Claymore Creek from its headwaters. View is to the north towards Ladue River. Great Bear Creek is indicated by the arrow. March 1976.

Headwaters of Great Bear Creek - view from the north. This picture encompasses the AUG claims and part of the GBM. July 1976.

View from the headwaters of Great Bear Creek looking northeast. This shows the lower and wider section of the creek where it joins Claymore Creek. This section of creek is now covered by the GBM claims.
July 1976.

120038

ASSESSMENT AND EVALUATION REPORT ON

Aug, GBM, Rich and Fish PLACER CLAIMS

GREAT BEAR CREEK and CLAYMORE CREEK

LADUE RIVER AREA, YUKON TERRITORY

WHITEHORSE MINING DISTRICT

Aug 1 - 16	P3314 - 3327
	P3233 - 3234
GBM 1 - 18	P3304 - 3313
	P3222 - 3227, P3235
Rich 3 - 86	P3192 - 3221
	P3380 - 3433
Fish 1 - 5	P3359 - 3363

Latitude 63°07'N Longitude 140°50'W
Placer Claim Sheet 115N/2

J. Michael Kenyon September 17th, 1976

TABLE OF CONTENTS

INTRODUCTION

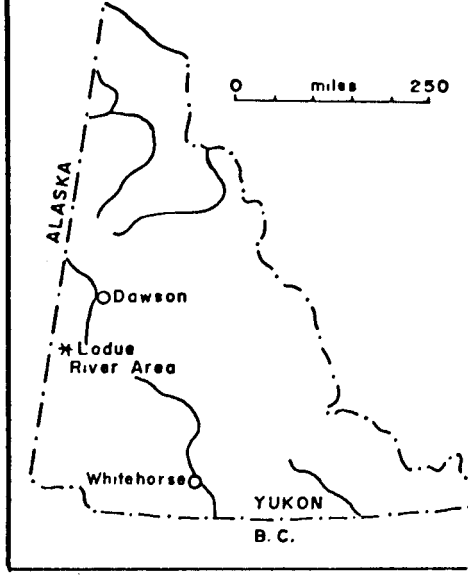
Great Bear and Claymore Creeks are within the Ladue River area of the Yukon (Map 1). The Aug, GBM and Rich placer claim groups were investigated during the period July 27 to August 4, 1976. A sketch of the claim location is presented on Map 2.

PHYSIOGRAPHY AND ACCESS

Great Bear Creek drains an area of 6 square miles of the eastern slope of the Moosehorn Range and flows easterly to Claymore Creek some 5 miles distant. The headwaters begin at an elevation of nearly 4,000 feet and the creek has a gradient of about 700 feet per mile for the first three miles. Thereafter it flattens abruptly and for the remaining two miles to Claymore Creek, the gradient is approximately 150 feet per mile. The slope inflection point occurs nearly at the boundary of the GBM and Aug claim groups. At this point, the valley floor broadens from a narrow 200 foot width to approximately 1500 feet.

Claymore Creek has an average gradient of 50 feet per mile. The alluvial valley floor averages 2,000 feet in width. It is the major drainage basin for the eastern side of the Moosehorn Range and flows northerly to the Ladue River some 8 miles north of the junction of Great Bear Creek and Claymore Creek.

During November, 1975, a road was constructed from the base camp on the west side of the Moosehorn Range to the junction of Great Bear and Claymore Creeks. During the period of July 27 to August 4, 1976, this road was upgraded, and extended along Great Bear Creek tributaries and down Claymore Creek for approximately three miles. This road provides an adequate route for tracked vehicles and equipment. In addition, the bulldozer cleared helicopter landing sites along Great Bear Creek.



