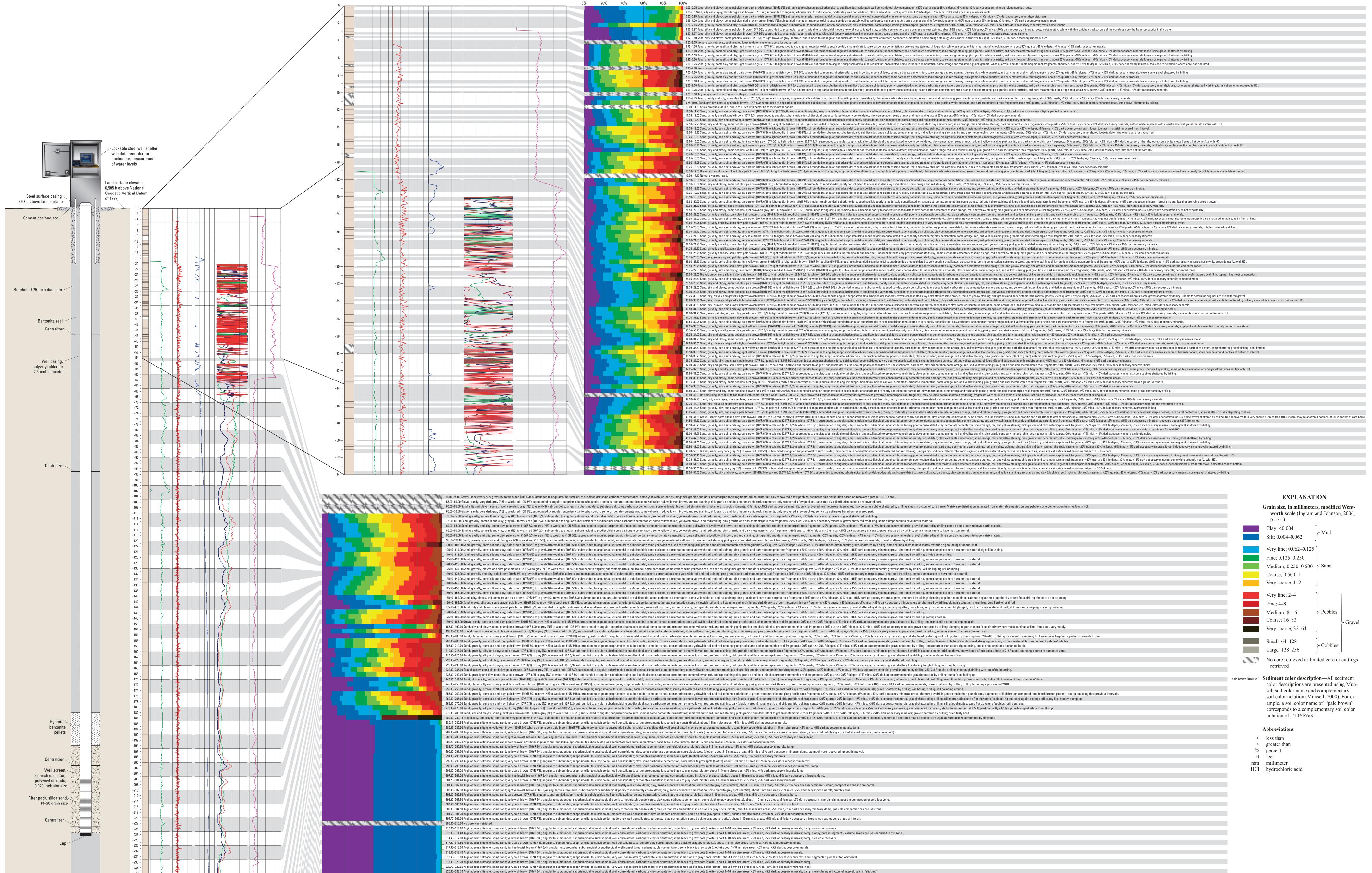


Prepared in cooperation with the WYOMING STATE ENGINEER'S OFFICE

SCIENTIFIC INVESTIGATIONS REPORT 2013–5242 Well Construction, Geophysical Logs, Cuttings and Core Description, and Interpreted Lithostratigraphy, Monitoring Well BRO-2, Belvoir Ranch, Laramie County, Wyoming-PLATE Bartos, T.T., Diehl, S.F., Hallberg, L.L., and Webster, D.M., 2014, Geologic and hydrogeologic characteristics of the Ogallala Formation and White River Group, Belvoir Ranch near Cheyenne, Laramie County, Wyoming



| | | 323.70–324.70 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; carbonate, clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; hard, segmented. |
|--------------------|--------|--|
| | -244 | _ 324.70-326.20 Argillaceous siltstone, some sand; yellowish brown (10YR 5/4); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; carbonate, clay cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals; damp. 326.20-326.60 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; carbonate, clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; hard, segmented. |
| | -246 - | |
| | | 327.00–328.50 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals. |
| | | _ 328.50–328.90 Argillaceous siltstone, some sand; very pale brown (10YR 7/4); angular to subdiscoidal; well consolidated; carbonate, clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals. 328.90–330.50 Argillaceous siltstone, some sand; yellowish brown (10YR 5/4); angular to subdiscoidal; well consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals. |
| | | 330.50–330.80 Argillaceous siltstone, some sand; pale brown (10YR 6/3); angular to subdiscoidal; well consolidated; carbonate, clay cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals; hard. |
| | | 330.80-331.70 Argillaceous siltstone, some sand; yellowish brown (10YR 5/4); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals. |
| | | 331.70-332.00 No core was retrieved. 332.00-333.70 Argillaceous siltstone, some sand; yellowish brown (10YR 5/4); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals; damp; may be more clay, seems "stickier." |
| | | 333.70-335.10 Argillaceous siltstone, some sand; yellowish brown (10YR 5/4); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1-10 mm size areas; <5% mica, <5% dark accessory minerals; damp, breaks easier, some blocky areas. |
| | | 335.10-337.00 Argillaceous siltstone, some sand; yellowish brown (10YR 5/4); angular to subdiscoidal; soorly consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals; damp, breaks easy, blocky, probable area of core loss. 337.00-337.30 Argillaceous siltstone, some sand; very pale brown (10YR 7/3); angular to subdiscoidal; noderately consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals. |
| | | 337.30-338.00 Argillaceous sitistone, some sand; light yellowish brown (10YR 6/4); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1-3 min size areas; <5% mica, <5% dark accessory minerals. |
| | | |
| | -270 - | 338.60-331.40 Argillaceous siltstone, some sand; pale brown (10YR 5/3); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; "fracture" with more dark minerals at 339.5 ft. 339.60-341.40 Argillaceous siltstone, some sand; pale brown (10YR 6/3); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; some segmentation. |
| Ogallala Formation | | 341.40–342.00 No core was retrieved. |
| | | 342.20-342.20 Argillaceous siltstone, some sand; pale brown (10YR 6/3); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; 342.20-342.40 Argillaceous siltstone, some sand; light brownish gray (10YR 6/2); angular to subrounded; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; broken up, probable area of core loss. |
| White River Group | | 342.40-342.80 Argillaceous siltstone, some sand; light gray (10YR 7/2); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; bioten day, or well accessory day, or well accessory minerals; bioten day, or well accessory miner |
| | | _ 342.80–343.40 Argillaceous siltstone, some sand; very pale brown (10YR 8/2); angular to subdiscoidal; poorly consolidated; clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; broken up, probable area of core loss. |
