

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

PROJECT CLAYMORE - YUKON TERRITORY
CHURN DRILL PROGRAMME - 1978

120045

N.T.S. 115 N/2

Claim Numbers, Aug. 1-16, P3233-3234,
3314 - P3327
GBM 1-18, P3131, P3222-3227,
P3235, 3304-3313
FISH 1-5, P3359-3363
RICH 3-86, P3192-3221
P3380-P3433

Bench Leases: Val d'Or #1 - 4158, 1st, 2nd tier benches
Val d'Or #2 - 4159, 1st, tier bench

by:

M.P. Henrick, Ph.B. and D.M. Robertson, B.Sc.

Covering Work Carried out During the Period
July 4 to August 31, 1978

DATE DUE

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02/351

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SUMMARY

A keystone drilling programme was completed on the Claymore property between June 2 and September 3, 1978, to assess the potential of the auriferous gravels within the area.

Six holes were drilled to a total footage of 396 feet by Canadian Occidental Petroleum Ltd. personnel. Holes were located on all major tributaries draining into Claymore Creek from the Moosehorn range to the west at or near the point where these tributaries joined Claymore Creek. All of the holes contained insignificant gold values. The gold became finer and waned very quickly downstream.

Gravels throughout the area were found to be in excess of 60 feet with a layer of angular to sub-angular boulders up to 4 feet in diameter encountered in most of the holes at a depth of around 30 feet. Only one hole, C-3-78, actually reached bedrock.

There was no evidence of enrichment from any of the tributaries flowing into Claymore Creek. Thus, the only source of gold lies in Brandt Peak and the greatest gold values will lie within the upper reaches of Great Bear Creek.

INTRODUCTION

The objective of the 1978 churn drill program was to indicate whether sufficient gold is present on Claymore and Great Bear Creeks to support a profitable dredging operation and to determine whether further exploration work would be warranted.

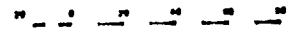
Free gold occurs in quartz veins on Brandt Peak. This is the local lode source for the eluvial and alluvial gold presently being mined at Kenyon Creek on the west side of the Moosehorn Range. As Claymore Creek and its tributaries drain the whole of the east side of the Moosehorn Range and the geology was thought to be similar, it was felt that this would be an ideal location for the accumulation of alluvial gold. The broad valley and low gradient of Claymore and lower Great Bear Creeks combined with the large volume of alluvial gravels present would provide ideal conditions for a dredging operation.

The Claymore property consists of 123 placer claims and 2 bench leases located on Claymore and Great Bear Creeks. Exploration was carried out under a Joint Venture agreement with Claymore Resources Ltd. of Edmonton, the owners of the placer claims.

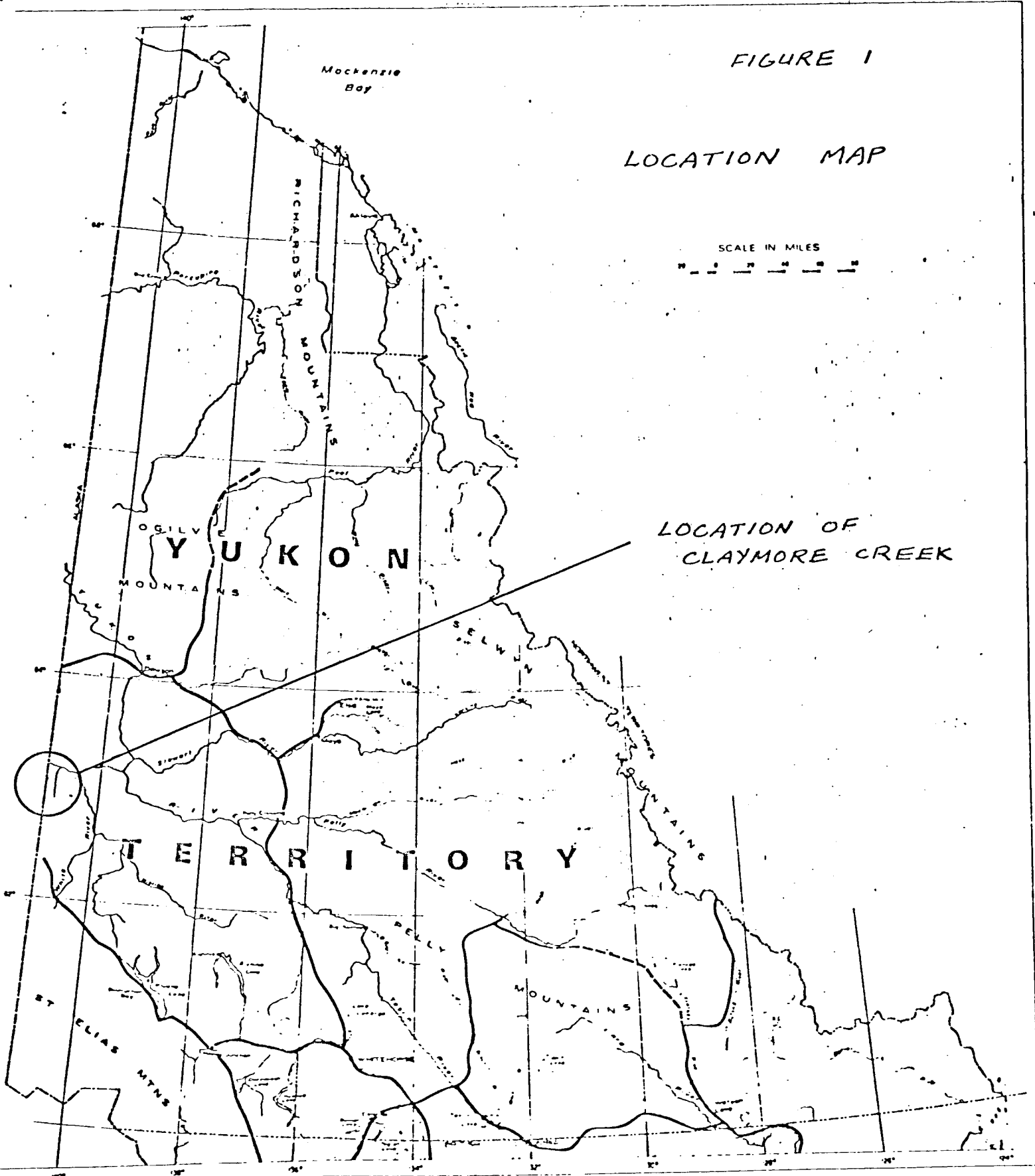
FIGURE 1

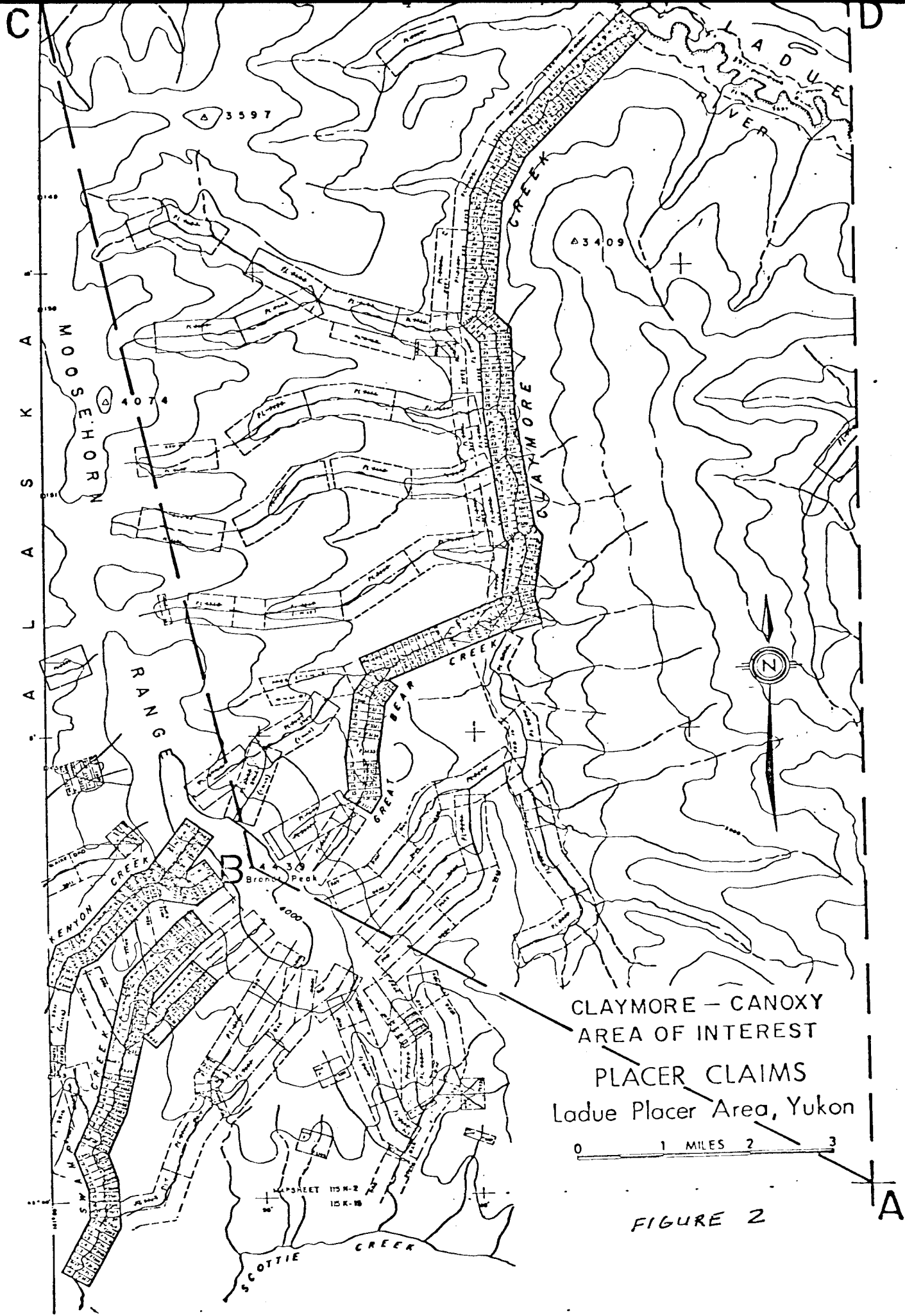
LOCATION MAP

SCALE IN MILES



LOCATION OF CLAYMORE CREEK





LOCATION AND ACCESS

The property is located in the Ladue River area of the Whitehorse Mining District in the Yukon Territory (N.T.S. map sheet 115 N/2 - Ladue R.). Claymore Creek flows northward into the Ladue River, parallel to, and about 6 miles distant from, the Alaska border.

Access to the property is via charter aircraft from Whitehorse (255 miles) or Dawson to the airstrip at the Claymore Resources Ltd. Kenyon Creek mine. A road suitable for tracked vehicles leads over the Moosehorn Range and then down to Great Bear Creek, to the first drill site, 4.5 miles away. There is also a winter road which follows Scottie Creek from the settlement of Beaver Creek 50 miles to the south on the Alaska Highway, to the airstrip at the mine.

PHYSIOGRAPHY

The Claymore Creek area is located within an unglaciated portion of the Yukon known as the Klondike Plateau. This region has undergone uplift and erosion since mid-Tertiary time which has produced a topography composed of smooth, rounded ridges of nearly concordant altitude separated by deep V-shaped valleys. Relief is approximately 2500 feet with summit elevations at about 4500 feet.

Claymore Creek is a 14-mile long creek which flows northward into the Ladue River and forms the whole of the drainage for the eastern side of the Moosehorn Range. It

has a drainage basin area of 85 square miles, an average gradient of 50 feet per mile, and a valley bottom width of approximately 2000 feet.

