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YEIP  
2000-  
026  
2000

**Summary Report**

**YUKON ENERGY, MINES  
& RESOURCES LIBRARY**  
PO Box 2703  
Whitehorse, Yukon Y1A 2C6

**May 1-26 Quartz Claims  
NTS 115-P-15**

*FOR*

*JAYCE TERMUENDE*

By  
**Bernie Kreft**

**November 18<sup>th</sup>, 2000**

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## **History And Previous Exploration**

Initially explored during the 1920's for silver-lead vein type mineralization. During 1971-1972 Quintana Minerals carried out mapping, soil sampling and ground magnetics over Zn/Cu/W/Sn/Au mineralized calc-silicate quartzite. Between 1977 and 1981, CCH Resources and Billiton Canada conducted extensive soil sampling and mapping programs directed towards assessing the tin and tungsten potential of the property.

The claims were re-staked during the fall of 1997 by the writer on behalf of the Eagle Plains/Miner River joint-venture. Rock samples taken at the time of staking returned values of up to 5.7 g/t Au from intrusive-hosted mineralization, while samples of actinolite skarn returned up to 6.6 g/t Au. Work during 1998 tested the gold potential of both showing types, and defined three areas worthy of follow-up: FM Zone (skarn), Cluster Zone (intrusive hosted) and Fringe Zone (skarn).

## **Location And Access**

The property is located in the central Yukon Territory, approximately 45 kilometres north-west of Mayo. Topography is moderate with several small areas of extreme relief. Although the majority of the property is above tree line, outcrop exposure is poor due to extensive talus development. Access was by helicopter from Mayo. Several old bulldozer trails lead to the property, but they are all currently impassable.

## **Regional Geology**

The May Project is located within the Selwyn Basin, a large sedimentary depocenter active from the Precambrian to the Mississippian. The mid-late Cretaceous Tombstone Suite (90-92 Ma), consisting of stocks, sills and dykes of granitic composition has been emplaced within these sediments. Tombstone Suite intrusives are commonly associated with bulk-tonnage gold targets within an east-southeast trending belt which extends from north of Dawson to the Yukon/NWT border, a total distance of almost 600 kilometres. Significant Yukon targets hosted by, or associated with, the Tombstone Suite include: Brewery Creek, Dublin Gulch, McQuesten/Wayne and Clear Creek.

## **Property Geology**

Sedimentary strata consists of finely banded, buff to gray-green calc-silicate quartzite, tan to pale green micaceous quartzite, quartz-muscovite-chlorite schist, limy quartzite and rare phyllite belonging to the Mississippian, "Keno Hill Quartzite" and "Lower Schist" divisions. Lying to the south, in thrust fault contact with the Keno Hill Quartzite is gritty micaceous quartzite, quartz-muscovite schist and quartz-chlorite-muscovite-graphite schist of the Upper Proterozoic to Lower Cambrian Hyland Group. The thrust fault is likely the Robert Service Thrust, as units on either side of it correlate lithologically with those found on either side of the Robert Service Thrust in the Mayo Map area.

Intrusive to this sedimentary package is an elongate north-trending porphyritic hornblende biotite

granite to quartz monzonite body (Bos Stock). Recent U-Pb dating performed on the Bos Stock has returned an age of 92.9 +/- 0.3 Ma (Murphy/Heon Geoscience Map 1996-2). This places the Bos Stock within the bulk-tonnage gold prospective Tombstone Suite. Several small felsic intrusive bodies occur within sediments along the south and west contacts. Surrounding the stock is a moderate albite-epidote hornfels zone. Similar hornfels effects have also been noted in a band of rocks enveloping the thrust fault. Alteration of the stock includes chlorite veining, bleaching and manganese staining. Trace sericite also commonly occurs adjacent to fractures within the granite.