LADUE RIVER

CLAYMORE CREEK

ALASKA

YUKON

CREEK

GREAT BEAR

MOOSEHORN RANGE

KENYON CREEK

SWAMP CREEK

CREEK

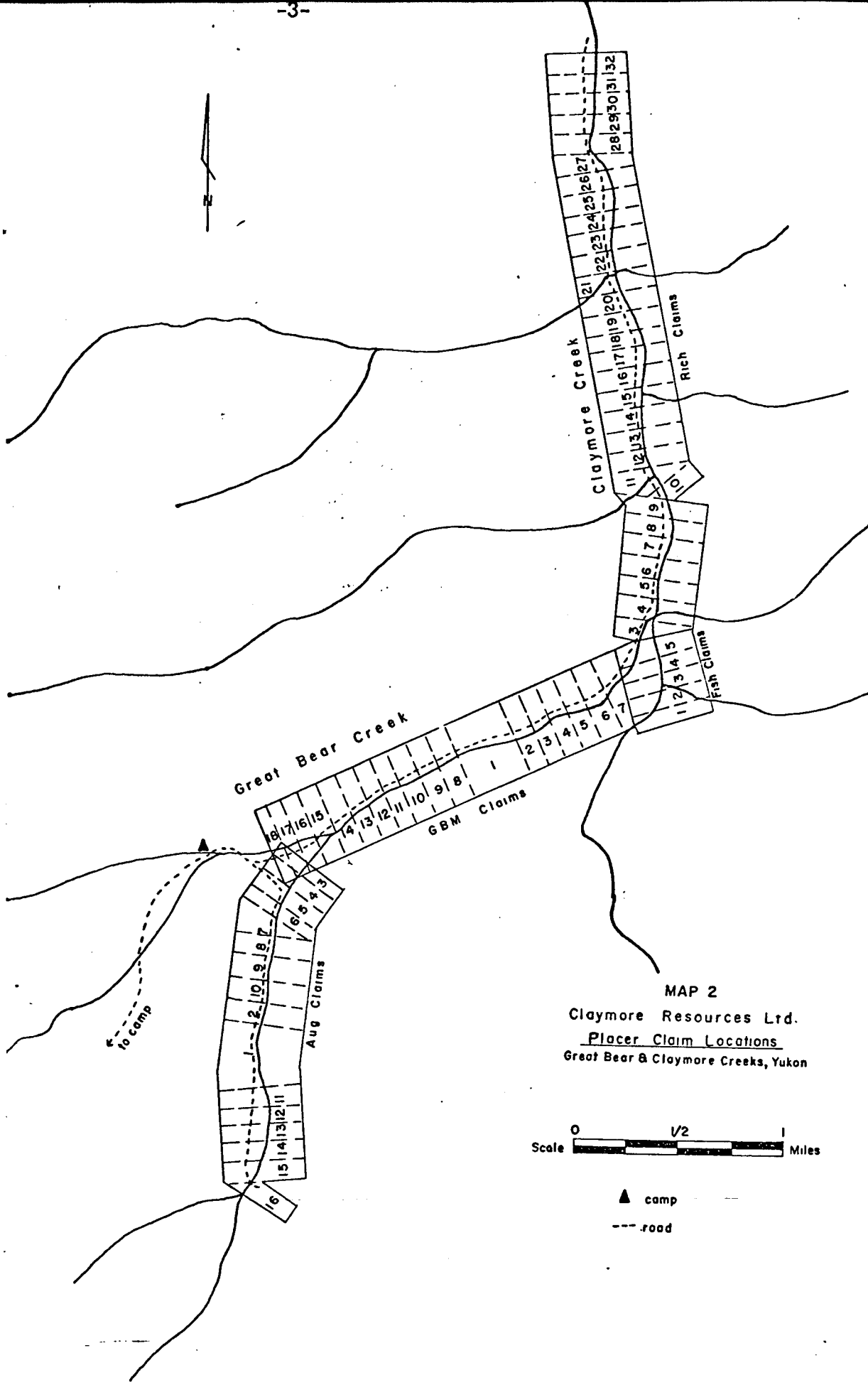
SCOTTIE

63°
141°

N

MAP I
CLAYMORE RESOURCES LTD.
PLACER CREEK LOCATIONS
LADUE RIVER AREA, YUKON

Scale 0 1 2 Miles



MAP 2

Claymore Resources Ltd.

Placer Claim Locations

Great Bear & Claymore Creeks, Yukon

GEOLOGY

The Ladue River area is within a large unglaciated sector of the Yukon, known as the Klondike Plateau. The topography is a maze of deep, broad valleys separated by long smooth-topped ridges, the result of over 30 million years of uninterrupted weathering. The area is greater than 90% overburden with rock exposures generally limited to ridge tops. Available exposures are not solid outcrop but rather they consist of felsenmeer rubble and frost-shattered blocks.

