

LOG NO: 0527	RD.
ACTION:	
FILE NO:	

Assessment Report
on
1990 Linecutting and Soil Sampling
of the
LC 5 Claim
near Savona, B.C.

Kamloops Mining Division

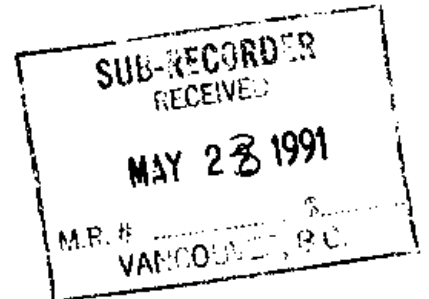
NTS 92I/15

Latitude 50° 54'N

Longitude 120° 57.5'W

Owner and Operator:

Minnova, Inc.
3rd Floor - 311 Water Street
Vancouver, B.C.
V6B-1B8



GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,342

C.J. Clayton
May, 1991

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map pocket

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SUMMARY

The LC 5 claim is situated within the Kamloops Mining Division of British Columbia at the junction of Deadman River and Criss Creek.

Regional geology consists of basement rocks of Triassic Nicola volcanics and Palaeozoic gneisses. Major faults such as the Deadman River fault have block faulted Eocene volcanic rocks into graben like structures. Small Triassic alkaline intrusions and Tertiary (Miocene) intermediate intrusions are spatially related to these faults. Miocene plateau basalts form topographic highs capping all other units. Northwest trending faults of Tertiary age bisect the property. These structures control major drainages such as Sabiston Creek and Carabine Creek.

Mercury deposits are prevalent in the area occurring in a 14 km wide, 39 km long belt extending from Tunkwa/Dominic Lakes in the south to Criss Creek in the north. Mercury occurs as cinnabar with associated stibnite, galena, tetrahedrite, malachite, azurite, chalcopryrite, pyrite, and gold. Placer gold occurs in Criss Creek.

Work on the LC 5 claim in 1990 was concentrated in the area of the Split Rock breccia pipe and along the lahar cliffs on the pipe's western flank. The strong argillic alteration, localised propylitic and carbonate alteration, and chalcedonic veining may be indicative of hydrothermal activity in this area.

1.0 INTRODUCTION

1.1 General

This report describes the results of soil geochemical sampling on the LC 5 claim between June 15, 1990 and July 15, 1990. The claim is 20 units in size and located 18 km north-northwest of the western end of Kamloops Lake at the junction of Criss Creek and Deadman River.

1.2 Property Location and Access

The LC 5 claim is situated within the Kamloops Mining Division of British Columbia, and is centred at Latitude 50° 54' North, and Longitude 120° 57' West on NTS map sheet 92I/1S (Figure 1).

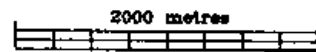
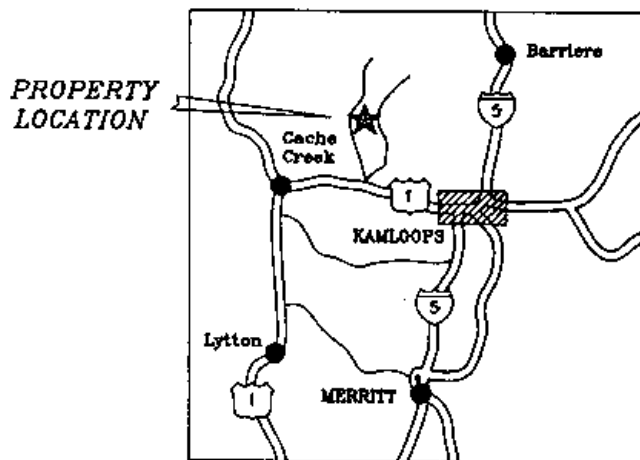
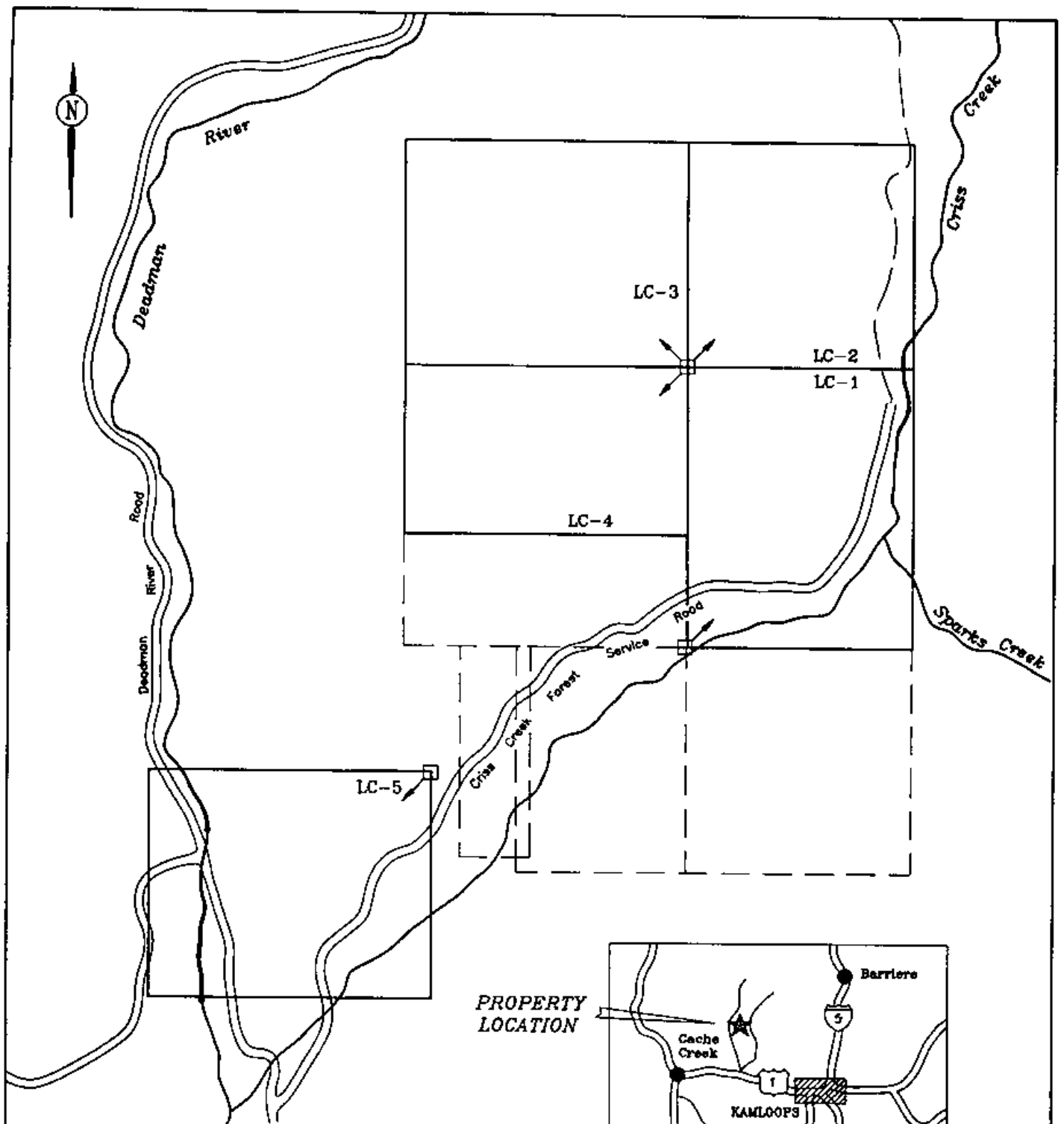
Access is gained via the Trans Canada Highway west from Savona, B.C. to the Deadman River turnoff, and then north for 15 kilometres along the Deadman River road to its junction with the Criss Creek logging road.

1.3 Topography, Vegetation, and Climate

The LC 5 claim is located just above the Deadman Valley on its eastern side. Elevations range from 700 to 900 metres. Precipitation is minimal and seasonal fluctuations in temperature are severe, ranging from -40°C to +40°C. Ranching and hay cultivation are the primary activities in the valley while logging in the hill is extensive.

1.4 Property and Ownership

The LC 5 claim consists of 20 units 100% owned and operated by Minnova Inc. The record number is 6944, expiring February 27, 1993 assuming acceptance of this report. Claim configuration is shown in Figure 1.



**LAST CHANCE PROPERTY
PROPERTY LOCATION &
CLAIM CONFIGURATION**

1.5 Property History

Placer mining of Criss Creek occurred during the early 1900's. B.P.-Selco previously held the ground in the Deadman Valley as the DM claims. The geology and geochemistry of the Hoodoo grid, which covered much of the LC 5 area, is described by D. Gamble in assessment report #9729. This report describes a complex Tertiary history with sediments, rhyolites, basalts and the mafic breccia pipe known as "Split Rock".

1.6 Summary of 1990 Assessment Work - LC5 Claim

Linecutting	-	7.575 line kilometres
Soil Geochemistry	-	346 grid and contour soil samples analyzed for Ag, As, Ba, Cu, Pb, Sb, Zn, Hg, and Au.

