Box # 12-2-5-27

ChemRisk/Shonka Research Associates, Inc., Document Request Form

(This section to be completed by subcontractor requesting document)

Jennifer Lamb / K-25 Site Record

Requestor — Document Center (is requested to provide the following document)

Date of request 3/22/95 — Expected receipt of document 4/7/95

Document number _____ — Date of document 1960-1963

Title and author (if document is unnumbered)

K-1420 Air Analyses 1960-1963

Please copy the entire folder

(This section to be completed by Document Center)

Date request received 3/27/95

Date submitted to ADC 4/3/95

Date submitted to HSA Coordinator 3/27/95

(This section to be completed by HSA Coordinator)

Date submitted to CICO 4/3/95 6/8/95

Date received from CICO 5/9/95 7/10/95

Date submitted to ChemRisk/Shonka and DOE 7/17/95

(This section to be completed by ChemRisk/Shonka Research Associates, Inc.)

Date document received _____

Signature _____

ChemRisk Document No. 2104

Sanitized Version of Folder of
K-1420 AIR ANALYSES 1960—

Compiled by

S. G. Thornton
Environmental Management Division
OAK RIDGE K-25 SITE
for the Health Studies Agreement

July 1995

Oak Ridge K-25 Site
Oak Ridge, Tennessee 37831-7301
managed by
LOCKHEED MARTIN ENERGY SYSTEMS, INC.
for the U.S. DEPARTMENT OF ENERGY
under Contract DE-AC05-84OR21400

This document has been approved for release to the public by:
G W Hall for
Irvin D. Smith 7/5/95
Technical Information Officer Date
Oak Ridge K-25 Site

WEM

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/21/62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 944 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"F" AREA,						PPM	
1	middle of oxide conversion Room	0035-0105	1	30	F_2	0.90	0.7	
2	" "	0105-0135	1	30	F_2	0.69	0.5	
3	" "	0135-0205	1	30	F_2	0.82	0.6	
4	" "	0205-0235	1	30	F_2	0.80	0.6	
	"H" AREA							
5	By Feed Hopper	0035-0105	1	30	HF	0.08	0.1	
6	" "	0105-0135	1	30	HF	0.07	0.1	
7	" "	0135-0205	1	30	HF	0.06	0.1	
8	" "	0205-0235	1	30	HF	0.07	0.1	

F_2 - 4-0.
HF - 16-0.
NO_2 - 3-1.

TK 1/4/63

SAMPLED BY J. K. Lowery SUPERVISOR R. L. Newton DATE RELEASED

UCN-8908 (1 11-62)

WE III

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

REPORT NO. 947

DATE OF SERVICE TRIP 12/21/62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION mg/m³	OBSERVATIONS
	"C" AREA	0530-						By employees, knocking out ferrules.
1	South Side of Deferruling Booth.	-0600	3	90				
2	" "	0600- -0630	3	90				" "
3	" "	0630- -0700	3	90				" "
4	" "	0700- -0730	3	90				" "
5	By Floor Pan	0535	—	—	NO_2		1 PPM	By Employees Cleaning equipment.

SAMPLED BY J. K. Lowery TK 1/4/63 SUPERVISOR R. Newton DATE RELEA

WEM

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 1-3-63 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 4 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	E AREA							
1	middle of Oxide Conversion Room	1330-1400	1	30	HF	0.05	0.1	
2	" "	1400-1445	1	45	HF	0.08	<0.1	Employee, wearing Respiratory Protection, Changed Acid Receiver.
3	" "	1445-1515	1	30	HF	0.14	0.2	odor of HF
4	" "	1515-1545	1	30	HF	0.05	0.1	
5	Middle of fluorination Room	1330-1400	1	30	HF	0.12	0.2	Employee Sweeping floor.
6		1400-1445	1	45	HF	0.07	<0.1	
7		1445-1515	1	30	HF	0.32	0.5	Employee, wearing Respiratory protection, changing Receiver on Tower.
8		1515-1545	1	30	HF	1.40	2.0	

SAMPLED BY J. K. Lowery 1/10/63 SUPERVISOR R. L. Newton DATE RELEASED

W2M

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 1-3-63 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 5 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"B" AREA							
1	West end of Calciner booth	1330-1400	1	30	HF	0.43	0.6	
2	" "	1400-1445	1	45	HF	0.33	0.3	
3	" "	1445-1515	1	30	HF	0.40	0.6	
4	" "	1515-1545	1	30	HF	0.34	0.5	
5	By Calciner Booth	1300			NO_2		1 PPM	TWO DRUM Dryers IN Operation
6	Calciner platform, by drum dryer	1320			NO_2		7 PPM	

TK 1/10/63

SAMPLED BY J. K. Lowery SUPERVISOR R. Newton DATE RELEASED

WEM

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 1-3-63 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 6 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"H" Area							
1	Five Ft from Powder hopper to fluorination tower	1315-1345	1	30	HF	0.22	0.3	
2	" "	1345-1415	1	30	HF	0.18	0.3	
3	" "	1415-1500	1	45	HF	0.17	0.2	
4	" "	1500-1530	1	30	HF	0.76	1.1	Opening in Floor to E area where employee was changing ash Receiver.

SAMPLED BY J. K. Lowery JK 1/10/63 SUPERVISOR R. L. Newton DATE RELEASED

UCN-3905 (1 11-62)

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/18/62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 931 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"C" Area						PPM	
1	Northeast corner of floor Dam	1330-1400	1	30	HF	0.03	<0.1	
2	" " "	1400-1430	1	30	HF	0.02	<0.1	
3	" " "	1430-1500	1	30	HF	0.04	0.1	
4	" " "	1500-1530	1	30	HF	0.03	<0.1	
5	Northeast corner of deblading platform	1330-1400	1	30	HF	0.04	0.1	
6		1400-1430	1	30	HF	0.02	<0.1	
7	" " "	1430-1500	1	30	HF	0.08	0.1	
8	" " "	1500-1530	1	30	HF	0.04	0.1	
HF-8-0, 2.2 hrs.								

SAMPLED BY K. Lowery & B. Trivett JK 12/26/62 SUPERVISOR [illegible] DATE RELEASED

UCN-3905 (1 11 [illegible])

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/18/62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 932 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"C" AREA						PPM	Employees disassembling Compressor. No Respiratory protection being worn.
1	Northwest Corner of Compressor pit	1330-1400	1	30	HF	0.01	<0.1	
2	" " "	1400-1430	1	30	HF	0.01	<0.1	
3	" " "	1430-1500	1	30	HF	0.03	0.1	
4		1500-1530	1	30	HF	<0.01	<0.1	

SAMPLED BY J.K. Laveny & B. Teivett TK 12/26/62 SUPERVISOR DATE RELEASED

UCN-3905 (1 11-62)

WEM

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12-14-62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 923 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"B" AREA;						PPM	
	Calciner Booth,							
1	middle of Booth	1320-1350	1	30	HF	0.09	0.1	on catwalk
2	" " "	1350-1420	1	30	HF	0.06	0.1	" "
3	" " "	1420-1450	1	30	HF	0.04	0.1	" "
4	" " "	1450-1520	1	30	HF	0.08	0.1	" "
5	East end of Booth	1330			NO_2		2 PPM	" "
6	Middle of Booth	1335			NO_2		2 PPM	" "
7	West end of Booth	1340			NO_2		2 PPM	" "

HF - 4-3, 2.2 hrs.
NO_2 - 3-0.03 hrs.

Industrial Hygiene Physics

SAMPLED BY B. Trivett. TR 12/21/62 SUPERVISOR [signature] DATE RELEASED 12/28/62

UCN-3905 (1 11-62)

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12-14-62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 924 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"H" AREA,						PPM	Operator, wearing
1	By OXIDE CONVERSION	1400-	1	30	HF	3.44	5.0	respiratory protection,
	HOPPER.	-1430						Dumping material
								into Hopper.
2	" "	1430-	1	30	HF	3.92	5.6	
		-1500						
								Very strong odor of
3	" "	1500-	1	30	HF	6.56	9.4	HF within a
		-1530						20 ft radius of
								the operation.

SAMPLED BY B. TRIVETT TK 12/21/62 SUPERVISOR [signature] DATE RELEASED 12/28/62

10

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12-12-67 BUILDING K-1420 ROUTINE ☐ SPECIAL ☑ REPORT NO. IH. # 14 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	1420 LABORATORY -	1055 -			T.C.E			Trichlor was
	LAB ROOM -				"	1.50	279	being used by
	" " BY PAINTER				"	1.00	186	carpenter in LAB
	LAB Office				"	2.00	372	office to remove
	Recovery Area "B"				"	0.15	27	floor tile adhesive.
					"			Air was being
	LAB Room	-1130			"	0.35	65	drawn into the
								LAB by the LAB
								ventilation

= This condition existed while mts. forces were removing tile from Lab Floor

RJC

TCE-3-2, 1.0 hr.

[illegible] [illegible] DATE REC 12/28/67

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 11/29/62 BUILDING K-1420 ROUTINE [X] SPECIAL [ ] REPORT NO. 880 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"A" Area							
1	By column G-26	1330-2137	1	487.1	F	0.05	<0.1	Employee added scrap to furnace.
2	"	2137-0528	1	471.0	F	0.10	<0.1	
3	"	0528-1330	1	482.1	F	0.29	<0.1	Employee added salts to furnace.
4	"	1330-2130	1	452.8	Spec.			
					Cl	0.26	<0.1	Employee added scrap to furnace.
					F	0.26	<0.1	
5	"	2130-0530	1	452.8	Spec.			
					Cl	0.14	<0.1	
					F	0.20	<0.1	
6	"	0530-1330	1	452.8	Spec.			
					Cl	< 0.26	0.1	Employee added scrap to furnace.
					F	< 0.14	0.1	

12

Misc-9,

Health Physics

DATE RELEASED

Report No. 16.023
Date 12-5-62
By W.B.L.

SPECTROCHEMICAL REPORT

Analysis Requested by Whitson

METHOD USED:

☑ QUALITATIVE
The amount reported may vary between one third and three times the true value.

☐ SEMI-QUANTITATIVE
The amount reported is approximately within 20% of the true value.

☐ QUANTITATIVE
The precision is approximately plus or minus 5% of the amount reported.

"—" means "sought but not found"

Numbers = total µg.

When an element is not reported, it usually contains sensitive lines at wave lengths which are outside the region photographed for this analysis. A special re-run can be made for any element that is of interest. In addition to the elements listed, the rare earth elements may also be obtained.

REMARKS:

Sample #	7541	7542	7543	
TYPE	880-4	880-5	880-6	
Ag	10	10	—	
Al	10000	10,000	4,000	
As	—	—	—	
Au				
B				
Ba	—	—	—	
Be	—	—	—	
Bi	—	—	—	
Ca	200	400	200	
Cb				
Cd	—	—	—	
Co	—	—	—	
Cr	—	—	—	
Cs				
Cu	200	200	100	
Fe	1000	400	100	
Ga				
Ge				
Hf				
Hg	—	—	—	
In				
Ir				
K				
Li				
Mg	100	400	20	
Mn	80	20	—	
Mo	—	—	—	
Na				
Ni	40	40	40	
Os				
P				
Pb	1000	—	—	
Pd				
Pt				
Rb				
Re				
Rh				
Ru				
Sb	—	—	—	
Sc				
Si	20,000	8,000	4,000	
Sn	400	200	200	
Sr				
Ta				
Te				
Th				
Ti	20	20	—	
Tl				
U				
V	—	—	—	
W				
Zn	—	—	—	
Zr				

Supervisor J. A. Carter.
Phone 8327

WCX-2429-A (8-55)

WEM

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 11/29/62 BUILDING K-1420 ROUTINE ☑ REPORT NO. 828

SPECIAL ☐ REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
1 G-5	Same. North east corner of deblading platform.	1030 1100	1	30	HF	0.18	0.3	Employee deblading equipment ~~[illegible]~~
2 6	Same.	1200 1230	1	30	HF	0.05	0.1	Same.
3 7	Same.	1230 1300	1	30	HF	0.14	0.2	Same.
4 8	Same.	1300 1330	1	30	HF	0.30	0.4	Same.
5 7	20 ft. South of column D-10.	1030 1100	1	30	HF	0.18	0.3	Employee, without respiratory protection, deblading equipment.
6	Same.	1200 1230	1	30	HF	0.18	0.3	Same.
7	Same.	1230 1300	1	30	HF	0.24	0.3	Same.
8	Same.	1300 1330	1	30	HF	0.16	0.2	Same.
HF - 24-0, 4.4 hrs								
Flot - 4-0, 2.2 hrs								

SAMPLED BY [illegible] SIGNATURE [illegible] 12/3/62

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 11/29/62 BUILDING K-1420 ROUTINE [X] SPECIAL [ ] REPORT NO. 879 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"C" Area;							
1 GS-1	Northeast corner of floor pan.	1030-1100	1 cfm	30	HF	0.05	0.1	
2 C ?	Same	1200-1230	1 cfm	30	HF	0.04	0.1	
3 GS-3	Same	1230-1300	1 cfm	30	HF	0.07	0.1	
4	Same	1300-1330	1 cfm	30	HF	0.05	0.1	

SAMPLED BY J KLEIBT SUPERVISOR T K [illegible] DATE RELEASED 12/6/62

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 11/29/62 BUILDING K-1420 ROUTINE [X] REPORT NO. 881

SPECIAL [ ] REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"E" Area;							
1	North pulverizer room.	1030-	1 cfm.	30	Dust		5.3 MPPCF	Employee in area, wearing
GS-1		1100			HF	0.42	0.6 PPM	respiratory protection,
								operating pulverizer.
2	Same	1100-	1	30	Dust		0.9 MPPCF	
[illegible]2		1130			HF	0.21	0.3 PPM	
3	Same	1230-	1	30	Dust		0.6 MPPCF	
GS-3		1300			HF	0.14	0.2 PPM	
4	Same	1300-	1	30	Dust		0.5 MPPCF	
		1330			HF	0.17	0.2 PPM	

6

SURVEYED BY JK/&RT. SUPERVISOR T Kwasnoski DATE RELEASED 12/6/62

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/3/62 BUILDING K-1420 ROUTINE [X] SPECIAL [ ] REPORT NO. 887 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
1 GS-1	"E" Area; By fluorine conditioning system.	1010-1040	1 cfm.	30	HF	0.06	0.1	West end of room.
2 GS-2	Same	1040-1110	1 cfm.	30	HF	0.06	0.1	
3 GS-3	Same	1110-1140	1 cfm.	30	HF	0.06	0.1	
4 GS-4	Same	1140-1210	1 cfm	30	HF	0.11	0.2	
5 GS-5	By condenser # 16-A	1010-1040	1 cfm	30	HF	0.07	0.1	
GS-6	Same	1040-1110	1 cfm	30	HF	0.05	0.1	
7 GS-7	Same	1110-1140	1 cfm	30	HF	0.13	0.2	
8 GS-8	Same	1140-1210	1 cfm	30	HF	0.13	0.2	

SAMPLED BY BT. SUPERVISOR [illegible] DATE RELEASED 12/6/62

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/18/62 BUILDING K-1420 ROUTINE ☐ SPECIAL ☐ REPORT NO. 933 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
							ppm	
1	Ground Floor TRUCK ENTRANCE; IN Front of ELEVATOR	1330			CO		400	West side of Truck E-7372. ENGINE Operating
2	"B" Area By Column B-9	1333			CO		100	" "
3	By Column B-12	1336			CO		50	By Employees.
4	"H" Area By door to elevator	1340			CO		40	Elevator door Closed.
5	middle of "H" Area	1344			CO		20	By employee
6	Middle of "E" Area	1349			CO		20	
7	Middle of "F" Area	1355			CO		20	No one in Area 1400: TRUCK Left Area.

SAMPLED BY J. K. Lawrence TWLTK SUPERVISOR DATE RELEASED

18

WEM

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/3/62 BUILDING K-1420 ROUTINE [x] SPECIAL [ ] REPORT NO. 889 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION MPPCF	OBSERVATIONS
	"C" Area							
1	North side of hammermill	1300-1330	3	90	Dust		0.1	In operation
2	"	1330-1400	3	90	Dust		0.1	"
3	"	1400-1430	3-	90	Dust		0.2	"
4	"	1430-1500	3	90	Dust		0.2	
5	By scrap hopper	1300-1330	3	90	Dust		0.3	
6	"	1330-1400	3	90	Dust		0.2	
7	"	1400-1430	3	90	Dust		0.4	
8	"	1430-1500	3	90	Dust		0.1	

Dust-12-0, 44 hrs

Physics Tech

B. Trivett TR 12/13/62 SUPERVISOR DATE RELEASED

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/3/62 BUILDING K-1420 ROUTINE [x] SPECIAL [ ] REPORT NO. 890 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION MPPCF	OBSERVATIONS
	"C" Area:							
1	Pit under scrapsaw	1300-1330	1	30	Dust		1.5	
2	"	1330-1400	1	30	Dust		1.3	
3	"	1400-1430	1	30	Dust		2.7	
4	"	1430-1500	1	30	Dust		1.9	

TK 12/17/62

20

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/18/62 BUILDING K-1420 ROUTINE ☑ REPORT NO. 930

SPECIAL ☐ REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"C" AREA	1330-					PPM	
1	By Column G-10	-1400	1	30	HF	0.02	<0.1	
2	" "	1400- -1430	1	30	HF	0.06	0.1	
3	" "	1430- -1500	1	30	HF	0.02	<0.1	
4	" "	1500- -1530	1	30	HF	0.01	<0.1	
5	10 Ft North of Column G-8	1330- -1400	1	30	HF	0.01	<0.1	By welder, cutting on compressor.
6	" " "	1400- -1430	1	30	HF	0.01	<0.1	" "
7	" " "	1430- 1500	1	30	HF	0.03	<0.1	" "
8	" " "	1500- 1530	1	30	HF	0.03	<0.1	" "

HF - 8-0, 2.2 hrs
2- /2945, 2 hrs.
CO-5- , 0.7 h.

Physics

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/18 & 19/62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 934 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"H" AREA	12/18/62			HF		0X0/1540	AIRBORNE FLUORIDE
	By Feed hopper of	1420-						ANALYZER
	OXIDE CONVERSION UNIT.							X-10 Scale
		-1600						
		12/19/62						

SAMPLED BY J. K. Lowery + B. Trivett SUPERVISOR DATE RELEASED

UCN-3905 (1 11-62)

Report No. 934-1

H Area.

Airborne Fluoride Analyzer.

X10 Scale.

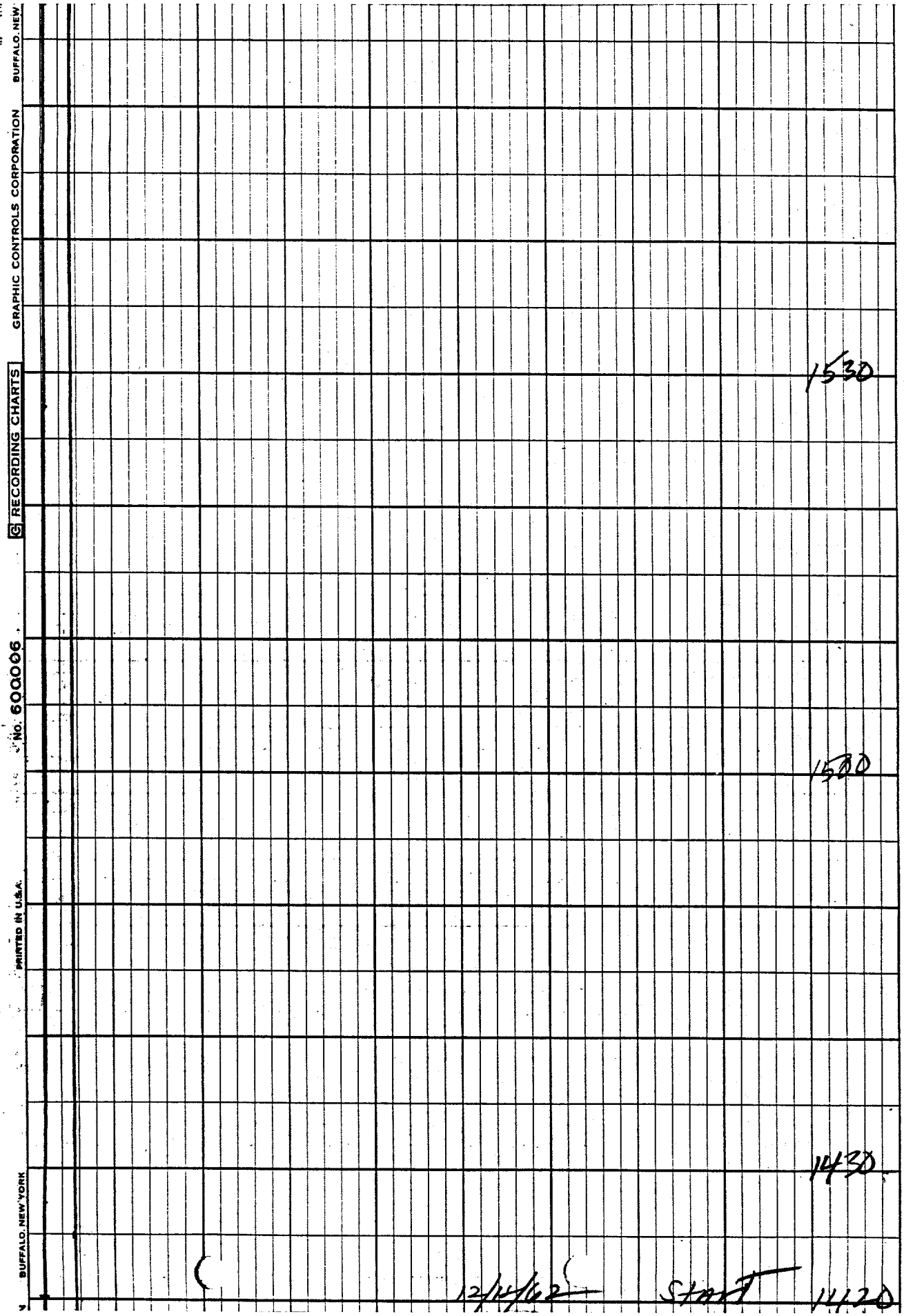
3 PPM HF

Base Line: X10 Scale.

GRAPHIC CONTROLS CORPORATION

RECORDING CHARTS

No. 600006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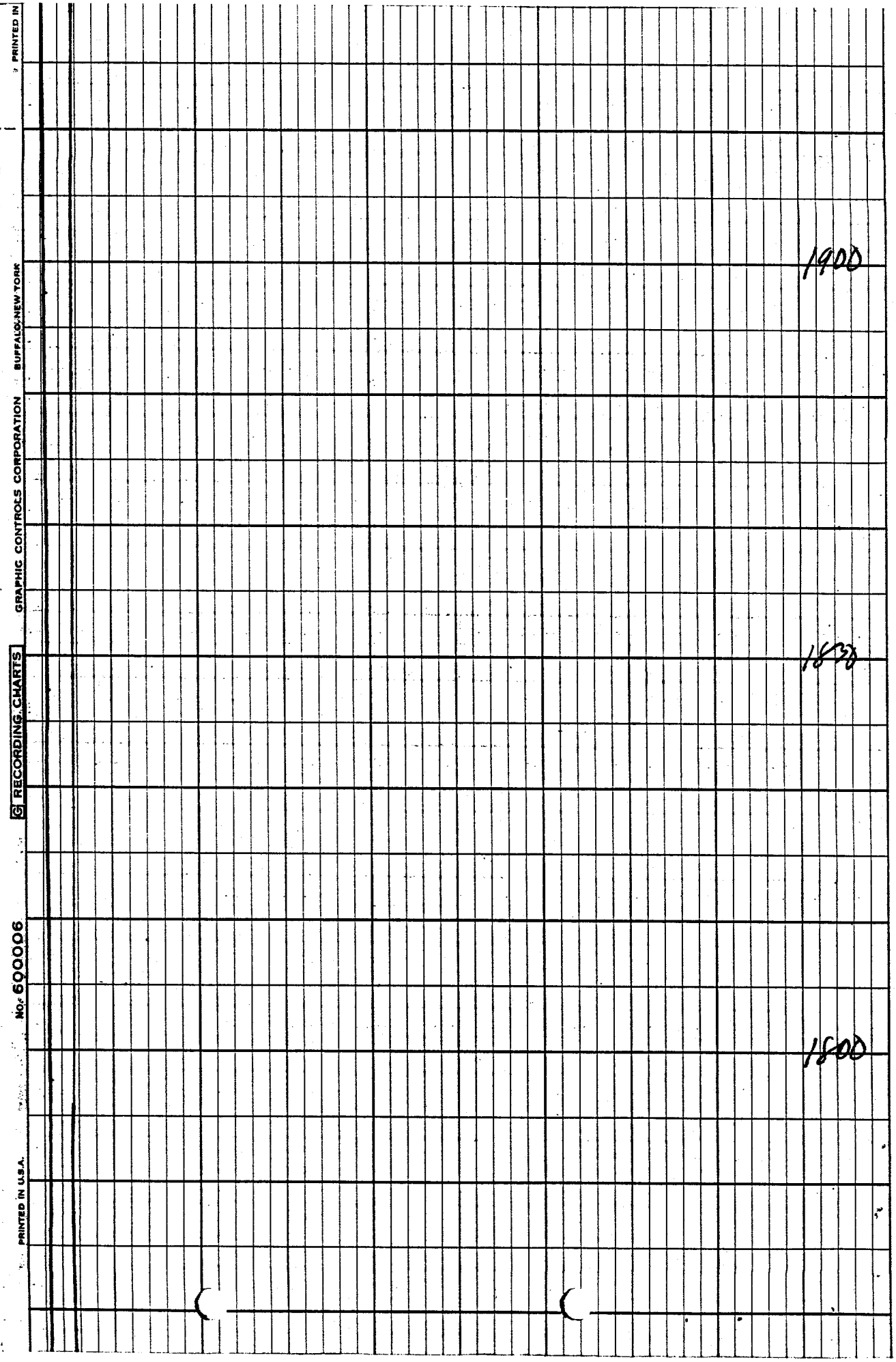
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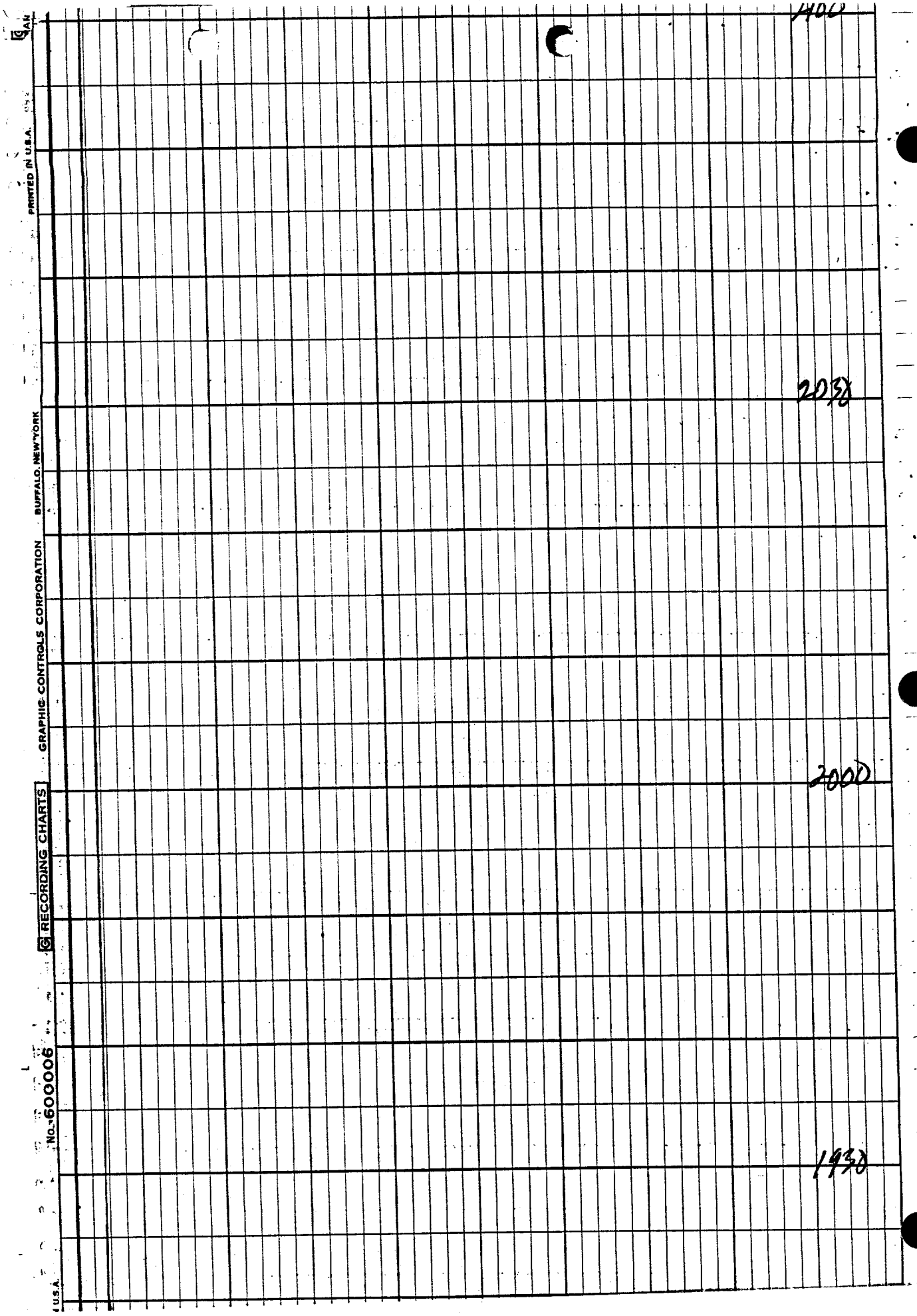
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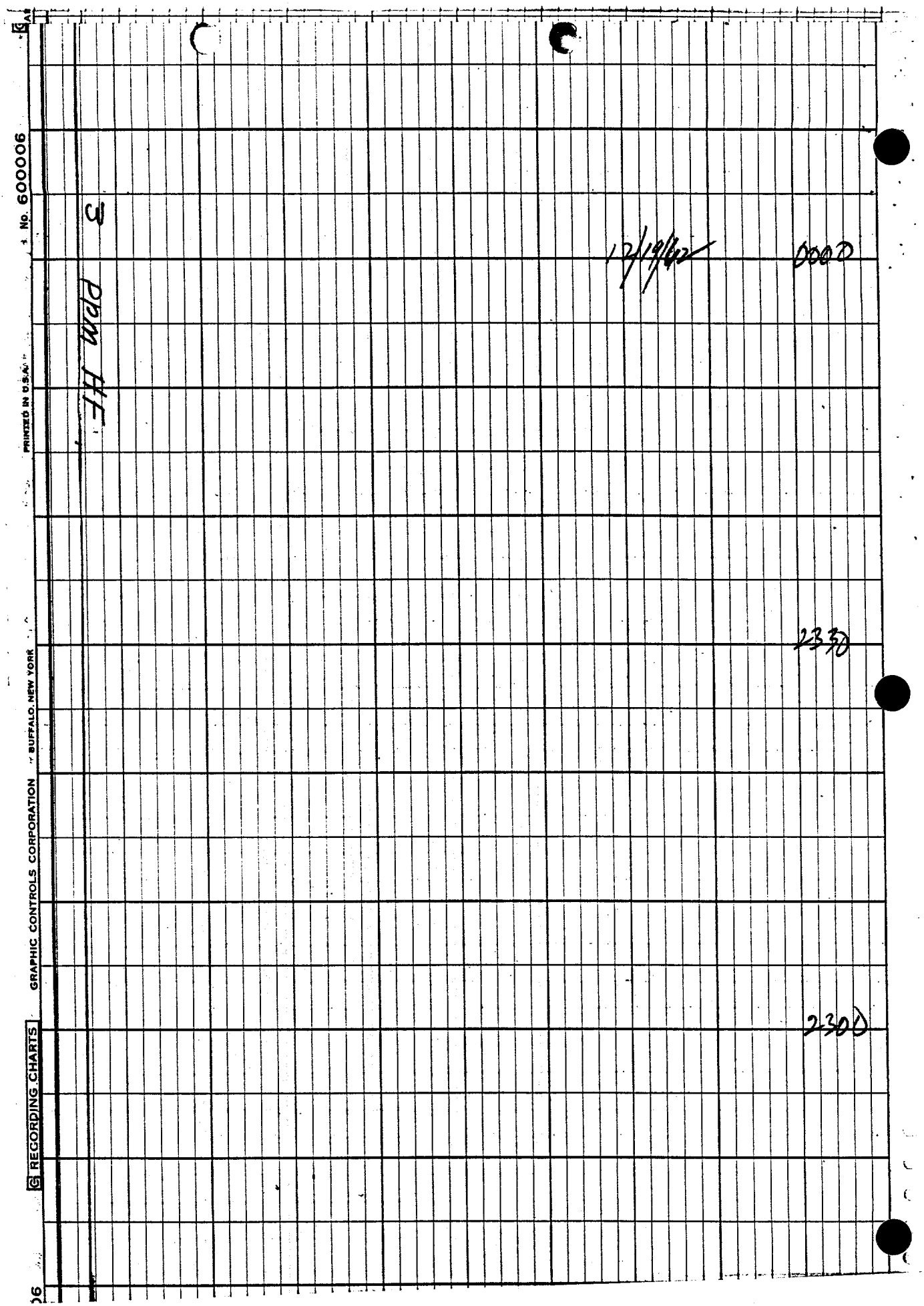
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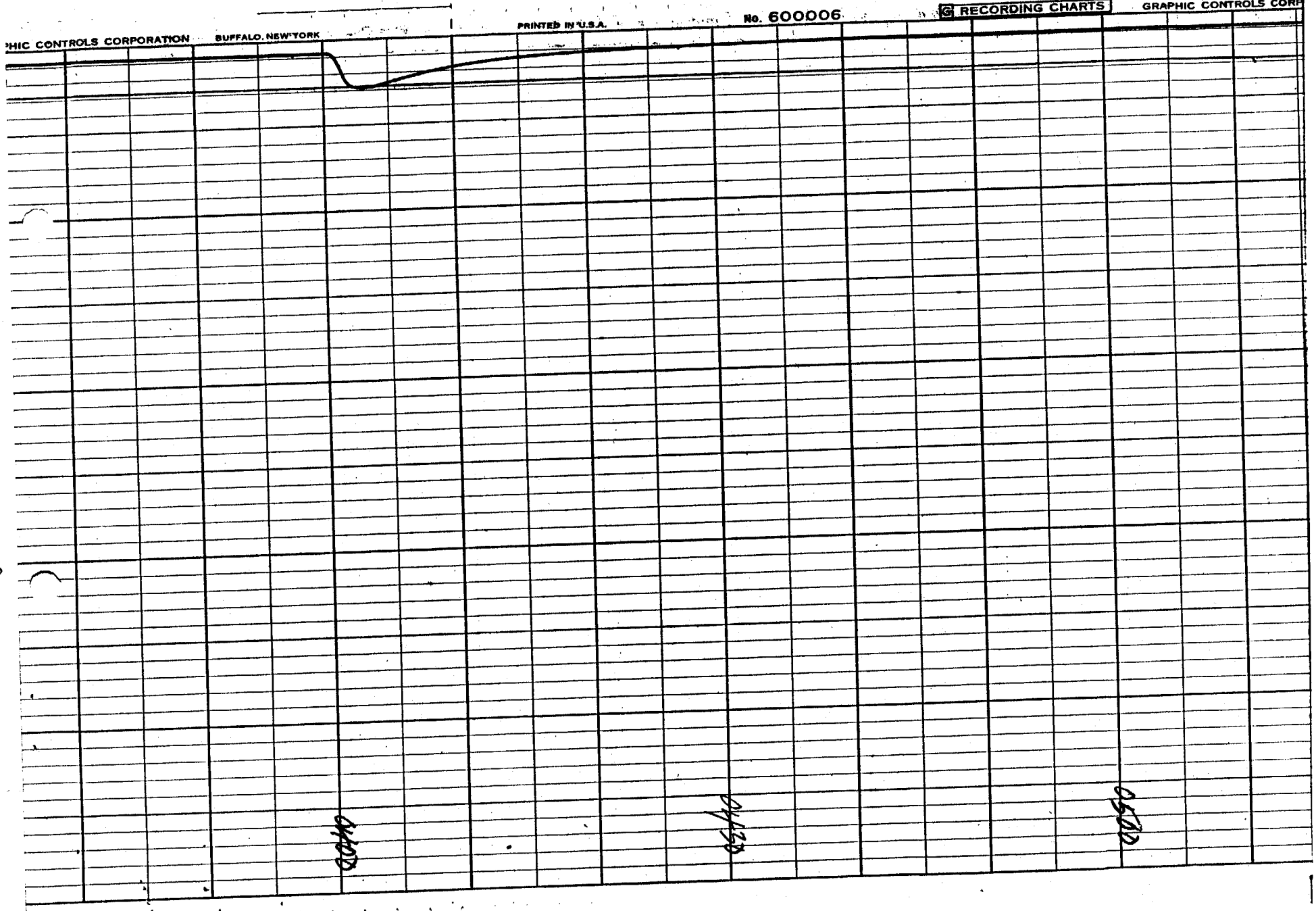

