

The Yukon Consolidated Gold Corporation, Limited

DAWSON. Y. T.
CANADA

October 22, 1934.

J. T. Patton Esq.
President, Yukon Consolidated Gold Corp. Ltd.
502 Victoria Building,
Ottawa, Ont.

Dear Sir:

ARLINGTON PROJECT

I submit herewith, my report on the examination of the Arlington Area, near the mouth of Hunker Creek, Y. T., covering the work done during the 1933 and 1934 seasons, together with the proposed working plan, costs, and probable recoveries for the project.

Attached are maps and schedules showing details of values, depths and yardages, estimates and progress made on the project to date, as follows:-

- (1) General Map of the Arlington Project, showing Claim Lines, Drill holes and values, Pay channels, Thawed ground, Working areas, and present progress.
- (2) Cross Sections of the Arlington Area and the upper part of the Boyle Concession, as determined by drill holes.
- (3) Tabulation of all drill holes put down in the course of this examination, (1933-1934) with depths of overburden and gravel, stripped and unstripped values per cubic yard etc.
- (4) Tabulation of drill holes in the workable area by areas "A", "B", "C".
- (5) Tabulation of Overburden to be removed in the workable areas "A", "B", "C".
- (6) Tabulation of values in the "Foster Creek" and "Klondike" areas, as determined by old drill holes.
- (7) Tabulation of all old shafts on the Boyle Concession in the vicinity of the "Approach Area."
- (8) Tabulation of all old shafts on the Boyle Concession in the vicinity of the "A" and "B" areas.
- (9) Tabulation of old drill holes in the Arlington "C" area.
- (10) Summary of recoveries by Dredge Canadian No. 4 on the upper part of the Boyle Concession.

- (11) Synopsis of Thawing Methods available for the Arlington Project.
- (12) Schedule of Thawing Plant equipment unit costs.

-SUMMARY-

<u>Location of Area</u>	<u>Character</u>	<u>Cu.Yds. when stripped</u>	<u>Value per Cu. Yd.</u>	<u>Gross Value (Basic)</u>	<u>Working Cost</u>	<u>Net Profit</u>
Foster Creek	Thawed	815,908	5.00 ¢ \$	40,795.00	\$ 32,795. \$	-8,000.00
Klondike	Thawed	2,720,890	3.62	98,496.00	108,835.	10,339.00
Approach	Thawed	2,156,980	1.53	33,000.00	86,279.	53,279.00
"A"	Frozen	2,016,970	6.37	128,500.00	191,612.	63,112.00
"B"	Frozen	3,311,572	13.13	434,809.00	314,599.	120,210.00
"C"	Frozen	1,752,440	33.32	585,104.00	166,482.	418,622.00
Dredge Tailings	Partly Frozen	334,305	5.00	16,715.00	13,372.	3,343.00
Total (Basic Value)		13,109,065	10.13 ¢ \$	\$1,337,419.00	\$913,974.	\$423,445.00
Total with 65% Premium			16.71 ¢ \$	\$2,206,741.00	\$913,974.	\$1,292,767.00

(Note: All values shown elsewhere in this report are at the basic or \$20.67 per ounce price of gold. At the present price of Gold all areas will show a clear profit with the exception of the "Approach" which would still have a loss of about \$31,800.00)

AREA EMBRACED IN PROJECT

The "Arlington Project" in general covers the Klondike Valley area from the mouth of Hunker Creek to the present location of Dredge Canadian No. 4 on the Klondike River just above Bear Creek. It embraces the following lands:

- (a) The lower portion of the Anderson Concession, from the narrows at the mouth of Hunker Valley (near the end of the Rock Creek Ditch and the Hunker Pumping Plant) to the lower boundary of the Concession near the Arlington Road House.
- (b) Creek Claims 28, 29, and 29-A. Below the Mouth of Last Chance on Hunker Creek. These claims lie between the lower Anderson Concession boundary and the upper Boyle Concession boundary.
- (c) The "Jenkins Group" of claims which cover the main Klondike Valley, adjoining and immediately above the Boyle Concession

- (d) The upper portion of the Boyle Concession in the Klondike Valley, from the Yukon Gold siphon to the East Boundary.

For convenience in laying out the examination and working plans the project has been divided, more or less by physical characteristics, into six working areas as follows:

- (1) Foster Creek Area.
- (2) Klondike Area.
- (3) Approach Area.
- (4) Arlington Area "A".
- (5) Arlington Area "B".
- (6) Arlington Area "C".

1--FOSTER CREEK AREA

This area, which Dredge Canadian No. 4 will enter early next spring, embraces the thawed ground along the Hunker Slough, North of the old dredge No. 4 tailings and roughly opposite the Mouth of Foster Creek on the Right Limit of the Klondike Valley. It is naturally thawed heavy "Klondike Wash" and is limited in extent by the frost line along the north bank of what was formerly the Hunker Slough but is now the main Klondike River.

2--KLONDIKE AREA

This area also completely thawed "Klondike Wash" adjoins the Foster Creek area on the upstream or east end. It includes the main channel of the Klondike River between the existing Dredge No. 4 tailings and the bluff along the Right Limit of the River, the large gravel bars and islands in the Klondike north and east of the upstream end of Dredge No. 4 tailings, and the naturally thawed area at the junction of Hunker Creek and the main River.

3--APPROACH AREA

The "Approach Area", so designated because it is the selected approach for the dredge from the Klondike River to the Arlington or Hunker pay streak, lies along lower Hunker Creek and roughly parallel with the new main drain. Ninety percent of this area is thawed at present. It lies entirely within the boundaries of the Boyle Concession.

4--ARLINGTON AREA "A"

This area, which is the most difficult of all from an operating point of view, adjoins the upper or East end of the "Approach Area." It covers the area in which the Hunker and Arlington pay

streaks have been washed out and scattered by the Klondike River. It is primarily Klondike Wash, though overlain (and in some places underlain) by secondary Hunker sands and gravels, and is frozen from the surface down. This area also lies entirely within the boundaries of the Boyle Concession, and is virgin ground.

5--ARLINGTON AREA "B"

This area, lying between the east line of "A" area and the lower boundary of the Anderson Concession, covers portions of the Boyle Concession, the Jenkins Group and claims 28, 29, and 29-A below Last Chance on Hunker Creek. The gravels, though primarily White Channel and Hunker Creek, also include a large portion of "Klondike Wash." It is all frozen and has been extensively worked by underground drifting.

6--ARLINGTON AREA "C"

Arlington "C" covers the best part of the entire project. It lies entirely within the boundaries of the Anderson Concession and covers both the "Old Channel" and the Hunker Creek pay streaks. Though heavily overlain with muck and moss the gravel is such as will readily lend itself to ordinary water thawing methods and no Klondike Wash was indicated by the drill holes. The old White Channel lying along the North east boundary of the area near the base of the hill, carried very high bedrock values and has been extensively drifted. The Hunker Creek pay streak along the south west boundary has been partially dredged by Yukon Gold Dredge No. 5, but the area lying between the two paystreaks is practically virgin.

CLAIMS AND OWNERSHIPS

Mining Rights on the following grounds within the project are held outright by the Yukon Cons. Gold Corporation.

- (1) The Anderson Concession.
- (2) Creek Claims 28, 29, and 29-A below the mouth of Last Chance on Hunker Creek.
- (3) The Boyle Concession.

The following Claims, comprising what is known as the "Jenkins Group" are held by the Yukon Consolidated Gold Corporation under option from Ernest Schink, the terms being \$5000.00 for the entire group, payable October 1, 1952, or when mining operations are actually begun, whichever may be the earlier.

- River Claim No. 1--Jenkins Group.---L. L. Klondike River.
River Claim No. 3--Jenkins Group.---L. L. Klondike River.
Bench Claim No. 1--First Tier. Jenkins Group.--L. L. Klondike River.

Bench Claim No. 2--First Tier. Jenkins Group.--L. L. Klondike River.
Bench Claim No. 3--First Tier. Jenkins Group.--L. L. Klondike River.
Bench Claim No. 1--Second Tier. Jenkins Group.--L. L. Klondike River.
Bench Claim No. 2--Second Tier. Jenkins Group.--L. L. Klondike River.
Bench Claim No. 3--Second Tier. Jenkins Group.--L. L. Klondike River.
Bench Claim No. 1--Third Tier. Jenkins Group.--L. L. Klondike River.
Bench Claim No. 2--Third Tier. Jenkins Group.--L. L. Klondike River.

The above two groups include all of the ground within the workable area of the Arlington Project. The following claims were staked by the Yukon Consolidated Gold Corporation last summer to protect the area from tailings, trouble over surface or water rights etc., and to provide rights of way for ditches, roads, and pipe lines.

Hill L. L. 29 Below Last Chance on Hunker Creek.
Bench--Second Tier, L. L. 29 Below Last Chance on Hunker Creek.
Creek Discovery on Rabbit Gulch.
River Claim No. 2. L. L. Klondike River.

Various Hill claims along the left limit of the lower end of the Anderson Concession are also held by the Company to insure that all creek pay gravels can be worked should they later be found to extend outside the exact Concession boundary.

PHYSICAL CHARACTERISTICS

The naturally thawed ground along the Klondike River in the "Foster Creek" and "Klondike" areas is similar in all respects to that now being handled by dredges Canadian No. 2 and No. 4. The gravel is in general, coarse, heavy and hard. Boulders average up to about 12 inches in diameter and large boulders above 20 inches in diameter are uncommon. Occasional lenses of hard sand are encountered but in general it is ideal gravel for dredging, though the exceptional hardness of both sand and boulders causes excessive wear on the dredges.

Bedrock is all Klondike schist, which has weathered sufficiently to permit a dredge to dig from three to four feet into it. This is in all cases below the penetration of values.

The surface is covered with a light layer of soil and brush, with some large cottonwood timber on the islands.

The "Approach Area" is similar to the Klondike areas in so far as gravel and bedrock are concerned, however it is overlain with a layer of sand and fine gravel from Hunker Creek and has a considerably heavier surface growth. There are also parts of this area which are covered with moss and swamp grass and therefore still frozen. Our examination of this area and our past experience with Klondike gravel elsewhere, indicates that if stripped and subjected to the action of clear running water the gravel will thaw to bedrock in about three years. Wherever the Hunker Creek flood water has exposed the gravel in the "Approach Area" it is thawed. The work done in clearing Hunker Creek in 1933 and in stripping with the new main drain in 1934 has already considerably increased the

naturally thawed ground in the "Approach Area" and we anticipate no difficulty in having this area ready for dredging in 1937. An ample supply of water for the dredge is available from Hunker Creek and the Rock Creek Ditch.

The Arlington Areas "A"- "B"- "C" present considerably more difficulties from an operating point of view, particularly in regard to thawing. These areas are all flat swampy ground, with a heavy undergrowth of brush, moss and "nigger heads." Large portions of these areas are also covered by old tailings from underground workings and ponds where old drifts have sunk down. They are favorably situated for stripping however, with a good supply of water available. The entire area is traversed by Hunker Creek, which has a grade of 56 feet from the upper line of "C" area to the Klondike River. Hunker Creek has a summer low water flow of about 300 Miner's Inches but a Spring flood flow of around 10,000 Miner's Inches.

The Rock Creek Ditch, which takes water from the main Klondike River in the vicinity of Rock Creek, lies immediately above the "B" and "C" areas. This ditch, originally built for 500 Miner's Inches, has been repaired and enlarged to a capacity of approximately 1000 M. I. and it is intended to enlarge it to 1500 or 2000 M.I. during 1935. The elevation of this ditch opposite the "B" area is 57 feet above the Klondike River at the mouth of Hunker Creek.

