

Ministry of Energy & Mines Energy & Minerals Division Geological Survey Branch



ASSESSMENT REPORT TITLE PAGE AND SUMMARY

AUTHOR(S) RICHARO MANN, AORIAN NEWTON SIGNATURE(S) RICHARO MANNE (S)/DATE(S) SMI-2005-1650328-0509 M STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 4061153 PROPERTY NAME FALL CLAIM NAME(S) (on which work was done) K15 - 46, K15 - 4f,	<u>Аг 9,2005</u> YEAR OF WORK <u>2005</u> - Dec 27,2005 KIS-4C
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) $SM1-2005-/650328-0509$ M STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 4061153 PROPERTY NAME <u>FALL</u> CLAIM NAME(S) (on which work was done) $H15 - 46$, $K15 - 4f$, CLAIM NAME(S) (on which work was done) $H15 - 46$, $K15 - 4f$, COMMODITIES SOUGHT <u>GOLO</u> MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN <u>104K046</u> , <u>104K067</u> ,	<u>нт 9,2005</u> YEAR OF WORK <u>2005</u> - Dec 27,2005 K15-4C
CLAIM NAME FALL CLAIM NAME(S) (on which work was done) K15 - 46, K15 - 4f, COMMODITIES SOUGHT GOLD MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN 104K046, 104K067,	k15-4c
COMMODITIES SOUGHT GOLD MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN 104K046, 104K067,	
COMMODITIES SOUGHT GOLD MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN 104K046, 104K067,	
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN 104K046, 104K067	
	104K111
MINING DIVISION ATLIN NTS 104K 15	E
LATITUDE 058 0 55 00 LONGITUDE (32 0 40	, OO (at centre of work)
OWNER(S)	
1) BARRICK GOLD INC 2) RIMFIRE	MINERALS CORPORATION
MAILING ADDRESS	8
PO Box 11120, SUITE700, 1055 W. GEORGIA ST 700-700	WEST PENDER STREET
VANCOUVER BC VGE 3P3 VANCOUVE	R, BC V6C168
OPERATOR(S) [who paid for the work]	
1) BARRICK GOLD INC 2)	
MAILING ADDRESS	
PO BOX 11120, SUITE TOO, 1055 W. GEORGIA ST	
VANCOUVER BC VGE 3P3	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralizati	on, size and attitude):
LABERGE GROUP, INKLIN FORMATION, SLOKO GROUP, SLOK	O-HYDER PLUTONIC SUITE,
NAHLIN FAULT, WATERFALL, KAOLINITE, ILLITE	CLAY SUBAERIAL VOLCANE
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS.	10701, 12797

TYPE OF WORK IN	EXTENT OF WORK		PROJECT COSTS
THIS REPORT GEOLOGICAL	(IN METRIC UNITS)	ON WHICH CLAIMS	APPORTIONED
GEOCHEMICAL			(incl. support)
GEOLOGICAL (scale, area)	2	line und	\$-125.15
Ground, mapping (1.20,000;	2.5 Km	R15-42	2,655.65
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	82.0		
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL			
(number of samples analysed for)			
Soil			
Silt			4
Rock 29		H15-4C, H15-45 K15-46	\$ 2,635.65
Other			
DRILLING			
(total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			4
PROSPECTING (scale, area) 1:20000	6 hm	K15-4 c, K15-45, K15-46	2,635,64
PREPARATORY/PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric			
(scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			đ
		TOTAL COS	7 906.94

2005 GEOLOGICAL and GEOCHEMICAL REPORT ON THE FALL PROPERTY VOLUME 1 (Text, Appendices, and Map)

Located in the Sutlahine River Area, Atlin Mining Division British Columbia, Canada

NTS: 104K-15E

058° 55' North Latitude 132° 40' West Longitude

Owned By:

Barrick Gold Incorporated & Rimfire Minerals Corporation

Work Performed By:

Barrick Gold Inc Suite 700, 1055 West Georgia Street P.O. Box 11120 Vancouver, BC V6E 3P3

Submitted by

Richard K. Mann, B.Sc Adrian C. Newton, B.Sc

February 15, 2006

EXECUTIVE SUMMARY

The Fall property consists of eight claims in the northern part of the Kizmet project area, a joint venture between Barrick Gold Inc. and Rimfire Minerals Corporation. The entire project covers an area approximately 90km long by 70km wide, and is located some 120km southeast of Atlin, British Columbia. The project covers a linear belt of Late Cretaceous igneous magmatic centres thought to be prospective for high sulphidation epithermal and other related styles of mineralization.

During the field season, one and a half days were spent on the Fall claim block. Geologic units in the area were verified and rocks were evaluated for alteration and potential to host mineralization. Out of 29 rock samples collected on the property; two samples returned anomalous values. Both anomalous samples were collected from clay altered undifferentiated felsic volcanics and gossanous sediments north of Yeth Creek. Alteration analysis of the collected samples with a Portable Infrared Mineral Analyzer (PIMA) yielded mildly encouraging results in the areas north of Yeth Creek where moderate argillic alteration minerals (kaolinite ± illite) were identified at higher elevations.

The source of the multi-element RGS anomaly that sparked interest in the property was not definitively located, although it likely that a small showing (Waterfall) is the source. New areas of moderate argillic alteration may be discovered in adjacent or nearby volcanic units of the Sloko Group with continued work, but based on current knowledge, little potential exists of finding a substantial deposit on the claims.

TABLE OF CONTENTS

<u>Page</u>

	EXECL	JTIVE SUMMARY1
	TABLE	OF CONTENTS2
1.0	INTRO	DUCTION5
2.0	LOCAT	TION, ACCESS & PHYSIOGRAPHY5
3.0	CLAIM	STATUS7
4.0	EXPLC	PRATION HISTORY9
5.0	2005 E	XPLORATION PROGRAM9
6.0	REGIO	NAL GEOLOGY10
7.0	PROPE	ERTY GEOLOGY13
	7.1 7.2	Geological Mapping15 Alteration and Mineralization16
8.0	DISCU	SSION17
9.0	RECO	MMENDATIONS18

LIST OF TABLES

<u>Page</u>

Table 1	List of Fall Mineral Titles7
Table 2	Exploration History9
Table 3	Significant Rock Sample Results17

LIST OF FIGURES

<u>Page</u>

Figure 1	Project Location Map6
Figure 2	Mineral Title Map8
Figure 3	Regional Geology Map12
Figure 4	View north towards scarps on the Fall Property14
Figure 5	Flow dome and feeder on the Fall Property16

LIST OF MAPS (In Map Pockets)

<u>Scale</u>

Map 1 Fall Property – Geology and Rock Samples 1:20,000

APPENDICES

APPENDIX I	Bibliography
APPENDIX II	Statement of Expenditures
APPENDIX III	Statements of Qualifications
APPENDIX IV	Analytical Procedures and Assay Certificates
APPENDIX V	Rock Sample Descriptions and Results
APPENDIX VI	Rock Code Descriptions
APPENDIX VII	Quality Assurance / Quality Control

1.0 INTRODUCTION

This report describes exploration work carried out on the Fall claim group, located approximately 95 kilometres southeast of the town of Atlin, in Northwest British Columbia (Figure 1). Within the Fall property, Barrick Gold Inc. completed reconnaissance style prospecting and sampling on June 21st, as well as follow up prospecting mapping on July 13th, 2005. Fieldwork focused on areas highlighted by a multi-element RGS stream sediment anomaly (22ppb Au, 0.5ppm Ag, 450ppm Zn, 50ppm Hg, 160ppm As) and late Cretaceous to Neogene subaerial volcanics.

2.0 LOCATION, ACCESS AND PHYSIOGRAPHY

The Fall claims lie in northwestern British Columbia, approximately 95km southeast of Atlin, 145km northwest of Telegraph Creek and 165km west of Dease Lake (Figure 1). The claims are located in British Columbia's Atlin Mining Division, centred at 58°55' north latitude and 132° 40' west longitude.

The Fall claim block lies on the northern edge of the Taku Plateau and is bound to the north by the Menatatuline Mountain Range. Streams from the local area drain into Yeth Creek before flowing into the Inklin River. Elevations range from 300m in the Yeth Creek valley to over 1800m in the mountains immediately north of the property. Exploration in 2005 focused between 300 and 1400m elevation.

The Fall claims can accessed by a combination of helicopter and float plane. Helicopter bases exist at Atlin and Dease Lake. King Salmon Lake, located 25km to the southeast of the Fall claim block is suitable for float equipped aircraft. An airstrip located at the Tulsequah Chief Mine (approximately 60km southwest of the claim block) provides access by plane on wheels. The Golden Bear Mine access road located 85 km to the southeast provides the closest road access.



Figure 1. Project location map.

Below tree line (~925m), the Fall claims are covered by mature hemlock, spruce and locally fir. Open patches of devil's club, tag alder and wildfire burn are common. Summer and winter temperatures are best described as moderate. Annual rainfall in the Fall claim region may exceed 200cm per year; precipitation commonly falls as several metres of snow at higher elevations. The ideal exploration season for the Fall claims extends from early June until late September.

3.0 CLAIM STATUS

The Fall Claims consists of 8 contiguous claims (listed in Table 1). The Fall claim block is approximately 8.3km long by 4.0km wide and covers an area of 32.75km² (3275 Ha) (Figure 2; Map 1).

In January 2005, Barrick Gold Inc. entered into a joint venture agreement with Rimfire Minerals Corporation that includes all mineral titles included in the Fall property, listed in Table 1. Work was carried out by Barrick Gold Inc.

Current government records indicate that these claims are in good standing until the respective expiry dates listed.