Great Bear Creek has a drainage basin area of 9 square miles and a length of 5 miles from its headwaters on the east side of Brandt Peak to its outlet 8 miles above the mouth of Claymore Creek. The gradient decreases from 1000 feet per mile at the head of the creek to 100 feet per mile at its confluence with Claymore Creek. The valley width broadens from 200 feet to 1500 feet and the gradient flattens abruptly at the slope inflection point just above the junction of the two main tributaries. It is from this point to the mouth of Claymore Creek 10 miles downstream that the valley is most suitable for dredging.

Permafrost was found to be less extensive than expected. Heavy sloughing occurred in several of the holes which necessitated using casing to stabilize the walls and prevent caving. It appears that within the permafrost there are unfrozen layers up to several feet thick along which some groundwater flow does occur. Up to 12 feet of frozen muck was found to overlie the gravels on the valley floor.

South facing slopes are well wooded with poplar, birch and spruce and have deep active zones and some soil development. North facing slopes have more extensive permafrost and generally consist of block talus covered by a thick layer of moss and scattered spruce trees.

Except for the stream banks, the valley floor is covered by a swampy meadow of grass and sedge tussocks which make travel on foot difficult. Slightly higher, better drained pads of silt and sand are commonly found immediately alongside the creeks. These areas support the heaviest growth of timber with spruce and poplar trees reaching 60 feet in height. These areas also make the best drill sites.

PREVIOUS WORK

During the summer of 1976, Claymore Resources Ltd. of Edmonton constructed a limited access cat road from the airstrip at Kenyon Creek over Brandt Peak and down Great Bear and Claymore Creeks. A total of five bulldozer trenches were attempted at this time on Great Bear Creek. These trenches were unable to reach bedrock due to permafrost conditions.

WORK COMPLETED

Transporting Equipment

During the period March 24 through April 7, the equipment required for the project including the Nodwell, drill rig and accessories, camp gear, plywood, and gold saver were shipped from Penticton to Beaver Creek, Yukon Territories. The majority of the equipment was trucked via transport using a single low boy. The remaining gear was driven to Beaver Creek during the same period in two 3/4 ton 4 x 4 trucks.

The equipment was then moved overland from Beaver Creek to the airstrip at Kenyon Creek, a distance of 50 miles. The Nodwell was used to freight the gear and fuel to the off-loading point at the airstrip where it remained until the start of the drilling programme on July 2, 1978.

Camp Construction

During the period July 5 through July 9 all the equipment was moved 4.3 miles from the airstrip to drill location C-1-78 and the camp was established. Four tent frames were constructed on heavy log skids which enabled them to be easily towed between drill sites.

Road Construction, Bridge Construction and Drill Site Preparation

A total of 9.8 miles of road were constructed from the airport at Kenyon Creek to the last drill hole location (C-6-78) at the point where the fourth and last major tributary north of Great Bear Creek draining the Moosehorn range runs into Claymore Creek. Approximately 5.7 miles of road were upgraded from previously existing Claymore Resources Ltd. roads. The remaining 4.1 miles of road was broken by the Nodwell. Three of the major tributaries were bridged utilizing the large timber growing along their banks.

Access Road breakdown.

Airport to C-1-78	4.5 miles
C-1-78 to C-2-78 -	1.5 miles
C-2-78 to C-3-78 -	.8 miles
C-3-78 to C-4-78 -	1.25 miles
C-4-78 to C-5-78 -	.75 miles
C-5-78 to C-6-78 -	1.0 miles

Drill and camp sites were cleared by hand using power saws to cut the brush and trees.

Keystone Drilling

Six holes were drilled for a total of 396 feet between July 10 and August 28, 1978. The locations of the holes are shown on Plan #1, Figure #3.

The holes were drilled by Canadian Occidental Petroleum Ltd. personnel using a modified Bucyrus-Erie T-22 cable tool drill owned by Canadian Occidental Petroleum Ltd. The names of Canadian Occidental Petroleum Ltd. personnel involved in the programme are listed in Appendix IV.

Casing

Holes C-1-78 and C-3-78 were drilled using an open hole method. Casing was used on holes C-2-78, C-4-78, C-5-78 and C-6-78 to help maintain the hole and stop sloughing in areas of discontinuous permafrost. As a result the casing was kept 2 feet or more above the bottom of the hole. The driller tried to work ahead of the casing and would only advance the casing when the hole started to slough. In many of the holes the driller was able to drill well ahead of the casing. Removal of the casing often became a problem as permafrost sections within the hole would freeze around the outer portion of the casing securely anchoring it in place.

Sampling

A 2-foot sample interval was used. Each 2-foot sample was bailed into a bailing trough and collected. This sample was run through the gold saver and concentrated. The concentrate was panned, cleaned and amalgamated. The amalgam

was digested in a .5 mole HNO_3 solution. The remaining sponge was shipped to Chemex Labs for annealing and weighing.

DRILL RESULTS

Keystone Drill Hole C-1-78

Keystone drill hole number C-1-78 was drilled to a depth of 64 feet on placer claim GBM 14, Tag #P3309, to test auriferous alluvial gravels on Great Bear Creek. Fine gold was encountered at the 8-foot level and continued to 64 feet. The gold appeared very fine and evenly distributed throughout with a gradual increase with depth. The hole was drilled open and much sloughing occurred due to discontinuous horizontal layers of permafrost which caused large averages and thus high volumes in many sections.

From 0 to 8 feet the hole encountered mainly silt. Between 8 and 9 feet the hole cut a sand layer. At nine feet the hole encountered gravel and coarse sand and remained in this formation to 32 feet. At 32 feet the ground became blocky and hard, probably due to large angular blocks of granodiorite. The cuttings from 32 feet to the end of the hole at 64 feet remained sand and angular gravel particles. The hole did not intersect bedrock.

Values for the hole reached a high of \$1.0193 per cubic yard over 2 feet from 40 to 42 feet based on gold at \$100.00* per ounce. The overall value for the hole from surface to 64 feet was \$0.1781 per cubic yard or .001781 ounces of gold per cubic yard.

*Values expressed in this report are based on gold valued at \$100.00 per ounce.

Keystone Drill Hole C-2-78

Keystone drill hole number C-2-78 was drilled to a depth of 60 feet on placer claim Fish #3, Tag #P3361, to test auriferous alluvial gravels on Claymore Creek just below the point where Great Bear Creek empties into Claymore Creek. Fine gold was encountered at the 5-foot level and continued to the end of the hole at 60 feet. The gold appeared fine and evenly distributed throughout. The hole was initially drilled open and was later cased because of sloughing due to discontinuous permafrost.

From 0 to 5 feet the hole encountered mainly silt. From 5 feet to the end of the hole the driller reported sand and gravel. At 31 feet the drill encountered hard, blocky ground which seemed to consist of large angular blocks of granodiorite up to 4 feet in size. The cuttings from 31 to the end of the hole at 60 feet appeared to be sand and coarse angular gravel. The hole did not hit bedrock. No nuggets were encountered.

Values for this hole were overall 8.5 times less than for hole C-1-78. The highest value of \$0.05193 per cubic yard occurred between 24 and 26 feet. The overall value for the entire hole from surface to 60 feet was \$0.02088 per cubic yard.

Keystone Drill Hole C-3-78

Keystone drill hole number C-3-78 was drilled to a depth of 120 feet on placer claim Rich #8, Tag #P3197, to test auriferous alluvial gravels on Claymore Creek at the point where the first major tributary north of Great Bear Creek

draining the Moosehorn Range runs into Claymore Creek. Fine gold was encountered at the 20-foot level and continued to a depth of 94 feet. Minor colours were noted between 94 feet and 120 feet but these were presumed to have fallen in from above. The gold was quite evenly distributed throughout with only a slight enrichment noted at the bedrock contact. The hole was drilled open because the continuous permafrost in this area was permanently frozen. The hole remained uniform in size and clean to the bedrock contact with only minor sloughing.

From 0 to 10 feet the hole encountered mainly silt. Between 10 and 16 feet the hole cut sand and small rocks. From 16 to 74 feet the hole intersected mainly sand and gravel with minor sections between 32 and 40 feet containing boulders. At 74 feet through to 94 feet the hole penetrated weathered bedrock consisting of soft angular fragments of granodiorite. From 94 feet to the end of the hole at 120 feet a shear zone was encountered. The cuttings from this section were white in colour due to abundant quartz and carbonate. Also noted in this section was abundant pyrite and a silver grey sulphide possibly stibnite or arseno pyrite. The hole definitely hit bedrock, between 74 and 94 feet. No nuggets were noted.

Values for the hole reached a high of \$0.13096 per cubic yard between 90 and 92 feet. It is suspected that this is very close to the bedrock contact and may represent a slight bedrock enrichment. Overall values from surface to the bedrock contact at 94 feet were \$0.01622 per cubic yard or .00016 ounces of gold per cubic yard. Values for this hole

were 1.29 times less than for hole C-2-78 and 10.98 times less than values for hole C-1-78.

Keystone Drill Hole C-4-78

Keystone drill hole number C-4-78 was drilled to a depth of 37 feet on placer bench lease Val d'Or #2 to test auriferous alluvial gravels on the second major tributary north of Great Bear Creek draining the Moosehorn Range into Claymore Creek. Fine gold was encountered at surface and continued to the bottom of the hole at 37 feet. The gold was very fine and quite evenly distributed throughout with an enrichment between 36 and 37 feet. The hole was started open and drilled to 20 feet at which point an unfrozen thixotropic layer of fine clay was encountered. The hole was then cased and the casing was driven without a casing shoe. This allowed the casing to collapse and the hole had to be abandoned at 37 feet.

From 0 to 12 feet the hole encountered mainly silt. Between 12 feet and 16 feet the hole intersected fine sand and gravel. At 16 feet to the end of the hole at 37 feet the hole encountered mainly fine sand, fine gravel and interspersed thixotropic clay layers. The hole did not intersect bedrock. No nuggets were encountered.

Values for the hole reached a high of \$0.0616 per cubic yard between 36 and 37 feet. Overall values from surface to 37 feet were \$0.01475 per cubic yard or 0.00015 ounces of gold per cubic yard. Values for this hole were 1.09 times less than for hole C-3-78, 1.95 times less than for hole C-2-78 and 12.07 times less than for hole C-1-78.

Keystone Drill Hole C-5-78

Keystone drill hole number C-5-78 was drilled to a depth of 64 feet on placer claim Rich 25 (P3214) to test auriferous alluvial gravels on Claymore Creek at the point where the third major tributary north of Great Bear Creek draining the Moosehorn Range runs into Claymore Creek. Fine gold was encountered at the 18-foot level and continued to 65 feet. The gold appeared very fine and evenly distributed throughout. The hole was cased to 46 feet and continued open to 64 feet although the last 6 feet sloughed badly.

From 0 to 8 feet the hole encountered mainly silt. Between 8 feet and 26 feet the hole cut through a section of mainly sand and gravel. At 26 feet to the bottom of the hole at 65 feet the hole traversed mainly coarse sand and gravel with interspersed clay layers.

The hole was drilled open to 22 feet at which point it began to slough and casing was used down to a depth of 46 feet. From 46 feet to the bottom of the hole at 65 feet the hole was drilled open. The last 6 feet from 59 feet to 65 feet the hole sloughed badly and had to be abandoned at 65 feet. The casing proved difficult to remove as it was frozen securely into the permafrost at around 20 feet. The hole did not intersect bedrock. No nuggets were encountered.

Values for the hole reached a high of \$0.1617 per cubic yard between 32 and 34 feet. Overall values from surface to 65 feet were \$0.012 per cubic yard or 0.00012 ounces of gold per cubic yard. Values for this hole were 1.23 times

less than for hole C-4-78, 1.35 times less than for hole C-3-78, 1.74 times less than for hole C-2-78 and 14.84 times less than for C-1-78.

