

GEOCHEMICAL SURVEY REPORT ON THE E.S.
AND S.A. CLAIM GROUPS OF MINAS DE CERRO
101, 325, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000
DORADO LTD. (NPL), HERRITT, NICOLA MINING
DIVISION, B. C. 421/2W

E.S. 1 - 40;

S.A. 1 - 7

Situated east of Indian Reserve No. 1,
south and west of Morgan Lake, 6 miles
north of Merritt, Nicola Mining Division,
B. C.

50° 12' N;

120° 48' W

Submitted by: D.P. Taylor, Geologist
Endorsed by: R.E.D. Philp, P. Eng.
Owner: Minas de Cerro Dorado
Ltd. (NPL)
work conducted by: Agilis Exploration
Services Ltd.

3896

GEOCHEMICAL REPORT OF THE
E.S. AND S.A. CLAIM GROUPS OF
MINAS DE CERRO DORADO LTD. (NPL),
MERRITT, B. C.

GOVERNMENT AGENT
RECEIVED
NOV 1 1972

MERRITT, B. C.

Department of
Mines and Technical Resources
ASSESSMENT REPORT
NO. **3896** MAP _____

October 21, 1972

Vancouver, B. C.

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MAP:

#1 Property Location Map	1:50,000
#2 Geochemical survey map	1" = 400'
#3 Geochemical survey map, Jesse Creek group	1" = 400'

GEOCHEMICAL REPORT OF THE
E.S. AND S.A. CLAIM GROUPS OF
MINAS DE CERRO DORADO LTD. (NPL),
MERRITT, B.C.

INTRODUCTION

The E.S. Mineral Claim Group was staked in September, 1971 and consists of 48 claims in three separate groups of claims east of Indian Reserve No. 1, north of Merritt, B.C. The seven S.A. claims were staked in September, 1972 to cover open ground between the two larger groups of E.S. claims. These claims comprise the Morgan Creek property of Minas de Cerro Dorado Ltd. (NPL).

Geological mapping of the claim area proved to be impossible due to lack of outcrop. Work in the summer of 1972 consisted of gridding and soil sampling the northern group of E.S. claims. Interesting geological observations were made, however, on three outcrops seen on the property and on outcrops in the surrounding area.

LOCATION AND ACCESS

The Morgan Creek group lies 5 miles north of Merritt on the eastern boundary of Indian Reserve No. 1. The group now extends contiguously except for two claims from between the Indian Reserve and Morgan Lake, southerly and southeasterly to the

headwaters of Jesse Creek. Two claims ES 47 and 48 are isolated on the boundary of the Indian Reserve on Jesse Creek.

The centre of the main claim group is located:

50° 12'N; 120° 48'W

Access to the property is good on dirt road up Jesse Creek from the Merritt to Highland Valley Road. Old logging road access exists over much of the property, good for 4-wheel drive vehicles.

PHYSIOGRAPHY

The property is located on a gently rolling plateau with no steep topography except in Morgan Creek and Jesse Creek. Elevations generally range from 4000' to 4500'. There is a steep drop into Guichon Creek west of the property.

Precipitation in this area is light, the summers hot and dry, and the winters cold with light snow. Light timber, of pine and spruce, cover the property. Some extensive areas of grassland with aspen groves are found to the south. Travel is generally easy except in old logged areas.

PROPERTY

The property consists of the following mineral claims recorded in the Nicola Mining Division:

<u>Claim</u>	<u>Record Number</u>
ES 1 Fraction	50099M
ES 2 - 34	50100M - 50132M
ES 35 - 42	50133M - 501340M
ES 43 - 46	50141M - 50144M
ES 47 - 48	50145M - 50146M
SA 1 - 6	57225 - 57230
SA 7 Fraction	57231

GEOLOGY

The property is covered by considerable depths of overburden for the most part. Six outcrops of highly altered Nicola rocks were found scattered on or adjacent to the main claim area and the S.A. claims. These altered Nicola rocks are very intrusive in appearance and probably are part of the Hybrid phase of the Guichon Batholith of Jurassic age.

