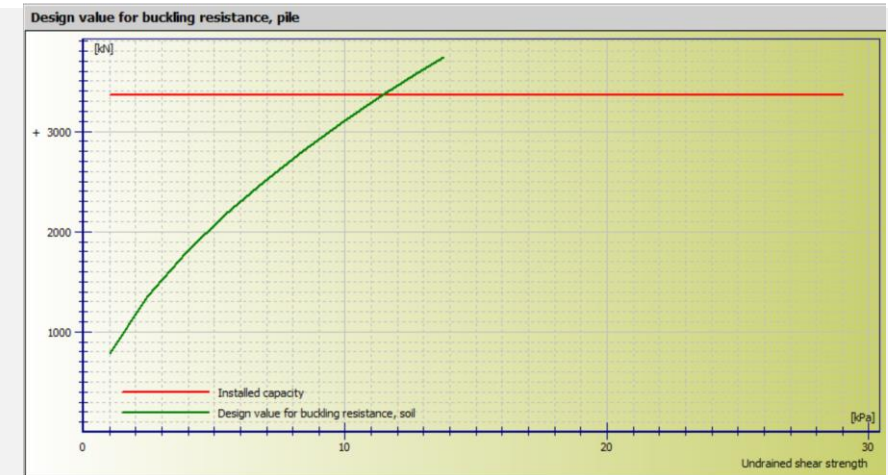
► Piling design:

- Pile points: 56
 - End bearing piles: 52
 - Tensile piles: 4
- Pile element length: 6 m
- Depth: 66-90 m
1-4 m into bedrock
- Installation: Flushed down to moraine
Drilled into rock



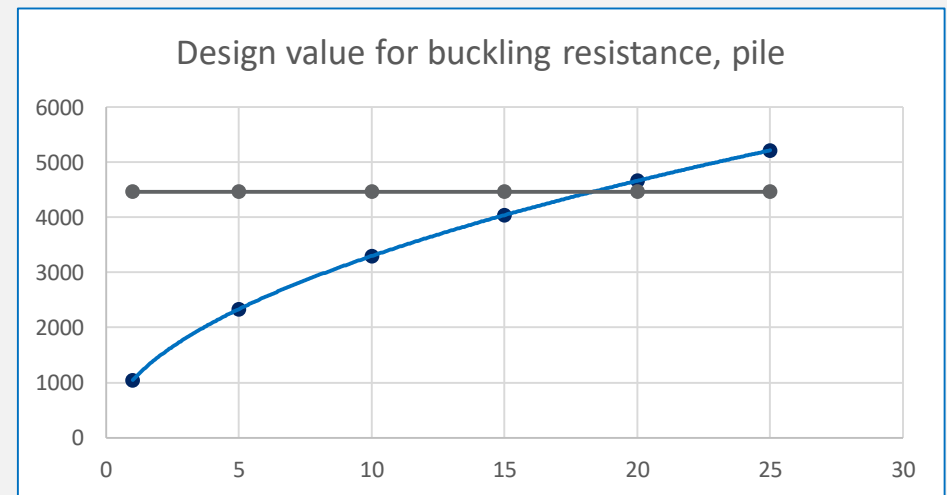
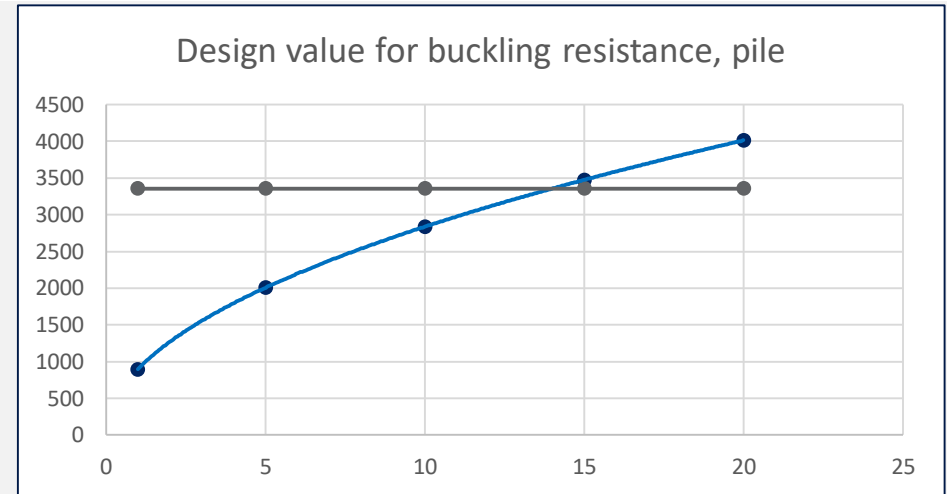
Why RDT piles?