CLAIM NAME	TENURE NO.	DATE RECORDED	EXPIRY DATE	CLAIM STANDING
K15-4c	502136	2005/JAN/12	2006/JAN/12	GOOD
K15-4d	502152	2005/JAN/12	2006/JAN/12	GOOD
K15-4a	502164	2005/JAN/12	2006/JAN/12	GOOD
K15-4b	502183	2005/JAN/12	2006/JAN/12	GOOD
K15-4f	502220	2005/JAN/12	2006/JAN/12	GOOD
K15-4g	502237	2005/JAN/12	2006/JAN/12	GOOD
K15-4h	502258	2005/JAN/12	2006/JAN/12	GOOD
K15-4ee	502362	2005/JAN/12	2006/JAN/12	GOOD

Table 1: FALL – List of Fall Mineral Titles



Figure 2. Mineral Titles.

4.0 EXPLORATION HISTORY

The claim blocks comprising the Fall contain three Minfile occurrences Brief reconnaissance style work was carried out at these showings in 1982; only one sample returned anomalous assay values on the Goat Claims while three samples were anomalous on the Ho Claims (Table 2).

Owner/Historic Claim	CLAIMS	Geochemistry	Geophysical	Drilling Trenching	Author	REPORT No.	Expenditures
Chevron Standard	GOAT	Grab samples	NONE	NONE	Brown, D., Shannon, K.	10701	Undisclosed
Chevron Canada Resources	НО	Grab samples	NONE	NONE	Walton, G.	12797	Undisclosed

Table 2: FALL – Exploration History

5.0 2005 EXPLORATION PROGRAM

Geological field reconnaissance mapping and sampling was carried out by a 4 person crew on June 21st and July 13th. Expenditures are detailed in Appendix II.

Exploration in 2005 was based out of a camp at King Salmon Lake. Transportation to the property was carried out by a Hughes 500D helicopter, which was operated by Northern Air Support.

Reconnaissance style property sampling and minor mapping were conducted. 29 rock samples were collected. All samples collected were shipped to ALS Chemex Laboratories in Vancouver. Analyses requested consisted of ALS Lab Code Au-ICP21 (gold fire Assay by ICP-AES) and ALS Code ME-ICP41m (34 elements by aqua regia acid digestion and ICP-AES plus Hg (0.01-100 ppm) by cold vapour). ALS Chemex performs rigorous internal QAQC procedures including insertion and monitoring of standards, blanks and duplicates. Results reported here have passed the lab's internal QAQC standards. Geochemical analyses are listed in

Appendices IV and V. Geochemical results and methods have also undergone QAQC analysis performed by Barrick Gold Inc. and are reported in Appendix VII.

Mineral potential evaluation was carried out on the following claim blocks: 201361, 201551, 201081, 201241, 201921, 202301, 202091, and 203341. Prospecting was carried out on the following claim blocks: 201081, 201241, 201921 and 202301. Geochemical sampling was carried out on the following claim blocks: 201081, 201921, and 202301. Geological Mapping was carried out on the following claim blocks: 201801. Mapping was carried out at a scale of 1:20,000 and covered ~2.5 km². Prospecting covered ~ 6 km².

Software programs used in support of the exploration of the property and the preparation of the report are: ArcGIS V.9.0, Microsoft Word and Excel 2003, Adobe Acrobat 7.0, and AcQuire V3.7.7.

6.0 REGIONAL GEOLOGY

The region surrounding the Fall property is collectively underlain by the tectonostratigraphic terranes Stikinia and Cache Creek; Stikinia being the host terrane for the property. These terrains are predominantly composed of Paleozoic and Mesozoic volcanic arc assemblages and related sedimentary rocks that were accreted onto the western North American continental margin no later than early Middle Jurassic (Mihalynuk, 1999; Bacon, 1990; Hart, 1995; Simmons et al., 2005).

The arc assemblages within Stikinia (mainly the Carboniferous to Triassic Stikine assemblage and Upper Triassic Stuhini Group) are overlain by the Lower to Middle Jurassic Laberge Group clastic sedimentary sequence. The southwest verging movement of the King Salmon Thrust (Thorstad and Gabrielse, 1986) facilitated the emplacement of the Laberge Group and the foredeep clastics of the proto-Bowser Basin (Ricketts, et al., 1992; Mihalynuk, 1999). Laberge Basin sedimentation ceased by the latest Middle Jurassic, marking the beginning of a period of tectonic quiescence and a magmatic lull lasting approximately 50 million 2005 Geological and Geochemical 5 Report on the Fall Claims

years. Within the now adjacent Cache Creek Terrane, magmatism is represented by the intrusion of the Three Sisters Plutonic suite emplaced during the Middle Jurassic. Strike slip deformation dominated the tectonic regime of the Northern Cordillera by the Cretaceous Period and is responsible for the current configuration of the Stikine and Cache Creek Terranes which are separated by the regionally extensive Nahlin Fault. Magmatism resumed at 90Ma – 79Ma as the Windy Table Suite as defined by Simmons et al, (in press) and is accepted as a mineralizing event for high sulphidation epithermal and related styles of mineralization in the region. Magmatism again resumed at 58.5 - 53Ma (Mihalynuk, 1999) with the onset of the Sloko Magmatic Epoch consisting of intermediate to felsic magmatic rocks. This event is marked by erosional remnants of voluminous eruptions of volcanic rocks and coeval semi-circular granitic plutons.

A generalized regional geology map is included on the following page for reference purposes (Figure 3).



Figure 3. Regional Geology Overview.

7.0 PROPERTY GEOLOGY

The Fall claims are located across a significant terrane boundary near the northern edge of the Taku Plateau (Figure 3); one passes abruptly from rocks of the Laberge Group sediments (Inklin formation) in the south, to those of the Cache Creek Complex in the north as a result of the Nahlin Fault (Mihalynuk, 2003).

Souther (1971) describes the Cache Creek Complex in this area as Permian-aged peridotite and serpentine with small irregular bodies of gabbro and pyroxene diorite. Interfingered with this larger group are fine to medium-grained gabbros and pyroxene diorites. Further north of the Fall, Permian limestone and dolomitic limestone with minor chert, argillite, and sandy limestone are present and are included as part of the Cache Creek Complex.

The Nahlin Fault, with a traced distance of over 400km, has been interpreted by Souther (1971) to be a near vertical, crustal-scale feature responsible for the uplift of the Atlin Horst to the north. Along its length, the fault width and complexity vary greatly, but in the area near the Fall property, movement appears to have been restricted to a single fault plane composed of up to 15m of highly sheared and hydrothermally altered serpentinite (Souther, 1971). This portion of the fault zone was not observed by workers during the 2005 season. Regardless, the Nahlin Fault largely influenced the regional-scale folding that was taking place during the mid-Triassic and Upper Jurassic, making it one of the oldest structures in the region (Souther, 1971).

To the south of the Nahlin Fault, the sediments of the Inklin Formation (Laberge Group) dominate. The formation is composed of Lower and Middle Jurassic greywackes, siltstones, silty sandstones, pebbly mudstones, and limey pebble conglomerates (Souther, 1971). Thick-bedded greywackes typically dominate localities of the Fall property although some well-bedded mudstones were also observed.

Subsequent magmatic activity from the Late Cretaceous-Early Tertiary Sloko Plutonic Suite has resulted in the emplacement of several stocks on the Fall property. Accompanying these intrusive bodies are less extensive Sloko Group volcanics. Both volcanic tuffs and flows were observed in 2005 on steep exposures of the Fall property north of Yeth Creek.

Activity by glaciers in the Quaternary period has largely blanketed the area with between 5-10m of till; bedrock is generally only exposed in the steep scarp faces which pervade much of the property (Figure 4).



Figure 4. View looking approximately north at scarp faces present on much of the property.

7.1 Geological Mapping

The focus of the fieldwork carried out by Barrick Gold in 2005 was to conduct a prospecting style evaluation of the property to determine if further detailed work 2005 Geological and Geochemical 9 Report on the Fall Claims

was warranted. No detailed geologic mapping was carried out; rather, observations were made to verify the nature and extent of known or newly discovered geologic units on the property and determine the hosting potential for mineralization. This approach resulted in approximately 1:20:000-scale mapping which focussed on Late Cretaceous to Paleogene aged volcanics and their intrusive equivalents. Since most of the flat-lying terrain on the property was blanketed in till, work was carried out on several of the steep scarp faces.

Work carried out on the south side of Yeth Creek identified primarily greywackes of the Laberge Group with lesser pockets of well-bedded black mudstones. Minor intrusive rocks from the Sloko Plutonic Suite were also identified in outcrop in the form of dikes. One piece of float located in a creek on this part of the property was identified as a breccia, likely volcanic in origin.

On the north side of Yeth Creek, a 50-200m thick sequence of weakly to moderately clay altered volcanic tuffs and flows were located in scarp faces, unconformably overlying rusty sediments of the Laberge Group. A crosscutting volcanic feeder and dome were also identified on one of these scarp faces (Figure 5). Alteration of units in this area, later identified as kaolinite and illite, locally obscures many of the primary textures of the rocks.



Figure 5. Flow dome and feeder on the Fall property.

7.2 Alteration and Mineralization

Of the 29 rock samples collected on the Fall property, two returned significant results (Map 1, Table 3, Appendix V). Significant results were defined as >50 ppb Au, >2.5 ppm Ag, and >1000 ppm Pb, Zn, or Cu based on results from the larger Kizmet regional program. Sample KZ05R2063 contained blebs of pyrite and veinlets likely to be sphalerite. The host lithology was not identifiable due to alteration, but could be either a volcanic or sedimentary rock. This float sample was collected approximately 60m away from a known Minfile showing (104K067, Waterfall). Sample KZ05R3034 contained no visible mineralization, was weakly clay altered and was classified as a felsic volcanic.

