



walter c. mc crone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

file

14 June 1977

Dr. Joseph P. Simko, Jr.
Colgate-Palmolive Company
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

Using transmission electron microscopy and selected area electron diffraction, we have analyzed a sample of talc designated as Lot no. 6-1-2. We found no asbestiform minerals in this talc. A general description of this talc is as follows: some of the talc showed shards and rolled talc, the level of fines was moderate and the talc particles were generally equiaxial rather than large thin plates.

Thank you for consulting McCrone Associates. If there are any further questions concerning this report, or the data herein, please feel free to contact me.

Very truly yours,

G. R. Grieger
Senior Research Physicist

GRG:jd
Ref. MA 5500



03884

8

3

Stend.

PROJECT COST RECORD

PROJECT TITLE: Talc samples PROJECT NO.: MA3884
 SPONSOR: COLGATE-PALMOLIVE COMPANY DATE RECEIVED: 3/12/74
 ADDRESS: 909 River Road P.O. NO.: 615139
Piscataway, New Jersey 08854 COMMITMENTS: \$

Contact: Mr. J. P. Simko, Jr. Telephone No.

SUMMARY OF PROBLEM:

Lab Notebook References:

No. pp. Initials
 No. pp. Initials
 No. pp. Initials
 Photomicrographic record no.

Sample disposal:
 returned
 filed (where)
 discarded

DIRECT COSTS

Individual time (Exclusive of oper. time on inst. below)				Travel				Charge Summary	
Date	Name	Hours	Charge	Date	Traveler	Destination	Cost		
3/12/74	RJP+JC	3 ^{1/2}	200					Individuals	\$
								Instrument	
								Travel	
								Outside	
								Other	
Instrument time				Outside Services				Total Charge	\$
	Date	Hours	Charge		Date	Company	Cost		
SEM				Photo					
TEM	3/13/74	5	600	Photo					
XRD				Materials					
EMP				Supplies					
IMP									
ESCA	5-17-74		400						

(400)

PROJECT LEADER IMS TOTAL CHARGE \$ 2800
 ROUGH DRAFT BILLED TO CLIENT \$ 790
 REPORT RECEIVED INVOICE NO. (S) 7661



walter c. mcrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

Review
RMS
RZM
DAB
~~SM~~
NN
PE

\$490

3

26 March 1974

Mr. J. M. Simko, Jr.
Colgate-Palmolive Company
909 River Road
Piscataway, NJ 08854

Dear Mr. Simko:

As per your request, we have examined three talc samples, 85, 120 and 123, that you had submitted to us for chrysotile and tremolite analysis using TEM and SAED methods and have seen no evidence of chrysotile or of fibrous amphiboles in any of the samples.

We noted fibrous inorganic material in all samples - some of which resembled chrysotile or tremolite. However, on consideration of the diffraction patterns from these fibers, we found them to be non-asbestiform mainly "rolled talc" or halloysite (one of the kaolin group of minerals). I have appended representative photomicrographs in order to show typical material and how closely some of the fibers resemble (morphologically) chrysotile or one of the amphiboles.

Thank you for consulting McCrone Associates. If you have any questions regarding the material contained in this report, please do not hesitate to call.

Yours sincerely,

Richard Shimps
Research Chemist

Enclosure
RS:smg
Ref. 3884

Memo from

FRANCES EINBINDER

201 463 1212 X379

J. P. Simko

R.S. Schreiber



walter c. mcrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

File

26 March 1974

Mr. J. M. Simko, Jr.
Colgate-Palmolive Company
909 River Road
Piscataway, NJ 08854

Dear Mr. Simko:

As per your request, we have examined three talc samples, 85, 120 and 123, that you had submitted to us for chrysotile and tremolite analysis using TEM and SAED methods and have seen no evidence of chrysotile or of fibrous amphiboles in any of the samples.

We noted fibrous inorganic material in all samples - some of which resembled chrysotile or tremolite. However, on consideration of the diffraction patterns from these fibers, we found them to be non-asbestiform mainly "rolled talc" or halloysite (one of the kaolin group of minerals). I have appended representative photomicrographs in order to show typical material and how closely some of the fibers resemble (morphologically) chrysotile or one of the amphiboles.

Thank you for consulting McCrone Associates. If you have any questions regarding the material contained in this report, please do not hesitate to call.

Yours sincerely,

Richard Shimps
Research Chemist

Enclosure
RS:smg
Ref. 3884

RECEIVED MAR 12 1974

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

March 8, 1974

Mr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, Illinois 60616

Dear Ian:

I am enclosing three talc samples, labeled No. 85, No. 120 and No. 123, for analysis. We want you to determine chrysotile and tremolite. Please use TEM and SAED as the method as you did for the other materials we sent you (report dated 2/15/74 by Richard Shimps, Ref. 3805). Please attach the number 615139 on all charges billed to our company for this work.

Many thanks.

Sincerely,



J. P. Simko, Jr.

JPS:mg

Encl.

MA 3884

000000

2

3

Shield.

PROJECT COST RECORD

PROJECT TITLE: TEM and SAED of 7 talc samples
 SPONSOR: COLGATE-PALMOLIVE CO.
 ADDRESS: 909 River Road
Piscataway, New Jersey 08854

PROJECT NO.: MA 5259
 DATE RECEIVED: 3 8 76
 P.O. NO.: 634965
 COMMITMENTS: \$ 1750

Contact: J. P. Simko Telephone No. (201) 463 1212

SUMMARY OF PROBLEM:

Lab Notebook References:

No. pp. Initials

No. pp. Initials

No. pp. Initials

Photomicrographic record no.

Sample disposal:

returned

filed (where)

discarded

DIRECT COSTS

Individual time (Exclusive of oper. time on inst. below)				Travel				Charge Summary	
Date	Name	Hours	Charge	Date	Traveler	Destination	Cost		
								Individuals	\$
								Instrument	
								Travel	
								Outside	
								Other	
Instrument time				Outside Services				Total Charge	\$
	Date	Hours	Charge		Date	Company	Cost		
SEM				Photo					
TEM	3-5-76		2000	Photo					
XRD				Materials					
EMP				Supplies					
IMP									
ESCA									
								OK for billing	
								Project Ldr	
								Group Ldr	

PROJECT LEADER GG

TOTAL CHARGE \$ 2000

ROUGH DRAFT

BILLED TO CLIENT \$

REPORT RECEIVED

INVOICE NO. (S)



file
walter c. mocrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

11 May 1977

Dr. J. P. Simko, Jr.
Colgate-Palmolive Company
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

The examination of your latest talc sample, utilizing transmission electron microscopical techniques, has been completed. The sample was designated: Colgate, MTR-Talc-Code M-6670-2, Lot No. 5-2-3, Date 5-3-77.

This specimen was found to contain, principally, talc with a wide size range but without an excessive amount of material at either extreme of particle size. Talc shards were found as were occasional talc ribbons. Goethite fibers were found with the largest one being about $1.6 \times .15 \mu\text{m}$ in size. Goethite is an iron oxyhydroxide and is associated with calcite, quartz, and other minerals. Additionally, goethite may be found as a weathering product of various minerals, as a direct precipitate in various water sources or from an iron gel. No asbestiform material was detected.

If any questions should arise concerning this analysis, please do not hesitate to contact me directly.

Sincerely,

Richard J. Shimps
Research Chemist

RJS:jd
Ref. MA 5500

file copy



walter c. mocrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS - MICROSCOPY - SMALL PARTICLE PROBLEMS - SOLID-STATE CHEMISTRY

9 May 1977

Dr. J. P. Simko, Jr.
Colgate-Palmolive Company
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

The transmission electron microscopical examination of your latest talc sample had been completed. The sample bore the following designation: Cogate-preshipment sample, MTR Talc, Code M6670-2, Lot no. 4-26-27, Date 4-26-77.

This sample was found to consist mainly of nonfibrous talc with a wide particle size distribution but without an excessive amount of fine material. Fibrous aspect talc particles were also found to be present such as shards and ribbons. No asbestiform material was found to be present.

Thank you for consulting McCrone Associates once again. If any questions should arise concerning this analysis, please do not hesitate to call.

Sincerely,

Richard J. Shimps
Research Chemist

RJS:jd
Ref. MA 5500

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

RECEIVED JUN 4 1976

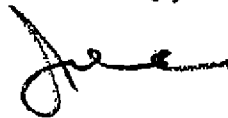
June 3, 1976

Mr. Gene Grieger
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Gene:

Enclosed is one sample of talc for study by TEM and SAED analysis, lot number 5-28-29. I will telephone you the Purchase Order number as soon as possible. Many thanks.

Sincerely,



J. P. Simko

JPS:da

Enc.

RECEIVED JUN 4 1976



walter c. mocrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

8 September 1976

Dr. Joseph Simko
Colgate-Palmolive Company
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

Using transmission electron microscopy and selected area electron diffraction we have examined a sample of talc designated as 8-14-15. In this sample we found no asbestiform minerals, neither amphiboles nor serpentines. We found that this sample was very platy and did have a large number of fines. We also found that in some cases in these fines there were some indications of rolled talc fibers, which we identified as talc with selected area electron diffraction.

If there are any further questions concerning this report or the data contained therein, please contact us.

Very truly yours,


Gene R. Grieger
Senior Research Physicist

GRG:fe
ref: 5500



walter c. m^ccrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

6 August 1976

Mr. J. P. Simko, Jr.
Colgate-Palmolive Company
909 River Road
Piscataway, New Jersey 08854

Dear Mr. Simko:

Using TEM and SAED, we have examined a sample of your talc designated as Lot 7-24-25. We found this to be an excellent quality talc, free of asbestiform minerals, both amphibole and serpentine. The talc was generally quite platy and quite acceptable.

Thank you for consulting McCrone Associates and if you should have any questions concerning these results, please contact me.

Yours sincerely,

Gene R. Grieger
Senior Research Physicist

GRG:fe
ref: 5500



file
walter c. mccrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

6 August 1976

Mr. J. P. Simko, Jr.
Colgate-Palmolive Company
909 River Road
Piscataway, New Jersey 08854

Dear Mr. Simko:

This letter records the results of our analysis of a sample of talc designated as Lot 7-18-19.

In our first examination of this talc we found a single fiber of chrysotile. The SAED pattern was extremely weak and does not show up on the print; however, under a 10X magnifier on the negative we were positively able to confirm the fact that this is chrysotile. This would put the relative percentage of chrysotile at approximately 1-2 ppm. Upon request, we subsequently re-examined this material and in our second and third examinations of the same material, taking different samples and different lots from the sample, we did not find any further examples of chrysotile, thus the chrysotile observed in our first examination may well have been contamination from the atmosphere or some other source.

In our third examination we did find one particle of antigorite, which is also a serpentine but is not classified as an asbestos mineral. Electron micrographs of the chrysotile fiber and the antigorite particle are also included with this report.

We did find a high percentage of talc shards, blocky talc and fibrous talc in this sample and I would estimate that between 20 and 35% was non-platy talc.

We are also including some SAED patterns which we feel may help in your future examination of these minerals. Enclosed is a standard talc electron diffraction pattern and a standard chrysotile diffraction pattern, both taken at 200 kV.

Thank you for consulting McCrone Associates and if you should have any questions concerning these results, please contact us.

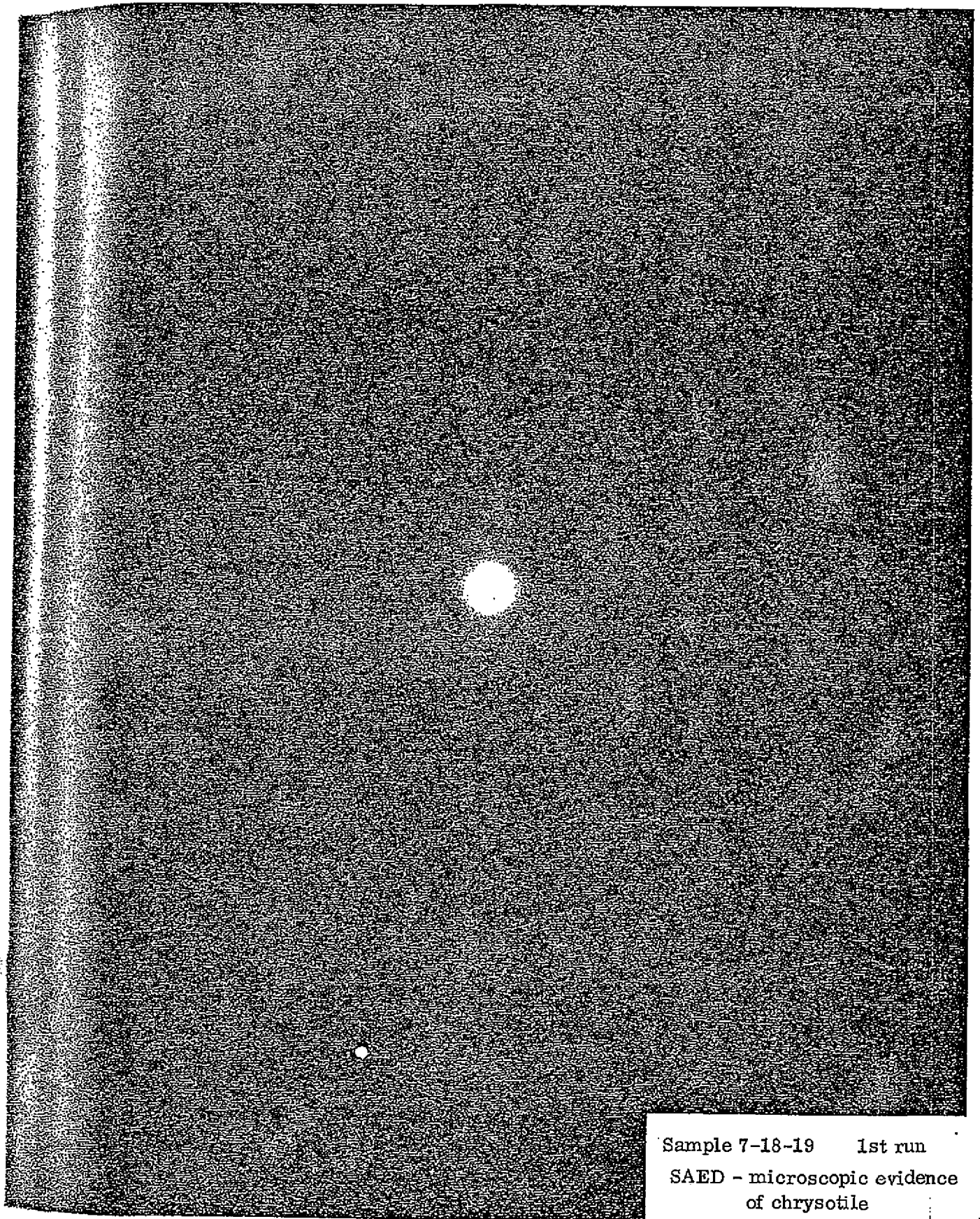
Yours sincerely,

Gene R. Grieger
Senior Research Physicist

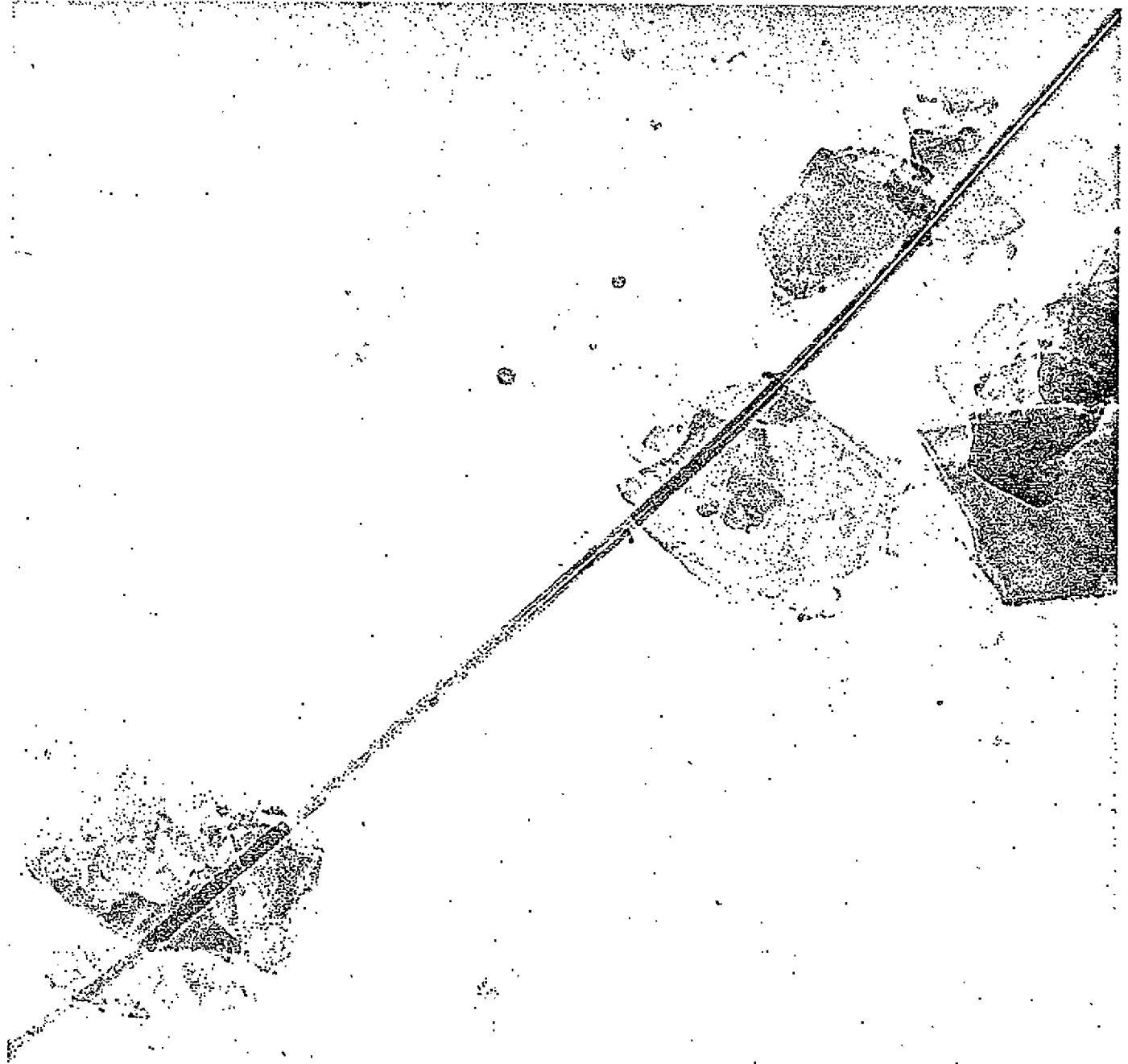
GRG:fe
ref: 5500

2820 SOUTH MICHIGAN AVENUE • CHICAGO, ILLINOIS 60616 • 312/842-7100 • CABLE: CHEMICRONE

QE-CPC00004090



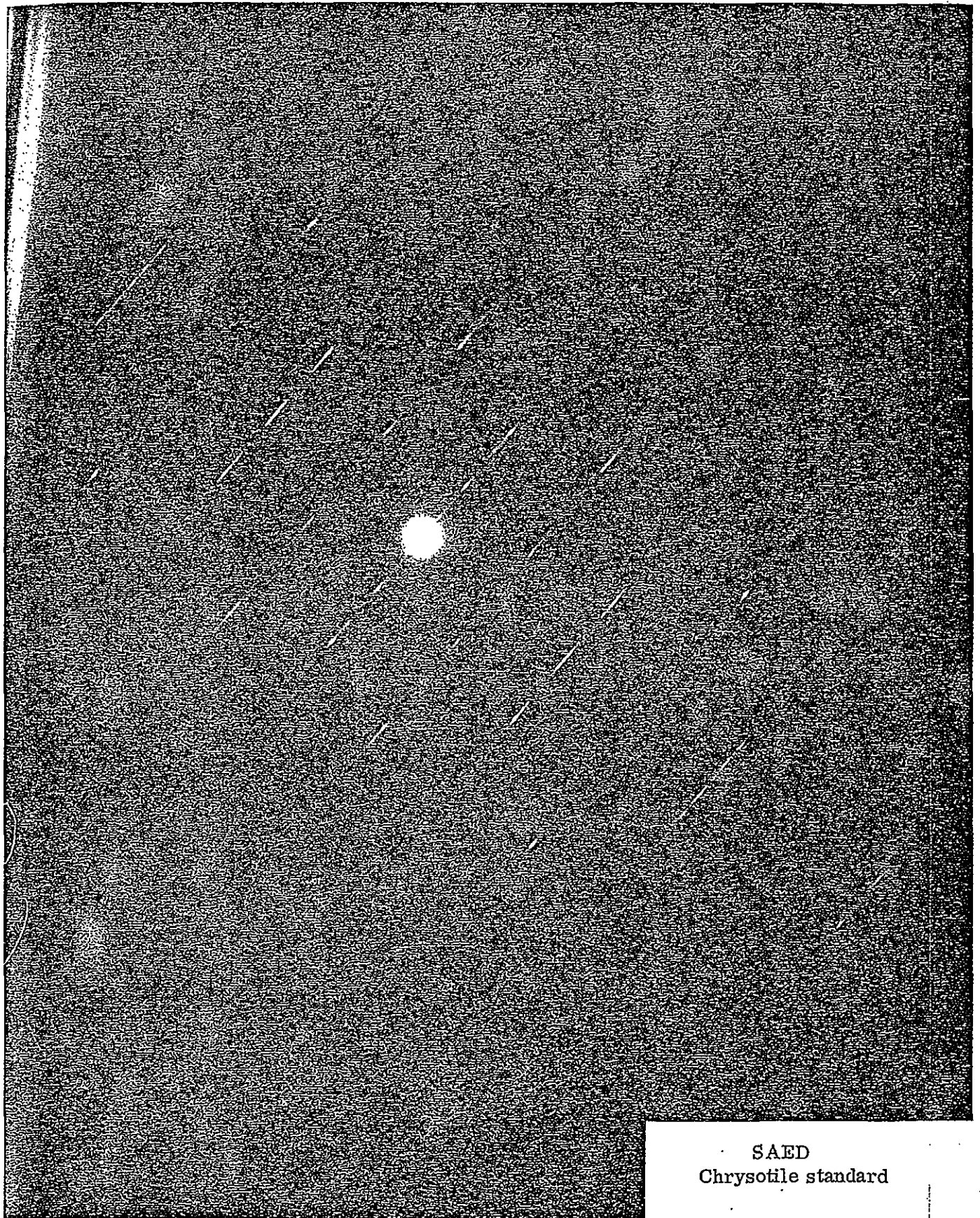
Sample 7-18-19 1st run
SAED - microscopic evidence
of chrysotile



