

7. Assay Results on Stream Sediment Geochemical Samples in the Western Thanh Hoa Area (7)

No.	Sample No. unit	Au ppb	Ag ppm	As ppm	Cr ppm	Cu ppm	Hg ppb	Hg %	Mn ppm	Ni ppm	Pb ppm	Sb ppm	Sn ppm	W ppm	Zn ppm
469	TSS- 54	<1	0.95	0.9	132	3.6	<10	0.21	3469	10	30.9	0.2	27	12	152
470	TSS- 55	<1	0.56	11.1	56	4.4	34	0.15	721	8	23.5	6.2	8	20	48
471	TSS- 56	<1	0.45	7.1	46	<0.2	<10	0.08	129	3	19.1	10	12	46	17
472	TSS- 57	1	0.51	10.1	43	1.4	61	0.1	83	2	14.2	8.4	7	35	16
473	TSS- 58	<1	0.2	0.3	77	2.6	18	0.14	1185	8	14.9	1.1	3	13	80
474	TSS- 59	<1	0.2	5	61	<0.2	33	0.09	851	5	16.1	5	7	24	45
475	TSS- 60	<1	0.3	11.6	28	3.2	84	0.13	197	4	16.4	4.3	6	16	32
476	TSS- 61	<1	0.93	1.6	126	<0.2	12	0.07	3844	7	32	2.8	8	11	115
477	TSS- 62	<1	0.48	1.4	53	0.9	29	0.1	285	5	23.4	5.8	7	25	28
478	TSS- 63	<1	0.48	0.4	74	2.5	14	0.16	806	9	29.2	2.1	7	20	61
479	TSS- 64	<1	0.56	1.1	87	0.3	18	0.15	406	8	27.9	1.6	9	24	46
480	TSS- 65	<1	0.64	0.7	84	2.6	28	0.12	1498	9	27.3	1.6	6	12	77
481	TSS- 66	<1	0.49	2.4	63	2.1	19	0.12	346	6	27.4	1.8	6	14	36
482	TSS- 67	<1	0.5	<0.2	70	2.9	27	0.11	264	8	25.1	1.6	8	12	38
483	TSS- 68	<1	0.47	0.8	58	6.3	11	0.12	309	8	24.7	1.8	7	15	39
484	TSS- 69	<1	0.5	<0.2	44	2	<10	0.04	196	7	15.1	1.5	12	11	26
485	TSS- 70	<1	0.66	1.3	88	2.7	28	0.09	1679	8	28.7	1.4	4	15	85
486	TSS- 71	1	0.27	0.8	34	2.7	<10	0.14	408	7	31.4	1.3	4	17	37
487	TSS- 72	<1	0.45	1.8	54	<0.2	17	0.14	295	7	37	2.7	4	17	31
488	TSS- 73	<1	0.35	3.3	54	3	11	0.2	130	9	40.6	3.8	6	19	48
489	TSS- 74	<1	0.45	4.1	58	5.1	21	0.2	144	16	46.8	2.6	5	19	62
490	TSS- 75	<1	0.41	0.9	50	2.7	20	0.18	55	6	39.4	3.4	5	20	34
491	TSS- 76	<1	0.34	<0.2	64	<0.2	43	0.11	740	7	24.8	1.7	4	4	38
492	TSS- 77	<1	0.15	2.1	60	3.5	30	0.12	734	10	15.1	1	2	4	38
493	TSS- 78	75	0.33	4.9	69	10.8	69	0.27	181	18	30.3	2.2	4	11	71
494	TSS- 79	<1	0.2	2.7	73	11.7	31	0.41	366	23	17.8	1.7	3	17	52
495	TSS- 80	<1	0.47	6.8	141	3.5	13	0.2	128	25	42.7	3.5	4	25	64
496	TSS- 81	<1	0.35	1.2	32	0.8	<10	0.05	99	6	16.2	1.8	<2	10	18
497	TSS- 82	<1	0.55	2.4	104	<0.2	25	0.13	117	9	47.2	5.7	6	7	32
498	TSS- 83	<1	0.64	6.7	84	<0.2	18	0.11	85	7	54.1	7.3	5	26	28
499	TSS- 84	<1	0.53	4.2	64	<0.2	57	0.17	131	6	68.2	5	5	28	29
500	TSS- 85	2	0.42	4.6	76	1.7	47	0.21	166	10	72.1	5.6	10	16	36
501	TSS- 86	<1	0.23	1.2	21	2.6	17	0.05	93	6	12.7	2.3	<2	6	16
502	TSS- 87	<1	1.08	<0.2	67	5.4	16	0.05	3538	20	8.9	<0.2	<2	<2	60
503	TSS- 88	<1	0.2	5.7	56	<0.2	185	0.14	113	9	32.3	2.9	3	19	35
504	TSS- 89	<1	0.24	2.7	19	3.1	<10	0.06	117	4	13.9	1.7	<2	8	19
505	TSS- 90	<1	0.22	5.5	35	20.5	64	0.26	461	19	107.7	0.6	<2	9	108
506	TSS- 91	1	0.11	1.7	58	11.8	15	0.4	721	23	26.9	0.5	<2	<2	58
507	TSS- 92	<1	0.1	1.2	31	7.7	20	0.19	491	11	25.1	<0.2	<2	3	36
508	TSS- 93	<1	0.25	1.2	63	12.4	14	0.42	570	25	37	1.9	5	6	62
509	TSS- 94	<1	0.1	<0.2	17	2.7	17	0.1	472	7	50.6	<0.2	19	<2	23
510	TSS- 95	<1	0.12	0.3	33	6.3	420	0.22	624	13	24	<0.2	<2	<2	36
511	TSS- 96	1	0.21	0.9	34	8.1	122	0.28	582	16	43.9	<0.2	3	7	56
512	TSS- 97	<1	0.29	0.9	41	6.6	12	0.29	881	15	36.9	0.4	<2	8	53
513	TSS- 98	<1	0.33	1.6	46	5.5	55	0.21	934	13	33.9	<0.2	<2	<2	51
514	TSS- 99	<1	0.13	1.2	15	1.6	23	0.06	417	5	42.5	<0.2	2	4	21
515	TSS- 100	<1	0.09	1.8	18	3.7	<10	0.08	35	6	6.4	0.7	<2	<2	11
516	TSS- 101	<1	0.23	5.2	13	3.1	<10	0.07	31	8	7.7	1.2	<2	<2	14
517	TSS- 102	<1	0.06	1	20	3.6	146	0.06	46	6	5.7	0.6	<2	<2	22
518	TSS- 103	<1	0.24	3.5	57	9.8	11	0.32	678	16	24.8	0.9	3	6	43
519	TSS- 104	<1	0.17	4.4	24	3.5	<10	0.07	123	6	8	1.6	<2	2	14
520	TSS- 105	<1	0.3	1.6	36	5.9	<10	0.16	409	10	12.6	<0.2	<2	<2	29
521	TSS- 106	<1	0.18	1.4	50	8.3	<10	0.32	889	24	42	<0.2	15	3	82
522	TSS- 107	<1	0.33	<0.2	43	<0.2	163	0.16	1289	10	26.7	0.6	4	9	40
523	TSS- 108	<1	0.25	1.7	41	2.4	<10	0.24	482	19	26.7	1	<2	3	86
524	TSS- 109	<1	0.42	1.2	52	3.3	30	0.09	1344	10	16.2	<0.2	<2	<2	42
525	TSS- 110	<1	0.71	<0.2	39	2.8	25	0.1	2664	7	25	<0.2	5	<2	67
526	TSS- 111	<1	3.6	10.3	12	5.8	26	0.01	782	4	33.4	1.1	2	8	35
527	TSS- 112	<1	0.98	0.4	67	1.6	21	0.17	2712	13	27.9	<0.2	5	<2	78
528	TSS- 113	<1	5.85	8.6	2	4.7	20	<0.01	170	<1	18.7	1.1	17	10	15
529	TSS- 114	<1	2.5	1.1	59	0.4	15	0.07	2240	8	26.5	<0.2	4	8	104
530	TSS- 115	<1	1.42	<0.2	91	17.6	17	0.08	4525	24	13	<0.2	12	<2	89
531	TSS- 116	1	1.03	<0.2	132	69.3	20	0.7	3264	73	12.5	<0.2	<2	4	134
532	TSS- 117	1	0.64	<0.2	221	174.8	56	0.98	2279	130	15.7	<0.2	<2	6	139

8. Assay Results on Soil Geochemical Samples in the Western Thanh Hoa Area (4)

No.	Sample No. unit	Au ppb	Ag ppm	As ppm	Cr ppm	Cu ppm	Hg ppb	Hg %	Mn ppm	Ni ppm	Pb ppm	Sb ppm	Sn ppm	W ppm	Zn ppm
235	Q - 14	<1	<0.02	34.5	150	13.2	46	0.04	544	26	31.4	5.9	33	51	61
236	Q - 15	<1	<0.02	43.8	193	21.5	73	0.04	580	46	49.7	7.7	37	64	87
237	Q - 16	2	<0.02	49.8	189	19.2	83	0.04	624	46	43.6	8.4	23	60	93
238	Q - 17	<1	<0.02	51.7	227	23.6	91	0.05	637	48	50	8.2	21	59	99
239	Q - 18	<1	<0.02	82.5	336	54.4	97	0.07	584	69	97.3	11.5	19	60	110
240	Q - 19	<1	<0.02	108.6	711	74.7	103	0.06	564	104	232.3	24.1	18	55	103
241	Q - 20	<1	<0.02	79.6	335	48.5	91	0.06	604	85	109.2	13.8	20	70	154

F: few VF: very few R: rare VR: very rare -: trace

Sample No.	Analytical weight (g)	Fine grained minerals(1mm>)																				Coarse grained minerals(1mm<)											
		Strong magnetic minerals		Weak magnetic minerals																no magnetic and heavy minerals						weight (g)	Lm ⁽³⁾ (g)	Sp ⁽¹³⁾ (g)	Hm ⁽⁴⁾ (g)				
		weight (g)	Mt ⁽¹⁾ (%)	weight (g)	Il ⁽²⁾ (%)	Lm ⁽³⁾ (%)	Hm ⁽⁴⁾ (%)	Ga ⁽⁵⁾ (%)	St ⁽⁶⁾ (%)	Ep ⁽⁷⁾ (%)	Sd ⁽⁸⁾ (%)	Tl ⁽⁹⁾ (%)	Cr ⁽¹⁰⁾ (%)	Wf ⁽¹¹⁾ (%)	Cp ⁽¹²⁾ (%)	Sp ⁽¹³⁾ (%)	Mc ⁽¹⁴⁾ (%)	Gt ⁽¹⁵⁾ (%)	weight (g)	Zr ⁽¹⁶⁾ (%)	Rt ⁽¹⁷⁾ (%)	Hg ⁽¹⁸⁾ (grn)	Py ⁽¹⁹⁾ (%)	Cs ⁽²⁰⁾ (%)	Au ⁽²¹⁾ (grn)					Cp ⁽¹²⁾ (%)	Mc ⁽¹⁴⁾ (%)		
VMC-7	33.95	7.7	95	24.3	F	F	2	-	-	18	-	3	-	-	-	-	-	-	-	0.15	1	VF	-	-	-	-	22	-	-	0.05	0.05	-	-
VMC-8	25.0	0.2	94	9.8	16	22	3	-	-	2	-	2	-	-	-	-	-	-	-	0.5	30	34	-	-	-	-	-	-	0.05	0.05	-	-	
VMC-9	26.55	2.9	40	20.15	F	6	VR	-	-	67	-	-	-	-	-	-	-	-	-	0.1	2	VR	-	-	-	5	-	-	-	-	-		
VMC-10	29.25	3.4	94	11.3	-	7	VR	-	-	40	-	-	-	-	-	-	-	-	-	0.35	16	17	-	-	-	-	-	-	-	-	-		
VMC-11	33.85	3.65	83	18.4	-	11	12	VR	-	33	-	VR	VR	-	-	-	-	-	-	0.3	22	19	-	-	-	VR	-	-	0.05	0.04	-	R	
VMC-12	42.25	0.55	90	18.3	15	4	2	-	-	20	-	VR	VR	-	-	-	-	-	-	0.2	19	19	-	-	-	-	-	0.1	0.1	-	-		
VMC-13	31.95	1.8	97	24.7	31	F	F	-	-	17	-	VR	-	-	-	-	-	-	-	0.15	26	25	-	-	-	-	-	-	-	-	-		
VMC-14	24.1	0	-	2.4	F	38	VF	-	-	VR	-	2	-	-	-	-	-	-	-	0.7	32	35	-	-	-	-	-	-	-	-	-		
VMC-15	28.55	0	-	7.1	-	33	VR	-	-	-	-	1	-	-	-	-	-	-	-	0.2	8	50	-	-	-	-	-	-	-	-	-		
VMC-16	21.2	0.05	97	4.4	13	14	VR	-	-	12	-	F	-	-	-	-	-	-	-	0.6	72	16	-	-	-	-	-	-	-	-	-		
VMC-17	29.7	1.45	95	17.45	37	7	F	-	-	15	-	-	-	-	-	-	-	VR	0.1	36	8	1	4	-	-	-	0.05	0.04	-	VR			
VMC-18	22.1	0.1	95	6.8	26	14	2	-	-	25	-	-	-	-	-	-	-	-	-	0.5	56	12	-	-	-	-	-	-	-	-	-		
VMC-19	19.3	1.9	96	10.3	-	65	1	-	-	F	-	R	-	-	-	-	-	-	-	0.1	29	7	-	-	-	-	-	-	-	-	-		
VMC-20	15.5	0.2	98	3.0	6	28	2	-	-	4	-	3	-	-	-	-	-	-	-	0.1	3	10	-	-	-	-	-	-	-	-	-		
VMC-21	19.56	0.01	95	1.6	4	14	F	-	-	VR	-	VF	-	-	-	-	-	-	-	0.25	26	35	-	-	-	-	-	-	-	-	-		
VMC-22	11.81	0.2	95	6.1	VR	35	2	-	-	-	-	F	-	-	-	-	-	-	-	0.01	18	3	-	-	-	-	-	-	-	-	-		
VMC-23	27.6	0.2	95	8.5	33	5	VR	-	-	22	-	1	-	-	-	-	-	-	-	0.8	81	12	-	-	-	-	-	0.1	F	-	VR		
VMC-24	33.8	1.3	97	28.2	48	F	VR	-	-	34	-	R	-	-	-	-	-	-	-	0.3	23	20	-	-	VR	-	-	0.1	0.05	-	VR		
VMC-25	24.9	F	F	2.4	-	30	6	-	-	R	-	VR	-	-	-	-	-	VR	1.4	44	13	-	-	-	-	-	0.1	0.08	-	R			
VMC-26	21.7	F	F	2.3	-	25	10	-	-	R	-	F	-	-	-	-	-	VR	0.4	32	8	-	-	-	-	-	0.01	R	-	R			
VMC-27	19.45	F	F	2.8	4	13	2	-	-	F	-	2	VR	-	-	-	-	VR	0.3	7	25	-	-	-	-	-	0.01	F	-	VR			
VMC-28	17.1	0	-	2.7	12	35	3	-	-	VF	-	3	VR	-	-	-	-	VR	0.2	11	20	-	-	-	-	-	-	-	-	-	-		
VMC-29	21.83	0	-	1.55	-	5	VR	-	-	-	-	R	-	-	-	-	-	VR	0.3	43	9	-	-	-	-	-	-	-	-	-	-		
VMC-30	18.2	0.6	95	9.0	45	3	VR	-	-	14	-	VR	-	-	-	-	-	-	0.2	20	19	-	-	VR	-	-	-	-	-	-	-		
VMC-31	18.85	0.2	95	9.1	7	11	2	-	-	7	-	VR	-	-	-	-	-	-	0.05	8	12	-	-	-	-	-	-	-	-	-	-		
VMC-32	16.11	0.3	94	8.5	11	6	2	-	-	16	-	VR	-	-	-	-	-	-	0.01	38	13	-	-	-	-	-	-	-	-	-	-		
VMC-33	14.5	0.9	95	9.9	31	4	R	-	-	22	-	-	-	-	-	-	-	-	0.1	5	5	-	-	-	-	-	-	-	-	-	-		
VMC-34	18.55	0.05	96	1.9	F	14	2	-	-	R	-	F	-	-	-	-	-	-	0.1	7	6	-	-	-	-	-	-	-	-	-	-		
VMC-35	21.25	0.8	97	3.1	28	3	F	-	-	VR	-	-	-	-	-	-	-	-	0.45	26	30	-	-	-	-	-	-	-	-	-	-		
VMC-36	32.4	0.1	96	3.8	45	4	F	-	-	F	-	1	-	-	-	-	-	-	1.0	20	46	-	-	-	-	-	0.05	R	-	-	-		
VMC-37	24.5	11.8	97	12.7	76	VR	VR	-	-	3	-	-	-	-	-	-	-	-	F	VR	VR	-	-	VR	-	-	-	-	-	-	-		
VMC-38	41.5	17.2	98	24.3	90	VR	VR	R	-	3	-	-	-	-	-	-	-	-	F	-	VR	6	VR	-	-	-	-	-	-	-	-		
VMC-39	28.92	13.0	95	15.2	F	1	72	R	-	4	-	-	-	-	-	-	-	-	F	VR	VR	-	-	-	-	-	-	-	-	-	-		
VMC-40	19.12	6.0	95	13.1	-	-	66	-	-	11	-	-	-	-	-	VR	-	-	F	R	R	-	-	-	-	-	-	-	-	-	-		
VMC-41	19.81	9.2	67	10.6	10	F	F	-	-	31	-	-	-	-	-	-	-	-	F	R	VR	-	-	-	-	-	-	-	-	-	-		
VMC-42	34.6	13.1	97	21.5	-	-	81	-	-	12	-	-	-	-	-	-	-	-	F	R	VR	-	-	VF	-	-	-	-	-	-	-		
VMC-43	19.3	3.0	96	15.4	20	VF	F	-	-	40	-	-	-	-	-	VR	-	-	F	VF	VF	2	VR	-	-	VR	-	-	-	-	-		
VMC-44	20.9	1.2	85	19.5	13	F	F	-	-	45	-	-	-	-	-	-	-	-	F	VF	VF	-	-	VR	-	VR	-	-	-	-	-		
VMC-45	25.8	2.22	96	23.5	30	F	VF	-	-	58	-	-	-	-	-	-	-	-	F	R	VF	-	-	VR	-	VR	-	-	-	-	-		
VMC-46	12.6	1.2	97	11.4	33	F	F	-	-	60	-	VR	-	-	-	-	-	-	F	VF	VF	-	-	VR	-	VR	-	-	-	-	-		
VMC-47	23.4	3.4	96	20.0	60	F	F	-	-	30	VR	-	F	-	-	-	-	-	F	VF	VF	-	-	VR	-	3	-	-	-	-	-		
VMC-48	27.33	2.05	98	25.2	34	F	F	-	-	50	-	-	F	-	-	-	-	-	0.03	F	F	1	3	-	-	1	-	-	-	-	-		
VTC-1	10.25	0.32	70	5.3	20	11	3	-	-	VF	-	-	VR	-	-	-	-	VR	0.13	1	2	-	-	VR	-	-	-	-	-	-	-		
VTC-2	7.85	0.2	95	2.1	F	6	5	-	-	-	-	-	VR	-	-	-	-	VR	0.1	6	F	-	-	-	-	-	-	-	-	-	-		
VTC-3	6.83	0.15	98	6.4	F	F	96	VR	-	F	-	VR	VR	-	-	-	-	VR	0.08	12	10	3	VR	-	-	-	-	-	-	-	-		
VTC-4	6.1	0.1	98	4.4	VR	4	72	-	-	R	-	-	-	-	-	-	-	-	0.1	8	1	-	-	-	-	-	-	-	-	-	-		
VTC-5	7.4	0.1	90	4.5	5	F	18	-	-	F	-	-	-	-	-	-	-	VR	0.1	4	2	-	-	-	-	-	-	-	-	-	-		
VTC-6	29.75	0.12	97	29.2	F	-	96	-	-	R	-	-	-	-	-	-	-	-	0.25	66	5	-	-	-	-	-	-	-	-	-	-		

(1)Mt:Magnetite (2)Il:Ilmenite (3)Lm:Limonite (4)Hm:Hematite (5)Ga:Garnet (6)St:Staurolite (7)Ep:Epidote (8)Sd:Siderite (9)Tl:Tourmaline (10)Cr:Chromite
 (11)Wf:Wolframite (12)Cp:Chalcopyrite (13)Sp:Sphalerite (14)Mc:Malachite (15)Gt:Goethite (16)Zr:Zircon (17)Rt:Rutile (18)Hg:Mercury (19)Py:Pyrite (20)Cs:Cassiterite (21)Au:Gold

