Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Wednesday, December 08, 2004 Lab/Cor Report Number: *041210R2*

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Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS
Project Number: 0440.01CP-0018
Client Reference:
Sample Receipt Date: 10/15/2004

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Analysis #	Client Sample # and Description	Analysis Type and Notes
Batch #: ***B4783***		
S1-A1	LC-SRA-R01-100404	ISO 10312, direct
S2-A1	LC-SRA-R02-100404	ISO 10312, direct
S3-A1	LC-SRA-R03-100404	ISO 10312, direct
S4-A1	LC-SRA-R04-100404	ISO 10312, direct
S5-A1	LC-SRA-R05-100404	ISO 10312, direct
S6-A1	LC-SRA-R103-100504	ISO 10312, direct
S7-A1	LC-SRA-R04-100504	ISO 10312, direct
S8-A1	LC-SRA-R03-100504	ISO 10312, direct
S9-A1	LC-SRA-R02-100504	ISO 10312, direct
S10-A1	LC-SRA-R01-100504	ISO 10312, direct
S11-A1	LC-SRA-R05-100504	ISO 10312, direct
S12-A1	LC-SRA-R01-100604	ISO 10312, direct
S13-A1	LC-SRA-R102-100604	ISO 10312, direct
S14-A1	LC-SRA-R03-100604	ISO 10312, direct
S15-A1	LC-SRA-R05-100604	ISO 10312, direct
S16-A1	LC-SRA-R04-100604	ISO 10312, direct
S17-A1	LC-SRA-R02-100604	ISO 10312, direct
S18-A1	LC-SRA-R04-100704	ISO 10312, direct
S19-A1	LC-SRA-R03-100704	ISO 10312, direct
S20-A1	LC-SRA-R05-100704	ISO 10312, direct
S21-A1	LC-SRA-R02-100704	ISO 10312, direct
S22-A1	LC-SRA-R01-100704	ISO 10312, direct: Rejected at Prep - Filter blown out
S23-A1	LC-SRA-R103-100804	ISO 10312, direct
S24-A1	LC-SRA-R04-100804	ISO 10312, direct
S25-A1	LC-SRA-R05-100804	ISO 10312, direct
S26-A1	LC-SRA-R02-100804	ISO 10312, direct
S27-A1	LC-SRA-R03-100804	ISO 10312, direct
S28-A1	LC-SRA-R01-100804	ISO 10312, direct
S29-A1	LC-NRA-R01-100904	ISO 10312, direct

S30-A1	LC-NRA-R02-100904	ISO 10312, direct
S31-A1	LC-NRA-R04-100904	ISO 10312, direct
S32-A1	LC-NRA-R05-100904	ISO 10312, direct
S33-A1	LC-NRA-R03-100904	ISO 10312, direct
S34-A1	LC-NRA-R101-101004	ISO 10312, direct
S35-A1	LC-NRA-R01-101004	ISO 10312, direct
S36-A1	LC-NRA-R05-101004	ISO 10312, direct
S37-A1	LC-NRA-R04-101004	ISO 10312, direct
S38-A1	LC-NRA-R03-101004	ISO 10312, direct
S39-A1	LC-NRA-R02-101004	ISO 10312, direct
S40-A1	LC-NRA-R03-101104	ISO 10312, direct
S41-A1	LC-NRA-R04-101104	ISO 10312, direct
S42-A1	LC-NRA-R05-101104	ISO 10312, direct
S43-A1	LC-NRA-R01-101104	ISO 10312, direct
S44-A1	LC-NRA-R02-101104	ISO 10312, direct

ISO 10312, direct

Preparation and analysis of the above samples was conducted in accordance with the ISO method 10312 (Direct) for the identification of asbestos. Briefly, the samples were collapsed with acetone, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in acetone until cleared of filter debris.

TEM analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The air samples were analyzed at various approximate screen magnifications of 5,000x for PCM equivalent structures, 10,000x for asbestos structures greater than 5.0 micrometer lengths, and 20,000x for asbestos structures greater than 0.5 micrometer lengths. An accelerating voltage of 100 KV was applied. The sizing of grid openings was performed on the microscope at a magnification of approximately 550X.

Disclaimer

This test report relates only to the items tested in this report. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with analytical services.

Sincerely,

John Harris, M.P.H.
Laboratory Director

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S1 A1
Client Sample No. LC-SRA-R01-100404
Description
Analysis Date 11/25/2004
Analyst DW

Volume (L) 5003.95
No. of Grid Openings 18
Filter Area (mm2) 385
Area Analyzed (mm2) 0.261
Analytical Sens. (struc/cc) 0.000295
Dectection Limit. (struc/cc) 0.000882

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	11.5	0.000885	0.00 - 0.00229	3
Total Asbestos Structures	11.5	0.000885	0.00 - 0.00229	3
Asbestos Structures > 5um	7.7	0.000590	0.00 - 0.00186	2
Asbestos Fibers and Bundles > 5um	0.0	<0.000882	0.00 - 0.000882	0
PCM Equivalent Fibers-US	0.0	<0.000882	0.00 - 0.000882	0
PCM Equivalent Structures-US	0.0	<0.000882	0.00 - 0.000882	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000882	0.00 - 0.000882	0
PROTOCOL ASB STRUCS >10	0.0	<0.000882	0.00 - 0.000882	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000882	0.00 - 0.000882	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000882	0.00 - 0.000882	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000882	0.00 - 0.000882	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000882	0.00 - 0.000882	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000882	0.00 - 0.000882	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000882	0.00 - 0.000882	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000882	0.00 - 0.000882	0
AHERA-like Total Structures 3:1	11.5	0.000885	0.00 - 0.00229	3
AHERA-like Asb Strucs >5 and 3:1	7.7	0.000590	0.00 - 0.00186	2
AHERA-like Asb Strucs 5 - 10 and 3:1	3.8	0.000295	0.00 - 0.00140	1
AHERA-like Asb Strucs >10 and 3:1	3.8	0.000295	0.00 - 0.00140	1
Total Other Amphibole Strucs 3:1	0.0	<0.000882	0.00 - 0.000882	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000882	0.00 - 0.000882	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000882	0.00 - 0.000882	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000882	0.00 - 0.000882	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S2 A1
Client Sample No. LC-SRA-R02-100404
Description
Analysis Date 11/29/2004
Analyst DW

Volume (L) 5014.86
No. of Grid Openings 18
Filter Area (mm2) 385
Area Analyzed (mm2) 0.261
Analytical Sens. (struc/cc) 0.000294
Dectection Limit. (struc/cc) 0.000880

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	15.3	0.00118	0.000321 - 0.00301	4
Total Asbestos Structures	15.3	0.00118	0.000321 - 0.00301	4
Asbestos Structures > 5um	11.5	0.000883	0.00 - 0.00228	3
Asbestos Fibers and Bundles > 5um	11.5	0.000883	0.00 - 0.00228	3
PCM Equivalent Fibers-US	11.5	0.000883	0.00 - 0.00228	3
PCM Equivalent Structures-US	7.7	0.000589	0.00 - 0.00185	2
PROTOCOL ASB STRUCS 5-10	3.8	0.000294	0.00 - 0.00140	1
PROTOCOL ASB STRUCS >10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL ASB STRUCS TOTAL	3.8	0.000294	0.00 - 0.00140	1
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL AMPH STRUCS 5-10	3.8	0.000294	0.00 - 0.00140	1
PROTOCOL AMPH STRUCS >10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL AMPH STRUCS TOTAL	3.8	0.000294	0.00 - 0.00140	1
AHERA-like Total Structures 3:1	15.3	0.00118	0.000321 - 0.00301	4
AHERA-like Asb Strucs >5 and 3:1	11.5	0.000883	0.00 - 0.00228	3
AHERA-like Asb Strucs 5 - 10 and 3:1	7.7	0.000589	0.00 - 0.00185	2
AHERA-like Asb Strucs >10 and 3:1	3.8	0.000294	0.00 - 0.00140	1
Total Other Amphibole Strucs 3:1	0.0	<0.000880	0.00 - 0.000880	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000880	0.00 - 0.000880	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000880	0.00 - 0.000880	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000880	0.00 - 0.000880	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S3 A1
Client Sample No. LC-SRA-R03-100404
Description
Analysis Date 11/25/2004
Analyst DW

Volume (L) 4937.3
No. of Grid Openings 18
Filter Area (mm2) 385
Area Analyzed (mm2) 0.261
Analytical Sens. (struc/cc) 0.000299
Dectection Limit. (struc/cc) 0.000894

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	11.5	0.000897	0.00 - 0.00232	3
Total Asbestos Structures	11.5	0.000897	0.00 - 0.00232	3
Asbestos Structures > 5um	3.8	0.000299	0.00 - 0.00142	1
Asbestos Fibers and Bundles > 5um	0.0	<0.000894	0.00 - 0.000894	0
PCM Equivalent Fibers-US	0.0	<0.000894	0.00 - 0.000894	0
PCM Equivalent Structures-US	0.0	<0.000894	0.00 - 0.000894	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000894	0.00 - 0.000894	0
PROTOCOL ASB STRUCS >10	0.0	<0.000894	0.00 - 0.000894	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000894	0.00 - 0.000894	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000894	0.00 - 0.000894	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000894	0.00 - 0.000894	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000894	0.00 - 0.000894	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000894	0.00 - 0.000894	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000894	0.00 - 0.000894	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000894	0.00 - 0.000894	0
AHERA-like Total Structures 3:1	11.5	0.000897	0.00 - 0.00232	3
AHERA-like Asb Strucs >5 and 3:1	3.8	0.000299	0.00 - 0.00142	1
AHERA-like Asb Strucs 5 - 10 and 3:1	3.8	0.000299	0.00 - 0.00142	1
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000894	0.00 - 0.000894	0
Total Other Amphibole Strucs 3:1	0.0	<0.000894	0.00 - 0.000894	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000894	0.00 - 0.000894	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000894	0.00 - 0.000894	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000894	0.00 - 0.000894	0

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Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S4 A1
Client Sample No. LC-SRA-R04-100404
Description
Analysis Date 11/29/2004
Analyst DW

Volume (L) 5098.14
No. of Grid Openings 18
Filter Area (mm2) 385
Area Analyzed (mm2) 0.261
Analytical Sens. (struc/cc) 0.000290
Dectection Limit. (struc/cc) 0.000866

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	38.3	0.00290	0.00139 - 0.00532	10
Total Asbestos Structures	42.2	0.00318	0.00159 - 0.00570	11
Asbestos Structures > 5um	26.8	0.00203	0.000815 - 0.00418	7
Asbestos Fibers and Bundles > 5um	15.3	0.00116	0.000316 - 0.00297	4
PCM Equivalent Fibers-US	19.2	0.00145	0.000470 - 0.00338	5
PCM Equivalent Structures-US	3.8	0.000290	0.00 - 0.00137	1
PROTOCOL ASB STRUCS 5-10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL ASB STRUCS >10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000866	0.00 - 0.000866	0
AHERA-like Total Structures 3:1	38.3	0.00290	0.00139 - 0.00532	10
AHERA-like Asb Strucs >5 and 3:1	26.8	0.00203	0.000815 - 0.00418	7
AHERA-like Asb Strucs 5 - 10 and 3:1	11.5	0.000869	0.00 - 0.00224	3
AHERA-like Asb Strucs >10 and 3:1	15.3	0.00116	0.000316 - 0.00297	4
Total Other Amphibole Strucs 3:1	0.0	<0.000866	0.00 - 0.000866	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000866	0.00 - 0.000866	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000866	0.00 - 0.000866	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000866	0.00 - 0.000866	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S5 A1
Client Sample No. LC-SRA-R05-100404
Description
Analysis Date 11/29/2004
Analyst DW

Volume (L) 4969.2
No. of Grid Openings 18
Filter Area (mm2) 385
Area Analyzed (mm2) 0.261
Analytical Sens. (struc/cc) 0.000297
Dectection Limit. (struc/cc) 0.000888

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	11.5	0.000891	0.00 - 0.00230	3
Total Asbestos Structures	11.5	0.000891	0.00 - 0.00230	3
Asbestos Structures > 5um	7.7	0.000594	0.00 - 0.00187	2
Asbestos Fibers and Bundles > 5um	3.8	0.000297	0.00 - 0.00141	1
PCM Equivalent Fibers-US	3.8	0.000297	0.00 - 0.00141	1
PCM Equivalent Structures-US	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL ASB STRUCS >10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000888	0.00 - 0.000888	0
AHERA-like Total Structures 3:1	11.5	0.000891	0.00 - 0.00230	3
AHERA-like Asb Strucs >5 and 3:1	7.7	0.000594	0.00 - 0.00187	2
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000888	0.00 - 0.000888	0
AHERA-like Asb Strucs >10 and 3:1	7.7	0.000594	0.00 - 0.00187	2
Total Other Amphibole Strucs 3:1	0.0	<0.000888	0.00 - 0.000888	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000888	0.00 - 0.000888	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000888	0.00 - 0.000888	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000888	0.00 - 0.000888	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S6 A1
Client Sample No. LC-SRA-R103-100504
Description
Analysis Date 11/27/2004
Analyst TM

Volume (L) 6157.72
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000288
Dectection Limit. (struc/cc) 0.000860

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	41.4	0.00259	0.00118 - 0.00491	9
Total Asbestos Structures	41.4	0.00259	0.00118 - 0.00491	9
Asbestos Structures > 5um	32.2	0.00201	0.000809 - 0.00415	7
Asbestos Fibers and Bundles > 5um	18.4	0.00115	0.000314 - 0.00295	4
PCM Equivalent Fibers-US	18.4	0.00115	0.000314 - 0.00295	4
PCM Equivalent Structures-US	13.8	0.000863	0.00 - 0.00223	3
PROTOCOL ASB STRUCS 5-10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL ASB STRUCS >10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000860	0.00 - 0.000860	0
AHERA-like Total Structures 3:1	41.4	0.00259	0.00118 - 0.00491	9
AHERA-like Asb Strucs >5 and 3:1	32.2	0.00201	0.000809 - 0.00415	7
AHERA-like Asb Strucs 5 - 10 and 3:1	27.6	0.00173	0.000633 - 0.00376	6
AHERA-like Asb Strucs >10 and 3:1	4.6	0.000288	0.00 - 0.00136	1
Total Other Amphibole Strucs 3:1	0.0	<0.000860	0.00 - 0.000860	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000860	0.00 - 0.000860	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000860	0.00 - 0.000860	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000860	0.00 - 0.000860	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S7 A1
Client Sample No. LC-SRA-R04-100504
Description
Analysis Date 11/24/2004
Analyst DW

Volume (L) 6388.8
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000297
Dectection Limit. (struc/cc) 0.000888

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	49.3	0.00297	0.00142 - 0.00546	10
Total Asbestos Structures	54.2	0.00327	0.00163 - 0.00585	11
Asbestos Structures > 5um	14.8	0.000891	0.00 - 0.00230	3
Asbestos Fibers and Bundles > 5um	9.9	0.000594	0.00 - 0.00187	2
PCM Equivalent Fibers-US	9.9	0.000594	0.00 - 0.00187	2
PCM Equivalent Structures-US	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL ASB STRUCS >10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000888	0.00 - 0.000888	0
AHERA-like Total Structures 3:1	44.4	0.00267	0.00122 - 0.00508	9
AHERA-like Asb Strucs >5 and 3:1	14.8	0.000891	0.00 - 0.00230	3
AHERA-like Asb Strucs 5 - 10 and 3:1	14.8	0.000891	0.00 - 0.00230	3
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000888	0.00 - 0.000888	0
Total Other Amphibole Strucs 3:1	4.9	0.000297	0.00 - 0.00141	1
Other Amphibole Strucs >5 and 3:1	0.0	<0.000888	0.00 - 0.000888	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000888	0.00 - 0.000888	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000888	0.00 - 0.000888	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S8 A1
Client Sample No. LC-SRA-R03-100504
Description
Analysis Date 11/24/2004
Analyst DW

Volume (L) 6127.77
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000289
Dectection Limit. (struc/cc) 0.000864

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	27.6	0.00173	0.000637 - 0.00378	6
Total Asbestos Structures	27.6	0.00173	0.000637 - 0.00378	6
Asbestos Structures > 5um	18.4	0.00116	0.000315 - 0.00296	4
Asbestos Fibers and Bundles > 5um	13.8	0.000867	0.00 - 0.00224	3
PCM Equivalent Fibers-US	9.2	0.000578	0.00 - 0.00182	2
PCM Equivalent Structures-US	4.6	0.000289	0.00 - 0.00137	1
PROTOCOL ASB STRUCS 5-10	4.6	0.000289	0.00 - 0.00137	1
PROTOCOL ASB STRUCS >10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL ASB STRUCS TOTAL	4.6	0.000289	0.00 - 0.00137	1
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL AMPH STRUCS 5-10	4.6	0.000289	0.00 - 0.00137	1
PROTOCOL AMPH STRUCS >10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL AMPH STRUCS TOTAL	4.6	0.000289	0.00 - 0.00137	1
AHERA-like Total Structures 3:1	27.6	0.00173	0.000637 - 0.00378	6
AHERA-like Asb Strucs >5 and 3:1	18.4	0.00116	0.000315 - 0.00296	4
AHERA-like Asb Strucs 5 - 10 and 3:1	13.8	0.000867	0.00 - 0.00224	3
AHERA-like Asb Strucs >10 and 3:1	4.6	0.000289	0.00 - 0.00137	1
Total Other Amphibole Strucs 3:1	0.0	<0.000864	0.00 - 0.000864	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000864	0.00 - 0.000864	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000864	0.00 - 0.000864	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000864	0.00 - 0.000864	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S9 A1
Client Sample No. LC-SRA-R02-100504
Description
Analysis Date 11/24/2004
Analyst DW

Volume (L) 6489.7
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000292
Dectection Limit. (struc/cc) 0.000874

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	34.5	0.00205	0.000823 - 0.00422	7
Total Asbestos Structures	44.4	0.00263	0.00120 - 0.00500	9
Asbestos Structures > 5um	24.6	0.00146	0.000475 - 0.00341	5
Asbestos Fibers and Bundles > 5um	14.8	0.000877	0.00 - 0.00227	3
PCM Equivalent Fibers-US	9.9	0.000585	0.00 - 0.00184	2
PCM Equivalent Structures-US	9.9	0.000585	0.00 - 0.00184	2
PROTOCOL ASB STRUCS 5-10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL ASB STRUCS >10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000874	0.00 - 0.000874	0
AHERA-like Total Structures 3:1	34.5	0.00205	0.000823 - 0.00422	7
AHERA-like Asb Strucs >5 and 3:1	24.6	0.00146	0.000475 - 0.00341	5
AHERA-like Asb Strucs 5 - 10 and 3:1	9.9	0.000585	0.00 - 0.00184	2
AHERA-like Asb Strucs >10 and 3:1	14.8	0.000877	0.00 - 0.00227	3
Total Other Amphibole Strucs 3:1	0.0	<0.000874	0.00 - 0.000874	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000874	0.00 - 0.000874	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000874	0.00 - 0.000874	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000874	0.00 - 0.000874	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S10 A1
Client Sample No. LC-SRA-R01-100504
Description
Analysis Date 11/27/2004
Analyst TM

Volume (L) 6403.4
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000296
Dectection Limit. (struc/cc) 0.000886

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	59.2	0.00356	0.00184 - 0.00621	12
Total Asbestos Structures	59.2	0.00356	0.00184 - 0.00621	12
Asbestos Structures > 5um	24.6	0.00148	0.000481 - 0.00346	5
Asbestos Fibers and Bundles > 5um	19.7	0.00119	0.000323 - 0.00304	4
PCM Equivalent Fibers-US	14.8	0.000889	0.00 - 0.00230	3
PCM Equivalent Structures-US	14.8	0.000889	0.00 - 0.00230	3
PROTOCOL ASB STRUCS 5-10	0.0	<0.000886	0.00 - 0.000886	0
PROTOCOL ASB STRUCS >10	0.0	<0.000886	0.00 - 0.000886	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000886	0.00 - 0.000886	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000886	0.00 - 0.000886	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000886	0.00 - 0.000886	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000886	0.00 - 0.000886	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000886	0.00 - 0.000886	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000886	0.00 - 0.000886	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000886	0.00 - 0.000886	0
AHERA-like Total Structures 3:1	59.2	0.00356	0.00184 - 0.00621	12
AHERA-like Asb Strucs >5 and 3:1	24.6	0.00148	0.000481 - 0.00346	5
AHERA-like Asb Strucs 5 - 10 and 3:1	9.9	0.000593	0.00 - 0.00187	2
AHERA-like Asb Strucs >10 and 3:1	14.8	0.000889	0.00 - 0.00230	3
Total Other Amphibole Strucs 3:1	0.0	<0.000886	0.00 - 0.000886	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000886	0.00 - 0.000886	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000886	0.00 - 0.000886	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000886	0.00 - 0.000886	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S11 A1
Client Sample No. LC-SRA-R05-100504
Description
Analysis Date 11/27/2004
Analyst JH

Volume (L) 6091.83
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000291
Dectection Limit. (struc/cc) 0.000869

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	32.2	0.00204	0.000818 - 0.00419	7
Total Asbestos Structures	32.2	0.00204	0.000818 - 0.00419	7
Asbestos Structures > 5um	13.8	0.000872	0.00 - 0.00225	3
Asbestos Fibers and Bundles > 5um	9.2	0.000582	0.00 - 0.00183	2
PCM Equivalent Fibers-US	9.2	0.000582	0.00 - 0.00183	2
PCM Equivalent Structures-US	4.6	0.000291	0.00 - 0.00138	1
PROTOCOL ASB STRUCS 5-10	0.0	<0.000869	0.00 - 0.000869	0
PROTOCOL ASB STRUCS >10	0.0	<0.000869	0.00 - 0.000869	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000869	0.00 - 0.000869	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000869	0.00 - 0.000869	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000869	0.00 - 0.000869	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000869	0.00 - 0.000869	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000869	0.00 - 0.000869	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000869	0.00 - 0.000869	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000869	0.00 - 0.000869	0
AHERA-like Total Structures 3:1	32.2	0.00204	0.000818 - 0.00419	7
AHERA-like Asb Strucs >5 and 3:1	13.8	0.000872	0.00 - 0.00225	3
AHERA-like Asb Strucs 5 - 10 and 3:1	9.2	0.000582	0.00 - 0.00183	2
AHERA-like Asb Strucs >10 and 3:1	4.6	0.000291	0.00 - 0.00138	1
Total Other Amphibole Strucs 3:1	0.0	<0.000869	0.00 - 0.000869	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000869	0.00 - 0.000869	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000869	0.00 - 0.000869	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000869	0.00 - 0.000869	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S12 A1
Client Sample No. LC-SRA-R01-100604
Description
Analysis Date 11/27/2004
Analyst JH

Volume (L) 6476.8
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000293
Dectection Limit. (struc/cc) 0.000876

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	98.6	0.00586	0.00358 - 0.00905	20
Total Asbestos Structures	98.6	0.00586	0.00358 - 0.00905	20
Asbestos Structures > 5um	73.9	0.00440	0.00246 - 0.00725	15
Asbestos Fibers and Bundles > 5um	73.9	0.00440	0.00246 - 0.00725	15
PCM Equivalent Fibers-US	73.9	0.00440	0.00246 - 0.00725	15
PCM Equivalent Structures-US	73.9	0.00440	0.00246 - 0.00725	15
PROTOCOL ASB STRUCS 5-10	4.9	0.000293	0.00 - 0.00139	1
PROTOCOL ASB STRUCS >10	0.0	<0.000876	0.00 - 0.000876	0
PROTOCOL ASB STRUCS TOTAL	4.9	0.000293	0.00 - 0.00139	1
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000876	0.00 - 0.000876	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000876	0.00 - 0.000876	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000876	0.00 - 0.000876	0
PROTOCOL AMPH STRUCS 5-10	4.9	0.000293	0.00 - 0.00139	1
PROTOCOL AMPH STRUCS >10	0.0	<0.000876	0.00 - 0.000876	0
PROTOCOL AMPH STRUCS TOTAL	4.9	0.000293	0.00 - 0.00139	1
AHERA-like Total Structures 3:1	98.6	0.00586	0.00358 - 0.00905	20
AHERA-like Asb Strucs >5 and 3:1	73.9	0.00440	0.00246 - 0.00725	15
AHERA-like Asb Strucs 5 - 10 and 3:1	44.4	0.00264	0.00121 - 0.00501	9
AHERA-like Asb Strucs >10 and 3:1	29.6	0.00176	0.000645 - 0.00383	6
Total Other Amphibole Strucs 3:1	0.0	<0.000876	0.00 - 0.000876	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000876	0.00 - 0.000876	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000876	0.00 - 0.000876	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000876	0.00 - 0.000876	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S13 A1
Client Sample No. LC-SRA-R102-100604
Description
Analysis Date 11/27/2004
Analyst JH

Volume (L) 6581.7
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000288
Dectection Limit. (struc/cc) 0.000862

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	49.3	0.00288	0.00138 - 0.00530	10
Total Asbestos Structures	49.3	0.00288	0.00138 - 0.00530	10
Asbestos Structures > 5um	24.6	0.00144	0.000468 - 0.00336	5
Asbestos Fibers and Bundles > 5um	19.7	0.00115	0.000314 - 0.00295	4
PCM Equivalent Fibers-US	19.7	0.00115	0.000314 - 0.00295	4
PCM Equivalent Structures-US	19.7	0.00115	0.000314 - 0.00295	4
PROTOCOL ASB STRUCS 5-10	0.0	<0.000862	0.00 - 0.000862	0
PROTOCOL ASB STRUCS >10	0.0	<0.000862	0.00 - 0.000862	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000862	0.00 - 0.000862	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000862	0.00 - 0.000862	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000862	0.00 - 0.000862	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000862	0.00 - 0.000862	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000862	0.00 - 0.000862	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000862	0.00 - 0.000862	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000862	0.00 - 0.000862	0
AHERA-like Total Structures 3:1	49.3	0.00288	0.00138 - 0.00530	10
AHERA-like Asb Strucs >5 and 3:1	24.6	0.00144	0.000468 - 0.00336	5
AHERA-like Asb Strucs 5 - 10 and 3:1	14.8	0.000865	0.00 - 0.00223	3
AHERA-like Asb Strucs >10 and 3:1	9.9	0.000577	0.00 - 0.00182	2
Total Other Amphibole Strucs 3:1	0.0	<0.000862	0.00 - 0.000862	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000862	0.00 - 0.000862	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000862	0.00 - 0.000862	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000862	0.00 - 0.000862	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S14 A1
Client Sample No. LC-SRA-R03-100604
Description
Analysis Date 11/28/2004
Analyst JH

Volume (L) 6117.54
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000290
Dectection Limit. (struc/cc) 0.000866

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	55.2	0.00347	0.00180 - 0.00607	12
Total Asbestos Structures	55.2	0.00347	0.00180 - 0.00607	12
Asbestos Structures > 5um	27.6	0.00174	0.000638 - 0.00378	6
Asbestos Fibers and Bundles > 5um	18.4	0.00116	0.000316 - 0.00297	4
PCM Equivalent Fibers-US	23.0	0.00145	0.000470 - 0.00338	5
PCM Equivalent Structures-US	23.0	0.00145	0.000470 - 0.00338	5
PROTOCOL ASB STRUCS 5-10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL ASB STRUCS >10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000866	0.00 - 0.000866	0
AHERA-like Total Structures 3:1	55.2	0.00347	0.00180 - 0.00607	12
AHERA-like Asb Strucs >5 and 3:1	27.6	0.00174	0.000638 - 0.00378	6
AHERA-like Asb Strucs 5 - 10 and 3:1	18.4	0.00116	0.000316 - 0.00297	4
AHERA-like Asb Strucs >10 and 3:1	9.2	0.000579	0.00 - 0.00182	2
Total Other Amphibole Strucs 3:1	0.0	<0.000866	0.00 - 0.000866	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000866	0.00 - 0.000866	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000866	0.00 - 0.000866	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000866	0.00 - 0.000866	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S15 A1
Client Sample No. LC-SRA-R05-100604
Description
Analysis Date 11/28/2004
Analyst JH

Volume (L) 5994
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000296
Dectection Limit. (struc/cc) 0.000884

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	50.6	0.00325	0.00162 - 0.00582	11
Total Asbestos Structures	55.2	0.00355	0.00183 - 0.00619	12
Asbestos Structures > 5um	32.2	0.00207	0.000832 - 0.00426	7
Asbestos Fibers and Bundles > 5um	32.2	0.00207	0.000832 - 0.00426	7
PCM Equivalent Fibers-US	32.2	0.00207	0.000832 - 0.00426	7
PCM Equivalent Structures-US	27.6	0.00177	0.000651 - 0.00386	6
PROTOCOL ASB STRUCS 5-10	4.6	0.000296	0.00 - 0.00140	1
PROTOCOL ASB STRUCS >10	0.0	<0.000884	0.00 - 0.000884	0
PROTOCOL ASB STRUCS TOTAL	4.6	0.000296	0.00 - 0.00140	1
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000884	0.00 - 0.000884	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000884	0.00 - 0.000884	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000884	0.00 - 0.000884	0
PROTOCOL AMPH STRUCS 5-10	4.6	0.000296	0.00 - 0.00140	1
PROTOCOL AMPH STRUCS >10	0.0	<0.000884	0.00 - 0.000884	0
PROTOCOL AMPH STRUCS TOTAL	4.6	0.000296	0.00 - 0.00140	1
AHERA-like Total Structures 3:1	50.6	0.00325	0.00162 - 0.00582	11
AHERA-like Asb Strucs >5 and 3:1	32.2	0.00207	0.000832 - 0.00426	7
AHERA-like Asb Strucs 5 - 10 and 3:1	13.8	0.000887	0.00 - 0.00229	3
AHERA-like Asb Strucs >10 and 3:1	18.4	0.00118	0.000322 - 0.00303	4
Total Other Amphibole Strucs 3:1	0.0	<0.000884	0.00 - 0.000884	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000884	0.00 - 0.000884	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000884	0.00 - 0.000884	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000884	0.00 - 0.000884	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S16 A1
Client Sample No. LC-SRA-R04-100604
Description
Analysis Date 11/28/2004
Analyst DW

Volume (L) 6277.52
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000302
Dectection Limit. (struc/cc) 0.000904

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	93.7	0.00574	0.00346 - 0.00897	19
Total Asbestos Structures	98.6	0.00605	0.00369 - 0.00934	20
Asbestos Structures > 5um	59.2	0.00363	0.00187 - 0.00634	12
Asbestos Fibers and Bundles > 5um	44.4	0.00272	0.00124 - 0.00517	9
PCM Equivalent Fibers-US	44.4	0.00272	0.00124 - 0.00517	9
PCM Equivalent Structures-US	14.8	0.000907	0.00 - 0.00234	3
PROTOCOL ASB STRUCS 5-10	0.0	<0.000904	0.00 - 0.000904	0
PROTOCOL ASB STRUCS >10	0.0	<0.000904	0.00 - 0.000904	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000904	0.00 - 0.000904	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000904	0.00 - 0.000904	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000904	0.00 - 0.000904	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000904	0.00 - 0.000904	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000904	0.00 - 0.000904	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000904	0.00 - 0.000904	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000904	0.00 - 0.000904	0
AHERA-like Total Structures 3:1	93.7	0.00574	0.00346 - 0.00897	19
AHERA-like Asb Strucs >5 and 3:1	59.2	0.00363	0.00187 - 0.00634	12
AHERA-like Asb Strucs 5 - 10 and 3:1	19.7	0.00121	0.000330 - 0.00310	4
AHERA-like Asb Strucs >10 and 3:1	39.4	0.00242	0.00104 - 0.00477	8
Total Other Amphibole Strucs 3:1	0.0	<0.000904	0.00 - 0.000904	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000904	0.00 - 0.000904	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000904	0.00 - 0.000904	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000904	0.00 - 0.000904	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S17 A1
Client Sample No. LC-SRA-R02-100604
Description
Analysis Date 11/28/2004
Analyst DW

Volume (L) 6664.77
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000285
Dectection Limit. (struc/cc) 0.000851

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	49.3	0.00285	0.00137 - 0.00524	10
Total Asbestos Structures	54.2	0.00313	0.00156 - 0.00560	11
Asbestos Structures > 5um	39.4	0.00228	0.000984 - 0.00449	8
Asbestos Fibers and Bundles > 5um	19.7	0.00114	0.000310 - 0.00292	4
PCM Equivalent Fibers-US	19.7	0.00114	0.000310 - 0.00292	4
PCM Equivalent Structures-US	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL ASB STRUCS >10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000851	0.00 - 0.000851	0
AHERA-like Total Structures 3:1	49.3	0.00285	0.00137 - 0.00524	10
AHERA-like Asb Strucs >5 and 3:1	39.4	0.00228	0.000984 - 0.00449	8
AHERA-like Asb Strucs 5 - 10 and 3:1	14.8	0.000854	0.00 - 0.00221	3
AHERA-like Asb Strucs >10 and 3:1	24.6	0.00142	0.000462 - 0.00332	5
Total Other Amphibole Strucs 3:1	0.0	<0.000851	0.00 - 0.000851	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000851	0.00 - 0.000851	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000851	0.00 - 0.000851	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000851	0.00 - 0.000851	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S18 A1
Client Sample No. LC-SRA-R04-100704
Description
Analysis Date 11/29/2004
Analyst JH

Volume (L) 6136.4
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000289
Dectection Limit. (struc/cc) 0.000863

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	18.4	0.00115	0.000315 - 0.00296	4
Total Asbestos Structures	18.4	0.00115	0.000315 - 0.00296	4
Asbestos Structures > 5um	18.4	0.00115	0.000315 - 0.00296	4
Asbestos Fibers and Bundles > 5um	13.8	0.000866	0.00 - 0.00224	3
PCM Equivalent Fibers-US	13.8	0.000866	0.00 - 0.00224	3
PCM Equivalent Structures-US	13.8	0.000866	0.00 - 0.00224	3
PROTOCOL ASB STRUCS 5-10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL ASB STRUCS >10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000863	0.00 - 0.000863	0
AHERA-like Total Structures 3:1	18.4	0.00115	0.000315 - 0.00296	4
AHERA-like Asb Strucs >5 and 3:1	18.4	0.00115	0.000315 - 0.00296	4
AHERA-like Asb Strucs 5 - 10 and 3:1	9.2	0.000577	0.00 - 0.00182	2
AHERA-like Asb Strucs >10 and 3:1	9.2	0.000577	0.00 - 0.00182	2
Total Other Amphibole Strucs 3:1	0.0	<0.000863	0.00 - 0.000863	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000863	0.00 - 0.000863	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000863	0.00 - 0.000863	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000863	0.00 - 0.000863	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S19 A1
Client Sample No. LC-SRA-R03-100704
Description
Analysis Date 11/29/2004
Analyst JH

Volume (L) 5885.4
No. of Grid Openings 16
Filter Area (mm2) 385
Area Analyzed (mm2) 0.232
Analytical Sens. (struc/cc) 0.000282
Dectection Limit. (struc/cc) 0.000844

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	4.3	0.000282	0.00 - 0.00134	1
Total Asbestos Structures	4.3	0.000282	0.00 - 0.00134	1
Asbestos Structures > 5um	0.0	<0.000844	0.00 - 0.000844	0
Asbestos Fibers and Bundles > 5um	0.0	<0.000844	0.00 - 0.000844	0
PCM Equivalent Fibers-US	0.0	<0.000844	0.00 - 0.000844	0
PCM Equivalent Structures-US	0.0	<0.000844	0.00 - 0.000844	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000844	0.00 - 0.000844	0
PROTOCOL ASB STRUCS >10	0.0	<0.000844	0.00 - 0.000844	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000844	0.00 - 0.000844	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000844	0.00 - 0.000844	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000844	0.00 - 0.000844	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000844	0.00 - 0.000844	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000844	0.00 - 0.000844	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000844	0.00 - 0.000844	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000844	0.00 - 0.000844	0
AHERA-like Total Structures 3:1	4.3	0.000282	0.00 - 0.00134	1
AHERA-like Asb Strucs >5 and 3:1	0.0	<0.000844	0.00 - 0.000844	0
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000844	0.00 - 0.000844	0
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000844	0.00 - 0.000844	0
Total Other Amphibole Strucs 3:1	0.0	<0.000844	0.00 - 0.000844	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000844	0.00 - 0.000844	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000844	0.00 - 0.000844	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000844	0.00 - 0.000844	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S20 A1
Client Sample No. LC-SRA-R05-100704
Description
Analysis Date 11/29/2004
Analyst JH

Volume (L) 5817.4
No. of Grid Openings 16
Filter Area (mm2) 385
Area Analyzed (mm2) 0.232
Analytical Sens. (struc/cc) 0.000285
Dectection Limit. (struc/cc) 0.000854

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	12.9	0.000856	0.00 - 0.00221	3
Total Asbestos Structures	12.9	0.000856	0.00 - 0.00221	3
Asbestos Structures > 5um	4.3	0.000285	0.00 - 0.00135	1
Asbestos Fibers and Bundles > 5um	4.3	0.000285	0.00 - 0.00135	1
PCM Equivalent Fibers-US	4.3	0.000285	0.00 - 0.00135	1
PCM Equivalent Structures-US	4.3	0.000285	0.00 - 0.00135	1
PROTOCOL ASB STRUCS 5-10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL ASB STRUCS >10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000854	0.00 - 0.000854	0
AHERA-like Total Structures 3:1	12.9	0.000856	0.00 - 0.00221	3
AHERA-like Asb Strucs >5 and 3:1	4.3	0.000285	0.00 - 0.00135	1
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000854	0.00 - 0.000854	0
AHERA-like Asb Strucs >10 and 3:1	4.3	0.000285	0.00 - 0.00135	1
Total Other Amphibole Strucs 3:1	0.0	<0.000854	0.00 - 0.000854	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000854	0.00 - 0.000854	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000854	0.00 - 0.000854	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000854	0.00 - 0.000854	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S21 A1
Client Sample No. LC-SRA-R02-100704
Description
Analysis Date 11/28/2004
Analyst TM

Volume (L) 6603.3
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000287
Dectection Limit. (struc/cc) 0.000859

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	69.0	0.00402	0.00220 - 0.00675	14
Total Asbestos Structures	69.0	0.00402	0.00220 - 0.00675	14
Asbestos Structures > 5um	19.7	0.00115	0.000313 - 0.00294	4
Asbestos Fibers and Bundles > 5um	14.8	0.000862	0.00 - 0.00223	3
PCM Equivalent Fibers-US	9.9	0.000575	0.00 - 0.00181	2
PCM Equivalent Structures-US	9.9	0.000575	0.00 - 0.00181	2
PROTOCOL ASB STRUCS 5-10	0.0	<0.000859	0.00 - 0.000859	0
PROTOCOL ASB STRUCS >10	0.0	<0.000859	0.00 - 0.000859	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000859	0.00 - 0.000859	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000859	0.00 - 0.000859	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000859	0.00 - 0.000859	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000859	0.00 - 0.000859	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000859	0.00 - 0.000859	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000859	0.00 - 0.000859	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000859	0.00 - 0.000859	0
AHERA-like Total Structures 3:1	69.0	0.00402	0.00220 - 0.00675	14
AHERA-like Asb Strucs >5 and 3:1	19.7	0.00115	0.000313 - 0.00294	4
AHERA-like Asb Strucs 5 - 10 and 3:1	14.8	0.000862	0.00 - 0.00223	3
AHERA-like Asb Strucs >10 and 3:1	4.9	0.000287	0.00 - 0.00136	1
Total Other Amphibole Strucs 3:1	0.0	<0.000859	0.00 - 0.000859	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000859	0.00 - 0.000859	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000859	0.00 - 0.000859	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000859	0.00 - 0.000859	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S23 A1
Client Sample No. LC-SRA-R103-100804
Description
Analysis Date 11/28/2004
Analyst TM

Volume (L) 6013.02
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000295
Dectection Limit. (struc/cc) 0.000881

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	64.4	0.00412	0.00225 - 0.00692	14
Total Asbestos Structures	64.4	0.00412	0.00225 - 0.00692	14
Asbestos Structures > 5um	13.8	0.000884	0.00 - 0.00228	3
Asbestos Fibers and Bundles > 5um	13.8	0.000884	0.00 - 0.00228	3
PCM Equivalent Fibers-US	13.8	0.000884	0.00 - 0.00228	3
PCM Equivalent Structures-US	4.6	0.000295	0.00 - 0.00140	1
PROTOCOL ASB STRUCS 5-10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL ASB STRUCS >10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000881	0.00 - 0.000881	0
AHERA-like Total Structures 3:1	64.4	0.00412	0.00225 - 0.00692	14
AHERA-like Asb Strucs >5 and 3:1	13.8	0.000884	0.00 - 0.00228	3
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000881	0.00 - 0.000881	0
AHERA-like Asb Strucs >10 and 3:1	13.8	0.000884	0.00 - 0.00228	3
Total Other Amphibole Strucs 3:1	0.0	<0.000881	0.00 - 0.000881	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000881	0.00 - 0.000881	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000881	0.00 - 0.000881	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000881	0.00 - 0.000881	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S24 A1
Client Sample No. LC-SRA-R04-100804
Description
Analysis Date 11/29/2004
Analyst DW

Volume (L) 6279
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000282
Dectection Limit. (struc/cc) 0.000843

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	27.6	0.00169	0.000621 - 0.00368	6
Total Asbestos Structures	27.6	0.00169	0.000621 - 0.00368	6
Asbestos Structures > 5um	13.8	0.000846	0.00 - 0.00219	3
Asbestos Fibers and Bundles > 5um	13.8	0.000846	0.00 - 0.00219	3
PCM Equivalent Fibers-US	13.8	0.000846	0.00 - 0.00219	3
PCM Equivalent Structures-US	9.2	0.000564	0.00 - 0.00178	2
PROTOCOL ASB STRUCS 5-10	0.0	<0.000843	0.00 - 0.000843	0
PROTOCOL ASB STRUCS >10	0.0	<0.000843	0.00 - 0.000843	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000843	0.00 - 0.000843	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000843	0.00 - 0.000843	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000843	0.00 - 0.000843	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000843	0.00 - 0.000843	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000843	0.00 - 0.000843	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000843	0.00 - 0.000843	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000843	0.00 - 0.000843	0
AHERA-like Total Structures 3:1	27.6	0.00169	0.000621 - 0.00368	6
AHERA-like Asb Strucs >5 and 3:1	13.8	0.000846	0.00 - 0.00219	3
AHERA-like Asb Strucs 5 - 10 and 3:1	13.8	0.000846	0.00 - 0.00219	3
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000843	0.00 - 0.000843	0
Total Other Amphibole Strucs 3:1	0.0	<0.000843	0.00 - 0.000843	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000843	0.00 - 0.000843	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000843	0.00 - 0.000843	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000843	0.00 - 0.000843	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S25 A1
Client Sample No. LC-SRA-R05-100804
Description
Analysis Date 11/29/2004
Analyst DW

Volume (L) 6056.12
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000292
Dectection Limit. (struc/cc) 0.000875

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	32.2	0.00205	0.000823 - 0.00422	7
Total Asbestos Structures	32.2	0.00205	0.000823 - 0.00422	7
Asbestos Structures > 5um	27.6	0.00175	0.000644 - 0.00382	6
Asbestos Fibers and Bundles > 5um	23.0	0.00146	0.000475 - 0.00341	5
PCM Equivalent Fibers-US	23.0	0.00146	0.000475 - 0.00341	5
PCM Equivalent Structures-US	13.8	0.000877	0.00 - 0.00227	3
PROTOCOL ASB STRUCS 5-10	0.0	<0.000875	0.00 - 0.000875	0
PROTOCOL ASB STRUCS >10	0.0	<0.000875	0.00 - 0.000875	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000875	0.00 - 0.000875	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000875	0.00 - 0.000875	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000875	0.00 - 0.000875	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000875	0.00 - 0.000875	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000875	0.00 - 0.000875	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000875	0.00 - 0.000875	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000875	0.00 - 0.000875	0
AHERA-like Total Structures 3:1	32.2	0.00205	0.000823 - 0.00422	7
AHERA-like Asb Strucs >5 and 3:1	27.6	0.00175	0.000644 - 0.00382	6
AHERA-like Asb Strucs 5 - 10 and 3:1	4.6	0.000292	0.00 - 0.00139	1
AHERA-like Asb Strucs >10 and 3:1	23.0	0.00146	0.000475 - 0.00341	5
Total Other Amphibole Strucs 3:1	0.0	<0.000875	0.00 - 0.000875	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000875	0.00 - 0.000875	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000875	0.00 - 0.000875	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000875	0.00 - 0.000875	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S26 A1
Client Sample No. LC-SRA-R02-100804
Description
Analysis Date 11/29/2004
Analyst DW

Volume (L) 6576.24
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000289
Dectection Limit. (struc/cc) 0.000863

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	49.3	0.00289	0.00138 - 0.00531	10
Total Asbestos Structures	54.2	0.00317	0.00158 - 0.00568	11
Asbestos Structures > 5um	34.5	0.00202	0.000812 - 0.00416	7
Asbestos Fibers and Bundles > 5um	29.6	0.00173	0.000635 - 0.00377	6
PCM Equivalent Fibers-US	29.6	0.00173	0.000635 - 0.00377	6
PCM Equivalent Structures-US	9.9	0.000577	0.00 - 0.00182	2
PROTOCOL ASB STRUCS 5-10	4.9	0.000289	0.00 - 0.00137	1
PROTOCOL ASB STRUCS >10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL ASB STRUCS TOTAL	4.9	0.000289	0.00 - 0.00137	1
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL AMPH STRUCS 5-10	4.9	0.000289	0.00 - 0.00137	1
PROTOCOL AMPH STRUCS >10	0.0	<0.000863	0.00 - 0.000863	0
PROTOCOL AMPH STRUCS TOTAL	4.9	0.000289	0.00 - 0.00137	1
AHERA-like Total Structures 3:1	49.3	0.00289	0.00138 - 0.00531	10
AHERA-like Asb Strucs >5 and 3:1	34.5	0.00202	0.000812 - 0.00416	7
AHERA-like Asb Strucs 5 - 10 and 3:1	14.8	0.000866	0.00 - 0.00224	3
AHERA-like Asb Strucs >10 and 3:1	19.7	0.00115	0.000315 - 0.00296	4
Total Other Amphibole Strucs 3:1	0.0	<0.000863	0.00 - 0.000863	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000863	0.00 - 0.000863	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000863	0.00 - 0.000863	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000863	0.00 - 0.000863	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S27 A1
Client Sample No. LC-SRA-R03-100804
Description
Analysis Date 11/29/2004
Analyst DW

Volume (L) 6001.16
No. of Grid Openings 15
Filter Area (mm2) 385
Area Analyzed (mm2) 0.217
Analytical Sens. (struc/cc) 0.000295
Dectection Limit. (struc/cc) 0.000883

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	9.2	0.000590	0.00 - 0.00186	2
Total Asbestos Structures	13.8	0.000885	0.00 - 0.00229	3
Asbestos Structures > 5um	9.2	0.000590	0.00 - 0.00186	2
Asbestos Fibers and Bundles > 5um	9.2	0.000590	0.00 - 0.00186	2
PCM Equivalent Fibers-US	9.2	0.000590	0.00 - 0.00186	2
PCM Equivalent Structures-US	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL ASB STRUCS >10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000883	0.00 - 0.000883	0
AHERA-like Total Structures 3:1	9.2	0.000590	0.00 - 0.00186	2
AHERA-like Asb Strucs >5 and 3:1	9.2	0.000590	0.00 - 0.00186	2
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000883	0.00 - 0.000883	0
AHERA-like Asb Strucs >10 and 3:1	9.2	0.000590	0.00 - 0.00186	2
Total Other Amphibole Strucs 3:1	0.0	<0.000883	0.00 - 0.000883	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000883	0.00 - 0.000883	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000883	0.00 - 0.000883	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000883	0.00 - 0.000883	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S28 A1
Client Sample No. LC-SRA-R01-100804
Description
Analysis Date 11/29/2004
Analyst DW

Volume (L) 6428.76
No. of Grid Openings 14
Filter Area (mm2) 385
Area Analyzed (mm2) 0.203
Analytical Sens. (struc/cc) 0.000295
Dectection Limit. (struc/cc) 0.000883

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	19.7	0.00118	0.000322 - 0.00302	4
Total Asbestos Structures	19.7	0.00118	0.000322 - 0.00302	4
Asbestos Structures > 5um	14.8	0.000886	0.00 - 0.00229	3
Asbestos Fibers and Bundles > 5um	9.9	0.000590	0.00 - 0.00186	2
PCM Equivalent Fibers-US	9.9	0.000590	0.00 - 0.00186	2
PCM Equivalent Structures-US	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL ASB STRUCS >10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000883	0.00 - 0.000883	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000883	0.00 - 0.000883	0
AHERA-like Total Structures 3:1	19.7	0.00118	0.000322 - 0.00302	4
AHERA-like Asb Strucs >5 and 3:1	14.8	0.000886	0.00 - 0.00229	3
AHERA-like Asb Strucs 5 - 10 and 3:1	9.9	0.000590	0.00 - 0.00186	2
AHERA-like Asb Strucs >10 and 3:1	4.9	0.000295	0.00 - 0.00140	1
Total Other Amphibole Strucs 3:1	0.0	<0.000883	0.00 - 0.000883	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000883	0.00 - 0.000883	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000883	0.00 - 0.000883	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000883	0.00 - 0.000883	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S29 A1
Client Sample No. LC-NRA-R01-100904
Description
Analysis Date 11/29/2004
Analyst DW

Volume (L) 5469.04
No. of Grid Openings 17
Filter Area (mm2) 385
Area Analyzed (mm2) 0.246
Analytical Sens. (struc/cc) 0.000286
Dectection Limit. (struc/cc) 0.000854

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	0.0	<0.000854	0.00 - 0.000854	0
Total Asbestos Structures	0.0	<0.000854	0.00 - 0.000854	0
Asbestos Structures > 5um	0.0	<0.000854	0.00 - 0.000854	0
Asbestos Fibers and Bundles > 5um	0.0	<0.000854	0.00 - 0.000854	0
PCM Equivalent Fibers-US	0.0	<0.000854	0.00 - 0.000854	0
PCM Equivalent Structures-US	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL ASB STRUCS >10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000854	0.00 - 0.000854	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000854	0.00 - 0.000854	0
AHERA-like Total Structures 3:1	0.0	<0.000854	0.00 - 0.000854	0
AHERA-like Asb Strucs >5 and 3:1	0.0	<0.000854	0.00 - 0.000854	0
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000854	0.00 - 0.000854	0
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000854	0.00 - 0.000854	0
Total Other Amphibole Strucs 3:1	0.0	<0.000854	0.00 - 0.000854	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000854	0.00 - 0.000854	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000854	0.00 - 0.000854	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000854	0.00 - 0.000854	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S30 A1
Client Sample No. LC-NRA-R02-100904
Description
Analysis Date 11/30/2004
Analyst DW

Volume (L) 5314.8
No. of Grid Openings 17
Filter Area (mm2) 385
Area Analyzed (mm2) 0.246
Analytical Sens. (struc/cc) 0.000294
Dectection Limit. (struc/cc) 0.000879

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	16.2	0.00118	0.000321 - 0.00301	4
Total Asbestos Structures	20.3	0.00147	0.000478 - 0.00343	5
Asbestos Structures > 5um	12.2	0.000882	0.00 - 0.00228	3
Asbestos Fibers and Bundles > 5um	8.1	0.000588	0.00 - 0.00185	2
PCM Equivalent Fibers-US	8.1	0.000588	0.00 - 0.00185	2
PCM Equivalent Structures-US	0.0	<0.000879	0.00 - 0.000879	0
PROTOCOL ASB STRUCS 5-10	4.1	0.000294	0.00 - 0.00139	1
PROTOCOL ASB STRUCS >10	0.0	<0.000879	0.00 - 0.000879	0
PROTOCOL ASB STRUCS TOTAL	4.1	0.000294	0.00 - 0.00139	1
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000879	0.00 - 0.000879	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000879	0.00 - 0.000879	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000879	0.00 - 0.000879	0
PROTOCOL AMPH STRUCS 5-10	4.1	0.000294	0.00 - 0.00139	1
PROTOCOL AMPH STRUCS >10	0.0	<0.000879	0.00 - 0.000879	0
PROTOCOL AMPH STRUCS TOTAL	4.1	0.000294	0.00 - 0.00139	1
AHERA-like Total Structures 3:1	16.2	0.00118	0.000321 - 0.00301	4
AHERA-like Asb Strucs >5 and 3:1	12.2	0.000882	0.00 - 0.00228	3
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000879	0.00 - 0.000879	0
AHERA-like Asb Strucs >10 and 3:1	12.2	0.000882	0.00 - 0.00228	3
Total Other Amphibole Strucs 3:1	0.0	<0.000879	0.00 - 0.000879	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000879	0.00 - 0.000879	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000879	0.00 - 0.000879	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000879	0.00 - 0.000879	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S31 A1
Client Sample No. LC-NRA-R04-100904
Description
Analysis Date 11/30/2004
Analyst DW

Volume (L) 4830.75
No. of Grid Openings 19
Filter Area (mm2) 385
Area Analyzed (mm2) 0.275
Analytical Sens. (struc/cc) 0.000289
Dectection Limit. (struc/cc) 0.000866

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	18.2	0.00145	0.000470 - 0.00338	5
Total Asbestos Structures	18.2	0.00145	0.000470 - 0.00338	5
Asbestos Structures > 5um	0.0	<0.000866	0.00 - 0.000866	0
Asbestos Fibers and Bundles > 5um	0.0	<0.000866	0.00 - 0.000866	0
PCM Equivalent Fibers-US	0.0	<0.000866	0.00 - 0.000866	0
PCM Equivalent Structures-US	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL ASB STRUCS >10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000866	0.00 - 0.000866	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000866	0.00 - 0.000866	0
AHERA-like Total Structures 3:1	18.2	0.00145	0.000470 - 0.00338	5
AHERA-like Asb Strucs >5 and 3:1	0.0	<0.000866	0.00 - 0.000866	0
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000866	0.00 - 0.000866	0
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000866	0.00 - 0.000866	0
Total Other Amphibole Strucs 3:1	0.0	<0.000866	0.00 - 0.000866	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000866	0.00 - 0.000866	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000866	0.00 - 0.000866	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000866	0.00 - 0.000866	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S32 A1
Client Sample No. LC-NRA-R05-100904
Description
Analysis Date 11/30/2004
Analyst DW

Volume (L) 4563
No. of Grid Openings 20
Filter Area (mm2) 385
Area Analyzed (mm2) 0.290
Analytical Sens. (struc/cc) 0.000291
Dectection Limit. (struc/cc) 0.000871

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	24.2	0.00204	0.000819 - 0.00420	7
Total Asbestos Structures	24.2	0.00204	0.000819 - 0.00420	7
Asbestos Structures > 5um	6.9	0.000582	0.00 - 0.00183	2
Asbestos Fibers and Bundles > 5um	6.9	0.000582	0.00 - 0.00183	2
PCM Equivalent Fibers-US	6.9	0.000582	0.00 - 0.00183	2
PCM Equivalent Structures-US	6.9	0.000582	0.00 - 0.00183	2
PROTOCOL ASB STRUCS 5-10	0.0	<0.000871	0.00 - 0.000871	0
PROTOCOL ASB STRUCS >10	0.0	<0.000871	0.00 - 0.000871	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000871	0.00 - 0.000871	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000871	0.00 - 0.000871	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000871	0.00 - 0.000871	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000871	0.00 - 0.000871	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000871	0.00 - 0.000871	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000871	0.00 - 0.000871	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000871	0.00 - 0.000871	0
AHERA-like Total Structures 3:1	24.2	0.00204	0.000819 - 0.00420	7
AHERA-like Asb Strucs >5 and 3:1	6.9	0.000582	0.00 - 0.00183	2
AHERA-like Asb Strucs 5 - 10 and 3:1	6.9	0.000582	0.00 - 0.00183	2
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000871	0.00 - 0.000871	0
Total Other Amphibole Strucs 3:1	0.0	<0.000871	0.00 - 0.000871	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000871	0.00 - 0.000871	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000871	0.00 - 0.000871	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000871	0.00 - 0.000871	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S33 A1
Client Sample No. LC-NRA-R03-100904
Description
Analysis Date 11/30/2004
Analyst JH

Volume (L) 5014.35
No. of Grid Openings 18
Filter Area (mm2) 385
Area Analyzed (mm2) 0.261
Analytical Sens. (struc/cc) 0.000294
Dectection Limit. (struc/cc) 0.000880

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	0.0	<0.000880	0.00 - 0.000880	0
Total Asbestos Structures	0.0	<0.000880	0.00 - 0.000880	0
Asbestos Structures > 5um	0.0	<0.000880	0.00 - 0.000880	0
Asbestos Fibers and Bundles > 5um	0.0	<0.000880	0.00 - 0.000880	0
PCM Equivalent Fibers-US	0.0	<0.000880	0.00 - 0.000880	0
PCM Equivalent Structures-US	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL ASB STRUCS >10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000880	0.00 - 0.000880	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000880	0.00 - 0.000880	0
AHERA-like Total Structures 3:1	0.0	<0.000880	0.00 - 0.000880	0
AHERA-like Asb Strucs >5 and 3:1	0.0	<0.000880	0.00 - 0.000880	0
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000880	0.00 - 0.000880	0
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000880	0.00 - 0.000880	0
Total Other Amphibole Strucs 3:1	0.0	<0.000880	0.00 - 0.000880	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000880	0.00 - 0.000880	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000880	0.00 - 0.000880	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000880	0.00 - 0.000880	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S34 A1
Client Sample No. LC-NRA-R101-101004
Description
Analysis Date 11/30/2004
Analyst JH

Volume (L) 5268.5
No. of Grid Openings 17
Filter Area (mm2) 385
Area Analyzed (mm2) 0.246
Analytical Sens. (struc/cc) 0.000297
Dectection Limit. (struc/cc) 0.000887

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	16.2	0.00119	0.000323 - 0.00304	4
Total Asbestos Structures	16.2	0.00119	0.000323 - 0.00304	4
Asbestos Structures > 5um	16.2	0.00119	0.000323 - 0.00304	4
Asbestos Fibers and Bundles > 5um	16.2	0.00119	0.000323 - 0.00304	4
PCM Equivalent Fibers-US	8.1	0.000593	0.00 - 0.00187	2
PCM Equivalent Structures-US	8.1	0.000593	0.00 - 0.00187	2
PROTOCOL ASB STRUCS 5-10	4.1	0.000297	0.00 - 0.00141	1
PROTOCOL ASB STRUCS >10	0.0	<0.000887	0.00 - 0.000887	0
PROTOCOL ASB STRUCS TOTAL	4.1	0.000297	0.00 - 0.00141	1
PROTOCOL CHRYS STRUCS 5-10	4.1	0.000297	0.00 - 0.00141	1
PROTOCOL CHRYS STRUCS >10	0.0	<0.000887	0.00 - 0.000887	0
PROTOCOL CHRYS STRUCS TOTAL	4.1	0.000297	0.00 - 0.00141	1
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000887	0.00 - 0.000887	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000887	0.00 - 0.000887	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000887	0.00 - 0.000887	0
AHERA-like Total Structures 3:1	16.2	0.00119	0.000323 - 0.00304	4
AHERA-like Asb Strucs >5 and 3:1	16.2	0.00119	0.000323 - 0.00304	4
AHERA-like Asb Strucs 5 - 10 and 3:1	12.2	0.000890	0.00 - 0.00230	3
AHERA-like Asb Strucs >10 and 3:1	4.1	0.000297	0.00 - 0.00141	1
Total Other Amphibole Strucs 3:1	0.0	<0.000887	0.00 - 0.000887	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000887	0.00 - 0.000887	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000887	0.00 - 0.000887	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000887	0.00 - 0.000887	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S35 A1
Client Sample No. LC-NRA-R01-101004
Description
Analysis Date 11/30/2004
Analyst JH

Volume (L) 5186.26
No. of Grid Openings 18
Filter Area (mm2) 385
Area Analyzed (mm2) 0.261
Analytical Sens. (struc/cc) 0.000285
Dectection Limit. (struc/cc) 0.000851

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	19.2	0.00142	0.000462 - 0.00332	5
Total Asbestos Structures	19.2	0.00142	0.000462 - 0.00332	5
Asbestos Structures > 5um	19.2	0.00142	0.000462 - 0.00332	5
Asbestos Fibers and Bundles > 5um	19.2	0.00142	0.000462 - 0.00332	5
PCM Equivalent Fibers-US	19.2	0.00142	0.000462 - 0.00332	5
PCM Equivalent Structures-US	15.3	0.00114	0.000310 - 0.00292	4
PROTOCOL ASB STRUCS 5-10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL ASB STRUCS >10	3.8	0.000285	0.00 - 0.00135	1
PROTOCOL ASB STRUCS TOTAL	3.8	0.000285	0.00 - 0.00135	1
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000851	0.00 - 0.000851	0
PROTOCOL AMPH STRUCS >10	3.8	0.000285	0.00 - 0.00135	1
PROTOCOL AMPH STRUCS TOTAL	3.8	0.000285	0.00 - 0.00135	1
AHERA-like Total Structures 3:1	19.2	0.00142	0.000462 - 0.00332	5
AHERA-like Asb Strucs >5 and 3:1	19.2	0.00142	0.000462 - 0.00332	5
AHERA-like Asb Strucs 5 - 10 and 3:1	11.5	0.000854	0.00 - 0.00221	3
AHERA-like Asb Strucs >10 and 3:1	7.7	0.000569	0.00 - 0.00179	2
Total Other Amphibole Strucs 3:1	0.0	<0.000851	0.00 - 0.000851	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000851	0.00 - 0.000851	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000851	0.00 - 0.000851	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000851	0.00 - 0.000851	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S36 A1
Client Sample No. LC-NRA-R05-101004
Description
Analysis Date 11/30/2004
Analyst JH

Volume (L) 4791.6
No. of Grid Openings 19
Filter Area (mm2) 385
Area Analyzed (mm2) 0.275
Analytical Sens. (struc/cc) 0.000292
Dectection Limit. (struc/cc) 0.000873

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	29.1	0.00233	0.00101 - 0.00460	8
Total Asbestos Structures	29.1	0.00233	0.00101 - 0.00460	8
Asbestos Structures > 5um	10.9	0.000876	0.00 - 0.00226	3
Asbestos Fibers and Bundles > 5um	7.3	0.000584	0.00 - 0.00184	2
PCM Equivalent Fibers-US	10.9	0.000876	0.00 - 0.00226	3
PCM Equivalent Structures-US	10.9	0.000876	0.00 - 0.00226	3
PROTOCOL ASB STRUCS 5-10	3.6	0.000292	0.00 - 0.00138	1
PROTOCOL ASB STRUCS >10	0.0	<0.000873	0.00 - 0.000873	0
PROTOCOL ASB STRUCS TOTAL	3.6	0.000292	0.00 - 0.00138	1
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000873	0.00 - 0.000873	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000873	0.00 - 0.000873	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000873	0.00 - 0.000873	0
PROTOCOL AMPH STRUCS 5-10	3.6	0.000292	0.00 - 0.00138	1
PROTOCOL AMPH STRUCS >10	0.0	<0.000873	0.00 - 0.000873	0
PROTOCOL AMPH STRUCS TOTAL	3.6	0.000292	0.00 - 0.00138	1
AHERA-like Total Structures 3:1	29.1	0.00233	0.00101 - 0.00460	8
AHERA-like Asb Strucs >5 and 3:1	10.9	0.000876	0.00 - 0.00226	3
AHERA-like Asb Strucs 5 - 10 and 3:1	10.9	0.000876	0.00 - 0.00226	3
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000873	0.00 - 0.000873	0
Total Other Amphibole Strucs 3:1	0.0	<0.000873	0.00 - 0.000873	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000873	0.00 - 0.000873	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000873	0.00 - 0.000873	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000873	0.00 - 0.000873	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S37 A1
Client Sample No. LC-NRA-R04-101004
Description
Analysis Date 11/30/2004
Analyst JH

Volume (L) 4919.34
No. of Grid Openings 19
Filter Area (mm2) 385
Area Analyzed (mm2) 0.275
Analytical Sens. (struc/cc) 0.000284
Dectection Limit. (struc/cc) 0.000850

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	14.5	0.00114	0.000310 - 0.00291	4
Total Asbestos Structures	14.5	0.00114	0.000310 - 0.00291	4
Asbestos Structures > 5um	7.3	0.000569	0.00 - 0.00179	2
Asbestos Fibers and Bundles > 5um	3.6	0.000284	0.00 - 0.00135	1
PCM Equivalent Fibers-US	3.6	0.000284	0.00 - 0.00135	1
PCM Equivalent Structures-US	3.6	0.000284	0.00 - 0.00135	1
PROTOCOL ASB STRUCS 5-10	0.0	<0.000850	0.00 - 0.000850	0
PROTOCOL ASB STRUCS >10	0.0	<0.000850	0.00 - 0.000850	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000850	0.00 - 0.000850	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000850	0.00 - 0.000850	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000850	0.00 - 0.000850	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000850	0.00 - 0.000850	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000850	0.00 - 0.000850	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000850	0.00 - 0.000850	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000850	0.00 - 0.000850	0
AHERA-like Total Structures 3:1	14.5	0.00114	0.000310 - 0.00291	4
AHERA-like Asb Strucs >5 and 3:1	7.3	0.000569	0.00 - 0.00179	2
AHERA-like Asb Strucs 5 - 10 and 3:1	7.3	0.000569	0.00 - 0.00179	2
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000850	0.00 - 0.000850	0
Total Other Amphibole Strucs 3:1	0.0	<0.000850	0.00 - 0.000850	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000850	0.00 - 0.000850	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000850	0.00 - 0.000850	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000850	0.00 - 0.000850	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S38 A1
Client Sample No. LC-NRA-R03-101004
Description
Analysis Date 11/30/2004
Analyst DW

Volume (L) 5024.93
No. of Grid Openings 18
Filter Area (mm2) 385
Area Analyzed (mm2) 0.261
Analytical Sens. (struc/cc) 0.000294
Dectection Limit. (struc/cc) 0.000878

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	69.0	0.00529	0.00313 - 0.00836	18
Total Asbestos Structures	69.0	0.00529	0.00313 - 0.00836	18
Asbestos Structures > 5um	30.7	0.00235	0.00101 - 0.00463	8
Asbestos Fibers and Bundles > 5um	19.2	0.00147	0.000477 - 0.00343	5
PCM Equivalent Fibers-US	15.3	0.00118	0.000320 - 0.00301	4
PCM Equivalent Structures-US	3.8	0.000294	0.00 - 0.00139	1
PROTOCOL ASB STRUCS 5-10	0.0	<0.000878	0.00 - 0.000878	0
PROTOCOL ASB STRUCS >10	0.0	<0.000878	0.00 - 0.000878	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000878	0.00 - 0.000878	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000878	0.00 - 0.000878	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000878	0.00 - 0.000878	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000878	0.00 - 0.000878	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000878	0.00 - 0.000878	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000878	0.00 - 0.000878	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000878	0.00 - 0.000878	0
AHERA-like Total Structures 3:1	69.0	0.00529	0.00313 - 0.00836	18
AHERA-like Asb Strucs >5 and 3:1	30.7	0.00235	0.00101 - 0.00463	8
AHERA-like Asb Strucs 5 - 10 and 3:1	15.3	0.00118	0.000320 - 0.00301	4
AHERA-like Asb Strucs >10 and 3:1	15.3	0.00118	0.000320 - 0.00301	4
Total Other Amphibole Strucs 3:1	0.0	<0.000878	0.00 - 0.000878	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000878	0.00 - 0.000878	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000878	0.00 - 0.000878	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000878	0.00 - 0.000878	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S39 A1
Client Sample No. LC-NRA-R02-101004
Description
Analysis Date 11/30/2004
Analyst DW

Volume (L) 5049
No. of Grid Openings 18
Filter Area (mm2) 385
Area Analyzed (mm2) 0.261
Analytical Sens. (struc/cc) 0.000292
Dectection Limit. (struc/cc) 0.000874

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	26.8	0.00205	0.000823 - 0.00422	7
Total Asbestos Structures	26.8	0.00205	0.000823 - 0.00422	7
Asbestos Structures > 5um	23.0	0.00175	0.000644 - 0.00382	6
Asbestos Fibers and Bundles > 5um	15.3	0.00117	0.000319 - 0.00299	4
PCM Equivalent Fibers-US	19.2	0.00146	0.000475 - 0.00341	5
PCM Equivalent Structures-US	19.2	0.00146	0.000475 - 0.00341	5
PROTOCOL ASB STRUCS 5-10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL ASB STRUCS >10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000874	0.00 - 0.000874	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000874	0.00 - 0.000874	0
AHERA-like Total Structures 3:1	26.8	0.00205	0.000823 - 0.00422	7
AHERA-like Asb Strucs >5 and 3:1	23.0	0.00175	0.000644 - 0.00382	6
AHERA-like Asb Strucs 5 - 10 and 3:1	15.3	0.00117	0.000319 - 0.00299	4
AHERA-like Asb Strucs >10 and 3:1	7.7	0.000585	0.00 - 0.00184	2
Total Other Amphibole Strucs 3:1	0.0	<0.000874	0.00 - 0.000874	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000874	0.00 - 0.000874	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000874	0.00 - 0.000874	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000874	0.00 - 0.000874	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S40 A1
Client Sample No. LC-NRA-R03-101104
Description
Analysis Date 12/1/2004
Analyst KM

Volume (L) 5589
No. of Grid Openings 16
Filter Area (mm2) 385
Area Analyzed (mm2) 0.232
Analytical Sens. (struc/cc) 0.000297
Dectection Limit. (struc/cc) 0.000888

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	90.6	0.00624	0.00386 - 0.00954	21
Total Asbestos Structures	107.8	0.00743	0.00481 - 0.0110	25
Asbestos Structures > 5um	38.8	0.00267	0.00122 - 0.00508	9
Asbestos Fibers and Bundles > 5um	21.6	0.00149	0.000483 - 0.00347	5
PCM Equivalent Fibers-US	17.3	0.00119	0.000324 - 0.00304	4
PCM Equivalent Structures-US	12.9	0.000891	0.00 - 0.00230	3
PROTOCOL ASB STRUCS 5-10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL ASB STRUCS >10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000888	0.00 - 0.000888	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000888	0.00 - 0.000888	0
AHERA-like Total Structures 3:1	90.6	0.00624	0.00386 - 0.00954	21
AHERA-like Asb Strucs >5 and 3:1	38.8	0.00267	0.00122 - 0.00508	9
AHERA-like Asb Strucs 5 - 10 and 3:1	12.9	0.000891	0.00 - 0.00230	3
AHERA-like Asb Strucs >10 and 3:1	25.9	0.00178	0.000654 - 0.00388	6
Total Other Amphibole Strucs 3:1	0.0	<0.000888	0.00 - 0.000888	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000888	0.00 - 0.000888	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000888	0.00 - 0.000888	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000888	0.00 - 0.000888	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S41 A1
Client Sample No. LC-NRA-R04-101104
Description
Analysis Date 12/1/2004
Analyst JH

Volume (L) 5304
No. of Grid Openings 17
Filter Area (mm2) 385
Area Analyzed (mm2) 0.246
Analytical Sens. (struc/cc) 0.000295
Dectection Limit. (struc/cc) 0.000881

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	48.7	0.00354	0.00183 - 0.00618	12
Total Asbestos Structures	48.7	0.00354	0.00183 - 0.00618	12
Asbestos Structures > 5um	28.4	0.00206	0.000829 - 0.00425	7
Asbestos Fibers and Bundles > 5um	20.3	0.00147	0.000479 - 0.00344	5
PCM Equivalent Fibers-US	24.4	0.00177	0.000649 - 0.00385	6
PCM Equivalent Structures-US	24.4	0.00177	0.000649 - 0.00385	6
PROTOCOL ASB STRUCS 5-10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL ASB STRUCS >10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000881	0.00 - 0.000881	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000881	0.00 - 0.000881	0
AHERA-like Total Structures 3:1	48.7	0.00354	0.00183 - 0.00618	12
AHERA-like Asb Strucs >5 and 3:1	28.4	0.00206	0.000829 - 0.00425	7
AHERA-like Asb Strucs 5 - 10 and 3:1	28.4	0.00206	0.000829 - 0.00425	7
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000881	0.00 - 0.000881	0
Total Other Amphibole Strucs 3:1	0.0	<0.000881	0.00 - 0.000881	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000881	0.00 - 0.000881	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000881	0.00 - 0.000881	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000881	0.00 - 0.000881	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S42 A1
Client Sample No. LC-NRA-R05-101104
Description
Analysis Date 12/1/2004
Analyst KM

Volume (L) 4397.76
No. of Grid Openings 21
Filter Area (mm2) 385
Area Analyzed (mm2) 0.304
Analytical Sens. (struc/cc) 0.000288
Dectection Limit. (struc/cc) 0.000860

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	13.1	0.00115	0.000314 - 0.00295	4
Total Asbestos Structures	13.1	0.00115	0.000314 - 0.00295	4
Asbestos Structures > 5um	0.0	<0.000860	0.00 - 0.000860	0
Asbestos Fibers and Bundles > 5um	0.0	<0.000860	0.00 - 0.000860	0
PCM Equivalent Fibers-US	0.0	<0.000860	0.00 - 0.000860	0
PCM Equivalent Structures-US	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL ASB STRUCS 5-10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL ASB STRUCS >10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000860	0.00 - 0.000860	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000860	0.00 - 0.000860	0
AHERA-like Total Structures 3:1	13.1	0.00115	0.000314 - 0.00295	4
AHERA-like Asb Strucs >5 and 3:1	0.0	<0.000860	0.00 - 0.000860	0
AHERA-like Asb Strucs 5 - 10 and 3:1	0.0	<0.000860	0.00 - 0.000860	0
AHERA-like Asb Strucs >10 and 3:1	0.0	<0.000860	0.00 - 0.000860	0
Total Other Amphibole Strucs 3:1	0.0	<0.000860	0.00 - 0.000860	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000860	0.00 - 0.000860	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000860	0.00 - 0.000860	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000860	0.00 - 0.000860	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S43 A1
Client Sample No. LC-NRA-R01-101104
Description
Analysis Date 12/1/2004
Analyst KM

Volume (L) 5749.38
No. of Grid Openings 16
Filter Area (mm2) 385
Area Analyzed (mm2) 0.232
Analytical Sens. (struc/cc) 0.000289
Dectection Limit. (struc/cc) 0.000864

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	17.3	0.00116	0.000315 - 0.00296	4
Total Asbestos Structures	17.3	0.00116	0.000315 - 0.00296	4
Asbestos Structures > 5um	12.9	0.000867	0.00 - 0.00224	3
Asbestos Fibers and Bundles > 5um	12.9	0.000867	0.00 - 0.00224	3
PCM Equivalent Fibers-US	8.6	0.000578	0.00 - 0.00182	2
PCM Equivalent Structures-US	8.6	0.000578	0.00 - 0.00182	2
PROTOCOL ASB STRUCS 5-10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL ASB STRUCS >10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL ASB STRUCS TOTAL	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL AMPH STRUCS 5-10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL AMPH STRUCS >10	0.0	<0.000864	0.00 - 0.000864	0
PROTOCOL AMPH STRUCS TOTAL	0.0	<0.000864	0.00 - 0.000864	0
AHERA-like Total Structures 3:1	17.3	0.00116	0.000315 - 0.00296	4
AHERA-like Asb Strucs >5 and 3:1	12.9	0.000867	0.00 - 0.00224	3
AHERA-like Asb Strucs 5 - 10 and 3:1	4.3	0.000289	0.00 - 0.00137	1
AHERA-like Asb Strucs >10 and 3:1	8.6	0.000578	0.00 - 0.00182	2
Total Other Amphibole Strucs 3:1	0.0	<0.000864	0.00 - 0.000864	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000864	0.00 - 0.000864	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000864	0.00 - 0.000864	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000864	0.00 - 0.000864	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

ANALYSIS DETAIL

Lab/Cor Sample No. B4783 S44 A1
Client Sample No. LC-NRA-R02-101104
Description
Analysis Date 12/1/2004
Analyst JH

Volume (L) 5483.75
No. of Grid Openings 17
Filter Area (mm2) 385
Area Analyzed (mm2) 0.246
Analytical Sens. (struc/cc) 0.000285
Dectection Limit. (struc/cc) 0.000852

Structure Type	Filter Density (s/mm2)	Concen-tration (struc/cc)	95% Confidence Interval (struc/cc)	Struc. Count
Primary Asbestos Structures	36.5	0.00257	0.00117 - 0.00487	9
Total Asbestos Structures	36.5	0.00257	0.00117 - 0.00487	9
Asbestos Structures > 5um	24.4	0.00171	0.000628 - 0.00372	6
Asbestos Fibers and Bundles > 5um	24.4	0.00171	0.000628 - 0.00372	6
PCM Equivalent Fibers-US	24.4	0.00171	0.000628 - 0.00372	6
PCM Equivalent Structures-US	12.2	0.000855	0.00 - 0.00221	3
PROTOCOL ASB STRUCS 5-10	4.1	0.000285	0.00 - 0.00135	1
PROTOCOL ASB STRUCS >10	0.0	<0.000852	0.00 - 0.000852	0
PROTOCOL ASB STRUCS TOTAL	4.1	0.000285	0.00 - 0.00135	1
PROTOCOL CHRYS STRUCS 5-10	0.0	<0.000852	0.00 - 0.000852	0
PROTOCOL CHRYS STRUCS >10	0.0	<0.000852	0.00 - 0.000852	0
PROTOCOL CHRYS STRUCS TOTAL	0.0	<0.000852	0.00 - 0.000852	0
PROTOCOL AMPH STRUCS 5-10	4.1	0.000285	0.00 - 0.00135	1
PROTOCOL AMPH STRUCS >10	0.0	<0.000852	0.00 - 0.000852	0
PROTOCOL AMPH STRUCS TOTAL	4.1	0.000285	0.00 - 0.00135	1
AHERA-like Total Structures 3:1	36.5	0.00257	0.00117 - 0.00487	9
AHERA-like Asb Strucs >5 and 3:1	24.4	0.00171	0.000628 - 0.00372	6
AHERA-like Asb Strucs 5 - 10 and 3:1	12.2	0.000855	0.00 - 0.00221	3
AHERA-like Asb Strucs >10 and 3:1	12.2	0.000855	0.00 - 0.00221	3
Total Other Amphibole Strucs 3:1	0.0	<0.000852	0.00 - 0.000852	0
Other Amphibole Strucs >5 and 3:1	0.0	<0.000852	0.00 - 0.000852	0
Other Amphibole Strucs 5 - 10 and 3:1	0.0	<0.000852	0.00 - 0.000852	0
Other Amphibole Strucs >10 and 3:1	0.0	<0.000852	0.00 - 0.000852	0

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R01-100404 *Lab/Cor Sample No.:* B4783 S1 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24		NSD									
A	3	B4	AZQ	1		MD1-0	6	5	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	3	B4	AZQ		1	MF	1.5	0.15	10	5576	15436	Mg, Si, Ca, Fe Actinolite Zone Axis - [1 0 0] - DW	
A	4	C14		NSD									
A	5	C34		NSD									
A	6	C43		NSD									
A	7	C32		NSD									
A	8	C12		NSD									
A	9	B2		NSD									
A	10	B22		NSD									
B	11	B41		NSD									
B	12	B21		NSD									
B	13	B1		NSD									
B	14	C11		NSD									
B	15	C31		NSD									
B	16	C42	AQ	2		MD1-0	14	10	1.4			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	16	C42	AQ		2	MF	5	1.3	3.8			Mg, Al, Si, Ca, Fe Actinolite	
B	17	C22	AZQ	3	3	F	1.5	0.5	3.0	5578	15438	Mg, Si, Ca, Fe Actinolite Zone Axis - [3 -1 2] - DW	TAS_AHRA
B	18	C2		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R02-100404 *Lab/Cor Sample No.:* B4783 S2 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B43		NSD									
A	2	B23		NSD									
A	3	B3		NSD									
A	4	C13		NSD									
A	5	C33		NSD									
A	6	C42	AQ	1		MD1-0	3	1	3.0			Actinolite	TAS_AHRA
A	6	C42	AQ		1	MF	3	0.35	8.6		15468	Mg, Al, Si, Ca, Fe Actinolite	
A	7	C22		NSD									
A	8	C2		NSD									
A	9	B12		NSD									
A	10	B32		NSD									
B	11	A41		NSD									
B	12	A21		NSD									
B	13	A1		NSD									
B	14	D11	AQ	2		MD1-1	20	15	1.3			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	14	D11	AQ		2	MF	15	3	5.0			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	14	D11	AQ	3	3	F	7.5	1.5	5.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	15	D31		NSD									
B	16	D42		NSD									
B	17	D22		NSD									
B	18	D2	AZQ	4	4	F	9	0.5	18	1133	827	Mg, Al, Si, Ca, Fe Actinolite Zone Axis [3 0 5] - KM	AS>5, AFB>5, PCMEF-US, PCMES-US, PSAS 5-10, PSAS TOT, PSAM 5-10, PSAM TOT, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R03-100404 *Lab/Cor Sample No.:* B4783 S3 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24		NSD									
A	3	B4		NSD									
A	4	C14	AQ	1		MD1-0	7.5	5	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	4	C14	AQ		1	MF	5	0.75	6.7			Mg, Si, Ca, Fe Actinolite	
A	5	C34		NSD									
A	6	C43		NSD									
A	7	C32		NSD									
A	8	C12		NSD									
A	9	B2		NSD									
A	10	B22		NSD									
A	11	B42		NSD									
A	12	B31	AZQ	2	2	F	1.5	0.35	4.3	5579	15439	Mg, Si, Ca, Fe Actinolite Zone Axis - [3-1-1] - DW	TAS_AHRA
B	13	B43		NSD									
B	14	B23	AZQ	3	3	F	1.7	0.4	4.2	5580	15440	Mg, Si, Ca, Fe Actinolite Zone Axis - [3-1 2] - DW	TAS_AHRA
B	15	B3		NSD									
B	16	C23		NSD									
B	17	C33		NSD									
B	18	C43		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R04-100404 *Lab/Cor Sample No.:* B4783 S4 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24		NSD									
A	3	B4		NSD									
A	4	C14	AZQ	1		MD1-1	8	3	2.7			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	4	C14	AZQ		1	MF	8	0.9	8.9	1134	15469	Mg, Al, Si, Ca, Fe Actinolite Zone Axis [1 0 0] - KM	AFB>5, PCMEF-US
A	5	C34		NSD									
A	6	C43		NSD									
A	7	C32		NSD									
A	8	C12		NSD									
A	9	B2		NSD									
A	10	B22	AQ	2		MD2-1	30	15	2.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	10	B22	AQ		2	MB	6	1.3	4.6			Mg, Al, Si, Ca, Fe Actinolite	PCMEF-US
A	10	B22	AQ		3	MF	1.2	0.25	4.8			Mg, Al, Si, Ca, Fe Actinolite	
A	10	B22	AQ	3	4	F	2	0.25	8.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	10	B22	AQ	4		MD1-0	2	1	2.0			Actinolite	TAS_AHRA
A	10	B22	AQ		5	MF	1.5	0.5	3.0			Mg, Al, Si, Ca, Fe Actinolite	
B	11	A31	AQ	5	6	F	11	3	3.7			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	11	A31	AQ	6	7	F	4	0.75	5.3			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	12	A11	AQ	7		MD1-1	9	4	2.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	12	A11	AQ		8	MF	7.5	2	3.8			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	13	D1		NSD									
B	14	D21	AQ	8		MD1-0	10	10	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	14	D21	AQ		9	MF	5	0.75	6.7			Mg, Al, Si, Ca, Fe Actinolite	
B	15	D41		NSD									
B	16	D30		NSD									
B	17	D10	AQ	9		MD1-1	15	10	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	17	D10	AQ		10	MF	6	0.75	8.0			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	18	C20	AQ	10		MD1-0	15	15	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	18	C20	AQ		11	MF	5	1.1	4.5			Mg, Al, Si, Ca, Fe Actinolite	