► **Solution:** RDTs220 RDT270/12,5 RDT320/12,5



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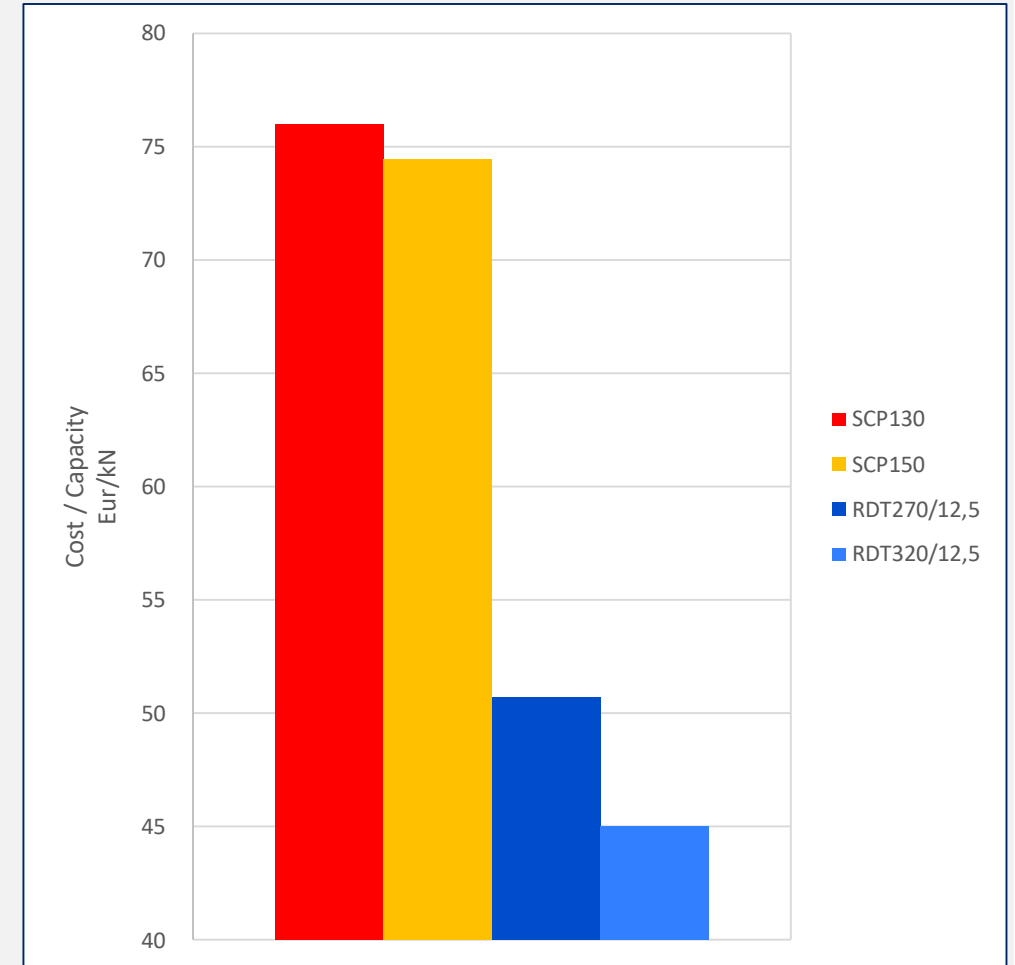
► Solution:	RDTs220	RDT270/12,5	RDT320/12,5
<i>Alternativ:</i>	SCP100	SCP130	SCP150



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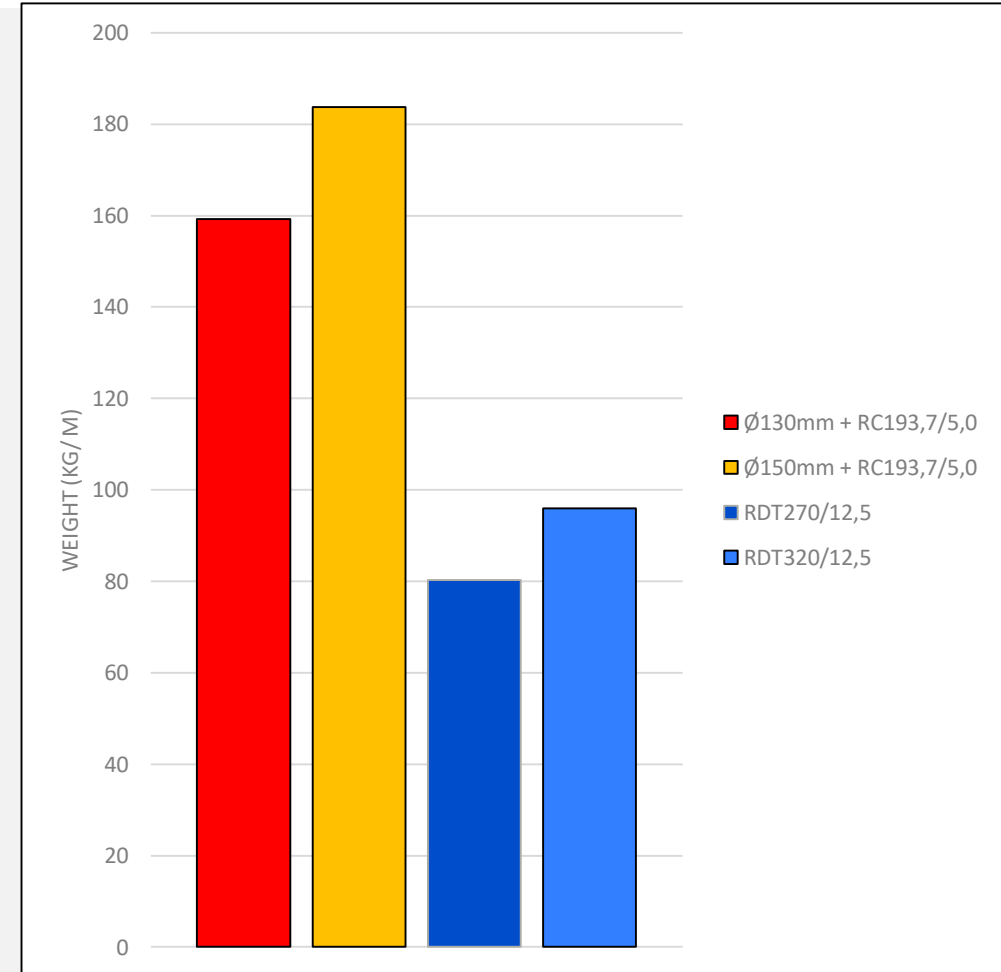