PAY STREAKS

There are apparently three distinct pay streaks, or rather sources of pay, in the Arlington area. The richest and most important of these is an old "White Channel" or ancient channel of Hunker Creek, the bedrock of which is approximately 20 feet above the bedrock of the present Hunker Creek Channel. This channel, remnants of which appear intermittently for miles along the right limit of Hunker Creek, enters the Arlington Area at the high point where the present sub-station and pumping plant stand, and continues along the base of the hill just below the Rock Creek ditch, gradually losing its identity as it merges with the Klondike gravels near the north-western corner of the "B" area. This ancient channel has been partially, and in some places almost entirely cut out by the more recent Hunker Creek channel in the "B" and "C" areas. In the upper part of the "B" area the Klondike River channel has cut across it and the old channel is washed out or overlain with heavy Klondike gravels, all traces of it being lost in the "A" area and that portion of the Klondike Valley lying north of the "B" area. For many years prospectors and various operating companies here have endeavored to find a continuation of this channel without success. The various shafts shown on our map in this vicinity represent all of the early attempts we have been able to find a record of, and the "35 line" of drill holes put down in 1933 indicates the result of our own attempt. It is evident that this old channel has been completely destroyed by the more recent Klondike channel and the values scattered down the present Klondike Valley.

Where the old channel is still intact, typical "White Channel" gravels and white quartz sand are found on Bedrock, overlain by more recent yellow gravels and Hunker wash. In some places practically all of the white channel gravel has been washed out and replaced with schist pebbles and Hunker wash, the original values remaining on bedrock however. The gold in this channel is quite distinctive and can be clearly segregated from the Hunker Creek pay. The concentrates carry large amounts of iron pyrite but no tin stones and we have found isolated streaks or lenses of it all the way down the Right Limit of the Klondike Valley. This pay streak is now clearly located at Dredge Canadian No. 4 and accounts for most of the good values found along the right limit of her area. We are also endeavoring to pick it up with Dredge Canadian No. 2 lower down the Valley.

The second and largest source of pay in the Arlington Area is the Hunker Creek pay streak. This is a comparatively recent channel cut by the present Hunker Creek, most of the values in it being derived from the Old High Level White Channel along the left limit of the creek. Hunker Creek roughly parallels this old White Channel from Gold Bottom to the Arlington, values in the creek being more or less dependent on the proximity of the old channel and the amount of erosion from it. Values on the lower end of the Anderson Concession and the Arlington Area are derived mainly from the erosion of Dago Hill by Dago and Henry Gulches, which discharge into Hunker on the Concession, also from the erosion of the White Channel itself by Hunker Creek below Henry Gulch. Gold of the Hunker Creek pay streak in the Arlington area closely resembles Dago Hill gold in fineness and appearance, being dark and heavy, with a basic value of from \$15.50 to \$15.70 per ounce. This pay streak also contains great numbers of the typical Dago Hill tin stones. Like the first described pay streak, this Hunker pay is found in quite distinct streaks and lenses down the main Klondike Valley to a point considerably below Bear Creek. Dredge Canadian No. 4 has crossed and recrossed a streak of this pay on each swing across the Valley during the past two seasons. Pay streaks in the Klondike Valley however are more in the nature of isolated lenses, or a series of small partially connected lenses, than continuous streaks.

The third source of pay in the Arlington Area is introduced by the Klondike River itself and accounts for some of the values found on the northern edge of the "B" Area and the low values located by the "35" line of drill holes on the Right Limit of the Klondike Valley. The pay found upstream from the "B" area was probably derived from Australia Hill and Rabbit Gulch and the Right Limit pay carried down from tributaries in the vicinity of All Gold and Flat Creek.

EXAMINATION WORK

In laying out the Arlington examination work we first searched all old maps, records, and reports available for authentic prospecting information, and incorporated everything available on our examination map. The area was then surveyed and laid out on coordinates, the north and south coordinate lines being numbered and the east and west lines

lettered. The lettered lines are spaced 150 feet apart and the numbered lines approximately 129 feet apart. Drill holes were put down 300 feet apart on the odd numbered lines only, which gives us a 300 foot equilateral triangle spacing over the area. Wherever exceptional values were found check holes were put down on a 150 foot spacing, such holes of course being separately averaged in with the original holes before calculating area averages.

Drilling was started in 1933 with a No. 3 and a No. 5 Keystone steam traction drill. In 1934 the heavy No. 5 drill was taken off the area and the new No. 71 gasoline caterpillar type Keystone Drill substituted. The Hunker Creek gravels are comparatively easy drilling but the heavy Klondike Wash is, we believe, the hardest known gravel for any type of prospecting drill. The swampy surface and the many old ponds and tailing piles further added to the cost of drilling. The following tabulation summarizes the number of holes, footage, and cost per foot drilled for both the 1933 and 1934 season.

	<u>Holes</u>	<u>Total Ft. Drilled</u>	<u>Average Depth</u>	<u>Hours Drilling</u>	<u>Ft. per Hour</u>	<u>Total Cost</u>	<u>Cost per ft. Drilled</u>
1933	100	3806.9	38.07	5079	.750	17,714.95	4.65
1934	49	1976.4	40.33	2000	.988	8,250.33	4.17
Total	149	5783.3	38.81	7079	.818	25,965.28	4.48

The drills were operated on two ten hour shifts, the total crew for each drill consisting of the following:-

- 2 drillers at 60¢ per hour (plus board)
- 1 panner at 50¢ per hour (plus board)
- 2 Firemen at 45¢ per hour (plus board)
- 1 Wood Buck at 45¢ per hour (plus board)

The wood buck was used where fuel had to be cut or gathered on the ground. Where sawed wood was supplied by team from the camp the extra man was not required.

Drilling methods and procedure followed the standard system adopted in 1933 for all examinations, that is all samples were sent to Bear Creek for fine panning and weighing. (This drilling procedure has been described in detail in the report on Quartz Creek.) It was evident that a considerable saving in drilling costs could be made by the use of gasoline caterpillar drills instead of the old steam drills.

One drill started on what had been estimated to be the richest ground on the project, that is the "C" area just north of the old Yukon Gold Company dredge tailings, as it was felt that if this ground did not "prove up" the project had little merit. The second drill started cross-cutting the entire Klondike Valley on the "35 line" to see whether or not a continuation of either the old White Channel or the Hunker Creek pay streaks could be located. One of the first holes put down on this line, (No. S-35) gave a value of \$1.15 per cubic yard for the gravel alone and \$.614 per cubic yard for the total depth from top to bottom. It was at first thought that we had located an extension of the

Hunker pay streak but check holes put down on each side of the "S" hole failed to show any values whatever. This is probably just a "spot" where Hunker pay has been reconcentrated by the Klondike River. The "35 line" failed to locate any definite pay streak, though it did indicate traces of both the White Channel and Hunker Creek pay in the "A" area.

We next tried to determine whether or not the apparent paystreak shown by the "G-G" holes on Lines 23, 29, and 35 continued to the "L-L" hole on line 59, as if so this would give us an approach for the Dredge from the Klondike through fairly high grade gravel. Offset holes proved that it was not a paystreak but merely a few high grade spots in line. We therefore continued our regular spaced holes with the small drill in the "B" and "C" areas to arrive at an accurate estimate of values in the Arlington area proper and used the heavy drill, (and later the caterpillar drill) to determine the most suitable approach area. This was done by means of drill hole lines 770 apart, cross-cutting Hunker Creek, which outlined the naturally thawed area as well as indicating values. The approach area finally selected was determined by values, natural thawed ground available and the suitability of the frozen ground for rapid thawing by stripping alone.

The attached tabulations give the detail of all drill holes put down in the course of the examination, as well as check values based on tabulations of old shafts and drill holes.

YARDAGE AND VALUES

Foster Creek Area

The estimated yardages and values of this Area are as follows:

Total Area in Square Yards--Approximately	124,250
Average Working depth-----Approximately	19.7 ft.
Total Cubic Yards in Area---Approximately	815,908
Average Value per Cubic Yard-----	5.0 ¢
Total gold content of Area-----	\$ 40,795.40
Average depth of Overburden-----	1 ft.
Average depth of Gravel-----	15.7 ft.
Average depth of pay in Bedrock-----	3 ft.

This area will be dredged unstripped and only naturally thawed ground will be handled. Yardage available is calculated from an approximate estimate of the thawed ground based on surface indications only, as additional expense to determine the exact limits of the thawed area is not justified. Values are determined from the records of a few old drill holes in the area and from dredge recoveries in the adjoining area. In general this area can be considered similar to the ground in which Dredge Canadian No. 4 is operating at present, though considerably shallower. Much of it is

in the river bed and carries no overburden. Such ground can be mined with a clear profit and it will be to our advantage to dredge all of the thawed ground available in the area.

The average value of the drill holes in the area is 6.43 cents per Cubic Yard. Dredge recoveries in the adjoining area, as shown by old working maps were as follows:-

Date	"D" Depth in Feet	"L" Length of Cut	"V" Value per Cu. Yd.	"D" X "L" (Section)	"D" X "L" X "V"
Oct. 1922	33 ft.	1000 ft.	5.8	33,000	191,400
Nov. 1922	33 ft.	1000 ft.	5.1	33,000	168,300
Dec. 1922	27 ft.	400 ft.	8.5	10,800	91,800
June 1923	24 ft.	1200 ft.	7.14	28,800	205,632
July 1923	31 ft.	1600 ft.	2.39	49,600	118,544
<u>Totals</u>	<u>148 ft.</u>	<u>5200 ft.</u>	<u>28.93</u>	<u>155,200</u>	<u>775,676</u>
Numerical <u>Average</u>	<u>29.6</u>		<u>5.78</u>		
Weighted <u>Average</u>	<u>29.85</u>		<u>5.00</u>		

This indicates an average value of 5.0 cents per cubic yard for the ground immediately adjoining the Foster Creek Area, which figure checks with the average value of all ground dug by Dredge Canadian No. 4 during the season of 1933, that is, 5.15 cents per cubic yard--(basic value). As a conservative estimate I have calculated the value of the Foster Creek Area at 5 cents per cubic yard.

KLONDIKE AREA

The estimated yardages and values in this Area are as follows:-

Total Area in Square Yards-----	338,700
Average Working Depth-----	24.1 ft.
Total Cu. Yards in Area-----	2,720,890
Average value per Cu. Yd.-----	3.62 ¢
Total gold content of area-----	\$ 98,496.00
Average depth of overburden-----	2.0 ft.
Average depth of gravel-----	19.1 ft.
Average depth of pay in Bedrock-----	3.0 ft.

The large tailing surrounded "island" near the center of the Klondike Area is included in the above summary. This "island" has an area and estimated value as follows:-

Area in Square Yards-----	57,950
Average Depth-----	24.1 ft.
Total Cubic Yards-----	465532
Average Value per Cubic Yard-----	3.62 ¢
Total Gold Content-----	\$ 16,852.00

There are nine old drill holes in the Klondike Area, the Average value of which has been calculated at 4.82 cents per cu. yard. There is also one shaft with a value of 7 cents per cu. yard. All of these drill holes are in the western part of the area and do not apply to the large area upstream along the Klondike, or the area near the mouth of Hunker Creek. The only indication we have of values here is our "59 line" of drill holes put down in 1933, the average value of which is only 1.23 cents per cubic yard. In arriving at an average value for the area we therefore considered the nine drill holes are representative of two thirds of the area and the "59 line" as representative of one third, giving an overall average of 3.62 cents per cu. yard.

The Klondike Area will be dredged unstripped, there being very little overburden and the entire area thawed. Should recoveries warrant it, a large amount of ground further up the Klondike River can be added to the "Klondike Area" outlined herein. The main river and bars are thawed clear to the Boyle Concession boundary but such prospecting as has been done to date does not indicate profitable values. In this connection I would state however that drill prospecting in the Klondike gravel in areas where values are below three cents per cu. yard, cannot be relied ^{upon} for accuracy within less than one cent per yard, unless a large number of holes are put down.

