

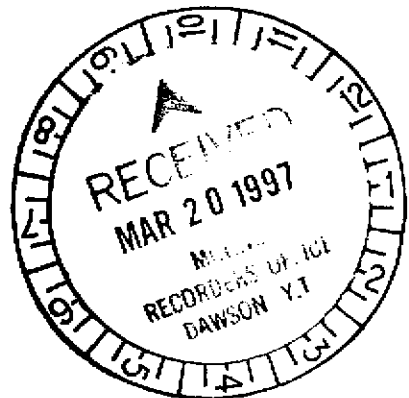
093631 pt 1 of 4

**ASSESSMENT REPORT**

on the

**BDM, EEL, ELE, FLEE, LEE Claims**

Dawson Mining District  
N.T.S. 116 B/1  
Latitude: 64°02'  
Longitude: 138°15'



Owned by: VLB Resource Corporation  
Bag 5040  
Dawson City, Yukon Y0B 1G0  
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R. Diment  
March 15, 1997

Volume I of II

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 287,075.

*M. Rank*  
for Regional Manager, Exploration and  
Geological Services for Commissioner  
Yukon Territory.

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## INTRODUCTION

### 1.1 Introductory Statement

The Brewery Creek project is a low grade bulk tonnage gold deposit located 57 km due east of Dawson City, Yukon (See Figure 1). The property consists of 717 contiguous quartz claims and 76 mining leases covering 12,795 hectares and is owned and operated by VLB Resource Corporation, a wholly owned subsidiary of Viceroy Resource Corporation.

Since the initial discovery of gold in 1987 in excess of \$20 million has been spent on deposit definition, metallurgical testwork, mine planning, environmental baseline studies and permitting. To date, geological reserves of 24.298 million tonnes averaging 1.46 g/tonne Au are contained within 10 near surface deposits along a 7 km trend. This global resource contains an oxidised portion, amenable to heap leaching, of 19.754 million tonnes averaging 1.45 g/tonne Au. Issuance of a Class A Water Licence from the Department of Indian and Northern Affairs (DIAND) in August of 1995, facilitated the commencement of haul road and pad construction, mining and stockpiling of ore. Mining and construction continued from May through October of 1996 with the first gold production realised on November 15, 1996.

This report summarises the exploration work conducted between July 1<sup>st</sup> and November 15<sup>th</sup> of 1996 and puts forward recommendations for future work in 1997. Although mining development infill drilling and geotechnical trenching also took place on the lease during this period, no attempt is made to discuss the procedures and results of this work in this report. The property geology and the deposit setting have also been revised to better reflect the new styles of mineralization discovered and geological data compiled during the 1996 field program.

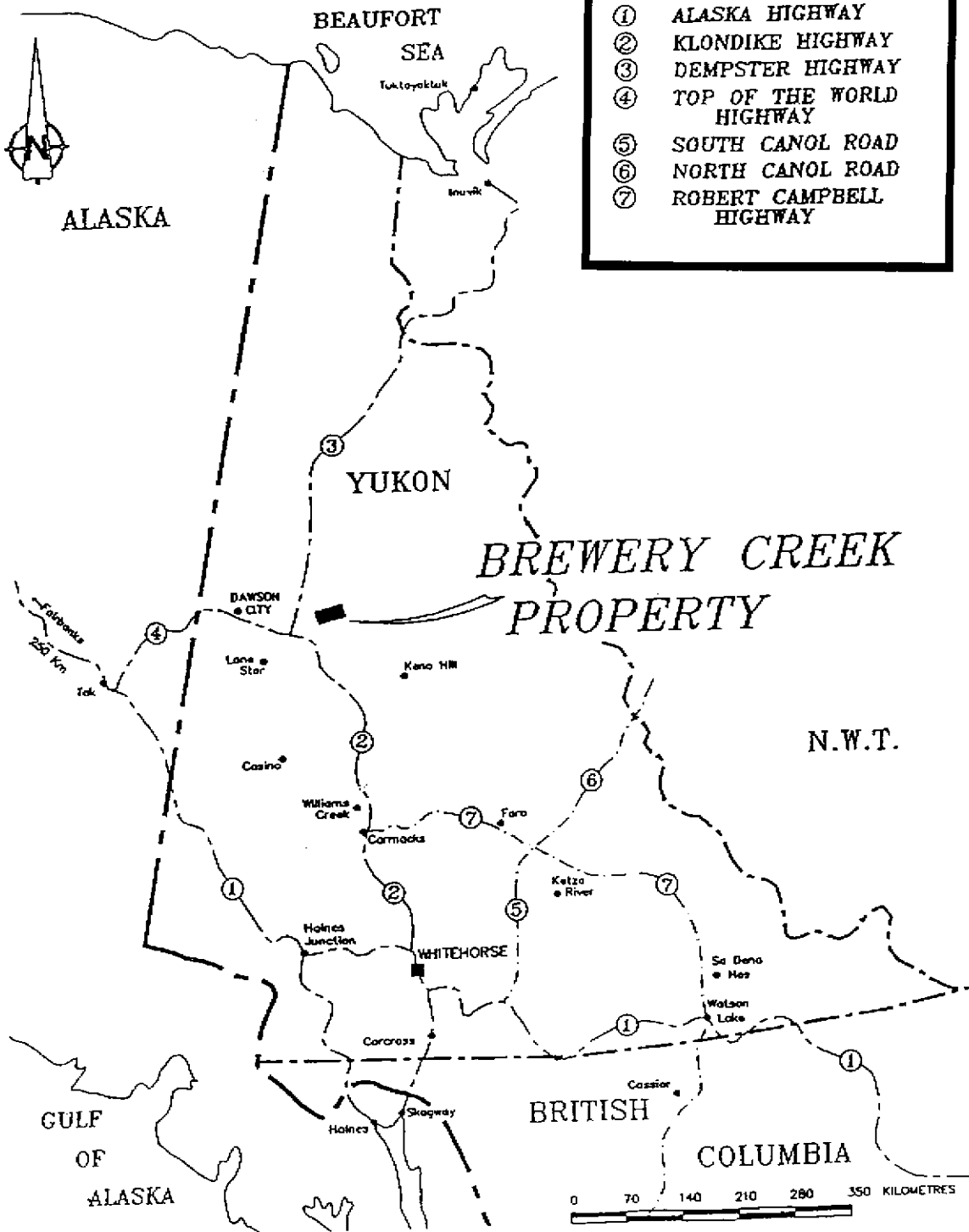
### 1.2 Location and Access

The project is located 55 km due east of Dawson City, Yukon on NTS map sheet 116B/1at latitude 64°02' N and Longitude 138°15' W (See Figure 2). Road access from Dawson City is 40 km east on the paved Klondike Highway; 7 km north on the all-weather gravel Dempster Highway; eastward for 20 km on the upgraded 2WD "Ditch Road" to the southwestern edge of the property; and finally another 6 km to the mine site on a company road.

The Ditch Road was built in 1928 to service a water diversion project which supplied hydroelectric power to the dredges in the placer gold fields. This 20 km stretch of road was upgraded during the summer of 1996 to Yukon Territorial Government standards. There are two river crossings. The first, across the North Klondike River and the second, across Lee Creek have bridges with weight limits of >50,000 kg.

The company road was built by Noranda Exploration Company Limited (Norex) in 1989 and since then has been steadily upgraded. In 1994 the road was realigned and constructed to required standards for a drive- to mine facility from Dawson City.

During 1995 and 1996 funding of \$2.479 million from the YSIP program of the Economic Development Department of YTG was utilised to upgrade the Ditch Road. This upgrading has reduced travel time from Dawson to the mine site to approximately 50 minutes.



- ① ALASKA HIGHWAY
- ② KLONDIKE HIGHWAY
- ③ DEMPSTER HIGHWAY
- ④ TOP OF THE WORLD HIGHWAY
- ⑤ SOUTH CANAL ROAD
- ⑥ NORTH CANAL ROAD
- ⑦ ROBERT CAMPBELL HIGHWAY

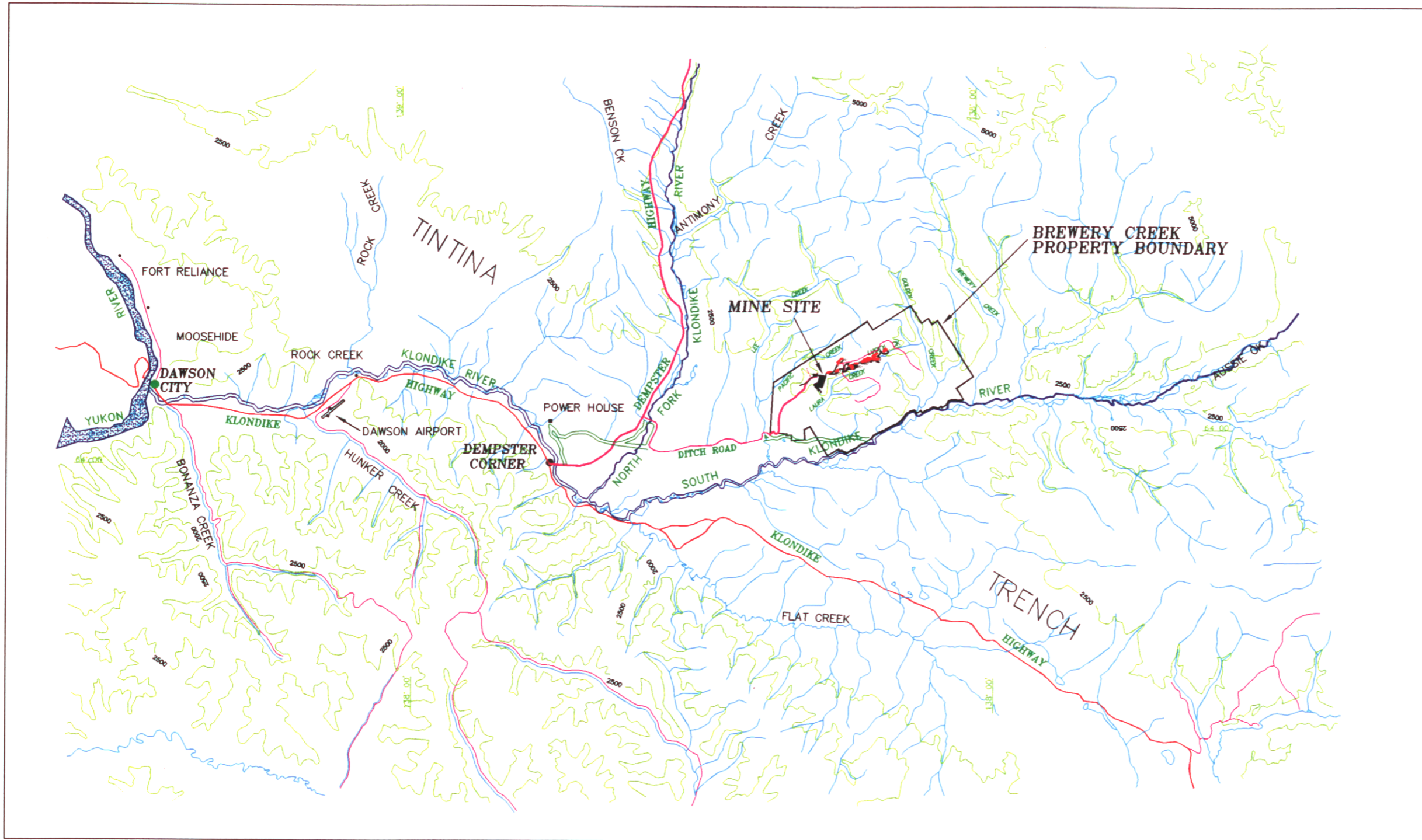
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VICEROY RESOURCE CORPORATION

## BREWERY CREEK PROPERTY LOCATION MAP

DRAWN BY:	SCALE:
DATA BY:	MAP INDEX:
DATE: <b>FEB/1997</b>	FIGURE: <b>Figure 1</b>



**LEGEND**

- 4 WHEEL DRIVE ROADS
- ALL WEATHER ROADS
- PAVED ROAD



CONTOUR INTERVAL: 500 FEET



VICEROI RESOURCE CORPORATION

**BREWERY CREEK PROJECT, YUKON  
REGIONAL LOCATION MAP**

093601 1/4 ①

DRAWN BY:	DWG SCALE:
DATA BY:	MAP INDEX NO.: I-1-2-A
DATE: FEB/11/97	PLATE NO.: Figure 2

### 1.3 Physiography & Vegetation

The property is located in the foothills of the Olgivie Mountains, with elevations ranging between 540 and 1225 metres above sea level. Despite low elevations relief on the property is moderately steep, characterised by V-shaped valleys cutting a gently rolling upland rising from the Tintina Valley. The area escaped the latest glacial advances; thus oxidation of surface rocks is extensive, extending down to a depth of 50 metres. Natural outcrop is less than 1%, and is restricted to chert forming the steeper ridge tops on the property.

Vegetation on the property consists of four main types. The higher elevations (above 1050 metres) consist of rounded hills covered with sub-alpine shrubs, grasses and widely spaced coniferous trees. Steep north facing slopes and narrow valley floors are covered with thick blankets of moss with thickets of slope alder and stunted spruce. Steep south facing slopes have two distinct styles of vegetation; coniferous trees with abundant undergrowth and areas of deciduous aspen, poplar and birch with little or no undergrowth.

All north facing slopes and valley bottoms are influenced by permafrost. Areas of gentle topography, especially NW facing slopes, and gullies contain loess (fine wind blown silt) up to 17 metres thick.

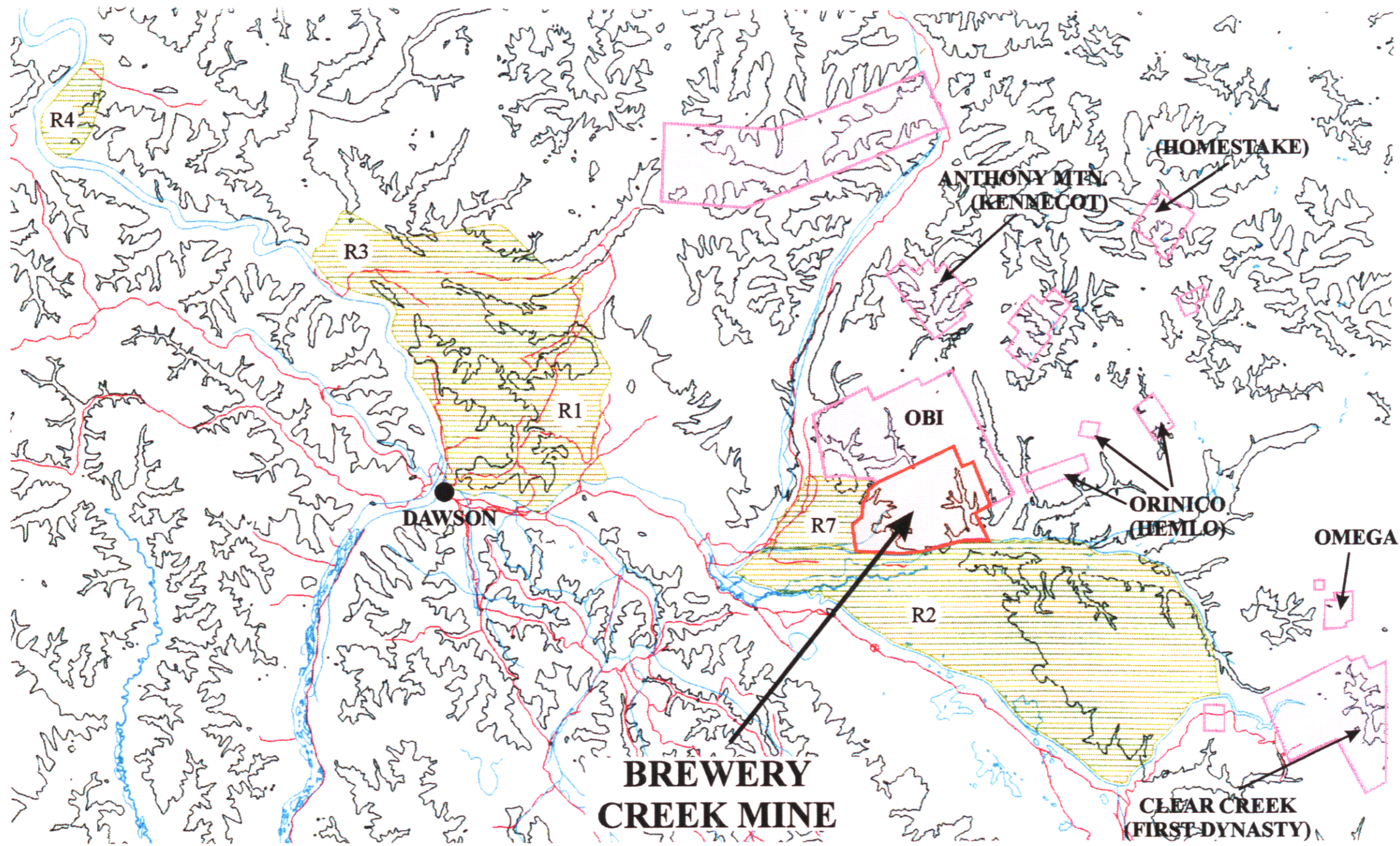
### 1.4 Regional Exploration History

The following is a brief discussion of regional exploration that has been conducted in the Brewery Creek area over the past 10 years. For a reference, a regional land tenure status map showing the location of current quartz claims with respect to the Brewery Creek Property is presented in Figure 3.

There is no recorded history of hard rock exploration in the immediate vicinity of the property, although it is likely that drainages were tested for placer in the past. Laura Creek, which drains the central portion of the property, was staked for placer in 1988. These claims received little work and subsequently lapsed in June of 1992.

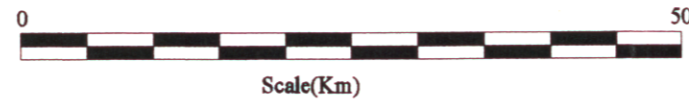
The Antimony Mountain area, located twenty to thirty kilometres north and east of the property has been the focus of several exploration projects between 1987 and 1991. These programs targeted precious metal anomalies associated with Cretaceous intrusive bodies. Antimony Mountain, one of the larger intrusive centres in the area, was staked by Total Energold. Key adjacent properties were also optioned. In 1989 they completed a summer long program which included drill testing. Results did not warrant a program in 1990. In the fall of 1995, Kennecott Canada optioned the property and added peripheral claims. They continue to hold the property and plan to conduct exploration work in 1997.

Norex conducted extensive reconnaissance work in Central Yukon in 1987, which led to the discovery of the Brewery Creek Deposit. Other claims staked by Norex include the Ida-Oro, Aus, Bear, and Ham claims ten to thirty kilometres north-east of the property. Work on these claims consisted of mapping, soil sampling, geophysics and trenching. Results from all these properties did not warrant drill testing and subsequently did not receive further work for three years. In 1995, Orinoco Minerals optioned the Aus and Ida-Oro claims from Battle Mountain Gold Company Ltd. (formerly Hemlo Gold Mines Ltd. - Norex) and conducted Kubota backhoe trenching in 1995. Follow-up diamond drilling was conducted in 1996. Results from these programs returned intersections as high as 20 g/t Au over narrow widths (less than a metre) within arsenopyrite rich quartz veins. Orinoco plans to conduct more work in 1997.



**LEGEND**

- Quartz Claims
- First Nation Land Claims



**BREWERY CREEK PROPERTY  
REGIONAL LAND TENURE STATUS MAP**

DRAWN BY:	R.D.	NO. 101
DATE BY:	K.T.	MAP INDEX: BC_LOC
DATE:	FEB/15/1997	FIGURE: 3

093601 1/4 (2)

In the fall of 1996, 520914 B.C. Ltd. staked 900 contiguous quartz claims(OBI Claims) around the northern and eastern edges of the Brewery Creek claim block. According to an article in the January 2, 1997 edition of the George Cross Newsletter, the ground was staked on encouraging silt geochemistry, gossanous and structural features. The article also stated that Pacific Galleon Mining Corp. (VSE-PFC) was granted the exclusive right of first offer to acquire the OBI claims and if exercised, intend to carry out airborne geophysics, sampling and mapping in 1997.

### 1.5 Claim History

The initial claims were staked by Norex in 1987 to cover a reconnaissance geochemical anomaly. Further claims were staked in subsequent years to cover possible extensions of gold mineralization. The total number of claims staked is 795 which forms a contiguous block covering 12,795 hectares. In June of 1990 Loki Gold Corporation (Loki) entered into an option agreement with Norex and earned a 49% interest in the property by August of 1991. In June of 1993 the remaining 51% interest was purchased, giving Loki sole ownership of the property. Ownership of the claims were transferred from Loki to VLB Resource Corporation (a wholly owned subsidiary of Viceroy Resource Corporation) after a merger in May of 1996. At this same time 76 of the core claims, covering the deposit areas, mine facilities and heap leach pad area, were approved as mining leases. At present, 7 additional claims are mid-way through the process of being taken to lease. During the 1996 assessment filing, claims FLEE 33 and 34 were dropped from the claim block as they are totally covered by the mining leases. This brings the total number of claims and mining leases to 793. The details on claims and mining leases, including the current assessment status are listed in Tables 1 and 2, and a claim sketch map is included as Figure 4.

### 1.6 Work Program

The 1996 field program included soil sampling and mapping to better define anomalous trends east of known reserves , trenching and RC drilling to expand upon mineable oxide reserves outside deposit areas and diamond drilling to test for higher grade down dip sulphide mineralization. Statistics for the various types of work are listed in Table 3 below. Plate 1, a 1:15,000 property plan map shows the location of 1996 drill holes, trenches and survey grid work. Collar co-ordinates and significant assay results for all drill holes can be found in Appendix I. Significant results from the 1996 program are discussed in the section below.

RC Drilling	53 holes for 3,472 m	Midnight Sun Drilling, Whitehorse YT
Diamond Drilling	16 holes for 2,528 m	Advanced Drilling, Surrey BC
Drill Pad Construction	69	Henry Gulch Placers, Dawson YT
Trenching	300m	Henry Gulch Placers, Dawson YT
Road Construction	10 km	Henry Gulch Placers, Dawson YT
Soil Sampling	145 line km	Viceroy International Exp. Inc.
Linecutting	27 line km	Twin Mountain Ent. Whitehorse YT
		Fireweed Helicopters, Dawson YT

**Table 1**  
**Status of claims after 1996 filing**  
Sorted by new expiry date

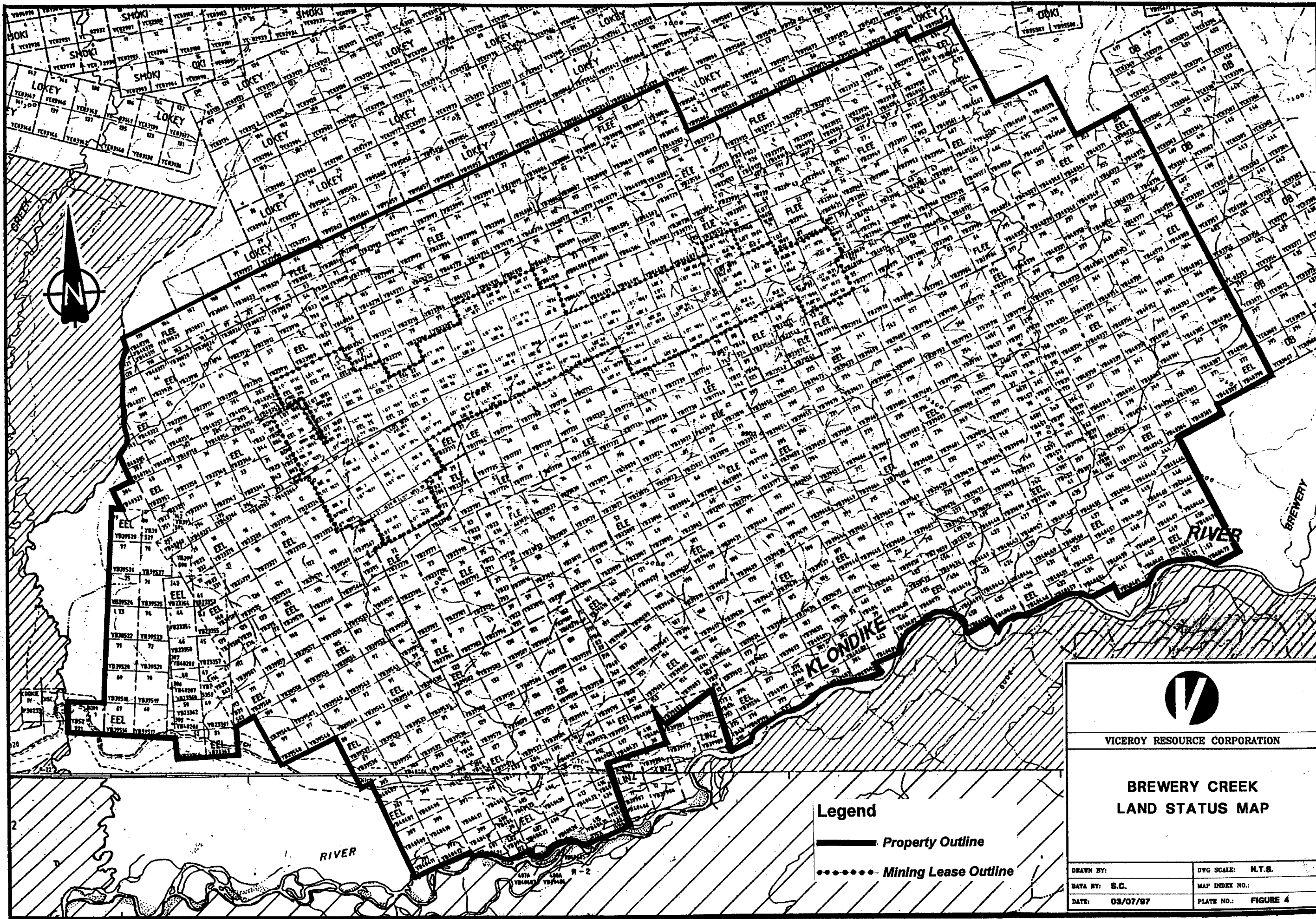
*Claim Name    Fraction    Grant No.    No. of Units    new expiry date*

BDM 002-03	F	YB52881-82	2	October 26, 1997
BDM 001		YB52721	1	January 20, 2001
BDM 004-005	F	YB52883-84	2	January 20, 2001
EEL 313-352		YB40326-65	40	January 20, 2001
EEL 353-372		YB40371-90	20	January 20, 2001
EEL 373-384		YB40393-404	12	January 20, 2001
EEL 419-458		YB40439-78	40	January 20, 2001
EEL 461-464		YB40479-82	4	January 20, 2001
BDM 007-008	F	YB88625-26	2	January 20, 2002
EEL 279		YB40250	1	January 20, 2002
EEL 385-418		YB40405-38	34	January 20, 2003
EEL 407A-408A		YB40483-84	2	January 20, 2003
EEL 415A-416A		YB40485-86	2	January 20, 2003
EEL 465-470	F	YB45736-41	6	January 20, 2003
ELE 009		YB23549	1	January 20, 2008
FLEE 020		YB23942	1	January 20, 2008
FLEE 035		YB23957	1	January 20, 2008
EEL 067-115		YB39516-64	49	January 20, 2009
EEL 117-192		YB39566-641	76	January 20, 2009
EEL 195-274		YB39642-721	80	January 20, 2009
EEL 465-478		YB40557-570	14	January 20, 2009
EEL 275-277		YB40246-48	3	January 20, 2010
EEL 281-288		YB40252-59	8	January 20, 2010
EEL 293-297		YB40264-68	5	January 20, 2010
EEL 299-300		YB40321-22	2	January 20, 2010
EEL 301-303		YB40283-85	3	January 20, 2010
EEL 304		YB40323	1	January 20, 2010
EEL 305-307		YB40286-88	3	January 20, 2010
EEL 308-312		YB40366-70	5	January 20, 2010
FLEE 091-95	F	YB40131-35	5	January 20, 2010
FLEE 098-104	F	YB40139-45	7	January 20, 2010
FLEE 105-117		YB40270-82	13	January 20, 2010
FLEE 118-121		YB40317-20	4	January 20, 2010
LEE 047		YB17714	1	January 20, 2010
LEE 088-89		YB40324-25	2	January 20, 2010
EEL 001		YB23313	1	January 20, 2012
EEL 011-20		YB23323-32	10	January 20, 2012
EEL 031-52		YB23343-64	22	January 20, 2012
EEL 053-66		YB23907-20	14	January 20, 2012
ELE 001-04		YB23541-44	4	January 20, 2012
ELE 011-16		YB23551-56	6	January 20, 2012
ELE 021-80		YB23777-836	60	January 20, 2012
FLEE 001-19		YB23923-41	19	January 20, 2012
FLEE 021-32		YB23943-54	12	January 20, 2012
FLEE 037		YB23959	1	January 20, 2012
FLEE 039-50		YB23961-72	12	January 20, 2012
FLEE 052		YB23974	1	January 20, 2012
FLEE 054-78		YB23976-24000	25	January 20, 2012
FLEE 079-104		YB30004-29	26	January 20, 2012
LEE 077-82		YB23207-12	6	January 20, 2012
LEE 083-85		YB38729-31	3	January 20, 2012
LEE 002		YB04487	1	January 20, 2013
LEE 004		YB04489	1	January 20, 2013
LEE 006		YB04491	1	January 20, 2013
LEE 008		YB04493	1	January 20, 2013
LEE 010		YB04495	1	January 20, 2013
LEE 017-26		YB04502-11	10	January 20, 2013
LEE 028		YB04513	1	January 20, 2013
LEE 030		YB04515	1	January 20, 2013
LEE 032		YB04517	1	January 20, 2013
LEE 037		YB17704	1	January 20, 2014
LEE 039		YB17706	1	January 20, 2014
LEE 041		YB17708	1	January 20, 2014
LEE 043		YB17710	1	January 20, 2014
LEE 045		YB17712	1	January 20, 2014
LEE 057-76		YB17724-43	20	January 20, 2014


**Table 2**  
**Mining Leases**

sorted by Lot #

<b>Claim Name</b>	<b>Fraction</b>	<b>Grant No.</b>	<b>Lease</b>	<b>Lot #</b>	<b>expiry date</b>
EEL 021		YB23333	x	1000	May 31, 2016
EEL 022		YB23334	x	1001	May 31, 2016
EEL 024		YB23336	x	1002	May 31, 2016
EEL 023		YB23335	x	1003	May 31, 2016
EEL 025		YB23337	x	1004	May 31, 2016
EEL 026		YB23338	x	1005	May 31, 2016
EEL 028		YB23340	x	1006	May 31, 2016
EEL 027		YB23339	x	1007	May 31, 2016
EEL 029		YB23341	x	1008	May 31, 2016
EEL 030		YB23342	x	1009	May 31, 2016
EEL 280		YB40251	x	1010	May 31, 2016
EEL 278		YB40249	x	1011	May 31, 2016
EEL 298	F	YB40269	x	1012	May 31, 2016
EEL 002		YB23314	x	1013	May 31, 2016
EEL 004		YB23316	x	1014	May 31, 2016
EEL 003		YB23315	x	1015	May 31, 2016
EEL 005		YB23317	x	1016	May 31, 2016
EEL 006		YB23318	x	1017	May 31, 2016
EEL 008		YB23320	x	1018	May 31, 2016
EEL 007		YB23319	x	1019	May 31, 2016
EEL 009		YB23321	x	1020	May 31, 2016
EEL 010		YB23322	x	1021	May 31, 2016
EEL 292		YB40263	x	1022	May 31, 2016
EEL 291		YB40262	x	1023	May 31, 2016
EEL 290		YB40261	x	1024	May 31, 2016
EEL 116		YB39565	x	1025	May 31, 2016
EEL 289		YB40260	x	1026	May 31, 2016
ELE 020		YB23776	x	1027	May 31, 2016
ELE 019		YB23775	x	1028	May 31, 2016
ELE 018		YB23774	x	1029	May 31, 2016
LEE 034		YB17701	x	1030	May 31, 2016
LEE 033		YB17700	x	1031	May 31, 2016
LEE 038		YB17705	x	1032	May 31, 2016
LEE 036		YB17703	x	1033	May 31, 2016
LEE 035		YB17702	x	1034	May 31, 2016
LEE 040		YB17707	x	1035	May 31, 2016
LEE 016		YB04501	x	1036	May 31, 2016
LEE 015		YB04500	x	1037	May 31, 2016
LEE 042		YB17709	x	1038	May 31, 2016
LEE 014		YB04499	x	1039	May 31, 2016
LEE 013		YB04498	x	1040	May 31, 2016
LEE 044		YB17711	x	1041	May 31, 2016
LEE 011		YB04496	x	1042	May 31, 2016
LEE 046		YB17713	x	1043	May 31, 2016
LEE 009		YB04494	x	1044	May 31, 2016
LEE 048		YB17715	x	1045	May 31, 2016
LEE 007		YB04492	x	1046	May 31, 2016
LEE 050		YB17717	x	1047	May 31, 2016
LEE 049		YB17716	x	1048	May 31, 2016
LEE 005		YB04490	x	1049	May 31, 2016
LEE 052		YB17719	x	1050	May 31, 2016
LEE 051		YB17718	x	1051	May 31, 2016
LEE 003		YB04488	x	1052	May 31, 2016
LEE 054		YB17721	x	1053	May 31, 2016
LEE 053		YB17720	x	1054	May 31, 2016
ELE 017		YB23773	x	1055	May 31, 2016
LEE 001		YB04486	x	1056	May 31, 2016
LEE 056		YB17723	x	1057	May 31, 2016
LEE 055		YB17722	x	1058	May 31, 2016
ELE 006		YB23546	x	1059	May 31, 2016
ELE 008		YB23548	x	1060	May 31, 2016
ELE 010		YB23550	x	1061	May 31, 2016
ELE 007		YB23547	x	1062	May 31, 2016
ELE 005		YB23545	x	1063	May 31, 2016
FLEE 051		YB23973	x	1066	May 31, 2016
FLEE 097	F	YB40137	x	1067	May 31, 2016
FLEE 036		YB23958	x	1068	May 31, 2016
FLEE 038		YB23960	x	1070	May 31, 2016
FLEE 096	F	YB40136	x	1071	May 31, 2016
FLEE 053		YB23975	x	1072	May 31, 2016
LEE 031		YB04516	x	1073	May 31, 2016
LEE 029		YB04514	x	1074	May 31, 2016
LEE 027		YB04512	x	1075	May 31, 2016
LEE 012		YB04497	x	1076	May 31, 2016
LEE 087	F	YB38733	x	1077	May 31, 2016
LEE 086	F	YB38732	x	1078	May 31, 2016



**Legend**  
 ————— Property Outline  
 - - - - - Mining Lease Outline

 <b>VICEROY RESOURCE CORPORATION</b>	
<b>BREWERY CREEK          LAND STATUS MAP</b>	
DRAWN BY:	DWG SCALE: N.T.S.
DATA BY: S.C.	MAP INDEX NO.:
DATE: 03/07/87	PLATE NO.: FIGURE 4

### 1.6.1 Sample Preparation and Assay Procedures.

All exploration analyses were conducted by Chemex Labs from North Vancouver and the mine site assay lab. The table below lists all 1996 drill holes and soil samples with their corresponding assay lab.

**Table 4. Drill Hole and Soil Sample Labs**

1996 Sample Type	Assay Lab
RC96-1565 through RC96-1583 RC96-1585 RC96-1600 through RC 96-1618 RC96-1658 through RC96-1671 DD96-93 through DD96-105 All Soil Samples	Chemex Labs
RC 96-1619 through RC96-1624 DD96-85 through DD96-92 DD96-106 through DD96-107	Minesite assay lab

All trench, RC drill and core samples were prepared on site, consisting of drying, crushing to -1/4 inch and riffle splitting to obtain a 500 gram representative split. Rejects are stored on site. Analyses for all samples included fire assay for gold with an atomic absorption finish. Soil samples were also analysed by ICP scan for an additional 32 elements including Ag, As, Sb and Hg. A rigorous duplicate assay check was conducted on every even numbered RC hole at intervals ranging from 10-12m to 18-20m.

Detailed information from the 1996 exploration program are filed in the exploration office at the minesite, including drill and assay logs. All data has been entered into a PCXPLORE database and is currently being reformatted into SURPAC format.

## CHAPTER TWO: GEOLOGY

### 2.1 Regional Geology

The Brewery Creek property is located within the foothills of the Ogilvie Mountains along the northeastern boundary of the Tintina Trench (Figure 5). The Tintina Trench forms an erosional valley approximately 15km wide which delineates the Mesozoic to Tertiary-aged Tintina Fault, now obscured by extensive unconsolidated deposits infilling the Klondike River Valley.

The Tintina Fault is a northwest trending regional scale transcurrent fault exhibiting dextral movement in the order of 450km. At the latitude of the Brewery Creek Property the fault juxtaposes late Proterozoic and Palaeozoic marginal basinal deposits of ancient North America (Selwyn Basin Stratigraphy) to the northeast and predominantly accreted terranes of various tectonic elements of the Canadian Cordillera (largely Klondike schist and allied rocks of the Yukon Tanana Terrane) on the southwest.

Selwyn Basin rocks northeast of the Tintina Trench have been imbricated by the Jura-Cretaceous Dawson, Tombstone and Robert Service Thrusts (Tempelman-Kluit, 1970). The Robert Service Thrust, extending from the Dempster Highway east-southeast through the Mayo map area, carries the bulk of Selwyn Basin rocks in its hanging wall, including those of the Brewery Creek property area. Hanging wall stratigraphy includes thick sequences (thousands of metres) of Lower Proterozoic Hyland Group, Cambrian Ordovician Road River and Devonian-Mississippian Earn Group sediments.

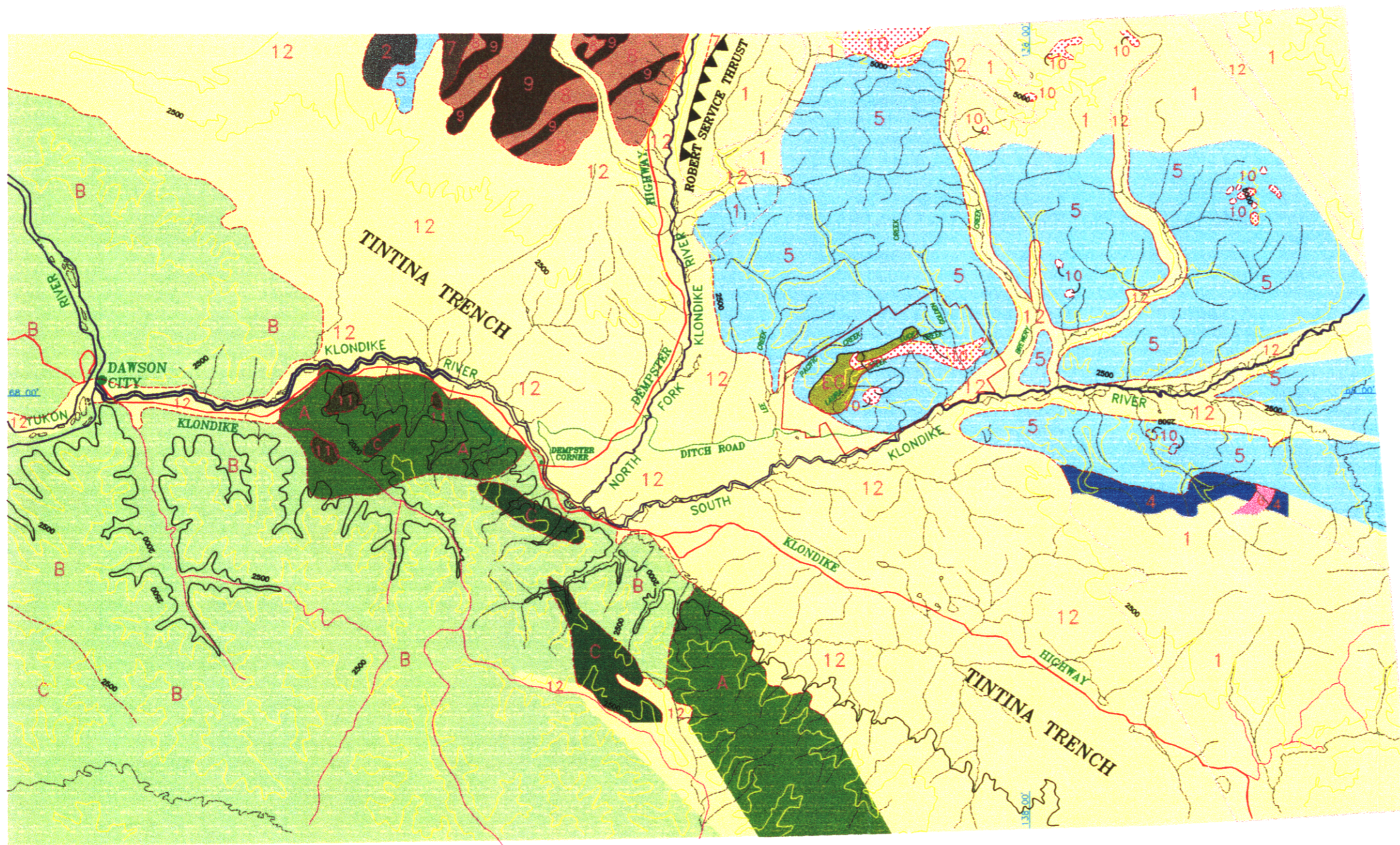
Hyland, Road River and Earn Group rocks are cut by Cretaceous intrusives forming a northwest-trending linear belt of widely spaced intermediate to siliceous stocks and plutons (locally referred to as the Tombstone Suite) which closely parallels the lateral extension of the Tintina Trench. Precious metal occurrences are commonly associated with the intrusives, either proximal to or within them, and considerable exploration effort has been directed at these rocks during the past 15 years.

### 2.2 Property Geology

Supracrustal rocks within the property boundaries are composed predominantly of Road River Group (Ordovician-Silurian) sediments overlain by siliciclastic rocks of the lower Earn Group (Devonian). The contact between these two has been the locus of WNW-trending, northeast-directed thrust faulting which has juxtaposed thin sequences of Road River Group (< 150m thick) against Earn Group. Age of thrusting is believed to be early Cretaceous, related to the earliest movement on the Tombstone Thrust 100km to the northeast.

Throughout much of the property, Cretaceous quartz monzonite has intruded Earn and Road River stratigraphy as a series of semi-conformable sills. Cretaceous biotite monzonite and syenite stock-like bodies also occur locally in the south central part of the property.

A 1:15,000 scale property geology map (modified by Loki staff after Bremner 1993) is included as Plate 2 and a detailed stratigraphic column is included as Table 5.



**GEOLOGY LEGEND**

- QUATERNARY**  
 12 Unconsolidated glacial and alluvial deposits
- TERTIARY**  
 9 Dark grey and brown andesite and basalt
- CRETACEOUS**  
 10 Porphyritic hornblende/biotite syenite, diorite and quartz monzonite  
 8 Diorite and gabbro  
 8 Keno Hill Quartzite : massive grey and blue grey
- JURASSIC**  
 7 Lower schist, dark grey argillite, slate, phyllite and quartzite  
 6 Granite, granodiorite, quartz monzonite
- DEVONIAN—MISSISSIPPIAN (EARN GROUP)**  
 EG EARN GROUP : LOWER MEMBER : Argillite, shale and minor chert interbedded with bedded barite and andesite flows and tuffic; interbedded turbidite facies - shale, sandstone, greywacke and chert pebble conglomerate.
- ORDOVICIAN TO SILURIAN**  
 5 Road River Formation : Interbedded black chert, argillite and chert pebble conglomerate  
 4 Grey limestone and dolomite
- CAMBRIAN**  
 3 Grey to brown limestone
- PRECAMBRIAN**  
 2 Dark brown to green volcanic rocks  
 1 Buff brown gritty quartzite, sandstone quartz pebble conglomerate, minor phyllites, slates, chert and limestone
- METAMORPHIC ROCKS SOUTHWEST OF TINTINA TRENCH**  
 C Reddish brown weathering, dark green serpentinized ultrabasic rocks  
 B Klondike Schist : green quartz muscovite - chlorite schist  
 A Nasho Series : grey micaceous quartzite, quartz-mica schist and biotite gneiss

**SYMBOL LEGEND**

- GEOLOGICAL BOUNDARY  
 --- PROPERTY BOUNDARY



VICROY RESOURCE CORPORATION

**BREWERY CREEK PROJECT, YUKON REGIONAL GEOLOGY**

093601 1/4 (3)

DRAWN BY:	DWG SCALE: 1:250,000
DATA BY:	MAP INDEX NO.: REG-GEOL-A
DATE: FEB/11/1997	PLATE NO.: Figure 5

Table 5. Stratigraphic Column-- Brewery Creek Project, Yukon Territory, Canada

Age	Group	Formation	Geology Map Designation	Rock Code	Description
Cretaceous (91 Ma)	Tombstone Plutonic Suite	Quartz Monzonite	K <sub>qm</sub>	QM	<b>QUARTZ MONZONITE</b> High level sills of quartz monzonite with K-feldspar megacrysts up to 2 cm across and round quartz eyes, in a light gray sphanitic to fine grained intrusive rock containing biotite and hornblende. Host shale is friable and unmetamorphosed at contacts indicating emplacement above the zone of supercritical fluid (1.5 km approx.). Igneous contacts are sharp and delicately embayed; some contacts are slickensided and marked by zones of hydrothermal clay 0.5-1.5 cm wide which appear to be altered fault gouge. A clast from a subvolcanic intrusive breccia in the Fosters Zone with clasts of quartz-eye rhyolite in volcanic glass gave a similar whole rock age, as did loose biotite flakes separated from white clay in the Golden Zone clay trench.
Cretaceous (91 Ma)	Tombstone Plutonic Suite	Biotite Monzonite	K <sub>bm</sub>	BM	<b>BIOTITE MONZONITE</b> Dykes and sills of fine grained monzonite with about 50% dark minerals, mostly biotite. Varies considerably in colour from light to dark as a result of variations in mafic content. Some hornblende in places but biotite predominates. Strongly foliated at base due to alignment of biotite flakes. Dykes of this phase have been observed cutting the syenite. This unit has only been described from the panel south of Laura Creek. At the highest point in the Schooner Zone, fine grained tuffs have been hornfelsed above a sill of this unit to form a hard, white banded rock which resembles chert.
Cretaceous (91 Ma)	Tombstone Plutonic Suite	Syenite	K <sub>sy</sub>	SY	<b>SYENITE</b> Large intrusion of medium to coarse grained syenite with trachytic texture (strongly aligned feldspar and hornblende crystals up to 2 cm, pegmatitic). Forms a major intrusion cutting tuffaceous sequence south and west of the Classic Zone, not seen elsewhere. In this area, limestone in contact with the syenite has formed a small amount of tremolite-epidote-dioptase-garnet-skaern. Dykes of the pegmatitic phase cut Devonian tuff discordantly on a ridge south of the Classic Zone road.
Early-Mid Devonian	Earn Group	Portrait Lake Formation Upper Member	DP <sub>tas</sub>	TSS	<b>TUFFACEOUS SANDSTONE</b> Medium to light gray fine grained quartz sandstone with abundant tuffaceous material (sericitic). Sericitic material may be due to a primary volcanic component or weak hornfelsing from nearby biotite monzonite and syenite intrusives.
Early-Mid Devonian	Earn Group	Portrait Lake Formation Upper Member	DP <sub>ts</sub>	TSH	<b>TUFFACEOUS SHALE</b> Dark gray to black, soft tuffaceous shale. Small (5 mm) sharp-crested asymmetric current ripples on some bedding surfaces. Looks like a distal turbidite sequence. Grades upward into tuffaceous sandstone described above.
Early Devonian	Earn Group	Portrait Lake Formation Middle Clastic Member	DP <sub>cg</sub>	CPC	<b>CONGLOMERATE</b> Massive debris flow conglomerate, containing multicolored pebbles of Duo Lake Formation chert and occasional clasts of Hyland Group micaceous quartzite in a siliceous matrix. Clasts range up to about 4 cm in size and from rounded to angular. In this area the conglomerate seems to be emplaced within Steel Formation siltstone described below suggesting that the regional unconformity between the Earn and Road River Group was confined to local, confined rift zones (channels) at Brewery Creek.
Early Devonian	Earn Group	Portrait Lake Formation Middle Clastic Member	DP <sub>g</sub>	GW	<b>GREYWACKE</b> Dark gray matrix supported greywacke. 1.0 mm-0.5 cm sub-angular clasts of chert, shale and argillite within a poorly sorted sandstone. Grades locally into chert pebble conglomerate.
Early Devonian	Earn Group	Portrait Lake Formation Middle Clastic Member	DP <sub>sa</sub>	SS	<b>SANDSTONE</b> Dark gray massive well sorted siliceous sandstone. Minor crude bedding planes. Grades downward into shale described below.
Early Devonian	Earn Group	Portrait Lake Formation Middle Clastic Member	DP <sub>s</sub>	SLT,SH	<b>SHALE, SILTSTONE</b> Fissile, gray to brown-weathering, non-calcareous fine grained shale; pin-striped and slightly burrowed silty shale. Interbedded with greywacke and sandstone lenses described above.
Early Devonian	Earn Group	Portrait Lake Formation Lower Member	D <sub>pa</sub>	ARG	<b>ARGILLITE</b> Black baritic shale and graphitic argillite.
Early - Devonian	Earn Group	Portrait Lake Formation Lower Member	DP <sub>b</sub>	BAR	<b>BARITE</b> Light gray laminated barite and minor interbedded felsic tuff. South of the Classic Zone road, laminated barite is associated with dark gray baritic limestone. Commonly interbedded with graphitic argillite and limestone described below. In the Nahanni Map Area conodont data from barite returned Mid to Late Devonian ages (Anderson, Gordy 1993). However at Brewery Creek baritic argillite overlying Silurian Siltstone suggests that barite deposition may have occurred as early as Late Silurian.
Early Devonian	Earn Group	Portrait Lake Formation Lower Member	DP <sub>l</sub>	LST	<b>LIMESTONE</b> Feld black micritic limestone, weathers gray. Extensively veined and recrystallized in places, no recognizable textures. Also, thin bedded brown to gray weathering silty limestone, calcareous siltstone and dark gray chert.
Early Devonian	Earn Group	Portrait Lake Formation Lower Member	D <sub>pa</sub>	ARG ARGG	<b>GRAPHITIC ARGILLITE</b> Black siliceous argillite, chert and graphitic shale. Characteristically fractured, brecciated and quartz veined in places. In drill core, interbedded with yellow-weathering siltstone at top of Steel Formation. According to Gordy, the base of the Earn Group is defined as the top of the highest wispy-laminated siltstone layer.
Silurian	Road River Group	Steel Formation	S <sub>s</sub>	SST	<b>SILTSTONE</b> Yellow-weathering burrowed calcareous siltstone with wispy laminations; calcareous silty shale. Contains a distinctive bed of yellow-weathering, hard blue-gray siliceous dolomite. Interbeds of black graphitic argillite, chert and minor bedded barite form a distinctive upper member near the top of the formation. According to Gordy, the upper boundary of the Steel Formation is placed at the top of the last siltstone layer. The presence of barite suggests that the Steel Formation may span a wider time interval (Silurian to Early Devonian) than its type area. Limestone and calc-arenite beds (turbidites) are common near the bottom of the formation. In the valley northeast of the Classic Zone, a limestone bed immediately overlies an andesite-pebble conglomerate at the top of a thick sequence of Menzle Creek volcanics, suggesting a possible unconformity. Age dating of this limestone is needed to confirm this assumption.
Ordovician-Silurian	Road River Group	Duo Lake Formation	OS <sub>D</sub>	CH	<b>CHERT</b> Black chert and argillite; chert is massive or thick bedded and lacks banding; no limy or tuffaceous layers. Although it generally underlies the Steel Fm siltstone, identical chert commonly forms beds several metres thick within the Steel Fm.
Cambro-Ordovician	Road River Group or Rabbitkettle Formation	Menzle Creek Volcanics ?	CO <sub>M</sub>	MTUFF	<b>MAFIC TUFFS, FLOWS AND BRECCIA</b> Dark calcareous amygdaloidal flows, tuffs and volcanic breccia; probably andesitic; highly altered with calcite and zeolite-filled amygdular; thin limestone interbeds. An andesite pebble conglomerate occurs at the top of a thick wedge of this unit northeast of the Classic Zone. Well rounded andesite clasts up to 8 cm across occur in dark matrix of highly calcareous fine grained tuff. This unit is overlain by Steel Formation siltstone in the southern map area suggesting a major unconformity during Ordovician Time.

## 2.2.1 Stratigraphy

### 2.2.1.1 Road River Group

The stratigraphic section on the property is dominated by Road River Group rocks, consisting of tan-weathering, wispy-laminated, 'burrowed' siltstone overlying massive black chert and calcareous andesitic flows and tuffs. The siltstone and chert units correlate with the Silurian Steel and Ordovician Duo Lake Formations respectively as defined by Gordey and Anderson (1993) in Nahanni map area (105-I). The volcanics, representing the oldest rocks on the property, correlate with intermediate flows mapped by Green (1972) in the Larsen and Nash Creek map areas as a facies equivalent of the Road River Formation. However, recent mapping by Gordey and Anderson in the Nahanni mapsheet correlate similar lithic tuffs with the Upper Cambrian Rabbitkettle Formation.

The Steel Formation occurs sporadically throughout the Selwyn Basin and is an important stratigraphic marker forming the top of the Road River Group. Within the property boundaries the top part of the formation contains interbeds of graphitic shale, chert, bedded barite and limestone and can be mistaken with the overlying graphitic argillite of the Lower Earn Group. Fossils from this upper member of the Steel Formation contain Silurian to Early Devonian conodonts (Norford and Poulton, 1995; GSC Loc. No: C-211108, C-211110 and C-211111). Mapping by Gordey and Anderson (Nahanni map area 105-I, 1993) has defined the contact as the highest occurrence of wispy-laminated siltstone, which is the same parameter employed at Brewery Creek. Throughout much of the central part of the property, however, siltstone overlies Earn Group graphitic argillite, shale and sandstone. Intensely sheared interbeds of cherty argillite, mentioned above, are believed to be the locus of thrust faulting which has juxtaposed thin sequences of Steel Formation (<150m) on top of Lower Earn Group rocks. Throughout the Selwyn Basin the contact between the Road River and Earn Group is marked by a regional unconformity (Murphy, and Heon 1994); however, interbedding of Road River siltstone and Earn Group graphitic argillite and bedded barite at Brewery Creek may represent continuous deposition from late Silurian through to early Devonian.

### 2.2.1.2 Earn Group

In the central part of the Brewery Creek Property area the stratigraphic section is dominated by siliclastic rocks of the Devonian Earn Group. Gordey and Anderson (1993), in Nahanni Map Area 105-I, divide the Earn Group into a lower fine grained locally clastic and baritic member and an upper coarser clastic member known as the Portrait Lake and Prevost Formations, respectively. At Brewery Creek the Earn Group section appears to be confined to the lower Portrait Lake Formation consisting of local sandstone, greywacke and chert pebble conglomerate interbeds within baritic argillite, graphitic shale and silty shale.

At Brewery Creek the lower member of the Portrait Lake Formation consists of an interbedded sequence of black graphitic argillite and minor chert (up to 250m thick) which extends east-west through the entire central part of the property. Locally, bedded barite ( $\leq 20$ m thick) and thin (<4m) black limestones are found interbedded within this unit north of the Kokanee Zone (20,800 E/20,200 N). The age and stratigraphic position of the argillite is based solely on its baritic composition which closely resembles similar Early to Late Devonian baritic strata mapped in the Nahanni Map Area (Gordey and Anderson, 1993).

Overlying the argillite is locally tuffaceous fissile shale interbedded with minor sandstone, greywacke and chert pebble conglomerate. This coarser clastic assemblage (up to 100m thick) appears to grade up-section into soft sericitic shale and sandstone which cap the higher ridge tops in the western map area. It remains unclear whether this soft, sericitic texture is due to a primary tuffaceous component or weak hornfelsing caused by nearby intrusives bodies. In the central map area, chert pebble conglomerate is incised within Steel Formation Siltstone suggesting that rifting and uplift during Devonian Time produced local unconformities (channels) through the underlying Road River Group. The general eastward thinning and coarsening of Earn Group sediments along Laura Creek may also define a northwesterly striking Early Devonian rift zone, filled by clastic material sourced from the southeast.

### **2.2.2 Intrusive Rocks**

The stratigraphic sequence has been intruded by Cretaceous quartz monzonite porphyry, biotite monzonite and syenite. Dating of zircon by the G.S.C. yielded an age of 91.4 MY.  $\pm$  .2 for the quartz monzonite. This is approximately the same age as similar intrusive complexes found to the north at Antimony Mountain and elsewhere within the Tombstone Range.

The quartz monzonite has intruded Upper Road River and Lower Earn Group stratigraphy as semi-conformable sills along a strike length of at least 12km. Sill emplacement is closely associated with well developed, gently-dipping shear fabrics within graphitic argillite, suggesting that the quartz monzonite has invaded early Cretaceous thrust faults. Hornfelsing is limited in the surrounding sediments supporting the hypothesis of a high-level, low-temperature, dry intrusive event. Quartz monzonite-shale contacts strike northwesterly (090° to 120°) and dip gently (005° to 30°) to the southwest. Sill thicknesses range from 5 to 10m in the western map area to greater than 100m in the east. The quartz monzonite is associated with all of the ore zones scheduled for mining to date.

In the south-central map area, syenite and biotite monzonite stocks intrude surrounding Road River and Earn Group sediments. Biotite monzonite sills also occur in the southcentral and southeastern map areas. The syenite and biotite monzonite are relatively coarse-grained and equigranular with well developed hornfelsing around sedimentary contacts. Despite textural and compositional differences these intrusives are believed to be closely related in age to the quartz monzonite (Green, 1972). The biotite monzonite and syenite suite does not occur in any of the ore zones scheduled for mining at this time.

### **2.2.3 Structural Geology**

The stratigraphic sequence described above generally strikes WNW and dips moderately SW (010° to 040°). However, occasional north dips and minor broad south vergent folds have been recently mapped in the silty shales and tuffs of the Portrait Lake Formation. Limb dips range from 10° to 60°. Fold axes trend ENE and WNW (80 to 110°) and plunge gently (010°) to the west. This style of deformation is consistent with the Sprague Creek map area (115P/15), 50 km to the southeast, where similar south vergent folding has been mapped in similar stratigraphy (Murphy and Heon, 1994). Fold deformation and cleavage development is thought to correlate with prominent SW vergent folds found throughout the Omineca Crystalline Belt of early Middle Jurassic age (Murphy and Heon, 1994).

Several episodes of faulting have cut the entirety of the stratigraphic pile and include: early Cretaceous northeast directed thrusts and NNE shears, late Cretaceous WNW and NNE shears, and WNW and ENE younger brittle faults. These structures are described below in detail as they are intimately and spatially related to ore deposition.

#### *2.2.3.1 Listric Normal Faults - Reactivated Thrust Faults*

WNW trending, northeast directed thrusts traverse the majority of the property area juxtaposing Silurian Steel Formation against Early Devonian Portrait Lake sediments. Argillite, common to both the Upper Road River and Lower Earn Group, is highly tectonized, incompetent, graphitic and most likely represents the decollement surface where thrust faulting has been accommodated. However, slickensides along these graphitic surfaces show consistent strike and dip-slip movement and thus may represent later listric normal movement along pre-existing thrust surfaces. This later extensional event is primarily responsible for the quartz monzonite sill emplacement within the graphitic argillite.

Trench exposures and cross-sectional interpretations consistently display shallowly south-dipping sheared contacts between interlayered units of pervasively altered quartz monzonite and strongly tectonized graphitic argillite. These listric structures are not delineated on Figure 5 but traverse the entire property, 12km in total, varying in strike from 080° to 120°. Dips to the southwest range from 060° near surface to less than 010° at depth.

Trench exposures commonly display these listric normal faults as stacked "rift-like" curvilinear surfaces which progressively flatten south-dipping strata by rotation of the hanging wall block. Gently north-dipping argillites occur in the Canadian Zone and may be the result of this rotation. Cross-sectional interpretations show these imbricate faults merging tangentially or at small intersection angles.

#### *2.2.3.2 NNE Faults*

Prominent NNE vertical structures (020° to 040°), characterized by tightly spaced en echelon fractures are common within hanging wall sediments of thrust sheets. Fracture intensity increases down section toward the thrust surface. Similar to the intrusion of the thrust faults, these structures have also been invaded by quartz monzonite (e.g. Moosehead Zone) and thus are believed to be the same age (early Cretaceous). These structures are primarily orthogonal to the trend of thrust faulting and may represent transverse sinistral tear faults.

#### *2.2.3.3 WNW & NNE Shears*

The most dominant structural fabric on the property consists of WNW (100°) and NNE (040°) shears. This fabric is primarily sub-vertical: however moderate SW and NE dips are also associated with WNW structures. The age of deformation is constrained to 91 Ma or younger as this fabric crosscuts the quartz monzonite sills. Slickensides show both sinistral and minor normal movements on WNW faults and dextral movement on NNE faults. Relative offsets within the stratigraphic pile are generally less than 3m. The relative orientation and movement of these structures suggests that they may represent a conjugate set with maximum compressive stress and extension oriented ENE(070°) and NNW(160°) respectively. Furthermore, trench exposures within the Pacific Zone show minor north dipping en echelon structures truncated against a more dominant south dipping fault. This geometry suggests graben style extension (minor antithetic structures falling against a dominant master fault). This shear/extension system appears to be confined to the hanging wall of listric normal faults (pre-existing thrust faults).

Fault gouge up to 30cm wide with strong strike and dip-slip slickensides along graphitic argillite-quartz monzonite contacts suggest that these thrust surfaces may have been reactivated forming deep seated master graben faults. Further movement along early Cretaceous NNE structures is also suggested.

#### *2.2.3.4 WNW & ENE Brittle Faults*

The latest stage of deformation on the property consists of WNE and ENE trending unhealed faults. Little work has been done on these structures and therefore they remain primarily interpretive. Limited drilling along these structures in the Canadian and Kokanee Zones suggests left lateral strike-slip movement for the ENE faults. Offset of the bedded barite horizons is suggestive of up to 200m of displacement. WNW faults are interpreted as steeply dipping normal structures which offset stratigraphy by as much as 50m. Both faults truncate sulphide mineralization and all previously described structures.

### **2.2.4 Property Lithologies**

The following discussion is restricted to those lithologies mapped in the immediate vicinity of the presently known ore zones.

#### *2.2.4.1 Quartz Monzonite Intrusives*

There are three variants of the Quartz Monzonite sill complex:

- fresh quartz monzonite (QM);
- altered quartz monzonite (AQM); and,
- weathered (oxidized) limonitic altered quartz monzonite (LAQM).

Quartz Monzonite (QM) is typically grey, feldspar porphyritic (with rare k-spar phenocrysts to 2cm), and contains 10 to 15% biotite. It is locally limonitic near the surface due to partial weathering of biotite. Trace amounts of pyrite have been observed along fracture surfaces.

The Altered Quartz Monzonite (AQM) has apparently undergone hypogene alteration. This lithology is light grey to white and is characterized by the complete replacement of biotite by pyrite and chlorite, and by alteration of feldspars to sericite and clay with the introduction of secondary quartz. Silicification occurs primarily as fine quartz stockwork and lesser pervasive silicification within shear zones up to 15m wide. Sulphide content (pyrite, marcasite and lesser arsenopyrite and stibnite) ranges from 0 to 5%.

Limonitic Altered Quartz Monzonite (LAQM) is the oxidized equivalent of altered quartz monzonite. This unit is characterized by a pervasive rusty brown weathered colour derived from the oxidation of biotite and sulphides to limonite. Remnant sulphides are rare, consisting of traces of pyrite and cross-cutting stibnite veins up to 15cm wide.

#### 2.2.4.2 *Earn Group & Road River Sedimentary Rocks*

The following lithologies comprise the Earn & Road River Groups in the area of the ore zones:

- chert pebble conglomerate (CPC),
- greywacke (GW),
- sandstone (SS),
- shale (SH),
- barite (BAR),
- limestone (LST),
- argillite (ARG),
- graphitic argillite (ARGG),
- siltstone (SST),
- chert (CH), and,
- lapilli-block tuff (MTUFF).

#### **Earn Group; Portrait Lake Formation Dp**

Chert Pebble Conglomerate (CPC) is a medium to dark grey, clast-supported conglomerate. Clasts, up to 5cm in diameter, are mainly well rounded chert, shale or argillite pebbles. The unit is competent, locally silicified and fractured. Trace to 1% limonite and sulphides occur along fracture surfaces. The chert pebble conglomerate and greywacke are thought to represent a continuum based on grain size.

Greywacke (GW) is dark grey and contains approximately 15% angular chert and shale clasts (typically less than 0.5cm in diameter) within a poorly sorted arkosic sandstone matrix. The greywacke is generally massive with no apparent bedding. It is not visibly oxidized but may contain trace limonite and stibnite along fracture surfaces.

Sandstone (SS) is dark grey, well-sorted clastic unit with a siliceous matrix. It is generally massive with little evidence of apparent bedding, but is itself commonly interbedded with shale. This unit generally contains trace limonite along fracture surfaces. Where mineralized, the sandstone matrix is flooded with 5 to 10% fine-grained pyrite and arsenopyrite.

Shale (SH) is dark grey, non-carbonaceous, fissile, and displays well developed bedding. Soft, light to medium grey tuffaceous layers of cm scale thicknesses are also common. It is generally not visibly oxidized but locally has trace limonite along fracture surfaces. Where mineralized, the shale matrix is flooded with 5 to 10% very fine-grained pyrite and arsenopyrite.

Barite (BAR) is bedded, generally light brown to buff coloured, and is commonly interbedded with limestone and shale.

Limestone (LST) is black, carbonaceous, commonly fetid and contains abundant fossil fragments.

Argillite (ARG) is a black, fine grained unit with well developed bedding, is commonly carbonaceous, locally baritic, and contains minor chert horizons. This unit is heavily fractured, fissile and graphitic near intrusive contacts. Hornfelsing is absent near the intrusive contacts. Sulphide content is variable, ranging

from 0 to 5% pyrite and marcasite. Sulphides occur as fine disseminations and as 1 to 2cm thick beds of diagenetic pyrite.

Graphitic Argillite (ARGG) is broadly similar to ARG but is localized along shear zones near intrusive contacts. Bedding structures are no longer visible and the rock is friable.

#### **Road River Group; Steel Formation S<sub>S</sub>**

Siltstone (SST) weathers a distinctive tan colour and is commonly intercalated with argillite. The unit is commonly fissile, calcareous and bioturbated. The unit can often be dolomitic exhibiting a massive slightly indurated texture. The unit also exhibits a soft, tuffaceous texture (abundant sericite and illite) and may be the result of weak hornfelsing by nearby intrusive bodies or decalcification. Interstitial carbonate in the siltstone is removed by a cooling hydrothermal solution and replaced by fine grained sericite, illite and montmorillonite. Where mineralized the calcareous matrix has been replaced by silica with up to 10% fine disseminated pyrite, arsenopyrite and stibnite.

#### **Road River Group; Duo Lake Formation O<sub>S<sub>D</sub></sub>**

Chert (CH) occurs as massive beds up to 30m thick, and is commonly interbedded with argillite. Sulphides are rare, occurring as trace amounts of pyrite along fracture surfaces.

#### **Rabbitkettle Formation CO<sub>M</sub>**

Lapilli-Block Tuff (MTUFF) is a light grey, indistinctly layered pyroclastic unit of intermediate composition. Clasts are 0.5cm to 10cm in diameter, with poorly defined margins. This unit is commonly calcareous and contains up to 10% fine-grained pyrite.

## CHAPTER THREE: MINERALIZATION

### 3.1 Introduction

Moderate to high level gold mineralization at Brewery Creek is structurally controlled and primarily confined to hanging wall siliclastic strata, intrusive rocks and calcareous sediments of listric normal faults (reactivated thrust faults). Eighty-five percent of the known reserves are hosted by Cretaceous quartz monzonite sills while the remainder is contained within brittlely deformed coarse clastic sediments of the Devonian Earn Group.

Typically, the reserve deposits delineated to date average 1 to 2 g/t Au with individual assays varying from trace to greater than 30 g/t Au. Although host rock lithologies vary considerably, tectonized graphitic argillite consistently forms the footwall to all known deposits. Late Cretaceous dip and strike-slip reactivation along these graphitic thrust surfaces suggest they also acted as deep-seated conduits which tapped gold bearing hydrothermal solutions.

To date, a geologic resource of approximately 24 million tonnes grading 1.5 g/t Au has been defined in ten near-surface, gently-dipping deposits along a strike length of 7km. From west to east these deposits, collectively referred to as the Reserve Trend, have been named the West Big Rock, East Big Rock, Pacific, Blue, Moosehead, Canadian, Fosters, Kokanee, Golden and Lucky Zones. A subdivision of mineable and geological resource estimates for these zones is provided in Table 6. The Big Rock reserves were calculated using results of the 1996 drilling and include "oxide" proven, probable and possible geologic resource estimates. The Bohemian, Schooner and Sleemans Zones to the east, the North Slope Zone to the north and South Canadian and Classic Zones to the south are classified as exploration targets and no tonnages have been attributed to them.

TABLE 6

Summary of Geological Resources (tonnes x 1000)--(From Feasibility Study, 1994)

Geological Resources	Cut-off only	Blue		Canadian		Foster		Golden		Kokanee		Lucky		Moosehead		Pacific		West Big Rock		East Big Rock		Total			
		g/t	t	g/t	t	g/t	t	g/t	t	g/t	t	g/t	t	g/t	t	g/t	t	g/t	t	g/t	t	g/t	t	g/t	
TOTAL	0.3	2,992	1.25	3,028	1.24	1,819	1.53	6,381	1.30	6,492	1.43	2,801	1.17	3,056	0.89	1,585	1.04							28,154	1.26
	0.5	2,341	1.49	2,502	1.42	1,560	1.72	4,938	1.56	4,901	1.76	2,114	1.42	2,255	1.06	1,145	1.29	1.338	1.07	1.204	.95		24,298	1.46	
	0.7	1,799	1.76	2,070	1.59	1,344	1.90	3,857	1.84	3,864	2.08	1,622	1.68	1,531	1.28	874	1.51						16,960	1.78	
	0.9	1,392	2.05	1,651	1.80	1,102	2.15	3,051	2.11	3,205	2.34	1,259	1.93	1,070	1.50	701	1.69						13,431	2.04	
Oxide Subtotal	0.3	1,472	1.15	2,647	1.22	1,390	1.59	4,449	1.30	5,059	1.46	1,734	1.22	1,253	0.89	1,081	0.80						19,085	1.28	
	0.5	1,105	1.40	2,170	1.40	1,212	1.76	3,416	1.57	3,860	1.79	1,295	1.50	876	1.11	698	1.03	NC	NC	NC	NC		14,632	1.55	
	0.7	806	1.70	1,790	1.57	1,051	1.94	2,687	1.84	3,028	2.12	1,038	1.73	603	1.34	469	1.25						11,470	1.81	
	0.9	566	2.08	1,411	1.79	867	2.19	2,088	2.14	2,515	2.39	796	2.01	463	1.51	333	1.43						9,039	2.09	
Sulphide Subtotal	0.3	1,054	.99	43	1.29	11	2.06	1,010	1.13	628	1.46	985	1.08	570	0.80	197	2.16						4,497	1.14	
	0.5	832	1.15	39	1.37	10	2.18	830	1.29	509	1.71	752	1.28	450	0.97	174	2.39	NC	NC	NC	NC		3,552	1.34	
	0.7	607	1.36	36	1.45	10	2.23	635	1.51	449	1.85	529	1.57	260	1.16	164	2.51						2,689	1.57	
	0.9	471	1.52	32	1.52	10	2.28	515	1.68	373	2.07	417	1.79	162	1.41	154	2.62						2,133	1.78	
Transition Subtotal	0.3	466	2.18	339	1.41	419	1.33	922	1.48	806	1.20	82	1.28	1,232	0.92	307	1.16						4,572	1.31	
	0.5	404	2.45	293	1.58	388	1.55	692	1.85	532	1.61	68	1.48	974	1.06	272	1.25	NC	NC	NC	NC		3,572	1.56	
	0.7	386	2.53	245	1.76	283	1.74	536	2.21	387	1.99	55	1.67	668	1.28	241	1.34						3,801	1.83	
	0.9	355	2.69	208	1.95	225	1.99	448	2.49	317	2.25	46	1.84	445	1.52	215	1.41						2,258	2.08	
Oxide and Transition Subtotal	0.3	1,938	1.39	2,986	1.24	1,808	1.53	5,371	1.33	5,865	1.43	1,816	1.22	2,485	0.91	1,388	0.88						23,657	1.29	
	0.5	1,508	1.68	2,463	1.42	1,550	1.72	4,108	1.62	4,392	1.77	1,362	1.50	1,850	1.09	971	1.09	NC	NC	NC	NC		18,204	1.55	
	0.7	1,192	1.97	2,034	1.59	1,333	1.90	3,223	1.90	3,415	2.10	1,093	1.73	1,270	1.31	710	1.28						14,271	1.81	
	0.9	920	2.32	1,619	1.81	1,092	2.15	2,536	2.20	2,832	2.37	842	2.01	908	1.52	547	1.42						11,297	2.08	

Note: West Big Rock and East Big Rock Zones calculated by R. Diment, 2/97, with a 0.5 g/t cut-off only and includes "oxide" proven, probable, and possible geologic estimates. "Mineable Reserves" for all zones currently in revision by mine staff.

A discussion of the sulphide mineralization in conjunction with alteration, structural controls, occurrence of gold, preg-robbing characteristics of graphitic argillite, geological model and the individual ore zones follow. Significant results from the work conducted in the various exploration zones during the 1996 field season are also discussed in terms of their potential to increase geological reserves.

### **3.2 Alteration and Mineralization**

Gold mineralization is hosted within porphyritic quartz monzonite, biotite monzonite, interbedded sandstones and silty shales. Although a wide variety of lithologies exist, mineralization and alteration are restricted to those units which have created open space through structural deformation or decalcification caused by tectonic and hydrothermal forces. The finer grained siliceous argillites are generally unmineralized due largely to low porosity and poor permeability caused by weak hornfelsing and plastic deformation.

#### **3.2.1 Mineralized Intrusive Rocks**

##### *3.2.1.1 Quartz Monzonite*

Eighty-five percent of the known gold mineralization is hosted by a single lithology, namely quartz monzonite. Excluding the Classic Zone, mineralized quartz monzonite occurs in every deposit and exploration target area delineated to date.

Mineralization is intimately associated with pervasive phyllic and locally intense argillic alteration. This assemblage is characterized by destruction of mafic phenocrysts, alteration of feldspars to sericite, presence of illite and kaolinite, and introduction of secondary quartz with fine-grained pyrite and arsenopyrite. Silicification occurs primarily as coarse grained (0.5-2 cm wide) milky white quartz veinlets which have been overprinted by a wispy-textured hairline quartz stockwork. These two cross cutting vein systems are well developed adjacent to narrow fault gouge zones producing locally pervasive silicification. These areas contain some of the highest grade mineralization on the property yielding values up to 16 g/t Au over 6m (Kokanee Zone, K-6 bulk trench). However high gold values are also associated with intense fracturing and weak silicification as well, suggesting that the more subtle and passive hairline stockworking is the main mineralizing event. A weak propylitic halo, defined by weak chloritization of mafic phenocrysts and strong carbonitization, is commonly found associated and peripheral to the mineralization. The introduction of carbonate to the matrix may have allowed decalcification and subsequent silicification during the phyllic overprint stage. This style of alteration is subtle, showing no signs of stockworking or brecciation but exhibiting well preserved feldspar megacrysts within an aphanitic, siliceous and pyritic groundmass.

Stibnite veins, 1 to 20cm thick, are common within the mineralized zones but rarely contain any significant gold values. Silicified intrusive clasts within these veins imply that the stibnite may represent a later hydrothermal event which occupied the same structures as the gold mineralizing event.

Oxidation, here defined by weathering of biotite and sulphides to limonite, is extensive, extending from surface to an average depth of 50m. Common oxide minerals are goethite after pyrite, scorodite after arsenopyrite and antimony ochre and kermisite after stibnite.

A selected suite of altered and unaltered quartz monzonite was analysed by whole-rock technique to determine the relationship between the major element chemistry and gold mineralization. These results exhibit a strong positive correlation between alteration and gold, consistent sodium and potassium depletion, and silica enrichment.

#### *3.2.1.2 Biotite Monzonite and Syenite*

Mineralization of the biotite monzonite and syenite is restricted to the Classic Zone. Drilling in 1993 returned values up to 0.41 g/t Au over 100m. Unlike the quartz monzonite, mineralization appears to be associated with potassic alteration consisting of fine shredded biotite within a fine grained white potassium feldspar matrix. Quartz-K feldspar and tourmaline veinlets, up to 2 cm wide, are also present. Calc-silicate skarn minerals such as tremolite, epidote and calcite are common near sedimentary contacts. With the exception of coarse free gold, the alteration and geological setting is similar to the large tonnage Fort Knox and Dublin Gulch Deposits. The Classic Zone continues to be a target of considerable interest and tonnage potential, as the soil anomaly extends for 5 km and oxidation extends to a depth of greater than 100m .

#### **3.2.2 Mineralized Sandstone and Shale**

Mineralization in siliclastic rocks is confined to the Pacific, Blue and Moosehead Zones. Oxidation, compared to the intrusive rocks, is weak, limited to a depth of 25 metres. Gold values here are more directly associated with arsenopyrite than is apparent elsewhere, yielding values up to 7.5 g/t Au over a 28m true thickness (BC-DDH-91-461).

Alteration is characterised by intense fracturing occupied by fine quartz stockwork and cryptocrystalline montmorillonite within a well foliated groundmass of sericite and detrital quartz. Very fine-grained pyrite (trace to 10%) is disseminated throughout the siliceous stockwork. Cement prior to mineralization appears to have been silica (noted in thin sections as overgrowths on monocrystalline quartz grains). Stibnite occurs as veins and pods up to 1cm wide. Preliminary ground radiometric surveys within the Blue and Pacific Zones show consistent potassium enrichment associated with mineralized sandstone and shale.

#### **3.2.3 Mineralized Argillite**

Although argillite is a dominant rock type in most of the deposits, it is generally unmineralized. Elevated gold values in argillites are largely confined to highly sheared graphitic and stockworked contacts between the mineralized intrusives and coarser clastic sediments.

### **3.3 Relationship between Mineralization and Structure**

Four structural fabrics, namely WNW-trending imbricate listric normal faulting, NNE and WNW sub-vertical shears and south vergent folded bedding are the main genetic controls to gold mineralization in the Reserve Trend. Outside the main deposit corridor, a NW trending structure parallelling the Tintina Trench appears to control mineralization in the Classic Zone.

#### **3.3.1 Mineralization and Listric Normal Faults**

The dominant control to gold mineralization is EW to ESE - trending imbricate listric normal faults (reactivated thrust faults) which have been delineated along a 12km strike length extending from the Big Rock to the Sleemans Zone. Later shear and extension along thrusts produced the necessary open space for migration of gold bearing hydrothermal solutions. The repetitious, imbricate nature of these structures commonly forms stacked (up to three), moderate to gently dipping ( $005^{\circ}$  to  $060^{\circ}$ ) mineralized domains. These faults are localized along contacts between fine-grained graphitic argillites (barren footwall) and the brittle, coarse-grained clastic sediments and intrusive rocks (mineralized hanging wall). Fracture intensity, alteration and associated gold values generally increase toward these contacts and up dip. Higher gold values in the near surface environment may be attributable to steeper fault contacts caused by greater imbrication. Furthermore, footwall argillites may have acted as a physical (permeability) trap, thereby concentrating ascending gold-bearing solutions.

#### **3.3.2 Mineralization and WNW, NNE Shears**

Mineralized sub-vertical WNW and NNE shears are common in the hanging wall of imbricate thrust faults. Fractures are generally occupied by en echelon quartz veinlets (commonly less than 1cm wide) which contain fine-grained arsenopyrite. In the Golden Zone bulk trench, a NNE fabric has developed into a 10m wide vertical quartz breccia shear zone crosscutting quartz monzonite. These shear systems appear to form minor vertical and moderate north and south dipping ore chutes within the broader gently dipping mineralized domains of listric normal faults. Higher grade mineralization is intimately associated with greater fracture intensity with or without pervasive silicification. The wide range in shear dip and their geometric relationship between bounding reactivated thrusts also suggests minor graben style extension (refer to section 2.2.3.3 of this report). Drilling to date has consistently shown that these shears and associated mineralization are bounded at depth by gentle south dipping, graphitic master graben faults (i.e. listric normal faults).

#### **3.3.3 Mineralization and South Vergent Folding**

Mineralization in the Blue Zone appears to be controlled by broad south vergent folded contacts between Earn Group siliclastic rocks rather than cross cutting planar shears mentioned earlier. Although stockworking is present, silicification primarily occurs as fine grained en echelon quartz veinlets along bedding. Structural deformation and associated mineralization are best developed in the hinges of these folds. Two bulk sample trenches (3-5 metres deep) exhibit a south vergent isoclinal synform which bounds higher grade mineralization averaging 6 g/t Au. Drilling has delineated this grade along a strike length of 200 metres. Further structural mapping is needed to determine if this localized isoclinal folding is due to drag along later structures or inconsistencies with thrust fault kinematics. Like other reserve area deposits however, mineralization is bounded at depth by a gently dipping, planar graphitic surface.

### **3.3.4 Mineralization and NW Classic Zone Structure.**

A southeasterly trending (135°) sub-vertical extensional fault hosts low grade gold mineralization (0.41g/t Au) in the Classic Zone. Unlike the thrust fault regime, alteration here is not localized along the sediment-intrusive sill contacts but cross-cuts syenite and biotite monzonite stocks vertically to depth. A strong arsenic-in-soil anomaly parallels this structure and extends 5km northwesterly to the Pacific Zone. Further exploration work is needed to assess the gold potential along this trend.

### **3.4 'Preg-Robbing' Characteristics of Graphitic Argillite**

Metallurgical testwork has been conducted on argillite and graphitic argillite in order to assess their preg-robbing tendencies, and thereby the implication for reduced leach recovery within the heap. Bounding footwall argillites as well as intercalated graphitic argillite lenses within mineralized zones were specifically sampled and tested to determine if selective mining will be required to avoid possible preg-robbing lithologies. Results show a strong correlation with the oxide/sulphide interface and paleo-water table boundaries. The following generalized conclusions can be made:

1. Within the oxide facies of the deposits (i.e. presence of significant limonite and absence of visible sulphide) lying above the paleo-water table, graphitic argillite is demonstrably not preg-robbing. Neither the percentage of visible graphite nor its morphology (even where mapped as massive, 'sooty' graphite) apparently affects leach rate or recovery.
2. Within oxidized portions of the deposits lying below the paleo-water table, graphitic argillite is variably weakly to moderately preg-robbing.
3. Within the transition facies, graphitic argillite is commonly weakly preg-robbing if located above the paleo-water table, and moderately to strongly preg-robbing below the water table.
4. Within the sulphide facies of the deposits (occurrence of > 1% sulphides and the absence of visible limonite) graphitic argillite is always strongly preg-robbing.

### **3.5 Occurrence of Gold**

Microprobe work on selected mineralized samples was conducted at the University of Western Ontario in 1990. Results show that gold occurs primarily as sub-micron particles in solid solution with arsenopyrite and pyrite as growth bands around larger sulphide grains. Most of the gold is concentrated in the outer rim and only limited oxidation is required to liberate it from solid solution. The sulphide grains themselves are typically very fine grained, in the order of 100 to 250 microns.