The southeastern area of the claim group is in an intrusive environment of what appears to be a medium to fine grained Bethlehem phase quartz diorite of the Guichon Batholith.

Float in the northern part of the property appears to be from sedimentary sequences of the Cenozoic Coldwater beds.

In all of the Hybrid phase outcrops and in some of the Bethlehem phase outcrops fine grained secondary biotite alteration was noted. Minor K feldspar alteration accompanied by chloritisation in places, was noted in both intrusive rock types off the property. Traces of chalcopyrite were found adjacent to the claim group, on the Indian Reservation near Meadow Creek.

GEOCHEMICAL SURVEY

Grid:

A flagged and blazed grid was established over the main block of E.S. claims covering ES 1 - 34. East-west grid lines were established every four hundred feet with stations every 200 feet on the lines.

A small grid was put in on the two claims on Jesse Creek ES 47 and 48. North-south lines were established every 400 feet with stations at 200 foot intervals on the lines.

SAMPLING PROCEDURE

Soil samples were taken at each station on the grid at 10 to 12 inches of depth from the "B" horizon whenever possible. Samples were taken with mattocks and placed in kraft paper bags provided by the laboratory.

ANALYSIS PROCEDURE

All samples were analysed for ppm copper at Core Laboratories Canada Ltd. at their laboratory, 325 Howe Street, Vancouver.

A minus 80 mesh fraction was taken from each sample and digested for two hours in hot perchloric-nitric acid. Quantitative analysis was conducted on the resulting solutions using a Gerald Ash 82800 atomic absorption machine.

SURVEY RESULTS

Main Grid:

The main grid covers claims ES 12 - 36. Results for the survey in this area were generally very low, over a range of 8 to 389 ppm copper. There were only 13 samples greater than 100 ppm copper out of the 813 samples taken on this grid. The mean of the sample population is just under 33 ppm and background is about 40 ppm.

Anomalous samples range up from 50 ppm with statistically very high anomalous samples (2.5%) being greater than 87 ppm.

Jesse Creek Grid:

The values obtained in this small survey are notably higher than those obtained on the main grid. The range in this survey runs from 15 to 388 ppm copper.

One hundred samples were taken on this grid and the background level is 49 ppm copper. The top 2.5% of the samples (3) are over 200 ppm. The low anomalous threshold has been set at 65 ppm.

INTERPRETATION

Both grids lie over areas of moderately deep glacial overburden, in a fairly dry climatic environment. Caliche was noted in some areas in road cuts in the glacial overburden. This soil environment is not conducive to good geochemical development.

The main grid shows a very random distribution of all levels of anomalous samples. Two anomalies have developed on the grid. Five high anomalous samples are concentrated in one anomaly between lines 32N and 40N from the baseline to station 36N, 8W. The second anomaly is on line 60N and consists of three very high anomalous values in a line from stations 24W to 28W.

The very erratic distribution of anomalous samples over the grid is difficult to interpret. Mineralised float does exist in the glacial overburden, the float being of erratic nature and thought to be from the central Highland Valley. No geochemical anomalies are found near the three outcrops that were found on the property, these outcrops were, however, unmineralised and relatively unaltered.

On the Jesse Creek Grid the values are higher. The grid lies in a steep gully cut by Jesse Creek. The geochemical pattern on this grid is more related to drainage in its more steep sided environment than the main grid. This is believed to be the reason for the generally higher values obtained. No anomaly as such has developed on this grid, but the three very high anomalous samples found (greater than 200 ppm) bear further investigation due to the general glacial till cover over the grid area.

CONCLUSIONS AND RECOMMENDATIONS

The alteration and traces of mineralisation noted in outcrops in the vicinity of the property are of definite geological interest. The geochemical survey results obtained are inconclusive due to glacial overburden in this area.

Scattered high geochemical values should not be ignored in this environment as their significance is impossible to assess at this stage.