Sample	Width	Au	Ag	Pb	Zn	Cu	As	Hg
Number	(cm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
KZ05R2063	FLOAT	0.0005	3.3	447	2040	45	959	0.32
KZ05R3034	GRAB	0.006	6.1	68	169	6	42	0.01

Table 3: FALL - Significant Rock Sample Results

The style of mineralization observed on the property consisted primarily of disseminated to blebby pyrite, both in sedimentary rocks on the south side of Yeth Creek and in undifferentiated felsic volcanics on the north side of Yeth Creek.

PIMA analysis results of samples collected on the south side of Yeth Creek were generally disappointing. All but two samples contained one or some combination of illite, chlorite, muscovite indicating only weak alteration in this part of the system (Map 1). PIMA results from samples collected on the north side of Yeth Creek were more encouraging, with most samples containing one or some combination of illite and kaolinite (Map 1). The samples with kaolinite were consistently located at higher elevations on the property, while those containing illite were typically located at lower elevations; this provides a sense of the alteration zonation of the system. The clay alteration may indicate that a significant event of hydrothermal activity took place in the area.

8.0 DISCUSSION

Although limited work was conducted on the Fall claims during the 2005 field season, the prospecting style of work indicates that there are no significant zones of mineralization. Moderate argillic alteration of Sloko Group volcanics north of Yeth Creek is encouraging and is indicative of a significant hydrothermal event. There does not seem to have been any significant mineralization accompanying this alteration event. The definitive source for the RGS stream sediment anomaly was not identified during fieldwork in 2005. A small (<3m X 6m) gossanous vein showing, known as the Waterfall which is located upstream of the RGS sample, may be the source for the anomaly. This showing does not appear to extend more than a few metres in any direction. Although favourable geologic units with

moderate argillic alteration were encountered on the north side of Yeth Creek, their extents and apparent lack of mineralization indicate there is little potential to host a significant epithermal deposit.

9.0 **RECOMMENDATIONS**

The steep topography of the exposures and the till which covers much of the property would make it difficult to significantly expand on the knowledge gained from work this year. New areas of moderate argillic alteration may be discovered in adjacent or nearby volcanic units of the Sloko Group, but based on current knowledge, little potential exists of finding a substantial deposit on the claims. Based on poor overall assay results, no further work is recommended for the Fall property at this time.

APPENDIX I

BIBLIOGRAPHY

Bibliography

- Bacon, C.R., Foster, H.L. and Smith, J.G. (1990): Rhyolitic Calderas of the Yukon-Tanana Terrane, East Central Alaska: Volcanic Remnants of a Mid-Cretaceous Magmatic Arc; Journal of Geophysical Research, Volume 95, Number B13, pages 21,451-21,461.
- Brown, D., Shannon, K. (1982): Assessment report on the Goat Claims. British Columbia Ministry of Energy and Mines Assessment Report # 10,701.
- Hart, C.J.R. (1995): Magmatic and tectonic evolution of the Intermontane Superterrane and the Coast Plutonic Complex in southern Yukon Territory; unpublished M.Sc. thesis, The University of British Columbia, 198 pages.
- Mihalynuk, M.G. (1999): Geology and Mineral Resources of the Tagish Lake Area, Northwestern British Columbia; British Columbia Ministry of Energy and Mines Bulletin 105, 201 pages.
- Ricketts, B. D., Evenchick, C. A., Anderson, R. G., and Murphy, D. C., 1992, Bowser basin, northern British Columbia: constraints on the timing of initial subsidence and Stikinia-North America terrane interactions: Geology, v. 20, p. 1119-1122.
- Simmons, A.T., Tosdal, R.M., Baker, D.E.L., Friedman, R.M. and Ullrich, T.D. (2005a): Late Cretaceous Volcano-Plutonic Arcs in Northwestern British Columbia: Implications for Porphyry and Epithermal Deposits; in Geological Fieldwork 2004, Grant, B. and Newell, J.M., Editors, B.C. Ministry of Energy Mines and Petroleum Resources, Paper RR15, pages 347-360.
- Simmons, A.T., Tosdal, R.M. and Baker, D.E.L. (2005b): Thorn Au-Ag Prospect: A Geologic Framework for Late Cretaceous Porphyry-Epithermal Mineralization in Northwest British Columbia Canada; Oral Presentation Abstract for the 2005 GSN Conference, Geological Society of Nevada.
- Souther, J.G. (1971): Geology and Mineral Deposits of the Tulsequah map-area, British Columbia; Geological Survey of Canada, Memoir 362, 84 pages.
- Thorstad, L.E., and Gabrielse, H. (1986): The Upper Triassic Kutcho Formation, Cassiar Mountains, north-central British Columbia; Geological Survey of Canada, Paper 86-16, 53 pages.
- Walton, G. (1984): Assessment report on the Ho Claims. British Columbia Ministry of Energy and Mines Assessment Report # 12,797.

APPENDIX II

STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES

PROFESSIONAL FEES AND WAGES

Full time and contract employees worked on the property on June 21st, and then on July 13th, 2005 totalling 4.5 person days. Compilation and report writing was conducted discontinuously between May 1st and Dec 15th, 2005, for a total of 4 person days.

Full Time Staff			
Richard Mann	4.25 days @\$300/day	\$1	,275.00
Adrian Newton	2 days @\$300/day	\$	600.00
Martin Stewart	0.25 days @\$300/day	\$	75.00
Contract Staff			
Yvonne Thornton	1 day @ \$264.60/day	\$	264.60
Marc Cianci	1 day @ \$183.60/day	\$	183.60

\$2,398.20

Helicopter costs are based on actual costs to and from camp on June 21st and July 13th, 2005. Camp costs, and other costs related to transportation, field consumables, fuel and camp food were calculated proportionally based on time allotted to the property versus that of an ongoing regional exploration program.

LOGISTICS			
Travel Expenses		\$	177.16
Fuel		\$	367.98
Camp Costs	4.5 days @ \$28.24/day	\$	127.10
Field Consumables, Materials & Supplies		\$	132.58
Helicopter Charters (3 hrs @ ave rate \$815	5.00/hr + \$18.06 mob)	\$2	2,463.06
Aircraft Charters		\$	466.53
Freight and Shipping		\$	151.40
Communications		\$	103.75
Camp Food		\$_	96.46
		*	
		\$4	1,086.02
Apolytical Work			
20 rock camples at an average cost	t of \$24.08/comple	¢	000 22
Mana TPIM Tono Dublications & Poprodu	tor \$34.06/sample	¢ ¢	900.JZ
PIMA Analysis and Interpretation 29 sa	moles @ \$10/samole	ው ወ	200 00
		Ψ_	230.00
		\$1	1.313.56
		¥ ·	.,
SERVICES			
Expediting			<u>\$109.16</u>
			¢400.46
		•	\$109.10
Total:		\$7	7,906.94
TOTAL WORK FILED FOR ASSESSM	ENT CREDIT:	\$7	,906.94
2005 Geological and Geochemical			

Report on the Fall Claims

APPENDIX III

STATEMENTS OF QUALIFICATION

STATEMENT OF QUALIFICATIONS

I, Richard K. Mann, of 1322 Apel Drive, Port Coquitlam, British Columbia, do hereby certify that:

- 1. I am presently employed by Barrick Gold Corporation of 700-1055 West Georgia Street, Vancouver, British Columbia. V6E 3P3.
- 2. I am a graduate of the University of British Columbia, Vancouver, BC (1999, BSc in Geology)
- 3. I have been employed in my profession as an Exploration Geologist since graduation.
- 4. I am duly registered as a Professional Geoscientist in training in the Province of British Columbia (#131934).
- 5. I have no interest in the property described herein, nor in the securities of any company associated with the property, nor do I have any plans to acquire any such interest.

Signed at Vancouver, British Columbia this 15th day of February, 2006.

And .

Richard K. Mann, B.Sc., GIT

STATEMENT OF QUALIFICATIONS

- I, Adrian C. Newton, of 1655 22nd St, West Vancouver, British Columbia, do hereby certify that:
- 1. I am presently employed by Barrick Gold Corporation of 700-1055 West Georgia Street, Vancouver, British Columbia. V6E 3P3.
- 2. I am a graduate of Simon Fraser University, Vancouver, BC (2004, BSc in Earth Sciences)
- 3. I have been employed in my profession as an Exploration Geologist since graduation.
- 4. I am duly registered as a Geoscientist in training in the Province of British Columbia (#145726).
- 5. I have no interest in the property described herein, nor in the securities of any company associated with the property, nor do I have any plans to acquire any such interest.

