

SAMPLE DESCRIPTIONS

J. S. C. Drilling Company

E. T. & Shirley Thompson - No. 1
King George County, Virginia

- 200-10 Clay - light gray, abundant sand, F.C., sub-angular, glauconite, hematite, fossil fragments
- 210-20 Clay - medium gray, scattered sand, F.C., calcareous, glauconite, fossil fragments (pelecypods)
- 220-30 Clay - pink smooth, interbedded with clay, light gray, sandy, glauconite
- 230-38 A.A. - more sand, V.F.-M., phosphate, occasional glauconite, calcareous
- 238-46 Greensand - V.F.-M., very clayey, sandy, V.F.-F., calcareous
- 246-55 Clay - light gray, brown, silty to sandy, M., slightly calcareous, micaceous, phosphate, mica
- 255-75 Missing
- 275-80 Silt - light gray, very clayey, glauconite, mica, fossil fragments
- 280-85 A.A. - common fossil fragments
- 285-90 Clay - light gray, silty, glauconite, fossil fragments, scattered sand, mica
- 290-300 Greensand - M., very clayey, calcareous, with sand F.-M., fossil fragments
- 300-10 Greensand - a.a., greater than 50% micro fossils
- 310-20 A.A. - more clay and sand, F.-M., fossil fragments and scattered quartz gravel.
- 320-28 Clay - light gray, very sandy, F.-M., glauconite, fossil fragments
- 328-40 Clay - white and yellow (limestone), very sandy, F.-C., subangular, glauconite, slightly calcareous, gastroliths?
- 340-45 Clay - a.a. with sand F.-C., subangular, feldspar, occasional glauconite
- 345-55 Sand - white, V.F.-C., occasional V.C., common white clay, feldspar, some sandgrains, smokey and pink, some limonite stain
- 355-58 Missing

- 358-80 Clay - white, light yellow brown to brown, silty, sandy up to V.C., subangular, some clay plastic, sericitic
- 380-90 Sand - free drilling white, light yellow, gray translucent to clear, subangular frosted, 2-3% feldspar, glauconite
- 390-400 Clay - white, pink and red, hematite, sand C. angular, streaks of mustard brown clay
- 400-20 Clay - light brown, white, silty and very sandy, F., abundant feldspar, mica, glauconite
- 420-30 Clay - light brown, yellow brown, white, scattered sand, common hematite and siderite
- 430-40 Clay - white, common siderite ^mmodules badly weathered causing brown spots, hematite, mica, V.F., scattered sand
- 440-50 Clay - pale lavender, hematite, siderite, scattered sand, V.C.
- 450-60 Clay - gray plastic soft mottled with siderite, hematite
- 460-70 Clay - white and brown (sideritic), feldspar, sand
- 470-80 Clay - light brown, silty, some white, feldspar, sand up to C., hematite
- 480-90 Clay - light brown, red brown, white, scattered sand, hematite
- 490-510 Clay - variegated white, yellow brown, red, white, gray, pale lavender, common hematite and siderite, some scattered sand, V. C.
- 510-20 Clay - light brown and white, hematite
- 520-30 Clay - light gray and white streaked with red, common hematite, scattered sand, V.C.
- 530-40 Clay - a.a. very silty and sandy up to C., some grains pink, feldspar
- 540-50 Sand - C.-V.C., occasional gravel, white, subangular and frosted, common feldspar, white clay
- 550-60 Clay - white, very gravelly, feldspar, coaly fragments (gilsonite?)
- 560-70 A.A. - with tan
- 570-80 A.A. - abundant sand to C. becoming sandier toward base
- 580-600 Sand - white, M.-V.C., 20-25% feldspar
- 600-700 Missing
- 700-07 Gravel - cemented with clay, gray, red and brown, poorly sorted, subangular to subround
- 707-15 Clay - red brown, streaks of light gray, scattered silty and sandy to V.C.