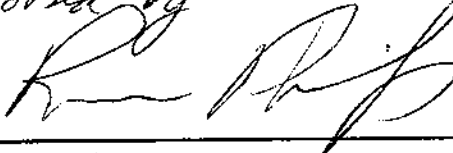
The close proximity of Craigmont Mine to this property should not be ignored.

It is recommended that a regional air-photo study be made of the property, and that should any ground come open to the southwest of the main claim group, it be acquired.

The most cost effective method of investigating this property would be utilising reconnaissance IP surveys in a primary programme in conjunction with deep bulldozer trenching. This work should be followed depending on results of phase 1, by detailed IP and percussion drilling.



Submitted by: D.P. Taylor, Geologist

Endorsed by


CERTIFICATION

I, David Pelham Taylor of Vancouver, B. C., do hereby certify that:

1. I am an exploration geologist residing at 2097 West 6th Avenue, Vancouver, B. C.
2. I am a graduate of the Royal School of Mines, London, MSC. D.I.C. Mineral Exploration Course, 1971.
3. I have practiced as an exploration geologist in B.C. for four years.
4. I supervised the work done on this property in September, 1972, and conducted a geological inspection of the claim area.



D.P. Taylor, MSc. D.I.C.

October 21, 1972

Vancouver, B. C.

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of the gridding and geochemical
survey groups.

I, Brian Talbot

of c/o 107-325 Howe Street, Vancouver 1, B. C.

in the Province of British Columbia, do solemnly declare that the following personnel were employed and costs incurred in conducting the surveys.

PERSONNEL - 1972:

D. Kay	15 days @ 43.80/day	\$ 657.00
N. Newsom - party chief	17 days @ 61.81/day	1,050.77
R. Wickes	14 days @ 39.76/day	556.64
L. Mamoser	15 days @ 41.77/day	626.55
D. Taylor - Geologist, & supervision	13 days @ 100.00/day	1,300.00
B. Talbot	39½ hrs. @ 8.50/hour	335.75
R. Philp	2 days @ 125.00/day	<u>250.00</u>
		\$4,776.71

DISBURSEMENTS - 1972:

Lockwood survey - airphotos	\$ 29.40	
Supplies, groceries, gas	666.48	
Geochemical testing	855.00	
Miscellaneous - freight, taxis, prints, P.R., tel.	70.81	
Truck and car rental	575.00	
Camp charges - 2 weeks @ 60.00/week	120.00	
Meals and accomodation	76.32	
Transportation	35.18	
Recording claims and bills of sale	45.00	
Recording assessment work	<u>278.00</u>	\$2,751.19
Plus 10% overhead on disbursements		\$ 275.12
TOTAL AMOUNT DUE		<u>\$7,803.02</u>

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 30
day of October 1972, A.D.

G. B. Talbot

Julie Lunn
Commissioner for taking Affidavits for British Columbia or
Notary Public in and for the Province of British Columbia.