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R05-100404 *Lab/Cor Sample No.:* B4783 S5 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B41		NSD									
A	2	B21		NSD									
A	3	B1		NSD									
A	4	C11		NSD									
A	5	C31		NSD									
A	6	C42		NSD									
A	7	C33		NSD									
A	8	C13		NSD									
A	9	B3		NSD									
A	10	B23		NSD									
A	11	B43	AZQ	1	1	F	4.5	0.5	9.0	1135	15470	Mg, Al, Si, Ca, Fe Actinolite Zone Axis [4 0 3] - KM	TAS_AHRA
B	12	A31		NSD									
B	13	A11	AQ	2		MD1-1	12	7.5	1.6			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	13	A11	AQ		2	MF	5.5	0.6	9.2			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	13	A11	AQ	3		MD1-0	20	12	1.7			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	13	A11	AQ		3	MF	2.5	0.8	3.1			Mg, Al, Si, Ca, Fe Actinolite	
B	14	D1		NSD									
B	15	D11		NSD									
B	16	D41		NSD									
B	17	C1		NSD									
B	18	C21		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R103-100504 *Lab/Cor Sample No.:* B4783 S6 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24	AZQ	1	1	F	5.5	0.8	6.9	5583	15441	Mg, Si, Ca, Fe Actinolite Zone Axis - [3 0 2] - DW	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	3	B4		NSD									
A	4	C14	AQ	2	2	F	6.25	0.75	8.3			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	4	C14	AQ	3		MD1-0	6	5.5	1.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	4	C14	AQ		3	MF	3.8	0.5	7.6			Mg, Al, Si, Ca, Fe Actinolite	
A	5	C34	AQ	4		MD1-0	2.5	0.9	2.8			Actinolite	TAS_AHRA
A	5	C34	AQ		4	MF	2.5	0.4	6.2			Mg, Al, Si, Ca, Fe Actinolite	
A	6	C43	AQ	5		MD1-0	9	5	1.8			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	6	C43	AQ		5	MF	4	0.3	13			Mg, Al, Si, Ca, Fe Actinolite	
A	7	C23		NSD									
A	8	C3	AQ	6	6	F	6.75	0.75	9.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	8	C3	AQ	7		MD1-1	19	11.5	1.7			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	8	C3	AQ		7	MF	14	2.5	5.6			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	9	B44	AQ	8		MD1-0	4.5	2	2.2			Actinolite	TAS_AHRA
B	9	B44	AQ		8	MF	2.6	0.25	10			Mg, Si, Ca, Fe Actinolite	
B	10	B24		NSD									
B	11	B4		NSD									
B	12	C34		NSD									
B	13	C43		NSD									
B	14	C23	AQ	9		MD1-0	8.25	7	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	14	C23	AQ		9	MF	4.8	1.25	3.8			Mg, Al, Si, Ca, Fe Actinolite	
B	15	C3		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R04-100504 *Lab/Cor Sample No.:* B4783 S7 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44	CDQ	1	1	B	1.25	0.15	8.3	5586	15442	Mg, Si Chrysotile Verified DW	TAS_AHRA
A	2	B24	OZQ	2	2	F	3.5	0.3	12	5587	15443	Mg, Si, Ca, Fe Winchite Ferriwinchite; Zone Axis - [1 0 0] - DW	TOS_AHRA
A	2	B24	AQ	3		MD1-0	4	3.75	1.1			Actinolite	TAS_AHRA
A	2	B24	AQ		3	MF	3	0.55	5.5		15444	Mg, Si, Ca, Fe Actinolite	
A	3	B4	AQ	4	4	F	3	0.6	5.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	3	B4	CD	5	5	B	1	0.2	5.0			Chrysotile	TAS_AHRA
A	4	C14		NSD									
A	5	A40		NSD									
A	6	A20		NSD									
A	7	D1		NSD									
A	8	D21		NSD									
A	9	C1		NSD									
B	10	A41	CMQ	6		MD3-0	7.5	6	1.2			Chrysotile	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	10	A41	CMQ		6	MF	1	0.1	10		15445	Mg, Si Chrysotile	
B	10	A41	CMQ		7	MF	1	0.05	20			Mg, Si Chrysotile	
B	10	A41	CMQ		8	MF	0.5	0.05	10			Mg, Si Chrysotile	
B	10	A41	CMQ	7	9	F	0.5	0.01	50			Chrysotile	TAS_AHRA
B	10	A41	CMQ	8	10	F	1.3	0.05	26		15446	Mg, Si Chrysotile	TAS_AHRA
B	11	A21	AQ	9		MD1-1	10	9	1.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	11	A21	AQ		11	MF	10	2	5.0			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	12	A1		NSD									
B	13	D20	AZQ	10		MD1-1	10	10	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	13	D20	AZQ		12	MF	10	2.5	4.0	5652	15493	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [5 1 2] DW	AFB>5, PCMEF-US
B	14	D40		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R03-100504 *Lab/Cor Sample No.:* B4783 S8 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B41		NSD									
A	2	B21		NSD									
A	3	B1	AQ	1		MD1-1	10	7.5	1.3			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	3	B1	AQ		1	MF	10	2.75	3.6			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	4	C11		NSD									
A	5	C31		NSD									
A	6	C42	AZQ	2		MD1-0	16	10	1.6			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	6	C42	AZQ		2	MF	1	0.1	10	5592	15447	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [3 0 1] DW; Pottasian Modifier	
A	7	C33		NSD									
A	8	C13	AQ	3		MD1-1	7.5	2	3.8			Actinolite	AS>5, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	8	C13	AQ		3	MF	5.5	2	2.8			Mg, Al, Si, Ca, Fe Actinolite	AFB>5
A	9	B3		NSD									
A	10	B23		NSD									
B	11	A31	AZQ	4	4	F	1.5	0.5	3.0	5594	15448	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [5 -1 4] DW	TAS_AHRA
B	12	A11	AQ	5		MD1-1	10	9	1.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	12	A11	AQ		5	MF	5.5	0.35	16			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US, PSAS 5-10, PSAS TOT, PSAM 5-10, PSAM TOT
B	13	D1		NSD									
B	14	D21		NSD									
B	15	D41	AQ	6	6	F	2.5	0.6	4.2			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA

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A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R02-100504 *Lab/Cor Sample No.:* B4783 S9 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B43	AQ	1	1	F	1.2	0.25	4.8			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	2	B23	AQ	2		MD2-0	5	5	1.0			Actinolite	TAS_AHRA
A	2	B23	AQ		2	MF	4	0.5	8.0			Mg, Al, Si, Ca, Fe Actinolite	
A	2	B23	AQ		3	MF	1.5	0.35	4.3			Mg, Al, Si, Ca, Fe Actinolite	
A	3	B3		NSD									
A	4	C13		NSD									
A	5	C33		NSD									
A	6	C42		NSD									
A	7	C22		NSD									
A	8	C2	AQ	3		MD1-0	17	15	1.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	8	C2	AQ		4	MF	4	0.65	6.2		15449	Mg, Al, Si, Ca, Fe Actinolite	
A	8	C2	AQ	4		MD2-0	10	10	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	8	C2	AQ		5	MF	1.5	0.5	3.0			Mg, Al, Si, Ca, Fe Actinolite	
A	8	C2	AQ		6	MF	1.5	0.5	3.0			Mg, Al, Si, Ca, Fe Actinolite	
A	9	B12		NSD									
B	10	B20	AZQ	5	7	F	15	2	7.5	5595	15450	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [5 1 2] - DW	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	11	B40		NSD									
B	12	B42		NSD									
B	13	B22	AQ	6	8	F	14	4	3.5			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	13	B22	CDQ	7	9	B	7.5	0.85	8.8	5596	15451	Mg, Si Chrysotile Verified DW	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	14	B2		NSD									

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A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R01-100504 *Lab/Cor Sample No.:* B4783 S10 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44	CDQ	1	1	F	1.45	0.15	9.7	5601	15452	Mg, Si, Fe Chrysotile Verified DW	TAS_AHRA
A	1	B44	AQ	2	2	F	2.25	0.4	5.6		15453	Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	2	B24		NSD									
A	3	B4		NSD									
A	4	C14	AZQ	3		MD1-0	11.5	9.5	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	4	C14	AZQ		3	MF	4	0.55	7.3	5602	15454	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [5 3 0] KM	
A	5	C34	AQ	4	4	F	5.5	0.75	7.3			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	5	C34	AQ	5	5	F	3.75	1.1	3.4			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	6	C43	AQ	6	6	F	12	3.5	3.4			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	6	C43	AQ	7	7	F	11.5	1.75	6.6			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	7	C23		NSD									
B	8	B44	AQ	8	8	F	6.5	1.75	3.7			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	8	B44	CDQ	9		MD1-0	3.75	1.25	3.0			Chrysotile	TAS_AHRA
B	8	B44	CDQ		9	MF	2	0.05	40	5603	15455	Mg, Si, Fe Chrysotile Verified DW	
B	9	B24		NSD									
B	10	B4	AQ	10	10	F	1.5	0.2	7.5			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	10	B4	AQ	11	11	F	2.75	0.75	3.7			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	11	C14		NSD									
B	12	C34		NSD									
B	13	C43	AQ	12		MD1-0	2.75	1.05	2.6			Actinolite	TAS_AHRA
B	13	C43	AQ		12	MF	2.25	0.25	9.0			Mg, Al, Si, Ca, Fe Actinolite	
B	14	C23		NSD									

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A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R05-100504 *Lab/Cor Sample No.:* B4783 S11 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A12	AZQ	1	1	F	2.4	0.25	9.6	5653	795	Mg, Si, Ca, Fe Actinolite Zone Axis - [1 0 1] DW; Ferrianactinolite	TAS_AHRA
A	2	A30	AQ	2	2	F	3	0.6	5.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	2	A30	CDQ	3		MD1-0	5.2	3	1.7			Chrysotile	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	2	A30	CDQ		3	MF	2.5	0.05	50	1084	796	Mg, Si Chrysotile Verified DW	
A	3	B21	AQ	4	4	F	3	0.3	10			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	3	B21	AQ	5		MD1-1	27.5	10	2.8			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	3	B21	AQ		5	MF	27.5	2	14			Mg, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	4	B3		NSD									
A	5	C23		NSD									
A	6	C41		NSD									
A	7	D20		NSD									
A	8	D1	AQ	6	6	F	5	1	5.0			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
B	9	A3		NSD									
B	10	A32		NSD									
B	11	B30		NSD									
B	12	B11		NSD									
B	13	C13	AQ	7	7	F	7	2.2	3.2			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	14	C32		NSD									
B	15	D21		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R01-100604 *Lab/Cor Sample No.:* B4783 S12 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A21	AQ	1	1	F	24	3	8.0			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	A40	AQ	2	2	F	15	1	15			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	A40	AQ	3	3	F	5.3	1	5.3			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	3	B21		NSD									
A	4	B3	AQ	4	4	F	30	2.3	13			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	4	B3	AZQ	5	5	F	13	2.5	5.2	1138	797	Mg, Si, Ca, Fe Actinolite Zone Axis [2 0 5] - KM	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	5	C22	AQ	6	6	F	2.5	0.4	6.2			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
A	5	C22	AQ	7	7	B	2.7	0.7	3.9			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
A	6	D30	AQ	8	8	F	6	0.7	8.6			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	6	D30	AQ	9	9	F	2.6	0.8	3.2			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
A	6	D30	AQ	10	10	B	6	0.8	7.5			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	6	D30	AQ	11	11	F	7.7	1.5	5.1			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	7	D41	AQ	12	12	F	2.5	0.5	5.0			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
A	8	D12		NSD									
B	9	A1	AQ	13	13	B	17	2.8	6.1			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	10	A21	AQ	14	14	F	7	0.9	7.8			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	11	B2		NSD									
B	12	C33	AQ	15	15	F	5.8	1.8	3.2			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	13	C31	AQ	16	16	F	12	2.2	5.5			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	14	D32	AQ	17	17	F	1.5	0.5	3.0			Mg, Si, Ca, Fe Actinolite	TAS_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R01-100604 *Lab/Cor Sample No.:* B4783 S12 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
B	14	D32	AQ	18	18	F	7	0.4	18			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, PSAS 5-10, PSAS TOT, PSAM 5-10, PSAM TOT, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	14	D32	AQ	19	19	F	6	2	3.0			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	14	D32	AQ	20	20	F	8	1	8.0			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA

Sample No.: LC-SRA-R102-100604 *Lab/Cor Sample No.:* B4783 S13 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A20		NSD									
A	2	A3	AQ	1	1	F	5.1	0.6	8.5			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	3	D11	AQ	2	2	B	6	1	6.0			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	4	D32		NSD									
A	5	C10	AQ	3	3	F	14	2.6	5.4			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	6	C30		NSD									
A	7	C22	CD	4		MD1-0	4	1.5	2.7			Chrysotile	TAS_AHRA
A	7	C22	CD		4	MF	4	0.06	67	1089		Chrysotile Verified DW; Tilts Into Grid Bar	
A	8	C1	AQ	5	5	F	5	0.6	8.3			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
B	9	A21	AQ	6	6	F	3.5	0.6	5.8			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
B	10	A40	AQ	7	7	F	12	3	4.0			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	10	A40	CDQ	8	8	B	10	5	2.0	1091	799	Mg, Si Chrysotile Verified DW	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	10	A40	AQ	9	9	F	2.6	0.8	3.2			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
B	11	B33		NSD									
B	12	B12		NSD									
B	13	C11		NSD									
B	14	B20	AZQ	10	10	F	4.8	0.6	8.0	1139	828	Mg, Si, Ca, Fe Actinolite Zone Axis [1 0 1] - KM	TAS_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R03-100604 *Lab/Cor Sample No.:* B4783 S14 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A10	AQ	1	1	F	12	2.5	4.8			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	A32		NSD									
A	3	B30	CDQ	2	2	B	11	2.3	4.8	1093	801	Mg, Si Chrysotile Verified DW	AS>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	3	B30	AQ	3		MD1-0	10	8	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	3	B30	AQ		3	MF	3	0.2	15			Mg, Si, Ca, Fe Actinolite	
A	4	D11	AQ	4	4	F	6	1.5	4.0			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	5	D3	AQ	5	5	F	7.5	2	3.8			Mg, Si, Ca, Fec31 Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	6	C31	AQ	6	6	F	8.5	1	8.5			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	7	C12	AQ	7	7	F	4.5	0.8	5.6			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
A	8	B3	AZQ	8		MD1-0	4	2.3	1.7			Actinolite	TAS_AHRA
A	8	B3	AZQ		8	MF	4	0.5	8.0	1092	800	Mg, Si, Ca, Fe Actinolite Zone Axis - [3 -5 2] - KM	
B	9	B11		NSD									
B	10	C22	AQ	9	9	F	5	0.8	6.2			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
B	10	C22	AQ	10	10	F	2	0.5	4.0			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
B	11	C40	AQ	11	11	B	2.6	1	2.6			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
B	12	D20		NSD									
B	13	D13		NSD									
B	14	A22		NSD									
B	15	A30	AQ	12	12	F	3.5	0.3	12			Mg, Si, Ca, Fe Actinolite	TAS_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R05-100604 *Lab/Cor Sample No.:* B4783 S15 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A2		NSD									
A	2	A20		NSD									
A	3	B11	AZQ	1	1	B	13	0.7	19	1094	802	Mg, Al, Si, Ca, Fe Actinolite Zone Axis [1 3 4] - KM	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	4	B23	AQ	2	2	F	12	1	12			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	5	C12	AQ	3	3	F	1.7	0.5	3.4			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	5	C12	AQ	4	4	F	7	0.5	14			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, PSAS 5-10, PSAS TOT, PSAM 5-10, PSAM TOT, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	6	C31		NSD									
A	7	D21	AQ	5	5	F	8	1.2	6.7			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	8	D2		NSD									
B	9	A11	AQ	6		MD2-1	25	22	1.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	9	A11	AQ		6	MF	22	0.7	31			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	9	A11	AQ		7	MF	4.8	0.3	16			Mg, Al, Si, Ca, Fe Actinolite	
B	10	A30		NSD									
B	11	B23	AQ	7	8	B	3	0.8	3.8			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	12	C1		NSD									
B	13	C32	AQ	8	9	F	2.5	0.3	8.3			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	13	C32	AQ	9	10	F	4.9	0.7	7.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	14	D40		NSD									
B	15	D11	AQ	10	11	B	11	1.3	8.5			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	15	D11	AQ	11	12	F	5.3	1	5.3			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R04-100604 *Lab/Cor Sample No.:* B4783 S16 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B43	AQ	1	1	F	5.5	0.75	7.3			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	2	B23	AQ	2		MD1-0	9	5	1.8			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	2	B23	AQ		2	MF	2.5	0.8	3.1			Mg, Al, Si, Ca, Fe Actinolite	
A	2	B23	AQ	3	3	F	1.5	0.5	3.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	3	B3	AQ	4		MD1-1	65	30	2.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	3	B3	AQ		4	MF	20	1	20			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	4	C13	AQ	5		MD1-1	10	10	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	4	C13	AQ		5	MF	9	2	4.5			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	5	C33	AQ	6		MD1-1	25	25	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	5	C33	AQ		6	MF	6	1	6.0			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	5	C33	AQ	7		MD2-2	15	15	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	5	C33	AQ		7	MF	5.5	0.85	6.5			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	5	C33	AQ		8	MF	5.5	0.75	7.3			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	6	C42	AQ	8		MD1-0	65	15	4.3			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	6	C42	AQ		9	MF	4	0.75	5.3			Mg, Al, Si, Ca, Fe Actinolite	
A	6	C42	AQ	9	10	F	2.5	0.25	10			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	7	C22	AQ	10	11	F	2.5	0.4	6.2			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	8	A42		NSD									
B	9	A22	AQ	11		MD1-0	13	10	1.3			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	9	A22	AQ		12	MF	2.5	0.4	6.2			Mg, Al, Si, Ca, Fe Actinolite	
B	9	A22	AQ	12		MD1-1	11	7.5	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	9	A22	AQ		13	MF	7.5	1.7	4.4			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	9	A22	AQ	13		MD1-1	5	5	1.0			Actinolite	TAS_AHRA
B	9	A22	AQ		14	MF	5	0.75	6.7			Mg, Al, Si, Ca, Fe Actinolite	
B	10	A2	AQ	14	15	F	7.5	1	7.5			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	11	D12		NSD									
B	12	D32	AQ	15		MD1-0	5	2.5	2.0			Actinolite	TAS_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R04-100604 *Lab/Cor Sample No.:* B4783 S16 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
B	12	D32	AQ		16	MF	2.75	0.5	5.5			Mg, Al, Si, Ca, Fe Actinolite	
B	13	D41	AQ	16	17	F	4	0.5	8.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	13	D41	AZQ	17	18	F	11	2.5	4.4	5608	15460	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [1 0 0] DW	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	13	D41	AQ	18		MD1-0	15	7.5	2.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	13	D41	AQ		19	MF	4	1	4.0			Mg, Al, Si, Ca, Fe Actinolite	
B	14	D21	AQ	19		MD1-0	5	5	1.0			Actinolite	TAS_AHRA
B	14	D21	AQ		20	MF	3.5	0.5	7.0			Mg, Al, Si, Ca, Fe Actinolite	

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R02-100604 *Lab/Cor Sample No.:* B4783 S17 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B41		NSD									
A	2	B21	AQ	1		MD1-1	15	10	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	B21	AQ		1	MF	9	0.65	14			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	3	B1	AQ	2		MD1-1	7.5	5	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	3	B1	AQ		2	MF	7	0.85	8.2			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	4	C11	AQ	3		MD1-0	6	6	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	4	C11	AQ		3	MF	4	1	4.0			Mg, Al, Si, Ca, Fe Actinolite	
A	5	C31	AQ	4		MD1-0	5	4	1.2			Actinolite	TAS_AHRA
A	5	C31	AQ		4	MF	4.5	0.75	6.0			Mg, Al, Si, Ca, Fe Actinolite	
A	6	C42		NSD									
A	7	C33	AQ	5	5	F	5	0.75	6.7			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	7	C33	AQ	6		MD1-0	20	15	1.3			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	7	C33	AQ		6	MF	4	0.85	4.7			Mg, Al, Si, Ca, Fe Actinolite	
A	7	C33	AQ	7		MD2-0	35	15	2.3			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	7	C33	AQ		7	MF	4	0.75	5.3			Mg, Al, Si, Ca, Fe Actinolite	
A	7	C33	AQ		8	MF	4	0.65	6.2			Mg, Al, Si, Ca, Fe Actinolite	
A	7	C33	AQ	8		MD1-0	10	7.5	1.3			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	7	C33	AQ		9	MF	5	1	5.0			Mg, Al, Si, Ca, Fe Actinolite	
B	8	D41		NSD									
B	9	D21	AQ	9		MD1-1	15	14	1.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	9	D21	AQ		10	MF	10	2.75	3.6			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	10	D1		NSD									
B	11	A11		NSD									
B	12	A31		NSD									
B	13	A40	AZQ	10		MD1-1	11	8	1.4			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	13	A40	AZQ		11	MF	5.5	0.75	7.3	1141	15461	Mg, Al, Si, Ca, Fe Actinolite Zone Axis [1 0 1] - KM	AFB>5, PCMEF-US
B	14	A20		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R04-100704 *Lab/Cor Sample No.:* B4783 S18 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A20		NSD									
A	2	A32		NSD									
A	3	B31		NSD									
A	4	B2		NSD									
A	5	C23		NSD									
A	6	C31		NSD									
A	7	D21	AQ	1	1	F	19	2.5	7.6			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	8	D3	CDQ	2	2	B	30	7	4.3	1140	805	Mg, Si Chrysotile Verified - KM	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	9	A11		NSD									
B	10	A33		NSD									
B	11	B20		NSD									
B	12	B23		NSD									
B	13	C3	AZQ	3	3	F	5.5	0.7	7.9	1101	806	Mg, Si, Ca, Fe Actinolite Zone Axis - [- 1 3 2] - KM	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	14	C40	AQ	4	4	F	8	1	8.0			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	15	D10		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R03-100704 *Lab/Cor Sample No.:* B4783 S19 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A22		NSD									
A	2	B10		NSD									
A	3	B13		NSD									
A	4	C22		NSD									
A	5	C20		NSD									
A	6	D40		NSD									
A	7	D11		NSD									
A	8	A3		NSD									
B	9	A30	CDQ	1	1	F	4.8	0.05	96	1102	807	Mg, Si Chrysotile Verified DW	TAS_AHRA
B	10	B11		NSD									
B	11	C3		NSD									
B	12	C22		NSD									
B	13	C30		NSD									
B	14	C42		NSD									
B	15	D40		NSD									
B	16	D12		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R05-100704 *Lab/Cor Sample No.:* B4783 S20 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A23		NSD									
A	2	A31	AZQ	1	1	F	2.5	0.3	8.3	1109	808	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [5 1 4] - KM	TAS_AHRA
A	3	B40		NSD									
A	4	B22		NSD									
A	5	C3		NSD									
A	6	C21		NSD									
A	7	D31		NSD									
A	8	D12		NSD									
B	9	A2		NSD									
B	10	A31		NSD									
B	11	B10	CDQ	2		MD1-0	2.7	2.4	1.1			Chrysotile	TAS_AHRA
B	11	B10	CDQ		2	MF	2.5	0.04	62	1110	809	Mg, Si Chrysotile Verified DW	
B	12	C2		NSD									
B	13	C33		NSD									
B	14	C40	AQ	3	3	F	13	3	4.3			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	15	D32		NSD									
B	16	D10		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R02-100704 *Lab/Cor Sample No.:* B4783 S21 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24	AQ	1	1	F	9.5	1.25	7.6			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	3	B4	AZQ	2	2	F	2.75	0.45	6.1	5604	15456	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [1 3 2] - DW	TAS_AHRA
A	3	B4	AQ	3	3	F	2.9	0.55	5.3			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	3	B4	AQ	4	4	F	18.75	3.2	5.9			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	4	C14	AQ	5		MD1-0	4.5	3.25	1.4			Actinolite	TAS_AHRA
A	4	C14	AQ		5	MF	3.8	0.5	7.6			Mg, Al, Si, Ca, Fe Actinolite	
A	5	C34		NSD									
A	6	C43	AQ	6	6	F	1.6	0.4	4.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	7	C23		NSD									
B	8	B44		NSD									
B	9	B24	AQ	7		MD1-0	3.25	1.3	2.5			Actinolite	TAS_AHRA
B	9	B24	AQ		7	MF	2.8	0.45	6.2			Mg, Al, Si, Ca, Fe Actinolite	
B	10	B4	AQ	8	8	F	2.5	0.45	5.6			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	10	B4	AQ	9	9	F	2.2	0.4	5.5			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	11	C14	CDQ	10		MD1-0	3.75	3.25	1.2			Chrysotile	TAS_AHRA
B	11	C14	CDQ		10	MF	2	0.05	40	5605	15457	Mg, Si Chrysotile Verified DW	
B	12	C34		NSD									
B	13	C43	CD	11		MD1-0	2.25	2	1.1			Chrysotile	TAS_AHRA
B	13	C43	CD		11	MF	1	0.05	20			Chrysotile	
B	13	C43	AQ	12	12	F	3.5	1.05	3.3			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	14	C23	AQ	13		MD1-0	9.25	4.5	2.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	14	C23	AQ		13	MF	4.5	0.25	18			Mg, Al, Si, Ca, Fe Actinolite	
B	14	C23	AQ	14	14	F	5.5	1	5.5			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R103-100804 *Lab/Cor Sample No.:* B4783 S23 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44	CDQ	1	1	F	1.1	0.05	22	5606	15458	Mg, Si Chrysotile Verified DW	TAS_AHRA
A	2	B24	AZQ	2	2	F	20	2	10	5647	15459	Mg, Al, Si, Ca, Fe Actinolite [3 1 2] Zone Axis - JH	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	B24	CMQ	3	3	B	0.8	0.1	8.0			Mg, Si, Fe Chrysotile	TAS_AHRA
A	3	B4	AQ	4	4	F	2.6	0.45	5.8			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	4	C14		NSD									
A	5	C34	CD	5	5	F	1.6	0.1	16			Chrysotile	TAS_AHRA
A	5	C34	AQ	6	6	F	4.6	1.05	4.4			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	6	C43		NSD									
A	7	C23	CDQ	7		MD1-0	4	1.65	2.4			Chrysotile	TAS_AHRA
A	7	C23	CDQ		7	MB	1.1	0.2	5.5			Mg, Si, Fe Chrysotile	
A	7	C23	AQ	8		MD1-0	4.5	2.25	2.0			Actinolite	TAS_AHRA
A	7	C23	AQ		8	MF	3.9	0.55	7.1			Mg, Al, Si, Ca, Fe Actinolite	
A	7	C23	AQ	9		MD1-0	2.5	2.25	1.1			Actinolite	TAS_AHRA
A	7	C23	AQ		9	MF	1.75	0.25	7.0			Mg, Al, Si, Ca, Fe Actinolite	
A	8	C3		NSD									
B	9	B44	AQ	10	10	F	2.5	0.75	3.3			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	10	B24		NSD									
B	11	B4	AQ	11	11	F	3.4	0.5	6.8			Mg, Al, Si, Ca, Fe Actinolite Ferri-actinolite	TAS_AHRA
B	11	B4	AQ	12	12	F	1.25	0.2	6.2			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	12	C14	AQ	13		MD1-1	12	8	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	12	C14	AQ		13	MF	5.7	1.55	3.7			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	13	C34		NSD									
B	14	C43	AQ	14		MD1-1	35	28	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	14	C43	AQ		14	MF	11	2.25	4.9			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	15	C23		NSD									

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A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R04-100804 *Lab/Cor Sample No.:* B4783 S24 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24		NSD									
A	3	B4		NSD									
A	4	C14		NSD									
A	5	C34	AZQ	1	1	F	3	0.85	3.5	5611	15462	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [1 3 4] DW	TAS_AHRA
A	6	C43		NSD									
A	7	C32	AZQ	2		MD1-0	1.5	1.5	1.0			Actinolite	TAS_AHRA
A	7	C32	AZQ		2	MF	1	0.15	6.7	5612	15463	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [2 1 1] DW	
A	7	C32	AQ	3	3	F	9	3	3.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	8	C12		NSD									
A	9	B2		NSD									
A	10	B22	CDQ	4	4	B	5	0.85	5.9	5613	15464	Mg, Si Chrysotile Verified DW	TAS_AHRA
B	11	A21		NSD									
B	12	A1	AQ	5		MD1-1	9	7.5	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	12	A1	AQ		5	MF	6	1.3	4.6			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	12	A1	AQ	6	6	F	6	2	3.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	13	D11		NSD									
B	14	D31		NSD									
B	15	D2		NSD									

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A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R05-100804 *Lab/Cor Sample No.:* B4783 S25 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B43	ADQ	1	1	F	22	1.5	15		15465	Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	B13	AZQ	2		MD1-0	4	1.5	2.7			Actinolite	TAS_AHRA
A	2	B13	AZQ		2	MF	2	0.25	8.0	5614	15466	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [2 1 0] DW	
A	3	C3		NSD									
A	4	C23	AQ	3		MD1-1	15	9	1.7			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	4	C23	AQ		3	MF	6	1.7	3.5			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	5	C43		NSD									
A	6	C32	AQ	4	4	F	8	2	4.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	7	C12		NSD									
A	8	B2	AQ	5		MD1-0	17	15	1.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	8	B2	AQ		5	MF	4	0.6	6.7			Mg, Al, Si, Ca, Fe Actinolite	
A	9	B31		NSD									
A	10	B11		NSD									
B	11	B41		NSD									
B	12	B21		NSD									
B	13	B1	CDQ	6	6	B	13	1	13	5615	15467	Mg, Si Chrysotile Verified DW	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	13	B1	AQ	7		MD1-1	20	15	1.3			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	13	B1	AQ		7	MF	6	0.85	7.1			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	14	C11		NSD									
B	15	C31		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R02-100804 *Lab/Cor Sample No.:* B4783 S26 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24		NSD									
A	3	B4		NSD									
A	4	C14	AZQ	1		MD1-1	13	13	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	4	C14	AZQ		1	MF	10	2.75	3.6	5620	15471	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [-2 1 1] - DW	AFB>5, PCMEF-US
A	4	C14	AQ	2	2	F	2.5	0.55	4.5		15472	Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	5	C34	AQ	3		MD1-0	16	15	1.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	5	C34	AQ		3	MF	2.5	0.35	7.1			Mg, Al, Si, Ca, Fe Actinolite	
A	6	C43	AQ	4	4	F	5.5	1.5	3.7			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	6	C43	AZQ	5		MD1-1	6	4	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	6	C43	AZQ		5	MF	6	0.3	20	5622	15473	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [3 1 0] - DW	AFB>5, PCMEF-US, PSAS 5-10, PSAS TOT, PSAM 5-10, PSAM TOT
A	6	C43	AQ	6		MD2-2	15	15	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	6	C43	AQ		6	MF	7	0.75	9.3			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	6	C43	AQ		7	MF	5.5	0.75	7.3			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	7	C32	AQ	7		MD1-0	20	10	2.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	7	C32	AQ		8	MF	2.5	0.35	7.1			Mg, Al, Si, Ca, Fe Actinolite	
A	8	C12		NSD									
A	9	B2	AQ	8	9	F	7.5	2	3.8			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	10	B22	AQ	9	10	F	3	0.5	6.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	10	B22	AQ	10	11	F	5	0.15	33			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	11	A41		NSD									
B	12	A21		NSD									
B	13	A1		NSD									
B	14	D11		NSD									

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A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R03-100804 *Lab/Cor Sample No.:* B4783 S27 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B41		NSD									
A	2	B21	AZQ	1		MD2-1	15	10	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	B21	AZQ		1	MF	5.5	1	5.5	5623	15474	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [-1 0 1] - DW	AFB>5, PCMEF-US
A	2	B21	AQ		2	MF	1.5	0.5	3.0			Mg, Al, Si, Ca, Fe Actinolite	
A	3	B1		NSD									
A	4	C11		NSD									
A	5	C31		NSD									
A	6	C42		NSD									
A	7	C43		NSD									
A	8	C23	AQ	2		MD1-1	15	15	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	8	C23	AQ		3	MF	7.5	1.8	4.2			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	9	B3		NSD									
A	10	B23		NSD									
B	11	A41		NSD									
B	12	A21		NSD									
B	13	A1		NSD									
B	14	D11		NSD									
B	15	A31		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-SRA-R01-100804 *Lab/Cor Sample No.:* B4783 S28 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B43		NSD									
A	2	B23		NSD									
A	3	B3		NSD									
A	4	C13		NSD									
A	5	C33		NSD									
A	6	C42		NSD									
A	7	C31		NSD									
A	8	C1		NSD									
A	9	B11	AZQ	1		MD1-0	5	2.5	2.0			Actinolite	TAS_AHRA
A	9	B11	AZQ		1	MF	4	0.75	5.3	5625	15475	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [-3 -1 -2] - DW	
A	10	B31		NSD									
B	11	B42	AQ	2		MD1-1	35	25	1.4			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	11	B42	AQ		2	MF	7.5	1	7.5			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	11	B42	AQ	3		MD1-0	10	7.5	1.3			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	11	B42	AQ		3	MF	5	1.5	3.3			Mg, Al, Si, Ca, Fe Actinolite	
B	12	B22		NSD									
B	13	B2	AQ	4		MD1-1	7.5	5	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	13	B2	AQ		4	MF	5.5	1	5.5			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	14	C11		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R01-100904 *Lab/Cor Sample No.:* B4783 S29 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24		NSD									
A	3	B4		NSD									
A	4	C14		NSD									
A	5	C34		NSD									
A	6	C43		NSD									
A	7	C32		NSD									
A	8	C12		NSD									
A	9	B2		NSD									
A	10	B22		NSD									
B	11	A41		NSD									
B	12	A21		NSD									
B	13	A1		NSD									
B	14	D11		NSD									
B	15	D31		NSD									
B	16	D40		NSD									
B	17	D20		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R02-100904 *Lab/Cor Sample No.:* B4783 S30 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24		NSD									
A	3	B4		NSD									
A	4	C14		NSD									
A	5	C34		NSD									
A	6	C43		NSD									
A	7	C32		NSD									
A	8	C12		NSD									
A	9	B2	AZQ	1		MD1-1	20	12	1.7			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	9	B2	AZQ		1	MF	7.5	2	3.8	5627	15476	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [-7 1 0] - DW	AFB>5, PCMEF-US
A	10	B22		NSD									
B	11	B41	AQ	2		MD1-1	25	10	2.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	11	B41	AQ		2	MF	6	0.5	12			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US, PSAS 5-10, PSAS TOT, PSAM 5-10, PSAM TOT
B	12	B21		NSD									
B	13	B1		NSD									
B	14	C11	CDQ	3	3	B	1.5	0.15	10	1126	821	Mg, Si Chrysotile Verified DW	TAS_AHRA
B	15	C31	CQ	4		MD2-1	15	15	1.0			Chrysotile	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	15	C31	CQ		4	MR	7.5	7.5	1.0			Mg, Si Chrysotile	
B	15	C31	CQ		5	MB	5	0.35	14			Mg, Si Chrysotile	
B	16	C42		NSD									
B	17	C22		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R04-100904 *Lab/Cor Sample No.:* B4783 S31 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A42		NSD									
A	2	A22	CDQ	1		MD1-0	3.5	1	3.5			Chrysotile	TAS_AHRA
A	2	A22	CDQ		1	MF	3.5	0.1	35	1127	822	Mg, Si Chrysotile Verified DW	
A	2	A22	CMQ	2		MD1-0	3	3	1.0			Chrysotile	TAS_AHRA
A	2	A22	CMQ		2	MF	1.5	0.1	15			Mg, Si Chrysotile	
A	3	C2		NSD									
A	4	D12		NSD									
A	5	D32		NSD									
A	6	D41		NSD									
A	7	D40		NSD									
A	8	D20	AZQ	3	3	F	2	0.25	8.0	5649	15490	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [1 0 0] DW	TAS_AHRA
A	9	C10		NSD									
A	10	C21		NSD									
A	11	C41		NSD									
A	12	C32		NSD									
A	13	C12	CMQ	4	4	F	1	0.1	10			Mg, Si Chrysotile	TAS_AHRA
B	14	B41		NSD									
B	15	B21		NSD									
B	16	B1		NSD									
B	17	C11	CMQ	5	5	B	1.5	0.2	7.5			Mg, Si Chrysotile	TAS_AHRA
B	18	C31		NSD									
B	19	C43		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R05-100904 *Lab/Cor Sample No.:* B4783 S32 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24	CD	1	1	F	1.5	0.05	30	1128		Chrysotile Verified DW; Tilts into Grid Bar	TAS_AHRA
A	3	B4		NSD									
A	4	C14		NSD									
A	5	C34		NSD									
A	6	C43		NSD									
A	7	C32		NSD									
A	8	C12	AZQ	2	2	B	7.5	1	7.5	5650	15491	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [3 -1 2] DW	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	9	B2		NSD									
A	10	B22		NSD									
A	11	B42		NSD									
A	12	B40		NSD									
A	13	B20	AQ	3	3	F	5	1.3	3.8			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	14	A31	AQ	4	4	F	5.5	1	5.5			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	15	A11		NSD									
B	16	D1	AQ	5	5	F	2.75	0.7	3.9			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	17	D21	CMQ	6	6	F	2	0.05	40			Mg, Si Chrysotile	TAS_AHRA
B	17	D21	AQ	7	7	F	5	0.75	6.7			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	18	D41		NSD									
B	19	D32		NSD									
B	20	D12		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R03-100904 *Lab/Cor Sample No.:* B4783 S33 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A10		NSD									
A	2	A3		NSD									
A	3	D12		NSD									
A	4	D30		NSD									
A	5	C41		NSD									
A	6	C22		NSD									
A	7	C3		NSD									
A	8	B14		NSD									
A	9	B11		NSD									
B	10	A2		NSD									
B	11	A21		NSD									
B	12	B40		NSD									
B	13	B32		NSD									
B	14	B13		NSD									
B	15	C1		NSD									
B	16	C32		NSD									
B	17	D20		NSD									
B	18	D1		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R101-101004 *Lab/Cor Sample No.:* B4783 S34 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A10	AZQ	1	1	F	8	0.7	11	1111	810	Mg, Si, Fe Anthophyllite [5 1 1] Zone Axis - KM	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	2	A23		NSD									
A	3	A41	AZQ	2	2	F	7	0.8	8.8	1112	811	Mg, Al, Si, Ca, Fe Actinolite [5-1 2] Zone Axis - KM	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	4	B31		NSD									
A	5	B13		NSD									
A	6	C1	CD	3		MD1-1	10	7	1.4			Chrysotile	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	6	C1	CD		3	MF	7	0.05	140	1113		Chrysotile Verified DW; Tilts Into Grid Bar	AFB>5, PSAS 5-10, PSAS TOT, PCAS 5-10, PCAS TOT
A	7	C23		NSD									
A	8	C30		NSD									
A	9	D41	AQ	4	4	B	37	6	6.2			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	10	A22		NSD									
B	11	A40		NSD									
B	12	B20		NSD									
B	13	B12		NSD									
B	14	C2		NSD									
B	15	C30		NSD									
B	16	D32		NSD									
B	17	D12		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R01-101004 *Lab/Cor Sample No.:* B4783 S35 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A2	AQ	1	1	F	10	2.6	3.8			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	2	A20	AQ	2	2	B	11	2	5.5			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	3	B40		NSD									
A	4	B12		NSD									
A	5	C1	AZQ	3		MD1-1	15	15	1.0			Tremolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	5	C1	AZQ		3	MF	15	0.4	38	1114	812	Mg, Al, Si, Ca, Fe Tremolite [3 5 8] Zone Axis - KM	AFB>5, PCMEF-US, PSAS >10, PSAS TOT, PSAM >10, PSAM TOT
A	6	C23		NSD									
A	7	C30		NSD									
A	8	D41	AZQ	4	4	F	8	2	4.0	1115	813	Mg, Al, Si, Ca, Fe Actinolite [1 0 1] Zone Axis - KM	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	9	D22		NSD									
B	10	A10		NSD									
B	11	A32	AQ	5	5	F	6	2	3.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	12	B40		NSD									
B	13	B11		NSD									
B	14	C12		NSD									
B	15	C30		NSD									
B	16	D32		NSD									
B	17	D12		NSD									
B	18	D1		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R05-101004 *Lab/Cor Sample No.:* B4783 S36 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A10	AZQ	1	1	F	2.5	0.6	4.2	1116	814	Mg, Si, Ca, Fe Actinolite [1 0 1] Zone Axis - KM	TAS_AHRA
A	2	A23	CDQ	2	2	F	2.5	0.05	50	1117	815	Mg, Si Chrysotile Verified DW	TAS_AHRA
A	3	A40		NSD									
A	4	A21		NSD									
A	5	C3		NSD									
A	6	C32		NSD									
A	7	C40	AZQ	3	3	F	6	0.5	12	1118	816	Mg, Si, Ca, Fe Actinolite [5 3 2] Zone Axis - KM	AS>5, AFB>5, PCMEF-US, PCMES-US, PSAS 5-10, PSAS TOT, PSAM 5-10, PSAM TOT, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	8	D20		NSD									
A	9	D12		NSD									
B	10	A12	AQ	4	4	F	7	1.5	4.7			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	11	A20	AQ	5	5	F	4.8	1.4	3.4			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
B	12	B30		NSD									
B	13	B23		NSD									
B	14	C2	AQ	6	6	F	4	1	4.0			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
B	15	C20		NSD									
B	16	D40	AQ	7	7	B	7.6	2.1	3.6			Mg, Si, Ca, Fe Actinolite	AS>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	17	D21		NSD									
B	18	D23		NSD									
B	19	D1	CD	8		MD1-0	4.9	4.7	1.0			Chrysotile	TAS_AHRA
B	19	D1	CD		8	MF	4.9	0.06	82	1120		Mg, Si Chrysotile Verified DW	

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R04-101004 *Lab/Cor Sample No.:* B4783 S37 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A20		NSD									
A	2	A23		NSD									
A	3	B21		NSD									
A	4	B10	CDQ	1	1	B	3	0.5	6.0	1121	817	Mg, Si Chrysotile Verified DW	TAS_AHRA
A	5	C10		NSD									
A	6	C24		NSD									
A	7	D10		NSD									
A	8	D22		NSD									
A	9	D2		NSD									
A	10	A12		NSD									
B	11	A3		NSD									
B	12	A10		NSD									
B	13	A13		NSD									
B	14	B1		NSD									
B	15	B4	AZQ	2	2	F	2.5	0.3	8.3	1122	818	Mg, Al, Si, Ca, Fe Actinolite [0 1 1] Zone Axis - KM	TAS_AHRA
B	16	C10		NSD									
B	17	C40		NSD									
B	18	D31	AQ	3		MD1-0	6	5	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	18	D31	AQ		3	MF	4.8	0.5	9.6			Mg, Al, Si, Ca, Fe Actinolite	
B	19	D33	AQ	4	4	B	9	1.5	6.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R03-101004 *Lab/Cor Sample No.:* B4783 S38 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A30	CD	1	1	B	0.7	0.2	3.5	1123		Chrysotile Verified DW; Tilts Into Matrix	TAS_AHRA
A	1	A30	CDQ	2		MD1-0	2.5	2.5	1.0			Chrysotile	TAS_AHRA
A	1	A30	CDQ		2	MF	2.5	0.05	50	1124	819	Mg, Si Chrysotile Verified DW	
A	2	B21	AZQ	3	3	F	4.2	0.7	6.0	1125	820	Mg, Al, Si, Ca, Fe Actinolite [3 1 2] Zone Axis - KM	TAS_AHRA
A	3	B1	CD	4	4	F	0.6	0.06	10			Chrysotile	TAS_AHRA
A	4	C44		NSD									
A	5	C43		NSD									
A	6	C33		NSD									
A	7	C23		NSD									
A	8	C13		NSD									
A	9	C22		NSD									
A	10	C41		NSD									
A	11	D10		NSD									
B	12	B41	AQ	5		MD1-0	5	4	1.2			Actinolite	TAS_AHRA
B	12	B41	AQ		5	MF	3	0.9	3.3			Mg, Al, Si, Ca, Fe Actinolite	
B	12	B41	AQ	6		MD1-1	7.5	7.5	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	12	B41	AQ		6	MF	7.5	1.3	5.8			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	12	B41	AQ	7	7	F	6	2	3.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	12	B41	AQ	8	8	F	4.5	0.5	9.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	12	B41	AQ	9		MD1-0	5.5	5	1.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	12	B41	AQ		9	MF	1.2	0.25	4.8			Mg, Al, Si, Ca, Fe Actinolite	
B	13	B21	CDQ	10		MD1-0	15	7.5	2.0			Chrysotile	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	13	B21	CDQ		10	MF	1	0.1	10			Mg, Si Chrysotile	
B	14	B1	AQ	11	11	F	2.5	0.7	3.6			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	14	B1	AQ	12		MD1-1	20	10	2.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	14	B1	AQ		12	MF	17	4.5	3.8			Mg, Al, Si, Ca, Fe Actinolite	AFB>5
B	15	C11	AQ	13	13	F	1.5	0.5	3.0			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	15	C11	AQ	14		MD1-0	6	6	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	15	C11	AQ		14	MF	1.5	0.5	3.0			Mg, Al, Si, Ca, Fe Actinolite	

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R03-101004 *Lab/Cor Sample No.:* B4783 S38 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
B	16	C31	AQ	15	15	F	2.75	0.75	3.7			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	16	C31	CQ	16	16	F	1	5	0.20			Mg, Si Chrysotile	TAS_AHRA
B	17	C42	AQ	17		MD1-1	12	10	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	17	C42	AQ		17	MF	5.5	1	5.5			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	18	C33	AQ	18		MD1-1	13	9	1.4			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	18	C33	AQ		18	MF	5.5	0.75	7.3			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R02-101004 *Lab/Cor Sample No.:* B4783 S39 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24		NSD									
A	3	B4		NSD									
A	4	C14	AQ	1		MD1-0	25	20	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	4	C14	AQ		1	MF	1.35	0.3	4.5			Mg, Al, Si, Ca, Fe Actinolite	
A	5	C34		NSD									
A	6	C43	AQ	2	2	F	6	1.5	4.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	7	A21		NSD									
A	8	A3		NSD									
A	9	D20		NSD									
B	10	A2	AQ	3	3	F	6	1.3	4.6			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	11	A23		NSD									
B	12	B11		NSD									
B	13	B32		NSD									
B	14	C2	AZQ	4	4	F	12	2	6.0	1129	823	Mg, Al, Si, Ca, Fe Actinolite [1 0 1] Zone Axis - KM	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	15	C31	AQ	5	5	F	10	2.2	4.5			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	15	C31	AQ	6	6	F	4.6	0.6	7.7			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	16	D30	AZQ	7	7	B	7.4	1.7	4.4	1130	824	Mg, Si, Mn, Fe Amosite [3 2 0] Zone Axis - KM	AS>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	17	D22		NSD									
B	18	D1		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R03-101104 *Lab/Cor Sample No.:* B4783 S40 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B31	ADQ	1	1	F	14	2.2	6.4			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	B11	AQ	2		MD1-0	15	8	1.9			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	B11	AQ		2	MF	4.5	0.7	6.4			Mg, Al, Si, Ca, Fe Actinolite	
A	2	B11	AZQ	3		MD1-0	15	7	2.1			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	2	B11	AZQ		3	MF	4.6	0.7	6.6	5633	15478	Mg, Al, Si, Ca, Fe Actinolite [5-1 2] Zone Axis - KM	
A	3	C11	CDQ	4	4	B	1.8	0.22	8.2	5634	15479	Mg, Si Chrysotile Verified DW	TAS_AHRA
A	3	C11	CD	5		CD3-0	2.2	0.8	2.8			Chrysotile	TAS_AHRA
A	3	C11	CD		5	CF	1.1	0.08	14			Chrysotile	
A	3	C11	CD		6	CF	1.1	0.1	11			Chrysotile	
A	3	C11	CD		7	CF	0.6	0.1	6.0			Chrysotile	
A	4	D1	CD	6	8	B	5	0.6	8.3			Chrysotile	TAS_AHRA
A	4	D1	AQ	7	9	F	10.6	1.1	9.6			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	4	D1	AQ	8	10	F	8	1.2	6.7			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	4	D1	ADQ	9	11	F	2.1	0.4	5.2			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	5	D31		NSD									
A	6	B33		NSD									
A	7	B13	CD	10		MD1-0	3.8	2.5	1.5			Chrysotile	TAS_AHRA
A	7	B13	CD		12	MF	1.5	0.08	19			Chrysotile	
A	8	C23	AQ	11	13	F	3.3	0.5	6.6			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
A	8	C23	AQ	12	14	F	5	0.7	7.1			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	9	B42	AQ	13		MD1-1	12	8	1.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	9	B42	AQ		15	MF	5.2	0.6	8.7			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
B	10	B22	AQ	14		MD1-0	8	8	1.0			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	10	B22	AQ		16	MF	1.2	0.35	3.4			Mg, Al, Si, Ca, Fe Actinolite	
B	10	B22	CDQ	15	17	F	1.5	0.1	15			Mg, Si Chrysotile	TAS_AHRA
B	11	B2		NSD									
B	12	C12		NSD									
B	13	A41	AQ	16	18	F	1.7	0.5	3.4			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R03-101104 *Lab/Cor Sample No.:* B4783 S40 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
B	13	A41	CD	17	19	F	1.2	0.05	24			Chrysotile	TAS_AHRA
B	14	A21		NSD									
B	15	A1	CD	18	20	B	0.9	0.15	6.0			Chrysotile	TAS_AHRA
B	16	D20	CMQ	19	21	B	24	4	6.0			Mg, Si Chrysotile	AS>5, AFB>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	16	D20	CDQ	20		MD3-0	6.8	4	1.7			Chrysotile	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	16	D20	CDQ		22	MB	1.5	0.3	5.0			Mg, Si Chrysotile	
B	16	D20	CDQ		23	MF	0.6	0.08	7.5			Mg, Si Chrysotile	
B	16	D20	CDQ		24	MF	0.5	0.08	6.2			Mg, Si Chrysotile	
B	16	D20	CDQ	21	25	B	4	1	4.0			Mg, Si Chrysotile	TAS_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R04-101104 *Lab/Cor Sample No.:* B4783 S41 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A22		NSD									
A	2	A40		NSD									
A	3	B31	AZQ	1	1	F	4.5	0.5	9.0	1131	825	Mg, Si, Ca, Fe Actinolite [5 1 2] Zone Axis - KM	TAS_AHRA
A	3	B31	AQ	2	2	F	3.5	0.5	7.0			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
A	4	B13		NSD									
A	5	C12		NSD									
A	6	C31	AQ	3	3	B	4.5	0.6	7.5			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
A	7	D40	AQ	4	4	F	7	0.8	8.8			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	7	D40	AQ	5	5	F	5	1	5.0			Mg, Si, Ca, Fe Actinolite	TAS_AHRA
A	8	D21	AQ	6	6	F	9	2.4	3.7			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	9	D2	AQ	7	7	F	1.3	0.2	6.5			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	10	A12		NSD									
B	11	A20		NSD									
B	12	B22		NSD									
B	13	B42	AQ	8	8	F	8	1.3	6.2			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	14	C2	AQ	9	9	F	10	2	5.0			Mg, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	15	C33		NSD									
B	16	C41		NSD									
B	17	D30	AQ	10	10	B	5.5	1.9	2.9			Mg, Al, Si, Ca, Fe Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	17	D30	AQ	11	11	F	6	1.2	5.0			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	17	D30	AQ	12	12	B	5.1	1.3	3.9			Mg, Si, Ca, Fe Actinolite	AS>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.
Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R05-101104 *Lab/Cor Sample No.:* B4783 S42 A1
Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B44		NSD									
A	2	B24		NSD									
A	3	B4		NSD									
A	4	C14		NSD									
A	5	C34	CMQ	1	1	B	1	0.11	9.1		15480	Mg, Si Chrysotile	TAS_AHRA
A	6	B31	CMQ	2	2	F	0.9	0.1	9.0			Mg, Si Chrysotile	TAS_AHRA
A	7	B11		NSD									
A	8	C1		NSD									
A	9	C21		NSD									
A	10	C41		NSD									
A	11	D1		NSD									
B	12	B42		NSD									
B	13	B22		NSD									
B	14	B2		NSD									
B	15	C12		NSD									
B	16	C32		NSD									
B	17	A41	CDQ	3	3	B	1.3	0.17	7.6	5651	15492	Mg, Si Chrysotile Verified DW	TAS_AHRA
B	18	A21		NSD									
B	19	A1	CMQ	4	4	F	0.5	0.08	6.2			Mg, Si Chrysotile	TAS_AHRA
B	20	D11		NSD									
B	21	D31		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R01-101104 *Lab/Cor Sample No.:* B4783 S43 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	B31		NSD									
A	2	B11		NSD									
A	3	B32		NSD									
A	4	B22	ADQ	1	1	F	22	3.5	6.3			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	4	B22	AZQ	2	2	F	4.2	0.68	6.2	5636	15481	Mg, Al, Si, Ca, Fe Actinolite [9-1 6] Zone Axis - KM	TAS_AHRA
A	5	B2		NSD									
A	6	C12		NSD									
A	7	B43		NSD									
A	8	B23		NSD									
B	9	B43		NSD									
B	10	B13		NSD									
B	11	C13		NSD									
B	12	C43	ADQ	3	3	F	7	1.5	4.7			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	13	B41		NSD									
B	14	B13		NSD									
B	15	C13		NSD									
B	16	C43	ADQ	4	4	F	21.5	0.6	36			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

Sample No.: LC-NRA-R02-101104 *Lab/Cor Sample No.:* B4783 S44 A1

Descripiton:

Gr	No.	Loc.	ID	Prim	Tot	Class	Len	Wid	Asp	Neg#	EDS#	Comment	Count Categories
A	1	A22		NSD									
A	2	A40		NSD									
A	3	B21	AQ	1		MD1-1	35	10	3.5			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
A	3	B21	AQ		1	MF	35	2.2	16			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	4	B3		NSD									
A	5	C14	AQ	2	2	F	2.6	0.6	4.3	1142	829	Mg, Al, Si, Ca, Fe Actinolite Zone Axis - [-2 0 1] DW	TAS_AHRA
A	6	C32		NSD									
A	7	C40	AQ	3		MD1-1	10	8	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
A	7	C40	AQ		3	MF	7.5	0.8	9.4			Mg, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US
A	7	C40	AQ	4		MD1-0	4	2	2.0			Actinolite	TAS_AHRA
A	7	C40	AQ		4	MF	4	0.2	20			Mg, Al, Si, Ca, Fe Actinolite	
A	8	D31		NSD									
A	9	D11		NSD									
B	10	A22		NSD									
B	11	A3	AQ	5	5	F	13	2	6.5			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	12	D22		NSD									
B	13	D30	AQ	6	6	F	5.2	1.4	3.7			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	13	D30	AQ	7	7	F	4	0.3	13			Mg, Al, Si, Ca, Fe Actinolite	TAS_AHRA
B	14	C32		NSD									
B	15	C11	AQ	8	8	F	8	1.3	6.2			Mg, Al, Si, Ca, Fe Actinolite	AS>5, AFB>5, PCMEF-US, PCMES-US, TAS_AHRA, AS>5_AHRA, AS5-10_AHRA
B	16	B1	AQ	9		MD1-1	18	15	1.2			Actinolite	AS>5, TAS_AHRA, AS>5_AHRA, AS>10_AHRA
B	16	B1	AQ		9	MF	7	0.5	14			Mg, Al, Si, Ca, Fe Actinolite	AFB>5, PCMEF-US, PSAS 5-10, PSAS TOT, PSAM 5-10, PSAM TOT
B	17	B22		NSD									

Lab/Cor, Inc.

A Professional Service Corporation in the Northwest

Report # 041210R2

Client: Ecology and Environment, Inc.

Project Name: Site 0440.01CP (4th Sample Set) - FINAL RESULTS

TEM ASBESTOS STRUCTURE COUNT - RAW DATA

NSD = No Structures Detected
PAS = Primary Asbestos Structures
TAS = Total Asbestos Structures
AS>5 = Asbestos Structures > 5um
AFB>5 = Asbestos Fibers and Bundles > 5um
PCMEF-US = PCM Equivalent Fibers-US
PCMES-US = PCM Equivalent Structures-US
PCMEF-ISO = PCM Equivalent Fibers-ISO
PCMES-ISO = PCM Equivalent Structures-ISO

CF = Cleavage Fragments
TS = Transitional Structures

PSAS 5-10 = PROTOCOL ASB STRUCS 5-10
PSAS >10 = PROTOCOL ASB STRUCS >10
PSAS TOT = PROTOCOL ASB STRUCS TOTAL
PSCH 5-10 = PROTOCOL CHRYS STRUCS 5-10
PSCH >10 = PROTOCOL CHRYS STRUCS >10
PSCH TOT = PROTOCOL CHRYS STRUCS TOTAL
PSAM 5-10 = PROTOCOL AMPH STRUCS 5-10
PSAM >10 = PROTOCOL AMPH STRUCS >10
PSAM TOT = PROTOCOL AMPH STRUCS TOTAL

PChS = Primary Chrysotile Structures
PAmS = Primary Amphibole Structures

TAS_AHRA = AHERA-like Total Strucs 3:1
AS>5_AHRA = AHERA-like Asb Strucs >5 and 3:1
AS5-10_AHRA = AHERA-like Asb Strucs 5 - 10 and 3:1
AS>10_AHRA = AHERA-like Asb Strucs >10 and 3:1
TOS_AHRA = Total Other Amphibole Strucs 3:1
OS>5_AHRA = Other Amphibole Struc >5 and 3:1
OS5-10_AHRA = Other Amphibole Struc 5 - 10 and 3:1
OS>10_AHRA = Other Amphibole Strucs >10 and 3:1

B4783

041210 1/3

CHAIN OF CUSTODY RECORD

No: 0440.01CP-0018

Site #: 0440.01CP

Cooler #:

EPA Contract #:

Contact Name:

Lab: Lab/Cor, Inc.

Contact Phone:

Lab Phone: (206) 781-0155

	Lab #	Sample #	Analyses	Matrix	Date Collected	Sample Time	Numb Cont	Volume	Vol Units	Priority
-01	LC	SRA-R01-100404	ISO 10312	Air	10/4/2004	11:33	1	5003.95	Liters	2
-02		SRA-R02-100404	ISO 10312	Air	10/4/2004	11:37	1	5014.86	Liters	2
-03		SRA-R03-100404	ISO 10312	Air	10/4/2004	11:40	1	4937.3	Liters	2
-04		SRA-R04-100404	ISO 10312	Air	10/4/2004	11:42	1	5098.14	Liters	2
-05		SRA-R05-100404	ISO 10312	Air	10/4/2004	11:45	1	4969.2	Liters	2
-45		AAMS-D08-100404	ISO 10312	Air	10/4/2004	7:23	1	7018.79	Liters	
-06		SRA-R103-100504	ISO 10312	Air	10/5/2004	12:33	1	6157.72	Liters	2
-07		SRA-R04-100504	ISO 10312	Air	10/5/2004	12:35	1	6388.8	Liters	2
-08		SRA-R03-100504	ISO 10312	Air	10/5/2004	12:31	1	6127.77	Liters	2
-09		SRA-R02-100504	ISO 10312	Air	10/5/2004	12:29	1	6489.7	Liters	2
-10		SRA-R01-100504	ISO 10312	Air	10/5/2004	12:25	1	6403.4	Liters	2
-46		AAMS-D09-100504	ISO 10312	Air	10/5/2004	12:23	1	7200	Liters	
-11		SRA-R05-100504	ISO 10312	Air	10/5/2004	12:36	1	6091.83	Liters	2
-12		SRA-R01-100604	ISO 10312	Air	10/6/2004	14:20	1	6476.8	Liters	2
-13		SRA-R102-100604	ISO 10312	Air	10/6/2004	14:23	1	6581.7	Liters	2
-14		SRA-R03-100604	ISO 10312	Air	10/6/2004	14:26	1	6117.54	Liters	2
-15		SRA-R05-100604	ISO 10312	Air	10/6/2004	14:24	1	5994	Liters	2
-16		SRA-R04-100604	ISO 10312	Air	10/6/2004	14:27	1	6277.52	Liters	2
-17		SRA-R02-100604	ISO 10312	Air	10/6/2004	14:22	1	6664.77	Liters	2
-47		AAMS-D10-100604	ISO 10312	Air	10/6/2004	14:18	1	7072.96	Liters	

Comments:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all	[illegible]	10/14/04	D Jones	10.15.04	10:30						

154783

041210 2/3

CHAIN OF CUSTODY RECORD

No: 0440.01CP-0018

Site #: 0440.01CP

Cooler #:

EPA Contract #:

Contact Name:

Lab: Lab/Cor, Inc.

Contact Phone:

Lab Phone: (206) 781-0155

	Lab #	Sample #	Analyses	Matrix	Date Collected	Sample Time	Numb Cont	Volume	Vol Units	Priority
-18	LC	SRA-R04-100704	ISO 10312	Air	10/7/2004	13:32	1	6136.4	Liters	2
-19		SRA-R03-100704	ISO 10312	Air	10/7/2004	13:30	1	5885.4	Liters	2
-20		SRA-R05-100704	ISO 10312	Air	10/7/2004	13:33	1	5817.4	Liters	2
-21		SRA-R02-100704	ISO 10312	Air	10/7/2004	13:29	1	6603.3	Liters	2
-22		SRA-R01-100704	ISO 10312	Air	10/7/2004	13:25	1	6588.09	Liters	2
-48		AAMS-D11-100704	ISO 10312	Air	10/7/2004	13:23	1	7044.6	Liters	
-49		AAMS-D12-100804	ISO 10312	Air	10/8/2004	10:27	1	7038.82	Liters	
-50		SRA-2ZB-100804	ISO 10312	Air	10/8/2004	15:09	1	7221.6	Liters	
-23		SRA-R103-100804	ISO 10312	Air	10/8/2004	11:35	1	6013.02	Liters	2
-51		SRA-1ZB-100804	ISO 10312	Air	10/8/2004	15:05	1	6655.05	Liters	
-24		SRA-R04-100804	ISO 10312	Air	10/8/2004	11:36	1	6279	Liters	2
-52		SRA-FB-100804	ISO 10312	Air	10/8/2004	15:11	1		Liters	
-25		SRA-R05-100804	ISO 10312	Air	10/8/2004	11:38	1	6056.12	Liters	2
-26		SRA-R02-100804	ISO 10312	Air	10/8/2004	11:32	1	6576.24	Liters	2
-27		SRA-R03-100804	ISO 10312	Air	10/8/2004	11:34	1	6001.16	Liters	2
-28		SRA-R01-100804	ISO 10312	Air	10/8/2004	11:30	1	6428.76	Liters	2
-29		NRA-R01-100904	ISO 10312	Air	10/9/2004	18:32	1	5469.04	Liters	2
-30		NRA-R02-100904	ISO 10312	Air	10/9/2004	18:50	1	5314.8	Liters	2
-31		NRA-R04-100904	ISO 10312	Air	10/9/2004	18:40	1	4830.75	Liters	2
-32		NRA-R05-100904	ISO 10312	Air	10/9/2004	18:28	1	4563	Liters	2

Comments:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all	[illegible]	10/14/04	D Jones	10-15-04	10:30						

B4783

041210 3/3

CHAIN OF CUSTODY RECORD

No: 0440.01CP-0018

Site #: 0440.01CP

Cooler #:

EPA Contract #:

Contact Name:

Lab: Lab/Cor, Inc.

Contact Phone:

Lab Phone: (206) 781-0155

	Lab #	Sample #	Analyses	Matrix	Date Collected	Sample Time	Numb Cont	Volume	Vol Units	Priority
-53	LC	AAMS-D13-100904	ISO 10312	Air	10/9/2004	19:11	1	7180.02	Liters	
-33		NRA-R03-100904	ISO 10312	Air	10/9/2004	18:45	1	5014.35	Liters	2
-54		NRA-FB-101004	ISO 10312	Air	10/10/2004	15:11	1		Liters	
-34		NRA-R101-101004	ISO 10312	Air	10/10/2004	13:24	1	5268.5	Liters	2
-55		AAMS-D14-101004	ISO 10312	Air	10/10/2004	13:21	1	7010	Liters	
-35		NRA-R01-101004	ISO 10312	Air	10/10/2004	13:22	1	5186.26	Liters	2
-36		NRA-R05-101004	ISO 10312	Air	10/10/2004	13:28	1	4791.6	Liters	2
-37		NRA-R04-101004	ISO 10312	Air	10/10/2004	13:27	1	4919.34	Liters	2
-38		NRA-R03-101004	ISO 10312	Air	10/10/2004	13:25	1	5024.93	Liters	2
-39		NRA-R02-101004	ISO 10312	Air	10/10/2004	13:26	1	5049	Liters	2
-40		NRA-R03-101104	ISO 10312	Air	10/11/2004	21:32	1	5589	Liters	2
-41		NRA-R04-101104	ISO 10312	Air	10/11/2004	21:34	1	5304	Liters	2
-42		NRA-R05-101104	ISO 10312	Air	10/11/2004	21:36	1	4397.76	Liters	2
-43		NRA-R01-101104	ISO 10312	Air	10/11/2004	21:25	1	5749.38	Liters	2
-44		NRA-R02-101104	ISO 10312	Air	10/11/2004	21:29	1	5483.75	Liters	2
-56		NRA-2ZB-101104	ISO 10312	Air	10/11/2004	18:12	1	6578	Liters	
-57		NRA-1ZB-101104	ISO 10312	Air	10/11/2004	18:12	1	6753.24	Liters	
-58		AAMS-D15-101104	ISO 10312	Air	10/11/2004	21:21	1	6834	Liters	
-59		AAMS-D16-101204	ISO 10312	Air	10/12/2004	18:58	1	6931.34	Liters	
-60		NRA-1ZB-101204	ISO 10312	Air	10/12/2004	18:58	1	6753.24	Liters	

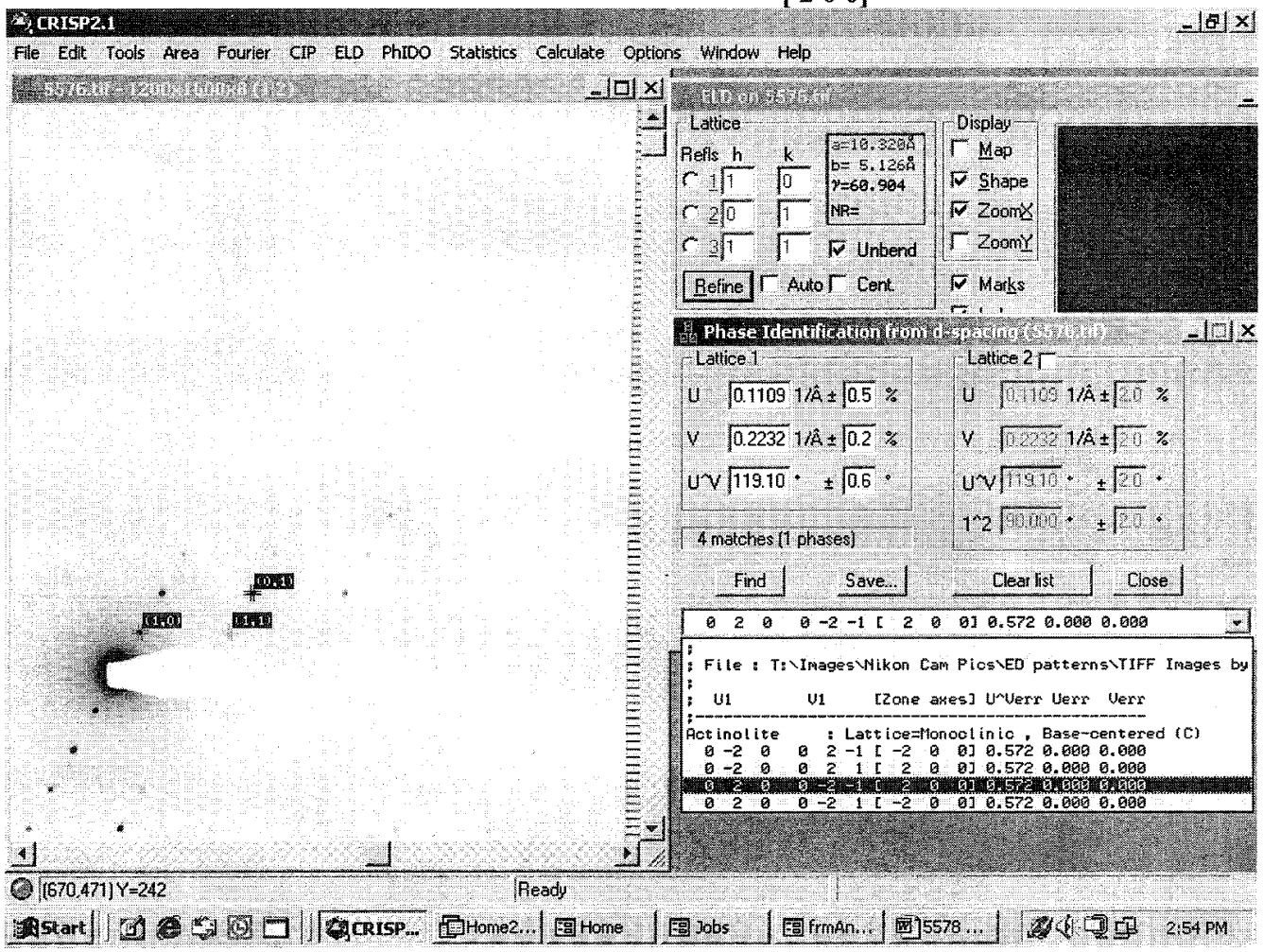
Comments:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
all	[illegible]	10/14/04	D Jones	10.15.04	10:30						

NEG#5576; SAMPLE# 041210-01
ACTINOLITE
[2 0 0]



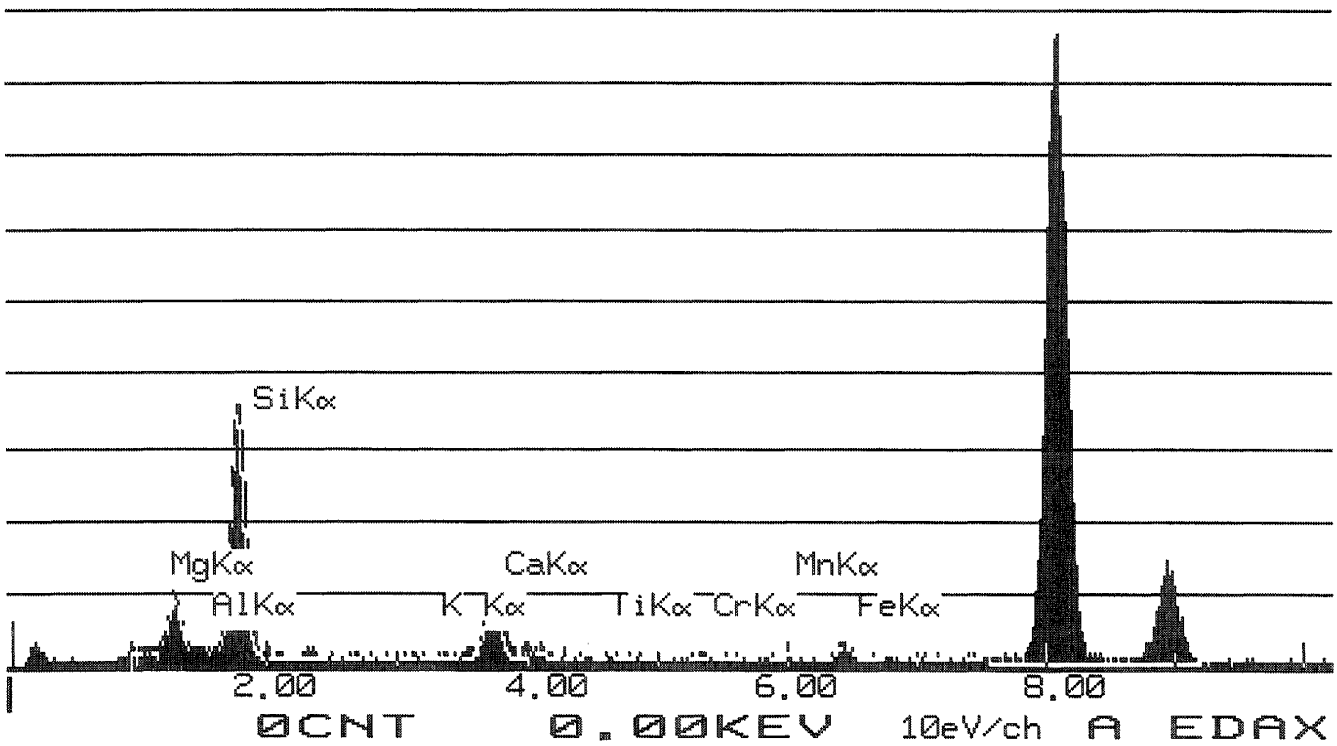
INTE-% :
LABEL = 041210-01 15436
27-NOV-72 08:41:17
130.580 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	4.235	10.724	17.781
SIK	20.815	29.644	63.420
CAK	6.517	8.849	12.382
TIK	0.100	0.191	0.318
CRK	0.176	0.333	0.486
MNK	0.322	0.630	0.814
FEK	1.861	3.357	4.799

TOTAL			100.000

USED PEIF: USER

26-NOV-04 08:41:48 SUPER QUANT
RATE= 56CPS TIME= 130LSEC
FS= 796/ 796 PRST= 200LSEC
A =041210-01 15436



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	63.42	Si+4	8.0000	8.0000							
Al2O3	0	Al+3	0.0000	0.0000	**0.0000**						
TiO2	0.318	Ti+4	0.0815	0.0000	**0.0815**						
Cr2O3	0.486	Cr+3	0.0773			0.0773	0.0000				
Fe(total)O	4.799	Fe+3	0.0296			0.0296	0.0000				
MgO	17.781	Mg+2	3.6351			3.6351	**0.0000**				
MnO	0.814	Fe+2	0.5852			0.5852	**0.0000**				
CaO	12.382	Mn+2	0.1478			0.1478	**0.0000**				
Na2O	0	Ca+2	1.8405					1.8405	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	100		Excess	T site	**0.0815**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	8		4.5566		1.8405		0.0000	0.0000
			%Fill	100		91.133		92.0266			

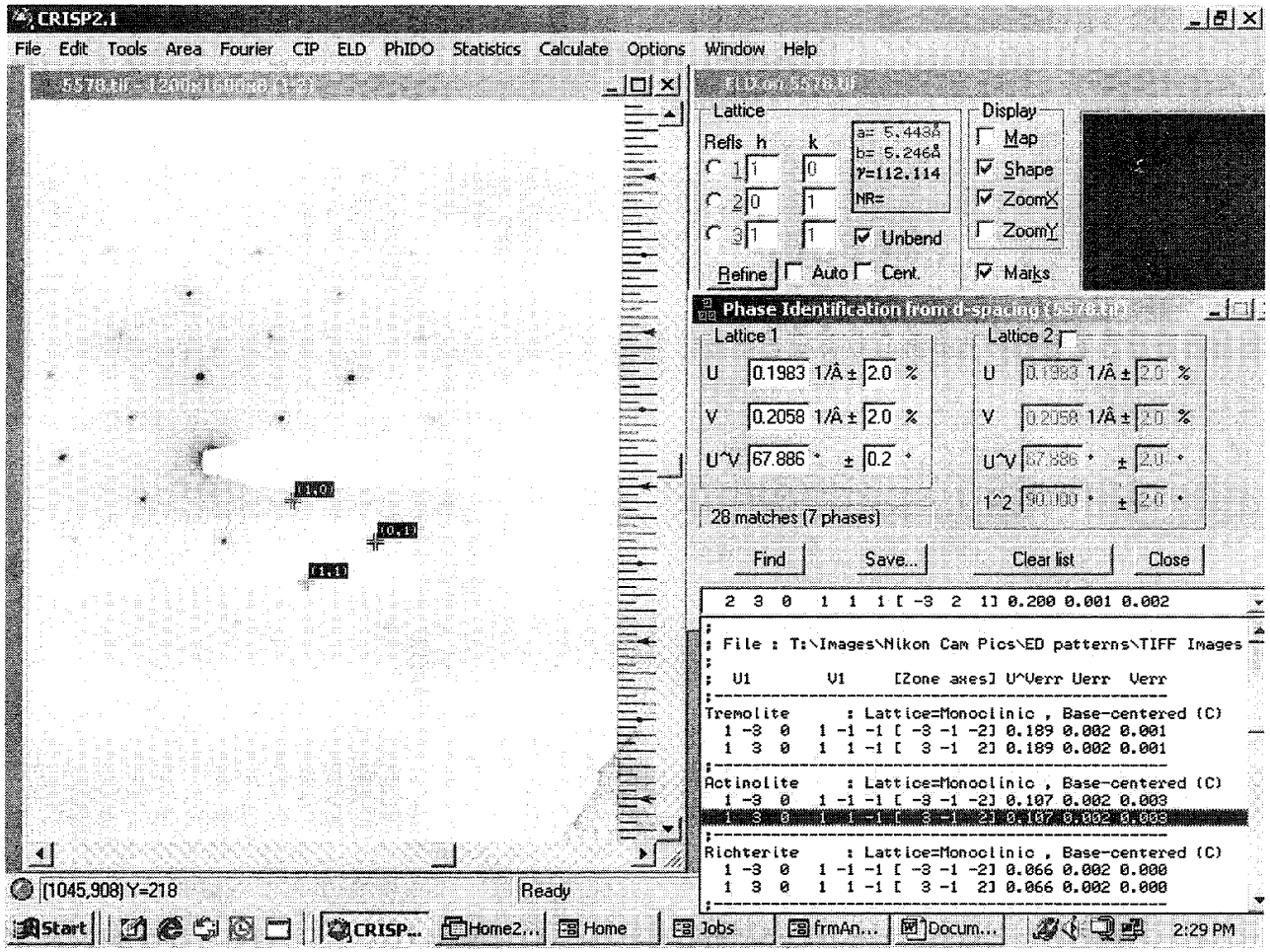
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # 041210-01-15436

Values		Satisfied Conditions
(Ca,Na)@B	1.84	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.84	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.86	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

NEG#5578; SAMPLE# 041210-01
ACTINOLITE
[3 -1 2]