A geologic history of the area may be summarized as follows: 1) regional metamorphism and deformation of stratified rocks; 2) thrust fault development; 3) regional thermal metamorphism; 4) emplacement of the Bos Stock; 5) contact metamorphism/hornfelsing; 6) chloritization of calc-silicate rocks; 7) mineralization by hydrothermal fluids.

## **Mineralization**

Potential for skarn hosted gold was first recognized by Quintana Minerals who received "attractive" assays for Au, Ag, Cu, Pb, Zn, Sn and W from interbedded actinolite skarn and mineralized calc-silicate quartzite in the FM zone (MIR 1971-1972 p. 20-21). During 1990, an actinolite-epidote skarn 1.6 kilometres to the southeast (Fringe Zone) was chip-sampled by INAC geologists, and returned an average of 0.065 oz/ton Au over a 15.0 metre width (Emond/Lynch Yukon Geology Volume 3, p.144).

Work at the Fringe Zone during 1998 returned an average grade of 1.63 g/t Au over 15.0 metres. Anomalous gold is commonly associated with anomalous values in Ag, Cu, Zn, As, Bi, Cd and W, with a near perfect, positive correlation between bismuth and gold. A total of 48 grid soils were taken at 30 metre by 30 metre spacings centered over the main showing area. Results show a well-defined, 140 metre long gold-copper-zinc soil anomaly open to the east. Bismuth in soil values were mostly below detection limit.

Detailed prospecting in 1999 showed that the skarn mineralization at the Fringe Zone is cut off in both directions along strike. Some hand trenching and rock sampling was conducted at the eastern extremity of the previously defined soil anomaly associated with this showing. This work was disappointing, with a maximum value of 233 ppb Au returned from the 8 samples taken.

The FM Zone consists of a mineralized sequence of interbedded actinolite skarn and calc-silicate quartzite, occurring over a 1200 metre by 400 metre area, paralleling the thrust fault. Grab samples from this zone reportedly returned "attractive" gold values. Soil geochemical results from previous programs show numerous copper and/or zinc anomalies in this area, with gold not analyzed for. Copper and zinc are two of the main pathfinders associated with the Fringe Zone mineralization.

Work in 1999 at the FM Zone consisted of prospecting, and resulted in 13 grab and chip samples. Gold results were disappointing, with a maximum of 101 ppb Au returned from a select grab sample. Most of the samples were anomalous in copper and zinc; these anomalous values help explain the previously existing copper and zinc soil anomalies.

The Cluster Zone was discovered during the 1997 staking. A total of 8 chip and grab samples taken from the immediate area returned an average value of 724 ppb Au (max. 2983 ppb Au), along with anomalous arsenic, bismuth and tungsten. A small soil grid at the showing returned some slightly anomalous results for gold, arsenic and tungsten. Metal values in soil were likely muted due to coarse granite boulder talus that covers much of the favourable area.

Work in 1999 consisted of detailed sampling in the vicinity of the Cluster Zone, as well as some prospecting of the outlying soil anomalies. Sampling confirmed that granite is consistently anomalous in gold (9 sample weighted average of 313 ppb Au over 7.3 metres) in the area of the Cluster Zone. Several narrow quartz arsenopyrite veins were discovered in this area, with a rep sample of a 5cm wide vein grading 0.267 oz/ton Au. Prospecting of the outlying soil anomalies was made difficult by the presence of large angular granite boulder talus covering the anomalies. Best results (4 samples: 361 ppb Au to 517 ppb Au) were returned from samples of clay and/or sericite altered granite which occur as small pieces and cobbles hidden within the boulder talus piles.

Follow-up work in 2000 consisted of detailed rock chip-sampling and prospecting of the Cluster Zone. This work consisted of a single line of samples (trending 255/75) taken approximately 2.0-5.0 metres down from the crest of the slope that cuts through the area of interest, along with some recon sampling approximately 75.0 metres downslope from this line. Each sample consisted of a 0.4 metre chip sample of large diameter talus (+ 0.5 metre wide), a 0.4m chip sample of several moderate sized talus pieces (between 0.1 metres and 0.5 metres in width) and several representative grab samples of small fragments (less than 0.1 metre in width) from the area of the chip samples. Samples were taken at 6.25 metre spacings in the main area of interest and at 12.5 metre spacings on the periphery.