SUB-MINING RECORDER

In the Matter of

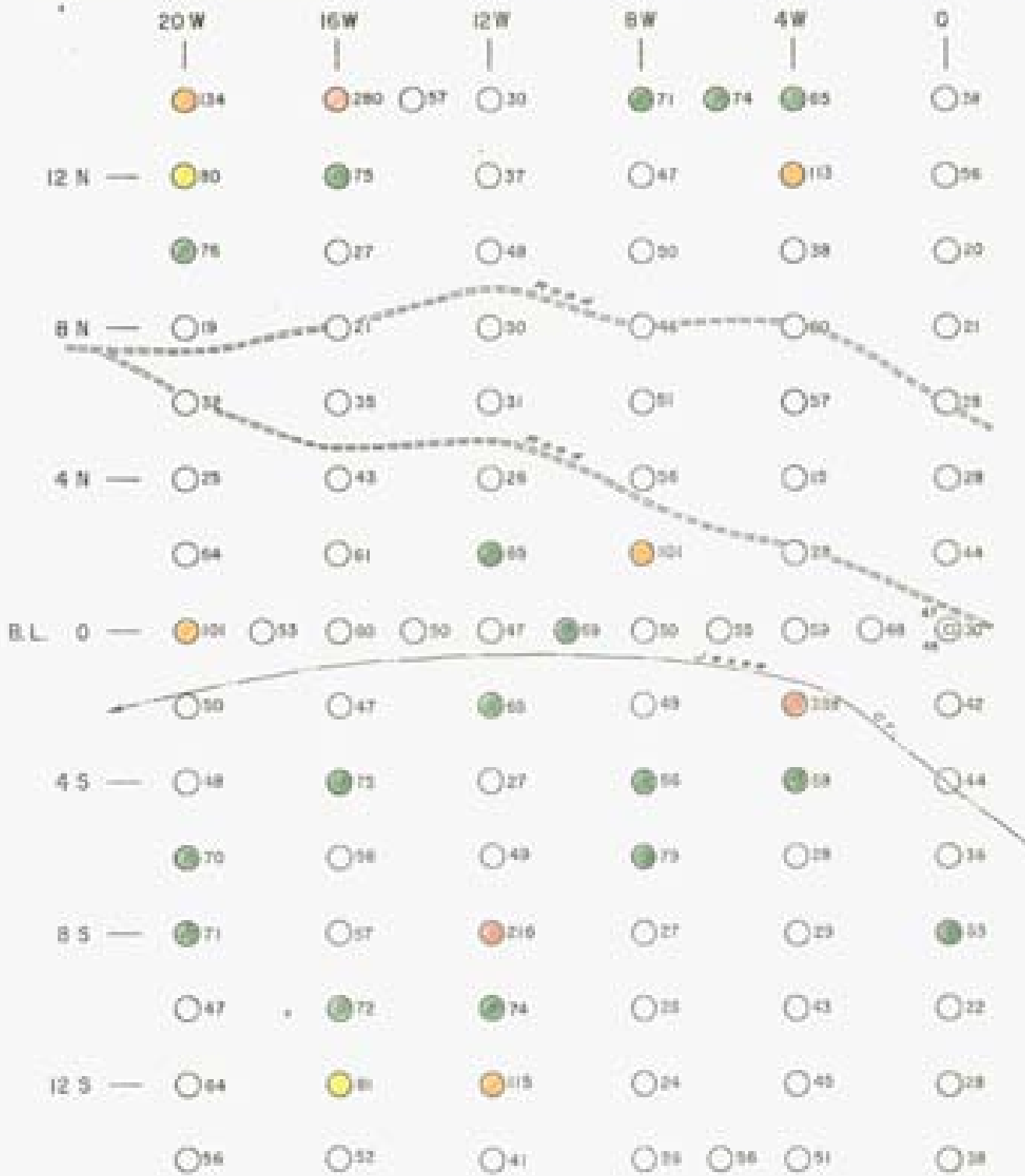
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Statutory Declaration
(CANADA EVIDENCE ACT)



