

Attachment 8

Initial Study Report Meetings

Action Item for Study 6.6

March 23, 2016

**Susitna-Watana Hydroelectric Project
(FERC No. 14241)**

**Fluvial Geomorphology Modeling
Below Watana Dam (Study 6.6)**

**Winter Sampling of Main Channel Bed Material
Technical Memorandum**

**Addendum 1
Main Channel Bed Material Sample Points**

Prepared for

Alaska Energy Authority



SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

Prepared by

Tetra Tech, Inc.

April 2016

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This is an addendum to the Winter Sampling of Main Channel Bed Material Technical Memorandum filed with the Federal Energy Regulatory Commission (FERC) on September 26, 2014. It has been prepared in response to a request made at the March 23, 2016 Initial Study Report (ISR) meeting to provide map depictions of winter bed material sample hole locations for each sample site that a through-ice bed photograph was obtained during the winter of 2013/2014. Sample data acquired for the locations shown in these figures were used to develop composited bed material gradation for the sample sites and used to evaluate main channel gradations compared to bar head samples obtained during summer, open water period, field seasons. Details regarding sample acquisition and post-processing methodologies and results are provided in Sections 4 and 5, respectively, of the September 26, 2014 Winter Sampling of Main Channel Bed Material Technical Memorandum.

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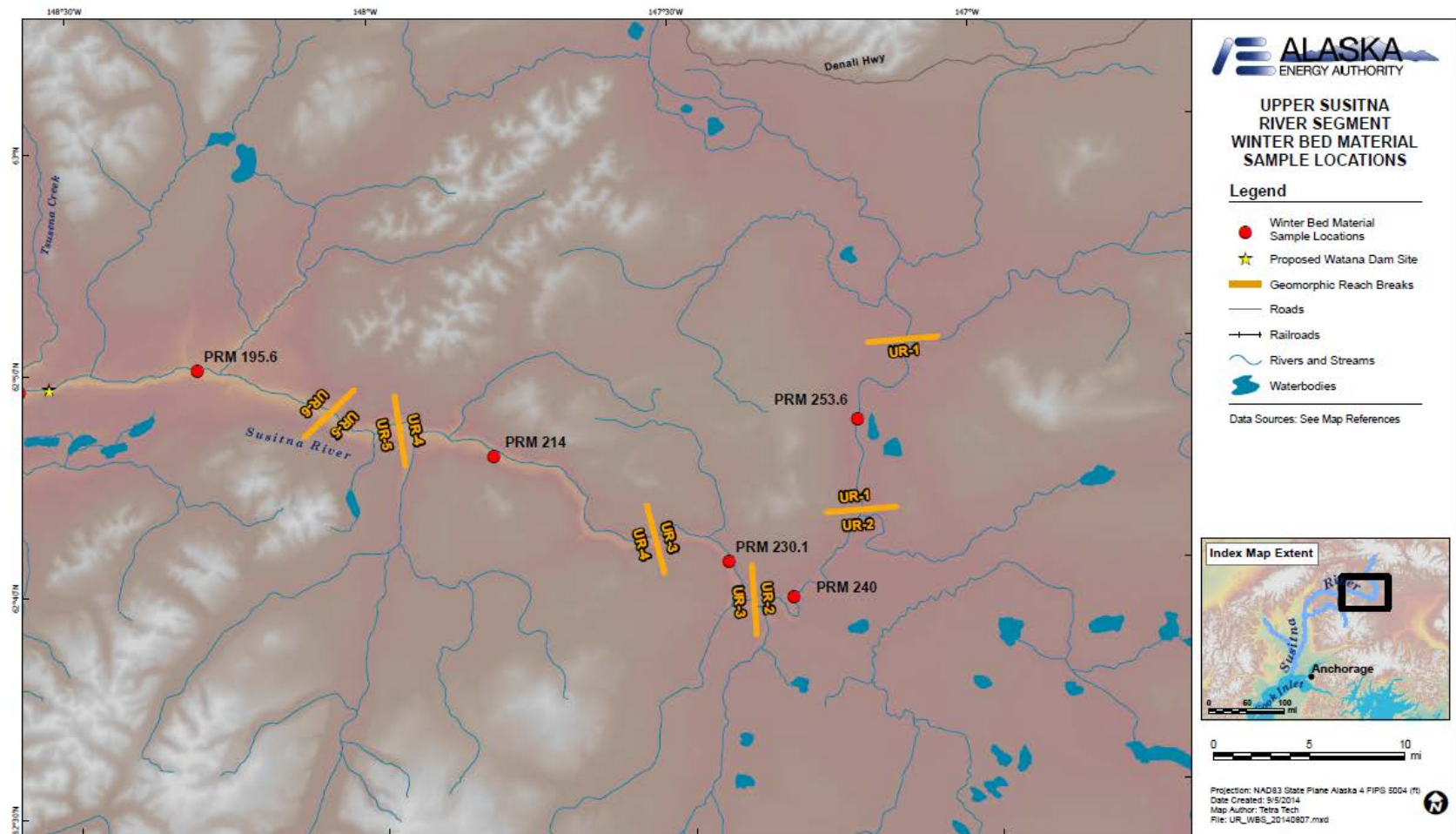


Figure 1. Upper Susitna River Segment main channel bed material sample transect locations.

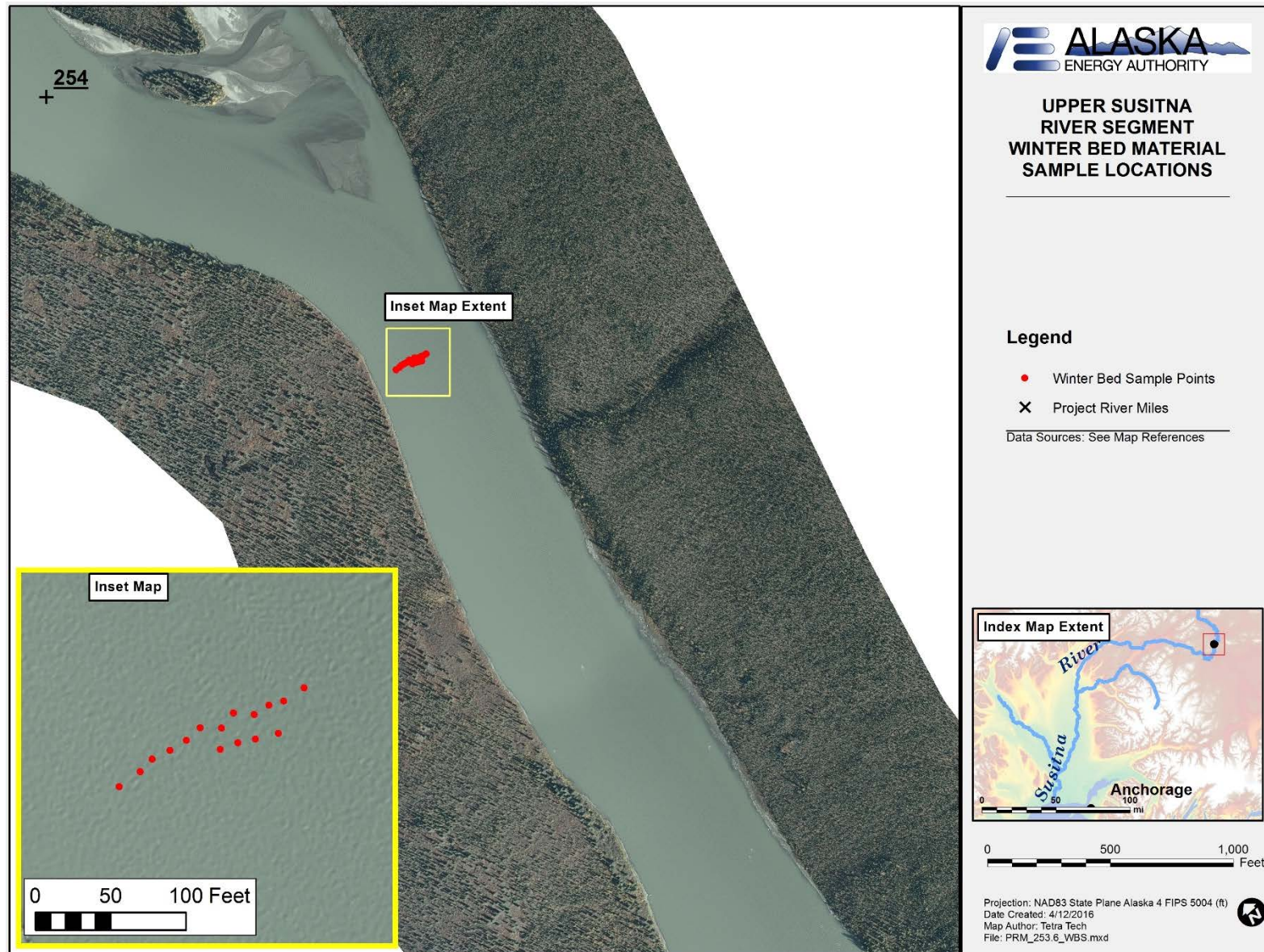


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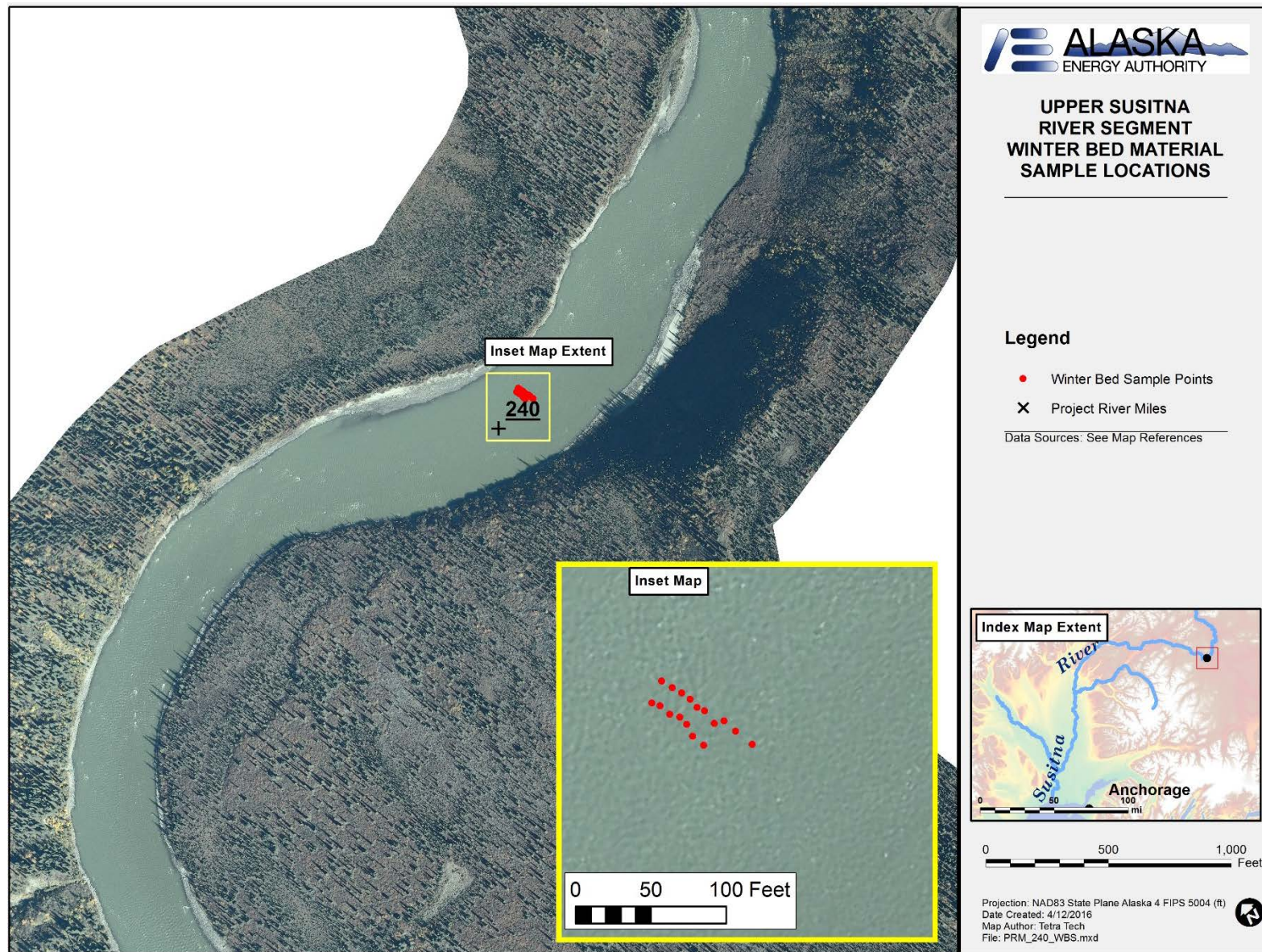