9. Microscopic Observations of Panned Concentrate Geochemical Samples in the Van Yen Area (4)

F: few VF: very few R: rare VR: very rare -: trace

Sample No.	Analytical weight (g)	Fine grained minerals(1mm>)																		Coarse grained minerals(1mm<)																			
		Strong magnetic minerals		Weak magnetic minerals														no magnetic and heavy minerals						weight (g)	Il ⁽²⁾ (g)	Cs ⁽¹⁵⁾ (g)	Lm ⁽³⁾ (g)	Se ⁽¹¹⁾	St ⁽⁶⁾	Ga ⁽⁵⁾	Py ⁽²⁰⁾								
		weight (g)	Mt ⁽¹⁾ (%)	weight (g)	Il ⁽²⁾ (%)	Lm ⁽³⁾ (%)	Hm ⁽⁴⁾ (%)	Ga ⁽⁵⁾ (%)	St ⁽⁶⁾ (%)	Ep ⁽⁷⁾ (%)	Sd ⁽⁸⁾ (%)	Tl ⁽⁹⁾ (%)	Px ⁽¹⁰⁾ (%)	Se ⁽¹¹⁾ (%)	Cr ⁽¹²⁾ (%)	Wf ⁽¹³⁾ (%)	Cp ⁽¹⁴⁾ (%)	Cs ⁽¹⁵⁾ (%)	Mc ⁽¹⁶⁾ (%)	weight (g)	Zr ⁽¹⁷⁾ (%)	Rt ⁽¹⁸⁾ (%)	Hg ⁽¹⁹⁾ (grn)									Py ⁽²⁰⁾ (%)	Cs ⁽²¹⁾ (grn)	Au ⁽²²⁾ (grn)	Ap ⁽²²⁾ (%)				
TFC- 1	20.72	0.12	98	20.3	91	F	F	VR	VR	VF	VR	VR	VF								0.2	55	19	9	2				0										
TFC- 2	15.12	2.3	97	11.8	77	VR	F	F	-	-	-	F	1								0.32	52	13		VR			0.22	0.2			R							
TFC- 3	11.79	0.05	98	9.7	73	R	VF	VF	VR				VR								1.82	23	39		VR			0											
TFC- 4	20.97	0.02	98	18.0	82	VR	F	F	VR												2.65	22	40																
TFC- 5	4.5	0.05	98	4.4	36	VR		VF		VR	VR									0.05	38	42																	
TFC- 6	22.85	0.1	97	22.3	90	VR		F	VR	R			VR	VR						0.15	89	9			VR														
TFC- 7	17.0	0.1	98	14.2	50	-	VR	VR	2	-		VF								0.75	95	1			VF														
TFC- 8	19.6	0.6	99	17.6	75	VF	VR	1	3	VR	VF									1.2	76	11	1		VR														
TFC- 9	5.4	0.05	98	4.65	75	R	VR	1	2	R	F		VR							0.5	24	15		VF	F														
TFC-10	5.8	0.2	98	5.1	67		VR	2	F	R			VR	VR						0.5	77	7																	
TFC-11	4.2	0.1	99	2.7	65	VR		F	3	VR										0.2	92	3			VR														
TFC-12	8.15	0.1	99	1.0	39	VR	VR	F	VR	VR										0.25	79	17			VR														
TFC-13	7.4	0		4.9	65	VR	VR	F	-	VR										0.1	71	16				VR													
TFC-14	10.4	1.2	99	8.0	80	VR	VR	VR	VR	-		F								0.1	56	12				VR													
TFC-15	14.22	0.2	99	13.5	80			F	F	R		R	R	R	VR					0.1	60	4				R													
TFC-16	5.78	0		5.5	80	VR		VR	VR	VR										0.08	62	3																	
TFC-17	11.1	0.2	99	7.7	76	VR		VR	F	R				VR		R				0.7	8	F				VR										R			
TFC-18	2.22	0.2	99	0.72	65	VR	VR													0.1	4	VR																	
TFC-19	3.61	0.01	98	1.7	80															1.7	7	VF																	
TGC- 1	34.75	0.15	99	34.4	94	R	VR	R	VR	VR		R	VR	VR						0.1	40	3			2														
TGC- 2	11.15	0.25	97	10.7	84	F		F	VR	VR		R	VR	VR						0.1	34	5			5														
TGC- 3	7.38	0.2	98	5.8	54	F	VR	3	5	VR		1			R					0.2	65	5			R														
TGC- 4	5.22	F	VF	4.2	50	R	VR	F	R	R										0.1	80	15			VR														
TGC- 5	4.86	0		2.18	60	G														0.2	3	F			20														
TGC- 6	5.34	0.01	96	2.5	48	F														0.18	3	56																	
TGC- 7	5.51	0.01	90	2.6	82	F	R		R	VF			R	VR						0.1	15	F				25													
TGC- 8	7.18	0		5.6	88	F		VR	VR				VR	VR						0.1	50	5				5													
TGC- 9	9.3	0.1	99	5.4	92	R			R	R										0.2	6					20													
TGC-10	7.05	0.05	99	3.3	80					R										0.2	7	6			VR		12												
TGC-11	5.2	0		0.9	20		VR													0.1	41	50				VR													
TGC-12	15.1	0.1	98	4.1	2	15	VR							F						0.1	1	VR			61														
TGC-13	7.06	0.01	98	6.0	83	VR		R	R	VR			F	VR						0.1	35	2			R														
TGC-14	8.0	0.05	98	7.3	84	R		F	VR	VR		R	F	R	VR					0.3	27	F			R		R												
TGC-15	22.45	0		0.6	9	F		R	R				2							0.05	67	4																	
TGC-16	13.4	0		0.3	11	F	VR	VR					1	VR						0.1	42	2																	
TGC-17	11.2	0		0.6	16	20	F						1							0.2	40	2			VF														
TGC-18	27.95	0.35	98	25.9	67	F	F	1	F	VR										0.7	65	25			1														
TGC-19	2.2	0		1.25	40	F		VR												0.15	10	2			1														
TGC-20	1.55	0		0.9	35	F														0.05	92	1			R														
TGC-21	8.1	0.05	99	7.5	40	F		F	R				F	F	VR					0.3	26	24				VR													
TGC-22	4.32	0.01	97	3.8	68	R	VR	VR	VR	R			VR	3	VR					0.01	52	5			VR														
TGC-23	10.4	0.1	97	9.8	77	F	VR	F	F	VR					VR					0.3	35	13					VR												
TGC-24	5.95	0.1	98	5.2	76	VR									VR					0.1	54	VF				VR													
TGC-25	2.02	0.2	98	1.65	80	F	VR								VR					0.05	27	F				VR													
TGC-26	3.62	0.01	98	3.55	55	R			VR						VR	VR	F			F	VF	R			VR														
TGC-27	2.35	0		1.9	26	F									VR	R	7			F	VF	VR			VR														
TGC-28	0.55	0		0.3	25	R									R	R	1			0.05	11	1																	
TGC-29	3.22	0.01	94	3.0	66	R	VR	VR	VR						VR	4	F			0.01	50	3				2	VR												
TGC-30	9.96	0.01	95	9.4	84	VF	VR		R						VR	2				0.3	4	F				50													VR

(1)Mt:Magnetite (2)Il:Ilmenite (3)Lm:Limonite (4)Hm:Hematite (5)Ga:Garnet (6)St:Staurolite (7)Ep:Epidote (8)Sd:Siderite (9)Tl:Tourmaline (10)Px:Pyroxene (11)Se:Serpentine (12)Cr:Chromite (13)Wf:Wolframite (14)Cp:Chalcopyrite (15)Cs:Cassiterite (16)Mc:Malachite (17)Zr:Zircon (18)Rt:Rutile (19)Hg:Mercury (20)Py:Pyrite (21)Au:Gold (22) Ap:Arsenopyrite

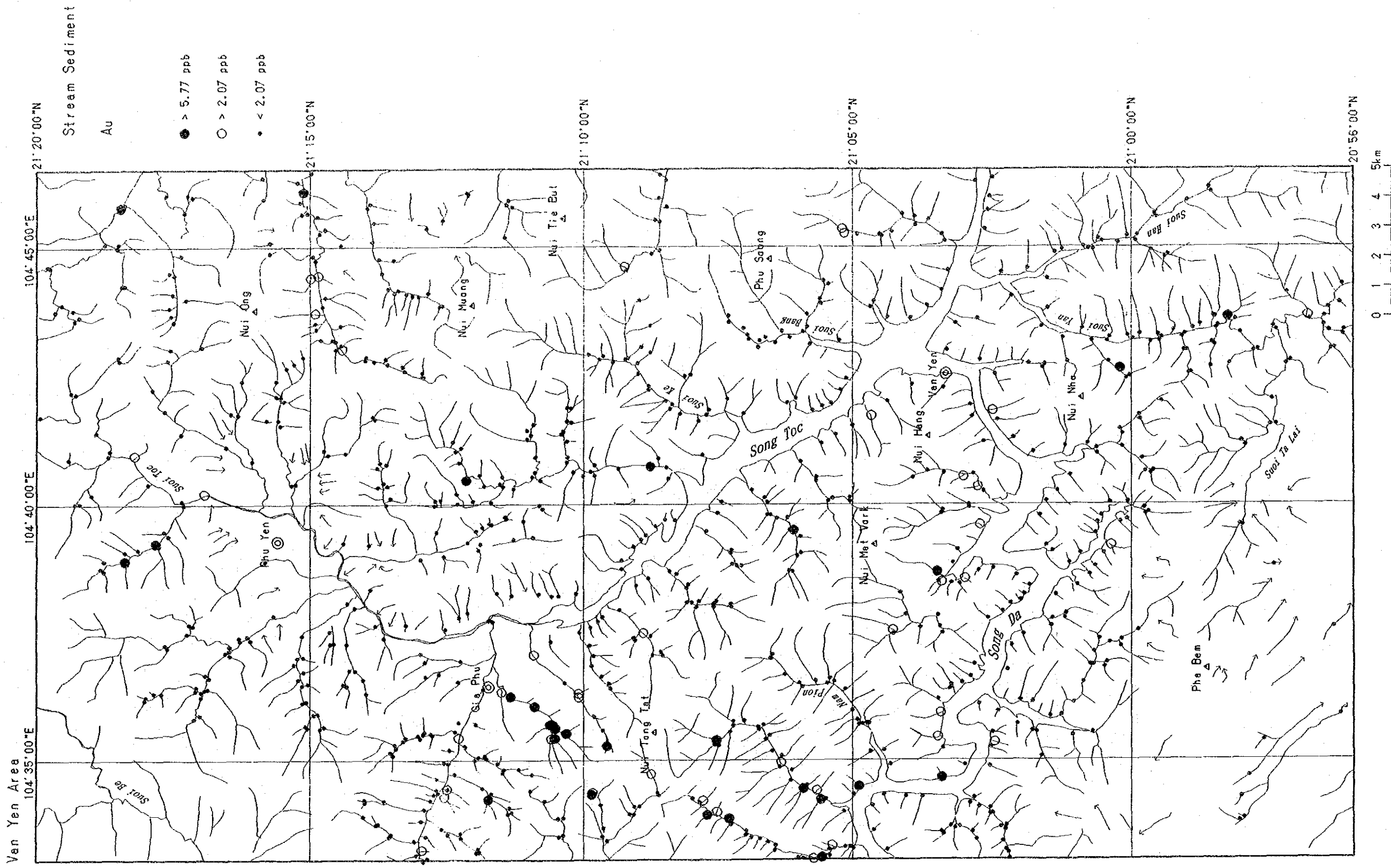
10. Microscopic Observations of Panned Concentrate Geochemical Samples in the Western Thanh Hoa Area (1)

F: few VF: very few R: rare VR: very rare -: trace

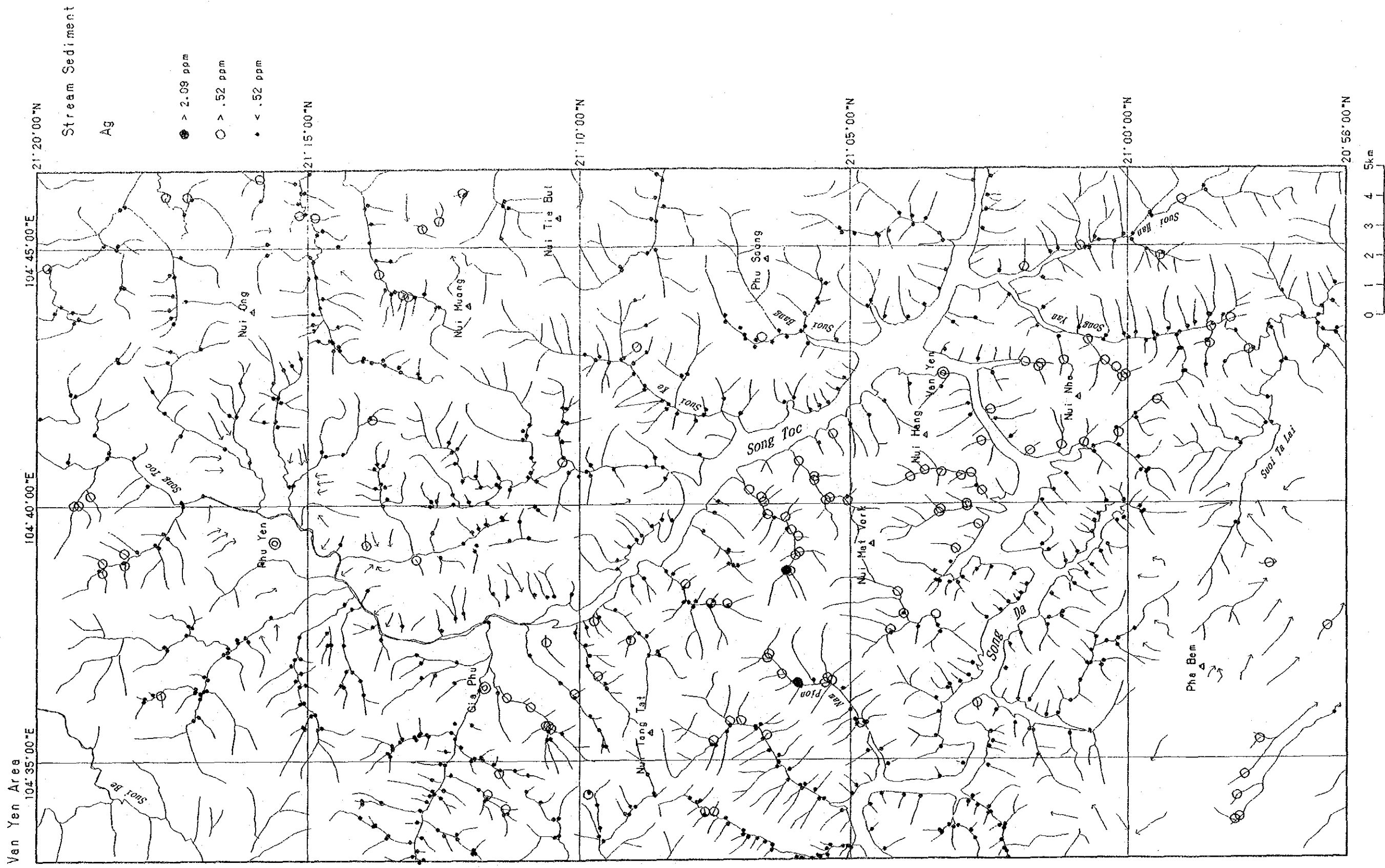
Sample No.	Analytical weight (g)	Fine grained minerals(1mm>)																		Coarse grained minerals(1mm<)																										
		Strong magnetic minerals		Weak magnetic minerals														no magnetic and heavy minerals																												
		weight (g)	Mt ⁽¹⁾ (%)	weight (g)	Il ⁽²⁾ (%)	Lm ⁽³⁾ (%)	Hm ⁽⁴⁾ (%)	Ga ⁽⁵⁾ (%)	St ⁽⁶⁾ (%)	Ep ⁽⁷⁾ (%)	Sd ⁽⁸⁾ (%)	Tl ⁽⁹⁾ (%)	Px ⁽¹⁰⁾ (%)	So ⁽¹¹⁾ (%)	Cr ⁽¹²⁾ (%)	Wf ⁽¹³⁾ (%)	Cp ⁽¹⁴⁾ (%)	Cs ⁽¹⁵⁾ (%)	Mc ⁽¹⁶⁾ (%)	weight (g)	Zr ⁽¹⁷⁾ (%)	Rt ⁽¹⁸⁾ (%)	Hg ⁽¹⁹⁾ (grn)	Py ⁽²⁰⁾ (%)	Cs ⁽¹⁵⁾ (%)	Au ⁽²¹⁾ (grn)	Ap ⁽²²⁾ (%)	weight (g)	Il ⁽²⁾ (%)	Cs ⁽¹⁵⁾ (%)	Lm ⁽³⁾ (%)	Se ⁽¹¹⁾ (%)	St ⁽⁶⁾ (%)	Ga ⁽⁵⁾ (%)	Py ⁽²⁰⁾ (%)											
TGC-31	3.6	0		0.8	42	8	VR														0.1	6	10												0.7	F			0.5	F						
TGC-32	16.27	0.01	98	15.3	80	F	F			VR												0.01	VF	VF												0.2	F			0.19						
TGC-33	251.05	0.6	98	248.4	94	F	VR			VR	F											0.15	7	2		F	-								0.5	0.25			0.20							
TSC-1	6.2	0.05	98	4.1	75	R				VR	F											2.0	19	41		VR																				
TSC-2	55.75	0.95	98	51.7	85	F	VR	VR			F	R										1.6	50	6		R	F																			
TSC-3	13.3	0		3.9	70	R	VR				VF											0.7	22	11		R	VR																			
TSC-4	5.5	0		3.7	20	F	VR				VR											0.9	4	41																						
TSC-5	28.92	0.02	98	27.7	90	VR	VR	VR														1.0	72	8																						
TSC-6	9.85	0.05	98	6.4	48	VF	VR	VR														2.2	9	47																						
TSC-7	11.8	0		1.1	23	R																0.7	2	30		F																				
TSC-8	16.7	0		8.8	44	F	R	VR														0.6	8	78																						
TSC-9	18.11	0.01	97	5.9	2	F																0.6	1	63																						
TSC-10	14.25	0		6.8	65	VR																0.75	24	15			VF																			
TSC-11	9.1	0		1.6	66	R	VR				R	VR										0.1	6	F			F																			
TSC-12	26.52	0.02	85	12.9	75	F		VR			VR	VR										0.2	40	22			F																			
TSC-13	19.3	0.2	98	6.3	49	R					2	2										0.8	20	F				VR																		
TSC-14	21.7	0		11.8	45	VR	VR	VR			VR											0.6	25	10																						
TSC-15	19.81	0.01	98	4.9	32	F																0.4	7	3																						
TSC-16	56.15	0.1	95	34.8	42	VF																0.45	46	45																						
TSC-17	9.11	0.01	90	6.0	82	F	R	VR														0.8	25	50				VR																		
TSC-18	9.0	0		1.3	76	F	R	VR				VR										1.3	26	13																						
TSC-19	15.4	0.1	98	13.8	85	1																0.1	34	36																						
TSC-20	14.7	0		10.7	93	2	2															3.7	18	23																						
TSC-21	20.45	0		20.3	95	VR	VR	F	R	VR												0.05	47	5																						
TSC-22	9.55	0.4	97	8.15	83	VR		R														0.1	86	2																						
TSC-23	28.05	0.7	98	27.0	92	R	VR	R	F	VR												0.3	67	5			VR	VR																		
TSC-24	14.95	0		0.55	35	11		VR	VR													5.5	10	3																						
TSC-25	8.0	0		0.55	26	9		VR		VR												0.3	25	5	3		VR																			
TSC-26	13.4	0.1	97	8.8	60	F		R	R	VR		VR										0.35	26	24																						
TSC-27	13.65	0		0.4	20	8	VR															0.4	6	9			F																			
TSC-28	13.4	0.15	99	12.65	90	VF	VR	1	F			VR										0.4	43	35																						
TSC-29	14.47	0.02	96	13.0	76	R	VR	5	VR	VR												0.4	34	9			VR																			
TSC-30	20.62	0.02	75	19.8	91	R		F		VR												0.55	60	10																						
TSC-31	23.66	0.01	98	21.4	75	1	F	VF														0.55	18	63																						
TSC-32	19.2	0.1	98	16.6	81	F		VF														0.3	50	3																						
TSC-33	19.9	0		6.6	78	R		VF	VR	VR												1.0	17	25				10																		
TSC-34	22.4	0.1	98	7.5	75	F		2	VR	VR												0.3	1	6				VR																		
TSC-35	24.05	0.05	97	0.3	35	6	F	R	VR	VR												0.05	21	F			R																			
TSC-36	30.3	0.5	98	13.0	80	F	R	R	VR													0.9	17	4			F																			
TSC-37	65.0	0.2	99	64.6	96	F	VR															0.1	34	10																						
TSC-38	12.72	0.1	97	10.9	48	13					1											0.02	F	F																						
TNC-1	47.0	0.1	67	9.6	65	R	VR			VR												0.3	20	F		VR																				
TNC-2	71.0	0.45	98	4.9	58	F	VR	R		VR												0.65	25	1		VR	1	1													0.6	0.1			0.3	VR
TNC-3	20.1	F	VF	10.2	66	F	VR	F		R												0.3	30	12		R	R																			
TNC-4	81.3	0.3	98	66.7	60	F	VR	F	R	R												1.6	15	16		F																	F			
TNC-5	78.9	0.05	95	69.0	81	VF	VR															0.7	20	2	2			VR																		
TNC-6	42.55	0.05	97	26.8	48	VR	VR															0.2	76	2				VR																		
TNC-7	75.95	0.7	98	70.7	67	VR		5	1	2												2.75	38	F	5	R	20	1																		

(1)Mt:Magnetite (2)Il:Ilmenite (3)Lm:Limonite (4)Hm:Hematite (5)Ga:Garnet (6)St:Staurolite (7)Ep:Epidote (8)Sd:Siderite (9)Tl:Tourmaline (10)Px:Pyroxene (11)Se:Serpentine (12)Cr:Chromite (13)Wf:Wolframite (14)Cp:Chalcopyrite (15)Cs:Cassiterite (16)Mc:Malachite (17)Zr:Zircon (18)Rt:Rutile (19)Hg:Mercury (20)Py:Pyrite (21)Au:Gold (22)Ap:Arsenopyrite

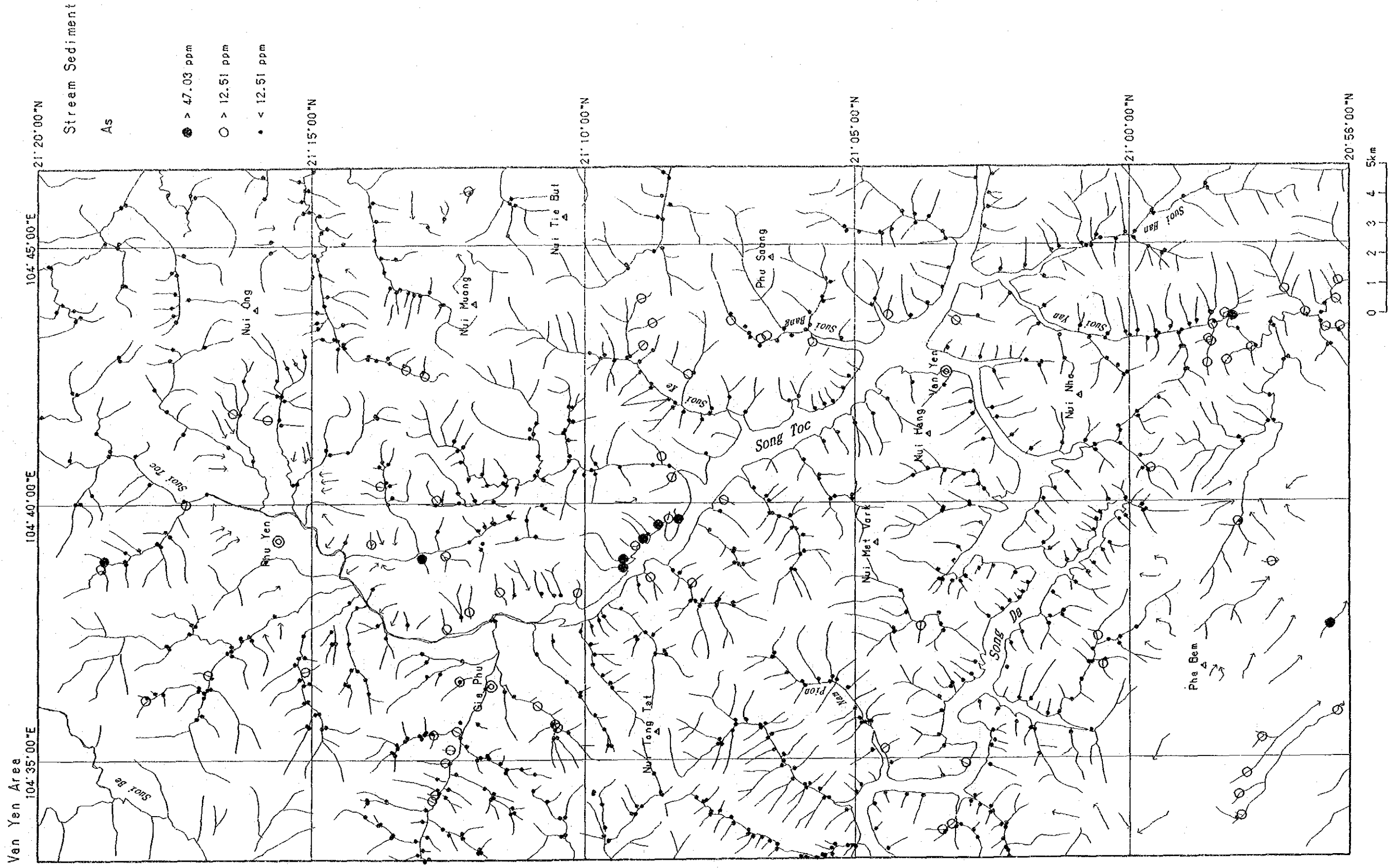
10. Microscopic Observations of Panned Concentrate Geochemical Samples in the Western Thanh Hoa Area (2)