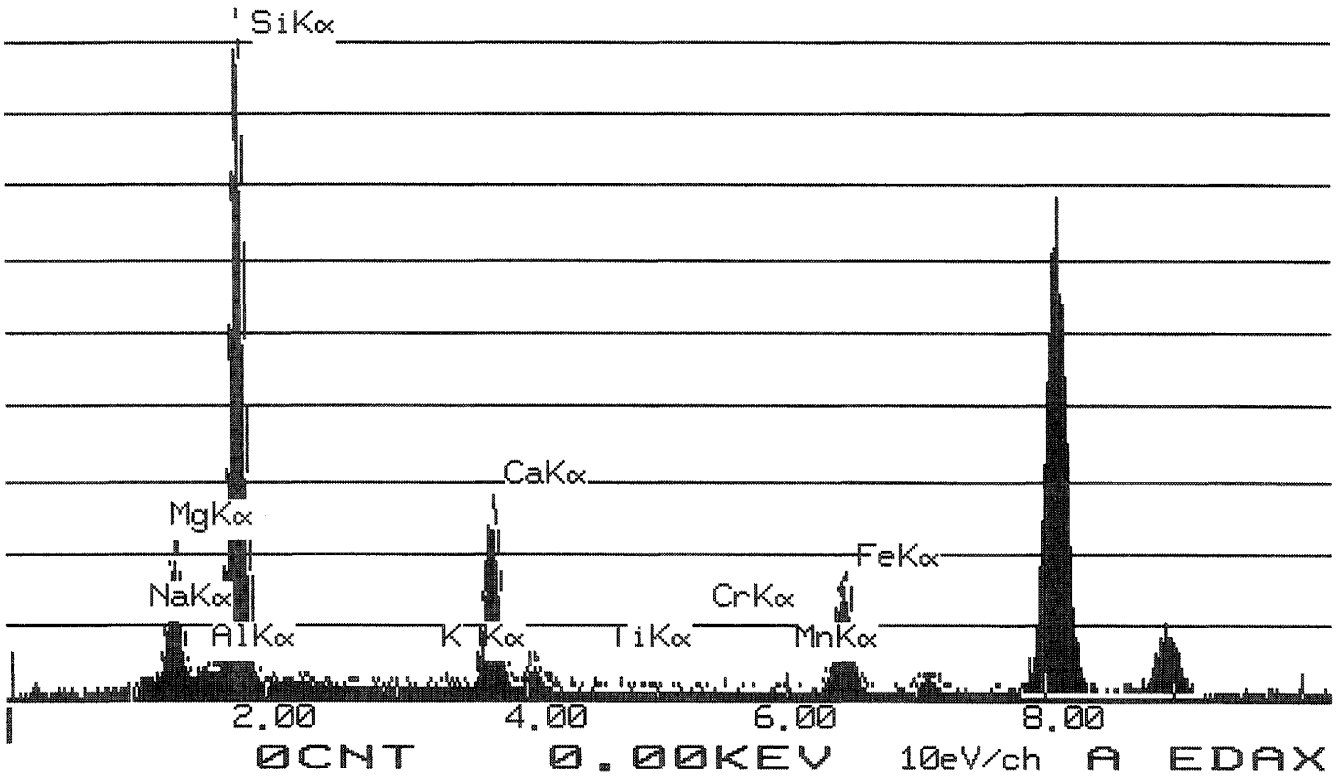


INTE-% :
LABEL = 041210-01 15438
27-NOV-72 09:39:50
63.311 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	17.959	10.114	16.770
ALK	1.548	0.524	0.989
SIK	87.268	27.642	59.135
K K	0.363	0.191	0.230
CAK	27.594	8.333	11.660
TIK	0.190	0.081	0.135
FEK	19.317	7.750	11.080
TOTAL			100.000

USED PEIF: USER

26-NOV-04 09:40:21 SUPER QUANT
RATE= 20CPS TIME= 63LSEC
FS= 589/ 589 PRST= 200LSEC
A =041210-01 15438



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	59.135	Si+4	8.0000	8.0000							
Al2O3	0.989	Al+3	0.1715	0.0000	**0.1715**						
TiO2	0.135	Ti+4	0.0283	0.0000	**0.0283**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	11.08	Fe+3	0.0416			0.0416	0.0000				
MgO	16.77	Mg+2	3.4671			3.4671	**0.0000**				
MnO	0	Fe+2	1.2520			1.2520	**0.0000**				
CaO	11.66	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.7385					1.7385	0.0000		
K2O	0.23	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0525							0.0525	0.0000
Total	**99.999**		**Excess**	T site	**0.1999**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.9605**		**1.7385**		**0.0525**	**0.0000**
			%Fill	**100**		**99.211**		**86.9272**			

Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-01-15438**

Values		Satisfied Conditions
(Ca,Na)@B	1.74	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.74	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.05	Si > 7.5
Mg/(Mg+Fe2)	0.73	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

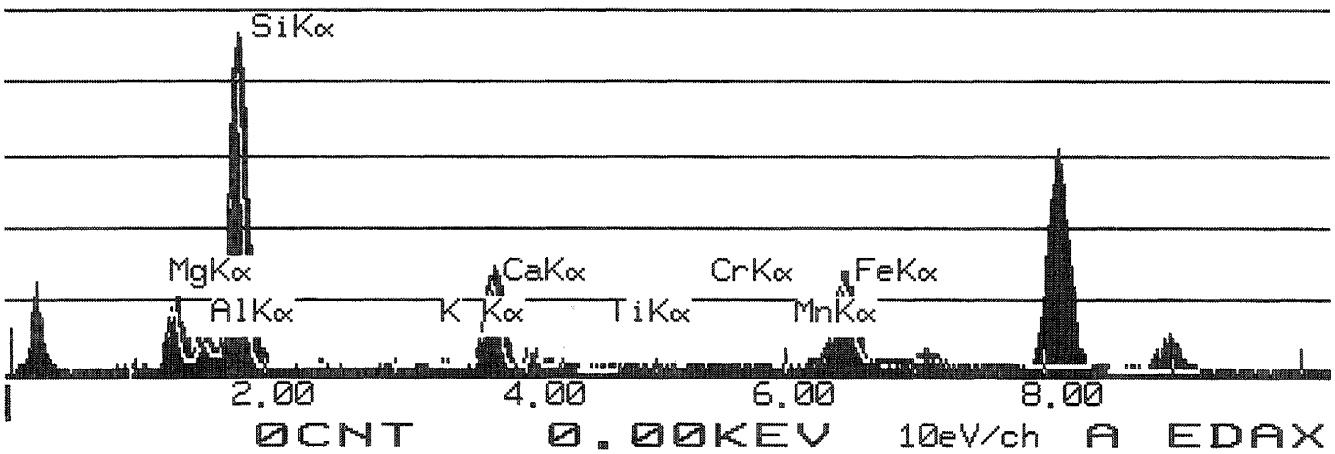
INTE-% :
LABEL = 041210-02 15468
30-NOV-72 06:12:59
28.518 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
NAK	0.842	0.488	0.658
MGK	29.981	8.210	13.612
ALK	12.694	2.088	3.945
SIK	165.756	25.527	54.612
K K	1.718	0.440	0.530
CAK	55.193	8.104	11.339
FEK	54.878	10.704	15.304

TOTAL			100.000

USED PEIF: USER

29-NOV-04 06:13:31 SUPER QUANT
RATE= 31CPS TIME= 29LSEC
FS= 1062/ 1062 PRST= 200LSEC
A =041210-02 15468



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	54.612	Si+4	7.7105	7.7105							
Al2O3	3.945	Al+3	0.6564	0.2895	**0.3669**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	15.304	Fe+3	0.1788			0.1788	0.0000				
MgO	13.612	Mg+2	2.8651			2.8651	**0.0000**				
MnO	0	Fe+2	1.6080			1.5891	**0.0189**				
CaO	11.339	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.658	Ca+2	1.7151					1.7151	0.0000		
K2O	0.53	Na+	0.1801					0.1801	**0.0000**	0.0000	0.0000
		K+	0.0955							0.0955	0.0000
Total	100		Excess	T site	**0.3669**	C site	**0.0189**	B site	**0**	A site	**0**
			Total	8		5.0000		1.8952		0.0955	0.0000
			%Fill	100		100		94.7611			

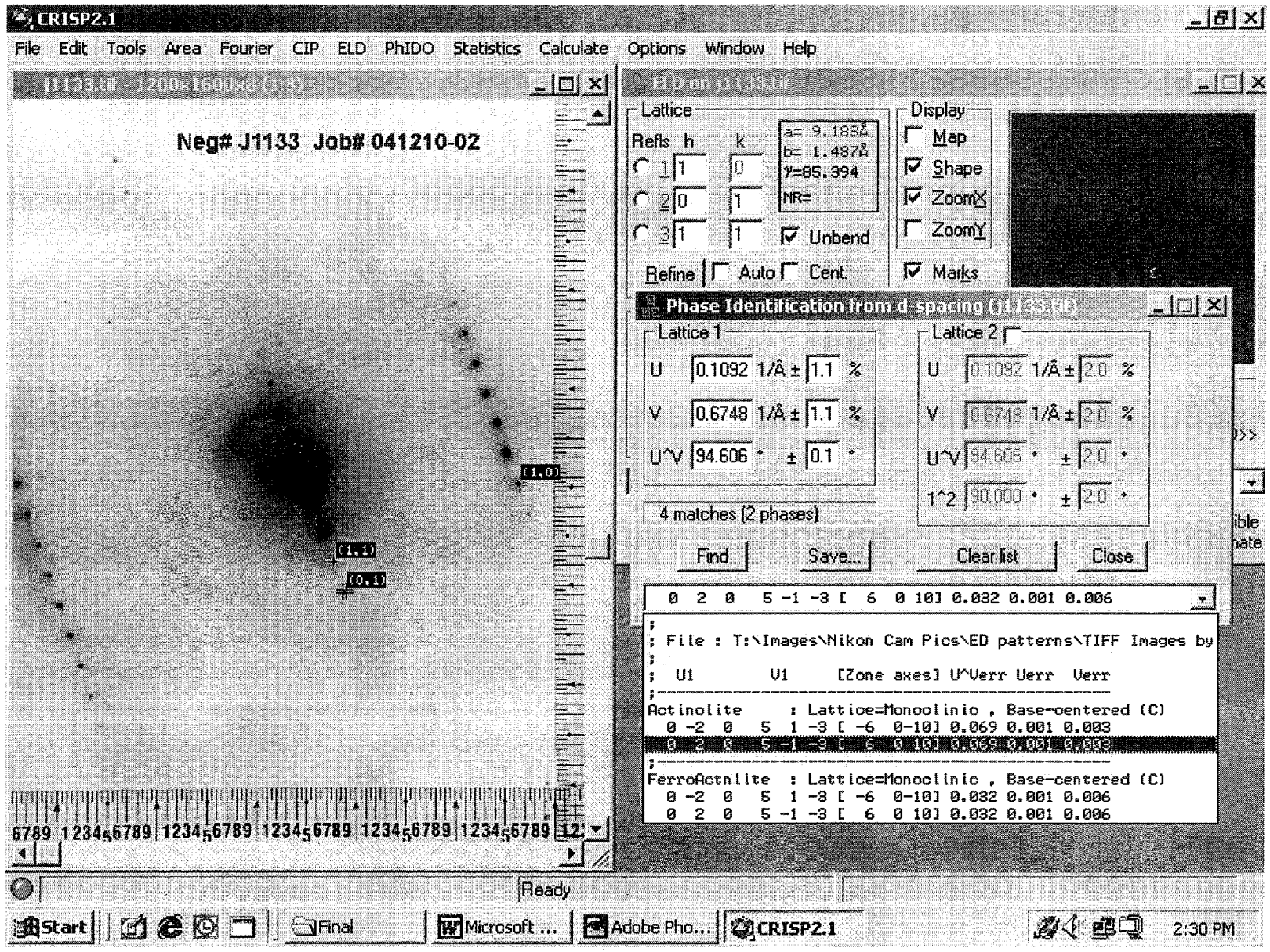
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # 041210-02-15468

Values		Satisfied Conditions
(Ca,Na)@B	1.90	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.18	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.72	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.10	Si > 7.5
Mg/(Mg+Fe2)	0.64	(Mg/(Mg+Fe2))< 0.9
Si	7.71	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[3 0 5]



SOMTH: QUANTIFY
Standardless analysis

Chi-sqd = 7.67

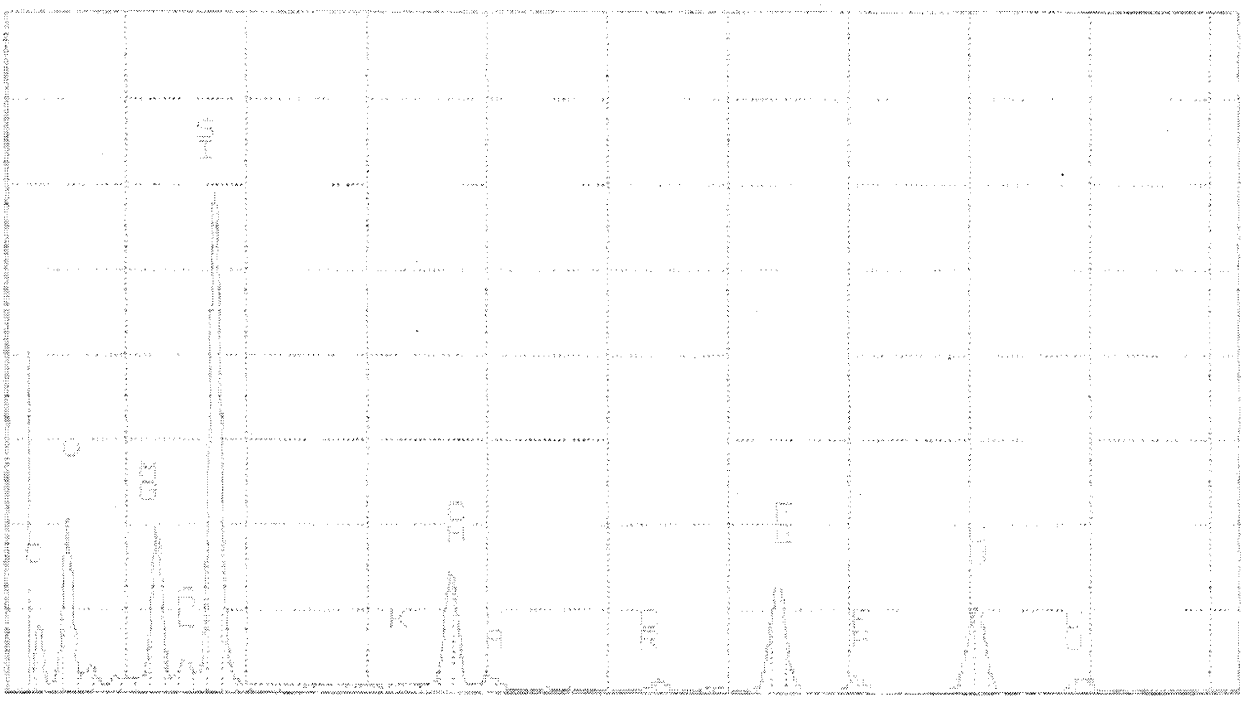
Element	Net Counts
Si-K	3,4935 +/- 351
Mg-K	10270 +/- 320
Al-K	1463 +/- 390
Ca-K	10,42 +/- 701
Fe-K	11317 +/- 1361
Na-K	786 +/- 169
K -K	319 +/- 119

K K REF.S PDB:Si1k PDB:MGK PDB:ALK PDB:CAK PDB:FEK PDB:NAK ED

041210-02 SP027

EL-LINE	PEAK	K-FACTOR	CORR/CHAR	ATOMZ	WT %	±CO	FORMULA
SI-K	3494	1.000	1.000	20.58	36.83	55.77	SIO2
MG-K	10270	1.000	0.302	7.96	7.47	11.12	MGO
AL-K	1363	0.750	0.041	0.88	1.07	1.97	AL2O3
CA-K	10542	0.749	0.395	6.59	7.67	10.71	CAO
FE-K	11369	1.399	0.467	4.01	12.16	17.37	FE2O3
NA-K	786	0.549	0.012	0.37	0.33	0.68	NA2O
K-K	319	1.439	0.010	0.15	0.36	0.50	K2O
O			1.714	61.76	44.67		

TN-5502 University of Washington - ULOL TUE 07 DEC-04 09:16
Cursor: 0 000keV = 0



0.000 B- 5 VTh = 40295 10.240
61 041210-02 SP027

1.00
%
0.0
%
0.0

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	55.77	Si+4	7.8949	7.8949							
Al2O3	2.02	Al+3	0.3370	0.1051	**0.2319**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	17.37	Fe+3	0.3330			0.3330	0.0000				
MgO	13.12	Mg+2	2.7689			2.7689	**0.0000**				
MnO	0	Fe+2	1.6860			1.6661	**0.0199**				
CaO	10.74	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.68	Ca+2	1.6288					1.6288	0.0000		
K2O	0.31	Na+	0.1866					0.1866	**0.0000**	0.0000	0.0000
		K+	0.0560							0.0560	0.0000
Total	**100.01**		**Excess**	T site	**0.2319**	C site	**0.0199**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.8154**		**0.0560**	**0.0000**
			%Fill	**100**		**100**		**90.7724**			

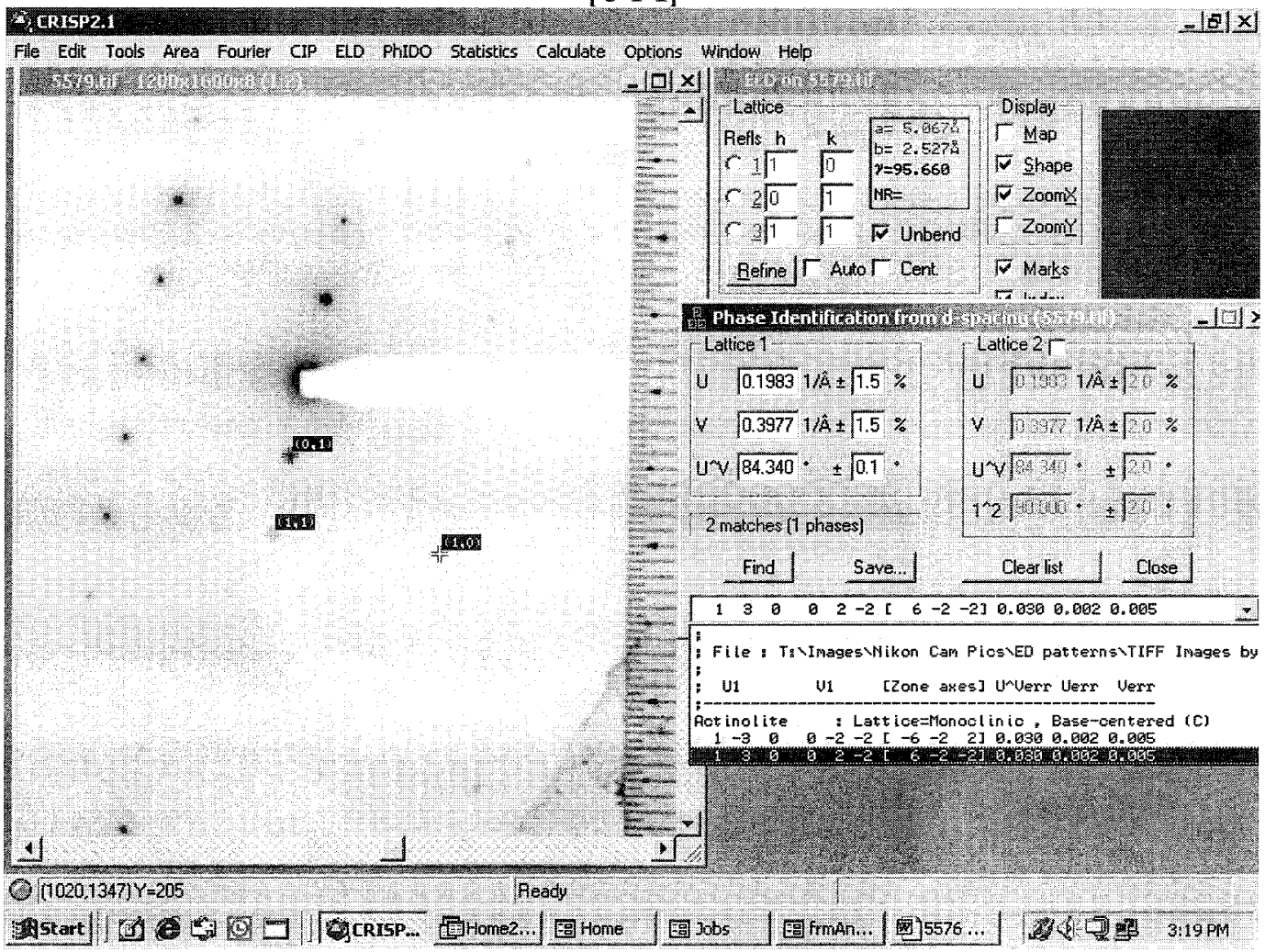
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-02-827**

Values		Satisfied Conditions
(Ca,Na)@B	1.82	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.19	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.63	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.06	Si > 7.5
Mg/(Mg+Fe2)	0.62	(Mg/(Mg+Fe2))< 0.9
Si	7.89	

Mineral Analysis Program (Version 5.0)

NEG#5579; SAMPLE# 041210-03
ACTINOLITE
[3-1-1]



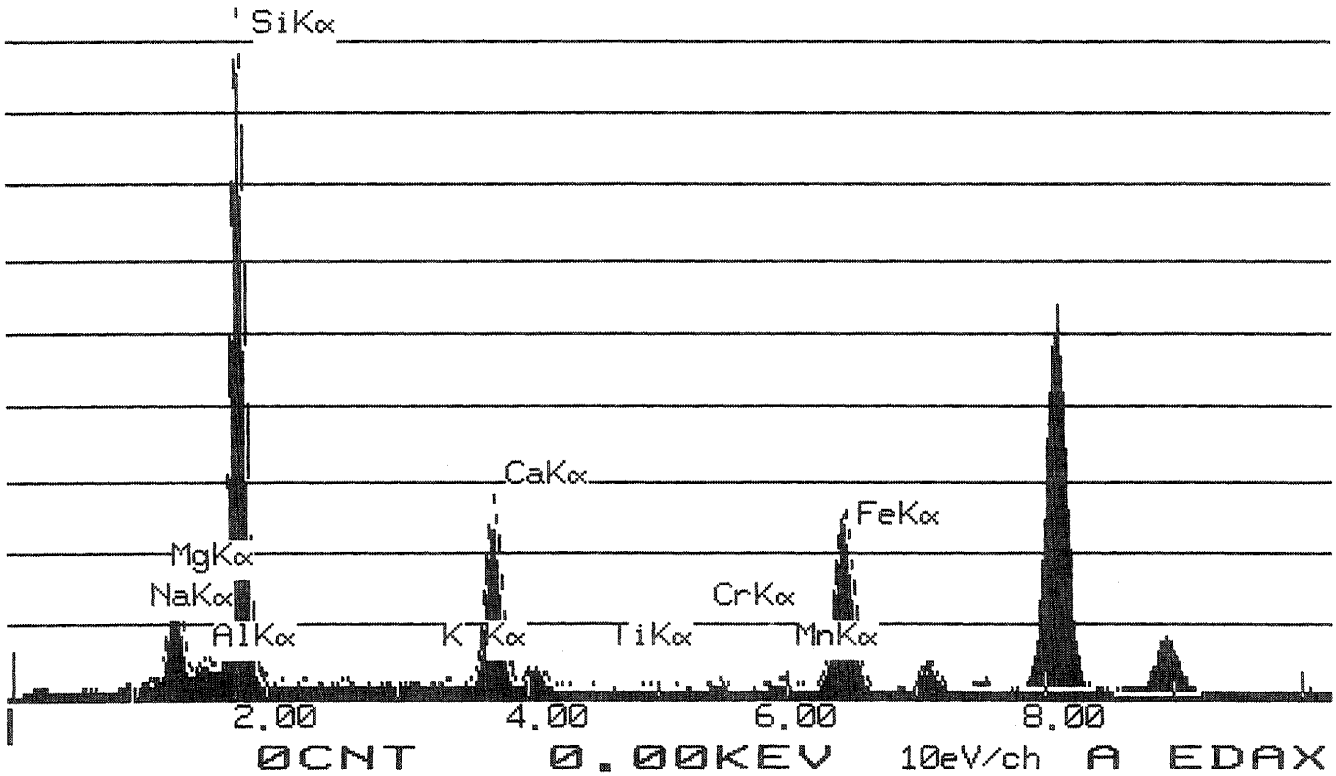
INTE-% :
LABEL = 041210-03 15439
27-NOV-72 10:44:16
100.079 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	27.109	8.183	13.568
ALK	4.387	0.795	1.503
SIK	154.348	26.204	56.061
CAK	49.091	7.946	11.118
TIK	0.350	0.080	0.133
CRK	1.449	0.326	0.477
MNK	1.889	0.441	0.569
FEK	53.897	11.589	16.570

TOTAL			100.000

USED PEIF: USER

26-NOV-04 10:44:42 SUPER QUANT
RATE= 30CPS TIME= 100LSEC
FS= 1659/ 1659 PRST= 200LSEC
A =041210-03 15439



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.061	Si+4	7.8922	7.8922							
Al2O3	1.503	Al+3	0.2494	0.1078	**0.1415**						
TiO2	0.133	Ti+4	0.0141	0.0000	**0.0141**						
Cr2O3	0.477	Cr+3	0.0531			0.0531	0.0000				
Fe(total)O	16.57	Fe+3	0.4915			0.4915	0.0000				
MgO	13.568	Mg+2	2.8476			2.8476	**0.0000**				
MnO	0.569	Fe+2	1.4044			1.4044	**0.0000**				
CaO	11.118	Mn+2	0.0678			0.0479	**0.0200**				
Na2O	0	Ca+2	1.6768					1.6768	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	**99.999**		**Excess**	T site	**0.1556**	C site	**0.0200**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.6768**		**0.0000**	**0.0000**
			%Fill	**100**		**100**		**83.8405**			

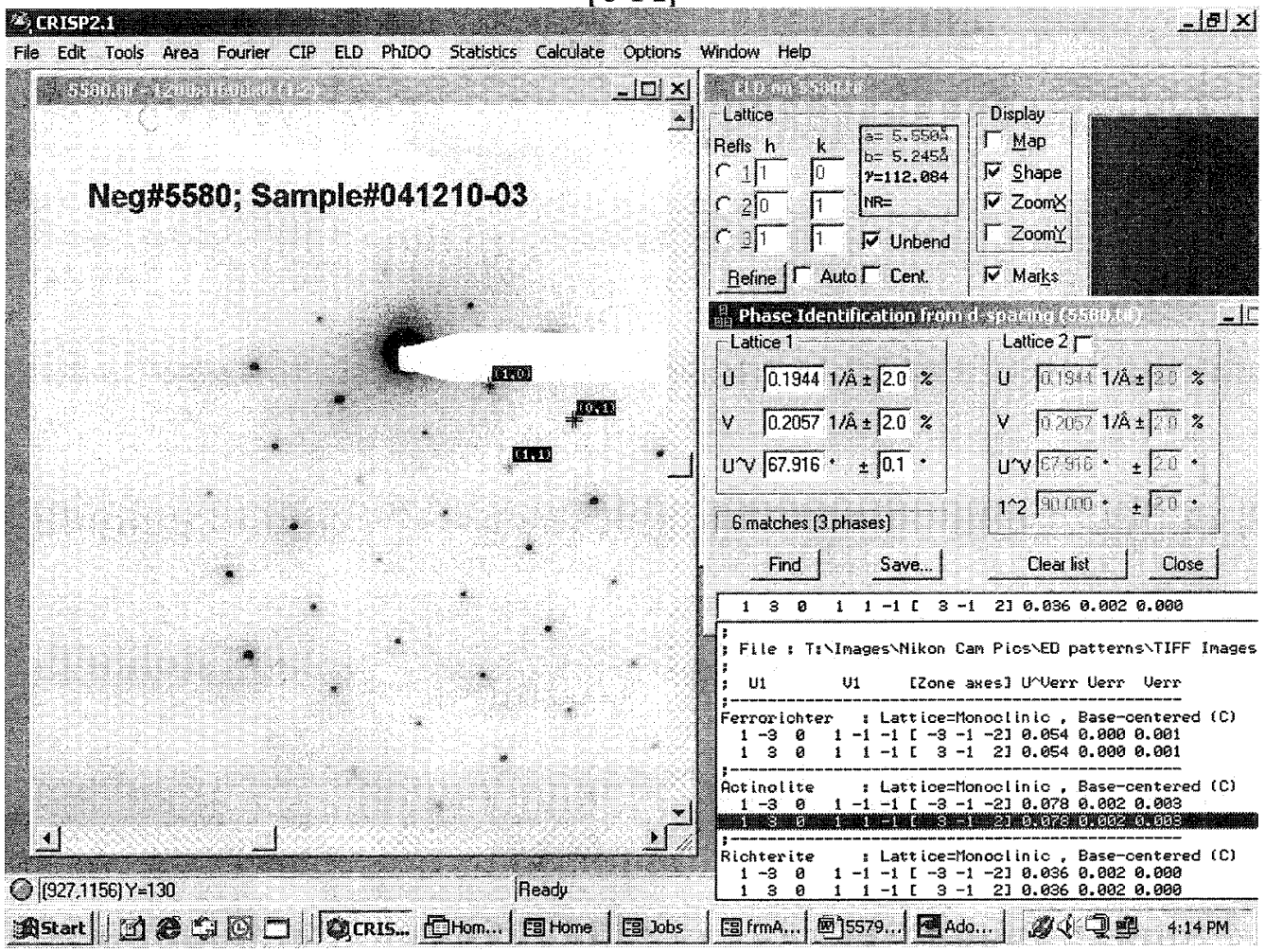
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-03-15439**

Values		Satisfied Conditions
(Ca,Na)@B	1.68	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.68	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.67	(Mg/(Mg+Fe2))< 0.9
Si	7.89	

Mineral Analysis Program (Version 5.0)

NEG#5580; SAMPLE# 041210-03
ACTINOLITE
[3-1 2]



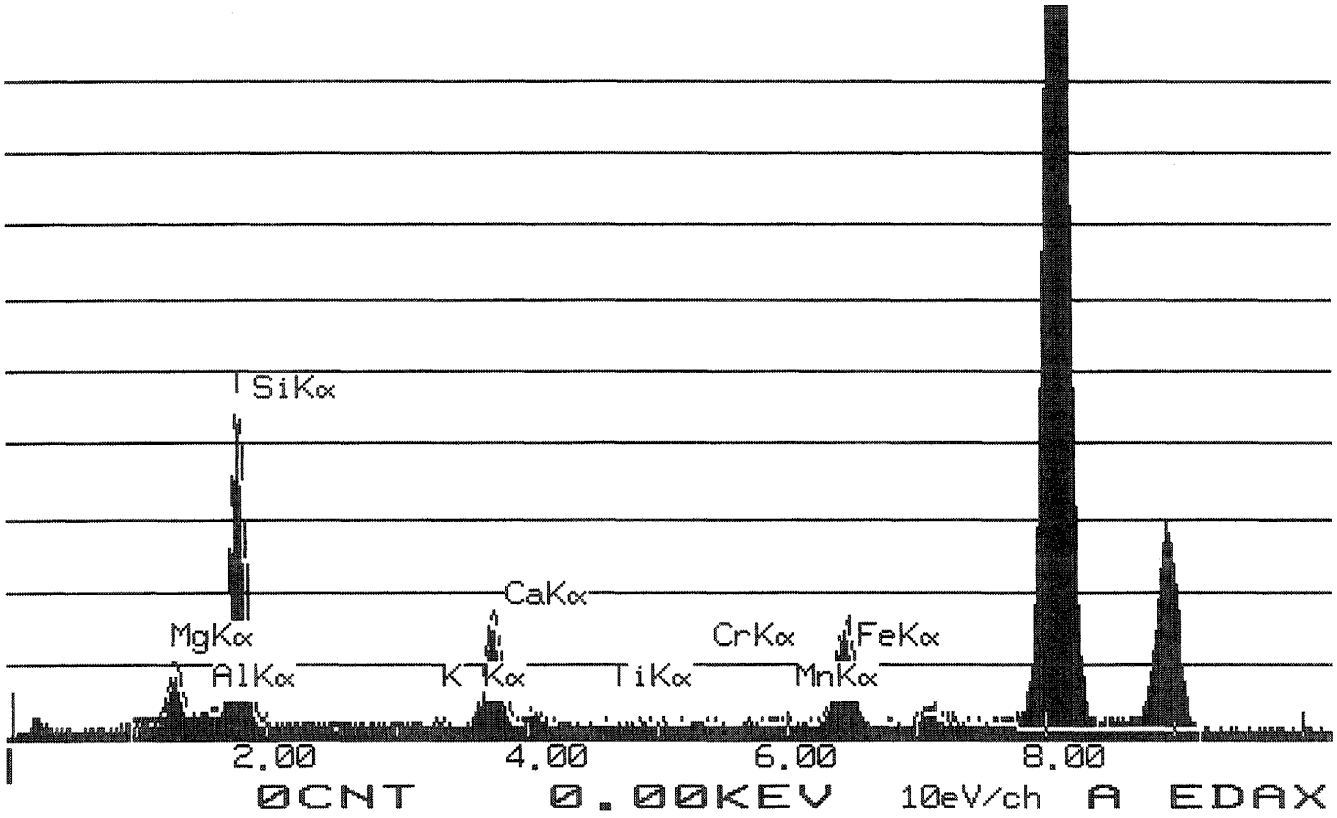
INTE-% :
LABEL = 041210-03 15440
27-NOV-72 11:13:10
75.213 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	11.727	7.054	11.696
ALK	3.244	1.172	2.215
SIK	74.229	25.113	53.725
CAK	29.237	9.431	13.195
MNK	0.479	0.223	0.288
FEK	30.819	13.206	18.881

TOTAL			100.000

USED PEIF: USER

26-NOV-04 11:13:35 SUPER QUANT
RATE= 8CPS TIME= 75LSEC
FS= 1221/ 1221 PRST= 200LSEC
A =041210-03 15440



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	53.725	Si+4	7.7703	7.7703							
Al2O3	2.215	Al+3	0.3775	0.2297	**0.1478**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	18.881	Fe+3	0.0205			0.0205	0.0000				
MgO	11.696	Mg+2	2.5219			2.5219	**0.0000**				
MnO	0.288	Fe+2	2.2606			2.2606	**0.0000**				
CaO	13.195	Mn+2	0.0353			0.0353	**0.0000**				
Na2O	0	Ca+2	2.0445					2.0000	0.0445		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	100		Excess	T site	**0.1478**	C site	**0.0000**	B site	**0.0445245**	A site	**0**
			Total	8		4.9861		2.0000		0.0000	0.0000
			%Fill	100		99.7227		100			

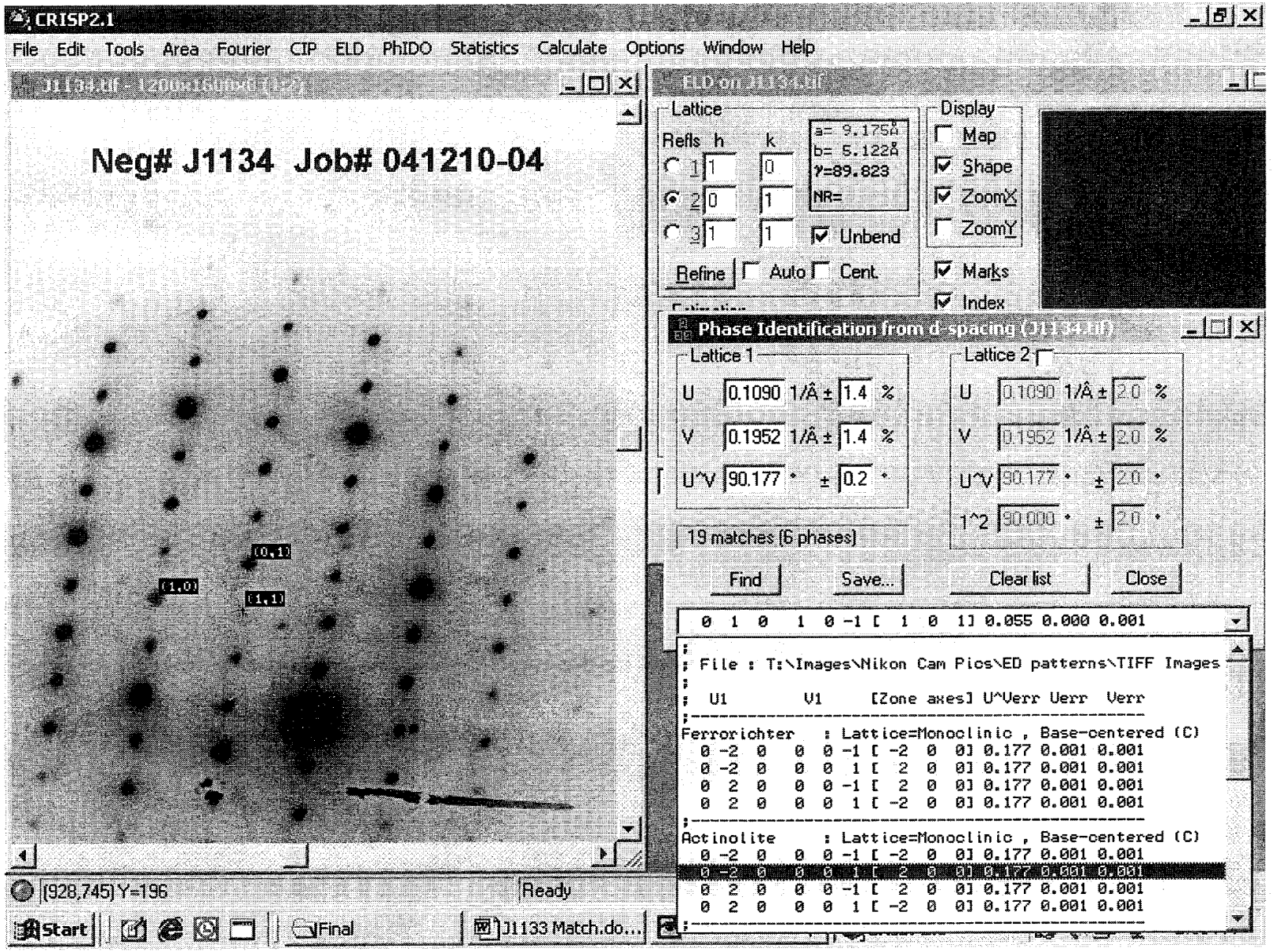
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-03-15440

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.53	(Mg/(Mg+Fe2))< 0.9
Si	7.77	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[1 0 0]

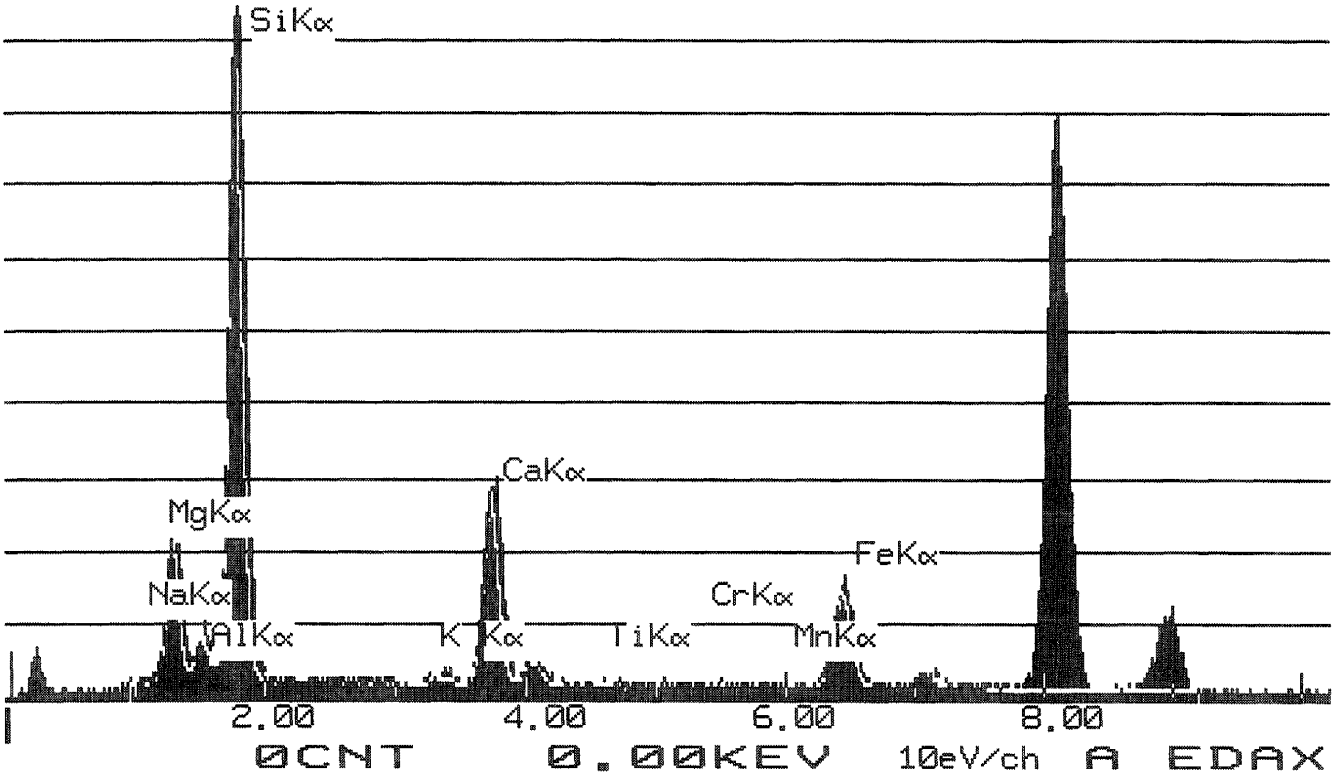


INTE-% :
LABEL = 041210-04 15469
30-NOV-72 06:47:23
63.818 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	33.188	10.041	16.649
ALK	8.336	1.515	2.863
SIK	160.802	27.363	58.538
K K	1.849	0.523	0.630
CAK	53.888	8.743	12.233
FEK	29.490	6.356	9.087
TOTAL			100.000

USED PEIF: USER

29-NOV-04 06:47:58 SUPER QUANT
RATE= 7710CPS TIME= 64LSEC
FS= 1110/ 1110 PRST= 200LSEC
A =041210-04 15469



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	58.538	Si+4	8.0000	8.0000							
Al2O3	2.863	Al+3	0.4626	0.0000	**0.4626**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	9.087	Fe+3	0.0100			0.0100	0.0000				
MgO	16.649	Mg+2	3.3987			3.3987	**0.0000**				
MnO	0	Fe+2	1.0307			1.0307	**0.0000**				
CaO	12.233	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.7950					1.7950	0.0000		
K2O	0.63	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.1110							0.1110	0.0000
Total	**100**		**Excess**	T site	**0.4626**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.9020**		**1.7950**		**0.1110**	**0.0000**
			%Fill	**100**		**98.0396**		**89.7503**			

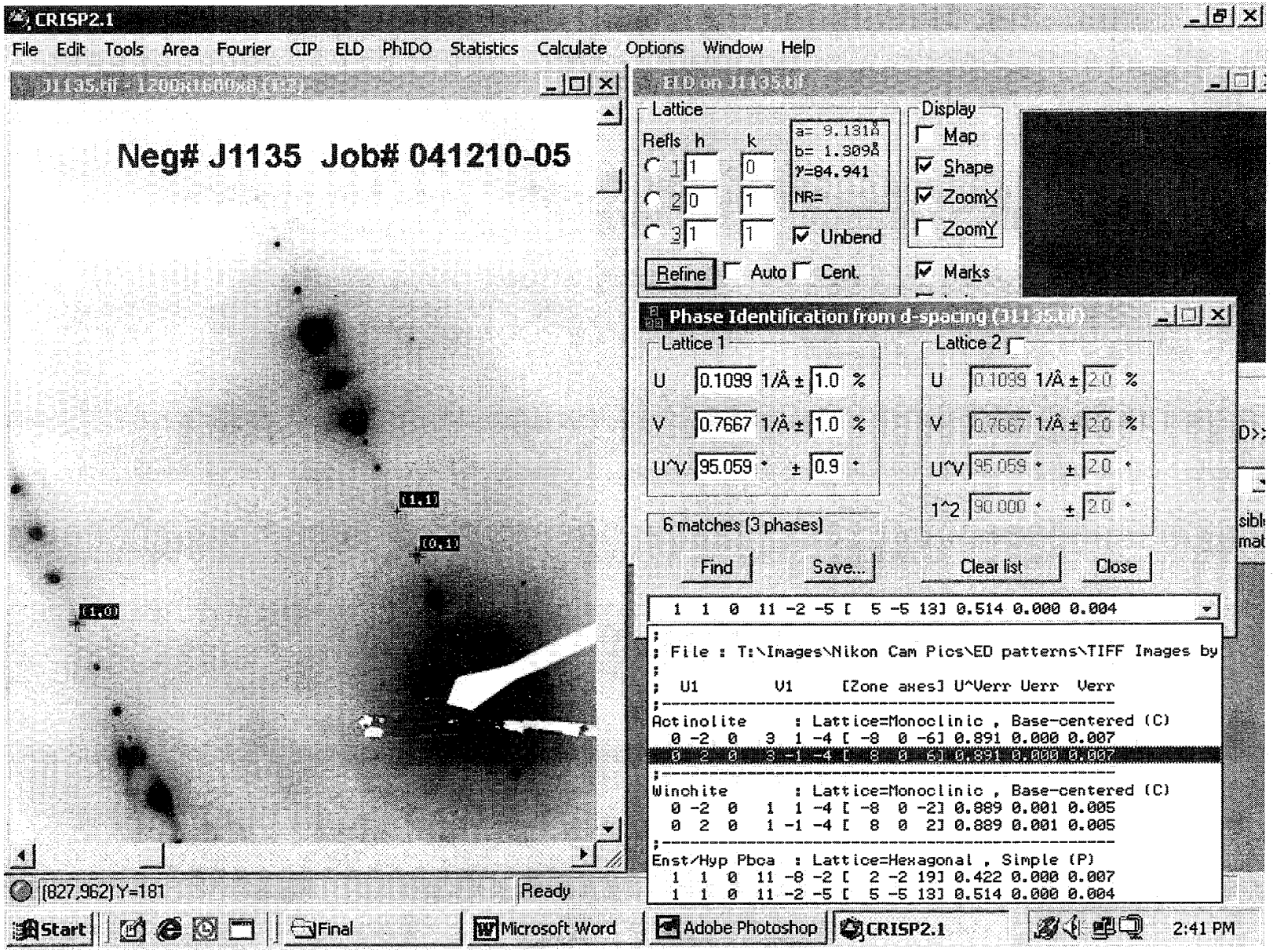
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-04-15469**

Values		Satisfied Conditions
(Ca,Na)@B	1.80	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.80	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.11	Si > 7.5
Mg/(Mg+Fe2)	0.77	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[4 0 3]



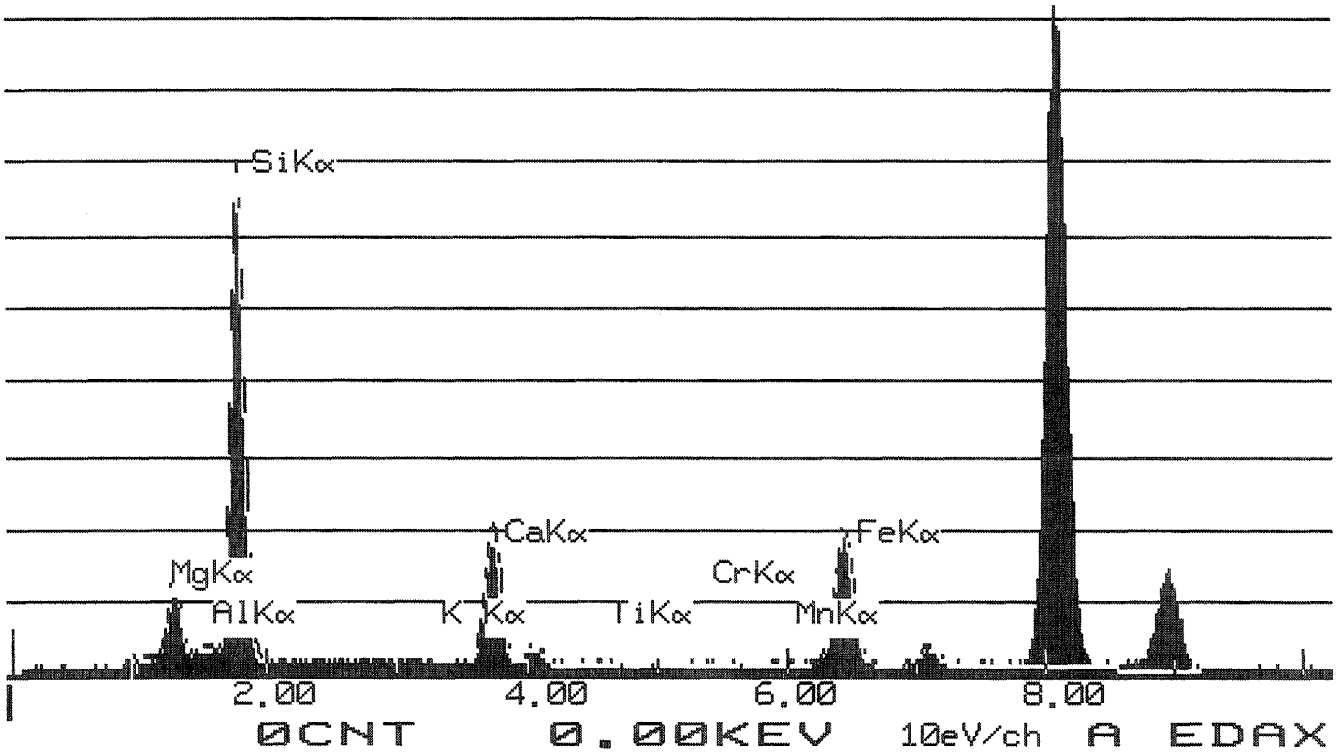
INTE-% :
LABEL = 041210-05 15470
30-NOV-72 08:26:16
77.830 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	27.200	7.650	12.685
ALK	2.904	0.491	0.927
SIK	167.314	26.467	56.623
K K	0.501	0.132	0.159
CAK	54.735	8.255	11.551
TIK	0.630	0.134	0.223
FEK	62.251	12.472	17.832

TOTAL			100.000

USED PEIF: USER

29-NOV-04 08:26:47 SUPER QUANT
RATE= 206CPS TIME= 78LSEC
FS= 1914/ 1914 PRST= 200LSEC
A =041210-05 15470



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.623	Si+4	8.0000	8.0000							
Al2O3	0.927	Al+3	0.1590	0.0000	**0.1590**						
TiO2	0.223	Ti+4	0.0286	0.0000	**0.0286**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	17.832	Fe+3	0.1359			0.1359	0.0000				
MgO	12.685	Mg+2	2.6964			2.6964	**0.0000**				
MnO	0	Fe+2	1.9756			1.9756	**0.0000**				
CaO	11.551	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.7651					1.7651	0.0000		
K2O	0.159	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0329							0.0329	0.0000
Total	**100**		**Excess**	T site	**0.1876**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.9954**		**1.7651**		**0.0329**	**0.0000**
			%Fill	**100**		**99.9089**		**88.2529**			

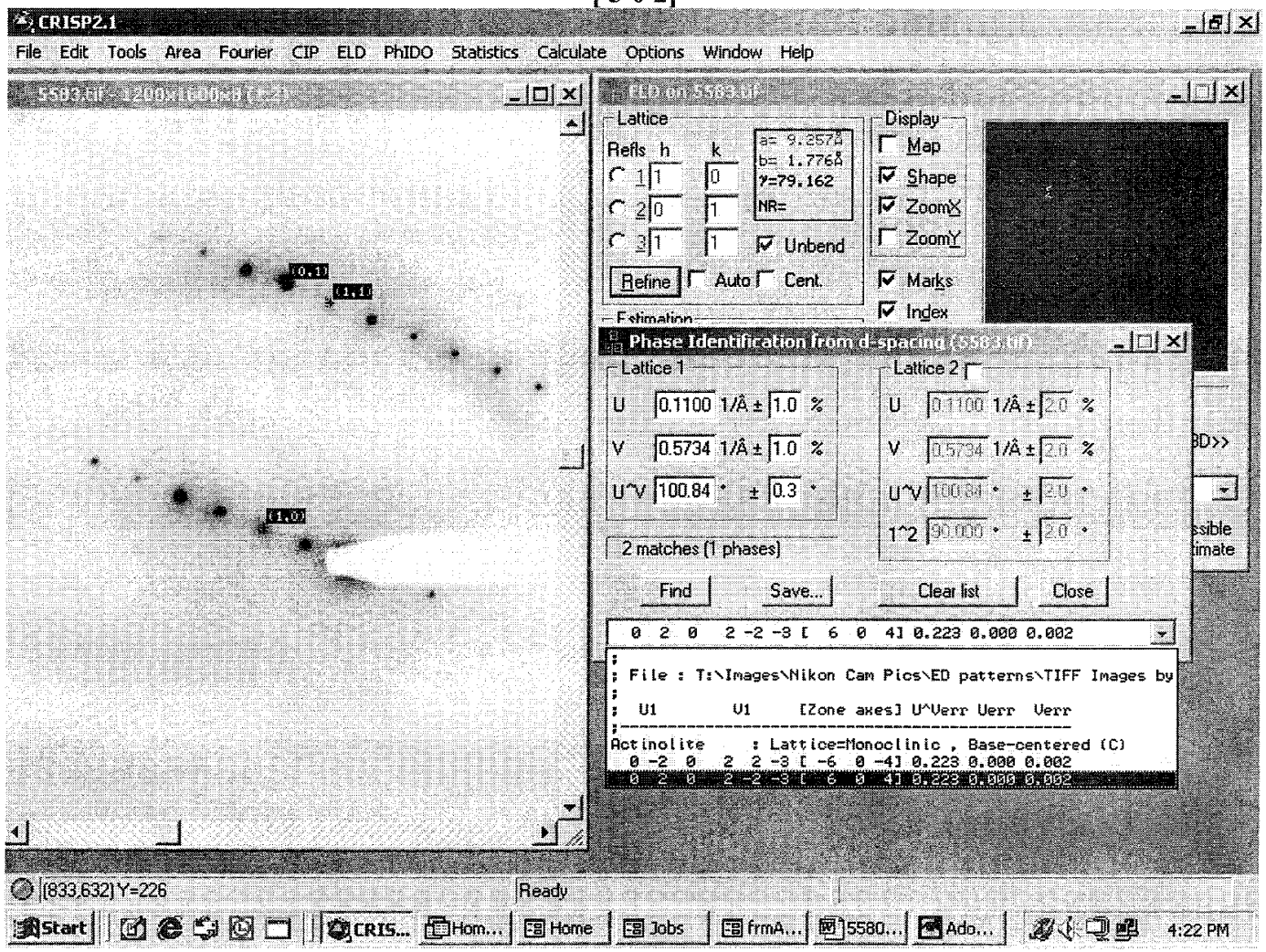
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-05-15470**

Values		Satisfied Conditions
(Ca,Na)@B	1.77	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.77	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.03	Si > 7.5
Mg/(Mg+Fe2)	0.58	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

NEG#5583; SAMPLE# 041210-06
ACTINOLITE
[3 0 2]

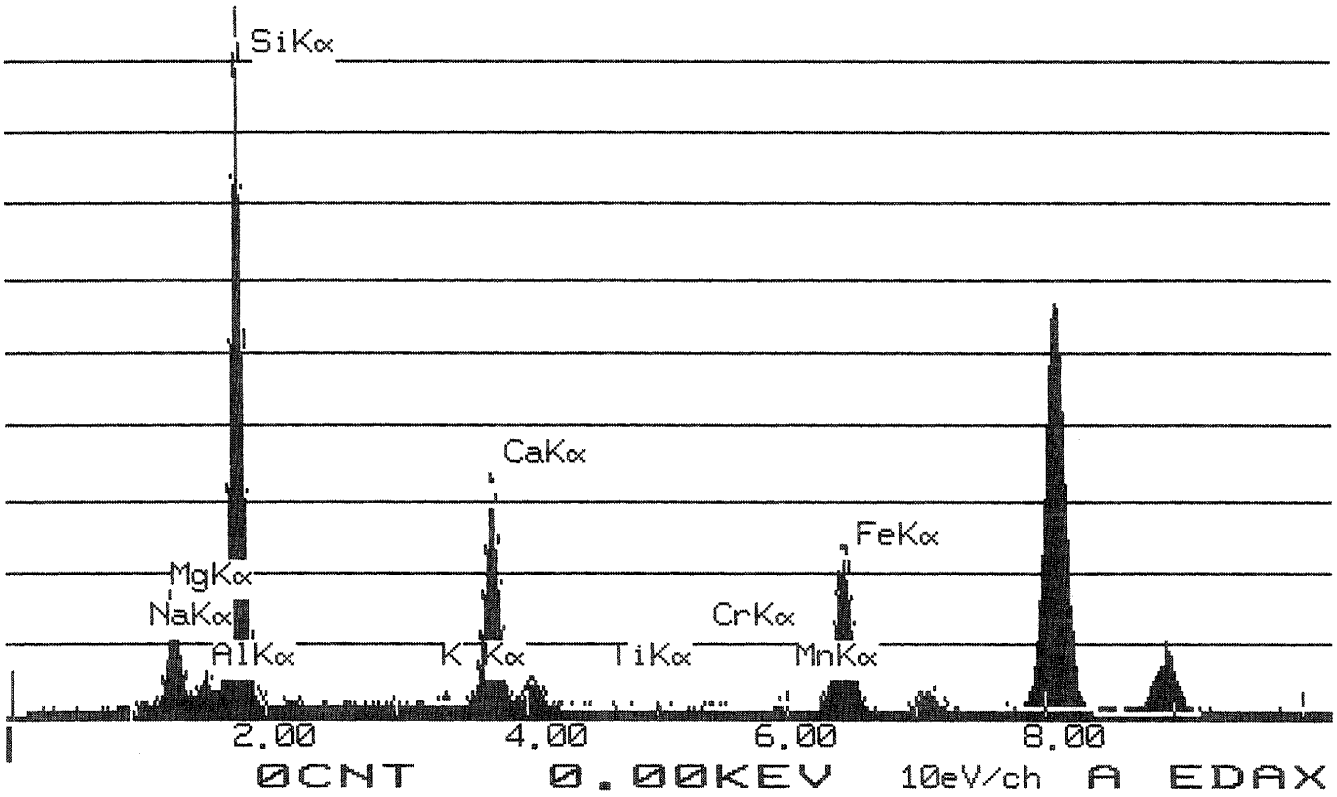


INTE-% :
LABEL = 041210-06 15441
27-NOV-72 21:12:51
60.293 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	53.506	8.337	13.823
ALK	11.195	1.048	1.980
SIK	299.074	26.208	56.069
CAK	112.551	9.404	13.157
CRK	0.431	0.050	0.073
MNK	1.476	0.178	0.230
FEK	92.432	10.259	14.668
TOTAL			100.000

USED PEIF: USER

26-NOV-04 21:13:23 SUPER QUANT
RATE= 677CPS TIME= 60LSEC
FS= 1856/ 1856 PRST= 200LSEC
A =041210-06 15441



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.069	Si+4	7.9149	7.9149							
Al2O3	1.98	Al+3	0.3294	0.0851	**0.2443**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0.073	Cr+3	0.0081			0.0081	0.0000				
Fe(total)O	14.668	Fe+3	0.0156			0.0156	0.0000				
MgO	13.823	Mg+2	2.9091			2.9091	**0.0000**				
MnO	0.23	Fe+2	1.7141			1.7141	**0.0000**				
CaO	13.157	Mn+2	0.0275			0.0275	**0.0000**				
Na2O	0	Ca+2	1.9898					1.9898	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	**100**		**Excess**	T site	**0.2443**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.9187**		**1.9898**		**0.0000**	**0.0000**
			%Fill	**100**		**98.3744**		**99.4887**			

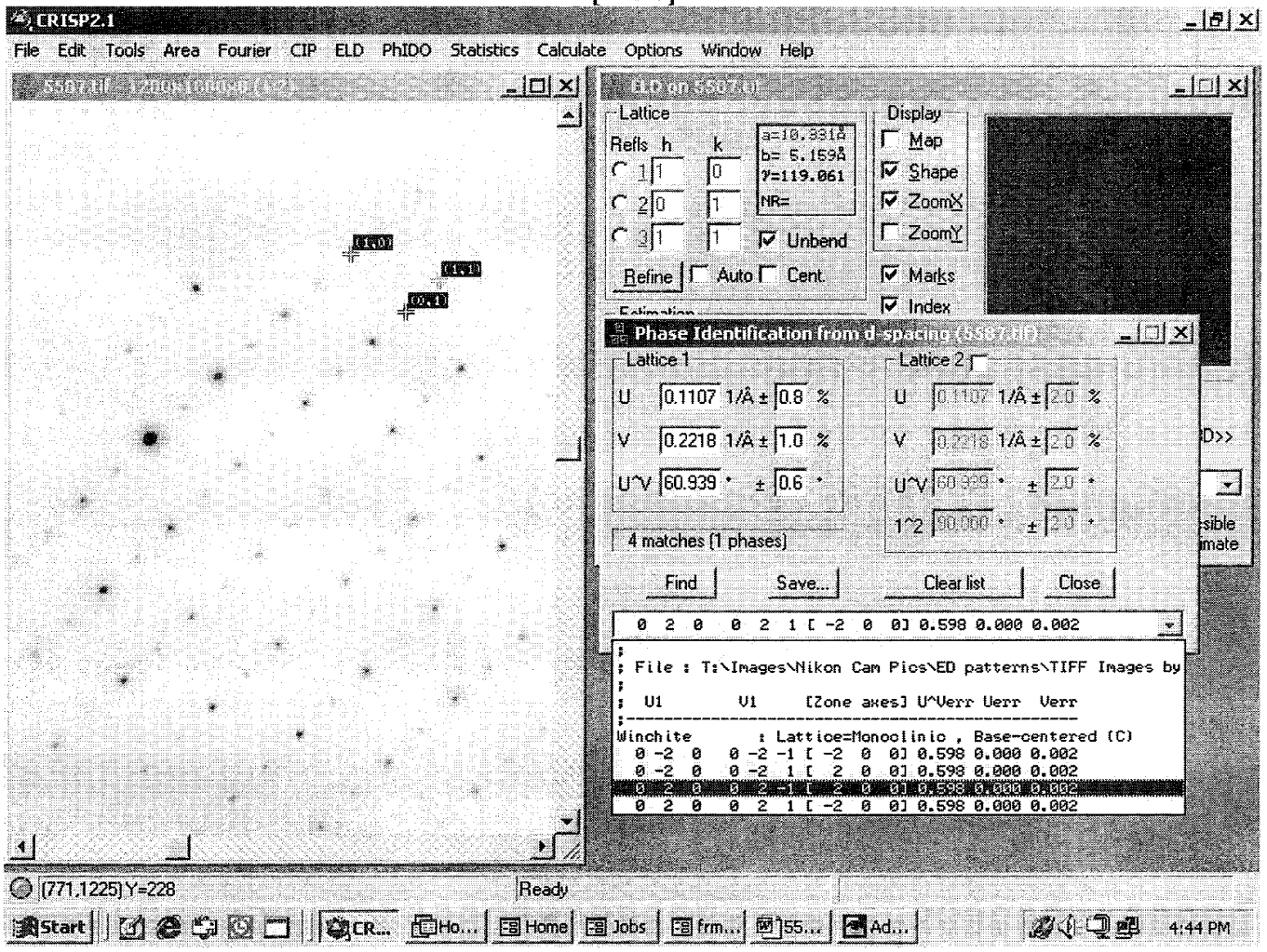
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-06-15441**

Values		Satisfied Conditions
(Ca,Na)@B	1.99	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.99	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.63	(Mg/(Mg+Fe2))< 0.9
Si	7.91	

Mineral Analysis Program (Version 5.0)

NEG#5587; SAMPLE# 041210-07
WINCHITE
[2 0 0]

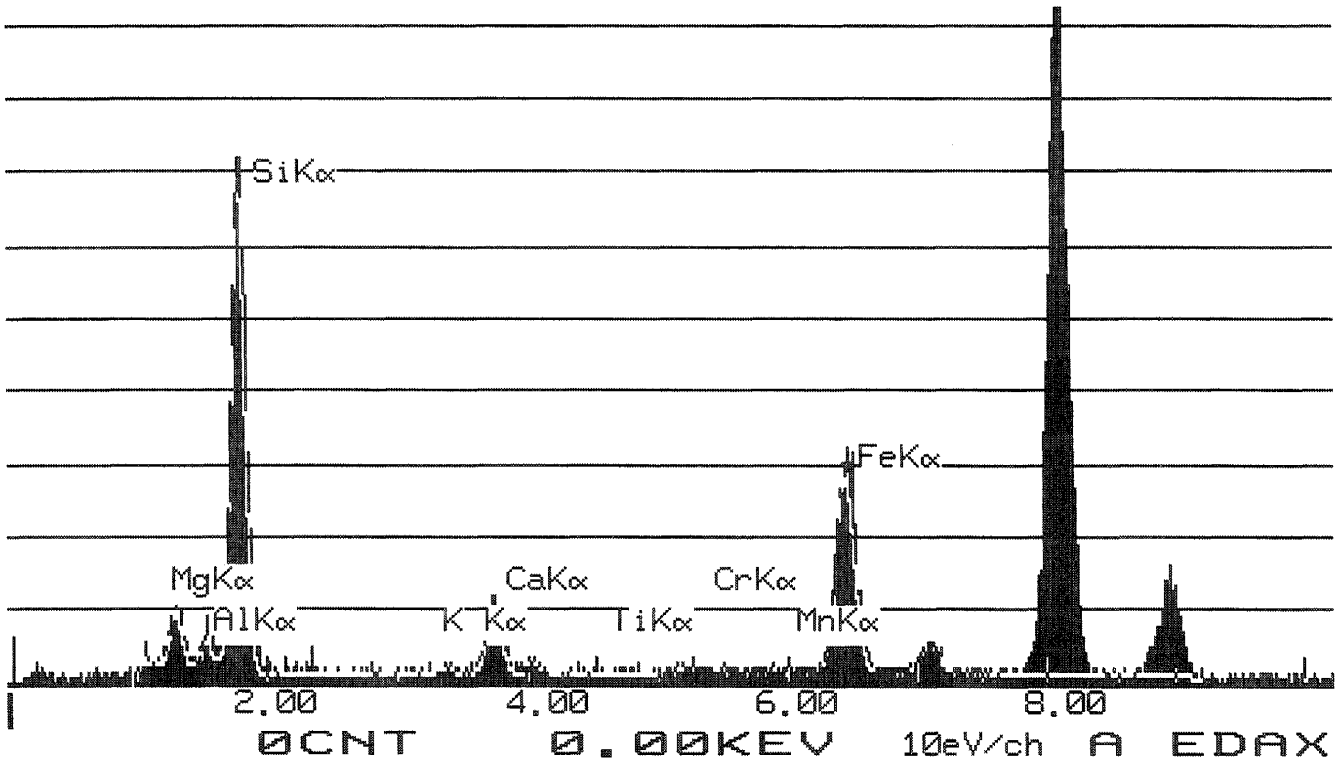


INTE-% :
LABEL = 041210-07 15443
28-NOV-72 00:29:33
30.351 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
NAK	1.977	2.016	2.717
MGK	10.906	5.250	8.706
ALK	5.634	1.629	3.079
SIK	94.460	25.577	54.719
K K	1.186	0.534	0.643
CAK	14.629	3.777	5.284
TIK	0.329	0.120	0.200
FEK	50.278	17.243	24.652
TOTAL			100.000

USED PEIF: USER

27-NOV-04 00:30:01 SUPER QUANT
RATE=****CPS TIME= 30LSEC
FS= 398/ 398 PRST= 200LSEC
A =041210-07 15443



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	54.719	Si+4	7.8199	7.8199							
Al2O3	3.079	Al+3	0.5186	0.1801	**0.3385**						
TiO2	0.2	Ti+4	0.0215	0.0000	**0.0215**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	24.652	Fe+3	1.2724			1.2724	0.0000				
MgO	8.706	Mg+2	1.8548			1.8548	**0.0000**				
MnO	0	Fe+2	1.5319			1.5128	**0.0191**				
CaO	5.284	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	2.717	Ca+2	0.8090					0.8090	0.0000		
K2O	0.643	Na+	0.7528					0.7528	**0.0000**	0.0000	0.0000
		K+	0.1172							0.1172	0.0000
Total	**100**		**Excess**	T site	**0.3600**	C site	**0.0191**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.5618**		**0.1172**	**0.0000**
			%Fill	**100**		**100**		**78.0883**			

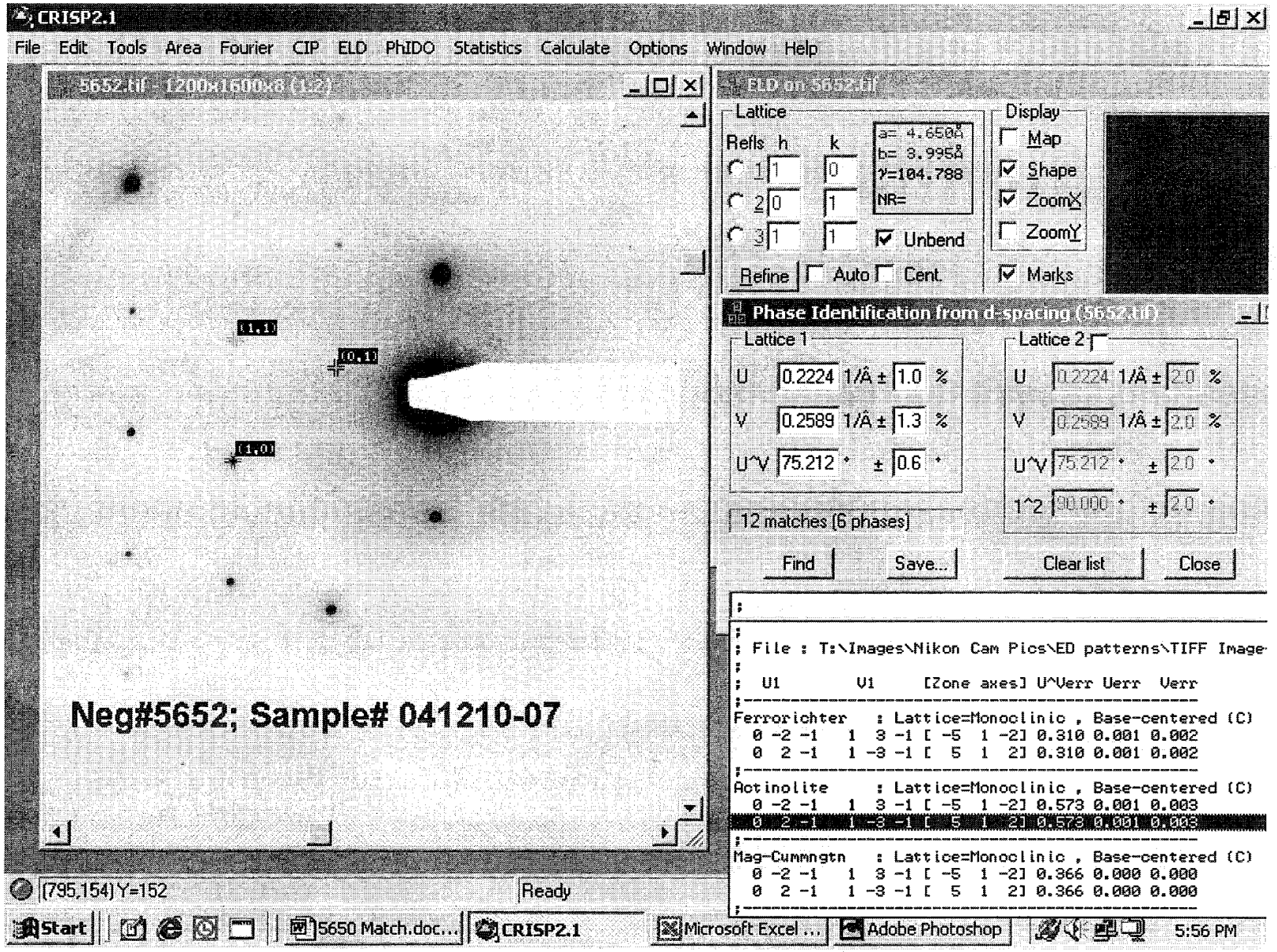
Prefix Ferri
Name winchite
Modifier none
Group Sodic-Calcic Amphibole

Sample # **041210-07-15443**

Values		Satisfied Conditions
(Ca,Na)@B	1.56	(Ca,Na)@B >= 1 and 0.5 <= Na@B < 1.5
Na@B	0.75	(Na,K)@A < 0.5
Na,K)@A	0.12	(Mg/(Mg+Fe2))>= 0.5
Mg/(Mg+Fe2)	0.55	Si > 7.5
Si	7.82	

Mineral Analysis Program (Version 5.0)

Neg#5652; Sample# 041210-07
ACTINOLITE
[5 1 2]



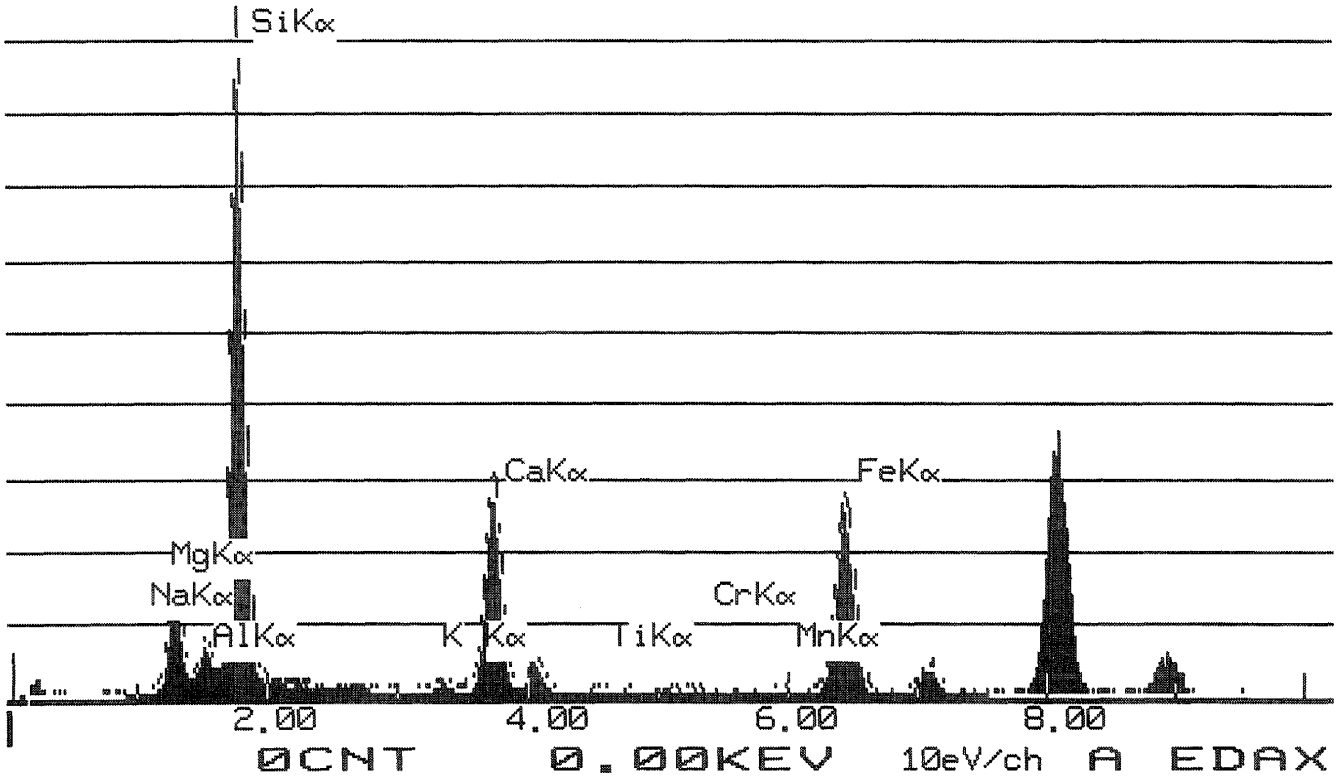
INTE-% :
LABEL = 041210-07 15493
03-DEC-72 04:21:50
77.728 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	31.456	7.324	12.144
ALK	12.351	1.727	3.264
SIK	186.677	24.446	52.299
K K	3.101	0.675	0.813
CAK	73.899	9.227	12.910
TIK	1.518	0.267	0.446
CRK	0.347	0.060	0.088
MNK	0.862	0.155	0.200
FEK	75.211	12.475	17.835

TOTAL			100.000

USED PEIF: USER

02-DEC-04 04:22:25 SUPER QUANT
RATE= 7CPS TIME= 77LSEC
FS= 1599/ 1599 PRST= 200LSEC
A =041210-07 15493



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	53.075	Si+4	7.7574	7.7574							
Al2O3	0.893	Al+3	0.1538	0.1538	**0.0000**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	19.561	Fe+3	0.0215			0.0215	0.0000				
MgO	12.042	Mg+2	2.6239			2.6239	**0.0000**				
MnO	0.331	Fe+2	2.3668			2.3546	**0.0122**				
CaO	13.827	Mn+2	0.0410			0.0000	**0.0410**				
Na2O	0	Ca+2	2.1651					1.9468	0.2183		
K2O	0.272	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0507							0.0507	0.0000
Total	**100.001**		**Excess**	T site	**0.0000**	C site	**0.0532**	B site	**0.2182902**	A site	**0**
			Total	**7.9113**		**5.0000**		**1.9468**		**0.0507**	**0.0000**
			%Fill	**98.891**		**100**		**97.3405**			

Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-07-15493**

Values		Satisfied Conditions
(Ca,Na)@B	1.95	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.95	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.05	Si > 7.5
Mg/(Mg+Fe2)	0.53	(Mg/(Mg+Fe2))< 0.9
Si	7.76	

Mineral Analysis Program (Version 5.0)

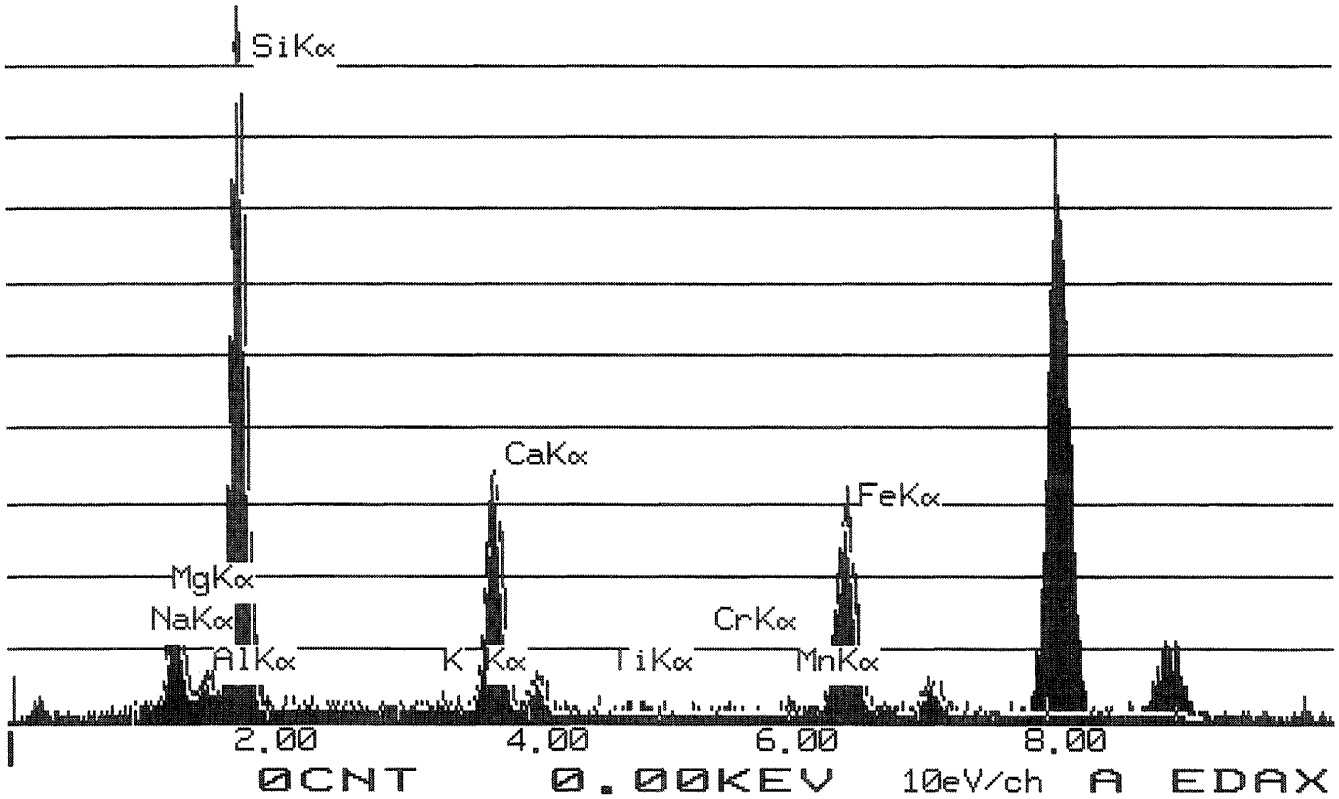
INTE-% :
LABEL = 041210-07 15444
28-NOV-72 00:46:53
30.243 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	20.170	7.732	12.821
ALK	4.100	0.944	1.784
SIK	118.045	25.451	54.449
K K	1.223	0.438	0.528
CAK	45.829	9.421	13.181
TIK	1.323	0.384	0.640
MNK	0.562	0.167	0.215
FEK	41.960	11.458	16.382

