



1981 GEOLOGICAL and GEOCHEMICAL REPORT
on the

MOON CLAIM GROUP

HOOCHKOO CREEK AREA

WHITEHORSE MINING DISTRICT

by

R. J. Joy,
Senior Exploration Geologist,
United Keno Hill Mines Ltd.,
409 Black Street,
Whitehorse, Y.T.

Dated: October 20th, 1981

N.T.S. Sheets: 115I-6 & 7
Latitude: 62° 25' N
Longitude: 136° 55' W
Dates: May 16-August 27, 1981

090930

This report has been examined by
the Geological Survey of Canada
under Section 53 of the Quartz
Mining Act of 1908. The
expressed for the amount
of \$ 37,100

Watson

for the Geological Survey of Canada and
Geological Survey of Canada
of Yukon Territory.

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SUMMARY and CONCLUSIONS:-

Between May 23rd and August 5th reconnaissance geological and geochemical coverage of the MOON Claims was completed by a two to four person crew. During this period a Dighe¹¹ airborne electromagnetic and magnetometer survey was also conducted over the property and adjacent areas.

A contract crew of line cutters established 70 km of baselines and picketlines over the anomalous areas outlined by the 1980 surveys. This work was carried out between May 21st and June 2nd.

Basemaps were prepared by photoenlarging 1:50,000 scale topographic maps to 1:5,000 scale and redrafting. All data collected during 1980 and 1981 have been plotted (or replotted) on these maps. Initially, several man days were utilized to pick up the necessary topographic control on claim lines, etc.

Mapping during 1981 confirmed the presence of basalts and andesites along the southwest side of the property. Elsewhere, the property is underlain by quartz-feldspar gneiss and coarse-grained granodiorite. No copper mineralization was encountered during the survey. However, a boulder of andesitic tuff in glaciofluvial overburden assayed 0.67 oz/ton silver. The source for this material was probably to the southwest.

A total of 2335 soil samples were collected to complete the reconnaissance geochemical survey of the property. These samples were analysed for copper. Only nineteen (19) samples returned values of 50 ppm or greater (peak value, 92). The poor copper response may reflect the lack of copper mineralization or thickness of the overburden, or both.

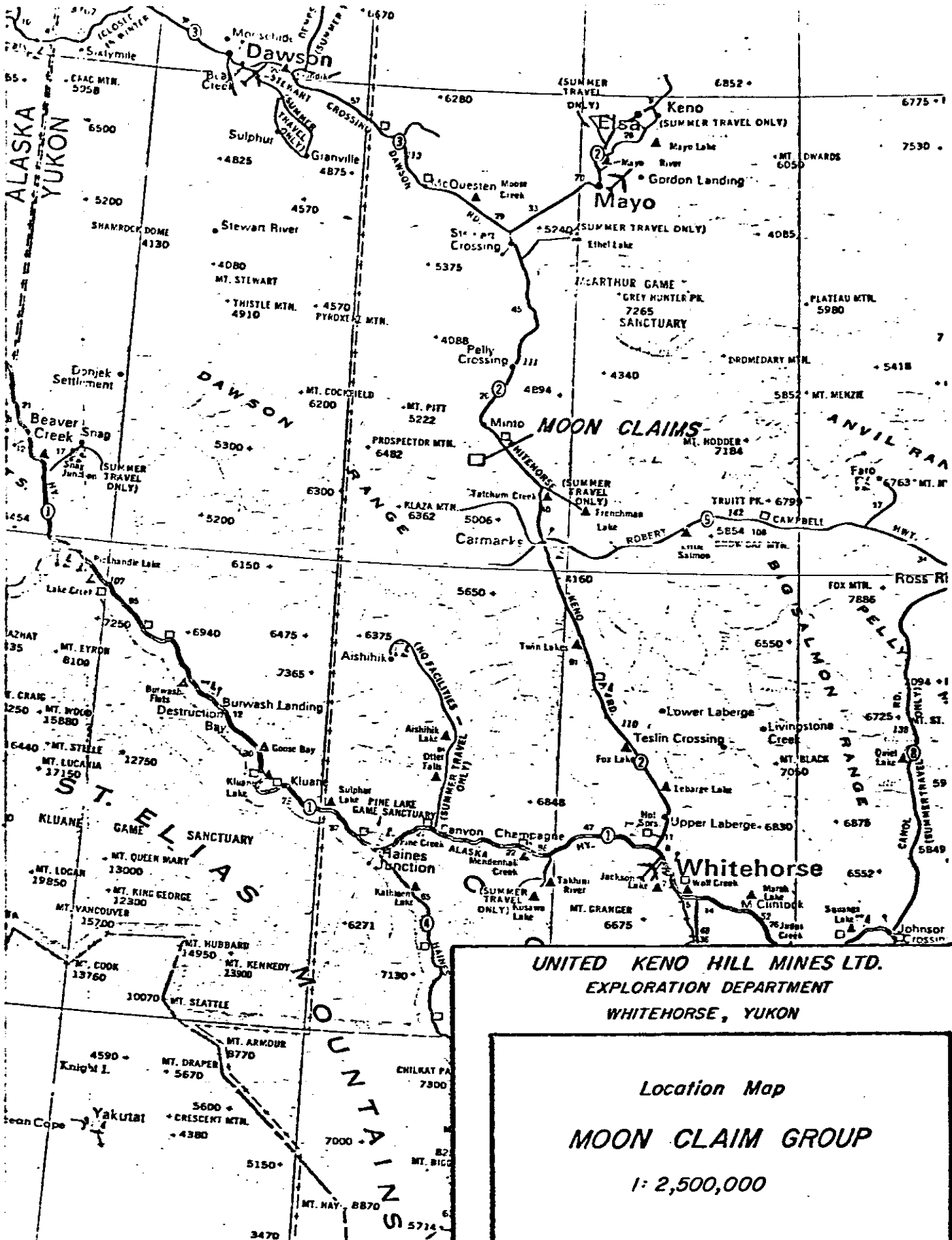
In addition, 360 soil samples were collected over the volcanics along the west side of the property that yielded electromagnetic responses during the airborne survey. Thirteen (13) of these returned copper values of 50 ppm and greater. Two single anomalous values (250 and 370 ppm copper, respectively) may be related to structures in the volcanics. The other anomalous values are generally low order (less than 75 ppm copper) and are scattered.

