Figure 1. Sediment-mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 96-1, which was completed in August 1996.

- CA_1_A180993
- CA_1_B1802693
- CA_1_C1884693
- HI_1_A1884293
- HI_1_B1885593
- HI_1_C1886393
- IA_1_A18811893
- IA_1_B18815893
- IA_1_C18815893
- KY_1_A18817793
- KY_1_B18818793
- KY_1_C18819793
- LA_1_A18816493
- LA_1_B18817693
- LA_1_C18812693
- MO_1_A18811393
- MO_1_B18812393
- MO_1_C18816693
- MT_1_A18813393
- MT_1_B18813693
- MT_1_C18814493
- NM_1_A18811493
- NM_1_B18812293
- NM_1_C18819493
- OH_1_A18814793
- OH_1_B18817493
- OH_1_C18819093
- PR_1_A18812493
- PR_1_B18818293
- PR_1_C18819393
- WA_1_A1889293
- WA_1_B1889693
- WA_1_C18810093

SEDIMENT-MASS PERCENT DIFFERENCE

Sample Identification Number

EXPLANATION
- Median
- California
- Iowa
- Kentucky
- Louisiana
- Missouri
- Montana
- New Mexico
- Ohio (contract laboratory)
- Hawaii
- New Hampshire
- Ohio
- Pennsylvania
- Puerto Rico
- Washington

Results not available

Study number 96-1, which was completed in August 1996.
Figure 2. Sediment-mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 3. Sediment-mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 4. Sediment-mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 5. Sediment-mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 6. Sediment-mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 96-1, which was completed in August 1996.
Figure 7. Sediment-mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 8. Sediment-mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 9. Sediment-mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 10. Sediment-mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 11. Sediment-mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 96-1, which was completed in August 1996.
Figure 12. Sediment-mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 96-2, which was completed in September 1996.

- **Results not available**
- **+** Median
- **+1 and +1 F-Pseudosigma**
- **+2 and +2 F-Pseudosigma**
- **+3 and +3 F-Pseudosigma**
- **Sample arrived in questionable condition**

**EXPLANATION**

**SAMPLE IDENTIFICATION NUMBER**

- CA_3_C1947693
- CA_3_B195993
- CA_3_C1958093
- HI_3_A1944293
- HI_3_B1951893
- HI_3_C1956793
- IA_3_A1945393
- IA_3_B1952793
- IA_3_C1955793
- KY_3_A1946493
- KY_3_B1951693
- KY_3_C1953193
- LA_3_A1942293
- LA_3_B195793
- LA_3_C1956693
- MO_3_A1942493
- MO_3_B1951293
- MO_3_C1954693
- MT_3_B1951993
- MT_3_A1941493
- MT_3_C1954793
- NM_3_A1943693
- NM_3_B1953993
- NM_3_C1956593
- OH_3_A1944893
- OH_3_B1953293
- OH_3_C1956493
- PR_3_A1945293
- PR_3_B1951393
- PR_3_C1952393
- WA_3_A1942693
- WA_3_B195493
- WA_3_C1955993

**SEDIMENT-MASS PERCENT DIFFERENCE**

- - - Median
- **+1 and +1 F-Pseudosigma**
- **+2 and +2 F-Pseudosigma**
- **+3 and +3 F-Pseudosigma**

**RESULTS**

- Sample not available
- Sample arrived in questionable condition
Figure 13. Sediment-mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 14. Sediment-mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 15. Sediment-mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 16. Fine-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 96-1, which was completed in August 1996.
**Figure 17.** Fine-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 18. Fine-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 19. Fine-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 20. Fine-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 21. Fine-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 96-1, which was completed in August 1996.
Figure 22. Fine-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 23. Fine-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 24. Fine-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 25. Fine-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 26. Fine-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 66-1, which was completed in August 1966.

<table>
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<th>SAMPLE IDENTIFICATION NUMBER</th>
<th>FINE-SIZE MATERIAL MASS PERCENT DIFFERENCE</th>
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Figure 27. Fine-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 28. Fine-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 29. Fine-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 30. Fine-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 31. Sand-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 96-1, which was completed in August 1996.
Figure 32. Sand-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 33. Sand-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 34. Sand-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
**Figure 35.** Sand-size material mass percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 36. Sand-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 96-1, which was completed in August 1996.
Figure 37. Sand-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 38. Sand-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 39. Sand-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 40. Sand-size material mass percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 41. Sand-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 96-1, which was completed in August 1996.
Figure 42. Sand-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 43. Sand-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 44. Sand-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 45. Sand-size material mass percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 98-1, which was completed in June 1998.