LEGEND

- > 200 ppm
- 100 - 200 ppm
- 80 - 99 ppm
- 65 - 79 ppm

3896
M-2

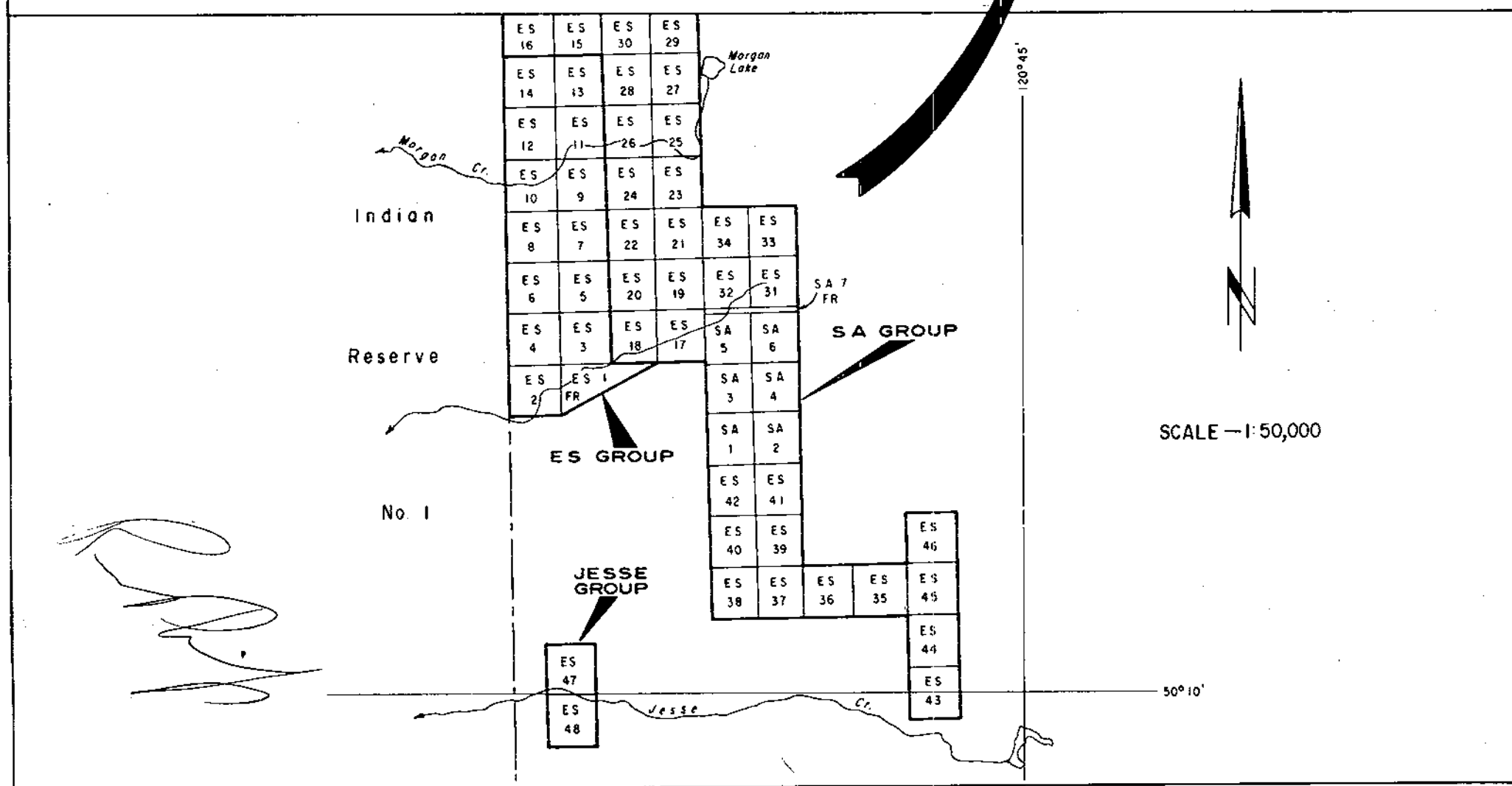
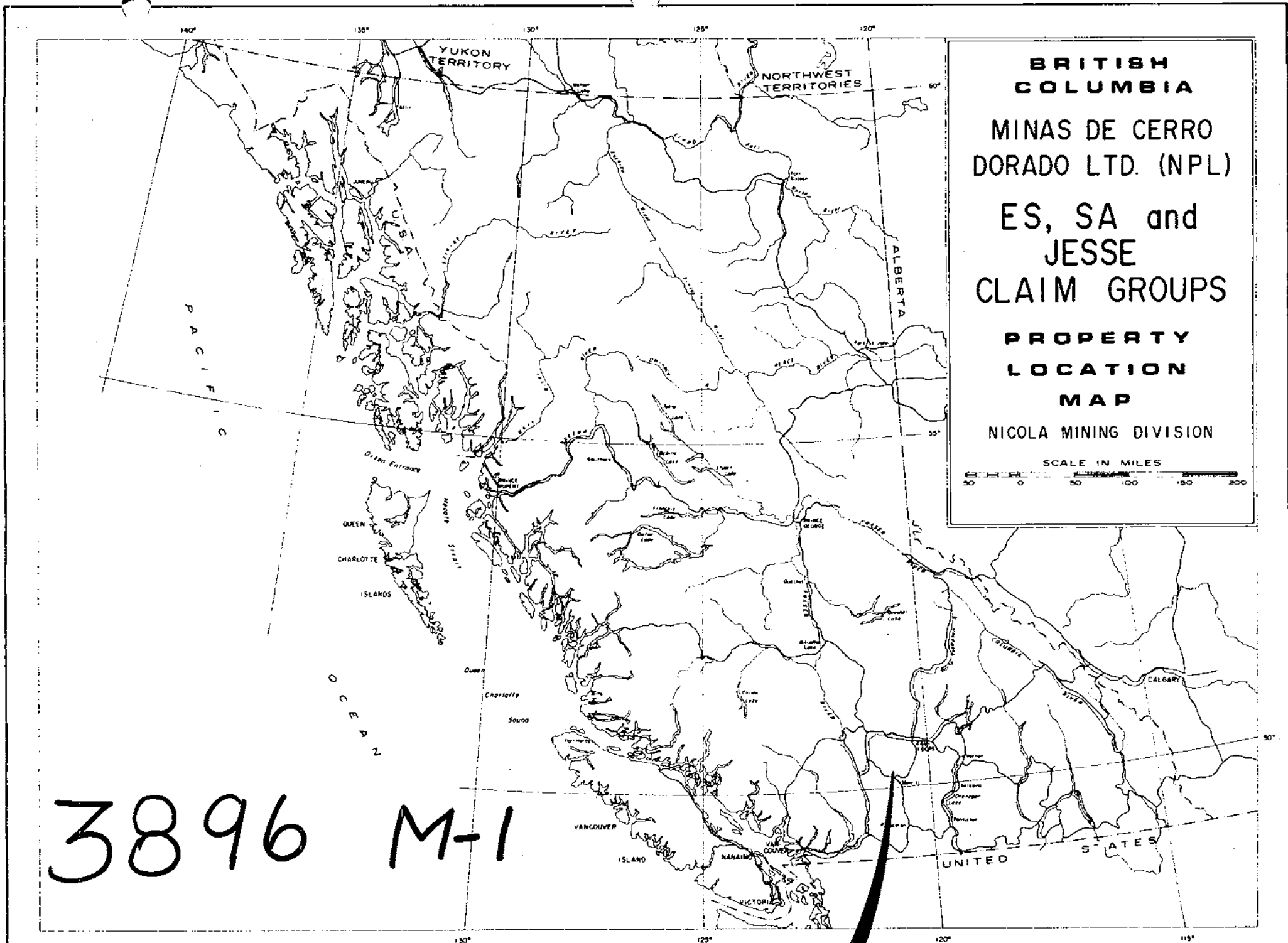
AGILIS EXPLORATION SERVICES LTD.
 MINAS DE CERRO DORADO LTD. (NPL)
 JESSE CLAIM GROUP
 MERRITT, B.C. NICOLA MINING DIVISION