There is also a possibility of adding some yardage to the Klondike Area along the edge of the existing tailings just south of the mouth of Hunker. Two or three shafts in this area indicate workable values but the exact extent of the thawed ground has not been determined as yet. The amount of ground dredged in the Klondike Area will also depend largely on the progress made with the stripping and thawing operations in the Arlington Area.

Approach Area.

The estimated yardages and values in this area at present are as follows:-

Total Area in Square Yards-----	149,100.
Average Working Depth-----	43.4 ft.
Total Cubic Yards in Area-----	2,156,980.
Average Value per Cubic Yard-----	1.53 ¢
Total Gold Content-----	33,000.00
Percent of total Gold in Gravel-----	61.64 %
Percent of total Gold in Bedrock-----	38.36 %
Average Depth of Overburden-----	8.6 ft.
Average Depth of Gravel-----	33.3 ft.
Average Depth of Pay in Bedrock-----	.5 ft.
Character of Ground-----	Thawed

In calculating the values in the "Approach Area" the averages of the following drill holes were taken:-

<u>Line No.</u>	<u>Holes</u>	<u>Depth of Muck</u>	<u>Depth of Gravel</u>	<u>Depth of Pay in BR</u>	<u>Working Depth</u>	<u>Value per Cu. Yd.</u>
59	10	3.9 ft.	30.3 ft.	.7 ft.	36.0 ft.	1.23 ¢
53	7	7.4	28.4		37.4	.15
47	7	9.4	44.1	.1	54.0	.65
41	6	10.7	35.3	.5	47.8	1.63
<u>35</u>	<u>8</u>	<u>11.6</u>	<u>28.6</u>	<u>1.4</u>	<u>41.6</u>	<u>4.01</u>
<u>Average</u>	<u>38</u>	<u>8.6</u>	<u>33.3</u>	<u>.5</u>	<u>43.4</u>	<u>1.53</u>

The small number of holes actually within the area would not give an accurate average and it is considered that the average value of the entire area drilled in this vicinity would give more reliable figures.

A value of 1.53 cents per Cu. Yd. is too low for profitable dredging even in thawed ground; however our present stripping operations will remove a large part of the overburden which, with the present premium on gold, will probably bring the recoveries just about up to operating costs. Another favorable factor is the fact that if values are too low for profit it will not be necessary to take more than a single cut through the area in the lower part, cutting the total yardage to be handled down to about 800,000 cubic yards.

As mentioned previously, drill hole results in ground of this character cannot be considered absolutely accurate when values are below 3 cents per cubic yard. The approach area lies between ~~them~~, and directly in line with, the high grade Arlington Areas and the Klondike Area, in which Dredge Canadian No. 4 has been operating for the past ten years. There seems no reason to believe that the Approach Area will be very much lower grade than the lowest grade areas encountered by Canadian No. 4, which generally yield about 2 cents per cubic yard on the basic value of gold.

"A" Area.

From a dredging point of view this area is considered the most unfavorable ground in the project. With the exception of small spots directly in the bed of Hunker Creek the entire area is frozen from top to bedrock. The estimated yardages and values of the "A" area are as follows:-

Total Area in Square Yards-----	199,700.
Average depth of Overburden-----	13.4 ft.
Average depth of Gravel-----	28.1 ft.
Average depth of pay in Bedrock-----	1.4 ft.
Average working depth unstripped-----	43.7 ft.
Average working depth when stripped-----	30.3 ft.
Total Cu. Yds. including overburden-----	2,908,963.

Total Cubic Yards of overburden-----	891,993.
Total Cubic Yards when stripped-----	2,016,970.
Value per Cu. Yd. when stripped-----	6.37 ¢
Value per Cu. Yd. unstripped-----	4.42 ¢
Total Gold content-----	\$128,500.00
Percent of gold in gravel-----	53.28 %
Percent of gold in bedrock-----	46.72 %
Character of ground	Frozen

The above values have been calculated on the drill holes put down during the current examination only. They are substantiated however by the values of a number of old shafts put down in this vicinity, a tabulation of which is attached to this report.

Area "A" covers that portion of the Klondike flat where the separate identities of the old White Channel and Hunker pay streaks are completely lost and their values dissipated by the Klondike wash. Most of the Klondike gravel ~~is~~ in the area is overlain with comparatively recent sands and fine gravel from Hunker Creek. Such of the original values of the old channels as remain are concentrated on bedrock, the Klondike wash itself being practically barren and the gravel values indicated by the drill hole summary being the result of secondary concentrations in the recent Hunker Creek wash. The values along the northern edge of the area appear to be remnants of the old White Channel pay. They are not continuous however and are probably bedrock concentrations retained by some local characteristic of the bed-rock itself.

If this area can be stripped and sun thawed it can be worked at a profit, but most of it will not pay for point thawing. The location is such that all of the area can be worked or a large portion of it abandoned should thawing prove difficult or too expensive. Klondike wash will thaw readily if stripped and exposed to the action of sun and running water for two or three summers and this is considered the only practical method of handling it. The finer Hunker gravels will likewise thaw from the surface, but at a much slower rate than the Klondike gravel. It is estimated that it would take four or five seasons to thaw ordinary Hunker gravel from 25 to 30 feet deep by this method. The fine sand and silt overlying much of the lower end of the Hunker pay area will only thaw down about three or four feet in the summer and unless stripped off will completely freeze back during the following winter. Hunker gravel, and the fine sand overlying it, are quite suitable for water point thawing however, but the low values in the "A" Area eliminate this method from consideration except where necessary to take the dredge through. The area should first be stripped of all overburden and sand, water point thawing used (if necessary) over an area sufficient to insure a passage for the dredge through to the "B" area, and the remainder allowed to surface thaw to whatever extent the time available will permit. Approximately 300,000 Cubic Yards will be required for such a passage and would preferably be thawed along the southern edge of the area.

The "Synopsis of Thawing Methods" (No. 11) attached hereto covers the various methods applicable to the Arlington Project, the "A" area of which presents the only real problem.

Area "B"

The estimated yardages and values of the Arlington "B" Area are as follows:

Total Area in square yards-----	351,050.
Average depth of overburden-----	11.3 ft.
Average depth of gravel-----	26.0 ft.
Average depth of pay in bedrock-----	1.3 ft.
Average working depth when stripped-----	28.3 ft.
Average working depth unstripped-----	39.5 ft.
Total Cu. Yds. including overburden-----	4,622,158.
Total Cu. Yds. of overburden-----	1,310,586.
Total Cu. Yds. when stripped-----	3,311,572.
Value per Cu. Yd. unstripped-----	9.4 ¢
Value per Cu. Yd. stripped-----	13.13 ¢
Total gold content-----	\$434,809.00
Percent of gold in gravel-----	30.46 %
Percent of gold in bedrock-----	69.54 %
Character of ground-----	Frozen

There were 36 drill holes put down to Bedrock in the "B" Area during 1933-34, on a 300 foot triangular spacing, and the above averages are based on these holes alone.

Area "B" presents no great difficulties for either stripping or dredging. Most of it lies within the White Channel and the Hunker pay streaks, the gravel of which can be readily thawed with small water points driven to bedrock. In the north eastern section there is an intrusion of Klondike Wash which may require a few drill holes and large water points. This gravel is interlain with the lighter White Channel but if stripped far enough in advance of dredging may thaw naturally.

The area has been extensively worked by drifting and large sections are covered with tailings. After the exposed overburden has been stripped off, the tailings can either be blown off and the underlying muck stripped, or both tailings and muck can be water thawed in place, depending on the time available.

Attached is a schedule of the old prospecting shafts in the vicinity of the "A" and "B" areas, which indicated an average value of 17.62 cents per cu. Yd. for the lower part of the "B" area. While the individual shaft values are accurate the irregular spacing has somewhat exaggerated the average value.

Area "C"

The estimated yardages and values of the Arlington "C" area are as follows:

Total Area in square yards-----	231,600
Average depth of overburden-----	10.5 ft.
Average depth of gravel-----	20.6 ft.
Average depth of pay in bedrock----	1.5 ft.
Average working depth unstripped---	33.3 ft.
Average working depth when stripped	22.7 ft.
Total Cu. Yds. including Overburden	2,570,760.
Total Cu. Yds. of overburden-----	818,320.
Total Cu. Yds. when stripped-----	1,752,440.
Value per Cu. Yd. unstripped-----	22.76 ¢
Value per Cu. Yd. when stripped----	33.32 ¢
Total Gold Content-----	\$ 585,104.00
Percent of gold in gravel-----	30.39 %
Percent of gold in bedrock-----	69.61 %
Character of ground-----	Frozen

There were 34 Drill Holes put down to bedrock in the Arlington "C" Area during this examination. Of these, 6 were "offset" or check holes, put down as intermediate holes in high grade spots to check the original holes. In calculating the average value of the Area these check holes were first averaged separately with their corresponding original hole, the average value of the two then being used as though it were a single hole. This eliminates the inaccuracy due to more holes in high grade areas than in low grade.

One drill hole, No. N-3, averaged \$2.817 per cubic yard, which value was cut to \$1.00 per cubic yard, for the total working depth in our calculations of average values.

The "C" area includes the tailings of old Yukon Gold Company dredge No. 5 which worked a small portion of the Anderson Concession in 1908-09. This dredge, which was built near the Arlington Road House, and worked upstream, was unable to reach bedrock in much of the area covered, due to the fact that insufficient time had been allowed for thawing and the steam plant could not thaw the ground fast enough. Exact figures on the production of this dredge are not available, however as I recall it, the ground handled in 1908 was rich but the dredge did not recover the prospect values on account of the depth and the imperfectly thawed bedrock. In 1909 the ground was fairly well thawed and shallower but recoveries were too low for profitable operation. Other difficulties in connection with their working agreement on the Anderson Concession also prompted the Yukon Gold Company to move this dredge to their high grade ground on Bonanza Creek in 1909.

This dredged area covers 31,050 square yards, with an average depth of 32.3 feet and a total cubic yardage estimated at 334,305. In calculating the values of the "C" area this dredged ground, which has an estimated value of 5 cents per cubic yard, was not included though it will almost certainly pay to dredge. Most of these tailings are thawed and the remainder can be easily covered with water points.

The "C" area has been extensively worked by drifting in the old channel along the Rock Creek Ditch. The original values in this ground were very high, the first drill hole put down on it by the Yukon Gold Company in 1911 averaging \$449.29 per cubic yard! Drifting was carried on both by the Yukon Gold Company and various laymen and the main paystreak has been pretty well cleaned up. However enough pay remains in the bedrock and on the sides to insure profitable operations for Dredge No. 4.

Attached hereto is a schedule of all old Yukon Gold Company drill holes in the "C" Area on which authentic figures are available. This schedule includes the holes remaining in virgin ground only, that is, drill holes in ground which was later drifted or dredged have been dropped out. This schedule gives an average value for the area of 27.75 cents per cubic yard with an average depth of 31.4 feet, as compared with an average value of 22.76 cents and a depth of 33.3 feet for our recent drill holes covering the entire area.

"C" area has been arbitrarily cut off on a line drawn between the Irving Bench and the Hunker Pumping Plant, this being the limit of our 1934 drilling. The adjoining area upstream on the Anderson Concession was thoroughly prospected by the Yukon Gold Company and their reports are available, so that further drilling is unnecessary from the Arlington Area to Last Chance. Estimates made last November indicate that the area immediately adjoining the Arlington Project will average about 40 cents per cubic yard when stripped. These areas are covered in detail in the report of last November on gravel reserves. Approximately 60% of the "I" Block shown on the Summary of the Anderson Concession gravels last Fall has now been included in the Arlington Project.

The entire Arlington Project has been laid out on the assumption that the dredge will continue on upstream from Area "C" and eventually cover the entire Anderson Concession.