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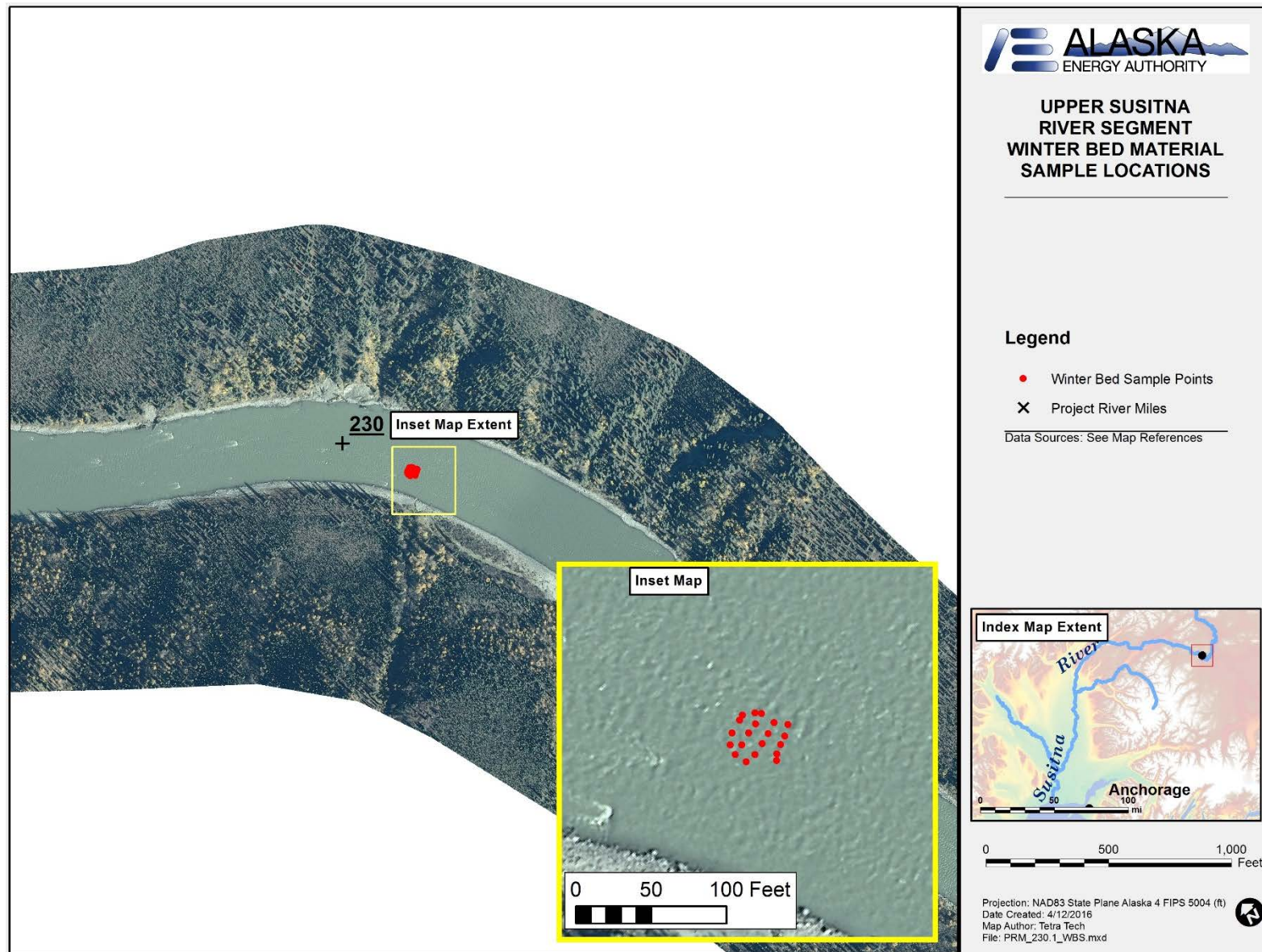


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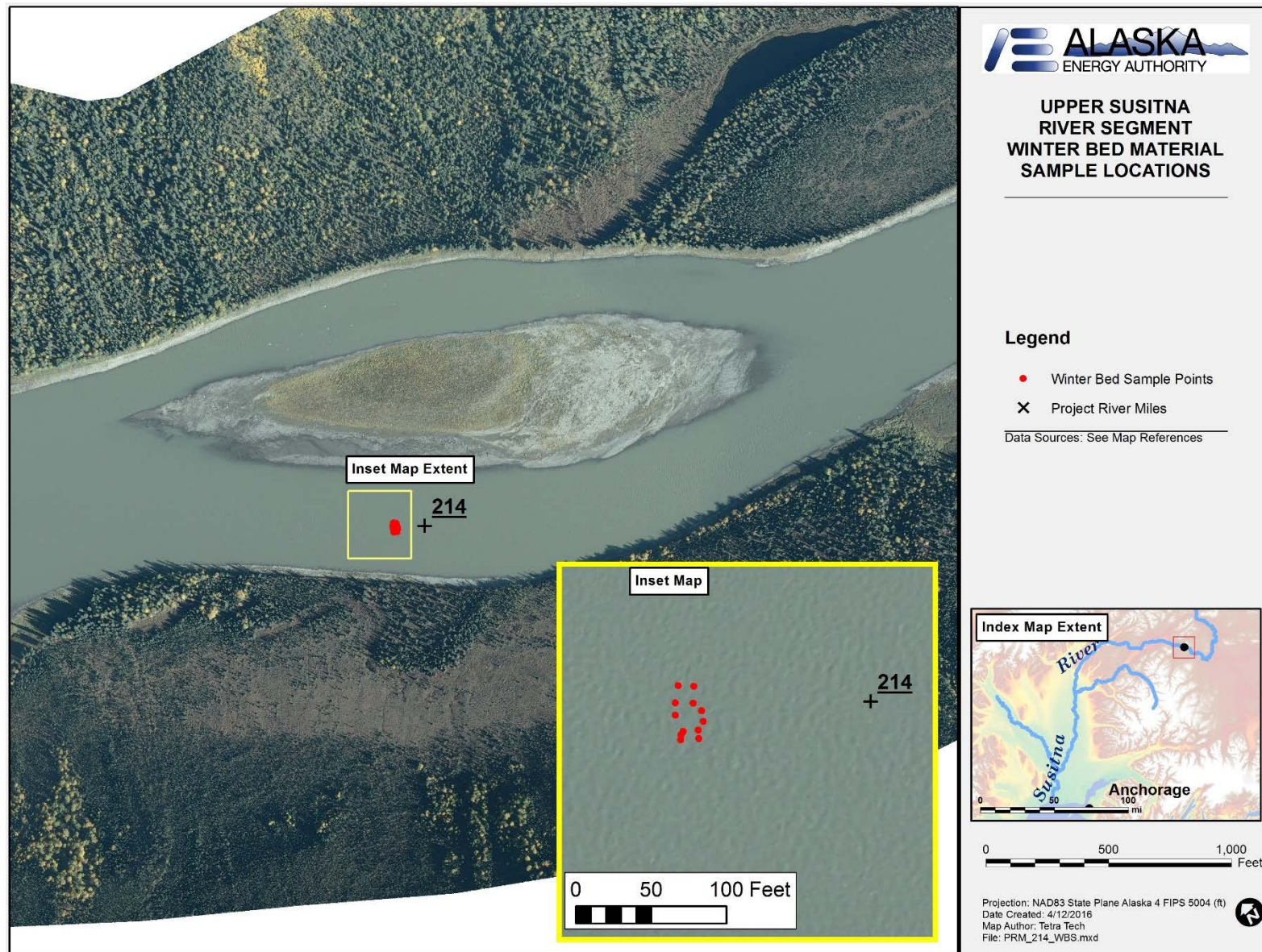


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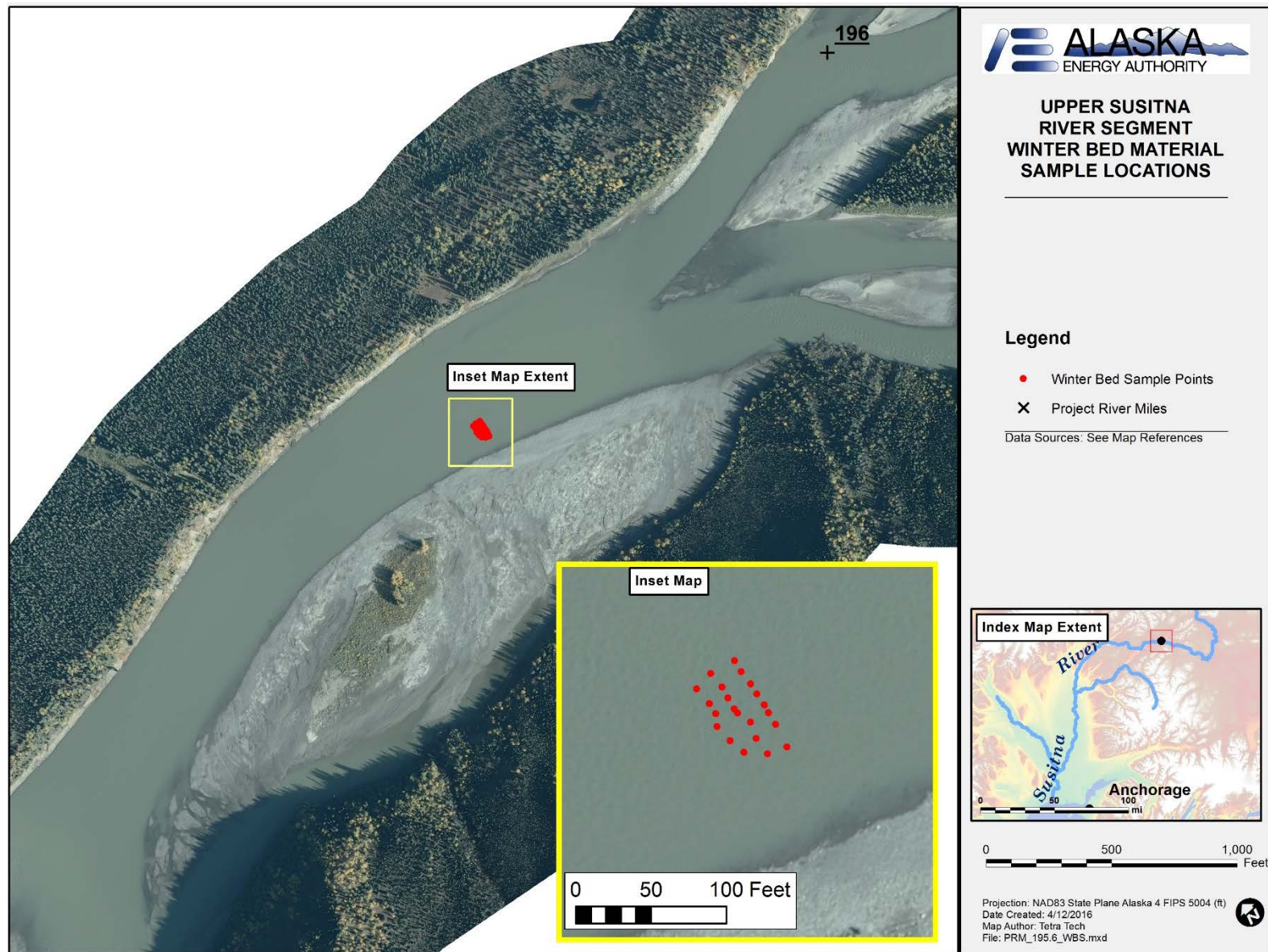


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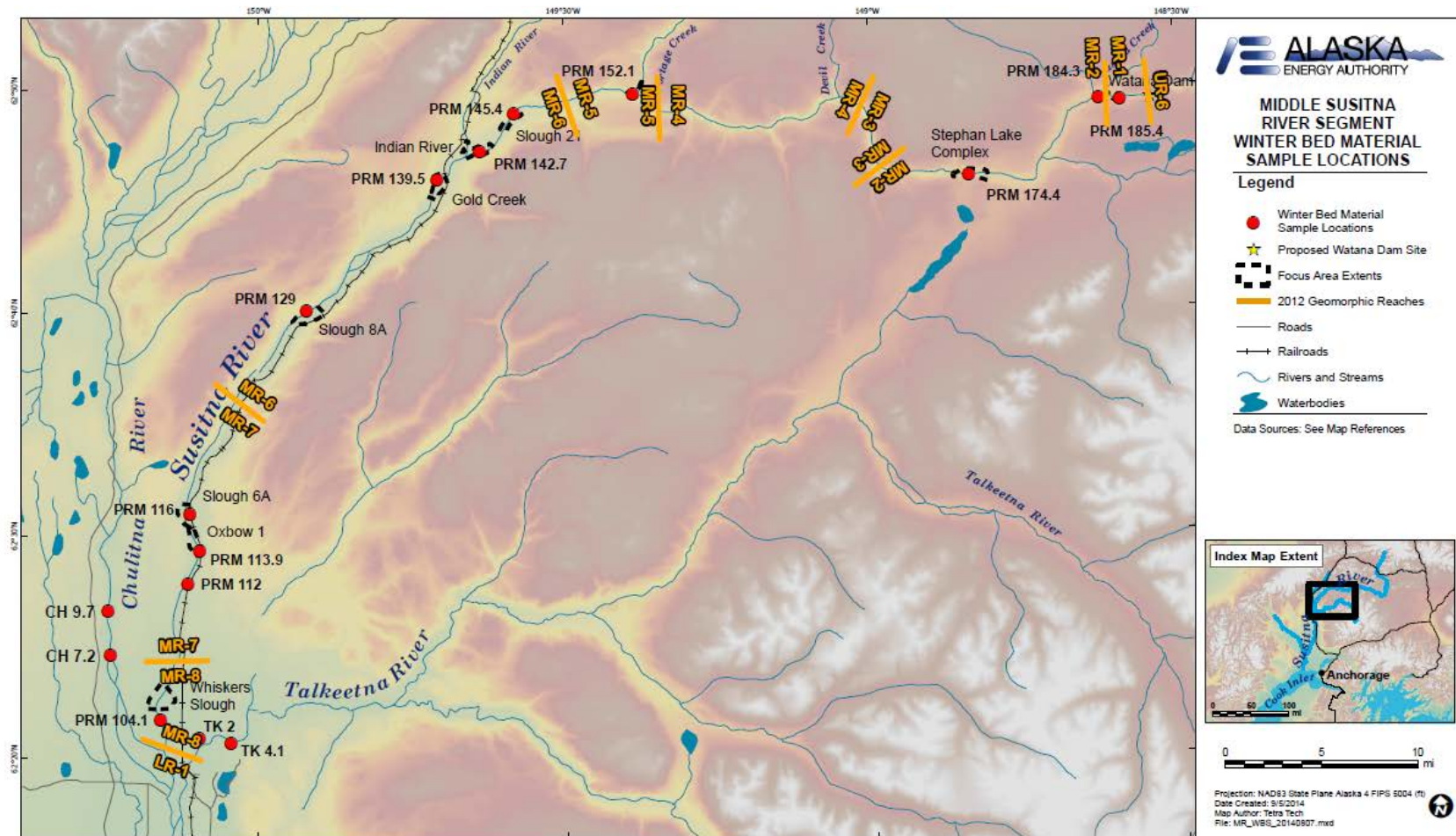