Results from this work show that the portion of the line between 81.25 metres and 156.25 metres averages 209 ppb gold, along with highly anomalous arsenic, tungsten, antimony and bismuth. Also within the section, but not included within the average gold value, are several quartz-arsenopyrite veins averaging 5.0 centimetres wide and 5.0 g/t gold. Similar mineralization and gold grades were encountered in outcrop on the reconnaissance traverse 75.0 metres down-slope from the main sample line.

Mineralization consists of disseminations and fracture coatings of arsenopyrite. The predominant fracture set trends 204/24, which is roughly parallel to the long axis of the intrusion. Alteration is weak and consists of the development of clay, sericite and bleaching adjacent to most of the better-mineralized fractures and veins.

### **Geophysical Surveys**

Aeromagnetic data (GSC Aeromagnetic Series sheet 115-P-15) shows a 2700m x 700m, 120 gamma low on the west edge of the stock roughly paralleling the thrust fault, centered over the FM zone. A ground based magnetometer survey verified the existence of the aero-mag low and showed it to cut across the thrust and overly both calc-silicate quartzite and Hyland Group sediments. The remainder of the project area contains only minor magnetic variations.

## Conclusions

Existing skarn/replacement type mineralization does not have economic potential due to limited size potential and erratic grade. Mineralization at the Cluster Zone is hosted by granodiorite and consists of arsenopyrite occurring as disseminations and within veins and coating fractures. True thickness of the zone is approximately 50 metres. Sampling suggests an average grade of approximately 200 ppb gold. Some difficulty was encountered in trying to effectively sample the recessive weathering arsenopyrite-coated fractures; therefore it is thought that the grade will increase sub-surface, below the zone of weathering. The majority of the pluton remains to be tested for similar (Fort Knox style) mineralization. The lack of a large soil anomaly associated with the Cluster Zone is largely due to abundant boulder-sized talus masking bedrock; therefore even single point soil anomalies hosted by granite are worthy of follow-up.

## Recommendations

Further work is recommended, and should consist of prospecting north and south of the Cluster Zone along the trend of the fracture zone that is thought to control the mineralization. If results continue to be encouraging, drilling and/or excavator trenching will be needed to fully evaluate this prospect.

## Certification

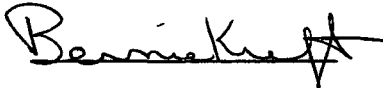
I, Bernie Kreft, was present and witnessed the exploration work described herein. I have 14 years experience prospecting in the Yukon.

This report is based on fieldwork conducted or witnessed by myself, and includes information from assessment reports 091018, 090794, 090535, 090417 and 060145.

This report is based on work completed on the May 1-20 quartz claims.

Work was completed during the summer of 2000.

