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2.56458

REPORT ON DIAMOND DRILLING
MINING LEASE CLM 328, LEASE # 109285
TECK TOWNSHIP
DISTRICT OF TIMISKAMING, ONT.
BY KIRKLAND LAKE GOLD INC.

PROVINCIAL RECORDING
OFFICE SUDBURY
RECEIVED
DEC 07 2015
A.M. 7|8|9|10|11|12|1|2|3|4|5|6 P.M.

S. J. Carmichael, P.Geo
Kirkland Lake Gold Inc.

December 1, 2015

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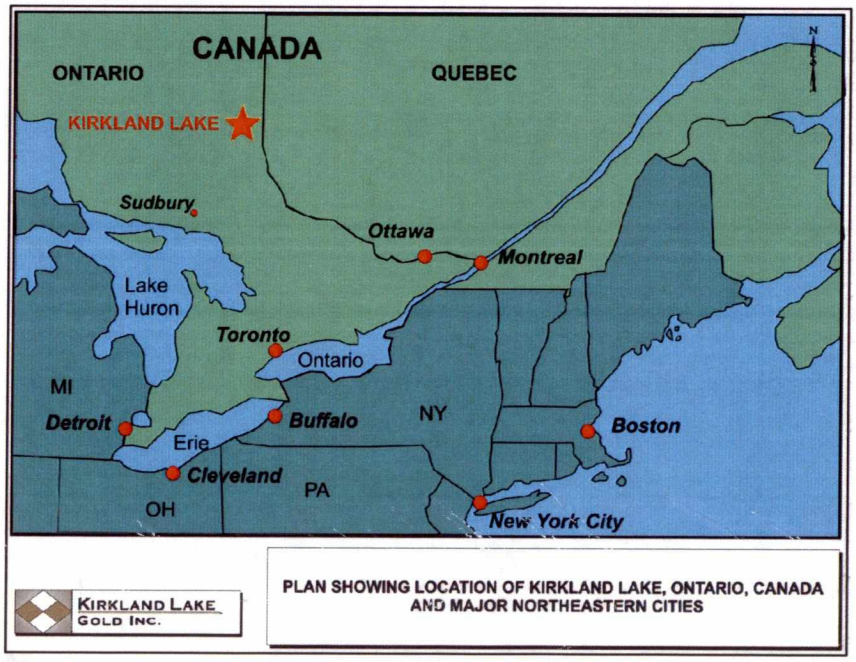
REPORT ON DIAMOND DRILLING
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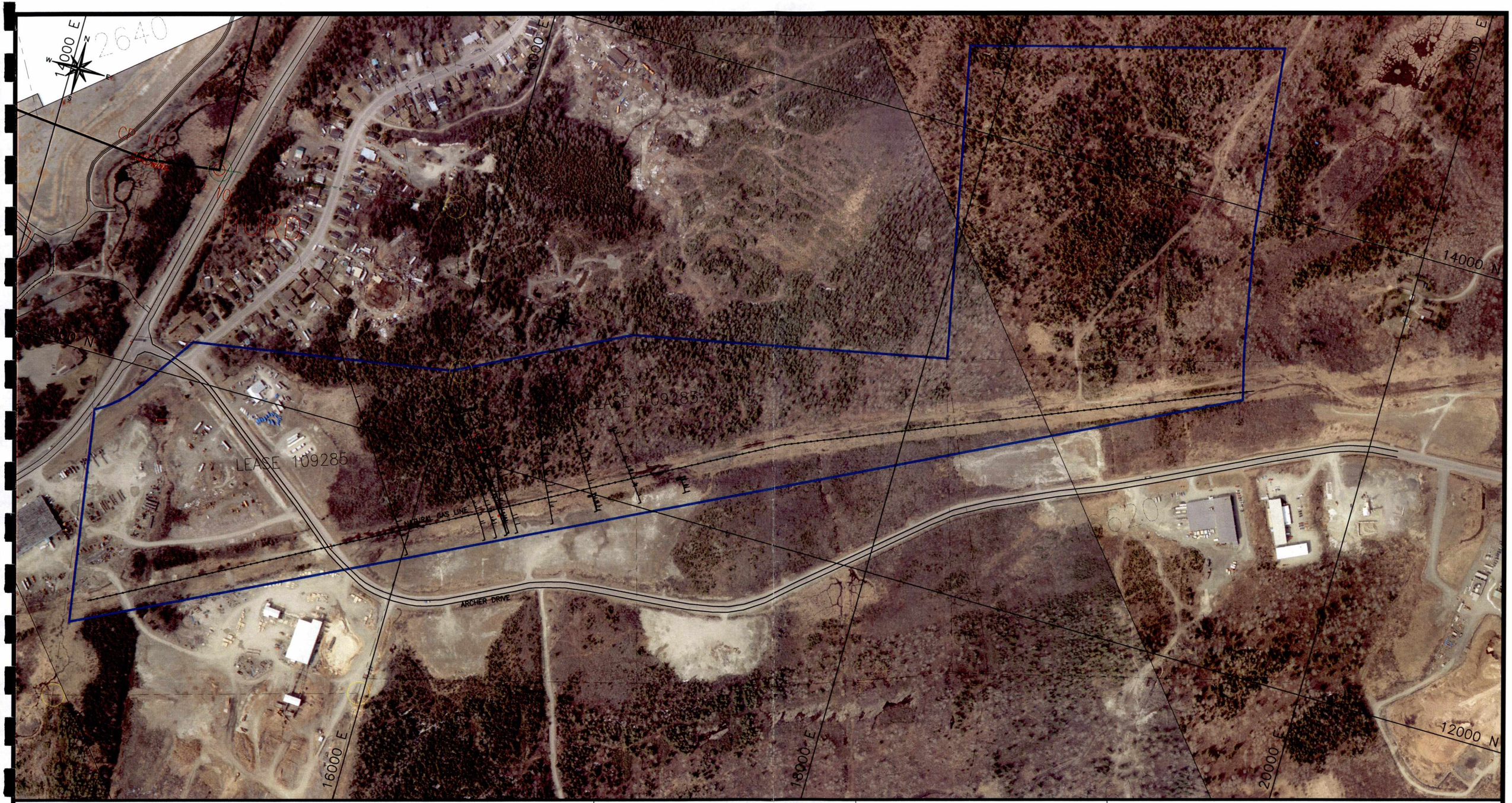
Introduction

The following report describes a 13 hole (18,436 feet) surface diamond drilling program completed between August 2014 and April, 2015. All drill holes were completed on mining lease 109285.
The drilling was completed by Cabo Diamond Drilling with logging completed by Kirkland Lake Gold geologists and assaying by Swastika Laboratories. All core is stored on pallets at the Macassa Mine #3 shaft site.

Property Location and Access

The area tested forms part of the main patented claims held by Kirkland Lake Gold Inc. Drilling was performed mining lease CLM 328, lease # 109285, part of the Macassa mine property. Access to the drill area is by Archers Drive, which by passes the town of Chaput Hughes and the west part of Kirkland Lake. Drilling took place proximal to the snow dump on the north side of Archers Drive.
The mining lease covers part of the accepted closure plan for the Macassa Mine, thus work permits were not filed, nor required to conduct the drilling program.
The following report will be used to apply assessment credits to the staked portion of the Kirkland Lake Gold Inc. property as well as exploration obligations on mining lease #109285.





APPROVALS:				REVISIONS:			
DEPARTMENT	APPROVALS & DATE	DEPARTMENT	APPROVALS & DATE	No.	Description of Revision	Date	By
Planning:		Captain:		0			
Geology:		Superintendent:					
Ventilation:		Chief Engineer:					
Grnd. Cntrl.:		Mngr. Mining:					
Engineer:							

KIRKLAND LAKE GOLD INC.

KIRKLAND LAKE GOLD OPERATIONS

TITLE:

PLAN VIEW
DRILL HOLE LOCATIONS

V:\STUCAR\assessment reports\Amalgamated\PLAN VIEW.dwg

DRAWN BY:	SCARMICHAEL	SCALE:	1"=400'
DATE:	Nov/23/2015	ISSUED BY:	
CHECKED BY:		ISSUED ON:	

SCHEDULE		
PART	LOCATION	PIN
1	PART OF CLM 328 (MRO)	PART OF 61402-0838 (MRO)

PLAN 54R–

RECEIVED AND DEPOSITED

LAND REGISTRAR FOR THE LAND TITLES DIVISION OF TIMISKAMING

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT

JAMES E. WALKER
ONTARIO LAND SURVEYOR

PLAN OF SURVEY
OF PART OF
CLM 328
TOWNSHIP OF TECK
MUNICIPALITY OF KIRKLAND LAKE
DISTRICT OF TIMISKAMING

JAMES E. WALKER, O.L.S.

SCALE: 1 : 1500

30 15 0 15 30 45 60 75

LEGEND:

● SIB	DENOTES	SURVEY MONUMENT FOUND
○ SIB	DENOTES	SURVEY MONUMENT PLANTED
● SSIB	DENOTES	STANDARD IRON BAR
● SSIB	DENOTES	SHORT STANDARD IRON BAR
● I.B.	DENOTES	IRON BAR
⊕ S.C.P.	DENOTES	SPECIFIED CONTROL POINT
⊕	DENOTES	CONTROL POINT
P1	DENOTES	P1 J.E. WALKER,O.L.S.
P2	DENOTES	P2 J.E. WALKER,O.L.S.
P3	DENOTES	P3 J.E. WALKER SURVEYING LTD.
P4	DENOTES	OUTLOOFF COMPANY
P5	DENOTES	P5 A. GRIGAS, O.L.S.
P6	DENOTES	P6 T.B. DORE, O.L.S.
P7	DENOTES	P7 T.B. DORE, O.L.S.
P8	DENOTES	PLAN 54R-3678
P9	DENOTES	PLAN 54R-3322
P10	DENOTES	PLAN 54R-3444
P11	DENOTES	PLAN 54R-4277
P12	DENOTES	PLAN 54R-4429
P13	DENOTES	PLAN 54R-3180
P14	DENOTES	PLAN 54R-3632
P15	DENOTES	PLAN 54R-3139
P16	DENOTES	PLAN 54R-3633
P17	DENOTES	PLAN 54R-3634
M	DENOTES	MEASURED
R	DENOTES	RECORD
CP	DENOTES	CALCULATED FROM
O.U.	DENOTES	ORIGIN UNKNOWN
MTO	DENOTES	MINISTRY OF TRANSPORTATION ONTARIO
NONG	DENOTES	NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED
SRO	DENOTES	SURFACE RIGHTS ONLY
MRO	DENOTES	MINERAL RIGHTS ONLY
N.E.	DENOTES	NO EVIDENCE LOCATED

POINT	NORTHING	EASTING
0129784040	5332311.131	571602.370
0081997006	5332126.975	569553.976

COORDINATES ARE UTM ZONE 17, NAD 83 (CORS+EPOCH) TO URBAN ACCURACY PER SEC. 14 (2) OF O. REG. 216/10 AND CANNOT IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

METRIC NOTE:
DISTANCES AND COORDINATES SHOWN HEREON ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

BEARING NOTE:
BEARINGS ARE UTM GRID, DERIVED FROM SPECIFIED CONTROL POINTS 0129784040 AND 0081997006, UTM ZONE 17, NAD83 (CORS+EPOCH)

BEARING ROTATION NOTE:
FOR BEARING COMPARISONS, A ROTATION OF 0°40'10" COUNTER CLOCKWISE WAS APPLIED TO P, P1, P2, P3, P4, P5, P6 AND P7 TO CONVERT TO UTM BEARINGS.

SCALE FACTOR NOTE:
DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.9998128.

SURVEYOR'S CERTIFICATE:

I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 30TH DAY OF APRIL, 2012.

ENVELOPMENT, ONTARIO
JULY 5, 2012.

JAMES E. WALKER
ONTARIO LAND SURVEYOR

J. E. WALKER SURVEYING LTD.

FIELD	OFFICE	FILE
J.E.W., K.G.	JEW	11-24



Drill Set Up in the Snow Dump, Archers Drive

Land Tenure and Ownership

The Kirkland Lake Gold Inc. property comprises 161 patented claims covering 2,225 hectares, 11 Crown Leases covering 306 hectares and 56 staked claims covering 1,505 hectares. All of the above are located in Teck and Lebel Townships. 45 of the staked claims are located in Teck Township and are contiguous with the patented and leased claims. The drill program detailed in this report covers mining lease # 109285 with an area of 94.32 hectares, also contiguous with the patented claims in Teck Township.

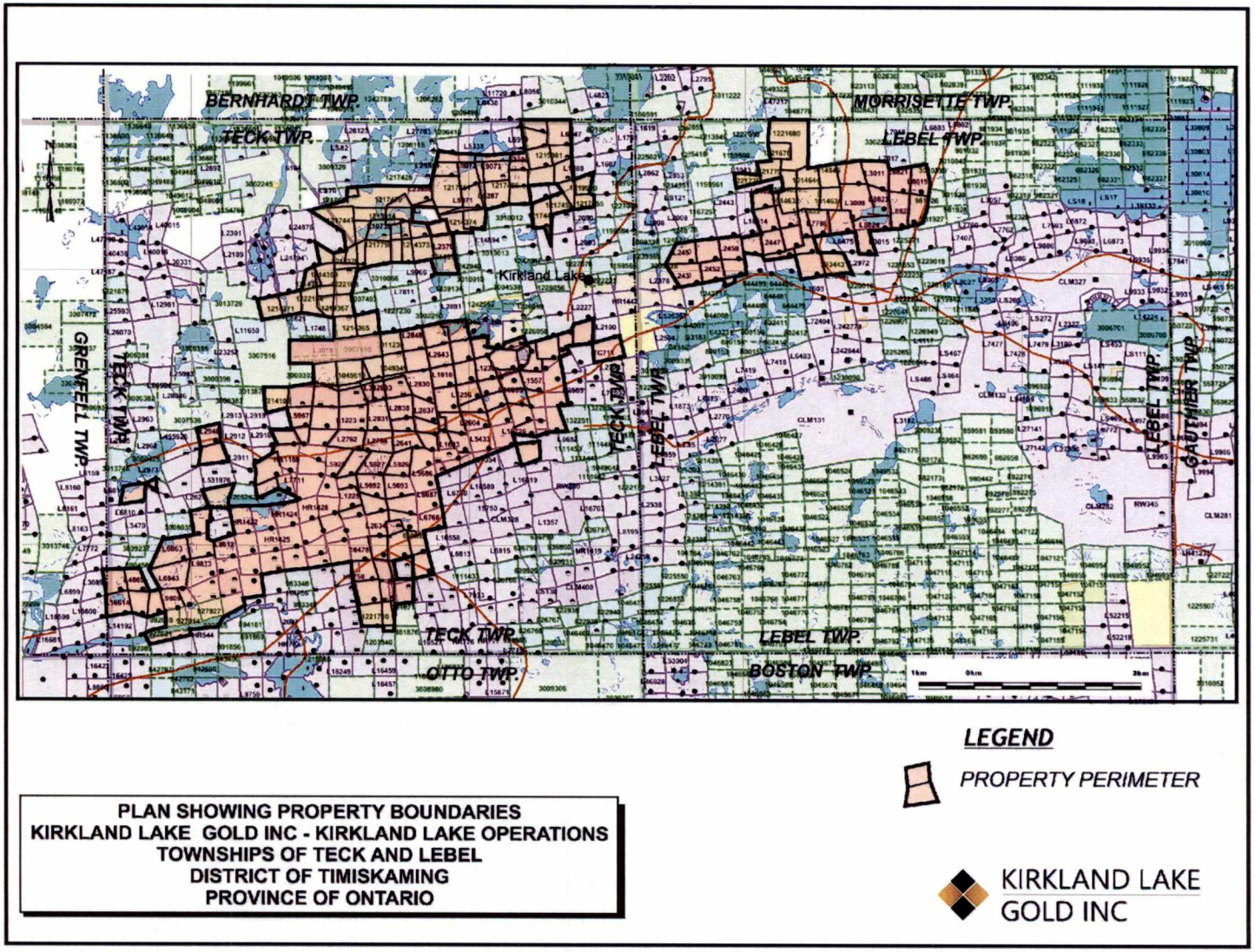
All claims and leases are registered to Kirkland Lake Gold Inc. and are in good standing. The Teck Township staked claims include:

TABLE 1

CLAIM NO.	UNITS	DATE STAKED	APPLIED	BANK	DUE DATE
1045619	1	Aug. 11, 1988	11,600	0	$400 by Aug. 11, 2018
1045623	1	Oct. 7, 1988	11,600	0	$400 by Oct. 7, 2018
1049049	1	Oct. 28, 1988	11,600	0	$400 by Oct. 28, 2018
1213913	1	March 20, 1996	8,000	0	$400 by March 20, 2018
1213914	3	June 13, 1996	24,000	0	$1,200 by June 13, 2018
1214100	1	Oct. 4, 1996	8,000	458	$400 by Oct. 4, 2018
1214365	2	June 13, 1996	16,000	2,428	$800 by June 13, 2018
1214366	1	June 13, 1996	8,000	0	$400 by June 13, 2018
1214367	2	June 13, 1996	16,000	0	$800 by June 13, 2018
1214368	1	June 13, 1996	8,000	0	$400 by June 13, 2018
1214369	3	June 13, 1996	24,000	0	$1,200 by June 13, 2018
1214370	1	June 17, 1996	8,800	0	$400 by June 17, 2020
1214371	2	June 13, 1996	16,000	0	$800 by June 13, 2018
1214372	2	June 13, 1996	16,000	118	$800 by June 13, 2018
1214373	4	June 13, 1996	35,200	0	$1,600 by June 13, 2020
1214374	2	June 13, 1996	16,000	788	$800 by June 13, 2018
1217446	1	June 13, 1996	8,000	239	$400 by June 13, 2018
1217447	3	June 13, 1996	24,000	0	$1,200 by June 13, 2018
1217448	2	June 13, 1996	16,000	63	$800 by June 13, 2018
1217450	4	Aug. 1, 1996	32,000	0	$1,600 by Aug. 1, 2018
1217451	4	Aug. 1, 1996	32,000	62	$1,600 by Aug. 1, 2018
1217452	1	July 18, 1996	8,000	399	$400 by July 18, 2018
1217455	1	July 18, 1996	8,000	799	$400 by July 18, 2018
1217479	4	Aug. 1, 1996	32,000	1,065	$1,600 by Aug. 1, 2018
1217759	4	Oct. 4, 1996	32,000	0	$1,600 by Oct. 4, 2018
1219980	1	Oct. 4, 1996	8,000	399	$400 by Dec. 12, 2018
1219981	6	Dec. 12, 1996	48,000	700	$2,400 by Dec. 12, 2018
1221710	2	Dec. 30, 1996	16,000	0	$800 by Dec. 30, 2018
1222104	1	May 5, 1997	7,600	0	$400 by May 5, 2018
1222105	1	May 5, 1997	7,600	394	$400 by May 5, 2018
3011230	1	June 17, 2003	5,200	0	$400 by June 17, 2018
4210208	1	June 1, 2006	4,000	0	$400 by June 1, 2018
4240384	1	June 4, 2008	3,200	0	$400 by June 4, 2018
4245807	1	Oct. 16, 2008	3,200	0	$400 by Oct. 16, 2018
4252740	1	June 2, 2010	2,000	0	$400 by June 2, 2017
4252741	1	May 7, 2010	2,000	0	$400 by May 7, 2017
4277249	1	Nov. 5, 2014	0	0	$400 by Nov. 5, 2016
4277250	1	Nov. 5, 2014	0	0	$400 by Nov. 5, 2016
859695	1	Nov. 7, 1985	12,800	0	$400 by Nov. 7, 2018
892085	1	June 19, 1986	12,800	0	$400 by June 19, 2019
892088	1	June 19, 1986	12,800	0	$400 by June 19, 2019
927914	1	June 23, 1986	12,800	0	$400 by June 23, 2019
927921	1	June 23, 1986	12,800	6,736	$400 by June 23, 2019
927927	1	June 23, 1986	12,800	0	$400 by June 23, 2019
983045	1	Dec. 16, 1987	12,000	5,988	$400 by Dec. 16, 2018

Two of the staked claims (4277249 and 4277250) recorded on November 5th, 2014 which pre-date drill hole AB-14-101 and the costs associated with this hole cannot be applied as assessment work to these two claims. All other drill holes described in this report were completed after the recording of the two claims.

Claim Location Plan



Regional Geology

The Kirkland Lake mining camp is located in the west portion of the Archean Abitibi greenstone belt of the Abitibi Subprovince. The Timiskaming Group of rocks is the main feature of the Kirkland Lake area. It is up to 10,500 feet thick and extends for about 40 miles from Kenogami Lake in the west to the Quebec border in the east. In the Kirkland Lake area, the Timiskaming is predominantly comprised of conglomerates, greywackes, trachytic lava flows and alkalic tuffs. The Timiskaming trends N65^0 E and dips steeply south in the Kirkland Lake area. The Timiskaming sediments are intruded by strike parallel to shallow discordant augite syenite, feldspar porphyry and minor late diabase dykes. The intrusives tend to be steeper dipping than the sediments. Mineralization is known to occur in both the sediments and intrusives, though the syenites are the preferential host.

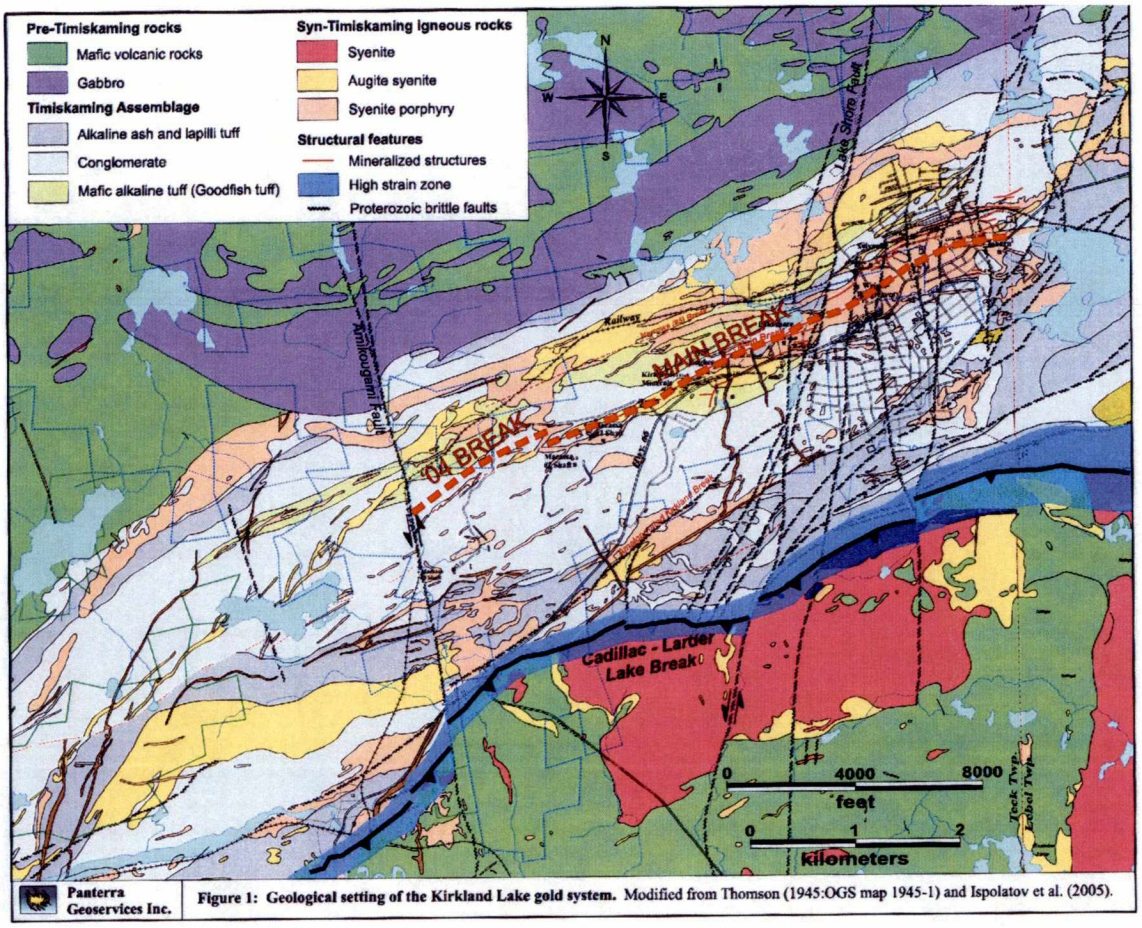


FIGURE 3 - REGIONAL GEOLOGY

Exploration History

The Amalgamated Kirkland property has a long history of exploration activity dating from the initial discovery of mineralization in the Kirkland area on the Hunton shaft claim in 1911. Since that time, various prospecting, mapping, trenching, geophysical surveys and diamond drilling programmes have been carried out on specific targets such as quartz veins at the east (Hunton Shaft) and west (Amalgamated Kirkland) ends of the historically mapped "Amalgamated Kirkland property. The current lease area also includes the historic Hunton Kirkland prospect.

The former Hunton Kirkland Mine is located on claims 16620 and 16621, the east and northerly portion of current mining lease 109285. An extensive amount of work was carried out on the Hunton Kirkland property during the mid 1920's. Spectacular free gold was found in a surface pit which originally was developed to the depth of 22 feet below surface. Subsequently a shaft was sunk on the showing, (claim 16621) which reached an eventual depth of 500 feet with stations established at the 40, 125, 375 and 500 foot levels, with lateral development occurring at each station.

At the 375 foot level, a long cross cut was carried to the north for the purposes of exploring favourable ground laying near the Teck-Hughes boundary. An exploratory diamond drill hole in this area had returned spectacular gold results at the 625 foot level. This cross cut proceeded for a lateral distance of approximately 1,058 feet, at which point an internal winze was sunk down to a depth of 625 feet. At the bottom of this winze, lateral work again was carried out on a vein structure, "No. 4", the vein picked up in the sinking; three small ore shoots were developed along this vein structure occurring in conglomerates which were considered to have commercial grades at $20.00 gold. A fifty foot sub winze put down in the vicinity of one of these shoots ran values averaging 0.35 ounce of gold/ton through the 50 foot distance. One diamond drill intersection No. 5 (reported in Northern Miner March 13, 1926) crossed the southwest extremity of the No. 4 vein and returned 4.59 ounce of gold/ton (uncut) over 5.9 feet.

No production is reported from the Kirkland Hunton during this period.

In 1972 Mayfield Exploration and Development completed 11 shallow surface diamond drill holes (2,805 feet) on the Hunton property. No gold values were returned and no further work was recommended.

From 1989 to 1992, Battle Mountain Canada Inc optioned the Amalgamated property from Queenston Mining and completed gridding, geological mapping, geophysics and diamond drilling. Most of this work was completed south of the current lease area. One drill hole was completed by Battle Mountain on the west portion of the current lease property (AK-91-37). AK-91-37 returned a number of anomalous intersections including 0.44 g/t over 10.2 metres and 0.21 g/t over 12.0m.

In 2010, existing lease (CLM 328) held by Queenston Mining Inc. was subdivided with the north part optioned by Kirkland lake Gold Inc. (current lease #109285) with Queenston maintaining right s to the south portion. The gas pipeline running through the property provided a convenient point of reference to subdivide the

lease; the south boundary of the lease lying just south and roughly parallel to the gas pipeline right of way.
The north part (lease #109285) was subsequently purchased by Kirkland Lake Gold Inc. in 2012. Shortly after purchase of the lease from Queenston Mining, Kirkland Lake Gold initiated a large scale regional surface exploration program.

Geology and Mineralization

The current area of drilling is underlain by south dipping Timiskaming Assemblage sediments including conglomerate, greywacke, tuffs and trachyte. These have been subsequently intruded by typical Kirkland Lake basic syenite (augite syenite), felsic syenite and feldspar porphyry. The last intrusive phase consists of late Proterozoic diabase dykes. The major structure in the area is the Amalgamated Break. Mineralization intersected to date is dominantly north of the Amalgamated Break and is associated with sericitic alteration, weak quartz/carbonate stringers and flooding with 2-5% fine-grained pyrite. Visible gold was noted in drill hole AB-15-03 from 1,090.5' to 1,156.0' within narrow quartz+/- carbonate stringers hosted within a weakly carbonate-altered conglomerate unit. This intersection assayed 0.26 ounces of gold per ton (opt) over a core length of 65.5 feet. Several higher grading sub intervals within this wide intersections with associated visible gold included 0.49 opt/2.5', 0.41 opt/3.0', 0.72 opt/3.0', 0.61 opt/3.0', 0.54 opt/3.0' and 0.49 opt/3.0'. Closer spaced drilling to follow up on this intersection (AB-15-24, AB-15-25 and AB-15-43) was not able to replicate the wide intersection in AB-15-03. Visible gold was also noted in drill hole AB-15-36 at a depth of 1,246.5', within a lens of greywacke. A complete record of intersection of drilling results is detailed in table 3.

2014/2015 Diamond Drilling Summary

All 13 BQ size surface diamond drill holes were collared from the Snow Dump area, adjacent to and north of Archers Drive. Collars are surveyed using an accurate GPS instrument with a transmitter located atop the Macassa #2 shaft head frame. Accuracy of this instrument is +/- 2 centimeters.
Down-hole surveys by Reflex instruments were taken roughly at 200 foot intervals to determine the azimuth and dip of each drill hole.
All core was logged at the Macassa #3 Shaft core shack. Samples for assay testing were split at Swastika laboratories with the remaining half of the core retained for future reference. All core is stored at the Macassa #3 Shaft storage facility. The drill holes are summarized as follows:

TABLE 2

DRILL HOLE	CLAIM	NORTHING	EASTING	LEVEL	AZIMUTH	DIP	LENGTH
AB-14-101	#109285	39+00S	29+00E	-5.4	323	-70	1,000'
AB-14-164	#109285	39+15S	31+00E	-5.4	327	-88	1,000'
AB-14-166	#109285	38+80S	27+00E	-5.4	327	-88	1,000'
AB-14-167	#109285	38+80S	27+00E	-5.4	327	-45	1,000'
AB-14-169	#109285	38+75S	25+00E	-5.0	327	-70	1,600'

DRILL HOLE	CLAIM	NORTHING	EASTING	LEVEL	AZIMUTH	DIP	LENGTH
AB-15-03	#109285	38+60S	23+00E	-10.0	327	-70	1,600'
AB-15-07	#109285	38+20S	18+42E	-10.0	327	-45	1,475'
AB-15-18	#109285	38+65S	22+89E	-10.0	327	-81	1,900'
AB-15-20	#109285	38+57S	21+90E	-10.0	327	-70	1,600'
AB-15-24	#109285	38+64S	22+89E	-10.5	327	-74	1,600'
AB-15-25	#109285	38+64S	22+89E	-10.5	327	-66	1,523'
AB-15-34	#109285	38+68S	23+37E	-11.8	327	-70	1,600'
AB-15-36	#109285	38+62S	22+41E	-10.0	327	-70	1,538'
							18,436'

Summary of Results

TABLE 3

Hole No.	Length	Intersection	Grade (opt)
AB-14-101	1,000 ft.		NSV
AB-14-164	1,000 ft.		NSV
AB-14-166	1,000 ft.	752.2' – 753.2'	0.05/1.0'
AB-14-167	1,000 ft.		NSV
AB-14-169	1,600 ft.	861.0' – 869.6'	0.07/8.6'
AB-15-03	1,600 ft.	1,034.0' – 1,042.0' 1,059.0' – 1,071.0' 1,090.5' – 1,156.0' 1,156.0' – 1,167.5' 1,307.0' – 1,314.5'	0.09/8.0' 0.13/12.0' 0.26/65.5' 0.08/11.5' 0.33/7.5'
AB-15-07	1,475 ft.		NSV
AB-15-18	1,900 ft.	1,238.6' – 1,284.6'	0.05/1.0'
AB-15-20	1,600 ft.		NSV
AB-15-24	1,600 ft.	1,233.5' – 1,236.0' 1,307.0' – 1,314.5'	0.08/2.5' 0.05/7.6'
AB-15-25	1,523 ft.	221.7' – 222.7' 610.1' – 611.4'	0.77/1.0' 0.15/1.3'
AB-15-34	1,600 ft.	1,079.8' – 1,087.6' 1,358.1' – 1,359.6' 1,369.0' – 1,383.5'	0.07/7.8' 0.22/1.5' 0.05/14.5'
AB-15-36	1,538 ft.	1,246.0' – 1,247.0' 1,266.0' – 1,267.5'	0.45/1.0' 0.05/1.5'

Summary and Conclusions

Additional drilling is currently in progress to follow up on the intersections described above as well as well as a more regional program aimed at testing the Amalgamated Break.