### **3.6 Geological Characterization of the Ore Zones**

The several ore zones on the property are similar in overall style but vary slightly in structural geometry, proportions of rock types and ore host. The following section briefly describes the individual ore zones.

### 3.6.1 Canadian

The Canadian Zone consists of a 20 to 35m thick mineralized limonitic-altered quartz monzonite (LAQM) sill intercalated with carbonaceous to graphitic argillite (ARG, ARGG). The footwall of the sill is bounded by tectonized graphitic argillite (listric normal fault) which strikes 120° and dips gently (015°) to the southwest. Sulphides are rarely preserved in these rocks except for minor discontinuous stibnite veins up to 10cm thick. Mining in 1996 exposed a parallel graphitic listric normal fault to the bounding footwall structure. This fault, although pencil line thin, can be traced down dip more than 100 metres and acts as a sharp boundary between ore and waste in the hanging wall. Thus the Canadian deposit can be described as a gentle south dipping sill bounded by parallel footwall and hanging wall listric normal faults.

The orebody, extending 450m along strike and 150m down dip, is classified as 91% oxide and 9% transition ore. Sulphide mineralization remains open down dip to the southeast. Preg-robbing argillite is confined to transition and sulphide mineralization in the southeastern portion of the zone and as a result will probably affect the leach recovery of less than 5% of the total mineable reserve.

A parallel, satellite oxide orebody occurs 150m west of the main Canadian pit. Dimensions are 100m x 150m with mineralized sill thickness ranging from 2 to 10m. Oxide mineralization remains open down dip to the southwest.

Less oxidized rocks, especially unoxidized altered quartz monzonite (AQM), occur at relatively shallow depths (near the bottom of the proposed pit) in the southeastern corner of the zone. Varying percentages of sulphides (mostly pyrite) are preserved in both AQM and ARG in this area (e.g. section 19667E). Mineralization in the AQM contains up to 1% arsenopyrite and stibnite and remains open down dip to the southeast. Minor (<5%) shale (SH) and sandstone (SS) occur in the southwestern Canadian Zone. The shale differs from argillite in that it is softer, non-carbonaceous and siltier. Pyrite is occasionally preserved in unoxidized shale and sandstone.

### 3.6.2 Fosters

The Fosters Zone is split into an upper and lower deposit. The upper deposit is similar to the Canadian zone in that mineralization is confined to a 20 to 40m thick sill bounded by graphitic argillite. The graphitic footwall, or thrust surface, strikes WNW (100°) and dips between 015° to 045° southwest. Unlike the Canadian, the Fosters exhibits strong sub-vertical WNW fracture cleavage which confines mineralization to narrow higher grade (3 to 5 g/t Au) zones within the sill.

The Lower Fosters deposit is structurally more complicated containing two mineralized sills bounded by imbricate graphitic listric faults. The sills dip gently (005° to 015°) to the southwest but steepen to 045° near surface. Intercalated argillite is common within the orebody. Higher grade areas (9 to 17 g/t Au over 2m) are localized near surface against graphitic contacts.

The upper and lower deposits extend 300m along strike and 50 to 100m down dip. Oxide is the dominant ore type. Transition ore is limited to 5 and 11% of the total mineable reserve in the upper and lower deposits respectively.

Preg-robbing argillite may affect recovery from up to 15% of the total oxide reserve in the Lower Fosters Zone but probably 5% or less in the Upper Fosters Zone.

Rock types in both the upper and lower deposits are dominated by LAQM with intercalated ARG and ARGG. Minor AQM occurs in the southeastern part of the lower deposit. Rare sulphides are confined primarily to the lower deposit where pyrite, arsenopyrite and stibnite are preserved in LAQM and AQM, generally but not always below the water table.

### **3.6.3 Kokanee**

The Kokanee Zone consists of three imbricate listric fault domains which dip steeply (055° to 060°) near surface and flatten to less than 020° at depth. The faults, localized along LAQM - ARGG contacts, are interpreted to merge tangentially at depth, forming a common sole thrust. Mineralization is confined to quartz monzonite sills with higher grade areas (15 g/t Au over 6m) localized along the steeper graphitic footwall contacts near surface. Sub-vertical NNE and WNW fractures also develop steep controls to mineralization within the hanging wall sill of listric fault domains. Both oxide and sulphide mineralization remain open down dip along the southern edge of the zone.

Transition ore is limited to approximately 8% of the total mineable reserve. Preg-robbing internal argillite, which may affect up to 5% of the total oxide reserves, is localized along the southeastern edge of the zone (21,000E to 21,100E).

The Kokanee Zone is less completely oxidized than the Canadian and Fosters Zones due to greater sill thicknesses (0 to 70m from surface). Unoxidized AQM and ARG in which sulphides are preserved is more common than in the Canadian and Fosters zones. Trace amounts of pyrite are preserved in LAQM and oxidized ARG. Stibnite occurs as rare discontinuous veins up to 3cm wide within LAQM.

Steel Formation siltstone occurs in the north central portions of the zone within the anticipated pit area and will probably form part of the pit wall.

Towards the northwest, chemical sediments including barite, chert and rare limestone are found interbedded with shale, siltstone, and argillite. In some places (e.g. section 20,933 E) the barite might form part of the pit wall.

### **3.6.4 Golden**

The Golden Zone is similar to the Kokanee in that up to five imbricate listric normal faults define moderate to gently dipping (060° to 020°) mineralized domains. Strike lengths range from 500 to 700m and extend 25 to 50m down dip. Ore is confined to hanging wall quartz monzonite sills and minor argillite within the footwall contacts of the listric faults. Strong NNE and minor WNW subvertical fracture cleavage develop steep ore controls within hanging wall sills. Sulphide mineralization remains open down dip along the southern edge of the zone.

Transition and sulphide ore is limited to 12 and 1% respectively of the total mineable reserve. Preg-robbing internal argillite, which is localized along the southern edge of the zone, will affect less than 5% of the total oxide reserve.

Rock types are dominantly oxidized quartz monzonite (LAQM) intercalated with argillite (ARG). The northern part of the Golden Zone is well oxidized. The southern portion is less completely oxidized and minor sulphides are still preserved in LAQM and in oxidized ARG. Minor stibnite occurs as 2 to 10cm wide veins. In the south it is probable that the pit will descend into unoxidized, auriferous altered quartz monzonite (AQM) in which sulphides are preserved. (e.g. section 21,900 E)

### **3.6.5 Lucky**

Gold mineralization in the Lucky Zone occurs within three gently dipping to flat lying imbricate listric normal fault domains. The deposit extends for 350m along strike and 100 to 200m down dip. Ore is confined to hanging wall of quartz monzonite sills which extend to a maximum depth of 70m from surface (the deepest on the property). Mineralization is bounded to the north by a post-ore NNE trending fault. Sulphide mineralization up to 2.3g/t Au over 14m remains open down dip below the lowermost proposed pit depth.

Transition and sulphide ore is limited to 12% of the total mineable reserve. Internal graphitic argillite is not preg-robbing and will not likely have any affect on oxide reserves.

Rock types are dominantly oxidized quartz monzonite (LAQM) intercalated with argillite (ARG). Gold mineralization extends to less oxidized LAQM and unoxidized AQM and ARG in which sulphides are preserved. Minor and local narrow veins of semi-massive sulphides, including semi-massive stibnite, are hosted in LAQM within certain high grade sections of the Lucky Zone.

### **3.6.6 Blue and Pacific**

The Blue and Pacific Zones are atypical to the property in that the dominant ore host is a gently dipping interbedded sequence of shale and sandstone overlying graphitic argillite. Mineralization also occurs within thin (<10m) flat lying quartz monzonite sills, but comprises less than 25% of the total ore reserve in both pits. Chert pebble conglomerate (CPC) conformably overlies the auriferous clastic sequence and is generally unmineralized. In the Blue Zone broad south vergent folding appears to control mineralization. Higher grade mineralization, averaging 6 g/t, is confined to the hinge of an isoclinal synform extending for 200 metres along strike.

The Blue and the Pacific orebodies have strike lengths of 350m and 450m respectively extending down dip variably from 50 to 150m. Depth of oxidation is comparatively shallow at only 25 meters. Transition ore comprises 9% of the Blue and 25% of the Pacific mineable reserves. Internal graphitic sediments are sparse in the oxide portions of both zones, and preg-robbing is not likely to occur.

Auriferous shale and sandstone typically contain trace to 2% very fine grained pyrite and arsenopyrite. Oxidation in the sediments is less pervasive than in the quartz monzonite and thus minor sulphide has been preserved even at surface.

The Blue and Pacific Zones are ultimately bounded by the same structural controls as in the previously described deposits, the only difference being that the listric normal faults have been primarily localized along ARG - SH, SS GW contacts rather than LAQM - ARGG contacts. Sulphide and oxide mineralization remain open down dip and along strike in both deposits.

### **3.6.7 Moosehead**

The Moosehead Zone exhibits both a structural and an ore-type transition from a north-northeast trending quartz monzonite sill, similar to that observed in the Canadian-Lucky trend, to a west-northwest trending interbedded argillite, shale, sandstone and greywacke system similar to that seen in the Blue zone. Ninety-five percent of the mineable reserve is hosted within quartz monzonite.

The emplacement of the quartz monzonite sill appears to have invaded a pre-existing NNE trending fault (possibly tear faults related to early Cretaceous thrust faulting) which dips moderately to the southeast (~045°). Oxidation within the sill is limited to a depth of 10 to 20m thereby limiting tonnages amenable to gold recovery by cyanide leach.

East of 19,200E the primary structural ore control changes from a NNE trending fault to a WNW trending gentle dipping imbricate listric fault.

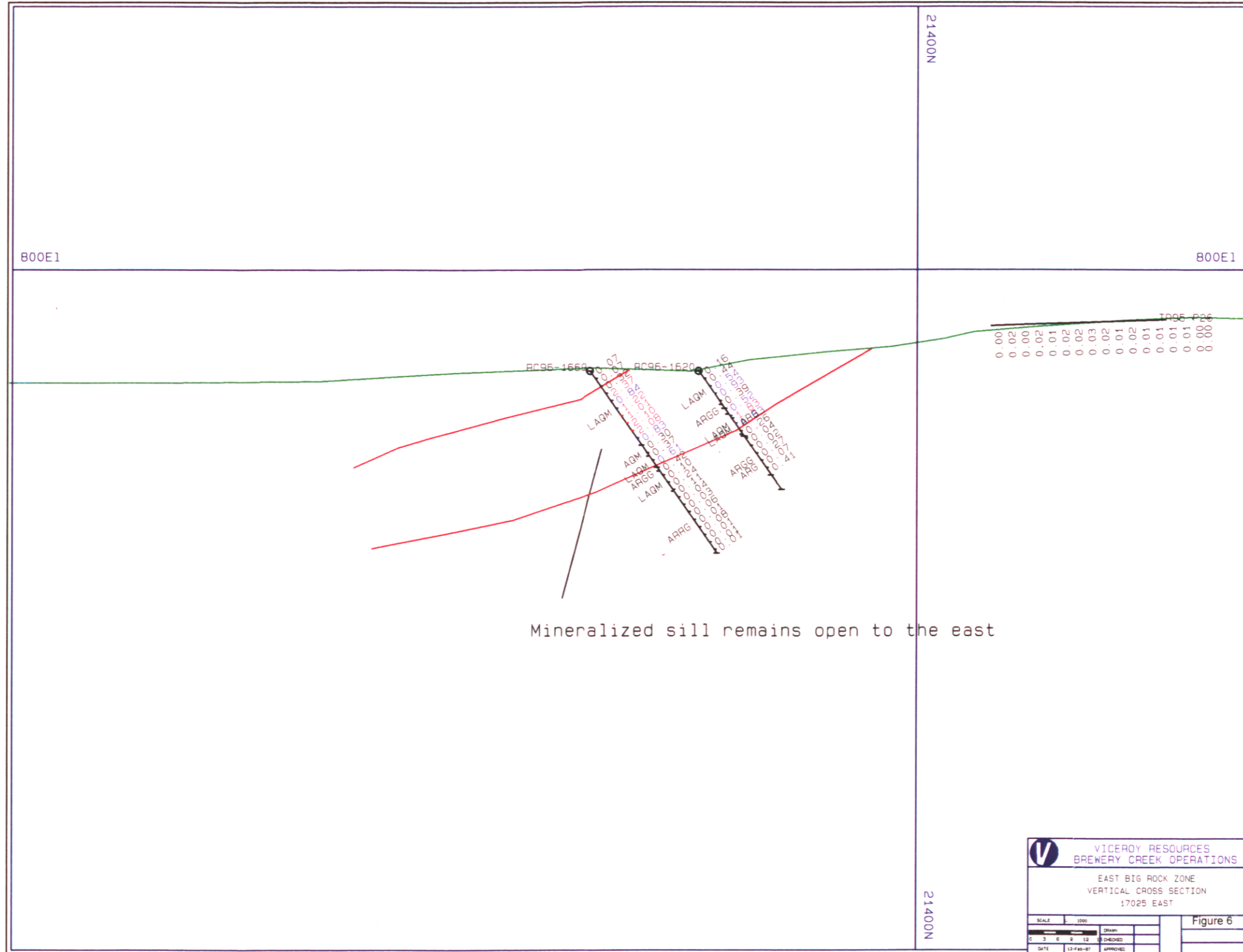
Both oxide and sulphide mineralization remain open down dip and along strike to the east.

## **3.7 Exploration Zones; 1996 Summary of Work, Significant Results and Recommendations for 1997 Work**

### **3.7.1 West and East Big Rock Zones**

A total of 45 RC holes for 2,767 metres were drilled in the West and East Big Rock Zones, expanding upon open ended oxide mineralization along strike. Geological oxide reserves for the West and East Big Rock Zones now stand at 1.338 million tonnes at 1.07 g/t Au and 1.204 million tonnes at 0.95 g/t Au respectively (See Table 6). A brief summary of the significant results and geological description of the deposits follow. A complete set of cross sections and plan maps used for reserve calculations in each zone are available at the minesite. Representative cross sections across the eastern edge of each zone (Figures 6 and 7) are included on the following pages to emphasize exploration potential along strike.

In the West Big Rock Zone eight step-out holes for 370 metres were drilled along strike and down dip. RC96-1575 and 1576 on the east end of the West Big Rock Zone intersected 0.6 g/t Au across 8 metres at depths ranging from 24 to 36 metres. Although the zone is relatively low grade, oxidized sill thicknesses remain broad and require further drilling along strike to the east. Step out hole RC96-1579 to the west failed to intersect LAQM or any significant mineralization, defining the western limit of the deposit. DDH96-105 was drilled 125 metres south of the zone to test for higher grade sulphide potential down dip. Although the hole failed to intersect any significant mineralization at depth it returned a 3.9 metre intersection of 1.0 g/t Au from 1.5 to 5.4 metres. Trenching in 1997 is recommended to assess whether this narrow oxide interval represents a parallel mineralized structure south of the main oxide deposit.



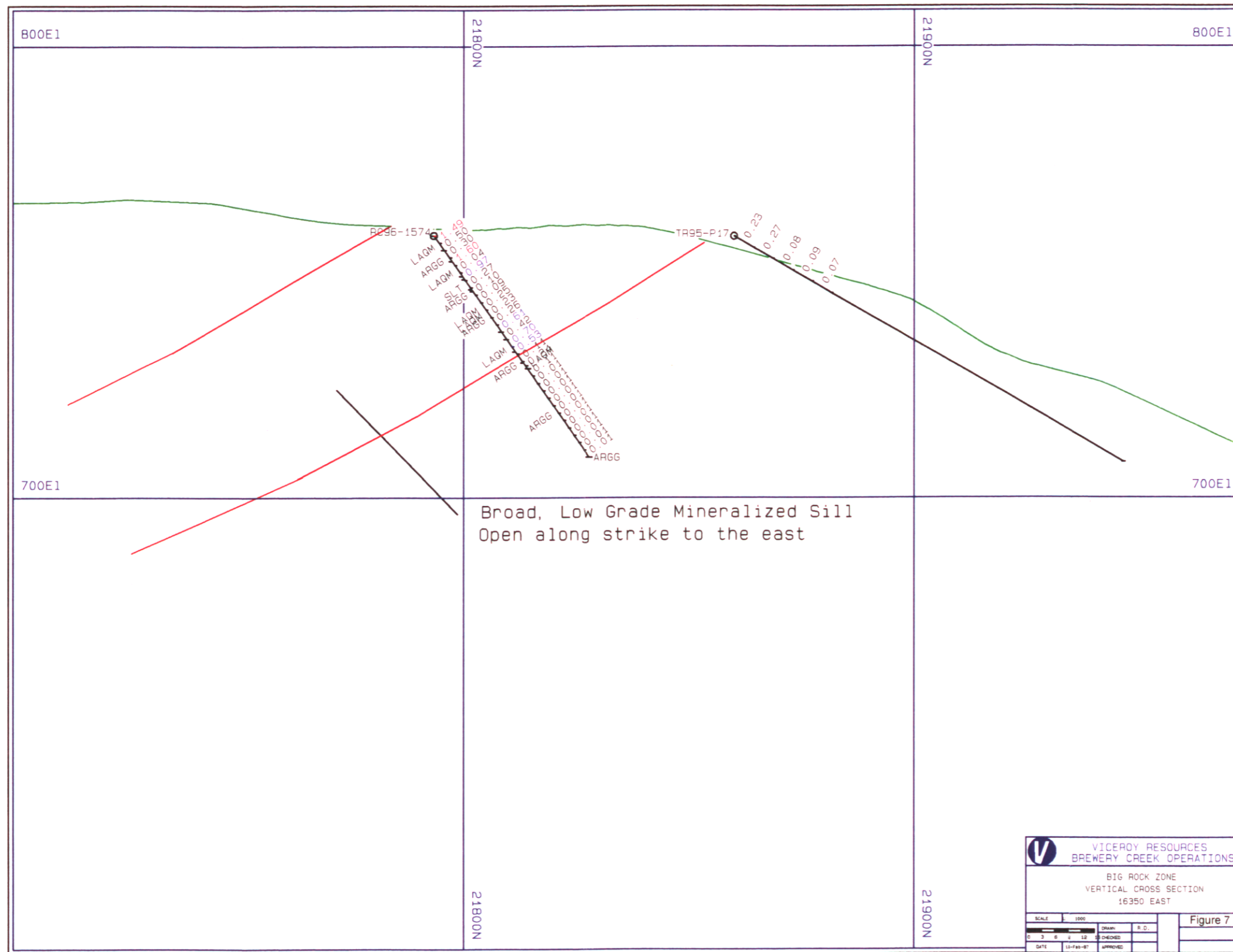
VICEROY RESOURCES  
 BREWERY CREEK OPERATIONS  
 EAST BIG ROCK ZONE  
 VERTICAL CROSS SECTION  
 17025 EAST

SCALE	1:1000	Drawn
CHECKED		
DATE	13-Feb-07	APPROVED

Figure 6

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SSI - VICEROY - BREWERY CREEK OPS.

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In the East Big Rock Zone 37 holes for 2,397 metres were drilled and increased the mineralized strike length 75 metres grid west and 150 metres grid east. Due to steep west facing topography along the western edge of the deposit and the easterly striking, curvilinear dip of the bounding listric fault (steeply dipping near surface, shallowing to a gentle dip at depth) mineralization is interpreted to daylight at approximately 16,600E marking the western extent of the deposit. To the east the mineralized sill appears to be offset 250 metres to the southeast along a dextral strike slip fault. The narrow mineralized sill thickness between 16900E and 17000E may be the result of drilling acute to the strike of the post ore structure. Drill holes RC96-1620 and 1669, defining the offset portion of the mineralized sill returned 14 metre widths averaging .78 g/t Au (2-16m) and 1.49 g/t Au (6-20m) respectively. These intersections are the most extensive throughout the entire zone and remain open to the east. Hole RC96-1671, 100 metres to the southeast, intersected narrow sulphide mineralization (1.0 to 1.4 g/t Au) at a depth of between 44 and 56 metres. The surface projection of this mineralization to the north would define an easterly striking sill similar to the one defined between 16600E and 16900E, suggesting an abrupt offset along the interpreted NW trending dextral fault. An early drill program in 1997 is highly recommended to expand upon the wide open strike length to the east.

The West and East Big Rock Zones exhibit lithological and structural controls similar to the Canadian Zone. Mineralization is hosted exclusively within LAQM sills, intercalated with cherty graphitic argillite. Maximum mineralized sill thicknesses are 26 metres and 14 metres in the Big Rock and East Big Rock Zones respectively. Mineralization extends for 300 metres along strike and dips moderately (30-55°) to the south in both zones. Oxide mineralization, intersected as deep as 90 metres, remains open along strike to the east in both zones. A north west trending creek valley grid north of the mine camp facilities separates the two zones, suggesting that recent erosion has removed part of what was once a continuous deposit.

The deposits are classified as oxide based exclusively on the presence of pervasive limonite and rare sulphides within mineralized sills. Metallurgical testwork is needed in order to determine tangible cyanide leach recoveries. Rare fine grained pyrite, totalling less than 0.5%, are preserved within mineralized sills. Visible stibnite veining is common. The presence of pervasive oxidation lying well above the paleo water table (drilling to date has not intersected water within 100 metres from surface) indicates that the preg robbing tendencies of graphitic argillite would be very limited.

### **3.7.2 South Canadian Zone**

Two RC holes for 100 metres and one diamond hole for 319 metres were drilled 300 metres south of the Canadian Pit on the north facing slope of Laura Creek Valley to test gold in soil anomalies associated with north dipping intercalated graphitic shale, silty shale and LAQM sills. North dipping structure and stratigraphy in this area showed promise for dip slope mineralization similar to the Reserve Trend across the valley. Unfortunately drilling failed to intersect any significant mineralization. DDH96-87 intersected a .25 metre Quartz/stibnite stockwork zone averaging only 1.6 g/t Au (172.9 to 173.14m). (See Plates 3 and 4)

In excess of three hundred metres of Earn Group siliclastics and quartz monzonite sills were drilled in DDH96-87. Road River Group Steel Formation found approximately 150 metres at depth in the Canadian Zone appears to be down dropped greater than 100 metres on the south side of Laura Creek. Evidence of this displacement is supported by a horizontal thrust contact between Steel Formation Siltstone and underlying Earn Group silty shales and sandstones at 19400E/19600N. This contact appears to represent the down dropped extension of the interpreted thrust fault, 700 metres south along a

southeasterly trending ridge (See Plate 2). A graphitic zone located midway between the two thrust contacts, trending sub parallel to Laura Creek may represent a major north dipping normal fault which has downdropped allochthonous Steel Formation siltstone and Earn Group siliclastics by as much as 200 metres. The confined, wedge shaped pattern of Earn Group Rocks within Laura Creek Valley, bordered to the north and south by gentle north dipping Road River sediments, suggests that the drainage may represent the axis of a large graben structure. Gold in soil anomalies correlate with LAQM sills and the easterly trending graphitic fault zone implying a possible north dipping analogue to the Reserve Trend. Poor drill results in 1996 may have been due to drilling too far down dip along the inferred north dipping graphitic fault. Soil anomalies in the area of drilling occur in permafrost and may have been transported considerable distances downslope from the south. Future work in 1997 will focus on detailed soil sampling, mapping and trenching along this graphitic fault in hopes of defining dip slope oxide mineralization.

### 3.7.3 North Slope and North Golden Zones.

A total of four RC holes for 426 metres and four core holes for 785 metres were drilled in the North Slope and North Golden Zones approximately one kilometre north of the Reserve Trend. Drilling focused on testing the down dip and strike length continuity of mineralization within the calcareous Road River Steel Formation. (See Plates 5, 6, 7 and 8)

RC drilling in the North Slope Zone helped to define an easterly striking, shallow southwest dipping ( $088^{\circ}/30^{\circ}$ ) mineralized zone between 20300E and 20690E. Grades as high as 14 g/t Au over 2-4 metres are common within the mineralized zone. RC96-1665 along section 20690E returned the most extensive intersection to date averaging 2.56 g/t Au over 16 metres (88-104m). This intersection remains open down dip and along strike to the east. Mineralization is stratabound, hosted exclusively within interbedded pyritic siltstone and graphitic shale. Alteration is very subtle showing little evidence of fracturing, structural deformation or silicification. Fine grained pyrite, up to 5%, is commonly found disseminated throughout the siltstone matrix. The bounding footwall structure appears to be tectonized graphitic argillite commonly intruded by quartz monzonite sills which are weakly mineralized averaging 0.25 to 0.5 g/t Au. Where sills are absent in the footwall the graphitic argillite is found in contact with massive chert suggesting that competency contrasts may play an important role in localizing shear and extension within the stratigraphic section. Graphitic argillite beds, up to 25 metres thick, also overlie the more extensive mineralized zones (i.e. RC96-1665) and may act as cap rocks, concentrating ascending hydrothermal solutions. Core hole DDH96-86 along section 20300E extended the 10 to 20 metre thick footwall succession of quartz monzonite sills and graphitic argillite 100 metres down dip. However, only a 6 metre interval averaging 1.2 g/t Au was intersected in DDH96-86, limiting the down dip extent of sediment hosted mineralization to less than 75 metres; a characteristic similar to the Reserve Trend. DDH96-85 intersected 2.63 g/t Au over 13.8 metres from 255.8 to 269.6 metres within an intrusive hosted fault breccia. Multi-stage brecciation, incorporating intensely altered fragments of siltstone and shale may represent an explosive, deep seated vertical feeder structure. Further drilling is required to determine its orientation and relationship, if any, with the sediment hosted mineralization up dip to the north.

Drilling in the North Golden Zone attempted to define the extent of a 10 metre intersection averaging 2.5 g/t Au in DDH90-16 (See Plates 7 and 8). Drill results were disappointing returning narrow erratic intersections (< 4 metres) averaging less than 2.0 g/t Au along strike and down dip. Mineralization is dominantly fracture controlled, hosted within an interbedded sequence of stockworked chert and pyritic siltstone. A thick interbed of graphitic argillite (> 50 metres in places) forms the footwall to the

mineralization and is commonly intruded by quartz monzonite sills near the contact with the overlying siltstone and chert. The intercalated sills and graphitic argillite form a moderate south dipping footwall surface which progressively flattens to horizontal, 100 metres down dip (i.e. a listric normal fault). Although the geological setting is similar to the North Slope Zone, the structural setting is more indicative of the Reserve Trend.

In 1997 drilling will focus on extending the strike length of the North Slope Zone to the east.

### 3.7.4 Sulphide Drilling; Reserve Trend

A total of seven core holes for 1,424 metres and two RC holes for 176 metres were drilled in the Kokanee, South Golden, South Canadian, Pacific, Blue and West Big Rock Zones to test for down dip, higher grade sulphide mineralization. Drilling returned significant assays in all zones except the South Golden, Blue and West Big Rock Zones. Highlights from the drilling program are as follows:

Zone	Hole ID	Grade (g/t)	Width(m)	Interval (m)
Kokanee	DD96-91	1.64	22.8	30.7 - 50.5
Kokanee	DD96-92	3.38	5.8	88.9 - 94.7
Kokanee	DD96-92	2.15	12.7	109.2 - 121.9
Kokanee	DD96-93	1.96	14	60.8 - 74.8
Kokanee	DD96-94	3.08	6.4	29 - 35.4
Kokanee	DD96-94	1.39	20.6	46.4 - 67
Pacific	DD96-102	4.39	7.7	63.3 - 71
S. Canadian	DD96-106	2.01	11.1	59.5 - 70.6
S. Canadian	DD96-107	2.18	4.6	113.7 - 118.3

#### 3.7.4.1 Kokanee Zone

Core drilling in the Kokanee Zone targeted the immediate down dip sulphide potential along sections 21225E, 21255E and 21500E (See Plates 9, 10 and 11). Core holes DD96-91 through 94 extended AQM hosted mineralization from 25 to 100 metres down dip. Grades averaged between 1.5 g/t over 25 metres to 3.08 g/t over 6 metres. Mineralization continues to conform to a moderate (45-55°) south dipping orientation bounded by graphitic argillite, similar to most oxide zones delineated along the Reserve Trend. Although altered sill thicknesses remain extensive at depths of 150 metres, grades remain comparable to oxide deposits. DD96-90 was drilled immediately down dip along the main oxide deposit in the Kokanee Zone targeting the potential for a narrow high angle feeder structure. The hole intersected a 1.5 metre thick brecciated dyke averaging 1.54 g/t from 124.3 to 125.8 metres. The relatively low grade and limited width of the dike compared to the more extensive mineralized sill thicknesses above suggest two things: Lateral strike-slip structures appear to be the dominant control for sill emplacement and associated mineralization and/or the weak structurally imbricated graphitic argillite may form dilatant windows within the stratigraphic section, allowing thick intrusive sill complexes to form from confined vertical structures (intrusive conduits) at depth. Evidence of the latter scenario is found in the Kokanee Bulk Trench where a steeply dipping 0.5 metre thick intrusive dike expands into a 5 metre thick

sill within a vertical distance of 3 metres. Deep drilling along section 21225E also indicates that the respective graphitic footwall structures bounding the two parallel mineralized zones in the Kokanee do not merge down dip at depth but are most likely connected down plunge or along strike to the east. Further deep fence drilling down dip and along strike of Section 21225E is needed to define higher grade structural zones, within the broad lower grade mineralized sills, which can be traced down plunge toward major high angle feeder structures.

#### *3.7.4.2 Canadian Zone*

Two core holes (DD96-106 and 107) for 300 metres were drilled down plunge from the Canadian Pit to test the continuity of open ended sulphide mineralization and the validity of Laura Creek representing the axis of a high angle feeder fault for quartz monzonite sills and associated mineralization. Although DD96-106 and 107 returned intersections of 2 g/t Au across 11.1 and 4.6 metres in AQM respectively, mineralized sill thickness' become more confined at depth and steepen from 15<sup>0</sup> to 45<sup>0</sup> beneath Laura Creek (See Plate 4). Deeper drilling south of Laura Creek is needed to determine whether the steeper dip is controlled by a pre-existing high angle fault or whether the sill maintains its moderate south dip at depth. If sill emplacement and associated mineralization are indeed controlled by a high angle fault, replacement style mineralization in the stratigraphically lower calcareous Steel Formation may prove to be a more economic sulphide target.

#### *3.7.4.3 Pacific Zone*

One hole (DD96-102) for 96 metres was drilled in the Pacific Zone to test the strike continuity of shale hosted sulphide mineralization intersected in RC93-893 ( 2.59 g/t Au over 12 metres from 66 to 78 metres). DD96-102, 25 metres grid east of RC93-893, intersected 4.39 g/t Au over 7.7 metres from 63.3 to 71 metres. The two intersections occur roughly at the same elevation and appear bounded by a chert pebble conglomerate footwall (See Plates 12 and 13). Structural and lithological controls to mineralization appear similar to the Blue Zone where isoclinal south vergent folded silty shales, bounded by coarser grained greywacke and chert pebble conglomerate, host higher grade mineralization averaging 6 g/t Au. Further core drilling down dip and along strike from these two intersections is needed to define easterly trending south vergent fold hinges and associated north dipping axial planar cleavage which may control the location of a higher grade sulphide deposit.

#### *3.7.4.4 Blue Zone*

One hole (DD96-104) for 87 metres was drilled to test the down dip sediment hosted sulphide potential along section 18549E (See Plate 14). The hole intersected a narrow 0.75 metre interval averaging only 1.0 g/t Au between 68.5 and 69.25 metres. The poor results emphasizes that although gently dipping graphitic structures ultimately bound the mineralization, well developed easterly striking vertical strike slip fracture zones or axial planar cleavage in the hanging wall of the tectonized graphitic argillite appear to form the major conduits for auriferous hydrothermal solutions .

#### 3.7.4.5 South Golden

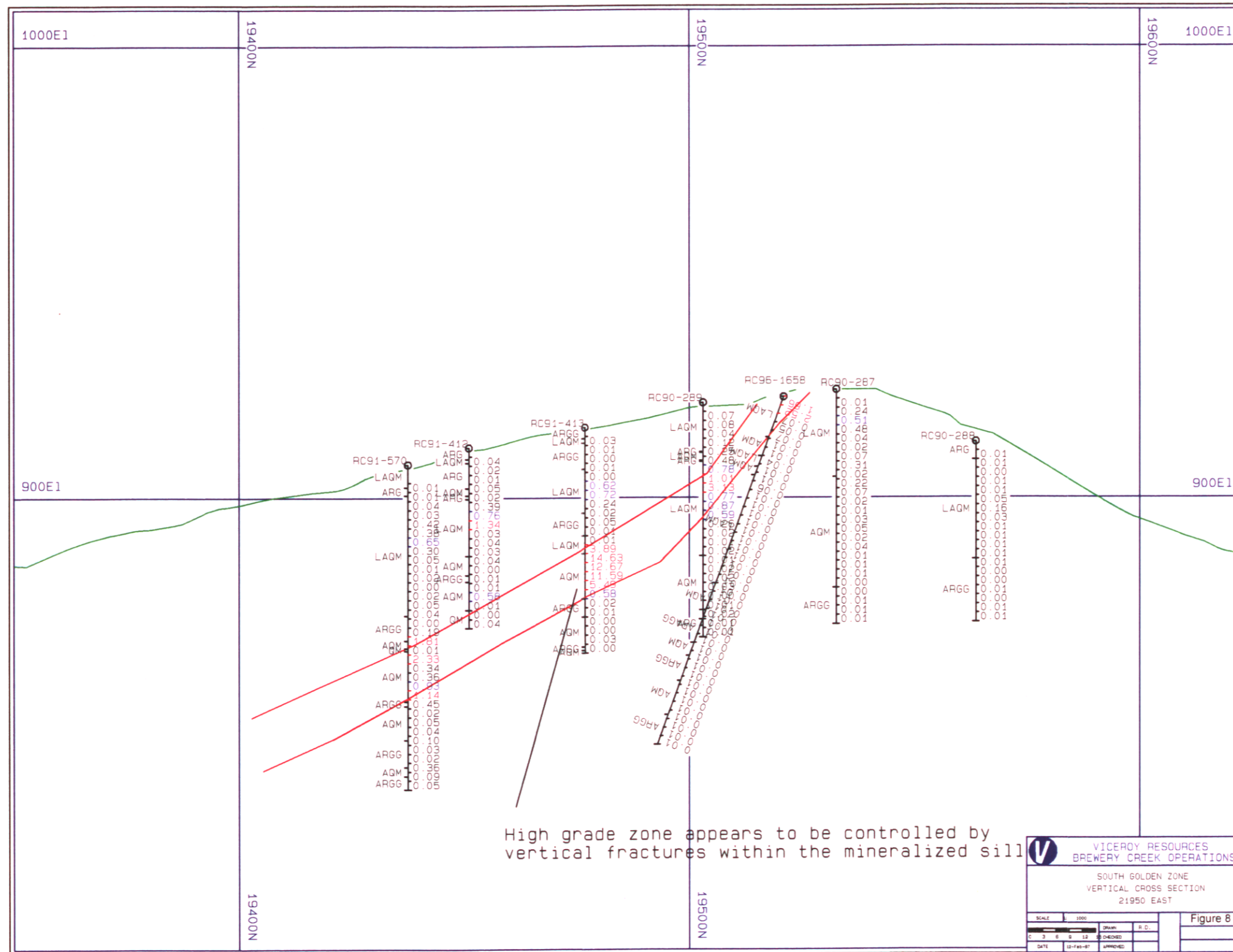
Two RC holes (RC96-1658 and 1659) for 176 metres were drilled in the South Golden Zone to assess the potential for moderate to steep north dipping feeder structures beneath a local high grade intersection in RC91-413 averaging 9.7 g/t Au over 10 metres (See Figures 8 and 9). Both holes failed to intersect any significant mineralization at depth. Local structural controls are believed to be vertical, confined within a moderate south dipping sill. A major fault of unknown orientation and displacement between 22025E and 22050E appears to cut off mineralization along strike to the east. Detailed soil sampling, trenching, and drilling are required to delineate possible offset extensions.

#### 3.7.5 Soil Sampling; Lucky - Sleemans Trend

A total of 140 line kilometres of survey grid were resampled and mapped along the anomalous trend, previously defined by Norex, between the Lucky and Sleemans Zones. Cut baselines totalling 27 line kilometres were also extended to the eastern limit of the property to provide adequate survey control. As well, construction and upgrading of roads provided additional access south of the Sleemans Zone. The revised property plan map included as Plate 1 shows the location of soil sampling and linecutting. Soil samples were taken every 25 metres on lines spaced 100 metres apart. Notes on colluvium, surficial geology, vegetation, topography and permafrost were recorded for each soil pit. The assay database of all soil samples collected on the property has been updated with the 1996 data.

Anomalous soil results ranging from 20 to 15,800 ppb Au define a broad, five kilometre long trend extending from the Lucky Zone south eastward toward the Klondike River Valley (See Plate 15). The anomalous trend correlates with the general strike of the stratigraphic section consisting of quartz monzonite sills and an intercalated sequence of graphitic argillite and Steel Formation siltstone. Outcrop is very scarce consisting of nonauriferous hornfelsed sediments, chert and biotite monzonite intrusives along the higher ridge tops. Due to the relatively steep north to northeast facing topography permafrost underlies up to 50% of the anomalous trend. Although mineralized zones defined by Noranda were reproduced, most of the stronger anomalies lie to the north of historical trenching and drilling. The absence of Earn Group rocks in the area also suggests that the mineralizing system is stratigraphically lower than the Reserve Trend.

Work in 1997 will focus on establishing reliable road access to the more prominent gold anomalies (i.e. 15,800 ppb; 24,700E/18850E). Systematic excavator trenching will be done in early summer to define the structural orientation and lithological controls to mineralization, followed by RC drilling later in the summer and fall. In areas of extensive permafrost, surface trenching is not cost effective and will most likely be substituted for close spaced fence drilling across anomalous trends.



High grade zone appears to be controlled by vertical fractures within the mineralized sill

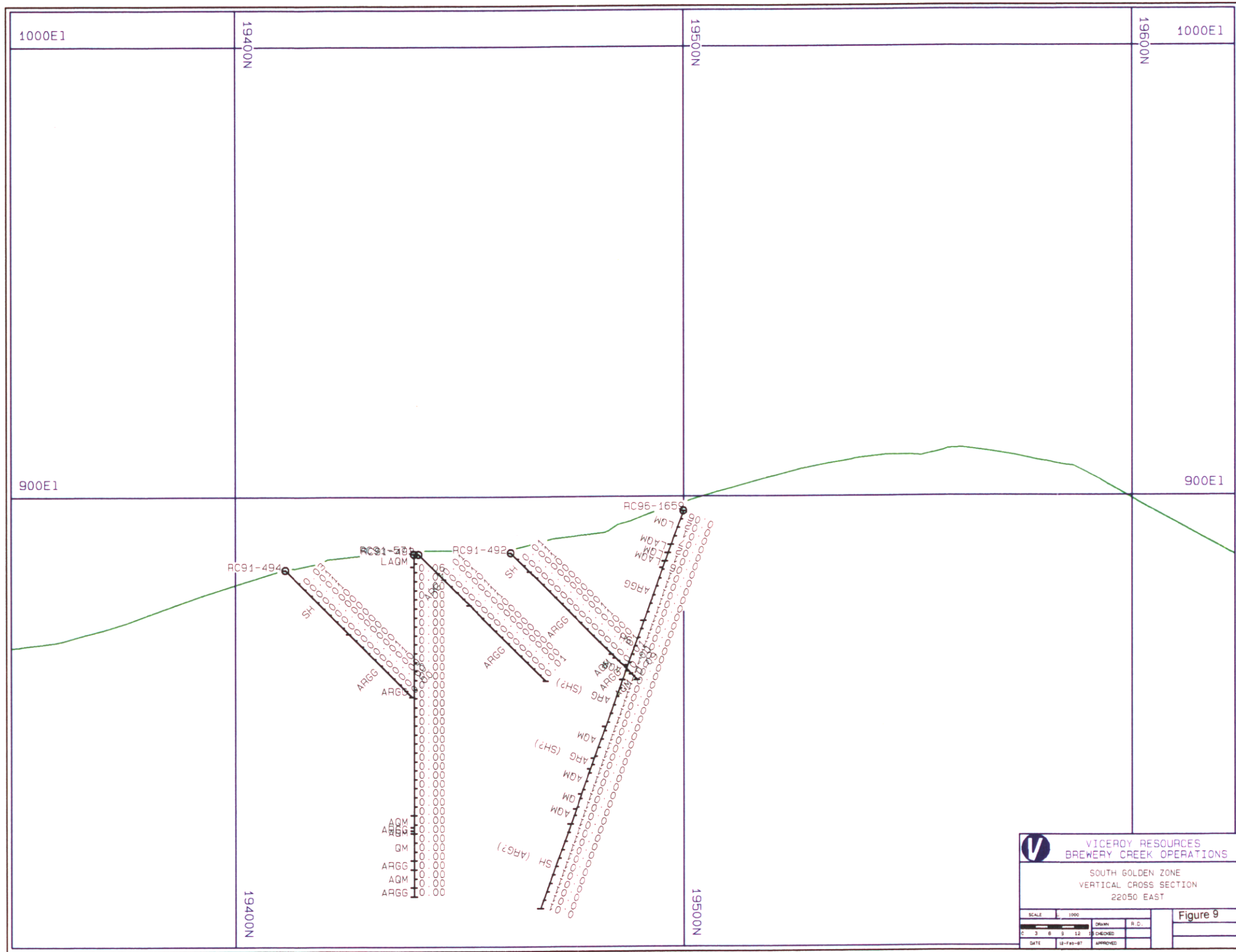
VICEROY RESOURCES  
 BREWERY CREEK OPERATIONS  
 SOUTH GOLDEN ZONE  
 VERTICAL CROSS SECTION  
 21950 EAST

Figure 8

SCALE	1:1000
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VICEROY RESOURCES  
 BREWERY CREEK OPERATIONS

SOUTH GOLDEN ZONE  
 VERTICAL CROSS SECTION  
 22050 EAST

SCALE: 1" = 1000'

DATE	13-FEB-07	CHECKED	APPROVED
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Figure 9

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## CHAPTER FOUR: GEOCHEMISTRY

### 4.1 Introduction

The Brewery Creek deposit was discovered while investigating regional stream sediment geochemical anomalies. Geochemistry has subsequently played a central role in exploration and a considerable database of soil and lithochemical data has been accumulated.

### 4.2 Lithochemistry

In excess of 50,000 samples of reverse circulation drill chips, trench samples and drill core have been analyzed for gold, and a lesser number for a variety of other elements (typically As, Sb, Hg, Pb and Zn). Numerous 30 element ICP scans have also been completed on these samples, and thus the geochemical characterization of the ore zones and property lithologies is well known. The ores are elevated in gold but also contain anomalous arsenic and, in places, antimony. Barium is locally anomalous and a broad mercury signature is characteristic.

### 4.3 Soil Geochemistry

Soil geochemistry has been an important exploration tool and the results of these surveys provide insights into the geochemistry of the ore systems.

The hydrothermal system at Brewery Creek is anomalous in gold, arsenic, antimony and mercury. Enriched zinc and lead values are characteristic of Earn Group sediments and this association further expands the ability to map potentially favorable targets. Silver is weakly anomalous and erratic, associated with both zinc in the sediments and gold within the epithermal system. A total of 8340 soil samples were collected on the property between 1988 and 1992. Samples were acquired at 50m intervals on either 100 or 200m spaced lines over mineralized zones. Four hundred meter line spacing was utilized in the southwestern and southcentral part of the property. The samples were analyzed for an extensive suite of elements including gold, silver, antimony, arsenic and mercury. Approximately two thirds of the soil samples were also analyzed by ICP scan for a further 30 elements.

A total of 10,718 soil samples were collected between 1994 and 1996 across previously sampled portions of the exploration grid, with less than 10% of the total used to extend anomalies south of the Classic Zone and West of the Big Rock Zone. Soil samples were collected at 25m intervals in areas of moderate topographic relief or at 12.5m intervals in subdued relief on lines spaced 100m apart. Bedrock and surficial geology were also mapped at each sample site during this latter program.

### 4.3.1 Gold

Gold-in-soil geochemistry defines two major trends (See Plate 15).

- i) An east trending 12km by 2km anomaly delineates the Big Rock, Pacific, Blue, Moosehead, Canadian, Fosters, Kokanee, Golden, Lucky, Bohemian, Schooner and Sleemans Zones. This anomaly subparallels the outline of the quartz monzonite sills and associated listric normal faulting. The trend is abruptly cut off to the east at Golden Creek, which may represent a post-mineralization fault.
- ii) A 135° trending anomaly parallels a strong photo-geologic lineament extending from the Pacific Zone through the Classic Zone. Gold values are strongest in the Classic Zone where a sub-vertical normal fault cross-cuts a hornblende monzonite stock.

### 4.3.2 Arsenic

There is a strong positive correlation between arsenic and gold with an approximate relationship of 1 ppm As = 1 ppb Au. Arsenic-in-soil geochemistry is slightly more dispersed, but reinforces, and in some places better defines the mineralized structural trends (i.e. Classic Zone).

### 4.3.3 Antimony

Antimony is the least mobile element, apparently restricted to the main 12km east-trending gold zone. Antimony, in the form of stibnite, occurs as discontinuous stibnite veins cross-cutting mineralized quartz veinlets and is found in all mineralized areas except the Classic and Moosehead Zones. This sporadic association with gold implies that antimony may represent a later hydrothermal event which occupied some of the same structures as gold. As a general statement, elevated antimony may accompany gold, but does not always, and can occur independently of gold.

### 4.4.4 Mercury

Of those elements analyzed, mercury is the most widely dispersed element, forming a regional anomaly, but still reinforcing the main east-west trending gold-arsenic signature. Mercury values in individual pit areas are not necessarily elevated above the regional anomaly. Like antimony, mercury is absent from the Classic Zone. The absence of both along the Classic Zone gold-arsenic trend implies that mineralization along this structure may be lower level than the east-west listric normal and strike-slip faulting controls in the main trend.

## CHAPTER FIVE: CONCLUSION

The 1996 Brewery Creek exploration program included detailed soil sampling and mapping between the Lucky and Sleemans Zones, oxide drilling in the East and West Big Rock, North Golden and South Canadian Zones and deeper sulphide drilling along the Reserve Trend and North Slope Zone. Highlights from the program are as follows:

- Geological oxide reserves were increased in the East and West Big Rock Zones. Proven, Probable and Possible oxide reserves now stand at 915,000 tonnes at .95 g/t Au and 1,200,000 tonnes at 1.2 g/t in the East and West Big Rock Zones respectively. Potential to increase oxide reserves is considered excellent as mineralized sill thicknesses averaging 1.46g/t Au over 14 metres remain wide open along strike to the east.
- Although no significant mineralization was intersected in the South Canadian Zone, soil anomalies along the north facing slope of Laura Creek Valley remain unresolved. New geological and structural information suggest that Laura Creek may define the axis of a large graben structure which has down dropped and preserved an intercalated sequence of Earn Group siliclastic rocks and altered quartz monzonite sills. The presence of north dipping intrusive-sediment contacts show potential for defining dip slope oxide mineralization similar to the Reserve Trend.
- Drilling in the North Slope Zone confirmed continuity of mineralization along a 300 metre strike length in the calcareous Steel Formation. Drill hole intersections averaging 2.56 g/t Au over 16 metres remain wide open along strike to the east.
- Sulphide drilling down dip along the Reserve Trend returned similar grades (1.5 g/t Au) as most oxide deposits. Mineralized sill thicknesses remain extensive in the Kokanee Zone (10-25 metres) but appear to steepen and narrow at depth in the Canadian Zone beneath Laura Creek. Deeper drilling south of Laura Creek is needed to confirm whether sill emplacement is sourced from narrow high angle feeder structures or moderate south dipping listric normal faults. If high angle feeder structures are defined, where they cross cut lower Road River Group calcareous stratigraphy may prove to be a more economic sulphide target.
- Soil sampling and mapping between the Lucky and Sleemans Zones defined a broad, south easterly trending, five kilometre anomalous trend. Soil results ranging from 20 to 15,800 ppb Au correlate with intercalated quartz monzonite sills, graphitic argillite and calcareous Steel Formation siltstone. Although anomalous areas previously defined by Norex were reproduced, most of the stronger anomalies lie to the north of historical trenching and drilling. The absence of Earn Group siliclastic rocks also suggests that the mineralizing system is stratigraphically lower than the Reserve Trend.

Work in 1997 will focus on expanding upon the geological oxide reserve base as well as evaluating the potential for a higher grade sulphide resource. Areas which provide the best potential to increase mineable oxide reserves, in order of priority, include: The East and West Big Rock Zones, South Canadian Zone and the Lucky-Sleemans geochem anomaly. Work will include soil sampling, systematic trenching and RC drilling to expand upon and ultimately define oxide deposit limits. Aggressive step-out drilling along strike to the east in the North Slope Zone will also be given top priority as mineralization remains wide open along strike to the east. Deeper drilling down dip and along strike of the Reserve Trend will continue in order to define the location and orientation of high angle feeder structures. Once the location and orientation of these structures have been defined, emphasis will be placed on where they cut through the stratigraphically lower calcareous Steel Formation.

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## STATEMENT OF QUALIFICATIONS

I, Richard Mark Diment, of R.R. #1, Site 20, Comp 282, Whitehorse in the Yukon Territory, do hereby certify that:

- I am a Senior Geologist with Viceroy International Exploration with offices at R.R. #1, Site 20, Comp 282, Whitehorse and 1658 Cole Boulevard, Suite 285, Denver, Colorado.
- I am a graduate of the University of British Columbia, B.Sc. Geology (1986), and I have practiced my profession continuously since graduation.
- I am a member in good standing of the Association of Professional Engineers, Geoscientists and Geophysicists of British Columbia.
- I am the author of the report entitled "Assessment Report on the BDM, EEL, ELE, FLEE and LEE Claims, Dawson Mining District, N.T.S. 116 B/1," dated March 15, 1997.
- I have supervised the work carried out on the property described in this report.

DATED at Whitehorse, Yukon, this 16<sup>th</sup> day of March, A.D., 1997.

Respectfully submitted,



R.M. Diment, P. Geo..



### STATEMENT OF COSTS

Reverse Circulation Drilling	\$301,512
Diamond Drilling	\$371,922
Trenching	\$39,294
Soil Geochemistry	\$54,541
Road/Drill Pad Building	\$75,708
Field Vehicles	\$25,585
Assays	\$101,199
Wages	\$265,279
Camp/Office	\$15,130
<b>Total</b>	<b>\$1,250,170</b>

APPENDIX I. DRILL HOLE SUMMARY

Brewery Creek Exploration  
Drill Hole Summary  
1996

Hole ID	Pre-Drill	Zone	Month	Easting	Northing	Elev (m)	Depth (m)	Azimuth	Incl.	Comments
RC96-1565	PBR-16	East Big Rock	July	16645	21634	746	80	334	-55	
RC96-1566	PBR-14	East Big Rock	July	16667	21632	755	72	334	-55	
RC96-1567	PBR-8	East Big Rock	July	16800	21606	774	52	334	-55	
RC96-1568	PBR-7	East Big Rock	July	16826	21596	775	80	334	-55	
RC96-1569	PBR-6	East Big Rock	July	16850	21605	776	50	334	-55	
RC96-1570	PBR-5	East Big Rock	August	16877	21517	770	54	334	-55	
RC96-1571	PBR-3	East Big Rock	August	16900	21524	770	74	334	-55	
RC96-1572	PBR-2	East Big Rock	August	16925	21531	773	76	334	-55	
RC96-1573	PBR-1	East Big Rock	August	17007	21420	779	62	334	-55	
RC96-1574	PBR-17	West Big Rock	August	16350	21794	756	60	334	-55	
RC96-1575	PBR-18	West Big Rock	August	16325	21782	762	54	334	-55	
RC96-1576	PBR-19	West Big Rock	August	16300	21763	768	78	334	-55	
RC96-1577	PBR-21	West Big Rock	August	16271	21683	774	60	334	-55	
RC96-1578	PBR-44	West Big Rock	August	15915	21838	759	66	334	-60	
RC96-1579	PBR-45	West Big Rock	August	15890	21885	756	42	334	-60	
RC96-1580	PBR-40	West Big Rock	August	15965	21712	764	10	334	-45	Hole abandoned. Mechanical reasons
RC96-1581	PSC-1	South Canadian	August	19200	19350	800	50	334	-90	
RC96-1582	PSC-3	South Canadian	August	19200	19425	800	50	334	-90	
RC96-1583	PNG-1	North Golden	August	21750	20775	1000	66	334	-60	66 metre drill string stuck(\$25,000)
RC96-1585	PNG-2	North Golden	August	21550	20380	1000	103	334	-60	
RC96-1600	PBR-12	East Big Rock	August	16698	21657	758	58	334	-60	
RC96-1601	PBR-13	East Big Rock	August	16698	21628	761	82	334	-64	
RC96-1602	PBR-10	East Big Rock	August	16752	21637	767	60	334	-55	
RC96-1603	PBR-4	East Big Rock	September	16620	21672	780	57	334	-55	
RC96-1604	PBR-9	East Big Rock	September	16777	21585	772	88	334	-55	
RC96-1605	PBR-11	East Big Rock	September	16752	21604	769	77	334	-55	
RC96-1606	PBR-50	East Big Rock	September	16800	21645	772	43	334	-55	
RC96-1607	PBR-52	East Big Rock	September	16825	21645	773	40	334	-55	
RC96-1609	PBR-54	East Big Rock	September	16850	21645	777	26	334	-55	Hole caving
RC96-1610	PBR-48	East Big Rock	September	16645	21672	749	44	334	-55	
RC96-1611	PBR-46	East Big Rock	September	16620	21672	729	74	334	-55	
RC96-1612	PBR-47	East Big Rock	September	16620	21645	733	60	334	-55	
RC96-1613	PBR-49	East Big Rock	September	16645	21606	748	84	334	-55	
RC96-1614	PBR-15	East Big Rock	September	16667	21618	757	66	334	-55	Plugged rods
RC96-1615	PBR-51	East Big Rock	September	16800	21575	774	79	334	-55	
RC96-1616	PBR-53	East Big Rock	September	16825	21570	776	84	334	-55	
RC96-1617	PBR-55	East Big Rock	September	16850	21580	776	58	334	-55	
RC96-1618	PBR-59	East Big Rock	September	16925	21557	783	70	334	-55	
RC96-1619	PBR-62	East Big Rock	September	17007	21395	778	60	334	-55	
RC96-1620	PBR-63	East Big Rock	September	17032	21350		32	334	-55	Hole caving
RC96-1621	PBR-61	East Big Rock	September	16982	21494	778	60	334	-55	
RC96-1622	PBR-56	East Big Rock	September	16850	21527	773	84	334	-55	
RC96-1623	PBR-57	East Big Rock	September	16877	21490	763	64	334	-55	
RC96-1624	PBR-58	East Big Rock	September	16900	21472	762	96	334	-55	
RC96-1658	Sx11G	South Golden	October	21950	19520		82	154	-70	
RC96-1659	Sx12G	South Golden	October	22055	19501		94	154	-70	
RC96-1665	Sx13NS	North Slope	October	20580	20934	1081	115	334	-63	
RC96-1666	Sx14NS	North Slope	October	20400	20908	1043	142	334	-60	
RC96-1667	PBR-67	East Big Rock	October	16570	21675	706	49	334	-55	
RC96-1668	PBR-68	East Big Rock	October	16570	21645	708	60	334	-55	
RC96-1669	PBR-64	East Big Rock	October	17030	21320	774	49	334	-55	
RC96-1670	PBR-65	East Big Rock	October	17080	21210	776	40	334	-55	
RC96-1671	PBR-66	East Big Rock	October	17080	21180	772	56	334	-55	
DDH96-85	PNS-1	North Slope	July-August	20400	20575	1025	299	334	-60	
DDH96-86	PNS-2	North Slope	August	20300	20856	1042	233	334	-60	
DDH96-87	PSC-3	South Canadian	August	19363	19450	770	319	334	-60	
DDH96-88	PNG-2	North Golden	August	21475	20710	1000	119	334	-60	
DDH96-89	PNG-4	North Golden	August	21475	20425	1000	134	334	-60	
DDH96-90	Sx8K	Kokanee	August	21225	19840	1036	200	334	-55	
DDH96-91	Sx4K	Kokanee	August	21225	19673	982	177	334	-55	
DDH96-92	Sx9K	Kokanee	August	21225	19575	974	227	334	-55	
DDH96-93	Sx5K	Kokanee	Aug-Sept	21505	19583	957	87	334	-72	
DDH96-94	Sx11K	Kokanee	September	21255	19673	982	84	334	-55	
DDH96-102	Sx3P	Pacific	September	17825	20363N	834	96	334	-55	
DDH96-103	PSC-3	South Canadian	September	19200	19425N	800	31	334	-55	Hole abandoned. Bad ground
DDH96-104	Sx1B	Blae	September	18545	20069N	778	87	334	-55	
DDH96-105	Sx2BR	West Big Rock	September	16225	21695	776	141	334	-55	
DDH96-106	Sx6C	Canadian	October/November	19825	19680	780	138	309	-55	
DDH96-107	Sx15C	Canadian	November	19825	19670	780	156	129	-65	

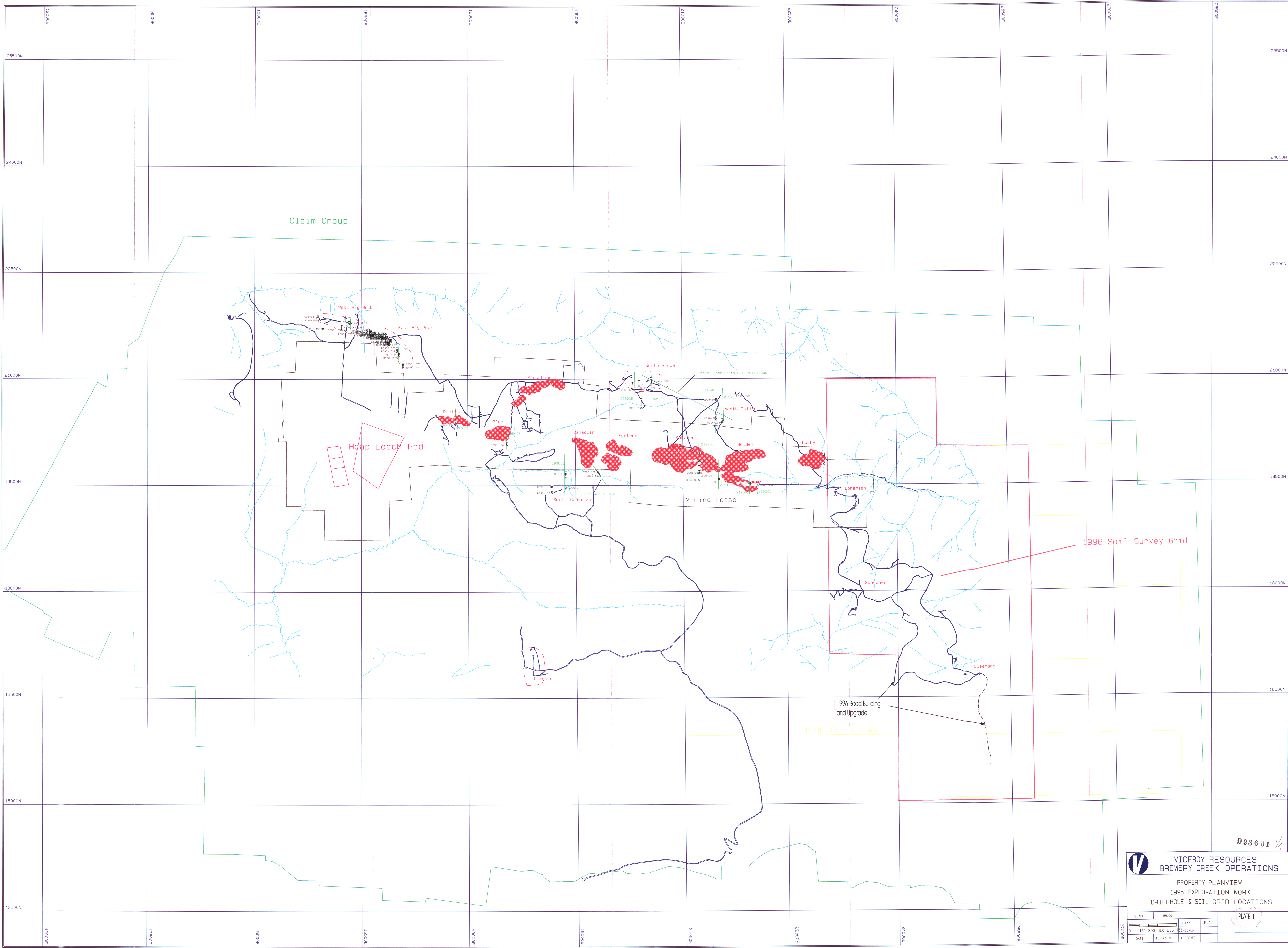
November Summary:  
RC Holes 0  
RC Metres 0  
DD Holes 1  
DD Metres 174

1996 Year Summary:  
RC Holes: 53  
RC Metres: 3472  
DD Holes: 16  
DD Metres 2528

Total # Holes Drilled 69  
Total # Metres Drilled 6000

**Brewery Creek Exploration**  
**Drilling Summary; Significant Assays**  
**1996**

Hole ID	Pre-Drill	Zone	Grade (gpt)	Width (m)	From (m)	To (m)	Comments
<b>1996 RC Holes</b>							
RC96-1565	PBR-16	East Big Rock	0.58	26	34	60	Includes 8m of 0.96 gpt from 34-42m
RC96-1566	PBR-14	East Big Rock	0.87	12	0	12	
RC96-1566	PBR-14	East Big Rock	1.25	20	38	58	Includes 8m of 2.32 gpt from 46-54m
RC96-1567	PBR-8	East Big Rock	1.34	2	26	28	
RC96-1567	PBR-8	East Big Rock	0.80	10	36	46	Includes 2.28 gpt from 42-44m
RC96-1568	PBR-7	East Big Rock	0.68	12	34	46	Includes 1.56 gpt from 36-38m and 1.36 gpt from 42-44m
RC96-1569	PBR-6	East Big Rock	1.20	12	24	36	
RC96-1570	PBR-5	East Big Rock	0.65	8	32	40	
RC96-1571	PBR-3	East Big Rock	2.00	10	0	10	
RC96-1571	PBR-3	East Big Rock	0.65	6	28	34	
RC96-1571	PBR-3	East Big Rock	2.54	6	58	64	Includes 5.98 gpt from 58-60m
RC96-1572	PBR-2	East Big Rock	1.53	6	4	10	
RC96-1572	PBR-2	East Big Rock	1.07	6	42	48	Includes 2.17 gpt from 46-48m
RC96-1573	PBR-1	East Big Rock	1.05	4	6	10	
RC96-1573	PBR-1	East Big Rock	1.79	4	14	18	
RC96-1574	PBR-17	West Big Rock	0.82	12	0	12	Includes 1.49 gpt from 0-2m and 1.6 gpt from 6-8m
RC96-1574	PBR-17	West Big Rock	0.57	8	24	32	
RC96-1575	PBR-18	West Big Rock	0.55	8	28	36	
RC96-1575	PBR-18	West Big Rock	0.56	10	40	50	
RC96-1576	PBR-19	West Big Rock	3.37	4	50	54	Includes 4.80 gpt from 52-54m
RC96-1576	PBR-19	West Big Rock	0.89	4	66	70	
RC96-1577	PBR-21	West Big Rock	0.51	2	38	40	
RC96-1578	PBR-44	West Big Rock	0.84	4	44	48	
RC96-1585	PNG-2	North Golden	1.66	2	72	74	
RC96-1600	PBR-12	East Big Rock	0.84	14	20	34	Includes 4m of 2.16 gpt from 30-34m
RC96-1601	PBR-13	East Big Rock	1.09	8	6	14	
RC96-1601	PBR-13	East Big Rock	2.32	10	52	62	
RC96-1602	PBR-10	East Big Rock	1.30	4	26	30	
RC96-1619	PBR-62	East Big Rock	0.90	6	48	54	Includes 1.78 gpt from 50-52
RC96-1620	PBR-63	East Big Rock	0.78	14	2	16	Includes 4m of 1.33 gpt from 12-16m
RC96-1621	PBR-61	East Big Rock	1.92	10	12	22	
RC96-1622	PBR-56	East Big Rock	1.95	4	8	12	Includes 2.24 gpt from 10-12m
RC96-1622	PBR-56	East Big Rock	1.07	12	62	74	
RC96-1624	PBR-58	East Big Rock	1.77	6	70	76	Includes 4m of 2.34 gpt from 70-74m
RC96-1658	Sx11G	South Golden	2.09	4	0	4	
RC96-1665	Sx13NS	North Slope	2.56	16	88	104	
RC96-1666	Sx14NS	North Slope	2.80	4	100	104	
RC96-1667	PBR-67	East Big Rock	0.96	2	0	2	
RC96-1667	PBR-67	East Big Rock	1.19	2	16	18	0
RC96-1669	PBR-64	East Big Rock	1.49	14	6	20	
RC96-1671	PBR-66	East Big Rock	1.05	4	44	48	
RC96-1671	PBR-66	East Big Rock	1.43	2	54	56	
<b>1996 Core Holes</b>							
DDH96-85	PNS-1	North Slope	2.63	13.8	255.8	269.6	
DDH96-85	PNS-1	North Slope	0.54	10.3	275.1	285.4	
DDH96-86	PNS-2	North Slope	0.64	5.4	95.4	100.8	
DDH96-86	PNS-2	North Slope	1.17	2	125.7	127.7	
DDH96-86	PNS-2	North Slope	1.21	6	139	145	
DDH96-89	PNG-4	North Golden	1.38	2	9.8	11.8	
DDH96-89	PNG-4	North Golden	0.54	5	103.5	108.5	
DDH96-89	PNG-4	North Golden	0.79	8.2	113	121.2	
DDH96-90	Sx8K	Kokanee	1.54	1.5	124.3	125.8	
DDH96-91	Sx4K	Kokanee	1.64	22.8	30.7	53.5	Includes 3.2m of 5.26 gpt from 37.5-40.7m
DDH96-92	Sx9K	Kokanee	2.28	3.2	78.8	82	
DDH96-92	Sx9K	Kokanee	3.38	5.8	88.9	94.7	
DDH96-92	Sx9K	Kokanee	2.15	12.7	109.2	121.9	
DDH96-93	Sx5K	Kokanee	1.96	14	60.8	74.8	Includes 2 m of 5.66 gpt from 66.8 to 68.8m
DDH96-94	Sx11K	Kokanee	3.08	6.4	29	35.4	Includes 2 m of 6.09 gpt from 30.9 to 32.3m
DDH96-94	Sx11K	Kokanee	1.39	20.6	46.4	67	Includes 8 m of 2.31 gpt from 53.4 to 61.4m
DDH96-102	Sx3P	Pacific	2.47	1.1	40.6	41.7	
DDH96-102	Sx3P	Pacific	2.75	1.7	52.1	53.8	
DDH96-102	Sx3P	Pacific	4.39	7.7	63.3	71	
DDH96-104	Sx1B	Blue	1.19	2.3	7.9	10.2	
DDH96-105	Sx2Br	Big Rock	0.99	3.9	1.5	5.4	
DDH96-106	Sx6C	South Canadian	2.01	11.1	59.5	70.6	
DDH96-107	Sx15C	South Canadian	2.18	4.6	113.7	118.3	



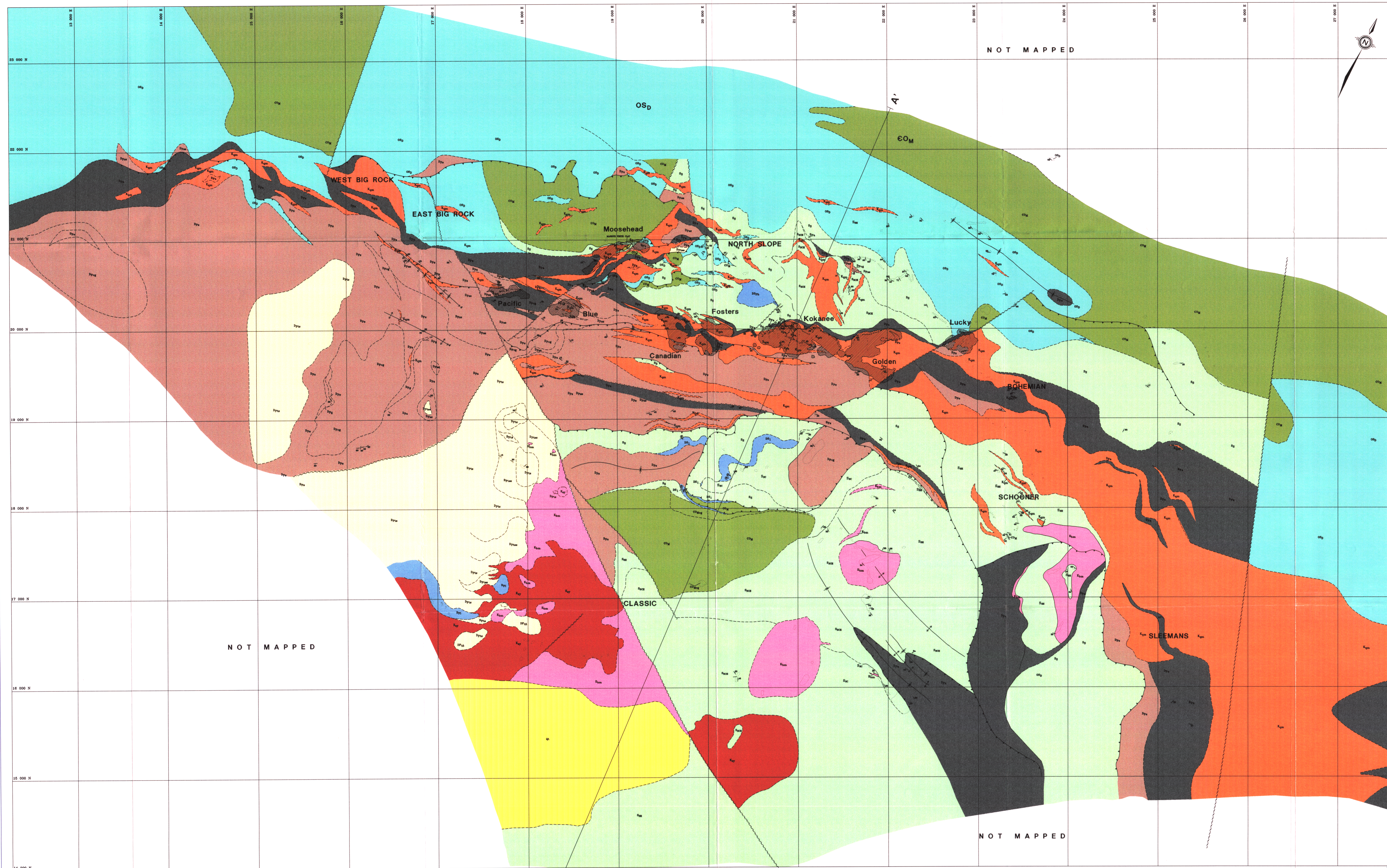
093601 1/4

**V** VICEROY RESOURCES  
 BREWERY CREEK OPERATIONS

PROPERTY PLANVIEW  
 1996 EXPLORATION WORK  
 DRILLHOLE & SOIL GRID LOCATIONS

SCALE	1:15000	DRAWN	R.D.
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DATE	13-Feb-97	APPROVED	

PLATE 1



### LEGEND

**QUATERNARY**

- Qc UNCONSOLIDATED RIVER DEPOSITS (Gravel benches)

**TOMBSTONE PLUTONIC SUITE (MID-CRETACEOUS)**

- Tpm QUARTZ MONZONITE (T & M) Contains quartz eyes, megacrystic K feldspars, hornblende + biotite
- Tpm Biotite Monzonite Equigranular, contains about 30% biotite. Strongly foliated at base
- Tpm Syenite Trachytic texture due to strong alignment of biotite. Coarse grained, contains hornblende + feldspar only

**EARN GROUP (DEVONIAN - MISSISSIPPIAN)**

- TE Tuffaceous Sandstone Fine grained laminated quartz sandstone with abundant tuffaceous material (vermiculi)
- TS Tuffaceous Shale Dark grey to black soft, tuffaceous shale. Small sharp crested asymmetric current ripples on bedding surfaces. Grades up-section into tuffaceous sandstones described above.

**DEBRIS FLOW CONGLOMERATE** Chert supported chert pebble conglomerate. Possible contact of re-coloured Blue Lake chert, minor argillite, tuff and Earn Group quartzite in a greywacke matrix.

**GREYWACKE** Dark grey matrix supported greywacke. Includes 0.5cm sub-angular clasts of chert, shale and argillite within a poorly sorted siliceous matrix. Grains locally into chert pebble conglomerate.

**SANDSTONE** Dark grey massive well sorted siliceous sandstone, minor crude bedding surfaces.

**SHALE** Plastic dark grey fine grained shale, pin-stripped and slightly burrowed silty shale, locally tuffaceous. Commonly interbedded with sandstone and greywacke described above.

**BLACK GRAPHITIC ARGILLITE** Black siliceous argillite, chert and graphitic shale. Characteristically fractured, brecciated and quartz infilled in places. Locally massive.

**BARITE** Finely laminated light grey barite up to 15m in thickness. Interbedded with limestone and Steel Formation. Relation below.

**LIMESTONE** Ranges from fossiliferous oolitic limestone breccia to well pebbled limestone. Locally interbedded with laminated barite.

**ROAD RIVER GROUP (ORDOVICIAN - SILURIAN)**

**STEEL FORMATION**

- IS Interbedded Calcareous Siltstone and Chert Thinly interbedded sequences of tan weathering siltstone and dark grey chert and argillite. Minor limestone, bedded barite and chert breccia.
- IS Calcareous Siltstone Tan weathering burrowed siltstone with wavy lamination; calcareous silty shale. Contains distinctive beds of massive tan weathering dark blue-grey, siliceous dolomite.
- IS Alterbed / Hornfelsed Calcareous Siltstone The siltstone in both IS and the members commonly exhibit a soft, clay rich, tuffaceous texture which may be the result of weak horsting or desiccation. Form white, fine grained siliceous horstels around biotite monzonite intrusives.
- IS DDD LK FORMATION - Chert Black chert and minor shale; chert in massive or block bedded, unlike Steel Formation. Lacks liny or silty layers.

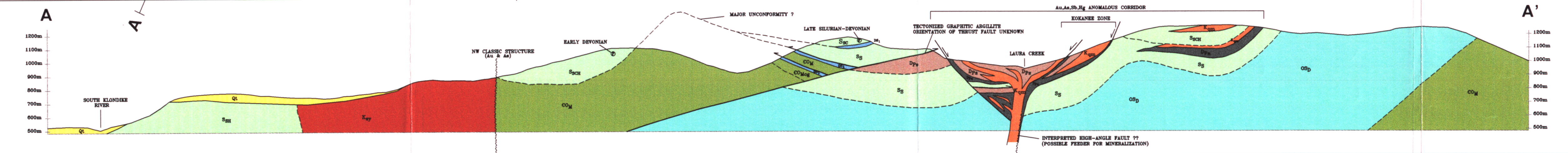
**RABBITKITTLE FORMATION (CAMBRIAN & ORDOVICIAN)**

- CR Conglomerate Consists of rounded cobbles and angular fragments of feldspar + argillite porphyry & tuff, and amygdaloidal sandstone to a tuffaceous or calcareous matrix. Argillite to have formed at the Road River unconformity.
- CR Mendocino Creek Volcanics - Andesite, Argillite-Feldspar Porphyry, Tuff & Volcanic Breccia. Amygdaloidal andesite flows, calcareous greenish tuff and volcanic breccia, fresh argillite-plagioclase porphyry.

**Structural Symbols:**

- Trace of steep fault - normal or strike slip movement.
- Trace of Thrust fault - inferred from stratigraphy.
- Fold Axis: with direction of plunge.
- Bedding - all bedding on property appears to be upright, with strike and dip.
- Foliation in igneous rock.
- Geological contact defined by outcrop, trenches or close-spaced drillholes.
- Geological contact - inferred.
- Fossiliferous limestone or chert.
- Proposed Mine Pit.

