

| Table 3 from: | | | | | | | | | | | | |
|---|----|--------|------|-------|-------|-------|------------|------------|------|-------|-------|-------|
| T. E. McKenna and J. M. Sharp, Jr. in press, 1997 (Manuscript # 471) | | | | | | | | | | | | |
| Radiogenic Heat Production in Sedimentary Rocks of the Gulf of Mexico Basin (South Texas) | | | | | | | | | | | | |
| American Association of Petroleum Geologists Bulletin | | | | | | | | | | | | |
| see below for description of column headers | | | | | | | | | | | | |
| ID | ID | depth | U | Th | U | Th | a | a | K | r | A | A |
| well | # | m | ppm | ppm | ppm | ppm | cts/ks/cm2 | cts/ks/cm2 | wt % | kg/m3 | uW/m3 | mW/m3 |
| | | | | | error | error | | error | | | | error |
| Wilcox mudrocks | | | | | | | | | | | | |
| LY | 1 | 4356.5 | 3.16 | 11.89 | 0.88 | 3.02 | 0.823 | 0.019 | 2.04 | 2450 | 1.64 | 0.18 |
| LY | 2 | 4373.0 | 2.35 | 6.50 | 0.59 | 2.04 | 0.528 | 0.015 | 0.57 | 2450 | 0.99 | 0.11 |
| LY | 3 | 4373.6 | 1.89 | 11.89 | 0.79 | 2.71 | 0.665 | 0.017 | 0.57 | 2450 | 1.24 | 0.14 |
| LY | 4 | 4381.8 | 3.58 | 8.68 | 1.00 | 3.42 | 0.760 | 0.023 | 0.57 | 2450 | 1.41 | 0.16 |
| LY | 5 | 4382.7 | 2.59 | 9.54 | 0.50 | 1.72 | 0.667 | 0.011 | 0.57 | 2450 | 1.24 | 0.14 |
| LY | 6 | 4389.4 | 1.87 | 4.43 | 0.45 | 1.54 | 0.394 | 0.012 | 1.90 | 2450 | 0.86 | 0.09 |
| MU | 7 | 4598.7 | 3.18 | 9.51 | 0.40 | 1.40 | 0.739 | 0.009 | 2.43 | 2452 | 1.53 | 0.16 |
| MU | 8 | 4702.5 | 3.92 | 6.73 | 0.71 | 2.44 | 0.730 | 0.017 | 1.28 | 2461 | 1.42 | 0.16 |
| MU | 9 | 4709.9 | 3.27 | 11.27 | 0.70 | 2.41 | 0.813 | 0.015 | 2.37 | 2461 | 1.66 | 0.18 |
| MU | 10 | 4715.3 | 3.12 | 11.18 | 0.59 | 2.04 | 0.792 | 0.012 | 2.38 | 2462 | 1.63 | 0.18 |
| MU | 11 | 4716.5 | 3.71 | 9.59 | 0.83 | 2.82 | 0.808 | 0.018 | 2.38 | 2462 | 1.65 | 0.18 |
| MU | 12 | 4728.7 | 3.36 | 11.57 | 0.60 | 2.07 | 0.835 | 0.012 | 2.81 | 2463 | 1.74 | 0.19 |
| PE | 13 | 4705.4 | 3.29 | 13.61 | 0.79 | 2.71 | 0.902 | 0.016 | 2.11 | 2461 | 1.80 | 0.20 |
| PE | 14 | 4613.1 | 4.26 | 11.60 | 0.95 | 3.24 | 0.948 | 0.019 | 2.09 | 2453 | 1.87 | 0.20 |
| PE | 15 | 4466.8 | 4.49 | 10.37 | 1.25 | 4.26 | 0.932 | 0.026 | 2.01 | 2450 | 1.84 | 0.20 |
| PE | 16 | 4162.0 | 4.00 | 8.80 | 1.22 | 4.16 | 0.815 | 0.026 | 2.12 | 2441 | 1.63 | 0.18 |
| PE | 17 | 3997.5 | 3.60 | 10.20 | 1.12 | 3.85 | 0.817 | 0.025 | 2.08 | 2428 | 1.62 | 0.18 |