These sample sites should be further investigated for the presence of breccias belonging to the Cretaceous (to early Tertiary) Mount Nansen volcanics. These volcanics and their subvolcanic porphyry equivalents host porphyry copper-molybdenum deposits in the Dawson Range. Rocks encountered to date appear to belong to the younger Carmacks Group.

RECOMMENDATIONS:-

It is recommended that several of the copper anomalies outlined in 1980 be examined by bulldozer trenching.

It is also recommended that the volcanics west of MOON be examined with the objective of delineating any Mount Nansen volcanics that might occur there.



UNITED KENO HILL MINES LTD.
 EXPLORATION DEPARTMENT
 WHITEHORSE, YUKON

Location Map
MOON CLAIM GROUP
 1: 2,500,000

INTRODUCTION:-

The MOON Claim Group lies approximately 210 km north-northwest of Whitehorse (Figure 1). It was staked in 1980 to cover favourable ground to the northwest of the STU Property.

During the summer of 1980, a portion of the property was covered by geological and geochemical surveys (Leblanc and Joy, 1980). Between May 23rd and August 5th, 1981 a two to four person crew extended these surveys over the remainder of the property.

A line cutting crew was contracted to establish a 200 m grid over a portion of the property. This grid was established during the period May 21st to June 2nd, 1981.

In early June, an airborne (Dighem^{II}) electromagnetic and magnetometer survey was carried out over the property and surrounding area. Conductors delineated on the MOON Property and immediately west of the property were investigated in late August by geochemical and geological surveys.

Access to the property was by helicopter from Carmacks. A staging area adjacent to the Klondike Highway about 19 km east of the property was utilized for supply operations.

PROPERTY:-

The MOON Claim Group (Figure 2) consists of 106 contiguous full claims as follows:-

<u>CLAIM NAME</u>	<u>GRANT NUMBER</u>	<u>RECORD DATE</u>	<u>*EXPIRY DATE</u>
MOON 1 - 84	YA48754-48838	6/05/80	6/05/86
MOON 85 - 91	YA48839-48844	6/05/80	6/05/84
MOON 92	YA48845	6/05/80	6/05/86
MOON 93	YA48846	6/05/80	6/05/84
MOON 94	YA48847	6/05/80	6/05/86
MOON 95	YA48848	6/05/80	6/05/84
MOON 96	YA48849	6/05/80	6/05/86
MOON 97	YA48850	6/05/80	6/05/84
MOON 98 - 106	YA48851-YA48859	6/05/80	6/05/86

*Additional assessment credits will be recorded for work completed during the 1981 season.

MOON 105	MOON 106	MOON 85	MOON 84	MOON 61	MOON 62	MOON 39	MOON 40	MOON 17	MOON 18
YA 48858	YA 48859	YA 48836	YA 48837	YA 48814	YA 48815	YA 48792	YA 48793	YA 48770	YA 48771
103	104	81	82	59	60	37	38	15	16
YA 48856	YA 48857	YA 48834	YA 48835	YA 48812	YA 48813	YA 48790	YA 48791	YA 48768	YA 48769
101	102	79	80	57	58	35	36	13	14
YA 48854	YA 48855	YA 48832	YA 48833	YA 48810	YA 48811	YA 48788	YA 48789	YA 48766	YA 48767
99	100	77	78	55	56	33	34	11	12
YA 48852	YA 48853	YA 48830	YA 48831	YA 48808	YA 48809	YA 48786	YA 48787	YA 48764	YA 48765
97	98	75	76	53	54	31	32	9	10
YA 48850	YA 48851	YA 48828	YA 48829	YA 48806	YA 48807	YA 48784	YA 48785	YA 48762	YA 48763
95	96	73	74	51	52	29	30	7	8
YA 48848	YA 48849	YA 48826	YA 48827	YA 48804	YA 48805	YA 48782	YA 48783	YA 48760	YA 48761
93	94	71	72	49	50	27	28	5	6
YA 48846	YA 48847	YA 48824	YA 48825	YA 48802	YA 48803	YA 48780	YA 48781	YA 48758	YA 48759
91	92	69	70	47	48	25	26	3	4
YA 48844	YA 48845	YA 48822	YA 48823	YA 48800	YA 48801	YA 48778	YA 48779	YA 48756	YA 48757
89	90	67	68	45	46	23	24	MOON 1	MOON 2
YA 48842	YA 48843	YA 48820	YA 48821	YA 48798	YA 48799	YA 48776	YA 48777	YA 48754	YA 48755
87	88	65	66	43	44	21	22	STU CLAIM GROUP	
YA 48840	YA 48841	YA 48818	YA 48819	YA 48796	YA 48797	YA 48774	YA 48775		
MOON 85	MOON 86	MOON 63	MOON 64	MOON 41	MOON 42	MOON 19	MOON 20		
YA 48838	YA 48839	YA 48816	YA 48817	YA 48794	YA 48795	YA 48872	YA 48773		