**VERTICAL CROSS SECTION**  
NO VERTICAL EXAGGERATION



**VICEROY RESOURCE CORPORATION**

**PROPERTY GEOLOGY**

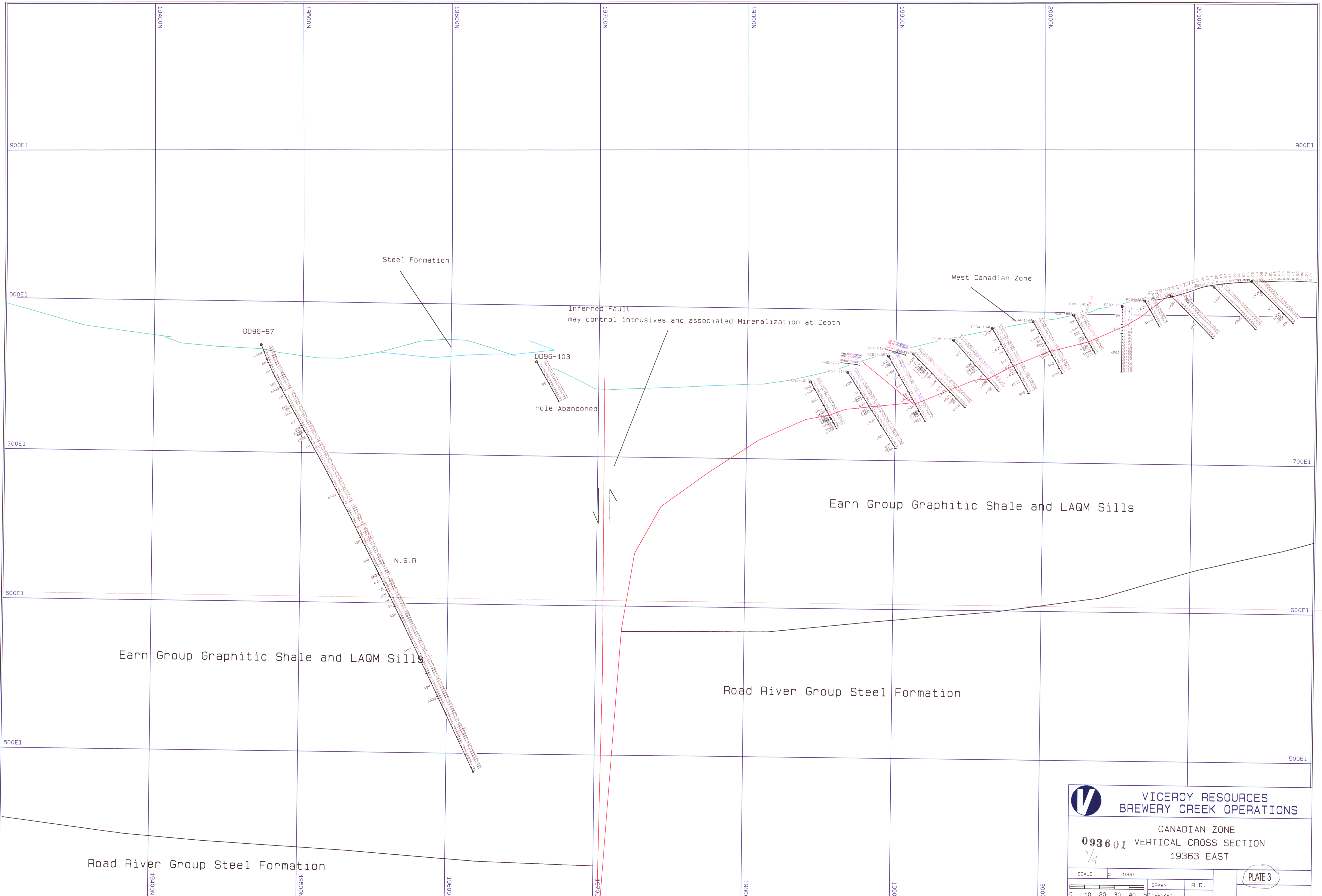
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DATA BY: [Signature] MAP INDEX NO. BC PropertyGeo

DATE: Feb. 1997 PLATE NO.: PLATE 2



**VICEROY RESOURCES**  
**BREWERY CREEK OPERATIONS**

CANADIAN ZONE  
**093601** VERTICAL CROSS SECTION  
 19363 EAST

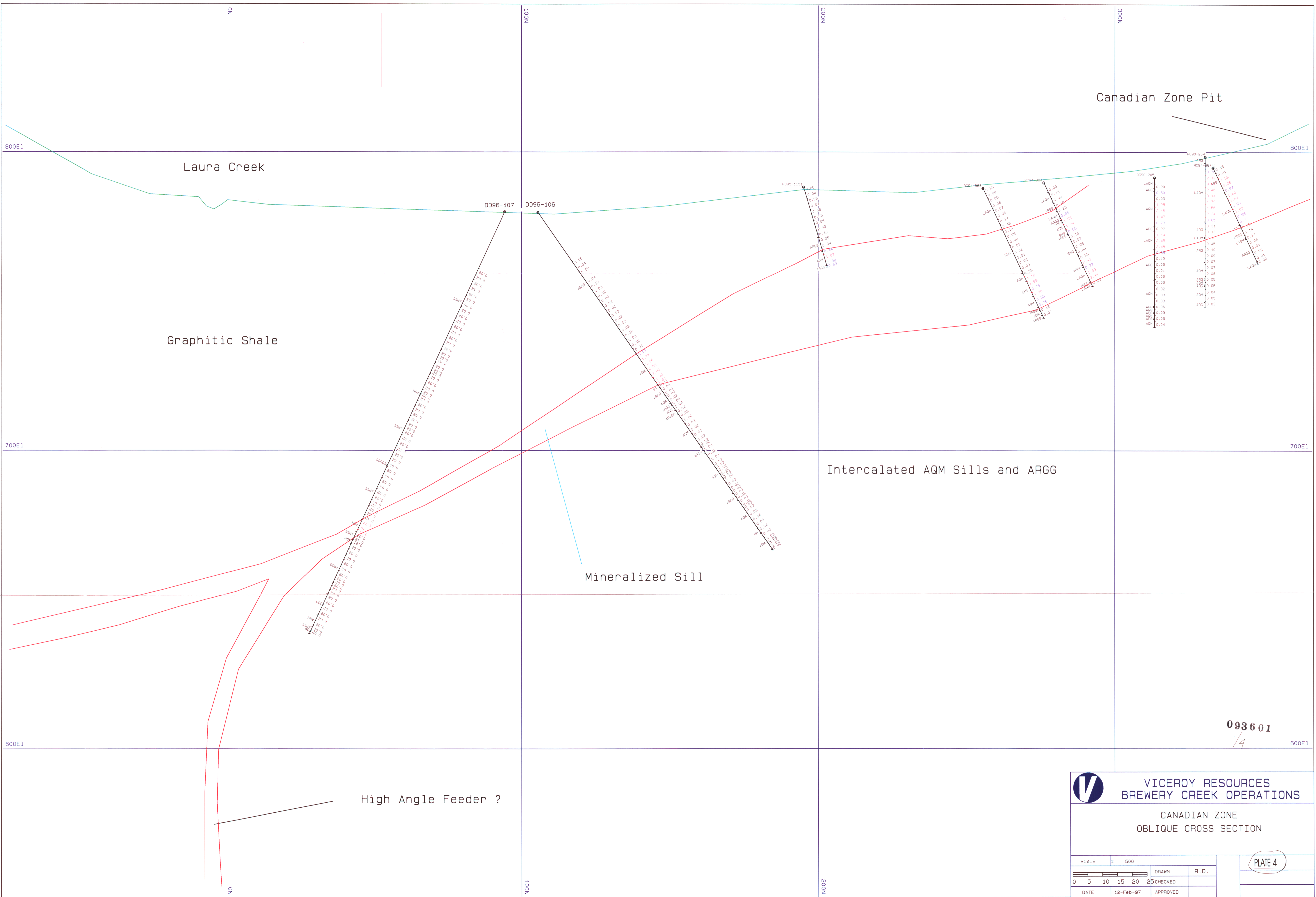
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0 10 20 30 40 50



DATE 12-Feb-97

DRAWN R. D.  
 CHECKED  
 APPROVED

PLATE 3



093601  
1/4

 <b>VICEROY RESOURCES</b> <b>BREWERY CREEK OPERATIONS</b>		<b>CANADIAN ZONE</b> <b>OBLIQUE CROSS SECTION</b>		<b>PLATE 4</b>
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DATE	12-Feb-97	APPROVED		

length: ft

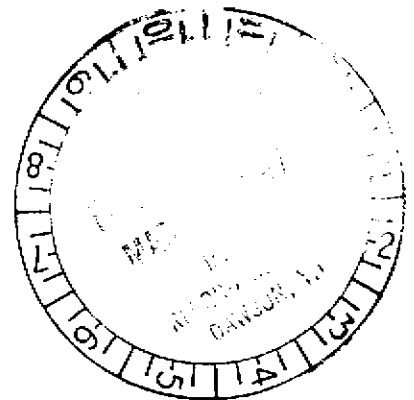
0936 J1 pt 2 of 4

**ASSESSMENT REPORT**

on the

**BDM, EEL, ELE, FLEE, LEE Claims**

Dawson Mining District  
N.T.S. 116 B/1  
Latitude: 64°02'  
Longitude: 138°15'



Owned by: VLB Resource Corporation  
Bag 5040  
Dawson City, Yukon Y0B 1G0  
403-993-6057 (phone)  
403-993-5606 (fax)

R. Diment  
March 15, 1997

Volume II of II

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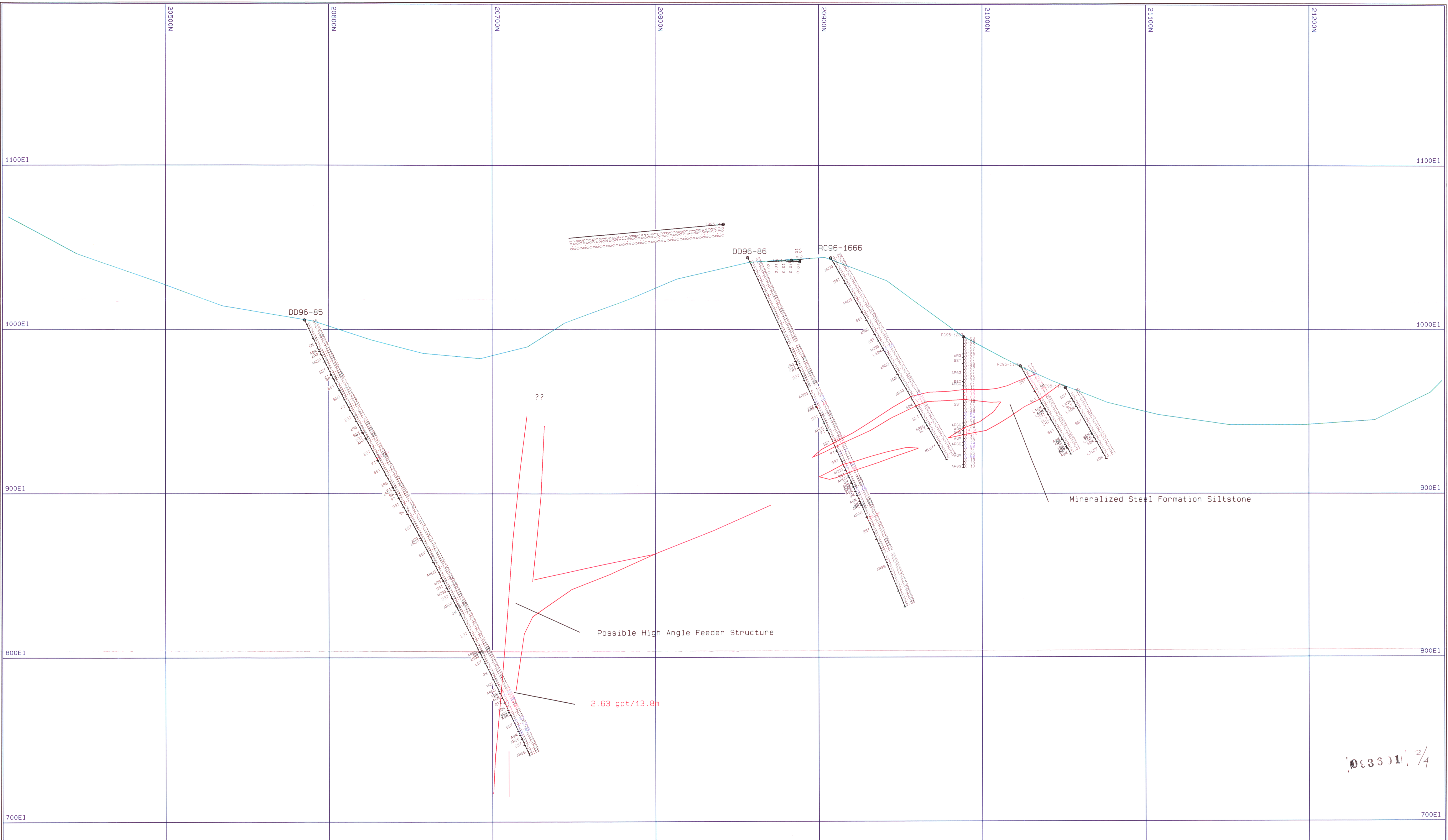
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## APPENDICES

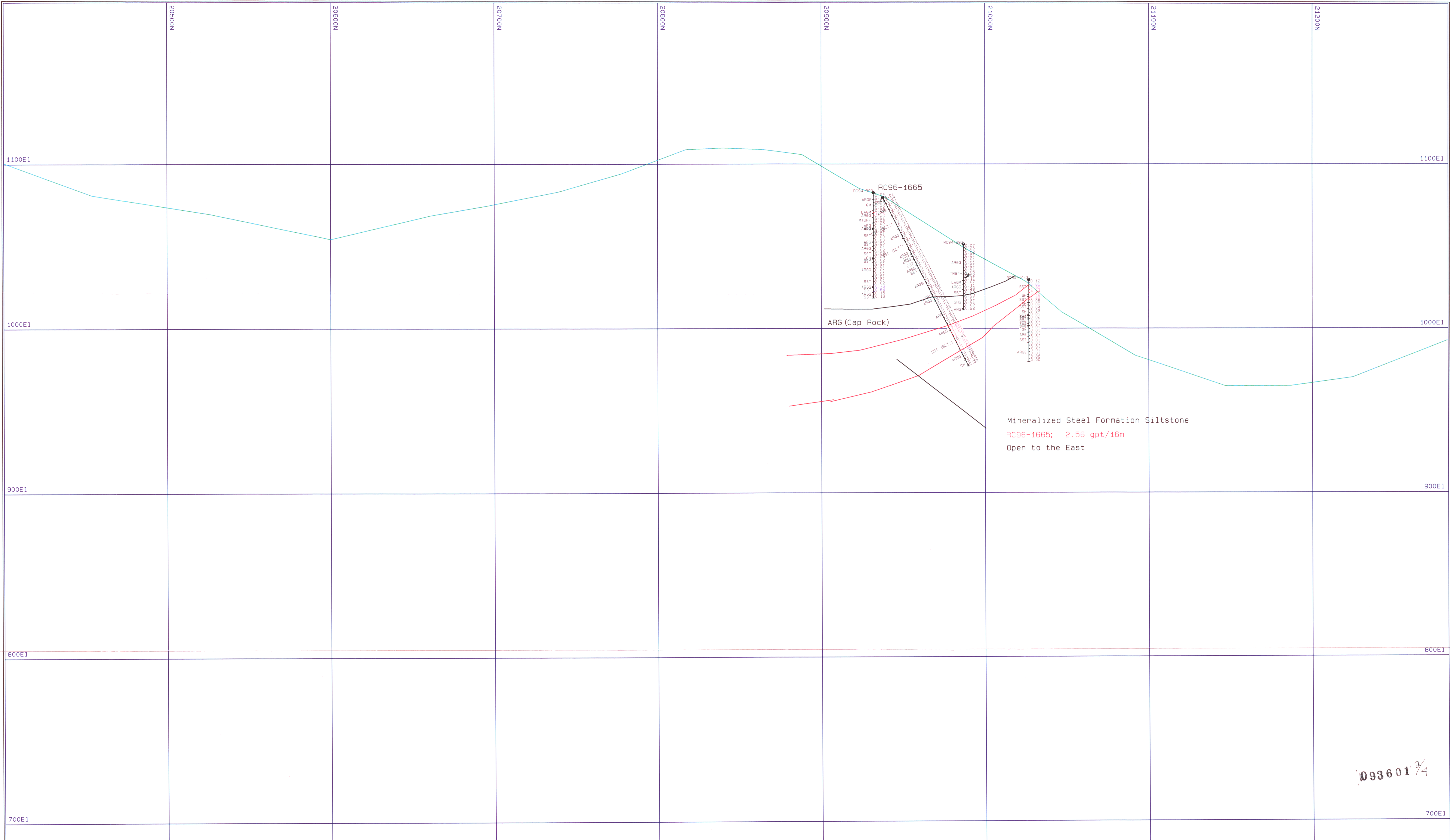
Appendix I 1996 Drill Hole Summary Tables





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 <b>VICEROY RESOURCES</b> <b>BREWERY CREEK OPERATIONS</b>		NORTH SLOPE ZONE VERTICAL CROSS SECTION 20300E DD96-85 & RC96-1666 PROJ. 100m W		<b>PLATE 5</b>
DATE 12-Feb-97	CHECKED	APPROVED		

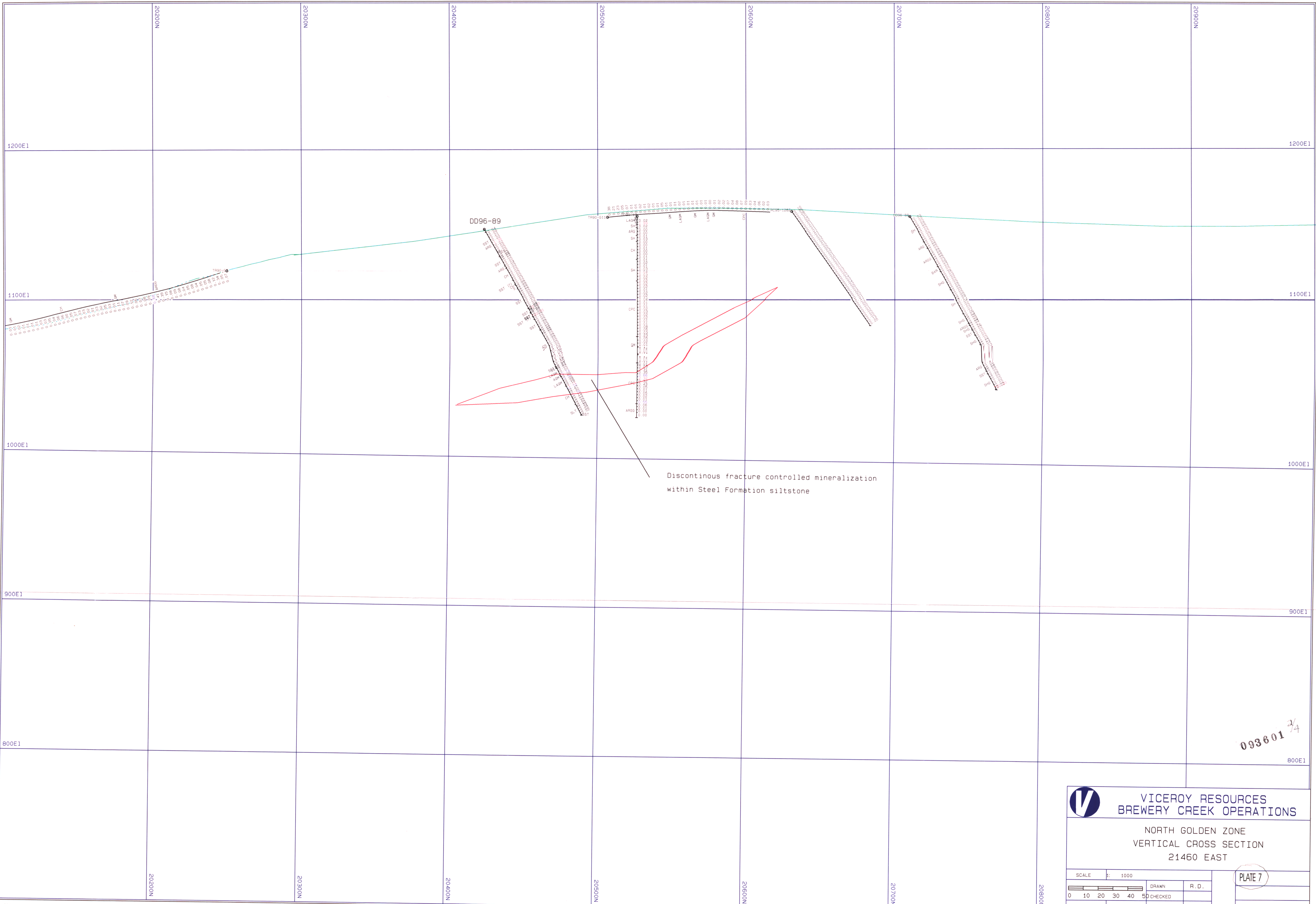
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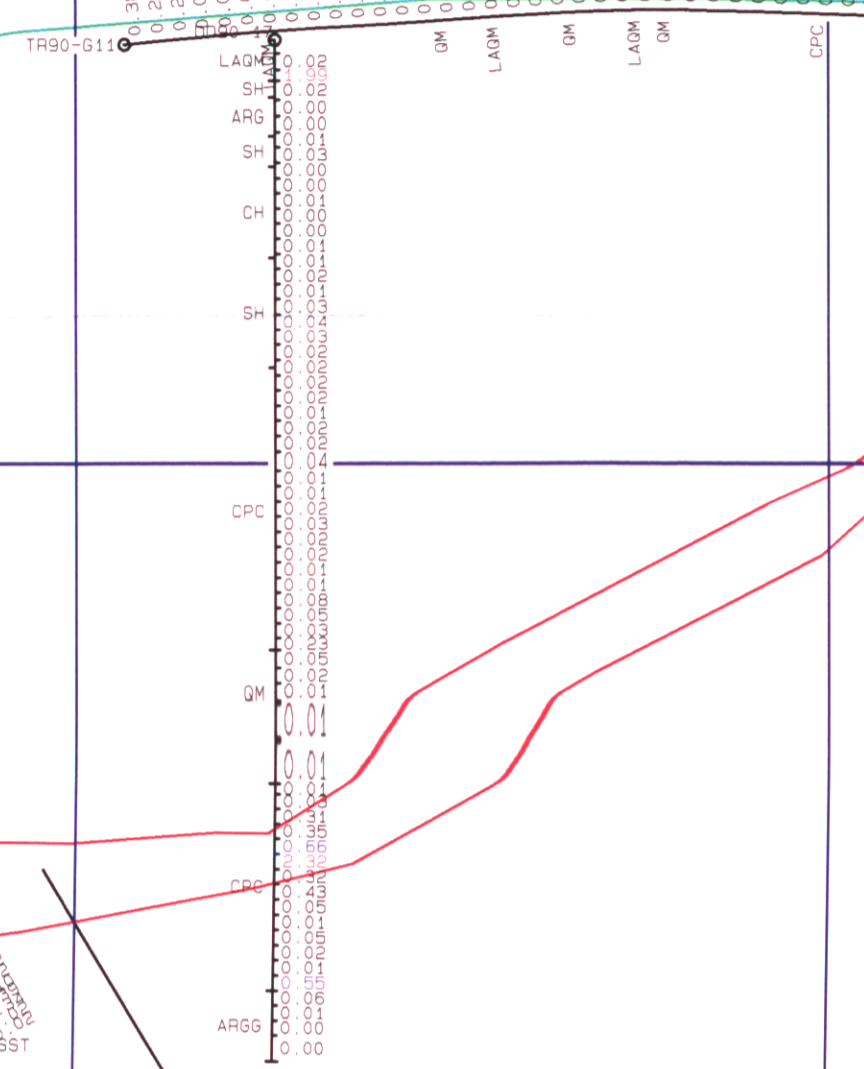
093601 3/4

 <b>VICEROY RESOURCES</b> <b>BREWERY CREEK OPERATIONS</b>		NORTH SLOPE ZONE VERTICAL CROSS SECTION 20590 EAST		<b>PLATE 6</b>
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DATE: 12-Feb-97	APPROVED:			

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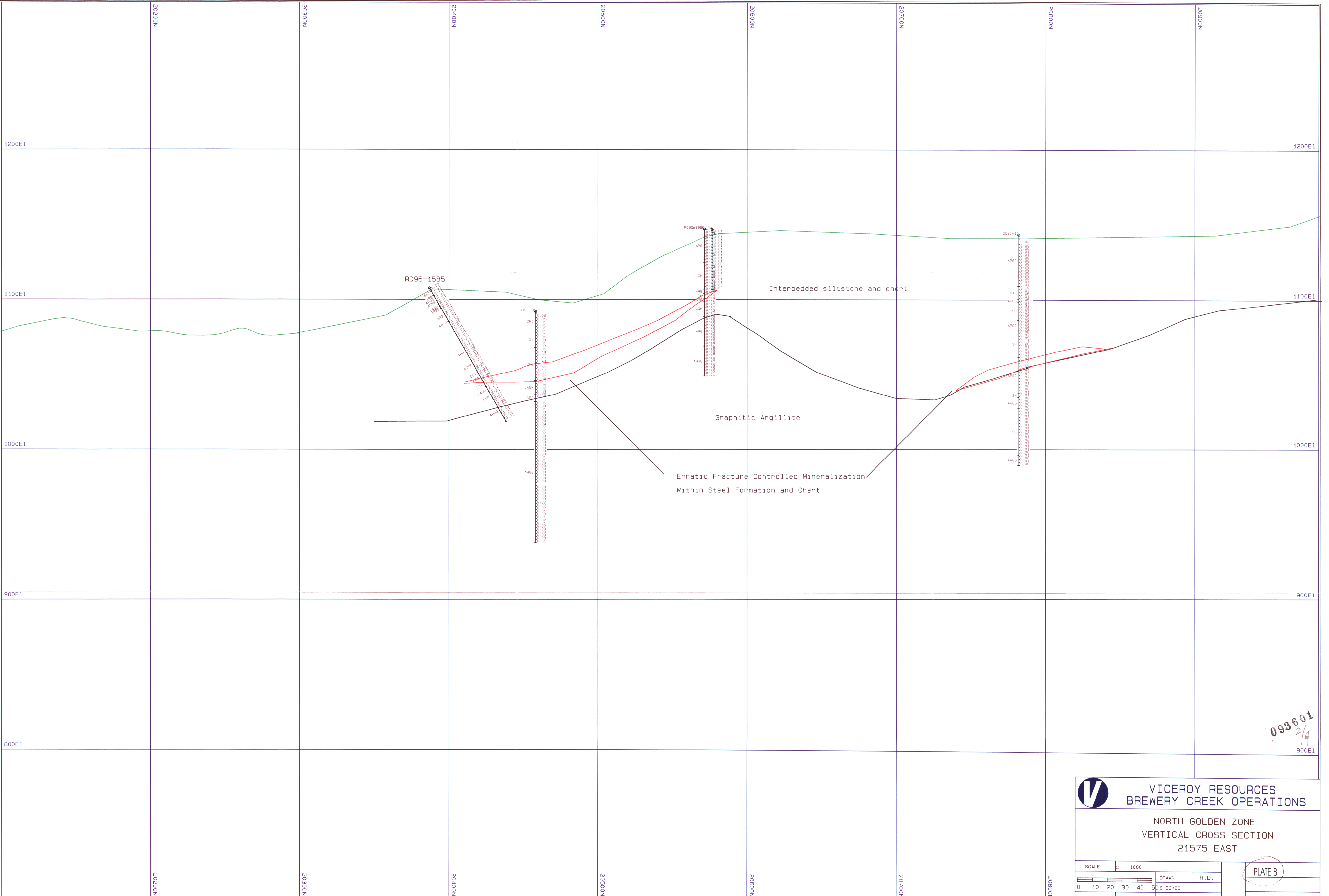
DD96-89




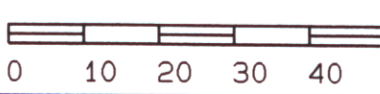
Discontinuous fracture controlled mineralization within Steel Formation siltstone

093601 3/4

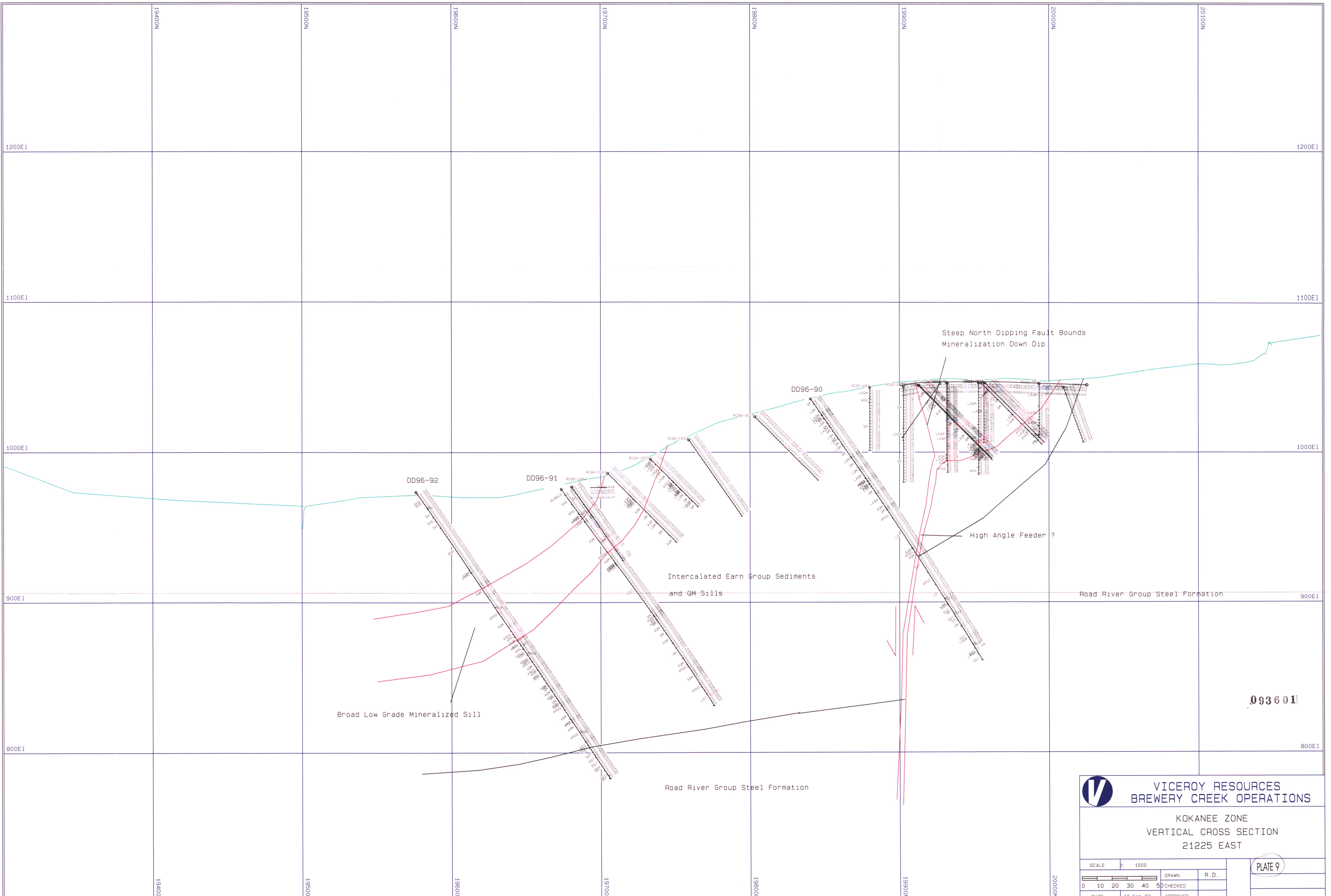
<b>VICEROY RESOURCES</b> <b>BREWERY CREEK OPERATIONS</b>		NORTH GOLDEN ZONE VERTICAL CROSS SECTION 21460 EAST	
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DATE	12-Feb-97	APPROVED	



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 <b>VICEROY RESOURCES</b> <b>BREWERY CREEK OPERATIONS</b>		NORTH GOLDEN ZONE VERTICAL CROSS SECTION 21575 EAST	
		DRAWN R. D. CHECKED	APPROVED
		<b>PLATE 8</b>	

JPT



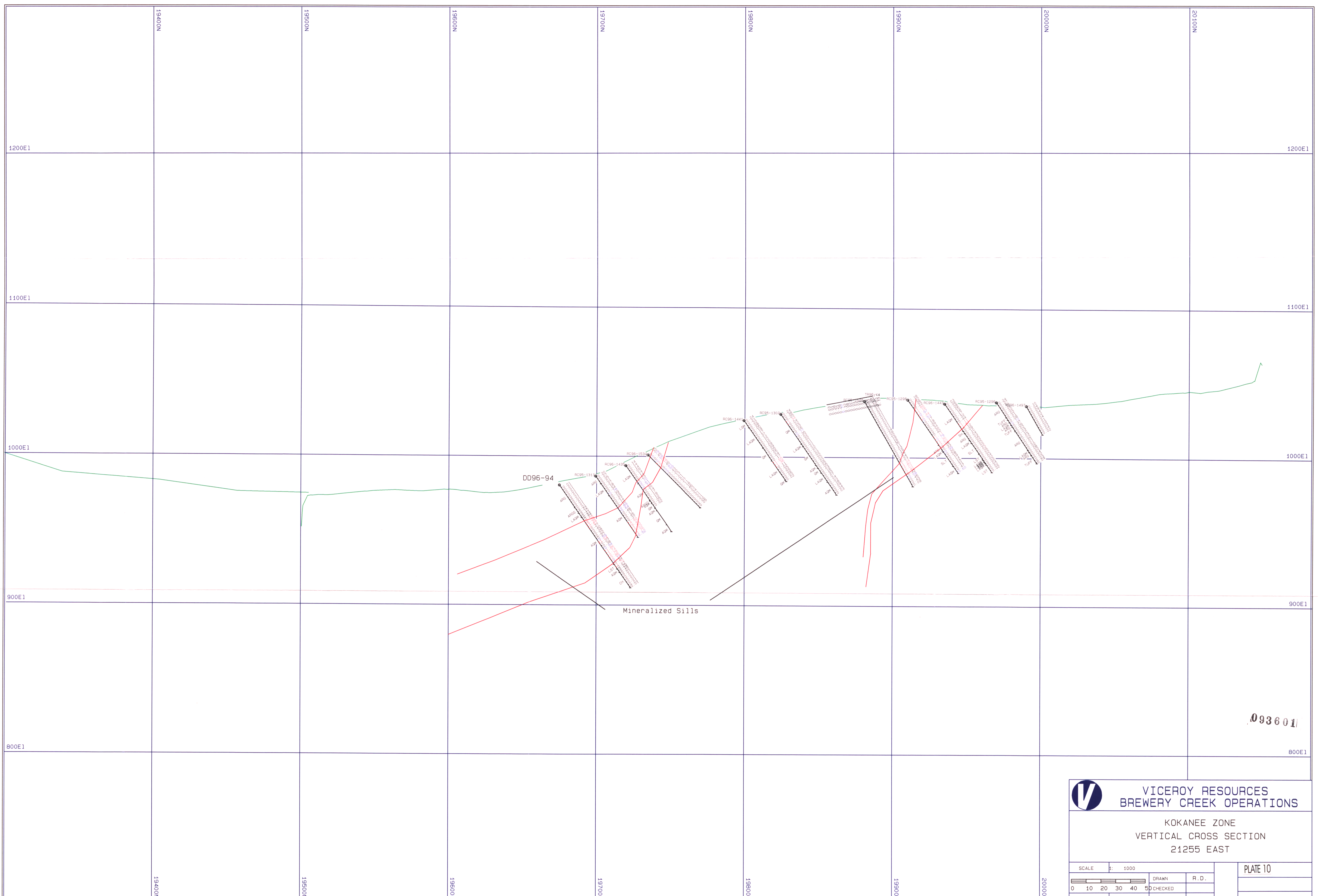
**VICEROY RESOURCES**  
**BREWERY CREEK OPERATIONS**

KOKANEE ZONE  
 VERTICAL CROSS SECTION  
 21225 EAST


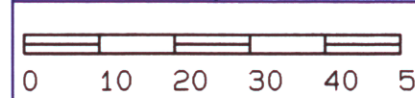
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0 10 20 30 40 50		CHECKED	
DATE	12-Feb-97	APPROVED	

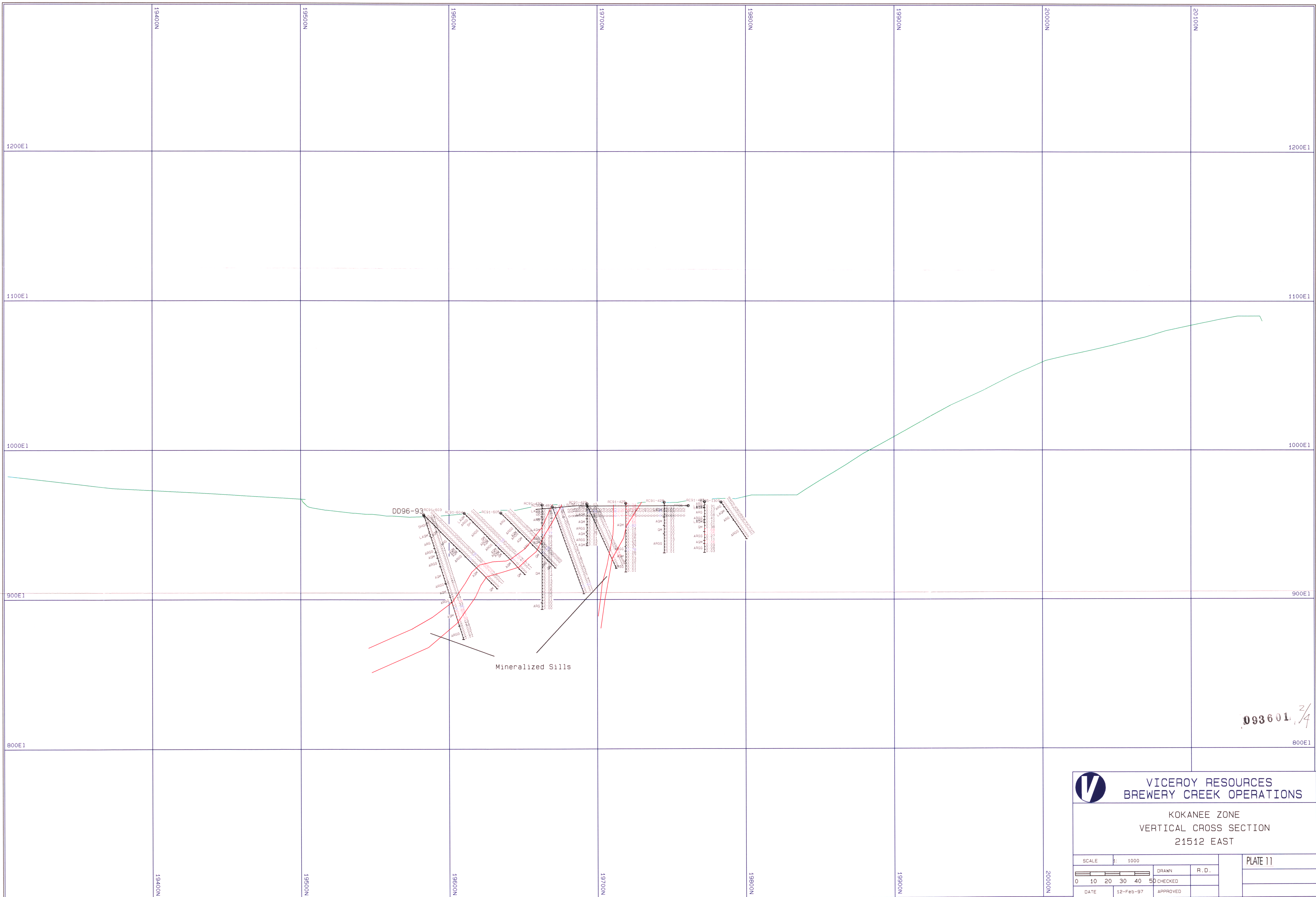
PLATE 9

Tempaa.pfl




093601

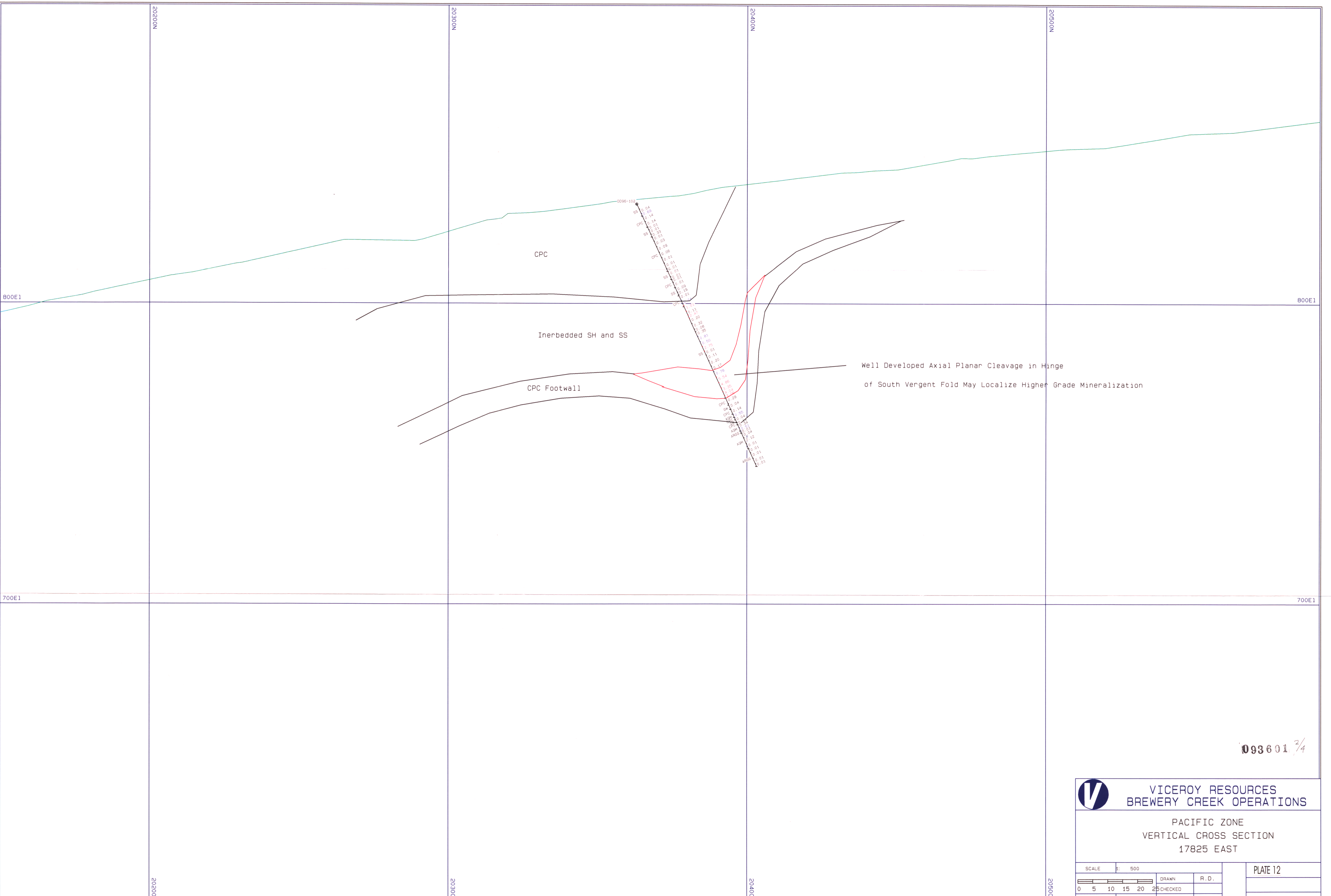
 <b>VICEROY RESOURCES</b> <b>BREWERY CREEK OPERATIONS</b>		KOKANEE ZONE VERTICAL CROSS SECTION 21255 EAST		SCALE 1: 1000 		DRAWN R. D.
				DATE 12-Feb-97	CHECKED APPROVED	PLATE 10




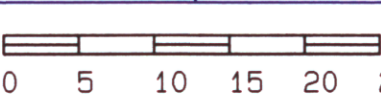
093601, 2/4

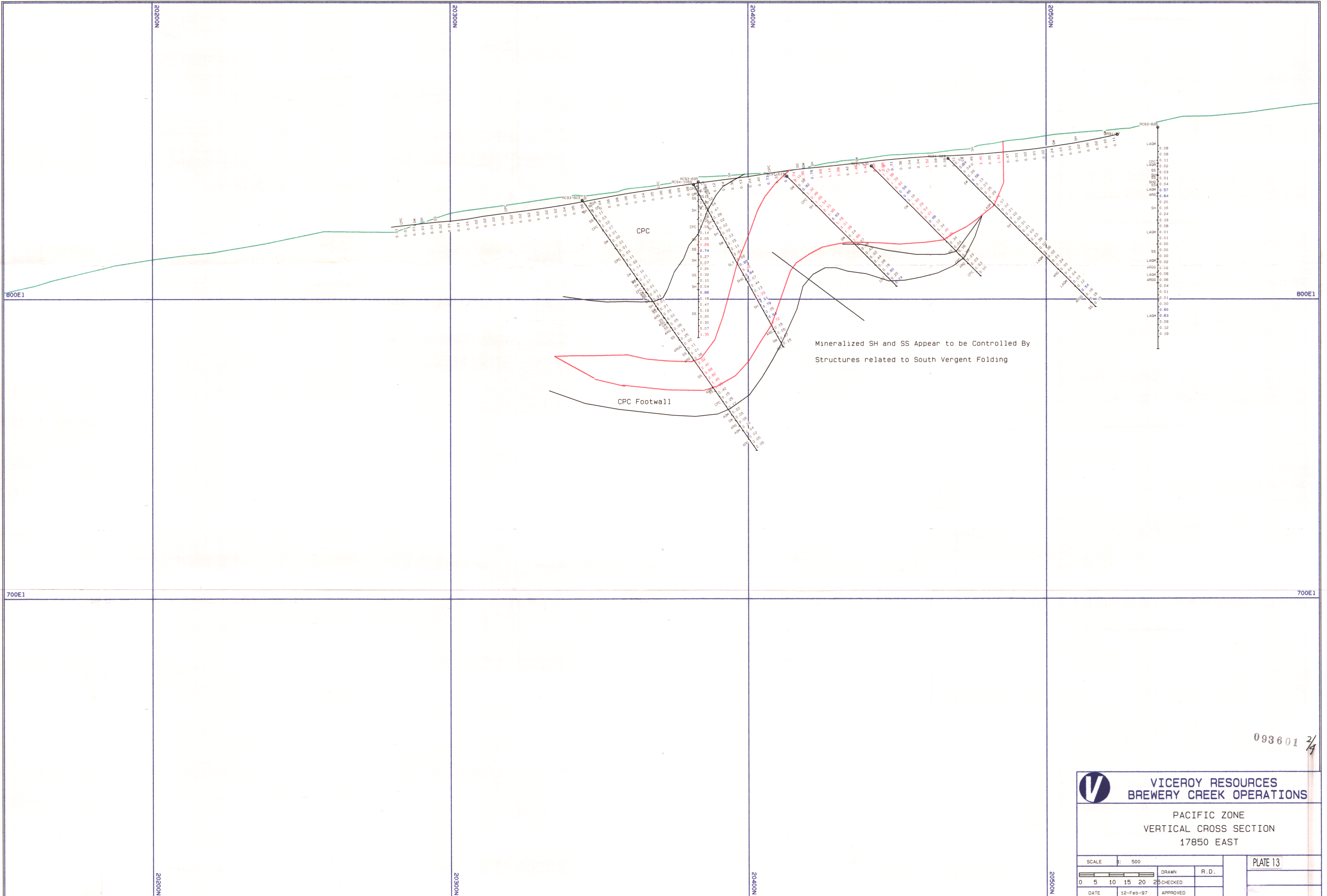
		VICEROY RESOURCES	
		BREWERY CREEK OPERATIONS	
KOKANEE ZONE VERTICAL CROSS SECTION 21512 EAST			
SCALE	1: 1000	DRAWN	R. D.
0 10 20 30 40 50		CHECKED	
DATE	12-Feb-97	APPROVED	
			PLATE 11

temp08a.dwg



093601 2/4

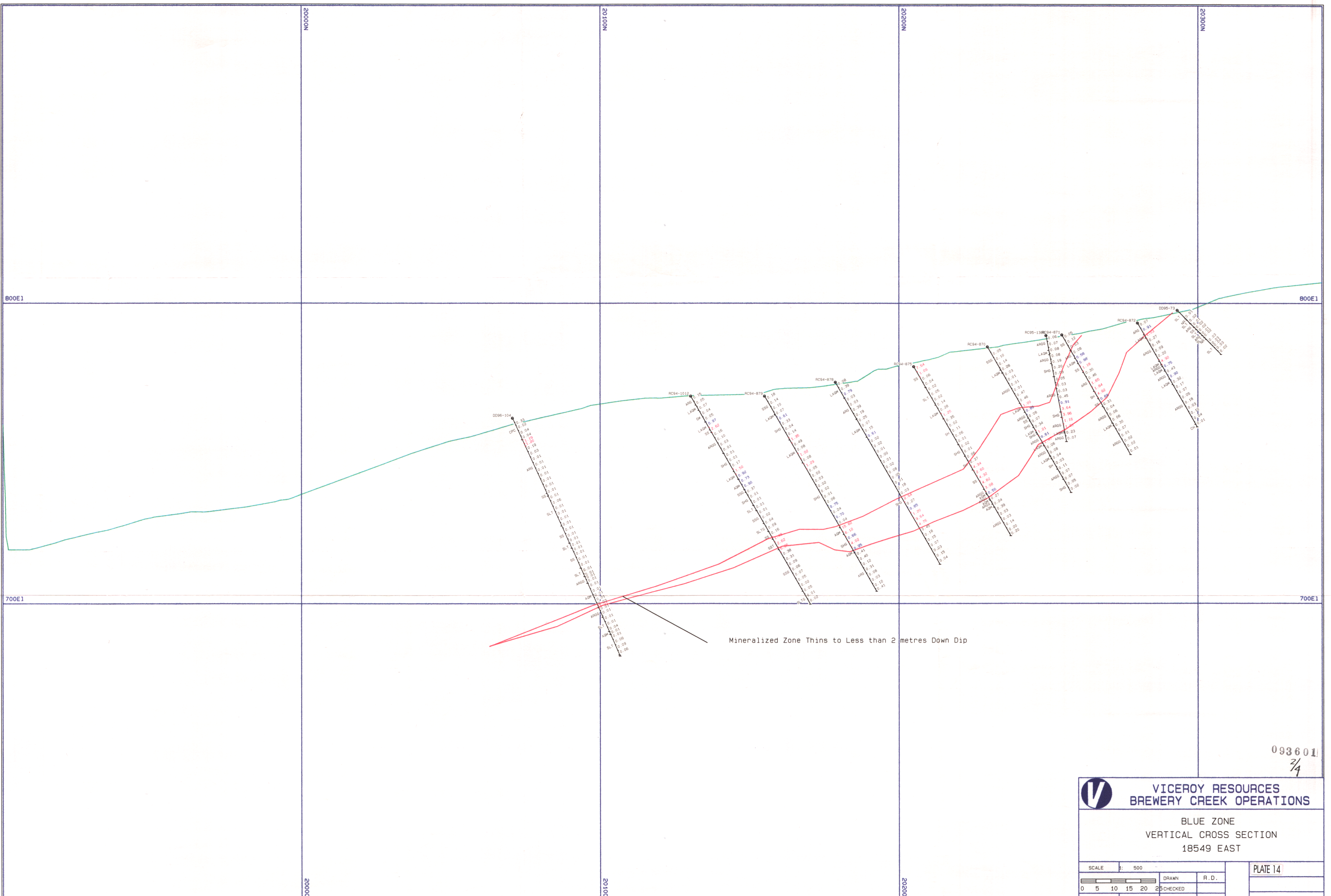
 <b>VICEROY RESOURCES</b> <b>BREWERY CREEK OPERATIONS</b>		PACIFIC ZONE VERTICAL CROSS SECTION 17825 EAST		<b>PLATE 12</b>			
				SCALE	1: 500	DRAWN	R. D.
		0	5	10	15	20	25
DATE	12-Feb-97	CHECKED		APPROVED			



093601 2/4

		VICEROY RESOURCES	
		BREWERY CREEK OPERATIONS	
PACIFIC ZONE VERTICAL CROSS SECTION 17850 EAST			
SCALE	1" = 500'	DRAWN	R. D.
0 5 10 15 20		CHECKED	
DATE	12-Feb-97	APPROVED	
			PLATE 13

tempaa.plt



093601  
2/4

**VICEROY RESOURCES  
BREWERY CREEK OPERATIONS**


BLUE ZONE  
VERTICAL CROSS SECTION  
18549 EAST

SCALE	1: 500	DRAWN	R. D.
		CHECKED	
DATE	12-Feb-97	APPROVED	

PLATE 14



10963  
 24000N  
 22000N  
 20000N  
 18000N  
 16000N  
 14000N  
 12000E  
 14000E  
 16000E  
 18000E  
 20000E  
 22000E  
 24000E

 <b>VICEROY RESOURCES</b> <b>BREWERY CREEK OPERATIONS</b>		<b>BREWERY CREEK EXPLORATION</b> <b>SOIL GEOCHEM ANOMALIES</b> 093601 3/4		<b>PLATE 15</b>



Viceroy International Exploration, Inc.

Bag 5040  
Dawson City, Yukon Y0B 1G0  
Phone (403)993-6012 OR  
(604)521-3706  
Fax (604)522-5874  
E-mail: vic@dawson.net

093601

pt 3 of 4

1997 Assay Certificates



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Y0B 1G0

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Certificate Date: 25-AUG-96  
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P.O. Number : 10573  
Account : LDS

Project : BREWERY CR. RC-1565  
Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9628658

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	268 --	75										
02-04	268 --	20										
04-06	268 --	20										
06-08	268 --	10										
08-10	268 --	< 5										
10-12	268 --	< 5										
12-14	268 --	< 5										
14-16	268 --	5										
16-18	268 --	15										
18-20	268 --	5										
20-22	268 --	< 5										
22-24	268 --	< 5										
24-26	268 --	30										
26-28	268 --	25										
28-30	268 --	20										
30-32	268 --	< 5										
32-34	268 --	< 5										
34-36	268 --	1190										
36-38	268 --	885										
38-40	268 --	845										
40-42	268 --	915										
42-44	268 --	685										
44-46	268 --	360										
46-48	268 --	50										
48-50	268 --	125										
50-52	268 --	260										
52-54	268 --	545										
54-56	268 --	315										
56-58	268 --	950										
58-60	268 --	455										
60-62	268 --	15										
62-64	268 --	20										
64-66	268 --	10										
66-68	268 --	< 5										
68-70	268 --	15										
70-72	268 --	40										
72-74	268 --	65										
74-76	268 --	45										
76-78	268 --	35										
78-80	268 --	30										

CERTIFICATION: *Theresa Voh*



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Certificate Date: 25-AUG-96  
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P.O. Number : 10573  
Account : LDS

Project : BREWERY CR. RC-1566  
Comments : ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9628660

SAMPLE	PREP CODE	Au ppb FA+AA									
00-02	268 --	730									
02-04	268 --	930									
04-06	268 --	635									
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10-12	268 --	455									
12-14	268 --	130									
14-16	268 --	55									
16-18	268 --	70									
18-20	268 --	40									
20-22	268 --	60									
22-24	268 --	15									
24-26	268 --	15									
26-28	268 --	70									
28-30	268 --	25									
30-32	268 --	10									
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50-52	268 --	2580									
52-54	268 --	1980									
54-56	268 --	375									
56-58	268 --	385									
58-60	268 --	20									
60-62	268 --	10									
62-64	268 --	35									
64-66	268 --	15									
66-68	268 --	10									
68-70	268 --	10									
70-72	268 --	< 5									
1566A	268 --	40									
1566B	268 --	65									

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*Theresa Vonk*



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Project: BREWERY CR. RC-1567  
Comments: ATTN: RICK DIMENT CC: JOHN ZBETNOFF

## CERTIFICATE OF ANALYSIS A9628661

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12-14	268 --	10									
14-16	268 --	< 5									
16-18	268 --	< 5									
18-20	268 --	55									
20-22	268 --	20									
22-24	268 --	< 5									
24-26	268 --	270									
26-28	268 --	1340									
28-30	268 --	225									
30-32	268 --	400									
32-34	268 --	20									
34-36	268 --	90									
36-38	268 --	825									
38-40	268 --	230									
40-42	268 --	140									
42-44	268 --	2280									
44-46	268 --	505									
46-48	268 --	25									
48-50	268 --	10									
50-52	268 --	10									

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Account : LDS

Project : BREWERY CR. RC-1568  
Comments : ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9628662

SAMPLE	PREP CODE	Au ppb FA+AA										
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02-04	268 --	10										
04-06	268 --	< 5										
06-08	268 --	< 5										
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12-14	268 --	< 5										
14-16	268 --	< 5										
16-18	268 --	20										
18-20	268 --	< 5										
20-22	268 --	< 5										
22-24	268 --	280										
24-26	268 --	< 5										
26-28	268 --	275										
28-30	268 --	50										
30-32	268 --	10										
32-34	268 --	< 5										
34-36	268 --	235										
36-38	268 --	1560										
38-40	268 --	275										
40-42	268 --	270										
42-44	268 --	1380										
44-46	268 --	330										
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50-52	268 --	10										
52-54	268 --	< 5										
54-56	268 --	< 5										
56-58	268 --	< 5										
58-60	268 --	< 5										
60-62	268 --	< 5										
62-64	268 --	10										
64-66	268 --	< 5										
66-68	268 --	< 5										
68-70	268 --	20										
70-72	268 --	10										
72-74	268 --	< 5										
74-76	268 --	15										
76-78	268 --	10										
78-80	268 --	30										

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## CERTIFICATE OF ANALYSIS A9628662

SAMPLE	PREP CODE	Au ppb FA+AA									
1568A	268 --	< 5									
1568B	268 --	< 5									

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Total Pages : 1  
Certificate Date: 25-AUG-96  
Invoice No. : I9628664  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CR. RC-1569  
Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9628664

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02-04	268 --	30										
04-06	268 --	695										
06-08	268 --	410										
08-10	268 --	45										
10-12	268 --	60										
12-14	268 --	350										
14-16	268 --	100										
16-18	268 --	275										
18-20	268 --	30										
20-22	268 --	5										
22-24	268 --	25										
24-26	268 --	875										
26-28	268 --	1890										
28-30	268 --	2060										
30-32	268 --	690										
32-34	268 --	1130										
34-36	268 --	540										
36-38	268 --	25										
38-40	268 --	15										
40-42	268 --	15										
42-44	268 --	< 5										
44-46	-- --	Not Red										
46-48	268 --	< 5										
48-50	268 --	< 5										

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Certificate Date: 25-AUG-95  
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Project : BREWERY CR. RC-1570  
Comments : ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9628665

SAMPLE	PREP CODE	Au ppb FA+AA									
00-02	268 --	35									
02-04	268 --	45									
04-06	268 --	40									
06-08	268 --	45									
08-10	268 --	25									
10-12	268 --	15									
12-14	268 --	60									
14-16	268 --	45									
16-18	268 --	130									
18-20	268 --	65									
20-22	268 --	30									
22-24	268 --	5									
24-26	268 --	< 5									
26-28	268 --	< 5									
28-30	268 --	35									
30-32	268 --	10									
32-34	268 --	985									
34-36	268 --	615									
36-38	268 --	400									
38-40	268 --	610									
40-42	268 --	280									
42-44	268 --	375									
44-46	268 --	55									
46-48	268 --	10									
48-50	268 --	15									
50-52	268 --	< 5									
52-54	268 --	< 5									
1570A	268 --	30									
1570B	268 --	20									

CERTIFICATION:

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P.O. Number : 10573  
Account : LDS

Project : BREWERY CR. RC-1571  
Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9628667

SAMPLE	PREP CODE	Au ppb FA+AA									
00-02	268 --	1890									
02-04	268 --	580									
04-06	268 --	695									
06-08	268 --	2390									
08-10	268 --	4430									
10-12	268 --	110									
12-14	268 --	25									
14-16	268 --	15									
16-18	268 --	25									
18-20	268 --	105									
20-22	268 --	10									
22-24	268 --	10									
24-26	268 --	265									
26-28	268 --	220									
28-30	268 --	900									
30-32	268 --	160									
32-34	268 --	885									
34-36	268 --	25									
36-38	268 --	10									
38-40	268 --	5									
40-42	268 --	< 5									
42-44	268 --	< 5									
44-46	268 --	40									
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60-62	268 --	590									
62-64	268 --	1040									
64-66	268 --	65									
66-68	268 --	15									
68-70	268 --	15									
70-72	268 --	< 5									
72-74	268 --	< 5									

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*Theresa Vorn*



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Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9628668

SAMPLE	PREP CODE	Au ppb FA+AA									
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04-06	268 --	1130									
06-08	268 --	2550									
08-10	268 --	900									
10-12	268 --	50									
12-14	268 --	380									
14-16	268 --	20									
16-18	268 --	10									
18-20	268 --	< 5									
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22-24	268 --	< 5									
24-26	268 --	< 5									
26-28	268 --	< 5									
28-30	268 --	< 5									
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40-42	268 --	< 5									
42-44	268 --	515									
44-46	268 --	525									
46-48	268 --	2170									
48-50	268 --	25									
50-52	268 --	35									
52-54	268 --	220									
54-56	268 --	600									
56-58	268 --	155									
58-60	268 --	35									
60-62	268 --	30									
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70-72	268 --	10									
72-74	268 --	< 5									
74-76	268 --	5									
1572A	268 --	30									
1572B	268 --	345									

CERTIFICATION:

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Certificate Date: 25-AUG-96  
Invoice No. : 19628670  
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Account : LDS

Project : BREWERY CR. RC-1573  
Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9628670

SAMPLE	PREP CODE	Au ppb FA+AA									
00-02	268 --	90									
02-04	268 --	245									
04-06	268 --	80									
06-08	268 --	1230									
08-10	268 --	875									
10-12	268 --	55									
12-14	268 --	25									
14-16	268 --	1600									
16-18	268 --	1970									
18-20	268 --	30									
20-22	268 --	275									
22-24	268 --	660									
24-26	268 --	190									
26-28	268 --	15									
28-30	268 --	< 5									
30-32	268 --	< 5									
32-34	268 --	15									
34-36	268 --	< 5									
36-38	268 --	< 5									
38-40	268 --	< 5									
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44-46	268 --	< 5									
46-48	268 --	< 5									
48-50	268 --	< 5									
50-52	268 --	< 5									
52-54	268 --	< 5									
54-56	268 --	< 5									
56-58	268 --	< 5									
58-60	268 --	< 5									
60-62	268 --	< 5									

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## CERTIFICATE OF ANALYSIS

A9628672

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	268 --	1490										
02-04	268 --	495										
04-06	268 --	300										
06-08	268 --	1600										
08-10	268 --	35										
10-12	268 --	975										
12-14	268 --	265										
14-16	268 --	100										
16-18	268 --	90										
18-20	268 --	245										
20-22	268 --	230										
22-24	268 --	255										
24-26	268 --	610										
26-28	268 --	420										
28-30	268 --	705										
30-32	268 --	530										
32-34	268 --	110										
34-36	268 --	240										
36-38	268 --	105										
38-40	268 --	10										
40-42	268 --	< 5										
42-44	268 --	< 5										
44-46	268 --	< 5										
46-48	268 --	< 5										
48-50	268 --	< 5										
50-52	268 --	< 5										
52-54	268 --	< 5										
54-56	268 --	< 5										
56-58	268 --	< 5										
58-60	268 --	< 5										
1574A	268 --	240										
1574B	268 --	100										

CERTIFICATION:

*John Vank*



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 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: LOKI GOLD CORPORATION  
 BREWERY CREEK MINE  
 BAG 5040  
 DAWSON CITY, Y.T.  
 Y0B 1G0

Page number : 1  
 Total pages : 1  
 Certificate Date: 22-AUG-96  
 Invoice No. : 19628674  
 P.O. Number : 10573  
 Account : LDS

Project : BREWERY CR. RC-1575  
 Comments : ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9628674

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	268 --	10										
02-04	268 --	10										
04-06	268 --	75										
06-08	268 --	40										
08-10	268 --	< 5										
10-12	268 --	< 5										
12-14	268 --	< 5										
14-16	268 --	< 5										
16-18	268 --	160										
18-20	268 --	< 5										
20-22	268 --	< 5										
22-24	268 --	35										
24-26	268 --	500										
26-28	268 --	170										
28-30	268 --	490										
30-32	268 --	500										
32-34	268 --	390										
34-36	268 --	800										
36-38	268 --	75										
38-40	268 --	220										
40-42	268 --	660										
42-44	268 --	490										
44-46	268 --	390										
46-48	268 --	810										
48-50	268 --	455										
50-52	268 --	110										
52-54	268 --	60										
54-56	268 --	10										
56-58	268 --	< 5										
58-60	268 --	< 5										
60-62	268 --	< 5										
62-64	268 --	< 5										

CERTIFICATION: *John Vohl*



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To: LOKI GOLD CORPORATION  
 BREWERY CREEK MINE  
 BAG 5040  
 DAWSON CITY, Y.T.  
 Y0B 1G0

Page Number : 1  
 Total Pages : 1  
 Certificate Date: 28-AUG-96  
 Invoice No. : 19629618  
 P.O. Number : 10573  
 Account : LDS

Project : BREWERY CK RC-1576  
 Comments : ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9629618

SAMPLE	PREP CODE	Au ppb FA+AA											
RC-1576 0-2	217 --	20											
RC-1576 2-4	217 --	10											
RC-1576 4-6	217 --	< 5											
RC-1576 6-8	217 --	< 5											
RC-1576 8-10	217 --	< 5											
RC-1576 10-12	217 --	< 5											
RC-1576 12-14	217 --	< 5											
RC-1576 14-16	217 --	< 5											
RC-1576 16-18	217 --	< 5											
RC-1576 18-20	217 --	< 5											
RC-1576 20-22	217 --	45											
RC-1576 22-24	217 --	15											
RC-1576 24-26	217 --	< 5											
RC-1576 26-28	217 --	< 5											
RC-1576 28-30	217 --	< 5											
RC-1576 30-32	217 --	85											
RC-1576 32-34	217 --	< 5											
RC-1576 34-36	217 --	< 5											
RC-1576 36-38	217 --	< 5											
RC-1576 38-40	217 --	35											
RC-1576 40-42	217 --	45											
RC-1576 42-44	217 --	50											
RC-1576 44-46	217 --	10											
RC-1576 46-48	217 --	235											
RC-1576 48-50	217 --	215											
RC-1576 50-52	217 --	1930											
RC-1576 52-54	217 --	4800											
RC-1576 54-56	217 --	280											
RC-1576 56-58	217 --	180											
RC-1576 58-60	217 --	25											
RC-1576 60-62	217 --	35											
RC-1576 62-64	217 --	5											
RC-1576 64-66	217 --	40											
RC-1576 66-68	217 --	715											
RC-1576 68-70	217 --	1070											
RC-1576 70-72	217 --	70											
RC-1576 72-74	217 --	70											
RC-1576 74-76	217 --	65											
RC-1576 A	217 --	< 5											
RC-1576 B	217 --	< 5											

CERTIFICATION: *John V. [Signature]*



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To: LOKI GOLD CORPORATION  
BREWERY CREEK MINE  
BAG 5040  
DAWSON CITY, Y.T.  
Y0B 1G0

Page number : 1  
Total Pages : 1  
Certificate Date: 25-AUG-96  
Invoice No. : I9628675  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CR. RC-1577  
Comments : ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9628675

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	268 --	40										
02-04	268 --	10										
04-06	268 --	5										
06-08	268 --	< 5										
08-10	268 --	5										
10-12	268 --	< 5										
12-14	268 --	< 5										
14-16	268 --	< 5										
16-18	268 --	< 5										
18-20	268 --	10										
20-22	268 --	20										
22-24	268 --	285										
24-26	268 --	10										
26-28	268 --	< 5										
28-30	268 --	75										
30-32	268 --	25										
32-34	268 --	80										
34-36	268 --	220										
36-38	268 --	330										
38-40	268 --	510										
40-42	268 --	15										
42-44	268 --	< 5										
44-46	268 --	< 5										
46-48	268 --	< 5										
48-50	268 --	65										
50-52	268 --	< 5										
52-54	268 --	< 5										
54-56	268 --	< 5										
56-58	268 --	< 5										
58-60	268 --	< 5										

CERTIFICATION:

*John Vink*



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To: LOKI GOLD CORPORATION  
BREWERY CREEK MINE  
BAG 5040  
DAWSON CITY, Y.T.  
Y0B 1G0

Page Number : 1  
Total Pages : 1  
Certificate Date: 25-AUG-96  
Invoice No. : 19628810  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CR. RC-1578  
Comments : ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9628810

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	268 --	< 5										
02-04	268 --	< 5										
04-06	268 --	< 5										
06-08	268 --	< 5										
08-10	268 --	< 5										
10-12	268 --	< 5										
12-14	268 --	< 5										
14-16	268 --	< 5										
16-18	268 --	< 5										
18-20	268 --	< 5										
20-22	268 --	< 5										
22-24	268 --	< 5										
24-26	268 --	< 5										
26-28	268 --	< 5										
28-30	268 --	< 5										
30-32	268 --	< 5										
32-34	268 --	< 5										
34-36	268 --	< 5										
36-38	268 --	< 5										
38-40	268 --	< 5										
40-42	268 --	< 5										
42-44	268 --	125										
44-46	268 --	1210										
46-48	268 --	470										
48-50	268 --	60										
50-52	268 --	55										
52-54	268 --	350										
54-56	268 --	275										
56-58	268 --	80										
58-60	268 --	65										
60-62	268 --	90										
62-64	268 --	25										
64-66	268 --	20										
1578A	268 --	< 5										
1578B	268 --	< 5										

CERTIFICATION: *John Vink*



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BREWERY CREEK MINE  
BAG 5040  
DAWSON CITY, Y.T.  
Y0B 1G0

Page number : 1  
Total pages : 1  
Certificate Date: 28-AUG-96  
Invoice No. : 19629619  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK RC1579/81  
Comments: ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9629619

SAMPLE	PREP CODE	Au ppb FA+AA											
RC-1579 0-2	217 --	10											
RC-1579 2-4	217 --	< 5											
RC-1579 4-6	217 --	< 5											
RC-1579 6-8	217 --	< 5											
RC-1579 8-10	217 --	< 5											
RC-1579 10-12	217 --	< 5											
RC-1579 12-14	217 --	250											
RC-1579 14-16	217 --	85											
RC-1579 16-18	217 --	30											
RC-1579 18-20	217 --	20											
RC-1579 20-22	217 --	15											
RC-1579 22-24	217 --	15											
RC-1579 24-26	217 --	25											
RC-1579 26-28	217 --	35											
RC-1579 28-30	217 --	10											
RC-1579 30-32	217 --	< 5											
RC-1579 32-34	217 --	< 5											
RC-1579 34-36	217 --	< 5											
RC-1579 36-38	217 --	< 5											
RC-1579 38-40	217 --	5											
RC-1579 40-42	217 --	50											
RC-1580 (2-4)	217 --	10											
RC-1581 14-16	217 --	25											
RC-1581 16-18	217 --	5											
RC-1581 18-20	217 --	10											
RC-1581 20-22	217 --	5											
RC-1581 22-24	217 --	5											
RC-1581 24-26	217 --	5											
RC-1581 26-28	217 --	< 5											
RC-1581 28-30	217 --	< 5											
RC-1581 30-32	217 --	< 5											
RC-1581 32-34	217 --	< 5											
RC-1581 34-36	217 --	< 5											
RC-1581 36-38	217 --	< 5											
RC-1581 38-40	217 --	< 5											
RC-1581 40-42	217 --	< 5											
RC-1581 42-44	217 --	< 5											
RC-1581 44-46	217 --	< 5											
RC-1581 46-48	217 --	< 5											
RC-1581 48-50	217 --	5											

CERTIFICATION: *John Vank*

# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE July 30/96

SAMPLE SERIES RC-96

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Au/t
1	1580 0-2	NO RECOVERY
2	2-4	TO FOLLOW
3	4-6	0.02
4	6-8	0.02
5	8-10	0.02
6		
7		
8		
9		
10		
11		
12		
13		
14		
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16		
17		
18		
19		
20		
21		
22		

	SAMPLE	Au/t
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		

SUPERVISOR \_\_\_\_\_



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 PHONE: 604-984-0221 FAX: 604-984-0218

To: LOKI GOLD CORPORATION  
 BREWERY CREEK MINE  
 BAG 5040  
 DAWSON CITY, Y.T.  
 Y0B 1G0

Page Number : 1  
 Total Pages : 1  
 Certificate Date: 28-AUG-96  
 Invoice No. : 19629620  
 P.O. Number : 10573  
 Account : LDS

Project : BREWERY CK RC-1582  
 Comments: ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

<b>CERTIFICATE OF ANALYSIS</b>	<b>A9629620</b>
--------------------------------	-----------------

SAMPLE	PREP CODE	Au ppb FA+AA								
RC-1582 0-2	217 --	< 5								
RC-1582 8-10	217 --	< 5								
RC-1582 10-12	217 --	< 5								
RC-1582 12-14	217 --	< 5								
RC-1582 14-16	217 --	< 5								
RC-1582 16-18	217 --	< 5								
RC-1582 18-20	217 --	< 5								
RC-1582 20-22	217 --	< 5								
RC-1582 22-24	217 --	< 5								
RC-1582 24-26	217 --	< 5								
RC-1582 26-28	217 --	< 5								
RC-1582 28-30	217 --	< 5								
RC-1582 30-32	217 --	< 5								
RC-1582 32-34	217 --	10								
RC-1582 34-36	217 --	< 5								
RC-1582 36-38	217 --	10								
RC-1582 38-40	217 --	< 5								
RC-1582 40-42	217 --	< 5								
RC-1582 42-44	217 --	< 5								
RC-1582 44-46	217 --	< 5								
RC-1582 46-48	217 --	< 5								
RC-1582 48-50	217 --	< 5								
RC-1582 A	217 --	< 5								
RC-1582 B	217 --	< 5								

CERTIFICATION: *John Vonk*



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To: LOKI GOLD CORPORATION  
BREWERY CREEK MINE  
BAG 5040  
DAWSON CITY, Y.T.  
Y0B 1G0

Page Number : 1  
Total Pages : 1  
Certificate Date: 29-AUG-96  
Invoice No. : 19629621  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK RC-1583  
Comments: ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9629621

SAMPLE	PREP CODE	Au ppb FA+AA											
RC-1583 0-2	217 --	< 5											
RC-1583 2-4	217 --	30											
RC-1583 4-6	217 --	5											
RC-1583 6-8	217 --	15											
RC-1583 8-10	217 --	30											
RC-1583 10-12	217 --	85											
RC-1583 12-14	217 --	20											
RC-1583 14-16	217 --	10											
RC-1583 16-18	217 --	< 5											
RC-1583 18-20	217 --	< 5											
RC-1583 20-22	217 --	10											
RC-1583 22-24	217 --	10											
RC-1583 24-26	217 --	10											
RC-1583 26-28	217 --	10											
RC-1583 28-30	217 --	5											
RC-1583 30-32	217 --	5											
RC-1583 32-34	217 --	5											
RC-1583 34-36	217 --	5											
RC-1583 36-38	217 --	5											
RC-1583 38-40	217 --	10											
RC-1583 40-42	217 --	< 5											
RC-1583 42-44	217 --	< 5											
RC-1583 44-46	217 --	< 5											
RC-1583 46-48	217 --	< 5											
RC-1583 48-50	217 --	< 5											
RC-1583 50-52	217 --	< 5											
RC-1583 52-54	217 --	< 5											
RC-1583 54-56	217 --	< 5											
RC-1583 56-58	217 --	< 5											
RC-1583 58-60	217 --	< 5											
RC-1583 60-62	217 --	< 5											
RC-1583 62-64	217 --	< 5											
RC-1583 64-66	217 --	< 5											

CERTIFICATION: *John Vank*



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To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page number : 1  
 Total pages : 2  
 Certificate Date : 04-SEP-96  
 Invoice No. : 19630300  
 P.O. Number : 10573  
 Account : LDS

Project : BREWERYCRK RC96 1585  
 Comments : ATTN:RICK DIMENT FAX:JOHN ZBEETNOFF

<b>CERTIFICATE OF ANALYSIS</b>	<b>A9630300</b>
--------------------------------	-----------------

SAMPLE	PREP CODE	Au ppb FA+AA							
1585 0-2	217 --	20							
1585 2-4	217 --	15							
1585 4-6	217 --	10							
1585 6-8	217 --	10							
1585 8-10	217 --	< 5							
1585 10-12	217 --	< 5							
1585 12-14	217 --	< 5							
1585 14-16	217 --	< 5							
1585 16-18	217 --	20							
1585 18-20	217 --	35							
1585 20-22	217 --	10							
1585 22-24	217 --	5							
1585 24-26	217 --	105							
1585 26-28	217 --	140							
1585 28-30	217 --	245							
1585 30-32	217 --	15							
1585 32-34	217 --	10							
1585 34-36	217 --	5							
1585 36-38	217 --	< 5							
1585 38-40	217 --	10							
1585 40-42	217 --	20							
1585 42-44	217 --	15							
1585 44-46	217 --	30							
1585 46-48	217 --	40							
1585 48-50	217 --	55							
1585 50-52	217 --	355							
1585 52-54	217 --	105							
1585 54-56	217 --	65							
1585 56-58	217 --	25							
1585 58-60	217 --	15							
1585 60-62	217 --	80							
1585 62-64	217 --	90							
1585 64-66	217 --	25							
1585 66-68	217 --	35							
1585 68-70	217 --	20							
1585 70-72	217 --	15							
1585 72-74	217 --	1660							
1585 74-76	217 --	350							
1585 76-78	217 --	75							
1585 78-80	217 --	35							

CERTIFICATION: *John Vank*



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To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page number : 2  
Total pages : 2  
Certificate Date: 04-SEP-96  
Invoice No. : 19630300  
P.O. Number : 10573  
Account : LDS

Project : BREWERYCRK RC96 1585  
Comments: ATTN:RICK DIMENT FAX:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

### A9630300

SAMPLE	PREP CODE	Au ppb FA+AA									
1585 80-82	217 --	15									
1585 82-84	217 --	30									
1585 84-86	217 --	15									
1585 86-88	217 --	20									
1585 88-90	217 --	20									
1585 90-92	217 --	25									
1585 92-94	217 --	765									
1585 94-96	217 --	65									
1585 96-98	217 --	15									
1585 98-100	217 --	10									
1585 100-102	217 --	10									
1585 102-104	217 --	5									

CERTIFICATION: *John Venter*



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To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page: 1  
 Total Pages: 1  
 Certificate Date: 13-SEP-96  
 Invoice No.: I9630976  
 P.O. Number: 10573  
 Account: LDS

Project: BREWERY CREEK RC1600  
 Comments: ATTN: RICK DIMENT FAX: JOHN ZBEETNOFF

**CERTIFICATE OF ANALYSIS** **A9630976**

SAMPLE	PREP CODE	Au ppb FA+AA									
RC 1600 00-02	217 --	160									
RC 1600 02-04	217 --	45									
RC 1600 04-06	217 --	25									
RC 1600 06-08	217 --	10									
RC 1600 08-10	217 --	10									
RC 1600 10-12	217 --	5									
RC 1600 12-14	217 --	95									
RC 1600 14-16	217 --	20									
RC 1600 16-18	217 --	20									
RC 1600 18-20	217 --	50									
RC 1600 20-22	217 --	585	} 18 of —								
RC 1600 22-24	217 --	345									
RC 1600 24-26	217 --	220									
RC 1600 26-28	217 --	115									
RC 1600 28-30	217 --	240									
RC 1600 30-32	217 --	1870	} includes 4 of —								
RC 1600 32-34	217 --	2450									
RC 1600 34-36	217 --	220									
RC 1600 36-38	217 --	220									
RC 1600 38-40	217 --	25									
RC 1600 40-42	217 --	20									
RC 1600 42-44	217 --	10									
RC 1600 44-46	217 --	15									
RC 1600 46-48	217 --	15									
RC 1600 48-50	217 --	20									
RC 1600 50-52	217 --	15									
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RC 1600 54-56	217 --	5									
RC 1600 56-58	217 --	< 5									
RC 1600 A	217 --	< 5									
RC 1600 B	217 --	< 5									

CERTIFICATION: *John Vonk*



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Y0B 1G0

Page Number: 1  
Total Pages: 2  
Certificate Date: 12-SEP-96  
Invoice No.: 19630977  
P.O. Number: 10573  
Account: LDS

Project: BREWERY CREEK RC1601  
Comments: ATTN: RICK DIMENT FAX: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9630977

SAMPLE	PREP CODE	Au ppb FA+AA										
RC 1601 00-02	217 --	20										
RC 1601 02-04	217 --	120										
RC 1601 04-06	217 --	90										
RC 1601 06-08	217 --	475										
RC 1601 08-10	217 --	310										
RC 1601 10-12	217 --	1200										
RC 1601 12-14	217 --	2360										
RC 1601 14-16	217 --	75										
RC 1601 16-18	217 --	105										
RC 1601 18-20	217 --	40										
RC 1601 20-22	217 --	25										
RC 1601 22-24	217 --	15										
RC 1601 24-26	217 --	10										
RC 1601 26-28	217 --	10										
RC 1601 28-30	217 --	20										
RC 1601 30-32	217 --	10										
RC 1601 32-34	217 --	10										
RC 1601 34-36	217 --	15										
RC 1601 36-38	217 --	< 5										
RC 1601 38-40	217 --	< 5										
RC 1601 40-42	217 --	35										
RC 1601 42-44	217 --	30										
RC 1601 44-46	217 --	155										
RC 1601 46-48	217 --	20										
RC 1601 48-50	217 --	40										
RC 1601 50-52	217 --	275										
RC 1601 52-54	217 --	2088										
RC 1601 54-56	217 --	3020										
RC 1601 56-58	217 --	3390										
RC 1601 58-60	217 --	2370										
RC 1601 60-62	217 --	735										
RC 1601 62-64	217 --	25										
RC 1601 64-66	217 --	35										
RC 1601 66-68	217 --	60										
RC 1601 68-70	217 --	20										
RC 1601 70-72	217 --	10										
RC 1601 72-74	217 --	< 5										
RC 1601 74-76	217 --	10										
RC 1601 76-78	217 --	15										
RC 1601 78-80	217 --	10										

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Project : BREWERY CREEK RC1601  
Comments: ATTN:RICK DIMENT FAX:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9630977

SAMPLE	PREP CODE	Au ppb FA+AA										
RC 1601 80-82	217 --	15										

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Project : BREWERY CREEK RC1602  
 Comments: ATTN:RICK DIMENT FAX:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9630978

SAMPLE	PREP CODE	Au ppb FA+AA										
RC 1602 00-02	217 --	35										
RC 1602 02-04	217 --	30										
RC 1602 04-06	217 --	150										
RC 1602 06-08	217 --	85										
RC 1602 08-10	217 --	40										
RC 1602 10-12	217 --	40										
RC 1602 12-14	217 --	20										
RC 1602 14-16	217 --	185										
RC 1602 16-18	217 --	645										
RC 1602 18-20	217 --	185										
RC 1602 20-22	217 --	175										
RC 1602 22-24	217 --	110										
RC 1602 24-26	217 --	85										
RC 1602 26-28	217 --	2050										
RC 1602 28-30	217 --	545										
RC 1602 30-32	217 --	30										
RC 1602 32-34	217 --	190										
RC 1602 34-36	217 --	470										
RC 1602 36-38	217 --	55										
RC 1602 38-40	217 --	5										
RC 1602 40-42	217 --	5										
RC 1602 42-44	217 --	10										
RC 1602 44-46	217 --	10										
RC 1602 46-48	217 --	5										
RC 1602 48-50	217 --	15										
RC 1602 50-52	217 --	565										
RC 1602 52-54	217 --	235										
RC 1602 54-56	217 --	20										
RC 1602 56-58	217 --	< 5										
RC 1602 58-60	217 --	< 5										
RC 1602 A	217 --	40										
RC 1602 B	217 --	20										

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Project : BREWERY CK  
 Comments: ATTN: JOHN ZBEETNOFF FAAX: RICK DIMENT

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**A9633672**

SAMPLE	PREP CODE	Au ppb FA+AA									
RC 1603 00-02	217 --	25									
RC 1603 02-04	217 --	10									
RC 1603 04-06	217 --	35									
RC 1603 06-08	217 --	170									
RC 1603 08-10	217 --	< 5									
RC 1603 10-12	217 --	55									
RC 1603 12-14	217 --	360									
RC 1603 14-16	217 --	60									
RC 1603 16-18	217 --	10									
RC 1603 18-20	217 --	15									
RC 1603 20-22	217 --	55									
RC 1603 22-24	217 --	65									
RC 1603 24-26	217 --	100									
RC 1603 26-28	217 --	175									
RC 1603 28-30	217 --	60									
RC 1603 30-32	217 --	205									
RC 1603 32-34	217 --	240									
RC 1603 34-36	217 --	230									
RC 1603 36-38	217 --	10									
RC 1603 38-40	217 --	< 5									
RC 1603 40-42	217 --	< 5									
RC 1603 42-44	217 --	< 5									
RC 1603 44-46	217 --	< 5									
RC 1603 46-48	217 --	< 5									
RC 1603 48-50	217 --	< 5									
RC 1603 50-52	217 --	< 5									
RC 1603 52-54	217 --	< 5									
RC 1603 54-56	217 --	< 5									
RC 1603 56-58	217 --	< 5									
RC 1604 00-02	217 --	295									
RC 1604 02-04	217 --	170									
RC 1604 04-06	217 --	520									
RC 1604 06-08	217 --	295									
RC 1604 08-10	217 --	1060									
RC 1604 10-12	217 --	110									
RC 1604 12-14	217 --	175									
RC 1604 14-16	217 --	25									
RC 1604 16-18	217 --	5									
RC 1604 18-20	217 --	< 5									
RC 1604 20-22	217 --	< 5									

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SAMPLE	PREP CODE	Au ppb FA+AA									
RC 1604 22-24	217 --	50									
RC 1604 24-26	217 --	< 5									
RC 1604 26-28	217 --	< 5									
RC 1604 28-30	217 --	< 5									
RC 1604 30-32	217 --	40									
RC 1604 32-34	217 --	15									
RC 1604 34-36	217 --	5									
RC 1604 36-38	217 --	20									
RC 1604 38-40	217 --	15									
RC 1604 40-42	217 --	5									
RC 1604 42-44	217 --	< 5									
RC 1604 44-46	217 --	< 5									
RC 1604 46-48	217 --	75									
RC 1604 48-50	217 --	310									
RC 1604 50-52	217 --	415									
RC 1604 52-54	217 --	205									
RC 1604 54-56	217 --	3510									
RC 1604 56-58	217 --	3740									
RC 1604 58-60	217 --	35									
RC 1604 60-62	217 --	20									
RC 1604 62-64	217 --	10									
RC 1604 64-66	217 --	< 5									
RC 1604 66-68	217 --	< 5									
RC 1604 68-70	217 --	< 5									
RC 1604 70-72	217 --	< 5									
RC 1604 72-74	217 --	< 5									
RC 1604 74-76	217 --	5									
RC 1604 76-78	217 --	1080									
RC 1604 78-80	217 --	30									
RC 1604 80-82	217 --	365									
RC 1604 82-84	217 --	970									
RC 1604 84-86	217 --	450									
RC 1604 86-88	217 --	15									
1604 A	217 --	75									
1604 B	214 --	25									
RC 1605 00-02	217 --	65									
RC 1605 02-04	217 --	145									
RC 1605 04-06	217 --	50									
RC 1605 06-08	217 --	20									
RC 1605 08-10	217 --	10									

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SAMPLE	PREP CODE	Au ppb FA+AA							
RC 1605 10-12	217 --	10							
RC 1605 12-14	217 --	5							
RC 1605 14-16	217 --	5							
RC 1605 16-18	217 --	15							
RC 1605 18-20	217 --	< 5							
RC 1605 20-22	217 --	< 5							
RC 1605 22-24	217 --	< 5							
RC 1605 24-26	217 --	50							
RC 1605 26-28	217 --	35							
RC 1605 28-30	217 --	< 5							
RC 1605 30-32	217 --	15							
RC 1605 32-34	217 --	< 5							
RC 1605 34-36	217 --	80							
RC 1605 36-38	217 --	515							
RC 1605 38-40	217 --	570							
RC 1605 40-42	217 --	< 5							
RC 1605 42-44	217 --	< 5							
RC 1605 44-46	217 --	< 5							
RC 1605 46-48	217 --	5							
RC 1605 48-50	217 --	5							
RC 1605 50-52	217 --	2080							
RC 1605 52-54	217 --	30							
RC 1605 54-56	217 --	265							
RC 1605 56-58	217 --	1030							
RC 1605 58-60	217 --	115							
RC 1605 60-62	217 --	15							
RC 1605 62-64	217 --	15							
RC 1605 64-66	217 --	10							
RC 1605 66-68	217 --	5							
RC 1605 68-70	217 --	< 5							
RC 1605 70-72	217 --	15							
RC 1605 72-74	217 --	75							
RC 1605 74-76	217 --	235							
RC 1605 76-78	217 --	525							
RC 1606 00-02	217 --	75							
RC 1606 02-04	217 --	70							
RC 1606 04-06	217 --	1020							
RC 1606 06-08	217 --	380							
RC 1606 08-10	217 --	20							
RC 1606 10-12	217 --	375							

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SAMPLE	PREP CODE	Au ppb FA+AA										
RC 1606 12-14	217 --	635										
RC 1606 14-16	217 --	525										
RC 1606 16-18	217 --	345										
RC 1606 18-20	217 --	25										
RC 1606 20-22	217 --	15										
RC 1606 22-24	217 --	< 5										
RC 1606 24-26	217 --	< 5										
RC 1606 26-28	217 --	5										
RC 1606 28-30	217 --	5										
RC 1606 30-32	217 --	75										
RC 1606 32-34	217 --	65										
RC 1606 34-36	217 --	30										
RC 1606 36-38	217 --	20										
RC 1606 38-40	217 --	170										
RC 1606 40-42	217 --	110										
RC 1606 42-44	217 --	10										
1606 A	217 --	510										
1606 B	214 --	350										
RC 1607 00-02	217 --	60										
RC 1607 02-04	217 --	30										
RC 1607 04-06	217 --	5										
RC 1607 06-08	217 --	95										
RC 1607 08-10	217 --	960										
RC 1607 10-12	217 --	705										
RC 1607 12-14	217 --	45										
RC 1607 14-16	217 --	1260										
RC 1607 16-18	217 --	590										
RC 1607 18-20	217 --	2710										
RC 1607 20-22	217 --	410										
RC 1607 22-24	217 --	70										
RC 1607 24-26	217 --	40										
RC 1607 26-28	217 --	15										
RC 1607 28-30	217 --	10										
RC 1607 30-32	217 --	< 5										
RC 1607 32-34	217 --	< 5										
RC 1607 34-36	217 --	< 5										
RC 1607 36-38	217 --	< 5										
RC 1607 38-40	217 --	< 5										
RC 1609 00-02	217 --	400										
RC 1609 02-04	217 --	2300										

