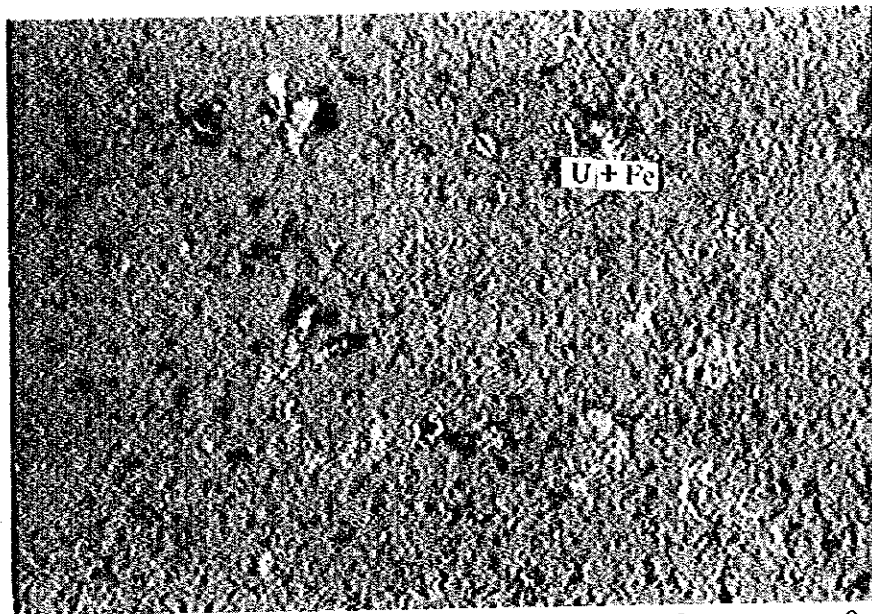


3.



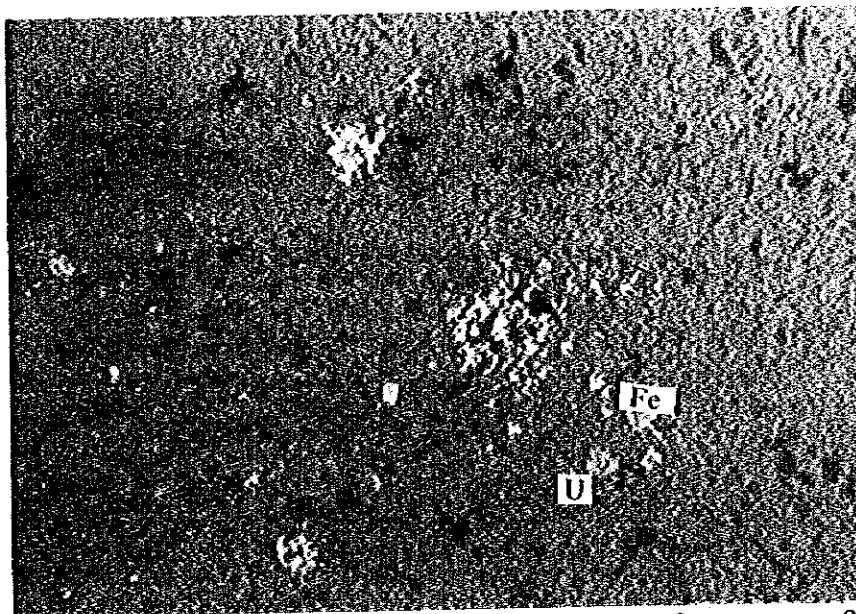
0 0.2 mm

Sample No.: K-24 (3)

Rock name : Aplitic granite

(Basement)

4.



0 0.2 mm

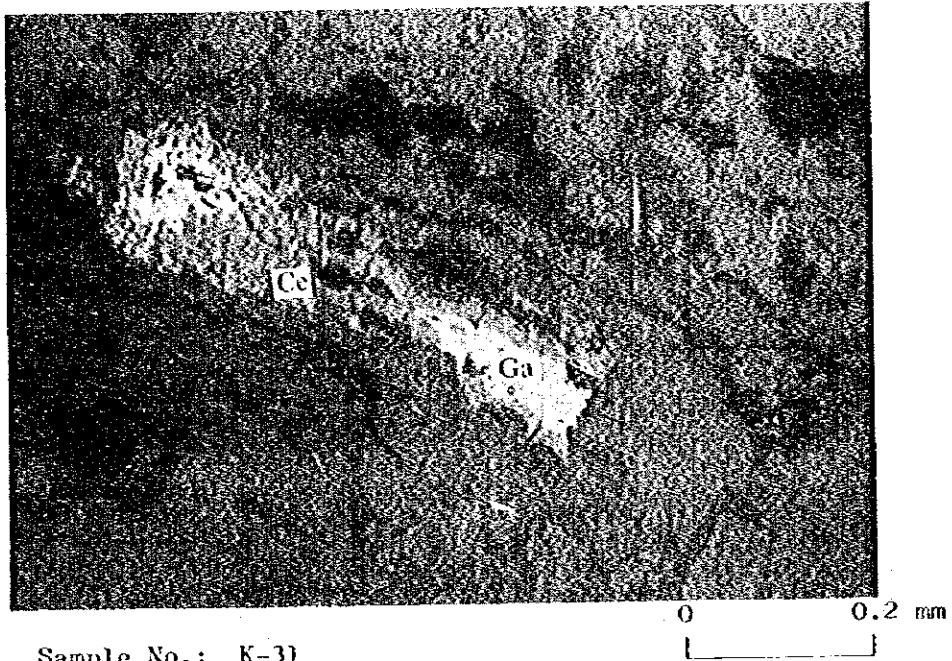
Sample No.: K-30 (1)

Rock name : Ferruginous quartz

(Basement)



5.

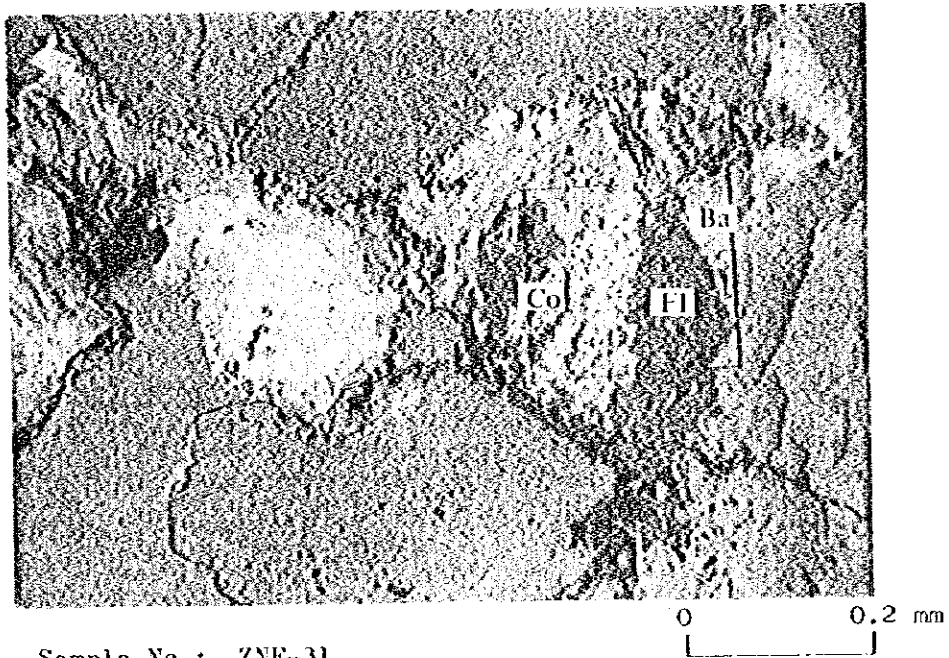


Sample No.: K-31

Rock name : Arkose sandstone

(P-T Red Sandstone Formation)

6.



Sample No.: ZNE-31

Rock name : Granite

(Basement)

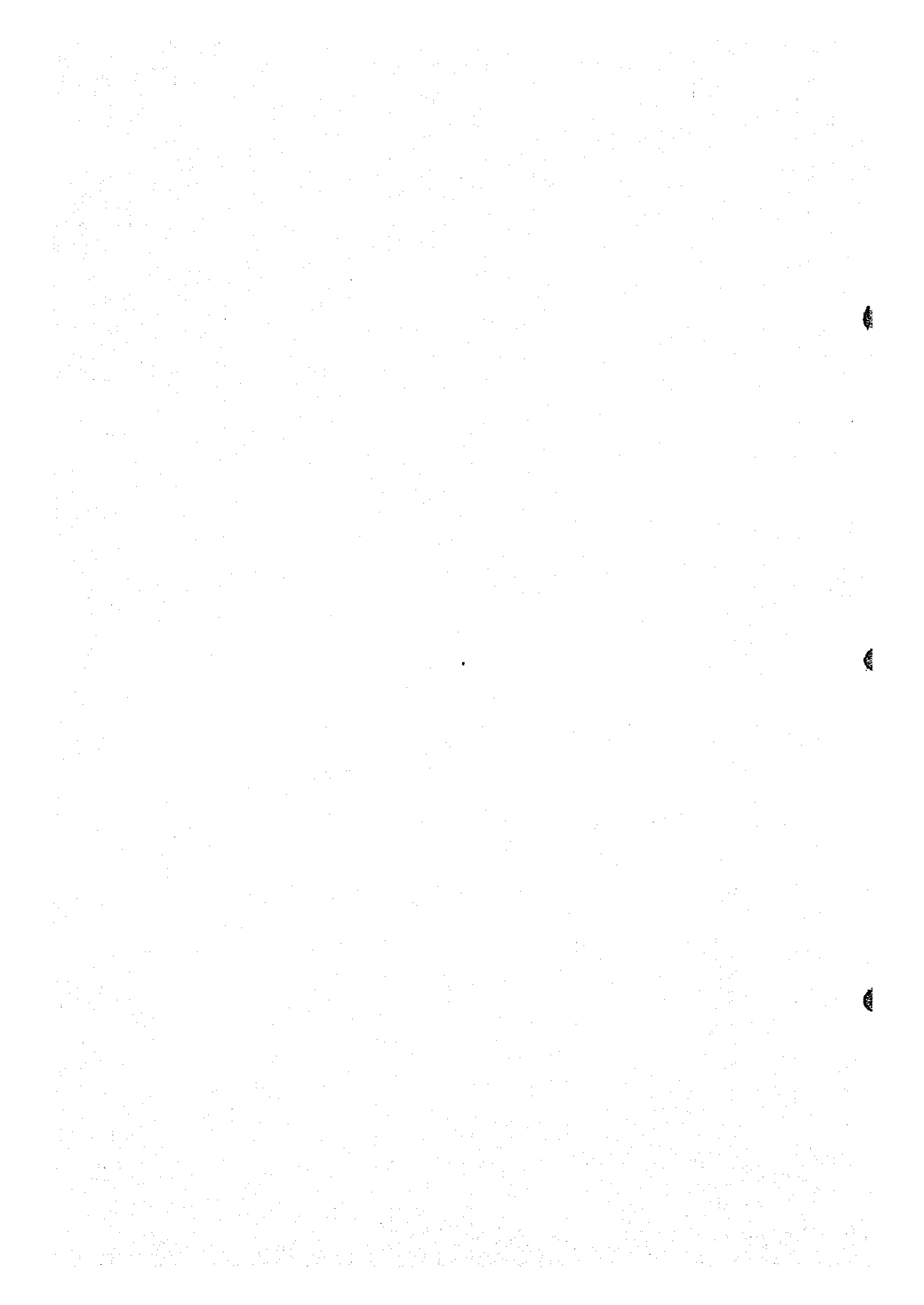


Fig. I—7 Photomicrographs of X-ray Microanalysis

Abbreviation

Ba : Barite

Be : Bequerelite

Ca : Carnotite

Ce : Cerussite

Co : Co-Mn mineral

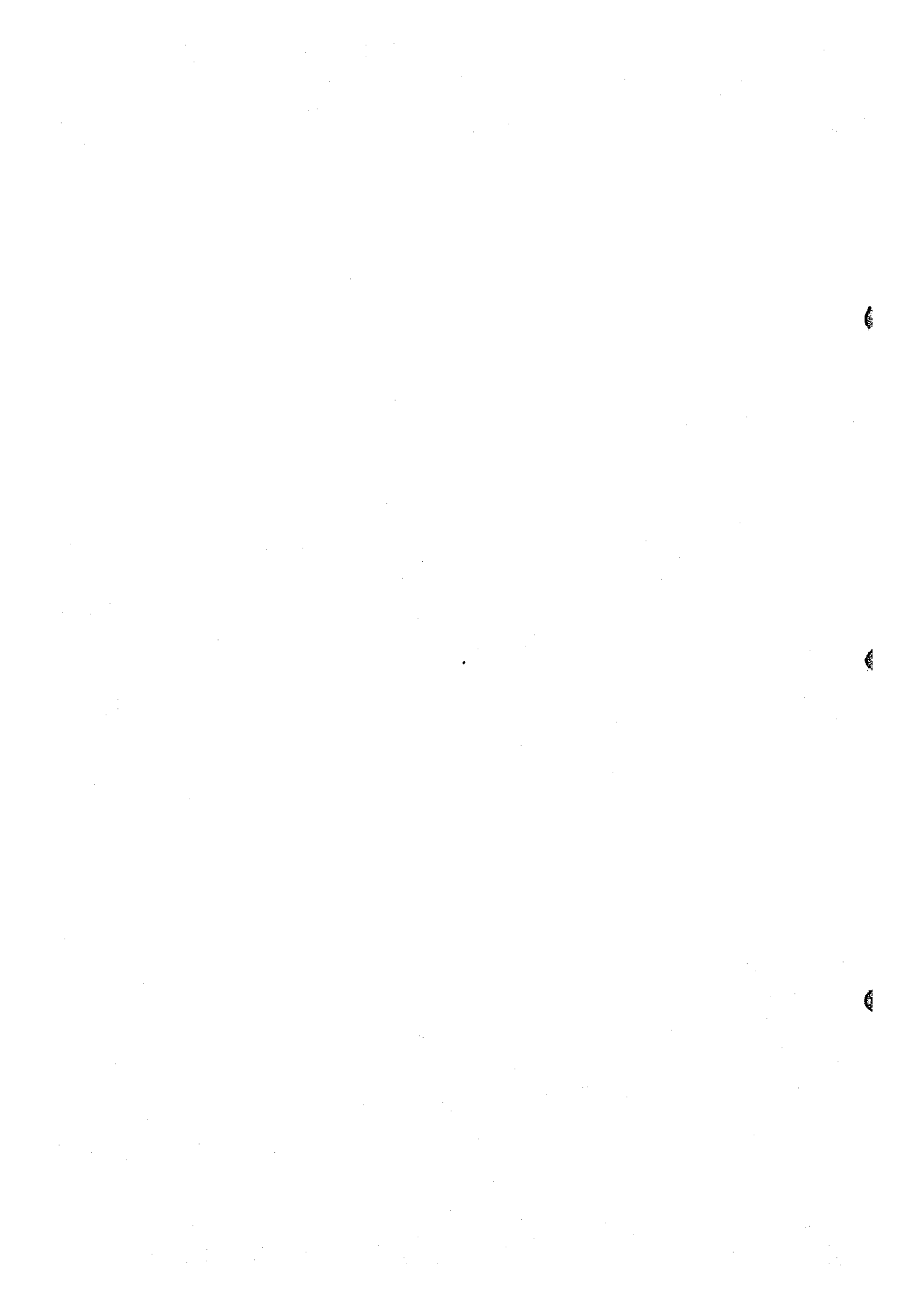
Fe : Pervanite

Fl : Fluorite

Ga : Galena

He : Hematite

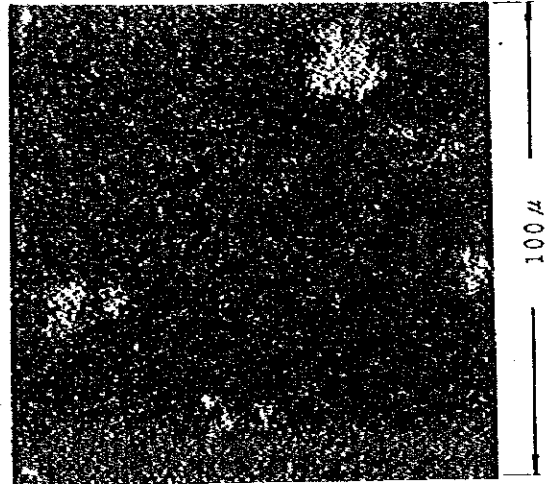
U : Uraninite or Pitchblende



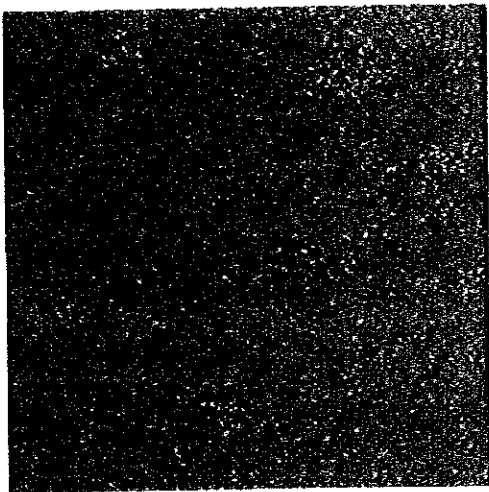
1.



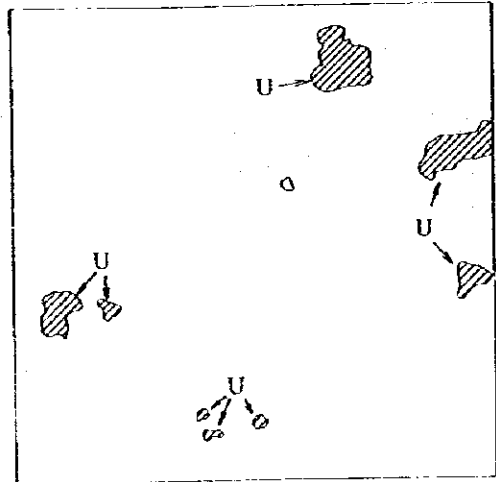
Absorbed electron image



U X-ray image



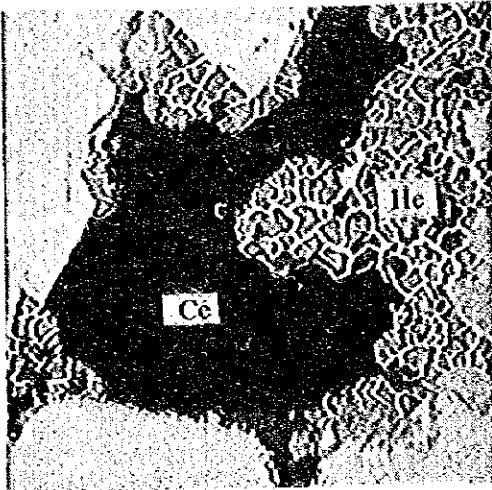
V X-ray image



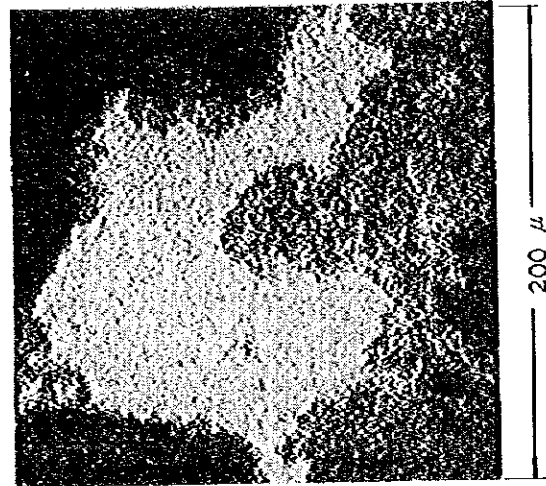
Sample No. : K-12
Accelerating Voltage : 25 KV
Absorbed Electron Current: 0.2 μ A
Magnification : x600



2.

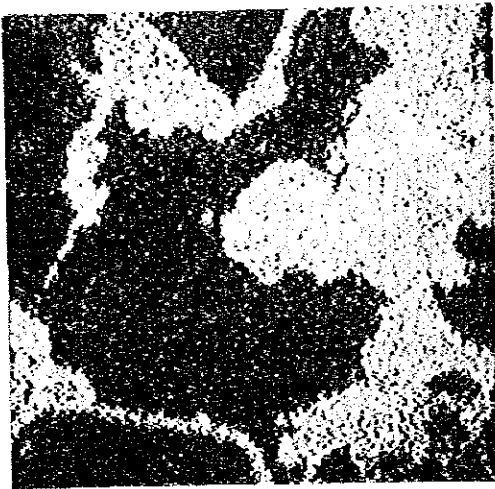


Absorbed electron image

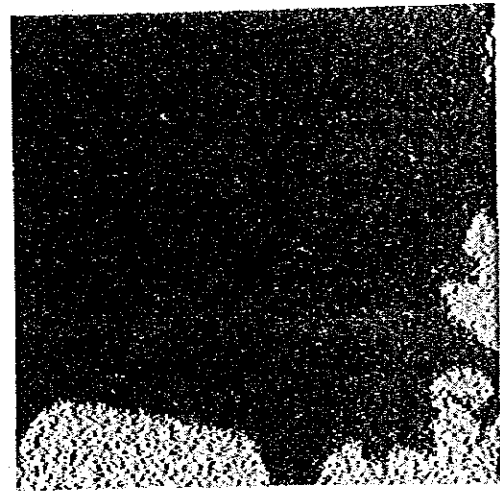


Pb X-ray image

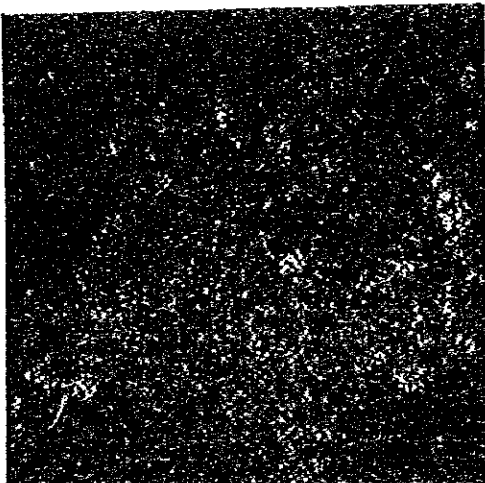
200 μ



Fe X-ray image



Ca X-ray image

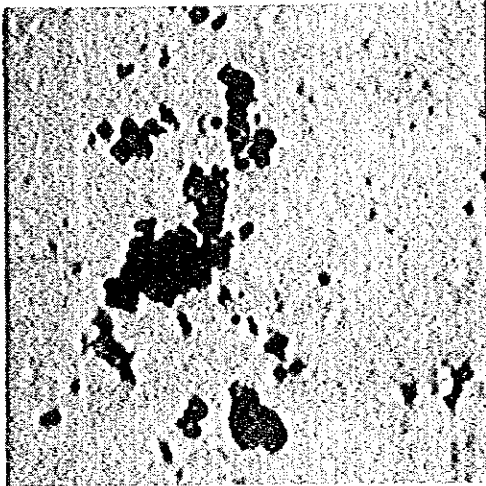


S X-ray image

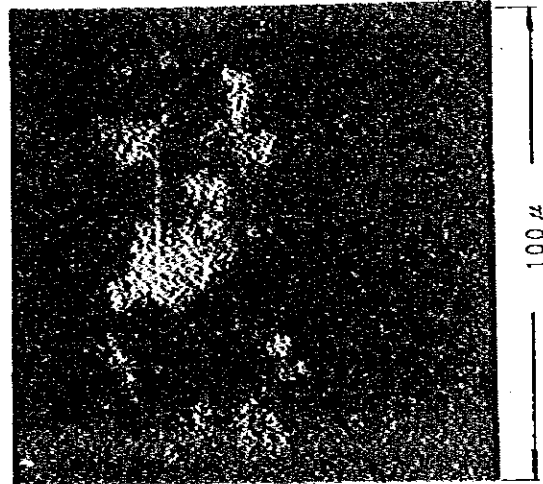
Sample No. : K-23
Accelerating Voltage : 25 KV
Absorbed Electron Current: 0.2 μ A
Magnification : x300



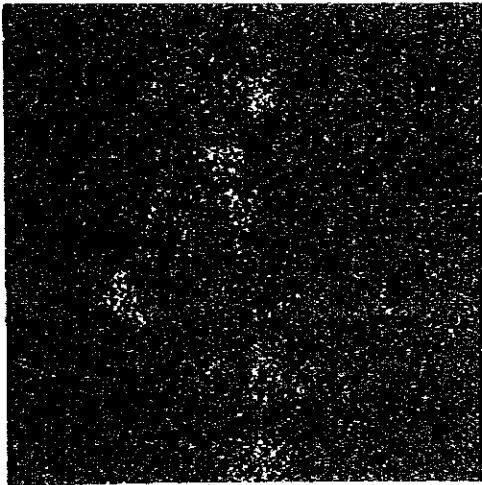
3.



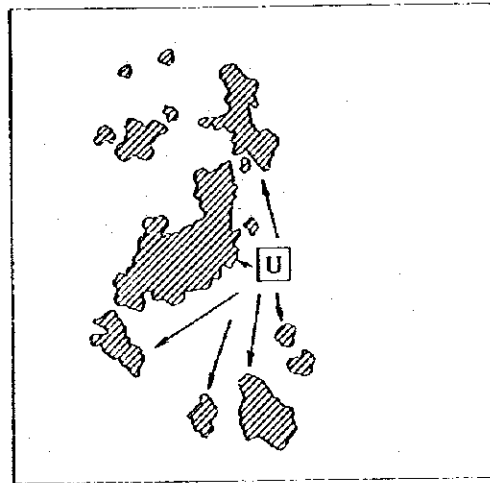
Absorbed electron image



U X-ray image



V X-ray image

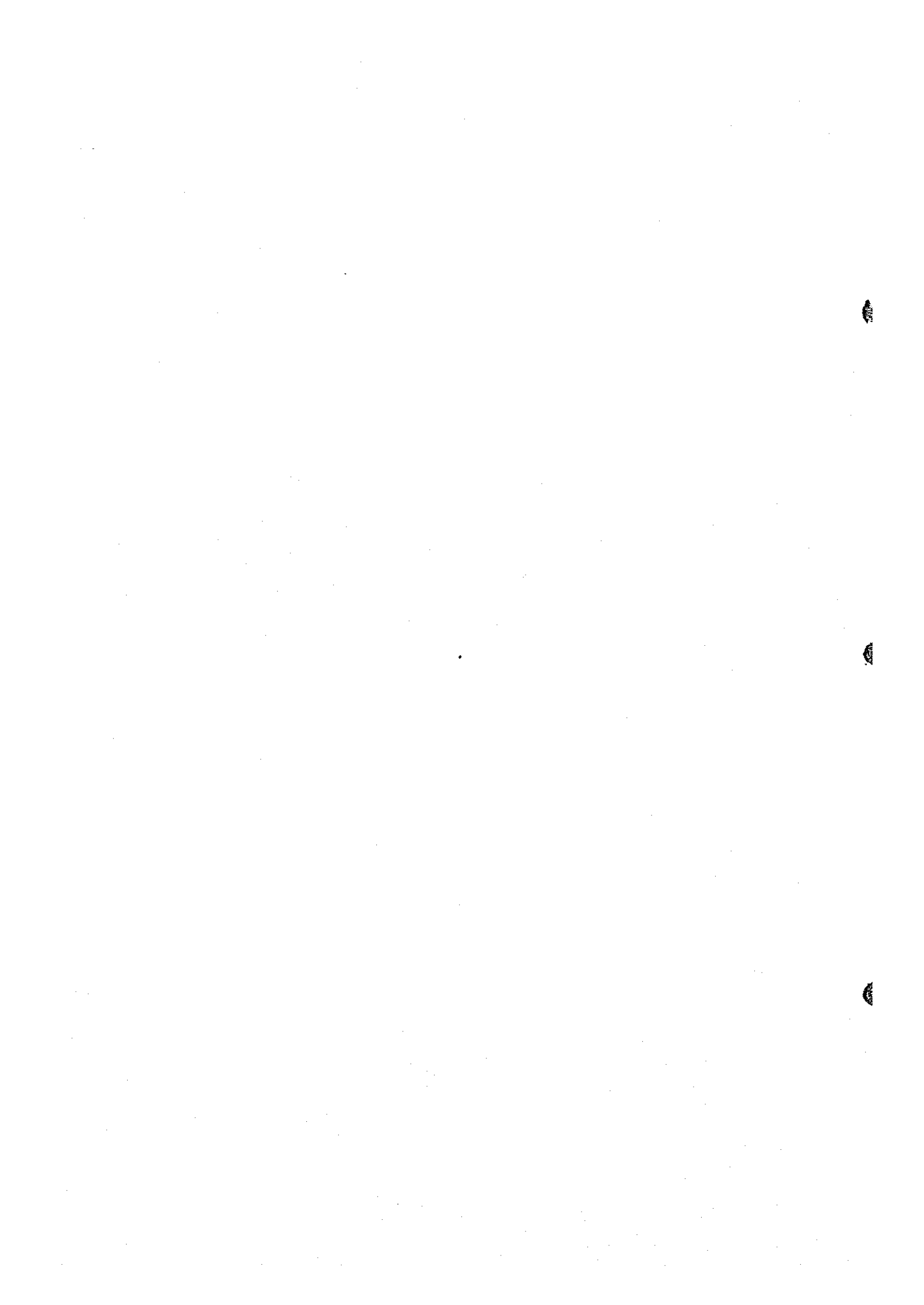


Sample No. : K-24 (1)

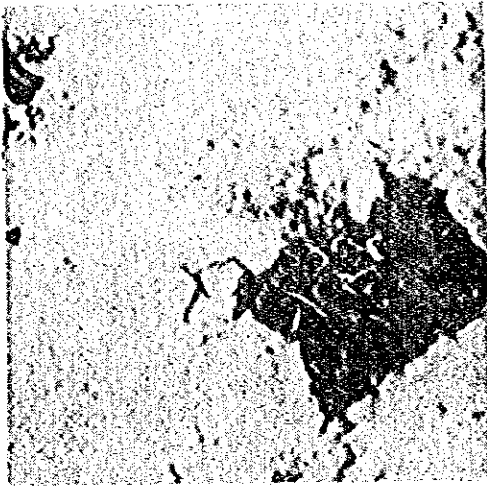
Accelerating Voltage : 25 KV

Absorbed Electron Current: 0.2 μ A

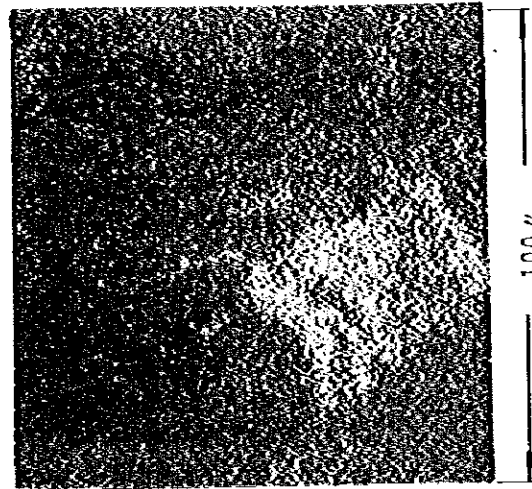
Magnification : x600



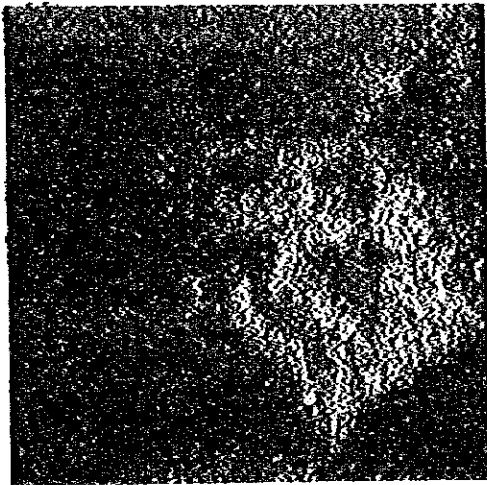
4.



Absorbed electron image



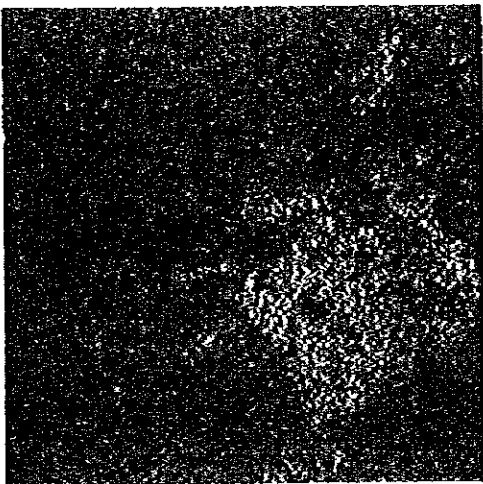
U X-ray image



V X-ray image



Fe X-ray image



Ca X-ray image

Sample No. : K-24 (3)

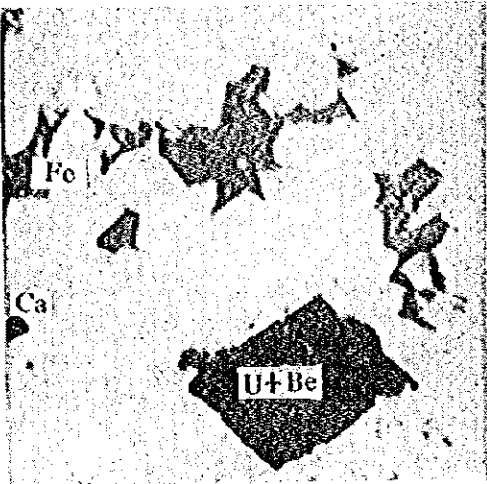
Accelerating Voltage : 25 KV

Absorbed Electron Current: 0.2 μ A

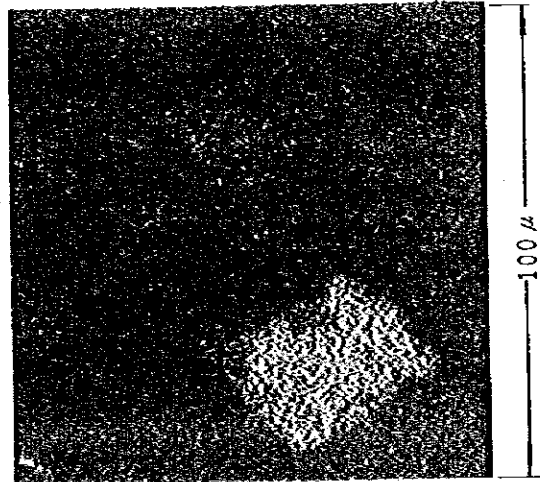
Magnification : x600



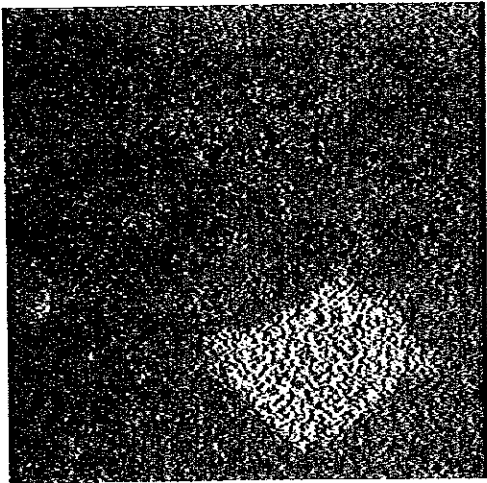
5.