TOTAL			100.000

USED PEIF: USER

27-NOV-04 00:47:21 SUPER QUANT
RATE= 763CPS TIME= 30LSEC
FS= 363/ 363 PRST= 200LSEC
A =041210-07 15444



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	54.449	Si+4	7.8020	7.8020							
Al2O3	1.784	Al+3	0.3013	0.1980	**0.1032**						
TiO2	0.64	Ti+4	0.0690	0.0000	**0.0690**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	16.382	Fe+3	0.0177			0.0177	0.0000				
MgO	12.821	Mg+2	2.7388			2.7388	**0.0000**				
MnO	0.215	Fe+2	1.9432			1.9432	**0.0000**				
CaO	13.181	Mn+2	0.0261			0.0261	**0.0000**				
Na2O	0	Ca+2	2.0234					2.0000	0.0234		
K2O	0.528	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0965							0.0965	0.0000
Total	**100**		**Excess**	T site	**0.1722**	C site	**0.0000**	B site	**0.0234097**	A site	**0**
			Total	**8**		**4.8979**		**2.0000**		**0.0965**	**0.0000**
			%Fill	**100**		**97.9589**		**100**			

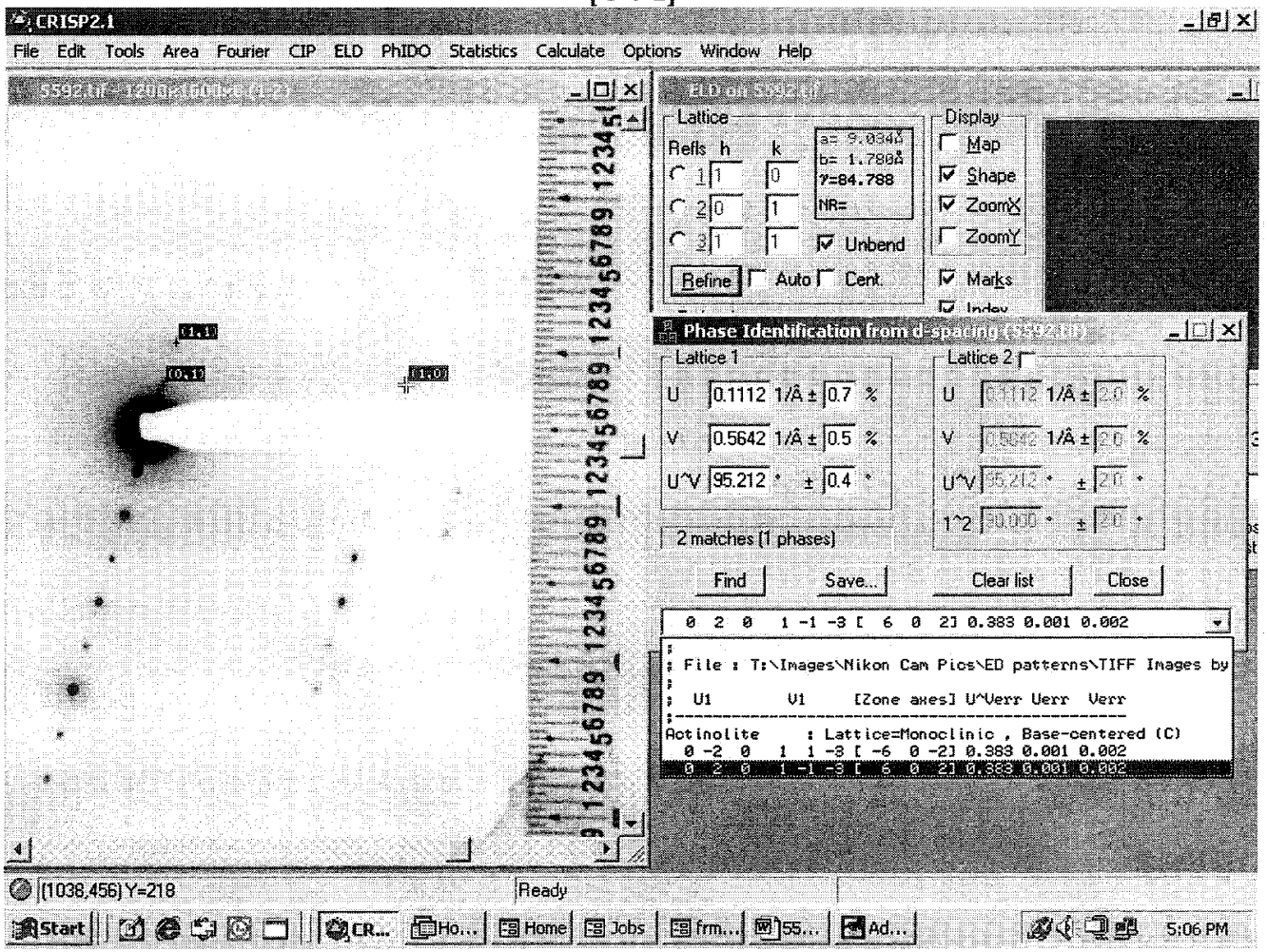
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # **041210-07-15444**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.10	Si > 7.5
Mg/(Mg+Fe2)	0.58	(Mg/(Mg+Fe2))< 0.9
Si	7.80	

Mineral Analysis Program (Version 5.0)

NEG#5592; SAMPLE# 041210-08
ACTINOLITE
[3 0 1]

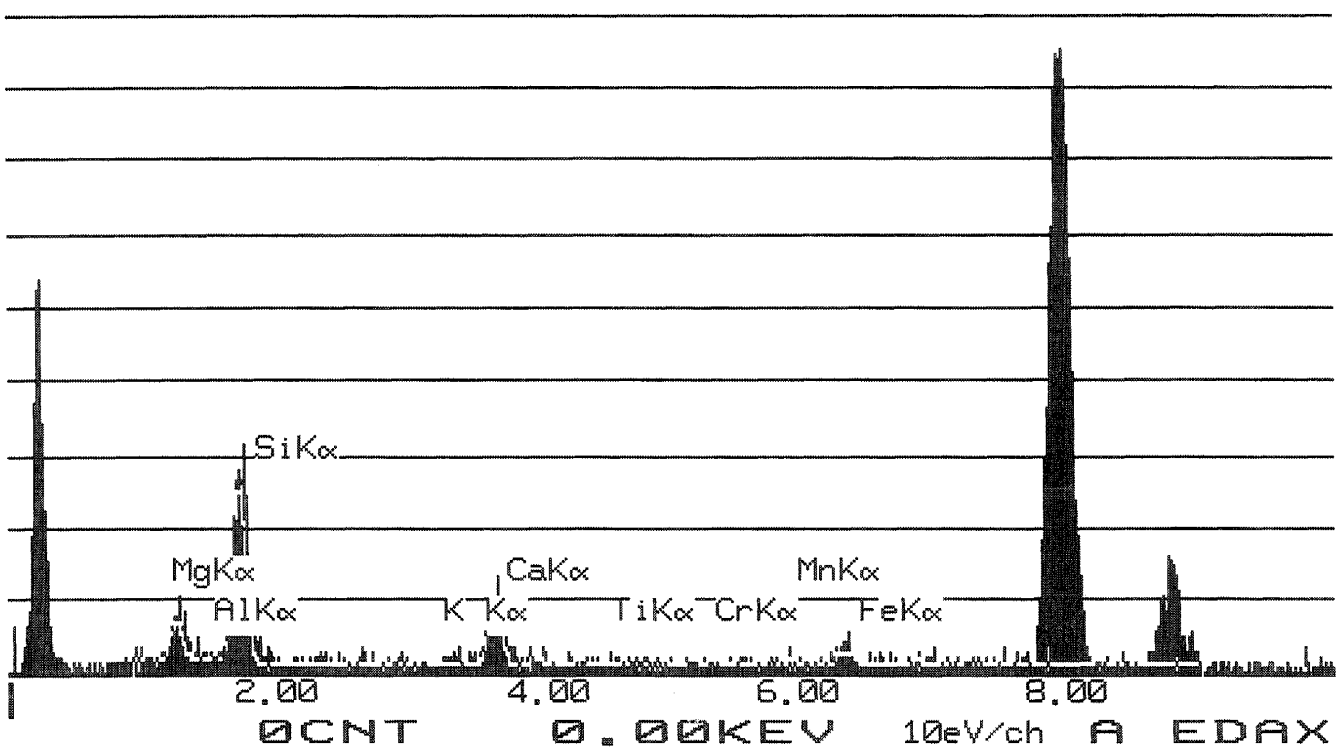


INTE-% :
LABEL = 041210-08 15447
28-NOV-72 02:37:16
111.215 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	1.322	10.249	16.993
SIK	6.438	28.076	60.064
K K	0.207	1.499	1.805
CAK	2.509	10.430	14.594
TIK	0.081	0.475	0.792
FEK	0.728	4.023	5.752
TOTAL			100.000

USED PEIF: USER

27-NOV-04 02:37:42 SUPER QUANT
RATE= 280CPS TIME= 111LSEC
FS= 265/ 265 PRST= 200LSEC
A =041210-08 15447



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	60.064	Si+4	8.0000	8.0000							
Al2O3	0	Al+3	0.0000	0.0000	**0.0000**						
TiO2	0.792	Ti+4	0.1078	0.0000	**0.1078**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	5.752	Fe+3	0.0191			0.0191	0.0000				
MgO	16.993	Mg+2	3.5150			3.5150	**0.0000**				
MnO	0	Fe+2	0.6801			0.6801	**0.0000**				
CaO	14.594	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	2.1746					2.0000	0.1746		
K2O	1.805	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.3370							0.3370	0.0000
Total	100		Excess	T site	**0.1078**	C site	**0.0000**	B site	**0.1746282**	A site	**0**
			Total	8		4.3220		2.0000		0.3370	0.0000
			%Fill	100		86.4396		100			

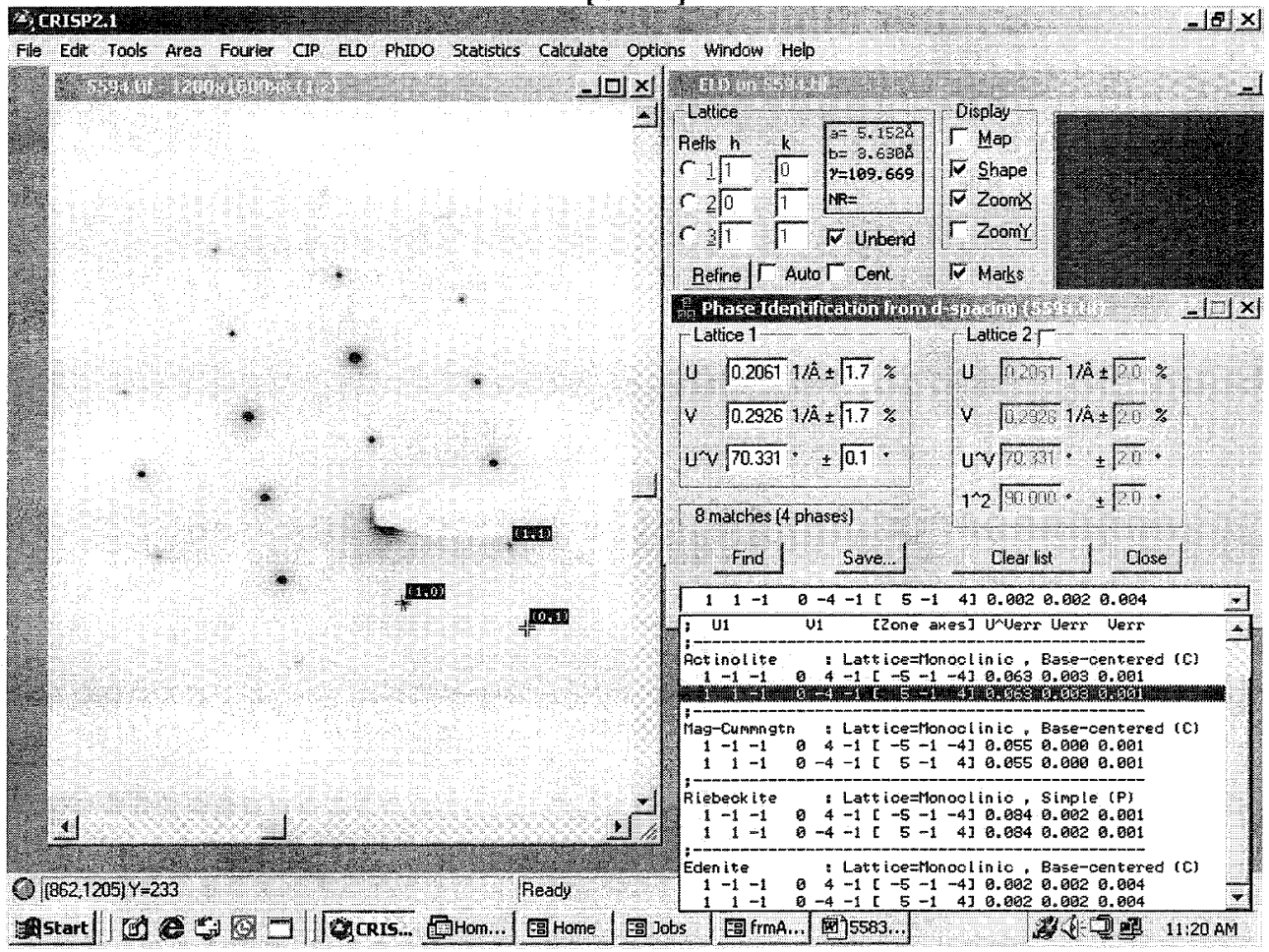
Prefix	none
Name	actinolite
Modifier	Potassian
Group	Calcic Amphibole

Sample # 041210-08-15447

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.34	Si > 7.5
Mg/(Mg+Fe2)	0.84	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

NEG#5594; SAMPLE# 041210-08
ACTINOLITE
[5 -1 4]



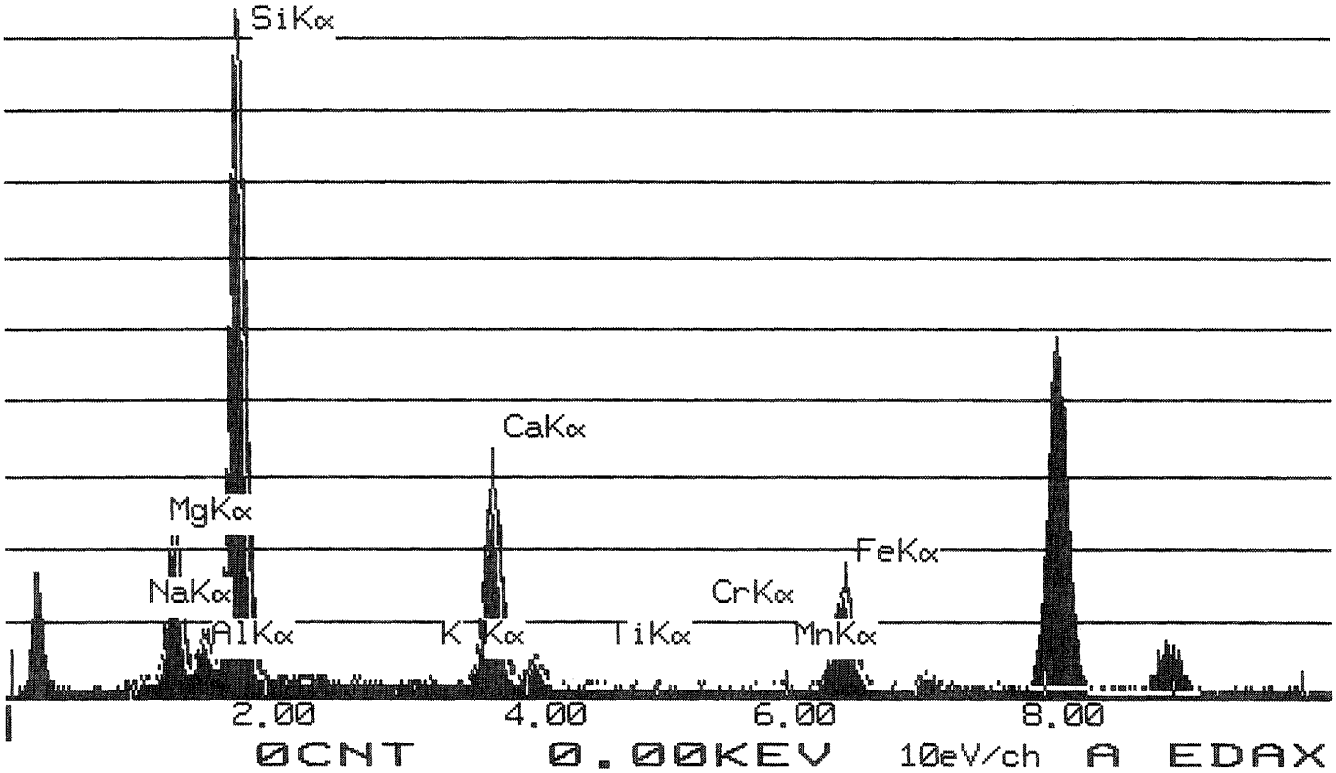
INTE-% :
LABEL = 041210-08 15448
28-NOV-72 03:09:18
143.377 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
NAK	0.133	0.231	0.311
MGK	13.049	10.730	17.792
ALK	3.292	1.626	3.072
SIK	58.057	26.850	57.441
CAK	19.236	8.482	11.868
TIK	0.209	0.130	0.217
FEK	11.104	6.504	9.299

TOTAL			100.000

USED PEIF: USER

27-NOV-04 03:09:44 SUPER QUANT
RATE=26327CPS TIME= 143LSEC
FS= 889/ 889 PRST= 200LSEC
A =041210-08 15448



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	57.441	Si+4	7.8406	7.8406							
Al2O3	3.072	Al+3	0.4942	0.1594	**0.3348**						
TiO2	0.217	Ti+4	0.0223	0.0000	**0.0223**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	9.299	Fe+3	0.1910			0.1910	0.0000				
MgO	17.792	Mg+2	3.6206			3.6206	**0.0000**				
MnO	0	Fe+2	0.8491			0.8313	**0.0178**				
CaO	11.868	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.311	Ca+2	1.7355					1.7355	0.0000		
K2O	0	Na+	0.0823					0.0823	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	100		Excess	T site	**0.3571**	C site	**0.0178**	B site	**0**	A site	**0**
			Total	8		5.0000		1.8178		0.0000	0.0000
			%Fill	100		100		90.8909			

Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-08-15448

Values		Satisfied Conditions
(Ca,Na)@B	1.82	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.08	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.74	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.81	(Mg/(Mg+Fe2))< 0.9
Si	7.84	

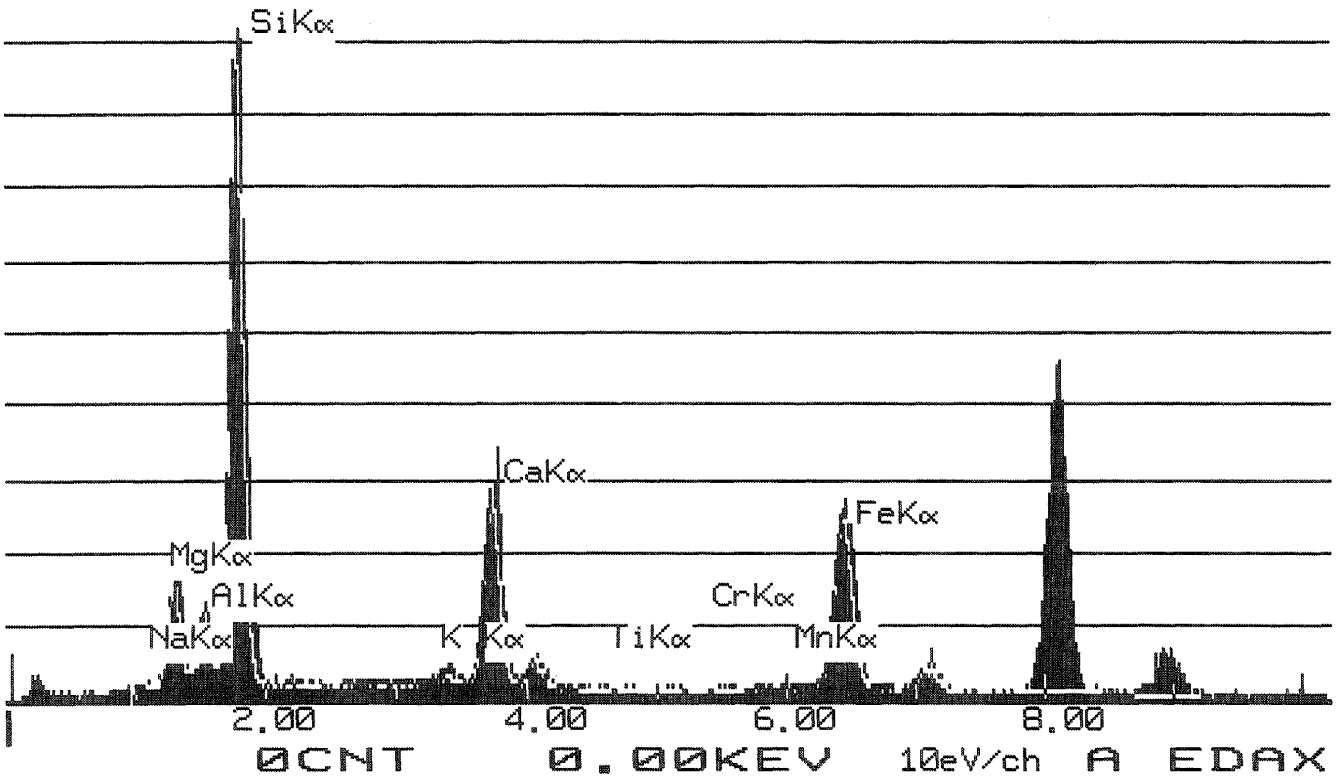
Mineral Analysis Program (Version 5.0)

INTE-% :
LABEL = 041210-09 15449
28-NOV-72 03:56:20
48.468 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	20.632	7.171	11.890
ALK	12.916	2.697	5.095
SIK	130.396	25.490	54.532
K K	2.166	0.704	0.848
CAK	43.967	8.194	11.466
TIK	0.248	0.065	0.109
FEK	45.370	11.233	16.060
TOTAL			100.000

USED PEIF: USER

27-NOV-04 03:57:47 SUPER QUANT
RATE=44901CPS TIME= 48LSEC
FS= 674/ 674 PRST= 200LSEC
A =041210-09 15449



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	54.532	Si+4	7.7253	7.7253							
Al2O3	5.095	Al+3	0.8506	0.2747	**0.5759**						
TiO2	0.109	Ti+4	0.0116	0.0000	**0.0116**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	16.06	Fe+3	0.0514			0.0514	0.0000				
MgO	11.89	Mg+2	2.5111			2.5111	**0.0000**				
MnO	0	Fe+2	1.8454			1.8454	**0.0000**				
CaO	11.466	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.7402					1.7402	0.0000		
K2O	0.848	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.1532							0.1532	0.0000
Total	**100**		**Excess**	T site	**0.5875**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.9953**		**1.7402**		**0.1532**	**0.0000**
			%Fill	**100**		**99.9067**		**87.0092**			

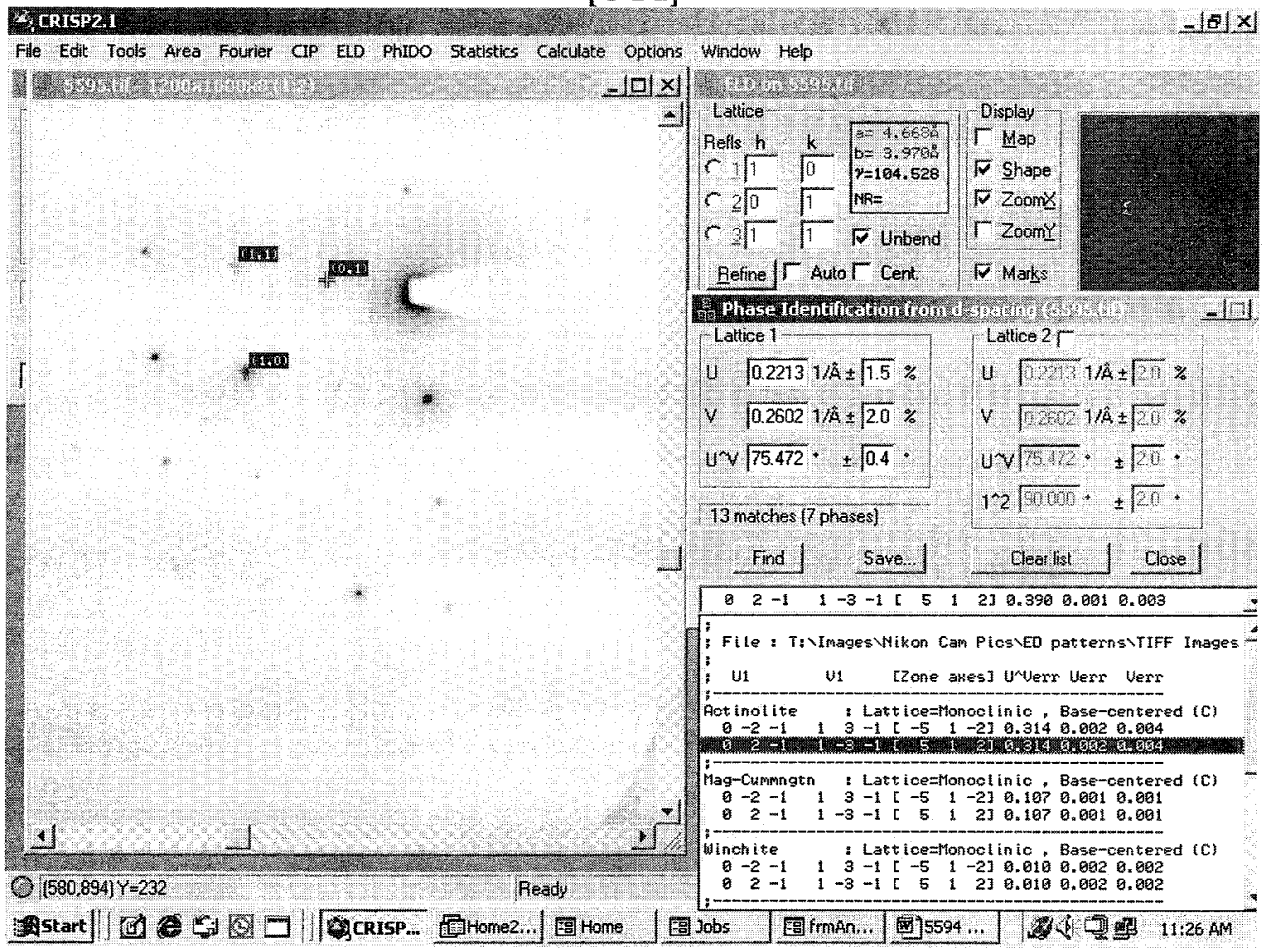
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # **041210-09-15449**

Values		Satisfied Conditions
(Ca,Na)@B	1.74	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.74	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.15	Si > 7.5
Mg/(Mg+Fe2)	0.58	(Mg/(Mg+Fe2))< 0.9
Si	7.73	

Mineral Analysis Program (Version 5.0)

NEG#5595; SAMPLE# 041210-09
ACTINOLITE
[5 1 2]

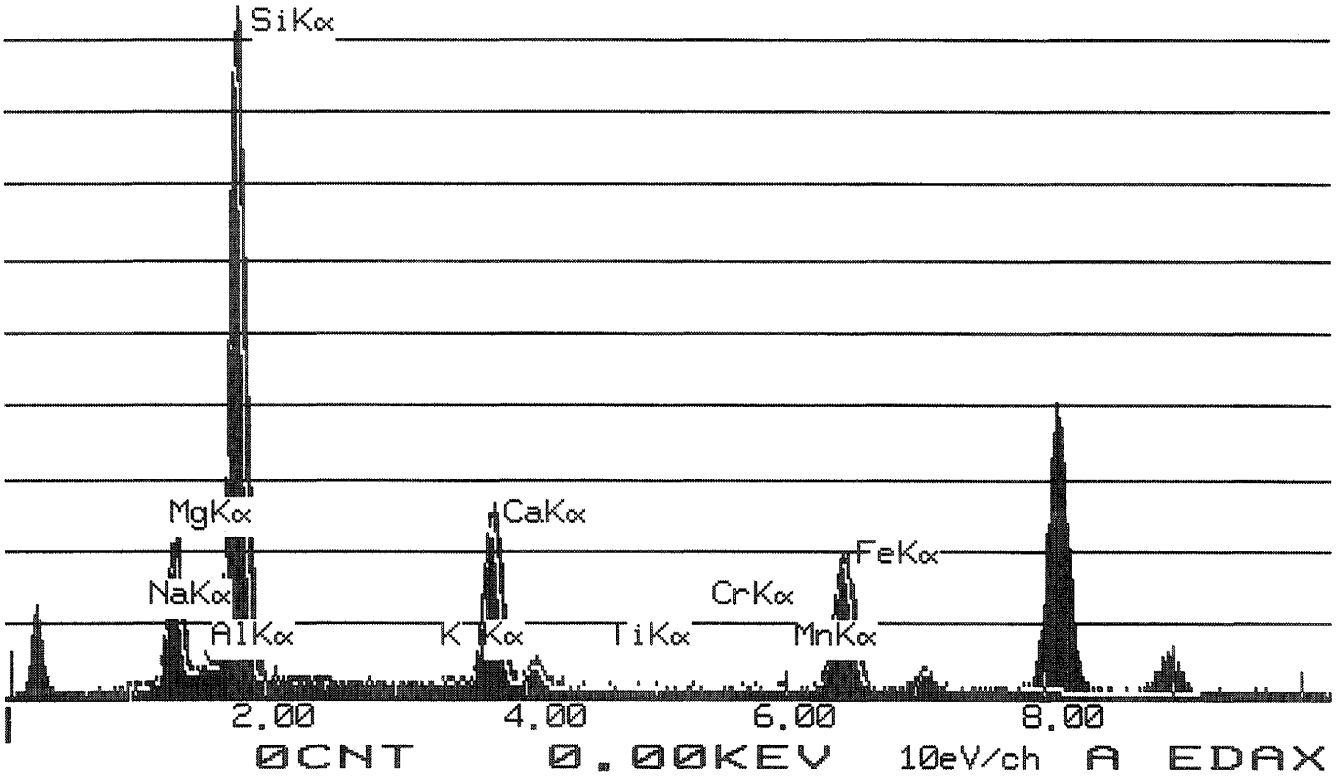


INTE-% :
LABEL = 041210-09 15450
28-NOV-72 04:20:13
74.359 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	26.587	10.173	16.868
ALK	3.887	0.893	1.688
SIK	124.504	26.793	57.321
K K	0.471	0.168	0.203
CAK	38.489	7.897	11.049
FEK	33.029	9.002	12.871
TOTAL			100.000

USED PEIF: USER

27-NOV-04 04:20:53 SUPER QUANT
RATE= 416CPS TIME= 74LSEC
FS= 1022/ 1022 PRST= 200LSEC
A =041210-09 15450



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	57.321	Si+4	7.8799	7.8799							
Al2O3	1.688	Al+3	0.2735	0.1201	**0.1534**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	12.871	Fe+3	0.6391			0.6391	0.0000				
MgO	16.868	Mg+2	3.4570			3.4570	**0.0000**				
MnO	0	Fe+2	0.7694			0.7506	**0.0188**				
CaO	11.049	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.6272					1.6272	0.0000		
K2O	0.203	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0356							0.0356	0.0000
Total	100		Excess	T site	**0.1534**	C site	**0.0188**	B site	**0**	A site	**0**
			Total	8		5.0000		1.6272		0.0356	0.0000
			%Fill	100		100		81.3622			

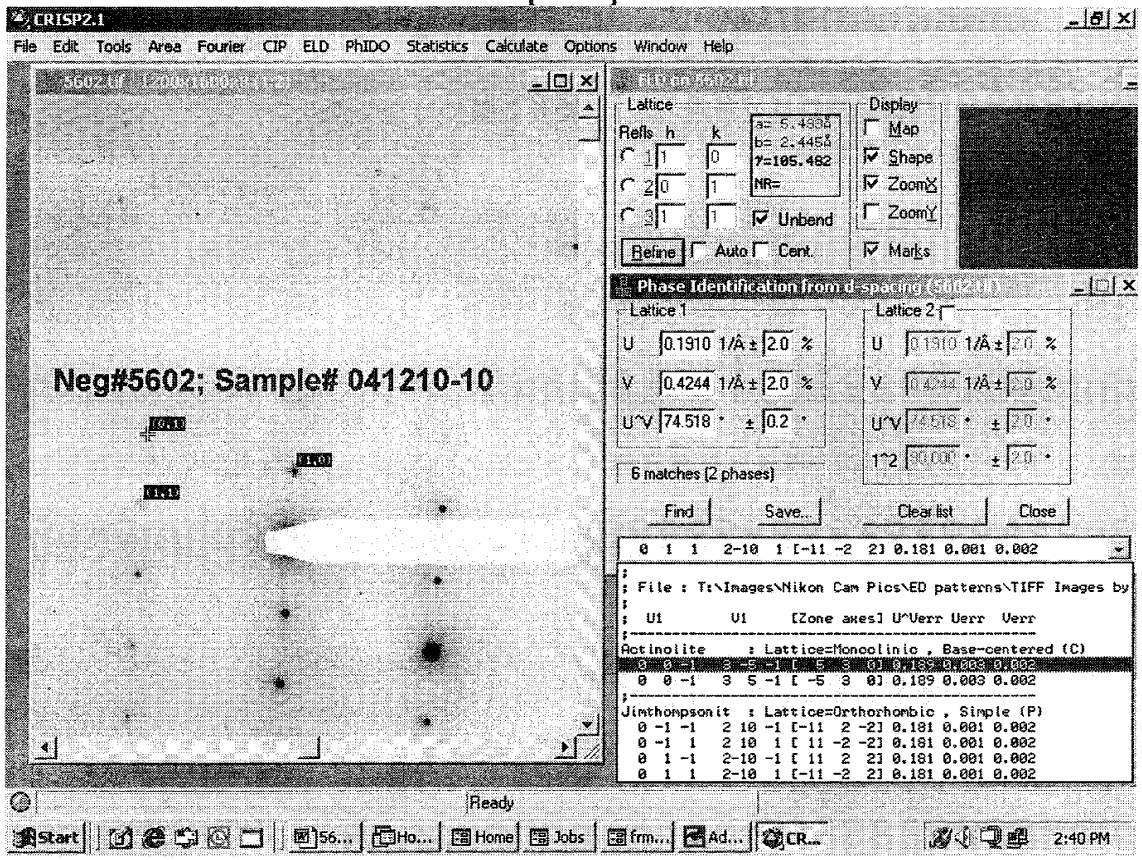
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-09-15450

Values		Satisfied Conditions
(Ca,Na)@B	1.63	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.63	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.04	Si > 7.5
Mg/(Mg+Fe2)	0.82	(Mg/(Mg+Fe2))< 0.9
Si	7.88	

Mineral Analysis Program (Version 5.0)

NEG#5602; SAMPLE# 041210-10
ACTINOLITE
[5 3 0]

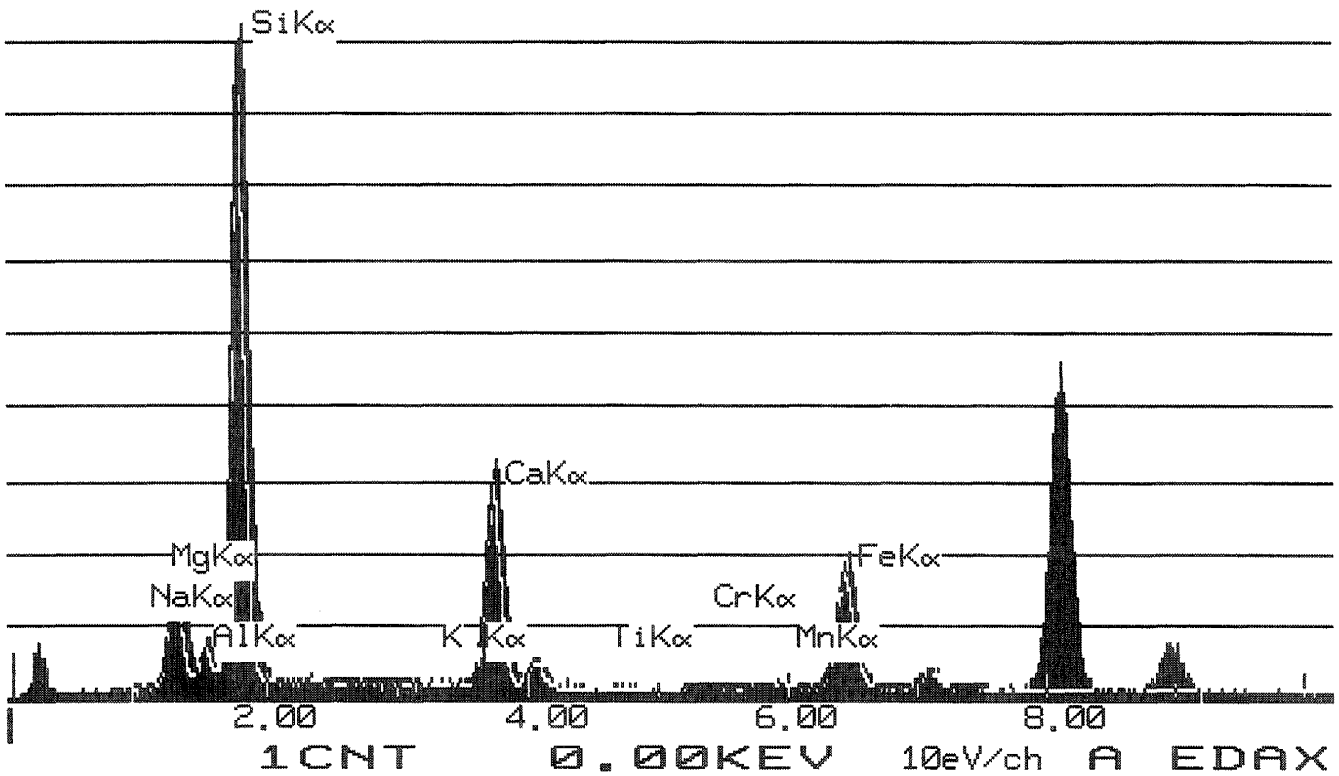


INTE-% :
LABEL = 041210-10 15454
28-NOV-72 22:23:48
20.349 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	72.927	9.120	15.122
ALK	16.807	1.263	2.386
SIK	381.541	26.835	57.411
CAK	142.513	9.557	13.372
FEK	91.945	8.191	11.711
TOTAL			100.000

USED PEIF: USER

27-NOV-04 22:24:19 SUPER QUANT
RATE= 938CPS TIME= 20LSEC
FS= 873/ 873 PRST= 200LSEC
A =041210-10 15454



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	57.411	Si+4	7.9672	7.9672							
Al2O3	2.386	Al+3	0.3902	0.0328	**0.3574**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	11.711	Fe+3	0.0122			0.0122	0.0000				
MgO	15.122	Mg+2	3.1286			3.1286	**0.0000**				
MnO	0	Fe+2	1.3454			1.3454	**0.0000**				
CaO	13.372	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.9881					1.9881	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	**100.002**		**Excess**	T site	**0.3574**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.8435**		**1.9881**		**0.0000**	**0.0000**
			%Fill	**100**		**96.871**		**99.4026**			

Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-10-15454**

Values		Satisfied Conditions
(Ca,Na)@B	1.99	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.99	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.70	(Mg/(Mg+Fe2))< 0.9
Si	7.97	

Mineral Analysis Program (Version 5.0)

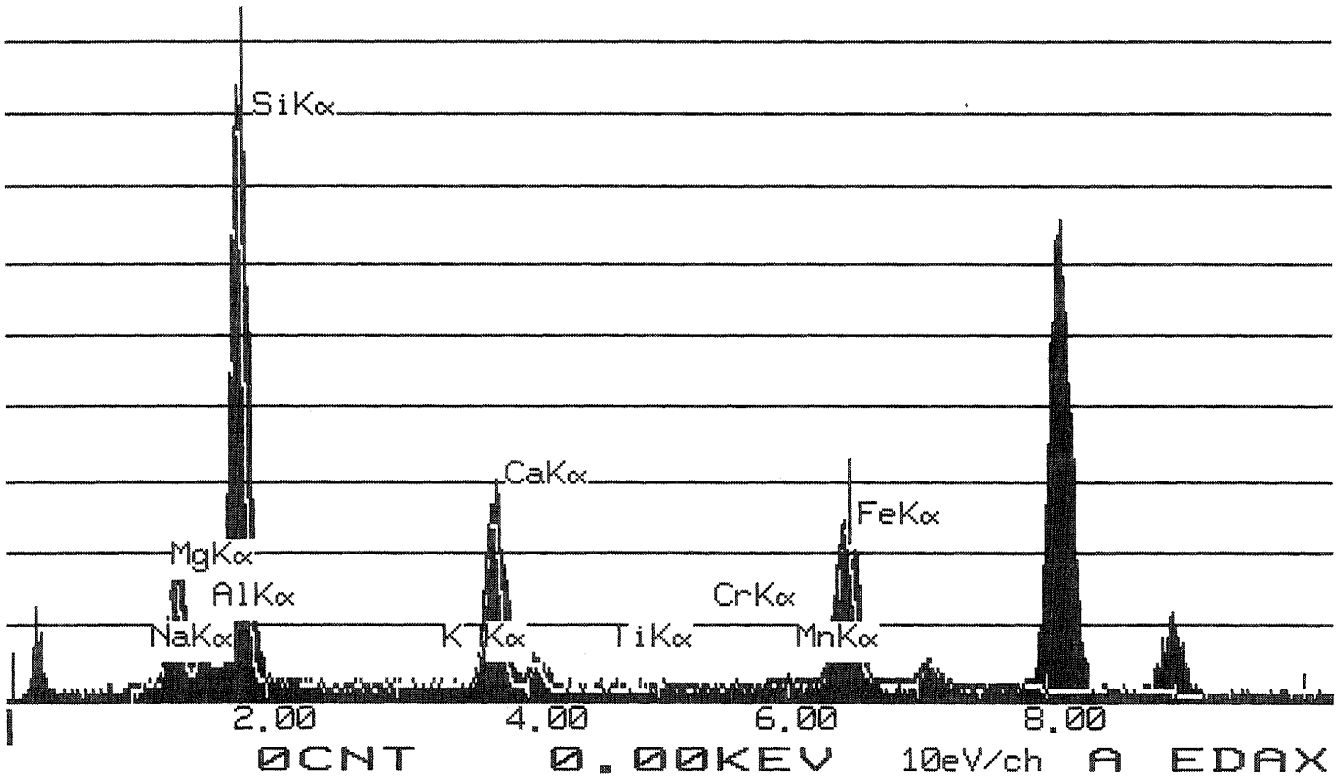
INTE-% :
LABEL = 041210-10 15453
28-NOV-72 21:39:33
29.901 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
NAK	0.569	0.421	0.568
MGK	23.812	8.326	13.806
ALK	10.234	2.150	4.062
SIK	126.181	24.816	53.090
K K	1.104	0.361	0.434
CAK	45.316	8.497	11.889
TIK	0.702	0.186	0.310
FEK	44.479	11.079	15.841

TOTAL			100.000

USED PEIF: USER

27-NOV-04 21:40:06 SUPER QUANT
RATE= 1435CPS TIME= 30LSEC
FS= 452/ 452 PRST= 200LSEC
A =041210-10 15453



Mineral Analysis Program (Version 5.0)

Sample Name 041210-10-15453

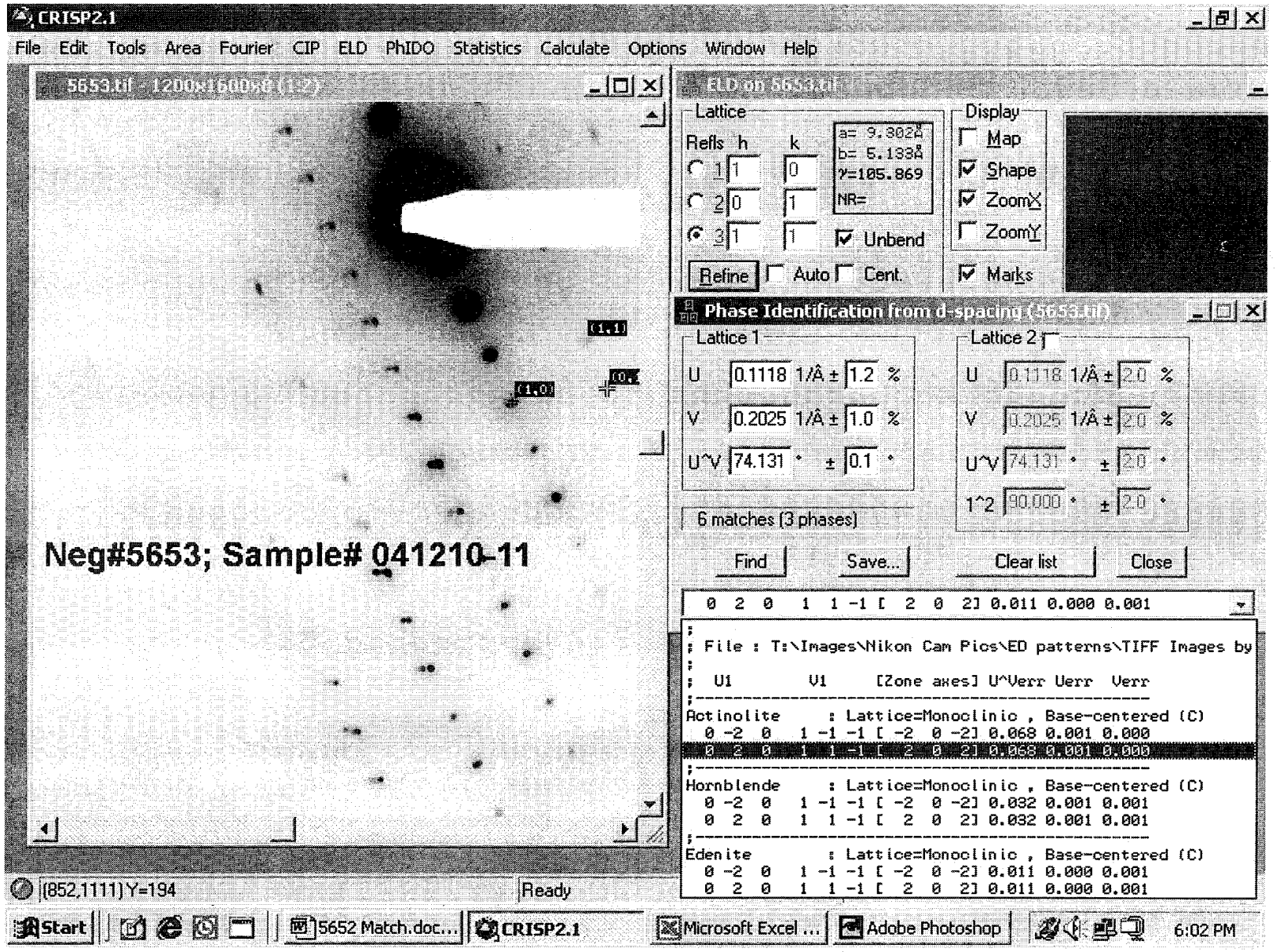
	Weight Percent of Oxides
SiO2	53.090%
Al2O3	4.062%
TiO2	0.310%
Cr2O3	0.000%
Fe(total)O	15.841%
MgO	13.806%
MnO	0.000%
CaO	11.889%
Na2O	0.568%
K2O	0.434%
Total	**100.000%**

Analyze Minerals

Na2O	0
MgO	20.018
Al2O3	0.911
SiO2	62.991
SO3	0
K2O	0
CaO	13.197
TiO2	0
Cr2O3	0
MnO	0
Fe(total)	2.883

Scores	**Possible Minerals**	
	Amphibole name	actinolite
	Pyroxene name	augite

Neg#5653; Sample# 041210-11
ACTINOLITE
[1 0 1]



SUMITS HURNIDEY
Standardless Analysis

Refit _ALK' _ALK" _NAK' _NAK" _K K' _K K"
Refit _FeK" _NAK _K K
Refit _MBK'
Chi-sqrd = 1.51

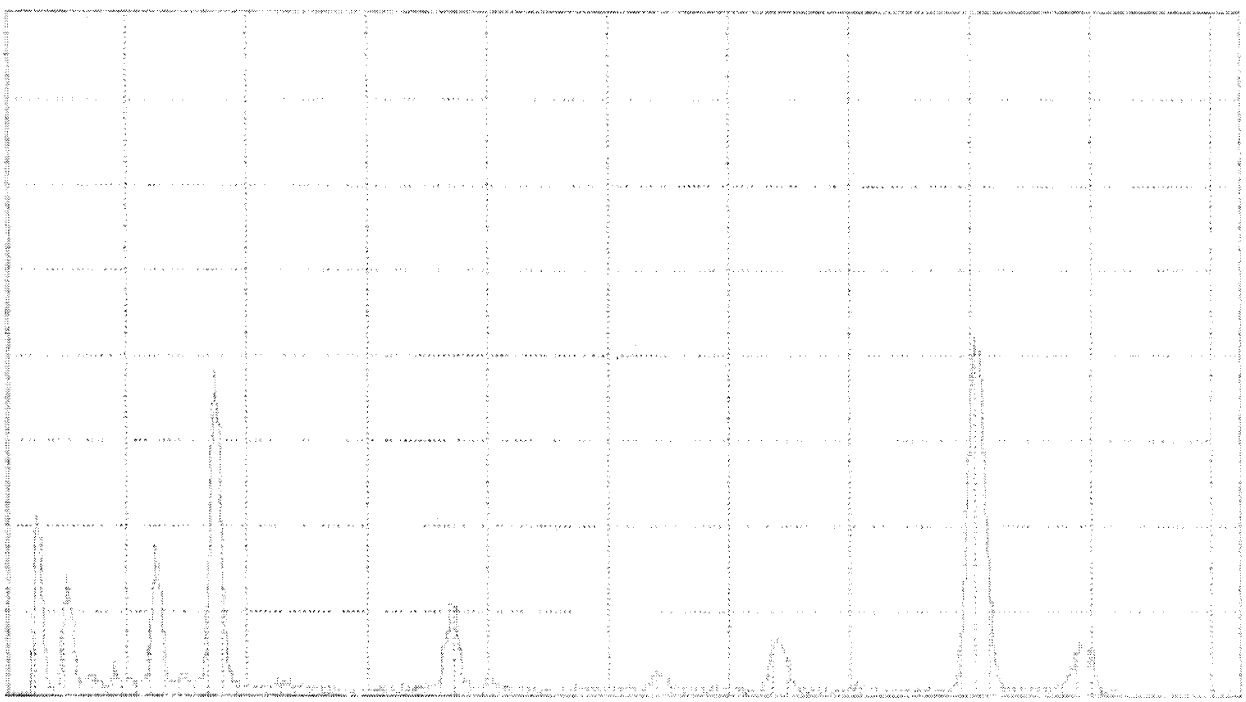
Element	Net Counts	
Si-K	2659 +/-	77
Mg-K	1025 +/-	61
Al-K	65 +/-	33
Ca-K	1472 +/-	63
Fe-K	769 +/-	41
Na-K	0 +/-	0
K -K	0 +/-	0

K MBK.S E.DOsSIK E.DOsMUK EOSsALK EOOsCAK FOOsFEK FOOsNAK FOOs

~~EXEC/ / F/ DATA LOAD~~ 041210-11 SP795

FL-LINE	PEAK	K-RATION	CPI/CREF	ATOM%	EL WT%	WT%	FORMULA
SI-K	2659	1.000	1.000	20.14	26.06	55.84	SIO2
MG-K	1025	1.000	0.047	9.22	10.07	16.79	MGO
AL-K	65	0.070	0.014	0.39	0.48	0.91	AL2O3
CA-K	472	0.944	0.312	4.46	8.12	11.37	CAO
FE-K	769	1.349	0.405	4.14	10.55	15.08	FE2O3
NA-K	0	0.549	0.000	0.00	0.00	0.01	NA2O3
K-K	0	1.059	0.000	0.00	0.01	0.01	K2O
O			1.715	61.35	44.70		

TN-5500 University of Washington / MEDL SAT 27-NOV-84 13:15
Cursor: 0.000keV = 0



0.000 VFS = 512 10 240-
0 041210-11 SP795

1.30

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	55.84	Si+4	7.7710	7.7710							
Al2O3	0.91	Al+3	0.1492	0.1492	**0.0000**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	15.08	Fe+3	0.7738			0.7738	0.0000				
MgO	16.79	Mg+2	3.4834			3.4834	**0.0000**				
MnO	0	Fe+2	0.8950			0.7428	**0.1521**				
CaO	11.37	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.6952					1.6952	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	**99.99**		**Excess**	T site	**0.0000**	C site	**0.1521**	B site	**0**	A site	**0**
			Total	**7.9202**		**5.0000**		**1.6952**		**0.0000**	**0.0000**
			%Fill	**99.003**		**100**		**84.7583**			

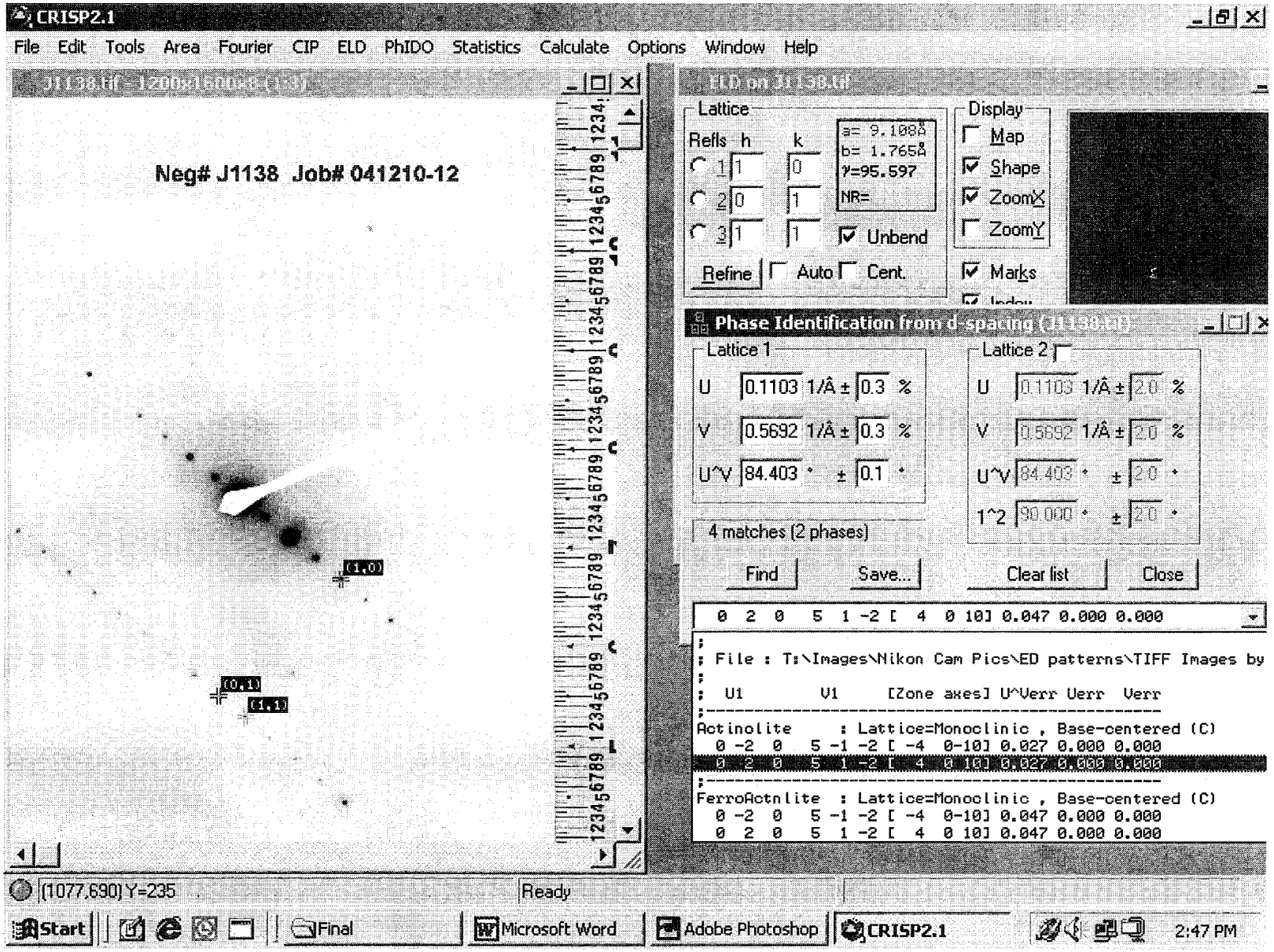
Prefix none
Name actinolite
Modifier Ferrian
Group Calcic Amphibole

Sample # **041210-11-795**

Values		Satisfied Conditions
(Ca,Na)@B	1.70	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.70	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.80	(Mg/(Mg+Fe2))< 0.9
Si	7.77	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[2 0 5]



SUMTF: QUANTIFY
Standardless Analysis

Refit _K K/ _K K?
Refit _AL K/ _AL K?
Chi-sqd = 2.44

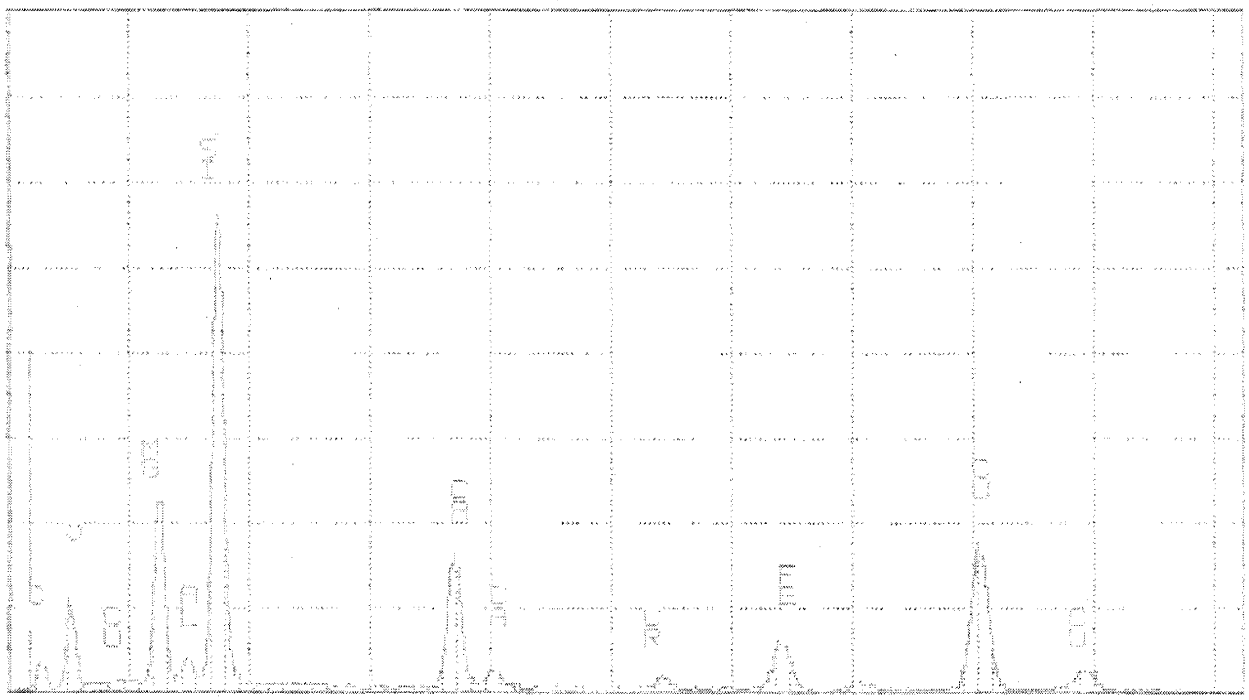
Element	Net Counts
Si-K	16224 +/- 144
Mg-K	5715 +/- 170
Al-K	446 +/- 85
Ca-K	6097 +/- 147
Fe-K	2791 +/- 116
Na-K	122 +/- 101
K -K	112 +/- 93

MHRS	ED5:SIK	ED9:MGK	ED5:ALK	ED4:CAK	ED6:FEK	ED5:NAK	LD9:

041214-12 SP997

EL-LINE	PEAK	K-FACTOR	CHL/UMSF	A(UM2	FI WT%	WT%	FORMULA
SI-K	16224	1.000	1.000	21.18	27.41	58.74	SIO2
MG-K	5715	1.000	0.357	8.71	9.66	16.09	MGO
AL-K	446	0.700	0.020	0.46	0.82	1.55	AL2O3
CA-K	6097	0.549	0.057	5.04	7.79	13.71	CAO
FE-K	2791	1.294	0.240	2.55	6.48	9.40	FE2O3
NA-K	122	0.549	0.004	0.11	0.13	0.21	NA2OT
K -K	112	1.059	0.007	0.11	0.20	0.24	K2O
O			1.456	41.39	45.46		

TN-8500 University of Washington / TEXL SA1 27-NOV-84 17:17
Tunsch: 0 200keV = 0



0.000 B- 5 VFS = 2048 10 240
24 041214-12 SP997

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	58.74	Si+4	8.0000	8.0000							
Al2O3	1.55	Al+3	0.2581	0.0000	**0.2581**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	9.43	Fe+3	0.0141			0.0141	0.0000				
MgO	16.09	Mg+2	3.3173			3.3173	**0.0000**				
MnO	0	Fe+2	1.0836			1.0836	**0.0000**				
CaO	13.71	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.23	Ca+2	2.0331					2.0000	0.0331		
K2O	0.24	Na+	0.0782					0.0000	**0.0782**	0.0782	0.0000
		K+	0.0495							0.0495	0.0000
Total	**99.99**		**Excess**	T site	**0.2581**	C site	**0.0000**	B site	**0.1112345**	A site	**0**
			Total	**8**		**4.6731**		**2.0000**		**0.1277**	**0.0000**
			%Fill	**100**		**93.4625**		**100**			

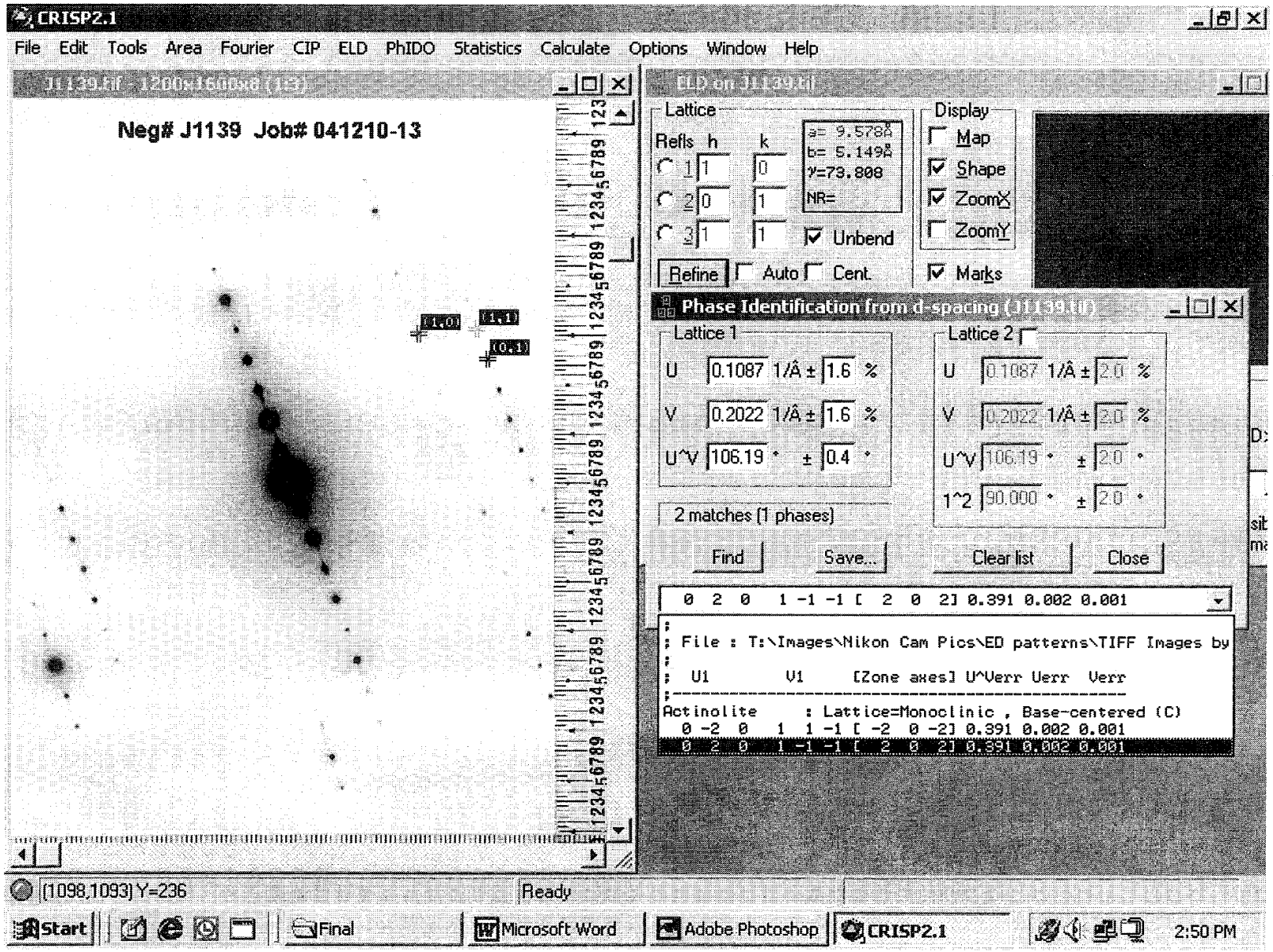
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-12-797**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.13	Si > 7.5
Mg/(Mg+Fe2)	0.75	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[1 0 1]



QUANT-PB/MO
QUANTITATIVE
Standardless Analysis

Refit _NAK' _NAK" _K K' _K K"
Refit _FEK" _NAK
Refit _MGK' _ALK"
Chi-sqd = 14.10

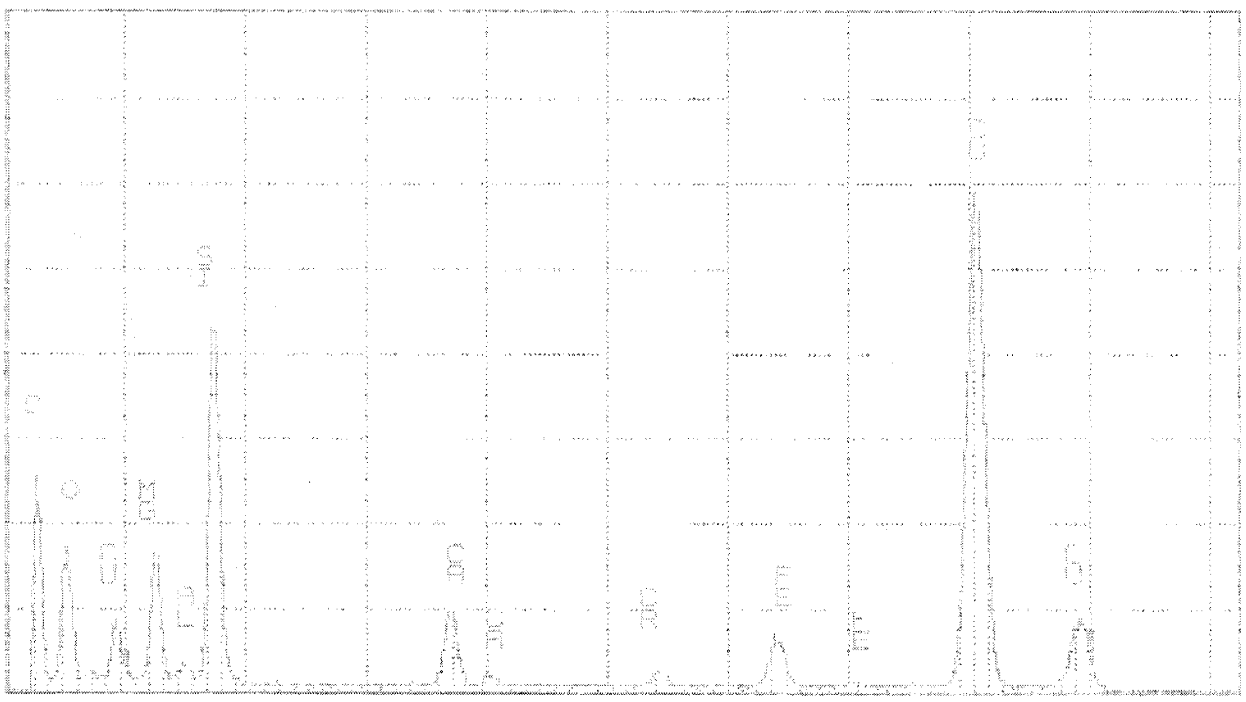
Element	Net Counts
Si-K	12077 +/- 144
Mg-K	5028 +/- 158
Al-K	920 +/- 76
Ca-K	3674 +/- 134
Fe-K	2742 +/- 92
Na-K	0 +/- 0
K -K	111 +/- 39

REF-A: FIBS:SIK FIBS:MGK EDS:ALK EDS:CAK EDS:FEK EDS:NAK
EDS:K K

041210-13 SPEC8

EL-LINE	PEAK	K-FACTOR	CEL/CREF	ATOM%	EL WT%	WT%	COMPOUND
SI-K	12077	1.000	1.000	20.17	26.49	56.77	SIO2
MG-K	5028	1.000	0.400	10.34	11.66	17.10	MGO
AL-K	920	0.750	0.051	1.06	1.20	2.50	AL2O3
CA-K	3674	0.949	0.289	4.06	7.51	10.51	CAO
FE-K	2742	1.079	0.117	1.19	3.26	11.80	FE2O3
NA-K	0	0.549	0.000	0.00	0.00	0.00	NA2O1
K-K	111	1.059	0.010	0.14	0.24	0.31	K2O
O			1.735	61.07	45.16		

TN-5600 University of Washington / AFM THU 02-DEC-04 10:55
Cursor: 0.000keV = 0



0.000 VFS = 2048 LM 240

0 041210-13 SPEC8

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	55.77	Si+4	7.6603	7.6603							
Al2O3	2.5	Al+3	0.4047	0.3397	**0.0650**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	11.8	Fe+3	0.5976			0.5976	0.0000				
MgO	19.1	Mg+2	3.9111			3.9111	**0.0000**				
MnO	0	Fe+2	0.6912			0.4263	**0.2649**				
CaO	10.51	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.5466					1.5466	0.0000		
K2O	0.31	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0543							0.0543	0.0000
Total	**99.99**		**Excess**	T site	**0.0650**	C site	**0.2649**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.5466**		**0.0543**	**0.0000**
			%Fill	**100**		**100**		**77.3283**			

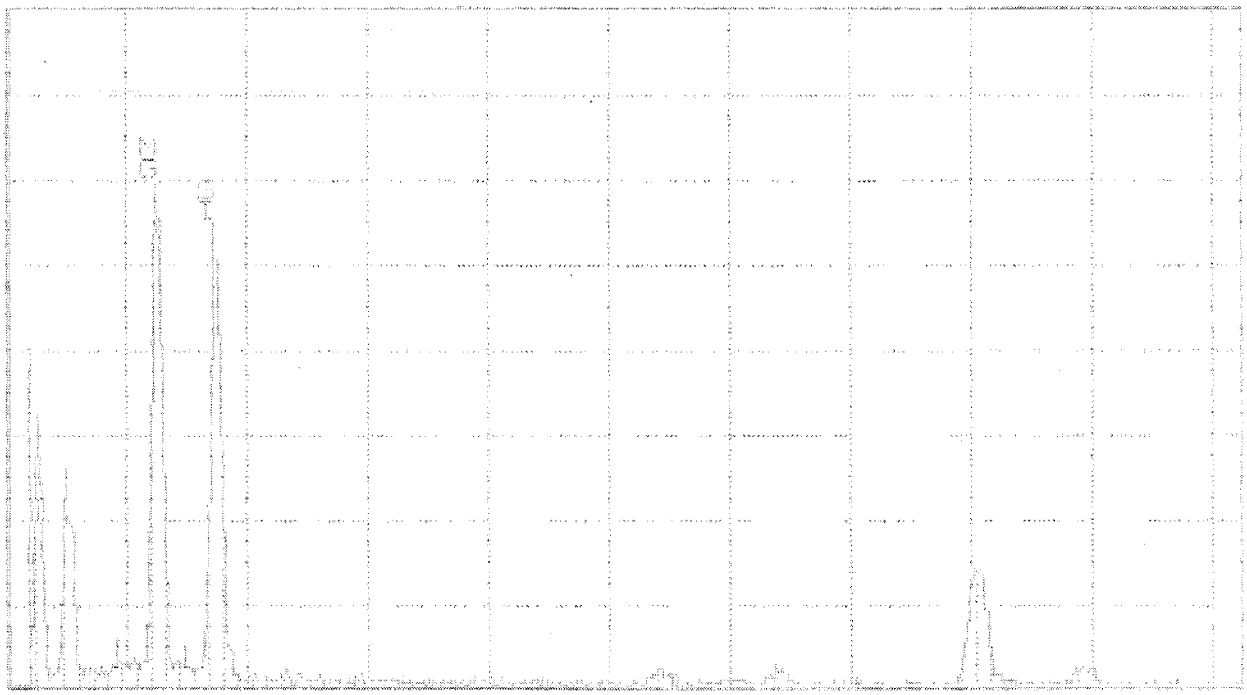
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-13-828**

Values		Satisfied Conditions
(Ca,Na)@B	1.55	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.55	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.05	Si > 7.5
Mg/(Mg+Fe2)	0.85	(Mg/(Mg+Fe2))< 0.9
Si	7.66	

Mineral Analysis Program (Version 5.0)

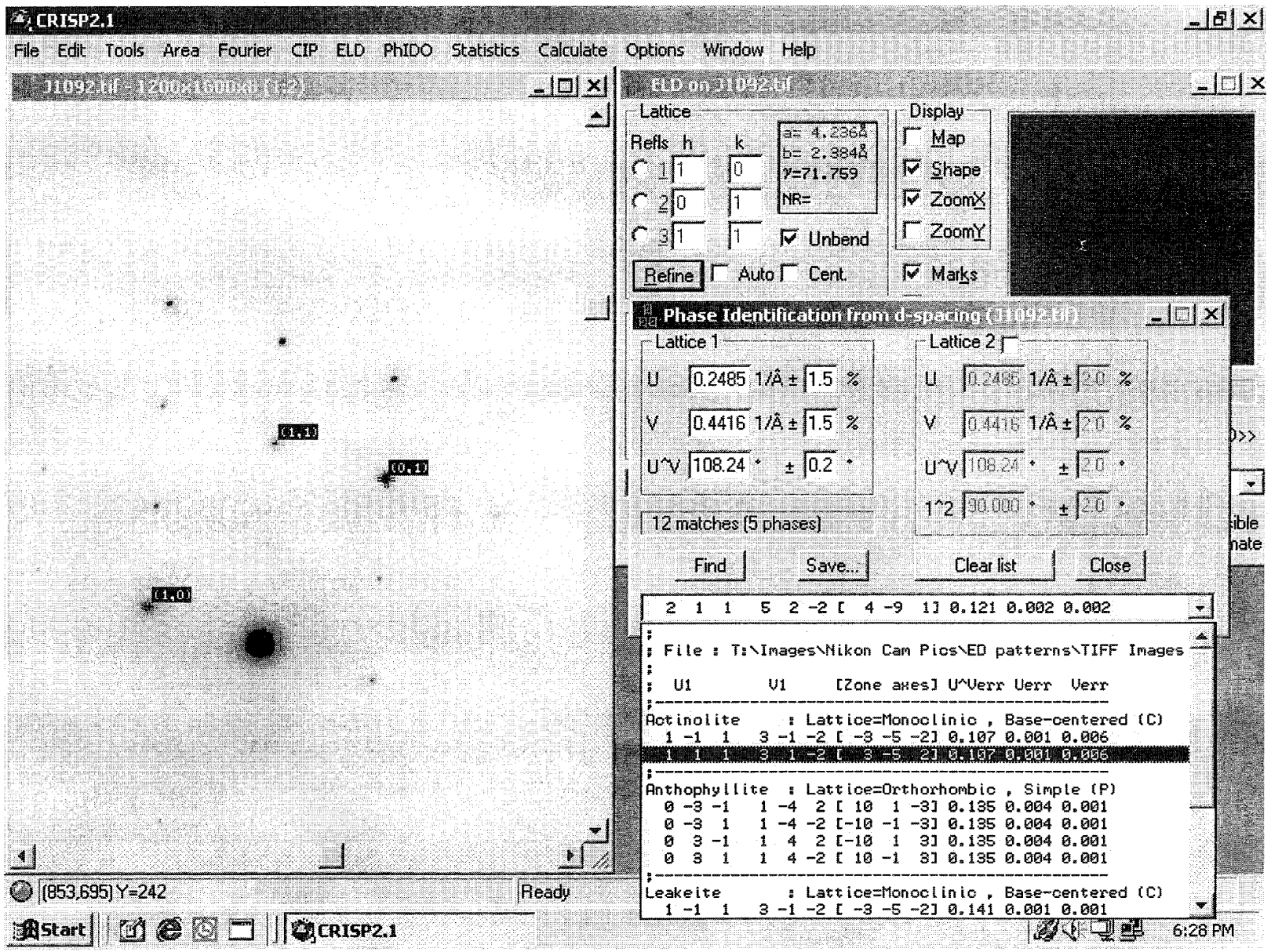
TN-5m04 University of Washington / JEOL SUN 28-NOV-04 10:54
Cursor: 0.000keV = 0



0 0.00 B- 5 VFS = 256 10.240
S1 041210-13 SH7-9

ACTINOLITE
[3 -5 2]

Neg# J1092 Job# 041210-14



*X 'SQNTF'

SUMTF: QUANTITY
Standardless Analysis .

