

Nov. 1951
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PRELIMINARY REPORT ON THE
ARLINGTON MINING PROPERTY

Salmo District, B.C.

SUMMARY: During Arlington Mine's 47 year existence it produced 31 years, being periodically closed for total of 16 years by war and other restrictions.

During its productive history, 47,797 ounces gold and 113,000 ounces silver were returned from 24,434 tons of selected high grade quartz ore which averaged 1,936 oz. gold and 4.62 oz. silver per ton. In extracting this ore about 46,000 tons of backfill and 80,000 tons of dump ore was produced with indicated content of 18,370 oz. gold, 112,600 oz. silver, 1,498,000# lead and 1,744,000# zinc. This affords an indicated profit from \$294,000 if taxed, to \$490,000. untaxed, by advantage of recently installed mill and planned mining machinery replacing the costly and slow hand mining methods that prevailed throughout earlier production.

The 24,434 tons shipped represented about 2 foot vein width from 225,000 square feet of stoping which was about 20% of mined tonnage.

The vein's true width appears to be more than twice width of old stoping and re-mining restricted sections has proven recurrence of high grade ore streaks above and/or below old time stopes; illustrated at one small section where present operators mined three successive high grade streaks below an old stope. Observed conditions indicate that re-mining vicinity of old stopes might provide high grade tonnage possibly equivalent to past production. This possibility can be immediately attacked when machinery is provided and affords one of the earliest new ore resources of the mine.

The recent construction of Arlington's first adequate mill and planned installation of mining machinery will permit profitable mining new ore down to \$12.60 per ton. At present metal prices the gross value of the total 150,434 tons of shipped ore, backfill, and dump ore previously mined would be \$24.50 per ton, which should equal grade of 125,000 tons of ore possibilities by re-mining stoped areas.

At present this mine has a probable 126,000 tons of mined backfill and dump ore ready for removal and milling. Indicated profit is \$487,579. untaxed, or \$293,584 taxed. Assuming similar conditions by re-mining stoped areas, the mine has a possible 125,000 tons of combined high grade and mill ore which might return \$1,750,000 untaxed profit, or \$1,043,000. taxed profit. It will be understood that, whilst there are good indications for this estimate, it cannot be accepted as fact until work proves.

Returns from the probable 125,000 tons ready for removal and milling would be from \$3 to \$5 for each \$1 capital investment recommended in this report. Returns from the 125,000 possible tons from re-mining stoped areas would provide from \$10 to \$17 for each \$1 capital investment recommended. Returns of these latter indicated returns even by one half shows about \$6.50 to \$11 for each recommended \$1.

Ore recovery from Baker Lease indicated 800 feet by 1500 feet unexplored prospective possibilities to West of stoped area. This can quickly and cheaply be tested and may make very material addition to the mine's future, possibly doubling total of stoped area's past and future tonnage. This is undeterminable at present, but is fully worthy of systematic exploration. In this connection there is question whether the vein continues downward to west beyond Barker Lease (which was only 12 feet deep) or whether the vein's very flat dip might bring it to surface in that direction, in which case the vein would outcrop on all four sides making the vein the base of an "erosional dome" comprising the mass of overlying rock. Diamond drilling to west will quickly prove whether or not this is so.

Additional possibilities lie in unexplored area above the vein exposure and small stoped areas east of fault crossing east end of the Main 60-Crosscut. These will be limited by vein's outcrop to the east.

The best method of preliminary exploration will be by diamond drilling: (1) Short holes vertically up and down from stoped areas to cut across full width of vein structure; (2) Short holes from surface down into unexplored area west of stoped area and east from Barker Lease; (3) Holes down from surface to west of Barker Lease; (4) Deeper holes down from the better parts of stoped area to see if additional ore-favorable zones exist below known vein. Follow favorable drill results by crosscut, drift and raise development.

When compressor is installed, a first sequence should be geologic mapping to detail zones of better ore recurrence in stoped areas to guide short diamond drill holes to prove them.

It will be advisable to investigate the tax situation in resalvage of presently existing backfill and dump ore. It is probable that returns from this will be tax free if some newly mined ore is added to mill feed. Logic indicates that this material, which was waste until the mill installed, should be considered new ore and thereby be tax exempt. As production tax can be up to 40% of net this is important.