Signed at Vancouver, British Columbia this 15th day of February, 2006.

adrian Ninta

Adrian C. Newton, B.Sc., GIT

APPENDIX IV

ANALYTICAL PROCEDURES AND ASSAY CERTIFICATES

Analytical Procedures

All samples were analyzed at: ALS Chemex Laboratories 212 Brooksbank Avenue, North Vancouver, BC, Canada, V7J 2C1 Phone: (604) 984-0221 Fax: (604) 984-0218 Website: <u>www.alschemex.com</u>

Rock Samples

PREP-31	Log sample in tracking system and record weight. Fine crush entire sample and pulverize a 250g split to >85% passing 75 micron.
WSH-21	Clean crusher with barren material after every 10 th sample *
PUL-31	Pulverize material to >85% passing 75 micron.
Au-ICP21	Gold assay (1-10,000 ppb) by 30g fire assay and ICP-AES analysis
ME-ICP41m	34 elements by aqua regia acid digestion and ICP-AES plus Hg (0.01-100ppm) by cold vapour-AA
Ag-GRA21	Ag (5-10,000 ppm) by 30g fire assay – gravimetric finish on samples reporting >50 ppm by ME-ICP41m

ME-ICP41 – Elements and ranges (ppm)												
For e	elements marke	d with	* digestion will b	e incor	nplete for most s	sample	matrices					
Ag	0.2-100	Co	1-10,000	Mn	5-10,000	Sr*	1-10,000					
AI*	0.01%-15%	Cr*	1-10,000	Mo	1-10,000	Ti*	0.01%-10%					
As	2-10,000	Cu	1-10,000	Na*	0.01%-10%	TI*	10-10,000					
B*	10-10,000	Fe	0.01%-15%	Ni	1-10,000	U	10-10,000					
Ba*	10-10,000	Ga*	10-10,000	P	10-10,000	V	1-10,000					
Be*	0.5-100	Hg	1-10,000	Pb	2-10,000	W*	10-10,000					
Bi	2-10,000	K*	0.01%-10%	S*	0.01%-10%	Zn	2-10,000					
Ca*	0.01%-15%	La*	10-10,000	Sb*	2-10,000							
Cd	0.5-500	Mg*	0.01%-15%	Sc*	1-10,000							



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

D: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Au-ICP21

Page: 1 Finalized Date: 21-JUL-2005 Account: ATC

ICP-AES

CE	RTIFICATE VA050556	40		SAMPLE PREPARATIO	N
			ALS CODE	DESCRIPTION	
Project: KIZMET-2052			WEI-21	Received Sample Weight	
P.O. No.: KZ-2			LOG-22	Sample login - Rcd w/o BarCode	
This report is for 199 Rock sa	amples submitted to our lab in Va	ncouver BC Canada on	CRU-31	Fine crushing - 70% <2mm	
9-JUL-2005.		incouver, bo, canada on	SPL-21	Split sample - riffle splitter	
The fellowing have access	to data accordate de la		PUL-31	Pulverize split to 85% <75 um	
The following have access	to data associated with this c	ertificate:	LOG-24	Pulp Login - Rcd w/o Barcode	
ACCOUNTS PAYABLE	BARRICK KIZMET	RICHARD MANN	SPL-21d	Split sample - duplicate	
HOODONTOTATADEE			PUL-31d	Pulverize Split - duplicate	

	ANALYTICAL PROCEDURI	ES
ALS CODE	DESCRIPTION	INSTRUMENT
AE-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
lg-CV41	Trace Hg - cold vapor/AAS	FIMS
b-AA46	Ore grade Pb - aqua regia/AA	AAS

Au 30g FA ICP-AES Finish

To: BARRICK GOLD CORPORATION ATTN: ACCOUNTS PAYABLE PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature: Rest Com



ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

D: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 2 - A Total # Pages: 6 (A - C) Finalized Date: 21-JUL-2005 Account: ATC

Project: KIZMET-2052

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-ICP21 Au ppm 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 AI % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
KZ05R0051 KZ05R0052 KZ05R0053 KZ05R0054 KZ05R0055 A		0.14 0.28 0.42 0.66 0.64	<0.001 <0.001 0.025 0.001 <0.001	<0.2 <0.2 1.3 <0.2 <0.2	1.19 0.12 0.13 0.90 0.54	<2 <2 100 4 2	<10 <10 <10 <10 <10	220 <10 20 80 850	<0.5 <0.5 0.7 <0.5 0.5	8 8 8 8 9	0.64 0.08 >25.0 2.00 2.83	<0.5 0.5 <0.5 <0.5 <0.5	4 94 1 7 3	64 355 2 27 5	7 15 4 11 1	2.47 4.95 1.92 1.48 1.81
KZ05R0055 B KZ05R0056 KZ05R0057		<0.02 0.68 0.64	<0.001 0.001 <0.001	<0.2 0.2 0.2	0.58 1.34 0.61	<2 7 6	<10 <10 <10	800 200 170	0.6 0.5 0.6	2 2 2 2	2.78 8.41 2.51	<0.5 0.5 0.9	2 7 3	7 20 18	1 26 23	1.83 2.41 1.65
1																
[],																
]	1															



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

D: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 2 - B Total # Pages: 6 (A - C) Finalized Date: 21-JUL-2005 Account: ATC

Project: KIZMET-2052

Sample Description	Method Analyte Units LOR	ME-ICP41 Ga ppm 10	Hg-CV41 Hg ppm 0.01	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
KZ05R0051 KZ05R0052 KZ05R0053 KZ05R0054 KZ05R0055 A		10 <10 <10 10 <10	<0.01 <0.01 0.04 0.01 0.36	0.52 <0.01 0.04 0.13 0.31	10 <10 <10 20 20	0.62 18.05 3.27 0.61 0.32	574 698 5610 512 822	<1 <1 2 <1 1	0.10 <0.01 0.03 0.07 0.05	6 2050 5 17 <1	790 10 70 860 780	6 <2 44 8 16	0.01 <0.01 0.7 0.03 0.14	V V 16 V V	3 4 5 1	75 2 919 70 301
KZ05R0055 B KZ05R0056 KZ05R0057		<10 10 <10	0.40 0.04 0.03	0.32 0.19 0.24	30 20 10	0.31 0.73 0.54	803 536 685	1 1 2	0.04 0.06 0.04	<1 17 9	770 800 320	15 15 28	0.13 0.13 0.18	₹2 2 ₹2	1 4 2	298 363 182
5	2															



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com DISTRICT SOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3 Page: 2 - C Total # Pages: 6 (A - C) Finalized Date: 21-JUL-2005 Account: ATC

Project: KIZMET-2052

Sample Description	Method Analyte Units LOR	ME-ICP41 TI % 0.01	ME-ICP41 Ti ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Pb-AA46 Pb % 0.01			
KZ05R0051 KZ05R0052 KZ05R0053 KZ05R0054 KZ05R0055 A		0.16 <0.01 <0.01 0.01 <0.01	<10 <10 <10 <10 <10	<10 <10 <10 <10 <10	42 12 5 46 8	<10 <10 <10 <10 <10	48 37 254 69 53		54 - 20		
KZ05R0055 B KZ05R0056 KZ05R0057		<0.01 0.01 <0.01	<10 <10 <10	<10 <10 <10	8 44 10	<10 <10 <10	52 84 120				
		·									
											27
											Sala



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 4 - A Total # Pages: 6 (A - C) Finalized Date: 21-JUL-2005 Account: ATC

CERTIFICATE OF ANALYSIS VA05055640

Project: KIZMET-2052

Sample Description	Method Analyte Units LOR	WEI-21 Recvd-Wt. kg 0.02	Au-ICP21 Au ppm 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 AI % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
KZ05R2058 KZ05R2059 KZ05R2060		0.46 0.44 0.72	<0.001 <0.001 0.010	0.2 <0.2 0.2	0.79 0.93 0.59	3 2 √2	<10 <10 <10	700 140 180	<0.5 <0.5 <0.5	22 22 22 22 22	2.18 3.36 2.13	<0.5 <0.5 0.5	4 5 5	17 11 16	2 <1 2	1.93 2.53 2.45
KZ05R2061 KZ05R2062 KZ05R2063 CLEAN ROCK9 KZ05R2064		0.64 0.70 0.50 <0.02 0.76	<0.001 0.001 <0.001 <0.001 0.049	0.3 0.5 3.3 <0.2 0.6	0.45 0.61 0.33 1.70 0.44	3 41 959 6 5	<10 <10 <10 <10 <10	810 90 160 70 70	<0.5 1.0 <0.5 <0.5 <0.5	8 8 8 8 8 8 8 8	1.98 6.38 4.55 0.96 0.90	0.7 8.7 13.1 <0.5 <0.5	6 16 12 11 18	22 33 43 76 7	14 99 45 24 778	2.76 4.27 6.23 2.63 6.72
KZ05R2065 KZ05R2066 KZ05R2067 KZ05R2068		0.90 0.66 0.46 0.72	<0.001 0.002 <0.001 <0.001	<0.2 0.4 <0.2 0.2	0.01 1.56 0.71 0.51	<2 75 8 7	<10 <10 10 <10	10 110 50 50	<0.5 <0.5 <0.5 <0.5 <0.5	2 2 2 V 2 2 2 2	0.12 2.32 3.34 2.25	<0.5 4.1 <0.5 1.3	21 9 4 2	19 18 2 8	1 20 3 20	1.03 2.91 3.05 2.11
RZ05R2070 KZ05R2071 KZ05R2072		0.84 0.48 0.34	0.013 0.001 0.011	0.6 <0.2 0.8	1.09 0.73 0.63	72 3 70	<10 <10 <10	20 150 110	<0.5 <0.5 <0.5	6 <2 <2	1.43 2.76 0.21	0.5 <0.5 <0.5	22 6 5	159 3 4	258 37 10	7.08 3.24 2.39
			7.											T		



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

o: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 4 - B Total # Pages: 6 (A - C) Finalized Date: 21-JUL-2005 Account: ATC

Project: KIZMET-2052

Sample Description	Method Analyte Units LOR	ME-ICP41 Ga ppm 10	Hg-CV41 Hg ppm 0.01	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 NI ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
KZ05R2058 KZ05R2059 KZ05R2060		<10 <10 <10	0.01 <0.01 0.01	0.21 0.19 0.21	20 10 20	0.10 0.72 0.06	1555 1820 1160	1 <1 1	0.04 0.36 0.03	4 <1 7	450 560 600	13 11 34	0.06 0.45 0.06	2 Q Q	1 2 2	130 327 64
KZ05R2061 KZ05R2062 KZ05R2063 CLEAN ROCK9 KZ05R2064		<10 <10 <10 10 <10	0.01 0.03 0.32 0.01 0.65	0.14 0.15 0.16 0.14 0.21	10 10 <10 <10 <10	0.17 1.71 2.00 1.23 0.33	861 1465 3690 423 479	<1 9 1 <1 9	0.04 0.04 0.02 0.08 0.05	7 47 64 57 11	570 1040 410 540 100	41 6 447 2 5	0.24 1.67 1.94 0.09 1.40	<2 6 192 <2 3	2 7 11 4 2	71 203 194 46 31
KZ05R2065 KZ05R2066 KZ05R2067 KZ05R2068		<10 10 <10 <10	<0.01 0.03 0.12 0.02	0.01 0.14 0.30 0.15	<10 20 10 20	19.15 1.40 0.77 0.17	162 1005 590 721	<1 <1 4 9	0.01 0.14 0.05 0.08	666 8 7 10	10 1040 800 440	<2 19 3 10	0.01 0.62 2.38 0.18	A & A & A	<1 8 2 3	3 73 63 71
KZ05R2070 KZ05R2071 KZ05R2072		<10 <10 <10	1.22 0.01 0.11	0.11 0.23 0.34	<10 10 10	0.43 0.37 0.05	584 595 49	29 1 2	0.02 0.04 0.04	259 4 4	870 930 550	20 7 17	7.16 0.52 1.58	14 <2 <2	14 5 1	45 110 13
				T												
									(-				



H.

ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com P: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3 Page: 4 - C Total # ⊢ages: 6 (A - C) Finalized Date: 21-JUL-2005 Account: ATC

Project: KIZMET-2052

Sample Description	Method Analyte Units LOR	ME-ICP41 Ti -% 0.01	ME-ICP41 Ti ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Pb-AA46 Pb % 0.01		
KZ05R2058 KZ05R2059 KZ05R2060		<0.01 <0.01 <0.01	<10 <10 <10	<10 <10 <10	15 9 27	<10 <10 <10	137 83 145			21
KZ05R2061 KZ05R2062 KZ05R2063 CLEAN ROCK9 KZ05R2064		<0.01 <0.01 <0.01 0.15 <0.01	<10 <10 <10 <10 <10	<10 <10 <10 <10 <10	35 84 69 54 49	<10 <10 <10 <10 <10	140 886 2040 55 49	7		
KZ05R2065 KZ05R2066 KZ05R2067 KZ05R2068		<0.01 <0.01 <0.01 <0.01	<10 <10 <10 <10	<10 <10 <10 <10	4 81 13 29	<10 <10 <10 <10	5 700 31 188			4
KZ05R2070 KZ05R2071 KZ05R2072		0.01 <0.01 <0.01	10 <10 <10	<10 <10 <10	68 57 21	<10 <10 <10	152 60 16			



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

O: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: Finalized Date: 15-JUL-2005 Account: ATC

CERTIFICATE VA05053952

Project: K12MET-2052

P.O. No.: KZ-01

This report is for 209 Rock samples submitted to our lab in Vancouver, BC, Canada on 4-JUL-2005.

The following have access to data associated with this certificate: RICHARD MANN

	SAMPLE PREPARATION	
ALS CODE	DESCRIPTION	1.1
WEI-21	Received Sample Weight	1
PUL-31	Pulverize split to 85% <75 um	
SPL-21d	Split sample - duplicate	
PUL-31d	Pulverize Split - duplicate	
SPL-21	Split sample - riffle splitter	
CRU-31	Fine crushing - 70% <2mm	
LOG-22	Sample login - Rcd w/o BarCode	
LOG-24	Pulp Login - Rcd w/o Barcode	

	ANALYTICAL PROCEDURI	ES
ALS CODE	DESCRIPTION	INSTRUMENT
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Ag-AA46	Ore grade Ag - aqua regia/AA	AAS
Pb-AA46	Ore grade Pb - aqua regia/AA	AAS
Zn-AA46	Ore grade Zn - aqua regia/AA	AAS
Ag-GRA21	Ag 30g FA-GRAV finish	WST-SIM
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
Au-AA25	Ore Grade Au 30g FA AA finish	AAS

To: BARRICK GOLD CORPORATION ATTN: RICHARD MANN PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature: Rest Com



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 3 - A Total # Pages: 7 (A - C) Finalized Date: 15-JUL-2005 Account: ATC

Project: K12MET-2052





1.1.

..

ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

*0: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 3 - B Total # Pages: 7 (A - C) Finalized Date: 15-JUL-2005 Account: ATC

Project: K12MET-2052

Sample Description	Method Analyte Units LOR	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	Hg-CV41 Hg ppm 0.01	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2
				1		1	1									
2																-10
KZ05R0048		106	3.20	10	0.01	0.68	10	0.97	307	3	0.47	81	900	18	0.73	4
KZ05R0049		- 5	3.58	<10	0.01	0.13	<10	0.05	411 116	<1	0.14	5	640	130	2.89	<2
				1			Ţ		T	T		T		1		
																-

EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

CERTIFICATE OF ANALYSIS

Page: 3 - C Total # Pages: 7 (A - C) Finalized Date: 15-JUL-2005 Account: ATC

VA05053952

Project: K12MET-2052

ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 Ag-AA46 Pb-AA46 Zn-AA46 Ag-GRA21 Method Sc Sr Ti п U v w Zn Pb Zn Analyte Ag Ag Units % % % ppm ppm ppm ppm ppm ppm ppm ppm ppm Sample Description LOR 1 1 0.01 10 10 1 10 2 1 0.01 0.01 5 443 KZ05R0048 5 192 0.20 <10 <10 161 <10 9 133 0.23 <10 <10 96 <10 90 KZ05R0049 < 0.01 <10 <10 <10 20 KZ05R0050 <1 6 1



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

o: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 4 - A Total # Pages: 7 (A - C) Finalized Date: 15-JUL-2005 Account: ATC

Project: K12MET-2052

Method WEI-21 Analyte Sample Description LOR 0.02	Au-ICP21 Au-AA25 Au Au ppm ppm 0.001 0.01	Au-AA25 ME-ICP41 Au Check Ag ppm ppm 0.01 0.2	ME-ICP41 Al % 0.01	ME-ICP41 ME-ICP41 As B ppm ppm 2 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1
				11		1				1	1
										-	
KZ05R1037 0.62 KZ05R1038 0.58 KZ05R1039 0.70 KZ05R1040 0.62 KZ05R1041 0.74	0.001 0.002 0.032 <0.001 0.010	0.2 <0.2 0.3 <0.2 0.7	2.22 1.86 0.74 2.64 0.91	<2 <10 14 <10 <2 <10 <2 <10 142 <10	350 90 180 180 240	<0.5 0.5 0.5 0.7 <0.5	8 8 8 8 8	1.19 4.08 0.15 2.43 1.49	<0.5 <0.5 <0.5 <0.5 1.8	11 9 1 7 4	23 94 39 25 22
						1		1		1	1.
											-

ALS

ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

¹0: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 4 - B Total # Pages: 7 (A - C) Finalized Date: 15-JUL-2005 Account: ATC

Project: K12MET-2052

Sample Description	Method Analyte Units LOR	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	Hg-CV41 Hg ppm 0.01	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P pprn 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 1 Sb ppm 2
					1		1		1			1		1		1
KZ05R1037 KZ05R1038 KZ05R1039 KZ05R1040 KZ05R1041		33 23 6 20 14	4.08 2.32 0.44 2.85 2.39	<10 10 <10 10 <10	0.03 0.03 0.03 0.01 0.03	0.81 0.10 0.31 0.12 0.30	20 10 20 10 10	0.98 1.03 0.03 1.14 0.42	435 811 220 683 1490	3 1 2 1 2	0.33 0.07 0.06 0.13 0.10	6 50 3 7 8	1550 760 130 970 610	14 11 24 9 65	0.21 0.04 0.05 0.31 0.84	6 A A A
				7												
. 1																



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 4 - C Total # Pages: 7 (A - C) Finalized Date: 15-JUL-2005 Account: ATC

CERTIFICATE OF ANALYSIS VA05053952

Project: K12MET-2052

ample Description	Method Analyte Units LOR	ME-ICP41 Sc ppm	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Ti ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Ag-AA46 Ag ppm 1	Pb-AA46 Pb % 0.01	Zn-AA46 Zn % 0.01	Ag-GFIA21 Ag ppm 5	
			1											
KZ05R1037 KZ05R1038 KZ05R1039 KZ05R1040 KZ05R1041		3 7 <1 5 3	194 167 42 58 147	0.29 0.07 <0.01 0.17 0.01	<10 <10 <10 <10 <10	<10 <10 <10 <10 <10	128 74 1 70 17	<10 <10 <10 <10 <10	75 65 13 49 308					
			11					1						~



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com ¹0: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3 Page: 6 - A Total # Pages: 7 (A - C) Finalized Date: 15-JUL-2005 Account: ATC

Project: K12MET-2052

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-ICP21 Au ppm 0.001	Au-AA25 Au ppm 0.01	Au-AA25 Au Check ppm 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1
																1 A.
																1.14
															1. Pro-	
KZ05R3034 KZ05R3035		0.68 0.44	0.006 0.001			6.1 2.2	1.24 1.45	42 28	<10 <10	950 1340	<0.5 <0.5	<2 <2	0.62 1.12	0.6 <0.5	5 <1	11 1
						1		1				7			T	

EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com o: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

CERTIFICATE OF ANALYSIS

Page: 6 - B Total # Pages: 7 (A - C) Finalized Date: 15-JUL-2005 Account: ATC

VA05053952

Project: K12MET-2052

ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 Hg-CV41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 Method Fe Ga Hg к La Mg Mn Mo Ni P Analyte Cu Na Pb s Sb Units % % % % ppm ppm ppm ppm ppm ppm ppm ppm % ppm ppm Sample Description LOR 0.01 0.01 10 0.01 10 0.01 5 1 0.01 10 1 1 2 0.01 2 68 0.06 73 490 5 KZ05R3034 2.69 <10 0.01 0.18 20 0.12 1500 <1 < 0.01 6 0.02 0.22 10 0.05 88 <1 1.58 <1 60 43 0.02 3 KZ05R3035 8 0.40 <10



EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd.