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Project : BREWERY CK  
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A9633672

SAMPLE	PREP CODE	Au ppb FA+AA										
RC 1609 04-06	217 --	1440										
RC 1609 06-08	217 --	2180										
RC 1609 08-10	217 --	2150										
RC 1609 10-12	217 --	1960										
RC 1609 12-14	217 --	1940										
RC 1609 14-16	217 --	90										
RC 1609 16-18	217 --	50										
RC 1609 18-20	217 --	45										
RC 1609 20-22	217 --	25										
RC 1609 22-24	217 --	20										
RC 1609 24-26	217 --	45										
RC 1610 00-02	217 --	65										
RC 1610 02-04	217 --	30										
RC 1610 04-06	217 --	20										
RC 1610 06-08	217 --	< 5										
RC 1610 08-10	217 --	< 5										
RC 1610 10-12	217 --	90										
RC 1610 12-14	217 --	110										
RC 1610 14-16	217 --	3610										
RC 1610 16-18	217 --	3360										
RC 1610 18-20	217 --	2580										
RC 1610 20-22	217 --	690										
RC 1610 22-24	217 --	250										
RC 1610 24-26	217 --	135										
RC 1610 26-28	217 --	50										
RC 1610 28-30	217 --	165										
RC 1610 30-32	217 --	450										
RC 1610 32-34	217 --	1630										
RC 1610 34-36	217 --	30										
RC 1610 36-38	217 --	15										
RC 1610 38-40	217 --	< 5										
RC 1610 40-42	217 --	< 5										
RC 1610 42-44	217 --	< 5										
1610 A	217 --	< 5										
1610 B	214 --	85										

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Project : BREWERY CK.  
Comments: ATTN: JOHN ZBEETNOFF FAX: RICK DIMENT

## CERTIFICATE OF ANALYSIS A9634192

SAMPLE	PREP CODE	Au ppb FA+AA										
RC-1611 00-02	217 --	45										
RC-1611 02-04	217 --	50										
RC-1611 04-06	217 --	330										
RC-1611 06-08	217 --	505										
RC-1611 08-10	217 --	270										
RC-1611 10-12	217 --	475										
RC-1611 12-14	217 --	855										
RC-1611 14-16	217 --	855										
RC-1611 16-18	217 --	290										
RC-1611 18-20	217 --	390										
RC-1611 20-22	217 --	1050										
RC-1611 22-24	217 --	180										
RC-1611 24-26	217 --	30										
RC-1611 26-28	217 --	15										
RC-1611 28-30	217 --	1010										
RC-1611 30-32	217 --	415										
RC-1611 32-34	217 --	40										
RC-1611 34-36	217 --	15										
RC-1611 36-38	217 --	< 5										
RC-1611 38-40	217 --	< 5										
RC-1611 40-42	217 --	15										
RC-1611 42-44	217 --	5										
RC-1611 44-46	217 --	15										
RC-1611 46-48	217 --	20										
RC-1611 48-50	217 --	15										
RC-1611 50-52	217 --	20										
RC-1611 52-54	217 --	10										
RC-1611 54-56	217 --	10										
RC-1611 56-58	217 --	10										
RC-1611 58-60	217 --	< 5										
RC-1611 60-62	217 --	10										
RC-1611 62-64	217 --	< 5										
RC-1611 64-66	217 --	< 5										
RC-1611 66-68	217 --	< 5										
RC-1611 68-70	217 --	15										
RC-1611 70-72	217 --	10										
RC-1611 72-74	217 --	20										

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## CERTIFICATE OF ANALYSIS A9634283

SAMPLE	PREP CODE	Au ppb FA+AA									
RC-1612 00-02	217 --	< 5									
RC-1612 02-04	217 --	< 5									
RC-1612 04-06	217 --	< 5									
RC-1612 06-08	217 --	15									
RC-1612 08-10	217 --	30									
RC-1612 10-12	217 --	155									
RC-1612 12-14	217 --	120									
RC-1612 14-16	217 --	< 5									
RC-1612 16-18	217 --	< 5									
RC-1612 18-20	217 --	< 5									
RC-1612 20-22	217 --	< 5									
RC-1612 22-24	217 --	< 5									
RC-1612 24-26	217 --	20									
RC-1612 26-28	217 --	300									
RC-1612 28-30	217 --	10									
RC-1612 30-32	217 --	305									
RC-1612 32-34	217 --	365									
RC-1612 34-36	217 --	180									
RC-1612 36-38	217 --	105									
RC-1612 38-40	217 --	70									
RC-1612 40-42	217 --	280									
RC-1612 42-44	217 --	70									
RC-1612 44-46	217 --	40									
RC-1612 46-48	217 --	5									
RC-1612 48-50	217 --	15									
RC-1612 50-52	217 --	< 5									
RC-1612 52-54	217 --	< 5									
RC-1612 54-56	217 --	< 5									
RC-1612 56-58	217 --	10									
RC-1612 58-60	217 --	< 5									
RC-1612 A	217 --	150									
RC-1612 B	217 --	120									

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A9634284

SAMPLE	PREP CODE	Au ppb FA+AA									
RC-1613 00-02	217 --	60									
RC-1613 02-04	217 --	< 5									
RC-1613 04-06	217 --	< 5									
RC-1613 06-08	217 --	< 5									
RC-1613 08-10	217 --	< 5									
RC-1613 10-12	217 --	< 5									
RC-1613 12-14	217 --	< 5									
RC-1613 14-16	217 --	< 5									
RC-1613 16-18	217 --	< 5									
RC-1613 18-20	217 --	< 5									
RC-1613 20-22	217 --	< 5									
RC-1613 22-24	217 --	20									
RC-1613 24-26	217 --	< 5									
RC-1613 26-28	217 --	< 5									
RC-1613 28-30	217 --	< 5									
RC-1613 30-32	217 --	< 5									
RC-1613 32-34	217 --	< 5									
RC-1613 34-36	217 --	< 5									
RC-1613 36-38	217 --	50									
RC-1613 38-40	217 --	< 5									
RC-1613 40-42	217 --	25									
RC-1613 42-44	217 --	160									
RC-1613 44-46	217 --	395									
RC-1613 46-48	217 --	415									
RC-1613 48-50	217 --	315									
RC-1613 50-52	217 --	80									
RC-1613 52-54	217 --	650									
RC-1613 54-56	217 --	275									
RC-1613 56-58	217 --	260									
RC-1613 58-60	217 --	450									
RC-1613 60-62	217 --	265									
RC-1613 62-64	217 --	45									
RC-1613 64-66	217 --	80									
RC-1613 66-68	217 --	260									
RC-1613 68-70	217 --	1230									
RC-1613 70-72	217 --	660									
RC-1613 72-74	217 --	270									
RC-1613 74-76	217 --	85									
RC-1613 76-78	217 --	10									
RC-1613 78-80	217 --	< 5									

CERTIFICATION:

*Rick Diment*



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PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page: iber .2  
Total pages .2  
Certificate Date: 07-OCT-96  
Invoice No. : 19634284  
P.O. Number : 10573  
Account : LDS

Project: BREWERY CK.  
Comments: ATTN: JOHN ZBEETNOFF FAX: RICK DIMENT

## CERTIFICATE OF ANALYSIS

A9634284

SAMPLE	PREP CODE	Au ppb FA+AA									
RC-1613 80-82 RC-1613 82-84	217 -- 217 --	< 5 < 5									

CERTIFICATION:

*Mark Vank*



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Certificate Date : 07-OCT-96  
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P.O. Number : 10573  
Account : LDS

Project : BREWERY CK.  
Comments : ATTN: JOHN ZBEETNOFF FAX: RICK DIMENT

## CERTIFICATE OF ANALYSIS

### A9634285

SAMPLE	PREP CODE	Au ppb FA+AA									
RC-1614 00-02	217 --	< 5									
RC-1614 02-04	217 --	< 5									
RC-1614 04-06	217 --	< 5									
RC-1614 06-08	217 --	< 5									
RC-1614 08-10	217 --	< 5									
RC-1614 10-12	217 --	85									
RC-1614 12-14	217 --	3050									
RC-1614 14-16	217 --	2250									
RC-1614 16-18	217 --	460									
RC-1614 18-20	217 --	50									
RC-1614 20-22	217 --	25									
RC-1614 22-24	217 --	15									
RC-1614 24-26	217 --	10									
RC-1614 26-28	217 --	15									
RC-1614 28-30	217 --	25									
RC-1614 30-32	217 --	15									
RC-1614 32-34	217 --	80									
RC-1614 34-36	217 --	5									
RC-1614 36-38	217 --	15									
RC-1614 38-40	217 --	60									
RC-1614 40-42	217 --	75									
RC-1614 42-44	217 --	25									
RC-1614 44-46	217 --	< 5									
RC-1614 46-48	217 --	100									
RC-1614 48-50	217 --	150									
RC-1614 50-52	217 --	160									
RC-1614 52-54	217 --	385									
RC-1614 54-56	217 --	290									
RC-1614 56-58	217 --	375									
RC-1614 58-60	217 --	50									
RC-1614 60-62	217 --	35									
RC-1614 62-64	217 --	25									
RC-1614 64-66	217 --	15									
RC-1614 A	217 --	3180									
RC-1614 B	217 --	2470									

CERTIFICATION:

*John Vank*



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Total Pages :1  
Certificate Date: 07-OCT-96  
Invoice No. :19634286  
P.O. Number :10573  
Account :LDS

Project: BREWERY CK.  
Comments: ATTN: JOHN ZBEETNOFF FAX: RICK DIMENT

## CERTIFICATE OF ANALYSIS

A9634286

SAMPLE	PREP CODE	Au ppb FA+AA											
RC-1615 00-02	217 --	90											
RC-1615 02-04	217 --	45											
RC-1615 04-06	217 --	45											
RC-1615 06-08	217 --	25											
RC-1615 08-10	217 --	< 5											
RC-1615 10-12	217 --	< 5											
RC-1615 12-14	217 --	10											
RC-1615 14-16	217 --	10											
RC-1615 16-18	217 --	50											
RC-1615 18-20	217 --	15											
RC-1615 20-22	217 --	20											
RC-1615 22-24	217 --	10											
RC-1615 24-26	217 --	< 5											
RC-1615 26-28	217 --	15											
RC-1615 28-30	217 --	5											
RC-1615 30-32	217 --	15											
RC-1615 32-34	217 --	10											
RC-1615 34-36	217 --	< 5											
RC-1615 36-38	217 --	20											
RC-1615 38-40	217 --	15											
RC-1615 40-42	217 --	410											
RC-1615 42-44	217 --	670											
RC-1615 44-46	217 --	1450											
RC-1615 46-48	217 --	2040											
RC-1615 48-50	217 --	2480											
RC-1615 50-52	217 --	2330											
RC-1615 52-54	217 --	480											
RC-1615 54-56	217 --	335											
RC-1615 56-58	217 --	80											
RC-1615 58-60	217 --	1100											
RC-1615 60-62	217 --	145											
RC-1615 62-64	217 --	15											
RC-1615 64-66	217 --	35											
RC-1615 66-68	217 --	50											
RC-1615 68-70	217 --	190											
RC-1615 70-72	217 --	145											
RC-1615 72-74	217 --	40											
RC-1615 74-76	217 --	< 5											
RC-1615 76-78	217 --	< 5											
RC-1615 78-80	217 --	< 5											

CERTIFICATION: *John Vork*



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Page Number : 1  
 Total Pages : 2  
 Certificate Date : 07-OCT-96  
 Invoice No. : I9634287  
 P.O. Number : 10573  
 Account : LDS

Project : BREWERY CK  
 Comments : ATTN: JOHN ZBEETNOFF FAX: RICK DIMENT

<b>CERTIFICATE OF ANALYSIS</b>	<b>A9634287</b>
--------------------------------	-----------------

SAMPLE	PREP CODE	Au ppb FA+AA									
RC-1616 00-02	217 --	15									
RC-1616 02-04	217 --	< 5									
RC-1616 04-06	217 --	15									
RC-1616 06-08	217 --	30									
RC-1616 08-10	217 --	5									
RC-1616 10-12	217 --	< 5									
RC-1616 12-14	217 --	25									
RC-1616 14-16	217 --	175									
RC-1616 16-18	217 --	580									
RC-1616 18-20	217 --	15									
RC-1616 20-22	217 --	15									
RC-1616 22-24	217 --	< 5									
RC-1616 24-26	217 --	15									
RC-1616 26-28	217 --	120									
RC-1616 28-30	217 --	570									
RC-1616 30-32	217 --	145									
RC-1616 32-34	217 --	35									
RC-1616 34-36	217 --	< 5									
RC-1616 36-38	217 --	10									
RC-1616 38-40	217 --	910									
RC-1616 40-42	217 --	1480									
RC-1616 42-44	217 --	135									
RC-1616 44-46	217 --	1060									
RC-1616 46-48	217 --	500									
RC-1616 48-50	217 --	1390									
RC-1616 50-52	217 --	1100									
RC-1616 52-54	217 --	100									
RC-1616 54-56	217 --	20									
RC-1616 56-58	217 --	< 5									
RC-1616 58-60	217 --	< 5									
RC-1616 60-62	217 --	25									
RC-1616 62-64	217 --	15									
RC-1616 64-66	217 --	25									
RC-1616 66-68	217 --	25									
RC-1616 68-70	217 --	50									
RC-1616 70-72	217 --	150									
RC-1616 72-74	217 --	60									
RC-1616 74-76	217 --	80									
RC-1616 76-78	217 --	60									
RC-1616 78-80	217 --	10									

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Y0B 1G0

Page number : 2  
Total pages : 2  
Certificate Date: 07-OCT-96  
Invoice No. : 19634287  
P.O. Number : 10573  
Account : LDS

Project: BREWERY CK.  
Comments: ATTN: JOHN ZBEETNOFF FAX: RICK DIMENT

## CERTIFICATE OF ANALYSIS A9634287

SAMPLE	PREP CODE	Au ppb FA+AA									
RC-1616 80-82	217 --	10									
RC-1616 82-84	217 --	< 5									
RC-1616 A	217 --	175									
RC-1616 B	217 --	530									

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BAG 5040  
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Page Number : 1  
Total pages : 1  
Certificate Date: 07-OCT-96  
Invoice No. : 19634288  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK.  
Comments: ATTN: JOHN ZBEETNOFF FAX: RICK DIMENT

## CERTIFICATE OF ANALYSIS A9634288

SAMPLE	PREP CODE	Au ppb FA+AA										
RC-1617 00-02	217 --	140										
RC-1617 02-04	217 --	35										
RC-1617 04-06	217 --	1690										
RC-1617 06-08	217 --	345										
RC-1617 08-10	217 --	135										
RC-1617 10-12	217 --	50										
RC-1617 12-14	217 --	35										
RC-1617 14-16	217 --	440										
RC-1617 16-18	217 --	85										
RC-1617 18-20	217 --	70										
RC-1617 20-22	217 --	305										
RC-1617 22-24	217 --	470										
RC-1617 24-26	217 --	75										
RC-1617 26-28	217 --	90										
RC-1617 28-30	217 --	15										
RC-1617 30-32	217 --	10										
RC-1617 32-34	217 --	5										
RC-1617 34-36	217 --	5										
RC-1617 36-38	217 --	60										
RC-1617 38-40	217 --	10										
RC-1617 40-42	217 --	< 5										
RC-1617 42-44	217 --	70										
RC-1617 44-46	217 --	790										
RC-1617 46-48	217 --	140										
RC-1617 48-50	217 --	20										
RC-1617 50-52	217 --	< 5										
RC-1617 52-54	217 --	< 5										
RC-1617 54-56	217 --	< 5										
RC-1617 56-58	217 --	< 5										

CERTIFICATION: *John Vank*



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Page Number: 01  
Total Pages: 01  
Certificate Date: 07-OCT-96  
Invoice No.: 19634289  
P.O. Number: 10573  
Account: LDS

Project: BREWERY CK.  
Comments: ATTN: JOHN ZBEETNOFF FAX: RICK DIMENT

## CERTIFICATE OF ANALYSIS A9634289

SAMPLE	PREP CODE	Au ppb FA+AA											
RC-1618 00-02	217 --	55											
RC-1618 02-04	217 --	115											
RC-1618 04-06	217 --	30											
RC-1618 06-08	217 --	75											
RC-1618 08-10	217 --	45											
RC-1618 10-12	217 --	10											
RC-1618 12-14	217 --	< 5											
RC-1618 14-16	217 --	40											
RC-1618 16-18	217 --	15											
RC-1618 18-20	217 --	65											
RC-1618 20-22	217 --	< 5											
RC-1618 22-24	217 --	< 5											
RC-1618 24-26	217 --	10											
RC-1618 26-28	217 --	195											
RC-1618 28-30	217 --	20											
RC-1618 30-32	217 --	580											
RC-1618 32-34	217 --	1400											
RC-1618 34-36	217 --	40											
RC-1618 36-38	217 --	15											
RC-1618 38-40	217 --	10											
RC-1618 40-42	217 --	15											
RC-1618 42-44	217 --	< 5											
RC-1618 44-46	217 --	25											
RC-1618 46-48	217 --	15											
RC-1618 48-50	217 --	10											
RC-1618 50-52	217 --	< 5											
RC-1618 52-54	217 --	< 5											
RC-1618 54-56	217 --	5											
RC-1618 56-58	217 --	< 5											
RC-1618 58-60	217 --	< 5											
RC-1618 60-62	217 --	< 5											
RC-1618 62-64	217 --	< 5											
RC-1618 64-66	217 --	< 5											
RC-1618 66-68	217 --	< 5											
RC-1618 68-70	217 --	< 5											
RC-1618A	217 --	20											
RC-1618B	217 --	65											

CERTIFICATION: *John Zbeetnoff*

Entered  
10/16/96

VICEROY BREWERY CREEK MINE  
FINAL ASSAY REPORT SHEET

SAMPLE SERIES RC 96

DATE Sept 27/96

	SAMPLE #	Au g/t
1	1619 0-2	0.03
2	2-4	0.02
3	4-6	0.03
4	6-8	<0.02
5	8-10	<0.02
6	10-12	0.02
7	12-14	0.02
8	14-16	<0.02
9	16-18	0.02
10	18-20	<0.02
11	20-22	0.02
12	22-24	0.03
13	24-26	0.04
14	26-28	0.18
15	28-30	0.03
16	30-32	0.02
17	32-34	0.03
18	34-36	0.03
19	36-38	0.04
20	38-40	0.44
21	40-42	0.06
22	42-44	0.05

	SAMPLE #	Au g/t
23	44-46	0.21
24	46-48	0.08
25	48-50	0.60
26	50-52	1.71
27	52-54	0.40
28	54-56	0.04
29	56-58	0.02
30	58-60	0.07
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		

Fixed to JE

SUPERVISOR *[Signature]*

~~Extend~~  
~~0006 Assays~~

VICEROY BREWERY CREEK MINE  
FINAL ASSAY REPORT SHEET

SAMPLE SERIES RC-96

DATE Sept 27/96

	SAMPLE #	Au g/t
1	1620 - A	0.38
2	- B	0.47
3		
4	1620 - 0 - 2	0.16
5	2 - 4	0.44
6	4 - 6	0.54
7	6 - 8	0.93
8	8 - 10	0.39
9	10 - 12	0.52
10	12 - 14	1.83
11	14 - 16	0.83
12	16 - 18	0.26
13	18 - 20	0.04
14	20 - 22	0.02
15	22 - 24	0.27
16	24 - 26	0.07
17	26 - 28	0.41
18		
19		
20		
21		
22		

	SAMPLE #	Au g/t
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
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41		
42		
43		
44		

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SUPERVISOR AKY

VICEROY BREWERY CREEK MINE  
FINAL ASSAY REPORT SHEET

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~~DDG/MSZ~~

SAMPLE SERIES RC 96

DATE Sept 27/96

	SAMPLE #	Au g/t
1	1621 2-4	0.08
2	4-6	<0.02
3	6-8	<0.02
4	8-10	<0.02
5	10-12	0.02
6	12-14	2.56
7	14-16	3.51
8	16-18	1.88
9	18-20	1.13
10	20-22	0.56
11	22-24	0.22
12	24-26	0.24
13	26-28	0.12
14	28-30	0.03
15	30-32	0.02
16	32-34	<0.02
17	34-36	0.02
18	36-38	0.03
19	38-40	0.02
20	40-42	0.02
21	42-44	<0.02
22	44-46	0.02

	SAMPLE #	Au g/t
23	46-48	0.02
24	48-50	0.04
25	50-52	0.04
26	52-54	0.04
27	54-56	0.04
28	56-58	0.04
29	58-60	0.04
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		

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JZ

SUPERVISOR AM

VICEROY BREWERY CREEK MINE

FINAL ASSAY REPORT SHEET

SAMPLE SERIES RC 96

DATE Apr 27/96

	SAMPLE #	Au g/t
1	1622 0-2	0.12
2	2-4	0.05
3	4-6	0.09
4	6-8	0.03
5	8-10	0.61
6	10-12	2.24
7	12-14	0.27
8	14-16	0.05
9	16-18	0.06
10	18-20	0.08
11	20-22	0.07
12	22-24	0.07
13	24-26	0.06
14	26-28	0.34
15	28-30	0.39
16	30-32	0.04
17	32-34	0.03
18	34-36	0.05
19	36-38	0.15
20	38-40	0.10
21	40-42	0.03
22	42-44	0.11

	SAMPLE #	Au g/t
23	44-46	0.07
24	46-48	0.10
25	48-50	0.05
26	50-52	0.05
27	52-54	0.05
28	54-56	0.15
29	56-58	0.25
30	58-60	0.25
31	60-62	0.06
32	62-64	0.87
33	64-66	0.77
34	66-68	1.42
35	68-70	1.04
36	70-72	0.94
37	72-74	1.39
38	74-76	0.12
39	76-78	0.55
40	78-80	0.19
41	80-82	0.06
42	82-84	0.03
43		
44		

*Fixed to 52*

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VICEROY BREWERY CREEK MINE

FINAL ASSAY REPORT SHEET

SAMPLE SERIES RC 96

DATE Sept 27/96

	SAMPLE #	Au g/t
1	1623 0-2	<0.02
2	2-4	0.02
3	4-6	<0.02
4	6-8	0.04
5	8-10	<0.02
6	10-12	0.02
7	12-14	<0.02
8	14-16	<0.02
9	16-18	0.16
10	18-20	0.15
11	20-22	0.03
12	22-24	0.09
13	24-26	0.34
14	26-28	0.02
15	28-30	0.03
16	30-32	0.03
17	32-34	<0.02
18	34-36	0.02
19	36-38	<0.02
20	38-40	<0.02
21	40-42	<0.02
22	42-44	0.06

	SAMPLE #	Au g/t
23	44-46	0.02
24	46-48	<0.02
25	48-50	0.08
26	50-52	0.03
27	52-54	<0.02
28	54-56	<0.02
29	56-58	0.04
30	58-60	0.05
31	60-62	0.04
32	62-64	0.02
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		

*Faxed to JZ*

SUPERVISOR *[Signature]*

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~~RC 96~~

VICEROY BREWERY CREEK MINE  
FINAL ASSAY REPORT SHEET

SAMPLE SERIES RC 96

DATE Sept 28/96

	SAMPLE #	Au g/t
1	1624 0-2	0.02
2	2-4	0.05
3	4-6	0.04
4	6-8	0.07
5	8-10	0.12
6	10-12	0.05
7	12-14	0.06
8	14-16	0.11
9	16-18	0.03
10	18-20	0.05
11	20-22	0.08
12	22-24	0.32
13	24-26	0.33
14	26-28	0.05
15	28-30	0.05
16	30-32	<0.02
17	32-34	0.02
18	34-36	0.11
19	36-38	0.41
20	38-40	0.25
21	40-42	0.11
22	42-44	0.02

	SAMPLE #	Au g/t
23	44-46	0.02
24	46-48	0.04
25	48-50	0.02
26	50-52	0.03
27	52-54	<0.02
28	54-56	0.04
29	56-58	0.05
30	58-60	0.06
31	60-62	0.04
32	62-64	0.05
33	64-66	0.07
34	66-68	0.03
35	68-70	0.28
36	70-72	2.57
37	72-74	2.11
38	74-76	0.63
39	76-78	0.23
40	78-80	0.10
41	80-82	0.24
42	82-84	0.54
43	84-86	0.07
44	86-88	0.05

1624A 0.04  
B 0.08

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# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
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To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
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Page Number : 1  
Total Pages : 2  
Certificate Date: 08-NOV-96  
Invoice No. : 19638911  
P.O. Number : 10573  
Account : LDS

Project: BREWERY CK.RC96 1658  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9638911

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	217 --	1660										
02-04	217 --	2520										
04-06	217 --	65										
06-08	217 --	50										
08-10	217 --	75										
10-12	217 --	15										
12-14	217 --	10										
14-16	217 --	45										
16-18	217 --	5										
18-20	217 --	10										
20-22	217 --	55										
22-24	217 --	15										
24-26	217 --	5										
26-28	217 --	< 5										
28-30	217 --	< 5										
30-32	217 --	< 5										
32-34	217 --	< 5										
34-36	217 --	< 5										
36-38	217 --	< 5										
38-40	217 --	< 5										
40-42	217 --	< 5										
42-44	217 --	< 5										
44-46	217 --	< 5										
46-48	217 --	< 5										
48-50	217 --	< 5										
50-52	217 --	< 5										
52-54	217 --	< 5										
54-56	217 --	< 5										
56-58	217 --	< 5										
58-60	217 --	< 5										
60-62	217 --	< 5										
62-64	217 --	< 5										
64-66	217 --	< 5										
66-68	217 --	< 5										
68-70	217 --	< 5										
70-72	217 --	< 5										
72-74	217 --	< 5										
74-76	217 --	< 5										
76-78	217 --	< 5										
78-80	217 --	< 5										

CERTIFICATION:

*Shuk Vank*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 2  
Total Pages : 2  
Certificate Date: 08-NOV-96  
Invoice No. : 19638911  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK.RC96 1658  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9638911

SAMPLE	PREP CODE	Au ppb FA+AA									
80-82	217 --	10									
A	217 --	5									
B	217 --	10									

CERTIFICATION:



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To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 1  
Total Pages : 2  
Certificate Date : 06-NOV-96  
Invoice No. : 19638912  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK.RC96 1659  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9638912

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	217 --	55										
02-04	217 --	20										
04-06	217 --	10										
06-08	217 --	75										
08-10	217 --	20										
10-12	217 --	< 5										
12-14	217 --	60										
14-16	217 --	< 5										
16-18	217 --	5										
18-20	217 --	< 5										
20-22	217 --	< 5										
22-24	217 --	< 5										
24-26	217 --	< 5										
26-28	217 --	< 5										
28-30	217 --	< 5										
30-32	217 --	< 5										
32-34	217 --	< 5										
34-36	217 --	< 5										
36-38	217 --	< 5										
38-40	217 --	< 5										
40-42	217 --	< 5										
42-44	217 --	< 5										
44-46	217 --	< 5										
46-48	217 --	< 5										
48-50	217 --	< 5										
50-52	217 --	< 5										
52-54	217 --	< 5										
54-56	217 --	< 5										
56-58	217 --	< 5										
58-60	217 --	< 5										
60-62	217 --	< 5										
62-64	217 --	< 5										
64-66	217 --	< 5										
66-68	217 --	< 5										
68-70	217 --	< 5										
70-72	217 --	< 5										
72-74	217 --	< 5										
74-76	217 --	< 5										
76-78	217 --	< 5										
78-80	217 --	< 5										

CERTIFICATION: *Mark Vink*



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To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 2  
Total Pages : 2  
Certificate Date: 06-NOV-96  
Invoice No. : 19638912  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK.RC96 1659  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9638912

SAMPLE	PREP CODE	Au ppb FA+AA									
80-82	217 --	< 5									
82-84	217 --	< 5									
84-86	217 --	< 5									
86-88	217 --	< 5									
88-90	217 --	< 5									
90-92	217 --	< 5									
92-94	217 --	< 5									

CERTIFICATION: *Mark Vonh*



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BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Project: BREWERY CK.RC96 1665  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

Page ber :1  
Total pages :2  
Certificate Date: 06-NOV-96  
Invoice No. :19638929  
P.O. Number :10573  
Account :LDS

## CERTIFICATE OF ANALYSIS A9638929

SAMPLE	PREP CODE	Au ppb FA+AA											
00-02	217 --	10											
02-04	217 --	40											
04-06	217 --	10											
06-08	217 --	5											
08-10	217 --	20											
10-12	217 --	10											
12-14	217 --	< 5											
14-16	217 --	< 5											
16-18	217 --	< 5											
18-20	217 --	< 5											
20-22	217 --	< 5											
22-24	217 --	60											
24-26	217 --	20											
26-28	217 --	15											
28-30	217 --	< 5											
30-32	217 --	< 5											
32-34	217 --	< 5											
34-36	217 --	10											
36-38	217 --	< 5											
38-40	217 --	< 5											
40-42	217 --	10											
42-44	217 --	< 5											
44-46	217 --	10											
46-48	217 --	< 5											
48-50	217 --	< 5											
50-52	217 --	< 5											
52-54	217 --	< 5											
54-56	217 --	< 5											
56-58	217 --	< 5											
58-60	217 --	< 5											
60-62	217 --	20											
62-64	217 --	90											
64-66	217 --	100											
66-68	217 --	15											
68-70	217 --	70											
70-72	217 --	40											
72-74	217 --	< 5											
74-76	217 --	< 5											
76-78	217 --	< 5											
78-80	217 --	75											

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PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Project: BREWERY CK.RC96 1665  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

Page Number : 2  
Total Pages : 2  
Certificate Date: 06-NOV-96  
Invoice No. : 19638929  
P.O. Number : 10573  
Account : LDS

## CERTIFICATE OF ANALYSIS

A9638929

SAMPLE	PREP CODE	Au ppb FA+AA									
80-82	217 --	70									
82-84	217 --	10									
84-86	217 --	< 5									
86-88	217 --	< 5									
88-90	217 --	3850									
90-92	217 --	1890									
92-94	217 --	1830									
94-96	217 --	1190									
96-98	217 --	405									
98-100	217 --	3970									
100-102	217 --	3650									
102-104	217 --	3700									
104-106	217 --	995									
106-108	217 --	395									
108-110	217 --	180									
110-112	217 --	25									
112-114	217 --	30									
114-115	217 --	35									

CERTIFICATION:

*[Signature]*



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To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Pages : 1  
Total Pages : 2  
Certificate Date: 16-NOV-96  
Invoice No. : 19639921  
P.O. Number : 10573  
Account : LDS

Project : BREWERYCREEKRC961666  
Comments : ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9639921

SAMPLE	PREP CODE	Au ppb FA+AA										
1666 A	217 --	15										
1666 B	217 --	10										
000-002	217 --	85										
002-004	217 --	50										
004-006	217 --	35										
006-008	217 --	20										
008-010	217 --	10										
010-012	217 --	< 5										
012-014	217 --	< 5										
014-016	217 --	< 5										
016-018	217 --	< 5										
018-020	217 --	< 5										
020-022	217 --	< 5										
022-024	217 --	< 5										
024-026	217 --	< 5										
026-028	217 --	< 5										
028-030	217 --	< 5										
030-032	217 --	< 5										
032-034	217 --	< 5										
034-036	217 --	< 5										
036-038	217 --	60										
038-040	217 --	130										
040-042	217 --	295										
042-044	217 --	160										
044-046	217 --	55										
046-048	217 --	50										
048-050	217 --	230										
050-052	217 --	70										
052-054	217 --	25										
054-056	217 --	10										
056-058	217 --	40										
058-060	217 --	20										
060-062	217 --	10										
062-064	217 --	< 5										
064-066	217 --	860										
066-068	217 --	25										
068-070	217 --	< 5										
070-072	217 --	< 5										
072-074	217 --	< 5										
074-076	217 --	< 5										

CERTIFICATION: *Mark Vank*



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To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 2  
Total Pages : 2  
Certificate Date: 16-NOV-96  
Invoice No. : I9639921  
P.O. Number : 10573  
Account : LDS

Project : BREWERYCREEKRC961666  
Comments: ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9639921

SAMPLE	PREP CODE	Au ppb FA+AA										
076-078	217 --	< 5										
078-080	217 --	< 5										
080-082	217 --	< 5										
082-084	217 --	< 5										
084-086	217 --	45										
086-088	217 --	30										
088-090	217 --	20										
090-092	217 --	15										
092-094	217 --	10										
094-096	217 --	105										
096-098	217 --	180										
098-100	217 --	525										
100-102	217 --	1390										
102-104	217 --	4220										
104-106	217 --	150										
106-108	217 --	40										
108-110	217 --	25										
110-112	217 --	15										
112-114	217 --	10										
114-116	217 --	15										
116-118	217 --	< 5										
118-120	217 --	< 5										
120-122	217 --	< 5										
122-124	217 --	< 5										
124-126	217 --	< 5										
126-128	217 --	< 5										
128-130	217 --	< 5										
130-132	217 --	< 5										
132-134	217 --	< 5										
134-136	217 --	< 5										
136-138	217 --	< 5										
138-140	217 --	< 5										
140-142	217 --	40										

CERTIFICATION:

*John Vink*



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 British Columbia, Canada V7J 2C1  
 PHONE: 604-864-0221 FAX: 604-864-0218

To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page Number 1  
 Total Pages 1  
 Certificate Date 05-NOV-96  
 Invoice No. I-9638930  
 P.O. Number 10573  
 Account

Project: BREWERY CK RC90 1007  
 Comments: ATTN: R. DIMENT CC: J. ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9638930

SAMPLE DESCRIPTION	PREP CODE	Au ppb PA+AA										
00-02	217 --	960										
02-04	217 --	45										
04-06	217 --	30										
06-08	217 --	15										
08-10	217 --	170										
10-12	217 --	35										
12-14	217 --	20										
14-16	217 --	420										
16-18	217 --	1190										
18-20	217 --	300										
20-22	217 --	90										
22-24	217 --	55										
24-26	217 --	40										
26-28	217 --	25										
28-30	217 --	15										
30-32	217 --	15										
32-34	217 --	10										
34-36	217 --	30										
36-38	217 --	20										
38-40	217 --	< 5										
40-42	217 --	< 5										
42-44	217 --	< 5										
44-46	217 --	< 5										
46-48	217 --	< 5										
48-50	217 --	< 5										

CERTIFICATION:



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 Brush Columbia, Canada V7J 2C1  
 PHONE: 604-964-0221 FAX: 604-964-0218

To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page Number 1  
 Total Pages 1  
 Certificate Date 25-NOV-96  
 Invoice No. I-0840561  
 P.O. Number  
 Account

Project: BREWERY CREEK  
 Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9640561

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA											
RC96.1668 A	217 --	535											
RC96.1668 B	217 --	135											
RC96.1668 0-2	217 --	50											
MC96.1668 2-4	217 --	20											
RC96.1668 4-6	217 --	5											
RC96.1668 6-8	217 --	10											
RC96.1668 8-10	217 --	10											
RC96.1668 10-12	217 --	30											
RC96.1668 12-14	217 --	115											
RC96.1668 14-16	217 --	275											
RC96.1668 16-18	217 --	415											
RC96.1668 18-20	217 --	145											
RC96.1668 20-22	217 --	10											
RC96.1668 22-24	217 --	425											
RC96.1668 24-26	217 --	405											
RC96.1668 26-28	217 --	590											
RC96.1668 28-30	217 --	75											
MC96.1668 30-32	217 --	40											
RC96.1668 32-34	217 --	30											
RC96.1668 34-36	217 --	25											
RC96.1668 36-38	217 --	675											
RC96.1668 38-40	217 --	430											
RC96.1668 40-42	217 --	25											
RC96.1668 42-44	217 --	20											
MC96.1668 44-46	217 --	15											
RC96.1668 46-48	217 --	10											
RC96.1668 48-50	217 --	10											
RC96.1668 50-52	217 --	5											
RC96.1668 52-54	217 --	10											
RC96.1668 54-56	217 --	15											
MC96.1668 56-58	217 --	15											
RC96.1668 58-60	217 --	10											

CERTIFICATION:



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PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Project: BREWERY CK, RC96 1669  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

Page Number : 1  
Total Pages : 1  
Certificate Date: 06-NOV-96  
Invoice No. : 19638931  
P.O. Number : 10573  
Account : LDS

## CERTIFICATE OF ANALYSIS

A9638931

SAMPLE	PREP CODE	Au ppb FA+AA									
00-02	217 --	75									
02-04	217 --	75									
04-06	217 --	315									
06-08	217 --	2370									
08-10	217 --	840									
10-12	217 --	1220									
12-14	217 --	1010									
14-16	217 --	2100									
16-18	217 --	2080									
18-20	217 --	830									
20-22	217 --	300									
22-24	217 --	370									
24-26	217 --	610									
26-28	217 --	420									
28-30	217 --	100									
30-32	217 --	240									
32-34	217 --	110									
34-36	217 --	45									
36-38	217 --	25									
38-40	217 --	55									
40-42	217 --	15									
42-44	217 --	80									
44-46	217 --	< 5									
46-48	217 --	< 5									
48-49	217 --	< 5									

CERTIFICATION:

*Theresa Vonk*



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212 Brooksbank Ave., North Vancouver  
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To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page number : 1  
Total pages : 1  
Certificate Date: 06-NOV-96  
Invoice No. : 19638932  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK.RC96 1670  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9638932

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	217 --	100										
02-04	217 --	70										
04-06	217 --	50										
06-08	217 --	30										
08-10	217 --	20										
10-12	217 --	15										
12-14	217 --	< 5										
14-16	217 --	10										
16-18	217 --	< 5										
18-20	217 --	< 5										
20-22	217 --	< 5										
22-24	217 --	< 5										
24-26	217 --	< 5										
26-28	217 --	< 5										
28-30	217 --	< 5										
30-32	217 --	360										
32-34	217 --	110										
34-36	217 --	145										
36-38	217 --	100										
38-40	217 --	40										
A	217 --	10										
B	217 --	10										

CERTIFICATION:



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BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 1  
Total Pages : 1  
Certificate Date: 06-NOV-96  
Invoice No. : I9638932  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK.RC96 1670  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9638932

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	217 --	100										
02-04	217 --	70										
04-06	217 --	50										
06-08	217 --	30										
08-10	217 --	20										
10-12	217 --	15										
12-14	217 --	< 5										
14-16	217 --	10										
16-18	217 --	< 5										
18-20	217 --	< 5										
20-22	217 --	< 5										
22-24	217 --	< 5										
24-26	217 --	< 5										
26-28	217 --	< 5										
28-30	217 --	< 5										
30-32	217 --	360										
32-34	217 --	110										
34-36	217 --	145										
36-38	217 --	100										
38-40	217 --	40										
A	217 --	10										
B	217 --	10										

CERTIFICATION:



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PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Project: BREWERY CK.RC96 1671  
Comments: ATTN:R.DIMENT CC:J.ZBEETNOFF

Page ber :1  
Total Pages :1  
Certificate Date: 06-NOV-96  
Invoice No. :19638933  
P.O. Number :10573  
Account :LDS

## CERTIFICATE OF ANALYSIS

A9638933

SAMPLE	PREP CODE	Au ppb FA+AA										
00-02	217 --	20										
02-04	217 --	10										
04-06	217 --	< 5										
06-08	217 --	20										
08-10	217 --	< 5										
10-12	217 --	< 5										
12-14	217 --	< 5										
14-16	217 --	10										
16-18	217 --	10										
18-20	217 --	< 5										
20-22	217 --	< 5										
22-24	217 --	< 5										
24-26	217 --	10										
26-28	217 --	< 5										
28-30	217 --	< 5										
30-32	217 --	< 5										
32-34	217 --	< 5										
34-36	217 --	< 5										
36-38	217 --	< 5										
38-40	217 --	10										
40-42	217 --	20										
42-44	217 --	20										
44-46	217 --	1080										
46-48	217 --	1020										
48-50	217 --	720										
50-52	217 --	155										
52-54	217 --	325										
54-56	217 --	1430										

CERTIFICATION:

# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE Aug 29/96

SAMPLE SERIES DD 96-85

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Au/t
1	126.95 - 128.85	<0.02
2	128.85 - 130.85	0.38
3	130.85 - 132.0	0.46
4	132.0 - 134.11	<0.02
5		
6		
7		
8		
9		
10		
11		
12		
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14		
15		
16		
17		
18		
19		
20		
21		
22		

	SAMPLE	Au/t
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24		
25		
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SUPERVISOR

AM

# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE Aug 28/96

SAMPLE SERIES DD-96

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Au/t
1	- 85 3-4	0.05
2	4-6	<0.02
3	6-8	<0.02
4	8-10	<0.02
5	10-12	<0.02
6	12-13	<0.02
7	13-14	<0.02
8	14-16	<0.02
9	16-18	<0.02
10	18-20	0.09
11	20-21.3	<0.02
12	21.3-23.5	<0.02
13	23.5-24	<0.02
14	24-26	<0.02
15	26-27.5	0.03
16	27.5-28.4	<0.02
17	28.4-30	<0.02
18	30-32	<0.02
19	32-32.9	<0.02
20	32.9-34.9	<0.02
21	34.9-36.9	<0.02
22	36.9-37.9	<0.02

	SAMPLE	Au/t
23	37.9-39.5	0.02
24	39.5-40.15	<0.02
25	40.15-40.9	<0.02
26	40.9-42.9	<0.02
27	42.9-44.9	<0.02
28	44.9-46.9	0.02
29	46.9-48.1	0.11
30	48.1-49.6	0.03
31	49.6-50.7	0.05
32	50.7-52.7	0.03
33	52.7-54.4	<0.02
34	54.4-56.4	0.03
35	56.4-57.3	0.03
36	57.3-59.0	0.19
37	59.0-59.8	0.16
38	59.8-61.65	0.12
39	61.65-63.65	<0.02
40		
41		
42		
43		
44		

SUPERVISOR



# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE Aug 28/96


SAMPLE SERIES DD 96

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Au/t
1	85- 63.65-65.53	0.04
2	65.53- 66	TO FOLLOW
3	66 - 67.5	<0.02
4	67.5 - 69.4	<0.02
5	69.4 - 71.4	<0.02
6	71.4 - 73.3	<0.02
7	73.3 - 73.9	<0.02
8	73.9 - 75.4	0.07
8	75.4 - 77.2	<0.02
10	77.2 - 77.72	0.03
11	77.72 - 79.25	<0.02
12	79.25 - 80.77	0.03
13	80.77 - 81.42	<0.02
14	81.42 - 82.2	0.03
15	82.2 - 84.05	0.03
18	84.05 - 86.05	0.02
17	86.05 - 88.05	0.02
18	88.05 - 89.75	0.02
19	89.75 - 91.75	<0.02
20	91.75 - 93.4	0.03
21	93.4 - 94.75	0.02
22	94.75 - 95.1	0.02

	SAMPLE	Au/t
23	95.1 - 96.5	0.08
24	96.5 - 97.0	<0.02
25	97.0 - 99.0	<0.02
26	99.0 - 100.5	<0.02
27	100.5 - 102	<0.02
28	102 - 104	0.02
29	104 - 105.2	0.14
30	105.2 - 107.2	<0.02
31	107.2 - 109.2	<0.02
32	109.2 - 111.2	<0.02
33	111.2 - 112.4	0.02
34	112.4 - 113.7	<0.02
35	113.7 - 115.4	0.02
38	115.4 - 115.8	0.23
37	115.8 - 117.5	0.15
38	117.5 - 119.0	0.33
39	119.0 - 120.3	0.08
40	120.3 - 122.3	0.10
41	122.3 - 122.95	0.02
42	122.95 - 124.95	0.42
43	124.95 - 126.95	0.02
44		

SUPERVISOR \_\_\_\_\_



# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE Aug 30/96

SAMPLE SERIES DD-96

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Au/t
1	85	
2	134.11 - 136.11	0.06
3	136.11 - 138.11	0.04
4	138.11 - 140.11	0.03
5	140.11 - 141.11	0.05
6	141.11 - 142.55	0.04
7	142.55 - 143.7	0.03
8	143.7 - 145.7	0.08
9	145.7 - 147.7	0.03
10	147.7 - 148.75	0.03
11	148.75 - 150.5	0.04
12	150.5 - 151.85	0.08
13	151.85 - 153.85	0.03
14	153.85 - 155.15	0.03
15	155.15 - 156.75	0.19
16	156.75 - 158.60	0.10
17		
18		
19	161.9 - 163.3	0.06
20	163.3 - 164.0	0.04
21		
22	255.25 - 255.8	0.04

	SAMPLE	Au/t
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
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SUPERVISOR \_\_\_\_\_

# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE Aug 31/96

SAMPLE SERIES 00-96-85

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Au/t	
1	158.6 - 159.9	<0.02	
2	159.9 - 161.9	<0.02	
3			
4	164.0 - 165.6	<0.02	
5	165.6 - 167.2	<0.02	
6	167.2 - 168.0	↓	
7	168.0 - 170.0		
8	170.0 - 172.0		
9	172. - 174		
10	174 - 175.6		
11	175.6 - 177.6		
12	177.6 - 179.6		
13	179.6 - 180.35		
14	180.35 - 181.25		
15	181.25 - 183.25		
16			
17	183.25 - 184.8		
18	184.8 - 185.45		
19	185.45 - 187.2		<0.02
20	187.2 - 189.2		0.03
21	189.2 - 190.35		<0.02
22	190.35 - 191.9		<0.02
23	191.9 - 192.5	<0.02	

	SAMPLE	Au/t	
23	192.5 - 194.5	<0.02	
24	194.5 - 196.5	↓	
25	196.5 - 197.15		
26	197.15 - 198.15		
27	198.15 - 199.15		
28	199.15 - 200.1		
29	200.1 - 202.1		
30	202.1 - 203.3		
31	203.3 - 205.3		
32	205.3 - 207.3		
33	207.3 - 209.3		
34	209.3 - 211.3		
35	211.3 - 213.3		<0.02
36	213.3 - 215.3		0.03
37	215.3 - 217.3		<0.02
38	217.3 - 219.3		↓
39	219.3 - 221.3		
40	221.3 - 223.3		
41	223.3 - 225.3		
42	225.3 - 226.5		
43	226.5 - 228.5		
44	228.5 - 229	<0.02	

SUPERVISOR \_\_\_\_\_

# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE Aug. 31/96

SAMPLE SERIES 0096 - (85)

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Au/t
1	229 - 229.3	<0.02
2	229.3 - 230.2	<0.02
3	230.2 - 232.2	0.03
4	232.2 - 233.7	<0.02
5	233.7 - 235.2	<0.02
6	235.2 - 236.7	<0.02
7	236.7 - 238.7	0.02
8	238.7 - 240.8	<0.02
9	240.8 - 242.8	<0.02
10	242.8 - 243.85	<0.02
11	243.85 - 245.85	0.03
12	245.85 - 247.7	<0.02
13	247.7 - 248.4	<0.02
14	248.4 - 250.2	<0.02
15	250.2 - 251.25	<0.02
16	251.25 - 253.25	<0.02
17	253.25 - 255.25	0.05
18		
19		
20		
21		
22		

	SAMPLE	Au/t
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
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SUPERVISOR \_\_\_\_\_

## VICEROY BREWERY CREEK MINE

## FINAL ASSAY REPORT SHEET

SAMPLE SERIES

D.D. 96-85

DATE

Aug. 19/96.

	SAMPLE #	Au g/t
1	253.63 -	
2	255.25	0.02
3	- 255.8	0.03
4	- 257.2	5.91
5	- 259.4	0.87
6	- 261.4	3.49
7	- 263.24	4.02
8	- 264.24	0.65
9	- 265.79	1.46
10	- 266.7	0.23
11	- 268.49	To FOLLOW 3.63
12	- 269.61	1.10
13	- 271.85	0.24
14	- 273.42	0.03
15	- 275.06	0.12
16	- 277.06	0.51
17	- 279.06	0.42
18	- 281.06	0.68
19	- 282.77	0.40
20	- 285.77	0.95
21	- 285.40	0.44
22	- 287.39	0.04

	SAMPLE #	Au g/t
23	- 288.39	0.02
24	- 290.03	0.02
25	- 292.03	0.02
26	- 294.03	0.02
27	- 295.97	0.02
28	- 297.43	0.02
29	- 299.01	0.02
30		
31		
32	272.48 -	
33	275.98	0.07
34		
35		
36		
37		
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SUPERVISOR



VICEROY BREWERY CREEK MINE


FINAL ASSAY REPORT SHEET

SAMPLE SERIES DD 96-85

DATE Aug. 19/96.

	SAMPLE #	Au g/t
1	Follow up:	
2		
3	266.7 -	
4	268.49	3.63
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

	SAMPLE #	Au g/t
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
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SUPERVISOR 

# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE Aug 31/96

SAMPLE SERIES DD96-86

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Auft
1	0 - 2.74	NO SAMPLE
2	2.74 - 4.74	<0.02
3	4.74 - 6.74	↙
4	6.74 - 8.74	
5	8.74 - 10.74	
6	10.74 - 12.74	
7	12.74 - 14.74	
8	14.74 - 16.74	
9	16.74 - 18.59	
10	18.59 - 20.59	0.02
11	20.59 - 22.59	0.03
12	22.59 - 24.59	0.03
13	24.59 - 26.59	0.03
14	26.59 - 28.59	0.02
15	28.59 - 29.59	<0.02
16	29.59 - 31.28	<0.02
17	31.28 - 33.28	<0.02
18	33.28 - 35.28	0.02
19	35.28 - 37.28	<0.02
20	37.28 - 38.06	<0.02
21	38.06 - 40.06	<0.02
22	40.06 - 42.06	<0.02

	SAMPLE	Auft	
23	42.06 - 43.52	<0.02	
24	43.52 - 45.52	0.03	
25	45.52 - 47.55	<0.02	
26	47.55 - 49.55	↘	
27	49.55 - 50.6		
28	50.6 - 52.12		
29	52.12 - 54.12		
30	54.12 - 56.12		<0.02
31			
32			
33			
34			
35			
36			
37			
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SUPERVISOR \_\_\_\_\_

# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE Aug 31/96

SAMPLE SERIES DD96

86

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Au/t
1	47.55 - 49.55	<0.02
2	49.55 - 50.6	<0.02
3	50.6 - 52.12	<0.02
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

	SAMPLE	Au/t
23		
24		
25		
26		
27		
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29		
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SUPERVISOR \_\_\_\_\_

# VICEROY BREWERY CREEK OPERATION

## FINAL ASSAY REPORT SHEET

DATE Aug 30/96

SAMPLE SERIES DD96-86

SAMPLE SERIES \_\_\_\_\_

	SAMPLE	Au/t
1	142.95 - 144.95	1.62
2	144.95 - 146.85	0.21
3	146.85 - 147.65	0.65
4	147.65 - 149.65	0.02
5	149.65 - 150.65	<0.02
6	150.65 - 152.04	0.06
7	152.04 - 153.81	0.04
8	153.81 - 154.23	0.02
9	154.23 - 155.16	<0.02
10	155.16 - 157.4	0.43
11	157.4 - 158.99	0.50
12	158.99 - 160.02	<0.02
13	160.02 - 162.02	<0.02
14	162.02 - 164.02	<0.02
15		
16	174.55 - 176.55	<0.02
17	176.55 - 178.55	<0.02
18	178.55 - 180.55	<0.02
19	180.55 - 182.55	<0.02
20	182.55 - 184.55	<0.02
21	184.55 - 185.64	<0.02
22	185.64 - 187.64	<0.02

	SAMPLE	Au/t
23	187.64 - 189.64	<0.02
24		
25		
26		
27		
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SUPERVISOR \_\_\_\_\_



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: VICEROY RESOURCES CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

**INVOICE NUMBER**

**I 9 6 3 6 9 0 1**

### BILLING INFORMATION

Date: 22-OCT-96  
Project: BREWERY CK. DD96-90  
P.O. No.: 10573  
Account: LDS

**Comments:**

**Billing:** For analysis performed on  
Certificate A9636901

**Terms:** Payment due on receipt of invoice  
1.25% per month (15% per annum)  
charged on overdue accounts

Please Remit Payments to:

**CHEMEX LABS LTD.**  
212 Brooksbank Ave.,  
North Vancouver, B.C.  
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
9	217 - Geochem ring entire sample 983 - Au ppb FA+AA	2.50 9.75	12.25	110.25
				<i>DD96-90</i>
				Total Cost \$ 110.25
				Client Discount ( 25% ) \$ -27.56
				Net Cost \$ 82.69
				(Reg# R100938885 ) GST \$ 5.79
				<b>TOTAL PAYABLE (CDN) \$ 88.48</b>

*Au checks*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

A9636901

Comments: ATTN:RICK DIMENT

**CERTIFICATE**

**A9636901**

(LDS) - VICEROY RESOURCES CORPORATION

Project: BREWERY CK. DD96-90  
P.O. #: 10573

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 22-OCT-96.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
217	9	Geochem ring entire sample

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	9	Au ppb: Fuse 30 g sample	FA-AAS	5	10000



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Project: BREWERY CK. DD96-90  
Comments: ATTN:RICK DIMENT

Page number : 1  
Total pages : 1  
Certificate Date: 22-OCT-96  
Invoice No. : 19636901  
P.O. Number : 10573  
Account : LDS

## CERTIFICATE OF ANALYSIS A9636901

SAMPLE	PREP CODE	Au ppb FA+AA										
119.2-120.6	217 --	20										
120.6-121.2	217 --	< 5										
121.2-123.2	217 --	90										
123.2-124.3	217 --	120										
124.3-125.8	217 --	1380										
125.8-126.5	217 --	145										
126.5-128.1	217 --	120										
128.1-130.1	217 --	40										
130.1-132.1	217 --	35										

CERTIFICATION: *Shrek Vank*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Project: BREWERY CK. DD96-90  
Comments: ATTN: RICK DIMENT

Page number : 1  
Total pages : 1  
Certificate Date: 22-OCT-96  
Invoice No. : 19636901  
P.O. Number : 10573  
Account : LDS

## CERTIFICATE OF ANALYSIS A9636901

SAMPLE	PREP CODE	Au ppb FA+AA										
119.2-120.6	217 --	20										
120.6-121.2	217 --	< 5										
121.2-123.2	217 --	90										
123.2-124.3	217 --	120										
124.3-125.8	217 --	1380										
125.8-126.5	217 --	145										
126.5-128.1	217 --	120										
128.1-130.1	217 --	40										
130.1-132.1	217 --	35										

CERTIFICATION: *Theresa Vank*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: VICEROY RESOURCES CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

INVOICE NUMBER

I 9 6 3 6 9 0 6

### BILLING INFORMATION

Date: 22-OCT-96  
Project: BREWERY CK. DD96-92  
P.O. No.: 10573  
Account: LDS

Comments:

Billing: For analysis performed on  
Certificate A9636906

Terms: Payment due on receipt of invoice  
1.25% per month (15% per annum)  
charged on overdue accounts

Please Remit Payments to:

**CHEMEX LABS LTD.**  
212 Brooksbank Ave.,  
North Vancouver, B.C.  
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
--------------	---------------------------------	------------	--------------	--------

DD96-92

41	217 - Geochem ring entire sample	2.50		
	983 - Au ppb FA+AA	9.75	12.25	502.25

Total Cost \$	502.25
Client Discount ( 25%) \$	-125.56
Net Cost \$	376.69
(Reg# R100938885 ) GST \$	26.37
<b>TOTAL PAYABLE (CDN) \$</b>	<b>403.06</b>

*Duplicate Au checks*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

A9636906

Comments: ATTN:RICK DIMENT

**CERTIFICATE**

**A9636906**

(LDS) - VICEROY RESOURCES CORPORATION

Project: BREWERY CK. DD96-92  
P.O.#: 10573

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 22-OCT-96.

### SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
217	41	Geochem ring entire sample

### ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	41	Au ppb: Fuse 30 g sample	FA-AAS	5	10000



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 1  
Total Pages : 2  
Certificate Date: 22-OCT-96  
Invoice No. : 19636906  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK. DD96-92  
Comments : ATTN:RICK DIMENT

## CERTIFICATE OF ANALYSIS

A9636906

SAMPLE	PREP CODE	Au ppb FA+AA											
60.0-61.8	217 --	< 5											
61.8-62.8	217 --	< 5											
62.8-64.7	217 --	370											
64.7-65.5	217 --	70											
65.5-67.5	217 --	860											
67.5-69.5	217 --	285											
69.5-71.5	217 --	110											
71.5-73.5	217 --	245											
73.5-74.5	217 --	135											
74.5-75.8	217 --	< 5											
75.8-76.2	217 --	290											
76.2-77.8	217 --	830											
77.8-78.8	217 --	65											
78.8-80.0	217 --	1590											
80.0-82.0	217 --	2470											
82.0-83.9	217 --	135											
83.9-84.9	217 --	280											
84.9-86.9	217 --	170											
86.9-88.9	217 --	190											
88.9-90.9	217 --	860											
90.9-92.7	217 --	365											
92.7-94.7	217 --	155											
94.7-96.8	217 --	5230											
96.8-98.2	217 --	80											
98.2-100.2	217 --	70											
100.2-102.2	217 --	20											
102.2-104.2	217 --	145											
104.2-106.2	217 --	590											
106.2-108.2	217 --	190											
108.2-109.2	217 --	15											
109.2-110.4	217 --	635											
110.4-112.5	217 --	2830											
112.5-114.5	217 --	2630											
114.5-115.5	217 --	520											
115.5-116.8	217 --	1950											
116.8-118.8	217 --	2420											
118.8-120.4	217 --	3590											
120.4-121.9	217 --	275											
121.9-123.4	217 --	65											
123.4-125.4	217 --	< 5											

CERTIFICATION:

*Theresa Vank*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Project: BREWERY CK. DD96-92  
Comments: ATTN: RICK DIMENT

Page number : 2  
Total pages : 2  
Certificate Date: 22-OCT-96  
Invoice No. : 19636906  
P.O. Number : 10573  
Account : LDS

## CERTIFICATE OF ANALYSIS

A9636906

SAMPLE	PREP CODE	Au ppb FA+AA									
125.4-126.6	217 --	< 5									

CERTIFICATION:

*Theresa Vank*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Project: BREWERY CK. DD96-92  
Comments: ATTN:RICK DIMENT

Page number : 1  
Total Pages : 2  
Certificate Date: 22-OCT-96  
Invoice No. : 19636906  
P.O. Number : 10573  
Account : LDS

## CERTIFICATE OF ANALYSIS

A9636906

SAMPLE	PREP CODE	Au ppb FA+AA											
60.0-61.8	217 --	< 5											
61.8-62.8	217 --	< 5											
62.8-64.7	217 --	370											
64.7-65.5	217 --	70											
65.5-67.5	217 --	860											
67.5-69.5	217 --	285											
69.5-71.5	217 --	110											
71.5-73.5	217 --	245											
73.5-74.5	217 --	135											
74.5-75.8	217 --	< 5											
75.8-76.2	217 --	290											
76.2-77.8	217 --	830											
77.8-78.8	217 --	65											
78.8-80.0	217 --	1590											
80.0-82.0	217 --	2470											
82.0-83.9	217 --	135											
83.9-84.9	217 --	280											
84.9-86.9	217 --	170											
86.9-88.9	217 --	190											
88.9-90.9	217 --	860											
90.9-92.7	217 --	365											
92.7-94.7	217 --	155											
94.7-96.8	217 --	5230											
96.8-98.2	217 --	80											
98.2-100.2	217 --	70											
100.2-102.2	217 --	20											
102.2-104.2	217 --	145											
104.2-106.2	217 --	590											
106.2-108.2	217 --	190											
108.2-109.2	217 --	15											
109.2-110.4	217 --	635											
110.4-112.5	217 --	2830											
112.5-114.5	217 --	2630											
114.5-115.5	217 --	520											
115.5-116.8	217 --	1950											
116.8-118.8	217 --	2420											
118.8-120.4	217 --	3590											
120.4-121.9	217 --	275											
121.9-123.4	217 --	65											
123.4-125.4	217 --	< 5											

CERTIFICATION: *Frank Vander*



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212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 2  
Total Pages : 2  
Certificate Date: 22-OCT-96  
Invoice No. : 19636906  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK. DD96-92  
Comments: ATTN: RICK DIMENT

## CERTIFICATE OF ANALYSIS A9636906

SAMPLE	PREP CODE	Au ppb FA+AA									
125.4-126.6	217 --	< 5									

CERTIFICATION: Theresa Vank



# Chemex Labs Ltd.

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212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: VICEROY RESOURCES CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

**INVOICE NUMBER**

**I 9 6 3 6 3 1 7**

## BILLING INFORMATION

Date: 21-OCT-96  
Project: BREWERY CK. DD96-93  
P.O. No.: 10573  
Account: LDS

Comments: ATTN:RICK DIMENT

Billing: For analysis performed on  
Certificate A9636317

Terms: Payment due on receipt of invoice  
1.25% per month (15% per annum)  
charged on overdue accounts

Please Remit Payments to:

**CHEMEX LABS LTD.**  
212 Brooksbank Ave.,  
North Vancouver, B.C.  
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
	DD96-93			
46	217 - Geochem ring entire sample	2.50		
	983 - Au ppb FA+AA	9.75	12.25	563.50
Total Cost \$				563.50
Client Discount ( 25%) \$				<del>140.88</del>
Net Cost \$				422.62
(Reg# R100938885 ) GST \$				29.58
<b>TOTAL PAYABLE (CDN) \$</b>				<b>452.20</b>



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PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

A9636317

Comments: ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

**CERTIFICATE**

**A9636317**

(LDS) - VICEROY RESOURCES CORPORATION

Project: BREWERY CK. DD96-93  
P.O. #: 10573

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 19-OCT-96.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
217	46	Geochem ring entire sample

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	46	Au ppb: Fuse 30 g sample	FA-AAS	5	10000



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 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page Number : 1  
 Total Pages : 2  
 Certificate Date: 19-OCT-96  
 Invoice No. : 19636317  
 P.O. Number : 10573  
 Account : LDS

Project : BREWERY CK DD96-93  
 Comments: ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

### A9636317

SAMPLE	PREP CODE	Au ppb FA+AA											
1.5-2.8	217 --	< 5											
2.8-4.8	217 --	< 5											
4.8-6.8	217 --	< 5											
6.8-8.8	217 --	< 5											
8.8-10.8	217 --	< 5											
10.8-12.8	217 --	< 5											
12.8-14.8	217 --	< 5											
14.8-16.8	217 --	< 5											
16.8-18.8	217 --	< 5											
18.8-20.8	217 --	< 5											
20.8-22.8	217 --	< 5											
22.8-24.8	217 --	< 5											
24.8-25.8	217 --	< 5											
25.8-27.8	217 --	< 5											
27.8-29.6	217 --	< 5											
29.6-31.6	217 --	< 5											
31.6-33.6	217 --	< 5											
33.6-35.7	217 --	< 5											
35.7-37.7	217 --	< 5											
37.7-39.7	217 --	< 5											
39.7-41.7	217 --	< 5											
41.7-43.7	217 --	< 5											
43.7-45.7	217 --	< 5											
45.7-47.2	217 --	< 5											
47.2-47.9	217 --	< 5											
47.9-49.9	217 --	< 5											
49.9-51.9	217 --	< 5											
51.9-53.9	217 --	< 5											
53.9-55.9	217 --	< 5											
55.9-57.2	217 --	< 5											
57.2-59.2	217 --	< 5											
59.2-60.8	217 --	70											
60.8-62.8	217 --	1380											
62.8-64.8	217 --	330											
64.8-66.8	217 --	750											
66.8-68.8	217 --	5660											
68.8-70.8	217 --	2050											
70.8-72.8	217 --	1170											
72.8-74.8	217 --	2390											
74.8-76.8	217 --	25											

CERTIFICATION:

*John Vork*



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212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page number : 2  
Total Pages : 2  
Certificate Date: 19-OCT-96  
Invoice No. : 19636317  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK. DD96-93  
Comments: ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9636317

SAMPLE	PREP CODE	Au ppb FA+AA									
76.8-77.6	217 --	210									
77.6-79.6	217 --	435									
79.6-81.6	217 --	30									
81.6-83.6	217 --	20									
83.6-85.6	217 --	10									
85.6-86.9	217 --	< 5									

CERTIFICATION:



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British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 1  
Total Pages : 2  
Certificate Date: 19-OCT-96  
Invoice No. : 19636317  
P.O. Number : 10573  
Account : LDS

Project: BREWERY CK. DD96-93  
Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9636317

SAMPLE	PREP CODE	Au ppb FA+AA																	
1.5-2.8	217 --	< 5																	
2.8-4.8	217 --	< 5																	
4.8-6.8	217 --	< 5																	
6.8-8.8	217 --	< 5																	
8.8-10.8	217 --	< 5																	
10.8-12.8	217 --	< 5																	
12.8-14.8	217 --	< 5																	
14.8-16.8	217 --	< 5																	
16.8-18.8	217 --	< 5																	
18.8-20.8	217 --	< 5																	
20.8-22.8	217 --	< 5																	
22.8-24.8	217 --	< 5																	
24.8-25.8	217 --	< 5																	
25.8-27.8	217 --	< 5																	
27.8-29.6	217 --	< 5																	
29.6-31.6	217 --	< 5																	
31.6-33.6	217 --	< 5																	
33.6-35.7	217 --	< 5																	
35.7-37.7	217 --	< 5																	
37.7-39.7	217 --	< 5																	
39.7-41.7	217 --	< 5																	
41.7-43.7	217 --	< 5																	
43.7-45.7	217 --	< 5																	
45.7-47.2	217 --	< 5																	
47.2-47.9	217 --	< 5																	
47.9-49.9	217 --	< 5																	
49.9-51.9	217 --	< 5																	
51.9-53.9	217 --	< 5																	
53.9-55.9	217 --	< 5																	
55.9-57.2	217 --	< 5																	
57.2-59.2	217 --	< 5																	
59.2-60.8	217 --	70																	
60.8-62.8	217 --	1380																	
62.8-64.8	217 --	330																	
64.8-66.8	217 --	750																	
66.8-68.8	217 --	5660																	
68.8-70.8	217 --	2050																	
70.8-72.8	217 --	1170																	
72.8-74.8	217 --	2390																	
74.8-76.8	217 --	25																	

CERTIFICATION: *Theresa Vorkh*



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Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 2  
Total Pages : 2  
Certificate Date: 19-OCT-96  
Invoice No. : 19636317  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK. DD96-93  
Comments: ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9636317

SAMPLE	PREP CODE	Au ppb FA+AA												
76.8-77.6	217 --	210												
77.6-79.6	217 --	435												
79.6-81.6	217 --	30												
81.6-83.6	217 --	20												
83.6-85.6	217 --	10												
85.6-86.9	217 --	< 5												

CERTIFICATION: *John Venter*



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British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: VICEROY RESOURCES CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

INVOICE NUMBER

I 9 6 3 6 3 1 8

### BILLING INFORMATION

Date: 21-OCT-96  
Project: BREWERY CK. DD96-94  
P.O. No.: 10573  
Account: LDS

Comments: ATTN:RICK DIMENT

Billing: For analysis performed on  
Certificate A9636318

Terms: Payment due on receipt of invoice  
1.25% per month (15% per annum)  
charged on overdue accounts

Please Remit Payments to:

**CHEMEX LABS LTD.**  
212 Brooksbank Ave.,  
North Vancouver, B.C.  
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	DD96-94	UNIT PRICE	SAMPLE PRICE	AMOUNT
--------------	---------------------------------	---------	------------	--------------	--------

46	217 - Geochem ring entire sample		2.50		
	983 - Au ppb FA+AA		9.75	12.25	563.50

Total Cost \$	563.50
Client Discount ( 25% ) \$	<del>140.88</del>
Net Cost \$	422.62
(Reg# R100938885 ) GST \$	29.58
<b>TOTAL PAYABLE (Cdn) \$</b>	<b>452.20</b>

COPY



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British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

A9636318

Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

**CERTIFICATE**

**A9636318**

(LDS) - VICEROY RESOURCES CORPORATION

Project: BREWERY CK. DD96-94  
P.O. #: 10573

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 19-OCT-96.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
217	46	Geochem ring entire sample

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	46	Au ppb: Fuse 30 g sample	FA-AAS	5	10000



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British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
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BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number: 1  
Total Pages: 2  
Certificate Date: 19-OCT-96  
Invoice No.: 19636318  
P.O. Number: 10573  
Account: LDS

Project: BREWERY CK. DD96-94  
Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9636318

SAMPLE	PREP CODE	Au ppb FA+AA										
1.8-3.8	217 --	15										
3.8-5.8	217 --	< 5										
5.8-7.8	217 --	< 5										
7.8-9.8	217 --	< 5										
9.8-11.8	217 --	< 5										
11.8-13.8	217 --	< 5										
13.8-15.8	217 --	< 5										
15.8-17.8	217 --	< 5										
17.8-19.8	217 --	< 5										
19.8-21.8	217 --	< 5										
21.8-23.3	217 --	20										
23.3-25.3	217 --	100										
25.3-26.6	217 --	10										
26.6-28.0	217 --	20										
28.0-29.0	217 --	< 5										
29.0-30.9	217 --	2500										
30.9-32.3	217 --	6090										
32.3-33.9	217 --	1350										
33.9-35.4	217 --	2870										
35.4-37.4	217 --	270										
37.4-39.4	217 --	400										
39.4-41.4	217 --	280										
41.4-43.4	217 --	215										
43.4-44.4	217 --	270										
44.4-46.4	217 --	690										
46.4-47.4	217 --	1640										
47.4-49.4	217 --	235										
49.7-51.4	217 --	380										
51.4-53.4	217 --	940										
53.4-55.4	217 --	1860										
55.4-57.4	217 --	1740										
57.4-59.4	217 --	2780										
59.4-61.4	217 --	2860										
61.4-63.4	217 --	730										
63.4-65.0	217 --	345										
65.0-67.0	217 --	1750										
67.0-68.7	217 --	70										
68.7-70.0	217 --	250										
70.0-71.5	217 --	180										
71.5-73.2	217 --	20										

CERTIFICATION:

*John V. ...*



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British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page per 2  
Total Pages 2  
Certificate Date: 19-OCT-96  
Invoice No. 19636318  
P.O. Number 10573  
Account : LDS

Project : BREWERY CK. DD96-94  
Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9636318

SAMPLE	PREP CODE	Au ppb FA+AA									
73.2-75.2	217 --	< 5									
75.2-77.2	217 --	< 5									
77.2-79.2	217 --	< 5									
79.2-81.2	217 --	< 5									
81.2-83.0	217 --	< 5									
83.0-84.1	217 --	< 5									

CERTIFICATION: John Vank



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Page Number 1  
Total Pages 2  
Certificate Date 19-OCT-96  
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Account LDS

Project: BREWERY CK. DD96-94  
Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

A9636318

SAMPLE	PREP CODE	Au ppb FA+AA										
1.8-3.8	217 --	15										
3.8-5.8	217 --	< 5										
5.8-7.8	217 --	< 5										
7.8-9.8	217 --	< 5										
9.8-11.8	217 --	< 5										
11.8-13.8	217 --	< 5										
13.8-15.8	217 --	< 5										
15.8-17.8	217 --	< 5										
17.8-19.8	217 --	< 5										
19.8-21.8	217 --	< 5										
21.8-23.3	217 --	20										
23.3-25.3	217 --	100										
25.3-26.6	217 --	10										
26.6-28.0	217 --	20										
28.0-29.0	217 --	< 5										
29.0-30.9	217 --	2500										
30.9-32.3	217 --	6090										
32.3-33.9	217 --	1350										
33.9-35.4	217 --	2870										
35.4-37.4	217 --	270										
37.4-39.4	217 --	400										
39.4-41.4	217 --	280										
41.4-43.4	217 --	215										
43.4-44.4	217 --	270										
44.4-46.4	217 --	690										
46.4-47.4	217 --	1640										
47.4-49.4	217 --	235										
49.7-51.4	217 --	380										
51.4-53.4	217 --	940										
53.4-55.4	217 --	1860										
55.4-57.4	217 --	1740										
57.4-59.4	217 --	2780										
59.4-61.4	217 --	2860										
61.4-63.4	217 --	730										
63.4-65.0	217 --	345										
65.0-67.0	217 --	1750										
67.0-68.7	217 --	70										
68.7-70.0	217 --	250										
70.0-71.5	217 --	180										
71.5-73.2	217 --	20										

CERTIFICATION:

*Handwritten signature*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
BREWERY CREEK OPERATIONS  
BAG 5040  
DAWSON CITY, YT  
Y0B 1G0

Page Number : 2  
Total Pages : 2  
Certificate Date: 19-OCT-96  
Invoice No. : 19636318  
P.O. Number : 10573  
Account : LDS

Project : BREWERY CK. DD96-94  
Comments: ATTN:RICK DIMENT CC:JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS A9636318

SAMPLE	PREP CODE	Au ppb FA+AA										
73.2-75.2	217 --	^ ^ 5										
75.2-77.2	217 --	^ ^ 5										
77.2-79.2	217 --	^ ^ 5										
79.2-81.2	217 --	^ ^ 5										
81.2-83.0	217 --	^ ^ 5										
83.0-84.1	217 --	^ ^ 5										

CERTIFICATION: *John Voth*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2G1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

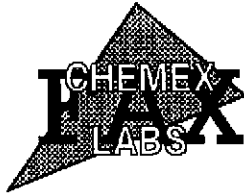
Page Number 1  
 Total Pages 2  
 Certificate Date 23-OCT-98  
 Invoice No. I-9837277  
 P.O. Number 10573  
 Account :

Project : BREWERY CK DD98-102  
 Comments: ATTN: RICK DIMENT GC: JOHN ZBEETNOFF

**CERTIFICATE OF ANALYSIS      A9637277**

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA										
1.8-3.4	217 --	45										
3.4-4.4	217 --	695										
4.4-6.4	217 --	140										
6.4-8.4	217 --	145										
8.4-9.4	217 --	10										
9.4-11.0	217 --	< 5										
11.0-12.1	217 --	325										
12.1-13.6	217 --	10										
13.6-15.6	217 --	30										
15.6-17.6	217 --	90										
17.6-19.6	217 --	55										
19.6-21.6	217 --	10										
21.6-23.6	217 --	< 5										
23.6-24.6	217 --	< 5										
24.6-26.6	217 --	< 5										
26.6-27.6	217 --	< 5										
27.6-28.6	217 --	< 5										
28.6-30.6	217 --	< 5										
30.6-32.2	217 --	85										
32.2-33.2	217 --	185										
33.2-35.2	217 --	< 5										
35.2-37.2	217 --	740										
37.2-39.2	217 --	1010										
39.2-40.6	217 --	110										
40.6-41.7	217 --	2470										
41.7-43.7	217 --	205										
43.7-45.7	217 --	320										
45.7-46.7	217 --	80										
46.7-48.4	217 --	355										
48.4-50.4	217 --	805										
50.4-52.1	217 --	500										
52.1-53.8	217 --	2750										
53.8-55.3	217 --	15										
55.3-57.3	217 --	105										
57.3-59.3	217 --	200										
59.3-61.3	217 --	175										
61.3-63.3	217 --	780										
63.3-65.3	217 --	5540										
65.3-67.3	217 --	4860										
67.3-68.7	217 --	3350										

CERTIFICATION: \_\_\_\_\_



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page Number 2  
 Total Pages 2  
 Certificate Date 23-OCT-98  
 Invoice No. I-9837277  
 P.O. Number 10573  
 Account :

Project: BREWERY CK DD98-102  
 Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

## CERTIFICATE OF ANALYSIS

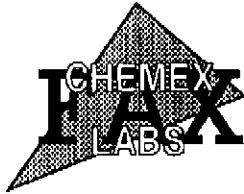
A9637277

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA										
68.7-70.0	217 --	4040										
70.0-71.0	217 --	3060										
71.0-73.0	217 --	295										
73.0-75.0	217 --	40										
75.0-76.9	217 --	145										
76.9-78.1	217 --	550										
78.1-79.8	217 --	35										
79.8-80.8	217 --	145										
80.8-81.8	217 --	345										
81.8-83.1	217 --	510										
83.1-83.8	217 --	15										
83.8-85.5	217 --	40										
85.5-87.5	217 --	115										
87.5-89.5	217 --	10										
89.5-91.0	217 --	< 5										
91.0-93.0	217 --	< 5										
93.0-95.0	217 --	< 5										
95.0-96.0	217 --	< 5										

CERTIFICATION: \_\_\_\_\_

05/16/97 3:26PM CHEMEX LABS VAX-FAX

PAGE 003



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2G1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page Number 1  
 Total Pages 1  
 Certificate Date 23-OCT-86  
 Invoice No. I-9637278  
 P.O. Number 10573  
 Account :

Project : BREWERY CK DD86-103  
 Comments: ATTN: RICK DIMENT CC: JOHN ZBEETNOFF

<b>CERTIFICATE OF ANALYSIS</b>	<b>A9637278</b>
--------------------------------	-----------------

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA									
1.8-3.8	217 --	< 5									
3.8-5.8	217 --	< 5									
5.8-7.8	217 --	< 5									
7.8-9.8	217 --	< 5									
9.8-11.8	217 --	< 5									
11.8-13.8	217 --	< 5									
13.8-15.8	217 --	< 5									
15.8-16.8	217 --	< 5									
16.8-18.8	217 --	< 5									
18.8-20.8	217 --	< 5									
20.8-22.8	217 --	< 5									
22.8-24.5	217 --	< 5									
24.5-25.8	217 --	< 5									
25.8-27.8	217 --	< 5									
27.8-29.8	217 --	< 5									
29.8-30.8	217 --	< 5									

CERTIFICATION: \_\_\_\_\_

05/16/91 5:51PM CHEMEX LABS VHA-FHA



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-884-0221 FAX: 604-884-0218

To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page Number 1  
 Total Pages 2  
 Certificate Date 30-OCT-98  
 Invoice No. I-9638039  
 P.O. Number 10573  
 Account :

Project : DD86-104  
 Comments: ATTN: R. DIMENT CC: J. ZBEETNOFF

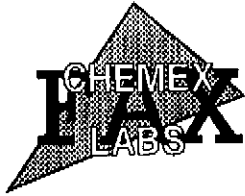
<b>CERTIFICATE OF ANALYSIS</b>	<b>A9638039</b>
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SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA									
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2.5-4.5	217 --	20									
4.5-6.5	217 --	35									
6.5-7.9	217 --	45									
7.9-9.2	217 --	1190									
9.2-10.2	217 --	1200									
10.2-12.2	217 --	185									
12.2-14.2	217 --	25									
14.2-16.2	217 --	10									
16.2-18.2	217 --	5									
18.2-20.2	217 --	< 5									
20.2-22.2	217 --	< 5									
22.2-24.2	217 --	< 5									
24.2-26.2	217 --	< 5									
26.2-28.2	217 --	< 5									
28.2-30.2	217 --	< 5									
30.2-32.2	217 --	60									
32.2-34.2	217 --	< 5									
34.2-36.2	217 --	< 5									
36.2-38.2	217 --	< 5									
38.2-40.2	217 --	< 5									
40.2-42.2	217 --	< 5									
42.2-44.2	217 --	< 5									
44.2-45.7	217 --	< 5									
45.7-47.6	217 --	< 5									
47.6-48.9	217 --	< 5									
48.9-50.9	217 --	< 5									
50.9-52.9	217 --	< 5									
52.9-54.9	217 --	< 5									
54.9-56.9	217 --	< 5									
56.9-58.0	217 --	< 5									
58.0-59.0	217 --	< 5									
59.0-60.4	217 --	< 5									
60.4-62.4	217 --	< 5									
62.4-64.5	217 --	< 5									
64.5-65.6	217 --	15									
65.6-67.6	217 --	10									
67.6-68.6	217 --	30									
68.6-69.4	217 --	1010									
69.4-70.4	217 --	15									

05/16/97 3:37PM CHEMEX LABS VAX-FAX

PAGE 002

CERTIFICATION: \_\_\_\_\_



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: VIGEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page Number 2  
 Total Pages 2  
 Certificate Date 30-OCT-98  
 Invoice No. I-9638039  
 P.O. Number 10573  
 Account :

Project: DD98-104  
 Comments: ATTN: R. DIMENT CC: J. ZBEETNOFF

CERTIFICATE OF ANALYSIS	A9638039
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SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA									
70.4-72.4	217 --	< 5									
72.4-74.4	217 --	< 5									
74.4-76.4	217 --	< 5									
76.4-78.1	217 --	40									
78.1-79.1	217 --	10									
79.1-80.9	217 --	< 5									
80.9-82.9	217 --	60									
82.9-84.9	217 --	90									
84.9-86.6	217 --	60									

05/10/97 3:30PM C:\DATA\LABS\...