UNITED KEND HILL MINES LTD.
EXPLORATION DEPARTMENT
WHITEHORSE - YUKON

MOON CLAIM GROUP

Mining District *Whitehorse*
N.T.S. Sheet No. *115 - I - 7*
Scale *1 inch = 1/2 mile*

Drawn by *R. E. V.* Date *19 / 9 / 80*

Office of the Regional Manager
 JAN 7 1982 FILE
 Yukon Territory

CLAIM GROUP
 RECEIVED
 28 DEC 1981
 DEPARTMENT OF MINES
 WHITEHORSE, Y.T.

MOON 105 3	MOON 106 4	MOON 83 4	MOON 84 3	MOON 61 4	MOON 62 8803 Q	MOON 39 3	MOON 40 3	MOON 17 3	MOON 18 3
YA 48858	YA 48859	YA 48836	YA 48837	YA 48814	YA 48815	YA 48792	YA 48793	YA 48770	YA 48771
103 3	104 3	81 4	82 3	59 4	60 4	37 4	38 4	15 3	16 3
YA 48856	YA 48857	YA 48834	YA 48835	YA 48812	YA 48813	YA 48790	YA 48791	YA 48768	YA 48769
101 3	102 4	79 4	80 4	57 4	58 4	35 4	36 4	13 8804 Q	14 3
YA 48854	YA 48855	YA 48832	YA 48833	YA 48810	YA 48811	YA 48788	YA 48789	YA 48766	YA 48767
99 3	100 4	77 4	78 4	55 4	56 4	33 4	34 4	11 4	12 4
YA 48852	YA 48853	YA 48830	YA 48831	YA 48808	YA 48809	YA 48786	YA 48787	YA 48764	YA 48765
97 4	98 4	75 4	76 4	53 4	54 4	31 4	32 4	9 4	10 4
YA 48850	YA 48851	YA 48828	YA 48829	YA 48806	YA 48807	YA 48784	YA 48785	YA 48762	YA 48763
95 4	96 4	73 4	74 4	51 3	52 3	29 3	30 3	7 4	8 4
YA 48848	YA 48849	YA 48826	YA 48827	YA 48804	YA 48805	YA 48782	YA 48783	YA 48760	YA 48761
93 4	94 4	71 4	72 3	349 8807 Q	50 3	27 3	28 3	5 3	6 3
YA 48846	YA 48847	YA 48824	YA 48825	YA 48802	YA 48803	YA 48780	YA 48781	YA 48758	YA 48759
91 4	92 4	69 3	70 3	47 3	48 3	25 3	26 3	3 3	4 3
YA 48844	YA 48845	YA 48822	YA 48823	YA 48800	YA 48801	YA 48778	YA 48779	YA 48756	YA 48757
89 4	90 4	67 3	68 3	45 3	46 3	23 3	24 3	MOON 1 3	MOON 2 3
YA 48842	YA 48843	YA 48820	YA 48821	YA 48798	YA 48799	YA 48776	YA 48777	YA 48754	YA 48755
87 4	88 4	65 3	66 3	43 3	44 3	21 3	22 3	STU CLAIM GROUP	
YA 48840	YA 48841	YA 48818	YA 48819	YA 48796	YA 48797	YA 48774	YA 48775		
MOON 85 4	MOON 86 4	MOON 63 3	MOON 64 3	MOON 41 3	MOON 42 3	MOON 19 3	MOON 20 3		
YA 48838	YA 48839	YA 48816	YA 48817	YA 48794	YA 48795	YA 48772	YA 48773		

LEGEND

8803 Q GROUPINGS
4 YEARS OF CREDIT APPLIED FOR FROM 1981 WORK.

UNITED KENO HILL MINES LTD.
 EXPLORATION DEPARTMENT
 WHITEHORSE - YUKON

MOON CLAIM GROUP

Mining District Whitehorse
 N.T.S. Sheet No. 115-I-7
 Scale 1 inch = 1/2 mile

Drawn by R. E. V. Date 19/9/80

MOON 105	MOON 106	MOON 83	MOON 84	MOON 61	MOON 62	MOON 39	MOON 40	MOON 17	MOON 18
YA 48858	YA 48859	YA 48836	YA 48837	YA 48814	YA 48815	YA 48792	YA 48793	YA 48770	YA 48771
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YA 48856	YA 48857	YA 48834	YA 48835	YA 48812	YA 48813	YA 48790	YA 48791	YA 48768	YA 48769
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YA 48852	YA 48853	YA 48830	YA 48831	YA 48808	YA 48809	YA 48786	YA 48787	YA 48764	YA 48765
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YA 48850	YA 48851	YA 48828	YA 48829	YA 48806	YA 48807	YA 48784	YA 48785	YA 48762	YA 48763
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YA 48844	YA 48845	YA 48822	YA 48823	YA 48800	YA 48801	YA 48778	YA 48779	MOON 1	MOON 2
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YA 48840	YA 48841	YA 48818	YA 48819	YA 48796	YA 48797	YA 48774	YA 48775		
MOON 85	MOON 86	MOON 63	MOON 64	MOON 41	MOON 42	MOON 19	MOON 20		
YA 48838	YA 48839	YA 48816	YA 48817	YA 48794	YA 48795	YA 48772	YA 48773		



