

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: *20/7/97* UWA Mount No.: *96-83* Whose sample?: *Pollard* Operator(s): *McN + JD*

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	10	5	5	2
Phanerozoic*	Delay time (secs):	<i>78</i>	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 = *8.168* actual 204-bkg = *0.040* expected resolution = >4200
 actual 206-207 = *1.000* actual 206-208 = *1.998* actual resolution = *5100*

Primary = *2.9* nA PESABM = *37* pA actual Primary : PESABM (≈ 50:1) = *78.4*
 Raster time (mins): *2* Raster aperture (microns): *100* No. of scans: *6*

Comments: *Looked at HfO + HfO₂ ⇒ HfO/HfO₂ ≈ 10:1*
Δ₂₁₂₀ - HfO = 195.782 - 191.922 = ~~3.860~~ 3.860 amu
Scanned ~ 192 & only got one significant peak!!

D = JCU 42712

Rejection over-ride	Sample/Std ID	Time - printout	UO/U K cps	196 cps	206 cps	U ppm	204Pb ppb	f ₂₀₆ %	Age ±1σ (Ma)		206/238	207/206	Corr.
	<i>sl. 3-1</i>	<i>9:57</i>	<i>6.10</i>	<i>10.4</i>	<i>753</i>	<i>220</i>	<i>-1.3</i>	<i>-</i>	<i>572 ± 1</i>	<i>608 ± 26</i>			
	<i>sl. 3-2</i>	<i>10:32</i>	<i>6.41</i>	<i>10.3</i>	<i>787</i>	<i>198</i>	<i>0.9</i>	<i>.02</i>	<i>573 ± 1</i>	<i>567 ± 28</i>			<i>208</i>
	<i>D. 1-1</i>	<i>10:51</i>	<i>6.48</i>	<i>10.3</i>	<i>1213</i>	<i>97.8</i>	<i>0.3</i>	<i>.02</i>	<i>1592 ± 5</i>	<i>1547 ± 15</i>			<i>204</i>
	<i>D. 2-1</i>	<i>11:10</i>	<i>6.36</i>	<i>10.7</i>	<i>730</i>	<i>34.3</i>	<i>0.8</i>	<i>.07</i>	<i>2574 ± 16</i>	<i>2478 ± 16</i>			<i>"</i>
	<i>sl. 3-3</i>	<i>11:28</i>	<i>6.55</i>	<i>10.1</i>	<i>832</i>	<i>196</i>	<i>0.1</i>	<i>.01</i>	<i>581 ± ?</i>	<i>584 ± ?</i>			<i>"</i>
	<i>D. 3-1</i>	<i>11:47</i>	<i>6.47</i>	<i>10.4</i>	<i>2.6K</i>	<i>220</i>	<i>22.8</i>	<i>.61</i>	<i>1534 ± 4</i>	<i>1582 ± 17</i>			<i>"</i>
	<i>D. 3-2</i>	<i>12:04</i>	<i>6.36</i>	<i>10.7</i>	<i>1586</i>	<i>123</i>	<i>5.4</i>	<i>.23</i>	<i>1673 ± 5</i>	<i>1709 ± 16</i>			<i>"</i>
	<i>D. 4-1</i>	<i>12:23</i>	<i>6.19</i>	<i>11.0</i>	<i>767</i>	<i>63.4</i>	<i>3.2</i>	<i>.26</i>	<i>1659 ± 7</i>	<i>1746 ± 26</i>			<i>"</i>
	<i>D. 5-1</i>	<i>12:41</i>	<i>6.41</i>	<i>11.0</i>	<i>496</i>	<i>40.6</i>	<i>2.1</i>	<i>.30</i>	<i>1520 ± 8</i>	<i>1792 ± 36</i>			<i>"</i>
	<i>sl. 3-4</i>	<i>12:59</i>	<i>6.19</i>	<i>10.5</i>	<i>800</i>	<i>212</i>	<i>0.7</i>	<i>.06</i>	<i>592 ± 1</i>	<i>528 ± 35</i>			<i>"</i>
	<i>D. 6-1</i>	<i>13:19</i>	<i>6.58</i>	<i>10.6</i>	<i>859</i>	<i>57.5</i>	<i>0.8</i>	<i>.07</i>	<i>1746 ± 8</i>	<i>1753 ± 18</i>			<i>"</i>

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* Needed to change Dno Y+2 to recover!

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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.
	D.7-1	13:37	6.27	10.8	1315	102	1.8 1.8	.09	1718 ± 6	1666 ± 17	204
	D.8-1	13:55	6.24	10.6	1124	72.2	8.7	.46	2091 ± 9	2129 ± 19	"
	D.9-1	14:22	6.19	10.0	1190	112	9.4	.46	1620 ± 6	1618 ± 24	"
	sl. 3-5	14:41	6.26	10.8	806	204	-1.8	.09	578 ± 1	616 ± 27	208
	D.10-1	14:59	6.47	10.7	2.7K	210	178	4.78	1532 ± 5	1525 ± 10	204
	D.10-2	—	high	204	→	aborted	—	—	—	—	—
	D.11-1	15:24	6.60	9.9	4.1K	452	201	3.62	1132 ± 2	1331 ± 33	204
	D.12-1	15:42	6.65	10.0	3.9K	312	25.8	.48	1528 ± 3	1752 ± 12	"
	D.13-1	16:04	6.53	10.6	2.7K	280	78.8	2.16	1197 ± 3	1404 ± 30	"
	sl. 3-6	16:22	6.52	10.3	825	197	0.2	.02	571 ± 1	641 ± 27	208
	D.14-1	16:40	6.41	10.6	1.6K	114	1.7	.07	1774 ± 6	1743 ± 14	204
	D.15-1	17:03	6.51	9.7	1197	120	14.1	.79	1364 ± 4	1491 ± 28	"
	D.16-1	17:21	6.38	10.5	2.3K	185	7.1	.21	1607 ± 4	1547 ± 15	"
	D.17-1	17:38	6.46	10.7	2.3K	175	41.8	1.32	1582 ± 4	1692 ± 23	"
	sl. 3-7	17:56	6.33	10.5	815	202	-0.1	—	592 ± 1	552 ± 26	—
	CO TO		UWA	97	-19						

1° dropped* → okay.