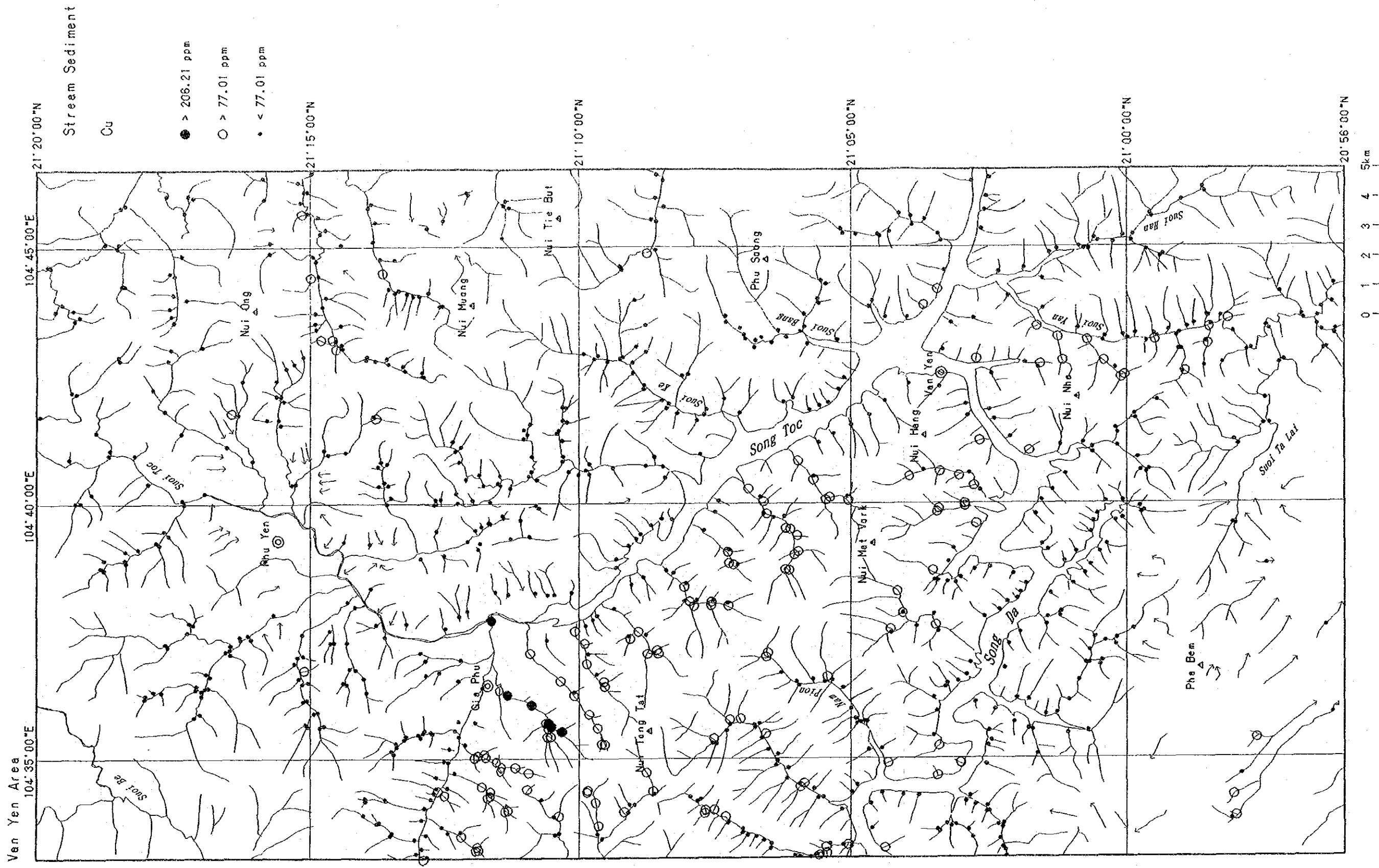
11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (1): Au



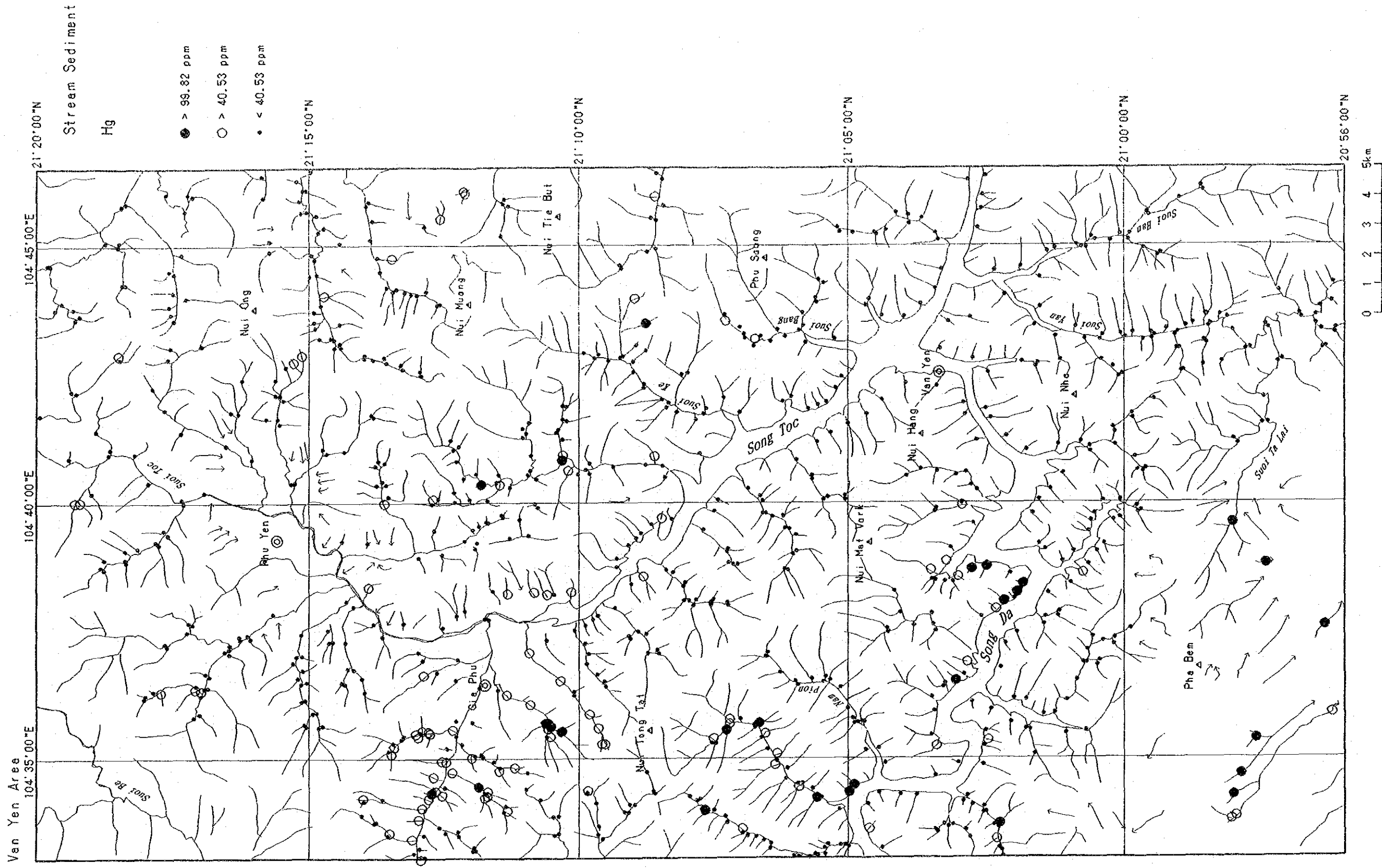
11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (2): Ag



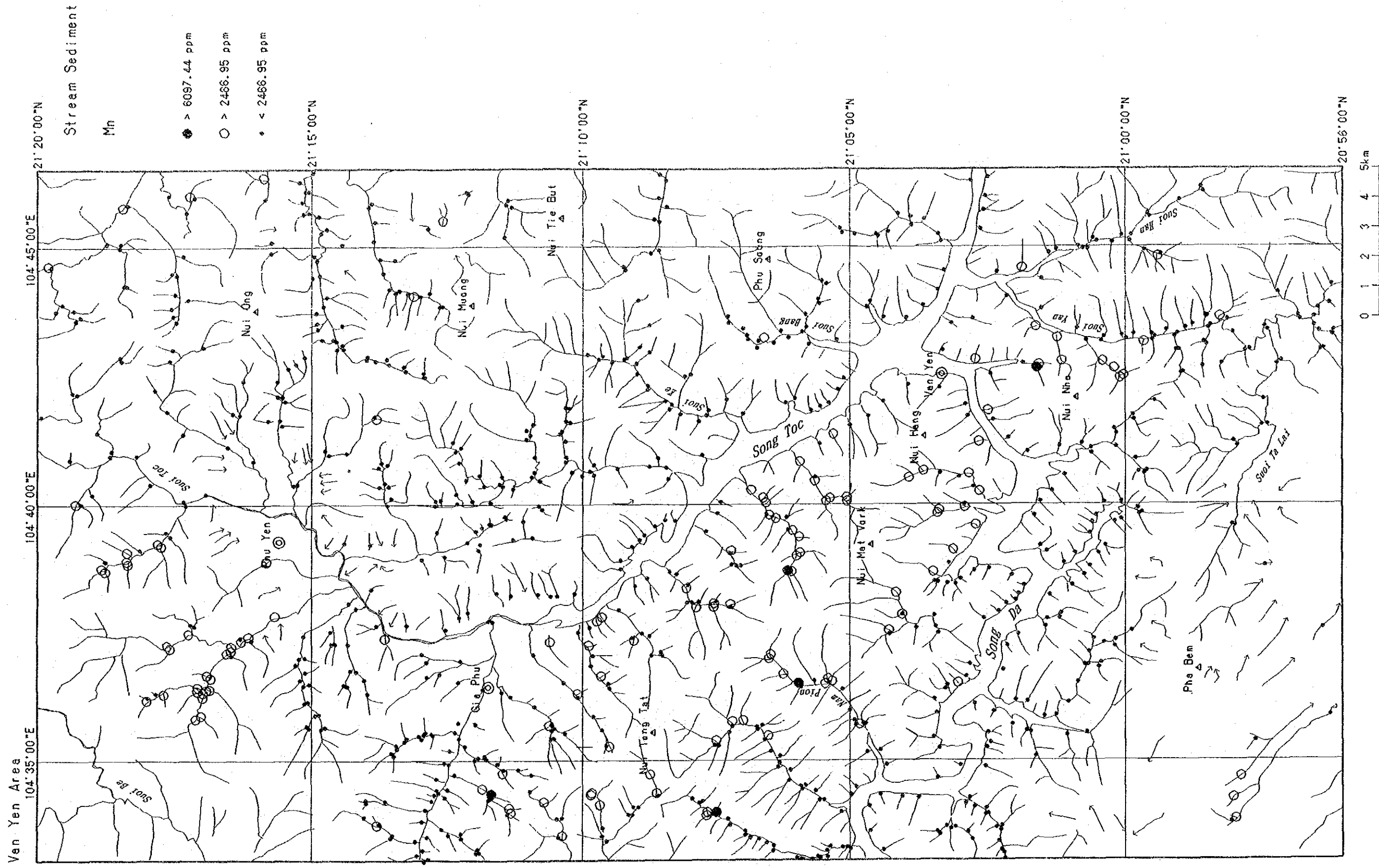
11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (3): As



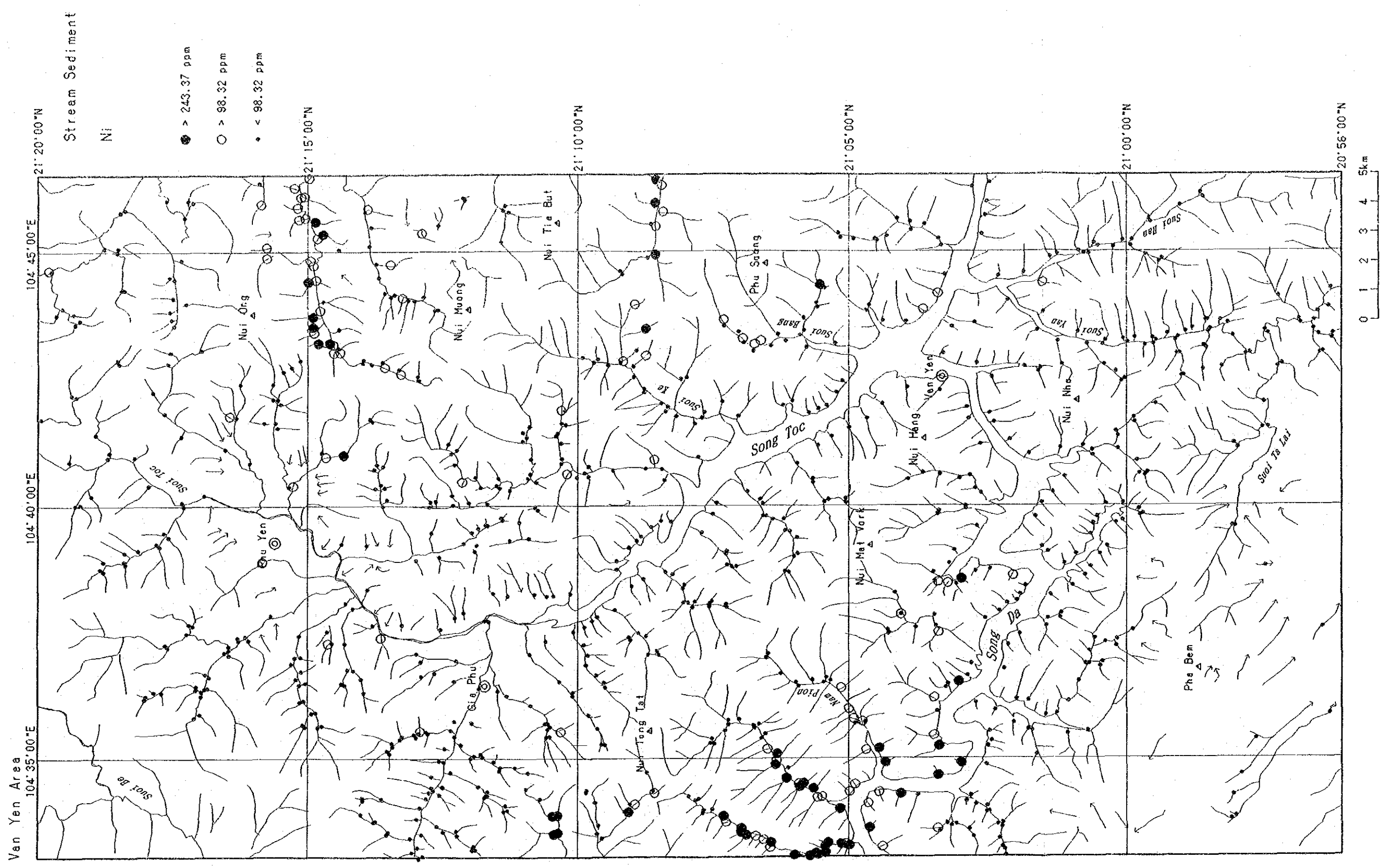
11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (5): Cu



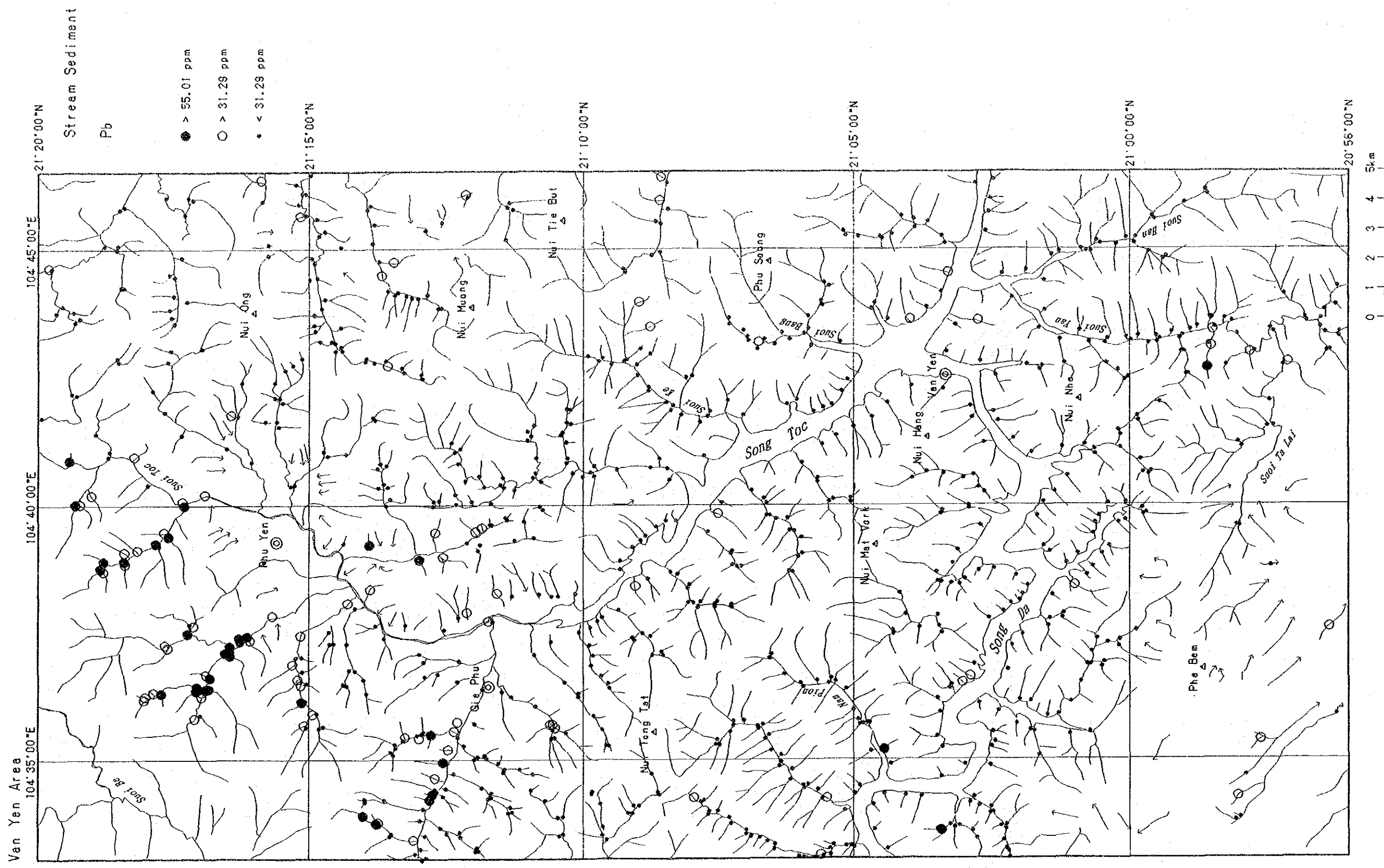
11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (6): Hg



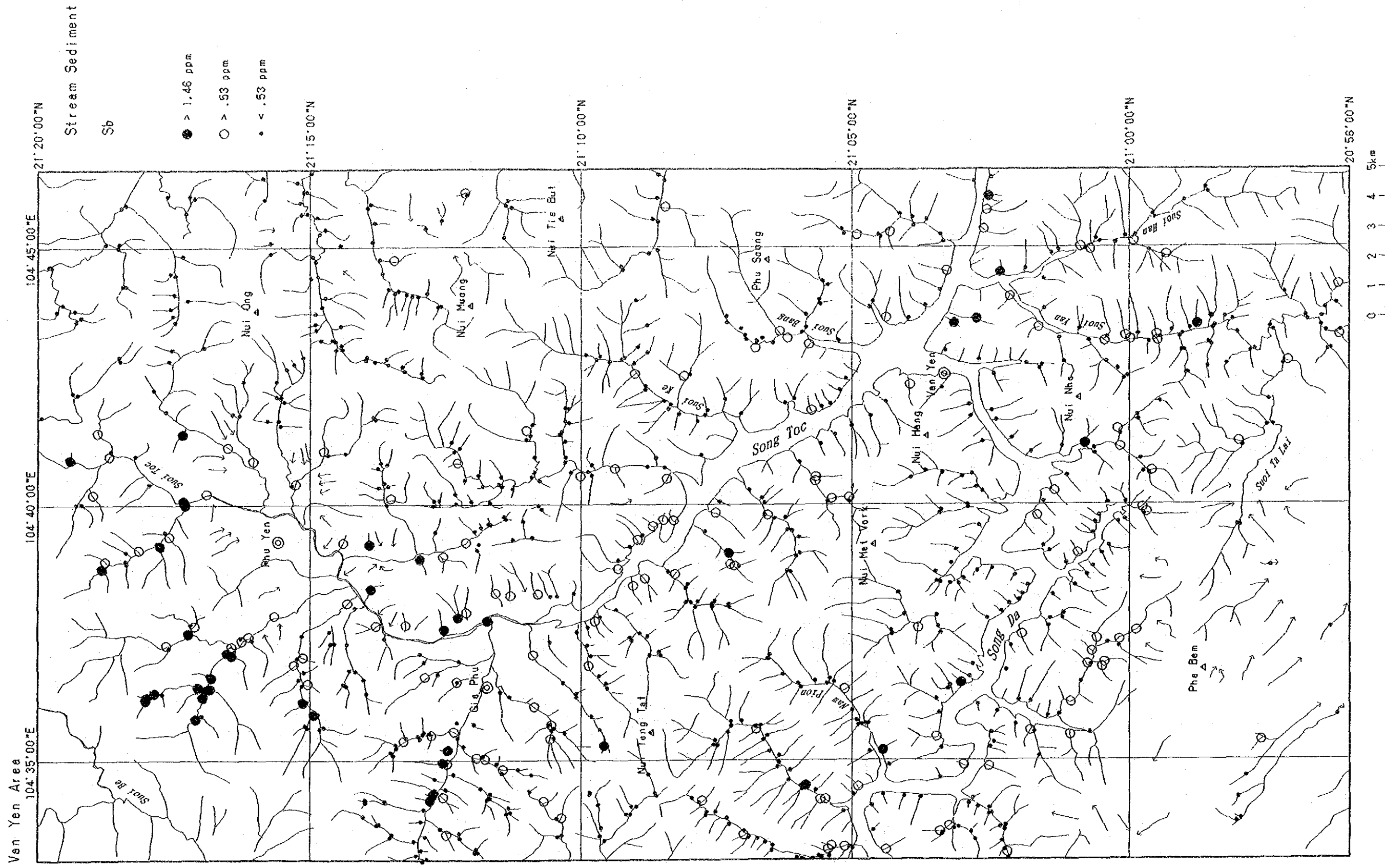
11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (7): Mn



