

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 6/4/96 UWA Mount No.: 96-12 Whose sample?: Yumin Qiu Operator(s): IF + YQ

| Indicate any change to the following: |                    | 196 | 204 | bkg | 206 | 207 | 208 | 238 | 248 | 254 |
|---------------------------------------|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Precambrian                           | Count time (secs): | 2   | 10  | 10  | 10  | 30  | 10  | 5   | 5   | 2   |
|                                       | Delay time (secs): | 7   | 3   | 1   | 2   | 1   | 1   | 3   | 2   | 2   |
| Phanerozoic                           | Count time (secs): | 2   | 10  | 10  | 10  | 10  | 10  | 5   | 5   | 2   |
|                                       | Delay time (secs): | 7   | 3   | 1   | 2   | 1   | 1   | 3   | 2   | 2   |

expected 196-204 = 8.170 amu      expected 204-bkg = 0.040 amu      Dead-time = 32 nanosecs  
 actual 196-204 = 8.167      actual 204-bkg = 0.040      expected resolution = >4200  
 Primary = 2.8 nA      PESABM = 50 pA      actual resolution = 4885  
 expected Primary : PESABM ≈ 50:1      actual Primary : PESABM = 56

Comments: Raster 120 μ, 2 min.  
 ① Took duo I back up to previous setting - 1" raster but less stable  
 ② Increased Duo press to 400. Initially much quieter  
 ③ adjusted deflections to remove tail from spot. Ip ~~drop~~ decreased to 2.4 nA

Rejection over-ride    Sample/Std ID    Time - printout    UO/U    196 Kcps    206 cps    U ppm    204Pb ppb    f206 %    Age ±1σ (Ma) 206/238 207/206    Corr.

196 238 48  
 Requires deletions

|   |                     |                    |      |      |      |           |      |      |         |      |     |
|---|---------------------|--------------------|------|------|------|-----------|------|------|---------|------|-----|
|   | sl 612-24           | 10:41              | 5.88 | 17.3 | 1605 | -         | 1.0  | 0.1  | -       | 554  | 204 |
|   | <del>2-3</del>      | <del>11:00</del>   | -    | -    | -    | -         | -    | -    | -       | -    | -   |
| ① | 207 238 50          | 2-3 11:19          | 5.86 | 15.6 | 1528 | 227       | 0.1  | 0.00 | 588     | 520  | 204 |
|   | 196 206 207 238 254 | 2-4 11:44          | 5.95 | 16.7 | 1585 | 219       | -ve  | -    | 568     | 628  | -   |
|   | 196 206 208 254     | u C.H 12:05        | 5.79 | 17.6 | 2506 | 63        | 4.0  | 0.16 | 2725    | 2839 | 204 |
|   | <del>2-1</del>      | <del>abandon</del> | -    | -    | -    | -         | high | 204  | -       | -    | -   |
|   | 206 208 238 248     | 2-2 12:31          | 6.24 | 17.1 | 170  | 19.       | 19.  | 0.3  | 2464    | 2830 | 204 |
|   | <del>3-1</del>      | <del>abandon</del> | -    | -    | -    | -         | high | 204  | -       | -    | -   |
|   | <del>4-1</del>      | <del>"</del>       | -    | -    | -    | -         | "    | "    | -       | -    | -   |
| ② | sl 25               | 13:11              | 5.76 | 17.0 | 1612 | Recal 222 | 0.6  | 0.03 | Recal - | 593  | 208 |
| ③ | 196 206             | 2-6 13:39          | 5.88 | 14.4 | 1420 | 217       | 0.2  | 0.02 | 561     | 559  | 204 |