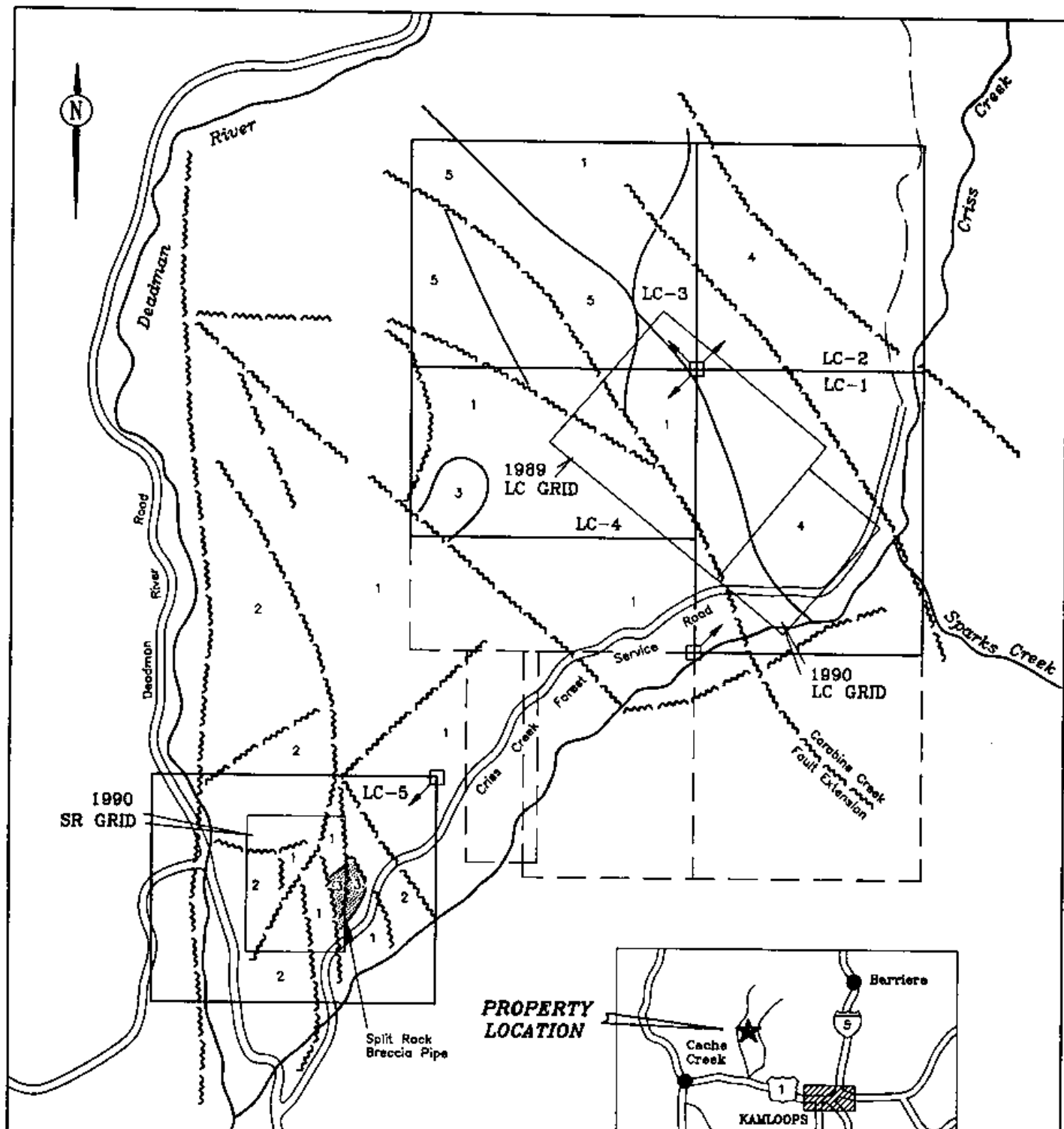
2.0 GEOLOGY

2.1 Regional Geology

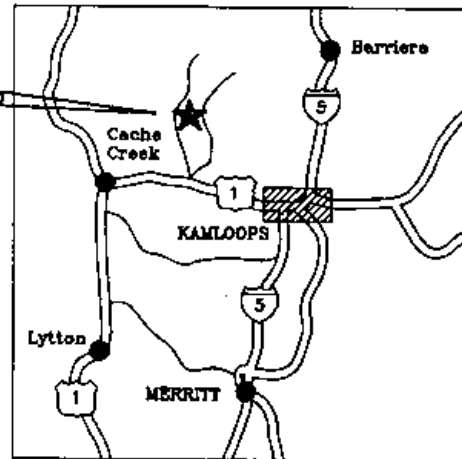
Regionally, the LC 5 claim is underlain by basement rocks of Triassic Nicola volcanics and Palaeozoic gneisses. Major faults in the area, such as the Deadman River fault, have strike lengths upwards of 64 km and have block faulted Eocene volcanic rocks into graben like structures. Chert pebble conglomerate in the area is most probably Jurassic in age belonging to the Ashcroft Formation. Small Triassic alkaline intrusions and Tertiary (Miocene) intermediate intrusions are spatially related to northwest trending faults of Tertiary age which bisect the property. These structures appear to control major drainages such as Sabiston Creek and Carabine Creek. Miocene plateau basalts form topographic highs capping all other units.

2.2 Property Geology and Structure

Geology underlying the LC 5 claim consists, briefly, of Eocene Kamloops Group basalt trachytic lahars and flows, occasional

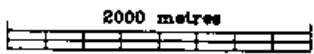


PROPERTY LOCATION



LEGEND

- 5 Basaltic or Felsic Dykes (MIOCENE)
- 4 Conglomerate and Sandstone (MIOCENE)
- 3 Basalt Breccia and Flows (MIOCENE)
- 2 Kamloops Group (EOCENE)
- 1 Nicola Volcanics and Sediments (TRIASSIC)



**LAST CHANCE PROPERTY
GEOLOGY MAP**

Miocene sediments (siltstone and argillite), the Miocene "Split Rock" breccia pipe, and Miocene or younger pyroxene basalt dykes (Figure 2). Numerous faults cross cut the area in various orientations.

Alteration and Mineralization

Lahar cliffs visible from the Deadman River road form the western flank of the breccia pipe. These cliffs vary in colour from a dark ochre, to maroon, to light grey and have been subjected to strong argillic alteration. Localised areas along these cliffs show propylitic and carbonate alteration. The breccia pipe itself contains veined chalcedony (chrysoprase) which generally occurs in shear zones within the pipe. Chalcedony also occurs in the matrix of the breccia.

3.0 RESULTS OF 1990 FIELD WORK

3.1 Line Cutting

Field work between June 15 and July 15, 1990 consisted of 7.575 kilometres of linecutting along the western flank of the breccia pipe followed by soil sampling of the grid. Grid lines were oriented in an east-west direction at 100 metre intervals with 25 metre station spacings. Hand tools were used for blazing trees and trimming branches.

3.2 Soil Geochemistry

A total of 346 soil samples were taken along grid lines and contour sampling lines.

In all cases an attempt was made to sample well developed 'B' horizon soil. Sample depths ranged from 5 cm to 25 cm averaging approximately 10 cm. Samples collected were placed in kraft sample bags and allowed to dry before shipping. Sampling personnel were instructed to note soil parameters such as sample depth, soil

colour, soil moisture content, soil texture, and slope direction.

Soil samples were sent to Min-En Labs of North Vancouver for ICP analysis using aqua regia total digestion. The samples were analyzed for Ag, As, Ba, Cu, Pb, Sb, Zn, and Hg. Gold was determined by atomic absorption.

Copies of analytical certificates are contained in Appendix III. Table I lists normal and log-transformed statistics for each element. Statistics were calculated using the Probplot statistical program. Histograms and statistical results for normal and log-transformed distributions are contained in Appendix IV. An anomalous response is defined as a response greater than threshold for more than two adjacent or subsequent samples. Sample locations are plotted on Figure 3; results for Cu, Pb, and Zn are plotted on Figure 4, and Ag, Au, and Hg on Figure 5.

Threshold values were chosen from histograms to be within the 97th cumulative percentile. Gold and As results show no common distribution pattern and threshold values are therefore not given. Values for these elements may be visually estimated.

TABLE I: NORMAL AND LOGTRANSFORMED SUMMARY STATISTICS

Variable	Ag		As		Ba	
	Arith	Geom	Arith	Geom	Arith	Geom
N=346						
Minimum	0.100	-1.0000	1.000	0.0000	43.000	1.6335
Maximum	2.100	0.3222	194.000	2.2878	2349.000	3.3709
Mean	1.094	0.0164	2.827	0.1314	155.777	2.1582
Std.Dev.	0.304	0.1579	11.814	0.3376	127.158	0.1461
Threshold	1.6 ppm		14 ppm		271 ppm	
Variable	Cu		Pb		Sb	
	Arith	Geom	Arith	Geom	Arith	Geom
N=346						
Minimum	20.000	1.3010	14.000	1.1461	1.000	0.0000
Maximum	269.000	2.4298	36.000	1.5563	3.000	0.4771
Mean	42.139	1.6023	24.179	1.3768	1.026	0.0071
Std.Dev.	17.983	0.1285	4.002	0.0783	0.192	0.0508
Threshold	81 ppm		31 ppm		N/A	
Variable	Zn		Hg		Au	
	Arith	Geom	Arith	Geom	Arith	Geom
N=346						
Minimum	41.000	1.6128	5.000	0.6990	5.000	0.6990
Maximum	131.000	2.1173	4375.000	3.6410	110.000	2.0414
Mean	71.243	1.8471	123.723	1.9386	6.214	0.7568
Std.Dev.	11.518	0.0706	256.806	0.3171	5.956	0.1367
Threshold	95 ppm		430 ppb		N/A	

In general, soil geochemical response was poor for the particular horizon sampled. Sporadic elevated results did not indicate any geochemical trends. No truly anomalous zones were defined by this geochemical method. The high clay content of much of the soils may suppress elemental movement in the soils.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The LC 5 claim is situated between the eastern edge of the Deadman River fault and the Sabiston Creek fault further east. Indications of an epithermal system and hydrothermal activity exist in the form of a large (500m x 500m) homogeneous breccia pipe containing chalcedonic veining and chalcedonic breccia infillings, extreme argillic alteration extending for several kilometres northward along the eastern side of the Deadman River valley, and localised areas of propylitic and carbonate alteration.

Despite evidence for an epithermal system, precious metal mineralization on the claim remains elusive. Soil sampling of the SR grid failed to produce any significant geochemical trends or anomalous results traceable to a source area. Two possibilities exist to explain this. The current erosional level exposed may be in the upper levels of the system. The presence of Miocene plateau basalts nearby suggest the erosional level may be close to the Miocene paleosurface. Mafic dykes cutting the Split Rock breccia pipe may have been feeders for the overlying basalts. A possible mineralized system may therefore exist at a deeper level and soil geochemical response may be masked by the extent of argillic (clay) alteration. An alternate possibility is the breccia pipe may be a volcanic vent with the intense argillic alteration of the surrounding area resulting from "flashing" of surface waters to steam, rather than from the presence of a hydrothermal system.