CONCLUSIONS: Economics are favorable and operating costs should be low.

Geology is favorable for finding additional ore in stoped areas, plus considerable additional new ore in unexplored virgin areas. Geologic mapping and diamond drilling are essential to early and profitable resumption of mining.

Installation of mill and mining machinery revolutionizes the mine's economics and should permit greater profits than heretofore possible. Lead and zinc markets are expected to maintain for considerable time and Arlington returns from these sources should make important contribution to future returns.

Obviously, the mine's potentialities cannot be evaluated until work is done but the mine has available about 126,000 tons of low grade ore that can make profit by the improved mining and milling facilities, and there is certainty that a considerable profit still lies in unmined floors and/or roofs of old stopes which, though not yet determinable, could double past output of the mine. Good, but presently undeterminable, unexplored ore possibilities are indicated in extensive areas west of stoped sections and lesser, but promising, areas along upward extension of vein east of 60 Level.

About \$50,000. should be raised for immediate and near future improvements and facilities detailed in the body of this report, and an additional \$50,000. operational fund should be provided for best economy to facilitate work and expansion. Total \$100,000.00.

RECOMMENDATION: The exploration and development is recommended as a calculated risk that has about 8 chances out of 10 for success, which is a very good mining chance. I recommend that \$100,000. be raised to be expended as outlined in this report.

Details of report follow:

"Arthur Lakes"
Professional Engineer

Nelson, B.C.
Nov. 26th, 1951.

PROPERTY: This consists of 20 crown granted mineral claims and fractionals listed at end of this report. Owners are Arlington Syndicate, including A. Shrieves, B. and K. Golac of Nelson, B.C. and Alberta associates.

The claims are situated on Keystone Mountain east of Erie Creek between Whiskey and Rest Creeks that flow westerly into Erie Creek as shown on Map 1.

Mill and mine workings are connected with main supply and railway center at Salmo, B.C. by $7\frac{1}{2}$ miles of highway and good mountain road averaging about 10% grade. Smelter at Tadanac, B.C. is 25 miles by road and highway.

Elevations range from 3100 feet to 4400 feet above sea level. The mill is about 4130 feet, portal of 80 Level 4211 feet, portal of "Main haulage" 60 Level 4243 feet, collar Arlington Shaft 4380 feet.

ECONOMICS: Climate is favorable for year round operation and transportation.

Timber covers most of the claims and dimension stuff is to be had at local mills.

Water for milling is at present limited to mine drainage impounded in lower adit tunnels. Adequate water supply can be piped 1 mile from Whiskey Creek.

Labor is available from surrounding camps at rates set by larger companies, present range from \$10 to \$12 per 8 hour shift. Labor supply is scarce due to the abnormal mining and industrial activity now prevailing in this section, but is better during winter.

Present power is by Diesel but expansion needs can be supplied by about 3 mile line extension from West Kootenay Power Co's. sub-station at Salmo.

Transportation of ore or concentrates from mill to smelter costs about \$2.50 per ton truck haul.

The mine's unusually strong, cleancut vein walls require little timber, but the flat vein will require support system when the considerable areas of economically productive backfill are removed. The mine workings are in good condition and about \$2,000. should rehabilitate them for removal of backfill and mining new ore.

The establishment of the mine's first mill will provide considerable greater mine output and larger profit returns than were possible by restricted production from narrower high grade streaks of shipping ore.

GEOLOGY: The enclosing rocks comprise carbonaceous and limy argillites interbedded between andesite and greenstone flows of Beaver Mountain-Rossland volcanic group of Carboniferous age which has been host rock of important orebodies in this section of British Columbia. These older rocks have been intruded by dikes, sills and bosses of later igneous rock forced up from granitic mass that underlies the whole. Origin of the ore is associated with some phases of these igneous intrusions.

Arlington mine workings are entirely enclosed in sedimentary beds and nowhere in the mine was observed any greenstone or andesite. These beds form a gentle synclinal trough curving S 30° E, to south, to S 30° W, with axis plunging westerly down the gentle dip of the beds and enclosed vein as shown on Map "A". This structure is crossed by a series of small arched and troughed folds or crumples whose axes strike generally N 10° W and plunge gently SE across the westerly coursing side of the main fold as shown on Map "A". This cross folding is important as it provides the most significant control of ore localization, the other being presence of porphyry sill which forms along the ore vein as described later and shown on Map "C".