212 Brooksbank Avenue North Vancouver BC V7J 2C1 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

"O: BARRICK GOLD CORPORATION PO BOX 11120 700-1055 W GEORGIA ST VANCOUVER BC V6E 3P3

Page: 6 - C Total # Pages: 7 (A - C) Finalized Date: 15-JUL-2005 Account: ATC

VA05053952

Project: K12MET-2052

CERTIFICATE OF ANALYSIS ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 ME-ICP41 Ag-AA46 Pb-AA46 Zn-AA46 Ag-GRA21 Method Sr Ti т U v Sc w Analyte Zn Ag Pb Zn Ag Units % % % ppm ppm ppm ppm ppm ppm ppm ppm ppm Sample Description LOR 1 1 0.01 10 10 1 10 2 1 0.01 0.01 5 40 < 0.01 <10 <10 21 KZ05R3034 <10 169 KZ05R3035 371 0.01 <10 <10 3 <10 37

APPENDIX V

ROCK SAMPLE DESCRIPTIONS AND RESULTS

2005 Rock Samples

Comple #	Sample	Samplar	Data	Fasting	Northing	Domi	inant Alter	ration	Secor	ndary Alte	ration	Turne	Min	eral 1	Cine	Tune	Min	eral 2	Cine	Rock Type	Au (nnm)	Ag (nnm)	Pb (nnm)	Zn (nnm)	Cu (nnm)	As (nnm)	Hg (nnm)	Sb (nnm)	Commente
KZ05R0048	FLOAT	ANewton	21-Jun-05	634655	6532404	SI	Strong	EA	Туре	int.	Style	туре	70	Style	5120	туре	76	Style	Size	SAY	0.007	0.4	18	443	106	24	0.01	4	Less than 5% similar float on slope. Area dominated by dark grey intrusive rock with silicification and some pyrite mineralization.
KZ05R0049	GRAB	ANewton	21-Jun-05	635020	6532083	SI	Detect	EA				ΡY	0.1	DS	FG					GRT	0.0005	0.1	9	90	22	11	0.01	1	Sample feels heavy for its size. Contains some small dark vitreous crystals, as yrt unidentified. Sample is dark grey w/ white qtz crystals throughout.
KZ05R0052	FLOAT	ANewton	21-Jun-05	635250	6532238	CL	Mod	EA												U	0.0005	0.1	1	37	15	1	0.005	1	Only a couple pieces of similar float located in the area. Exterior of sample light yellow,fresh surface is dark green/grey. Appears to be weakly metamorphosed.
KZ05R0053	FLOAT	ANewton	21-Jun-05	635256	6532239	SI	Weak	RF				ΡY	1.5	DS	FG					SRBU	0.025	1.3	44	254	4	100	0.04	16	Sample is flooded by qtz-carb veins 0.5- 2cm thick. Original rock appears to be a mudstone. Pyrite spread evenly throughout. 2% of lope appears to be similar rock.
KZ05R0054	GRAB	ANewton	21-Jun-05	635708	6532834	SI	Detect	EA												SSLM	0.001	0.1	8	69	11	4	0.01	1	Only rock or outcrop found in area. Sample is dark grey and feels unusually heavy for a sed rock. No apparent metalli minerals.
KZ05R0055	GRAB	ANewton	21-Jun-05	635612	6532948	IL	Weak	PA												GR	0.0005	0.1	16	53	1	2	0.36	1	Outcrop located in vicinity of fissile mudstones and clean intrusives. Form of these boddies is convolute and there may be some fault influence. Ouctcrop sample is taken from appears to be 5-6m wide.
KZ05R0056	GRAB	ANewton	21-Jun-05	635400	6533220															SRBW	0.001	0.2	15	84	26	7	0.04	2	Brecciated mudstone fragments pebble to cobble sized sub-rounded by later infilling of calcite. Outcrop of intrusive 5m downstream of this location. Also fragments of intermediate intrusive, not same as nearby outcrop. Location approv poor coverage.
KZ05R0057	FLOAT	ANewton	21-Jun-05	635400	6533215	СҮ	Weak	RF												PBA	0.0005	0.2	28	120	23	6	0.03	1	Approx. 2-3% of float in creek was similar to this sample. Sample composed of wha appears to be clay altered felsic fragment in an unidentified black matrix [not very hard]. Location approx due to poor GPS coverage.
KZ05R1037	FLOAT	MCianci	21-Jun-05	634521	6532461	SI	Weak	EA									1			S	0.001	0.2	14	75	33	1	0.03	1	Fine/medium grained volcanic/sst.
KZ05R1038	GRAB	MCianci	21-Jun-05	635295	6532161															s	0.002	0.1	11	65	23	14	0.03	1	Sample area is near HO and in a landslide/debris slide. Sample consists of two slightly different rock types. Difference may be attributed to differentia weathering.
KZ05R1039	GRAB	MCianci	21-Jun-05	635400	6532400	СҮ	Mod	EA												UNKNOWN	0.032	0.3	24	13	6	1	0.03	1	Sample taken along creek. Outcrop is 10m high by 5m wide. Rock is highly weathered and fractured/folded. L OOK AT MAP TO DERERMINE LOCATION. NO GPS. Near HO.
KZ05R1040	GRAB	MCianci	21-Jun-05	635674	6532965															GRD	0.0005	0.1	9	49	20	1	0.01	1	Took sample on landside. Outcrop is in the center of slide 15m by 10m
KZ05R1041	FLOAT	MCianci	21-Jun-05	635449	6533068	CY	Mod	SP												UNKNOWN	0.01	0.7	65	308	14	142	0.03	3	Sample if float from talus slope ending in
K705R2058	GRAB	RMann	21-Jun-05	632265	6534720	CY	Mod	FΑ				-			-		\vdash	-		F	0.0005	0.2	13	137	2	3	0.01	1	all weath or clay alt'd, do pima, feld mg flo
KZ05R2059	GRAB	RMann	21-Jun-05	632385	6534556	CY	Mod	FA							—		\vdash			F	0.0005	0.1	11	83	0.5	2	0.005	1	orxtall tff more clay alt-dvolc
KZ05R2060	GRAB	RMann	21-Jun-05	632526	6534799	CY	Weak	EA												F	0.01	0.2	34	145	2	1	0.00	1	fol'd, sim biot, feld flow or tuff
KZ05R2061	GRAB	RMann	21-Jun-05	632401	6535075	CY	Detect	EA												F	0.0005	0.3	41	140	14	3	0.01	1	buff lithic tuff, sloko?
KZ05R2062	GRAB	RMann	21-Jun-05	632466	6535407															S	0.001	0.5	6	886	99	41	0.03	6	grond up and wk rusty mudsone, in cr in a flt zone
KZ05R2063	FLOAT	RMann	21-Jun-05	632496	6535438	CY	Weak	PA				PY	1	BB	FG	TT	0.2	<v< td=""><td>FG</td><td>U</td><td>0.0005</td><td>3.3</td><td>447</td><td>2040</td><td>45</td><td>959</td><td>0.32</td><td>192</td><td>float at cr, rusty, poss vol or sed, 60mfrom falls</td></v<>	FG	U	0.0005	3.3	447	2040	45	959	0.32	192	float at cr, rusty, poss vol or sed, 60mfrom falls
KZ05R2064	FLOAT	RMann	22-Jun-05	632500	6535500	SI	Weak	EA				PY	0.4	DS	FG					S	0.049	0.6	5	49	778	5	0.65	3	float in stepp gully, n of cr
KZ05R2065	FLOAT	RMann	22-Jun-05	632503	6535500	CY	Weak	EA	SI	Strong	SP									U	0.0005	0.1	1	5	1	1	0.005	1	white, clay and sil rock, some fg vuugy qt ot sure of host, local?
KZ05R2066	GRAB	RMann	22-Jun-05	632501	6535500							PY	1	DS	FG					F	0.002	0.4	19	700	20	75	0.03	3	float in gullynw of cr, pat of mss bottom of volcanics, qtz, feld flow or tuff
KZ05R2067	FLOAT	RMann	22-Jun-05	632502	6535500	CY	Strong	EA												F	0.0005	0.1	3	31	3	8	0.12	1	float in gulley nw of cr, qtz, feld volv flow o tuff
KZ05R2068	GRAB	RMann	22-Jun-05	632450	6535600	SI	Mod	EA												S	0.0005	0.2	10	188	20	7	0.02	1	in gulley icamedown, no gps so loc is aproximate, dk greysil sst
KZ05R2070	FLOAT	RMann	22-Jun-05	632625	6535080	SI	Weak	EA				ΡY	2	<v< td=""><td>FG</td><td>AP</td><td>0.2</td><td>BB</td><td>CG</td><td>S</td><td>0.013</td><td>0.6</td><td>20</td><td>152</td><td>258</td><td>72</td><td>1.22</td><td>14</td><td>sst w py and ap veining and blebs, east side of cr, floatfromses above</td></v<>	FG	AP	0.2	BB	CG	S	0.013	0.6	20	152	258	72	1.22	14	sst w py and ap veining and blebs, east side of cr, floatfromses above

2005 Rock Samples

	Sample					Domi	inant Alte	eration	Seco	ndary Alt	eration		Min	eral 1			Min	eral 2			Au	Ag	Pb	Zn	Cu	As	Hg	Sb	
Sample #	Type	Sampler	Date	Easting	Northing	Type	Int.	Style	Type	Int.	Style	Type	%	Style	Size	Type	%	Style	Size	Rock Type	(ppm)	Comments							
KZ05R2071	FLOAT	RMann	22-Jun-05	632624	6535080	CL	Weak	EA												F	0.001	0.1	7	60	37	3	0.01	1	float from east side of cr, qtz,feld volc flow or tuff
KZ05R2072	FLOAT	RMann	22-Jun-05	632623	6535080	СҮ	Mod	SP	SI	Mod	SP									F	0.011	0.8	17	16	10	70	0.11	1	float fromeastside of cr,clay alt offeld phenos, siluvaalt of gmass in volc tuff or flow
KZ05R3034	GRAB	YThornton	21-Jun-05	632585	6534644	CY	Detect	EA												F	0.006	6.1	68	169	6	42	0.01	5	
KZ05R3035	GRAB	YThornton	21-Jun-05	632296	6535335	SI	Detect													UNKNOWN	0.001	2.2	43	37	8	28	0.02	3	RED VERY FINE GRAINED LOOKS LIKE JASPER BUT IS SOFTER IN O/C BETWEEN SEDS AND VOLCANICS?