PROPOSED METHOD OF WORKING

It is intended to work the entire Arlington Area, and later the Anderson Concession and Last Chance areas on Hunker Creek, with Dredge Canadian No. 4, which is at present digging in the Klondike Valley just above the Yukon Gold siphon. Early next season Dredge No. 4 will cut through the narrow tailing pile, north of her present cut and near the siphon, into the Foster Creek Area. She will then turn upstream along the Hunker Slough, taking all the thawed ground available between the tailings and the river bank. The exact width of thawed ground is not known, however we know that there is sufficient for a single dredge cut all the way up and in some parts of the area sufficient width for two or three swings. It is probable that the dredge will work out the entire Foster Creek area in 1935, swinging in behind the tailings for a winter berth.

In 1936 the dredge will enter the Klondike Area, digging both the River bed and the island in the tailings. The amount of ground worked

in the Klondike area will depend, first on recoveries, and second on the progress of the stripping and thawing program in the Arlington Area. It is certain that sufficient profitable ground is available for one full season's operations, with a good possibility of two seasons' work. Drill hole results such as the 59-LL hole with a value of 8.7 cents, and the 14.4 cent hole on the gravel bar west of it, would seem to indicate the existence of a pay streak or a series of disconnected high grade spots through the Area. All of the Klondike River area upstream from the 59 line of drill holes is thawed ground but as stated previously it is probable that values here are too low for profitable operations.

The dredge should be ready to enter the "Approach Area" in the latter part of 1937. This allows us three full seasons for stripping in the Approach Area, most of which is thawed now. Like the Klondike Area, the amount of yardage handled in the Approach area will depend entirely on recoveries, but under average conditions the dredge will reach Area "A" in 1938.

There is little to be gained by extensive stripping in the "Approach Area", except in the extreme eastern end. The dredge can handle this material at a lower cost per cubic yard than ordinary stripping entails, but this saving will of course be offset by the loss of time due to dredging additional yardage with no increase in recovery. It is therefore proposed to strip only such ground in the lower end of the "Approach Area" as can be handled with the run-off water of the Main Drain, without pumping. In the Western or upstream end of the Area we will strip as wide as possible to permit the dredge to "widen out" into the "A" area. In estimating working costs for this area I have assumed that it will be dredged without stripping, for the reason that it can be dredged in this manner at an overall cost of 4 cents per cubic yard and unless stripping costs are below this figure stripping is not justified.

The general scheme of stripping and thawing suggested for the Arlington Project (and later for the Anderson Concession Area) is as follows:-

- (a) Reconstruct and enlarge the Rock Creek ditch to a capacity of 1500 Miner's Inches. (It was originally laid out for 500 Miner's Inches.)
- (b) Cut a straight main drain down to gravel through the deepest overburden (as determined by the Drill Hole Cross Sections) from the upper line of "C" area to the Klondike River. This drain to be cut by first stripping with the grader then by use of the Rock Creek Ditch water under its natural head.
- (c) Divert the waters of Hunker Creek into the main drain to secure full advantage of the Spring floods in deepening and widening it.
- (d) Strip and burn over the entire working area.
- (e) Cut lateral drains into the Main drain on about 200 foot intervals with the Rock Creek Ditch water, in the same manner as the Main Drain was cut, that is, first cut furrows or narrow trenches with a grader or plow, then divert water into them by pipes from the Rock Creek Ditch.
- (f) Set up a sub-station and 2300 volt distribution lines for pumping plants.
- (g) Set up two high pressure pumps for monitors, one a semi-permanent installation using Hunker Creek water for the "C" area, and one a portable installation using water from the Rock Creek Ditch pipe for the "A" and "B" areas. Monitors fed by these pumps will strip the areas between the lateral drains, there being from four to six monitors on each

pump line with two in use at a time. The tailings covered areas would not be stripped in this first set up.

- (h) Extend the Main Drain up Hunker Creek toward the Last Chance Area.
- (i) Set up a low pressure pumping station for water point thawing of tailings covered areas and such other areas as experience indicates will not thaw naturally. Water point thawing to be carried on in tailing areas and stripped ground only.
- (j) Divert Government Roads from working area to Hillside.

On a time basis this program would be carried out approximately as follows:

1934

- (a) Enlarge Rock Creek Ditch.
- (b) Cut Main Drain.
- (c) Divert Hunker Creek.
- (d) Strip and burn over area.
- (f) Set up Sub-station.

1935

- (a) Continue enlargement of Rock Creek Ditch.
- (b) Cut lateral drains, starting in "A" area.
- (f) Build distribution power lines.
- (g) Set up high pressure pump for "A" area and start stripping into Main Drain. A second drain may also be cut here from Drill Hole 35-GG to Hole 47-GG.
- (g) Set up pump station near camp and start stripping in "C" area.
- (h) Extend main drain up Hunker Creek along Right Limit of Creek toward Last Chance, stripping and burning area at the same time.
- (j) Divert Rock Creek Road to Hillside near Rock Creek Ditch.

1936

- (e) Continue lateral drains in the "B" and "C" areas.
- (g) Continue with stripping pumps in "A" and "B" and "C" areas, adding additional sand pumps to recirculate water from the main drain in the "A" area.
- (h) Extend Main Drain up Hunker Creek.

1937

- (e) Continue lateral drains in the upper part of the "B" Area and in "C" area.
- (g) Continue high pressure stripping pumps in all areas and start blowing tailings on to stripped areas where ready.
- (i) Set up Low Pressure thawing pumps for "B" Area and lay out lines.

1938

- (e) Lateral drains complete.
- (g) Continue high pressure stripping pumps in "B" and "C" Areas.
- (i) Use part of Rock Creek Ditch water formerly used in lateral drains to supply thawing point pumps and start thawing in "B" Area. If the natural thawing by surface stripping alone is not proceeding fast enough in the "A" area to insure a passage for the dredge during 1938, the points will first be used to thaw approximately 300,000 cubic yards along the main drain from the "Approach Area" to the "B" Area. Use $\frac{3}{4}$ inch extra heavy driving points as standard at Fairbanks, Alaska, starting with 1800 points and three pumps of 3000 G. P. M. each, and

adding points if necessary as more stripped ground becomes available. 1800 points with 800 Miner's Inches should thaw 6500 Cubic Yards per day or 880,000 cubic yards per season.

1939

- (g) Continue high pressure stripping in tailings and carry stripping work on up Hunker Creek toward Last Chance.
- (i) Continue water point thawing in "B" and "C" areas. If the natural surface thawing rate is too slow, or if it is impracticable in some areas, owing to muck left by the stripping operations, increase the water point thawing equipment to four 3000 G. P. M. pumps and 2400 Points. This equipment will thaw 8600 cubic yards per day and approximately 1,160,000 cubic yards per season in the Hunker gravels.

1940-1943

Continue as in 1939. The dredge will enter the "A" Area in 1938 and will take approximately 5 years to work out the three areas, after which it will continue on upstream in the Anderson Concession area.

The thawing plant equipment outlined above will have a capacity of approximately 90% of that of the dredge. It is believed that the additional capacity required will be more than compensated for by ground naturally thawed in the stripping operations. Thawing will be at least two years and stripping three to four years ahead of the dredge and if surface thawing is not entirely successful the water point thawing can start in 1937 instead of 1938. The object of delaying water point thawing until 1938 is of course to avoid the necessity of thawing unstripped ground. This program keeps the initial expenditure for thawing equipment at a minimum with ample time to increase it if necessary.

EQUIPMENT AVAILABLE

The Arlington Sub-station is completely installed and in operation. The necessary material for the initial power distribution lines is available from stock. All large pipe required for conveying the Rock Creek Ditch water to the lateral cuts is available from the old Hydraulic operations.

One new ten inch direct connected 3000 G. P. M. pump designed to work against 125 foot head is on hand. This pump has a flat load curve and can be used for either stripping or thawing. A second 12 inch pump with a capacity of 3200 G. P. M. against a 75 foot head is also available for stripping. By connecting this pump to the Rock Creek Ditch pipe line the discharge head can be increased to approximately 100 feet which will be sufficient for everything except tailings. We also have several old belt-connected gravel pumps which can be utilized for recirculating the main drain water. While not as convenient or as efficient as modern pumps they will serve quite well for stripping in the lower Areas.

Sufficient 11, 12, and 14 inch pipe is available for the discharge lines of these pumps. Some 10 inch pipe will be available for headers in the

thawing plant but not enough for an economical layout. Additional 6 inch pipe will also be required for distribution to the thawing lines.

We have no $\frac{3}{4}$ inch extra heavy pipe for water points and will also require the special drill shaped driving points for this pipe in 1937-1938.

COSTS AND RECOVERIES

Cost of Examination of Arlington Project 1933-34	\$25,965.28
Cost of stripping including sub-station and equipment	17,784.70
Cost of Reconstruction of Rock Creek Ditch to date	<u>10,955.30</u>
Total to October 1, 1934	\$54,705.28

As part of the Arlington Areas will be thawed by stripping and as the two operations will be carried on simultaneously by the same organization these two costs will be combined as one charge for "Stripping and Thawing."

Value of thawing and stripping equipment now on hand (1935)

3000 G.P.M. 10" Pump complete	\$ 4,300.00
3200 G.P.M. 12" Pump complete (No charge)	
Monitors 4 (Salvage Stock)	400.00
Rock Creek Ditch Distribution Pipe (Salvage Stock)	9,330.00
Distribution pipe for pumps and monitors (Salvage Stock)	2,500.00
10" Sand pumps and motors (No charge)	
Miscellaneous valves and fittings (Salvage Stock)	1,000.00
Transformers 75 K.W. Shovel Type (2)	2,260.00
Line Material (No charge)	
TOTAL	<u>\$20,190.00</u>

Cost of New Equipment required--(1937-1938)

³⁰⁰⁰ 2 Pumps, G.P.M. complete	\$ 8,600.00
2400 thawing points complete	15,000.00
5000 lineal feet 10" Hydraulic Pipe	5,000.00
10000 lineal feet 6" Hydraulic Pipe	5,000.00
Fittings for Hydraulic Pipe	2,000.00
Hose etc.	1,000.00
Line Material	1,000.00
Monitors and fittings	<u>3,000.00</u>
TOTAL	\$40,600.00

The first cost, and cost of installation of the stripping and thawing plant equipment, the additional work on the Rock Creek Ditch, the preliminary work done to date, and the actual stripping and thawing operations each year, will be charged to the "Advance Stripping and Thawing." The accumulated charges in "Advance Stripping and Thawing" will be charged out against Dredge Operations as the ground in the "A", "B", and "C" areas is dug. Stripping and Thawing charges will not apply to the Foster Creek Klondike and Approach Areas as this ground

is naturally thawed.

The total cost of the stripping and Thawing Operations in the Arlington Area will be approximately as follows:

Cost of Examination 1933-34	\$ 25,965.00
Stripping, Sub-station Etc. To Oct. 1, 1934	17,785.00
Rock Creek Ditch to date	10,955.00
Additional expenditure in October 1934	<u>1,500.00</u>
Total of 1933-1934	\$ 56,205.00
Equipment on hand as charged	\$ 20,190.00
New equipment as per schedule	40,600.00
Renewals and additions	10,000.00
1935 Operations, Labor and Supplies	25,000.00
1936 Operations, Labor and Supplies	22,000.00
1937 Operations, Labor and Supplies	22,000.00
1938 Operations, Labor and Supplies	30,000.00
1939 Operations, Labor and Supplies	33,000.00
1940 Operations, Labor and Supplies	33,000.00
1941 Operations, Labor and Supplies	22,000.00
1942 Operations, Labor and Supplies	<u>10,000.00</u>
GRAND TOTAL	\$323,995.00

(Note:- The operating costs above do not include labor on the extension of the main drain up Hunker Creek above the Arlington Area. This work will be carried on in conjunction with the Arlington stripping and from 1941 on will gradually absorb the entire crew.)