Local igneous intrusions are represented by possibly four ages of sill and dike intrusions apparently ranging in age from (1) oldest "Arlington sill" of fine grain to coarse to porphyritic granite which follows the sedimentary bedding and localizes Arlington ore vein which is productive above and/or below this sill. (2) A Black dike indicated west of, and probably above, Arlington sill at 110 Level and said to form hanging wall of the lean vein followed up the raise from 110 to 80 Level (see Cross Section "D" of Map "C"). (3) Large granitic dike crossing NE from campsite to NW of Arlington mine. (4) Lamprophyre dikes reported but not observed in this examination. It is believed that the mineralizing solutions that formed Arlington ore came up the same time, or slightly after,

intrusion of Arlington sill which, thereby makes this sill one of the ore controls and a marker for vein position.

Faulting is represented by small vertical and horizontal displacements along drag folding in westerly vein exposures at the 50-60-80 Levels. One fault courses northerly and dips 50 to 60 degrees easterly through east sections of 40 and 60 Levels (shown on Map "A") and (Section "B" of Map "C"). Apparently it drops the east segment down about 45 vertical feet. The ore on the lower (west) side of this fault appears stronger and richer than indicated by small workings on the upper (east) side at 60 Level which suggests that this fault may be partly pre-mineral and dammed back rising ore solutions on its under (west) side, thereby increasing ore deposition therein. It is also suggested that this fault localizes a break along a northerly trending cross fold. Diamond drilling should be done up from 60 Level's east drift to determine whether the indicated vertical offset is real or whether the ore vein in this lesser productive east section is a foot-wall member underneath the more ore favorable carbonaceous strata that appears to contain the better ore in the mine's most productive sections.

Near connection of raise up from 110 Level to 80 Level the vein is intensely folded suggesting a sharp down-fold of the vein west of 80 Level. This, if true, would put its westerly extension below the raise and possibly below 110 Level. This condition should be tested by drilling westerly down from 80 Level, down from 95 and 110 Levels.

VEIN: The vein is quartz and fragments of enclosing rock with gold, silver, galena, sphalerite, and iron pyrite content. It appears to be a bedded vein following general N-S strike, and gentle variable westerly dip of the formation which exhibits a gentle roll curving easterly as shown on Map "A". Down deep the vein shows gentle folds, giving rise to flat or slightly arched or troughed areas which I believe have had concentrating influence on the ore and mineralization. The vein follows a porphyritic granite sill which also conforms with sinuosity of strike and dip of strata and thereby is an excellent marker for vein and ore locality. The ore occurs above and/or below the sill. Where the folding occurs in carbonaceous argillite the ore occurrence appears to be greater and values richer. Less ore appears to occur along the straighter strikes and dips. The old timers followed very smooth floor which, when broken into, often was found to be roof of another rich quartz streak. Similarly some places broken into smooth roof also disclosed additional ore. Aside from recent isolated places the smooth roof shows no evidence of test drilling. This is probably due to method followed in mining the high grade shipping streak whereby the rock below was stripped off from paystreak and the latter then "popped" by shallow holes drilled into the ore but not penetrating it, thereby making clean break of high grade away from roof. The material stripped below was used as backfill and numerous samples show good mill feed in this material.

The wide, rich ore taken from "Bullpen" near 40 Level formed a succession of ore streaks in an arched fold wherein the ore-favorable carbonaceous argillite warped under the granitic sill (see Section "B", Map "C"). So far as I know this granite hangingwall has not been penetrated and, in view of the ore habit to form above, as well as below, the sill vertical diamond drilling above "Bullpen" is advisable and might give important new ore. The full vertical height stoped at Bullpen is reported 40 feet in a series of rich pay streaks, possibly representing $\frac{1}{3}$ or more of the mass. At "Little Bullpen" on 70 Level mined by Golacs and Shrieves a similar fold provided similar repetition of pay-streaks. Starting under old hangingwall stope, three paystreaks were successively mined so that now the stope height is about 15 feet. Likewise here the sill has not been penetrated and vertical drilling is advisable. Numerous other localities of thick shipping production occur in 40 Level, 50 Level and 60 Level. Numerous other localities of folding occur on all levels inspected but have not been explored above or below smooth walls, and it is my belief that there is possibility of disclosing new ore repetitions therein which might even double past production of high grade and make considerable addition to milling grade ore for processing in the new plant.