Respectfully Submitted,



Bernie Kreft

## Rock Sample Descriptions

- R-1 1.2m chip granodiorite (0.4m large talus, 0.4m medium sized talus and several small fragments)
- R-2 as above and 12.5m from
- R-3 as above
- R-4 as above
- R-5 as above
- R-6 as above
- R-7 as above
- R-8 as above and 6.25m from
- R-9 as above
- R-10 as above
- R-11 as above
- R-12 as above
- R-13 as above
- R-14 as above
- R-14A rep grab 5.0cm wide qtz-arsenopyrite vein
- R-15 as per R-14 and 6.25m from
- R-16 as above and 6.25m from
- R-17 as above
- R-18 as above
- R-19 as above
- R-20 as above
- R-21 as above
- R-23 as above and 12.5m from
- R-24 as above and 6.25m from
- R-25 as above
- R-26 as above
- R-26A as above
- R-27 rep grab 6.0cm wide qtz-arsenopyrite vein
- R-28 as per R-26A and 12.5m from
- R-28A as above and 12.5m from
- R-29 rep grab qtz arsenopyrite vein
- R-30 as per R-28A and 12.5m from
- R-31 as above and 12.5m from (sample is within 5.0m of contact with metasediments)
- R-32 as above and about 60m directly downhill from above sample
- R-32A at and as above
- R-33 qtz-arsenopyrite vein at above
- R-34 about 35m east of R-32 as per R-32
- R-35 as above about 44m east
- R-37 as above about 45m east
- R-38 as above about 29m east
- R-39 as above about 32m east

- R-40 as above about 37m east
- R-41 as above about 10m east
- R-41A rep grab qtz-arsenopyrite vein at above
- R-41B weakly developed qtz-arsenopyrite vein at above
- R-42 1.2m chip about granodiorite about 100m directly above R-41 and about 30m directly downhill from R-4
- R-42A 0.3m chip across 4.0cm wide weakly developed qtz arseno vein at above site
- R-43 rep grab 4.0cm wide qtz arsenopyrite vein
- R-44 rep grab of a 1.0cm wide qtz arseno vein and 9.0cm of wallrock
- R-45 1.0m chip granodiorite with several arseno coated fractures



## Costs

Wages B.Kreft (2 days x \$375/day)	=	\$802.50
Wages P.Christensen (2 days X \$175/day)	=	\$374.50
Truck rental (768 km x 0.42/km)	=	\$345.14
Food and Camp Supplies (4 man days x \$35/day)	=	\$179.76
TNTA Heli Charter	=	\$1251.58
NAL assays	=	\$1255.11
Receiver General (renewals and groupings)	=	\$210.00
Report Writing (2 days)	=	<u>\$802.50</u>
TOTAL	=	\$5221.09