| PE | 18 | 3832.9 | 3.33 | 11.44 | 1.15 | 3.95 | 0.828 | 0.025 | 2.12 | 2425 | 1.64 | 0.18 |
| PE | 19 | 3659.1 | 4.01 | 9.43 | 1.09 | 3.73 | 0.840 | 0.023 | 2.13 | 2425 | 1.66 | 0.18 |
| PE | 20 | 3329.9 | 3.29 | 11.37 | 0.90 | 3.08 | 0.819 | 0.019 | 2.01 | 2398 | 1.60 | 0.17 |
| PE | 21 | 3165.3 | 3.30 | 8.93 | 0.80 | 2.75 | 0.732 | 0.018 | 1.84 | 2385 | 1.43 | 0.16 |
| PE | 22 | 3014.5 | 3.56 | 9.25 | 0.83 | 2.87 | 0.776 | 0.018 | 1.88 | 2375 | 1.50 | 0.16 |
| PE | 23 | 2804.2 | 3.49 | 8.34 | 0.93 | 3.20 | 0.735 | 0.021 | 1.93 | 2375 | 1.43 | 0.16 |
| PE | 24 | 2648.7 | 3.93 | 7.30 | 0.74 | 2.52 | 0.721 | 0.017 | 1.86 | 2367 | 1.40 | 0.15 |
| PE | 25 | 2470.4 | 2.33 | 12.61 | 0.94 | 3.22 | 0.746 | 0.020 | 1.88 | 2353 | 1.43 | 0.16 |
| PE | 26 | 2281.4 | 3.78 | 8.39 | 1.11 | 3.77 | 0.772 | 0.025 | 2.11 | 2337 | 1.49 | 0.16 |
| PE | 27 | 2107.7 | 3.79 | 7.97 | 1.08 | 3.71 | 0.759 | 0.025 | 1.88 | 2323 | 1.44 | 0.16 |
| PE | 28 | 1946.1 | 3.78 | 10.07 | 0.87 | 2.98 | 0.834 | 0.019 | 1.88 | 2310 | 1.56 | 0.17 |
| PE | 29 | 1790.7 | 3.00 | 11.13 | 0.69 | 2.36 | 0.774 | 0.015 | 1.92 | 2297 | 1.45 | 0.16 |
| PE | 30 | 1641.3 | 1.98 | 13.63 | 1.10 | 3.78 | 0.739 | 0.023 | 1.86 | 2285 | 1.38 | 0.15 |
| PE | 31 | 1461.5 | 4.62 | 7.12 | 1.21 | 4.12 | 0.830 | 0.027 | 1.76 | 2270 | 1.51 | 0.17 |
| PE | 32 | 1292.4 | 4.21 | 8.16 | 1.15 | 3.91 | 0.818 | 0.026 | 2.18 | 2256 | 1.52 | 0.17 |
| PE | 33 | 935.7 | 3.56 | 8.37 | 0.99 | 3.35 | 0.745 | 0.022 | 2.13 | 2204 | 1.36 | 0.15 |
| PE | 34 | 742.2 | 4.04 | 9.27 | 0.97 | 3.33 | 0.836 | 0.021 | 2.23 | 2172 | 1.49 | 0.16 |
| LE | 35 | 4327.6 | 3.41 | 8.48 | 0.42 | 1.47 | 0.730 | 0.010 | 2.03 | 2450 | 1.48 | 0.16 |
| LE | 36 | 4144.8 | 3.37 | 9.38 | 0.79 | 2.69 | 0.758 | 0.017 | 1.91 | 2440 | 1.51 | 0.17 |
| LE | 37 | 3874.6 | 3.83 | 7.30 | 0.45 | 1.57 | 0.739 | 0.010 | 1.88 | 2425 | 1.47 | 0.16 |
| LE | 38 | 3701.0 | 3.23 | 7.64 | 0.70 | 2.42 | 0.677 | 0.016 | 1.96 | 2425 | 1.36 | 0.15 |
| LE | 39 | 3534.6 | 3.64 | 8.45 | 0.89 | 3.05 | 0.757 | 0.020 | 1.83 | 2415 | 1.49 | 0.16 |
| LE | 40 | 3353.3 | 3.06 | 9.85 | 0.79 | 2.72 | 0.736 | 0.017 | 1.82 | 2400 | 1.44 | 0.16 |
| LE | 41 | 3169.3 | 2.29 | 13.46 | 1.13 | 3.88 | 0.772 | 0.024 | 2.02 | 2385 | 1.51 | 0.17 |
| LE | 42 | 3004.7 | 2.71 | 10.01 | 0.81 | 2.79 | 0.700 | 0.018 | 1.64 | 2375 | 1.35 | 0.15 |