It is obvious that this mine should have detailed geological mapping and numerous short diamond drill holes in the ore-favorable formation and structures outlined by geologic work. Whilst this examination disclosed a number of areas favorable for drill testing, and furthermore showed that better ore occurs along the vein contortions rather than along the "straights", it is obvious that definition could not be accomplished without weeks of mapping and drilling which can only be accomplished after compressor is installed.

ORE WIDTHS & VALUES: According to records for 31 years from 1900 through 1947, hand mining of paystreaks across an average of about 2 feet width in mined section about 1500 ft. long by about 450 ft. down vein dip (with a few isolated sections shown on Map "A") provided about 24,434 tons of ore returning 47,799 oz. gold or 1.956 oz. per ton, 113,000 oz. silver or 4.625 oz. per ton; and 14,349 tons of this ore for which lead was recorded returned 702,610 lbs., or 2.44% lead per ton; and 7,126 tons for which zinc was recorded, returned 382,205 lbs. or 2.67% zinc per ton.

To mine the above ore the stopes varied from around 5 ft. where the narrower widths were mined, to upwards of 15 ft. at various wider sections, and maximum of 40 ft. at the "Bullpen". Most of the difference between the 2 ft. average paystreak width and stope height represents mill grade ore that can now be economically handled by milling whereby not only gold and silver will be profitable but the lead and zinc will make good returns. Some of this backfill runs 1/2 oz. gold or better, and Kenville's results from 51 samples averaging about 5 tons each indicates backfill value around 0.148 oz. gold, 1.1 oz. silver, 0.66% lead and 0.67% zinc. These samples, localities shown on large map accompanying this report, ran from low at 0.04 oz. gold, 0.4 oz. silver, 0.3% lead and 0.5% zinc to high at 0.39 oz. gold, 1.9 oz. silver, 1.4% lead and 1.8% zinc. Kenville shipped 870 tons of backfill to its mill, assaying 0.189 oz. gold. The silver, lead and zinc was not reported but on same ratio to gold would run about 1.42 oz. silver, 0.85% lead and 0.87% zinc. Kenville milled 2,000 tons of dump assaying 0.39 oz. gold, 0.66 oz. silver, 0.48% lead and 0.62% zinc. The average for 3,125 tons of backfill and dump is indicated to be about 0.153 oz. gold, 0.9 oz. silver, 0.6% lead and 0.63% zinc. At \$38.50 gold, 92¢ silver, 19¢ lead and 19¢ zinc the gross value of this material would be about \$10.44 per ton before milling or about \$8.15 per ton after milling when cleaning cells were put in and other facilities are provided. Out of this would come cost of slushing ore from dump and backfill, milling losses, costs, etc. inclusive of transportation of concentrates and smelter charges on concentrates making indicated net operating profit, before taxes etc. about \$3.50 per ton.

MILL: The new mill, which has been partially completed at very low cost of about \$33,000, will require installation of cleaner cells now on the job, thickener, filter, etc. to be acquired, to bring up to expected efficiency of about 80% gold, 80% silver, 80% lead and 70% zinc recovery into marketable products. On basis of 0.153 oz. gold, 0.9 oz. silver, 0.6% lead and 0.66% zinc about 35 tons of ore concentrated into 1 ton of concentrate should yield 4.5 oz. gold, 24.3 oz. silver, 16.8% lead and 16% zinc, returning from smelter \$275.35 per ton or \$7.85 per ton of mill feed. Present mill efficiency is less than this as tuning up period has been confined towards getting gold saving, leaving concentration of other metals until additions to mill. The mill is now making about 80% gold recovery, returning 2.8 oz. gold per ton of concentrate from about 26 tons of 0.135 oz. gold mill feed.

The thickener will conserve water as well as improve mill efficiency but next summer the 1 mile pipeline should be extended from Whiskey Creek to mill as shortage and re-use of water is not satisfactory.