5000

5000

5500

Outline May 21-26 Claims

BMA-1,2

BMA-3,4

North/Ridge

Robert Service Thrust

17<sub>y</sub>

CDFM99R1-4

TTMA99R1-5

BKFM-1 to 4

FM Zone

Cluster Showing

30<sub>h</sub>

4500

MKH

23<sub>y</sub>

PCH

30<sub>y</sub>

Fringe Zone

KG

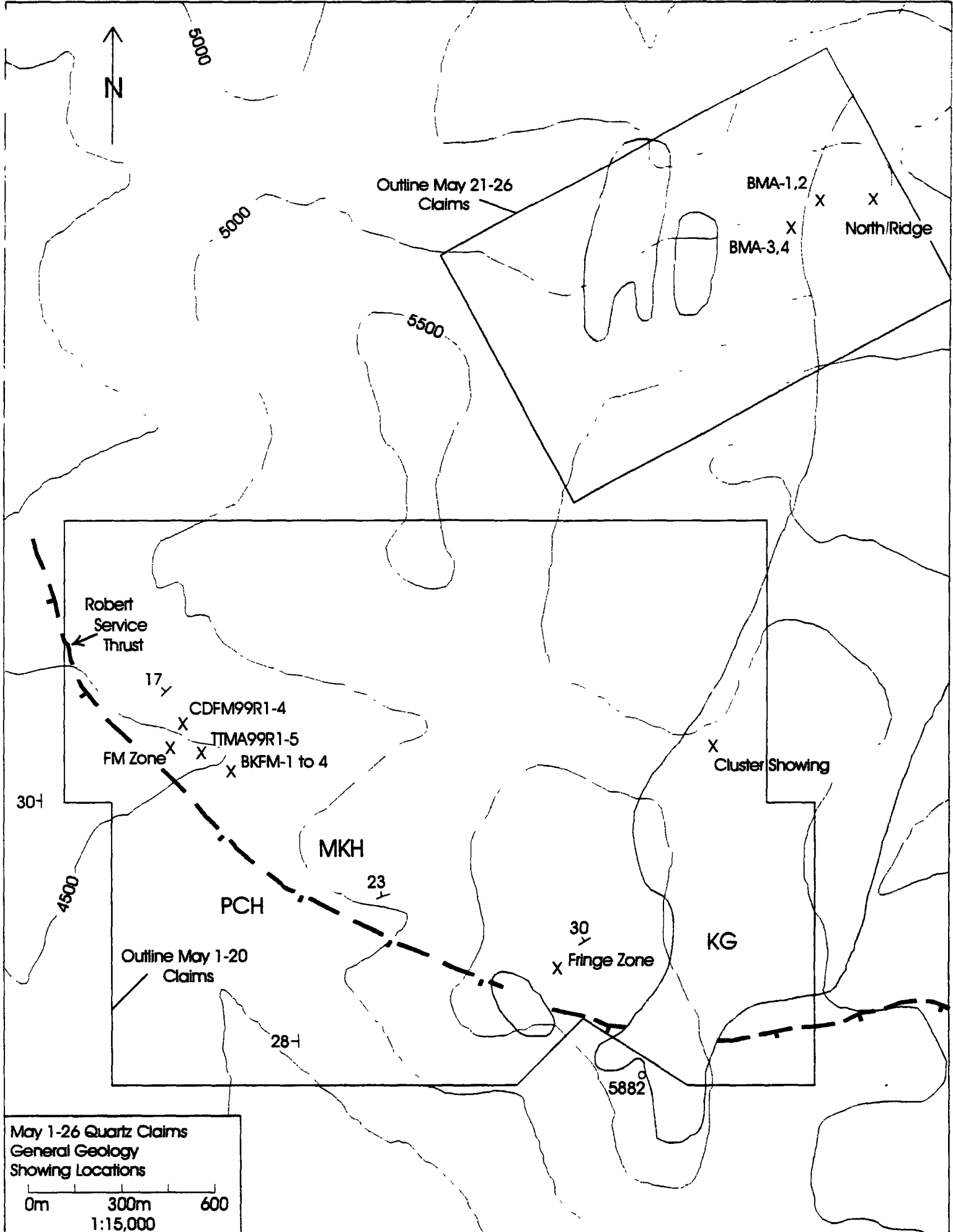
Outline May 1-20 Claims

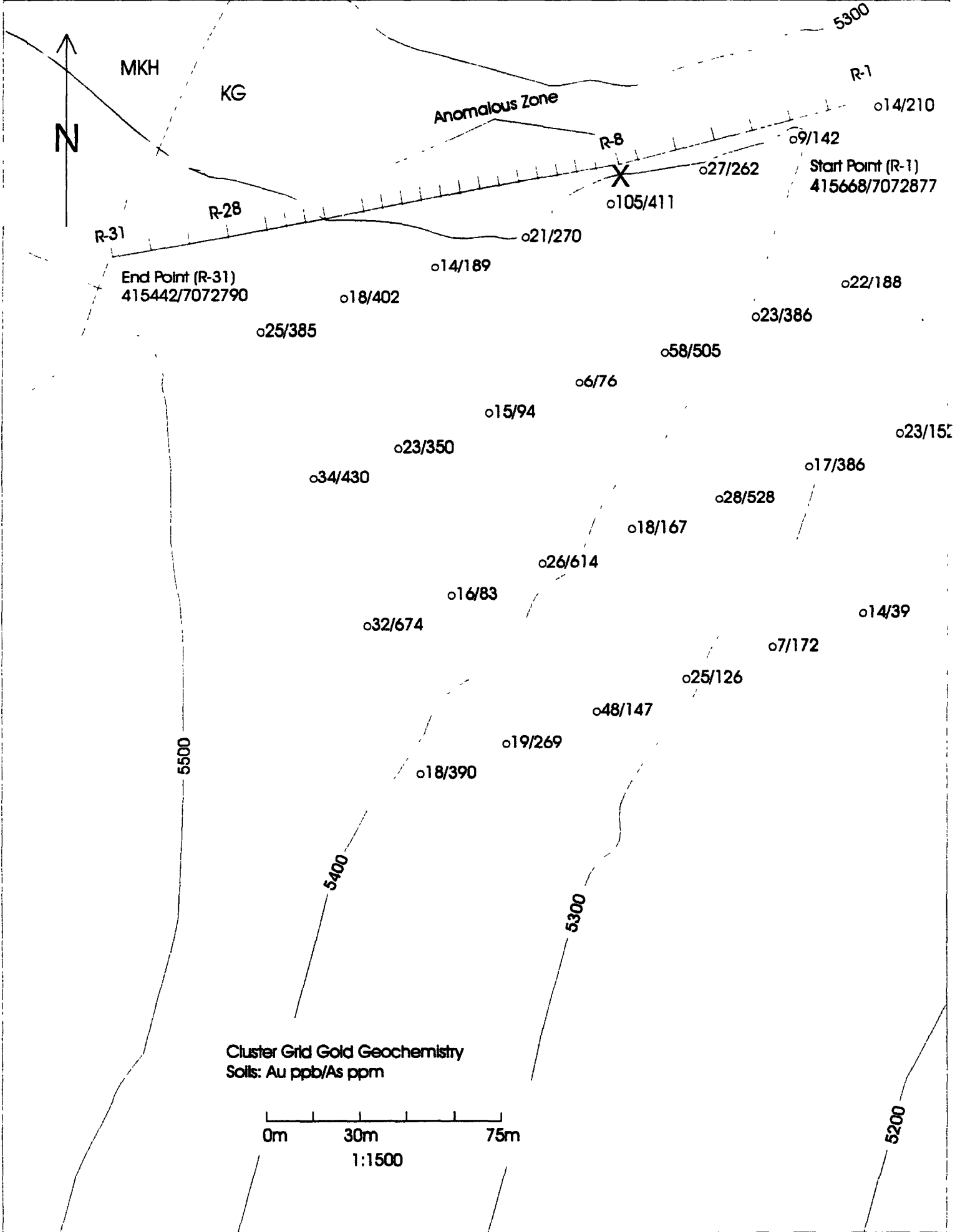
28<sub>h</sub>

5882

May 1-26 Quartz Claims  
General Geology  
Showing Locations

0m 300m 600  
1:15,000





MKH

KG

Anomalous Zone

R-1

14/210

R-8

9/142

27/262

Start Point (R-1)  
415668/7072877

105/411

R-31

R-28

21/270

End Point (R-31)  
415442/7072790

14/189

22/188

18/402

23/386

25/385

58/505

6/76

15/94

23/152

23/350

17/386

34/430

28/528

18/167

26/614

14/39

16/83

7/172

32/674

25/126

48/147

19/269

5500

18/390

5400

5300

Cluster Grid Gold Geochemistry  
Soils: Au ppb/As ppm

0m 30m 75m

1:1500

5200



# CERTIFICATE OF ANALYSIS

## iPL 00G0831

2036 Columbia Street  
Vancouver, B C  
Canada V5Y 3E1  
Phone (604) 879-7878  
Fax (604) 879-7898

INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories  
Project: W.O. 00080

**50 Samples**  
50=Pulp

[083115:58:05:00080100]