- 715-25 A.A. - with more light gray to white
- 725-35 Clay - pale gray green, white, red brown, hematite streaks, very silty
- 735-50 Clay - brown to reddish brown, some white, sandy F.-V.C.
- 750-65 Clay - pale green gray, much red hematitic color, very silty and sandy, feldspar
- 765-80 Sand and Gravel - white, free drilling F.-V.C., subround, frosted, clear to white translucent and gray
- 780-800 Sand - light brown, F.-V.C. common feldspar
- 800-15 Clay - yellow brown (mustard), included sand V.C., scattered hematite
- 815-25 Clay - yellow brown, white, yellow and red brown, no sand
- 825-40 A.A. - some hematite and siderite, scattered gravel
- 840-60 Clay - light gray to white and red brown, silty, sericitic^{lc}, scattered sand
- 860-80 Clay - red
- 880-90 A.A. - with some light gray streaks and scattered sand grains
- 890-900 Clay - red silty, some dark gray, sericitic
- 900-920 Sand - mostly C. some V.C. well sorted, common feldspar with clay white and light red brown
- 920-40 Sand A.A. - with clay mostly white, more M.
- 940-60 Clay - red brown and light gray green, included sand poorly sorted V.F. to pebbles, feldspar, many ~~of~~ pebbles gray *chert*
- 960-75 Sand - C. and gravel, cemented with medium brown (mustard) brown clay
- 975-85 Sand - C.-V.C. free drilling subangular to subround frosted in part, feldspar, glauconite
- 985-92 Clay - red brown silty and silt, pale green gray with scattered sand grains up to V.C.
- 992-96 Sand - M.-C. light brown common feldspar, glauconite
- 996-1000 Clay - light gray silty, embedded sand to V.C.
- 1000-10 Missing

- 1010-20 Sand - free drilling M-V.C. occasional gravel, most grains white and light gray translucent to white opaque, feldspar, small amount of clay, light brown
- 1020-30 Sand - mostly C. free drilling, well sorted, feldspar
- 1030-50 Clay - red with blobs and streaks of pale green, gray, silty, micaceous, scattered sand V.C., siderite
- 1050-70 A.A. - more silt
- 1070-85 Silt - light gray, very clayey, mica, siderite, feldspar, scattered sand F. (very granular appearance)
- 1085-1100 A.A. - some red stain
- 1100-10 Missing
- 1110-30 Sand - M.-V.C. white subround-subangular, poorly sorted with clay white, feldspar 20%
- 1130-40 A.A. - mostly M.
- 1140-60 Sand and Gravel - M. to pebbles, slightly frosted, subangular, no feldspar, some yellow stain, pyrite
- 1160-70 Sand - M.-V.C. poorly sorted, very clayey light red brown
- 1170-85 Clay - light medium gray slightly silty with scattered quartz pebbles
- 1185-1200 Clay - red brown, silty, scattered sand grains C., coaly fragments, siderite
- 1200-10 Sand - red brown, F.-V.C. poorly sorted, abundant hematite modules, clay red brown a.a. 1185-1200
- 1210-20 A.A. - mostly V.F.-M. siderite (fossil plants?)
- 1220-30 Clay - red with embeded abundant gravel, siderite
- 1230-40 Clay variegated, purple, red, pale green, abundant siderite and hematite
- 1240-48 Clay - red with pale green gray streaks, slightly silty
- 1248-65 Sand - white free drilling, F.-V.C. subround, frosted black inclusions in the sand grains
- 1265-75 A.A. - M. pebbles with clay white
- 1275-85 Clay - dark red brown, slightly silty, micaceous, scattered sand V.C., siderite, hematite, feldspar
- 1285-1300 Clay - brown, red brown, mustard brown, scattered sand V.C., siderite, hematite, feldspar

- 1300-10 Sand - white F.-C. subround, frosted, feldspar, pyrite
- 1310-21 Missing
- 1321-28 Sand - M.-V.C., with common red brown clay, pyrite
- 1328-35 A.A. - Pale green clay, pink feldspar, hematite
- 1335-42 Sand - white F.-V.C. mostly F.-M. hematite clay streaks red and white, feldspar
- 1342-48 Sand - F.-C. subangular, frosted, clay pink and White, feldspar
- 1348-55 Sand - V.F.-F. white, subround, frosted, common musconite
- 1355-60 A.A. - Becoming more C., pyrite
- 1360-64 A.A. - with clay stringers red brown and white, slightly calcareous
- 1364-76 Missing
- 1376-86 Sand - C-V.C., pyrite, (green glassy material--conchoidal fracture hard)
- 1386-93 Missing
- 1393-1400 Sand - F.-C., white, calcareous, very clayey white with streaks of red brown clay
- 1400-1410 Silt - white very calcareous, mica
- 1410-1417 Silt and Sand - up to C. white with some pale green and pink grains, very calcareous
- 1417-27 Sand - M.-C. white subangular, frosted with some clay pale green and red brown, calcareous, mica, pyrite
- 1427-36 Sand - F.-V.C. clay a.a.
- 1436-45 Sand - White, F.-V.C. mostly F.-M., clay red and green and white, very calcareous, pyrite
- 1445-52 Silt - white very calcareous
- 1452-58 Sand - white C-V.C. subangular to subround, silty, calcareous, clay stringers pale green and red brown, pyrite
- 1458-72 Clay - red brown and silty some pale green silty, intermixed with sand F.-C. white, calcareous
- 1472-82 Hematite - (Bog iron ore)
- 1482-90 Sand - white F.-M.