| LE | 43 | 2822.8 | 3.93 | 9.10 | 1.16 | 3.97 | 0.817 | 0.026 | 1.83 | 2375 | 1.57 | 0.17 |
| LE | 44 | 2627.5 | 2.96 | 9.84 | 0.55 | 1.88 | 0.724 | 0.012 | 1.72 | 2366 | 1.39 | 0.15 |
| LE | 45 | 2274.1 | 2.57 | 12.37 | 0.08 | 0.33 | 0.766 | 0.005 | 1.96 | 2337 | 1.46 | 0.16 |
| LE | 46 | 1719.1 | 2.72 | 9.86 | 0.52 | 1.82 | 0.694 | 0.012 | 1.38 | 2291 | 1.27 | 0.14 |
| LE | 47 | 1544.3 | 3.56 | 10.02 | 1.06 | 3.64 | 0.805 | 0.023 | 1.55 | 2277 | 1.46 | 0.16 |
| LE | 48 | 5181.6 | 3.71 | 8.27 | 0.63 | 2.16 | 0.761 | 0.014 | 1.83 | 2475 | 1.53 | 0.17 |
| LE | 49 | 5012.6 | 3.38 | 10.30 | 0.84 | 2.89 | 0.792 | 0.018 | 1.83 | 2475 | 1.59 | 0.17 |
| LE | 50 | 4842.5 | 3.98 | 12.61 | 0.98 | 3.37 | 0.950 | 0.020 | 1.83 | 2472 | 1.87 | 0.20 |
| LE | 51 | 4691.3 | 3.65 | 12.72 | 0.75 | 2.57 | 0.914 | 0.015 | 1.83 | 2460 | 1.79 | 0.20 |
| LE | 52 | 4503.9 | 3.15 | 12.68 | 1.25 | 4.29 | 0.852 | 0.026 | 1.83 | 2450 | 1.68 | 0.19 |

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|------------------------|-----|--------|------|-------|------|------|-------|-------|------|------|------|------|
| LE | 53 | 2099.6 | 3.70 | 12.92 | 0.95 | 3.24 | 0.926 | 0.019 | 1.96 | 2322 | 1.73 | 0.19 |
| Frio mudrocks | | | | | | | | | | | | |
| MI | 54 | 3861.8 | 3.35 | 13.06 | 0.46 | 1.62 | 0.888 | 0.010 | 2.09 | 2425 | 1.75 | 0.19 |
| MI | 55 | 4076.7 | 3.38 | 12.69 | 0.88 | 3.03 | 0.879 | 0.018 | 2.18 | 2434 | 1.74 | 0.19 |
| MI | 56 | 4255.0 | 4.10 | 12.50 | 0.80 | 2.75 | 0.961 | 0.016 | 2.26 | 2449 | 1.91 | 0.21 |
| MI | 57 | 4433.3 | 4.24 | 11.22 | 0.85 | 2.92 | 0.932 | 0.017 | 2.27 | 2450 | 1.86 | 0.20 |
| MI | 58 | 4642.1 | 3.85 | 12.67 | 0.59 | 2.04 | 0.936 | 0.012 | 2.34 | 2456 | 1.88 | 0.20 |
| MI | 59 | 4826.5 | 3.72 | 11.93 | 0.91 | 3.12 | 0.894 | 0.019 | 2.21 | 2471 | 1.80 | 0.20 |
| MI | 60 | 5009.4 | 4.48 | 10.63 | 0.98 | 3.37 | 0.939 | 0.020 | 2.40 | 2475 | 1.90 | 0.21 |
| MI | 61 | 5192.3 | 3.70 | 12.89 | 0.79 | 2.69 | 0.925 | 0.015 | 2.46 | 2475 | 1.88 | 0.20 |
| CS | 62 | 2663.3 | 3.52 | 10.64 | 0.79 | 2.70 | 0.821 | 0.017 | 1.48 | 2370 | 1.54 | 0.17 |
| CS | 63 | 2442.7 | 5.47 | 4.45 | 1.17 | 3.99 | 0.841 | 0.027 | 2.28 | 2350 | 1.63 | 0.18 |
| CS | 64 | 2443.0 | 4.02 | 7.19 | 0.85 | 2.90 | 0.759 | 0.019 | 2.38 | 2350 | 1.50 | 0.16 |
| CS | 65 | 2443.3 | 4.08 | 7.78 | 0.44 | 1.53 | 0.788 | 0.010 | 2.31 | 2350 | 1.54 | 0.17 |