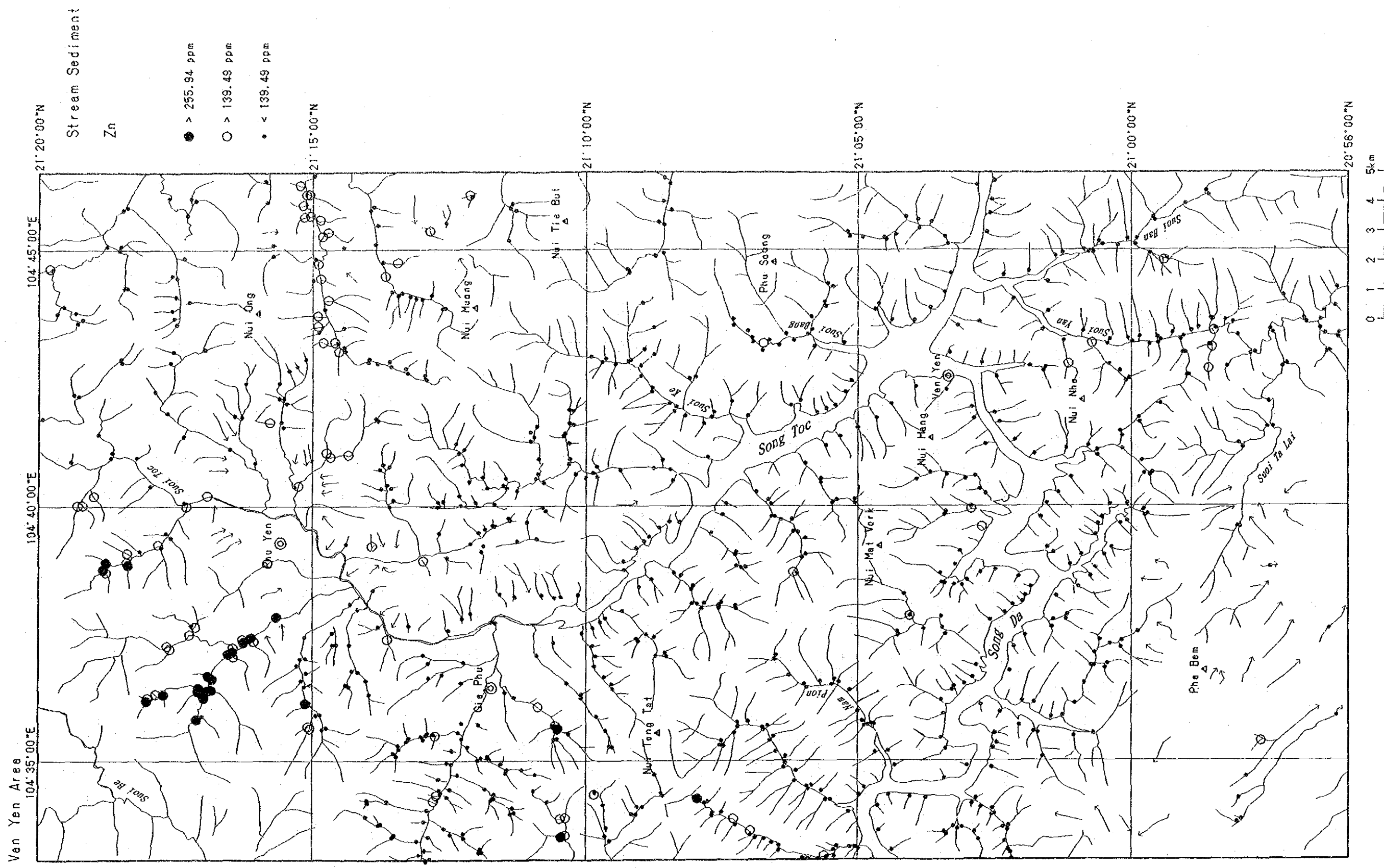
11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (8): Ni



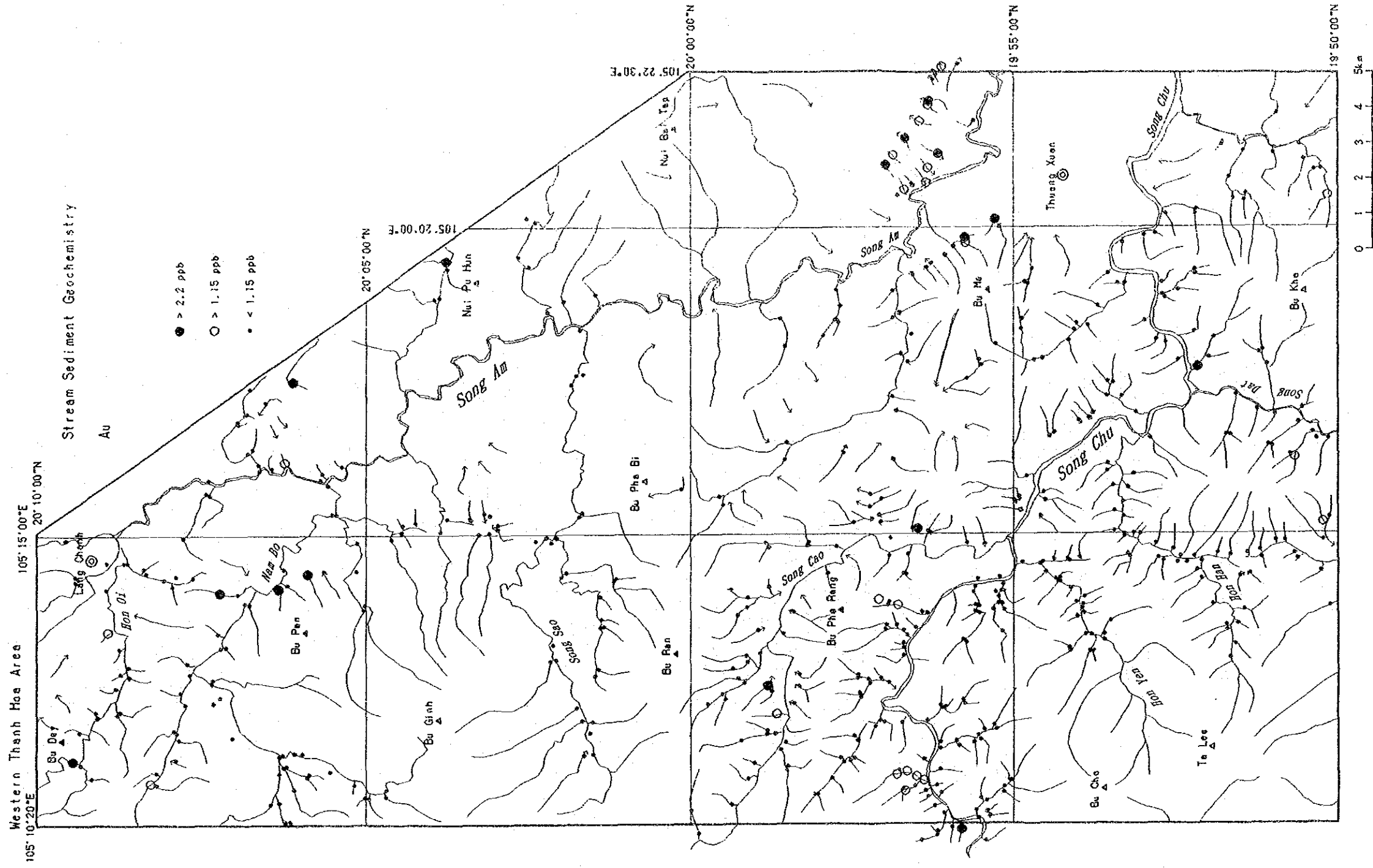
11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (9): Pb



11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (10): Sb

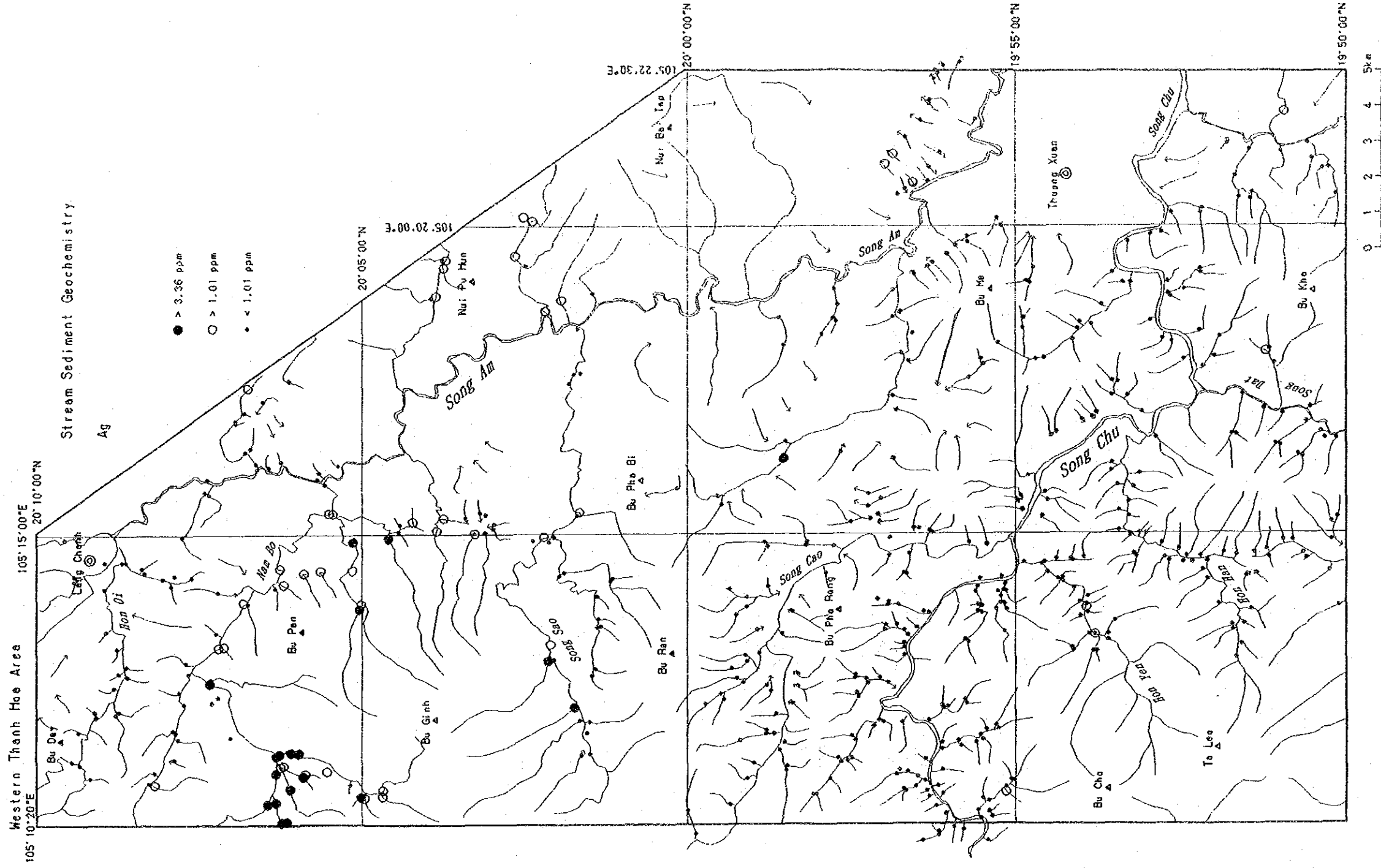


11. Anomaly Map of Stream Sediment Geochemistry in the Van Yen Area (11): Zn

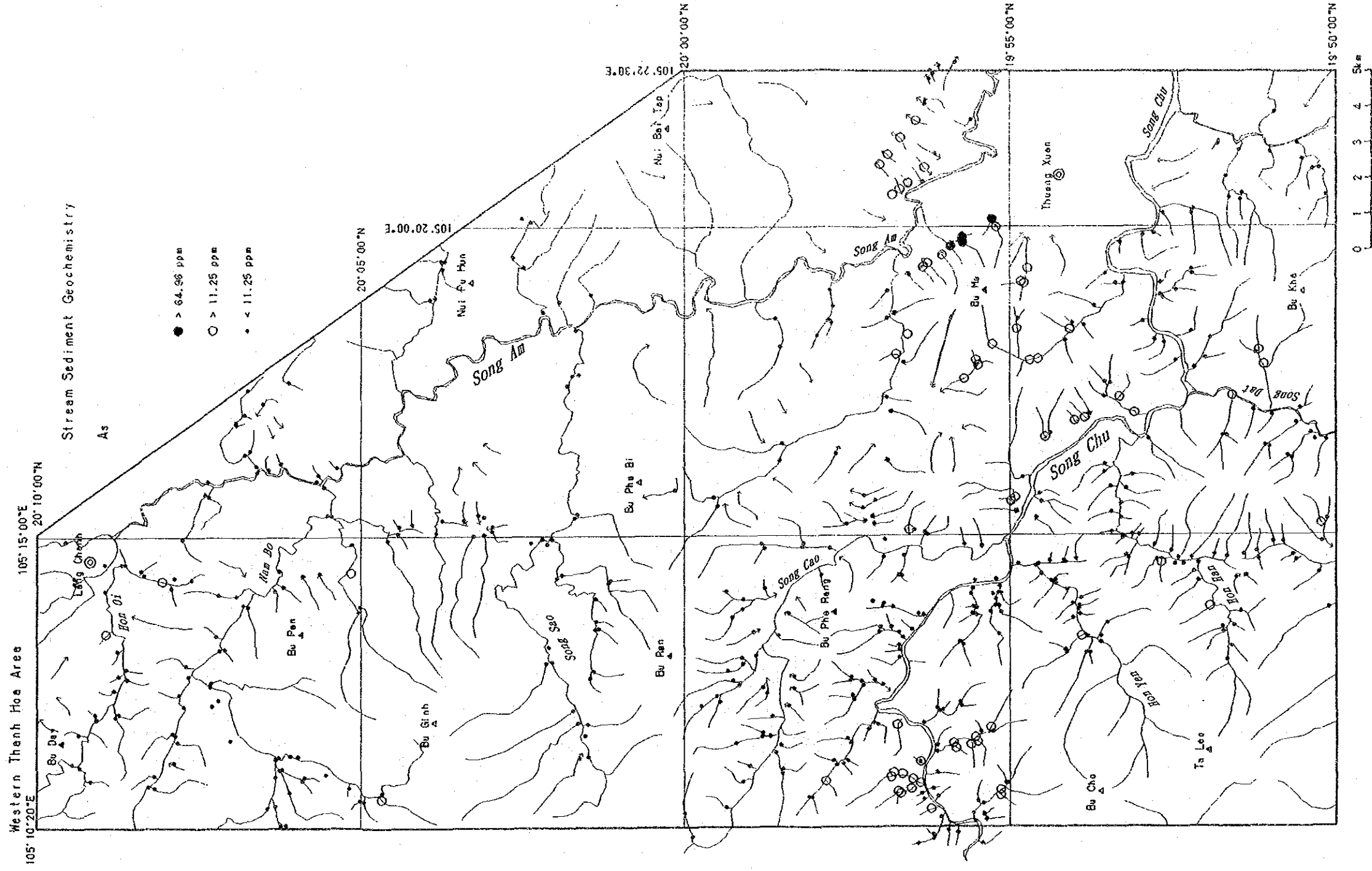


12. Anomaly Map of Stream Sediment Geochemistry in the

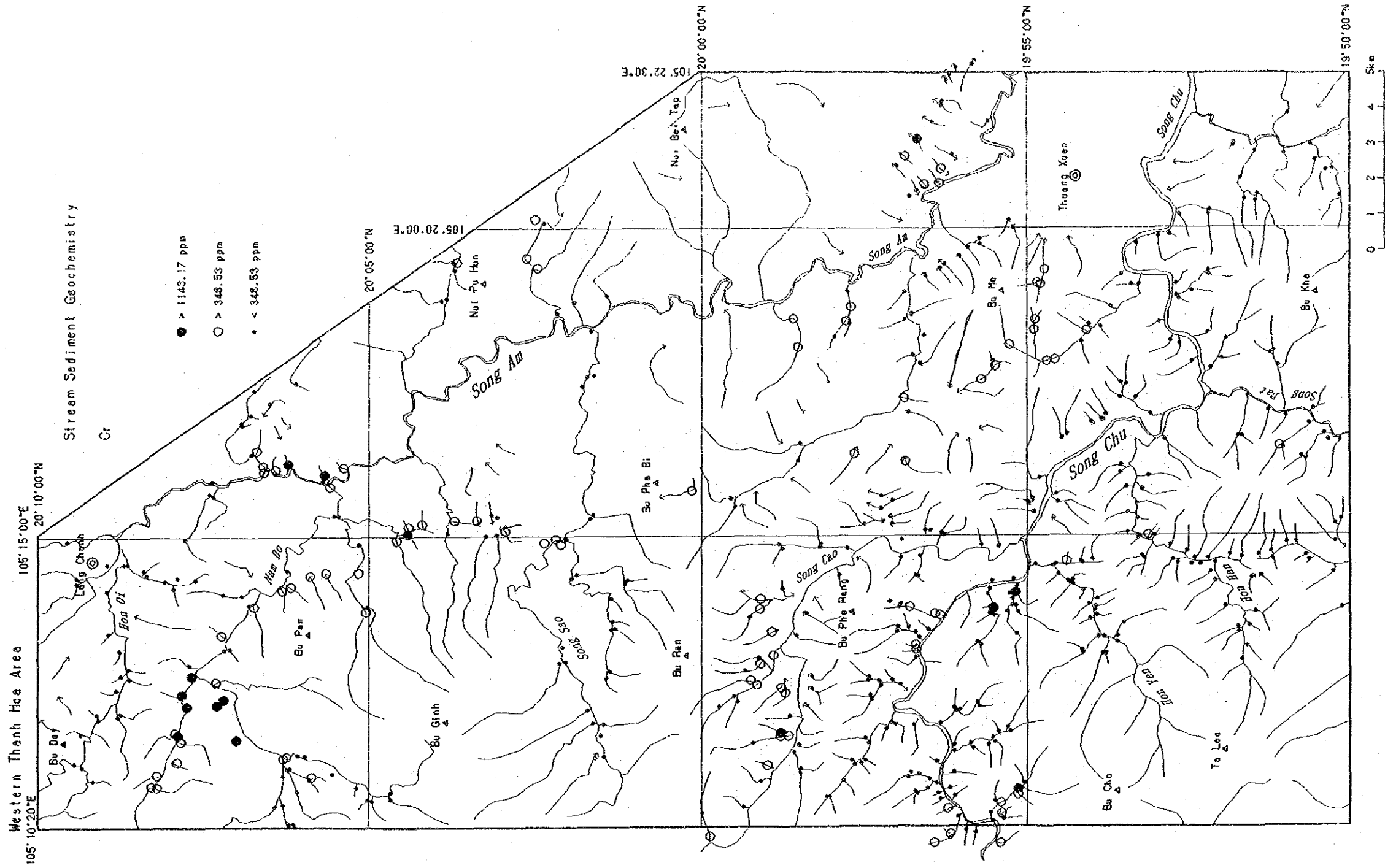
Western Thanh Hoa Area (1): Au



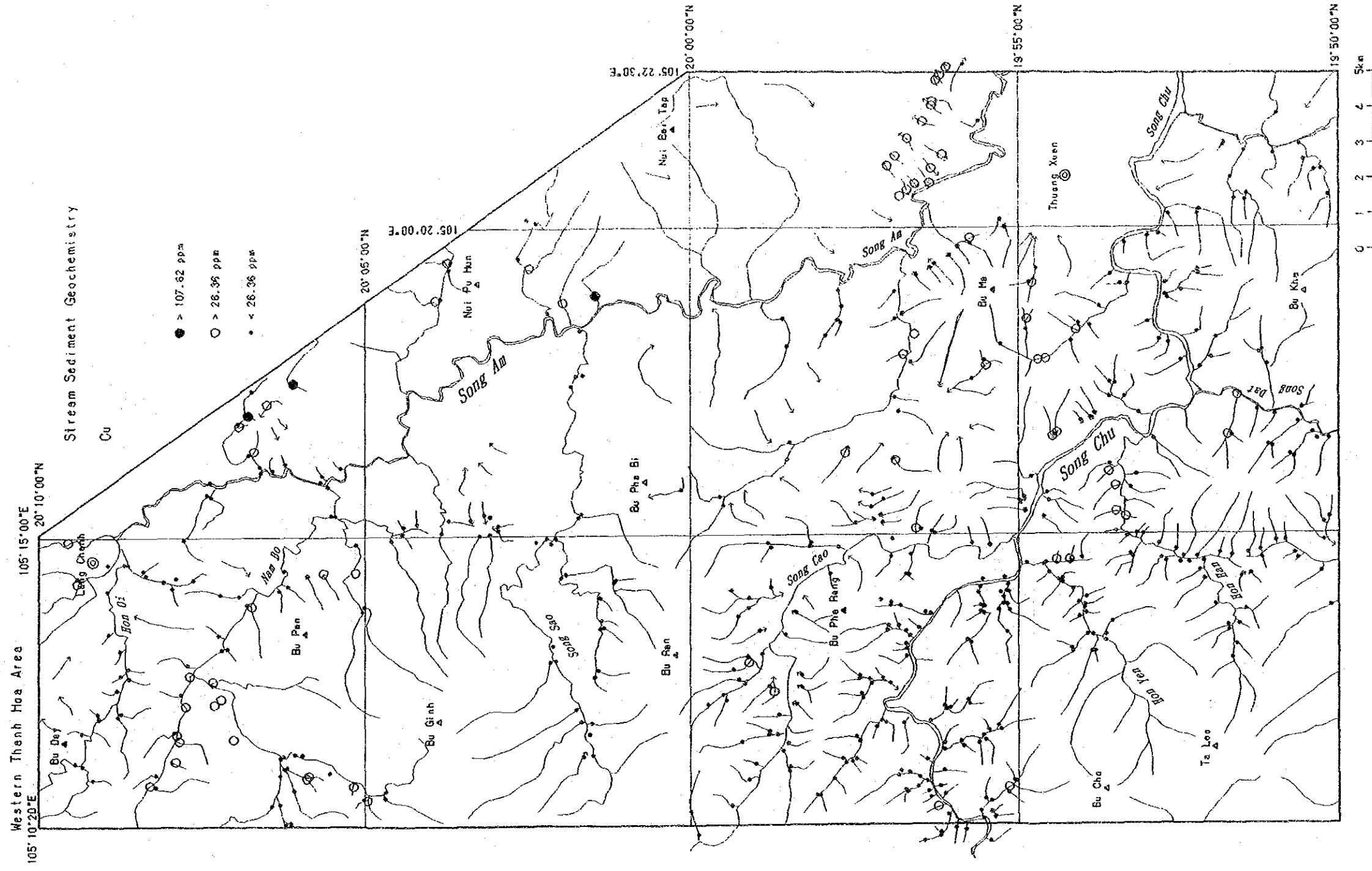
12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (2): Ag