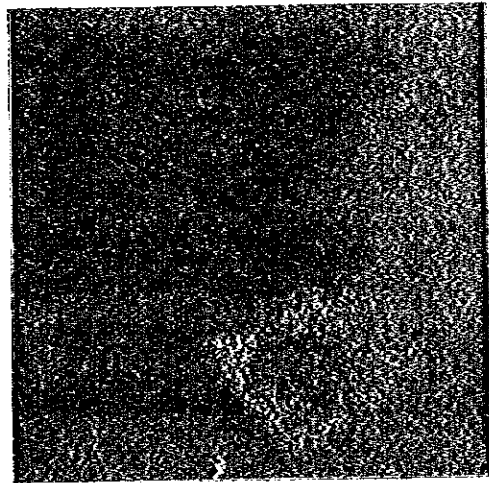
Absorbed electron image



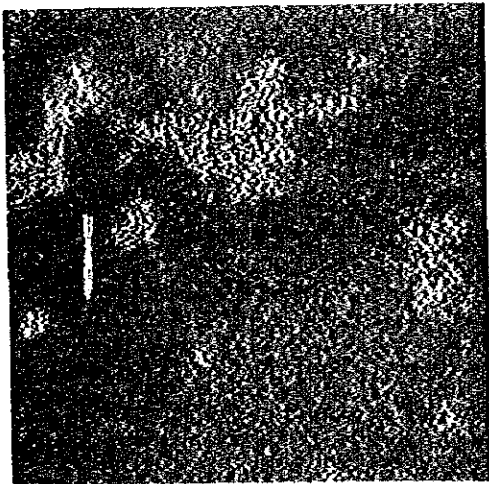
Pb X-ray image



U X-ray image



Ca X-ray image



V X-ray image

Sample No. : K-30 (1)

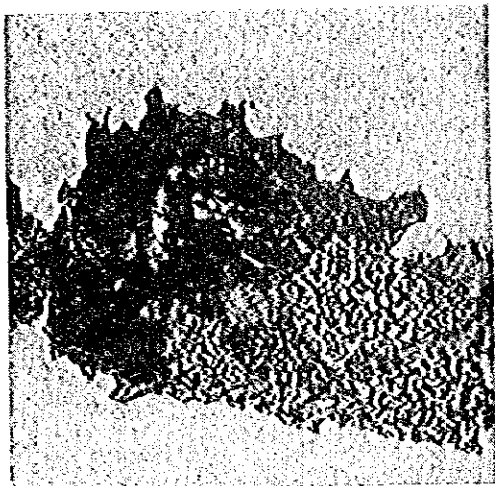
Accelerating Voltage : 25 KV

Absorbed Electron Current: 0.2 μ A

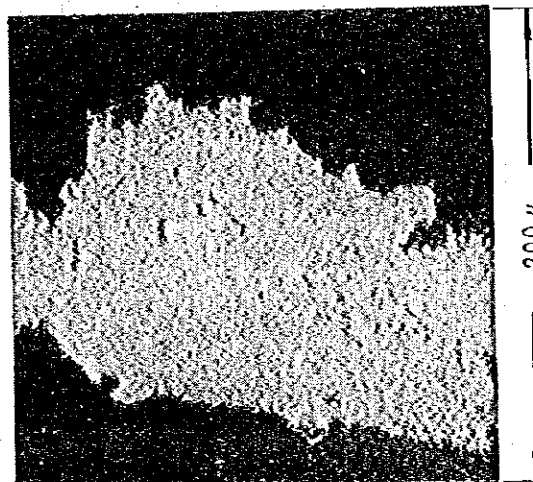
Magnification : x600



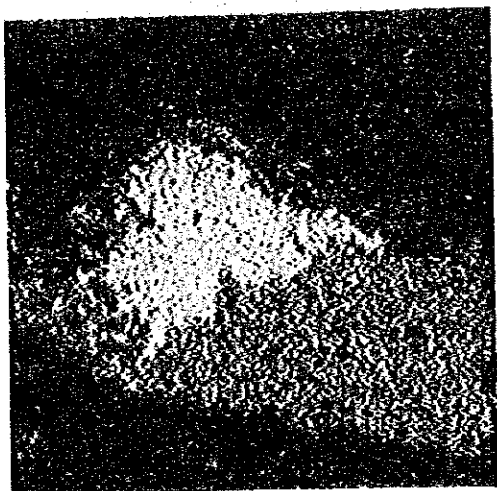
6.



Absorbed electron image

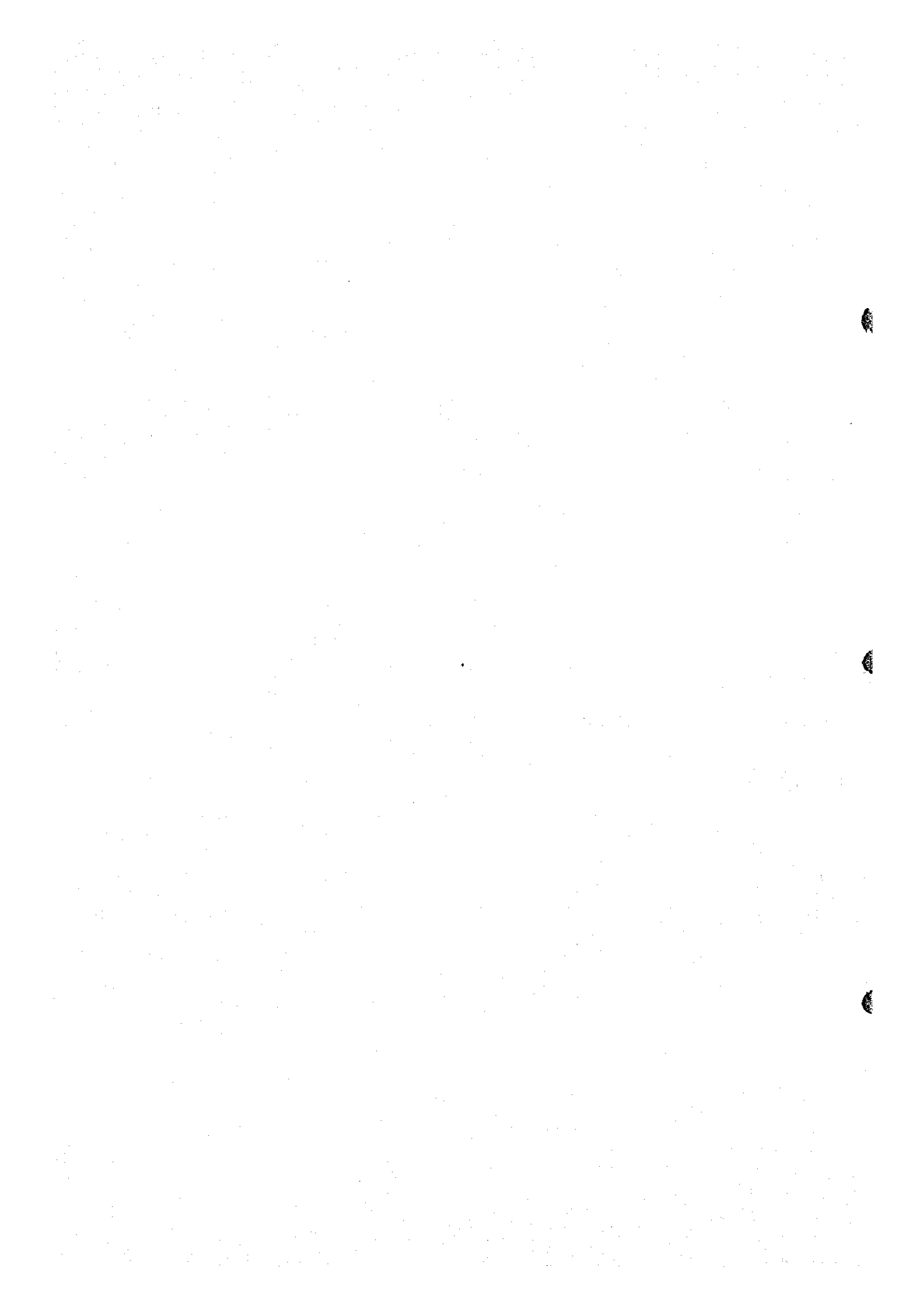


Pb X-ray image

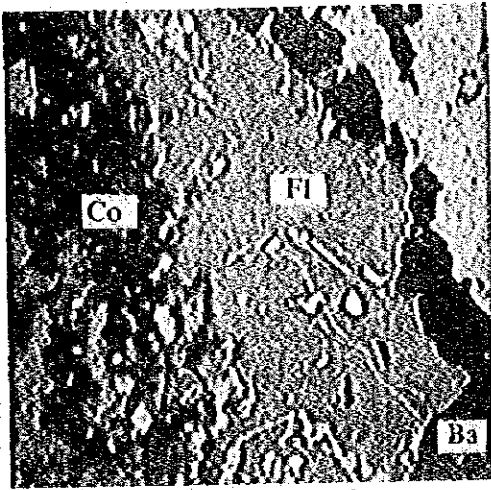


S X-ray image

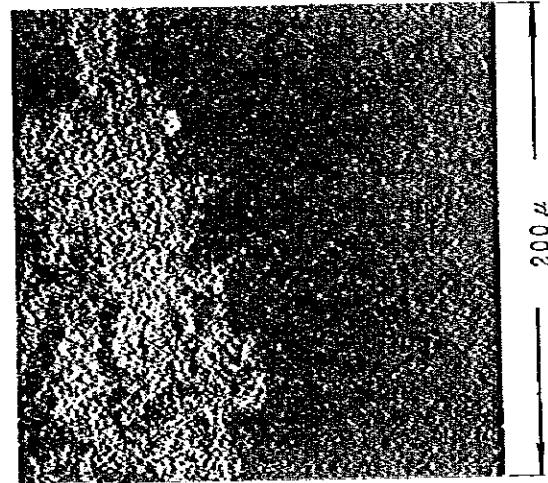
Sample No. : K-31
Accelerating Voltage : 25 KV
Absorbed Electron Current: $0.2 \mu A$
Magnification : x300



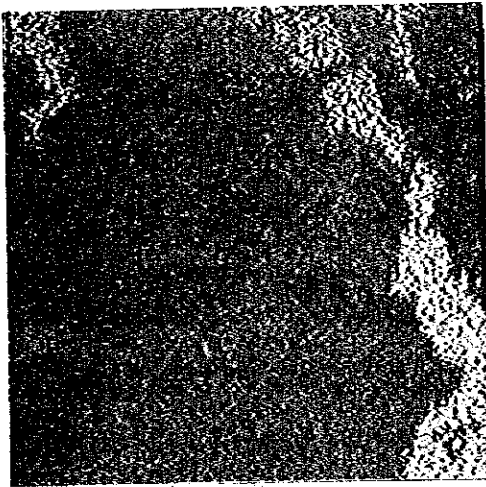
7.



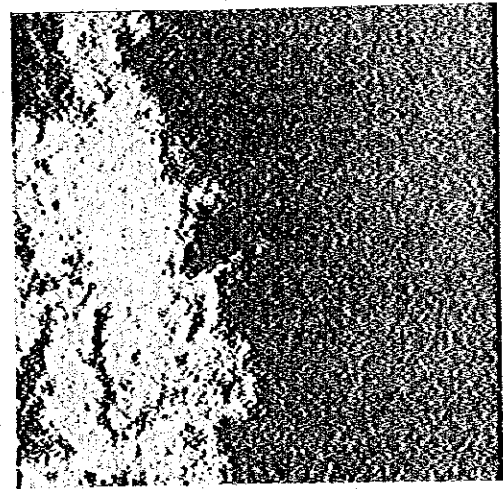
Absorbed electron image



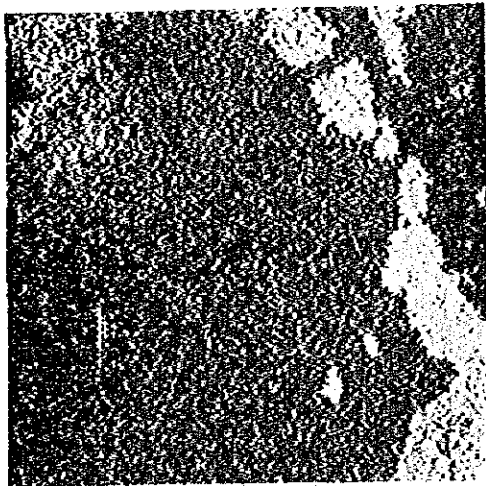
Co X-ray image



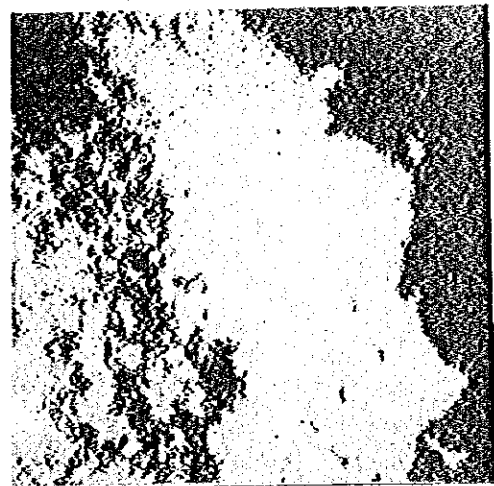
Ba X-ray image



Mn X-ray image

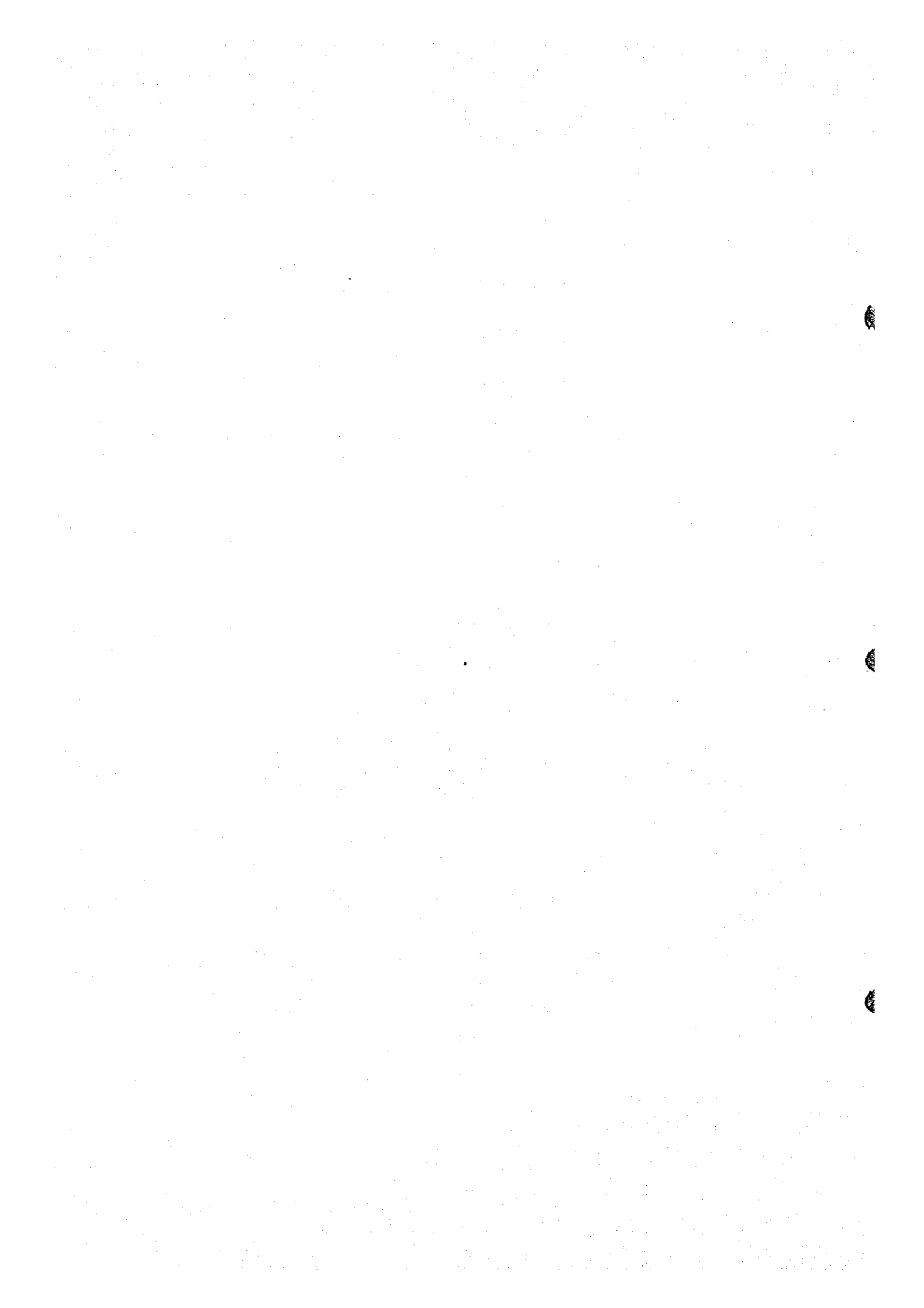


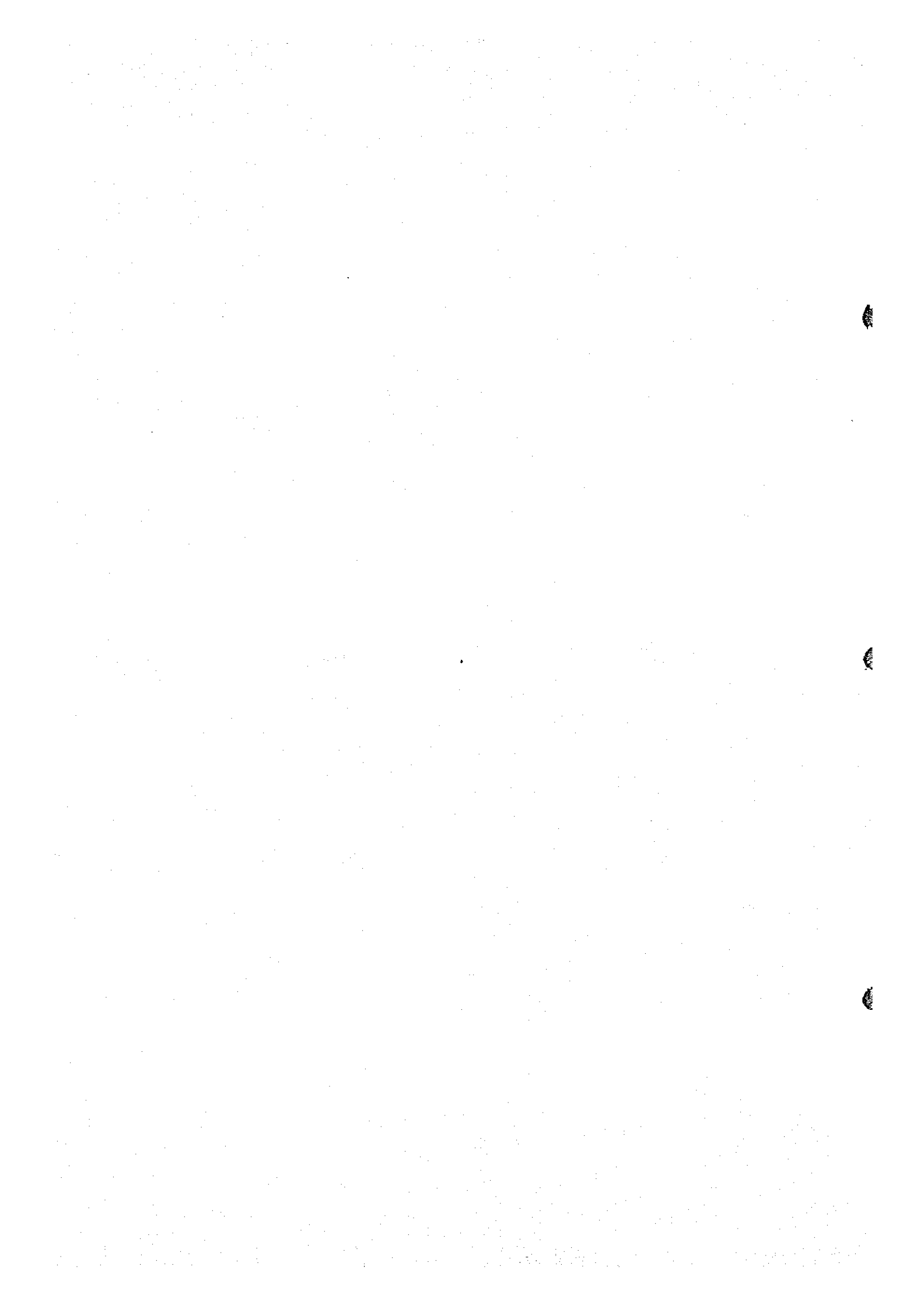
S X-ray image



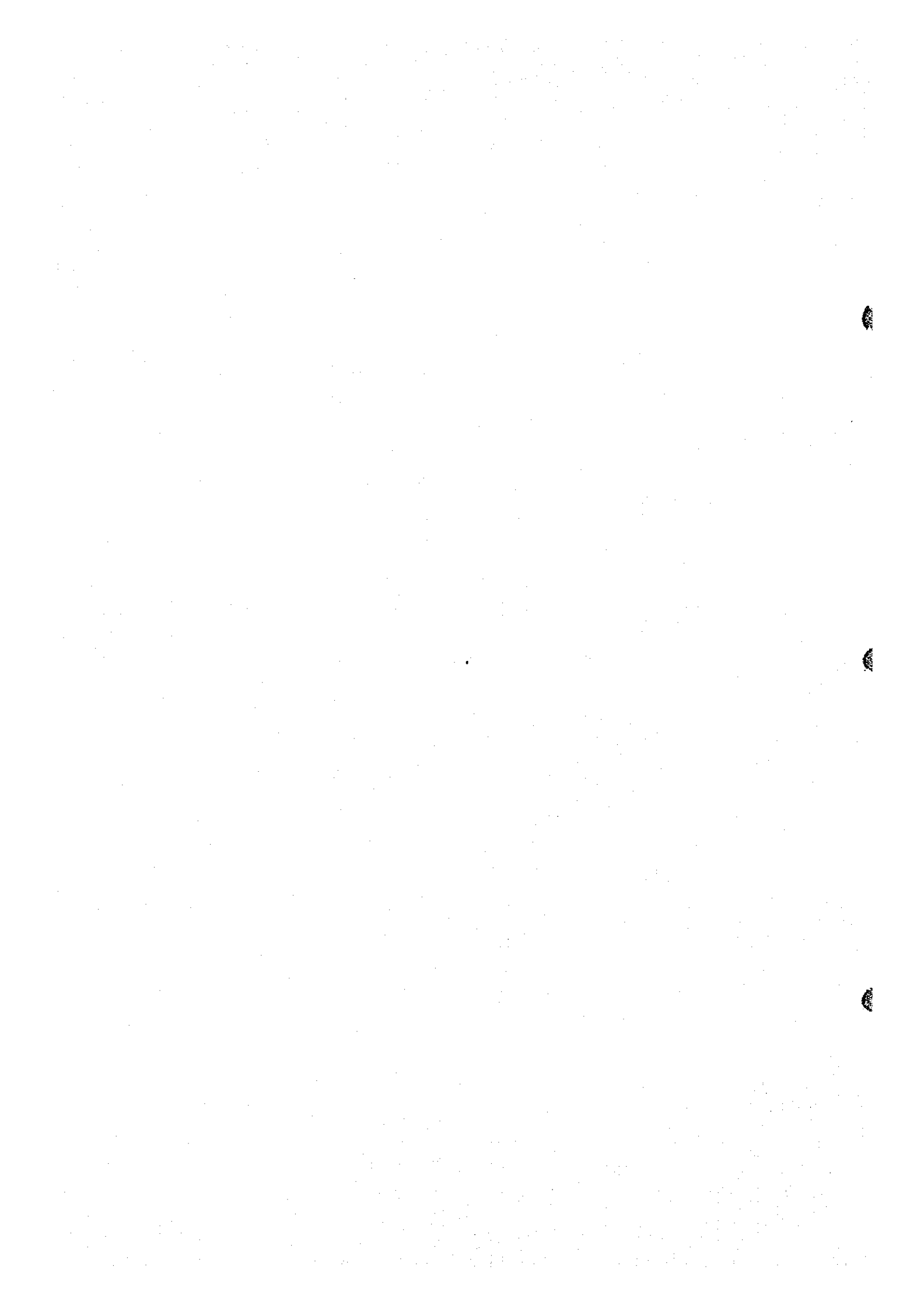
Ca X-ray image

Sample No. : ZNE-31
Accelerating Voltage : 25 KV
Absorbed Electron Current: 0.2 μA
Magnification : x300

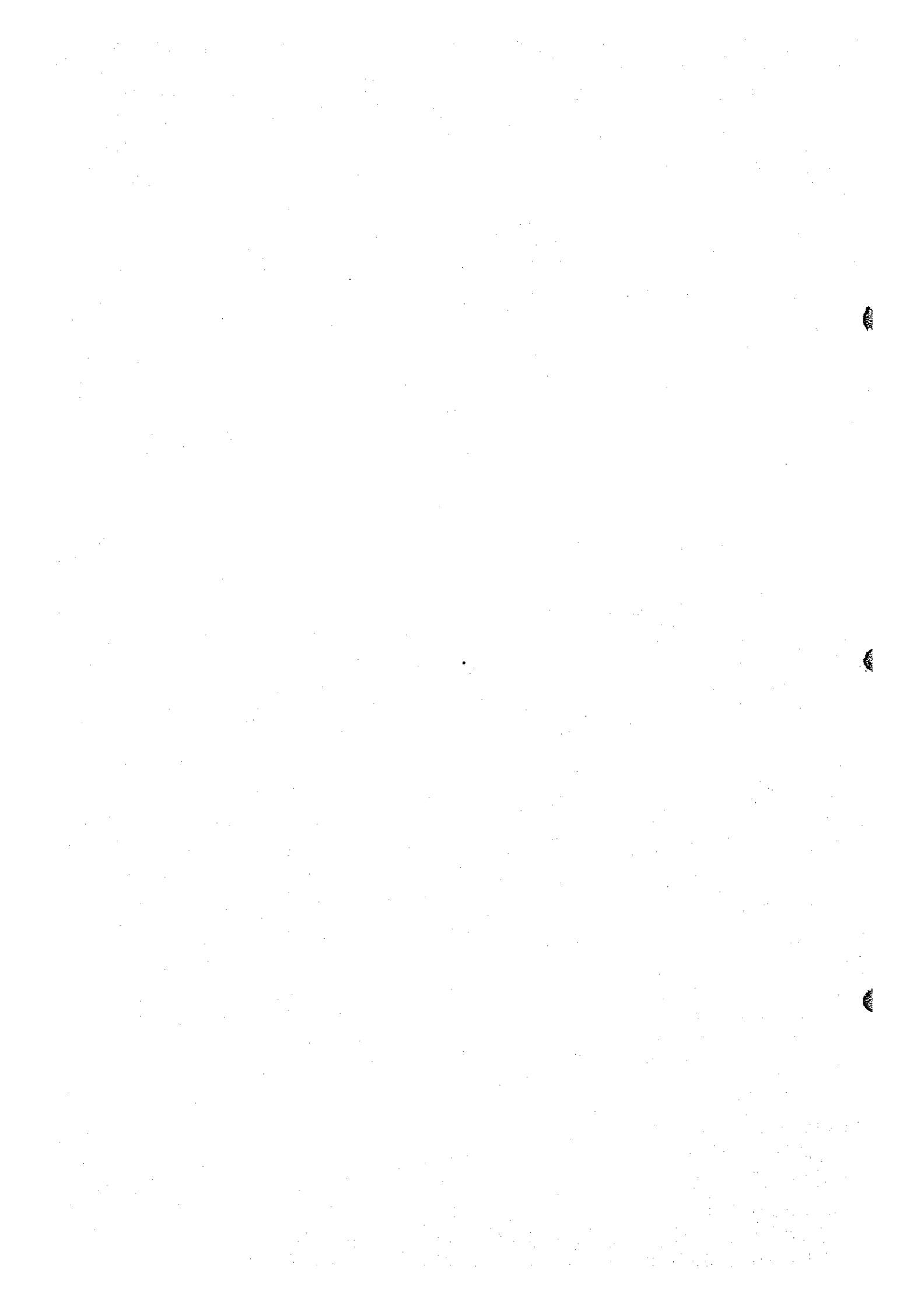




Sample No.	Location			Rock Name	XMA	T.S.	P.S.	Chemical Analysis				Remarks	
	X	Y	Altitude					Pb	Zn	U	Th		
27	A-27	520.0	245.8	1,850	limestone								
28	A-28	520.6	247.0	1,765	colitic limestone								
29	A-29	522.2	247.2	1,720	fossil bearing limestone								
30	A-30	529.5	262.7	1,940	arkose siltstone								
31	A-31	520.9	246.2	1,840	fossil bearing limestone								
32	A-32	527.7	257.6	1,920	fossil bearing limestone								
33	BNN10	528.0	241.6	1,585	arkose sandstone								Boutazart Pb-mineralization
34	BNN11	do	do	do	do								do
35	BNN12	do	do	do	do								do
36	BNN13	527.9	241.6	1,595	do								do
37	BNN14	527.9	241.5	1,605	do								do
38	BNN16	527.5	241.6	1,680	do								do
39	BNN17	527.6	241.6	1,670	do								do
40	BNN18	do	do	do	do								do
41	BNN19	do	do	1,660	do								do
42	BNN20	do	do	do	do								do
43	K-01	553.5	250.9	1,430	arkose sandstone								Alt Rabhou Pb-mineralization
44	K-02	535.5	250.9	1,430	do								do
45	K-03	535.6	251.0	1,430	do								do
46	K-04	535.7	251.1	1,430	do								do
47	K-05	553.5	250.9	1,430	do								do
48	K-06	553.9	250.3	1,450	do								do
49	K-07	554.1	249.6	1,450	do								do
50	K-09	552.2	251.3	1,370	ferruginous quartz								Paneau-1 East Vein
51	K-10	552.1	251.2	1,370	ferruginous quartz								do
52	K-11	553.1	248.4	1,350	granite porphyry								Alt Rabhou South Vein
53	K-12	550.5	250.6	1,400	ferruginous quartz								Paneau-1 West Vein
54	K-13	547.4	251.2	1,400	ferruginous quartz								Assaka-n-Tabhart West Vein
55	K-14	547.2	251.4	1,400	ferruginous quartz								do
56	K-15	545.8	251.5	1,430	arkose sandstone								Ichf Oughanbou Pb-mineralization
57	K-16	545.7	251.5	1,430	do								do
58	K-17	545.7	251.7	1,430	do								do



Sample No.	Location		Rock Name	XMA	T.S.	P.S.	Chemical Analysis				Remarks		
	X	Y					Altitude	Pb	Ba	U		Th	
59	K-18	245.9	251.6	1,430									
60	K-19	245.9	251.5	1,430									Ikht Oughanbou Pb-mineralization
61	K-21	554.2	250.0	1,450									do
62	K-22	551.4	251.8	1,400									Alt Rahhou North Vein
63	K-23	551.3	251.6	1,400									Panseau-1 West Vein
64	K-24	552.1	251.1	1,390									do
65	K-25	553.3	248.9	1,390									Panseau-1 East Vein
66	K-27	551.5	251.3	1,410									Alt Rahhou South Vein
67	K-28	549.9	251.3	1,400									Panseau-1 Vein, T1
68	K-29a	553.5	250.9	1,430									GP Vein
69	K-29b	do	do	do									Alt Rahhou Pb-mineralization
70	K-30	548.3	251.4	1,400									do
71	K-31	545.8	251.5	1,430									Asaka-n-Tabbirt Vein
72	K-32	542.5	249.0	1,450									Ikht Oughanbou Pb-mineralization
73	ZNE01	do	do	do									Dique Vein
74	ZNE02	do	do	do									do
75	ZNE03	do	do	do									do
76	ZNE04	do	do	do									do
77	ZNE05	do	do	do									do
78	ZNE06	do	do	do									do
79	ZNE07	do	do	do									do
80	ZNE08	do	do	do									do
81	ZNE09	551.3	251.4	1,410									Panseau-1 West Vein, T1-T2
82	ZNE10	do	do	do									do
83	ZNE11	do	do	do									do
84	ZNE12	do	do	do									do
85	ZNE13	do	do	do									do
86	ZNE14	do	do	do									do
87	ZNE15	do	do	do									do
88	ZNE16	551.6	251.4	1,410									Panseau-1 Vein, T3
89	ZNE17	do	do	do									do
90	ZNE18	do	do	do									do



