RECEIVED
7 OCT 1971
MINING RECORDERS OFFICE
WHITEHORSE, Y.T.

GEOCHEMICAL REPORT

PAN & ARPA CLAIMS,
POTATO HILLS, Y.T.

LAT.64°02' LONG.135°47'

CLAIM SHEET NO.106-D-4.

WORK DATES 20TH AUG.-18TH SEPT., 1970.

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of $17,500.00

D.B. Craig

Resident Geologist or
~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

Commissioner of Yukon Territory

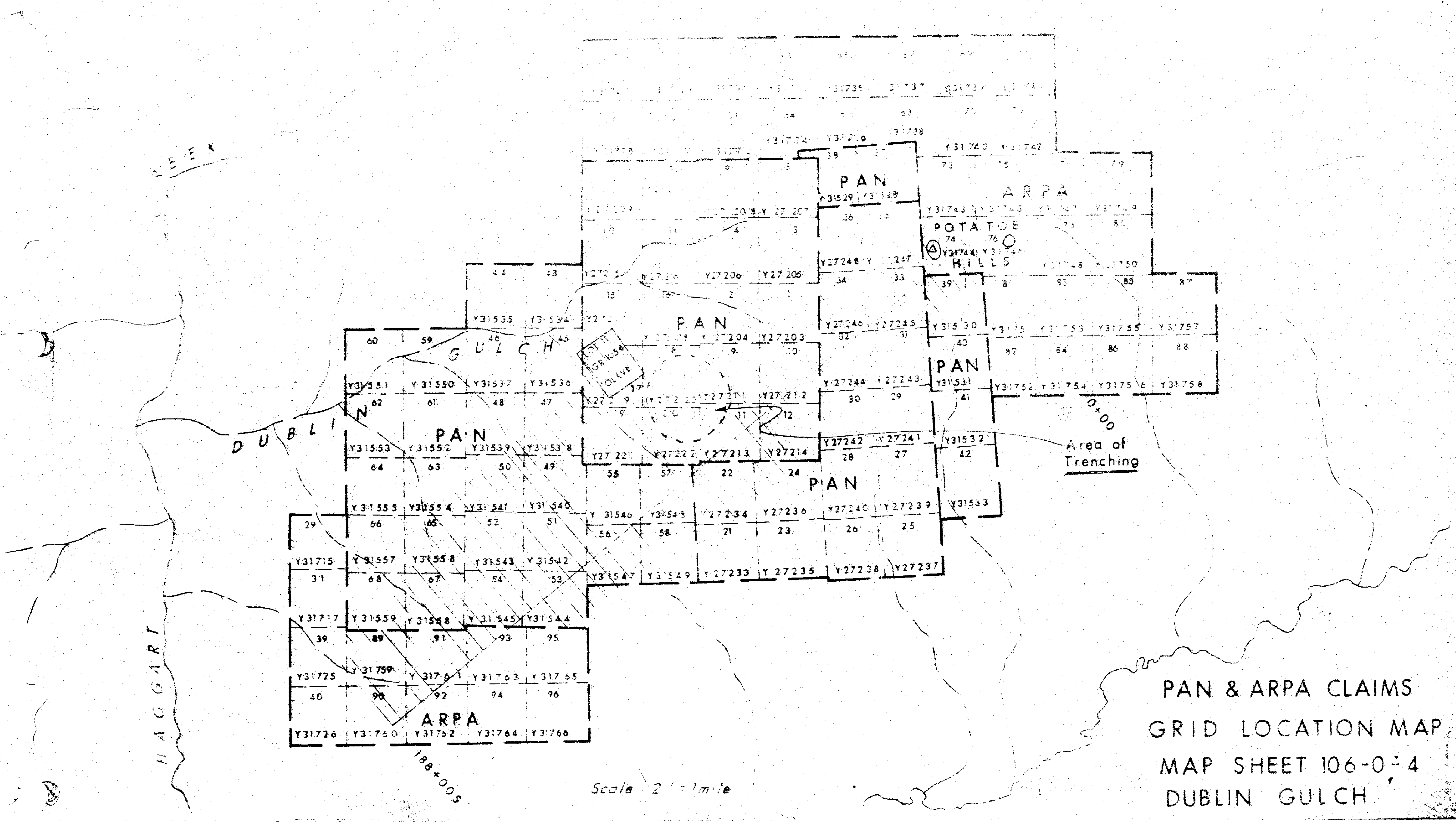
BY

B.Ainsworth,M.A.,M.A.E.G.