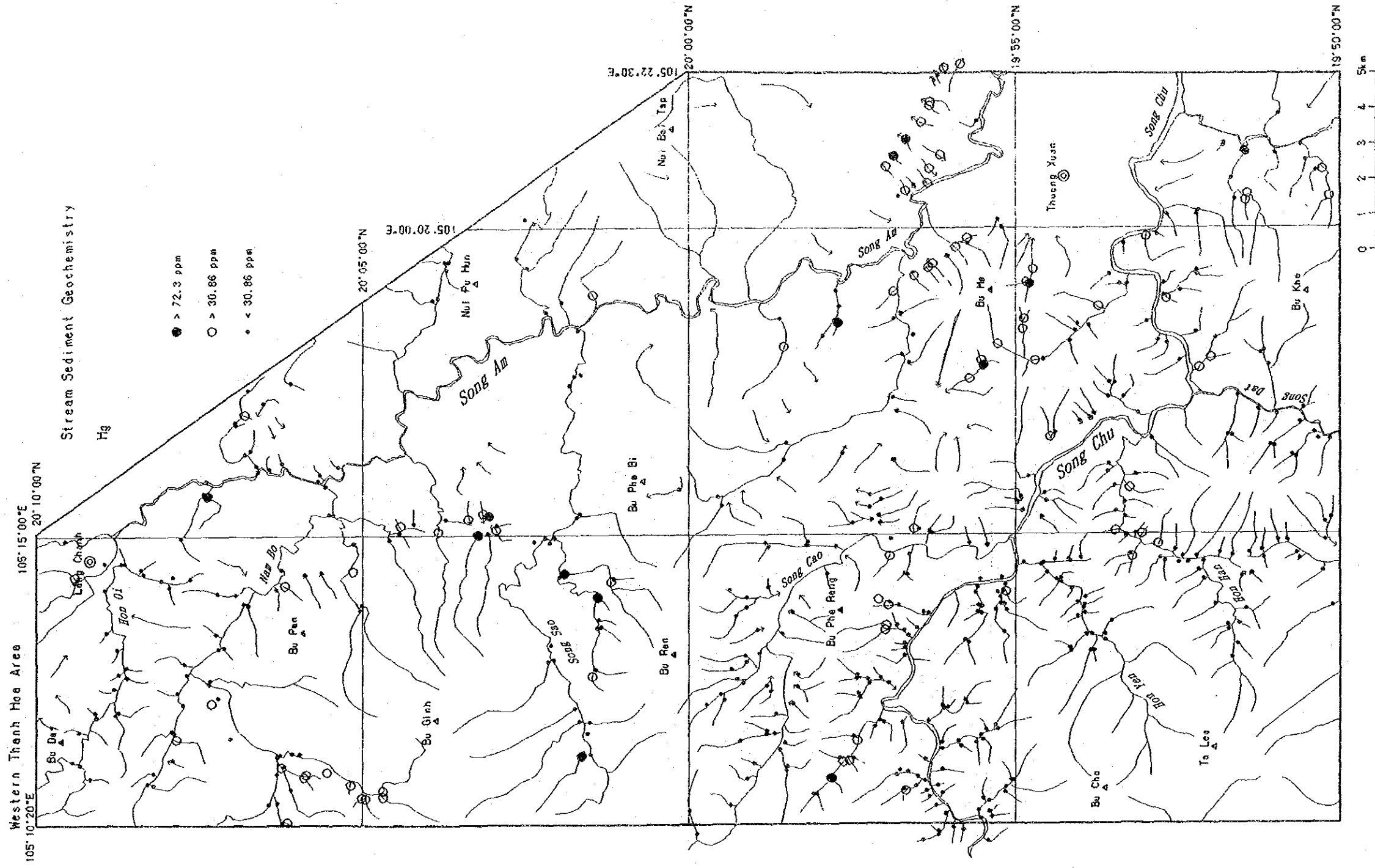
12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (3): As



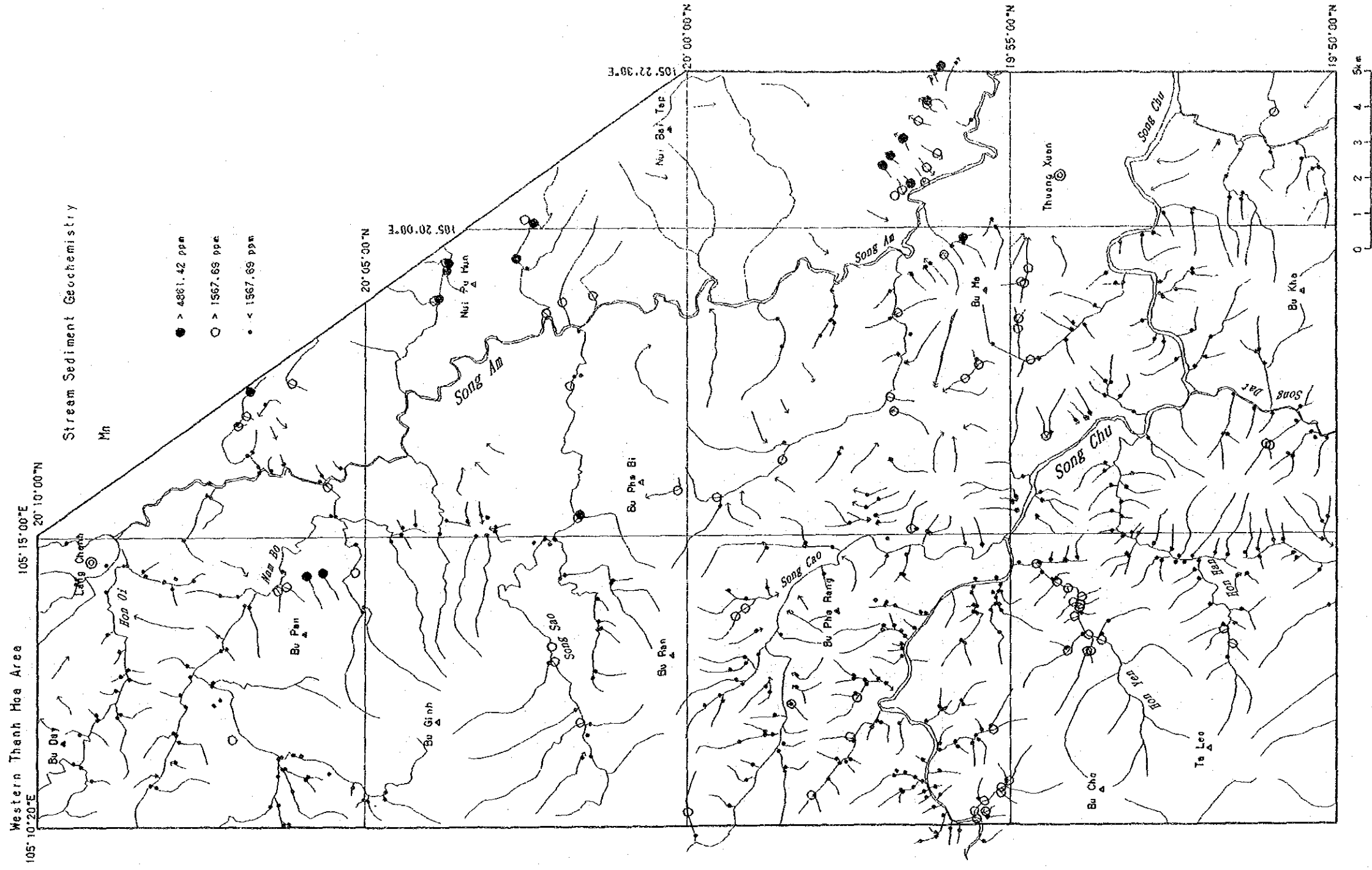
12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (4): Cr



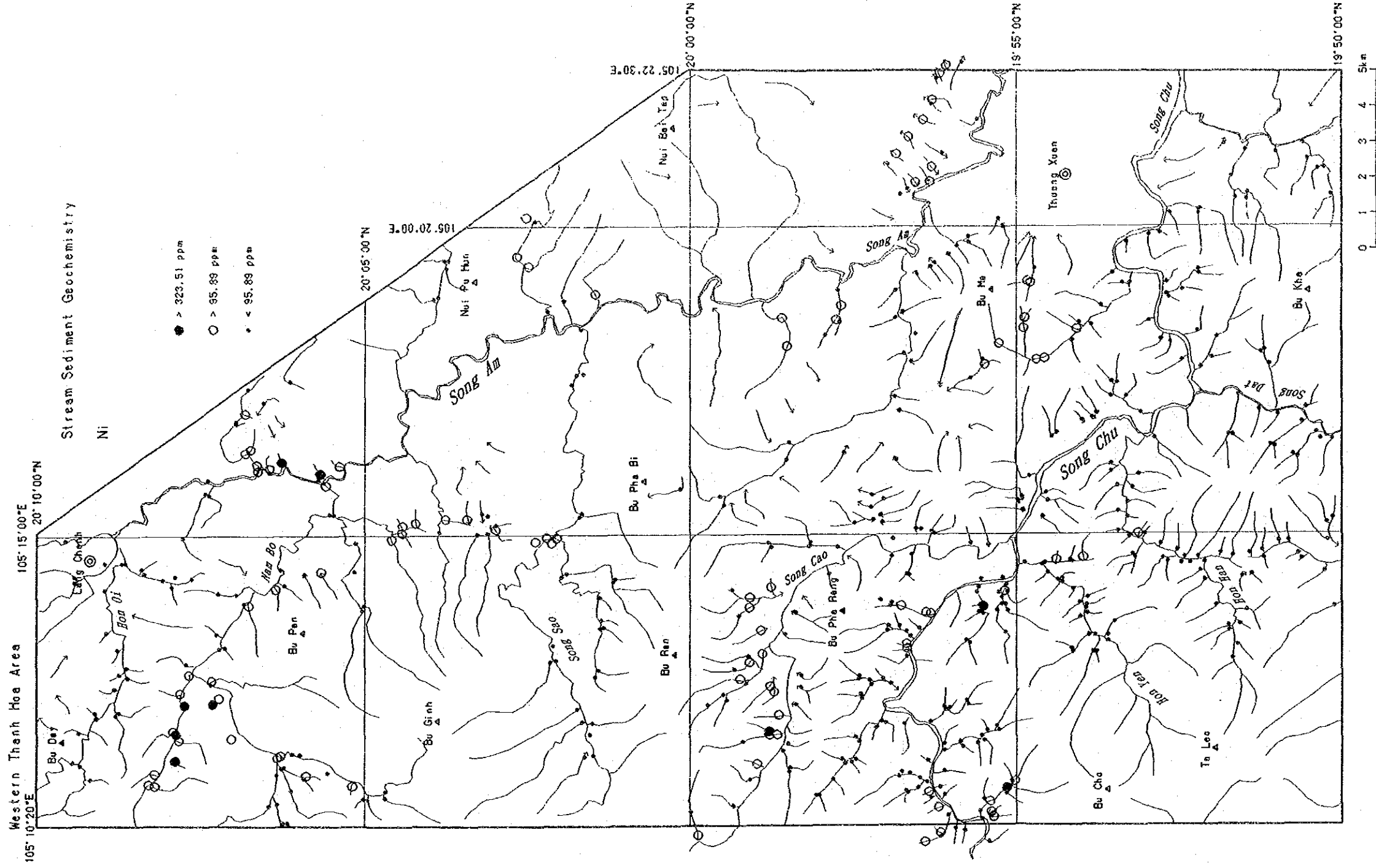
12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (5): Cu



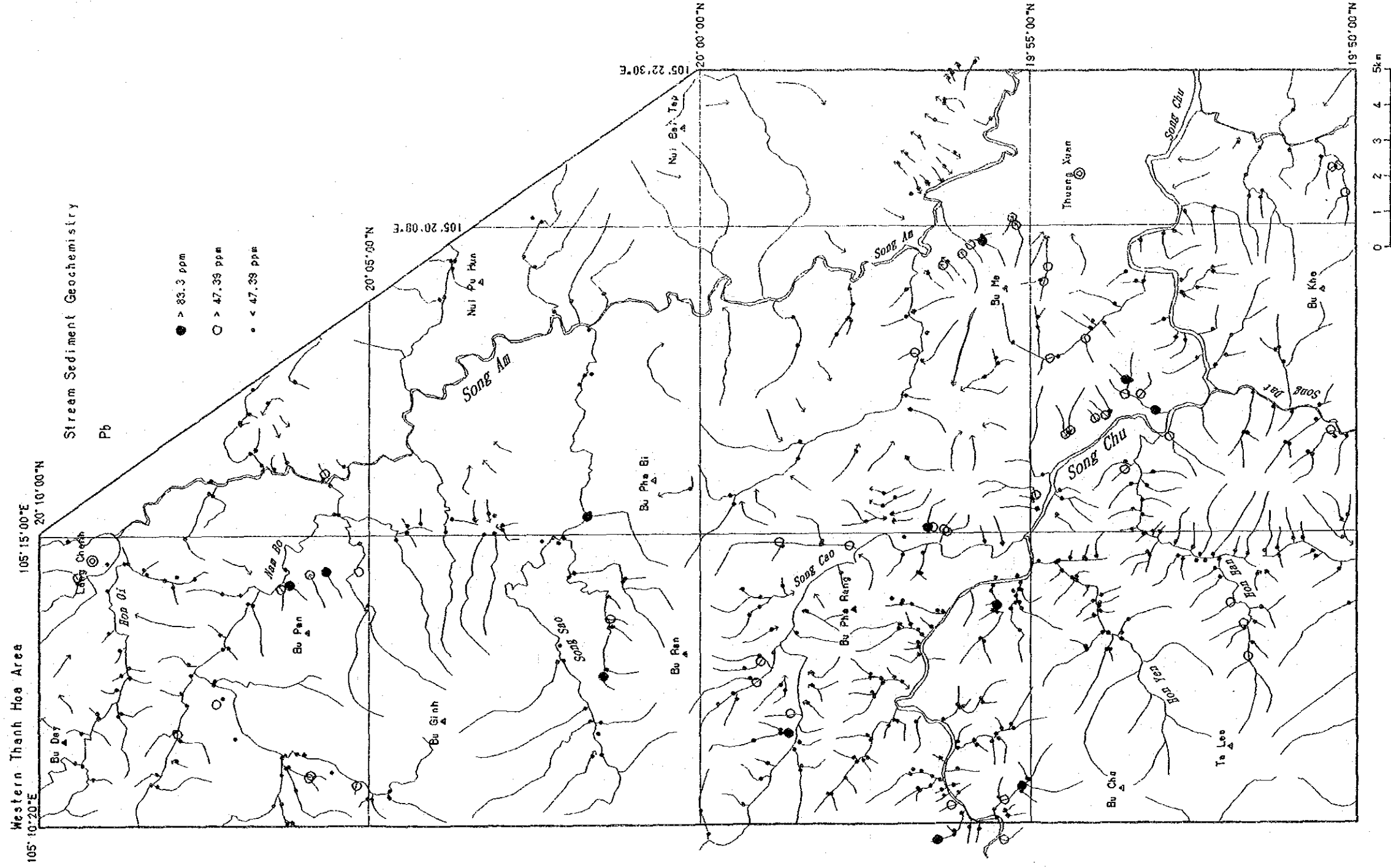
12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (6): Hg



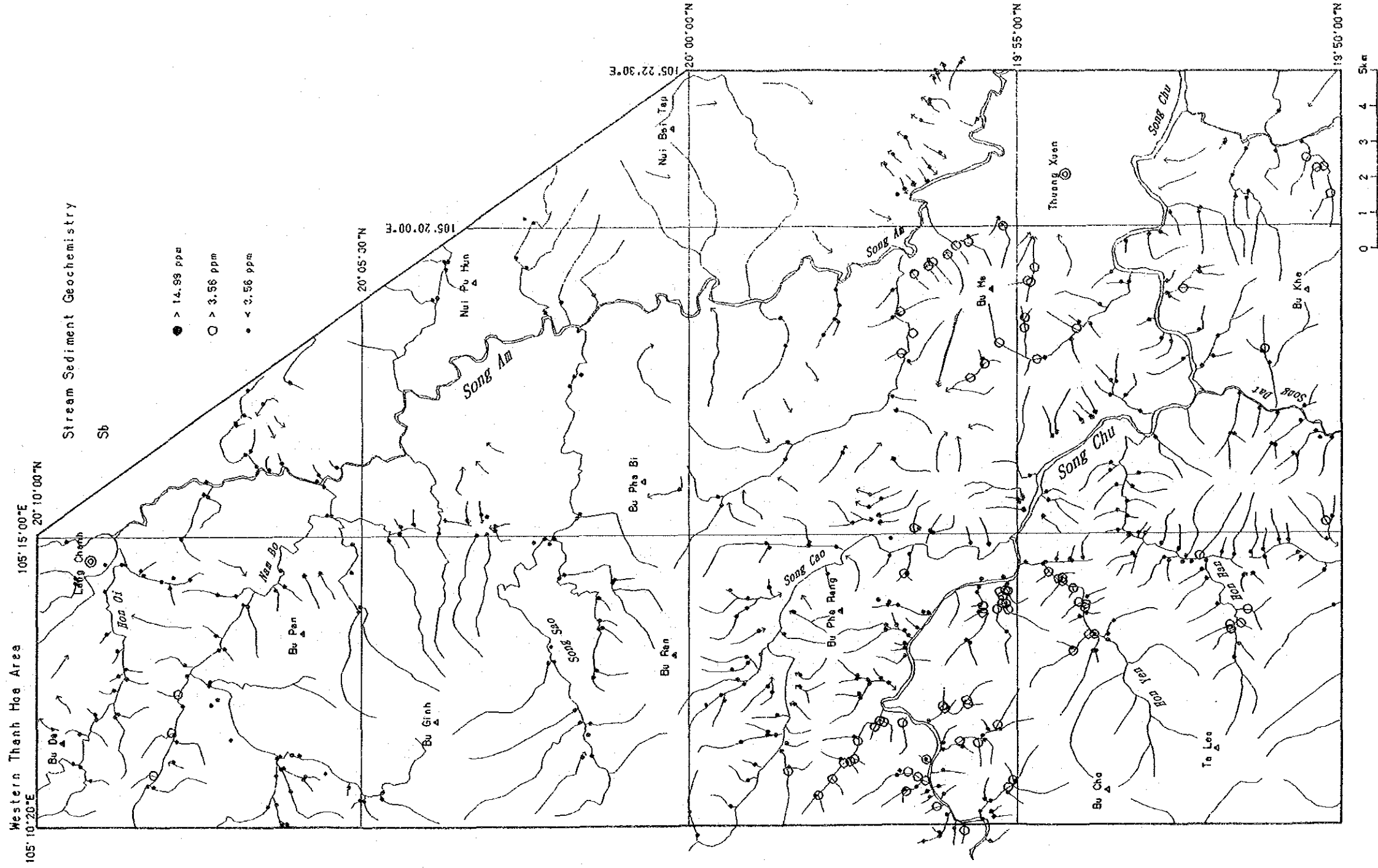
12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (7): Mn



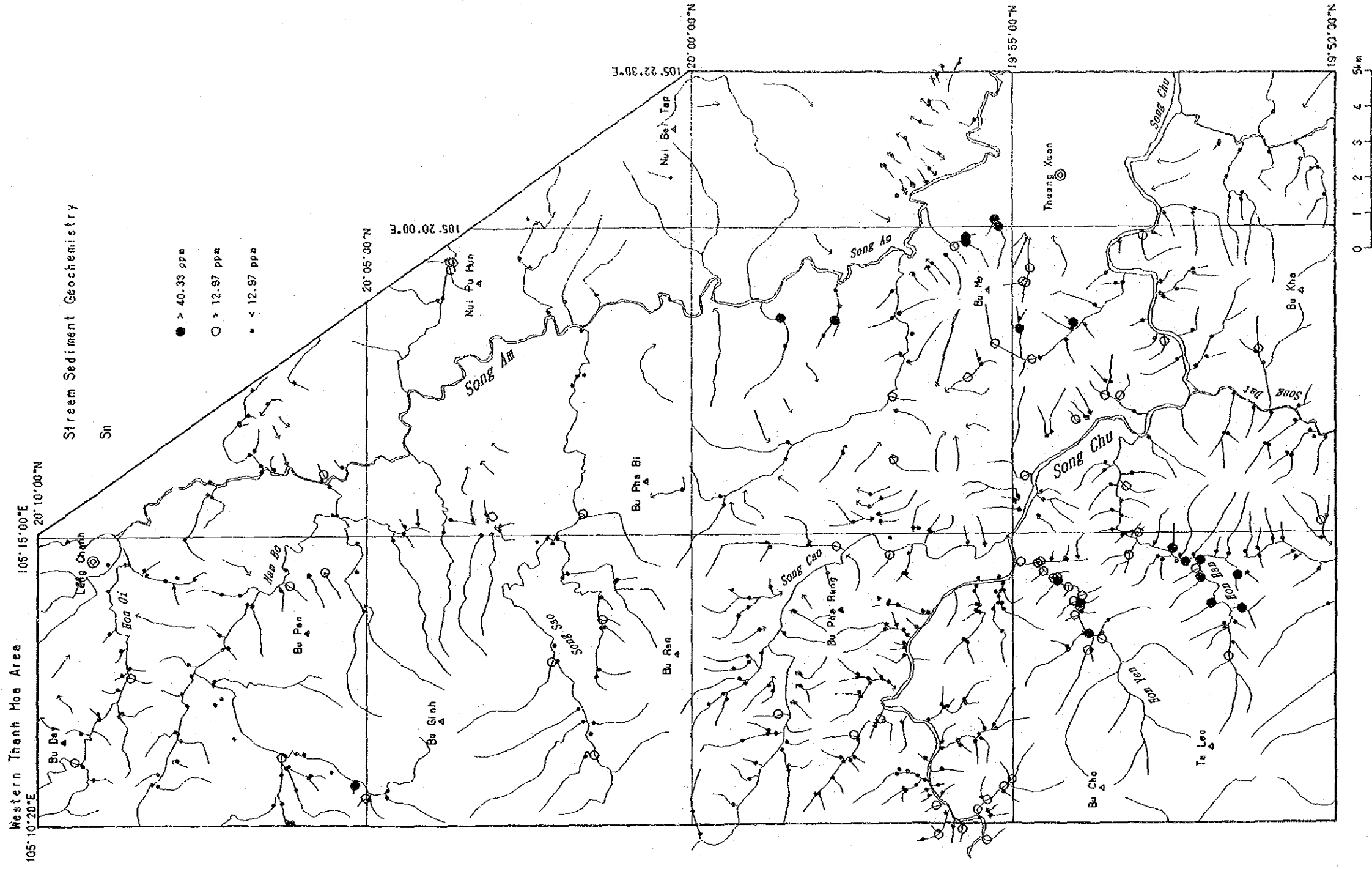
12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (8): Ni