| | | _ 343.40-344.10 Argillaceous siltstone, some sand; pale brown (10YR 5/3); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals. 344.10-344.60 Argillaceous siltstone, some sand; pale brown (10YR 6/3); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; carbonate, clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; hard. |
| | | 344.60-344.90 Argillaceous siltstone, some sand; light gray (10YR 7/2); angular to subrounded; subprismoidal to subdiscoidal; very poorly consolidated; clay cementation; some black to gray spots (biotite), about 1-5 mm size areas; <5% mica, <5% dark accessory minerals; crumbly, probable area of core loss. |
| | | 344.90-345.10 Argillaceous siltstone, some sand; light gray (10YR 7/2); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; carbonate, clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; hard. |
| | | |
| | | 347.00-347.30 Argillaceous siltstone, some sand; very pale brown (10YR 8/2); angular to subrounded; subprismoidal to subdiscoidal; poorly consolidated; clay cementation; some black to gray spots (biotite), about 1-5 mm size areas; <5% mica, <5% dark accessory minerals. |
| | -294 | 347.30–347.50 Argillaceous siltstone, some sand; light gray (10YR 7/2); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals. |
| | | 348.40-348.80 Argillaceous siltstone, some sand; very pale brown (10YR 8/2); angular to subrounded; subprismoidal to subdiscoidal; poorly to very poorly consolidated; clay cementation; some black to gray spots (biotite), about 1-5 mm size areas; <5% mica, <5% dark accessory minerals; broken up, probable area of core loss. |
| | | 348.80–348.90 Argillaceous siltstone, some sand; very pale brown (10YR 8/2); angular to subdiscoidal; moderately consolidated; clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals. |
| | | _ 348.90-350.30 Argillaceous siltstone, some sand; pale brown (10YR 6/3); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals; damp. 350.30-350.70 Argillaceous siltstone, some sand; pale brown to very pale brown to very pale brown (10YR 6/3) (10YR 8/2); angular to subrounded; subprismoidal to subdiscoidal; poorly to very poorly consolidated; clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; broken up, probable area of core loss. |
| | | 350.70-351.60 Argillaceous siltstone, some sand; pale brown (10YR 6/3); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay cementation; some black to gray spots (biotite), about 1-10 mm size areas; <5% mica, <5% dark accessory minerals; damp. |
| | | 351.60-352.00 No core was retrieved. 352.00-352.90 Argillaceous siltstone, some sand; pale brown (10YR 6/3); angular to subrounded; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals; segmented. |
| | | 352-90-352.30 Arginaceous sitistone, some sand; very pale brown (10YR 8/2); angular to subrounded; subprisinoidal to subdiscoidal; inderately consolidated; clay cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals. |
| | | 353.10–354.10 Argillaceous siltstone, some sand; pale brown (10YR 6/3); angular to subrounded; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals; some segmentation/broken up. |
| | | 2354.10-354.30 Argillaceous siltstone, some sand; very pale brown (10YR 7/4 to 10YR 8/2); angular to subdiscoidal; moderately consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals. 354.30-355.00 Argillaceous siltstone, some sand; very pale brown (10YR 7/4 to 10YR 8/2); angular to subdiscoidal; poorly to very poorly consolidated; clay cementation; some black to gray spots (biotite), about 1–10 mm size areas; <5% mica, <5% dark accessory minerals; crumbly, probable area of core loss. |
| | | 355.00–356.40 Argillaceous siltstone, some sand; light yellowish brown (2.5Y 6/3); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay cementation; some black to gray spots (biotite), about 1–10 mm size areas, a few areas vertical streaks up to 40 mm; <5% mica, <5% dark accessory minerals. |
| | -318 | 356.40-356.50 Argillaceous siltstone, some sand; pale yellow (2.5Y 8/2); angular to subrounded; subprismoidal to subdiscoidal; very poorly consolidated; clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; crumbly, probable area of core loss. |