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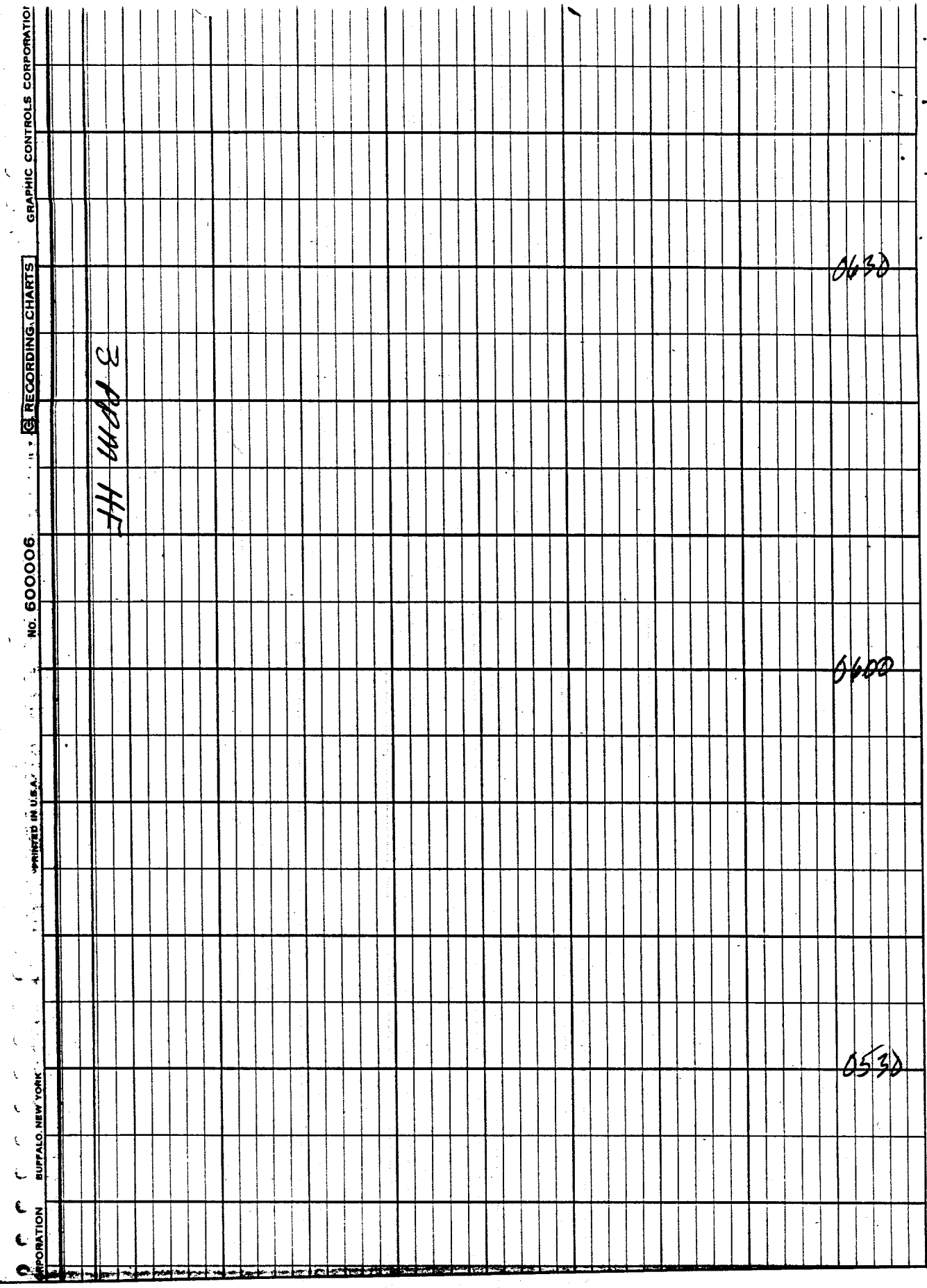
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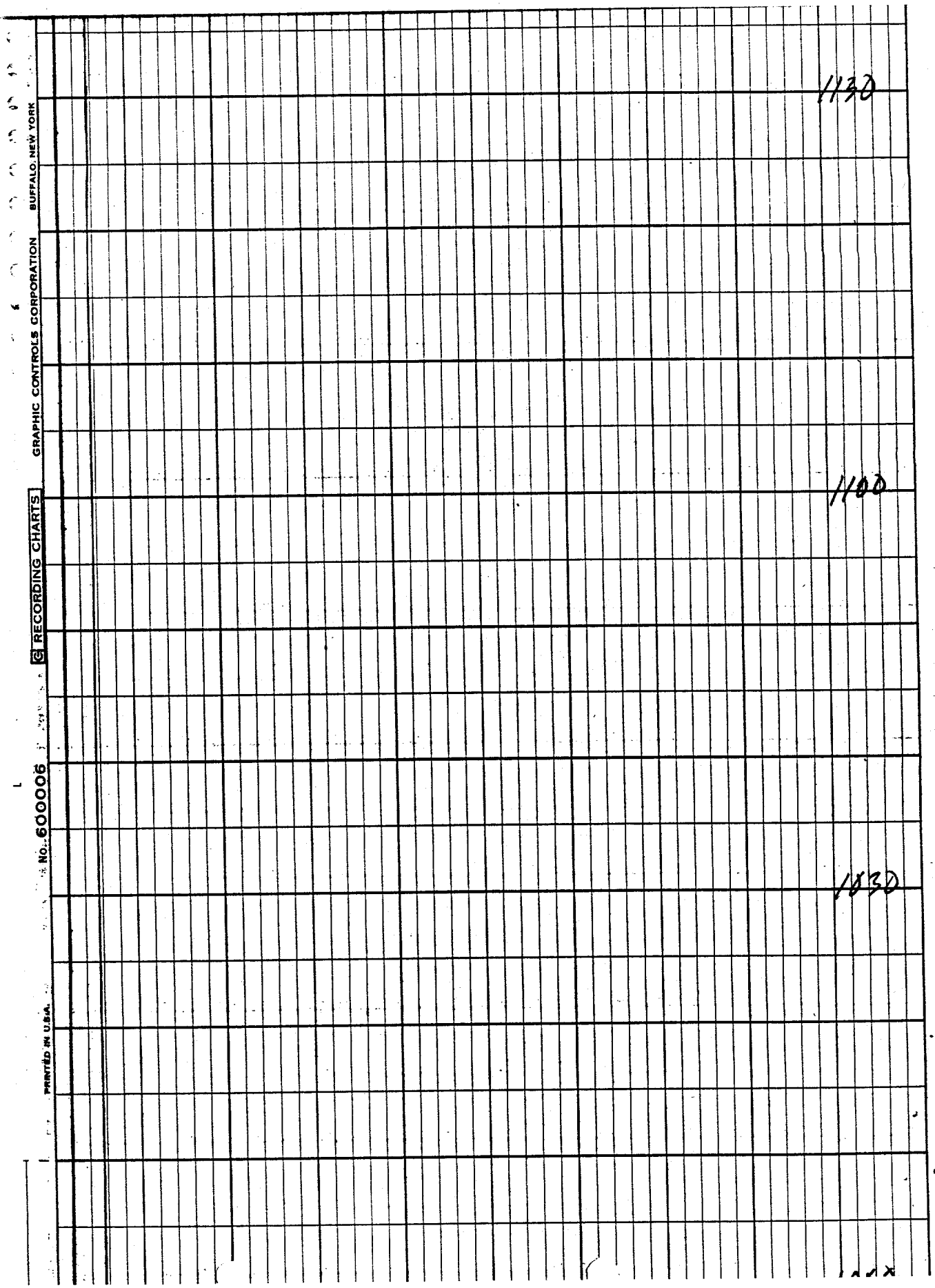
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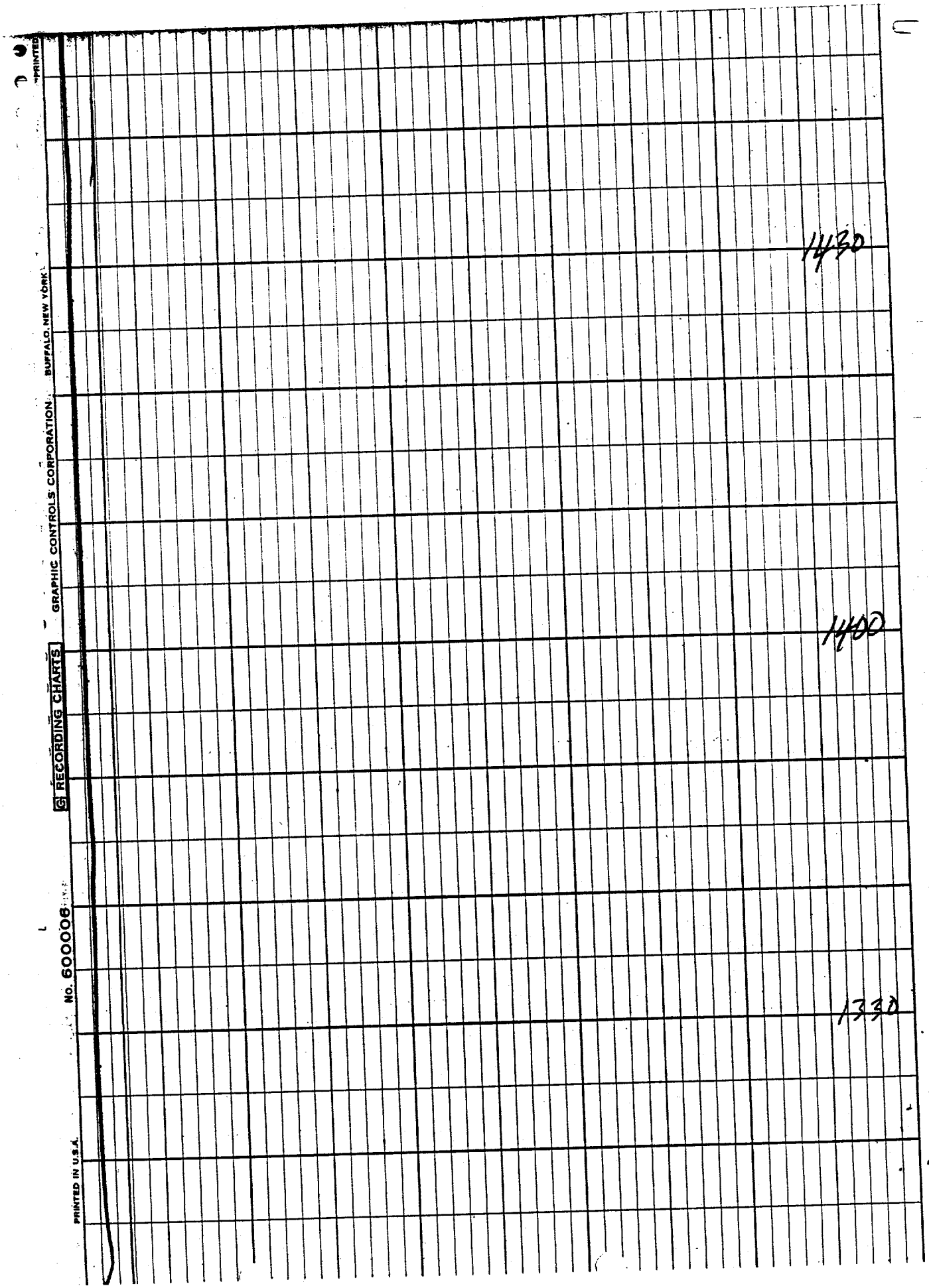
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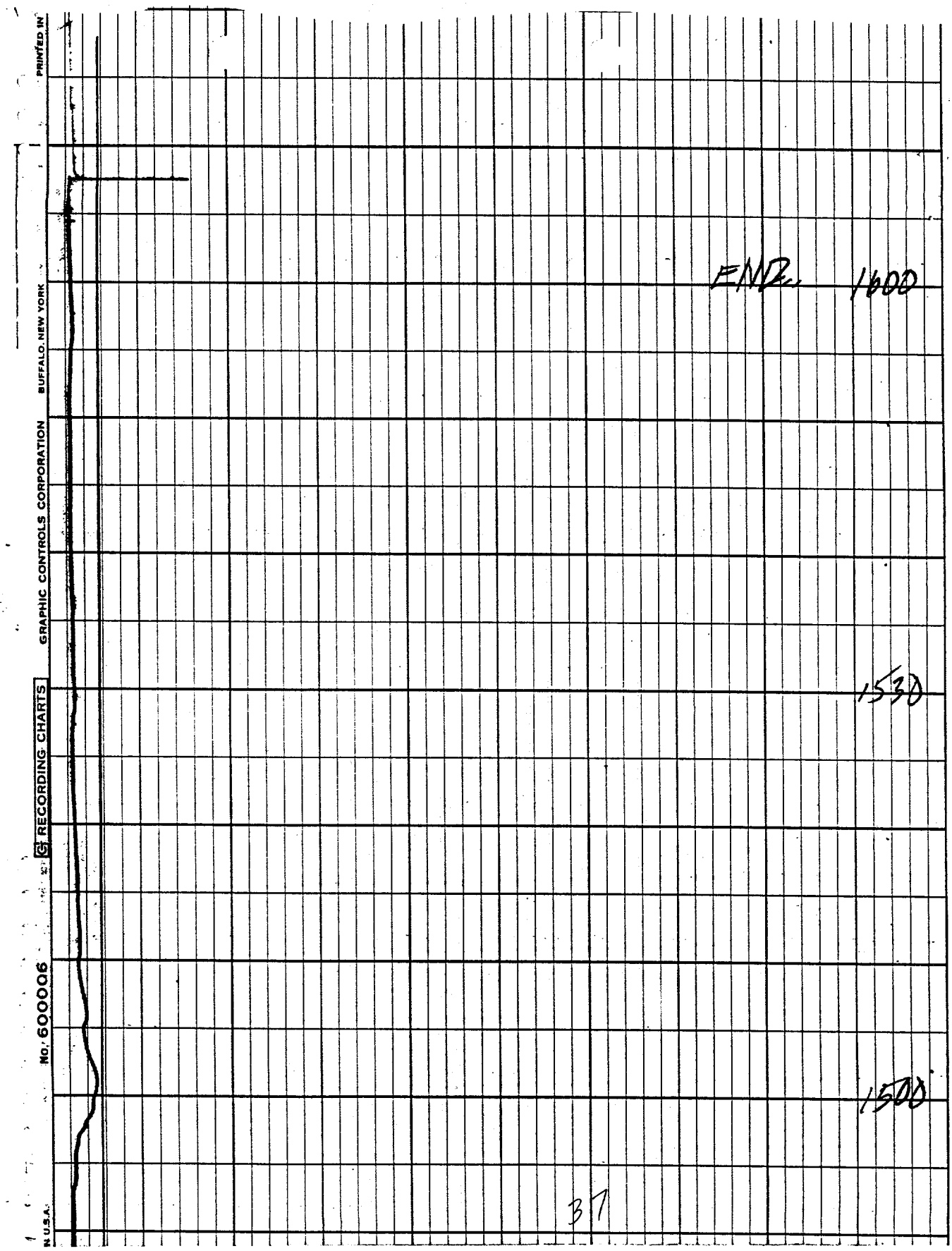
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INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/19 & 20/62 BUILDING 1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 941 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
1	"H" AREA By feed Hopper to Oxide Conversion Unit.	12-19-62 1600-			HF			AIRBORNE FLUORIDE ANALYZER X10 SCALE
		-1525 12-20-62					2X1/1405	

SAMPLED BY J. K. Lowery. SUPERVISOR DATE RELEASED

38

1630

1600

Report No 941

Airborne Fluoride Analyses

X10 Scale.

Base Line on Previous Report.

from this area.

Base Line

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RECORDING CHARTS
No. 600006
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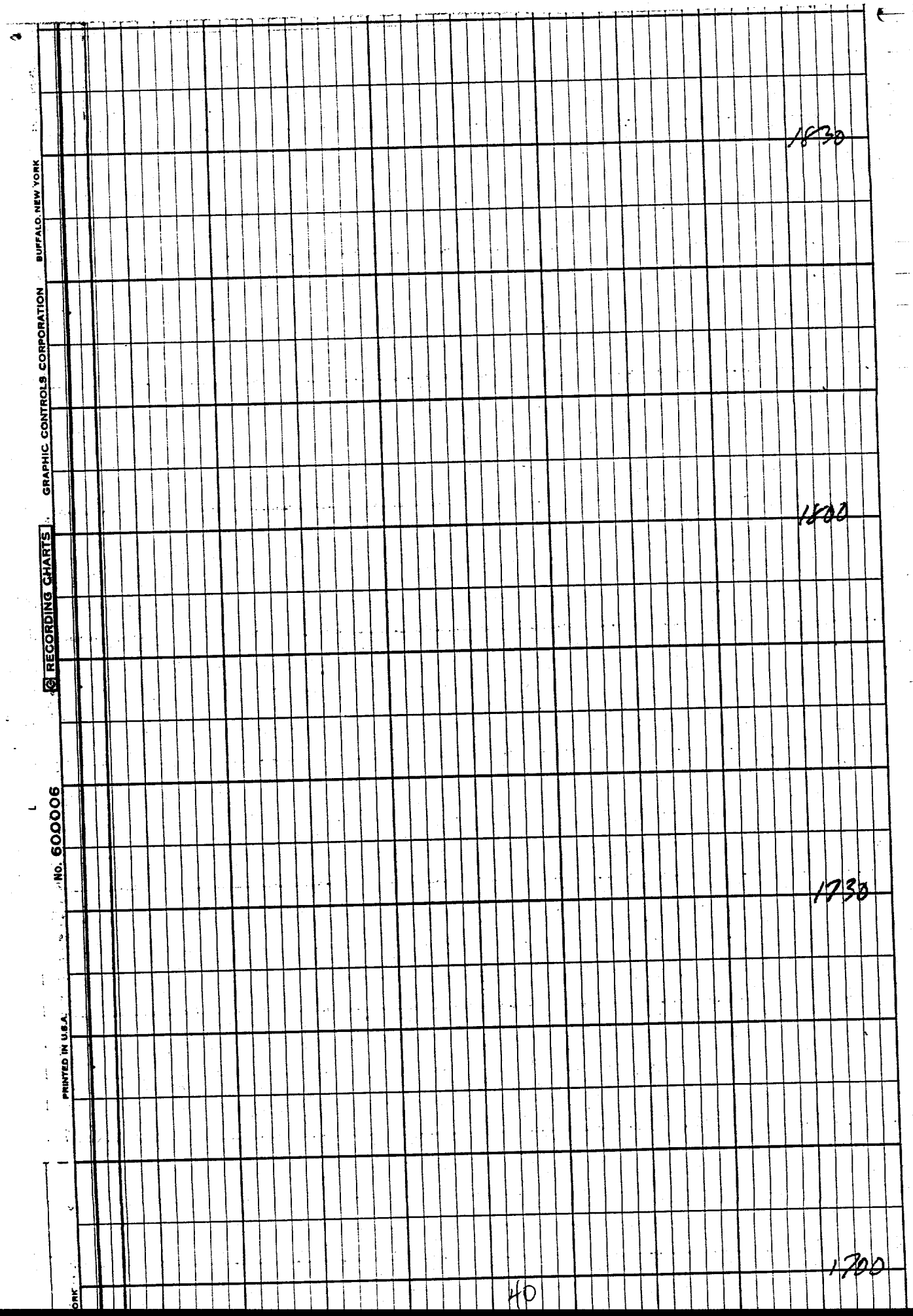
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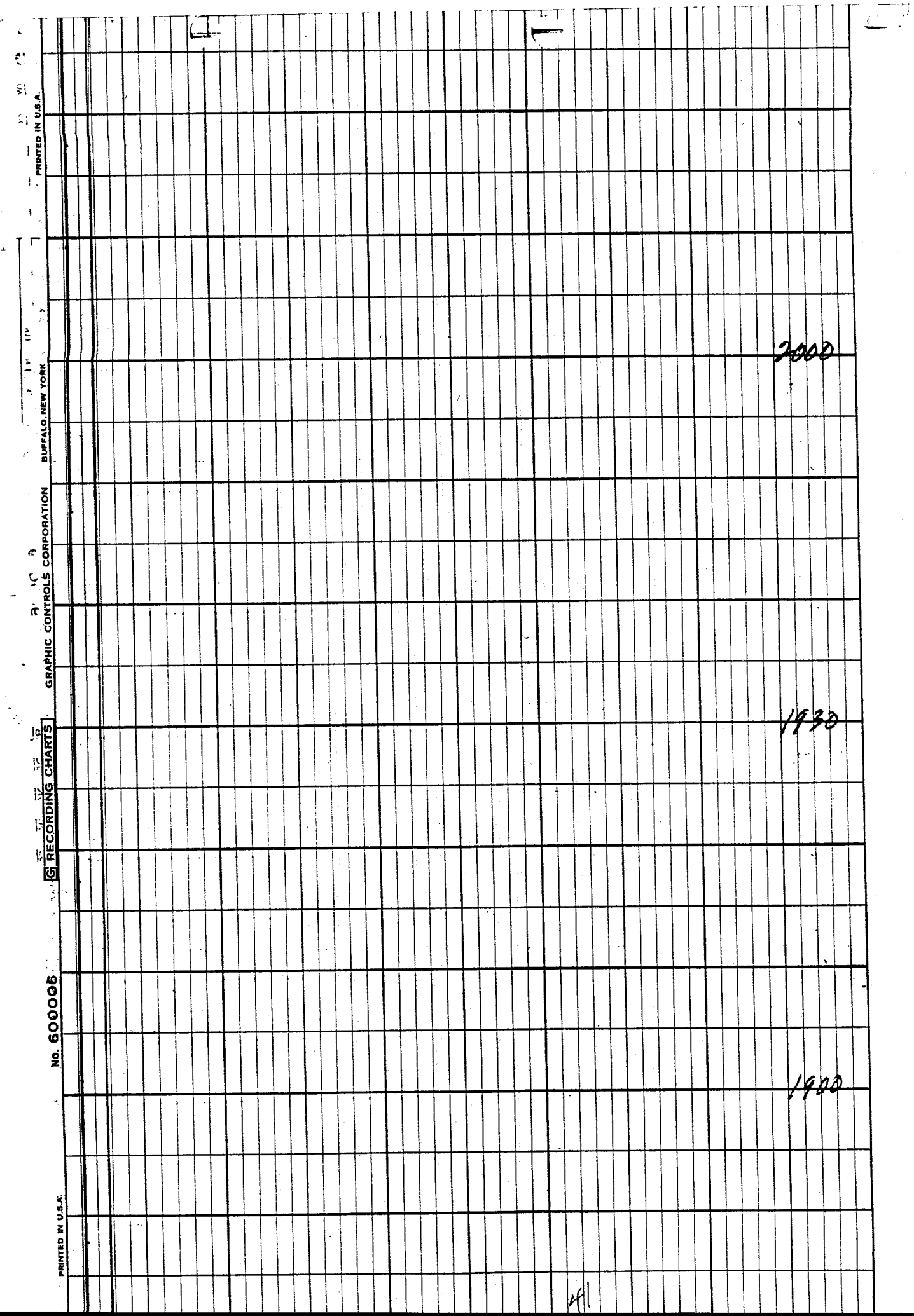
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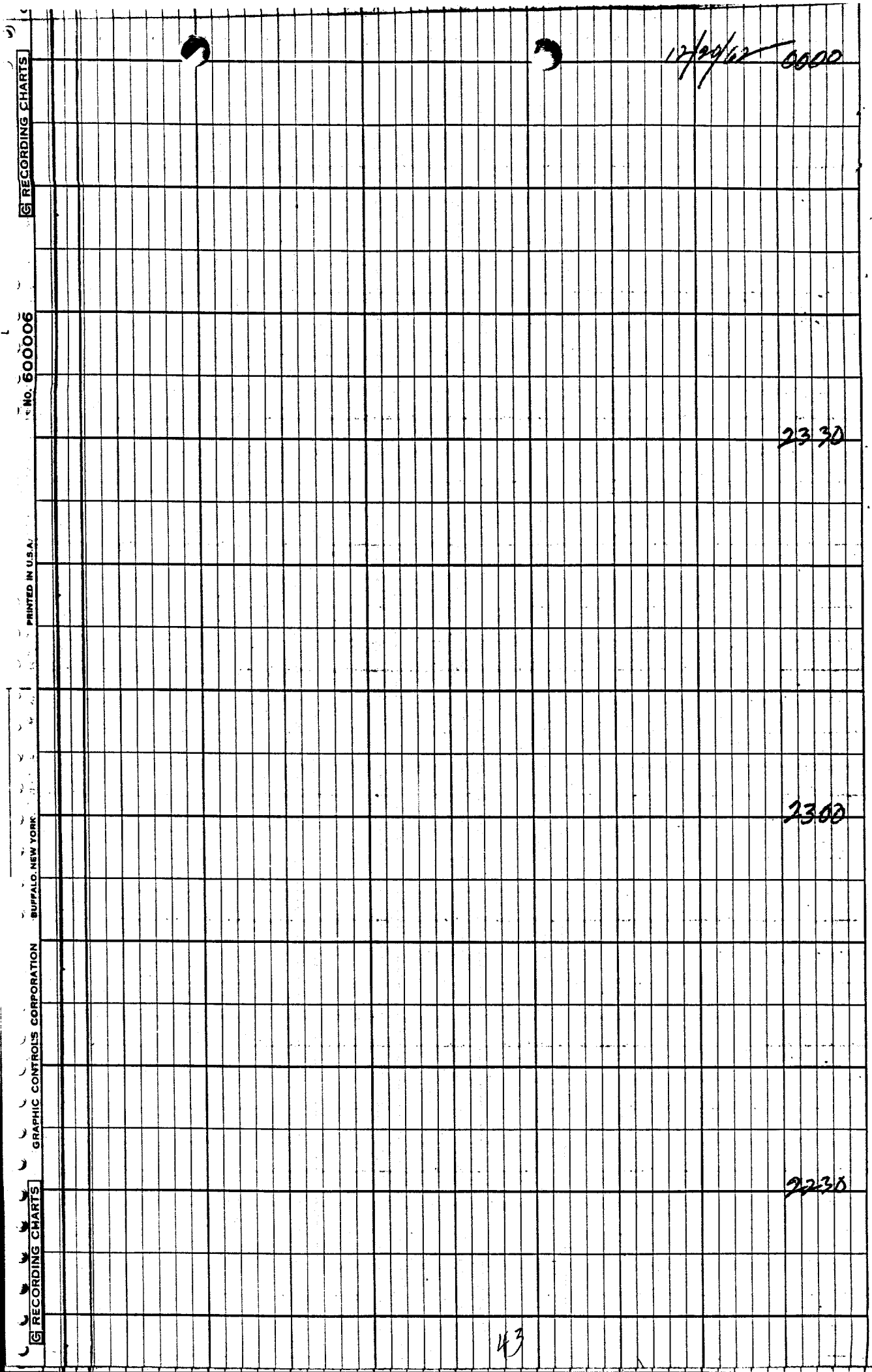
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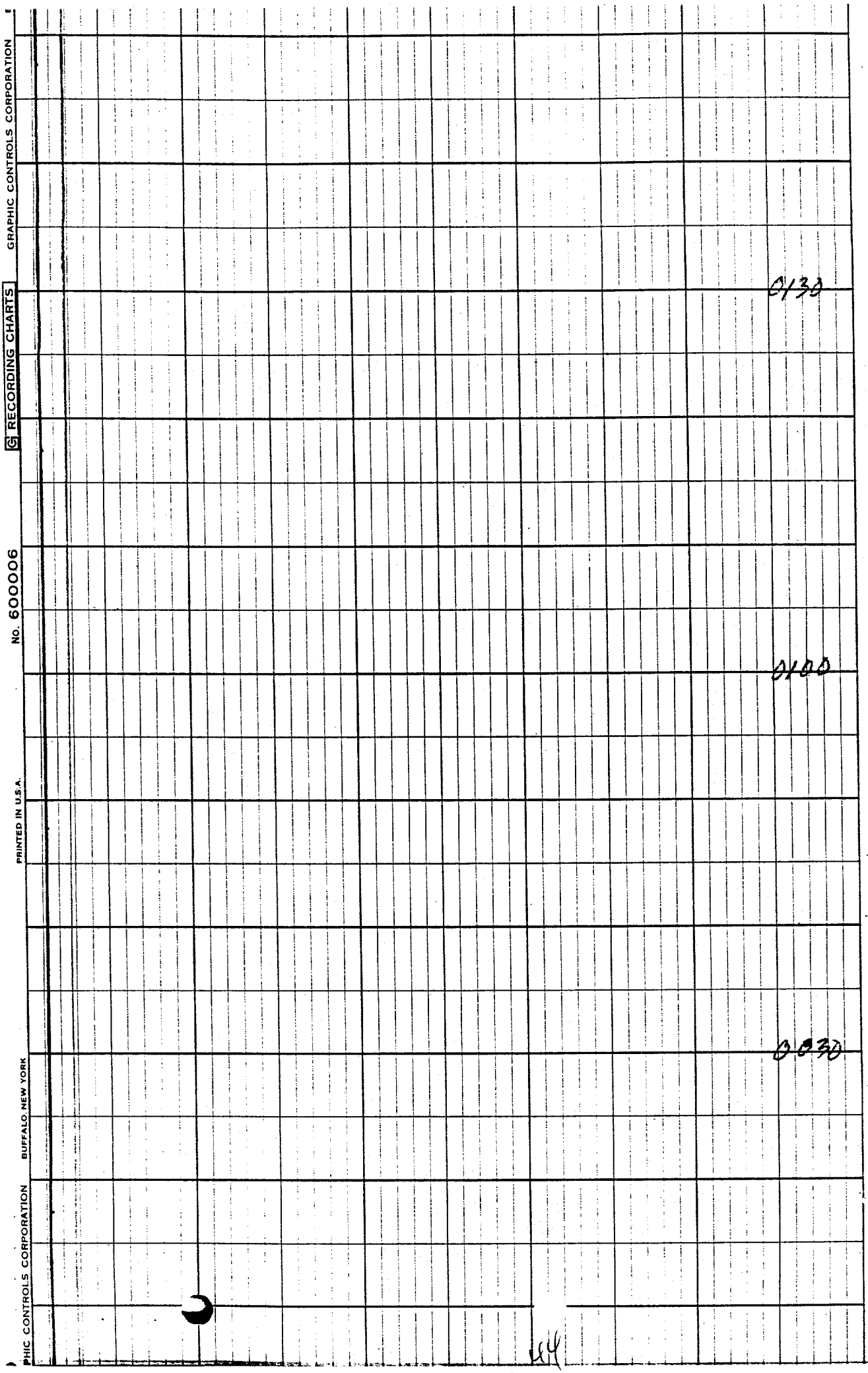