| CS | 66 | 2443.6 | 2.55 | 13.82 | 1.24 | 4.24 | 0.817 | 0.026 | 2.17 | 2350 | 1.58 | 0.17 |
| CS | 67 | 2444.5 | 3.54 | 7.28 | 0.41 | 1.42 | 0.702 | 0.010 | 2.20 | 2350 | 1.38 | 0.15 |
| CS | 68 | 2598.1 | 4.47 | 9.95 | 1.29 | 4.37 | 0.916 | 0.027 | 2.22 | 2350 | 1.75 | 0.19 |
| CS | 69 | 2597.8 | 3.89 | 10.02 | 1.35 | 4.60 | 0.846 | 0.029 | 2.17 | 2363 | 1.64 | 0.18 |
| CS | 70 | 2782.5 | 6.08 | 10.94 | 0.70 | 2.43 | 1.151 | 0.014 | 2.56 | 2378 | 2.21 | 0.24 |
| Wilcox sandstones | | | | | | | | | | | | |
| BU | 71 | 2929.1 | 2.71 | 5.63 | 0.40 | 1.36 | 0.541 | 0.010 | 1.10 | 2300 | 0.99 | 0.07 |
| BU | 72 | 2918.2 | 2.53 | 5.49 | 0.55 | 1.88 | 0.512 | 0.014 | 1.11 | 2300 | 0.95 | 0.06 |
| BU | 73 | 2929.1 | 2.91 | 6.05 | 0.62 | 2.14 | 0.580 | 0.015 | 0.96 | 2280 | 1.04 | 0.07 |
| BU | 74 | 2845.9 | 1.17 | 2.69 | 0.25 | 0.86 | 0.244 | 0.008 | 0.52 | 2210 | 0.43 | 0.03 |
| BU | 75 | 2907.6 | 4.21 | 2.62 | 0.62 | 2.11 | 0.617 | 0.016 | 0.56 | 2250 | 1.06 | 0.07 |
| BU | 76 | 2913.6 | 1.75 | 4.25 | 0.25 | 0.91 | 0.367 | 0.007 | 0.59 | 2240 | 0.65 | 0.04 |
| KO | 77 | 1592.0 | 1.53 | 3.30 | 0.29 | 1.03 | 0.309 | 0.009 | 0.90 | 2540 | 0.65 | 0.04 |
| KO | 78 | 1587.1 | 3.77 | 4.81 | 0.33 | 1.15 | 0.642 | 0.008 | 1.36 | 2470 | 1.27 | 0.08 |
| Frio sandstones | | | | | | | | | | | | |
| CS | 79 | 2747.8 | 2.90 | 10.63 | 0.79 | 2.71 | 0.754 | 0.017 | 1.30 | 1795 | 1.07 | 0.07 |
| CS | 80 | 2449.1 | 1.47 | 4.18 | 0.32 | 1.12 | 0.334 | 0.009 | 1.12 | 2067 | 0.58 | 0.04 |
| CS | 81 | 2451.5 | 4.16 | 7.82 | 0.87 | 2.97 | 0.800 | 0.019 | 2.33 | 1971 | 1.31 | 0.09 |
| CS | 82 | 2452.7 | 3.36 | 10.33 | 1.10 | 3.78 | 0.790 | 0.024 | 2.03 | 1977 | 1.28 | 0.09 |
| CS | 83 | 2453.3 | 4.91 | 9.24 | 1.31 | 4.47 | 0.944 | 0.028 | 2.35 | 1981 | 1.52 | 0.10 |
| CS | 84 | 2609.1 | 3.68 | 5.30 | 0.49 | 1.68 | 0.648 | 0.012 | 2.00 | 1819 | 0.99 | 0.06 |
| CS | 85 | 2609.4 | 2.92 | 7.38 | 0.66 | 2.28 | 0.631 | 0.015 | 1.83 | 1861 | 0.97 | 0.07 |
| CS | 86 | 2661.5 | 3.27 | 12.58 | 0.62 | 2.14 | 0.861 | 0.013 | 1.35 | 1908 | 1.29 | 0.08 |
| CS | 87 | 2736.2 | 3.86 | 3.97 | 0.68 | 2.34 | 0.623 | 0.017 | 1.40 | 1986 | 1.00 | 0.07 |
| CS | 88 | 2737.4 | 4.78 | 7.46 | 0.91 | 3.13 | 0.863 | 0.020 | 1.88 | 2028 | 1.41 | 0.09 |
| CS | 89 | 2742.3 | 3.37 | 10.10 | 0.54 | 1.89 | 0.784 | 0.012 | 1.17 | 1894 | 1.16 | 0.08 |
| CS | 90 | 2767.9 | 4.05 | 9.81 | 1.22 | 4.16 | 0.859 | 0.026 | 1.51 | 2122 | 1.44 | 0.10 |