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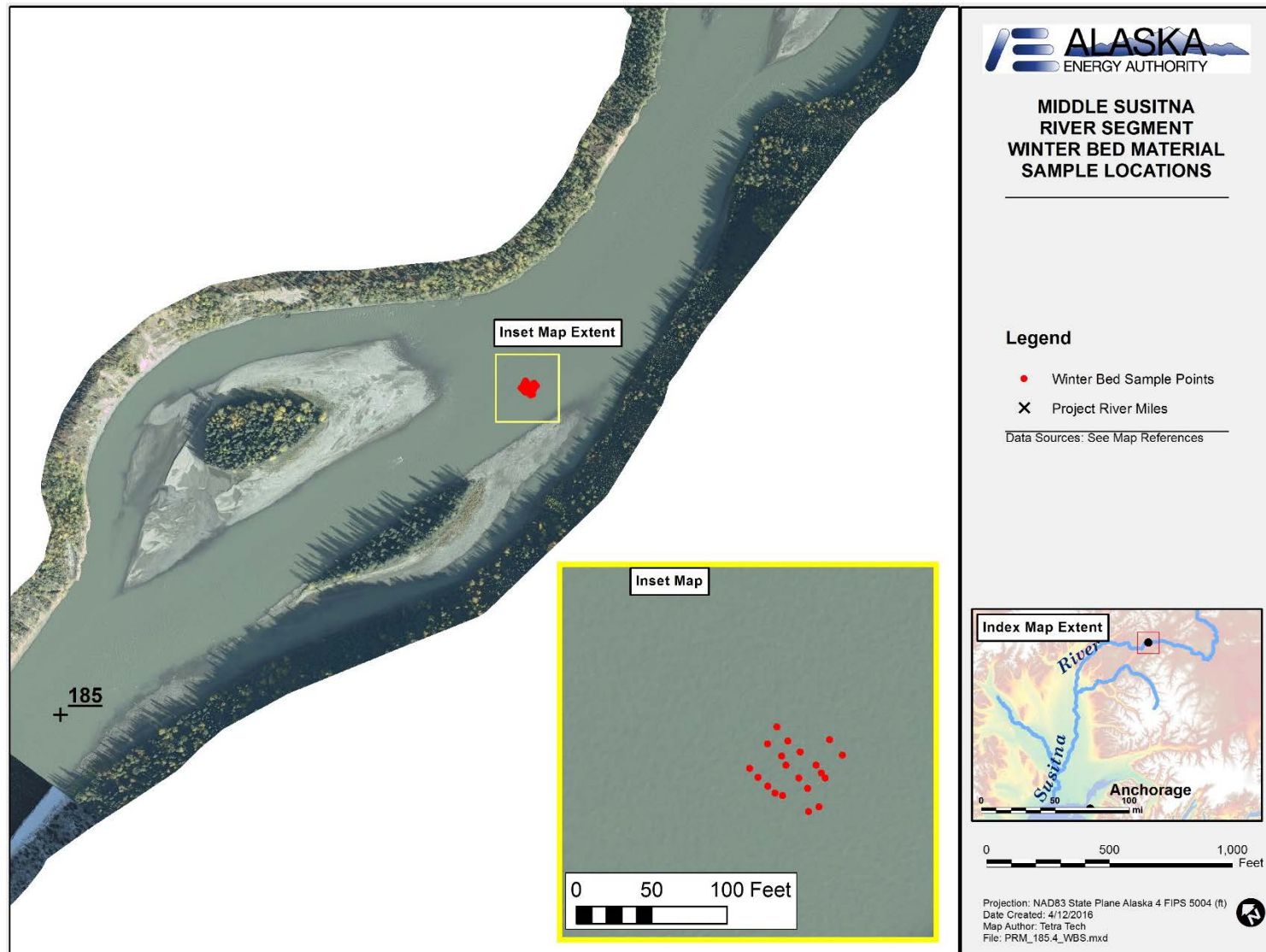


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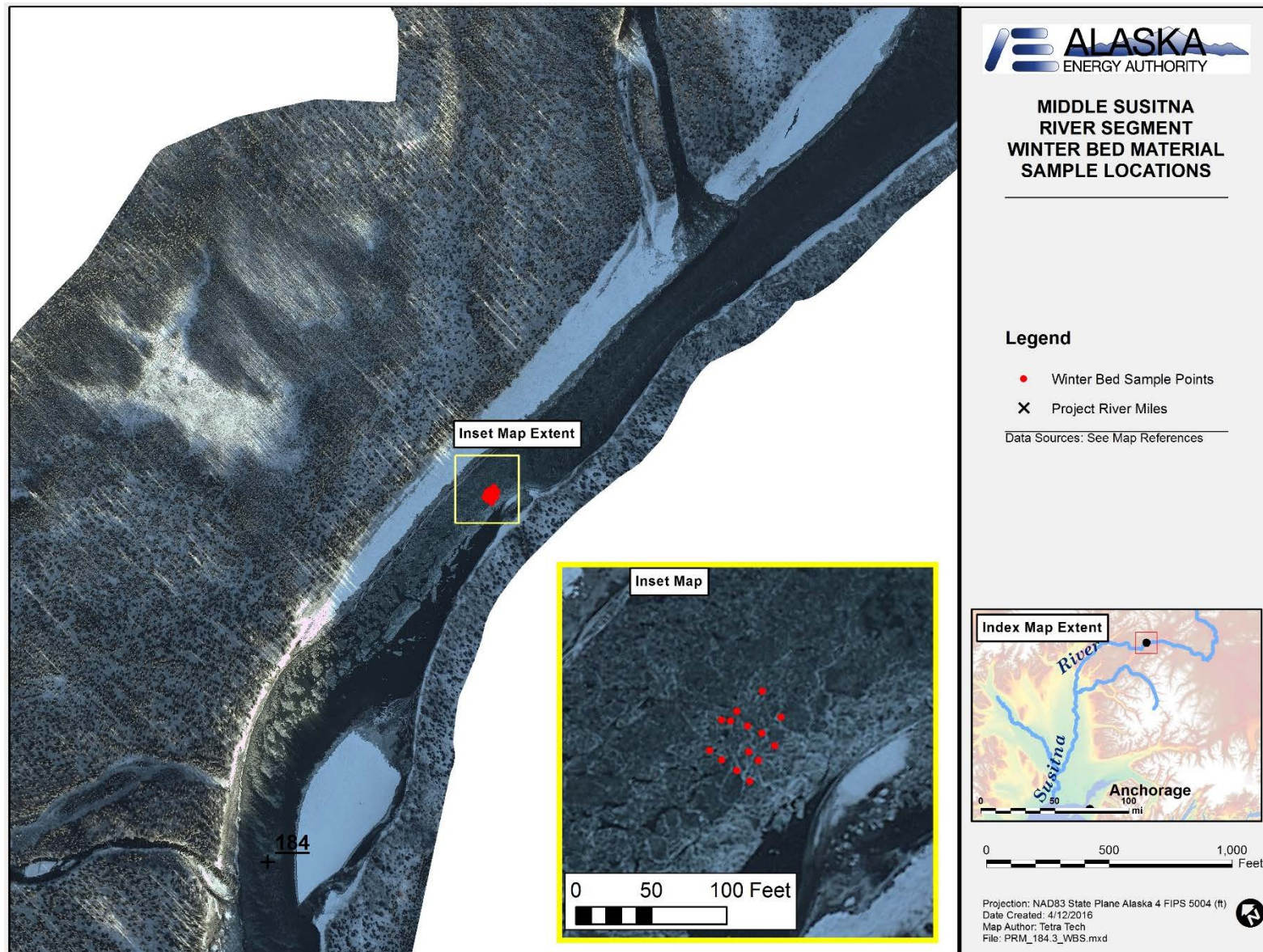


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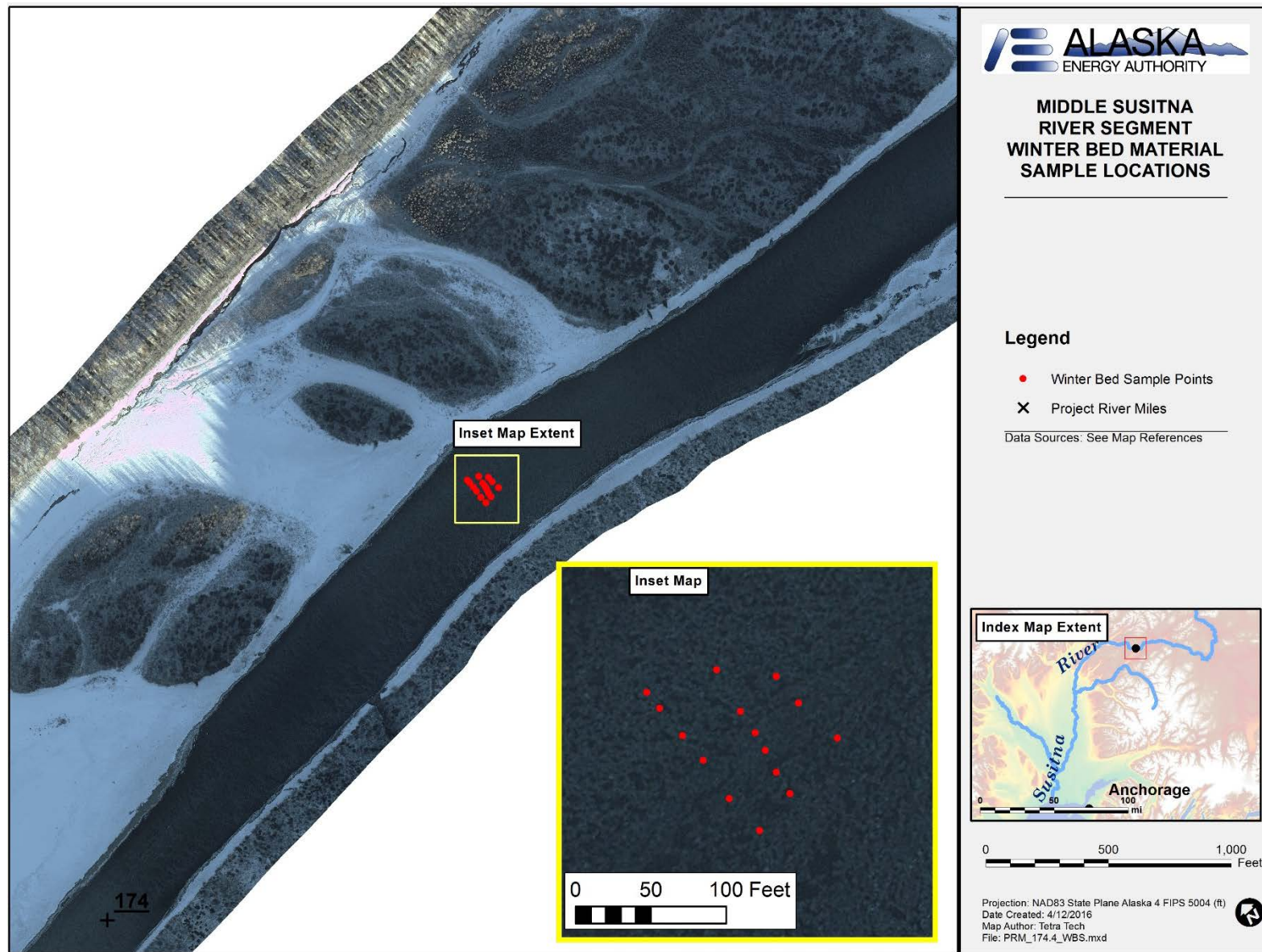


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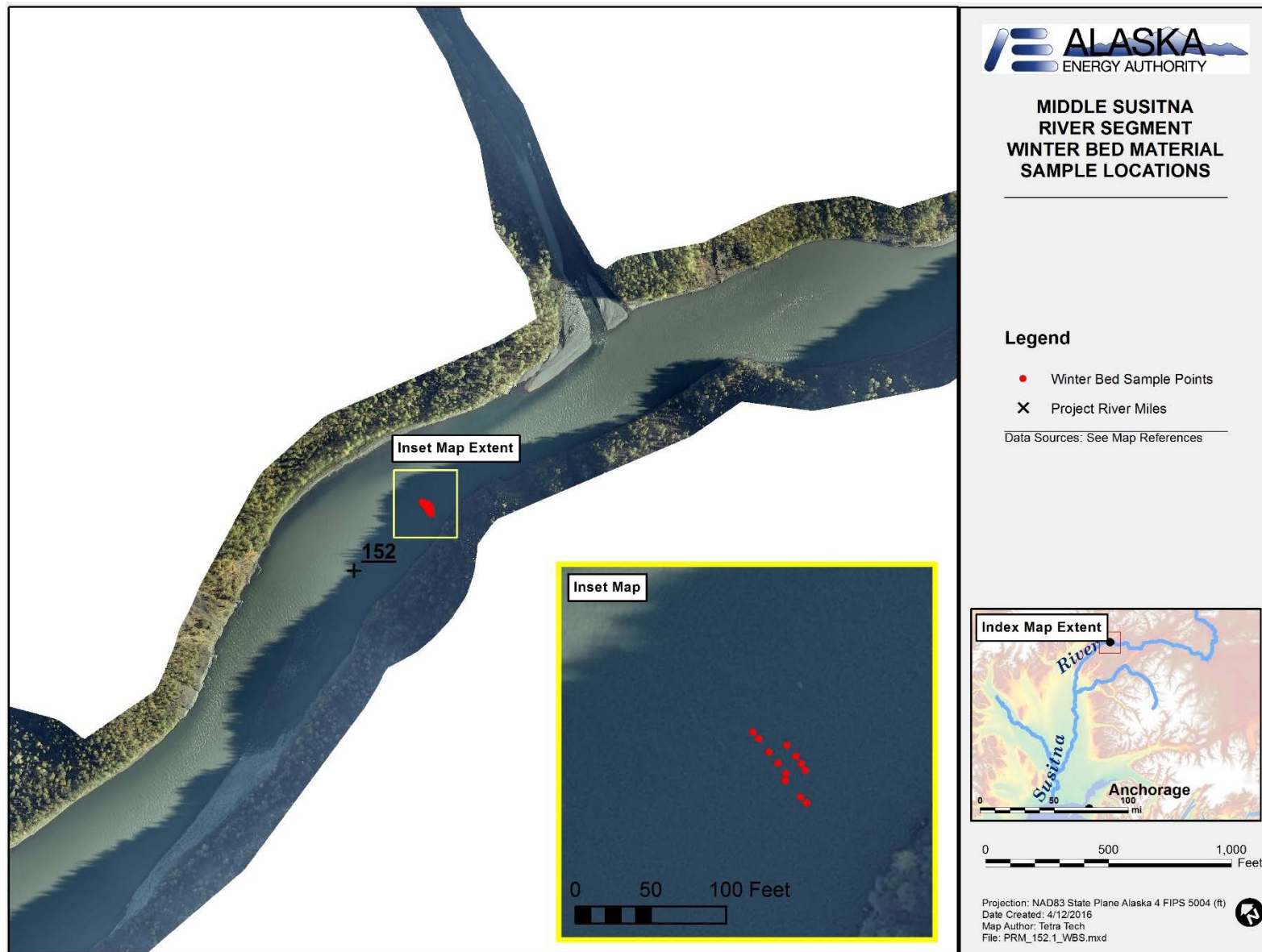