**GEOCHEMICAL
 SURVEY
 COPPER (PPM)**

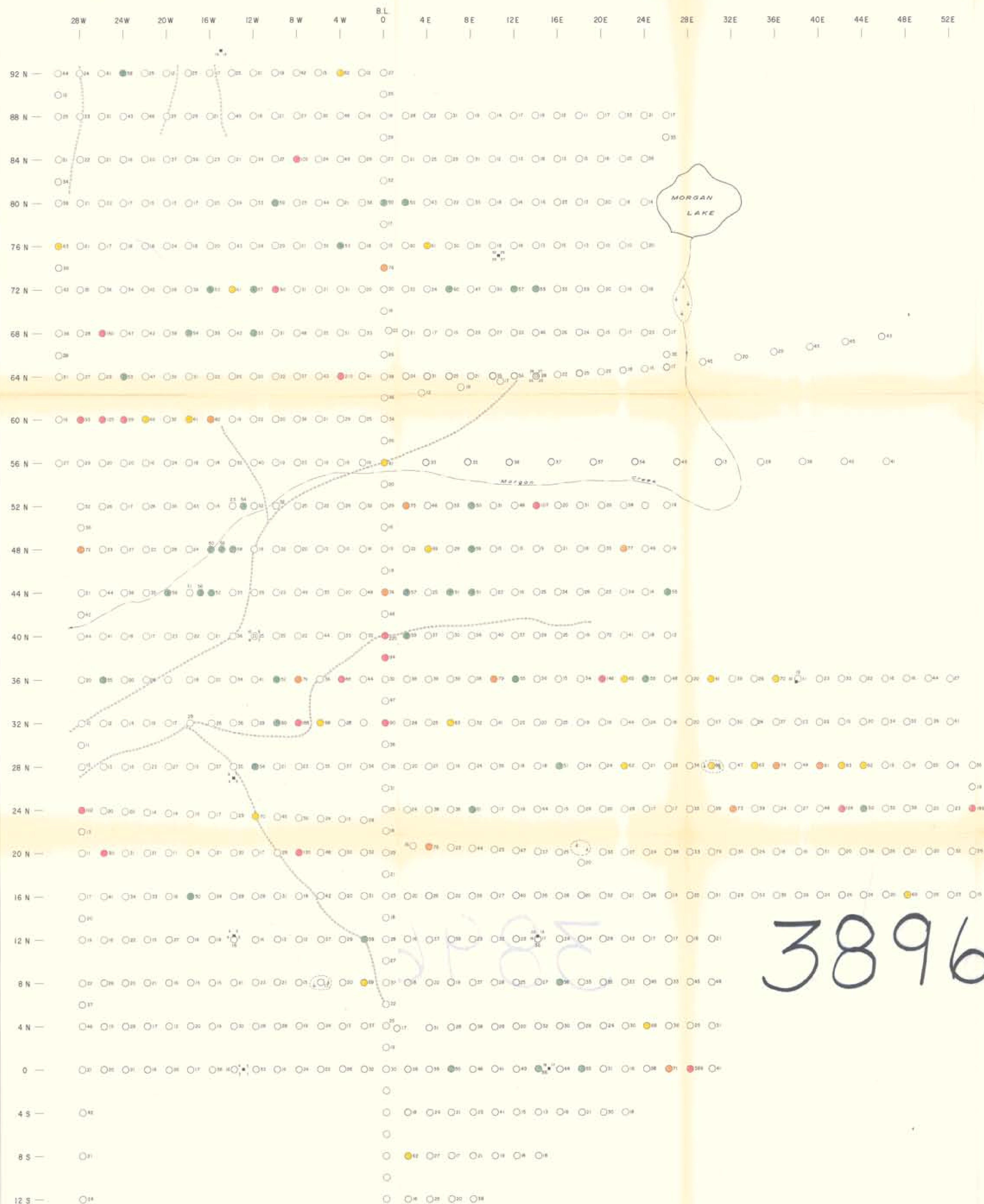
SCALE - 1" = 400 FT

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3896 MAP #2

3896
M-5



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3896 MAP #1



LEGEND

- Road
- Creek
- Swamp
- Claim post
- Sample location
- > 87 ppm
- 71 - 87 ppm
- 61 - 70 ppm
- 50 - 60 ppm

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3896 MAP #3

AGILIS EXPLORATION SERVICES LTD.
MINAS DE CERRO DORADO LTD. (NPL)
ES and SA CLAIM GROUPS
MORGAN CREEK AREA - MERRITT, B.C.
NICOLA MINING DIVISION

**GEOCHEMICAL
SURVEY**

COPPER (PPM)

SCALE IN FEET
0 200 400 600 800 1000

SEPTEMBER, 1971