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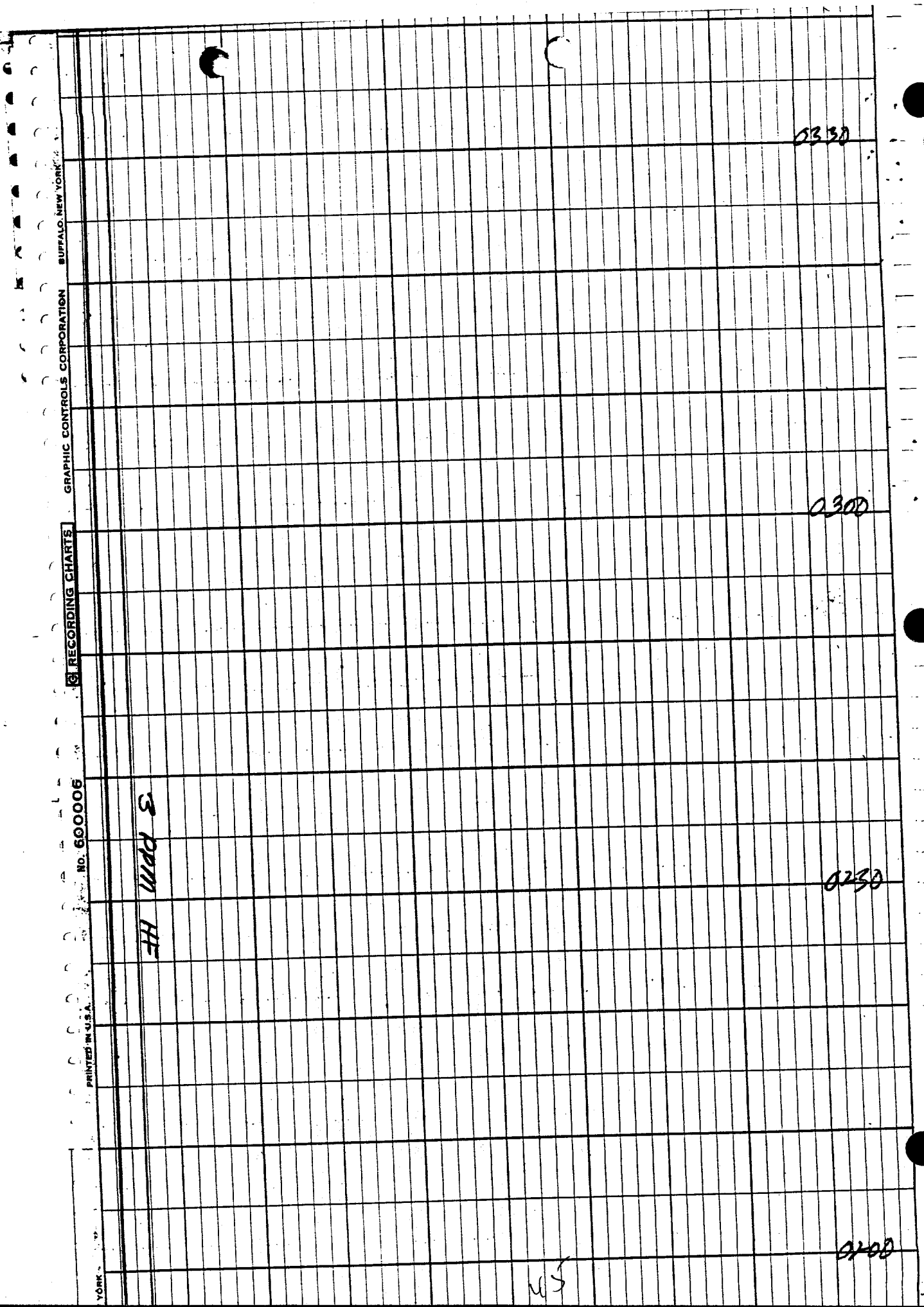
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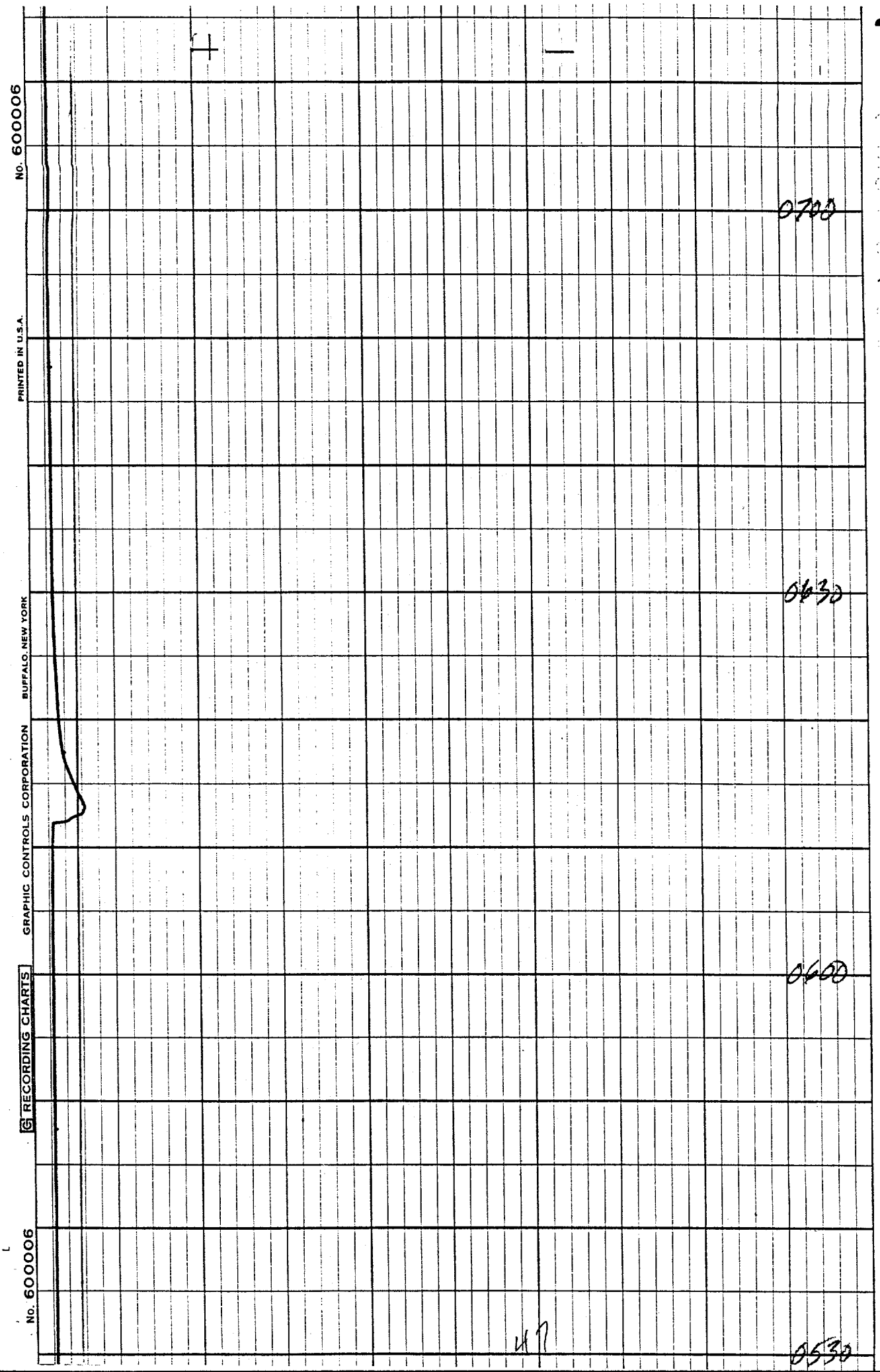
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GRAPHIC CONTROLS CORPORATION

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BUFFALO, NEW YORK

Employee Feed Powder.
Employee warning respiratory Protection.
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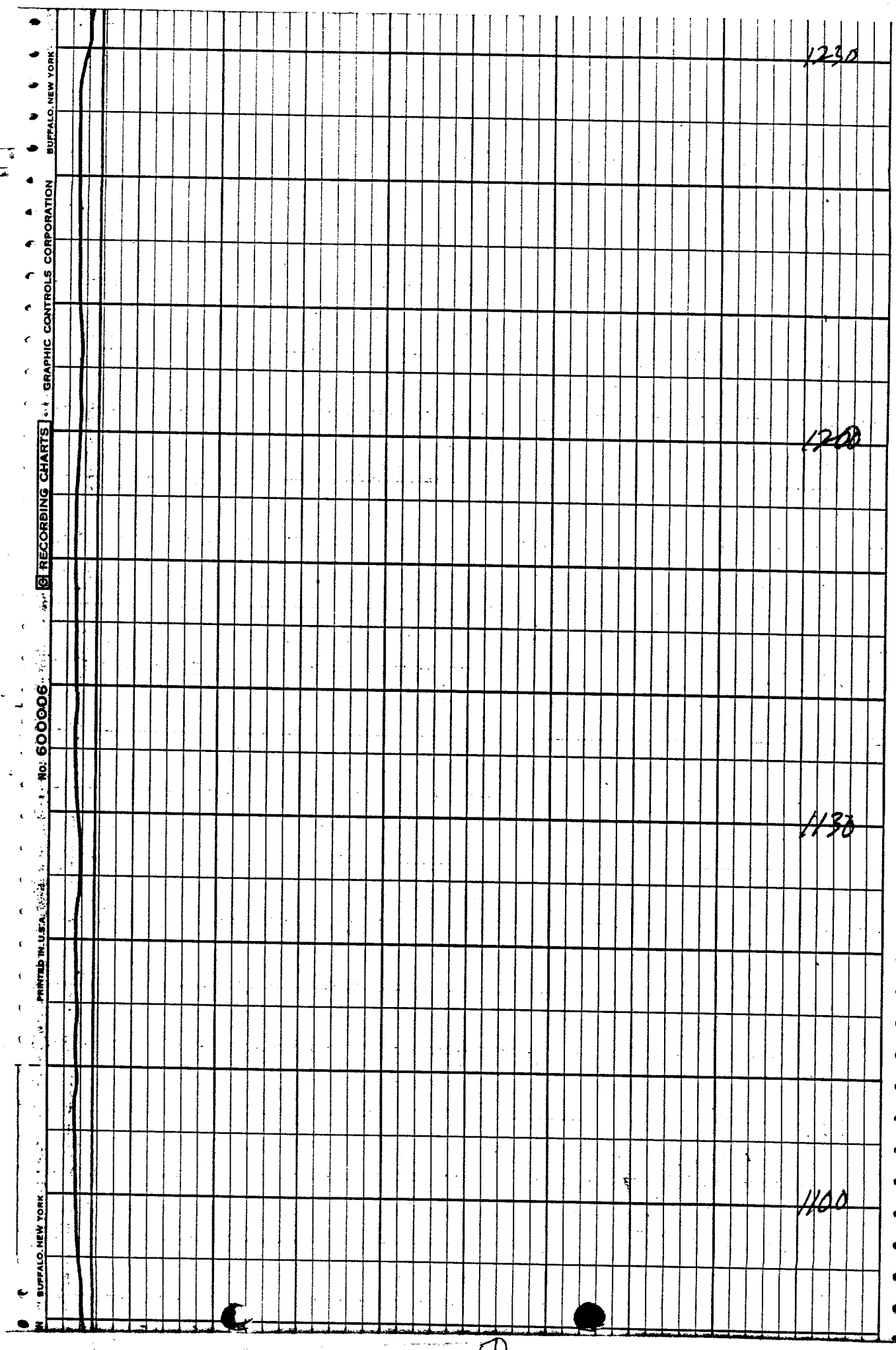
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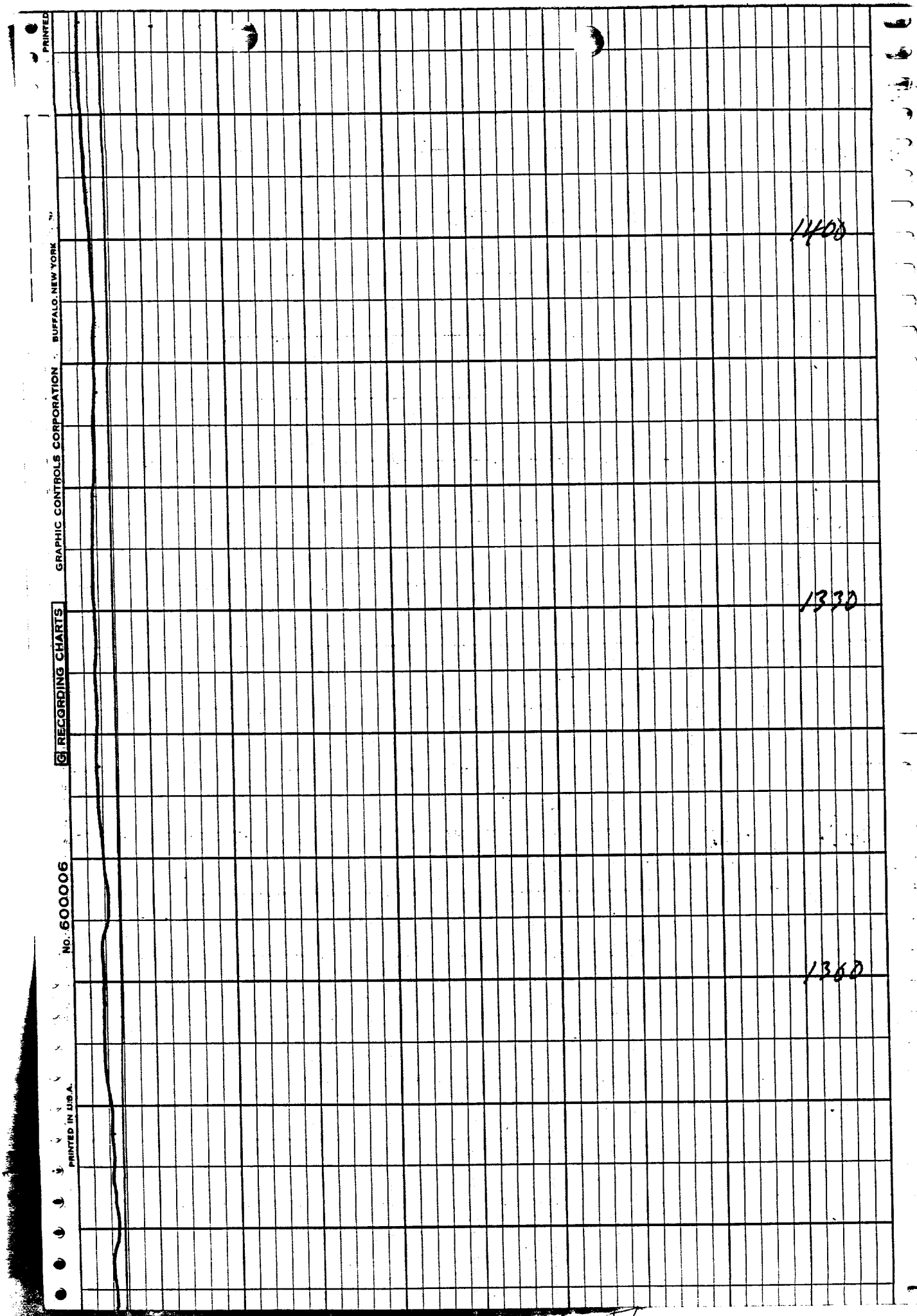
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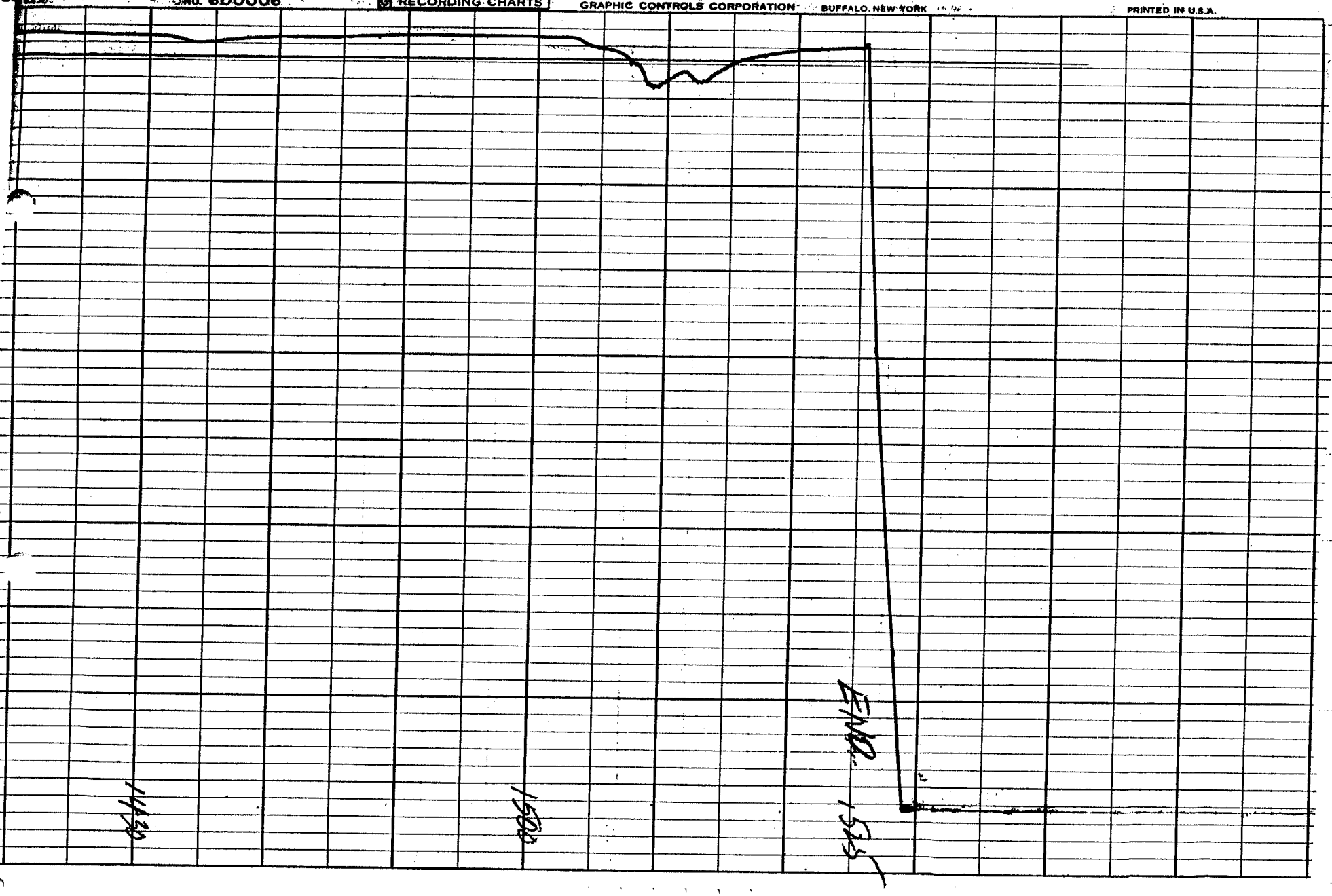


WEM

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 11/29/62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 877 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE c/m	SAMPLING VOLUME cu ft	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	"C" AREA							
1.	South end of deferruling Booth.	0920-0950	3	90	Dust		0.4 MPPCF	By employee, without Respiratory protection, removing ferrules.
2.	" " "	0950-1020	3	90	Dust		0.2 MPPCF	Employee was wetting equipment with a soap solution before knocking out ferrules.
3	" " "	1020-1050	3	90	Dust		0.3 MPPCF	
4	" " "	1050-1120	3	90	Dust		0.5 MPPCF	
5	North end of Deferruling Booth.	0920-0950	3	90	Dust		0.3 MPPCF	
6	" " "	0950-1020	3	90	Dust		0.1 MPPCF	
7	" " "	1020-1050	3	90	Dust		0.1 MPPCF	
8	" " "	1050-1120	3	90	Dust		0.2 MPPCF	

Dust - 8-0, 2.2 hrs.

PD - 4-0, [illegible] hrs.
HF - 4-0, 2.0 hrs.

J. K. Lowery & B. Trivett. DC 12/19/62 SUPERVISOR [illegible] L. Newton DATE RELEASED

53

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 12/3/62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. 888 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
1	"E" AREA, East end of Room.	1010-1040	1	30	HF	0.03	<0.1	
2	" " "	1040-1110	1	30	HF	0.04	0.1	
3	" " "	1110-1140	1	30	HF	0.07	0.1	
4	" " "	1140-1210	1	30	HF	0.07	0.1	
	"A" AREA, Small parts Booth							
5	west end of furnace	1110-1140	1	30	Pb	.006	0.01	
6	" " "	1230-1300	1	30	Pb	.006	0.01	
7	" " "	1300-1330	1	30	Pb	.010	0.01	
8	" " "	1330-1400	1	30	Pb	.008	0.01	

SAMPLED BY B. TRIVETT. TK 12/19/62 SUPERVISOR DATE RELEASED

34

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP [illegible] BUILDING K1420 ROUTINE [✓] REPORT NO. [illegible]

SPECIAL [ ] REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL Mg.	CONCENTRATION	OBSERVATIONS
	2 used							
	Oxide Conversion room							
1	By Condensed 16-B	0300 0330	1	30	HF	0.05	0.1 ppm	
2	Same	0330 0400	1	30	HF	0.07	0.1 ppm	
3	Same	0400 0430	1	30	HF	0.021	<0.1 ppm	
4	Same	0430 0500	1	30	HF	0.021	<0.1 ppm	
	Room #							
5	By Chemical traps	0300 0330	1	30	HF	0.03	<0.1 ppm	
6	Same	0330 0400	1	30	HF	0.021	<0.1 ppm	
7	Same	0400 0430	1	30	HF	0.03	<0.1 ppm	
8	Same	0430 0500	1	30	HF	0.04	0.1 ppm	

SAMPLED BY [illegible] SUPERVISOR [illegible] DATE RELEASED 16 NOV 1962

WCX-2338 (2-59)

55

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 11-8-62 BUILDING K1432 ROUTINE ☑ REPORT NO. [illegible]

SPECIAL ☐ REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	[illegible]
	Oxide Conversion Room							
1	By Condenser 16 B	0445 0515	1	30	HF	0.07	0.1	
2	Same	0515 0545	1	30	HF	0.09	0.1	
3	Same	0545 0615	1	30	HF	0.08	0.1	
4	Same	0615 0645	1	30	HF	0.06	0.1	

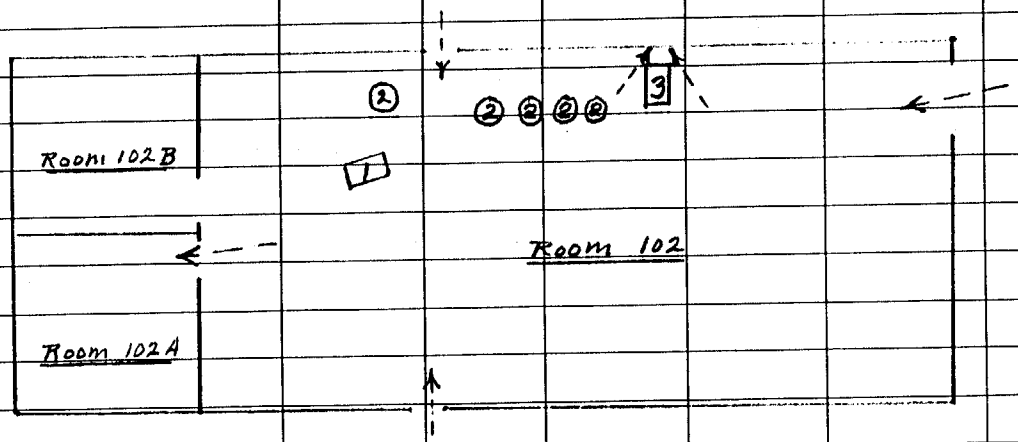
SAMPLED BY SUPERVISOR T. [illegible] TK DATE RELEASED 1962

56

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 11/2/62 BUILDING K-1420 ROUTINE ☐ SPECIAL ☑ REPORT NO. IH-9 REQUESTED BY R. A. DeLoor

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	F Area							
	Room 102							
	Floor by welders cart	1500 –			Trichloroethylene		0	
	Floor by slush traps						0	
	At top of slush traps						Trace	
	Four inches from open bunghole of drum	– 1515					>2000 ppm	NT



Legend
- [1] Welders cart
- (2) Slush traps
- [3] Trichloroethylene drum
- - - → Direction of air movement

TCE-3-1, 0.5hr.

SAMPLED BY W. L. Stoddard & E.B. Eastridge SUPERVISOR [signature] DATE RELEASED 11-12-62

57

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 10/24/62 BUILDING K-1423 ROUTINE [✓] REPORT NO. 290

SPECIAL [ ] REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
1	E Area Oxide conversion room, Middle	1645 1715	1	30	F_2	0.06	50.1 ppm	
2	Same	1715 1745	1	30	F_2	0.08	0.1 ppm	
3	Same	1745 1815	1	30	F_2	0.07	0.1 ppm	
4	Same	1815 1845	1	30	F_2	0.05	50.1 ppm	

SAMPLED BY [signature] SUPERVISOR [signature] DATE RELEASED [signature]

58

2hrs-

INDUSTRIAL HYGIENE FIELD SAMPLING REPORT

DATE OF SERVICE TRIP 10-9-'62 * 10-31-'62 BUILDING K-1420 ROUTINE ☑ SPECIAL ☐ REPORT NO. I.H-#5 REQUESTED BY

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLING TIME	SAMPLING RATE	SAMPLING VOLUME	CONTAMINANT	TOTAL mg.	CONCENTRATION	OBSERVATIONS
	Room-102A- Mercury cleaning Room-				Mercury			Mer[illegible]
	Face Level	1015-				0	0.00	[illegible] in operations
	Floor drain					2	0.02	NT
	Top of Plastic container					6	0.06	NT
	Room-102B. MFL oil recovery Rm-							
	Face Level					0	0.00	
	Floor drain					0	0.00	
	Floor at South wall-					0	0.00	
	Room-102							
	Southwest corner					0	0.00	
	Face Level					0	0.00	
	Bottle Storage-	-1100				0	0.00	
* 10-31-62								
Hg-**	Vacuum Cleaner.	-1200	#223930		Mercury			
	Face Level					1	0.01	Not operating
	1ft from Exhaust					1	0.01	
	Exhaust					12	0.12	
	Face Level					40	0.42	operating
	1ft from Exhaust					65	0.80	
	Exhaust					100	2.10	
		-1300						
**	This instrument should be cleaned up, recharged and retested. D. L. Stoddard							
Hg-9-0, 1.0 hr.								
Misc-6, 1.0 hr.								