Keystone Drill Hole C-6-78

Keystone drill hole number C-6-78 was drilled to a depth of 50 feet on placer claim Rich 36, tag number P-3383, to test auriferous alluvial gravels on Claymore Creek at the point where the fourth and last major tributary north of Great Bear Creek, draining the Moosehorn Range runs into Claymore Creek. Extremely fine flour gold was encountered from surface and continued intermittently throughout the hole to 49-foot level. The hole was initially started open and later cased. Sloughing due to unfrozen permafrost and clay created problems from the 16-foot level to the bottom of the hole at 50 feet.

From 0 to 14 feet the hole encountered mainly silt with minor amounts of small gravel. Between 14 and 20 feet the hole cut through a section of mainly sand and gravel. From 20 to 26 feet boulders were encountered. At 26 feet to the bottom of the hole at 50 feet mainly sand and gravel with clay layers were encountered. Minor sections of clay were thixotropic and some ground water seepage occurred causing heavy sloughing.

Overall values for the hole were extremely low yielding only \$0.0025 per cubic yard or 0.0002 ounces of gold per cubic yard. Values for this hole were 5.33 times less than for hole C-5-78, 6.55 times less than values for hole C-4-78, 7.21 times less than values for hole C-3-78, 9.28 times less than values for hole C-2-78 and 79.15 times less than values for hole C-1-78.

GENERAL GEOLOGY

The Claymore Creek drainage basin is underlain by foliated Triassic granodiorite of the Klotassin Batholith and older Precambrian or Paleozoic gneisses of the Yukon Metamorphic Complex. This area was mapped at a reconnaissance scale by D.J. Tempelman-Kluit (G.S.C. Paper 73-41).

There is very little outcrop. Exposures are limited to isolated tors along the ridges on the east side of Claymore Creek and felsenmeer above treeline and some talus on steep north-facing slopes. There is no outcrop on the majority of the lower, gentler sloping spurs on the west side of Claymore Creek. No mapping was done south of the confluence of Great Bear and Claymore Creeks. The rocks were divided into 3 main units as shown on Table 1.

Table 1

<u>Table of Formations</u>	
Age	Unit
Eocene?	3 porphyritic basalt dyke
Triassic?	2a weakly foliated, equigranular biotite-hornblende granodiorite
	2b well foliated, biotite-hornblende diorite
	2c fine grained, unfoliated, granodiorite
Paleozoic or Precambrian	1 fine grained, biotite granodiorite gneiss

Description of Rock Units:

Unit 1 is a fine-grained biotite-granodiorite gneiss which is compositionally similar to the younger biotite-hornblende

granodiorite intrusive but is more highly metamorphosed and structurally more highly deformed. These rocks belong to the Yukon Metamorphic Complex as described by Tempelman-Kluit and are thought to be of Paleozoic or Precambrian age.

The granodiorite gneiss exhibits compositional banding with quartzo-feldspathic interlayers and boudins. Small scale crenulations are common. Large scale folding has occurred about fold axes that plunge gently to the northwest. The foliation is generally north-easterly and predates the folding.

This unit outcrops along the spur east of hole C6-78 and at two localities to the west. It is possible that this unit extends further south along the Claymore Creek valley. Numerous garnets and fragments of mylonitized granodiorite gneiss were recovered from hole C2-78, but it is not known whether bedrock was reached. It may be that the creek valley has been cut down through the younger granodiorite intrusive to the underlying older rocks.

Unit 2 is the biotite-hornblende granodiorite intrusive which underlies the majority of the area. This unit is considered to be Triassic in age and is part of the extensive Klotassin Batholith. In composition it varies from a moderately foliated, medium grained equigranular granodiorite (Unit 2a) to a well foliated diorite (Unit 2b). There is also a fine grained, unfoliated granodiorite (Unit 2c) which is found interbanded with the diorite and in places makes up a large proportion of the felsenmeer. The fine grained granodiorite characteristically weathers to a felsenmeer of thin, angular flags.

GEOMORPHOLOGY

Claymore Creek has an assymmetric shaped drainage basin with a valley in valley profile. About 2½ times more drainage is derived from the west side of the basin than the east. The lowest point of the drainage divide is just over 2900 feet and occurs close to the head of Claymore Creek. This correlates with gently sloping portions of the spurs at 3000 feet on the west and 2600 feet on the east which may represent previous levels of the valley floor. Ddowncutting below this level appears to have been structurally controlled by a fault running along the east side of the valley.

The very linear nature of the steep east side of the valley which is readily apparent on aerial photographis is evidence for the presence of a fault. Kaolinitized fault gouge, bearing abundant pyrite, was intersected by the lower 26 feet of hole C3-78 at which point the otherwise straight hole developed a noticeable deflection towards the east. Strongly mylonitized rock fragments retrieved from hole C2-78 also indicate a fault zone. This fault can be extrapolated northward up the valley of the North Ladue River.

The lower reaches of Great Bear and Claymore Creeks contain well sorted and well rounded gravels. The material in the stream bed contains 10% boulders, 35% cobbles, 35% pebbles and sand and 20% silt and clay and is truly alluvial in nature. Claymore Creek has numerous sand and gravel bars on the inside of meanders, separated by shallow, bouldery riffles. All the holes encountered boulders or large clasts of weathered bedrock at various depths which would constitute

a hindrance to dredging operations.

The material in Great Bear Creek is composed almost entirely of the biotite-hornblende granodiorite, diorite and quartz. Claymore Creek contains the above rock types but also contains about 10% fine grained andesite and an increasing proportion of granodiorite gneiss downstream.

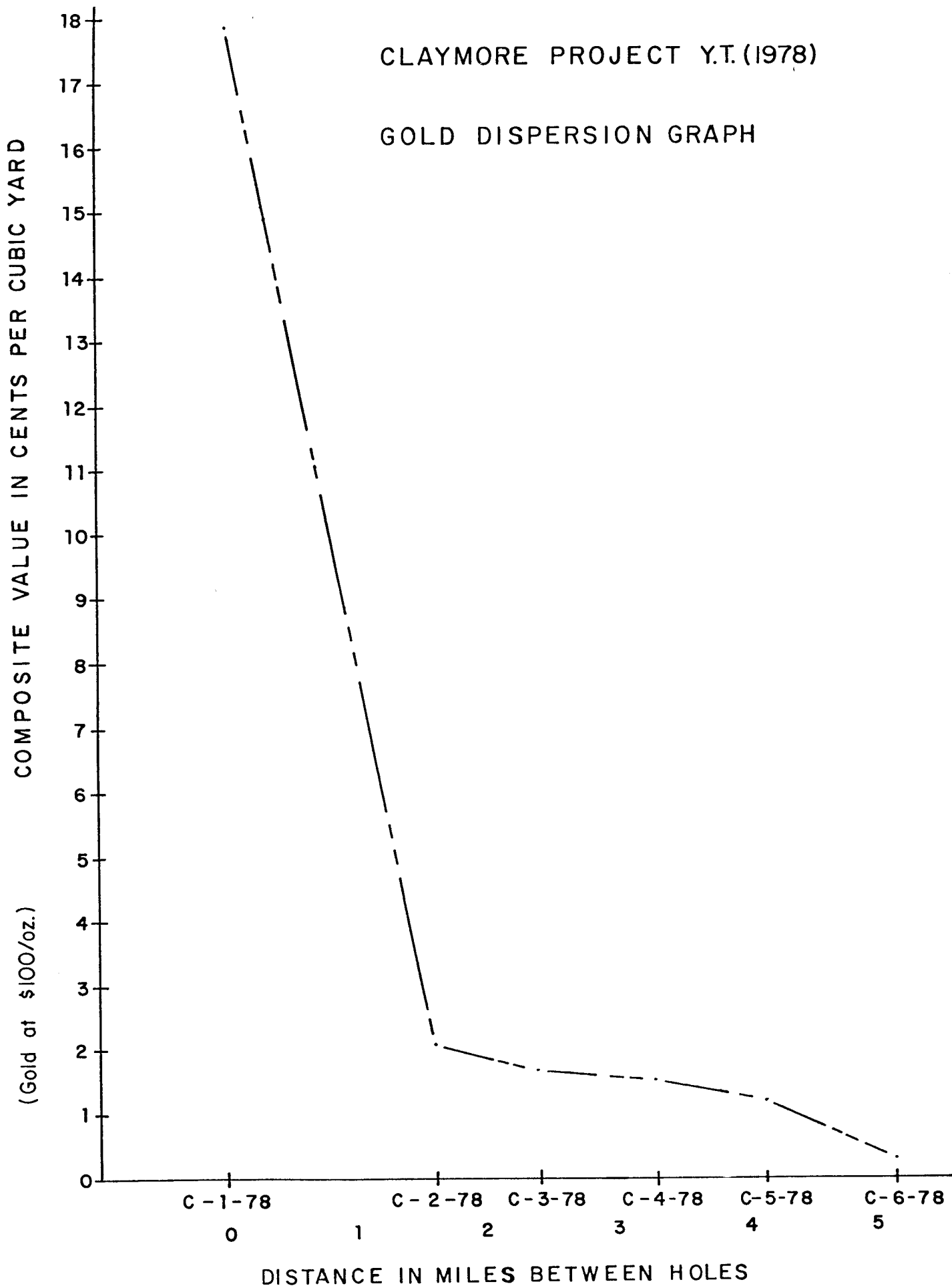
The gravels were much deeper than expected. C3-78 was the only hole which definitely reached bedrock, at a depth of approximately 90 feet. Originally, Claymore Creek must have been downcut to a lower base level. A rise in base level, probably due to regional drainage diversions, would have resulted in a corresponding accumulation of material in the valley. Much of the material in the valley is probably a mixture of alluvium washed down by the streams and colluvium derived from mass wasting of the surrounding slopes.

The present Claymore Creek is a misfit stream which is only depositing a narrow ribbon of material along the eastern side of the valley. The stream channel has probably always tended to lie on this side, due to the more easily eroded nature of the faulted rocks. Thus, any alluvial concentration of gold is most likely to lie along the eastern side of the valley.

Thixotropic silt was encountered in the active layer close to hole C4-78. This is a common phenomenon on slopes in permafrost regions. The silt is supersaturated and liquifies easily when agitated, readily flowing into any hole dug in it. Although C4-78 was located close to the creek on stable, well frozen ground, it appears that an unfrozen lense of the thixotropic silt was intersected and extensive

CLAYMORE PROJECT Y.T. (1978)

GOLD DISPERSION GRAPH



sloughing forced the abandonment of the hole. The hole was located on a slight rise in the valley floor which appears to be a solifluction lobe originating from the spur to the north. If possible, holes should be sited away from any such areas as the thixotropic silt seriously interferes with sampling whether by churn drill, trenching or shaft sinking.

DISCUSSION OF RESULTS

The first hole on Great Bear Creek, just below the two main forks, has 7 times as much gold as the second hole which was drilled just below its mouth on Claymore Creek. The second hole, in turn, has twice as much gold as the other holes further down Claymore Creek. The gold is fine and becomes finer downstream. Most of the gold recovered at hole C6-78 could be classed as flour gold. Generally, there is not a significant concentration of gold with depth, rather the fine gold is dispersed throughout the gravel. The auriferous gravel from Great Bear Creek is diluted when it reaches Claymore Creek by the much greater volume of barren gravel being washed down from the upper reaches of Claymore Creek. This would account for the sudden drop in grade. There is no enrichment from the tributaries entering Claymore Creek further downstream.

Claymore Resources Ltd. reported gold values of up to 0.11 oz/cu.yd. from trenches on the upper reaches of Great Bear Creek. Thus it appears that the majority of the gold has been trapped in the upper reaches of the creek and has

not been transported downstream and concentrated by alluvial action.