Respectfully Submitted

S Stewart Carmichael Dec. 4/2015

Stewart Carmichael, B.Sc., P.Geo
Manager of Exploration

Appendix A – Summary of Expenditures

Drilling Cost by Drill Hole

Hole No.	Drilling Cost	Assays	Geologist/Supervision	TOTAL
AB-14-101	$24,267.0	$688.0	$1,000.0	$25,955.0
AB-14-164	$15,028.0	$592.0	$1,000.0	$16,620.0
AB-14-166	$24,243.0	$1,152.0	$1,000.0	$26,395.0
AB-14-167	$19,921.0	$688.0	$1,000.0	$21,609.0
AB-14-169	$32,449.0	$1,152.0	$1,500.0	$35,101.0
AB-15-03	$30,200.0	$2,656.0	$1,500.0	$34,356.0
AB-15-07	$28,500.0	$784.0	$1,500.0	$30,784.0
AB-15-18	$36,230.0	$720.0	$1,500.0	$38,450.0
AB-15-20	$29,609.0	$752.0	$1,500.0	$31,861.0
AB-15-24	$28,178.0	$1,136.0	$1,500.0	$30,814.0
AB-15-25	$27,765.0	$528.0	$1,500.0	$29,793.0
AB-15-34	$33,356.0	$1,360.0	$1,500.0	$36,216.0
AB-15-36	$28,292.0	$656.0	$1,500.0	$30,448.0
TOTAL	**$358,038.0**	**$12,864.0**	**$17,500.0**	**$388,402.0**

Average cost/ft (drilling only) $19.42/ft
All in cost/ft $21.18/ft

Summary of Expenses

Drilling:	$358,038.00
Core Boxes: 461 @ $4.50/tray	$2,075.00
Assays @$16.00/sample	$12,864.00
Logging/Labor/Supervision/report	$17,500.00
Final Report	$2,000.00

TOTAL: $392,477.00

Lease # 109285 has an area of 49.32 Ha. The maximum value of work which can be assigned in any given year from the lease is 49.32x$1,500.00=$73,980.00.

Appendix B – References

Charlewood, G.H.
1964, Geology of Deep Development on the Main Ore Zone at Kirkland Lake: Ontario Department of Mines, Geological Circular No. 11, 49 p.

Hawley, J.E.
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Ispolatov, V., Lafrance, B., Dube, B., Hamilton, M. and Creaser, R. 2005
Geology, structure, and gold mineralization, Kirkland Lake and Larder Lake areas (Gauthier and Teck townships): Discover Abitibi Initiative; Ontario Geological Survey, open File Report 6159, 170p.

Thomson, J.E.
1950, Geology of Teck Township and the Kenogami Lake area: Ontario Department of Mines, Annual Report for 1948, v. 57, pt. 5, pp. 1-53, accompanied by maps 1945-1 and 1946-2, scale 1:12,000 or 1: to 1,000 feet.

Various assessment files on record at the Resident Geologists Office, Kirkland Lake

Ministry of Northern Development and Mines
Ministère du Développement du Nord et des Mines

The Mining Act
Loi sur les mines

2015 MINING LEASE RENT - LOYER DES BAUX MINIERS

DATE: 2015-Feb-17

Please make payment payable to the **MINISTER OF FINANCE.**
Return payment with one copy of this invoice in the envelope provided to:

Ministry of Northern Development and Mines
933 Ramsey Lake Road, 3rd Floor,
Sudbury, Ontario P3E 6B5
(705) 670-5850 or 1-888-415-9845 - Ext 5850
http://ontario.ca/minesandminerals

Envoyez le paiement à l'ordre du **MINISTRE DES FINANCES**
ainsi qu'une copie de la présente facture dans l'enveloppe ci-jointe à:

Ministère du développement du nord
et des mines
933, chemin du lac Ramsey,3e étage,
Sudbury Ontario P3E 6B5
705 670-5850 ou 1 888 415-9845, poste 5850
http://ontario.ca/minesandminerals

KIRKLAND LAKE GOLD INC. ET AL.
1350 GOVERNMENT ROAD WEST
P.O. BOX 370
KIRKLAND LAKE ON
P2N 3J1

Account / Compte: **LT**0376**

Total Annual Rent/ Loyer annuel	Balance from previous years / Solde des années précédentes	Total rent due/ Loyer total
$ 147.96	**$ 0.00**	**$ 147.96**

Payment due by anniversary date of lease or interest will apply. Le paiement est dû d'ici la date anniversaire du bail sinon des intérêts s'appliqueront.

Sub-account / Sous-compte	Description/Détail			Due Date / Due Date yyyy-mm-dd	Hectares/ Hectares	Annual Rent/ Loyer annuel	Outstanding Rent/ Loyer impayé	Total Due/ Solde
	Lease # / No de bail	Description/ Détail	Township/Area Canton/Région					
0005	109285	CLM328	TECK	2015-Apr-1	49.320	$ 147.96	$ 0.00	$ 147.96

Appendix C – Certificate of Qualifications

STEWART CARMICHAEL, P.GEO.

I, Stewart Carmichael, P.Geo, do hereby certify that:

1. I am currently employed as the Chief Exploration Geologist by:
   Kirkland Lake Gold Inc.
   P.O.Box 370
   Kirkland Lake, Ontario, Canada
   P2N 3J1

2. I graduated with a Bachelor of Science degree, from McMaster University in 1982.

3. I am a member of the Association of Professional Geoscientists of Ontario, member 0455.

4. I have worked as a geologist for a total of 33 years since my graduation from university.

5. I have been employed at the Macassa Mine property since April, 2002.

6. I have made use of internal documents and files as well as files at the Ministry of Northern Development and Mines, Kirkland Lake.

Dated this 15th Day of December, 2015

(Signed)

_____

Stewart Carmichael, P.Geo.
Manager of Exploration

Appendix D – Diamond Drill Logs and Assay Certificates

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-14-101

Engineering Coordinates

Easting: 16957.000
Northing: 12022.000
Elevation: -5.400

Geology Grid

Section: 2899.9626
Northing: -3900.2176
Level: Surface

Date Logged: 8/12/2014
Logged by: J. Johnson
Units: Feet

Azimuth: 323.000
Dip: -70.00
EOH: 1000.000

Drilled By: Cabo Drilling Corp.
Drill: Marcotte
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By:

Township: Teck Township
Claim #: CLM 328 lease 109285

Drilling Starts: 8/1/2014 1:33:06 PM
Drilling Ends: 8/4/2014 1:33:06 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*

Comments:

Use survey info from AB-14-102???. Difficult to determine collar coordiantes. See C.Evans. *Survey info not in*. Core stored at the Macassa Mine.

[redacted]

Lithology

From	To	Description
0.00	4.00	Overburden/Casing
4.00	98.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.

Zone

From	To	Description
91.40	98.80	Weak hem weakly alt'd dark reddish-brown, wkly hem alt'd G (looks like tuff around here); wkly sheared?; sampled across into DIA contact; locally fractured

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
91.40	94.40	3.00	447295	0.001	0.001				
94.40	97.40	3.00	447296	0.001	0.001				
97.40	98.80	1.40	447297	0.001	0.001				

Lithology

From	To	Description
98.70	158.70	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. sharp irreg u/c Upper contact dipping 22 Deg. To CA

Zone

From	To	Description
158.00	159.00	DIA-G contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
158.00	159.00	1.00	447298	0.001	0.001				

Lithology

From	To	Description
158.70	186.60	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. looks like tuff; sharp u/c Upper contact dipping 50 Deg. To CA

Zone

From	To	Description
185.50	186.80	G-S contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
185.50	186.80	1.30	447299	0.002	0.002				

Lithology

From	To	Description
186.60	232.50	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. brown to dark grey, local faint phenos; sharp u/c Upper contact dipping 40 Deg. To CA

Zone

From	To	Description
222.00	230.00	Weak hem tr py Weak ser wkly alt'd check samples through brick red type 2 porphyry; locally bx'd with dark grey qtz veining; local ser alt; minor crb strgs; tr py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
222.00	224.00	2.00	447300	0.010	0.010				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Structure

From	To	Description			
222.10	223.90		4"	QV	@ 5
			tr-1%	fg-mg	py

drilling caught the top of a folded qtz vein; vein is dark grey with local py; vein is dipping 30 DTCA one direction, and ~ 30 DTCA the other direction at the end of the interval and flat at the middle

224.00	227.00	3.00	447301	0.010	0.010
227.00	230.00	3.00	447302	0.043	0.043

Zone

From	To	Description			
230.00	232.50				
		Weak	hem	2-3%	fg-mg py
		Weak	ser		

same alt as above with 40% med to dark grey qtz veining with local py

230.00	232.50	2.50	447303	0.026	0.026	
		BLANK	*447304*	*0.001*	*0.001*	*0.001*

Structure

From	To	Description			
230.30	232.00	25-40%	QFS		
		2-3%	fg-mg	py	

irreg, dark grey, locally bx'd qtz veining with local py

Lithology

From	To	Description
232.50	247.60	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. ser'd throughout; dark green colour; sharp u/c
		Upper contact dipping 40 Deg. To CA

Zone

From	To	Description			
232.50	233.50				
		Weak	ser	1-2%	fg-mg py

sample across S-G contact; type 2 is as above; greywacke is locally bx'd, chl'd and weakly ser'd

232.50	233.50	1.00	447305	0.018	0.018

Zone

From	To	Description			
233.50	240.00	Moderate	Alt		
		Moderate	ser	tr	py

mod'ly ser'd throughout, local strong ser altl tr py; local crb veining

233.50	235.50	2.00	447306	0.008	0.008
235.50	237.50	2.00	447307	0.004	0.004
237.50	240.00	2.50	447308	0.002	0.002

Zone

From	To	Description		
246.50	248.50	Strong	DFNZ	@ 50
		Strong	chl	
		Weak	ser	

AB fault Zone; highly sheared with local fault gouging; chl'd throughout highly deformed

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
246.50	248.50	2.00	447309	0.001	0.001				

Structure

From	To				
246.60	246.80	1.5"	Flt	@ 50	G
Strong	chl				

poorly consolidated flt gouge; probably a splay off main gouge

From	To				
247.00	247.80	6"	Flt	@ 36	G
Strong	chl				

mod to locally poorly consolidated chl'd flt gouge; dip ranging between 36 and 50 DTCA;

Lithology

From	To	Description
247.60	258.60	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky Basic syenite; sharp u/c marked by AB fault gouge Upper contact dipping 36 Deg. To CA

Structure

From	To			
248.30	248.40	slp	@ 40	
Strong	chl			

strong, chl'd slip; local irreg splayed white qtz vein HW to slip

Zone

From	To				
248.50	251.50				
Moderate	hem	tr		py	
Moderate	sil				

mod'ly alt'd check sample

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
248.50	251.50	3.00	447310	0.005	0.005				

Zone

From	To				
251.50	253.00				
Strong	sil	tr	fg	py	
Moderate	crb				
Weak	hem				

light brown, highly crb alt'd and sil'd funky syenite; local hem alt'd and tr py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
251.50	253.00	1.50	447311	0.007	0.007				

Zone

From	To				
253.00	254.00				
Moderate	sil	tr	fg	py	
Weak	crb				

wkly alt'd

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
253.00	254.00	1.00	447312	0.004	0.004				

ithology

rom	To	Description
258.60	260.60	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. dark grey, fg'd; sharp bx'd u/c

[redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
260.00	261.00	1.00	447313	0.004	0.004				
267.60	269.60	2.00	447314	0.004	0.004	0.004			
285.40	286.40	1.00	447315	0.024	0.024				
343.10	344.60	1.50	447316	0.039	0.039				

Zone

From	To	Description
260.00	261.00	G-F contact

Lithology

From	To	Description
260.60	267.70	FELSIC SYENITE: Brick reddish-brown colour; mg'd, minor xenos and phenos seen, making it possibly type-2 porphyry; looks to be a cross between type 2 above and F below.; u/c missing small piece of core.

Zone

From	To	Description
267.60	269.60	Strong ser 1-2% fg-mg py Weak chl sample across F-G contact; greywacke is mod-strongly ser'd with up to 10% irreg white crb strgs and local fg-mg'd py

Lithology

From	To	Description
267.70	285.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. ser'd and alt'd for the first 2' of interval, the rest is wkly alt'd with local syenite clasts; sharp u/c. Upper contact dipping 60 Deg. To CA

Zone

From	To	Description
285.40	286.40	G-F contact

Lithology

From	To	Description
285.50	335.90	FELSIC SYENITE: Brick reddish-brown, massive, mg'd syenite; sharp irreg u/c
335.90	366.10	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky Basic syenite; looks similar to above felsic syenite, but it has light brown to grey phenos and is slightly darker; irreg u/c

Zone

From	To	Description
343.10	344.60	1-2% cg cpy local mg-cg'd cpy

Structure

From	To	Description
343.40	344.10	1/2" CrbV @ 20 2-3% cg-vcg cpy pink shallow dipping vein, local splays; local semi-massive cpy

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
365.50	366.50	1.00	447317	0.003	0.003				
371.50	372.50	1.00	447318	0.004	0.004				
394.10	395.50	1.40	447319	0.002	0.002				
395.50	397.50	2.00	447320	0.002	0.002				
428.00	429.00	1.00	447321	0.002	0.002				

Zone

From	To	Description
365.50	366.50	L-P contact; local irreg bullish crb strgs

Lithology

From	To	Description
366.10	372.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. brick reddish-brown like funky syenite above; mg'd, massive throughout; mod amount of poorly developed phenos; sharp irreg u/c

Zone

From	To	Description
371.50	372.50	P-L contact; local crb strgs

Lithology

From	To	Description
372.00	394.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky syenite as above; sharp irreg u/c

Zone

From	To	Description
394.10	397.50	Strong ser tr-1% fg-mg py Strong chl samples across L-P contact; porphyry is highly alt'd at contact with strong qtz veining and local chl slips ; ser'd throughout most of porphyry unit within sampled interval

Lithology

From	To	Description
394.30	987.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. as described above; sharp irreg u/c

Structure

From	To	Description
394.90	395.50	Strong Shr @ 46 Strong ser tr py Moderate chl well healed, strong shear with 1" white to grey qtz veining along FW and chl'd muddy slip along HW

Zone

From	To	Description
428.00	429.00	Moderate ser wk-mod'ly ser'd locally proximal to qtz-crb vein

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Structure

From	To	Description
428.70	428.80	1/2" CrbV @ 50
		white, bullish with ser'd halo

Zone

From	To	Description
434.90	445.50	Moderate ser tr fg py Moderate sil local white qtz-crb veining with light to med green, ser'd and sil'd halos around all the veins; halos are 2-5" proximal to veining

434.90	436.00	1.10	447322	0.001	0.001				

Structure

From	To	Description
435.50	435.60	1/2" CrbV @ 64
		white, bullish with chl'd slips along contact

436.00	438.00	2.00	447323	0.001	0.001				
438.00	439.80	1.80	447324	0.002	0.002	0.002			
439.80	442.80	3.00	447325	0.004	0.004				
442.80	444.00	1.20	447326	0.001	0.001				
444.00	445.50	1.50	447327	0.001	0.001				

Structure

From	To	Description
445.00	445.30	2" QCrbS @ 60
		white to grey qtz-crb strgs within 2" interval with ser'd and chl'd halo

Zone

From	To	Description
482.50	485.50	check sample

482.50	485.50	3.00	447328	0.002	0.002				

Zone

From	To	Description
485.50	493.30	Weak MNZ Strong hem 3-5% fg-mg py Moderate sil MINERALIZED ZONE: 70% white to dark grey qtz-crb veining through zone with up to 5% fg-mg'd localized py; host rock is dark reddish-brown and hem'd?; veining is very irreg and locally bx'd.

485.50	487.30	1.80	447329	0.005	0.005				
		BLANK	*447330*	*0.001*	*0.001*				
487.30	489.30	2.00	447331	0.027	0.027				
489.30	491.30	2.00	447332	0.022	0.022				
491.30	493.30	2.00	447333	0.008	0.008				

Zone

From	To	Description
493.30	496.30	Check sample

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
493.30	496.30	3.00	447334	0.006	0.006	0.006			

Structure

From	To	Description
619.70	620.00	1/2" Flt @ 25 Moderate chl well healed, bx'd and chl'd fault; chl'd slip along HW contact; minor mud along slip; locally blocky ground near fault; barren, not sampled

Zone

From	To	Description
760.50	761.50	Weak crb 1-2% fg-mg py local lens of fg'd-mg'd diss py within wkly alt'd porphyry; locally vuggy; med grey to local orange-brown, minor hairline crb strgs locally

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
760.50	761.50	1.00	447335	0.004	0.004				
794.70	795.70	1.00	447336	0.001	0.001				

Structure

From	To	Description
795.10	795.30	1" CrbV @ 42 3-5% fg-mg py pink vuggy calcite vein with 2 large clusters of fg-mg'd py

Zone

From	To	Description
947.00	949.00	2-3% mg-cg py wkly alt'd with local crb veins and local py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
947.00	949.00	2.00	447337	0.003	0.003				

Structure

From	To	Description
948.30	948.60	1/4" QCrbV @ 28 3-5% fg-mg py tr cpy white to grey vein with local py and tr cpy

Zone

From	To	Description
987.00	993.00	Moderate ser tr py mod-strongly ser'd greywacke interval; tr py and local irreg white to pink crb strgs

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
987.00	988.50	1.50	447338	0.005	0.005				

ithology

rom	To	Description
987.20	992.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. locally ser'd with minor crb veins and strgs; sharp u/c Upper contact dipping 80 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
988.50	991.50	3.00	447339	0.008	0.008				
991.50	993.00	1.50	447340	0.001	0.001				

thology

om	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
992.70	1000.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. continuation of above with a sharp irreg u/c.							

EOH : 1000.000
Total # of samples : 46
Total footage sampled : 81.50



Nov 19, 2015

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Assay Certificate

Certificate Number: 14-896

Company: **Kirkland Lake Gold Mines Inc.**

Project: SUREX

Report Date: 27-Aug-14

Attn: Stewart Carmichael

We hereby certify the following Assay of 46 core samples submitted 25-Aug-14 by Stewart Carmichael

Sample Number		Au FA-MP Toz/t	Au Chk FA-MP Toz/t
447295		0.001	
447296		0.001	
447297	1	0.001	
447298	1	0.001	
447299	1	0.002	
447300		0.010	
447301		0.010	
447302		0.043	
447303		0.026	
447304	1	0.001	0.001
Blank Value		0.001	
OxH97		0.038	
447305	1	0.018	
447306		0.008	
447307		0.004	
447308		0.002	
447309		0.001	
447310		0.005	
447311	1	0.007	
447312	1	0.004	
447313	1	0.004	
447314		0.004	0.004
447315	1	0.024	
447316	1	0.039	
447317	1	0.003	

1. No Reject

Certified by Jing Lin

Jing Lin, M Sc.

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Established 1928

Assay Certificate

Certificate Number: 14-896

Company: **Kirkland Lake Gold Mines Inc.**

Project: SUREX

Report Date: 27-Aug-14

Attn: Stewart Carmichael

We hereby certify the following Assay of 46 core samples submitted 25-Aug-14 by Stewart Carmichael

Sample Number		Au FA-MP Toz/t	Au Chk FA-MP Toz/t
447318	1	0.004	
447319	1	0.002	
447320		0.002	
447321	1	0.002	
447322	1	0.001	
Blank Value		0.001	
OxH97		0.038	
447323		0.001	
447324	1	0.002	0.002
447325		0.004	
447326	1	0.001	
447327	1	0.001	
447328		0.002	
447329		0.005	
447330	1	0.001	
447331		0.027	
447332		0.022	
447333		0.008	
447334		0.006	0.006
447335	1	0.004	
447336	1	0.001	
447337		0.003	
447338	1	0.005	
447339		0.008	
447340	1	0.001	

1. No Reject

Certified by J. Lin

Jing Lin, M Sc.

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-14-164

Engineering Coordinates

Easting: 17133.000
Northing: 12117.000
Elevation: -5.400

Geology Grid

Section: 3100
Northing: -3915
Level: Surface

Date Logged: 12/2/2014
Logged by: C. Kodors
Units: Feet

Azimuth: 327.000
Dip: -88.00
EOH: 1000.000

Drilled By: Cabo Drilling Corp.
Drill: Marcotte
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: Casing Pulled

Township: Teck Township
Claim #: CLM 328 Lease 109285

Drilling Starts: 11/25/2014 1:33:06 PM
Drilling Ends: 11/29/2014 1:33:06 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
55.00	333.50	-87.30	R	5617
455.00	328.60	-86.20	R	5617
555.00	325.90	-86.20	R	5415
855.00	326.30	-85.90	R	5393
995.00	327.90	-86.30	R	5503

Comments:

Casing Pulled - Unable to survey casing. Collar accuracy very close. C.Kodors. Core stored at the Macassa Mine.

[redacted]

ithology

From	To	Description
0.00	14.00	
14.00	136.80	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Fresh to very wkly ser'd sed.

Zone

From	To	Description
14.00	107.00	Weak Alt Weak ser tr fg-mg py Weak chl Alteration Zone: wk'ly developed, locally mod alt'd; ser'd and chl'd; around 15% irreg white crb veining; some veining and shearing with local py up to 5%; selectively sampled

Structure

From	To	Description
26.50	26.60	1/8" CrbV @ 46 tr-1% fg py dull white with ser'd and chl'd contacts and local py

Structure

From	To	Description
37.70	38.50	4" Shr @ 30 CrbV 5-7% fg-mg py well healed, well foliated shear with irreg and splayed white crb strgs; diss py throughout; mod'ly chl'd

Structure

From	To	Description
47.00	47.40	1/4" CrbV @ 20 1-2% fg-mg py white to light pink vein with chl'd contacts and local py

Structure

From	To	Description
58.50	58.70	1/4" Flt @ 34 G Strong chl 1-2% fg-mg py mod'ly consolidated, chl'd and slightly muddy fault with minor gouging; chl'd; irreg crb strgs down hole with local py

Structure

From	To	Description
68.10	68.60	1/4" CrbV @ 10 3-5% fg-mg py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
26.30	27.80	1.50	459224	0.001	0.001				
36.30	37.50	1.20	459225	0.001	0.001				
37.50	38.60	1.10	459226	0.031	0.031				
		BLANK	*459227*	*0.001*	*0.001*				
38.60	40.60	2.00	459228	0.005	0.005				
46.80	47.80	1.00	459229	0.004	0.004				
58.00	59.20	1.20	459230	0.001	0.001				
59.20	61.00	1.80	459231	0.001	0.001				
65.00	67.20	2.20	459232	0.001	0.001				
67.20	68.80	1.60	459233	0.001	0.001	0.001			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
373.00	375.00	2.00	450718	0.003	0.003				
375.00	378.00	3.00	450719	0.014	0.014				
378.00	381.00	3.00	450720	0.005	0.005				
381.00	383.50	2.50	450721	0.007	0.007				

pink with chl'd contacts and local py

ithology

rom	To	Description
136.80	297.20	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Broken UC.
297.20	373.20	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 25 Deg. To CA

ithology

rom	To	Description
373.20	383.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Broken UC.

Zone

From	To	Description			
373.20	383.40	Moderate	Alt		
		Moderate	sil	tr-1%	fg-mg py
		Moderate	hem		

Altered P w/ 1-2% Grey to pink QCrbV. Sample over unit.

ithology

rom	To	Description
383.40	440.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Broken UC.

Structure

From	To	Description			
438.80	440.70	2'	Flt	@ 28	G
			tr		py

Strong chl mud flt. AB.

thology

om	To	Description
40.70	516.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 28 Deg. To CA

Structure

From	To	Description			
441.70	442.00	2"	Flt	@ 30	G
			tr		py

Crumbly and gouged core due to flt.

Zone

From	To	Description			
512.50	522.20	Moderate	Alt		
		Moderate	sil	tr-1%	fg-mg py
		Moderate	hem		
		Weak	ser		

Altered P w/ local wk ser'd alt. Local 1-2% grey to black chl and/or spec vns w/ very wk min.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
512.50	515.00	2.50	450722	0.001	0.001				
515.00	516.50	1.50	450723	0.001	0.001				

ithology

rom	To	Description
516.00	531.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky L. Irregular / Gradational UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
516.50	517.50	1.00	450724	0.002	0.002	0.002			
517.50	519.00	1.50	450725	0.001	0.001				
519.00	521.00	2.00	450726	0.002	0.002				
521.00	522.20	1.20	450727	0.001	0.001				
531.00	532.00	1.00	450728	0.008	0.008				

ithology

rom	To	Description
531.50	536.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
535.80	536.80	1.00	450729	0.001	0.001				

ithology

rom	To	Description
536.20	542.10	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky L. Irregular / Gradational UC.

Structure

From	To	Description			
540.00	541.40	1.5'	Flt	@ 38	bx
			tr		py

Strongly chl healed flt marking L/G ctct.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
540.90	542.50	1.60	450730	0.014	0.014				

'thology

'om	To	Description
42.10	543.90	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 38 Deg. To CA

Zone

From	To	Description			
542.50	543.90	Weak	Alt		
		Weak	ser	1-2%	fg-mg cpy
				tr-1%	fg-mg py

Weakly altered sed w/ wk min.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
542.50	544.00	1.50	450731	0.006	0.006				

thology

'om	To	Description
43.90	710.10	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky L. Irregular / Gradational UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
590.20	593.00	2.80	450732	0.001	0.001				

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Zone

From	To	Description
590.30	599.40	Moderate Alt Moderate ser tr py Mod altered L w/ wk and barren QCrbVs.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
593.00	595.00	2.00	450733	0.001	0.001				
595.00	597.00	2.00	450734	0.001	0.001	0.001			
597.00	599.40	2.40	450735	0.001	0.001				
709.50	710.50	1.00	450736	0.001	0.001				

.ithology

From	To	Description
710.10	711.40	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Weakly hem'd. Possibly T.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
710.50	712.00	1.50	450737	0.001	0.001				
		BLANK	*450738*	*0.001*	*0.001*				

.ithology

From	To	Description
711.40	924.70	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky L. Irregular / Gradational UC.

Zone

From	To	Description
895.00	944.00	Broken and fractured core has poor core recovery.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
924.60	926.00	1.40	450739	0.001	0.001				

.ithology

From	To	Description
924.70	925.90	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Broken UC.
925.90	928.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky L. Upper contact dipping 50 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
926.00	928.30	2.30	450740	0.001	0.001				

ithology

From	To	Description
928.30	930.30	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 60 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
928.30	930.30	2.00	450741	0.001	0.001				

ithology

From	To	Description
930.30	1000.00	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Upper contact dipping 50 Deg. To CA

Zone

From	To	Description

From	To			
970.00	976.00	Weak	Alt	
		Weak	hem	1-2% fg-mg py

Very wkly altered L w/ wk diss min. Representative sampling.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
970.00	973.00	3.00	450742	0.001	0.001				
973.00	976.00	3.00	450743	0.001	0.001				
982.50	983.50	1.00	450744	0.001	0.001	0.001			

Structure

From	To	Description
982.70	982.90	1-2% 1/8" CrbV @ 60
		1-2% vfg-fg py

White w/ very wk min.

EOH : 1000.000
Total # of samples : 37
Total footage sampled : 63.30

PROFESSIONAL GEOSCIENTIST
CHARLES J. Q. KODORS
PRACTISING MEMBER
2371
ONTARIO

Nov 19/15

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Assay Certificate

Certificate Number: 14-1617

Company: **Kirkland Lake Gold Mines Inc.**

Project: SUREX

Report Date: 15-Dec-14

Attn: Stewart Carmichael

We hereby certify the following Assay of 50 core samples submitted 11-Dec-14 by Stewart Carmichael

Sample Number	Au FA-MP Toz/t	Au Chk FA-MP Toz/t
450718	0.003	
450719	0.014	
450720	0.005	
450721	0.007	
450722	0.001	
Blank Value	0.001	
OxH97	0.038	
450723	0.001	
450724	0.002	0.002
450725	0.001	
450726	0.002	
450727	0.001	
450728	0.008	
450729	0.001	
450730	0.014	
450731	0.006	
450732	0.001	
450733	0.001	
450734	0.001	0.001
450735	0.001	
450736	0.001	
450737	0.001	
450738	0.001	
450739	0.001	
450740	0.001	

AB-14-164

Certified by J. & Lin

Jing Lin, M Sc.

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Assay Certificate

Certificate Number: 14-1617

Company: **Kirkland Lake Gold Mines Inc.**

Project: SUREX

Report Date: 15-Dec-14

Attn: Stewart Carmichael

We hereby certify the following Assay of 50 core samples submitted 11-Dec-14 by Stewart Carmichael

Sample Number		Au FA-MP Toz/t	Au Chk FA-MP Toz/t
450741	AB-14-164	0.001	
450742		0.001	
Blank Value		0.001	
OxH97		0.037	
450743		0.001	
450744		0.001	0.001

Certified by J. & Lin

Jing Lin, M Sc.