SAMPLED BY Eastridge V Bomar SUPERVISOR R. E. Shelton DATE RELEASED 11-7-6[illegible]

59

COPY TO: A. Walker
R. L. Newton
File

INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 394
Routine X
Special
Requested by
Date 2-5-63

K-1420

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-8-62	By northeast corner of hammer mill	1100 - 1130	Dust	0.6 MPPCF	
			1230 - 1300		0.6 MPPCF	
			1300 - 1330		8.0 MPPCF	
			1330 - 1400		0.3 MPPCF	
	10-22-62	A Area Small parts booth By front of hood	1310 - 1340	Lead	0.01 mg/m^3	By employee, wearing respiratory protection, disassemgling parts.
			1340 - 1410		<0.01 mg/m^3	"
			1410 - 1440		<0.01 mg/m^3	"
			1440 - 1510		<0.01 mg/m^3	"
		C Area By cutting stand	1310 - 1340	Hydrogen Fluoride	<0.1 ppm	
			1340 - 1410		<0.1 ppm	
			1410 - 1440		<0.1 ppm	
			1440 - 1510		<0.1 ppm	
		10 ft. north of column D-10	1315 - 1345	Dust	1.1 MPPCF	Employee was vapor blasting equipment in hood.
			1345 - 1415		6.6 MPPCF	
			1415 - 1445		0.1 MPPCF	
			1445 - 1510		5.3 MPPCF	

60

ISSUED BY:

COPY TO: R. A. Walker
R. L. Newton
File

INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 394 Page 2
Routine X
Special
Requested by
Date 2-5-63

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-22-62	A Area Small parts booth West end by acid tanks	- 1510 -	Nitrogen Dioxide	7.0 ppm	
		East end by employee	- 1515 -		2.0 ppm	
		Outside door to booth	- 1520 -		0.0 ppm	
		C Area Floor pan	- 1525 -		0.0 ppm	
		Midway between columns G-10 and D-10	- 1530 -	Carbon Monoxide	30 ppm	Two motor vehicles were operating in area.
	10-24-62	E Area Oxide Conversion Room Middle	1645 - 1715	Fluorine	<0.1 ppm	
			1715 - 1745		0.1 ppm	
			1745 - 1815		0.1 ppm	
			1815 - 1845		<0.1 ppm	
	11-1-62	F Area Room 102 Middle	1000 - 1030		0.4 ppm	Two operators were working on leaking cylinder. Strong odor of fluorine was present. One operator was wearing respiratory protection.
			1030 - 1100		0.3 ppm	
			1100 - 1130		0.1 ppm	
			1130 - 1200		<0.1 ppm	

ISSUED BY:

COPY TO: R. A. Walker
R. L. Newton
File

INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 394 Page 3
Routine X
Special
Requested by
Date 2-5-63

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-1-62	F Area Eight feet south of column D-6	1015 - 1045	Fluorine	0.1 ppm	Odor of fluorine present.
			1045 - 1115		<0.1 ppm	
			1115 - 1145		<0.1 ppm	
			1145 - 1215		0.1 ppm	
		C Area Southwest corner of cutting stand	1030 - 1100		<0.1 ppm	
			1100 - 1130		<0.1 ppm	
			1130 - 1200		<0.1 ppm	
			1200 - 1230		<0.1 ppm	
		B Area Inside Calciner Booth By unit B	1400 - 1430	Hydrogen Fluoride	<0.1 ppm	North side of booth.
			1430 - 1500		0.1 ppm	
			1500 - 1530		0.1 ppm	
			1530 - 1600		0.1 ppm	
		Between units A and B	- 1410 -	Nitrogen Dioxide	5.0 ppm	On catwalk.
		West end of booth	- 1415 -		1.0 ppm	On catwalk.
		North side of booth	- 1420 -		1.0 ppm	On catwalk.
		South side of booth	- 1425 -		0.0 ppm	Ground floor.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 394 Page 4
Routine X
Special
Requested by
Date 2-5-63

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-6-62	E Area Oxide conversion room By condenser 16-A	1045 - 1115	Hydrogen Fluoride	0.1 ppm	
			1115 - 1145		0.2 ppm	
			1145 - 1215		0.2 ppm	
			1215 - 1245		0.1 ppm	
		East end	1045 - 1115		0.1 ppm	
			1115 - 1145		0.2 ppm	
			1145 - 1215		0.1 ppm	
			1215 - 1245		0.1 ppm	
		A Area Small parts booth By hood	1100 - 1130	Lead	0.01 mg/m^3	Operator was wearing respiratory protection.
			1200 - 1230		0.01 mg/m^3	
			1230 - 1300		0.01 mg/m^3	
			1300 - 1330		0.01 mg/m^3	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 351
Routine X
Special
Requested by
Date November 30, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-21-62	A Area				
		Small Parts Booth By Hood	1400-1430	Lead	<0.01 mg/m3	
			1430-1500		<0.01 mg/m3	
			1500-1530		0.01 mg/m3	
			1530-1600		<0.01 mg/m3	
		West End by Acid Tanks	1415	Nitrogen Dioxide	1 ppm	
		East End	1419		0 ppm	
		West End by Acid Tanks	1615		20 ppm	Equipment in acid tank. Employees in area wearing respiratory protection.
		East End	1617		7 ppm	
		By Door to Booth	1619		1 ppm	
		C Area				
		By Column G-7	1400-1430	Hydrogen Fluoride	0.1 ppm	
			1430-1500		<0.1 ppm	
			1500-1530		0.2 ppm	
			1530-1600		<0.1 ppm	
		By Converter Disassembling Stand	1400-1430		<0.1 ppm	
			1430-1500		<0.1 ppm	

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WOX 0512(9-55) K-25 PG Medical Department

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AIR SAMPLING REPORT

NUMBER 351 Page 2
Routine X
Special
Requested by
Date November 30, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-21-62	C Area By Converter Disassembling Stand	1500-1530	Hydrogen Fluoride	<0.1 ppm	
			1530-1600		<0.1 ppm	
		Northeast Corner of Floor Pan	1400-1430		<0.1 ppm	
			1430-1500		<0.1 ppm	
			1500-1530		<0.1 ppm	
			1530-1600		<0.1 ppm	
			1505	Nitrogen Dioxide	0 ppm	
	9-25-62	E Area Oxide Conversion Room By Condenser F 16-B	2200-2230	Hydrogen Fluoride	0.4 ppm	
			2230-2300		<0.1 ppm	
			2300-2330		<0.1 ppm	
	10-5-62	F Area 5 ft. North of Tank F 18	1450-1545	Nitrogen Dioxide	< 1 ppm	
		Just outside Truck Entrance North of Elevator	1450-1545		< 1 ppm	Intermittent odor of NO_2
			1458		2 ppm	

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WCX 2512 (9-55) K-25 RC Medical Department

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AIR SAMPLING REPORT

NUMBER 351 No. 3
Routine X
Special
Requested by
Date November 30, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-8-62	F Area Dissolver Room ON Platform by Dissolver	1020	Nitrogen Dioxide	0 ppm	System in operation
		Middle of Room	1025		0 ppm	
		Calciner Booth By Drum Dryer	1035		0 ppm	On platform
		Southeast Corner of Booth	1040		1 ppm	On ground floor level
	10-10-62	E Area Oxide Conversion Room By Condenxor F 16-B	1330-1400	Hydrogen Fluoride	0.0 ppm	Intermittent odor of Hydrogen Flouride in area
			1400-1430		0.0 ppm	Personnel in area not wearing respiratory protection
			1430-1500		0.0 ppm	
			1500-1530		0.0 ppm	
	10-11-62	F Area Dissolver Room 8 ft. from Dissolver Tank	1050	Nitrogen Dioxide	0 ppm	On ground floor level
		By Dissolver Tank	1055		0 ppm	On platform
		Northwest Corner of Calciner Booth	1245-1315	Hydrogen Fluoride	0.0 ppm	Inside of booth
			1315-1345		0.0 ppm	
			1345-1415		0.0 ppm	

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AIR SAMPLING REPORT

NUMBER 351 No. 4
Routine X
Special
Requested by
Date November 30, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-11-62	Northwest Corner of Calciner Booth	1415-1445	Hydrogen Fluoride	0.0 ppm	
		North Side of Building	1310-1410	Nitrogen Dioxide	< 1 ppm	Outside, 8 ft. from the Building

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WGY 2512(9-55) K-25 PG Medical Department

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 288
Routine X
Special
Requested by
Date October 13, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-26-62	C Area				
		Southwest Corner Converter Disassembling Stand	1300-1330	Hydrogen Fluoride	< 0.1 ppm	
			1330-1400		0.4 ppm	
			1400-1430		1.7 ppm	
			1430-1500		0.1 ppm	
		Northeast Corner of Floor Pan	1300-1330		< 0.1 ppm	
			1330-1400		0.1 ppm	
			1400-1430		0.1 ppm	
			1430-1500		0.1 ppm	
		Floor Pan	1435	Nitrogen Dioxide	1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 278
Routine X
Special
Requested by
Date October 13, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-10-62	C Area North Side of Hammer Mill	0900-0930	Dust	0.1 MPPCF	
			0930-1000		0.1 MPPCF	
			1000-1030		0.1 MPPCF	
			1030-1100		0.1 MPPCF	
	8-20-62	Oxide Conversion Room Middle	1240-1310	Fluorine	0.1 ppm	Strong odor of Fluorine
			1310-1340		<0.1 ppm	
			1340-1410		0.1 ppm	
			1410-1440		<0.1 ppm	
		Northwest Corner of Calciner	1300-1330	Hydrogen Fluoride	<0.1 ppm	
			1330-1400		0.1 ppm	
			1400-1430		<0.1 ppm	
			1430-1500		<0.1 ppm	

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N. L. Stiff

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 275
Routine X
Special
Requested by
Date October 13, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-15-62	C Area By Column D-25	1022-1052	Chlorides	< 0.01	Fumes from Aluminum melter in area. Salts were added to the furnace.
			1052-1122		< 0.01	
	7-18-62	By South Door near Southeast Corner	1120	Nitrogen Dioxide	1 ppm	Intermittent odor of No_2 near employees without respiratory protection. Fumes from roof of building were forced down by rainy weather.
		C Area South side of Spray Booth	1125		0 ppm	Spraying equipment in process.
	7-26-62	E Area Middle of Oxide Conversion Room	1300-1330	Fluorine	< 0.1 ppm	
			1330-1400		< 0.1 ppm	
			1400-1430		0.1 ppm	
			1430-1500		0.1 ppm	
			0930-1300		0X0/210*	
			1410-1540		0X0/90 *	

*The concentration of Fluorine did not exceed 1.0 ppm during the 300 minutes of continuously recorded sampling.

**Calculated as Sodium Chloride.

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AIR SAMPLING REPORT

NUMBER 275 Page 2
Routine
Special
Requested by
Date October 13, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-26-62	B Area West End of Calciner Platform	1300-1330	Hydrogen Fluoride	0.4 ppm	
			1330-1400		0.1 ppm	
			1400-1430		< 0.1 ppm	
			1430-1500		0.1 ppm	
		Inside Calciner Booth	1505	Nitrogen Dioxide	14 ppm	Employee, in the Booth, was wearing respiratory protection
		A Area 30 ft. North of Column J-14	1445		1 ppm	
		West End of Small Parts Booth	1500		1 ppm	By acid tanks
		By Alcohol Containers	1350	Isopropyl Alcohol	110 ppm	
		5 ft. from Alcohol Containers	1355		50 ppm	
		E Area Middle of Oxide Conversion Room	1300-1330	Fluorine	< 0.1 ppm	
			1330-1400		< 0.1 ppm	
			1400-1430		< 0.1 ppm	
			1430-1500		0.1 ppm	

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Date October 13, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-1-62	B Area				
		In Calciner Booth West End of Platform	1300-1330	Hydrogen Fluoride	< 0.1 ppm	
			1330-1400		< 0.1 ppm	
			1400-1430		0.0 ppm	
			1430-1500		< 0.1 ppm	
		Between two drum driers	1412	Nitrogen Dioxide	25 ppm	An employee in the booth was not wearing respiratory protection. Two drum driers in operation.
		Inside of Calciner Booth Between two Drum Driers	1423		15 ppm	Employee in the booth was not wearing respiratory protection.
		Outside Calciner Booth By West End	1415		0 ppm	
		By East Entrance	1418		1 ppm	
		A Area				
		Small Parts Both By Hood	1300-1330	Hydrogen Fluoride	< 0.1 ppm	
			1330-1400		0.1 ppm	
			1400-1430		0.4 ppm	
			1430-1500		< 0.1 ppm	
		By Acid Tanks	1555	Nitrogen Dioxide	0.5 ppm	

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NUMBER 275 Page 4
Routine
Special
Requested by
Date October 13, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-1-62	Plating Area By Acid Tanks	1440	Nitrogen Dioxide	0.5 ppm	
		15 ft. North of Column J-11	1450	Isopropyl Alcohol	0 ppm	By covered container of Isopropyl alcohol.
		By West corner of Small Parts Booth	1300-1330	Hydrogen Fluoride	0.1 ppm	Employees cleaned a pump by Column J-7
			1330-1400		<0.1 ppm	
			1400-1430		<0.1 ppm	
			1430-1500		<0.1 ppm	
		C Area Northeast corner of Floor Pan	1300-1330		<0.1 ppm	
			1330-1400		<0.1 ppm	
			1400-1430		<0.1 ppm	
			1430-1500		0.1 ppm	
			1435	Nitrogen Dioxide	0 ppm	
		By Converter Disassembling Stand	1300-1330	Hydrogen Fluoride	0.4 ppm	
			1330-1400		0.3 ppm	
			1400-1430		0.2 ppm	
			1430-1500		0.2 ppm	

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AIR SAMPLING REPORT

NUMBER 275 Page 5
Routine
Special
Requested by
Date October 13, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-1-62	F Area				
		Room 102-B				
		By Sink	1500	Mercury	0.02 mg/m3	
		Cabinet under Sink			0.03 mg/m3	
		Storage Area South Side of Sink			0.03 mg/m3	
		Cabinet under Storage Area			0.04 mg/m3	
		Southeast Corner			0.04 mg/m3	
		By Stills along South Wall			0.03 mg/m3	
		By Stills along West Wall			0.02 mg/m3	
		Middle of Room			0.05 mg/m3	
		Storage Area by North Wall			0.04 mg/m3	
		Room 102-A				
		By South Wall			0.02 mg/m3	Several bottles of Mercury present
		Room 102				
		Southwest Corner	1525		0.02 mg/m3	Several bottles of Mercury present
		C Area				
		Mer Vac Cleaner				
		USA UCNC No. 223929*				
		At Exhaust Port	1535		1.20 mg/m3	Motor off
		one foot from Exhaust Port			0.06 mg/m3	
		Head Level			0.05 mg/m3	

*This instrument should be cleaned, recharged and rechecked.

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AIR SAMPLING REPORT

NUMBER 275 Page 6
Routine
Special
Requested by
Date October 13, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-1-62	C Area, continued				
		At Exhaust Port		Mercury	> 3.40 mg/m3	Motor on
		One ft. from Exhaust Port			1.44 mg/m3	
		Head Level			0.16 mg/m3	
	8-9-62	By Column G-12	1515-1530	Dust	43.3 MPPCF	Employee, wearing airline hood, sand blasted under plating tanks. Another employee was in this area without respirator protection.
	8-13-62	E Area Middle of Oxide Conversion Room	0600-0630	Fluorine	.1 ppm	
			0630-0700		.1 ppm	
			0700-0730		.1 ppm	
	8-14-62	B Area Second Floor By Feed Point of Continuous Dissolver	1400	Nitrogen Dioxide	18 ppm	By employee adding feed to unit
			1500		15 ppm	
		By employee Operating Gasoline Powered Hoist	1530	Carbon Monoxide	40 ppm	
			1555		40 ppm	

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AIR SAMPLING REPORT

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Special
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Date October 13, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-14-62	B Area Ground Floor				
		3 ft. North of Centrifuge	1410	Nitrogen Dioxide	3 ppm	In operation
		7 ft. North of Centrifuge	1415		1 ppm	In operation

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D. L. Stoddard

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 268
Routine X
Special
Requested by
Date October 12, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-7-62	C Area Northeast Corner of Hammer Mill	1030-1100			
			1100-1130			
			1130-1200			
			1200-1230			
			1300-1330			
			1330-1400			
			1400-1430			
			1430-1500			
	6-20-62	F Area Mercury Recovery Room By Sink Drain	1530	Mercury	0.24 mg/m3	Droplets of Hg on floor and in sink.
		By Sink			0.04 mg/m3	
		Cabinet under Sink			0.04 mg/m3	
		Storage Area South of Sink			0.02 mg/m3	

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NUMBER 268 Page 2
Routine X
Special
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Date October 12, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420		F Area, continued Cabinet under Storage Area		Mercury	0.04 mg/m3	
		By Stills along South Wall			0.02 mg/m3	
		By Stills along West Wall			0.02 mg/m3	
		Middle			0.20 mg/m3	
		Storage Area, North Side of Room			0.02 mg/m3	
		MFL Oil Recovery Room By South Wall			0.02 mg/m3	By bottle of mercury
		F Area By South Wall	1600		0.01 mg/m3	By bottle of mercury
	6-23-62	E Area Oxide Conversion Room Middle	2000-2030	Fluorine	< 0.1 ppm	
			2030-2100		< 0.1 ppm	
			2100-2130		< 0.1 ppm	
	6-29-62	E Area Oxide Conversion Room Middle	1000-1030		< 0.1 ppm	
			1030-1100		0.0 ppm	
			1100-1130		0.0 ppm	
			1130-1200		< 0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 268 Page 3
Routine
Special
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Date October 12, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-29-62	C Area By Converter Disassembly Stand	1000-1030	Hydrogen Fluoride	< 0.1 ppm	
			1030-1100		< 0.1 ppm	
			1100-1130		< 0.1 ppm	
			1130-1200		< 0.1 ppm	
		F Area Room 102-B Mercury Recovery Room By Sink	0935	Mercury	0.05 mg/m3	Washing process in operation
		Cabinet under sink			0.03 mg/m3	
		Storage area south of sink			0.02 mg/m3	
		Cabinet under storage area			0.02 mg/m3	
		Southeast corner			0.04 mg/m3	
		Along South wall			0.07 mg/m3	Stills in operation
		Along West wall			0.08 mg/m3	Stills in operation
		Middle			0.03 mg/m3	
		Room 102 By bottles of Mercury			0.02 mg/m3	
		Room 102-A MFL Oil Recovery Room By bottles of Mercury	1000		0.02 mg/m3	

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Routine
Special
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Date October 12, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-2-62	Oxide Conversion Room South side of condensers	1250-1320	Fluorine	< 0.1 ppm	Strong odor of Fluorine
			1320-1350		0.1 ppm	Maintenance man working on system wearing assault mask.
			1350-1420		0.1 ppm	
			1420-1450		< 0.1 ppm	
		Small Parts Room By stripping tank	1205	Nitrogen Dioxide	< 1 ppm	
		Middle of room	1210		0 ppm	
		By hood	1215		0 ppm	
	7-10-62	C Area Converter Disassembly Stand	0945-1015	Hydrogen Fluoride	0.2 ppm	5 ft. South of Column D-7
			1015-1045		< 0.1 ppm	
			1045-1115		0.1 ppm	
			1115-1145		0.1 ppm	
	7-19-62	F Area Room 102-B Mercury Recovery Room Middle	1015	Mercury	0.04 mg/m3	
		By sink			0.04 mg/m3	
		Cabinet under sink			0.04 mg/m3	
		Cabinet under storage area			0.04 mg/m3	

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AIR SAMPLING REPORT

NUMBER 268 Page 5
Routine
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Date October 12, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-19-62	F Area, Room 102-B continued				
		Storage area South of sink		Mercury	0.04 mg/m3	
		By stills along South wall			0.06 mg/m3	
		By stills along West wall			0.05 mg/m3	
		By bottles of Mercury at North wall			0.04 mg/m3	
		Room 102				
		By bottles outside of Mercury Recovery Room	1105		0.02 mg/m3	
		C Area				
		Mer-Vac Cleaner USA UCNC 223929 *				
		At exhaust port	1120		0.02 mg/m3	Motor off
		One ft. from exhaust port			0.00 mg/m3	same
		Head level			0.00 mg/m3	same
		At exhaust port			0.08 mg/m3	Motor on
		One ft. from exhaust port			0.06 mg/m3	same
		Head level	1135		0.00 mg/m3	same

* This machine is fit for continued use.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 250
Routine X
Special
Requested by
Date October 6, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-62	B Area By Nickel Receiving Drums	1400 1430			
			1430 1500			
			1500 1530			
			1530 1600			
	5-18-62	E Area Oxide Conversion Room South Side of Condenser F-16-B	1640-1710	Hydrogen Fluoride	0.2 ppm	
			1710-1740		0.3 ppm	
			1740-1810		0.1 ppm	
			1810-1840		0.1 ppm	
	5-23-62	B Area By South West Corner of Calciner Hood	1245-1315		<0.1 ppm	
			1315-1345		0.1 ppm	
			1345-1415		0.1 ppm	
			1415-1445		<0.1 ppm	
		C Area North Side of Hammer Mill	1300-1330			

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AIR SAMPLING REPORT

NUMBER 250 Page 2
Routine
Special
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Date October 6, 1962

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-23-62	C Area	1330-1400			
			1400-1430			
			1430-1500			
	5-24-62	A Area Small Parts Booth 3 ft. from Stripping Tank #1	1420	Nitrogen Dioxide	> 50 ppm	An operator was in the room for short time. He was wearing Dust Foe & Gas Foe respirator.
		East End	1424		35 ppm	
		6 ft. South of West Entrance	1428		0.5 ppm	The doors were open
		F Area Room 102-B Trash Container	1435	Mercury	0.01 mg/m3	Mercury Recovery
		Middle of Room			0.00 mg/m3	
		Glas-Col Heater	1500		0.04 mg/m3	One inch from surface
	6-7-62	C Area North East Corner of Floor Pan	1010-1040	Hydrogen Fluoride	< 0.1 ppm	
			1040-1110		< 0.1 ppm	
			1110-1140		< 0.1 ppm	
			1140-1210		0.1 ppm	

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NUMBER 250 Page 3
Routine
Special
Requested by
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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-7-62	B Area South West Corner of Calciner Booth	1300-1330	Hydrogen Fluoride	< 0.1 ppm	
			1330-1400		< 0.1 ppm	
			1400-1430		0.1 ppm	
			1430-1500		0.1 ppm	
		A Area Small Parts Booth By Nickel Stripping Tanks	1135	Nitrogen Dioxide	0.5 ppm	
		By South End of Furnace	1415-1445	Lead	< 0.01 mg/m3	
			1445-1515		< 0.01 mg/m3	
			1515-1545		< 0.01 mg/m3	
		Middle of Booth	1415	Nitrogen Dioxide	2.0 ppm	By an employee wearing a Gas-Foe-Dust Foe Respirator
		E Area Oxide Conversion Room South Side of Condensers	1038-1525	Fluorine	*OXO/287 ppm	Airbone fluoride analyzer X1 scale
	6-16-62	Middle of Oxide Conversion Room	1000-1030		< 0.1 ppm	
			1030-1100		0.1 ppm	
			1100-1130		0.1 ppm	

*The concentration did not exceed 1.0 ppm during the 287 minutes of continuously recorded sampling.

HF 16-0
H1 4-(n...)
NO 3-0
Hg 3-0
F2 1-0X0/287
Pl 3-0

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 201
Routine X
Special
Requested by
Date 5-28-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-62	**A Area**				
		Small parts booth By north stripping tank	- 1440 -	Nitrogen Dioxide	3.0 ppm	Operator cleaned pieces of metal in acid tank. He was not wearing respiratory protection.
		Middle of room	- 1445 -		0.0 ppm	
		East end of room	- 1450 -		0.0 ppm	
		By south stripping tank	- 1455 -		0.1 ppm	
	5-11-62	Room 102-B Mercury storage shelf	- 1420 -	Mercury	0.00 mg/m^3	
		By Glas Col heaters	- 1422 -		0.01 mg/m^3	West side of room.
		By floor drain	- 1424 -		0.09 mg/m^3	
		Middle of room	- 1426 -		0.00 mg/m^3	
		Work bench by sink	- 1435 -		0.02 mg/m^3	
		By distillation columns	- 1438 -		0.03 mg/m^3	South side of room.

85

NO_2 4-1

Hg 6-1

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 189
Routine X
Special
Requested by
Date 5-9-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-1-62	B Area By west end of calciner housing	0930 - 1000	Hydrogen Fluoride	<0.1 ppm	
			1000 - 1030		<0.1 ppm	
			1030 - 1100		<0.1 ppm	
			1100 - 1130		<0.1 ppm	
		Inside west end of calciner housing	0930 - 1000		<0.1 ppm	By an employee wearing a respirator equipped with an organic vapor cartridge and a filter.
			1000 - 1030		<0.1 ppm	
			1030 - 1100		<0.1 ppm	
			1100 - 1130		0.3 ppm	
		A Area Small parts disassembly booth	0930 - 1000		<0.1 ppm	
			1000 - 1030		<0.1 ppm	
			1030 - 1100		<0.1 ppm	
			1100 - 1130		<0.1 ppm	

HF-12-

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER. 183
Routine X
Special
Requested by
Date 5-7-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-12-62	E Area Oxide Conversion Room By control panel	0840 - 0910	Fluorine	<0.1 ppm	
			0910 - 0940		<0.1 ppm	
			0940 - 1010		0.1 ppm	Strong odor of fluorine present.
		C Area Northeast corner of floor pan	0840 - 0910	Hydrogen Fluoride	0.1 ppm	
			0910 - 0940		<0.1 ppm	
			0940 - 1010		0.2 ppm	
		B Area Recovery room By west side of calciner housing	1100 - 1130		<0.1 ppm	
			1130 - 1200		<0.1 ppm	
			1200 - 1230		<0.1 ppm	
		By No. 2 drum dryer	1100 - 1130	Hydrogen Fluoride Uranium	0.1 ppm 0.26 mg/m^3	
			1130 - 1200	Hydrogen Fluoride	<0.1 ppm	
			1200 - 1230		<0.1 ppm	
	4-25-62	E Area Oxide Conversion Room West end of condenser F-16-B	0935 - 1005		0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 183 Page 2
Routine X
Special
Requested by
Date 5-7-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-25-62	E Area Oxide Conversion Room West end of condenser F-16-B	1005 - 1035	Hydrogen Fluoride	<0.1 ppm	
			1035 - 1105		0.1 ppm	
			1105 - 1135		<0.1 ppm	

85

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 172
Routine X
Special
Requested by
Date 4-17-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-12-62	B Area Recovery Room In calciner housing East end of catwalk	- 1145 -	Nitrogen Dioxide	10 ppm	Operator wearing respiratory protection inside housing.
		By drum dryer #2	- 1150 -		10 ppm	
		By centrifuge	- 1200 -		0 ppm	
NO_2	2.1					

89

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 147
Routine X
Special
Requested by
Date 4-5-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-29-62	E Area Middle of oxide conversion room	1430 - 1500	Fluorine	0.1 ppm	Odor of fluorine
			1500 - 1530		<0.1 ppm	
			1530 - 1600		<0.1 ppm	
		A Area Small parts room By acid stripping tank North end	- 1430 -	Nitrogen Dioxide	3.0 ppm	
		South end	- 1440 -		3.0 ppm	
		Northeast corner	- 1450 -		1.0 ppm	
		Middle	- 1500 -		2.0 ppm	

F2 8
N2 4
90

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 169
Routine X
Special
Requested by
Date 4-16-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-29-62	A Area Small parts disassembling booth	1415 - 1445	Lead	<0.01 mg/m^3	By hood as an employee, wearing respiratory protection, disassembled equipment.
			1445 - 1515		<0.01 mg/m^3	
			1515 - 1545		<0.01 mg/m^3	
			1415 - - 1550	Hydrogen Fluoride	0X0/105*	

PL 5-
IF 0X0/105

The concentration did not exceed 3 ppm during the 105 minutes of continuously recorded sampling.

16

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 159
Routine X
Special
Requested by
Date 4-16-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-28-62	E Area Oxide Conversion Room By traps	0420 - 0450	Hydrogen Fluoride	<0.1 ppm	
			0450 - 0520		<0.1 ppm	
			0520 - 0550		<0.1 ppm	
			0550 - 0620		<0.1 ppm	
	4-5-62	Middle	0015 - 0045	Fluorine	<0.1 ppm	
			0045 - 0115		<0.1 ppm	
			0115 - 0145		0.1 ppm	
			0145 - 0215		0.1 ppm	

HF 4
F_2 4

92

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 154
Routine I
Special
Requested by
Date 4-9-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-28-62	B Area First Floor By black powder receivers	0500 - 0530	[redacted]	[redacted]	[redacted]
			0530 - 0600			
			0600 - 0630			
			0630 - 0700			
		Second Floor By black powder hopper	0500 - 0530			
			0530 - 0600			
			0600 - 0630			
			0630 - 0700			

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 203
Routine X
Special
Requested by
Date 5-29-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-8-62	C Area North side of hammermill	0940 - 1010	[redacted]	[redacted]	Scrap saw in operation.
			1010 - 1040	[redacted]	[redacted]	[redacted]
			1040 - 1110	[redacted]	[redacted]	[redacted]
			1110 - 1140	[redacted]	[redacted]	[redacted]
	5-23-62		1300 - 1330	Dust	1.5 MPPCF	
			1330 - 1400		1.0 MPPCF	
			1400 - 1430		1.8 MPPCF	
			1430 - 1500		1.0 MPPCF	
Dust 4-0 HF 1-0 Misc. 4		E Area Oxide Conversion Room Middle of room	1115 - 1515	Hydrogen Fluoride	OXO/[illegible]0*	Faint odor of Hydrogen Fluoride present.

*The concentration did not exceed 3 ppm during the 240 minutes of continuously recorded sampling.

46

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 132
Routine X
Special
Requested by
Date 3-26-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
-1420	3-8-62	F Area				
		Room 102-B - Mercury Recovery Room				
		By sink	1500 -	Mercury	0.04 mg/m^3	Mercury was being washed.
		Cabinet under sink			0.02 mg/m^3	
		Storage area, south of sink			0.02 mg/m^3	
		Cabinet under storage area			0.00 mg/m^3	
Hg 28		By stills along south wall			0.05 mg/m^3	
		By stills along west wall			0.00 mg/m^3	
		Middle of room			0.00 mg/m^3	
95		Pallet by door to the room			0.00 mg/m^3	Several bottles of mercury on pallet.
		Room 102 Storage area by south wall	- 1530		0.00 mg/m^3	Several bottles of mercury on floor.
		Room 102-B - Mercury Recovery Room				
		By Glas Col heaters No. 1	1535 -		0.05 mg/m^3	See attached sketch.
		No. 2			1.20 mg/m^3	
		No. 3			0.60 mg/m^3	

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NUMBER 132 Page 2
Routine X
Special
Requested by
Date 3-26-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	3-8-62	F Area Room 102-B - Mercury Recovery Room By Glas Col heaters No. 4		Mercury	0.44 mg/m^3	
		No. 5			1.20 mg/m^3	
		No. 6			0.16 mg/m^3	
		No. 7			0.04 mg/m^3	
		No. 8			0.02 mg/m^3	
		No. 9			0.04 mg/m^3	
		No. 10			0.08 mg/m^3	
		No. 11			0.04 mg/m^3	
		No. 12	- 1600		0.03 mg/m^3	
	3-9-62	No. 1	0950 -		0.08 mg/m^3	
		No. 2			0.72 mg/m^3	
		No. 3			0.08 mg/m^3	
		No. 4			0.06 mg/m^3	
		No. 5			0.32 mg/m^3	
		No. 6			0.06 mg/m^3	

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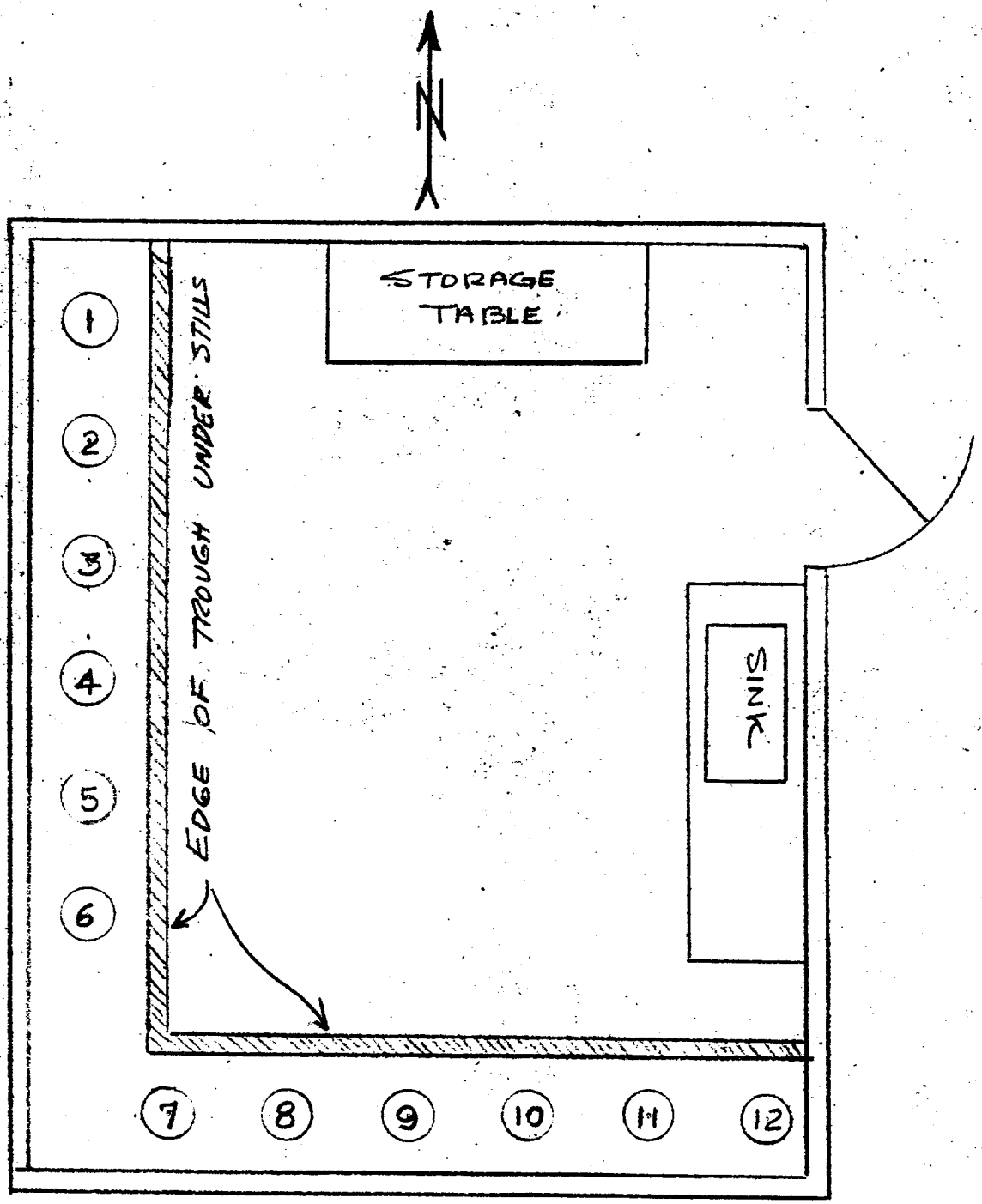
NUMBER 132 Page 3
Routine X
Special
Requested by
Date 3-26-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	3-9-62	F Area Room 102-B - Mercury Recovery Room By Glas Col heaters				
		No. 7		Mercury	0.04 mg/m^3	
		No. 8			0.02 mg/m^3	
		No. 9			0.04 mg/m^3	
		No. 10			0.08 mg/m^3	
		No. 11			0.04 mg/m^3	
		No. 12			0.04 mg/m^3	
		Head level 18 inches from heaters			0.06 mg/m^3	
		Head level by employee	- 1020		0.04 mg/m^3	Employee was in a squatting position.