CONCLUSION

The churndrill programme confirmed the presence of significant gold values too low to support a dredge operation. The gold became finer and waned quickly downstream, but still appeared fresh displaying a definite bulk. There was no apparent enrichment from any of the major tributaries or from a concentration at the bedrock interface. It appears that the only source of gold lies on Brandt Peak and thus the greatest values will lie within the upper reaches of Great Bear Creek unattainable for a dredge operation.

RECOMMENDATIONS

It is recommended that no further work be performed on this property and the option agreement with Claymore Resources Ltd. of Edmonton should be dropped.

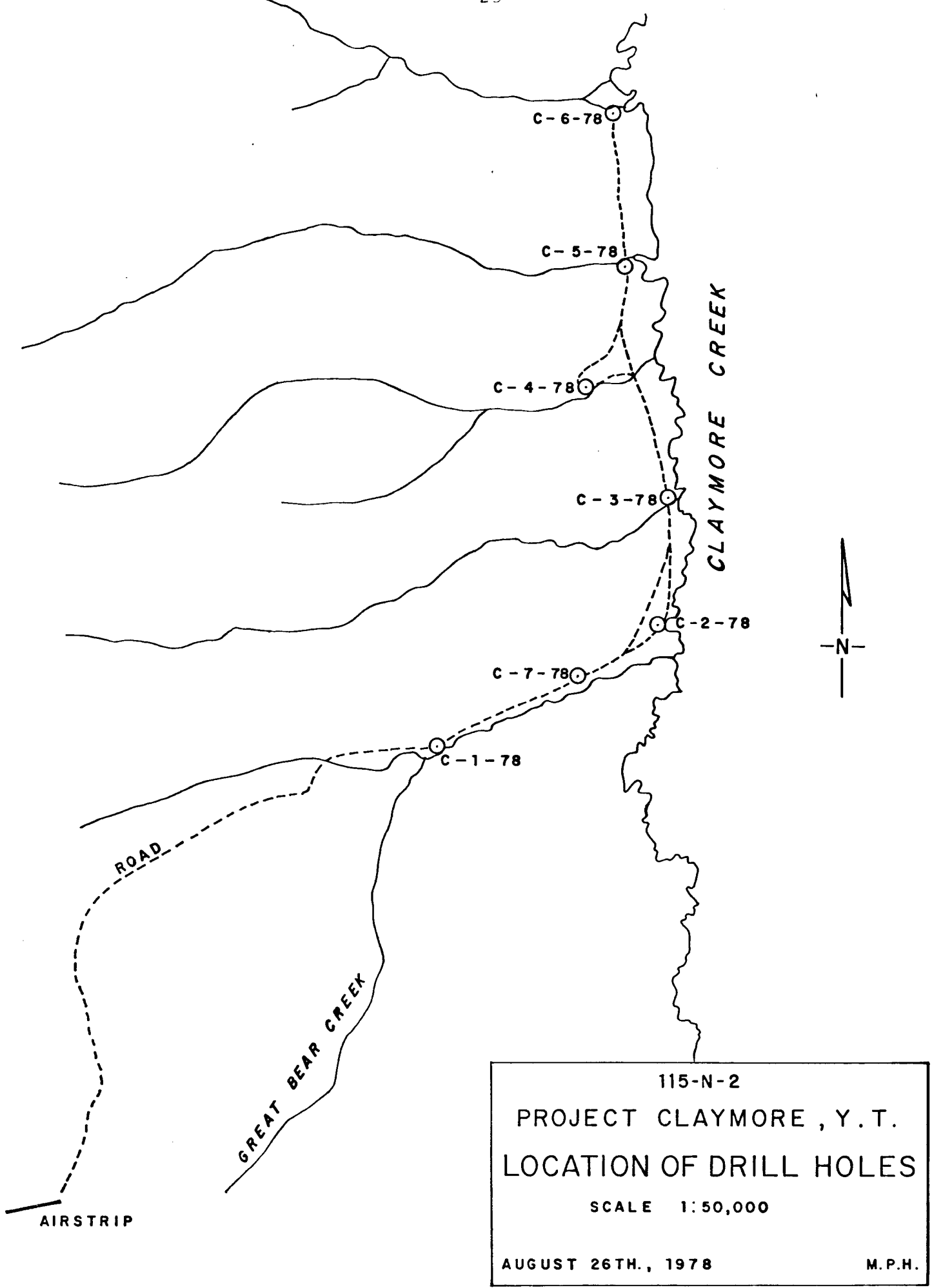


D.M. Robertson, B.Sc., Geologist



M.P. Henrick, B.Ph., Project Manager

November 30, 1978



C-6-78

C-5-78

C-4-78

C-3-78

C-2-78

C-7-78

C-1-78

ROAD

GREAT BEAR CREEK

CLAYMORE CREEK

AIRSTRIP



APPENDIX I

Drill Logs

Drill Logs Project CLAY MINE Line No. Hole No. C-1-78
 Location: GSM 14 (P3309)

Elev. Surface 2000 ft. Coordinates Date Started July 10 1978
 Elev. Bottom MS ft. DEPTH Date Finished July 11 1978

DRILL DATA Water Level ft TIME LOG
 Make Bucyrus - ERIE T-22M Overburden ft Moving hrs
 Casing ID in Gravel ft Drilling hrs
 Casing Area sq ft Top Bedrock ft Pulling hrs
 Drive Outside in In Bedrock ft Delays hrs
 Shoe Start in Total drilled ft Total hrs
 Dia Finish in MINING SECTION ft

EFFECTIVE AREA Effective Area sq ft Au Wt. Actual mg Au Wt. Corrected mg
 Au Wt. Aver. mg per cu yd Raw Gold Value ¢ U.S. per mg
 Au Aver. Value ¢ per cu yd

FACTORS Drive Shoe Au Fineness \$US/fine oz
 Casing Au Value \$US/fine oz
 Theor. Rise of Core ft per ft of drive
 Theor. Box Vol. cu ft per ft of core pumped

CALCULATED VALUES FORMATION SYMBOLS
 L loam Cl clay Ls loose G gravel
 F fine BR bedrock S sand C coarse
 A angular B boulder Ce cemented
 R rounded

Date	Sample Number	Depth Drive Ft.	Core		Meas. Vol. Cu.Ft.	Colors			Flour	Est. Wt. Au mg			Remarks Formation
			Before Pumping	After Ft.		1	2	3		Field	Corr	Eng	
July 10	1A	0-8									.05		SILT
	2A	8-9					1				.52		SAND
	3A	9-10					2				.36		GRAVEL
	4A	10-12					2				.47		C+S+G
	5A	12-14					4				.85		S+G
	6A	14-16					3				.12		S+G
July 11	1B	16-18			1.0						.86		S+G
	6B	18-20									1.13		" "
	2B	20-22			1.4						4.95		" "
July 13	3B	22-24			1.1	5					1.07		" "
	4B	24-26			1.1	5					1.12		" "
	5B	26-28			.7	3					1.17		" "
	1C	28-30			1.4	5					5.09		" "
	2C	30-32			.8	6					2.04		" "
		32-33											" "
July 14	3C	33-34			.3	5					1.18		C.S. } HARD
	4C	34-36			.3	4					1.26		S+G } HARD
	5C	36-38			.45	4					1.94		C.S. }
	6C	38-40			1.3	12					1.54		S+G
	1D	40-42			.55	20					11.16		" " Fineness (B14)
July 15	2D	42-44			.40	7					2.12		" "
	3D	44-46			.20	9					1.29		" "
	4D	46-48			.5	8	1				1.88		" "
	5D	48-50			1.42	3					.43		" "
	6D	50-52			.7	14					3.43		" " Small Pores
	1E	52-54			1.18	18					2.40		" " Small Pores

Weight of Magnetic Material:

Notes: Drive Shoe Factor = area within effective cutting edge of shoe/area inside of casing. Casing Factor = unit of volume/area within effective cutting edge of shoe.

Driller ARNOLD FALK Panner JACK PEATT. Engr. HENRIK + ROBERTSON.
 Calculated by Date Line No. Hole No.

Project CLAYMORE

Line No. _____ Hole No. C-1-78

Date	Sample Number	Hq.	Depth Drive Ft.	Core		Meas Vol. CuFt.	Colors			Flour	Est. Wt. Au mg			Remarks Formation
				Before Pumping	After Ft		1	2	3		Field	Corr	Eng	
	2E	✓	54-56			1.1	6					2.54		G+S + small Rocks.
4/16	3E	✓	56-58			.6	5					1.80		S+G + Boulders
	1F	✓	58-60			.5	13					1.78		" "
	2F	✓	60-62			.7	4					1.46		Boulders
1/17	3F	✓	60-62			.4	11					2.06		Slough
	4F	✓	62-64			.2	1					.64		
	5F	✓				.23	20					2.96		Hole SAVED Dry.
	6E	✓	CORROSION CLEANUP #2			.2	6					.03		
	5E	✓	CORROSION CLEANUP #1			.25	4					1.15		
	4E	✓	CARPET CLEANUP				4					1.02		
	1C	✓	Dump Tub CLEANUP			1.7	4					.94		
	2B	✓	BLACK SAND CLEANUP After AMARONIN									.70		
<p>- PANNER DID NOT MEASURE VOLUMES FROM 6-16 FEET</p> <p>- REQUIRED 25.48 Cubic feet of H₂O to FILL HOLE.</p> <p>- Hole did not intersect bedrock</p>														
<p>End of Hole 64 Michael P. Smith.</p>														

Project CAYMORE

Line No. _____ Hole No. C-2-28

Date	Sample Number	Depth Drive Ft.	Core		Meas Vol. CuFt.	Colors			Flour	Est. Wt. Au mg			Remarks Formation
			Before Pumping	After Ft		1	2	3		Field	Corr	Eng	
	5F	✓ 38-40			1.2	5					.50		CHANGED TO ROCK BIT REAMED
	6F	✓ 40-42			.7	2					.42		S+G
	16	✓ 42-44			.5	6					.58		" "
	26	✓ 44-46			2.3	5					.57		" "
	36	✓ 46-48			1.1	3					.05		" "
	46	✓ 48-50			1.2	4					.40		" "
	56	✓ 50-52			1.5	4					.77		" "
	66	✓ 52-54			1.3	3					.05		" "
	1H	✓ 54-56			2.5	4					.41		" "
	2H	✓ 56-58			1.45	3					.38		" "
	3H	✓ 58-60			1.2	2					.23		" "
	4H-SH	✓ WASHING	Tub CLEANUP		.2						.02	1.68	
	6H.	✓ COROROY	CLEAN UP			2					.04		
			<p>- Cuttings from last run contained highly altered thinly foliated granitic gneiss - fragments sand. - Possibly but fractured altered bedrock at 31.0</p> <p>- USED 1 Sluice box set at 1/2" to 1/4 foot grade - COVERED WITH Medium Wale Cotton COROROY AS AN ADDITIONAL TRAP ON GOLD SAVER DISCHARGE.</p> <p>- COMBINATION CASED + OPEN HOLE METHOD USED - 28' 8 1/2" CASING USED</p> <p>- DUE TO ABUNDANT CAVE IN THE HOLE AN HD VOLUME CHECK WAS NOT DONE</p> <p align="center">END OF HOLE 66'</p> <p align="right">Michael V. Henrich.</p>										

Project CLAY MORE

Line No. _____

Hole No. C-3-7B

LOCATION: CLAIM # RICH B (P3197)

Elev. Surface 1720 ft. Coordinates _____ Date Started July 30 19 78

Elev. Bottom MS _____ ft. DEPTH _____ Date Finished August 4 19 78

DRILL DATA

Make BUYRUS-ERIE -7.22 M. Water Level _____ ft
 Casing ID _____ in Overburden _____ ft
 Casing Area _____ sq ft Gravel _____ ft
 Drive Outside _____ in Top Bedrock _____ ft
 Shoe Start _____ in In Bedrock _____ ft
 Dia Finish _____ in Total drilled _____ ft
 Effective _____ in MINING SECTION _____ ft