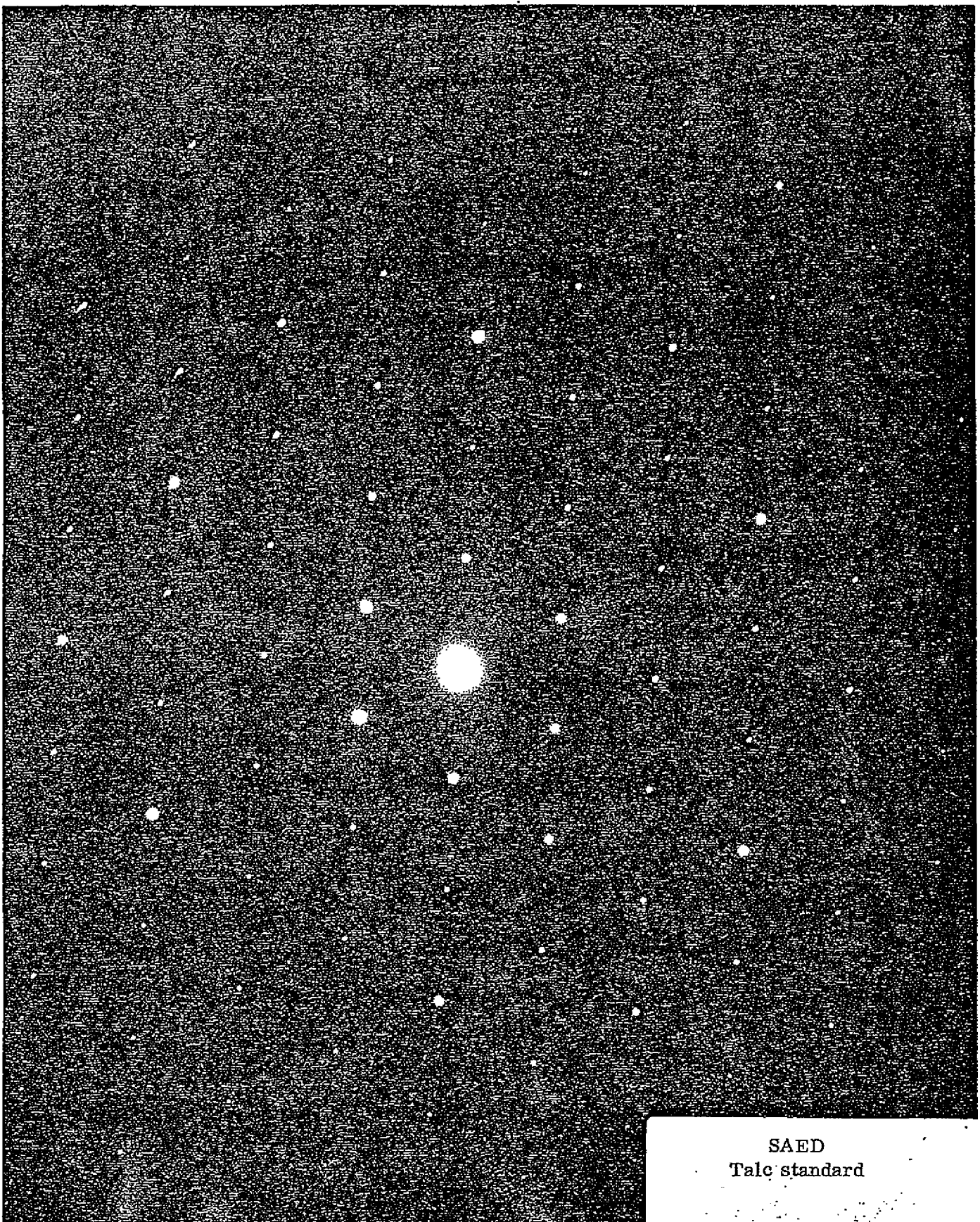
Sample 7-18-19 1st run
(50,000X)

walter c. m^ccrone associates, inc.

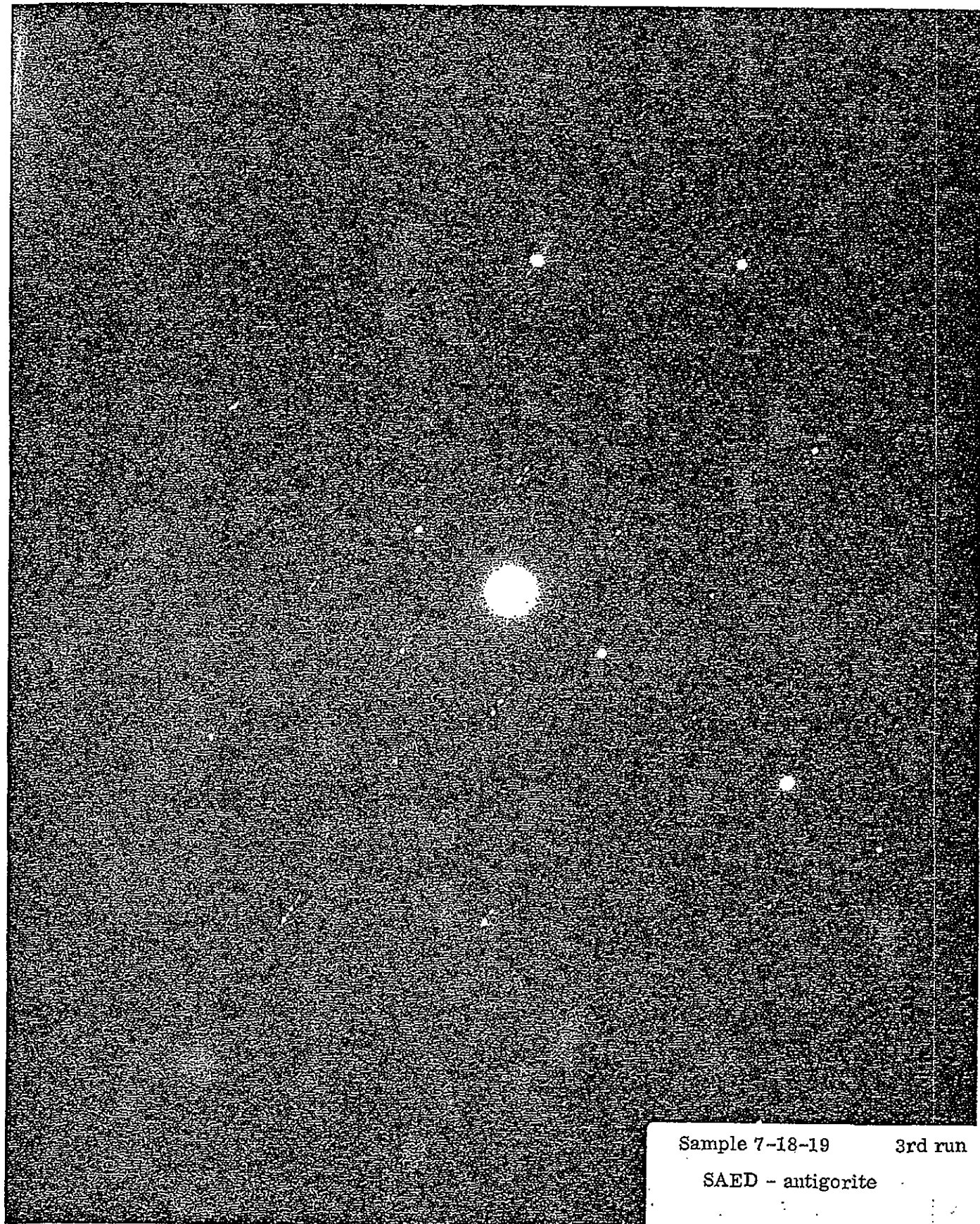
QE-CPC00004092



SAED
Chrysotile standard

A selected area electron diffraction (SAED) pattern of a Talc standard. The image shows a dark, grainy background with numerous bright, circular diffraction spots. A prominent, larger central spot is visible, surrounded by a grid of smaller spots, characteristic of a crystalline material's reciprocal lattice.

SAED
Talc standard

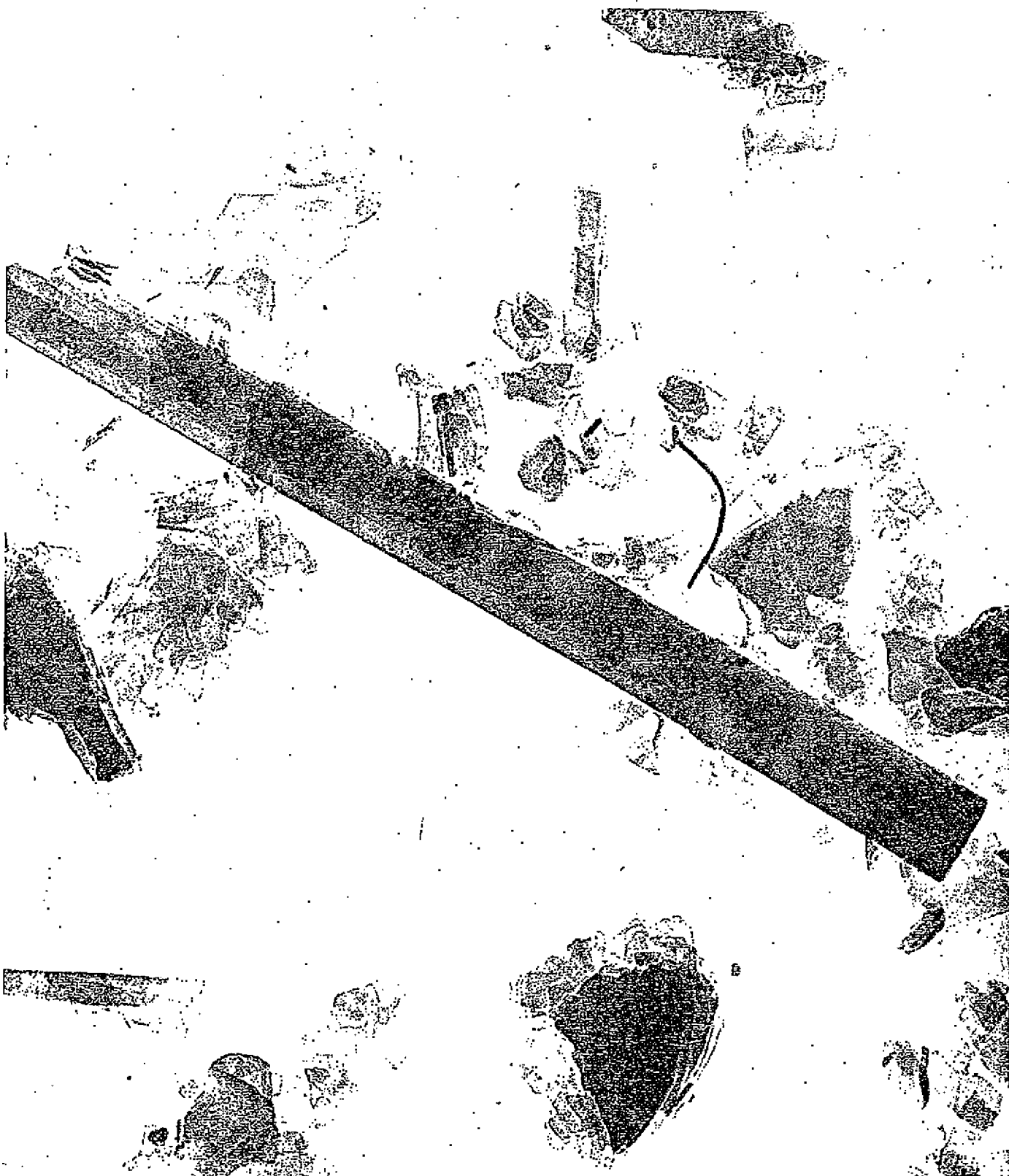


Sample 7-18-19 3rd run

SAED - antigorite

walter c. m^ccrone associates, inc.

QE-CPC00004095



Sample 7-18-19
(30,000X)

3rd run



walter c. mcrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

File Copy

8 July 1976

Mr. J. P. Simko, Jr.
Colgate-Palmolive Company
Research and Development Department
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

Using transmission electron microscopy and selected area electron diffraction we have analyzed the sample of talc designated as 6-13-14. In this talc we find no amphiboles or serpentines. We do however find a rather high percentage of fines, some fine rolled talc and fine talc ribbons. This material is not very platy.

Repeating again, we did not find any asbestiform minerals in this talc. Thank you for consulting McCrone Associates. If there are any further questions concerning this report or the photographs contained therein please feel free to contact me.

Very truly yours,

Gene R. Grieger
Senior Research Physicist

GRG:jd
Ref. MA 5259

P.S. Photographs will follow at a later date.



file
walter c. m^ccrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

24 June 1976

Dr. J. P. Simko, Jr.
Colgate-Palmolive Company
R&D Department
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

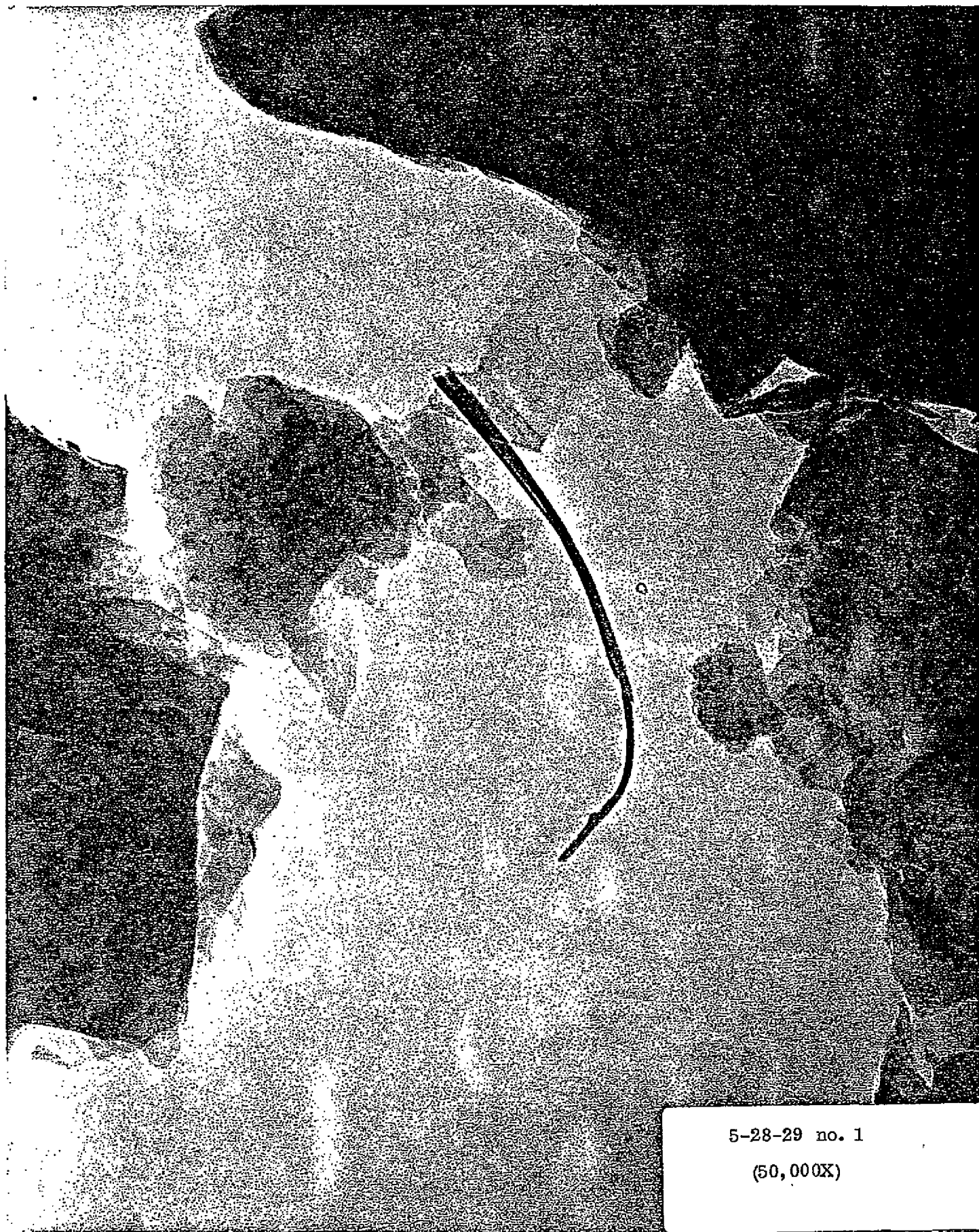
Using transmission electron microscopy and selected area electron diffraction, we have examined a sample of talc designated as 5-28-29. In this talc we did not find any asbestiform minerals. There were, however, a high portion of fines and an indication of fine talc rolled into fibers. This talc was platy and we have noted in the past that many of these platy talcs tend to form rolls and talc ribbons. Enclosed with this report is a photograph of one of the fine rolled talc fibers. When rolled so tightly the electron diffraction pattern does show some streaking of the spots similar to that of chrysotile which, of course, also has a rolled structure but on an even finer scale. Calculation of the interplanar spacings, however, shows excellent agreement with ASTM data (card 13-558) for the $\langle 002 \rangle$ axis of talc.

Thank you for consulting McCrone Associates. If there are any further questions concerning this report or the data contained herein, please feel free to contact me.

Very truly yours,

Gene R. Grieger
Senior Research Physicist

GRG:fe
enclosure
ref: 5259



5-28-29 no. 1
(50,000X)



SAED 5-28-29 no. 1

unknown but not asbestiform

walter c. mc crone associates, inc.

QE-CPC00004100



file
walter c. maccrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

24 June 1976

Dr. Joseph P. Simko
Colgate-Palmolive Company
R&D Department
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

Using transmission electron microscopy and selected area electron diffraction, we have examined a sample of talc designated as 42728 4-27-28. This talc contained no asbestiform minerals, neither amphibole nor serpentines.

This talc was extremely platy: there were fines in this material and a few ribbons, and we found this to be excellent quality talc.

If there should be any questions concerning these results, please contact us.

Very truly yours,

Gene R. Grieger
Senior Research Physicist

GRG:fe
enclosure
ref: 5259



4-27-28 (30,000X)

typical

walter c. mc crone associates, inc.

QE-CPC00004102



file
walter c. mocrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

24 June 1976

Dr. Joseph P. Simko
Colgate-Palmolive Company
R&D Department
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

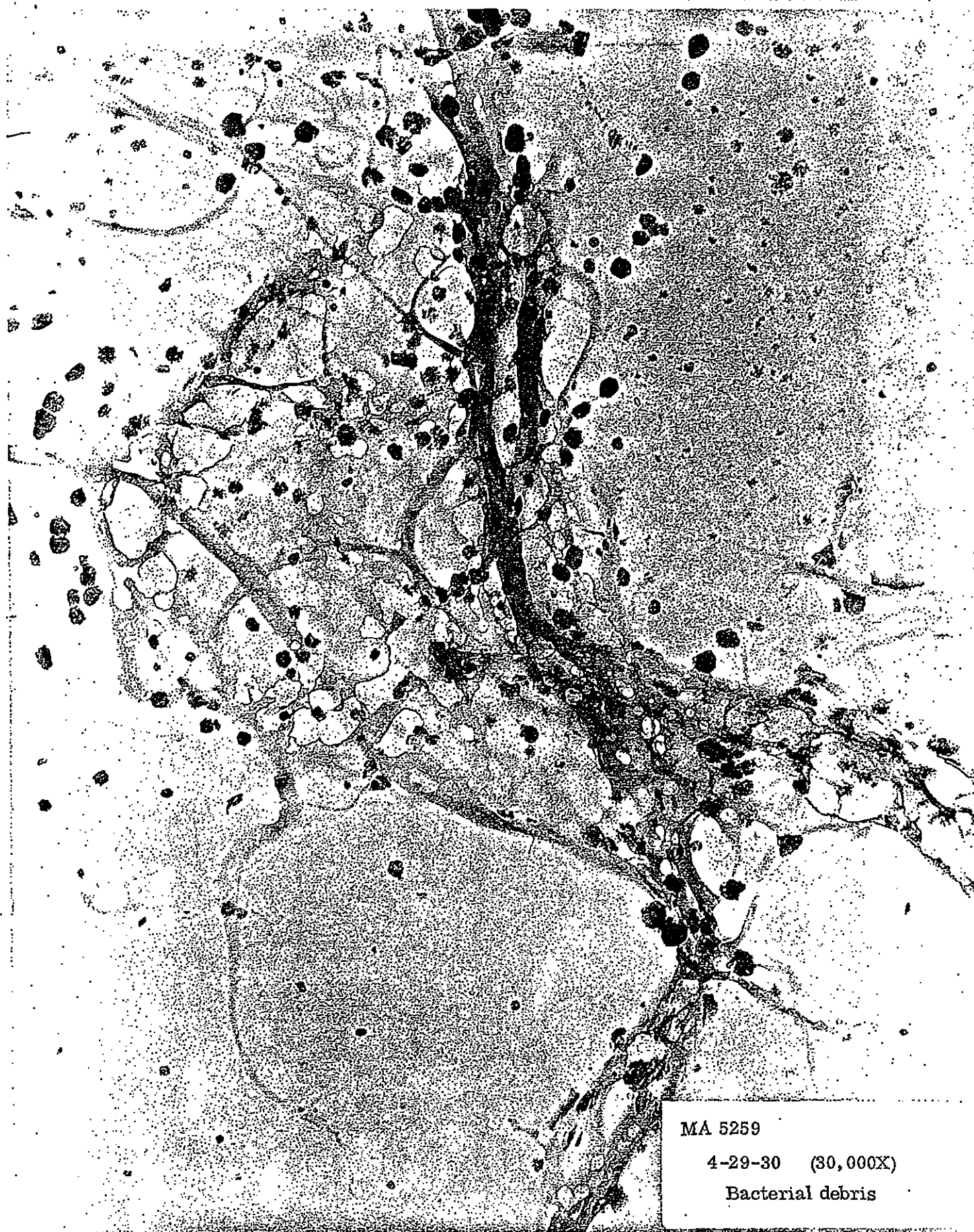
Using transmission electron microscopy and selected area diffraction, we have examined a sample of talc designated as 4-29-30. We found no asbestiform minerals in this talc, but it did seem to have rather a large number of talc shards and there were some indications of bacterial contamination as shown in the accompanying photographs. There were fines in this talc which did not show such morphological perfection and was not as platy as other talcs because of the lack of platiness of this talc.