The total yardage to be dredged in the main Arlington Area is as follows:

Area "A"	2,016,970 Cu. Yds.
Area "B"	3,311,572 Cu. Yds.
Area "C"	<u>1,752,440 Cu. Yds.</u>
Total, exclusive of Dredge Tailings	7,080,982 Cu. Yds.

$$\frac{323,995.00}{7,080,982.00} = 4.57 \text{ cents per cu. yd.}$$

As a conservative estimate a figure of 5.0 cents will be used.

Dredging costs in the naturally thawed Klondike areas will be approximately 4.0 cents per cubic yard.

In the Arlington Areas this cost will be somewhat greater, as the large amounts of sand and old workings will undoubtedly reduce the average daily yardage. A figure of 4.5 cents per cubic yard will be used here.

As dredging costs and stripping costs are practically the same I have not taken overburden left from stripping operations into consideration.

Summary of Operation Costs

Area	Overburden To remove Cu. Yds.	Cu. Yds. to be dredged	Costs per Cubic Yard Dredged			Total
			Stripping Cents	Dredging Cents	Total per cu. Yd.	
Foster Creek	0	815,908	0	4.00	4.00	\$ 32,795.00
Klondike	0	2,720,890	0	4.00	4.00	108,835.00
Approach	0	2,156,980	0	4.00	4.00	86,279.00
"A"	891,993	2,016,970	5.0	4.50	9.50	191,612.00
"B"	1310,586	3,311,572	5.0	4.50	9.50	314,599.00
"C"	818,320	1,752,440	5.0	4.50	9.50	166,482.00
<u>Tailings</u>	0	<u>334,305</u>	<u>0</u>	<u>4.00</u>	<u>4.00</u>	<u>13,372.00</u>
Totals	3,020,899	13,109,065				\$ 913,974.00

(Note: See explanation under "Proposed Method of Working" on figures for the "Approach Area" above. If values are too low for profitable operation here the amount of ground to be handled will be reduced to 800,000 cubic yards.)

CONCLUSIONS AND RECOMMENDATIONS

The Arlington Project as a whole shows a clear operating profit of \$423,445.00 at the basic or \$20.67 price of gold, with a probable profit of \$1,292,767.00 if gold stays at its present price.

The only possible area for the future operation of Dredge Canadian No. 4 is Hunker Creek. All of the equipment used on the Arlington Project will later be available for the Anderson Concession-- Last Chance Area and the Dredge will be in a position to enter this ground immediately on completion of the Arlington "C" Area.

It is essential that Hunker Creek be worked out as soon as possible so that the Creek ground may be released as tailings storage for the Hunker Hydraulic Areas. This hill ground along the Left Limit of the Hunker Valley includes some of the most promising hydraulic projects in the country, all of which is tied up until the Creek gravels have been worked out.

It is recommended that the necessary expenditure be authorized and that the preliminary work on the Arlington Project be proceeded with as outlined herein.

Yours very truly,

R. E. Franklin

R. E. Franklin
Assistant General Manager

October 1934.

ARLINGTON PROJECT

TABULATION OF DRILLING RESULTS
ARLINGTON EXAMINATION

1 9 3 3

DRILL NO. 6

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay Bedrock	Total in Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in B.R. Mgs.	Value per Cu. Yd. Total Work- ing Depth	Stripped Value per		Values cut on account of swell?	FROST	
										Cu.Yd. Bedrock only	Value Ft.¢		From--	To ft.
S-11	Ander- son Conc.	9	21	1	32	33	16	19	4.8¢	23ft.	6.7¢	154.1	No	1 - 33
V- 9	"	14	16	2	31	32	35	55	12.8	17	23.3	396.1	"	1 - 32
V-11	"	9	21	1	31	32	182	432	87.3	22	122.8	2701.6	"	1 - 32
V-13	"	16	15	3	34	35	3	227	29.8	18	56.2	1011.6	"	1 - 34
W-11	"	12	18	2	32	33	7	395	55.3	20	88.6	1772	"	1 - 33
Y- 9	"	14	16	2	32	33	27	24	7.0	18	12.5	225	"	1 - 33
Y- 7	"	10	22	1	33	35	52	2	7.2	23	10.3	236.9	"	1 - 35
X- 9	"	10	17	1	28	30	8	8	2.5	18	3.9	70.2	"	1 - 30
X- 7	"	10	16	3	29	30	40	48	13.5	19	20.4	387.6	"	1 - 30
W- 9	"	11	18	2	31	32	17	251	40.8	20	59.0	1180.0	"	1 - 32
U-11	"	9	24	1	34	37	153	96	34.4	23	47.6	1092.8	"	1 - 37
U- 9	"	10	23	3	36	37	102	232	46.8	26	65.0	1690.0	"	1 - 37
U- 7	"	15	22	1	37	40	61	Tr.	7.3	22	12.2	268.4	"	1 - 40
V- 5	"	14	16	1	31	33	1	2	0.4	17	0.8	13.6	"	T 1 - 5
W- 7	"	13	15	1	27	30	55	0	9.0	14	17.3	242.2	"	1 - 30
U-15	"	6	34	1	42	43	108	264	39.0	36	45.5	1638.0	"	16 - 43
D-13	29	12	22	2	37	37	85	11	11.4	25	16.9	422.5	"	1 - 37
Z-13	29	0	36	1	36	38	9	1	1.2	36	1.2	43.2	"	1 - 10
U-19	29	13	25	0	40	40	2	0	0.2	27	0.3	8.1	"	/ - 40
A-15	29	11	23	1	36	36	10	129	17.0	25	24.4	610.0	"	1 - 36
B-13	29	12	22	1	35	36	19	145	20.6	23	31.4	722.2	"	1 - 36
C-15	29	16	17	1	35	35	22	70	7.3	19	13.4	254.6	Yes	1 - 35
Y-15	29	8	30	1	38	39	8	25	3.7	30	4.8	144.0	No	1 - 39
X-17	29	12	27	0	42	43	1	0		30			"	1 - 42
W-15	29	9	27	1	37	40	6	15	2.5	26	3.2	83.2	"	1 - 13
A-19	29-A	10	31	2	44	44	70	248	23.9	34	30.9	1050.6	Yes	23 - 44

ARLINGTON PROJECT

(2)

TABULATION OF DRILLING RESULTS
ARLINGTON EXAMINATION
1 9 3 4

DRILL NO. 6

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in BR	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in B.R. Mgs.	Value per Cu. Yd. Total Working Depth	Stripped Value per		Values cut on account of swell?	FROST	
										Cu. Yd. Bedrock Only.	Value Ft. ϕ		From---ft.	To ft.
B-17	29-A	10	27	1	39	39	25	3	1.5	29	4.2	121.8	Yes	1 - 39
Z-17	29-A	13	29	2	45	46	32	18	4.9	32	7.0	224.0	No	1 - 46
C-11	28	18	24	2	45	44	11	15	2.5	27	4.2	113.4	"	12 - 44
A-11	28	12	25	1	39	39	1	16	1.9	27	2.8	75.6	"	1 - 39
Y-11	28	8	25	0	36	36	Trace			28			"	1 - 36
X-13	28	9	27	3	39	39	110	33	16.1	30	21.0	630.0	"	1 - 39
W-19	Boyle Conc.	12	26	1	40	40	38	343	41.9	28	59.9	1677.2	"	1 - 40
Y-19	"	11	29	1	42	42	16	37	3.4	31	4.6	142.6	Yes	1 - 42
X-21	"	15	24	1	41	41	60	125	7.6	26	12.0	312.0	"	18 - 41
B-21		14	24	1	40	40	6	1	0.8	26	1.2	31.2	No	14 - 40
Z-21		15	26	1	43	43	17	211	23.3	28	35.8	1002.4	"	1 - 43
C-19	Jenkins Group	19	19	1	40	40	Tr.	195	21.4	21	40.8	856.8	"	19 - 40
D-17		23	17	1	42	42	15	87	6.7	19	14.8	281.2	Yes	16 - 42
E-15		8	24	2	35	35	4	40	6.9	27	8.9	240.3	No	1 - 35
F-13		14	19	0	36	36	Trace			22			"	1 - 36
H-13		13	19	1	34	34	0	15	1.9	21	3.1	65.1	"	1 - 34
G-15		9	27	3	40	40	11	58	7.6	31	9.8	303.8	"	1 - 40
F-17		9	30	1	41	41	22	14	3.9	32	5.0	160.0	"	1 - 41
E-19		7	27	1	36	37	18	21	4.8	29	5.9	171.1	"	1 - 37
D-21		14	24	1	40	40	24	12	4.0	26	6.1	158.6	"	10 - 40
F-21		9	28	1	39	39	12	40	2.3	30	3.0	90.0	Yes	1 - 39
G-19		12	24	2	39	39	7	12	2.1	27	3.0	81.0	No	1 - 39
H-17		8	34	1	44	45	43	3	2.3	36	2.8	100.8	Yes	1 - 45
K-17		4	36	2	43	43	2	250	25.5	39	28.1	1095.9	No	1 - 43
J-19		10	26	0	38	38	Tr.	0		28			No	1 - 38
H-21		8	28	1	38	38	10	47	6.6	30	8.3	249.0	No	1 - 38
G-23		13	25	1	40	40	224	42	12.9	27	19.1	515.7	Yes	1 - 40
E-23		8	28	2	39	39	2	58	6.8	31	8.5	263.5	No	1 - 39
C-23		14	26	1	42	42	39	53	5.4	28	8.1	226.8	Yes	1 - 42

ARLINGTON PROJECT

(3)

TABULATION OF DRILLING RESULTS
ARLINGTON EXAMINATION
1 9 3 4

DRILL NO. 6

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in B.R.	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in B.R. Mgs.	Value per Cu. Yd. Total Work- ing Depth	Stripped Value per		Values cut on account of swell?	FROST	
										Cu. Yd. Bedrock only	Value Ft.¢		From--	To ft.
A-23		12	27	1	41	41	38	41	8.5	29	12.0	348.0	No	1 - 41
Y-23		13	26	2	41	41	91	86	19.0	28	27.8	778.4	No	1 - 41
W-23		14	25	3	43	43	13	272	17.5	29	25.9	751.1	Yes	1 - 43
U-23		15	21	0	40	40	Trace			25			No	1 - 40
S-23		24	23	2	50	50	10	41	4.5	26	8.7	226.2	No	1 - 50
T-21		13	25	1	39	39	0	10	1.1	26	1.7	44.2	"	1 - 39
V-21		4	32	1	38	38	3	3	7.0	34	7.8	265.2	"	T
V-17		10	31	1	43	43	24	54	7.9	33	10.3	339.9	No	1 - 4
T-17		12	26	1	39	40	5	24	3.3	27	4.7	126.9	No	T
T-13		7	27	0	31	36	13	5	2.5	24	3.3	79.2	No	1 - 4
S- 9		6	28	2	37	37	95	178	32.4	31	38.7	1199.7	No	1 - 15
Q-35	L.L.K.	31	18	1	51	52	56	66	10.5	20	26.8	536.0	"	T
S-35	Boyle	21	20	3	45	45	112	517	61.4	24	115.0	2760.0	"	1 - 51
U-35	Conc.	16	21	1	37	40	2	11	1.5	21	2.6	54.6	"	1 - 45
W-35	"	15	22	1	38	40	18	2	2.3	23	3.8	87.4	"	1 - 37
T-35	"	16	23	0	41	41	Trace			25			"	1 - 38
R-35	"	23	20	0	43	45	Trace			20			"	1 - 41
Y-35	"	16	25	0	42	44	3	Tr.	0.3	26	0.5	13.0	"	1 - 45
AA-35	"	10	41	0	50	52	54	0	4.7	40	5.9	236.0	"	1 - 44
CC-35	"	15	30	4	50	50	43	5	4.2	35	6.0	210.0	"	1 - 52
EE-35	"	15	25	1	42	41	5	2	0.7	27	1.1	29.7	"	1 - 50
GG-35	"	13	25	3	41	40	26	100	13.5	28	19.8	554.4	"	1 - 42
JJ-35	"	5	27	0	32	34	1	Tr.	0.2	27	0.2	5.4	"	1 - 41
LL-35	"	4	34	1	39	39	4	42	5.3	35	5.9	206.5	"	1 - 34
NN-35	"	4	30	1	35	36	Tr.	8	1.0	31	1.1	34.1	"	1 - 39
QQ-35	"	7	34	0	41	44	19	0	2.0	34	2.4	81.6	"	1 - 36
													"	2 - 44