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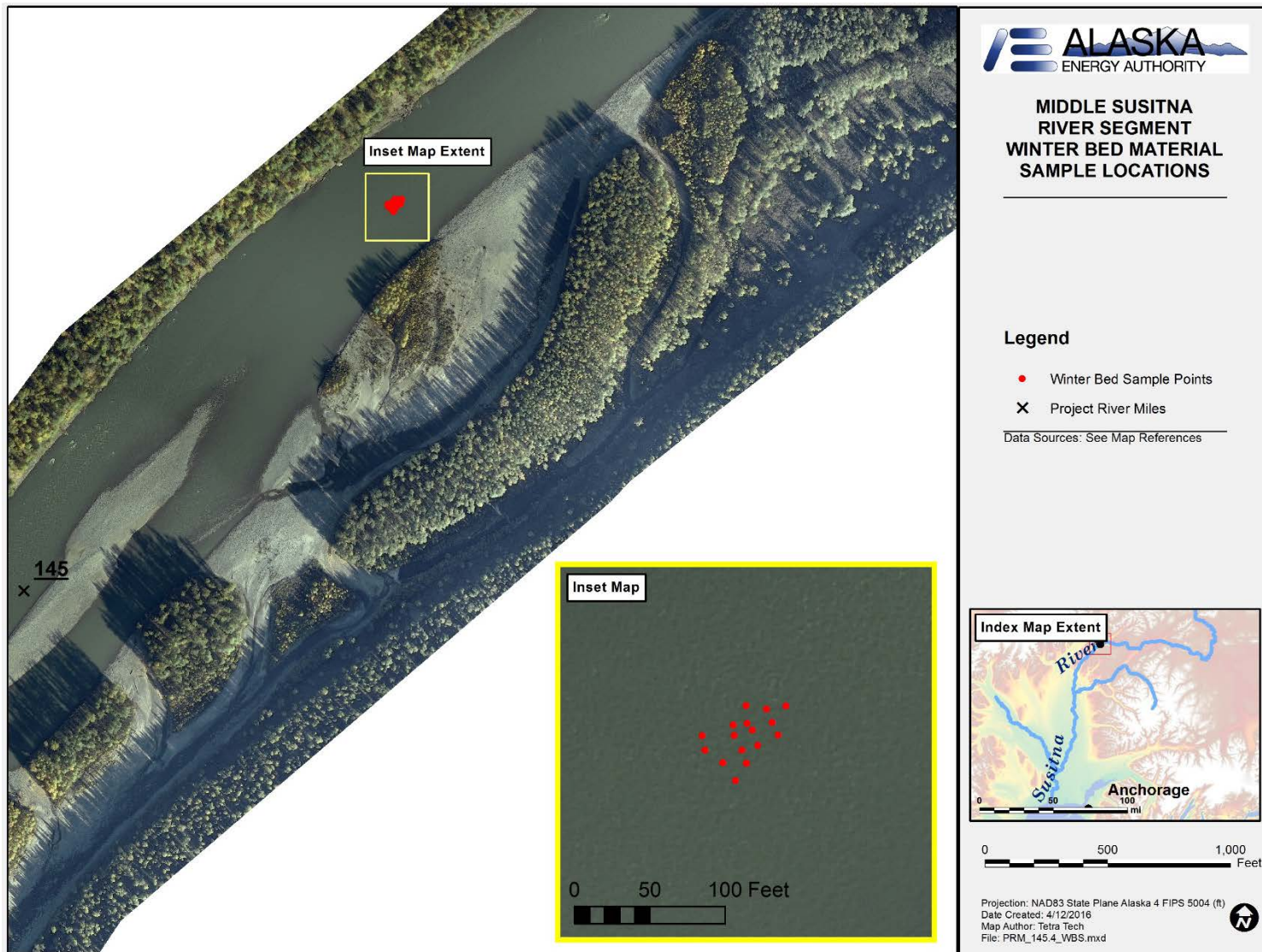


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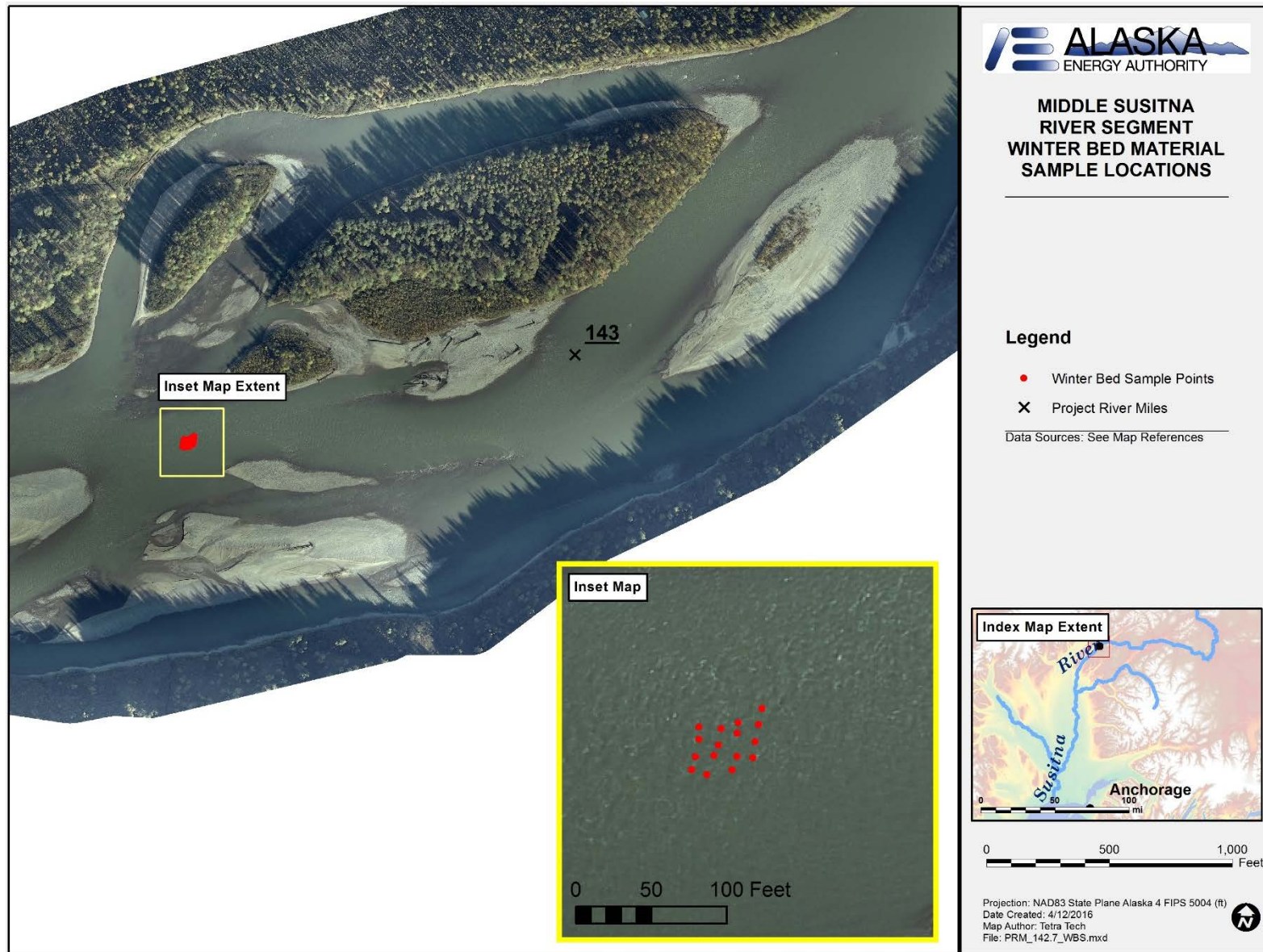


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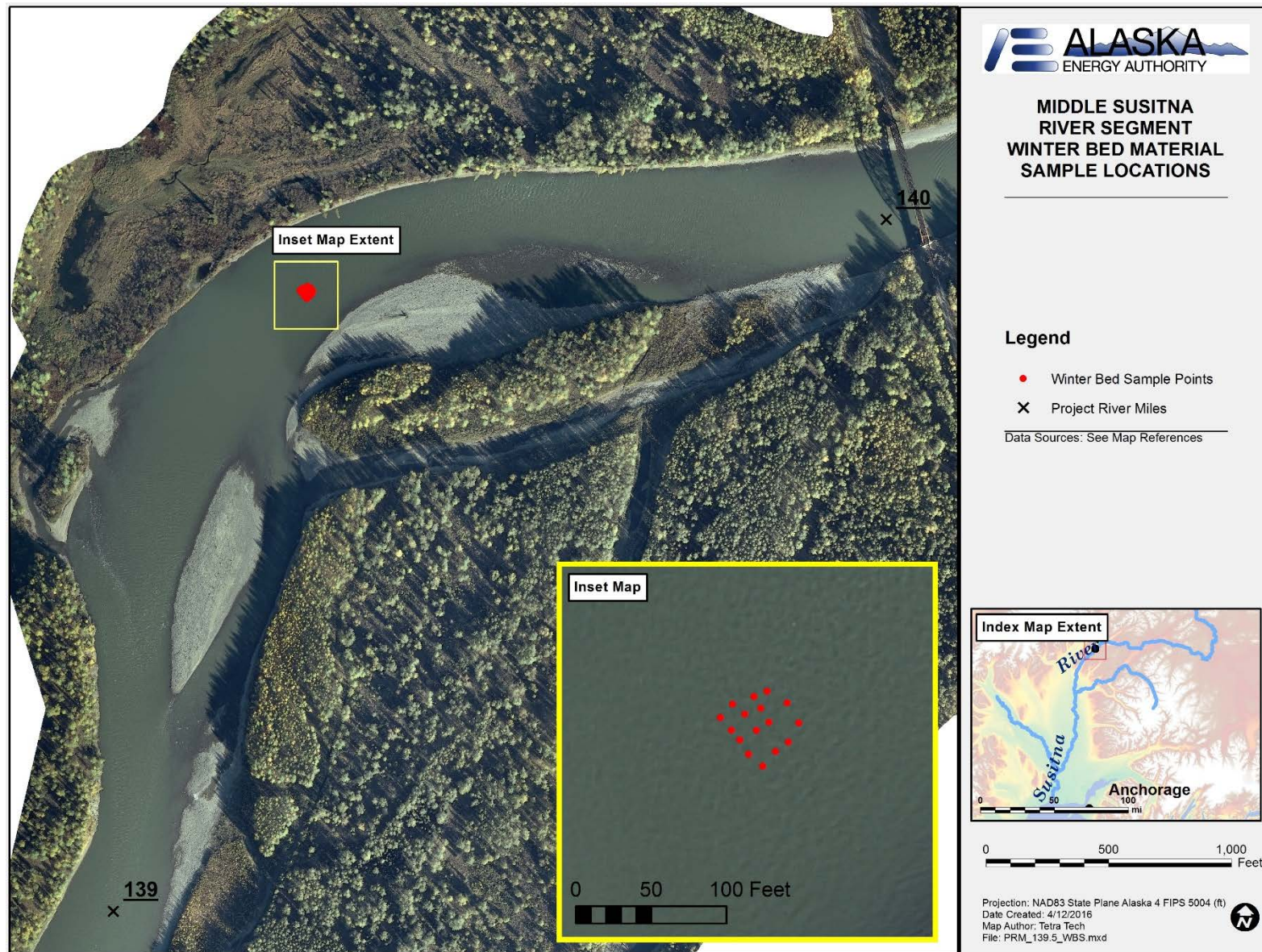


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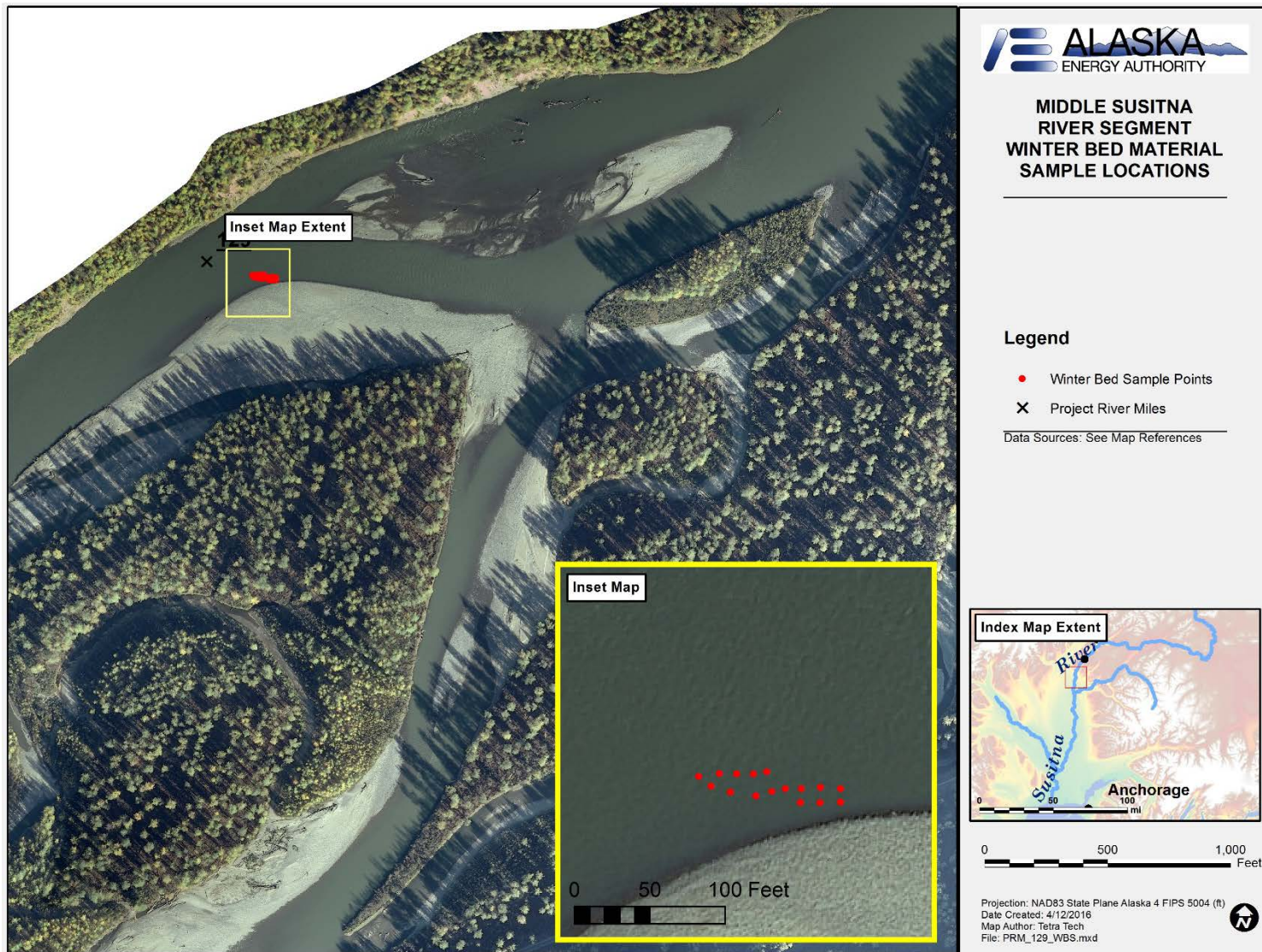