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page Number 1  
 Total Pages 2  
 Certificate Date 31-OCT-98  
 Invoice No. I-9838040  
 P.O. Number 10573  
 Account :

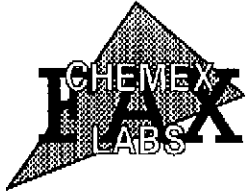
Project: DD98-105  
 Comments: ATTN: R. DIMENT CC: J. ZBEETNOFF

<b>CERTIFICATE OF ANALYSIS</b>	<b>A9638040</b>
--------------------------------	-----------------

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA									
1.5-3.5	217 --	1010									
3.5-5.4	217 --	965									
5.4-6.4	217 --	< 5									
6.4-8.4	217 --	10									
8.4-10.4	217 --	20									
10.4-12.4	217 --	1280									
12.4-14.0	217 --	165									
14.0-16.0	217 --	< 5									
16.0-17.1	217 --	< 5									
17.1-20.1	-- --	Not Rcd									
20.1-20.7	217 --	15									
20.7-22.0	217 --	< 5									
22.0-24.0	217 --	10									
24.0-26.0	217 --	5									
26.0-27.9	217 --	10									
27.9-29.4	217 --	< 5									
29.4-31.4	217 --	35									
31.4-33.4	217 --	5									
33.4-35.4	217 --	< 5									
35.4-37.4	217 --	65									
37.4-39.4	217 --	310									
39.4-41.4	217 --	95									
41.4-42.4	217 --	85									
42.4-43.4	217 --	345									
43.4-44.8	217 --	140									
44.8-46.8	217 --	45									
46.8-48.2	217 --	< 5									
48.2-50.2	217 --	< 5									
50.2-52.2	217 --	< 5									
52.2-53.4	217 --	< 5									
53.4-55.3	217 --	< 5									
55.3-56.6	217 --	85									
56.6-57.6	217 --	20									
57.6-58.9	217 --	< 5									
58.9-60.9	217 --	< 5									
60.9-62.9	217 --	< 5									
62.9-64.9	217 --	< 5									
64.9-65.9	217 --	< 5									
65.9-67.9	217 --	< 5									
67.9-69.9	217 --	< 5									

CERTIFICATION: \_\_\_\_\_

03/10/98 0:54:00



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-884-0221 FAX: 604-884-0218

To: VICEROY RESOURCE CORPORATION  
 BREWERY CREEK OPERATIONS  
 BAG 5040  
 DAWSON CITY, YT  
 Y0B 1G0

Page Number 2  
 Total Pages 2  
 Certificate Date 31-OCT-98  
 Invoice No. 1-9838040  
 P.O. Number 10573  
 Account :

Project : DD96-105  
 Comments: ATTN: R. DIMENT CC: J. ZBEETNOFF

<b>CERTIFICATE OF ANALYSIS</b>	<b>A9638040</b>
--------------------------------	-----------------

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA									
69.9-71.9	217 --	< 5									
71.9-73.9	217 --	< 5									
73.9-75.5	217 --	< 5									
75.5-76.6	217 --	< 5									
76.6-78.6	217 --	< 5									
78.6-80.6	217 --	< 5									
80.6-82.0	217 --	< 5									
82.0-83.6	217 --	< 5									
83.6-85.4	217 --	< 5									
85.4-86.6	217 --	< 5									
86.6-88.6	217 --	< 5									
88.6-90.6	217 --	10									
90.6-92.6	217 --	< 5									
92.6-94.6	217 --	< 5									
94.6-96.6	217 --	< 5									
96.6-98.6	217 --	< 5									
98.6-100.6	217 --	< 5									
100.6-102.6	217 --	< 5									
102.6-103.8	217 --	< 5									
103.8-104.8	217 --	155									
104.8-106.8	217 --	115									
106.8-108.8	217 --	25									
108.8-110.8	217 --	5									
110.8-112.8	217 --	< 5									
112.8-114.6	217 --	< 5									
114.6-115.7	217 --	85									
115.7-117.7	217 --	25									
117.7-119.8	217 --	10									
119.8-121.9	217 --	< 5									
121.9-123.7	217 --	130									
123.7-124.7	217 --	25									
124.7-126.7	217 --	< 5									
126.7-128.6	217 --	< 5									
128.6-130.6	217 --	35									
130.6-132.6	217 --	< 5									
132.6-134.4	217 --	80									
134.4-135.4	217 --	45									
135.4-137.4	217 --	75									
137.4-139.4	217 --	10									
139.4-141.1	217 --	40									

CERTIFICATION: \_\_\_\_\_

05/16/97 5:46PM CHEMEX LABS VHA-LHA TOTAL 000

## VICEROY BREWERY CREEK MINE

## FINAL ASSAY REPORT SHEET

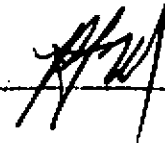
SAMPLE SERIES 0096 - 106

DATE: NOV 14 1966

	SAMPLE #	Assay
1	20 - 22	0.05
2	22 - 24	0.04
3	24 - 26	0.05
4	26 - 27.7	N.S.
5	27.7 - 29.7	0.04
6	29.7 - 31.7	0.03
7	31.7 - 33.7	0.02
8	33.7 - 35.7	0.02
9	35.7 - 37.7	0.02
10	37.7 - 39.7	0.02
11	39.7 - 41.7	0.02
12	41.7 - 43.7	<0.02
13	43.7 - 45.7	<0.02
14	45.7 - 47.7	0.02
15	47.7 - 49.7	0.02
16	49.7 - 51.7	<0.02
17	51.7 - 53.7	<0.02
18	53.7 - 55.7	<0.02
19	55.7 - 57.5	0.31
20	57.5 - 59.5	0.61
21	59.5 - 61.5	1.77
22	61.5 - 63.5	2.04

	SAMPLE #	Assay
23	63.5 - 65.5	2.09
24	65.5 - 67.5	2.90
25	67.5 - 69.5	1.46
26	69.5 - 70.6	1.61
27	70.6 - 71.7	0.11
28	71.7 - 73.7	0.05
29	73.7 - 75.0	0.02
30	75.0 - 76.0	0.02
31	76.0 - 78.0	<0.02
32	78.0 - 79.0	0.05
33	79.0 - 80.9	0.04
34	80.9 - 82.4	0.04
35	82.4 - 84.4	0.02
36	84.4 - 86.4	0.02
37	86.4 - 88.4	0.02
38	88.4 - 90.4	0.02
39	90.4 - 92.4	0.03
40	92.4 - 94.4	<0.02
41	94.4 - 95.8	<0.02
42	95.8 - 96.2	<0.02
43	96.2 - 98.4	<0.02
44	98.4 - 100.4	<0.02

SUPERVISOR



VICEROY BREWERY CREEK MINE

FINAL ASSAY REPORT SHEET

SAMPLE SERIES DD96-106

DATE NOV 10/96

	SAMPLE #	Au g/t
1	100.4 - 102.4	0.02
2	102.4 - 104.2	0.02
3	104.2 - 104.7	<0.02
4	104.7 - 106.9	<0.02
5	106.9 - 107.3	<0.02
6	107.3 - 108.5	<0.02
7	108.5 - 108.7	<0.02
8	108.7 - 110.4	<0.02
9	110.4 - 112.4	<0.02
10	112.4 - 113.6	<0.02
11	113.6 - 114.9	<0.02
12	114.9 - 116.2	<0.02
13	116.2 - 117.7	<0.02
14	117.7 - 119.2	<0.02
15	119.2 - 120.5	<0.02
16	120.5 - 121.2	<0.02
17	121.2 - 122.9	<0.02
18	122.9 - 124.9	<0.02
19	124.9 - 126.9	0.04
20	126.9 - 128.9	0.05
21	128.9 - 130.9	0.07
22	130.9 - 132.9	<0.02

	SAMPLE #	Au g/t
23	132.9 - 134.7	0.02
24	134.7 - 135.2	<0.02
25	135.2 - 135.9	<0.02
26	135.9 - 137.5	<0.02
27	137.5 - 137.8	<0.02
28	EOH	
29		
30		
31		
32		
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34		
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36		
37		
38		
39		
40		
41		
42		
43		
44		

SUPERVISOR *[Signature]*

## VICEROY BREWERY CREEK MINE

## FINAL ASSAY REPORT SHEET

SAMPLE SERIES

PP96-107

DATE NOV 10/96

	SAMPLE #	Au g/t
1	21 - 23	<0.02
2	23 - 25	<0.02
3	25 - 27	<0.02
4	27 - 29	0.12
5	29 - 31	0.09
6	31 - 33	0.09
7	33 - 35	0.06
8	35 - 37	0.05
9	37 - 39	0.04
10	39 - 41	0.03
11	41 - 43	0.02
12	43 - 45	<0.02
13	45 - 47	<0.02
14	47 - 49	<0.02
15	49 - 51	<0.02
16	51 - 53	<0.02
17	53 - 53.7	<0.02
18	53.7 - 55.7	<0.02
19	55.7 - 57.7	<0.02
20	57.7 - 59.7	<0.02
21	59.7 - 61.7	<0.02
22	61.7 - 63.7	<0.02

	SAMPLE #	Au g/t
23	63.7 - 65.7	<0.02
24	65.7 - 67	<0.02
25	67 - 67.7	<0.02
26	67.7 - 69.7	<0.02
27	69.7 - 71.7	<0.02
28	71.7 - 73.7	<0.02
29	73.7 - 75.2	<0.02
30	75.2 - 77.2	<0.02
31	77.2 - 79.2	<0.02
32	79.2 - 80.2	<0.02
33	80.2 - 82.2	<0.02
34	82.2 - 84.2	<0.02
35	84.2 - 86.2	<0.02
36	86.2 - 88.2	<0.02
37	88.2 - 90.2	<0.02
38	90.2 - 92.2	<0.02
39	92.2 - 94.2	<0.02
40	94.2 - 96.2	<0.02
41	96.2 - 98.2	<0.02
42	98.2 - 100.2	<0.02
43	100.2 - 102.2	<0.02
44	102.2 - 104.2	<0.02

SUPERVISOR



VICEROY BREWERY CREEK MINE

FINAL ASSAY REPORT SHEET

SAMPLE SERIES

0096 - 107

DATE

NOV 10/96

	SAMPLE #	Au g/t
1	104.2 - 106.2	<0.02
2	106.2 - 107.4	<0.02
3	107.4 - 108.5	<0.02
4	108.5 - 110.5	<0.02
5	110.5 - 111.8	<0.02
6	111.8 - 113.7	0.12
7	113.7 - 115.4	1.74
8	115.4 - 117.4	2.10
9	117.4 - 118.3	3.17
10	118.3 - 120.3	0.34
11	120.3 - 121.1	0.12
12	121.1 - 122.6	0.21
13	122.6 - 124.6	<0.02
14	124.6 - 126.6	<0.02
15	126.6 - 128.6	<0.02
16	128.6 - 130.6	<0.02
17	130.6 - 132.6	<0.02
18	132.6 - 134.6	<0.02
19	134.6 - 135.9	<0.02
20	135.9 - 137.1	<0.02
21	137.1 - 138.2	<0.02
22	138.2 - 139.6	<0.02

	SAMPLE #	Au g/t
23	139.6 - 141.2	<0.02
24	141.2 - 143.1	<0.02
25	143.1 - 145.1	<0.02
26	145.1 - 147.1	<0.02
27	147.1 - 149.1	<0.02
28	149.1 - 151.1	<0.02
29	151.1 - 153.1	<0.02
30	153.1 - 154.7	<0.02
31	154.7 - 155.3	<0.02
32	155.3 - 156.5	<0.02
33	FOH	
34		
35		
36		
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40		
41		
42		
43		
44		

SUPERVISOR

*[Signature]*



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093601

Pt 4 of 4

1997 Rotary Core and Diamond Drill Hole Logs

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC96-1565

Page 1 of 1

Logged by: C. SCHULZE

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	9	ARGG	Tr Lim, med SK, S2, C0 --SK
9	11	SLT	2° Lim, S1, C1, P2, tr Py SK
11	17	ARGG	S2, C0 SK
17	20	SLT	Lim 1°, 1° Py, C3, S1, P2 SK
20	22	ARGG	tr Lim, C0, S2 SK
22	25	LQM	S2° Lim, 1° Py, C3, S0, B1-2, P2
25	28	ARGG	tr Lim, C1, S3 SK
28	32	LQM	2° Lim, C3, S0, B1
32	46	LAQM	2-3° Lim, C3, S1, B3, Py 1-5° SK
46	48	ARGG	C0 S3 SK
48	52	LAQM	← 3° Lim, C2, S1, B3, Py 4°, P2 SK
			70:30 ARGG
52	56	LAQM	2° Lim, C1, S3, B3, 2° Py SK
56	60	LAQM	60:40 ARGG, 5° Py, C2, S2, B3, P2, S1° Lim SK (LAQM) C0, S2 (ARGG)
60	80	ARGG	C1-C2, S1-S2 ARGG

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1565

Page 1 of 3

Logged by: C. Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	9	ARGG	ARGG - tr Lim, SK, S <sub>2</sub> , CO, Casing: 0-4m Weak fol - massive argillite, weakly graphitic increasing quartz stockwork with depth, to 0.3cm trace weakly oxidized pyrite near surface Weakly fractured: 8-10m: 60:40 SCT (0-2m somewhat mixed, surface contamination?)
9	11	SLT	SLT, 2 <sup>o</sup> Lim, S <sub>1</sub> , C <sub>1</sub> , P <sub>2</sub> (?), tr Py Tan weathered, finely lam. siltstone, locally strong limonite alt, weakly calcareous. Trace mod. oxidized pyrite? 10-12m: 60:40 SCT
11	17	ARGG	ARGG, S <sub>2</sub> , CO 50:50 ARGG Mod quartz stockwork in weakly graphitic argillite, silicification slightly more pervasive with depth - finer stockwork, no carb alter.
17	20	SLT (SST?)	Lim 1 <sup>o</sup> , S <sub>1</sub> , C <sub>3</sub> , P <sub>2</sub> , tr Py Siltstone, fine grained, weakly laminated, weakly fractured, limonite fracture controlled with weak pervasive oxidation, fine grained fract. controlled pyrite, mod. oxidized (?) weak quartz stockwork (STEELE FORM?)
20	22	ARGG	tr Lim, CO, S <sub>2</sub> Moderate quartz stockwork in graphitic l. argillite, weak fracture controlled limonite
22	25	LQM	5 <sup>o</sup> Lim 1 <sup>o</sup> Py, P <sub>2</sub> , C <sub>3</sub> , S <sub>0</sub> , B1-B2 24-26m: 50:50 Moderately argillically altered qz monzonite, biotite ranges from B1-B2, pervasive limonite, minor weakly oxidized pyrite

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1565

Page 2 of 3

Logged by: C. Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
25	28	ARL	tr Lim, C <sub>1</sub> , S <sub>3</sub> Strong quartz stockwork, mod. carb alteration along fractures, weak fract. controlled limonite
28	32	LQM	2% Lim, C <sub>3</sub> , S <sub>0</sub> , B <sub>1</sub> Moderately limonitic quartz biotite quartz menzonite, mod. hornblende, strong pervasive carbonate alteration, limonite pervasive
32	<del>36</del> 46	LAQM	3% Lim, P <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , C <sub>3</sub> , 2% Py Similar to LQM, biotite nearly disappear almost fully altered, pseudomorphs remain 1-2% Pyrite, moderately oxidized, limonite pervasive, enhanced along fractures, weak pervasive silicification. Local AQM. - 40% argg in 36-38; S <sub>2</sub> , 30% Arg. in 40-42 m. interval. Pyrite less oxidized, more abundant (to 5%) with depth - biotite somewhat less altered.
46	48	ARGL	C <sub>0</sub> , S <sub>3</sub> (SK) Strong silica stockwork, weak-mod graphitic argillite
48	52	LAQM+	3% Lim <sup>4%</sup> , P <sub>2</sub> , C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> (intensive) 70% AQG Mixed LAQM + strongly quartz stockworked argillite - increased argillite with depth (xenoliths?). Mod carbonate alt. in intr. 4-5% weak-mod. altered white, weakly pervasive silica alteration. Limonite pervasive but enhanced along fractures, minor SK also.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1565

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
52	56	LAQM	Lim 2%, P <sub>1</sub> , C <sub>1</sub> , S <sub>3</sub> B <sub>3</sub> , 2% Py Weak limonitic alt. qz monzonite, mod- strong silica stockworks. Pyrite fract. controlled weakly disseminated, limonite pervasive, strongly slight increase along fractures weak carbonate, strong alt. of biotite ≈ 2% Pyrite WATER AT 55.2m
56	60	LAQM; ARGG	60% W ARGG; 5% Lim P <sub>2</sub> ; 5% Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>3</sub> SK (LAQM) CO, S <sub>2</sub> (ARGG) Mixed intrusive + argillite, intrusive similar to that from 52-56m - stronger limonite stain, fract. controlled, lesser dis- pervasive limonite, ≈ 5% Pyrite, fract. controlled less dissem. Pyrite. Weak-mod. silica stockwork. Argillite mod. graphitic, mod-weak silica stockwork
60	80	ARGG	C <sub>2</sub> S <sub>1-2</sub> SK Moderately, locally strongly graphitic fine grained argillite, weak silica stockwork. carbonate stockwork from 66-76m.
80		EOH	

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1566

Page 1 of 1

Logged by: C. Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	<del>AQM.</del> (FILL)	80:20 ARG    CO, S2, B3, tr Lim SK
			ARG    CO, S1
1.5	7	AQM	CO, S2, B3, tr Lim SK Mod. argillically altered g2 monzonite, trace limonite, fracture controlled, trace weak oxid. graphite
7	25	LAQM	3-5% Lim, tr-2% Py, CO, S1, B3, P3 SK <del>Ring ARG, 7-22m</del> SK
25	31	LQM	4% Lim, 5% Py, CO, S1, B1, P1 SK
31	34	LAQM	4% Lim, 5% Py, C3, S1, B2-3, P1 SK
34	38.5	ARG	C1 S3 SK
38.5	44	LAQM	5% Lim, 5-7% Py, C2, S0, B3, P2
44	46.5	ARG	tr-Lim, CO, S2 SK
46.5	56.5	LAQM	5% Lim, 5-6% Py, C1, S2, B3, P1-2 SK
56.5	72	ARG	C1, S1-2 SK

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1566

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Logged by: C. Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			80:20 ARG
0	1.5	AQM	AQM, tr Lim, C0, S2, B3 SK FILL
			+ARG, C0, S1 FILL
1.5	7	AQM	tr Lim, C0, S2, B3 SK
7	25	LAQM	3-5% Lim, tr-2% Py, C0, S1, B3, P3 SK
			Moderately limonitic quartz monzonite, weak quartz stockwork, 1-2% dissem. fract controlled Pyrite (mod. oxidized), similar distribution of limonite. Mixed with ARG (mod quartz stockwork) in varying amounts up to 40%
			7-12m: 35% ARG
			12-14m: 25% ARG
			14-16m: 10% ARG
			18-22m: 40% ARG
25	33.5	LAQM	4% Lim, 5% Py, C0, S1, B1, P1 SK
	31		Limonitic quartz monzonite, weak silica stockwork, fresh to weakly altered biotite, mod. hornblende (?) pervasive lim, weak fracture controlled limonite, dissem. pyrite.
31	34	LAQM	4% Lim, 5% Py, C0, S1, B2-3, P1 SK
			Similar to interval 25-31m, nearly complete destruction of mafic minerals
34	38.5	ARG	Moderate quartz stockwork, weak graphite alt, finely fractured, fine grained
38.5	44	LAQM	5% Lim, 5-7% Py, C2, S0, B3, P2
			Strongly limonitic quartz monzonite, faint biotite pseudomorph remain, Mod. oxidized disseminated Pyrite, limonite pervasive. Mod. carbonates alteration

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1566

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Logged by: C. Schulze

From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
			40-42m: 75:25 LAQM: ARG
44	46.5	ARG	+ Lim, Co, S <sub>2</sub> Grey argillite, weakly foliated, moderate quartz stockwork, locally along foliation Limonite fracture controlled, trace Pyrite
46.5	56.5	LAQM	5% Lim, 5-6% Py. → C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1-2</sub> SK Mod - strong pervasive limonitic altered Q <sub>2</sub> -monzonite, increasing carbonate, silice stockwork with depth. 5-7% Pyrite, dissem. + fracture controlled - unoxidized Py at 50-52 m interval - & stronger oxidation near stockwork zone along lower contact.
56.5	72	ARGG	C <sub>1</sub> , S <sub>1-2</sub> SK Moderately graphitic argillite, weak to moderate quartz stockwork +/- minor carbonate veining Minor fracture controlled limonite from 62-66m
72		E.O.H	

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1567

Page 1 of 1

Logged by: C. Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	ARGG	$C_0, S_2$ SK
1.5	3.0	AQM	tr Py, $C_0, S_3, B_3, P_1$ SK
3.0	18	ARGG	$C_0, S_{1-2}$ SK
1.8	20	LQM	2% Lim, $C_0, S_3, B_{1-2}$ SK
20	26	ARG	tr Lim, $C_0, S_{2-4}$ SK
26	32	LAQM:	60% ARG, 5% Lim, 10% Py, $C_1, S_1, B_{2-3}, P_2$ SK (LAQM)
			$C_0, S_1$ SK (ARGG)
32	38	ARGG	$C_1, S_{2-3}$ SK
38	40	LAQM	2% Lim, 10% Py, $C_1, S_3, B_3, P_2$ SK
40	42	ARG	$C_2, S_2$ SK
42	45	LAQM	4% Lim, 8% Py, $C_0, S_2, B_3, P_2$ SK
45	52	ARGG	$C_3, S_2$ SK
52		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1567

Page 1 of 2

Logged by: C. Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	ARGG	<p style="text-align: right;">CO, S<sub>2</sub> SK</p> <p>Weakly argi graphitic argillite, moderate quartz stockwork, trace fracture controlled limonite</p>
1.5	3.0	AQM	<p style="text-align: right;">tr Py, Co, S<sub>3</sub> B<sub>3</sub>, P<sub>1</sub> SK</p> <p>Strong quartz stockwork in strongly altered quartz monzonite, tr-1% f. grained weakly oxidized Pyrite (disseminated), white to tan.</p>
3.0	18	ARGG	<p style="text-align: right;">Mod Co S<sub>1-2</sub> SK</p> <p>Moderately graphitic argillite, semi-massive, varying quartz stockwork, increasing to lower contact</p>
18	20	LQM	<p style="text-align: right;">2% Lim, Co, S<sub>3</sub>, B<sub>1-2</sub> SK</p> <p>Moderately pervasive limonite alteration, strong quartz stockwork, weakly altered biotite, weak argillic alteration</p>
20	26	ARG	<p style="text-align: right;">tr Lim, Co, S<sub>2-4</sub> SK</p> <p>Moderate quartz stockwork (strong near upper contact) in fine grained argillite, weak fracture + vein controlled limonite + pyrite (P<sub>1</sub>)</p>
26	32	LAQM	<p style="text-align: right;">60% ARGG, C<sub>1</sub>, S<sub>1</sub>, 10% Py, B<sub>2-3</sub>, P<sub>2</sub>, S<sub>3</sub> lim SK (LAQM), Co, S<sub>1</sub> SK (ARGG)</p> <p>Mixed limonitic mod-strongly altered quartz monzonite + weakly graphitic, quartz stockworked argillite, 10% Py across interval in LAQM, dissem. fine-medium grained; limonite pervasive Weak quartz stockwork in qz-monzonite</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1567

Page 2 of 2

Logged by: C. Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
32	38	ARGG	C <sub>1</sub> , S <sub>2-3</sub> SK Weakly graphitic argillite, increasing silica + minor carbonate stockworks towards lower contact. Minor fracture controlled limonite, minor LAQM from 34-36m.
38	40	LAQM	2% Lim, 10% Py, C <sub>1</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>2</sub> SK Strong quartz stockwork in alt. qz monzonite, pervasive limonite, dissem. f. grained mod. oxidized Pyrite, weak carbonate alteration
40	42	ARGG	C <sub>2</sub> , S <sub>2</sub> SK Moderately carbonate, silica stockwork in argillite, ~ 15% LAQM fragments
42	45	LAQM	4% Lim, 8% Py, C <sub>0</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK Moderate stockwork in the pervasive limonite altered qz-monzonite, 8% fine grained mod. oxidized pyrite, disseminated + weakly fracture controlled.
45	52	ARGG	C <sub>3</sub> , S <sub>2</sub> SK Moderate quartz + calcite stockwork in weakly graphitic argillite. Decreasing stockwork with depth
52		EOH	End of Hole

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 11548

Page 1 of 1

Logged by: C. Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	10	SLT <del>ARG</del>	C <sub>0</sub> , S <sub>1</sub> SK
10	20	LAQM	5% Lim, 1% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>2-3</sub> , P <sub>3</sub>
20	24.5	ARG	C <sub>0</sub> , S <sub>1</sub>
24.5	26	LAQM	5% Lim, 7% Py, C <sub>0</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub>
26	33.5	ARG <del>ARG</del>	C <sub>0</sub> , S <sub>3</sub> , SK (Minimal coarse fraction)
33.5	39	LAQM	5% Lim, 6% Py, C <sub>1-2</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1-2</sub> SK
39	43	ARG	C <sub>1</sub> , S <sub>2</sub> , tr Lim SK
43	44	LAQM	6% Lim, 8% Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK
44	80	ARG	C <sub>2-3</sub> , S <sub>0-2</sub> SK
80		EOH	End of hole

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1568

Page 1 of 2

Logged by: C. Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	10	SLT (ARCA?)	Co, S <sub>1</sub> SK Light-medium gray, finely laminated, finely grained siltstone (non-graphitic argillite?) Weak-moderate quartz stockwork, locally along lamination, poss. minor pervasive silicification
10	20	LAQM	5% Lim, 1% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>2-3</sub> , P <sub>3</sub> Mod. limonitic quartz monzonite, strongly altered biotite, some remnant, part. altered hornblende(?) Minor silica stockwork + carbonate alteration near lower contact. Minor (1-2%) Pyrite, fracture controlled, strongly oxidized. Minor bleached siltstone from 12-14m
20	24.5	ARG	Co, S <sub>1</sub> Med grey argillite, minor silica influx along fine laminations. Approx 30% of interval is light grey siltstone
24.5	26	LAQM	5% Lim, 7% Py, Co, S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub> Strongly limonitic quartz monzonite, pervasive limonite, 7% mod. oxidized med. grained - f. grained Pyrite, disseminated + somewhat fracture controlled
26	33.5	ARG (SLT?)	Co, S <sub>3</sub> SK Med grey, strong quartz stockwork in f. grained argillite - silty - Minimal coarse fraction from 26-32m
33.5	39	LAQM	5% Lim, 6% Py, C <sub>2-1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1-2</sub> SK Mod-strong pervasive limonite, fine grain disseminated Pyrite in med. quartz stockwork + monzonite

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC-1568

Page 2 of 2

Logged by: C. Schulze

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
			- somewhat increased limonite al. fractures
39	43	ARG <small>(SLT?)</small>	C <sub>1</sub> , S <sub>2</sub> , tr-Lim. SK Med. grey, finely fractured argillite, + strong quartz stockwork. Weak fracture controlled carbonate + limonite. Colour indicative of siltstone, fabric argillaceous.
43	44	LAQM	6 <sup>o</sup> Lim, 8 <sup>o</sup> Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK Strongly limonitic, pervasive, 8 <sup>o</sup> fr. grained, disseminated Pyrite, moderate quartz stockwork, carbonate alteration.
44	80	AR66	C <sub>2-3</sub> , S <sub>0-2</sub> SK Mod. graphitic argillite, variable weak-mod quartz ± carbonate stockwork. Fract controlled carbonate alt. high from 44-62m, then decreases. Minor LAQM From 68-70m + minor Pyrite
80	EOH		



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1569

Page 1 of 2

Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	AQM	tr Lim, 1% Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>2-3</sub> , P <sub>2</sub> Bleached altered quartz monzonite (limonite removed?) mod. pervasive silicification, 1% strongly oxidized pyrite; biotite strongly altered, locally only weakly so.
1.5	4	ARGG	C <sub>0</sub> , S <sub>3</sub> SK Strongly fractured, locally brecciated graphitic argillite, strong quartz stockwork.
4	7	AQM	tr Lim, tr Py, C <sub>0</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>3</sub> SK Bleached strongly altered quartz monzonite, tr limonite, oxidized pyrite. Strong biotite alteration only pseudomorphs remain. Strong quartz stockwork weak pervasive silicification.
7	18.5	LAQM	6% Lim, 2-10% Py, C <sub>0</sub> , S <sub>1</sub> , B <sub>2-3</sub> , P <sub>3</sub> SK Strong pervasive limonite altered quartz monzonite, variable amounts of dissem. + weakly fracture controlled fine-med. grained pyrite, weak manganese stain. Biotite strongly, though locally weakly altered weak silica stockwork.
18.5	24.5	ARGG	C <sub>0</sub> , S <sub>3</sub> SK strong silica stockwork in weakly graphitic argillite, local grey fragments (siltstone?)
24.5	34.5	LAQM	5% Lim, 8% Py, C <sub>0</sub> /C <sub>3</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK Strong pervasive limonite alteration in quartz monzonite, 5-12% dissem + fract controlled fine-very fine grained pyrite, weak quartz stockwork. Increased Py, lim from 32-34.5m, minor unaltered unoxidized material. Minor ARGG from 28-30m.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1569

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
34.5	50.0	ARGG	C3-2 S <sub>2-1</sub> SK
			Moderately graphitic argillite, med quartz + carbonate stockwork, weak <sup>semi-</sup> pervasive carb alteration trace fracture controlled limonite. Decreased Qz stockwork, increased carbonate alteration with depth
50.0		EDH	

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 157C

Page 1 of     

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
0	7	ARGG	Co, Si SK
7	8.5	LAQM	2% Lim, 2% Py, Co, So, B2-3, P2
8.5	12	ARGG	Co, So
12	16	LAQM	2% Lim, 1% Py, Co, S2, B3, P2 SK
16	32	ARGG	Co, Si SK
32	45	LAQM	4% Lim, 8% Py, C2, S1, B3, P2 SK
45	54	ARGG	Co, Si, tr Lim SK
54		EOH	

NB. 2m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1570

Page 1 of 1

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	7	AROC	Co, S <sub>1</sub> SK Weakly graphitic argillite, fine grained, weak quartz stockwork
7	8.5	LAQM	2 <sup>o</sup> Lim, 2 <sup>o</sup> Py, Co, So, B <sub>2-3</sub> , P <sub>2</sub> Weakly, variably limonite stained mod. altered quartz monzonite (indiv. grains are uniformly limonitic). 2 <sup>o</sup> mod. oxidized fine grained disseminated Pyrite. Biotite mod - strongly altered.
8.5	12	AROC	Co, So Fine grained, mod. foliated, argillite, very weak quartz stockwork from 8.5-10m; minor chlor. alteration along fractures.
12	16	LAQM	2 <sup>o</sup> Lim, 1 <sup>o</sup> Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK Weak - mod limonitic alteration (preferential) in weakly foliated (?) quartz monzonite, mod quartz stockwork; 1 <sup>o</sup> dissem. mod oxidized fig. Pyrite, strong biotite alteration of biotites. Laminated appearance reminiscent of siltstone.
16	32	AROC	Co, S <sub>1</sub> SK Weak - moderately graphitic argillite, increasing graphite with depth. weak silica stockwork, trace fracture controlled limonite. From 26-32m
32	45	LAQM	4 <sup>o</sup> Lim, 8 <sup>o</sup> Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK Mod. limonitic (premixed) altered. quartz monzonite, 7-10% dissem. Py; weak fracture association, fine grained. Strong alt. of biotite; minor remnant hornblende. weak quartz stockwork development. Variable oxidation of Pyrite, local unoxidized grains

NB: 2 m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1570

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
45	54	ARGG	tr Lim, Co, Si SK
			Weakly graphitic argillite, weakly foliated, weak silica stockwork. Trace fracture controlled limonite near upper contact
54		EDH	

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1571

Page 1 of 1

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	LAQM	1% Lim, 3% Py, Co, S <sub>3</sub> , B <sub>3</sub> , P <sub>3</sub> SK
1.5	5.0	ARG	Co, S <sub>2</sub> SK
5.0	9.0	LAQM	4% Lim, 5% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK
9.0	19	ARG	Co, S <sub>2</sub> SK
19	20	LAQM	4% Lim, 4% Py, Co, S <sub>1</sub> , B <sub>2-3</sub> , P <sub>3</sub>
20	26	LQM	2% Lim, tr Py, Co, S <sub>0</sub> , P <sub>2</sub> SK
26	34	LAQM	3% Lim, 3-8% Py, C <sub>3</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
34	50	ARG	Co, S <sub>1-2</sub> , tr Lim SK
50	64	LAQM	3% Lim, 7% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1-2</sub> SK
64	74	ARG	C <sub>3</sub> , S <sub>2</sub> SK
74		EOH	

\* 2m. of excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1571

Page 1 of 2

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	LAQM	1% Lim, 3% Py, Co, S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> SK Weakly limonitic, fracture related + weakly pervasive quartz monzonite. 3% strongly oxidized pyrite, dissem + fracture controlled. Strongly quartz stockwork, possibly bleached.
1.5	5.0	ARG	Co, S <sub>2</sub> SK Moderate quartz stockwork in moderately fractured, locally laminated argillite.
5.0	9.0	LAQM	4% Lim, 5% Py, Co, S <sub>1</sub> , B <sub>2</sub> , P <sub>2</sub> SK Mod-strong pervasive + fracture controlled limonite in altered quartz monzonite. 5% strongly oxidized fine grained disseminated pyrite. Weak fine quartz stockwork. Fine stockwork controlled pyrite.
9.0	19	ARG	Co, S <sub>2</sub> SK Weakly graphitic argillite, weak quartz stockwork, trace limonite from 14-16m
19	20	LAQM	4% Lim, 4% Py, Co, S <sub>1</sub> , B <sub>2-3</sub> , P <sub>2</sub> Mod limonitic (pervasive) quartz monzonite, 4% dissem. pyrite, f. grained, strongly oxidized. Pyrite <sup>biotite</sup> med-strongly oxidized
20	26	LQM	2% Lim, tr Py, Co, S <sub>2</sub> , B <sub>1</sub> , P <sub>2</sub> Pervasive, weakly limonitic quartz monzonite, ~20% unaltered to weakly altered biotite, trace med. oxidized pyrite
26	34	LAQM	3% Lim, 3-8% Py, Co, S <sub>1</sub> , B <sub>2</sub> , P <sub>2</sub> Moderate pervasive limonite alteration, varying weakly-med. oxidized pyrite concentration, dissem.

\* 2 m. of excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1571

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			fine-medium grained, Strongly <del>oxi</del> altered biotite, mod-strong carbonate alteration, fairly pervasive, weak silica stockwork. weakly altered biotite from 33-34 m
			40% ARGG from 26-28 m.
34	50	ARGG	C <sub>0</sub> , S <sub>1-2</sub> , tr lim SK Moderately graphitic, weakly foliated fine grained argillite. Trace fracture controlled limonite from 34-40 m, weak to moderately developed quartz stockwork.
50	64	LAQM	3% Lim, 7% Py → C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1-2</sub> SK Weakly-mod limonitic quartz monzonite. Pervasive, varies across interval: 3-4% from 50-54 m, 1% from 54-58 m; 6% from 58-60 m 3% from 60-64 m. 4-8% fine grained disseminated Py, almost unoxidized where weakly limonitic, mod. oxidized where more limonitic. Weak-moderate silica stockwork weak carbonate alteration. Biotite strongly altered, weakly so from 50-52 m. 30% ARGG from 52-54 m, 25% from 58-62 m
64	74	ARGG	C <sub>3</sub> , S <sub>2</sub> SK Mod. <del>non</del> graphitic argillite, moderate quartz (+ carbonate?) stockwork, mod-strong carbonate alteration
74		EOH	

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 1572

Page 1 of 1

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	NONE	No recovery - casing not attached to shoe
2	8	LAQM	3% Lim, 2% Py, Co, S <sub>0-1</sub> , P <sub>3-2</sub> , P <sub>3</sub>
8	12	LQM	3% Lim, tr-2% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>1-2</sub> , P <sub>2</sub>
12	14	LAQM	3% Lim, 4% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>2-3</sub> , P <sub>3</sub>
14	16	ARF	Co, S <sub>1</sub>
16	18	LAQM	3% Lim, 5% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>1-3</sub> , P <sub>11</sub> , 50:50 LQM SK
18	36	AR66	Co, S <sub>2</sub>
36	38	LQM	3% Lim, 5% P <sub>2</sub> , C <sub>1</sub> , S <sub>1</sub> , B <sub>1</sub> , P <sub>2</sub>
38	47	LAQM	1-4% Lim, 8% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
47	53	AR66	C <sub>1</sub> , S <sub>2</sub> SK
53	57	LAQM	3% Lim, 10% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub>
57	69	AR66	Co-1, S <sub>3</sub> SK
69	76	LAQM	3% Lim, 4% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
76		EOH	EOH - drill steel stuck

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1572

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	NONE	No recovery - casing not attached to shoe
2	8	LAQM	3% Lim, 2% P, C <sub>2</sub> , S <sub>1</sub> , B <sub>2-3</sub> , P <sub>3</sub> Increasingly limonitic pervasive limonitic alteration to 8m of quartz monzonite, 1-3% fine grained, disseminated + fracture controlled pyrite. Biotite strongly altered, weak silica influx.
8	12	LQM	3% Lim, tr-2% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>1-2</sub> , P <sub>2</sub> Similar to LAQM from 2-8m, biotite weakly altered, tr-2% mod oxidized pyrite. Locally stronger biotite alteration, mod. carbonate alt, weak silica stockwork.
12	14	LAQM	3% Lim, 4% P, C <sub>3</sub> , S <sub>1</sub> , P <sub>3</sub> , B <sub>2-3</sub> , SK Similar to LAQM from 2-8m, med-strong biotite alteration, 4% fracture controlled oxidized pyrite, minor dissem. pyrite.
14	16	ARG	C <sub>2</sub> , S <sub>1</sub> Grey, weakly laminated, argillite, weak quartz stockwork.
16	18	LAQM: LQM (50:50)	50:50 LQM, 5% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>1-3</sub> , P <sub>1</sub> , SK Mixed - biotite-monzonite + altered quartz monzonite, both weak-moderately limonitic. 5% f.gr. dissem. pyrite, weakly oxidized, in LAQM. Moderate carbonate, weak silica alteration, weak quartz stockwork.
18	36	ARG-G	C <sub>2</sub> , S <sub>2</sub> , SK Weakly-moderately graphitic, weakly laminated argillite, moderate, variable quartz stockwork. Trace fracture controlled limonite 30-36 m.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1572

Page 2 of 3

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
36	38	LQM	3% Lim, 5% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>1</sub> , P <sub>2</sub> Med. pervasive limonite alteration of Quartz-Biotite Monzonite. = 25% Biotite, 5% dissemin. fine grained Pyrite. Weak carbonate alteration, silica stockworks.
38	47	LAQM	1-4% Lim, 8% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK Variable, pervasive limonite altered quartz monzonite. 4-10% weakly-moderately altered, fine grained, disseminated Pyrite. Weak carbonate alteration + silica stockwork. From 38-42m <del>redox</del> very weak limonitic alt, pyrite almost unoxidized, strongly altered biotite. 70:30 ratio LAQM:ARW from 42-47m.
47	53	ARW	C <sub>1</sub> , S <sub>2</sub> SK Mod. argi graphitic argillite, moderate quartz stockworks, weak carbonate alteration from 47-50m.
53	57	LAQM	3% Lim, 10% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> Moderately pervasively limonitic quartz monzonite 10% weakly-med. fine grained, disseminated Pyrite. Weak-moderate carbonate alteration, strongly altered biotite.
57	69	ARW	C <sub>0-1</sub> , S <sub>2</sub> SK Mod. graphitic argillite, strong quartz stockwork, weak intermittent carbonate alter. Weak <sup>local</sup> pervasive silica influx

**LOKI GOLD CORPORATION**

**LITHOLOGY LOG**

HOLE-ID: RC 1572

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Logged by: C. Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
69	76	LAQM	3% Lim, 4% Py $CO_2$ , $Si$ , $B_3$ , $P_2$ SK Mod pervasive limonite alteration of Qtz-monzonite, 2-5% fine grained, mod. oxidized dissemin. + fracture controlled pyrite, strong biotite alteration of biotite. Local <sup>minor</sup> weakly altered biotite from 72-74m, with hornblende. Mod. carb alteration from 74-76m, weak quartz stockwork to 74m.
76m	EOH		Drill steel stuck - EOH

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1573

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
0	6	LAQM	5% Lim, 4% Py, Co, S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub>
6	10	ARM	tr Lim, tr Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK
10	14	ARGG	Co S <sub>2</sub> SK
14	17	LAQM	6% Lim, 6% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK
17	21.5	ARGG	Co, S <sub>3</sub> SK
21.5	25.5	LAQM	5% Lim, 9% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK
25.5	62.0	ARGG	Co, S <sub>1-0</sub> tr Lim. SK
			<del>Modestly graphitic weakly foliated argillite with local carbonate alteration &amp; weak silica stockwork from 42-62m. Trace fracture controlled limonite from 50-62m</del>
62.0		EOH	END OF HOLE

\* 1 m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1573

Page 1 of 2

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	6	LAQM	5% Lim, 4% Py, C <sub>0</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub> Moderately pervasive limonite, strong line along fractures, in alt. qz monzonite. 4-6% fine grained strongly oxidized pyrite, disseminated
6	10	AQM	tr Py, tr Lim, C <sub>0</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK Mixture of ≈ 30% ARG-G, 20% LAQM, 50% AQM AQM: Strongly altered qz-monzonite, strong alt. of biotite, trace dissem. oxidized Pyrite, trace scorodite indicating arsenopyrite. Weak quartz stockwork. LAQM similar to that from 0-6m; ARG-G grey-black, mod. stockworked
10	14	ARG-G	C <sub>0</sub> , S <sub>2</sub> SK Moderately graphitic weakly foliated argillite, strong quartz stockwork
14	17	LAQM	6% Lim, 6% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK Strong pervasive limonite alt, stronger along fractures in alt. quartz monzonite. 6-7% fine grained disseminated weak-moderately oxidized pyrite, weak carbonate alterations mod-strong silica stockwork.
17	21.5	ARG-G	C <sub>0</sub> , S <sub>3</sub> SK Strong quartz stockwork, weakly graphitic argillite. Trace fracture controlled pyrite
21.5	25.5	LAQM	5% Lim, 9% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK Moderate pervasive, strong fracture controlled limonite alteration of alt qz monzonite Biotite nearly destroyed, 9-10% mod-strongly oxidized pyrite, local unoxidized fragments

\* 1 m excavated



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC-1574

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVB	Overburden (1 m. fill)
2	4	LAQM	3% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub>
4	7	ARGL	tr Py, C <sub>0</sub> , S <sub>2</sub> , P <sub>3</sub> SK
7	11	LAQM	3% Lim, 3% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>2-3</sub> , P <sub>3</sub>
11	14.5	SLT:	SLT: 1% Lim, C <sub>0</sub> , S <sub>0</sub> 60:40 ARGL
			ARGL: tr Lim, C <sub>0</sub> , S <sub>1</sub> SK
14.5	26.0	LAQM	14.5-20.0 : 3% Lim, 8% Py, C <sub>0</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub> 20.0-26.0 : 4% Lim, 10% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub>
26.0	28.0	ARGL	tr Lim, C <sub>1</sub> , S <sub>1</sub> SK
28.0	31.5	LAQM	4% Lim, 8% Py, C <sub>3</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub>
31.5	34.0	ARGL	tr Lim, C <sub>1</sub> , S <sub>0</sub>
34.0	36.0	ARGL:	tr Lim, C <sub>0</sub> , S <sub>2</sub> , SK 50:50 LAQM (ARGL)
			2% Lim, 1% Py, C <sub>0</sub> , S <sub>4</sub> , B <sub>3</sub> , P <sub>3</sub> SK (LAQM)
36.0	60.0	ARGL	C <sub>0</sub> , S <sub>1</sub> SK
60.0		EOW	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1574

Page 1 of 3

Logged by: Carl Schulz

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden (1 m fill)
2	4	LAQM	3% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub> Moderate, pervasive limonite, stronger along fracture planes, in strongly altered qz-biotite monzonite. 5% disseminated, <del>at</del> med-fine grained, strongly oxidized pyrite. Moderate carbonate alteration.
4	7.0	ARG	tr Py, Co, S <sub>2</sub> , P <sub>3</sub> SK Argillite, strong-moderate quartz stockworks, trace limonite along fractures.
7	11.0	LAQM	3% Lim, 3% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>2-3</sub> , P <sub>3</sub> Moderate, pervasive limonite within strongly altered quartz-biotite monzonite, 3% fine grained, disseminated, strongly altered oxidized pyrite. Variable carbonate alteration, strongest from 8-10m. 8-10m: 25% bleached ARG, tr limonite 20% LAQM - unaltered qz-biotite monzonite + 3% limonite.
11	14.5	SLT	SLT: 1% Lim, Co, S <sub>0</sub> 60:40 ARG-G ARG-G: tr Lim, Co, S <sub>1</sub> SK 60:40 mixture of SLT: ARG-G SLT: 1% foliation controlled + disseminated pervasive limonite in weakly foliated siltstone. ARG-G: Weakly graphitic argillite, trace fine fracture controlled limonite, weak quartz stockworks.
14.5	26.0	LAQM	14.5-20m: 3% Lim, 8% Py, Co, S <sub>0</sub> , B <sub>2</sub> , P <sub>3</sub> 20-26m: 4% Lim, 10% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>2</sub> , P <sub>3</sub>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1574

Page 2 of 3

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Moderate, pervasive limonite, increasing with depth in strongly altered quartz-biotite monzonite. ~9% fine grained disseminated pyrite, strongly oxidized - decreasing oxidation with depth. Moderate carbonate alteration.
26.0	28.0	AR6b	From 20-26m. Minor LAQM from 14-18m to Lim, C <sub>1</sub> , S <sub>1</sub> SK Weakly graphitic argillite, weak carbonate alteration, weak silica stockwork, trace fracture controlled limonite.
28.0	31.5	LAQM	4% Lim, 8% Py, C <sub>3</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub> Strong pervasive limonite in strongly oxidized altered quartz-biotite monzonite. 8% fine grained disseminated + fracture controlled strongly oxidized pyrite. Strong carbonate alteration.
31.5	34.0	AR6b	to Lim, C <sub>1</sub> , S <sub>0</sub> Grey argillite, weak carbonate alteration, trace fracture controlled limonite.
34	36	AR6b	AR6b: to Lim, C <sub>0</sub> , S <sub>2</sub> , SK 50:50 LAQM LAQM: 2% Lim, 1% Py, C <sub>0</sub> , S <sub>4</sub> , B <sub>3</sub> , P <sub>3</sub> , SK Equal mixture of weakly graphitic argillite, moderate quartz stockwork (AR6b), and strongly altered weakly limonitic quartz-biotite monzonite (LAQM), with very strong quartz stockwork. 1% fine grained, disseminated, strongly oxidized pyrite in LAQM. -probably represents small unit of brecciated LAQM



# LOKI GOLD CORPORATION LITHOLOGY LOG

HOLE-ID: RC 1575

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	8	ARLW	fr Lim, Co, S <sub>2</sub> SK
8	10.5	LQRM	3% Lim, Co, So, B <sub>1-2</sub>
10.5	17.5	LAQM	4% Lim, 5% Py, Co, So, B <sub>2-3</sub> , P <sub>3</sub>
17.5	20.0	LQRM	2% Lim, Co, So, B <sub>1</sub>
20.0	22.0	ARLW	fr Lim, Co, So
22.0	24.0	<sup>SLT!</sup>	SLT: 1% Lim, Co, So 60:40 ARLW
			ARLW: fr Lim, Co, So
24.0	36.0	LAQM	4% Lim, 8% Py, C <sub>2</sub> , So, B <sub>3</sub> , P <sub>3</sub>
36.0	38.0	<del>LQRM</del>	LQM: 3% Lim, C <sub>2</sub> , So, B <sub>1</sub> 60:40 LAQM
			LAQM: 3% Lim, 2% Py, C <sub>3</sub> , So, B <sub>3</sub> , P <sub>3</sub>
38.0	50.0	LAQM	38-46m: 3% Lim, 9% Py, C <sub>1</sub> , So, B <sub>2</sub> , P <sub>2</sub>
			46-50m: 2% Lim, 5% Py, Co, S <sub>3</sub> , B <sub>3</sub> , P <sub>2</sub> partial SK
50.0	64	ARLW	Co, S <sub>1</sub> SK
64		EOH	END OF HOLE - rods tight

0.5 m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1575

Page 1 of 3

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	8	ARGG	tr Lim, Co, S <sub>2</sub> SK Weakly graphitic argillite, moderate quartz fracture controlled stockwork. Fine quartz limonite enriched fracture system.
8	10.5	LQM	3% Lim, Co, So, B <sub>1-2</sub> Moderate pervasive limonite in quartz-biotite monzonite, weakly altered to unaltered biotite. Minor LAQM, trace pyrite
10.5	17.5	LAQM	4% Lim, 5% Py, Co, So, B <sub>3</sub> , P <sub>3</sub> Strong-moderate pervasive limonite within strongly altered qz-biotite monzonite. Minor unaltered biotite throughout. 5% fine grained, disseminated + fracture controlled pyrite, strongly oxidized. 12-14m: 20% ARGG (small unit?)
17.5	20.0	LQM	2% Lim, Co, So, B <sub>1</sub> Weak pervasive limonite in qz-biotite monzonite, minor LAQM. Unoxidized equivalent of 10.5-17.5m LAQM interval?
20.0	22.0	ARGG	tr Lim, Co, So Argillite, weakly bleached?, trace fine fracture controlled limonite
22.0	24.0	SLT	SLT: 1% Lim, Co, So 60:40 ARGG ARKK: tr Lim, Co, So 60:40 mixture of SLT:ARKK: siltstone is weakly foliated, 1% fracture controlled + laminated limonite. ARGG is weakly graphitic, trace limonite along fine fractures.

0.5m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1575

Page 2 of 3

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
24.0	36.0	LAQM	<p>SCT may be weakly bleached, limonitic argillite</p> <p>4% Lim, 8% Py, C<sub>2</sub>, S<sub>0</sub>, B<sub>3</sub>, P<sub>3</sub></p> <p>Strong, pervasive limonite, slightly stronger along fractures, in strongly altered qz-biotite monzonite. Weak limonite from 28-31m, assoc. with ≈ 3% strongly oxidized disseminated, med. grained pyrite. Elsewhere, 6-10% fine grained disseminated strongly oxidized pyrite, less oxidized from 32-36m. Moderate carbonate alteration, strong from 30-32m. Local, weak quartz stockworks. Minor LQM from 34-36m</p>
36.0	38.0	LQM	<p>LQM: 3% Lim, C<sub>2</sub>, S<sub>0</sub>, B<sub>1</sub></p> <p>LAQM: 3% Lim, 2% Py, C<sub>3</sub>, S<sub>0</sub>, B<sub>3</sub>, P<sub>3</sub></p> <p>LQM:LAQM 60:40. Mixed quartz biotite monzonite, moderate pervasive limonite (LQM) and moderately, pervasively limonitic strongly altered qz-biotite monzonite (LAQM)</p> <p>2% fine grained, disseminated, strongly oxidized pyrite, difficult to distinguish, in LAQM. Med. carbonate alteration of LQM, strong in LAQM. Minor green mica in LQM</p>
38.0	50.0	LAQM	<p>3% Lim, 9% Py, C<sub>1</sub>, S<sub>0</sub>, B<sub>3</sub>, P<sub>2</sub> (38-46m)</p> <p>2% Lim, 5% Py, C<sub>0</sub>, S<sub>3</sub>, B<sub>3</sub>, P<sub>2</sub> (46-50m)</p> <p>Moderate pervasive limonite, weak from 46-50m, in strongly altered qz-biotite monzonite. Strong silicification from 46-50m, weak quartz stockworks. 7-12% disseminated + lesser fracture controlled med. oxidized pyrite, 2% from 48-50m</p>



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1576

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
0	23	ARLV	0-12m: Co, So 12-18m: Co, S <sub>3</sub> SK 18-23: Co, S <sub>1</sub>
23	26	LQM	3% Lim, Co, So, B <sub>1</sub>
26	28	LAQM	LAQM: 3% Lim, 8% Py, Co, So, B <sub>3</sub> , P <sub>3</sub> 60:40 ARLV ARLV: tr Lim, Co, S <sub>1</sub> SK
28	32	LAQM	3% Lim, 4% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub>
32	35	LQM	2% Lim, C <sub>2</sub> , So, B <sub>1</sub>
35	38	ARLV	tr Lim, Co, So
38	49	LAQM	38-40m: 2% Lim, 8% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> 40-46m: 2% Lim, 3% Py, C <sub>2</sub> , So, B <sub>2-3</sub> , P <sub>2</sub> 46-49m: 3% Lim, 8% Py, C <sub>2</sub> , So, B <sub>3</sub> , P <sub>2</sub>
49	51	ARLV	tr Lim, Co, S <sub>1</sub> SK
51	66	LAQM	2% Lim, 7% Py, C <sub>1</sub> , So, B <sub>3</sub> , P <sub>3</sub>
66	70	LAQM	LAQM: 3% Lim, 9% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> 80:20 ARLV ARLV: tr Py, Co, S <sub>1</sub>
70	76	ARLV	tr Lim, Co, S <sub>2</sub> SK
76		EOH	END OF HOLE

1m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1576

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	23	ARW	0-12m: Co, So 12-18m: Co, S3 SK 18-23m: Co, S1 Weakly limonitic argillite, strong quartz stockwork from 12-18m, weak stockwork from 18-23m
23	26	LQM	3% Lim, Co, So, B1 Mod-pervasive limonite within quartz-biotite monzonite. Minor LAQM + fracture controlled limonite from 23-24m
26	28	LAQM:	LAQM: 3% Lim, 8% Py, Co, So, B3, P3 60:40 ARGG ARW + tr Lim, Co, S1 SK LAQM: ARW 60:40. Moderate pervasive limonite in strongly altered qz-biotite monzonite, 8% disseminated + fracture controlled, fine grained, strongly oxidized pyrite. ARW: weakly graphitic argillite, weak fracture controlled - quartz stockwork. Minor unaltered qz-biotite monzonite (can)
28	32.0	LAQM	3% Lim, 4% Py, C1, S1, B3, P3 Moderate, pervasive limonite in strongly altered qz-biotite monzonite, 4% Fine grained disseminated + fracture controlled pyrite, strongly oxidized. Weak carbonate alteration, fine quartz/silica stockwork. 30-32m: 20% ARGG, minor LQM (unaltered)
32.0	35.0	LQM	2% Lim, C1, So, B1 Weak pervasive limonite in unaltered quartz-monzonite biotite monzonite. Weak

1m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC - 1576

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			carbonate alteration.
			34-35m: 25% LAQM, 6% fine grained dissem pyrite, mod. oxidized
35	38	ARB	tr Lim, Co, So Argillite, grey-black, trace fracture controlled limonite
38	49	LAQM	38-40m: 2% Lim, 8% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> 40-46m: 2% Lim, 3% Py, Co, S <sub>2</sub> , B <sub>2-3</sub> , P <sub>2</sub> 46-49m: 3% Lim, 8% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> Weak-moderate pervasive limonite in strongly altered quartz-biotite monzonite. Moderate-stony alteration from 40-46m, some pyrite after biotite with 2-4% fine grained, disseminated, moderately oxidized pyrite, and moderate carbonate alterat. Elsewhere, 8% disseminated, fine grained, moderately oxidized pyrite, mod. carb alteration, none from 38-40m.
49	51	ARBK	tr Lim, Co, S <sub>1</sub> SK Weakly graphitic argillite, weak quartz stochol trace fracture controlled limonite
51	66	LAQM	2% Lim, 7% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub> Weak-moderate pervasive limonite in strongly altered qz-biotite monzonite, 5-9% fine grained locally sub-grained, disseminated, strongly oxidized pyrite, weak carbonate alteration, moderate from 62-66m.
66	70	LAQM: ARBK:	LAQM: 3% Lim, 9% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> 80:20 ARGG ARBK: tr P <sub>3</sub> , Co, S <sub>1</sub>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC-1576

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Logged by: Carl Schuizer

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			LAQM:ARUC 80:20: Moderate limonite, pervasive, within strongly altered qz-biotite mesonite (LAQM) mixed with weakly graphitic argillite with weak quartz stockworks, qz fine grained, disseminated, some weak-moderately oxidized pyrite in LAQM, with weak silica stockwork.
70	76	ARUC	to Lim, Co, S <sub>2</sub> Sb weakly graphitic argillite, strong quartz stockwork near contact, decreasing with depth. weak limonite along fine fractures, strongest from 74-76m
76		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1577

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Logged by: Carl Schuber

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
0	22.5	ARLV	tr Lim, Co, Si SK
22.5	29.0	LAQM	3% Lim, 3% Py, Co, So, B <sub>3</sub> , P <sub>3</sub>
29.0	31.0	ARLV	tr Lim, Co, Si
31.0	32.0	LAQM	4% Lim, 7% Py, Co, So, B <sub>3</sub> , P <sub>3</sub>
32.0	34.0	ARLV:	ARLV: Co, S <sub>2</sub> SK 60:40 SLT
			SLT: tr Lim, Co, So
34.0	40.0	ARLV:	ARLV: tr Lim, Co, So/S <sub>2</sub> 75:25 LAQM
			LAQM: 4% Lim, 5% Py, Co, Si, B <sub>3</sub> , P <sub>2</sub>
40.0	42.0	LQM	3% Lim, tr Py, Co, Si, B <sub>1</sub> , P <sub>2</sub>
42.0	44.5	LAQM	3% Lim, 3% Py, Co, So, B <sub>3</sub> , P <sub>2</sub>
44.5	48.0	LQM	2% Lim, Co, So, B <sub>1</sub>
48.0	51.5	LAQM	3% Lim, 2% Py, Co, So, B <sub>2-3</sub> , P <sub>3</sub>
51.5	60	SH	tr Lim, Co, So
60		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1577

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	22.5	AR66	tr Lim, Co, S, SK Weakly graphitic argillite, weakly limonite, strongest from 10-12m, and 18-23m, near contact limonite fracture controlled. Weak-moderate, variable quartz stockwork, strongest from 4-8m.
22.5	29.0	LAQM	3% Lim, 3% Py, Co, So, B <sub>2</sub> , P <sub>2</sub> Moderate, pervasive limonite (*strong fracture controlled limonite from 22-24m) in strongly altered qz-biotite monzonite. 3-5% fine grained, disseminated, strongly oxidized pyrite, some remnant boxwork
29.0	31.0	AR66	tr Lim, Co, S Weakly graphitic argillite, trace fracture controlled limonite. Trace fine silica stockwork.
31.0	32.0	LAQM	4% Lim, 7% Py, Co, So, B <sub>2</sub> , P <sub>2</sub> Strong pervasive limonite in strongly altered qz-biotite monzonite. 7% disseminated, strongly oxidized, fine grained pyrite, minor pyrite boxwork.
32.0	34.0	AR66: SLT	AR66: Co, S <sub>2</sub> SK 60:40 SLT SLT: tr Lim, Co, So AR66:SLT 60:40. Mixture of weakly graphitic argillite (AR66) with strong quartz stockwork, and weakly laminated siltstone (SLT) with trace limonite
34.0	40.0	AR66: LAQM	AR66: tr Lim, Co, So, S <sub>2</sub> 75:25 LAQM LAQM: 4% Lim, 5% Py, Co, S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> AR66:LAQM 75:25 AR66: Mixture

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 1577

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Logged by: Carl Schutze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			of weakly graphitic argillite (ARG), trace fracture controlled limonite + strong silica stockwork from 32-34m; and strongly, pervasively limonitic, altered quartz-biotite monzonite. Minor SLT from 34-36m.
40.0	42.0	LQM	In LQM, 5% disseminated, fine grained, moderately oxidized pyrite. 3% Lim, tr Py, Co, S <sub>1</sub> , B <sub>1</sub> , P <sub>2</sub>
			Moderate, pervasive limonite in weakly altered quartz-biotite monzonite. Trace moderately oxidized pyrite. Minor LAQM, ~20% ARG.
42.0	44.5	LAQM	3% Lim, 3% Py, Co, S <sub>0</sub> , B <sub>2</sub> , P <sub>2</sub>
			Moderate, pervasive limonite in strongly altered quartz-biotite monzonite, 3% very fine grained, moderately oxidized, disseminated pyrite.
44.5	48.0	LQM	3% Lim, Co, S <sub>1</sub> , B <sub>1</sub>
			Weak, pervasive limonite in quartz-biotite monzonite, weak quartz stockwork from 44.5-46m
48.0	51.5	LAQM	3% Lim, 2% Py, Co, S <sub>0</sub> , B <sub>2-3</sub> , P <sub>3</sub>
			Moderate, pervasive limonite in mod-strongly altered quartz-biotite monzonite. 2% fine grained disseminated + fracture controlled moderately - strongly oxidized pyrite. Minor but pervasive LQM from 50-51.5m
51.5	60	SH	tr Lim, C <sub>3</sub> , S <sub>0</sub>
			Mat. grey, moderately foliated shale, weak laminae controlled limonite; very strong semi-pervasive carbonate alteration.

60

EOH END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1578

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	LAQM	2% Lim, 6% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub>
2	4	LQM	1% Lim, C <sub>0</sub> , S <sub>1</sub> , B <sub>1</sub> SK
4	9	LAQM	3% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub>
9	13.5	LQM	1% Lim, C <sub>3</sub> , S <sub>0</sub> , B <sub>1</sub>
13.5	22.0	LAQM	3% Lim, 4% Py, C <sub>3</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub>
22.0	24.0	LAQM:	LAQM: 2% Lim, 2% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>2</sub> , P <sub>1</sub> 50:50 AQM
			AQM: C <sub>1</sub> , S <sub>0</sub> , B <sub>2</sub>
24.0	33.0	LAQM	3% Lim, 3% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2-1</sub>
33.0	34.0	ARLV	C <sub>3</sub> , S <sub>4</sub> SK
34.0	42.0	LAQM	3% Lim, 4% Py, C <sub>3</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub>
42.0	46.5	SLT:	SLT: tr Lim, 1% Py, C <sub>0</sub> , S <sub>1</sub> , P <sub>1</sub> 70:30 LAQM
			LAQM: 3% Lim, 5% Py, C <sub>0</sub> , S <sub>2</sub> , B <sub>3</sub>
46.5	53.5	ARLV	C <sub>0</sub> , S <sub>3</sub> SK
53.5	56.0	ARLV:	ARLV: tr Lim, C <sub>0</sub> , S <sub>3</sub> SK 60:40 LAQM
			LAQM: 3% Lim, 2% Py, C <sub>0</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>2</sub> SK
56.0	58.0	LAQM:	LAQM: 3% Lim, 4% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub> 60:40 LQM
			LQM: 2% Lim, C <sub>1</sub> , S <sub>0</sub> , B <sub>1</sub>
58.0	61.5	LAQM	4% Lim, 4% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
61.5	66	ARLV	C <sub>0</sub> , S <sub>0</sub>
66		EOH	End of hole

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1578

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	LAQM	2% Lim, 6% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> Weak, pervasive limonite (bleached?) in strongly altered quartz monzonite, 6% fine grained, fracture controlled, strongly oxidized pyrite, weak carb, moderate silica stockwork.
2	4	LQM	1% Lim, C <sub>0</sub> , S <sub>1</sub> , B <sub>1</sub> SK Weak, pervasive limonite in quartz biotite monzonite, weak quartz stockwork?
4	9	LAQM	3% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>2</sub> , P <sub>2</sub> Moderate, pervasive limonite in strongly altered quartz-biotite monzonite, 5% fine grained fracture controlled and disseminated pyrite, mod. oxidized. Strong-moderate carbonate alteration. Minor AQM, no limonite, unoxidized pyrite.
9	13.5	LQM	1% Lim, C <sub>3</sub> , S <sub>0</sub> , B <sub>1</sub> Very weak, pervasive limonite in quartz-biotite monzonite. Strong carbonate alteration, minor LAQM.
13.5	22	LAQM	3% Lim, 4% Py, C <sub>3</sub> , S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> Moderate, pervasive limonite in strongly altered quartz-biotite monzonite. 2-7%, variable concentrations, of pyrite, moderately oxidized, decreasing oxidation with depth. Fine grained, disseminated. Strong carbonate alteration, moderate-strong silica pervasive-silica influx.
22	24	LAQM1	LAQM: 2% Lim, 2% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>2</sub> , P <sub>1</sub> 50:50 AQM AQM: C <sub>1</sub> , S <sub>0</sub> , B <sub>2</sub>

0.5 m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1578

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Logged by: Carl Schuler

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Equal mixture of moderately altered quartz biotite monzonite (AQM) and weakly pervasively limonitic moderately <del>ex</del> altered quartz monzonite (LAQM). Considerable mod. altered remnant biotite. In LAQM, 2% fine grained, disseminated weakly oxidized pyrite, moderate carbonate alteration, weak pervasive silicification. AQM: weak carbonate alteration.
24.0	33.0	LAQM	3% Lim, 3% Py, C <sub>3</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2-1</sub> Moderate, pervasive limonite within strongly altered quartz-biotite monzonite. 1-3% moderately oxidized, fine grained, disseminated pyrite. From 24-32m, 6% weakly oxidized similar pyrite from 32-33m. Moderate carbonate alteration, weak silicification.
33.0	34.0	ARGC	C <sub>3</sub> , S <sub>4</sub> SK Weakly graphitic argillite, strong carbonate + silica stockwork. Brecciated (?) - fault?
41.0	42.0	LAQM	3% Lim, 4% Py, C <sub>3</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> Moderate, pervasive limonite within strongly altered quartz biotite monzonite. 2-6% Pyrite, variable concentrations, fine grained, disseminated, mod-strongly oxidized. Strong carbonate alteration, weak pervasive silicification.
42.0	46.5	SLT:	SLT: to lim, 1% Py, C <sub>0</sub> , S <sub>1</sub> , P <sub>1</sub> 70:30 LAQM LAQM: 3% Lim, 5% Py, C <sub>0</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SLT: LAQM 70:30: Mixture of grey, weakly foliated + laminated siltstone (SLT) minor quartz.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1578

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			stockwork from 44-46.5m and strongly, pervasively limonitic strongly altered quartz-biotite monzonite. 2-7% Pyrite, variable amounts, in LAQM: fine grained, moderately oxidized, disseminated pyrite.
46.5	53.5	AR66	Co, S <sub>2</sub> SK Moderately graphitic argillite, strong quartz stockwork, fracture + breccia filling.
53.5	56.0	AR66;	AR66: tr Lim, Co, S <sub>2</sub> 60:40 LAQM LAQM: 3% Lim, 2% Py, Co, S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> AR66: LAQM 60:40. Mixed moderately graphitic argillite, strong quartz stockwork (AR66) and moderate pervasively limonitic altered quartz-biotite monzonite. In LAQM; 2% disseminated, moderately oxidized, fine grained pyrite; strong quartz stockwork.
56.0	58.0	LAQM;	LAQM: 3% Lim, 4% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> 60:40 LQM LQM: 2% Lim, C <sub>1</sub> , S <sub>2</sub> , B <sub>1</sub> LAQM: LQM 60:40 : Mixture of moderately pervasively limonitic qz-biotite monzonite, & strongly altered (LAQM) and weakly pervasively limonitic qz-biotite monzonite (LQM), both weakly carbonate altered. LAQM contains 4% disseminated, fine grained, weakly-moderately oxidized pyrite.
58	61.5	LAQM	4% Lim, 4% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> SK Strong-moderate, pervasive limonite in strongly altered quartz-biotite monzonite. 4% fine

LOKI GOLD CORPORATION  
LITHOLOGY LOG

HOLE-ID: RC 1578

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			grained, disseminated, mod-strongly oxidized pyrite, weak carbonate alteration, quartz stockwork
61.5	66	ARFG	Co, So Moderately graphitic argillite
66		EOH	End of hole

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1579

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2.5	OVB	FILL
2.5	4.5	LAQM	3% Lim, 4% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub>
4.5	6.5	ARW	tr Lim, Co, S <sub>3</sub> SK
6.5	13.0	LAQM	3% Lim, 6% Py, Co, So, B <sub>3</sub> , P <sub>2</sub>
13.0	19.0	ARW	tr Lim, Co, S <sub>1</sub> SK
19.0	21.0	LAQM	4% Lim, 2% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub>
21.0	23.5	ARW	1% Lim, Co, So
23.5	27.5	LAQM	4% Lim, 4% Py, Co, So, B <sub>3</sub> , P <sub>3</sub>
27.5	42.0	ARW	Co, So (38-42m - S <sub>2</sub> )
42		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1579

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2.5		FILL
2.5	4.5	LAQM	3% Lim, 4% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> Moderate, pervasive limonite in strongly altered qtz-biotite monzonite, 4% fine grained disseminated strongly oxidized pyrite, minor fracture controlled manganese + quartz stockwork.
4.5	6.5	AR66	tr Lim, Co, S <sub>3</sub> SK Weakly graphitic argillite, strong quartz stockwork, trace fracture controlled limonite
6.5	13.0	LAQM	3% Lim, 6% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> Mod-strong, pervasive limonite in strongly altered quartz-biotite monzonite, minor unaltered biotite 5-8% fine grained disseminated + fracture controlled pyrite, mod-strongly oxidized.
13.0	19.0	AR66	tr Lim, Co, S <sub>2</sub> SK Weakly argillitic graphitic argillite, weak quartz stockwork, moderate from 18-19m. Trace fracture controlled limonite, stronger near lower contact
19.0	21.0	LAQM	4% Lim, 2% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> Strongly limonitic, fracture controlled, less pervasive, within quartz biotite monzonite, 2% fine grained fracture controlled + disseminated strongly oxidized pyrite. Weak, fine quartz stockwork
21.0	23.5	AR66	1% Lim, Co, S <sub>2</sub> Weakly graphitic argillite, 1% fine fracture + foliation controlled limonite, minor hematite
23.5	27.5	LAQM	4% Lim, 4% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub> Strong, pervasive + fracture controlled limonite

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1571

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			within strongly altered quartz-biotite monzonite
			S <sup>2+</sup> fine-medium grained strongly oxidized disseminated pyrite, also pyrite boxwork indicating former pyrite presence
27.5	42	ARGG	Co,So (S <sub>2</sub> from 38-42m)
			weak-moderately graphitic argillite, weak quartz stockworks from 38-42m
42		EOH	END OF HOLE


# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1580

Page 1 of 1

Logged by: Carl Schuler

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	10	<del>SST</del>	tr-1%Lim, 1%Py, C <sub>3</sub> , S <sub>2</sub> , P <sub>2</sub> SK
			
10		EOM	End of Hole - abandoned

2 m. excavation



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1581

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
N.B.			NO summary log
0	14	OVB	NO samples
14	43.5	AREG	Co, S <sub>2</sub> , tr Lim (14-28m)
			Co, Si, tr Lim (28-43.5m)
43.5	46.5	AQM	tr Lim, 10% Py, Co, Se, B <sub>2</sub> , Po
46.5	50	ARUL	Co, So
50		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1581

Page 1 of 1

Logged by: Carl Schelze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
NB.			No summary log
0	14		No samples
14	43.5	AR6r	Co, S <sub>2</sub> , tr Lim (14-28m) SK Co, S <sub>1</sub> , tr Lim (28-43.5m) SK
			Moderately graphitic argillite, weakly foliated, grey-black. Strong quartz stockworks from 14-28m, associated with minor limonite.
			Weak, locally moderate quartz stockwork from 28-43.5m. Trace localized fracture controlled limonite.
			14-16m: Minor LAQM, moderate limonite, possible minor siltstone with moderate limonite along laminae
43.5	46.5	ARQM	tr Lim, Co, S <sub>2</sub> , B <sub>2</sub> , 10 <sup>3</sup> Py, tr Asp?, Po
			Strongly altered quartz monzonite, trace fracture controlled limonite. 10 <sup>3</sup> fine grained unoxidized disseminated pyrite. Trace arsenopyrite?
46.5	50	AR6r	Co, S <sub>2</sub>
			Weakly moderately graphitic argillite, similar to AR6r from 14-43.5m
50		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1582

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
0	9	OBN	Overburden
8	10	ARUL	tr Lim, Co, Si SK
10	11.5	LAQM	3% Lim, 6% Py, Co, Si, B <sub>2</sub> , P <sub>3</sub> SK
11.5	20.5	ARUL	tr Lim, Co, Si SK
20.5	33.5	LAQM	2% Lim, 6% Py, Co, So, B <sub>2</sub> , P <sub>1</sub>
33.5	50.0	ARUL	tr Lim, C <sub>1</sub> , Si SK
50.0		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1582

Page 1 of 2

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	8	OV6V	Overburden
8	10	AR6G	tr Lim, Co, Si SK Weakly graphitic argillite, weak quartz stockworks. Trace fracture controlled limonite
10	11.5	LAQM	3% Lim, 6% Py, Co, Si, B <sub>2</sub> , P <sub>2</sub> Moderate pervasive limonite in strongly altered quartz-biotite monzonite. 6% disseminated med-fine grained, euhedral, strongly oxidized pyrite, minor fracture controlled manganese
11.5	20.5	AR6G	tr Lim, Co, Si SK Weakly-moderately graphitic argillite, weak quartz stockworks. Weak fracture controlled limonite.
20.5	33.5	LAQM	2% Lim, 6% Py, Co, Si, B <sub>2</sub> , P <sub>2</sub> Weak, pervasive limonite within strongly altered quartz-biotite monzonite. 5-8% dissemi- nated med-fine grained pyrite, weakly oxidized to nearly unoxidized. Limonite less pervasive from 24-26m. 28-30m: ~20% AR6G, weak quartz stockwork Summary log indicates AR6G from 20.5- 30.0m. 28-33.5m. Weak silica influx, partially as quartz stockwork.
33.5	50	AR6V	tr Lim, Si, C <sub>1</sub> SK Weakly graphitic argillite, weak quartz stockwork, locally with limonite. Weak carbonate alteration, moderate from 38-42m.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1582

Logged by: Cowl Scholze

Page 2 of 2

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Medium to fine grained stockwork $\pm$ limonite
			from 33.5-36.0m. Minor LAQM, roughly $S_2$
			weakly oxidized pyrite, from 40-50m ( $410\pm$ )
SO.		EOM	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1583

Page 1 of 1

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	16	SST( <del>SST</del> )	1 <sup>o</sup> Lim, 1 <sup>o</sup> Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub>
16	26	SST( <del>SST</del> )	tr Lim, C <sub>2</sub> , S <sub>0</sub>
26	34	SST( <del>SST</del> )	1 <sup>o</sup> Lim, 2 <sup>o</sup> Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub>
34	40	SST( <del>SST</del> )	tr Lim, tr Py, C <sub>1</sub> , S <sub>0</sub>
40	42	SST( <del>SST</del> )	1 <sup>o</sup> Lim, 1 <sup>o</sup> Py, C <sub>3</sub> , S <sub>0</sub> , P <sub>2</sub>
42	46	SST:	SST: tr Lim, 2 <sup>o</sup> Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub> 60:40 ARG- ARG-: tr Lim, C <sub>1</sub> , S <sub>0</sub>
46	58	SST( <del>SST</del> )	1 <sup>o</sup> Lim, 2 <sup>o</sup> Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub>
58	66	ARG-	tr Lim, C <sub>1</sub> , S <sub>0</sub>
66		EOH	END OF HOLE - rods stuck

Finalization

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1583

Page 1 of 2

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	16	SST (SLT?)	1 <sup>st</sup> Lim, 1 <sup>st</sup> Py, C <sub>2</sub> , S <sub>o</sub> , P <sub>2</sub> (STEEL FORMATION?) Tan coloured fine grained, weakly foliated siltstone. Variable tan-grey colour suggests differential mineralization along select laminae. 1 <sup>st</sup> fracture + laminae controlled limonite, with 1-2 <sup>nd</sup> fine grained, mod. oxidized pyrite along limonitic + lighter coloured laminae. Moderate-strong, variable carbonate alteration.
16	26	SST (SLT?)	tr Lim, C <sub>2</sub> , S <sub>o</sub> . Same siltstone unit; zone of lesser limonite staining + mineralization.
26	34	SST (SLT?)	1 <sup>st</sup> Lim, 2 <sup>nd</sup> Py, C <sub>2</sub> , S <sub>o</sub> , P <sub>2</sub> . Same siltstone unit as 0-26m, 1-2 <sup>nd</sup> laminae and fracture controlled pyrite, mod. carbonate alteration.
34	40	SST (SLT)	tr Lim, tr Py, C <sub>1</sub> , S <sub>o</sub> . Continuation of same unit; trace limonite + pyrite, reduced carbonate alteration.
40	42	SST (SLT?)	1 <sup>st</sup> Lim, 1 <sup>st</sup> Py, C <sub>3</sub> , S <sub>o</sub> , P <sub>2</sub> . Continuation of same unit, 1 <sup>st</sup> limonite, 1 <sup>st</sup> mod. oxidized fracture controlled + laminae controlled pyrite, strong carbonate alteration.
42	46	SST:	SST: tr Lim, 2 <sup>nd</sup> Py, C <sub>2</sub> , S <sub>o</sub> , P <sub>2</sub> 60:40 ARGG ARGG, tr Lim, C <sub>1</sub> , S <sub>o</sub> SST: ARGG 60:40. Mixture of black argillite, weakly graphitic (ARGG) and

7m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1583

Page 2 of 2

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			weakly limonitic siltstone (SST-steel formation?), with 1-2% fine grained fracture + laminae controlled pyrite, Mod. carbonate alteration in SST, weak in ARGG.
46	58	SST (SLT)	18 Lim, 2% P <sub>2</sub> O <sub>5</sub> , C <sub>2</sub> , S <sub>2</sub> , P <sub>2</sub> weakly limonitic fine grained siltstone (same unit as 0-46m), weakly laminated, selectively mineralized - 2-3% laminae + fracture controlled, fine grained, moderately oxidized pyrite, moderate carbonate alteration, strong from 52-56m. Variable amounts of weakly graphitic argillite, from 10-30% throughout, suggesting interbedded argillite + siltstone
58	66	ARGG	tr Lim, C <sub>2</sub> , S <sub>2</sub> Grey-block, weakly graphitic argillite, weak carbonate alteration. Minor siltstone, very weakly limonitic.
66		EOH	END OF HOLE; Rods stuck

# LOKI GOLD CORPORATION

## DRILL SITE INFORMATION

PK-83

HOLE-ID: 1584-RC-96

Page 2 of \_\_\_\_\_

DRILL SITE GEOLOGIST: Jay/Lizzie Start. Aug 11 finish. Aug 12 N/S

TYPE OF DRILLING: RC HOLE SIZE: 5 1/4

DEPTH TO WATER: \_\_\_\_\_ m (Measured with water-well dipper)

DRILL PAD:  
EXCAVATED?  DEPTH OF EXCAVATION: 6 m  
FILLED? \_\_\_\_\_ DEPTH OF FILL: \_\_\_\_\_ m

20838 E  
19809 N  
994 ELEY  
50m EOH  
-SS INC

CASING:  
PULLED? \_\_\_\_\_  
LEFT IN HOLE: \_\_\_\_\_ TOTAL LENGTH \_\_\_\_\_ m HEIGHT ABOVE GROUND: \_\_\_\_\_ m

DRILL STEEL:  
LOST IN HOLE? \_\_\_\_\_ TOTAL LENGTH \_\_\_\_\_ m DEPTH 62 m

EQUIPMENT LOST \_\_\_\_\_

REVERSE CIRCULATION DRILLING METHOD:  
CENTER SAMPLING

TRI-CONE \_\_\_\_\_ DEPTH \_\_\_\_\_ m WHY? \_\_\_\_\_  
OTHER: \_\_\_\_\_ DEPTH \_\_\_\_\_ m WHY? \_\_\_\_\_

FLUID INJECTION  
WATER \_\_\_\_\_ AT WHAT DEPTH \_\_\_\_\_ m WHY? \_\_\_\_\_  
OTHER (Specify) \_\_\_\_\_ DEPTH \_\_\_\_\_ m WHY? \_\_\_\_\_  
\_\_\_\_\_ DEPTH \_\_\_\_\_ m WHY? \_\_\_\_\_

COMMENTS: (eg. locations and estimated quantity of water encountered, downhole contamination caused by sloughing of incompetent rock units in a wet hole, contamination caused by other reasons, problems caused by bad ground, poor recovery, mechanical problems - if important, etc.)

0-2 bleached LAQM  
2-9.5 LAQM biotite  
9.5-23.8 ARGG.  
23.8-36.5 LAQM  
36.5-41.8 bleached LAQM (same quartz 40-  
41.8-45 LAQM  
45-49 bleached  
49-51 grey LAQM / bleached QM  
51-52 LAQM  
52-57 bleached LAQM  
57-59.5 LAQM  
59.5-62 ARGG 60.2 hit water!

Casing 4m.

E.O.H 62 m.

ENTERED S.O.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

RC-96-1585

HOLE-ID: Carl Schultze

Page 1 of 1

Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3	OVBN	Overburden
3	11.5	ARL	1% Lim, 1% Py, Co, So, P <sub>2</sub>
11.5	14.5	ARL-L	ARL-L; 1% Lim, Co, So 55:45 SLT
			SLT (SST?) 2% Lim, 2% Py, Co, So, P <sub>2</sub>
14.5	18.0	ARL-L	ARL-L: tr Lim, Co, So 70:30 SLT
			SLT: tr Lim, 1% Py, Co, So, P <sub>2</sub>
18.0	26.0	ARL	tr Lim, Co, So
26.0	34.0	ARL-L	ARL-L: tr Lim, Co, So 55:45 SLT
			SLT: tr Lim, tr Py, Co, So
34.0	64.0	ARL	tr Lim, tr Py, Co, Si, P <sub>2</sub> SIL
64.0	66.5	SST	1% Lim, tr Py, Co, So, P <sub>2</sub>
66.5	71.0	ARL	tr Lim, Co, So
71.0	76.0	SST	tr Lim, tr Py, Co, Si, P <sub>2</sub>
76.0	80.0	LQRM	LQRM: 4% Lim, 9% Py, Co, Si, B <sub>2</sub> , P <sub>2</sub> 60:40 SST
			SST: tr Lim, Py, Co, Si, P <sub>2</sub>
80.0	85.5	LQRM	2% Lim, tr Py, Co, So, B <sub>1-2</sub> , P <sub>3</sub>
85.5	92.0	ARL-L	ARL-L: tr Lim, tr Py, Co, So, P <sub>2</sub> 75:25 SLT
			SLT (SST) tr Lim, tr Py, Co, So, P <sub>2</sub>
92.0	103	ARL-L	Co, So
103		EOH	End of Hole

7 m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: Carl Schultze

Page 1 of 4

Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3	OVBN	Overburden
3	11.5	ARE	1% Lim, 1% Py, Co, So, P Grey-black argillite, weakly laminated + foliated, Trace - 1% fracture + foliation controlled limonite, Tr - 1% Pyrite, fracture + foliation controlled, fine grained, moderately oxidized. Minor light grey siltstone + fine grained weakly - moderately oxidized pyrite (included in sulphide estimation), up to 20%, From 8-10m
11.5	14.5	AR66i	AR66: 1% Lim, Co, So 55:45 SLT SLT CSST? 2% Lim, 2% Py, Co, So, P AR66: SLT 55:45 AR66i Mixture of weakly graphitic argillite (AR66), 1% fracture controlled limonite, and light grey siltstone (SLT, possibly STEEL FORMATION?) with weakly pervasive + somewhat stronger fracture controlled limonite. In SLT, 2% laminae + fracture controlled pyrite, moderately oxidized
14.5	18.0	AR66i	AR66: Tr Lim, Co, So 70:30 SLT SLT: Tr Lim, 1% Py, Co, So, P 70:30 AR66: SLT: Mixture of weakly graphitic argillite (AR66) with minor surficial fracture controlled limonite; and light grey, weakly laminated siltstone (SLT) with 1% fine grained laminae controlled moderately oxidized - pyrite.