Sample No.	Location			Rock Name	XMA	T.S.	P.S.	Chemical Analysis				Remarks
	X	Y	Altitude					Pb	Ba	U	Th	
91	ZNE19	551.6	251.4	1,410	coarse grained granite (Weathered)							Panseau-1 Vein, T8
92	ZNE20	551.6	251.4	1,410	arkose sandstone							do, T9
93	ZNE21	do	do	do	do							do, do
94	ZNE22	do	do	do	coarse grained granite (Weathered)							do, T10
95	ZNE23	do	do	do	do							do, do
96	ZNE24	551.5	251.3	1,410	arkose sandstone							do, T11
97	ZNE25	do	do	do	coarse grained granite (Weathered)							do, do
98	ZNE26	do	do	do	do							do, do
99	ZNE27	do	do	do	do							do, do
100	ZNE28	do	do	do	do							do, do
101	ZNE29	do	do	do	arkose sandstone (black powder matter)							do, do
102	ZNE30	551.5	251.3	1,410	coarse grained granite (Weathered)							do, T13
103	ZNE31	551.4	251.0	1,420	do							do, T14
104	ZNE32	do	do	do	do							do, do
105	ZNE33	do	do	do	do							do, T15
106	ZNE34	do	do	do	do							do, T16
107	ZNE35	do	do	do	do							do, T17
108	ZNE36	do	do	do	do							do, T18
109	ZNE37	do	do	do	arkose sandstone							do, T19
110	ZNE38	do	do	do	do							do, T20
111	ZNE39	do	do	do	do							do, T22
112	ZNE40	do	do	do	do							do, do
113	ZNE42	do	do	do	do							do, T23
114	ZNE42	do	do	do	do							do, T24

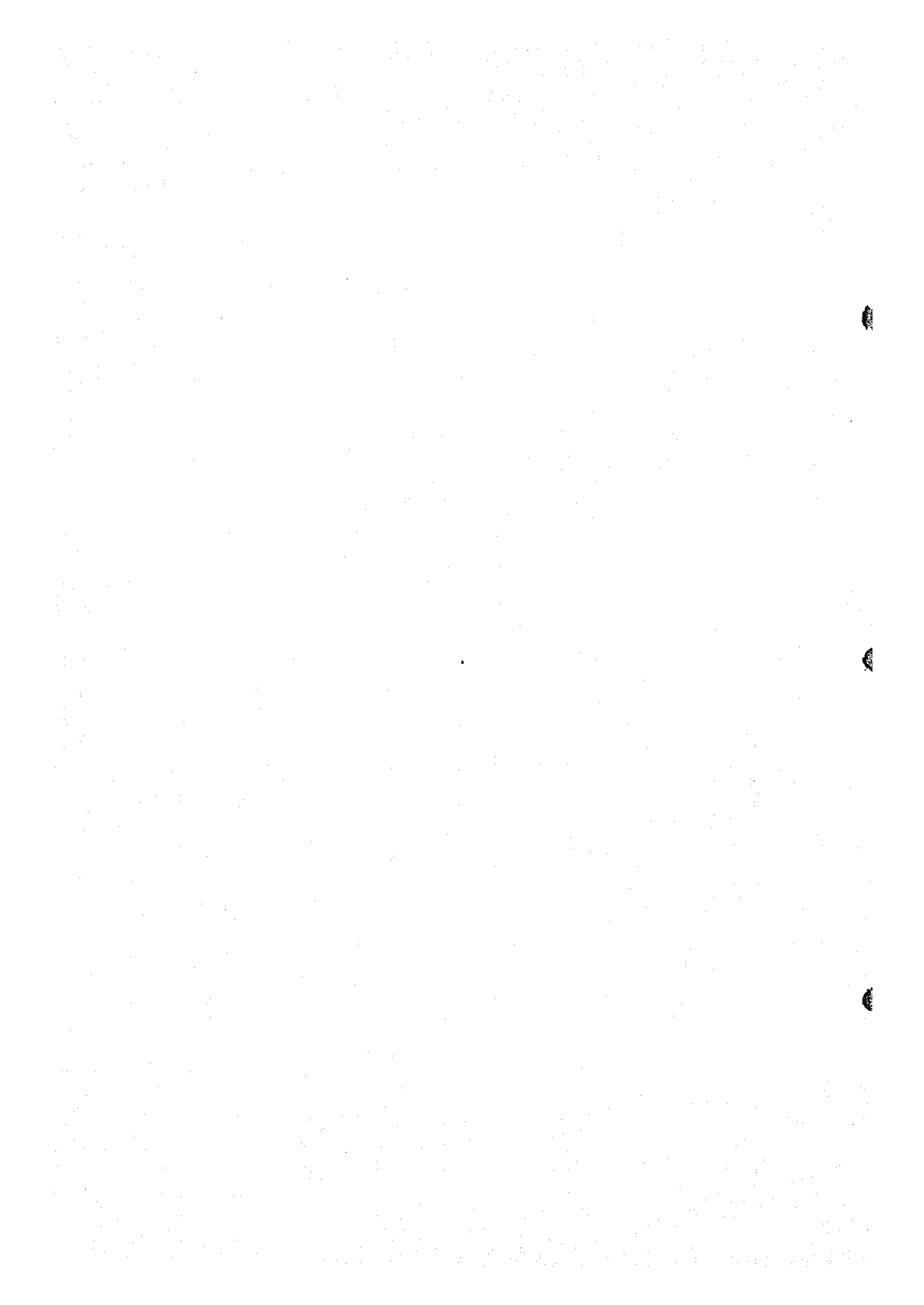
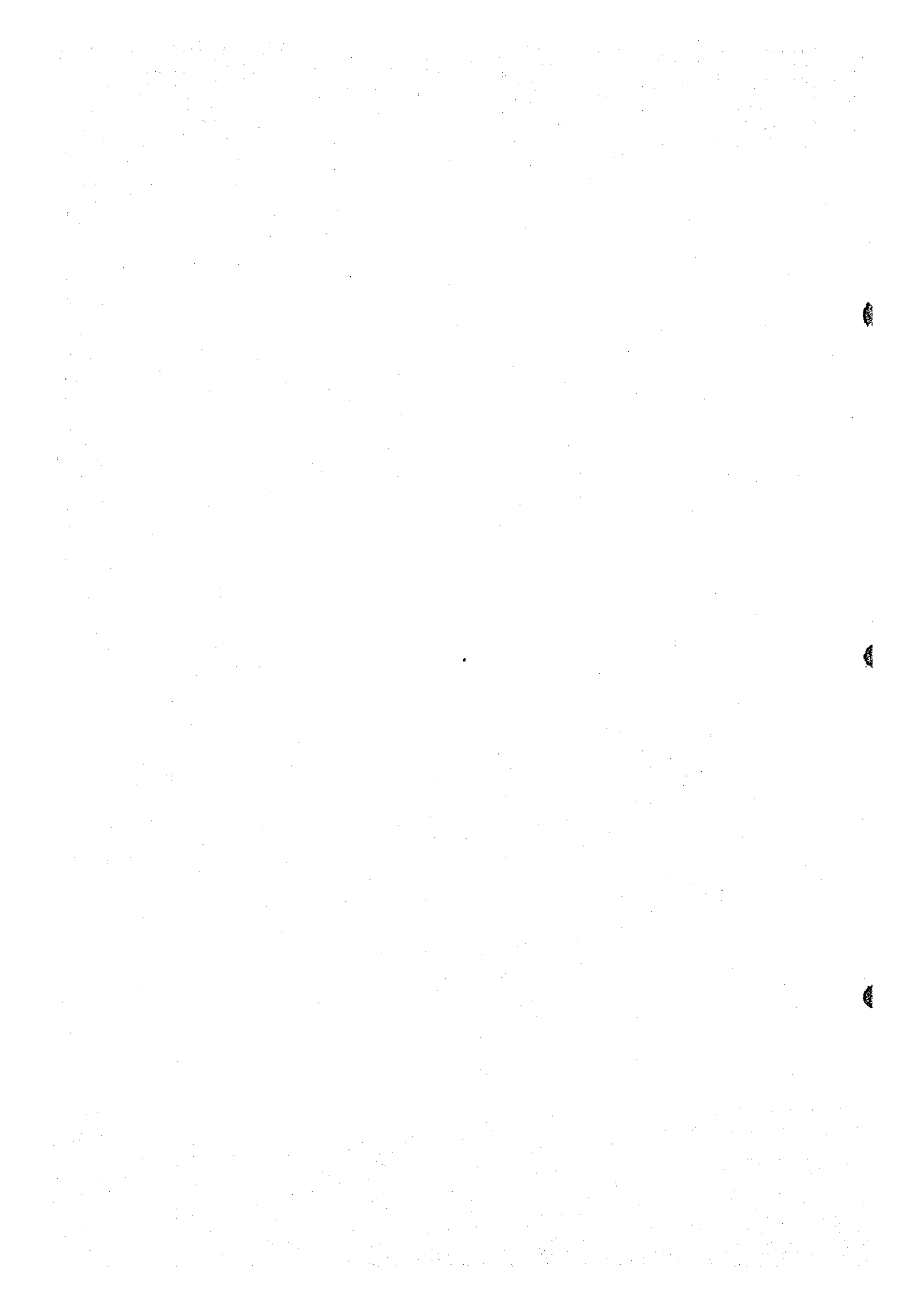


Table I-2 Chemical Analysis of Rock Samples for Pb, Ba, U and Th

Area	Location	Sample No.	Rock Name	Sampling Width (m)	Composition				Remarks (C/S: Radioactivity by SPP-2XP)
					Pb%	Ba%	U%	Th%	
Bou Mia N Sector	Bautazart	BMN 10	arkose sandstone	1.50	6.00	5.60	-	-	Pb-mineralization in arkose sandstone
		BMN 11	do	1.50	4.10	6.80	-	-	
		BMN 12	do	1.50	0.74	5.20	-	-	
		BMN 13	do	3.00	0.27	8.00	-	-	
		BMN 14	do	3.50	1.25	6.00	-	-	
		BMN 16	do	1.90	1.65	9.20	-	-	
		BMN 17	do	1.50	0.13	4.20	-	-	
		BMN 18	do	1.50	0.52	8.60	-	-	
		BMN 19	do	1.20	0.18	5.20	-	-	
		BMN 20	do	2.00	1.60	7.20	-	-	
Zayda NE Sector	Immāyūn-n-Aīt Rahhou	K 01	do	0.90	4.70	9.60	-	-	Pb-mineralization in arkose sandstone
		K 02	do	0.70	4.50	2.48	-	-	
		K 03	do	0.10	9.80	3.60	-	-	
		K 04	do	0.20	2.45	3.04	-	-	
		K 05	do	1.00	11.50	3.80	-	-	
		K 06	do	0.20	4.20	0.30	-	-	
		K 07	do	0.20	0.86	4.00	-	-	
	Paneau-1 East Vein	K 09	ferruginous quartz	0.10	-	-	0.016	<0.010	1,500 c/s
		K 10	do	0.10	0.17	-	0.014	<0.010	1,500 c/s
		K 24	splittic granite	0.10	-	-	0.065	<0.010	1,500 c/s
	Paneau-1 West Vein	K 12	ferruginous quartz	0.10	0.72	-	0.026	<0.010	2,000 c/s
		K 22	arkose sandstone	0.40	3.40	-	0.009	<0.010	350 c/s
		K 23	arkose sandstone	0.60	1.68	-	0.005	<0.010	500 c/s
	Assaka-n-Tabhirt West Vein	K-13	ferruginous quartz	0.05	-	-	0.059	<0.010	700 c/s
		K-14	do	0.05	-	-	0.046	0.012	1,000 c/s
	Amaragh Ikhf Oughanbou	K-15	arkose sandstone	0.40	2.10	5.00	-	-	Pb-mineralization in arkose sandstone
		K-16	do	0.60	1.65	8.80	-	-	
		K-17	do	0.20	1.30	7.20	-	-	
		K-18	do	0.30	0.44	3.60	-	-	
		K-19	do	0.40	0.28	6.20	-	-	
	Aīt Rahhou South Vein	K-11	Granite porphyry	0.10	-	-	0.010	<0.010	800 c/s
	Aīt Rahhou North Vein	K-21	do	0.40	-	-	0.020	<0.010	600 c/s
	Dique Vein	ZNE 01	altered granite and Fe-quartz vein	0.50	-	-	0.004	<0.010	200 - 500 c/s
		ZNE 02	do	0.50	-	-	0.018	<0.010	700 - 3,000 c/s
		ZNE 03	do	0.50	-	-	0.031	<0.010	500 - 4,200 c/s
		ZNE 04	do	0.50	-	-	<0.002	-	250 - 400 c/s
		ZNE 05	do	0.70	-	-	<0.002	-	200 - 300 c/s
ZNE 06		do	0.70	-	-	0.003	-	150 - 600 c/s	
ZNE 07		do	0.60	-	-	<0.002	-	190 - 250 c/s	
ZNE 08		do	0.60	-	-	<0.002	-	220 - 300 c/s	
Paneau-1 West Vein	ZNE 09	weathered granite	1.00	-	-	<0.002	-	300 - 500 c/s	
	ZNE 10	do	0.40	-	-	0.006	-	450 - 700 c/s	
	ZNE 11	do	0.40	-	-	0.020	-	2,000 - 2,500 c/s	



Area	Location	Sample No.	Rock Name	Sampling Width (m)	Composition				Remarks (C/S: Radioactivity by SFP-2NF)
					Pb%	Ba%	U%	Th%	
		ZNE 12	do	0.60	-	-	0.011	-	400 c/s
		ZNE 13	do	0.50	-	-	0.010	-	400 c/s
		ZNE 14	black powder material	0.04	-	-	0.015	-	450 c/s
		ZNE 15	weathered granite	0.40	-	-	0.003	-	350 c/s
	Panneau-1 Vein	ZNE 16	do	0.40	-	-	0.002	-	250 - 400 c/s
		ZNE 17	do	0.80	-	-	<0.002	-	250 c/s
		ZNE 18	do	1.00	-	-	<0.002	-	200 - 250 c/s
		ZNE 19	do	0.50	-	-	0.004	-	400 - 450 c/s
		ZNE 20	arkose sandstone	0.70	-	-	0.025	-	800 - 1,000 c/s
		ZNE 21	do	1.00	-	-	0.007	-	700 - 1,000 c/s
		ZNE 22	weathered granite	1.00	-	-	0.007	-	350 - 800 c/s
		ZNE 23	do	0.90	-	-	0.019	-	400 - 800 c/s
		ZNE 24	arkose sandstone	1.00	-	-	0.005	-	200 - 400 c/s
		ZNE 25	weathered granite	1.00	-	-	0.016	-	700 - 1,000 c/s
		ZNE 26	do	1.00	-	-	0.012	-	900 - 1,500 c/s
		ZNE 27	do	1.00	-	-	0.008	-	1,500 - 2,500 c/s
		ZNE 28	do	1.00	-	-	0.019	-	700 - 2,000 c/s
		ZNE 29	black powder material	0.10	-	-	0.19	-	3,500 c/s
		ZNE 30	weathered granite	2.00	-	-	<0.002	-	300 - 400 c/s
		ZNE 31	do	1.70	-	-	0.022	-	1,000 - 2,500 c/s
		ZNE 32	do	1.40	-	-	<0.002	-	500 - 700 c/s
		ZNE 33	do	1.00	-	-	0.002	-	400 - 550 c/s
		ZNE 34	do	1.00	-	-	0.004	-	400 - 450 c/s
		ZNE 35	do	0.50	-	-	0.003	-	500 - 600 c/s
		ZNE 36	do	1.00	-	-	0.032	-	1,000 - 1,500 c/s
		ZNE 37	arkose sandstone	1.00	-	-	0.33	-	2,000 - 8,000 c/s
		ZNE 38	do	1.00	-	-	0.015	-	1,100 - 2,000 c/s
		ZNE 39	do	0.50	-	-	0.068	-	1,400 - 2,000 c/s
		ZNE 40	do	0.50	-	-	0.014	-	850 - 1,500 c/s
		ZNE 41	do	1.00	-	-	0.007	-	500 - 850 c/s
		ZNE 42	do	0.50	-	-	0.010	-	500 - 1,000 c/s

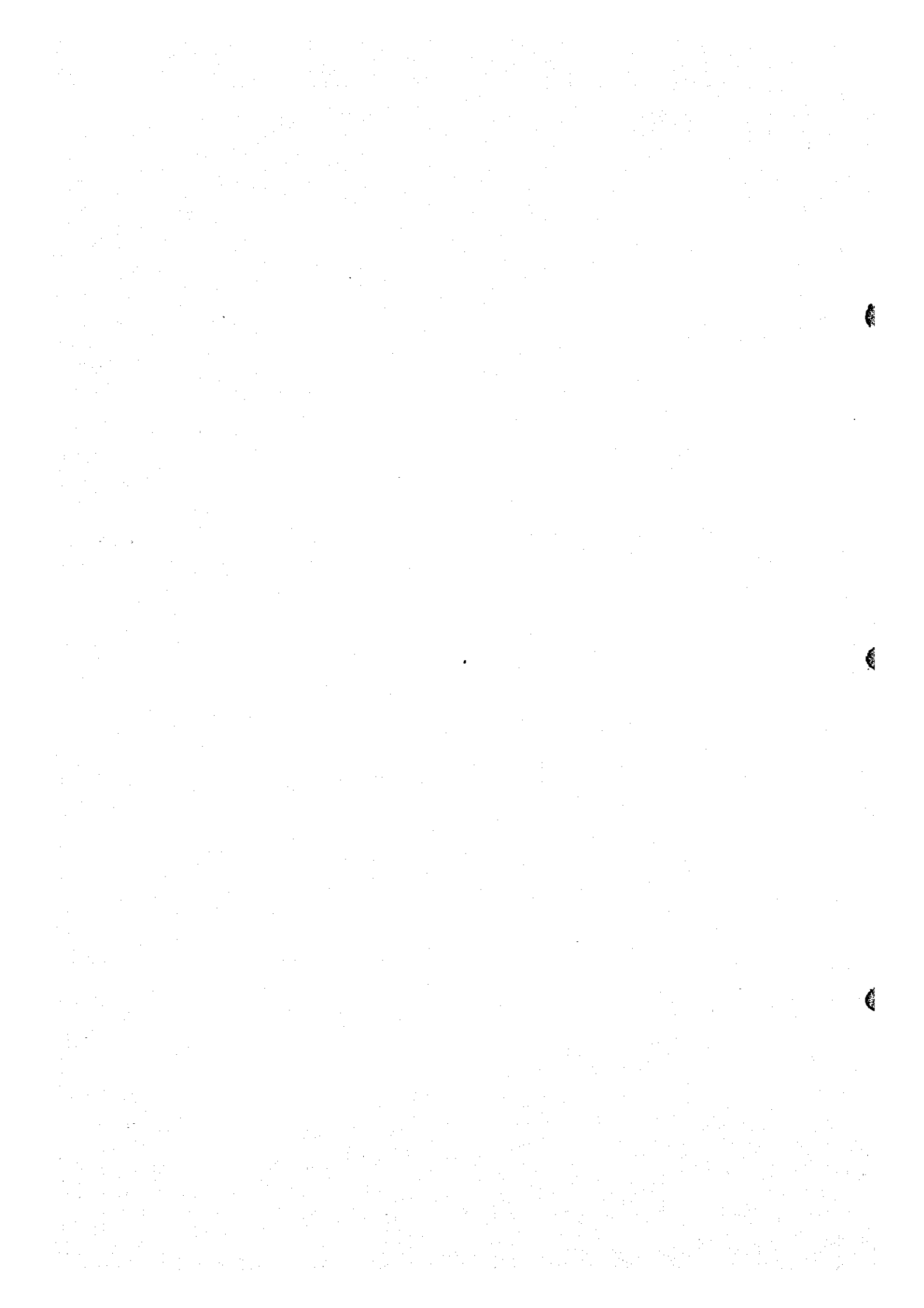


Table I-3 List of Pb - Ba Mineralizations in Bou Mia North Sector

Name	Location		Kind of ore	Host Rock		Type	Ore Body		Ore Minerals	Assay Results			Note	
	X	Y		Formation	Rock		Distributing Scale (m)	Thickness (m)		Sample No.	Average Sampling width (m)	Pb%		Ba%
Boutazart	527.6	241.5	Pb, Ba	P - T	sandstone	stratiform	700(+) \times 500(+)	1.9 - 4.5	galena	BMN-10-BMN20	3.18	1.52	6.74	
Pb-mineralization near "Carapace"	528.0	243.5	Pb, Ba	P - T	do	do	150(+) \times 7	1.00-1.80	galena	-	1.20	1.20	2.12	depend on first phase survey

Table I-4 List of Uranium Mineralization in Bou Mia North Sector

Name	Location		Structure			Uranium Mineralization			Assay Results			Note
	X	Y	Length (m)	Width (m)	Max. Length (m)	Max. Width (m)	Max. Radioactivity (c/s)	U%	Th%	V%		
"Carapace"	528	243.5	?	2 ^{m+}	?	2 ^{m+}	1,600	0.072	0.002	0.030		depend on first phase survey



Table I-5 List of Pb - Ba Mineralizations in Zayda NE Sector

Name	Location		Kind of ore		Host Rock		Type	Ore Body		Ore Minerals		Assay Results			
	X	Y	Formation	Rock	Distributing Scale (m)	Thickness (m)		Sample No.	Average sampling width (m)	Pb%	Zn%	Sample No.	Average sampling width (m)	Pb%	Zn%
Al't Rabbou	554	251	P - T	sandstone	1,000 x 400	0.2 - 1.0	stratiform	galena, cerussite	0.55	6.47	K1 - K7	0.55	6.47	4.85	
Dahf Oughanbou	546	251.5	do	sandstone	400 x 400	0.2 - 0.6	stratiform	do	0.38	1.23	K15 - K19	0.38	1.23	6.46	

Table I-6 List of Uranium Mineralizations in Zayda NE Sector

Name	Location		Uranium Mineralization					Assay Results							
	X	Y	Length (m)	Width (m)	Max. Length (m)	Max. Width (m)	Max. Radioactivity (c/s)	Sample No	Average Sampling Width	U%	Th%	Pb%	U%	Th%	Pb%
Dique Vein	542.5	249	40	4	20	1.5	4,200	ZNE01-03, ZNE06	1.1	0.014	<0.010	-	0.046	<0.010	-
Assake-n-Tabhirt west Vein	547.5	251.5	600+	3	10	0.05	1,000	K13, K14	0.05	0.059	<0.010	-	-	<0.010	-
Assake-n-Tabhirt Vein	548.5	251.5	1,000	3	10	0.15	13,500	-	-	-	-	-	-	-	-
QP Vein	550	251.5	3,500+	30	5	0.05	2,800	-	-	-	-	-	-	-	-
Paneau-2 West Vein	551.5	251.5	2,500+	5	40	1.0	3,000	K12, K22, K23, ZNE9 - 15	0.36	0.005	<0.010	2.22	0.026	<0.010	-
Paneau-1 Vein	551.5	251.0	3,500+	20	40	5	3,500	ZNE16 - 28, ZNE21 - 38, ZNE39 - 42	0.86	0.012	-	-	0.059	-	-
Paneau-1 East Vein	552.0	251.5	3,000+	20	5	0.1	1,500	K9, K10, K24	0.10	0.074	<0.010	(0.017)	0.074	<0.010	-
Al't Rabbou North Vein	554	250.5	2,500+	20	10	0.40	600	K21	40	0.020	<0.010	-	0.020	<0.010	-
Al't Rabbou South Vein	553	248.5	2,500+	20	10	0.10	1,200	K11	0.10	0.010	<0.010	-	0.010	<0.010	-

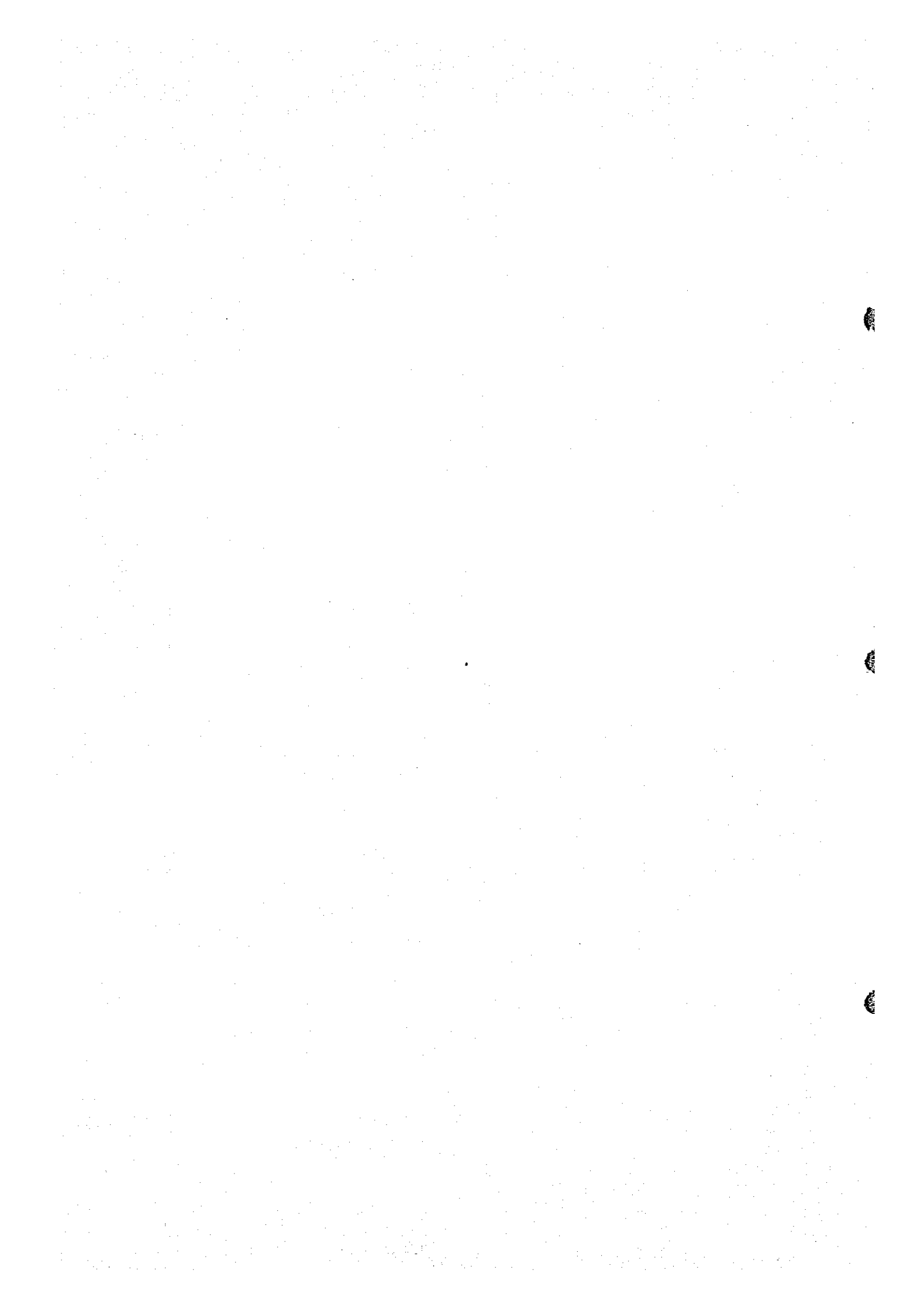
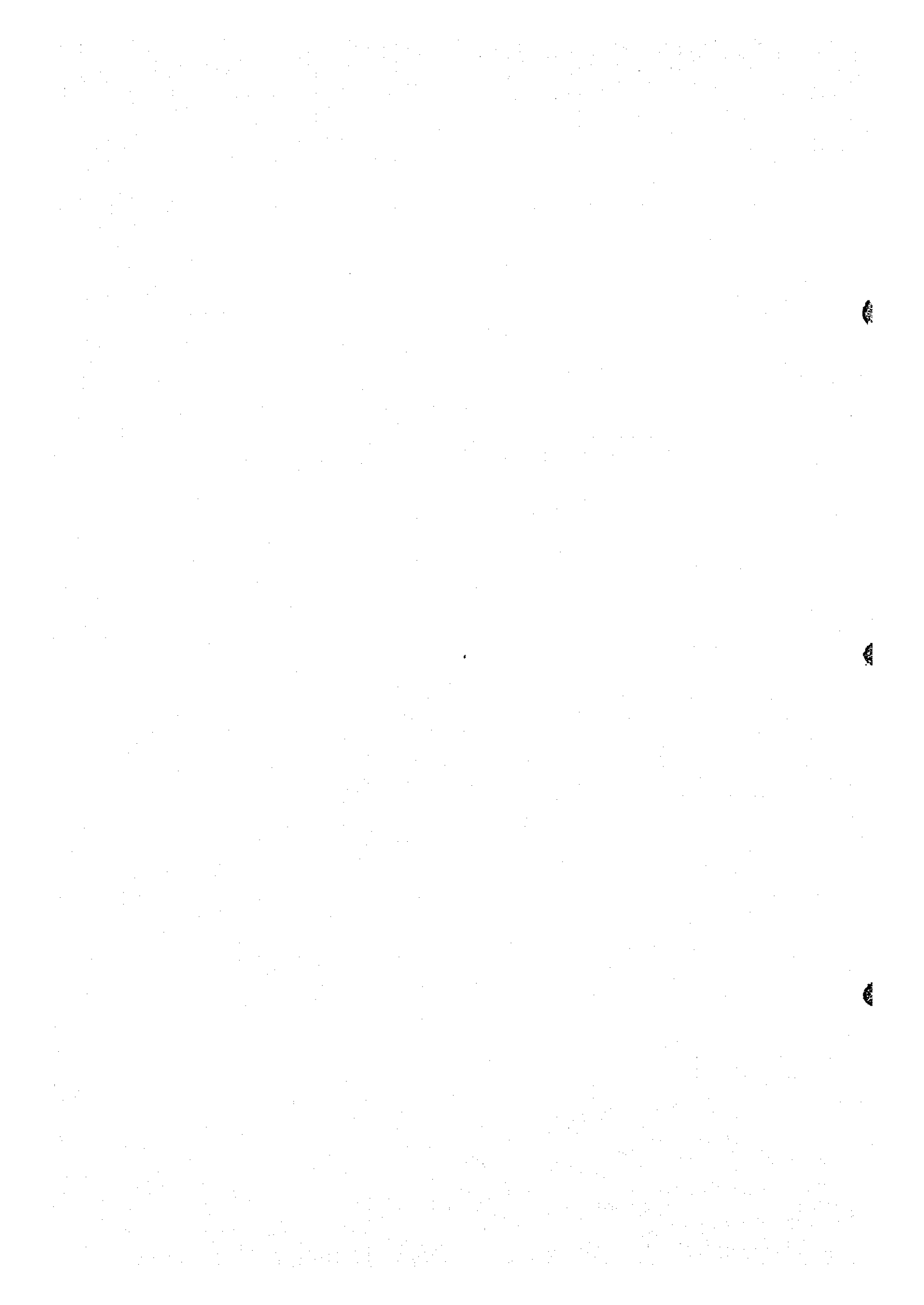
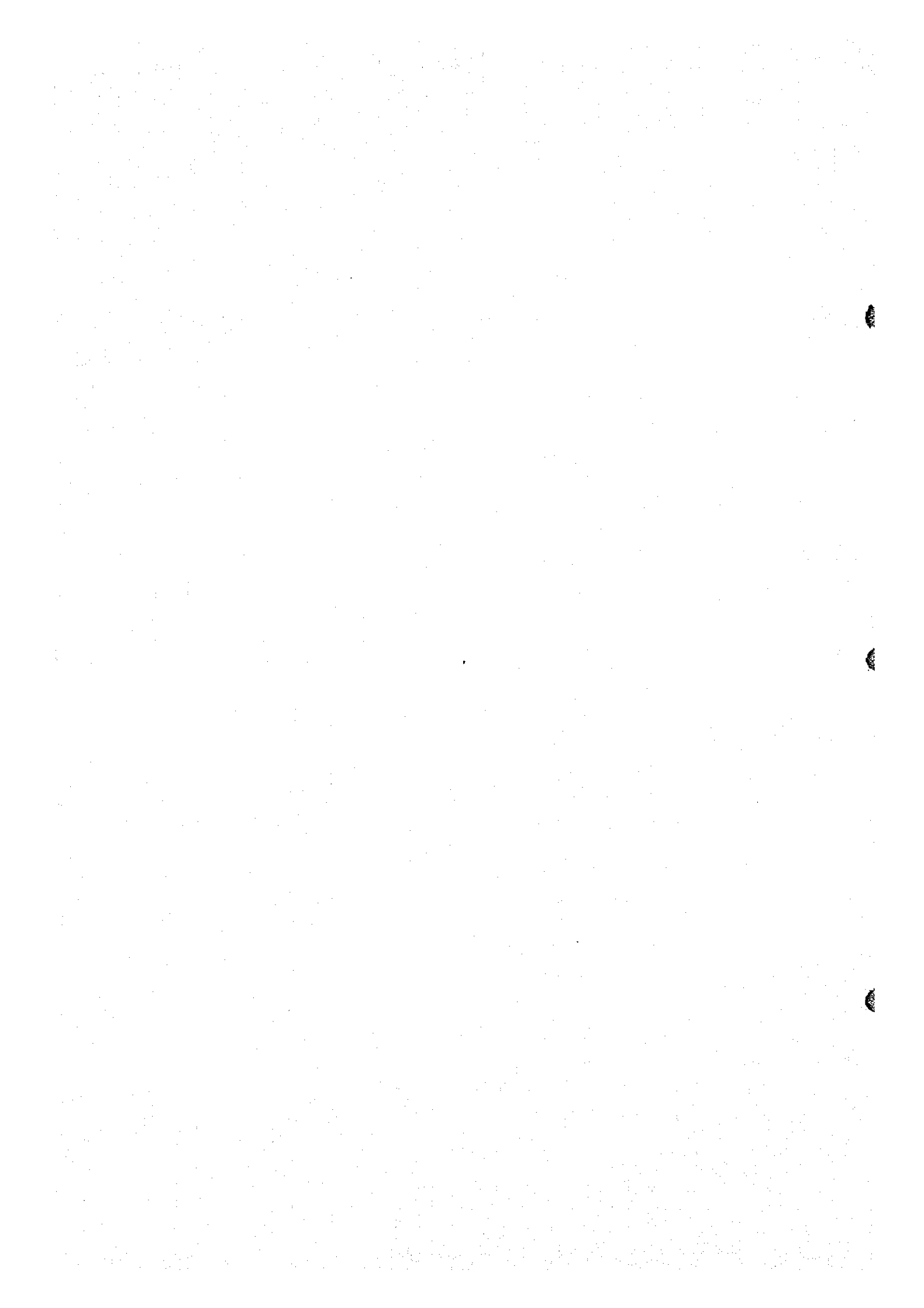