- Median
- California
- Hawaii
- Iowa
- Kentucky
- Louisiana
- Missouri
- Montana
- New Mexico
- New York (contract laboratory)
- Ohio (contract laboratory)
- Oregon (contract laboratory)
- Washington
- Hawaii
- Idaho
- Illinois
- Indiana
- Kansas
- Maryland
- Massachusetts
- Michigan
- Minnesota
- New York (contract laboratory)
- North Carolina
- North Dakota
- Ohio (contract laboratory)
- Oklahoma
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- West Virginia
- Wisconsin
- Wyoming
- Median
- +1 and -1 F-Pseudosigma
- +2 and -2 F-Pseudosigma
- +3 and -3 F-Pseudosigma

SAMPLE IDENTIFICATION NUMBER

EXPLANATION

- Results not available
- Sample arrived in questionable condition
- Sample out of range

SAND-SIZE MATERIAL MASS PERCENT DIFFERENCE
Figure 46. Suspended-sediment concentration percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 47. Suspended-sediment concentration percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 48. Suspended-sediment concentration percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 49. Suspended-sediment concentration percent difference for samples containing 50 to 100 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 50. Suspended-sediment concentration percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 51. Suspended-sediment concentration percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 52. Suspended-sediment concentration percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 53. Suspended-sediment concentration percent difference for samples containing 101 to 300 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 54. Suspended-sediment concentration percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 96-2, which was completed in September 1996.
Figure 55. Suspended-sediment concentration percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 97-1, which was completed in July 1997.
Figure 56. Suspended-sediment concentration percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 97-2, which was completed in September 1997.
Figure 57. Suspended-sediment concentration percent difference for samples containing 2,200 to 3,200 milligrams of fine-size material from study number 98-1, which was completed in June 1998.
Figure 58. Sample leakage by laboratory, August 1996 through June 1998.

This is a contract laboratory.
Figure 59. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Salinas, California, laboratory.
Figure 60. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Honolulu, Hawaii, laboratory.
Figure 61. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Iowa City, Iowa, laboratory.
Figure 62. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Louisville, Kentucky, laboratory.
Figure 63. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Baton Rouge, Louisiana, laboratory.
SEDIMENT LABORATORY QUALITY-ASSURANCE STUDY

Figure 64. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Rolla, Missouri, laboratory.
Figure 65. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Helena, Montana, laboratory.
Figure 66. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Albuquerque, New Mexico, laboratory.
Figure 67. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Ithaca, New York, (contract) laboratory.

* Did not participate

○ Comparison analysis using a millipore filter.
SEDIMENT LABORATORY QUALITY-ASSURANCE STUDY

Figure 68. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Columbus, Ohio (contract), laboratory.
Figure 69. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Guaynabo, Puerto Rico, laboratory.
Figure 70. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 50 to 100 milligrams of sediment for the Vancouver, Washington, laboratory.
Figure 71. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Salinas, California, laboratory.
Figure 72. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Honolulu, Hawaii, laboratory.
Figure 73. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Iowa City, Iowa, laboratory.
SEDIMENT LABORATORY QUALITY-ASSURANCE STUDY

Figure 74. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Louisville, Kentucky, laboratory.
Figure 75. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Baton Rouge, Louisiana, laboratory.
Figure 76. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Rolla, Missouri, laboratory.
Figure 77. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Helena, Montana, laboratory.
Figure 78. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Albuquerque, New Mexico, laboratory.
SEDIMENT LABORATORY QUALITY-ASSURANCE STUDY

* Did not participate

○ Comparison analysis using a millipore filter.

Figure 79. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Ithaca, New York, (contract) laboratory.
Figure 80. Suspension-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Columbus, Ohio (contract), laboratory.
Figure 81. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Guaynabo, Puerto Rico, laboratory.
Figure 82. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 101 to 300 milligrams of sediment for the Vancouver, Washington, laboratory.
Figure 83. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Salinas, California, laboratory.
Figure 84. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Honolulu, Hawaii, laboratory.
Figure 85. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Iowa City, Iowa, laboratory.
Figure 86. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Louisville, Kentucky, laboratory.
Figure 87. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Baton Rouge, Louisiana, laboratory.
Figure 88. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Rolla, Missouri, laboratory.
Figure 89. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Helena, Montana, laboratory.
SEDIMENT LABORATORY QUALITY-ASSURANCE STUDY

Figure 90. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Albuquerque, New Mexico, laboratory.
SEDIMENT LABORATORY QUALITY-ASSURANCE STUDY

* Did not participate

Figure 91. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Ithaca, New York, (contract) laboratory.

○ Comparison analysis using a millipore filter.
Figure 92. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Columbus, Ohio (contract), laboratory.
SEDIMENT LABORATORY QUALITY-ASSURANCE STUDY

Figure 93. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Guaynabo, Puerto Rico, laboratory.
Figure 94. Suspended-sediment concentration percent difference for study numbers 96-2 through 98-1 for samples containing 2,200 to 3,200 milligrams of sediment for the Vancouver, Washington, laboratory.
Figure 95. Distribution of reported values for each laboratory that participated in the Sediment Laboratory Quality-Assurance project from August 1996 to June 1998: (A) percent differences for suspended-sediment concentration, (B) percent differences for mass of fine material, (C) percent differences for mass of sand material.

1 This is a contract laboratory.