If there are any further questions concerning this report or the data contained herein, please contact me.

Yours sincerely,

Gene R. Grieger
Senior Research Physicist

GRG:fe
enclosure
ref: 5259



MA 5259

4-29-30 (30,000X)

Bacterial debris



4-29-80 (30,000X)

typical

walter c. mc crone associates, inc.

QE-CPC00004105

RECEIVED MAY 28 1976

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

May 27, 1976

Dr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Ian,

Enclosed is one sample of talc for study by TEM and SAED analysis, lot number 4-29-30. I will telephone you the Purchase Order number as soon as possible. Many thanks.

Joe
J. P. Simko

JPS:ls

Enclosure

shards
bacteria
flagelli

finer
{ not well X-rayed
not platy

Volgate-Pol
5-28-29

Grains - high %
fine talc rogers.
fibers

Platy.

some ribbons.
well X-labeled

4-27-28

Very platy

no asbestiform

Grains

few ribbons

Very crystalline

RECEIVED MAY 10 1976

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

May 7, 1976

Dr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Ian,

Enclosed is a sample of raw material talc for TEM, SAED analysis, lot number 4-27-28. I will telephone you the Purchase Order number as soon as possible. Many thanks.

Joe

J. P. Simko

JPS:ls

Enclosure

RECEIVED MAY 28 1976

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

May 27, 1976

Dr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Ian,

Enclosed is one sample of talc for study by TEM and SAED analysis, lot number 4-29-30. I will telephone you the Purchase Order number as soon as possible. Many thanks.



J. P. Simko

JPS:ls

Enclosure

C 3138-2

QE-CPC00004109



file copy

walter c. m^ccrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

3 May 1976

Dr. J. P. Simko
Colgate-Palmolive Company
R&D Department
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

This report covers the results of the transmission electron microscopical examination of your four talc samples: JF-4-10-11, JC-4-11-12, 12-10-11, and 2-13-14, for asbestiform material.

No asbestiform material was detected in any of the four samples. The sample descriptions are as follows:

JF-4-10-11 - Platy to chunky talc particles which vary widely in size (small submicrometer to large multimicrometer sizes). Talc shards and some rolled talc are to be noted as are occasional small blocky inorganic particles. No asbestiform material was detected.

JC-4-11-12 - The size ranges from quite small ($<1/3 \mu\text{m}$) to large multimicrometer particles. The talc particles vary in morphology from thin platelets to substantial chunky particles with talc shards fairly common and some occasional rolled talc being noted. Small ($<1/3 \mu\text{m}$) blocky inorganic material is also present. No asbestiform material was detected.

12-10-11 - Platy to chunkier types of talc particles. Some talc shards and ribbons noted. Some quite small blocky inorganic material present, occasional organic material. Infrequent, poorly diffracting, high aspect ratio ($>10:1$) fibers of uneven morphology (sometimes jagged) which can be positively shown not to be asbestiform material (most likely silicates of varying composition and crystallinity).

2-13-14 - Platy to chunky material is present which is mainly talc but some of the chunky material is not (? quartz or carbonates). Some fibrous aspect ratio talc particles (shards, etc.) are noted which range to quite large sizes. Also noted were occasional non-asbestiform non-talc fibers. This sample is predominantly talc with the other materials occurring at very low concentrations.

Dr. J. P. Simko
Page two

Thank you for consulting McCrone Associates once again. If you should have any questions regarding these analyses, please do not hesitate to call.

Sincerely,

Richard J. Shimps
Research Chemist

RJS:fe
ref: 5259

RECEIVED APR 6 7 1976

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

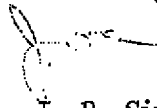
April 6, 1976

Dr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Ian,

Enclosed is one sample of raw material talc for TEM and SAED analysis.
Lot number is 1-6-7. I will telephone you the Purchase Order number for
charges as soon as possible.

Sincerely,



J. P. Simko

JPS:ls

Enclosure

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

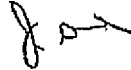
March 10, 1976

Dr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Ian:

Enclosed is a single talc sample coded CB MS No. 1. Please run TEM-SAED studies. Determine all asbestos minerals especially amphibole. Please expedite this sample. I will phone you a purchase order No. to cover costs.

Sincerely,



J. P. Simko, Jr.

JPS:ls

Enclosure

Colgate-Palmolive

12 -10 -11

Platy to chunky types of talc/particles.
Some talc shards and ribbons noted.

Some quite small blocky inorganic material present as well as occasional organic material. Infrequent poorly diffracting high aspect ratio ⁽⁷¹⁰¹¹⁾ fibers noted of uneven morphology which do not resemble asbestos type fibers (most likely ~~is~~ ^{silicate} fibers of various compositions & crystallinities)

2-13/14

Platy to chunky material present which is mainly talc but some of the chunky material is not. Some ~~fibrous~~ fibrous aspect talc particles are noted (some quite large) as well as ^{occasional} ~~some~~ non-talc non-asbestos-like fibrous material. This sample is predominantly talc with other materials occurring at very low levels.

Colgate Palmolive — J. Simko
(Did he phone in his P.O. as he said he was
going to do?)

5F-4-10-11

Plates to chunky talc particles which
vary widely in size (small submicrometers to large
multimicrometers sizes). Talc shards and some
rolled talc are to be noted as are occasional
small blocky inorganic particles. No asbestos
material was detected.

5C-4-11-12

The material ranges from quite small ($4\frac{1}{3}\mu\text{m}$)
to large multimicrometer particles. The talc
particles vary in morphology from thin platlets
to substantial chunky particles with talc shards
fairly common and some occasional rolled
talc being noted. Small ($4\frac{1}{3}\mu\text{m}$) blocky ~~inorganic~~
inorganic material is also present. No asbestos
material noted.

ORIGINAL PURCHASE ORDER

05217-9

Show this number
and prefix on in-
voices, packing
slips and packages.

636310



COLGATE-PALMOLIVE COMPANY
A DELAWARE CORPORATION
105 HUDSON STREET, JERSEY CITY, N.J. 07302

ATTENTION: *J. Matruk*

DATE

1/11/77

McCrone Associates
2820 South Michigan Avenue

Chicago, Illinois 60616

Attn: Dr. Ian Stewart

DISCOUNT TERMS	SHIPPING TERMS	WANTED BY
1 ☐ 2/10 N/30	1 ☐ FOB Destination	FROM: <i>1/1/77</i>
2 ☐ N/30	2 ☒ FOB Shipping Pt.	TO: <i>12/31/77</i>
3 ☐ 1/10 N/30	(Pre-Pay & Bill) See Below	IF ABOVE DATE CANNOT BE MET NOTIFY
4 ☐ Net Cash	3 ☐ FOB Shipping Pt. (Collect)	
5 ☒ Trade	City	

SHIP TO	
25	54 GRAND ST. JERSEY CITY, N.J. 07302
14	809 RIVER RD. PISCATAWAY, N.J. 08854
13	20 GRAND ST. JERSEY CITY, N.J. 07302
16	RECEIVING STATION JEFFERSONVILLE, INDIANA 47130
19	RECEIVING STATION KANSAS CITY, KAN. 66105
22	710 CARLTON ST. BERKELEY, CALIF. 94710
26	300 PARK AVE. NEW YORK, N.Y. 10022
23	
ATTN: Receiving Clerk	

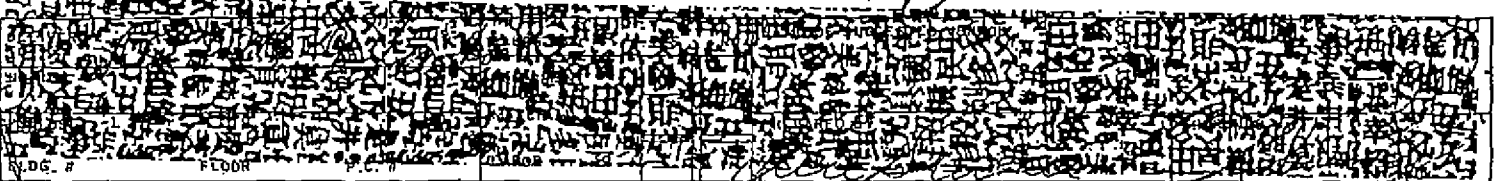
YOU ARE AUTHORIZED TO FURNISH THE ARTICLES LISTED HEREON IN ACCORDANCE WITH THE TERMS AND CONDITIONS ON THE FACE AND BACK OF THIS ORDER.

QUANTITY AND UNIT	SYMBOL NUMBER	PRICE
This purchase order issued to cover the following analysis: (as required):		
1. Transmission Electron Microscopy and Selected Area Electron Diffraction Analysis on talc samples (TEMSAEDA)		\$300. each sample
2. X-ray analysis		50. each
This cancels and supersedes P.O. 635737		
TAX EXEMPT		

VENDOR TO PROTECT ALL METAL PARTS AGAINST CORROSION BY SUITABLE PROTECTIVE SEALING.

UNLESS INVOICES that include authorized transportation charges, must be supported by prepaid freight bill. COLGATE-PALMOLIVE COMPANY
copy of original bill of lading.
MARK PACKAGES with purchase order number, symbol number, contents and quantity. Acceptance of this
order is to be deemed a certification that you have read and agreed to the terms and conditions on the
back hereof. PAYMENT WILL NOT BE MADE AGAINST PRO FORMA INVOICE.
RESERVE UNLOADING space and time for heavy loads by telephoning: 201-432-1300 extension 509.

Jennie Matruk



NEW JERSEY SALES TAX MUST BE BILLED UNLESS EXEMPTED BY ATTACHED CERTIFICATE.

QE-CPC00004116

RECEIVED APR 22 1976

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

April 20, 1976

Dr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Ian;

Enclosed are 2 raw material talcs, lot numbers 12-10-11 and 2-13-14
for TEM and SAED analysis. PO number will follow. Many thanks.

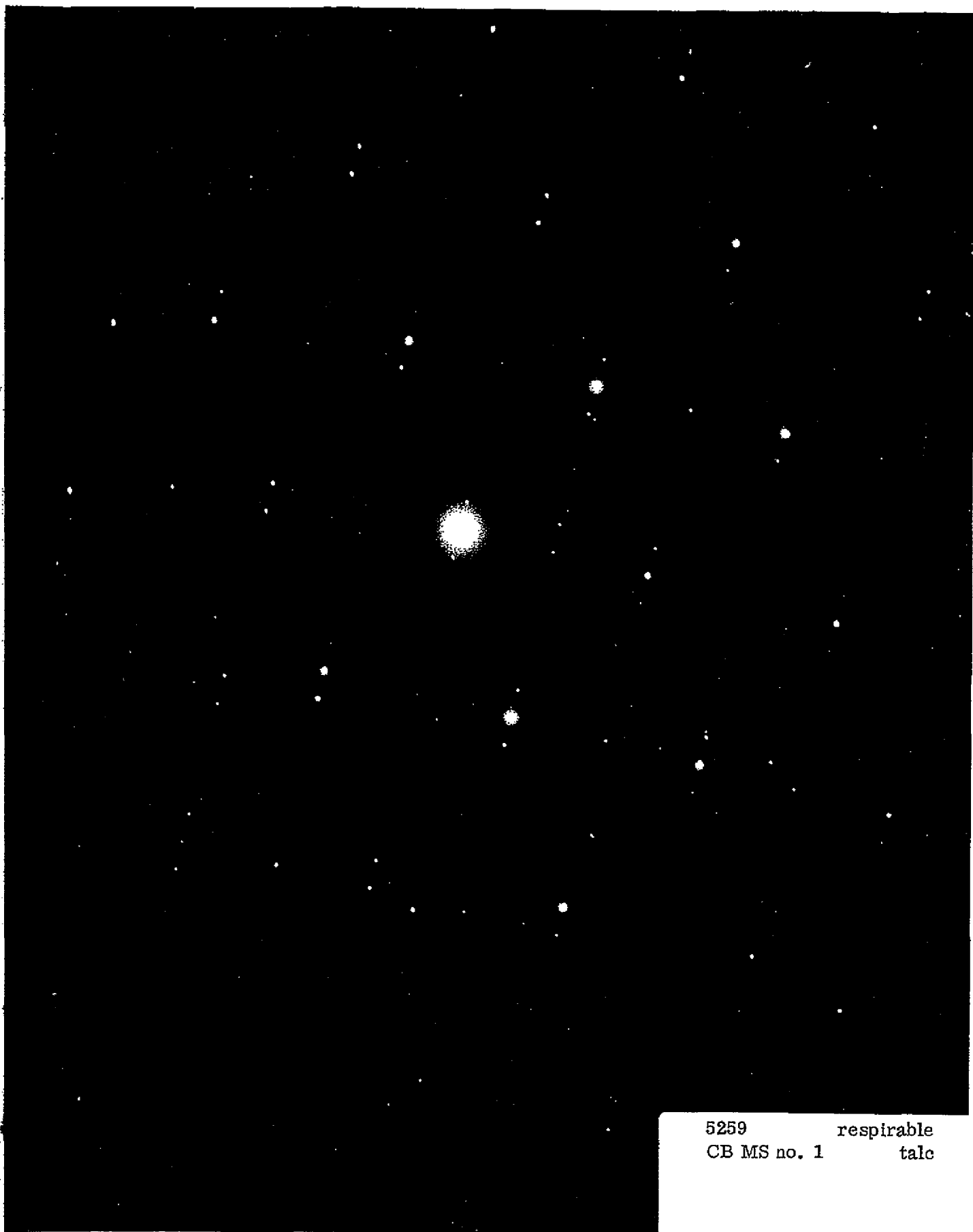
J. P. Simko

JPS:ls

Enclosure

C 9138-2

QE-CPC00004117



5259 respirable
CB MS no. 1 talc



5259 respirable
CB MS no. 1 50,000X

walter c. m^ccrone associates, inc.

QE-CPC00004119

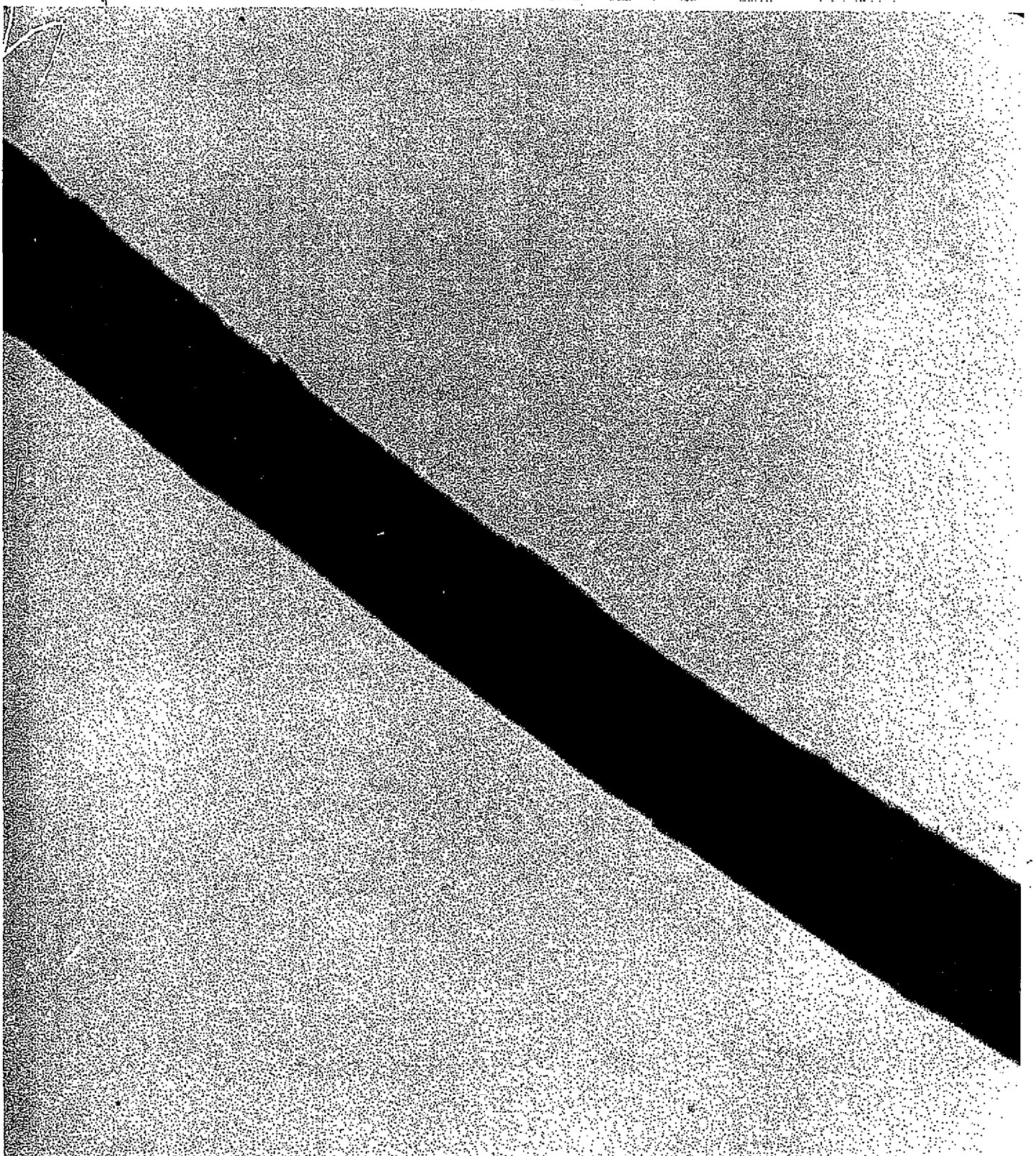


5259
CB MS no. 1

sediment
amphibole

walter c. mc crone associates, inc.

QE-CPC00004120



5259	sediment
CB MS no. 1	50,000X

walter c. m^ccrone associates, inc.

QE-CPC00004121



5259 sediment
CB MS no. 1 talc

This is an X-ray diffraction pattern showing a central bright spot surrounded by a series of concentric, slightly irregular rings. The rings are composed of many small, bright spots, indicating a polycrystalline or microcrystalline material. The background is dark, and the overall pattern is characteristic of a powder diffraction experiment.

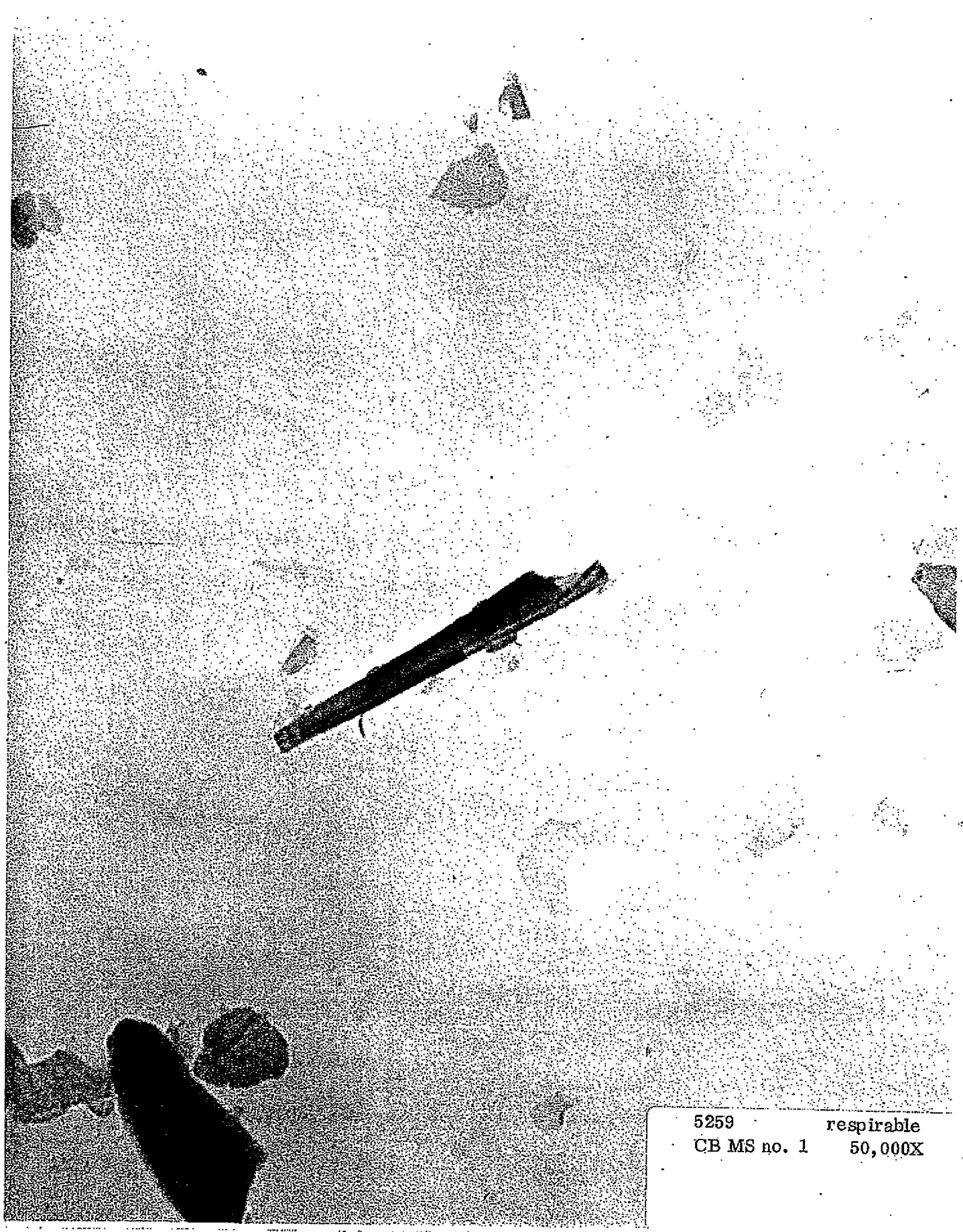
walter c. macrone associates, inc.

