

SAMPLE ANALYSIS

POCAHONTAS LAND CORPORATION #28
SERIAL NO. 1297

Drilling Commenced:
Drilling Completed:

MCDOWELL COUNTY, WEST VIRGINIA

ELEVATION: 1788

M^cDow - 46R BRAMWELL - NW

G. L. Cabot

Brown's
Creek
Dist

- 79-95 Medium grained white sand
- 95-100 Medium grained gray sand with approx. 10% coal
- 100-122 Medium grained white sand
- 122-155 Gray shale
- 155-212 Micaceous, gray, medium gray sand
- 212-220 Medium grained white sand
- 220-232 Silty gray shale
- ~~232-259~~ 259-312 Gray siltstone and impure fine grained gray sand
- ~~259-312~~ 312-330 Fine grained micaceous gray to white sand
- 312-330 Gray shale and brown impure sand
- 330-353 Medium grained gray to white sand
- 353-425 Micaceous gray siltstone
- 425-448 Gray and brown fine grained sand
- 448-478 Gray and brown shaley siltstone
- 478-497 Medium grained white sand
- 497-518 Dark gray silty shale
- 518-564 Medium grained white sand
- 564-577 Gray siltstone and shale
- 577-629 Medium grained white sand
- 629-652 Dark gray silty shale
- 652-683 Medium grained gray to white sand
- 683-730 Silty gray shale
- 730-760 Gray, shaley siltstone and fine grained impure gray and brown sand
- 760-765 Brown and gray siltstone, with approx. 5% coal
- 765-771 MISSING
- 771-812 Gray, micaceous siltstone
- 812-822 Brown and gray siltstone, with approx. 10% coal
- 822-848 Gray siltstone and fine grained sand
- 848-857 Gray and brown silty shale
- 857-875 Medium gray silty shale
- 875-902 Fine grained gray sand
- 902-937 Dark gray shale
- 937-942 Dark brown to black carbonaceous shale
- 942-961 Medium gray, slightly silty shale
- 961-966 50% very fine grained white sand; 50% brownish-gray shale
- 966-988 Gray shale with a few particles of yellow quartz; small amount of brick red shale
- 988-1027 Medium grained white sand - shaley
- 1027-1062 Medium grained gray to white sand; small amount of shale
- 1062-1078 Shaley gray siltstone
- 1078-1083 20% medium grained white sand, 20% red shale; 60% gray shale
- 1083-1092 Red and gray shale
- 1092-1098 Shaley gray siltstone
- 1098-1113 50% medium grained white lime cemented sand; 50% gray shale
- 1113-1115 Red shale
- 1115-1119 60% red shale, 40% light gray to white lime
- 1119-1131 Red shale and fine grained heavily lime cemented gray to white sand and siltstone
- 1131-1186 MISSING
- 1186-1193 Fine grained gray to white sand, lime cemented; small amount of red shale
- 1193-1222 Light gray shale; calcareous; silty
- 1222-1288 Gray, highly calcareous, coarse siltstone; some gray-green
- 1288-1298 Highly calcareous light gray shale and siltstone
- 1298-1308 Fine grained gray sand
- 1309-1428 Gray siltstone and shale
- 1428-1543 Gray shale
- 1543-1567 Fine grained, white, lime cemented sand
- 1567-1599 Fine grained white sand
- 1599-1604 Silty gray shale
- 1604-1610 Fine grained gray sand
- 1610-1643 Dark gray shale

