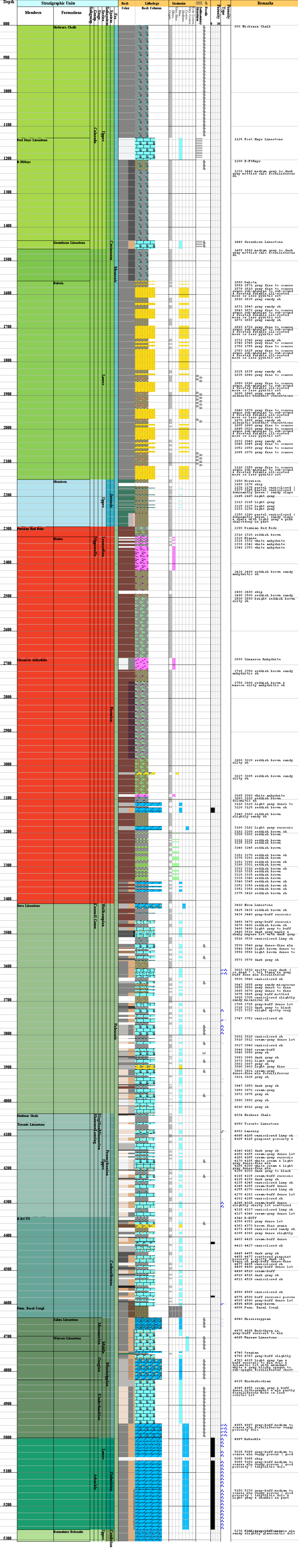


RYAN 1 (J5-193-01001) T: 8S R: 32W S: 27

Latitude: 39.3253052 Longitude: -100.8744088 Elevation (GL): 3083.0 Depth: 5312.0