QE-CPC00004122

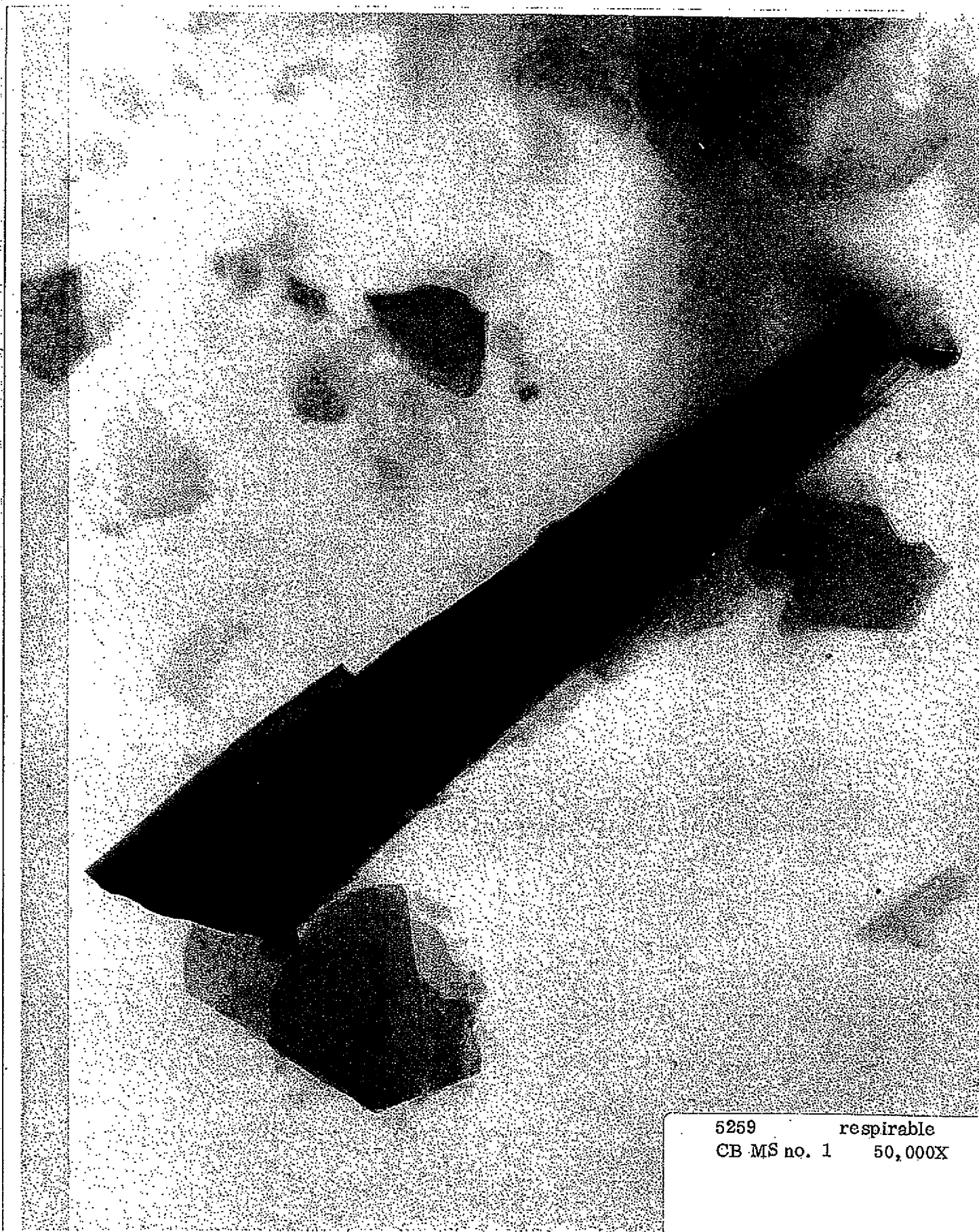
5259 respirable
CB MS no. 1 talc

walter c. mc crone associates, inc.

QE-CPC00004123



5259	respirable
CB MS no. 1	50,000X



5259 respirable
CB MS no. 1 50,000X

walter c. mccrone associates, inc.

QE-CPC00004125

File



walter c. mocrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

31 March 1976

Dr. J. P. Simko
Colgate-Palmolive Research & Development
909 River Road
Piscataway, NJ 08854

Dear Dr. Simko:

We examined seven samples of talc labeled "0925AX6, 0215DX, 1971CB4, 04143 (we believe this should have been identified as 0413), 0326 and 3214."

These samples were examined in the TEM at approximately 17,000X magnification and also using selected area electron diffraction (SAED). We were primarily concerned with the amphiboles and serpentines which we might find in the form of fibrous asbestos minerals. None of these were found in these samples.

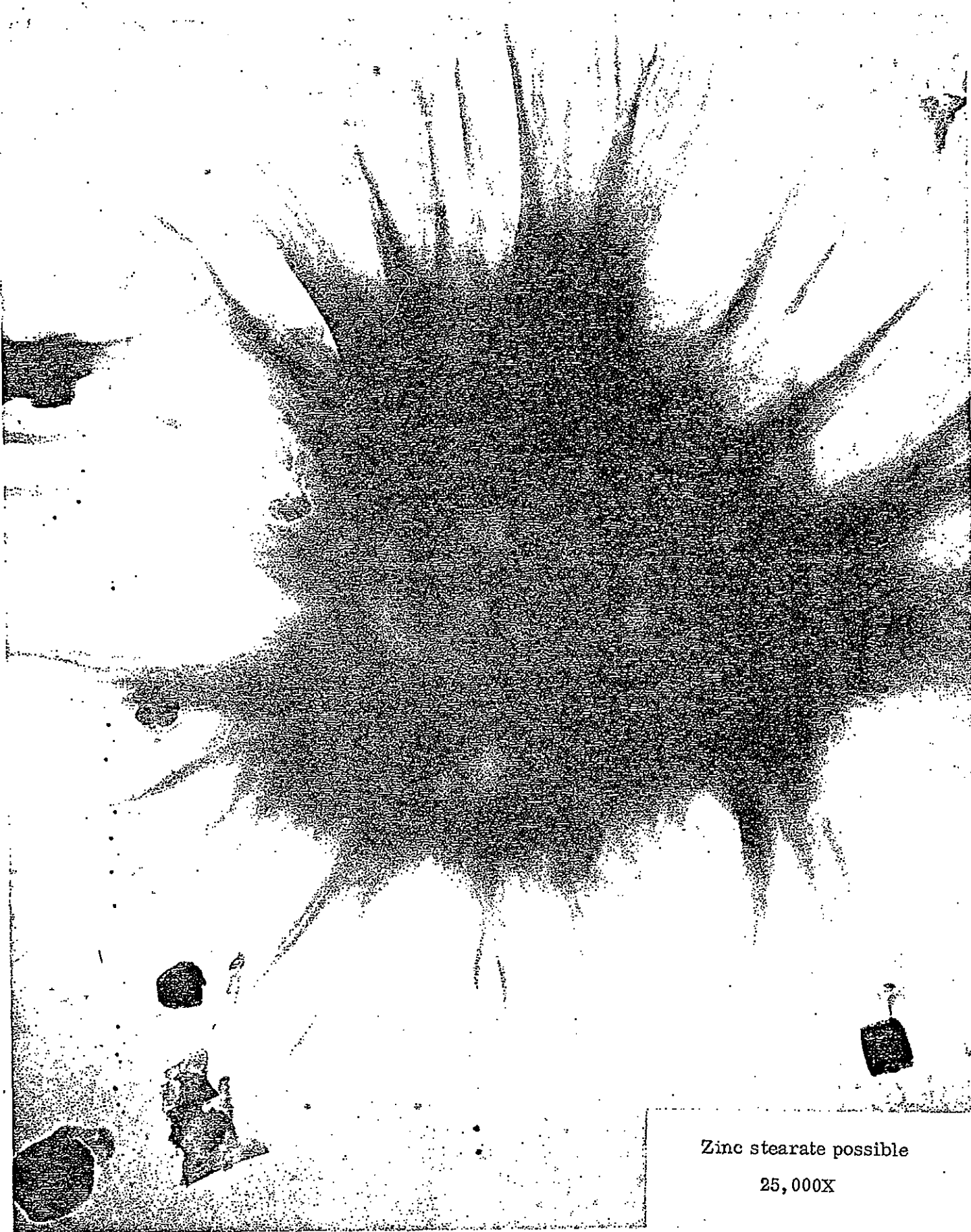
We did, however, find two other unusual materials, photographs of both of which are included. One which appears to be organic from its morphology and diffraction pattern we believe to be a zinc stearate; the second we found was sodium chloride. Enclosed with this report is a SAED pattern of the sodium chloride which we have indexed positively as sodium chloride. We also examined this material using the electron microscope microanalyzer (EMMA-4) and we did, again, find sodium and chlorine as the only elements present. Samples 0925AX6 and 3214 showed less of the sodium chloride than the other samples.

Thank you for consulting McCrone Associates. If you have any questions concerning this report, please feel free to contact us.

Very truly yours,

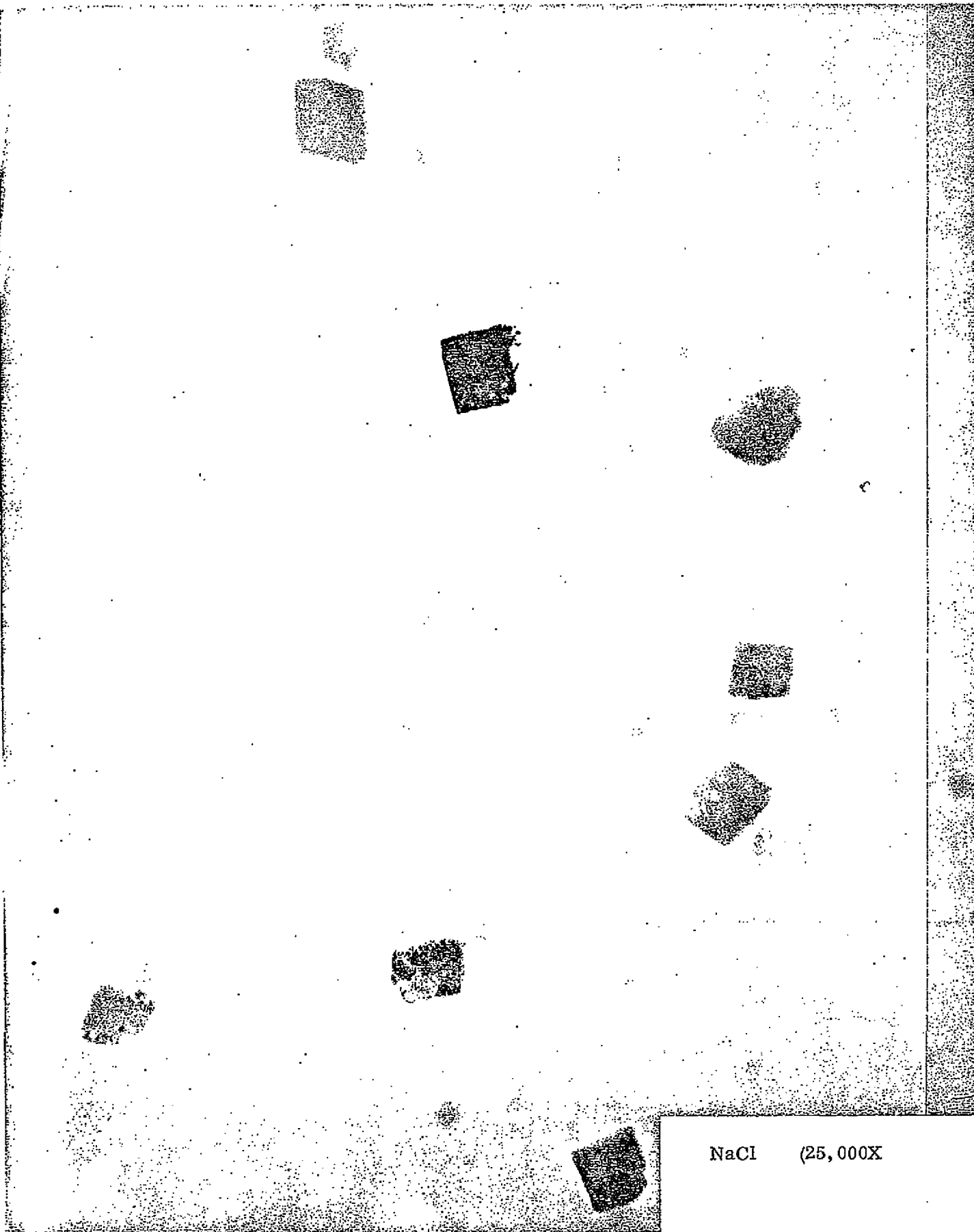
Gene R. Grieger
Senior Research Physicist

Enclosures
GRG:smg
Ref. MA-5259

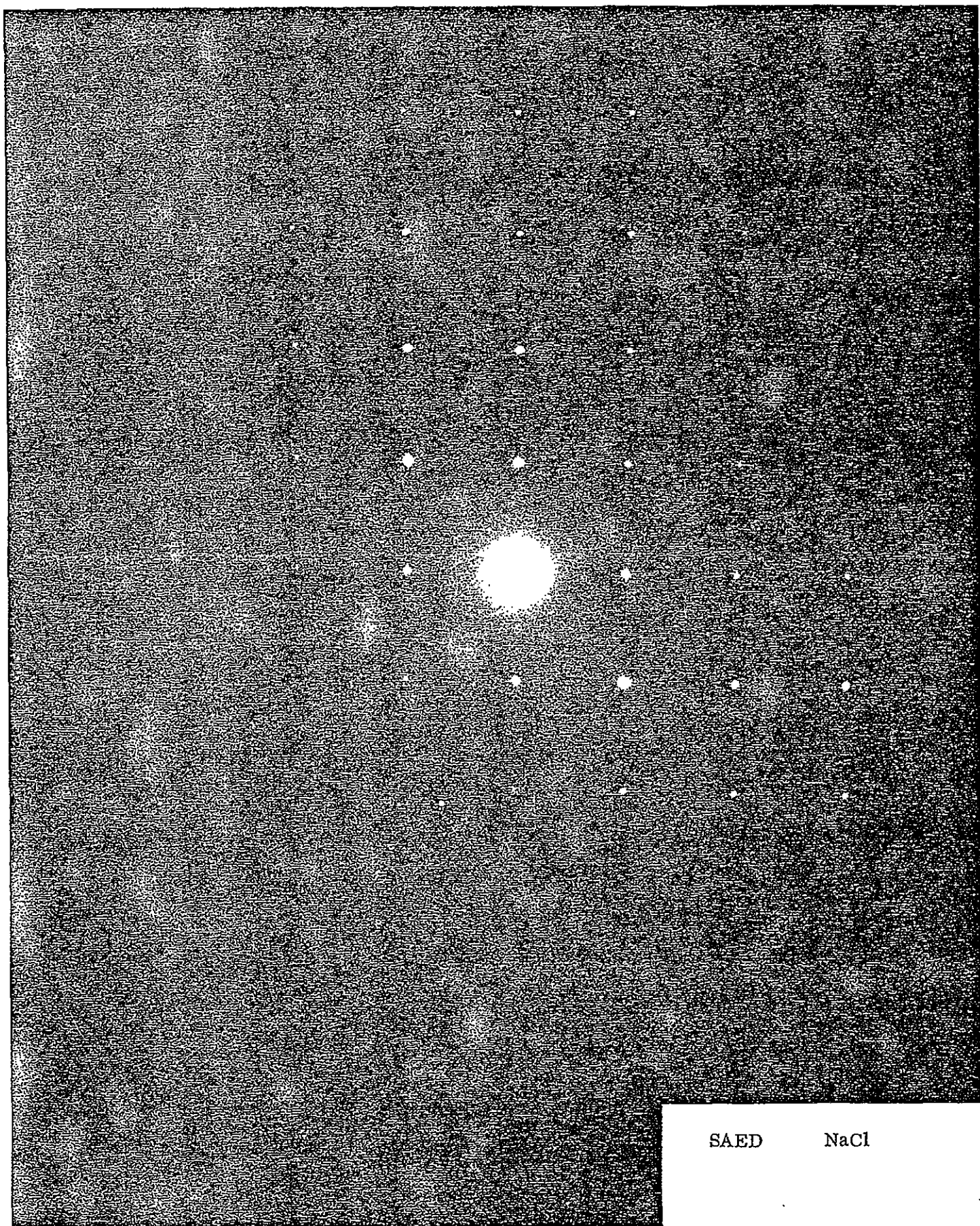


Zinc stearate possible

25,000X



NaCl (25,000X



SAED

NaCl

walter c. mc crone associates, inc.

QE-CPC00004129

ORIGINAL PURCHASE ORDER

110 5217-10

Show this number
and prefix on in-
voices, packing
slips and packages.

635019

BILL TO

COLGATE-PALMOLIVE COMPANY

A DELAWARE CORPORATION

105 HUDSON STREET, JERSEY CITY, N.J. 07302

MISS

DATE

3/12/76

RECEIVED MAR 15 1976

McCrone Associates

2820 South Michigan Avenue

Chicago, Illinois 60616

SHIP TO

25	86 GREENE ST. JERSEY CITY, N.J. 07302
14	☒ 909 RIVER RD. PISCATAWAY, N.J. 08854
13	20 GRAND ST. JERSEY CITY, N.J. 07302
16	RECEIVING STATION JEFFERSONVILLE, INDIANA 47130
19	RECEIVING STATION KANSAS CITY, KAN. 66105
22	710 CARLTON ST. BERKELEY, CALIF. 94710
26	300 PARK AVE. NEW YORK, N.Y. 10022
23	

ATTN: Receiving Clerk

DISCOUNT TERMS

- ☐ 2/10 N/30
- ☐ N/30
- ☐ 1/10 N/30
- ☐ Net Cash
- ☒ Trade

SHIPPING TERMS

- 1 ☐ FOB Destination
- 2 ☒ FOB Shipping Pt.
(Pre-Pay & Bill) See Below
- 3 ☐ FOB Shipping Pt. (Collect)
City

WANTED BY

RUSH

IF ABOVE DATE CANNOT BE MET NOTIFY

YOU ARE AUTHORIZED TO FURNISH THE ARTICLES LISTED HEREON IN ACCORDANCE WITH THE TERMS AND CONDITIONS ON THE FACE AND BACK OF THIS ORDER.

QUANTITY AND UNIT	SYMBOL NUMBER	PRICE
	Transmission Electron Microscopy and selected area electron Diffraction analysis of 1 talc sample:	
	NOTE: This is a one time sample	
	ATTENTION: Dr. Ian Stewart	
	McCrone Associates	
	est. cost	
	TAX EXEMPT	

see to
5259/99

VENDOR TO PROTECT ALL METAL PARTS AGAINST CORROSION BY SUITABLE PROTECTIVE SEALING.

SELLERS INVOICES that include authorized transportation charges, must be supported by prepaid freight bill or copy of original bill of lading.

MARK PACKAGES with purchase order number, symbol number, contents and quantity. Acceptance of this order is to be deemed a certification that you have read and agreed to the terms and conditions on the back hereof. PAYMENT WILL NOT BE MADE AGAINST PRO FORMA INVOICE.

RESERVE UNLOADING space and time for heavy loads by telephoning: 201-432-1300 extension 309.

COLGATE-PALMOLIVE COMPANY

Jennie W. Strub

NEW JERSEY SALES TAX MUST BE BILLED UNLESS EXEMPTED BY ATTACHED CERTIFICATE.

PURCHASING DEPARTMENT COPY

QE-CPC00004130

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

February 27, 1976

Mr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Ian,

I am enclosing seven talc samples for TEM-SAED analysis. These are finished products and I am interested in determining if any chrysotile or amphibole, specifically tremolite or anthophyllite, are present. The sample codes are as follows:

0925AX6
0215DX
1971CB4
0316CX
04143
0326
3214

I will contact you concerning the purchase order number of this work. I need these results as soon as possible. Any questions please contact me.

Sincerely,



J. P. Simko

JPS:ls

QE-CPC00004131

84 encuf

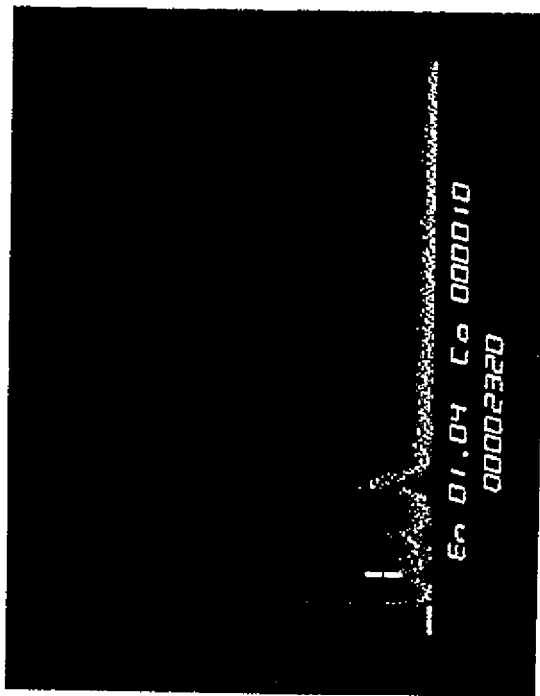
OK

4-5-6 8KX

Nails + Zn Alloys

1-7-016 Good

23 Naeel Alloys
ribbons



No St d

Joe Simko

201-463-1212

X. 379

IS

ORIGINAL PURCHASE ORDER

D 8217-10

Show this number
and prefix on in-
voices, packing
slips and packages.