Part of the extensive Klotassin batholith, an equigranular biotite hornblende granodiorite of probable Triassic age, underlies the area (Tempelman - Kluit, 1974). A fine-grained felsic aplite and a feldspar porphyry are also apparent, but due to the nature of the outcrop, their relationship to the granodiorite is not known. Gold-bearing quartz veins are exposed on the summit of the Moosehorn Range but the frequency and overall extent of the veins, apart from those at the summit, is not known. The vein mineralogy consists of arsenopyrite, galena, sphalerite, sulphosalts (possibly boulangerite) and coarse native gold in a milky quartz gangue. The veins strike NNW and dip gently to the east, coincident with the major joint pattern of the intrusive.

The gravels of both Great Bear and Claymore Creeks are well-rounded and well-sorted, except in the upper reaches of Great Bear Creek. The material encountered consists almost entirely of the above-noted rock types including quartz pebbles and cobbles. Some of the quartz material is mineralized with arsenopyrite and galena, but no free gold was noted.

Gravel is exposed only in the stream channel. Elsewhere, trenching has shown that the gravel is overlain by 2 to 6 feet of black organic muck and clay, which, in turn, is overlain by 1 to 2 feet of vegetation. All material is frozen beneath the vegetation cover, presumably to bedrock. The highest portion of Great Bear Creek displays

. 5

GEOLOGY Continued

very poor-sorting and may be considered primarily eluvial in nature with only minor alluvial modification. The gravel in the lower section of the creek is truly alluvial. Claymore Creek appears to be totally alluvial in nature.

The composition of the gravels in the upper portion of Great Bear Creek reflects the poor-sorting of the material. Boulders constitute 30% of the volume, cobbles 25%, pebbles and gravel 20% and clay 25%. Thin, discontinuous clay seams were exposed by trenching. The boulders were probably rafted downslope to the stream channel rather than water transported. No compositional determinations of the gravels were made for Claymore Creek.

Downstream, as the sorting action of Great Bear Creek becomes more pronounced, the composition of the gravels changes. Boulders constitute 10% of the material, cobbles 35%, pebbles and gravel 35% and clay 20%. The gravel is well-rounded and the clay is dispersed uniformly throughout.

The upper portions of Great Bear Creek contain both coarse and fine gold within the gravels exposed by trenching. The gold is not sorted and very little settling has occurred. The lower sections of the creek have greater thicknesses of gravel and with bulldozer trenching in the permafrost, only the uppermost part of the gravels can be tested. Only fine gold was recovered from this section of the creek and the alluvial well-sorted nature of the material indicates that the bulk of the coarse and fine gold would have settled to lower depths. It is estimated that the depth of the gravel is in excess of 20 feet on the lower sections of Great Bear Creek.

SAMPLING

The locations of trenches and surface samples are presented on Map 3. Five trenches were excavated along Great Bear Creek, 40 to 50 feet away from the creek itself.