1981 Geological and Geochemical coverage

**Total cost \$ 40,324.00
or \$ 1,061.16 per claim.**

**UNITED KENO HILL MINES LTD.
EXPLORATION DEPARTMENT
WHITEHORSE - YUKON**

MOON CLAIM GROUP

Mining District Whitehorse
N.T.S. Sheet No. 115 - I - 7
Scale 1 inch = 1/2 mile

Drawn by R. E. V. Date 19/9/80

LINE CUTTING:-

Between May 21st and June 2nd, crews from Eastern Associates Reg'd. established a 200 m grid over a portion of the property. This involved the cutting of 70.0 km of baselines and picketlines. Three baselines were cut parallel to the area control line (305°) at 1500, 3000, and 4000 m, respectively, west of that line. Picketlines were cut orthogonal to these lines at 200 m intervals. All lines were marked at 50 m intervals.

Claim post and topographic features were tied-in to this grid to facilitate plotting on a 1:5,000 base map.

GEOLOGY:-

Most of the outcrop and float rock on the property lies along and near ridgetops. Hence, most of the exposures were mapped in 1980. During the 1981 season a more intensive examination was made of the southwestern portion of the claim group.

Quartz-feldspar gneiss with subordinate medium to coarse-grained granodiorite underlies most of the property. These are overlain to the west and southwest by volcanics of the Carmacks Group (eTcv). The lowest exposed member of this group is composed of basaltic flows and tuffs. Andesitic flows and tuffs overlie the basalt.

The basalt and its tuffaceous equivalents are dark green to black on fresh surfaces but weather a dark grey color. Both aphanitic and porphyritic varieties were encountered. Euhedral phenocrysts, generally pyroxene, in the porphyritic basalt rarely exceed 5 mm across. Crystalline magnetite (up to 1%) is disseminated throughout the more mafic basalts.

Andesite and its tuffaceous equivalents are reddish-brown to green in color and contain highly variable amount of phenocrysts. The phenocrysts consist of plagioclase, biotite, and pyroxene which generally do not exceed 5 mm in diameter. Although crystalline magnetite was not identified, most samples were moderately magnetic. Limonite and carbonate veinlets were noted in several places. Such veinlets were observed in areas identified by the airborne geophysics as having electromagnetic conductors.

No additional textural or compositional varieties of quartz-feldspar gneiss or granodiorite were encountered.

MINERALIZATION:-

Eighteen (18) samples were submitted for assay determinations (Appendix D). These included samples of volcanic rock, gneiss and granodiorite.

The only interesting results were from two samples of a brecciated andesitic tuff. These samples were collected from boulders in a small landslide near the south edge of the property. They contained a pale green clay mineral that, in places, resembled malachite. Although no copper was present, silver values of 0.67 and 0.18 oz/ton were returned for the two samples; lead values were 0.24% and 0.06%, respectively. A mineralogical description is given in Appendix E.

The source of this material was not encountered in the property mapping. Glacial flow directions suggest a source to the southwest.

Several samples of volcanic rock containing limonite and carbonate veinlets were taken over airborne electromagnetic anomalies. The only mineral identified was magnetite and assay results returned no gold, silver, lead, zinc or copper values (see Appendix D).

GEOCHEMISTRY:-

A total of 2335 soil samples were collected to complete reconnaissance geochemical coverage of the property. Samples were collected on a 30 by 100 m grid network. An additional 360 samples were collected on a 200 m by 50 m grid network over some of the conductors outlined by the airborne geophysical survey.

Frozen ground severely hampered the sampling program during June and early July. Although productivity was low (about 21 samples per operating man/day), B-horizon samples were collected at most sites.

All samples were analysed for copper by Bondar-Clegg and Company Ltd. of Whitehorse using standard geochemical techniques. Samples collected over the geophysically responsive volcanic were also analysed for silver.

Only nineteen (19) of the reconnaissance samples returned values of 50 ppm or greater (peak value of 92 ppm). This poor copper response reflects the lack of copper mineralization in bedrock in some areas. In other areas, however, it may indicate a thick cover of glaciofluvial material. Indeed, perhaps one-half the area is in the latter category.

Thirteen (13) samples from the geophysically responsive volcanics yielded copper values of 50 ppm or greater. Two strong, single-value anomalies were revealed.

Samples from these two areas yielded values of 250 and 370 ppm copper, respectively. Other anomalous values are generally scattered as low-order single-value highs.

No anomalous (maximum 0.2 ppm) silver values were returned for the soil samples.

The 370 ppm copper anomaly may be associated with a fault or shear. A weak electromagnetic conductor (380 B) terminates in the vicinity of the anomaly. It is possible that the 250 ppm anomaly may also be associated with a structure in the volcanics. The conductor shown on the composite map (in Pocket) lying to the northeast of the anomaly actually represents several shorter conductors (separate report by Dighem).

GEOPHYSICS:-

An airborne electromagnetic (Dighem^{II}) and magnetometer survey was flown over the MOON Claims as part of a large survey of United Keno's properties in the Minto Area. This survey was flown by Dighem Limited of Toronto during May and June 1981.

Data from the survey were plotted on 1:15,000 scale maps. Maps were prepared for electromagnetics, resistivity, magnetics and enhanced magnetics for each area. Those maps (Sheets C-1 & C-2) are included in a separate report entitled "Dighem^I Survey of Carmacks Area, Yukon for United Keno Hill Mines Ltd. by Dighem Limited".