| | | 357.00–357.40 Argillaceous siltstone, some sand; pale yellow (2.5Y 8/2); angular to subrounded; subprismoidal to subdiscoidal; moderately consolidated; clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals. |
| | | 357.40–358.00 Argillaceous siltstone, some sand; pale yellow (2.5Y 8/2); angular to subrounded; subprismoidal to subdiscoidal; very poorly consolidated; clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; broken up, probable area of core loss. |
| | | 358.00-359.30 Argillaceous siltstone, some sand; light gray (2.5Y 7/2); angular to subrounded; subprismoidal to subdiscoidal; poorly to moderately consolidated; clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; darp. |
| | | 361.60-362.00 No core was retrieved. |
| | | 362.00-362.60 Argillaceous siltstone, some sand; very pale brown (10YR 8/2); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; hard. 362.60-364.50 Argillaceous siltstone, some sand; very pale brown (10YR 7/3); angular to subrounded; subprismoidal to subdiscoidal; moderately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; segmented, some core loss in this area. |
| | | |
| | | 365.80-367.30 Argillaceous siltstone, some sand; very pale brown (10YR 7/4) to brown (10YR 7/4) to brown (10YR 7/3); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; clay, some carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; possibly more clay in this zone. |
| Brule Formation - | | 368:55-369:00 Argillaceous sitistone, some sand; very pale brown (10YR 7/3); angular to subformate cementation; some black to gray spots (biotite), about 1-5 mm size areas; <5% mica, <5% dark accessory minerals; nard. |
| | | |
| | | 369.60-371.70 Argillaceous siltstone, some sand; yellowish brown (10YR 5/4); angular to subdiscoidal; moderately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; damp, possibly more clay, mottled white (up to 15 mm) with clumps of clear to white grains up to 2 mm (calcite?). 371.70-372.00 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); angular to subrounded; subprismoidal to subdiscoidal; moderately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; segmented/broken up. |
| | | 372.00–372.40 Argillaceous siltstone, some sand; very pale brown (10YR 7/3); angular to subrounded; subprismoidal to subdiscoidal; well consolidated; carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals. |
| | | 372.40-375.30 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; medium pebbles; <5% mica, <5% dark accessory minerals; mottled white with "clumps" of clear to white grains (calcite). 375.30-376.20 Argillaceous siltstone, some sand; very pale brown (10YR 7/3); subrounded to angular; subprismoidal to subdiscoidal; moderately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; mottled white with clumps of clear to white grains (calcite). |
| | | 376:20-378:10 Argillaceous sitistone, some sand; very pale brown (10YR 7/3); subprismoidal to subdiscoidal; moderately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; moterately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; moterately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; moterately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; moterately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; moterately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; moterately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; moterately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; moterately well consolidated; carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; moterately well consolidated; moterately well |
| | | 378.10–385.10 Argiilaceous siltstone, some sand; light yellowish brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately well consolidated; carbonate cementation; some black to gray spots (biotite?) at 380.85 ft and 384 ft. |
| | | 385.10-385.80 Argillaceous siltstone, some sand; very pale brown (10YR 7/3); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; carbonate, clay cementation; some black to gray spots (biotite), about 1-5 mm size areas; <5% mica, <5% dark accessory minerals; mottled white with clumps of clear to white grains (calcite) near top, bottom of core is "broken up" and has less carbonate. |