A detail rock sampling program should be completed over the Split Rock breccia pipe and surrounding area. Emphasis should be placed on mapping of alteration assemblages to determine any alteration "hot spots" in the area of the pipe, and areas proximal to the pipe. If any significant "hot spots" are outlined, a short drilling program of two or three holes should be able to determine

whether economic mineralization is present at depth. Should the results of a drill program on the LC 5 claim prove to be barren, no further work on the property would be warranted or recommended.

5.0 REFERENCES

- Cockfield, W.E. Geology and Mineral Deposits of Nicola Map-Area, British Columbia. Geological Survey Memoir 249, Department of Mines and Resources; Edmond Cloutier, C.M.G., B.A., L.Ph., King's Printer and Controller of Stationery; Ottawa, 1948.
- Evans, Graeme. Geochemical Report, LC Project, LC #5 Claims. unpublished report, Minnova, Inc; Feb. 15, 1988.
- Evans, Graeme. Geological and Geochemical Report, L.C. Group Claims. Assessment Report for Minnova, Inc.; May 15, 1990.

APPENDIX I

STATEMENT OF QUALIFICATIONS

APPENDIX II

STATEMENT OF COSTS - LC 5 CLAIM

STATEMENT OF COSTS - LC 5 CLAIM

Geochemistry

G. Duso - soil sampler 4 days @ \$150 per = \$ 600
M. Holmes - soil sampler 2 days @ \$150 per = \$ 300

Min-En Laboratories, North Vancouver, B.C.

346 soil samples @ \$13.00 = \$ 4498

Freight = \$ 50

Linecutting - 7.575 line km @ \$361.28 per = \$ 2737

Truck Rental and Fuel

6 days @ \$ 60 per = \$ 360

Food and Accommodation

7 mandays @ \$ 65 per = \$ 455

Drafting

1/2 mandays @ \$ 300 per = \$ 150

Report Preparation

C.J. Clayton - 2 mandays @ \$ 300 per = \$ 600

TOTAL EXPENDITURES = \$ 9750

APPENDIX III

SOIL SAMPLING ANALYTICAL CERTIFICATES

COMP: MINNOVA INC.
PROJ: LAST CHANCE 622
ATTN: I.PIRIE/C.CLAYTON

MIN-EN LABS — ICP REPORT
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 0V-0755-SJ544
DATE: 90/07/04
* SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	HG PPB
OH LCS122	.6	25	163	75	20	1	70	5	275
OH LCS123	.1	194	43	38	17	1	131	5	95
OH LCS124	.9	1	193	74	16	1	72	5	55
OH LCS125	.9	1	84	49	16	1	70	5	20
OH LCS126	1.2	1	157	41	14	1	73	5	15
OH LCS127	1.0	1	104	35	17	1	70	5	15
OH LCS128	1.4	1	94	32	18	1	50	5	25
OH LCS129	1.5	1	76	25	17	1	59	5	5
OH LCS130	1.0	1	114	66	23	1	78	5	5
OH LCS131	1.2	1	143	43	14	1	70	110	80
OH LCS132	1.1	1	113	28	18	1	69	5	25
OH LCS133	1.0	1	119	33	14	1	59	10	105
OH LCS134	1.1	1	123	30	16	1	78	5	30
OH LCS135	1.2	1	146	33	18	1	76	5	15
OH LCS136	1.1	1	125	28	14	1	67	5	20
OH LCS137	1.3	1	137	40	18	1	60	5	55
OH LCS138	1.3	1	139	40	14	1	61	5	40
OH LCS139	1.2	1	130	39	14	1	59	5	110
OH LCS140	1.2	1	139	41	16	1	55	5	145
OH LCS141	1.3	1	132	44	14	1	57	5	35
OH LCS142	1.5	1	138	41	16	1	67	5	5
OH LCS143	1.2	1	136	33	17	1	74	5	5

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MIN-EN LABS — ICP REPORT
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
 (604)980-5814 OR (604)988-4524

FILE NO: OV-0755-SJ3+4
 DATE: 90/07/04
 * SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPH	SB PPM	ZN PPM	AU PPB	HG PPB
OHLC103	1.3	1	107	38	17	1	71	5	555
OHLC104	1.5	1	103	57	14	1	66	5	75
OHLC105	.9	1	129	35	20	1	55	5	35
OHLC106	1.0	1	176	75	23	1	75	5	235
OHLC107	1.2	1	117	115	15	1	60	5	65
OHLC108	.9	1	268	60	18	1	68	5	450
OHLC109	1.0	1	176	68	18	1	47	5	150
OHLC110	1.0	1	160	67	16	1	50	5	45
OHLC111	1.0	1	157	45	19	1	55	10	245
OHLC112	1.4	1	210	59	14	1	64	5	60
OHLC113	1.1	1	115	83	17	1	47	5	730
OHLC114	1.7	87	352	63	19	1	49	5	140
OHLC115	.9	1	227	43	18	1	66	5	80
OHLC116	.9	1	159	109	14	1	55	5	145
OHLC117	1.0	1	111	94	14	1	65	10	895
OHLC118	1.1	1	177	53	18	1	79	5	280
OHLC119	1.5	1	156	53	17	1	86	5	55
OHLC120	1.6	1	257	57	16	1	63	5	45
OHLC121	1.2	39	147	41	24	1	70	5	400

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 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
 (604)980-5814 OR (604)988-4524

FILE NO: 0V-0825-SJ1+2
 DATE: 90/07/17
 * SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	HG PPB
OGSR001	.2	1	100	34	28	1	78	5	65
OGSR002	.1	1	86	31	21	1	65	10	40
OGSR003	1.0	1	83	53	24	1	75	5	4375
OGSR004	.9	1	95	44	25	1	63	5	65
OGSR005	.7	1	117	28	22	1	85	5	70
OGSR006	1.0	4	149	32	24	1	80	5	195
OGSR007	1.2	1	174	42	25	1	84	5	55
OGSR008	1.0	1	139	39	25	1	65	10	65
OGSR009	1.1	1	143	33	21	1	79	5	65
OGSR010	.9	13	137	32	26	1	72	5	100
OGSR011	.9	2	180	34	28	1	75	5	75
OGSR012	.8	1	160	39	26	1	66	10	90
OGSR013	1.1	1	177	40	26	1	75	5	45
OGSR014	1.0	6	162	39	26	1	73	5	100
OGSR015	.9	2	176	38	29	1	72	5	65
OGSR016	1.4	4	198	39	29	1	80	5	200
OGSR017	1.0	1	200	41	25	1	79	5	75
OGSR018	1.2	1	196	37	24	1	77	10	50
OGSR019	.8	1	178	36	27	1	87	5	60
OGSR020	1.1	5	126	46	30	1	64	5	45
OGSR021	.9	1	118	40	28	1	65	5	30
OGSR022 MISSING	NO SAMPLE								
OGSR023	.8	3	134	35	26	1	68	10	80
OGSR024	.8	1	107	50	22	1	66	5	45
OGSR025	1.2	5	122	58	27	1	65	5	60
OGSR026	1.2	1	139	49	26	1	73	5	55
OGSR027	1.4	4	128	58	31	1	70	10	50
OGSR028	1.6	16	164	42	32	3	108	5	35
OGSR029	.8	5	141	57	33	2	70	5	60
OGSR030	.7	19	321	63	36	3	79	5	50
OGSR031	.2	3	139	44	27	1	73	5	45
OGSR032	1.1	1	184	53	24	1	64	10	50
OGSR033	.9	3	112	51	24	1	81	5	55
OGSR034	.9	1	145	52	26	1	81	5	80
OGSR035	1.3	1	171	50	29	1	78	5	70
OGSR036	1.6	8	140	45	23	1	54	5	275
OGSR037	1.5	1	145	46	25	1	77	10	80
OGSR038	1.3	6	156	39	25	1	61	5	125
OGSR039	1.3	1	139	38	24	1	78	5	65
OGSR040	1.3	2	160	31	24	1	82	5	80
OGSR041	1.2	1	174	35	21	1	78	10	70
OGSR042	1.4	1	175	30	24	1	78	10	220
OGSR043	1.4	1	151	38	23	1	74	5	55
OGSR044	1.5	1	154	30	25	1	78	5	95
OGSR045	1.3	1	131	42	24	1	69	5	105
OGSR046	1.3	7	157	33	21	1	80	5	75
OGSR047	1.3	1	157	32	23	1	79	5	85
OGSR048	1.3	8	169	24	22	1	79	5	80
OGSR049	1.5	10	185	44	29	2	60	10	150
OGSR050	1.1	4	145	28	27	1	88	5	65
OGSR051	1.1	1	145	40	24	1	68	5	115
OGSR052	1.4	10	127	39	31	1	61	5	165
OGSR053	1.3	1	72	29	29	1	79	10	65
OGSR054	1.2	1	87	30	26	1	72	10	50
OGSR055	1.5	5	121	39	27	1	80	5	45
OGSR056	1.6	3	87	39	24	1	80	5	40
OGSR057	1.3	22	69	269	27	2	96	5	205
OGSR058	1.2	10	162	32	25	1	102	5	55
OGSR059	1.1	9	85	20	26	1	70	10	45
OGSR060	1.2	1	101	29	26	1	62	5	55

JUL 20 1990

COMP: MINNOVA INC.
 PROJ: LAST CHANCE 622
 ATTN: I.PIRIE/C.CLAYTON

MIN-EN LABS — ICP REPORT
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 (604)980-5814 OR (604)988-4524