Clay, Claystone

Shale

Silt, Siltstone

Sand, Sandstone

Marly, marl

Limestone

Chalk

Dolomite

Anhydrite

Shaly, shale

Silty, Silt

Micaceous

Sandy, sand

Cherty, chert

Glauconite, Glauconitic

Marly, marl

Pyritic, pyrite

Sideritic, siderite

oolitic

fossiliferous

Calcareous

Dolomitic

Anhydritic, anhydrite

Fossils

Fresh Water

Brackish Water

Marine

Macrofossils

Trace Fossils

Foraminifera

Few

Many

Broken

Sedimentary Structure Symbols

Depositional Structures

Stratification

Horizontal bedding

Deformational Structures

Concretions, nodules, geodes in general

Porosity Type

Intercrystalline

Vuggy

Pinpoint

Oolitic

1560 Dakota
1579 1610 gray fine to coarse grain sub-angular to sub-round & frosted fine-grained sst more or less pyritic sst
1610 1625 gray sandy sh
1632 1643 gray sandy sh
1643 1672 gray fine to coarse grain sub-angular to sub-round & frosted fine-grained sst more or less pyritic sst
1672 1693 gray sandy sh
1693 1732 gray fine to coarse grain sub-angular to sub-round & frosted fine-grained sst more or less pyritic sst
1732 1740 gray sandy sh
1740 1745 gray fine to coarse
1750 1755 gray fine to coarse
1763 1825 gray fine to coarse grain sub-angular to sub-round & frosted fine-grained sst more or less pyritic sst
1825 1835 gray sandy sh
1835 1840 gray fine to coarse
1860 1890 gray fine to coarse grain sub-angular to sub-round & frosted fine-grained sst more or less pyritic sst
1890 1940 gray sandy sh
1940 1970 gray fine to coarse grain sub-angular to sub-round & frosted fine-grained sst more or less pyritic sst
1970 1985 gray sandy sh
1985 1990 gray fine to coarse
1995 2002 gray fine to coarse grain sub-angular to sub-round & frosted fine-grained sst more or less pyritic sst
2002 2040 gray sandy sh
2040 2045 gray fine to coarse
2052 2058 gray fine to coarse
2065 2070 gray fine to coarse
2110 2150 gray fine to coarse grain sub-angular to sub-round & frosted fine-grained sst more or less pyritic sst
2150 Morrison
2160 2170 skip
2170 2175 pastel varicolored (dominantly green) sandy clays
2195 2197 light gray
2213 2215 light gray
2225 2227 light gray
2233 2235 light gray
2250 2290 pastel varicolored (dominantly green) sandy clays & shaly with light gray & pink chalcidary in part
2290 Permian Red Beds
2310 2320 reddish brown
2320 Blaine
2328 2332 white anhydrite
2338 2342 white anhydrite
2348 2353 white anhydrite
2420 2490 reddish brown sandy anhydritic sh
2480 2490 skip
2490 2500 reddish brown sandy
2500 2680 bright reddish brown silty sh
2680 Cimarron Anhydrite
2715 2750 reddish brown sandy anhydritic sh
2750 2980 reddish brown & maroon silty anhydritic sh
2980 3020 reddish brown sandy silty sh
3027 3085 reddish brown sandy silty sh
3085 3093 white anhydrite
3093 3110 reddish brown dolomitic sh
3110 3120 light gray dense to
3120 3125 reddish brown sh
3140 3180 reddish brown slightly sandy sh
3180 3192 light gray sucrosic
3192 3200 reddish brown sh
3200 3202 reddish brown
3208 3220 reddish brown
3220 3228 reddish brown
3240 3245 reddish brown
3262 3270 reddish brown sh
3270 3282 reddish brown
3282 3290 reddish brown sh
3290 3302 reddish brown
3302 3310 reddish brown sh
3310 3315 reddish brown
3320 3325 reddish brown
3330 3340 reddish brown sh
3340 3345 reddish brown sh
3352 3355 reddish brown sh
3362 3368 reddish brown sh
3375 3410 reddish brown sh
3410 Neva Limestone
3425 3438 reddish brown sh
3438 3440 gray-buff sucrosic
3460 3470 gray-buff sucrosic
3470 3480 reddish brown sh
3480 3490 light gray to buff
3490 3510 dark gray-marly & shaly impure lst with dark gray
3510 3530 varicolored limy sh
3530 3540 gray dense-fine mln
3540 3545 light brown dense to
3550 3558 light brown dense to
3573 3578 dark gray sh
3603 3630 spotty very dark (2% dead) & 21% stain in gray buff fine mln fossiliferous
3630 3640 varicolored sh
3647 3655 gray sandy micaceous
3655 3660 gray dense to fine
3665 3670 gray dense to fine
3675 3685 gray buff mottled
3685 3705 varicolored slightly sandy micaceous sh
3705 3715 gray-buff dense lst
3715 3723 dark gray to black
3723 3733 slight spotty very
3747 3752 varicolored sh
3804 3810 varicolored sh
3810 3812 cream-gray dense lst
3827 3840 varicolored sh
3840 3848 cream-buff
3848 3850 gray sh
3865 3868 dark gray sh
3873 3882 light gray
3882 3887 gray sh
3890 3903 light gray fine
3903 3921 cream-gray dense-fine mln fossiliferous
3921 3926 gray sh
3947 3950 dark gray sh
3960 3972 cream-gray
3972 3975 gray sh
3990 3992 gray sh
4010 4012 gray sh
4034 Heebner Shale
4060 Toronto Limestone
4082 Lansing
4095 4105 varicolored limy sh
4105 4115 pinpoint porosity &
4140 4143 dark gray sh
4150 4155 cream-gray dense lst
4160 4165 cream-gray sucrosic
4170 4185 white cream & light gray dense-fine mln
4185 4205 dark gray to black
4205 4215 dark gray to black
4215 4225 cream-buff sucrosic
4225 4230 dark gray sh
4235 4245 varicolored limy sh
4245 4255 cream-buff dense
4255 4270 varicolored limy sh
4270 4282 cream-buff dense lst
4282 4295 varicolored sh
4295 4315 cream-buff dense slightly cherty lst scattered
4315 4327 varicolored limy sh
4327 4340 cream-gray dense lst
4340 B-KCTY
4350 4352 gray dense lst
4363 4373 brown fine grain
4373 4385 varicolored sandy sh
4385 4393 gray dense slightly
4403 4415 cream-buff dense
4422 4427 varicolored sh
4445 4455 dark gray sh
4455 4477 scattered pinpoint stain in gray-buff dense-fine
4477 4485 varicolored sh
4485 4490 gray-buff dense lst
4490 4510 cream-buff
4510 4515 dark gray sh
4522 4526 varicolored sh
4560 4565 varicolored sh
4575 4580 buff sucrosic porous
4585 4590 gray-buff dense lst
4595 4606 gray-beom
4606 Penn. Basal Congl
4640 Mississippian
4675 4695 Endothyra in gray-buff sucrosic to mln
4695 Warsaw Limestone
4740 Osagean
4750 4763 gray-buff slightly
4763 4825 light gray tan & dolomitic lst with abundant white & gray buff grains to sub-opaque fossiliferous chert
4825 Kinderhookian
4845 4955 cream & buff dense lithographic & mln partly fossiliferous more or less oolitic lst
4955 4997 gray-buff medium to coarse mln fossiliferous vuggy porosity dolo
4997 Arbuckle
5035 5055 gray-buff medium to coarse mln vuggy porous (good
5055 5065 skip
5065 5150 gray-buff medium to coarse mln vuggy porous (good porosity) tripolitic dolo
5150 5270 gray-buff medium to coarse mln vuggy porous (good porosity) tripolitic dolo
5270 Penn. Basal Congl