634965



BILL TO COLGATE-PALMOLIVE COMPANY
A DELAWARE CORPORATION
105 HUDSON STREET, JERSEY CITY, N.J. 07302
MISS *J. Witruk* ATTENTION: DATE *3/3/76*

SHIP TO
McCrone Associates
2820 South Michigan Avenue
Chicago, Illinois 60616
RECEIVED MAR 5 1976

DISCOUNT TERMS 1 ☐ 2/10 N/30 2 ☐ N/30 3 ☐ 1/10 N/30 4 ☐ Net Cash 5 ☒ Trade	SHIPPING TERMS 1 ☐ FOB Destination 2 ☒ FOB Shipping Pt. (Pre-Pay & Bill) See Below 3 ☐ FOB Shipping Pt. (Collect) City	WANTED BY ASAP IF ABOVE DATE CANNOT BE MET NOTIFY	25 ☐ 86 GREENE ST. JERSEY CITY, N.J. 07302 14 ☒ 909 RIVER RD. PISCATAWAY, N.J. 08854 13 ☐ 20 GRAND ST. JERSEY CITY, N.J. 07302 16 ☐ RECEIVING STATION JEFFERSONVILLE, INDIANA 47130 19 ☐ RECEIVING STATION KANSAS CITY, KAN. 66105 22 ☐ 710 CARLTON ST. BERKELEY, CALIF. 94710 26 ☐ 300 PARK AVE. NEW YORK, N.Y. 10022 23 ☐ ATTN: Receiving Clerk
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YOU ARE AUTHORIZED TO FURNISH THE ARTICLES LISTED HEREON IN ACCORDANCE WITH THE TERMS AND CONDITIONS ON THE FACE AND BACK OF THIS ORDER.

QUANTITY AND UNIT	SYMBOL NUMBER	PRICE
	Transmission Electron Microscopy and selected area electron diffraction analysis of 7 talc samples. Note: This is a one time request. ATTENTION: Dr. Ian Stewart McCrone Associates est. cost: \$1750 TAX EXEMPT	

52.59/CC

VENDOR TO PROTECT ALL METAL PARTS AGAINST CORROSION BY SUITABLE PROTECTIVE SEALING.

SELLERS INVOICES that include authorized transportation charges, must be supported by prepaid freight bill or copy of original bill of lading.
 MARK PACKAGES with purchase order number, symbol number, contents and quantity. Acceptance of this order is to be deemed a certification that you have read and agreed to the terms and conditions on the back hereof. PAYMENT WILL NOT BE MADE AGAINST PRO FORMA INVOICE.
 RESERVE UNLOADING space and time for heavy loads by telephoning: 201-432-1300 extension 309.

COLGATE-PALMOLIVE COMPANY

Jennie Witruk



NEW JERSEY SALES TAX MUST BE BILLED UNLESS EXEMPTED BY ATTACHED CERTIFICATE

PURCHASING DEPARTMENT COPY

QE-CPC00004133

TERMS AND CONDITIONS

WARRANTY — The Seller expressly warrants and agrees that there has been compliance with and no violation of any trademark rights, patent rights, copyright, or of any rule, law or regulation of the Federal Government or of any State or any of their respective agencies or political subdivisions, in the manufacture, production, sale and or shipment of the goods hereunder; and the Seller will indemnify and hold Purchaser harmless from any or all costs, damages, fines or expenses (including counsel fees and fees of expert witnesses) which may be incurred by the Purchaser by reason of any claim or suit arising out of the infringement of any trademark, patent right or copyright and/or by reason of any citation, claim or suit for damages and/or penalties brought against the Purchaser based upon any injuries, damages or violations resulting or claimed to have resulted from any alleged infringement or defect in such goods or ingredients or parts thereof.

EQUAL EMPLOYMENT OPPORTUNITY — The Equal Employment Opportunity Clause Section 202 of Executive Order 11246 as amended related to Equal Employment Opportunities and Implementing Rules and Regulations of the Secretary of Labor are incorporated herein by specific reference.

CHANGES IN ORDER — This order cannot be changed, modified or discharged in any manner except by agreement in writing signed by a duly authorized representative of the Purchaser. The Purchaser reserves the right to (1) make changes in the order (2) cancel all or any part of the order at any time by notice in writing. The Purchaser shall not be responsible for costs incurred by the Seller in connection with this order, after the date of receipt of the change or cancellation notice. Unless the Seller presents to the Purchaser an itemized statement of claim against the Purchaser within twenty (20) days after the receipt of notice of such change or cancellation, the Seller shall be conclusively deemed to have waived all claims against the Purchaser with respect thereto.

CANCELLATION FOR SELLER'S DEFAULT — Should the Seller fail (1) to effect delivery on or before the specified delivery date(s) (2) to deliver goods in all respects conforming with the requirements (3) to duly perform Seller's obligation under each and all of the terms and conditions of this order, the Purchaser may cancel this order in whole or in part. Without prejudice to the foregoing, the Seller agrees to report promptly to the Purchaser any delays in performance or in shipment of the goods covered by this order.

SPECIFICATIONS, DRAWINGS, ETC. — All specifications, drawings, plans, designs, samples, or other documents referred to in this order shall be deemed an integral part of this order as fully as if set out in full herein and Seller warrants that all deliveries and/or performances hereunder shall conform thereto, each delivery and/or performance being subject to the inspection and approval of the Purchaser, whether or not any prior payment shall have been made thereon by the Purchaser.

NONCONFORMING MATERIAL — If Seller delivers defective material or material not conforming to the agree-upon specifications, Purchaser may (1) hold such material at Seller's expense pending instructions as to disposal, (2) return it to Seller at Seller's expense, or (3) utilize it in the form received or after up-grading or other operations are performed on it, or utilize it in a different manner or in different proportions with other products than was intended, and Seller will be liable for any diminution in the value to Purchaser of the material and for any incidental or other damages suffered by Purchaser resulting from such defectiveness or nonconformity. No replacement of defective or nonconforming material will be made by Seller unless authorized by Purchaser.

LIABILITY FOR DAMAGES — Whenever Seller shall, by virtue hereof, have property of the Purchaser in its possession, the Seller shall be deemed an insurer thereof and shall be responsible for its safe return to the Purchaser.

ASSIGNMENT — This order shall not be assigned or transferred without prior written consent of the Purchaser.

WAIVER — Purchaser shall not be deemed to have waived any of its rights hereunder unless such waiver shall have been signed by a duly authorized representative of the Purchaser. No such waiver, unless expressly stated therein, shall be effective as to any delivery or other transaction which may occur subsequent to the date of the waiver, nor as to any continuance of a default after such date.

LABOR AND/OR MATERIAL — With respect particularly to orders covering labor and material, Seller agrees to start work immediately, to proceed with the utmost dispatch and to complete all of the work under this order. All such work shall be performed in strict accordance with Purchaser's "General Conditions for Contract Work" Specification No. 0920-CE, nor shall work be permitted to start on Purchaser's property until required Insurance Certificates have been received by Purchaser. Time is hereby declared to be the essence of this order. Prices shown are firm and not subject to adjustment because of increase or decrease in material prices and/or wage rates and/or freight rates and/or other items of cost. The acceptance of the final payment by Seller shall be held to be a waiver and discharge of any and all claims and demands against the Purchaser for compensation and damages on account of any matter arising out of or in connection with the Contract or the performance of the work. Any extra or additional work performed by Seller shall be on a fixed price basis or cost plus fee basis and must be in each case, first authorized in writing by Purchaser. Seller's rates for such purposes shall be as set forth in a quotation from Seller prior to starting any such extra or additional work and confirmed by Purchaser's prior written authorization.

MAY BE REPRODUCED

ST 4 (10-73, R-1)

To be completed by purchaser and
given to and retained by vendor.
Read instructions on back of this
Certificate.

THIS CERTIFICATE MAY NOT
BE USED IN CONNECTION
WITH THE PURCHASE
OF SERVICES

State of New Jersey

DIVISION OF TAXATION

SALES TAX

EXEMPT USE CERTIFICATE

FORM ST-4

PURCHASER'S
CERTIFICATE OF AUTHORITY NUMBER

131-815-595/001

TO McCrone Assoc.
(Name of Vendor)

Date 3/3/76

Address

City

State

Zip

The undersigned purchaser certifies that it is not required to pay the New Jersey Sales and/or Use Tax on the purchase or purchases covered by this Certificate because the tangible personal property purchased will be used for an exempt purpose.

Said tangible personal property will be used for the following exempt purpose: for use or consumption directly and exclusively in research and development in the experimental or laboratory sense.

The exemption on the sale of said tangible personal property to be used for the above described exempt purpose is provided in subsection N.J.S.A. 54:32B- 8-N (See reverse side for listing of principal exempt uses of tangible personal property and fill in the block with proper subsection citation).

I, the undersigned purchaser, have read and complied with the instructions and rules promulgated pursuant to the New Jersey Sales and Use Tax Act with respect to the use of the Exempt Use Certificate, and it is my belief that the vendor named herein is not required to collect the sales or use tax on the transaction or transactions covered by this Certificate. The undersigned purchaser hereby swears (under the penalties for perjury and false swearing) that all of the information shown in this Certificate is true.

A VENDOR SHOULD READ AND
COMPLY WITH THE INSTRUCTIONS
GIVEN ON BOTH SIDES OF AN
EXEMPTION CERTIFICATE.

COLGATE-PAULMOLIVE COMPANY

NAME OF PURCHASER (as registered with the Division of Taxation)

By

Walter L. Born
(Signature of owner, partner, officer of corporation, etc.)
Walter L. Born--Purchasing Department
105 Hudson Street

(Address of Purchaser)

Jersey City, N. J. 07302

QE-CPC00004135

INSTRUCTIONS FOR USE OF EXEMPT USE CERTIFICATES

1. Good Faith — In general, a vendor who accepts an exemption certificate in "good faith" is relieved of liability for collection or payment of tax upon transactions covered by the certificate. The question of "good faith" is one of fact and depends upon a consideration of all the conditions surrounding the transaction. A vendor is presumed to be familiar with the law and the regulations pertinent to the business in which he deals.

In order for "good faith" to be established, the following conditions must be met:

- (a) The certificate must contain no statement or entry which the vendor knows, or has reason to know, is false or misleading.
- (b) The certificate must be an officially promulgated certificate form or a substantial and proper reproduction thereof.
- (c) The certificate must be dated and executed in accordance with the published instructions, and must be complete and regular in every respect.

The vendor may, therefore, accept this "good faith" Exempt Use Certificate on a basis for exempting sales to the signatory purchaser provided that:

- (d) The purchaser's Certificate of Authority number, indicating that the purchaser is registered with the New Jersey Division of Taxation, is entered on the face of the Certificate.
- (e) The purchaser has entered all other information required on the form.
- (f) The vendor has no reason to believe that the property to be purchased is of a type not ordinarily used in the purchaser's business for the purpose described in this Certificate.

2. Improper Certificate — Sales transactions which are not supported by properly executed exemption certificates shall be deemed to be taxable retail sales. The burden of proof that the tax was not required to be collected is upon the vendor.

3. Correction of Certificate — In general, vendors have 60 days after date of sale to obtain a corrected certificate where the original certificate lacks material information required to be set forth in said certificate or where such information is incorrectly stated.

4. Additional Purchases by Same Purchaser — This Certificate will serve to cover additional purchases by the same purchaser of the same general type of property. However, each subsequent sales slip or purchase invoice based on this Certificate must show the purchaser's name, address and Certificate of Authority number for purposes of verification.

5. Retention of Certificates — Certificates must be retained by the vendor for a period of not less than three years from the date of the last sale covered by the certificate. Certificates must be in the physical possession of the vendor and available for inspection on or before the 60th day following the date of the transaction to which the certificate relates.

6. The most common exempt uses for which the Exempt Use Certificate (Form ST-4) is applicable are the following:

Sales of machinery, apparatus or equipment for use or consumption directly and primarily in the production, generation, transmission or distribution of gas, electricity, refrigeration, steam or water for sale or in the operation of sewerage systems. [N.J.S.A. 54:32B-8 (m) (2)]

Sales of tangible personal property purchased for use or consumption directly and exclusively in research and development in the experimental or laboratory sense. Such research and development shall not be deemed to include the ordinary testing or inspection of materials or products for quality control, efficiency surveys, management studies, consumer surveys, advertising, promotions or research in connection with literary, historical or similar projects. [N.J.S.A. 54:32B-8 (n)]

Sales or use of wrapping paper, wrapping twine, bags, cartons, tape, rope, labels, nonreturnable containers, reusable milk containers and all other wrapping supplies when such use is incidental to the delivery of personal property which has been sold. [N.J.S.A. 54:32B-8 (o)]

Sales of materials, such as chemicals and catalysts, used to induce or cause a refining or chemical process, where such materials are an integral or essential part of the processing operation, but do not become a component part of the finished product. [N.J.S.A. 54:32B-8 (f)]

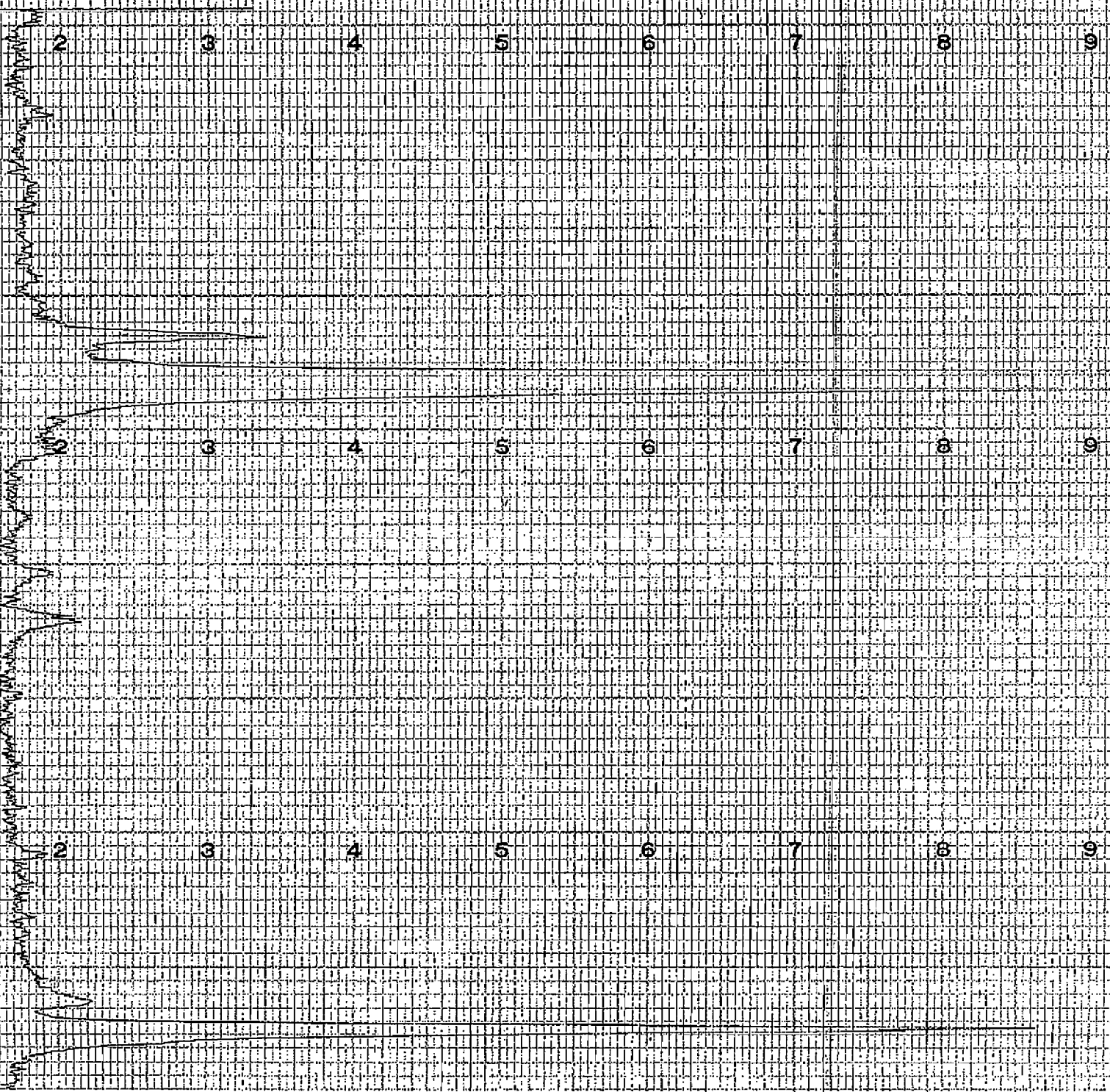
The sale of advertising materials to be published in a newspaper. [N.J.S.A. 54-8 (ee)]

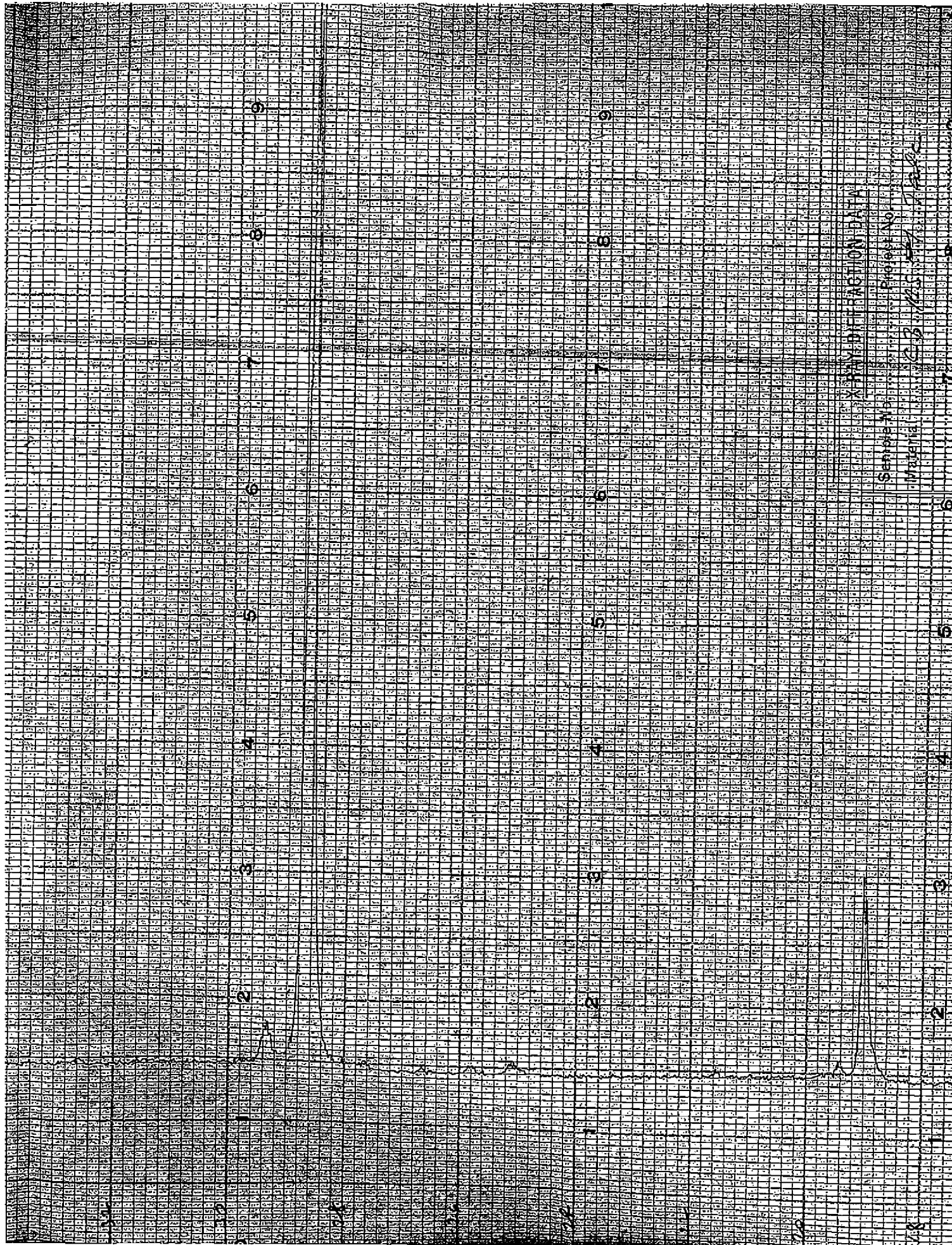
The use of property for market sampling by the purchaser. [N.J.S.A. 54:32B-11 (4)]

* * *

REPRODUCTION OF EXEMPT USE CERTIFICATE FORMS: Private reproduction of Exempt Use Certificates may be made without the prior permission of the Division of Taxation.

