Supplementary Materials

Cross-Configuration 4D DAS-VSP Monitoring for Long-Term CO_2 Storage

Mustafa Al Marzooq, Alina Almukhametova, Konstantin Tertyshnikov, Olivia Collet*, Boris Gurevich, Pavel Shashkin, Roman Isaenkov, Nikita Beloborodov, Mikhail Vorobev and Roman Pevzner

School of Earth and Planetary Sciences, Curtin University, Perth, WA 6102, Australia
** Correspondence: olivia.collet@curtin.edu.au*

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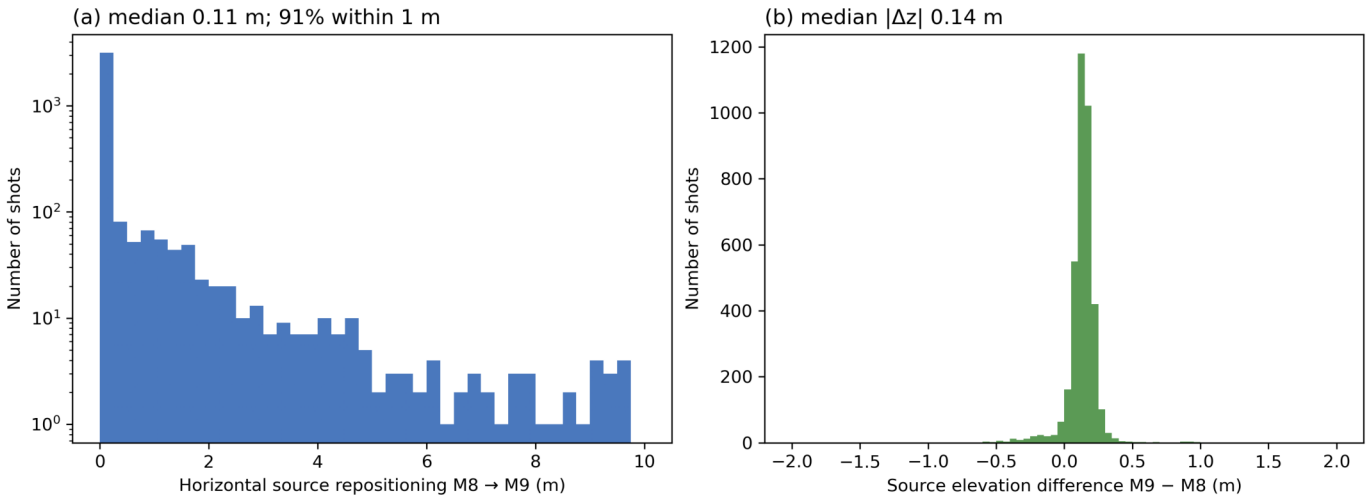


Figure S1.

Source repositioning between the M8 and M9 surveys. (a) Horizontal source repositioning from M8 to M9 (median 0.11 m; 91% of shots within 1 m); note the logarithmic vertical axis. (b) Source elevation difference M9 − M8 (median absolute difference 0.14 m).

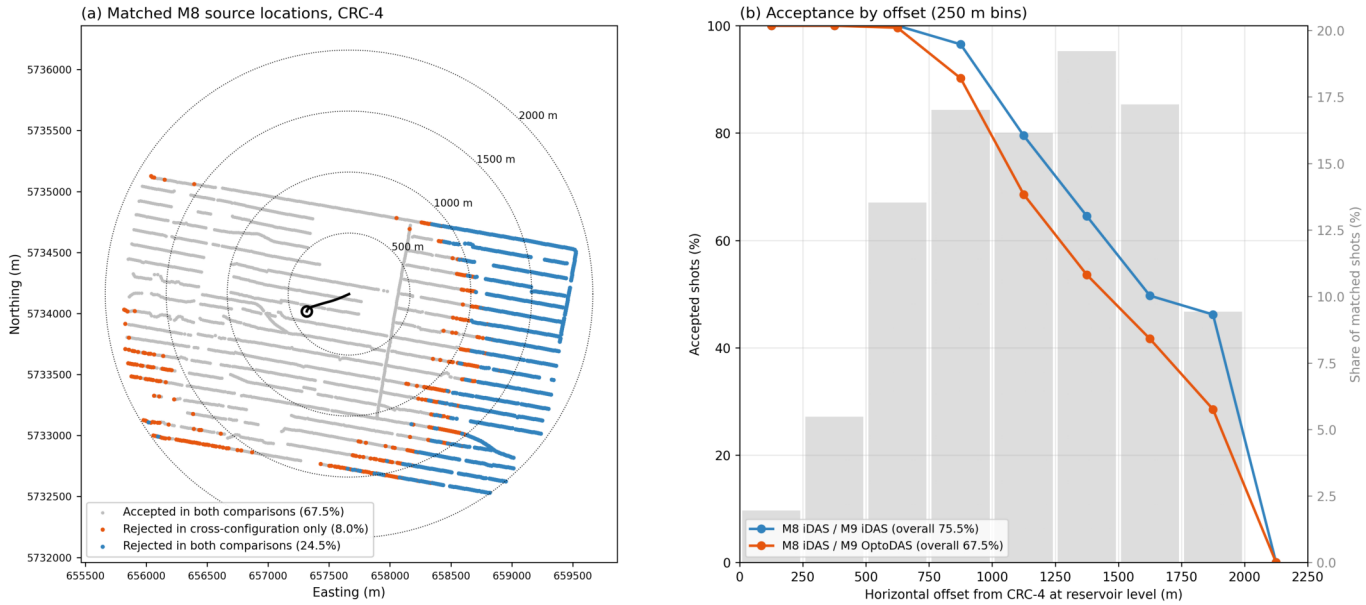


Figure S2.