97



102-B
MERCURY RECOVERY ROOM

K-1420

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 129
Routine X
Special
Requested by
Date 3-21-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	3-7-62	Oxide Conversion Room East end of control panel	1450 - 1520	Fluorine	<0.1 ppm	
			1520 - 1550		<0.1 ppm	
			1550 - 1620		<0.1 ppm	
		Recovery Room West door of calciner room	1450 - 1520	Hydrogen Fluoride	<0.1 ppm	The door was open.
			1520 - 1550		<0.1 ppm	
			1550 - 1620		<0.1 ppm	
	3-8-62	C Area Northeast corner of floor pan	1320 - 1350		0.1 ppm	
			1350 - 1420		0.1 ppm	
			1420 - 1450		0.1 ppm	

99

F2 3 0
HF 6 0

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 89
Routine X
Special
Requested by
Date 3-2-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-20-62	C Area Northeast corner of floor pan	1340 - 1410	Hydrogen Fluoride	0.1 ppm	
			1410 - 1440		0.1 ppm	
			1440 - 1510		0.1 ppm	
		Floor pan	1540	Nitrogen Dioxide	0.0 ppm	
		Northeast corner of compressor pits	1345 - 1415	Hydrogen Fluoride	< 0.1 ppm	
			1415 - 1445		0.1 ppm	
			1445 - 1515		< 0.1 ppm	
		E Area Oxide Conversion Room 4 feet east of control panel	1350 - 1420	Fluorine	< 0.1 ppm	
			1420 - 1450		< 0.1 ppm	
			1450 - 1520		< 0.1 ppm	
		B Area 5 feet from centrifuge	1550	Nitrogen Dioxide	1.0 ppm	
		7 feet from centrifuge	1600		0.0 ppm	

HF 6
NO_2 3
F. 3

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AIR SAMPLING REPORT

Special
Requested by
Date 3-1-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-6-62	B Area By powder recovery screener	0850 - 0920	Dust Black Powder	0.1 MPPCF 0.7 mg/m^3	
			0920 - 0950		0.1 MPPCF 0.7 mg/m^3	
			0950 - 1020		0.1 MPPCF 0.3 mg/m^3	
10			1020 - 1050		0.1 MPPCF 0.7 mg/m^3	
Dust 8	0	By powder recovery hopper	0850 - 0920		0.1 MPPCF 1.2 mg/m^3	
			0920 - 0950		0.1 MPPCF 1.1 mg/m^3	
HF 8			0950 - 1020		<0.1 MPPCF 0.3 mg/m^3	
F_2 3			1020 - 1050		<0.1 MPPCF <0.1 mg/m^3	
NO_2	3	West side of calciner	0855 - 0925	Hydrogen Fluoride	0.0 ppm	
			0925 - 0955		<0.1 ppm	
Hg	10		0955 - 1025		0.0 ppm	
			1025 - 1055		<0.1 ppm	

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WCX-2512 (9-55) K-25 RC Medical Department

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NUMBER 76 Page 2
Routine X
Special
Requested by
Date 3-1-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-6-62	E Area Oxide Conversion Room By control panel	0855 - 0925	Hydrogen Fluoride	0.0 ppm	5 feet south of column A-5.
			0925 - 0955		0.0 ppm	
			0955 - 1025		<0.1 ppm	
			1025 - 1055		<0.1 ppm	
		Middle of room	2000 - 2030	Fluorine	0.1 ppm	
			2030 - 2100		0.1 ppm	
			2100 - 2130		0.1 ppm	
		B Area By powder recovery screener	2000 - 2030			In operation.
			2030 - 2100			"
			2100 - 2130			"
	2-7-62	3 feet north of centrifuge	1300	Nitrogen Dioxide	1.0 ppm	
		7 feet north of centrifuge	1310		1.0 ppm	
		F Area Middle of room	1315		1.0 ppm	

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AIR SAMPLING REPORT

NUMBER 76 Page 3
Routine X
Special
Requested by
Date 3-1-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-7-62	F Area				
		Mercury Recovery Room				
		By sink	1500 -	Mercury	0.02 mg/m^3	
		Storage cabinet under sink			0.04 mg/m^3	
		Storage area south of sink			0.02 mg/m^3	
		Southeast corner			0.02 mg/m^3	
		By stills along south wall			0.02 mg/m^3	
		By stills along west wall			0.02 mg/m^3	
		Middle of room			0.02 mg/m^3	
		By floor drain			0.24 mg/m^3	
		1 foot from floor drain			0.10 mg/m^3	
		Floor in front of sink			0.08 mg/m^3	
		By bottles of mercury on pallet			0.02 mg/m^3	
		South wall	- 1530		0.02 mg/m^3	
		Mer-Vac Cleaner #223929*				
		At exhaust port	1530 -		0.24 mg/m^3	Motor off.
		1 foot from exhaust port			0.17 mg/m^3	"
		Head level			0.10 mg/m^3	"

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AIR SAMPLING REPORT

NUMBER 76 Page 4
Routine X
Special
Requested by
Date 3-1-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-7-62	F Area Mer-Vac Cleaner #223929* At exhaust port		Mercury	1.20 mg/m^3	Motor on.
		1 foot from exhaust port			1.00 mg/m^3	"
		Head level	- 1550		0.72 mg/m^3	"

*This machine should be cleaned up, recharged and rechecked.

104

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 37
Routine X
Special
Requested by
Date 2-2-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1421	1-22-62	Middle of Incinerator Room	1315 - 1345	Hydrogen Fluoride	0.1 ppm	
			1345 - 1415		0.1 ppm	
			1415 - 1445		0.3 ppm	

105

HF 3

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 20
Routine X
Special
Requested by
Date 1-25-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-11-62	B Area				
		Recovery Room				
		West end of calciners	0930 - 1000	Hydrogen Fluoride	0.3 ppm	In operation
			1000 - 1030		0.1 ppm	
			1030 - 1100		0.1 ppm	
		3 ft. north of centrifuge	1135 -	Nitrogen Dioxide	2.0 ppm	
		7 ft. north of centrifuge	- 1145		0.0 ppm	
		E Area				
		Oxide Conversion Room				
		4 ft. south of Column A-5	0935 - 1005	Hydrogen Fluoride	0.1 ppm	In operation
			1005 - 1035		0.1 ppm	
			1035 - 1105		0.1 ppm	
		C Area				
		Northwest corner of compressor pits	0940 - 1010		0.1 ppm	By Column D-7
			1010 - 1040		0.1 ppm	
			1040 - 1110		0.1 ppm	
		By cutting stand	0945 - 1015		0.1 ppm	By Column C-6 0945 to 1115: A converter being cut open.

109

HF 18-0
NO2 2-0

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NUMBER 20 Page 2
Routine X
Special
Requested by
Date 1-25-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-11-62	C Area By cutting stand	1015 - 1045	Hydrogen Fluoride	0.1 ppm	
			1045 - 1115		0.1 ppm	
		Northeast corner of floor pan	1115 - 1145		0.1 ppm	
			1330 - 1400		0.1 ppm	
			1400 - 1430		0.1 ppm	
		East end of small parts furnace	1330 - 1400		0.1 ppm	By Column 0-10
			1400 - 1430		0.1 ppm	
			1430 - 1500		0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 130
Routine X
Special
Requested by
Date 3-26-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
-1420	1-11-62	C Area East end of hammer mill	1400 - 1430	Dust	0.2 MPPCF	
			1430 - 1500		0.4 MPPCF	
			1500 - 1530		0.5 MPPCF	
			1530 - 1600		0.1 MPPCF	

Dust 4

108

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 45
Routine X
Special
Requested by
Date 2-14-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	1-11-62	A Area Small parts booth West end of work bench	1345 - 1415	Lead	0.00 mg/m^3	Several hot plates were being used to heat small parts. The plates were "Cherry red."
			1415 - 1445		0.00 mg/m^3	
			1445 - 1515		0.00 mg/m^3	
	1-22-62	*E Area Middle of oxide conversion room	1320 - 1350	Fluorine	<0.1 ppm	
			1350 - 1420		<0.1 ppm	
			1420 - 1450		<0.1 ppm	
		B Area By screener	1320 - 1350			In operation.
			1350 - 1420			"
			1420 - 1450			"
		3 ft. north of centrifuge	1510 -	Nitrogen Dioxide	1 ppm	"
		7 ft. north of centrifuge	- 1520		0 ppm	"
		West end of calciner platform	1330 - 1400	Hydrogen Fluoride	<0.1 ppm	One drum drier in operation.
			1400 - 1430		<0.1 ppm	"
			1430 - 1500		0.0 ppm	"

109

pb 3
F 3

NO_2 2
HF 18

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AIR SAMPLING REPORT

NUMBER 45 Page 2
Routine X
Special
Requested by
Date 2-8-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-22-62	"A" Area Small parts booth By hood	1330 - 1400	Hydrogen Fluoride	0.1 ppm	
			1400 - 1430		<0.1 ppm	
			1430 - 1500		0.1 ppm	
		"C" Area By column G-7	1330 - 1400		0.5 ppm	
			1400 - 1430		<0.1 ppm	
			1430 - 1500		0.2 ppm	
		By cutting stand	1330 - 1400		0.0 ppm	
			1400 - 1430		<0.1 ppm	
			1430 - 1500		<0.1 ppm	
		By converter stand	1330 - 1400		0.1 ppm	
			1400 - 1430		0.1 ppm	
			1430 - 1500		0.1 ppm	
		Northeast corner of floor pan	1330 - 1400		0.3 ppm	Employee wearing respiratory protection steam cleaned equipment.
			1400 - 1430		0.2 ppm	
			1430 - 1500		<0.1 ppm	

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D. L. Stokland

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 21
Routine X
Special
Requested by
Date 1-29-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-4-62	"B" Area By Screener	0330 - 0400			In operation
		"	0400 - 0430			"
		"	0430 - 0500			"
	1-22-62	"F" Area Mercury Recovery Room By sink	1030 -	Mercury	0.02 mg/m3	
		Cabinet under sink			0.04 mg/m3	
		Storage area by sink			0.02 mg/m3	
		Cabinet under storage area			0.04 mg/m3	
		Southeast corner			0.02 mg/m3	
		By stills Along south wall			0.02 mg/m3	
		Along west wall			0.02 mg/m3	
		Middle of room	- 1110		0.02 mg/m3	

Hg -
wc. -

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AIR SAMPLING REPORT

NUMBER 21 Page 2
Routine X
Special
Requested by
Date 1-29-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
-1420	1-22-62	"F" Area Mer-Vac Cleaner, USA - UCNC No. 223929*				
		At exhaust port	1000 -	Mercury	0.02 mg/m^3	Motor off
		One foot from exhaust port			0.01 mg/m^3	"
		Head level			0.00 mg/m^3	"
		At exhaust port			0.08 mg/m^3	Motor on
		One foot from exhaust port			0.06 mg/m^3	"
		Head level	- 1025		0.02 mg/m^3	"
		*This device is fit for continued use.				

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 10
Routine X
Special
Requested by
Date 1-17-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-18-61	E Area Oxide conversion room Middle	1345 - 1415	Hydrogen Fluoride	0.0 ppm	
			1415 - 1445		<0.1 ppm	
			1445 - 1515		0.1 ppm	
		B Area West end of calciner platform	1345 - 1415		0.1 ppm	Two drum driers in operation.
			1415 - 1445		<0.1 ppm	"
			1445 - 1515		<0.1 ppm	"
		By black powder screener	1345 - 1415			Screener in operation.
				Dust	0.2 MPPCF	
			1415 - 1445			"
					<0.1 MPPCF	
			1445 - 1515			"
					<0.1 MPPCF	

113

HF 6-

6+

3-

D L Stoddard

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AIR SAMPLING REPORT

NUMBER 10 Page 2
Routine X
Special
Requested by
Date 1-17-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-18-61	B Area Second Floor By black powder hopper	1345 - 1415	Dust	20.1 MPPCF	Employee, wearing respiratory protection, dumped powder into hopper.
			1415 - 1445		1.7 MPPCF	"
			1445 - 1515		4.7 MPPCF	"
		Three feet north of centrifuge	1450	Nitrogen Dioxide	2 ppm	In operation.
		Seven feet north of centrifuge	1458		1 ppm	"
		On calciner platform	1510		0.5 ppm	Employee, wearing respiratory protection, on platform.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 516
Routine X
Special
Requested by
Date 1-2-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-6-61	B Area By screener	2225 - 2255			Screener in operation.
			2255 - 2325			
			2325 - 2355			
	12-18-61	A Area By hood in small parts booth	1400 - 1430	Hydrogen Fluoride	< 0.1 ppm	
			1430 - 1500		< 0.1 ppm	
			1500 - 1530		0.0 ppm	
		C Area By column G-10	1400 - 1430		< 0.1 ppm	
			1430 - 1500		0.0 ppm	
			1500 - 1530		< 0.1 ppm	
		By cutting stand	1400 - 1430		0.0 ppm	
			1430 - 1500		< 0.1 ppm	
			1500 - 1530		0.0 ppm	

HF 12-
Hg 9-
MISC

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 516 Page 2
Routine X
Special
Requested by
Date 1-2-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-18-61	C Area North east corner of floor pan	1400 - 1430	Hydrogen Fluoride	<0.1 ppm	Employees steam cleaned equipment.
			1430 - 1500		<0.1 ppm	
			1500 - 1530		<0.1 ppm	
	12-22-61	Mercury Recovery Room Southeast corner	1315 -	Mercury	0.04 mg/m3	
		By sink			0.02 mg/m3	
		Storage area south of sink			0.02 mg/m3	
		Cabinet under sink			0.04 mg/m3	
		Cabinet under storage area			0.05 mg/m3	
		Middle of room			0.01 mg/m3	
		By floor drain			0.09 mg/m3	
		By stills along south wall			0.03 mg/m3	
		By stills along west wall	- 1345		0.02 mg/m3	
		Mer-Vac Cleaner, USA - UCNC No. 223929 * At exhaust port	1345 -		0.40 mg/m3	Motor off.
		One foot from exhaust port			0.21 mg/m3	
		Head level			0.00 mg/m3	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 516 Page 3
Routine X
Special
Requested by
Date 1-2-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-22-61	Mer-Vac Cleaner, USA - UCNC No. 223929	1345 -			
		At exhaust port		Mercury	>3.40 mg/m3	Motor on.
		One foot from exhaust port			>3.40 mg/m3	
		Head level	- 1405		2.40 mg/m3	Glass trap on inlet was missing.
		*This device should be cleaned up, recharged and monitored again.				

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

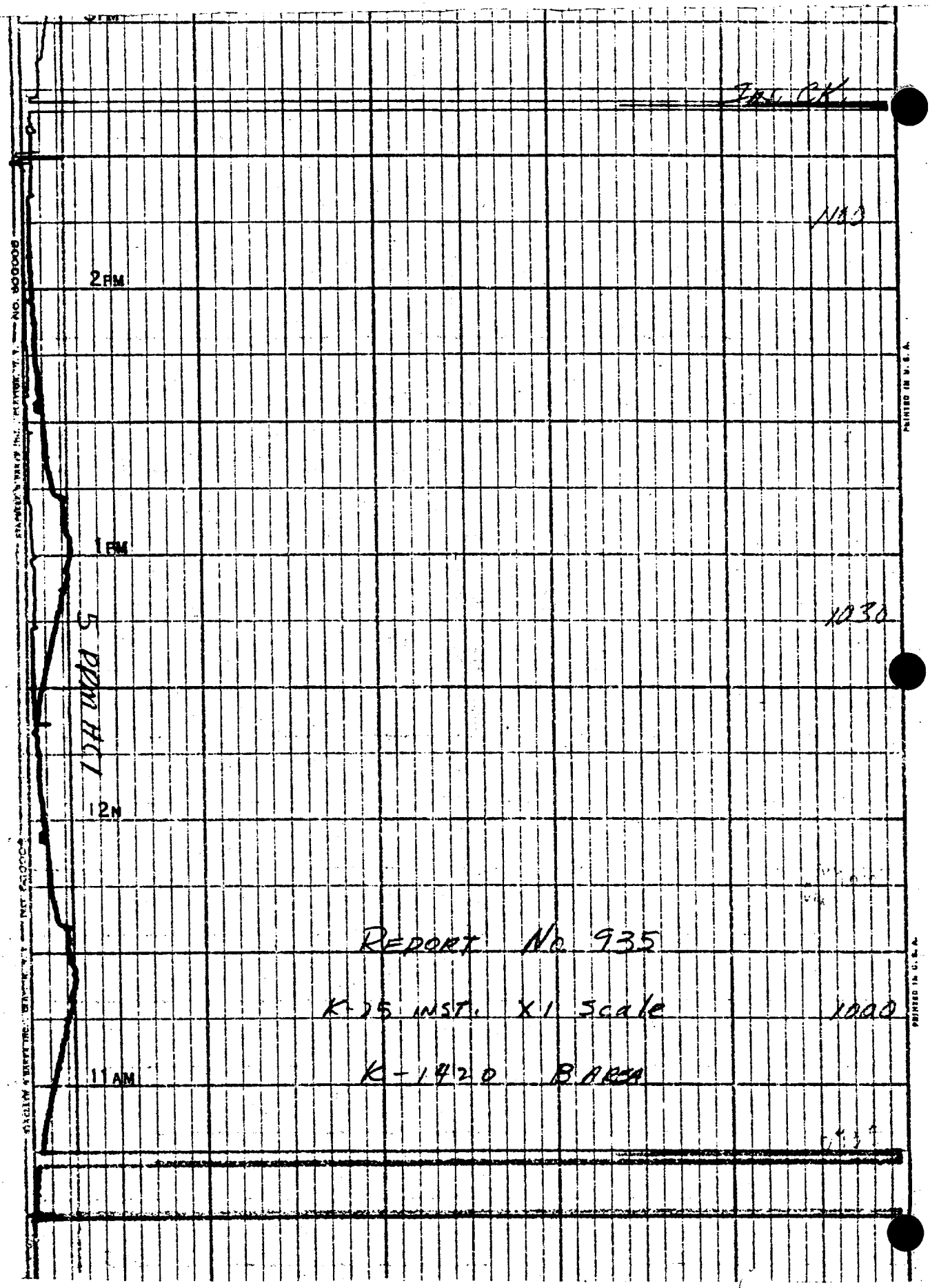
NUMBER 518
Routine X
Special
Requested by
Date 1-3-62

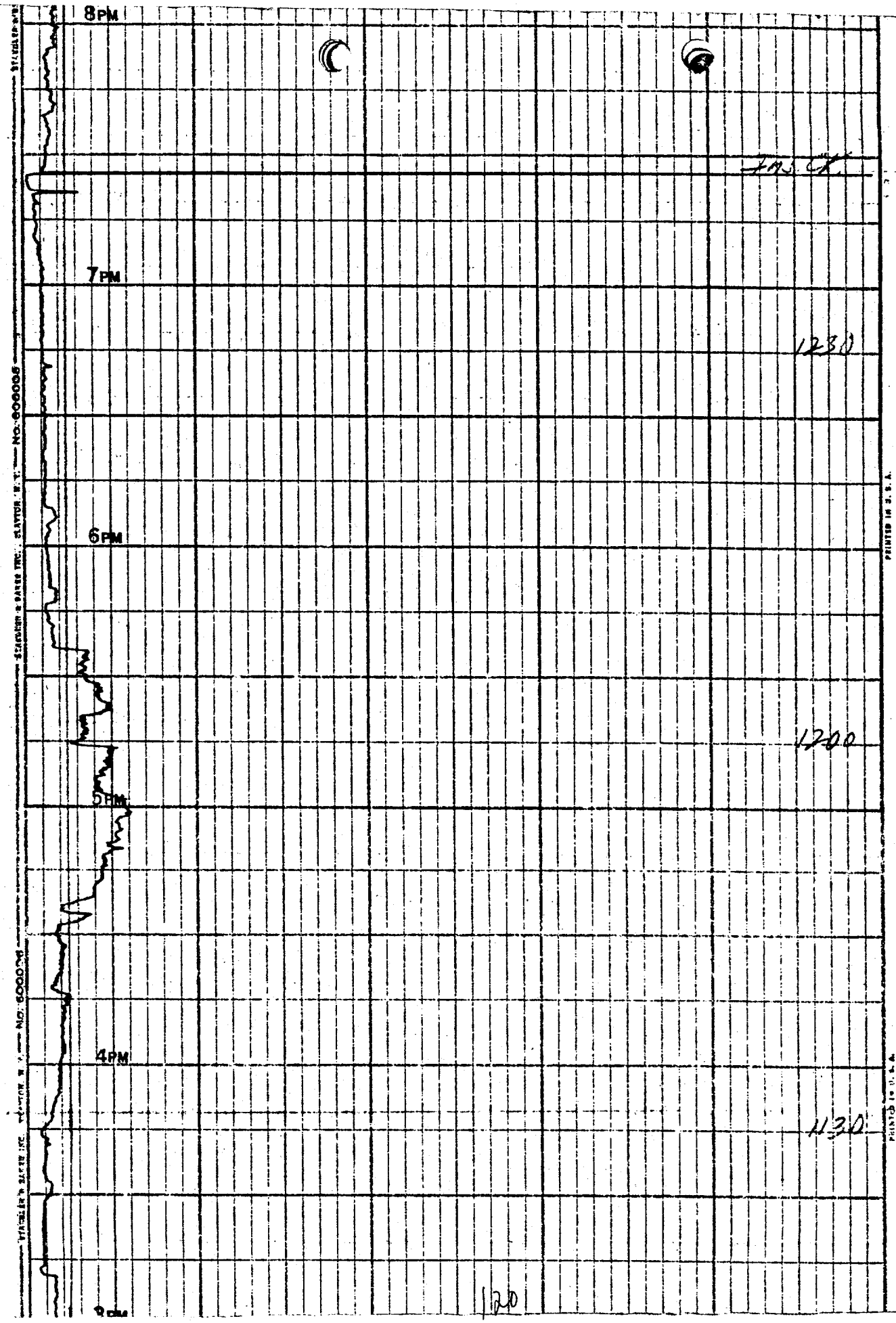
BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-1-61	B Area Second floor by dissolving tank	0950 -	Hydrogen Chloride	8X35/405*	
			-1415-			Filling tank with hydrogen chloride.
			-1430-			Added aluminum. Very little vapor.
			-1525-			Filling tanks with hydrogen chloride.
			-1540-			"
			-1542-			Added aluminum. Very little vapor.
			- 1600			End.

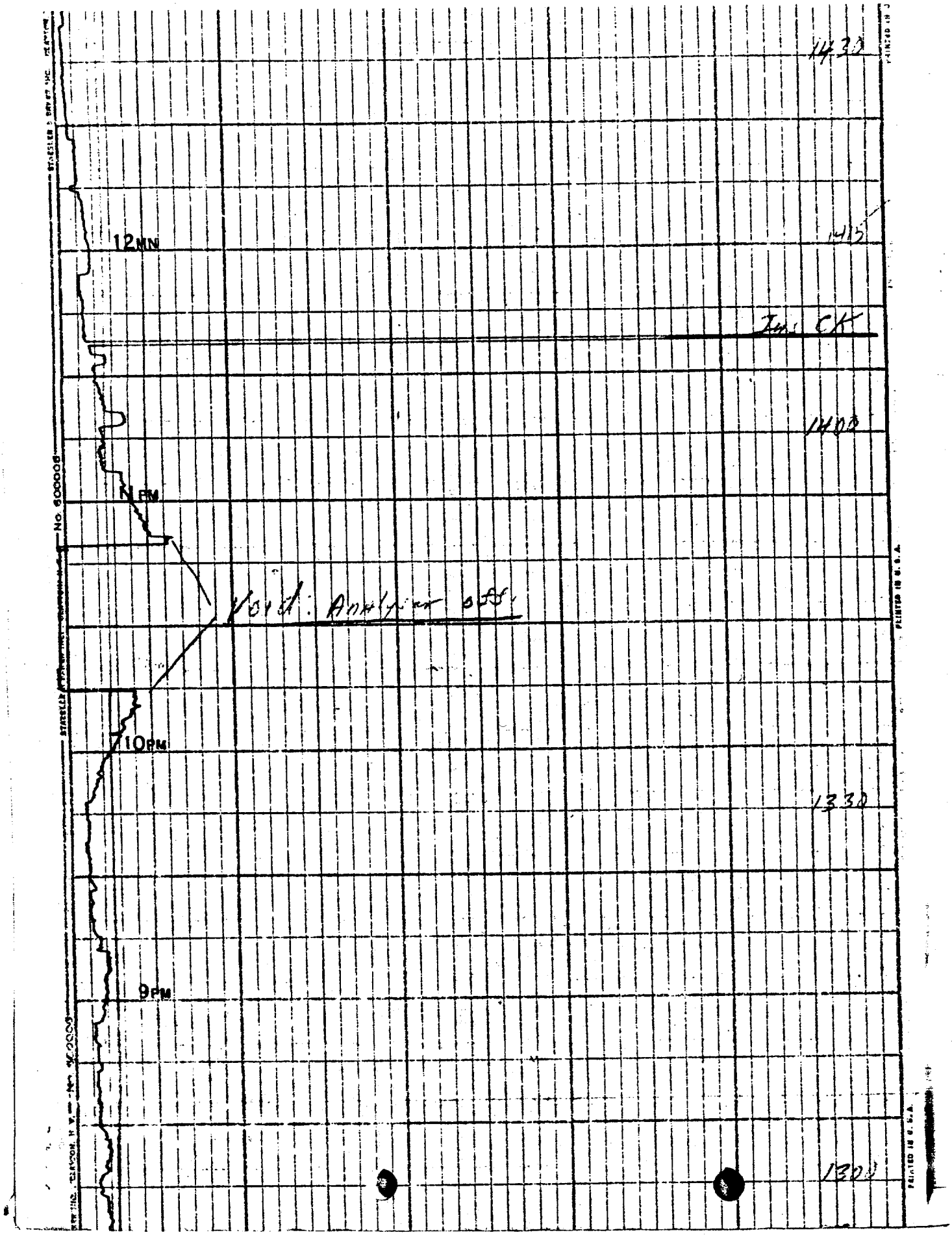
* The concentration exceeded 5ppm 8 times for a total of 35 minutes out of the 405 minutes of continuously recorded sampling.

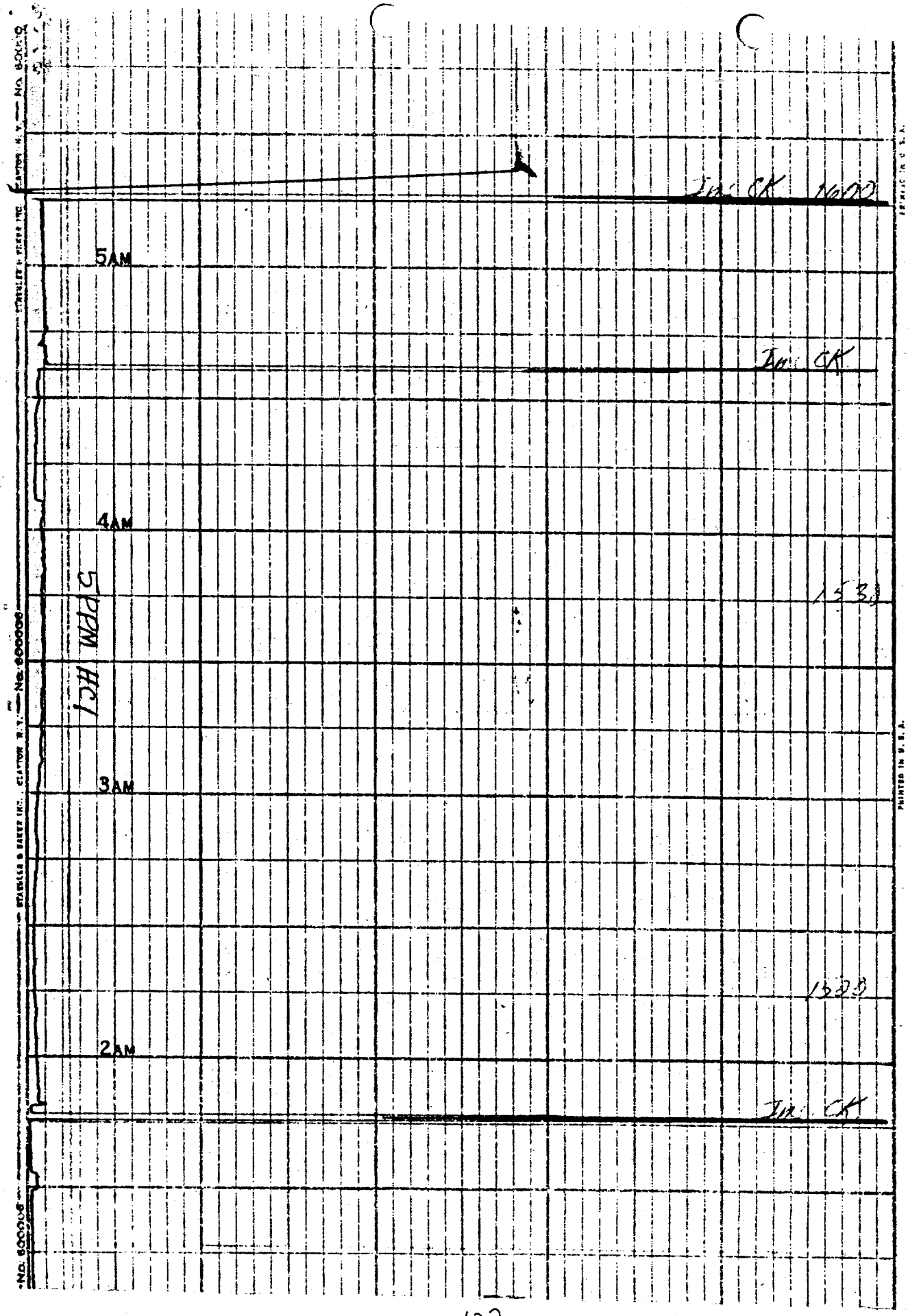
Hcl 8X35/405

118


2PM
1PM
12N
11AM
1030
1000
REPORT No 935
K-25 INST. X1 Scale
K-1420 BARSA


8PM
7PM
6PM
5PM
4PM
1230
1200
1130
120


1430
12MN
1415
Ins. CK
1400
11PM
Void: Analyzer off.
10PM
1330
9PM
1300



Inc CK 1600
5AM
Inc CK
4AM
5PPM HCl
1530
3AM
1520
2AM
Inc CK

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 517
Routine X
Special
Requested by
Date 1-3-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-8-61	B Area By scrap screener	1015 - 1045	Dust Black Powder	<0.1 MPPCF <0.1 mg/m3	In operation.
			1045 - 1115		<0.1 MPPCF <0.1 mg/m3	"
			1115 - 1145		<0.1 MPPCF <0.1 mg/m3	"
		C Area 20 ft. southwest of column D-23	1430 - 1500	Dust	0.1 MPPCF	By employees, wearing respiratory protection, screening scrap.
			1500 - 1530		0.3 MPPCF	"
			1530 - 1600		0.5 MPPCF	"
Dust 6 -	11-14-61	B Area By scrap screener	0030 - 0100	Black Powder	2.8 mg/m3	System in operation.
			0100 - 0130		4.9 mg/m3	"
			0130 - 0200		2.6 mg/m3	"
			0200 - 0230		0.2 mg/m3	"

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AIR SAMPLING REPORT

NUMBER 517 Page 2
Routine X
Special
Requested by
Date 1-3-62

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-21-61	B Area Recovery Room North of scrap recovery system	0050 - 0120	Black Powder	10.6 mg/m^3	Vibrator operating. No black powder being fed into system at this time.
			0120 - 0150		6.2 mg/m^3	
			0150 - 0220		<0.1 mg/m^3	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 465
Routine X
Special
Requested by
Date 11-17-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-10-61	C Area Pit under scrap saw by bottom of stairway, south-east of hammermill	1300 - 1330	Dust	6.1 MPPCF	Scrap saw in operation.
			1330 - 1400		7.1 MPPCF	Employee in pit without respiratory protection.
			1400 - 1430		4.3 MPPCF	Employee in pit wearing respiratory protection.
			1430 - 1500		42.7MPPCF	"
			1500 - 1530		15.5 MPPCF	"
	11-8-61	F Area Mercury Recovery Room Middle	1330	Mercury	0.00 mg/m^3	
		By sink	1330		0.01 mg/m^3	
		By cabinet under sink	1335		0.05 mg/m^3	

125

Dust 5-
Hg 8-1
HF 0-1

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AIR SAMPLING REPORT

NUMBER 465 Page 2
Routine X
Special
Requested by
Date 11-17-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-8-61	Y Area				
		Mercury recovery room				
		Storage area south by sink	1335	Mercury	0.00 mg/m^3	
		By mercury still	1340		0.01 mg/m^3	
		By mercury still	1342		0.01 mg/m^3	
		North wall	1345		0.01 mg/m^3	
		Waste can	1349		0.24 mg/m^3	NT
		Southwest corner	1352		0.00 mg/m^3	
		Mer Vac Cleaner USA UCNC 223929 *				No intake bottle on cleaner.
		At exhaust port	1400		0.06 mg/m^3	Motor off.
		One foot from exhaust port	1400		0.01 mg/m^3	"
		Heal level	1400		0.00 mg/m^3	"
		At exhaust port	1405		2.40 mg/m^3	Motor on.
		One ft. from exhaust port	1405		1.20 mg/m^3	"
		Head level	1405		1.20 mg/m^3	"

* This device should be cleaned, recharged and then rechecked before being used.