| | | 388.00–389.00 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately well consolidated; clay, carbonate cementation; some black to gray spots (biotite?) around white (calcite?). |
| | | 389.00–390.60 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; very fine to fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; somewhat segmented. 390.60–391.50 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; very fine to fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; mottled white (calcite) to brown (hard claystone(?) pebbles). |
| | | 390.00-391.30 Arginaceous sitistone, some sand; light yellowish brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; <5% mica, <5% dark accessory minerals; motioed white (calcite) to brown (nard claystone (r) peobles). |
| | | 392.00-393.30 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1-5 mm size areas; <5% mica, <5% dark accessory minerals; mottled white (calcite) to brown (claystone(?) pebbles). |
| | | 393.30–394.20 Argillaceous siltstone, some sand; light yellowish brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; poorly to very poorly consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; <5% mica, <5% dark accessory minerals; segmented/broken up, mottled white (calcite) to brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; poorly to very poorly consolidated; clay, carbonate cementation; some black to gray spots (biotite), about 1–5 mm size areas; very fine to fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; still has the claystone(?) pebbles, coarsening a little, feels grittier. |
| | | 394.90-396.00 Argillaceous siltstone, some sand; very pale brown (10YR 7/3); subrounded to angular; subprismoidal to subdiscoidal; moderately consolidated; clay cementation; some black to gray spots (biotite), about 1-5 mm size areas; very fine to fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals; still has the clay(stone?) pebbles. |
| | | |
| | | 396.60–397.40 Argillaceous siltstone, sandy; light yellowish brown (10YR 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; carbonate, clay cementation; black to gray spots (biotite), about 1–10 mm size areas; some very fine to fine rounded quartz(ite) and feldspar pebbles; <5% mica, <5% dark accessory minerals; still has the claystone(?) pebbles, coarsening a little. 397.40–398.60 Argillaceous siltstone, sandy; yellowish brown (10YR 5/4); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay, carbonate cementation; black to gray spots (biotite), about 1–10 mm size areas; some very fine to medium rounded quartz(ite) and feldspar pebbles; <5% mica, <5% dark accessory minerals; still has the claystone(?) pebbles, coarsening a little, decreasing carbonate. |
| | | 398.60-400.60 Argillaceous siltstone, sandy; yellowish brown (10YR 5/4); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some black to gray staining in upper part; some very fine to medium rounded quartz(ite) and feldspar pebbles; <5% mica, <3% dark accessory minerals; still has the brown claystone(?) pebbles, coarsening a little, segmented in upper half. |
| Bentonite seal | | 400.60-402.50 Argillaceous siltstone, sandy; yellowish brown (10YR 5/4); subrounded to angular; subprismoidal to subdiscoidal; poorly to very poorly consolidated; clay, some carbonate cementation; some very fine to fine rounded quartz(ite) pebbles; <5% mica, <3% dark accessory minerals; segmented/broken up, probable area of core loss. 402.50-403.50 Argillaceous siltstone, sandy; pale brown (10YR 6/3); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some very fine to medium rounded quartz(ite) and feldspar pebbles; <5% mica, <5% dark accessory minerals. |
| | | 403.50-404.30 Argillaceous siltstone, sandy; pale brown (10YR 6/3); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some black to gray spots (biotite), about 1-5 mm size areas; some very fine to medium rounded quartz(ite) and feldspar pebbles; <5% mica, <5% dark accessory minerals. |