Out: Aug 01, 2000  
In : Jul 27, 2000

Page 2 of 2  
Section 1 of 1

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
R - 38	P 0.3	42	34	202	152	<	<	5	<	<	4.9	8	13	249	49	109	53	825	31	55	3	5	0.08	1.80	0.87	2.74	0.80	0.36	0.07	0.08
R - 39	P 0.2	46	10	160	1367	<	<	2	<	<	4.5	11	12	383	<	118	58	435	34	67	2	5	0.14	1.88	0.63	2.87	0.82	0.54	0.11	0.08
R - 40	P 6.0	147	593	302	400	<	<	3	<	<	12.3	13	12	348	14	116	60	511	35	99	1	5	0.14	2.25	0.80	3.00	0.87	0.78	0.15	0.08
R - 41	P 6.4	1104	26	135	5250	<	<	1	<	23	6.0	23	9	135	124	105	54	614	26	47	1	5	0.10	2.03	0.52	3.71	0.82	0.46	0.09	0.07
R - 41A	P 0.1m	6626	154	150	5.0x	<	<	5	<	<	12.7	19	11	<	262	102	20	201	9	30	2	1	0.01	0.59	0.07	7.59	0.23	0.07	0.01	0.03
R - 41B	P 1.3	95	10	45	7942	<	<	91	<	18	2.3	25	4	10	40	140	13	121	4	23	1	1	0.01	0.37	0.07	1.64	0.18	0.07	0.02	0.01
R - 42	P 0.3	66	18	81	1.6x	16	<	6	<	<	4.6	20	8	56	41	92	33	239	18	196	1	3	0.04	1.81	0.80	2.78	0.44	0.35	0.14	0.08
R - 42A	P 0.5	92	17	46	2.4x	21	<	2	<	<	4.8	28	9	31	28	87	27	217	19	121	2	3	0.02	1.31	0.51	3.10	0.30	0.14	0.08	0.06
R - 43	P <	11	9	47	6191	6	<	10	<	<	2.5	14	5	104	10	101	16	269	8	48	1	2	0.02	1.26	0.68	1.56	0.37	0.19	0.14	0.02
R - 44	P 0.2	7	21	94	2.8x	26	<	8	<	<	4.8	16	11	35	344	91	48	273	17	96	1	4	0.07	1.97	0.88	3.51	0.62	0.57	0.15	0.07
R - 45	P <	16	20	94	239	<	<	5	<	<	3.7	12	9	441	10	102	59	347	28	175	1	3	0.16	2.43	0.95	2.34	0.85	0.68	0.13	0.09

Min Limit 0.1 1 2 1 5 5 3 1 10 2 0.1 1 1 2 5 1 2 1 2 1 1 1 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01  
 Max Reported\* 99.9 20000 20000 20000 9999 999 9999 999 999 9999 99.9 9999 9999 9999 999 9999 9999 9999 9999 9999 9999 9999 9999 1.00 9.99 9.99 9.99 9.99 9.99 5.00 5.00  
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27/07/2000

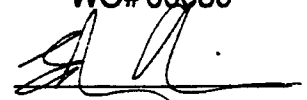
Certificate of Analysis

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Bernie Kreft

WO# 00080

Certified by



Sample #	Au ppb
r R-1	112
r R-2	93
r R-3	17
r R-4	28
r R-5	46
r R-6	25
r R-7	45
r R-8	241
r R-9	70
r R-10	427
r R-11	480
r R-12	240
r R-13	89
r R-14	453
r R-14A	1791
r R-15	109
r R-16	46
r R-17	147
r R-18	67
r R-19	210
r R-20	139
r R-21	46
r R-23	55
r R-24	51
r R-25	21
r R-26	13
r R-26A	19
r R-27	442
r R-28	27
r R-28A	29

27/07/2000

Certificate of Analysis

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Bernie Kreft

WO# 00080

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Sample #	Au ppb
r R-29	515
r R-30	46
r R-31	19
r R-32	6
r R-32A	<5
r R-33	702
r R-34	24
r R-35	83
r R-37	23
r R-38	8
r R-39	24
r R-40	26
r R-41	153
r R-41A	692
r R-41B	1255
r R-42	297
r R-42A	405
r R-43	237
r R-44	437
r R-45	18