Table I-7 Microscopic Observations of Thin Sections

Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
A - 01	Marabout	β p - r	Basalt	The rock shows basaltic texture and is composed of clinopyroxene (augite), plagioclase and opaque minerals (magnetite). Phenocrysts are augite and plagioclase. Augite shows euhedral to subhedral form and about 1.0 ~ 0.5mm in size. Most of augites are altered to clay minerals (chlorite). Phenocrystic plagioclase shows albite twinning and up to 0.5mm in size. Groundmass is composed of euhedral augite, lath-shaped plagioclase (up to 0.1mm), granular opaque minerals (magnetite) and spot-like clay minerals.	Photomicro-graph: Fig I-5, NO.1
A - 03	Marabout	β p - r	Basalt	The rock shows basaltic texture and is mainly composed of augite and plagioclase. The rock has many cavities which are cemented by zeolite, chlorite and partly quartz. Augite (up to 0.5mm) is mostly altered to chlorite and opaque minerals. Plagioclase shows lath-shaped and up to 0.5mm in size. It is weakly altered to clay minerals.	
A - 04	Marabout	β p - r	Dolerite	The rock shows doleritic (intergranular) texture and composed of plagioclase laths, subhedral augite, granular magnetite and secondary chlorite. Their grain sizes are about 0.7 ~ 0.5mm. Augite is mostly altered to chlorite and opaque minerals.	Photomicro-graph: Fig I-5, No.2



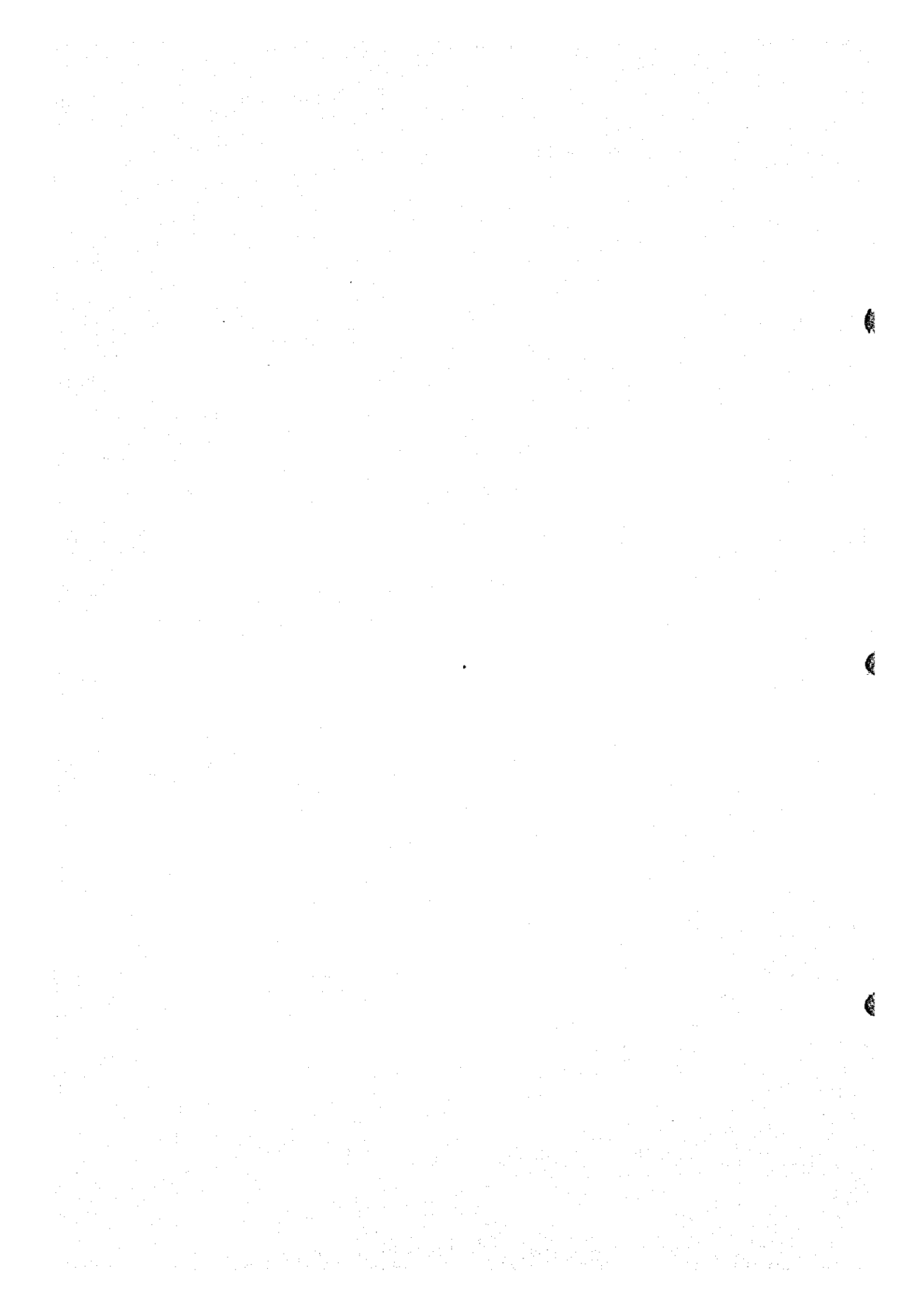
Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
A - 07	Jbel Mikatchawane	Kzcm	Limestone	The rock shows fine grained granular texture. It is composed of abundant fine carbonates (up to 0.01mm) and a few amounts of quartz (up to 0.05mm).	
A - 10	Bled Sallat	β p - r	Basalt	The rock shows basaltic texture and is composed of augite, plagioclase, chlorite and opaque minerals. Phenocrystic augite shows sector twinning and up to 1.0mm in size. Groundmass is made of plagioclase laths (up to 0.2mm), subhedral augite (up to 0.2mm), granular opaque minerals (0.1mm) and spot - like chlorite. Most of chlorite are thought to be altered products from mafic minerals (augite).	
A - 14	Tigour liwine	β p - r	Lamprophyre	The rock shows porphyritic texture and is mainly composed of titan - augite and melilite. Phenocrystic titan - augite shows hour - glass structure and pleochroism from yellowish brown to colourless. It is up to 3.0mm in size. It is affected by carbonatization, chloritization and amphibolitization in crystal margin and along the crystal crack. Melilite shows lath-shaped and up to 1.0mm in size. Matrix is composed of melilite laths (0.1mm), subhedral titan - augite (0.1mm), anhedral biotite, chlorite, carbonates and granular opaque minerals. In parts, carbonate aggregates occur in spot - like. (up to 6.0mm).	Photomicrograph: Fig I-5, NO.3



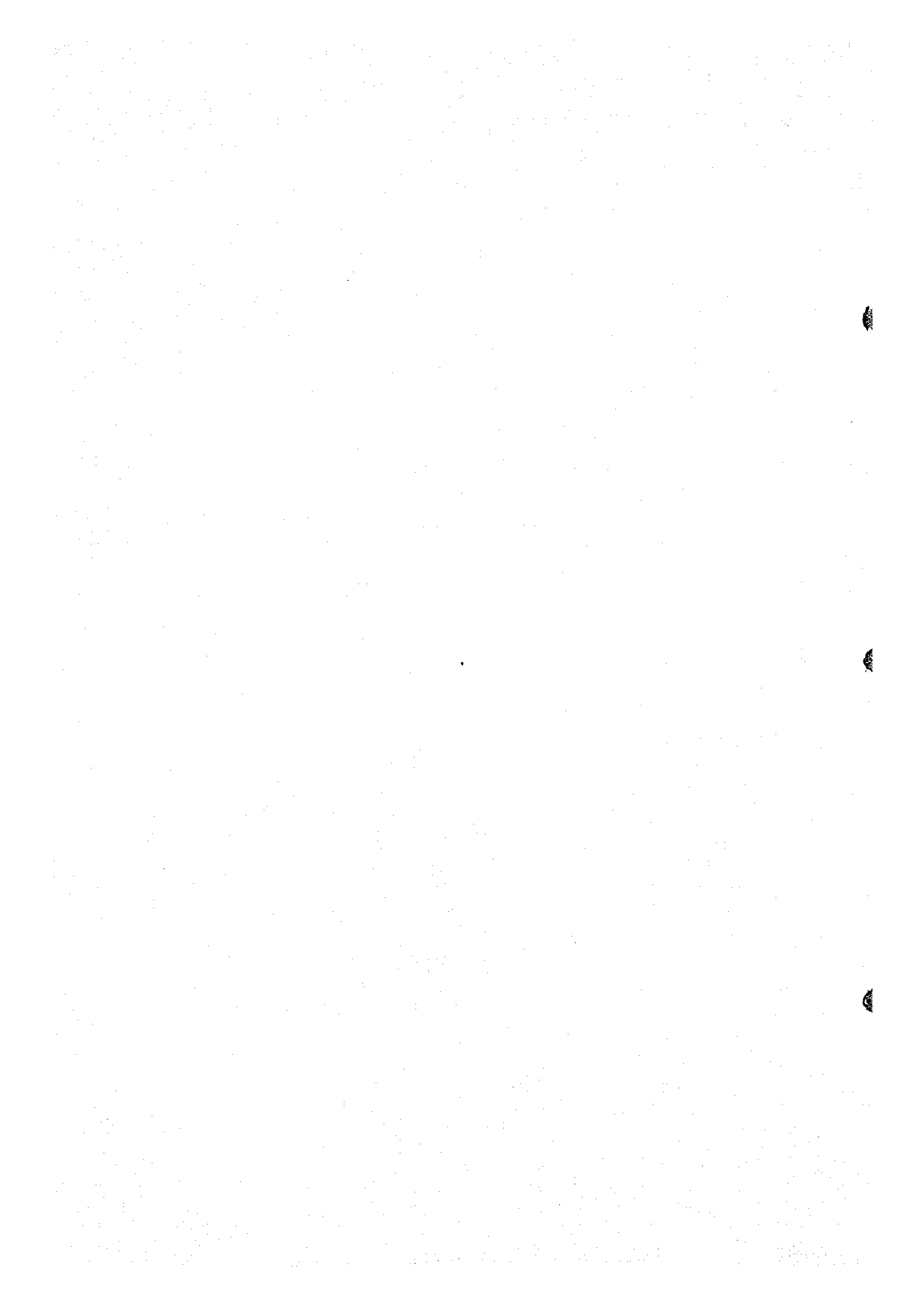
Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
A - 17	Ait Brahim	β P - T	Dolerite	The rock shows doleritic (intergranular) texture and is composed of plagioclase, augite and chlorite. Plagioclase shows lath - shaped (up to 0.8mm), albite twinning and weak zonal structure. Subhedral augite (about 0.5mm) is partly altered to amphibole and chlorite. Original glass parts are recrystallized to chlorite and clay minerals. Granular opaque minerals (about 0.2mm) are scattered in the rock.	
A - 18	Sidi Moulay	P - T	Arkose sandstone	This is clastic in texture. Fragments which are quartz, orthoclase and granite, show subangular form coated by limonite and various size fragments 6.0mm to 0.2mm. Large sized fragments are more abundant than the small. Quartz shows wavy extinction and orthoclase show perthite structure. Granite is composed of quartz, orthoclase and their intergrowth. Matrix is composed of recrystallized carbonates, sericite, fine granular opaque minerals and glass.	
A - 19	Táricht	P - T	Arkose sandstone	The rock is the nearly same as the samples No.A - 18 without the below. Grain sizes of fragments are a little finer and limonitization of matrix is a little stronger.	



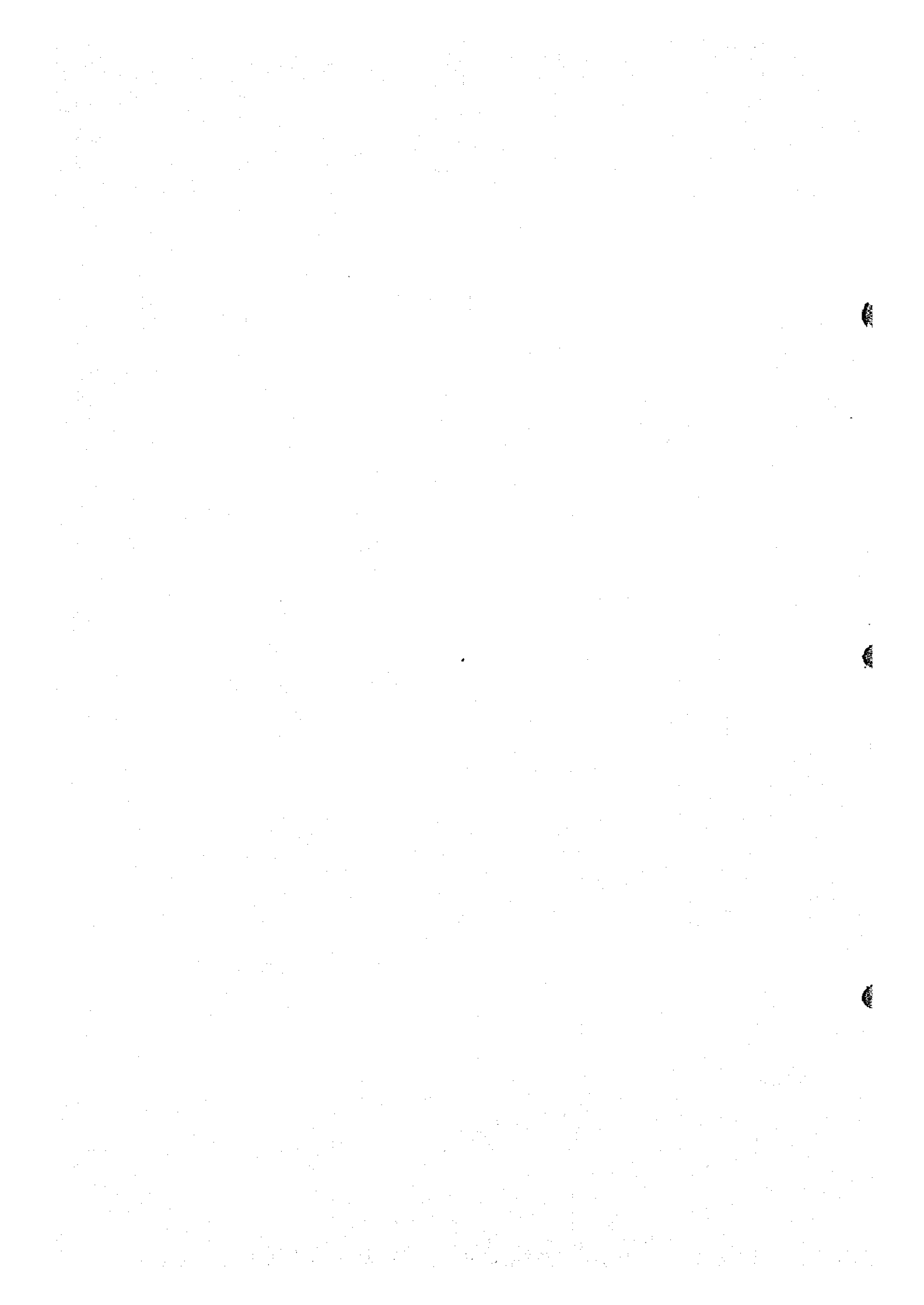
Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
A - 20	Ait Ali ou Shanam	P - T	Arkose sandstone	The texture and mineral composition of this rock is the same as the sample No. A - 18. But, small sized (about 0.2mm) fragments are more abundant than the large (2 ~ 3mm). Matrix is composed of abundant limonite, a few amount of opaque minerals, carbonates, sericite and glass.	Photo- micrograph: Fig. I-5, No.4
A - 21	Ait Ali ou Shanam	P - T	Siltstone	The rock shows clastic texture. Fragments are quartz, orthoclase and a few amount of carbonates. Most of fragments are rounded and about 0.1 ~ 0.2mm in size. In parts, large fragments (2 ~ 3mm) occur in subangular form. Quartz shows wavy extinction. Orthoclase shows grid twinning and perthite structure. Carbonates are thought to be alteration products from feldspars. All of the fragments are coated by limonite. Matrix is composed of abundant limonite, sericite, opaque minerals, carbonates and fine felsic minerals.	Photo- micrograph: Fig. I-5, No.5



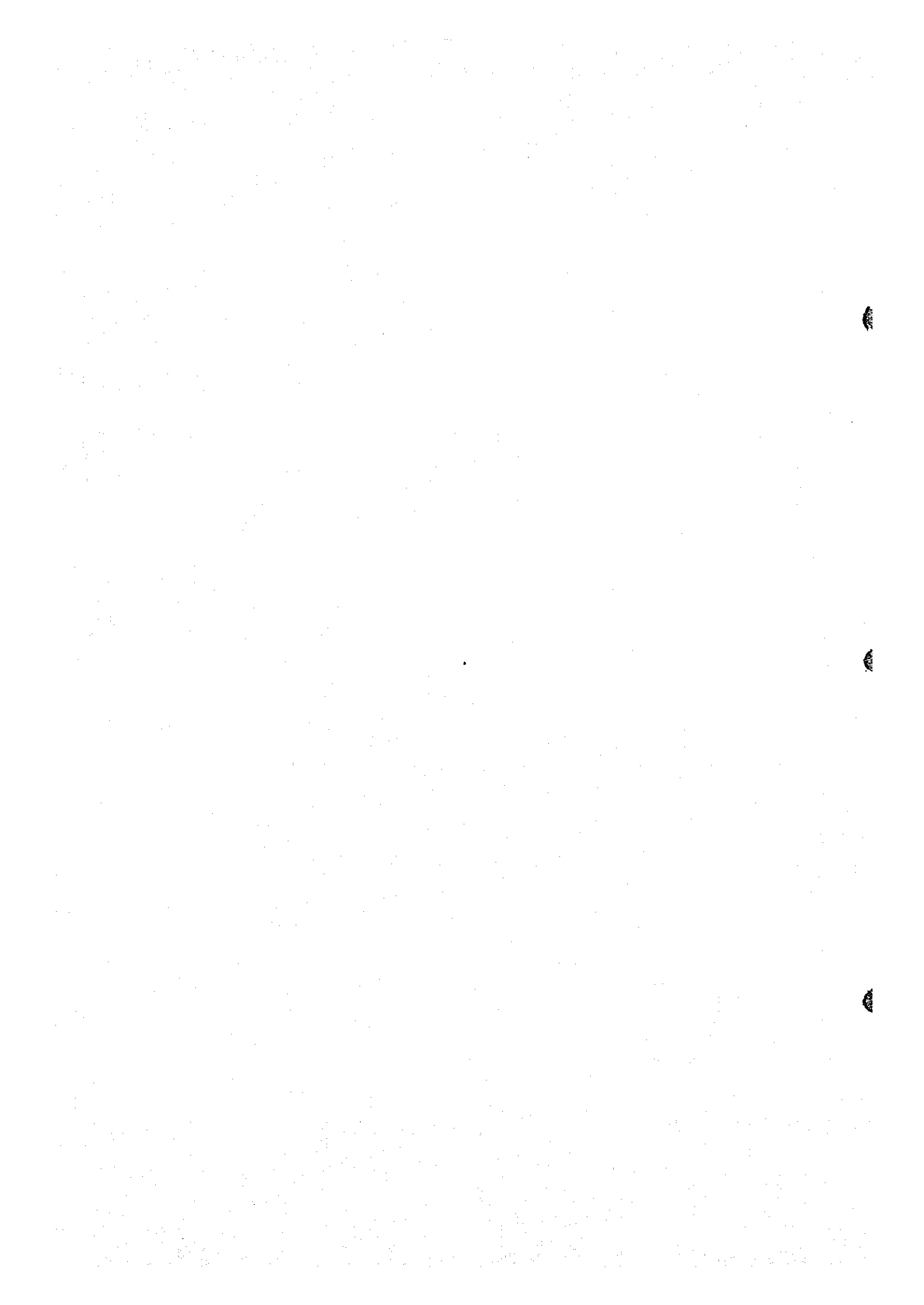
Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
A - 22	Aqissari	P - T	Arkose sandstone	The rock shows clastic texture. Fragment is composed of abundant quartz, orthoclase, a few amount of plagioclase and granite. All of fragments are rounded and coated by limonite. Their grain sizes are various from 0.3mm to 6.0mm. Quartz shows wavy extinction. Orthoclase shows carlsbad and grid twinning and perthite structure. It has inclusions of intergraphic quartz. Granite is made of quartz and orthoclase. Matrix is composed of abundant limonite, fine felsic minerals, a few amounts of micas and opaque minerals.	
A - 24	Tafrawf - n - Ouga	P - T	Arkose sandstone	The rock is the nearly same as the sample No. A - 22. The grain sizes of fragments are wholly larger than the sample No. A - 22. In matrix, acicular aggregated unknown minerals occur in addition to matrix minerals of the sample No. A - 22.	
A - 25	Aqissari	P - T	Arkose sandstone	The rock shows clastic texture. Fragments are quartz, orthoclase and granite. They are subangular and 0.4 - 2.5mm in size. Orthoclase is suffered of highly carbonitization and sericitization. Granite is composed of quartz, orthoclase and a few amounts of plagioclase. Matrix is composed of abundant carbonates, limonite and opaque minerals.	



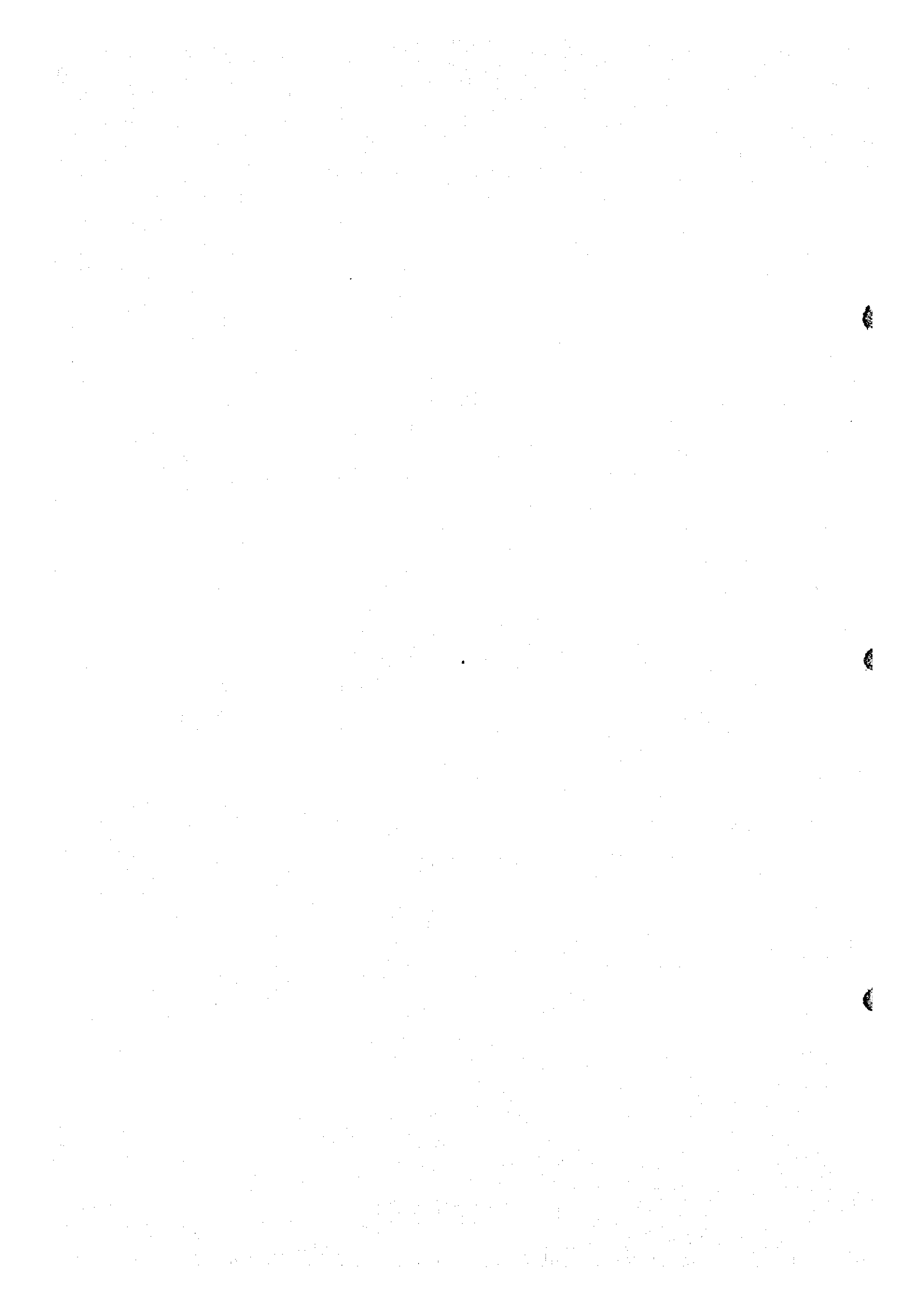
Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
A - 26	Tirouwadine	β e:	Basalt	The rock shows basaltic texture. Phenocrysts are perfectly altered to chlorite, sericite and carbonate. The pseudomorphs are about 1.0mm ~ 0.5mm. Groundmass are composed of subhedral titan - augite and fine felsic minerals. These grain sizes are up to 0.2mm. The other accessory minerals are granular opaque minerals (up to 0.1mm) and secondary biotite.	
A - 28	Tirouwadine	J:	Oolitic limestone	This is composed of granular calcite. The grain sizes are about 0.02mm and up to 0.2mm. The rock shows oolitic texture. In parts, calcite is limonitized.	Photo-micrograph: Fig. I-5, No.6
A - 30	Taghmarit	β p - r	Arkosic siltstone	The rock shows clastic texture and is composed of orthoclase, chlorite, biotite, opaque minerals and limonite. All of the grained sizes are up to 0.1mm. Orthoclase is most abundant and suffered of limonitization. Chlorite shows green to light green in colour and rounded form. Most of biotite are altered to chlorite. Granular opaque minerals are scattered in the rock.	Photo-micrograph: Fig. I-5, No.7



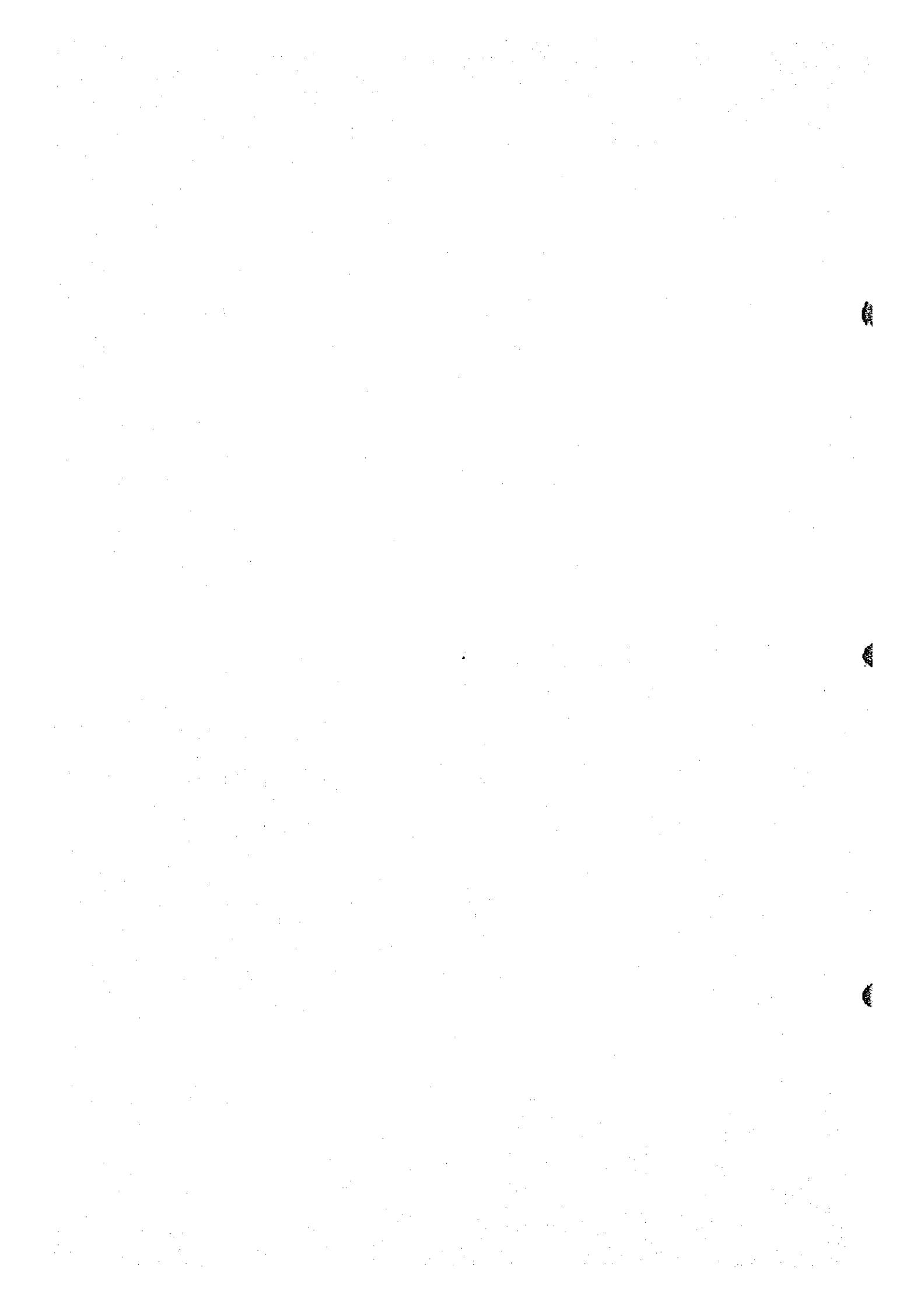
Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K - 12	Paneau - 1 West Vein	Basement	Ferruginous quartz	The rock shows clastic texture and is intruded by barite - limonite vein. Fragments are composed of quartz and feldspar. They are mostly rounded and 1.0 - 0.2mm in size. Matrix is made of recrystallized felsic minerals and fine grained opaque minerals. Vein is composed of barite, Fe - oxide (limonite), fine felsic minerals and opaque minerals. Barite is euhedral lath - shape and clustered in parts. It is up to 1.0mm in size and closely accompanied by iron - oxide. Abundant fine opaque minerals are scattered in the vein.	
K - 21	Ait Ralhou North Vein	Basement	Granite porphyry	The rock shows clastic texture. Fragment is quartz, which is irregular in form and various size from 2.0mm to 0.2mm. It shows wavy extinction and contains inclusion of matrix minerals. Matrix is composed of fine (up to 0.1mm) grained felsic minerals (quartz), lath - shaped apatite, limonite and opaque minerals.	



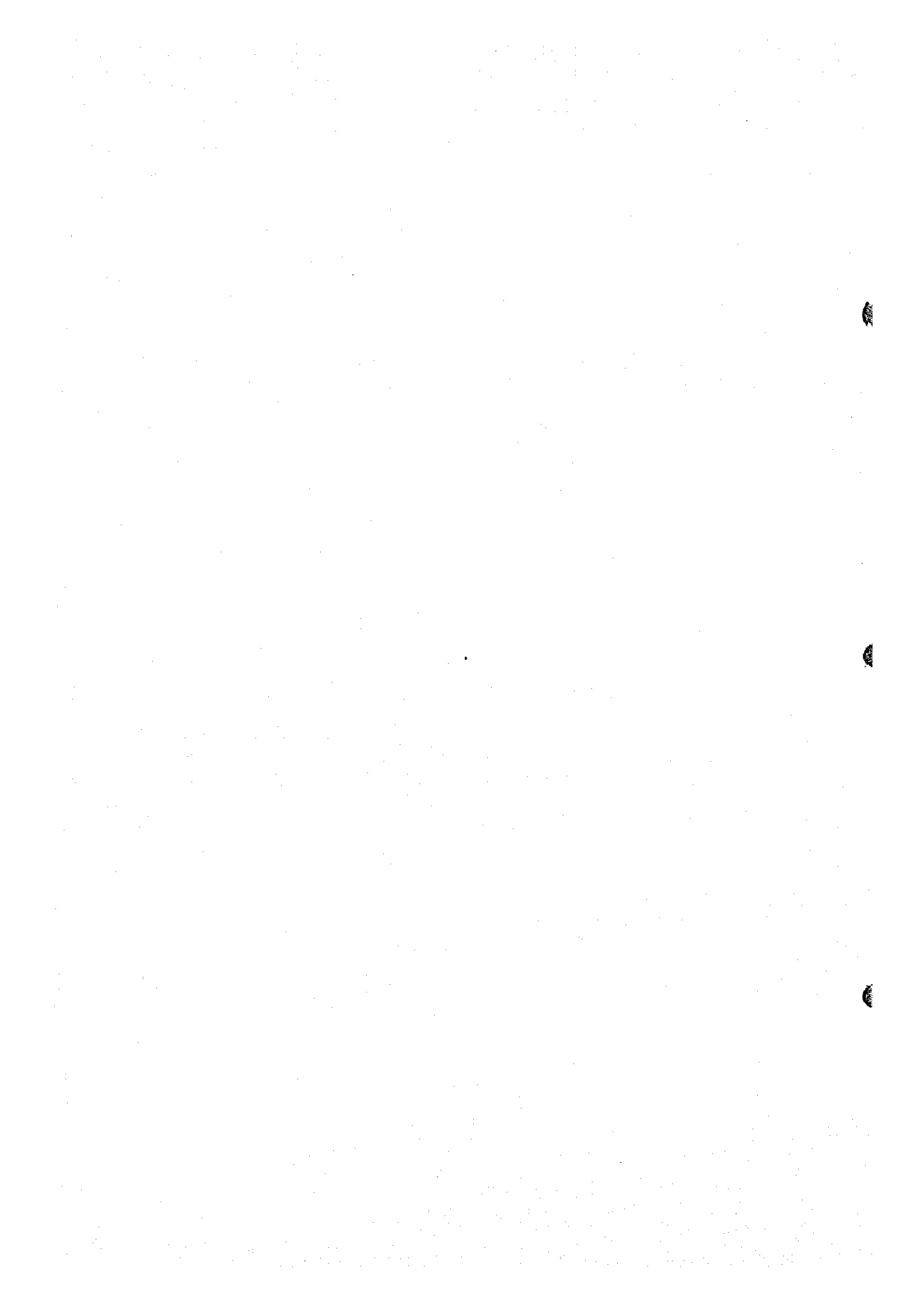
Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K - 22	Paneau - 1 West Vein	P - T	Arkose sandstone	The rock shows clastic texture. Fragment is composed of abundant and a few amount of orthoclase. Quartz shows wavy extinction and 1.0mm ~ 0.1mm in size. Orthoclase is affected by weak limonitization and sericitization, and has inclusions of intergraphic quartz. Matrix is composed of barite, zircon, carbonates, sericite, glass, felsic minerals and opaque minerals. Barite is euhedral lath - shape and up to 0.5mm in size. Whole matrix part is suffered by limonitization.	
K - 23	Paneau - 1 West Vein	P - T	Arkose sandstone	This is clastic in texture. All of fragments which are composed of quartz and feldspars, show irregular form. Quartz (up to 8.0mm) shows wavy extinction (up to 6.0mm) and contains inclusions of biotite. Orthoclase shows carlsbad twinning and perthite structure. It contains inclusions of intergraphic quartz and is partly affected by limonitization. A few amount of plagioclase (about 0.1mm in size) is suffered of strong sericitization. Matrix is made of fluorite, fine felsic minerals and opaque minerals. Fluorite shows euhedral in form and purple to colourless in colour (up to 0.1mm in size). Zircon is closely accompanied by fluorite. Opaque mineral is about 0.05mm in size and scattered in the matrix.	