Refit: _ALK' _ALK" _NAK' _NAK" _K K' _K K"
Refit _MUK' _NAK
Chi-sqd = 3.34

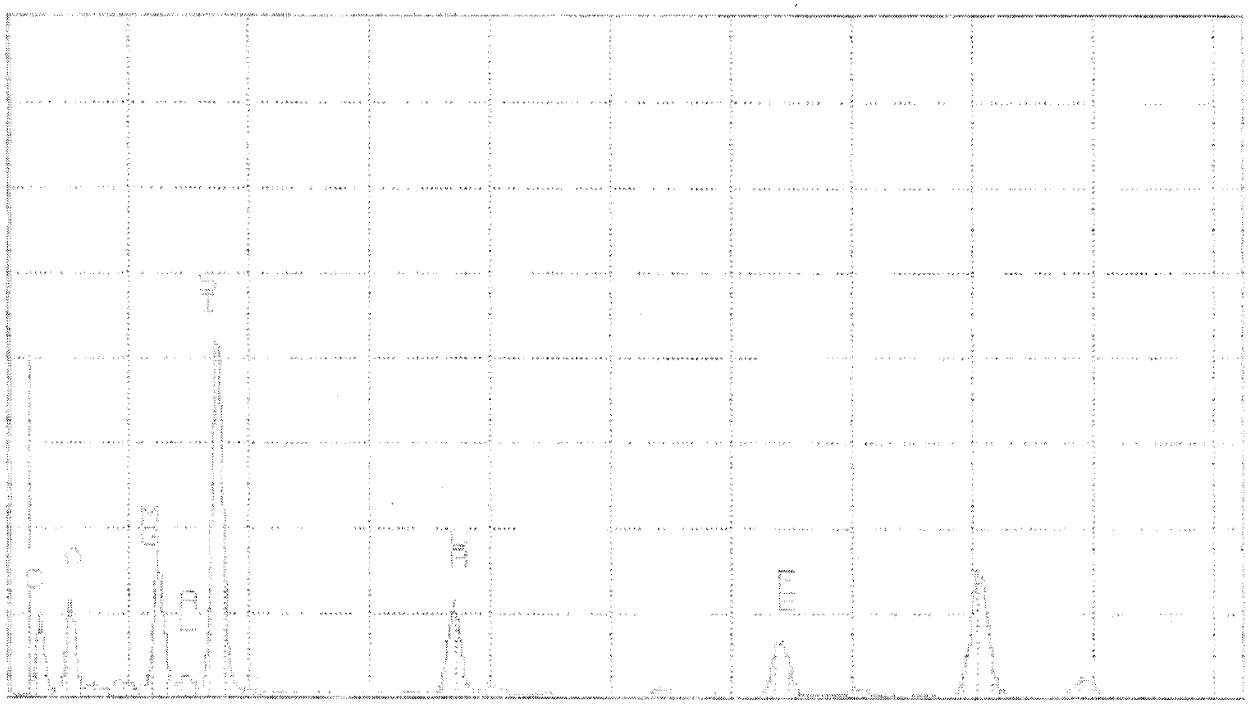
Element	Net Counts
Si-K	11872 +/- 150
Mg-K	3951 +/- 117
Al-K	362 +/- 64
Ca-K	3850 +/- 120
Fe-K	3068 +/- 111
Na-K	0 +/- 0
K -K	81 +/- 31

K REF.S EDS:SIK EDS:MGK EDS:ALK EDS:CAK EDS:FEK EDS:NAK EDS:

041210-14 SP800

ELEMENT	PEAK	K-FACTOR	CNTL/CWEF	ATOM%	EL WT%	WT%	FORMULA
SI-K	11872	1.000	1.000	21.15	27.04	57.95	SIO2
MG-K	3951	1.000	0.333	8.71	9.00	15.00	MGO
AL-K	362	0.750	0.022	0.50	0.62	1.17	AL2O3
CA-K	3850	0.909	0.308	4.56	8.33	11.67	CAO
FE-K	3068	1.379	0.362	3.83	9.79	13.98	FE2O3
NA-K	0	0.549	0.000	0.00	0.00	0.00	NA2O3
K-K	81	1.059	0.007	0.11	0.29	0.44	K2O
O			1.644	61.42	45.92		

TN-55X0 University of Washington / JEOL SUN 23-NOV-04 12:56
Cursor: 0.000keV = 0



0.000 5- 5 VFS = 2045 10 KeV
56 041210-14 SP800

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	57.95	Si+4	8.0000	8.0000							
Al2O3	1.17	Al+3	0.2006	0.0000	**0.2006**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	13.98	Fe+3	0.0786			0.0786	0.0000				
MgO	15	Mg+2	3.1402			3.1402	**0.0000**				
MnO	0	Fe+2	1.5608			1.5608	**0.0000**				
CaO	11.67	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.7590					1.7590	0.0000		
K2O	0.24	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0516							0.0516	0.0000
Total	**100.01**		**Excess**	T site	**0.2006**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.9802**		**1.7590**		**0.0516**	**0.0000**
			%Fill	**100**		**99.6048**		**87.9487**			

Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-14-800**

Values		Satisfied Conditions
(Ca,Na)@B	1.76	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.76	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.05	Si > 7.5
Mg/(Mg+Fe2)	0.67	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

1,30
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0,0
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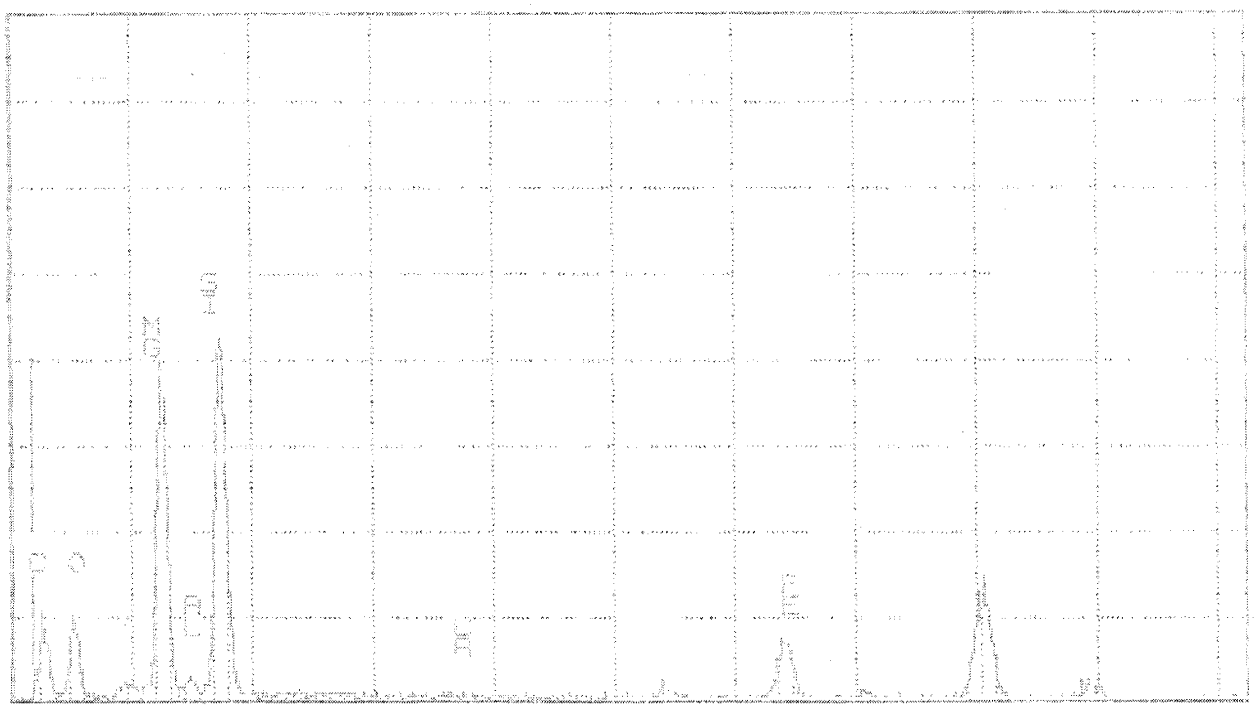
TN-5500 University of Washington / TH-1 SUN 24-NOV-04 13:00:
Cursor: 3.000KeV = 0



R 0KV R- 5 VTo = 512 1M PAD
(?) 041210-14 PPM1

0,0
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0,0
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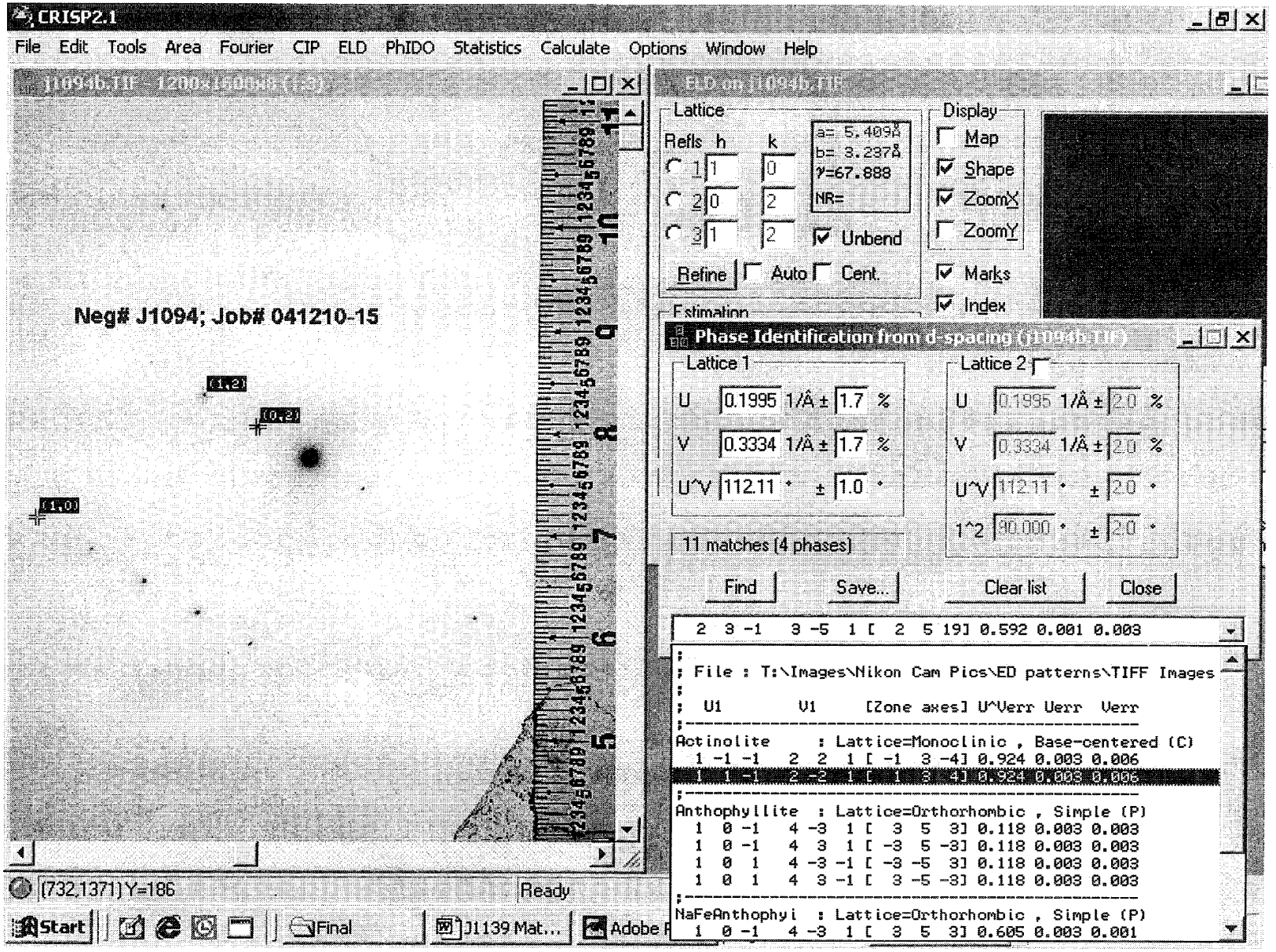
0,0
*
** (NORMIF)

SUMM: QUANT(F)
Standardless Analysis

ACTINOLITE
[1 3 4]



0,0
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*X /DUMMQMTP

QMPH: QUANTIFY
Standardless Analysis

Chi-sqd = 4.54

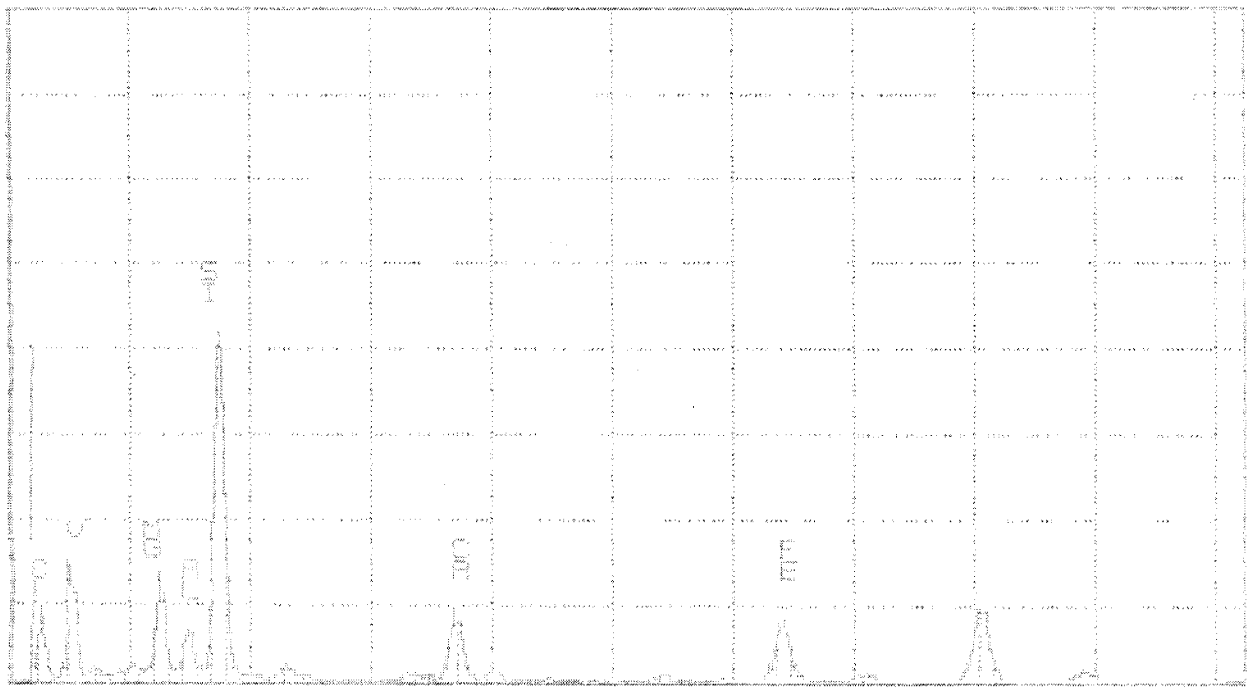
Element	Net Counts
Si-K	11495 +/- 213
Mg-K	3011 +/- 204
Al-K	1644 +/- 261
Ca-K	3241 +/- 118
Fe-K	3486 +/- 119
Na-K	923 +/- 106
K -K	274 +/- 71

KRUF.S FTS=SIK EDS=MGK FTS=ALK EDS=CAK FTS=FEK EDS=NAK EDS=

0401210-15 SPH01

FI-LINE	PEAK	K-FACTOR	CEL/CREF	ATOM%	EL WT%	WT%	FORMULA
SI-K	11495	1.000	1.000	20.18	25.86	55.42	SIO2
MG-K	3011	1.000	0.262	4.71	4.77	11.29	MGO
AL-K	1644	0.750	0.107	2.26	2.70	5.24	AL2O3
CA-K	3241	0.949	0.268	3.81	6.91	9.70	CAO
FE-K	3486	1.399	0.476	4.49	11.28	14.11	FEO(T)
NA-K	923	0.589	0.007	0.68	0.71	1.45	NA2O3
K -K	274	1.059	0.005	0.17	0.45	0.79	K2O
O			1.741	61.91	44.02		

TN-5400 University of Washington / JEOL SUN 20-NOV-04 14:34
Cursor: 0.000keV = 0



0.000 keV 5 VFS = 20.48 10.240
64 0401210-15 SPH02

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	55.42	Si+4	7.8318	7.8318							
Al2O3	5.24	Al+3	0.8727	0.1682	**0.7045**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	16.11	Fe+3	0.0171			0.0171	0.0000				
MgO	11.29	Mg+2	2.3786			2.3786	**0.0000**				
MnO	0	Fe+2	1.8847			1.8847	**0.0000**				
CaO	9.7	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	1.45	Ca+2	1.4686					1.4686	0.0000		
K2O	0.79	Na+	0.3973					0.3973	**0.0000**	0.0000	0.0000
		K+	0.1424							0.1424	0.0000
Total	**100**		**Excess**	T site	**0.7045**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.9849**		**1.8658**		**0.1424**	**0.0000**
			%Fill	**100**		**99.6974**		**93.2907**			

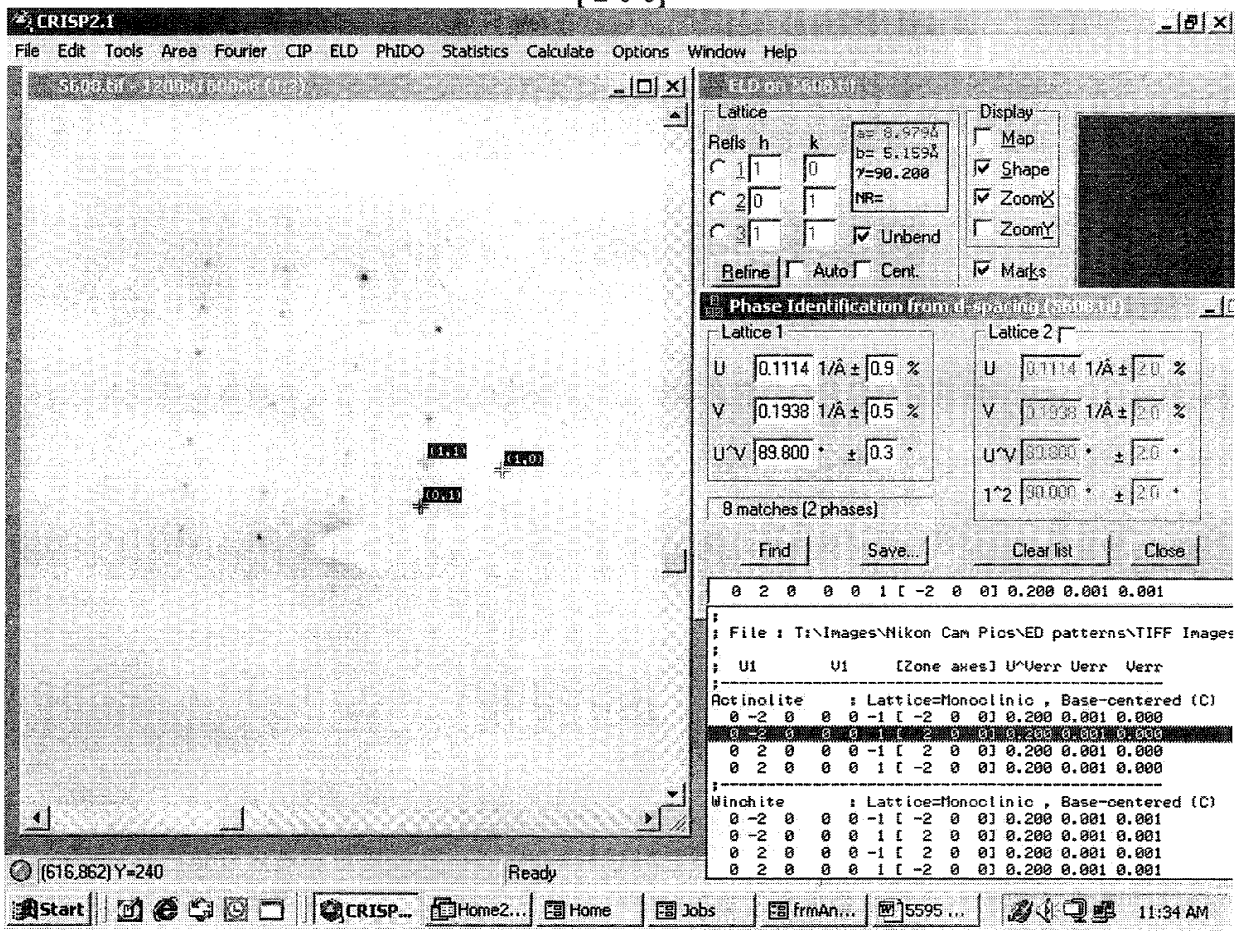
Prefix none
Name probable actinolite Ca values below optimal levels
Modifier none
Group Calcic Amphibole

Sample # **041210-15-802**

Values		Satisfied Conditions
(Ca,Na)@B	1.87	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.40	1 < Ca@B < 1.5 and (Na,K)@A < 0.5
Ca@B	1.47	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.14	Si > 7.5
Mg/(Mg+Fe2)	0.56	(Mg/(Mg+Fe2))< 0.9
Si	7.83	

Mineral Analysis Program (Version 5.0)

NEG#5608; SAMPLE# 041210-16
ACTINOLITE
[2 0 0]



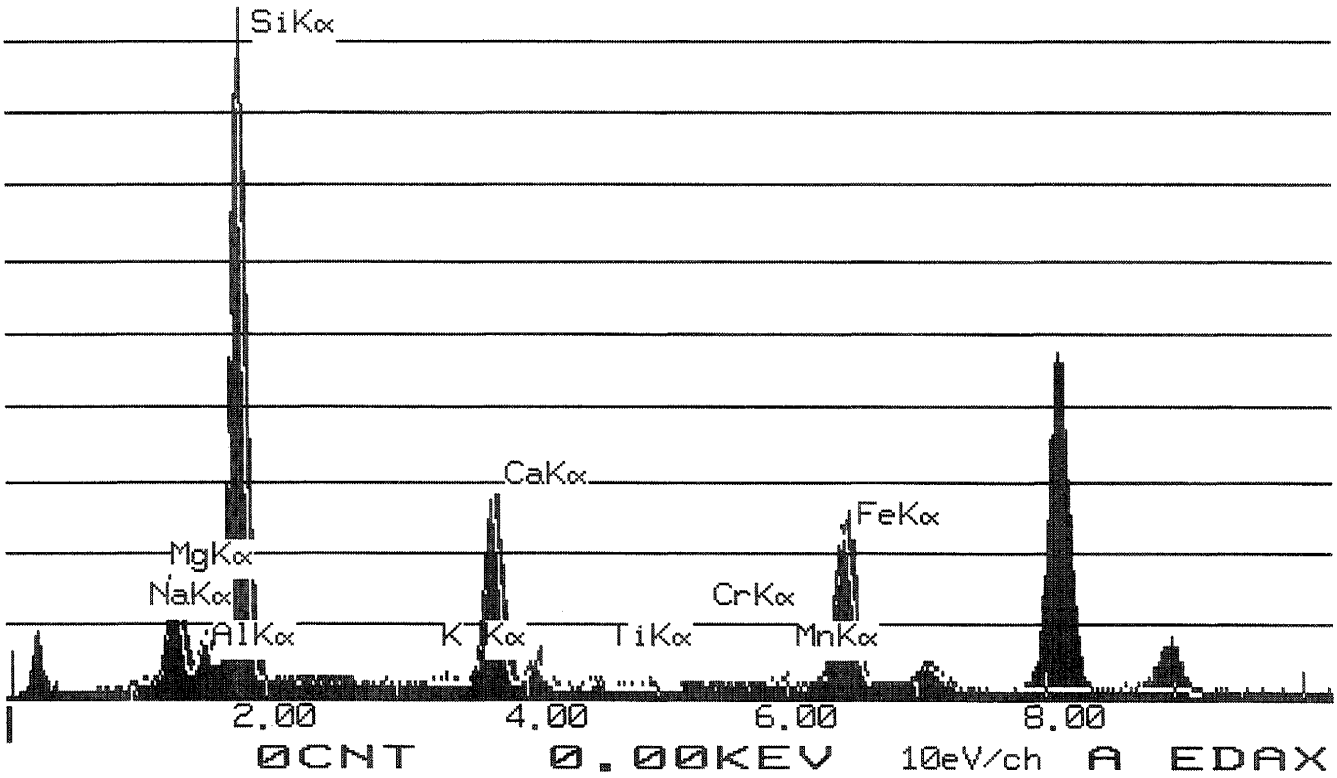
INTE-% :
LABEL = 041210-16 15460
29-NOV-72 08:17:48
68.975 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
NAK	0.348	0.238	0.321
MGK	27.952	9.040	14.989
ALK	8.945	1.738	3.283
SIK	137.730	25.052	53.595
K K	0.261	0.079	0.095
CAK	47.597	8.254	11.549
TIK	0.913	0.223	0.373
MNK	0.420	0.105	0.136
FEK	47.539	10.952	15.658

TOTAL			100.000

USED PEIF: USER

28-NOV-04 08:18:16 SUPER QUANT
RATE= 2602CPS TIME= 69LSEC
FS= 1087/ 1087 PRST= 200LSEC
A =041210-16 15460



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	53.595	Si+4	7.5245	7.5245							
Al2O3	3.283	Al+3	0.5432	0.4755	**0.0677**						
TiO2	0.373	Ti+4	0.0394	0.0000	**0.0394**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	15.658	Fe+3	0.7113			0.7113	0.0000				
MgO	14.989	Mg+2	3.1373			3.1373	**0.0000**				
MnO	0.136	Fe+2	1.0478			1.0444	**0.0034**				
CaO	11.549	Mn+2	0.0162			0.0000	**0.0162**				
Na2O	0.321	Ca+2	1.7371					1.7371	0.0000		
K2O	0.095	Na+	0.0874					0.0874	**0.0000**	0.0000	0.0000
		K+	0.0170							0.0170	0.0000
Total	**99.999**		**Excess**	T site	**0.1071**	C site	**0.0196**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.8245**		**0.0170**	**0.0000**
			%Fill	**100**		**100**		**91.2227**			

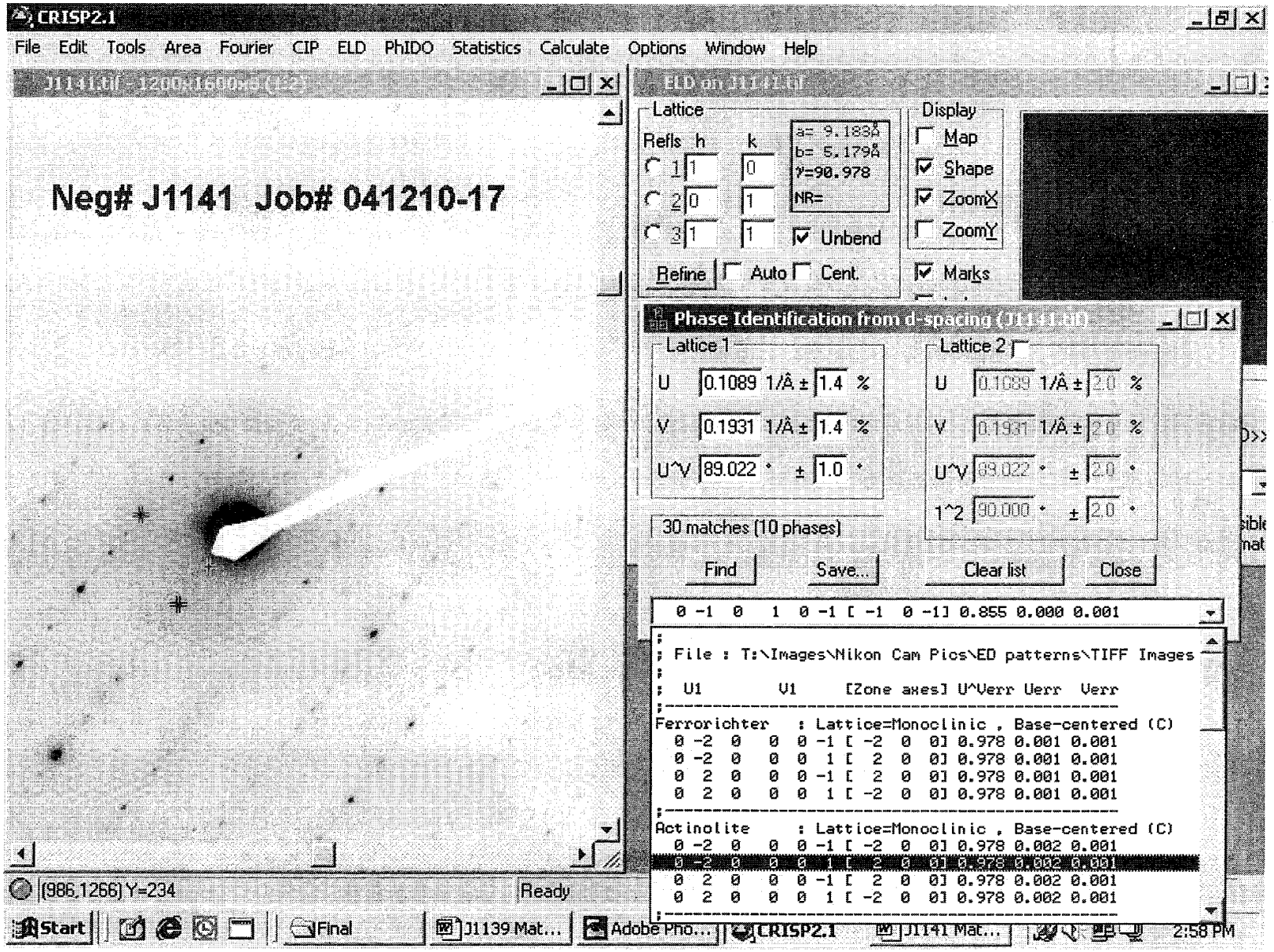
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-16-15460**

Values		Satisfied Conditions
(Ca,Na)@B	1.82	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.09	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.74	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.02	Si > 7.5
Mg/(Mg+Fe2)	0.75	(Mg/(Mg+Fe2))< 0.9
Si	7.52	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[1 0 0]

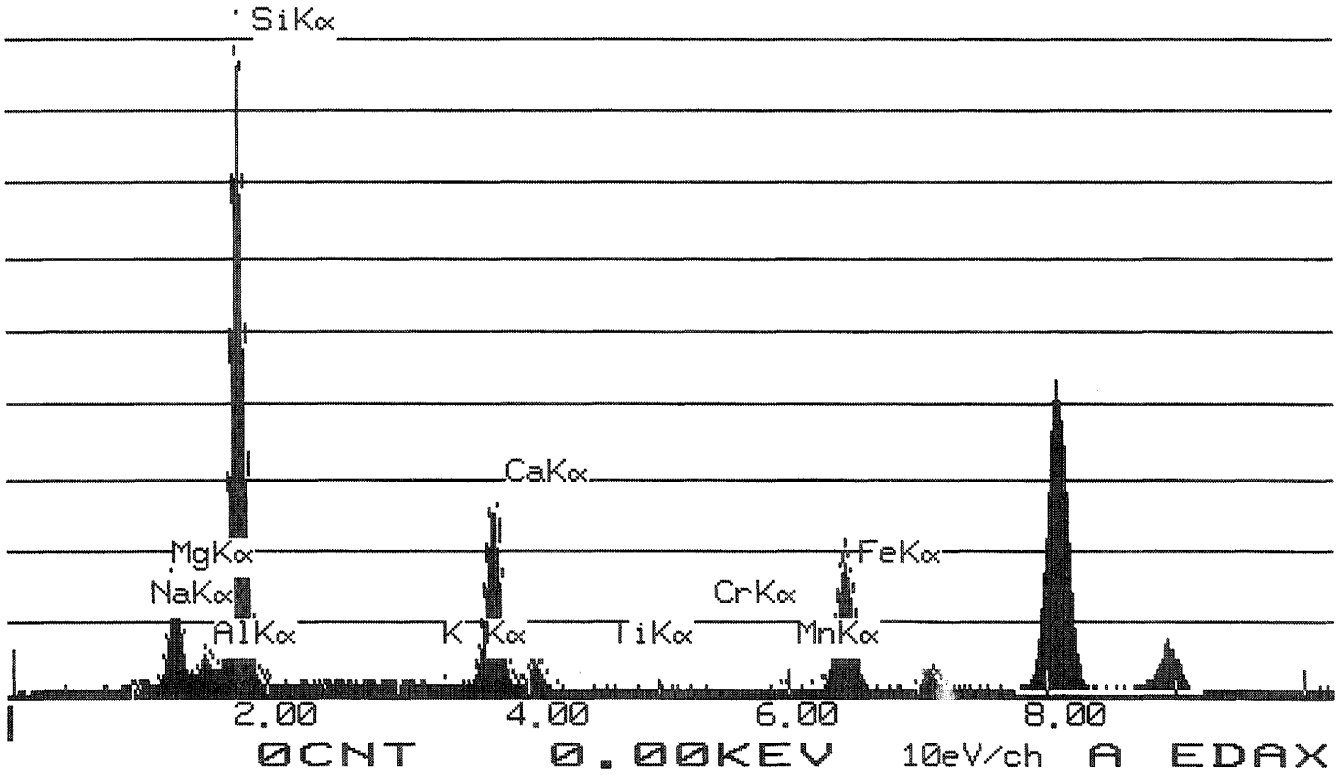


INTE-% :
LABEL = 041210-17 15461
29-NOV-72 08:32:01
67.420 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	56.556	9.117	15.117
ALK	12.874	1.247	2.356
SIK	293.487	26.609	56.926
K K	0.445	0.067	0.081
CAK	101.394	8.765	12.263
MNK	0.697	0.087	0.112
FEK	80.065	9.194	13.145
TOTAL			100.000

USED PEIF: USER

28-NOV-04 08:32:32 SUPER QUANT
RATE= 50CPS TIME= 67LSEC
FS= 2114/ 2114 PRST= 200LSEC
A =041210-17 15461



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.926	Si+4	7.9378	7.9378							
Al2O3	2.356	Al+3	0.3872	0.0622	**0.3250**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	13.145	Fe+3	0.0414			0.0414	0.0000				
MgO	15.117	Mg+2	3.1425			3.1425	**0.0000**				
MnO	0.112	Fe+2	1.4867			1.4867	**0.0000**				
CaO	12.263	Mn+2	0.0132			0.0044	**0.0088**				
Na2O	0	Ca+2	1.8319					1.8319	0.0000		
K2O	0.081	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0144							0.0144	0.0000
Total	**100**		**Excess**	T site	**0.3250**	C site	**0.0088**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.8319**		**0.0144**	**0.0000**
			%Fill	**100**		**100**		**91.5963**			

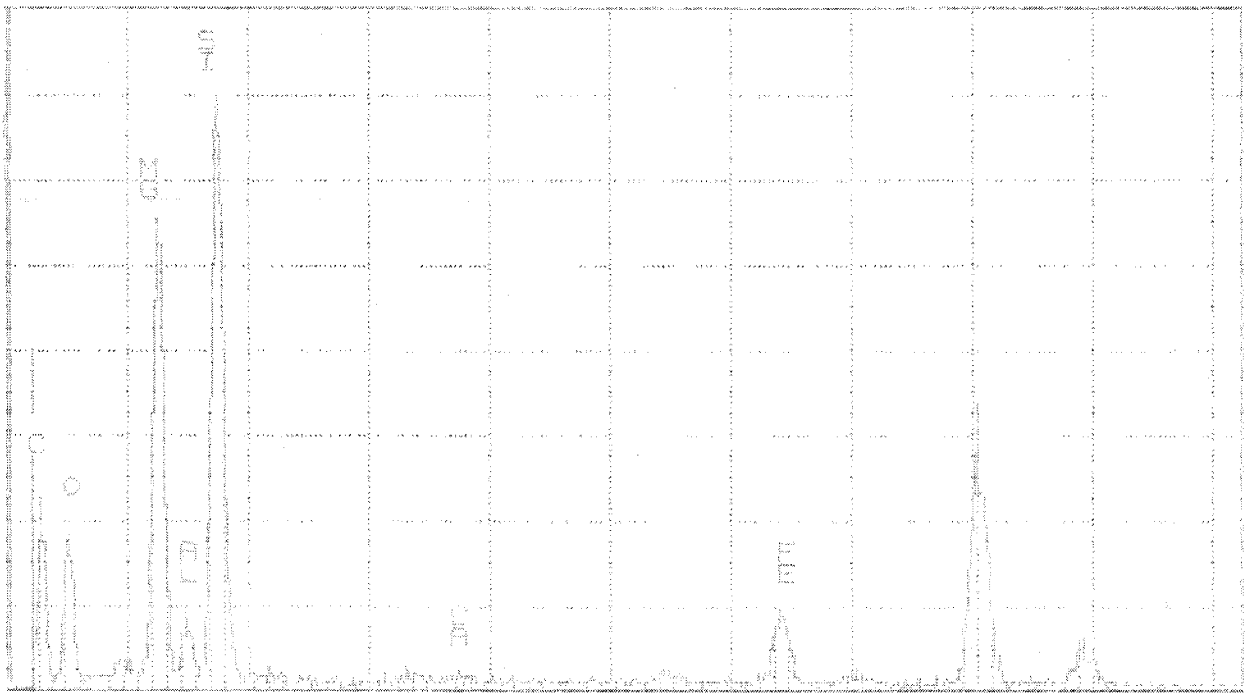
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-17-15461**

Values		Satisfied Conditions
(Ca,Na)@B	1.83	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.83	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.01	Si > 7.5
Mg/(Mg+Fe2)	0.68	(Mg/(Mg+Fe2))< 0.9
Si	7.94	

Mineral Analysis Program (Version 5.0)

TN-5500 University of Washington / JEOL MON 29-NOV-04 09:49
Cursor: 0.000keV = 0



0.0
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0.0
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0.0
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*X 'KOMTF'

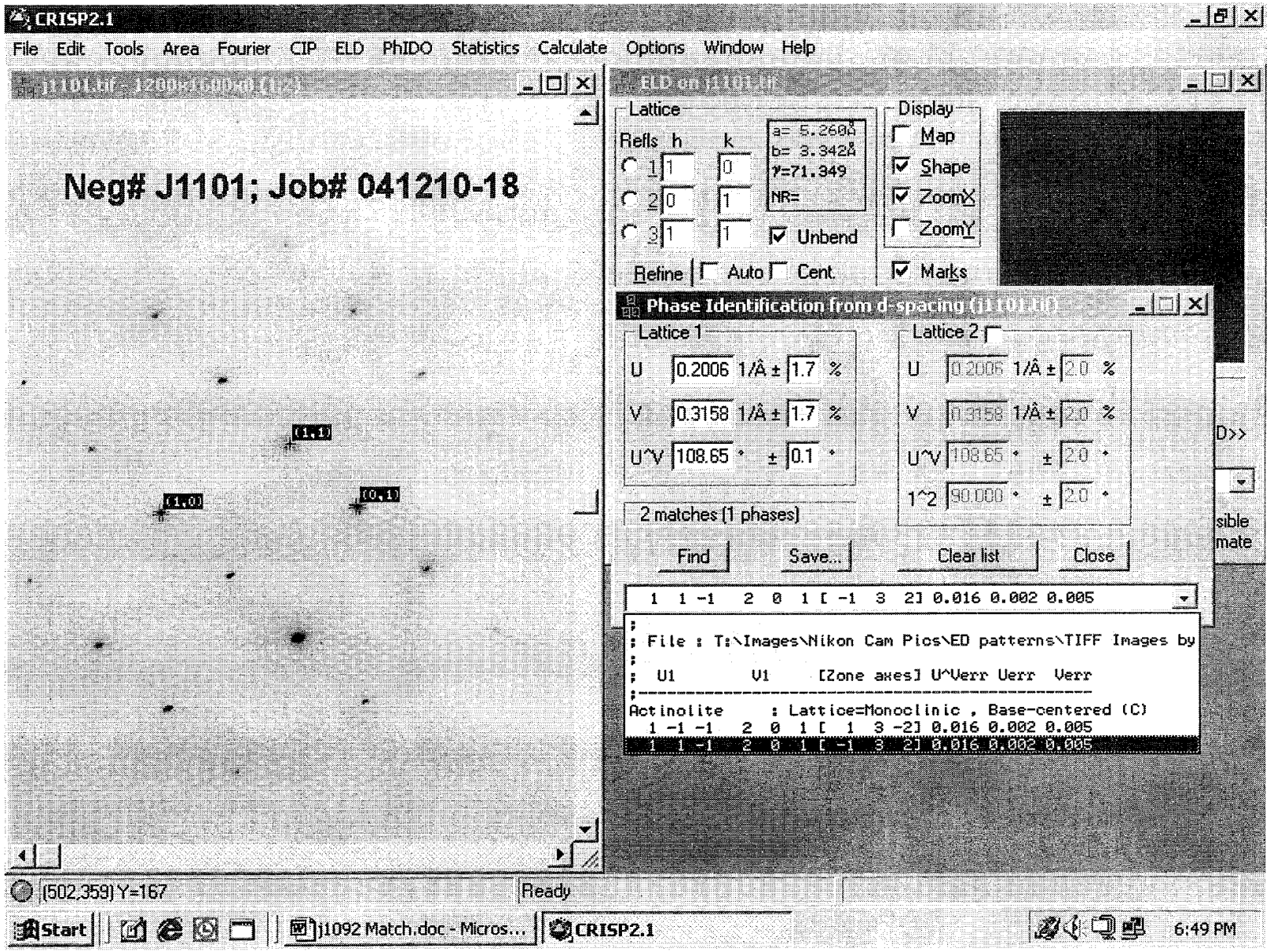
SOMTF: QUANTIFY
Standardless Analysis

Refit _NAK' _NAK" _K K' _K K"
Refit _ALK' _NAK
Refit _ALK"
Chi-sqd = 5.76

Element	Net Counts		
Si-K	10899	+/-	151
Mg-K	4649	+/-	124
Al-K	489	+/-	71
Ca-K	2455	+/-	120
Fe-K	1171	+/-	98
Na-K	0	+/-	0
K -K	143	+/-	11

REF.A EDS:SIK EDS:MGK EDS:ALK EDS:CAK EDS:FEK EDS:NAK
EDS:K K

ACTINOLITE
[-1 3 2]



Series: QUANTIFY
Standardless Analysis

Refit _NAK' _NAK" _K K' _K K"
Refit _ALK' _NAK
Refit _ALK"
Chi-sqd = 5.7A

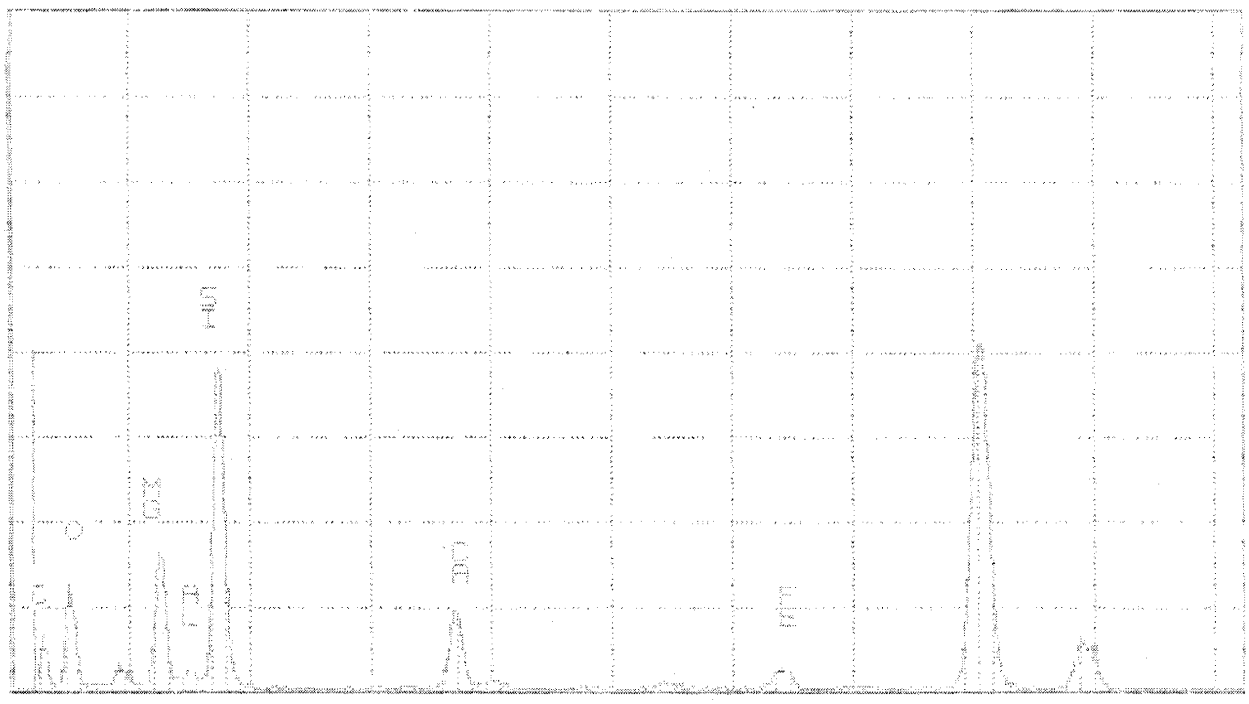
Element	Net Counts	
Si-K	10899 +/-	101
Mg-K	4649 +/-	124
Al-K	489 +/-	71
Ca-K	3455 +/-	120
Fe-K	1171 +/-	95
Na-K	0 +/-	0
K-K	143 +/-	31

K K	REF.G	CORS(KIK	PTRS(MBK	DOTS(ON K	FDRS(LOK	FDRS(FE	CORS(NAK	C

04/10/0-10 WPSOA

EL-K LINE	MEAS	K-RATION	CNT/URE	ATOM%	EL WT%	WT%	FORMULA
SI-K	10899	1.000	1.000	21.74	28.00	60.01	SIO2
MG-K	4649	1.000	0.427	10.57	11.95	19.91	MGO
AL-K	489	0.750	0.034	0.74	0.94	1.78	AL2O3
CA-K	3455	0.997	0.301	4.46	3.43	11.81	CAO
FE-K	1171	1.189	0.150	1.60	4.71	6.02	FE2O3
NA-K	0	0.949	0.000	0.00	0.00	0.00	NA2O
K-K	143	1.059	0.014	0.21	0.39	0.47	K2O
O			1.445	61.15	46.07		

TN-5500 University of Washington / Thor MON 24-NOV-04 10:10
Cursor: 0.000keV = 0



0.000 8- 5 VFS = 2048 10 240
4W 041210 16:09:00

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	60.01	Si+4	8.0000	8.0000							
Al2O3	1.78	Al+3	0.2893	0.0000	**0.2893**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	6.02	Fe+3	0.0533			0.0533	0.0000				
MgO	19.91	Mg+2	4.0110			4.0110	**0.0000**				
MnO	0	Fe+2	0.6331			0.6331	**0.0000**				
CaO	11.81	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.7150					1.7150	0.0000		
K2O	0.47	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0884							0.0884	0.0000
Total	100		Excess	T site	0.2893	C site	0.0000	B site	0	A site	0
			Total	8		4.9867		1.7150		0.0884	0.0000
			%Fill	100		99.7344		85.7499			

Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-18-806

Values		Satisfied Conditions
(Ca,Na)@B	1.71	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.71	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.09	Si > 7.5
Mg/(Mg+Fe2)	0.86	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

1,00
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0,0
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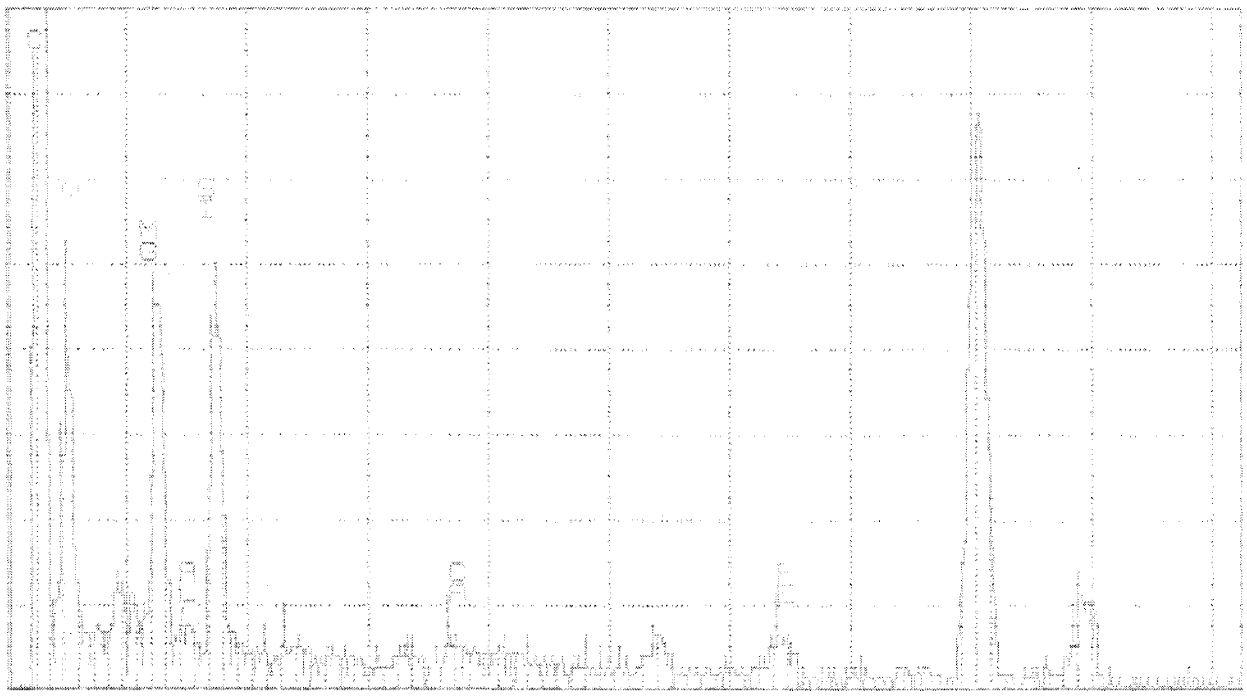
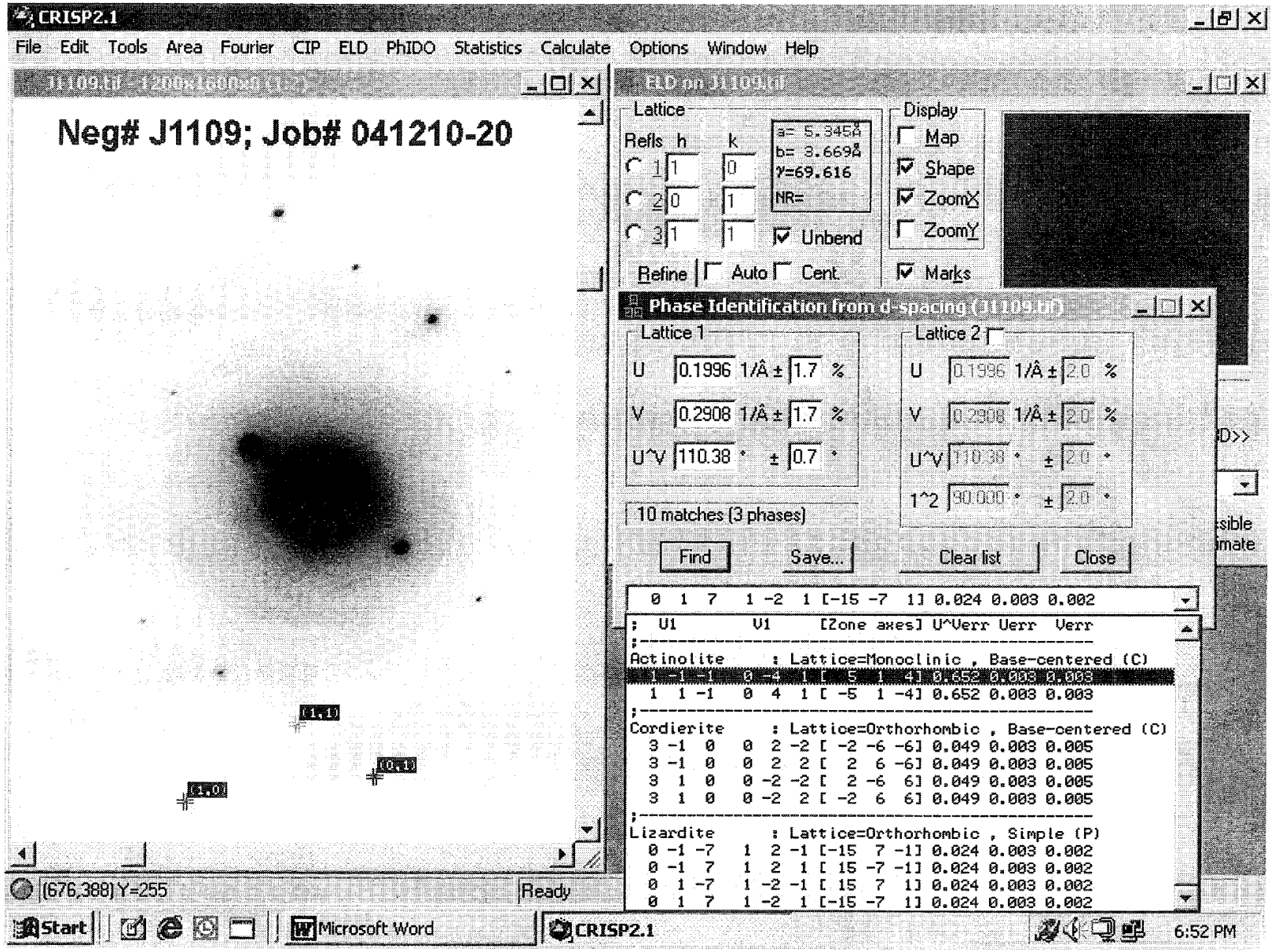
TN-8500 University of Washington / TDDL NOV 29-NOV-04 17:30
Cursor: 0.000keV = 0



0 DOM R- 5 VPS = 64 W 2048
57 041210-13 S-007

ACTINOLITE
[5 1 4]



SUMTF: QUANTIFY
Standardless Analysis

Chi-sqrd = 3.87

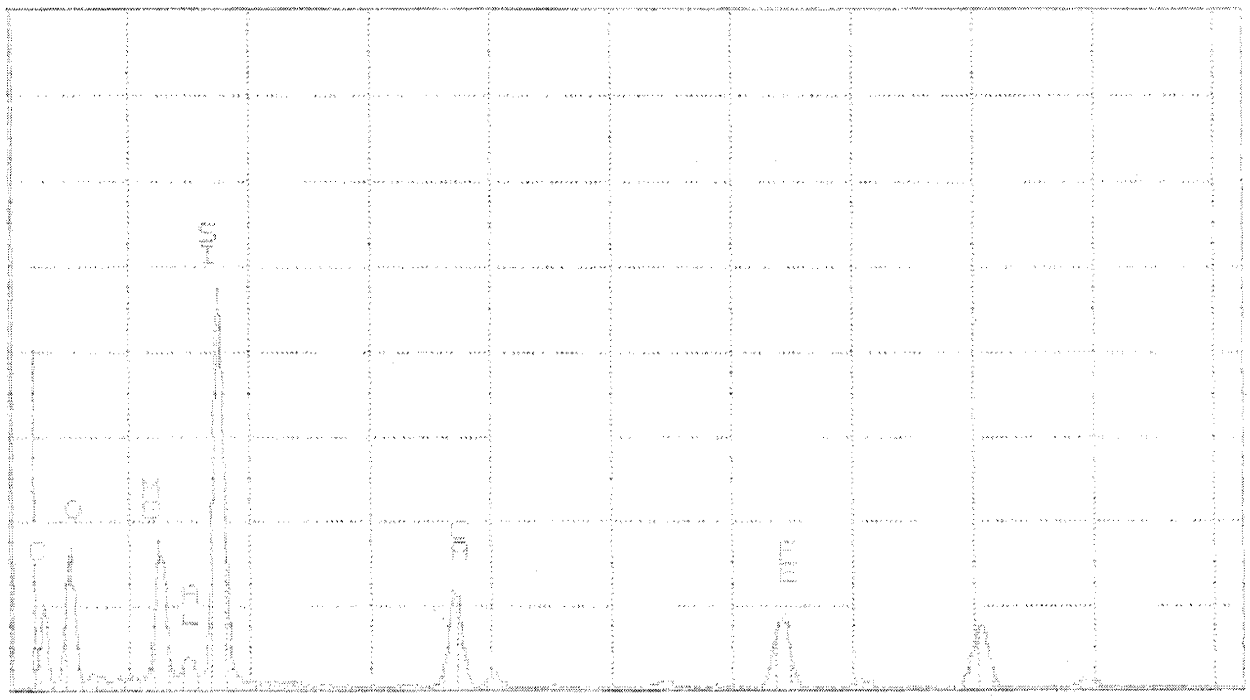
Element	Net Counts		
Si-K	13136	+/-	321
Mg-K	4470	+/-	214
Al-K	909	+/-	252
Ca-K	4134	+/-	126
Fe-K	3908	+/-	116
Na-K	323	+/-	105
K-K	126	+/-	68

BERKA FTN:STK EDM:MUK EDN:ALK FTO:CAK FDO:FEK EDB:NAK EDO:

041214-2W SP808

FL-LINE	PEAK	K-FACTOR	CEL/CMEH	ATOM%	FT WTX	WTX	FORMULA
SI-K	13136	1.000	1.000	20.24	25.76	55.20	SIO2
MG-K	4470	1.000	0.340	8.04	8.77	14.61	MGO
AL-K	909	0.750	0.053	1.09	1.24	2.34	AL2O3
CA-K	4134	0.949	0.313	4.44	8.09	11.31	CAO
FE-K	3908	1.399	0.417	4.29	10.73	15.38	FE2O3
NA-K	323	0.549	0.014	0.39	0.39	0.71	NA2O3
K-K	126	1.059	0.010	0.15	0.26	0.32	K2O
O			1.738	61.49	44.72		

TN-5500 University of Washington / JEOL MON 29-NOV-04 16:54
Cursor: 0.000keV = 0



0 0w0 D- 5 WPS = 2048 10.242
61 041214-2W SP808

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	55.2	Si+4	7.7667	7.7667							
Al2O3	2.53	Al+3	0.4195	0.2333	**0.1862**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	15.33	Fe+3	0.3571			0.3571	0.0000				
MgO	14.61	Mg+2	3.0646			3.0646	**0.0000**				
MnO	0	Fe+2	1.4068			1.3922	**0.0147**				
CaO	11.31	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.71	Ca+2	1.7048					1.7048	0.0000		
K2O	0.32	Na+	0.1937					0.1937	**0.0000**	0.0000	0.0000
		K+	0.0574							0.0574	0.0000
Total	**100.01**		**Excess**	T site	**0.1862**	C site	**0.0147**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.8985**		**0.0574**	**0.0000**
			%Fill	**100**		**100**		**94.925**			

Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

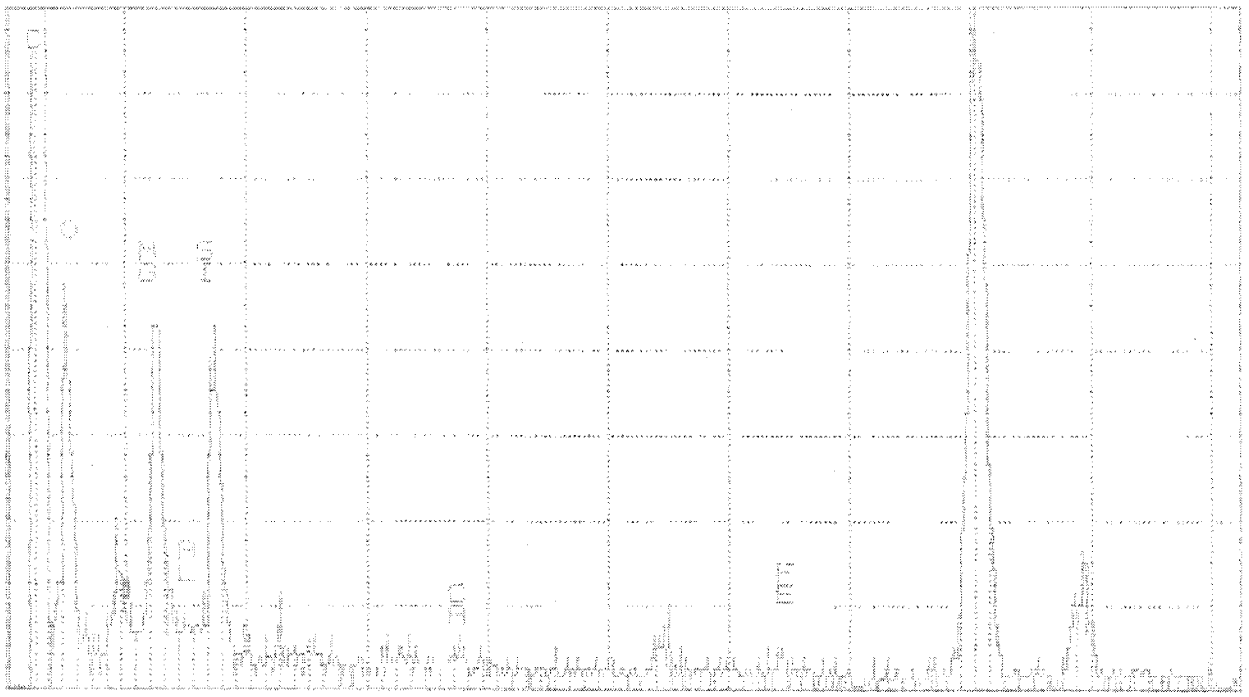
Sample # **041210-20-808**

Values		Satisfied Conditions
(Ca,Na)@B	1.90	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.19	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.70	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.06	Si > 7.5
Mg/(Mg+Fe2)	0.69	(Mg/(Mg+Fe2))< 0.9
Si	7.77	

Mineral Analysis Program (Version 5.0)

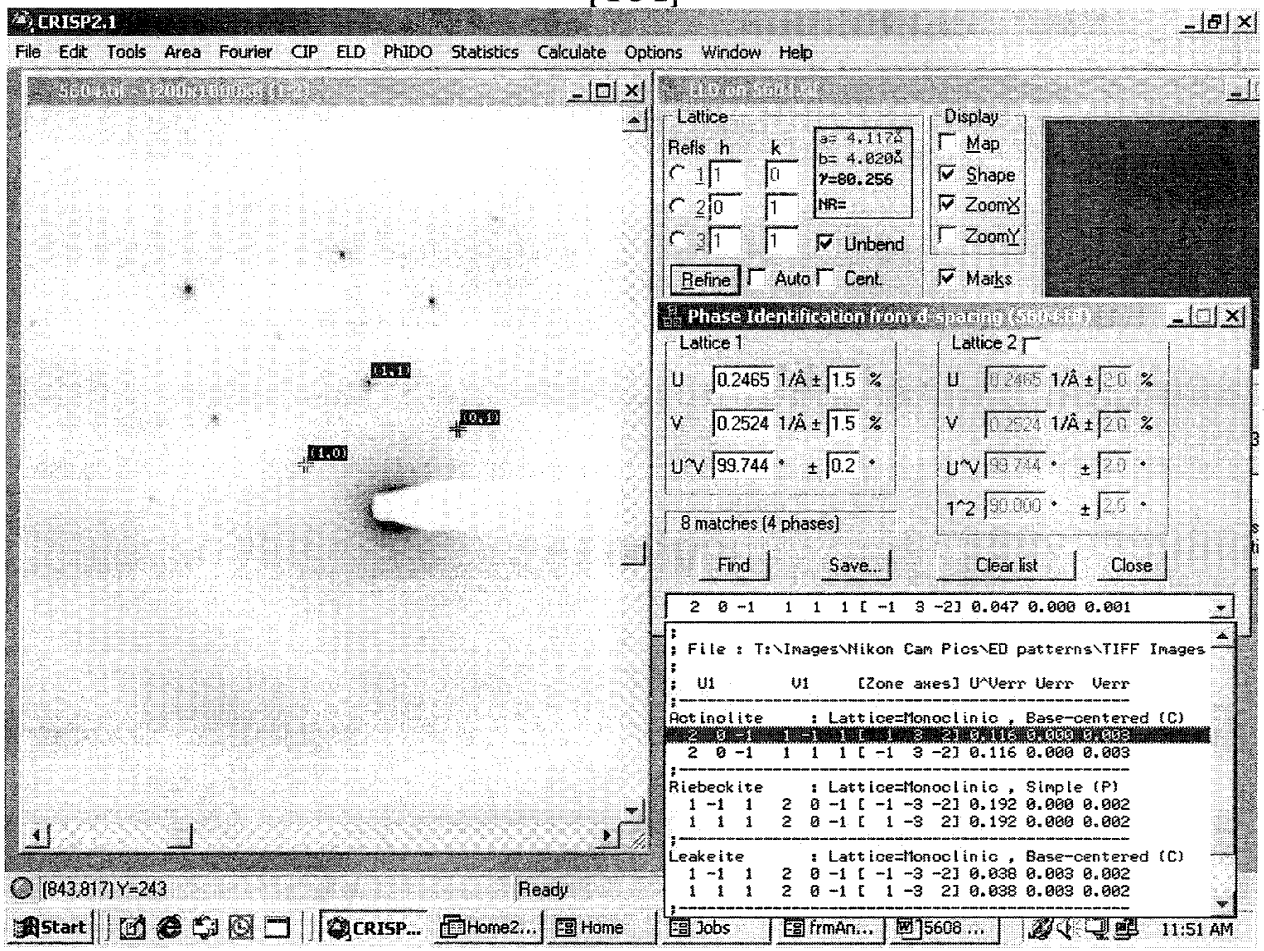
1.00
0.0
0.0

TN-3500 University of Washington / (T-0) MON 24-NOV-04 (7141)
Cursor: 0.000keV = 0



0.000 B - 5 VFb = 64 10 240
9< 041210-23 <P-07>

NEG#5604; SAMPLE# 041210-21
ACTINOLITE
[1 3 2]

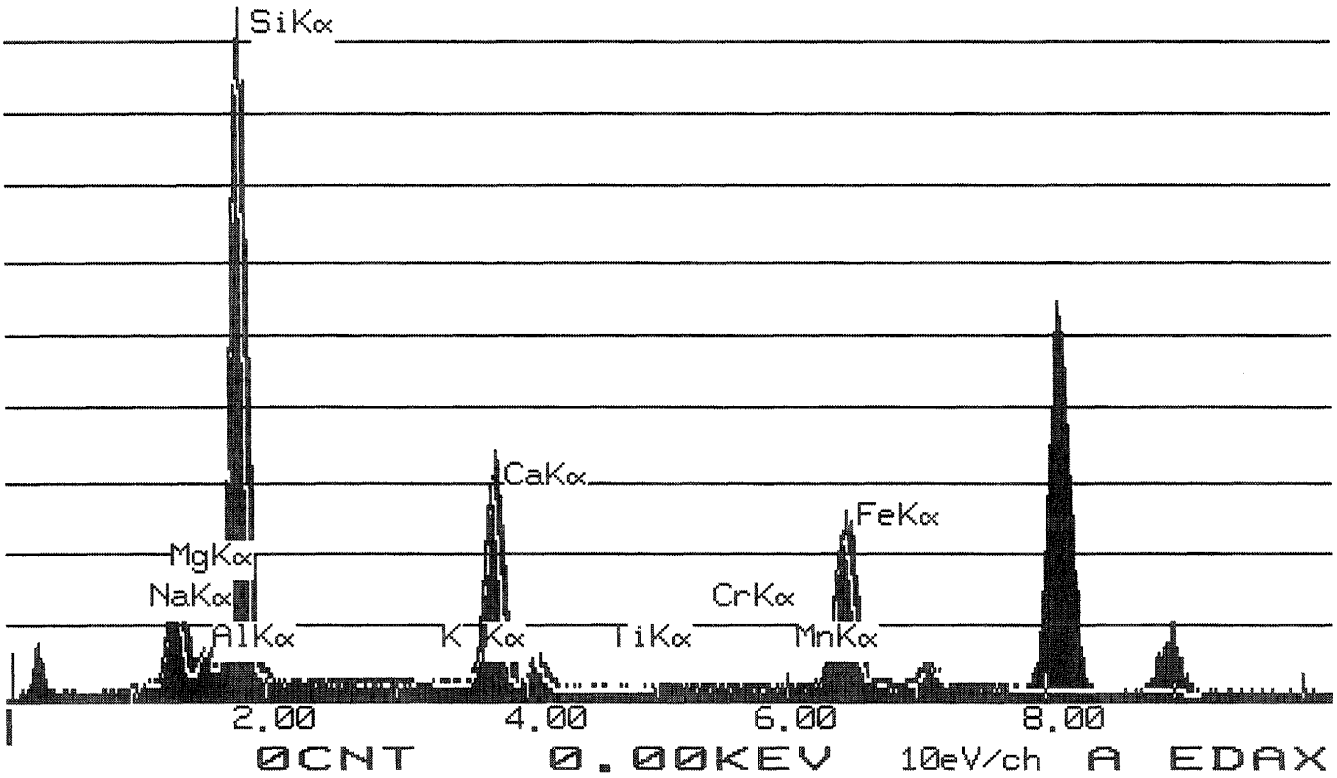


INTE-% :
LABEL = 041210-21 15456
29-NOV-72 01:22:25
20.444 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
NAK	1.663	0.396	0.534
MGK	78.801	8.854	14.682
ALK	17.952	1.212	2.289
SIK	406.479	25.688	54.956
CAK	152.173	9.169	12.829
FEK	128.547	10.289	14.711
TOTAL			100.000

USED PEIF: USER

28-NOV-04 01:22:55 SUPER QUANT
RATE= 6584CPS TIME= 20LSEC
FS= 931/ 931 PRST= 200LSEC
A =041210-21 15456



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	54.956	Si+4	7.7765	7.7765							
Al2O3	2.289	Al+3	0.3817	0.2235	**0.1583**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	14.711	Fe+3	0.0470			0.0470	0.0000				
MgO	14.682	Mg+2	3.0973			3.0973	**0.0000**				
MnO	0	Fe+2	1.6885			1.6885	**0.0000**				
CaO	12.829	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.534	Ca+2	1.9449					1.9449	0.0000		
K2O	0	Na+	0.1465					0.0551	**0.0913**	0.0913	0.0000
		K+	0.0000							0.0000	0.0000
Total	**100.001**		**Excess**	T site	**0.1583**	C site	**0.0000**	B site	**0.0913454**	A site	**0**
			Total	**8**		**4.9910**		**2.0000**		**0.0913**	**0.0000**
			%Fill	**100**		**99.82**		**100**			

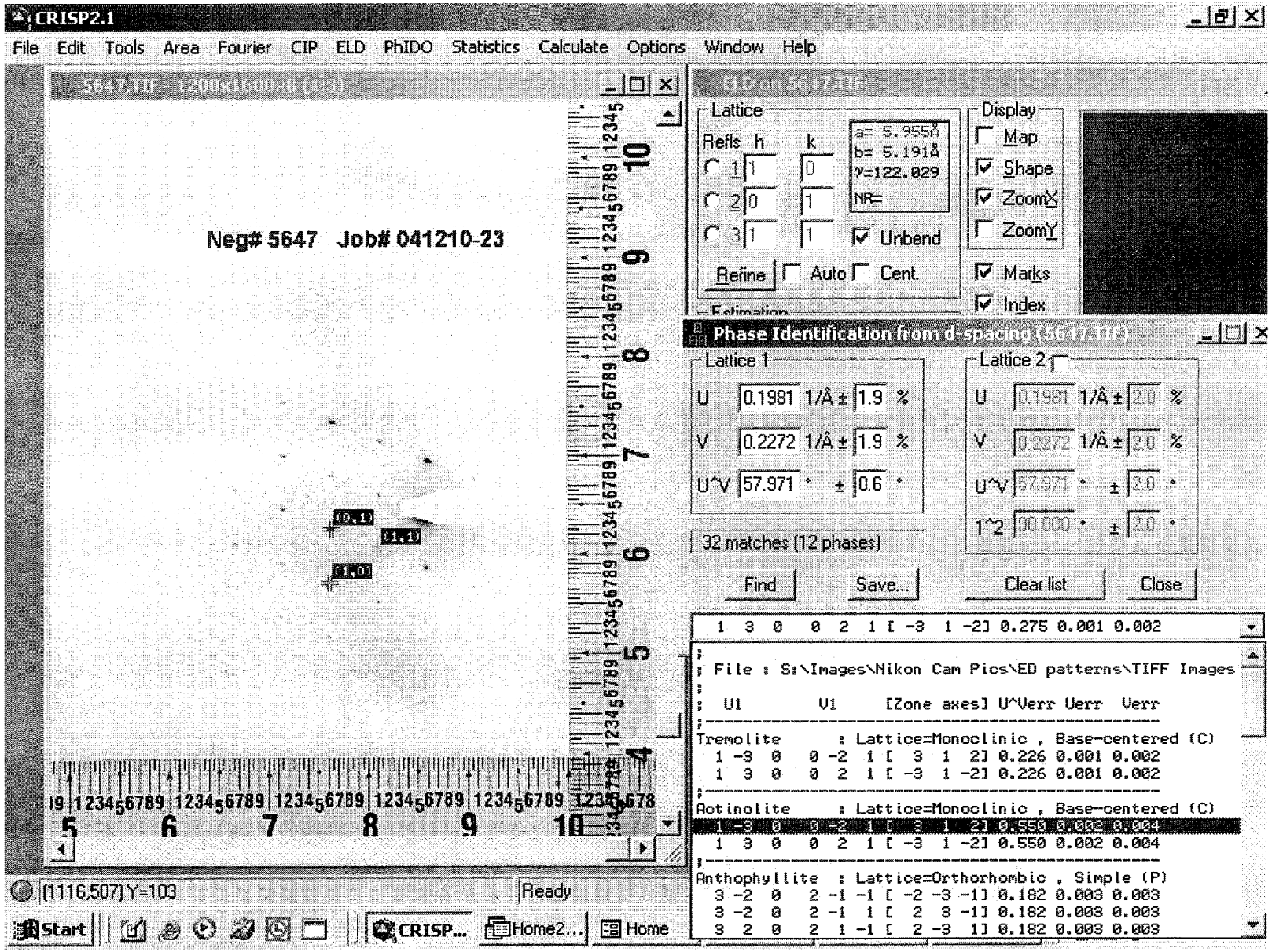
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-21-15456**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.06	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.94	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.09	Si > 7.5
Mg/(Mg+Fe2)	0.65	(Mg/(Mg+Fe2))< 0.9
Si	7.78	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[3 1 2]



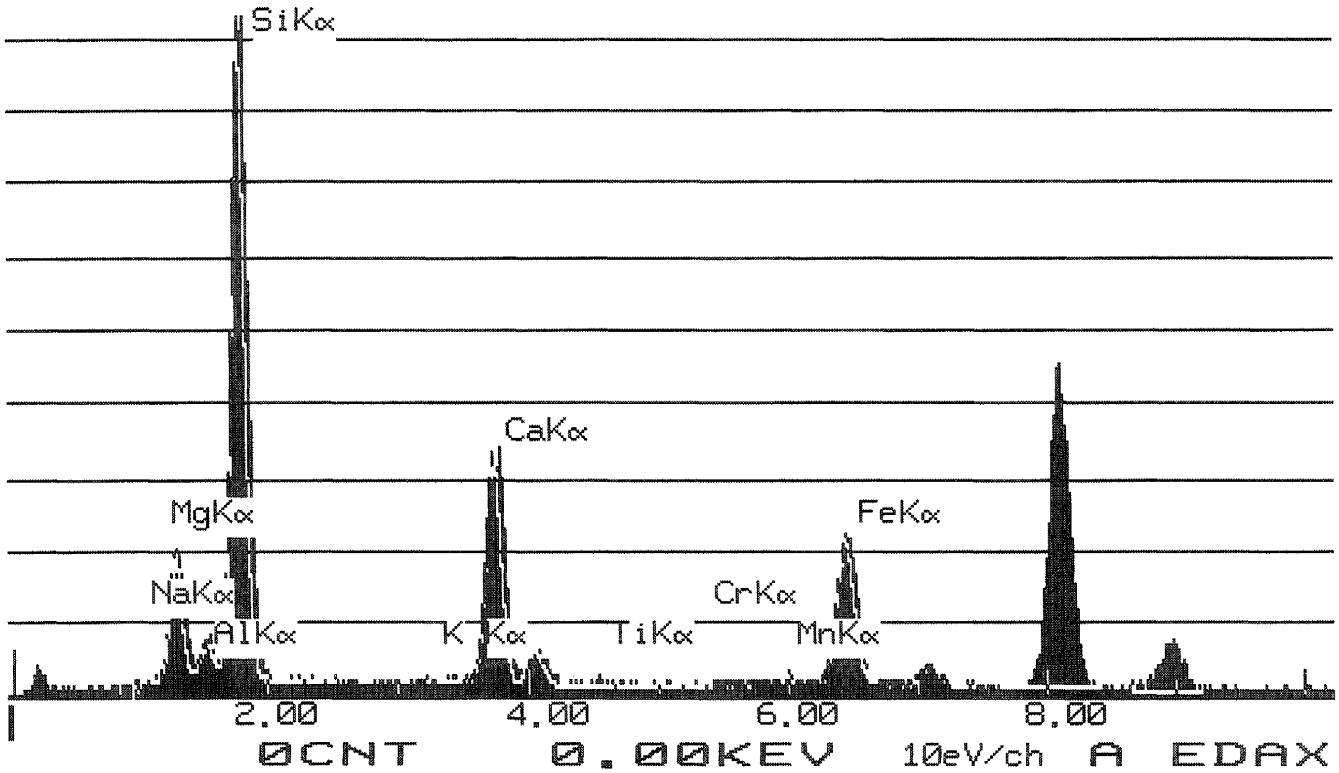
INTE-% :
LABEL = 041210-23 15459
29-NOV-72 03:54:48
20.161 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	76.237	8.795	14.584
ALK	21.676	1.502	2.838
SIK	393.137	25.509	54.573
K K	1.488	0.160	0.193
CAK	162.294	10.040	14.048
TIK	1.587	0.139	0.231
FEK	115.173	9.465	13.533

TOTAL			100.000

USED PEIF: USER

28-NOV-04 03:55:20 SUPER QUANT
RATE= 2095CPS TIME= 20LSEC
FS= 854/ 854 PRST= 200LSEC
A =041210-23 15459



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	54.573	Si+4	7.7108	7.7108							
Al2O3	2.838	Al+3	0.4726	0.2892	**0.1834**						
TiO2	0.231	Ti+4	0.0245	0.0000	**0.0245**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	13.533	Fe+3	0.0144			0.0144	0.0000				
MgO	14.584	Mg+2	3.0720			3.0720	**0.0000**				
MnO	0	Fe+2	1.5829			1.5829	**0.0000**				
CaO	14.048	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	2.1265					2.0000	0.1265		
K2O	0.193	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0348							0.0348	0.0000
Total	100		Excess	T site	**0.2080**	C site	**0.0000**	B site	**0.126473**	A site	**0**
			Total	8		4.8773		2.0000		0.0348	0.0000
			%Fill	100		97.5455		100			

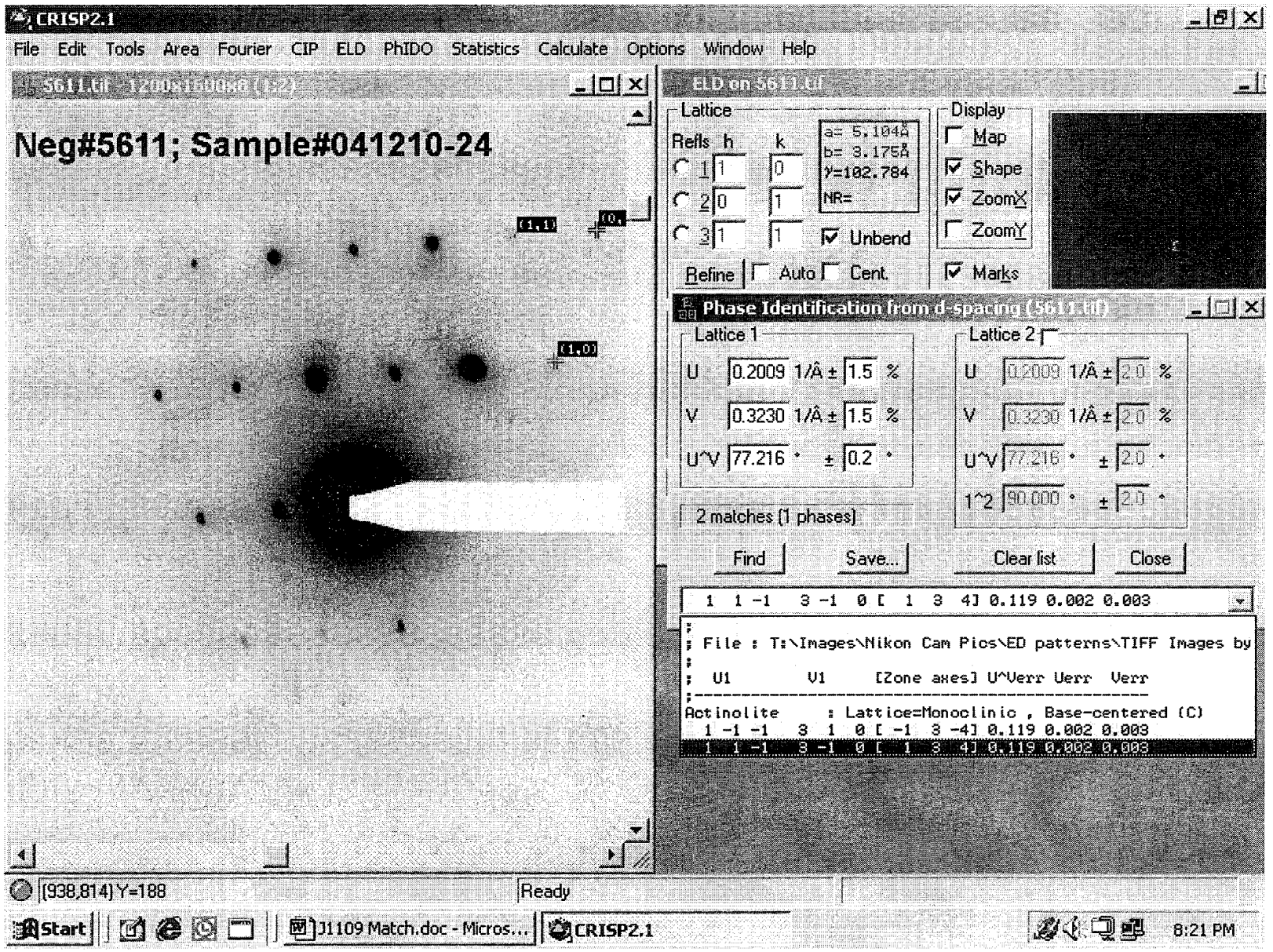
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-23-15459

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.03	Si > 7.5
Mg/(Mg+Fe2)	0.66	(Mg/(Mg+Fe2))< 0.9
Si	7.71	

Mineral Analysis Program (Version 5.0)

Neg#5611; Sample# 041210-24
ACTINOLITE
[3 1 4]