FILE NO: DV-0825-SJ3+4
 DATE: 90/07/17
 * SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	HG PPB
OGSRS061	.7	1	116	27	21	1	72	5	60
OGSRS062	.4	1	85	40	29	1	70	5	65
OGSRS063	.8	1	108	27	24	1	63	5	65
OGSRS064	1.0	1	145	35	23	1	73	10	75
OGSRS065	1.1	1	136	34	23	1	79	10	130
OGSRS066	.9	1	131	30	25	1	74	5	65
OGSRS067	.8	1	146	32	25	1	78	5	65
OGSRS068	1.0	1	154	36	20	1	76	5	75
OGSRS069	1.0	1	174	44	22	1	71	5	80
OGSRS070	1.1	1	161	42	23	1	77	5	235
OGSRS071	1.0	1	177	39	23	1	74	5	75
OGSRS072	1.2	1	177	40	28	1	80	10	65
OGSRS073	1.2	1	177	42	27	1	80	5	80
OGSRS074	1.1	1	193	40	23	1	74	5	60
OGSRS075	1.1	1	205	41	22	1	74	5	90
OGSRS076	1.3	1	205	42	25	1	77	5	75
OGSRS077	1.2	1	212	39	22	1	75	5	55
OGSRS078	1.2	1	241	48	25	1	73	10	50
OGSRS079	1.0	14	127	53	28	1	70	5	50
OGSRS080	1.1	1	107	39	26	1	85	5	35
OGSRS081	1.5	3	124	53	27	1	88	5	35
OGSRS082	1.5	1	193	37	24	1	96	5	40
OGSRS083	1.5	4	132	49	26	1	73	5	60
OGSRS084	1.3	1	202	47	27	1	80	5	65
OGSRS085	1.5	5	218	47	24	1	79	10	85
OGSRS086	1.4	1	168	41	26	1	75	5	70
OGSRS087	1.4	1	171	42	26	1	70	5	80
OGSRS088	.9	1	167	29	23	1	89	5	90
OGSRS089	1.4	1	124	33	27	1	76	5	110
OGSRS090	.9	1	130	40	25	1	59	5	135
OGSRS091	.4	1	136	37	21	1	55	5	335
OGSRS092	.5	1	166	40	17	1	57	5	180
OGSRS093	.6	1	195	37	21	1	47	5	140
OGSRS094	1.0	1	159	42	26	1	62	10	190
OGSRS095	.8	1	144	38	20	1	70	5	210
OGSRS096	.8	1	119	35	21	1	63	5	165
OGSRS097	.7	1	131	33	24	1	71	5	150
OGSRS098	.3	1	245	32	27	1	59	5	130
OGSRS099	.8	1	218	40	23	1	71	5	75
OGSRS100	.5	1	259	37	23	1	68	5	135
OGSRS101	.9	4	179	36	29	1	65	5	120
OGSRS102	1.9	1	292	68	27	1	49	5	100
OGSRS103	1.0	1	90	57	25	1	88	5	185
OGSRS104	.6	1	120	46	19	1	77	10	125
OGSRS105	.4	1	110	45	18	1	72	5	115
OGSRS106	1.5	1	81	106	22	1	79	5	50
OGSRS107	1.3	1	140	63	26	1	62	5	100
OGSRS108	.8	1	148	45	24	1	83	5	60
OGSRS109	1.0	1	184	42	24	1	89	5	35
OGSRS110	1.2	1	156	35	25	1	88	5	50
OGSRS111	1.2	3	153	38	26	1	77	10	35
OGSRS112	.6	1	185	38	23	1	93	5	145
OGSRS113	1.3	5	286	39	28	1	93	5	110
OGSRS114	.9	1	191	50	25	1	81	5	130
OGSRS115	1.3	1	122	55	17	1	88	5	130
OGSRS116	1.3	1	118	53	21	1	62	5	120
OGSRS117	1.4	1	144	47	21	1	89	5	105
OGSRS118	.8	1	241	40	19	1	81	5	165
OGSRS119	.9	1	116	36	21	1	95	5	170
OGSRS120	.4	10	121	31	24	1	57	5	205

COMP: MINNOVA INC.
 PROJ: LAST CHANCE 622
 ATTN: I. PIRIE/C. CLAYTON

MIN-EN LABS — ICP REPORT
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
 (604)980-5814 OR (604)988-4524

FILE NO: OV-0825-SJ5+6
 DATE: 90/07/17
 * SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	HG PPB
OGSRS121	.8	1	126	63	21	1	64	5	70
OGSRS122	.8	1	103	35	24	1	66	5	135
OGSRS123	1.1	1	212	39	25	1	58	10	65
OGSRS124	1.6	1	203	45	24	1	47	5	70
OGSRS125	1.1	1	148	34	25	1	73	5	80
OGSRS126	.9	1	136	36	20	1	67	5	75
OGSRS127	.6	1	125	34	20	1	61	5	80
OGSRS128	.6	1	112	36	20	1	52	10	110
OGSRS129	1.0	1	119	37	19	1	74	10	115
OGSRS130	.9	1	124	31	25	1	79	5	180
OGSRS131	.8	1	150	29	21	1	83	5	60
OGSRS132	1.4	1	141	45	25	1	72	10	175
OGSRS133	1.2	1	179	54	23	1	74	10	275
OGSRS134	1.6	1	139	45	22	1	89	5	155
OGSRS135	1.7	1	66	74	21	1	92	5	50
OGSRS136	1.4	1	99	50	21	1	94	5	75
OGSRS137	.7	1	150	63	28	1	88	5	15
OGSRS138	.6	1	151	74	30	1	87	5	105
OGSRS139	1.1	1	93	49	25	1	65	5	75
OGSRS140	1.0	1	78	46	22	1	76	10	43
OGSRS141	1.1	4	150	46	22	1	57	5	145
OGSRS142	.6	8	160	27	22	1	78	5	65
OGSRS143	.8	5	143	27	25	1	87	5	55
OGSRS144	.9	3	126	30	22	1	76	5	85
OGSRS145	1.2	11	103	46	21	1	56	10	205
OGSRS146	1.0	1	124	33	26	1	80	10	110
OGSRS147	.8	1	124	25	27	1	78	5	50
OGSRS148	.8	1	121	39	23	1	55	5	165
OGSRS149	1.2	1	145	36	23	1	86	10	70
OGSRS150	1.5	7	212	41	28	1	51	5	245
OGSRS151	1.1	1	87	64	28	1	72	5	85
OGSRS152	.6	1	120	52	26	1	74	5	50
OGSRS153	.9	1	155	77	24	1	78	5	55
OGSRS154	.5	1	215	36	24	1	89	5	60
OGSRS155	1.3	1	64	34	20	1	56	10	60
OGSRS156	1.2	1	115	49	22	1	60	5	55
OGSRS157	1.1	1	125	40	24	1	60	5	95
OGSRS158	.9	1	131	36	22	1	70	10	90
OGSRS159	1.0	1	134	55	16	1	65	5	80
OGSRS160	.7	1	126	36	22	1	62	5	105
OGSRS161	1.0	1	144	35	27	1	69	10	95
OGSRS162	.9	1	148	35	26	1	98	5	110
OGSRS163	.9	1	173	38	25	1	78	5	75
OGSRS164	.9	1	178	37	26	1	80	5	80
OGSRS165	1.3	1	141	59	27	1	83	10	85
OGSRS166	.6	1	125	39	30	1	81	5	95
OGSRS167	1.0	1	187	47	31	1	80	5	105
OGSRS168	.9	1	157	41	23	1	79	5	60
OGSRS169	1.2	1	216	43	26	1	98	10	90
OGSRS170	1.3	1	228	46	26	1	92	5	65
OGSRS171	1.3	1	176	44	25	1	80	5	70
OGSRS172	1.2	1	171	41	23	1	75	5	75
OGSRS173	1.2	1	184	38	24	1	84	5	80
OGSRS174	1.3	1	149	42	28	1	82	10	75
OGSRS175	.9	1	109	43	28	1	61	5	80
OGSRS176	1.0	1	155	41	25	1	57	10	60
OGSRS177	.3	1	259	39	26	1	78	5	70
OGSRS178	1.1	1	115	39	27	1	71	10	65
OGSRS179	1.0	3	188	51	27	1	86	5	90
OGSRS180	1.1	1	142	46	27	1	79	5	60

CCMP: MINNOVA INC.
 PROJ: LAST CHANCE 622
 ATTN: I.PIRIE/C.CLAYTON

MIN-EN LABS — ICP REPORT
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
 (604)980-5814 OR (604)988-4524