ARLINGTON PROJECT
 TABULATION OF DRILLING RESULTS
 ARLINGTON EXAMINATION

(4)

1 9 3 4

DRILL NO.6

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in BR	Total Working Depth	Total Depth Drilled	Wt. in Gravel	Gold Mgs.	Wt. in B.R.	Gold Mgs.	Value per Cu. Yd. Total Work- ing Depth	Stripped Value per Cu. Yd. Gravel and Bedrock only		Value cut on account of swell	FROST From--To ft. ft.	
												Depth	Value Ft.¢			
SS-35	Boyle Conc.	6	37	1	45	45	5		1		0.6	39	0.7	27.3	No	1 - 45
UU-35	"	7	34	1	41	44	0		4		0.4	34	0.5	17.0	"	1 - 15
ZZ-35	"	0	29	0	31	35	3		0		0.4	31	0.4	12.4	"	T
YY-35	"	0	31	0	32	33	2		0		0.3	32	0.3	9.4	"	T
XX-35	"	0	27	0	27	27	Tr.		0			27			"	T
WW-35	"	0	33	2	37	36	12		2		1.7	37	1.7	62.9	"	T
XX-49	"	0	31	0	32	33	3		0		0.4	32	0.4	12.8	"	T
VV-49	"	0	29	1	31	31		Trace				31			"	T
TT-49	"	4	29	0	34	35	2		0		0.2	30	0.2	6.0	"	T
SS-59	"	0	26	1	28	29	4		3		1.1	28	1.1	30.8	"	T
QQ-59	"	0	28	1	29	30	0		3		0.4	29	0.4	11.6	"	T
																1 - 3
NN-59	"	1	28	1	30	31	Tr.		2		0.3	29	0.3	8.7	"	T
LL-59	"	3	26	3	32	32	10		53		8.7	29	9.6	278.4	"	1 - 32
JJ-59	"	5	26	0	31	34	1		0		0.1	26	0.2	6.2	"	1 - 34
GG-59	"	5	38	0	45	45		Trace				40			"	1 - 10
HH-59	"	5	36	1	44	44	17		4		2.1	39	2.4	93.6	"	1 - 44
EE-59	"	5	33	0	42	42	0		0						"	T
FF-59	"	10	30	0	41	43	4		0		0.1	31	0.1	3.1	"	T
DD-59	"	5	32	0	38	39	4		0		0.4	33	0.5	16.5	"	1 - 38

R. E. Franklin
 R. E. Franklin

Assistant General Manager

October 1934

ARLINGTON PROJECT

Tabulation of Drilling results
Arlington Examination
1 9 3 4

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in BR	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in B.R. Mgs.	Value per Cu. Yd. Total Work- ing Depth	Stripped Value per Cu.Yd. and Bedrock only	Values cut on account of swell	Frost From--To
BB 53	Boyle Conc.	5	33	0	40	40	4		0.4	35	0.5 17.5	No 1 - 40
DD53	"	11	28	0	41	42				30		" 1 - 20
EF53	"	9	30	0	40	42				31		" 1 - 15
AA47	"	14	35	0	50	52	23		2.0	36	2.8 100.8	" 1 - 52
BB47X	"	14	38	0	51	53	15		1.3	37	1.8 66.6	" T
Y 41	"	19	40	0	60	59	44		3.2	40	4.8 192.0	" 1 - 59
AA41	"	10	49	1	60	62	49	1	3.6	50	4.4 220.0	" T
CC41	"	13	27	1	43	42	7	5	1.2	30	1.7 51.0	" 1 - 43
CC47	"	10	57	0	65	68	7		0.5	55	0.5 27.5	" T
EE47	"	7	50	0	58	59	9		0.7	51	0.8 40.8	" T
GG53	"	8	30	0	40	40				32		" T
HH53	"	11	28	0	39	40	6		0.6	28	0.9 25.2	" 1 - 40
CC29	"	14	33	2	50	49	37	27	5.6	36	7.8 280.5	" 1 - 50
EE29	"	15	27	2	45	44	15	41	5.5	30	8.2 246.0	" 1 - 45
GG29	"	12	25	1	40	39	47	31	8.6	28	12.3 344.4	" 1 - 40
AA29	"	12	25	0	38	39	1		0.1	26	0.1 2.6	" 1 - 38
Y 29	"	12	25	0	39	39	4		0.4	27	0.6 16.2	" 1 - 39
WH 1	Anderson Conc.	12	20	2	35	35	77	48	15.7	23	23.9 549.7	" 1 - 35
WH 2	"	10	23	1	36	35	18	8	3.2	26	4.4 114.4	" 1 - 36
T 9	"	11	23	1	38	37	98	403	58.0	27	81.6 2203.2	" 1 - 38
R 9	"	12	18	2	33	32	14	119	17.7	21	27.9 585.9	" 1 - 33
Q 7	"	12	18	2	34	34	59	23	10.6	22	16.4 360.8	" 1 - 34
S 7	"	12	17	1	31	31	8	3	1.5	19	2.5 47.5	" 1 - 31
T 5	"	12	22	1	35	35	21	2	2.9	23	4.4 101.2	" 1 - 35
R 5	"	13	19	2	35	34	36	175	26.5	22	42.2 928.4	" 1 - 35
P 5	"	7	21	1	31	30	179	66	34.8	24	44.9 1077.6	" 1 - 31
M 5	"	7	16	1	24	24	35	1	6.6	17	9.3 158.1	" T

October 1934

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in BR	Total Working Depth	Total Drilled	Wt. in Mgs.	Gold in Gravel Mgs.	Wt. in B.R. Mgs.	Gold Value per Cu.Yd. working Depth	Stripped value		Values cut on account of swell	FROST From--To
											per cu.yd. vel and BR only	per cu.yd. gra-		
N 3	Anderson Conc.	9	18	2	30	30	421	1500	281.7	21	402.5	8452.5	No	1 - 30
Q 3	"	12	18	1	32	31	82	55	18.8	20	30.1	602.0	"	1 - 32
S 3	"	12	24	2	40	38	55	367	46.4	28	66.3	1856.4	"	1 - 40
U 3	"	12	20	1	33	33	8	1	1.2	21	1.9	39.9	"	1 - 33
JJ23	Boyle Conc.	9	29	0	38	39	1		0.1	29	0.1	2.9	"	1 - 38
LL23	"	7	36	0	44	44	2		0.2	37	0.2	7.4	"	1 - 44
JJ53	"	4	30	0	31	34	Tr.	Tr.		27			"	1 - 34
LL29	"	8	24	0	32	33	Tr.			24			"	1 - 33
R-1	Anderson	12	19	1	33	33	95	64	21.2	21	33.1	695.1	"	1 - 33
P-1	Conc.	12	22	1	36	35	143	50	23.6	24	35.4	849.6	"	1 - 35
N-2A	"	9	23	2	35	34	17	10	3.3	26	4.4	114.4	"	1 - 35
Q-2A	"	Nil	31	2	34	34	10	42	6.7	34	6.7	227.8	"	1 - 34
LL53	Boyle	4	25	0	31	31	Tr.	Tr.		27			"	1 - 31
JJ29	Conc.	7	29	1	38	37	7	11	2.1	31	2.5	77.5	"	1 - 38
HH29	"	5	33	1	39	39	5	26	3.5	34	4.0	136.0	"	1 - 39
HH23	"	12	25	2	39	39	26	22	5.4	27	7.8	210.6	"	1 - 38
LL47	"	4	42		47	48	Tr.	Tr.		43			"	1 - 47
GG47	"	8	43		52	53	Tr.	Tr.		44			"	1 - 52
EE41	"	9	33	1	44	44	1	1	0.2	35	0.2	8.8	"	1 - 44
JJ47	"	10	44	1	55	56	1	1	0.1	45	0.2	9.0	"	3 - 55
GG41	"	9	31		41	42	Tr.			32			"	1 - 41
JJ41	"	4	34		39	40				35			"	1, - 40

Total Number of Holes drilled in 1934--49

R. E. Franklin

 R. E. Franklin

Assistant General Manager

October 1934

ARLINGTON PROJECT

Tabulation of Drill Holes
"APPROACH AREA"

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in BR	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in BR Mgs.	Value per Cu.Yd. Total Work- ing Depth	Ft. Cents	Values cut on account of swell	FROST From-To
SS59	Boyle Conc.		26	1	28	28	4	3	1.1	30.8	No	T
QQ59	"		28	1	29	30		3	0.4	11.6	"	T
NN59	"	1	28	1	30	31	Tr.	2	0.3	9.0	"	T
LL59	"	3	26	3	32	32	10	53	8.7	278.4	"	1 - 32
JJ59	"	5	26		31	33	1		0.1	3.1	"	1 - 33
HH59	"	5	36	1	44	44	17	4	2.1	92.4	Yes	1 - 44
GG59	"	5	38		45	45	Tr.	Tr.			No	T
FF59	"	9	30		41	42	4		0.1	4.1	"	T
EE59	"	6	33		42	42					"	T
DD59	"	5	32		38	39	4		0.4	15.2	"	1 - 39
LL53	"	4	20		31	31	Tr.	Tr.			"	1 - 31
JJ53	"	4	30		31	34	Tr.	Tr.			"	1 - 34
HH53	"	11	28		39	40	6		0.6	25.2	"	1 - 40
GG53	"	8	30		40	40					"	T
EE53	"	9	30		40	42					"	1 - 15
DD53	"	11	28		41	42					"	1 - 20
BB53	"	5	33		40	40	4		0.4	16.0	"	1 - 40
LL47	"	4	42		47	48	Tr.	Tr.			"	1 - 47
JJ47	"	10	44	1	55	56	1	1	0.1	5.5	"	3 - 55
GG47	"	8	43		52	53	Tr.	Tr.			"	1 - 52
EE47	"	7	50		58	59	9		0.7	40.6	"	T
CC47	"	10	57		65	68	7		0.5	32.5	"	T
BB47	"	13	38		51	53	15		1.3	66.3	"	T
AA47	"	14	35		50	52	23		2.0	100.0	"	1 - 52
JJ41	"	4	34		39	40					"	1 - 40
GG41	"	9	31		41	42	Tr.				"	1 - 41
EE41	"	9	31	1	44	44	1	1	0.2	8.8	"	1 - 44

October 1934.