. 6

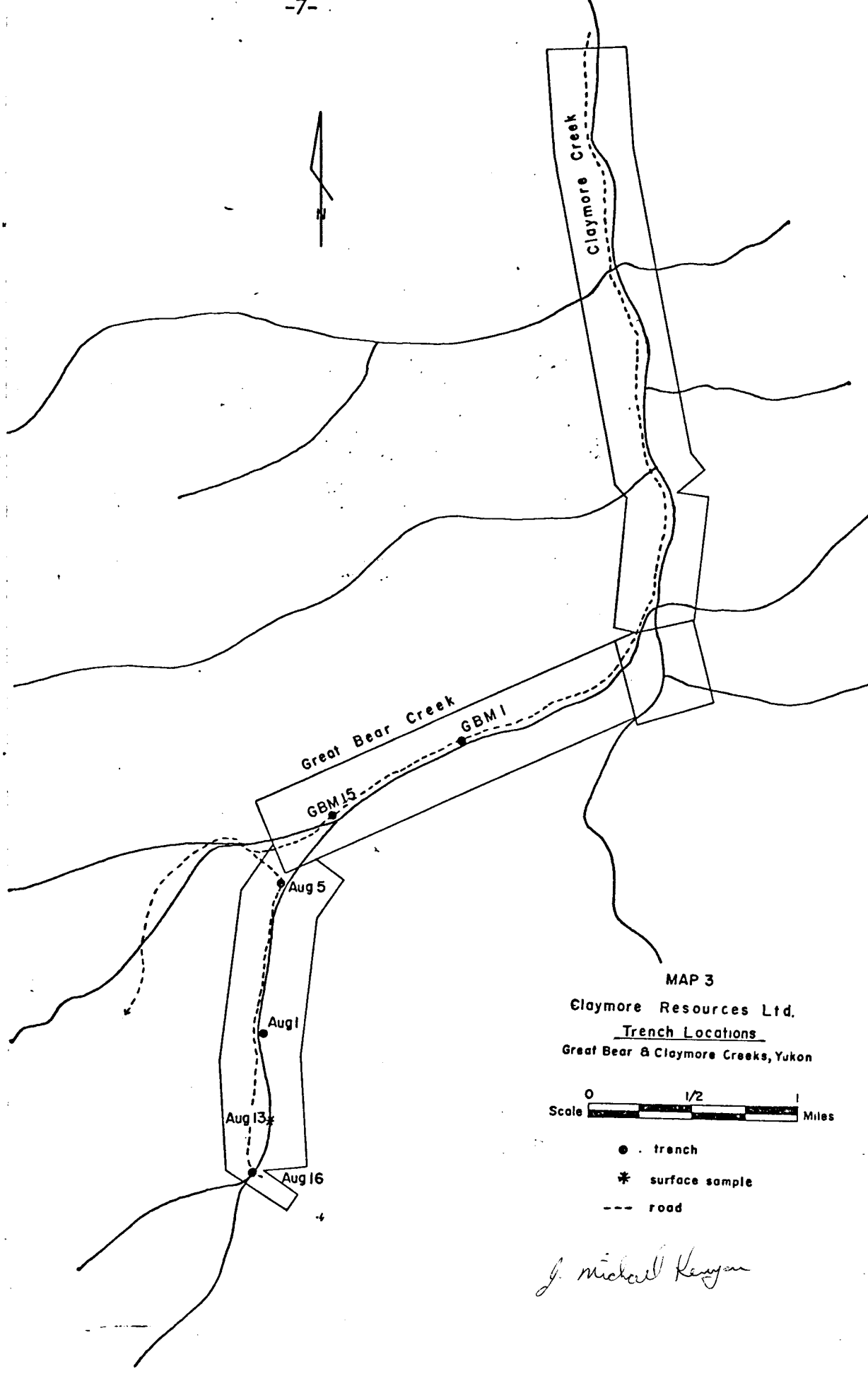
SAMPLING Continued

The work was accomplished with a Terex 82-40 bulldozer equipped with a heavy duty ripper. This machine is equivalent to a D-8 Caterpillar. Due to permafrost conditions all trenches were worked simultaneously in the hope that exposure would help to thaw the gravel. This met with only very limited success as a small amount of thawed material readily acts as insulation. Flooding from near-surface run-off was a problem. Apart from the uppermost trench, which was dug in unsorted gravel, gold-bearing gravels could not be reached with bulldozer trenching

The sampling procedure used consisted of sampling the gravels in 3 foot vertical sections along the horizontal length of the trench wall. According to Wells (1973), the minimum number of level full, standard pans to a cubic yard of gravel is 150. The standard pan measures 16 inches top diameter, 10 inches bottom diameter and has a depth of $2\frac{1}{2}$ inches. Ordinary gravel swells 25% when removed from place, while clay and gravel swells 35% (Wells, 1973, p191). A very conservative gravel swell of 20% was used and added to the minimum number of standard pans to give an approximate figure of 180 pans per cubic yard of gravel.

Shovel loads of gravel were taken at random within the 3 foot vertical section across the length of the trench, for an aggregate of 6 standard pans. A small shovel was used and approximately 5 shovel loads filled one standard pan. The material was washed down to a black sand concentrate in each pan, which was then further reduced by panning the aggregate concentrate. At this point, the magnetic fraction was removed and the non-magnetic material blown off. The gold was weighed and converted to ounces per cubic yard for each vertical 1 yard section. It is possible that gold loss occurred both in the panning process and in the final separation stage, indicating that values obtained are minimum grades.

. 7



MAP 3

Claymore Resources Ltd.

Trench Locations

Great Bear & Claymore Creeks, Yukon

Scale 0 1/2 1 Miles

● . trench

✱ surface sample

--- road

J. Michael Kenyon

SAMPLING Continued

Table 1 shows the dimensions of the trenches and Table 2, the values obtained from sampling.

Claymore Creek was not trench sampled due to the problems encountered with the lower portions of Great Bear Creek. Physically, the lower portion of Great Bear Creek resembles Claymore Creek and the thicker gravel cannot be adequately tested with bulldozer trenching. The gravel may be in excess of 30 feet. Several trenches were attempted but permafrost was encountered at very shallow depths. Significantly, some fine gold was panned from the gravel and point bars on Claymore Creek.