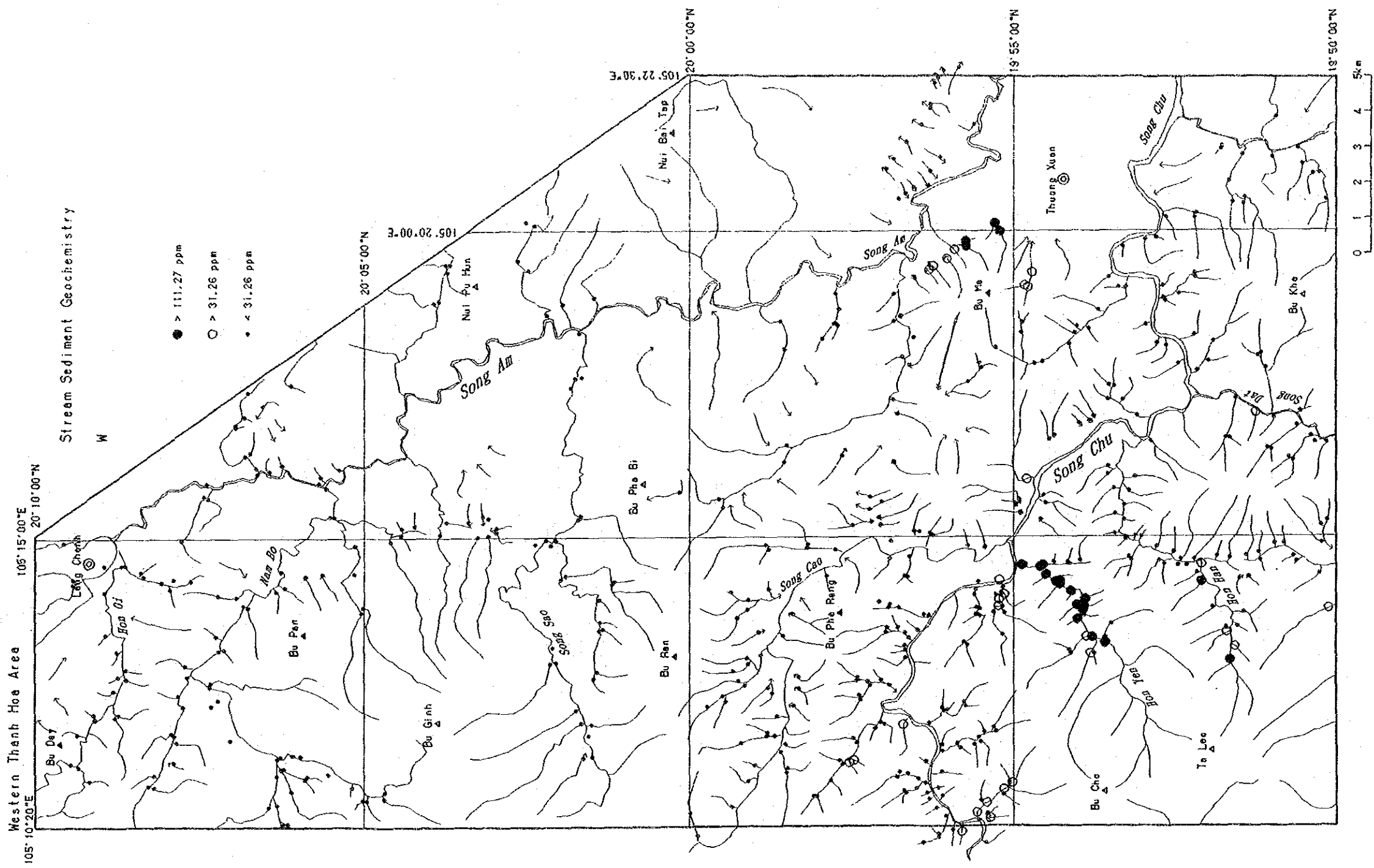
12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (9): Pb



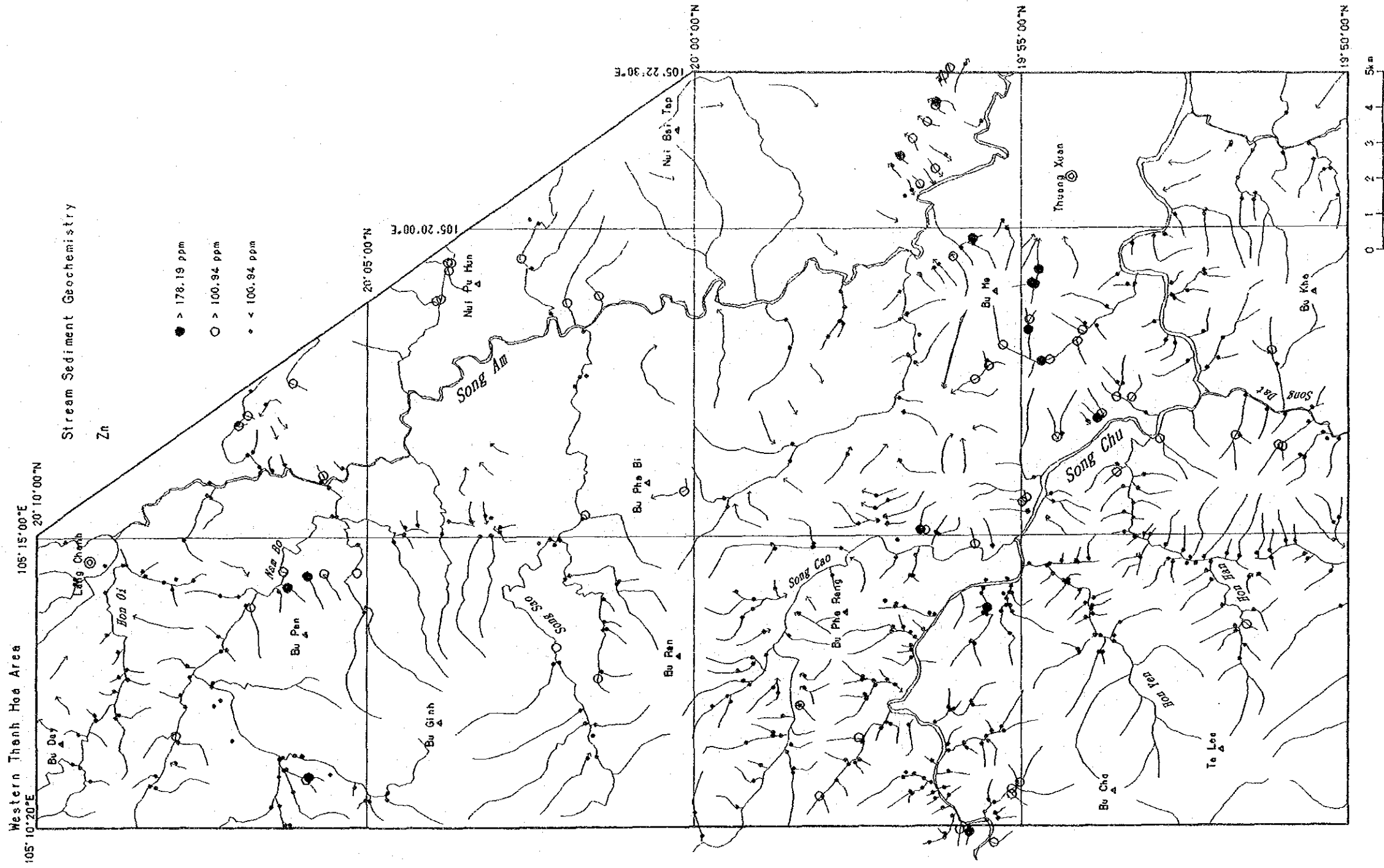
12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (10): Sb