| CS | 91 | 2745.0 | 6.89 | 6.44 | 1.39 | 5.16 | 1.089 | 0.031 | 1.20 | 1832 | 1.53 | 0.11 |
| CS | 92 | 2779.9 | 2.51 | 7.85 | 0.40 | 1.40 | 0.595 | 0.010 | 1.39 | 1906 | 0.92 | 0.06 |
| CS | 93 | 2777.9 | 4.14 | 11.84 | 0.66 | 2.26 | 0.942 | 0.014 | 1.81 | 1895 | 1.42 | 0.09 |
| CS | 94 | 2783.4 | 2.57 | 13.48 | 0.83 | 2.82 | 0.797 | 0.016 | 1.30 | 1903 | 1.19 | 0.08 |
| Stuart City limestones | | | | | | | | | | | | |
| SC | 95 | 4094.1 | 1.67 | 5.24 | 0.33 | 1.14 | 0.397 | 0.008 | 0.58 | 2640 | 0.82 | 0.06 |
| SC | 96 | 4096.5 | 1.87 | 7.00 | 0.56 | 1.91 | 0.486 | 0.014 | 0.90 | 2660 | 1.03 | 0.07 |
| SC | 97 | 4101.1 | 0.73 | 0.06 | 0.04 | 0.18 | 0.094 | 0.004 | 0.00 | 2640 | 0.18 | 0.01 |
| SC | 98 | 4117.5 | 0.35 | 0.00 | 0.01 | 0.00 | 0.044 | 0.003 | 0.00 | 2550 | 0.08 | 0.01 |
| SC | 99 | 4144.7 | 0.28 | 0.00 | 0.01 | 0.00 | 0.035 | 0.003 | 0.00 | 2560 | 0.07 | 0.01 |
| SC | 100 | 4226.4 | 0.40 | 0.00 | 0.01 | 0.00 | 0.052 | 0.003 | 0.00 | 2490 | 0.09 | 0.01 |

Table 3. Radiogenic heat production data for sedimentary rocks from south Texas. Column headings are:

| | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|
| well ID = well identification as in Figure 1; | | | | | | | | | | | | |
| ID # = unique sample identification number; | | | | | | | | | | | | |
| depth in meters below land surface; | | | | | | | | | | | | |
| U = uranium concentration in parts per million by weight (ppm); | | | | | | | | | | | | |
| Th = thorium concentration in ppm; | | | | | | | | | | | | |
| U error = error associated with uranium concentration (ppm); | | | | | | | | | | | | |
| Th error = error associated with thorium concentration (ppm); | | | | | | | | | | | | |
| a = measured alpha -count rate in counts per kilosecond per square centimeter (cts/ks/cm ²); | | | | | | | | | | | | |

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|--|---|--|--|--|--|--|
| | a error = error associated with determination of measured alpha -count rate (cts/ks/cm2); | | | | | |
| | K = potassium concentration in weight percent (wt %); | | | | | |
| | r = bulk density in kilograms per cubic meter (kg/m3); | | | | | |
| | ID #s 1-70 estimated from Dickinson [1953]); | | | | | |
| | A = heat-production rate in microWatts per cubic meter (uW/ m3); | | | | | |
| | error = error associated with heat production rate (uW/ m3). | | | | | |