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AIR SAMPLING REPORT

NUMBER 465 Page 3
Routine X
Special
Requested by
Date 11-17-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-8-61	E Area Middle of oxide conversion room	1015 - 1045	Hydrogen Fluoride	<0.1 ppm	
			1045 - 1115		<0.1 ppm	
			1115 - 1145		<0.1 ppm	
		B Area West end of calciner platform	1015 - 1045		<0.1 ppm	
			1045 - 1115		<0.1 ppm	
			1115 - 1145		<0.1 ppm	
		Three ft. from centrifuge	1120	Nitrogen Dioxide	17 ppm	Employee working on centrifuge.
		Seven ft. from centrifuge	1125		11 ppm	"
		A Area Small parts booth	1015 - 1045	Hydrogen Fluoride	<0.1 ppm	
			1045 - 1115		<0.1 ppm	
			1115 - 1145		<0.1 ppm	
		C Area By column G-7	1015 - 1045		<0.1 ppm	
			1045 - 1115		<0.1 ppm	
			1115 - 1145		<0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 465 Page 4
Routine X
Special
Requested by
Date 11-17-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-8-61	C Area				
		By cutting stand	1015 - 1045	Hydrogen Fluoride	<0.1 ppm	
			1045 - 1115		<0.1 ppm	
			1115 - 1145		<0.1 ppm	
		By converter disassembly stand	1015 - 1045		<0.1 ppm	
			1045 - 1115		<0.1 ppm	
			1115 - 1145		<0.1 ppm	
		Northeast corner of floor pan	1015 - 1045		<0.1 ppm	
			1045 - 1115		<0.1 ppm	
			1115 - 1145		<0.1 ppm	
		On floor pan	1100	Nitrogen Dioxide	16 ppm	Employees washed equipment with nitric acid; one employee wearing respirator, two others without respiratory protection
		At floor pan	1130		11 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 404
Routine X
Special
Requested by
Date 10-19-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-10-61	C Area Northwest corner of compressor pit	1315 - 1345	Hydrogen Fluoride	0.1 ppm	Employees, wearing respiratory protection were disassembling compressor.
			1345 - 1415		0.1 ppm	"
			1415 - 1445		0.1 ppm	
		Northeast corner of floor pan	1315 - 1345		0.1 ppm	Employees steam cleaned equipment.
			1345 - 1415		0.1 ppm	"
			1415 - 1445		0.1 ppm	
		E Area Middle of oxide conversion room	1315 - 1345	Hydrogen Fluoride Uranium	<0.1 ppm 0.02 mg/m^3	There had been a uranium hexafluoride leak just before sampling was started. Employees in area were without respiratory protection.
			1345 - 1415		<0.1 ppm 0.03 mg/m^3	
			1415 - 1445		<0.1 ppm 0.01 mg/m^3	

129

HF 12-
U 3+
NO2 5+

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 404 Page 2
Routine X
Special
Requested by
Date 10-19-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-10-61	B Area West end of calciner platform	1315 - 1345	Hydrogen Fluoride	0.1 ppm	One drum drier in operation.
			1345 - 1415		0.1 ppm	"
			1415 - 1445		0.1 ppm	"
			1448	Nitrogen Dioxide	0 ppm	"
		Three feet north of centrifuge	1455		5 ppm	Centrifuge in operation.
		Seven feet north of centrifuge	1505		2 ppm	"
		F Area By dissolver	1510		1 ppm	In operation.
		C Area South side of acid spray booth	1515		2 ppm	Door open.
		Floor pan	1520		0 ppm	

130

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 443
Routine X
Special
Requested by
Date 11-1-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-10-61	C Area By northeast corner of scrap saw	1300 - 1330	Dust	0.2 MPPCF	By employees, wearing respiratory protection, as they dumped drums of scrap.
			1330 - 1400		<0.1 MPPCF	"
			1400 - 1430		<0.1 MPPCF	"
			1430 - 1500		0.2 MPPCF	"
		West end of scrap saw platform	1300 - 1330		0.4 MPPCF	In operation.
			1330 - 1400		0.2 MPPCF	"
			1400 - 1430		0.4 MPPCF	"
			1430 - 1500		0.5 MPPCF	"

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Dust 8-

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 434
Routine X
Special
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Date 10-24-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-6-61	F Area Mercury Recovery Room By sink	1515 -	Mercury	0.02 mg/m3	
		Cabinet under sink			0.10 mg/m3	
		Storage area by sink			0.02 mg/m3	
		Cabinet under storage area			0.14 mg/m3	
		Along south wall			0.05 mg/m3	
		Along west wall			0.05 mg/m3	
		Middle of room			0.05 mg/m3	
		Southeast corner			0.05 mg/m3	
		North end	- 1545		0.03 mg/m3	
	10-10-61	A Area Small parts disassembly booth	1315 - 1345	Hydrogen Fluoride Lead	<0.1 ppm 0.00 mg/m3	Employees disassembled equipment in hood.
			1345 - 1415		<0.1 ppm <0.01 mg/m3	
			1415 - 1445		<0.1 ppm 0.00 mg/m3	

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Hg 7 -
HF 4 -
Pb 00 -

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 434 Page 2
Routine X
Special
Requested by
Date 10-24-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-10-61	C Area By column G-7	1315 - 1345	Hydrogen Fluoride	<0.1 ppm	
			1345 - 1415		<0.1 ppm	
			1415 - 1445		<0.1 ppm	
		By converter disassembly stand	1315 - 1345		0.6 ppm	Employees, wearing respiratory protection, disassembled convertor.
			1345 - 1415		0.1 ppm	
			1415 - 1445		0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 427
Routine X
Special
Requested by
Date 10-[illegible]-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-6-61	F Area Mer-Vac Cleaner USA-UCSC 223929				
		At exhaust port	1547 -	Mercury	0.05 mg/m^3	Motor off.
		One ft. from exhaust port			0.02 mg/m^3	"
		Head level			0.00 mg/m^3	"
		At exhaust port			0.18 mg/m^3	Motor on.
		One ft. from exhaust port			0.10 mg/m^3	"
		Head level	- 1600		0.05 mg/m^3	"

This device should be checked again after some additional service.

134

Misc 6-[illegible]

D. L. Stiffel

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 421
Routine X
Special
Requested by
Date 10-23-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-20-61	C Area By northeast corner of scrap saw	1400 - 1430	Dust	0.1 MPPCF	By employee as he dumped scrap onto a belt under the saw.
			1430 - 1500		<0.1 MPPCF	"
			1500 - 1530		<0.1 MPPCF	"
			1530 - 1600		<0.1 MPPCF	"
		West end, on scrap saw platform	1400 - 1430		<0.1 MPPCF	Dust was coming out of the drum dumper west of saw platform.

135

Mis 15-
Mis 12
HF 17-
NO2 7-1
Hg 6-1

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 421 Page 2
Routine X
Special
Requested by
Date 10-23-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-20-61	C Area West end, on scrap saw platform	1430 - 1500	Dust	0.1 MPPCF	Dust was coming out of the drum dumper west of saw platform.
			1500 - 1530		0.1 MPPCF	"
			1530 - 1600		0.1 MPPCF	"
		At bottom of stairway under hammer mill	1400 - 1430		5.7 MPPCF	Hammer mill and separator in operation. Employee, wearing a respirator, entered pit several times.
			1430 - 1500		0.8 MPPCF	"

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NUMBER 421 Page 3
Routine X
Special
Requested by
Date 10-23-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
C-1420	9-20-61	C Area At bottom of stairway under hammer mill	1500 - 1530	Dust	0.1 MPCF	Employee, wearing respirator, used an air hose to unplug piping of hammer mill.
			1530 - 1600		0.7 MPPCF	Employee wearing a respirator.
		By column G-10	1400 - 1430	Hydrogen Fluoride	0.7 ppm	
			1430 - 1500		0.1 ppm	
			1500 - 1530		0.1 ppm	
		By cutting stand	1400 - 1430	Dust Hydrogen Fluoride	0.1 MPPCF 0.2 ppm	Employee welded on a converter.
			1430 - 1500		<0.1 MPPCF 0.1 ppm	"
			1500 - 1530		<0.1 MPPCF <0.1 ppm	"
		Northeast corner of deblading platform	1400 - 1430	Hydrogen Fluoride	0.2 ppm	Employees debladed a compressor
			1500 - 1530		0.2 ppm	"

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 421 Page 4
Routine X
Special
Requested by
Date 10-23-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-20-61	C Area Northeast corner of floor pan	1400 - 1430	Hydrogen Fluoride	1.1 ppm	Employee steam cleaning equipment at floor pan.
			1430 - 1500		0.1 ppm	"
			1500 - 1530		<0.1 ppm	
		E Area Middle of oxide conversion room	1400 - 1430		<0.1 ppm	
			1430 - 1500		<0.1 ppm	
			1500 - 1530		0.1 ppm	
		B Area West end of calciner platform	1400 - 1430		<0.1 ppm	One drum drier in operation.
			1430 - 1500		<0.1 ppm	"
			1500 - 1530		0.1 ppm	"
		Three ft. north of Centrifuge	1450	Nitrogen Dioxide	2 ppm	In operation.
		Seven ft. north of centrifuge	1455		3 ppm	"
		F Area By tank F-18	1435		20 ppm	Two employees were in area. One was wearing a respirator. System was leaking.

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AIR SAMPLING REPORT

NUMBER 421 age 5
Routine X
Special
Requested by
Date 10-23-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-20-61	F Area By tank F-18	1510	Nitrogen Dioxide	3 ppm	A fan had been moved into this area.
		Mercury recovery room	1505		3 ppm	By employee without respirator. Oder of nitrogen dioxide present.
		C Area By column B-6	1440		0 ppm	
		B Area By East door to F Area	1445		0 ppm	
		E Area Southeast corner	1459		0 ppm	By two employees.
		F Area Mercury Recovery Room Southeast corner	1530 -	Mercury	0.02 mg/m3	
		By sink			0.05 mg/m3	
		Storage cabinet under sink			0.06 mg/m3	
		Storage cabinet by sink			0.13 mg/m3	
		By north wall			0.02 mg/m3	
		South side of scales			0.02 mg/m3	Bottles of Mercury on floor in area.
		North side of scales	- 1550		0.02 mg/m3	"

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O L Stedbrook

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 385
Routine X
Special
Requested by
Date 9-27-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-15-61	F Area Mer-Vac Cleaner UCNC 223929 *				
		At exhaust port	1515	Mercury	0.03 mg/m3	Motor off.
		One foot from exhaust port	1517		0.00 mg/m3	
		Head level	1520		0.00 mg/m3	
		At exhaust port	1525		0.16 mg/m3	Motor on.
		One foot from exhaust port	1527		0.05 mg/m3	
		Head level	1530		0.03 mg/m3	
		* This device is fit for continued use.				

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 366
Routine X
Special
Requested by
Date 9-5-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-22-61	C Area At foot of stairway under scrap saw	1315 - 1345	Dust	1.0 MPPCF	Hammermill in operation.
			1345 - 1415		0.7 MPPCF	
			1415 - 1445		0.8 MPPCF	
			1445 - 1515		0.9 MPPCF	Employee in pit without respirator.
		East end of scrap saw	1315 - 1345		<0.1 MPPCF	By employees emptying barrels and loading scrap onto shredder belts.
			1345 - 1415		<0.1 MPPCF	
			1415 - 1445		<0.1 MPPCF	
			1445 - 1515		<0.1 MPPCF	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 366 Page 2
Routine X
Special
Requested by
Date 9-5-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-22-61	C Area By column D-21	1315 - 1345	Dust	<0.1 MPPCF	Fan blowing on employees as they dumped scrap.
			1345 - 1415		<0.1 MPPCF	
			1415 - 1445		0.1 MPPCF	
			1445 - 1515		0.2 MPPCF	
		East end of scrap saw	1520	Carbon Monoxide	20 ppm	Two motor vehicles operating in area.
			1535		20 ppm	
		A Area Small parts disassembly booth	1400 - 1430	Lead Hydrogen Fluoride	0.00 mg/m3 <0.1 ppm	
			1430 - 1500		0.00 mg/m3 <0.1 ppm	
			1500 - 1530		0.00 mg/m3 <0.1 ppm	Employee, wearing respirator, disassembled equipment.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 366 Page 3
Routine X
Special
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Date 9-5-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-22-61	D Area Middle of area	1400 - 1430	Hydrogen Fluoride	<0.1 ppm	By two employees, one wearing a respirator and other wearing an assault mask, as they removed alumina from traps.
			1430 - 1500		<0.1 ppm	
			1500 - 1530		<0.1 ppm	
		E Area Middle of oxide conversion room	1400 - 1430		<0.1 ppm	In operation.
			1430 - 1500		<0.1 ppm	
			1500 - 1530		<0.1 ppm	
		B Area West end of calciner platform	1400 - 1430		<0.1 ppm	
			1430 - 1500		0.1 ppm	
			1500 - 1530		0.1 ppm	
		Three feet north of centrifuge	1440	Nitrogen Dioxide	2 ppm	In operation.
		Seven feet north of centrifuge	1455		1 ppm	
		C Area Northeast corner of floor pan	1400 - 1430	Hydrogen Fluoride	<0.1 ppm	Employee cleaned equipment.
			1430 - 1500		<0.1 ppm	
			1500 - 1530		0.1 ppm	
			1515	Nitrogen Dioxide	<1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 352
Routine X
Special
Requested by
Date 8-28-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-14-61	A Area Small parts disassembly booth	1415 - 1445	Hydrogen Fluoride Lead	0.1 ppm < 0.01 mg/m3	
			1445 - 1515		0.1 ppm < 0.01 mg/m3	
			1515 - 1545		< 0.1 ppm < 0.01 mg/m3	
		B Area Middle of oxide conversion room	1415 - 1445		< 0.1 ppm	
			1445 - 1515		< 0.1 ppm	
			1515 - 1545		< 0.1 ppm	
		D Area West end of calciner platform	1415 - 1445		< 0.1 ppm	
			1445 - 1515		< 0.1 ppm	
			1515 - 1545		0.1 ppm	
			1535	Nitrogen Dioxide	6 ppm	Odor of nitrogen dioxide in area. Centrifuges in operation.
		Seven feet north of centrifuges	1435		9 ppm	Odor of nitrogen dioxide.
		Four feet north of centrifuges	1440		13 ppm	
		By centrifuge	1605		20 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 352 Page 2
Routine X
Special
Requested by
Date 8-28-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-14-61	C Area By column G-10	1425 - 1455	Hydrogen Fluoride	<0.1 ppm	
			1455 - 1525		0.1 ppm	
			1525 - 1555		0.2 ppm	
		By cutting stand	1425 - 1455		<0.1 ppm	Employees, wearing respirators, disassembled converter.
			1455 - 1525		<0.1 ppm	
			1525 - 1555		<0.1 ppm	Odor of fluorine and hydrogen fluoride in area. Leak from test stand.
		Northeast corner of floor pan	1425 - 1455		<0.1 ppm	
			1455 - 1525		<0.1 ppm	
			1525 - 1555		<0.1 ppm	
			1540	Nitrogen Dioxide	1 ppm	Odor of nitrogen dioxide present.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 328
Routine X
Special
Requested by
Date 8-22-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-28-61	E Area Oxide conversion room Middle, by scales	0040 - 0110	Hydrogen Fluoride	0.1 ppm	
			0110 - 0140		0.1 ppm	
			0140 - 0210		0.1 ppm	Ash receiver disconnected and removed.
		B Area West end of calciner platform	0040 - 0110		< 0.1 ppm	
			0110 - 0140		0.1 ppm	
			0140 - 0210		0.1 ppm	
	8-1-61	Mercury Recovery Room Middle of room	1007	Mercury	0.00 mg/m3	Head level.
		One foot above floor drain	1008		0.02 mg/m3	
		By mercury stills	1010		0.00 mg/m3	Not in operation.
		By sink	1012		0.01 mg/m3	
		By cabinet under sink	1013		0.11 mg/m3	
		Counter by sink	1014		0.02 mg/m3	Several drops mercury present.
		Table, north side	1015		0.01mg/m3	Several bottles mercury stored.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 328 Page 2
Routine X
Special
Requested by
Date 8-22-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-1-61	Mer-Vac Cleaner No. 223929 * By exhaust port	1018	Mercury	0.01 mg/m3	Motor off.
		One foot from exhaust	1019		0.00 mg/m3	
		Head level	1019		0.00 mg/m3	
		By exhaust port	1020		1.16 mg/m3	Motor on.
		One foot from exhaust	1021		0.18 mg/m3	
		Head level	1022		0.06 mg/m3	

* This device should be cleaned up, recharged and rechecked before being used further.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 323
Routine X
Special
Requested by
Date 8-8-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-20-61	Mercury Recovery Room F Area By mercury stills, west side of room	1210 -	Mercury	0.02 mg/m3	
		Middle of room			0.02 mg/m3	
		By storage table along north wall			0.02 mg/m3	
		By washing sink			0.03 mg/m3	
		Area, south of sink			0.02 mg/m3	
		Cabinet under sink	- 1225		0.05 mg/m3	
		F Area Mer-Vac Cleaner USA-UCNC 223929 *				
		At exhaust port	1230 -		0.05 mg/m3	Motor off.
		One foot from exhaust port			0.02 mg/m3	
		Head level			0.00 mg/m3	
		At exhaust port			1.26 mg/m3	Motor on.
		One foot from exhaust port			0.70 mg/m3	
		Head level	- 1245		0.18 mg/m3	

* This device should be cleaned up, recharged with absorbant and rechecked before further use.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 323 Page 2
Routine X
Special
Requested by
Date 8-8-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-20-61	B Area By screener hopper	1310 - 1340			
			1340 - 1410			
			1410 - 1440			
		By screener	1310 - 1340			
			1340 - 1410			
			1410 - 1440			
		Five feet north of centrifuge	1345	Nitrogen Dioxide	3 ppm	In operation.
		By centrifuge	1355		4 ppm	By employee.
		E Area Middle of oxide conversion room	1415 - 1445	Fluorine	< 0.1 ppm	
			1445 - 1515		< 0.1 ppm	
			1515 - 1545		< 0.1 ppm	
		B Area West end of calciner platform	1415 - 1445	Hydrogen Fluoride	0.1 ppm	
			1445 - 1515		0.1 ppm	
			1515 - 1545		0.1 ppm	
		On calciner platform	1420	Nitrogen Dioxide	0 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 323 Page 3
Routine X
Special
Requested by
Date 8-8-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-20-61	C Area By column G-10	1415 - 1445	Hydrogen Fluoride	< 0.1 ppm	
			1445 - 1515		0.1 ppm	
			1515 - 1545		<0.1 ppm	
		By cutting stand	1415 - 1445		< 0.1 ppm	
			1445 - 1515		0.1 ppm	
			1515 - 1545		0.1 ppm	
		Northeast corner of floor pan	1415 - 1445		0.1 ppm	
			1445 - 1515		0.1 ppm	
			1515 - 1545		0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 294
Routine X
Special
Requested by
Date 7-12-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-27-61	C Area At the bottom of the stairs from the hammer mill	1030 - 1100	Dust	1.1 MPPCF	
			1130 - 1200		1.0 MPPCF	
			1200 - 1230		1.4 MPPCF	
			1230 - 1300		0.7 MPPCF	
		East side of scrap saw	1020	Carbon Monoxide	10 ppm	By employee. One motor vehicle in operation in area.
			1100		20 ppm	By employee. Two motor vehicles in operation in area.
			1030 - 1100	Dust	0.2 MPPCF	By employees as they dumped drums of scrap onto the floor and pushed it into the hammer mill.
			1130 - 1200		0.4 MPPCF	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 294 Page 2
Routine X
Special
Requested by
Date 7-12-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-27-61	C Area East side of scrap saw	1200 - 1230	Dust	0.2 MPPCF	
			1230 - 1300		0.3 MPPCF	
		By column D-21	1030 - 1100		0.1 MPPCF	By employee as he dumped scrap into squirrel cage for decontamination.
			1130 - 1200		0.2 MPPCF	
			1200 - 1230		0.1 MPPCF	
			1230 - 1300		0.2 MPPCF	
		Northeast corner of floor pan	1315 - 1345	Hydrogen Fluoride	< 0.1 ppm	Steam cleaning equipment on floor pan.
			1345 - 1415		< 0.1 ppm	
			1415 - 1445		< 0.1 ppm	
			1355	Nitrogen Dioxide	< 1 ppm	
			1440		4 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 294 Page 3
Routine X
Special
Requested by
Date 7-12-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-27-61	E Area Oxide conversion room Middle	1315 - 1345	Fluorine	0.1 ppm	
			1345 - 1415		<0.1 ppm	
			1415 - 1445		<0.1 ppm	
		B Area Calciner platform By west end	1315 - 1345	Hydrogen Fluoride	<0.1 ppm	One drum drier in operation.
			1345 - 1415		<0.1 ppm	
			1415 - 1445		<0.1 ppm	
		On platform	1320	Nitrogen Dioxide	1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 278
Routine X
Special
Requested by
Date 6-26-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-15-61	Mercury Recovery Room				
		Table at north side	1352	Mercury	0.01 mg/m3	A large number of mercury bottles stored.
		By sink	1354		0.02 mg/m3	
		Cabinet under sink	1355		0.13 mg/m3	
		Table by sink	1356		0.02 mg/m3	Several bottles mercury stored.
		By stills	1358		0.02 mg/m3	
		One foot above floor drain	1400		0.00 mg/m3	
		Middle of room	1402		0.00 mg/m3	
		Mer-Vac Cleaner No. 223929 *				
		By exhaust port	1405		0.01 mg/m3	Motor off.
		One foot from port	1406		0.00 mg/m3	
		Head level	1407		0.00 mg/m3	
		By exhaust port	1408		1.19 mg/m3	Motor on.
		One foot from port	1409		0.27 mg/m3	
		Head level	1410		0.04 mg/m3	

* This device should be cleaned, recharged with absorbant and then rechecked.

Hg - 6+1
H+ - 18+
Nos - 3+
Misc - 6-

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 276 Page 2
Routine X
Special
Requested by
Date 6-26-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-15-61	E Area South side of oxide conversion room	1330 - 1400	Hydrogen Fluoride	<0.1 ppm	
			1400 - 1430		0.1 ppm	
			1430 - 1500		<0.1 ppm	
		B Area West side of calciner platform	1330 - 1400		<0.1 ppm	
			1400 - 1430		<0.1 ppm	
			1430 - 1500		0.1 ppm	
		Three feet north of centrifuges	1500 - 1505	Nitrogen Dioxide	<1 ppm	
		Seven feet north of centrifuges	1505 - 1510		<1 ppm	
		C Area By column G-10	1340 - 1410	Hydrogen Fluoride	<0.1 ppm	
			1410 - 1440		0.0 ppm	
			1440 - 1510		0.1 ppm	
		By cutting stand	1340 - 1410		0.1 ppm	
			1410 - 1440		<0.1 ppm	
			1440 - 1510		0.2 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 276 Page 3
Routine X
Special
Requested by
Date 6-26-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-15-61	C Area Northeast corner of floor pan	1340 - 1410	Hydrogen Fluoride	0.1 ppm	Employee cleaned equipment for about 10 minutes.
			1410 - 1440		0.1 ppm	Employee cleaned equipment for about 15 minutes.
			1440 - 1510		<0.1 ppm	
		By converter disassembly stand	1340 - 1410		<0.1 ppm	
			1410 - 1440		<0.1 ppm	
			1440 - 1510		<0.1 ppm	
		By south door of acid spray booth	1510 - 1515	Nitrogen Dioxide	<1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 268
Routine X
Special
Requested by
Date 6-21-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-9-61	E Area Middle of oxide conversion room	1800 - 1830	Fluorine	<0.1 ppm	
			1830 - 1900		<0.1 ppm	
			1900 - 1930		<0.1 ppm	
		B Area West end of calcinor platform	1800 - 1830	Hydrogen Fluoride	0.1 ppm	
			1830 - 1900		0.1 ppm	
			1900 - 1930		0.1 ppm	

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A2 - 3+
H4 - 3+

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 231
Routine X
Special
Requested by
Date 5-17-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-61	E Area Middle of oxide conversion room	0530 - 0600	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	
			0600 - 0630		<0.01 mg/m3 0.1 ppm	
			0630 - 0700		<0.01 mg/m3 0.1 ppm	
		B Area West end of calciner platform	0530 - 0600		<0.01 mg/m3 0.1 ppm	
			0600 - 0630		<0.01 mg/m3 0.1 ppm	
			0630 - 0700		<0.01 mg/m3 0.1 ppm	

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1-6-1
H4-6x

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 226
Routine X
Special
Requested by
Date 5-15-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-61	Mercury Recovery Room Middle of room	1140 -	Mercury	0.00 mg/m3	
		One foot above floor drain			0.07 mg/m3	
		Southeast corner			0.03 mg/m3	Several bottles of mercury stored.
		By sink			0.02 mg/m3	Employee washing mercury.
		Table by sink			0.02 mg/m3	Several bottles mercury stored.
		Cabinet under sink			0.13 mg/m3	
		By mercury stills			0.02 mg/m3	Stills in operation.
		Table on north side	- 1154		0.00 mg/m3	Several bottles mercury stored.
		Mer-Vac Cleaner No. USA-C&CCC 223929 * By exhaust port	1155 -		0.02 mg/m3	Motor off.
		One foot from port			0.00 mg/m3	
		Head level			0.00 mg/m3	
		By exhaust port			0.91 mg/m3	Motor on.
		One foot from port			0.09 mg/m3	
		Head level	- 1204		0.08 mg/m3	

* This machine should be checked again after some additional use.

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Hg-74
Misc - 6

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 230
Routine X
Special
Requested by
Date 5-17-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-19-61	C Area By south door to drying booth	1000 - 1030	Uranium Hydrogen Fluoride Alpha	0.19 mg/m3 0.5 ppm 318 c/m/m3	Employees inside booth, wearing assault masks, disassembling compressor. Dry air system on.
			1030 - 1100		0.36 mg/m3 1.1 ppm 511 c/m/m3	
			1100 - 1130		0.08 mg/m3 0.4 ppm 98.6 c/m/m3	

160

1-0+
N7-3+
L-

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 201
Routine X
Special
Requested by
Date 5-1-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-17-61	E Area North side of oxide conversion room	1315 - 1345	Uranium Hydrogen Fluoride	0.10 mg/m3 0.1 ppm	Unit in operation.
			1345 - 1415		0.03 mg/m3 0.1 ppm	
			1415 - 1445		0.06 mg/m3 <0.1 ppm	
		B Area West end of calciner platform	1315 - 1345		0.02 mg/m3 <0.1 ppm	One drum drier in operation.
			1345 - 1415		<0.01 mg/m3 <0.1 ppm	
			1415 - 1445		<0.01 mg/m3 <0.1 ppm	
		Small parts disassembly booth	1315 - 1345		<0.01 mg/m3 <0.1 ppm	
			1345 - 1415		<0.01 mg/m3 <0.1 ppm	
			1415 - 1445		<0.01 mg/m3 <0.1 ppm	
		C Area By column 6-7	1315 - 1345		<0.01 mg/m3 <0.1 ppm	
			1345 - 1415		<0.01 mg/m3 0.1 ppm	

61

U-227
11-1-24

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 201 Page 2
Routine I
Special
Requested by
Date 5-1-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-17-61	C Area By column G-7	1415 - 1445	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
		By cutting stand	1315 - 1345		<0.01 mg/m3 < 0.1 ppm	
			1345 - 1415		<0.01 mg/m3 <0.1 ppm	
			1415 - 1445		<0.01 mg/m3 <0.1 ppm	
		By converter disassembly stand	1315 - 1345		<0.01 mg/m3 <0.1 ppm	
			1345 - 1415		<0.01 mg/m3 <0.1 ppm	
			1415 - 1445		<0.01 mg/m3 <0.1 ppm	
	4-18-61	B Area North side of oxide conversion room	2020 - 2050		<0.01 mg/m3 <0.1 ppm	
			2050 - 2120		<0.01 mg/m3 <0.1 ppm	
			2120 - 2150		<0.01 mg/m3 <0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 201 Page 3
Routine X
Special
Requested by
Date 5-1-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-18-61	B Area West side of calciner platform	2020 - 2050	Uranium Hydrogen Fluoride	0.01 mg/m3 < 0.1 ppm	
			2050 - 2120		< 0.01 mg/m3 < 0.1 ppm	
			2120 - 2150		< 0.01 mg/m3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 166
Routine X
Special
Requested by
Date 4-21-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-25-61	B Area Northwest corner of calciner platform	0235 - 0305	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	Drum drier B in operation.
			0305 - 0335		<0.01 mg/m3 <0.1 ppm	
			0335 - 0405		<0.01 mg/m3 <0.1 ppm	
	4-6-61	F Area Mercury Recovery Room Middle of room	1245	Mercury	0.00 mg/m3	
		One foot above floor drain	1246		0.00 mg/m3	
		By sink	1249		0.00 mg/m3	No washing of mercury.
		By storage area under sink	1251		0.08 mg/m3	
		Storage area by sink	1252		0.04 mg/m3	Several drops mercury present.
		Southeast corner	1248-		0.05 mg/m3	Several bottles mercury stored.
		By mercury stills	1254		0.00 mg/m3	All stills in operation.
		North side by table	1256		0.00 mg/m3	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 166 Page 2
Routine X
Special
Requested by
Date 4-21-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-6-61	F Area Mer-Vac Cleaner USA-C&CCC No. 223929 *				
		Exhaust port	1259 -	Mercury	0.00 mg/m3	Motor off.
		One foot from port			0.00 mg/m3	
		Head level			0.00 mg/m3	
		Exhaust port			0.32 mg/m3	Motor on.
		One foot from port			0.08 mg/m3	
		Head level	- 1306		0.05 mg/m3	
		*This machine is fit for continued use.				
	4-10-61	E Area Middle of oxide conversion room	1915 - 1945	Uranium Hydrogen Fluoride	0.01 mg/m3 <0.1 ppm	Conversion unit in operation.
			1945 - 2015		0.01 mg/m3 0.2 ppm	
			2015 - 2045		0.01 mg/m3 0.1 ppm	
		B Area West end of calciner platform	1915 - 1945		<0.01 mg/m3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 166 Page 3
Routine X
Special
Requested by
Date 4-21-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-10-61	B Area West end of calciner platform	1945 - 2015	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	
			2015 - 2045		<0.01 mg/m3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 151
Routine X
Special
Requested by
Date 3-24-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-16-61	A Area Small parts disassembly booth	0935 - 1005	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	Employee, wearing respirator, disassembled equipment.
			1005 - 1035		<0.01 mg/m3 <0.1 ppm	
			1035 - 1105		<0.01 mg/m3 <0.1 ppm	
		E Area North side of oxide conversion room	0935 - 1005		0.01 mg/m3 <0.1 ppm	
			1005 - 1035		<0.01 mg/m3 <0.1 ppm	
			1035 - 1105		<0.01 mg/m3 <0.1 ppm	
		B Area West side of calciner platform	0935 - 1005		0.01 mg/m3 <0.1 ppm	One drum drier in operation.
			1005 - 1035		<0.01 mg/m3 <0.1 ppm	
			1035 - 1105		<0.01 mg/m3 <0.1 ppm	

U-20+
H-4-21+
NO2-5+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 151 Page 2
Routine X
Special
Requested by
Date 3-24-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-16-61	B Area Seven feet north of centrifuge	1038	Nitrogen Dioxide	<1 ppm	
		Three feet north of centrifuge	1035		<1 ppm	
		West side of calciner platform	1030		<1 ppm	
		C Area By column G-7	0940 - 1010	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			1010 - 1040		<0.01 mg/m3 <0.1 ppm	
			1040 - 1110		<0.01 mg/m3 <0.1 ppm	
		By cutting stand	0940 - 1010		<0.01 mg/m3 <0.1 ppm	Employee, wearing respirator, cut a converter open.
			1010 - 1040		<0.01 mg/m3 <0.1 ppm	
			1040 - 1110		<0.01 mg/m3 <0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 151 Page 3
Routine X
Special
Requested by
Date 3-24-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	3-16-61	C Area By converter disassembly platform	0940 - 1010	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	
			1010 - 1040		<0.01 mg/m3 <0.1 ppm	
			1040 - 1110		0.01 mg/m3 0.1 ppm	
		Northeast corner of floor pan	0940 - 1010		0.02 mg/m3 0.1 ppm	
			1010 -1040		0.01 mg/m3 <0.1 ppm	Employee sprayed equipment.
			1040 - 1110		0.05 mg/m3 0.1 ppm	
			1044	Nitrogen Dioxide	4 ppm	
		North side of acid spray booth	1050		1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 130
Routine X
Special
Requested by
Date 3-15-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-4-61	E Area Middle of oxide conversion room	0305 - 0335	Uranium Hydrogen Fluoride	0.01 mg/m3 0.1 ppm	In operation.
			0335 - 0405		0.01 mg/m3 0.1 ppm	
			0405 - 0435		<0.01 mg/m3 <0.1 ppm	
		B Area West end of calciner platform	0305 - 0335		0.01 mg/m3 <0.1 ppm	Two drum driers and calciners in operation.
			0335 - 0405		<0.01 mg/m3 <0.1 ppm	
			0405 - 0435		0.01 mg/m3 <0.1 ppm	
		Three feet north of centrifuge	0420	Nitrogen Dioxide	1 ppm	In operation.
		Seven feet north of centrifuge	0425		0 ppm	

120

U- 6+
HF- 6+
NO_2- 2+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 125
Routine X
Special
Requested by
Date 3-9-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-3-61	Mercury Recovery Room F Area				
		Middle of room	1415 -	Mercury	0.00 mg/m3	
		One foot above drain			0.06 mg/m3	
		Table, north side			0.00 mg/m3	Mercury storage.
		By mercury stills			0.03 mg/m3	In operation.
		By sink			0.08 mg/m3	Mercury washing in progress.
		Table, by sink			0.12 mg/m3	Mercury storage.
		Under sink			0.14 mg/m3	
		Southeast corner			0.12 mg/m3	
		By trash can	- 1435		0.10 mg/m3	
		Mer-Vac Cleaner - USA, UCNC No. 322929 *				
		At exhaust port	1500 -		1.62 mg/m3	Motor off.
		One foot from exhaust port			0.08 mg/m3	
		Head level			0.04 mg/m3	
		At exhaust port			3.00 mg/m3	Motor on.
		One foot from exhaust port			0.60 mg/m3	

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mied - 6

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 125 Page 2
Routine X
Special
Requested by
Date 3-9-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-3-61	Mer-Vac Cleaner - USA, UCNC No. 322929 *				
		Head level	- 1515	Mercury	0.24 mg/m3	

*This device should be cleaned up, the filter recharged and checked again before being used further.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 111
Routine
Special X
Requested by D. L. Stoddard
Date 2-28-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-16-61	C Area Midway between office door and spray booth	0935	Nitrogen Dioxide	1 ppm	
		F Area Middle of room	0940		0 ppm	
		B Area Seven feet north of centrifuge	0945		0 ppm	In operation.
		Outside Northwest corner of building	0955		0 ppm	
		West end	1005		0 ppm	Brown fumes from the dissolving operation had been moving from the roof to other work areas, south and west of K-1420.