When the mill is adjusted and the mine put into shape to provide backfill and new ore, about 2 tons of new ore estimated at one half average value of shipped ore should be taken for every 4 tons of backfill. On this basis the following should be gotten:

	Gold oz.	Silver oz.	Lead %	Zinc %
4 ton backfill at per ton	0.18	1.3	0.8	0.6
2 tons new ore at per ton	0.90	2.0	1.22	1.36

	Gold oz.	Silver oz.	Lead %	Zinc %	
6 tons averaging per ton	0.40	1.5	0.94	1.0	
Mill returns	0.336	1.2	0.75	0.7	
Smelter value per ton before treatment	\$12.20	\$1.10	\$2.70	\$2.10	Total \$18.10

At 75 tons per diem this would return about \$1,360. from which would be deducted mine and mill costs and losses at about \$627. leaving \$733. per day, or \$18,325. per month untaxed; or \$443 per day or \$11,075 per month taxed.

As exploration and development progresses it is to be expected that these figures will increase by production of larger amounts of better grade ore.

WORKINGS AND SHOWINGS: The vein has been opened and mined about 1500 ft. length by 450 flat dip down from 20 Level to 80 Level, in all about 12,720 ft. of drifting, 4,555 ft. of raising and 225,200 sq. ft. of stoping. Some ore was taken from the south at 100 level and good production is reported from near surface at Barker Lease, the most westerly showing which is about 800 ft. west of the lowest mined ore at 80 Level (see Map "A"). Most of this west section is unexplored as the 110 Level and raise therefrom to 80 Level was on lean structure which might be above the vein structure as the hanging wall of the upraise is reported to be "black dike" which is indicated to be above and west of the Arlington sill which marks the ore vein.

Workings comprise: Arlington & King shafts and 10, 20, 30, 40, 50, 60, 70, 80, 95, 100, and 110 Levels plus Barker Lease workings shown on Map "A". Deeper exploration and development will be by extending 110 Adit Level, now used as water reservoir for mill.

E l e v a t i o n s

Level	Elevation	Level	Elevation
Collar Arlington Shaft	4380 ft.	80 Level	4211
40 Level	4274	100 "	4146 Approx.
60 "	4243	110 "	4082
70 "	4228	Mill	4130 Approx.

The flat vein slope makes much greater distances between the Levels, as illustrated by 130 ft. slope distance between 60 and 80 Levels which are only 32 vertical ft. apart.

The Workings Aggregate

Length	@ cu.ft. per foot	Cubic feet
12,720 ft. drift & crosscut	40 cu. ft.	508,800 cu.ft.
4,585 ft. raises	30 cu. ft.	137,550 cu.ft.
17,305 ft.		646,350 cu.ft.
Stoping 225,220 sq.ft. @ 5 ft. high		1,126,110 cu.ft.
Total cubic feet extracted		147,700 tons

Maximum tons of backfill	56,300	
Estimated tons of backfill		46,830
Estimated tons on dump		80,000
Ore shipped		24,434
		<u>150,362 tons</u>

ESTIMATED RECOVERABLE TONNAGE

	Gold oz.	Silver oz.	Lead %	Zinc %
(1) Backfill 46,000 tons	0.18	1.3	0.8	0.8
	7,250	59,800	736,000#	736,000#
(2) Dump 80,000 tons	0.139	0.66	0.48	0.63
	11,120	52,800	768,000#	1,008,000#
Total 126,000 tons	18,370 oz.	112,600 oz.	1,504,000#	1,744,000#
Smelter value before Treatment Charge	\$667,198.	\$103,817.	\$270,720.	\$206,344.
Total indicated value before milling				\$1,248,079.

<u>Costs</u>	Mill loss, gold, silver, lead zinc			
		\$275,500.		
Average moving dump & backfill @ \$1.35 per ton		170,000.		
Milling costs @ \$2.50		315,000	\$760,500.	
Indicated profit before taxes			487,579.	\$4.00 per ton
Indicated profit if taxed			293,548.	2.35 " "

At 75 tons per diem it would require 1700 days or about 5 years to completely salvage. Indicated profit per year \$98,000. untaxed, or \$60,000 taxed.

