

| DIAMOND DRILL HOLE SR-12, SILVER REEF DISTRICT,<br>WASHINGTON COUNTY, UTAH<br>AUGUST 1951 |        |   |                      |
|---|--------|---|----------------------|
| Elev.   | Depth  | Rock  | Analyses             |
| 3932.4  | 0.     |   | See Table 2          |
| 3889.4  | 43.0   | Alluvium and granitic boulders, the largest being 1.35 feet in diameter.  |                      |
| 3876.7  | 55.7   | Mudstone, dark reddish brown, moderate reddish brown, and grayish red. Dip 16° at 44.5 and dip 20° at 48.5.   |                      |
| 3876.2  | 56.2   | Mudstone, greenish gray (5GY 6/1), massive.   | FS 51-51             |
| 3869.6  | 62.8   | Mudstone, dark reddish brown. Dip 9° at 56.4.   |                      |
| 3869.2  | 63.2   | Mudstone, greenish gray (5GY 6/1), massive.   |                      |
| 3860.0  | 72.4   | Mudstone, dark reddish brown, with internal slickensides. Dip 12° at 68.8.  |                      |
| 3856.0  | 76.4   | Siltstone, mingled light greenish gray (5GY 8/1) and moderate reddish brown.  |                      |
| 3855.3  | 77.4   | Very fine sandstone, light greenish gray (5GY 8/1). Dip 24° at 76.8, dip 2° at 77.0.  |                      |
| 3852.4  | 80.0   | Very fine sandstone, dark reddish brown, variegated from 79.0 to 80.0. Bedding obscure.   |                      |
| 3849.1  | 83.3   | Very fine sandstone, yellowish gray to 80.8, pale reddish brown to 82.2, and yellowish gray to 83.3. Bedding obscure. Calcite coated fracture dipping 65°.  |                      |
| 3847.3  | 85.1   | Siltstone, dark reddish brown.  |                      |
| 3844.7  | 87.7   | Very fine sandstone, variegated pale reddish brown and yellowish gray. Short vertical fractures are present.  |                      |
| 3843.2  | 89.2   | Mudstone, grayish red (5R 4/2) with greenish mottling.  | FS 52-51             |
| 3804.5  | 127.2  | Siltstone and mudstone, moderate reddish brown. From 103.5 to 104.1 very fine sandstone, yellowish gray. Dip 14° at 116.8.  |                      |
| 3796.7  | 135.7  | Siltstone and mudstone, very dusky red purple and variegated with greenish gray. Dip 10° at 135.1.  |                      |
| 3782.9  | 149.5  | Very fine sandstone, top 1 foot greenish gray, pale red to 143.6, light red to 147.4, and pinkish gray to 149.5. Dip 11° at 136.7, 13° at 136.7, 12° at 141.2, 11° at 143.7, 12° at 146.8, and 14° at 146.4.  |                      |
| 3776.4  | 156.0  | Mudstone, blackish red, medium dark gray, and dark reddish brown. Dip 12° at 152.5.   |                      |
| 3773.7  | 158.7  | Very fine sandstone, dark yellowish orange and light greenish gray. Dip 18° at 157.0.   |                      |
| 3708.4  | 224.0  | Very fine sandstone, small scale crossbedding. Pale red 5R 6/2 to 199.6. Pale red 5R 6/2 with very dark red laminations and 3 percent greenish gray clay grains less than 0.1 inch across to 175.0. Very dusky red mudstone to 175.1. Pale red 5R 6/2 very fine sandstone to 177.7. Very dusky red mudstone to 177.8. Grayish pink very fine sandstone to 182.6. Clay pebble conglomerate to 182.7. Pinkish gray very fine sandstone to 195.0. Pale red with dark laminations to 209.0. Light gray to 224.0. Dip 10° at 182.3; dip 6° at 170.8; 15° at 174.5; 21° at 175.7; 18° at 178; 18° at 180.0; 34° at 183.3; 17° at 185.0; 40° at 205.0; 32° at 209.5; 30° at 217.0; 28° at 223.0. | FS 47-51<br>FS 54-51 |
| 3705.9  | 226.5  | Mudstone, dark gray, broken and soft.   | FS 46-51             |
| 3701.5  | 230.9  | Very fine sandstone, yellowish gray, with 5 percent clay blebs, dark gray, 0.1 inch across.   | FS 45-51             |
| 3695.6  | 236.8  | Mudstone 70 percent; siltstone, 30 percent. Dark gray.  |                      |
| 3634.6  | 297.8  | Very fine sandstone; yellowish gray to 268.0, very light gray to 285.4, yellowish gray to 290.6, very pale gray to 297.8. Calcite coating on fracture at 268.3. Bedding obscure.  |                      |
| 3632.2  | 300.2  | Clay-pebble conglomerate, dark gray and very dusky red.   |                      |
| 3621.0  | 311.4  | Very fine sandstone, very pale gray to 310.0, grayish pink to 311.4. Dip 31° at 304.2, dip 32° at 310.0.  |                      |
| 3620.4  | 312.0  | Mudstone, very dusky red and dark gray. Dip 32°.  |                      |
| 3614.5  | 317.9  | Very fine sandstone, grayish orange. Dip 17° at 317.8.  | FS 50-51             |
| 3610.2  | 322.2  | Very fine sandstone, very light gray. Bedding obscure; 28° at 319.  | FS 53-51             |
| 3609.2  | 323.2  | Mudstone, dark greenish gray.   |                      |
| 3608.7  | 323.7  | Very fine sandstone, crossbedded. Very light gray with micaceous partings.  |                      |
| 3603.9  | 328.45 | Mudstone, dark reddish brown and dark greenish gray 5R 4/1, crossbedded. Dip 36° at 326.4.  |                      |
| 3603.3  | 329.14 | Very fine sandstone, crossbedded, very light gray with micaceous partings. Dip 28°.   |                      |