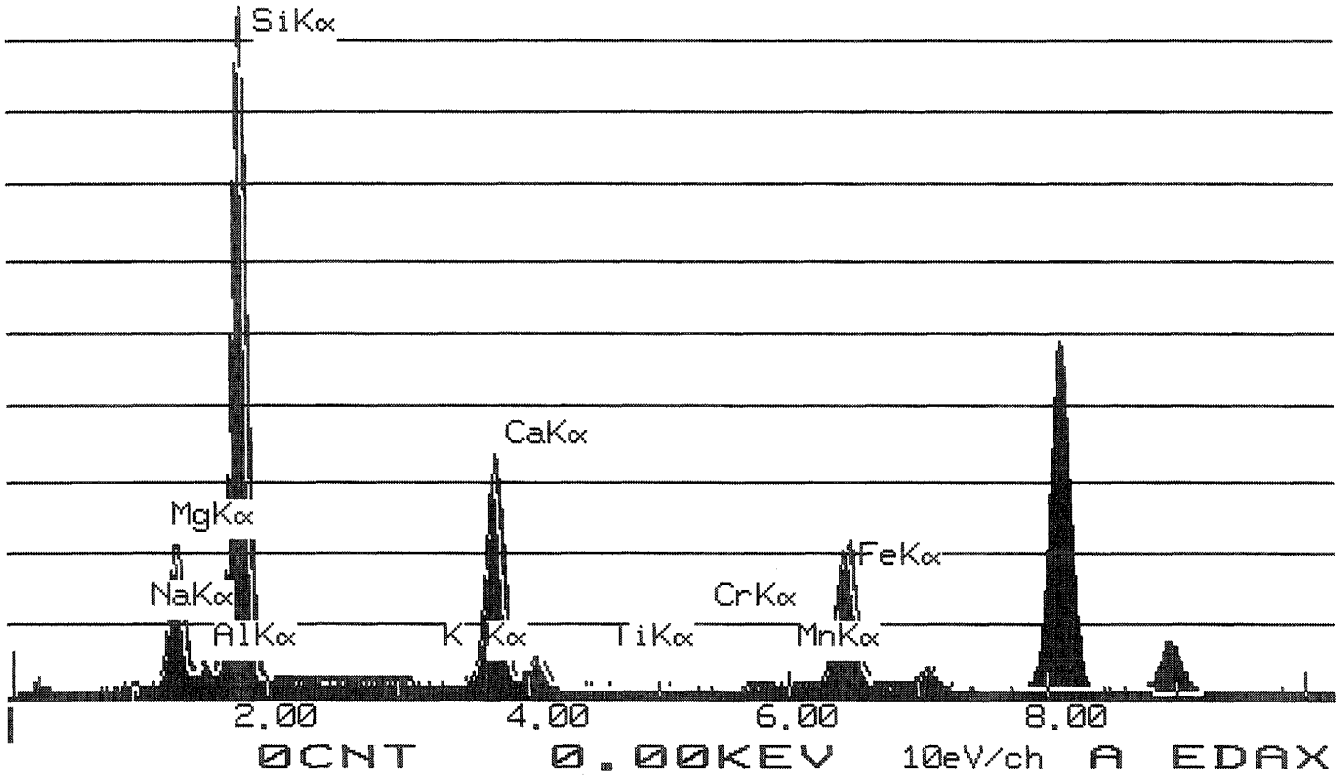


INTE-% :
LABEL = 041210-24 15462
30-NOV-72 02:16:30
35.570 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	143.659	9.556	15.845
ALK	16.980	0.678	1.282
SIK	703.450	26.317	56.301
CAK	261.707	9.335	13.061
FEK	199.436	9.450	13.511
TOTAL			100.000

USED PEIF: USER

29-NOV-04 02:17:12 SUPER QUANT
RATE= 76CPS TIME= 36LSEC
FS= 2701/ 2701 PRST= 200LSEC
A =041210-24 15462



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.301	Si+4	7.9007	7.9007							
Al2O3	1.282	Al+3	0.2120	0.0993	**0.1127**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	13.511	Fe+3	0.0428			0.0428	0.0000				
MgO	15.845	Mg+2	3.3149			3.3149	**0.0000**				
MnO	0	Fe+2	1.5378			1.5296	**0.0083**				
CaO	13.061	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.9636					1.9636	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	**100**		**Excess**	T site	**0.1127**	C site	**0.0083**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.9636**		**0.0000**	**0.0000**
			%Fill	**100**		**100**		**98.1792**			

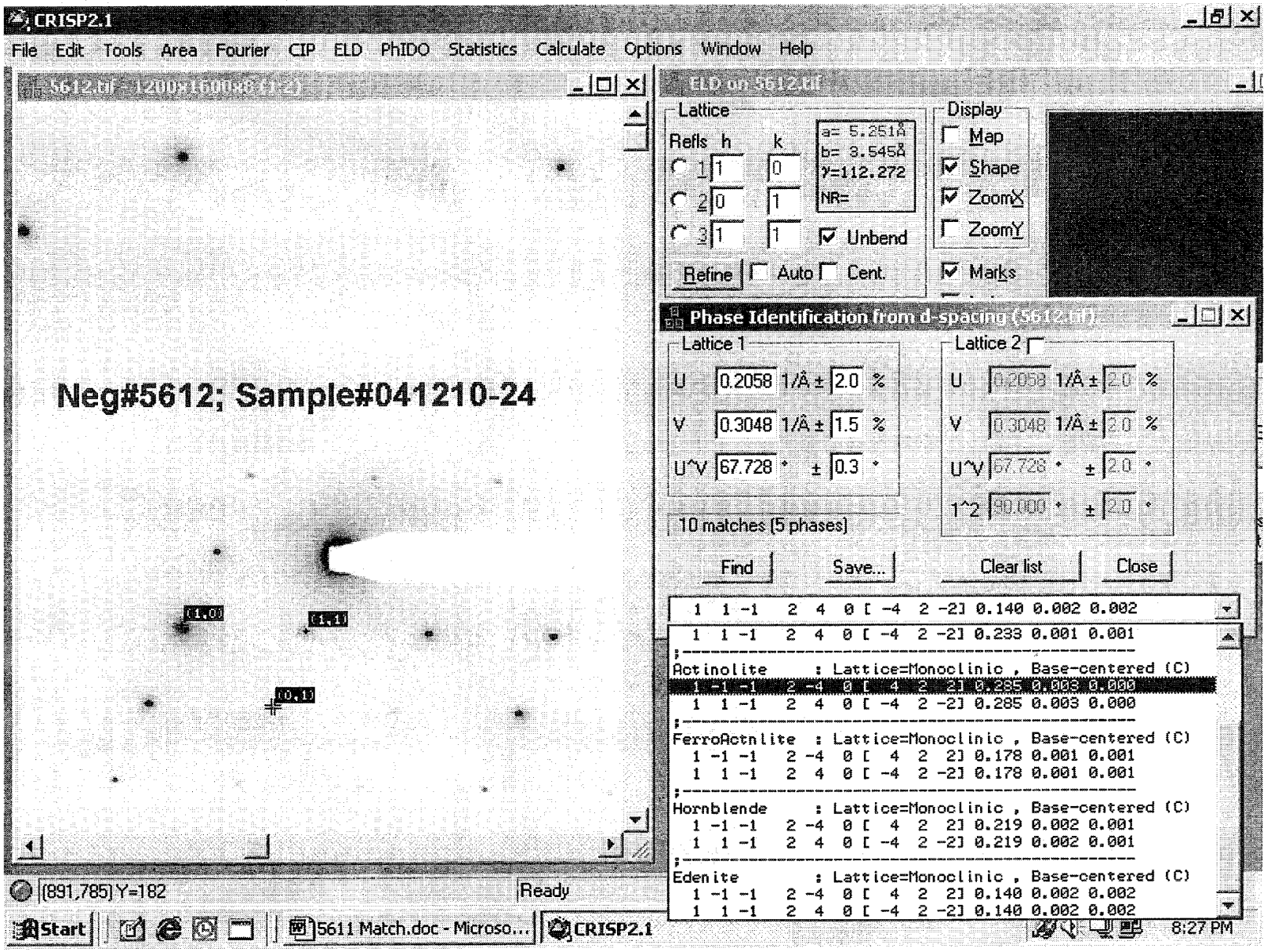
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-24-15462**

Values		Satisfied Conditions
(Ca,Na)@B	1.96	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.96	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.68	(Mg/(Mg+Fe2))< 0.9
Si	7.90	

Mineral Analysis Program (Version 5.0)

Neg#5612; Sample# 041210-24
ACTINOLITE
[2 1 1]



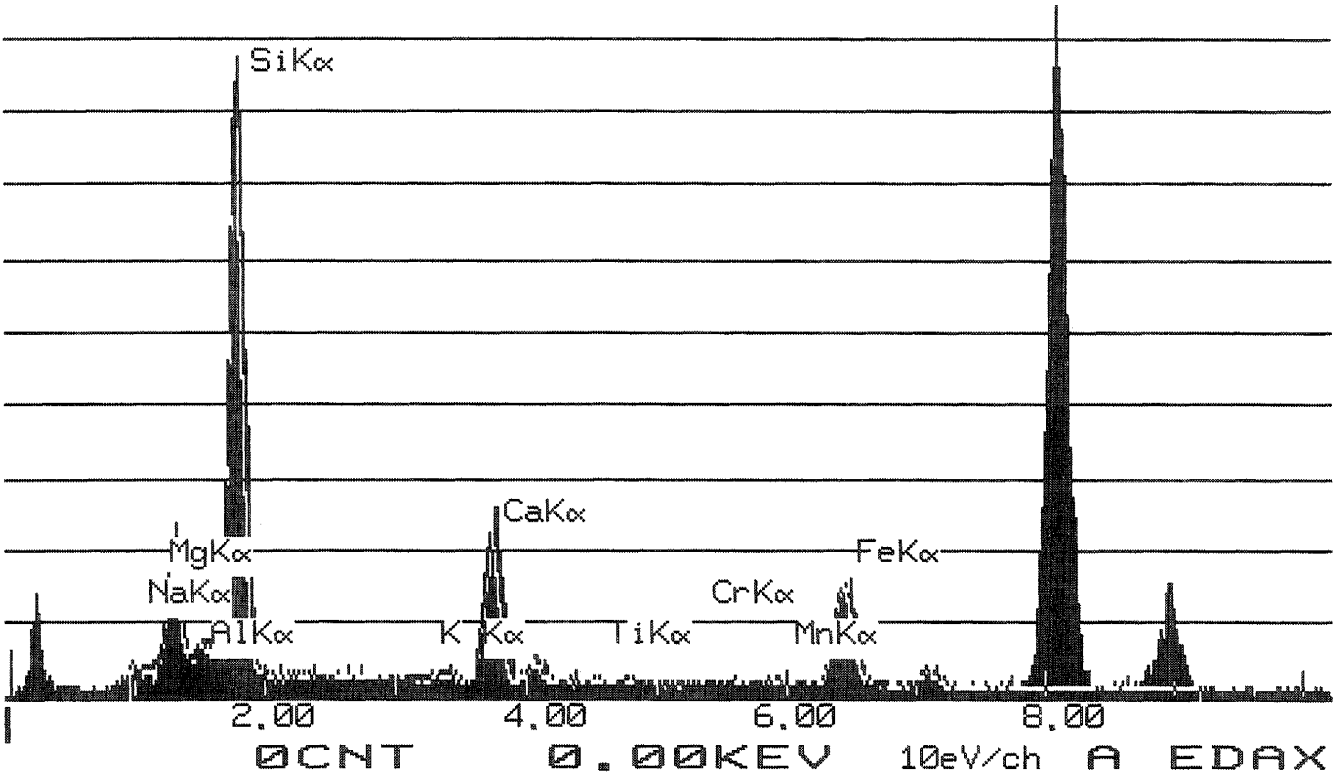
INTE-% :
LABEL = 041210-24 15463
30-NOV-72 02:28:06
70.977 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	13.652	8.988	14.904
ALK	2.663	1.053	1.990
SIK	75.658	28.016	59.936
K K	0.817	0.503	0.606
CAK	22.162	7.824	10.948
MNK	0.225	0.115	0.148
FEK	17.104	8.022	11.469

TOTAL			100.000

USED PEIF: USER

29-NOV-04 02:28:56 SUPER QUANT
RATE= 19CPS TIME= 71LSEC
FS= 651/ 651 PRST= 200LSEC
A =041210-24 15463



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	59.936	Si+4	8.0000	8.0000							
Al2O3	1.99	Al+3	0.3416	0.0000	**0.3416**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	11.469	Fe+3	0.0243			0.0243	0.0000				
MgO	14.904	Mg+2	3.1007			3.1007	**0.0000**				
MnO	0.148	Fe+2	1.3315			1.3315	**0.0000**				
CaO	10.948	Mn+2	0.0452			0.0452	**0.0000**				
Na2O	0	Ca+2	1.6462					1.6462	0.0000		
K2O	0.606	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.1272							0.1272	0.0000
Total	**100.001**		**Excess**	T site	**0.3416**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.8433**		**1.6462**		**0.1272**	**0.0000**
			%Fill	**100**		**96.8663**		**82.3096**			

Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-24-15463**

Values		Satisfied Conditions
(Ca,Na)@B	1.65	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.65	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.13	Si > 7.5
Mg/(Mg+Fe2)	0.70	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

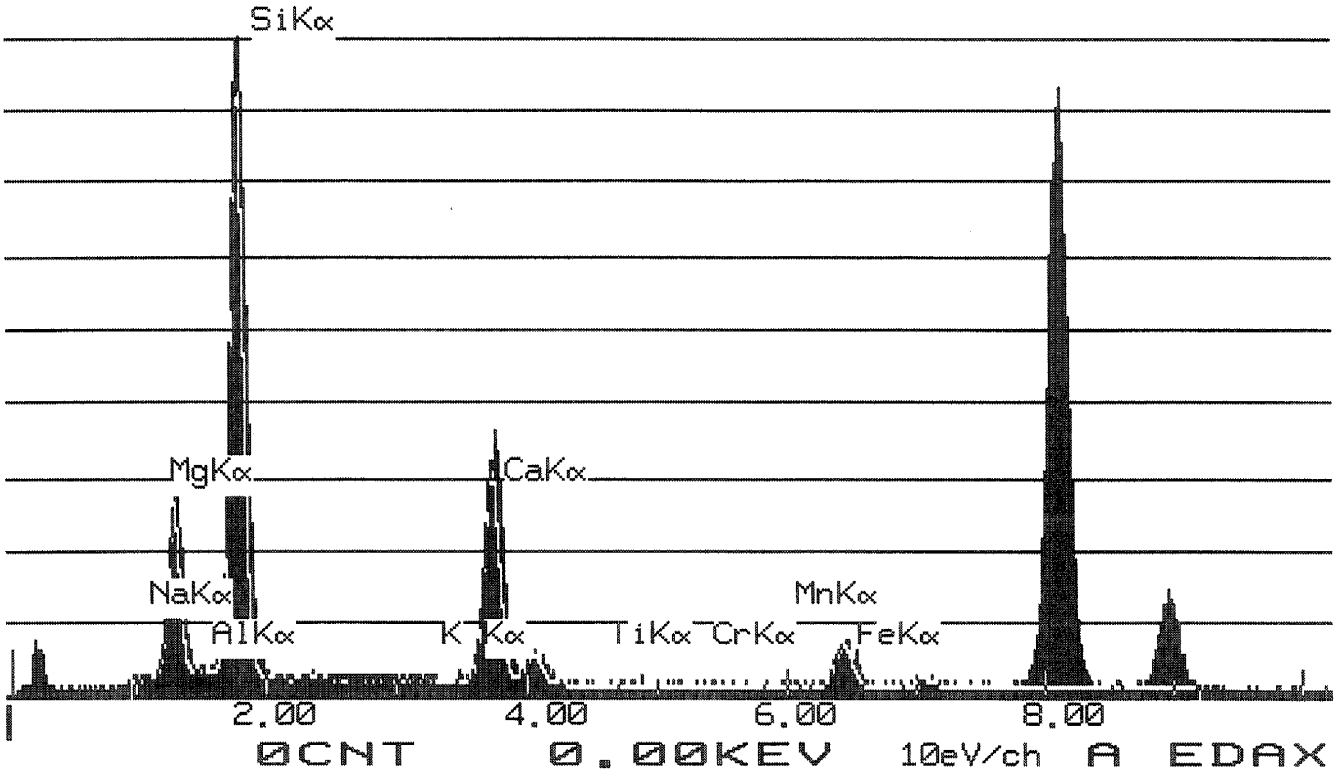
Mineral Analysis Program (Version 5.0)

INTE-% :
LABEL = 041210-25 15465
30-NOV-72 03:20:24
92.267 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	28.591	12.877	21.351
ALK	1.051	0.284	0.537
SIK	108.197	27.407	58.633
CAK	44.219	10.679	14.942
MNK	0.347	0.121	0.156
FEK	9.548	3.063	4.380
TOTAL			100.000

USED PEIF: USER

29-NOV-04 03:22:01 SUPER QUANT
RATE= 145CPS TIME= 92LSEC
FS= 1123/ 1123 PRST= 200LSEC
A =041210-25 15465



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	58.633	Si+4	7.9392	7.9392							
Al2O3	0.537	Al+3	0.0857	0.0608	**0.0249**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	4.38	Fe+3	0.0045			0.0045	0.0000				
MgO	21.351	Mg+2	4.3100			4.3100	**0.0000**				
MnO	0.156	Fe+2	0.4910			0.4910	**0.0000**				
CaO	14.942	Mn+2	0.0179			0.0179	**0.0000**				
Na2O	0	Ca+2	2.1675					2.0000	0.1675		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	**99.999**		**Excess**	T site	**0.0249**	C site	**0.0000**	B site	**0.1675292**	A site	**0**
			Total	**8**		**4.8482**		**2.0000**		**0.0000**	**0.0000**
			%Fill	**100**		**96.964**		**100**			

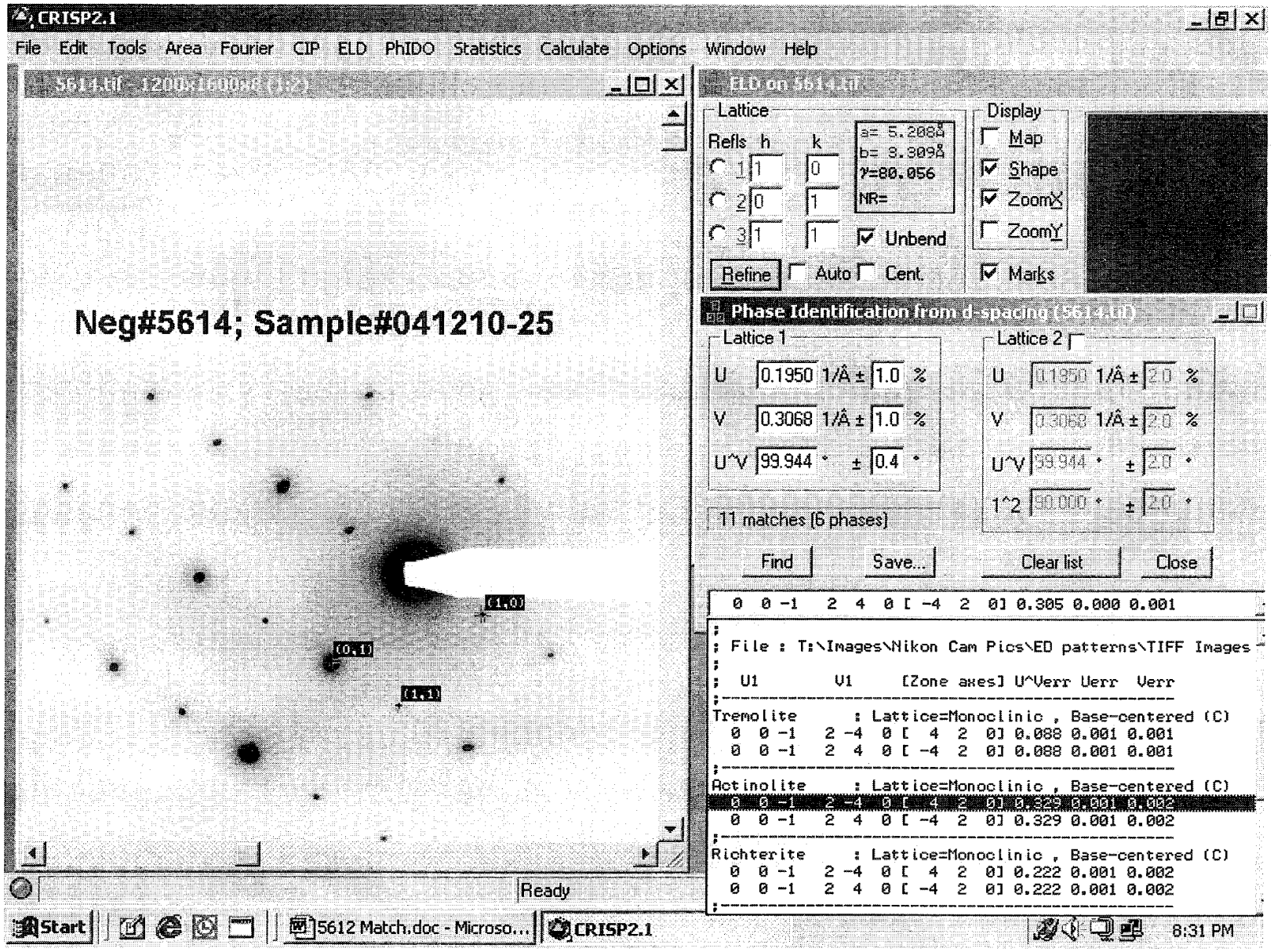
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-25-15465**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.90	(Mg/(Mg+Fe2))< 0.9
Si	7.94	

Mineral Analysis Program (Version 5.0)

Neg#5614; Sample# 041210-25
ACTINOLITE
[2 1 0]



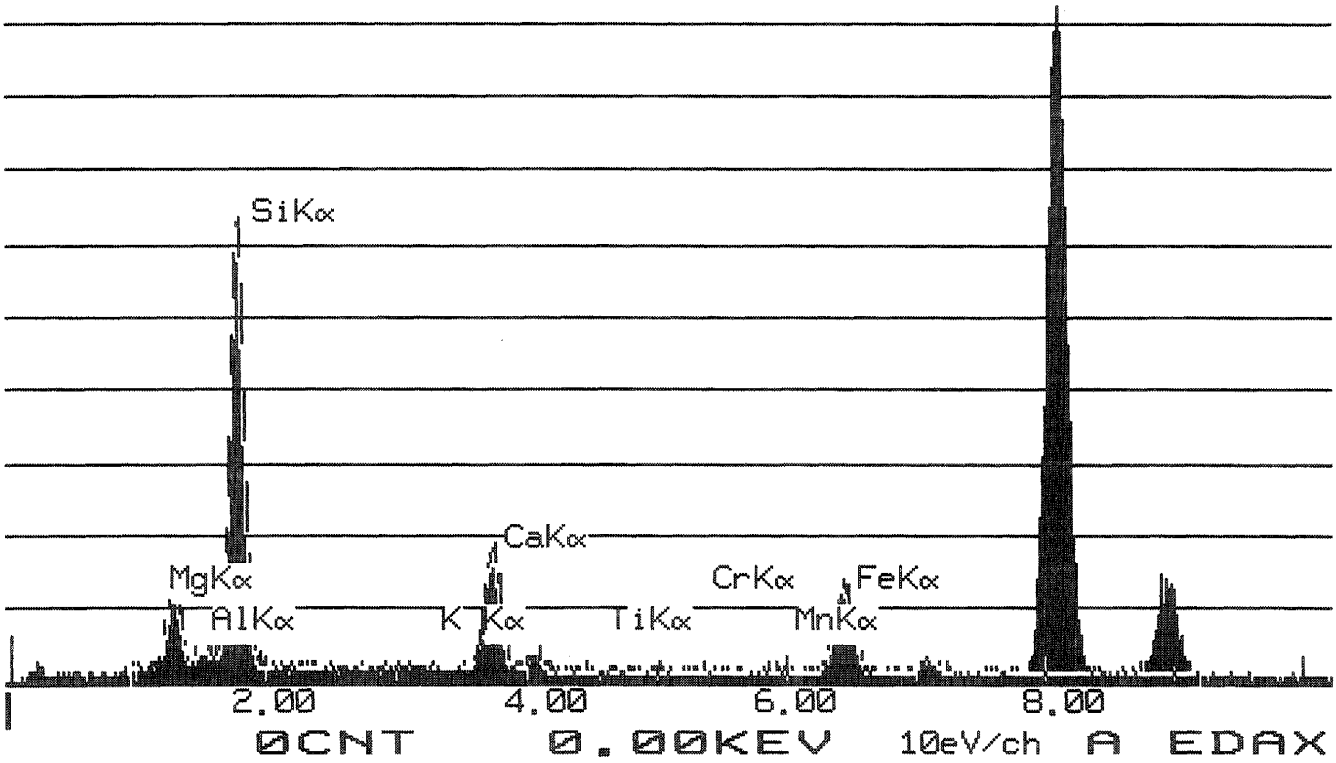
INTE-% :
LABEL = 041210-25 15466
30-NOV-72 03:36:03
72.964 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	7.278	8.406	13.937
ALK	1.329	0.922	1.743
SIK	42.953	27.902	59.692
CAK	13.308	8.242	11.532
CRK	0.137	0.118	0.173
MNK	0.315	0.282	0.364
FEK	10.677	8.784	12.559

TOTAL			100.000

USED PEIF: USER

29-NOV-04 03:36:35 SUPER QUANT
RATE= 379CPS TIME= 73LSEC
FS= 506/ 506 PRST= 200LSEC
A =041210-25 15466



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	59.692	Si+4	8.0000	8.0000							
Al2O3	1.743	Al+3	0.3036	0.0000	**0.3036**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0.173	Cr+3	0.0323			0.0323	0.0000				
Fe(total)O	12.559	Fe+3	0.0259			0.0259	0.0000				
MgO	13.937	Mg+2	2.9184			2.9184	**0.0000**				
MnO	0.364	Fe+2	1.4634			1.4634	**0.0000**				
CaO	11.532	Mn+2	0.0714			0.0714	**0.0000**				
Na2O	0	Ca+2	1.7416					1.7416	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	100		Excess	T site	**0.3036**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	8		4.8149		1.7416		0.0000	0.0000
			%Fill	100		96.2974		87.0793			

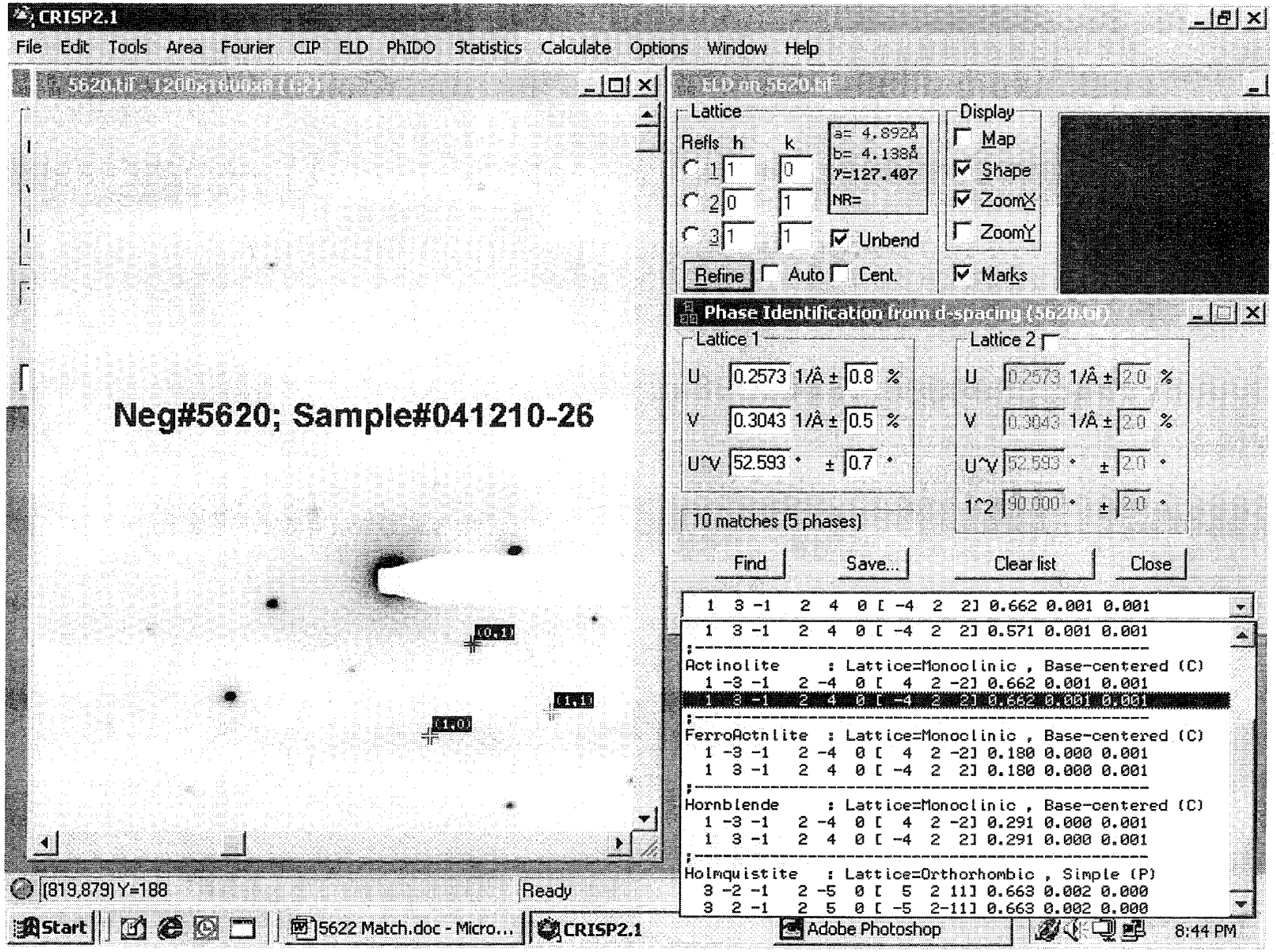
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-25-15466

Values		Satisfied Conditions
(Ca,Na)@B	1.74	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.74	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.67	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

Neg#5620; Sample# 041210-26
ACTINOLITE
[-2 1 1]

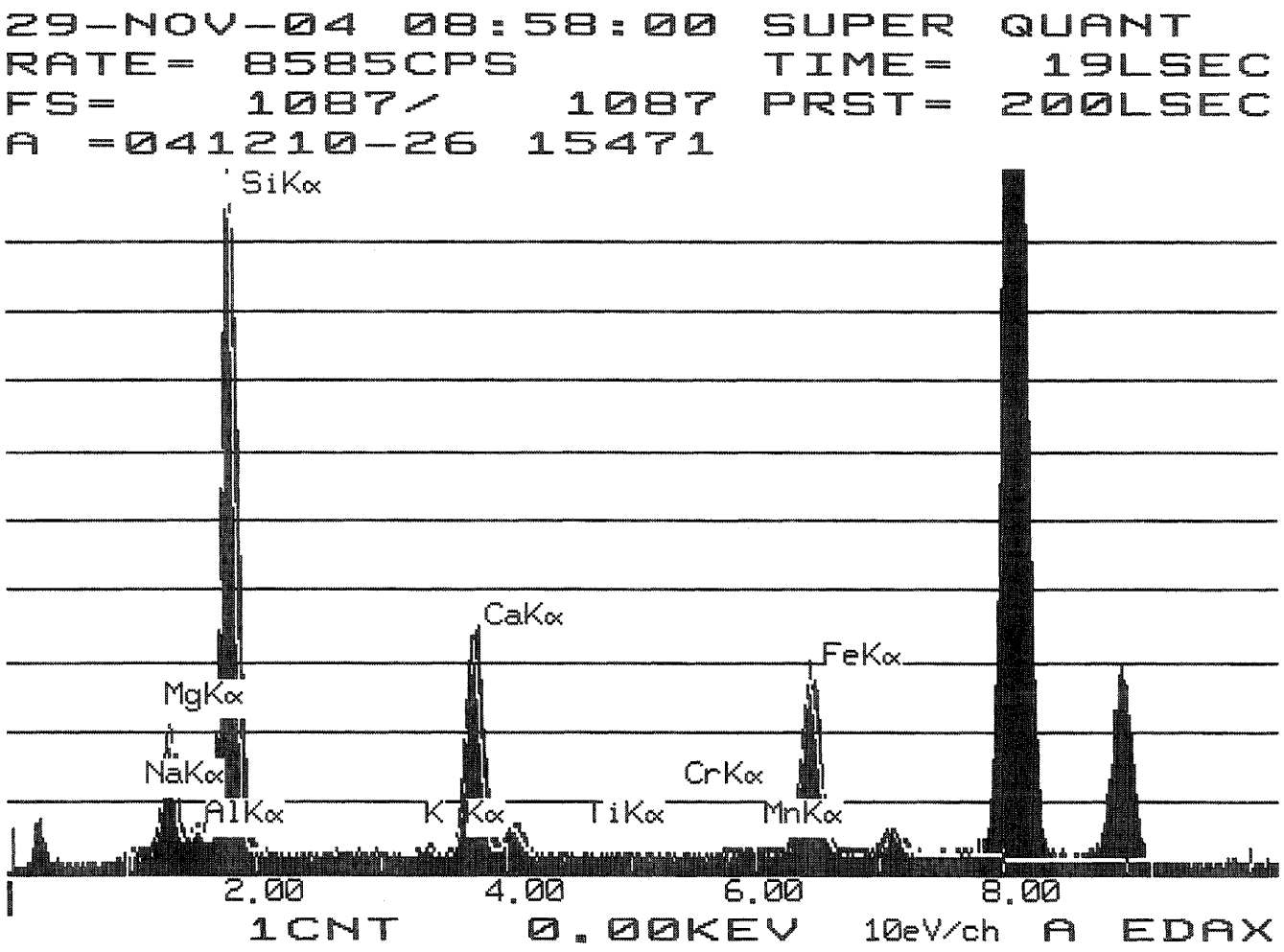


INTE-% :
LABEL = 041210-26 15471
30-NOV-72 08:57:29
19.065 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	95.200	7.824	12.974
ALK	16.680	0.823	1.556
SIK	571.621	26.424	56.529
K K	4.773	0.367	0.442
CAK	209.965	9.254	12.948
FEK	185.785	10.877	15.552

TOTAL			100.000

USED PEIF: USER



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.529	Si+4	8.0000	8.0000							
Al2O3	1.556	Al+3	0.2606	0.0000	**0.2606**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	15.552	Fe+3	0.0171			0.0171	0.0000				
MgO	12.974	Mg+2	2.7421			2.7421	**0.0000**				
MnO	0	Fe+2	1.8250			1.8250	**0.0000**				
CaO	12.948	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.9666					1.9666	0.0000		
K2O	0.442	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0807							0.0807	0.0000
Total	**100.001**		**Excess**	T site	**0.2606**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.8448**		**1.9666**		**0.0807**	**0.0000**
			%Fill	**100**		**96.8963**		**98.3297**			

Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-26-15471**

Values		Satisfied Conditions
(Ca,Na)@B	1.97	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.97	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.08	Si > 7.5
Mg/(Mg+Fe2)	0.60	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

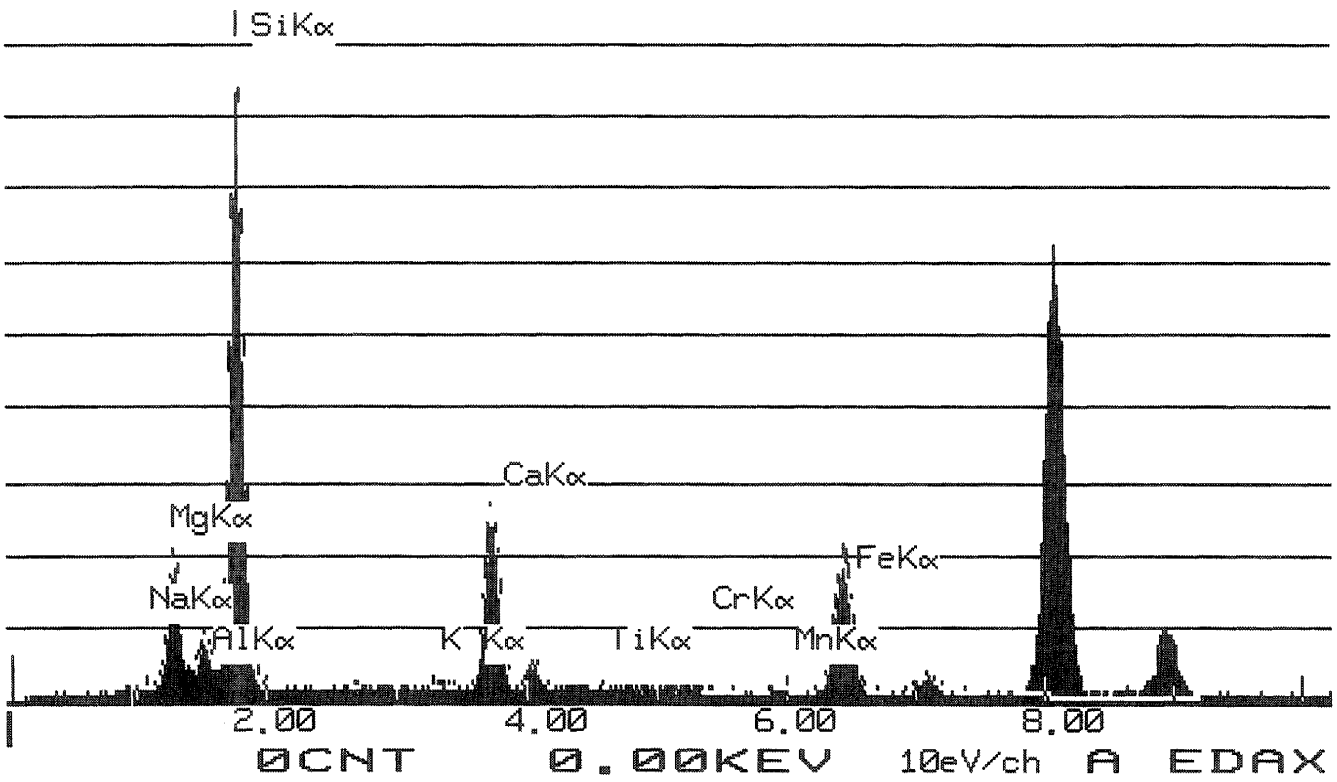
INTE-% :
LABEL = 041210-26 15472
30-NOV-72 09:03:51
68.264 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	33.444	9.521	15.787
ALK	11.499	1.967	3.716
SIK	161.153	25.804	55.203
K K	1.333	0.355	0.427
CAK	53.762	8.207	11.484
TIK	0.498	0.107	0.179
MNK	1.040	0.229	0.296
FEK	44.518	9.028	12.908

TOTAL			100.000

USED PEIF: USER

29-NOV-04 09:04:24 SUPER QUANT
RATE=61529CPS TIME= 68LSEC
FS= 1213/ 1213 PRST= 200LSEC
A =041210-26 15472



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	55.203	Si+4	7.6545	7.6545							
Al2O3	3.716	Al+3	0.6072	0.3455	**0.2618**						
TiO2	0.179	Ti+4	0.0187	0.0000	**0.0187**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	12.908	Fe+3	0.5252			0.5252	0.0000				
MgO	15.787	Mg+2	3.2635			3.2635	**0.0000**				
MnO	0.296	Fe+2	0.9129			0.9129	**0.0000**				
CaO	11.484	Mn+2	0.0348			0.0179	**0.0168**				
Na2O	0	Ca+2	1.7060					1.7060	0.0000		
K2O	0.427	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0755							0.0755	0.0000
Total	100		Excess	T site	**0.2804**	C site	**0.0168**	B site	**0**	A site	**0**
			Total	8		5.0000		1.7060		0.0755	0.0000
			%Fill	100		100		85.2982			

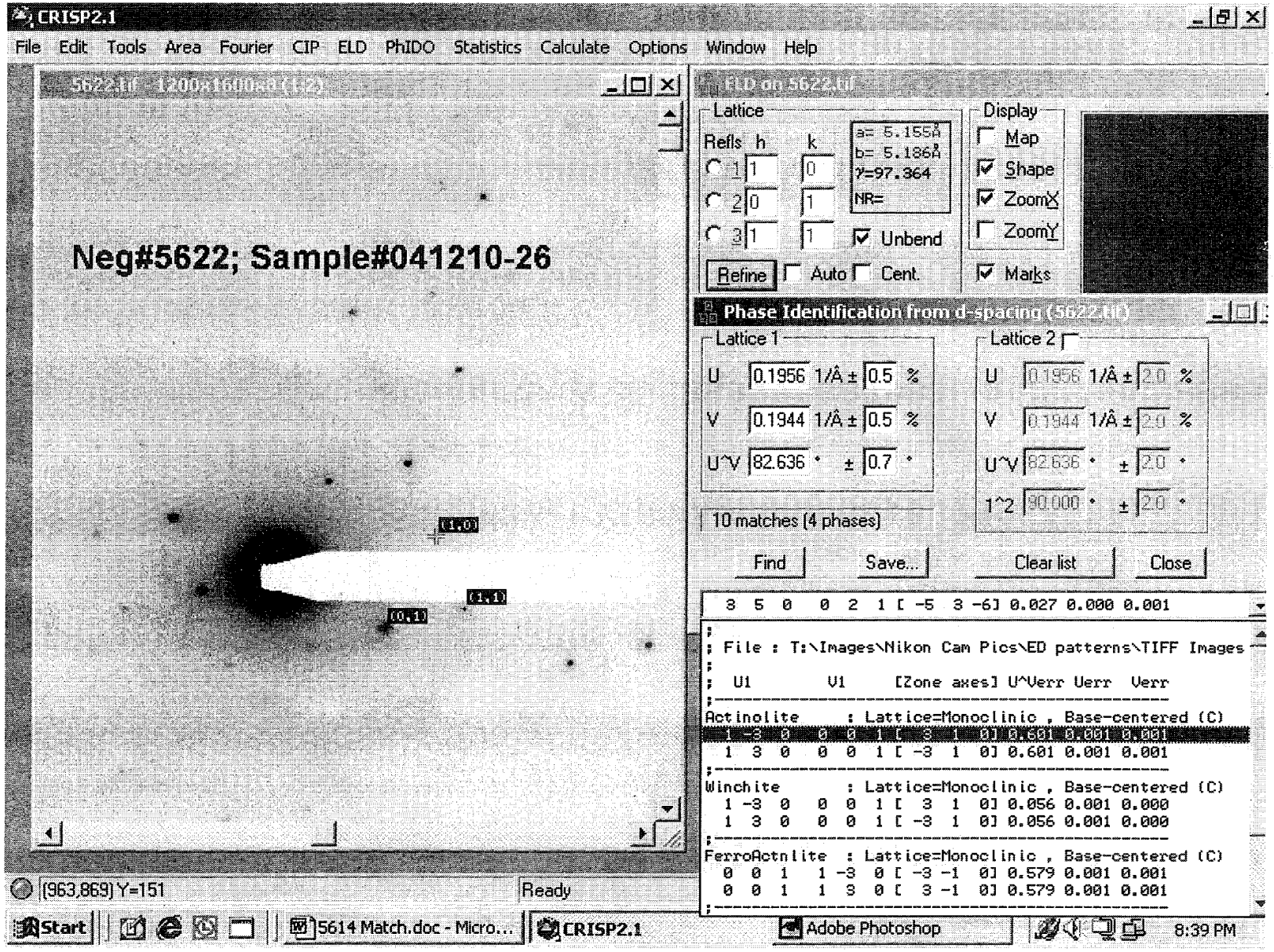
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-26-15472

Values		Satisfied Conditions
(Ca,Na)@B	1.71	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.71	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.08	Si > 7.5
Mg/(Mg+Fe2)	0.78	(Mg/(Mg+Fe2))< 0.9
Si	7.65	

Mineral Analysis Program (Version 5.0)

Neg#5622; Sample# 041210-26
ACTINOLITE
[3 1 0]

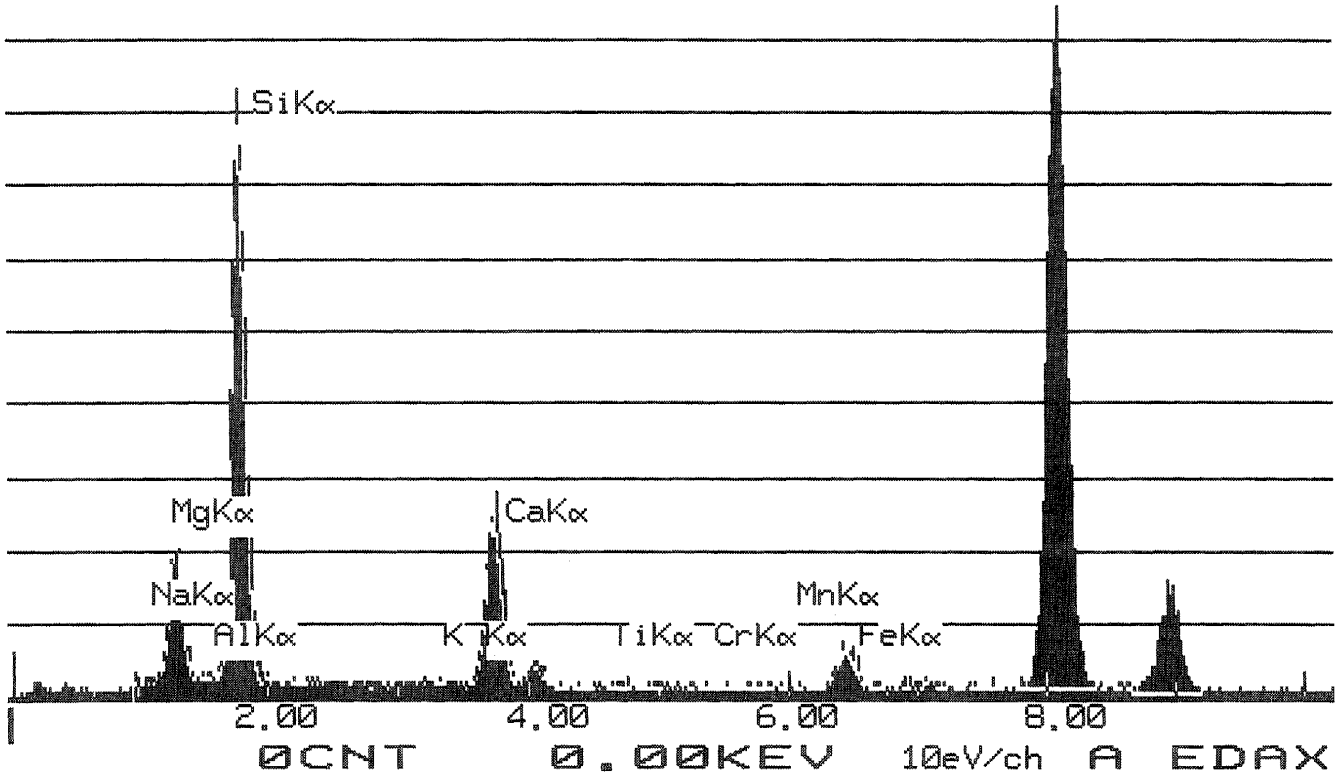


INTE-% :
LABEL = 041210-26 15473
30-NOV-72 09:33:44
56.087 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	21.752	13.024	21.596
ALK	0.517	0.186	0.351
SIK	83.192	28.016	59.936
CAK	29.775	9.560	13.376
FEK	7.774	3.316	4.741
TOTAL			100.000

USED PEIF: USER

29-NOV-04 09:34:15 SUPER QUANT
RATE=40453CPS TIME= 56LSEC
FS= 599/ 599 PRST= 200LSEC
A =041210-26 15473



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	59.936	Si+4	8.0000	8.0000							
Al2O3	0.351	Al+3	0.0629	0.0000	**0.0629**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	4.741	Fe+3	0.0094			0.0094	0.0000				
MgO	21.596	Mg+2	4.3489			4.3489	**0.0000**				
MnO	0	Fe+2	0.5382			0.5382	**0.0000**				
CaO	13.376	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.9407					1.9407	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	**100**		**Excess**	T site	**0.0629**	C site	**0.0000**	B site	**0**	A site	**0**

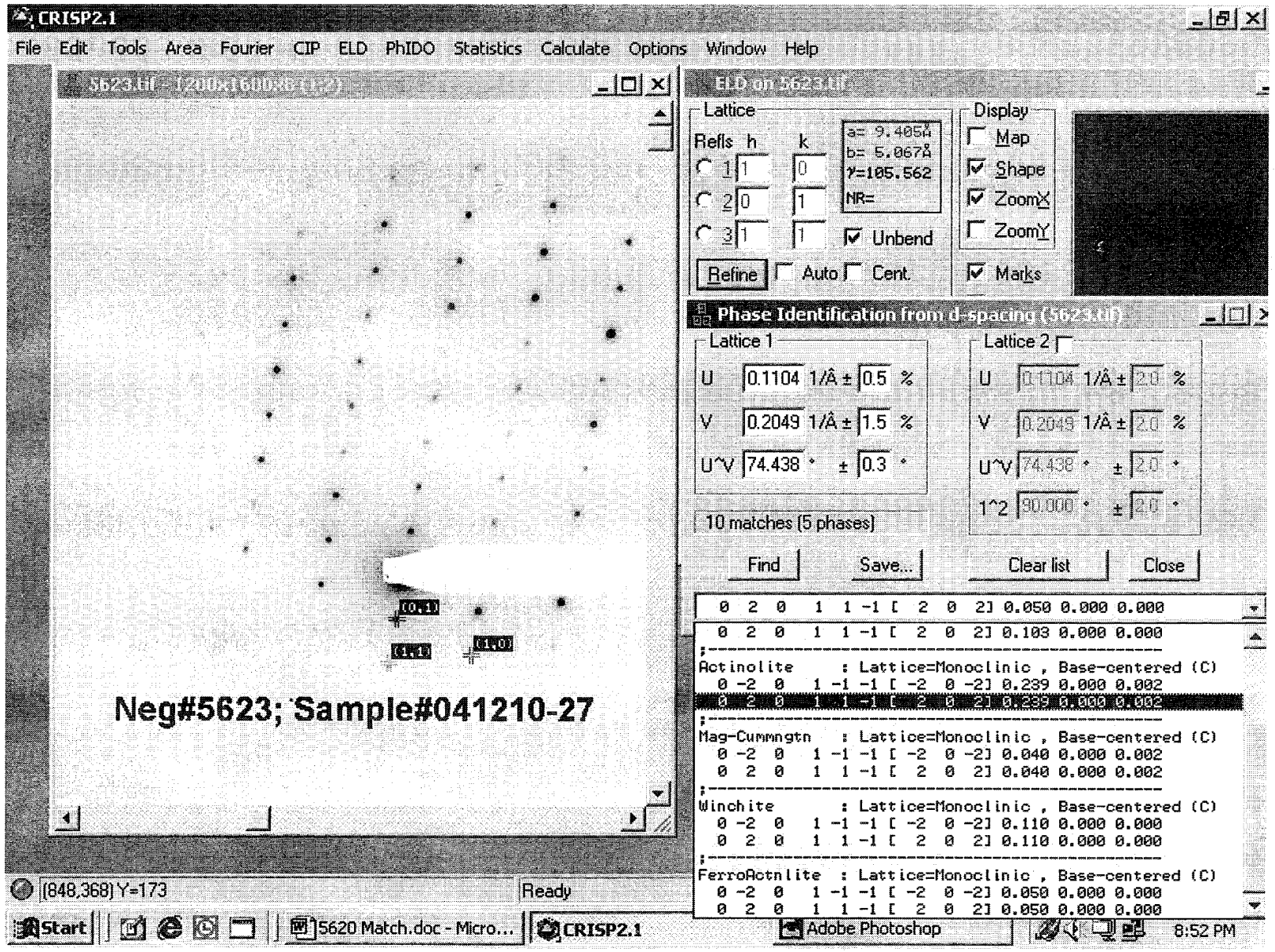
		Total	**8**	**4.9595**	**1.9407**	**0.0000**	**0.0000**
Prefix	none	**%Fill**	**100**	**99.1898**	**97.0351**		
Name	actinolite						
Modifier	none						
Group	Calcic Amphibole						

Sample # **041210-26-15473**

Values		Satisfied Conditions
(Ca,Na)@B	1.94	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.94	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.89	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

Neg#5623; Sample# 041210-27
ACTINOLITE
[-1 0 1]



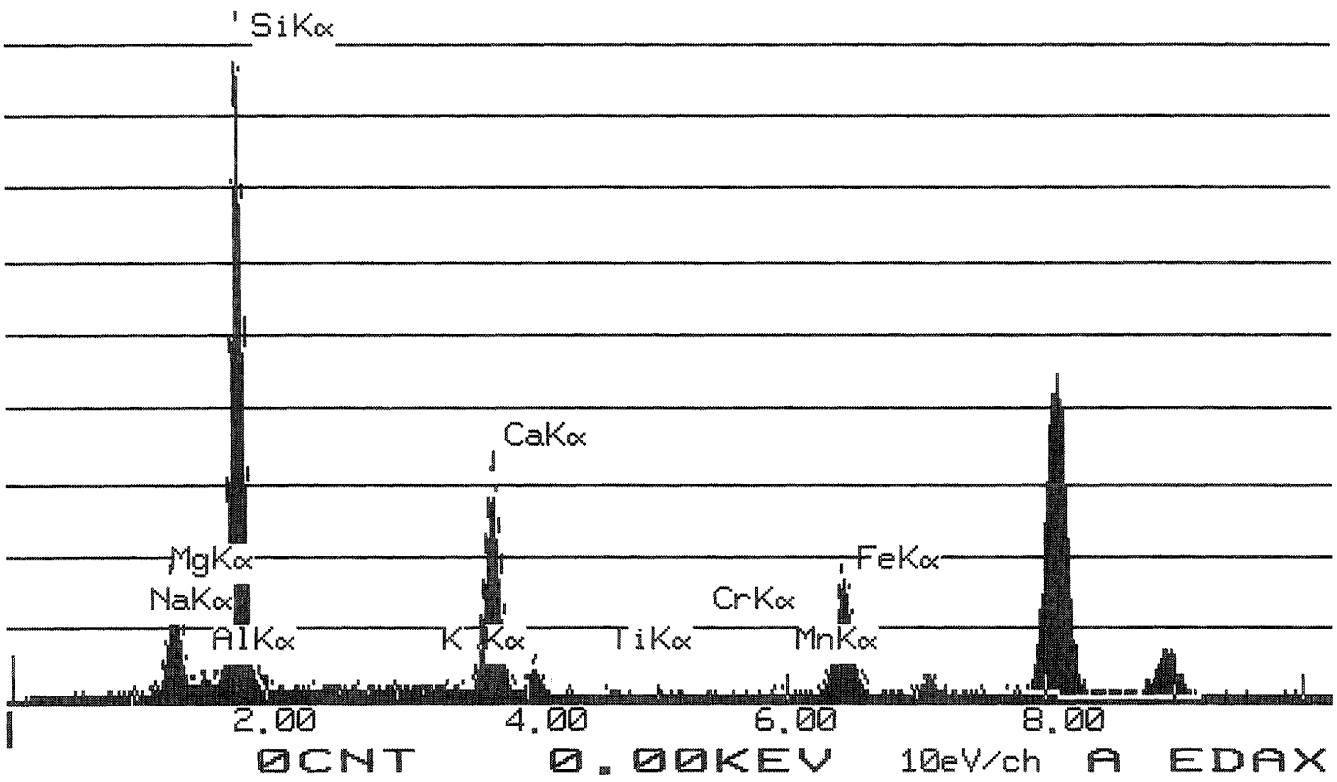
INTE-% :
LABEL = 041210-27 15474
30-NOV-72 10:14:48
40.306 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	54.707	9.722	16.121
ALK	5.012	0.535	1.011
SIK	267.779	26.765	57.260
CAK	102.641	9.781	13.686
TIK	0.645	0.087	0.145
MNK	0.422	0.058	0.075
FEK	64.656	8.185	11.703

TOTAL			100.000

USED PEIF: USER

29-NOV-04 10:15:32 SUPER QUANT
RATE=39468CPS TIME= 40LSEC
FS= 1157/ 1157 PRST= 200LSEC
A =041210-27 15474



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	57.26	Si+4	7.9766	7.9766							
Al2O3	1.011	Al+3	0.1660	0.0234	**0.1426**						
TiO2	0.145	Ti+4	0.0152	0.0000	**0.0152**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	11.703	Fe+3	0.0123			0.0123	0.0000				
MgO	16.121	Mg+2	3.3480			3.3480	**0.0000**				
MnO	0.075	Fe+2	1.3496			1.3496	**0.0000**				
CaO	13.686	Mn+2	0.0088			0.0088	**0.0000**				
Na2O	0	Ca+2	2.0425					2.0000	0.0425		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	100.001		Excess	T site	**0.1578**	C site	**0.0000**	B site	**0.0425235**	A site	**0**
			Total	8		4.8765		2.0000		0.0000	0.0000
			%Fill	100		97.5304		100			

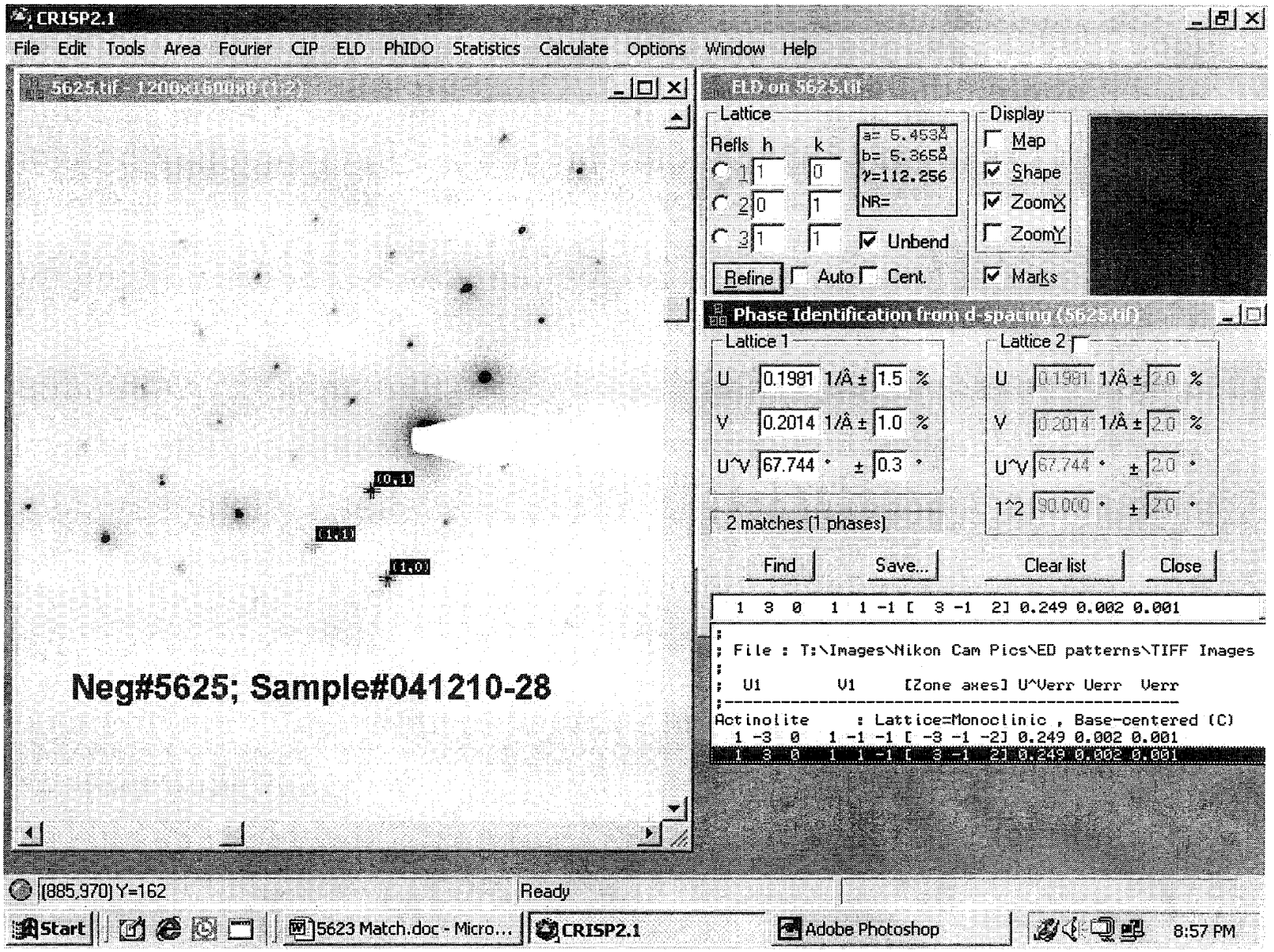
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-27-15474

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.71	(Mg/(Mg+Fe2))< 0.9
Si	7.98	

Mineral Analysis Program (Version 5.0)

Neg#5625; Sample# 041210-28
ACTINOLITE
[-3 -1 2]



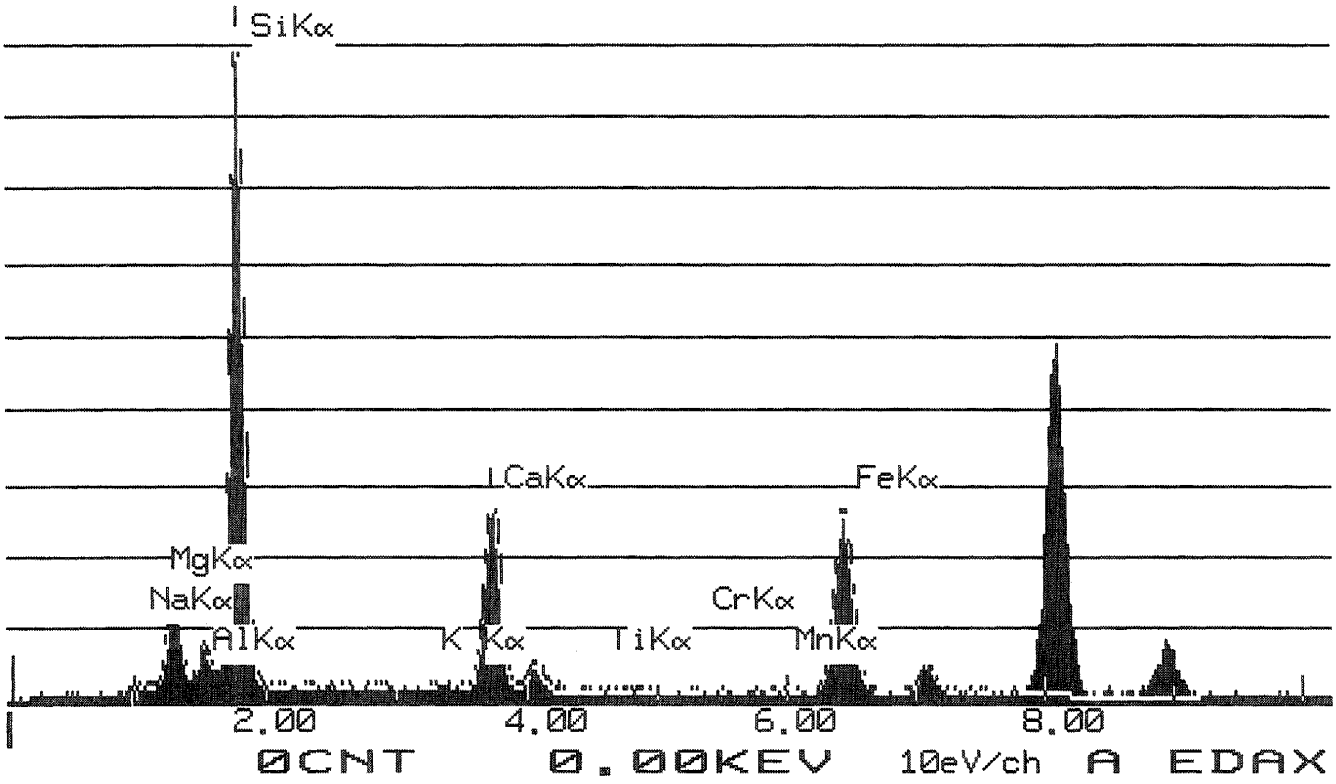
INTE-% :
LABEL = 041210-28 15475
30-NOV-72 11:19:30
94.805 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	13.987	7.200	11.938
ALK	4.704	1.455	2.749
SIK	89.932	26.037	55.702
K K	0.696	0.335	0.403
CAK	30.958	8.545	11.957
TIK	0.137	0.053	0.089
MNK	0.243	0.097	0.125
FEK	32.498	11.917	17.038

TOTAL			100.000

USED PEIF: USER

29-NOV-04 11:20:21 SUPER QUANT
RATE= 6051CPS TIME= 95LSEC
FS= 898/ 898 PRST= 200LSEC
A =041210-28 15475



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	55.702	Si+4	7.9247	7.9247							
Al2O3	2.749	Al+3	0.4609	0.0753	**0.3856**						
TiO2	0.089	Ti+4	0.0095	0.0000	**0.0095**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	17.038	Fe+3	0.0182			0.0182	0.0000				
MgO	11.938	Mg+2	2.5320			2.5320	**0.0000**				
MnO	0.125	Fe+2	2.0066			2.0066	**0.0000**				
CaO	11.957	Mn+2	0.0151			0.0151	**0.0000**				
Na2O	0	Ca+2	1.8225					1.8225	0.0000		
K2O	0.403	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0731							0.0731	0.0000
Total	**100.001**		**Excess**	T site	**0.3952**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.9671**		**1.8225**		**0.0731**	**0.0000**
			%Fill	**100**		**99.3429**		**91.1229**			

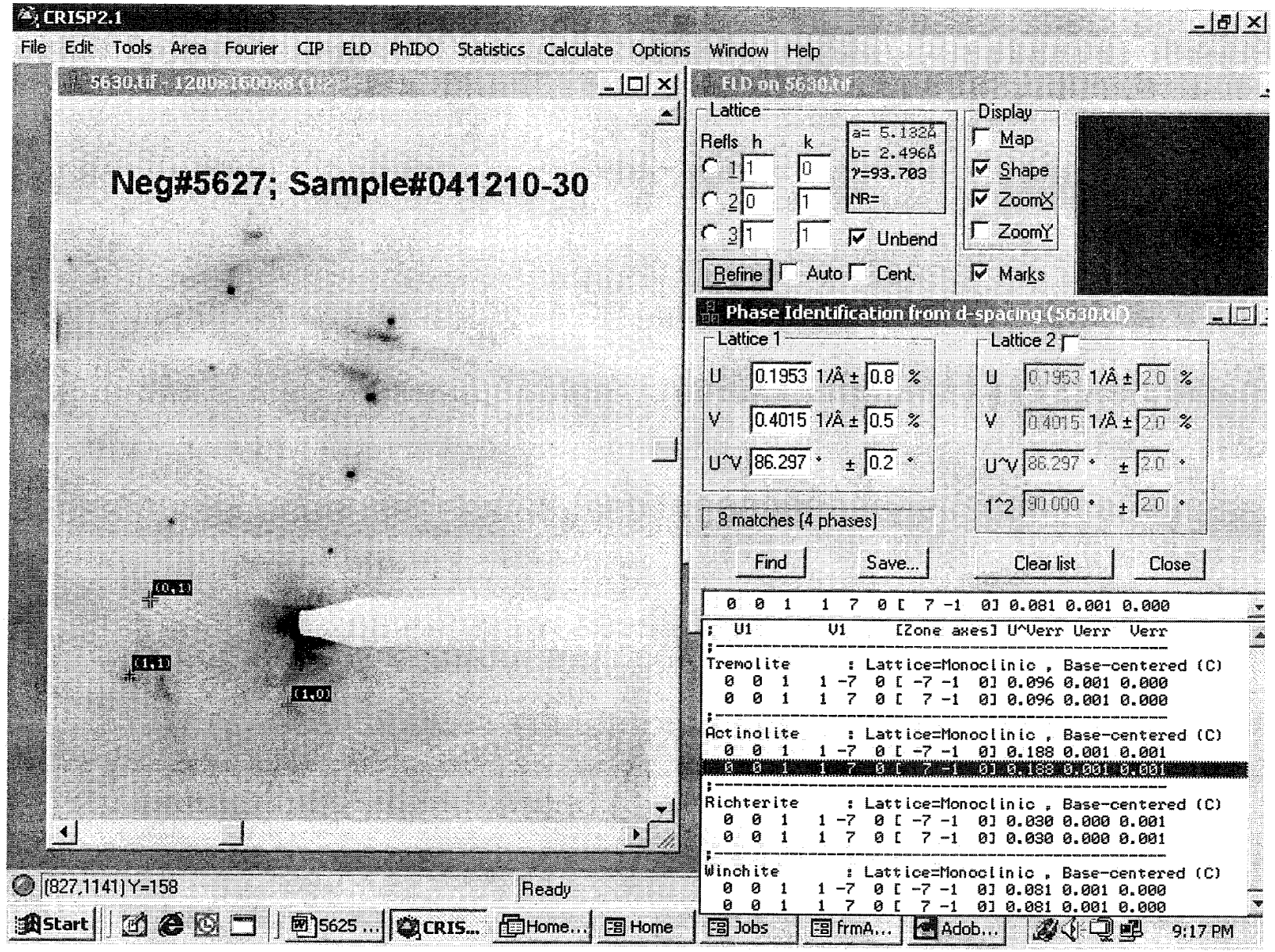
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-28-15475**

Values		Satisfied Conditions
(Ca,Na)@B	1.82	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.82	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.07	Si > 7.5
Mg/(Mg+Fe2)	0.56	(Mg/(Mg+Fe2))< 0.9
Si	7.92	

Mineral Analysis Program (Version 5.0)

Neg#5630; Sample# 041210-30
ACTINOLITE
[-7 1 0]

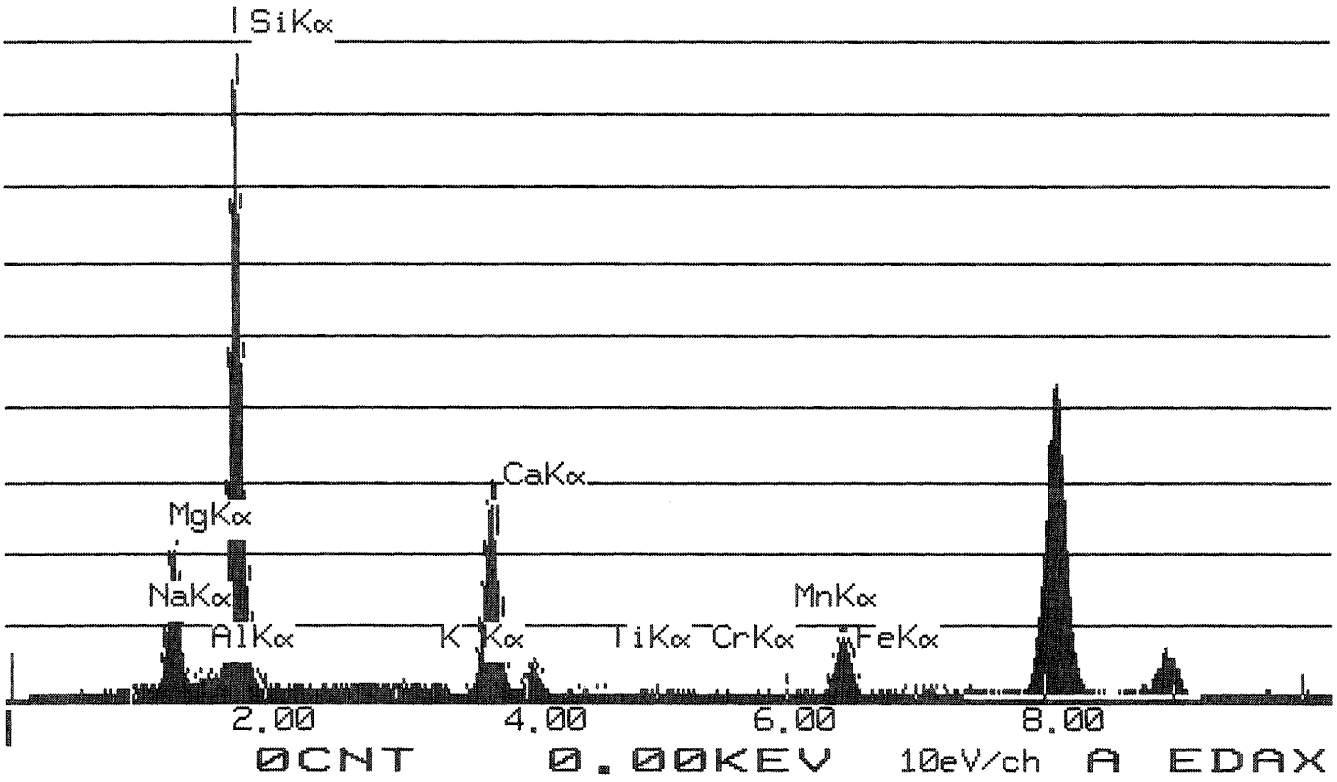


INTE-% :
LABEL = 041210-30 15476
01-DEC-72 04:38:21
51.231 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	47.686	11.970	19.848
ALK	3.299	0.497	0.940
SIK	194.531	27.464	58.756
K K	0.468	0.110	0.132
CAK	73.296	9.866	13.804
MNK	0.527	0.102	0.132
FEK	24.985	4.468	6.388
TOTAL			100.000

USED PEIF: USER

30-NOV-04 04:39:01 SUPER QUANT
RATE= 17CPS TIME= 51LSEC
FS= 1097/ 1097 PRST= 200LSEC
A =041210-30 15476



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	58.756	Si+4	7.9913	7.9913							
Al2O3	0.94	Al+3	0.1507	0.0087	**0.1419**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	6.388	Fe+3	0.0065			0.0065	0.0000				
MgO	19.848	Mg+2	4.0244			4.0244	**0.0000**				
MnO	0.132	Fe+2	0.7192			0.7192	**0.0000**				
CaO	13.804	Mn+2	0.0152			0.0152	**0.0000**				
Na2O	0	Ca+2	2.0114					2.0000	0.0114		
K2O	0.132	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0229							0.0229	0.0000
Total	**100**		**Excess**	T site	**0.1419**	C site	**0.0000**	B site	**0.0113601**	A site	**0**
			Total	**8**		**4.9073**		**2.0000**		**0.0229**	**0.0000**
			%Fill	**100**		**98.1466**		**100**			

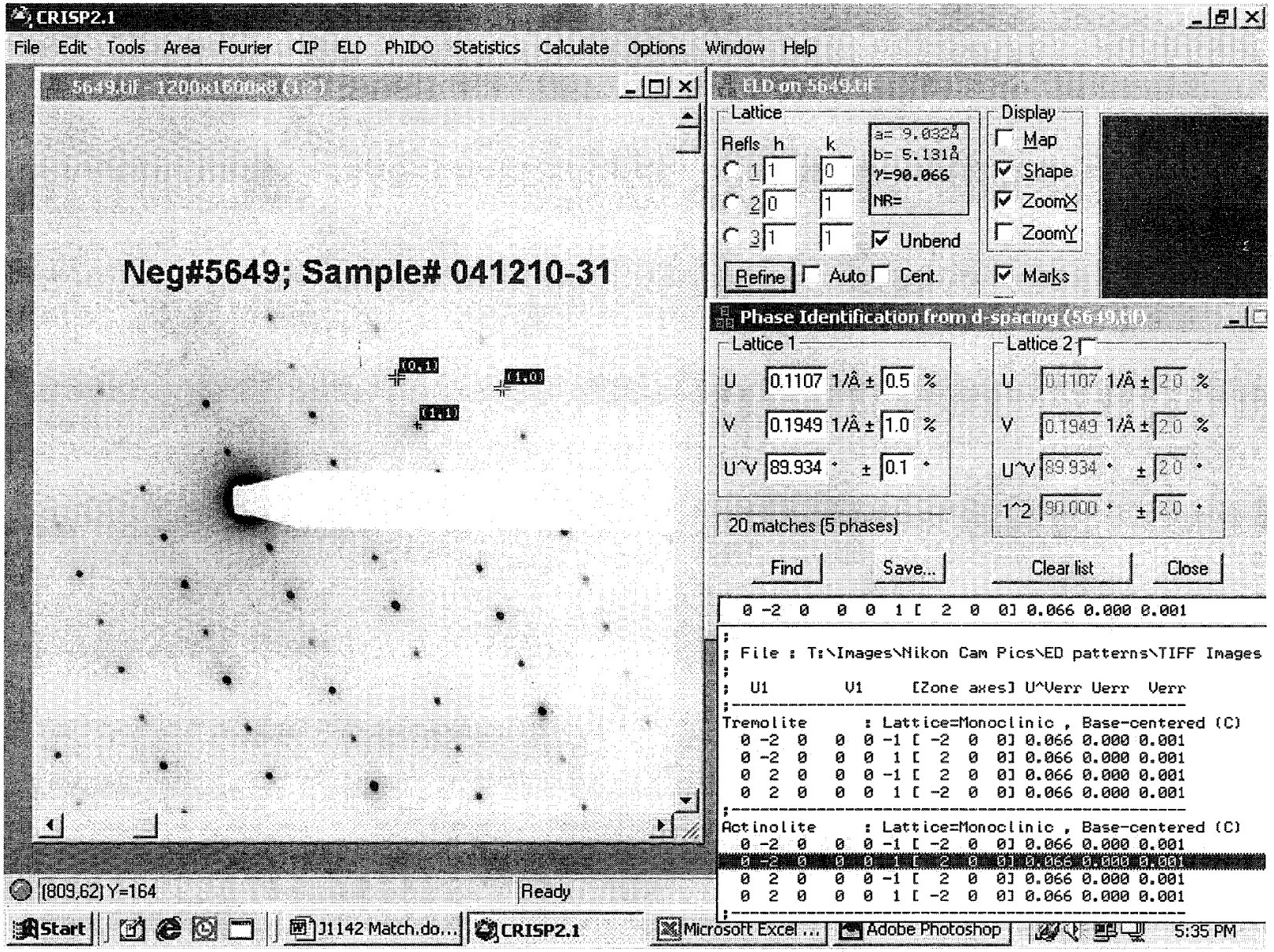
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-30-15476**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.02	Si > 7.5
Mg/(Mg+Fe2)	0.85	(Mg/(Mg+Fe2))< 0.9
Si	7.99	

Mineral Analysis Program (Version 5.0)

Neg#5649; Sample# 041210-31
ACTINOLITE
[1 0 0]



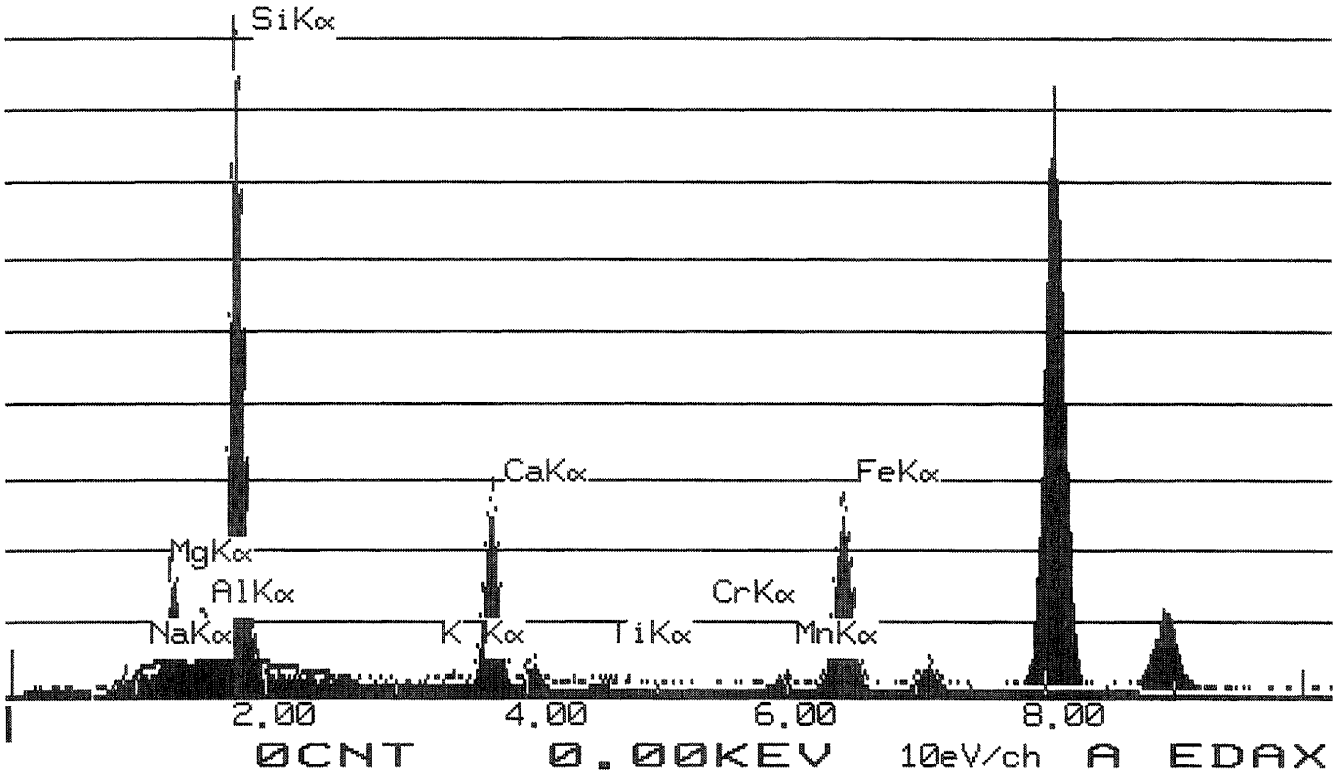
INTE-% :
LABEL = 041210-31 15490
03-DEC-72 03:32:22
137.625 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	11.124	6.656	11.036
ALK	5.609	2.016	3.809
SIK	73.715	24.805	53.067
K K	0.843	0.471	0.568
CAK	27.059	8.681	12.147
TIK	0.930	0.421	0.702
MNK	1.482	0.686	0.886
FEK	29.188	12.440	17.786

TOTAL			100.000

USED PEIF: USER

02-DEC-04 03:33:05 SUPER QUANT
RATE= 0CPS TIME= 137LSEC
FS= 1137/ 1137 PRST= 200LSEC
A =041210-31 15490



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	53.067	Si+4	7.6508	7.6508							
Al2O3	3.809	Al+3	0.6472	0.3492	**0.2980**						
TiO2	0.702	Ti+4	0.0761	0.0000	**0.0761**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	17.786	Fe+3	0.0579			0.0579	0.0000				
MgO	11.036	Mg+2	2.3720			2.3720	**0.0000**				
MnO	0.886	Fe+2	2.0799			2.0799	**0.0000**				
CaO	12.147	Mn+2	0.1082			0.1082	**0.0000**				
Na2O	0	Ca+2	1.8762					1.8762	0.0000		
K2O	0.568	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.1045							0.1045	0.0000
Total	**100.001**		**Excess**	T site	**0.3741**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.9921**		**1.8762**		**0.1045**	**0.0000**
			%Fill	**100**		**99.8421**		**93.8091**			