Shots rejected by the Wiener-filter acceptance criteria at CRC-4 and acceptance by offset. (a) Matched M8 source locations: accepted in both comparisons, rejected in the cross-configuration comparison only, and rejected in both comparisons; the CRC-4 well trajectory and offset rings are shown. (b) Percentage of accepted shots in 250 m offset bins for the same-configuration (M8 iDAS / M9 iDAS, 75.5% overall) and cross-configuration (M8 iDAS / M9 OptoDAS, 67.5% overall) comparisons; grey bars show the share of matched shots in each bin.

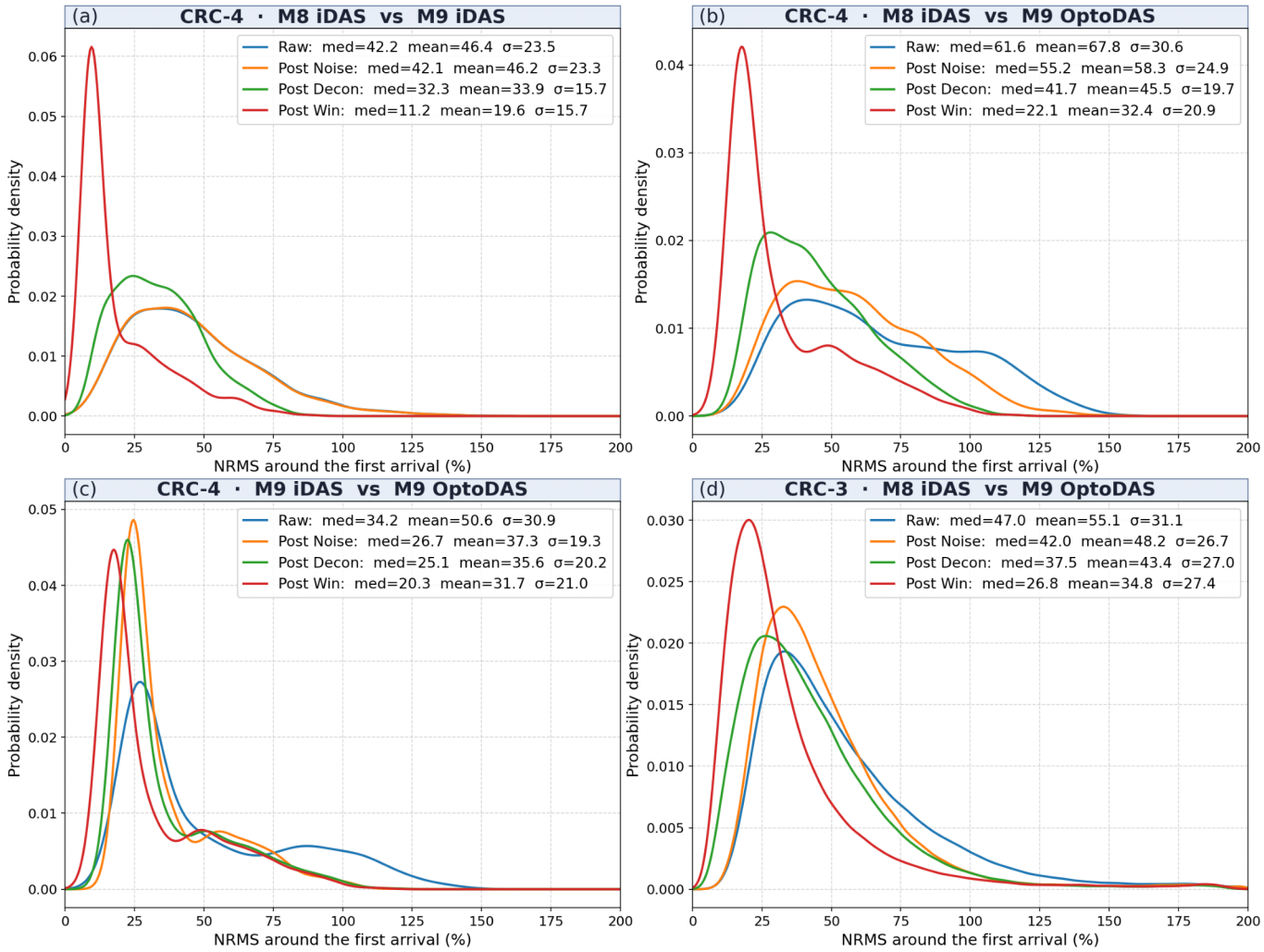


Figure S3.

First-arrival NRMS distributions computed on each comparison's own accepted shots (Figure 10 uses the shots common to all CRC-4 comparisons): (a) CRC-4 M8 iDAS vs M9 iDAS; (b) CRC-4 M8 iDAS vs M9 OptoDAS; (c) CRC-4 M9 iDAS vs M9 OptoDAS; (d) CRC-3 M8 iDAS vs M9 OptoDAS. Curves show the matched data (Raw) and the data after noise attenuation, deterministic deconvolution and shot-wise Wiener matching, for channels between 700 and 1400 m depth. Median, mean and standard deviation are given in each panel.