123

54

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 72
Routine X
Special
Requested by
Date 2-15-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-20-61	A Area Small parts disassembly booth	1320 - 1350	Uranium Hydrogen Fluoride	0.26 mg/m3 0.2 ppm	Three employees, wearing respirators, screened material from a compressor.
			1350 - 1420		0.07 mg/m3 0.1 ppm	
			1420 - 1450		0.28 mg/m3 0.5 ppm	
		E Area North side of oxide conversion room	1320 - 1350		<0.01 mg/m3 <0.1 ppm	
			1350 - 1420		0.01 mg/m3 <0.1 ppm	
			1420 - 1450		<0.01 mg/m3 <0.1 ppm	
		B Area West end of calciner platform	1320 - 1350		0.01 mg/m3 <0.1 ppm	
			1350 - 1420		<0.01 mg/m3 0.0 ppm	
			1420 - 1450		0.01 mg/m3 <0.1 ppm	
		Three feet north of centrifuges	1430 - 1435	Nitrogen Dioxide	<1 ppm	
		Seven feet north of centrifuges	1435 - 1440		<1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 72 Page 2
Routine X
Special
Requested by
Date 2-15-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-20-61	C Area By column G-10	1320 - 1350	Uranium Hydrogen Fluoride	0.01 mg/m3 <0.1 ppm	
			1350 - 1420		0.01 mg/m3 <0.1 ppm	
			1420 - 1450		0.01 mg/m3 <0.1 ppm	
		By cutting stand	1320 - 1350		<0.01 mg/m3 0.2 ppm	
			1350 - 1420		0.25 mg/m3 0.1 ppm	
			1420 - 1450		<0.01 mg/m3 <0.1 ppm	
		By converter disassembly platform	1320 - 1350		<0.01 mg/m3 <0.1 ppm	
			1350 - 1420		<0.01 mg/m3 <0.1 ppm	
			1420 - 1450		0.01 mg/m3 0.1 ppm	Employee, wearing respirator, disassembled converter.
		South side of degrommeting booth	1320 - 1350	Uranium	0.05 mg/m3	Employee, wearing respirator, removed grommets.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 72 Page 3
Routine X
Special
Requested by
Date 2-15-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-20-61	C Area South side of degrometing booth	1350 - 1420	Uranium	0.03 mg/m3	
			1420 - 1450		0.01 mg/m3	
	2-2-61	Mercury Recovery Room Southeast corner	1520	Mercury	0.00 mg/m3	Head level.
		By sink	1521		0.00 mg/m3	
		By cabinet under sink	1522		0.06 mg/m3	
		Table beside sink	1523		0.01 mg/m3	
		By distillation columns	1524		0.00 mg/m3	
		Middle of room	1525		0.00 mg/m3	
		By drain in floor	1526		0.01 mg/m3	
		By table on west side	1528		0.01 mg/m3	Several bottles mercury stored.
		Mer-Vac Cleaner CACCC No. 223929* By exhaust port	1530		0.00 mg/m3	Motor off.
		One foot from port	1531		0.00 mg/m3	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 72 Page 4
Routine X
Special
Requested by
Date 2-15-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-2-61	Mar-Vac Cleaner C&CCC No. 223929 *				
		Head level	1531	Mercury	0.00 mg/m3	
		By exhaust port	1532		0.02 mg/m3	Motor on.
		One foot from port	1533		0.00 mg/m3	
		Head level	1534		0.00 mg/m3	
		*This device is fit for continued use.				

D. L. Stoddard

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 74
Routine
Special X
Requested by D. L. Stoddard
Date 2-15-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-18-61	F Area	1455 -	Paint Thinner *	9.2 ppm **	Employees, wearing respirators, used pressure spray gun with Amercoat 99 Haze Green.
		K Area			<0.1 ppm	
		B Area West end			<0.1 ppm	
		H Area			<0.1 ppm	
		C Area General area around converter disassembling stand	- 1545		0.0 ppm	
						A fan blowing air into F area was connected to door on south side of room.

* 30% Hexanone and 40% Xylene
** 4.4 ppm Hexanone and 4.8 ppm Xylene

Hexanone 5 +
Xylene 5 +

128

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 26
Routine X
Special
Requested by
Date 1-23-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-3-61	Mercury Recovery Room Middle of room	1331	Mercury	0.00 mg/m3	
		By sink	1332		0.01 mg/m3	
		Table by sink	1333		0.01 mg/m3	
		Cabinet under sink	1335		0.05 mg/m3	
		By mercury stills	1336		0.00 mg/m3	
		Table, northeast corner	1338		0.01 mg/m3	Several bottles of mercury stored on table.
		Mor-Vac Cleaner, USA-COCO No. 223929 * By exhaust port	1341		0.00 mg/m3	Motor off.
		One foot from port	1342		0.00 mg/m3	
		Head level	1343		0.00 mg/m3	
		By exhaust port	1344		0.06 mg/m3	Motor on.
		One foot from port	1345		0.01 mg/m3	
		Head level	1346		0.01 mg/m3	

* This machine is fit for continued use.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 1
Routine X
Special
Requested by
Date 1-11-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-13-60	E Area Middle of oxide conversion room	1800 - 1830	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	Conversion unit in operation.
			1830 - 1900		<0.01 mg/m3 <0.1 ppm	
			1900 - 1930		<0.01 mg/m3 0.0 ppm	
		B Area West end of calciner platform	1800 - 1830		<0.01 mg/m3 0.0 ppm	Two drum driers in operation. Employee wearing respirator while on platform.
			1830 - 1900		<0.01 mg/m3 0.1 ppm	
			1900 - 1930		<0.01 mg/m3 <0.1 ppm	
		Three feet north of centrifuge	1910	Nitrogen Dioxide	1.7 ppm	In operation.
		Seven feet north of centrifuge	1920		0.8 ppm	
	12-20-60	A Area Small parts disassembly booth	1010 - 1040	Uranium Hydrogen Fluoride	0.17 mg/m3 0.4 ppm	Employee, wearing respirator, worked in booth.
			1040 - 1110		0.03 mg/m3 0.2 ppm	
			1110 - 1140		0.01 mg/m3 0.1 ppm	

180

11 35+
HY 30+
NO 5+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 1 Page 2
Routine X
Special
Requested by
Date 1-11-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-20-60	E Area Middle of oxide conversion room	1010 - 1040	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			1040 - 1110		<0.01 mg/m3 <0.1 ppm	
			1110 - 1140		<0.01 mg/m3 <0.1 ppm	
		B Area West end of calciner platform	1010 - 1040		<0.01 mg/m3 <0.1 ppm	
			1040 - 1110		0.03 mg/m3 <0.1 ppm	
			1110 - 1140		0.01 mg/m3 0.1 ppm	
		Three feet north of centrifuge	1020	Nitrogen Dioxide	2.4 ppm	In operation.
		Seven feet north of centrifuge	1030		0.0 ppm	
		C Area By column G-10	1010 - 1040	Uranium Hydrogen Fluoride	0.01 mg/m3 0.1 ppm	
			1040 - 1110		<0.01 mg/m3 <0.1 ppm	
			1110 - 1140		<0.01 mg/m3 0.0 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 1 Page 3
Routine X
Special
Requested by
Date 1-11-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-20-60	C Area By cutting stand	1010 - 1040	Uranium Hydrogen Fluoride	0.01 mg/m3 0.0 ppm	
			1040 - 1110		<0.01 mg/m3 0.0 ppm	
			1110 - 1140		<0.01 mg/m3 <0.1 ppm	
		By converter disassembly stand	1010 - 1040		0.01 mg/m3 <0.1 ppm	Employees, wearing respirators, disassembled converter.
			1040 - 1110		0.01 mg/m3 0.1 ppm	
			1110 - 1140		0.01 mg/m3 <0.1 ppm	
		Northwest corner of compressor pit	1010 - 1040		0.01 mg/m3 0.1 ppm	Employees disassembled compressor.
			1040 - 1110		0.01 mg/m3 <0.1 ppm	
			1110 - 1140		<0.01 mg/m3 <0.1 ppm	
		Northeast corner of floor pan	1010 - 1040		<0.01 mg/m3 0.0 ppm	
			1040 - 1110		<0.01 mg/m3 0.0 ppm	
			1110 - 1140		<0.01 mg/m3 0.0 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 1 Page 4
Routine X
Special
Requested by
Date 1-11-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-20-60	C Area South side of acid spray booth	1120	Nitrogen Dioxide	0.0 ppm	
		On scrap saw platform	1010 - 1040	Uranium	0.09 mg/m3	Saw in operation. Employee wearing respirator, on platform.
			1040 - 1110		0.02 mg/m3	
			1110 - 1140		0.05 mg/m3	
		By west side of scrap saw	1010 - 1040		0.12 mg/m3	Saw in operation.
			1040 - 1110		0.06 mg/m3	
			1110 - 1140		0.08 mg/m3	
		South side of de-grommeting booth	1010 - 1040		<0.01 mg/m3	Employee, wearing respirator, knocked out grommets.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 1 Page 5
Routine X
Special
Requested by
Date 1-11-61

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-20-60	C Area South side of degrommeting booth	1040 - 1110	Uranium	<0.01 mg/m3	
			1110 - 1140		<0.01 mg/m3	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 574
Routine X
Special
Requested by
Date 12-16-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-30-60	C Area By column G-10	1315 - 1345	Uranium Hydrogen Fluoride	0.05 mg/m3 1.2 ppm	Employees, wearing respirators, disassembled converters.
			1345 - 1415		<0.01 mg/m3 <0.1 ppm	
			1415 - 1445		<0.01 mg/m3 <0.1 ppm	
		By converter disassembly stand	1315 - 1345		<0.01 mg/m3 <0.1 ppm	
			1345 - 1415		<0.01 mg/m3 0.1 ppm	
			1415 - 1445		<0.01 mg/m3 <0.1 ppm	
		Northwest corner of compressor pit	1315 - 1345		0.01 mg/m3 0.1 ppm	Employees, wearing respirators, disassembled equipment in pit.
			1345 - 1415		0.01 mg/m3 0.1 ppm	
			1415 - 1445		<0.01 mg/m3 <0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 572
Routine X
Special
Requested by
Date 12-14-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-21-60	B Area West end of calciner platform	0030 - 0100	Uranium Hydrogen Fluoride	0.01 mg/m3 0.0 ppm	
			0100 - 0130		0.02 mg/m3 <0.1 ppm	
			0130 - 0200		0.03 mg/m3 0.1 ppm	
		Three feet west of centrifuges	0040	Nitrogen Dioxide	8 ppm	Strong odor of nitrogen dioxide.
		Ten feet northwest of centrifuges	0045		2 ppm	Slight odor of nitrogen dioxide.
	11-30-60	A Area Small parts disassembly booth	1315 - 1345	Uranium Hydrogen Fluoride	0.03 mg/m3 0.3 ppm	
			1345 - 1415		0.01 mg/m3 0.1 ppm	
			1415 - 1445		<0.01 mg/m3 <0.1 ppm	
		E Area Oxide conversion room By north wall	1315 - 1345		<0.01 mg/m3 0.0 ppm	
			1345 - 1415		<0.01 mg/m3 <0.1 ppm	

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d 12-1
d4 - 12+
NO_2 - 1+1
Hg - 5+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 572 Page 2
Routine X
Special
Requested by
Date 12-14-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-30-60	E Area Oxide conversion room By north wall	1415 - 1445	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
		B Area West end of calciner platform	1315 - 1345		<0.01 mg/m3 0.1 ppm	
			1345 - 1415		<0.01 mg/m3 <0.1 ppm	
			1415 - 1445		0.01 mg/m3 0.1 ppm	
	12-1-60	F Area Mercury Recovery Room Middle	1515	Mercury	0.04 mg/m3	Head level.
		By sink	1517		0.06 mg/m3	Mercury being washed.
		Table top by sink	1518		0.48 mg/m3	Droplets of mercury and cloth contaminated with mercury on table.
		Cabinet under sink	1520		0.34 mg/m3	
		Southeast corner	1522		0.04 mg/m3	Bottled mercury storage.
		By stills	1523		0.03 mg/m3	Stills in operation.
		Table, north side of room	1525		0.00 mg/m3	Head level.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 552
Routine X
Special
Requested by
Date 11-30-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-6-60	E Area By north wall of oxide conversion room	1315 - 1345	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	
			1345 - 1415		<0.01 mg/m3 0.1 ppm	
			1415 - 1445		<0.01 mg/m3 0.1 ppm	
		B Area West end of calciner platform	1315 - 1345		<0.01 mg/m3 0.1 ppm	
			1345 - 1415		<0.01 mg/m3 0.1 ppm	
			1415 - 1445		<0.01 mg/m3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 521
Routine X
Special
Requested by
Date 11-15-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	11-1-60	A Area Small parts booth	1300 - 1330	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	Employee, wearing respirator, disassembled equipment.
			1330 - 1400		<0.01 mg/m3 0.0 ppm	
			1400 - 1430		<0.01 mg/m3 <0.1 ppm	
		E Area By north wall of oxide conversion room	1300 - 1330		0.02 mg/m3 <0.1 ppm	
			1330 - 1400		1.16 mg/m3	Employees, without respirators, dumped oxide into buckets.
			1400 - 1430		0.08 mg/m3 <0.1 ppm	
		B Area West end of calciner platform	1300 - 1330		<0.01 mg/m3 <0.1 ppm	
			1330 - 1400		<0.01 mg/m3 0.0 ppm	
			1400 - 1430		<0.01 mg/m3 0.0 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 521 Page 2
Routine X
Special
Requested by
Date 11-15-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-1-60	B Area Seven feet north of centrifuge	1315 - 1320	Nitrogen Dioxide	0.6 ppm	One centrifuge in operation.
		Three feet north of centrifuge	1320 - 1325		2.9 ppm	
		C Area By column 0-20	1300 - 1330	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			1330 - 1400		<0.01 mg/m3 <0.1 ppm	
			1400 - 1430		<0.01 mg/m3 0.0 ppm	
		By cutting stand	1300 - 1330		<0.01 mg/m3 <0.1 ppm	
			1330 - 1400		<0.01 mg/m3 <0.1 ppm	
			1400 - 1430		<0.01 mg/m3 0.0 ppm	
		By converter disassembly stand	1300 - 1330		<0.01 mg/m3 0.0 ppm	Employees, wearing respirators, disassembled converter.
			1330 - 1400		<0.01 mg/m3 0.1 ppm	
			1400 - 1430		<0.01 mg/m3 <0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 521 Page 3
Routine X
Special
Requested by
Date 11-15-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-1-60	G Area Northwest corner of compressor pit	1300 - 1330	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	Employees, without respirators, disassembled compressor in pit.
			1330 - 1400		<0.01 mg/m3 <0.1 ppm	
			1400 - 1430		<0.01 mg/m3 0.0 ppm	
		Northeast corner of floor pan	1300 - 1330		<0.01 mg/m3 0.0 ppm	
			1330 - 1400		<0.01 mg/m3 <0.1 ppm	Employee, without respirator, steam cleaned equipment.
			1400 - 1430		<0.01 mg/m3 <0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 507
Routine X
Special
Requested by
Date 11-9-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-7-60	B Area West end of calciner platform	1745 - 1815	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	Two drum driers in operation.
			1815 - 1845		<0.01 mg/m3 <0.1 ppm	
			1845 - 1915		<0.01 mg/m3 0.0 ppm	
		Ten feet west of centrifuge	1745 - 1815		<0.01 mg/m3 <0.1 ppm	In operation.
			1815 - 1845		<0.01 mg/m3 0.0 ppm	
			1845 - 1915		<0.01 mg/m3 0.0 ppm	
		Three feet north of centrifuge	1920	Nitrogen Dioxide	1.1 ppm	
		Seven feet north of centrifuge	1930		0.6 ppm	
	11-1-60	Mercury Recovery Room Middle	1446 -	Mercury	0.02 mg/m3	
		By sink			0.05 mg/m3	
		Southeast corner			0.02 mg/m3	Mercury stored here.
		Table by sink			0.04 mg/m3	

192

1 1 1
2 - 1 +
NO2 - 2 +
HF - 6 +
Misc - 6

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 507 Page 2
Routine X
Special
Requested by
Date 11-9-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-1-60	Mercury Recovery Room	1446 -	Mercury		
		Cabinet under sink			0.11 mg/m3	
		Table at north side			0.02 mg/m3	
		By stills	- 1457		0.05 mg/m3	
		Mer-Vac Cleaner, USA-CACCC No. 223929 *				
		By exhaust port	1501 -		0.61 mg/m3	Motor off.
		One foot from exhaust			0.00 mg/m3	
		Head level			0.00 mg/m3	
		By exhaust port			0.32 mg/m3	Motor on.
		One foot from exhaust			0.04 mg/m3	
		Head level	- 1510		0.00 mg/m3	

* This device should be checked again after a little more use.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 468
Routine X
Special
Requested by
Date 10-13-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1421	9-30-60	South side of furnace room	0845 - 0915	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	In operation. Employee, wearing respirator, in area.
			0915 - 0945		0.01 mg/m3 0.1 ppm	
			0945 - 1015		<0.01 mg/m3 0.1 ppm	

19#

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-3 x

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 481
Routine X
Special
Requested by
Date 10-14-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-22-60	A Area Small parts booth, by hood	0915 - 0945	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.0 ppm	
			0945 - 1015		<0.01 mg/m3 <0.1 ppm	
			1015 - 1045		<0.01 mg/m3 <0.1 ppm	
		E Area Oxide conversion room, west end	0915 - 0945		<0.01 mg/m3 <0.1 ppm	By employee.
			0945 - 1015		<0.01 mg/m3 <0.1 ppm	
			1015 - 1045		<0.01 mg/m3 0.0 ppm	
		B Area West end of calciner platform	0915 - 0945		<0.01 mg/m3 0.0 ppm	One drum drier in operation.
			0945 - 1015		<0.01 mg/m3 0.0 ppm	
			1015 - 1045		<0.01 mg/m3 0.0 ppm	

196

U
HF - 39+
[illegible]

NO3 - 2+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 481 Page 2
Routine X
Special
Requested by
Date 10-14-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-22-60	C Area By floor pan	0915 - 0945	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.0 ppm	
			0945 - 1015		<0.01 mg/m3 0.0 ppm	
			1015 - 1045		<0.01 mg/m3 <0.1 ppm	
		A Area Ten feet south of column G-22	0915 - 0945	Uranium Hydrogen Fluoride	0.01 mg/m3 0.1 ppm	Employees, wearing respirators, dumped scrap from drums 15 feet southeast of sampler.
			0945 - 1015		0.02 mg/m3 0.3 ppm	
			1015 - 1045		0.01 mg/m3 0.3 ppm	
		C Area South end of de-grommeting booth	0915 - 0945	Uranium	<0.01 mg/m3	Employees, wearing respirators, removed grommets.
			0945 - 1015		<0.01 mg/m3	

(96)

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 481 Page 3
Routine X
Special
Requested by
Date 10-14-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-22-60	C Area South end of de-grommeting booth	1015 - 1045	Uranium	<0.01 mg/m3	
	9-30-60	A Area Small parts booth, by hood	0845 - 0915	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	
			0915 - 0945		<0.01 mg/m3 0.1 ppm	
			0945 - 1015		<0.01 mg/m3 <0.1 ppm	
		D Area Middle of cold trap room	0845 - 0915		<0.01 mg/m3 0.1 ppm	Employees, wearing respirators, removed contaminated material from traps.
			0915 - 0945		<0.01 mg/m3 <0.1 ppm	
			0945 - 1015		<0.01 mg/m3 <0.1 ppm	
		E Area Middle of oxide conversion room	0845 - 0915		<0.01 mg/m3 <0.1 ppm	
			0915 - 0945		0.01 mg/m3 0.1 ppm	
			0945 - 1015		0.01 mg/m3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 481 Page 4
Routine X
Special
Requested by
Date 10-14-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-30-60	B Area West end of calciner platform	0850 - 0920	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	One drum drier in operation.
			0920 - 0950		<0.01 mg/m3 <0.1 ppm	
			0950 - 1020		<0.01 mg/m3 0.1 ppm	
		Three feet north of centrifuge	1035	Nitrogen Dioxide	1.0 ppm	Not in operation.
		Seven feet north of centrifuge	1040 - 1045		0.1 ppm	
		C Area By column 0-10	0850 - 0920	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			0920 - 0950		0.03 mg/m3 0.1 ppm	
			0950 - 1020		<0.01 mg/m3 <0.1 ppm	
		By cutting stand	0850 - 0920		<0.01 mg/m3 <0.1 ppm	
			0920 - 0950		<0.01 mg/m3 0.1 ppm	
			0950 - 1020		<0.01 mg/m3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 401 Page 5
Routine I
Special
Requested by
Date 10-14-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-30-60	C Area By converter disassembly platform	0850 - 0920	Uranium Hydrogen Fluoride	<0.01 mg/m3 < 0.1 ppm	
			0920 - 0950		<0.01 mg/m3 <0.1 ppm	
			0950 - 1020		<0.01 mg/m3 0.2 ppm	

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A 4 Rt. 11. 1

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 463
Routine X
Special
Requested by
Date 10-10-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-22-60	C Area By column G-10	0915 - 0945	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.0 ppm	
			0945 - 1015		<0.01 mg/m3 0.0 ppm	
			1015 - 1045		<0.01 mg/m3 0.0 ppm	
		By cutting stand	0915 - 0945		<0.01 mg/m3 0.0 ppm	
			0945 - 1015		<0.01 mg/m3 <0.1 ppm	
			1015 - 1045		<0.01 mg/m3 0.0 ppm	
		By converter disassembly stand	0915 - 0945		<0.01 mg/m3 0.0 ppm	Employees, wearing respirators, disassembled converter.
			0945 - 1015		<0.01 mg/m3 0.1 ppm	
			1015 - 1045		<0.01 mg/m3 0.0 ppm	
		B Area Three feet north of centrifuge	0900	Nitrogen Dioxide	4.4 ppm	Both units in operation.
		Seven feet north of centrifuge	0905		1.0 ppm	

200

9+
HF 9+
NO_2 0+

[illegible] Stallard

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 435
Routine X
Special
Requested by
Date 9-23-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-15-60	B Area West end of calciner platform	0100 - 0130	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			0130 - 0200		<0.01 mg/m3 0.1 ppm	
			0200 - 0230		<0.01 mg/m3 <0.1 ppm	
		E Area North side of oxide conversion room	0100 - 0130		<0.01 mg/m3 0.0 ppm	
			0130 - 0200		<0.01 mg/m3 0.0 ppm	
			0200 - 0230		<0.01 mg/m3 <0.1 ppm	
		B Area Three feet north of centrifuge	0140	Nitrogen Dioxide	14 ppm	In operation.
		Seven feet north of centrifuge	0149		3 ppm	
		K Area Mercury recovery room By sink	0240 -	Mercury	0.04 mg/m3	Mercury washing system in operation.
		Southeast corner			0.03 mg/m3	

U - 6+
HF 6+
NO_2 - 1+
Hg. 12+!
Misc. 6+ "

208

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 435 Page 2
Routine X
Special
Requested by
Date 9-23-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	9-15-60	X Area Mercury recovery room Storage area by sink		Mercury	0.02 mg/m3	Bottles of mercury on top of storage area.
		By mercury stills			0.00 mg/m3	Not in operation.
		Storage area by north wall	- 0300		0.02 mg/m3	Bottles of mercury in area.
		Table by sink	1517		0.01 mg/m3	Several droplets of mercury on table.
		Southeast corner	1520		0.01 mg/m3	Head level.
			1521		0.37 mg/m3	Floor level. A large number of bottles of mercury stored in corner.
		Cabinet under sink	1522		0.02 mg/m3	
		Middle	1524		0.00 mg/m3	
		Three feet above floor drain	1525		0.00 mg/m3	
		By mercury stills	1527		0.01 mg/m3	In operation.
		Table, south side	1528		0.00 mg/m3	
		Mar-Vac Cleaner No. 22929 By exhaust port	1533		0.00 mg/m3	Motor off.
		One foot from exhaust port	1533		0.00 mg/m3	
		Head level	1533		0.00 mg/m3	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 435 Page 3
Routine X
Special
Requested by
Date 9-23-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-15-60	Mer-Vac Cleaner No. 223929				
		By exhaust port	1534	Mercury	0.15 mg/m3	Motor on.
		One foot from exhaust port	1535		0.11 mg/m3	
		Head level	1536		0.02 mg/m3	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 412
Routine X
Special
Requested by
Date 9-15-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-26-60	A Area Small parts booth	1400 - 1430	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	
			1430 - 1500		<0.01 mg/m3 <0.1 ppm	
			1500 - 1530		<0.01 mg/m3 0.0 ppm	
		E Area North side of oxide conversion room	1350 - 1420		<0.01 mg/m3 <0.1 ppm	
			1420 - 1450		<0.01 mg/m3 <0.1 ppm	
			1450 - 1520		<0.01 mg/m3 <0.1 ppm	
		B Area West side of calciner platform	1350 - 1420		<0.01 mg/m3 <0.1 ppm	
			1420 - 1450		<0.01 mg/m3 0.0 ppm	
			1450 - 1520		<0.01 mg/m3 <0.1 ppm	

U - 21+
HF - 21+
NO_2 - 2+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 412 Page 2
Routine X
Special
Requested by
Date 9-15-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-26-60	C Area By column G-10	1400 - 1430	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			1430 - 1500		<0.01 mg/m3 <0.1 ppm	
			1500 - 1530		<0.01 mg/m3 <0.1 ppm	
		By cutting stand	1400 - 1430		<0.01 mg/m3 <0.1 ppm	
			1430 - 1500		<0.01 mg/m3 <0.1 ppm	
			1500 - 1530		<0.01 mg/m3 <0.1 ppm	
		By converter disassembly platform	1400 - 1430		<0.01 mg/m3 <0.1 ppm	
			1430 - 1500		<0.01 mg/m3 0.0 ppm	
			1500 - 1530		<0.01 mg/m3 <0.1 ppm	
		L Area Northeast corner of floor pan	1405 - 1435		<0.01 mg/m3 <0.1 ppm	
			1435 - 1505		<0.01 mg/m3 <0.1 ppm	

2-06

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 412 Page 3
Routine X
Special
Requested by
Date 9-15-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-26-60	L Area Northeast corner of floor pan	1505 - 1535	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
		B Area Seven feet north of centrifuge	1440 - 1445	Nitrogen Dioxide	0.7 ppm	One centrifuge in operation.
		Three feet north of centrifuge	1445		3.2 ppm	

204

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 406
Routine X
Special
Requested by
Date 8-31-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-19-60	Area F Mercury Recovery Room				
		By sink	1515	Mercury	0.08 mg/m3	Mercury in sink.
		By table west of sink	1517		0.13 mg/m3	One open container on table.
		Southeast corner	1519		0.06 mg/m3	
		Middle	1520		0.02 mg/m3	
		By stills	1521		0.00 mg/m3	
		By table north side of room	1523		0.02 mg/m3	

208

Hg 51

10 4 [illegible]

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 346
Routine X
Special
Requested by
Date 8-2-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-22-60	A Area Small parts disassembly booth	1330 - 1400	Uranium Hydrogen Fluoride	0.07 mg/m3 0.1 ppm	Employees, wearing respirators, unloaded equipment in area.
			1400 - 1430		0.01 mg/m3 <0.1 ppm	
			1430 - 1500		0.03 mg/m3 <0.1 ppm	Employees, wearing respirators, disassembled equipment in hood.
				Lead	<0.01 mg/m3	
		B Area Four feet north of centrifuge	1435	Nitrogen Dioxide	0.0 ppm	Centrifuges not in operation.
		C Area By column G-10	1330 - 1400	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			1400 - 1430		<0.01 mg/m3 <0.1 ppm	
			1430 - 1500		<0.01 mg/m3 <0.1 ppm	
		By cutting stand	1330 - 1400		<0.01 mg/m3 0.0 ppm	
			1400 - 1430		0.01 mg/m3 0.0 ppm	
			1430 - 1500		<0.01 mg/m3 <0.1 ppm	

208

U - 35 +1
HF - 36 +
Pb - 1 +
NO2 - 4 +1
Hg - 6 +
Misc. 5

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 346 Page 2
Routine X
Special
Requested by
Date 8-2-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-22-60	G Area By converter disassembly stand	1330 - 1400	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.0 ppm	Employees, wearing respirators, disassembled compressor in pit 15 feet east of sampler.
			1400 - 1430		<0.01 mg/m3 0.1 ppm	
			1430 - 1500		<0.01 mg/m3 <0.1 ppm	
		Northeast corner of floor pan	1330 - 1400		<0.01 mg/m3 0.0 ppm	
			1400 - 1430		<0.01 mg/m3 0.0 ppm	
			1430 - 1500		<0.01 mg/m3 <0.1 ppm	
		By south door of acid spray booth	1440	Nitrogen Dioxide	0.0 ppm	
		F Area Mercury Recovery Room Southeast corner of room	1535	Mercury	0.02 mg/m3	
		By sink	1536		0.04 mg/m3	Mercury droplets in sink.
		West of sink	1537		0.02 mg/m3	
		By mercury stills	1538		0.00 mg/m3	Stills not operating.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 346 Page 3
Routine X
Special
Requested by
Date 8-2-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-22-60	F Area Mercury Recovery Room Middle of room	1539	Mercury	0.00 mg/m3	
		North side of room, by table	1540		0.02 mg/m3	
		Mer-Vac Cleaner #223929 By exhaust port	1526		0.32 mg/m3	Motor off.
		One foot from exhaust port	1528		0.02 mg/m3	
		Head level	1530		0.00 mg/m3	
		By exhaust port	1531		0.35 mg/m3	Motor on.
		One foot from exhaust port	1533		0.40 mg/m3	
	7-28-60	A Area Small parts disassembly booth	0950 - 1020	Uranium Hydrogen Fluoride	0.00 mg/m3 <0.1 ppm	Employee, wearing respirator, worked at hood.
			1020 - 1050		<0.01 mg/m3 <0.1 ppm	
			1050 - 1120		<0.01 mg/m3 <0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 3.6 Page 4
Routine I
Special
Requested by
Date 8-2-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-28-60	E Area North side of oxide conversion room	0920 - 0950	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	
			0950 - 1020		<0.01 mg/m3 0.1 ppm	
			1020 - 1050		<0.01 mg/m3 0.2 ppm	
		B Area West end of calciner platform	0920 - 0950		<0.01 mg/m3 0.0 ppm	
			0950 - 1020		<0.01 mg/m3 <0.1 ppm	
			1020 - 1050		<0.01 mg/m3 0.0 ppm	
		C Area By column G-10	0950 - 1020		<0.01 mg/m3 0.1 ppm	
			1020 - 1050		<0.01 mg/m3 <0.1 ppm	
			1050 - 1120		<0.01 mg/m3 0.0 ppm	
		By cutting stand	0950 - 1020		<0.01 mg/m3 0.0 ppm	
			1020 - 1050		<0.01 mg/m3 0.0 ppm	

