CHEM*TRACE* 44050 Fremont Blvd. Fremont, CA 94538 Tel: (510) 687-8000 Fax: (510) 687-9054

Trace Metals Analytical Results

Requestor: Jim Norberg WO# 986425
Company: Evans Analytical
Chemical : Wafer Carrier
Sample Receipt: 2/5/2004 PO# C04H8857
Report Date: 2/11/2004

Surface concentration in ng/cm²

		Detection Limits	**Wafer Carrier Interior Surface**
1. Aluminum	(Al)	0.05	0.39
2. Antimony	(Sb)	0.05	<0.05
3. Arsenic	(As)	0.10	<0.1
4. Barium	(Ba)	0.01	0.013
5. Beryllium	(Be)	0.05	<0.05
6. Bismuth	(Bi)	0.05	<0.05
7. Boron	(B)	0.10	0.25
8. Cadmium	(Cd)	0.01	<0.01
9. Calcium*	(Ca)	0.10	11
10. Chromium	(Cr)	0.05	<0.05
11. Cobalt	(Co)	0.01	<0.01
12. Copper	(Cu)	0.05	0.052
13. Gallium	(Ga)	0.01	<0.01
14. Germanium	(Ge)	0.05	<0.05
15. Gold	(Au)	0.10	<0.1
16. Iron*	(Fe)	0.10	0.31
17. Lead	(Pb)	0.05	<0.05
18. Lithium	(Li)	0.05	<0.05
19. Magnesium	(Mg)	0.05	0.81
20. Manganese	(Mn)	0.05	<0.05
21. Molybdenum	(Mo)	0.05	<0.05
22. Nickel	(Ni)	0.05	<0.05
23. Niobium	(Nb)	0.05	<0.05
24. Potassium*	(K)	0.10	4.7
25. Silver	(Ag)	0.05	<0.05
26. Sodium	(Na)	0.10	12
27. Strontium	(Sr)	0.01	<0.01
28. Tantalum	(Ta)	0.05	<0.05
29. Thallium	(Tl)	0.01	<0.01
30. Tin	(Sn)	0.05	<0.05
31. Titanium	(Ti)	0.05	0.057
32. Vanadium	(V)	0.05	<0.05
33. Zinc	(Zn)	0.05	5.0
34. Zirconium	(Zr)	0.01	<0.01

Note:

The internal surface of the wafer carrier (box) was leached with 2% HNO_3 for 10 min at room temperature. At the end of the extraction period, the acidic extract was removed for trace metal analysis by ICP-MS.

Quality Controlled by Jianqi Wang, Ph.D.
Technical Manager