APPENDIX VI

ROCK SAMPLE CODE DESCRIPTIONS

	ROCK TYPES									
Code	Description									
F	Felsic volcanic-undifferentiated									
GR	Granite									
GRD	Granodiorite									
GRT	Tonalite									
PBA	Breccia-angular clasts									
S	Undifferentiated sedimentary rocks									
SAY	Finely laminated/graded argillites, minor sands									
SRBU	Monomictic breccia									
SRBW	Polymictic breccia									
SSLM	Medium-grained lithic sandstone									
U	Ultramafic rock-undifferentiated									
UNKNOWN	UNKNOWN									

М	INERALIZATION TYPE
Code	Description
AP	Arsenopyrite
AU	Visible Gold or Electrum
BA	Barite
CN	Cinnabar
CP	Chalcopyrite
CV	Covellite
EN	Enargite
GA	Galena
LU	Luzonite
MT	Magnetite
OR	Orpiment
ОТ	Other, submetallics
PO	Pyrrhotite
PY	Pyrite
RE	Realgar
SB	Stibnite
SP	Sphalerite
SS	Sulphosalts
TE	Tellurides
TT	Tetrahedrite/Tenantite

I	MINERALIZATION STYLE
Code	Description
AM	Amygdules, vesicle fillings
BB	Blebs
BW	Boxwork
CL	Clasts
CO	Colloform
СТ	Coatings
DS	Disseminated
EN	Envelopes
EU	Euhedral crystals
EY	Eyes, augen
FC	Framework crystals
GO	Gouge
IN	Interstitial
LM	Laminations
MA	Matrix
MS	Massive
NO	Nodules
PA	Patches
PV	Pervasive
RE	Replaced phenocrysts
RO	Rosettes, crystal clusters
SE	Sheeting
SO	Spots
ST	Stringers
SV	Selvages
SW	Stockwork
<v< td=""><td>Microveins (<1mm)</td></v<>	Microveins (<1mm)
>V	Macroveins (1mm-1cm)
VN	Veins (>1cm)

ALT	ERATION TYPE
Code	Description
AD	Adularia
AL	Alunite
AN	Andalusite
BA	Barite
CB	Carbonate
СН	Chalcedony
CL	Chlorite
CO	Carbon
CY	Clay
DI	Diaspore
DK	Dickite
DS	Diss. Sulphides
EP	Epidote
FL	Fluorite
GY	Gypsum
IL	Illite
JA	Jarosite
KL	Kaolinite
KS	K-Feldspar
MS	Sericite
PY	Pyrophyllite
SD	Siderite
SI	Silica
ZE	Zeolite
ZU	Zunyite

	ALTERATION STYLE
Code	Description
EA	Equally altered
EN	Envelopes
FF	Fracture filling
FL	Flooding
PA	Patchy
RE	Replacement of matrix and fragments in a breccia
RF	Replacement of fragments in a breccia
RM	Replacement of matrix in a breccia
SE	Selvages
SP	Spotty

APPENDIX VII

QUALITY ASSURANCE / QUALITY CONTROL

Quality Assurance / Quality Control

NOTE: The following quality assurance/quality control review was conducted for a large project located in the 104K NTS map region and includes data from the Fall property. Samples collected on these claims were part of analytical batches labelled VA05053952 and VA05055640.

Introduction

This report summarizes the QA-QC procedures used for the Kizmet geochemical and geological exploration program during the summer of 2005. Results of the QA-QC program are presented and analysed to provide an overall assessment of the data quality and recommendations for improvements for future programs are made. The format and structure of this report are modified from QC audit reports by Dr. Barry Smee while the assessment and interpretation of the results are from Heberlein, 2005.

QA-QC Data

The QA/QC procedures begin at the field collection stage and proceed through to the final checking of the geological and analytical database. This report will examine the four main topics concerned with the monitoring of sampling and analysis of geochemical samples.

- Data quality: review of proper QAQC procedures and data handling.
- Sample contamination: Use of field blanks which are submitted blind to the sample preparation laboratory.
- Analytical accuracy: Use of property specific standards blind to the analytical laboratory, and
- Sampling and analytical precision: using field, and preparation duplicates.

Barrick has set rules to determine when a quality control sample does not meet requirements. The failure rules are as follows:

- Blanks fail if an analytical value is in excess of 10 times the lower detection limit.
- Standards fail if an analytical value is outside of the ±3 standard deviation controls, or if 2 or more adjacent samples are outside of the ±3 standard deviation on the same side of the mean.

Kizmet QAQC Procedures

During the 2005 Kizmet project, quality control samples (blanks, standards and field duplicates) were inserted at a frequency of one in 25. Sample shipments were broken down into batches of 25 samples to minimize the possibility of field samples becoming separated from the control samples at the laboratory. The laboratory was asked to insert a preparation duplicate at position 5 in every series of 25 samples (e.g. in positions 5, 30, 55, 80, 105, 130 etc). Field blanks were inserted at the beginning of each series of 25 samples (e.g. in positions 1, 26, 51, 76, 101, 126 etc). Field duplicates were collected after every sample at the 20th sample in every sequence of 25 samples (e.g. positions 20, 45, 70, 95, 120 etc). A Rock Labs standard (see below) was inserted at the 25th position in every series of 25 samples. Each geologist was assigned a unique sample number series rocks, soils and stream sediments.

Data Quality

Chain of Custody

All samples were packed in rice sacks and sealed with uniquely-numbered nonre-sealable security straps. Rice sacks were flown by aircraft to Atlin, BC and then trucked to the ALS Chemex Lab in North Vancouver.

Procedures

A full QAQC review was conducted in the fall immediately after all the analytical data was compiled. QA-QC monitoring was not carried out on a batch by batch basis during the field campaign. Instead on receipt of the e-mail certificates from the laboratory, the blank and standard results were visually scanned to see if they were in acceptable limits. Results were not routinely plotted on time series graphs and failures were not promptly identified and corrected.

A number of errors were found in the QC sample database. They all involve misidentification of reference materials. For example there was one OxH37 standard identified as an SH14 and two SG14 identified as OxH37 standards. Also, one SG14 and one SL15 standard were incorrectly identified as a GRAN05 The source of these errors should be investigated to prevent future Blank. occurrences. Most commonly errors of this kind occur in the field when careless or inexperienced field personnel inadvertently select the wrong reference material A database error cannot be ruled out however. for insertion. Database procedures should be reviewed to eliminate the possibility of similar mistakes in the future. To eliminate field errors, I recommend improvement of training of the field personnel responsible for preparation of sample shipments and modification of the standard labeling to a colour based system. This would involve replacing the field standard name with coloured stickers, which are less easily confused.

Accuracy

The 2005 Kizmet exploration program was monitored for accuracy by inserting pulp standards into the analytical stream at a frequency of one pert shipment. Rocklabs standards were used. These standards were prepared by ALS-Chemex labs in Reno specifically for the Eskay Creek mine and exploration. The standards were subjected to a 5 laboratory round robin analysis to determine their compositions, acceptable ranges and relative standard deviations. Details are summarized in Tables 1.

Reference Materials

Reference Material	Туре	Expected Value (Au ppm)	Standard Deviation	Warning Limits	Failure limits
SG14	Rock Labs Sulphide Standard	0.989	0.044	0.088	0.132
SL15	Rock Labs Sulphide Standard	1.805	±0.067	±0.134	±0.201
OxH37	Rock Labs Oxide Standard	1.286	±0.039	±0.078	±0.117
GRAN05	Granite Field Blank	0.005			>0.0026

Table 1 summarizes the reference materials used on the 2005 Kizmet Program.

Table 1 Kizmet Project Reference Materials

Figures 1a, b and c are control graphs showing the results the three used standards, their expected values and their two and three standard deviation control lines. With the exception of the misidentified standards, all values plot within acceptable limits for all three standards. SL15 (Fig 1a) shows a slight low bias in the first five work orders, which is not apparent in subsequent batches. SG14 is has a consistent low bias of approximately 3% below the expected value. While not significant in reconnaissance type samples, it would be important in more advanced exploration projects and should be reviewed with the laboratory manager. Results for OxH37 are acceptable with no apparent bias. We can conclude from these results that the 2005 samples are accurate for gold.







Figure 1. Standard Results

2005 Geological and Geochemical Report on the Fall Claims

Contamination

In order to monitor potential sample contamination at the laboratory, a field blank was inserted into every sample batch at the field camps. For rock samples, field blank material consisted of un-altered and un-mineralized ³/₄-inch granite crush obtained from a landscaping supply retailer. For stream sediment samples, un-mineralized landscaping sand was obtained from the same retailer.