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Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Assay Certificate

Certificate Number: 15-1846

Company: **Kirkland Lake Gold Mines Inc.**

Project: SUREX

Report Date: 14-Aug-15

Attn: Stewart Carmichael

We hereby certify the following Assay of 47 core samples submitted 13-Aug-15 by Stewart Carmichael

Sample Number	Au FA-MP Toz/t	Au Chk FA-MP Toz/t
459224	0.001	
459225	0.001	
459226	0.031	
459227	0.001	
459228	0.005	
459229	0.004	
459230	0.001	
459231	0.001	
459232	0.001	
459233	0.001	0.001
Blank Value	0.001	
OxH97	0.037	
459234	0.003	
459235	0.003	
459236	0.001	
459237	0.001	
459238	0.001	
459239	0.001	
459240	0.001	
453712	0.001	
453713	0.001	
453714	0.001	0.001
453715	0.001	
453716	0.001	
453717	0.001	

AB-14-164

Certified by Jing Lin

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Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Assay Certificate

Certificate Number: 15-1846

Company: **Kirkland Lake Gold Mines Inc.**

Project: SUREX

Report Date: 14-Aug-15

Attn: Stewart Carmichael

We hereby certify the following Assay of 47 core samples submitted 13-Aug-15 by Stewart Carmichael

Sample Number	Au FA-MP Toz/t	Au Chk FA-MP Toz/t
453718	0.001	
453719	0.001	
453720	0.002	
453721	0.001	
453722	0.001	
Blank Value	0.001	
OxH97	0.036	
453723	0.001	
453724	0.001	0.001
453725	0.001	
453726	0.002	
453727	0.001	
453728	0.001	
453729	0.001	
453730	0.001	
453731	0.001	
453732	0.001	
453733	0.001	
453734	0.001	0.001
453735	0.001	
453736	0.001	
453737	0.001	
453738	0.001	
453739	0.001	
453740	0.001	
453743	0.001	

Certified by J. Lin

Jing Lin, M Sc.

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KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-14-166

Engineering Coordinates

Easting: 16777.000
Northing: 11932.000
Elevation: -5.400

Geology Grid

Section: 2700
Northing: -3880
Level: Surface

Date Logged: 12/9/2014
Logged by: J. Johnson
Units: Feet

Azimuth: 327.000
Dip: -88.00
EOH: 1000.000

Drilled By: Cabo Drilling Corp.
Drill: Marcotte
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: Casing Pulled

Township: Teck Township
Claim #: CLM 328 lease 109285

Drilling Starts: 11/30/2014 1:33:06 PM
Drilling Ends: 12/3/2014 1:33:06 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
55.00	339.40	-87.10	R	5646
255.00	336.30	-86.50	R	5499
455.00	332.00	-85.60	R	5519
655.00	319.00	-86.00	R	5487
855.00	324.50	-85.30	R	5526
1000.00	323.50	-85.10	R	5625

Comments:

Core stored at the Macassa Mine.

Lithology

From	To	Description
0.00	20.00	Overburden
20.00	122.20	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. locally ser'd

Zone

From	To	Description
20.00	108.00	Moderate Alt Moderate ser tr fg-mg py Moderate chl Alteration zone: Mod'ly developed, med to dark green, ser'd throughout; up to 10% irreg pink crb strgs

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
20.00	22.50	2.50	459245	0.001	0.001				
22.50	25.00	2.50	459246	0.001	0.001				
25.00	28.00	3.00	459247	0.001	0.001				
28.00	31.00	3.00	459248	0.001	0.001				
31.00	34.00	3.00	459249	0.001	0.001				
34.00	37.00	3.00	459250	0.001	0.001				
37.00	40.00	3.00	459251	0.003	0.003				
40.00	43.00	3.00	459252	0.001	0.001				
43.00	46.00	3.00	459253	0.001	0.001				
46.00	49.00	3.00	459254	0.001	0.001	0.001			
49.00	52.00	3.00	459255	0.001	0.001				
52.00	55.00	3.00	459256	0.001	0.001				
55.00	58.00	3.00	459257	0.001	0.001				
58.00	61.00	3.00	459258	0.001	0.001				
61.00	64.00	3.00	459259	0.001	0.001				
64.00	67.00	3.00	459260	0.001	0.001				
67.00	70.00	3.00	459261	0.001	0.001				
70.00	73.00	3.00	459262	0.001	0.001				
73.00	76.00	3.00	459263	0.001	0.001				
76.00	79.00	3.00	459264	0.001	0.001	0.001			
79.00	82.00	3.00	459265	0.001	0.001				
82.00	85.00	3.00	459266	0.001	0.001				
85.00	88.00	3.00	459267	0.001	0.001				
88.00	91.00	3.00	459268	0.001	0.001				
91.00	94.00	3.00	459269	0.001	0.001				
94.00	97.00	3.00	459270	0.001	0.001				
97.00	100.00	3.00	459271	0.001	0.001				
100.00	102.00	2.00	459272	0.001	0.001				
102.00	105.00	3.00	459273	0.001	0.001				
105.00	108.00	3.00	459274	0.001	0.001	0.001			

Zone

From	To	Description
115.00	119.00	Weak sil

[redacted]

wkly alt'd check samples; wkly foliated leading to shear

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
115.00	117.50	2.50	459275	0.001	0.001				
117.50	119.00	1.50	459276	0.001	0.001				

Zone

From	To	Description
119.00	122.50	

Moderate sil
Weak crb
sheared up and bx'd greywacke with local sil and crb alt; samples across G-P contact

Structure

From	To	Description			
119.00	121.50	Weak	Shr	@ 30	bx
			tr	fg-mg	py

well healed, locally bx'd; sheared greywacke

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
119.00	121.50	2.50	459277	0.001	0.001				
121.50	122.50	1.00	459278	0.001	0.001				

Lithology

From	To	Description
122.20	133.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.

alt'd porphyry lens; sheared u/c

Zone

From	To	Description
122.50	132.80	

Weak bl tr fg-mg py
wkly alt'd porphyry check samples

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
122.50	125.00	2.50	459279	0.001	0.001				
125.00	128.00	3.00	459280	0.001	0.001				
128.00	130.20	2.20	459281	0.001	0.001				
130.20	132.80	2.60	459282	0.001	0.001				

Zone

From	To	Description
132.80	133.80	

P-DIA contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
132.80	133.80	1.00	457108	0.001	0.001				

Lithology

From	To	Description
133.50	315.20	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts.

sharp u/c

Upper contact dipping 30 Deg. To CA

Zone

From	To	Description
312.90	315.40	

tr-1% fg py
wkly alt'd across DIA-G contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
312.90	313.90	1.00	457109	0.001	0.001				

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
313.90	315.40	1.50	457110	0.001	0.001				
360.30	361.30	1.00	457111	0.003	0.003				
368.50	369.50	1.00	457112	0.001	0.001				
385.00	386.00	1.00	457113	0.001	0.001				

Structure

From	To	Description
313.40	313.60	1/4" QV @ 40 tr-1% fg py white, irreg and wkly splayed, local py

ithology

rom	To	Description
315.20	361.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. irreg u/c

Zone

From	To	Description
360.30	361.30	G-P contact

ithology

rom	To	Description
361.00	369.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp irreg u/c

Zone

From	To	Description
368.50	369.50	@ P-G contact

ithology

rom	To	Description
369.00	385.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. sharp irreg u/c

Zone

From	To	Description
385.00	386.00	G-L contact; strong fault at contact

Structure

From	To	Description
385.30	385.70	1" Flt @ 26 G Strong chl mod-poorly consolidated, muddy and sticky chl'd fault gouge marking G-L contact

thology

om	To	Description
85.50	391.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky basic syenite; sharp u/c marked by chl'd fault. Upper contact dipping 26 Deg. To CA

Zone

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
391.00	392.00	1.00	457114	0.002	0.002				

391.00 392.00

L-P contact

ithology

From	To	Description
391.30	419.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. reddish-brown, phenos faint, irreg u/c

Zone

From	To	Description
419.00	420.00	

P-L contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
419.00	420.00	1.00	457115	0.001	0.001				

ithology

From	To	Description
419.20	537.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky syenite; sharp irreg and gradational u/c

Zone

From	To	Description
537.00	538.00	

L-P contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
537.00	538.00	1.00	457116	0.001	0.001				

ithology

From	To	Description
537.30	545.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp irreg u/c

Zone

From	To	Description
544.80	545.80	

Moderate ser

P-L contact; L is mod'ly ser'd

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
544.80	545.80	1.00	457117	0.001	0.001	0.001			

ithology

From	To	Description
545.30	648.80	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky syenite; med to light green throughout; irre u/c

Zone

From	To	Description
545.80	547.30	

Moderate ser

ser'd funky syenite; local qtz veins

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
545.80	547.30	1.50	457118	0.006	0.006				

Structure

From	To	Description
546.40	546.80	2" QCrbV @ 25

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

white, irreg and locally ser'd along contacts

Zone

From	To	Description
547.30	575.80	Moderate Alt Moderate ser Alteration zone: light green, ser'd funky syenite
648.50	649.50	L-F contact; wkly alt'd

648.50	649.50	1.00	457119	0.001	0.001				

ithology

rom	To	Description
648.80	653.00	FELSIC SYENITE: reddish brown, mg'd text'd intrusive; sharp irreg u/c

Zone

From	To	Description
652.50	657.50	Weak hem samples across felsic syenite lensing contacts

652.50	653.50	1.00	457120	0.001	0.001				

ithology

rom	To	Description
653.00	665.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky syenite; sharp irreg u/c

653.50	655.70	2.20	457121	0.001	0.001				
655.70	656.70	1.00	457122	0.002	0.002				

Structure

From	To	Description
656.00	656.20	slp @ 25 Weak moly mod-strong slip with moly and hem alt

656.70	657.70	1.00	457123	0.002	0.002				

Zone

From	To	Description
665.00	669.50	Weak hem check samples across Felsic syenite lens; weakly hem'd

665.00	666.00	1.00	457124	0.004	0.004				

ithology

rom	To	Description
665.30	669.00	FELSIC SYENITE: as above; sharp irreg u/c

666.00	668.50	2.50	457125	0.007	0.007				
668.50	669.50	1.00	457126	0.003	0.003				

thology

om	To	Description
669.00	839.70	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

ribbing.
Funky syenite; sharp irreg u/c

Zone

From	To	Description
752.20	753.20	1-2% cg-vcg py local cg-vcg'd py within irreg white to light pink crb strgs

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
752.20	753.20	1.00	457127	0.048	0.048				

Zone

From	To	Description
839.50	840.80	Weak hem tr-1% mg py wkly alt'd L-F contact; local py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
839.50	840.80	1.30	457128	0.004	0.004				

Structure

From	To	Description
839.60	839.80	1/2" Flt @ 35 bx'd, well healed fault; ; marking L-F contact

ithology

rom	To	Description
839.70	877.20	FELSIC SYENITE: reddish-brown throughout; hem'd; sharp, bx'd u/c. Upper contact dipping 35 Deg. To CA

Zone

From	To	Description
846.00	851.50	Weak hem tr-1% fg-mg py wk-mod'ly hem'd throughout with local py; local sections with irreg white qtz strgs; mostly check samples

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
846.00	848.50	2.50	457129	0.004	0.004	0.004			
848.50	851.50	3.00	457130	0.002	0.002				
		BLANK	*457131*	*0.002*	*0.002*				

Zone

From	To	Description
876.80	877.80	F-L contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
876.80	877.80	1.00	457132	0.003	0.003				

ithology

rom	To	Description
877.20	892.40	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky syenite; local felsic syenite lensing; sharp shallow u/c Upper contact dipping 12 Deg. To CA

Zone

From	To	Description
881.70	885.20	Weak hem tr-1% mg py

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

wkly alt'd samples across felsic syenite lensing described in sub-litho

		881.70	882.70	1.00	457133	0.004	0.004			

881.80 882.60 *Felsic syenite:*
Dark reddish-brown, hem'd felsic syenite; sharp u/c dipping 30 DTCA and sharp lower contact dipping 38 DTCA

		882.70	884.20	1.50	457134	0.004	0.004			
		884.20	885.20	1.00	457135	0.005	0.005			

884.60 885.50 *Felsic syenite as above; 1-2% mg'd py; u/c is lost, sharp irreg lower contact*

Zone

From	To	Description
892.00	893.00	

L-P contact

		892.00	893.00	1.00	457136	0.002	0.002			

ithology

From	To	Description
892.40	1000.00	

SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.
reddish-brown colour; sharp u/c

Upper contact dipping 62 Deg. To CA

Zone

From	To	Description
934.40	935.40	

tr-1% fg-mg py

wkly alt'd with diss py; local irreg white crb strgs with local py

		934.40	935.40	1.00	457137	0.003	0.003			

Zone

From	To	Description
941.00	946.00	

Moderate hem tr-1% fg py

section of slightly higher hem alt with diss py

		941.00	943.50	2.50	457138	0.003	0.003			
		943.50	946.00	2.50	457139	0.002	0.002	0.002		

Zone

From	To	Description
963.50	967.00	

Weak hem 1-2% fg py
Weak crb

wkly alt'd with local crb strgs and local py

		963.50	965.50	2.00	457140	0.001	0.001			
		965.50	967.00	1.50	457141	0.003	0.003			

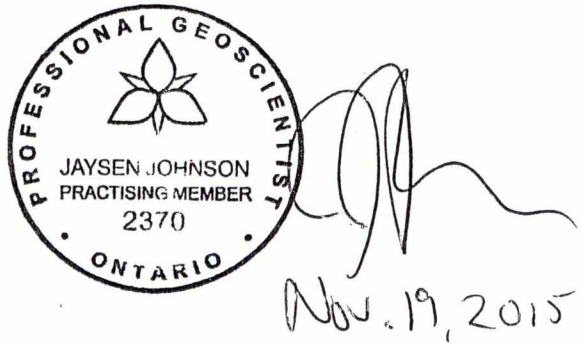
Zone

From	To	Description
1000.00	1000.00	

EOH

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

EOH : 1000.000
Total # of samples : 72
Total footage sampled : 151.30



Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Assay Certificate

Certificate Number: 14-1718

Company: **Kirkland Lake Gold Mines Inc.**

Project: SUREX

Report Date: 29-Dec-14

Attn: Stewart Carmichael

We hereby certify the following Assay of 14 core samples submitted 22-Dec-14 by Stewart Carmichael

Sample Number	Au FA-MP Toz/t	Au Chk FA-MP Toz/t
457108	0.001	
457109	0.001	
457110	0.001	
457111	0.003	
457112	0.001	
457113	0.001	
457114	0.002	
457115	0.001	
457116	0.001	
457117	0.001	0.001
Blank Value	0.001	
OxH97	0.038	
457118	0.006	
457119	0.001	
456466	0.001	
456467	0.003	

AB-14-166

Certified by J. Lin

Jing Lin, M Sc.

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Assay Certificate

Certificate Number: 14-1724

Company: **Kirkland Lake Gold Mines Inc.**

Project: SUREX

Report Date: 30-Dec-14

Attn: Stewart Carmichael

We hereby certify the following Assay of 42 core samples submitted 23-Dec-14 by Stewart Carmichael

Sample Number	Au FA-MP Toz/t	Au Chk FA-MP Toz/t
457120	0.001	
457121	0.001	
457122	0.002	
457123	0.002	
457124	0.004	
457125	0.007	
457126	0.003	
457127	0.048	
457128	0.004	
457129	0.004	0.004
Blank Value	0.001	
OxH97	0.037	
457130	0.002	
457131	0.002	
457132	0.003	
457133	0.004	
457134	0.004	
457135	0.005	
457136	0.002	
457137	0.003	
457138	0.003	
457139	0.002	0.002
457140	0.001	
457141	0.003	
490515	0.005	

AB-14-166

Certified by J. S Lin

Jing Lin, M Sc.

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Established 1928

Assay Certificate

Certificate Number: 14-1724

Company: **Kirkland Lake Gold Mines Inc.**

Project: SUREX

Report Date: 30-Dec-14

Attn: Stewart Carmichael

We hereby certify the following Assay of 42 core samples submitted 23-Dec-14 by Stewart Carmichael

Sample Number	Au FA-MP Toz/t	Au Chk FA-MP Toz/t
490516	0.003	
490517	0.001	
490518	0.001	
490519	0.001	
490520	0.003	
Blank Value	0.001	
OxH97	0.038	
490521	0.008	
490522	0.004	0.004
490523	0.001	
490524	0.003	
490525	0.002	
490526	0.008	
490527	0.002	
490528	0.032	
490529	0.001	
490530	0.003	
490531	0.010	
490532	0.011	0.012
490533	0.020	
490534	0.001	

Certified by J.-g Lin

Jing Lin, M Sc.

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Telephone (705) 642-3244 Fax (705) 642-3300

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-14-167

Engineering Coordinates

Easting: 16777.000
Northing: 11932.000
Elevation: -5.400

Geology Grid

Section: 2700
Northing: -3880
Level: Surface

Date Logged: 12/9/2014
Logged by: S. Farrell
Units: Feet

Azimuth: 327.000
Dip: -45.00
EOH: 1000.000

Drilled By: Cabo Drilling Corp.
Drill: Marcotte
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: Casing pulled

Township: Teck Township
Claim #: CLM 328 Lease 109285

Drilling Starts: 12/4/2014 1:19:46 PM
Drilling Ends: 12/8/2014 1:19:46 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
95.00	318.10	-44.00	R	5396
205.00	327.90	-43.70	R	5669
405.00	330.10	-43.60	R	5573
505.00	322.60	-43.30	R	5488
805.00	329.00	-42.70	R	5550
995.00	331.40	-41.60	R	5611

Comments:

Core stored at the Macassa Mine.

[redacted]

Lithology

From	To	Description
0.00	44.20	Casing.
44.20	47.50	Overburden.
47.50	69.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Yellowish-grey-green-brown, fine to medium gr'd greywacke.

Zone

From	To	Description				
47.50	70.00	Moderate	Alt			
		Moderate	ser	tr-1%	fg-mg	py
		Moderate	chl			
		Weak	crb			

Alteration zone; mod'ly alt'd throughout; ser whisps throughout; local irreg crb veining and strgs up to 10%; local py

Structure

From	To	Description			
55.50	55.80	1/2"	CrbV	@ 40	
			1-2%	fg-mg	py

pink with local py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
47.50	50.00	2.50	459302	0.001	0.001	0.001			
50.00	53.00	3.00	459303	0.001	0.001				
53.00	56.00	3.00	459304	0.007	0.007				
56.00	58.00	2.00	459305	0.001	0.001				
58.00	59.00	1.00	459306	0.002	0.002				
59.00	62.00	3.00	459307	0.001	0.001				
62.00	65.00	3.00	459308	0.001	0.001				
65.00	68.00	3.00	459309	0.004	0.004				
68.00	70.00	2.00	459310	0.001	0.001				

Lithology

From	To	Description
69.50	137.70	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Grey-green-brown, fine to medium gr'd diabase w/ a semi-fine gr'd chilled margin. Upper contact dipping 74 Deg. To CA
137.70	161.80	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 69 Deg. To CA

Zone

From	To	Description	
161.20	162.20	Weak	ser

G/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
161.20	162.20	1.00	490515	0.005	0.005				

Lithology

From	To	Description
161.80	320.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Red-brown w/ poor feldspar phenocryst development until ~180'. Some sedimentary contamination. Gradational U/C.

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Structure

From	To	Description
176.05	176.10	Strong 1/2" G Strong chl Strong, tight, partially ground chloritic gouge.

Zone

From	To	Description
188.80	190.00	Weak ser Weak crb Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
188.80	190.00	1.20	490516	0.003	0.003				

Zone

From	To	Description
190.00	191.80	@ 49 Moderate ser Moderate crb Some bullish veining present.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
190.00	191.80	1.80	490517	0.001	0.001				

Zone

From	To	Description
229.50	230.60	@ 52 Moderate ser tr-1% fg cpy Weak crb tr fg py Moderately ser'd porphyry w/ mnr bullish veining.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
229.50	230.60	1.10	490518	0.001	0.001				

Zone

From	To	Description
230.60	232.70	Weak hem Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
230.60	232.70	2.10	490519	0.001	0.001				

ithology

rom	To	Description
320.00	340.70	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Red in colour w/ faded (resorbed) feldspar phenocrysts. Sharp, generally irregular U/C.

Zone

From	To	Description
333.70	341.20	Weak Alt Weak hem tr-1% fg-mg py Weak crb Weakly alt'd porphyry w/ strong sedimentary contamination.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
333.70	335.30	1.60	490520	0.003	0.003				
335.30	338.30	3.00	490521	0.008	0.008				
338.30	339.30	1.00	490522	0.004	0.004	0.004			
339.30	341.20	1.90	490523	0.001	0.001				

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Lithology

From	To	Description
340.70	577.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Some lenses of sediment & type II porphyry. Gradational U/C.

Zone

From	To	Description				
346.50	347.70					
		Weak	hem	tr-1%	fg-mg	py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
346.50	347.70	1.20	490524	0.003	0.003				

Zone

From	To	Description				
347.70	349.50					
		Weak	hem	1-2%	fg-mg	py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
347.70	349.50	1.80	490525	0.002	0.002				
362.20	363.50	1.30	490526	0.008	0.008				

Zone

From	To	Description				
362.50	367.20	Weak	Alt			
		Weak	hem	1-2%	fg-mg	py
		Weak	crb			
		Weakly hem'd & carb'd porphyry w/ one QFS as noted.				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
363.50	365.70	2.20	490527	0.002	0.002				
365.70	367.20	1.50	490528	0.032	0.032				

Structure

From	To	Description				
366.05	366.20	Moderate	1.5"	QFS	@ 36	
		Weak	hem	2-3%	fg-mg	py
		Grey-white, weakly brecciated & py'd QFS.				

Zone

From	To	Description				
402.50	403.60					
		Moderate	crb	tr	fg-mg	py
		Weak	ser			
		Qtz carb vein as noted.				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
402.50	403.60	1.10	490529	0.001	0.001				

Structure

From	To	Description				
402.80	403.00	Moderate	2.5"	QCrbV	@ 66	slp
		Weak	ser	tr	fg	py
		Slip controlled, grey-white qtz carb vein w/ a weakly ser'd alt'd halo. Barren.				

Zone

From	To	Description				
438.20	439.70					
		Weak	hem	tr-1%	fg-mg	py
		Weak	crb			
		Chk sample.				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
438.20	439.70	1.50	490530	0.003	0.003				

Zone

From	To	Description
439.70	441.20	@ 50 Moderate hem 2-3% fg-mg py Weakly to moderately hem'd & py'd porphyry.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
439.70	441.20	1.50	490531	0.010	0.010				

Zone

From	To	Description
441.20	443.20	fresh Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
441.20	443.20	2.00	490532	0.012	0.011	0.012			

Zone

From	To	Description
473.50	474.80	Moderate sil 3-5% fg-mg py Moderate crb Moderate hem Qtz carb vein as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
473.50	474.80	1.30	490533	0.020	0.020				
		BLANK	*490534*	*0.001*	*0.001*				

Structure

From	To	Description
473.90	474.00	Moderate 1" QCrbV @ 28 Strong sil 3-5% mg-cg py Moderate hem Grey, strongly sil'd qtz carb vein w/ a moderately hem'd, weakly py'd alt'd halo.

Lithology

From	To	Description
577.90	583.60	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Dark grey type II poprhyry w/ abundant inclusions of type I porphyry. Upper contact dipping 42 Deg. To CA
583.60	632.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. A mix of type I & type II porphyry until ~595'; then becomes type I porphyry. Upper contact dipping 55 Deg. To CA

Zone

From	To	Description
632.00	633.30	fresh P/G contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
632.00	633.30	1.30	490535	0.003	0.003				

Lithology

From	To	Description
632.60	645.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Dark-grey, fine to medium gr'd greywacke w/ some inclusions of type I & type II poprhyry. Gradational

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

U/C.

645.00 647.00 SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.
Broken U/C.

Zone

From	To	Description
645.00	646.00	Weak ser Weak hem Weak crb Generally barren.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
645.00	646.00	1.00	490536	0.001	0.001				

Zone

From	To	Description
646.00	648.30	Weak ser Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
646.00	648.30	2.30	490537	0.002	0.002				

Lithology

From	To	Description
647.00	665.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 62 Deg. To CA

Zone

From	To	Description
664.50	665.50	fresh G/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
664.50	665.50	1.00	490538	0.002	0.002				

Lithology

From	To	Description
665.00	732.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Broken, rubbly U/C.

Structure

From	To	Description
715.20	715.25	Moderate 1/2" Flt @ 62 CrbV bx Moderate chl Weak ser Weakly to moderately brecciated carb chl fault. Barren.

Zone

From	To	Description
732.10	733.10	Weak crb tr mg cpy Weak ser P/G contact; carb vein as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
732.10	733.10	1.00	490539	0.002	0.002				

Structure

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

From	To					
732.55	732.70	Moderate	1.5"	CrbV	@ 64	
		Weak	chl	tr-1%	mg	cpy
		Weak	ser			

Pinkish-white, weakly chloritized, bullish carb vein.

Lithology

From	To	Description
732.70	805.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Medium grey, generally medium gr'd greywacke w/ mnr clastic fragments. U/C. along a weakly chloritized, bullish carb vein. Upper contact dipping 64 Deg. To CA

Zone

From	To				
795.80	797.70				
		Weak	ser	1-2%	fg-mg	py
		Weak	crb			

Carb vein as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
795.80	797.70	1.90	490540	0.009	0.009				

Structure

From	To				
796.95	797.00	Moderate	1/4"	CrbV	@ 67
		Weak	ser	1-2%	fg-mg	py

White carb vein w/ a weakly ser'd & py'd alt'd halo.

Lithology

From	To	Description
805.00	844.70	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Greenish-grey, fine to coarse gr'd polymictic conglomerate w/ abundant lenses of greywacke. Gradational U/C.

Zone

From	To				
811.60	812.60				
		Weak	ser	tr	fg	py
		Weak	crb			
		Weak	sil			

Qtz carb vein as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
811.60	812.60	1.00	490541	0.001	0.001	0.001			

Structure

From	To					
812.10	812.15	Moderate	1/4"	QCrbV	@ 60	
		Weak	ser	tr	fg	py

White qtz carb vein w/ a very weakly ser'd & py'd alt'd halo.

Lithology

From	To	Description
844.70	910.60	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Grey-green, fine to medium gr'd greywack w/ mnr clastic fragments. Upper contact dipping 75 Deg. To CA

Zone

From	To	Description

[redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
852.70	853.70	1.00	490542	0.005	0.005				
859.50	860.50	1.00	490543	0.013	0.013				
865.00	866.00	1.00	490544	0.002	0.002				
871.70	872.70	1.00	490545	0.011	0.011				
		BLANK	*490546*	*0.001*	*0.001*				

852.70 853.70

Weak ser 1-2% fg-mg py
Weak sil
Weak crb
Qtz carb vein as noted.

Structure

From	To	Description
853.25	853.30	Weak 1/4" QCrbV @ 70 Moderate ser 2-3% fg-mg py Weak chl Weakly formed, pinch & swell qtz carb vein w/ a moderately ser'd & py'd alt'd halo.

Zone

From	To	Description
859.50	860.50	Weak ser tr-1% fg-mg py Weak sil Weak crb Qtz carb vein as noted.

Structure

From	To	Description
859.65	859.70	Moderate 1/2" QCrbV @ 58 slp Weak ser tr-1% mg py Weak chl Purplish-white, somewhat bullish, slip controlled, weakly py'd qtz carb vein.

Zone

From	To	Description
865.00	866.00	Weak ser 2-3% fg-mg py Weak hem Lens of porphyry as noted.

865.20 865.60 Lens of moderately py'd porphyry.

Zone

From	To	Description
871.70	872.70	Weak ser 1-2% fg-mg py Weak sil Weak crb Qtz carb vein as noted.

Structure

From	To	Description
872.15	872.20	Moderate 1/4" QCrbV @ 74 Moderate ser 2-3% fg-mg py Weak chl

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
910.00	911.00	1.00	490547	0.001	0.001				
935.70	936.70	1.00	490548	0.001	0.001				

Grey-white qtz carb vein w/ a moderately ser'd & py'd alt'd halo.

Zone

From	To	Description
910.00	911.00	Weak crb Weak sil G/P contact; mnr bullish veining.

Lithology

From	To	Description
910.60	936.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Typical Macassa-looking porphyry. Gradational U/C.

Zone

From	To	Description
935.70	936.70	fresh P/G contact.

Lithology

From	To	Description
936.20	955.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Mnr clastic fragments. Upper contact dipping 61 Deg. To CA
955.00	1000.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Mnr lenses of greywacke. Gradational U/C.

Zone

From	To	Description
1000.00	1000.00	EOH. Hole ends in fresh conglomerate.

EOH : 1000.000
Total # of samples : 43
Total footage sampled : 68.10



Nov. 19/15



KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-14-169

Engineering Coordinates

Easting: 16606.000
Northing: 11828.000
Elevation: -5.000

Geology Grid

Section: 2500
Northing: -3875
Level: Surface

Date Logged: 1/5/2015
Logged by: S. Farrell
Units: Feet

Azimuth: 327.000
Dip: -70.00
EOH: 1600.000

Drilled By: Cabo Drilling Corp.
Drill: Marcotte
Size: BQ

Location: Amalgaamted Break
Zone:
Surveyed By: Casing Pulled

Township: Teck Township
Claim #: CLM 328 Lease 109285

Drilling Starts: 12/16/2014 1:19:46 PM
Drilling Ends: 1/7/2015 1:19:46 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
70.00	334.40	-70.80	R	5665
200.00	334.00	-69.60	R	5674
400.00	333.10	-69.20	R	5416
600.00	335.50	-68.80	R	5492
800.00	340.30	-68.70	R	5570
1000.00	329.50	-68.40	R	5481
1200.00	339.80	-66.90	R	5662
1400.00	336.20	-65.90	R	5661
1600.00	336.00	-65.70	R	5607

Comments:

Core stored at the Macassa Mine.

Lithology

From	To	Description
0.00	34.70	Casing.
34.70	35.00	Overburden.
35.00	108.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Grey-green-brown w/ a local yellowish tinge. Fine to medium gr'd w/ mnr clastic fragments.

Structure

From	To	Description			
107.90	108.00	Moderate	G		
		Moderate	chl		
		Moderate, broken up chloritic gouge w/ broken & rubbly core.			

Lithology

From	To	Description
108.00	216.50	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Grey-green, fine to medium gr'd diabase. U/C appears to be along a broken up chloritic gouge.
216.50	235.30	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 40 Deg. To CA

Structure

From	To	Description				
217.10	217.15	Weak	G	@ 33		
		Weak gouge.				
234.30	235.30	Strong	Flt		G	
		Strong	chl			
		Strongly gouged, mostly broken up chloritic fault gouge. Barren.				

Lithology

From	To	Description
235.30	251.40	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. U/C along the AB fault gouge.

Zone

From	To	Description
251.00	252.00	fresh L/G contact.

Lithology

From	To	Description
251.40	276.40	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Grey-green, generally fine gr'd greywacke. Gradational U/C.

Zone

From	To	Description				
271.00	276.10	Weak	Alt			
		Weak	ser	tr	fg	py
		Weak	sil			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
251.00	252.00	1.00	480036	0.002	0.002				

[redacted]

Fresh to weakly ser'd greywacke.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
271.00	272.30	1.30	480037	0.001	0.001				
272.30	275.00	2.70	480038	0.001	0.001				
275.00	276.10	1.10	480039	0.001	0.001				

Zone

From	To	Description
276.10	277.10	Moderate ser Moderately ser'd G/L contact.

276.10	277.10	1.00	480040	0.001	0.001

Lithology

From	To	Description
276.40	349.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 56 Deg. To CA
349.30	351.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Red-brown. Typical Macassa-looking porphyry w/ fairly well developed feldspar phenocrysts. Gradational U/C.
351.00	408.10	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.

Zone

From	To	Description
402.70	403.70	Weak ser tr fg cpy Weak crb Weak sil Qtz carb vein as noted.

402.70	403.70	1.00	480041	0.003	0.003

Structure

From	To	Description
403.10	403.15	Moderate 1/2" QCrbV @ 54 Weak ser tr-1% fg cpy Grey-white qtz carb vein w/ a weakly ser'd alt'd halo.