Generally, areas with high resistivities (greater than 1000 ohm-metres) are underlain by granodiorite and gneiss. For the most part, this is in sharp contrast to the low resistivities over the volcanics along the west side of the property.

A small amount of follow-up work was carried out over the electromagnetic conductors near the western boundary of the property. Although two soil samples yielded values of 250 and 370 ppm copper, no mineralization was observed.

REFERENCES:-

- Leblanc, E. and Joy, R. J., 1980 Geological and Geochemical Report on the MOON Claim Group, Hoochekoo Creek Area, Whitehorse Mining District, N.T.S. Sheet 115I-7, U.K.H.M. Files
- Dighem^{II} Survey of Carmacks Area, Yukon for United Keno Hill Mines Limited by Dighem Limited, July 17, 1981 Report No. 147 - FIL, U.K.H.M. Files

APPENDIX A

LOGISTICS:-

PROJECT: Project No. 46 - MOON Claim Group

TERRAIN: Semi-Mountainous, Dawson Range

MAIN BASE: Whitehorse, Y.T.

OPERATING CAMPS: Two at strategic locations

CREW: Geologist, Assistant, 2-3 soil samplers

SUPPORT AIRCRAFT: Bell 206B Jet Ranger helicopter based at Carmacks

HELICOPTER UTILIZATION: A total of 14.4hours were utilized for camp move, supply, and supervisor visits.

OPERATING MAN DAYS:

	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>Total</u>	<u>%</u>
Possible days	36	120	106	45	370	100
Operating days	23	88	45	31	187	61
Days lost -						
Camp Moves	4	-	4	5	13	4
R & R	-	-	28	-	28	9
Weather & Other	9	32	29	9	79	27

MOON PROJECT COSTS

May 5th to September 30th, 1981 (excluding Geophysical Survey Costs)

GENERAL:-

Salaries and Wages	\$6,836.00	
Hiring Costs	1,470.00	
Publications and Maps	61.00	
Travel - Staff	1,376.00	
	<u>9,743.00</u>	\$9,743.00

LINE CUTTING:-

Contract Labour	15,568.00	
Aircraft	1,914.00	
	<u>17,482.00</u>	17,482.00

GEOLOGICAL:-

Company Labour	9,054.00	
Equipment & Supplies	13.00	
	<u>9,067.00</u>	9,067.00

GEOCHEMICAL:-

Company Labour	7,782.00	
Contract analyses	5,721.00	
Equipment and Supplies	304.00	
	<u>13,807.00</u>	13,807.00

ASSAYING & RESEARCH:-

Assaying - Company	518.00	518.00
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CAMP OPERATION:-

Equipment & Supplies	759.00	
Food	2,853.00	
Fuel	126.00	
Repair	203.00	
	<u>3,941.00</u>	3,941.00

AIRCRAFT:-

Helicopter Charter	3,063.00	3,063.00
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VEHICLES:-

Operation and Maintenance	\$ 185.00	\$ 185.00
	TOTAL	<hr/> \$57,806.00

NOTE: Line cutting costs not used for assessment requirements.

APPENDIX B

A F F I D A V I T

I, Robert E. Van Tassell, of Whitehorse, in the Yukon Territory,
Exploration Superintendent, do solemnly declare:

1.

That I am duly appointed agent of United Keno Hill Mines Limited,
and except where otherwise stated have a personal knowledge of the
facts and matters herein, and swear to the value of work contained
in Appendix A.

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

Whitehorse, in

The Yukon Territory,

this 29th day of

December 1981.

Robert E. Van Tassell

Charles Ford
Notary Public

APPENDIX C

PERSONNEL and CONTRACTORS EMPLOYED

GEOLOGICAL MAPPING by:-

Lorne Burden, May 19 - July 15
27 Hollingworth Drive,
Scarborough, Ontario
M1P 1E1

Graham Davidson, August 22 - 27
73 Irma Court,
Ancaster, Ontario
L9G 1K6

Assisted by:-

Tim Canam, May 19 - July 15
P. O. Box 569,
Pictou, Nova Scotia

Ray Knowles, August 22 - 27
27 Francis St.,
Lindsay, Ontario

GEOCHEMICAL SAMPLING by:-

Shelly Hobbs, May 19 - August 5
Box 280,
Deloraine, Manitoba
ROM 0M0

Jennifer Wahlroth, May 19 - August 5
274 Bellsizes Drive,
Toronto, Ontario
M4S 1N6

Don Privett, August 18 - 27
3564 West 16th Street,
Vancouver, B.C.
V6R 1C1

George Lane, August 18 - 27
22 The Ridgeway,
Apartment #5,
London, Ontario N6C 1A1

Ian McKay, August 18 - 27
73 Lakeshore Drive,
P. O. Box 399m
Morrisburg, Ontario

LINE CUTTING by:-

Eastern Associates Reg'd,
P. O. Box 4152,
Whitehorse, Yukon

AIRBORNE GEOPHYSICAL SURVEY by:-

Dighem Limited,
P. O. Box 178, Suite 7010,
1 First Canadian Place,
Toronto, Ontario

ASSAYING and GEOCHEMICAL ANALYSES by:-

Bondar Clegg and Company Ltd.,
136B Industrial Road,
Whitehorse, Y.T.