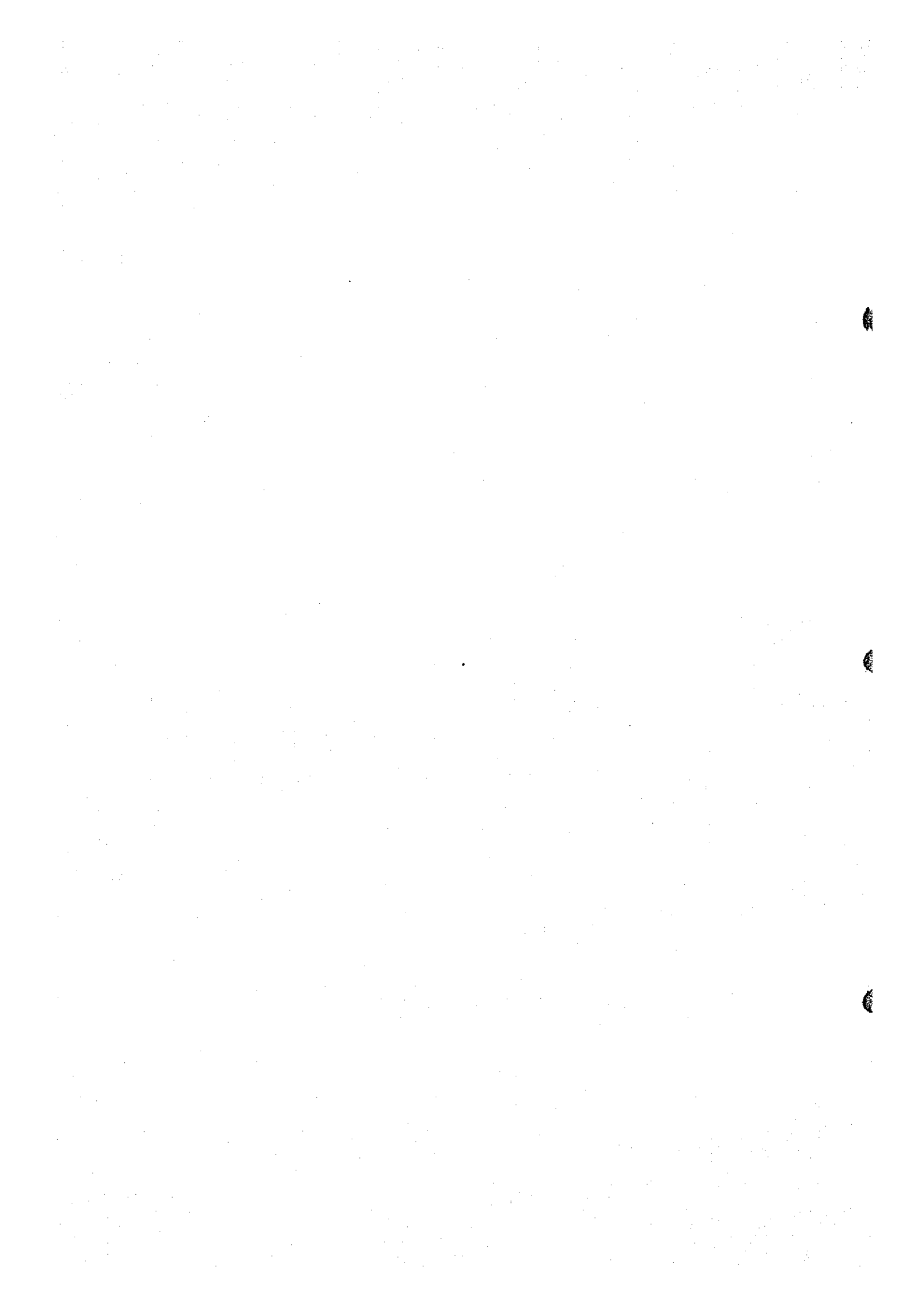
Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K - 24	Panneau - 1 East Vein	Basement	Clastic aplitic granite	The rock shows clastic texture. Materials of matrix are the same as that of fragments, which show irregular form. Then, the rock is thought to be clastic aplitic granite. It is composed of quartz, orthoclase and a few amount of plagioclase. Mafic minerals are perfectly altered to chlorite. Matrix is weakly affected by limonitization.	
K - 25	Aft Rahhou South Vein	Basement	Granite porphyry	The rock shows porphyritic texture and composed of quartz, orthoclase and fine groundmass minerals. Phenocrystic quartz (up to 3.0mm) shows corroded form and weak wavy extinction. Orthoclase (up to 4.0mm) shows carlsbad twinning and perthite structure. It contains inclusions of intergraphic quartz, and is affected by weak limonitization. Mafic minerals are perfectly altered to chlorite and opaque minerals. Groundmass is mainly composed of fine grained (under 0.05mm) quartz and feldspars. Other accessory minerals are fine opaque minerals, apatite, zircon and clay minerals.	



Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K - 27	Paneau - 1 Vein (T ₁₁)	P - I	Arkose sandstone	This is clastic in texture and composed of quartz, orthoclase, plagioclase biotite and granite fragments and matrix minerals. Fragments are mostly rounded in form and various size from 10mm to 0.5mm. Quartz shows wavy extinction and contains inclusions of biotite and feldspars. Turbid orthoclase shows perthite structure and contains inclusions of intergraphic quartz and subhedral plagioclase. A few amount of plagioclase is also turbid in the interior. Biotite is much resorbed and closely accompanied by opaque minerals. Matrix is composed of lath - shaped barite (up to 1.5mm), euhedral purple fluorite, limonite, sericite, fine felsic minerals and scattered opaque minerals.	
K - 28	G P Vein (T ₇)	Basement	Granite porphyry	The rock shows clastic texture. Fragments are irregular quartz (up to 0.5mm) and relicts of feldspars. Feldspars are perfectly altered to aggregates of fine felsic minerals and scattered opaque minerals. Matrix is composed of fine felsic minerals (mostly quartz) and limonite. Their grain size is about 0.02mm.	



Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K - 30	Assaka - n. Tabhirt Vein	Basement	Ferruginous quartz	This is thought to be ferruginous quartz vein including xenocrystic granite fragments (up to 10mm). Granite shows granular texture and composed of quartz, orthoclase with parthite structure, plagioclase with albite twinning and a little altered muscovite. Small grains and marginal facies of granite fragments are affected by limonitization. Vein (matrix) is composed of fine felsic minerals (mainly quartz), limonite (iron - oxide), sericite, chlorite, zircon and opaque minerals. All of their grained sizes are up to 0.5mm.	
K - 32	Dique Vein	Basement	Ferruginous quartz	The rock is mainly composed of quartz. Quartz fragments (phenocrysts?) are crushed and show wavy extinction, and are coated by limonite. Feldspars cannot be observed. Matrix (groundmass) is composed of fine felsic minerals, euhedral apatite, limonite and opaque minerals. Limonitization is strong in the matrix (groundmass).	



Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
ZNE - 31	Pencau - 1 Vein (T ₁₄)	Basement	Granite intruded by barite - fluorite vein.	<p>This is granular granite, which is intruded by barite - fluorite - limonite vein. Granite is composed of quartz, orthoclase, plagioclase and biotite. Quartz shows wavy extinction and up to 4mm in size. Orthoclase shows perthite structure and contains inclusions of intergranular quartz, plagioclase and biotite. Orthoclase is most abundant and largest grain, up to 10mm. Plagioclase is highly sericitized and occurs in less abundance. Biotite is much resorbed and accompanied by granular opaque minerals. Vein is mainly composed of barite, fluorite and iron - oxide. Barite is euhedral lath - shape and 0.5 ~ 1.0mm in size. Fluorite is euhedral in form and purple blue to colourless in colour. Other matrix minerals are fine felsic minerals, limonite, opaque minerals, apatite and zircon.</p>	Photomicrograph: Fig. I-5, NO.8

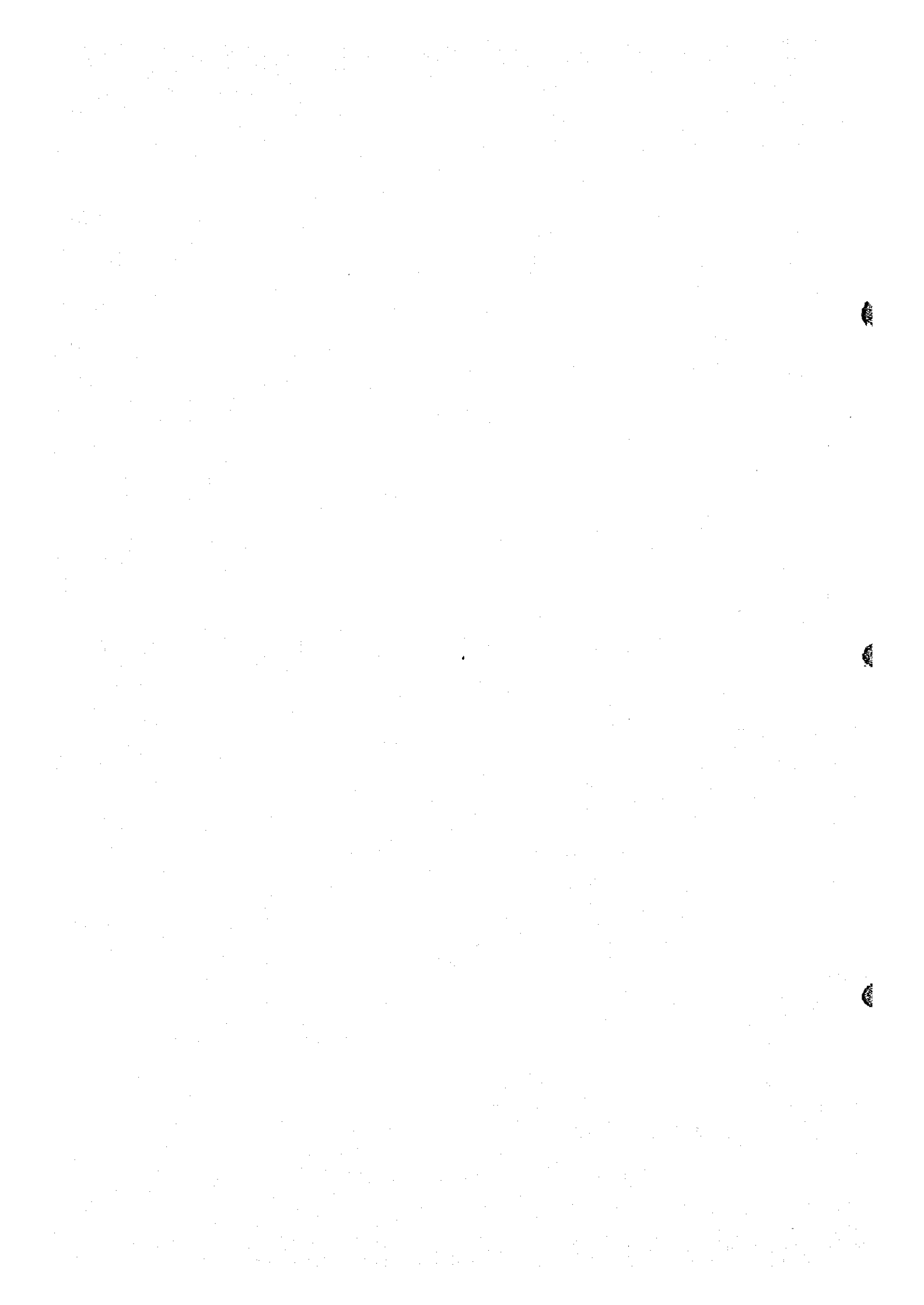


Table I-8 Microscopic Observations of Polished Sections

Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K-12	Paneau-1 West Vein	Basement	Ferruginous quartz	Rock sample was taken from the point of 2,000 c/s radioactivity in field. Uranium minerals are observed and thought to be pitchblende or uranium oxide hydrate. They are very small in size and very minor amount.	
K-21	Ait Rahhou North Vein	Basement	Granite porphyry	Rock sample was taken from the point of 600 c/s radioactivity in field. But ore mineral could not be observed.	
K-22	Paneau-1 West Vein	P - T	Arkose sandstone	Rock sample was taken from the weak anomaly (radioactivity : 350 c/s) in arkose sandstone. Uranium mineral could not be observed, but very minor amounts of cerussite, chalcocite, barite and secondary native copper are present in matrix.	
K-23	Paneau-1 West Vein	P - T	Aplitic sandstone	Rock sample was taken from the point of 500 c/s radioactivity, closed to small fracture in arkose sandstone. Lead carbonates, iron hydro-oxide and fluorite are observed. Uranium mineral could not be observed.	Photomicro- graph : Fig. 1-6, No.1
K-24	Paneau-1 East Vein	Basement	Aplitic granite	Rock sample was taken from the point of 1,500 c/s radioactivity in shear zone. Native copper, pyrite and few kinds of uranium minerals are observed. Uranium minerals are accompanied with limonitization.	Photomicro- graph : Fig. 1-6, No.2-3



Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K-25	Ait Rabbou South Vein	Basement	Granite porphyry	Rock sample was taken from the point of 450 c/s radioactivity in field. Ore mineral could not be observed.	
K-27	Pancieu-1 Vein (T ₁₁)	P - T	Arkose sandstone	This sample was taken from the point of 3,500 c/s in the thin layer (thickness: 10cm) of black powdered materials (the lower most part of arkose sandstone bed) upon the Basement (granite). No uranium mineral could be observed and iron hydroxide is present.	
K-28	GP Vein (T ₇)	Basement	Granite porphyry	Rock sample was taken from the point of 500 c/s radioactivity in shear zone including limonite and barite veinlets. No uranium mineral could be observed and iron hydroxide is present.	
K-29a	Ait Rabbou Pb-Minerali- zation	P - T	Arkose sandstone	This sample was taken from lower part of mineralized zone in coarser grained arkose sandstone. Ore minerals are galena and cerussite. Galena is altered to cerussite along the crystal margin.	
K-29b	do	do	do	This was taken from upper part of mineralized zone in arkose sandstone. Ore minerals are the same to K-29a.	



Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K-30	Assaka-n-Takhirt Vein	Basement	Ferruginous quartz	This sample was taken from the point of 13,500 c/s radioactivity in ferruginous quartz vein. Uranium minerals are observed. They are uraninite, pitchblende, bequerelite and carnotite. Some uraninites are occurred in euhedral form and altered to pitchblende and bequerelite.	Photomicrograph : Fig. 1-6, No.4
K-31	Ikhaif Ouganbou Pb-Mineralization	P - T	Arkose sandstone	Galena occurs in the rock and is accompanied by secondary lead mineral (cerussite).	Photomicrograph : Fig. 1-6, No.5
ZNE-31	Pancieu-1 Vein (T ₁₄)	Basement	Granite	This sample was taken from the point of 2,500 c/s radioactivity on the surface of weathered granite, covered with arkose sandstone. No uranium mineral could be observed, but unknown Co-Mn mineral, barite and fluorite are present.	Photomicrograph : Fig. 1-6, No.6

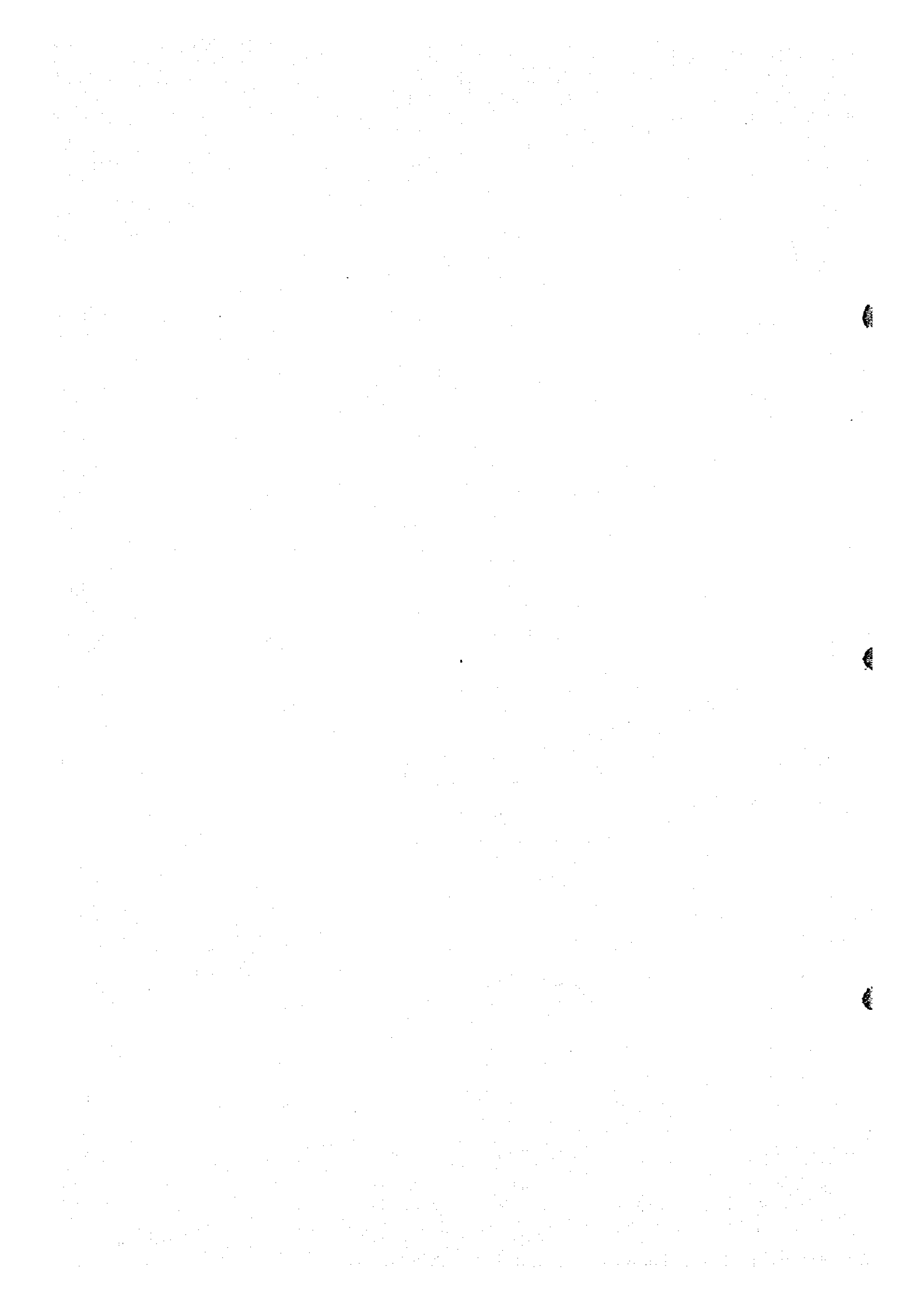
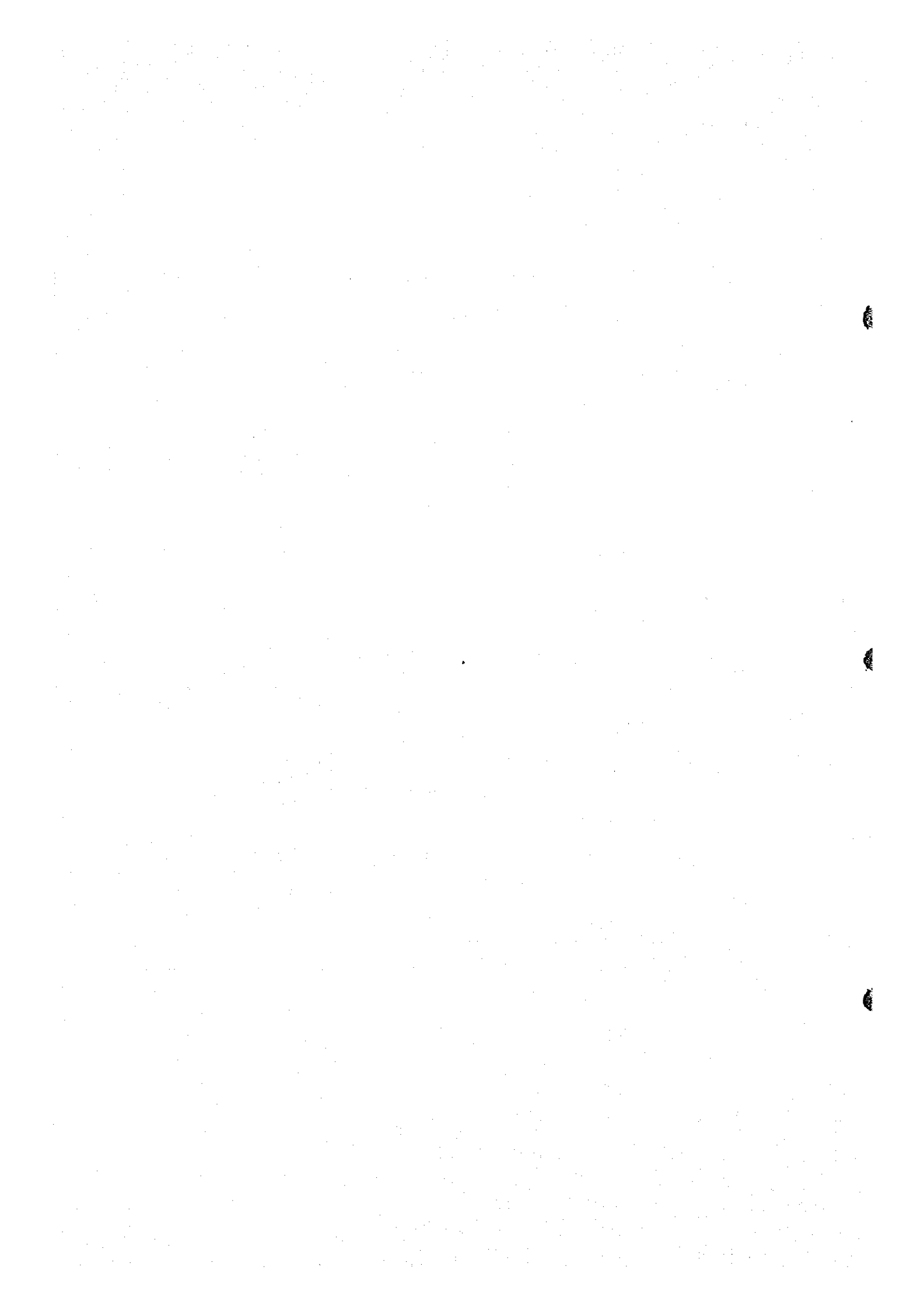


Table I-9 Observations of X-ray Microanalysis

Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K-12	Pancrau-1 West Vein	Basement	Ferruginous quartz	Uranium mineral is recognized in U X-ray reflective image and not in V X-ray reflective image. It would be thought to be pitchblende or uraninite. It is 2-10 microns in size.	Photo- micrograph: Fig. I-7, No. 1
K-22	Pancrau-1 West Vein	P-T	Arkose sandstone	It is recognized in X-ray reflective images that native copper and barite coexist around chalcocite. Cerussite is being with quartz grain.	
K-23	Pancrau-1 West Vein	P-T	Arkose sandstone	Coexistence of cerussite and hematite is recognized in X-ray reflective images.	Photo- micrograph: Fig. I-7, No. 2
K-24	Pancrau-1 East Vein	Basement	Aplitic granite	(1) Uraninite (or pitchblende) is detected by U X-ray reflective image. Aggregates of their euhedral crystals are recognized in absorbed electron and X-ray reflective images. Euhedral crystals are 2-10 microns in size. (2) Uraninite (or pitchblende) and carnotite are detected by X-ray reflective images. They are 5-10 microns in size. (3) Bequerelite and fervanite are detected. It is recognized in X-ray reflective images that bequerelite and fervanite are closely coexisted and they are 50 microns in size.	Photo- micrograph: Fig. I-7, No. 3
					Photo- micrograph: Fig. I-7, No. 4



Sample No.	Locality	Formation	Rock Name	Microscopic Observation	Remarks
K-29a	Ait Bahhou Pb-Mineralization	P-T	Arkose sandstone	Coexistence of galena and cerussite is recognized in Pb and S X-ray images.	
K-30	Assaka-n-Tabhirt Vein	Basement	Ferruginous quartz	(1) Uraninite (or pitchblende), bequerelite, carnotite and euhedral fervanite are detected by X-ray images. Uraninite coexists with bequerelite in euhedral crystal. That is 40 microns in size. Bequerelite occurs in marginal part of euhedral crystal. (2) Coexistence of carnotite and fervanite is recognized in X-ray reflective images. (3) Fervanite and euhedral uraninite are detected by X-ray reflective images. Fervanite is about 70 microns and uraninite is about 20 microns in size.	Photo-micrograph: Fig. I-7, No. 5
K-31	Ikahf Ouganbou Pb-Mineralization	P-T	Arkose sandstone	Coexistence of galena and cerussite is recognized in Pb and S X-ray reflective images and absorbed electron image.	Photo-micrograph: Fig. I-7, No. 6
ZNE-31	Paneau-1 Vein (T14)	Basement	Granite	Unknown Co-Mn mineral, barite and fluorite are detected by X-ray reflective images. Coexistence of them is recognized in absorbed electron and X-ray reflective images.	Photo-micrograph: Fig. I-7, No. 7

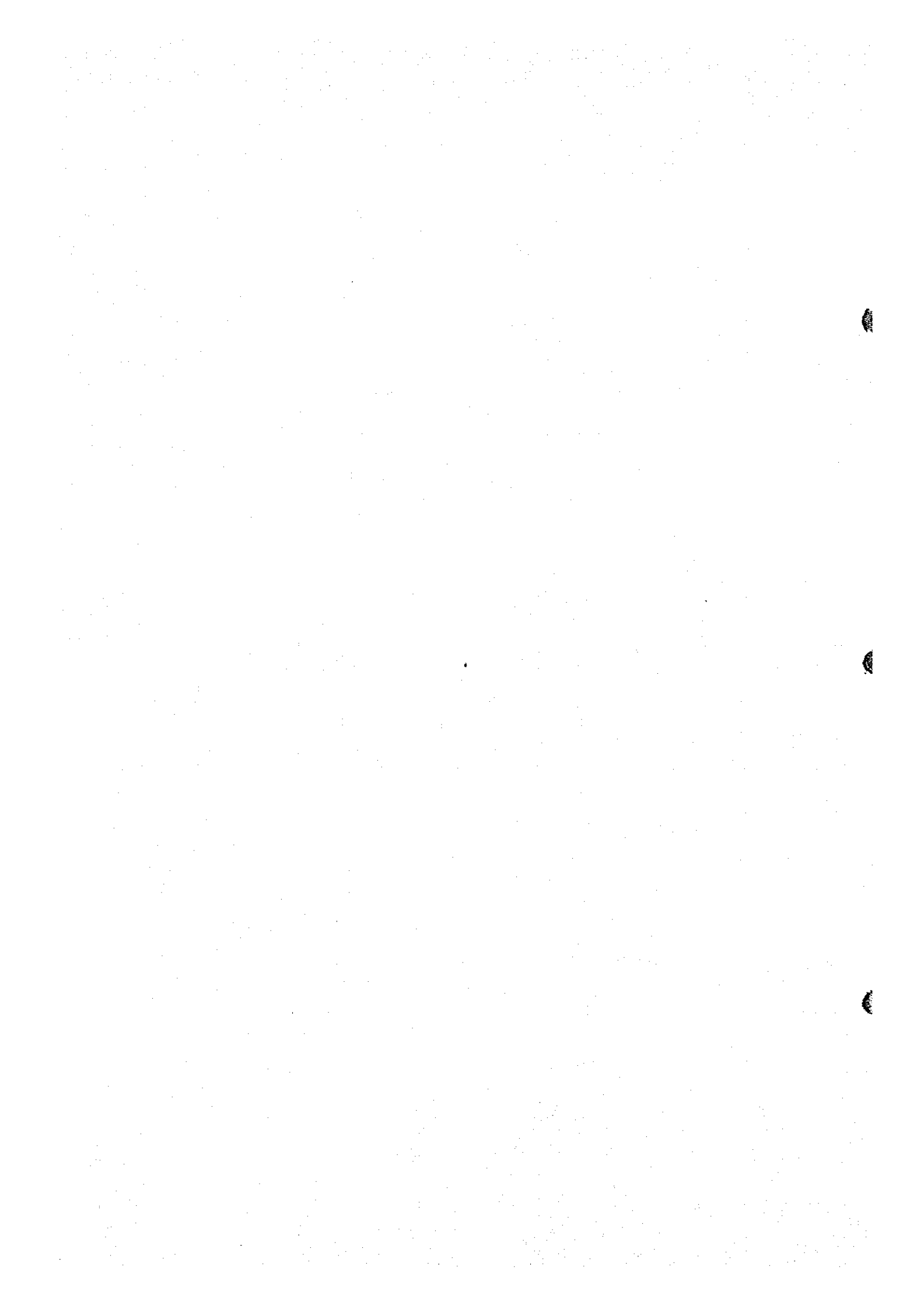
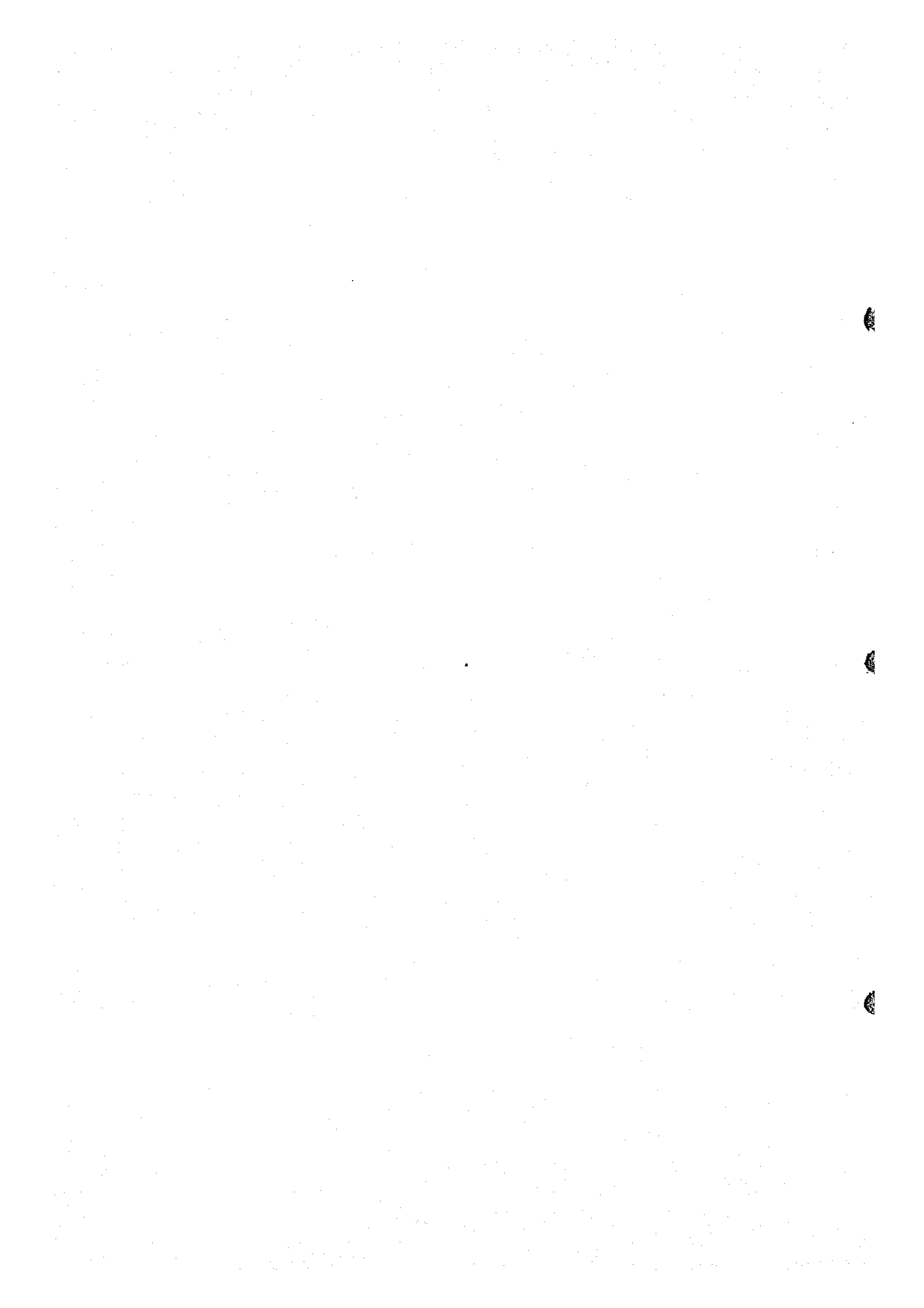
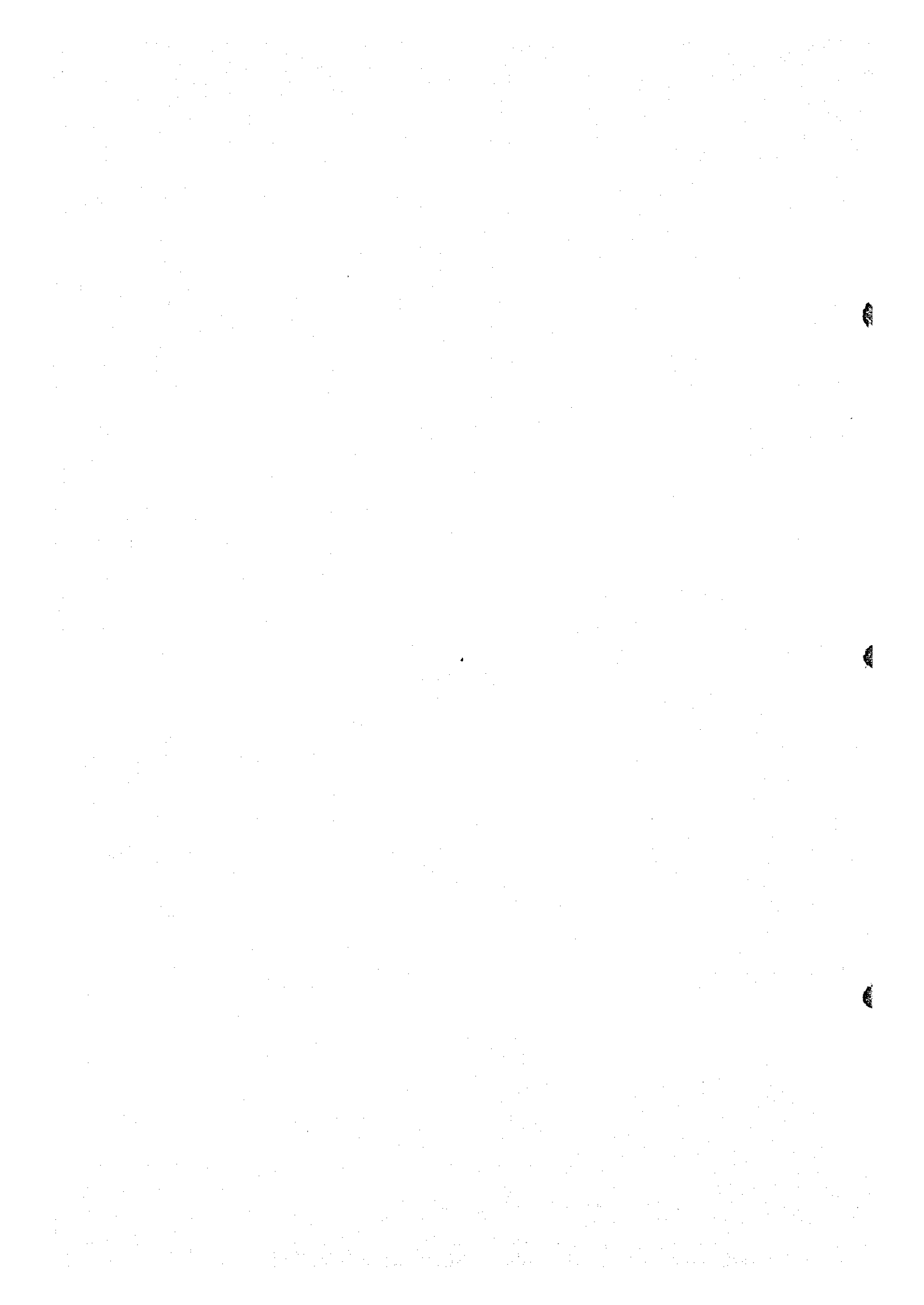