(Supervisor L.Adie,B.A.Sc.,P.Eng.)

RECEIVED
OCT 13 1971
MINING RECORDERS OFFICE
Y.T.

TABLE OF CONTENTS


PAN & ARPA CLAIMS
GRID LOCATION MAP
MAP SHEET 106-0-4
DUBLIN GULCH
PAN
ARPA
POTATOE
HILLS
GULCH
DUBLIN
HAGGART
Area of Trenching
0+00
188+00S
Scale 2" = 1mile
Y31535
Y31534
Y31551
Y31550
Y31537
Y31536
Y31553
Y31552
Y31539
Y31538
Y31555
Y31554
Y31541
Y31540
Y31715
Y31557
Y31558
Y31543
Y31542
Y31717
Y31559
Y31556
Y31545
Y31544
Y31725
Y31759
Y31763
Y31765
Y31726
Y31760
Y31762
Y31764
Y31766
Y31546
Y31548
Y31547
Y31549
Y27234
Y27236
Y27240
Y27239
Y27233
Y27235
Y27238
Y27237
Y27221
Y27222
Y27213
Y27214
Y27242
Y27241
Y27244
Y27243
Y27246
Y27245
Y27248
Y27247
Y27206
Y27205
Y27204
Y27203
Y27212
Y31529
Y31528
Y31530
Y31531
Y31532
Y31533
Y31743
Y31744
Y31740
Y31742
Y31748
Y31750
Y31753
Y31755
Y31757
Y31752
Y31754
Y31756
Y31758
Y31724
Y31726
Y31728
Y31739
LOT 11
GR 1054
OLIVE

CANEX AERIAL EXPLORATION LTD.
DIVISION OF CANADIAN EXPLORATION LIMITED
700 BURRARD BUILDING VANCOUVER 5, B. C. CANADA

STATEMENT OF EXPENDITURES:

The following is a breakdown of expenditures incurred for the geochemical survey on the PAN and ARPA claims:-

Transportation of Personnel - To Property		$ 360.00
Salaries:	D. Huston 30 days @ $35/day 800 - 1030 West Georgia, Vancouver 5, B.C.	1,050.00
	J. Steven 30 days @ $25/day 800 - 1030 West Georgia, Vancouver 5, B.C.	750.00
	D. Fossen 30 days @ $25/day 800 - 1030 West Georgia, Vancouver 5, B.C.	750.00
Camp Costs: $10 per day per man, 30 days @ $30 per day		900.00
Assay Charges		
	Drying and sieving 20¢ per sample Silver analysis $1.00 per sample Gold analysis $2.00 per sample Crushing to -200 mesh $1.00 per sample Tungsten analysis $2.50 per sample	
	Total Charge $6.70 per sample for 2,024 samples -	$13,558.00
Draughting 5 days @ $30 per day -		150.00
	TOTAL -	$17,518.00

INTRODUCTION

During the period 20th August to the 18th September, 1970, a geochemical soil survey was carried out on the PAN and ARPA claims. Soil sampling was carried out by one three-man crew who made camp on the claims. Some 2,024 soil samples were collected and sent to the Canex Aerial Exploration geochemical laboratory for analysis for tungsten, gold and silver. Some interesting geochemical anomalies are indicated by this work, and further exploration is recommended.