HELICOPTER SUPPORT by:-

Dean Cameron,
Trans North Turbo Air Ltd.,
Carmacks, Y.T.

SUPERVISED by:-

R. J. Joy,
Senior Exploration Geologist,
United Keno Hill Mines Limited,
409 Black Street.,
Whitehorse, Y.T. Y1A 2N2

APPENDIX D

ASSAY SAMPLE DATA

UNITED KENO HILL MINES LIMITED
EXPLORATION DEPARTMENT — 409 BLACK — WHITEHORSE

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS							
Mo.	Yr.				Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %	
06	81			See Appendix E for description south edge of MOON Claims-pale green material brecciated andesite porphyry	0.002	0.67	0.24	0.04	0.01			
06	81		2726	South-west of MOON Claim in volcanics: porphyritic andesite	0.002	0.05	0.01	0.01	0.01			
06	81		2727	Southwest of MOON Claims in volcanics: porphyritic andesite	0.002	0.05	0.01	0.01	0.01			
06	81		2728	2LB1; sample of float, volcanic float that appears to contain malachite.	0.002	0.18	0.06	0.06	-			
06	81		2729	3LB1; pink equigranular granodiorite	-	-	-	-	0.01	0.005		
06	81		2730	4TWC5; porphyritic andesite, with a reddish brown colour	0.002	0.05	0.01	0.02	0.01			
06	81		2731	4TWC1; a grey brown andesite	0.002	0.05	0.01	0.01	0.01			
07	81		2732	8LB2A; feldspar-rich band of Qtz-Feld-Bio-Gneiss	0.002	0.05	0.01	0.01	0.01			
07	81		2733	8LB2B; biotite rich band of Qtz Feldspar-bio-gneiss	0.002	0.05	0.01	0.01	0.01			
07	81		2734	10LB10; highly altered rock from zone around qtz vein in gneiss	0.002	0.05	0.01	0.01	0.01			
07	81		2735	11LB5; aphanitic rhyolitic float with disseminated mineralization possibly pyrrhotite	0.002	0.05	0.01	0.01	0.01			

APPENDIX E

MINERALOGICAL EXAMINATION of MINERALIZED TUFF
from MINTO AREA, YUKON

FALCONBRIDGE NICKEL MINES LIMITED

INTER OFFICE MEMORANDUM

MEMO TO: R. J. Joy

FROM: R. Buchan

DATE: September 24, 1981

SUBJECT: Mineralogical Examination of Mineralized Tuff
from Minto Area, YukonPROJECT No. 302-810924
(JO#2949)KEYWORDS: Boulder - South Edge of MUCON
Silver

SAMPLE NO. L#81-579

COPIES TO: RAB, WDH/Circ, Min File

The sample of early Tertiary volcanic from the Minto area which was submitted on August 18th has been sectioned and examined. A representative portion was also pulverized and submitted for qualitative spectrographic analysis (Table I). Another portion of the sample was reported by R.J.J. to assay 0.67 oz/ton Ag, 0.01% Cu, 0.24% Pb and 0.04% Zn.

A brief description of PTS-6464 is given on the accompanying page. The rock is classified as a crystal / lithic tuff of basic (andesitic) composition. The pale green mineral which occurs in rounded clots and streaks in the rock was identified as a clay mineral by X-ray diffraction. It is likely a mixed-layer mineral similar to glauconite.



R. Buchan

RB:sls
attach.

Location Minto Area, Yukon

Lab. No. 81-579

Sample Description Volcanic Tuff

PTS No. 6464

MINERALS	Est. % by Vol.	Grain Size Max.	(m.m.) Avg.
Feldspar, \pm An ₅₂ , labradorite	70 - 75		
Chlorite	12 - 15		
Amphibole	1 - 2		
Biotite	tr		
Goethite	1 - 2		
Magnetite	3 - 4		
Ilmenite	2 - 3		
Hematite	2 - 3		
Native Silver	tr		

DESCRIPTION

Volcanic rock fragments and subhedral crystals of labradorite occur in a very fine grained tuffaceous matrix. Disseminated oxides are prevalent throughout the section. Some of the goethite appears to have replaced grains of pyrite and hematite shows partial to complete replacement of magnetite. One small grain (40 X 20 μ m) of a mineral tentatively identified as native silver is present in the section.

The rock is classified as a crystal/lithic tuff.

FALCONBRIDGE METALLURGICAL LABORATORIES
QUALITATIVE SPECTROGRAPHIC ANALYSIS

DISTRIBUTION: _____ REPORT No. Q1206
 ANALYTICAL METHOD: _____
 REQUESTED BY: _____ DATE: Sept 24/81
 RECEIVED FROM: _____ CHARGE: JO#2949
 SAMPLE No.: 81-579 No. of SAMPLES: 1
 SAMPLE DESCRIPTION: Volcanic Rock

10	- 100%	Si
3	- 30%	
1	- 10%	Mg, Fe, Al, Na, Ca
0.3	- 3%	
0.1	- 1%	K
0.03	- 0.3%	Ti
0.01	- 0.1%	
0.003	- 0.03%	Mn
0.001	- 0.01%	V, Cu, Sr, Cr, Ba
0.0003	- 0.003%	Ni
0.0001	- 0.001%	Co
< 0.0003%		Ag
I		Zr
S		

I = Interference prevents positive identification.

S = Strong spectral lines, unable to estimate amount.