STATE OF NEW JERSEY, DEPARTMENT OF THE TREASURY, DIVISION OF TAXATION
Post Office Box 999, Trenton, N.J. 08625





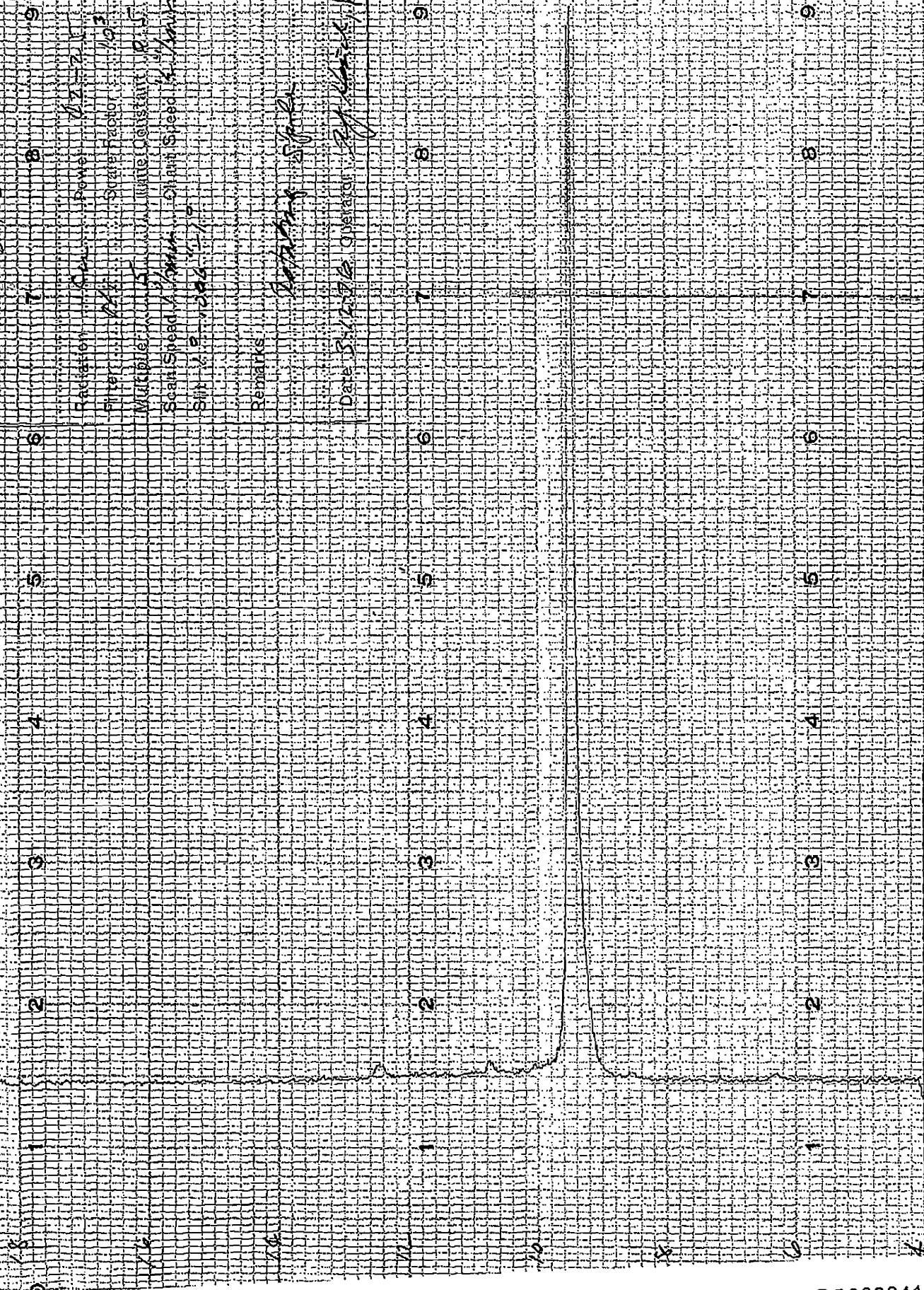
X-RAY DIFFRACTION DATA

Sample No. 1 Project No. 1
 Material C-8 MS-21 Steel
 Radiation Co-60 Power 1500 W
 Filter Al Scattering Factor 103
 Multiplier 1 Unit Cell Constant 0.5
 Scan Speed 10 mm Chart Speed 10 mm
 Slit 2° 5' 1000 5/1°

Remarks

Rotating Specimen

Date 3/20/74 Operator SP-1000-14



GG

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

February 27, 1976

Mr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Ian,

I am enclosing seven talc samples for TEM-SAED analysis. These are finished products and I am interested in determining if any chrysotile or amphibole, specifically tremolite or anthophyllite, are present. The sample codes are as follows:

0925AX6
0215DX
1971CB4
0316CX
04143
0326
3214

I will contact you concerning the purchase order number of this work. I need these results as soon as possible. Any questions please contact me.

Sincerely,

J. P. Simko
J. P. Simko

5259/990

JPS:ls

QE-CPC00004141

020920

6

7

Shield
•

MA 7673

Contact: J. P. Simko Telephone No. :

discarded

<u>(Exclusive of oper. time on inst. below)</u>				<u>Travel</u>			<u>Charge Summary</u>	
<u>Date</u>	<u>Name</u>	<u>Hours</u>	<u>Charge</u>	<u>Date</u>	<u>Traveler</u>	<u>Destination</u>	<u>Cost</u>	
								Individuals \$
								Instrument
								Travel
								Outside
								Other
								Total Charge \$
<u>Instrument time</u>								
	<u>Date</u>	<u>Hours</u>	<u>Charge</u>		<u>Date</u>	<u>Company</u>	<u>Cost</u>	
SEM				Photo				OK for billing ✓ Project Ldr _____ Group Ldr _____
TEM				Photo				
XRD				Materials				
EMP				Supplies				
IMP								
ESCA								
EMMA								
MOLE								

P.O. 630319 - to be forwarded to Helena Kusinski

INV 4263	1572079	\$900
4264	1572079	\$300
4265	"	\$300

8

TOTAL CHARGE \$ _____
BILLED TO CLIENT \$ _____
INVOICE NO. (S) _____

PROJECT LEADER: GRG



walter c. m^ccrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

13 February 1979

Dr. Joseph P. Simko, Jr.
Colgate Palmolive Company
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

Using transmission electron microscopy and selected area electron diffraction we have analyzed a sample of sodium carbonate for asbestiform minerals. The procedure we used for this sample was to dissolve the sodium carbonate in approximately 500 ml of water and filter onto a 47 mm filter. We then washed the filter to remove any excess sodium carbonate and, using a Soxhlet extractor, dissolved the filter. We did not find any asbestiform minerals in this sample, either amphibole or serpentine. In fact, the filter was extremely clean indicating that the predominant portion of this sample was water soluble.

We thank you for consulting McCrone Associates and if there are any further questions concerning this report or the data contained herein, please feel free to contact me.

Very truly yours,

Gene R. Grieger
Senior Research Physicist

GRG:jd
Ref. MA 7673

P.O. 630890

PURCHASE REQUISITION - METROPOLITAN AREA
ORIGINAL PURCHASE ORDER

Show this number
and prefix on in-
voices, packing
slips and packages.

630290

05217-11

NO. 630290

BILL TO

COLGATE-PALMOLIVE COMPANY
A DELAWARE CORPORATION
105 HUDSON STREET, JERSEY CITY, N.J. 07302 ATTENTION:

DATE 1/23/79

McCrone Associates
2820 South Michigan Avenue
Chicago, Illinois

RECEIVED JAN 26 1979

SHIP TO

25	86 GREENE ST. JERSEY CITY, N.J. 07302
14	☒ 909 RIVER RD. PISCATAWAY, N.J. 08854
13	20 GRAND ST. JERSEY CITY, N.J. 07302
16	RECEIVING STATION JEFFERSONVILLE, INDIANA 47130
19	RECEIVING STATION KANSAS CITY, KAN. 66105
22	710 CARLTON ST. BERKELEY, CALIF. 94710
26	300 PARK AVE. NEW YORK, N.Y. 10022
23	

ATTN: Receiving Clerk

DISCOUNT TERMS	SHIPPING TERMS	WANTED BY
1 ☐ 2/10 N/30	1 ☐ FOB Destination	ASAP IF ABOVE DATE CANNOT BE MET NOTIFY
2 ☐ N/30	2 ☐ FOB Shipping Pt.	
3 ☐ 1/10 N/30	(Pre-Pay & Bill) See Below	
4 ☐ Net Cash	3 ☐ FOB Shipping Pt. (Collect)	
5 ☐ Trade	CITY	

YOU ARE AUTHORIZED TO FURNISH THE ARTICLES LISTED HEREON IN ACCORDANCE WITH THE TERMS AND CONDITIONS ON THE FACE AND BACK OF THIS ORDER.

QUANTITY AND UNIT	SYMBOL NUMBER	PRICE
	Microscope studies to confirm presence of asbestos in Sodium Carbonate sample. Cost: approx. \$300 Sample sent under separate cover to McCrone Assoc., ATTENTION: Mr. Ian Stewart <u>NOTE:</u> This is a one time request. INVOICE 4865/15 Feb 79 - 8 \$300- TAX EXEMPT MA 7673	

VENDOR TO PROTECT ALL METAL PARTS AGAINST CORROSION BY SUITABLE PROTECTIVE SEALING.

SELLERS INVOICES that include authorized transportation charges, must be supported by prepaid freight bill or COLGATE-PALMOLIVE COMPANY copy of original bill of lading.
MARK PACKAGES with purchase order number, symbol number, contents and quantity. Acceptance of this order is to be deemed a certification that you have read and agreed to the terms and conditions on the back hereof. PAYMENT WILL NOT BE MADE AGAINST PRO FORMA INVOICE.
RESERVE UNLOADING space and time for heavy loads by telephoning: 201-434-1300 extension 309.

Jennie Nitruck

OF
TO
NO
END
BSP

QE-CPC00004145

TERMS AND CONDITIONS

WARRANTY — The Seller expressly warrants and agrees that there has been compliance with and no violation of any trademark rights, patent rights, copyright, or of any rule, law or regulation of the Federal Government or of any State or any of their respective agencies or political subdivisions, in the manufacture, production, sale and or shipment of the goods hereunder; and the Seller will indemnify and hold Purchaser harmless from any or all costs, damages, fines or expenses (including counsel fees and fees of expert witnesses) which may be incurred by the Purchaser by reason of any claim or suit arising out of the infringement of any trademark, patent right or copyright and/or by reason of any citation, claim or suit for damages and/or penalties brought against the Purchaser based upon any injuries, damages or violations resulting or claimed to have resulted from any alleged infringement or defect in such goods or ingredients or parts thereof.

EQUAL EMPLOYMENT OPPORTUNITY — The Equal Employment Opportunity Clause Section 202 of Executive Order 11246 as amended related to Equal Employment Opportunities and Implementing Rules and Regulations of the Secretary of Labor are incorporated herein by specific reference.

CHANGES IN ORDER — This order cannot be changed, modified or discharged in any manner except by agreement in writing signed by a duly authorized representative of the Purchaser. The Purchaser reserves the right to (1) make changes in the order (2) cancel all or any part of the order at any time by notice in writing. The Purchaser shall not be responsible for costs incurred by the Seller in connection with this order, after the date of receipt of the change or cancellation notice. Unless the Seller presents to the Purchaser an itemized statement of claim against the Purchaser within twenty (20) days after the receipt of notice of such change or cancellation, the Seller shall be conclusively deemed to have waived all claims against the Purchaser with respect thereto.

CANCELLATION FOR SELLER'S DEFAULT — Should the Seller fail (1) to effect delivery on or before the specified delivery date(s) (2) to deliver goods in all respects conforming with the requirements (3) to duly perform Seller's obligation under each and all of the terms and conditions of this order, the Purchaser may cancel this order in whole or in part. Without prejudice to the foregoing, the Seller agrees to report promptly to the Purchaser any delays in performance or in shipment of the goods covered by this order.

SPECIFICATIONS, DRAWINGS, ETC. — All specifications, drawings, plans, designs, samples, or other documents referred to in this order shall be deemed an integral part of this order as fully as if set out in full herein and Seller warrants that all deliveries and/or performances hereunder shall conform thereto, each delivery and/or performance being subject to the inspection and approval of the Purchaser, whether or not any prior payment shall have been made thereon by the Purchaser.

NONCONFORMING MATERIAL — If Seller delivers defective material or material not conforming to the agree-upon specifications, Purchaser may (1) hold such material at Seller's expense pending instructions as to disposal, (2) return it to Seller at Seller's expense, or (3) utilize it in the form received or after up-grading or other operations are performed on it, or utilize it in a different manner or in different proportions with other products than was intended, and Seller will be liable for any diminution in the value to Purchaser of the material and for any incidental or other damages suffered by Purchaser resulting from such defectiveness or nonconformity. No replacement of defective or nonconforming material will be made by Seller unless authorized by Purchaser.

LIABILITY FOR DAMAGES — Whenever Seller shall, by virtue hereof, have property of the Purchaser in its possession, the Seller shall be deemed an insurer thereof and shall be responsible for its safe return to the Purchaser.

ASSIGNMENT — This order shall not be assigned or transferred without prior written consent of the Purchaser.

WAIVER — Purchaser shall not be deemed to have waived any of its rights hereunder unless such waiver shall have been signed by a duly authorized representative of the Purchaser. No such waiver, unless expressly stated therein, shall be effective as to any delivery or other transaction which may occur subsequent to the date of the waiver, nor as to any continuance of a default after such date.

LABOR AND/OR MATERIAL — With respect particularly to orders covering labor and material, Seller agrees to start work immediately, to proceed with the utmost dispatch and to complete all of the work under this order. All such work shall be performed in strict accordance with Purchaser's "General Conditions for Contract Work" Specification No.0920-CE, nor shall work be permitted to start on Purchaser's property until required Insurance Certificates have been received by Purchaser. Time is hereby declared to be the essence of this order. Prices shown are firm and not subject to adjustment because of increase or decrease in material prices and/or wage rates and/or freight rates and/or other items of cost. The acceptance of the final payment by Seller shall be held to be a waiver and discharge of any and all claims and demands against the Purchaser for compensation and damages on account of any matter arising out of or in connection with the Contract or the performance of the work. Any extra or additional work performed by Seller shall be on a fixed price basis or cost plus fee basis and must be in each case, first authorized in writing by Purchaser. Seller's rates for such purposes shall be as set forth in a quotation from Seller prior to starting any such extra or additional work and confirmed by Purchaser's prior written authorization.

MAY BE REPRODUCED

ST 4 (1073, R 1)

To be completed by purchaser and
given to and retained by vendor.
Read instructions on back of this
Certificate.

State of New Jersey

DIVISION OF TAXATION

SALES TAX

EXEMPT USE CERTIFICATE

FORM ST-4

PURCHASER'S
CERTIFICATE OR AUTHORITY NUMBER

131-815-595/001

THIS CERTIFICATE MAY NOT
BE USED IN CONNECTION
WITH THE PURCHASE
OF SERVICES

M. Crone Assoc.

(Name of Vendor)

Date *1/23/79*

Address

City

State

Zip

The undersigned purchaser certifies that it is not required to pay the New Jersey Sales and/or Use Tax on the purchase or purchases covered by this Certificate because the tangible personal property purchased will be used for an exempt purpose.

Said tangible personal property will be used for the following exempt purpose: for use or consumption directly and exclusively in research and development in the experimental or laboratory sense.

The exemption on the sale of said tangible personal property to be used for the above described exempt purpose is provided in subsection N.J.S.A. 54:32B-8-N (See reverse side for listing of principal exempt uses of tangible personal property and fill in the block with proper subsection citation).

I, the undersigned purchaser, have read and complied with the instructions and rules promulgated pursuant to the New Jersey Sales and Use Tax Act with respect to the use of the Exempt Use Certificate, and it is my belief that the vendor named herein is not required to collect the sales or use tax on the transaction or transactions covered by this Certificate. The undersigned purchaser hereby swears (under the penalties for perjury and false swearing) that all of the information shown in this Certificate is true.

A VENDOR SHOULD READ AND
COMPLY WITH THE INSTRUCTIONS
GIVEN ON BOTH SIDES OF AN
EXEMPTION CERTIFICATE.

COLGATE-PALMOLIVE COMPANY

NAME OF PURCHASER (as registered with the Division of Taxation)

By

(Signature of owner, partner, officer of corporation, etc.)

Walter L. Born
Walter L. Born--Purchasing Department
105 Hudson Street

(Address of Purchaser)

Jersey City, N. J. 07302

INSTRUCTIONS FOR USE OF EXEMPT USE CERTIFICATES

1. Good Faith. In general, a vendor who accepts an exemption certificate in "good faith" is relieved of liability for collection or payment of tax upon transactions covered by the certificate. The question of "good faith" is one of fact and depends upon a consideration of all the conditions surrounding the transaction. A vendor is presumed to be familiar with the law and the regulations pertinent to the business in which he deals.

In order for "good faith" to be established, the following conditions must be met:

- (a) The certificate must contain no statement or entry which the vendor knows, or has reason to know, is false or misleading.
- (b) The certificate must be an officially promulgated certificate form or a substantial and proper reproduction thereof.
- (c) The certificate must be dated and executed in accordance with the published instructions, and must be complete and regular in every respect.

The vendor may, therefore, accept this "good faith" Exempt Use Certificate on a basis for exempting sales to the signatory purchaser provided that:

- (d) The purchaser's Certificate of Authority number, indicating that the purchaser is registered with the New Jersey Division of Taxation, is entered on the face of the Certificate.
- (e) The purchaser has entered all other information required on the form.
- (f) The vendor has no reason to believe that the property to be purchased is of a type not ordinarily used in the purchaser's business for the purpose described in this Certificate.

2. Improper Certificate. Sales transactions which are not supported by properly executed exemption certificates shall be deemed to be taxable retail sales. The burden of proof that the tax was not required to be collected is upon the vendor.

3. Correction of Certificate. In general, vendors have 60 days after date of sale to obtain a corrected certificate where the original certificate lacks material information required to be set forth in said certificate or where such information is incorrectly stated.

4. Additional Purchases by Same Purchaser. This Certificate will serve to cover additional purchases by the same purchaser of the same general type of property. However, each subsequent sales slip or purchase invoice based on this Certificate must show the purchaser's name, address and Certificate of Authority number for purposes of verification.

5. Retention of Certificates. Certificates must be retained by the vendor for a period of not less than three years from the date of the last sale covered by the certificate. Certificates must be in the physical possession of the vendor and available for inspection on or before the 60th day following the date of the transaction to which the certificate relates.

6. The most common exempt uses for which the Exempt Use Certificate (Form ST-4) is applicable are the following:

Sales of machinery, apparatus or equipment for use or consumption directly and primarily in the production, generation, transmission or distribution of gas, electricity, refrigeration, steam or water for sale or in the operation of sewerage systems. [N.J.S.A. 54:32B-8 (m) (2)]

Sales of tangible personal property purchased for use or consumption directly and exclusively in research and development in the experimental or laboratory sense. Such research and development shall not be deemed to include the ordinary testing or inspection of materials or products for quality control, efficiency surveys, management studies, consumer surveys, advertising, promotions or research in connection with literary, historical or similar projects. [N.J.S.A. 54:32B-8 (n)]

Sales or use of wrapping paper, wrapping twine, bags, cartons, tape, rope, labels, nonreturnable containers, reusable milk containers and all other wrapping supplies when such use is incidental to the delivery of personal property which has been sold. [N.J.S.A. 54:32B-8 (a)]

Sales of materials, such as chemicals and catalysts, used to induce or cause a refining or chemical process, where such materials are an integral or essential part of the processing operation, but do not become a component part of the finished product. [N.J.S.A. 54:32B-8 (t)]

The sale of advertising materials to be published in a newspaper. [N.J.S.A. 54:8 (ee)]

The use of property for market sampling by the purchaser. [N.J.S.A. 54:32B-11 (4)]

REPRODUCTION OF EXEMPT USE CERTIFICATE FORMS: Private reproduction of Exempt Use Certificates may be made without the prior permission of the Division of Taxation.

STATE OF NEW JERSEY, DEPARTMENT OF THE TREASURY, DIVISION OF TAXATION
Post Office Box 999, Trenton, N.J. 08625



walter c. m^ccrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

13 February 1979

Dr. Joseph P. Simko, Jr.
Colgate Palmolive Company
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

Using transmission electron microscopy and selected area electron diffraction we have analyzed a sample of talc designated as #32. We found this sample to be extremely platy, although there were indications of rolled shards because of the platiness, but we did not find any asbestiform minerals.

We thank you for consulting McCrone Associates and if there are any further questions concerning this report or the data contained herein, please feel free to contact me.

Very truly yours,

Gene R. Grieger
Senior Research Physicist

GRG:jd
Ref. MA 7673

P.O. 630318

PURCHASE REQUISITION - METROPOLITAN AREA
ORIGINAL PURCHASE ORDER

Show this number
and prefix on in-
voices, packing
slips and packages.

630318

5217-11

RPA 89982

BILL TO

COLGATE-PALMOLIVE COMPANY

A DELAWARE CORPORATION

105 HUDSON STREET, JERSEY CITY, N.J. 07302

DATE

1/25/79

McCrone Associates

2820 South Michigan Avenue

Chicago, Illinois

SHIP TO

25	86 GREENE ST. JERSEY CITY, N.J. 07302
14	☒ 909 RIVER RD. PISCATAWAY, N.J. 08854
13	20 GRAND ST. JERSEY CITY, N.J. 07302
16	RECEIVING STATION JEFFERSONVILLE, INDIANA 47130
19	RECEIVING STATION KANSAS CITY, KAN. 66105
22	710 CARLTON ST. BERKELEY, CALIF. 94710
26	300 PARK AVE. NEW YORK, N.Y. 10022
23	

ATTN: Receiving Clerk

WANTED BY

ASAP

IF ABOVE DATE CANNOT BE MET NOTIFY

DISCOUNT TERMS

- 1 ☐ 2/10 N/30
- 2 ☐ N/30
- 3 ☐ 1/10 N/30
- 4 ☐ Net Cash
- 5 ☐ Trade

SHIPPING TERMS

- 1 ☐ FOB Destination
- 2 ☐ FOB Shipping Pt.
(Pre-Pay & Bill) See Below
- 3 ☐ FOB Shipping Pt. (Collect)
City

YOU ARE AUTHORIZED TO FURNISH THE ARTICLES LISTED HEREON IN ACCORDANCE WITH THE TERMS AND CONDITIONS ON THE FACE AND BACK OF THIS ORDER.