12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (11): Sn

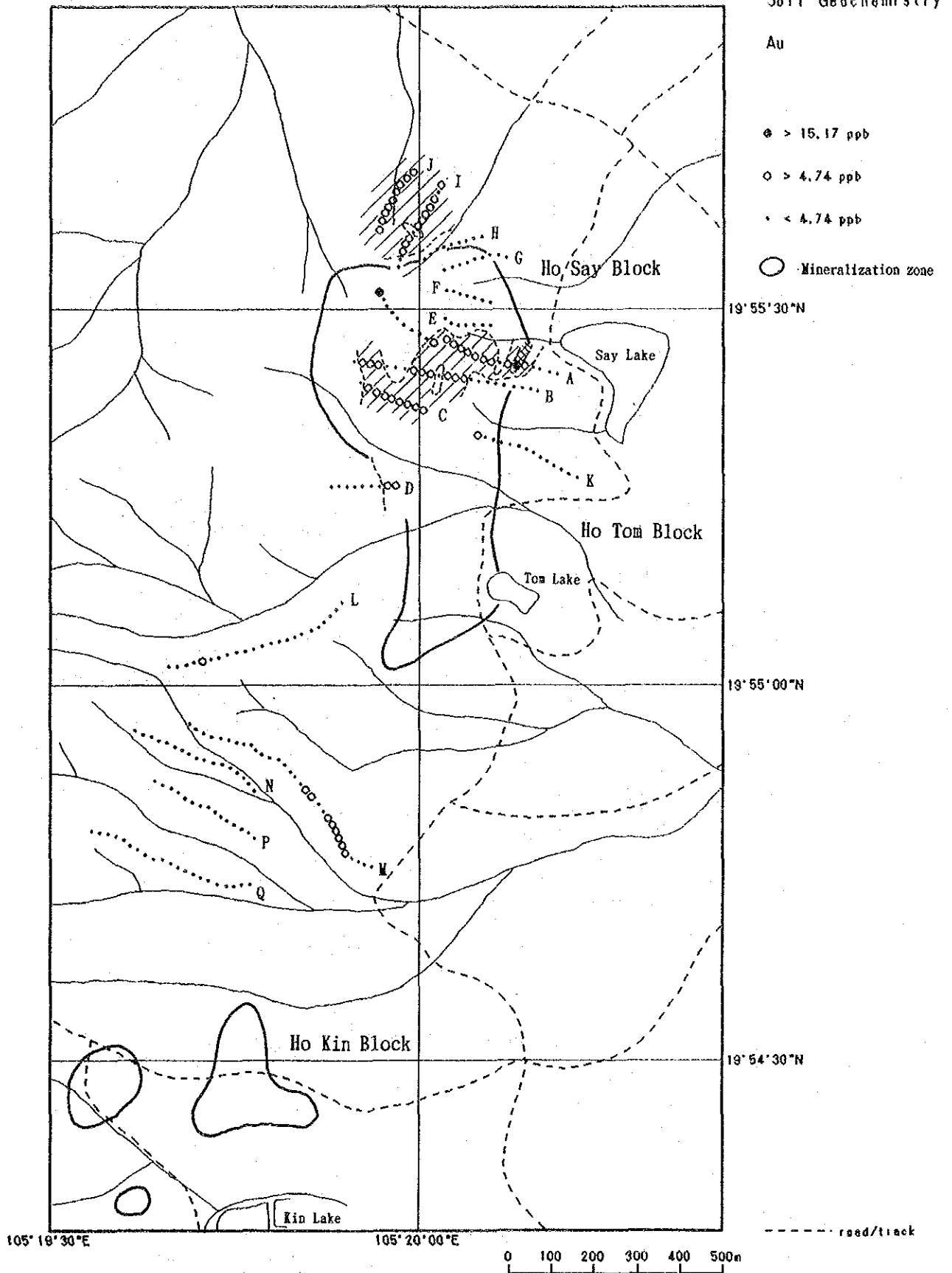


12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (12):W



12. Anomaly Map of Stream Sediment Geochemistry in the Western Thanh Hoa Area (13): Zn

Bu Me Area



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (1): Au

Bu Me Area

Soil Geochemistry

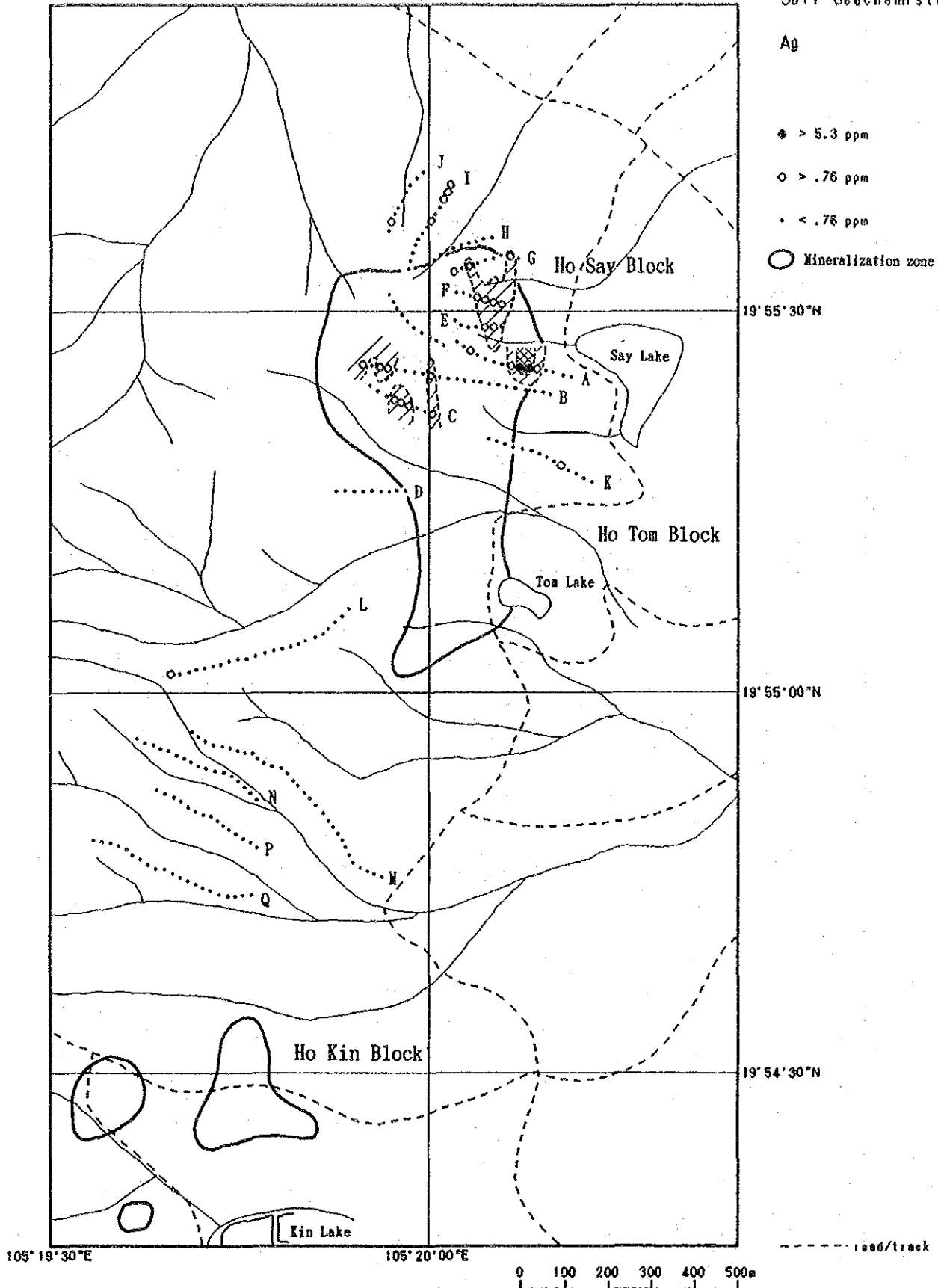
Ag

◆ > 5.3 ppm

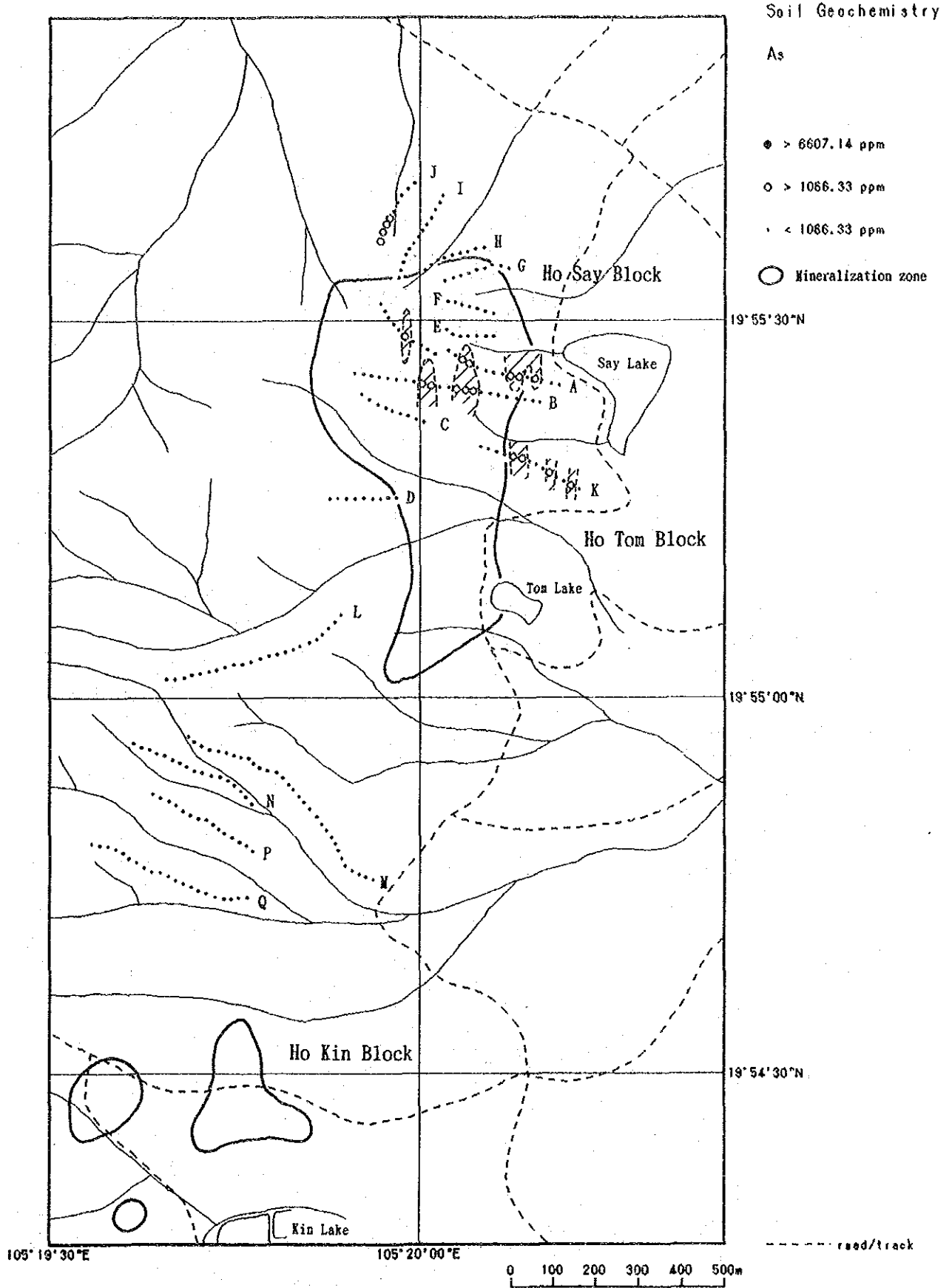
○ > .76 ppm

• < .76 ppm

○ Mineralization zone



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (2): Ag



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (3): As

Bu Me Area

Soil Geochemistry

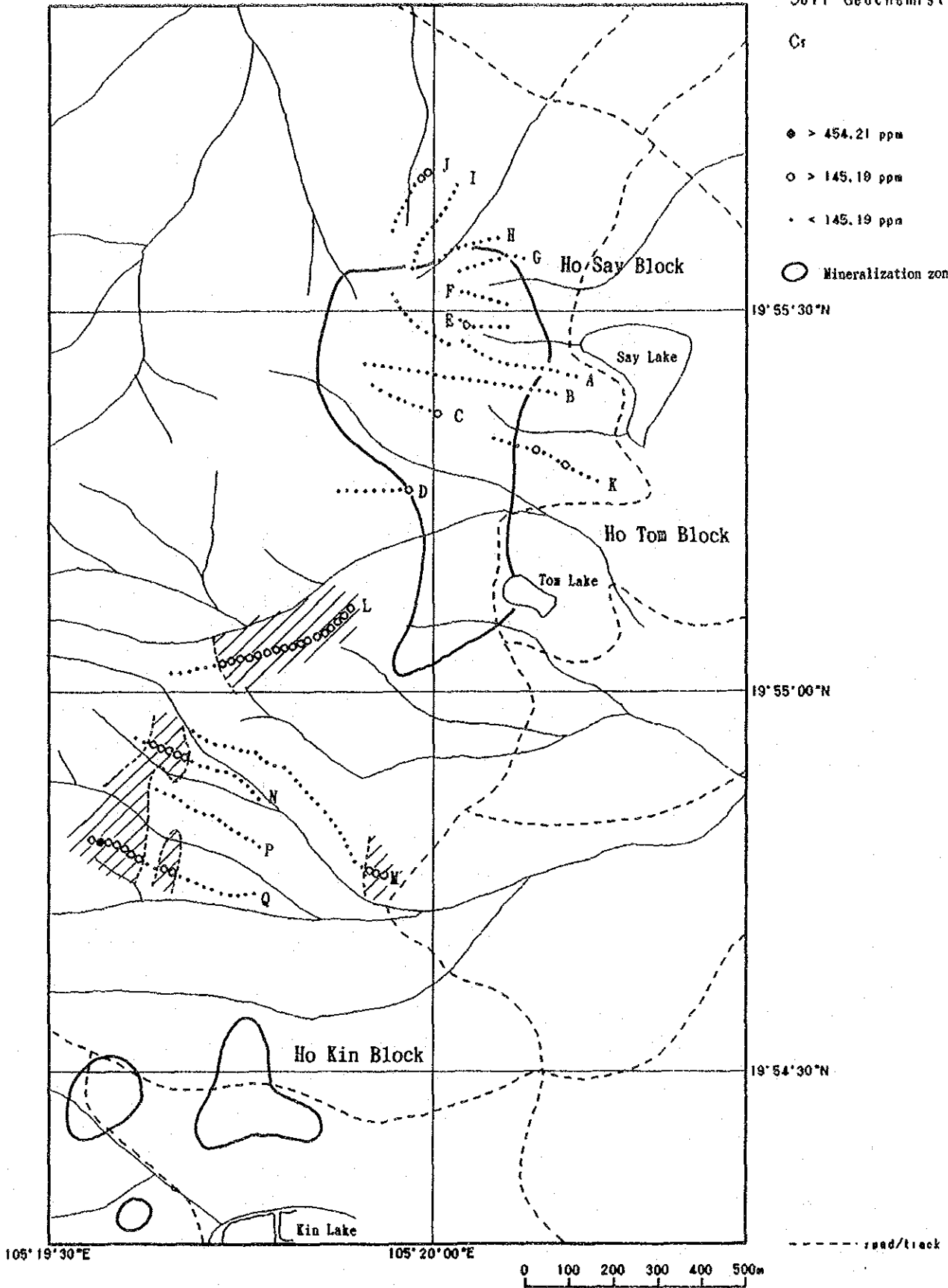
Cr

◐ > 454.21 ppm

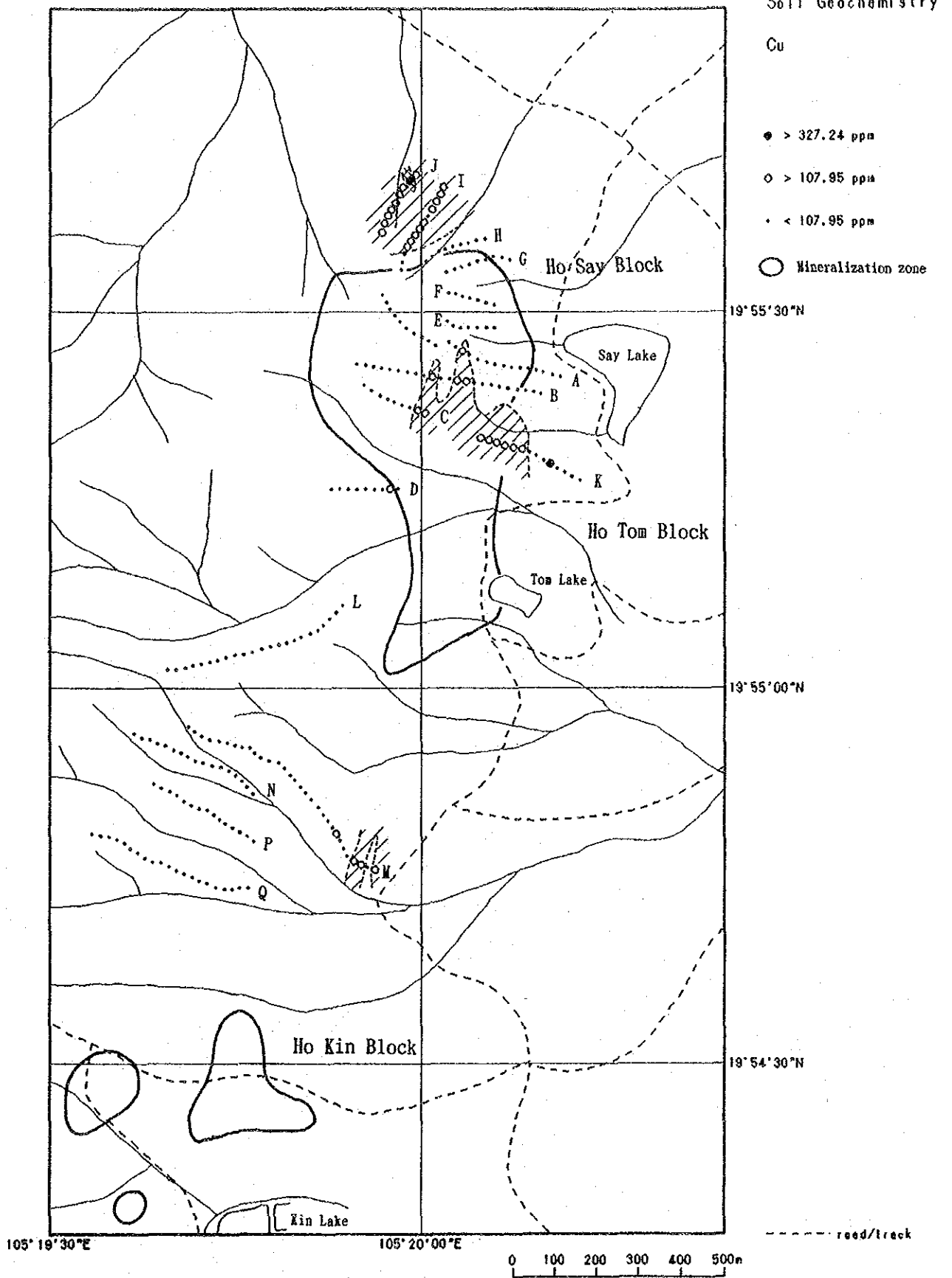
○ > 145.19 ppm

• < 145.19 ppm

○ Mineralization zone



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (4): Cr



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (5): Cu

Bu Me Area

Soil Geochemistry

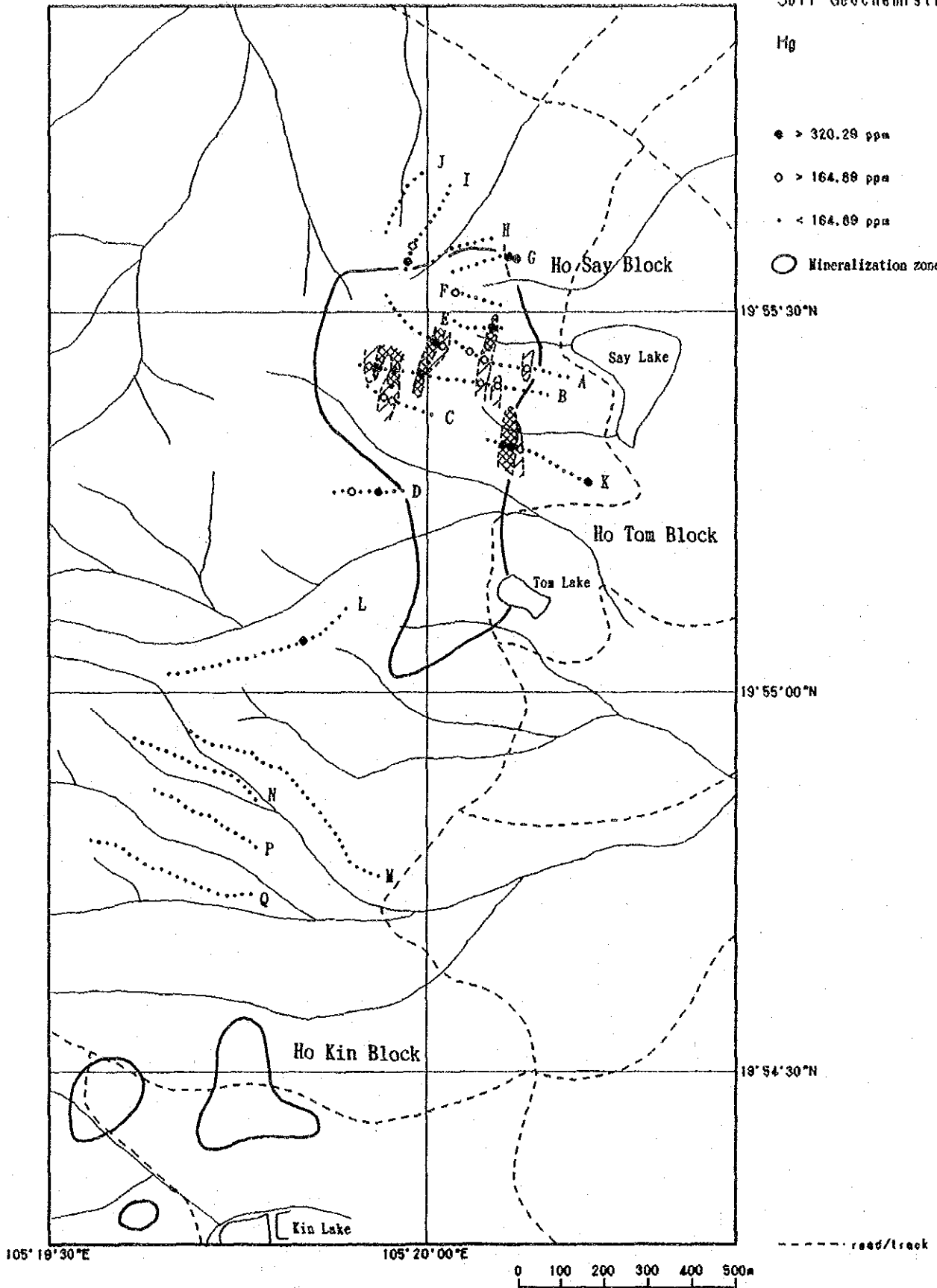
Hg

● > 320.29 ppm

○ > 164.89 ppm

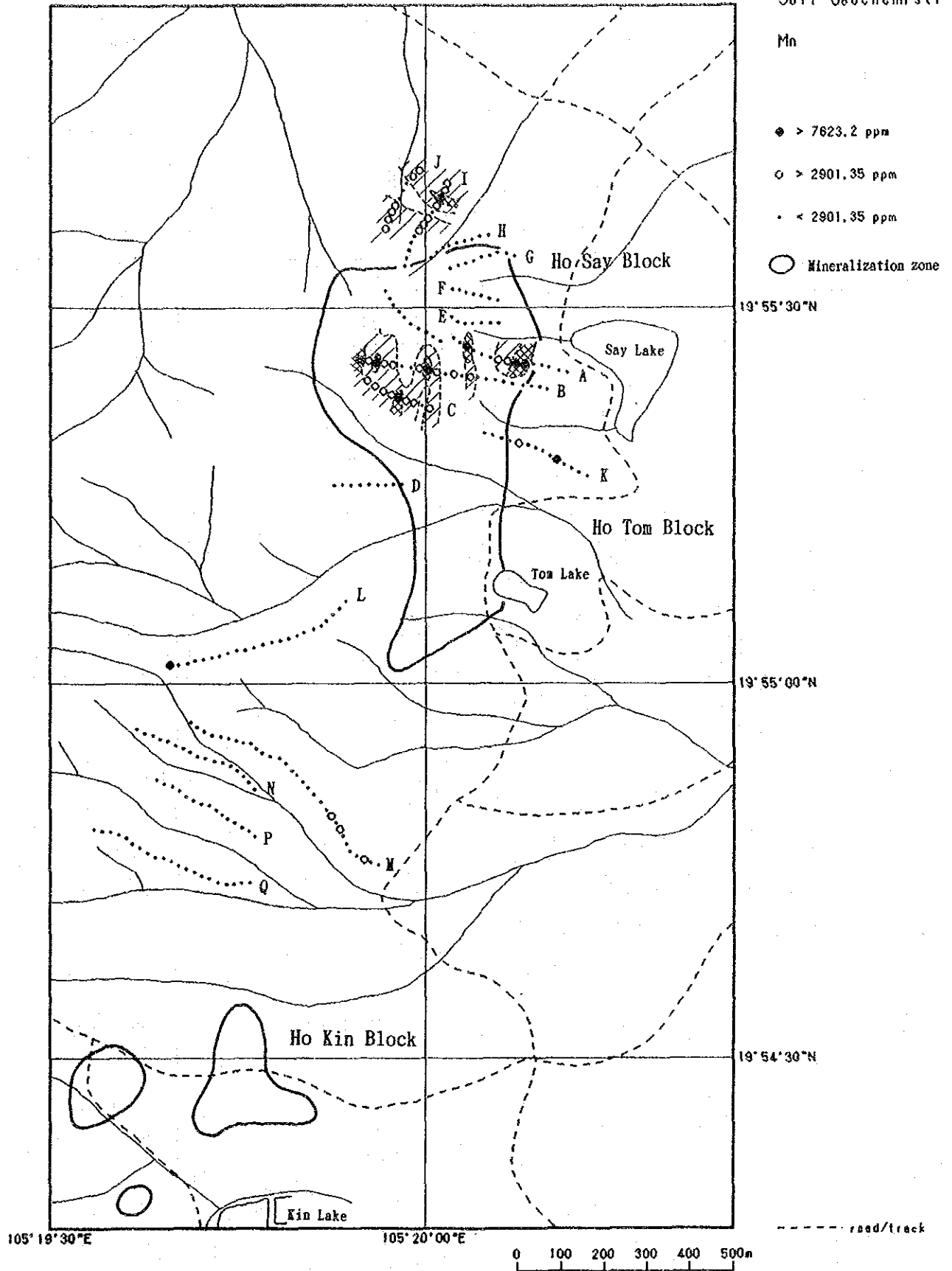
• < 164.89 ppm

○ Mineralization zone



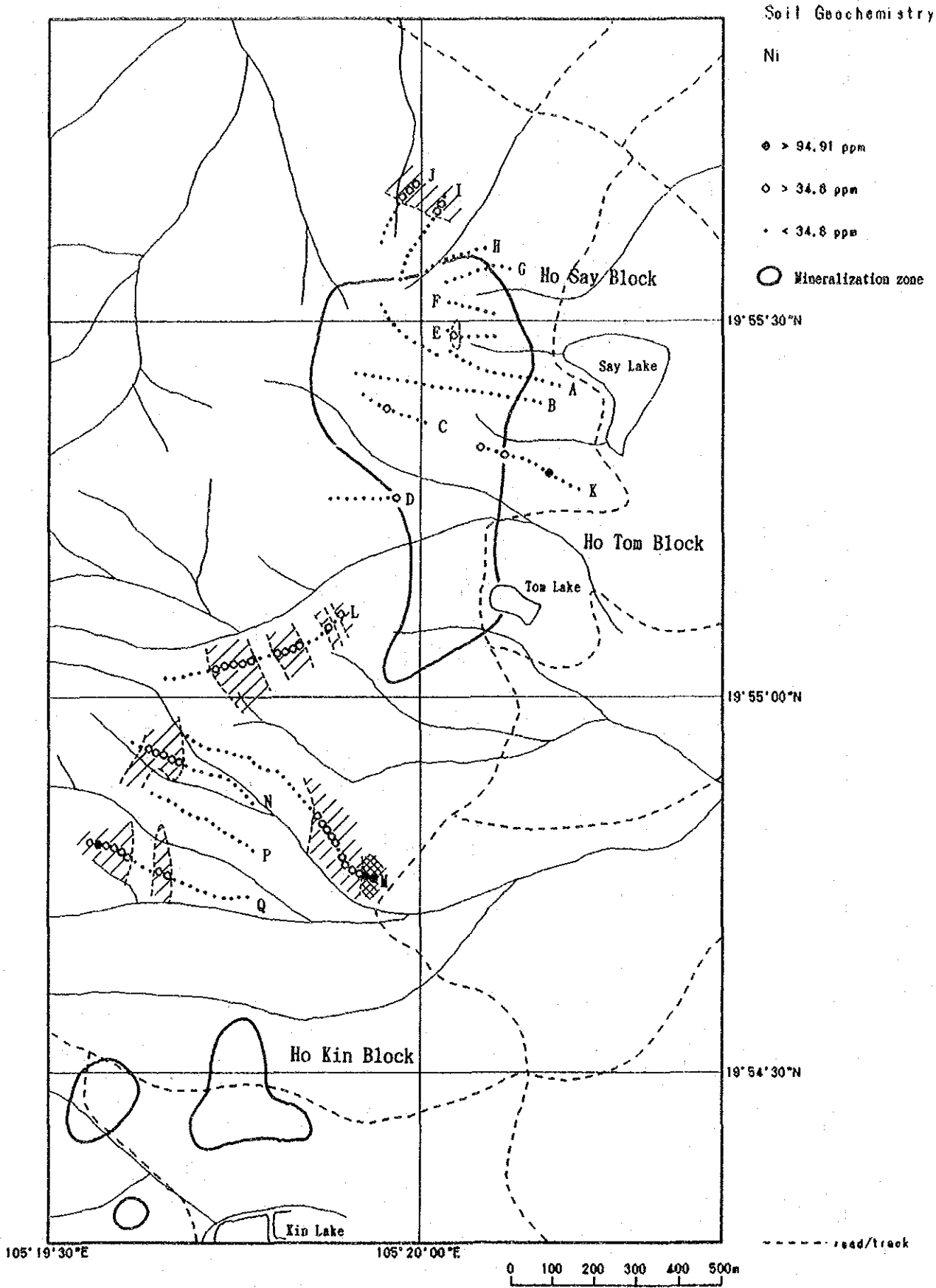
13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (6): Hg

Bu Me Area



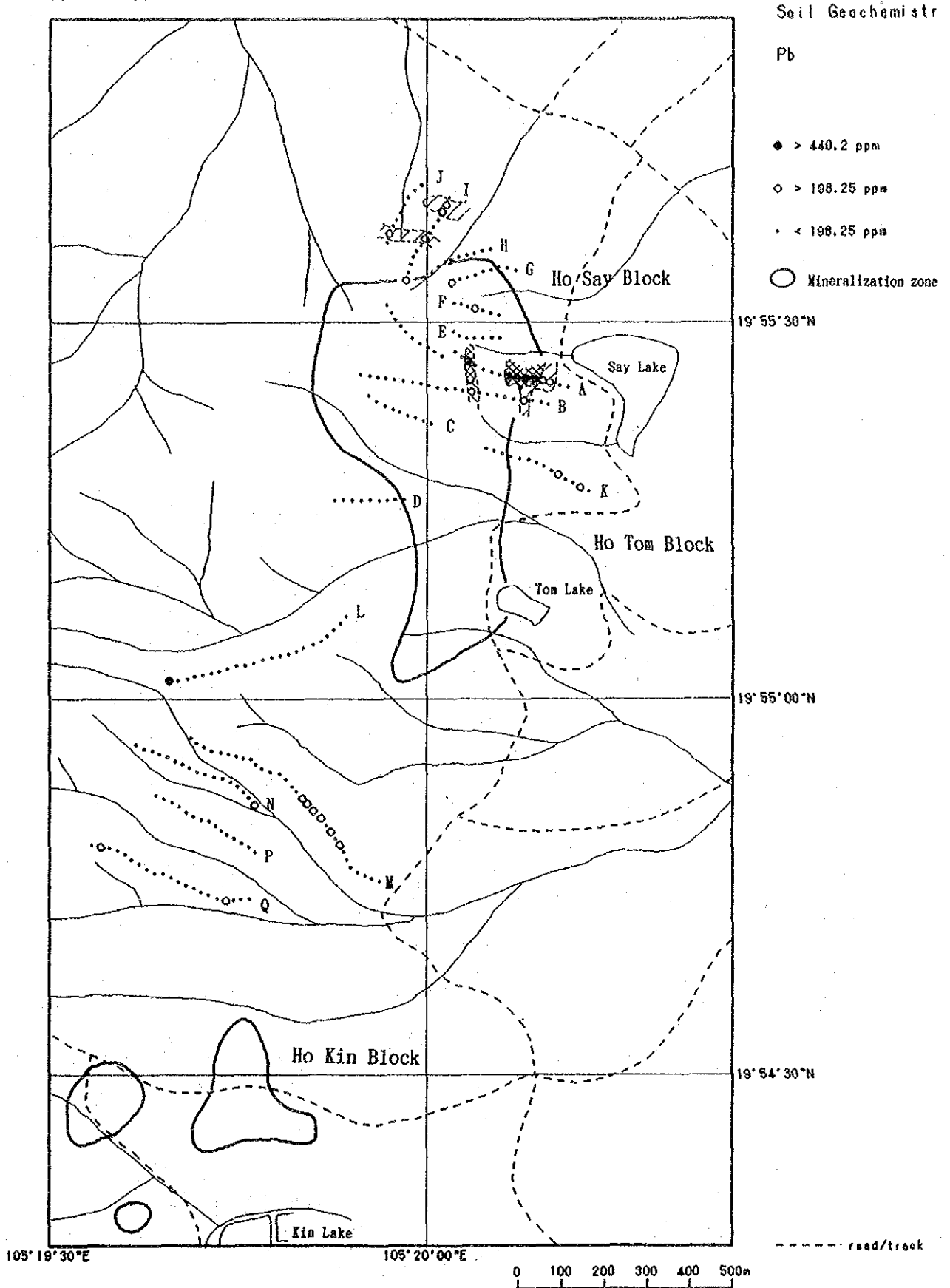
13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (7): Mn