- 1490-1508 Clay - red brown and hematite, calcareous
- 1508-22 Sand - white subangular frosted, with thin hematite beds
- 1522-33 Sand - White C. to gravel subangular, frosted, calcareous, clayey, common gray quartz grains
- 1533-45 Sand - white F.-C. subangular frosted, slightly calcareous
- 1545-75 Clay - red brown with green specks and streaks
- 1575-80 A.A. - with clay light gray and sandstone dark gray, very calcareous
- 1580-90 Sand - C.-V.C. white, calcareous with streaks of marl, dark gray, interbeds of clay red and green
- 1590-1602 Sand - C. up to pebbles subangular, slightly calcareous with clay beds, red brown and pale green, hematite
- 1602-13 A.A. - Coarser with silt pale green
- 1613-21 A.A. - more red clay slightly calcareous
- 1621-30 Clay - red brown, siltstone and sandstone, F. white to pale green, calcareous, scattered gravel, pyrite, mica.
- 1630-40 Clay - red brown, granular appearance, calcareous (looks like weathered granite but is a sedimentary rock V.F.-F. grain contains quartz, pink feldspar and biotite).
- 1640-60 Clay - red brown and sand white C.-V.C., pyrite
- 1660-73 Sandstone - white M.-C., very calcareous, slightly clayey, siltstone light gray, calcareous, mica
- 1673-85 Shale - red brown
- 1685-1700 Shale - red brown, some waxy, streaks light gray green, waxy, pyrite^{it}
- 1700-1799 Missing
- 1799-1807 Sand - white F.-C. slightly calcareous, stringers of shale red and light gray, hematite
- 1807-15 Sand - F.-M. white, some shale red brown and green
- 1815-20 Sand - up to V. C.
- 1820-30 Sand - up to gravel, gray chert fragments, slightly calcareous
- 1830-81 Shale - red brown, sandy in parts, hematite, pyrite slickensides
- 1881-90 Shale - red brown, some green shale and interbedded siltstone and sandstone, F. clayey white, slightly calcareous

1890-95	<u>A.A.</u> - increase in siltstone and sandstone
1895-1897	Missing
1897-1903	<u>Shale</u> - dark brown, red brown and gray, silty, slightly calcareous
1903-1909	<u>Gravel</u> and pebbles, white
1909-1912	<u>Quartzite</u> - conglomerate, some clay white
1912-30	<u>Sand</u> - M.-V.C., some shale gray green waxy, pyrite
1930-31	<u>Sand</u> - F.-M.
1931-35	<u>Sand</u> - F.-V.C., common shale gray
1935-42	<u>Sand</u> - white F.-C., slightly calcareous, subangular and shale, light gray and gray medium brown, waxy
1942-56	<u>Sand</u> - M.-V.C. white some shale a.a., pyrite
1956-66	<u>Sand</u> - Mostly M. some F.-C., pyrite
1966-76	<u>Shale</u> - red brown silty in parts
1976-85	<u>Sandstone</u> - V.F.-M. very calcareous, common included shale fragments red brown and gray
1985-95	<u>Sand</u> - F.-C. white, shale beds red brown and some gray silty, hematite
1995-2004	<u>Siltstone</u> - and sandstone F. hard, light gray, micaceous
2004-18	<u>Sandstone</u> - white V.F.-V.C. poorly sorted, subangular very calcareous
2018-26	<u>Conglomerate</u> - quartz pebbles and quartzite white
2026-30	<u>Siltstone</u> - light gray, calcareous, micaceous, with shale red brown, micaceous
2030-45	<u>Sand</u> - C. (Mostly C.-V.C.) to gravel, white, some pink quartz
2045-55	<u>Siltstone</u> - white and light gray, very micaceous, some sand V.F. very micaceous, calcareous
2055-65	<u>Sandstone</u> - white M.-C., calcareous, some shale light gray, green gray and red brown
2065-75	<u>Shale</u> - red brown, silty
2075-85	<u>Shale</u> - red brown, silty and micaceous in part, 10% gray shale
2085-95	<u>Shale</u> - a.a. more silty and sandy V.F., shale gray waxy