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in BR	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in B.R. Mgs.	Value per Cu. Yd. Total Working Depth	Ft. Cents	Values cut on account of swell	FROST From--To
CC41	Boyle Conc.	13	27	1	43	42	7	5	1.2	51.6	No	1 - 43
AA41	"	10	49	1	60	62	49	1	3.6	216.0	"	T
Y 41	"	19	40		60	59	44		3.2	192.0	"	1 - 59
LL35	"	4	34	1	38	39	4	42	5.3	201.4	"	1 - 39
JJ35	"	5	27		32	33	1	Tr.	0.2	6.4	"	1 - 33
GG35	"	13	25	3	41	40	26	100	13.5	553.5	"	1 - 41
EE35	"	15	25	2	42	42	5	2	0.7	29.4	"	1 - 42
CC35	"	15	30	4	50	50	43	5	4.2	210.0	"	1 - 50
AA35	"	10	41		50	52	54		4.7	235.0	"	1 - 52
Y 35	"	16	25		42	44	3	Tr.	0.3	12.6	"	1 - 42
W 35	"	15	22	1	38	40	18	2	2.3	87.4	"	1 - 40

Summary by Lines

Holes	Muck	Gravel	Pay in Bedrock	Working Depth	Gold in Gravel	Gold in Bedrock	Value
10	3.9	30.3	.7	<u>59 Line Averages</u> 36.0	40	65	1.23
7	7.4	28.4		<u>53 Line Averages</u> 37.4	10		.15
7	9.4	44.1	.1	<u>47 Line Averages</u> 54.0	55	1	.65
6	10.7 20.7	35.3	.5	<u>41 Line Averages</u> 47.8	101	7	1.63
8	11.6	28.6	1.4	<u>35 Line Averages</u> 41.6	154	151	4.01
38	43.0	166.7	2.7	216.8	360	224	7.67
Average	8.6	33.3	.5	43.4	61.64%	38.36%	1.53

October 1934

--Summary--

No. of holes	38	
Average Depth of Muck	8.6	Feet
Average Depth of Gravel	33.3	"
Average Depth pay in B.R.	.5	"
Average Working Depth	43.4	"
Value	1.53	¢ per cu. Yd.
Gold Content	\$33,000.00	
Percent Gold in Gravel	61.64	%
Percent Gold in B.R.	38.36	%
Area	149,100.	Square Yards
Total Cubic Yards	2,156,980.	



R. E. Franklin

Assistant General Manager

ARLINGTON PROJECT

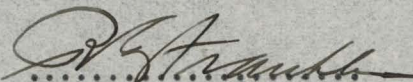
TABULATION OF DRILL HOLES

AREA "A"

Hole No.	Claim No.	Depth fo Muck	Depth of Gravel	Depth of pay in BR	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in B.R. Mgs.	Value per Cu. Yd. Total Work-ind Depth	Stripped value per Cu. Yd. Gravel and B.R. only		Values cut on account of swell	FROST From-To
										Depth	Value Ft.¢		
GG35	Boyle Conc.	13	25	3	41	40	26	100	13.5	28	19.8	553.5	1 - 41
EE35	"	15	25	2	42	42	5	2	0.7	27	1.1	29.7	1 - 42
CC35	"	15	30	4	50	50	43	5	4.2	35	6.0	210.0	1 - 50
AA35	"	10	41		50	52	54		4.7	40	5.9	236.0	1 - 52
Y35	"	16	25		42	44	3	Tr.	0.3	26	0.5	13.0	1 - 42
GG29	"	12	25	1	40	39	47	31	8.6	28	12.3	344.4	1 - 40
EE29	"	15	27	2	45	44	15	41	5.5	30	8.2	246.0	1 - 45
CC29	"	14	33	2	50	49	37	27	5.6	36	7.8	280.5	1 - 50
AA29	"	12	25		38	39	1		0.1	26	0.1	2.6	1 - 38
Y29	"	12	25		39	39	4		0.4	27	0.6	16.2	1 - 39

--Summary of Arlington "A" Area--

No. of Holes	10
Depth of Muck	13.4 Feet
Depth of Gravel	28.1 "
Depth of Pay in Bedrock	1.4 "
Depth of Ground unstripped	43.7 "
Depth of Ground stripped	30.3 "
Value of Ground unstripped	4.42 ¢ per cu. yd.
Value of Ground stripped	6.37 ¢ per cu. yd.
Gold Content	\$128,500.00
Percent Gold in Gravel	53.23%
Percent Gold in Bedrock	46.72%
Area	199,700. sq. yds.
Total Cubic Yards	2,908,963.
Total Cu. Yds. Gravel & Bedrock	2,016,970.
Total Cu. Yds. Overburden	891,993


 R. E. Franklin

Assistant General Manager

October 1934

ARLINGTON PROJECT
TABULATION OF DRILL HOLES
AREA "B"

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in BR	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in B.R. Mgs.	Value per Cu. Yd Total Working Depth	Stripped Cu.Yd. Bedrock only Depth	Value per Gravel and on account Ft.¢	Values cut on account of swell	FROST From-To ft. ft.	
GG23	Boyle Conc.	13	24	1	40	40	224	42	12.9	27	19.1	515.7	Yes	1 - 40
EE23	"	8	28	2	39	39	2	58	6.8	31	8.5	263.5	No	1 - 39
CC23	"	14	26	1	42	42	39	53	5.4	28	8.1	226.8	Yes	1 - 42
AA23	"	12	27	1	41	41	38	41	8.5	29	12.0	348.0	No	1 - 41
Y23	"	13	26	2	41	41	91	86	19.0	28	27.8	778.4	"	1 - 41
W23	"	14	25	3	43	43	13	272	17.5	29	25.9	751.1	Yes	1 - 43
FF21	"	9	27	1	39	39	12	30	2.3	30	3.0	90.0	"	1 - 39
DD21	"	14	24	1	40	40	24	12	4.0	26	6.1	158.6	No	10 - 40
BB21	"	14	24	1	40	40	6	1	0.8	26	1.2	31.2	"	14 - 40
Z21	"	15	26	1	43	43	17	211	23.3	28	35.8	1002.4	"	1 - 43
X21	"	15	24	1	41	41	60	125	7.6	26	12.0	312.0	Yes	18 - 41
V21	"	4	32	1	38	38	34	34	7.0	39	7.8	265.2	No	T
GG19	"	12	24	2	39	39	7	12	2.1	27	3.0	81.0	"	1 - 39
EE19	"	7	27	1	36	37	18	21	4.8	29	5.9	171.1	"	1 - 37
CC19	"	19	19	1	40	40		195	21.4	21	40.8	856.8	"	19 - 40
AA19	"	10	31	2	44	44	70	248	23.9	34	30.9	1050.6	Yes	23 - 44
Y19	"	11	29	1	42	42	16	37	3.4	31	4.6	142.6	"	1 - 42
W19	"	12	26	1	40	40	38	343	41.9	28	59.9	1677.2	No	1 - 40
FF17	"	9	30	1	41	41	22	14	3.9	32	5.0	160.0	"	1 - 41
DD17	"	23	17	1	42	42	15	87	6.7	19	14.8	281.2	Yes	16 - 42
BB17	"	10	27	1	39	39	25	3	1.5	29	4.2	121.8	"	1 - 39
Z17	"	13	29	2	45	46	32	18	4.9	32	7.0	224.0	No	1 - 46
X17	"	12	27		42	43	1			30			"	1 - 42
V17	"	10	31	1	43	43	24	54	7.9	33	10.3	339.9	"	T
GG15	"	9	27	3	40	40	11	58	7.6	31	9.8	303.8	"	1 - 40
EE15	"	8	24	2	35	35	4	40	6.9	27	8.9	240.3	"	1 - 35
CC15	"	16	17	1	35	35	22	70	7.3	19	13.4	254.6	Yes	1 - 35
AA15	"	11	23	1	36	36	10	129	17.0	25	24.4	610.0	No	1 - 36
Y15	"	8	30	1	38	39	8	25	3.7	30	4.8	144.0	"	1 - 39
W15	"	9	27	1	37	40	6	15	2.5	26	3.2	83.2	"	1 - 13

October 1934

ARLINGTON PROJECT
TABULATION OF DRILL HOLES
AREA "B"

(2)

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in B.R.	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in B.R. Mgs.	Value per Cu.Yd. Total Work- ing Depth	Stripped Cu. Yd B.R. only	Value per Gravel and Ft.¢	Values cut on account of swell	FROST From-To ft. ft.	
DD13	Boyle Conc.	12	22	2	37	37	85	11	11.4	25	16.9	422.5	No	1 - 37
BB13	"	12	22	1	35	36	19	145	20.6	23	31.4	722.2	"	1 - 36
Z13	"		36	1	36	38	9	1	1.2	36	1.2	43.2	"	1 - 10
X13	"	9	27	3	39	39	110	33	16.1	30	21.0	630.0	"	1 - 39
AA11	"	12	25	1	39	39	1	16	1.9	27	2.8	75.6	"	1 - 39
Y11	"	8	25		36	36				28			"	1 - 36

--Summary--Arlington "B" Area

No. of Holes	36
Depth of Muck	11.3 Feet
Depth of Gravel	26.0 "
Depth Pay in Bedrock	1.3 "
Depth of Ground Unstripped	39.5 "
Depth of Ground Stripped	28.3 "
Value of Ground Unstripped	9.4 ¢ per cu. yd.
Value of Ground Stripped	13.13¢ per cu. yd.
Gold Content	\$ 434809.00
Percent of Gold Gravel	30.46 %
Percent of Gold in B.R.	69.54%
Area	351050. Sq. yds.
Total Cubic Yards	4,622158.
Total Cu. Yds. Gravel and Bedrock	3,311572.
Total Cu. Yds. Overburden	1,310586.



R. E. Franklin

Assistant General Manager

October 1934

ARLINGTON PROJECT

Tabulation of Drill holes
Area "C"

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in BR	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in BR Mgs.	Value per Cu.Yd. Working Depth	Stripped value per Cu.Yd. Gravel and B.R. only		Values cut on account of swell	FROST From--To	
										Depth	Value Ft. ϕ			
U15	Anderson Conc.	6	34	1	42	43	108	264	39.0	36	45.5	1638.0	No	16-43
V13	"	16	15	3	34	35	3	227	29.8	18	56.2	1011.6	"	1-34
T13	"	7	27	1	35	36	13	5	2.3	28	2.8	79.2	"	1-15
W11	"	12	18	2	32	33	7	395	55.3	20	88.6	1772.0	"	1-33
V11	"	9	21	1	31	32	182	432	87.3	22	122.8	2701.6	"	1-32
U11	"	9	24	1	34	37	153	96	34.4	23	47.6	1096.8	"	1-37
S11	"	9	21	1	32	33	16	19	4.8	23	6.7	154.1	"	1-33
Y 9	"	14	16	2	32	33	27	24	7.0	18	12.5	225.0	"	1-33
X 9	"	10	17	1	28	30	8	8	2.5	18	3.9	70.2	"	1-30
W 9	"	11	18	2	31	32	17	251	40.8	20	59.0	1180.0	"	1-32
V 9	"	14	16	2	31	32	35	55	12.8	17	23.3	396.1	"	1-32
U 9	"	10	23	3	36	37	102	282	46.8	26	65.0	1690.0	"	1-37
T 9	"	11	23	1	38	37	98	403	58.0	27	81.6	2203.2	"	1-38
S 9	"	6	28	2	37	37	95	178	32.4	31	38.7	1199.7	"	T
R 9	"	12	18	2	33	32	14	119	17.7	21	27.9	585.9	"	1-33
Y 7	"	10	22	1	33	35	52	2	7.2	23	10.3	236.9	"	1-35
X 7	"	10	16	3	29	30	40	48	13.5	19	20.4	387.6	"	1-30
W 7	"	13	15	1	27	30	55		9.0	14	17.3	242.2	"	1-30
U 7	"	15	22	1	37	40	61	Tr.	7.3	22	12.2	268.4	"	1-40
S 7	"	12	17	1	31	31	8	3	1.5	19	2.5	47.5	"	1-31
Q7	"	12	18	2	34	34	59	23	10.6	22	16.4	360.8	"	1-34
V 5	"	14	16	1	31	33	1	2	0.4	17	0.8	13.6	"	T
T 5	"	12	22	1	35	35	21	2	2.9	23	4.4	101.2	"	1-35
R 5	"	13	19	2	35	34	36	175	26.5	22	42.2	928.4	"	1-35
P5	"	7	21	1	31	30	179	66	34.8	24	44.9	1077.6	"	1-31
M 5	"	7	16	1	24	24	35	1	6.6	17	9.3	158.1	"	T
U 3	"	12	20	1	33	33	8	1	1.2	21	1.9	39.9	"	1-33
S 3	"	12	24	2	40	38	55	367	46.4	28	66.3	1856.4	"	1-40

October 1934

Hole No.	Claim No.	Depth of Muck	Depth of Gravel	Depth of pay in B.R.	Total Working Depth	Total Depth Drilled	Wt. Gold in Gravel Mgs.	Wt. Gold in B.R. Mgs.	Value per cu.yd. Total work-ing Depth	Stripped values per Cu.Yd. Gravel and B.R. only	Values cut on account of swell	FROST
										Depth Value Ft.¢		From--To
Q 3	Anderson Conc.	12	18	1	32	31	82	55	18.8	20	30.1 602.0	No 1-32
N 3	"	9	18	2	30	30	421	1500	281.7	21	402.5 8452.5	" 1-30
R 1	"	12	19	1	33	33	95	64	21.2	21	33.1 695.1	" 1-33
P 1	"	12	22	1	36	35	143	50	23.6	24	35.4 849.6	" 1-35
Q2A	"		31	2	34	34	10	42	6.7	34	6.7 227.8	" 1-34
N2A	"	9	23	2	35	34	17	10	3.3	26	4.4 114.4	" 1-34

(Note: N 3 --This hole was cut to \$1.00 per Cu. Yd. Total Working depth.)

