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Table 2. Radiocarbon sample information, <sup>14</sup>C ages<sup>1</sup>, and calibrated ages (modified from Berry and others, 2015a).

Table with columns: Field number, Laboratory number, 7.5' quad, UTM Easting, UTM Northing, Material dated, Approx. depth (m), δ13C (‰), 14C age (cal ka BP), Calibrated age (cal ka BP), P. Rows include WC-P-2, TIP-Wp115, FMR-3, AK-1, AK-8, H-R-3.45.9, KC-245.

<sup>1</sup>Radiocarbon (<sup>14</sup>C) activity measured by accelerator mass spectrometry (AMS).
<sup>2</sup>UTM zone 13, 1927 North American Datum (NAD 27).
<sup>3</sup>Relative difference between <sup>14</sup>C/<sup>12</sup>C ratio of carbon extracted from subsample and that of Vienna Pee Dee Belemnite (VPDB) international standard.

Table 3. U-Th concentrations, U-series isotope compositions, and calculated <sup>230</sup>Th/U ages and initial <sup>230</sup>Th/<sup>232</sup>U activity ratios for subsamples of EF-Wp67 and EIC-Wp95.

Table with columns: Field number, Lab sample name, U concentration in μg/g, Th concentration in μg/g, Measured <sup>230</sup>Th/<sup>232</sup>U AR, Detritus-corrected activity ratios<sup>2</sup>, <sup>230</sup>Th/U age ±2σ (ka), Initial <sup>230</sup>Th/<sup>232</sup>U AR±2σ<sup>3</sup>. Rows include Wp67-1, Wp67-2, EF-Wp67, Wp67-3, Wp67-5, Wp67-7, Wp67-9, Wp67-11, EIC-Wp95.

<sup>1</sup>Measured activity ratios (AR) corrected for mass fractionation, spike contributions, and procedural blank, and normalized relative to an atomic ratio value for National Institute of Standards and Technology (NIST) Standard Reference Material (SRM) 4319B U-isotope standard of <sup>230</sup>Th/<sup>232</sup>U=0.000029.
<sup>2</sup>Ratios corrected for an assumed Th-bearing detrital component having an atomic Th/U of 4 with the following activity ratios and 2σ errors: <sup>230</sup>Th/<sup>232</sup>U=1.276±0.04; <sup>234</sup>Th/<sup>232</sup>U=1.04±0.11; and <sup>231</sup>Pa/<sup>232</sup>U=1.0±0.25.

Table 1. Optically stimulated luminescence (OSL) age estimates with equivalent dose (D<sub>e</sub>) and dose rate data (modified from Berry and others, 2015a).

Table with columns: Field number, UNL lab number, 7.5' quad, UTM Easting, UTM Northing, Approx. depth (m), U (ppm), Th (ppm), K<sub>2</sub>O (wt%), CAM D<sub>e</sub> (Gy), Aliquots (n)<sup>1</sup>, In situ H<sub>2</sub>O field (%), Dose rate (Gy/ka)<sup>2</sup>, OSL age (ka)±1σ<sup>3</sup>, In situ H<sub>2</sub>O est. (%), Dose rate (Gy/ka)<sup>2</sup>, OSL age (ka)±1σ<sup>3</sup>. Rows include OSL-1-KC, OSL-4-KC, OSL-5-KC, OSL-6-ER, OSL-7-ER, OSL-BC-14, OSL-BC-13, OSL-AK-10, OSL-AK-11, OSL-TK-R-12.

<sup>1</sup>Gray is an SI unit of absorbed dose of ionizing radiation (Taylor and Thompson, 2008).
<sup>2</sup>1927 North American Datum (NAD 27), zone 13.
<sup>3</sup>Determined using the Central Age Model (CAM) of Galbraith and others (1999).