- 2095-2107 Sandstone - F., calcareous, dirty, with shale a.a. also gray green waxy
- 2107-20 Sandstone - M., calcareous, tight, some shale a.a. included shale fragments
- 2120-30 Sandstone - F.-V.C. white, calcareous, with interbeds of shale red brown, light gray and light gray green a.a.
- 2130-44 Shale - red brown, very silty and micaceous and sand white C.-V.C.
- 2144-60 Siltstone and Sand - light gray, poorly sorted, calcareous, micaceous
- 2160-72 Sandstone - white, M., slightly calcareous
- 2172-84 A.A. - more shale red brown
- 2184-94 Sand - F.-M. white and pink flesh color feldspar
- 2194-2204 A.A. - M.
- 2210
F ?
2204-13 Siltstone - light gray, micaceous to sand V. C. white calcareous, clay red brown and light gray
- 2213-29 Sandstone - white, F.-C. some pink, occasional feldspar
- 2229-35 Sandstone - white F.-V.C., micaceous, calcareous, gray shale fragments pyrite
- 2235-46 Sandstone - white, clayey, calcareous, mostly V.F.-F. some C.
- 2246-51 Silt - light gray to sand white F., calcareous, clayey
- 2251-59 Sand - M. white to pink 3%, clayey, slightly calcareous
- 2259-65 Shale - hard red brown, silty and siltstone, shaley, very slightly calcareous
- 2265-72 Shale - a.a. and sand pink V.F.-F., slightly calcareous, clayey, micaceous
- 2272-79 Sand - a.a. in 2265-72 common shale fragments
- 2279-85 A.A. - with interbeds of shale red brown, some pale green
- 2285-98 Shale - red brown and sand white M.-V.C. subangular, some pink feldspar
- 2298-2306 Sand - white M.-V.C. subangular
- 2306-17 A.A. - more V.C.
- 2317-27 A.A. - V.C.

- 2327-35 A.A. - V.C. to gravel
- 2335-45 Shale - red brown, silty
- 2345-54 Sand - white M.-C., some shale red brown and light green, feldspar
- 2354-58 Sandstone - a.a. and shale red brown and medium gray
- 2358-63 Sandstone - white M.-V.C. slightly calcareous, some shale
- 2363-66 A.A. - mostly M.
- 2366-72 A.A. - M.-V.C. white, clayey, slightly calcareous
- 2372-77 A.A. - with shale red brown
- 2377-86 Shale - red brown micaceous with streaks of light medium green gray
- 2386-2403 A.A. - with streaks of sandstone white, pink and brown V.F.-F.
- 2403-11 Shale - red brown
- 2411-16 Shale - dark red brown, silty in part, slickensides
- 2416-20 Sandstone - white M.-V.C., angular to subangular, feldspar
- 2420-35 A.A. - interbedded with shale dark red brown
- 2435-45 Sand - V.C. - conglomerate (quartz) with interbeds of shale dark red brown
- 2445-51 Sand - white M.-C., calcareous, common shale dark red brown
- 2451-57 Sand - white M. calcareous, feldspar
- 2457-67 Sand - F.-M. calcareous, feldspar, increasing shale dark red brown
- 2467-2526 Shale - dark red brown, hard, sericitic
- 2526-29 A.A. - with interbeds of sandstone white V.F.-F. clayey with shale fragments
- 2529-33 A.A. - with sand up to M.
- 2533-36 Sand - V.F.-M. white and pink, slightly calcareous, clayey
- 2536-46 Shale - dark red brown, sericitic
- 2546-52 Shale - a.a. with thin bed sandstone white V.F.-F. slightly calcareous, clayey
- 2552-64 Sand - white F.-M. subangular, occasional C., calcareous
- 2564-68 Sand - silt to M., calcareous