In addition to the field blanks a barren quartz sample was also inserted into the sample stream by ALS Chemex Labs at the beginning of every analytical batch and at every 10 sample position. These samples monitor potential contamination from other laboratory batches and from the crushing and pulverizing stages.

Figure 2 shows a control graph for the field blank GRAN05. Discounting the misidentified standards, there are several minor contamination events throughout the campaign. The most serious occurs in certificate VA05061067, which returned a field blank value of 0.011 ppm Au. Three subsequent batches also report field blank values over the acceptable limit. These results indicate a slackening of cleaning standards in the sample preparation facility during the period July-August (peak period for the lab). While they are not significant in terms of data quality, they should be discussed with the lab manager. In the laboratory QC sheets for VA05061067, one of their cleaning rock samples (Clean Rock 3) also has an elevated value of 0.016 ppm which confirms contamination rather than anomalism in our field blank material (note that this blank was fused in a separate batch to the other samples). Based on these results it is concluded that despite minor contamination in July and August, it is not of a sufficient degree to warrant rejection of the batches in question.



Figure 2 Control Graph for Field Blank GRAN05

Laboratory Blanks

Figure 3 shows the results for the laboratory blanks reported with our work orders. You will note that there are quite a few potential failures in this data. I would consider any value over 0.01 ppm as being of concern. There are five such failures in this dataset (including VA05061067), four of them occurring between July and September. This is a matter of concern that should be taken up with the laboratory.



Figure 3 Results of the reported laboratory blank samples.

Precision

The precision of sampling and analysis is measured by comparing duplicate analysis from two stages of the sampling and analytical process: field duplicates and preparation duplicates. The field duplicates must be submitted to the lab in such a way as to be blind to both the preparation and analytical lab. The field duplicate will contain two levels of uncertainty:

- 1) The error that is introduced when separating the sample split from the whole sample in the field,
- 2) The error introduced when taking a sub-sample from the crushed material prior to pulverizing.

The preparation lab obtains the preparation duplicate by taking two splits from the coarse reject, pulverizing both splits as separate samples, and analyzing both. This duplicate will contain the errors of splitting in the lab and of analysis. The two levels of duplicates can be compared by use of a Thompson-Howarth precision vs. concentration chart, and the sources of greatest error quantified.

Usually, a simple bias chart is also plotted, which will show possible sample order errors, usually caused in the lab by procedural mistakes.

During the 2005 Kizmet program, one field duplicate sample was collected in every sample batch. Figure 4 shows the Thompson and Howarth precision versus concentration curves for the field (blue) and preparation (orange) duplicates. Relatively poor precision in the field duplicates (82.4% at 0.5 ppm) may be attributed in part to a sampling bias, which is clearly seen in Figure 5. Consistently higher grades in the original sample compared to the duplicate suggest sample over selection, where more mineralized material is consistently entering the original sample. This is undoubtedly unintentional but does show that a revision of sampling procedures will be necessary prior to next field season in order to avoid this problem in the future. An effective detection limit (i.e. the concentration at which precision equals 100%) of 0.41 ppm is disturbingly high. It means that values below this level cannot be distinguished from zero (or 0.82 ppm). Since the bulk of the gold values fall in this range, we can have very little confidence in them.

Preparation duplicates also have relatively poor precision (78.06% at 0.10 ppm). High values in preparation duplicates usually indicate poor sample homogeneity, which can be due to classification of the pulp in the pulverizer, poor granulometry (i.e. pulp not passing spec of 90% passing 75 micron) or poor sub-sampling. It is recommended to acquire the granulometry test results for these batches to verify that the pulps were meeting specifications.



Figures 4 (above) and 5. Thompson and Howarth Plot for Field and Preparation Duplicates and Field duplicate bias plot.

Conclusions

The 2005 Kizmet QAQC program had mixed results. On the positive side, the use of certified standards, an appropriate field blank sample and systematic field duplicates was well implemented. Field procedures and the maintenance of a suitable frequency of control samples in the sample stream were well done. Unfortunately the program fell short of being compliant for the following reasons:

a) QC sample results were not reviewed on a batch by batch basis and failures were therefore not identified in a timely manner. Batch failures and corrective required.

b) There are apparent procedural errors that resulted in an unacceptably high incidence of mislabeling of standards and blank samples.

c) Contamination events and possible poor sample preparation quality at the laboratory have gone undetected through the field season.

Overall, the data quality is acceptable in terms of accuracy but is of questionable precision. The presence of contamination events while not serious for this program could have been more serious if the project was at a more advanced stage.

Recommendations

The following actions are recommended to bring the QAQC program up to compliance:

1) Designation of a QAQC person, who is responsible for reviewing certificates as they come back from the laboratory. This person would control the release of analytical data to the projects based on it passing or failing QC. In the case of failures the QAQC person would be responsible for initiating corrective measures with the project and/or laboratory in a timely fashion.

2) Revision of field and database procedures to eliminate misidentification of control samples.

3) Training of geologists in sampling procedures and preparation of sample shipments.

4) Improve communications with the laboratory so that problem areas are discussed and solutions put in place in a timely manner.



000					° ¹⁰					222			7	Stuhini Group	000
55340	PIMA Alteration												A		12340
¢	Sample Number]				6					
	KZ05R0048	NONE													
	KZ05R0049	NONE	D									13			
	KZ05R0052	Chlorite	Dolomite	lllite											
	KZ05R0053	Dolomite	Calcite												
	KZ05R0054	Muscovite	Quartz	Illite		Yeth Cree	k					KZ05R0057			
	KZ05R0055	Illite										KZ05R0056	indu Table Complex		
8	KZ05R0056	Illite	Quartz								502220 Windy Table Complex	KZ05R1041	indy rable complex		٤
5330(KZ05R0057	Illite	Quartz						502362			• KZ05R10	40		F 330
9	KZ05R1037	NONE										KZ05R0055	Bio		Ŷ
	KZ05R1038	Chlorite	Quartz								Soko Gr	KZ05R0054	51218	85	
	KZ05R1039	Illite	Kaolinite								SIGNO GI				
	KZ05R1040	Chlorite	Montmorillonite						914						
	KZ05R1040	Illito	Kaolinite								W705D4007				
	KZ05R1041	Illito	Quartz								KZOSKTO37	KZ05R1039			
			Quartz									Z05R0052 KZ05R0053			
	KZ05R2059	liite	Quartz												
_	KZ05R2060	Illite	Kaolinite									KZ05R1038			.
32000	KZ05R2061	Kaolinite									KZ05R004	9			
65	KZ05R2062	NONE												1	45
	KZ05R2063	Illite	Kaolinite												
	KZ05R2064	Illite	Kaolinite	Chlorite											
	KZ05R2065	Smectite						/							
	KZ05R2066	Illite	Kaolinite												
	KZ05R2067	Illite				/									
	KZ05R2068	Illite	Dolomite			/		\leftarrow							
	KZ05R2070	Kaolinite						\mathbf{X}	50000		5022	58			
	KZ05R2071	Kaolinite	Illite		1				502237						
1000	KZ05R2072	Illite	Kaolinite							(1000
653	KZ05R3034	Illito	raomito												453
	KZ05R3034	Montmorillonit													
ŀ	Reak Sample Act				/				Laberge Group						
	ROCK Sample As:	says													
	Sample Number	Sample Type	Au (ppm) Ag (ppi	n) Pb (ppm)	Zn (ppm) Cu	(ppm) As (ppm)) Hg (ppm) S	Sb (ppm)							
	KZ05R0048	FLOAT	0.007 0.4	18	443 1	06 24	0.01	4							
	KZ05R0049	GRAB	0.0005 0.1	9	90 2	22 11	0.01	1							
	KZ05R0052	FLOAT	0.0005 0.1	1	37	15 1	0.005	1							
	KZ05R0053	FLOAT	0.02 1.3	44	254	4 100	0.04	16							
0000	KZ05R0054	GRAB	0.001 0.1	8	69	11 4	0.01	1							
653	KZ05R0055	GRAB	0.0005 0.1	16	53	1 2	0.36	1							45.3
	KZ05R0056	GRAB	0.001 0.2	15	84 2	26 7	0.04	2							
	KZ05R0057	FLOAT	0.0005 0.2	28	120	23 6	0.03	1							
	KZ05R1037	FLOAT	0.001 0.2	14	75	33 1	0.03	1							
	KZ05R1038	GRAB	0.002 0.1	11	65	23 14	0.03	1						\mathbf{N}	
	KZ05R1039	GRAB	0.03 0.3	24	13	6 1	0.03	1	\sim						
	KZ05R1040	GRAB	0.0005 0.1	 	49	20 1	0.00	1							/
	KZ05R1040		0.0000 0.1	65	308		0.01	3							
	K705D2050			10	127	ידי 142 ס ס	0.03		7				F		
0006					02 101			1							U uu
6529		GKAB				0.0 2	0.005								4529
	KZU5K2060	GKAB		34	145		0.01								
	KZ05R2061	GRAB	0.0005 0.3	41	140	14 3	0.01	1							
	KZ05R2062	GRAB	0.001 0.5	6	886	99 41	0.03	6					9		
	KZ05R2063	FLOAT	0.0005 3.3	447	2040	45 959	0.32	192							
	KZ05R2064	FLOAT	0.04 0.6	5	49 7	78 5	0.65	3				19			
	KZ05R2065	FLOAT	0.0005 0.1	1	5	1 1	0.005	1							
	KZ05R2066	GRAB	0.002 0.4	19	700	20 75	0.03	3							
	KZ05R2067	FLOAT	0.0005 0.1	3	31	3 8	0.12	1							
000	KZ05R2068	GRAB	0.0005 0.2	10	188	20 7	0.02	1				12			F