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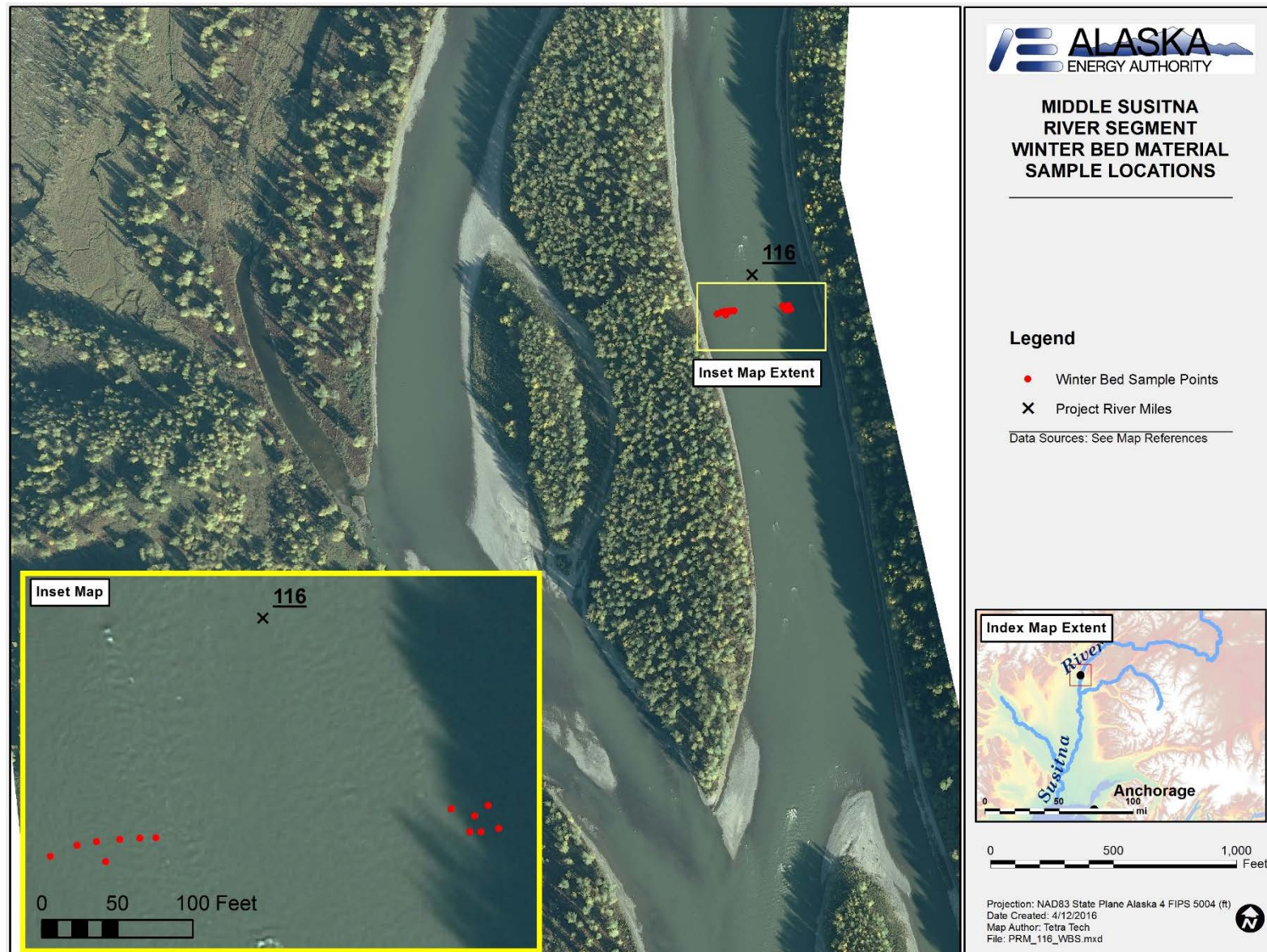


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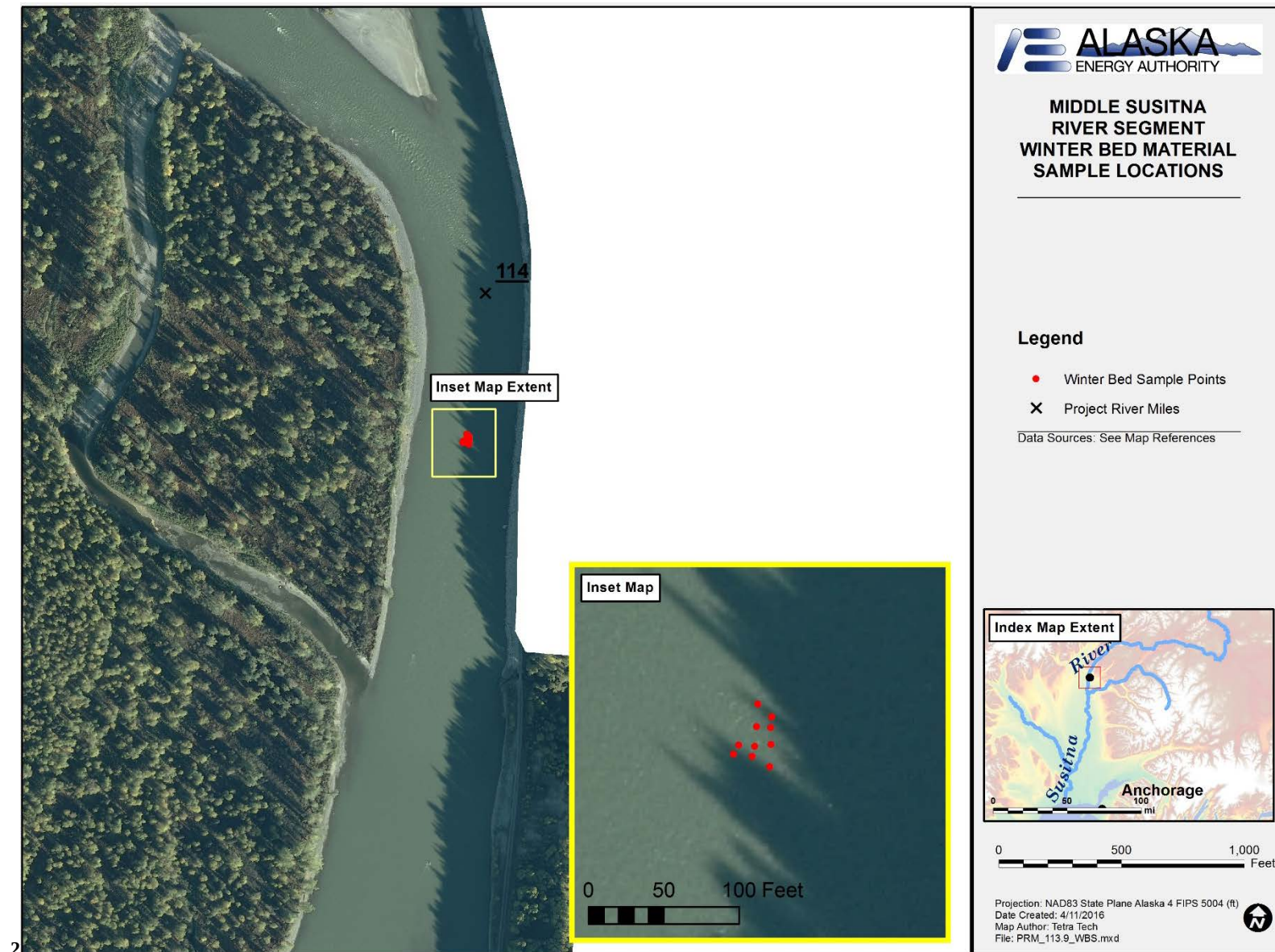


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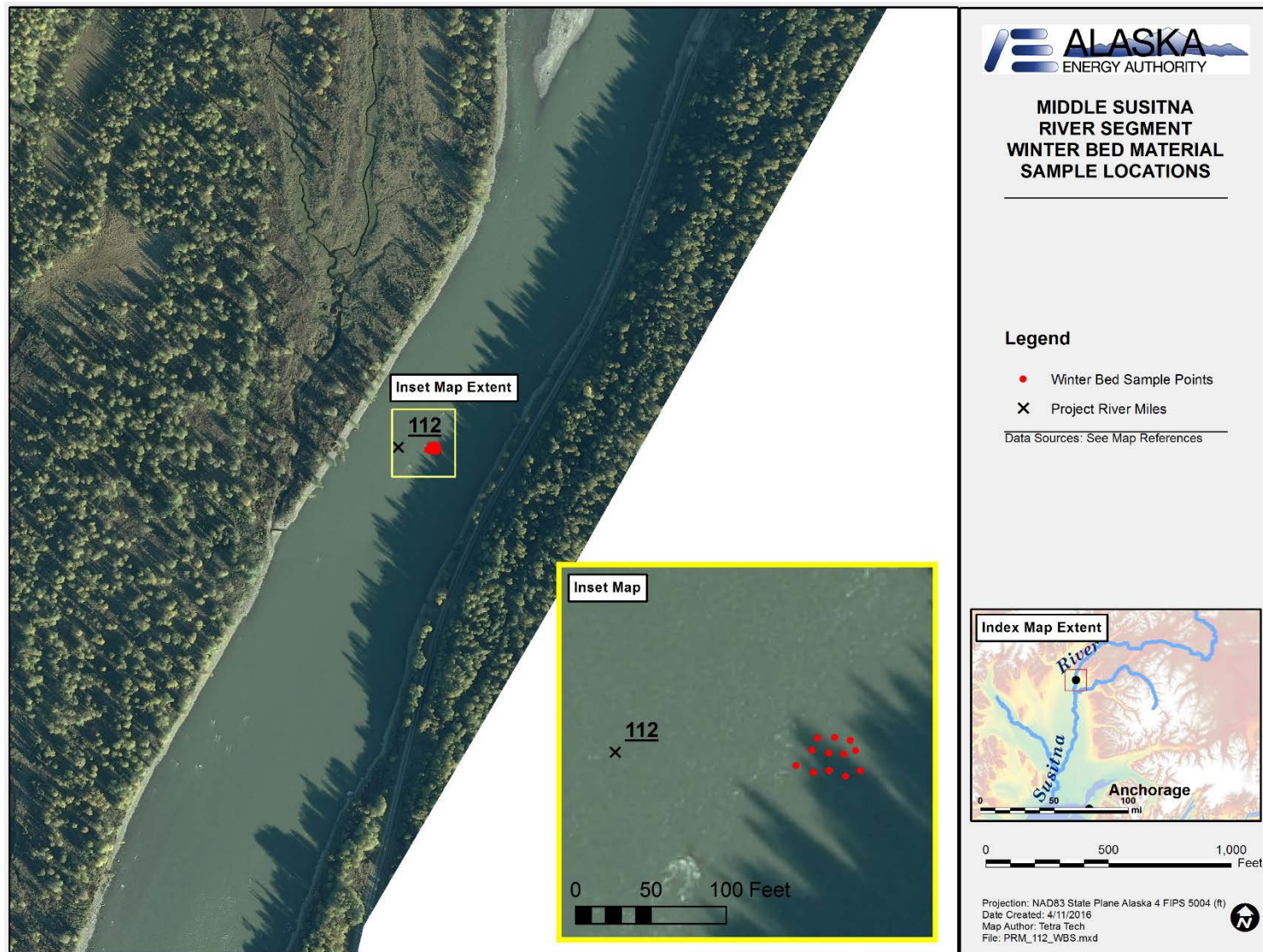


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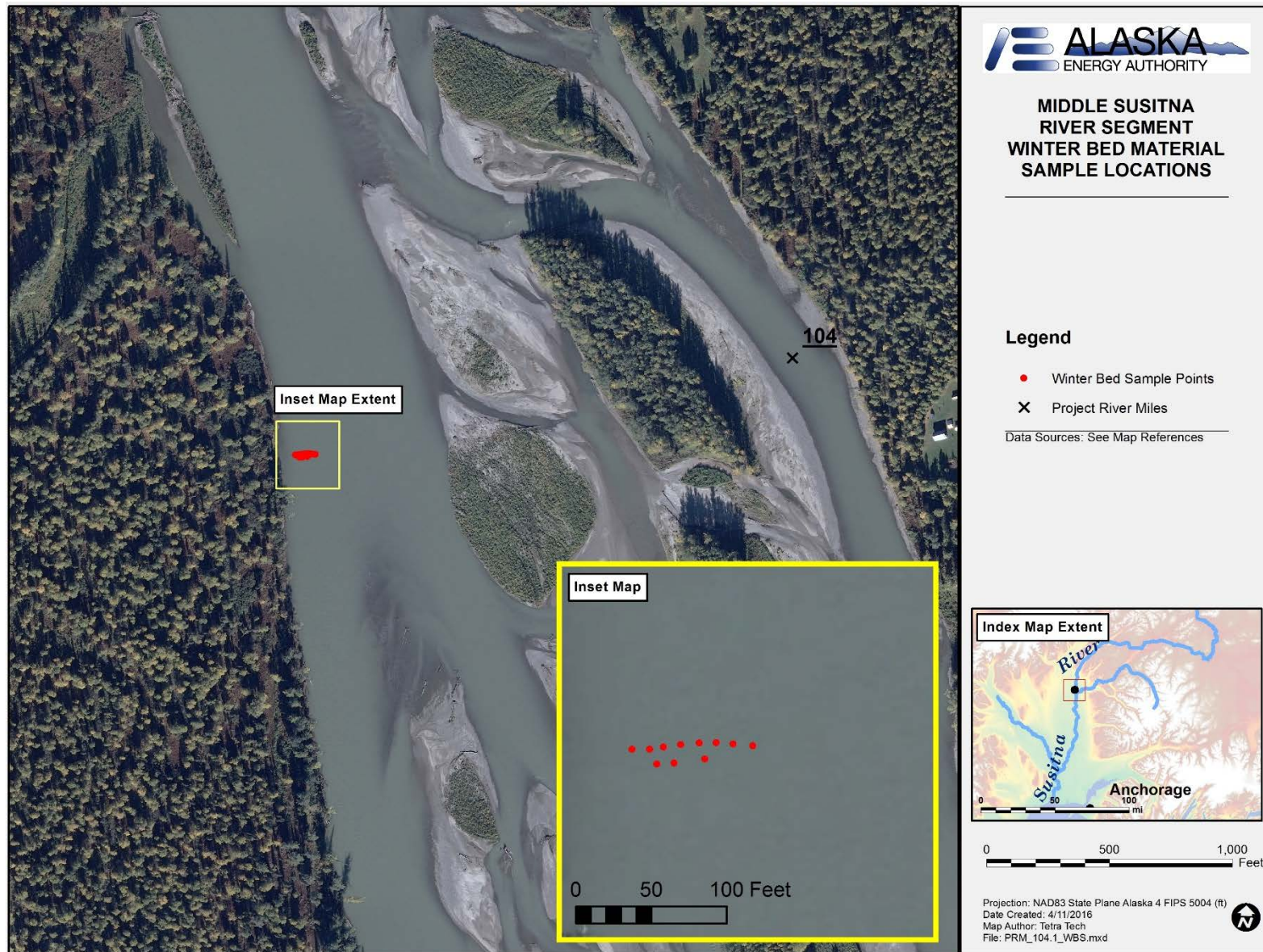