Table I-10 List of Radon Etch Survey Results

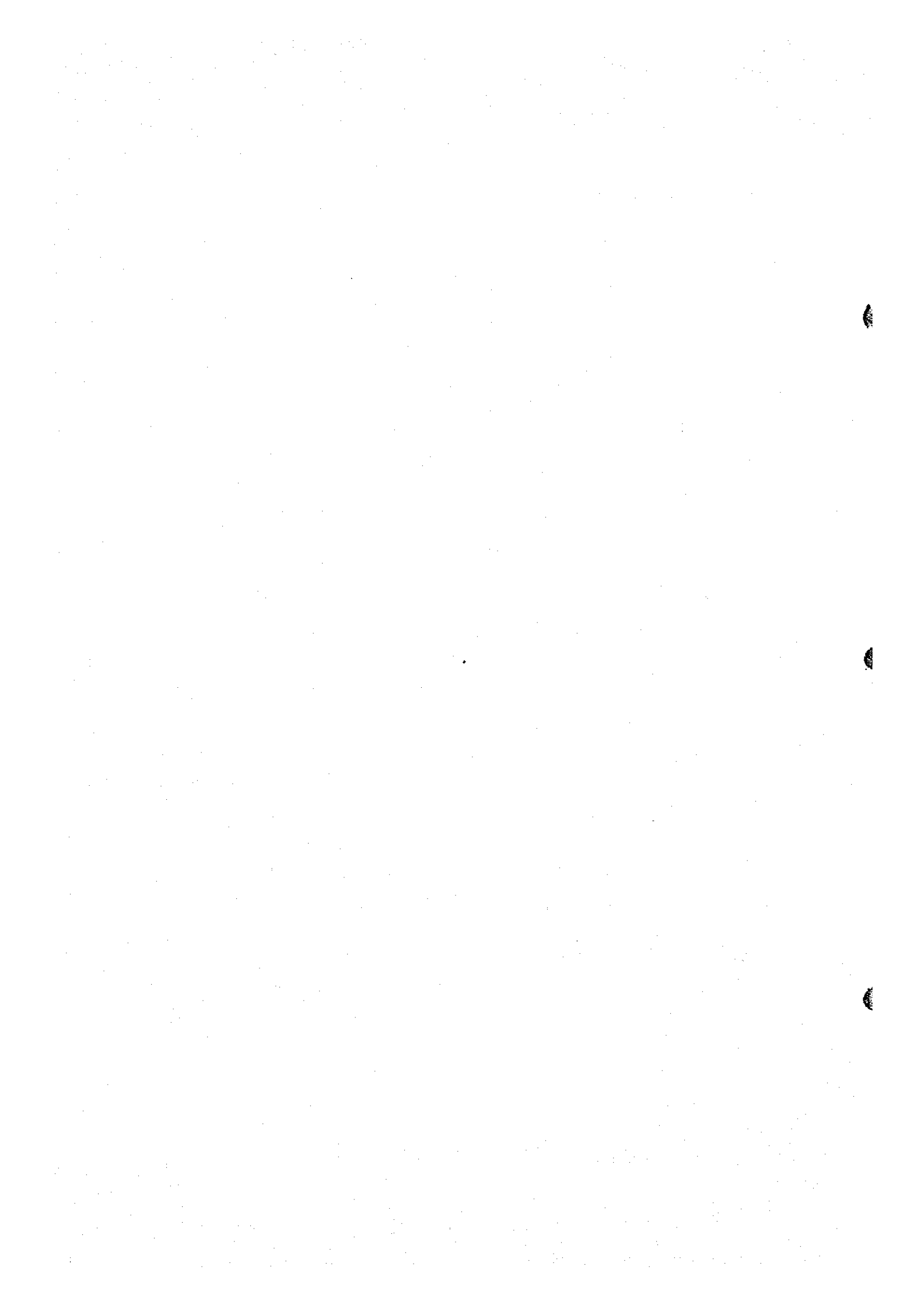
Cup Serial Number	Detector Reading (T/sqmm.30days)	Radioactivity (C/S, by SPP-2NP)	Location			Note
			X	Y	Z	
56511.	750.9	110	552.0	253.0	1400	
56512.	796.7	120	552.5	253.0	1400	
56513.	430.4	110	553.0	253.0	1400	
56514.	677.6	110	553.5	253.0	1401	
56515.	485.3	120	554.0	253.0	1403	
56516.	183.1	95	554.5	252.9	1405	
56517.	288.4	100	555.0	252.9	1405	
56518.	522.0	160	555.5	252.9	1402	
56519.	155.7	100	556.0	252.9	1405	
56520.	192.3	130	556.5	252.9	1409	
56521.	245.2	80	552.0	253.5	1399	
56522.	269.2	110	552.5	253.5	1398	
56523.	442.3	120	553.0	253.5	1402	
56524.	682.7	160	553.5	253.5	1401	
56525.	615.4	130	554.0	253.5	1400	
56526.	798.0	150	554.5	253.5	1398	
56527.	500.0	120	555.0	253.5	1397	
56528.	461.5	115	555.5	253.5	1397	
56529.	125.0	80	556.0	253.5	1408	
56530.	20.2	110	556.5	253.5	1408	
56531.	485.8	80	552.0	254.0	1388	
56532.	115.4	120	552.5	254.0	1402	
56533.	230.8	120	553.0	254.0	1400	
56534.	201.9	80	553.5	254.0	1403	
56536.	86.5	80	554.5	254.0	1400	
56537.	192.3	70	555.0	254.0	1398	
56538.	57.7	80	555.5	254.0	1397	broken
56539.	158.6	110	556.0	254.0	1395	
56540.	67.3	100	556.5	254.0	1392	
56542.	250.0	100	552.5	254.5	1407	
56543.	115.4	100	553.0	254.5	1405	
56544.	108.2	110	553.5	254.5	1410	
56545.	79.3	60	554.0	254.5	1405	
56546.	129.8	110	554.5	254.5	1400	
56547.	182.7	90	555.0	254.5	1398	
56548.	177.9	70	555.5	254.5	1398	
56549.	57.7	90	556.0	254.5	1398	
56550.	182.7	90	556.5	254.5	1395	
56552.	153.8	100	552.5	255.0	1410	
56553.	76.9	80	553.0	255.0	1411	
56554.	394.2	80	553.5	255.0	1410	film dirty
56556.	134.6	90	554.5	255.0	1405	moist
56557.	40.4	90	555.0	255.0	1405	
56558.	48.1	90	555.5	255.0	1400	
56559.	82.9	90	556.0	255.0	1398	
56560.	151.4	90	556.5	255.0	1398	
56561.	101.0	100	552.0	255.5	1419	
56562.	144.2	130	552.5	255.5	1412	
56563.	110.6	70	553.0	255.5	1415	
56564.	110.6	60	553.5	255.5	1415	



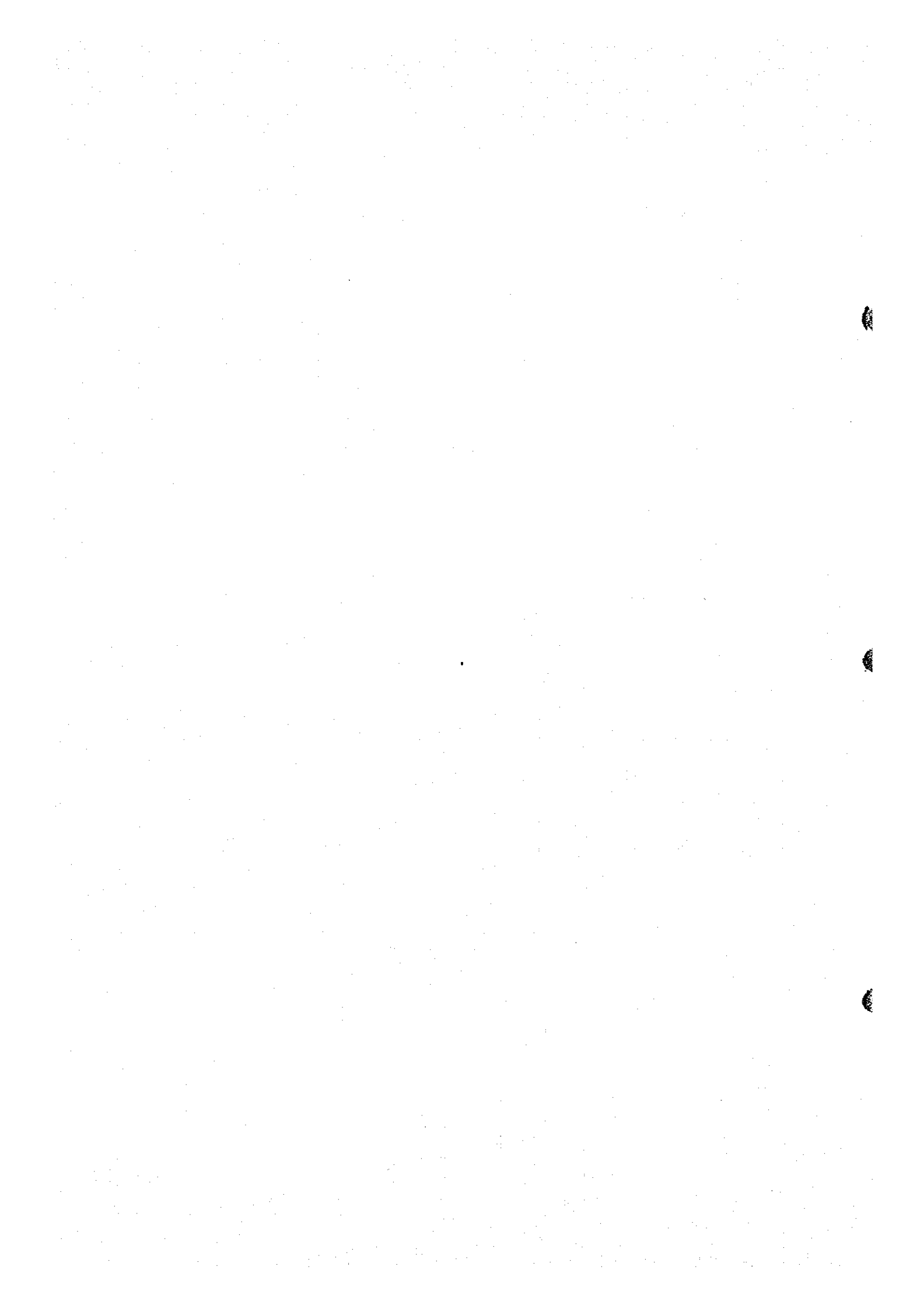
Cup Serial Number	Detector Reading (T/sqmm. 30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
56565.	48.1	75	554.0	255.5	1411	
56566.	134.6	70	554.5	255.5	1408	
56567.	86.5	70	555.0	255.5	1408	
56568.	144.2	130	555.5	255.5	1403	
56569.	317.3	100	556.0	255.5	1403	
56570.	173.1	80	556.5	255.5	1402	
56571.	336.5	120	552.0	256.0	1420	
56572.	134.6	90	552.5	256.0	1418	
56573.	355.8	80	553.0	256.0	1416	moist
56574.	96.2	80	553.5	256.0	1418	
56575.	75.0	80	554.0	256.0	1415	
56576.	115.4	70	554.5	256.0	1418	
56577.	56.2	80	555.0	256.0	1415	
56578.	82.9	140	555.5	256.0	1413	
56579.	274.0	100	556.0	256.0	1401	
56580.	63.5	110	556.5	256.0	1407	
56581.	162.6	80	552.0	257.0	1435	
56582.	78.7	70	552.5	257.0	1427	
56583.	96.2	50	553.0	257.0	1429	
56584.	87.4	80	553.5	257.0	1425	
56585.	59.0	50	554.0	257.0	1424	
56586.	38.0	60	554.5	257.0	1431	
56587.	104.9	60	555.0	257.0	1438	
56588.	52.4	100	555.5	257.0	1428	
56589.	131.1	80	556.0	257.0	1419	
56590.	96.2	90	556.5	257.0	1411	
56591.	472.0	120	557.0	257.0	1408	
56592.	96.2	70	557.0	258.0	1415	
56593.	49.8	60	557.0	259.0	1430	
56594.	44.6	50	556.0	259.0	1439	
56595.	53.8	40	555.0	259.0	1447	
56596.	96.2	60	555.0	258.0	1450	
56597.	104.9	60	554.0	258.0	1437	
56598.	39.3	80	553.0	258.0	1432	broken
56599.	64.1	70	552.0	258.0	1449	
56600.	49.4	90	556.0	258.0	1430	
56601.	65.2	45	558.0	258.0	1405	
56602.	36.4	120	559.0	258.0	1398	
56603.	292.6	60	560.0	258.0	1392	
56607.	117.1	60	564.0	258.0	1388	
56609.	27.6	60	565.0	259.0	1405	
56610.	108.7	60	564.0	259.0	1400	
56611.	148.6	120	557.0	253.0	1409	
56612.	104.9	150	557.5	253.0	1406	
56613.	104.9	80	558.0	253.0	1407	
56614.	67.0	130	558.5	253.0	1404	
56615.	81.9	60	559.0	253.0	1408	
56616.	52.4	85	559.5	253.0	1414	
56617.	88.5	80	560.0	253.0	1422	
56618.	104.9	200	560.5	253.0	1420	



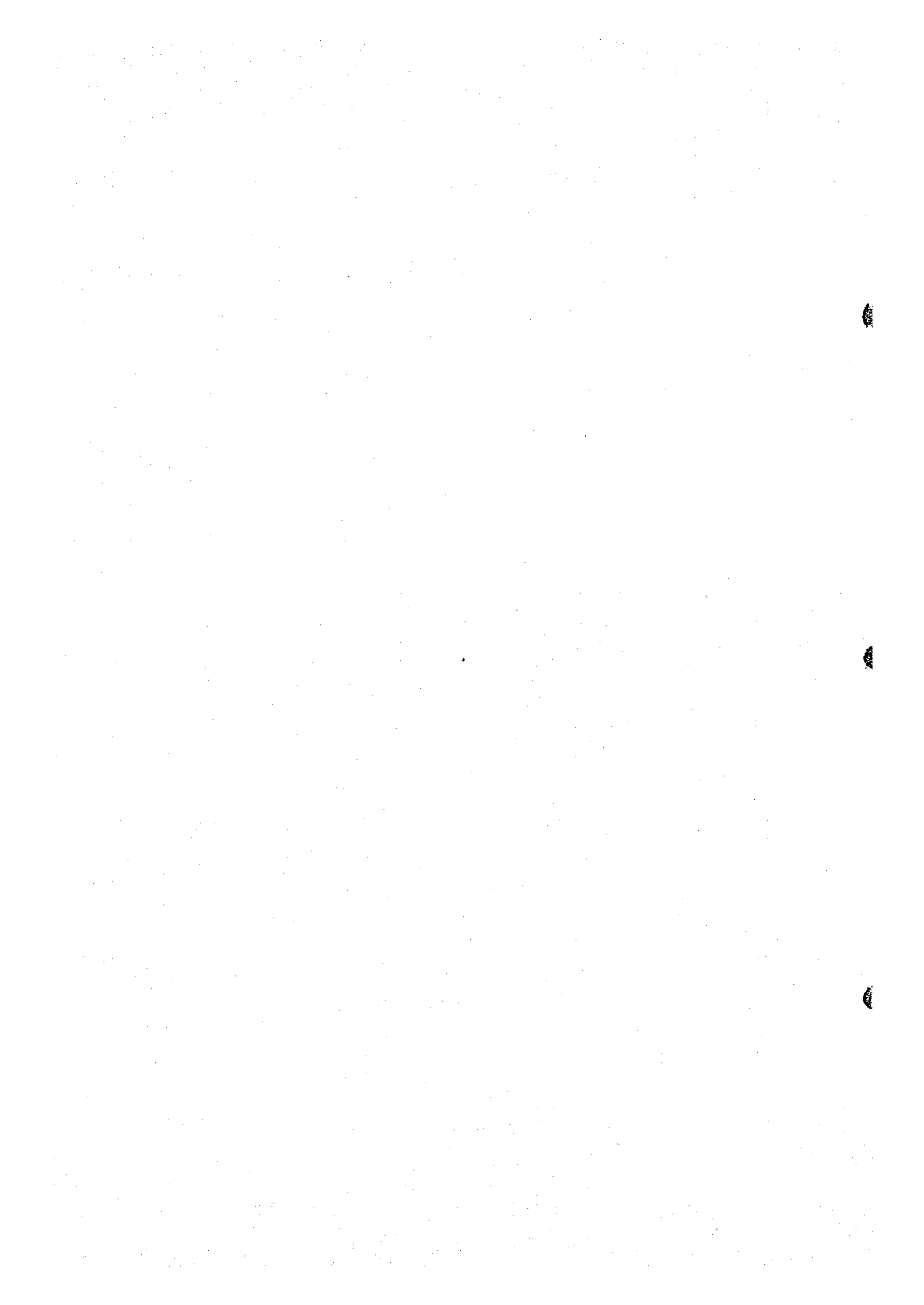
Cup Serial Number	Detector Reading (T/sqmm.30days)	Radioactivity (C/S, by SPP-2NP)	Location			Note
			X	Y	Z	
56619.	43.7	160	561.0	253.0	1428	
56620.	229.4	120	561.5	253.0	1420	
56621.	140.5	140	562.0	253.0	1408	
56622.	170.1	120	562.5	253.0	1382	
56623.	88.8	130	563.0	253.0	1362	
56624.	110.9	70	563.5	253.0	1356	
56625.	91.5	80	564.0	253.0	1353	
56626.	429.0	150	564.5	253.0	1360	
56628.	76.9	110	557.0	253.5	1398	film crack
56629.	453.8	130	557.0	254.0	1395	
56630.	178.8	110	557.5	254.0	1394	
56632.	225.0	130	558.5	254.0	1389	
56633.	103.8	70	559.0	254.0	1393	
56634.	19.6	50	559.5	254.0	1395	
56635.	100.0	60	560.0	254.0	1396	
56636.	115.4	50	560.5	254.0	1393	
56637.	115.4	170	561.0	254.0	1399	
56638.	153.8	90	561.5	254.0	1388	
56639.	53.8	100	562.0	254.0	1382	
56640.	132.7	90	562.5	254.0	1370	
56642	169.2	70	563.5	254.0	1348	
56644.	153.8	80	564.5	254.0	1344	
56646.	115.4	90	557.0	254.5	1389	
56647.	53.8	100	557.0	255.0	1394	
56648.	89.4	110	557.5	255.0	1388	
56649.	115.4	90	558.0	255.0	1379	
56650.	130.8	90	558.5	255.0	1375	
56651.	123.1	100	559.0	255.0	1372	
56652.	161.5	90	559.5	255.0	1373	broken
56653.	69.2	450	560.0	255.0	1370	
56654.	176.9	160	560.5	255.0	1371	
56655.	57.7	110	561.0	255.0	1363	
56656.	72.1	130	561.5	255.0	1365	
56657.	292.3	100	562.0	255.0	1358	
56658.	130.8	50	562.5	255.0	1354	
56659.	107.7	55	563.0	255.0	1348	
56660.	80.8	60	563.5	255.0	1344	
56664.	79.1	80	557.0	255.5	1393	
56665.	63.5	80	557.0	256.0	1397	
56666.	138.5	80	557.5	256.0	1393	
56667.	103.8	90	558.0	256.0	1382	
56668.	115.4	80	558.5	256.0	1378	moist
56669.	88.5	80	559.0	256.0	1378	
56670.	276.9	50	559.5	256.0	1385	
56671.	100.0	80	560.0	256.0	1374	
56672.	361.5	70	560.5	256.0	1380	
56673.	92.3	60	561.0	256.0	1372	
56674.	176.9	70	561.5	256.0	1367	
56675.	160.3	40	562.0	256.0	1364	



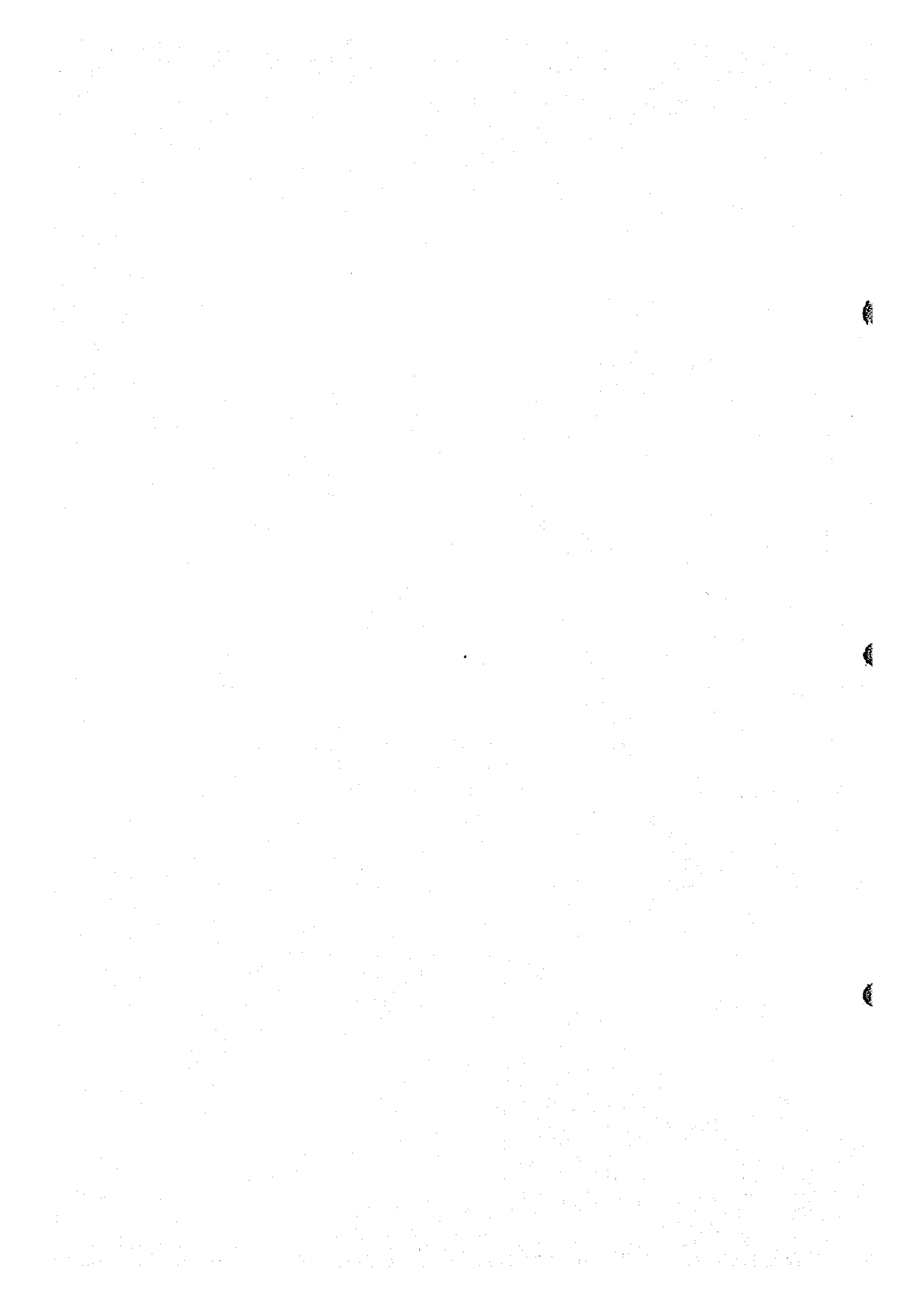
Cup Serial Number	Detector Reading (T/sqmm.30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
56677.	72.1	80	563.0	256.0	1355	
56679.	128.2	50	564.0	256.0	1355	
56682.	142.1	70	557.5	257.0	1400	
56683.	90.9	70	558.0	257.0	1398	
56684.	125.4	65	558.5	257.0	1388	
56685.	192.3	60	559.0	257.0	1389	
56686.	150.5	40	559.5	257.0	1385	
56687.	121.2	70	560.0	257.0	1378	
56688.	62.7	50	560.5	257.0	1381	
56691.	50.2	60	562.0	257.0	1364	
56692.	78.0	65	562.5	257.0	1367	
56693.	75.2	70	563.0	257.0	1363	
56695.	69.0	60	564.0	257.0	1369	
56697.	117.1	40	565.0	257.0	1372	
56698.	72.1	50	558.0	259.0	1415	
56699.	34.9	40	559.0	259.0	1405	
56702.	30.0	50	562.0	259.0	1375	
56703.	144.2	70	563.0	259.0	1398	
56704.	80.1	55	522.0	250.0	1840	
56705.	104.2	40	522.5	250.0	1860	
56706.	63.1	90	523.0	250.0	1858	moist
56707.	100.2	110	523.5	249.9	1830	
56708.	136.2	80	524.0	250.1	1810	
56709.	69.1	50	524.5	250.0	1800	
56710.	56.1	40	525.0	249.0	1785	
56714.	56.1	55	526.0	248.9	1740	
56715.	80.1	70	526.5	249.0	1740	
56716.	88.1	85	527.0	249.0	1720	
56717.	128.2	45	527.5	249.0	1710	
56718.	41.8	50	527.5	250.0	1725	
56719.	38.9	40	527.0	250.0	1740	
56721.	117.1	30	526.0	250.0	1785	
56722.	61.0	50	527.5	246.9	1720	
56723.	38.8	55	527.0	247.0	1710	
56724.	110.9	40	526.5	248.0	1745	
56725.	42.2	30	527.0	248.0	1730	
56726.	147.9	60	527.5	247.8	1720	
56727.	29.6	25	526.0	248.0	1755	
56728.	55.2	40	524.5	249.0	1795	
56729.	26.3	60	524.0	249.0	1820	
56730.	37.6	50	523.5	249.0	1790	
56731.	50.2	50	523.0	249.0	1760	
56732.	25.1	40	522.5	249.0	1800	
56733.	27.6	40	522.0	249.2	1810	
56735.	60.6	70	526.5	246.8	1660	
56736.	55.4	50	526.0	246.9	1660	
56737.	17.3	50	525.5	247.1	1680	
56738.	46.2	60	525.5	247.9	1730	
56739.	138.5	50	525.0	248.0	1730	
56740.	146.1	50	524.5	248.1	1700	



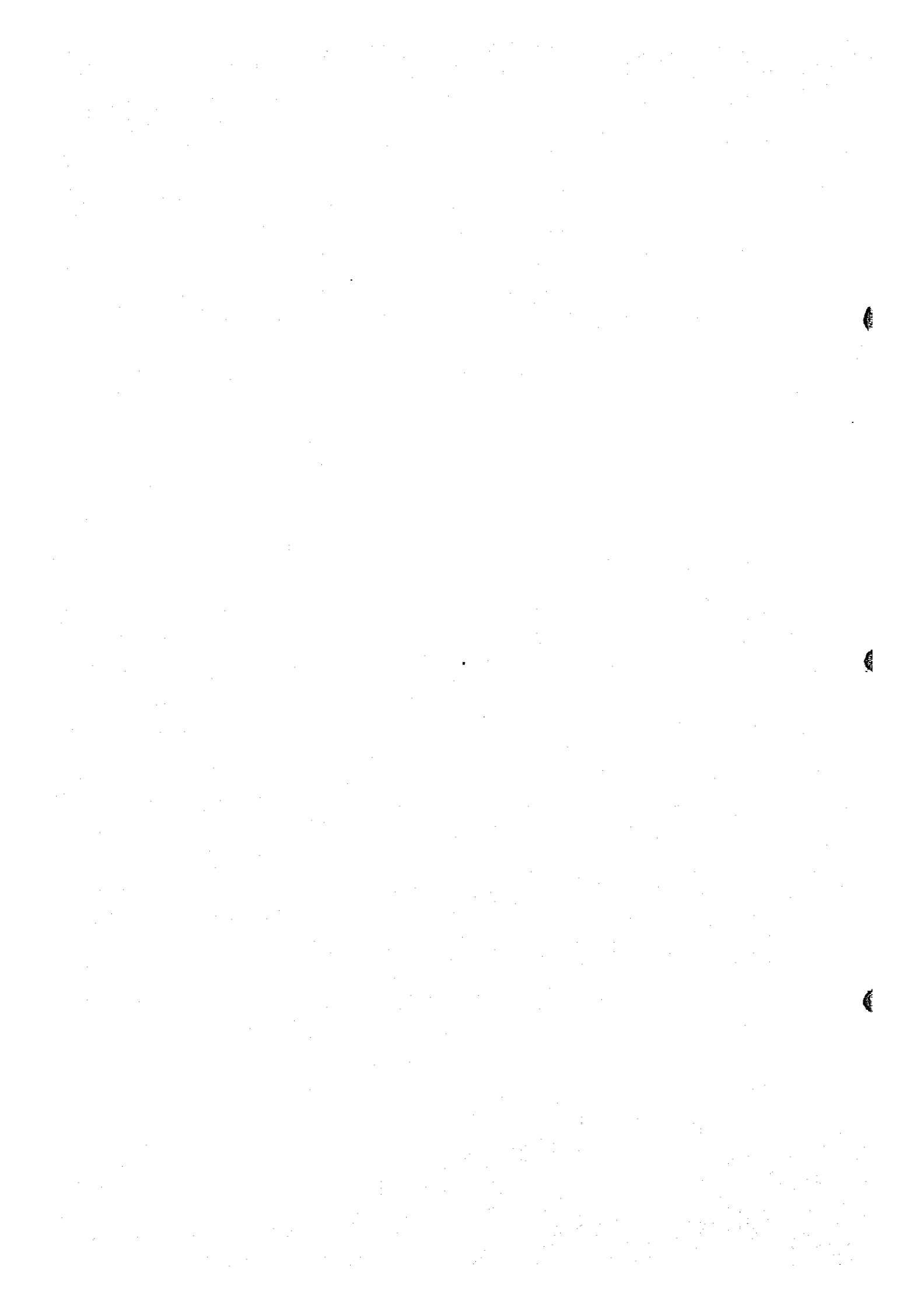
Cup Serial Number	Detector Reading (T/sqmm. 30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
56741.	23.1	30	524.0	248.0	1755	
56742.	78.5	70	523.5	248.0	1790	
56743.	61.5	40	523.0	248.0	1830	
56744.	253.8	80	522.5	247.9	1835	non filter
56745.	72.1	75	522.0	247.8	1800	non filter
56746.	176.9	90	522.0	246.9	1730	non filter
56747.	130.8	50	522.5	246.7	1745	non filter
56748.	92.3	70	523.0	246.8	1760	
56749.	115.4	70	523.5	246.8	1780	moist
56750.	69.2	40	524.0	247.0	1780	
56751.	115.4	50	524.5	247.0	1730	
56752.	257.7	70	525.0	247.0	1705	
56754.	107.7	50	526.5	246.0	1695	
56755.	107.7	40	526.0	246.0	1730	
56756.	69.2	35	525.5	245.9	1780	
56757.	107.7	40	525.0	245.9	1780	
56758.	38.5	75	524.5	246.0	1795	
56759.	100.0	50	524.0	246.0	1705	broken
56760.	17.3	50	523.5	246.1	1700	broken
56761.	265.6	100	551.5	253.0	1400	replaced by 57259
56762.	123.6	90	551.0	253.0	1400	replaced by 57258
56763.	201.5	90	550.5	253.0	1405	replaced by 57257
56764.	178.6	50	550.0	253.0	1405	replaced by 57256
56765.	123.6	110	549.5	253.0	1410	replaced by 57255
56766.	247.2	75	549.0	253.0	1410	
56767.	169.4	100	548.5	253.0	1415	replaced by 57254
56768.	82.4	65	548.0	253.1	1420	water 2cm
56769.	119.0	150	547.6	253.0	1420	
56770.	41.2	90	547.1	253.0	1420	
56773.	105.8	105	545.4	253.0	1430	
56774.	91.3	100	545.0	253.0	1425	
56775.	43.3	50	544.5	253.0	1425	
56776.	76.9	45	544.0	253.0	1430	
56777.	163.5	80	543.5	253.0	1440	
56778.	144.2	75	543.0	253.0	1450	
56779.	86.5	75	542.5	253.0	1460	
56780.	125.0	75	542.5	253.5	1470	
56781.	11.5	30	542.9	253.5	1460	
56782.	72.1	40	543.5	253.6	1445	
56783.	30.2	50	544.0	253.5	1445	
56784.	64.1	105	544.5	253.5	1435	
56785.	109.9	105	545.0	253.5	1445	
56786.	215.2	95	545.5	253.5	1435	
56787.	24.7	45	546.0	253.5	1430	
56788.	100.7	80	546.5	253.5	1425	
56789.	146.5	85	547.0	253.5	1420	
56791.	115.4	80	548.0	253.5	1415	
56792.	357.1	105	548.5	253.5	1415	
56793.	219.8	75	549.0	253.5	1410	
56794.	155.7	75	549.5	253.5	1410	