QUANTITY AND UNIT	SYMBOL NUMBER	PRICE
	1 Sample of Talc Code #32 for Microscope and Selected Area Electron Diffraction analysis for asbestos minerals. cost approx. \$300 Sample sent under separate cover. NOTE: This is a one time request! MAIL INVOICE(S) to: A. GREVNER Colgate-Palmolive Co. 909 River Road Piscataway, N. J. 08854 INVOICE 4264 15 Feb 79 \$300-8 TAX EXEMPT	7673

VENDOR TO PROTECT ALL METAL PARTS AGAINST CORROSION BY SUITABLE PROTECTIVE SEALING.

SELLERS INVOICES that include authorized transportation charges, must be supported by prepaid freight bill or COLGATE-PALMOLIVE COMPANY copy of original bill of lading.

MARK PACKAGES with purchase order number, symbol number, contents and quantity. Acceptance of this order is to be deemed a certification that you have read and agreed to the terms and conditions on the back hereof. PAYMENT WILL NOT BE MADE AGAINST PRO FORMA INVOICE.

RESERVE UNLOADING space and time for heavy loads by telephoning: 201-434-1300 extension 309.

DATE	1/25/79
TO	McCrone Associates
FROM	Colgate-Palmolive Company
ITEM	1 Sample of Talc Code #32 for Microscope and Selected Area Electron Diffraction analysis for asbestos minerals.
QUANTITY	1
UNIT	
PRICE	\$300-8
TOTAL	\$300-8
TAX	EXEMPT
NET	\$300-8
TERMS	2/10 N/30
SHIPPING	FOB Shipping Pt. (Collect)
PAID	
DATE	15 Feb 79
SIGNATURE	Jessie W. Strub
TITLE	
COMPANY	Colgate-Palmolive Company
ADDRESS	105 Hudson Street, Jersey City, N.J. 07302
TELEPHONE	
FAX	
EMAIL	
WEBSITE	
NOTES	

TERMS AND CONDITIONS

WARRANTY — The Seller expressly warrants and agrees that there has been compliance with and no violation of any trademark rights, patent rights, copyright, or of any rule, law or regulation of the Federal Government or of any State or any of their respective agencies or political subdivisions, in the manufacture, production, sale and or shipment of the goods hereunder; and the Seller will indemnify and hold Purchaser harmless from any or all costs, damages, fines or expenses (including counsel fees and fees of expert witnesses) which may be incurred by the Purchaser by reason of any claim or suit arising out of the infringement of any trademark, patent right or copyright and/or by reason of any citation, claim or suit for damages and/or penalties brought against the Purchaser based upon any injuries, damages or violations resulting or claimed to have resulted from any alleged infringement or defect in such goods or ingredients or parts thereof.

EQUAL EMPLOYMENT OPPORTUNITY — The Equal Employment Opportunity Clause Section 202 of Executive Order 11246 as amended related to Equal Employment Opportunities and Implementing Rules and Regulations of the Secretary of Labor are incorporated herein by specific reference.

CHANGES IN ORDER — This order cannot be changed, modified or discharged in any manner except by agreement in writing signed by a duly authorized representative of the Purchaser. The Purchaser reserves the right to (1) make changes in the order (2) cancel all or any part of the order at any time by notice in writing. The Purchaser shall not be responsible for costs incurred by the Seller in connection with this order, after the date of receipt of the change or cancellation notice. Unless the Seller presents to the Purchaser an itemized statement of claim against the Purchaser within twenty (20) days after the receipt of notice of such change or cancellation, the Seller shall be conclusively deemed to have waived all claims against the Purchaser with respect thereto.

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SPECIFICATIONS, DRAWINGS, ETC. — All specifications, drawings, plans, designs, samples, or other documents referred to in this order shall be deemed an integral part of this order as fully as if set out in full herein and Seller warrants that all deliveries and/or performances hereunder shall conform thereto, each delivery and/or performance being subject to the inspection and approval of the Purchaser, whether or not any prior payment shall have been made thereon by the Purchaser.

NONCONFORMING MATERIAL — If Seller delivers defective material or material not conforming to the agree-upon specifications, Purchaser may (1) hold such material at Seller's expense pending instructions as to disposal, (2) return it to Seller at Seller's expense, or (3) utilize it in the form received or after up-grading or other operations are performed on it, or utilize it in a different manner or in different proportions with other products than was intended, and Seller will be liable for any diminution in the value to Purchaser of the material and for any incidental or other damages suffered by Purchaser resulting from such defectiveness or nonconformity. No replacement of defective or nonconforming material will be made by Seller unless authorized by Purchaser.

LIABILITY FOR DAMAGES — Whenever Seller shall, by virtue hereof, have property of the Purchaser in its possession, the Seller shall be deemed an insurer thereof and shall be responsible for its safe return to the Purchaser.

ASSIGNMENT — This order shall not be assigned or transferred without prior written consent of the Purchaser.

WAIVER — Purchaser shall not be deemed to have waived any of its rights hereunder unless such waiver shall have been signed by a duly authorized representative of the Purchaser. No such waiver, unless expressly stated therein, shall be effective as to any delivery or other transaction which may occur subsequent to the date of the waiver, nor as to any continuance of a default after such date.

LABOR AND/OR MATERIAL — With respect particularly to orders covering labor and material, Seller agrees to start work immediately, to proceed with the utmost dispatch and to complete all of the work under this order. All such work shall be performed in strict accordance with Purchaser's "General Conditions for Contract Work" Specification No. 0920-CE, nor shall work be permitted to start on Purchaser's property until required Insurance Certificates have been received by Purchaser. Time is hereby declared to be the essence of this order. Prices shown are firm and not subject to adjustment because of increase or decrease in material prices and/or wage rates and/or freight rates and/or other items of cost. The acceptance of the final payment by Seller shall be held to be a waiver and discharge of any and all claims and demands against the Purchaser for compensation and damages on account of any matter arising out of or in connection with the Contract or the performance of the work. Any extra or additional work performed by Seller shall be on a fixed price basis or cost plus fee basis and must be in each case, first authorized in writing by Purchaser. Seller's rates for such purposes shall be as set forth in a quotation from Seller prior to starting any such extra or additional work and confirmed by Purchaser's prior written authorization.

MAY BE REPRODUCED

ST 4 (10-73, R 1)

To be completed by purchaser and
given to and retained by vendor.
Read instructions on back of this
Certificate.

THIS CERTIFICATE MAY NOT
BE USED IN CONNECTION
WITH THE PURCHASE
OF SERVICES

State of New Jersey

DIVISION OF TAXATION

SALES TAX

EXEMPT USE CERTIFICATE

FORM ST-4

PURCHASER'S
CERTIFICATE OR AUTHORITY NUMBER

131-815-595/001

TO M. Cione Associates
(Name of Vendor)

Date 1/25/79.

Address

City

State

Zip

The undersigned purchaser certifies that it is not required to pay the New Jersey Sales and/or Use Tax on the purchase or purchases covered by this Certificate because the tangible personal property purchased will be used for an exempt purpose.

Said tangible personal property will be used for the following exempt purpose: for use or consumption directly and exclusively in research and development in the experimental or laboratory sense.

The exemption on the sale of said tangible personal property to be used for the above described exempt purpose is provided in subsection N.J.S.A. 54:32B-B-N (See reverse side for listing of principal exempt uses of tangible personal property and fill in the blank with proper subsection citation).

I, the undersigned purchaser, have read and complied with the instructions and rules promulgated pursuant to the New Jersey Sales and Use Tax Act with respect to the use of the Exempt Use Certificate, and it is my belief that the vendor named herein is not required to collect the sales or use tax on the transaction or transactions covered by this Certificate. The undersigned purchaser hereby swears (under the penalties for perjury and false swearing) that all of the information shown in this Certificate is true.

COLGATE-PALMOLIVE COMPANY

A VENDOR SHOULD READ AND
COMPLY WITH THE INSTRUCTIONS
GIVEN ON BOTH SIDES OF AN
EXEMPTION CERTIFICATE.

NAME OF PURCHASER (as registered with the Division of Taxation)

By

(Signature of owner, partner, officer of corporation, etc.)

Walter L. Born--Purchasing Department
105 Hudson Street

(Address of Purchaser)

Jersey City, N. J. 07302

QE-CPC00004152

INSTRUCTIONS FOR USE OF EXEMPT USE CERTIFICATES

1. Good Faith. In general, a vendor who accepts an exemption certificate in "good faith" is relieved of liability for collection or payment of tax upon transactions covered by the certificate. The question of "good faith" is one of fact and depends upon a consideration of all the conditions surrounding the transaction. A vendor is presumed to be familiar with the law and the regulations pertinent to the business in which he deals.

In order for "good faith" to be established, the following conditions must be met:

- (a) The certificate must contain no statement or entry which the vendor knows, or has reason to know, is false or misleading.
- (b) The certificate must be an officially promulgated certificate form or a substantial and proper reproduction thereof.
- (c) The certificate must be dated and executed in accordance with the published instructions, and must be complete and regular in every respect.

The vendor may, therefore, accept this "good faith" Exempt Use Certificate on a basis for exempting sales to the signatory purchaser provided that:

- (d) The purchaser's Certificate of Authority number, indicating that the purchaser is registered with the New Jersey Division of Taxation, is entered on the face of the Certificate.
- (e) The purchaser has entered all other information required on the form.
- (f) The vendor has no reason to believe that the property to be purchased is of a type not ordinarily used in the purchaser's business for the purpose described in this Certificate.

2. Improper Certificate. Sales transactions which are not supported by properly executed exemption certificates shall be deemed to be taxable retail sales. The burden of proof that the tax was not required to be collected is upon the vendor.

3. Correction of Certificate. In general, vendors have 60 days after date of sale to obtain a corrected certificate where the original certificate lacks material information required to be set forth in said certificate or where such information is incorrectly stated.

4. Additional Purchases by Same Purchaser. This Certificate will serve to cover additional purchases by the same purchaser of the same general type of property. However, each subsequent sales slip or purchase invoice based on this Certificate must show the purchaser's name, address and Certificate of Authority number for purposes of verification.

5. Retention of Certificates. Certificates must be retained by the vendor for a period of not less than three years from the date of the last sale covered by the certificate. Certificates must be in the physical possession of the vendor and available for inspection on or before the 60th day following the date of the transaction to which the certificate relates.

6. The most common exempt uses for which the Exempt Use Certificate (Form ST-4) is applicable are the following:

Sales of machinery, apparatus or equipment for use or consumption directly and primarily in the production, generation, transmission or distribution of gas, electricity, refrigeration, steam or water for sale or in the operation of sewerage systems. [N.J.S.A. 54:32B-8 (m) (2)]

Sales of tangible personal property purchased for use or consumption directly and exclusively in research and development in the experimental or laboratory sense. Such research and development shall not be deemed to include the ordinary testing or inspection of materials or products for quality control, efficiency surveys, management studies, consumer surveys, advertising, promotions or research in connection with literary, historical or similar projects. [N.J.S.A. 54:32B-8 (n)]

Sales or use of wrapping paper, wrapping twine, bags, cartons, tape, rope, labels, nonreturnable containers, reusable milk containers and all other wrapping supplies when such use is incidental to the delivery of personal property which has been sold. [N.J.S.A. 54:32B-8 (o)]

Sales of materials, such as chemicals and catalysts, used to induce or cause a refining or chemical process, where such materials are an integral or essential part of the processing operation, but do not become a component part of the finished product. [N.J.S.A. 54:32B-8 (p)]

The sale of advertising materials to be published in a newspaper. [N.J.S.A. 54-8 (ee)]

The use of property for market sampling by the purchaser. [N.J.S.A. 54:32B-11 (4)]

...

REPRODUCTION OF EXEMPT USE CERTIFICATE FORMS: Private reproduction of Exempt Use Certificates may be made without the prior permission of the Division of Taxation.

STATE OF NEW JERSEY, DEPARTMENT OF THE TREASURY, DIVISION OF TAXATION
Post Office Box 999, Trenton, N.J. 08625



walter c. mocrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

13 February 1979

Dr. Joseph P. Simko, Jr.
Colgate Palmolive Company
909 River Road
Piscataway, New Jersey 08854

Dear Dr. Simko:

Using transmission electron microscopy and selected area electron diffraction we have analyzed three samples of talc. These talcs were designated as H.S., P.B., and I.L. These samples of talc were dispersed in approximately 10 ml of isopropyl alcohol and deposited onto a TEM grid. The grid was then analyzed at 200 kV and 20,000X. We found all three samples to be completely free from asbestiform minerals. The samples were extremely platy and there were indications of rolled talc shards, fragrance and coloration pigment, but we found no asbestiform minerals.

Thank you for consulting McCrone Associates. If there are any further questions concerning this report or the data contained herein, please feel free to contact me.

Very truly yours,

Gene R. Grieger
Senior Research Physicist

GRG:jd
Ref. MA 7673

P.O. 630319

COLGATE-PALMOLIVE COMPANY

A Delaware Corporation

RESEARCH AND DEVELOPMENT DEPARTMENT

909 River Road • Piscataway, New Jersey 08854

RECEIVED JAN 12 1979

January 10, 1979

Mr. Ian Stewart
McCrone Associates
2820 South Michigan Avenue
Chicago, IL 60616

Dear Ian,

I have sent under separate cover three samples of Talc finished products for asbestos analysis. These are complex formulations with the exception of the Heaven Sent. I've attached the formulations for your information. We've applied optical microscopy and x-ray diffraction and have found no evidence of fibers or amphiboles. In the Peachbloom and Illumination samples, however, there are interferences with the x-ray and particles coating to the talc making optical microscope study difficult. Please use the best techniques you can to determine presence of asbestos minerals.

The data are required for a potential legal case. I would appreciate you giving them the best priority you can. A purchase order will follow separately.

Sample I.D.'s are: H.S. for Heaven Sent
P.B. for Peachbloom
IL. for Illumination

Sincerely yours,

Joe
J. P. Simko, Jr.

h P.O. 630319
INV 4263
\$900

JPS:ls

Attachment

7673

FORMULATIONS

Peachbloom

Magnesium Silicate	35%
E/V Talc	36
TiO ₂	10
Zinc Stearate	10
Kaolin	19
Cosmetic Ochra	1
Red Oxide	1

Illumination

Korean Talc	68
Zinc Stearate	3
Red Oxide Concentrate	3
Cosmetic Brown Concentrate	8
Cosmetic Tan Concentrate	8
Microcel	3
Marcol 40	6

Heaven Sent

Talc	96
Magnesium Carbonate	3

JPS:ls
1/10/79

PURCHASE INQUIRY - METROPOLITAN AREA
ORIGINAL PURCHASE ORDER

Show this number
and prefix on in-
voices, packing
slips and packages

630319

NO.	DATE	QUANTITY	UNIT	SYMBOL NUMBER	PRICE
-----	------	----------	------	---------------	-------



COLGATE-PALMOLIVE COMPANY
A DELAWARE CORPORATION
105 HUDSON STREET, JERSEY CITY, N.J. 07302

Miss J. Witruck

DATE 1/25/79

McCrone Associates
2820 South Michigan Avenue
Chicago, Illinois

SHIP TO	
25	86 GREENE ST. JERSEY CITY, N.J. 07302
14	909 RIVER RD. PISCATAWAY, N.J. 08854
13	20 GRAND ST. JERSEY CITY, N.J. 07302
16	RECEIVING STATION JEFFERSONVILLE, INDIANA 47130
19	RECEIVING STATION KANSAS CITY, KAN. 66105
22	710 CARLTON ST. BERKELEY, CALIF. 94710
26	300 PARK AVE. NEW YORK, N.Y. 10022
23	

ATTN: Receiving Clerk

DISCOUNT TERMS	SHIPPING TERMS	TO BY
1 ☐ 2/10 N/30	1 ☐ FOB Destination	IF ABOVE DATE BE MET NOTIFY
2 ☐ N/30	2 ☐ FOB Shipping Pt. (Pre-Pay & Bill) See Below	
3 ☐ 1/10 N/30	3 ☐ FOB Shipping Pt. (Collect)	
4 ☐ Net Cash	City	
5 ☐ Trade		

YOU ARE AUTHORIZED TO FURNISH THE ARTICLES LISTED HEREON IN ACCORDANCE WITH THE TERMS AND CONDITIONS ON THE FACE AND BACK OF THIS ORDER.

QUANTITY AND UNIT	SYMBOL NUMBER	PRICE
	Three talc samples for microscope analysis for asbestos minerals coded P.B., IL, and H.S.. cost approx. \$1000 Samples sent under separate cover attention Mr. Ian Stewart <u>NOTE:</u> This is a one time request.	

MAIL INVOICE(S) to:
Mr. A. GRIVNER
Colgate-Palmolive Co.
909 River Road
Piscataway, N.J. 08854

TAX EXEMPT

Please send invoice to Helena Rubinstein ATTENTION:
Mr. Herb Schneider.

201-547-2500
N.A. 7673
5500

VENDOR TO PROTECT ALL METAL PARTS AGAINST CORROSION BY SUITABLE PROTECTIVE SEALING.

15 Feb 79 - Per Jennie today - mail invoice to C-P, etc - Mrs. Grivner
will forward appropriately. I INV 4263 15 Feb 79 - \$900 - J.

SELLERS INVOICES that include authorized transportation charges, must be supported by prepaid freight bill or COLGATE-PALMOLIVE COMPANY copy of original bill of lading.

MARK PACKAGES with purchase order number, symbol number, contents and quantity. Acceptance of this order is to be deemed a certification that you have read and agreed to the terms and conditions on the back hereof. PAYMENT WILL NOT BE MADE AGAINST PRO FORMA INVOICE.

RESERVE UNLOADING space and time for heavy loads by telephoning: 201-434-1200 extension 302.

DELIVER TO	NAME OF SURGEON
NO. OF INVOICES	
DATE	
BY	
REMARKS	

TERMS AND CONDITIONS

WARRANTY — The Seller expressly warrants and agrees that there has been compliance with and no violation of any trademark rights, patent rights, copyright, or of any rule, law or regulation of the Federal Government or of any State or any of their respective agencies or political subdivisions, in the manufacture, production, sale and or shipment of the goods hereunder; and the Seller will indemnify and hold Purchaser harmless from any or all costs, damages, fines or expenses (including counsel fees and fees of expert witnesses) which may be incurred by the Purchaser by reason of any claim or suit arising out of the infringement of any trademark, patent right or copyright and/or by reason of any citation, claim or suit for damages and/or penalties brought against the Purchaser based upon any injuries, damages or violations resulting or claimed to have resulted from any alleged infringement or defect in such goods or ingredients or parts thereof.

EQUAL EMPLOYMENT OPPORTUNITY — The Equal Employment Opportunity Clause Section 202 of Executive Order 11246 as amended related to Equal Employment Opportunities and Implementing Rules and Regulations of the Secretary of Labor are incorporated herein by specific reference.

CHANGES IN ORDER — This order cannot be changed, modified or discharged in any manner except by agreement in writing signed by a duly authorized representative of the Purchaser. The Purchaser reserves the right to (1) make changes in the order (2) cancel all or any part of the order at any time by notice in writing. The Purchaser shall not be responsible for costs incurred by the Seller in connection with this order, after the date of receipt of the change or cancellation notice. Unless the Seller presents to the Purchaser an itemized statement of claim against the Purchaser within twenty (20) days after the receipt of notice of such change or cancellation, the Seller shall be conclusively deemed to have waived all claims against the Purchaser with respect thereto.

CANCELLATION FOR SELLER'S DEFAULT — Should the Seller fail (1) to effect delivery on or before the specified delivery date(s) (2) to deliver goods in all respects conforming with the requirements (3) to duly perform Seller's obligation under each and all of the terms and conditions of this order, the Purchaser may cancel this order in whole or in part. Without prejudice to the foregoing, the Seller agrees to report promptly to the Purchaser any delays in performance or in shipment of the goods covered by this order.

SPECIFICATIONS, DRAWINGS, ETC. — All specifications, drawings, plans, designs, samples, or other documents referred to in this order shall be deemed an integral part of this order as fully as if set out in full herein and Seller warrants that all deliveries and/or performances hereunder shall conform thereto, each delivery and/or performance being subject to the inspection and approval of the Purchaser, whether or not any prior payment shall have been made thereon by the Purchaser.

NONCONFORMING MATERIAL — If Seller delivers defective material or material not conforming to the agree-upon specifications, Purchaser may (1) hold such material at Seller's expense pending instructions as to disposal, (2) return it to Seller at Seller's expense, or (3) utilize it in the form received or after upgrading or other operations are performed on it, or utilize it in a different manner or in different proportions with other products than was intended, and Seller will be liable for any diminution in the value to Purchaser of the material and for any incidental or other damages suffered by Purchaser resulting from such defectiveness or nonconformity. No replacement of defective or nonconforming material will be made by Seller unless authorized by Purchaser.

LIABILITY FOR DAMAGES — Whenever Seller shall, by virtue hereof, have property of the Purchaser in its possession, the Seller shall be deemed an insurer thereof and shall be responsible for its safe return to the Purchaser.

ASSIGNMENT — This order shall not be assigned or transferred without prior written consent of the Purchaser.

WAIVER — Purchaser shall not be deemed to have waived any of its rights hereunder unless such waiver shall have been signed by a duly authorized representative of the Purchaser. No such waiver, unless expressly stated therein, shall be effective as to any delivery or other transaction which may occur subsequent to the date of the waiver, nor as to any continuance of a default after such date.

LABOR AND/OR MATERIAL — With respect particularly to orders covering labor and material, Seller agrees to start work immediately, to proceed with the utmost dispatch and to complete all of the work under this order. All such work shall be performed in strict accordance with Purchaser's "General Conditions for Contract Work" Specification No. 0920-CE, nor shall work be permitted to start on Purchaser's property until required Insurance Certificates have been received by Purchaser. Time is hereby declared to be the essence of this order. Prices shown are firm and not subject to adjustment because of increase or decrease in material prices and/or wage rates and/or freight rates and/or other items of cost. The acceptance of the final payment by Seller shall be held to be a waiver and discharge of any and all claims and demands against the Purchaser for compensation and damages on account of any matter arising out of or in connection with the Contract or the performance of the work. Any extra or additional work performed by Seller shall be on a fixed price basis or cost plus fee basis and must be in each case, first authorized in writing by Purchaser. Seller's rates for such purposes shall be as set forth in a quotation from Seller prior to starting any such extra or additional work and confirmed by Purchaser's prior written authorization.