Zone

From	To	Description
403.70	405.50	Weak hem Weak sil Mnr barren qtz veinlets.

403.70	405.50	1.80	480042	0.009	0.009

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Zone

From	To	Description
405.50	406.70	Moderate crb Moderate sil Weak ser Qtz carb vein as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
405.50	406.70	1.20	480043	0.003	0.003				

Structure

From	To	Description
405.80	406.00	Moderate 2" QCrbV @ 61 Weak ser tr fg cpy Grey-white qtz carb vein w/ a weakly ser'd alt'd halo.

Lithology

From	To	Description
408.10	420.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 50 Deg. To CA
420.40	486.00	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 70 Deg. To CA

Zone

From	To	Description
481.40	486.30	Weak Alt Weak ser tr fg spec Weak crb Strong sil Weakly ser'd, carb'd & sil'd w/ mnr qtz carb veining breccia (barren).

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
481.40	483.20	1.80	480044	0.002	0.002	0.002			
483.20	484.80	1.60	480045	0.001	0.001				
484.80	486.30	1.50	480046	0.003	0.003				

Structure

From	To	Description
485.40	486.00	Moderate 7" QCrbV @ 42 Weak ser 1-2% fg spec Grey-white, mostly bullish looking qtz carb vein.

Lithology

From	To	Description
486.00	517.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. U/C Appears to be along the trailing edge of a bullish qtz carb vein. Position estimated due to broken up core.
517.50	534.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites?

			From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
		TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.										
534.50	541.30	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Brown w/ faded (resorbed) feldspar phenocrysts. Gradational U/C.										
541.30	543.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.										
543.30	568.50	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Broken U/C. Possible inclusions of type I porphyry.										
568.50	741.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Reddish-brown. Typical Macassa-looking porphyry w/ fairly well developed feldspar phenocrysts. Gradational U/C.										
			614.50	617.50	3.00	451615	0.004	0.004				

Zone

From	*To*	*Description*				
614.60	632.40					
		Moderate	sil	1-2%	fg-mg	py
		Moderate	hem			
		Altered P w/ 1-3% irregular chl'd crb stringers and wk diss min.				

617.50	620.50	3.00	451616	0.003	0.003	
620.50	623.50	3.00	451617	0.016	0.016	
623.50	626.50	3.00	451618	0.003	0.003	
626.50	629.50	3.00	451619	0.004	0.004	
629.50	630.50	1.00	451620	0.004	0.004	

Zone

From	*To*	*Description*				
662.00	663.30			@ 17		
		Moderate	sil	2-3%	fg-mg	cpy
				2-3%	fg	spec
		Moderately sil'd poprhyry.				

662.00	663.30	1.30	480047	0.010	0.010	

Zone

From	*To*	*Description*
741.20	746.70	
		fresh
		Multiple sediment/intrusive contacts. All fresh.

741.20	742.20	1.00	480048	0.008	0.008	

Lithology

From	*To*	*Description*
741.70	743.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Gradational U/C.

742.20	744.50	2.30	480049	0.011	0.011	

Lithology

From	*To*	*Description*

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
743.50	746.30	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Gradational U/C.							
744.50	746.70	2.20	480050	0.019	0.019				

Lithology

From	To	Description
746.30	764.20	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Mnr inclusions of poprhyry. Gradational U/C.

Zone

From	To	Description
763.60	764.60	fresh G/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
763.60	764.60	1.00	480051	0.006	0.006				

Lithology

From	To	Description
764.20	766.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
764.60	767.20	fresh P/G contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
764.60	767.20	2.60	480052	0.005	0.005				

Lithology

From	To	Description
766.40	773.30	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 63 Deg. To CA

Zone

From	To	Description
767.20	769.00	fresh Fresh greywacke. Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
767.20	769.00	1.80	480053	0.013	0.013				

Zone

From	To	Description
769.00	771.20	Weak ser Fresh to weakly ser'd greywacke w/ mnr inclusions of poprhyry.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
769.00	771.20	2.20	480054	0.014	0.013	0.015			

Zone

From	To	Description
771.20	772.40	fresh Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
771.20	772.40	1.20	480055	0.012	0.012				

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Zone

From	To	Description
772.40	774.00	Weak ser tr fg-mg cpy Weak chl Gouge as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
772.40	774.00	1.60	480056	0.011	0.011				
		BLANK	*480057*	*0.001*	*0.001*				

Structure

From	To	Description
773.25	773.30	Weak G Moderate chl 2-3% fg-mg cpy Weak chloritic gouge w/ up to 3% fg-mg cpy.

Lithology

From	To	Description
773.30	790.10	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Generally poor feldspar phenocryst development. Weakly gouged (broken) U/C.

Zone

From	To	Description
774.00	775.00	Weakly alt'd. Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
774.00	775.00	1.00	480058	0.005	0.005				

Structure

From	To	Description
790.00	790.10	Weak 1" Flt @ 37 CrbV G Moderate chl Weakly gouged, weak carb chl fault. Barren.

Lithology

From	To	Description
790.10	927.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. In general, typical Macassa-looking poprhyry w/ fairly well developed feldspar phenocrysts. Weakly faulted U/C. Upper contact dipping 37 Deg. To CA

Zone

From	To	Description
861.00	869.60	Moderate Alt @ 14 Moderate hem 2-3% fg-mg py Weak crb Moderately hem'd, weakly carb'd & py'd poprhyry.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
861.00	862.70	1.70	480059	0.080	0.080				
862.70	864.70	2.00	480060	0.100	0.100				
864.70	866.60	1.90	480061	0.080	0.080				
866.60	869.60	3.00	480062	0.028	0.028				

Zone

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
876.80	878.30	1.50	480063	0.031	0.031				
885.40	886.40	1.00	480064	0.010	0.010				
982.40	983.40	1.00	480065	0.003	0.003				
983.40	985.00	1.60	480066	0.004	0.004				

876.80 878.30 @ 22
Weak hem 1-2% fg-mg py
Weak crb
Mnr py stgs parallel to the weak alteration.

Zone

From	To	Description
885.40	886.40	@ 29 Moderate crb tr-1% fg cpy Weak hem Moderately carb'd poprhyry; generally barren.

Lithology

From	To	Description
927.30	940.00	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths. Reddish-brown, fine to coarse gr'd w/ a moderately well developed bi-modal texture. Gradational U/C.
940.00	950.80	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 18 Deg. To CA
950.80	982.90	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths. Upper contact dipping 71 Deg. To CA

Zone

From	To	Description
982.40	985.00	Moderate Alt @ 56 Moderate ser tr-1% fg-mg py Moderate chl Weak sil Structures as noted. Faulted U/C.

Structure

From	To	Description
982.85	982.90	Moderate 1/4" Flt @ 56 Strong ser 2-3% fg-mg py Strong sil Moderately to strongly ser'd & sil'd chloritic fault.

Lithology

From	To	Description
982.90	1009.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Greenish-grey, fine to medium gr'd greywacke w/ some clastic fragments. Faulted U/C. Upper contact dipping 56 Deg. To CA

Structure

From	To	Description
984.40	984.45	Moderate 1/2" Flt @ 50 CrbV Strong ser Chloritic fault/carb vein combination. Strongly ser'd alt'd halo. Barren.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Lithology

From	To	Description
1009.50	1108.80	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Brownish-grey, fine to coarse gr'd polymictic conglomerate w/ some greywacke lensing. Gradational U/C. ***Moderate porphyry contamination towards lower contact***.

Zone

From	To	Description
1103.60	1104.80	Weak hem Weak sil Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1103.60	1104.80	1.20	480067	0.004	0.004				

Zone

From	To	Description
1104.80	1107.80	sil 2-3% fg-mg py Weak hem Mostly mg py w/ some qtz fragmentation.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1104.80	1107.80	3.00	480068	0.006	0.006				

Zone

From	To	Description
1107.80	1109.30	Weak ser C/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1107.80	1109.30	1.50	480069	0.005	0.005				

Lithology

From	To	Description
1108.80	1114.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1109.30	1111.20	fresh Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1109.30	1111.20	1.90	480070	0.003	0.003				

Zone

From	To	Description
1111.20	1114.00	Weak hem Weak chl Weak sil Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1111.20	1114.00	2.80	480071	0.005	0.005	0.005			

Zone

From	To	Description

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1114.00	1115.00	1.00	480072	0.010	0.010				

1114.00 1115.00

Weak ser

Weakly ser'd P/G contact.

Lithology

From	To	Description
1114.40	1163.30	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Broken U/C.

Zone

From	To	Description
1115.00	1116.50	Weak ser Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1115.00	1116.50	1.50	480073	0.001	0.001				

Zone

From	To	Description
1162.80	1163.80	fresh C/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1162.80	1163.80	1.00	480074	0.001	0.001				

Lithology

From	To	Description
1163.30	1165.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular U/C.

Zone

From	To	Description
1163.80	1165.80	fresh P/C contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1163.80	1165.80	2.00	480075	0.001	0.001				

Lithology

From	To	Description
1165.20	1346.30	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular U/C.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1236.00	1238.70	2.70	451621	0.001	0.001				

Zone

From	To	Description
1238.70	1249.70	Weak hem tr-1% fg-mg py Weakly hem'd sed w/ 1-2% irregular white or chl'd crb stringers and locally up to 2% fg-mg py.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1238.70	1241.00	2.30	451622	0.003	0.003				
1241.00	1244.00	3.00	451623	0.009	0.009	0.008			
1244.00	1247.00	3.00	451624	0.013	0.013				
1247.00	1249.80	2.80	451625	0.017	0.017				
1249.80	1252.00	2.20	451626	0.006	0.006				

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1299.00	1300.90	1.90	451627	0.001	0.001				

Zone

From	To	Description
1300.90	1305.80	

Weak ser 2-3% fg-mg py
Weak bl
Weakly altered sed w/ diss min.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1300.90	1303.90	3.00	451628	0.004	0.004				
1303.90	1305.60	1.70	451629	0.002	0.002				
1305.60	1308.00	2.40	451630	0.001	0.001				

Zone

From	To	Description
1345.80	1346.80	

fresh
C/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1345.80	1346.80	1.00	480076	0.001	0.001				

Lithology

From	To	Description
1346.30	1380.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1356.80	1357.80	

Weakly alt'd. Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1356.80	1357.80	1.00	480077	0.006	0.006				

Zone

From	To	Description
1357.80	1359.10	

Moderate ser tr @ 43 fg-mg py
Moderate crb
Mnr bullish veining.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1357.80	1359.10	1.30	480078	0.002	0.002				

Zone

From	To	Description
1370.30	1371.30	

Weak chl tr fg-mg py
Weak crb
Fault+Carb vein as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1370.30	1371.30	1.00	480079	0.010	0.010				

Structure

From	To	Description
1370.80	1370.85	Moderate 1/2" Flt @ 29 CrbV Moderate chl Moderate fg spec tr fg-mg py

Chloritic fault/carb vein combination. Partially replaced by spec hem.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Zone

From	To	Description
1380.40	1383.30	fresh Multiple P/C contacts.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1380.40	1383.30	2.90	480080	0.001	0.001				

Lithology

From	To	Description
1380.90	1392.70	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Upper contact dipping 40 Deg. To CA

Zone

From	To				
1383.30	1384.30				
		Weak	ser	tr-1%	fg py
		Weak	hem		

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1383.30	1384.30	1.00	480081	0.001	0.001	0.001			

Lithology

From	To	Description
1392.70	1395.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C. Some sedimentary contamination near lower contact.

Zone

From	To	Description
1394.60	1395.60	fresh P/C contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1394.60	1395.60	1.00	480082	0.004	0.004				

Lithology

From	To	Description
1395.00	1488.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Some greywacke lensing. Gradational U/C.

Zone

From	To				
1454.90	1455.90				
		Weak	ser	tr-1%	fg cpy
		Weak	crb		

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1454.90	1455.90	1.00	480083	0.010	0.010				

Zone

From	To	Description
1455.90	1458.20	fresh Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1455.90	1458.20	2.30	480084	0.009	0.009				

Zone

From	To	Description

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1458.20	1459.30	1.10	480085	0.023	0.023				
1487.70	1489.60	1.90	480086	0.017	0.017				
1532.80	1533.90	1.10	480087	0.016	0.016				
		BLANK	480088	0.002	0.002				
1553.60	1554.60	1.00	480089	0.002	0.002				
1561.20	1562.20	1.00	480090	0.007	0.007				
1573.10	1574.10	1.00	480091	0.001	0.001	0.001			

Zone

From	To	Description
1458.20	1459.30	Weak ser 1-2% fg-mg py

Zone

From	To	Description
1487.70	1489.60	fresh Multiple P/C contacts.

Lithology

From	To	Description
1488.00	1489.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.
1489.20	1573.70	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Gradational U/C.

Zone

From	To	Description
1532.80	1533.90	@ 60 Weak ser 2-3% fg cpy Weak crb

Zone

From	To	Description
1553.60	1554.60	@ 77 Moderate ser 1-2% fg cpy Moderate crb Weak chl

Zone

From	To	Description
1561.20	1562.20	@ 62 Weak ser tr-1% vfg-fg py Weak crb Weak chl

Zone

From	To	Description
1573.10	1574.10	fresh C/P contact.

Lithology

From	To	Description
1573.70	1600.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular U/C.

												From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Zone From	To	Description
1600.00	1600.00	

EOH. Hole ends in fresh porphyry.

EOH : 1600.000
Total # of samples : 72
Total footage sampled : 124.40

PROFESSIONAL GEOSCIENTIST
SEAN BRADLEY FARRELL
PRACTISING MEMBER
2161
ONTARIO

Nov. 19/15

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-15-03

Engineering Coordinates

Easting: 16429.000
Northing: 11734.000
Elevation: -10.000

Geology Grid

Section: 2300
Northing: -3860
Level: Surface

Date Logged: 12/4/2014
Logged by: C. Kodors
Units: Feet

Azimuth: 327.000
Dip: -70.00
EOH: 1600.000

Drilled By: Cabo Drilling Corp.
Drill: Marcotte
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: Casing Pulled

Township: Teck Township
Claim #: CLM 328 Lease 109285

Drilling Starts: 1/7/2015 1:04:44 PM
Drilling Ends: 1/13/2015 1:04:44 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
75.00	325.60	-70.40	R	5522
205.00	327.90	-70.50	R	5617
405.00	325.10	-70.10	R	5466
605.00	325.10	-70.10	R	5470
805.00	325.20	-69.10	R	5171
1005.00	326.30	-68.60	R	5674
1205.00	320.40	-68.30	R	5459
1405.00	324.80	-67.70	R	5423
1600.00	324.80	-67.50	R	5696

Comments:

V.G. @ 1092, 1100, 1105, 1107, 1110, 1124, 1166 & 1312. Core stored at Macassa Mine.

[redacted]

Lithology

From	To	Description
0.00	30.00	
30.00	65.40	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.
65.40	167.40	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Irregular and difficult to determine.
167.40	204.80	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.

Zone

From	To	Description
193.00	200.00	Weak Alt Weak ser tr py Ser banding.

Lithology

From	To	Description
204.80	226.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Flt controlled. Upper contact dipping 50 Deg. To CA

Structure

From	To	Description
204.80	205.00	1/2" Flt @ 50 G tr py Strong mud gouge marking G/L.

Lithology

From	To	Description
226.50	228.80	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

Lithology

From	To	Description
228.80	230.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 32 Deg. To CA
230.40	232.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 15 Deg. To CA

Lithology

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
226.00	227.00	1.00	451177	0.002	0.002				
227.00	228.60	1.60	451178	0.002	0.002				
228.60	230.60	2.00	451179	0.007	0.007				
230.60	232.40	1.80	451180	0.005	0.005				
232.40	234.00	1.60	451181	0.002	0.002				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
234.00	235.00	1.00	451182	0.001	0.001				
239.20	240.20	1.00	451183	0.001	0.001				
458.50	461.00	2.50	451397	0.002	0.002				
461.00	463.00	2.00	451398	0.002	0.002				
463.00	465.00	2.00	451399	0.011	0.011				
555.00	556.00	1.00	451184	0.003	0.003				

From	To	Description
232.50	234.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 40 Deg. To CA

Lithology

From	To	Description
234.50	240.20	TUFF: Dark brown to grey, massive, fg textd ash tuff, minor fragmental lensing. Irregular UC. Brick red lacking phenos.

Zone

From	To	Description
234.50	240.00	Strong Alt Strong hem tr py Altered T.

Lithology

From	To	Description
240.20	555.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 60 Deg. To CA

Zone

From	To	Description
313.20	317.00	Strong Alt Strong ser tr py Ser'd L w/ 1-2% white barren QV.

Zone

From	To	Description
458.60	464.90	Strong Alt Strong sil tr-1% fg-mg py Moderate ser Moderate hem Altered red and green L w/ 2-5% white and grey QCrbS.

Zone

From	To	Description
515.00	524.00	Broken and fractured core.

thology

om	To	Description
55.50	564.30	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Irregular UC.

[redacted]

Structure

From	To	Description			
563.10	563.30	1/4" Flt tr	@ 25	G py	
		Tight mud flt.			

Lithology

From	To	Description
564.30	565.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 30 Deg. To CA

Lithology

From	To	Description
565.30	572.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Broken UC.

Lithology

From	To	Description
572.70	576.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 25 Deg. To CA

Lithology

From	To	Description
576.20	583.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Irregular UC.

Lithology

From	To	Description
583.50	585.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 45 Deg. To CA

Lithology

From	To	Description
585.70	589.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 5 Deg. To CA

Lithology

From	To	Description
589.50	596.80	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
564.00	565.00	1.00	451185	0.004	0.004				
565.00	566.50	1.50	451186	0.004	0.003	0.004			
572.30	573.30	1.00	451187	0.016	0.016				
575.70	576.70	1.00	451188	0.046	0.046				
583.00	584.00	1.00	451189	0.003	0.003				
584.00	586.00	2.00	451190	0.004	0.004				
586.00	589.00	3.00	451191	0.009	0.009				
589.00	590.00	1.00	443037	0.008	0.008				
596.30	597.30	1.00	451192	0.004	0.004				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Lithology

From	To	Description
596.80	599.40	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
597.30	599.00	1.70	451193	0.005	0.005				
599.00	600.00	1.00	451194	0.004	0.004				

Lithology

From	To	Description
599.40	748.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

Structure

From	To	Description			
614.30	614.40	1"	Flt	@ 45	G
			tr		py
		Strong gouge.			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
698.30	699.30	1.00	451195	0.017	0.017				

Structure

From	To	Description			
698.60	698.70	1"	Flt	@ 75	Brk
			1-2%	fg-mg	py
		Healed flt w/ spec and chl infill; diss wk min.			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
748.50	751.00	2.50	451196	0.001	0.001	0.001			

Lithology

From	To	Description
748.70	755.30	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 38 Deg. To CA

Zone

From	To	Description			
748.70	755.30	Strong	Alt		
		Strong	ser	tr-1%	fg-mg py
		Strongly ser'd sed w/ 3-7% white to grey QCrbV.			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
751.00	753.50	2.50	451197	0.001	0.001				
753.50	755.50	2.00	451198	0.001	0.001				

Lithology

From	To	Description
755.30	759.10	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 58 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
755.50	758.50	3.00	451199	0.004	0.004				
		BLANK	*451200*	*0.001*	*0.001*				
758.50	759.50	1.00	451201	0.002	0.002				

Lithology

From	To	Description
759.10	820.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Broken UC.

From	To	Description
820.00	845.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix.
845.00	934.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.
934.00	984.90	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix.

Zone

From	To				
984.09	1034.00	Strong	Alt		
		Strong	sil	tr-1%	fg-mg py
		Strong	hem		

Altered P and BP w/ 1-2% white to grey QCrbS and local wk diss min. Sample over unit.

Lithology

From	To	Description
984.90	1008.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

Structure

From	To				
994.90	995.00	1/4"	QCrbS	@ 60	
		2-3%	mg-cg	py	

Pinkish grey w/ diss min.

Lithology

From	To	Description
1008.00	1085.50	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths.

Structure

From	To				
1012.40	1012.60	1/4"	CrbV	@ 40	
		1-2%	fg-mg	py	

Chl crb vn w/ wk min.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
984.50	985.50	1.00	451202	0.002	0.002				
985.50	988.00	2.50	451400	0.002	0.002				
988.00	991.00	3.00	451401	0.024	0.024				
991.00	993.00	2.00	451402	0.003	0.003				
993.00	994.50	1.50	451403	0.003	0.002	0.003			
994.50	995.50	1.00	451203	0.011	0.011				
995.50	998.00	2.50	451404	0.009	0.009				
998.00	1001.00	3.00	451405	0.005	0.005				
1001.00	1004.00	3.00	451406	0.002	0.002				
1004.00	1007.00	3.00	451407	0.003	0.003				
1007.00	1010.00	3.00	451408	0.017	0.017				
1010.00	1012.00	2.00	451409	0.012	0.012				
1012.00	1013.00	1.00	451204	0.003	0.003				
1013.00	1016.00	3.00	451410	0.002	0.002				
1016.00	1019.00	3.00	451411	0.002	0.002				
1019.00	1021.00	2.00	451412	0.018	0.018				
1021.00	1022.50	1.50	451413	0.003	0.003				

[redacted]

Structure

From	To	Description				
1022.60	1023.60		1/4"	CrbV	@ 0	
			2-3%	fg		py

Grey CrbV w/ chl alt and wk min.

Zone

From	To	Description				
1034.00	1044.50	Strong	Alt			
		Strong	sil	2-3%	fg-mg	py
		Strong	hem			
		Moderate	bl			

Altered P w/ 1-4% grey to dark grey QCrbV w/ diss min throughout.

Zone

From	To	Description				
1044.50	1085.50	Strong	Alt			
		Strong	sil	1-2%	fg-mg	py
		Strong	hem			

Altered BP w/ 1-2% white to grey QCrbS and local wk diss min. Sample over unit.

Lithology

From	To	Description
1085.50	1241.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts;

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1022.50	1023.70	1.20	451205	0.030	0.030				
1023.70	1026.00	2.30	451414	0.005	0.005				
1026.00	1029.00	3.00	451415	0.008	0.007	0.008			
1029.00	1032.00	3.00	451416	0.036	0.036				
1032.00	1034.00	2.00	451417	0.004	0.004				
1034.00	1037.00	3.00	451206	0.058	0.061	0.055			
1037.00	1040.00	3.00	451207	0.090	0.090				
1040.00	1042.00	2.00	451208	0.135	0.135				
1042.00	1044.50	2.50	451209	0.011	0.011				
1044.50	1047.00	2.50	451418	0.011	0.011				
		BLANK	*451419*	*0.002*	*0.002*				
1047.00	1050.00	3.00	451420	0.006	0.006				
1050.00	1053.00	3.00	451421	0.015	0.015				
1053.00	1056.00	3.00	451422	0.033	0.033				
1056.00	1059.00	3.00	451423	0.054	0.054				
1059.00	1062.00	3.00	451424	0.271	0.271				
1062.00	1065.00	3.00	451425	0.010	0.010	0.009			
1065.00	1068.00	3.00	451426	0.054	0.054				
1068.00	1071.00	3.00	451427	0.189	0.189				
1071.00	1074.00	3.00	451428	0.027	0.027				
1074.00	1077.00	3.00	451429	0.022	0.022				
1077.00	1080.00	3.00	451430	0.002	0.002				
1080.00	1083.00	3.00	451431	0.005	0.005				
1083.00	1085.00	2.00	451432	0.005	0.005				
1085.00	1086.00	1.00	451210	0.001	0.001				

0.09 / 8.0'

13 / 12.0'

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

greywacke matrix.
Irregular UC.

Zone

From	To	Description
1085.50	1203.80	Moderate Alt Moderate hem 2-3% fg-mg py Weakly altered sed w/ local P nubs and enclaves. Diss minthroughout; up to 5%. 1-3% White and irregular crb vns. Local chl fractures. Local areas lacking min. V.G. Decsribed in structure.

			1086.00	1089.00	3.00	451211	0.005	0.005	
			1089.00	1090.50	1.50	451212	0.029	0.029	
			1090.50	1093.00	2.50	451213	0.492		0.493	0.501

Structure

From	To	Description
1092.15	1092.20	1/8" CrbV @ 45 1-2 specs vfg V.G. 2-3% fg-mg py 2-3% white to grey irregular vns w/ diss min. 1-3 vfg specks of V.G. in 45 degree vn.

			1093.00	1096.00	3.00	451214	0.204	0.204	
			1096.00	1099.00	3.00	451215	0.406		0.406	
			1099.00	1102.00	3.00	451216	0.715		0.675	0.675

Structure

From	To	Description
1100.40	1100.45	1" CrbV 1-2 specs vfg-fg V.G. 2-3% fg-mg py Light grey crb altered vn w/ diss min and wk V.G.

			1102.00	1105.00	3.00	451217	0.116	0.116	
			1105.00	1108.00	3.00	451218	0.605		0.605	0.603

Structure

From	To	Description
1105.70	1105.75	1/8" Fra @ 40 1-2 specs vfg-fg V.G. 2-3% fg-mg py Hairline spec FRA w/ diss min and local wk V.G.
1107.00	1107.10	1/8" CrbV 1-2 specs vfg-fg V.G. 1-2% fg-mg py Vfg specks of V.G. in irregular grey crb vn.

0.26/65.5'

			1108.00	1111.00	3.00	451219	0.169	0.169	

Structure

From	To	Description
1110.70	1110.75	1/8" CrbV @ 15 2-5 specks fg-mg V.G. 1-2% fg-mg py Grey vn w/ diss min and 1 site of 4-5 specks of V.G.

			1111.00	1114.00	3.00	451220	0.136	0.136	
			1114.00	1117.00	3.00	451221	0.084	0.084	

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1117.00	1120.00	3.00	451222	0.068	0.068				
1120.00	1123.00	3.00	451223	0.146	0.146				
1123.00	1126.00	3.00	451224	0.297	0.297				

Structure

From	To	Description
1124.15	1124.20	1/8"

1-2 specs	fg	V.G.
2-3%	fg-mg	py

1-3 specks of free V.G. in host.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1126.00	1129.00	3.00	451225	0.015	0.015				
1129.00	1132.00	3.00	451226	0.157	0.159	0.154			
1132.00	1135.00	3.00	451227	0.539			0.524	0.522	
		BLANK	*451228*	*0.001*	*0.001*				
1135.00	1138.00	3.00	451229	0.386	0.386				
1138.00	1141.00	3.00	451230	0.490			0.489	0.480	
1141.00	1144.00	3.00	451231	0.078	0.078				
1144.00	1147.00	3.00	451232	0.076	0.076				
1147.00	1150.00	3.00	451233	0.192			0.192		
1150.00	1153.00	3.00	451234	0.116	0.116				
1153.00	1156.00	3.00	451235	0.204	0.204				
1156.00	1159.00	3.00	451236	0.065	0.065				
1159.00	1162.00	3.00	451237	0.078	0.078				
1162.00	1165.00	3.00	451238	0.039	0.039				
1165.00	1167.50	2.50	451239	0.147	0.147	0.146			

Structure

From	To	Description
1166.90	1167.00	1/8" CrbV

2-5 specks	fg	V.G.
1-2%	fg-mg	py

Dark grey and irregular vn w/ cluster of V.G.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1167.50	1169.50	2.00	451240	0.017	0.017				
1169.50	1172.00	2.50	451433	0.005	0.005				
1172.00	1174.00	2.00	451434	0.006	0.006				
1174.00	1175.00	1.00	451435	0.018	0.018				
1175.00	1178.00	3.00	451436	0.009	0.009				
1178.00	1180.00	2.00	451437	0.013	0.013				
1180.00	1182.00	2.00	451241	0.062	0.062				
1182.00	1184.00	2.00	451242	0.052	0.052				
1184.00	1187.00	3.00	451438	0.020	0.020	0.020			
1187.00	1190.00	3.00	451439	0.008	0.008				
1190.00	1193.00	3.00	451243	0.032	0.032				
1193.00	1196.00	3.00	451244	0.047	0.047				
1196.00	1199.00	3.00	451245	0.028	0.028				
1199.00	1201.50	2.50	451440	0.046	0.046				
		BLANK	*451441*	*0.001*	*0.001*				

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1201.50	1204.00	2.50	451442	0.015	0.015				

Zone

From	To	Description
1203.80	1241.00	

fresh tr-1% fg-mg py
Fresh C. Sample to fill in gaps.

1204.00	1207.00	3.00	451443	0.004	0.004				
1207.00	1210.00	3.00	451444	0.009	0.009				
1210.00	1212.00	2.00	451445	0.009	0.009				
1212.00	1214.00	2.00	451446	0.002	0.002				
1214.00	1216.00	2.00	451447	0.022	0.022				
1216.00	1219.00	3.00	451448	0.003	0.003				
1219.00	1222.00	3.00	451449	0.006	0.006	0.006			
1222.00	1225.00	3.00	451450	0.008	0.008				
1225.00	1228.00	3.00	451451	0.010	0.010				
1228.00	1231.00	3.00	451452	0.004	0.004				
1231.00	1234.00	3.00	451453	0.011	0.011				
1234.00	1237.00	3.00	451454	0.006	0.006				
1237.00	1239.00	2.00	451455	0.003	0.003				
1239.00	1240.50	1.50	451456	0.004	0.004				
1240.50	1241.50	1.00	451246	0.002	0.002				

Lithology

From	To	Description
1241.00	1244.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

1241.50	1244.00	2.50	451247	0.002	0.002				
1244.00	1245.00	1.00	451248	0.008	0.008				
		BLANK	*451249*	*0.001*	*0.001*	*0.001*			

Lithology

From	To	Description
1244.60	1246.20	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular UC.

1245.00	1246.10	1.10	451250	0.004	0.004				
1246.10	1247.30	1.20	451251	0.086	0.086				

Lithology

From	To	Description
1246.20	1247.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.
1247.20	1294.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular UC.

Structure

From	To	Description			
1250.40	1250.60	1/8"	G tr	@ 35	CrbV py

Pink vn w/ paralleling chl gouge on leading margin.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1293.50	1294.50	1.00	451252	0.005	0.005				

Lithology

From	To	Description
1294.00	1308.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Broken UC.

Zone

From	To	Description				
1294.00	1307.00	Strong	Alt			
		Strong	sil	tr-1%	fg-mg	py
		Strong	hem			
		Altered P w/ local wk min.				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1294.50	1297.00	2.50	451457	0.020	0.020				
1297.00	1300.00	3.00	451458	0.026	0.026				
1300.00	1302.00	2.00	451459	0.024	0.024				
1302.00	1304.00	2.00	451460	0.012	0.012				
1304.00	1307.00	3.00	451461	0.062	0.062				

Zone

From	To	Description				
1307.00	1314.50	Strong	Alt			
		Strong	hem	1-2%	fg-mg	py
		Hem'd P and C w/ 1-3% white irregular stringers and diss min.				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1307.00	1309.00	2.00	451253	0.471			0.471		

Lithology

From	To	Description
1308.70	1369.10	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1309.00	1312.00	3.00	451254	0.390			0.390		
1312.00	1314.50	2.50	451255	0.159	0.159				

.33 / 7.5'

Structure

From	To	Description			
1312.50	1312.55	1/8"	CrbV		
			1-2 specs	vfg	V.G.
			2-3%	fg-mg	py
			tr-1%	fg-mg	cpy
		Irregular and grey w/ diss min and 1 cluster of V.G.			