Unless specified above, the following were not detected at the approx. ppm
 lower limits of 0.5 Cu, Ag; 1 Mn; 5 Mg, Cr; 10 Ba, Be, Bi, Ca, Co, Ni, V;
 25 Ge, Fe, Pb, Mo, Si, Sr, Sn, Ti, Zr, Tl, Pd; 50 Al, Sb, B, Cd, Ga, In, Li, Zn;
 100 As, Au, Na; 200 Rh, Re, Ir, Pt, Ru, Sc; 300 Te, Os; 1000 K, U, Th; 2000 P.


APPENDIX F

STATEMENT OF QUALIFICATIONS

I, Richard J. Joy, of the City of Whitehorse, Yukon Territory, do hereby certify that:

1. I am a geologist, residing at 20 Stewart Road, Whitehorse, Yukon Territory.
2. I have received a B. Sc.(honours) in Geology from Memorial University of Newfoundland.
3. I have attained the status of Fellow in the Geological Association of Canada.
4. I have been actively engaged in the mineral exploration field since 1968.
5. I am presently employed as Senior Exploration Geologist with United Keno Hill Mines Limited.
6. I have supervised the work described in this report.

Dated at WHITEHORSE this 22nd day of DECEMBER, 1981





LEGEND

Pgdm Porphyritic granodiorite
 eTCV CARMACKS GROUP Volcanics

22 Soil Sample location with Copper results in p.p.m.
 ++++ approximate location of conductor axis from airborne EM survey
 () Area of Outcrop and Float
 - - - Geological contact (approximate)
 O 605 Geological information point
 Δ 1475 Assay Sample location with number

UNITED KENO HILL MINES LTD.

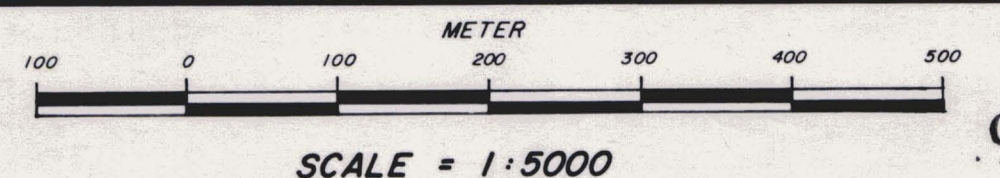
EXPLORATION DEPARTMENT WHITEHORSE, Y. T.

MOON WEST SIDE

N. T. S. SHEET 115 - I - 7

COMPOSITE

GEOLOGY, GEO PHYSICS, GEOCHEMISTRY



090930

NO.	Revision	Date	by	NO.	Revision	Date	by

Drawn by J.H.P. DWG.
 Date 08.12/81 No.



GEOLOGY

- TERTIARY**
 eTCV Carmacks Group Volcanics; andesite, basalt
 (Pond), (Flow) + porphyritic andesite, basalt
- MESOZOIC**
 Pgdm Porphyritic granodiorite
 mgr microgranite
 qtz quartz
 peg pegmatite
- PALEOZOIC or EARLIER**
 qfgn Quartz - feldspar gneiss or
 Quartz - feldspar - biotite gneiss

LEGEND

- Geological contact (defined, assumed)
- Area of Flood, Outcrop
- Dykes
- Foliation
- Conjugate Joints
- Magnetite
- Quartz
- Geological Point, with sample 1981
- Assay sample location with number 1981