INDICATED GRADE ALL MINED ORE

	Gold oz.	Silver oz.	Lead %	Zinc %
24,434 tons high grade	47,799	113,000	1,176,266	1,295,000
46,000 " backfill	7,250	59,800	736,000	736,000
80,000 " dump ore	11,120	52,800	768,000	1,008,000
150,424 tons	66,169	235,600	2,680,000	3,039,000
Average	0.44 oz.	1.57 oz.	17.8% 0.89%	20% 1.0%

Present value per ton of high grade after smelter, transportation, milling and mining	Untaxed	Taxed
	\$54.40	\$32.65

FUTURE OUTCOME

	Untaxed	Taxed
(1) PROBABLE, Backfill & Dumps net profit (126,000 tons) per ton	\$487,579. \$4.00	\$293,548. \$2.33
(2) POSSIBLE (Assuming new ore by remaining stoped areas)		
25,000 tons high grade	\$1,350,000	\$810,000
100 " per ton	\$54.40	\$32.65
100,000 tons mill ore	400,000.	233,000.
per ton	\$ 4.00	\$ 2.33
125,000 tons	\$1,750,000.	\$1,043,000.
per ton	\$14.00	\$ 8.34

(3) The 800 ft. X 1500 ft. area west of 80 Level has prospective possibilities indicated by continuation of ore west to Barker Lease, and possibility that downward extension of ore vein lies below 110 Level and upraise therefrom to 80 Level. Until explored this area's potentialities cannot be evaluated or suggested but it fully warrants consideration.

(4) Possibilities in upward continuation of vein above fault crossing east end of Main 60 Crosscut show some ore and should answer to exploration. These possibilities will be limited by outcrop of the vein to the east.

COSTS: Costs are calculated from Shrieves' experience at this mine and recent mill work.

	<u>Per ton of ore</u>	<u>Mining & removal</u>	<u>Milling</u>	<u>Overhead</u>	<u>Total</u>
(1) New ore inclusive timber		\$6.00	\$2.50	\$0.50	\$9.00
(2) Backfill, slushing, etc.		2.00	2.50	0.50	5.00
(3) Backfill & ore		5.35	2.50	0.50	8.35
(4) Dumps slushing, etc.		1.00	2.50	0.50	4.00

Profit values were arrived at by taking mill losses, all costs, smelter deductions and treatment charges, before and after taxes. No amortization figured.

IMPROVEMENTS & EXPENDITURE: The following additions are required for beneficiation of mining and milling operations.

(1) New 2 story bunkhouse & equipment, estimated by Shrieves	\$7,000.
(2) Mill additions	12,000.
(3) Compressor, receiver, pipe, etc.	12,800.
(4) Mine rehabilitation	2,000.
(5) Boyle Bros. JW #2 Diamond drill	2,500.
(6) Two Coptco type machine drills & steel	1,500.
(7) 1 Slusher hoist	1,500.
(8) Second-hand (80% new) D-4 Caterpillar	6,000.
(9) Four-wheel drive Willis Jeep	2,700.
(10) Snowplow blade for Truck	800.
(11) Next summer, 1-mile 3 in. pipeline from Whiskey Creek to mill	7,500.
Miscellaneous	700.
	<u>\$50,000.</u>
Operational fund for economical exploration, development, mining, geologic mapping, etc.	<u>50,000.</u>
TOTAL	<u>\$100,000.</u>

FUTURE OPERATIONS:

- (1) Complete mill by installing cleaner cells and by addition of thickener and filter.
- (2) Continue dump and/or backfill production according to weather.
- (3) Rehabilitate the mine for early production of backfill and newly mined ore to mix thereto for tax and profit considerations.
- (4) Install compressor, airpipe, etc. into mine.
- (5) Conduct geologic mapping, accompanied by short vertical drill holes into hanging and/or footwall at ore-favorable localities.
- (6) Slush down better sections of backfill for winter's milling.
- (7) Break down ore above or below stoped as indicated by drilling.
- (8) Where easily separated, sort out high grade ore for direct shipment to smelter, otherwise add to mill heads which should raise their value above estimate herein.

MINERAL CLAIMS OF ARLINGTON GROUP

<u>Claim Name</u>	<u>Lot No.</u>	<u>Claim Name</u>	<u>Lot No.</u>
La Dura	4459	Strontian	4460
Directorate Fr.	4883	Micawber Fr.	4444
Henry Clay	4200	Arlington Fr.	3649
Nellie N	6958	Original	5120
M. S. C.	4623	Arlington	3648
La Dura Frac.	4461	Maggie	617
Micawber	4443	Broadaxe	4198
Directorate	4442	Fee Donald	5124
Canadian King	4196	Original Fr.	5125
Gold Standard	4199	Amor Plate	4186