- 2568-74 Sand - white M.-V.C. some pink and green, interbedded with shale dark red brown
- 2574-79 Sand - white F.-V.C. subangular to subround, frosted slightly calcareous, clayey, feldspar
- 2579-89 A.A. - mostly F.-M., white, very clayey, some shale red brown, interbedded
- 2589-92 Sandstone - V.F.-F. white, clayey, calcareous, interbeds of shale dark red brown, some medium gray shale.
- 2592-96 Limestone - white X.F. sandy with shale medium gray
- 2596-2605 Sand - V.F.-F. white slightly calcareous, some shale red brown and gray
- 2605-11 More red shale (much iron stain)
- 2611-21 A.A. - 2596-2605
- 2621-28 Shale - red brown
- 2628-41 A.A. - interbedded with siltstone white to pink, calcareous, clayey
- 2641-46 A.A. - increasing amount of shale red brown micaceous
- ? (2646-97 Shale - dark red brown, smooth, sericitic in part
- 2697-2700 A.A. - with thin interbeds siltstone pink calcareous
- 2700-08 Shale - red brown
- 2708-10 Siltstone - light brown to sand V.F. slightly calcareous
- 2710-16 A.A. - interbedded with shale red brown
- 2716-29 Shale - dark red brown
- 2729-36 A.A. - with silt, white to tan, calcareous
- 2736-38 Sand - white M.-C., slightly calcareous
- 2738-48 Sand - a.a. F.-M.
- 2748-57 A.A. - increasing shale red brown, slickensides
- 2757-59 Sand - white F.-M. slightly calcareous, shale red brown
- 2759-69 Sand - F.-M. slightly calcareous, no shale
- 2769-84 A.A. - with shale red brown, 10% green shale

- 2784-88 A.A. - with thin limestone red brown, argillaceous
- 2788-95 Shale - red brown
- 2795-2801 Siltstone and sand - white F., clayey, calcareous
- 2801-20 Sand - white F.-M., very calcareous and clayey
- 2820-25 Silt and Sand - F. white to tan, interbedded with shale red brown
- 2825-28 Sand - tan V.F.-F. clayey, calcareous, micaceous, interbedded with shale red brown and some green gray
- 2828-35 Shale - red brown, thin limestone red brown
- 2835-46 A.A. - interbedded with sand white V.F.-M. slightly calcareous, some shale green gray, plastic
- 2846-50 Sand - A.A. increase of shale
- 2850-63 Shale - red brown, silty and micaceous and shale green gray and gray plastic, some streaks of limestone
- 2863-66 A.A. - mostly red brown
- 2866-69 Shale - red brown, common limestone (broken pebbles?)
- 2869-75 Sandstone - white F.-M. calcareous, interbedded with shale red brown
- 2875-2900 A.A. - M.-V.C. free drilling, clean, slightly calcareous, subangular
- 2900-13 A.A. - mostly M.
- 2913-25 Shale - red brown mixed with shale gray and siltstone gray, some thin sandstone F.
- 2925-34 Siltstone and Sandstone - V.F.-F. tan, very calcareous
- 2934-37 Shale - a.a. 2913-25
- 2937-65 Sand - tan to white F., calcareous, interbedded with shale as above
- 2965-88 Shale - red brown
- 2988-3003 A.A. - with interbedded sand white F.-C., calcareous
- 3003-30 Shale - red brown
- 3030-37 A.A. - some silty
- 3037-44 A.A. - very sandy F.
- 3044-62 Shale - red brown, silty, micaceous

- 3062-70 Missing
- 3070-93 Shale - red brown, silty in part, some limestone streaks
- 3093-98 Shale - a.a. with interbedded siltstone, dark gray
- 3098-3100 A.A. - more dark gray
- 3100-07 Sandstone - white M.-C. clayey, slightly, calcareous, quartzitic
- 3107-15 A.A. - up to C. interbedded with shale red brown
- 3115-22 A.A. - with shale medium gray silty in part
- 3122-27 Sand - white F.-M. calcareous, micaceous, interbeds of shale medium gray, silty
- 3127-35 Sand - V.F.-F. very calcareous, interbeds of shale medium gray and red brown
- 3135-47 Olivine Basalt
- 3147-53 Sand - white V.F.-F., clayey, calcareous
- 3153-55 A.A. - F.-C.
- 3155-72 Sand - A.A. V.F.-F. with interbeds of shale medium dark gray
- 3172-97 Olivine Basalt
- 3197-3207 Quartzite and Basalt
- 3207-12 Missing
- 3212-31 Sand¹ - M.-V.C., feldspar, interbeds of shale dark gray
- 3231-51 Shale - red brown - siltstone $\leq \frac{1}{16}$ mm
- 3251-97 Missing
- 3297-3307 Quartzite¹ and Basalt

¹ quartz grains are angular, coarse, nonspherical, and show no evidence of transport or lithification

Jeff Gemand
Joan Polzin 1983

Frank H. Jacobeen, Jr.
December 16, 17, 18, 1968