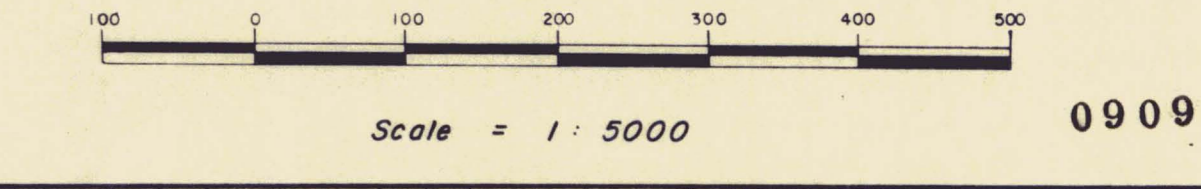
TOPOGRAPHY

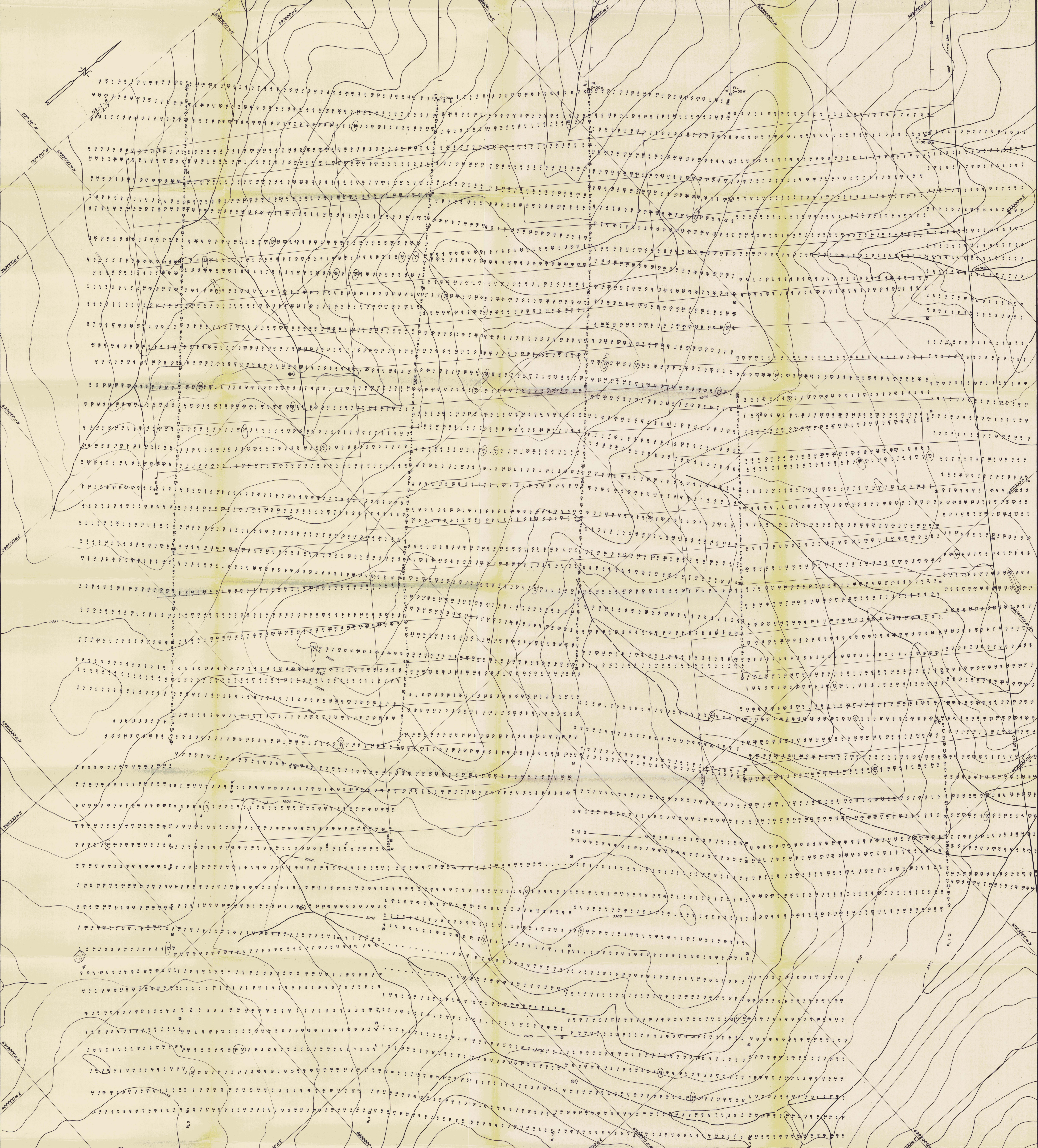
- 1000m UTM Grid system from 1:50,000 scale Map.
 NOTE: Grid NORTH is actually 358°30'
- Creeks
- Elevation contours in feet
- Lakes, Ponds, Sloughs
- Helipad, Campsite (1980, 1981)
- Cut Line (Grid) Baseline 00 = 305°
- Claim posts (2,4) Location line = 310°

UNITED KENO HILL MINES LTD.
 EXPLORATION DEPARTMENT WHITEHORSE, Y.T.
MOON CLAIM GROUP
 N.T.S. Sheet 115-I-7

GEOLOGY

1980, 1981





CONTOUR INTERVALS

□	50 - 99 p.p.m.
□	100 - 199 p.p.m.
□	200 + p.p.m.

LEGEND

GEOCHEMISTRY

- Sample Location with Results 1980
- ⊙ Sample Location with Results 1981
- ⊖ Sample Location, No Sample taken

TOPOGRAPHY

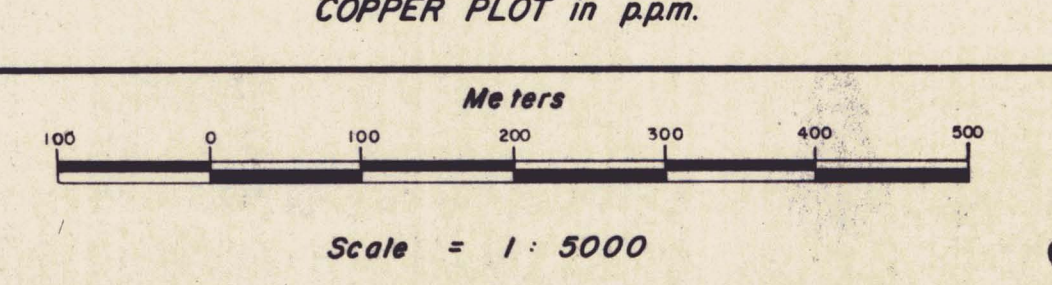
- 2500 — Elevation contours in feet
- ☞☞☞ Lakes, Ponds, Sloughs
- ⊙⊙⊙ Helipad, Campsite (1980, 1981)
- ⊖⊖⊖ Cut Line (Grid) Baseline 00 = 305°
- ⊖⊖ Claim posts (2,4) Location line = 310°

1000m UTM Grid system from 1:50,000 scale Map.
NOTE: Grid NORTH is actually 358°30'

UNITED KENO HILL MINES LTD.
EXPLORATION DEPARTMENT WHITEHORSE, Y. T.

MOON CLAIM GROUP
N. T. S. Sheet 115 - I - 7

GEOCHEMISTRY
COPPER PLOT in p.p.m.



090930

NO.	Revision	Date	BY	NO.	Revision	Date	BY	NO.	Revision	Date	BY	NO.	Revision	Date	BY
1	Revised	11/78	JJC												

Drawn by R.J.J. DWG
Date 06/11/81 NO.