Del 1st ThO

| Rejection over-ride | Sample/ Std ID    | Time - printout | UO/U     | 196 cps | 206 cps | U ppm | 204Pb ppb | f206 % | Age ±1σ (Ma) 206/238 207/206 | Corr. |
|---------------------|-------------------|-----------------|----------|---------|---------|-------|-----------|--------|------------------------------|-------|
|                     | 196 206.7.8.38 48 | u 6-2 13:58     | 5.92     | 15.1    | 4575    | 249   | 5.7       | 0.14   | 1374 2361                    | 204   |
|                     |                   | 51              | high 204 |         |         |       | abandon   |        |                              |       |
|                     | 196 206 238       | 6-1 14:30       | 6.78     | 12.7    | 4224    | 107   | 86.       | 2.7    | 2097 2850                    | 204   |
|                     | 206 27 254        | 7-1 14:51       | 6.50     | 13.3    | 6576    | 171   | 62.       | 1.1    | 2241 2820                    | 204   |
|                     |                   | 81              | high 204 |         |         |       | abandon   |        |                              |       |
|                     | 206 27 38 48 54   | 9-1 15:22       | 6.13     | 13.9    | 3104    | 77    | 2.3       | 1.08   | 2649 2833                    | 204   |
|                     | 196 20            | sl 2-7 15:44    | 6.06     | 14.0    | 1464    | 207   | -ve       | -      | 561 542                      | -     |
|                     |                   | u 10-1          | high 204 |         |         |       | abandon   |        |                              |       |
|                     | 196 26 27 38      | 11-1 16:07      | 6.14     | 14.1    | 4553    | 176   | 35.       | 0.9    | 1778 2691                    | 204   |
|                     | 204 208           | 12-1 16:26      | 6.28     | 15.1    | 3313    | 121   | 14.       | 0.5    | 1649 2858                    | 204   |
|                     |                   | 13-1            | High 204 |         |         |       | stopped   |        |                              |       |
|                     | 196 27.8 38 48 54 | 12-2 17:02      | 5.88     | 14.1    | 3002    | 77    | 2.5       | 0.08   | 2835±10 2829±7               | 204   |
|                     | 196 26.7.8.28     | 9-2 17:25       | 6.27     | 13.1    | 3346    | 107   | 22.       | .71    | 2096±6 2827±8                | 204   |
|                     | 196 208 38 48 54  | 14-1 17:50      | 7.88     | 10.1    | 8061    | 262   | 248       | 4.2    | 1646 2807                    | 204   |
|                     | 2067              | sl 2-8 18:09    | 6.01     | 14.1    | 1469    | 212   | 0.4       |        | 565 481                      | 204   |
|                     | 206               | 15-1 18:37      | 6.98     | 11.4    | 1658    | 377   | 209.7     | 1.7    | 2356 2691                    | 204   |
|                     | 196 238           | 16-1 18:57      | 7.06     | 11.1    | 5577    | 364   | 196.3     | 4.7    | 899 2689                     | 204   |
|                     | 196 206 208       | 17-1 19:15      | 6.27     | 13.9    | 4340    | 109   | 14.4      | .37    | 2458 2844                    | 204   |
|                     | 196               | sl 2-9 19:34    | 6.03     | 14.7    | 1507    | 208   | 0.7       | 1.07   | 559 526                      | 204   |
|                     | 196               | 18-1 19:52      | 6.31     | 14.1    | 3493    | 74.7  | 1.8       | .06    | 2737 2852±6                  | 204   |
|                     | 196 206 27 28     | 19-1 20:10      | 6.75     | 13.6    | 4219    | 203   | 64.1      | 2.2    | 1840 2602                    | 204   |
|                     | 206 27 208 254    | 20-1 20:30      | 6.95     | 14.     | 2982    | 99    | 38.8      | 2.0    | 1443 2836                    | 204   |
|                     | 208               | 21-1 20:54      | 7.73     | 11.9    | 4071    | 274   | 88.2      | 3.4    | 758 2746                     | 204   |
|                     | 196 206 27        | 22-1 21:13      | 6.27     | 13.99   | 2700    | 64    | 5.6       | 1.24   | 2573 2814                    | 204   |
|                     | 206 27 238        | 23-1 21:32      | 6.03     | 14.4    | 8683    | 288   | 57.7      | .72    | 2096 2605                    | 204   |



Rejection over-ride    Sample/Std ID    Time - printout    UO/U    196 cps    206 cps    U ppm    204Pb ppb    f206 %    Age ±1σ (Ma) 206/238 207/206    Corr.