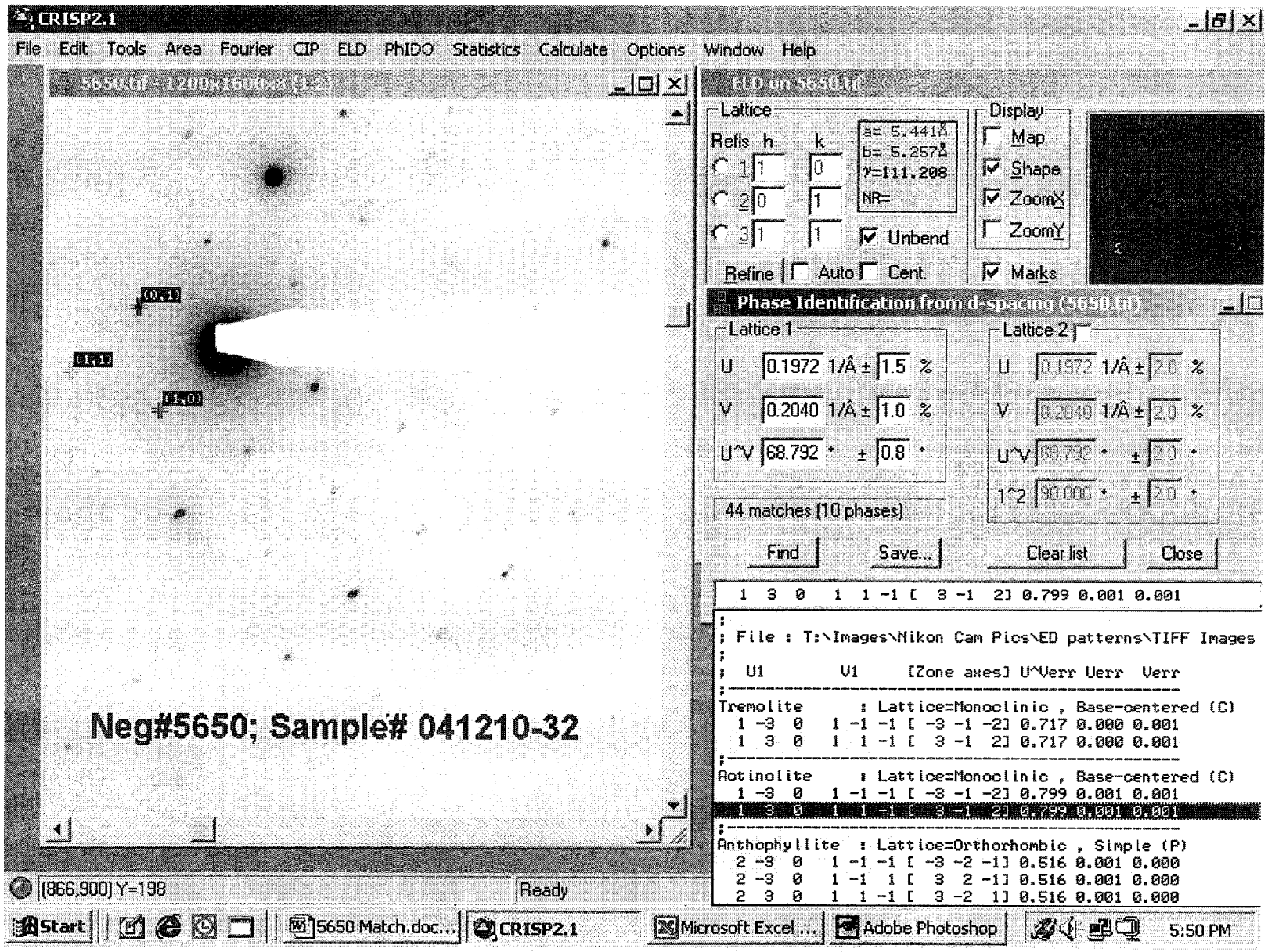
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-31-15490**

Values		Satisfied Conditions
(Ca,Na)@B	1.88	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.88	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.10	Si > 7.5
Mg/(Mg+Fe2)	0.53	(Mg/(Mg+Fe2))< 0.9
Si	7.65	

Mineral Analysis Program (Version 5.0)

Neg#5650; Sample# 041210-32
ACTINOLITE
[3 -1 2]



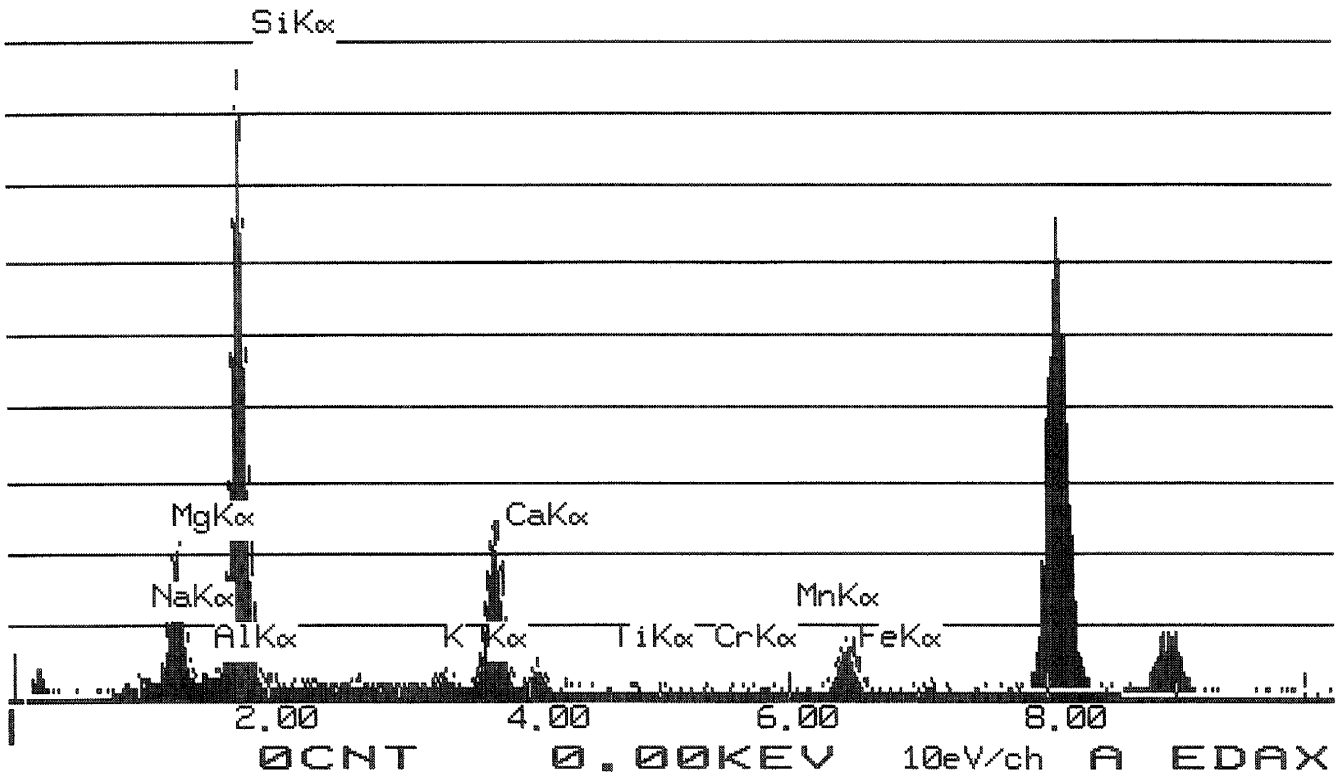
INTE-% :
LABEL = 041210-32 15491
03-DEC-72 03:39:34
96.817 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	14.088	12.265	20.337
ALK	0.444	0.232	0.439
SIK	57.799	28.301	60.546
K K	0.919	0.748	0.901
CAK	18.571	8.669	12.130
MNK	0.186	0.125	0.162
FEK	6.187	3.837	5.486

TOTAL			100.000

USED PEIF: USER

02-DEC-04 03:40:25 SUPER QUANT
RATE= 39CPS TIME= 97LSEC
FS= 647/ 647 PRST= 200LSEC
A =041210-32 15491



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	60.546	Si+4	8.0000	8.0000							
Al2O3	0.439	Al+3	0.0839	0.0000	**0.0839**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	5.486	Fe+3	0.0146			0.0146	0.0000				
MgO	20.337	Mg+2	4.1257			4.1257	**0.0000**				
MnO	0.162	Fe+2	0.6327			0.6327	**0.0000**				
CaO	12.13	Mn+2	0.0388			0.0388	**0.0000**				
Na2O	0	Ca+2	1.7787					1.7787	0.0000		
K2O	0.901	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.1703							0.1703	0.0000
Total	**100.001**		**Excess**	T site	**0.0839**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.8956**		**1.7787**		**0.1703**	**0.0000**
			%Fill	**100**		**97.9125**		**88.935**			

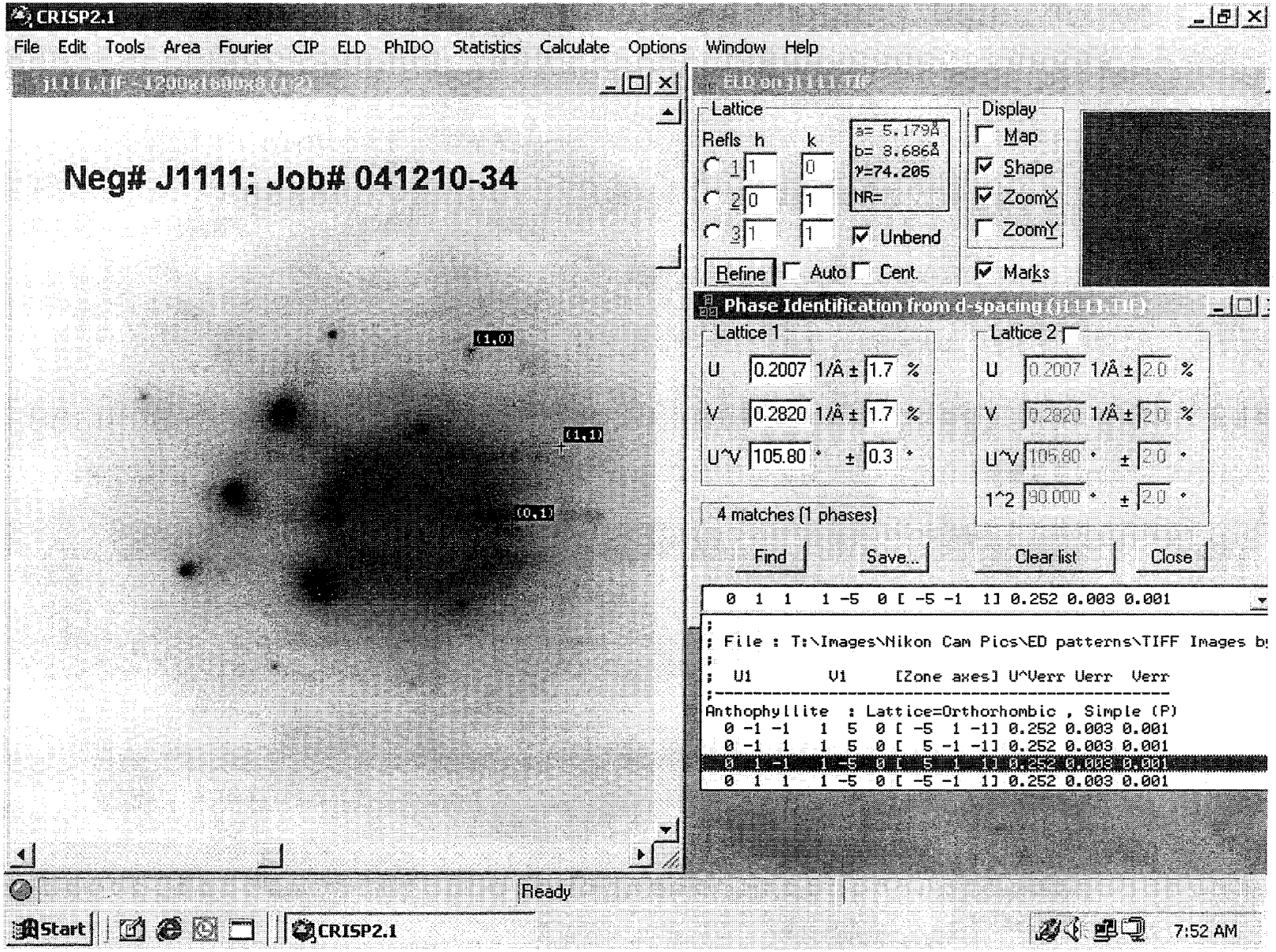
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-32-15491**

Values		Satisfied Conditions
(Ca,Na)@B	1.78	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.78	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.17	Si > 7.5
Mg/(Mg+Fe2)	0.87	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

ANTHOPHYLLITE
[5 1 1]



QCMTF: QUANTIFY
Standardless Analysis

Ratio _K K' _K K"
Ratio _ALK' _ALK"
Chi-sqd = 4.48

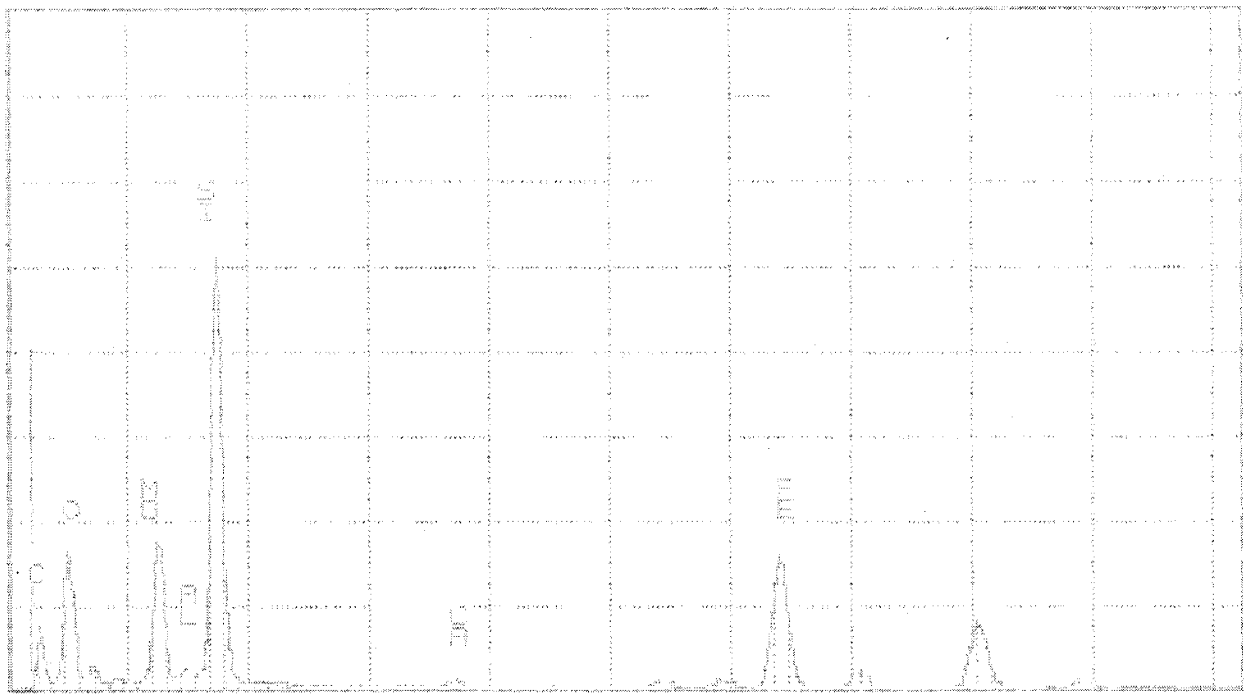
Element	Net Counts	
Si-K	14482 +/-	148
Mg-K	4856 +/-	101
Al-K	696 +/-	250
Ca-K	262 +/-	34
Fe-K	7034 +/-	149
Na-K	333 +/-	103
K-K	43 +/-	28

MERKS	EDS:SIK	EDS:MGK	EDS:ALK	EDS:CAK	EDS:FEK	EDS:NAK	EDS:

041210-04 SPH10

EL.LINE	PEAK	K-RATIOR	CEL/CREF	ATOM%	EL. WT%	WT%	FORMULA
SI-K	14482	1.000	1.000	20.87	26.35	56.46	SIO2
MG-K	4856	1.000	0.336	8.16	8.83	14.72	MGO
AL-K	696	0.750	0.036	0.78	0.94	1.78	AL2O3
CA-K	262	0.942	0.017	0.25	0.48	0.64	CAO
FE-K	7034	1.157	0.480	7.16	12.92	25.60	FEXOY
NA-K	333	0.549	0.013	0.32	0.30	0.61	NA2O2
K-K	43	1.059	0.005	0.05	0.05	0.10	K2O
O			1.711	62.47	40.97		

TN-5600 University of Washington / JEOL 6100 10-NOV-04 06:07
Cursor: 0.200keV = 0



R 700 E- 5 VHS = 2248 10.240
36 041210-34 SPH10

1.00
x

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.46	Si+4	8.0000	8.0000							
Al2O3	1.8	Al+3	0.3104	0.0000	**0.3104**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	25.6	Fe+3	0.0000			0.0000	0.0000				
MgO	14.72	Mg+2	3.1557			3.1557	**0.0000**				
MnO	0	Fe+2	3.0708			1.5338	**1.5370**				
CaO	0.64	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.68	Ca+2	0.1110					0.1110	0.0000		
K2O	0.1	Na+	0.2061					0.2061	**0.0000**	0.0000	0.0000
		K+	0.0260							0.0260	0.0000
Total	100		Excess	T site	**0.3104**	C site	**1.5370**	B site	**0**	A site	**0**
			Total	8		5.0000		0.3171		0.0260	0.0000
Prefix	none		%Fill	100		100		15.8551			

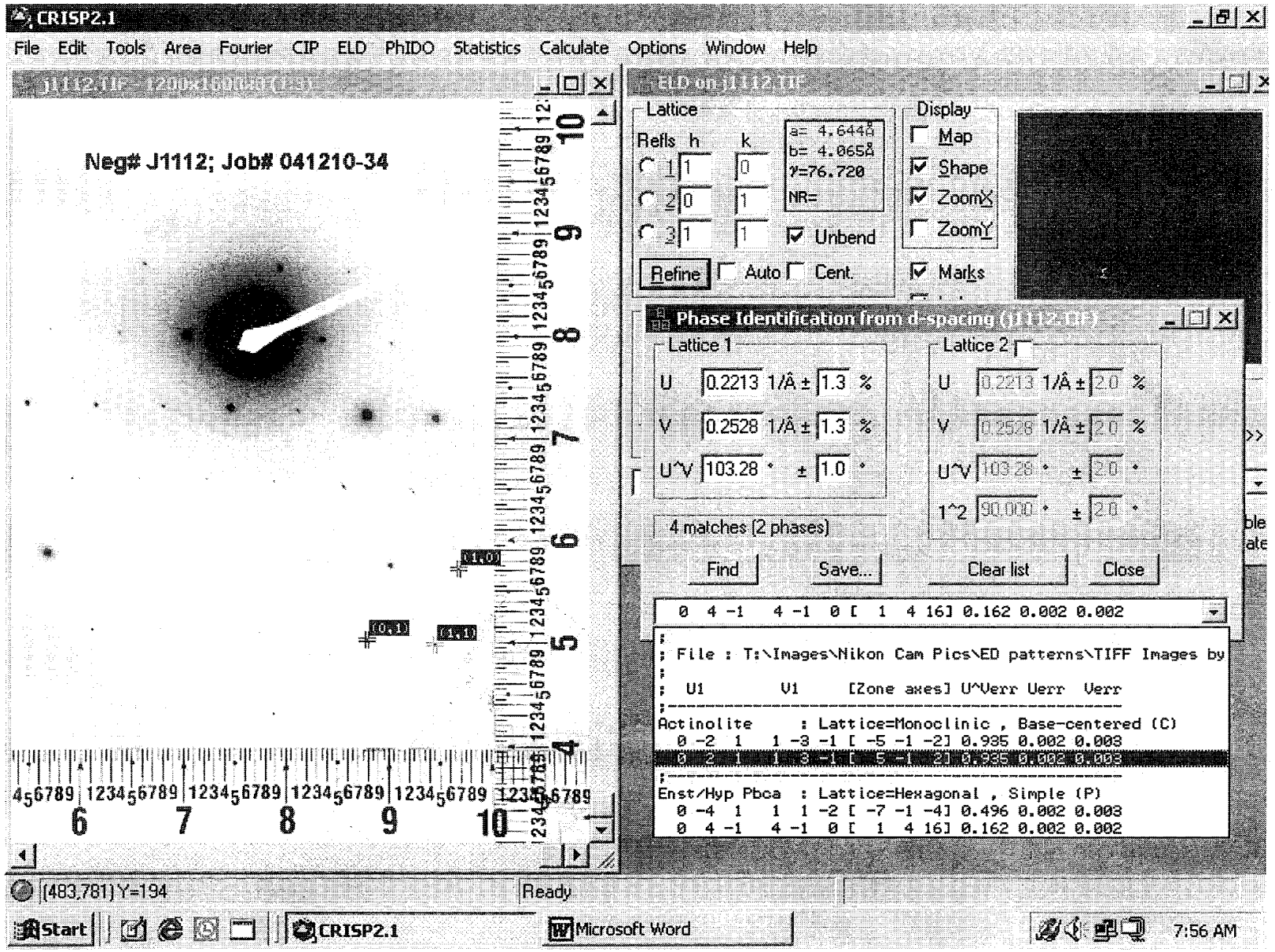
Name anthophyllite, holmquistite, cummingtonite, clinoholmquistite
Modifier none
Group Mg-Fe-Mn Amphibole

Sample # 041210-34-810

Values		Satisfied Conditions
(Ca,Na)@B	0.32	(Ca,Na)@B < 1 and (Mg,Fe2,Mn)@B >= 0.95
(Mg,Fe2,Mn)@B	1.54	(Mg/(Mg+Fe2))>= 0.5
Mg/(Mg+Fe2)	0.51	Si > 7
Si	8.00	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[5 -1 2]



SOMTF: QUANTIFY
Standardless Analysis

Chi-sqd = 4.01

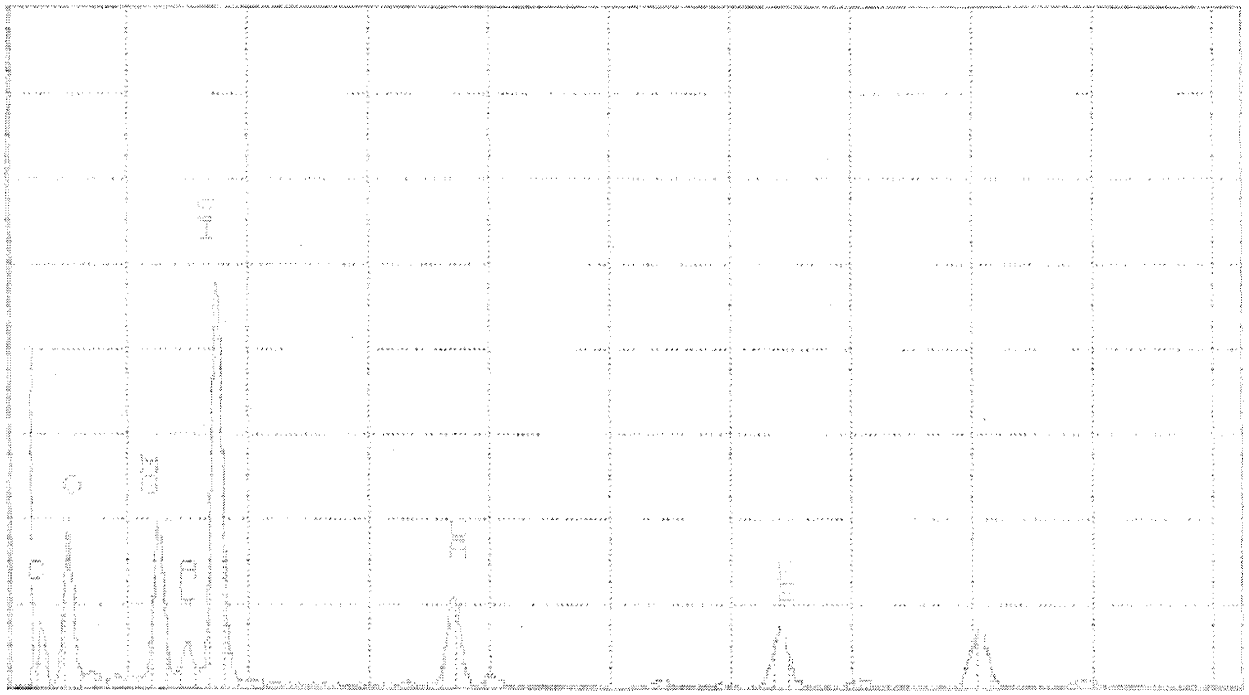
Element	Net Counts
Si-K	13721 +/- 227
Mg-K	4905 +/- 221
Al-K	1351 +/- 275
Ca-K	3979 +/- 123
Fe-K	3091 +/- 110
Na-K	348 +/- 109
K -K	96 +/- 47

REF:S EDB:SIK FIB:MGK EDR:ALK EDD:CAK EDU:FEK EDF:NAK
EDG:K K

041210-04 SPH11

FI-LINE	PEAK	K-FACTOR	CEL/CREF	ATOM%	EL WT%	WT%	FORMULA
SI-K	13721	1.000	1.000	20.60	36.66	57.13	SIO2
MG-K	4905	1.000	0.358	8.59	9.81	15.89	MHO
AL-K	1351	0.750	0.074	1.58	1.97	3.72	AL2O3
CA-K	3979	0.949	0.273	3.97	7.36	10.28	CAO
FE-K	3091	1.099	0.415	3.25	8.41	12.01	FE2O3
NA-K	348	0.509	0.014	0.34	0.34	0.74	NA2OR
K-K	96	1.099	0.007	0.11	0.20	0.24	K2O
TI			1.704	61.56	45.54		

TN-5500 University of Washington / JHO TUE 30-NOV-04 06:46
Cursor: 0 000KeV = 0



0 000 D= 5 VFS = 2048 10.240
SW 041210-04 SH011

1.00

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	57.13	Si+4	7.8363	7.8363							
Al2O3	3.72	Al+3	0.6013	0.1637	**0.4376**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	12.01	Fe+3	0.4338			0.4338	0.0000				
MgO	15.89	Mg+2	3.2493			3.2493	**0.0000**				
MnO	0	Fe+2	0.8954			0.8792	**0.0161**				
CaO	10.28	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.74	Ca+2	1.5106					1.5106	0.0000		
K2O	0.24	Na+	0.1968					0.1968	**0.0000**	0.0000	0.0000
		K+	0.0420							0.0420	0.0000
Total	**100.01**		**Excess**	T site	**0.4376**	C site	**0.0161**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.7074**		**0.0420**	**0.0000**
			%Fill	**100**		**100**		**85.3708**			

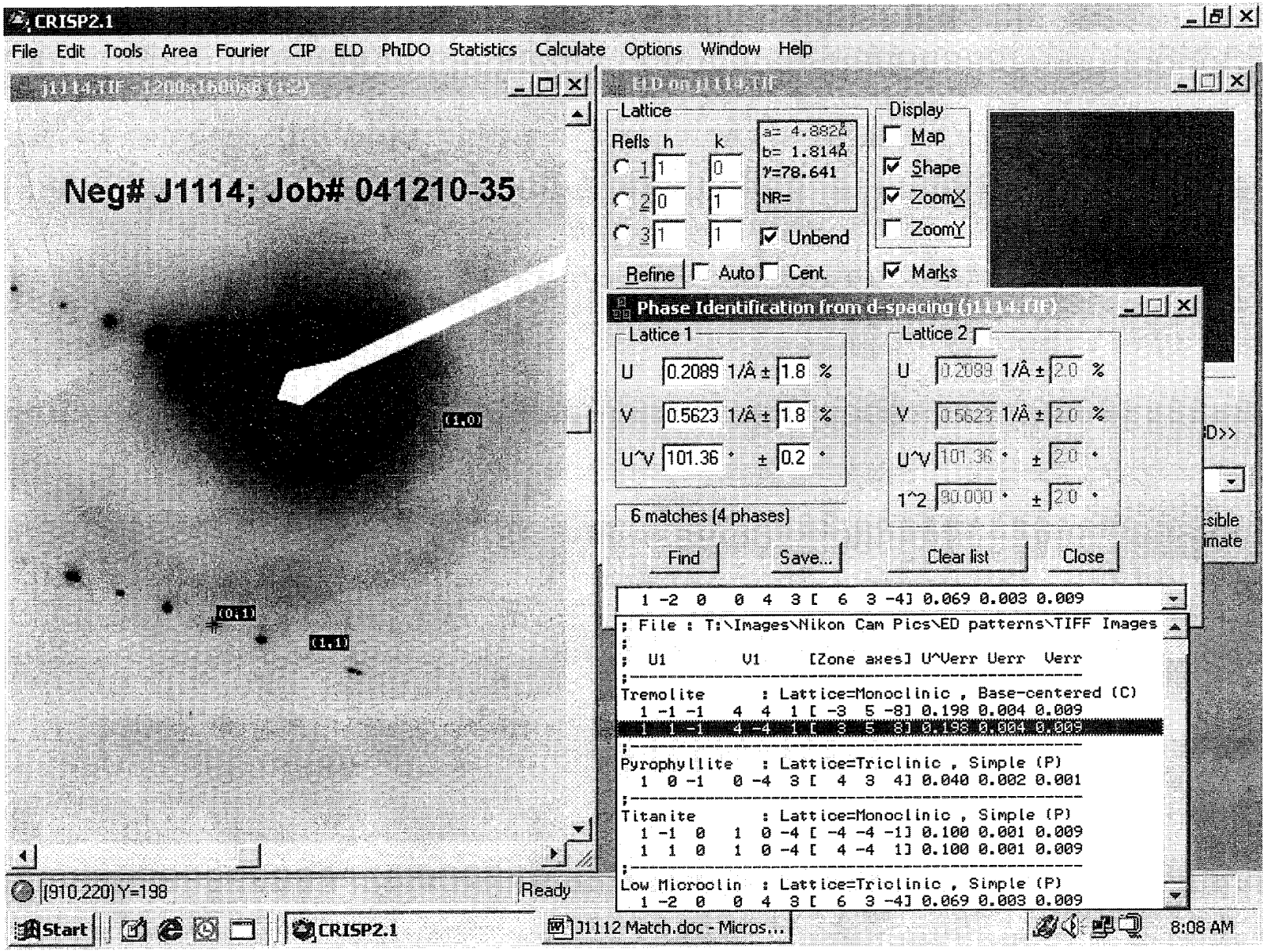
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-34-811**

Values		Satisfied Conditions
(Ca,Na)@B	1.71	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.20	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.51	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.04	Si > 7.5
Mg/(Mg+Fe2)	0.78	(Mg/(Mg+Fe2))< 0.9
Si	7.84	

Mineral Analysis Program (Version 5.0)

TREMOLITE
[3 5 8]



QUANTIFY: QUANTIFY
Standardless Analysis

Refit _NAK' _NAK"
Refit _ALK' _FER" _NAK _K K' _K K"
Chi-sqd = 2.67

Element	Net Counts
Si-K	17726 +/- 216
Mg-K	7749 +/- 174
Al-K	1345 +/- 242
Ca-K	5012 +/- 140
Fe-K	7457 +/- 72
Na-K	0 +/- 0
K -K	72 +/- 30

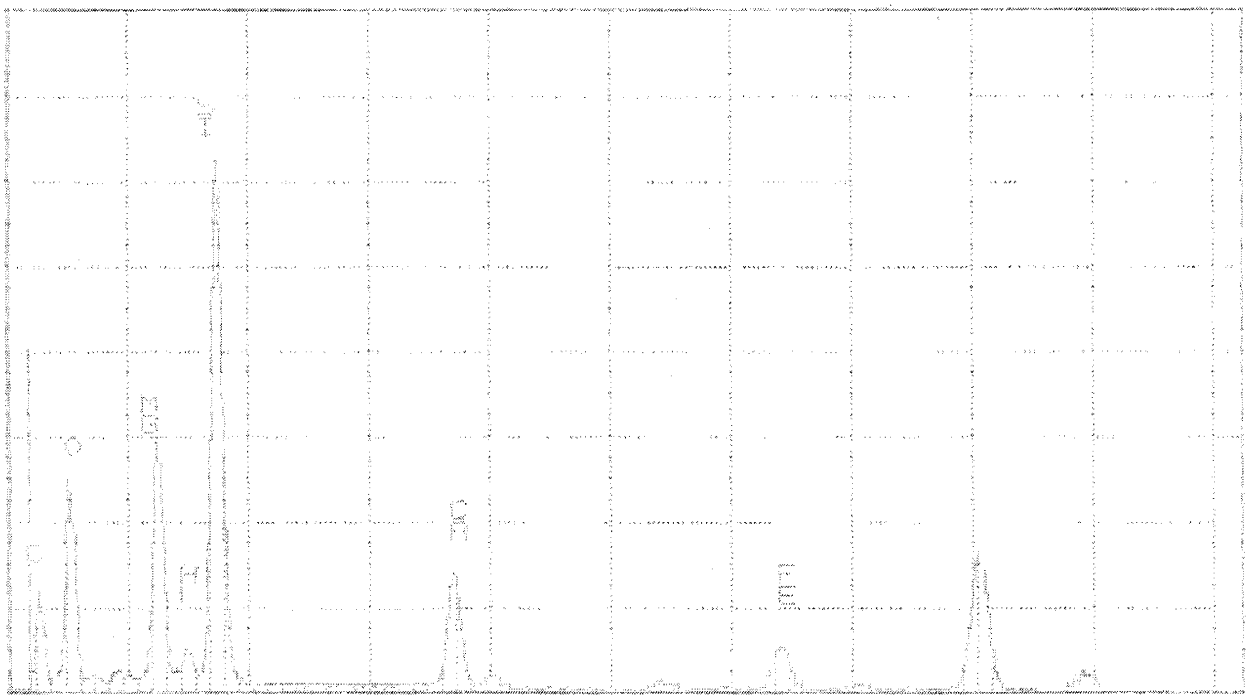
K K REF.A EDS:SIK EDS:MGK EDS:ALK EDS:CAK EDS:FER EDS:NAK

041210-35 SHEET 2

EL-LINE	PEAK	K-FACTOR	CEL/CREF	ATOM%	EL WT%	WT%	FORMULA
SI-K	17726	1.000	1.000	30.88	27.50	54.92	SIO2
MG-K	7749	1.000	0.437	10.64	12.01	20.01	MGO
AL-K	1345	0.750	0.067	1.29	1.34	2.44	AL2O3
CA-K	5012	0.949	0.269	3.34	7.99	10.14	CAO
FE-K	7457	1.379	0.194	2.03	5.64	7.62	FEO(T)
NA-K	0	0.549	0.000	0.00	0.00	0.00	NA2O
K-K	72	1.057	0.004	0.07	0.12	0.14	K2O
O			1.476	61.28	46.09		

1.70
*

TN-5500 University of Washington / JEOL TUE 30-NOV-04 02:26
Dwell: 0.000keV = 0



0.000 D- 5 VPS = 2048 10.240
71 041210-35 SPEC2

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	58.92	Si+4	7.9002	7.9002							
Al2O3	2.96	Al+3	0.4677	0.0998	**0.3680**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	7.62	Fe+3	0.3767			0.3767	0.0000				
MgO	20.01	Mg+2	3.9999			3.9999	**0.0000**				
MnO	0	Fe+2	0.4357			0.2554	**0.1803**				
CaO	10.34	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.4853					1.4853	0.0000		
K2O	0.14	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0239							0.0239	0.0000
Total	**99.99**		**Excess**	T site	**0.3680**	C site	**0.1803**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.4853**		**0.0239**	**0.0000**
			%Fill	**100**		**100**		**74.2658**			

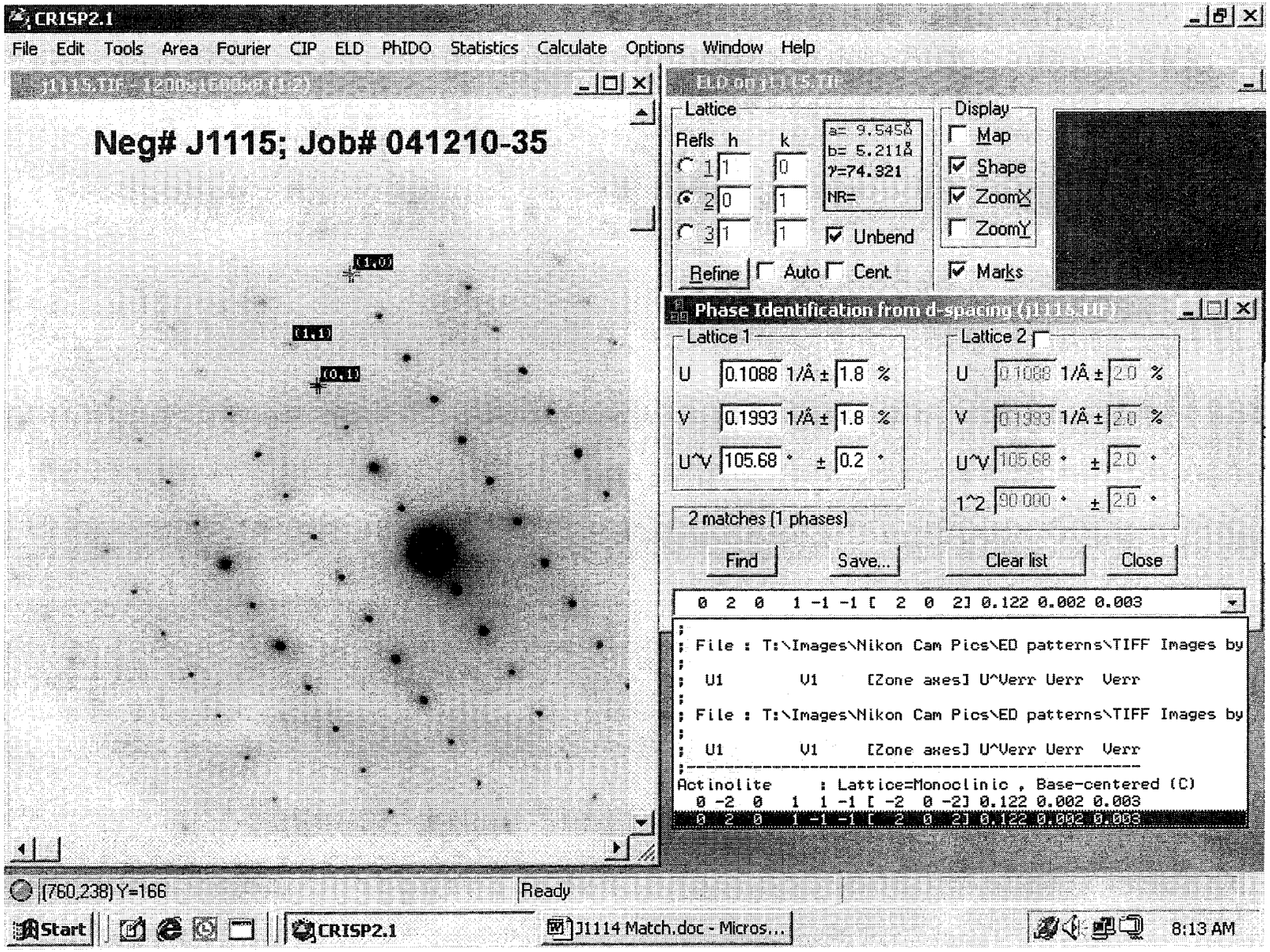
Prefix none
Name probable tremolite Ca values below optimal levels
Modifier none
Group Calcic Amphibole

Sample # **041210-35-812**

Values		Satisfied Conditions
(Ca,Na)@B	1.49	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	1 < Ca@B < 1.5 and (Na,K)@A < 0.5
Ca@B	1.49	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.02	Si > 7.5
Mg/(Mg+Fe2)	0.90	(Mg/(Mg+Fe2))>= 0.9
Si	7.90	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[1 0 1]



SOMTIF: QUANTIFY
Standardless Analysis

Refit _NAK' _NAK" _K K' _K K"
Refit _MNK' _ALK' _ALK" _NAK _K K
Chi-sqd = 0.64

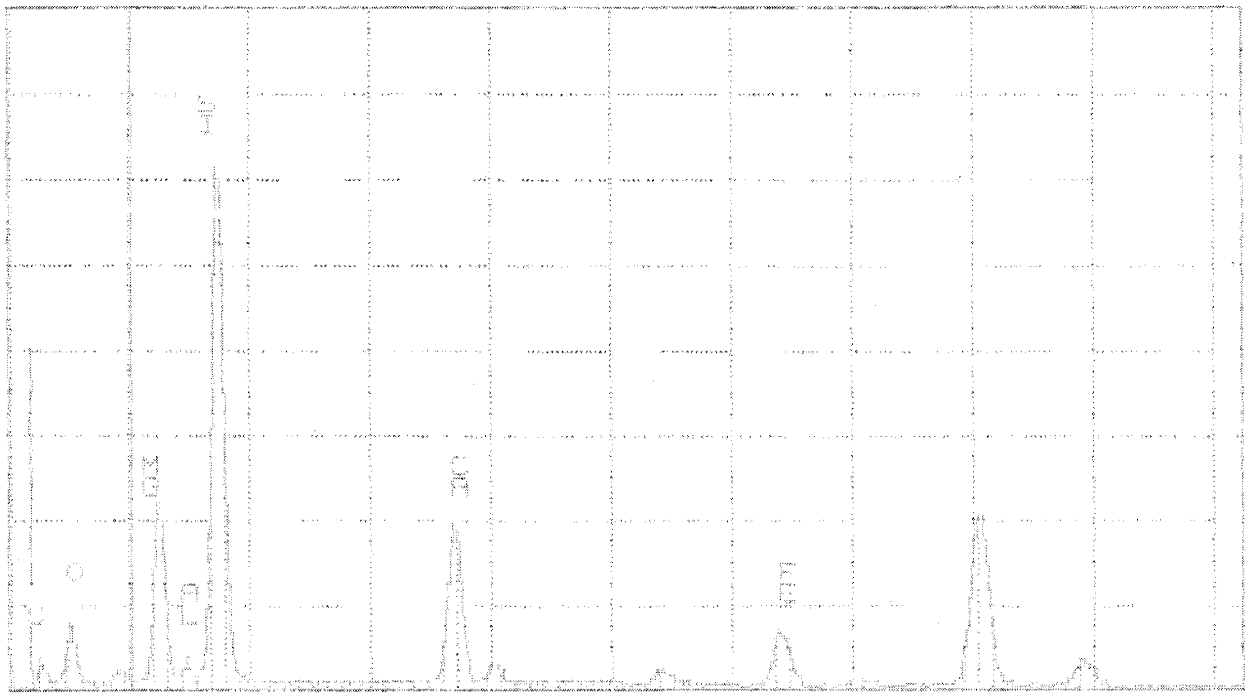
Element	Net Counts	
Si-K	18000 +/-	198
Mg-K	6400 +/-	137
Al-K	612 +/-	77
Ca-K	7546 +/-	164
Fe-K	3174 +/-	124
Na-K	0 +/-	0
K -K	0 +/-	0

REF:B EDS:SIK EDS:MGK EDS:ALK EDS:CAK EDS:FEK EDS:NAK
EDS:K K

04:210-05 SPW10

El-LINE	PEAK	K-FACTOR	CEL/CREF	ATOM%	EL WT%	WT%	FORMULA
SI-K	18000	1.000	1.000	21.37	27.56	59.06	SIO2
MG-K	6400	1.000	0.340	8.47	9.38	15.64	MGO
AL-K	612	0.750	0.024	0.54	0.67	1.27	AL2O3
CA-K	7546	0.994	0.181	5.78	10.53	14.72	CAO
FE-K	3174	1.399	0.116	2.52	6.57	9.31	FEO
NA-K	0	0.549	0.000	0.00	0.00	0.00	NA2O
K -K	0	1.059	0.000	0.00	0.00	0.00	K2O
O			1.440	61.43	45.35		

IN-5500 University of Washington / JFU TUE 30-NOV-04 08:58
Current 1.800KeV = 25



0.000 S- 5 VPs = 2048 10.240
PE 04:210-05 SPW10

1.00
*
0.0

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	59.06	Si+4	8.0000	8.0000							
Al2O3	1.27	Al+3	0.2201	0.0000	**0.2201**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	9.31	Fe+3	0.0188			0.0188	0.0000				
MgO	15.64	Mg+2	3.2423			3.2423	**0.0000**				
MnO	0	Fe+2	1.0800			1.0800	**0.0000**				
CaO	14.72	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	2.1945					2.0000	0.1945		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	100		Excess	T site	**0.2201**	C site	**0.0000**	B site	**0.1944531**	A site	**0**
			Total	8		4.5612		2.0000		0.0000	0.0000
			%Fill	100		91.2242		100			

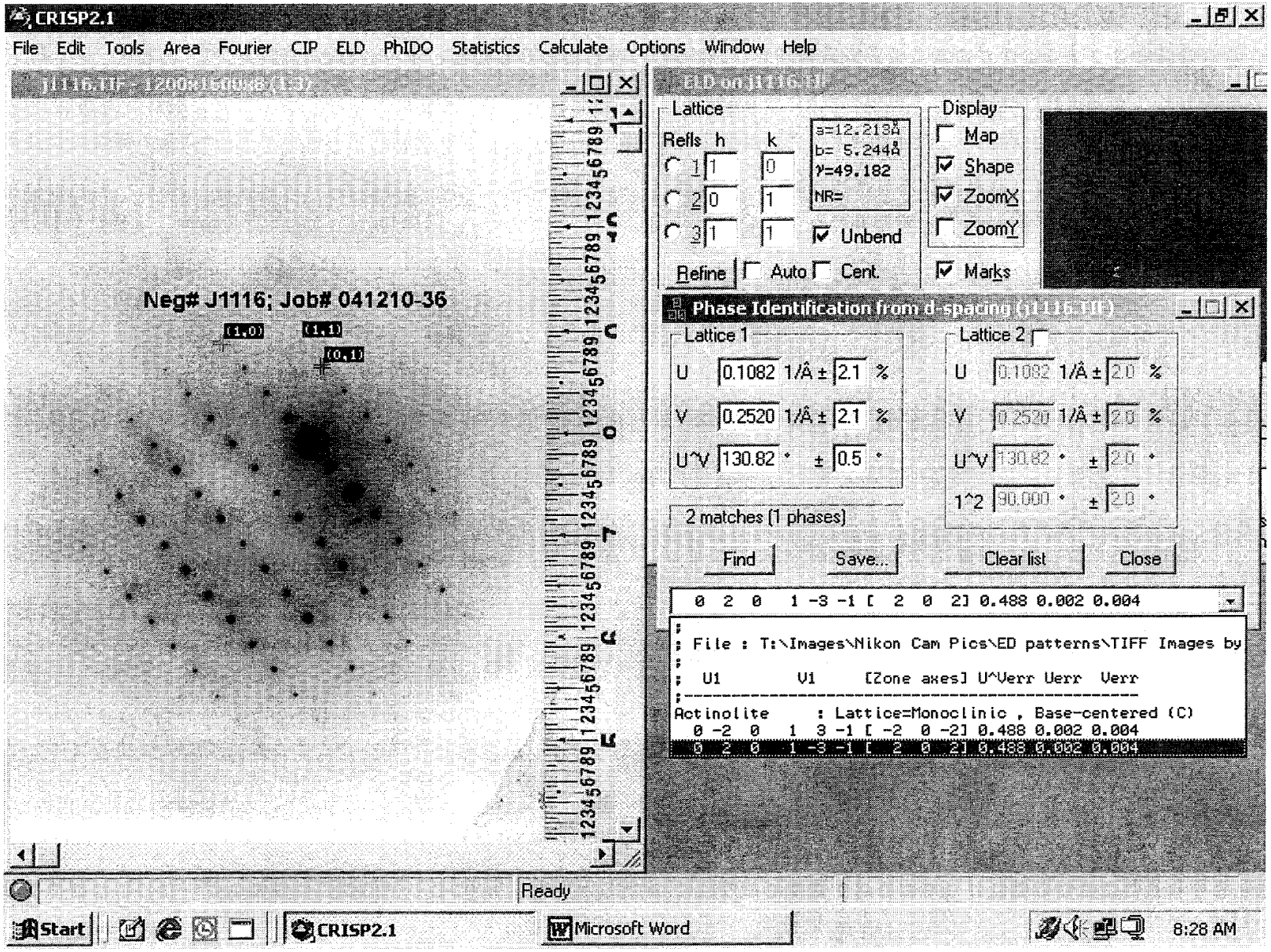
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-35-813

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.75	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[101]



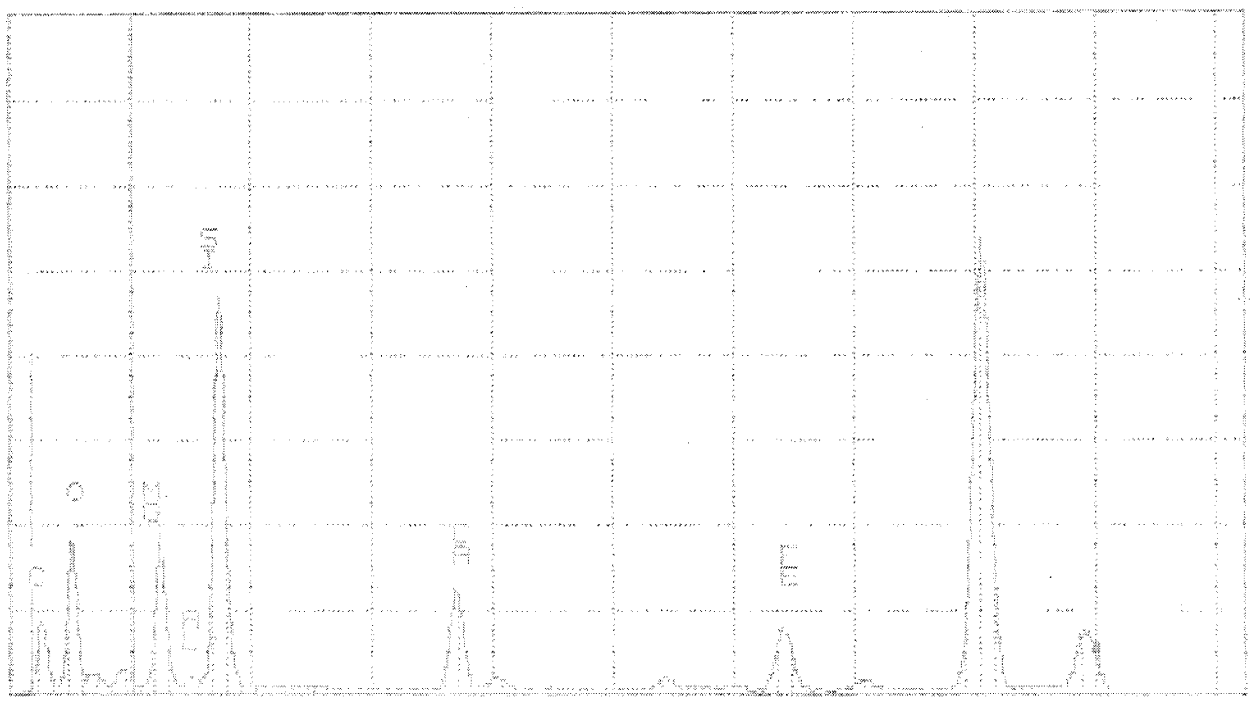
0,0
*
0,0
Refit _ALK' _ALK" _NAK' _NAK" _K K' _K K"
Refit _MGK' _FEK" _NAK _K K
Mn2-and = 4.17
*
XX /:COMT:/ Net Counts
Element
SiO2-K 13645 +/- 168
SUMFE-K QUANTIFY 4454 +/- 125
Standard Analysis 302 +/- 49 - 6A
Ca-K 4447 +/- 140
Fe-K 3483 +/- 136
Na-K 0 +/- 0
K -K 0 +/- 0

REF.R EDS:SIK EDS:MGK EDS:ALK EDS:CAK EDS:FEK EDS:NAK
EDS:K K

041210-3A SPot4

EL-LINE	PEAK	K-FACTOR	CPI/CREF	ATOM%	EL WT%	WT%	FORMULA
SI-K	13645	1.000	1.000	21.44	26.94	57.74	SIO2
MG-K	4454	1.000	0.256	8.78	9.59	15.93	MGO
AL-K	302	0.760	0.017	0.74	0.45	0.84	AL2O3
CA-K	4447	0.949	0.316	4.56	8.34	11.44	CAO
FE-K	3483	1.499	0.457	3.76	9.63	13.76	FE2O3
NA-K	0	0.542	0.000	0.00	0.00	0.00	NA2O
K-K	0	1.059	0.000	0.00	0.00	0.00	K2O
TT			1.672	61.55	45.05		

TN-5600 University of Washington / JHCL THE 30-NOV-84 09:45
Cursor: 1.020KeV = 29



0 000 R- 5 VHS = 2048 10.240
32 041710 36 SPot4

1,00
*
0,0

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	57.74	Si+4	8.0000	8.0000							
Al2O3	0.84	Al+3	0.1389	0.0000	**0.1389**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	13.76	Fe+3	0.3315			0.3315	0.0000				
MgO	15.98	Mg+2	3.3100			3.3100	**0.0000**				
MnO	0	Fe+2	1.2317			1.2196	**0.0121**				
CaO	11.68	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.7393					1.7393	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	**100**		**Excess**	T site	**0.1389**	C site	**0.0121**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.7393**		**0.0000**	**0.0000**
			%Fill	**100**		**100**		**86.9662**			

Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

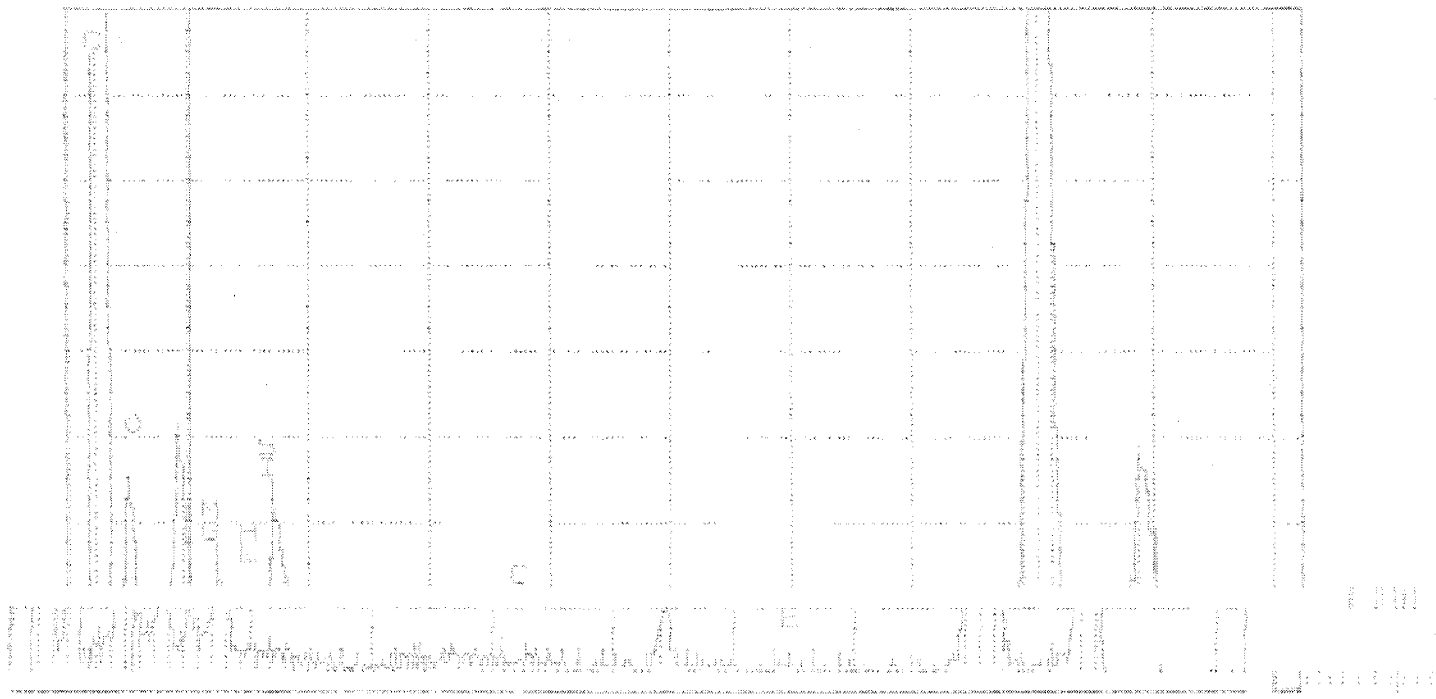
Sample # **041210-36-814**

Values		Satisfied Conditions
(Ca,Na)@B	1.74	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.74	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.73	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

*

TN-2804 University of Washington / Jack TUE 30-NOV-04 10:08

Cum-sqrt 1 10-40KeV = 14



0.000 R= 5 VL = 1PH 1M PAU

OPA 041P10-KA 5-R15

0,0
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0,0
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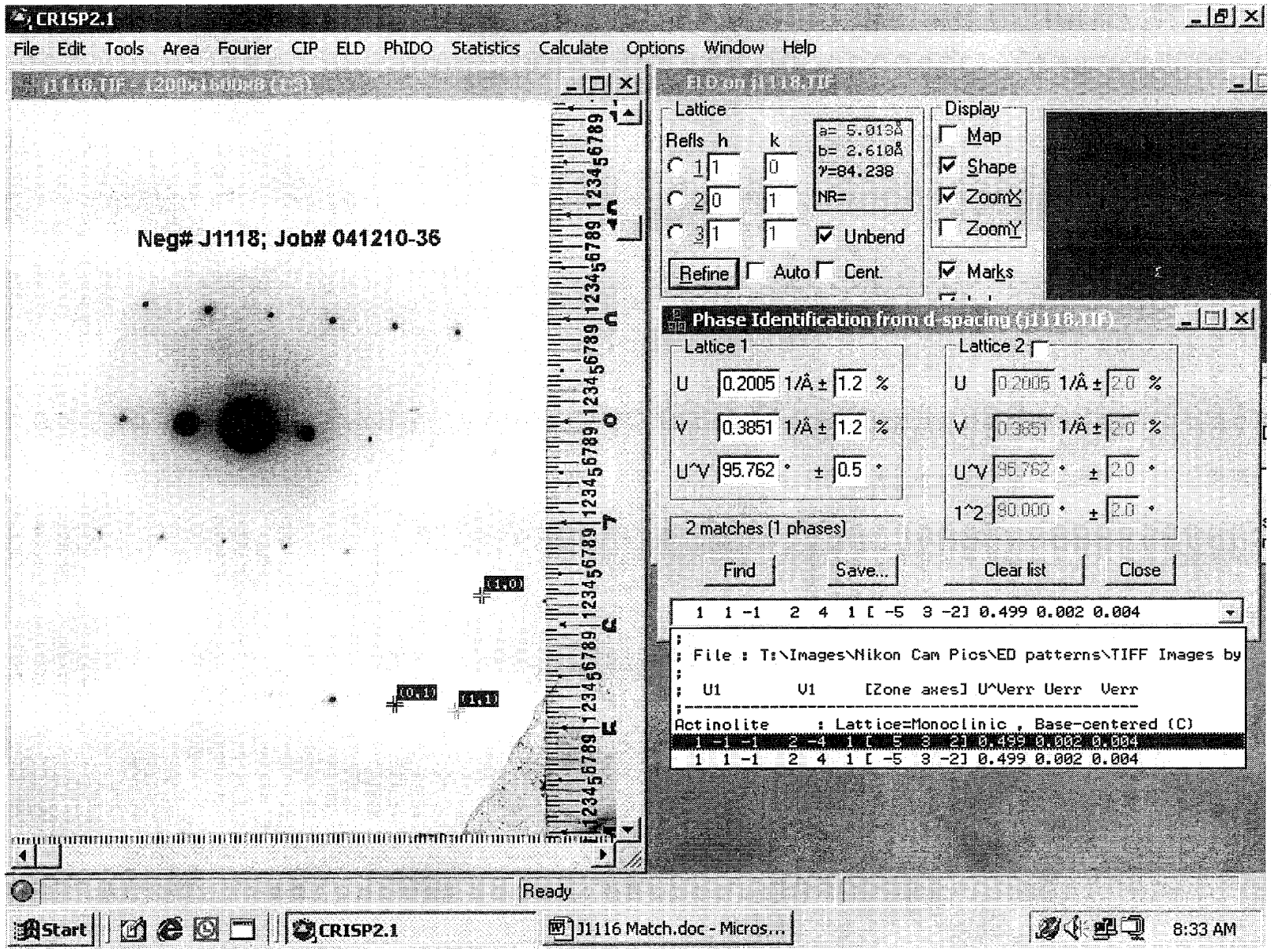
*
*X 'SUMTH'

SUMTH: QUANTIFY
Standardless Analysis

Refit _K K' _K K"
Refit _MGK' _AlK" _FEK"
Chi-sqrd = 2.17

Element	Net Counts	
Si-K	5521 +/-	129
Mg-K	1413 +/-	127
Al-K	748 +/-	56
Ca-K	1909 +/-	62
Fe-K	1948 +/-	49
Na-K	105 +/-	69

ACTINOLITE
[5 3 2]



QUANTIFY QUANTIFY
Standardless Analysis

Refit _K K' _K K"
Refit _MGK' _ALK" _FEK"
Chi-sqd = 2.17

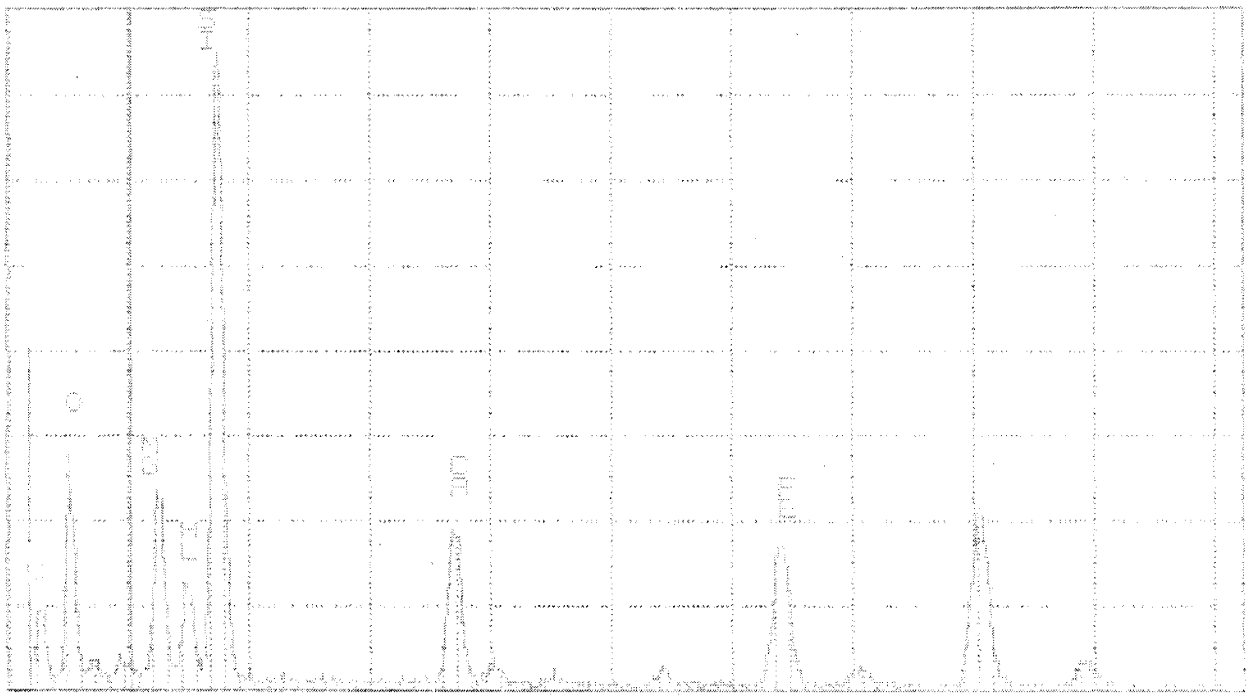
Element	Net Counts
Si-K	5521 +/- 129
Mg-K	1413 +/- 127
Al-K	788 +/- 36
Ca-K	1809 +/- 82
Fe-K	1948 +/- 60
Na-K	105 +/- 68
K -K	22 +/- 20

REF:0 EDS:SIK EDS:MGK EDS:ALK EDS:CAK EDS:FEK EDS:NAK EDS:

041210-3A SP816

EL-LINE	PEAK	K-RATIO	COL/CREF	ATOM%	FI WT%	WT%	FORMULA
SI-K	5521	1.000	1.000	20.11	25.03	54.28	SIO2
MG-K	1413	1.000	0.256	6.01	8.49	10.81	MGO
AL-K	788	0.750	0.107	2.13	2.71	5.13	AL2O3
CA-K	1809	0.949	0.311	4.38	7.89	11.04	CAO
FE-K	1948	1.029	0.479	5.02	12.66	18.06	FEO(T)
NA-K	105	0.549	0.010	0.26	0.27	0.54	NA2O
K-K	22	1.059	0.004	0.06	0.11	0.13	K2O
O			1.754	61.92	44.56		

TN-5500 University of Washington / JEOL TUE 30-NOV-84 10:47
Cursor: 1.030keV = 20



0.000 B- 5 VPS = 512 10 PAM
14 041210-3A SP816

1.00
K
0.0

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	54.28	Si+4	7.7257	7.7257							
Al2O3	5.13	Al+3	0.8605	0.2743	**0.5861**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	18.06	Fe+3	0.1161			0.1161	0.0000				
MgO	10.81	Mg+2	2.2938			2.2938	**0.0000**				
MnO	0	Fe+2	2.0204			2.0041	**0.0164**				
CaO	11.04	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.54	Ca+2	1.6834					1.6834	0.0000		
K2O	0.13	Na+	0.1490					0.1490	**0.0000**	0.0000	0.0000
		K+	0.0236							0.0236	0.0000
Total	**99.99**		**Excess**	T site	**0.5861**	C site	**0.0164**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**1.8324**		**0.0236**	**0.0000**
			%Fill	**100**		**100**		**91.6201**			

Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-36-816**

Values		Satisfied Conditions
(Ca,Na)@B	1.83	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.15	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.68	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.02	Si > 7.5
Mg/(Mg+Fe2)	0.53	(Mg/(Mg+Fe2))< 0.9
Si	7.73	

Mineral Analysis Program (Version 5.0)

0.00M B- 5 VPS = 64 LN 240
1 041210-1K SP016

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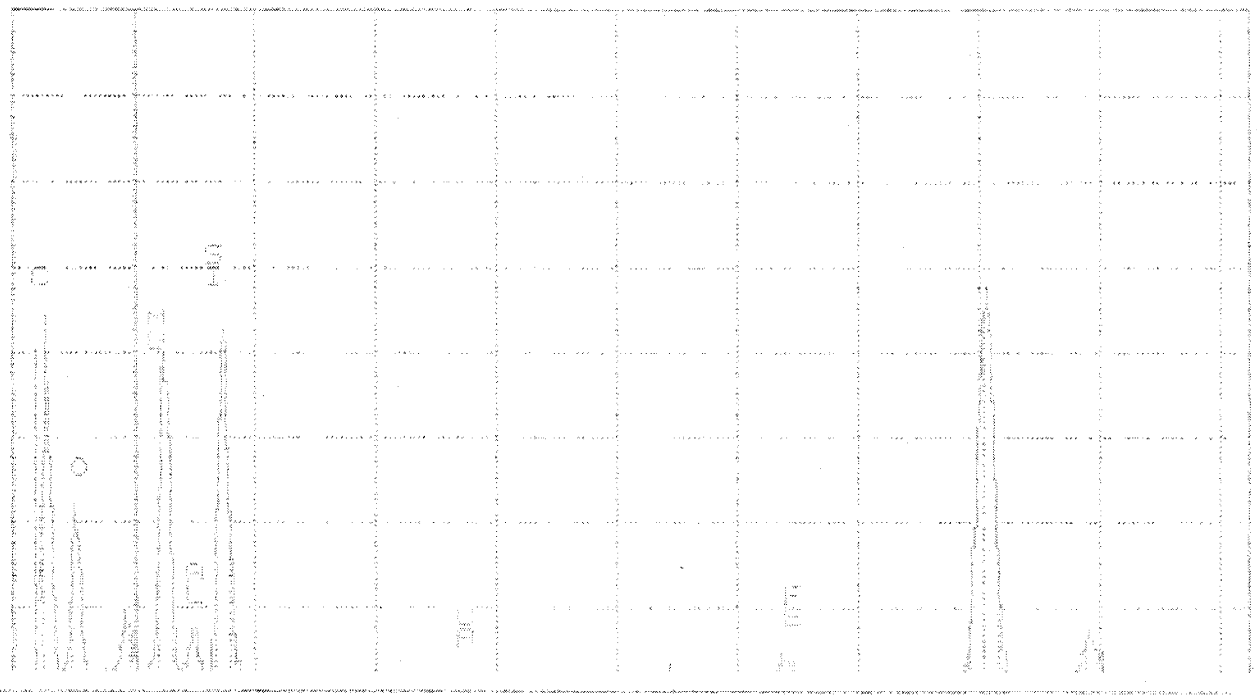
TN-FOAM University of Washington / JEOL UF 30-NOV 04 13:05
Current: 1.0x0keV = 5



0.00M B- 5 VPS = 246 LN 240
23 041210-1K SP017

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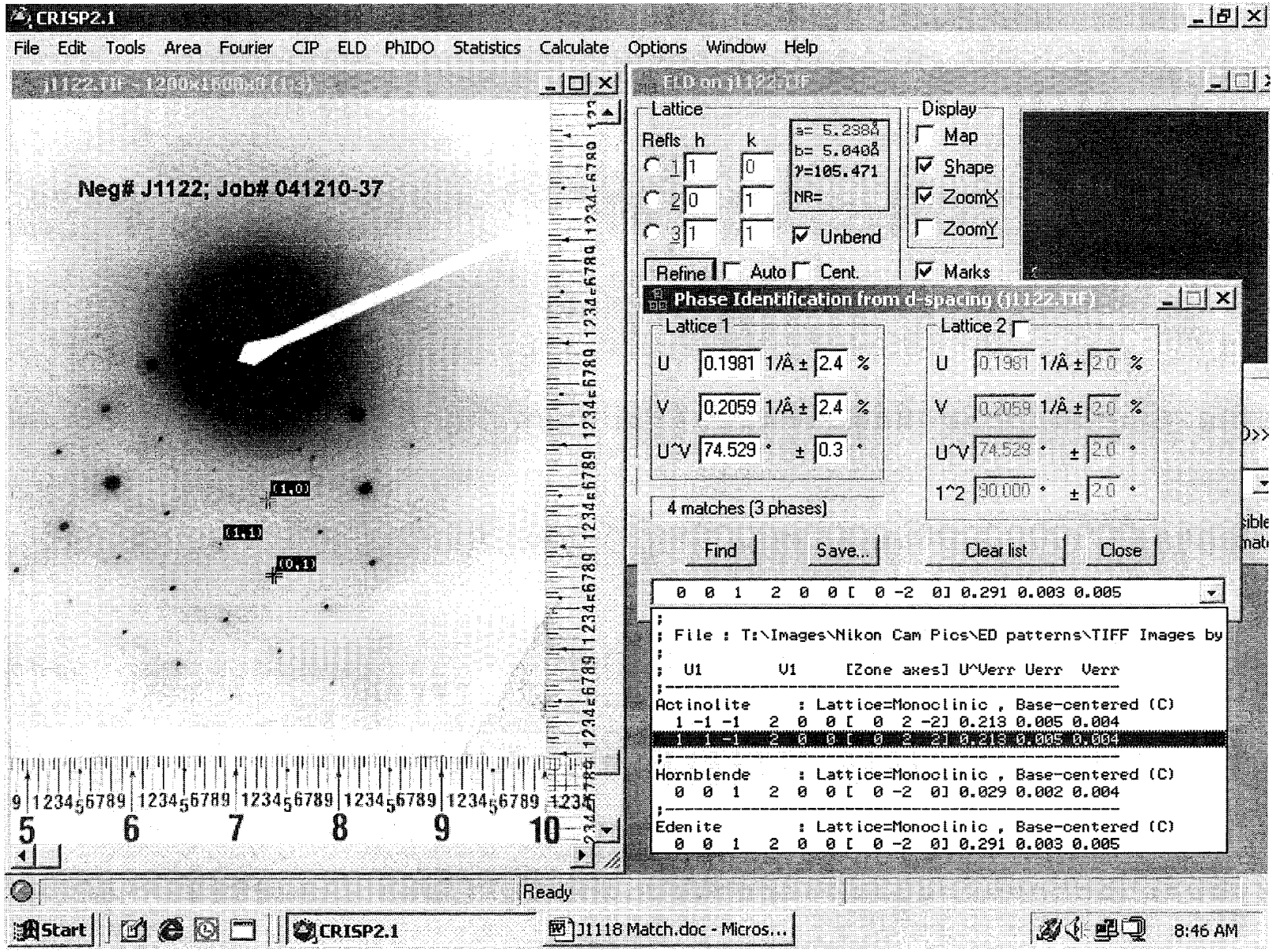
ACTINOLITE
[0 1 1]



Point [illegible]
Spectrum [illegible]
Standardless Analysis [illegible]
Chi-sqrd = 9.34

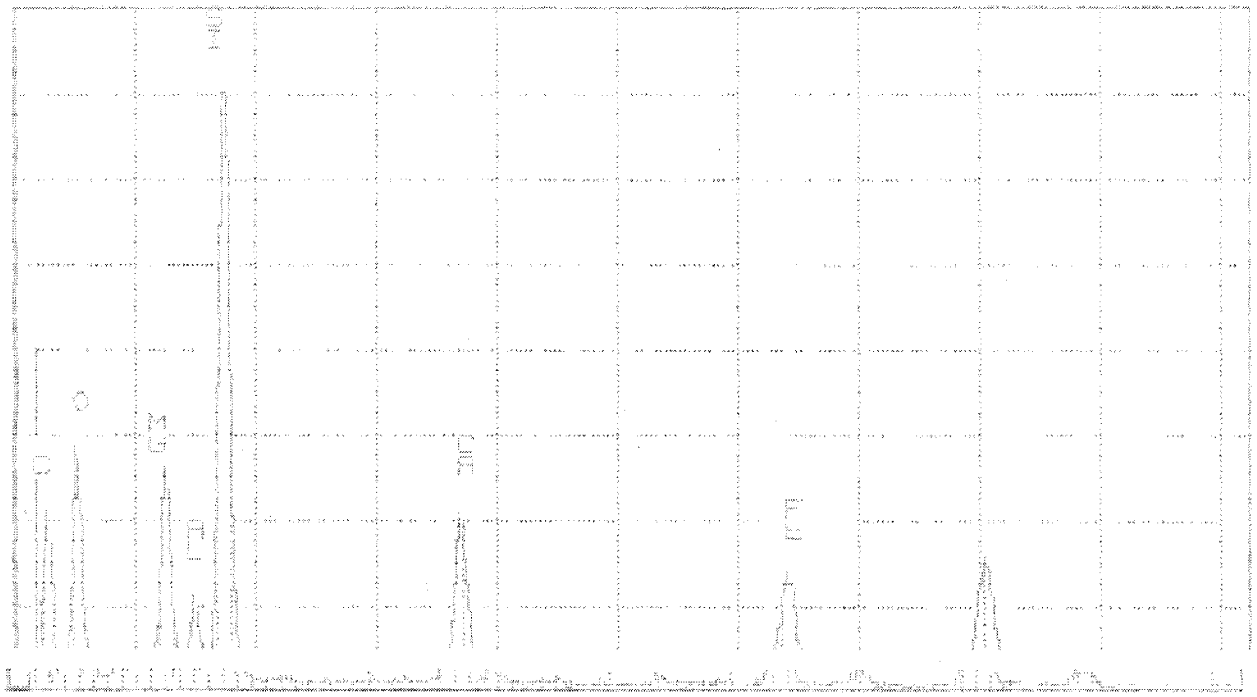
Element	Net Counts	
Si-K	4965	+/- 107
Mg-K	1569	+/- 110
Al-K	542	+/- 54
Ca-K	1039	+/- 80
Fe-K	1587	+/- 77
Na-K	147	+/- 64
K -K	0	+/- 0

REF.S FOS:SIK EDS:MGK FOS:ALK SDS:CAK LDS:FEK EDS:NAK
EDS:K K

041210-37 SP818

EL-LINE	PEAK	K-FACTOR	CEL/CORR	ATOM%	FI	WT%	WT%	FORMULA
SI-K	4965	1.000	1.000	14.80	1.00	15.04	32.71	SIO2
MG-K	1569	1.000	0.416	7.00	1.02	17.30	MGO	
AL-K	542	0.750	0.040	1.40	1.05	3.50	AL2O3	
CA-K	1039	0.949	0.152	4.80	1.02	12.05	CAO	
FE-K	1587	1.399	0.447	4.40	1.22	16.02	FEO(T)	
NA-K	147	0.749	0.016	0.30	0.41	0.84	NA2O3	
K-K	0	1.059	0.000	0.00	0.00	0.00	K2O	
O			1.776	61.52	49.51			

TN-5500 University of Washington / JEOL TUE 30-NOV-04 14:25
Current 0.000keV = 0



1.000keV
0.000

15 041210-37 SP818

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	53.71	Si+4	7.6473	7.6473							
Al2O3	3.88	Al+3	0.6510	0.3527	**0.2983**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	16.02	Fe+3	0.0515			0.0515	0.0000				
MgO	13.2	Mg+2	2.8019			2.8019	**0.0000**				
MnO	0	Fe+2	1.8501			1.8483	**0.0017**				
CaO	12.35	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.84	Ca+2	1.8838					1.8838	0.0000		
K2O	0	Na+	0.2319					0.1145	**0.1174**	0.1174	0.0000
		K+	0.0000							0.0000	0.0000
Total	**100**		**Excess**	T site	**0.2983**	C site	**0.0017**	B site	**0.1174149**	A site	**0**
			Total	**8**		**5.0000**		**1.9983**		**0.1174**	**0.0000**
			%Fill	**100**		**100**		**99.9135**			

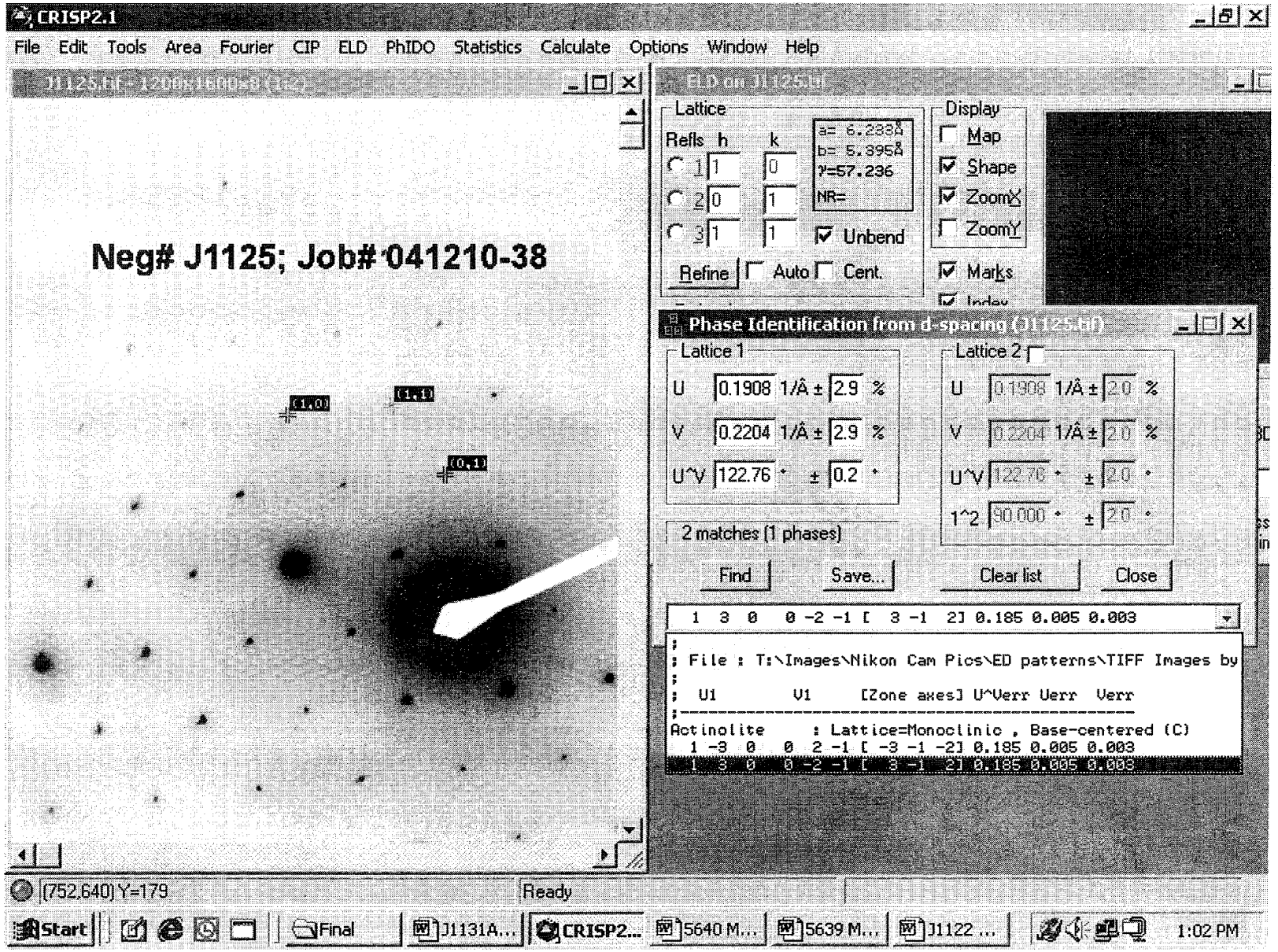
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-37-818**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.11	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.88	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.12	Si > 7.5
Mg/(Mg+Fe2)	0.60	(Mg/(Mg+Fe2))< 0.9
Si	7.65	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[3 -1 2]