1643-1713 Fine grained white sand
 1713-1719 Calcareous gray shale
 1719-1748 Red shale
 1748-1759 Fine grained white sand
 1759-1766 Fine grained white sand with approx. 30% medium gray lime
 1766-1772 Red shale and fine grained white sand
 1772-1790 Fine grained white sand 50%; 50% medium gray lime
 1790-1805 Gray, silty shale
 1805-1823 Fossiliferous, gray and brown lime
 1914-1918 Lime cemented fine grained gray sand and with a little red and gray shale
 1918-1996 Bedrock
 1996-2003 Gray siltstone and red shale
 2003-2019 Gray, highly calcareous shale
 2019-2033 Calcareous red silty shale
 2033-2042 Fine grained white sand
 2042-2068 Red and gray shale - calcareous
 2068-2117 Red shale
 2117-2132 Gray shale - limey
 2132-2147 Red shale - gritty
 2147-2166 Fine grained reddish sand
 2166-2202 Calcareous gray siltstone
 2202-2209 Fine grained gray to white sand. Lime cemented; small amount of dark gray shale
 2209-2219 Sand; fine grained, lime cemented, gray to white
 2219-2237 Lime; impure, gritty; 40% gray silty shale
 2237-2246 Gray siltstone
 2246-2258 80% dolomitic medium gray lime; 20% gray siltstone
 2258-2274 50% red shale; 50% silty gray shale
 2274-2294 Greenish gray shale
 2294-2321 60% fine grained white sand; 40% gray shale
 2321-2353 Calcareous, gray shale
 2353-2391 Gray, impure fine grained sand; highly calcareous
 2391-2454 White, fine grained sand
 2425- 2431 Very fine grained white sand
 2431-2454 Fine to medium grained white sand
 2454-2459 Red and gray-green shale
 2459-2474 Calcareous red and gray shale
 2474-2485 Fine grained gray sand
 2485-2514 Red and gray shale
 2514-2591 Gritty red shale
 2591-2607 Gray and red shale
 2607-2642 Gray shale
 2642-2647 Fine grained gray, shaley sand
 2742-2756 Lime; dark gray, slightly fossiliferous
 2756-2765 Shale; greenish-gray; calcareous
 2765-2793 Lime; medium gray, dense
 2793-2810 Sand; fine grained white
 2810-2814 40% sand; 60% dark gray shale
 2814-2819 Dark gray to black shale
 2819-2833 Fine grained white sand; shaly
 2833-2841 Dark gray shale
 2841-2852 Fine grained white sand
 2852-2868 Medium gray coarse siltstone
 2868-2969 MISSING
 2969-2989 40% light gray to white crystalline lime; 60% medium gray shale
 2989-3017 Gray, impure, gritty lime; fossil traces
 3017-3024 Medium gray shale (soft; large fragments in sample)
 3024-3040 Medium gray lime; slightly oolitic; minor crystalline
 3040-3043 Medium gray lime; small amount of gray shale (cavings?)
 3043-3051 Medium to dark gray lime; minor amount crystalline; some calcite
 3051-3076 Shale; calcareous; medium to light gray
 3076-3107 Highly calcareous, medium gray shale; shale shows trace of fossils; grades to impure, slightly fossiliferous lime from 3089 to 3107.
 (End Samples)
 3107-3126 Dark gray oolitic and fossiliferous lime
 3126-3135 Impure medium gray lime and shale
 3135-3152 Dark gray lime; fossil traces; 20% calcareous medium gray shale
 3152-3164 Green-gray gritty shale and medium gray shale; highly calcareous

- 3164-3180 Light greenish-gray granular textured lime; fossil traces
3180-3186 Dark gray lime; 20% calcareous medium gray shale
3186-3195 Medium gray fossiliferous lime
3195-3220 Brownish-gray impure coarse textured lime
3220-3223 Medium to light gray impure lime; 30% gray "pencil" shale
~~3223-3236~~ Brownish-gray impure lime
3236-3246 Medium-light gray lime (T.B.L.)?
3246-3297 Dark gray lime
3297-3335 Light gray lime (Oolitic 3297-3335)
3335-3346 Medium to dark gray lime with small amount of chert
3346-3360 Dark gray, slightly oolitic lime
3360-3432 Dark gray lime
3432-3511 Medium to light gray lime
3511-3619 Dark gray lime
3619-3668 Light gray lime
3668-3790 Light and medium gray lime
3790-3798 Light gray dolomitic lime
3798-3815 Dark gray lime
3815-3826 Light greenish-gray dolomitic lime 50%; 50% red shale
3826-3837 Medium gray dolomitic lime
3837-3851 MISSING
3851-3865 10% light gray dolomitic lime; 90% red, calcareous shale
3865-3872 MISSING
3872-3909 Silty gray shale; calcareous
3909-3939 Fine grained gray calcareous sand; traces of glauconite and pyrite
3939-3942 Gray and buff silty shale
3942-3958 Gray shale
3958-3972 Gray and buff silty shale
3972-3999 Silty gray shale
3999-4021 Gray slightly calcareous siltstone
4021-4105 Gray, coarse siltstone to fine grained gray sand
4105-4127 Dark gray shale and siltstone; some gray siltstone and angular quartz crystals
4127-4152 Dark gray shale
4152-4176 Tannish-brown shale; micaceous
4176-4226 Medium gray shale
4226-4260 Medium gray siltstone and shale
4260-4280 Gray shale
4280-4372 Gray shale with approx. 10% gray siltstone and 20% buff shale
4372-4423 Gray shale and siltstone
4423-4472 Gray and buff siltstone and shale
4472-4490 Gray shale
4490-4511 Dark brown shale
4511-4513 Medium gray and brownish gray siltstone; numerous fine pyrites
4513-4522 Brownish gray siltstone; a few medium sized clear quartz crystals
4522-4536 Medium to light gray, very fine grained sandstone; firmly cemented; small amount of gray shale
4536-4548 Medium gray siltstone and shale
4548-4555 Gray silty shale, with secondary quartz deposition; fairly numerous medium grained clear quartz crystals; grains mostly angular
4555-4567 Gray siltstone and shale
4567-4572 50% buff to reddish silty shale; 50% silty gray shale; some calcite veining
4572-4576 Gray siltstone
4576-4592 Gray and buff silty shale
4592-4607 Gray siltstone and shale