Zone

From	To	Description				
1314.50	1329.40	Weak	Alt			
		Weak	ser	tr	fg-mg	py
		Fresh sed w/ local wk hem and wk associated min. Sample to fill in gaps.				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1314.50	1317.00	2.50	451462	0.016	0.016				
		BLANK	*451463*	*0.001*	*0.001*	*0.001*			
1317.00	1320.00	3.00	451464	0.021	0.021				
1320.00	1323.00	3.00	451465	0.006	0.006				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1323.00	1325.00	2.00	451466	0.002	0.002				
1325.00	1328.00	3.00	451467	0.003	0.003				
1328.00	1329.40	1.40	451468	0.004	0.004				

Zone

From	To	Description
1329.40	1330.70	Strong Alt Strong hem 1-2% fg-mg py Hem'd C w/ diss min.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1329.40	1330.40	1.00	451256	0.010	0.010				

Zone

From	To	Description
1330.70	1339.00	Shoulderig of above alt zone.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1330.70	1333.00	2.30	451469	0.005	0.005				
1333.00	1336.00	3.00	451470	0.003	0.003				
1336.00	1339.00	3.00	451471	0.017	0.017				

Zone

From	To	Description
1366.00	1368.50	Fresh sholder.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1366.00	1368.50	2.50	451472	0.005	0.005				
1368.50	1369.50	1.00	451257	0.004	0.004				

ithology

From	To	Description
1369.10	1376.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 20 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1375.80	1376.80	1.00	451258	0.003	0.003				

ithology

From	To	Description
1376.20	1523.50	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular UC.

Zone

From	To	Description
1376.80	1390.50	Weak Alt Weak ser tr py Weakly ser'd to fresh sed w/ 1-5% Grey to white crb vns.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1376.80	1379.00	2.20	451473	0.003	0.003				

Structure

From	To	Description
1378.70	1378.80	1/8" Flt @ 50 G tr py Tight mud flt.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1379.00	1382.00	3.00	451474	0.005	0.005				
1382.00	1385.00	3.00	451475	0.001	0.001				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1385.00	1388.00	3.00	451476	0.002	0.002				
1388.00	1391.00	3.00	451477	0.008	0.008				
1523.00	1524.00	1.00	451259	0.047	0.046	0.048			

Lithology

From	To	Description
1523.50	1543.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1542.70	1543.70	1.00	451260	0.003	0.003				

Lithology

From	To	Description
1543.20	1600.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Broken UC.
1597.30	*1598.20*	*Irregular lens.*
1599.20	*1600.00*	*Irregular lens.*

EOH : 1600.000
Total # of samples : 166
Total footage sampled : 373.40

PROFESSIONAL GEOSCIENTIST
CHARLES J. Q. KODORS
PRACTISING MEMBER
2371
ONTARIO

Nov 19/15

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-15-07

Engineering Coordinates

Easting: 16021.690
Northing: 11521.704
Elevation: -10.000

Geology Grid

Section: 1842.3053
Northing: -3819.6435
Level: Surface

Date Logged: 2/6/2015 8:05:33
Logged by: S. Farrell
Units: Feet

Azimuth: 327.000
Dip: -45.00
EOH: 1475.000

Drilled By: Cabo Drilling Corp.
Drill: Marcotte 1661
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: LEICA

Township: Teck Township
Claim #: CLM 328 Lease 109285

Drilling Starts: 1/27/2015 12:43:23 PM
Drilling Ends: 2/2/2015 12:43:23 PM

Downhole Survey Tests:

Depth	Azimuth	Dip	Type	Magnetic
5.00	324.60	-45.80	R	5664
05.00	325.80	-45.80	R	5575
05.00	325.20	-45.50	R	6246
05.00	327.00	-45.30	R	5572
05.00	325.30	-44.70	R	5528
005.00	324.90	-44.20	R	5611
205.00	328.10	-43.70	R	5627
405.00	326.00	-42.80	R	5636

Comments:

Casing pulled. Core stored at Macassa Mine.

[redacted]

thology

From	To	Description
0.00	24.50	Casing & overburden.
24.50	85.20	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Greyish-green, generally medium gr'd diabase w/ some epidote alteration.
85.20	94.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Green-grey-brown, generally fine gr'd greywacke. Locally sil'd. Relatively well preserved fine gr'd chilled margin w/ the diabase. Upper contact dipping 76 Deg. To CA

Zone

From	To	Description
94.20	95.20	Weak ser Weak sil G/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
94.20	95.20	1.00	480441	0.004	0.004				

thology

From	To	Description
94.70	113.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Grey, strongly sil'd, weakly ser'd porphyry w/ generally poor feldspar phenocryst development. Appears to be a gradational U/C.

Zone

From	To	Description
113.20	114.30	Weak ser Weak sil P/G contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
113.20	114.30	1.10	480442	0.001	0.001				

thology

From	To	Description
113.90	120.60	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Coarser gr'd greywacke. Upper contact dipping 57 Deg. To CA

Structure

From	To	Description
120.40	120.60	Strong 2" Flt @ 67 G Myl Strong chl Strong sil Strongly gouged chloritic mud fault w/ adjacent mylonite (sub-parallel). Barren.

thology

From	To	Description
120.60	122.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Some sort of poprhyry; reddish-brown w/ poorly developed feldspar phenocrysts. U/C along a strong fault gouge (AB?). Upper contact dipping 67 Deg. To CA
122.70	130.00	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Green to greenish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. U/C along a bullish carb veinlet.

Upper contact dipping 54 Deg. To CA

130.00 141.80 SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.
Some sort of poprhyry; red-brown w/ red-white, zoned feldspar phenocrysts.

Upper contact dipping 14 Deg. To CA

141.80 216.90 BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing.
Green to greenish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing.
Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradationanl U/C.

216.00 216.90 Possible lens of highly alt'd greywacke.

Zone

From	To	Description
216.00	217.30	

Strong crb
Strong ser
Weak hem
Barren.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
216.00	217.30	1.30	480443	0.001	0.001	0.001			

ithology

From	To	Description
216.90	218.80	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Some sort of poprhyry; red-brown w/ red-white, zoned feldspar phenocrysts. Ground U/C.
218.80	255.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Green to greenish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradationanl U/C.

Zone

From	To	Description
255.00	256.00	

Weak chl
Fault as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
255.00	256.00	1.00	480444	0.001	0.001				

Structure

From	To	Description
255.40	255.50	Moderate 1" Flt @ 70 G bx Moderate chl

Moderately gouged & brecciated chloritic fault. Barren.

ithology

From	To	Description
255.50	356.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. In general, typical Macassa-looking porphyry w/ fairly well developed feldspar phenocrysts. Faulted U/C.

Upper contact dipping 70 Deg. To CA

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
283.20	285.00	1.80	480445	0.002	0.002				
285.00	288.00	3.00	480446	0.001	0.001				
329.70	330.80	1.10	480447	0.014	0.014				
355.50	356.50	1.00	480448	0.003	0.003				
369.30	370.30	1.00	480449	0.003	0.003				

Zone

From	To	Description
283.20	288.00	Moderate Alt @ 48 Moderate ser Moderate sil Weak crb One QFS noted. Barren.

Structure

From	To	Description
286.40	286.70	Moderate 4" QFS Moderate ser Greyish-white moderately ser'd QFS. Barren.

Zone

From	To	Description
329.70	330.80	@ 55 Weak ser tr-1% fg-mg py Weak chl Weak hem

Zone

From	To	Description
355.50	356.50	fresh P/G contact.

thology

om	To	Description
56.00	369.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Grey-brown, medium gr'd greywacke. Upper contact dipping 62 Deg. To CA

Zone

From	To	Description
369.30	370.30	fresh G/P contact.

hology

om	To	Description
9.70	680.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 40 Deg. To CA

Zone

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
532.00	533.50	1.50	480450	0.002	0.002				
540.30	541.50	1.20	480451	0.002	0.002				
592.20	594.00	1.80	480452	0.002	0.002				
613.20	614.20	1.00	480453	0.004	0.004	0.004			
630.30	631.30	1.00	480454	0.004	0.004				
674.60	676.10	1.50	480455	0.003	0.003				
676.10	678.50	2.40	480456	0.002	0.002				

532.00 533.50

Weak ser
Weak crb
Barren.

Zone

From	To	Description
540.30	541.50	Weak ser Barren.

Zone

From	To	Description
592.20	594.00	Weak hem 1-2% fg py

Zone

From	To	Description
613.20	614.20	@ 21 Weak ser tr fg-mg py Weak crb

Zone

From	To	Description
630.30	631.30	Weak hem tr-1% fg-mg py Weak chl tr-1% fg-mg cpy Chloritic breccia as noted.

Structure

From	To	Description
630.90	630.95	Moderate 1/2" bx @ 50 Moderate chl 2-3% fg-mg cpy Weak hem 2-3% fg-mg py Chloritic breccia w/ a weakly hem'd & py'd alt'd halo.

Zone

From	To	Description
674.30	678.50	Moderate Alt @ 72 Moderate ser Moderate crb Barren.

hology

ɔm	To	Description
0.60	728.80	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Grey-brown, fine to medium gr'd greyeacke. Gradational U/C.

[redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted]

										From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Zone

From	To	Description
703.90	705.80	
		Weak ser tr mg py

703.90	705.80	1.90	480457	0.002	0.002	

Zone

From	To	Description
728.30	729.30	
		Weak sil
		G/P contact.

728.30	729.30	1.00	480458	0.002	0.002	

thology

om	To	Description
28.80	732.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.
		U/C along a barren qtz carb vein.
		Upper contact dipping 52 Deg. To CA

Zone

From	To	Description
729.30	731.50	
		fresh
		Chk sample.

729.30	731.50	2.20	480459	0.001	0.001	

Zone

From	To	Description
731.50	732.50	
		Weak sil
		P/G contact.

731.50	732.50	1.00	480460	0.002	0.002	

thology

om	To	Description
32.00	962.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.
		U/C along a barren qtz carb vein.
		Upper contact dipping 56 Deg. To CA

Structure

From	To	Description
737.20	737.25	Moderate G
		Moderate chl

Zone

From	To	Description
799.40	800.50	
		Moderate ser
		Moderate sil
		Moderate crb
		QFS as noted.

799.40	800.50	1.10	480461	0.001	0.001	
		BLANK	*480462*	*0.002*	*0.002*	

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
834.50	835.70	1.20	480463	0.003	0.002	0.003			
857.80	860.00	2.20	480464	0.003	0.003				
860.00	862.00	2.00	480465	0.002	0.002				
862.00	863.30	1.30	480466	0.008	0.008				
863.30	865.00	1.70	480743	0.002	0.002				
874.10	875.40	1.30	480467	0.014	0.014				
961.50	962.50	1.00	480468	0.016	0.016				

Structure

From	To	Description
799.75	800.35	Moderate 7" QFS @ 65 Moderate ser Greyish-white QFS w/ a moderately ser'd alt'd halo. Barren.

Zone

From	To	Description
834.50	835.70	Moderate ser Moderate crb Barren.

Zone

From	To	Description
857.80	865.00	Weak Alt Weak ser Barren.

Zone

From	To	Description
874.10	875.40	Moderate crb Weak fg spec Weak ser Carb vein as noted.

Structure

From	To	Description
874.40	874.60	Moderate 2" CrbV @ 69 fg spec Bullish carb vein w/ possible spec hem mylonite.
931.45	931.55	Weak 1" G @ 77 CrbV Weak chl Moderately well formed bullish carb vein w/ a weak chloritic gouge.
934.00	934.05	Weak G Moderate chl

Zone

From	To	Description
961.50	962.50	fresh G/BP contact.

hology

om	To	Description

From	To	Description
962.00	980.50	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths. Light-brown. Fine to coarse gr'd w/ a fairly well developed bi-modal texture. Irregular U/C.
980.50	986.40	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Brown w/ faded (resorbed) feldspar phenocrysts. Upper contact dipping 25 Deg. To CA
986.40	989.90	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths. Gradational U/C.
989.90	993.00	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Irregular U/C.
993.00	1039.90	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths. Gradational U/C.
1032.80	*1033.50*	*Lens of greywacke.*

Zone

From	To	Description
1034.00	1036.00	@ 52 Moderate ser Barren.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1034.00	1036.00	2.00	480469	0.014	0.014				

Zone

From	To	Description
1039.40	1040.40	fresh BP/G contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1039.40	1040.40	1.00	480470	0.014	0.014				

ithology

rom	To	Description
039.90	1168.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Greyish-green, fine to medium gr'd greywacke w/ mnr clastic fragments. Upper contact dipping 57 Deg. To CA

Zone

From	To	Description
1168.10	1169.20	fresh G/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1168.10	1169.20	1.10	480471	0.022	0.022				

ithology

rom	To	Description
168.70	1308.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1181.80	1183.80	2.00	480472	0.001	0.001				
1183.80	1185.00	1.20	480473	0.002	0.002				
1210.40	1211.80	1.40	480474	0.001	0.001				
1308.10	1309.50	1.40	480475	0.004	0.005	0.003			
1375.00	1377.10	2.10	480476	0.002	0.002				
1377.10	1379.80	2.70	480477	0.009	0.009				
1379.80	1381.80	2.00	480478	0.028	0.028				
		BLANK	*480479*	*0.001*	*0.001*				
1381.80	1383.40	1.60	480480	0.020	0.020				
1383.40	1384.40	1.00	480481	0.004	0.004				

1181.20 1185.00
Moderate Alt
Moderate ser
Weak crb
Weak chl
Barren.

Zone

From	To	Description
1210.40	1211.80	

Weak ser
Weak crb
Barren.

Zone

From	To	Description
1308.10	1309.50	

fresh 2-3% fg-mg py
Py is restricted to the type II porphyry.

thology

om	To	Description
308.30	1309.30	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths.
		Upper contact dipping 56 Deg. To CA
309.30	1384.10	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.
		Upper contact dipping 67 Deg. To CA

Zone

From	To	Description
1375.00	1383.40	

Moderate MNZ
Weak hem 3-5% fg-mg cpy
Weak ser 2-3% fg-mg py
Weakly alt'd porphyry w/ up to 5% disseminated cpy. No structures.

Zone

From	To	Description
1383.40	1387.40	

Weak Alt @ 69
Weak ser
Weak sil
Barren.

hology

om	To	Description

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1384.40	1387.40	3.00	480482	0.001	0.001				
1387.40	1388.90	1.50	480483	0.001	0.001				
1388.90	1390.50	1.60	480484	0.003	0.003				
1390.50	1391.50	1.00	480485	0.002	0.001	0.002			
1401.30	1402.30	1.00	480486	0.001	0.001				
1402.30	1403.30	1.00	480487	0.001	0.001				

384.10 1389.40 GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.
U/C along a bullish qtz carb vein.
Upper contact dipping 69 Deg. To CA

Zone

From	To	Description
1387.40	1388.90	fresh Chk sample.

Zone

From	To	Description
1388.90	1391.50	fresh Multiple sediment/intrusive contacts.

ithology

rom	To	Description
389.40	1391.00	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Gradational U/C.

ithology

rom	To	Description
391.00	1401.80	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Gradational U/C.

Zone

From	To	Description
1401.30	1402.30	fresh P/S contact.

ithology

rom	To	Description
401.80	1403.70	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1402.30	1403.30	fresh Chk sample.

Zone

From	To	Description
1403.30	1404.40	fresh S/G contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1403.30	1404.40	1.10	480488	0.001	0.001				

Lithology

From	To	Description
1403.70	1475.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Gradational U/C.

Structure

From	To	Description
1464.05	1464.15	Moderate 1" G @ 55 CrbV Moderate chl Carb healed chloritic gouge. Barren.

Zone

From	To	Description
1475.00	1475.00	EOH. Hole ends in fresh greywacke.

EOH : 1475.000
Total # of samples : 49
Total footage sampled : 70.30

PROFESSIONAL GEOSCIENTIST
SEAN BRADLEY FARRELL
PRACTISING MEMBER
2161
ONTARIO

Nov. 19/15

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-15-18

Engineering Coordinates

Easting: 16422.420
Northing: 11723.257
Elevation: -10.004

Geology Grid

Section: 2288.5719
Northing: -3864.9675
Level: Surface

Date Logged: 2/18/2015
Logged by: C. Kodors
Units: Feet

Azimuth: 327.000
Dip: -81.00
EOH: 1900.000

Drilled By: Cabo Drilling Corp.
Drill: Maxi 1640
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: LEICA

Township: Teck Township
Claim #: CLM 328 Lease 109285

Drilling Starts: 3/9/2015 1:19:46 PM
Drilling Ends: 3/16/2015 1:19:46 PM

Downhole Survey Tests:

Depth	Azimuth	Dip	Type	Magnetic
57.00	333.00	-78.80	R	55901
200.00	331.90	-78.60	R	54633
407.00	336.20	-78.80	R	53266
500.00	330.20	-78.70	R	55804
808.00	341.20	-78.30	R	56905
008.00	338.40	-78.10	R	54488
208.00	341.90	-78.00	R	54232
408.00	338.40	-78.00	R	54256
600.00	341.30	-77.90	R	54330
800.00	341.80	-78.00	R	53199
900.00	343.80	-78.20	R	54813

Comments:

TA @ 1300-1600. Core stored at the Macassa Mine.

ithology

rom	To	Description
0.00	21.20	
21.20	97.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.

Zone

From	To	Description
21.20	97.50	Weak Alt Weak ser tr py Pervasive ser'd sed.

ithology

rom	To	Description
97.50	229.60	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Upper contact dipping 32 Deg. To CA
29.60	255.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Difficult to determine UC.
55.50	278.30	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Irregular UC.

Structure

From	To	Description
276.00	278.30	2' Flt @ 40 G tr py Strongly sheared mud gouge.

ithology

rom	To	Description
78.30	304.70	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 40 Deg. To CA

thology

rom	To	Description
04.70	359.10	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

Structure

From	To	Description
313.40	314.70	2-3% 1/8" CrbV 5-7% fg-mg py Chl'd irregular stringers w/ strong associated min.

Structure

From	To	Description
334.20	334.40	1/8" slp @ 25 CrbV 7-10% fg-mg py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
304.00	305.00	1.00	451701	0.001	0.001				
313.30	314.90	1.60	451702	0.012	0.012				
333.90	334.90	1.00	451703	0.011	0.011				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Grey chl's stringer w/ paralleling chl slp w/ strong diss min.

358.50	359.50	1.00	451704	0.002	0.002				

ithology

rom	To	Description
359.10	451.80	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

Structure

From	To	Description				
366.30	366.40	1"	Flt	@ 60	bx	
			tr		py	
		Healed chl flt.				

451.30	452.30	1.00	451705	0.001	0.001				

ithology

rom	To	Description
451.80	455.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 58 Deg. To CA

452.30	455.00	2.70	451706	0.001	0.001				
455.00	456.00	1.00	451707	0.001	0.001				

ithology

rom	To	Description
455.70	542.70	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout.

Structure

From	To	Description				
518.40	518.50	1/8"	slp	@ 40		
			tr		py	

542.20	543.20	1.00	451708	0.001	0.001	0.001			

ithology

rom	To	Description
542.70	550.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

549.50	550.50	1.00	451709	0.001	0.001				

ithology

rom	To	Description
550.00	585.00	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
581.00	583.00	2.00	451710	0.002	0.002				

Zone

From	To	Description
581.20	585.00	Moderate Alt Moderate ser tr py Ser'd funky L w/ 1-3% pink to grey CrbV's barren of min.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
583.00	584.50	1.50	451711	0.005	0.005				
584.50	585.50	1.00	451712	0.004	0.004				

ithology

rom	To	Description
585.00	590.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
590.00	591.00	1.00	451713	0.002	0.002				

ithology

rom	To	Description
590.40	635.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
635.00	636.00	1.00	451714	0.001	0.001				

ithology

rom	To	Description
635.50	641.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
641.00	642.00	1.00	451715	0.003	0.003				

ithology

rom	To	Description
641.40	644.70	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
644.30	645.30	1.00	451716	0.002	0.002				

thology

om	To	Description
644.70	652.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
651.50	652.50	1.00	451717	0.003	0.003				

thology

om	To	Description
652.00	656.10	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously

[redacted]

described crystals? Local P and/or G lensing throughout. Irregular UC.

656.10 663.80 SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.

Lithology

From	To	Description
663.80	690.20	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 45 Deg. To CA

Lithology

From	To	Description
690.20	703.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

Lithology

From	To	Description
703.60	709.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 20 Deg. To CA

Lithology

From	To	Description
709.50	734.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Strong P contamination. Irregular UC.

Zone

From	To	Description
709.50	734.70	Weak Alt Weak ser tr py Weakly ser'd sed w/ local wk P fingers. 1-2% Irregular white and grey CrbV's barren of min. Sample over litho.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
663.50	664.50	1.00	451718	0.001	0.001	0.001			
689.70	690.70	1.00	451719	0.001	0.001				
703.00	704.00	1.00	451720	0.001	0.001				
709.00	710.00	1.00	451721	0.001	0.001				
710.00	713.00	3.00	451722	0.001	0.001				
		BLANK	*451723*	*0.011*	*0.011*				
713.00	716.00	3.00	451724	0.001	0.001				
716.00	719.00	3.00	451725	0.001	0.001				
719.00	722.00	3.00	451726	0.001	0.001				
722.00	725.00	3.00	451727	0.001	0.001				
725.00	728.00	3.00	451728	0.002	0.002				
728.00	731.00	3.00	451729	0.001	0.001				
731.00	734.00	3.00	451730	0.002	0.002				
734.00	735.00	1.00	451731	0.003	0.003				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

ithology

rom	To	Description
734.70	789.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 30 Deg. To CA

Zone

From	To	Description
786.50	787.00	

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
788.50	789.50	1.00	451732	0.001	0.001				

ithology

rom	To	Description
789.00	791.30	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
789.50	791.80	2.30	451733	0.001	0.001				

ithology

rom	To	Description
791.30	797.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
791.80	792.80	1.00	451734	0.003	0.003	0.003			
796.70	797.70	1.00	451735	0.010	0.010				

ithology

rom	To	Description
797.30	828.10	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Broken UC. Upper contact dipping 15 Deg. To CA

Zone

From	To	Description
797.30	813.00	Weak Alt Weak ser tr py Weak bl Weakly altered sed.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
827.50	828.50	1.00	451736	0.001	0.001				

ithology

rom	To	Description
828.10	1900.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1278.00	1280.30	2.30	451737	0.002	0.002				
1280.30	1281.30	1.00	451738	0.003	0.003				

Structure

From	To	Description
1280.40	1281.00	2-3% 1/8" CrbV 1-2% fg-mg py Irregular whitish grey vns w/ wk min.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1281.30	1283.60	2.30	451739	0.002	0.002				
1283.60	1284.60	1.00	451740	0.048	0.048				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1284.60	1287.00	2.40	451741	0.002	0.002				
1291.30	1294.30	3.00	451742	0.005	0.005				
1389.00	1390.50	1.50	451743	0.022	0.022				
		BLANK	*451744*	*0.003*	*0.003*	*0.003*			
1390.50	1392.50	2.00	451745	0.003	0.003				

Structure

From	To	Description
1283.80	1284.60	2-3% 1/8-1/4" QCrbS @ 50 3-5% fg-mg py Purplish grey w/ diss min.

Zone

From	To	Description
1291.40	1294.30	tr-1% fg-mg py 1-2% Irregular white crb vns w/ diss min.
1389.00	1392.50	1-2% mg cpy tr-1% fg-mg py 1-2% White to pinkish white and irregular vns w/ associated 1-3% mg-cg cpy..

Zone

From	To	Description
1512.00	1514.00	Fractured and broken core. Not flt related.

EOH : 1900.000
Total # of samples : 45
Total footage sampled : 71.60



Nov 19/15

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-15-20

Engineering Coordinates

Easting: 16335.139
Northing: 11677.031
Elevation: -9.972

Geology Grid

Section: 2190.1226
Northing: -3857.0581
Level: Surface

Date Logged: 3/24/2015
Logged by: S. Farrell
Units: Feet

Azimuth: 327.000
Dip: -70.00
EOH: 1600.000

Drilled By: Cabo Drilling Corp.
Drill: Maxi 1640
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: LEICA

Township: Teck Township
Claim #: CLM 328 Lease109285

Drilling Starts: 3/16/2015 12:52:04 PM
Drilling Ends: 4/3/2015 12:52:04 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
75.00	329.80	-67.20	R	56541
205.00	326.40	-67.30	R	55449
405.00	319.80	-66.90	R	54063
506.00	322.80	-66.70	R	53675
600.00	322.10	-66.40	R	54033
800.00	324.80	-65.80	R	54535
1000.00	326.50	-65.30	R	55505
1206.00	322.10	-65.40	R	53584
1406.00	317.50	-65.60	R	55140
1600.00	325.90	-66.00	R	56740

Comments:

TA @ 1000,1100-1150 & 1310. Core stored at Macassa Mine.

ithology

From	To	Description
0.00	18.00	Casing.
18.00	18.20	Overburden.
18.20	46.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Grey-green, generally fine gr'd greywacke.
46.00	55.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Brown, highly sil'd w/ poorly developed feldspar phenocrysts. Irregular U/C.
55.40	144.80	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Grey-green, fine to medium gr'd diabase w/ a moderately carb'd, fine gr'd chilled U/C. Upper contact dipping 30 Deg. To CA
144.80	151.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Coarser gr'd greywacke w/ a fine gr'd chilled U/C. Upper contact dipping 53 Deg. To CA
151.70	178.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 29 Deg. To CA
178.50	192.60	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Appears to be a gradational U/C; contact is estimated.

Structure

From	To	Description					
192.30	192.60	Strong	2.5"	Flt	@ 48	G	Myl
		Strong	chl				
		Weak	ser				
		Strongly gouged chloritic mud fault w/ accompaning mylonite. Barren.					

ithology

From	To	Description
192.60	199.00	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. U/C along the AB fault gouge + mylonite. Upper contact dipping 48 Deg. To CA
199.00	214.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Some sort of porphyry. Reddish-brown w/ red-white, zoned feldspar phenocrysts. Weakly gouged U/C. Upper contact dipping 30 Deg. To CA

Structure

From	To	Description			
214.58	214.60	Weak	1/8"	G	@ 30
		Moderate	chl		

thology

om	To	Description
14.60	253.20	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Upper contact dipping 35 Deg. To CA

From	To	
253.20	256.00	FELSIC SYENITE: Mauve in colour w/ very small augite? phenocrysts. Could be a porphyry. Broken U/C.
256.00	268.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. A mix of two poprhyry's. One is typical Macassa porphyry, the other has poorly developed feldspar phenocrysts. Broken U/C.
268.50	295.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 55 Deg. To CA

Structure

From	To	Description				
294.30	295.00	Moderate Weak	8" chl	CrbV	@ 50	G
		Gouge-controlled bullish carb vein.				

ithology

From	To	Description
295.30	299.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Some sort of porphyry. Reddish-brown w/ red-white, zoned feldspar phenocrysts. Broken U/C.
299.50	337.10	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.
337.10	342.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 69 Deg. To CA
342.20	431.60	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.

Zone

From	To	Description	
366.50	377.30	Moderate Moderate Weak	Alt sil ser
		Alteration zone characterized by abundant QFS/qtz flodding. All barren.	

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
366.50	369.30	2.80	481739	0.005	0.005				
369.30	371.60	2.30	481740	0.005	0.005				
371.60	372.90	1.30	481741	0.003	0.003				
372.90	374.70	1.80	481742	0.001	0.001				
374.70	377.30	2.60	481743	0.005	0.005				

Structure

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

394.30	394.32	Moderate	1/8"	G	@ 21	
		Moderate	chl			

Zone

From	To	Description
431.00	432.00	Weak hem L/T contact.

From	To	Length	Sample #	Au Avg.	Au 1
431.00	432.00	1.00	481744	0.004	0.004

Lithology

From	To	Description
431.60	438.50	TUFF: Dark brown to grey, massive, fg textd ash tuff, minor fragmental lensing. Reddish-brown, generally fine gr'd ash tuff. Irregular U/C.

Zone

From	To	Description
438.30	439.80	Weak chl Weak crb T/P contact.

From	To	Length	Sample #	Au Avg.	Au 1
438.30	439.80	1.50	481745	0.008	0.008

Lithology

From	To	Description
438.50	548.10	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Moderately gouged U/C. Upper contact dipping 38 Deg. To CA

Structure

From	To				
438.50	438.52	Moderate	1/8"	G	@ 38
		Moderate	chl		
439.00	439.20	Moderate	2"	bx	@ 34
		Moderate	chl		

Moderately well formed chloritic breccia.

Lithology

From	To	Description
548.10	550.40	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Could be felsic syenite. Gradational U/C.
550.40	748.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Some lenses of type II porphyry. Upper contact dipping 52 Deg. To CA

Zone

From	To	Description
748.40	749.40	Weak ser P/G contact.

From	To	Length	Sample #	Au Avg.	Au 1
748.40	749.40	1.00	481746	0.002	0.002

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
766.00	767.00	1.00	481747	0.001	0.001				
771.00	772.00	1.00	481748	0.001	0.001				
834.00	835.00	1.00	481749	0.004	0.004				

Lithology

From	To	Description
748.90	766.40	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Beige-green-grey-brown. Fine to medium gr'd greywacke. Broken U/C.

Zone

From	To	Description
766.00	767.00	fresh G/P contact.

Lithology

From	To	Description
766.40	771.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
771.00	772.00	fresh P/G contact.

Lithology

From	To	Description
771.40	834.40	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Some clasitc fragments. Upper contact dipping 46 Deg. To CA

Structure

From	To	Description
786.65	786.67	Moderate 1/8" G @ 38 Moderate chl

Zone

From	To	Description
834.00	835.00	fresh G/P contact.

Lithology

From	To	Description
834.40	966.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Grey, mafic looking Macassa-like porphyry. Upper contact dipping 34 Deg. To CA

Structure

From	To	Description
965.85	966.00	Moderate 1.5" CrbV @ 63 slp Moderate chl Slip-controlled, partially chloritized bullish carb vein.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Lithology

From	To	Description
966.00	989.30	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Brown, w/ generally faded (resorbed) red feldspar phenocrysts. U/C appears to be bound by a bullish carb vein. Upper contact dipping 63 Deg. To CA
989.30	1005.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Red-brown, typical Macassa-looking porphyry. Upper contact dipping 36 Deg. To CA
1005.60	1032.20	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths. Brown, fine to coarse gr'd w/ a moderately well developed bi-modal texture. Gradational U/C.

Zone

From	To	Description
1031.70	1032.70	fresh BP/G contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1031.70	1032.70	1.00	481750	0.002	0.002	0.002			

Lithology

From	To	Description
1032.20	1097.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Some clastic fragments. Gradational U/C.