-Summary-

	<u>Virgin</u>	<u>"C" Area</u>	<u>Tailings</u>
No. of Holes	34		Area 31,050 Sq. Yds.
Depth of Muck	10.5	Feet	Depth 32.3 Feet
Depth of Gravel	20.6	"	Cu. Yds. 334,305 at 5¢ per cu. yd.
Depth of pay in Bedrock	1.5	"	-\$ 16,715.00
Depth of ground unstripped	33.3	"	
Depth of ground stripped	22.7	"	
Value ground unstripped	22.76	¢ per cu.yd.	
Value ground stripped	33.32	¢ per cu.yd.	
Gold Content	\$585104.00		
Percent Gold Gravel	30.39	%	
Percent Gold B.R.	69.61	%	
Area	231600	Sq. Yds.	
Total Cu. Yds.	2,570,760		
Total Cu. Yds			
Gravel and Bedrock	1,752,440		
Total Cu. Yds.			
Overburden	818,320		
<u>Total Area</u>			
Area in square Yards	262,650		
Total Cubic Yards	2,905,065		
Total Gold Content	\$ 601,818.00		

R. E. Franklin
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Assistant General Manager

October 1934

ARLINGTON PROJECT

Overburden Arlington Areas

<u>Area</u>	<u>Square Yards</u>	<u>Average Depth</u>	<u>Cubic Yards</u>	<u>Remarks</u>
"A"	199,700	13.4 ft.	891,993	No Tailings
"B"	351,050	11.3 ft.	1,322,288	15.3% covered by tailings
"C"	231,600	10.5 ft.	810,600	11.9% covered by tailings
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	782,350		2,024,881	

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OCTOBER 1934

ARLINGTON PROJECT

TABULATION OF DRILL HOLES .
KLONDIKE AREA

<u>Depth</u>	<u>Value</u>	<u>Ft. Cents</u>
16	3.6	57.6
14	6.1	85.4
16	0.0	0.0
22	0.2	4.4
22	14.4	316.8
23	2.7	62.1
36	3.4	122.4
37	4.9	181.3
<u>31</u>	<u>7.0</u>	<u>217.0</u>
Total 217		1047.0
Average 24.1	4.82	

---Summary---

Area in Square Yards 338,700.
 Average Depth 24.1 ft.
 Average Value per Cu. Yd. 4.82 ¢
 Total Cubic Yards 2,720,890.

FOSTER CREEK AREA

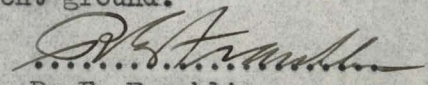
<u>Depth</u>	<u>Value</u>	<u>Ft. Cents</u>
20	10.0	200.0
23	3.8	87.4
21	0.0	0.0
21	0.0	0.0
19	11.1	210.9
<u>14</u>	<u>18.6</u>	<u>260.4</u>
Totals 118		758.7
Averages 19.7	6.43	

---Summary---

Area in Square Yards (approx) 124,250.
 Average Depth 19.7 ft.
 Total Cu. Yds. in area (approx) 815908.
 Average Value per Cu. Yd. 6.43 ¢
 Total Gold Content \$ 52,462.88

Drill Holes taken from old maps and records.
 Refer to General Map of Arlington Project for locations.

Final values as calculated for the above areas are based on drill values combined with dredge recovery values in adjacent ground.


 R. E. Franklin

October 1934.

ARLINGTON PROJECT

Old Shafts Vicinity Approach Area

<u>No.</u>	<u>Muck</u>	<u>Working Depth</u>	<u>Value</u>	<u>Ft. Cents</u>	<u>Remarks</u>
4	11	46	1.2	55.2	Data taken from
6	4	35	0.8	28.0	F. L. Morris Report
8	6	36	6.2	223.2	August 1907
10	Nil	31	7.0	217.0	-----
8	7	38	0.1	3.8	Sunk by B and B 1923
18	7	35	2.3	80.5	" " " " " "
12					Abandoned at 32' on account of water
14					Abandoned at 16' on account of water
1	15	51	1.9	96.9	Data taken from
2	14	39	1.5	58.5	F. L. Morris Report
4	18	62	2.0	124.0	August 1907
6					Abandoned at 20' on account of water
8	7	45	1.3	58.5	F. L. Morris Report
10	6	39	0.6	23.4	F. L. Morris Report
12	6	32	0.4	12.8	F. L. Morris Report

Average depth of Muck. 8.4 Feet
 Average Working depth 40.7 Feet
 Value per Cu. Yd. 2.01 ¢

(Note: Refer to General Map of Arlington Project for Locations.
 F. L. Morris Report was made for the Yukon Gold Company
 in August 1907 and covered the Boyle Concession.)

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R. E. Franklin

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October 1934


ARLINGTON PROJECT

Old Shafts Boyle Conc. Vicinity "A" and "B" Areas

<u>No.</u>	<u>Muck</u>	<u>Working Depth</u>	<u>Value</u>	<u>Ft.Cents</u>	<u>Remarks</u>
19	5	33	1.4	46.2	Sunk by B and B 1923
20	5	34	2.9	98.6	Sunk by B and B 1923
21	6	35	3.3	115.5	Sunk by B and B 1923
22	12	45	1.8	81.0	Sunk by B and B 1923
23	16	39	0.2	7.8	Sunk by B and B 1923
24	13	38	0.5	19.0	Sunk by B and B 1923
25	14	39	2.9	113.1	Sunk by B and B 1923
1	5	48	8.1	388.8	Sunk by C.K.M. Co. 1914
2	5	44	96.0	4224.0	Sunk by C.K.M. Co. 1914
5	10	37	0.4	14.8	Sunk by C. K. M.Co.1914
7	8	39	8.7	339.3	Sunk by C.K.M. Co. 1914
8	12	38	6.0	228.0	Sunk by C.K.M. Co. 1914
9	13	40	29.7	1188.0	Sunk by C.K.M. Co. 1914
10	12	41	32.6	1336.6	Sunk by C.K.M. Co. 1914
11	14	43	55.0	2365.0	Sunk by C.K.M. Co. 1914
13	15	38	16.2	615.6	Sunk by C.K.M. Co. 1914
15	14	38	7.7	292.6	Sunk by C.K.M. Co. 1914
17	16	40	25.6	1024.0	Sunk by C.K.M. Co. 1914

Average depth of Muck 10.8 Feet
Average Working depth 39.4 Feet
Value per Cu. Yd. 17.62 ¢

(Note: Refer to General Map--Arlington Project--October 1934)



R. E. Franklin

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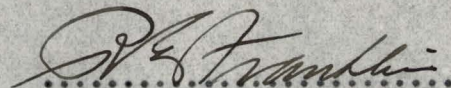
October 1934.

Old Drill Holes in Virgin Ground in "C" Area
(Yukon Gold Co)

<u>No.</u>	<u>Muck</u>	<u>Working Depth</u>	<u>Value</u>	<u>Ft. Cents</u>
2		33	24.0	792.0
3		33	29.0	957.0
4		25	14.0	350.0
5		34	40.0	1360.0
9		37	56.0	2072.0
10		38	24.0	912.0
12		35	14.0	490.0
13		25	5.0	125.0
15		34	20.0	680.0
17		34	79.0	2686.0
18		26	45.0	1170.0
19		18	10.0	180.0
193	8	37	8.0	296.0
194	6	30	3.8	114.0

Average Depth of Muck 10.5 Feet
Average Working Depth 31.4 Feet
Value per Cubic Yard 27.75 ¢

(Note: Refer to General Map of Arlington Project for location of holes. Data taken from old Yukon Gold Company records.)



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October 1934.

ARLINGTON PROJECT

Summary of Recoveries by Dredge Can. No. 4
on the upper part of the Boyle Concession.

<u>Year</u>	<u>Total Cu. Yds.</u>	<u>Total Recovery Not including Premiums</u>	<u>Average Value per Cu. Yd.</u>	<u>Remarks</u>
1922	2,260,114	72,327.73	.0320	Partly below Siphon
1923	1,908,753	57,524.34	.0301	Dredge Sank.
1927	58,400	5,547.00	.0950	Dredge refloated
1928	1,294,584	62,158.08	.0480	
1929	1,081,704	62,103.22	.0574	
1930	1,296,750	111,241.07	.0858	
1931	969,316	104,699.27	.1080	
1932	1,479,037	104,261.07	.0705	
1933	1,432,567	73,712.10	.0514	
1934	1,535,144	62,086.78	.0404	To September 30 only
Average	13,316,369	715,660.66	.0537	



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October 1934

Synopsis of Thawing Methods available for the Arlington Project

No.	Type of Ground	Thawing Method	Time Required	Suitability and Recommendation
1	Klondike Wash	Stripping and Natural Thawing	2-3 years	Most Suitable Method.
2	Klondike Wash	Drill Holes and large water points	2 years	Too expensive in low grade gravel
3	Klondike Wash	Small water points driven down		Not possible in Klondike gravel.
4	Creek Gravels	Stripping and natural thawing	4-5 years	Practical but slow.
5	Creek Gravels	Drill Holes and large water points	2 years	Too expensive
6	Creek Gravels	Small water points driven down	3-4 weeks	Quite suitable but more expensive than #4 as ground must be stripped in any case. Time available is deciding factor.
7	Sands	Stripping	1 season	Best Method.
8	Sands	Small water points driven down	3-4 weeks	Good but generally more expensive than #7. Also dredge must rehandle material.
9	Muck	Stripping	1 season	Best Method
10	Muck	Small water points driven down. Then natural thaw to complete.	1 season	More expensive than #9. Moss must be stripped first. Sometimes quicker than #9
11	Moss and Nigger heads	Stripping with water.	1 season	Best method if high pressure water available.
12	Moss and Nigger heads	Stripping with grader or plow, then surface water.	2 seasons	Best method when surface water only is available. Burn all possible.

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THAWING PLANT EQUIPMENT

Approximate Dawson Landed Cost of Major Items of
Thawing Plant Equipment.

$\frac{1}{2}$ inch Extra Heavy Pipe as used at Granville	\$.10 per ft.
$\frac{3}{4}$ inch Extra Heavy Pipe as used at Fairbanks	.15 per ft.
$\frac{1}{2}$ inch Extra Heavy Pipe Tees	.43 each
$\frac{3}{4}$ inch Rubber Water Hose	.12 per ft.
2 inch Standard Black Water Pipe	.30 per ft.
10 inch Slip Joint Hydraulic Pipe	1.00 per ft.
6 inch Slip Joint Hydraulic Pipe	.50 per ft.
Monitors Complete	250.00 each
3000 G.P.M. 10" Pump with Motor Complete	4316.00
1000 G.P.M. 6" Pump with Motor Complete	2750.00
Foot Valves 10"	90.00 each



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