7m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1585

Page 2 of 4

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
18.0	26.0	ARG-	Go to Lim, Co, So. Grey, weakly foliated argillite. Minor fracture controlled limonite, minor siltstone.
26.0	34.0	AR66;	AR66-6i to Lim, Co, So SS:45 SLT SLT: to Lim, to Py, Co, So, P <sub>2</sub> AR66-6i: SLT SS:45 Mixture of weakly graphitic argillite (AR66-6) with trace limonite + fracture controlled pyrite; and light grey siltstone, locally brecciated, locally weakly carbonated, and trace fine grained pyrite. Interbedded strata?
34.0	64.0	ARG-	to Lim, to Py, Co, So, P <sub>2</sub> Sk Argillite, grey-black, weakly laminated. Trace fracture controlled limonite. Minor limonitic siltstone + pyrite, and strongly oxidized. Local weak quartz or silica stockwork. 40-42m: 30' light grey siltstone
64.0	66.5	SLT	to Lim, to Py, Co, So, P <sub>2</sub> light grey siltstone, moderate fracture controlled limonite + minor moderately oxidized pyrite
66.5	71.0	AR6-	to Lim, Co, So Grey-black argillite, slightly mottled texture, trace fracture controlled limonite
71.0	76.0	SLT	to Lim, to Py, Co, So, P <sub>2</sub> Light-medium grained siltstone, weakly foliated + laminated. Trace disseminated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1585

Page 3 of 4

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			+ fracture controlled pyrite, associated with limonite, + local unoxidized fine grained fracture controlled pyrite from 74-76m
			72-74m: Minor LAQM, + mod. oxidized pyrite
76.0	80.0	LAQM:	LAQM: 4% Lim, 9% Py, Co, S, B <sub>2</sub> , P <sub>2</sub> 60:40 SST SST: tr Lim, tr P, Co, S, B <sub>2</sub>
			LAQM: SST 60:40: Mixture of strongly altered qz-biotite monzonite, strong fracture controlled limonite, moderate pervasive limonite (LAQM), and light grey, weakly pervasively silicified siltstone (STEELE FORMATION?). 6-12% disseminated fine-medium grained, mod-strongly oxidized pyrite in LAQM; trace disseminated pyrite in SST, strongly oxidized.
80.0	85.5	LQM	2% Lim, tr Py, Co, S, B <sub>1-2</sub> , P <sub>2</sub> Moderate, fracture controlled + slightly penetrating limonite in very weakly altered quartz-biotite monzonite. Trace fracture controlled strongly oxidized pyrite, minor quartz from 84-85.5m
85.5	92.0	ARKV:	ARKV: tr Lim, tr Py, Co, S, P <sub>2</sub> 75:25 SLT(SST?) SLT(SST?) tr Lim, tr Py, Co, S, P <sub>2</sub> Mixture, 75:25 of ARKV: SLT(SST). Grey-black weakly graphitic armillite (ARKV) moderately - strongly fractured, with zeolite +/- feldspathic injection (?) and minor quartz

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1585

Page 4 of 4

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
			Fracturing quite fine. Mixed with fine grained light grey siltstone (SLT, possible Steele Formation?) with weak fracture controlled limonite + strongly oxidized pyrite. Local fine silica stockworks.
92.0	103	AR66	Co, So Moderately graphitic, weakly foliated argillite
103		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1600

Page 1 of 1

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVb	Overburden
2	3	ARG	Co, S <sub>2</sub> SK
3	6	LAQM	3% Lim, 3% Py, Co, S <sub>0</sub> , B <sub>2</sub> , P <sub>3</sub> SK
6	17	ARGG	Co, S <sub>2</sub>
17	22.5	LAQM	4% Lim, 5% Py, Co, S <sub>1</sub> , B <sub>2</sub> , P <sub>3</sub> SK
22.5	29	ARGG	tr Lim, Co, S <sub>2</sub> SK
29	34	LAQM	4% Lim, 5% Py, Co, S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> SK
34	38	LAQM	LAQM: 6% Lim, 6% Py, Co, S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> SK ARGG: tr Lim, Co, S <sub>1</sub>
38	58	ARGG	tr Lim, Co, S <sub>2</sub> SK

3 m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1600

Page 1 of 2

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	3	ARG	Co, S <sub>2</sub> SK Fine quartz stockwork in grey argillite
			Trace fracture controlled Pyrite
3	6	LAQM	3% Lim, 3% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK Moderate pervasive limonite alteration, of quartz monzonite, strong biotite destruction, pseudomorphs remain. 2-3% fracture disseminated fine grained Pyrite, strongly oxidized
6	17	ARGG	Co, S <sub>2</sub> SK Weakly graphitic argillite, moderate quartz stockwork, weak foliation, trace limonite for 6-10m. 65:35 ARGG: LAQM from 12-14m - strong unaltered biotite content
17	22.5	LAQM	4% Lim, 5% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK Moderate pervasive limonite alteration, increased along fractures, within strongly altered quartz monzonite. 5-6% fine grained, disseminated strongly-moderately oxidized Pyrite. Weakly developed quartz stockwork
22.5	29	ARGG	tr Lim, Co, S <sub>2</sub> SK Moderate, graphitic altered argillite, strong quartz stockwork, weak limonite staining along fine fractures.
29	34	LAQM	4% Lim, 5% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK Moderate-strong pervasive limonite alteration of altered quartz monzonite - biotite destroyed. 5% disseminated fracture controlled, moderately

3 m. excavated



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1601

Page 1 of 1

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3	OB	Overburden
3	7	AQM	tr Py, Co, So
7	13.5	LAQM	3% Lim, 2% Py, Co, So, B <sub>3</sub> , (China B <sub>1</sub> ), P <sub>3-2</sub>
13.5	22.5	ARUG	tr Lim, Co, S <sub>2</sub> SK
22.5	28.0	LAQM	2% Lim, 3% P, C <sub>2</sub> , So, B <sub>2-3</sub> , P <sub>2</sub>
28.0	39.0	ARUG	tr Lim, Co, S <sub>3</sub> SK
39.0	41.0	LAQM	2% Lim, 6% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1-3</sub> SK
41.0	42.0	<del>ASST</del>	tr Lim, 7% Py, C <sub>1</sub> , So, P <sub>1</sub>
42.0	44.0	ARUG	tr Lim, C <sub>1</sub> , S <sub>2</sub> SK
44.0	46.0	AQM	2% Lim, 12% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> SK
46.0	52	ARUG	tr Lim, Co, S <sub>3</sub> SK
52	61.5	LAQM	LAQM: 4% Lim, 10% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> SK, 80:20 AQM AQM: tr Lim, 10% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>0</sub> SK
61.5	82.0	ARUG	tr Lim, C <sub>1-2</sub> , S <sub>2</sub> SK
82.0		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1601

Page 1 of 3

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3		Overburden
3	7	AQM	tr Py, Co, So White (bleached?) strongly altered quartz monzonite, local remnant unaltered- mod altered biotite. Minor boxwork after sulfides
7	13.5	LAQM	3% Lim, 2% Py, Co, So, Bz (minor Bt), Pz-2 Moderate pervasive limonite alteration of strongly altered quartz monzonite. Strong alt. of biotite, local unaltered remnants. Tr - 2% fine-med grained mod. oxidized pyrite. 8-10m: LAQM: AQM 70:30 + 10% AR66
13.5	22.5	AR66	tr Lim, Co, S <sub>2</sub> SK Weakly graphitic argillite, locally grey, med-strong fine quartz stockwork, locally along weakly developed laminae. Weak fracture controlled limonite.
22.5	28	LAQM	2% Lim, 3% Py, Co, So, Bz-3, B <sub>2</sub> Weak, pervasive limonite alteration of mod- strongly altered quartz monzonite. Biotite mod-strongly altered, local weakly altered biotite. 2-4% med. grained - figr moderately oxidized disseminated pyrite. Moderate carbonate alteration, minor qz stockwork near upper contact.
28	39	AR66	tr Lim, Co, S <sub>2</sub> SK Moderately graphitic argillite, trace fracture controlled limonite. Med-strong fine quartz

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1601

Page 2 of 3

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			stockworks + fine brecciated zones
39	41	LAQM	2% Lim, 6% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1-3</sub> SK weak pervasive limonite, moderate along fractures, 6% dissem. fine- and grained Pyrite, weakly- strongly oxidized, weak carbonate alt, silica stockworks, biotite almost totally destroyed
41	42	SLT (CSST?)	tr Lim, 7% Py, C <sub>1</sub> , S <sub>2</sub> , P <sub>1</sub> Weakly foliated, laminated tan-buff siltstone, hematite along foliation/fractures, 7% dissem. fine grained, weakly oxidized Pyrite
42	44	ARG	tr Lim, C <sub>1</sub> , S <sub>2</sub> SK Mod. quartz stockworks in argillite - weak fracture controlled limonite. Minor LAQM, SLT.
44	46	AQM	2% Lim, 12% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> SK Weakly limonitic (pervasive, mod. fracture controlled) strongly altered quartz monzonite, 12% dissem. fine grained weakly oxidized Pyrite, weak quartz stockwork, carbonate alteration. Logged as AQM due to weak oxidation of Pyrite.
46	52	ARG	tr Lim, C <sub>2</sub> , S <sub>2</sub> SK Weakly graphitic argillite, strong quartz stockwork with trace fracture controlled limonite
52	61.5	LAQM:	LAQM: 4% Lim, 10% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> SK, B <sub>0/20</sub> AQM AQM: tr Lim, 10% P, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>0</sub> SK Same unit, mixture of weakly-moderately

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1601

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			oxidized material and unoxidized material (80:20 LAQM). Limonite fracture controlled, weakly dissem pervasive. 9-11% Pyrite throughout, finely disseminated, unoxidized or weak-mod. oxidized. Weak silica stockwork, stronger in unoxidized zones. Weak carbonate alteration in less oxidized zones. Strongly altered biotite, weak fracture controlled manganese.
61.5	82.0	AR66	tr lim, C1-2, S <sub>2</sub> SK Moderately graphitic argillite, moderate quartz stockwork, weak fracture controlled limonite. Minor LAQM from 66-68m
82.0		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1602

Page 1 of 1

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1	OVB	Overburden
1	6.5	AQM	tr Lim, Co, S <sub>1</sub> (bleached LAQM?) SK
6.5	14	ARGG	tr-1% Lim, Co, S <sub>2</sub> SK
14	18.5	LAQM	3% Lim, 5% Py, Co/C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK
18.5	22.0	ARGG	Co, S <sub>2</sub> SK
22.0	24.0	LAQM	4% Lim, 6% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
24.0	28.0	ARGG	tr Lim, Co, S <sub>2</sub> SK
28.0	31.0	LAQM	5% Lim, 10% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK
31.0	34.0	ARGG	Co, S <sub>1</sub> SK
34.0	36.0	LAQM	2% Lim, 10% Py, C <sub>1</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>2</sub> SK
36.0	51.0	ARGG	tr Lim, Co, S <sub>2</sub> SK
51.0	54.0	LAQM	3% Lim, 10% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub> SK
54.0	60.0	ARGG	Co, S <sub>1-3</sub> SK
60.0		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1602

Page 1 of 3

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1		Overburden
1	6.5	AQM	Tr lim, Co, S <sub>1</sub> SK Buff-white, strongly altered quartz monzonite (bleached?). No visible sulphides, but moderate remnant Pyrite stockwork remains. Biotite destroyed.
6.5	14	ARGG	tr-1% Lim, Co, S <sub>2</sub> Weakly graphitic argillite, weak silica stockwork. 6.5-10.0m: Moderate quartz stockwork, 1% fracture controlled limonite - grey-brown.
14	18.5	LAQM	3% Lim, 5% Py, Co-2, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK Moderate pervasive limonite in strongly altered quartz monzonite, biotite strongly altered, strongly altered fine-med grained, strongly oxidized Pyrites. Mod. carb alteration from 16-18m, weak quartz stockwork.
18.5	22.0	ARGG	Co, S <sub>2</sub> SK Moderately graphitic, weakly foliated argillite, moderate quartz stockwork, locally finely developed
22.0	24.0	LAQM	4% Lim, 6% Py, Co-2, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK Mod. pervasive limonite altered strongly altered qz-monzonite, 6% mod. oxidized dissem. fig. Pyrite + local weakly oxidized fracture controlled Pyrite. Mod. fracture controlled manganese, mod carb alteration, weakly dev. silica stockwork

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1602

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
24.0	28.0	ARGG	fr Lim, Co, S <sub>2</sub> SK Weakly graphitic argillite, moderate quartz stockwork
28.0	31.0	LAQM	5% Lim, 10% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>2</sub> , P <sub>2</sub> SK Strong-mod pervasive limonite in strongly altered quartz monzonite, 10% fine grained disseminated + fracture controlled mod-strongly altered Pyrite. Moderate carbonate alteration, weak silica alteration.
31.0	34.0	ARGG	Co, S <sub>1</sub> SK Weakly foliated argillite, weak quartz stockwork.
34	36	LAQM	2% Lim, 10% Py, C <sub>1</sub> , S <sub>3</sub> , B <sub>2</sub> , P <sub>2</sub> SK Weakly limenitic (pervasive) strongly altered quartz monzonite, 10% disseminated fine grained mod-oxidized Pyrite. Weak carbonate alteration (variable) strong quartz stockwork
36	51	ARGG	fr Lim, Co, S <sub>2</sub> SK Weakly graphitic weakly foliated argillite increasing quartz stockwork to 46m, then moderate, uniform stockwork to 51m. Trace fracture controlled limonite from 36-44m.
51	54	LAQM	3% Lim, 10% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub> SK Moderately limenitic strongly altered quartz monzonite 10% fine grained disseminated, weak-moderately oxidized Pyrite. Moderate carbonate alteration, weak silica stwork from 51-52m, strong alteration of biotite.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1602

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
54.0	60.0	ARGG	CO, S <sub>1</sub> -S <sub>3</sub> Sk Moderately graphitic, weakly foliated argillite, weak silica stockworks, strong from 58-60m.
60.0		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1603Page 1 of 1Logged by: Carl Schultz

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1	ONB	Overburden
1	2	Q <sup>M</sup>	Tr Lim, Co, S <sub>2</sub> , B <sub>1</sub>
2	4	AQM	Tr Lim, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub>
4	6	LAQM	4% Lim, 2% Py, Co, S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub>
6	10	AQM	2% Lim, 1-2% Py, Co, S <sub>0</sub> , B <sub>1</sub> , P <sub>3</sub>
10	11.5	ARG	C <sub>1</sub> , S <sub>1</sub> SK
11.5	15.5	LAQM	3% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub>
15.5	29.0	ARGG	C <sub>0</sub> , S <sub>2</sub> SK
29.0	33.0	LAQM	4% Lim, 6% Py, Co, S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub>
33.0	58.0	ARGG	C <sub>2</sub> , S <sub>2</sub> SK
58.0		EOH	END OF HOLE

1m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1603

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1		Overburden
1	2	QM	Co, So, B <sub>1</sub> , tr Lim Buff-white quartz monzonite (bleached LAM?) trace frac. controlled limonite, 10% unaltered to weakly altered biotite
2	4	AQM	Tr Lim, C <sub>1</sub> , So, B <sub>2</sub> Similar to am. from 1-2 m, near total biotite destruction
4	6	LAQM	4% Lim, 2% Py, Co, So, B <sub>3</sub> , P <sub>3</sub> Mod-strongly pervasive limonite alt. within qz-monzonite, biotite nearly destroyed, 2% fine grained, disseminated Pyrite
6	10	AQM	2% Lim, 1-2% Py, Co, So, B <sub>1</sub> , P <sub>3</sub> Variable, weak-moderate limonite alt. of quartz biotite monzonite, 15-20% unaltered to weakly altered biotite, 1-2% fine grained fracture controlled strongly oxidized biotites
10	11.5	ARG	C <sub>1</sub> , S <sub>1</sub> SK Grey-black argillite, weak quartz stockwork, carbonate alteration. Light grey material may be bleached argillite.
11.5	15.5	LAQM	3% Lim, 5% Py, C <sub>2</sub> , So, B <sub>3</sub> , P <sub>2</sub> Moderate-weak pervasive limonite in strongly altered qz-monzonite, biotite nearly destroyed 7% Py from 11.5-14.0 m, 4% 14-15.5 m, dissem. strongly-moderately oxidized. Strong carbonate alteration from 14.0-15.5 m.

1 m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1603

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
15.5	29.0	ARGG	C <sub>0</sub> , S <sub>2</sub> SK Mod. graphitic, weakly foliated argillite, moderate quartz stockwork. Minor light grey sedimentary material from 18-21m.
29.0	33.0	LAQM	4% Lim, 6% Py, C <sub>0</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub> Moderate limonite, pervasive, within strongly altered granite monzonite, 5-6% fine grained, disseminated mod. oxidized pyrite.
33.0	58.0	ARGG	C <sub>3</sub> , S <sub>2</sub> SK Mod. quartz + carbonate stockwork in fractured, weakly to moderately, variably graphitic argillites. Strong carbonate alteration. Weak limonite, fract. controlled, near upper contact
58.0		EOH	END OF HOLE "broken chain"

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1604

Page 1 of 1

Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVB	Overburden
2	10	AQM	1% Lim, tr Py, Co, So, B <sub>3</sub> , P <sub>4</sub>
10	12	ARGG	Co, S <sub>1</sub> 70-30 SLT
12	14	AQM	tr Lim, Co, So, B <sub>3</sub>
14	23.5	ARGG	Co, S <sub>1</sub> SK
23.5	25.5	AQM	tr Lim, Co, So
25.5	27.5	LQM	3% Lim, Co, So
27.5	30.0	LAQM	4% Lim, 6% Py, Co, So, B <sub>2-3</sub> , P <sub>2</sub>
30.0	46.0	ARGG	tr Lim, C <sub>1</sub> , S <sub>1</sub> SK
46.0	53.0	LAQM	4% Lim, 6% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
53.0	55.0	ARGG	Co, S <sub>2</sub> SK
55.0	57.0	LAQM	4% Lim, 6% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
57.0	77.0	ARGG	tr Lim, C <sub>2</sub> , S <sub>1</sub> SK
77.0	83.5	LAQM	3% Lim, 4% Py, C <sub>2</sub> , So, B <sub>3</sub> , P <sub>2</sub>
83.5	85.0	ARGG	tr Lim, Co, S <sub>2</sub> SK
85.0	88.0	LAQM	3% Lim, 7% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub>
88.0		EOH	

1m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1604

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	10	AQM	1% Lim, tr Py, Co, So, B <sub>3</sub> , P <sub>4</sub> Weakly, selectively limonitic strongly alkali quartz monzonite - light brown to white. Local remnant biotite. Trace diss. oxidized Pyrite, somewhat more pyrite boxworks NB. Argillite from 2-4m may be overburden. Jaspoidal fragment in 0-2m sample
10	12	ARGF	Co, S <sub>1</sub> SK Mixed light grey (siltstone?) + dark grey, black, graphitic argillite (ARGF: SLT 70:30). Weak quartz stockwork.
12	14	AQM	tr Lim, Co, So, B <sub>3</sub> Similar to AQM from 2-10m, less limonite, no visible sulphides. Bleached LAQM?
14	23.5	ARGB	Co, S <sub>1</sub> SK Weakly graphitic argillite, weak quartz stockwork throughout.
23.5	25.5	AQM	tr Lim, Co, So, B <sub>3</sub> Buff-white strongly altered quartz monzonite, no visible sulphides, minor scorodite? green, preferential stain.
25.5	27.5	LQM	3% Lim, Co, So, P <sub>1</sub> Moderate pervasive limonitic stained quartz- biotite monzonite, ~ 20% weakly altered - unaltered biotite. 30% Argillite Argillite
27.5	30.0	LAQM	4% Lim, 6% Py, Co, So, B <sub>3</sub> , P <sub>2</sub> Moderate, pervasive limonite alteration of mod-

1m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1604

Page 2 of 3

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			strongly altered quartz monzonite, 6% fine grained, disseminated Pyrite, mod. oxidized. Mod-strong alteration of biotite.
30.0	46.0	ARGG	tr Lim, C <sub>1</sub> , S <sub>1</sub> SK Moderately graphitic, foliated argillite, weak-moderate quartz stockwork, trace foliation related limonite, weak carbonate alteration
46.0	53.0	LAQM	4% Lim, 6% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK Moderate pervasive limonite within strongly altered quartz monzonite. Mod-weak altered biotite from 46-48m. 6-10% fine grained Pyrite, mod oxidized, disseminated, med. grained From 48-50m. Weak-moderate carbonate alteration, weak silica stockwork.
53.0	55.0	ARGG	30% Argg. from 48-50m. Co, S <sub>2</sub> SK Weakly graphitic argillite, moderate quartz stockwork
55.0	57.0	LAQM	4% Lim, 6% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK Moderate pervasive limonite within strongly altered quartz monzonite, biotite strongly altered 6% fine med. grained pyrite, disseminated + moderately oxidized. Weak-moderate carbonate alteration, weak silica stockwork.
57.0	77.0	ARGG	tr Lim, C <sub>2</sub> , S <sub>1</sub> SK Moderately graphitic argillite, weakly quartz stockwork. Variable carbonate alteration, strongest from 60-70m. weak fracture controlled limonite.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1604

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Quartz stockwork more pronounced near contacts
77.0	83.5	LAQM	3% Lim, 4% Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> Moderate, pervasive limonite alteration of strongly altered qz-monzonite, biotite nearly destroyed, except moder. altered from 77-78m. 2-4% fine grained, locally med grained, moderately oxidized disseminated Pyrite; 82-83.5 contains 8% Pyrite. Moderate carbonate alteration
83.5	85.0	ARGG	tr Lim, C <sub>2</sub> , S <sub>2</sub> SK Moderately argillitic graphitic argillite, moderate quartz stockwork, weak fracture. Controlled limonite
85.0	88.0	LAQM	3% Lim, 7% Py, C <sub>2</sub> , S <sub>1</sub> , P <sub>3</sub> , P <sub>2</sub> Moderate, pervasive limonite in strongly altered qz monzonite, similar to unit from 77.0-83.5m. (probably same unit). 8% f. gr. disseminated Py from 85-86m; 5% med-fine grained Py from 86-88m; Always moderately oxidized.
88.0		EOH	END OF HOLE "Too Tight"

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1605

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3	OVB	Overburden
3	4	AQM	Co, S <sub>1</sub> , B <sub>3</sub>
4	8	LQM	2% Lim, tr Py, Co, S <sub>2</sub> , B <sub>1</sub> , P <sub>3</sub>
8	10	AQM	tr Lim, tr Py, Co, S <sub>1</sub> , B <sub>1</sub> /B <sub>3</sub> , P <sub>3</sub> 60:40 AQM
10	12	QTE	White, bull Qz vein Co
12	13	AQM	tr Lim, 1% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub>
13	18.5	ARGG	Co, S <sub>2</sub> SK
18.5	20.0	LQM	1% Lim, tr Py, Co, S <sub>1</sub> , B <sub>1-2</sub> , P <sub>3</sub> SK
20	23	LAQM	3% Lim, 4% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub>
23	29	ARGL	tr Lim, Co, S <sub>2</sub> SK
29	30	<del>SST</del>	2% Lim, 8% Py, Co, S <sub>2</sub> , P <sub>2</sub>
30	35	ARGL	Co, S <sub>2</sub> SK
35	39	LAQM	3% Lim, 10% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub>
39	50.5	ARGL	tr Lim, Co, S <sub>2</sub> SK
50.5	52.0	LAQM	3% Lim, 6% Py, Co, S <sub>2</sub> , B <sub>3</sub> SK
52.0	54.5	ARGL	Co, S <sub>2</sub> , tr Lim SK
54.5	58.0	LAQM	3% Lim, 8% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK
58.0	72.5	ARGL	tr Lim, Co, S <sub>1</sub> SK
72.5	75.0	LQM	LQM: 2% Lim, tr Py, Co, S <sub>1</sub> , B <sub>1</sub> , P <sub>2</sub> S <sub>1</sub> S 70:30 LAQM
			LAQM: 3% Lim, 8% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> SK
75.0	76.5	LAQM	3% Lim, 10% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub> 80:20 AQM
76.5	77.3	ARGL	Co, S <sub>1</sub> SK
77.3		GOH	End of hole - rods tight

0.5m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1605

Page 1 of 4

Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3		Overburden
3	4	AQM	Co, S <sub>1</sub> , B <sub>3</sub> Buff-white strongly altered quartz monzonite possibly bleached LAQM
4	8	LQM	2% Lim, tr Py, Co, So, B <sub>1</sub> , P <sub>3</sub> Weak, pervasive quartz-biotite-monzonite, trace oxidized pyrite, disseminated, fine grained NB - Very limited washed sample amount,
8	10		tr Lim, tr Py, Co, S <sub>1</sub> , B <sub>1</sub> /B <sub>3</sub> , P <sub>3</sub> 60:40 AQM Similar lithology, "QM" contains ≈ 15% unaltered biotite, "AQM" contains strongly altered biotite. Trace strongly oxidized, <del>altered</del> fracture controlled pyrite, trace limonite
10	12	QTZ	Co white, bull quartz vein
12	13	AQM	tr Lim, 12% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> Buff, strongly altered quartz monzonite, 1% Fine grained mod-strongly oxidized, disseminated pyrite
13	18.5	ARGG	Co, S <sub>2</sub> SK Moderately graphitic argillite, moderate quartz stockwork
18.5	20.0	LQM	1% Lim, tr Py, Co, S <sub>1</sub> , B <sub>1-2</sub> , P <sub>3</sub> SK Weak pervasive limonite within quartz-biotite monzonite, 20-25% biotite nearly unaltered, Trace oxidized pyrite, weak qtz stockwork
20	23	LAQM	3% Lim, 4% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> Moderate pervasive limonite in strongly

0.5 m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1605

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			altered qz-monzonite, 3-5% disseminated, weakly fracture controlled strongly oxidized fine-med. grained pyrites.
23	29	ARGB	tr Lim, Co, S <sub>2</sub> SK Weakly graphitic argillite, moderate quartz stockwork, trace fracture controlled limonite
29	30	SLT (CSST?)	2% Lim, 8% Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub> Possible steel formation? Tan-light grey fine grained weakly laminated siltstone, 8% very fine grained disseminated pyrite, med oxidized. Minor LAQM + Pyrite
30	35	ARGB	Co, S <sub>2</sub> SK Moderately graphitic, weakly foliated argillite, moderate fine quartz stockwork
35	39	LAQM	3% Lim, 10% P, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>2</sub> Moderate-weak limonite altered quartz monzonite, biotite strongly altered, 8-11% fine grained disseminated med. oxidized pyrite. Weak carbonate alteration
39	50.5	ARGB	tr Lim, C <sub>3</sub> /Co, S <sub>2</sub> SK Mod. graphitic argillite, moderate qz stockwork, decreasing with depth. Strong carbonate alteration, stockwork?, from 42-48 m
50.5	52.0	LAQM	3% Lim, 6% Py, S <sub>3</sub> , B <sub>3</sub> , C <sub>1</sub> , P <sub>2</sub> SK Med. limonitic strongly altered quartz monzonite - pervasive limonite; 6% fine-med grained med. oxidized disseminated pyrite. Weak carbonate alteration. Strong quartz stockwork.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1605

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
52.0	54.5	ARLU	Co, S <sub>3</sub> , tr Lim SK Mod. graphitic argillite, strong quartz stockwork, weak fracture controlled limonite
54.5	58.0	LAQM	3% Lim, 8% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> SK Weak-moderate pervasive limonite alteration of quartz monzonite, 7-8% fine grained disseminated + fracture controlled med. oxidized pyrite Moderate quartz stockwork, possible weak pervasive silica alteration.
58.0	72.5	ARGF	tr Lim, Co, S <sub>1</sub> SK Mod-weakly graphitic limonite, weak limonite alteration along fine fractures, weak quartz stockwork, strong from 70-72.5m Calcite vein within 62-64m sample
72.5	75	LQM	2% Lim, tr Py, L, S <sub>1</sub> , B <sub>1</sub> , P <sub>2</sub> LQM 70:30 LAQM 3% Lim, 8% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> LAQM Weakly pervasive limonite in LQM, ~20% unaltered biotite, tr. pyrite, weak carbonate alteration + quartz stockwork. LAQM: Mod pervasive limonite, 8% fine grained dissem. pyrite, weakly-mod oxidized, weak carb alteration, quartz stockwork
75	76.5	LAQM	3% Lim, 10% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub> Moderate pervasive limonite altered quartz monzonite, biotite nearly destroyed, 9-12% disseminated fine grained weakly oxidized pyrite. Minor altered, unoxidized pyrite + monzonite, with pristine pyrite part of same unit.



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1606

Page 1 of 1

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
0	0.5	ONB	Overburden
0.5	11.0	ARGL	Co, S <sub>2</sub> SK
11.0	15.0	LARM	4% Lim, 10% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub>
15.0	32.0	ARGL	Co, S <sub>1</sub> SK
32.0	36.0	ARM	ARM: 1% Lim, 7% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK 70:30 ARG
			ARGL for Lim, Co, S <sub>2</sub> SK
36.0	38.0	ARGL	for Lim, C <sub>3</sub> , S <sub>2</sub> SK
38.0	41.0	LARM	2% Lim, 5% Py, C <sub>3</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
41.0	43.0	ARGL	Co, S <sub>1</sub> SK
43.0		EOH	END OF HOLE

0.5m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1606

Page 1 of 2

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	0.5		Overburden ← Co, S <sub>2</sub> SK
0.5	11.0	ARGW	weak - moderately graphitic strongly fractured argillite. Strong quartz stockwork, brittle fracturing
11.0	15.0	LAQM	4% Lim, 10% Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> Moderate pervasive limonite within strongly altered qz-monzonite. 10% fine grained disseminated + weak fracture controlled Pyrite, moderately oxidized. Moderate carbonate alteration from 12-14m
15.0	32.0	ARGW	Co, S <sub>1</sub> SK Weakly graphitic argillite, weak quartz (brittle stockwork, stronger along contacts
32.0	36.0	AQM	AQM: 1% Lim, 7% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK 70:30 ARG ARGW: tr Lim, Co, S <sub>2</sub> SK 70:30 mixture of Altered Qz Monzonite: argillite AQM: 6-7% med. grained Pyrite, weak fracture controlled + somewhat pervasive limonite + hematite alteration. Pyrite disseminated + fracture controlled, mod. oxidized. Moderate carbonate alt, weak quartz stockwork ARG: grey (bleached) weakly foliated argillite moderate quartz stockwork
36.0	38.0	ARGW	tr Lim, C <sub>2</sub> , S <sub>2</sub> SK Moderately graphitic argillite. Strong carbonate alteration (calcite stockwork), moderate quartz stockwork

0.5 m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1606

Page 2 of 2

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
38.0	41.0	LAQM	2% Lim, 5% Py, C <sub>3</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK weak-moderate limonite, pervasive, in strongly altered quartz monzonite, 5% mixed very fine grained + med. grained; disseminated + fracture controlled pyrite. M. grained pyrite along fractures, all pyrite mod-strongly alt oxidized. Strong carbonate alteration, weak quartz stockwork.
41.0	43.0	ARGG	Co, S <sub>1</sub> SK Mod-weakly graphitic argillite, weak quartz stockwork.
43.0		EOH	End of hole

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 96 1671

Page 1 of 4

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2.3		Overburden
2.3	4.0	LAQM	LAQM: 4% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>2</sub> , P <sub>3</sub> AR66: Co, S <sub>2</sub> SK 70:30 mixture of strongly pervasive limonitic strongly altered qz-biotite monzonite (LAQM) + weakly graphitic argillite (AR66) with moderate quartz stockworks. In LAQM, 5% fine grained, disseminated, strongly oxidized pyrite, mod. fracture controlled manganese, moderate carbonate alter.
4.0	6.0	AR66	+ Lim, Co, S <sub>3</sub> SK Weakly graphitic argillite, strong quartz stockworks, possible brecciated. Trace fracture controlled limonite.
6.0	12.0	LAQM	LAQM: 3% Lim, 4% P, C <sub>2</sub> , S <sub>0</sub> , B <sub>2</sub> , P <sub>3</sub> 50:50 AR66 AR66: Co, S <sub>3</sub> SK - Equal mixture of moderate pervasively limonitic strongly altered qz-biotite monzonite (LAQM) and weakly graphitic argillite (AR66) with strong quartz stockworks. In LAQM, 3-4% fine grained, disseminated, strongly oxidized pyrite, mod. carbonate alteration.
12.0	16.5	AR66	+ Lim, C <sub>1</sub> , S <sub>1</sub> SK Weakly graphitic argillite, weak carbonate alteration, silica stockworks. Trace fine fracture controlled limonite.
16.5	19.5	LAQM	3% Lim, 6% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub> Moderate, pervasive limonite within strongly altered quartz-biotite monzonite, 5-7% fine grained

1 m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1671

Page 2 of 4

Logged by: Carl Schutze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			disseminated pyrite, weakly oxidized - unoxidized. Weak carbonate alteration. Minor ARGB throughout, with moderate quartz stockworks
19.5	22.0	LQM	LQM: 2% Lim, C <sub>2</sub> , S <sub>0</sub> , B <sub>1</sub> 70:30 AQM AQM: 1% Lim, 6% Py, S <sub>0</sub> , C <sub>1</sub> , B <sub>3</sub> , P <sub>0</sub> 70:30 mixture LQM:AQM, consisting of weak-moderate, pervasive limonite within unaltered qz-biotite monzonite (LQM) and strongly altered qz-biotite-monzonite (AQM), sometimes moderately limonitic. Moderate carbonate alteration in LQM, weak in AQM, 6% fine grained disseminated weakly fracture- controlled pyrite, unoxidized, in AQM.
22.0	24.5	ARGB	C <sub>0</sub> , S <sub>2</sub> SK Weakly graphitic argillite, weak-moderate quartz stockworks
24.5	30.0	LAQM	2% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub> Weak, pervasive limonite in strongly altered quartz-biotite monzonite. 5-6% disseminated, weakly oxidized to unoxidized, fine-medium grained pyrite. Moderate carbonate alteration, trace stibnite?
30.0	36.0	ARGB	ARGB: tr Lim, C <sub>0</sub> , S <sub>2</sub> SK 55:45 LAQM LAQM: 2% Lim, 7% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub> ARGB: LAQM 55:45 ARGB: Mixture of weakly and graphitic argillite (ARGB) with strong quartz stockworks, and weakly, pervasively limonitic strongly altered qz-biotite monzonite (LAQM)

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1671

Page 3 of 4

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			5-8% fine grained, weakly oxidized to unoxidized disseminated pyrite in LAQM, with moderate carbonate alteration
36.0	41.5	LAQM	2% Lim, 5% Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub> Weak, pervasive limonite in strongly altered qz-biotite monzonite. 4-8% Pyrite, variable concentration, weakly oxidized-unoxidized, fine-medium grained. Moderate carbonate alteration.
41.5	45.0	AR66	C <sub>0</sub> , S <sub>3</sub> SK Moderately graphitic argillite, mod-strong quartz stockwork
45.0	49.0	LAQM	2% Lim, 9% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>0</sub> Weak pervasive limonite, somewhat fracture controlled from 48-49m, moderate fracture controlled limonite elsewhere, in strongly altered qz-biotite monzonite. 7-10% fine grained, unaltered disseminated pyrite, moderate carbonate alteration, very weak quartz stockwork. Minor AR66 From 46-48m
49.0	52.0	AR66	tr lim, C <sub>1</sub> , S <sub>3</sub> SK Weakly graphitic argillite, strong quartz stockwork, weak carbonate alteration (stockwork?)
52	54	LAQM	1% Lim, 2% Py, C <sub>1</sub> , S <sub>4</sub> , B <sub>3</sub> , P <sub>0</sub> SK Weak pervasive limonite (outside of silica stockwork) in strongly altered qz-biotite monzonite. Very strong silica stockwork + pervasive silica alteration. 2% fine grained, disseminated



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96 85

SUMMARY LOG DD96 85

Page 1 of 34

Logged by: F. Andersen

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3.1	Casing	
3.1	7.5	SHG	
7.5	12.5	SHG	60:40 SST Tr LM, C
12.5	19.0	QM	Tr Py, Tr LM
19	21.3	ADM	2% py, Tr LM
21.3	23.5	ARG	1% py, CC
23.5	24.0	ARGG	2% py, S <sub>1</sub> , C
24.0	28.4	ARG	70:30 SST, C
28.4	34.0	SST	3% py, C
34.0	36.9	SST	3% py, Tr LM, sk S <sub>2</sub>
36.9	37.5	FT	sk, S <sub>2</sub>
37.5	39.5	SH	60:40 SST 3% Py, S <sub>2</sub>
39.5	40.9	SST	5% Qz, sk, S <sub>3</sub> 1% py, Tr as*
40.9	46.9	SST	75:25 ARG; 2% py, S <sub>2</sub>
46.9	48.1	SST	S <sub>3</sub> , sk, 1% Py
48.1	54.4	SHG	S <sub>1</sub>
54.4	61.7	FT	70:30 SH: SST, S <sub>2</sub> Bx, Tr Py
61.7	67.5	SST	Tr py, sk, S <sub>1</sub> , C <sub>1</sub>
67.5	69.4	SST	C <sub>1</sub> , S <sub>3</sub>
69.4	73.9	ARG	
73.9	75.4	ARG	60:40 SST, S <sub>2</sub> sk, Tr Py
75.4	77.2	SST	60:40 ARGG, Tr Py
77.2	77.7	FT	Gr
77.7	79.3	SST	60:50 ARG 3% py, S <sub>4</sub>
79.3	80.8	SST	2% py, S <sub>1</sub>
80.8	81.4	SST	Tr py, sk, S <sub>4</sub>
81.4	82.2	ARG	60:40 SST
82.2	93.4	SST	70:30 ARG, S <sub>1</sub>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: 109685

SUMMARY LOG

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Logged by: T. Anderson

From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
93.4	94.8	SST	80:20 ARG, Bx Tr py, sk, S2
94.8	95.1	SST	sk, S4, 20% py, Bx
95.1	96.5	SST	3% py, sk, Bx, S1
96.5	97.0	FT	50:50 SST/ARG
97.0	101.0	SST	60:40 ARG, S0
101	107.2	SST	2% py, sk, S1
107.2	115.4	ARG	1% py, sk, S, C
115.4	117.5	ARGG	Tr py, sk, S3
117.5	120.3	GW	C, sk, S2
120.3	123.0	FT	ARGG, S3, 1% py
123	127.9	SST	sk, S2, 1% py, C
127.9	134.1	SH	C
134.1	142.6	SST	3% py, sk, S2
142.6	147.7	SST	3% py, sk, S4
147.7	148.8	SST	2% py, sk, S3, Tr As*
148.8	150.5	ARG	3% py, sk, S4, Bx
150.5	151.9	ARGG	4% py, sk, S0, Bx
151.9	155.2	SST	4% py, sk, S1
155.2	156.8	SST	3% py, Tr As, sk, S3, Bx
156.8	159.9	SST	1% py, sk, S2
159.9	163.3	SST	3% py, sk, S1
163.3	167.2	SST	3% py, sk, S4
167.2	178.2	ARGG	5% py, C, sk, S1
178.2	180.4	ARG	70:30 SS, 4% py
180.4	184.9	SST	60:40 ARG, 100% py, sk, S3
184.9	187.3	ARGG	20% py, sk, 60:40 SST, S2
187.3	191.9	SST	60:40 CH, SH, sk
191.9	197.2	ARGG	1% py, sk, S1, C

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD9685

SUMMARY LOG DD9685

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Logged by F. Andersen

From m	To m	Major Unit	Geological Description (include modifier on first line of descriptions)
197.2	203.3	GW	60:40 sh, CC, 7% py
203.3	226.5	LST	CC
226.5	229	ARGG	sk, S2
229	229.3	GW	1% py, C
229.3	232.2	ARGG	Tr py, C
232.2	236.7	LST	CC
236.7	247.6	GW	CC, 20% py
247.6	251.3	ARG	65:35 AGM, CC, 30% py
251.3	255.8	ARGG	10% py, C
255.8	257.0	AGM	15% py, 5% as, 60% QZ, S4
257.0	257.2	FT	80% SX, BX, AGLG
257.2	258.8	AGM	50% SX, S1
258.8	260.4	AGM	15% Py, Tr As, S1
260.4	263.5	QTZ	sk 20% Py, S4 85% QZ
263.5	266.7	AGM	S1
266.7	268.5	FT	20% Py, S1, SST/AGM/QTZ
268.5	269.7	ARG	5% Py, S1
269.7	270.1	QTZ	95% QZ, S4, Tr py
270.1	271.9	FT	33:33:34 25: AGG, AGM
271.9	275	SST	3% py, sk, S2
275	277.4	SST	3% py, sk, S3
277.4	282.8	SST	20% py, S2
282.8	285.4	AGM	20% py, Tr As
285.4	288	ARGG	30% py, C
288	292	SST	60:40 ARGG, 50% py, C, S2
292	293.8	ARGG	60:40 SST, C
293.8	299	ARGG	70:30 SST, sk, S1, C, Tr py

END OF HOLE DD9685

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD 96-85

August 1 1996

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
0	3.05		NO CORE-
3.05	7.5	SH G	- black; soft, friable; graphite rich clay zones > than broken fissile zones; Bedding indistinct; polished surface at 7.0m sub parallel bedding;
7.5	12.5	SH G	60:40 ESE C1: C2 ESE, TR LM - grey/tan/black interbedded shale and calcareous fine grained siltstone; graphite clay zones < broken silty zones; rare strongly calcareous; - Bedding 76° ESE, distinct, planar, non graded; - Tan/pale brown weathering, fractures with trace limonite
12.5	13.5	FAULT	100% CLAY Contact sharp, ~90° ESE
12.5	19.0	IGM	TR PY, TR LM - grey; modal plagioclase, orthoclase, quartz; fine grained; weak porphyritic texture, irregular; bleaching / sericitization of feldspars; secondary biotite 5-7%, as shredded laths; primary biotite 3% as subhedral flakes; - Fracture zones 60° ESE & 30° ESE, conjugate strikes; 30° surfaces have strong limonite coating and 1-3mm limonite clay layers; 30° oxidation causes pervasive LM envelopes up to 4cm. HW - Trace pyrite up to 20% near fracture zones, replacing primary minerals; - Sensitive zone associated with LM envelopes in HW. Per cental increases with depth

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

Aug. 4 96

HOLE-ID: PD96-85

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Logged by: F. Andersen

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
19.0	21.3	AGM	<p>2% py, TRLM</p> <ul style="list-style-type: none"> <li>- pale-dk grey; pheno altering to green sericite, soft;</li> <li>- bleached intervals &lt;10cm width</li> <li>- pervasive LM into groundmass near fractures</li> <li>- 2% disseminated fine grained py</li> <li>- alteration of groundmass to clays increases with depth</li> <li>- biotite altering to muscovite / sericite</li> </ul>
21.3	23.5	ARG	<p>C3</p> <ul style="list-style-type: none"> <li>- black v. fine grained, bedding indistinct ~75°→c.n.</li> <li>- harder than shale; competent solid core;</li> <li>- trace hairline white veinlets, subparallel to bedding</li> <li>- matrix is highly calcareous;</li> <li>- 1% diagenetic py disseminated through core; occasional 1-3 mm pyrite layers (following bedding?)</li> </ul>
23.5	24.0	ARGG	<p>C1, 2% py, S1</p> <ul style="list-style-type: none"> <li>- black/grey marbled core; marble from increased white (qtz?) lensing &amp; veinlets; thin graphite interbeds (laminar). ↑ up to 5%</li> <li>- weakly calcareous matrix;</li> <li>- 2-3% py as veinlets and selvages of veinlets/lenses;</li> </ul>
24.0	27.4	AGG	<p>F0:30SST; C0:C1SST</p> <ul style="list-style-type: none"> <li>- black/grey layered core, black argillite interlayered with grey softer fine grained siltstone (Steel Fm).</li> <li>- black layering (bedding?) 65°→c.n.</li> <li>- graphite rich zones 26.4-26.9m (post recovery) and 27.6-27.8m</li> </ul>

# LOKI GOLD CORPORATION

August 4/66

## LITHOLOGY LOG

HOLE-ID: DD 96-85

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
28.4	34.0	SST	<p><b>C<sub>1</sub>, 3% py, S<sub>1</sub></b></p> <ul style="list-style-type: none"> <li>- pale grey fine grained substance, orange to tan weathering along fracture surfaces; reacts to HCl moderately.</li> <li>- easily scratched, non calcareous (?) <small>thought steel that calcareous.</small></li> <li>- hairline to 3mm swelling white sheeted veinlets pervasive in top 30cm, reduced to irregular hairline fracture fillings deeper down; composed of quartz + carbonate.</li> <li>- bedding 65° → CA</li> <li>- 3% py as disseminated grains + blebs to 2mm size</li> <li>- top 60cm contains 20% argillite lenses; trace hairline quartz + graphite laminae dispersed throughout core;</li> <li>- darker grey wispy lenses - muddy lenses form up to 5% of core;</li> <li>- increased fracturing (orange, calcareous - dolomitic) causes blocky core from 33.3 to 36.8m.</li> </ul>
34.0	36.92	SST	<p><b>TELM 3% py, SK, SP</b></p> <ul style="list-style-type: none"> <li>- mottling increases from black laminae and stockwork randomly oriented veinlets; <b>FORMS BLACK STOCKWORKS.</b></li> <li>- py content decreased to 1% up to 3% near stockwork zone as wispy lenses</li> <li>- easily scratched until 36.1 to 36.3m, all core non-calcareous</li> <li>- blocky fractured core, LM + Ca on fractures.</li> </ul>
36.92	37.54	FAULT	<p><b>S<sub>2</sub></b></p> <ul style="list-style-type: none"> <li>soft, crumbled substance - v. poor recovery; stockwork (qtz) pervasive in 25cm before upper contact</li> <li>- contact possibly 35° → c.a. (upper).</li> </ul>

WEAR  
CALCAREOUS  
WITH IT  
+ STAIN

associated  
with white  
stockwork

← replacement of  
white qtz / pb sk

# LOKI GOLD CORPORATION

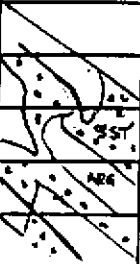

## LITHOLOGY LOG

August 4/96

HOLE-ID: 00 96 85

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Logged by: F. Andrasten

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
37.5	39.15	SH	60 40 sst 3% py, S2 - black/grey mottled shale with silty interlayers; soft; - has fine white stockwork through core
Mottled appearance		(B) 55° → CA	- fractures filled by tan/orange dolomitic clay
		shale stockwork	- 3% py as thin lenses and disseminated grains - bedding (?) 55° → CA defined by black/grey wavy layering - convoluted bedding caused by hairline stockwork causes the mottled appearance
39.5	40.9	SST	3% Qz SK; S2, Tr-1% Py, Tr Aspy? - bull qz present as disrupted lenses/veinlets - crosscut by pervasive hairline translucent grey qz + sulfide veinlets; FORMS BLACK STOCKWORK; those black veinlets comprise grey qz + bronze py + silvery py + ? biotite → py; GREY NETWORK - grey qz pervades matrix - pyrite seen replacing coarse fs detrital grains
HARD FROM GREY QZ NETWORK		black st	
		grey network	
40.9	41.9	SST	75 35 ARG, 2% py, S2 - intermingled (turbidite) sst + cherty argillite; - contact zone between thick beds of sst on top of arg; Fault (slides) at 41.5m 63° CA - black stockwork pervasive to 42.4; at 42.4 noted increase in argillite material; lower zone is - radiate bedding through interval - black st from network through siltstone, not lower - note becomes weaker, blocky at 43.8m; argillite clay - argillite fractures, tan orange clay on sst fracture

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 5 1966

HOLE-ID: 7696 85

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
40.9	46.9	SST	2% Py present in micaceous silty shale with white streaks - replace some of the silty shale with white streaks
46.9	48.1	SST	S3, Tr-1% Py, Po - silty shale micaceous (white) micaceous - micaceous silty shale to micaceous white streaks - micaceous silty shale micaceous silty shale - traces contact of steel-graphite in fault zone 200-200 A - 1% py present since - 1%
48.1	64.4	SH/G	S1 - micaceous silty shale micaceous silty shale soft - bedding 70° → CA - technically a shale, graphite and filled - some scale within of streaks common
64.4	66.65	FAULT	70-80 SST, SH, BX, S2, Tr Py, C1-C2 - micaceous faulted silty shale silty shale micaceous - white of silty shale common and pervasive in silty shale - broken silty shale 69.0-59.8 m in fracture 40° → CA - silty shale micaceous silty shale micaceous - silty shale micaceous silty shale - traces 100cm silty shale micaceous silty shale
66.65	67.5	SST	Tr Py, S1 - micaceous silty shale - silty shale micaceous silty shale micaceous - silty shale micaceous silty shale micaceous - traces of silty shale micaceous silty shale micaceous - traces of silty shale micaceous silty shale micaceous

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DL 76-85

August 5 1996

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Logged by: F. Amersent

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
67.5	69.4	SST	<p>dk, S2, C1-C2</p> <p>strong qtz (white) stockwork through several levels to some thickness, two levels of ...</p> <p>- occasional dk grey matrix qtz veins</p> <p>- occasional dk grey matrix some distributed qtz grains</p> <p>- lower 25cm marked by clay filled broken quartz.</p>
69.4	73.9	ARG	<p>top layer contains some of the same minerals</p> <p>bedded 40°-50° CA, the graphite ...</p> <p>... sub parallel bedding - fracture filling or replacement?</p>
73.9	75.4	126	<p>604055 sh, S2</p> <p>replaced grey sulfide ...</p> <p>distributed / concentrated ... (flaser bedding?)</p> <p>pervasive white stockwork plus ... of previous white stockwork.</p> <p>occasional finely crystalline ... in a gilly matrix at 74.9m; two 3cm clay filled ... 74.7 to 75.4, 35°-40° CA</p>
			CLAY 10-12 CA
			CLAY 10-12

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD 96 05

August 5, 1996

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Logged by: E. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
75.4	77.2	SST	60-40 APG, Tr Py - v. thin to thick interbedded grey fine crystalline matrix - soft matrix - trace bands of a graphite bearing matrix - bedding 400-500 cm - trace clastic py disseminated through core
		APG Gr. 30-40 cm 400-500 cm	
		SST	
77.2	77.72	FAULT	EX. G1 - localised brittle fault zone, strong graphitic clay - some clay bedding planes 400-500 cm
77.72	89.00	SSS/APG	50-60% matrix, S4 - consolidated coarse bedded matrix and laminated wavy siltstone - very hard matrix through interval. Grey No-matrix through siltstone layers, red silt or arg. - 3% py disseminated through core; concentrated blobs to 5mm at contacts of matrix clastic; - 3.5x4.5 cm massive py rounded patch
		<u>HARD</u>	
79.25	80.77	SST	1-2% Py, Po, S1 - to 500pm interbedded with black matrix - trace py through matrix, occasional - trace py through matrix, occasional - trace py through matrix, occasional - bedded, planes 400-500 cm
		SST 400-500 cm	

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: 21-96-2

August 6 1990

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Logged by: F. Archaer

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
80.77	81.42	SST	sk, Sst, Tr py - hard matrix, pervasive hairline black stockwork & grey network;
			- lower contact 81.42, convoluted, 25°-70° A white/off white gr. flooded; <1% disseminated py
			- predominant fracture 40°-70° A, sericitic coating (pale green)
81.42	82.2	ARB	60-40 SST interlayered, laminated argillite, siltstone beds.
82.2	93.4	SST	70:30 ARB - thick bedded laminated rounded siltstone with sericitic argillite interbeds; an echelon style white stockwork solated at 88.9 to 89.75 m;
			- rare dk grey/black hairline veining, does not become pervasive
			- bedding 35°-50° A.
93.4	94.75	SST	Bx, S2, Tr py - 20% convoluted argillite thin beds; siltstone brecciated (pyrite supported) by black stockwork;
			- <1% py associated with black stockwork.
			- siltstone clasts large from 5 to 10cm in size;
94.75	95.1	SST	Bx, 2% py, Sst - matrix present grey network interbedded;
			- 1-2% py associated with network; large py replacing black stockwork
			- hard matrix

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: 96-85

August 6 1990

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
95.1	965	SST	<p>Ex. 3% py, Si</p> <ul style="list-style-type: none"> <li>- soft matrix, sst &amp; argillite; sst clasts truncated by black matrix</li> <li>- 3% py as patches to 5cm length and disseminated to clustered grains within the siltstone.</li> </ul>
96.5	970	FAULT	<ul style="list-style-type: none"> <li>- close development of argillite layers of siltstone clasts; argillite beds moderately to strongly clay altered; (i.e. active core)</li> </ul>
97.0	101	SST	<p>60:40 Arg, Si</p> <ul style="list-style-type: none"> <li>- interbedded siltstone and argillite; black rock (up to 1.3m) of siltstone; top 1.7m truncated by black and white stockwork; hard matrix only from 97.4 to 97.54m.</li> <li>- graphitic shale bed 99.2 to 100m;</li> </ul>
101	1072	SST	<p>sk 2% py, Si</p> <ul style="list-style-type: none"> <li>- pervasive dk grey/black stockwork forming clast support breccia</li> <li>- white stockwork seems to be replacing black stockwork</li> <li>- lower contact with argillite is 35° to N</li> <li>- 1-2% py replacing muddy lenses in siltstone and as blebs &amp; disseminated grains through intervals</li> </ul>
		EST	
		ARG	

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: 96-85

August 6 1996

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Logged by: F. Andersen

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
107.2	115.4	ARG	<p><math>C_1, S_1, 1\% Py</math></p> <ul style="list-style-type: none"> <li>- convoluted bedding lamellae; sections with silty, lumpy matrix</li> <li>- bedding <math>\sim 50^\circ \rightarrow C.A.</math></li> <li>- fracturing common down C.A. clay (white + green) filled;</li> <li>- fine scale structure - filling of fractures = qz, cb + cb</li> <li>- thin silty claystone with 10-14m thickness at bottom of interval.</li> <li>- contact <math>30^\circ \rightarrow C.A.</math> (upper); lower contact broken.</li> <li>- 1% disseminated py</li> </ul>
			<p style="text-align: center;">ARG</p> <p style="text-align: center;">(D) <math>50^\circ \rightarrow C.A.</math></p> <p style="text-align: center;">SEP</p> <p style="text-align: center;">ARG</p> <p style="text-align: center;">SST</p>
115.4	117.5	ARGH	<p><math>S_1, S_3, T_1 Py</math></p> <ul style="list-style-type: none"> <li>- upper zone consists sticky graphite - HW of fault;</li> <li>- remaining argillite is siltified (hard) with pervasive white stockwork;</li> <li>- &lt;1% py disseminated through matrix.</li> <li>- upper contact <math>\sim 45^\circ \rightarrow C.A.</math></li> </ul>
117.5	120.3	GW	<p><math>C_2, S_2, T_1 Py</math></p> <ul style="list-style-type: none"> <li>- coarse grain size noted in sandstone; Gritty siltstone;</li> <li>- white qz stockwork common + hairline cb stockwork</li> <li>- planes bedding, <math>50^\circ \rightarrow C.A.</math>, dark grey &amp; grey beds defined by % mud.</li> <li>- trace interstitial pyrite</li> <li>- breaks along graphitic lamellae and along cb stockwork cutting bedding</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: LD 96 85

Aug. 10/96

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
120.3	122.95	FAULT	<p>Bx S<sub>3</sub>, Tr-10% Py</p> <ul style="list-style-type: none"> <li>- graphitic fault and footwall argillite; brecciated texture from deformed pervasively white qz stockwork</li> <li>- py blebs to mm size found in graphitic clay zones</li> <li>- upper contact 65° → C.A. w 15cm graphite clay &amp; argillite clasts; lower contact 65° → C.A. with 6cm graphitic clay.</li> </ul>
122.95	128.85	SST	<p>sk, cb-qz sk S<sub>2</sub>, 10% Py, C<sub>1</sub></p> <ul style="list-style-type: none"> <li>- fine grained grey siltstone with dk grey to black muddy lenses; mud increases with depth</li> <li>- pervasively white qz<sup>cb</sup> stockwork decreases with depth; associated with overlying fault?</li> <li>- bedding 50° → C.A.</li> <li>- 10% disseminated py grains &amp; wispy lenses near heavy stockwork; trace in silt beds with minor stockwork</li> </ul>
128.85	134.11	SH	<p>C<sub>2</sub></p> <ul style="list-style-type: none"> <li>- muddy, fine grained dk grey to black; grey siltstone bed 40cm wide mid-interval; bedding 45° → C.A.</li> <li>- minor hairline to mm white stockwork - carbonate</li> <li>- mirror smooth polished surfaces fault 30° → C.A. at 131.06m</li> <li>- carbonate coating fracture surfaces, infilling fractures.</li> <li>- slow reaction in HCl from matrix.</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 6 1996

HOLE-ID: D096 85

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Logged by: E. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
134.1	142.55	SST	<p>sk. 2% Py, S2</p> <ul style="list-style-type: none"> <li>- fine grained grey siltstone; 5 to 10 cm graphitic argillite beds core broken along bedding planes 65°-70°.</li> <li>- white qz-cb stockwork weak to moderate mm scale, strong hairline (qz + wk clay actued fs) stockwork; micron black hairline stockwork; clay fs (light yellow) infilling features</li> <li>- trace py in sst; &lt;1% as wispy lenses</li> <li>- sst brecciated where argillite lenses cluster</li> </ul> <p>138.4 to 139 m.</p> <ul style="list-style-type: none"> <li>- py blebs and spots in lower 50cm, wispy lenses, total</li> </ul> <p>2-3% py</p> <ul style="list-style-type: none"> <li>- appearance of coarse grained (grit), thin lenses, 2 to 5cm thick;</li> </ul>
142.55	143.70	SST	<p>sk. 3% py, S11</p> <ul style="list-style-type: none"> <li>- hairline black, white stockwork, pervasive;</li> <li>- hard matrix.</li> <li>- 3% py as lenticular blebs to 1cm or wispy lenses.</li> </ul>
143.7	148.75	SST	<p>sk. 2% py, S3, 2% Py, Tr AS*-</p> <ul style="list-style-type: none"> <li>- pervasive grey network, sst layers hard, argillite layers soft</li> <li>- wispy/lensy mud (black) within fine grained grey siltstone</li> <li>- trace diagnostic py; 10% py wispy lenses</li> <li>- bedding 40°-20°N disrupted by crosscutting hairline features; carbonate coating on fractures</li> <li>- siltstone layers hard and soft; argillite soft.</li> <li>- white quartz stockwork common.</li> <li>- trace 10% f.g. py associated with grey stockwork;</li> <li>- possibly f.g. csp. needles in matrix(?)</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: D096 85

August 6 1996

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
148.75	150.5	AP4	<p>S4, sk, bx 3 1/2 py →</p> <ul style="list-style-type: none"> <li>- pervasive white stockwork, offset by black &amp; grey stockwork;</li> <li>- silty lenses in black argillite; pervasive disseminated py;</li> <li>- zones of heavy white sk form clast supported arg breccia;</li> <li>- hard matrix; quartz clasts around stockworkings.</li> </ul>
151.85	155.15	SST	<p>4% py, sk, S1</p> <ul style="list-style-type: none"> <li>- grey, laminar</li> <li>- bedding 50° → N.A.</li> <li>- weak white qz sk &amp; white black stockwork; py blebs associated to black stockwork;</li> <li>- fine grain py pervasive through matrix; concentrated in laminae within muddy lenses.</li> <li>- 152.5-153.05 silty, 5% py S4</li> <li>- 5cm x 3cm py patch at 153.85m</li> <li>- black stockwork → reticulate at 154.2m, matrix still soft.</li> <li>- massive py <sup>&lt;5mm thick</sup> lenses replacing black stockwork;</li> </ul>
150.5	151.85	AR66	<p>4% py, bx, sk, S2</p> <ul style="list-style-type: none"> <li>- thin bedded argillite and muddy siltstone; brecciated</li> <li>- pervasive thick white stockwork</li> <li>- planes breaking core parallel bedding 50° → N.A.</li> <li>- py replacing thick qz lenses and as pervasive disseminated grains within sst lenses &amp; clasts.</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 7 1996

HOLE-ID: DD96 85

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
165.15	166.75	SST	<p>sk. by 3% py, 10 asp, S3</p> <ul style="list-style-type: none"> <li>- pervasive white qz stockwork (+ and white clay - to)</li> <li>- grey fine grained salt structure,</li> <li>- hairline grey stockwork weak &amp; subtle.</li> <li>- fine grained py disseminated through matrix replacing qz stockwork and as 1mm blobs replacing skeletal grains?</li> <li>- trace silvery aspy? within hairline qz white qz stockwork.</li> </ul>
156.75	159.9	SST	<p>1% py sk S2</p> <ul style="list-style-type: none"> <li>- grey salt structure thin bedded, 40° - 20° A</li> <li>- matrix of hairline white stockwork less intense, if pervasive, black stockwork as hairline veinlets cutting bed. py; black stockwork is fine grained py + other mineral.</li> <li>1% py in black stockwork &amp; disseminated grains.</li> <li>- at 159.9 black stockwork → network</li> </ul>
159.9	163.3	SST	<p>3% py sk S1</p> <ul style="list-style-type: none"> <li>- same unit black network, wider spaced qz + cb stockwork</li> <li>- increased py due to black network;</li> <li>- py as disseminated grains, micropy replacement of stockwork, and blobs to 1cm size in muddy intervals</li> </ul>
163.3	167.2	SST	<p>S4, 3% py sk</p> <ul style="list-style-type: none"> <li>- hard matrix; black stockwork pervasive, mm scale.</li> <li>- py associated with stockwork;</li> <li>- no white stockwork until remaining lower contact with argillite.</li> <li>- py as disseminated grains blobs replacing grains and within black stockwork.</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 7 1996

HOLE-ID: DC 96-85

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Logged by: F. ANDERSEN

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
167.2	178.15	AR66	<p>C1, 5% py, S1</p> <ul style="list-style-type: none"> <li>- black, fine grained, laminated silty graphitic argillite;</li> <li>- pervasive mm scale white stockwork in upper 40cm; hairline wide spaced white stockwork through remaining interval.</li> <li>- fine grained ss beds to 7cm thickness;</li> <li>- bedding 20°-30° CA in argillite; 65°-70° CA in sandy siltstone.</li> <li>- fine grained disseminated pyrite ss in thin lenses disrupted by qz veinlets; also as mm blebs.</li> <li>- increased graphite laminae in last 0.7m; CA 20° polished surfaces</li> </ul>
178.15	180.35	AR6	<p>70:30 ss, 4% py</p> <ul style="list-style-type: none"> <li>- dk green sandstone beds within silty graphitic argillite;</li> <li>- bedding disrupted by crosscutting hairline black veinlets;</li> <li>- py disseminated through matrix ss as 1-4mm blebs in the sandstone.</li> </ul>
180.35	184.85	SST	<p>10% py, S1 60-40 arg.</p> <ul style="list-style-type: none"> <li>- thin interbedded ss/sst/argillite; graphitic lenses; bedding 65°-70° CA</li> <li>- hard matrix - pervasive py flooding of matrix</li> <li>- pervasive white qz stockwork brecciated argillite beds, veinlets through cherty units</li> <li>- py beds to 7cm thickness within argillite; wispy py replacing stockwork veining</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 7 1996

HOLE-ID: DD 96 85

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Logged by: F. ANDERSON

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
184.8	187.25	AR66	2% quartz, 60:40 sst, S <sub>2</sub> interbedded sandy silt and argillite graphic laminae; - white qz stockwork pervasive in argillites and becomes pervasive in ss in last 20cm. - pyrite disseminated through matrix, more common in argillite (diagenetic?)
187.25	191.9	S <sub>2</sub> /CA	80:40 ch, S <sub>4</sub> - hard matrix, pervasive white qz stockwork; siliceous (cherty) looking matrix - 35% muddy laminae (shale-mud lenses) - bedding planar, 65°-70° N - 190.4-191.9 start getting graphite clay zones, brecciated by white clay altered stockwork. - pale yellow stockwork (pyrite), fracture infillings at 191.7m, feathered to <del>pyrite</del> clay zone.
191.9	197.15	AR66	1% quartz, S <sub>1</sub> , C <sub>1</sub> - broken, blocky, strongly graphic argillite - regular platy breaking; bedding 80°-70° N, planar; m... - upper 40cm pervasive white quartz stockwork + hairline chert veins - trace disseminated pyrite through argillite - forms discontinuous wispy network through bedding. - graphite content decreases with depth; core more competent; start getting sandy silt beds at 196.5m. - lower contact brecciated by stockwork; remnant contact implies 85°-70° N.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 7 1996

HOLE-ID: RD 96-85

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Logged by: F. PROSSEN

From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
197.85	203.3	G <sub>W</sub>	<p>C<sub>2</sub> 60:40 SH 7% py.</p> <ul style="list-style-type: none"> <li>- soft dk grey to black silty shale interbedded with fine grained tan sandstone; shale beds thick at top.</li> <li>- bedding 65°-70° N.; planes to wavy.</li> <li>- slow reaction to HCL from shale matrix; C<sub>2</sub> in sandstone.</li> <li>- hairline cb veinlets throughout core; hairline qz veinlets cutting calcareous sandy beds, dissipating into shaly beds.</li> <li>- 7% py disseminated through shale and as irregular blebs replacing sandy clasts, pervasive py replacement of sandy mat. x at contacts with shale locals</li> <li>- start getting calcite tag veinlets to 5mm size in last metre.</li> </ul>
203.3	226.5	L <sub>ST</sub>	<p>C<sub>3</sub> S<sub>1</sub></p> <ul style="list-style-type: none"> <li>- bedding 55°-70° N.</li> <li>- dk grey, highly calcareous matrix;</li> <li>- pervasive mm to hairline scale cb stockwork</li> <li>- core has mottled texture from either sized heavy material.</li> <li>- 212.5-212.55 white qz patch on side of core associated with calcite fragments.</li> <li>- 212.4-213.5 sticky clay-fine grained 75°-70° N.</li> <li>- 225.92 m 1.5cm white quartz vein, 75°-70° N cutting bedding</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 8 1994

HOLE-ID: LD 96-85

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
226.5	229	ARGG	SR 1cm to 25cm silty interbeds, rare; competent core black, fine grained - planar bedding 45°-70° A - core breaks along graphite rich layers, breaks across bedding - breaks along hairline cb veins pervasive qz stockwork (white) through siltstone; soft matrix - thicker <sup>1cm</sup> wider spaced in argillite.
229	229.3	GW	10% py, C1 - green brown clay cemented matrix brecciated argillite laminae. - 10% py grains within siltstone; brown py in thin argg - 2cm pea green clay gouge 60°-70° A at 229.25
229.3	232.2	ARGG	C1, Tr py - thin clay cement GW and grey sst interbeds; - top 25cm in contact with GW, is probably qz white stockwork brecciating argillite; graphite → clay. - <1% diagenetic py, blebs to 4mm lower in interval. - hairline cb stockwork throughout. - upper contact broken; lower contact marked by 7cm lithic GW bed.

August 2 1966

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DP 95-85

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Logged by: F. ANDERSON

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
232.2	236.2	LST	C <sub>2</sub> - dk grey muddy limestone bedding 40°-70° wavy, wks brecciated - same unit as 203.2m.
236.7	247.6	LW	C <sub>2</sub> , 1% Py - grey fine grained matrix, lithic (chert) fragments to 6mm - poorly sorted coarse and fine layers; calcareous - large (16cm) siltstone clast with white black streakwork 247.8-243.84 muddy, weakly calcareous bed; 5% lithic fragments of siltstone. 243.84-242.6 blebs and spots of py to 2cm size; also disseminated through matrix total 1% py
247.6	251.25	ARG	65-35 AOM, C <sub>2</sub> :C <sub>1</sub> , 1% Py mm to 8cm argillite interbeds in upper 15m, cm scale gw interbeds in last 2m; AOM silts in last 2m; AOM → green clay altered fine grained subhorizontal/schistose greenmass. 3% interstitial py disseminated - AOM - weakly oxidizing (brown)
251.25	255.8	AR66	C <sub>1</sub> , 1% Py - soft, black, graphitic clay developed argillite, bedding 60°-70°; platy breaking - minor hairline cb veining along bedding - 1% fine grained disseminated py disseminated. - lower contact marked by mirror polished surface 75°-70°

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 14 1996

HOLE-ID: DD 96 25

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Logged by: F. Andersen

From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
255.8	256.25	AGM	<p>20% SX, S4, 40% QTZ</p> <p>dark grey sulfide rich strong argillite altered intrusive; possibly multiple thin silt interlayering fine grained thin bedded sediments.</p> <p>last 25cm have graphitic clay altered sediments/intrusive with stockworked AGM rounded clasts. FAULT ZONE.</p>
256.95	257.2	FAULT	<p>20% SX, S4</p>
257.2	258.75	AGM	<p>50% SX (py + asp?), S1</p> <p>pale green/buff altered AGM; soft groundmass; % cu; disseminated specks;</p> <p>- minor dk grey qz + py veins, forms thin zones of stockwork</p>
258.75	260.35	AGM	<p>15% py, Tr as</p> <p>soft clay altered dk grey groundmass</p> <p>15% pyrite + minor arsenopyrite</p> <p>clay healed fractures, brecciate core; white qz stockwork</p> <p>259.7 - 260m</p>
260.35	263.5	QTZ	<p>S4, 20% py, sk, 60-70% QTZ</p> <p>porous vuggy white quartz veins as stockwork</p> <p>massive quartz zones with brecciated grey fragments</p> <p>- 20% blocky py disseminated through quartz</p> <p>- quartz is bluish vuggy + sugary textured</p> <p>- form section of quartz stockworked graphitic argillite/shale at 262.9m</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD 96-85

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Logged by: E. Andersen

From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
263.5	266.7	AOM	<p>S1-S2</p> <p>pale green brown weathering, no biotite, groundmass scratches forming</p> <p>· mm to cm white qtz veinny forms stockwork throughout core</p> <p>· black hairline 15 mm swelling veins, also found no sz associated with them.</p>
266.7	268.49	FT	<p>SST/AOM/QTZ Bx 70% Py, S1</p> <p>clast supported angular fragmental lithic breccia. clasts to 10cm size composed of 75% AOM and 25% qtz. 30cm crumbled rock zone at 267.75 may be the shern that caused brecciation; lower contact 30° to G.A.</p> <p>· varying amounts of sz dependent on rock fragments.</p>
268.49	269.7	ARG	<p>50% py</p> <p>thin (5-10 cm) AOM sills, cracks fractured, within blobby py bearing black argillite; sill/sd. contacts 30° → G.A.</p>
269.7	270.1	QTZ	<p>S4 90% qtz</p> <p>massive waxy white quartz with brecciated lithic fragments; more quartz than 266.7m</p>
270.1	271.85	FTI	<p>Ti-10% py*</p> <p>rockline fracture, clay healed, strong clay actuated due clay matrix/groundmass; lithic fragments to 10cm size</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD 96 85

August 15 1996

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
271.85	275 (2774)	SST	3% py, sk S3 pale grey. ls. graded matrix; mm scale g2 stockwork. - py disseminated grains & mm blebs; - argillite clasts to 5cm size not interbeds - becomes strongly g2 stockworked at 273.4m. - clayey zones (shears) 45°-70° at 274.0 to 275 m.
275	2774	SST	S3, 3% py - hard to scratch pale grey siltstone; short softer intervals - quartz pervasive through matrix as above
2774	282.77	SST	2% py, S2 - majority scratches, minor hard intervals (S4) - py disseminated grains + specks - black argillite with white g2 stockwork interbeds + eccresial clasts to 5cm size. starts at 277.06m
282.77	285.4	AGM	0% py, ASPY pale green/tan - buff groundmass. - porphyritic texture gone. - occasional white quartz veins to 1cm size. pyrite rich margins. 45° to 60° → C.A

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: 27  
 DATE: 10/10/07

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Logged by: R. [unclear] / [unclear]

From (m)	To (m)	Rec (m)	RQD (%)	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sh (%)	CaCO <sub>3</sub>	Silica Influx
0.0	4.0	0.00	0.0	/	-				/	
4.0	6.0	0.00	0.0	/	-				/	
6.0	8.0	0.00	0.0	70	-				C1	
8.0	10.0	0.00	0.0	70	-				C2	
10.0	12.0	0.00	0.0	70	10	+			C2	
12.0	14.0	0.00	0.0	70	20	-			C1	
14.0	16.0	0.00	0.0	70	20	P <sub>1</sub>			/	
16.0	18.0	0.00	0.0	70	20	P <sub>1</sub>			/	
18.0	20.0	0.00	0.0	70	20	P <sub>1</sub>			/	
20.0	22.0	0.00	0.0	70	20	P <sub>1</sub>			/	
22.0	24.0	0.00	0.0	/	/	/			C2	/
24.0	26.0	0.00	0.0	/	-	-			/	C1
26.0	28.0	0.00	0.0	/	-	-			/	/
28.0	30.0	0.00	0.0	/	3	+			/	/
30.0	32.0	0.00	0.0	/	2	+			/	/
32.0	34.0	0.00	0.0	/	2	+			/	S1
34.0	36.0	0.00	0.0	/	2	+			/	S2
36.0	38.0	0.00	0.0	/	2	+			/	S2
38.0	40.0	0.00	0.0	/	1	+	/			S2
40.0	42.0	0.00	0.0	70	-	+	/			S4
42.0	44.0	0.00	0.0	70	-	-	/			S2

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

August 5/96

HOLE ID 96-85

Logged by: D. Vanarswert

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From (m)	To (m)	Rec (m)	RQD	Lim (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaO	Silica Influx
42.9	44.9	1.98	0.48	Tr	2	Fe	/	/	/	S2
44.9	46.9	1.84	0.12	Tr	2	Fe				S2
46.9	48.1	1.12	0.52	/	1	Py				S3
48.1	49.6	1.39	0.56		/					S1
49.6	50.7	0.96	0.0							S1
50.7	52.7	1.90	6.0							S1
52.7	54.4	1.23	0.12		/			/	/	S1
54.4	56.4	0.82	0.0		Tr	Py			C1	S2
56.4	57.3	0.66	0.0		Tr	Py			C1	S2
57.3	59.0	1.43	0.42		Tr	Py			C1	S2
59.0	59.8	0.55	0		Tr	Py			C1	S2
59.8	61.65	1.63	0.21		Tr	Py			C1	S2
61.65	63.65	1.85	1.45		Tr	Py			C1	S1
63.65	65.53	2.03	1.15		Tr	Py			C1	S1
65.53	66.0	0.48	0.46		Tr	+			C1	S1
66.0	67.5	1.46	1.25		Tr	Py			/	S1
67.5	69.4	2.13	1.27		0				C1	S3
69.4	71.4	1.83	1.36		0				/	/
71.4	73.3	2.05	0.77		0					/
73.3	73.9	0.60	0.42		0					/
73.9	75.4	1.59	0.32		0					S2
75.4	77.2	1.67	0.47		Tr	Py				/
77.2	77.72	0.56	0		0					/
77.72	79.25	1.39	0.2		2	Py				S4
79.25	80.77	1.48	0.2		2	Py				S1
80.77	81.42	0.67	0.10	/	Tr	Py	/	/	/	S4

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

August 5/96

HOLE-ID: DDH 86-85

Logged by D. Billancourt

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From (m)	To (m)	Rec (m)	RQD	Lim (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
81.42	82.2	0.74	0.17	/	0	/	/	/	/	/
82.2	84.05	1.89	1.74		0					S <sub>1</sub>
84.05	86.05	1.92	0.85		0					S <sub>1</sub>
86.05	88.05	2.12	1.14		0					S <sub>1</sub>
88.05	89.75	1.60	0.76		0					S <sub>3</sub>
89.75	91.75	1.96	1.17		0					/
91.75	93.4	1.71	1.08		0	/				/
93.4	94.75	1.20	0.90		Tr	Po				S <sub>2</sub>
94.75	95.1	0.35	0.52		2	Po				S <sub>4</sub>
95.1	96.5	1.14	0.93		3	Po				S <sub>1</sub>
96.5	97.0	0.45	0		0	/				/
97.0	99.0	1.99	0.61		0	/				S <sub>2</sub>
99.0	100.5	1.33	0.56		0	/				S <sub>2</sub>
100.5	102.0	1.5	0.87		2	Po				S <sub>1</sub>
102.0	104.0	1.89	0.38		2	Po				S <sub>1</sub>
104.0	105.2	1.29	0		2	Po				S <sub>1</sub>
105.2	107.2	2.11	0.26		2	Po			/	S <sub>1</sub>
107.2	109.2	1.47	0		1	Po			C <sub>1</sub>	S <sub>1</sub>
109.2	111.2	2.20	1.22		1	↓			C <sub>1</sub>	S <sub>1</sub>
111.2	112.4	1.11	1.10		1	↓			C <sub>1</sub>	S <sub>1</sub>
112.4	113.7	1.22	0.52		1	↓			C <sub>1</sub>	S <sub>1</sub>
113.7	115.4	1.79	0.89		1	Po			C <sub>1</sub>	S <sub>1</sub>
115.4	115.8	0.36	0		Tr	Po			/	S <sub>0</sub>
115.8	117.5	0.68	0.13		Tr	↓			/	S <sub>4</sub>
117.5	119.0	1.45	0.11		Tr	↓			C <sub>2</sub>	S <sub>2</sub>
119.0	120.3	1.37	0.45	/	Tr	Po	/	/	C <sub>2</sub>	S <sub>2</sub>

# LOKI GOLD CORPORATION

DIAMOND DRILL SAMPLE LOG

August 6/96

HOLE-ID: DDH 96-85

Logged by: D. Vaillancourt

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From (m)	To (m)	Rec. (m)	R.G.D	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
120.3	122.3	1.51	0.57	/	1	Po	/	/	/	S3
122.3	122.95	0.77	0.39	↓	1	Po	↓	↓	/	S3
122.95	124.95	1.84	1.30	↓	1	Po	↓	↓	C1	S2
124.95	126.95	2.03	0.88		1	Po			C1	S2
126.95	128.85	1.81	1.24		1	Po			C1	S2
128.85	130.85	2.05	0.50		0	-			C2	/
130.85	132.0	1.22	0.21		0				C2	/
132.0	134.11	1.87	0.59		0	-			C2	/
134.11	136.11	2.02	0.95		2	Po			/	S2
136.11	138.11	2.01	0.49		2	Po				S2
138.11	140.11	1.43	0.26		3	Po				S2
140.11	141.11	0.98	0.76		3	Po				S2
141.11	142.55	1.47	0.71		3	Po				S2
142.55	143.7	0.92	0.28		3	Po	/			S4
143.7	145.7	1.64	0.83		2	Po	Tr*			S3
145.7	147.7	1.73	0.52		2	Po	Tr*			S3
147.7	148.75	0.78	0		2	Po	Tr*			S3
148.75	150.5	1.24	0.38		3	Po	/			S4
150.5	151.85	1.29	0.18		4	Po	/			S2
151.85	153.85	1.61	0.51		4	Po	/			S1
153.85	155.15	1.11	0.28		4	Po	/			S4
155.15	156.75	1.53	0.82		3	Po	Tr			S3
156.75	158.60	1.67	0.34		1	Po	/			S2
158.60	159.90	1.39	0.59		1	Po	/			S2
159.90	161.90	2.04	0.51		3	Po	/			S1
161.90	163.30	1.39	0.18	/	3	Po	/	/	/	S1

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

August 7/96

HOLE-ID: DDH96-85

Logged by: T. Tribe

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From (m)	To (m)	Rec. (m)	R.G.D.	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
163.30	164.0	0.82	0.77	/	3	Po		/	/	S4
164.0	165.60	1.53	0.89		3	Po			/	S4
165.60	167.20	1.50	0.59		3	Po			X	S4
167.20	168.0	0.83	0.43		5	↓			C1	S1
168.0	170.0	1.89	1.11		5	↓			C1	S1
170.0	172.0	1.85	0.62		5	↓			C1	S1
172.0	174.0	2.00	0.77		6	Po			C1	S1
174.0	175.6	1.48	0.44		5	↓			C1	S1
175.6	177.6	2.01	0.95		5	↓			C1	S1
177.6	179.60	1.67	0.22		5	↓			C1	S1
179.60	180.35	0.72	0.26		4	↓			/	/
180.35	181.25	0.95	0.34		10	↓				S3
181.25	183.25	2.02	0.69		10	↓				S3
183.25	184.8	0.91	0.21		10	↓				S3
184.8	185.45	0.65	0.25		2	↓				S2
185.45	187.20	0.82	0		2	Po				S2
187.20	189.20	1.96	0		/	/				S4
189.20	190.35	1.10	0.46		/	/			↓	S4
190.35	191.90	1.22	0.42		/	/			/	S4
191.90	192.50	0.64	0		1	Po			C1	S1
192.50	194.50	1.91	0.43		1	Po			C1	S1
194.50	196.50	1.82	0.79		1	Po			C1	S1
196.50	197.15	0.76	0.30		1	Po			C1	S1
197.15	198.15	0.72	0.55		7	Po			C2	0
198.15	199.15	1.41	1.21		7	Po			C2	0
199.15	200.15	1.00	0.75		7	Po			C2	0

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

August 7/96

HOLE-ID: DDH96-05

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Logged by: \_\_\_\_\_

From (m)	To (m)	Rec. (m)	RQD (%)	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
200.1	202.1	0.92	0.82	/	7	Po	/	/	C2	/
202.1	203.3	1.13	0.8		7	Po			C2	/
203.3	205.3	1.87	1.67		0	/			C3	/
205.3	207.3	1.95	1.22		0				C3	
207.3	209.3	1.98	1.31		0				C3	
209.3	211.3	1.79	0.71		0				C3	
211.3	213.3	1.88	0.84		0				C3	
213.3	215.3	1.93	0.93		0				C3	
215.3	217.3	1.99	1.00		0				C3	
217.3	219.3	1.86	1.83		0				C3	
219.3	221.3	1.97	1.85		0				C3	
221.3	223.3	1.88	1.65		0				C3	
223.3	225.3	1.90	1.37		0	/		/	C3	✓
225.3	226.5	1.24	0.88		0				C3	/
226.5	228.5	1.66	1.06		0	✓			0	S2
228.5	229.0	0.5	0.28		0	/			0	S2
229.0	229.3	0.3	0.14		1	Po			C1	/
229.3	230.2	0.8	0.23		PT	Po			C1	/
230.2	232.2	1.84	1.00		1	Po			C1	/
232.2	233.7	1.43	1.12		0	/			C3	/
233.7	235.2	1.37	0.76		0	/			C3	/
235.2	236.7	1.58	1.06		0	/			C3	/
236.7	238.7	1.84	1.44		1	Po			C2	/
238.7	240.8	1.97	1.71		1	Po			C2	✓
240.8	242.8	2.08	2.08		1	Po			C2	✓
242.8	244.8	2.08	2.08		1	Po			C2	✓

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

August 8/96

HOLE-ID: DDH96-05

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Log by: \_\_\_\_\_

From (m)	To (m)	Rec. (m)	R.Q.D	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
245.05	245.85	1.61	1.39	/	2	Po	/	/	C2	/
245.85	247.7	1.67	1.67		2	Po			C2	
247.7	249.4	0.78	0.63		0	/			C2	
249.4	250.2	0.74	0.57		3	Po			C1	
250.2	251.25	1.05	0.98		3	Po			C2	
251.25	253.25	1.40	0.27		1	Po	↓		C1	↓
253.25	255.25	1.92	0.28		1	Po			C1	↓
255.25	255.8	0.57	0		1	Po	/		C1	/
255.8	257.4	1.67	0.62		15	Po	5		/	S4
257.4	259.4	1.76	1.04		9	Po	2			S1
259.4	261.49	2.09	1.41		18	Po	Tr			S4
261.49	263.24	1.52	0.56		2	Po	/			S4
263.24	264.24	1.01	0.37		0	/				S1
264.24	265.79	1.60	0.90		0	/				S1
265.79	266.70	0.97	0.97		0	v				S1
266.70	268.49	1.76	1.09		2	Po				S1
268.49	269.61	0.91	0.28		5	Po				S1
269.61	271.85	2.04	1.16		Tr	Po				S4
271.85	273.47	1.40	0.91		3	Po				S2
273.47	275.06	1.38	0.27		3	Po				S3
275.06	277.06	1.84	0.47		3	Po				S3
277.06	279.06	1.87	0.96		2	Po				S2
279.06	281.06	2.15	1.13		2	Po				S2
281.06	282.77	1.72	1.04		2	Po	↓			S2
282.77	284.77	0.98	0.98		2	Po	Tr			S2
284.77	286.77	0.98	0.98		2	Po	Tr			S2

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 15 1996

HOLE-ID: DD96-25

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Logged by: F. Andersen

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
285.4	288	AR66	3% py, C <sub>1</sub> black graphitic argillite, bedding indistinct - core breaks along semi-planar mirror polished surfaces, 30° to 40° -> C.A. - minor calcite veinlets/fracture fillings
288	292.03	SST	60:40 AR66 <sup>U</sup> 5% py, C <sub>1</sub> , S <sub>2</sub> - Qtz content increasing with depth, pervasive white Qtz veinlets/stockwork at 290.03 to 292.03m. - py concentrates within Qtz stockwork, 4% disseminated through matrix, 5% where stockworking abundant - occasional massive py lenses to 2mm size, replacement of argillite beds or diagenetic py? ← Yes.
292.03	293.75	AR66	60:40 SST, (SST) - into bedded/interspersed SST/AR66. - very little Qtz stockwork; calcite veining increased.
293.75	299.01	AR66	70:30 SST, SK, C <sub>1</sub> (SST) <10% py, S <sub>1</sub> - dominantly thin bedded argillite, graphitic zones noted by polished surfaces where core breaks. - siltstone beds have pervasive white Qtz stockwork. - short intervals of AR66 with pervasive stockwork - SST crackle fractured & clay/quartz healed from 294.03 to 295.57, lower contact marked by 3cm clay argillite band 75° -> C.A.; hard matrix; - Qtz content greater in stockworked SST zones. - bedding in argillite 75° -> C.A.

F.O.H.