TIME LOG

Moving _____ hrs
 Drilling _____ hrs
 Pulling _____ hrs
 Delays _____ hrs
 Total _____ hrs

CALCULATED VALUES

Au Wt. Aver. _____ mg per cu yd
 Raw Gold Value _____ ¢ U.S. per mg
 Au Aver. Value _____ ¢ per cu yd

FACTORS

Drive Shoe _____ Au Fineness _____
 Casing _____ Au Value _____ \$US/fine oz
 Theor. Rise of Core _____ ft per ft of drive
 Theor. Box Vol. _____ cu ft per ft of core pumped

FORMATION SYMBOLS

L loam Cl clay Ls loose G gravel
 F fine BR bedrock S sand C coarse
 A angular B boulder Ce cemented
 R rounded

Date	Sample Number	Depth Drive Hg. Ft.	Core Before Pumping	Meas. Vol. Cu.Ft.	Colors			Flour	Est. Wt. Au mg			Remarks Formation
					1	2	3		Field	Corr	Eng	
7/30/78	1A	0-6		.1					TR. -70	WEIGHED		SILT.
	2A	6-10		.1					TR. ?	.12		SILT.
	3A	10-12		.15						.07		SAND - SMALL ROCKS
	4A	12-14		.45						.01		" "
	5A	14-16		.5						.08		{ BOTH SAMPLES }
	6A	16-18		.7								{ COMBINED IN 5A } GRAVEL + SAND
	1B	18-20		.6						.14		SAND + GRAVEL
	2B	20-22		.85	5					.13		" "
	3B	22-24		2.1	9	1				1.0		" "
	4B	24-26		1.8	11					1.06		" "
	5B	26-28		.9	3					.11		" "
	6B	28-30		.7	1					.05		" "
	1C	30-32		.45	1					.09		" "
	2C	32-34		1.1	2					.03		" BOULDER
	3C	34-36		1.45	4					.33		" "
	4C	36-38		1.1	1					.09		" BOULDER
	5C	38-40		1.5	1					.07		SAND + GRAVEL + BOULDER
	6C	40-42		2.65	3					1.40		" "
	1D	42-44		1.4	3					.02		" "
	2D	44-46		1.15	7					.32		" "
	3D	46-48		.65	3					.25		" "
	4D	48-50		.75	2					.03		" "
	5D	50-52		1.1	1					.07		" "
	6D	52-54		.9	7					.27		" "
	1E	54-56		1	4					.06		" "
	2E	56-58		1.1	4					.10		" "

Weight of Magnetic Material:

Notes: Drive Shoe Factor = area within effective cutting edge of shoe/area inside of casing. Casing Factor = unit of volume/area within effective cutting edge of shoe.

Driller ARNOLD FALK Panner JACK PRATT Engr. HEURICK + ROBERTSON
 Calculated by _____ Date _____ Line No. _____ Hole No. _____

Project CAYMORE Line No. _____ Hole No. C-3-78

Date	Sample Number	Depth Drive Ft.	Core		Meas Vol. CuFt.	Colors			Flour	Est. Wt. Au mg			Remarks Formation
			Before Pumping	After Ft		1	2	3		Field	Corr	Eng	
	3E	✓	58-60			1.2	6			SAMPLE	LOST	WHILE	ANNEALING
	4E	✓	60-62			1.1	6						
	5E	✓	62-64			1.3	3						
ST 1	6E	✓	62-64			.25				N.G.			
	1F	✓	64-66			.5	5						
	2F	✓	66-68			1.1	3						SMALL COLOURS
	3F	✓	68-70			1.3	2						
	4F	✓	70-72			.8	2						
	5F	✓	72-74			1.3	2						
	6F	✓	74-76			.7	4						WEATHERED BEDROCK? NO ROUNDED COBBLES OR PEBBLES.
	1G	✓	76-78			1.5	3						
	2G	✓	78-80			.71	3						
	3G	✓	80-82			.52	2						
	4G	✓	82-84			.65							
	5G	✓	84-86			.85	5						
	6G	✓	86-88			1.1	1						
	H	✓	88-90			1	2						
	2H	✓	90-92			.7	2				1.62		
	3H	✓	92-94			.75	1				.92		
	4H	✓	94-96			1.1					<0.01		WHITE CLAY - PEBBLES - BENTONITE
	5H	✓	96-98			.71	1				.50		
	6H	✓	98-100			.75					.05		
	1J	✓	100-102			.6				N.G.			HEAVY SILVER-grey SULPHIDES
	2J	✓	102-104			.5					.01		
	3J	✓	104-106			.7							CUT - IRONMEL SAMPLE
	4J	✓	106-108			.6					.02		
	5J	✓	108-110			.55					.02		
	6J	✓	110-112			.65				N.G.			
	1K	✓	112-114			.4				N.G.			
	2K	✓	114-116			.5				N.G.			
	3K	✓	116-118			.2				N.G.			
	4K	✓	118-120			.6					.01		
	5K	✓	PANNING TUB CLEANUP								N.G.		
	6K	✓	PANNING SLUICE CORDS CLEANUP								N.G.		
	1L	✓	PANNING AMALGAM TUB CLEANUP								TR.	.01	
	2L	✓	PANNING AMALGAM TUB CLEANUP - (1 kg. COLOUR - NUMEROUS SMALL COLOURS)										
ROBERTSON + FEAT CHECKED GOLD SAUCE EFFICIENCY - ADDED 4 PIECES OF AU DOWN HOLE													
RETRIEVED AU (ALL 4 PIECES) - EXCELLENT RECOVERY													
- COLOURS SMALL BUT HAVE GOOD WEIGHT + THREE DIMENSIONS - NOT FLATTENED													
- H ₂ O VOLUME CHECK 62.90 CUBIC FEET ADDED													
Michael P. Henck.													

1.76 mg

TR. TRACE
N.G. NO GOLD

Project CLAYMORE Line No. _____ Hole No. C-478
 LOCATION: VAC D'OR#2 BENCH LEASE 1ST TIER

Elev. Surface 1750 ft. Coordinates _____ Date Started August 6 1978
 Elev. Bottom MS _____ ft. DEPTH _____ Date Finished August 11 1978

DRILL DATA
 Make BUCYRUS-ERIE T-22M Overburden _____ ft
 Casing ID _____ in Gravel _____ ft
 Casing Area _____ sq ft Top Bedrock _____ ft
 Drive Outside _____ in In Bedrock _____ ft
 Shoe Start _____ in Total drilled _____ ft
 Dia Finish _____ in MINING SECTION _____ ft
 Effective _____ in
 Effective Area _____ sq ft

FACTORS
 Drive Shoe _____ Au Fineness _____
 Casing _____ Au Value _____ \$US/fine oz
 Theor. Rise of Core _____ ft per ft of drive
 Theor. Box Vol. _____ cu ft per ft of core pumped

TIME LOG
 Moving _____ hrs
 Drilling _____ hrs
 Pulling _____ hrs
 Delays _____ hrs
 Total _____ hrs

CALCULATED VALUES
 Au Wt. Aver. _____ mg per cu yd
 Raw Gold Value _____ ¢ U.S. per mg
 Au Aver. Value _____ ¢ per cu yd

FORMATION SYMBOLS
 L loam Cl clay Ls loose G gravel
 F fine BR bedrock S sand C coarse
 A angular B boulder Ce cemented
 R rounded

Date	Sample Number	Depth Drive Ft.	Core		Meas. Vol. Cu.Ft.	Colors			Flour	Est. Wt. Au mg			Remarks Formation
			Before Pumping	After Ft		1	2	3		Field	Corr	Eng	
6	1A	0-8			.3	0					.08		SILT + ORGANIC MATERIAL
	2A	8-10			.1	0					.09		SILT
	3A	10-12			.3	0					1.01		" "
	4A	12-14			.3	0					1.01		StG
	5A	14-16			.7	0					1.02		StG
	6A	16-18			.8	0					1.01		StF + cl.
7	1B	18-20			1	1					1.04		" "
	2B	18-20			.5	3					.15		" "
	3B	18-20			.5	2					.18		" "
	4B	18-20			1						.10		" "
	5B	20-22			1	2					.23		" "
8	6B	20-22			1	3					.03		" "
	1C	22-23			2.1	2					.21		" "
	2C	23-24			1.2	2					.42		" "
	3C	24-25			1.5	0					1.01		" "
	4C	25-26			2.3	3					.14		" "
9	5C	25-27			.75						.10		RAV IN 24' 6" CASING
	6C	27-28			.7						.25		StG + CL
	1D	28-29			1.5	5					.98		" "
	2D	29-30			.6	2					.05		" "
	3D	30-31			.9	2					.28		" "
	4D	30-31			1						.29		" "
	5D	31-32			.8	1					1.01		" "
	6D	32-33			1.2	1					.02		" "
	1E	33-34			1.65	2					.69		" "
	2E	34-35			1	2					.53		" "

Weight of Magnetic Material:

Notes: Drive Shoe Factor = area within effective cutting edge of shoe/area inside of casing. Casing Factor = unit of volume/area within effective cutting edge of shoe.

Driller ARNOLD FAUC Panner JACK PRATT Engr. NEVEICK + ROBERTSON
 Calculated by _____ Date _____ Line No. _____ Hole No. _____

Project

CLAYMORE

Line No.

Hole No. C-4-78

Date	Sample Number	Depth Drive Ft.	Core		Meas Vol. CuFt.	Colors			Flour	Est. Wt. Au mg			Remarks Formation
			Before Pumping	After Ft		1	2	3		Field	Corr	Eng	
	3E	✓	35-36		1.2	5					.30		StG of
	4E	✓	36-37		.7	2					1.46		" "
	5E	✓	36-37		1.5	4					.03		" "
	6E	✓	WASHING TUB CLEAN UP								1.29		
	IF	✓	BLANKET CLEAN UP								.03		
<p>- Used 38' casing drove in 36' to ground level.</p> <p>- Hole plug down at 37' unable to penetrate further due to impervious clay silt layer - Thixotropic - making it not porous.</p> <p>- Required 37.9 cuft. of H₂O to fill hole.</p> <p style="text-align: right;">End of Hole 37' Michael P. Hamel</p>													

Project CLAYMORE Line No. _____ Hole No. C-5-78
 LOCATION: RICH 25 (P3214)

Elev. Surface 1650 ft. Coordinates _____ Date Started August 14 1978
 Elev. Bottom MS _____ ft. DEPTH _____ Date Finished August 21 1978

DRILL DATA Water Level _____ ft TIME LOG
 Make Bucyrus-Erie T-22M. Overburden _____ ft Moving _____ hrs
 Casing ID _____ in Gravel _____ ft Drilling _____ hrs
 Casing Area _____ sq ft Top Bedrock _____ ft Pulling _____ hrs
 Drive Outside _____ in In Bedrock _____ ft Delays _____ hrs
 Shoe Start _____ in Total drilled _____ ft Total _____ hrs
 Dia Finish _____ in MINING SECTION _____ ft
 Effective Area _____ sq ft

FACTORS Au Wt. Actual _____ mg Au Wt. Aver. _____ mg per cu yd
 Au Wt. Corrected _____ mg Raw Gold Value _____ ¢ U.S. per mg
 Au Value _____ \$US/fine oz Au Aver. Value _____ ¢ per cu yd
 Drive Shoe _____ Au Fineness _____ FORMATION SYMBOLS
 Casing _____ Au Value _____ \$US/fine oz
 Theor. Rise of Core _____ ft per ft of drive
 Theor. Box Vol. _____ cu ft per ft of core pumped