MAY BE REPRODUCED

ST 4 (1073, R 1)

To be completed by purchaser and
given to and retained by vendor.
Read instructions on back of this
Certificate.

THIS CERTIFICATE MAY NOT
BE USED IN CONNECTION
WITH THE PURCHASE
OF SERVICES

State of New Jersey

DIVISION OF TAXATION

SALES TAX

EXEMPT USE CERTIFICATE

FORM ST-4

PURCHASER'S
CERTIFICATE OF AUTHORITY NUMBER

131-815-595/001

McCrone Associates
(Name of Vendor)

Date 1/25/79.

Address

City

State

Zip

The undersigned purchaser certifies that it is not required to pay the New Jersey Sales and/or Use Tax on the purchase or purchases covered by this Certificate because the tangible personal property purchased will be used for an exempt purpose.

Said tangible personal property will be used for the following exempt purpose: for use or consumption directly and exclusively in research and development in the experimental or laboratory sense.

The exemption on the sale of said tangible personal property to be used for the above described exempt purpose is provided in subsection N.J.S.A. 54:32B-B-N (See reverse side for listing of principal exempt uses of tangible personal property and fill in the block with proper subsection citation).

I, the undersigned purchaser, have read and complied with the instructions and rules promulgated pursuant to the New Jersey Sales and Use Tax Act with respect to the use of the Exempt Use Certificate, and it is my belief that the vendor named herein is not required to collect the sales or use tax on the transaction or transactions covered by this Certificate. The undersigned purchaser hereby swears (under the penalties for perjury and false swearing) that all of the information shown in this Certificate is true.

A VENDOR SHOULD READ AND
COMPLY WITH THE INSTRUCTIONS
GIVEN ON BOTH SIDES OF AN
EXEMPTION CERTIFICATE.

COLGATE-PAIMOLIVE COMPANY

NAME OF PURCHASER (as registered with the Division of Taxation)

By Walter L. Born

(Signature of owner, partner, officer of corporation, etc.)

Walter L. Born - Purchasing Department
105 Hudson Street

(Address of Purchaser)

Jersey City, N. J. 07302

INSTRUCTIONS FOR USE OF EXEMPT USE CERTIFICATES

1. Good Faith. In general, a vendor who accepts an exemption certificate in "good faith" is relieved of liability for collection or payment of tax upon transactions covered by the certificate. The question of "good faith" is one of fact and depends upon a consideration of all the conditions surrounding the transaction. A vendor is presumed to be familiar with the law and the regulations pertinent to the business in which he deals.

In order for "good faith" to be established, the following conditions must be met:

- (a) The certificate must contain no statement or entry which the vendor knows, or has reason to know, is false or misleading.
- (b) The certificate must be an officially promulgated certificate form or a substantial and proper reproduction thereof.
- (c) The certificate must be dated and executed in accordance with the published instructions, and must be complete and regular in every respect.

The vendor may, therefore, accept this "good faith" Exempt Use Certificate on a basis for exempting sales to the signatory purchaser provided that:

- (d) The purchaser's Certificate of Authority number, indicating that the purchaser is registered with the New Jersey Division of Taxation, is entered on the face of the Certificate.
- (e) The purchaser has entered all other information required on the form.
- (f) The vendor has no reason to believe that the property to be purchased is of a type not ordinarily used in the purchaser's business for the purpose described in this Certificate.

2. Improper Certificate. Sales transactions which are not supported by properly executed exemption certificates shall be deemed to be taxable retail sales. The burden of proof that the tax was not required to be collected is upon the vendor.

3. Correction of Certificate. In general, vendors have 60 days after date of sale to obtain a corrected certificate where the original certificate lacks material information required to be set forth in said certificate or where such information is incorrectly stated.

4. Additional Purchases by Same Purchaser. This Certificate will serve to cover additional purchases by the same purchaser of the same general type of property. However, each subsequent sales slip or purchase invoice based on this Certificate must show the purchaser's name, address and Certificate of Authority number for purposes of verification.

5. Retention of Certificates. Certificates must be retained by the vendor for a period of not less than three years from the date of the last sale covered by the certificate. Certificates must be in the physical possession of the vendor and available for inspection on or before the 60th day following the date of the transaction to which the certificate relates.

6. The most common exempt uses for which the Exempt Use Certificate (Form ST-4) is applicable are the following:

Sales of machinery, apparatus or equipment for use or consumption directly and primarily in the production, generation, transmission or distribution of gas, electricity, refrigeration, steam or water for sale or in the operation of sewerage systems. [N.J.S.A. 54:32B-8 (m) (2)]

Sales of tangible personal property purchased for use or consumption directly and exclusively in research and development in the experimental or laboratory sense. Such research and development shall not be deemed to include the ordinary testing or inspection of materials or products for quality control, efficiency surveys, management studies, consumer surveys, advertising, promotions or research in connection with literary, historical or similar projects. [N.J.S.A. 54:32B-8 (n)]

Sales or use of wrapping paper, wrapping twine, bags, cartons, tape, rope, labels, nonreturnable containers, reusable milk containers and all other wrapping supplies when such use is incidental to the delivery of personal property which has been sold. [N.J.S.A. 54:32B-8 (o)]

Sales of materials, such as chemicals and catalysts, used to induce or cause a refining or chemical process, where such materials are an integral or essential part of the processing operation, but do not become a component part of the finished product. [N.J.S.A. 54:32B-8 (t)]

The sale of advertising materials to be published in a newspaper. [N.J.S.A. 54:8 (ee)]

The use of property for market sampling by the purchaser. [N.J.S.A. 54:32B-11 (4)]

REPRODUCTION OF EXEMPT USE CERTIFICATE FORMS: Private reproduction of Exempt Use Certificates may be made without the prior permission of the Division of Taxation.

STATE OF NEW JERSEY, DEPARTMENT OF THE TREASURY, DIVISION OF TAXATION
Post Office Box 999, Trenton, N.J. 08625

Memo from

BILL GREW

4 Jan 78

Yoo Simko. (Colgate)

- Finished formulations

3. Helena Rubenstein

2 of the 3 had "band" in
amphibole region but
possible interference in
additives

hold for Ian
Jim Simko knows M. S. will
be out of town.

000000

8

9

Shred

PROJECT COST RECORD

talc

MA 9

PROJECT TITLE:

PROJECT NO.:

SPONSOR: CYPRUS INDUSTRIAL MINERALS CO

DATE RECEIVED:

ADDRESS: 651 Metuchen Rd

P.O. NO.: 45079

South Plainfield, NJ 07080

COMMITMENTS: \$

Contact: Mr. Vern Alltus

Telephone No.:

KEITH B. LEHMAN

SUMMARY OF PROBLEM:

Lab Notebook References:

No. _____ pp. _____ Initials _____

Sample disposal:

No. _____ pp. _____ Initials _____

returned _____

No. _____ pp. _____ Initials _____

filed (where) _____

Photomicrographic record no. _____

discarded _____

DIRECT COSTS

(Exclusive of oper. time on inst. below)				Travel				Charge Summary	
Date	Name	Hours	Charge	Date	Traveler	Destination	Cost		
			1 sample = \$300					Individuals	\$
								Instrument	
4-28-81	RME	4						Travel	
6-23-81	RME	4						Outside	
9-22-81	RME	4						Other	
								Total Charge	\$
Instrument time									
Date	Hours	Charge		Date	Company	Cost			
SEM				Photo					
TEM				Photo					
XRD				Materials					
EMP				Supplies					
IMP									
ESCA									
EMMA									
MOLE									

OK for billing
Project Ldr.
Group Ldr.

22 Sep 81 rept / INV 7899 / 2

TOTAL CHARGE \$300 -

BILLED TO CLIENT \$

INVOICE NO. (S) 8421 / 26 Mar 81 - 2

29 Apr 81 rept / INV 8513 / \$300 - 2

RME

PROJECT LEADER:

28 Aug 81 rept / INV 9177 - \$300
#3989-2/25/83 35

QE-CPC00004163

MA 9863

~~\$350~~⁰⁰

Dear Mr. Lehman

2 pp

I have completed my asbestos analysis on a talc sample labeled "Monobond" Lot 1120965A. RM 3823 and submit under P.O. # 45079.

The sample was examined with the transmission electron microscope. The sample contained no detectable asbestos. The limit of detection for the method is app. 0.1% per weight of asbestos.

Thank you for consulting McCror Associates, please contact me if you have any questions.

Sincerely,
James
McCror
Associates



walter c. m^ccrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

25 February 1983

Mr. Keith B. Lehman
Cyprus Industrial Minerals Company
651 Metuchen Road
South Plainfield, New Jersey 07080

Dear Mr. Lehman:

I have completed my asbestos analysis on a talc sample labeled "Monoblend", Lot 1120965A RM3833 and submitted under your purchase order #45079.

The sample was examined with the transmission electron microscope. The sample contained no detectable asbestos. The limit of detection for the method is approximately 0.1% per weight of asbestos.

Thank you for consulting McCrone Associates, please contact me if you have any questions.

Sincerely,

Richard M. Ellis, Jr.
Research Microscopist

RME:fe
Ref: 9863

Cyprus Industrial Minerals Company

888 South Flower Street
Los Angeles, California 90071
Telephone (213) 489-3700

Vendor

Walter McCrone Associates Inc.
2828 South Michigan Ave.
Chicago, ILL 60607
Attn: Richard M. Ellis, Jr.

Purchase Order

Ship To:
Acknowledgement Requested

Keith B. Lehman
CYPRUS INDUSTRIAL MINERALS
651 Metuchen Road
So. Plainfield, N.J. 07080

Invoice in triplicate

To:

SAME

Date	Ship Via		Date Required	Terms
2/9/83			ASAP	Net 30
Quantity Ordered	Quantity Received	Description	Unit Price	Total
		Please run your regular test for asbestos fibers on enclosed sample. Please use this P.O.# for all invoicing for the year 1983.		350/ea
MA 9803				

45079

Above order number must appear on all papers and packages relative to this order.

Keith B. Lehman
Approved

CYPRUS

QE-CPC00004166



walter c. mcrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

22 September 1981

Mr. Vern Alltus
Cyprus Industrial Minerals Company
651 Metuchen Road
South Plainfield, New Jersey 07080

Dear Mr. Alltus:

I have completed my asbestos analysis of a talc sample labeled Monoblend, lot number 812065.

The sample was examined with the transmission electron microscope. No asbestos minerals were detected. The analysis has a detection limit of approximately 0.1% by weight.

Thank you for consulting McCrone Associates, please contact me if you have any questions.

Sincerely

Richard M. Ellis, Jr.
Research Microscopist

RME/pi
MA 9863

Cyprus Industrial Minerals Company

651 Metychen Road
South Plainfield, N.J. 07080
Telephone (201) 754-4880

TWX 710-997-9528

August 21, 1981

*rec'd
25 Aug 81*

Mr. Rick Ellis
Walter C. McCrone Associates, Inc.
2820 So. Michigan Ave.
Chicago, Illinois 60616

Dear Mr. Ellis:

Enclosed herewith please find one (1) sample of Mono-
blend, Lot No. 812065.

Please perform the usual test for asbestos and return
the results to our office.

Very truly yours,

CYPRUS INDUSTRIAL MINERALS



Keith B. Lehman
Asst. Plant Supt.

KBL/hbt
Enclosure

CYPRUS

QE-CPC00004168



walter c. mcrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

28 August 1981

Mr. Vern Alltus
Cyprus Industrial Minerals Company
651 Metuchen Road
South Plainfield, New Jersey 07080

Dear Mr. Alltus:

I have completed my asbestos analysis of a sample of Cyprus Mono-blend talc Lot #712165.

The sample was analyzed by transmission electron microscopy and electron diffraction. The sample contained no detectable asbestos minerals. The limit of detection is approximately 0.1% by weight.

Thank you for consulting McCrone Associates. If you should have any questions concerning this analysis, please contact me.

Sincerely,

Richard M. Ellis, Jr.
Research Microscopist

RME:fe
Ref: 9863



walter c. mcrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

29 April 1981

Mr. Vern Alltus
Cyprus Industrial Minerals Company
651 Metuchen Road
South Plainfield, NJ 07080

Dear Mr. Alltus:

I have completed my asbestos analysis of a sample of
Cyprus Monoblend Talc Lot #311865 received by us on
20 March 1981.

The sample was analyzed by transmission electron micro-
scopy and electron diffraction. The sample contained no
detectable asbestos minerals.

Thank you for consulting McCrone Associates. Please
contact us if you have any questions.

Sincerely,

Richard M. Ellis
Research Microscopist

RME:jr
Ref. MA 9863



walter c. mcrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

29 April 1981

Mr. Vern Alltus
Cyprus Industrial Minerals Company
651 Metuchen Road
South Plainfield, NJ 07080

Dear Mr. Alltus:

I have completed my asbestos analysis of a sample of
Cyprus Monoblend Talc Lot #311865 received by us on
20 March 1981.

The sample was analyzed by transmission electron micro-
scopy and electron diffraction. The sample contained no
detectable asbestos minerals.

Thank you for consulting McCrone Associates. Please
contact us if you have any questions.

Sincerely,

Richard M. Ellis
Research Microscopist

RME:jr
Ref. MA 9863

Cyprus Industrial Minerals Company
SOUTH PLAINFIELD N.J.

Interoffice Correspondence

To

Walter C. Mc Crone

Date

March 20, 1981

From

Vern Alltus

Subject

Colgate Samples

Inclosed are two different samples of Material to be tested and the results returned here to me as per our recent conversation.

~~LOT # 110865 is to be resampled~~

LOT # 311865 is a new lot.

I still have not recieved the return of the previous sample LOT # 110865 which I requested returned to me.

Vern Alltus
Vern Alltus
Plant Supt.

26 May 81

Rick

CYPRUS

QE-CPC00004172



walter c. mcrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

25 March 1981

Mr. Vern Alltus
Cyprus Industrial Minerals Co.
651 Metuchen Road
South Plainfield, New Jersey 07080

Dear Mr. Alltus:

I have completed my asbestos analysis of a sample of Cyprus Monoblend Talc Lot #110865 received by us on 11 March 1981.

The sample was analyzed with the transmission electron microscope (TEM) and electron diffraction. The sample contained no detectable asbestos minerals. A few fibers of a clay mineral, sepiolite or attapulgite, were seen.

Thank you for consulting McCrone Associates. Please contact us if you have any questions.

Sincerely,

Richard M. Ellis, Jr.
Research Microscopist

RME:gb
Ref: 9863

11123

1

1

Stead
III

Smead®



111196

PROJECT COST RECORD

PROJECT TITLE: talc sample for asbestos (TEM) PROJECT NO.: MA 1119
 SPONSOR: CYPRUS INDUSTRIAL MINERALS CO DATE RECEIVED: 7-27-82
 ADDRESS: 7200 South Aiton Way - P.O. Box 3419 P.O. NO.: TK-0074-82
Englewood, Colo 80155 COMMITMENTS: \$ 300

Contact: Dr. Kenneth W. Olson Telephone No.: (303) 740 5444

SUMMARY OF PROBLEM:

Lab Notebook References:

No. pp. Initials
 No. pp. Initials
 No. pp. Initials
 Photomicrographic record no.

Sample disposal:

returned
 filed (where)
 discarded

DIRECT COSTS

Individual time (Exclusive of oper. time on inst. below)				Travel				Charge Summary	
Date	Name	Hours	Charge	Date	Traveler	Destination	Cost		
								Individuals	\$
								Instrument	
								Travel	
								Outside	
								Other	
								Total Charge	\$
Instrument time									
	Date	Hours	Charge		Date	Company	Cost		
SEM				Photo				OK for billing Project Ldr <u> </u> Group Ldr <u> </u>	
TEM				Photo					
XRD				Materials					
EMP				Supplies					
IMP									
ESCA									
EMMA									
MOLE									

TOTAL CHARGE \$
 BILLED TO CLIENT \$ 310
 INVOICE NO. (S) 3429-10-22

PROJECT LEADER: DPP

300



walter c. macrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

21 October 1982

Dr. Kenneth W. Olson
Cyprus Industrial Minerals Company
7200 South Alton Way
Englewood, Colorado 80155

Dear Dr. Olson:

Our laboratory has completed the asbestos analysis of talc sample "Altac 400, 052582" under your purchase order TK-0074-82. No asbestos was detected.

Approximately 0.1 to 0.15 grams of material was suspended in 10 mls of .01% methyl cellulose. This was ultrasonerated for 15 minutes and a drop of the supernatant liquid was placed on a carbon coated transmission electron microscope grid. The sample was then examined by transmission electron microscopy.

Enclosed with this report are electron micrographs of the talc.

If you have any questions regarding this analysis, please do not hesitate to call.

Sincerely,

Deborah P. Palenik
Manager, Electron Optics Group

DPP:fe
Encl.
Ref: 11196



walter c. mcrone associates, inc.

CONSULTING: ULTRAMICROANALYSIS • MICROSCOPY • SMALL PARTICLE PROBLEMS • SOLID-STATE CHEMISTRY

21 October 1982

Dr. Kenneth W. Olson
Cyprus Industrial Minerals Company
7200 South Alton Way
Englewood, Colorado 80155

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Encl.
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Cyprus Industrial Minerals Company

Talc Division
7200 South Alton Way, P.O. Box 3419
Englewood, Colorado 80155
303-740-5444

July 20, 1982

Ms. Deborah Palenik
Walter C. McCrone Associates
2820 South Michigan Avenue
Chicago, Illinois 60616

Dear Ms. Palenik:

Enclosed please find talc sample "Altalc 400, 052582" for analysis for asbestos and asbestiform minerals using the TEM-SAED method in your laboratory. As per our telephone conversation of July 20, 1982, this work is to be done using our P.O. #TK-0074-82 and is to cost \$300.00.

As we are eager to obtain the results of your analysis, we hope to obtain your report soon.

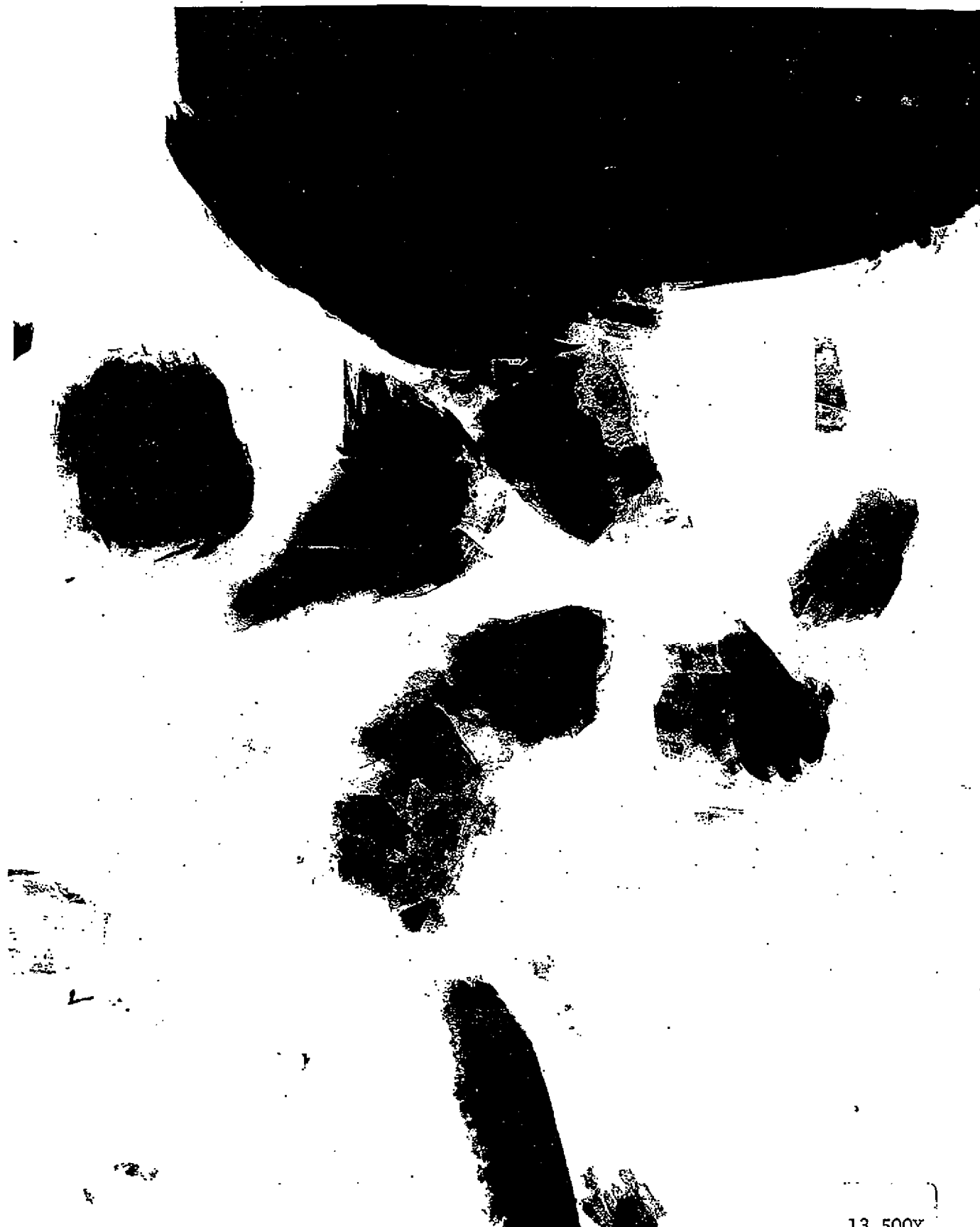
Sincerely,

Kenneth W. Olson, Ph.D.

KWO/mc

Enclosure

C. R. Moebus



13,500X

walter c. mc crone associates, inc.

QE-CPC00004180



walter c. mc crone associates, inc.

QE-CPC00004181