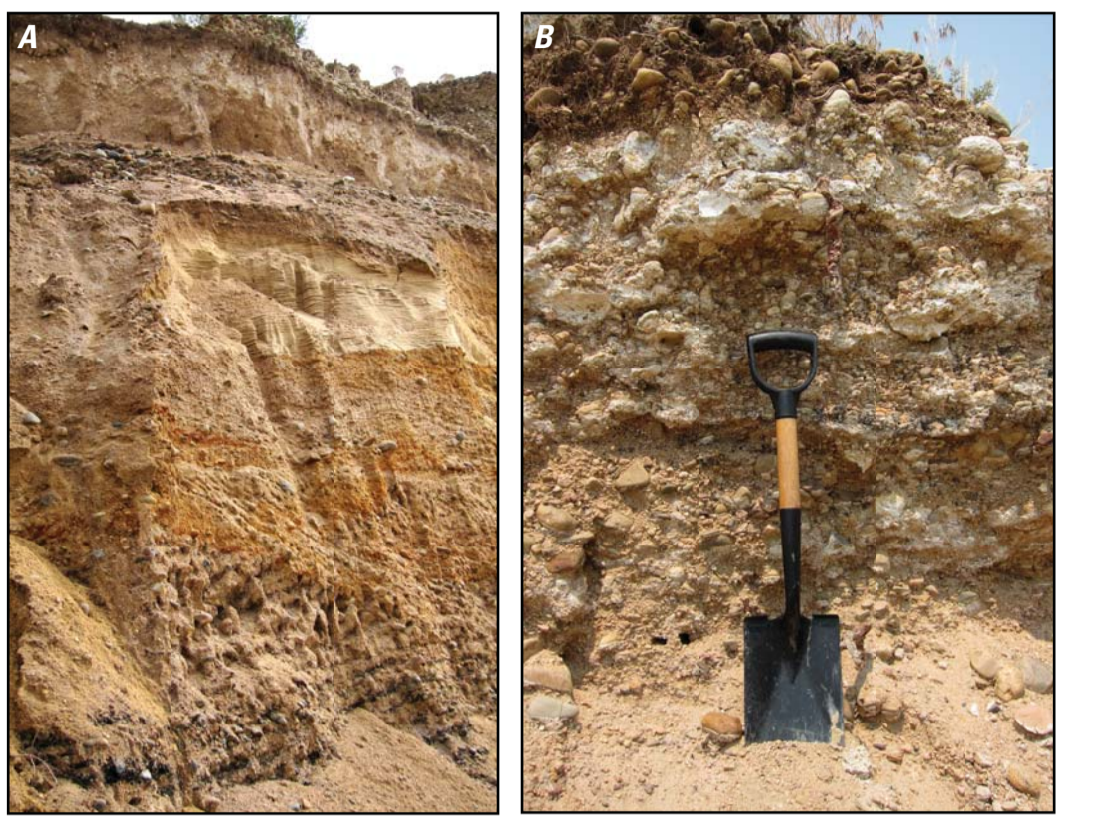


Photo 1. Views of Verdos Alluvium (Ov) in gravel-pit exposure in adjacent Brush West 7.5' quadrangle. A. Section about 6-meters thick of cross-bedded sandy gravel interbedded with well-sorted sand. B. Close-up of soil profile. K horizon variably cemented with stage III (locally stage IV) carbonate morphology and thick coats (rinds) on clasts up to 1-centimeter thick. Shovel is 68-centimeters long. Photographs by M.E. Berry, September 2012 and June 2016.