August 15/96



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1607

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
0	3.5	ARL	Co, S <sub>2</sub>
3.5	12.0	LAQM	3% Lim, 9% Py, Co/C <sub>3</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK
12.0	14.5	ARL	Co, S <sub>2</sub> SK
14.5	22.0	LAQM	3% Lim, 8% Py, Co-C <sub>3</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>2</sub> SK
22.0	40.0	ARL	C <sub>3</sub> , S <sub>1</sub> SK
40.0		EOH	END OF HOLE

0.5 m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1607

Page 1 of 2

Logged by: Carl Schutze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3.5	ARG	<p><math>Co, S_2</math></p> <p>Moderate quartz stockwork, fine + semi-brittle-duct + weakly pervasive silicification in weakly foliated argillite.</p>
3.5	12.0	LAQM	<p>3% Lim, 9% Py, Co/C<sub>3</sub>, S<sub>1</sub>, B<sub>3</sub>, P<sub>2</sub> SK</p> <p>Moderately pervasive limonite alteration in strongly altered qz-monzonite. No visible biotite. 7-12% fine grained, strongly oxidized disseminated pyrite, med. grained from 10-12 m. Strong quartz stockwork from 8-10m (slightly reduced limonite) weak elsewhere. Strong carbonate alt. from 10-12m, 25% ARG. from 6-10 m.</p>
12.0	14.5	ARLG	<p><math>Co, S_2</math> SK</p> <p>Weakly graphitic argillite, moderate brittle quartz stockwork</p>
14.5	22.0	LAQM	<p>3% Lim, 8% Py, Co-C<sub>3</sub>, S<sub>3</sub>, B<sub>3</sub>, P<sub>2</sub> SK</p> <p>Mod-strongly limonitic altered quartz monzonite, strong fracture controlled limonite 6-10% fine grained, locally med grained disseminated + minor fracture controlled pyrite. mod-strongly oxidized. Strong quartz stockwork, weak near lower contact, strong carbonate alteration near lower contact</p> <p>20.5-21.0m: ARG, mod. quartz stockwork</p>
22.0	40	ARLG	<p><math>C_3, S_1</math> SK</p> <p>Weakly graphitic argillite, weak, fine quartz stockwork, strong carbonate alt. from 22-36 m.</p>

0.5m excavation



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1609

Page 1 of 1

Logged by: Carl Schwilze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	4.0	AQM	AQM: Tr Lim, 1% Py, Co, S <sub>2</sub> , P <sub>2</sub> , SK, SOI5OARGL ARGL: Co, S <sub>2</sub> SK
		<del>ARGL</del>	
4.0	13.5	LAQM	4% Lim, 6% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub> SK
13.5	26.0	ARGL	tr Lim, Co, S <sub>1</sub> SK
26.0		EOH	End of hole - "tight hole"

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1609

Page 1 of 1

Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	4.0	AQM	AQM: Tr lim, 1% P <sub>2</sub> , Co, S <sub>2</sub> SK
		ARGG	ARGG: Co, S <sub>2</sub> SK
		50:50	50:50 ratio of altered qz-monzonite (poss. bleached LAQM) and argillite (coverburden?)
			AQM: 1% mod. oxidized fine grained disseminated pyrite, tr limonite, strongly developed quartz stockwork.
			ARGG: weakly graphitic, moderate quartz stockwork (brittle)
4.0	13.5	LAQM	4% Lim, 6% P <sub>2</sub> , Co, S <sub>2</sub> , B <sub>2</sub> SK
			Moderate, pervasive limonite alteration, increasing with depth, of strongly altered qz-monzonite, biotite destroyed, 3-8% fine grained disseminated pyrite, increasing concentration with depth. Considerable fracture controlled pyrite from 8-12m, all pyrite mod-strongly oxidized. Variable quartz stockwork, strong from 4-6m.
13.5	26.0	ARGG	tr lim, Co, Si, SK
			Weakly graphitic argillite, weak quartz stockwork, strong along upper contact. Strong, brittle, fracture controlled carbonate alteration from 18-26m. Trace localized fracture controlled limonite.
26.0		EOH	END OF HOLE - "Tight hole (!)"



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1610

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	3	ARG	tr Lim, Co, S <sub>2</sub> SK Argillite, moderate quartz stockwork along brittle fine fracture system, trace fracture controlled limonite
3	7	LQM	3% Lim, Co, So, B <sub>1-2</sub> Moderate, pervasive limonite in quartz-biotite monzonite. Biotite weakly altered, moderately so from 6-7m. No discernable pyrite
7	10	ARCG	tr Lim, Co, S <sub>3</sub> SK Weakly graphitic argillite, strong quartz stockwork, trace fracture controlled limonite
10	24.5	LAQM	5% Lim, 9% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK Mod-strong limonite, pervasive, within strongly altered quartz monzonite. Minor remnant biotite, med. altered. 6-12% fine grained disseminated pyrite, locally fracture controlled, particularly from 20-22m. Medium grained pyrite from 16-20m. Moderate, variable quartz stockworks, weakly finely developed quartz stockworks. 30% ARCG from 14-16m.
24.5	31.5	ARG	Co, S <sub>4</sub> , tr Lim SK Very strong quartz stockwork in brecciated argillite. Brittle fracturing, weak fracture controlled limonite. Minor LAQM from 28-30m
31.5	34.0	LAQM	3% Lim, 8% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK Moderate pervasive, stronger fracture controlled limonite within strongly altered quartz monzonite

3m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1610

Page 2 of 2

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
			Biotite nearly destroyed, 6-10% fine grained disseminated + med. grained fracture controlled pyrite, strongly oxidized. Weak coarse quartz stockwork, moderate carbonate alteration
34.0	44.0	ARGG	to lim, C <sub>2</sub> , S <sub>1</sub> SK Weakly graphitic, weakly foliated argillite, weak brittle fracture controlled quartz stockwork, mod carbonate alteration (stockwork?) Trace fracture controlled limonite
44.0		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1611

Page 1 of 1

Logged by: Carl Schute

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVB	Overburden
2	6	LQM	3% Lim, C <sub>2</sub> , S <sub>0</sub> , B <sub>1</sub>
6	22.5	LAQM	4% Lim, 9% P <sub>4</sub> , C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub>
22.5	28.5	ARW	fr Lim, C <sub>0</sub> , S <sub>3</sub> SK
28.5	32.0	LAQM	3% Lim, 4% P <sub>4</sub> , C <sub>0</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub>
32.0	74.0	ARGG	fr Lim, C <sub>3</sub> /C <sub>0</sub> , S <sub>1</sub> SK
74.0		END	OF HOLE

\* 2m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1611

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	6	LQM	3% Lim, C <sub>2</sub> , S <sub>0</sub> B <sub>1</sub> Weak-moderate, pervasive limonite within quartz-biotite-monzonite, weakly altered to unaltered. 15% weakly altered biotite
6	22.5	LAQM	4% Lim, 9% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub> Moderate, pervasive limonite, strong limonite along fractures, within strongly altered quartz monzonite. 8-12% disseminated + minor fracture controlled pyrite, fine grained locally med. grained, strongly oxidized. Pervasive mod-strong carbonate alteration. 40% Arab from 6-8m
22.5	28.5	ARGL	tr Lim, C <sub>0</sub> , S <sub>3</sub> SK Weakly graphitic limonite argillite, strong quartz stockworks along brittle fractures, trace vein associated limonite
28.5	32.0	LAQM	3% Lim, 4% Py, C <sub>0</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub> Moderate, pervasive, limonite alteration of strongly altered quartz monzonite. 4% fine, locally med. grained disseminated pyrite, strongly oxidized. Minor fracture controlled manganese.
32.0	74.0	ARGL	tr Lim, C <sub>3</sub> / C <sub>0</sub> , S <sub>1</sub> SK Weakly graphitic argillite, mod-strong graphite from 50-74m, strong carbonate alteration (brittle fracture related stockwork?) from 38-52m, weak quartz stockwork. Trace fine fracture controlled limonite from 52-50m, and 68-74m.

74.0m (EOL) END OF HOLE

\* 2 m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC96 1612

Page 1 of 1

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	ONB	Overburden
2	3.5	LQM	2% Lim, C <sub>3</sub> , S <sub>1</sub>
3.5	8.0	ARG	tr Lim, Co, S <sub>3</sub> <span style="float: right;">SK</span>
8.0	15.5	LAQM	3% Lim, 10% Py, C <sub>2</sub> , S <sub>2</sub> /S <sub>0</sub> , P <sub>3</sub> <span style="float: right;">SK</span>
15.5	22.0	LQM	2% Lim, Co, So, B <sub>1</sub>
22.0	41.5	LAQM	3% Lim, 2-9% Py, C <sub>2</sub> , So, B <sub>2-3</sub> , P <sub>1</sub>
41.5	46.0	ARGG	tr Lim, C <sub>1</sub> , S <sub>3</sub> <span style="float: right;">SK</span>
46.0	49.5	AQM	1% Lim, 5% Py, C <sub>2</sub> , So, B <sub>3</sub> , P <sub>1</sub>
49.5	60.0	ARGG	tr Lim, C <sub>3</sub> , So
60.0		EOH	End of Hole

\* 2 m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1612

Page 1 of 2

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	3.5	LQM	2% Lim, C <sub>1</sub> , S <sub>1</sub> , B <sub>2-1</sub> Moderate, pervasive limonite within quartz-biotite monzonite. Enhanced fracture controlled limonite. Strong pervasive carbonate alteration, weakly altered biotite
3.5	8.0	ARC	tr Lim, C <sub>0</sub> , S <sub>3</sub> SK Strong quartz stockworks along brecciated (brittle) argillite. Fine fracture system, separate from this, associated with trace limonite Minor LAQM from 6-8m
8.0	15.5	LAQM	3% Lim, 10% Py, C <sub>2</sub> , S <sub>2/50</sub> , B <sub>3</sub> , P <sub>3</sub> SK Moderate, pervasive limonite within strongly altered qz-monzonite, 8-12% fine grained disseminated strongly oxidized pyrite. Moderate carbonate alteration, moderate quartz stockwork from 8-12m.
15.5	22.0	LQM	2% Lim, C <sub>0</sub> , S <sub>0</sub> , B <sub>1</sub> Weak, variable, pervasive limonite alteration of qz-biotite monzonite, 20% unaltered biotite Minor QM (no limonite) from 18-22m
22.0	41.5	LAQM	3% Lim, 2-9% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>2-3</sub> , P <sub>1</sub> Weak-moderate, pervasive limonite alteration, decreasing with depth, in mod-strongly altered qz-biotite monzonite. Biotite moderately-strongly altered from 32-40m, strongly so elsewhere. Pyrite content decreases with depth from 9% to 1% moderately oxidized

\* 2 m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC96 1612

Page 2 of 2

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			From 22-26m, unoxidized From 38-41.5m
			Pyrite fine grained + disseminated. Moderate carbonate alteration.
			30% AR66 from 24-26m
41.5	46.0	AR66	tr Lim, C <sub>1</sub> , S <sub>3</sub> S <sub>5</sub>
			Weakly graphitic argillite, weakly calcareous, strong fracture - breccia controlled quartz stockwork. Trace limonite along fine, separate fracture systems
46.0	49.5	AQM	1% Lim, S <sup>2</sup> Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub>
			Very weak pervasive limonite in strongly altered quartz monzonite. 3-7% disseminated fine grained weakly oxidized - unoxidized pyrite. Increasing pyrite content with depth. Moderate carbonate alteration.
49.5	60.0	AR66	tr Lim, C <sub>3</sub> , S <sub>0</sub>
			Moderately graphitic argillite, weakly fractured, strong fracture controlled carbonate. Trace fine fracture controlled limonite
60.0		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1613

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVB	Overburden
2	6.0	LAQM	2% Lim, 3% Py, Co, So, B <sub>2-3</sub> , P <sub>3</sub>
6.0	17.0	ARGG	tr Lim, Co, S <sub>2</sub>
17.0	19.0	<del>ARGG</del> (SST?)	tr Lim, 6% Py, C <sub>1</sub> , So/S <sub>2</sub> , P <sub>1</sub>
19.0	27.5	ARGG	tr Lim, Co, S <sub>2</sub>
27.5	30.0	<del>ARGG</del> SST	tr Lim, 6% Py, C <sub>2</sub> , S <sub>1</sub> , P <sub>2</sub>
30.0	38.0	ARGG	tr Lim, Co, S <sub>2</sub>
38.0	41.0	LQM	2% Lim, C <sub>2</sub> , So, B <sub>1</sub>
41.0	43.5	ARGG	tr Lim, C <sub>1</sub> , S <sub>2</sub>
43.5	48.5	LAQM	2% Lim, 4% Py, C <sub>1</sub> , So, B <sub>2-3</sub> , P <sub>2</sub>
48.5	52.5	LQM	2% Lim, 1% Py, C <sub>2</sub> , So, B <sub>1</sub> , P <sub>3</sub>
52.5	60.5	LAQM	3% Lim, 6% Py, C <sub>1</sub> , So, B <sub>3</sub> , P <sub>1</sub>
60.5	64.0	ARGG	tr Lim, Co, S <sub>3</sub> SK
64.0	66.5	ARGG	Argg: tr Lim, Co, S <sub>3</sub> SK 50:50 LAQM LAQM: 2% Lim, 7% Py, C <sub>1</sub> , So, B <sub>3</sub> , P <sub>1</sub>
66.5	72.0	LAQM	2% Lim, 7% Py, C <sub>1</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>1</sub> SK
72.0	76.0	LAQM	LAQM: 2% Lim, 5% Py, Co, S <sub>3</sub> , B <sub>3</sub> , P <sub>1</sub> 60:40 ARGG ARGG: tr Lim, Co, S <sub>2</sub>
76.0	84.0	ARGG	tr Lim, Co-C <sub>3</sub> , S <sub>2</sub> SK
84.0		EOH	END OF HOLE

\* 3 m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1613

Page 1 of 4

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	6.0	LAQM	2% Lim, 3% Py, Co, So, Br-Sp, Pz Weak, pervasive limonite alteration in strong- moderately altered quartz-biotite monzonite. Biotite strongly altered, not totally destroyed 3-4% fine grained, disseminated, mod-strongly oxidized pyrite
6.0	17.0	ARGG	tr Lim, Co, S <sub>2</sub> Mod-weakly graphitic argillite, decreasing content to 17m, moderate brittle fracture controlled quartz stockwork, Trace limonite along fine fracture system
17.0	19.0	SLT (SST?)	tr Lim, 6% Py, C <sub>1</sub> , So/S <sub>2</sub> , P <sub>1</sub> Tan-buff, fine grained weakly laminated siltstone (Steele formation?). 6% banded to disseminated fine grained pyrite, weakly- moderately oxidized. Fine silica stringers & weak silicification from 18-19m.
19.0	27.5	ARG	tr Lim, Co, S <sub>2</sub> Argillite, moderate quartz stockwork, trace limonite along fine, separate fracture system.
27.5	30.0	SLT (SST?)	tr Lim, 6% Py, C <sub>2</sub> , S <sub>1</sub> , P <sub>2</sub> Fine grained, weakly laminated siltstone (Steele formation?). 6% fine grained weakly banded to disseminated pyrite, trace limonite. Minor fracture controlled pyrite (+ arsenopyrite?). Moderate carbonate alteration.

\* 3m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1613

Page 2 of 4

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			weak fracture controlled quartz veining
30.0	38.0	ARLtr	tr Lim, C <sub>0</sub> , S <sub>2</sub> SK weakly graphitic argillite, increasing quartz stockworks with depth, weak fracture controlled limonite. weakly bleached, grey argillite from 36-38m
38.0	41.0	LQM	2° Lim, C <sub>2</sub> , S <sub>0</sub> , B <sub>1</sub> Weak, pervasive, variable limonite in quartz-monzonite biotite monzonite, moderate carbonate alteration, 15-20% biotite, weakly oxidized,
41.0	43.5	ARtr	tr Lim, C <sub>1</sub> , S <sub>2</sub> SK Argillite, weak limonite alteration along fine fracture system; decreasing quartz stockworks with depth, weak carbonate alteration
43.5	48.5	LAQM	2° Lim, 4° Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>2-3</sub> , P <sub>2</sub> Weak, pervasive limonite within strongly mal. altered qz-biot-monzonite. 3-4% fine grained to fine grained aggregates along fractures, weaker disseminated pyrite also. weak-med oxidized along fractures, dissem. pyrite strongly altered. weak carbonate alteration, localized unaltered biotite
48.5	52.5	LQM	2° Lim, 1° Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>1</sub> , P <sub>3</sub> Weak pervasive limonite in qz-biotite-monzonite 1% fine grained strong, oxidized Pyrite along fractures where mal-strong biotite alt. has occurred.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1613

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Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Moderate carbonate alteration 25% grey argillite from 48-50m.
52.5	60.5	LAQM	3% Lim, 6% Py, C, S, B, P Moderate-weak, pervasive limonite in strongly altered qz-biotite-monzonite. 6-10% fine grained fracture controlled (particularly from 52-54m) + disseminated pyrite, weakly to moderately oxidized, locally unoxidized. Weak carbonate alteration
60.5	64.0	AR66	+ Lim, Co, S <sub>2</sub> SK Strongly fractured brecciated weakly graphitic argillite, strong quartz stockwork, weak fracture controlled limonite
64.0	66.5	AR66: LAQM:	AR66: + Lim, Co, S <sub>2</sub> SK 50:50 LAQM LAQM: 2% Lim, 7% Py, C, S, B, P 50:50 mixture of AR66, similar to 60.5-64.0m, and weakly pervasively limonitic. strongly altered quartz monzonite. 7% fracture controlled + disseminated weakly oxidized pyrite, fine grained. Weak carbonate alteration
66.5	72.0	LAQM	2% Lim, 7% Py, C, S, B, P SK Weak pervasive limonite in strongly altered qz-biotite-monzonite. 6-9% fine grained disseminated, weakly oxidized pyrite. Strong quartz stockwork
72.0	76.0	LAQM1	LAQM: 2% Lim, 5% Py, Co, S <sub>2</sub> , B, P SK 60:40 AR66 AR66: + Lim, Co, S <sub>2</sub> SK LAQM: AR66 60:40 LAQM

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 1613

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			AR06 - weakly graphitic, moderate quartz stockwork,
			LAQM: Similar to 66.5-72.0m interval. 5% fine grained disseminated weakly oxidized pyrite, weak, pervasive limonite, 30% mod. limonitic, weakly pyritic LAQM from 74-76m strong quartz stockwork.
76.0	84.0	AR06	tr lim, Co-C <sub>3</sub> , S <sub>2</sub> SK weakly graphitic argillite, moderate, variable quartz stockwork, ± carbonate, also variable carbonate stockwork, strongest development from 80-82m
84.0		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96-1614

Page 1 of 1

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	6	ARLV	Co, S <sub>2</sub> SK
6	16	LAQM	3% Lim, 5% Py, Co, So, B <sub>3</sub> , P <sub>2</sub>
16	18	ARGG	tr Lim, Co, S <sub>2</sub> SK
18	22	<del>SLT</del>	SLT: 1% Lim, 8% Py, C <sub>1</sub> , S <sub>1</sub> , P <sub>2</sub> SK 60:40 ARG
			ARG: tr Py, Co, S <sub>2</sub> SK
22	38	ARGG	tr Lim, Co, S <sub>2</sub> SK
38	44	LAQM	3% Lim, 4% Py, C <sub>1</sub> , So, B <sub>3</sub> , P <sub>2</sub>
44	47	LQM	2% Lim, Co, So, B <sub>1</sub>
47	56.5	LAQM	3% Lim, 8% Py, C <sub>2</sub> , So, B <sub>3</sub> , P <sub>1</sub>
56.5	66.0	ARLV	1% Lim, C <sub>1</sub> , S <sub>2</sub>
66.0		EOH	End of hole - rods plugged

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96-1614

Page 1 of 2

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	6	ARLG	Co, S <sub>2</sub> SK Moderately graphitic argillite, mod-strong fracture controlled quartz stockwork
6	16	LAQM	3% Lim, 5% Py, Co, So, B <sub>2</sub> , P <sub>3</sub> Moderate, pervasive limonite within strongly altered quartz-biotite monzonite-biotite nearly destroyed. 5% fine grained strongly oxidized pyrite, disseminated. Weak limonite near upper contact (bleached?) = 20% ARLG from 12-14m
16	18	ARLG	tr Lim, Co, S <sub>2</sub> SK Weakly graphitic argillite, moderate quartz stockwork, weak limonite along fine fracture system.
18	22	SLT(SST?)	SLT: 1% Lim, 8% Py, Co, S <sub>1</sub> , P <sub>2</sub> 60:40 ARG ARG: tr Py, Co, S <sub>2</sub> SK 60:40 SLT: Tan-buff, weakly limonitic fine grained siltstone, weakly laminated. 8% very fine grained dissem. to weakly banded. mod oxidized pyrite. Weakly developed fine silica stockwork with massive pyrite (?). Weak carbonate alteration ARG: grey, weakly bleached argillite, moderate quartz stockwork, weak limonite alteration along fractures.
22	38	ARLG	tr Lim, Co, S <sub>2</sub> SK Weakly graphitic argillite moderate quartz stockwork, weak limonite alteration along fine

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1614

Page 2 of 2

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			separate fracture system, Trace Pyrite in quartz, minor LAQM from 28-30m.
38	44	LAQM	3% Lim, 4% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub> Moderate, pervasive limonite within strongly altered quartz monzonite, 2-5% fine grained - med. grained, mod - strongly oxidized pyrite, fracture controlled + disseminated. Weak - moderate carbonate alteration, 40% unaltered qz - monzonite (LQM) from 38-40m.
44	47	LQM	2% Lim, C <sub>1</sub> , S <sub>2</sub> , B <sub>1</sub> Weak, pervasive limonite in quartz - biotite monzonite, 20% biotite, unaltered - weakly altered.
47	56.5	LAQM	3% Lim, 8% Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub> Moderate, pervasive limonite in strongly altered quartz - biotite monzonite biotite strongly altered, locally weakly altered, 6-11% fine grained, disseminated weakly oxidized Pyrite, minor unoxidized pyrite in AQM. Pyrite med grained From 54-56.5m. Mod. carbonate alteration
56.5	66.0	ARGL	1% Lim, C <sub>1</sub> , S <sub>2</sub> SK Mod. graphitic argillite, tr - 1% limonite along fractures + strongly developed quartz stockworks. Minor LAQM + 5% Pyrite From 58-62m
66.0		EOH	END OF HOLE - Rods plugged

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC-96 1615

Page 1 of 1

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	4	ARGB	Co, S <sub>2</sub> SK
4	9	AQM	Co, S <sub>2</sub> , B <sub>3</sub>
9	11.5	LQM	2% Lim, Co, S <sub>2</sub> , B <sub>1</sub>
11.5	13.0	QM	Co, S <sub>2</sub> , B <sub>1</sub>
13.0	15.0	AQM	1% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub>
15.0	17.5	LAQM	2% Lim, 3% P <sub>3</sub> , Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub>
17.5	32.0	ARGB	Co, S <sub>2</sub> SK
32.0	33.5	LAQM	3% Lim, 6% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub> SK
33.5	41.0	ARGB	tr Lim, tr Py, Co, S <sub>2</sub> -S <sub>1</sub> , P <sub>1</sub> SK
41.0	44.0	ARGB	ARGB: tr Lim, Co, S <sub>2</sub> SK 70:30 LAQM
			LAQM: 4% Lim, 10% P, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
44.0	55.5	LAQM	4% Lim, 11% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> SK
55.5	58.0	ARGB	Co, S <sub>2</sub> SK
58.0	61.0	LAQM	2% Lim, 6% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub> SK
61.0	68.0	ARGB	Co, S <sub>2</sub> SK
68.0	71.0	LAQM	3% Lim, 6% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub>
71.0	79.0	<del>EOH</del>	<del>End of Hole</del>
		ARGB	Co, S <sub>2</sub> SK
79.0		EOH	End of Hole

O.S.m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1615

Page 1 of 3

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	4	ARGG	Co, S <sub>2</sub> SK weakly graphitic, weakly bleached argillite, moderately - weakly <del>quartz</del> developed quartz stockwork
4	9	AQM	Co, So, B <sub>3</sub> white altered quartz biotite monzonite, minor weakly altered biotite, otherwise biotite destroyed. Poor recovery - fine material
9	11.5	LQM	2% lim, Co, So, B <sub>1</sub> Moderate - weak, pervasive limonite in unaltered qz - biotite monzonite
11.5	13.0	QM	Co, So Fine - medium grained quartz - biotite - monzonite. White
13.0	15.0	AQM	1% P <sub>2</sub> , Co, So, B <sub>3</sub> Strongly altered quartz monzonite, minor remnant biotite, 1-2% disseminated, fine grained, mod. oxidized pyrite
15	17.5	LARM	2% lim, 3% P <sub>2</sub> , Co, So, B <sub>3</sub> Weak - moderate limonite, variable, pervasive, stronger along fractures, within strongly altered qz - biotite monzonite. 3% fracture controlled, mod - strongly oxidized, fine grained pyrite, lesser disseminated pyrite
17.5	32.0	ARGG	Co, S <sub>1</sub> Weak - moderately graphitic, weakly variable argillite, weak quartz stockwork, increasing

0.5 m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1615

Page 2 of 3

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			towards lower contact
32	33.5	LAQM	3% Lim, 6% P <sub>2</sub> , Co, S <sub>2</sub> , B <sub>3</sub> SK Moderate, pervasive limonite in strongly altered quartz monzonite. 6% fine-med grained, fracture controlled (less disseminated) pyrite, strongly - moderately oxidized. Strongly developed silica stockwork.
33.5	41.0	AR66	tr Lim, tr P <sub>2</sub> , Co, S <sub>2</sub> - S <sub>1</sub> SK Weakly graphitic argillite. Strong quartz stockwork development to 38 m, weak from 38-41 m. Minor pyrite along qz veins. Minor limonite along fine fracture system.
41.0	44.0	AR66 LAQM	70:30 AR66: AR66; tr P <sub>2</sub> , Co, S <sub>2</sub> SK LAQM: 4% Lim, 10% P <sub>2</sub> , Co, S <sub>1</sub> , B <sub>3</sub>
		70:30 AR66	AR66 - weakly graphitic, moderate quartz stockwork LAQM - strong-moderate limonite, concentrated along fractures, in strongly altered quartz monzonite. 10% disseminated + fracture controlled mod. oxidized fine grained pyrite. Weak quartz stockwork.
44.0	55.5	LAQM	4% Lim, 11% P <sub>2</sub> , Co, S <sub>1</sub> , B <sub>3</sub> SK Moderate limonite, pervasive, stronger along fractures, in strongly altered quartz monzonite. 8-14% disseminated, fine grained, weakly oxidized, pyrite, minor unoxidized material. Weak quartz stockwork, moderate + fine from 54.0-55.5 m (more pervasive), weak carbonate

att.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1615

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			alteration.
			40% ARGG from 52-54m.
55.5	58.0	ARGG	Co, S <sub>1</sub> SK Weakly graphitic argillite, weak quartz stockwork
58.0	61.0	LAQM	2% Lim, 6% P <sub>1</sub> , Co, S <sub>2</sub> , B <sub>2</sub> SK Weakly pervasive limonite, stronger along fractures in strongly altered qz-biotite monzonite. 6% fine grained disseminated pyrite, weakly oxidized. Strong quartz stockwork, weak carbonate alteration, Qz usually pyrite-free (as it is elsewhere), some pyrite enrichment along separate fracturing event.
61.0	68.0	AR66	Co, S <sub>2</sub> SK Moderately argi graphitic argillite, mod-strong quartz stockwork.
68.0	71.0	LAQM	<del>3% Lim, 6% P<sub>1</sub>, Co, S<sub>2</sub>, B<sub>2</sub></del> 3% Lim, 6% P <sub>2</sub> , Co, S <sub>2</sub> , B <sub>2</sub> Med-weak, pervasive limonite within strongly altered quartz monzonite. 6% Fine grained - med grained, disseminated + fracture controlled, med. oxidized pyrites. Mod-weak carbonate alteration.
71.0	79.0	ARGG	Weak Co, S <sub>2</sub> SK Weak-moderately graphitic argillite, weak-moderate fine quartz stockwork, very weak silicification of wallrock
79.0		EOH	End of Hole

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1616

Page 1 of 1

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1	OVB	Overburden
1	5.5	SH	Co, So-1
5.5	8.3	LAQM	3% Lim, 2% Py, Co, So, B <sub>3</sub> -2, P <sub>3</sub>
8.3	14.0	SH	tr Lim, Co, So
14.0	17.5	LAQM	4% Lim, 9% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> SK
17.5	20.0	SH	Co, So
20.0	23.0	LAQM	LAQM: 4% Lim, 5% Py, Co, So, B <sub>3</sub> , P <sub>3</sub> : 70:30 LQM LQM: 3% Lim, tr Py, Co, S <sub>1</sub> , P <sub>1</sub>
23.0	27.5	ARGG	Co, S <sub>3</sub> SK
27.5	33.5	LAQM	3% Lim, 5% Py, Co, So, B <sub>3</sub> , P <sub>3</sub>
33.5	38.5	ARGG	tr Lim, Co, S <sub>2</sub> SK
38.5	40.0	LAQM	4% Lim, 4% Py, Co, So, B <sub>3</sub>
40.0	42.0	ARGG	ARGG tr Lim, Co, S <sub>1</sub> 60:40 LAQM LAQM: 5% Lim, 9% Py, Co, So, B <sub>3</sub> , P <sub>2</sub>
42.0	45.5	LAQM	4% Lim, 11% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub>
45.5	49.0	ARGG	tr Lim, tr Py, Co, S <sub>1</sub> , P <sub>3</sub>
49.0	52.0	LAQM	5% Lim, 7% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub>
52.0	60.0	ARGG	tr Lim, Co, S <sub>3</sub> SK
60.0	66.0	ARGG	12% Py, Co, S <sub>2</sub> , P <sub>2</sub> SK
66.0	67.0	SSB	tr Lim, 8% Py, Co, So, P <sub>1</sub>
67.0	84.0	ARGG	tr Lim, Co, S <sub>1-2</sub> SK
84.0		EOH	End of hole

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 - 1616

Page 1 of 4

Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1		Overburden
1	5.5	SH	Co, Si - O Grey, finely laminated fine grained shale (Poss. bleached argillite) weak silica stockwork near lower contact.
5.5	8.3	LAQM	3% Lim, 2% Py, Co, So, Bz, Pz Moderate, pervasive limonite, slightly stronger along foliation planes, in strongly altered g2 - biotite limonite. 20% unaltered - displays unaltered to weakly altered biotite. 2% fracture controlled + disseminated pyrite, strongly oxidized.
8.3	14.0	SH	tr Lim, Co, So Grey, finely laminated shale, weak fracture controlled limonite. possibly bleached argillite.
14.0	17.5	LAQM	4% Lim, 9% Py, Co, Si, Bz, Pz SK Med-strongly limonitic, pervasive, within strongly altered g2-biotite-monzonite, 7-11% Pyrite, decreasing with depth, fine grained, dissemi- nated, moderately oxidized. Weak quartz stockwork.
17.5	20.0	SH	Co, So Med-dark grey, weakly foliated shale, similar to 1-5.5m interval
20.0	23.0	LAQM	LAQM: 4% Lim, 5% Py, Co, So, Bz, Pz 70:30 LQM LQM 3% Lim, tr Pz, Co, So, Bz, Pz 70:30 LAQM: Moderate, pervasive limonite

0.5 m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC-96 1616

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			altered qz-biotite monzonite, 5% med-fine grained, med-strongly oxidized, disseminated pyrite, med. carbonate a.H. LQM: similar, unaltered biotite, trace Pyrite.
23.0	27.5	AR66	Co, S <sub>2</sub> SK Weakly graphitic argillite, strong quartz stockwork
27.5	33.5	LAQM	3% Lim, 5% Py, Co, So, B <sub>2</sub> , P <sub>3</sub> Moderately pervasive limonite in strongly altered quartz-biotite monzonite, 3-8% med-fine grained, disseminated, med-strongly oxidized pyrite.
33.5	38.5	AR66	tr Lim, Co, S <sub>2</sub> SK Weakly graphitic argillite, med. quartz stockwork from 36-38.5m. Weak fine fracture controlled limonite
38.5	40.0	LAQM	4% Lim, 4% Py, Co, So, B <sub>2</sub> , P <sub>3</sub> Strong-mad limonitic, pervasive, strongly altered qz-biotite monzonite, 4% fine grained disseminated strongly oxidized pyrite.
40.0	42.0	AR55	AR66: tr Lim, Co, S <sub>2</sub> SK 60:40 LAQM LAQM: 5% Lim, 9% Py, Co, So, B <sub>2</sub> , P <sub>2</sub> Weakly graphitic argillite, weak silica stockwork. 40% strongly limonitic strongly altered qz-monzonite. 9% pyrite, fine grained, disseminated, weak-moderately oxidized pyrite. Weak fine silica stockwork, moderate

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1616

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Carbonate alteration
42.0	45.5	LAQM	4% Lim, 11% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>2</sub> Moderate, pervasive limonite within strongly altered qz-monzonite. 9-13% fine grained, disseminated mod-weakly oxidized pyrite. Moderate quartz stockwork, increasing with depth.
45.5	49.0	ARG	tr Lim, tr Py, C <sub>0</sub> , S <sub>1</sub> , P <sub>3</sub> Argillite, weakly fractured, limonite + hematite, +tr strongly oxidized pyrite along fractures. Weak quartz stockwork.
49.0	52.0	LAQM	5% Lim, 7% Py, C <sub>0</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub> SK Strong, pervasive limonite within strongly altered quartz monzonite. 3-7% fine grained, disseminated + fracture controlled weakly-moderately oxidized pyrite. Moderate carbonate alteration from 49-50m, strong quartz stockwork.
52.0	60.0	ARGG	tr Lim, C <sub>0</sub> , S <sub>3</sub> SK Weakly graphitic graphi argillite, strong quartz stockwork, trace limonite along fractures. Trace pyrite in veins from 58-60m.
60.0	66.0	ARGG	12% Py, C <sub>3</sub> , S <sub>2</sub> , P <sub>0</sub> SK Argillite, weakly graphitic, strong carbonate alteration + injection, moderate quartz stockwork. 12% fracture controlled + minor disseminated, fine grained, oxidized pyrite.
66.0	67.0	SLT	tr Lim, 8% Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>1</sub> Tan-buff, fine grained siltstone, 8% fine grained

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1616

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Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			weakly oxidized, disseminated + fracture controlled pyrite. Moderate carbonate alt.
67.0	84.0	ARGL	tr Lim, C <sub>3</sub> , S1-2 SK
			Weakly graphitic argillite, increasing graphite with depth. Strong carbonate alteration from 67-74m, variable quartz stockwork, highest from 67-70m. Trace fracture controlled limonite.
			70-72m : 40° LAQM : 5-6° fine grained
			72-74m : 10° LAQM disseminated, weakly
			74-76m : 35° LAQM oxidized pyrite.
84.0		EOM	END OF HOLE - tight rods -

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1617

Page 1 of 1

Logged by: Carl Scholtz

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVB	Overburden
2	8	LAQM	tr-3% Lim, 3% Py, Co, So, B <sub>3</sub> , P <sub>3</sub>
8	14	ARG	tr Lim, Co, So
14	23.5	LAQM	3% Lim, 8% Py, C <sub>3</sub> , So, B <sub>3</sub> , P <sub>2</sub>
23.5	39.5	ARGG	tr Lim, Co, S <sub>1</sub> SK
39.5	40.0	LAQM	3% Lim, 3% Py, Co, So, B <sub>3</sub> , P <sub>2</sub>
40.0	42.0	LQM	2% Lim, Co, S <sub>1</sub> , B <sub>1</sub>
42.0	43.5	ARG	tr Lim, Co, S <sub>3</sub>
43.5	47.0	LAQM	4% Lim, 11% Py, C <sub>1</sub> , So, B <sub>3</sub> , P <sub>2</sub>
47.0	58.0	ARGG	C <sub>3</sub> , S <sub>1</sub> SK
58.0		EOH	END OF HOLE

1.5 m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1617

Page 1 of 2

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	8	LAQM	tr-3% Lim, 3% Py, Co, So, B <sub>2</sub> , P <sub>2</sub> Pervasive, variable limonite, increasing with depth from trace to 3%, in strongly altered quartz-biotite monzonite (bleached near surface) 3% fine grained, disseminated, strongly oxidized pyrite. 30% AR to 6m may be overburden.
8	14	ARL	Finely laminated grey-black argillite (bleached?), weak fracture controlled limonite tr Lim, Co, So
14	23.5	LAQM	3% Lim, 8% Py, Co, So, B <sub>2</sub> , P <sub>2</sub> Strong-moderate, pervasive limonite in strongly altered quartz monzonite, 5-10% fine-medium grained moderately oxidized, disseminated + fracture controlled pyrite. Strong carbonate alteration.
23.5	39.5	ARCG	tr Lim, Co, S <sub>1</sub> SK Moderately graphitic limonite, weak, variable quartz stockworks, trace fracture controlled limonite.
39.5	40.0	LAQM	3% Lim, 3% Py, Co, So, B <sub>2</sub> , P <sub>2</sub> Small zone of moderately, pervasively limonitic altered qz monzonite. 3% disseminate, moderately altered pyrite, fine grained
40	42	LQM	2% Lim, Co, S <sub>1</sub> , B <sub>1</sub> Weak, pervasive limonite within quartz-biotite monzonite weak silica stockworks.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1617

Page 2 of 2

Logged by: Carol Schulte

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
			20-25% oxidized pyrite
42	43.5	ARG	Argillite, strong quartz stockwork, trace fracture controlled limonite to Lim, Co, S <sub>2</sub>
43.5	47.0	LAQM	4% Lim, 11% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub> Mod-strong, pervasive limonite within strongly altered quartz monzonite, 11-12% fine grained weak-moderately oxidized pyrite, disseminated + minor fracture controlled. weak carbonate alteration.
47.0	58.0	ARGG	C <sub>3</sub> , S <sub>1</sub> SK Weakly graphitic argillite, weak-moderate quartz stockwork, strong carbonate alteration (stockwork?)
58.0		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1618

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2.5	LAQM	tr Lim, tr Py, 1% Sb(?) Co, S, B <sub>2</sub> , P <sub>4</sub>
2.5	25.0	ARGG	Co, S <sub>2</sub> , SK
25.0	33.0	LAQM	3% Lim, 7% Py, Co, S <sub>1</sub> , B <sub>2</sub> , P <sub>2</sub>
33.0	70.0	ARGG	33-48m: Co, S <sub>1</sub> SK
			48-70m: C <sub>3</sub> , S <sub>1</sub> SK
70.0		EOM	END OF HOLE

0.5m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1618

Page 1 of 1

Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2.5		tr Lim, tr Py, 1% Sb (?), Co, S <sub>1</sub> , B <sub>2</sub> , P <sub>4</sub> bleached buff strongly altered quartz monzonite tr strongly altered Pyrite, 1% fracture controlled stibnite (?). weak fracture controlled quartz stockwork. 25% LAQM - weakly limonitic.
2.5	25.0	ARGG	Weakly graphitic argillite, increasing graphite with depth, weak-moderate quartz stockwork, strong fr <sub>12-16m</sub> , 18-22m. Co, S <sub>2</sub> , SK
25.0	33.0	LAQM	3% Lim, 7% Py, Co, S <sub>1</sub> , B <sub>2</sub> , P <sub>2</sub> Moderate, pervasive limonite within strongly altered quartz monzonite. 6-9% fine grained disseminated + fracture controlled pyrite, moderately oxidized. (locally weakly oxidized). weak fine silica stringers - not a stockwork
33.0	70.0	ARGG	33-48m: Co, S <sub>1</sub> SK 48-70m: S <sub>2</sub> , S <sub>1</sub> SK Moderately graphitic, weakly foliated grey-black argillite, weak silica stockwork, strong carbonate alteration (calcite stockwork) fr <sub>48-70m</sub> .
70.0		EOH	END OF HOLE

0.5m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1619

Logged by: Carl Schulte

Page 1 of 1

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
0	1	OVB	Overburden
1	4.5	AR66	AR66: Co, So, tr Lim, SK SKT: 1% Lim, 2% Py, Co, Si, P <sub>3</sub>
4.5	30	AR66	tr Lim, Co, Si SK
30	32	LQRM	2% Lim, tr Py, Co, So, B <sub>1</sub> , P <sub>3</sub>
32	37	AR66	tr Lim, Co, S <sub>2</sub> SK
37	50	LAQM	2% Lim, 7% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> partial SK
50	51	AR66	Co, S <sub>1</sub> SK
51.0	56.0	LAQM	2% Lim, 5% Py, Co, So, B <sub>2-3</sub> , P <sub>2</sub>
56.0	60	AR66	AR66: Co, S <sub>2</sub> SK LAQM: 2% Lim, 6% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub> SK 65:35 LAQM
60		EOH	END OF HOLE

1 m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1619

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1		Overburden
1	4.5	ARvb	ARvb: Co, So, tr Lim 55:45 SLT (SST?) SLT: 1 <sup>st</sup> Lim, 2 <sup>nd</sup> Py, Co, S <sub>1</sub> , P <sub>3</sub> SK Mixed weakly graphitic argillite and fine grained, weakly laminated, moderately foliated siltstone, 1 <sup>st</sup> foliation controlled limonite + 2 <sup>nd</sup> weakly foliation controlled, very fine grained pyrite in siltstone (Steel form?) Weak quartz stockwork in SLT.
4.5	30	ARvb	tr Lim, Co, S <sub>1</sub> SK Weakly graphitic argillite, locally weakly foliated, weak quartz stockwork, somewhat stronger. From 18-30m. Strong graphite alteration from 20-26m - fine recovery, poor "chip" recovery Minor LAQM from 16-18m, 25% LAQM + 6% P <sub>3</sub> From 26-28m, 15% similar LAQM from 28-30m.
30	32	LAQM	2 <sup>nd</sup> Lim, tr Py, Co, So, B <sub>1</sub> , P <sub>3</sub> Weakly limonitic (pervasive) within quartz-biotite mesonite, trace oxidized pyrite 15% unaltered biotite. Minor LAQM (45%).
32	37	ARvb	tr Lim, Co, S <sub>2</sub> SK Weakly graphitic argillite, weakly foliated, moderate quartz stockwork, somewhat locally foliation controlled, weak fracture controlled limonite.
37	50.0	LAQM	2 <sup>nd</sup> Lim, 7% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> Weak, pervasive limonite within strongly altered quartz <sup>biotite</sup> mesonite. Minor LAQM from 37-38m, and 46-48m. 5-9% fine grained, - mud grained,

lim excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 96 1619

Page 2 of 2

Logged by: Carl Schultz

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			weakly oxidized to unoxidized disseminated pyrite, 12% dissem. med. grained pyrite from 48-50m, with moderate limonite. Weak carbonate alteration, silica alteration + local quartz stockworks.
50	51.0	AR66	Co, S, SK Weakly graphitic argillite, weak quartz stockworks.
51.0	56.0	LAQM	2% Lim, 5% Py, Co, S, B2-3, P Weak pervasive limonite within moderately-strongly altered quartz-biotite monzonite. LAQM: LQM BS:15 LAQM = minor unaltered quartz monzonite, 5-6% fine grained, disseminated, moderately to weakly oxidized pyrite. Weak carbonate alteration from 52-54m.
56.0	60	AR66	AR66: Co, S, SK BS:35 LAQM LAQM: 2% Lim, 6% Py, Co, S, B3, P Mixed weakly graphitic argillite + minor quartz stockwork with strong-moderately altered quartz-biotite stockwork + minor LQM. 1. LAQM, 5-7% fine grained, weakly oxidized, disseminated pyrite, weak carbonate alteration.
60		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 96 1620

Page 1 of 1

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVB	Overburden
2	9	LAQM	3% Lim, 8% Py, Co-s, Si, B <sub>3</sub> , P <sub>3</sub> SK partial
9	10	ARG	tr Lim, Co, So
10	17	LAQM	3% Lim, 6% Py, Ci, Si, B <sub>3</sub> , P <sub>1</sub> SK
17	28	ARG	Co, Si SK
28		EOH	Rods too tight (Summary log indicates EOH at 32m)

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 96 1620

Page 1 of 1

Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	9	LAQM	3% Lim, 8% Py, Co-3, Si, B <sub>2</sub> , P <sub>3</sub> SK - partial Weak-moderate, pervasive limonite within strongly altered quartz monzonite, 5-10% (variable) Fine grained strongly oxidized disseminated Pyrite. Variable carbonate alteration, strongest from 6-8m, weak-moderate pervasive silica alteration, strong silica alteration from 8-9m.
9	10	AR66	tr Lim, Co, So Weakly graphitic argillite, med. fine fractures + trace limonite
10	17.0	LAQM	3% Lim, 6% Py, C <sub>1</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> SK Moderate pervasive limonite within strongly altered quartz-monzonite, moderate hematite alteration from 14-16m, 3-10% Pyrite, variable concentration, fine-medium grained (coarser in hematitic zone), disseminated. Weak carbonate alteration, silica stockwork, 30% AR66 from 14-16m, minor AR66 from 12-14m
17	28	AR66	Co, S <sub>1</sub> SK Moderately graphitic argillite, strong from 20-24m, with weak carb. alteration, weak silica stockwork. Minor LAQM + mod. oxidized pyrite from 22-24m, +26-28m
28		EOH	END OF HOLE - rods too tight Clog indicates EOH at 32m)

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL96 1621

Logged by: Carl Schulze

Page 1 of 1

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVB	Overburden
2	6	ARGG	ARGG: tr Lim, Co, Si
			CH: tr Lim, Co, S <sub>2</sub>
			LAQM: 2% Lim, tr Py, Co, So, B <sub>3</sub> , P <sub>3</sub>
6	12	ARGG	Co, S <sub>2</sub> SK
12	19	LAQM	4% Lim, 10% P <sub>2</sub> , Cu, So, B <sub>3</sub> , P <sub>2</sub>
19	21	ARGG	Co, S <sub>2</sub> SK
21	25.5	LAQM	1% Lim, 12% Py, Co, So, B <sub>3</sub> , P <sub>2</sub>
25.5	60	ARGG	25.5 - 44m: Co, Si SK
			44 - 60m: C <sub>3</sub> , S <sub>2</sub> SK
60		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1621

Page 1 of 2

Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	6	ARLV	Argg tr Lim Co, S <sub>1</sub> 40:40:20 Chl: tr Lim, Co, S <sub>2</sub> LAQM: 2% Lim, tr P <sub>2</sub> , Co, So, B <sub>3</sub> , P <sub>2</sub> Mixture of ARV, CH, LAQM, may indicate overburden contamination of ARV-G. ARV, mod-weakly graphitic, moderate quartz stockwork.
6	12	ARV-G	Co, S <sub>2</sub> SK Weakly graphitic argillite, strong quartz stockwork following brittle fracturing (breccia?)
12	19	LAQM	4% Lim, 10% Py, Cl, So, B <sub>3</sub> , P <sub>2</sub> Strong-moderate limonite alteration, pervasive + fracture controlled, within strongly altered quartz-biotite monzonite. 7-12% medium + fine grained disseminated + fracture controlled pyrite, weak-moderately oxidized (coarse grained material weakly altered). Weak carbonate alteration, fracture controlled manganese.
19	21	ARV-G	Co, S <sub>2</sub> SK Weakly graphitic argillite, moderate quartz stockwork
21	25.5	LAQM	1% Lim, 12% Py, Co, So, B <sub>3</sub> , P <sub>2</sub> Weak pervasive limonite within strongly altered quartz-biotite monzonite. 12% fine grained, disseminated, euhedral, weak-moderately oxidized pyrite, uniform distribution.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1621Page 2 of 2Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
25.5	60	AR66	25-44m: C <sub>0</sub> S <sub>1</sub> S/S
			44-60m: C <sub>3</sub> S <sub>2</sub> S/S
			Moderately graphitic argillite, increasing slightly with depth, no carbonate alt. to 44m, strong carbonate alt. from 44-60m, with weak somewhat stronger quartz stockworks (calcite stockworks?)
60		EOM	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1622

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVB	Overburden
2	9.5	ARV	tr Lim, Co, S <sub>1</sub>
9.5	11.0	LAQM	4% Lim, 4% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK
11.0	25.5	ARLG	Co, S <sub>1-3</sub> SK
25.5	28.5	LQM	LQM: 2% Lim, tr P <sub>3</sub> , Co, S <sub>2</sub> , B <sub>1</sub> , P <sub>3</sub> LAQM: 3% Lim, 1% Py, Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub> 70:30 LAQM
28.5	30.0	ARLV	tr Lim, Co, S <sub>2</sub>
30.0	32.0	ARLV:	ARLV: tr Lim, Co, S <sub>1</sub> SK 50:50 SLTG
		<del>ARLV</del>	SLTG: 2% Lim, Co, S <sub>2</sub>
		<del>50:50</del>	
32.0	36.0	ARLV	tr Lim, Co, S <sub>2</sub>
36.0	37.5	LQM	LQM: 2% Lim, Co, S <sub>2</sub> , B <sub>1</sub> 80:20 LAQM LAQM: 3% Lim, 2% Py, S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub>
37.5	42.0	QM	tr Lim, C <sub>2</sub> , S <sub>2</sub> , B <sub>1</sub>
42.0	46.0	LQM	3% Lim, C <sub>3</sub> , S <sub>2</sub> , B <sub>1</sub>
46.0	54.5	ARLV	Co, S <sub>2</sub>
54.5	59.0	LAQM	3% Lim, 10% Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>2</sub>
59.0	63.0	ARLV	Co, S <sub>2</sub>
63.0	66.0	LAQM	2% Lim, 8% Py, C <sub>2</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>2</sub> SK
66.0	68.0	ARV	tr Lim, Co, S <sub>3</sub> SK
68.0	72.0	ARLV	ARLV: tr Lim, Co, S <sub>3</sub> SK 75:25 LAQM LAQM: 4% Lim, 5% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub>
72.0	73.0	ARV	Co, S <sub>2</sub> S/S
73.0	74.0	LAQM	2% Lim, 12% Py, C <sub>1</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>1</sub> SK
74.0	76.5	ARLV	Co, S <sub>3</sub> SK
76.5	79.0	LAQM	3% Lim, 7% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> SK
79.0	84.0	ARLV	tr Lim, Co, S <sub>1</sub>

84.0 EOH - END OF HOLE - "RODS TIGHT"  
0.5 m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 96 1622

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	9.5	ARG	Arg to Lim, Co, Si Argillite, weakly "bleached", minor leucocratic siltstone, minor fracture controlled, limonite weak silica influx, often parallel to weakly folia developed foliation.
9.5	11.0	LAQM	4% Lim, 4% Py, Co, Si, B <sub>2</sub> , B <sub>3</sub> SK Moderate pervasive, stronger fracture controlled limonite within strongly altered quartz feldsp biotite porphy. 4% fine grained, fracture controlled + disseminate pyrite, strongly oxidized, weak quartz stockworks.
11.0	25.5	ARGG	Co, Si - 3 Weakly graphitic argillite, weakly foliated, variable quartz stockwork
25.5	28.5	LQN	2% Lim, tr Py, Co, So, B <sub>1</sub> , B <sub>3</sub> (LQM) 70:30 LAQM 3% Lim, 1% Py, Co, So, B <sub>2</sub> , B <sub>3</sub> (LAQM) Mixed altered to unaltered quartz-biotite monzonite, both weakly-moderately limonitic 1% fine grained strongly oxidized pyrite in LAQM, minor med. grained pyrite boxwork
28.5	30.0	ARGG	tr Lim, Co, Si SK Weakly graphitic argillite, moderate quartz stockwork
30.0	32.0	ARGG	ARGG: tr Lim, Co, Si SK 50:50 SLTG SLTG. 2% Lim, Co, So Mixed ARGG (weakly graphitic, weak quartz stockwork) and limonitic siltstone, 1-2% pervasive fracture filling, weakly pervasive limonite.

0.5 m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1622

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
32.0	36.0	AR66	tr Lim, Co, So Weakly graphitic limonite, trace limonite along fine fractures.
36.0	37.5	LQM: LAQM 80:20	3% Lim, Co, So, B <sub>1</sub> - LQM 80:20 LAQM 3% Lim, 2% Py, So, B <sub>3</sub> , P <sub>0</sub> - LAQM Moderate, pervasive limonite within quartz- biotite monzonite, weakly altered pyrite (LQM) LAQM: strongly altered quartz-mo. biotite monzonite, 2% med-coarse grained unoxidized pyrite, similar limonite content.
37.5	42.0	QM	tr Lim, C <sub>2</sub> , So, B <sub>1</sub> Weak fracture controlled limonite in buff colored quartz-biotite monzonite - moderate carbonate alteration.
42.0	46.0	LQM	3% Lim, C <sub>3</sub> , So, B <sub>1</sub> Similar to QM from 37.5-42.0m: moderate pervasive limonite, increasing carbonate alter- ation with depth. Minor QM from 44-46m.
46.0	54.5	AR66	Co, So Weakly-moderately graphitic argillite, minor quartz stockwork from 50-52m
54.5	59.0	LAQM	3% Lim, 10% Py, C <sub>2</sub> , So, B <sub>3</sub> , P <sub>2</sub> Weak-moderate pervasive limonite within strongly altered quartz-biotite monzonite. 10-12% med. grained fracture controlled + disseminated weakly-moderately altered pyrite - oxidation decreases with depth, more disseminated pyrite. Moderate pervasive carbonate alteration.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
59.0	63.0	ARW	Co <sub>2</sub> S <sub>2</sub> Weakly graphitic argillite, moderate-weak quartz stockwork
63.0	66.0	LAQM	2% Lim, 8% P, C <sub>2</sub> S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> SK Weak pervasive limonite within strongly altered qz-monzonite. 8% medium grained (lesser fine grained) weakly to moderately oxidized pyrite, disseminated. Weak to moderate carbonate alteration, strong quartz stockwork particularly near lower contact.
66.0	68.0	ARW	A to Lim, Co <sub>2</sub> S <sub>2</sub> SK Argillite, strong quartz stockwork, weak pervasive silica alterations
68.0	72.0	ARW	ARW: A to Lim, Co <sub>2</sub> S <sub>2</sub> SK 75:25 LAQM LAQM: 4% Lim, 5% P, C <sub>2</sub> S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> 75:25 mixture of ARW (weakly graphitic, strong quartz stockwork) and LAQM: 4% pervasive limonite, 5% fine, locally medium grained pyrite, disseminated + fracture controlled, moderately oxidized. Weak quartz stockwork.
72.0	73.0	ARW	Co <sub>2</sub> S <sub>2</sub> SK Argillite, moderate quartz stockwork
73.0	74.0	LAQM	2% Lim, 12% P, C <sub>2</sub> S <sub>2</sub> , B <sub>2</sub> , P <sub>2</sub> SK Weak, pervasive limonite within strongly altered qz-biotite monzonite. 12% fracture controlled - disseminated pyrite, very weakly altered oxidized, medium-fine grained.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Strong quartz stockwork, weak carbonate alteration.
74.0	76.5	ARGG	Co, S <sub>2</sub> , SK Weakly graphitic argillite, weakly laminated, strong quartz stockwork.
76.5	79.0	LAQM	3% Lim, 7% Py, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> Moderate pervasive limonite, locally stronger along fractures, in strongly altered gr-biotite monzonite. 6-8% fine grained disseminated + fracture controlled weakly oxidized pyrite Locally hematitic, weak quartz stockwork, weak carbonate alteration.
79.0	84.0	ARGG	Co, S <sub>1</sub> , SK Moderately graphitic argillite, weak quartz stockwork, trace fracture controlled limonite From 80-82m. Strong calcite stockwork From 79-80m, along upper contact.
84.0		EOH	END OF HOLE - RODS TIGHT

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1623

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	10	SLT	tr Lim, Co, So-S <sub>2</sub> <span style="float: right;">SK</span>
10	17	SM	Co, So
17	20	LQM	3 <sup>rd</sup> Lim, C <sub>2</sub> , S <sub>0</sub> , B <sub>1</sub>
20	23.0	ARL	tr Lim, tr P <sub>1</sub> , C <sub>1</sub> , S <sub>1</sub> , P <sub>2</sub> <span style="float: right;">SK</span>
23.0	26.0	LQM	LQM: 3 <sup>rd</sup> Lim, Co, S <sub>1</sub> , B <sub>1</sub> <span style="float: right;">70:30 LAQM</span>
			LAQM: 3 <sup>rd</sup> Lim, 2 <sup>nd</sup> P <sub>1</sub> , S <sub>0</sub> , Co, B <sub>3</sub> , P <sub>2</sub>
26.0	36.5	ARL	Co, S <sub>3</sub> -S <sub>1</sub> <span style="float: right;">SK</span>
36.5	40.0	LQM	2 <sup>nd</sup> Lim, C <sub>1-3</sub> , S <sub>0</sub> , B <sub>1</sub>
40.0	42.0	LQM	LQM: 2 <sup>nd</sup> Lim, C <sub>1</sub> , S <sub>0</sub> , B <sub>1</sub> <span style="float: right;">SS:45 LAQM</span>
			LAQM: 2 <sup>nd</sup> Lim, 2 <sup>nd</sup> P <sub>1</sub> , S <sub>1</sub> , C <sub>2</sub> , B <sub>2-3</sub> , P <sub>1</sub>
42.0	44.0	LQM	2 <sup>nd</sup> Lim, tr P <sub>1</sub> , C <sub>3</sub> , S <sub>0</sub> , B <sub>1-2</sub> , P <sub>1</sub>
44.0	49.0	LAQM	2 <sup>nd</sup> Lim, tr P <sub>1</sub> , C <sub>3</sub> , S <sub>0</sub> , B <sub>1-2</sub> , P <sub>1</sub>
49.0	51.0	LQM	2 <sup>nd</sup> Lim, C <sub>3</sub> , S <sub>0</sub>
51.0	64	ARL	tr Lim, Co, S <sub>1</sub>
64		EOH	END OF HOLE

5m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1623

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	10	SLT	4r-1% Lim, Co, So-S <sub>2</sub> SK Siltstone, weakly foliated - massive, Approx. 30% weakly - moderately limonitic. Moderate quartz stockwork from 4-8m. Minor LAQM? - Particles rounded - semi-rounded - overburden?
10	17.0	SH	Co, So Med. grey, weakly foliated shale, weakly laminated (bleached argillite?)
17	20.0	LQM	3% Lim, Co, So, B <sub>1</sub> Moderate limonite, pervasive, within quartz biotite monzonite, moderate carbonate alteration
20.0	23.0	ARG	tr Lim, tr Py, Co, S <sub>1</sub> , P <sub>2</sub> SK. Argillite, weak carbonate, siliceous alteration, siliceous stockwork. 20% grey siltstone from 20-22m, minor siltstone from 22-23m. 3% very fine grained pyrite (?) in siltstone, difficult to distinguish.
23.0	26.0	LQM	LQM: 3% Lim, Co, S <sub>1</sub> , B <sub>1</sub> 70:30 LAQM LAQM: 3% Lim, 2% Py, So, Co, B <sub>3</sub> , P <sub>2</sub> 70:30 mixture of LAQM + LQM. Both <sup>undergone</sup> moderately pervasive limonite alteration, LAQM has 2% fracture controlled medium grained, moderately oxidized pyrite. LAQM more abundant from 23-24m. weak quartz stockwork in LQM.
26.0	36.5	ARG	Co, S <sub>3</sub> -S <sub>1</sub> SK Weakly graphitic argillite, increasing graphite

5 m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1623

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Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			alteration with depth. $\emptyset$ Strong quartz stockworks along upper contact, decreasing with depth.
36.5	40.0	LQM	2% Lim, C <sub>1-3</sub> , S <sub>0</sub> , B <sub>1</sub> Weakly limonitic (pervasive) qz-biotite monzonite strong carbonate alteration, weak quartz stockworks from 36.5-39.0m. Minor LAQM + fracture controlled hematite from 36.5-38.0 m
40	42	LQM	LQM: 2% Lim, C <sub>1</sub> , S <sub>0</sub> , B <sub>1</sub> 55:45 LAQM LAQM: 2% Lim, 2% Py, S <sub>1</sub> , C <sub>2</sub> , B <sub>2-3</sub> , P <sub>1</sub> LQM: Weak, pervasive limonite altered, weakly altered quartz-biotite monzonite, weak carbonate alteration. LAQM: Similar limonite, strongly altered quartz-biotite monzonite, weak quartz stockworks + 2% disseminated, weakly oxidized, mod weak fine grained pyrite, moderate carbonate alteration.
42	44	LQM	2% Lim, to Py, C <sub>3</sub> , S <sub>0</sub> , B <sub>1-2</sub> , P <sub>1</sub> Weak, pervasive limonite in strong carbonate altered qz-biotite monzonite, biotite weakly <del>ox</del> altered. Minor LAQM, trace weakly oxidized pyrite.
44	49.0	LAQM	2% Lim, 6% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub> Weak, pervasive limonite in strongly altered qz-biotite monzonite, 6% disseminated + lesser fracture controlled weakly oxidized - unoxidized, mod. grained pyrite. Moderate

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			carbonate alteration
49.0	51.0	LQM	2° Lim, C, S <sub>2</sub>
			Weak pervasive limonite in quartz-biotite monzonite, strong carbonate alteration. (Unaltered equivalent of LQM from 44-49m?)
51.0	64	ARB	tr Lim, C, S <sub>2</sub> SK
			Weakly graphitic argillite, trace limonite along fine fractures from 51-56m, moderate quartz stockwork from 56-62m.
64		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1624

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVBN	Overburden
2	13.5	ARGL	tr Lim, Co, S <sub>2</sub> SK
13.5	16.0	LAQM	LAQM: 3% Lim, 5% P, Co, S <sub>1</sub> , B <sub>3</sub> , P <sub>3</sub> SK 50:50 LQM LQM: 3% Lim, C <sub>2</sub> , S <sub>0</sub> , B <sub>1</sub>
16.0	21.1	ARGL	tr Py, Co, S <sub>0</sub>
21.0	23.0	LAQM	4% Lim, 2-6% P, Co, S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub>
23.0	30.0	ARGL	tr Lim, Co, S <sub>1</sub> SK
30.0	46.5	LAQM	3% Lim, 6% P <sub>py</sub> , C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub>
46.5	63.0	ARGL	Co, S <sub>1</sub> SK
63.0	68.0	LAQM	LAQM: 3% Lim, 3-15% P <sub>py</sub> , C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub> SS:45 ARGL ARGL: Co, S <sub>2</sub> SK
68.0	75.0	LAQM	4% Lim, 11% P <sub>py</sub> , C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub> SK
75.0	76.0	ARGL	tr Lim, Co, S <sub>3</sub> partial SK
76.0	78.5	LAQM	1% Lim, 6% P <sub>py</sub> , Co, S <sub>4</sub> , B <sub>3</sub> , P <sub>1</sub> SIS
78.5	85.5	ARGL	Co, S <sub>2</sub> SK
85.5	91.0	LAQM	4% Lim, 10% P <sub>py</sub> , C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>1</sub> SK
91.0	96.0	ARGL	Co, S <sub>2</sub> SK
96.0		EOH	End of hole - rods plugged

0.5 m. excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1624

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2	OVRN	Overburden
2	13.5	ARGL	tr Lim, Co, S <sub>2</sub> SK weakly graphitic argillite, weak moderate quartz stockwork, locally fracture filling, minor LAQM from 2-6m, fracture controlled limonite from 4-10m, zeolite (C?) from 10-14m
13.5	16.0	LAQM	LAQM: 3% Lim, 5% Py, Co, Si, B <sub>3</sub> , P <sub>3</sub> 50:50 LQM LQM: 3% Lim, Co, S <sub>2</sub> , B <sub>1</sub> Even mixture of strongly altered qz-biotite monzonite (LAQM) + unaltered qz-biotite monzonite (LQM) 5% strongly oxidized, disseminated, fine grained pyrite in LAQM, with weakly developed quartz stockwork. Mod. carbonate alteration in LQM; both <sup>have</sup> undergone moderate pervasive limonite alteration
16.0	21.0	ARG	tr Py, Co, S <sub>2</sub> Grey-black argillite, weak limonite alteration along fine fractures, light fraction may be siltstone. weakly laminated
21.0	23.0	LAQM	4% Lim, 6% Py + Co, S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub> Strong pervasive limonite within strongly altered qz-biotite-monzonite, 2-6% Py (variable); fine grained, disseminated + fracture controlled, strongly oxidized. Possible to stibnite
23.0	30.0	ARGL	tr Py, Co, S <sub>1</sub> SK weakly graphitic argillite, weak quartz stockwork stronger near upper contact, weak limonite along fine fracture system, separate from stockwork

0.5m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1624

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
30.0	46.5	LAQM	<p>3% Lim, 6% Py, C<sub>2</sub>, S<sub>0</sub>, B<sub>3</sub>, P<sub>1</sub>                      Moderate, pervasive limonite, decreasing from 42-46m,                      within strongly altered qz-biotite monzonite.                      40% LQM (unaltered biotite) from 24<sup>30</sup>-32m,                      minor LQM from 38-42m, trace amounts                      throughout. Variable pyrite concentration,                      from 5-12%, greatest concentration from 31-38m.                      Pyrite is disseminated, weakly oxidized, fine-med.                      grained, locally coarse grained. Pervasive moderate                      carbonate alteration, minor quartz stockwork                      along contacts.</p>
46.5	63.0	ARGG	<p>Co, S<sub>1</sub> SK                      Weakly graphitic argillite, <del>also</del> increasing                      with depth, trace fracture controlled limonite.                      From 46-52m, weak local quartz stockwork.</p>
63.0	68.0	LAQM	<p>LAQM: 3% Lim, 3-15% Py, C<sub>2</sub>, S<sub>0</sub>, B<sub>3</sub>, SS:45 ARGG                      ARGG: Co, S<sub>2</sub> SK                      SS:45 mixture of moderate pervasively                      limonite altered strongly altered qz-biotite                      monzonite (LAQM) + weakly graphitic,                      argillite (ARGG) with weak quartz stock-                      work. Interlayered?, 3-15%, strongly variable                      pyrite concentration, fine-medium grained, cuboidal,                      disseminated, weakly unoxidized. Moderate                      carbonate alteration in LAQM.</p>
68.0	75.0	LAQM	<p>4% Lim, 11% Py, C<sub>1</sub>, S<sub>2</sub>, B<sub>3</sub>, P<sub>1</sub> SK                      Strong, pervasive limonite within strongly altered                      qz-biotite monzonite, 11% fine grained, dissemi.</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1624

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			weakly oxidized pyrite. Increasing quartz stockwork, decreasing carbonate alteration with depth. Approx 20% AR66, weakly graphitic, evenly distributed across interval.
75.0	76.0	AR66	tr Lim, Co, S <sub>2</sub> partial SK
			weakly graphitic argillite, strong <sup>silica</sup> quartz stockwork, weak pervasive silica influx
76.0	78.5	LAQM	1% Lim, 6% Py, Co, S <sub>4</sub> , B <sub>2</sub> , P <sub>1</sub> SK
			Weak limonite, pervasive, in strongly altered quartz-biotite monzonite. 60% quartz-vein? 6% fine grained disseminated weakly oxidized to unoxidized pyrite - locally "massive" along fractures.
78.5	85.5	AR66	Co, S <sub>2</sub> SK
			Moderately graphitic argillite, moderate quartz stockwork, strongly fractured to locally brecciated
85.5	91.0	LAQM	4% Co, 10% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>2</sub> , P <sub>1</sub> SK
			Strong pervasive limonite within strongly altered qz-monzonite; stronger limonite along fractures. 10% fine grained, disseminated, weakly oxidized pyrite, locally very fine grained. Moderate to weak quartz stockwork along contacts, moderate carbonate alteration.
91.0	96.0	AR66	Co, S <sub>2</sub> SK
			Moderately graphitic argillite, moderate-strong fine quartz stockwork
96.0		EOH	END OF HOLE: Rods plugged

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1658

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description <small>(include modifiers on first line of descriptions)</small>
0	1.5	OVBN	Overburden
1.5	9.5	LAQM	2% Lim, 3% Py, 1% Sb(?) <sub>1</sub> , Co, So, P <sub>3</sub> SK
9.5	14.0	AQM	AQM: tr Lim, Co, So, B <sub>3</sub> , tr Sb? 70:30 LAQM
			LAQM: 2% Lim, 1% Py, C <sub>2</sub> , So, B <sub>3</sub> , P <sub>3</sub> tr Sb?
14.0	16.5	LAQM	2% Lim, 2% Py, Co, So, B <sub>3</sub> , P <sub>3</sub> tr Sb?
16.5	18.5	AQM	tr Lim, tr Py, 2% Sb, Co, So, B <sub>3</sub> , P <sub>0</sub>
18.5	36.0	LAQM	3% Lim, 2% Py, 1% Sb(?) <sub>1</sub> , Co, So, B <sub>3</sub> (18.5-26.0m)
			8% Lim, 6% Py, P <sub>2</sub> , 1% Sb, C <sub>1</sub> , So, B <sub>3</sub> (26.0-36.0m)
36.0	44.0	LAQM	LAQM: 3% Lim, 3% Py, 4% Aspy, C <sub>1</sub> , So, B <sub>3</sub> , P <sub>2</sub> 55:45 AQM
			AQM: tr Lim, 5% Aspy, Co, So, B <sub>3</sub>
44.0	52.5	AQM	tr Lim, 2% Aspy, C <sub>1</sub> , So, B <sub>3</sub>
52.5	58.0	ARVV	Co, S <sub>1</sub> SK
58.0	61.0	AQM	tr Lim, 7% Py, 3% Aspy, C <sub>1</sub> , So, B <sub>3</sub> , P <sub>0</sub>
61.0	67.5	ARVV	Co, So
67.0	75.0	AQM	tr Lim, 11% Py, tr Aspy, C <sub>2</sub> , So, B <sub>3</sub> , P <sub>0</sub>
75.0	82.0	ARVV	2% P <sub>0</sub> , Co, S <sub>1</sub> SK
82.0		EOH	END OF HOLE! Bit plugged

1.0m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1658

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	OUBN	Overburden
1.5	9.5	LAQM	2% Lim, 3% Py, 1% Sbc?, Co, Si, P <sub>3</sub> SK Weak, pervasive limonite (strong from 1.5-4.0m) in strongly altered qz-biotite monzonite 3% fine grained, fracture controlled + dissemin- ated pyrite, strongly oxidized, + 1% fracture controlled blue-black mineral Cstibnite? - no "ochre". Weak quartz stockworks.
9.5	14.0	AQM	AQM: tr Lim, Co, So, B <sub>3</sub> , tr Sb 70:30 LAQM LAQM: 2% Lim, 1% Py, C <sub>2</sub> , So, B <sub>3</sub> , tr Sb, P <sub>3</sub> AQM: LAQM 70:30. Mixture of buff coloured strongly altered quartz biotite monzonite, <del>and</del> <del>simi</del> (AQM), and similarly altered weakly, pervasively mineralized quartz-biotite monzonite (LAQM). 1% fine grained disseminated strongly oxidized pyrite in LAQM, trace stibnite in both.
14.0	16.5	LAQM	2% Lim, 2% Py, Co, So, B <sub>3</sub> , P <sub>3</sub> tr Sb? Weak, pervasive limonite in strongly oxidized quartz-biotite monzonite. 2% fine grained strongly oxidized disseminated pyrite, weak fracture controlled manganese, trace stibnite?
16.5	18.5	AQM	tr Lim, tr Py, 2% Sb, Co, So, B <sub>3</sub> , P <sub>3</sub> Buff coloured strongly altered qz-biotite monzonite, 2% disseminated, locally concentrated stibnite, trace disseminated unoxidized disseminated

1.0m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1658

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
18.5	36.0	LAQM	<p>3% Lim, 2% Py, 1% Sb?, Co, So, B<sub>2</sub> (18.5-26.0m)</p> <p>3% Lim, 6% Py, 1% Sb, Cr, So, B<sub>2</sub> (26.0-36.0m)</p> <p>Moderate, pervasive limonite, strong fracture controlled limonite from 30-34m, minor hematite, in strongly altered quartz-biotite monzonite. 3% disseminated, fine grained disseminated pyrite, strongly oxidized, from 18.5-26.0m; 4-8% disseminated + fracture controlled, moderately oxidized, fine-medium grained pyrite from 26.0-36.0m. Weak carbonate alteration from 26.0-36.0m, = 1% fracture controlled stibnite (C).</p>
36.0	44.0	LAQM	<p>26-28m - Minor non-limonitic qz-monzonite (AQM)</p> <p>LAQM: 3% Lim, 3% Py, 4% Aspy, Cr, So, B<sub>2</sub>, 55:45 AQM</p> <p>AQM: tr Lim, 5% Aspy, Co, So, B<sub>2</sub></p> <p>LAQM: AQM 55:45 Mixture of moderately pervasively limonitic strongly altered quartz-biotite monzonite (LAQM) and unoxidized, similarly altered qz-biotite monzonite (AQM) 3% disseminated moderately-strongly oxidized fine grained pyrite in LAQM; 5% disseminated, fine grained arsenopyrite in AQM, 4% in LAQM. Weak carbonate alteration of LAQM.</p>
44.0	52.5	AQM	<p>tr Lim, 2% Aspy, Cr, So, B<sub>2</sub></p> <p>Strongly altered quartz-biotite monzonite, 2-3% disseminated fine grained arsenopyrite</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1650

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			decreasing with depth, minor fracture controlled, partially pervasive limonite, decreasing with depth. (Same unit as 36-44m, less limonitic). Weak carbonate alteration.
52.5	58.0	ARW	Co, S, Si Weakly graphitic argillite, weak quartz stockworks
58.0	61.0	AQM	tr Lim, 7% Py, 3% Aspy, C <sub>1</sub> , S <sub>o</sub> , B <sub>3</sub> , Po Buff coloured strongly altered quartz monzonite, minor fracture controlled limonite, 6-9% disseminated, fine grained, unoxidized pyrite, 2-4% fine grained disseminated arsenopyrite, trace scorodite. Weak carbonate alteration.
61.0	67.5	ARW	Co, S <sub>o</sub> Moderately graphitic argillite, minor quartz stockworks with fine grained unoxidized pyrite from 64-66m
67.5	75.0	AQM	tr Lim, 11% Py, tr Aspy, C <sub>2</sub> , S <sub>o</sub> , B <sub>3</sub> , Po Strongly altered quartz-biotite monzonite, trace spotty limonite, 8-15% fine grained disseminated unoxidized pyrite, increasing with depth, tr-1% disseminated arsenopyrite, decreasing with depth. Moderate carbonate alteration.
75.0	82.0	ARW	2% Py, Co, S <sub>o</sub> , Po S <sub>k</sub> Weakly-moderately graphitic argillite, 1-3%



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL-96-1659

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	4.5	OUBN	Overburden
4.5	8.0	LQM	3% Lim, tr Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>1-2</sub> , P <sub>3</sub>
8.0	10.0	LAQM	LAQM: 3% Lim, 2% Py, tr aspy, C <sub>3</sub> , S <sub>1</sub> , SK, 70% LQM LQM: 3% Lim, C <sub>3</sub> , S <sub>1</sub>
10.0	12.0	LQM	1% Lim, C <sub>1</sub> , S <sub>0</sub> , B <sub>1</sub>
12.0	13.5	LAQM	LAQM: 3% Lim, 3% Py, C <sub>3</sub> , S <sub>0</sub> , B <sub>2-3</sub> , P <sub>3</sub> , SS: 45% LQM LQM: 1% Lim, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub>
13.5	26.0	ARGG	tr Lim, C <sub>0</sub> , S <sub>1</sub> SK
26.0	36.5	SH	C <sub>0</sub> , S <sub>1</sub> SK
36.5	40.0	AQM	6% Py, C <sub>0</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub>
40.0	51.0	ARH(SH?)	tr Py, C <sub>0</sub> , S <sub>2</sub> , P <sub>0</sub>
51.0	58.5	AQM	8% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub>
58.5	61.0	ARH(SH?)	3% Py, C <sub>0</sub> , S <sub>3</sub> , P <sub>0</sub> SK
61.0	67.0	AQM	3% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub>
67.0	70.5	QRM	1% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>1</sub> , P <sub>0</sub>
70.5	74.0	AQM	8% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub>
74.0	94.0	SH(ARH?)	C <sub>0</sub> , S <sub>1</sub> SK
94.0		EQM	END OF HOLE

3.0 m. excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC-96-1659

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	4.5	OUBN	Overburden.
4.5	8.0	LQM	3% Lim, tr Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>1-2</sub> , P <sub>3</sub> SK Moderate, pervasive limonite in weakly altered quartz-biotite monzonite, weak-moderate biotite alteration. Minor altered qz-biotite monzonite (LAQM), location of minor oxidized pyrite.
8.0	10.0	LAQM	Weak quartz stockwork LAQM: 3% Lim, 2% Py, tr Aspy, C <sub>3</sub> , S <sub>1</sub> , SK, P <sub>3</sub> - 70:30 LQM LQM: 3% Lim, C <sub>3</sub> , S <sub>1</sub> SK LAQM:LQM 70:30: Mixture of strongly altered, moderately pervasively limonitic quartz-biotite monzonite (LAQM) and similarly limonitic weakly altered qz-biotite monzonite (LQM). 2% fine grained strongly-moderately oxidized disseminated pyrite. Strong carbonate alteration throughout, although difficult to distinguish, weak <sup>quartz</sup> <del>silica</del> stockwork.
10.0	12.0	LQM	1% Lim, C <sub>1</sub> , S <sub>0</sub> , B <sub>1</sub> Weak, spotty + fracture controlled limonite, in quartz-biotite monzonite, weak carbonate alteration.
12.0	13.5	LAQM	LAQM: 3% Lim, 3% Py, C <sub>3</sub> , S <sub>0</sub> , B <sub>3-2</sub> , P <sub>3</sub> 55:45 LQM LQM: 1% Lim, C <sub>2</sub> , S <sub>0</sub> , B <sub>1</sub> LAQM:LQM 55:45. Mixture of moderate, pervasively limonitic strongly altered qz-biotite monzonite (LAQM) and weakly limonitic

3.0 m. excavated.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 165-9

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			almost unaltered quartz-biotite monzonite
			In LAQM, 3% fine grained, disseminated, strongly oxidized pyrite. Strong carbonate alteration in LAQM; moderate in LQM.
13.5	26.0	ARG6	tr Lim, Co, S <sub>1</sub> SK Weakly graphitic argillite, weak quartz stockwork. Moderately fractured, with trace fracture controlled limonite, from 13.5-20.0m, + minor LAQM, weakly pyritic, and AQM, moderately pyritic (Total < 10%).
26.0	36.5	SH	Co, S <sub>1</sub> SK Grey, fairly soft, weakly foliated shale. Appearance + texture similar to ARG6 from 13.5-26.0m, lighter colour
36.5	40.0	AQM	6% Py, Co, So, B <sub>3</sub> , Po Strongly altered buff-green qz-biotite monzonite. 6% disseminated, unoxidized, med-fine grained pyrite. 36.5-38.0m. Local coarse pyrite, pyritic aggregates. Minor <sup>unaltered</sup> qz-monzonite
40.0	51.0	ARG (SH?)	tr Po, Co, S <sub>2</sub> , Po SK Med-dark grey, weakly foliated argillite (possibly shale, texture otherwise resembles argillite). Moderate quartz stockwork, minor fracture controlled fine grained pyrite.
51.0	58.5	AQM	8% Py, Co, So, B <sub>3</sub> Buff-green, strongly altered quartz-biotite monzonite. 8%, fairly uniform, medium grained

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1659

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			unoxidized pyrite, local semi-massive pyrite from 56-58m. weak carbonate alteration from 54-58m. Minor unaltered qz-biotite monzonite from 56-58.5m
58.5	61.0	ARG (CSH?)	3% Py, C, S, B, Po SB Med. grey argillite (shale?), strong quartz stockworks + minor unoxidized pyrite. 2-3% foliation controlled unoxidized pyrite, fine grained, in argillite - diagenetic?
61.0	67.0	AQM	3% Py, C, S, B, Po Green-buff, strongly altered qz-biotite monzonite weak carbonate alteration, minor unaltered qz-biot-monzonite (AQM), 2-4% disseminated + fracture controlled (where occurring as semi-massive aggregates) pyrite, except 7% from 64-66m.
67.0	70.5	QM	1% Py, C, S, B, Po Green-buff, weakly altered qz-biotite monzonite Biotite weakly altered, moderate feldspar alteration. 1-2% fracture controlled fine grained pyrite, weak carbonate alteration.
70.5	74.0	AQM	8% Py, C, S, B, Po Green-buff strongly altered quartz biotite monzonite, minor unaltered biotite, 8% unaltered fine grained disseminated unoxidized pyrite, weak carbonate alteration.
74.0	94.0	SH (ARG?)	C, S, SB Med. grey, weakly laminated + foliated shale



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1665

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	OVBW	Overburden
1.5	3.0	LAQM	2% Lim, 3% Py, Co, S <sub>1</sub> , B <sub>2-3</sub> , P <sub>3</sub>
3.0	12.5	AR66	tr Lim, Co, S <sub>1</sub> , SK
12.5	21.5	SST (SLT?)	1% Lim, 2% Py, C <sub>1</sub> , S <sub>0</sub> , P <sub>2</sub> (Co from 18-21.5m)
21.5	28.0	AR66	tr Lim, Co, S <sub>1</sub> SK
28.0	35.5	SST (SLT?)	28-32m: 1% Lim, 4% Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub> 32-35.5m: tr Lim, 2% Py, Co, S <sub>0</sub> , P <sub>2</sub>
35.5	38.5	AR66	AR66: tr Lim, Co, S <sub>0</sub> 60:40 SST SST: 1% Lim, 3% Py, C <sub>1</sub> , S <sub>0</sub> , P <sub>3</sub>
38.5	40.0	SST	1% Lim, 3% Py, C <sub>1</sub> , S <sub>0</sub> , P <sub>2</sub>
40.0	42.0	AR66	AR66: tr Lim, C <sub>1</sub> , S <sub>0</sub> 75:25 SST SST: 2% Lim, 3% Py, Co, S <sub>0</sub> , P <sub>2</sub>
42.0	46.0	SST	AR66: tr Lim, Co, S <sub>0</sub> 60:40 AR66 SST: 1% Lim, 2% Py, C <sub>1</sub> , S <sub>0</sub> , P <sub>2</sub>
46.0	48.0	AR66	tr Lim, C <sub>1</sub> , S <sub>0</sub>
48.0	50.0	SST	1% Lim, 1% Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub>
50.0	54.0	AR66	tr Lim, C <sub>1</sub> , S <sub>0</sub>
54.0	62.0	AR66	AR66: tr Lim, Co, S <sub>0</sub> 55:45 SST SST: 1% Lim, 4% Py C <sub>1</sub> , S <sub>0</sub> , P <sub>0-2</sub>
62.0	65.0	AR66	tr Lim, C <sub>1</sub> , S <sub>2</sub> SK
65.0	67.5	LAQM	2% Lim, 5% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub>
67.5	70.5	AR66	C <sub>1</sub> , S <sub>1</sub> SK
70.5	89.0	SST (SLT?)	tr Lim, 2% Py, C <sub>1</sub> , S <sub>1</sub> , P <sub>0</sub> SK
89.0	91.0	AR66	tr Py, Co, S <sub>2</sub> , P <sub>0</sub>
91.0	104.0	SST (SLT?)	4% Py, C <sub>1</sub> , S <sub>1</sub> , P <sub>0</sub> SK - partial
104.0	111.0	AR66	tr Lim, Co, S <sub>1</sub> SK
111.0	115.0	CH	Co, S <sub>0</sub>
115.0		EOM	END OF HOLE: rods getting stuck - sloughing

2.0 m. extracted

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 # 1665

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	OVBW	Overburden
1.5	3.0	LQOM	2% Lim, 3% Py, C <sub>0</sub> , S <sub>1</sub> , B <sub>2-3</sub> , P <sub>3</sub> weak, pervasive limonite in strong-moderately altered qtz-biotite monzonite. 3% disseminated + fracture controlled pyrite, fine-grained + strongly oxidized. Weak silica stockwork, minor weakly oxidized biotite, suggesting minor LQM
3.0	12.5	AR66	tr Lim, C <sub>0</sub> , S <sub>1</sub> SK Weakly graphitic grey-black argillite, tr-1% limonite, along foliation + fine fracture system. Weak quartz stockwork. Minor (<10%) tan-grey siltstone + disseminated pyrite
12.5	21.5	SST (SST?)	1% Lim, 2% Py, C <sub>1</sub> , S <sub>0</sub> , P <sub>2</sub> (C <sub>0</sub> from 18-21.5m) Tan-light grey, moderately laminated, weakly foliated siltstone (Steele Formation?). Tr-1% foliation + fracture controlled limonite, 2-3% similarly located fine grained moderately oxidized pyrite. Weak carbonate alteration from 12.5-18m. Minor grey-black argillite throughout.
21.5	28.0	AR66	tr Lim, C <sub>0</sub> , S <sub>1</sub> SK Weakly graphitic argillite, weak quartz stockwork. Trace fracture controlled limonite. Minor grey siltstone (not SST), strongest from 22-24m.