Cup Serial Number	Detector Reading (T/sqmm.30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
56795.	73.3	70	550.0	253.5	1410	
56796.	100.7	80	550.4	253.5	1405	
56797.	91.6	90	551.0	253.5	1405	
56798.	109.9	60	551.5	253.5	1405	
56799.	233.5	75	551.8	253.5	1400	
56800.	96.2	50	542.0	254.0	1465	moist
56801.	65.9	65	542.5	254.0	1455	
56802.	52.9	50	543.0	254.0	1455	mischief
56803.	153.8	60	543.5	254.0	1460	
56804.	68.5	60	544.0	254.0	1460	
56805.	194.7	155	544.5	254.0	1450	
56806.	36.1	30	545.0	254.0	1460	
56807.	144.2	130	545.5	254.0	1440	
56808.	57.7	70	546.0	254.0	1430	
56810.	125.0	75	547.0	254.0	1425	
56811.	49.0	75	547.5	254.0	1420	
56812.	81.5	65	548.0	254.0	1420	
56813.	181.8	70	548.5	254.0	1420	
56814.	84.7	80	549.0	254.0	1415	
56815.	142.1	75	549.5	254.0	1415	
56816.	125.4	75	550.0	254.0	1410	
56817.	133.4	85	550.5	254.0	1410	
56819.	219.8	90	551.5	254.1	1410	
56820.	164.8	110	551.5	254.5	1410	filt off
56821.	270.1	90	551.0	254.5	1410	
56822.	82.4	80	550.5	254.5	1410	
56824.	42.0	80	549.5	254.5	1415	
56825.	69.9	70	549.0	254.5	1420	
56826.	131.1	85	548.5	254.5	1420	
56827.	44.6	70	548.0	254.5	1420	
56828.	87.4	65	547.5	254.5	1425	
56829.	157.3	40	547.0	254.5	1425	
56830.	21.0	50	546.5	254.5	1430	
56831.	52.4	75	546.0	254.5	1430	
56832.	52.4	70	545.5	254.5	1435	
56833.	78.7	45	545.0	254.5	1445	
56834.	78.7	130	544.5	254.5	1460	
56835.	43.7	30	544.0	254.5	1475	
56836.	61.2	45	543.5	254.5	1465	
56837.	109.9	50	543.0	254.4	1480	
56838.	91.6	20	542.4	254.4	1470	
56839.	73.3	50	541.9	254.4	1470	
56840.	45.8	20	541.4	254.4	1480	broken
56841.	45.8	20	540.9	254.5	1510	
56842.	22.0	40	539.9	255.0	1520	
56843.	22.0	45	540.5	255.0	1505	
56845.	91.6	60	541.5	255.0	1480	
56846.	57.7	40	542.0	255.0	1490	
56847.	100.7	35	542.5	255.0	1490	
56848.	69.9	50	543.0	255.0	1475	



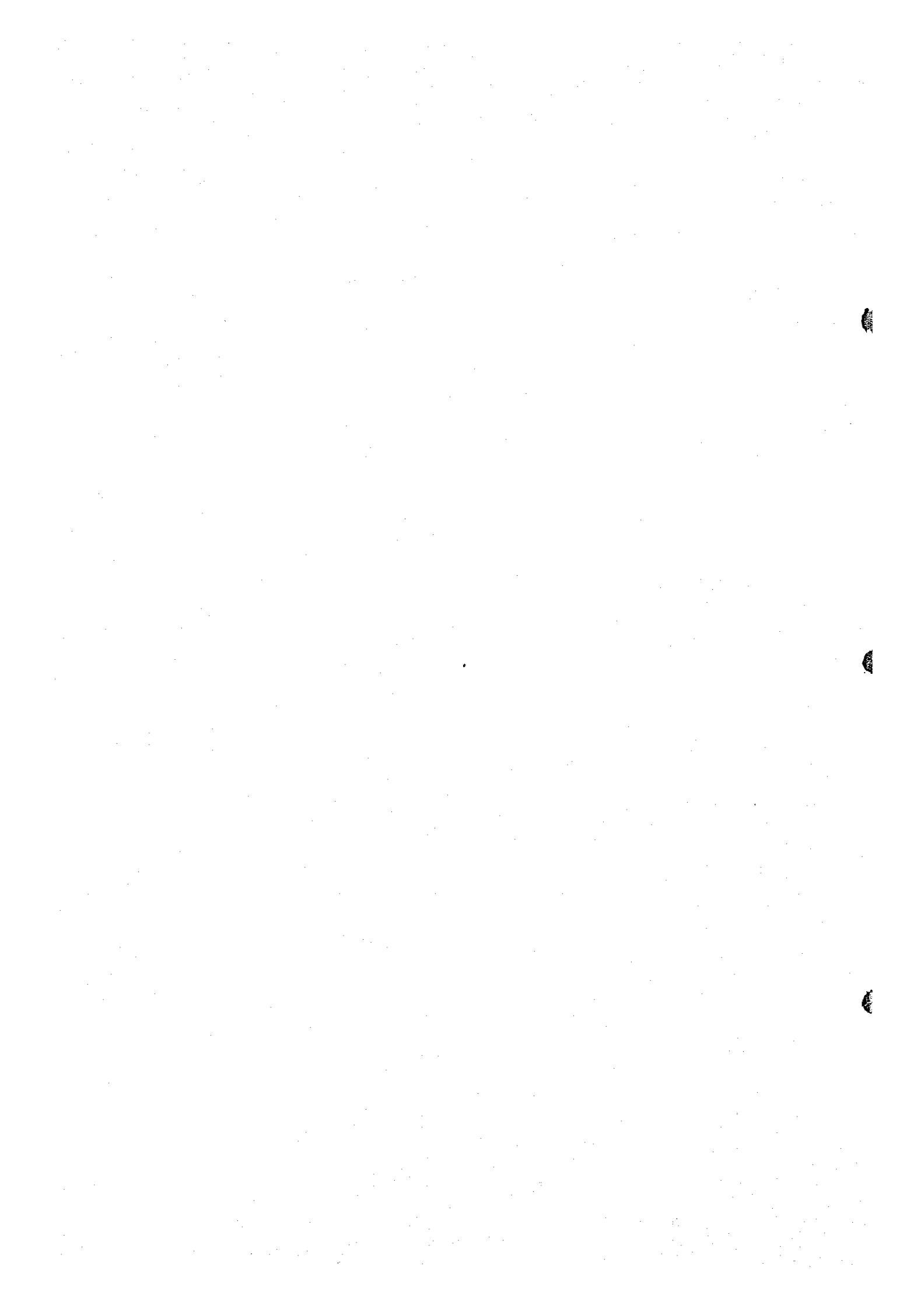
Cup Serial Number	Detector Reading (T/squm. 30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
56849.	111.4	100	552.5	255.0	1470	
56850.	139.9	50	544.0	255.0	1460	
56851.	104.9	80	544.5	255.0	1450	
56852.	49.8	60	545.0	255.0	1445	
56853.	96.2	60	545.5	255.0	1445	
56854.	73.3	40	546.0	255.0	1440	
56855.	71.4	45	546.5	255.0	1435	
56856.	72.1	65	547.0	255.0	1430	
56857.	119.0	70	547.5	255.0	1425	
56860.	37.1	55	549.0	255.0	1425	
56861.	79.0	60	549.5	255.0	1420	
56862.	155.7	75	550.0	255.0	1415	
56863.	238.1	70	550.5	255.0	1415	
56864.	215.2	125	551.0	255.0	1420	
56865.	174.0	65	551.5	255.0	1415	
56866.	247.2	50	551.5	255.5	1420	
56867.	82.4	100	551.0	255.5	1420	
56868.	128.2	70	550.5	255.5	1425	
56869.	114.5	80	550.0	255.5	1420	
56870.	74.2	70	549.5	255.5	1425	
56871.	151.1	60	549.0	255.5	1430	
56872.	132.8	75	548.5	255.5	1430	
56873.	92.7	80	548.0	255.5	1435	
56874.	75.0	90	547.5	255.5	1430	
56875.	45.0	60	547.0	255.5	1435	
56876.	80.8	80	546.5	255.5	1440	
56877.	60.6	20	546.0	255.5	1445	
56878.	92.3	75	545.5	255.5	1450	
56879.	80.8	65	545.0	255.5	1460	
56880.	84.6	65	544.5	255.5	1460	
56881.	69.2	80	544.0	255.5	1460	
56882.	101.0	100	543.5	255.5	1470	
56883.	84.6	55	543.0	255.5	1480	
56884.	35.8	20	542.5	255.5	1480	
56885.	15.0	20	542.0	255.5	1500	
56886.	43.8	30	541.5	255.5	1505	broken
56887.	103.8	45	541.0	255.5	1490	
56889.	61.5	25	540.5	256.0	1510	
56890.	53.8	20	541.0	256.0	1520	
56891.	15.0	15	541.5	256.0	1510	
56892.	40.1	55	542.0	256.0	1490	
56893.	104.2	40	542.5	256.0	1500	
56894.	96.2	70	543.0	256.0	1490	
56895.	45.7	105	543.4	256.0	1480	
56896.	69.1	60	543.9	256.0	1470	
56897.	58.8	105	544.5	256.0	1470	
56898.	112.2	85	545.0	256.0	1470	
56899.	120.2	50	545.5	256.0	1460	
56900.	128.2	70	546.0	256.0	1455	
56901.	104.2	65	546.5	256.0	1445	



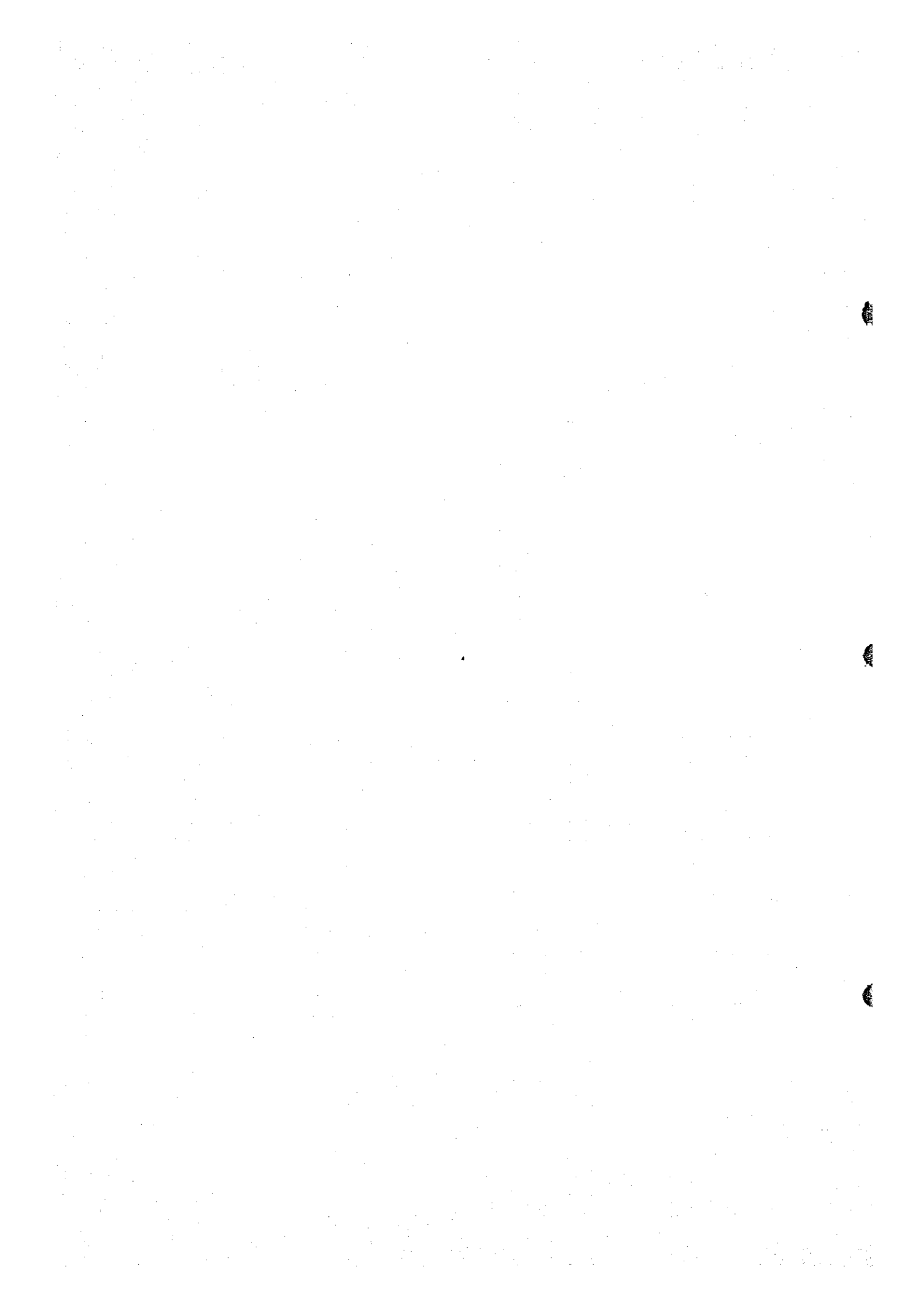
Cup Serial Number	Detector Reading (T/sqmm. 30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
56902.	148.2	100	547.0	256.0	1440	
56903.	88.1	75	547.5	256.0	1445	
56904.	72.1	50	548.0	256.0	1440	
56905.	72.1	65	548.5	256.0	1435	
56906.	153.8	65	549.0	256.0	1435	
56907.	138.5	80	549.6	256.0	1425	
56908.	115.4	80	550.0	256.0	1430	
56909.	119.2	45	550.5	256.0	1430	
56910.	123.1	65	551.0	256.0	1430	
56911.	288.4	105	551.5	256.0	1430	
56912.	20.4	45	540.0	257.0	1545	
56913.	88.1	20	540.5	257.0	1545	
56914.	56.1	25	541.0	257.0	1530	
56915.	144.2	50	541.5	257.2	1515	
56916.	80.1	35	542.0	257.2	1525	
56917.	100.2	30	542.5	257.2	1535	
56918.	92.1	35	543.1	257.2	1540	
56919.	48.1	30	543.6	257.2	1535	
56920.	96.2	25	544.1	257.2	1535	
56921.	50.5	15	544.6	257.2	1520	
56922.	16.0	40	545.1	257.2	1480	
56923.	120.2	50	545.6	257.2	1475	
56924.	48.1	60	546.1	257.2	1470	
56925.	104.2	60	546.6	257.2	1470	
56926.	176.3	75	547.1	257.2	1465	
56927.	36.1	70	547.6	257.2	1450	
56928.	80.1	70	548.0	257.2	1460	
56929.	104.2	50	548.6	257.2	1455	
56930.	40.1	45	549.1	257.2	1445	broken
56931.	184.3	75	549.6	257.2	1440	
56932.	180.3	45	550.1	257.2	1445	digged
56933.	64.1	75	550.6	257.2	1445	broken
56934.	160.3	60	551.2	257.2	1445	
56935.	40.1	50	551.6	257.2	1440	broken
56936.	37.3	70	551.2	258.2	1445	
56938.	37.3	60	549.1	258.2	1460	
56939.	14.4	25	548.1	258.2	1505	
56940.	132.2	40	547.1	258.2	1475	
56941.	12.0	25	546.1	258.2	1515	
56942.	128.2	55	545.1	258.2	1515	
56943.	224.4	55	544.2	258.2	1510	
56944.	160.3	100	543.2	258.2	1535	
56945.	69.2	45	541.4	254.0	1475	
56946.	63.1	75	540.9	254.0	1490	
56947.	72.1	25	540.5	254.0	1510	
56948.	28.8	30	539.9	254.0	1520	
56949.	19.2	25	539.5	254.0	1535	
56950.	56.1	20	539.0	254.0	1560	
56951.	40.1	15	538.4	254.0	1570	
56952.	52.9	25	530.0	254.0	1570	



Cup Serial Number	Detector Reading (T/sqmm. 30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
56953.	24.0	20	537.5	254.0	1560	
56954.	11.5	30	537.0	254.0	1565	
56955.	51.7	35	542.0	253.5	1475	
56956.	120.2	20	541.5	253.5	1515	
56957.	28.8	50	541.0	253.5	1490	
56958.	150.5	35	541.9	253.0	1490	
56959.	33.4	20	541.4	253.0	1530	filt off
56960.	27.6	20	540.9	253.0	1530	
56961.	50.2	30	540.4	253.0	1530	digged
56964.	52.7	45	538.9	253.0	1510	
56965.	31.4	55	538.4	253.0	1510	
56966.	58.5	50	537.9	253.0	1520	
56967.	25.1	45	537.4	253.0	1550	
56968.	66.9	20	536.9	253.0	1545	
56969.	92.0	25	542.9	252.0	1470	
56970.	81.5	100	542.4	252.0	1460	
56971.	112.9	65	541.9	252.0	1470	
56972.	33.4	65	541.4	252.0	1470	
56973.	65.6	55	540.9	252.0	1475	
56974.	96.2	80	540.4	252.0	1495	water
56975.	36.7	65	539.9	252.0	1515	
56976.	87.4	50	539.4	252.0	1510	
56977.	26.3	30	538.9	252.0	1550	
56978.	22.6	15	538.4	252.0	1550	
56979.	58.5	50	537.9	252.0	1560	
56980.	25.1	20	537.4	252.0	1560	
56981.	25.1	20	536.9	252.0	1560	
56982.	32.3	20	537.1	251.0	1565	broken
56983.	9.2	15	537.6	251.0	1585	
56984.	53.8	50	538.1	251.0	1525	
56985.	34.6	20	538.6	251.0	1515	broken
56986.	57.7	40	539.1	251.0	1495	
56987.	53.8	30	539.6	251.0	1490	
56988.	46.2	90	540.1	251.0	1485	
56989.	123.1	160	540.6	251.0	1470	
56990.	107.7	55	541.1	251.0	1460	
56991.	146.1	50	541.6	251.0	1460	
56992.	123.1	70	542.1	251.0	1450	broken
56993.	69.2	90	542.5	251.0	1445	
56994.	56.1	25	541.9	250.0	1450	
56995.	40.1	20	541.4	250.0	1455	
56996.	92.1	90	540.9	250.0	1460	
56997.	48.1	50	540.4	250.0	1470	
56998.	88.1	35	539.9	250.0	1480	
56999.	88.1	45	539.4	250.0	1485	
57000.	15.6	45	538.9	250.0	1495	
57001.	24.0	25	538.4	250.0	1500	
57002.	19.2	20	537.9	250.0	1515	
57003.	37.3	20	537.4	250.0	1535	
57004.	48.1	55	536.9	250.0	1560	



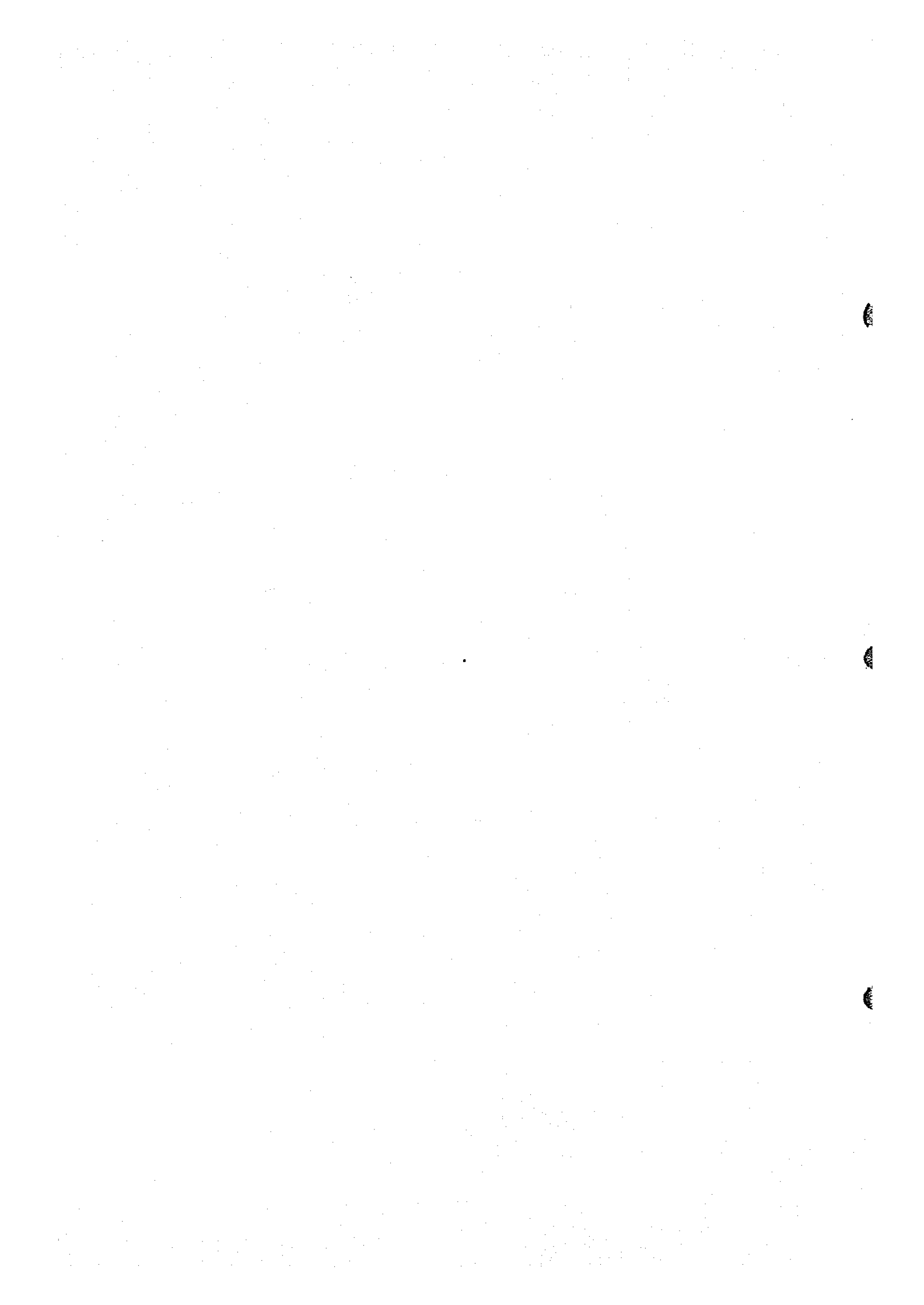
Cup Serial Number	Detector Reading (T/sqmm.30days)	Radioactivity (C/S, by SPP-2NP)	Location			Note
			X	Y	Z	
57005.	133.1	50	538.6	249.0	1540	
57006.	118.3	50	539.1	249.0	1485	moist
57007.	59.2	30	539.6	249.0	1480	moist
57008.	46.6	50	540.1	249.0	1470	water
57009.	60.6	90	540.6	249.0	1465	moist
57010.	88.5	70	541.1	249.0	1460	
57011.	23.6	25	535.0	258.0	1645	
57012.	166.1	20	536.0	258.0	1636	
57013.	13.1	20	534.0	257.0	1660	
57014.	104.9	25	535.0	257.0	1635	broken
57015.	17.0	25	536.0	257.0	1615	
57016.	22.3	40	535.0	256.0	1620	
57017.	61.2	25	536.0	256.0	1595	
57018.	78.7	25	534.0	256.0	1640	
57019.	34.1	45	533.0	256.0	1650	
57020.	26.2	30	533.0	255.0	1630	
57021.	13.7	20	534.0	255.0	1630	
57022.	82.4	35	535.0	255.0	1610	
57023.	15.1	25	536.0	255.0	1585	
57024.	96.2	25	536.0	254.0	1585	
57025.	34.3	30	535.0	254.0	1600	
57026.	28.8	45	534.0	254.0	1600	
57027.	34.3	35	533.0	254.0	1640	
57028.	34.3	60	532.0	254.0	1680	
57030.	27.5	20	532.0	253.0	1665	
57031.	22.0	25	533.0	253.0	1630	
57032.	30.2	50	534.0	253.0	1600	
57034.	24.7	25	535.0	253.0	1590	
57036.	47.5	50	535.5	252.0	1670	
57037.	75.0	50	534.5	252.2	1640	
57038.	25.2	25	536.5	252.0	1575	
57043.	40.1	25	535.0	251.0	1615	
57044.	39.7	50	534.5	251.0	1630	
57045.	48.1	40	533.0	252.0	1625	
57047.	40.1	20	534.0	252.0	1630	
57048.	56.1	20	532.5	252.0	1640	
57049.	40.1	25	533.0	251.0	1620	broken
57050.	30.0	50	533.5	251.0	1630	film crack
57051.	88.1	45	534.0	251.0	1635	broken
57052.	24.0	35	532.5	251.0	1610	
57054.	68.1	40	532.0	251.0	1610	
57055.	56.1	45	531.5	251.0	1640	
57056.	24.0	25	530.5	251.0	1615	
57057.	60.1	50	531.0	251.0	1640	
57058.	56.1	35	531.5	252.0	1680	
57059.	144.2	50	531.0	252.0	1675	
57060.	16.8	35	530.5	252.0	1670	
57061.	41.8	30	530.0	252.0	1700	broken
57062.	51.4	35	529.5	252.0	1700	moist
57063.	78.4	50	530.0	251.0	1615	moist



Cup Serial Number	Detector Reading (T/sqmm. 30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note	
			X	Y	Z		
57065.	79.7	35	529.0	251.0	1700	film dirty	
57066.	27.5	35	528.0	250.0	1715		
57067.	28.8	40	528.5	250.0	1710		
57069.	37.1	60	529.5	250.0	1695		
57070.	24.7	45	530.0	250.0	1685		
57071.	100.3	65	528.0	249.0	1695		
57072.	41.8	45	528.5	249.0	1710		
57074.	36.4	25	529.9	249.0	1685		
57076.	20.1	40	530.5	249.0	1660		
57077.	81.5	70	531.0	249.0	1655		
57078.	100.3	25	531.5	249.0	1625		
57079.	89.3	60	531.0	250.0	1625		moist
57080.	174.0	55	530.5	250.0	1635		moist
57081.	26.1	40	533.0	250.0	1595		moist
57082.	46.7	50	533.5	250.0	1570		
57083.	4.1	55	532.5	250.0	1575		
57084.	60.4	50	531.5	250.0	1630		
57085.	73.3	50	532.0	250.0	1620		
57086.	82.4	35	532.0	249.0	1605		
57087.	60.4	25	532.5	249.0	1605		
57089.	54.9	30	534.0	250.0	1610		
57090.	17.9	20	535.0	250.0	1595		
57091.	128.2	50	534.5	249.0	1670	moist	
57092.	240.4	50	534.0	249.0	1655		
57093.	91.6	30	533.5	249.0	1680		
57095.	137.4	50	535.0	249.0	1575		
57096.	192.3	50	535.5	249.0	1580		
57097.	64.1	50	536.0	249.0	1660		
57099.	99.6	30	535.5	250.0	1585		
57100.	54.9	30	536.5	250.0	1600		
57101.	52.9	65	536.5	249.0	1580		
57102.	82.4	65	528.5	248.0	1690		
57103.	45.8	60	528.0	248.0	1695		
57104.	54.9	35	529.0	248.0	1690		
57105.	36.6	65	529.5	248.0	1670		
57106.	54.9	35	530.0	248.0	1670		
57107.	100.7	60	530.5	248.0	1665		
57108.	73.3	40	531.0	248.0	1650		
57109.	64.1	20	531.5	248.0	1630	broken	
57110.	45.8	80	528.0	247.0	1710	broken	
57113.	71.2	45	529.5	247.0	1670		
57114.	82.4	55	530.0	247.0	1670		
57115.	45.3	30	530.5	247.0	1640		
57118.	36.6	45	531.9	247.0	1645		
57120.	9.6	25	532.5	248.0	1625		
57121.	47.6	30	533.0	247.0	1645		
57122.	90.1	45	532.5	247.0	1630		
57123.	105.8	30	533.0	248.0	1620		
57126	62.5	30	533.5	247.0	1640		
57127.	96.2	20	534.0	247.0	1645		



Cup Serial Number	Detector Reading (T/sqmm. 30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
57128.	28.8	20	534.5	247.1	1620	
57129.	30.3	20	534.5	248.0	1600	
57130.	96.2	55	535.0	248.0	1595	
57131.	93.7	50	535.5	248.1	1650	
57132.	69.3	45	535.0	247.0	1610	
57133.	59.2	20	535.5	247.0	1590	film dirty
57134.	81.4	45	536.0	247.0	1570	
57135.	21.1	30	536.5	247.0	1550	
57136.	48.8	20	536.0	248.0	1630	
57137.	81.4	50	536.5	248.0	1510	
57138.	44.2	20	536.5	246.0	1545	
57139.	38.5	20	536.0	246.0	1565	
57140.	146.1	60	535.5	246.0	1680	
57141.	31.2	30	534.5	246.0	1615	
57143.	84.6	20	534.0	246.0	1650	
57144.	23.1	20	533.5	246.0	1645	
57146.	76.9	30	532.5	246.0	1675	
57147.	53.8	30	532.0	246.0	1675	
57148.	34.6	20	531.5	246.0	1670	
57149.	21.9	20	531.0	246.0	1660	
57150.	16.2	20	530.5	246.0	1670	
57151.	27.7	30	530.0	246.0	1675	
57152.	23.1	30	529.5	246.0	1670	
57153.	53.8	20	529.0	246.0	1680	
57154.	107.7	60	528.5	246.0	1640	
57155.	130.8	50	528.0	246.0	1640	broken
57156.	125.0	85	531.0	245.0	1630	
57157.	52.9	50	530.5	245.0	1640	
57158.	116.2	30	530.0	244.8	1640	
57159.	60.1	50	531.5	244.8	1650	
57160.	21.6	50	532.0	245.0	1660	
57161.	72.1	55	531.5	244.1	1605	
57162.	25.2	100	531.0	244.0	1580	
57163.	88.1	50	530.6	244.1	1580	
57164.	104.2	30	531.0	244.0	1620	
57165.	56.1	20	529.0	244.0	1650	
57166.	21.6	20	529.5	244.0	1650	
57167.	88.1	85	529.9	244.1	1600	moist
57168.	116.2	65	528.0	243.9	1620	
57169.	19.2	40	528.5	244.0	1660	
57170.	40.1	30	528.5	245.0	1680	
57171.	56.1	60	528.1	245.0	1700	
57172.	67.7	30	529.5	245.0	1620	
57173.	50.2	60	529.0	245.0	1595	moist
57174.	38.5	45	542.0	258.0	1535	
57175.	66.9	45	541.0	258.0	1545	
57176.	115.4	55	540.0	258.0	1560	
57177.	31.2	45	539.0	258.0	1570	
57178.	83.6	50	537.0	258.0	1600	
57179.	83.1	55	538.0	258.0	1580	



Cup Serial Number	Detector Reading (T/sqmm.30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
57180	84.6	60	539.0	257.0	1555	
57181	84.5	30	539.5	257.0	1555	
57182.	40.1	30	538.5	257.0	1560	
57183.	132.2	50	538.0	257.0	1565	
57184.	272.4	65	537.5	257.0	1565	
57185.	40.1	30	537.0	257.0	1575	
57186.	69.1	60	537.0	256.0	1585	
57187.	16.8	30	537.5	256.0	1575	
57188.	20.4	30	538.0	256.0	1565	
57189.	40.1	30	538.5	256.0	1555	
57190.	55.3	50	539.0	256.0	1545	
57191.	104.2	60	539.5	256.0	1540	
57192.	88.1	40	539.5	255.0	1545	
57193.	160.3	20	539.0	255.0	1565	
57194.	128.2	20	538.5	255.0	1565	
57195.	32.1	20	538.0	255.0	1565	
57196.	28.8	30	537.5	255.0	1570	
57197.	93.1	55	537.0	255.0	1575	
57198.	95.2	60	539.0	246.0	1485	
57199.	200.0	65	538.5	246.0	1485	
57200.	153.8	30	538.0	246.0	1495	
57201.	100.0	50	537.5	246.0	1510	
57202.	84.6	70	537.0	246.0	1530	
57203.	27.7	20	537.0	247.0	1530	
57204.	23.1	20	537.5	247.0	1515	
57205.	51.9	30	538.0	247.0	1505	
57206.	30.0	25	538.5	247.0	1500	
57207.	31.2	30	539.0	247.0	1495	
57208.	12.7	20	539.5	247.0	1485	
57209.	21.9	30	540.5	248.0	1465	
57210.	61.5	20	540.0	248.0	1480	
57211.	53.8	20	539.5	248.0	1485	
57212.	123.1	35	539.0	248.0	1485	
57213.	53.1	35	538.5	248.0	1490	
57214.	115.4	30	538.0	248.0	1495	
57215.	107.7	50	537.5	248.0	1505	
57216.	157.7	70	537.0	248.0	1505	
57217.	88.8	65	537.1	249.0	1540	
57218.	44.4	55	537.6	249.0	1520	film dirty
57219.	37.0	25	538.1	249.0	1510	
57220.	40.4	75	527.5	244.4	1750	
57221.	38.1	100	527.5	244.0	1620	
57222.	184.6	100	527.0	244.5	1650	
57223.	61.5	50	526.5	244.5	1680	
57224.	76.9	95	526.0	244.5	1715	
57225.	38.5	140	526.5	244.0	1680	
57226.	38.5	110	526.9	244.1	1650	
57227.	98.1	70	526.0	243.4	1680	
57228.	35.8	150	525.5	243.3	1650	
57229.	230.8	110	525.0	243.5	1640	