FORMED VALUES
 Au Wt. Aver. _____ mg per cu yd
 Raw Gold Value _____ ¢ U.S. per mg
 Au Aver. Value _____ ¢ per cu yd
 FORMATION SYMBOLS
 L loam Cl clay Ls loose G gravel
 F fine BR bedrock S sand C coarse
 A angular B boulder Ce cemented
 R rounded

Date	Sample Number	Depth Drive Hq. Ft.	Core		Meas. Vol. Cu.Ft.	Colors			Flour	Est. Wt. Au mg			Remarks Formation
			Before Pumping	After Pumping Ft.		1	2	3		Field	Corr	Eng	
7-14	2C	✓	0-8		.2	0					.04		SILT + SAND
	3C	✓	8-10		.4	0					2.01		SAND + GRAVEL
	4C	✓	10-12		.5	0					.01		S+G - PYRITE
	5C	✓	12-14		.5	0					.04		" "
	6C	✓	14-16		.6	0					.01		" " STIBNITE ?
7-15	1D	✓	16-18		.6	0				N.G.	.06		" "
	2D	✓	18-20		1.1	1					.05		" "
	3D	✓	20-22		1.6	2					.16		" "
7-16	4D	✓	22-24		1.35	1					.10		" "
	5D	✓	24-26		1.9	1					.04		" "
	6D	✓	24-25		.8	D					.01		" " HOLE SLOUGHING - CASING
	1E	✓	25-26		.3	0					2.01		" "
	2E	✓	26-27		.6	0					.05		S+G + CL
7-17	3E	✓	29-28		.7	1					.05		" "
	4E	✓	28-29		.55	0					.01		" "
	5E	✓	29-30		.6	1					.08		" "
	6E	✓	30-31		.7	1					.06		" "
7-18	1F	✓	31-32		.6	0					.31		" "
	2F	✓	32-34		.85	1					2.46		" "
	3F	✓	34-36		.65	0					.16		" "
	4F	✓	36-38		1.2	0					.04		" "
	5F	✓	38-40		1	1					.35		" "
7-19	6F	✓	40-42		1.1	4					.09		" "
	1G	✓	42-44		1	2					.32		" " SLOUGH OVERNIGHT
	2G	✓	44-46		.7	0					.02		" "
	3G	✓	46-48		.45	1					.06		" "

TR. TRACE N.G. No Gold

Weight of Magnetic Material:

Notes: Drive Shoe Factor = area within effective cutting edge of shoe/area inside of casing. Casing Factor = unit of volume/area within effective cutting edge of shoe.

Driller ARNOLD FRANK Panner JACK PRATT Engr. HENRICK + ROBERTSON
 Calculated by _____ Date _____ Line No. _____ Hole No. _____

Project CLAYMCC

Line No. _____ Hole No. C-5-7B

Date	Sample Number	Depth Drive Ft.	Core		Meas Vol. CuFt.	Colors			Flour	Est. Wt. Au mg			Remarks Formation
			Before Pumping	After Ft		1	2	3		Field	Corr	Eng	
	4B	✓	48-50		.7	0					.03		S+G + CL
	5B	✓	50-52		.8	0				TR.			" "
	6B	✓	52-54		.8	0					.04		" "
	1H	✓	54-56		.7	0				TR.			" "
	2H	✓	56-58		1.35	1					.05		" "
	3H	✓	58-60		1.1						.02		" "
	4H	✓	60-62		1	2					.52		" "
	5H	✓	62-64		.8	1					.08		" "
	6H		WASH TUB CLEAN UP								.53		
Aug. 22	1A		CORRODY CLEAN UP - BURNED + PANNED								.19		
	2A		64-65		.4						.02		S+G + CL

- Used 47' of casing with 46' in ground. Hole sloughing badly. Drilled open hole from 46' to 64' - Did not intersect bedrock. Past 6 feet sloughing and difficult to drill.
 - Required 35.5 cubic feet of H₂O to fill hole.
 - Difficult retrieving casing was frozen in at 20 feet.
 End of hole 65' Michael V Henrich.

TR. - TRACE

N.G. = No Gold

Line No. _____ Hole No. _____

Elev. Surface 1605 ft. Coordinates Date Started AUG 22 1978
 Elev. Bottom MS ft. DEPTH Date Finished AUG 28 1978

DRILL DATA
 Make Bucyrus - Erie T-22M Water Level ft. TIME LOG
 Casing ID in Overburden ft. Moving hrs
 Casing Area sq ft Gravel ft. Drilling hrs
 Drive Outside in Top Bedrock ft. Pulling hrs
 Shoe Start in In Bedrock ft. Delays hrs
 Dia Finish in Total drilled ft. Total hrs
 Effective in MINING SECTION ft. CALCULATED VALUES

Effective Area sq ft Au Wt. Aver. mg per cu yd
 Au Wt. Actual mg Raw Gold Value ¢ U.S. per mg
 Au Wt. Corrected mg Au Aver. Value ¢ per cu yd

FACTORS
 Drive Shoe Au Fineness L loam Cl clay Ls loose G gravel
 Casing Au Value \$US/fine oz F fine BR bedrock S sand C coarse
 Theor. Rise of Core ft per ft of drive A angular B boulder Ce cemented
 Theor. Box Vol. cu ft per ft of core pumped R rounded

Date	Sample Number	Depth Drive Ft.	Core		Meas. Vol. Cu.Ft.	Colors			Elou	Est. Wt. Au mg			Remarks Formation
			Before Pumping	After Ft		1	2	3		Field	Corr	Eng	
23	3A	0-8			0.2	-				0.01			Silt+small g.
	4A	8-10			0.2	-				0.01			" "
	5A	10-12			0.2	1				<0.01			" "
	6A	12-14			0.5	-				0.01			" "
	1B	14-16			1.4	-				0.01			S+g
	2B	16-18			0.81	-				0.01			" "
	3B	16-18			0.9	-				0.01			" "
	4B	18-19			0.6	-				<0.01			" "
	5B	19-20			1.0	-				<0.01			" "
	6B	20-21			0.75	-				<0.01			S+ boulders
	1C	20-21			0.5	-				<0.01			" "
	2C	21-22			0.7	-				0.01			" "
	3C	22-23			0.5	-							" "
	4C	23-24			1.4	2				0.15			" "
	5C	24-24.5			0.8	-				<0.01			" "
	6C	24.5-25			0.7	1				0.13			" "
	1D	25-26			1.0	4				0.04			" " CL
25	2D	25-26			0.8	1				0.14			" " slough
	3D	26-27			0.2	-							S
	4D	27-28			1.2	-				<0.01			S+g
	5D	28-29			1.3	-				<0.01			" " CL
	6D	29-30			0.7	1				<0.01			" " "
	1E	30-31			0.8	-				0.01			" " "
	2E	30-31			1.84	1				0.07			" " "
	3E	30-31			0.75	-				0.03			" " "
	4E	31-32			1.1	-				<0.01			" " "

Weight of Magnetic Material:

Notes: Drive Shoe Factor = area within effective cutting edge of shoe/area inside of casing. Casing Factor = unit of volume/area within effective cutting edge of shoe.

Date	Sample Number	Depth Drive Ft.	Core		Meas Vol. CuFt.	Colors			Flour	Est. Wt. Au mg			Remarks Formation	
			Before Pumping	After Ft		1	2	3		Field	Corr	Eng		
72	5E	✓ 32-34			0.8	-				0.03			g + cl	
	6E	✓ 34-35			0.5	-				0.11			" " change in gravel	
	1F	✓ 35-36			0.5	-				no gold			" "	
	2F	✓ 36-38			0.85	-				0.03			" "	
	3F	✓ 37-38			0.6	-				0.01			" "	
	4F	✓ 37-38			0.3	-				no gold			" "	
	5F	✓ 38-39			0.3	-				no gold			" "	
	6F	✓ 39-40			0.4	-				<0.01			" "	
27	1G	✓ 39-40			0.6	-				<0.01			" "	
	2G	✓ 39-40			0.9	-				0.11			" "	
	3G	✓ 40-42			1.4	-				0.01			" "	
	4G	✓ 42-44			0.82	-				0.03			" "	
	5G	✓ 44-45			1.31	-				0.01			" "	
28	6G	✓ 45-46			1.0	-				0.02			" " hole filling with H ₂ O	
	1H	✓ 45-46			0.8	2				<0.01			" "	
	2H	✓ 45-46			0.6	-				trace			" "	
	3H	✓ 45-46			1.3	7				<0.01			" "	
	4H	✓ 46-47			0.3	-				0.02			" "	
	5H	✓ 47-49			0.4	-				<0.01			" "	
	6H	✓ 49-50			0.3	-				no gold			" "	
	1I	✓ Panning tub cleanup				2				0.06				
	2I	✓ Conduroy cleanup				-				0.05				
	- 46' of casing used in hole													
	- hole caved a lot around collar, took 24 cu ft to fill around outside of casing													
	- 34 cu ft of H ₂ O used to fill hole with casing in, casing volume calculated at 2.25 cu ft, = total H ₂ O volume = 36.25 cu ft.													

APPENDIX II

Chemex Weight Sheets



212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

CHEMEX LABS LTD.

•ANALYTICAL CHEMISTS •GEOCHEMISTS •REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO: Canadian Occidental Petroleum Ltd.
Minerals Division
311 - 215 Carlingview Drive
Rexdale, Ontario

ATTN: Dr. Brummer

CERTIFICATE NO. 34245
INVOICE NO. 27784
RECEIVED Aug. 28/78
ANALYSED Aug. 30/78

SAMPLE NO. :	mg Au	Fineness
Cl.78 1A	0.05	
2A	0.52	
3A	0.36	
4A	0.47	
5A	0.85	
Cl.78 6A	0.12	
1.78 1B	0.86	
2B	4.95	
3B	1.07	
4B	1.12	
5B	1.17	
6B	1.13	
1C	5.09	
2C	2.04	
3C	1.18	
4C	1.26	
5C	1.94	
6C	1.54	
1D	11.16	814
2D	2.12	
3D	1.29	
4D	1.88	
5D	0.43	
6D	3.43	
1E	2.40	
2E	2.54	
3E	1.80	
4E	1.02	
5E	1.15	
6E	0.03	
1F	1.78	
2F	0.46	
3F	2.06	
4F	0.64	
5F	2.96	
6F	1.88	
1G	0.94	
1.78 2G	0.70	
2.78 1B	0.03	
2.78 2B	0.03	



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TELEPHONE: 985-0648
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TELEX: 043-52597

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TO: Canadian Occidental Petroleum Ltd.
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Rexdale, Ontario
ATTN: Dr. Brummer

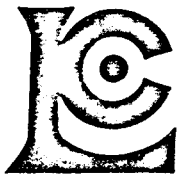
CERTIFICATE NO. 34246
INVOICE NO. 27784
RECEIVED Aug. 28/78
ANALYSED Aug. 30/78

SAMPLE NO. :	mg Au
2.78 3B	0.01
4B	< 0.01
5B	< 0.01
6B	0.03
1C	0.06
2C	0.08
3C	0.08
4C	0.04
5C	0.71
6C	1.37
1D	0.59
2D	0.82
3D	0.01
4D	0.20
5D	0.71
6D	0.92
1E	0.15
2E	0.79
3E	0.68
4E	0.59
5E	0.58
6D	0.30
1F	0.32
2F	0.48
3F	0.11
4F	0.37
5F	0.50
6F	0.42
1G	0.58
2G	0.51
3G	0.05
4G	0.40
5G	0.77
6G	0.05
1H	0.41
2H	0.38
3H	0.23
4H	0.02
5H	1.68
6G	0.04



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TO: Canadian Occidental Petroleum Ltd.
Minerals Division
311 - 215 Carlingview Drive
Rexdale, Ontario
ATTN: Dr. Brummer