Zone

From	To	Description
1065.00	1088.80	Weak Alt Weak ser 1-2% fg-mg py Weak hem tr fg-mg cpy Mineralized qtz stgs as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1065.00	1068.00	3.00	481751	0.010	0.010				
1068.00	1069.70	1.70	481752	0.002	0.002				
1069.70	1070.70	1.00	481753	0.003	0.003				
1070.70	1071.70	1.00	481754	0.003	0.003				
1071.70	1072.70	1.00	481755	0.010	0.010				

Structure

From	To	Description
1071.96	1071.98	Moderate 1/8" QS @ 67 Moderate ser 3-5% fg-mg py Grey-white qtz stg w/ a moderately ser'd & py'd alt'd halo.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1072.70	1073.70	1.00	481756	0.001	0.001				
1073.70	1074.70	1.00	481757	0.003	0.003				

Structure

From	To	Description
1074.05	1074.06	Moderate 1/8" QS @ 78 Moderate ser 3-5% fg-mg py Grey qtz stg w/ a moderately ser'd & py'd alt'd halo.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1074.70	1075.80	1.10	481758	0.001	0.001				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1075.80	1076.80	1.00	481759	0.008	0.008				
		BLANK	*481760*	*0.001*	*0.001*	*0.001*			

Structure

From	To	Description			
1075.95	1076.00	Moderate	1/4"	QV	@ 80
		Moderate	ser	3-5%	fg-mg py
				1-2%	fg-mg cpy

Grey qtz vein w/ a moderately ser'd & py'd alt'd halo.

1076.80	1078.30	1.50	481761	0.003	0.003
1078.30	1080.70	2.40	481762	0.003	0.003
1080.70	1082.70	2.00	481763	0.011	0.011
1082.70	1083.90	1.20	481764	0.011	0.011
1083.90	1086.60	2.70	481765	0.005	0.005
1086.60	1088.80	2.20	481766	0.004	0.004

Structure

From	To	Description		
1088.62	1088.63	Moderate	1/8"	G @ 74
		Moderate	chl	
		Moderate	crb	

Moderate carb present.

Zone

From	To	Description
1096.60	1102.20	fresh

Multiple P/G contacts.

1096.60	1097.60	1.00	481767	0.002	0.002

Lithology

From	To	Description
1097.00	1098.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

1097.60	1099.20	1.60	481768	0.005	0.005

Structure

From	To	Description		
1098.29	1098.30	Strong	slp	@ 72

Lithology

From	To	Description
1098.30	1101.80	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. U/C along a weakly gouged, strong chloritic slip. Upper contact dipping 72 Deg. To CA

1099.20	1101.20	2.00	481769	0.004	0.004	
1101.20	1102.20	1.00	481770	0.006	0.006	0.006

Lithology

From	To	Description
1101.80	1168.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Zone

From	To	Description
1164.00	1173.60	Weak Alt Weak hem tr fg py Weak sil Fresh to weakly hem'd & sil'd porphyry & conglomerate.

From	To	Length	Sample #	Au Avg.	Au 1
1164.00	1166.00	2.00	481837	0.005	0.005
1166.00	1167.90	1.90	481838	0.005	0.005
1167.90	1169.00	1.10	481839	0.004	0.004

Lithology

From	To	Description
1168.40	1218.10	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Grey-brown, fine to coarse gr'd polymicitic conglomerate w/ abundant lenses of greywacke. Upper contact dipping 56 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1
1169.00	1170.00	1.00	481840	0.004	0.004
1170.00	1171.90	1.90	481841	0.018	0.018
1171.90	1173.60	1.70	481842	0.013	0.013

Zone

From	To	Description
1217.60	1218.60	fresh C/P contact.

From	To	Length	Sample #	Au Avg.	Au 1
1217.60	1218.60	1.00	481843	0.005	0.005

Lithology

From	To	Description
1218.10	1257.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1257.00	1258.00	fresh P/C contact.

From	To	Length	Sample #	Au Avg.	Au 1
1257.00	1258.00	1.00	481844	0.003	0.003

Lithology

From	To	Description
1257.40	1484.60	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular U/C.

Zone

From	To	Description
1484.10	1485.10	fresh C/P contact.

From	To	Length	Sample #	Au Avg.	Au 1
1484.10	1485.10	1.00	481917	0.001	0.001

Lithology

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1490.60	1493.60	3.00	481918	0.003	0.003	0.002			
1501.70	1502.70	1.00	481919	0.003	0.003				
1511.20	1512.20	1.00	481920	0.001	0.001				
1523.20	1524.20	1.00	481921	0.005	0.005				

1484.60 1491.50 SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.
Gradational U/C.

Zone

From	To	Description
1490.60	1493.60	fresh Multiple P/C contacts.

Lithology

From	To	Description
1491.50	1492.60	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Gradational U/C.
1492.60	1502.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1501.70	1502.70	fresh P/C contact.

Lithology

From	To	Description
1502.20	1511.80	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Upper contact dipping 56 Deg. To CA

Zone

From	To	Description
1511.20	1512.20	fresh C/P contact.

Lithology

From	To	Description
1511.80	1523.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1523.20	1524.20	fresh P/C contact.

Lithology

From	To	Description
1523.70	1535.80	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Gradational U/C.

Zone

From	To	Description
1535.50	1538.50	fresh Multiple P/C contacts.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1535.50	1538.50	3.00	481922	0.003	0.003				

Structure

From	To	Description		
1535.79	1535.80	Moderate	slp	@ 30

Lithology

From	To	Description
1535.80	1537.80	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. U/C along a chl slip. Upper contact dipping 30 Deg. To CA

Structure

From	To	Description		
1537.79	1537.80	Moderate	slp	@ 35

Lithology

From	To	Description
1537.80	1540.70	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. U/C along a chl slip. Upper contact dipping 35 Deg. To CA
1540.70	1556.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1556.00	1558.00	Weak ser Weak sil P/C contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1556.00	1558.00	2.00	481923	0.002	0.002				

Lithology

From	To	Description
1556.50	1600.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Gradational U/C.

Zone

From	To	Description
1600.00	1600.00	EOH. Hole ends in fresh conglomerate.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

EOH : 1600.000
Total # of samples : 47
Total footage sampled : 71.30



Nov. 19/15

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-15-24

Engineering Coordinates

Easting: 16421.928
Northing: 11724.508
Elevation: -10.458

Geology Grid

Section: 2288.8291
Northing: -3863.6481
Level: Surface

Date Logged: 3/20/2015
Logged by: C. Kodors
Units: Feet

Azimuth: 327.000
Dip: -74.00
EOH: 1600.000

Drilled By: Cabo Drilling Corp.
Drill: Maxi 1640
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: LEICA

Township: Teck Township
Claim #: CLM 328 lease 109285

Drilling Starts: 4/4/2015 1:19:46 PM
Drilling Ends: 4/8/2015 1:19:46 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
50.00	326.40	-73.30	R	5644
206.00	326.60	-72.80	R	5596
400.00	324.30	-72.70	R	5649
600.00	322.80	-72.70	R	5379
800.00	324.80	-72.30	R	5562
1006.00	324.70	-72.20	R	5540
1206.00	322.20	-72.20	R	5481
1400.00	328.20	-72.00	R	5656
1600.00	321.90	-71.70	R	5438

Comments:

TA @ 1100-1350. Core stored at the Macassa Mine.

Lithology

From	To	Description
0.00	12.00	
12.00	71.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.
71.00	178.20	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Irregular UC; difficult to determine.
178.20	195.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 80 Deg. To CA
195.50	205.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Strongly sil'd funky greyish black P. Upper contact dipping 70 Deg. To CA
205.60	226.90	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 50 Deg. To CA

Structure

From	To	Description			
226.80	226.90	1"	Flt	@ 44	G
			tr		py
		Strong mud flt.			

Lithology

From	To	Description
226.90	254.80	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Flt controlled UC. Upper contact dipping 44 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
254.20	255.20	1.00	452097	0.001	0.001	0.001			

Lithology

From	To	Description
254.80	256.70	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 5 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
255.20	257.00	1.80	452098	0.003	0.003				

Lithology

From	To	Description
256.70	258.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 40 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
257.00	258.50	1.50	443040	0.001	0.001				

Lithology

From	To	Description
258.40	264.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
264.00	265.00	1.00	452099	0.001	0.001				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Lithology

From	To	Description
264.50	276.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 50 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
276.00	277.00	1.00	452100	0.004	0.004				

Lithology

From	To	Description
276.40	278.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 5 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
277.00	279.00	2.00	452101	0.002	0.002				

Lithology

From	To	Description
278.30	279.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
279.00	280.50	1.50	452102	0.005	0.005				

Lithology

From	To	Description
279.90	290.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
288.00	290.00	2.00	452103	0.003	0.003				
290.00	291.00	1.00	452104	0.003	0.003				

Lithology

From	To	Description
290.50	295.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

Structure

From	To	Description			
290.50	290.60	1/2"	QV	@ 50	
			2-3%	fg-mg	py
		Grey w/ diss min.			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
291.00	292.50	1.50	452105	0.006	0.006				

Structure

From	To	Description			
292.00	292.10	1/4"	QV	@ 50	
			2-3%	fg-mg	py
		Grey w/ diss min.			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
292.50	294.50	2.00	452106	0.009	0.009				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
294.50	295.50	1.00	452107	0.004	0.004	0.004			

Lithology

From	To	Description
295.00	341.40	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Broken UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
295.50	298.00	2.50	452108	0.006	0.006				

Zone

From	To	Description
296.00	297.70	1-2% Grey vns w/ wk 1-2% fg-mg diss min.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
318.70	320.50	1.80	452109	0.001	0.001				

Zone

From	To	Description
318.80	321.90	Strong Alt Strong sil tr py Strong ser Strongly altered L w/ 2-3% 1" vns.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
320.50	322.00	1.50	452110	0.001	0.001				
341.00	342.00	1.00	452111	0.001	0.001				

Lithology

From	To	Description
341.40	344.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 45 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
342.00	344.00	2.00	452112	0.001	0.001				
344.00	345.00	1.00	452113	0.001	0.001				

Lithology

From	To	Description
344.40	353.40	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
353.00	354.00	1.00	452114	0.001	0.001				

Lithology

From	To	Description
353.40	385.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 45 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
385.00	386.00	1.00	452115	0.003	0.003				

Lithology

From	To	Description
385.40	410.70	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
410.20	411.20	1.00	452116	0.003	0.003				
411.20	412.20	1.00	452117	0.001	0.001	0.001			
416.00	417.00	1.00	452118	0.002	0.002				
422.70	424.50	1.80	452119	0.002	0.002				
566.70	567.70	1.00	452120	0.001	0.001				

Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

ithology

From	To	Description
410.70	411.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

ithology

From	To	Description
411.90	416.60	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Irregular UC.

ithology

From	To	Description
416.60	422.90	FELSIC SYENITE: Upper contact dipping 60 Deg. To CA

ithology

From	To	Description
422.90	424.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.
424.30	567.20	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

Zone

From	To	Description
497.40	516.30	Strong Alt Strong ser tr py Strong sil Ser'd L w/ 2-4% barren white to grey QCrbS.

Structure

From	To	Description
532.30	532.40	1/8" Flt @ 28 G tr py Tight mud flt.

thology

om	To	Description
67.20	571.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
570.80	571.80	1.00	452121	0.006	0.006				

Lithology

From	To	Description
571.30	599.70	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
599.00	600.00	1.00	452122	0.002	0.002				

Lithology

From	To	Description
599.70	603.00	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
600.00	602.50	2.50	452123	0.002	0.002				
602.50	603.50	1.00	452124	0.005	0.005				

Lithology

From	To	Description
603.00	606.80	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
606.30	607.30	1.00	452125	0.003	0.003				

Lithology

From	To	Description
606.80	635.90	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Upper contact dipping 50 Deg. To CA
635.90	661.80	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 35 Deg. To CA

Structure

From	To	Description			
635.90	636.00	1/8"	Flt tr	@ 35	G py
		Tight mud flt.			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
661.40	662.40	1.00	452126	0.002	0.002				
		BLANK	*452127*	*0.001*	*0.001*	*0.001*			

Lithology

From	To	Description
661.80	684.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
683.50	684.50	1.00	452128	0.002	0.002				

Lithology

From	To	Description
684.00	698.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.

Upper contact dipping 40 Deg. To CA

Structure

From	*To*	*Description*				
684.00	684.10	1"	Flt tr	@ 40	G py	
		Strong mud flt.				

Lithology

From	*To*	*Description*
698.50	774.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 50 Deg. To CA

Lithology

From	*To*	*Description*
774.00	984.20	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Upper contact dipping 70 Deg. To CA

Structure

From	*To*	*Description*				
774.00	774.10	1/8"	Flt tr	@ 70	G py	
		Tight mud flt.				

Lithology

From	*To*	*Description*
984.20	1154.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

Zone

From	*To*	*Description*				
1070.00	1101.00	Strong Strong Strong	Alt sil hem	tr-1%	fg-mg	py
		2-3% chl and or spec altered irregular stringers w/ up to 2% associated min. Local dark grey QV w/ wk min. Sample over interval.				

From	*To*	*Length*	*Sample #*	*Au Avg.*	*Au 1*	*Au 2*	*Au 3*	*Au 4*	*Au 5*
698.00	699.00	1.00	452129	0.003	0.003				
773.50	774.50	1.00	452130	0.002	0.002				
983.70	984.70	1.00	452131	0.003	0.003				
1070.00	1072.00	2.00	452132	0.004	0.004				
1072.00	1075.00	3.00	452133	0.006	0.006				
1075.00	1078.00	3.00	452134	0.006	0.006				
1078.00	1081.00	3.00	452135	0.009	0.009				
1081.00	1084.00	3.00	452136	0.011	0.011				
1084.00	1087.00	3.00	452137	0.017	0.017				
1087.00	1090.00	3.00	452138	0.025	0.025				
1090.00	1093.00	3.00	452139	0.027	0.026	0.027			
1093.00	1096.00	3.00	452140	0.015	0.015				
1096.00	1099.00	3.00	452141	0.023	0.023				
1099.00	1101.00	2.00	452142	0.013	0.013				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1154.00	1155.00	1.00	452143	0.005	0.005				

Lithology

From	To	Description
1154.60	1247.30	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular UC.

1219.00	1221.80	2.80	452155	0.015	0.015				
1221.80	1222.80	1.00	452156	0.011	0.011				

Structure

From	To	Description				
1221.90	1222.30	1-2%	1/4"	QFS		
				1-2%	fg-mg	py
		Irregular purplish grey vns w/ diss min.				
1222.60	1222.70		1/8"	Flt	@ 42	G
				tr		py
		Chl mud flt.				

1222.80	1225.00	2.20	452157	0.005	0.005				
1225.00	1228.00	3.00	452144	0.012	0.012				
1228.00	1230.50	2.50	452145	0.026	0.026				

Zone

From	To	Description				
1230.50	1237.70	Moderate	MNZ			
		Weak	hem	3-5%	fg-mg	py
		Weakly altered sed w/ 1-3% irregular crb/chl vns and diss min. Target????				

1230.50	1232.50	2.00	452146	0.015	0.015				
1232.50	1233.50	1.00	452147	0.012	0.012				
1233.50	1236.00	2.50	452148	0.084	0.084				
1236.00	1238.00	2.00	452149	0.031	0.031	0.031			
		BLANK	*452150*	*0.001*	*0.001*				
1238.00	1241.00	3.00	452151	0.010	0.010				
1241.00	1244.00	3.00	452152	0.020	0.020				
1244.00	1246.50	2.50	452153	0.008	0.008				
1246.50	1247.50	1.00	452154	0.007	0.007				

Lithology

From	To	Description
1247.30	1483.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

Structure

From	To	Description				
1295.70	1295.80		1/4"	Flt	@ 48	G
				tr		py
		Tight chl flt.				

1307.00	1308.50	1.50	452158	0.079	0.079				

Zone

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1307.20	1308.40	Moderate Alt Moderate sil tr-1% fg-mg py Weak hem Weakly altered P w/wk min.							
1308.50	1311.50	3.00	452159	0.003	0.003	0.002			

Zone

From	To	Description
1311.50	1314.30	Moderate Alt Moderate sil 1-2% fg-mg py Weak hem Weakly alterd P w/ wk brassy min.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1311.50	1314.50	3.00	452160	0.088	0.088				
1482.50	1483.50	1.00	452161	0.010	0.010				

Lithology

From	To	Description
1483.00	1490.50	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1490.00	1491.00	1.00	452162	0.004	0.004				

Lithology

From	To	Description
1490.50	1494.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1494.00	1495.00	1.00	452163	0.007	0.007				

Lithology

From	To	Description
1494.50	1532.70	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1532.20	1533.20	1.00	452164	0.003	0.003				

Lithology

From	To	Description
1532.70	1545.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1545.00	1546.00	1.00	452165	0.003	0.003				

Lithology

From	To	Description
1545.60	1561.60	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Upper contact dipping 40 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1561.00	1562.00	1.00	452166	0.012	0.012				

Lithology

From	To	Description
1561.60	1600.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular UC.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

EOH : 1600.000
Total # of samples : 71
Total footage sampled : 120.40



Nov 19/15.

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-15-25

Engineering Coordinates

Easting: 16421.928
Northing: 11724.508
Elevation: -10.458

Geology Grid

Section: 2288.829
Northing: -3863.648
Level: Surface

Date Logged: 4/17/2015
Logged by: S. Farrell
Units: Feet

Azimuth: 327.000
Dip: -66.00
EOH: 1523.000

Drilled By: Cabo Drilling Corp.
Drill: Maxi 1640
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: LEICA

Township: Teck Township
Claim #: CLM 328 Lease 109285

Drilling Starts: 4/9/2015 1:00:28 PM
Drilling Ends: 4/13/2015 1:00:28 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
50.00	324.60	-66.10	R	5636
200.00	324.10	-66.00	R	5587
408.00	322.90	-65.70	R	5454
600.00	320.30	-65.00	R	54565
808.00	320.40	-64.90	R	55519
1000.00	324.00	-64.20	R	55490
1200.00	323.30	-64.00	R	56118
1407.00	322.40	-63.70	R	55116

Comments:

TA @ 1050-1300. V.G. @ 611. Core stored at Macassa Mine.

Lithology

From	To	Description
0.00	25.00	Casing.
25.00	69.40	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Beige-grey-brown, fine to medium gr'd greywacke w/ abundant mudstone near the collar.
69.40	166.00	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Grey-green fine to medium gr'd diabase w/ some epidote alteration. Upper contact dipping 54 Deg. To CA
166.00	189.10	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Grey-brown. Nearly unrecognizable as porphyry; poorly developed feldspar phenocrysts. Moderately ser'd & sil'd throughout. Upper contact dipping 42 Deg. To CA

Structure

From	To	Description				
189.05	189.10	Moderate	1/2"	CrbV	@ 63	
		Barren.				

Lithology

From	To	Description
189.10	208.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. U/C along a bullish carb vein. Upper contact dipping 63 Deg. To CA

Structure

From	To	Description				
208.50	208.70	Strong	2"	Flt	@ 43	G
		Strong	chl			
		Strongly gouged chloritic mud fault. Barren.				

Lithology

From	To	Description
208.70	233.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Red-brown w/ generally poor feldspar phenocyst development. U/C along the AB fault gouge. Upper contact dipping 43 Deg. To CA

Zone

From	To	Description				
211.30	212.40					
		Weak	ser	1-2%	fg	py
		Weak	sil			
		Weakly mineralized lens of basic syenite.				

211.45 212.15 Lens of atypical basic syenite.

Zone

From	To	Description				
219.70	221.70					
			fresh			
		Chk sample.				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
211.30	212.40	1.10	482742	0.003	0.003				
219.70	221.70	2.00	482440	0.002	0.002				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
221.70	222.70	1.00	482743	0.771	0.770		0.765	0.778	
222.70	224.70	2.00	482441	0.011	0.012	0.010			
246.10	247.10	1.00	482744	0.004	0.004				
254.90	255.90	1.00	482745	0.003	0.003				

Zone

From	To	Description
221.70	222.70	@ 24 Weak sil 3-5% fg-mg cpy Sampling a ~1" band of semi-massive py in relatively fresh porphyry.

Zone

From	To	Description
222.70	224.70	fresh Chk sample.

Structure

From	To	Description
233.65	233.70	Moderate 1/4" CrbV @ 34 G Weak hem Barren.

Lithology

From	To	Description
233.70	235.30	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. U/C along a weakly gouged bullish carb vein. Upper contact dipping 34 Deg. To CA
235.30	242.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular U/C.
242.00	255.40	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.

Zone

From	To	Description
246.10	247.10	Weak sil tr-1% fg cpy Weak hem Mnr qtz veinlets.

Zone

From	To	Description
254.90	255.90	fresh L/T contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Lithology

From	To	Description
255.40	260.50	TUFF: Dark brown to grey, massive, fg textd ash tuff, minor fragmental lensing. Brick-red, fine to medium gr'd ash & lapilli tuff. Upper contact dipping 40 Deg. To CA

Zone

From	To	Description
260.00	261.00	Weak hem T/L contact.

From	To	Length	Sample #	Au Avg.	Au 1
260.00	261.00	1.00	482746	0.009	0.009

Lithology

From	To	Description
260.50	313.20	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 50 Deg. To CA

Zone

From	To	Description
312.60	313.80	Moderate ser tr fg-mg py Moderate sil Moderate fg spec Weak chl

From	To	Length	Sample #	Au Avg.	Au 1
312.60	313.80	1.20	482747	0.004	0.004

Lithology

From	To	Description
313.20	318.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Appears to be a gradational U/C; highly ser'd.
318.30	344.20	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 34 Deg. To CA
344.20	364.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Some sort of porphyry; red-brown w/ red-white, zoned feldspar phenocrysts. Upper contact dipping 40 Deg. To CA
364.70	417.80	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.

Structure

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
427.00	429.30	2.30	482748	0.026	0.026				

From	To					
417.75	417.80	Moderate	1/4"	G	@ 32	
		Strong	chl			

Lithology

From	To	Description
417.80	419.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Moderately gouged U/C. Upper contact dipping 32 Deg. To CA
419.50	430.40	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 20 Deg. To CA

Zone

From	To	Description
427.00	429.30	Moderate ser Moderate sil Barren of py.

Lithology

From	To	Description
430.40	432.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. In general, typical Macassa-looking porphyry w/ fairly well developed feldspar phenocrysts. Upper contact dipping 44 Deg. To CA
432.40	466.90	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 50 Deg. To CA

Structure

From	To	Description				
450.73	450.76	Weak	1/8"	G	@ 30	CrbV
		Moderate	chl			

Lithology

From	To	Description
466.90	468.40	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Brown, w/ generally faded (resorbed) feldspar phenocrysts. Gradational U/C.
468.40	470.80	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Some sort of porphyry; red-brown w/ red-white, zoned feldspar phenocrysts. Gradational U/C.
470.80	473.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites?

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
473.00	474.00	1.00	482749	0.003	0.003				
478.30	479.30	1.00	482750	0.002	0.002				

TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.

Zone

From	To	Description
473.00	474.00	fresh

L/T contact.

Lithology

From	To	Description
473.50	478.80	TUFF: Dark brown to grey, massive, fg textd ash tuff, minor fragmental lensing. Brick-red, fine to medium gr'd ash & lapilli tuff. Upper contact dipping 41 Deg. To CA

Zone

From	To	Description
478.30	479.30	fresh

T/P contact.

Lithology

From	To	Description
478.80	567.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. In general, typical Macassa-looking porphyry w/ fairly well developed feldspar phenocrysts. Upper contact dipping 53 Deg. To CA

Structure

From	To					
505.30	505.85	Moderate	6"	bx	@ 17	G
		Moderate	chl	Strong	fg	spec
		Weak	crb			
		Gouged, chl + spec hem breccia.				
541.35	541.40	Weak	1/8"	Flt	@ 34	G
		Moderate	chl			
		Weak	crb			
		Weakly gouged, weak chloritic fault w/ some carb present.				

Lithology

From	To	Description
567.40	569.20	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Appears to be a gradational U/C.
569.20	646.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. U/C appears to be bound by a bullish qtz carb vein. Upper contact dipping 20 Deg. To CA

Zone

From	To	Description
608.00	610.10	Weak sil tr-1% fg cpy

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
608.00	610.10	2.10	482751	0.043	0.041	0.044			

Zone

From	To	Description			
610.10	611.40				
		Moderate	sil	2-5 specks	fg	V.G.
		Weak	chl	2-3%	fg-mg	cpy

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
610.10	611.40	1.30	482752	0.152	0.152				

Zone

From	To	Description
611.40	613.40	
		fresh
		Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
611.40	613.40	2.00	482442	0.010	0.010				

Zone

From	To	Description
646.50	648.70	
		fresh
		Multiple P/T contacts.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
646.50	648.70	2.20	482753	0.016	0.016				

Lithology

From	To	Description
646.90	648.20	TUFF: Dark brown to grey, massive, fg textd ash tuff, minor fragmental lensing. Brownish-grey, fine gr'd ash tuff; could be greywacke or a mafic xenolith. Gradational U/C.
648.20	689.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description			
689.30	692.20				
		Weak	ser		
		Chk sample.			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
689.30	692.20	2.90	482754	0.007	0.007				

Lithology

From	To	Description
689.90	692.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Beige-brown, fine to medium gr'd greywacke. Gradational U/C.

Zone

From	To	Description			
692.20	693.50				
		Moderate	ser		
		Weak	chl		
		Weak	sil		
		Fault as noted.			

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
692.20	693.50	1.30	482755	0.005	0.005				

Structure

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

692.65 692.70 Moderate 1/4" Flt @ 70 CrbV
Moderate chl
Moderate crb
Moderately well formed chloritic fault w/ a broken up carb vein. Barren.

Lithology

From	To	Description
692.70	736.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Faulted U/C. Upper contact dipping 70 Deg. To CA

Zone

From	To	Description
735.70	750.20	Moderate Alt Moderate ser Moderate crb Moderately ser'd & carb'd greywacke & porphyry. Barren.

735.70	736.90	1.20	482756	0.003	0.003				

Lithology

From	To	Description
736.40	742.20	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Possible porphyry contamination. Upper contact dipping 64 Deg. To CA

736.90	738.00	1.10	482757	0.001	0.001				
738.00	740.00	2.00	482758	0.001	0.001				
740.00	742.10	2.10	482759	0.001	0.001				
742.10	744.20	2.10	482760	0.002	0.002				

Lithology

From	To	Description
742.20	744.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

744.20	745.20	1.00	482761	0.002	0.002	0.002			
		BLANK	*482762*	*0.001*	*0.001*				

Lithology

From	To	Description
744.70	823.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Beige-grey-brown, fine to medium gr'd greywake w/ some clastic fragments. Faulted U/C. Upper contact dipping 69 Deg. To CA

Structure

From	To	Description
744.70	744.85	Moderate 1.5" Flt @ 69 CrbV Moderate chl Moderate crb Moderately well formed chloritic fault w/ a white carb vein. Barren.

745.20	748.00	2.80	482763	0.004	0.004				
748.00	750.20	2.20	482764	0.003	0.003				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Structure

From	To	Description					
756.51	756.52	Moderate	slp	@ 55			
		Moderate	chl				

Lithology

From	To	Description
823.00	858.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Grey-green, fine to coarse gr'd polymictic conglomerate w/ mnr lenses of greywacke. Upper contact dipping 25 Deg. To CA
858.00	926.40	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Gradational U/C.

Zone

From	To	Description
926.00	927.00	fresh G/BP contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
926.00	927.00	1.00	482765	0.004	0.004				

Lithology

From	To	Description
926.40	978.80	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths. Reddish-brown, fine to coarse gr'd w/ a fairly well developed bi-modal texture. Upper contact dipping 20 Deg. To CA

Structure

From	To	Description					
968.20	968.21	Strong	slp	@ 61			

Zone

From	To	Description
976.50	978.00	Weak ser Weak sil Weak chl Fault as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
976.50	978.00	1.50	482766	0.004	0.004				

Structure

From	To	Description					
977.00	977.10	Moderate	1"	Flt	@ 75	CrbV	bx
				tr	mg	py	
		Brecciated carb chl fault.					

Zone

From	To	Description
978.00	979.60	Weak ser BP/G contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
978.00	979.60	1.60	482767	0.004	0.004				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Lithology

From	To	Description
978.80	990.10	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Upper contact dipping 69 Deg. To CA
990.10	1025.80	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Gradational U/C.
1025.80	1092.40	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Gradational U/C.
1092.40	1187.70	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Upper contact dipping 51 Deg. To CA

Zone

From	To	Description
1187.20	1188.20	fresh C/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1187.20	1188.20	1.00	482768	0.001	0.001				

Lithology

From	To	Description
1187.70	1218.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1218.20	1219.20	Weak sil P/C contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1218.20	1219.20	1.00	482769	0.005	0.005				

Lithology

From	To	Description
1218.70	1289.40	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Gradational U/C.

Zone

From	To	Description
1288.90	1289.90	fresh C/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1288.90	1289.90	1.00	482770	0.001	0.001				

Lithology

From	To	Description
1289.40	1302.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1302.20	1303.20	fresh

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1302.20	1303.20	1.00	482771	0.002	0.002	0.002			

P/C contact.

Lithology

From	To	Description
1302.70	1523.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Upper contact dipping 72 Deg. To CA

Structure

From	To	Description				
1359.30	1359.40	Strong Strong Moderate	1" chl crb	G	@ 70	CrbV
		Moderately to strongly gouged conglomerate w/ an accompanying carb vein. Barren.				
1363.70	1363.80	Moderate	1.5"	Shr	@ 62	
		Barren.				
1522.50	*1523.00*	*Lens of fresh porphyry.*				

Zone

From	To	Description
1523.00	1523.00	EOH. Hole ends w/ a lens of fresh porphyry.

EOH : 1523.000
Total # of samples : 33
Total footage sampled : 49.00

PROFESSIONAL GEOSCIENTIST
SEAN BRADLEY FARRELL
PRACTISING MEMBER
2161
ONTARIO

Nov. 19/15

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-15-34

Engineering Coordinates

Easting: 16465.522
Northing: 11746.525
Elevation: -11.787

Geology Grid

Section: 2337.441
Northing: -3868.483
Level: Surface

Date Logged: 4/23/2015
Logged by: S. Farrell
Units: Feet

Azimuth: 327.000
Dip: -70.00
EOH: 1600.000

Drilled By: Cabo Drilling Corp.
Drill: Maxi 1640
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: LEICA

Township: Teck Township
Claim #: CLM 328 lease 109285

Drilling Starts: 4/13/2015 1:04:44 PM
Drilling Ends: 4/25/2015 1:04:44 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
36.00	326.10	-70.70	R	56665
207.00	327.50	-70.20	R	56228
400.00	326.00	-69.60	R	54295
607.00	325.30	-69.60	R	53793
800.00	325.00	-68.80	R	53677
1000.00	322.00	-68.50	R	56474
1207.00	325.40	-67.90	R	53967
1407.00	321.60	-67.90	R	54081
1600.00	321.70	-67.40	R	56932

Comments:

TA @ 1050-1200 & 1300. Core stored at the Macassa Mine.

ithology

rom	To	Description
0.00	23.00	Casing & overburden.
23.00	81.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Beige-green-grey, fine to medium gr'd greywacke interlayered w/ mudstone.
81.50	198.90	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. Grey-green, fine to medium gr'd diabase. Contact is estimated due to broken up core. Broken U/C.

Structure

From	To	Description					
109.10	109.15	Weak	1/4"	G	@ 18	CrbV	
		Moderate	chl				
		Weakly gouged, bullish carb vein.					
189.35	189.40	Weak	1/4"	G	@ 63	CrbV	
		Moderate	chl				
		Partially gouged bullish carb vein.					

thology

rom	To	Description
98.90	204.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Reddish-brown w/ very poorly developed feldspar phenocrysts; could be greywacke. Gradational U/C.
04.30	231.10	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Broken U/C. Possible lenses of porphyry.