Cup Serial Number	Detector Reading (T/sqmm.30days)	Radioactivity (C/S, by SPP-2NF)	Location			Note
			X	Y	Z	
57230.	4.6	120	524.5	244.0	1650	
57231.	50.8	75	525.0	244.5	1720	
57232.	138.5	70	525.5	244.6	1760	
57233.	57.7	125	524.5	244.5	1680	
57234.	138.5	110	524.0	244.5	1670	
57235.	46.2	130	524.0	244.0	1660	
57236.	72.1	100	523.5	244.5	1670	
57237.	72.1	120	523.0	244.6	1690	
57238.	63.1	140	522.5	244.5	1690	
57239.	88.1	90	522.0	244.5	1700	non filter
57240.	48.1	100	522.0	244.0	1740	non filter
57241.	35.3	75	522.5	244.0	1700	
57242.	39.7	100	523.0	244.0	1680	
57243.	48.1	120	523.5	244.0	1670	
57244.	330.8	70	523.0	246.0	1710	
57245.	123.1	60	522.5	246.0	1740	non filter
57246.	69.2	90	522.0	246.0	1775	non filter
57247.	109.9	130	552.0	254.5	1410	
57248.	146.5	90	554.0	255.0	1410	
57249.	65.9	50	552.0	255.0	1415	
57251.	67.3	70	547.5	553.5	1415	
57252.	88.5	90	546.0	253.0	1425	
57253.	183.6	95	546.5	253.0	1420	
57254.	224.4	100	548.5	253.0	1415	for56767
57255.	256.4	110	549.5	253.0	1410	for56765
57256.	184.3	50	550.0	253.0	1405	for56764
57257.	216.3	90	550.5	253.0	1405	for56763
57258.	90.1	90	551.0	253.0	1400	for56762
57259.	264.4	100	551.5	253.0	1400	for56761
57260.	9.6	50	541.0	255.0	1490	moist

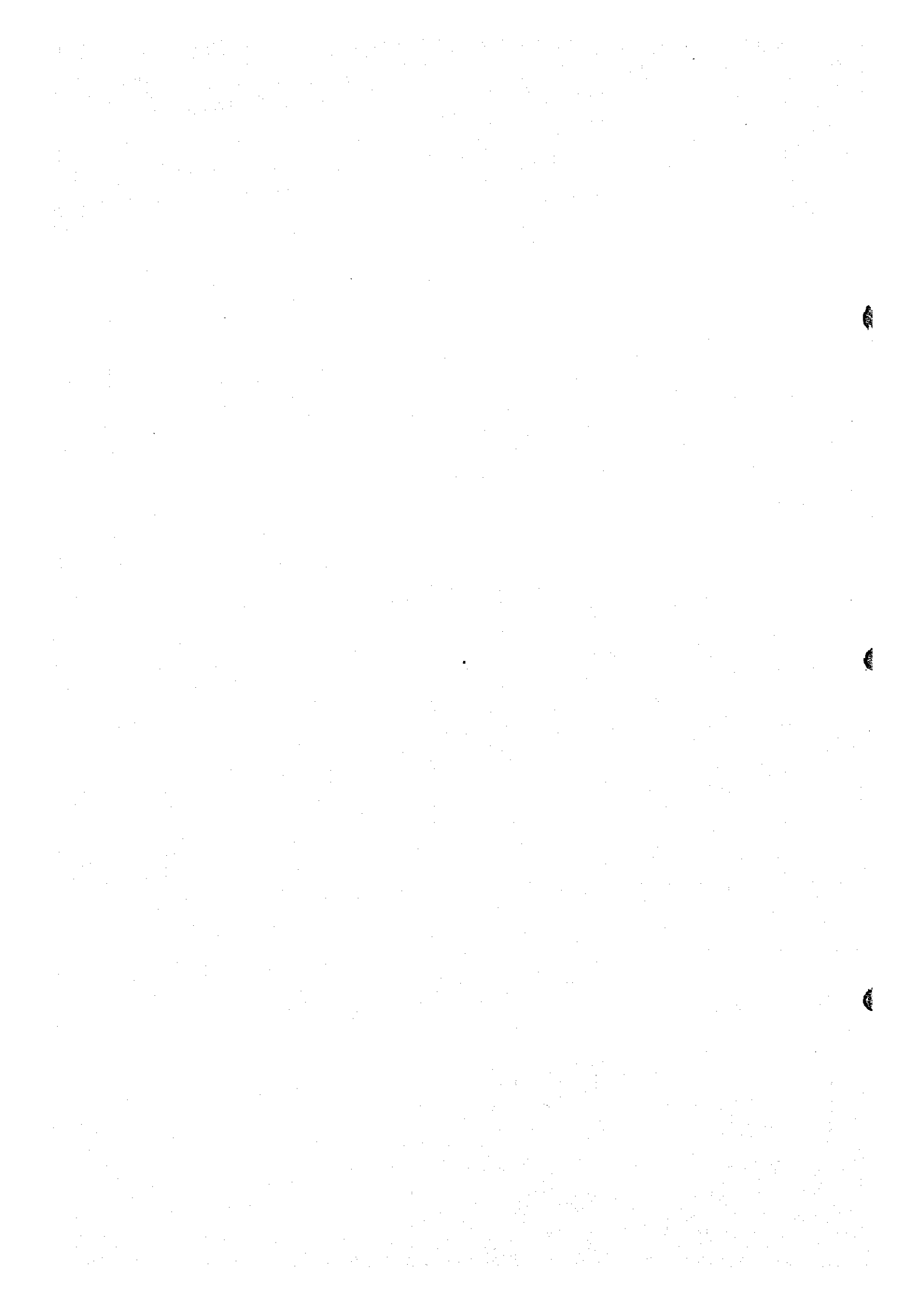


Table I-11 Statistical Values of Radon Etch Survey Results

Group	Total Radon Etch Readings						Background			
	number	average	maximum	minimum	standard deviation	threshold value	note	number	average	standard deviation
Group - 1 (Log. Value)	196	98.7 (1.994)	798.0	41	(0.3088)	237.0	threshold value = bending point value on cumulative frequency curve.	177	85.9 (1.924)	(0.2558)
Group - 2 (Log. Value)	126	51.1 (1.708)	272.4	11.5	(0.2861)	190.6	threshold value = average of all members + 2 x standard deviation	123	49.2 (1.692)	(0.2693)
Group - 3 (Log. Value)	174	55.5 (1.744)	330.8	9.2	(0.3034)	224.3		171	54.0 (1.732)	0.2929
Group - 4 (Log. Value)	27	61.9 (1.791)	176.3	16.0	(0.2441)	190.2		27	61.9 (1.791)	(0.2441)
Group - 5 (Log. Value)	138	108.4 (2.035)	796.7	4.6	(0.3240)	146.3	threshold value = bending point value on cumulative frequency curve	100	77.5 (1.889)	(0.2249)
Group - 6 (Log. Value)	12	117.0 (2.068)	429.0	38.5	(0.3153)	499.6	threshold value = average of all members + 2 x standard deviation	12	117.0 (2.068)	(0.3153)
Total (Log. Value)	673	75.4 (1.878)	798.0	4.1	(0.3349)			610	65.7 (1.818)	(0.2832)

Group - 1 : Radon Etch Readings on Quaternary Formations.
 Group - 2 : Radon Etch Readings on Tertiary Formations
 Group - 3 : Radon Etch Readings on Cretaceous Formations,
 Group - 4 : Radon Etch Readings on P-1 Basalt Formation
 Group - 5 : Radon Etch Readings on P-1 Red Sandstone Formation,
 Group - 6 : Radon Etch Readings on Basement

Back Ground : Radon Etch Readings under the threshold value
 Unit of Radon Etch Readings : tracks / sq. mm. 30 days.
 Average : geometrical average

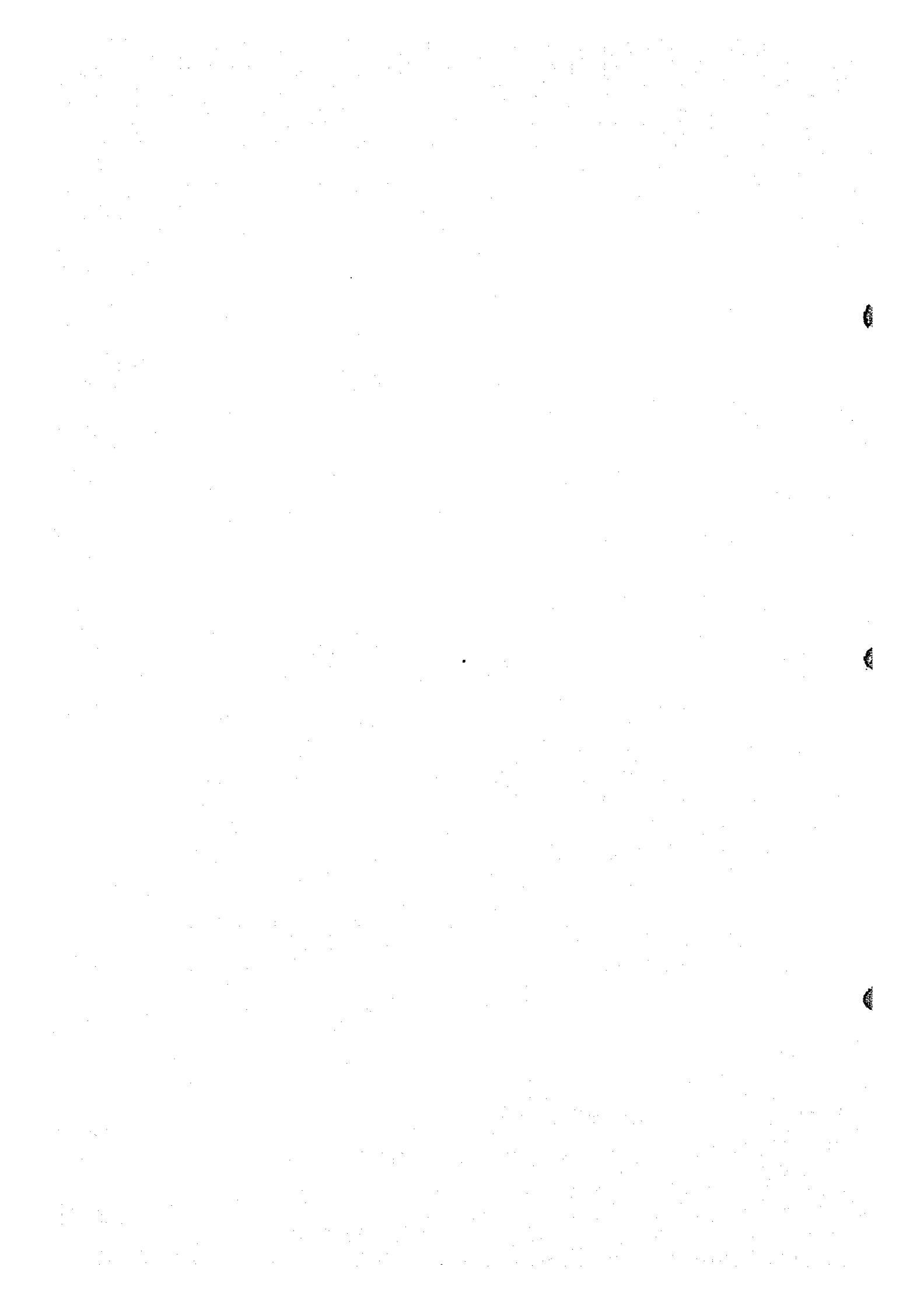
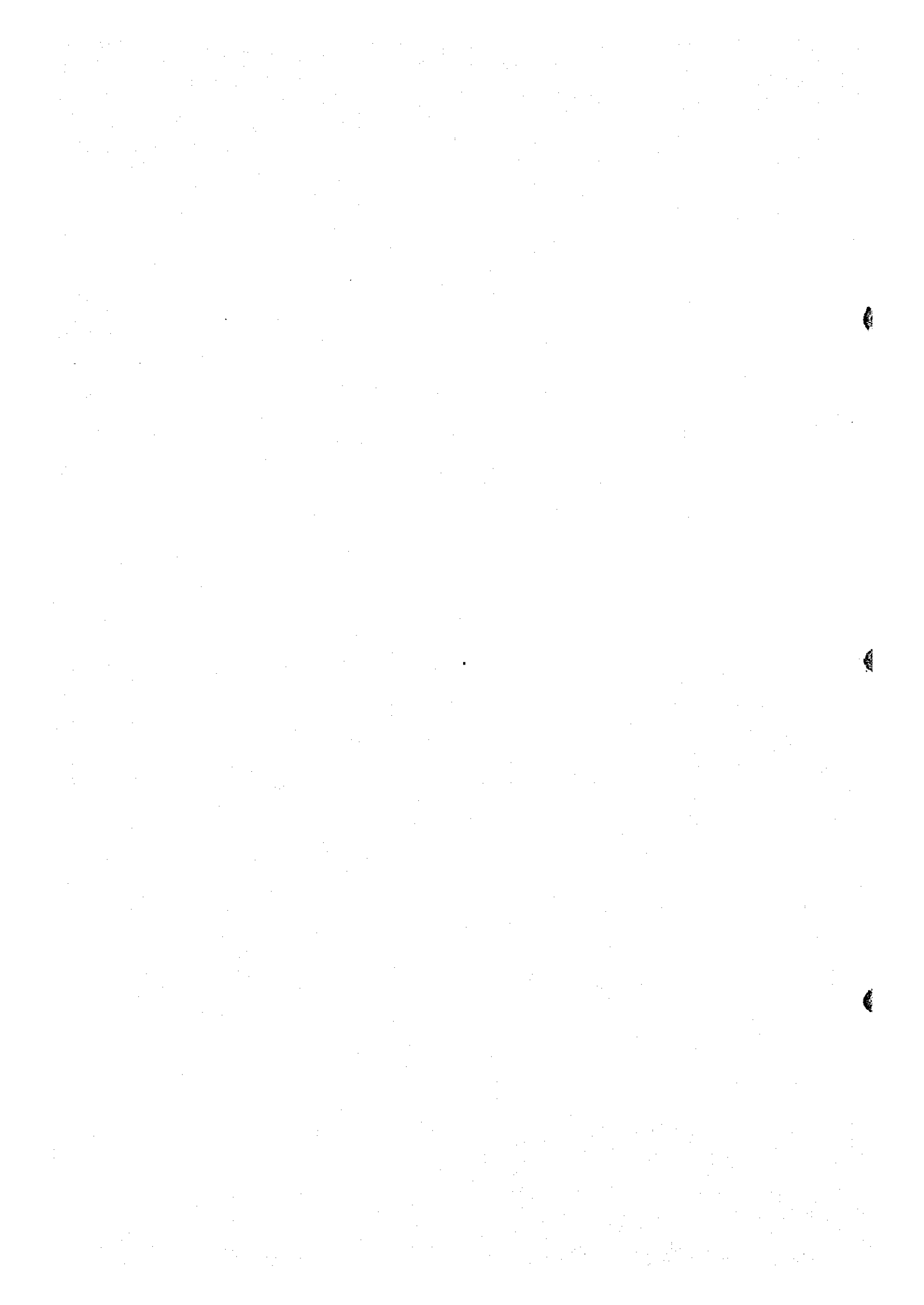


Table I-12 List of Radon Etch Anomalous Readings

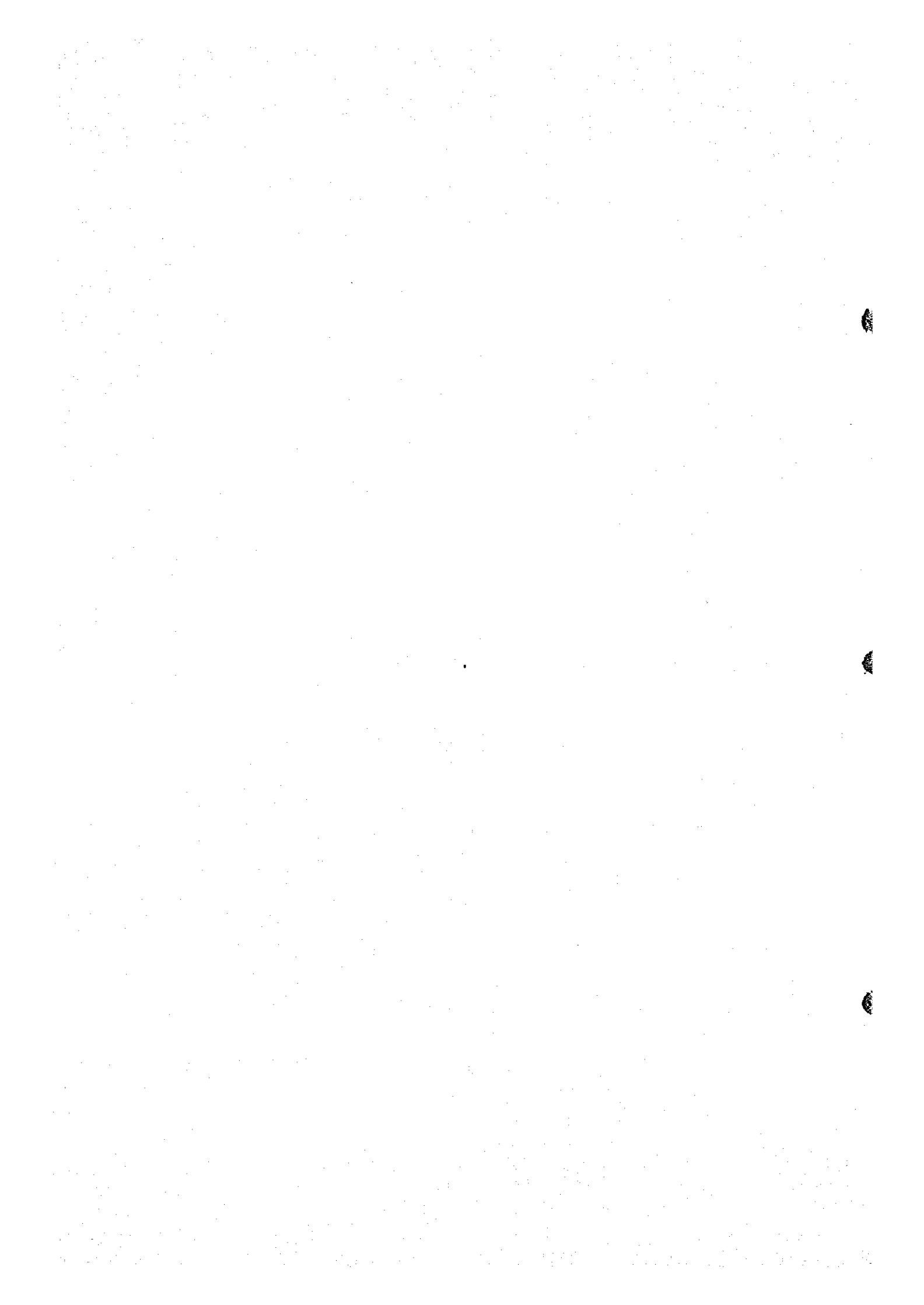
ABBREVIATION

- Q₃ : Q₃ River Sediments
 Q₂ : Q₂ Siltstone Formation
 T₂ : T₁ Mudstone Formation
 K₂T : K₂t Limestone Formation
 K₂CM : K₂cm Mudstone Formation
 SLP-T : Fine grained facies of P-T Red Sandstone Formation
 (mainly red siltstone)
 AKP-T : Coarse grained facies of P-T Red Sandstone Formation
 (mainly arkose sandstone)
 GR., POGR: Granites

Serial Number	Radon Etch Readings (T/sq mm 30days)	Anomaly		Ratio to Background Mean or Geometric Average		Geology of Cup Placing Point
		Preliminary Analysis	Principal Analysis	Preliminary Analysis	Principal Analysis	
56511	750.9	○	○	9.42	9.69	SLP-T
56512	796.7	○	○	10.00	10.28	AKP-T
56513	430.4	○	○	5.40	5.55	AKP-T
56514	677.6	○	○	8.50	8.74	AKP-T
56515	485.3	○	○	6.09	6.26	AKP-T
56516	183.1	—	○	-	2.36	AKP-T
56517	288.4	○	○	3.62	3.72	SLP-T
56518	522.0	○	○	6.55	6.74	SLP-T
56519	155.7	—	○	-	2.01	AKP-T
56521	245.2	○	○	3.08	3.16	SLP-T
56522	269.2	○	○	3.38	3.47	SLP-T
56523	442.3	○	○	5.54	5.71	SLP-T
56524	682.7	○	○	8.55	8.81	SLP-T
56525	615.4	○	○	7.72	7.16	Q ₂
56526	798.0	○	○	10.01	9.29	Q ₂
56528	461.5	○	○	5.79	5.37	Q ₂
56531	485.8	○	○	6.10	5.65	Q ₂
56533	230.8	○	—	2.90	-	GR



Serial Number	Radon Etch Readings (T/sqmm. 30days)	Anomaly		Ratio to Background Mean or Geometric Average		Geology of Cup Placing Point
		Preliminary Analysis	Principal Analysis	Preliminary Analysis	Principal Analysis	
56542	250.0	○	○	3.14	3.23	SLP-T
56552	153.8	—	○	—	1.98	SLP-T
56554	394.2	○	○	4.95	4.59	Q ₂
56569	317.3	○	○	3.98	3.69	Q ₂
56571	336.3	○	○	4.22	4.34	SLP-T
56573	355.8	○	○	4.46	4.14	Q ₂
56579	274.0	○	○	3.44	3.19	Q ₂
56591	472.0	○	○	5.92	5.49	Q ₂
56603	292.6	○	○	3.67	3.78	SLP-T
56620	229.4	○	—	2.88	—	POGR
56626	429.0	○	—	5.38	—	GR
56629	453.8	○	○	5.69	5.28	Q ₂
56632	225.0	○	—	2.82	—	Q ₂
56657	292.3	○	○	3.67	3.40	Q ₂
56670	276.9	○	○	3.47	3.22	Q ₂
56744	253.8	○	○	3.18	5.16	T ₂
56752	257.7	○	○	3.23	4.77	K ₂ T
56766	247.2	○	○	3.10	2.88	Q ₂
56777	163.5	—	○	—	2.11	SLP-T
56786	215.2	○	○	2.70	2.78	SLP-T
56789	146.5	—	○	—	1.89	SLP-T
56793	219.8	○	—	2.76	—	Q ₂
56799	233.5	○	○	2.93	3.01	SLP-T
56803	153.8	—	○	—	1.98	SLP-T
56805	194.7	—	○	—	3.96	T ₁
56819	219.8	○	○	2.76	2.84	SLP-T
56820	164.8	—	○	—	2.13	SLP-T
56821	270.1	○	○	3.39	3.49	SLP-T
56862	155.7	—	○	—	2.01	SLP-T
56863	238.1	○	○	2.99	2.77	Q ₂
56864	215.2	○	○	2.70	2.78	SLP-T
56866	247.2	○	○	3.10	2.88	Q ₂



Serial Number	Radon Etch Readings (T/sqmm. 30days)	Anomaly		Ratio to Background Mean or Geometric Average		Geology of Cup Placing Point
		Preliminary Analysis	Principal Analysis	Preliminary Analysis	Principal Analysis	
56911	288.4	○	○	3.62	3.72	SLP-T
56931	184.3	—	○	-	2.39	SLP-T
56932	180.3	—	○	-	2.33	SLP-T
56943	224.4	○	○	2.81	4.16	K ₂ CM
57092	240.4	○	○	3.02	2.80	Q ₃
57184	272.4	○	○	3.42	5.54	T ₁
57199	200.0	—	○	-	2.58	SLP-T
57200	153.8	—	○	-	1.98	SLP-T
57222	184.6	—	○	-	2.38	SLP-T
57229	230.8	○	○	2.90	2.99	SLP-T
57244	330.8	○	○	4.15	6.13	K ₂ CM
57253	183.6	—	○	-	2.37	SLP-T
57254	224.4	○	○	2.81	2.90	SLP-T
57255	256.4	○	○	3.22	2.98	Q ₂
57257	216.3	○	—	2.71	-	Q ₂
57259	264.4	○	○	3.32	3.41	SLP-T
Total		54 Points	63 Points			



APPENDICES

II Geophysical Survey

Table II-4 Earth Tide Correction and Drift Correction

STANDARD STATION							
NUMBER OF STANDARD STATION = 1							
DIFFERENCE IN TIME = 0							
NUMBER OF GRAVITY METER = 2							
DENSITY OF CLOSE TERRAIN CORRECTION = 2.00							
STANDARD STATION NO.	STATION NO.	GRAVITY VALUE	LATITUDE	LONGITUDE	HEIGHT		
1	1000	979.126533	32°25'59"	-5.32037	1862.542		
GRAVIMETRIC SURVEY OF HAUT MOULOUYA IN MOROCCO 1972 LACOSTE 236 MESCO 1							
COUNTER READING CONVERSION CONSTANTS							
2500	695.454	1.05837					
2000	2765.547	1.05848					
2000	2765.551	1.05845					
2000	2765.571	1.05851					
2500	3175.581	1.05855					
3000	3575.581	1.05870					
GRAVIMETRIC SURVEY OF HAUT MOULOUYA IN MOROCCO 1972 LACOSTE 266 MESCO 2							
COUNTER READING CONVERSION CONSTANTS							
2500	2765.551	1.05877					
2000	2765.571	1.05875					
2000	2765.581	1.05865					
2500	3175.581	1.05879					
3000	3575.581	1.05873					
3000	3572.491	1.05873					
GRAVITY VALUE CORRECTED FOR TIDE EFFECTS, INSTRUMENT HEIGHT AND DRIFT 1 LACOSTE 236 MESCO 3							
GRAVIMETRIC SURVEY OF HAUT MOULOUYA IN MOROCCO 1972							
STATION NO.	TIME	READING	INST. CORR.	CORRECTED	CORRECTION	GRAVITY DIFF.	GRAVITY VAL.
58	22	0 0 0	0.000	0.000	0.000	0.000	979.126533
0	1000	22 13 11	2770.095	2765.524	0.283	0.000	2227.635
1	1	22 13 22	2770.245	2765.525	0.082	0.000	2227.635
2	2	22 13 27	2770.277	2765.555	0.059	0.000	2227.624
3	3	22 13 34	2770.279	2765.571	0.053	0.000	2227.573
4	4	22 13 41	2770.455	2765.581	0.053	0.000	2227.435
5	5	22 13 47	2770.020	2765.550	0.050	0.000	2227.300
6	6	22 13 54	2770.395	2765.561	0.059	0.000	2227.314
7	7	22 14 01	2770.350	2765.563	0.053	0.000	2227.272
8	8	22 14 08	2770.701	2765.559	0.049	0.000	2227.225
9	9	22 14 15	2770.270	2765.550	0.047	0.000	2227.225
10	10	22 14 22	2770.150	2765.544	0.042	0.000	2227.225
11	11	22 14 29	2770.229	2765.540	0.031	0.000	2227.225
12	12	22 14 37	2770.075	2765.549	0.035	0.000	2227.225
13	13	22 14 44	2770.250	2765.572	0.031	0.000	2227.225
14	14	22 14 51	2770.225	2765.575	0.029	0.000	2227.225
15	15	22 14 58	2770.580	2765.572	0.023	0.000	2227.225
16	16	22 15 05	2770.374	2765.562	0.019	0.000	2227.225
17	17	22 15 12	2770.650	2765.558	0.015	0.000	2227.225
18	18	22 15 19	2770.270	2765.544	0.019	0.000	2227.225
19	19	22 15 26	2770.050	2765.547	0.022	0.000	2227.225
20	20	22 15 33	2770.470	2765.555	0.019	0.000	2227.225
21	21	22 15 40	2770.270	2765.541	0.022	0.000	2227.225
22	22	22 15 47	2770.370	2765.545	0.021	0.000	2227.225
23	23	22 15 54	2770.270	2765.545	0.021	0.000	2227.225
24	24	22 16 01	2770.270	2765.545	0.021	0.000	2227.225
25	25	22 16 08	2770.270	2765.545	0.021	0.000	2227.225
26	26	22 16 15	2770.270	2765.545	0.021	0.000	2227.225
27	27	22 16 22	2770.270	2765.545	0.021	0.000	2227.225
28	28	22 16 29	2770.270	2765.545	0.021	0.000	2227.225
29	29	22 16 36	2770.270	2765.545	0.021	0.000	2227.225
30	30	22 16 43	2770.270	2765.545	0.021	0.000	2227.225
31	31	22 16 50	2770.270	2765.545	0.021	0.000	2227.225
32	32	22 16 57	2770.270	2765.545	0.021	0.000	2227.225
33	33	22 17 04	2770.270	2765.545	0.021	0.000	2227.225
34	34	22 17 11	2770.270	2765.545	0.021	0.000	2227.225
35	35	22 17 18	2770.270	2765.545	0.021	0.000	2227.225
36	36	22 17 25	2770.270	2765.545	0.021	0.000	2227.225
37	37	22 17 32	2770.270	2765.545	0.021	0.000	2227.225
38	38	22 17 39	2770.270	2765.545	0.021	0.000	2227.225
39	39	22 17 46	2770.270	2765.545	0.021	0.000	2227.225
40	40	22 17 53	2770.270	2765.545	0.021	0.000	2227.225
41	41	22 18 00	2770.270	2765.545	0.021	0.000	2227.225
42	42	22 18 07	2770.270	2765.545	0.021	0.000	2227.225
43	43	22 18 14	2770.270	2765.545	0.021	0.000	2227.225
44	44	22 18 21	2770.270	2765.545	0.021	0.000	2227.225
45	45	22 18 28	2770.270	2765.545	0.021	0.000	2227.225
46	46	22 18 35	2770.270	2765.545	0.021	0.000	2227.225
47	47	22 18 42	2770.270	2765.545	0.021	0.000	2227.225
48	48	22 18 49	2770.270	2765.545	0.021	0.000	2227.225
49	49	22 18 56	2770.270	2765.545	0.021	0.000	2227.225
50	50	22 19 03	2770.270	2765.545	0.021	0.000	2227.225
51	51	22 19 10	2770.270	2765.545	0.021	0.000	2227.225
52	52	22 19 17	2770.270	2765.545	0.021	0.000	2227.225
53	53	22 19 24	2770.270	2765.545	0.021	0.000	2227.225
54	54	22 19 31	2770.270	2765.545	0.021	0.000	2227.225
55	55	22 19 38	2770.270	2765.545	0.021	0.000	2227.225
56	56	22 19 45	2770.270	2765.545	0.021	0.000	2227.225
57	57	22 19 52	2770.270	2765.545	0.021	0.000	2227.225
58	58	22 19 59	2770.270	2765.545	0.021	0.000	2227.225
59	59	22 20 06	2770.270	2765.545	0.021	0.000	2227.225
60	60	22 20 13	2770.270	2765.545	0.021	0.000	2227.225
61	61	22 20 20	2770.270	2765.545	0.021	0.000	2227.225
62	62	22 20 27	2770.270	2765.545	0.021	0.000	2227.225
63	63	22 20 34	2770.270	2765.545	0.021	0.000	2227.225
64	64	22 20 41	2770.270	2765.545	0.021	0.000	2227.225
65	65	22 20 48	2770.270	2765.545	0.021	0.000	2227.225
66	66	22 20 55	2770.270	2765.545	0.021	0.000	2227.225
67	67	22 21 02	2770.270	2765.545	0.021	0.000	2227.225
68	68	22 21 09	2770.270	2765.545	0.021	0.000	2227.225
69	69	22 21 16	2770.270	2765.545	0.021	0.000	2227.225
70	70	22 21 23	2770.270	2765.545	0.021	0.000	2227.225
71	71	22 21 30	2770.270	2765.545	0.021	0.000	2227.225
72	72	22 21 37	2770.270	2765.545	0.021	0.000	2227.225
73	73	22 21 44	2770.270	2765.545	0.021	0.000	2227.225
74	74	22 21 51	2770.270	2765.545	0.021	0.000	2227.225
75	75	22 21 58	2770.270	2765.545	0.021	0.000	2227.225
76	76	22 22 05	2770.270	2765.545	0.021	0.000	2227.225
77	77	22 22 12	2770.270	2765.545	0.021	0.000	2227.225
78	78	22 22 19	2770.270	2765.545	0.021	0.000	2227.225
79	79	22 22 26	2770.270	2765.545	0.021	0.000	2227.225
80	80	22 22 33	2770.270	2765.545	0.021	0.000	2227.225
81	81	22 22 40	2770.270	2765.545	0.021	0.000	2227.225
82	82	22 22 47	2770.270	2765.545	0.021	0.000	2227.225
83	83	22 22 54	2770.270	2765.545	0.021	0.000	2227.225
84	84	22 23 01	2770.270	2765.545	0.021	0.000	2227.225
85	85	22 23 08	2770.270	2765.545	0.021	0.000	2227.225
86	86	22 23 15	2770.270	2765.545	0.021	0.000	2227.225
87	87	22 23 22	2770.270	2765.545	0.021	0.000	2227.225
88	88	22 23 29	2770.270	2765.545	0.021	0.000	2227.225
89	89	22 23 36	2770.270	2765.545	0.021	0.000	2227.225
90	90	22 23 43	2770.270	2765.545	0.021	0.000	2227.225
91	91	22 23 50	2770.270	2765.545	0.021	0.000	2227.225
92	92	22 23 57	2770.270	2765.545	0.021	0.000	2227.225
93	93	22 24 04	2770.270	2765.545	0.021	0.000	2227.225
94	94	22 24 11	2770.270	2765.545	0.021	0.000	2227.225
95	95	22 24 18	2770.270	2765.545	0.021	0.000	2227.225
96	96	22 24 25	2770.270	2765.545	0.021	0.000	2227.225
97	97	22 24 32	2770.270	2765.545	0.021	0.000	2227.225
98	98	22 24 39	2770.270	2765.545	0.021	0.000	2227.225
99	99	22 24 46	2770.270	2765.545	0.021	0.000	2227.225
100	100	22 24 53	2770.270	2765.545	0.021	0.000	2227.225
DRIFT RATE PER AN HOUR							0.0127