214

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 146 Page 5
Routine X
Special
Requested by
Date 8-2-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-28-60	C Area By cutting stand	1050 - 1120	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	Employee cut converter open.
		By converter disassembly platform	0950 - 1020		<0.01 mg/m3 0.0 ppm	
			1020 - 1050		<0.01 mg/m3 <0.1 ppm	
			1050 - 1120		<0.01 mg/m3 <0.1 ppm	
		Northwest corner of floor pan	0955 - 1025		<0.01 mg/m3 <0.1 ppm	Employees were cleaning equipment.
			1025 - 1055		<0.01 mg/m3 0.1 ppm	
			1055 - 1125		0.01 mg/m3 0.1 ppm	
		South side of acid spray booth	1000 - 1005	Nitrogen Dioxide	0.0 ppm	
		B Area Seven feet north of centrifuges	0915		4.4 ppm	Both centrifuges in operation.
		Three feet north of centrifuges	0910		19.6 ppm	

212

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 367
Routine X
Special
Requested by
Date 8-15-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-22-60	D Area Middle of room	1325 - 1355	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.0 ppm	
			1355 - 1425		<0.01 mg/m3 0.0 ppm	
			1425 - 1455		<0.01 mg/m3 0.0 ppm	
		E Area North side of oxide conversion room	1325 - 1355		<0.01 mg/m3 0.0 ppm	Unit in operation.
			1355 - 1425		<0.01 mg/m3 <0.1 ppm	
			1425 - 1455		<0.01 mg/m3 <0.1 ppm	
		B Area West end of calciner platform	1325 - 1355		<0.01 mg/m3 0.0 ppm	
			1355 - 1425		<0.01 mg/m3 0.0 ppm	
			1425 - 1455		<0.01 mg/m3 0.0 ppm	

2 [illegible]

1-9+
HF 9+

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 318
Routine X
Special
Requested by
Date 6-30-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-8-60	B Area North side of calciner platform	0110 - 0140	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.0 ppm	
			0140 - 0210		0.01 mg/m3 0.0 ppm	
			0210 - 0240		<0.01 mg/m3 <0.1 ppm	
		Three feet north of centrifuge	0115	Nitrogen Dioxide	10.4 ppm	In operation.
		Seven feet north of centrifuge	0120		4.4 ppm	
	6-10-60	F Area Mercury Recovery Room Mer-Vac cleaner USA UCNC No. 223929				
		At exhaust port	1010 -	Mercury	0.00 mg/m3	Motor off.
		Head level			0.00 mg/m3	
		At exhaust port			0.81 mg/m3	Motor on.
		One foot from exhaust port			0.20 mg/m3	
		Head level	- 1017		0.08 mg/m3	

U - 10+
HF - 3+
NO_2 - 1+
Misc. 5
Hg - 6+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 318 Page 2
Routine X
Special
Requested by
Date 6-30-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
E-1420	6-30-60	F Area Mercury Recovery Room Middle	1018 -	Mercury	0.00 mg/m3	
		Floor level by drain			0.06 mg/m3	
		By sink			0.07 mg/m3	Droplets of mercury on edge of sink.
		Cabinet under sink			0.11 mg/m3	
		Southeast corner			0.08 mg/m3	Open bottle of mercury in corner.
		Table, north side			0.00 mg/m3	
		By mercury stills	- 1040		0.02 mg/m3	Stills not in operation.
		C Area West of scrap saw	1025 - 1055	Uranium	0.03 mg/m3	Saw in operation.
			1055 - 1125		0.12 mg/m3	
			1125 - 1155		0.01 mg/m3	
			1025 - 1055		<0.01 mg/m3	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 318 Page 3
Routine X
Special
Requested by
Date 6-30-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-10-60	C Area West of scrap saw	1055 - 1125	Uranium	<0.01 mg/m3	
			1125 - 1155		<0.01 mg/m3	
		South end of grommet removal booth	1025 - 1055		0.02 mg/m3	By employee, wearing respirator.
			1055 - 1125		0.16 mg/m3	
			1125 - 1155		0.01 mg/m3	

218

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 288
Routine X
Special
Requested by
Date 6-20-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-3-60	A Area Small parts disassembly booth	0855 - 0925	Uranium Hydrogen Fluoride	0.01 mg/m3 <0.1 ppm	
			0925 - 0955		<0.01 mg/m3 0.0 ppm	
			0955 - 1025		<0.01 mg/m3 0.0 ppm	
		D Area Middle of room	0855 - 0925		0.01 mg/m3 0.1 ppm	Employees, wearing respirators, changed chemical traps.
			0925 - 0955		<0.01 mg/m3 <0.1 ppm	
			0955 - 1025		<0.01 mg/m3 0.1 ppm	
		E Area Oxide Conversion Room North side	0855 - 0925		<0.01 mg/m3 0.0 ppm	Unit in operation.
			0925 - 0955		<0.01 mg/m3 <0.1 ppm	
			0955 - 1025		<0.01 mg/m3 <0.1 ppm	

218

U - 24+
III - 24+
NO_2 - 2+1

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 288 Page 2
Routine X
Special
Requested by
Date 6-20-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-3-60	B Area North side of calciner platform	0900 - 0930	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.0 ppm	
			0930 - 1000		<0.01 mg/m3 0.0 ppm	
			1000 - 1030		<0.01 mg/m3 0.0 ppm	
		Three feet north of centrifuge	1010	Nitrogen Dioxide	5.1 ppm	
		Seven feet north of centrifuge	1015		2.3 ppm	
		C Area By column G-10	0900 - 0930	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			0930 - 1000		<0.01 mg/m3 <0.1 ppm	
			1000 - 1030		<0.01 mg/m3 <0.1 ppm	
		By cutting stand	0900 - 0930		<0.01 mg/m3 <0.1 ppm	
			0930 - 1000		<0.01 mg/m3 <0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 288 Page 3
Routine X
Special
Requested by
Date 6-20-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-3-60	C Area By cutting stand	1000 - 1030	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
		By converter disassembly stand	0900 - 0930		<0.01 mg/m3 <0.1 ppm	
			0930 - 1000		<0.01 mg/m3 <0.1 ppm	
			1000 - 1030		<0.01 mg/m3 0.1 ppm	
		Northeast corner of floor pan	0900 - 0930		<0.01 mg/m3 <0.1 ppm	
			0930 - 1000		<0.01 mg/m3 <0.1 ppm	
			1000 - 1030		<0.01 mg/m3 <0.1 ppm	
		South side of acid spray booth	1020	Nitrogen Dioxide	0.6 ppm	

219

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 253
Routine X
Special
Requested by
Date 6-1-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-20-60	A Area Small parts disassembly booth	1215 - 1245	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			1245 - 1315		<0.01 mg/m3 0.1 ppm	
			1315 - 1345		<0.01 mg/m3 <0.1 ppm	
		B Area Oxide Conversion Room North side	1215 - 1245		0.09 mg/m3 0.2 ppm	
			1245 - 1315		0.01 mg/m3 0.1 ppm	
			1315 - 1345		<0.01 mg/m3 0.1 ppm	
		B Area West end of calciner platform	1215 - 1245		<0.01 mg/m3 0.1 ppm	
			1245 - 1315		<0.01 mg/m3 0.1 ppm	
			1315 - 1345		<0.01 mg/m3 0.1 ppm	
	5-10-60	By centrifuges	1035	Nitrogen Dioxide	20.0 ppm	In operation.

220

U - 20 x
HF 21 x
NO2 - 3 x

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 253 Page 2
Routine X
Special
Requested by
Date 6-1-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-60	B Area Five feet north of centrifuges	1010	Nitrogen Dioxide	13.0 ppm	In operation.
	5-20-60	Three feet north of centrifuge	1300		12.2 ppm	
		Seven feet north of centrifuge	1305 - 1310		3.1 ppm	
		C Area By column G-10	1220 - 1250	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	
			1250 - 1320		0.03 mg/m3 0.2 ppm	
			1320 - 1350		0.01 mg/m3 0.2 ppm	
		By cutting stand	1220 - 1250		<0.01 mg/m3 0.1 ppm	
			1250 - 1320		<0.01 mg/m3 0.1 ppm	Employee, wearing respirator, cut converter open.
			1320 - 1350		<0.01 mg/m3 0.1 ppm	
		By converter disassembly platform	1220 - 1250		<0.01 mg/m3 0.1 ppm	Employee disassembled converter.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 253 Page 3
Routine X
Special
Requested by
Date 6-1-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-20-60	C Area By converter dis-assembly platform	1250 - 1320	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	
			1320 - 1350		<0.01 mg/m3 0.1 ppm	
		Northeast corner of floor pan	1220 - 1250		0.01 mg/m3 0.2 ppm	
			1250 - 1320		0.01 mg/m3 0.1 ppm	
			1320 - 1350		0.01 mg/m3 0.1 ppm	
			1230 - 1235	Nitrogen Dioxide	0.0 ppm	
		South side of acid spray booth	1235 - 1240		0.2 ppm	Door to booth was open.

228

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 232
Routine X
Special
Requested by
Date 5-26-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-60	A Area Small parts disassembly booth	0915 - 0945	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	Employee, wearing respirator, disassembled parts.
			0945 - 1015		<0.02 mg/m3 <0.1 ppm	
			1015 - 1045		<0.01 mg/m3 <0.1 ppm	
		E Area Oxide conversion room North side	0915 - 0945		0.01 mg/m3 0.1 ppm	Unit in operation.
			0945 - 1015		0.04 mg/m3 0.4 ppm	
			1015 - 1045		<0.01 mg/m3 0.0 ppm	
		B Area West end of calciner platform	0915 - 0945		0.01 mg/m3 0.0 ppm	One drum drier in operation.
			0945 - 1015		0.01 mg/m3 <0.1 ppm	
			1015 - 1045		<0.01 mg/m3 0.0 ppm	

232

U 214
HF 214
NO_3 14

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER ~~232 Page 2~~
Routine X
Special
Requested by
Date 5-26-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-60	C Area				
		By column G-10	0915 - 0945	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	Employee, wearing respirator, disassembled converter.
			0945 - 1015		0.01 mg/m3 <0.1 ppm	
			1015 - 1045		0.01 mg/m3 <0.1 ppm	
		By cutting stand	0915 - 0945		<0.01 mg/m3 <0.1 ppm	
			0945 - 1015		<0.01 mg/m3 <0.1 ppm	
			1015 - 1045		<0.01 mg/m3 <0.1 ppm	
		By converter disassembly platform	0915 - 0945		<0.01 mg/m3 <0.1 ppm	
			0945 - 1015		0.01 mg/m3 0.2 ppm	Employee, wearing respirator, disassembled converter.
			1015 - 1045		<0.01 mg/m3 0.1 ppm	
		Northeast corner of floor pan	0920 - 0950		<0.01 mg/m3 <0.1 ppm	
			0950 - 1020		<0.01 mg/m3 <0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 232 Page 3
Routine X
Special
Requested by
Date 5-26-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-60	C Area Northeast corner of floor pan	1020 - 1050	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
		South side of acid spray booth	1025 - 1030	Nitrogen Dioxide	0.0 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 213
Routine X
Special
Requested by
Date 5-11-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	5-3-60	F Area				
		Mercury Recovery Room				
		Middle	1500	Mercury	0.01 mg/m3	
		By sink	1502		0.01 mg/m3	No mercury being washed.
		Southwest corner	1504		0.01 mg/m3	
		By table at sink	1506		0.01 mg/m3	Few droplets mercury on table.
		By stills	1508		0.02 mg/m3	
		North side, by table	1510		0.02 mg/m3	
		By floor drain	1512		0.11 mg/m3	
		Mer-Vac Cleaner USA-CCCC - 223929 *				
		By exhaust port	1513		0.11 mg/m3	Motor off.
		One foot from port	1515		0.03 mg/m3	
		Head level	1517		0.00 mg/m3	
		By exhaust port	1519		2.04 mg/m3	Motor on.
		One foot from port	1520		0.46 mg/m3	
		Head level	1521		0.24 mg/m3	

*This mercury vacuum cleaner should be cleaned out, recharged with absorbent and then rechecked before using it in confined places.

228

6+1
6+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 228
Routine X
Special
Requested by
Date 5-23-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-26-60	A Area Small parts disassembly booth	0950 - 1020	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			1020 - 1050		0.01 mg/m3 0.1 ppm	
			1050 - 1120		0.01 mg/m3 <0.1 ppm	
		E Area Oxide conversion room North side	0950 - 1020		0.01 mg/m3 0.1 ppm	Unit in operation.
			1020 - 1050		<0.01 mg/m3 0.2 ppm	
			1050 - 1120		0.20 mg/m3 0.4 ppm	
		B Area West end of calciner platform	0950 - 1020		<0.01 mg/m3 <0.1 ppm	
			1020 - 1050		0.02 mg/m3 0.1 ppm	
			1050 - 1120		0.02 mg/m3 0.1 ppm	

228

U 34+
HF 30+1
NO_2 3+1

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 228 Page 2
Routine X
Special
Requested by
Date 5-23-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-26-60	B Area By centrifuge	1000 - 1005	Nitrogen Dioxide	21.3 ppm	In operation.
		Seven feet north of centrifuge	1015 - 1020		1.7 ppm	
		C Area By column G-10	0950 - 1020	Uranium Hydrogen Fluoride	<0.01 mg/m3 <0.1 ppm	
			1020 - 1050		<0.01 mg/m3 0.1 ppm	Employees, wearing respirators, disassembled converters.
			1050 - 1120		<0.01 mg/m3 0.1 ppm	
		By cutting stand	0950 - 1020		<0.01 mg/m3 0.1 ppm	Employee, wearing respirator, cut open converters.
			1020 - 1050		0.01 mg/m3 0.2 ppm	
			1050 - 1120		<0.01 mg/m3 0.1 ppm	
		Converter disassembly platform	0950 - 1020		0.02 mg/m3 0.2 ppm	Employees, wearing respirators, disassembled converters.
			1020 - 1050		0.06 mg/m3 1.1 ppm	
			1050 - 1120		0.02 mg/m3 0.2 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 228 Page 3
Routine X
Special
Requested by
Date 5-23-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-26-60	C.Area Northwest corner of compressor pit	0950 - 1020	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.1 ppm	Employees, without respirators, disassembled compressor.
			1020 - 1050		0.01 mg/m3 0.5 ppm	
			1050 - 1120		0.01 mg/m3 0.1 ppm	
		Northeast corner of floor pan	0950 - 1020		<0.01 mg/m3 0.0 ppm	
			1020 - 1050		0.03 mg/m3 <0.1 ppm	
			1050 - 1120		<0.01 mg/m3 <0.1 ppm	
			1045	Nitrogen Dioxide	0 ppm	No cleaning at this time.
		South side of acid spray booth	1140		0.8 ppm	In operation.
		West end of scrap saw	0940 - 1010	Uranium	<0.01 mg/m3	On platform.
			1010 - 1040		<0.01 mg/m3	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 228 Page 4
Routine X
Special
Requested by
Date 5-23-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-26-60	C Area West end of scrap saw	1040 - 1110	Uranium	0.02 mg/m3	
			0940 - 1010		<0.01 mg/m3	Employees dumped scrap into hopper ten feet northwest of sampler.
			1010 - 1040		<0.01 mg/m3	
			1040 - 1110		0.01 mg/m3	
		South side of degrommeting booth	0940 - 1010		0.11 mg/m3	By operator, without respirator. Grommets were wet before hammer was used.
			1010 - 1040		0.20 mg/m3	
			1040 - 1110		0.06 mg/m3	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 226 Page 5
Routine X
Special
Requested by
Date 5-23-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-30-60	E Area Oxide conversion room North side	0035 - 0105	Uranium Hydrogen Fluoride	<0.01 mg/m3 0.0 ppm	
			0105 - 0135		<0.01 mg/m3 <0.1 ppm	
			0135 - 0205		<0.01 mg/m3 0.0 ppm	
		B Area West end of calciner platform	0035 - 0105		<0.01 mg/m3 0.0 ppm	
			0105 - 0135		<0.01 mg/m3 <0.1 ppm	
			0135 - 0205		<0.01 mg/m3 <0.1 ppm	

231

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 173
Routine X
Special
Requested by
Date 4-20-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-6-60	F Area				
		Mercury Recovery Room				
		Middle, head level	1130	Mercury	0.02 mg/m3	Exhaust system on.
		Middle, by floor drain	1131		0.75 mg/m3	
		Middle, one foot above floor drain	1137		0.10 mg/m3	
		Cabinet under sink	1132		0.25 mg/m3	Droplets of mercury present.
		Table top by sink	1133		0.14 mg/m3	
		By mercury stills	1134		0.01 mg/m3	
		Top of storage table	1135		0.08 mg/m3	
		Southeast corner	1136		0.10 mg/m3	

232

19-3x

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 12 Page 2
Routine X
Special
Requested by
Date 2-4-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-6-60	Area B West end of calciner platform	0600 - 0630	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1ppm	
	1-8-60	Area C By column G-7	1300 - 1330		0.01mg/m3 <0.1ppm	
			1330 - 1400		<0.01mg/m3 <0.1ppm	Employees wore respirators as they disassembled converter.
			1400 - 1430		<0.01mg/m3 <0.1ppm	
		By cutting stand	1300 - 1330		0.01mg/m3 0.1ppm	Employees wore respirators as they cut heads from converters.
			1330 - 1400		0.02mg/m3 0.1ppm	
			1400 - 1430		<0.01mg/m3 0.1ppm	
		By converter disassembling stand	1300 - 1330		<0.01mg/m3 0.1ppm	Employees wore respirators as they disassembled converter.
			1330 - 1400		0.11mg/m3 ✓ 0.1ppm	
			1400 - 1430		<0.01mg/m3 0.1ppm	

DBK 233

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 131
Routine X
Special
Requested by
Date 3-17-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-9-60	A Area Small parts disassembly booth, by hood	1045 - 1115	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1ppm	
			1115 - 1145		<0.01mg/m3 <0.1ppm	
			1145 - 1215		<0.01mg/m3 <0.1ppm	
		E Area North side of oxide conversion room	1045 - 1115		<0.01mg/m3 <0.1ppm	Unit in operation
			1115 - 1145		<0.01mg/m3 <0.1ppm	
			1145 - 1215		<0.01mg/m3 <0.1ppm	
		B Area West end of calciner platform	1045 - 1115		<0.01mg/m3 <0.1ppm	Two drum driers in operation
			1115 - 1145		<0.01mg/m3 <0.1ppm	
			1145 - 1215		<0.01mg/m3 <0.1ppm	

23#

U - 23+
HF - 21+

NO2 - 1+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 131 Page 2
Routine X
Special
Requested by
Date 3-17-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-9-60	C Area By column 010	1045 - 1115	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1ppm	Employees, wearing respirators, disassembled converter.
			1115 - 1145		<0.01mg/m3 <0.1ppm	
			1145 - 1215		<0.01mg/m3 <0.1ppm	
		By cutting stand	1045 - 1115		<0.01mg/m3 0.1ppm	
			1115 - 1145		<0.01mg/m3 <0.1ppm	
			1145 - 1215		<0.01mg/m3 0.1ppm	
		By converter disassembly stand	1045 - 1115		0.01mg/m3 <0.1ppm	
			1115 - 1145		<0.01mg/m3 <0.1ppm	
			1145 - 1215		<0.01mg/m3 <0.1ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 131 Page 3
Routine X
Special
Requested by
Date 3-17-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-9-60	C Area Northeast corner of floor pan	1045 - 1115	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1ppm	
			1115 - 1145		<0.01mg/m3 <0.1ppm	
			1145 - 1215		<0.01mg/m3 <0.1ppm	
		South end of degrommeting booth	1045 - 1115	Uranium	<0.01mg/m3	
			1115 - 1145		0.01mg/m3	
			1145 - 1215		0.46mg/m3	
		South side of acid spray booth	1220	Nitrogen Dioxide	0ppm	Spray booth in operation.

236

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 12
Routine X
Special
Requested by
Date 2-4-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-5-60	Area F				Fan not on before 1318.
		Mercury Recovery Room Middle of room	1318	Mercury	0.08mg/m3	Fan on.
		By washing table	1320		0.07mg/m3	
		Cabinet under sink	1322		0.08mg/m3	
		Southeast corner of room	1325		0.05mg/m3	
		Table top, south side of room	1330		0.05mg/m3	
		By drying column	1331		0.02mg/m3	
		By stills	1333		0.01mg/m3	
		Table top, north side of room	1335		0.01mg/m3	Droplets of mercury on table.
		By floor drain	1338		1.60mg/m3	
		Head level above drain	1342		0.10mg/m3	
		Head level above trash level	1346		0.10mg/m3	Droplets of mercury on floor.
	1-6-60	Area B West end of calciner platform	0430 - 0500	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1ppm	Two drum driers in operation.
			0500 - 0600		<0.01mg/m3 <0.1ppm	

Hg - 8+3
U - 11+1
HF - 12+0
239

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 106
Routine X
Special
Requested by
Date 3-14-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-29-60	C Area Southwest corner of scrap saw platform	1000 - 1030	Uranium	<0.01mg/m3	Employee, wearing respirator, operated saw.
			1030 - 1100		<0.01mg/m3	
			1100 - 1130		<0.01mg/m3	
		West of scrap saw	1000 - 1030		0.02mg/m3	
			1030 - 1100		<0.01mg/m3	
			1100 - 1130		<0.01mg/m3	
	3-4-60	Mercury Recovery Room Middle	1556	Mercury	0.10mg/m3	Door was open.
		Southeast corner	1558		0.24mg/m3	Several bottles of mercury stored in corner of room on the floor.
		Sink	1600		0.24mg/m3	

239

4 - 6+

Hg - 2+1
NO_2 - 0+1

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER Page 2 106
Routine X
Special
Requested by
Date 3-14-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-4-60	Mercury Recovery Room West side of sink	1602	Mercury	0.24mg/m3	Droplets of mercury on table.
		Cabinet west of sink	1604		0.18mg/m3	
		Cabinet under sink	1606		0.36mg/m3	
		By mercury stills	1607		0.06mg/m3	Two stills in operation.
		Storage table by north wall	1609		0.00mg/m3	
		Floor level at drain	1611		0.86mg/m3	
		One foot above drain	1612		0.16mg/m3	
	3-9-60	B Area By centrifuge	1225	Nitrogen Dioxide	22ppm	

239

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 89
Routine X
Special
Requested by
Date 3-7-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-24-60	B Area By centrifuge	0150	Nitrogen Dioxide	19ppm	
			0200		25ppm	
			0315		31ppm	By employee as he removed a cake from the centrifuge bowl.
	2-29-60	A Area Small parts disassembly booth	1000 - 1030	Uranium Hydrogen Fluoride	0.01mg/m3 < 0.1ppm	Employee, wearing respirator, disassembled equipment in hood
			1030 - 1100		< 0.01mg/m3 < 0.1ppm	
			1100 - 1130		0.01mg/m3 < 0.1ppm	
		E Area Oxide Conversion Room North side	1000 - 1030		0.01mg/m3 0.0ppm	One unit in operation
			1030 - 1100		< 0.01mg/m3 < 0.1ppm	
			1100 - 1130		< 0.01mg/m3 < 0.1ppm	

240

NO2 0+2
U 22+2
HF 24+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 89 Page 2
Routine I
Special
Requested by
Date 3-7-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-29-60	B Area West end of calciner platform	1000 - 1030	Uranium Hydrogen Fluoride	0.01mg/m3 0.0ppm	
			1030 - 1100		<0.01mg/m3 0.0ppm	
			1100 - 1130		0.20mg/m3 0.0ppm	
	C Area	By column 0-10	1000 - 1030		0.07mg/m3 <0.1ppm	
			1030 - 1100		0.03mg/m3 <0.1ppm	Employees, wearing respirators, disassembled converter.
			1100 - 1130		0.02mg/m3 <0.1ppm	
		By cutting stand	1000 - 1030		0.01mg/m3 0.1ppm	
			1030 - 1100		<0.01mg/m3 <0.1ppm	
			1100 - 1130		0.01mg/m3 0.1ppm	
		By converter disassembly platform	1000 - 1030		0.02mg/m3 0.1ppm	Employees, wearing respirators, disassembled converter.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 89 Page 3
Routine X
Special
Requested by
Date 3-7-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-29-60	By converter disassembly platform	1030 - 1100	Uranium Hydrogen Fluoride	<0.01mg/m3 0.1ppm	
			1100 - 1130		<0.01mg/m3 <0.1ppm	
		C Area Northwest corner of compressor pit	1000 - 1030		<0.01mg/m3 <0.1ppm	
			1030 - 1100		0.03mg/m3 <0.1ppm	
			1100 - 1130		<0.01mg/m3 <0.1ppm	
		Northeast corner of floor pan	1000 - 1030		0.01mg/m3 <0.1ppm	Employee, without respirator, steam cleaned equipment.
			1030 - 1100		<0.01mg/m3 <0.1ppm	
			1100 - 1130		<0.01mg/m3 <0.1ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 71
Routine X
Special
Requested by
Date 2-29-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-17-60	F Area Mercury recovery room By sink	1430	Mercury	0.21mg/m3	
		Storage area west of sink	1432		0.10mg/m3	
		Cabinet under storage area	1433		0.11mg/m3	Door to cabinet missing.
		By stills	1434		0.06mg/m3	All four stills in operation.
		North side of room	1435		0.06mg/m3	
		Floor drain At floor level	1436		3.40mg/m3	
		One foot above floor	1437		0.60mg/m3	
		Head level	1438		0.15mg/m3	Employee washed out floor drain with Nitric Acid.*
	2-18-60	Mercury Recovery Room By sink	1005		0.32mg/m3	
		Storage area west of sink	1007		0.28mg/m3	
		Cabinet under storage area	1008		0.27mg/m3	
		By stills	1010		0.11mg/m3	Not operating.

* Supervision was notified. Suggested the use of laundry bleach, a solution of sodium hypochlorite, as a mercury decontaminating media.

Hg 8+

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 71 Page 2
Routine X
Special
Requested by
Date 2-29-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-18-60	Floor Drain				
		At floor level	1012	Mercury	1.61mg/m3	
		One foot from floor	1013		0.18mg/m3	
		Three feet from floor	1014		0.10mg/m3	
		Head level	1015		0.10mg/m3	
		North side of room	1017		0.02mg/m3	Droplets of mercury on table.
		Southeast corner of room	1019		0.40mg/m3	Employee, badge No. 7713, repaired pipes in this area.
		Assorted clamps by door	1021		0.11mg/m3	
		Mercury Recovery Room				
		By sink	1520		0.10mg/m3	
		Storage area west of sink	1522		0.10mg/m3	Droplets of mercury on table.
		Cabinet under storage area	1523		0.10mg/m3	
		By stills	1525		0.08mg/m3	Not operating.
		Floor Drain				
		Floor level	1527		0.60mg/m3	
		Three feet from floor	1528		0.06mg/m3	
		Head level	1529		0.06mg/m3	
		Floor level	1531		0.60mg/m3	Drain capped.
		North side of room	1533		0.02mg/m3	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 71 Page 3
Routine I
Special
Requested by
Date 2-29-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-18-60	Floor drain Southeast corner of room	1534	Mercury	0.11mg/m3	
		Cabinet under sink	1535		0.06mg/m3	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 70
Routine X
Special
Requested by
Date 2-29-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-10-60	A Area Small parts disassembly booth by hood	0915 - 0945	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1ppm	Employee, wearing respirator, disassembled equipment.
			0945 - 1015		<0.01mg/m3 <0.1ppm	
			1015 - 1045		<0.01mg/m3 <0.1ppm	
		E Area Oxide conversion room	0915 - 0945		<0.01mg/m3 <0.1ppm	
			0945 - 1015		0.07mg/m3 <0.1ppm	
			1015 - 1045		<0.01mg/m3 <0.1ppm	
		B Area West end of calciner platform	0915 - 0945		<0.01mg/m3 <0.1ppm	One drum drier in operation.
			0945 - 1015		0.01mg/m3 <0.1ppm	
			1015 - 1045		<0.01mg/m3 <0.1ppm	
		C Area By column G-7	0915 - 0945		0.02mg/m3 <0.1ppm	

246

U 1+1
HF 21+
NO2 2+11

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 70 Page 2
Routine X
Special
Requested by
Date 2-29-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-10-60	C Area By column C-7	0915 - 1015	Uranium	< 0.01mg/m3	
				Hydrogen Fluoride	< 0.1ppm	
			1015 - 1045		< 0.01mg/m3	
					< 0.1ppm	
		By cutting stand	0915 - 0945		< 0.01mg/m3	
					< 0.1ppm	
			0945 - 1015		0.01mg/m3	
					< 0.1ppm	
			1015 - 1045		0.01mg/m3	
					< 0.1ppm	
		By converter disassembly stand	0915 - 0945		0.01mg/m3	
					< 0.1ppm	
			0945 - 1015		0.01mg/m3	
					0.1ppm	
			1015 - 1045		< 0.01mg/m3	
					< 0.1ppm	
		Northeast corner of floor pan	0915 - 0945		0.01mg/m3	
					0.1ppm	
			0945 - 1015		0.01mg/m3	
					< 0.1ppm	
			1015 - 1045		0.01mg/m3	
					< 0.1ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 70 Page 3
Routine X
Special
Requested by
Date 2-29-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-10-60	South side of acid spray booth	1025	Nitrogen Dioxide	0ppm	Booths were not in operation, maintenance employees worked on lines.
		Northeast corner of floor pan	1040		0ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 157
Routine X
Special
Requested by
Date 4-8-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-28-60	C Area Northeast corner of floor pan	0930 - 1000	Uranium Hydrogen Fluoride	0.01mg/m3 0.1ppm	
			1000 - 1030		0.01mg/m3 0.1ppm	
			1030 - 1100		0.01mg/m3 0.1ppm	
		Southeast corner of vapor blaster.	0930 - 1000	Uranium Dust	0.02mg/m3 0.1MPPCF	By employee, without respirator, assisting operator inside vapor blaster Operator was wearing air line hood while sand blasting equipment.
			1000 - 1030		0.02mg/m3 0.1MPPCF	
			1030 - 1100		0.02mg/m3 0.1MPPCF	

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U 6+
HF 3+
Dust 3+

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 52
Routine X
Special
Requested by
Date 2-21-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-8-60	A Area Small parts disassembly booth	1300 - 1330	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1ppm	
			1330 - 1400		<0.01mg/m3 0.1ppm	
			1400 - 1430		<0.01mg/m3 <0.1ppm	
		B Area West end of calciner platform	1300 - 1330		<0.01mg/m3 0.1ppm	One drum drier in operation.
			1330 - 1400		<0.01mg/m3 <0.1ppm	
			1400 - 1430		0.01mg/m3 <0.1ppm	
		By centrifuges	1500	Nitrogen Dioxide	28ppm ✓	Employee without respirator worked on piping around centrifuges.
			1515		85ppm ✓	
		C Area Northeast corner of floor pan	1300 - 1330	Uranium Hydrogen Fluoride	0.02mg/m3 <0.1ppm	
			1330 - 1400		0.01mg/m3 <0.1ppm	

DSP

U - 25 + 5
HF - 24 + 0
NO_2 - 2 + 2

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 52 Page 2
Routine X
Special
Requested by
Date 2-24-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-8-60	G Area				
		Northeast corner of floor pan	1400 - 1430	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1ppm	
		South side of acid spray booth	1430	Nitrogen Dioxide	2ppm	
		South side of first rinse booth	1440		0ppm	
		West end of scrap-saw platform	1300 - 1330	Uranium	0.60mg/m3	By employee wearing respirator on platform
			1330 - 1400		0.47mg/m3	Three employees were respirator as they worked on converter parts.
			1400 - 1430		0.01mg/m3	
		By west end of scrap saw	1300 - 1330		0.02mg/m3	
			1330 - 1400		0.03mg/m3	
			1400 - 1430		0.01mg/m3	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 52 Page 3
Routine X
Special
Requested by
Date 2-25-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-28-60	A Area Small parts disassembly booth	0915 - 0945	Uranium Hydrogen Fluoride	0.03mg/m3 0.1ppm	Employee wore respirator as he disassembled equipment.
			0945 - 1015		0.01mg/m3 0.1ppm	
			1015 - 1045		0.01mg/m3 0.2ppm	
		B Area West end of calciner platform	0915 - 0945		0.01mg/m3 < 0.1ppm	One drum drier in operation.
			0945 - 1015		0.09mg/m3 < 0.1ppm	
			1015 - 1045		0.11mg/m3 < 0.1ppm	
		C Area By column 6-10	0930 - 1000		< 0.01mg/m3 < 0.1ppm	
			1000 - 1030		< 0.01mg/m3 < 0.1ppm	
			1030 - 1100		0.01mg/m3 < 0.1ppm	
		By cutting stand	0930 - 1000		< 0.01mg/m3 < 0.1ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 52 Page 4
Routine X
Special
Requested by
Date 2-25-60

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-28-60	C Area By cutting stand	1000 - 1030	Uranium Hydrogen Fluoride	<0.02mg/m3 0.0ppm	
			1030 - 1100		<0.02mg/m3 <0.1ppm	
		By converter disassembling platform	0930 - 1000		0.01mg/m3 0.1ppm	
			1000 - 1030		0.10mg/m3 0.1ppm	
			1030 - 1100		0.02mg/m3 0.1ppm	

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D L Stadland