FILE NO: 0V-0825-SJ7+B
 DATE: 90/07/17
 * SOIL • (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	HG PPB
OGSR181	.7	1	144	48	25	1	72	5	80
OGSR182	1.1	1	178	57	25	1	84	10	70
OGSR183	1.2	1	180	56	27	1	82	5	50
OGSR184	1.8	1	121	53	28	1	86	5	65
OGSR185	2.1	1	104	64	23	1	78	5	50
OGSR186	1.0	1	156	30	25	1	80	5	280
OGSR187	1.5	1	127	42	20	1	75	10	220
OGSR188	1.2	1	151	20	27	1	72	5	75
OGSR189	1.3	1	118	25	29	1	65	5	70
OGSR190	1.0	1	140	33	28	1	90	5	80
OGSR191	1.0	1	144	32	26	1	82	5	140
OGSR192	.9	1	175	29	21	1	76	10	100
OGSR193	1.3	1	147	40	29	1	77	5	105
OGSR194	1.4	1	125	41	27	1	74	5	70
OGSR195	1.8	1	60	66	28	1	61	5	75
OGSR196	1.4	1	107	82	30	1	55	5	85
OGSR197	1.2	1	116	78	30	1	54	10	50
OGSR198	1.5	1	149	67	29	1	72	5	150
OGSR199	.9	1	153	47	24	1	58	5	110
OGSR200	1.4	1	114	66	27	1	60	5	50
OGSR201	.7	1	141	27	20	1	66	5	70
OGSR202	.8	1	178	32	27	1	73	5	55
OGSR203	.8	1	145	24	23	1	61	5	115
OGSR204	1.2	1	150	36	27	1	69	10	105
OGSR205	.9	1	80	35	30	1	74	10	40
OGSR206	1.3	1	131	31	26	1	72	5	85
OGSR207	1.1	1	170	33	32	1	92	5	80
OGSR208	1.0	1	153	31	27	1	72	5	45
OGSR209	1.0	1	165	32	27	1	83	5	65
OGSR210	1.1	1	123	34	25	1	71	5	80
OGSR211	1.0	1	127	38	24	1	80	20	65
OGSR212	1.0	1	174	38	26	1	87	10	50
OGSR213	.7	1	144	44	28	1	67	5	85
OGSR214	.7	1	85	41	23	1	71	5	60
OGSR215	.5	1	241	38	22	1	70	5	45
OGSR216	1.3	1	199	36	22	1	77	5	65
OGSR217	1.0	1	161	32	26	1	62	5	70
OGSR218	1.2	1	156	39	23	1	77	5	70
OGSR219	1.2	1	151	36	28	1	65	10	60
OGSR220	1.2	1	158	41	23	1	57	5	105
OGSR221	1.4	2	165	33	23	1	62	5	90
OGSR222	1.1	1	146	28	23	1	72	10	95
OGSR223	1.5	1	143	35	24	1	73	5	70
OGSR224	1.3	1	123	36	21	1	67	5	210
OGSR225	.9	1	119	28	26	1	69	5	140
OGSR226	1.4	1	129	43	24	1	66	5	230
OGSR227	.9	1	140	22	23	1	78	5	80
OGSR228	1.3	3	122	31	32	1	73	5	105
OGSR229	1.6	1	133	35	26	1	71	5	130
OGSR230	1.6	1	111	31	26	1	63	10	145
OGSR231	.9	1	151	31	23	1	76	5	95
OGSR232	1.3	1	135	29	24	1	74	5	185
OGSR233	.9	1	123	35	22	1	63	5	125
OGSR234	1.3	1	130	28	27	1	69	5	115
OGSR235	.9	1	145	22	25	1	73	5	105
OGSR236	1.0	1	162	36	26	1	87	5	165
OGSR237	1.1	1	116	26	26	1	68	5	90
OGSR238	1.0	1	100	37	24	1	57	5	250
OGSR239	1.2	1	100	29	21	1	67	10	135
OGSR240	1.0	1	112	26	22	1	64	5	170

COMP: MINNOVA INC.
 PROJ: LAST CHANCE 622
 ATTN: I.PIRIE/C.CLAYTON

MIN-EN LABS — ICP REPORT
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
 (604)980-5814 OR (604)988-4524

FILE NO: 0V-0825-SJ9+10
 DATE: 90/07/17
 * SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPM	ZN PPM	AU PPB	HG PPB
OGSRS241	1.3	7	111	37	26	1	41	5	485
OGSRS242	1.0	1	121	40	24	1	47	5	355
OGSRS243	1.1	1	125	56	24	1	52	10	350
OGSRS244	1.5	1	130	44	24	1	55	5	385
OGSRS245	1.3	5	146	40	28	1	68	5	115
OGSRS246	1.2	1	183	51	23	1	64	5	305
OGSRS247	1.5	1	159	47	27	1	62	5	260
OGSRS248	1.0	1	118	37	25	1	61	10	180
OGSRS249	.8	1	112	29	22	1	67	5	115
OGSRS250	1.2	1	124	37	29	1	61	5	365
OGSRS251	1.2	1	118	41	25	1	55	5	210
OGSRS252	1.1	1	164	26	28	1	66	5	70
OGSRS253	1.3	1	171	38	29	1	66	5	110
OGSRS254	1.5	1	196	33	28	1	81	5	1395
OGSRS255	1.9	1	178	40	29	1	80	5	105
OGSRS256	1.3	1	164	38	25	1	69	5	90
OGSRS257	1.2	1	188	40	28	1	71	10	45
OGSRS258	1.0	1	240	53	24	1	75	5	50
OGSRS259	1.0	2	108	23	23	1	54	5	150
OGSRS260	.9	1	119	28	25	1	71	5	115
OGSRS261	1.0	1	116	35	25	1	68	5	130
OGSRS262	1.0	1	115	35	28	1	70	5	115
OGSRS263	.9	1	121	30	25	1	64	5	165
OGSRS264	.9	1	98	23	23	1	66	5	150
OGSRS265	.7	1	110	37	23	1	58	10	275
OGSRS266	1.0	1	123	31	22	1	71	5	115
OGSRS267	1.2	1	119	30	25	1	71	5	100
OGSRS268	1.3	8	87	33	26	1	67	5	125
OGSRS269	1.1	1	109	31	25	1	63	5	130
OGSRS270	1.0	1	104	27	23	1	62	5	100
OGSRS271	1.0	1	112	40	23	1	63	5	320
OGSRS272	.9	1	114	30	25	1	64	5	85
OGSRS273	.8	1	140	27	23	1	69	5	75
OGSRS274	1.0	1	134	25	24	1	71	10	90
OGSRS275	.9	1	149	27	30	1	77	5	75
OGSRS276	1.1	1	165	36	27	1	65	5	140
OGSRS277	1.1	1	193	32	28	1	67	5	120
OGSRS278	1.0	1	215	32	26	1	69	5	80
OGSRS279	1.1	1	174	34	32	1	66	5	75
OGSRS280	1.3	1	205	36	24	1	70	5	85
OGSRS281	1.5	1	346	42	24	1	48	5	55
OGSRS282	1.4	1	2349	31	29	1	62	5	45
OGSRS283	1.4	1	189	49	27	1	81	5	75
OGSRS284	1.6	1	163	52	27	1	67	5	100
OGSRS285	1.1	1	206	36	33	1	79	5	85
OGSRS286	1.6	1	173	39	32	1	73	5	190
OGSRS287	1.6	1	197	46	29	1	69	5	155
OGSRS288	.9	1	250	47	27	1	53	5	75
OGSRS289	1.6	1	197	34	26	1	49	5	65
OGSRS290	1.0	1	296	43	28	1	55	5	70
OGSRS291	1.1	1	172	41	28	1	50	5	95
OGSRS292	1.3	1	127	43	29	1	68	10	85
OGSRS293	1.3	1	63	56	24	1	59	5	75
OGSRS294	1.3	1	157	50	25	1	99	5	100
OGSRS295	1.3	1	186	44	26	1	81	5	70
OGSRS296	1.4	1	90	47	31	1	69	5	85
OGSRS297	.8	1	368	32	28	1	66	5	80
OGSRS298	.6	1	283	36	27	1	78	5	110
OGSRS299	1.3	1	80	25	30	1	55	5	75
OGSRS300	1.3	1	172	52	28	1	54	5	85

APPENDIX IV

SOIL SAMPLING STATISTICS

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = AG Unit = PPM N = 346

Mean = 0.0164 Min = -1.0000 1st Quartile = -0.0458
 Std. Dev. = 0.1579 Max = 0.3222 Median = 0.0414
 CV % = 965.2381 Skewness = -2.5230 3rd Quartile = 0.1139

Anti-Log Mean = 1.038 Anti-Log Std. Dev. : (-) 0.722
 (+) 1.494

%	cum %	antilog	cls int	(# of bins = 26 - bin size = 0.0529)
0.00	0.14	0.094	-1.0264	
0.58	0.72	0.106	-0.9736	*
0.00	0.72	0.120	-0.9207	
0.00	0.72	0.136	-0.8678	
0.00	0.72	0.153	-0.8149	
0.00	0.72	0.173	-0.7620	
0.00	0.72	0.195	-0.7091	
0.58	1.30	0.221	-0.6562	*
0.00	1.30	0.249	-0.6033	
0.00	1.30	0.282	-0.5504	
0.58	1.87	0.318	-0.4976	*
0.00	1.87	0.359	-0.4447	
1.16	3.03	0.406	-0.3918	**
0.00	3.03	0.458	-0.3389	
1.16	4.18	0.518	-0.2860	**
0.00	4.18	0.585	-0.2331	
3.18	7.35	0.660	-0.1802	*****
3.18	10.52	0.746	-0.1273	*****
6.94	17.44	0.842	-0.0744	*****
12.72	30.12	0.952	-0.0216	*****
15.61	45.68	1.075	0.0313	*****
23.12	68.73	1.214	0.0842	***** --> 40
13.29	81.99	1.371	0.1371	*****
12.43	94.38	1.549	0.1900	*****
4.05	98.41	1.749	0.2429	*****
1.16	99.57	1.976	0.2958	**
0.29	99.86	2.232	0.3487	

Each "*" represents approximately 2.0 observations.

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = SRTEST.PRN

Variable = AC Unit = PPM N = 346
N CI = 26

Transform = Arithmetic Number of Populations = 5

of Missing Observations = 0.