TOPOGRAPHY, VEGETATION AND CLIMATE

The PAN and ARPA claims cover the SW running spur of Potato Hills, having a maximum elevation of about 4,500' and a minimum of about 3,000'. Side hill slopes are quite steep on some sections of the spur. No marketable timber occurs on the property which is covered largely by buck brush and scrub balsam at lower elevations. The area is one of moderate rainfall and endures a typical north central Yukon range of temperatures resulting in frost heaving of soils and rocks.

SURVEYING

A baseline was surveyed with a transit and chain survey and was bulldozed with a D7 Caterpillar. Soil sample lines were run at right angles to the base line every 400' with sample stations marked every 100' along these lines; surveying for this was carried out with a Brunton compass and nylon chain.

GEOCHEMICAL SURVEY

Sampling Method:

Where possible samples were taken in the "B" horizon, a rusty horizon ranging from 3" to 16" in depth in the area sampled. Considerable frost heaving had occurred and most of the soil was a standard residual soil.

ASSAY METHODS

Samples were dried in a hot air drier at about 120°F. Portions of the -80 mesh fraction were sieved for Au and Ag analysis; the rest of the sample was pulverized in a Tema pulverizer for W. analysis.

Gold procedure: Portions of the -80 mesh fraction were digested with concentrated HBr, then Au was extracted with MIBK and analysed with a Perkin Elmer 403 Atomic Absorption spectrophotometer, using a slit width of 2428°A.

Silver procedure: Portions of the -80 fraction were digested with concentrated HNO_3, and then Ag was extracted with TOTP and analysed with the Perkin Elmer 403, using a slit width of 3281°A.

Tungsten procedure: Portions of whole sample pulverized to -200 mesh were digested with HF, $HClO_4$, HCL, HNO_3 and then extracted with Butyl Acetate and analysed with the Perkin Elmer 403, using a slit width of 2551°A.

RESULTS AND CONCLUSIONS

The analyses for Au, Ag and W are plotted separately on the three 400' = 1" maps in the back pocket. The distribution of metal values is quite erratic so no contouring could be justified.

Tungsten: An area containing anomalous values extends from line 36+00S to line 112+00S. Values range from less than 5 ppm to 1500 ppm in the area which attains a maximum width of approximately 2500' in the vicinity of lines 72+00S and 76+00S. The section of the area bounded by lines 64+00S and 92+00S carries more consistent high values and some linear anomalies are suggested by the distribution of high values on three or more grid lines. More detailed soil sampling is required to confirm these linear anomalies. The erratic and occasional linear distribution of the highest values in the overall anomalous area indicate that the distribution of W may be restricted to narrow veins and/or shears within the Potato Hills stock.

Silver: Anomalous silver values occur in the area adjacent to the Olive Crown Grant (see line 88+00S). These are evidently related to known silver veins, values range from 1-12 ppm. A scattering of higher (0.4-1 ppm) silver values occurs on the SW end of the intrusive. These do <u>not</u> indicate any economic mineralization.

Gold: Anomalous gold values occur scattered in and around the West end of the stock. The very erratic distribution of gold in soils indicates that the gold may be quite coarse and/or confined to narrow structures. The sources of the Dublin-Gulch placer gold may be in part indicated by these high golds.

Conclusions

There is no correlation in the distribution of tungsten, gold and/or silver values in soils on the property. This suggests that mineralization occurred as at least three separate events. The distribution of all three metals is generally quite erratic in detail indicating a restricted distribution in bedrock as in narrow veins or shears, rather than a disseminated distribution in bedrock.

RECOMMENDATIONS

Fill-in soil lines should be completed between lines 64+00S and 92+00S to increase line density to a 200 ft.spacing. Such sampling should confirm the linear nature of some of the anomalies and would more accurately define targets for stripping with a bulldozer and/or drilling. The estimate of costs for this work is:

Three days soil sampling by three men @ $25 per man -	675.00
Analysis for W for 240 samples @ #3.70 per sample -	888.00
Camp operation 3 days at $10 per man/per day	90.00
Overhead and sundries -	300.00
Total	$1,653.00
say	$2,000.00.