Bu Me Area



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (8): Ni

Bu Me Area



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (9): Pb

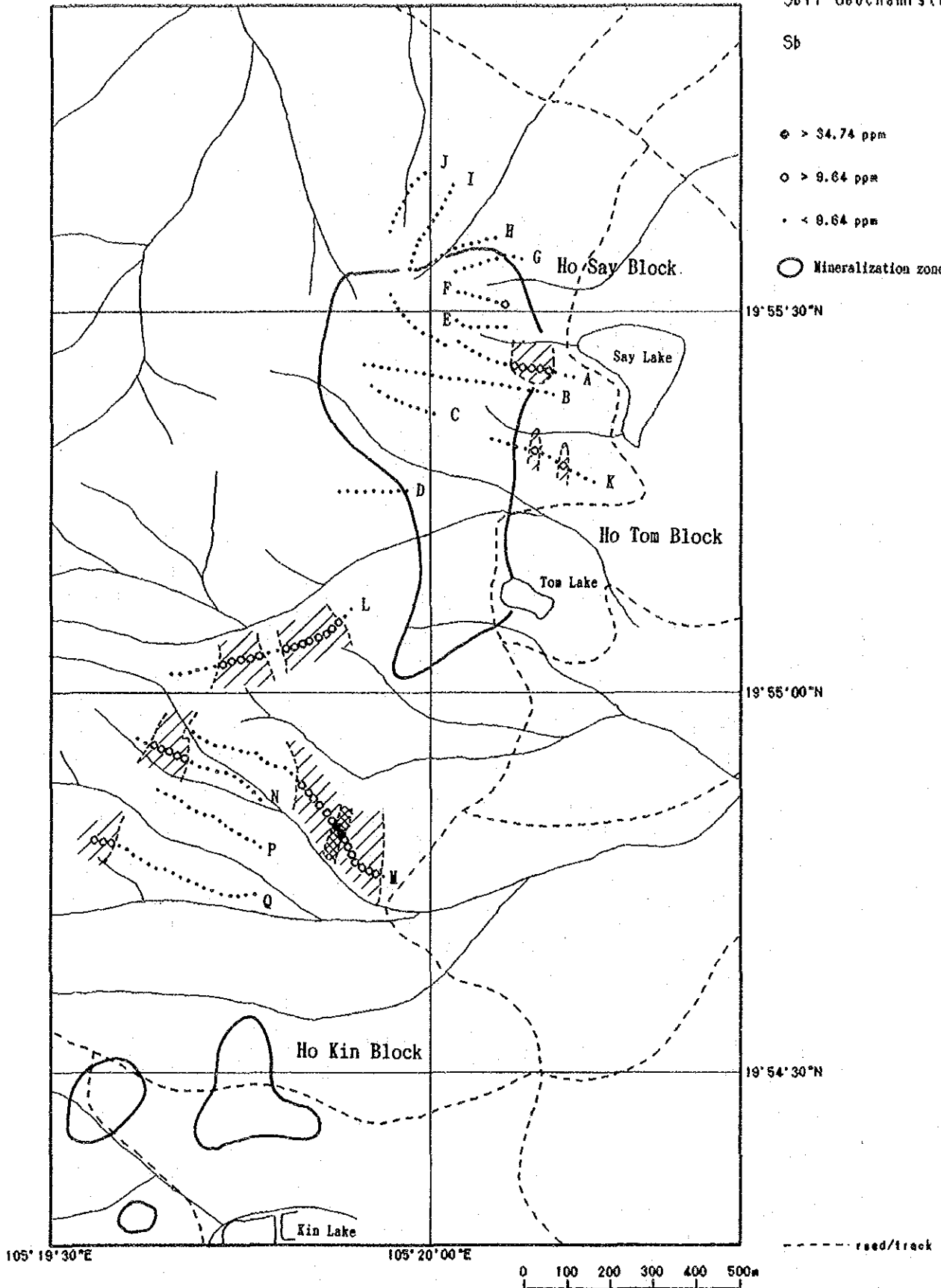
Sb

● > 34.74 ppm

○ > 9.64 ppm

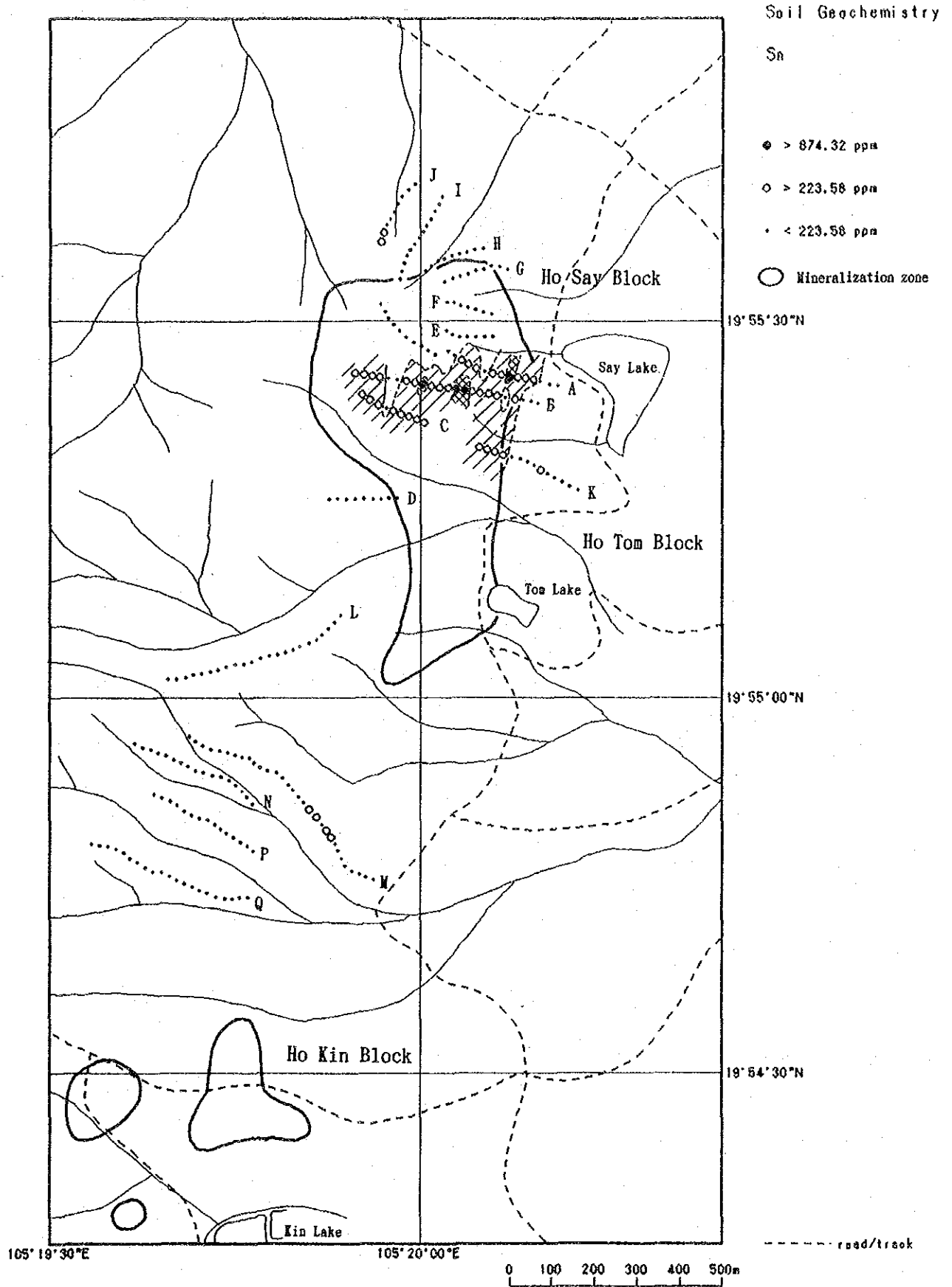
• < 9.64 ppm

○ Mineralization zone



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (10): Sb

Bu Me Area



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (11): Sn

Soil Geochemistry

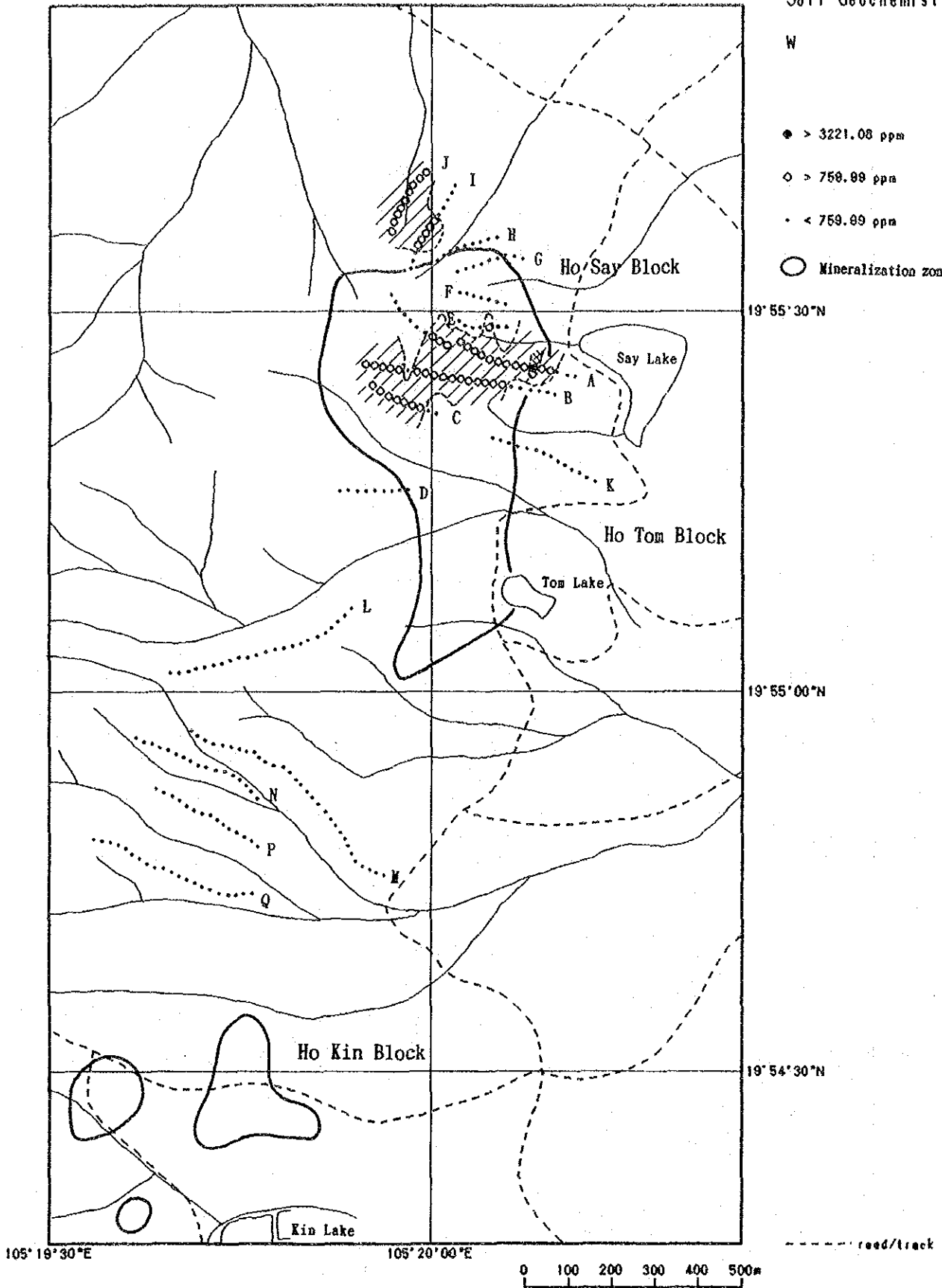
W

● > 3221.08 ppm

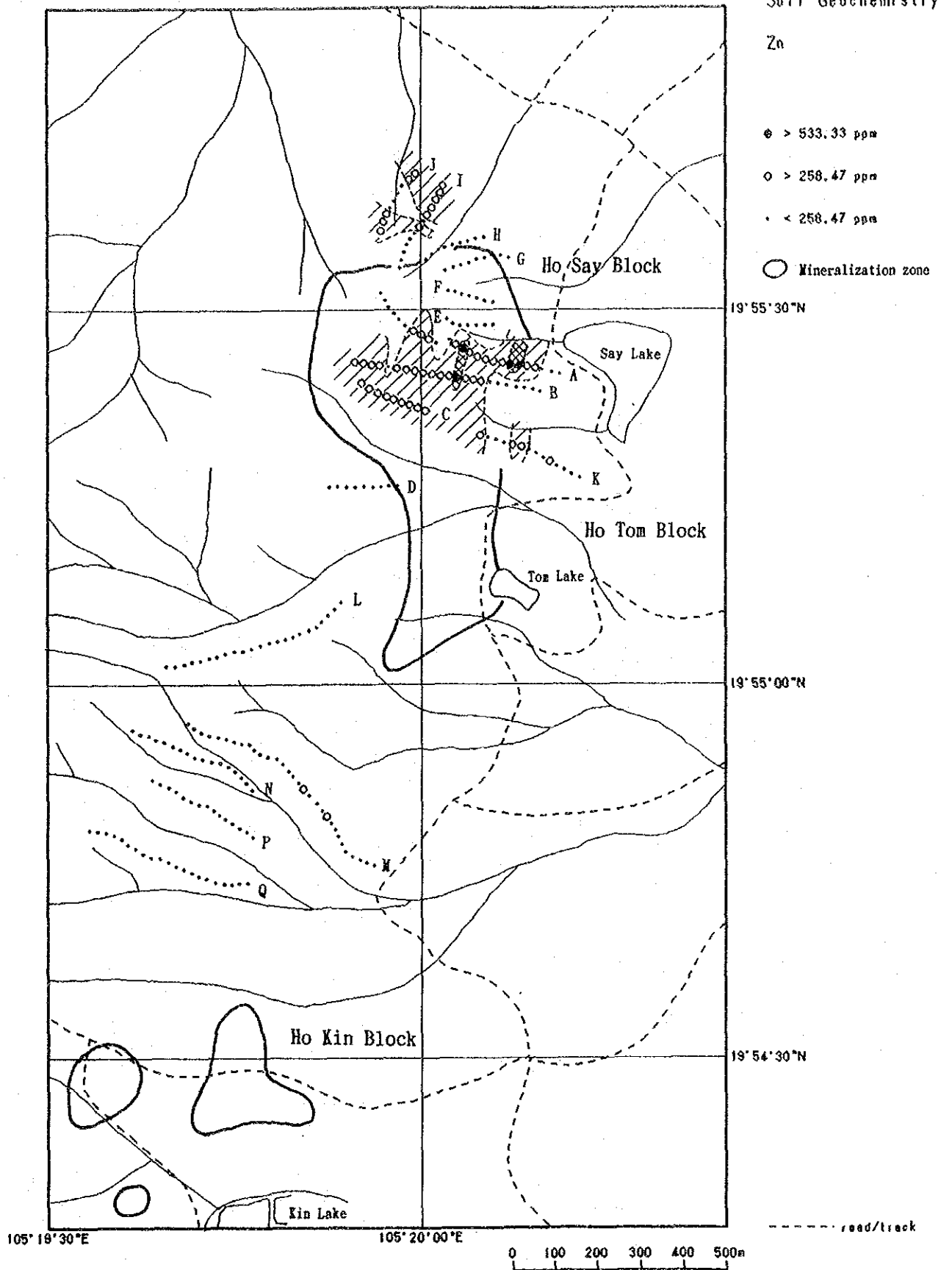
○ > 759.89 ppm

· < 759.89 ppm

○ Mineralization zone

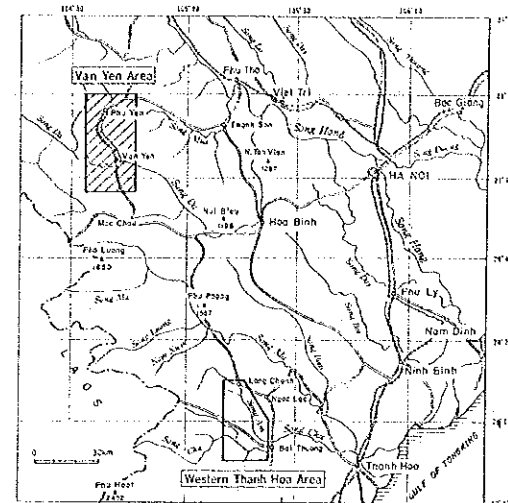


13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (12): W



13. Anomaly Map of Soil Geochemistry in the Western Thanh Hoa Area (13): Zn

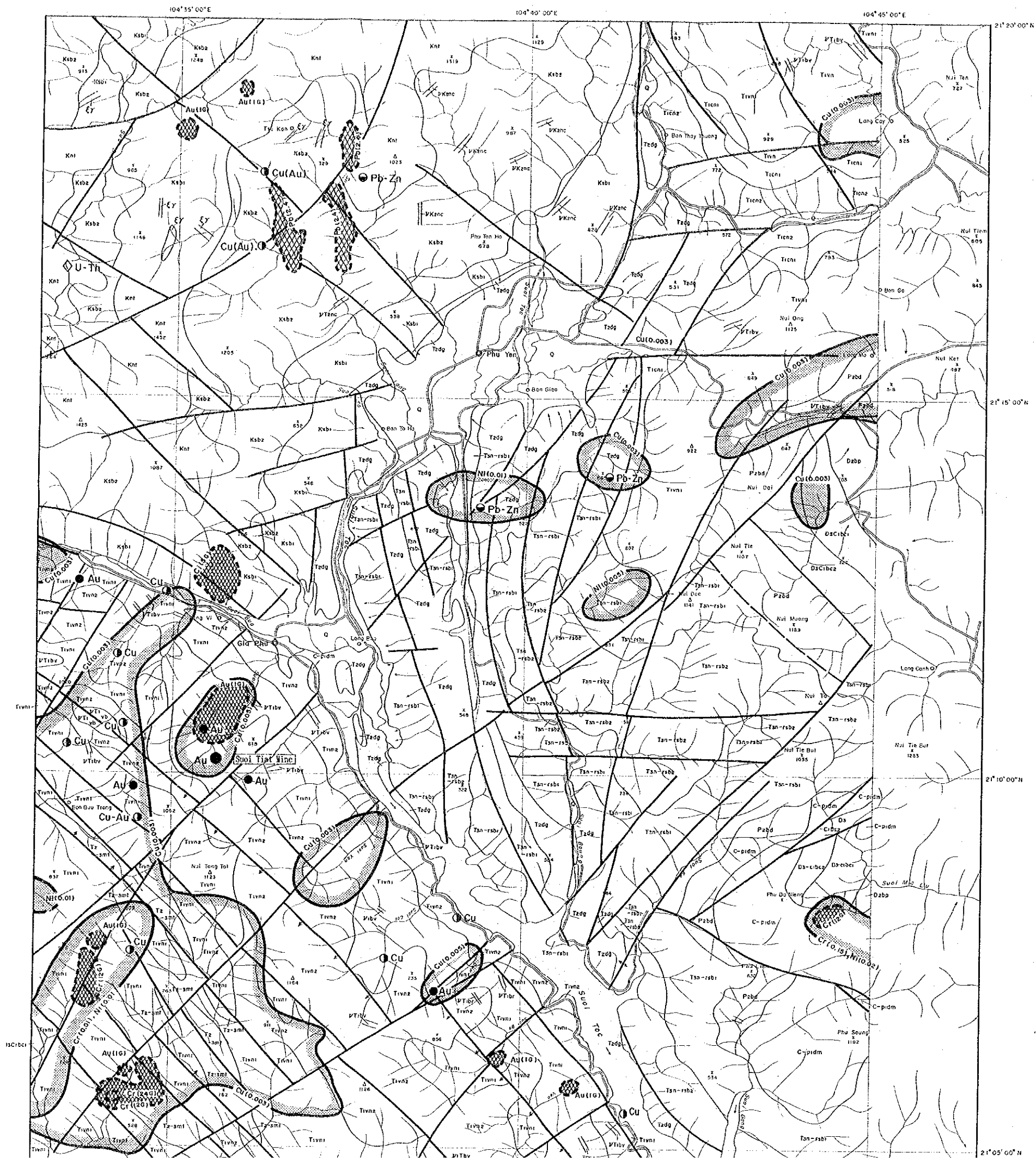
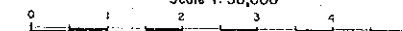
REPORT ON THE COOPERATIVE MINERAL EXPLORATION
 IN THE VAN YEN AND WESTERN THANH HOA AREAS,
 THE SOCIALIST REPUBLIC OF VIETNAM
 PHASE I
 COMPREHENSIVE INTERPRETATION MAP OF THE AVAILABLE
 RELEVANT DATA IN THE VAN YEN AREA



FEBRUARY 1994

JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN

Scale 1:50,000

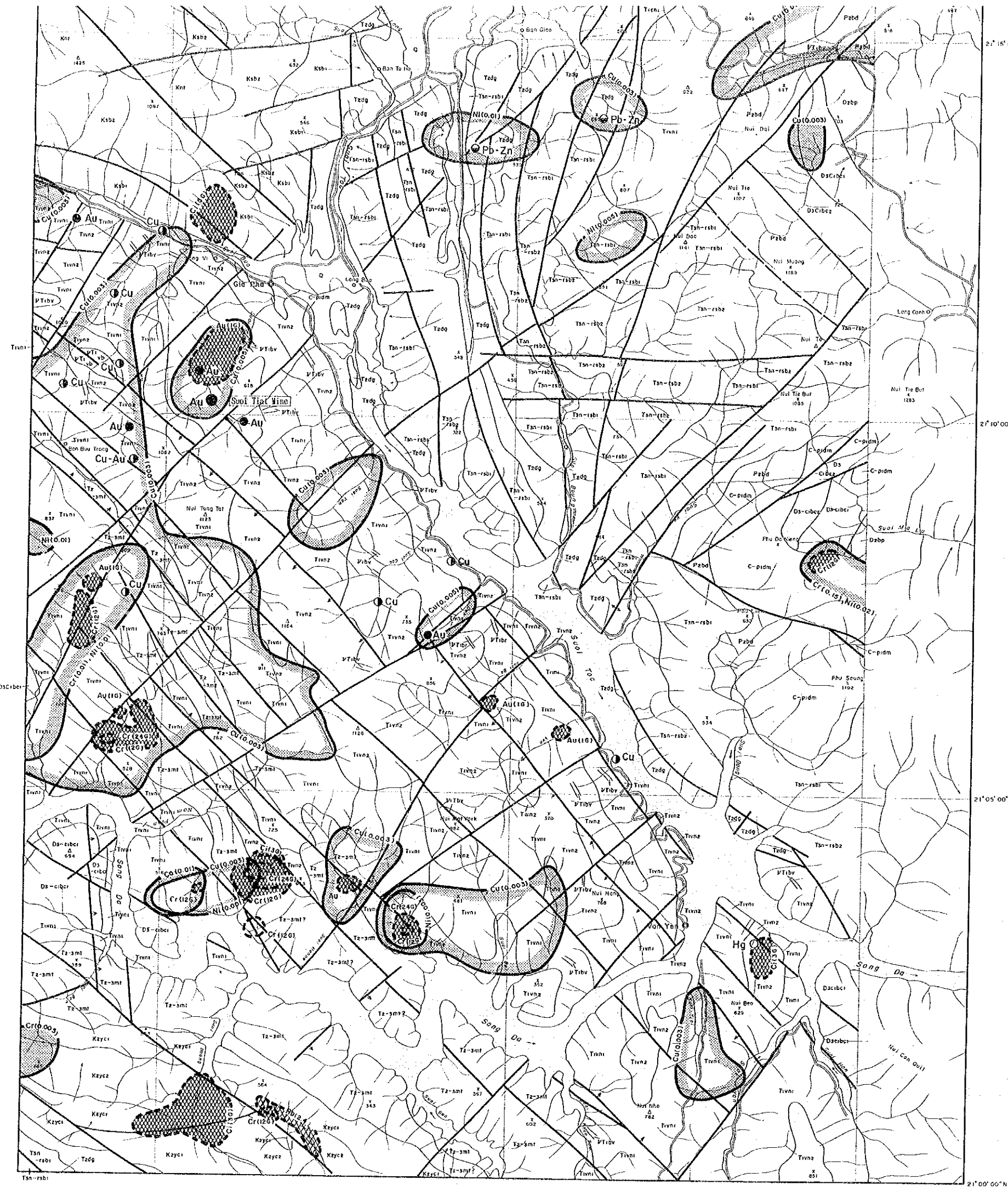


LEGEND

Quaternary	Q	Gravel, sand and clay
Cenozoic	Q ₁	Conglomerate and sandstone
	Q ₂	Trachite and tuff
Cretaceous	K ₁	Tuffaceous sandstone, shale and locally basalt
	K ₂	Tuffaceous conglomerate, tuffaceous sandstone, shale and locally basalt
Jurassic	J ₁	Shale, sandstone, siltstone and coal
	J ₂	Sandstone, siltstone and fossiliferous limestone
Triassic	T ₁	Sandstone, siltstone, conglomerate and fossiliferous limestone
	T ₂	Fossiliferous limestone
Permian	P ₁	Sandstone, siltstone and locally limestone
	P ₂	Tuffaceous sandstone and shale
Carboniferous to Permian	C ₁	Intermediate to felsic volcanic rocks
	C ₂	Basalt, basaltic tuff, agglomerates and dacite
Devonian	D ₁	Shale, sandstone and fossiliferous limestone
	D ₂	Limestone
Intrusive rocks	I ₁	Chert, sandstone and cherty fossiliferous limestone
	I ₂	Shale, cherty shale, argillaceous limestone and locally fossiliferous limestone
Geological unclassified zone	U ₁	Fossiliferous limestone
	U ₂	Granite
Fault	F ₁	Nao Duen Complex: gabbro, diabase and diorite
	F ₂	Ba Ti Complex: gabbro, diabase and diorite

Geological unclassified zone

● Rock of soil accumulation
 Cu(0.003)



Western Thanh Hoa Area
 FEBRUARY 1994
 JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN

Scale 1:50,000
 0 1 2 3 4 5 km

LEGEND

Quaternary	Q	Gravel, silt and clay
Cenozoic	Tn	Conglomerate and sandstone
	Tn2	Tuffaceous and tuff
Tertiary	Tn3	Porphyritic, felsitic, porphyry and tuff
	Tn4	Tuffaceous conglomerate, tuffaceous sandstone, shale and locally basalt
Mesozoic	Tn5	Shale, sandstone, siltstone and coal
	Tn6	Sandstone, siltstone and fossiliferous limestone
Paleozoic	Tz1	Sandstone, siltstone, conglomerate and fossiliferous
	Tz2	Fossiliferous limestone
Triassic	Tn7	Sandstone siltstone and locally limestone
	Tn8	Tuffaceous sandstone and shale
Jurassic	Tn9	Intermediate to felsic volcanic rocks
	Tn10	Basalt, basaltic tuff, agglomerates and dacite
Cretaceous	Tn11	Shale, sandstone and fossiliferous limestone
	Tn12	Limestone
Carboniferous to Permian	Tn13	Shale, sandstone and cherty fossiliferous limestone
	Tn14	Shale, cherty shale, argillaceous limestone and locally fossiliferous limestone
Devonian	Tn15	Fossiliferous limestone
	Tn16	Granite
Intrusive rocks	Tn17	Xan Chien Complex: gabbro, diorite and diorite
	Tn18	Bi Xi Complex: gabbro, diorite and diorite
Geobotanical anomalies zone	Tn19	Each of soil anomalies (50)
	Tn20	Each of soil anomalies (10)
Anomalies of ground concentrate	Tn21	Pb (21.5) - Pb (21.5 g/a ²)
	Tn22	Cu (2.6) - Cu (2.6 g/a ²)
Mineralization	Tn23	Au: Gold
	Tn24	Cu: Copper
Microfossils	Tn25	Pb: Lead
	Tn26	Zn: Zinc
Microfossils	Tn27	Ni: Nickel
	Tn28	Co: Cobalt
Microfossils	Tn29	Cr: Chromite
	Tn30	Cl: Chlorite
Microfossils	Tn31	C: Carbon
	Tn32	Th: Thorium