Figure 19. Sample points Susitna PRM 104.1

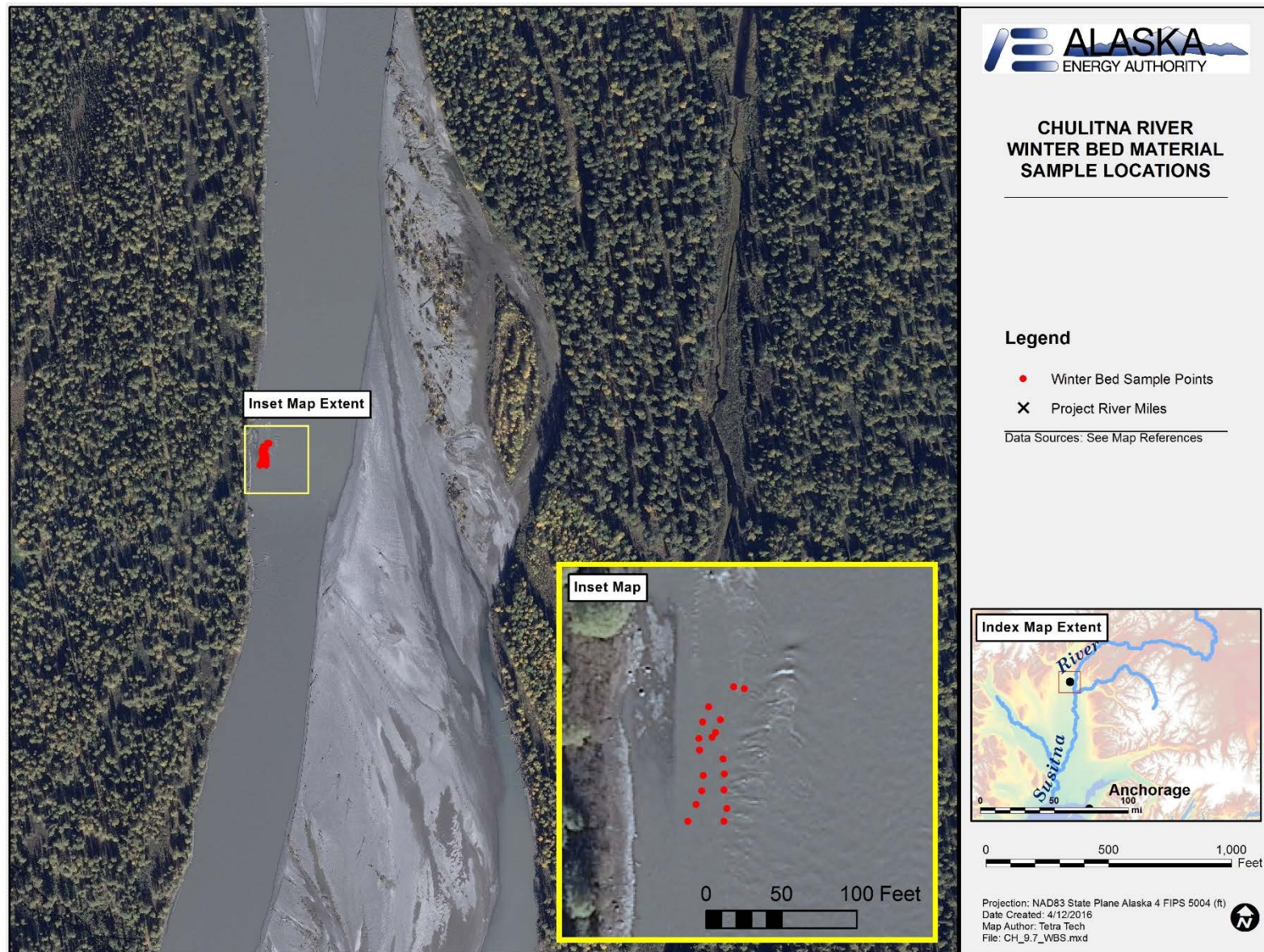


Figure 20. Sample points Chulitna PRM 9.7

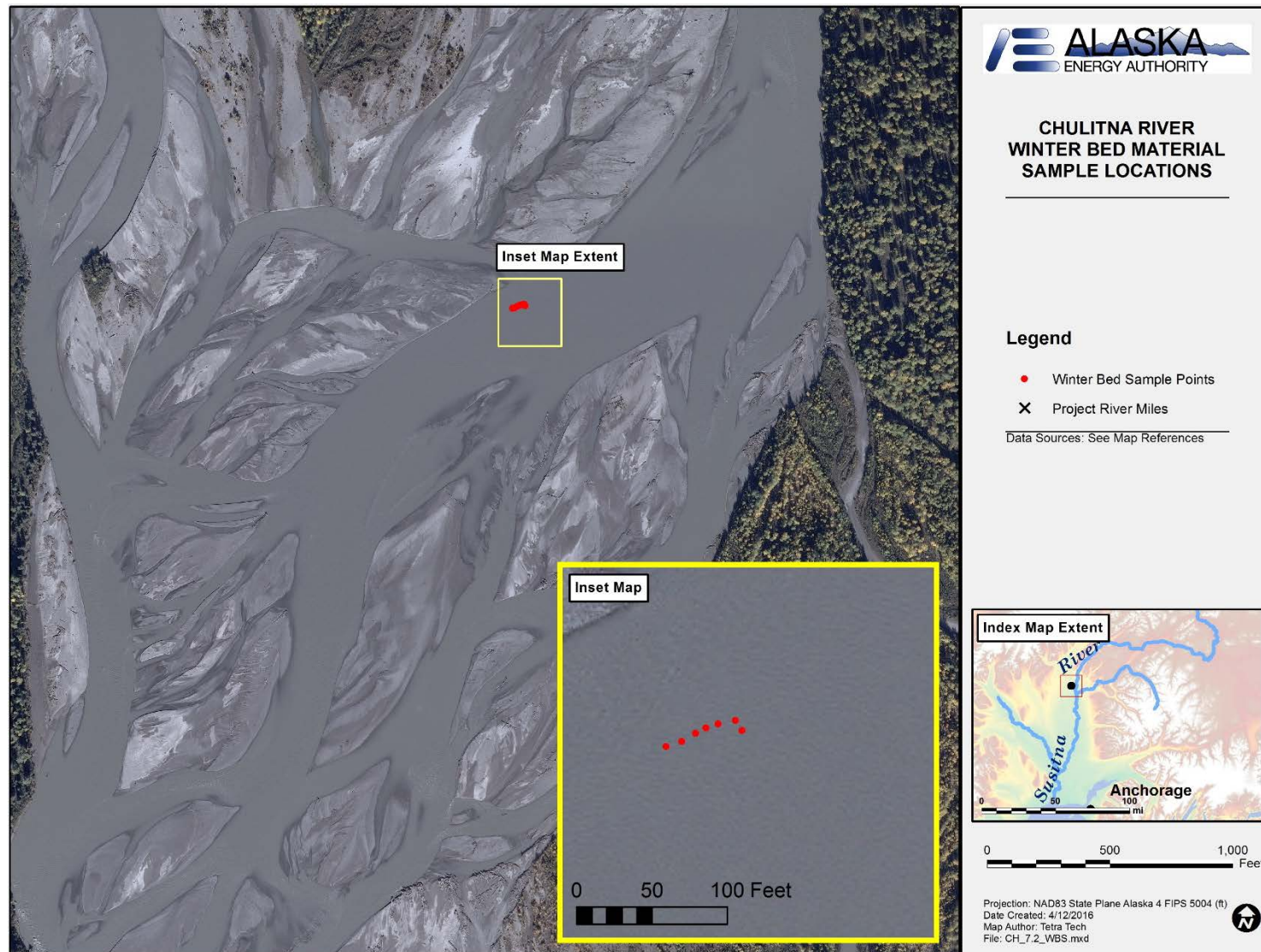


Figure 21. Sample points Chulitna PRM 7.2

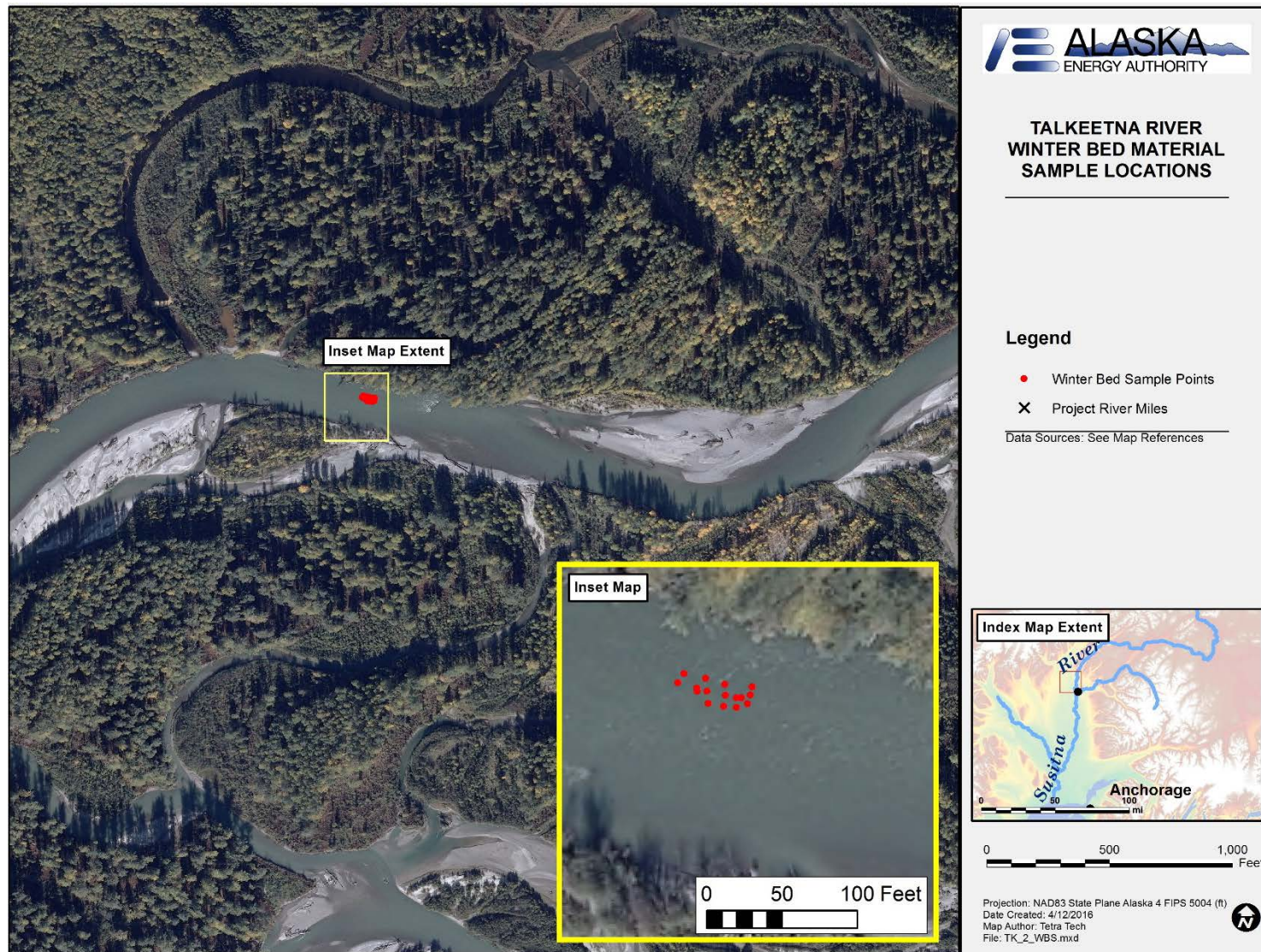


Figure 22. Sample points Talkeetna PRM 2.0

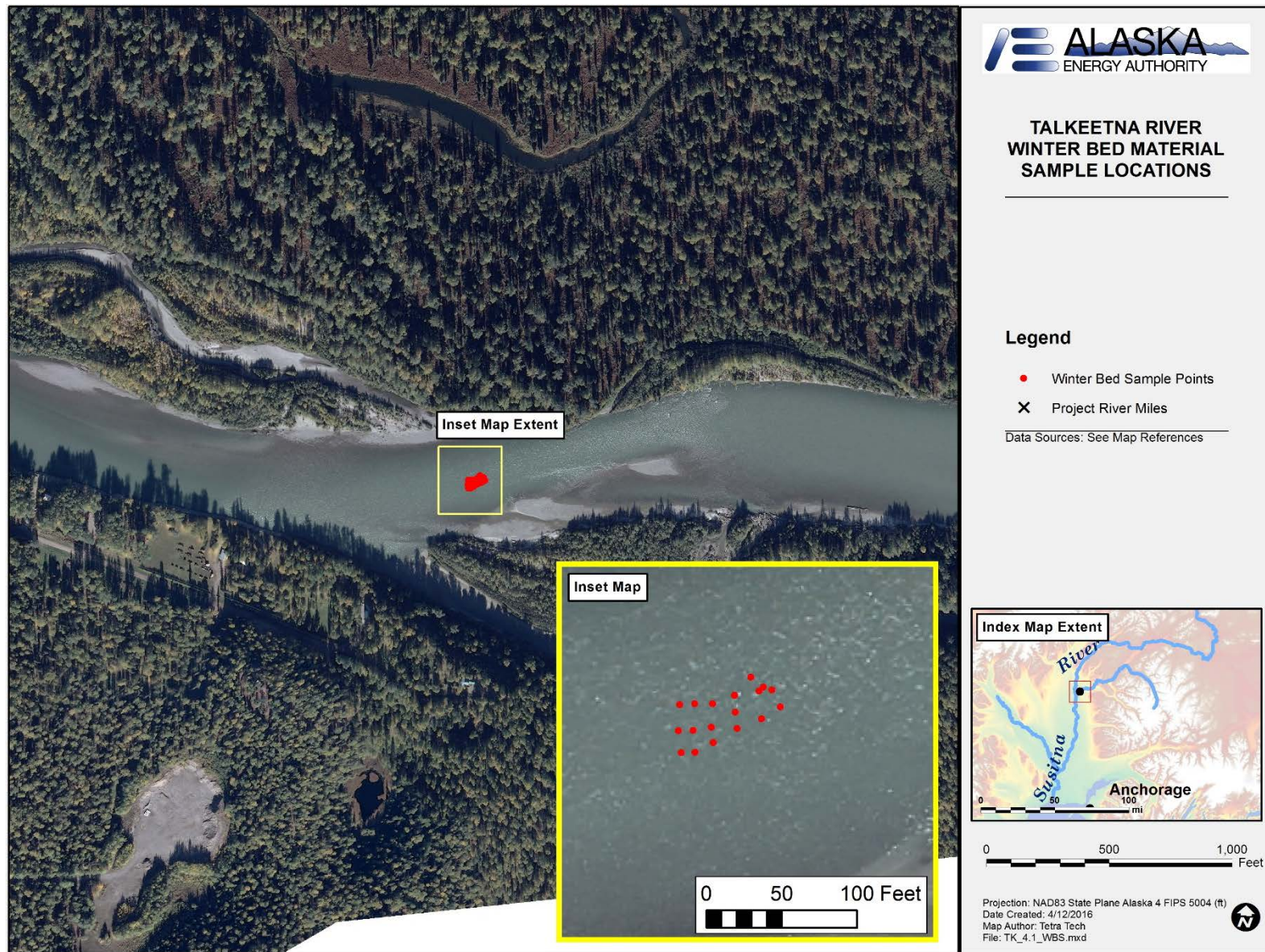


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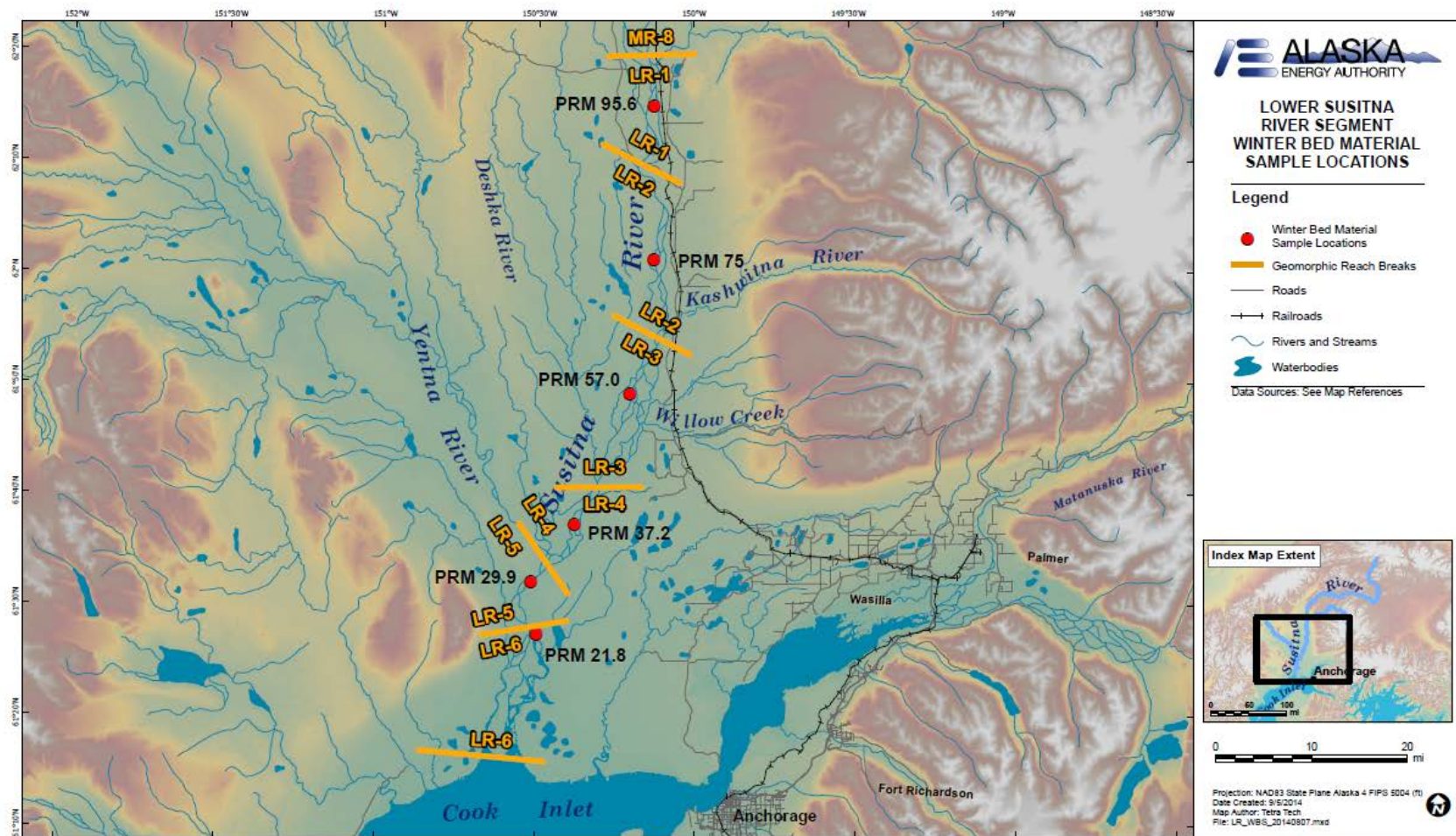


Figure 24. Lower Susitna River Segment main channel bed material sample transect locations.