Bottomed 22 August 1951.

1/ All sandstone and siltstone well consolidated except where otherwise noted. Grain sizes given are in accord with the Wentworth Scale. Color names are taken from the Rock Color Chart distributed by the National Research Council, 1948. The word "dip" is used here to indicate the maximum angle between horizontal and the laminations of the rock, thus including the angle between foreset beds on which measurements are unavoidably taken.

Traces of carbonate occur in most beds. Radioactivity about six times background was detected at 225 feet to 224.6 in the hole with a ~~Geiger-Mueller~~ probe, and confirmed in the core with a ~~Geiger-Mueller~~ Geiger-Mueller counter.

| DIAMOND DRILL HOLE SR-13, SILVER REEF DISTRICT, WASHINGTON COUNTY, UTAH<br>SEPTEMBER 1951 |        |  |                      |
|---|--------|--|----------------------|
| Elev.   | Depth  | Rock   | Analyses             |
| 3925.7  | 0.     |  | See Table 2          |
| 3903.7  | 22.0   | Alluvium and granitic boulders.  |                      |
| 3894.7  | 31.0   | Siltstone, dark reddish brown.   |                      |
| 3894.5  | 31.15  | Conglomerate, sandstone pebbles (2mm to 6mm) in a clay and siltstone matrix, moderate reddish brown.   |                      |
| 3891.2  | 33.5   | Siltstone, dark reddish brown, broken by drill. Calcite coated fractures at 31.8.  |                      |
| 3890.9  | 34.75  | Siltstone, pinkish gray, high CaCO <sub>3</sub> content. Broken by drill.  |                      |
| 3876.6  | 49.1   | Siltstone, dark reddish brown, mottled with pale reddish brown areas. Numerous fine calcite coated fractures. Dip 4° at 49.0.  |                      |
| 3873.3  | 52.4   | Very fine sandstone, yellowish gray. Pale reddish brown stains cut the bedding.  |                      |
| 3862.7  | 63.0   | Fine sandstone, pinkish gray grading into light red at 54.3. Dips; 12° at 54.9, 16° at 52.7, 12° at 60.9.  |                      |
| 3862.4  | 63.3   | 50% clay pebbles and partings, dark reddish brown and 50% fine sandstone, pinkish gray. Dip 20°.   |                      |
| 3857.1  | 68.6   | Fine sandstone, light red grading to very fine sandstone, yellowish gray at 65.5. Dips; 8° at 64.0, 8° at 67.9, and 8° at 68.6.  |                      |
| 3852.1  | 73.6   | Mudstone, brownish gray to 70.0, medium dark gray to 72.2, mottled dark reddish brown and dusky yellow green to 73.6. Dips; 12° at 69.1, 7° at 71.7.   |                      |
| 3847.8  | 77.9   | Very fine sandstone and siltstone, mottled dark reddish brown, yellowish gray and moderate yellow. Dip 13° at 74.8.  |                      |
| 3836.5  | 89.2   | Very fine sandstone, pinkish gray with some dark reddish brown laminations (.01 of a foot) to 81.0; moderate red (5R 4/6) to 82.4; variegated yellow, red, and gray to 82.9; 60% core loss to 87.7; very fine sandstone with 5% clay laminae, medium dark gray, to 89.2. Dip 15° at 88.0.  |                      |
| 3835.1  | 90.6   | 70% clay, dark reddish brown, 30% very fine sandstone, pinkish gray. Dip 16° at 90.0.  |                      |
| 3822.3  | 103.4  | Very fine sandstone, very light gray to 98.0 and grayish pink to 103.4. Dips; 7° at 97.0, 8° at 99.0, and 22° at 101.6.  |                      |
| 3811.7  | 114.0  | Core was not recovered.  |                      |