700 BURRARD BUILDING • 1030 WEST GEORGIA STREET • VANCOUVER 5, BRITISH COLUMBIA, CANADA • (604) 682-7082

STATEMENT OF QUALIFICATIONS

I, B. Ainsworth, with business address in Vancouver, British Columbia, and residential address in North Vancouver, British Columbia, hereby certify that:

1. I am a geologist.

2. I am a graduate of Oxford University (B.A.Geol. 1962, M.A.1967).

3. From 1962 to 1971 I have been engaged in mineral exploration in Ireland, Ghana, Australia, New Guinea, British Columbia, Yukon Territory and the Northwest Territories.

4. I am a full member of the Association of Exploration Geochemists.

5. I have completed the academic requirements for membership in the B.C.Association of Professional Engineers.

6. I personally supervised field work and have assessed and interpreted all the data resulting from this work.

Respectfully submitted,

B. Ainsworth

B.Ainsworth

BA/mm

CERTIFICATION

I, L. Adie, with business address at 700 Burrard Building, Vancouver, B.C. do hereby certify that I have supervised the geological and geochemical work carried out on the PAN and ARPA mineral claims, Lat. 64°12'N Long.135°47' W., Yukon Territory.

The field program has been carried out by Mr. B. Ainsworth whose statement of qualifications is shown on page 5 of this report.

I also certify that I am a professional engineer registered in the province of British Columbia.

To the best of my knowledge, the interpretation of data and expenditure claimed for the performance of the work is correct.

Respectfully submitted,

L. Adie, P.Eng.

L.Adie

Vancouver, B.C.

August 1971.

OWNED BY CONNAUGHT MINES LTD.

CLAIM NAME	RECORD NO.	REGISTRY DATE	EXPIRY DATE
PAN No. 1	M.C. No. Y-27203	June 25, 1968	Sept. 15, 1972
PAN No. 2	M.C. No. Y-27204	June 25, 1968	Sept. 15, 1971
PAN No. 3	M.C. No. Y-27205	June 25, 1968	Sept. 15, 1971
PAN No. 4	M.C. No. Y-27206	June 25, 1968	Sept. 15, 1971
PAN No. 5	M.C. No. Y-27207	June 25, 1968	Sept. 15, 1971
PAN No. 6	M.C. No. Y-27208	June 25, 1968	Sept. 15, 1971
PAN No. 7	M.C. No. Y-27209	June 25, 1968	Sept. 15, 1971
PAN No. 8	M.C. No. Y-27210	June 25, 1968	Sept. 15, 1971
PAN No. 9	M.C. No. Y-27211	June 25, 1968	Sept. 15, 1971
PAN No. 10	M.C. No. Y-27212	June 25, 1968	Sept. 15, 1971
PAN No. 11	M.C. No. Y-27213	June 25, 1968	Sept. 15, 1971
PAN No. 12	M.C. No. Y-27214	June 25, 1968	Sept. 15, 1971
PAN No. 13	M.C. No. Y-27215	June 25, 1968	Sept. 15, 1971
PAN No. 14	M.C. No. Y-27216	June 25, 1968	Sept. 15, 1971
PAN No. 15	M.C. No. Y-27217	June 25, 1968	Sept. 15, 1971
PAN No. 16	M.C. No. Y-27218	June 25, 1968	Sept. 15, 1971
PAN No. 17	M.C. No. Y-27219	June 25, 1968	Sept. 15, 1971
PAN No. 18	M.C. No. Y-27220	June 25, 1968	Sept. 15, 1971
PAN No. 19	M.C. No. Y-27221	June 25, 1968	Sept. 15, 1971
PAN No. 20	M.C. No. Y-27222	June 25, 1968	Sept. 15, 1971
PAN No. 21	M.C. No. Y-27233	June 27, 1968	Sept. 15, 1971
PAN No. 22	M.C. No Y-27234	June 27, 1968	Sept. 15, 1971
PAN No. 23	M.C. No. Y-27235	June 27, 1968	Sept. 15, 1971
PAN No. 24	M.C. No. Y-27236	June 27, 1968	Sept. 15, 1971
PAN No. 25	M.C. No. Y-27237	June 27, 1968	Sept. 15, 1971
PAN No. 26	M.C. No. Y-27238	June 27, 1968	Sept. 15, 1971
PAN No. 27	M.C. No. Y-27239	June 27, 1968	Sept. 15, 1971
PAN No. 28	M.C. No. Y-27240	June 27, 1968	Sept. 15, 1971
PAN No. 29	M.C. No. Y-27241	June 27, 1968	Sept. 15, 1971
PAN No. 30	M.C. No. Y-27242	June 27, 1968	Sept. 15, 1971
PAN No. 31	M.C. No. Y-27243	June 27, 1968	Sept. 15, 1971
PAN No. 32	M.C. No. Y-27244	June 27, 1968	Sept. 15, 1971
PAN No. 33	M.C. No. Y-27245	June 27, 1968	Sept. 15, 1971
PAN No. 34	M.C. No. Y-27246	June 27, 1968	Sept. 15, 1971
PAN No. 35	M.C. No. Y-27247	June 27, 1968	Sept. 15, 1971
PAN No. 36	M.C. No. Y-27248	June 27, 1968	Sept. 15, 1971
PAN No. 37	M.C. No. Y-31528	Oct. 25, 1968	Sept. 15, 1971
PAN No. 38	M.C. No. Y-31529	Oct. 25, 1968	Sept. 15, 1971
PAN No. 39	M.C. No. Y-31530	Oct. 25, 1968	Sept. 15, 1971
PAN No. 40	M.C. No. Y-31531	Oct. 25, 1968	Sept. 15, 1971
PAN No. 41	M.C. No. Y-31532	Oct. 25, 1968	Sept. 15, 1971