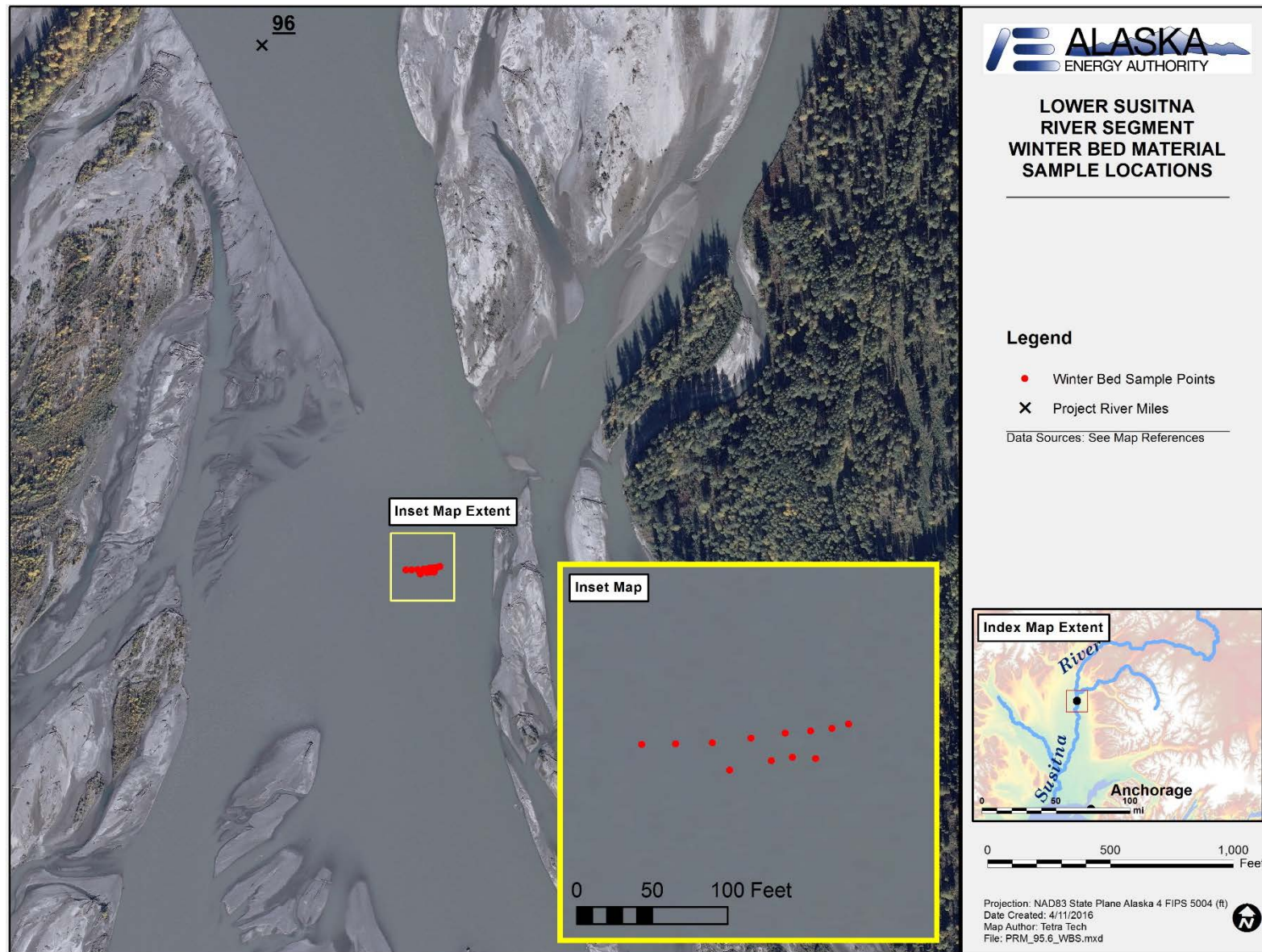


Figure 25. Sample points Susitna PRM 95.6

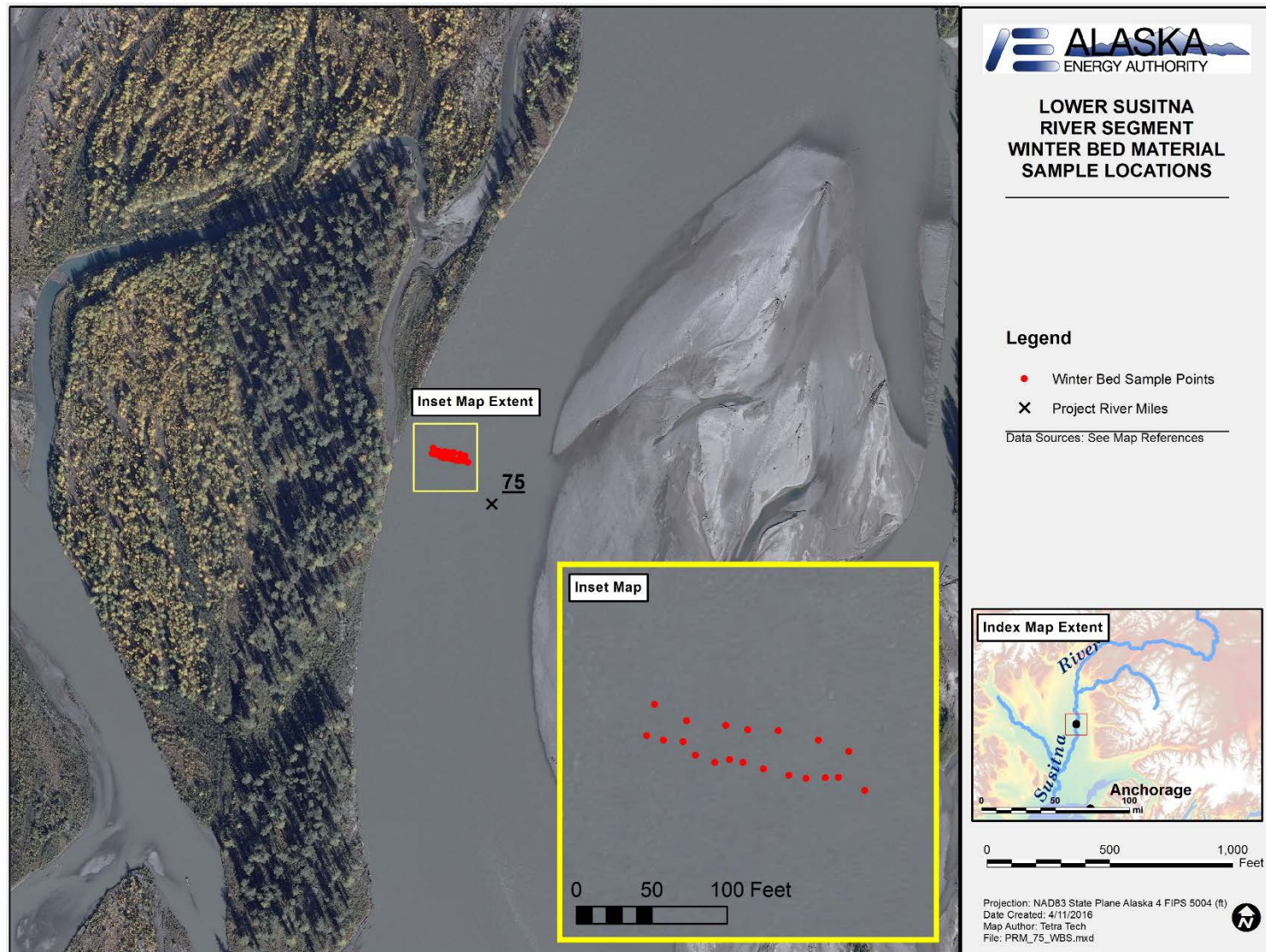


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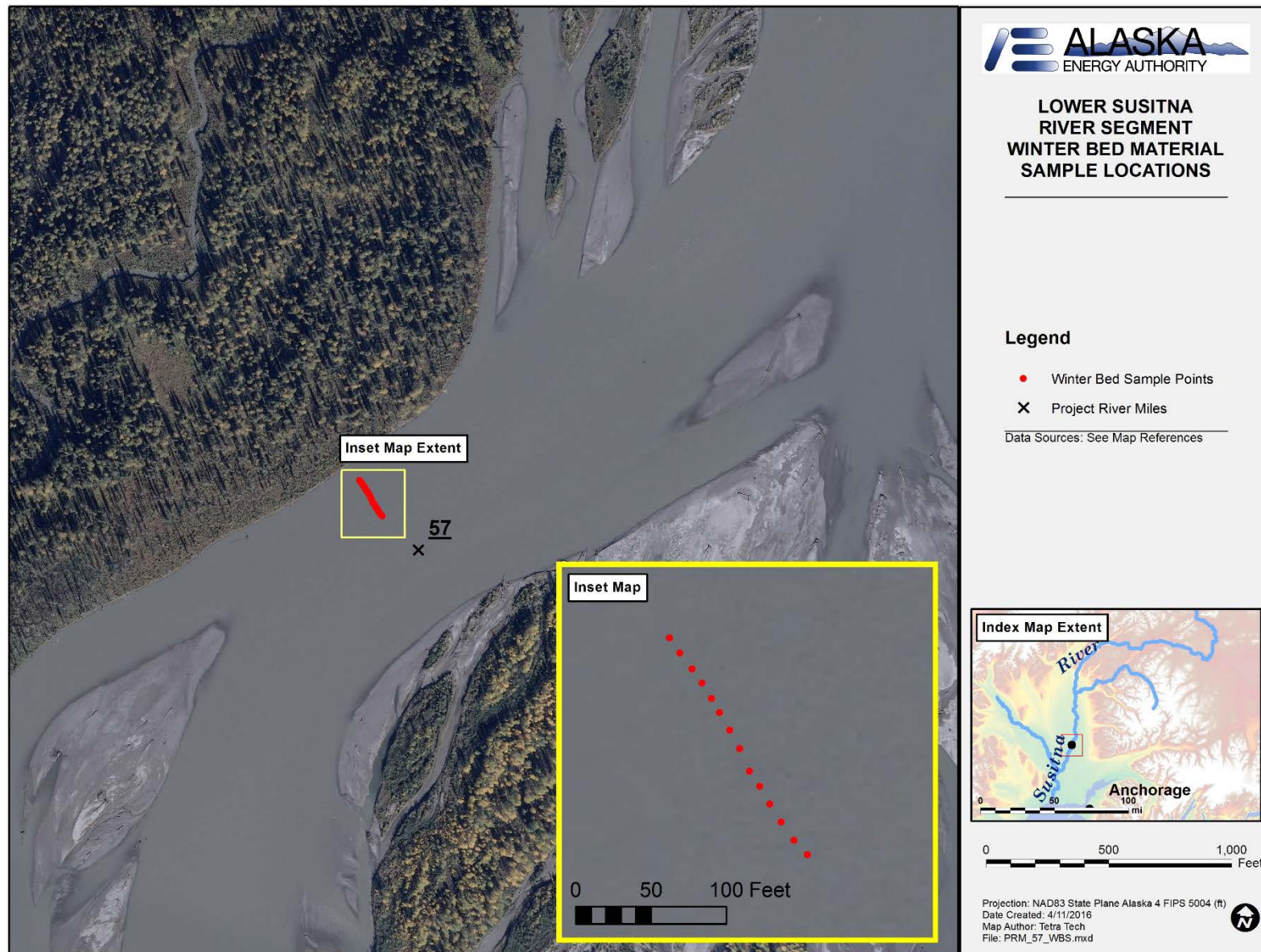


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