| 3806.3  | 119.35 | Very fine sandstone, saccharoidal. 3% clay, greenish gray from 118.1 to 119.35. Dip 5° at 119.0.   | FS 56-51             |
| 3805.7  | 120.0  | Fine sandstone, yellowish gray, with 10% clay blebs, greenish gray. Contains vertical fault.   | FS 57-51             |
| 3778.2  | 147.5  | Very fine sandstone, yellowish gray. Dips; 9° at 127.55, 10° at 128.6, 15° at 132.1, 10° at 135.0, 12° at 136.7, 4° at 144.1, and 19° at 145.9.  |                      |
| 3777.8  | 147.9  | Clay pebble conglomerate, 50% very fine sandstone, yellowish gray; 50% clay pebbles, olive gray.   |                      |
| 3773.7  | 158.7  | Very fine sandstone, crossbedded, yellowish gray to 153.6; yellowish gray with 3% clay partings to 156; light yellow to 156.6; light brownish gray to 158.5; 95% light greenish gray and 5% dark gray laminations to 164.4; light brownish gray with dark reddish brown partings to 165.0. Dips; 16° at 146.3, 10° at 159.0, and 23° at 161.6. | FS 58-51<br>FS 59-51 |
| 3760.7  | 165.0  | 50% very fine sandstone, grayish pink and yellowish gray; 50% clay, dark reddish brown and dusky yellow green. Badly broken by drill.  | FS 60-51             |
| 3755.3  | 170.4  |  |                      |
| 3752.7  | 190.0  | Core was not recovered.  |                      |
| 3752.4  | 190.3  | Mudstone, dark reddish brown and olive gray.   |                      |
| 3752.2  | 191.9  | Very fine sandstone, yellowish gray, dip obscure.  |                      |
| 3752.7  | 193.0  | Core was not recovered.  |                      |
| 3751.8  | 193.9  | 80% very fine sandstone; yellowish gray; 20% clay grains, grayish brown.   |                      |
| 3724.9  | 200.8  | Very fine sandstone, yellowish gray, saccharoidal, with 1% clay blebs (less than .1 inch), dark gray. High CaCO <sub>3</sub> content.  |                      |
| 3721.1  | 204.6  | Siltstone, yellowish gray, with 40% clay pebbles, medium gray and brownish gray.   |                      |
| 3711.0  | 214.65 | Siltstone, greenish gray (5GY 6/1) to 206.1, light brownish gray to 214.65. Small scale crossbedding throughout. Dip 16° at 212.4.   |                      |
| 3670.8  | 246.9  | Siltstone and mudstone, dark reddish brown, crossbedded. Dips; 16° at 217.7, 20° at 219.9, and 18° at 240.0.   |                      |
| 3669.0  | 256.7  | Siltstone and very fine sandstone, yellowish gray. Dips 21° at 249.5 and 15° at 251.2.   |                      |
| 3660.2  | 265.5  | Siltstone and mudstone, dark reddish brown. Dips 12° at 257.5 and 16° at 264.45.   |                      |
| 3659.8  | 265.9  | Mudstone, dark greenish gray (5G 4/1) and brownish gray.   |                      |
| 3623.6  | 302.1  | Siltstone and mudstone, dark reddish brown, crossbedded. Two calcite coated fractures, near vertical, at 294.5. Calcite coated fracture at 295.4. Dips; 21° at 271.4, 15° at 274.2, 12° at 278.3, 17° at 286.0, 19° at 294.1, and 15° at 301.7.  |                      |

Bottomed 8 September 1951.

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Traces of carbonate occur in most beds. No abnormal radioactivity was detected in this hole with a ~~Geiger-Mueller~~ probe nor in the core which was checked with a Geiger-Mueller counter.

FIGURE 7—LOGS OF DRILL CORES 12 AND 13, SILVER REEF DISTRICT, WASHINGTON COUNTY, UTAH