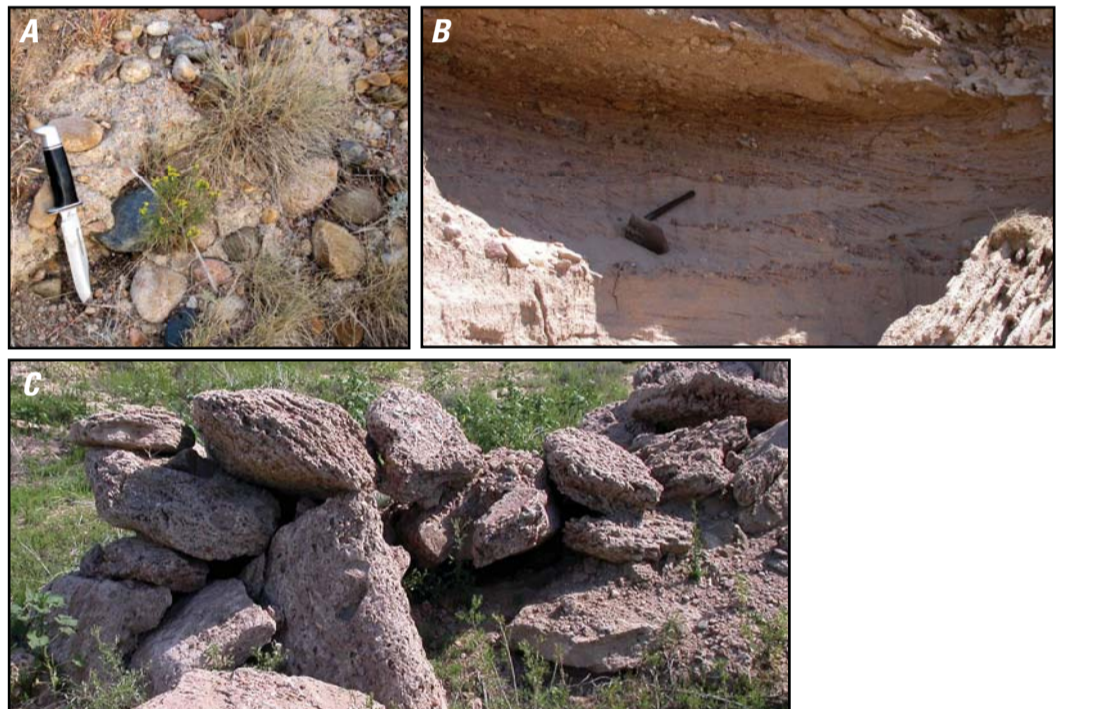


Photo 2. Views of Nusbaum Alluvium (Qn) in a gravel-pit exposure in northwestern part of Fort Morgan 7.5' quadrangle. A. Close up of rounded cobble in indurated conglomerate making up basal section of alluvium. B. Varilyly cemented cross-bedded sands and pebbly sands. Shovel blade is 22 centimeters long. C. Quarried blocks of indurated basal conglomerate. Photographs by M.E. Berry, July 2010 and September 2012.