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► **Cost:**

► **Weight:**



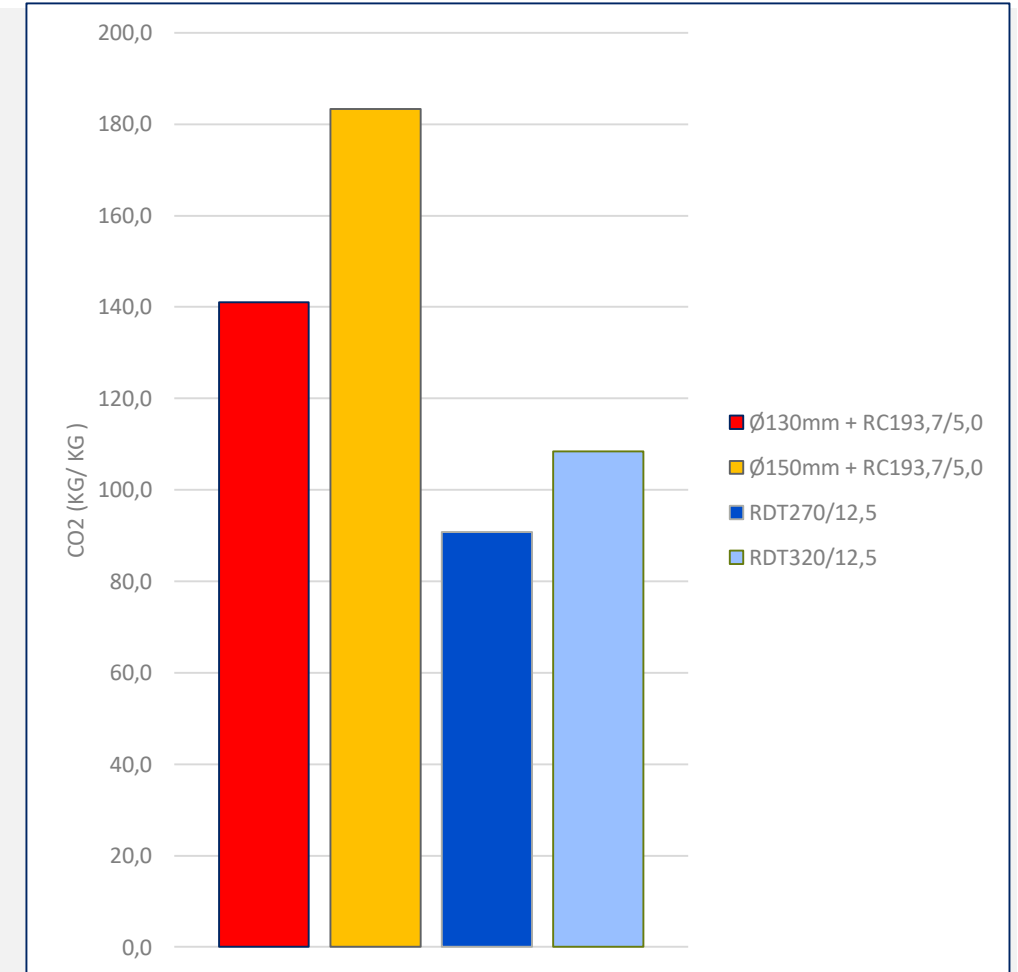
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► **Cost:**

► **Weight:**

► **Environment:**



Comment From Jarle Hundshaugen SørNorsk Boring AS:

"Happy with old splice – very happy with new splice, it worked excellent! Wished there was much more RD & also RR pile project in Norway. Steelcore piles has to much focus"



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