CLAIM NAME	RECORD NO.	REGISTRY DATE	EXPIRY DATE
PAN No. 42	M.C. No. Y-31533	Oct. 25, 1968	Sept. 15, 1971
PAN No. 43	M.C. No. Y-31534	Oct. 25, 1968	Sept. 15, 1971
PAN No. 44	M.C. No. Y-31535	Oct. 25, 1968	Sept. 15, 1971
PAN No. 45	M.C. No. Y-31536	Oct. 25, 1968	Sept. 15, 1971
PAN No. 46	M.C. No. Y-31537	Oct. 25, 1968	Sept. 15, 1971
PAN No. 47	M.C. No. Y-31538	Oct. 25, 1968	Sept. 15, 1971
PAN No. 48	M.C. No. Y-31539	Oct. 25, 1968	Sept. 15, 1971
PAN No. 49	M.C. No. Y-31540	Oct. 25, 1968	Sept. 15, 1971
PAN No. 50	M.C. No. Y-31541	Oct. 25, 1968	Sept. 15, 1971
PAN No. 51	M.C. No. Y-31542	Oct. 25, 1968	Sept. 15, 1971
PAN No. 52	M.C. No. Y-31543	Oct. 25, 1968	Sept. 15, 1971
PAN No. 53	M.C. No. Y-31544	Oct. 25, 1968	Sept. 15, 1971
PAN No. 54	M.C. No. Y-31545	Oct. 25, 1968	Sept. 15, 1971
PAN No. 55	M.C. No. Y-31546	Oct. 25, 1968	Sept. 15, 1971
PAN No. 56	M.C. No. Y-31547	Oct. 25, 1968	Sept. 15, 1971
PAN No. 57	M.C. No. Y-31548	Oct. 25, 1968	Sept. 15, 1971
PAN No. 58	M.C. No. Y-31549	Oct. 25, 1968	Sept. 15, 1971
PAN No. 59	M.C. No. Y-31550	Oct. 25, 1968	Sept. 15, 1971
PAN No. 60	M.C. No. Y-31551	Oct. 25, 1968	Sept. 15, 1971
PAN No. 61	M.C. No. Y-31552	Oct. 25, 1968	Sept. 15, 1971
PAN No. 62	M.C. No. Y-31553	Oct. 25, 1968	Sept. 15, 1971
PAN No. 63	M.C. No. Y-31554	Oct. 25, 1968	Sept. 15, 1971
PAN No. 64	M.C. No. Y-31555	Oct. 25, 1968	Sept. 15, 1971
PAN No. 65	M.C. No. Y-31556	Oct. 25, 1968	Sept. 15, 1971
PAN No. 66	M.C. No. Y-31557	Oct. 25, 1968	Sept. 15, 1971
PAN No. 67	M.C. No. Y-31558	Oct. 25, 1968	Sept. 15, 1971
PAN No. 68	M.C. No. Y-31559	Oct. 25, 1968	Sept. 15, 1971
ARPA No. 29	M.C. No. Y-31715	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 31	M.C. No. Y-31717	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 39	M.C. No. Y-31725	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 40	M.C. No. Y-31726	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 57	M.C. No. Y-31727	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 58	M.C. No. Y-31728	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 59	M.C. No. Y-31729	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 60	M.C. No. Y-31730	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 61	M.C. No. Y-31731	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 62	M.C. No. Y-31732	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 63	M.C. No. Y-31733	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 64	M.C. No. Y-31734	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 65	M.C. No. Y-31735	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 66	M.C. No. Y-31736	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 67	M.C. No. Y-31737	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 68	M.C. No. Y-31738	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 69	M.C. No. Y-31739	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 70	M.C. No. Y-31740	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 71	M.C. No. Y-31741	Feb. 28, 1969	Sept. 15, 1971