=====

Incomplete Iteration Parameter Estimates

Population	Mean	Std Dev	Percentage
1	0.267	0.126	2.94
2	0.588	0.094	7.08
3	0.921	0.086	34.75
4	1.238	0.123	43.41
5	1.572	0.132	11.82

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds	
1	0.016	0.519
2	0.401	0.775
3	0.749	1.093
4	0.992	1.485
5	1.307	1.836

#####

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = AS Unit = PPM N = 346

Mean = 0.1314 Min = 0.0000 1st Quartile = 0.0000
 Std. Dev. = 0.3376 Max = 2.2878 Median = 0.0000
 CV % = 256.9717 Skewness = 2.9248 3rd Quartile = 0.0000

Anti-Log Mean = 1.353 Anti-Log Std. Dev. : (-) 0.622
 (+) 2.944

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=====
```

%	cum %	antilog	cls int	(# of bins = 26 - bin size = 0.0915)
0.00	0.14	0.900	-0.0458	
83.82	83.72	1.111	0.0458	***** --> 145
0.00	83.72	1.372	0.1373	
0.00	83.72	1.693	0.2288	
1.45	85.16	2.091	0.3203	**
0.00	85.16	2.581	0.4118	
2.60	87.75	3.187	0.5033	****
0.00	87.75	3.934	0.5948	
2.02	89.77	4.857	0.6863	****
2.60	92.36	5.996	0.7779	****
1.45	93.80	7.402	0.8694	**
1.45	95.24	9.139	0.9609	**
1.73	96.97	11.282	1.0524	***
0.29	97.26	13.928	1.1439	
0.87	98.13	17.195	1.2354	**
0.29	98.41	21.229	1.3269	
0.58	98.99	26.208	1.4184	*
0.00	98.99	32.356	1.5099	
0.29	99.28	39.945	1.6015	
0.00	99.28	49.314	1.6930	
0.00	99.28	60.882	1.7845	
0.00	99.28	75.162	1.8760	
0.29	99.57	92.792	1.9675	
0.00	99.57	114.557	2.0590	
0.00	99.57	141.427	2.1505	
0.00	99.57	174.601	2.2420	
0.29	99.86	215.555	2.3336	

```
=====
```

0 1 2 3 4

Each "*" represents approximately 2.0 observations.

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = SRTEST.PRN

Variable = AS Unit = PPM N = 56
N CI = 18

Transform = Logarithmic Number of Populations = 2

of Missing Observations = 0.

290 Observations Were Below the Minimum Value of 1.6930
0 Observations Were Above the Maximum Value of 99999.9999

=====

Raw Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -18.953
Parameterized Degrees of Freedom = 3

Population	Mean	Std Dev	Percentage
1	5.316	- 2.887 + 9.787	90.45
2	41.379	- 15.260 + 112.203	9.55

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	1.568 18.018
2	5.628 304.247

#####

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = BA Unit = PPM N = 346

Mean = 2.1582 Min = 1.6335 1st Quartile = 2.0755
 Std. Dev. = 0.1461 Max = 3.3709 Median = 2.1584
 CV % = 6.7716 Skewness = 1.5512 3rd Quartile = 2.2393

Anti-Log Mean = 143.956 Anti-Log Std. Dev. : (-) 102.821
 (+) 201.547

%	cum %	antilog	cls int	(# of bins = 26 - bin size = 0.0695)
0.00	0.14	39.694	1.5987	
0.29	0.43	46.582	1.6682	
0.00	0.43	54.666	1.7377	
0.87	1.30	64.152	1.8072	**
0.87	2.16	75.285	1.8767	**
4.62	6.77	88.349	1.9462	*****
4.34	11.10	103.681	2.0157	*****
16.47	27.52	121.674	2.0852	*****
20.81	48.27	142.788	2.1547	*****
23.41	71.61	167.567	2.2242	***** --> 40
16.18	87.75	196.646	2.2937	*****
6.36	94.09	230.772	2.3632	*****
3.18	97.26	270.819	2.4327	*****
1.16	98.41	317.816	2.5022	**
1.16	99.57	372.969	2.5717	**
0.00	99.57	437.692	2.6412	
0.00	99.57	513.648	2.7107	
0.00	99.57	602.784	2.7802	
0.00	99.57	707.390	2.8497	
0.00	99.57	830.147	2.9192	
0.00	99.57	974.208	2.9887	
0.00	99.57	1143.269	3.0581	
0.00	99.57	1341.668	3.1276	
0.00	99.57	1574.496	3.1971	
0.00	99.57	1847.728	3.2666	
0.00	99.57	2168.377	3.3361	
0.29	99.86	2544.669	3.4056	

Each "*" represents approximately 2.0 observations.

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = SRTEST.PRN

Variable = BA Unit = PPM N = 346
N CI = 26

Transform = Logarithmic Number of Populations = 4

of Missing Observations = 0.

=====

Incomplete Iteration Parameter Estimates

Population	Mean	Std Dev	Percentage
1	69.273	- 58.047 + 82.670	0.89
2	83.561	- 75.078 + 93.001	3.23
3	144.196	- 115.046 + 180.731	84.83
4	177.812	- 97.152 + 325.440	11.04

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	48.641 98.657
2	67.457 103.508
3	91.789 226.524
4	53.082 595.634

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = SRTEST.PRN

Variable = CU Unit = PPM N = 346
N CI = 26

Transform = Logarithmic Number of Populations = 3

of Missing Observations = 0.

=====

Incomplete Iteration Parameter Estimates

Population	Mean	Std Dev	Percentage
1	38.184	- 30.545	91.47
		+ 47.733	
2	76.075	- 70.952	2.04
		+ 81.567	
3	62.498	- 42.541	6.49
		+ 91.818	

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	24.434 59.670
2	66.174 87.456
3	28.956 134.893

#####

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = PB Unit = PPM N = 346

Mean = 24.179 Min = 14.000 1st Quartile = 22.000
 Std. Dev. = 4.002 Max = 36.000 Median = 25.000
 CV % = 16.550 Skewness = -0.525 3rd Quartile = 27.000

```
=====
```

%	cum %	cls int	(# of bins = 26 - bin size = 0.880)
0.00	0.14	13.560	
3.18	3.31	14.440	*****
0.29	3.60	15.320	
2.31	5.91	16.200	****
2.60	8.50	17.080	****
0.00	8.50	17.960	
2.60	11.10	18.840	****
1.45	12.54	19.720	**
2.89	15.42	20.600	*****
5.49	20.89	21.480	*****
6.36	27.23	22.360	*****
10.12	37.32	23.240	*****
11.27	48.56	24.120	*****
0.00	48.56	25.000	
11.85	60.37	25.880	*****
10.98	71.33	26.760	*****
10.12	81.41	27.640	*****
7.80	89.19	28.520	*****
4.62	93.80	29.400	*****
2.31	96.11	30.280	****
1.45	97.55	31.160	**
1.45	98.99	32.040	**
0.00	98.99	32.920	
0.58	99.57	33.800	*
0.00	99.57	34.680	
0.00	99.57	35.560	
0.29	99.86	36.440	

```
=====
```

0 1 2 3 4

Each "*" represents approximately 2.0 observations.

#####

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = PB Unit = PPM N = 346

Mean = 1.3768 Min = 1.1461 1st Quartile = 1.3424
 Std. Dev. = 0.0783 Max = 1.5563 Median = 1.3979
 CV % = 5.6881 Skewness = -1.0665 3rd Quartile = 1.4314

Anti-Log Mean = 23.814 Anti-Log Std. Dev. : (-) 19.884
 (+) 28.520

%	cum %	antilog	cls int	(# of bins = 26 - bin size = 0.0164)
0.00	0.14	13.738	1.1379	
3.18	3.31	14.267	1.1543	*****
0.00	3.31	14.816	1.1707	
0.29	3.60	15.387	1.1871	
0.00	3.60	15.979	1.2036	
2.31	5.91	16.594	1.2200	****
2.60	8.50	17.233	1.2364	****
0.00	8.50	17.897	1.2528	
2.60	11.10	18.586	1.2692	****
1.45	12.54	19.301	1.2856	**
2.89	15.42	20.044	1.3020	*****
0.00	15.42	20.816	1.3184	
5.49	20.89	21.618	1.3348	*****
6.36	27.23	22.450	1.3512	*****
10.12	37.32	23.314	1.3676	*****
11.27	48.56	24.212	1.3840	*****
11.85	60.37	25.144	1.4004	*****
10.98	71.33	26.112	1.4168	*****
10.12	81.41	27.118	1.4333	*****
7.80	89.19	28.162	1.4497	*****
4.62	93.80	29.246	1.4661	*****
2.31	96.11	30.372	1.4825	****
1.45	97.55	31.541	1.4989	**
1.45	98.99	32.756	1.5153	**
0.58	99.57	34.017	1.5317	*
0.00	99.57	35.326	1.5481	
0.29	99.86	36.686	1.5645	

0 1 2 3 4

Each "*" represents approximately 2.0 observations.

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = SRTEST.PRN

Variable = PB Unit = PPM N = 346
N CI = 26

Transform = Logarithmic Number of Populations = 3

of Missing Observations = 0.

=====

Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -971.901

Parameterized Degrees of Freedom = 5

Population	Mean	Std Dev	Percentage
1	17.740	- 15.379	18.13
		+ 20.463	
2	24.826	- 22.607	78.16
		+ 27.264	
3	30.462	- 29.090	3.71
		+ 31.899	

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	13.332 23.604
2	20.586 29.940
3	27.779 33.405

#####

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = SB Unit = PPM N = 346

Mean = 1.026 Min = 1.000 1st Quartile = 1.000

Std. Dev. = 0.192 Max = 3.000 Median = 1.000

CV % = 18.748 Skewness = 8.144 3rd Quartile = 1.000