CERTIFICATE NO. 34247
INVOICE NO. 27784
RECEIVED Aug. 28/78
ANALYSED Aug. 30/78

SAMPLE NO. :	mg Au
C3.782A	0.12
3A	0.07
4A	0.01
5A	0.08
1B	0.14
2B	0.13
3B	1.00
4B	1.06
5B	0.11
6B	0.05
1C	0.09
2C	0.03
3C	0.33
4C	0.09
5C	0.07
6C	1.40
1D	0.02
2D	0.32
3D	0.25
4D	0.03
5D	0.07
6D	0.27
1E	0.06
2E	0.10
4E	0.02
5E	0.08
1F	0.36
2F	0.13
3F	0.15
4F	0.07
5F	0.16
6F	0.03
1G	0.28
2G	0.05
3G	0.36
4G	0.16
5G	0.10
6G	0.05
1H	0.05
C3.782H	1.62



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TO: Canadian Occidental Petroleum Ltd.
Minerals Division
311 - 215 Carlingview Drive
Rexdale, Ontario

ATTN: Dr. Brummer

CERTIFICATE NO. 34248
INVOICE NO. 27784
RECEIVED Aug. 28/78
ANALYSED Aug. 30/78

SAMPLE NO. :	mg Au
C3.78 3H	0.92
4H	< 0.01
5H	0.50
6H	0.05
2J	0.01
4J	0.02
5J	0.02
4K	0.01
1L	< 0.01
C3.78 2L	1.76
4.78 1A	0.08
2A	0.09
3A	< 0.01
4A	< 0.01
5A	0.02
6A	0.01
1B	0.04
2B	0.15
3B	0.18
4B	0.10
5B	0.23
6B	0.03
1C	0.21
2C	0.42
3C	< 0.01
4C	0.14
5C	0.10
6C	0.25
1D	0.98
2D	0.05
3D	0.28
4D	0.24
5D	< 0.01
6D	0.02
1E	0.69
2E	0.53
3E	0.30
4E	1.46
5E	0.03
4.786E	1.29



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R. P. ...
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CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

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CERTIFICATE OF ASSAY

TO: Canadian Occidental Petroleum Ltd.
Minerals Division
311 - 215 Carlingview Drive
Rexdale, Ontario

ATTN:

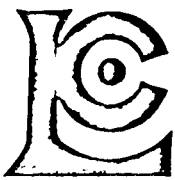
CERTIFICATE NO. 34249
INVOICE NO. 27784
RECEIVED Aug. 28/78
ANALYSED Aug. 30/78

SAMPLE NO. :	mg Au
4.78 1F	0.03
C5.78 1A	0.19
C5.78 2A	0.02
5.78 2C	0.04
3C	< 0.01
4C	0.01
5C	0.04
6C	0.01
1D	0.06
2D	0.05
3D	0.16
4D	0.10
5D	0.04
6D	0.01
1E	< 0.01
2E	0.05
3E	0.05
4E	0.01
5E	0.08
6E	0.06
1F	0.31
2F	2.46
3F	0.16
4F	0.04
5F	0.35
6F	0.09
1G	0.32
2G	0.02
3G	0.06
4G	0.03
6G	0.04
2H	0.05
3H	0.02
4H	0.52
5H	0.08
5.78 6H	0.53



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NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

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CERTIFICATE OF ASSAY

TO: Canadian Occidental Petroleum Ltd.,
311 - 215 Carlingview Drive
Rexdale, Ontario
M9W 5X8
ATTN: D. Robertson, Staff Geologist

CERTIFICATE NO. 34339
INVOICE NO. 28293
RECEIVED Sept. 11, 1978
ANALYSED Sept. 28, 1978

SAMPLE NO. :	WEIGHT IN MG, GOLD
C6-78 3A	0.01
4A	0.01
5A	< 0.01
6A	0.01
1B	0.01
2B	0.01
3B	0.01
4B	< 0.01
5B	< 0.01
6B	< 0.01
1C	< 0.01
2C	0.01
4C	0.18
5C	< 0.01
6C	0.13
1D	0.04
2D	0.14
4D	< 0.01
5D	< 0.01
6D	< 0.01
1E	0.01
2E	0.07
3E	0.03
4E	< 0.01
5E	0.03
6E	0.11
2F	0.03
3F	0.01
6F	< 0.01
1G	< 0.01
2G	0.11
3G	0.01
4G	0.03
5G	0.01
6G	0.02
1H	< 0.01
3H	< 0.01
4H	0.02
5H	< 0.01
1I	0.06 ^v

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APPENDIX III
CALCULATION SHEETS

Calculations

All calculations were done using a fineness of 814 and price of \$100.00 per troy ounce for gold.

DATE OCTOBER 1, 1978

CALCULATION SHEET

HOLE # C-1-78

DEPTH	SAMPLE NUMBER	VOLUME MEASURED	VOLUME COLLECTED K = 1.397	SAMPLE NUMBER CLEAN-UP	COLOURS	COLOURS Cu./ft.	WEIGHT	VALUE CU. YD. 100.00 AU. WT 27X.814X.32 VOL.	VALUE OZ./CU. YD. X.001	REMARKS
0	8	1A			—		.05	.1488	.0015	
8	10	2A + 3A	NOT	ESTIMATED	3	.52 + .36				
10	12	4A	MEASURED	1.12 CU. FT.	2	18.71	.47			
12	14	5A			4	.85				
14	16	6A			3	.12				
16	18	1B	1.0	1.4	—	.86	.0432	.0004		
18	20	6B	LARGE	(2)	—	1.13	.0397	.0004		
20	22	2B	1.4	1.96	—	4.95	.1776	.002		
22	24	3B	1.1	1.54	5	3.2	1.07	.0488	.0005	
24	26	4B	1.1	1.54	5	3.2	1.12	.0511	.0005	
26	28	5B	.7	.98	3	3.1	1.17	.0840	.0008	
28	30	1C	1.4	1.96	5	2.6	5.09	.1826	.002	
30	32	2C	.8	1.12	6	5.36	2.04	.1281	.001	
32	34	3C	.3	.42	5	11.9	1.18	.1976	.002	
34	36	4C	.3	.42	4	9.5	1.26	.2110	.002	
36	38	5C	.45	.63	4	6.3	1.94	.2166	.002	
38	40	6C	1.3	1.82	12	6.6	1.54	.0595	.0006	
40	42	1D	.55	.77	20	24.0	11.16 (814)	1.0193	.0102	
42	44	2D	.40	.56	7	12.5	2.12	.2662	.003	
44	46	3D	.20	.28	9	32.14	1.29	.3240	.003	
46	48	4D	.5	.70	9	12.9	1.88	.1889	.002	
48	50	5D	.42	.59	3	5.1	.43	.0513	.0005	
50	52	6D	.7	.98	14	14.3	3.43	.2462	.002	
52	54	1E	1.18	1.65	18	11.0	2.40	.1023	.001	
54	56	2E	1.1	1.54	6	3.9	2.54	.1160	.001	
56	58	3E	.6	.84	5	5.6	1.80	.1507	.002	
58	60	1F	.5	.70	13	18.6	1.18	.1788	.002	
60	62	2F + 3F	1.1	1.54	15	9.7	.46 + 2.06	.1151	.001	
62	64	4F + 5F	.43	.6	21	35.	.64 + 2.96	.4220	.004	
					6E		.03			#2 SLUICE CLEANED
					5E		1.15			#1 SLUICE CLEANED
					4E		1.02			CARPET CLEANED
					1C		.94			PANNING TUB CLEANED
					2C		.70			PANNING CONCENTRATE
			25.46		201		64.51			TOTALS
MEASURED VOLUME = 25.48 CU. FT.										
OVERALL VALUES FROM SURFACE TO 64' USING #100.00 AU AT 814 P.N.E.										
$\frac{64.51}{25.48} \times 27 \times .814 \times .32 = .1781 / \text{cu. yd. OR } .001781 \text{ oz./cu. yd.}$										

DATE OCTOBER 1-1978

CALCULATION SHEET

HOLE # C-2-78

DEPTH	SAMPLE NUMBER	VOLUME MEASURED	VOLUME COLLECTED K=1.338	SAMPLE NUMBER CLEAN-UP	COLOURS	COLOURS Cu./ft.	WEIGHT	VALUE CU. Yd. #100.00 AV. WT X 27 X .814 X .32 VOL.	VALUE OZ./CU. Yd. X .0001	REMARKS.
on	To									
0	4	1B	.11	1.47		—	.03	.001435	.00001	
4	6	4B + 2B	.15	.20		1	5	<.01-.03	.01055	.0001
6	8	3B	.7	.94		—	.01	.006748	.000007	
8	10	5B	1.1	1.47		—	<.01			
10	12	6B + 1C	1.2	1.61		2	1.2	.03-.06	.003931	.00004
12	14	2C	.3	.40		2	5	.08	.01467	.0001
14	16	3C	.7	.94		2	2.13	.08	.005985	.00006
16	18	4C	1.2	1.61		2	1.24	.04	.001747	.00002
18	20	5C-6C-1D	3.54	4.74		8	1.69	.71-1.37-.59	.03962	.0004
20	22	2D-3D-4D 5D-6D	7.2	9.6		2	.21	.82-.01-.20 .71-.92	.01949	.0002
22	24	1E	.6	.8		4	5	.15	.01319	.0001
24	26	2E	.8	1.07		3	2.8	.79	.05193	.0005
26	28	3E	1.14	1.53		4	2.6	.68	.03126	.0003
28	30	4E	1.38	1.85		5	2.7	.59	.02243	.0002
30	32	5E + 6E	1.18	1.58		6	3.8	.58-.30	.03917	.0004
32	34	1F	.6	.8		4	5	.32	.02813	.0003
34	36	2F	.7	.94		4	4.26	.48	.03591	.0004
36	38	3F	.5	.67		2	2.99	.11	.01155	.0001
38	40	4F + 5F	2.7	3.6		6	1.7	.37 .50	.01700	.0002
40	42	6F	.7	.94		2	2.13	.42	.03142	.0003
42	44	1G	.5	.67		6	8.96	.58	.06088	.0006
44	46	2G	2.3	3.08		5	1.6	.51	.01165	.0001
46	48	3G	1.1	1.47		3	2.0	.05	.002392	.00002
48	50	4G	1.2	1.61		4	2.5	.40	.01747	.0002
50	52	5G	1.5	2.0		4	2.0	.77	.02768	.0003
52	54	6G	1.3	1.74		3	1.7	.05	.002021	.00002
54	56	1H	2.5	3.35		4	1.2	.41	.008608	.00009
56	58	2H	1.45	1.94		3	1.5	.38	.01378	.0001
58	60	3H	1.2	1.61		2	1.2	.23	.01005	.0001
						4H		.02		
						5H		1.68		
						6H		.04		
			54.23			93		16.10		
										WASH TUB AND BURET CLEAN UP AFTER AMALGAMATION
										TOTALS
										MEASURED VOLUME = UNABLE TO MEASURE
										OVERALL VALUES FROM SURFACE TO 60' USING #100.00 AV. AT 814 FINE
										$\frac{16.10}{54.23} \times 27 \times .814 \times .32 = .02088 / \text{cu. yd. OR } .00021 \text{ oz / cu. yd.}$

DATE OCTOBER 1, 1978

CALCULATION SHEET

HOLE # C-4-78

DEPTH	SAMPLE NUMBER	VOLUME MEASURED	VOLUME COLLECTED K=1.45Z	SAMPLE NUMBER CLEANUP	COLOURS	COLOURS Cu./ft.	WEIGHT	VALUE CU. Yd. \$100.00 Au. wt x 27 x .814 x .32 Vol.	VALUE OZ./CU. Yd. x .0001	REMARKS
0	8	1A	.3	.44	—	—	.08	.01279	.0001	
8	10	2A	.1	.15	—	—	.09	.0422	.0004	
10	12	3A	.3	.44	—	—	2.01	—	—	
12	14	4A	.3	.44	—	—	2.01	—	—	
14	16	5A	.7	1.0	—	—	.02	.0014	.00001	
16	18	6A	.8	1.2	—	—	.01	.00058	.000006	
18	20	18-28-38 4B	3.0	4.4	6	1.36	.04-.15 .18-.10	.00751	.00008	
20	22	5B 6B	2.0	2.3	5	2.2	.23 .03	.00795	.00008	
22	24	1C 2C	3.3	4.73	4	.85	.21 .42	.009367	.00009	
24	26	3C-4C	3.8	5.5	3	.54	2.01 .14	.00179	.00002	
26	28	5C-6C	1.45	2.1	—	—	.10 .25	.01172	.0001	
28	30	1D 2D	2.10	3.0	7	2.3	.98 .05	.02415	.0002	
30	32	3D 4D 5D	2.70	3.3	3	.91	.28 .24 2.01	.0108	.0001	
32	34	6D 1E	1.85	2.7	3	1.1	.02 .69	.0185	.0002	
34	36	2E 3E	2.2	3.2	7	2.2	.53 .30	.0182	.0002	
36	37	4E 5E	1.2	1.7	6	3.5	1.46 .03	.0616	.0006	
				6E			1.29			
				1F			.03			
			40.56		44		7.95			TOTALS

MEASURED VOLUME = 37.9 cu. Ft.