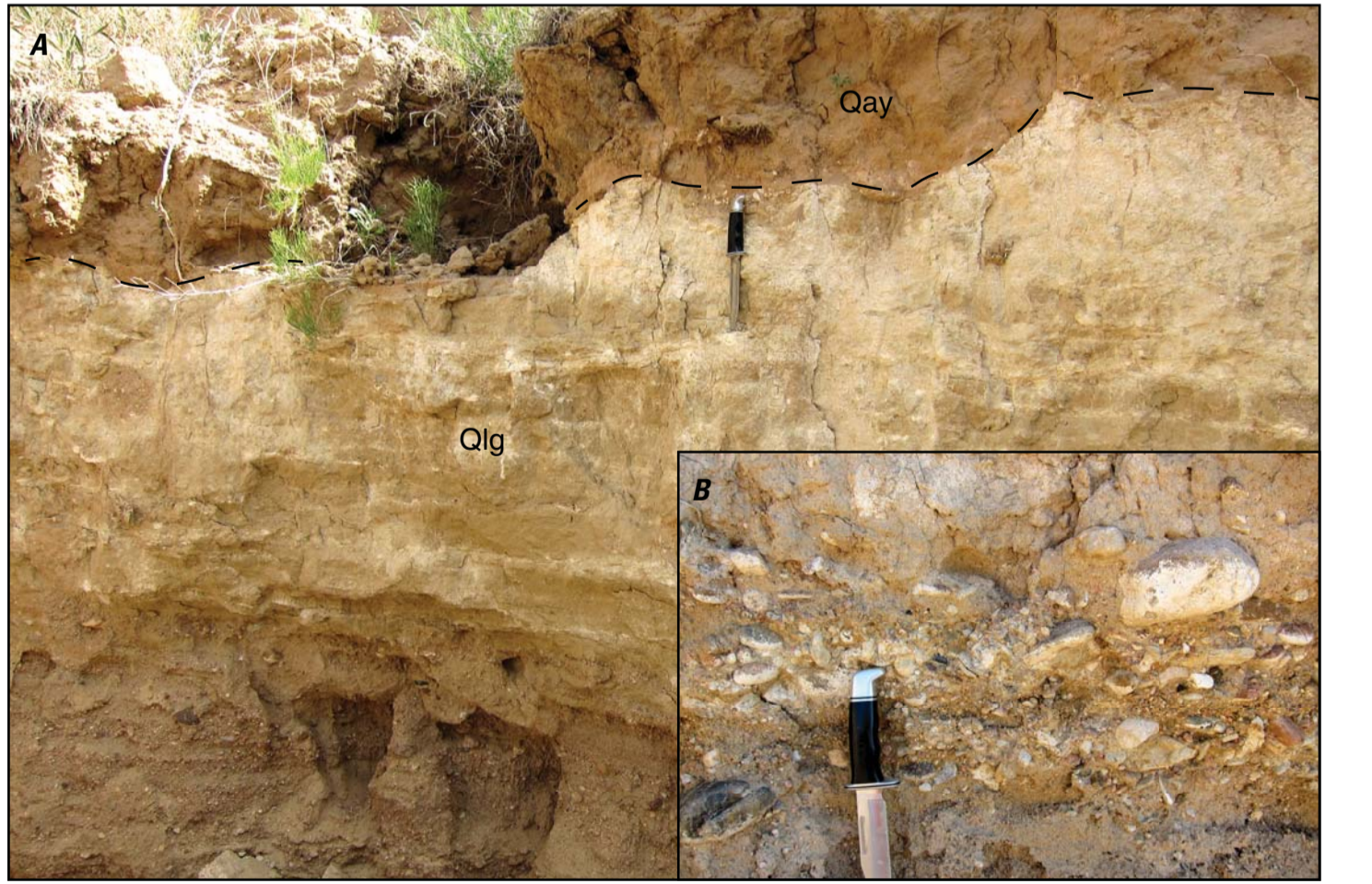


Photo 3. Views of collan and alluvial deposits, undivided (Qlg). A. Erosional contact (dashed line) separates Qlg from overlying young streambank alluvium, undivided (Qay), here made up of reworked loess and collan sand deposited mainly by sheetwash processes. Eroded pedogenic carbonate horizon with maximum stage III carbonate morphology marks top of Qlg. B. Close-up view of gravel bed within Qlg. Knife is 26 centimeters long. Photographs by M.E. Berry, June 2013.

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Geologic map of the Fort Morgan 7.5' quadrangle, Morgan County, Colorado
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2018

U.S. Geological Survey
University of Nebraska-Lincoln, School of Natural Resources

1888-ASK-USGS
This report is available at https://doi.org/10.3133/sim3408

For more information concerning this publication, contact Center Director, USGS Geosciences and Environmental Change Science Center, Box 25048, Mail Stop 980, Denver, CO 80225, (303) 236-5344

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ScienceBase citation: Berry, M.E., Taylor, E.M., Slate, J.L., Paces, J.B., Hanson, P.R., and Brandt, T.R., 2018, Data release for the geologic map of the Fort Morgan 7.5' quadrangle, Morgan County, Colorado: U.S. Geological Survey data release, https://doi.org/10.3133/d7020090.
ScienceBase citation for geochronology of the river corridor: Berry, M.E., Hanson, P.R., Paces, J.B., Taylor, E.M., and Slate, J.L., 2018, Data release of OSL, <sup>14</sup>C, and U-series age data supporting geologic mapping along the South Platte River corridor in northeastern Colorado: U.S. Geological Survey data release, https://doi.org/10.5066/7DN65M3.
Suggested citation: Berry, M.E., Taylor, E.M., Slate, J.L., Paces, J.B., Hanson, P.R., and Brandt, T.R., 2018, Geologic map of the Fort Morgan 7.5' quadrangle, Morgan County, Colorado: U.S. Geological Survey Scientific Investigations Map 3408, 2 sheets, scale 1:24,000, https://doi.org/10.3133/sim3408.