| | | 404.30-405.00 Argillaceous siltstone, some sand; very pale brown (10YR 7/3); subrounded to angular; subprismoidal to subdiscoidal; poorly consolidated; clay cementation; some black to gray spots (biotite), about 1–5 mm size areas; some very fine to fine rounded quartz(ite) pebbles; <5% mica, <5% dark accessory minerals. |
| | | 405.60-407.00 No core was retrieved. |
| | | 407.00-407.90 Sandstone, silty and clayey; light yellowish brown (2.5Y 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay comentation; some black, red, and yellow staining; some mudstone rock fragments; >50% quartz, <25% feldspar, <5% mica, <3% dark accessory minerals. |
| | | 407.90-408.90 Sandstone, silty and clayey; light yellowish brown (2.5Y 6/4); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some black, red, and yellow staining; some mudstone rock fragments; >50% quartz, <25% feldspar, <5% mica, <3% dark accessory minerals. 408.90-411.40 Sandstone, silty and clayey; light yellowish brown (2.5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some black, red, and yellow staining; some mudstone rock fragments; >50% quartz, <25% feldspar, <5% mica, <3% dark accessory minerals. |
| | | 411.40-412.00 No core was retrieved. |
| | | 412.00-412.60 Sandstone, silty and clayey; light yellowish brown (2.5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some black, red, and yellow staining; some mudstone rock fragments; >50% quartz, <25% feldspar, <5% mica, <5% dark accessory minerals; some areas are coarser, top 0.4 ft very narrow core, part of loss from previous interval (?). 412.60-413.60 Sandstone, conglomeratic, silty, and clayey; light yellowish brown (2.5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some black, red, and yellow staining; some mudstone rock fragments; >50% quartz, <25% feldspar, <5% mica, <5% dark accessory minerals; damp. |
| | | 413.60-414.50 Sandstone, conglomeratic, silty, and clayey; pale olive (5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some red and yellow staining; >50% quartz, <20% feldspar, <3% mica, <3% dark accessory minerals; damp. |
| | | 414.50-416.00 Sandstone, conglomeratic, silty, and clayey; pale olive (5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; some red and yellow staining; >50% quartz, <20% feldspar, <3% mica, <3% dark accessory minerals; damp. 416.00-416.20 Sandstone, conglomeratic, silty, and clayey; pale olive (5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; poorly to very poorly consolidated; clay cementation; some red and yellow staining; >50% quartz, <20% feldspar, <3% mica, <3% dark accessory minerals; crumbly; white streaks, do not fizz with HCI. |
| | | 416.00-416.20 Sandstone, conglomeratic, silty, and clayey; pale olive (5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; poorly to very poorly consolidated; clay cementation; some red and yellow staining; >50% quartz, <20% feldspar, <3% mica, <3% dark accessory minerals; 416.20-416.40 Sandstone, conglomeratic, silty, and clayey; pale olive (5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; not fizz with HCI. |
| | | 416.40–416.60 No core was retrieved. |
| | | 416.60-417.30 Sandstone, conglomeratic; pale olive (5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; poorly to moderately consolidated; clay cementation; some red and yellow staining; >50% quartz, <20% feldspar, <3% mica, <3% dark accessory minerals; crumbly, more fines near bottom of interval. |
| | | 418.60-422.30 Argillaceous siltstone, sandy; light yellowish brown (2.5Y 6/3); subrounded to angular; subprismoidal to subdiscoidal; very poorly to moderately consolidated; clay cementation; <3% mica, <3% dark accessory minerals; waxy. |
| | | 422.30-423.50 Argillaceous siltstone, sandy; brown (10YR 5/3); subrounded to angular; subprismoidal to subdiscoidal; moderately to poorly consolidated; clay cementation; <3% mica, <3% dark accessory minerals; waxy; had to push core out of core barrel with air. |
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Well Construction, Geophysical Logs, Cuttings and Core Description, and Interpreted Lithostratigraphy, Monitoring Well BRO-2, Belvoir Ranch, Laramie County, Wyoming