|      |                        |        |       |                      |      |      |     |       |     |      |      |      |
|------|------------------------|--------|-------|----------------------|------|------|-----|-------|-----|------|------|------|
|      | 206 250                | S12-10 | 21:52 | 5.81                 | 14.3 | 1420 | 222 | 1.6   | .13 | 582  | 506  | 204  |
|      | 106 238 206 250        | 24-1   | 22:12 | 7.19                 | 12.8 | 4280 | 227 | 15.6  | 5.9 | 892  | 2746 | 204  |
|      | 196 208                | 25-1   | 22:36 | 6.9                  | 12.  | 8904 | 244 | 142   | 2.7 | 1578 | 2799 | 204  |
|      | 196 208 238 250        | 26-1   | 23:01 | 6.16                 | 15.  | 3070 | 77  | 6.4   | 0.2 | 2416 | 2860 | +204 |
|      | 196 208 238 250        | 27-1   | 23:20 | 6.39                 | 13.9 | 4225 | 139 | 84.5  | 2.  | 2165 | 2788 | 204  |
|      | 196 206 208            | S12-11 | 23:39 | 6.                   | 14.6 | 1470 | 213 | -0.8  | .01 | 546  | 612  | 208  |
|      | 196 208                | 28-1   | 0:09  | 6.64                 | 12.3 | 4982 | 171 | 150.9 | 3.7 | 1702 | 2251 | 204  |
|      | 196 204 206 238 250    | 29-1   | 0:28  | 6.12                 | 14.3 | 6625 | 155 | 7.8   | .13 | 2736 | 2860 | 204  |
|      | 196 208 238 208 250    | 30-1   | 0:52  | 7.01                 | 13.3 | 5190 | 203 | 117.4 | 3.5 | 1256 | 2802 | 204  |
|      | 196 206 207 238 250    | 31-1   | 1:12  | 6.54                 | 13.3 | 4904 | 125 | 127   | 3.3 | 2193 | 2775 | 204  |
|      | 206 207 38.48 50       | 32-1   | 1:35  | 5.94                 | 15.5 | 7016 | 219 | 2.4   | 104 | 2179 | 2743 | 204  |
|      | 196 206 208 38 50      | S12-12 | 1:57  | 5.95                 | 14.8 | 1498 | 215 | 0.2   | .02 | 562  | 571  | 208  |
|      | 206 208 238 250        | 33-1   | 2:19  | 6.73                 | 14.3 | 4392 | 167 | 105   | 3.5 | 1340 | 2758 | 204  |
| YQ38 | 96-12B 206 208 238 250 | B1-1   | 2:54  | 5.7                  | 14.4 | 5743 | 208 | 11.6  | .18 | 2295 | 2762 | 204  |
|      | 196 207 238 250        | 2-1    | 3:12  | 6.44                 | 13.8 | 2439 | 155 | 86.2  | 4.5 | 969  | 2703 | 204  |
|      | 196 206 208            | 3-1    | 3:30  | 6.03                 | 14.3 | 3122 | 81  | 0.9   | .03 | 2603 | 2616 | 204  |
|      | 196 206 238 208 250    | 4-1    | 3:50  | 6.67                 | 14.5 | 3393 | 109 | 48.5  | 2.1 | 1608 | 2772 | 204  |
|      | 196 250                | S12-13 | 4:10  | 5.89                 | 14.3 | 1425 | 216 | -0.4  | —   | 559  | 539  | —    |
|      | 204 238 250            | 5-1    | 4:35  | <del>5.99</del> 12.6 | 12.6 | 736  | 224 | 4.1   | .05 | 2565 | 2766 | 204  |
|      | 20/0                   |        |       |                      |      |      |     |       |     |      |      |      |
|      | 1.80143                |        |       |                      |      |      |     |       |     |      |      |      |
|      | U/0                    |        |       |                      |      |      |     |       |     |      |      |      |
|      | 5.91849                |        |       |                      |      |      |     |       |     |      |      |      |
|      | Pb*/0                  |        |       |                      |      |      |     |       |     |      |      |      |
|      | 0.179231               |        |       |                      |      |      |     |       |     |      |      |      |
|      | 12 STD                 |        |       |                      |      |      |     |       |     |      |      |      |
|      | 1.11%                  |        |       |                      |      |      |     |       |     |      |      |      |

Finished