0,0 ;
*
** /SQMIF/
SQMIF: QUANTIFY
Standardless Analysis

Reflt _NAK/ _NAK" _K K/ _K K"
Refit _MAK/ _ALK" _FEK" _MAK _K K
Chi-sqr = 2.76

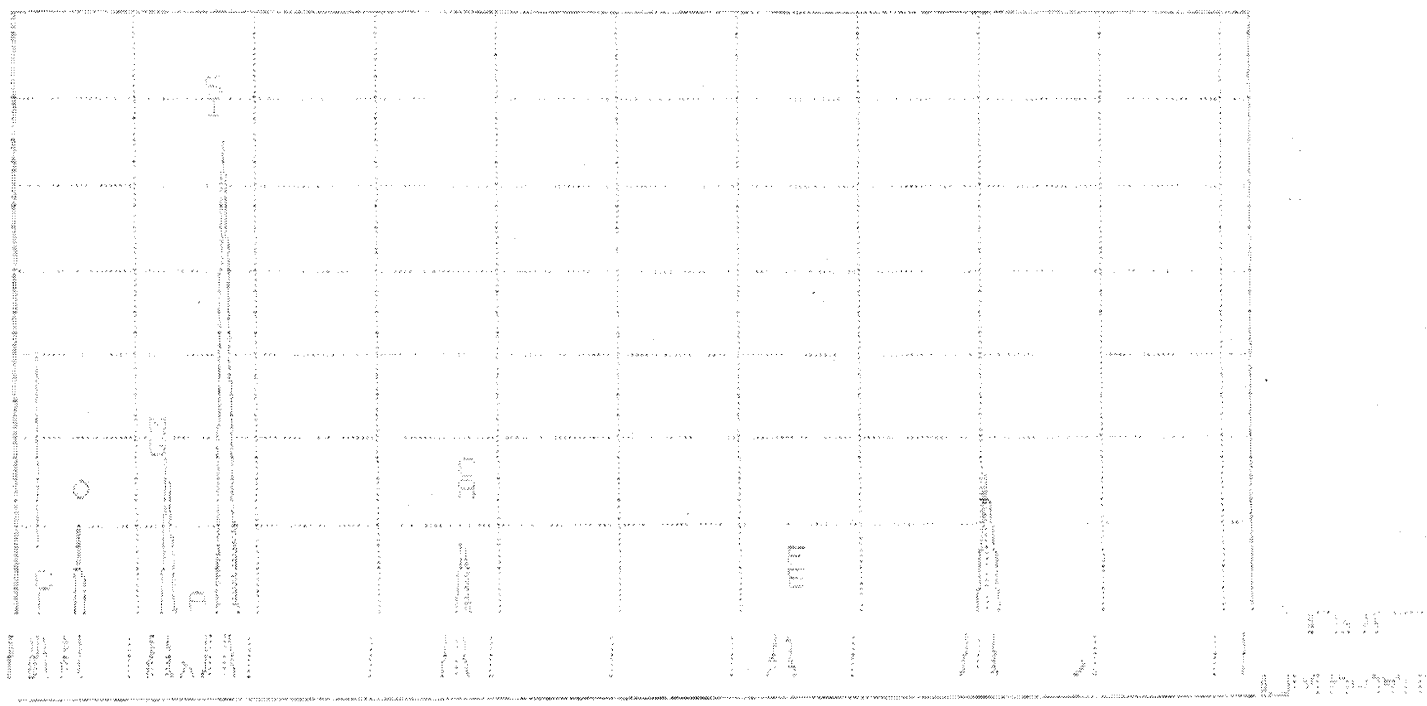
Element	Net Counts
Si-K	15416 +/- 228
Mg-K	7115 +/- 150
Al-K	613 +/- 80
Ca-K	6562 +/- 147
Fe-K	4148 +/- 72
Na-K	0 +/- 0
K -K	0 +/- 0

REF:S CHB:CHK ELD:MGK ELD:ALK ELD:CAK ELD:FEK CTD:NAK CTD:K K

04(210-38 SPHR.0

EL-LINE	MEAN	K-FACTOR	CEL/CREF	ATOM%	EL WT%	WT%	FORMULA
SI-K	15416	1.000	1.000	20.67	24.58	52.76	SIO2
MG-K	7115	1.000	0.086	9.34	14.77	17.12	MGO
AL-K	613	0.750	0.074	0.58	0.49	1.29	AL2O3
CA-K	6562	0.949	0.130	1.90	9.00	12.64	CAO
FE-K	4148	1.099	0.317	5.27	8.45	12.03	FE2O3
NA-K	0	0.940	0.000	0.00	0.00	0.00	NA2O
K -K	0	1.080	0.000	0.00	0.00	0.00	K2O
O			1.495	61.70	43.04		

TN-5500 University of Washington / JBCI TUE 30-NOV-04 16:04
Current 0.000keV = 0



0.00M B- 5 VPb = 2048 111 240

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.96	Si+4	7.8978	7.8978							
Al2O3	1.29	Al+3	0.2108	0.1022	**0.1086**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	12.03	Fe+3	0.2134			0.2134	0.0000				
MgO	17.12	Mg+2	3.5389			3.5389	**0.0000**				
MnO	0	Fe+2	1.1577			1.1392	**0.0185**				
CaO	12.6	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	1.8717					1.8717	0.0000		
K2O	0	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0000							0.0000	0.0000
Total	100		Excess	T site	**0.1086**	C site	**0.0185**	B site	**0**	A site	**0**
			Total	8		5.0000		1.8717		0.0000	0.0000
			%Fill	100		100		93.5832			

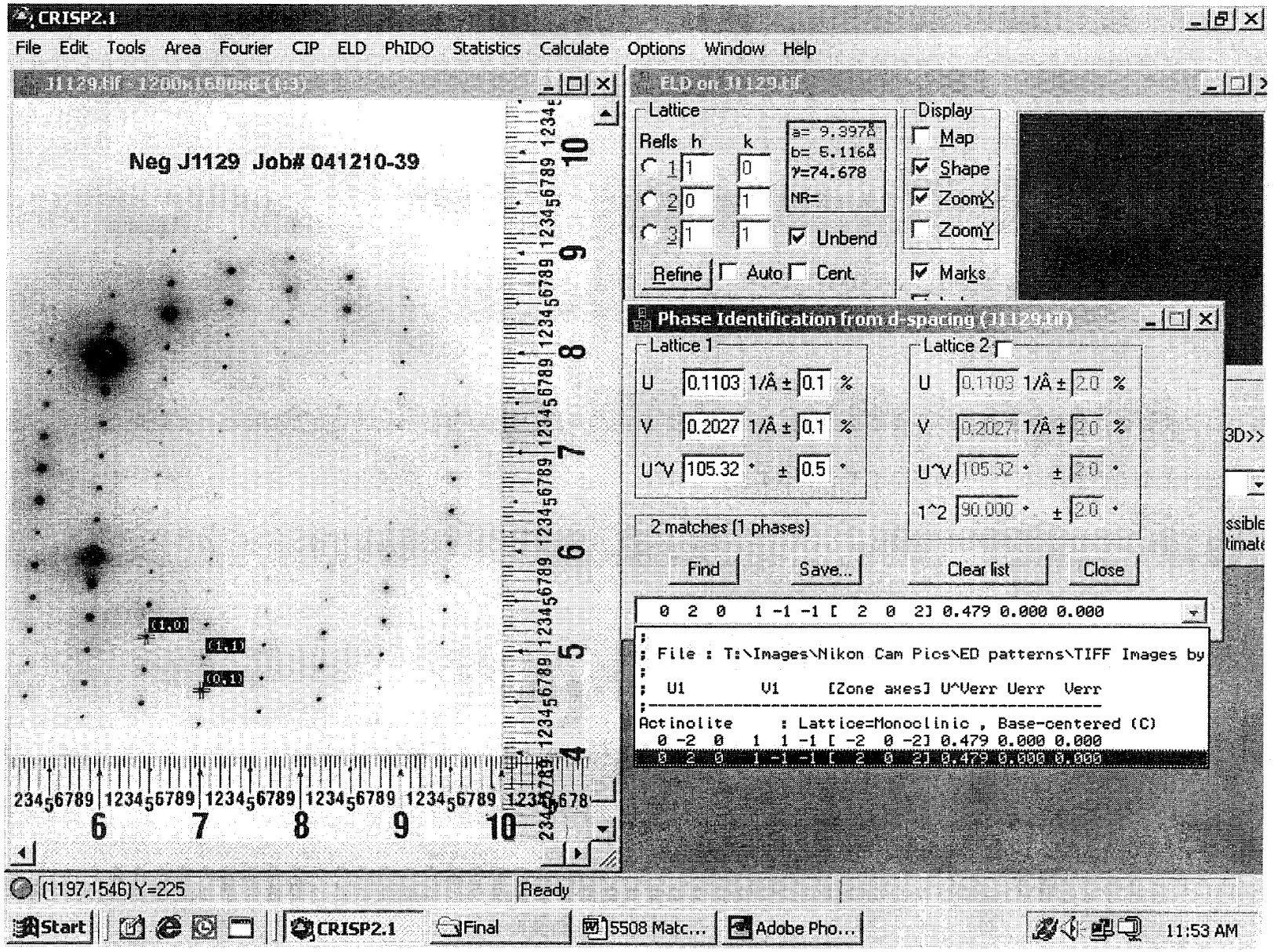
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-38-820

Values		Satisfied Conditions
(Ca,Na)@B	1.87	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.87	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.00	Si > 7.5
Mg/(Mg+Fe2)	0.75	(Mg/(Mg+Fe2))< 0.9
Si	7.90	

Mineral Analysis Program (Version 5.0)

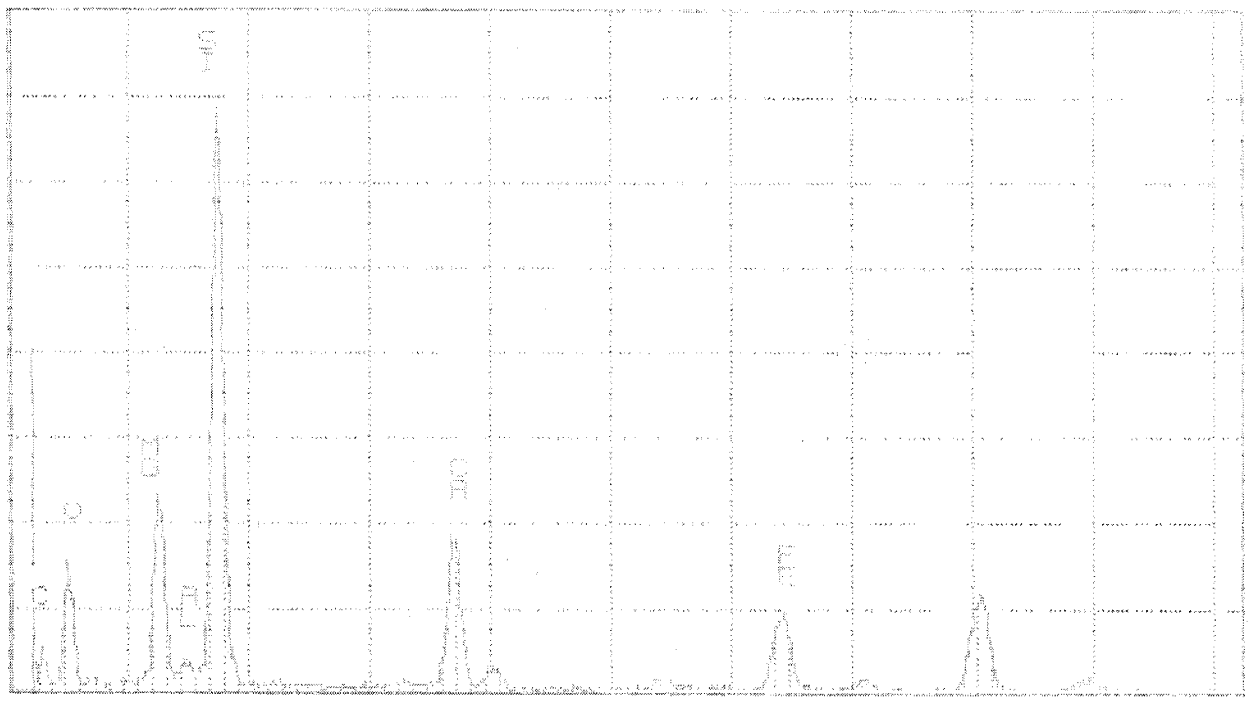
ACTINOLITE
[1 0 1]



```
*
*X 'SUMTF'

SUMTF: QUANTOFY
 Standardless Analysis

Refit _K K' _K K''
 Refit _ALK' _ALK'' _NAK'
Chi-sqd = 1.52

 Element              Net Counts
   Si-K              4956 +/-    101
   Mg-K              1535 +/-     86
   Al-K               137 +/-     45
   Ca-K              1722 +/-     73
   Fe-K              1101 +/-     64
   Na-K                92 +/-     41
   K -K                34 +/-     17


REF.B  EDS:SIK     EDS:MGK     EDS:ALK     EDS:CAK     EDS:FEK     EDS:NAK     EDS:K K


 041210-39 B23

EL-LINE    PEAK   K-FACTOR    CHI/DRES   ATOM%   EL WT%      WT%   FORMULA
 SI-K      4956    1.0000      1.000     21.41   27.49    58.91   SIO2
MG-K       1535    1.0000      0.319      7.75    8.52    14.21   MGO
 AL-K       137    0.7500      0.071      0.64    0.57     1.08   AL2O3
CA-K       1722    0.949       0.043      4.96    9.09    12.73   CAO
 FE-K      1101    1.099       0.319      4.38    8.58    12.26   FEVOR
NA-K         92    0.542       0.010      0.27    0.28     0.50   NA2O3
 K-K         34    1.059       0.007      0.13    0.20     0.24   K2O
O                              1.444     61.70   45.26
```

TN-55UW University of Washington / uFOU WED 01-DEC-04 09:54

Cursor: 0.000keV = 0



0.000 B- 5 Wt% = 512 10.240

E 041210-39 B23

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	58.91	Si+4	8.0000	8.0000							
Al2O3	1.08	Al+3	0.1923	0.0000	**0.1923**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	12.26	Fe+3	0.0227			0.0227	0.0000				
MgO	14.21	Mg+2	2.9823			2.9823	**0.0000**				
MnO	0	Fe+2	1.4320			1.4320	**0.0000**				
CaO	12.73	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.58	Ca+2	1.9229					1.9229	0.0000		
K2O	0.24	Na+	0.1945					0.0771	**0.1174**	0.1174	0.0000
		K+	0.0593							0.0593	0.0000
Total	**100.01**		**Excess**	T site	**0.1923**	C site	**0.0000**	B site	**0.1173512**	A site	**0**
			Total	**8**		**4.6294**		**2.0000**		**0.1767**	**0.0000**
			%Fill	**100**		**92.5874**		**100**			

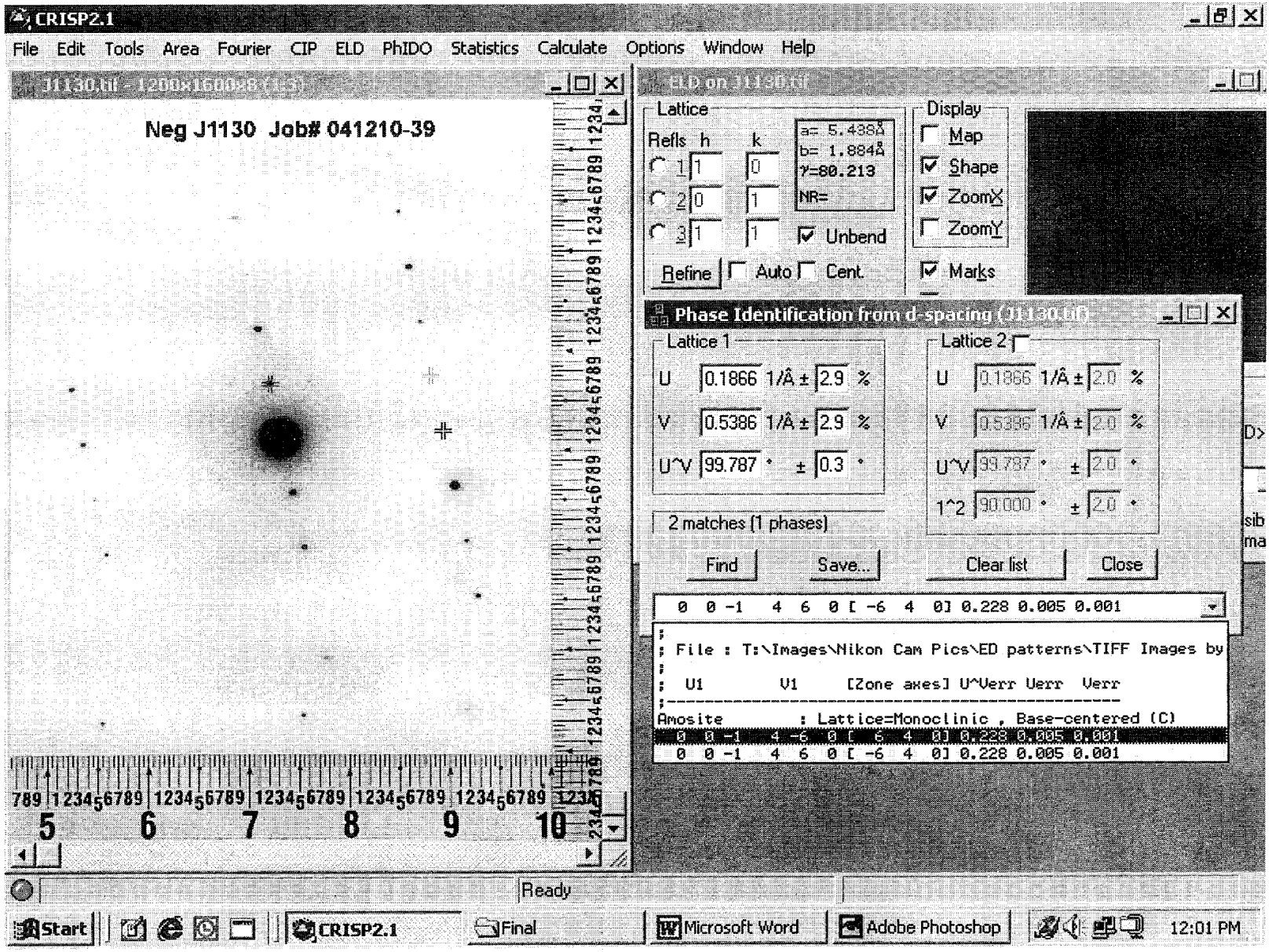
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-39-823**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.08	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.92	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.18	Si > 7.5
Mg/(Mg+Fe2)	0.68	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

AMOSITE
[3 2 0]


CRISP2.1
File Edit Tools Area Fourier CIP ELD PhIDO Statistics Calculate Options Window Help
Neg J1130 Job# 041210-39
Lattice
Refls h k
a= 5.438Å
b= 1.884Å
γ=80.213
NR=
Unbend
Refine
Auto
Cent.
Display
Map
Shape
ZoomX
ZoomY
Marks
Phase Identification from d-spacing
Lattice 1
U 0.1866 1/Å ± 2.9 %
V 0.5386 1/Å ± 2.9 %
U^V 99.787 ° ± 0.3 °
Lattice 2
U 0.1866 1/Å ± 2.0 %
V 0.5386 1/Å ± 2.0 %
U^V 99.787 ° ± 2.0 °
1^2 90.000 ° ± 2.0 °
2 matches (1 phases)
Find
Save...
Clear list
Close
0 0 -1 4 6 0 [-6 4 0] 0.228 0.005 0.001
; File : T:\Images\Nikon Cam Pics\ED patterns\TIFF Images by
; U1 V1 [Zone axes] U^Verr Uerr Verr
Amosite : Lattice=Monoclinic , Base-centered (C)
0 0 -1 4 -6 0 [6 4 0] 0.228 0.005 0.001
0 0 -1 4 6 0 [-6 4 0] 0.228 0.005 0.001
Ready
Start
CRISP2.1
Final
Microsoft Word
Adobe Photoshop
12:01 PM

SOMTF: QUANTIFY
Standardless Analysis

Refit _NAK' _NAK"
Refit _ALK' _CAK" _FEK" _NAK _K K' _K K"
Chi-sqd = 0.00

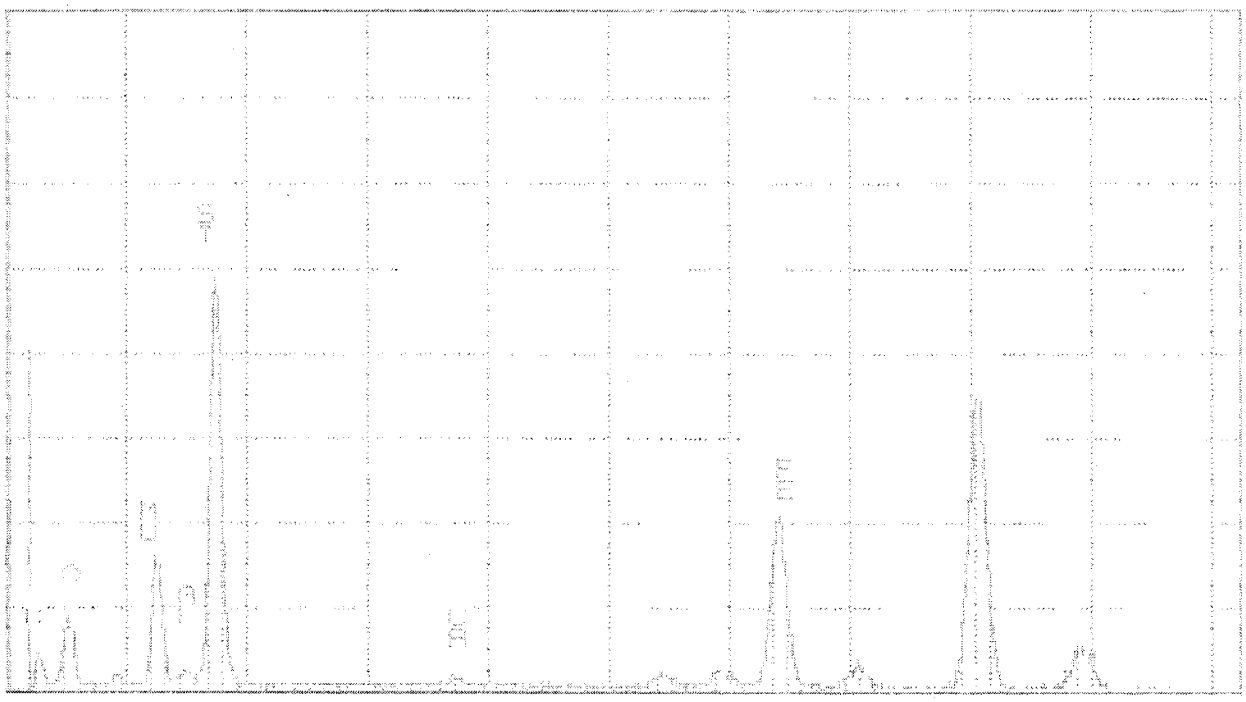
Element	Net Counts	
Si-K	7045 +/-	1'M
Mg-K	2246 +/-	9%
Al-K	378 +/-	10%
Ca-K	294 +/-	29
Fe-K	4702 +/-	94
Na-K	0 +/-	0
K -K	48 +/-	24

RLNCS FTS:S1K SIS:SMUK LDS:MLK EDS:CAK FTS:FEK EDS:NAK FDS:

041210-SV 824

ELEMENT	PEAK	K-FACTOR	CEL/CREF	ATOM%	FI WT%	WT%	FORMULA
AT-K	7045	1.000	1.000	20.09	24.68	57.89	SIO2
MG-K	2246	1.000	0.306	7.17	7.55	12.96	MGO
AL-K	378	0.780	0.089	0.80	0.95	1.80	AL2O3
CA-K	294	0.949	0.026	0.37	0.45	0.91	CAO
FE-K	4702	1.279	0.896	9.00	22.13	31.60	FE2O3
NA-K	0	0.769	0.000	0.00	0.00	0.00	NA2O3
K-K	48	1.059	0.007	0.10	0.17	0.21	K2O
O			1.777	62.47	40.87		

TN-5500 University of Washington / JEOL WED 01-DEC-04 09:22
Cursor: 0 0.00keV = 0



0.000 D- 5 V-S = 10.24 . 10 V40
42 041210-SV 824

1.40

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	52.89	Si+4	7.8356	7.8356							
Al2O3	1.8	Al+3	0.3143	0.1644	**0.1499**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	31.6	Fe+3	0.0000			0.0000	0.0000				
MgO	12.58	Mg+2	2.7785			2.7785	**0.0000**				
MnO	0	Fe+2	3.9146			2.0716	**1.8430**				
CaO	0.91	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	0.1444					0.1444	0.0000		
K2O	0.21	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0397							0.0397	0.0000
Total	**99.99**		**Excess**	T site	**0.1499**	C site	**1.8430**	B site	**0**	A site	**0**
			Total	**8**		**5.0000**		**0.1444**		**0.0397**	**0.0000**
			%Fill	**100**		**100**		**7.22159**			

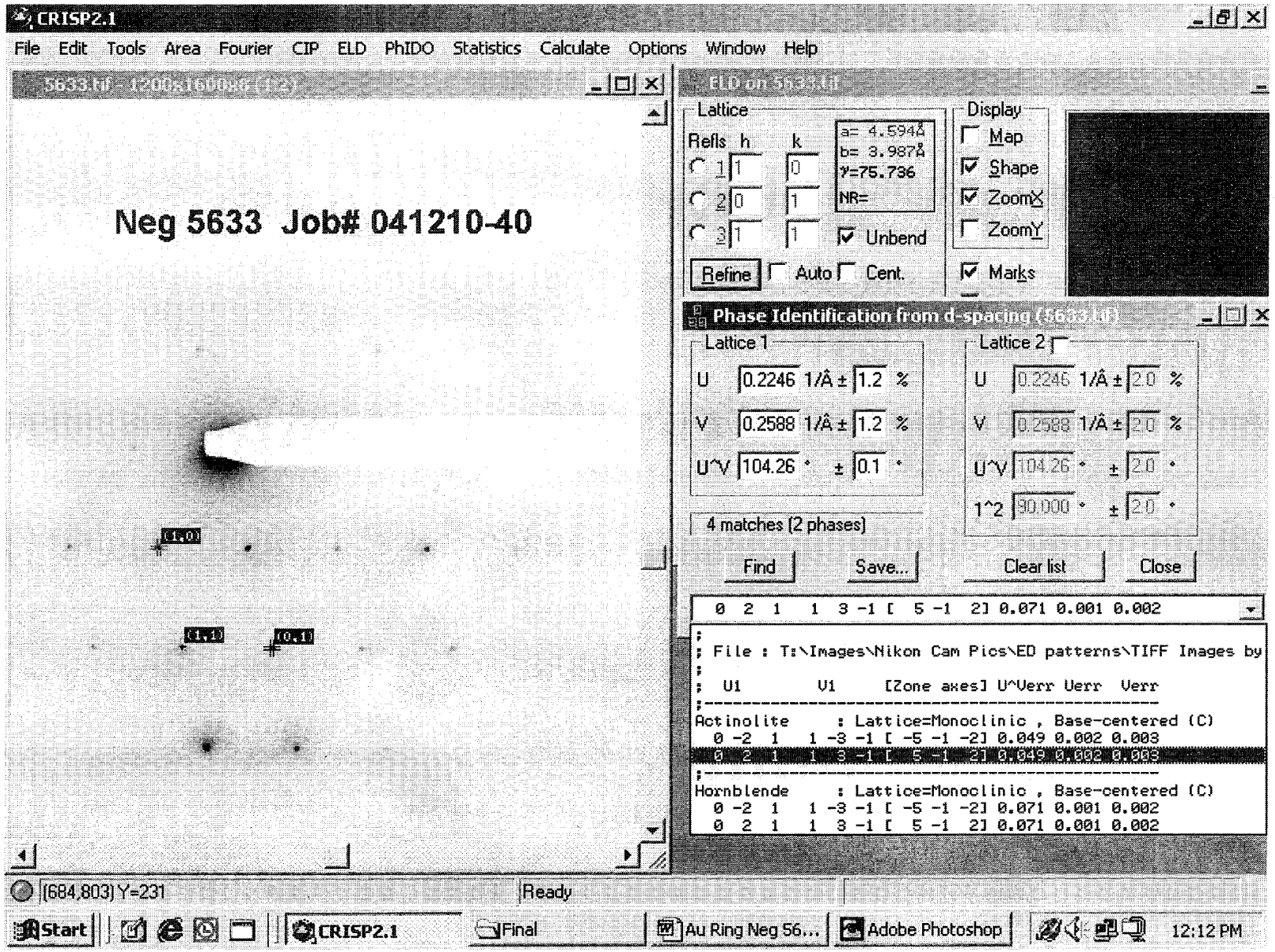
Prefix none
Name grunerite, ferro-anthophyllite, ferroholmquistite, clinoferroholmquistite
Modifier none
Group Mg-Fe-Mn Amphibole

Sample # **041210-39-824**

Values		Satisfied Conditions
(Ca,Na)@B	0.14	(Ca,Na)@B < 1 and (Mg,Fe2,Mn)@B >= 0.95
(Mg,Fe2,Mn)@B	1.84	(Mg/(Mg+Fe2))< 0.5
Mg/(Mg+Fe2)	0.42	Si > 7
Si	7.84	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[5 -1 2]



INTE-% :
LABEL = 041210-40 SP 15478
01-DEC-72 21:19:23
38.611 LIVE SECONDS

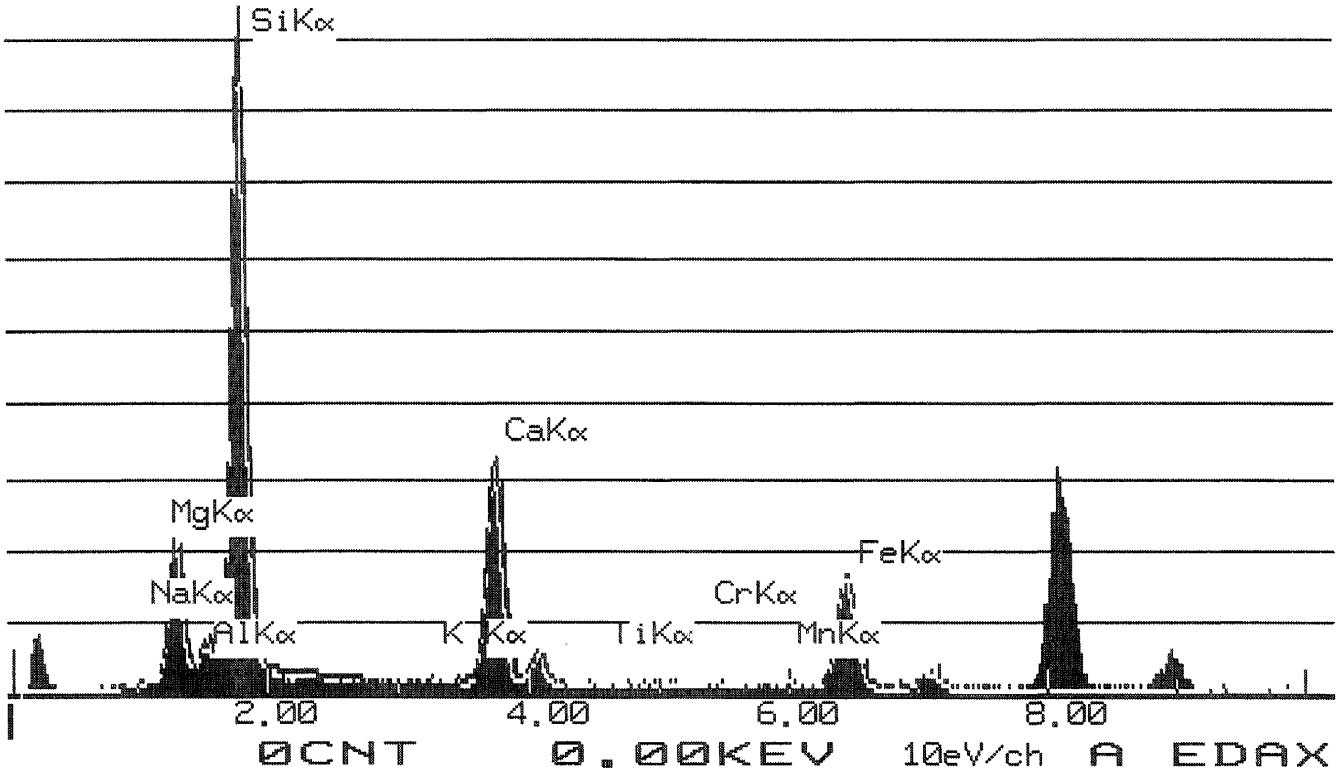
ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	53.534	10.077	16.709
ALK	11.888	1.344	2.540
SIK	241.047	25.519	54.595
K K	0.725	0.128	0.154
CAK	101.526	10.248	14.339
CRK	0.647	0.091	0.133
MNK	0.673	0.098	0.127
FEK	59.491	7.977	11.405

TOTAL			100.000

BG AUTO
ACTINOLITE

USED PEIF: USER

30-NOV-04 21:20:25 SUPER QUANT
RATE= 6705CPS TIME= 39LSEC
FS= 1039/ 1039 PRST= 200LSEC
A =041210-40 SP 15478



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	54.595	Si+4	7.6620	7.6620							
Al2O3	2.54	Al+3	0.4201	0.3380	**0.0821**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0.133	Cr+3	0.0148			0.0148	0.0000				
Fe(total)O	11.405	Fe+3	0.0120			0.0120	0.0000				
MgO	16.709	Mg+2	3.4959			3.4959	**0.0000**				
MnO	0.127	Fe+2	1.3250			1.3250	**0.0000**				
CaO	14.339	Mn+2	0.0151			0.0151	**0.0000**				
Na2O	0	Ca+2	2.1559					2.0000	0.1559		
K2O	0.154	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0276							0.0276	0.0000
Total	**100.002**		**Excess**	T site	**0.0821**	C site	**0.0000**	B site	**0.1558974**	A site	**0**
			Total	**8**		**4.9449**		**2.0000**		**0.0276**	**0.0000**
			%Fill	**100**		**98.8981**		**100**			

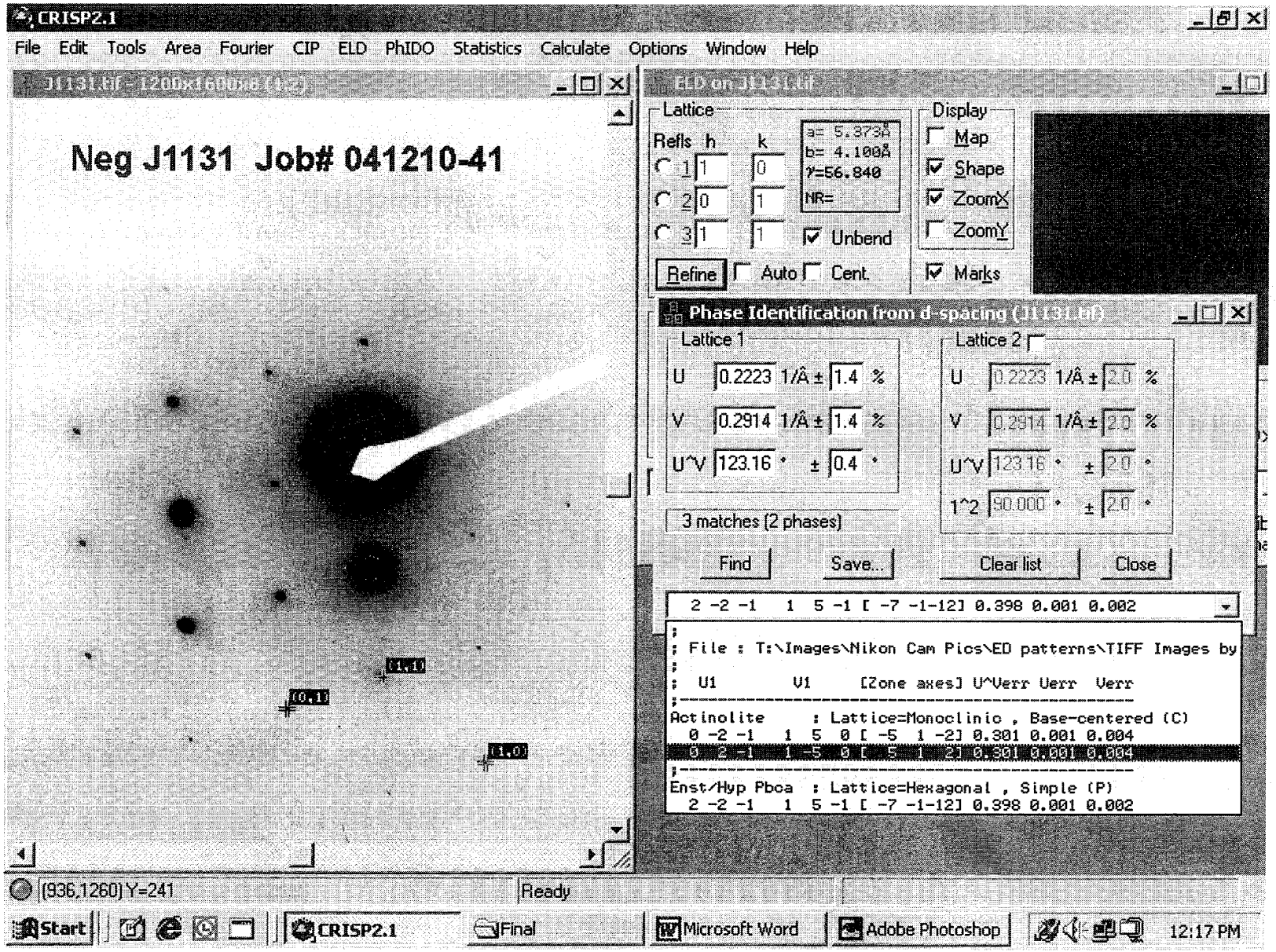
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-40-15478**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.03	Si > 7.5
Mg/(Mg+Fe2)	0.73	(Mg/(Mg+Fe2))< 0.9
Si	7.66	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[5 1 2]



SUMMIT: QUANTIFY
Standardless Analysis

Refit _K K' _K K"
Refit _MGK' _ALK" _FEK" _NAK'
Chi-sqd = 3.00

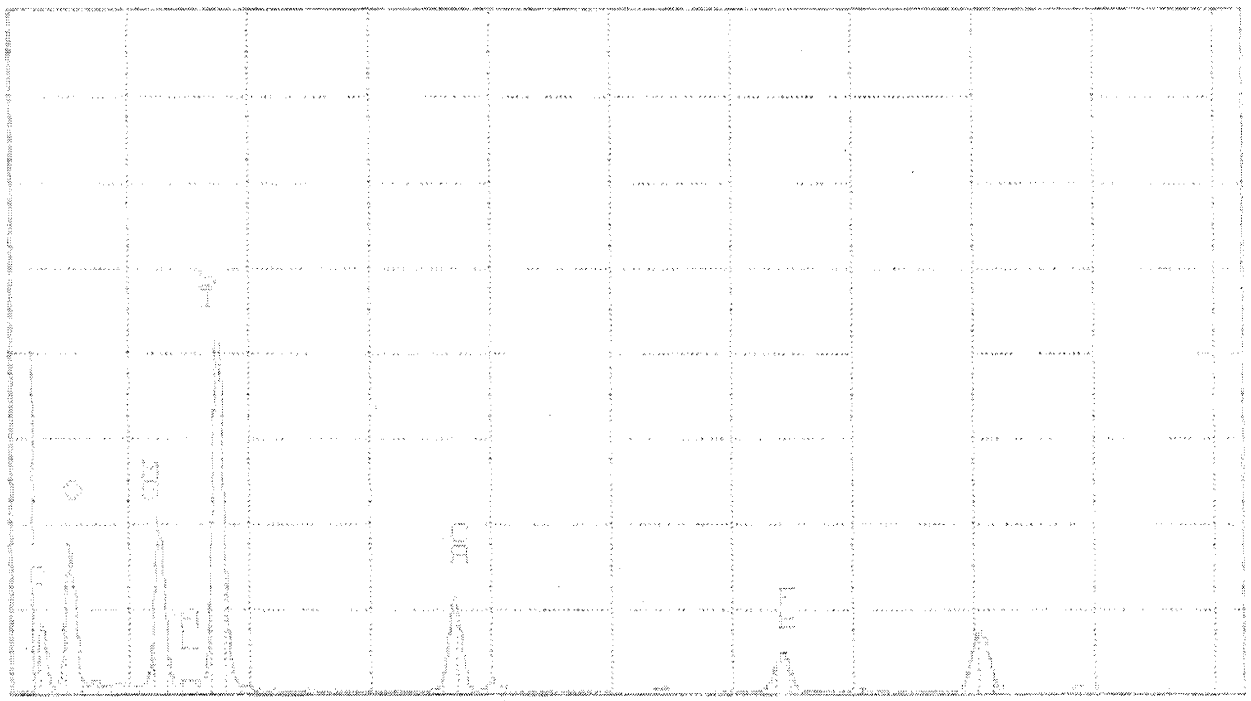
Element	Net Counts	
Si-K	12113 +/-	186
Mg-K	5210 +/-	179
Al-K	130 +/-	67
Ca-K	4064 +/-	179
Fe-K	2109 +/-	64
Na-K	169 +/-	80
K -K	40 +/-	26

MARKS L-MS:SIK EDS:MGK EDS:ALK EDS:CAK EDS:FEK EDS:NAK FIDS:

041210-41 APPROV

EL-LINE	PEAK	K-RATION	Cor/CREF	ATOM%	EL WT%	WT%	FORMULA
SI-K	12113	1.000	1.000	20.00	27.10	58.08	SIO2
MG-K	5210	1.000	0.430	10.45	11.66	19.43	MgO
AL-K	130	0.754	0.068	0.18	0.22	0.42	Al2O3
CA-K	4064	0.919	0.319	3.65	8.64	12.19	CAO
FE-K	2109	1.397	0.244	2.54	4.41	4.44	FEOTO
NA-K	169	0.589	0.008	0.20	0.21	0.63	NA2O
K -K	40	1.059	0.004	0.05	0.10	0.12	K2O
O			1.675	61.12	45.47		

IN-SEM University of Nottingham / JEM. WED 06-Dec-94 10:36
Cursor: 0.000keV = 0



0.000 B- S VFS = 2048 10.240
70 041210-41 SPGAO

1.00

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	58.08	Si+4	7.9453	7.9453							
Al2O3	0.42	Al+3	0.0677	0.0547	**0.0130**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	9.44	Fe+3	0.3207			0.3207	0.0000				
MgO	19.43	Mg+2	3.9626			3.9626	**0.0000**				
MnO	0	Fe+2	0.7235			0.7038	**0.0197**				
CaO	12.1	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.43	Ca+2	1.7733					1.7733	0.0000		
K2O	0.12	Na+	0.1140					0.1140	**0.0000**	0.0000	0.0000
		K+	0.0209							0.0209	0.0000
Total	100.02		Excess	T site	**0.0130**	C site	**0.0197**	B site	**0**	A site	**0**
			Total	8		5.0000		1.8874		0.0209	0.0000
			%Fill	100		100		94.3684			

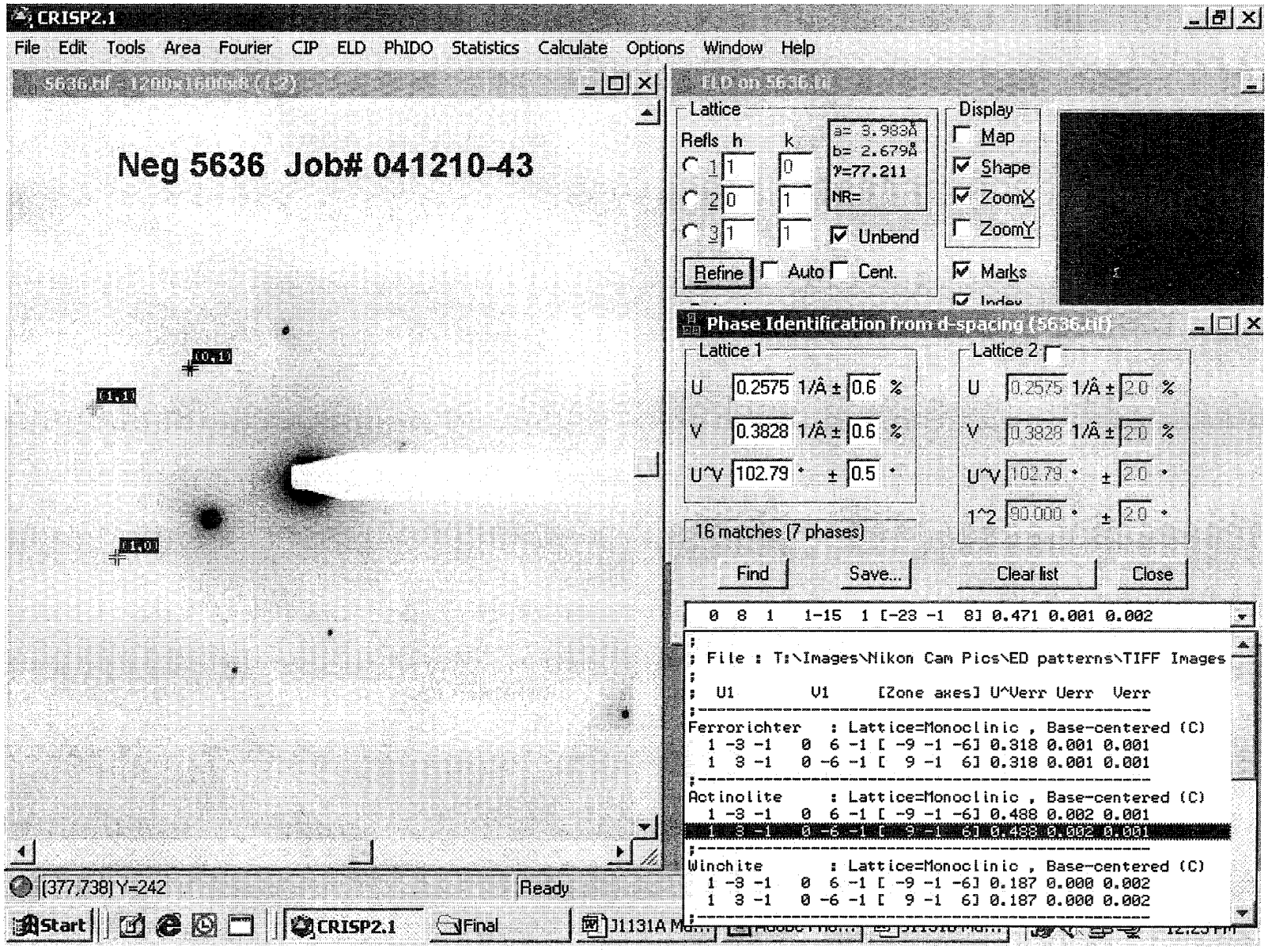
Prefix	none
Name	actinolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-41-825

Values		Satisfied Conditions
(Ca,Na)@B	1.89	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.11	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.77	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.02	Si > 7.5
Mg/(Mg+Fe2)	0.85	(Mg/(Mg+Fe2))< 0.9
Si	7.95	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[9 -1 6]



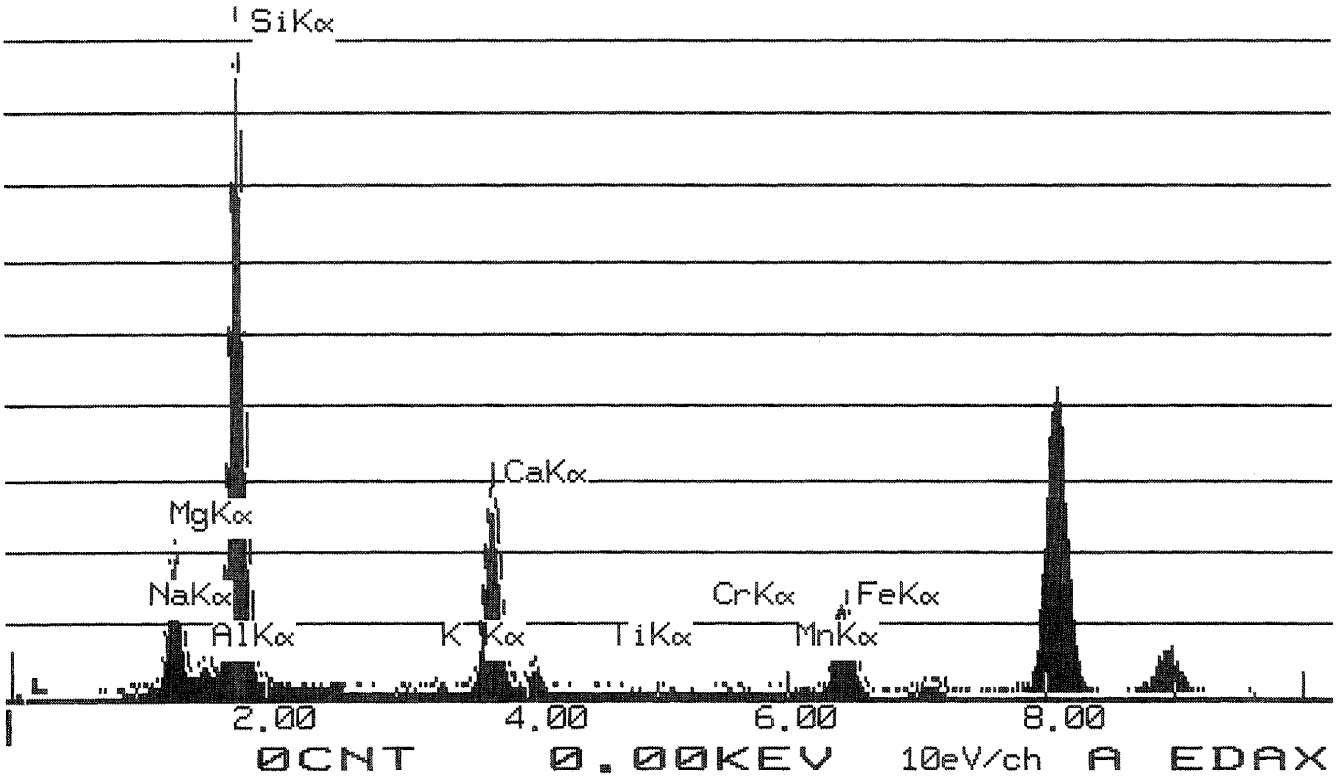
INTE-% :
LABEL = 041210-43 SP 15381
02-DEC-72 01:35:11
100.260 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
NAK	0.209	0.187	0.252
MGK	24.686	10.410	17.260
ALK	3.850	0.975	1.843
SIK	111.929	26.546	56.790
K K	1.267	0.499	0.601
CAK	41.193	9.314	13.033
TIK	0.748	0.239	0.398
CRK	1.197	0.377	0.550
MNK	0.728	0.238	0.307
FEK	20.876	6.271	8.965

TOTAL			100.000

USED PEIF: USER

01-DEC-04 01:35:43 SUPER QUANT
RATE= 29CPS TIME= 100LSEC
FS= 1205/ 1205 PRST= 200LSEC
A =041210-43 SP 15381



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.79	Si+4	7.8591	7.8591							
Al2O3	1.843	Al+3	0.3006	0.1409	**0.1596**						
TiO2	0.398	Ti+4	0.0414	0.0000	**0.0414**						
Cr2O3	0.55	Cr+3	0.0602			0.0602	0.0000				
Fe(total)O	8.965	Fe+3	0.0093			0.0093	0.0000				
MgO	17.26	Mg+2	3.5609			3.5609	**0.0000**				
MnO	0.307	Fe+2	1.0270			1.0270	**0.0000**				
CaO	13.033	Mn+2	0.0360			0.0360	**0.0000**				
Na2O	0.252	Ca+2	1.9323					1.9323	0.0000		
K2O	0.61	Na+	0.0676					0.0676	**0.0000**	0.0000	0.0000
		K+	0.1077							0.1077	0.0000
Total	**100.008**		**Excess**	T site	**0.2011**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.8946**		**1.9999**		**0.1077**	**0.0000**
			%Fill	**100**		**97.891**		**99.9935**			

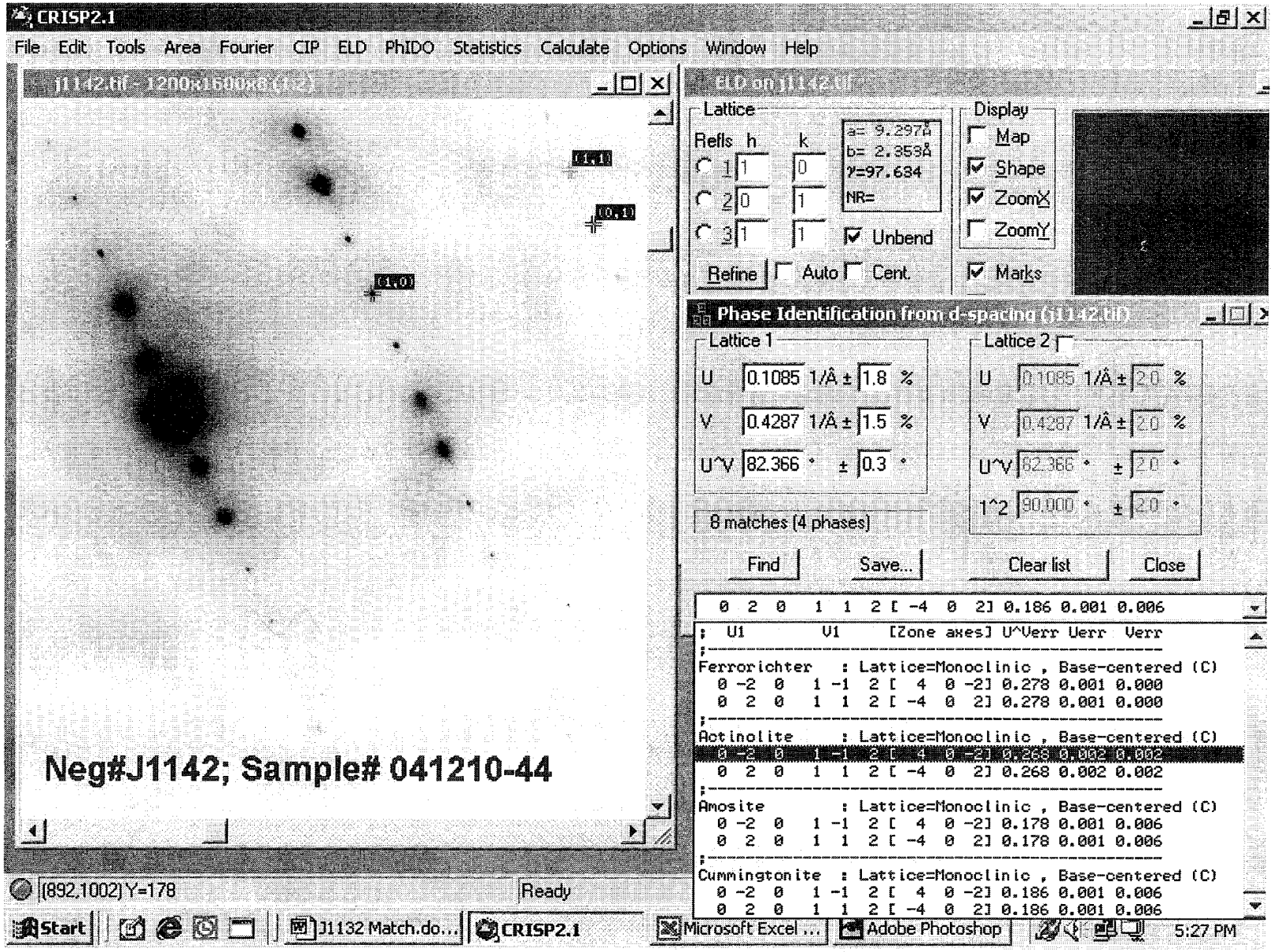
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-43-15381**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.07	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.93	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.11	Si > 7.5
Mg/(Mg+Fe2)	0.78	(Mg/(Mg+Fe2))< 0.9
Si	7.86	

Mineral Analysis Program (Version 5.0)

Neg#J1142; Sample# 041210-44
ACTINOLITE
[-2 0 1]



NORMFIT QUANTITY
Standardless Analysis

Refit _K K' _K K"
Refit _ALK' _ALK"
Chi-sqd = 8.80

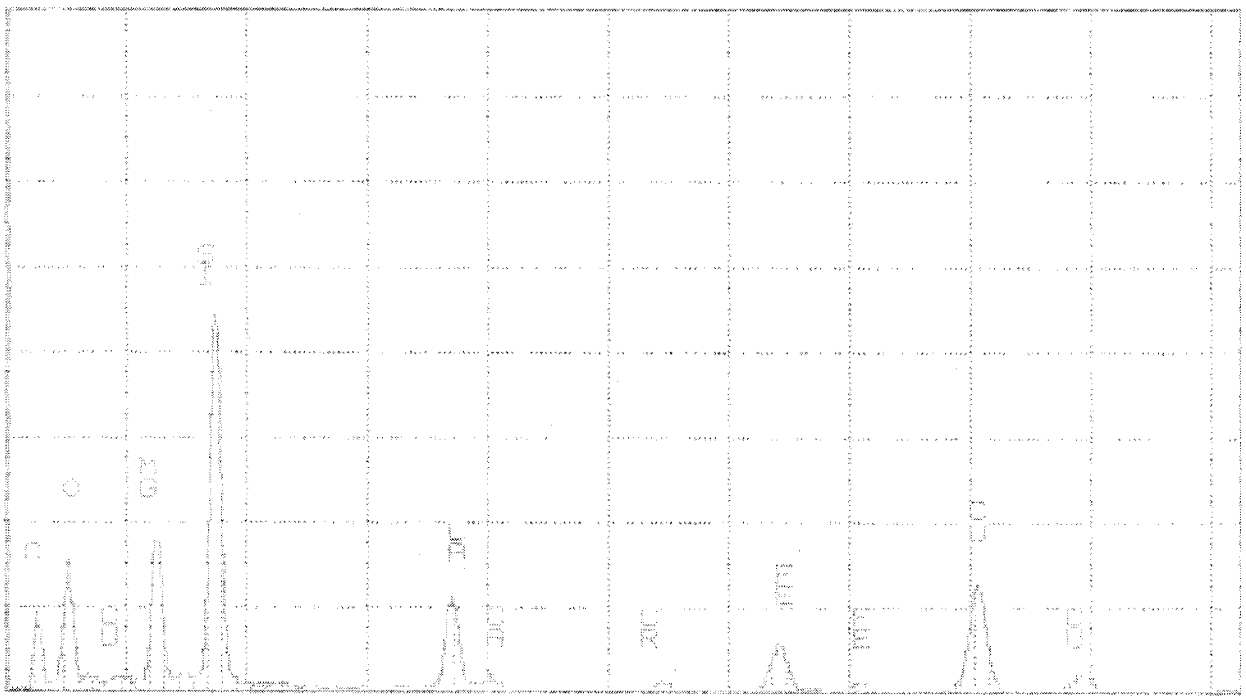
Element	Net Counts
Si-K	12442 +/- 161
Mg-K	4601 +/- 145
Al-K	216 +/- 75
Ca-K	4902 +/- 173
Fe-K	2567 +/- 104
Na-K	196 +/- 102
K-K	106 +/- 29

REF.S EDS:SIK EDS:MGK EDS:ALK EDS:CAK EDS:FEK EDS:NAK
EDS:KK K

041210-44 SPS.3

EL-LINE	PEAK	K-FACTOR	CALC/STREF	ATOM%	EL WT%	WT%	FORMULA
SI-K	12442	1.000	1.000	21.10	27.55	59.03	SIO2
MG-K	4601	1.000	0.343	9.03	10.01	16.69	MGO
AL-K	216	0.750	0.013	0.28	0.35	0.67	AL2O3
CA-K	4902	0.947	0.303	6.51	8.23	11.44	CAO
FE-K	2567	1.379	0.294	3.42	7.82	11.17	FE2O3
NA-K	196	0.549	0.004	0.22	0.23	0.40	NA2O3
K-K	106	1.009	0.009	0.14	0.25	0.30	K2O
O			1.600	61.30	45.45		

TN-5500 University of Washington / JEOL THU 02-DEC-04 18:17:7
Current 0 000KeV = 0



0 000 VHS = 2048 1R .100
0 041210-44 SPS.3

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	59.03	Si+4	8.0000	8.0000							
Al2O3	0.67	Al+3	0.1213	0.0000	**0.1213**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	11.17	Fe+3	0.0195			0.0195	0.0000				
MgO	16.69	Mg+2	3.4651			3.4651	**0.0000**				
MnO	0	Fe+2	1.2936			1.2936	**0.0000**				
CaO	11.67	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0.48	Ca+2	1.7478					1.7478	0.0000		
K2O	0.3	Na+	0.1589					0.1589	**0.0000**	0.0000	0.0000
		K+	0.0662							0.0662	0.0000
Total	**100.01**		**Excess**	T site	**0.1213**	C site	**0.0000**	B site	**0**	A site	**0**
			Total	**8**		**4.8995**		**1.9067**		**0.0662**	**0.0000**
			%Fill	**100**		**97.9898**		**95.3359**			

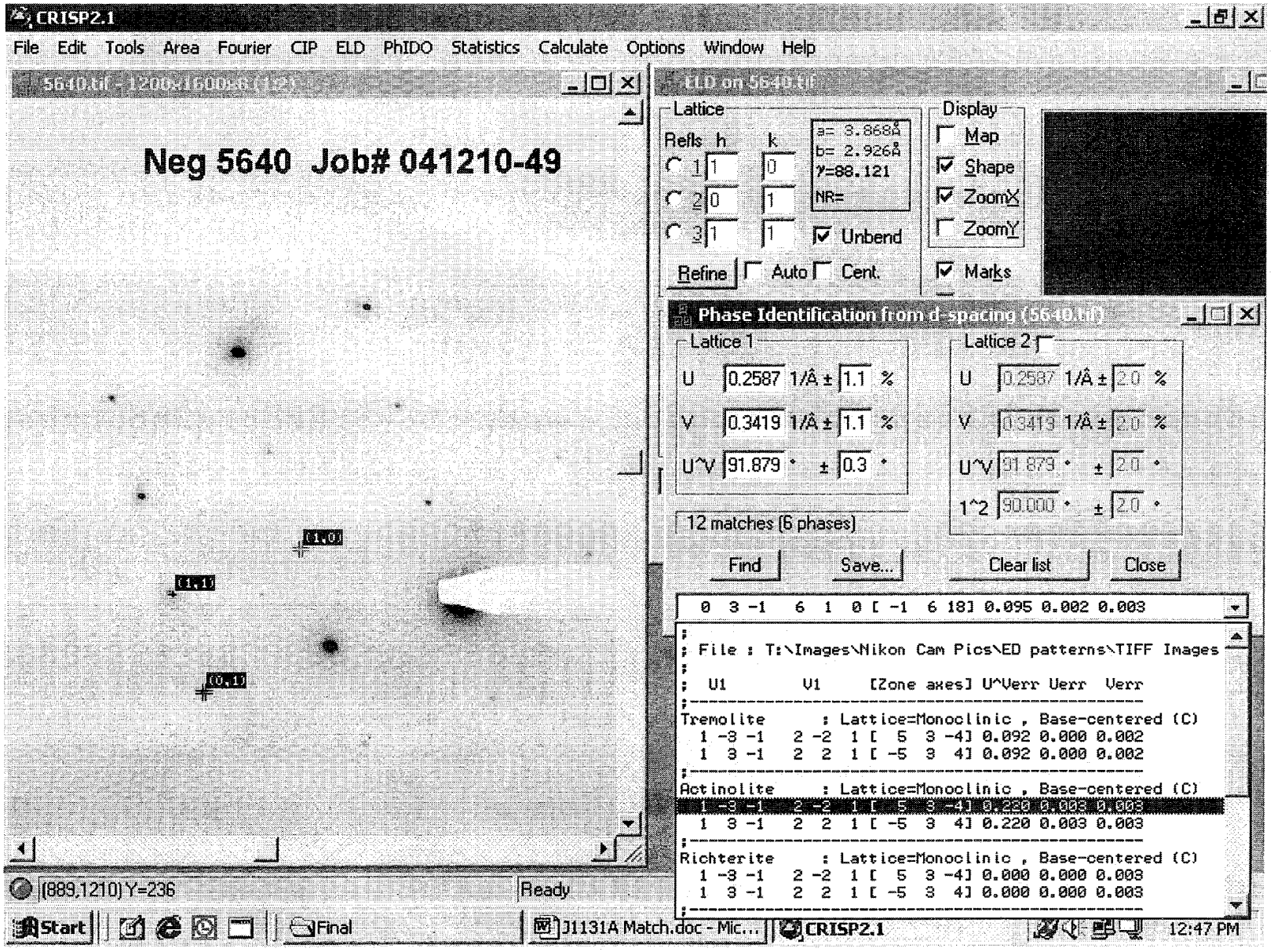
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-44-829**

Values		Satisfied Conditions
(Ca,Na)@B	1.91	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.16	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.75	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.07	Si > 7.5
Mg/(Mg+Fe2)	0.73	(Mg/(Mg+Fe2))< 0.9
Si	8.00	

Mineral Analysis Program (Version 5.0)

ACTINOLITE
[5 3 -4]



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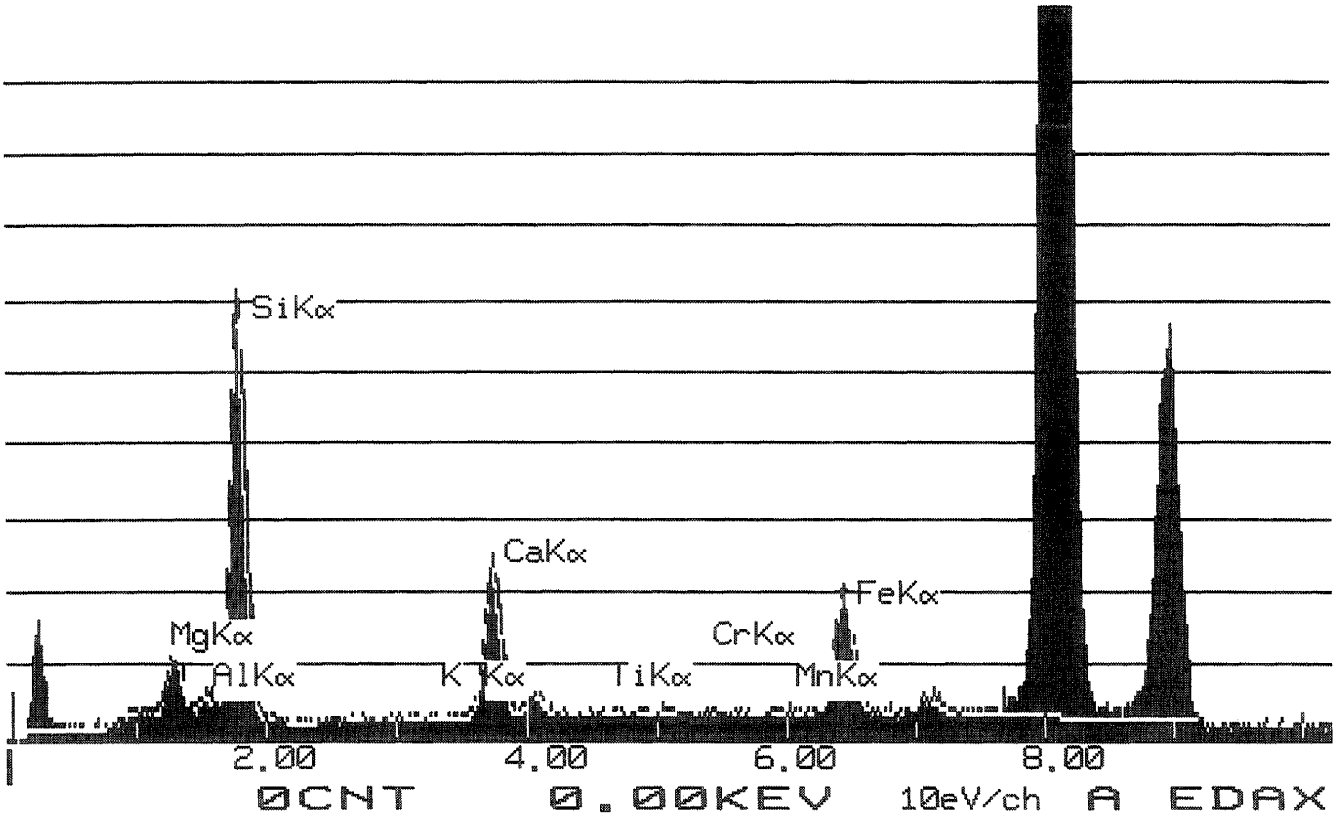
RATE= 1907CPS TIME= 34LSEC
FS= 1029/ 1029 PRST= 200LSEC
A =041210-49 SP 15484



INTE-% :
LABEL = 041210-49 SP 15484
03-DEC-72 06:19:28
34.955 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	24.603	6.321	10.482
ALK	6.265	0.967	1.827
SIK	177.456	25.644	54.861
K K	0.601	0.144	0.174
CAK	73.208	10.086	14.113
FEK	70.862	12.970	18.543
TOTAL			100.000

USED PEIF: USER

	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	54.861	Si+4	7.9175	7.9175							
Al2O3	1.827	Al+3	0.3107	0.0825	**0.2282**						
TiO2	0	Ti+4	0.0000	0.0000	**0.0000**						
Cr2O3	0	Cr+3	0.0000			0.0000	0.0000				
Fe(total)O	18.543	Fe+3	0.0201			0.0201	0.0000				
MgO	10.482	Mg+2	2.2552			2.2552	**0.0000**				
MnO	0	Fe+2	2.2154			2.2154	**0.0000**				
CaO	14.113	Mn+2	0.0000			0.0000	**0.0000**				
Na2O	0	Ca+2	2.1821					2.0000	0.1821		
K2O	0.174	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0320							0.0320	0.0000
Total	**100**		**Excess**	T site	**0.2282**	C site	**0.0000**	B site	**0.1820569**	A site	**0**
			Total	**8**		**4.7190**		**2.0000**		**0.0320**	**0.0000**
			%Fill	**100**		**94.3796**		**100**			

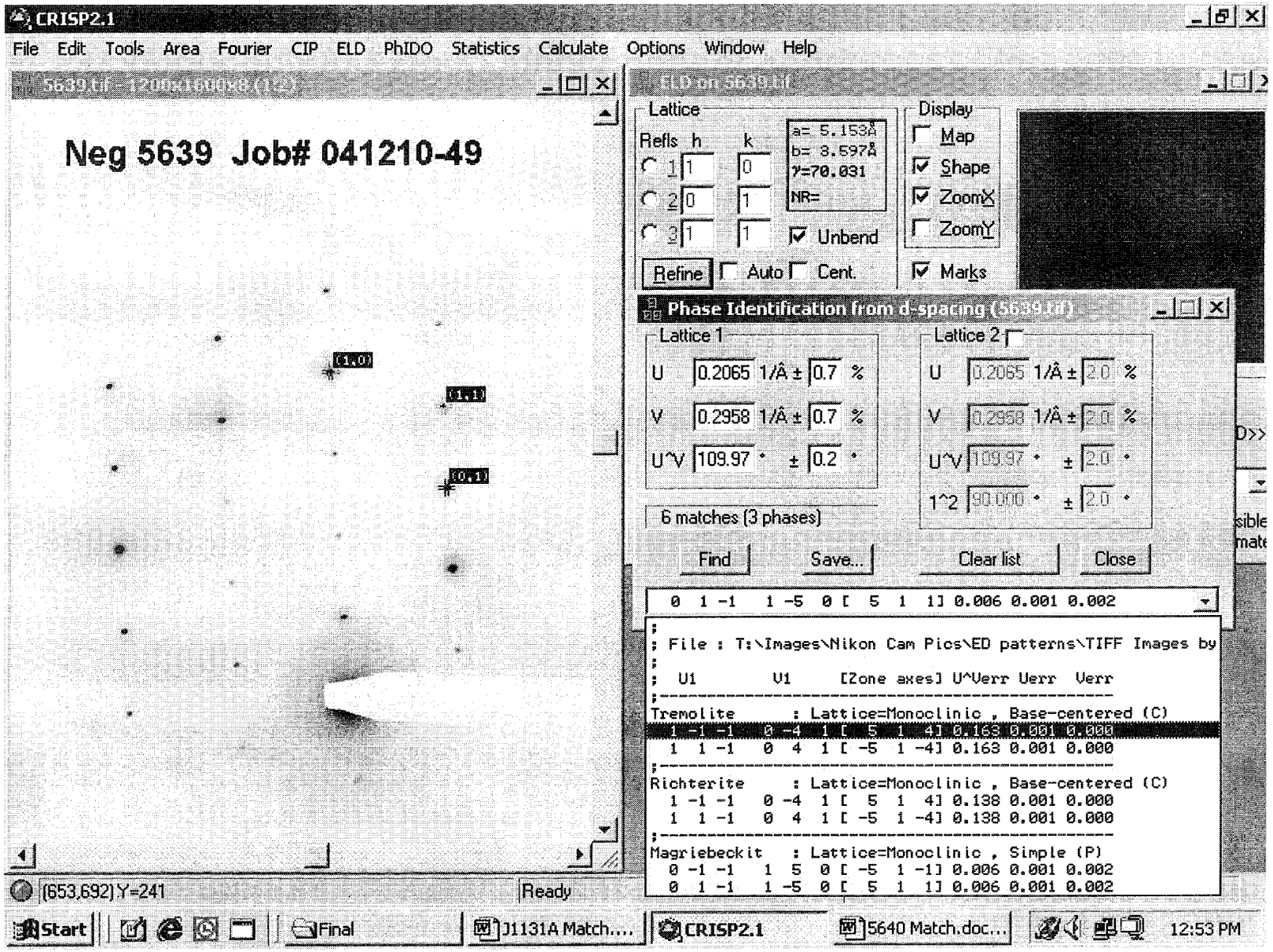
Prefix none
Name actinolite
Modifier none
Group Calcic Amphibole

Sample # **041210-49-15484**

Values		Satisfied Conditions
(Ca,Na)@B	2.00	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	2.00	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.03	Si > 7.5
Mg/(Mg+Fe2)	0.50	(Mg/(Mg+Fe2))< 0.9
Si	7.92	

Mineral Analysis Program (Version 5.0)

TREMOLITE
[5 1 4]



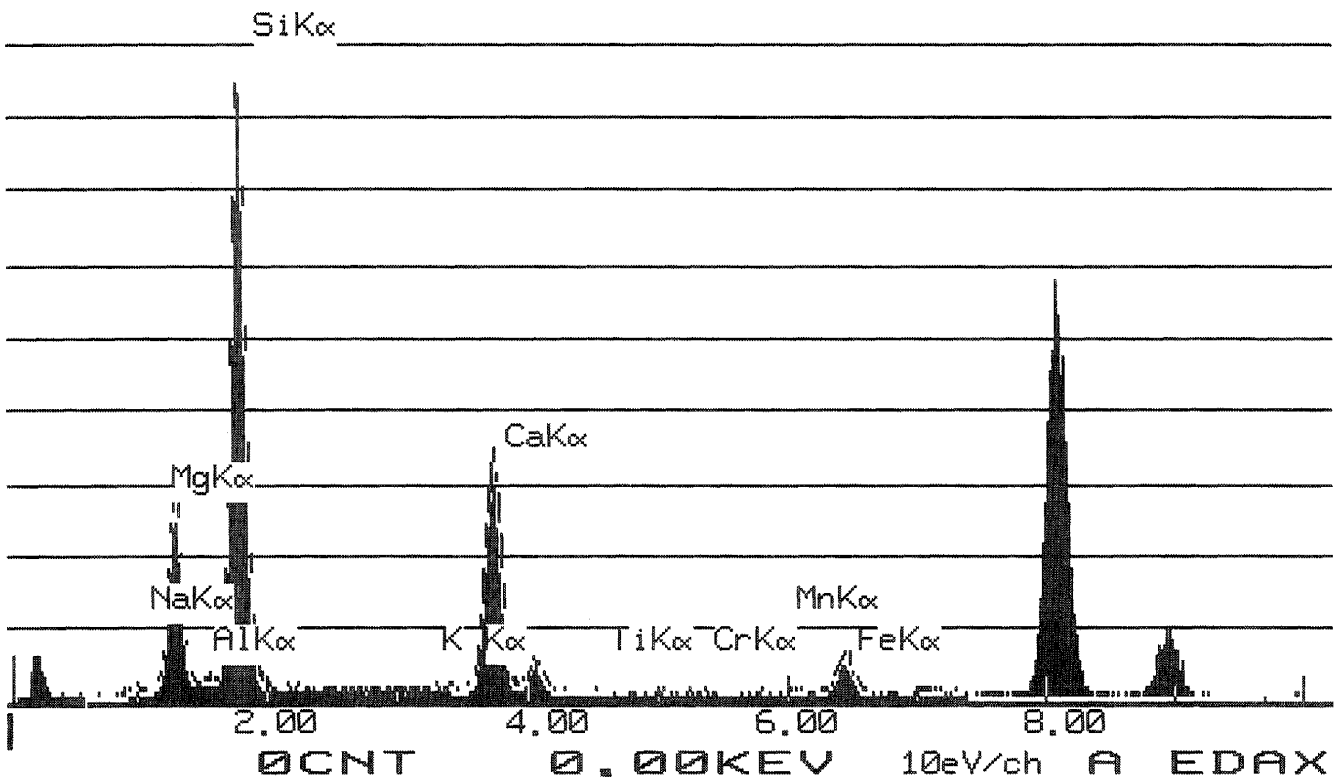
INTE-% :
LABEL = 041210-49 SP 15483
02-DEC-72 03:56:35
162.968 LIVE SECONDS

ELEM	CPS	WT % ELEM	WT % OXIDE
MGK	14.935	14.143	23.450
ALK	0.270	0.154	0.290
SIK	49.764	26.503	56.699
K K	0.153	0.136	0.164
CAK	21.360	10.846	15.175
TIK	0.147	0.105	0.176
CRK	0.110	0.078	0.114
MNK	0.202	0.148	0.192
FEK	3.878	2.616	3.740

TOTAL			100.000

USED PEIF: USER

01-DEC-04 03:57:10 SUPER QUANT
RATE= 19CPS TIME= 163LSEC
FS= 887/ 887 PRST= 200LSEC
A =041210-49 SP 15483



	Wt Percent		ions	T site	Leftover	C site	Leftover	B site	Leftover	A site	Leftover
SiO2	56.699	Si+4	7.7185	7.7185							
Al2O3	0.29	Al+3	0.0465	0.0465	**0.0000**						
TiO2	0.176	Ti+4	0.0180	0.0180	**0.0000**						
Cr2O3	0.114	Cr+3	0.0123			0.0123	0.0000				
Fe(total)O	3.74	Fe+3	0.0115			0.0115	0.0000				
MgO	23.45	Mg+2	4.7591			4.7591	**0.0000**				
MnO	0.192	Fe+2	0.4130			0.2171	**0.1958**				
CaO	15.175	Mn+2	0.0221			0.0000	**0.0221**				
Na2O	0	Ca+2	2.2131					1.7821	0.4311		
K2O	0.164	Na+	0.0000					0.0000	**0.0000**	0.0000	0.0000
		K+	0.0285							0.0285	0.0000
Total	100		Excess	T site	**0.0000**	C site	**0.2179**	B site	**0.4310808**	A site	**0**
			Total	7.783		5.0000		1.7821		0.0285	0.0000
			%Fill	97.288		100		89.1026			

Prefix	none
Name	tremolite
Modifier	none
Group	Calcic Amphibole

Sample # 041210-49-15483

Values		Satisfied Conditions
(Ca,Na)@B	1.78	(Ca,Na)@B >= 1 and Na@B < 0.5
Na@B	0.00	Ca@B >= 1.5 and (Na,K)@A < 0.5
Ca@B	1.78	(Mg/(Mg+Fe2))>= 0.5
(Na,K)@A	0.03	Si > 7.5
Mg/(Mg+Fe2)	0.92	(Mg/(Mg+Fe2))>= 0.9
Si	7.72	

Mineral Analysis Program (Version 5.0)