Structure

From	To	Description					
230.60	231.10	Strong	6"	Flt	@ 61	G	Myl
		Strong	chl				
		Moderate	crb				
		Strong, broken up chloritic fault gouge accompanied by a weak mylonite dipping @ 61 DTCA. Barren.					

thology

om	To	Description
31.10	254.60	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. U/C along the broken up AB fault gouge.

Zone

From	To	Description
254.30	255.30	fresh L/T contact.

thology

om	To	Description
54.60	260.80	TUFF: Dark brown to grey, massive, fg textd ash tuff, minor fragmental lensing. Reddish-brown, generally medium gr'd lapilli tuff. Upper contact dipping 20 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
254.30	255.30	1.00	482857	0.008	0.008				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
260.40	261.40	1.00	482858	0.007	0.007				

Zone

From	To	Description
260.40	261.40	fresh
		T/L contact.

ithology

rom	To	Description
260.80	268.40	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 34 Deg. To CA

Zone

From	To	Description
267.90	268.90	Weak hem Weak sil L/T contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
267.90	268.90	1.00	482859	0.001	0.001				

ithology

rom	To	Description
268.40	274.50	TUFF: Dark brown to grey, massive, fg textd ash tuff, minor fragmental lensing. Reddish-brown, generally medium gr'd lapilli tuff. Upper contact dipping 44 Deg. To CA

Zone

From	To	Description
274.30	275.30	Weak hem T/L contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
274.30	275.30	1.00	482860	0.001	0.001				

thology

om	To	Description
74.50	277.60	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. U/C ~ sub-parallel TCA. Upper contact dipping 0 Deg. To CA
77.60	281.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Typical Macassa-looking porphyry w/ fairly well developed feldspar phenocrysts. Slightly hem'd throughout. Upper contact dipping 52 Deg. To CA
31.40	308.20	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.

[redacted]

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

308.20 309.20 SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths.
Gradational U/C.

309.20 461.60 BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing.
Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.

Zone

From	*To*	*Description*
460.70	463.70	

Weak ser
Weak hem
Weak sil
Multiple T/L contacts.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
460.70	463.70	3.00	482861	0.002	0.002				

ithology

rom	*To*	*Description*
461.60	463.20	TUFF: Dark brown to grey, massive, fg textd ash tuff, minor fragmental lensing. Reddish-brown, generally medium gr'd lapilli tuff. Upper contact dipping 33 Deg. To CA
463.20	466.50	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 33 Deg. To CA
466.50	468.80	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Irregular U/C.
468.80	482.10	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Upper contact dipping 33 Deg. To CA

Zone

From	*To*	*Description*
481.60	482.60	

fresh
L/G contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
481.60	482.60	1.00	482862	0.001	0.001				

thology

om	*To*	*Description*
482.10	493.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Brown, fine to medium gr'd greywacke. Gradational U/C.

Zone

From	*To*	*Description*

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
493.00	495.00	2.00	482863	0.003	0.003				

493.00 495.00

Weak ser
Weak sil
Weak hem

G/L contact.

Lithology

From	To	Description
493.50	559.10	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Broken U/C.

Structure

From	To	Description
559.08	559.10	Weak 1/8" G @ 68 Moderate chl

Lithology

From	To	Description
559.10	563.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Semi-gradational U/C along a weak chloritic gouge. Upper contact dipping 68 Deg. To CA
563.00	581.70	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Gradational U/C.

Zone

From	To	Description
581.10	582.10	fresh

L/G contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
581.10	582.10	1.00	482864	0.010	0.010				

Lithology

From	To	Description
581.70	584.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Gradational U/C.

Zone

From	To	Description
582.10	583.60	fresh

Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
582.10	583.60	1.50	482865	0.002	0.002				

Zone

From	To	Description
583.60	585.20	Weak chl

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
583.60	585.20	1.60	482866	0.006	0.006	0.006			

G/P contact.

Structure

From	To	Description			
584.30	584.35	Moderate	1/4"	G	@ 34
		Strong	chl		

Lithology

From	To	Description
584.50	642.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Broken U/C.
642.00	655.50	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Brown, fine to medium gr'd w/ faded (resorbed) feldspar phenocrysts. Gradational U/C.
655.50	660.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Sharp, generally irregular U/C.
660.00	673.20	TYPE-II PORPHYRY: Dark grey, massive, fg-mg textd porphyry; phenocrysts are faint and poorly developed; minor mafic xenoliths. Broken U/C.
673.20	708.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Structure

From	To	Description				
674.00	675.00	Moderate		G	@ 36	CrbV
		Moderate	chl			
		Moderately gouged, pink, bullish carb vein.				
708.85	708.90	Moderate	1/4"	Flt	@ 65	slp
		Moderate	chl	Moderate	fg	spec
		Slip controlled chloritic fault mostly replaced by spec hem. Barren.				

Lithology

From	To	Description
708.90	737.90	FELSIC SYENITE: Generally mauve in colour and fine gr'd then the porphyry. Micro-augite phenocrysts? Could still be porphyry. Appears to be a faulted U/C. Upper contact dipping 65 Deg. To CA

Structure

From	To	Description				
716.20	716.50	Moderate	3"	bx	@ 44	slp
		Moderate	chl			
		Slip controlled chloritic breccia. Barren.				

Zone

From	To	Description		
737.00	764.20	Strong	Alt	@ 63
		Strong	ser	
		Moderate	crb	
		Strongly ser'd, moderately carb'd greywacke & basic syenite (less altered). Intermittant mylonitic fabric generally dipping @ 54 DTCA. Zone is barren of py.		

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
737.00	739.50	2.50	482867	0.001	0.001				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
739.50	742.00	2.50	482868	0.002	0.002				
742.00	744.00	2.00	482869	0.002	0.002				
744.00	747.00	3.00	482870	0.001	0.001				
747.00	748.20	1.20	482871	0.003	0.003				
		BLANK	*482872*	*0.001*	*0.001*				
748.20	751.20	3.00	482873	0.008	0.008				
751.20	753.80	2.60	482874	0.002	0.002				
753.80	756.40	2.60	482875	0.002	0.002				
756.40	759.40	3.00	482876	0.003	0.003	0.002			
759.40	762.00	2.60	482877	0.001	0.001				
762.00	764.30	2.30	482878	0.001	0.001				
772.00	773.00	1.00	482879	0.004	0.004				

ithology

From	To	Description
737.90	747.60	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Yellowish-beige, highly ser'd & carb'd greywacke. Upper contact dipping 63 Deg. To CA

ithology

From	To	Description
747.60	755.80	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Greyish brown and coarse grained. Wk-mod ser and/or hem throughout. Absence of felsic ribbing. Wk-mod magnetic. No reaction to 10% HCL acid. Pale greenish grey euhedral to anhedral crystals (pseudoleucites? TRA?) . Black crystals of chl (15%) and specular hemetite (75%) throughout; replacement of previously described crystals? Local P and/or G lensing throughout. Could be porphyry; highly altered. Gradational U/C.

ithology

From	To	Description
755.80	763.60	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Yellowish-beige, highly ser'd & carb'd greywacke. Gradational U/C.

thology

From	To	Description
63.60	772.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Some sort of porphyry; red in colour w/ poorly developed feldspar phenocrysts. Upper contact dipping 49 Deg. To CA

Zone

From	To	Description
772.00	773.00	Weak ser P/G contact.

thology

From	To	Description
72.40	818.20	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. Grey-brown. Fine to medium gr'd greywacke w/ mnr clastic fragments. Gradational U/C.
18.20	848.60	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Brownish-grey, fine to coarse gr'd polymictic conglomerate w/ abundant lenses of greywacke. Gradational U/C.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

848.60 922.00 GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd.
Grey. Fine to medium gr'd greywacke w/ mnr clastic fragments. Broken U/C.

922.00 953.10 CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix.
Brownish-grey, fine to coarse gr'd polymictic conglomerate w/ abundant lenses of greywacke. Gradational U/C.

Zone

From	To	Description
952.50	953.60	fresh
		C/BP contact.

952.50	953.60	1.10	482880	0.002	0.002				

ithology

rom	To	Description
953.10	1074.10	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths. Red-brown, fine to coarse gr'd w/ a fairly well developed bi-modal texture. Locally moderately hem'd present. Gradational U/C.

Zone

From	To	Description
1069.00	1135.10	Weak Alt Weak hem 2-5 specks vfg-fg V.G. tr-1% mg py Moderately hem'd bi-modal porphyry and weakly alt'd conglomerate.

1069.00	1071.80	2.80	482881	0.040	0.040				
1071.80	1073.60	1.80	482882	0.005	0.005				
1073.60	1074.60	1.00	482883	0.006	0.006				

thology

om	To	Description
074.10	1242.10	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Abundant inclusions of porphyry near the U/C. Gradational U/C.

1074.60	1077.40	2.80	482884	0.008	0.008				
1077.40	1079.80	2.40	482885	0.010	0.010				
1079.80	1082.60	2.80	482886	0.050	0.050				
1082.60	1084.40	1.80	482887	0.141	0.141				

Structure

From	To	Description
1083.20	1083.21	Weak stg 2-5 specks vfg-fg V.G. Very weakly formed QS fragment w/ 2-5 specks of vfg-fg V.G.

1084.40	1086.20	1.80	482888	0.063	0.062	0.063			
1086.20	1087.60	1.40	482889	0.049	0.049				
1087.60	1090.60	3.00	493217	0.005	0.005	0.005			
1090.60	1092.40	1.80	493218	0.009	0.009				
1092.40	1093.70	1.30	493219	0.005	0.005				
1093.70	1095.30	1.60	493220	0.009	0.009				
1095.30	1097.30	2.00	493221	0.015	0.015				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1097.30	1098.30	1.00	493222	0.002	0.002				
1098.30	1101.20	2.90	493223	0.009	0.009				
1101.20	1103.20	2.00	493224	0.008	0.008				
1103.20	1106.00	2.80	493225	0.004	0.004				
1106.00	1108.30	2.30	493226	0.006	0.006				
1108.30	1110.00	1.70	493227	0.021	0.021				
1110.00	1112.20	2.20	493228	0.019	0.019				
1112.20	1114.40	2.20	493229	0.009	0.009	0.009			
1114.40	1117.00	2.60	493230	0.002	0.002				
1117.00	1120.00	3.00	493231	0.003	0.003				
1120.00	1122.60	2.60	493232	0.003	0.003				
1122.60	1125.30	2.70	493233	0.019	0.019				
1125.30	1127.20	1.90	493234	0.003	0.003				
1127.20	1130.20	3.00	493235	0.023	0.023				
1130.20	1132.20	2.00	493236	0.011	0.011				
1132.20	1135.10	2.90	493237	0.010	0.010				

Zone

From	To	Description
1241.60	1242.60	fresh C/P contact.

1241.60	1242.60	1.00	482966	0.007	0.007				

ithology

rom	To	Description
242.10	1246.80	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1246.30	1247.30	fresh P/C contact.

1246.30	1247.30	1.00	482967	0.001	0.001				

ithology

rom	To	Description
246.80	1296.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Irregular U/C.

Zone

From	To	Description
1295.50	1296.50	fresh C/P contact.

1295.50	1296.50	1.00	482968	0.006	0.006				

thology

om	To	Description
96.00	1304.30	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts;

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

minor mafic xenoliths.
Gradational U/C.

Zone

From	To	Description
1303.80	1304.80	fresh P/C contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1303.80	1304.80	1.00	482969	0.018	0.018				

Lithology

From	To	Description
1304.30	1307.70	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Gradational U/C.

Zone

From	To	Description
1304.80	1307.20	fresh Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1304.80	1307.20	2.40	482970	0.016	0.016				

Zone

From	To	Description
1307.20	1308.20	fresh C/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1307.20	1308.20	1.00	482971	0.008	0.008				

Lithology

From	To	Description
1307.70	1314.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 66 Deg. To CA

Zone

From	To	Description
1314.00	1315.00	fresh P/C contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1314.00	1315.00	1.00	482972	0.004	0.004				

Lithology

From	To	Description
1314.50	1356.60	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Upper contact dipping 54 Deg. To CA

Zone

From	To	Description
1356.00	1357.00	fresh C/P contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1356.00	1357.00	1.00	482973	0.009	0.009				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

ithology

From	To	Description
1356.60	1384.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 72 Deg. To CA

Zone

From	To	Description
1357.00	1358.10	fresh Chk sample.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1357.00	1358.10	1.10	482974	0.004	0.004	0.004			

Zone

From	To	Description
1358.10	1365.10	Moderate Alt Moderate hem tr-1% fg-mg py Weak sil Mnr weakly py'd qtz fragments.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1358.10	1359.60	1.50	482975	0.219	0.219				
1359.60	1361.80	2.20	482976	0.020	0.020				
1361.80	1363.30	1.50	482977	0.028	0.028				
		BLANK	*482978*	*0.001*	*0.001*				
1363.30	1365.10	1.80	482979	0.066	0.066				

Zone

From	To	Description
1369.00	1383.50	Moderate Alt Moderate hem tr-1% fg-mg py Weak sil No structures.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1369.00	1370.30	1.30	482980	0.031	0.031				
1370.30	1372.00	1.70	482981	0.077	0.077				
1372.00	1373.50	1.50	482982	0.088	0.088				
1373.50	1375.70	2.20	482983	0.034	0.034				
1375.70	1377.40	1.70	482984	0.057	0.057	0.056			
1377.40	1379.60	2.20	482985	0.049	0.049				
1379.60	1381.70	2.10	482986	0.004	0.004				
1381.70	1383.50	1.80	482987	0.070	0.070				

.005/14.5

Zone

From	To	Description
1383.50	1384.50	fresh P/C contact.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1383.50	1384.50	1.00	482988	0.033	0.033				

thology

From	To	Description
384.00	1442.20	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Gradational U/C.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Zone

From	To	Description
1394.40	1399.50	Weak Alt @ 74 Weak ser Weak chl Weak crb Structures as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1394.40	1396.50	2.10	482989	0.002	0.002				

Structure

From	To	Description
1394.65	1394.75	Moderate 1" G @ 74 CrbV Moderate chl Weakly to moderately gouged, bullish carb vein. Barren.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1396.50	1399.50	3.00	482990	0.002	0.002				

Structure

From	To	Description
1398.70	1398.90	Weak 2" Shr @ 72 Moderate crb Weak ser Weakly sheared & ser'd conglomerate w/ some bullish carb present.

Zone

From	To	Description
1441.70	1444.70	fresh Multiple P/C contacts.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1441.70	1444.70	3.00	482991	0.001	0.001				

ithology

From	To	Description
1442.20	1443.90	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Upper contact dipping 71 Deg. To CA
1443.90	1485.10	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Gradational U/C.

Zone

From	To	Description
1474.50	1475.50	Weak sil tr fg cpy Weak hem QV as noted.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1474.50	1475.50	1.00	482992	0.006	0.006				

Structure

From	To	Description
1474.65	1474.80	Moderate 1/2" QV @ 24 Moderate hem 1-2% fg cpy Grey qtz vein w/ a moderately hem'd alt'd halo.

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1484.60	1485.60	1.00	482993	0.014	0.014				
1504.30	1505.30	1.00	482994	0.004	0.003	0.004			
1524.70	1525.70	1.00	482995	0.002	0.002				
1538.50	1539.50	1.00	482996	0.003	0.003				

Zone

From	To	Description
1484.60	1485.60	fresh C/P contact.

Lithology

From	To	Description
1485.10	1504.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. Gradational U/C.

Zone

From	To	Description
1504.30	1505.30	fresh P/C contact.

Lithology

From	To	Description
1504.70	1525.20	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. Gradational U/C.

Zone

From	To	Description
1524.70	1525.70	fresh C/P contact.

Lithology

From	To	Description
1525.20	1539.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. A hybrid of type I, type II porphyry & conglomerate. U/C ~ sub-parallel TCA. Upper contact dipping 0 Deg. To CA

Zone

From	To	Description
1538.50	1539.50	fresh P/C contact.

Lithology

From	To	Description
1539.00	1600.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. U/C along a chl slip. Upper contact dipping 50 Deg. To CA

Structure

From	To	Description

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1539.00	1539.01	Moderate	slp	@ 50					

Zone From	To	Description
1600.00	1600.00	

EOH. Hole ends in fresh conglomerate.

EOH : 1600.000
Total # of samples : 85
Total footage sampled : 155.70

PROFESSIONAL GEOSCIENTIST
SEAN BRADLEY FARRELL
PRACTISING MEMBER
2161
ONTARIO

Nov. 19/2015

KIRKLAND LAKE GOLD INC.

Diamond Drill Log Report

Nov 16, 2015

Hole Name: AB-15-36

Engineering Coordinates

Easting: 16381.298
Northing: 11700.176
Elevation: -10.017

Geology Grid

Section: 2241.504
Northing: -3862.321
Level: Surface

Date Logged: 5/15/2015
Logged by: J. Johnson
Units: Feet

Azimuth: 327.000
Dip: -70.00
EOH: 1538.000

Drilled By: Cabo Drilling Corp.
Drill: Maxi 1640
Size: BQ

Location: Amalgamated Break
Zone:
Surveyed By: LEICA

Township: Teck Township
Claim #: CLM 328 Lease 109285

Drilling Starts: 4/26/2015 1:04:44 PM
Drilling Ends: 4/30/2015 1:04:44 PM

Downhole Survey Tests:

Depth	*Azimuth*	*Dip*	*Type*	*Magnetic*
50.00	329.30	-69.80	R	56465
200.00	326.00	-69.80	R	56057
406.00	324.10	-69.40	R	54740
600.00	326.90	-68.80	R	54622
800.00	326.10	-68.60	R	55845
1000.00	330.00	-68.40	R	57141
1207.00	321.10	-68.90	R	55852
1400.00	321.10	-68.60	R	55061
1534.00	323.00	-68.00	R	54981

Comments:

TA @ 1050-1200, 1300. Box 11 dropped; mixed core. Cored stored at the Macassa Mine.

ithology

From	To	Description
0.00	28.00	Overburden/Casing
28.00	50.00	MUDSTONE: med green, vfg-fg'd; well bedded; locally ser'd
50.00	77.70	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. gradational u/c
77.70	172.50	DIABASE: Dark grey to dark green, massive, fg-mg textd; chilled contacts. sharp irreg u/c
172.50	225.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. locally ser'd; irreg u/c

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
180.50	181.50	1.00	458393	0.001	0.001				

Structure

From	To	Description				
181.00	181.10		1/4"	CrbV	@ 65	
			tr	fg-mg		py
		white with local py				

Zone

From	To	Description	
202.70	224.00	Moderate	Alt
		Moderate	ser
		Ser'd alteration zone; 50 DTCA foliation due to ser alt; local crb strgs and weak chl'd slips	

Structure

From	To	Description				
225.10	225.30		1/4"	Flt	@ 33	G
		Strong	chl			
		muddy, poorly consolidated flt gouge; highly chl'd				

Zone

From	To	Description				
225.40	226.70					
		Moderate	bl	tr	fg	py
		G-P contact; light brown colour				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
225.40	226.70	1.30	458394	0.001	0.001				

ithology

From	To	Description
225.50	234.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp irreg u/c

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
233.50	234.50	1.00	458395	0.004	0.004				

ithology

From	To	Description
234.00	287.00	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky Basic syenite; sharp irreg u/c; local greywacke lensing

Zone

From	To	Description				
238.00	239.00					
		Weak	bl	1-2%	mg-cg	py

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
238.00	239.00	1.00	458396	0.004	0.004	0.004			
263.00	265.00	2.00	458397	0.011	0.011				
286.50	287.50	1.00	458398	0.003	0.003				
314.00	315.00	1.00	458399	0.001	0.001				
335.70	336.70	1.00	458400	0.003	0.003				

locally alt'd with irreg crb strgs and local py

Zone

From	To	Description
263.00	265.00	

2-3% mg-cg py
1-2% mg cpy
irreg white crb strgs with local semi-massive py and cpy

Zone

From	To	Description
286.50	287.50	

funky syenite and Porphyry contact

ithology

rom	To	Description
287.00	314.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp irreg u/c

Zone

From	To	Description
314.00	315.00	

Weak ser tr mg py
wkly alt'd P-Funky syenite contact

ithology

rom	To	Description
314.70	343.10	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky syenite; sharp irreg u/c

Structure

From	To	Description
336.20	336.40	1" QV @ 52 2-3% fg py

med grey, splayed qtz vein with local py

ithology

rom	To	Description
43.10	345.70	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp irreg u/c
45.70	373.80	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. sharp u/c

Structure

From	To	Description
373.50	374.00	1" Flt @ 16 Strong chl

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
424.30	425.30	1.00	458401	0.003	0.003				
481.00	482.00	1.00	458402	0.003	0.003				
544.50	547.50	3.00	458403	0.006	0.006				

chl'd fault marking L-P contact

ithology

rom	To	Description
373.80	389.60	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp u/c marked by chl'd fault Upper contact dipping 16 Deg. To CA
389.60	429.40	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky syenite; irreg u/c

Structure

From	To	Description			
424.60	425.10	1"	QCrbV	@ 26	
		1-2%	mg-cg		py

grey, bx'd vein with local py

'thology

'om	To	Description
429.40	452.10	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. irreg u/c
452.10	528.60	BASIC SYENITE: Dark grey to dark green, massive, mg-cg textd syenite; euhedral augites; minor felsic ribbing. Funky syenite; gradational u/c

Structure

From	To	Description			
481.20	481.40	1/4"	QV	@ 30	
		tr-1%	fg		py

white to light grey, splayed qtz vein with local py

thology

'om	To	Description
528.60	546.20	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. reddish-brown, mg'd porphyry; local greywacke and funky syenite lensing; irreg u/c

Zone

From	To	Description
544.50	547.50	sample across P-G contact; contact is gradational and bx'd

thology

om	To	Description
546.20	574.50	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. fg-mg'd massive; med grey to green; irreg, bx'd and gradational u/c; local porphyry fragments throughout.

Zone

From	To	Description
574.00	575.00	G-P contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
574.00	575.00	1.00	458404	0.007	0.007				

Structure

From	To	Description				
574.20	574.60	Strong	1"	Flt	@ 30	G
		Moderate	chl			

muddy and sandy, poorly consoidated fault marking G-P contact

ithology

rom	To	Description
574.50	764.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp u/c marked by fault Upper contact dipping 30 Deg. To CA

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
736.00	737.00	1.00	458405	0.003	0.003				

Structure

From	To	Description				
736.30	736.80		4"	QFS	@ 56	
		Moderate	ser	2-3%	fg	py

med grey, splayed and bx'd qtz strgs with local ser and local py

Zone

From	To	Description
760.60	763.60	

check sample across porphyry with 40% irreg white, bullish crb strgs and veins

Structure

From	To	Description	
760.60	763.60	40-50%	CrbV

strong bullish crb floodign strgs and veins; wkly alt'd and locally bx'd

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
760.60	763.60	3.00	458406	0.001	0.001	0.001			

Zone

From	To	Description
763.60	765.10	

Strong	ser
Moderate	chl

P-G contact; locally strong ser and chl alt; strong fault at contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
763.60	765.10	1.50	458407	0.003	0.003				

ithology

rom	To	Description
764.00	884.00	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. sharp u/c marked by fault Upper contact dipping 56 Deg. To CA

Structure

From	To	Description				
764.10	764.80	Strong	4"	Flt	@ 56	
		Strong	chl			
		Strong	ser			

mod to well healed, chl'd and locally ser'd fault/shear; well foliated; locally blocky; 1" chl'd and bullish crb vein within

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
790.70	791.70	1.00	458408	0.002	0.002				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Structure

From	To	Description
791.30	791.40	1/2" Flt @ 59 tr fg py dark brown, tightly sheared, locally bx'd fault; ; mod'ly well healed

ithology

rom	To	Description
384.00	1003.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. gradational u/c; local greywacke

Zone

From	To	Description
999.00	1003.00	Moderate sil 1-2% fg-mg py samples across C-P contact; contact is gradational across interval; locally bx'd; py is local to contact

				999.00	1001.50	2.50	458409	0.035	0.035
				1001.50	1003.00	1.50	458410	0.008	0.008

ithology

rom	To	Description
003.00	1041.60	BI-MODAL PORPHYRY: Dark grey, massive, cg-vcg textd porphyry; mod-well developed mg-cg phenocrysts; vcg, well developed phenos; minor mafic xenoliths. brick red coloured; locally bi-modal; gradational and bx'd u/c from 1000.5' to 1003'.

Zone

From	To	Description
1003.00	1005.00	check sample

				1003.00	1005.00	2.00	458411	0.003	0.003

Zone

From	To	Description
1005.00	1006.00	Moderate chl Weak crb locally chl'd and crb alt'd at fault

				1005.00	1006.00	1.00	458412	0.013	0.013

Structure

From	To	Description
1005.50	1005.70	1" Flt @ 62 Moderate chl chl'd, bx'd and mod'ly well healed fault;
1027.50	1029.50	15-25% QFS light grey, bullish qtz veining

				1027.50	1029.50	2.00	458413	0.018	0.018

ithology

rom	To	Description
041.60	1244.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp u/c; looks almost like type-2; large biotites

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1238.00	1241.00	3.00	458414	0.006	0.006				
1241.00	1243.50	2.50	458415	0.027	0.027				

Zone

From	To	Description
1238.00	1243.50	Weak hem tr fg-mg py tr fg-mg cpy wkly alt'd check samples; local py and cpy in irreg crb strgs with chl'd contacts

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1243.50	1244.50	1.00	458416	0.030	0.029	0.030			

Zone

From	To	Description
1243.50	1244.50	Weak hem tr fg py P-G contact

Lithology

From	To	Description
1244.00	1254.60	GREYWACKE: Dark green to grey, massive to weakly bedded, mg sandy textd. local porphyry and trachyte bombs; local irreg crb strgs; sharp irreg u/c; looks like Tuff

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1244.50	1246.00	1.50	458417	0.016	0.016				
1246.00	1247.00	1.00	458418	0.454	0.648			0.644	0.256
		BLANK	*458419*	*0.001*	*0.001*				

Zone

From	To	Description
1244.50	1253.50	Weak hem tr-1% fg-mg py tr fg-mg cpy local irreg crb strgs with py and cpy; one sample has fg'd gold in the strgs; overall not very alt'd with local porphyry clasts

Structure

From	To	Description
1246.50	1246.51	1-2 specs vfg V.G. irreg grey crb strg with 1 fg'd speck of gold
1246.60	1246.80	1/16" CrbV @ 24 Moderate chl 2-5 specks vfg-fg V.G. 2-3% fg-mg cpy hairline crb strg with chl'd contacts; grey colour; splayed; local gold specks

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1247.00	1249.00	2.00	458420	0.017	0.017				
1249.00	1251.00	2.00	458421	0.011	0.011				
1251.00	1253.50	2.50	458422	0.020	0.020				

Zone

From	To	Description
1253.50	1255.00	G-P contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1253.50	1255.00	1.50	458423	0.024	0.024				

Lithology

From	To	Description

			From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
254.60	1266.50	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp irreg u/c										

Zone From	To	Description										
1255.00	1257.50	wkly alt'd check sample	1255.00	1257.50	2.50	458424	0.029	0.029				

Zone From	To	Description										
1264.50	1266.00	tr fg-mg py check sample; porphyry has 5% irreg white vuggy crb strgs	1264.50	1266.00	1.50	458425	0.002	0.002				

Zone From	To	Description										
1266.00	1267.50	Weak hem tr-1% fg-mg py tr-1% fg-mg cpy P-C contact; 5% irreg crb strgs with lcoal cpy and py	1266.00	1267.50	1.50	458426	0.045	0.044	0.045			

ithology rom	To	Description
266.50	1290.00	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. sharp irreg u/c

Zone From	To	Description										
1267.50	1270.50	check sample	1267.50	1270.50	3.00	458427	0.008	0.008				

Zone From	To	Description										
1289.50	1290.50	C-P contact	1289.50	1290.50	1.00	458428	0.007	0.007				

ithology rom	To	Description
290.00	1302.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp, bx'd u/c

Zone From	To	Description										
1300.20	1302.50	samples across P-C contact; took an extra sample in P to check bullish qtz-crb veining	1300.20	1301.50	1.30	458429	0.003	0.003	0.003			
			1301.50	1302.50	1.00	458430	0.003	0.003				

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

ithology

rom	To	Description
302.00	1308.60	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. sharp irreg u/c

Zone

From	To	Description
1308.00	1309.00	C-P contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1308.00	1309.00	1.00	458431	0.004	0.004				

ithology

rom	To	Description
308.60	1452.40	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. irreg u/c; large biotites; looks like type 2 and gradationally turns to normal porphyry

Structure

From	To	Description				
1385.20	1385.30		1/4"	Flt	@ 76	G
		Strong	chl			
		muddy fault gouge				

Zone

From	To	Description
1452.00	1453.00	P-C contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1452.00	1453.00	1.00	458432	0.003	0.003				

Structure

From	To	Description				
1452.30	1452.50		1/2"	Flt	@ 40	G
		Strong	chl			
		muddy, chl'd fault gouge marking P-C contact				

ithology

rom	To	Description
452.40	1501.60	CONGLOMERATE: Dark green, massive, polymictic conglomerate; pebble to cobble sized clasts; greywacke matrix. sharp u/c marked by strong chl fault gouge Upper contact dipping 40 Deg. To CA

Zone

From	To	Description
1501.00	1502.00	C-P contact

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5
1501.00	1502.00	1.00	458433	0.002	0.002				

thology

om	To	Description
501.60	1538.00	SYENITE PORPHYRY: Maroon grey, massive, mg-cg textd porphyry; mod-well developed phenocrysts; minor mafic xenoliths. sharp, irreg and bx'd u/c

From	To	Length	Sample #	Au Avg.	Au 1	Au 2	Au 3	Au 4	Au 5

Zone From	To	Description
1538.00	1538.00	EOH

EOH : 1538.000
Total # of samples : 41
Total footage sampled : 62.60



Nov 19, 2015

DRILL HOLE SECTION AB-15-36
SECTION LOOKING 057°

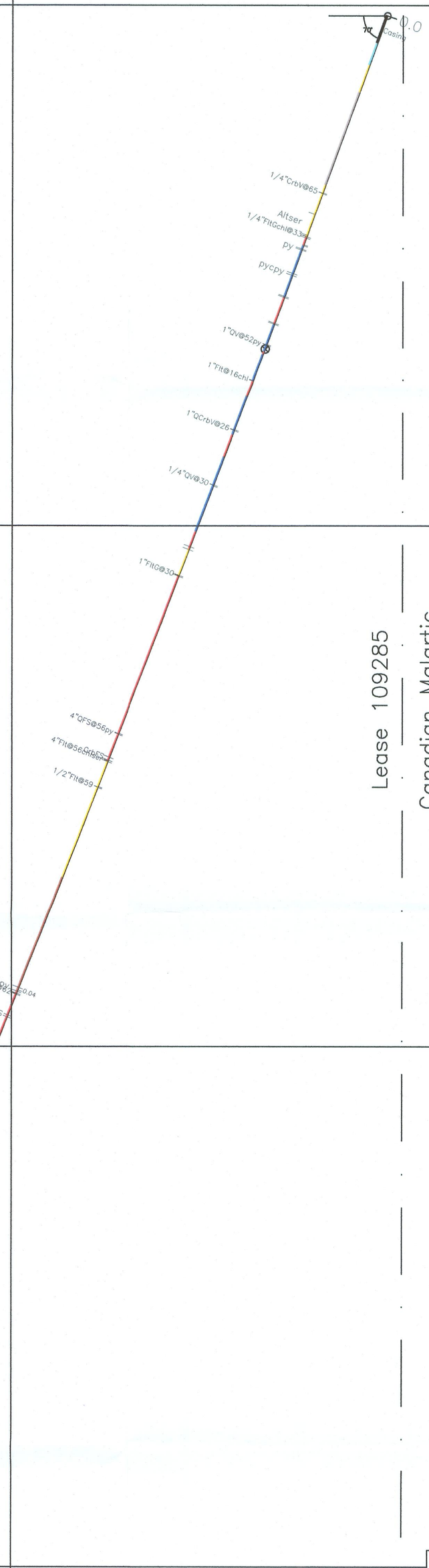
3000 | 3500 | 4000

0 ELEV

−500 ELEV

−1000 ELEV

−1500 ELEV



Lease 109285

Canadian Malartic

OVERBURDEN

TIMISKAMING SERIES
- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES
- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY
- DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alterartion Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite
Slp	Slip

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT

DRILL HOLE SECTION AB-15-36

SECTION LOOKING 057°

TECK TOWNSHIP

DISTRICT OF TIMISKAMING, ONT.