OVERALL VALUES FROM SURFACE TO 37' USING GOLD AT \$100.00 AND 814 FINE
 $\frac{7.95}{37.9} \times 27 \times .814 \times .32 = \0.01475 PER CUBIC YARD OR .00015 OZ./CU. Yd.

FTN	SAMPLE NUMBER	VOLUME MEASURED	VOLUME COLLECTED K=1.258	SAMPLE NUMBER CLEANUP	COLOURS	COLOURS Cu./ft.	WEIGHT	VALUE	VALUE	REMARKS
								Cu. Yd. 100.00 Au. $\frac{.04 \times 27 \times .814 \times .32}{\text{VOL.}}$	OZ./Cu. Yd. X .0001	
0	8	2C	.2	.25	—	—	.04	.0113	.0001	
8	10	3C	.4	.5	—	—	<.01	—	—	
10	12	4C	.5	.6	—	—	.01	.00117	.00001	
12	14	5C	.5	.6	—	—	.04	.00469	.00005	
14	16	6C	.6	.75	—	—	.01	.00094	.000009	
16	18	1D	.6	.75	—	—	.06	.0056	.00006	
18	20	20	1.1	1.38	1	.72	.05	.00255	.00003	
20	22	30	1.6	2.0	2	1	.16	.00563	.00006	
22	24	40	1.35	1.7	1	.58	.10	.00414	.00004	
24	26	50-60 1E	3.0	3.8	1	.26	.04 - .01 <.01	.00093	.000009	
26	28	2E 3E	1.3	1.6	1	.62	.05 .05	.0044	.00004	
28	30	4E 5E	1.15	1.4	1	.71	.01 .08	.00452	.00005	
30	32	6E 1F	1.3	1.6	1	.62	.06 .31	.01626	.0002	
32	34	2F	.85	1.07	1	.93	2.46	.1617	.002	
34	36	3F	.65	.8	—	—	.16	.0141	.0001	
36	38	4F	1.2	1.5	—	—	.04	.00188	.00002	
38	'0	5F	1.0	1.26	1	.73	.35	.0195	.0002	
40	42	6F	1.1	1.38	4	2.9	.09	.00459	.00005	
42	44	1G	1.0	1.26	2	1.59	.32	.01786	.0002	
44	46	2G	.7	.9	0	—	.02	.00156	.00002	
46	48	3G	.45	.57	1	1.75	.06	.0074	.00007	
48	50	4G	.7	.9	—	—	.03	.00234	.00002	
50	52	5G	.8	1.0	—	—	—	—	—	
52	54	6G	.8	1.0	—	—	.04	.00281	.00003	
54	56	1H	.7	.9	—	—	—	—	—	
56	58	2H	1.35	1.7	1	.58	.05	.00207	.00002	
58	60	3H	1.1	1.38	—	—	.02	.00101	.00001	
60	62	4H	1.0	1.26	2	1.58	.52	.02902	.0003	
62	64	5H	.8	1.0	1	1	.08	.00563	.00006	
64	65	2A	.4	.5	—	—	.02	.00281	.00003	
					6H		.53			
					1A		.19			
			35.5		21		6.06			TOTALS

Measured Volume = 35.5 Cu. Ft.

OVERALL VALUES FROM SURFACE TO 65' USING GOLD AT #100.00 AND 814 FINE.

$\frac{6.06}{36.5} \times 27 \times .814 \times .32 = \#0.012$ PER Cubic Yd. OR .00012 OUNCES PER Cu Yd.

DATE OCTOBER 1, 1978

CALCULATION SHEET

HOLE # C-6-7B

DTN	SAMPLE NUMBER	VOLUME MEASURED	VOLUME COLLECTED K=1.04	SAMPLE NUMBER CLEAN UP	COLOURS	COLOURS Cu./ft.	WEIGHT	VALUE CU. YD. 100.00 Au. Wt x 27 x .814 x .32 Vol.	VALUE OZ./CU. YD. x .5001	REMARKS
8	3A	.2	.2		—	—	.01	.00352	.00004	
10	4A	.2	.2		—	—	.01	.00352	.00004	
12	5A	.2	.2		1	5	2.01	—	—	
14	6A	.5	.52		—	—	.01	.00135	.00001	
16	1B	1.4	1.45		—	—	.01	.000485	.000005	
18	2B + 3B	1.71	1.77		—	—	.01 .01	.000795	.000008	
20	4B + 5B	1.6	1.66		—	—	2.01 + 2.01	—	—	
22	6B 10 20	1.95	2.0		—	—	2.01 < .01 .01	.000352	.000004	
24	3C + 4C	1.9	2.0		2	1	(N.G.) .18	.00633	.00006	
26	5C - 6C 1D - 2D	3.3	3.4		6	1.76	<.01 - .13 .04 - .14	.00641	.00006	
28	3D + 4D	1.4	1.45		—	—	(N.G.) 2.01	—	—	
30	5D + 6D	2.0	2.0		1	.69	<.01 <.01	—	—	
32	1E - 2E 3E - 4E	4.49	4.66		1	.21	.01 .07 .03 <.01	.00125	.00001	
34	5E	.8	.83		—	—	.03	.00254	.00003	
36	6E + 1F	1.0	1.0		—	—	.11 (N.G.)	.00774	.00008	
38	2F 3F 4F	1.75	1.82		—	—	.03 .01 (N.G.)	.00155	.00002	
	5F - 6F - 1G 2G	2.2	2.28		—	—	(N.G.) <.01 <.01 .11	.00339	.00003	
42	3G	1.4	1.46		—	—	.01	.000432	.000005	
44	4G	.82	.85		—	—	.03	.00248	.00002	
46	5G - 6G - 1H 2H + 3H	5.01	5.2		9	1.73	.01 - .02 <.01 (N.G.) .01	.000541	.000005	
49	4H + 5H	.7	.73		—	—	.02 .01	.00289	.00003	
50	6H	.3	.31		—	—	N.G.	—	—	
				1I	2		.06			
				2I	—		.05			
			34.83		22 (FLOID)		1.16			TOTALS

MEASURED VOLUME = 36.25 CU. FT.

OVERALL VALUES FROM SURFACE TO 50 FEET USING GOLD AT \$100.00 AND .814 FINE

$\frac{1.16}{36.25} \times 27 \times .814 \times .32 = \0.00225 PER CUBIC YARD OR .00002 OUNCES PER CUBIC YARD.

APPENDIX IV

Personnel

- Arnold Falk -	Driller
- Jack Pratt -	Panner
- Richard Craft -	Nodwell operator and bushman
- Yvonne Graff -	Cook
- Dave Robertson -	Geologist
- Hector Vallee -	Bushman
- Catherine Rubben	Cook
- M.P. Henrick -	Supervisor

EQUIPMENT

A Bucynus-Erie T-22 Cable tool rig was completely overhauled, modified and re-rigged. The old solid construction mast was discarded and the rig was refitted with a 38 foot collapsable mast built by Langley Welding and Machine Shop of Langley, B.C. The original self-propelled heavy steel undercarriage and tracks were discarded and the rig was remounted on a Mikker tired, flex track, trailer purchased from Bombardier in Edmonton. The new mast and trailer installation along with new rigging and numerous alterations were completed at Effective Machine Works in Penticton, B.C., during the period November 1977 through March 1978. The rig was serviced and tuned in Penticton prior to shipment to the Yukon.

A Yukon model Nodwell powered by a General Motors diesel engine was leased from Flite Drilling of Calgary, The Nodwell was outfitted with an external metal tool box, a boom winch and hoist, side railings and tailgate on the deck. A heavy towing bracket complete with hitch to tow the drill rig was also added.

APPENDIX VI

SAMPLE METHOD

A sample interval of 2 feet was used. Each 2-foot sample was bailed into the bailing trough and collected in 3-gallon galvanized pails placed inside a large galvanized washtub trap. The material collected in the pails and the tub was washed into a one cubic foot measurement bucket and the volume was recorded. All slimes that floated and could not be readily measured were allowed to escape. The measured sample was run through the gold saver which was set to vibrate the riffle at 120-130 strokes per minute and rotate the trommel at 17-20 revolutions per minute. All the discharge material from the gold saver ran over wide wale corduroy blankets placed in a 10" x 5" x 10 foot galvanized sluice box set at a grade of 1 3/4" to the foot.

All of the heavy concentrate collected in the gold saver riffles from each 2-foot drill run was panned by the panner working over a water-filled wash tub trap. When the concentrate was sufficiently reduced and all the colours were counted and recorded, the concentrate was washed in a caustic soda solution and several drops of mercury were added to the pan. The sample was then panned and further reduced and the remaining concentrate was agitated in the pan to alloy all the gold in the pan to

come into contact with the mercury. When amalgamation was completed, the amalgam was collected and placed in pre-numbered sample bottles. The remaining heavy concentrate was dumped into the panning tub trap.

After completion of each hole the concentrate from the panner's tub was again run through the gold saver. This sample was panned and amalgamated. The blankets were carefully washed and the concentrate panned and amalgamated in the manner previously mentioned. The samples from the panner's tub and the blankets were placed in a separate, pre-numbered, sample bottle and marked on the log as a clean-up sample.

All amalgam samples were then digested in a 0.5 mole HNO_3 solution. The sponge remaining was washed into pre-numbered sample bottles to be later annealed and weighed by Chemex Labs.

APPENDIX VII

Method of Determining Volume of Material Removed from Holes

Once a hole was completed it was bailed and pumped dry and re-filled with a measured volume of water. The casing was then pulled and the hole was again filled to the collar with a measured volume of water.

It was determined that 45 gallon drum contained 8 cubic feet of water when filled to the upper inner ring. Two drums were levelled by the hole collar and filled to the 8 cubic-foot level. This water was then pumped down the hole. The number of drums of water required to fill the hole was recorded. The last drum that contained water not required to fill the hole was set aside. The water remaining in this drum after the hole was filled was subtracted from the total volume of water used to fill all the drums and this figure was considered to be equal to the total volume of material removed from the hole.

APPENDIX VIII

Statement of Expenditures - 1978

Salaries and benefits	\$ 33,811.23
Travel and transportation	44,315.70
Staking (Eastern Associates)	7,500.00
Geochemical analyses	913.40
Supplementary labour	5,095.79
Camp supplies (food, misc. small items)	7,237.84
Equipment and parts	18,154.44
Rental fees	7,722.75
Communication	316.67
Consultant fees	6,765.61
Miscellaneous	<u>75.72</u>
Total	<u>\$131,909.15</u>