```

=====
%      cum %      cls int      (# of bins = 26 - bin size = 0.080)
-----
0.00  0.14      0.960
97.98 97.84      1.040      ***** --> 170
0.00 97.84      1.120
0.00 97.84      1.200
0.00 97.84      1.280
0.00 97.84      1.360
0.00 97.84      1.440
0.00 97.84      1.520
0.00 97.84      1.600
0.00 97.84      1.680
0.00 97.84      1.760
0.00 97.84      1.840
0.00 97.84      1.920
0.00 97.84      2.000
1.45 99.28      2.080      **
0.00 99.28      2.160
0.00 99.28      2.240
0.00 99.28      2.320
0.00 99.28      2.400
0.00 99.28      2.480
0.00 99.28      2.560
0.00 99.28      2.640
0.00 99.28      2.720
0.00 99.28      2.800
0.00 99.28      2.880
0.00 99.28      2.960
0.58 99.86      3.040      *
-----
0                    1                    2                    3                    4

```

Each "*" represents approximately 2.0 observations.

#####

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = SB Unit = PPM N = 346

Mean = 0.0071 Min = 0.0000 1st Quartile = 0.0000
 Std. Dev. = 0.0508 Max = 0.4771 Median = 0.0000
 CV % = 714.9142 Skewness = 7.3886 3rd Quartile = 0.0000

Anti-Log Mean = 1.017 Anti-Log Std. Dev. : (-) 0.904
 (+) 1.143

%	cum %	antilog	cls int	(# of bins = 26 - bin size = 0.0191)
0.00	0.14	0.978	-0.0095	
97.98	97.84	1.022	0.0095	***** --> 170
0.00	97.84	1.068	0.0286	
0.00	97.84	1.116	0.0477	
0.00	97.84	1.166	0.0668	
0.00	97.84	1.219	0.0859	
0.00	97.84	1.273	0.1050	
0.00	97.84	1.331	0.1241	
0.00	97.84	1.390	0.1431	
0.00	97.84	1.453	0.1622	
0.00	97.84	1.518	0.1813	
0.00	97.84	1.586	0.2004	
0.00	97.84	1.658	0.2195	
0.00	97.84	1.732	0.2386	
0.00	97.84	1.810	0.2576	
0.00	97.84	1.891	0.2767	
0.00	97.84	1.976	0.2958	
1.45	99.28	2.065	0.3149	**
0.00	99.28	2.158	0.3340	
0.00	99.28	2.255	0.3531	
0.00	99.28	2.356	0.3722	
0.00	99.28	2.462	0.3912	
0.00	99.28	2.572	0.4103	
0.00	99.28	2.688	0.4294	
0.00	99.28	2.809	0.4485	
0.00	99.28	2.935	0.4676	
0.58	99.86	3.067	0.4867	*

Each "*" represents approximately 2.0 observations.

#####

SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = ZN Unit = PPM N = 346
Mean = 71.243 Min = 41.000 1st Quartile = 64.000
Std. Dev. = 11.518 Max = 131.000 Median = 71.000
CV % = 16.167 Skewness = 0.464 3rd Quartile = 78.000

%	cum %	cls int	(# of bins = 26 - bin size = 3.600)
0.00	0.14	39.200	
0.29	0.43	42.800	
0.00	0.43	46.400	
2.60	3.03	50.000	****
2.02	5.04	53.600	****
7.23	12.25	57.200	*****
4.62	16.86	60.800	*****
10.40	27.23	64.400	*****
9.54	36.74	68.000	*****
14.45	51.15	71.600	*****
14.16	65.27	75.200	*****
9.83	75.07	78.800	*****
11.85	86.89	82.400	*****
2.60	89.48	86.000	****
5.78	95.24	89.600	*****
1.73	96.97	93.200	***
1.16	98.13	96.800	**
0.87	98.99	100.400	**
0.29	99.28	104.000	
0.00	99.28	107.600	
0.29	99.57	111.200	
0.00	99.57	114.800	
0.00	99.57	118.400	
0.00	99.57	122.000	
0.00	99.57	125.600	
0.00	99.57	129.200	
0.29	99.86	132.800	

0 1 2 3 4

Each "*" represents approximately 2.0 observations.

#####

SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = ZN Unit = PPM N = 346

Mean = 1.8471 Min = 1.6128 1st Quartile = 1.8062
 Std. Dev. = 0.0706 Max = 2.1173 Median = 1.8513
 CV % = 3.8226 Skewness = -0.2076 3rd Quartile = 1.8921

Anti-Log Mean = 70.319 Anti-Log Std. Dev. : (-) 59.768
 (+) 82.734

```
=====
```

%	cum %	antilog	cls int	(# of bins = 26 - bin size = 0.0202)
0.00	0.14	40.058	1.6027	
0.29	0.43	41.964	1.6229	
0.00	0.43	43.960	1.6431	
0.00	0.43	46.050	1.6632	
1.73	2.16	48.241	1.6834	***
1.73	3.89	50.535	1.7036	***
0.87	4.76	52.938	1.7238	**
4.91	9.65	55.456	1.7440	*****
3.76	13.40	58.094	1.7641	*****
3.47	16.86	60.857	1.7843	*****
7.80	24.64	63.751	1.8045	*****
9.25	33.86	66.783	1.8247	*****
8.96	42.80	69.960	1.8448	*****
16.18	58.93	73.287	1.8650	*****
8.38	67.29	76.773	1.8852	*****
16.18	83.43	80.424	1.9054	*****
5.49	88.90	84.249	1.9256	*****
4.91	93.80	88.256	1.9457	*****
2.60	96.40	92.454	1.9659	****
1.73	98.13	96.851	1.9861	***
0.87	98.99	101.457	2.0063	**
0.29	99.28	106.283	2.0265	
0.29	99.57	111.338	2.0466	
0.00	99.57	116.633	2.0668	
0.00	99.57	122.181	2.0870	
0.00	99.57	127.992	2.1072	
0.29	99.86	134.079	2.1274	

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=====
```

0 1 2 3 4

Each "*" represents approximately 2.0 observations.

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = SRTEST.PRN

Variable = ZN Unit = PPM N = 346
N CI = 26

Transform = Logarithmic Number of Populations = 3

of Missing Observations = 0.

=====

Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -909.153

Parameterized Degrees of Freedom = 5

Population	Mean	Std Dev	Percentage
1	52.419	- 48.696	10.03
		+ 56.427	
2	72.672	- 64.375	88.74
		+ 82.038	
3	97.337	- 87.651	1.23
		+ 108.094	

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	45.238 60.740
2	57.026 92.611
3	78.928 120.039

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = SRTEST.PRN

Variable = HG Unit = PPB N = 346
N CI = 26

Transform = Logarithmic Number of Populations = 3

of Missing Observations = 0.

=====

Incomplete Iteration Parameter Estimates

Population	Mean	Std Dev	Percentage
1	9.776	- 5.552 + 17.213	2.51
2	75.099	- 48.309 + 116.747	79.81
3	200.896	- 100.797 + 400.402	17.68

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	3.153 30.307
2	31.075 181.492
3	50.573 798.033

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = SRTEST.PRN

Variable = AU Unit = PPB N = 346
N CI = 26

Transform = Arithmetic Number of Populations = 1

of Missing Observations = 0.

=====

Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -326.746

Parameterized Degrees of Freedom = 1

<u>Population</u>	<u>Mean</u>	<u>Std Dev</u>	<u>Percentage</u>
1	5.717	3.670	100.00

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

<u>Pop.</u>	<u>Thresholds</u>
1	-1.623 13.057

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = SRTEST.PRN

Variable = AU Unit = PPB N = 346
N CI = 26

Transform = Logarithmic Number of Populations = 1

of Missing Observations = 0.

=====

Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -784.962

Parameterized Degrees of Freedom = 1

<u>Population</u>	<u>Mean</u>	<u>Std Dev</u>	<u>Percentage</u>
1	5.712	- 4.170 + 7.825	100.00

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

<u>Pop.</u>	<u>Thresholds</u>
1	3.044 10.719

#####

Appendix V

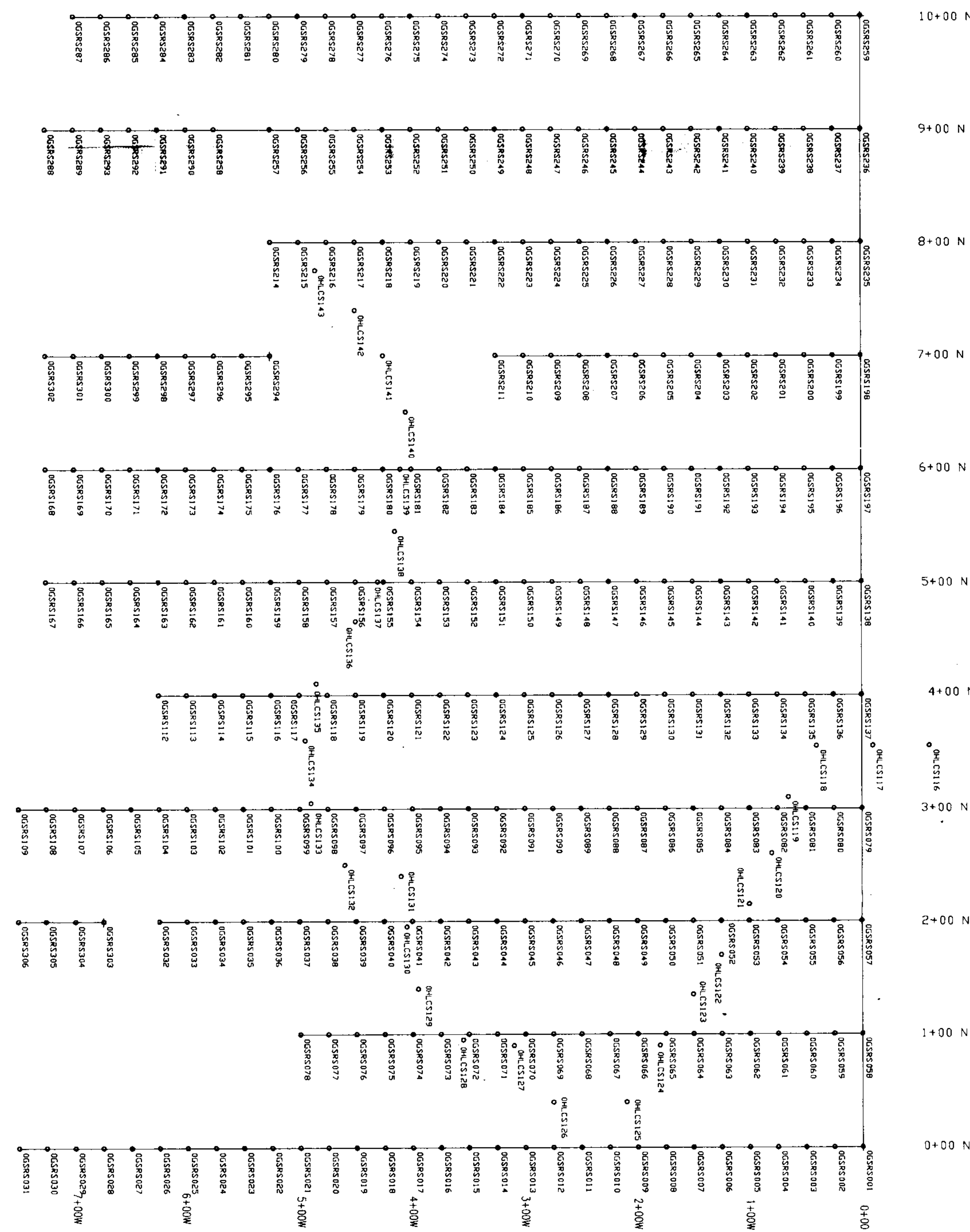
STATEMENT OF QUALIFICATIONS

I, Cameron J. Clayton, of 2882 Masefield Road, North Vancouver, B.C. do hereby certify that:

1. I am a graduate of Queen's University, Kingston, Ontario with a B.Sc. in Geological Engineering.
2. I have practised my profession for four years.
3. I am a contract geologist currently employed by Minnova, Inc.
4. I personally supervised work conducted on the LC 5 claim during 1990 and have personally reviewed all analytical results presented in this report.