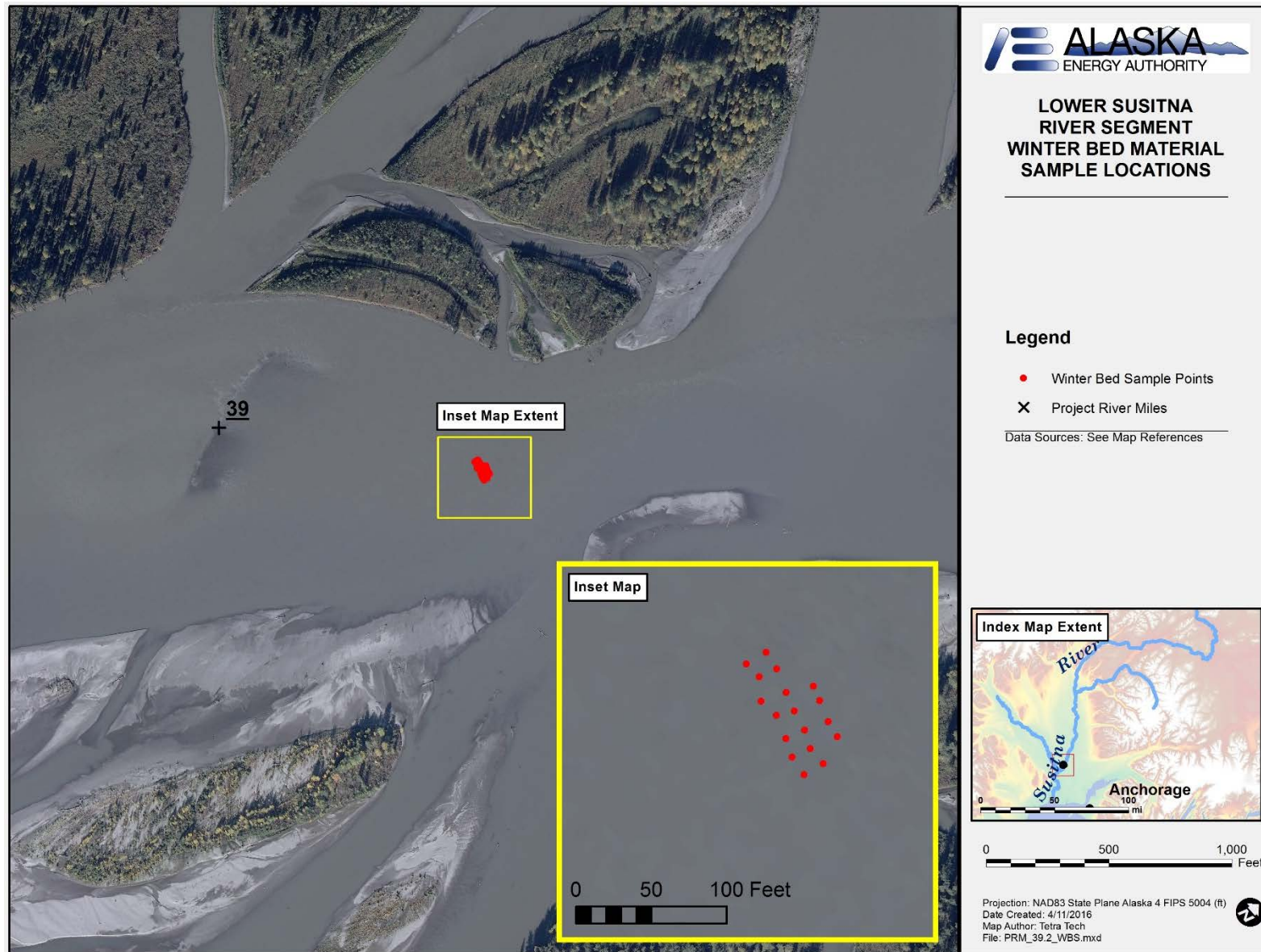


Figure 28. Sample points Susitna PRM 39.2

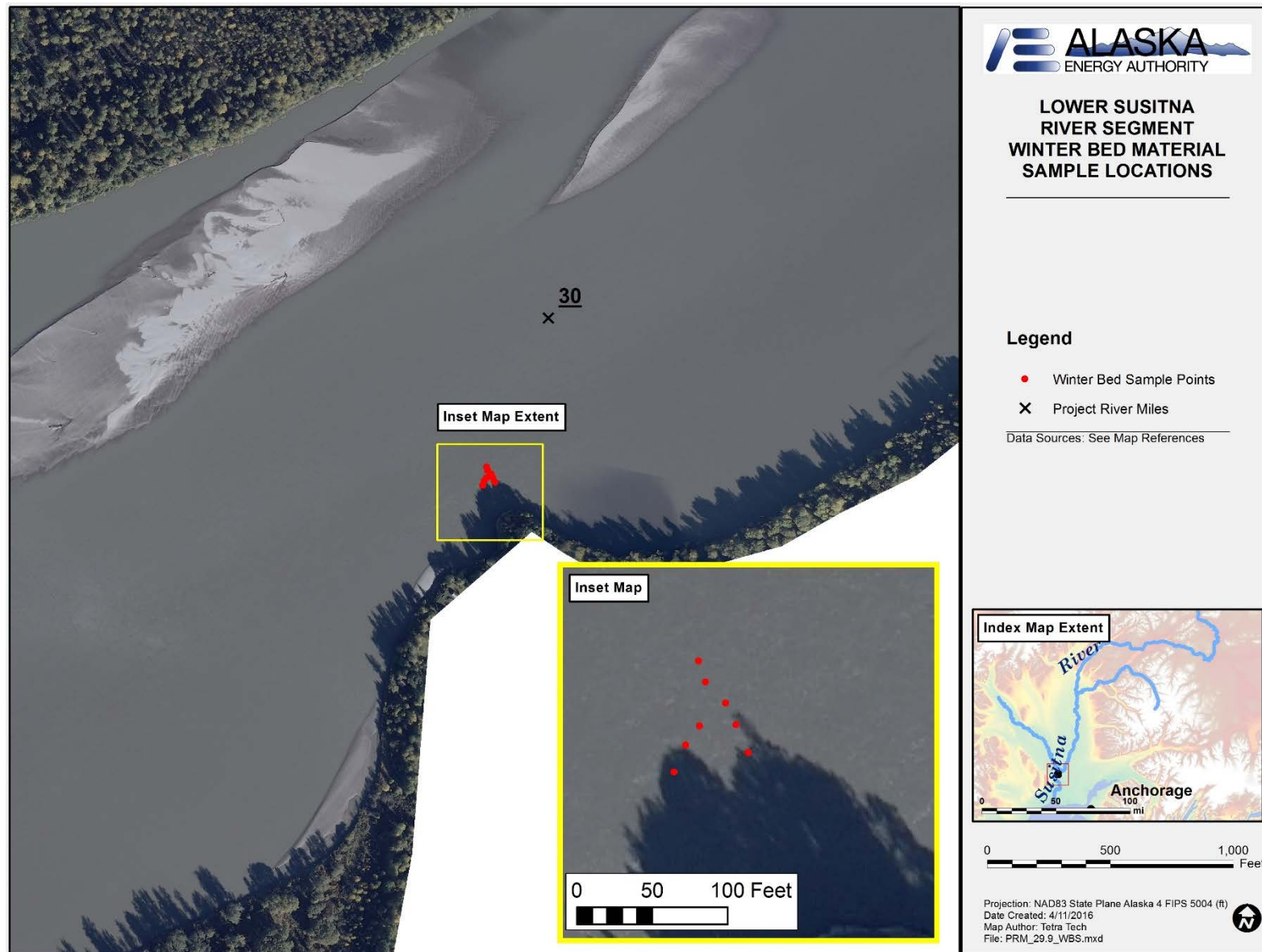


Figure 29. Sample points Susitna PRM 29.9

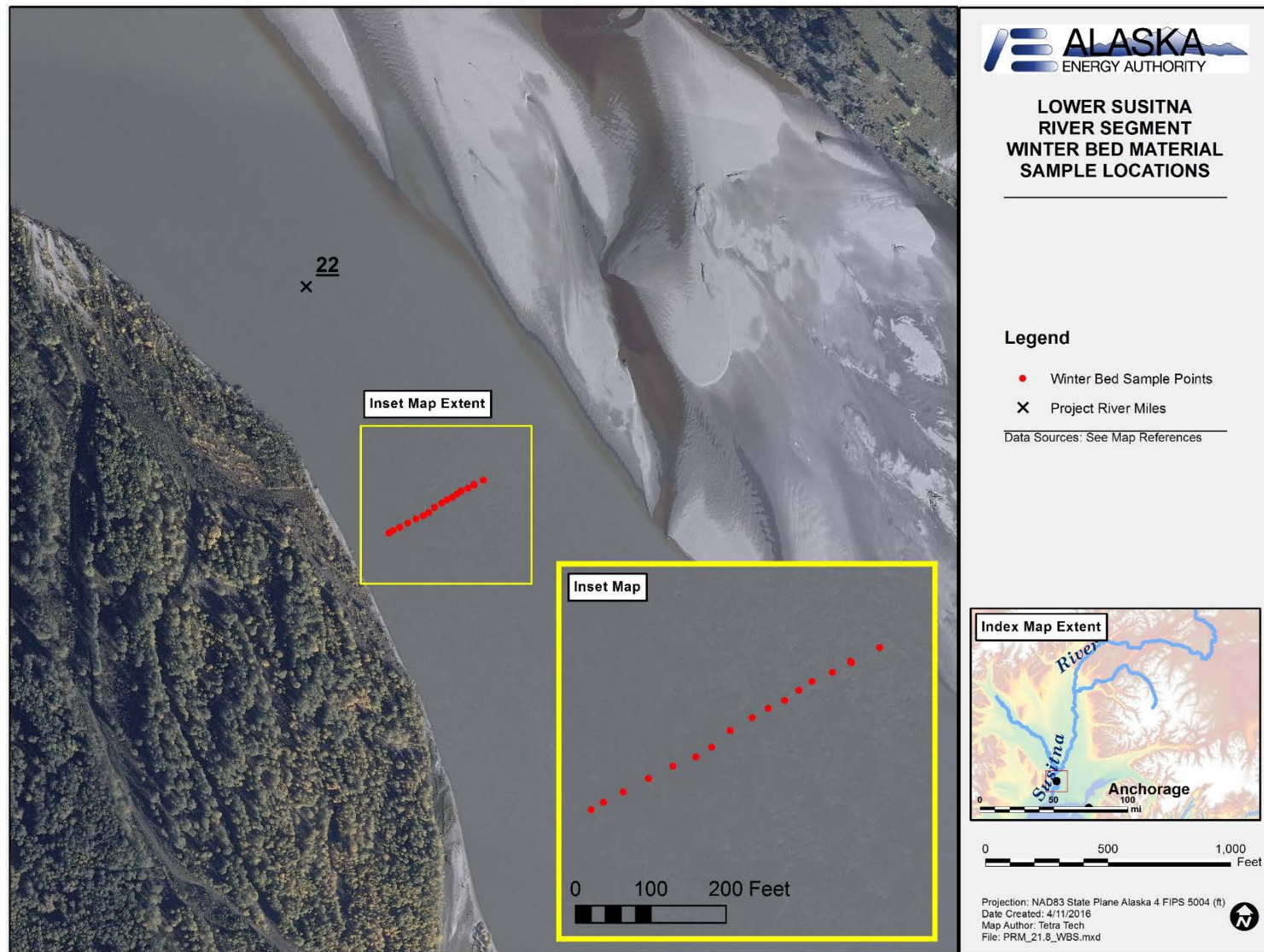


Figure 30. Sample points Susitna PRM 21.8