50 0 50 100 150 200 Feet

SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 4					

3000 | 3500

3000 | 3500 | 4000 | 4500

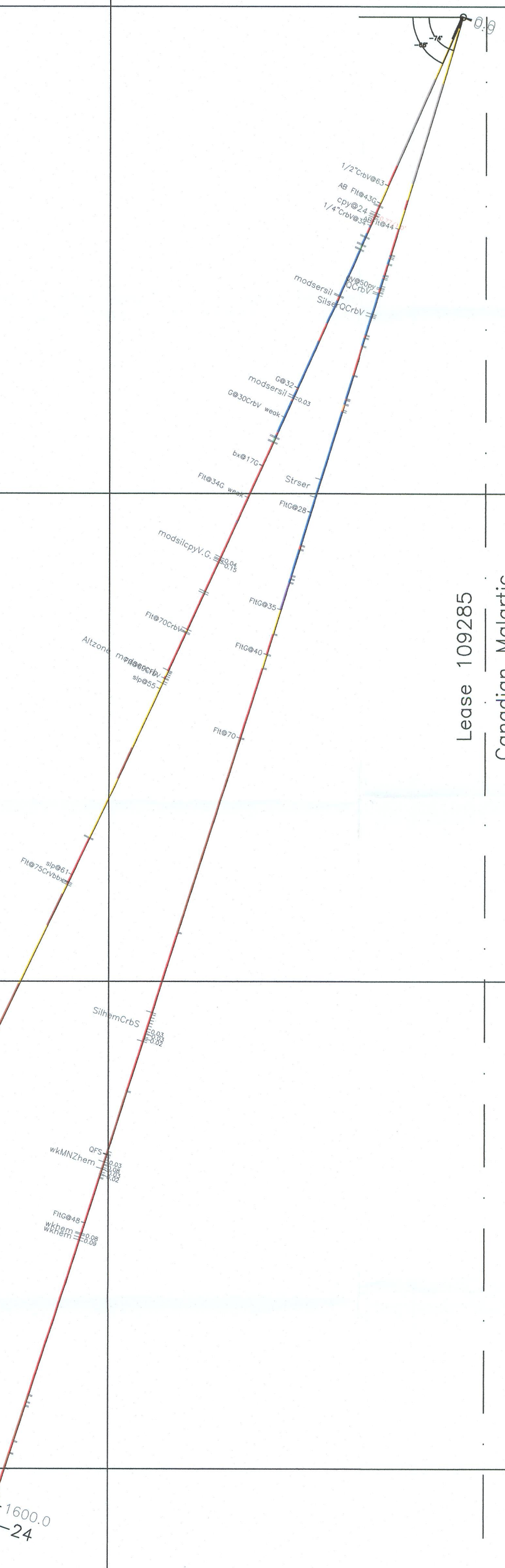
DRILL HOLE SECTION AB-15-24/AB-15-25
SECTION LOOKING 057°

0 ELEV

−500 ELEV

−1000 ELEV

−1500 ELEV



Lease 109285

Canadian Malartic

OVERBURDEN

TIMISKAMING SERIES

- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES

- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY
- DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alterartion Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite
Slp	Slip

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT

DRILL HOLE SECTION AB-15-24/AB-15-25

SECTION LOOKING 057°

TECK TOWNSHIP

DISTRICT OF TIMISKAMING, ONT.

50 0 50 100 150 200 Feet

SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 5					

3000 ELEV

DRILL HOLE SECTION AB-15-34/AB-15-18
SECTION LOOKING 057°

3500

4000

4500

0 ELEV

-500 ELEV

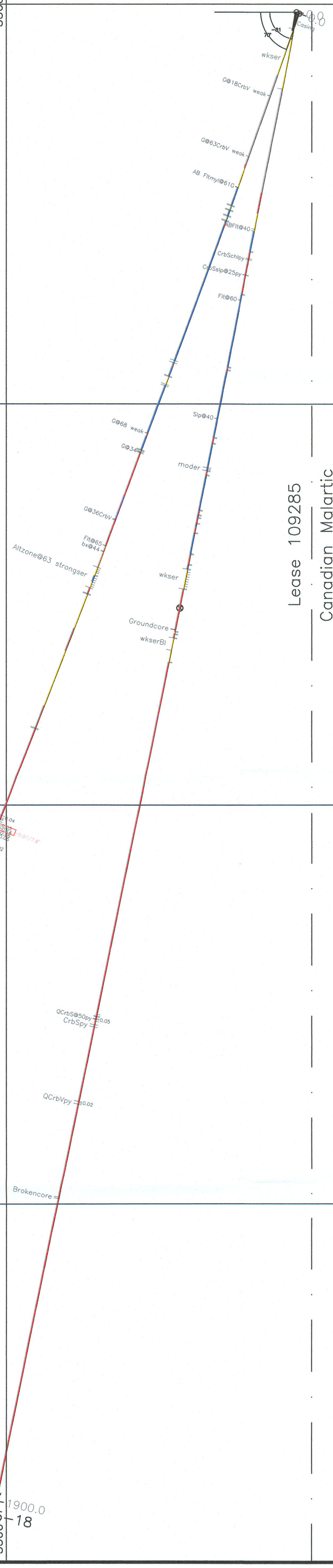
-1000 ELEV

-1500 ELEV

3000

3500

4000



Lease 109285

Canadian Malartic

OVERBURDEN

TIMISKAMING SERIES

- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES

- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY
- DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alterartion Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite
Slp	Slip

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT

DRILL HOLE SECTION AB-15-03/AB-15-18

SECTION LOOKING 057°

TECK TOWNSHIP

DISTRICT OF TIMISKAMING, ONT.

50 0 50 100 150 200 Feet

SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 7					

DRILL HOLE SECTION AB-14-169
SECTION LOOKING 057°

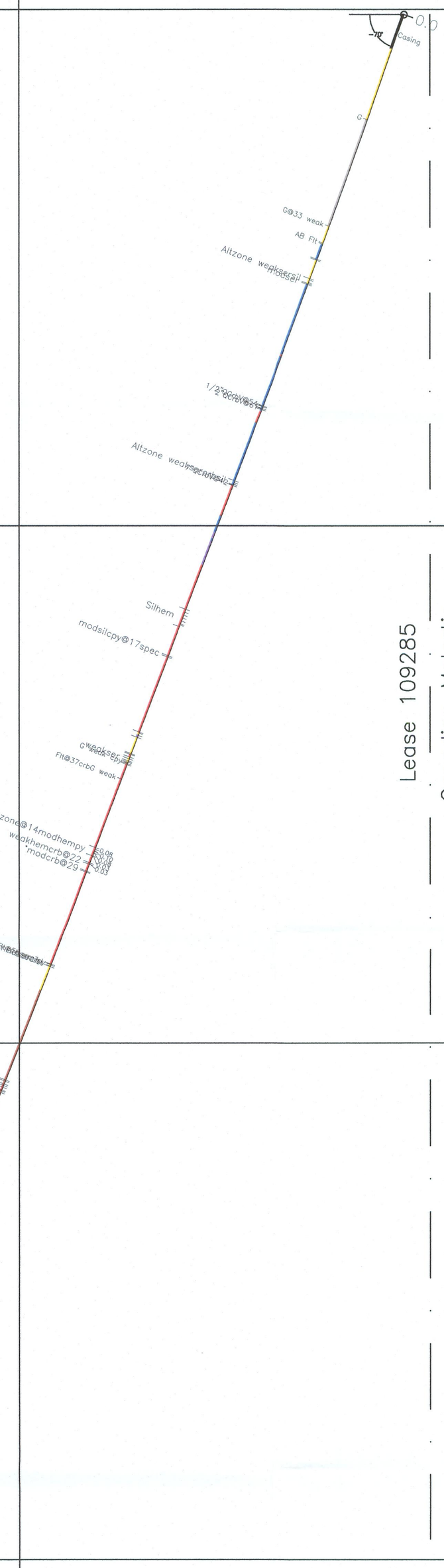
3000 | 3500 | 4000 | 4500

0 ELEV

−500 ELEV

−1000 ELEV

−1500 ELEV



Lease 109285

Canadian Malartic

OVERBURDEN

TIMISKAMING SERIES

- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES

- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY

DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alterartion Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite
Slp	Slip

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT

DRILL HOLE SECTION AB-14-169

SECTION LOOKING 057°

TECK TOWNSHIP

DISTRICT OF TIMISKAMING, ONT.

50 0 50 100 150 200 Feet

SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 8					

3500

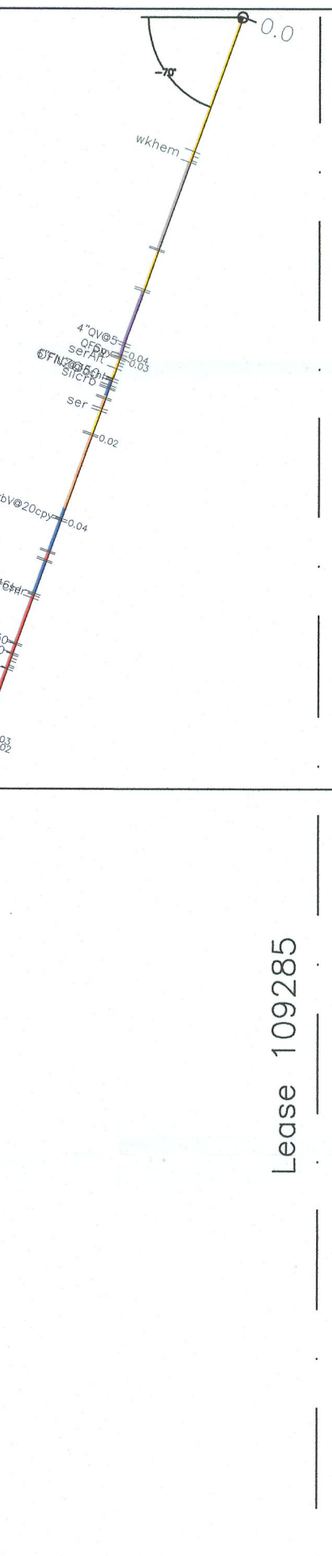
4000

4500

DRILL HOLE SECTION AB-14-101
SECTION LOOKING 057°

0 ELEV

0 ELEV



Lease 109285

Canadian Malartic

-500 ELEV

-500 ELEV

-1000 ELEV

-1000 ELEV

-1500 ELEV

OVERBURDEN

TIMISKAMING SERIES

- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES

- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY
- DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alterartion Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite
Slp	Slip

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT

DRILL HOLE SECTION AB-14-101

SECTION LOOKING 057°

TECK TOWNSHIP

DISTRICT OF TIMISKAMING, ONT.

50 0 50 100 150 200 Feet

SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 10					

3500

4000

3500 | 4000 | 4500

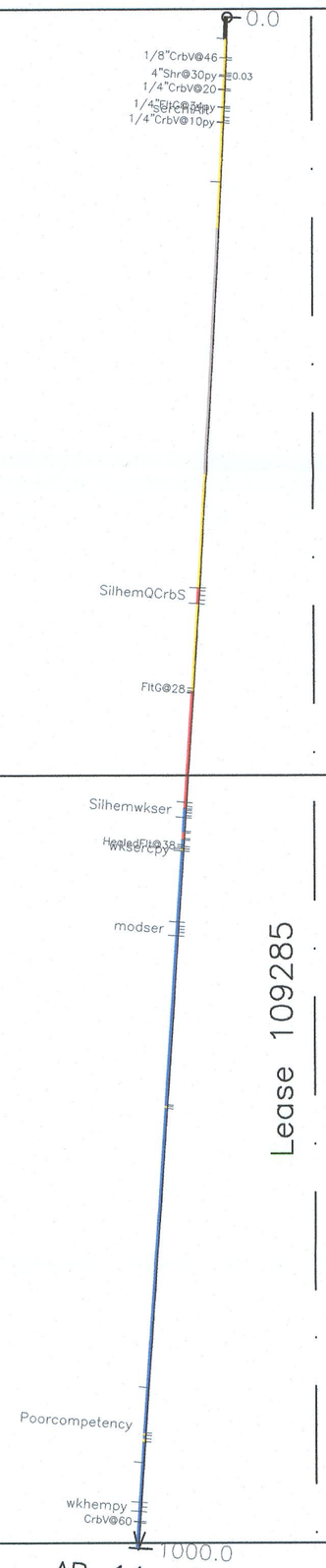
DRILL HOLE SECTION AB-14-164
SECTION LOOKING 057°

0 ELEV

−500 ELEV

−1000 ELEV

−1500 ELEV



OVERBURDEN

TIMISKAMING SERIES

- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES

- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY
- DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alterartion Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite
Slp	Slip

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT

DRILL HOLE SECTION AB-14-164

SECTION LOOKING 057°

TECK TOWNSHIP

DISTRICT OF TIMISKAMING, ONT.

50 0 50 100 150 200 Feet

SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 11					

3500 | 4000

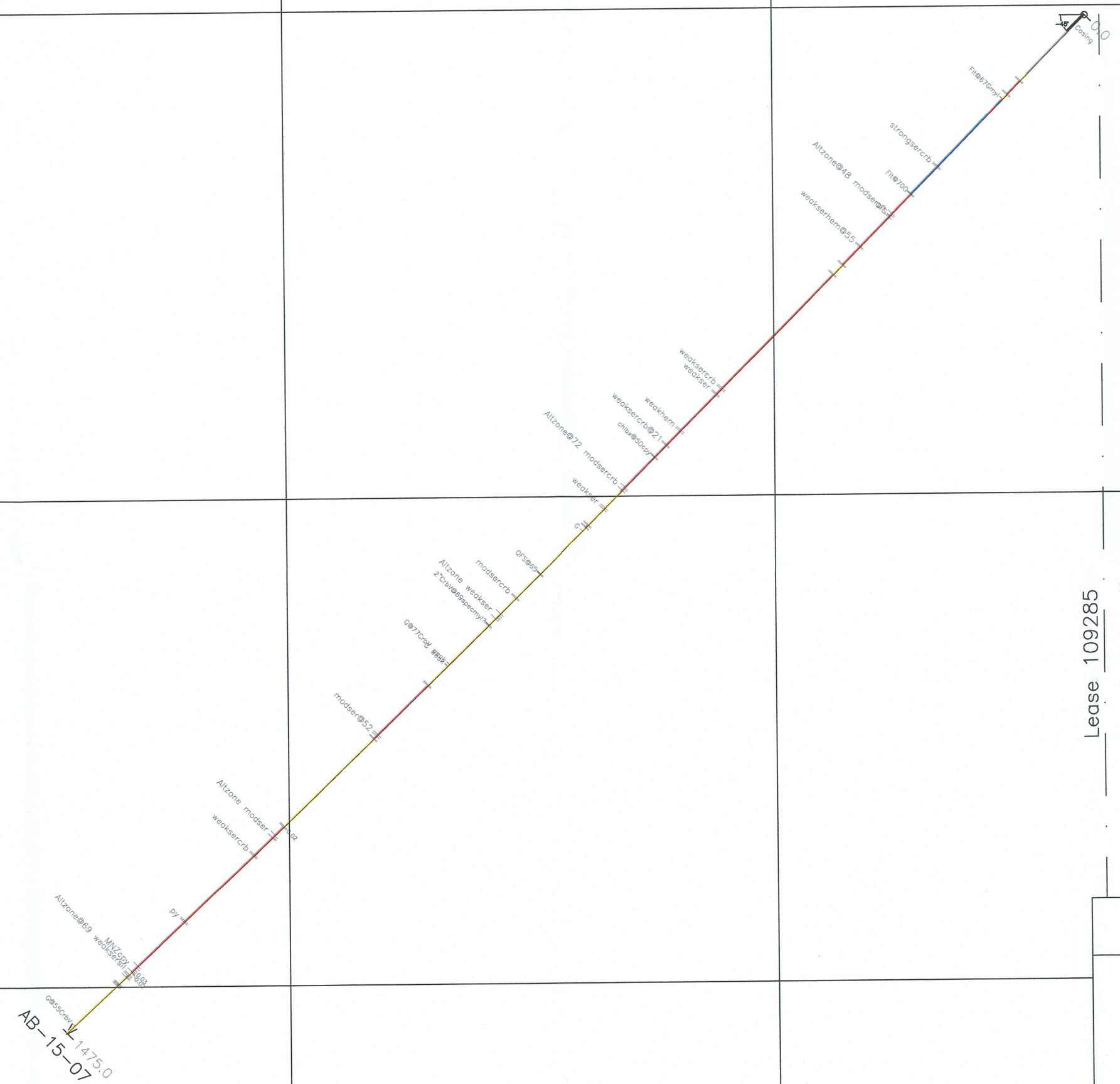
DRILL HOLE SECTION AB-15-07
SECTION LOOKING 057°

2500 3000 3500 4000

0 ELEV

−500 ELEV

−1000 ELEV



Lease 109285
Canadian Malartic

OVERBURDEN

TIMISKAMING SERIES
- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES
- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY
- DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alteration Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT
DRILL HOLE SECTION AB-15-07
SECTION LOOKING 057°
TECK TOWNSHIP
DISTRICT OF TIMISKAMING, ONT.

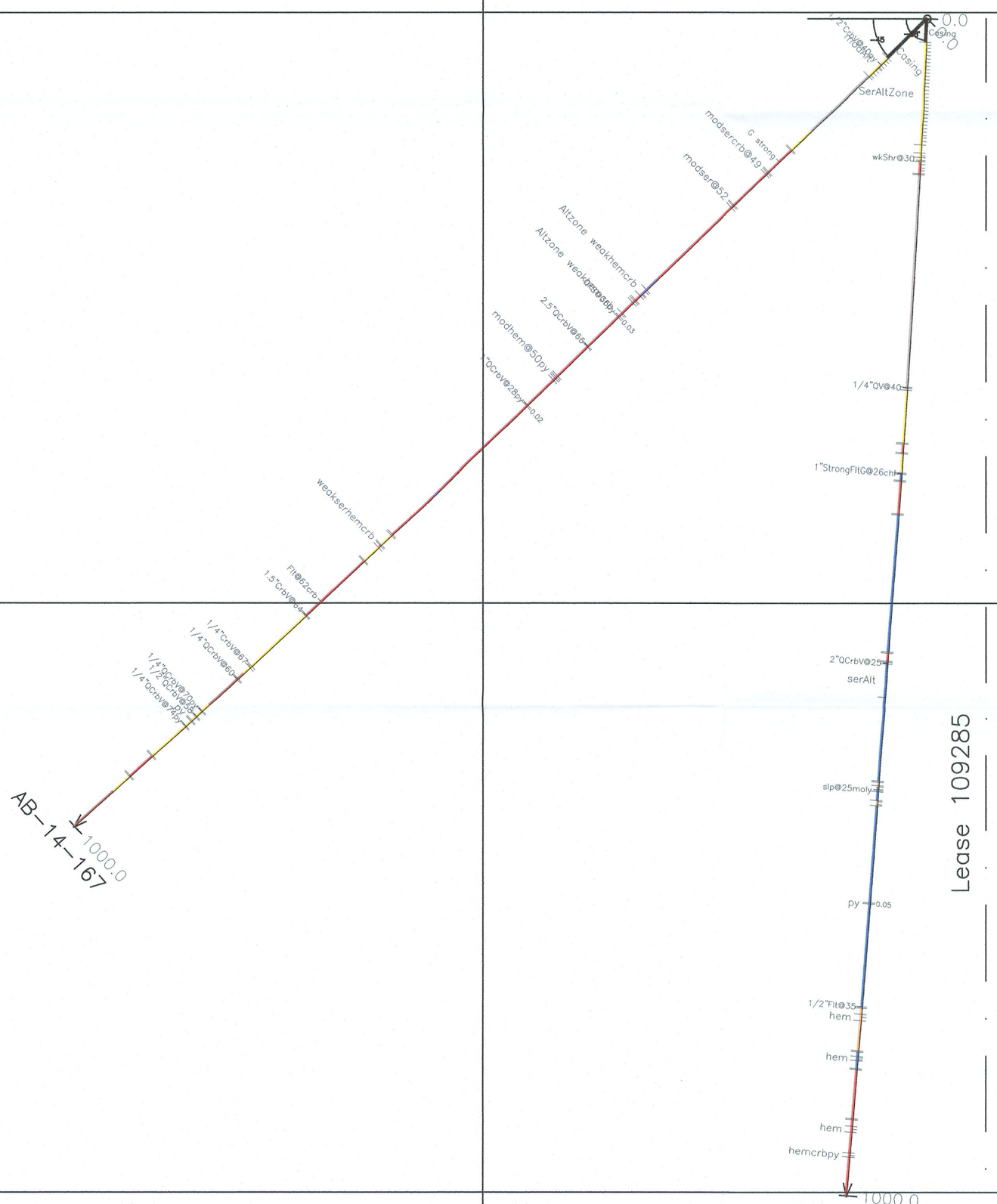
50 0 50 100 150 200 Feet
SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 2					

3000 | 3500 | 4000 | 4500

DRILL HOLE SECTION AB-14-166/AB-14-167
SECTION LOOKING 057°

0 ELEV



Lease 109285

Canadian Malartic

0 ELEV

-500 ELEV

-1000 ELEV

-1500 ELEV

OVERBURDEN

TIMISKAMING SERIES
- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES
- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY
- DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alterartion Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite
Slp	Slip

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT

DRILL HOLE SECTION AB-14-166/AB-14-167

SECTION LOOKING 057°

TECK TOWNSHIP

DISTRICT OF TIMISKAMING, ONT.

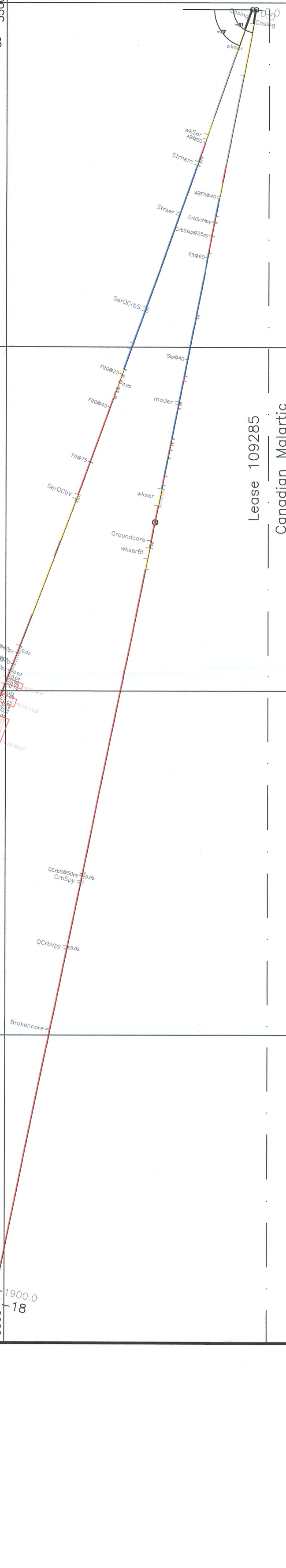
50 0 50 100 150 200 Feet

SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 9					

3000 | 3500 | 4000

DRILL HOLE SECTION AB-15-03/AB-15-18
SECTION LOOKING 057°



0 ELEV
-500 ELEV
-1000 ELEV
-1500 ELEV
3000
3500
4000
4500

OVERBURDEN

TIMISKAMING SERIES
- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES
- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY

DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alterartion Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite
Slp	Slip

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT

DRILL HOLE SECTION AB-15-03/AB-15-18

SECTION LOOKING 057°

TECK TOWNSHIP

DISTRICT OF TIMISKAMING, ONT.

50 0 50 100 150 200 Feet

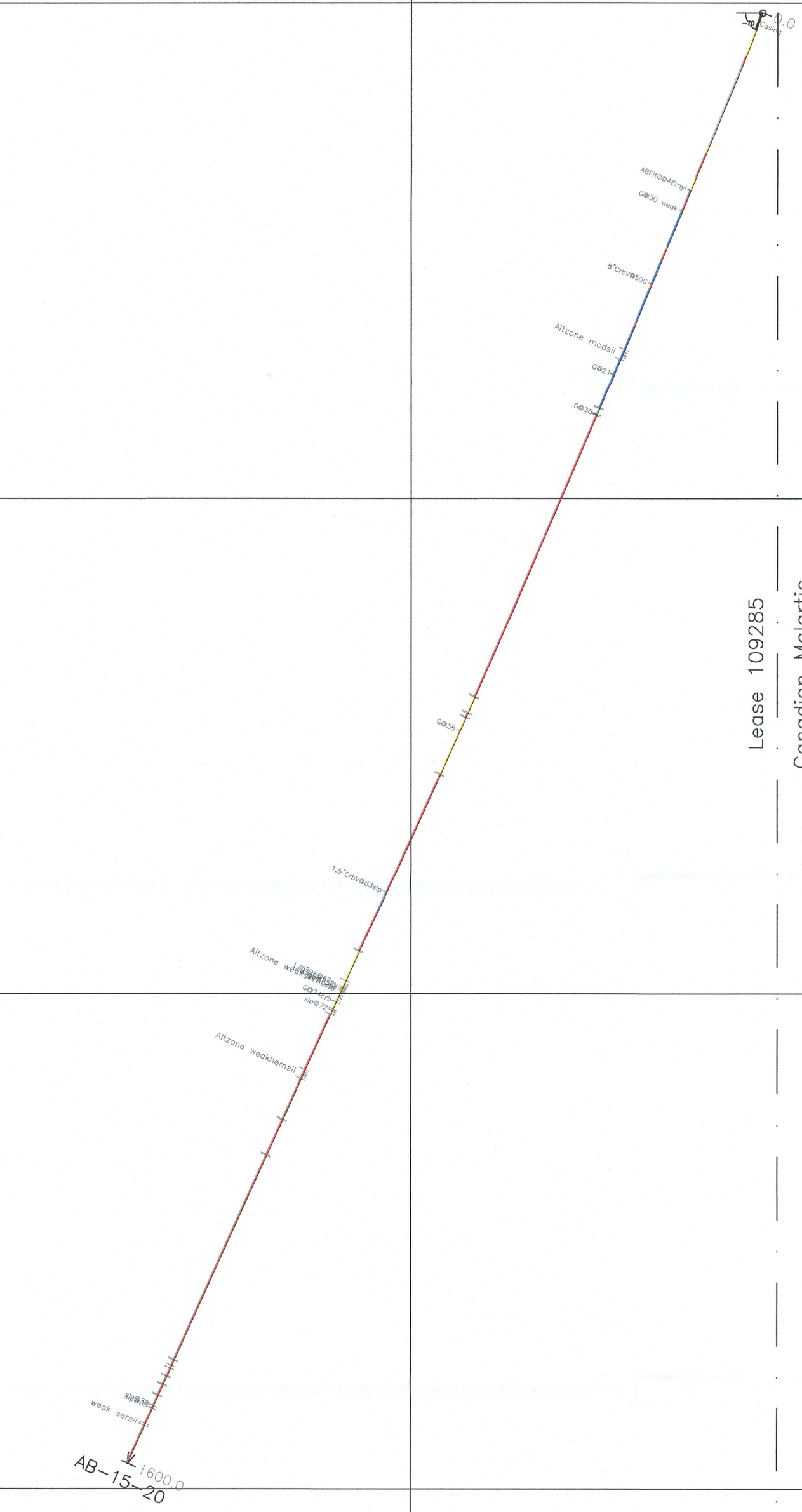
SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 6					

DRILL HOLE SECTION AB-15-20
SECTION LOOKING 057°

3000 | 3500 | 4000 | 4500

0 ELEV



Lease 109285
Canadian Malartic

-500 ELEV

-1000 ELEV

-1500 ELEV

OVERBURDEN

TIMISKAMING SERIES
- MUDSTONE
- CONGLOMERATE
- GREYWACKE
- TUFF
- TRACHYTE

INTRUSIVES
- BASIC SYENITE
- FELSIC SYENITE
- SYENITE
- PORPHYRY/BI-MODAL PORPHYRY
- DIABASE

ALL ASSAYS REPORTED IN OZ/TON/FEET

Ser	Sericite
Hem	Hematite
Alt Zone	Alterartion Zone
MNZ	Mineralized Zone
CrbV	Carbonate Vein
QV	Quartz Vein
QS	Quartz Stringer
Myl	Mylonitic Shear Zone
Flt	Fault
QFS	Quartz Flooding
QCrbV	Quartz/Carbonate Vein
Py	Pyrite
VG	Visible Gold
CPy	Chalcopyrite
Bx	Brecciated
Chl	Chlorite
Slp	Slip

KIRKLAND LAKE GOLD INC.

AMALGAMATED PROJECT
DRILL HOLE SECTION AB-15-20
SECTION LOOKING 057°
TECK TOWNSHIP
DISTRICT OF TIMISKAMING, ONT.

50 0 50 100 150 200 Feet
SCALE 1"=100 FEET

DATE: DEC. 2015	DRAWN BY: S.J.C.				
DRAWING: 3					

TITLE:

DRILL HOLE LOCATION PLAN

LEASE 109285
TECK TOWNSHIP, DISTRICT OF TIMISKAMING

KIRKLAND LAKE GOLD INC.

REVISIONS:			
No.	Description of Revision	Date	By
0			

APPROVALS:		
DISCIPLINE	APPROVALS & DATE	
Foreman:		
Geology:		
Geophysics:		
Drill Cntrc:		
Engineer:		

SCALE 1"=50 FEET

50 0 50 100 150 200

LEGEND

- Overburden
- Bi-Modal Porphyry
- Conglomerate
- Diabase
- Felsic Syenite
- Greywacke
- Basic Syenite
- Mudstone
- Porphyry
- Syenite
- Trachyte
- Tuff

N S E W

ARCHER DRIVE

NATURAL GAS LINE

LEASE 109285

LEASE 109285