Date: May 21, 1991

Signature: 



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

21,342
• SAMPLE LOCATION

MINNOVA Inc.		FIG. NO. 3
LAST CHANCE PROJECT LC 9 CLAIM SPLIT ROCK GRID SOIL GEOCHEMISTRY SAMPLE LOCATIONS		
DATE: MARCH 1991	FILE: 9904LS.DWG	SCALE: 1:2500
DRAWN BY: CLK/ky		0 25 50 75 100m
REVIEWED BY:		

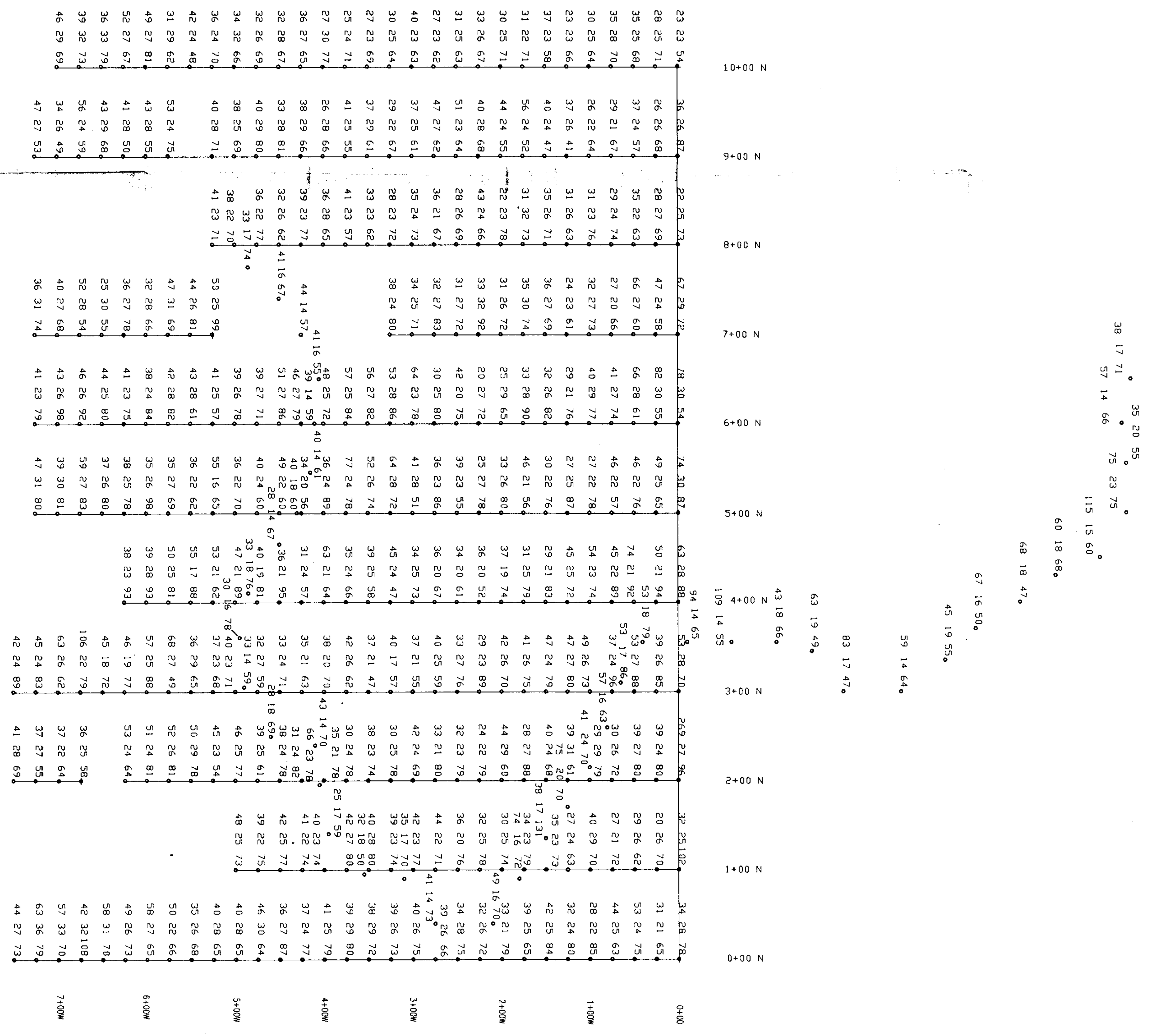


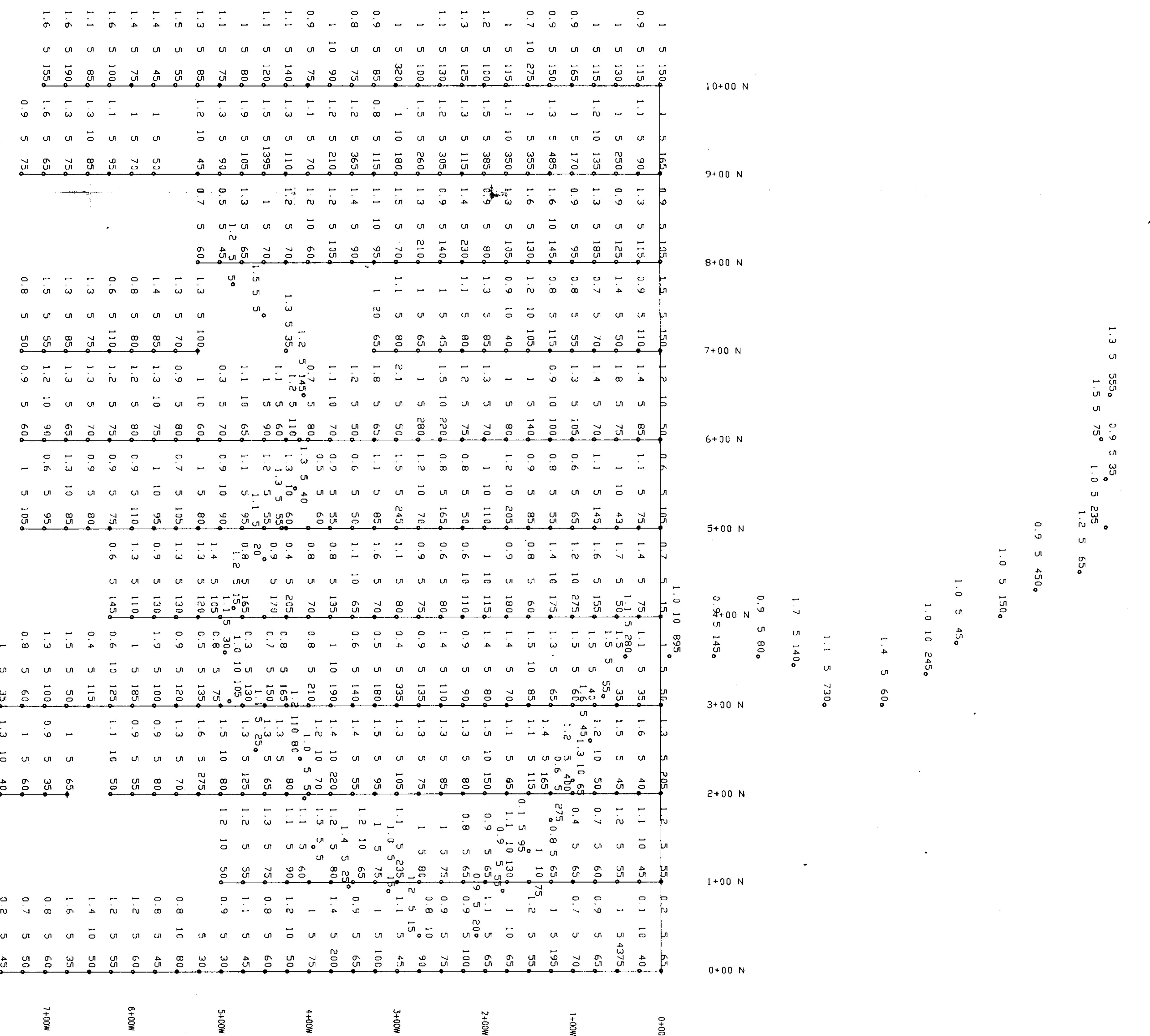
GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,342

115 15 60 • Cu ppm Pb ppm Zn ppm

MINNOVA Inc.		FIG. No.	4
LAST CHANCE PROJECT LC 9 CLAIM SPLIT ROCK GRID SOIL GEOCHEMISTRY Cu ppm, Pb ppm, Zn ppm			
DATE: MARCH 1991	FILE: SRS045.DWG	SCALE: 1:2500	0 25 50 75 100m
DRAWN BY: CJC/sg	REVISOR:		





1.1 5 730 Ag ppm Au ppb Hg ppb

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

21,342
MINNOVA Inc. **5**

LAST CHANCE PROJECT
LC S CLAIM
SPLIT ROCK GRID
SOIL GEOCHEMISTRY
Ag ppm, Au ppb, Hg ppb

DATE: MARCH 1991 FILE: SRS03.DWG
Drawn by: CJC/hg SCALE: 1:2500
Revised by: 0 25 50 75 100m