CLAIM NAME	RECORD NO.	REGISTRY DATE	EXPIRY DATE
ARPA No. 72	M.C. No. Y-31742	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 73	M.C. No. Y-31743	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 74	M.C. No. Y-31744	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 75	M.C. No. Y-31745	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 76	M.C. No. Y-31746	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 77	M.C. No. Y-31747	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 78	M.C. No. Y-31748	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 79	M.C. No. Y-31749	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 80	M.C. No. Y-31750	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 81	M.C. No. Y-31751	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 82	M.C. No. Y-31752	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 83	M.C. No. Y-31753	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 84	M.C. No. Y-31754	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 85	M.C. No. Y-31755	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 86	M.C. No. Y-31756	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 87	M.C. No. Y-31757	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 88	M.C. No. Y-31758	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 89	M.C. No. Y-31759	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 90	M.C. No. Y-31760	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 91	M.C. No. Y-31761	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 92	M.C. No. Y-31762	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 93	M.C. No. Y-31763	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 94	M.C. No. Y-31764	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 95	M.C. No. Y-31765	Feb. 28, 1969	Sept. 15, 1971
ARPA No. 96	M.C. No. Y-31766	Feb. 28, 1969	Sept. 15, 1971

Total 112 claims

DRAWN : A. K.	SCALE : 1" = 400'	CANEX AERIAL EXPLORATION LTD.	
TRACED :	DATE : Oct. 20, 1970.	POTATO HILLS YUKON	Geochem.
APPROVED : B. A—	REVISED :		FILE No.

DRAWN : A. K.	SCALE : 1" = 400'	CANEX AERIAL EXPLORATION LTD.	
TRACED :	DATE : Oct. 20, 1970.	POTATO HILLS	Geochem.
APPROVED :	REVISED :	YUKON	FILE No.

DRAWN : A. K.	SCALE : 1" = 400'	CANEX AERIAL EXPLORATION LTD.	
TRACED :	DATE : Oct. 20, 1970.	POTATO HILLS	Geochem.
APPROVED :	REVISED :	YUKON	FILE No.