CONCLUSION

The gold source for Great Bear and Claymore Creeks appears to be the series of gold-bearing quartz veins within a biotite hornblende granodiorite, the major rock unit of the area. Minor concentrations of gold within the bedrock may also be a partial source.

Great Bear Creek provides a direct drainage from areas of known gold mineralization, while Claymore Creek provides the drainage basin for all the eastern side of the Moosehorn Range (including Great Bear Creek).

It has been determined that gold occurs in the gravels of both creeks but bull-dozer trenching is not an adequate means of fully assessing the economic potential. It is recommended that conventional placer drilling equipment be used to test the value of the gravels of both Great Bear and Claymore Creeks.

. 9

Table 1

TRENCH DIMENSIONS

Trench No.	Length (ft)	Width (ft)	Depth (ft)
GBM 1	70	26	$6\frac{1}{2}$ 455
GBM 15	80	30	6 530
Aug 1	80	35	8 830
Aug 5	70	22	5 285
Aug 16	120	24	7 750
			2845

Table 2

SAMPLE RESULTS

Trench No.	Interval (ft)	Grade (oz/yd^3)
GBM 1	0 - 6	Trace
GBM 15	0 - 6	Trace
Aug 1	0 - 8	Trace
Aug 5	0 - 5	Trace
Aug 16	0 - 3	0.11
	3 - 6	0.09
Aug 13*	Surface	0.04

* Active gravels sample (not trenched)

REFERENCES

Tempelman - Kluit, D. J., 1974. Reconnaissance Geology of Aishihik Lake, Snag and Part of Stewart River Map - Areas, West - Central Yukon; Geol. Surv. Can., Paper 73 - 41.

Wells, J.H., 1973. Placer Examination, Principles and Practice; U.S. Dept. Int. Bureau of Land Management, Tech. Bull. 4.

STATEMENT OF QUALIFICATIONS

I, J. Michael Kenyon of the City of Edmonton, in the Province of Alberta, hereby declare:

1) That I am a graduate of the Northern Alberta Institute of Technology, Edmonton, Alberta with a diploma in Geology (1970), and that I am a graduate of the University of Alberta, Edmonton, with a B.Sc. (Spec.) in Geology (1974). At present I am enrolled in a Masters program in Geology at the University of Alberta.

2) That I have worked in mineral exploration since 1969, mainly in a temporary capacity. In latter years my position has been that of Party Chief.

3) This report is based on personal knowledge of the Claymore property. I was Party Chief, largely responsible for the field operations of the 1976 sampling program.

Dated at Edmonton, in the Province of Alberta, this 27 day of September, 1976.

J. Michael Kenyon

J. Michael Kenyon, B.Sc.

STATEMENT OF QUALIFICATIONS OF SUPERVISING GEOLOGIST

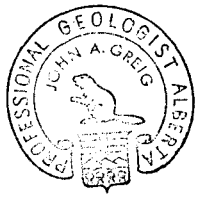
I, John A. Greig of the City of Edmonton, in the Province of Alberta, hereby declare:

1) That I am a Director and President of Claymore Resources Ltd.

2) That I am a Professional Geologist, registered in the Province of Alberta.

3) That the work described in this report by J. Michael Kenyon was carried out under my supervision.

Dated at the City of Edmonton, in the Province of Alberta, this 27 day of September, 1976



John A. Greig, B.Sc., M.Sc., P. Geol.

Schedule of Employees

Name & Address	Period of Employment & Position	Salary
Hartley, Glenn S. #2, 10710 - 127th Street Edmonton, Alberta	May 13 - August 20, 1976 (Geologist)	$1200/mo
Kenyon, J. Michael, B.Sc. 13906 - 101A Avenue Edmonton, Alberta	May 26 - September 17, 1976 (Party Chief)	$1250/mo
Kenyon, Neil F. 5603 Buckboard Road Calgary, Alberta	May 13 - June 6, 1976 (Assistant Geologist)	$ 475/mo
Rich, Anthony, B.Sc., P. Geol. 10947 - 86th Avenue Edmonton, Alberta	June 16 - June 23, 1976 (Geologist & Consultant)	$ 70/day
Greig, John A., B.Sc., M.Sc. #202, 11111 - 87th Avenue Edmonton, Alberta	May 28 - June 5, 1976 August 18 - August 20, 1976 (Supervising Geologist and Consultant)	$ 70/day