2.0 m excavated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 96 1665

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
28.0	35.5	SST (SST?)	1% Lim, 4% Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub> (28-32.0m) fr Lim, 2% Py, C <sub>0</sub> , S <sub>0</sub> , P <sub>2</sub> (32-36 m) Variably limonitic foliated, fine grained siltstone (Steele Formation?), 1% foliation, probably laminae controlled limonite, 4% foliation + fracture controlled pyrite, fine grained, weak-moderately oxidized, from 28-32.0m, 2% similar pyrite from 32-36m. Moderate carbonate alteration from 28-32m, weak fine silica stockworks in selective limonitic fragments from 34-38.5m.
35.5	38.5	AR66	AR66: fr Lim, C <sub>0</sub> , S <sub>0</sub> 60:40 SST SST: 1% Lim, 3% Py, C <sub>1</sub> , S <sub>0</sub> , P <sub>3</sub> AR66: SST 60:40 Mixture of grey-black weakly graphitic argillite (AR66), weakly limonitic and tan weathered sandstone (SST - Steele Formation?) 3% fine grained, foliation + fracture controlled fine grained pyrite in SST, with weak carbonate alteration
38.5	40.0	SST	1% Lim, 3% Py, C <sub>1</sub> , S <sub>0</sub> , P <sub>2</sub> Weakly limonitic siltstone, tan to grey colour, 3% fine grained, foliation + fracture controlled pyrite, med. oxidized. Weak carbonate alteration
40.0	42.0	AR66	AR66: fr Lim, C <sub>1</sub> , S <sub>0</sub> 75:25 SST SST: 2% Lim, 3% Py, C <sub>0</sub> , S <sub>0</sub> , P <sub>2</sub> Mixture, 75:25 AR66: SST, of weakly

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1665

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			graphitic argillite (AR66), trace fracture controlled limonite; and tan weathered weakly foliated siltstone (SST). 3% fracture + foliation controlled, fine grained, moderately oxidized pyrite in SST; weak carbonate alteration of AR66.
42.0	46.0	SST:	SST: 1% Lim, 2% Py, C <sub>1</sub> , SO, P <sub>2</sub> 60:40 AR66 AR66: to Lim, C <sub>1</sub> , SO
			SST: AR66 60:40. Mixture of tan-light grey siltstone (SST - Steele Formation?) and weakly graphitic argillite (AR66) with trace fracture controlled limonite. 1% fracture + foliation controlled limonite in SST, associated with 2% fine grained, weakly-moderately oxidized pyrite (locally unoxidized). Weak moderate carbonate alteration of SST.
46.0	48.0	AR66	to Lim, C <sub>1</sub> , SO. weakly graphitic argillite, weak carbonate alteration, fracture controlled limonite.
48.0	50.0	SST	1% Lim, 1% Py, C <sub>2</sub> , SO, P <sub>2</sub> Grey, locally tan siltstone (Steele Form), 1% foliation + fracture controlled limonite assoc. with 1% fine grained, moderately oxidized pyrite. Moderate carbonate alteration. Minor graphitic argillite.
50.0	54.0	AR66	to Lim, C <sub>1</sub> , SO Weakly graphitic argillite, trace fracture controlled limonite. Moderate carbonate alteration from 50-52m.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 96 16685

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Minor light grey siltstone
54.0	62.0	ARGG	<p>AR66: tr Lim, C<sub>1</sub>, S<sub>0</sub> SS:45 SST</p> <p>SST: 1% Lim, 4% Py/P<sub>0</sub>/P<sub>2</sub> (depends on oxidation), C<sub>1</sub>, S<sub>0</sub></p> <p>AR66: SST SS:45: Mixture of weakly graphitic argillite (AR66) with trace fracture controlled limonite; and grey-tan siltstone (Stube Formation?). SST either moderately oxidized (tan) or unoxidized (grey) - roughly equal portions. 4-5% pyrite, respectively moderately oxidized or unoxidized; fine grained, disseminated - foliation controlled. Weak carbonate alteration in SST.</p> <p>Decreasing SST:AR66 ratio with depth</p>
62.0	65.0	AR66	<p>tr Lim, C<sub>1</sub>, S<sub>2</sub> S/S</p> <p>Moderately graphitic argillite, increasing ductile quartz stockworks to 65.0m, weak carbonate alteration, trace fracture controlled limonite.</p>
65.0	67.5	LAQM	<p>2% Lim, 5% Py, C<sub>1</sub>, S<sub>0</sub>, P<sub>3</sub>, P<sub>1</sub></p> <p>Weak, pervasive limonite in strongly altered qz-biotite mesonite. 4-5% red-fine grained weakly oxidized disseminated pyrite; weak carbonate alteration.</p>
67.5	70.5	AR66	<p>C<sub>1</sub>, S<sub>1</sub> S/S</p> <p>Moderately graphitic argillite, weak ductile fracture controlled quartz stockwork, minor carbonate alteration.</p>
70.5	89.0	SST(SST?)	<p>tr Lim, 2% Py, C<sub>1</sub>, S<sub>1</sub>, P<sub>0</sub> S/S</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

1665  
HOLE-ID: RL 96 1666

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Logged by: Carl Schutze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Light grey, weakly foliated siltstone (Steele Formation?) Variable pyrite concentration, from tr-3%; fine grained, fracture controlled foliation controlled, weakly oxidized from 70-72m, then unoxidized. Weak carbonate alteration, intermittent weak quartz stockwork limonite, weak, fracture controlled.
89.0	91.0	ARGF	tr Py, Co, S <sub>2</sub> , Po Weakly graphitic argillite, weak quartz stockwork + trace pyrite.
91.0	104.0	SST <sup>(ext?)</sup>	4% Py, Co, S <sub>2</sub> , Po SK (partial) Light grey weakly laminated siltstone, 3-5% fracture controlled, laminae controlled and disseminated pyrite, fine grained and unoxidized. Weak-moderate fine silica stockwork -blurred appearance suggests weak pervasive silicification. Weak quartz stockwork also, weak carbonate alteration. Minor ARGF from 94-96m. Local brecciated SST from 100-102m.
104.0	111.0	ARGF	tr Lim, Co, S <sub>2</sub> SK Weakly graphitic argillite, trace fracture controlled limonite, weak quartz stockwork, 106-108m; ≈20% grey siltstone, 3% Po, very fine grained. 104-106m; Local Qz-pyrite veins.
111.0	115.0	CH	Co, S <sub>2</sub> . Black chert, resembles argillite, conchoidal fracture.

115.0

EOM END OF HOLE - sloughing, rods getting stuck.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 96 1666

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	4	OVBW	Overburden
4	10	AR66	AR66: tr Lim, C <sub>2</sub> , S <sub>0</sub> 65:35 SST
			SST 2% Lim, 3% Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub>
10	18	SST	SST: 1% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>2</sub> 70:30 AR66
			AR66: tr Lim, C <sub>0</sub> , S <sub>0</sub>
18	22	AR66	AR66: tr Lim, C <sub>2</sub> , S <sub>0</sub> 70:30 SST
			SST: 1% Lim, 6% Py, C <sub>0</sub> , S <sub>0</sub> , P <sub>2</sub>
22	38.5	AR66	tr Lim, C <sub>1</sub> , S <sub>1</sub> SK
38.5	44.0	SST	2% Lim, 6% Py, C <sub>1</sub> , S <sub>1</sub> , P <sub>1</sub> SK
44.0	54.0	AR66	tr Lim, C <sub>0</sub> , S <sub>2</sub> SK
54.0	58.5	SST	SST: 2% Lim, 5% Py, C <sub>1</sub> , S <sub>0</sub> , P <sub>2</sub> 70:30 AR66
			AR66: tr Lim, C <sub>0</sub> , S <sub>0</sub>
58.5	64.0	AR66	tr Lim, C <sub>0</sub> , S <sub>0</sub>
64.0	65.0	LAQM	4% Lim, 10% Py/P <sub>0</sub> , C <sub>2</sub> , S <sub>0</sub> , P <sub>1</sub>
65.0	82.0	AR66	C <sub>2</sub> , S <sub>0</sub>
82.0	84.5	AQM	tr Lim, 3% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub>
84.5	100.0	AR66	84.5-94.0m: C <sub>2</sub> , S <sub>0</sub>
			94-100m: C <sub>1</sub> , S <sub>1</sub> , SK
100.0	105.0	AQM	AQM: tr Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>2</sub> , P <sub>0</sub> 70:30 AR66
			AR66: C <sub>0</sub> , S <sub>2</sub> partial SK
105.0	114.0	SLT	105-108m: 2% Py, C <sub>1</sub> , S <sub>2</sub> , P <sub>0</sub> SK
			108-114m: C <sub>3</sub> , S <sub>1</sub>
114.0	116.0	SLT	SLT: 1% Py, C <sub>1</sub> , S <sub>1</sub> , P <sub>0</sub> SK 65:35 MT
			MT: tr Py, C <sub>3</sub> , S <sub>1</sub> , P <sub>0</sub> SK
116.0	118.0	AR66	AR66: tr Py, C <sub>0</sub> , S <sub>1</sub> , P <sub>0</sub> SK 65:35 MT
		65:35	MT: C <sub>2</sub> , S <sub>0</sub>
118.0	120.0	SLT	tr Py, C <sub>0</sub> , S <sub>1</sub> , P <sub>0</sub>

4 m. FILL



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 9E 1666

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Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	4	OUBN	Overburden
4	10	ARLG	ARLG: 1% Lim, 9% So 65:35 SST SST: 2% Lim, 2% Py, C <sub>2</sub> , So, P <sub>2</sub> 65:35 ARLG:SST: Mixture of argillite, weakly graphitic (ARLG) + trace fracture controlled limonite; and tan-grey fine grained weakly foliated siltstone (Steele Formation?) 1-4% fine grained weak-moderately oxidized disseminated + fracture controlled pyrite in SST. Limonite content varies, suggesting SST is laminated, variably permeable.
10	18	SST	SST: 1% Lim, 5% Py, C <sub>2</sub> , So, P <sub>2</sub> 70:30 ARLG ARLG: 1% Lim, C <sub>2</sub> , So SST:ARLG 70:30. Mixture of weakly graphitic argillite (ARLG), trace fracture controlled limonite, strong fracture controlled carbonate from 12-14m; and beige-grey fine grained Steele Formation siltstone (SST), weakly foliated, moderately laminated. 2-8% fine grained, lamination controlled moderately oxidized pyrite in SST, increasing with depth. Moderate variable carbonate alteration in SST.
18	22	ARLG	ARLG: 1% Lim, C <sub>2</sub> , So 60:40 SST SST: 1% Lim, 6% Py, C <sub>2</sub> , So, P <sub>2</sub> ARLG:SST 60:40. Mixture of similar siltstone (Steele Formation) + argillite to interval from 10-18m; different proportions. In SST, 6% fine grained, lamination controlled

4m. fill

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1666

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			moderately oxidized pyrite. Moderate carbonate alteration in both rock types
22	38.5	ARG-G	tr Lim, C <sub>1</sub> , S <sub>1</sub> SK Grey-black, weakly graphitic argillite, weak pervasive limonite. Weak quartz stockwork, carbonate alteration.
38.5	44.0	SST	2% Lim, 6% Py, C <sub>1</sub> , S <sub>1</sub> , P <sub>1</sub> SK Tan-grey Steele Formation (?) siltstone, selectively oxidized limonitic, fracture controlled limonite. Laminated, selectively mineralized, also selectively oxidized. 6% fine grained weakly oxidized or unoxidized to pyrite, foliation controlled to disseminated. Weak carbonate alteration, weak quartz stockwork.
			Minor argillite from 40-42m
44.0	54.0	ARG-G	tr Lim, C <sub>0</sub> , S <sub>2</sub> SK Weakly graphitic argillite, strong quartz stockwork (brecciated?) from 44-50m, weaker from 50-54m. Tr-1% fracture controlled limonite. Minor weakly pyritic siltstone from 50-52m
54.0	58.5	SST	SST: 2% Lim, 5% Py, C <sub>1</sub> , S <sub>0</sub> , P <sub>2</sub> 70:30 ARG-G ARG-G: tr Lim, C <sub>0</sub> , S <sub>0</sub> SST: ARG-G 70:30. Mixture of weakly graphitic argillite (ARG-G) and tan-grey siltstone (Steele Formation - SST). In SST, 2% fracture + laminae controlled limonite, with

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1666

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Logged by: Carl Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			5-6% fine grained, weakly-moderately oxidized pyrite. weak carbonate alteration from 54-56m
58.5	64.0	AR66	talim, C <sub>2</sub> , S <sub>0</sub> Moderately graphitic argillite, weak silica stockwork + limonite from 58.5-64.0m, weak carbonate from 62-64m
64.0	65.0	LARM	4% Lim, 10% Py, C <sub>2</sub> , S <sub>0</sub> , P <sub>1</sub> Mixed strongly altered qz-biotite monzonite + similarly, strongly pervasively limonitic ARM. 10% unoxidized + weakly oxidized pyrite, depending on limonite content; pyrite is fine-medium grained, disseminated, moderate carbonate alteration.
65.0	82.0	AR6F	C <sub>2</sub> , S <sub>0</sub> Moderately graphitic argillite, moderate-strong carbonate alteration.
82.0	84.5	ARM	talim, 3% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub> Strongly altered quartz monzonite, trace fracture controlled limonite, 3% disseminated, unoxidized, fine grained pyrite, moderate carbonate alteration
84.5	100.0	AR66	C <sub>2</sub> , S <sub>0</sub> (84-94m) C <sub>1</sub> , S <sub>1</sub> , S <sub>5</sub> (94-100m) Moderately graphitic argillite, weak quartz stockwork from 94-100m. Moderate carbonate alteration from 84.5-94 m; weak from 94-100m

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1666

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
100.0	105.0	AQM:	AQM: to Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub> 70:30 ARGB ARGB: C <sub>0</sub> , S <sub>3</sub> - partial SK 70:30 AQM: ARGB: Buff coloured strongly altered qz-monzonite (AQM) and brecciated, strongly pervasively silicified argillite (ARGB), also with moderate quartz stockwork. In AQM, 5% unoxidized, fine grained, disseminated pyrite. Strongly brecciated argillite contains <sup>poritic</sup> siliceous matrix, included as AQM. Moderate carbonate alteration in AQM.
105.0	114.0	SLT	105-108m: 2% Py, C <sub>1</sub> , S <sub>3</sub> , P <sub>0</sub> SK 108-114m: C <sub>3</sub> , S <sub>1</sub> SK Medium grey weakly laminated, foliated siltstone, strong, quartz stockwork with minor (up to 2%) unoxidized pyrite from 105-108m, with weak carbonate alteration. Locally brecciated. Very strong carbonate alteration from 108-114m - calcareous siltstone. Fairly pervasive carbonate, associated with weak quartz stockwork.
114.0	116.0	SLT:	SLT: 1% Py, C <sub>1</sub> , S <sub>1</sub> , P <sub>0</sub> SK 65:35 MT MT: to Py, C <sub>0</sub> , S <sub>1</sub> , P <sub>0</sub> SK SLT: MT 65:35 Mixture of med-dark grey siltstone (SLT), weakly calcareous, weak fine quartz stockwork + 1% fine grained <sup>unoxidized</sup> pyrite; and coarse, <del>poorly sorted greenstone</del> <sup>possible mafic tuff, variable clast size</sup>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1666

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			<del>chert pebble conglomerate</del> . Trace disseminated pyrite, unoxidized, strong carbonate alteration, weak sericite development in GW.
116.0	118.0	ARGG	<p>ARGG: tr P, C<sub>2</sub>, S<sub>1</sub>, Po SK 65:35 MT</p> <p>MT: C<sub>2</sub>, So SK</p> <p>ARGG: 65:35, Mixture of weakly graphitic argillite, mixed with minor SLT, trace Po, weakly laminated (ARGG); <del>and coarse, poorly sorted greywacke (GW) - matrix tuff</del> same rock type as GW from 114-116m - possible CPC. Moderate carbonate alteration of GW.</p>
118.0	120.0	SLT	<p>tr P, C<sub>2</sub>, S<sub>1</sub>, Po</p> <p>Grey, weakly foliated + laminated siltstone, strong carbonate alteration, weak fine silica stockwork. Trace foliation controlled fine grained unoxidized pyrite.</p>
120.0	122.0	MTuff	<p>MTuff 3<sup>rd</sup> P, C<sub>2</sub>, S<sub>1</sub>, Po 60:40 SLT</p> <p>SLT: tr P, C<sub>1</sub>, So, Po</p> <p>MTuff SLT 60:40: Mixture of poorly sorted <del>coarse grained greywacke (chert pebble matrix tuff conglomerate?)</del> and dark grey siltstone (SLT) 3% fine grained, unoxidized, replacement style (?) pyrite in GW, with strong carbonate alteration + fine silica stockwork. Trace unoxidized pyrite + weak carbonate alteration in SLT</p>
122.0	130.0	MTuff	<p>MTuff tr P, C<sub>2</sub>, S<sub>1</sub>, Po 55:45 ARGG</p> <p>ARGG: tr P, C<sub>1</sub>, So, Po</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1666

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Logged by: Carl Schürze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			<p> <del>to</del> <del>ARC</del> SS:45, Mixture of <del>mafic tuff</del> <del>poorly</del>  <del>variable</del> <del>clast</del> <del>size</del>  <del>sorted</del> greywacke (AW - same unit as 120-122m                      and grey-black, weakly laminated argillite                      (ARC), weakly graphitic. Tr - 1% finely grained,                      disseminated unoxidized pyrite, med. carbonate                      alteration of MT; tr - 1% fine grained, laminae                      controlled, unoxidized pyrite (diagenetic?)                      in ARC, weak carbonate alteration.                      Weak pervasive silicification, moderate                      biotite alteration (?) in greywacke, biotite                      weakly foliated with depth.                 </p>
130.0	132.0	MTuff	<p>                     tr Lim, 1% Py, C<sub>3</sub>, S<sub>1</sub>, Po      SS                      Same mafic tuff as from 120-130 m; 1%                      very fine grained disseminated unoxidized                      pyrite, strong carbonate alteration, weak                      quartz stockwork.                 </p>
132.0	142.0	MTuff	<p>                     MTuff tr Py, C<sub>3</sub>, S<sub>1</sub>, Po      SS:45 SLT                      SLT: Co, S<sub>1</sub>      SK                      MTuff SLT SS:45: Mixture of same tuff                      unit from 120-132m (MT) and somewhat                      coarser grained siltstone (SLT) than over-                      lying silt. Tr - 1% fine grained, replacement                      style, unoxidized pyrite, strong carbonate                      alteration and local quartz stockwork in                      mafic tuff weak quartz stockwork in                      siltstone. Minor tan colored weakly argillite                      siltstone from 140-142m (Stake Formation)                 </p>
142.0	EOM		<p>END OF HOLE - too much water</p>



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1667

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2		Overburden
2	9.5	LAQM	2% Lim, 5% Py, C <sub>3</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>3</sub> Weak, pervasive limonite, moderate from 8-10m, within strongly altered quartz-biotite monzonite. Variable Pyrite concentration, from 1-8%, disseminated + weakly fracture controlled, med. grained. Strongly <sup>oxidized</sup> altered from 2-6m, med-weakly oxidized pyrite from 6-10m. Strong carbonate alteration
9.5	14.0	AR66	tr Lim, Co, S <sub>3</sub> Weakly graphitic fine argillite, strong quartz stockwork. Trace fine fracture controlled limonite
14.0	18.5	LAQM	2% Lim, 10% Py, C <sub>1</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>1</sub> Weak, pervasive limonite within quartz monzonite, 10% disseminated, fine grained, weakly oxidized to unoxidized Pyrite. Strong quartz stockwork, weak carbonate alteration
18.5	49	AR66	Co, S <sub>1</sub> SK Weak-moderately graphitic argillite, weak quartz stockwork, locally fine. Minor LAQM from 34-36m
49		EOH	END OF HOLE

2m. excavation



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1668

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2.5		Overburden
2.5	8.0	LAQM	2% Lim, 5% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub> Weak, pervasive limonite in slightly bleached strongly altered qz-biotite monzonite. 5% disseminated + fracture controlled strongly oxidized fine grained pyrite to 6.0m; pyrite is unoxidized from 6-8m. Weak fracture controlled manganese, weak carbonate alteration.
8.0	10.0	LQM	3% Lim, C <sub>1</sub> , S <sub>0</sub> , B <sub>1-2</sub> Moderate pervasive limonite in weakly altered qz-biotite fin monzonite, weak carbonate alteration.
10.0	29.0	LAQM	3% Lim, 7% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub> Mod-weak pervasive limonite, enriched along fractures, in strongly altered qz-biotite monzonite. 3-9% <del>var</del> pyrite, variable concentration, highest from 12-18m; disseminated, fine grained (locally medium grained), weakly oxidized to unoxidized, weak carbonate alteration, moderate from 18-24m. Weak quartz stockworks from 24-28m.
29.0	35.0	AR66	tr Lim, C <sub>0</sub> , S <sub>2</sub> SK Weak-moderately graphitic argillite, increasing quartz stockwork with depth. Trace limonite along fractures. Minor LAQM from 32-34m.
35.0	39.5	LAQM	2% Lim, 9% Py, C <sub>1</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>1</sub> SK Weak pervasive limonite within strongly altered quartz-biotite monzonite, 9% fine grained,

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL 96 1668

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Logged by: Carl Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			disseminated (locally fracture controlled), weakly oxidized - oxidized pyrite. Weak carbonate alteration, strong quartz stockwork particularly to lower contact.
39.5	60	ARUG	to lim, (O, S <sub>2</sub> ) SK Weak - moderately graphitic argillite, moderate, variable quartz stockwork, best developed from 54 - 58 m. Weak carbonate alteration from 44 - 48 m. Trace fine fracture controlled limonite
60		EOH	END OF HOLE



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC-96-1669

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	4.9	OVBR	Overburden
4.9	20	LAQM	4% Lim, 4% Py, C <sub>0</sub> , S <sub>1</sub> , P <sub>3</sub> SK (4.9-12m) 3% Lim, 6% Py, C <sub>1</sub> , S <sub>2</sub> , P <sub>1</sub> SK (12-20m) Mod - strong pervasive limonite within strongly altered qz-biotite monzonite. Strongest limonite near surface. From 5-12m, 4% strongly altered disseminated + fracture controlled fine grained pyrite; 12-20m, 6% weakly oxidized pyrite, disseminated, fine grained. Weak carbonate alteration, strong sil quartz stockwork towards lower contact.
20	23.0	AQM	AQM: tr Lim, tr Py, C <sub>1</sub> , S <sub>3</sub> , B <sub>3</sub> , P <sub>3</sub> SK 60:40 AR66 AR66: tr Lim, C <sub>0</sub> , S <sub>3</sub> SK 60:40 mixture of AQM: AR66. AQM: weak pervasive limonite (outside of quartz veins) in strongly altered quartz-biotite monzonite. Trace fracture controlled strongly oxidized pyrite. Weak carbonate alteration, strong quartz stockwork. AR66: weakly graphitic, strong quartz stockwork, locally brecciated.
23.0	26.0	LAQM	3% Lim, 11% Py, C <sub>1</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub> SK Moderate, pervasive limonite, locally fracture controlled, in strongly altered qz-biotite monzonite. 11% disseminated, fine grained pyrite, weakly oxidized. Weak carbonate alteration, moderate silica stockwork.
26.0	27.0	AR66	C <sub>0</sub> , S <sub>2</sub> SK

0.5 m excavation





# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1670

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Logged by: Carl Schulze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	5	LAQM	<p>4% Lim, 6% Py, C<sub>2</sub>, S<sub>2</sub>, B<sub>3</sub>, P<sub>2</sub></p> <p>Mod-strong pervasive limonite within strongly altered quartz-biotite meszonite. 6% fine grained, red oxidized, disseminated pyrite, lesser amounts from 0-2m may represent surface weathering. Mod-strong carbonate alteration.</p>
5	17	ARGG	<p>tr Lim, C<sub>0</sub>, S<sub>2</sub> SK</p> <p>Weakly graphitic argillite, weak-moderate quartz stockwork, variable. Trace fracture controlled limonite.</p>
17	18.5	LAQM	<p>3% Lim, 4% Py, C<sub>1</sub>, S<sub>1</sub>, B<sub>3</sub>, P<sub>1</sub></p> <p>Moderate limonite alteration within strongly altered qz-biotite meszonite. 4% red-grained weakly oxidized disseminated pyrite. Weak carbonate alteration, silica stockwork</p>
18.5	19.5	ARGG	<p>C<sub>0</sub>, S<sub>1</sub> SK</p> <p>Weakly graphitic argillite, weak quartz stockwork</p>
19.5	25	LAQM	<p>3% Lim, 5% Py, C<sub>1</sub>, S<sub>2</sub>, B<sub>3</sub>, P<sub>1</sub></p> <p>Moderate, pervasive limonite, weakening with depth. 4-7% fine grained, disseminated, weakly oxidized to unoxidized pyrite. Weak carbonate alteration.</p>
25	30	ARGG	<p>C<sub>1</sub>, S<sub>2</sub> SK</p> <p>Weak-moderately graphitic argillite, weak quartz stockwork - moderate from 28-30m</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC 96 1670

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Logged by: Carl Schultze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
30	34	SST	SST: tr Lim, 6% Py, C <sub>1</sub> , S <sub>2</sub> , P <sub>1</sub> 50:50 ARGG ARGG: tr lim, C <sub>0</sub> , S <sub>1</sub> Even mixture of fine grained, weakly laminated siltstone (SST?), 6% fine grained disseminated + slightly banded, weakly oxidized Pyrite: + weakly graphitic argillite (ARGG) Limonitic stockworks in siltstone. 30-32m: ≈ 25% LAQM; S <sub>2</sub> , P <sub>2</sub> , C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> - probably thin unit within sds.
34	35	ARGG	tr Lim, C <sub>0</sub> , S <sub>0</sub> weakly graphitic argillite, trace fracture controlled, pyrite
35	40	LAQM	2% Lim, 9% Py, C <sub>2</sub> , S <sub>2</sub> , B <sub>3</sub> , P <sub>1</sub> SK weak-moderate limestones, pervasive, within strongly altered quartz-biotite monzonites 9% fine grained, disseminated, almost unoxidized pyrite. Moderate carbonate alteration, strong quartz stockwork along upper contact, decreasing with depth Hole shut down in LAQM
40		EOH	END OF HOLE

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RC-96-1671

Logged by: Carl Scholze

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2.3	OVB	Overburden
2.3	4.0	LAQM	LAQM: 4% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub> 70:30 ARGL ARGL: C <sub>0</sub> , S <sub>2</sub> SK
4.0	6.0	ARGL	tr Lim, C <sub>0</sub> , S <sub>3</sub> SK
6.0	12.0	LAQM	LAQM: 3% Lim, 4% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>3</sub> 50:50 ARGL ARGL: C <sub>0</sub> , S <sub>3</sub> SK
12.0	16.5	ARGL	tr Lim, C <sub>1</sub> , S <sub>1</sub> SK
16.5	19.5	LAQM	3% Lim, 5% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub>
19.5	22.0	LQM	LQM: 2% Lim, C <sub>2</sub> , S <sub>0</sub> , B <sub>1</sub> 70:30 AQM AQM: 1% Lim, 6% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub>
22.0	24.5	ARGL	C <sub>0</sub> , S <sub>2</sub> SK
24.5	30.0	LAQM	2% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub>
30.0	36.0	ARGL	ARGL: tr Lim, C <sub>0</sub> , S <sub>3</sub> SK 55:45 LAQM LAQM: 2% Lim, 7% Py, C <sub>1</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub>
36.0	41.5	LAQM	2% Lim, 5% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub>
41.5	45.0	ARGL	C <sub>0</sub> , S <sub>3</sub> SK
45.0	49.0	LAQM	2% Lim, 9% Py, C <sub>2</sub> , S <sub>1</sub> , B <sub>3</sub> , P <sub>0</sub>
49.0	52.0	ARGL	tr Lim, C <sub>1</sub> , S <sub>3</sub> SK
52.0	54.0	LAQM	1% Lim, 2% Py, C <sub>1</sub> , S <sub>4</sub> , B <sub>3</sub> , P <sub>0</sub> SK partial
54.0	56.0	LAQM	LAQM: 3% Lim, 8% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>1</sub> 75:25 AQM AQM: tr Lim, 10% Py, C <sub>2</sub> , S <sub>0</sub> , B <sub>3</sub> , P <sub>0</sub>
56.0		EQH	END OF HOLE - shut down in mineralized zone

1 m excavation

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RD96-86.

Logged by: R. D. Mont (0-70m) F. Andersen (70-130m)

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of description)
0	2.7	CASING	
2.7	18.6	SST	1% LM, sk, C
18.6	20.6	SST	60:40 CH, 2% LM, S <sub>3</sub>
20.6	24.6	SST	Tr LM, Tr Py, sk S <sub>1</sub>
24.6	31.3	SST	1% LM, Tr Py, sk S <sub>1</sub> , C
31.3	38.1	SST	1% LM, 2% Py, sk, S <sub>1</sub> , C
38.1	43.5	SST	60:40 CH, Tr LM, C
43.5	47.6	SST	1% LM, 2% Py, sk S <sub>1</sub> , C
47.6	49.6	SST	60:40 CH, 1% LM, CC
49.6	57.1	SST	70:30 CH, Tr LM, Tr Py, C
57.1	61.1	SST	Tr LM, Tr Py, Po, C
61.1	63.7	SST	Tr LM, C
63.7	69.9	SST	Tr LM, S <sub>1</sub> , C
69.9	71.8	ARG	65:35 SST, 1% LM, sk S <sub>1</sub> , C
71.8	74.5	FT	80:20 SST, 20 SH, Tr LM, C <sub>1</sub>
74.5	80	SST	Tr LM, Tr Py, sk, S <sub>2</sub> , C <sub>1</sub>
80	82.4	SST	60:40 ARGG, 3% Py, sk, S <sub>2</sub>
82.4	98.6	ARGG	3% Py, S <sub>1</sub>
98.6	100	SST	Tr Py, sk, S <sub>1</sub> , C
100	100.8	ARG	sk
100.8	107.7	SST	sk, S <sub>1</sub> , C
107.7	111.1	SST	sk, S <sub>2</sub>
111.1	115.8	ARGG	2% Py
115.8	116.1	FT	SST
116.1	122	SST	70:30 ARG, 2% Py
122	124.1	ARG	S <sub>1</sub> , C
124.1	129.9	SST	3% Py, Tr As* C <sub>1</sub>
129.9	130.3	FT	70:30 SST / ARGG

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-86

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Logged by F. Andersen

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
130.3	132.2	SST	1% Py, S <sub>2</sub> , C
132.2	134.5	SST	70:30 ARG, 1% Py, C
134.5	137	SST	80:20 ARG, S <sub>1</sub>
137	140.5	SST	sk, S <sub>1</sub> , C
140.5	143	ARGG	sk, S <sub>1</sub>
143	146.9	SST	1% Py, C
146.9	147.7	ARGG	sk, S <sub>2</sub> , Bx
147.7	151.5	GW	70:30 SST, C
151.5	152.0	SHG	2% Py, sk, S <sub>2</sub>
152.0	153.8	AGM	1% Py, Tr As,
153.8	154.9	SHG	2% Py, sk, S <sub>2</sub>
154.9	157.4	AGM	Tr LM, Tr Py,
157.4	160.0	GM	Tr LM, C
160	164	AGM	Tr LM, 2% Py,
164	165.2	GM	Tr Py, sk, S <sub>1</sub>
165.2	166.2	AGM	Tr Py
166.2	166.8	CPC*	C
166.8	167.8	ARGG	70:30 SST, 5% Py, C
167.8	174.6	ARGG	2% Py, C
174.6	185.6	SST	70:30 ARGG, 3% Py, C
185.6	187.4	SST	60:40 ARG, 2% Py, S <sub>4</sub>
187.4	189.3	SST	1% Py, C
189.3	198.9	ARGG	7% Py, S <sub>1</sub> , C
198.9	200.7	ARGG	1% Py, sk, S <sub>4</sub> , Bx
200.7	203.5	ARGG	2% Py, sk, S <sub>2</sub> , C
			E.O.H.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-86

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Logged by: R. Diment

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	2.74	CASING	
2.74	18.59	SST	<p>1% LM, TRSK, S<sub>0</sub>, C<sub>1</sub>-C<sub>2</sub>,                      TAN WEATHERING, SOFT WISPY LAMINATED                      BIOTURBATED SILTSTONE. TAN TO BEIGE                      BEDS INTERCALATED WITH DARK GREEN                      TO BLACK WISPY BEDS. BEDDING IS                      OFTEN DISRUPTED, CAUSED BY BORROWING                      ORGANISMS. MATRIX IS WEAK TO                      MODERATELY CALCAREOUS AND SOFT.                      TRACES OF LIMONITE LINE HARLINE                      FRACTURES. FRACTURES MAY ALSO CONTAIN                      FINE SILICA. DARK GREEN TO BLACK                      BEDS APPEAR TO BE HARDER AND                      NON-CALCAREOUS.</p>
18.59	20.59	SST	<p>60:40 CH, S<sub>2</sub>, SK, 2% LM, C<sub>0</sub>                      INTERBEDDED SEQUENCE OF TAN WEATHERING                      SILTSTONE AND BLACK CHECT. INTENSE                      FINE HARLINE QZ STOCKWORK LINED WITH                      LIMONITE. LIMONITE APPEARS CONFINED TO                      SILTSTONE BEDS. NON CALCAREOUS.                      NO DISIBLE SULPHIDE.</p>
20.59	24.59	SST	<p>S<sub>1</sub>, SK, C<sub>0</sub>, TR PY                      LIGHT GREEN TO TAN WEATHERING SILTSTONE                      INTERBEDDED WITH FINE (LESS THAN 1CM WIDE)                      BLACK DISRUPTED ARAILITE BEDS. STRONG                      QUARTZ STOCKWORK VEINING UP TO 1CM                      WIDE LINED WITH LIMONITE. STOCKWORK                      ZONES FORM LOCALIZED BRECCIA ZONES</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DF 96-86

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Logged by: \_\_\_\_\_

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			UP TO 6-7 CM WIDE. NO VISIBLE SULPHIDE WITHIN SECONDARY QUARTZ.
			QUARTZ IS PRIMARILY WHITE TO LIGHT GREEN IN COLOUR. NON CALCAREOUS
			HAIRLINE OR WRINKLES ARE LINED WITH FINE BLACK MINERAL POSSIBLY GRAPHITE OR FINE GRAINED SULPHIDE; TOO FINE GRAINED TO DISTINGUISH
24.59	31.28	SST	TR SK, C <sub>1</sub> , S <sub>1</sub> , TR PY, TR ASPY?, 1% UM DISRUPTED FINELY INTERBEDDED TAN SILSTONE & BLACK ARGILLITE. SOFT WEAKLY CALCAREOUS. CARBONATE APPEARS TO BE CONFINED TO FRACTURE SURFACES
			NOTE! 28.85 - 29.00 M A 15 CM WIDE LIGHT GREEN SILICIFIED BED CONTAINS HAIRLINE SULPHIDE RICH QUARTZ STOCKWORK. BED APPEARS TO BE REPLACED WITH FINE SILICA. BLACK COLOUR MAY BE DUE TO FINE PYRITE & ASPY?
			TRACES OF PYRITE OCCUR THROUGHOUT SILICIOUS MATRIX. NON-CALCAREOUS.
31.28	38.06	SST	S <sub>0</sub> -S <sub>2</sub> , C <sub>2</sub> , SK, 1% UM, 2% PY LIGHT GREEN MASSIVE SILICIOUS SILSTONE TAN TO LIGHT ORANGE WEATHERING IS COMMON EXHIBITING A MOTTLED COLOURING THROUGHOUT THE INTERVAL. THE NON-WEATHERED LIGHT GREEN SILICIOUS CORE APPEARS HARDER AND MORE SILICIOUS.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: BMG-96

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Logged by: \_\_\_\_\_

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			<p>BLACK HAIRLINE OR STOCKWORK IS ALSO COMMON WITHIN THE MORE SILICIOUS, NON-WEATHERED SILTSTONE, FORMING VERY HARD SILICA REPLACED ZONES WITHIN THE SILTSTONE. FINE DISSEMINATED PYRITE IS COMMON THROUGHOUT. A GRADATIONAL HARDENING OR SILICA REPLACEMENT IS APPARENT MOVING FROM TAN WEATHERED <sup>CALCAREOUS</sup> SOFT SILTSTONE INTO THE HARDER LIGHT GREY SILICIOUS &amp; PARTIC MATRIX, AND THEN FINALLY INTO AN APHAUTIC LIGHT GREY GLASSY SILICIOUS MATRIX WITH HAIRLINE BLACK STOCKWORK. PYRITE CONTENT INCREASES WITH HARDNESS OR SILICIFICATION</p>
38.06	43.52	SST	<p>60:40 RH, TR SK, TR LM, CI                      INTRUSIVE SEQUENCE OF BLACK CHERT AND GREENISH GREY SILTSTONE. SILTSTONE COMMONLY FORMS DISCONTINUOUS PODS WITHIN CHERT; SOFT SEDIMENT DEFORMATION                      FINE HAIRLINE WHITE OR STOCKWORK COMMON WITHIN BOTH CHERT &amp; SILTSTONE                      NO USIBLE SULPHIDE. HAIRLINE VEINETS APPEAR TO CONTAIN MINOR CARBONATE &amp; LIMONITE. A 10CM PIECE OF CORE AT 42.25 CONTAINS 3-5% LIMONITE (PERVASIVE) AND IS MODERATELY CALCAREOUS. SILICIFICATION IS MAINLY CONFINED TO PORE HAIRLINE OR VEINETS.</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DP96-46

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Logged by: \_\_\_\_\_

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
43.52	47.55	SST	<p><del>SST</del> S<sub>1</sub>, C<sub>2</sub>, SK, 17% LM, 29% PY</p> <p>SAME DESCRIPTION AS INTERVAL 31.28 TO 38.06 M EXCEPT SLIGHTLY LESS SILICIOUS. NON-WEATHERED SILICIOUS GREY PARTS OF SILTSTONE APPEAR MORE PYRITIC &amp; SILICIOUS. CALCITE VEINETS COMMON</p>
47.55	49.55	SST	<p>60:40 CH, S<sub>3</sub>, SK, 19% LM</p> <p>INTENSELY STOCKWORKED INTERCALATED SEQUENCE OF BLACK CHERT AND TAN WEATHERING SILTSTONE. STOCKWORK CONSISTS OF HARUNE WHITE CALCITE VEINETS. SILTSTONE IS TAN IN COLOR, SOFT AND NON-SILICIOUS. CALCITE VEINETS ARE LINED WITH LIMONITE. NO VISIBLE SULPHIDE</p>
49.55	57.09	SST	<p>70:30 CH, C<sub>1</sub>, TR SK, TR LM, TR PY, S<sub>0</sub></p> <p>INTERBEDDED SEQUENCE OF BLACK CHERT AND TAN SILTSTONE. SILTSTONE IS WEAKLY CALCAREOUS CONTAINING MINOR CALCITE STOCKWORK VEINETS. NO EVIDENCE OF SILICA REPLACEMENT. BLACK HARUNE STOCKWORK IS ALSO COMMON LOCALY AND ALSO APPEARS TO BE CALCAREOUS.</p>
57.09	61.06	SST	<p>SST, C<sub>2</sub>, SK, TR LM, S<sub>0</sub>, TR PY</p> <p>FINELY INTERBEDDED TAN SILTSTONE AND BLACK ARGILLITE WITH COARSE .1 TO .5 CM WIDE QUARTZ CARBONATE VEIN STOCKWORK. MINOR 5-10 CM WIDE BLUEISH GREY SILICIOUS / PYRITIC SECTIONS WITH</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-86

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Logged by: R. Dineen / E. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			HARLINE BLACK STOCKWORK. FRESH PYRITE IS VISIBLE LINING BLACK STOCKWORKS. LIMONITE IS CONFINED TO FEATURE SURFACES AND QUARTZ CARBONATE VEINETS.
61.06	63.69	SST	TR LM, S <sub>0</sub> , C <sub>1</sub> , TR LM TAN TO DARK GREEN, WISPY LAMINATED SLTSTONE. BIOTERATED. TRACES OF CARBONATE IN SLTSTONE MATRIX, MINOR DISCONTINUOUS QUARTZ VEINETS .5 to 1 CM WIDE, NO VISIBLE SULPHIDE.
63.69	69.91	SST	TR LM SK, BX, C <sub>1</sub> , S <sub>1</sub> grey sst w/h abundant white mm/harline white carbonate/Fe-ox stockwork at start & end for 1 m. - matrix supported (qtz + cb + fs?) brecciated grey sst w harline black layers at 65.2m - Intrusive dykelet? hard, silicious; Hw & Fw for 50cm either - harline black sk starts after this & continues to 69.91m; LM content increases after healed breccia zone, up to 2% within the sst matrix; - < 1cm clay filled fracture, 45°-50° c.a. cutting bedding, * prominent fracture orientation; - bedding indistinct, ~ 30°-35° c.a.
			Note: Sample intervals marked out before logging.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: TD96-84

Aug 27 1996

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
69.91	71.77	ARG	<p>65-35 SST, 10% LM, sk, S, C<sub>1</sub></p> <p>convoluted, laminated argillite (black mud) &amp; dark grey SST (fine grained).</p> <ul style="list-style-type: none"> <li>- quartz + pale yellow (ch) mm stromatolite, units exceeding to 1.3cm.</li> <li>- laminite cont. of pervasive actinolite along fractures, generally 45°-50° cutting any resemblance of bedding;</li> <li>- trace radiol 45°-50°.</li> </ul>
71.77	80.50	FAULT	<p>80 SST, 10% LM, C<sub>1</sub></p> <ul style="list-style-type: none"> <li>- brecciated, crackle fracture, isolated, vertical, 90° to 100° dip, 10-15 cm apart, filled with chert.</li> <li>- thin bedded 50°-55°</li> <li>- no trace through interval but is near complete &amp; some very fine, tilted fractures at 78.5m</li> <li>- broken core ends at 7cm grey stromatolite, 50°-55°.</li> </ul>
80.50	82.00	SST	<p>80 SST, 10% LM, S, C<sub>1</sub></p> <ul style="list-style-type: none"> <li>- stromatolite, whole stromatolite reaches to 1cm</li> <li>- trace of radiolite halo associated with stromatolite, which can be 1-2 cm thick (see 81.50)</li> <li>- trace of radiolite halo 76-77.5m &amp; 82.79 to 80.1</li> </ul>

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DP96-86

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Logged by: F. ANDERSEN

From (m)	To (m)	Rec. (m)	Major Unit	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
80.01	<del>82.35</del>	80.40	A966 SST		A966 55%	SK, 3% py, S <sub>2</sub>				
						- thin sst laminated beds; faint grey sk through argillite - black sk? g <sub>2</sub> +g <sub>3</sub> ? (notch) sk common.				
						- 30% - 50% diagenetic py dissem. thru matrix and concentrated as pods to 2cm size;				
						- gritty lenses incorporated into package at 81.2m.				
						- hard, silicified? sst intervals 81.31 - 82.3, associated with brecciated sst + clay <del>and</del> graphitic argillite, 20 cm width at 81.55m				
82.35	98.6	A966			30% py, S <sub>1</sub> -S <sub>2</sub>					
						black, v. fine grained, soft, weakly graphitic platy argillite; 3% diagenetic py, varies up to 50% within matrix, as thin, swelling beds & lamina; crack fracture & hairline g <sub>2</sub> veined intervals mark the silicification of argillite; strongest from 90.4 to 94.0m				
98.6	100	SST			Ci, Tr Py, SK S <sub>1</sub>					
						- grey, fine grained, weakly calcareous (cold weather) material, white stockwork (Hardness 4) increases near bottom of interval; trace py in matrix.				
						- bedding, indurated ~65-70CA; fractures various shallow to CA				

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DD96 86

August 22/96

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Logged by: E. ANDERSEN

From (m)	To (m)	Rec. (m)	Major Unit	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
100.0	100.8	AGG	SK							
			black graphitic argillite; intense crackle fracture, pervasive hairline white <sup>clay altering</sup> <del>for</del> stockwork; becomes white SK <sup>matrix</sup> filled breccia at 100.2 m (upper contact with 25cm SST bed)							
100.8	107.7	SST	SK, C <sub>1</sub> , S <sub>1</sub>							
			<ul style="list-style-type: none"> <li>- light grey v. fine grained grey fine grained km. solid finely bedded siltstone, non-calcareous (cold weather)</li> <li>- mat scale white, w/ clay altering (fs?) veinlets shallow (&lt;30°) to C.A.; off white 7mm to 1.5cm swelling white scratchable veinlets 35° or more to C.A. weather actus pale yellow; small vug at 103.8 shows bladed pseudo-chamb crystals (cb).</li> <li>- bedding 65°-70° to C.A.</li> <li>- blocky core from 103.7m, v. broken after 107m.</li> </ul>							
107.7	111.05	SST	S <sub>2</sub> , SK							
			<ul style="list-style-type: none"> <li>- same unit, short intervals of hard matrix.</li> <li>- extremely broken, fragmented core; thin graphitic clayey beds; coincides with presence of white/grey quartz stockwork</li> </ul>							



# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: 96-86

August 22 1996

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Logged by: F. Anderson

From (m)	To (m)	Rec. (m)	Major Unit	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
124.05	129.89	SST	3% Py, C <sub>1</sub> , T <sub>1</sub> ASPY?							
			- off white to yellow, wk clay altering carburels in some swelling veins, 10° to 40° → C.A. - not stockwork by part! 126.2m because clast supported breccia in SST from 126.5 to 129.0m, - up to 3% py, e.g. needles above within section.							
129.89	130.3	FT	70:30 SST ARGG							
			grey intense clay supported, sub rounded angular black argillite + grey siltstone fragments, lower contact ~4% → C.A.							
130.3	132.8	SST	10% Py, C <sub>1</sub> , S <sub>2</sub>							
			- grey, crackle fractured siltstone with hairline black stockwork and in white / off white gr-cb veins; harder matrix than previous SST - yellow tan clay altering mineral on fracture surfaces - 1% E.g. py associated in black stockwork + disseminated in matrix - partial pea green coating on some fracture surfaces <del>py spots, replacing</del>							

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: 2096-86

August 22/96

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Logged by: F. Anderson

From (m)	To (m)	Rec. (m)	Major Unit	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
132.2	134.5	SST	70:30 ARG		C <sub>1</sub>	1% PI				
			intercalated tan grey sst + dk grey/black argillite distinct bedding 70°-70° dip; beds are 10cm to 50cm thick - 20% PI in <sup>massive (60-80% PI)</sup> <del>dark argillite</del> beds + lenses in upper 15cm, in contact with hard siltstone. - pastel green coating seen on fracture surfaces.							
134.5	136.95	SST	80:20 ARG		S <sub>1</sub>					
			- v. broken core, platy to angular shaly argillite + blocky grey siltstone; marble white sk pervasive through sst fragments;							
136.95	140.5	SST	C <sub>1</sub> , S <sub>1</sub>							
			- grey siltstone, harder white sk offset by tan/yellow stockwork - sections with black waxy laminations - becomes crumbly broken at 139.0; semi polished surfaces along graphite laminae, matrix supported (cb. 5-8%) brittle and clay altered matrix at 139.5m. - swelling while <sup>causes brecciation</sup> venterlets near lower contact with clay retaining brittle/crumbly stockwork argillite - Contact ~ 85° to C.A.							

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DD96-86

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Logged by: E. Anderson

From (m)	To (m)	Rec. (m)	Major Unit	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
140.5	142.95	AR66	sk, S1							
			- crumbly/clay altered graphite argillite, 10% (fs) white fragments, chips represents white stockwork; - very broken core 0% RQD - <del>compaction</del>							
142.95	146.85	SR5	C1, 10% P1							
			- crackle fractured, clay altered matrix along fractures causes crumbly/fractile siltstone; pervasive pale yellow (ch) fracture stockwork; 10% disseminated pyrite in matrix, pods/patches of irregular shaped massive py within siltstone (unusual) at 145.5m. - short intervals of more competent core, still broken but not clay altered. - trace black stockwork within clay altered zones.							
146.85	147.65									



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: 7075-26

August 24 1996

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Logged by: E. Miler

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
153.21	157.9	SHG	2% quartz, S2 - to decrease in quartz - pervasive brown white stockwork, white quartz, slate - yellow clay matrix, a parallel bedding - minor occasional flat fragments
157.9	157.4	ARM	to pyrite - fine brown clay matrix, greenish, massive with - brown pyrite, in some cases, coarse structure, stockwork - white to light grey coarse crystalline matrix to modal - quartz, some fine (pyrite?) - some very fine, white, fine grained, brown pyrite, slate - trace of quartz, decrease of quartz.
157.4	160.02	GM	TR LM, C1 quartz, green clay matrix, greenish, white chips, some - clay matrix, some brown, fine pyrite, fine texture - pervasive white calcareous, stockwork, weakly developed, - occasional small, coarse white calcareous, veins. - upper to be similar to some greenish with 30 cm - of clay matrix, some GM.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: TR 96-86

Process 201 1502

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
160.70	164.02	AGM	<p><u>2 to 4 m, Tr LM</u></p> <ul style="list-style-type: none"> <li>- buff, low m. clay alter. groundmass, in 150 g/m<sup>3</sup>;</li> <li>- small green siderite nodules (Fe, Mn);</li> <li>- 20% small glass content;</li> <li>- mafic, 20% appear, with one replaced by py.</li> </ul>
164.02	165.15	GM	<p><u>Tr py, calc S<sub>1</sub></u></p> <ul style="list-style-type: none"> <li>- greenish grey to buff groundmass, upward incline to 50% purple in section; decreased clay alteration.</li> <li>- small green siderite nodules</li> <li>- siderite nodules (Fe, Mn) greenish grey, calc S<sub>1</sub> to about 100 g/m<sup>3</sup></li> </ul>
165.15	166.21	AGM	<p><u>Tr py</u></p> <ul style="list-style-type: none"> <li>- transition towards the clay alter. with groundmass, buff, calc S<sub>1</sub> nodules, upward incline to 50% purple from a buff light grey, greenish grey, AGM-GM with a 10% mafic</li> <li>- trace frequency of py nodules</li> </ul>
166.21	166.21	CPC	<p><u>C<sub>1</sub></u></p> <ul style="list-style-type: none"> <li>- polymineralic conglomerate, composed of calc S<sub>1</sub>, mafic clasts of AGM, calc S<sub>1</sub> py nodules, small siderite nodules</li> <li>- trace frequency of py nodules</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

August 21 1991

HOLE-ID: 96-26

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
166.21	167.19	ARGG	70:30 Sst, <del>70:30</del> 5% pt, C <sub>1</sub> - lg disseminated pt concentrated along beds in ARGG - pervasive hairline to cm swelling cb veins
167.79	174.55	ARGG	2% pt, C <sub>1</sub> - black, semi-platy breaking strongly graphitic laminae - 5% total Sst, grey, sediment beds w/ wispy black lenses - 2% pt, disseminated in matrixes & as thin layers: selvages between ARGG & Sst bed contacts - strong white cb stockwork to 168.9m
174.55	185.64	SST	C <sub>1</sub> , 3% pt, 70:30 ARGG - grey to dk grey, black muddly siltstone with wispy discontinuous black laminae; 3% pt replacing wispy black laminae and disseminated species in matrix - pervasive hairline to mm, clay altering, dk grey calcareous steel healed crackle fractures. - Bedding 50°-70° C.A - lower three metres predominately ARGG with thin (up to 10cm) Sst beds
185.64	187.36	SST	60:40 Arg, S <sub>4</sub> , 2% pt, - v. hard Sst/ARGG/Sst interbedded sequence, pt - above, intense black "networking" hairline fractures in Sst; - v. hard matrix - lower contact 78°-90° C.A cuts bedding.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96.26.

August 24 1990

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Logged by: F. ANDERSON

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
187.36	187.25	SST	<p>C<sub>1</sub> 1% - Tr py</p> <p>same unit as 185.64, not silicified.</p>
187.25	198.92	ARGG	<p>7% py, C<sub>1</sub>, S<sub>1</sub></p> <p>extensive chert minor qz stockwork as shaled veinlets (some ovals) and hairline networking; argillaceous py beds within ARG matrix, isolated; strongest in upper</p> <p>- partially healed fractures by <sup>(lead)</sup> grey clay + py beds. grey clay is decomposed pyrite/sulfide?</p> <p>- start getting increase to rounded sm. blebs and wavy thin (2-3m) beds; also replacing truncated white veinlets? <math>\approx 60^\circ - 70^\circ</math>.</p> <p><del>3m py lens bed - 60-70, replacing siltstone</del></p> <p><del>matrix bed by argillite fragments</del></p> <p>- soft argillite a low planar breaking - indented scale?</p>
198.92	200.73	ARGG	<p>bx, sk, S<sub>4</sub>      Tl - 1% py</p> <p>- silicified graphitic shale argillite brecciated by qz chert replaced by qz veinlets + hairline stockwork (disrupts veinlets)</p> <p>- py disseminated sp. in matrix.</p>



# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DD96-86

Logged by F. ANDERSEN / B. BARK.

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From (m)	To (m)	Rec. (m)	R.Q.D	L.m (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
0	2.7	0	<del>0.0</del>	1	0	/	/	/	C <sub>1</sub>	/
2.7	4.7	1.18	0.11	1	0				C <sub>1</sub>	
4.7	6.7	1.65	0.12	1	0				C <sub>1</sub>	
6.7	8.7	0.67	0.16	1	0				C <sub>1</sub>	
8.7	10.7	1.20	0.0	1	0				C <sub>1</sub>	
10.7	12.7	1.42	0.48	1	0				C <sub>1</sub>	
12.7	14.7	1.64	0.15	1	0				C <sub>1</sub>	
14.7	16.7	1.9	0.57	1	0				C <sub>1</sub>	
16.7	18.6	1.46	0.50	1	0				C <sub>1</sub>	↓
18.6	20.6	1.4	0.25	2	0	↓			/	S <sub>2</sub>
20.6	22.6	1.05	0.31	Tr	Tr	P <sub>3</sub>	↓		/	S <sub>1</sub>
22.6	24.6	1.05	0.10	Tr	Tr	P <sub>3</sub>	/		/	S <sub>1</sub>
24.6	26.6	1.70	0.22	1	Tr	P <sub>3</sub>	Tr		C <sub>1</sub>	S <sub>1</sub>
26.6	28.6	1.72	0.41	1	Tr	P <sub>3</sub>	Tr		C <sub>1</sub>	S <sub>1</sub>
28.6	29.6	1.03	0.29	1	Tr	P <sub>3</sub>	Tr		C <sub>1</sub>	S <sub>1</sub>
29.6	31.3	1.51	0.61	1	Tr	P <sub>3</sub>	Tr		C <sub>1</sub>	S <sub>1</sub>
31.3	33.3	1.73	1.20	1	2	P <sub>1</sub>	/		C <sub>2</sub>	S <sub>1</sub>
33.3	35.3	1.84	0.64	1	2	P <sub>1</sub>			C <sub>2</sub>	S <sub>1</sub>
35.3	37.3	1.76	1.17	1	2	P <sub>1</sub>			C <sub>2</sub>	S <sub>1</sub>
37.3	38.1	0.76	0.76	1	2	P <sub>1</sub>			C <sub>2</sub>	S <sub>1</sub>
38.1	40.1	1.78	0.36	Tr	0	/			C <sub>1</sub>	/
40.1	42.1	1.25	0.38	Tr	0	/			C <sub>1</sub>	/
42.1	43.5	1.19	0.29	Tr	0	/			C <sub>1</sub>	/
43.5	45.5	1.43	1.04	1	2	P <sub>0</sub>	↓		C <sub>2</sub>	S <sub>1</sub>
45.5	47.6	1.98	1.67	1	2	P <sub>0</sub>			C <sub>2</sub>	S <sub>1</sub>
47.6	49.6	1.56	0.104	1	0	/			C <sub>2</sub>	/

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: TD96 86

Logged by B. Barik

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From (m)	To (m)	Rec (m)	RQD (%)	Lm (%)	Py (%)	Py Oxidation	Asps (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
49.6	50.6	1.25	0-8	Tr	Tr	P <sub>i</sub>	/	/	C <sub>1</sub>	/
50.6	52.1	0.34	0	Tr	Tr	P <sub>i</sub>			C <sub>1</sub>	
52.1	54.1	1.62	0.48	Tr	Tr	P <sub>i</sub>			C <sub>1</sub>	
54.1	56.1	1.86	1.26	Tr	Tr	P <sub>i</sub>			C <sub>1</sub>	
56.1	57.1	0.9	0.57	Tr	Tr	P <sub>i</sub>			C <sub>1</sub>	
57.1	59.1	1.42	0.91	Tr	Tr	P <sub>o</sub>			C <sub>2</sub>	
59.1	61.1	1.92	1.04	Tr	Tr	P <sub>o</sub>			C <sub>2</sub>	
61.1	62.8	1.79	1.02	Tr	0	/			C <sub>1</sub>	↓
62.8	63.7	0.99	0.64	Tr	0				C <sub>1</sub>	/
63.7	66.7	1.83	1.63	Tr	0				C <sub>1</sub>	S <sub>1</sub>
66.7	67.9	1.66	1.36	Tr	0				C <sub>1</sub>	S <sub>1</sub>
67.9	69.9	2.39?	1.97	Tr	0				C <sub>1</sub>	S <sub>1</sub>
69.9	70.5	0.56	0.31	1	0	↓			E <sub>1</sub>	S <sub>1</sub>
70.5	71.8	1.09	0.25	1	0	↓			C <sub>1</sub>	S <sub>1</sub>
71.8	73.8	1.69	0.8	Tr	0	/			C <sub>1</sub>	/
73.8	75.8	1.56	1.05	Tr	Tr	P <sub>o</sub>			C <sub>1</sub>	/
75.8	77.8	1.79	1.50	Tr	Tr	P <sub>o</sub>			C <sub>1</sub>	S <sub>2</sub>
77.8	79	1.13	0.87	Tr	Tr	P <sub>o</sub>			C <sub>1</sub>	S <sub>2</sub>
79.0	80.0	1.00	0.38	Tr	Tr	P <sub>o</sub>			C <sub>1</sub>	S <sub>2</sub>
80.0	81.3	1.28	0.64	/	3	P <sub>o</sub>			/	S <sub>2</sub>
81.3	82.4	1.02	0.54		3	P <sub>o</sub>			/	S <sub>2</sub>
82.4	84.4	1.71	0.53		3	P <sub>o</sub>				S <sub>1</sub>
84.4	85.4	0.97	0		3	P <sub>o</sub>				S <sub>1</sub>
85.4	86.5	1.07	0.65		3	P <sub>o</sub>				S <sub>1</sub>
86.5	87.5	0.93	0.38	↓	3	P <sub>o</sub>			↓	S <sub>1</sub>
87.5	89.5	1.50	0.26	↓	3	P <sub>o</sub>	/	/	/	S <sub>1</sub>



# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: ~~1096~~ 86

Logged by B. Vaillancourt

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From (m)	To (m)	Rec. (m)	RQD	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
131.3	132.6	1.77	0.33	/	1	P <sub>0</sub>			C <sub>1</sub>	S <sub>2</sub>
132.6	133.8	1.11	0.19		1	P <sub>0</sub>			C <sub>1</sub>	/
133.8	135.8	2.18	∅		Tr	P <sub>0</sub>			/	S <sub>1</sub>
135.8	137	1.16	∅		0	/			/	S <sub>1</sub>
137	139	1.47	0.10		0				C <sub>1</sub>	S <sub>1</sub>
139	140.5	1.34	0.23		0				C <sub>1</sub>	S <sub>1</sub>
140.5	141.5	0.63	∅		0				/	S <sub>1</sub>
141.5	143	1.53	∅		0	✓			/	S <sub>1</sub>
143	145	1.90	0.11		1	P <sub>0</sub>			C <sub>1</sub>	/
145	146.9	2.08	0.11		1	P <sub>0</sub>			C <sub>1</sub>	/
146.9	147.7	0.74	0		0	/			/	S <sub>2</sub>
147.7	149.7	2.01	1.01		0	/			C <sub>1</sub>	/
149.7	150.7	0.98	0.63		0	/			C <sub>1</sub>	/
150.7	152	1.36	0.31		1	P <sub>0</sub>	/		/	S <sub>2</sub>
152	153.8	1.63	0.21	✓	1	P <sub>0</sub>	Tr <sup>#</sup>		/	/
153.8	154.2	0.54	0	/	2	P <sub>0</sub>	/		/	S <sub>2</sub>
154.2	155.2	0.97	0.13	Tr	Tr	P <sub>1</sub>			/	/
155.2	157.4	1.90	0.98	Tr	Tr	P <sub>1</sub>			/	/
157.4	159	1.8	1.44	Tr	0	/			C <sub>1</sub>	/
159	160	1.03	0.93	Tr	0	/			C <sub>1</sub>	/
160	162	2.13	1.40	Tr	2	P <sub>2</sub>			/	/
162	164	2.0	1.48	Tr	2	P <sub>2</sub>			/	/
164	165	1.06	0.86	0	Tr	P <sub>1</sub>			/	S <sub>1</sub>
165	166.2	1.19	1.03	/	Tr	P <sub>1</sub>			/	/
166.2	166.8	0.55	0.27	/	0				C <sub>1</sub>	/
166.8	167.8	0.84	0.41	/	5	P <sub>0</sub>	/	/	C <sub>1</sub>	/

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DD96-86

Logged by D. VAILLANCOURT

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From (m)	To (m)	Rec (m)	RGD	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
167.8	168.9	1.10	0.13	/	2	Po	/	/	C <sub>1</sub>	/
168.9	170.2	1.33	0.28		2	Po			C <sub>1</sub>	
170.2	172.2	1.93	1.42		2	Po			C <sub>1</sub>	
172.2	174.2	2.03	0.57		2	Po			C <sub>1</sub>	
174.2	174.6	0.32	0.13		2	Po			C <sub>1</sub>	
174.6	176.6	2.0	0.71		3	Po			C <sub>1</sub>	
176.6	178.6	2.06	0.68		3	Po			C <sub>1</sub>	
178.6	180.6	2.03	0.9		3	Po			C <sub>1</sub>	
180.6	182.6	1.85	1.06		3	Po			C <sub>1</sub>	↓
182.6	184.6	1.97	0.86		3	Po			C <sub>1</sub>	
184.6	185.6	1.05	0.47		3	Po			C <sub>1</sub>	/
185.6	187.6	2.00	1.47		2	Po			/	S <sub>4</sub>
187.6	189.6	2.17	1.28		1	Po			C <sub>1</sub>	/
189.6	191.6	1.97	∅		7	Po			C <sub>1</sub>	S <sub>1</sub>
191.6	192.2	0.74	0.41		7	Po			C <sub>1</sub>	S <sub>1</sub>
192.2	194.2	1.95	0.28		7	Po			C <sub>1</sub>	S <sub>1</sub>
194.2	195.2	1.01	0.11		7	Po			C <sub>1</sub>	S <sub>1</sub>
195.2	196.9	1.57	0.20		7	Po			C <sub>1</sub>	S <sub>1</sub>
196.9	198.9	2.08	0.11		7	Po			C <sub>1</sub>	S <sub>1</sub>
198.9	200.7	1.72	0.24		1	Po			/	S <sub>4</sub>
200.7	202.7	2.0	0.33		2	Po			C <sub>1</sub>	S <sub>2</sub>
202.7	204.7	1.90	0.28		2	Po			C <sub>1</sub>	S <sub>2</sub>
204.7	206.7	2.16	1.55		2	Po			C <sub>1</sub>	S <sub>2</sub>
206.7	208.7	1.98	1.83		2	Po			C <sub>1</sub>	S <sub>2</sub>
208.7	210.7	1.98	1.61		2	Po			C <sub>1</sub>	S <sub>2</sub>
210.7	212.7	1.56	1.65	/	2	Po	/	/	C <sub>1</sub>	S <sub>2</sub>



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD 96 87

### SUMMARY LOG

Page 1 of 29

Logged by: F. ANDERSEN

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3.4	CASING	
3.4	6.1	SHG	Tr LM
6.1	10.8	LAGM	7% LM 2% Py
10.8	13.0	SH	2% LM, Bx
13	23.5	BM	1% LM, Tr Py
23.5	31.6	ARG	Tr LM, 1% Py
31.6	43.4	QGM	
43.4	45.8	SHG	
45.8	47.2	SH	sk, S4
47.2	51.2	SHG	Tr LM, sk, S2
51.2	60.7	ARG	Gr, sk, S2, Tr Py
60.7	62.1	AQM	2% Py
62.1	64.6	ARGG	sk, S2, Bx
64.6	65	AQM	Tr Py
65	65.6	ARG	sk, S2, Bx
65.6	71.7	ARGG	sk, S2
71.7	78.8	CPC	2% Py
78.8	83.8	ARGG	5% Py, 1% As
83.8	88.5	ARGG	3% Py, C
88.5	105.3	ARG	2% Py, sk, S1
105.3	108	ARG	6% Py, C
108	111.5	ARGG	3% Py, C
111.5	129.7	ARG	5% Py, C
129.7	137.4	ARGG	3% Py
137.4	141.8	ARG	5% Py, C
141.8	145.8	ARGG	Tr Py, Gr
145.8	149.5	AQM	2% Py

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-87

Logged by: F. ANDERSEN

### SUMMARY LOG

→ November 1 1996

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From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
149.5	156.7	ARGG	* Crumbled, broken core, 1/2 sampled
156.7	164.6	ARG	
164.6	168.3	ARG	3% Py, S <sub>1</sub>
168.3	171.6	ARGG	2% Py
171.6	172.7	ARGG	
172.7	172.9	FT	→ Powdery clay
172.9	173.2	SHG	7% Py, S <sub>4</sub> sk
173.2	174.2	AQM	5% Py, 2% Sb, S <sub>2</sub>
174.2	180.2	AQM	3% Py, 0% Sb, S <sub>1</sub>
180.2	180.8	AQM	5% Py, 2% Sb, S <sub>3</sub>
180.8	184.8	QM	2% Py
184.8	185.9	AQM	4% Py, 10% Sb, S <sub>2</sub>
185.9	189.5	AQM	2% Py, tr Sb, * same as 294.5m
189.5	193.9	QM	1% Py
193.9	197.1	BM	3% Py, tr As
197.1	207.1	AQM	7% Py, S <sub>1</sub>
207.1	213.9	ARGG	C
213.9	233.5	ARG	CC, S <sub>1</sub>
233.5	247	ARGG	C, Gr
247	249	AQM	2% Py, Qe
249	263.9	AQM	Tr Py (Tr Fe+CO <sub>2</sub> ) ← Ignore; the 1 sk at 262.5m
263.9	266.8	ARGG	
266.8	270.7	AQM	1% Py, Qe
270.7	282.9	ARG	CC
282.9	293.5	AQM	
293.5	294.5	ARG	sk, S <sub>1</sub> , Bx
294.5	295.5	AQM	Tr Py



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: LD8687

August 27/96

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Logged by: F. ANDERSEN

5:00 pm

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3.35	—	No core recovered
3.35	6.10	SH6	60% LM - v. broken in matrix & fine gr. graphite some - matrix in some sections of thickness
6.10	10.8	LAQM	P <sub>2</sub> P <sub>2</sub> 5% LM, 2% P <sub>1</sub> P <sub>2</sub> - graphite in matrix - v. fine grained matrix with some - v. coarse gr. - v. coarse gr. matrix with some - v. coarse gr. - v. coarse gr. matrix with some - v. coarse gr. - v. coarse gr. matrix with some - v. coarse gr.
10.8	13.0	SH	Bx, P <sub>2</sub> 20% LM P <sub>1</sub> P <sub>2</sub> - subangular to subrounded clast supported - friable shale, Fe clay alteration features - fine grained
13.0	16.02	BM	15% LM - upper part section of matrix - matrix in some sections of thickness - v. fine gr. matrix with some - v. coarse gr. - v. fine gr. matrix with some - v. coarse gr. - v. fine gr. matrix with some - v. coarse gr. - v. fine gr. matrix with some - v. coarse gr.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: 23-15

Area: 23-15

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Logged by: J. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
14.56	23.47	BM	70 LM
			<ul style="list-style-type: none"> <li>- fine grained, reddish-brown, silty, clayey sandstone (shale - thin bedded)</li> <li>- weathered to silty claystone (shale - thin bedded)</li> <li>- poorly sorted, silty sandstone, calcareous, coarse grained</li> <li>- 3 thin shale lenses/beds 10-15 cm</li> </ul>
23.47	21.64	ARG	91 LM, 10% py
			<ul style="list-style-type: none"> <li>- argillaceous sandstone, silty claystone</li> <li>- weathered to silty claystone</li> <li>- contains small, dark, rounded pebbles of quartz</li> <li>- contains small, dark, rounded pebbles of calcareous sandstone</li> <li>- contains small, dark, rounded pebbles of calcareous sandstone</li> <li>- bedding is 20°-30° dip; grade is to the west then to the east</li> <li>- weathered to silty claystone</li> <li>- contact at 31.1m, massive silty claystone contact lower than that in core, must be observed due to</li> </ul>
31.10	13.4	DM	8:
			<ul style="list-style-type: none"> <li>- silty claystone, silty sandstone</li> <li>- weathered to silty claystone</li> <li>- contains small, dark, rounded pebbles of calcareous sandstone</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: 01-27

Logged by: F. ANDERSON

Aug. 27  
Dump at door  
Logging

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
43.0	45.8		S1
			fine-grained, light-colored, silty sandstone
			with scattered pebbles of quartz and feldspar
			matrix is silty sandstone
45.8	47.0	S4	S4, dk
			medium-grained, dark-colored, silty sandstone
			with scattered pebbles of quartz and feldspar
			matrix is silty sandstone
			shale matrix-filled breccia
47.0	51.0	S4K	dk, S2
			medium-grained, dark-colored, silty sandstone
			with scattered pebbles of quartz and feldspar
			matrix is silty sandstone
			shale matrix-filled breccia
51.0	51.0		dk, S2
			medium-grained, dark-colored, silty sandstone
			with scattered pebbles of quartz and feldspar
			matrix is silty sandstone
			shale matrix-filled breccia

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: 96-87

August 27 1966

Logged by: F. Anderson

RAIN

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60.1-60.66 ARG6 - cm py breccia/veins

From (m)	To (m)	Rec. (m)	Major Unit	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx	
62.66	62.1	ARGM	2% py, Po								
			<ul style="list-style-type: none"> <li>- pale pink/tan bleached with strong clay</li> <li>- altered groundmass; porphyritic texture indistinct</li> <li>- 2% py as grains replacing matrix</li> <li>- zones of complete clay alteration associated with mm to cm graphitic sediment beds.</li> </ul>								
62.1	64.57	ARG6	G <sub>1</sub> , S <sub>2</sub>								
			<ul style="list-style-type: none"> <li>- upper contact 60°-70°N</li> <li>- tan/pink clay alteration; gash fillings</li> <li>- occasional white quartz veins + gash filling</li> <li>- last 60 cm is a <sup>ARG6</sup> matrix supported white quartz clay breccia.</li> </ul>								
64.57	65	ARGM	T <sub>1</sub> py								
			<ul style="list-style-type: none"> <li>- clay deterring groundmass, rare porphyritic sill.</li> <li>- upper + lower contact 60°-70°N</li> </ul>								
65	65.58	ARG	S <sub>2</sub>								
			<ul style="list-style-type: none"> <li>- continuation of breccia zone seen from 64-64.57 m;</li> <li>- thin sills? of diorite material ~40°-70°N, 65.28-65.58 m</li> </ul>								
65.58	71.7	ARG6	S <sub>1</sub> , S <sub>2</sub>								
			<ul style="list-style-type: none"> <li>- interlamated ARG/S<sub>1</sub> and clay silty or <del>arenaceous</del>? unit</li> <li>- wavy bedding 40°-70°N</li> <li>- pervasive white, swollen + swirled quartz veins with tan/yellow clay selvages; staurolite is quartz + white muscovite strongest in silty units</li> </ul>								

End logging for clay

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

October 9, 1996

HOLE-ID: DD96-87

Note: Core has been sampled - depths are best approx. meters

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Logged by: F. Ariz-Rosal

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
71.7	78.8	CPC	2% py, Po - matrix supported, subangular to sub rounded white/grey granite to pebble sized clasts; poorly sorted - dk grey to black silty matrix not graded - < 1% massive pyrite pebbles, ~ 2% fine grained py in matrix; - minor sections of clast supported CPC - uneven breaking, hackly surfaces where core split; - open space textures at 74.8m, dusky g2 + py cubes to 3mm - At 76.5m have "Cave" block - rock is broken, blocky fine grained sandy matrix, no clasts limestone (yellow) clay saturation of fs groundmass - 77.8-78.3m have graphitic, platy shaley argillite w/ abundant polished surfaces - minor slip surface - w/ bedding ~ 90° → C.A
78.8	83.8	AR66	5% py, 1% as, Po - graphitic thinly bedded shaley argillite; breaks along polished graphitic laminae + across fine silty beds; bedding 75° → C.A - 5% (or more) v.f.g. py in matrix, ~ 2% silvery needles + microscopic grains → acropyrrite; - rare discontinuous yellow-pyritic laminae weakly calcareous where laminae occur; - v. little g2 (white) veinlets amount increasing with depth, < 1%, coarser pyrite grains around g2 veinlets - v. broken, crumbled interval 80.1 to 80.4m, strongly graphitic.

stepped veinlets w/ pale yellow clay between beds → movement along graphitic layers

\* About 1/2 meter of movement because core has been split

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-87

October 9/96

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
83.8	88.5	ARG6	3% py, Po, Cl
			- strongly graphitic platy argillite, deformed bedding in upper meter, subhor bedded downhole, 20°-20°CA.
			- 1 to 3cm dk greyish black fine silty beds with 1cm black clay beds; beds offset by hairline anastomosing to planar weakly calcareous clay filled fractures at shallow angles → CA.
			- pyrite content rises to ~30% no arsenopyrite needles seen; rare py rich dk grey-fine silty beds.
			Graphite content ↓ w/depth.
88.5	101.5	ARG1	1% py, Po
			- open folded thinly bedded argillite; axial trace ~25°-20°CA; few sulfides seen in non graphitic.
			bedding varies from 60° to 70° → CA.
			- short (30-40cm) platy broken graphitic intervals with up to 70% pyrite in matrix.
			- axial trace 75°-70°CA at 96.4m, bedding 85° → CA.
			- graphitic polished surfaces throughout interval.
			- white opaque quartz veinlets, deformed through folding broken into lenses, a later episode infilling fractures.
101.5	105.3	ARG1	2% py, Po, S, Si
			- dk greyish black v. fine silty to clay matrix
			- graphitic polished laminae;
			- thinly bedded core breaks along & across beds as well as along graphite laminae.
			- bright white ribbed, tubularized quartz veinlets.
			- pyrite within matrix & as thin irregular laminae

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-87

October 9/86

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Logged by: F. Arvidsson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
105.3	108	ARG	<p>C2, 6% py, Po</p> <ul style="list-style-type: none"> <li>- dk greyish black and black v fine silty to clay matrix; thin bedded, mm to 2cm size; 50°→C.A</li> <li>- 50% - 70% pyrite as blebs, py rich beds 1-3mm in size and as nodules to 2cm size;</li> <li>- greyer beds are moderately reactive to HCL;</li> <li>- mm sized white lensy veinlets following bedding;</li> <li>- later stage white qz veinlets, mm sized, deformed by slip along bedding; very few;</li> </ul>
108	111.5	ARGG	<p>3% Py, Po, C2</p> <ul style="list-style-type: none"> <li>- v. broken platy graphitic argillite, thinly bedded laminated 55°→C.A;</li> <li>- pyrite as v. thin laminae ribboned;</li> <li>- 5cm sections of clayey graphitic rich argillite, very calcareous; more competent core non-reactive to HCL;</li> <li>- 20% pale yellow to white wispy mm laminae - dolomitic mineral?</li> </ul>
111.5	123.8	ARG	<p>50% Py, C2, Po</p> <ul style="list-style-type: none"> <li>- identical unit to 105.3 - 108 m argillite</li> <li>- no blebbey pyrite in this interval no nodules</li> <li>- bedding 30°→C.A @ 116.8m</li> <li>- occasional mm open fractures ~ 11C.A, cause core to split</li> </ul>

→  
5.3  
2.0  
0.2

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD76-87

October 21/86

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Logged by: F. Andersen

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Hole already split & sampled;
123.8	129.7	ARG	5% Py, Po, S. Same unit; py massive beds to 1 cm thick. - kaolinite to 1 mm (white) + py ash fillings & stockwork, disrupted bedding - very minor graphitic laminae concentrated through 5 cm intervals
129.7	137.4	ARGG	3% Py, Po, - very black bedding (see A defined by pyrite rich laminae) - soft graphitic argillite with zones of v. broken, graphite dominant chips (legs to 6 cm length) - unit breaks into plates, some abundant discs - slaty breaking 131.1 to 132.8 m - smooth, polished surfaces of discs indicate slip along bedding.
137.4	148.8	ARG	50% R, Po, S. Same unit, same description as 123.8-129.7 m; - quartz veinlets pinch & swell along bedding, plus kaolinite stockwork, & sheeted veinlets - py content ↑ downhole away from graphitic zone; 8 mm massive bed at 144.7 m; also get py blebs - conc slaty breaking across sub-parallel bedding. - v. broken zones assoc with ↑ graphite laminae.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD 96-87

Oct. 21/96

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Logged by: F. ANDERSON

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
144.8	145.8	ARG <sub>6</sub>	Tr py, Po - black, broken moderately to strongly graphitic, - graphite ↑ dextral - semi polished chip surfaces from 144m onwards; - highly crumbled / crushed shear zone ~144.6-145.1m. - lower contact to AGM broken, appears intrusive at shallow to C.A.
145.8	149.5	AGM	2% Py, Po, Si pale brownish green fine grained quartzites; non-porphyratic; matrix ⇒ brown clay or replaced by Py - downhole get heavier cubic py ~10% - not replacement of matrix; - minor horizontal veinlets of pale minerals - clastic + 82
149.5	156.7	ARG <sub>6</sub>	
	149.3	152.85	<u>Box 38</u> composed of broken graphitic argillite; larger chips show polished surfaces
	152.85	156.7	<u>Box 39</u> open folded graphitic argillite, polished surfaces along beds; one limb 20° → C.A. other limb 100° → C.A. opposing dips; most of box v. platy & broken; shows evidence of strong brittle ductile deformation



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-87

- Jump into SH/AAM to SB Interval for Assays

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Logged by: Farrell Anderson

August 28 1996 - 6:00 PM

F.S.A.

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			<p>Note: Other than DD holes 85+88, sample intervals were broken out by technicians with geologic contacts + zones of interest marked by geo. Hole 86 sample intervals broken out by R. Diment.</p>
<del>168.25</del>	<del>170.2</del>	<del>SHG</del>	<del>10% py</del>
168.25	170.2	AR66	<p>- graphitic clay + pebble sized arg fragments enclosing 3 to 12cm competent AR66 clasts - fairly regular pattern, ~ 30° → C.A suggests graphitic shear at shallow angles to C.A.</p> <p>- py disseminated than thin beds + is laminae.</p> <p>- polished surfaces 30° → C.A. reveal clay-arg shears.</p>
170.22	171.6	SHG	<p>2-3% py</p> <p>- platy graphitic shale, not fissile; mm sized white → yellowish clay veinlets, various angles, associated with fractures.</p> <p>- py disseminated than thin beds and as mm sized laminae.</p>
171.6	172.7	SHG	<p>- graphitic clay lamina rich, platy shale with <del>shaly</del> + sub rounded argillite + pervasive stockwork argillite fragments.</p>
<del>172.7</del>	<del>172.9</del>	FT	<p>- massive, shaly clay, breaks into powder 172.7-172.9</p>
172.9	173.14	SHG	<p>7% py S4</p> <p>- silicified pyrite forms disconnected network through matrix.</p> <p>- upper contact graphitic, 60° → C.A</p> <p>- lower contact planar, 70° → C.A</p>



# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: D26-87

Logged by: F. ANDERSON

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From (m)	To (m)	Rec. (m)	Major Unit	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx	
180.8	183.3	<del>SM</del> SM	30% py, P <sub>1</sub>								
			<ul style="list-style-type: none"> <li>- greyish green groundmass, pink and green alteration of phenocrysts;</li> <li>- mm qz veins with clay rims; one veinlet bearing stib. G</li> <li>- biotite shredded looking, pale brown.</li> <li>- 3 cm, biotite in AGM (tan) groundmass <sup>clotted</sup> in 45°-70°-A.</li> <li>- pyrite replacing biotite in groundmass.</li> </ul>								
183.3	184.75	<del>SM</del> SM	20% py, P <sub>1</sub>								
			<ul style="list-style-type: none"> <li>- pale brownish tan groundmass, biotite gone to pale brown clay; Bleached SM.</li> <li>- core continues to break along hairline fractures, 45°-70°-A</li> <li>- &lt;10% remnant biotite</li> <li>- 2% at most, py replacement of biotite.</li> </ul>								
184.75	185.87	AGM	40% py, S <sub>2</sub> , <10% Sb								
			<ul style="list-style-type: none"> <li>greyer quartz veins + stibnite veined AGM, 3-5% py disseminated in groundmass;</li> <li>- quartz veins up to 2cm, oriented ~40°-70°-A, parallel + unevenly spaced.</li> </ul>								
185.87	187.5	AGM	1-2% py, trace Sb (Sb)								
			<ul style="list-style-type: none"> <li>- pinkish tan groundmass, bi → brown clay + replaced by pyrite; trace interstitial f.g. py; silvery, blebbing sulfide looks blebbed (Sb)</li> <li>- 1/2 core patchy, pale green clay altered groundmass 187.3-187.76m.</li> </ul>								

-10cm AGM lens, plume contacts 50° → c.a. at 189.25



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD 96-87

November 1 1996

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Logged by: E. Andersen

Hole already cut  
+ 1/2 sampled.

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Continuation of log from 807.1m last logged August 28/96 by FA; 168.2-207.1m logged out of sequence to obtain assay data.
807.1	213.9	AR66	<p>C1</p> <ul style="list-style-type: none"> <li>- black very broken, strongly graphitic chips, angular chip w rounded edges.</li> <li>- trace powdery clay weakly calcareous as kaolinite fracture fillings - fractures across bedding.</li> <li>- powdery chips from 208.3 to 211m.</li> <li>- matrix lighter shade less graphitic, more competent pieces thicker clay + qz + minor ch. fracture fillings</li> </ul>
213.9	233.5	AR6	<p>C2, S1</p> <ul style="list-style-type: none"> <li>- <del>more</del> solid core w throughgoing fractures healed by qz + white mineral forms stockwork in places; calcareous matrix</li> <li>- weakly to non graphitic mainly with short intervals of graphite rich / clay altering argillite lenses;</li> <li>- soft sediment deformation and sandy inclusions as trough fillings; calcareous lenses of silt.</li> <li>- At 223m starts to become more graphitic, core bits are smaller, broken, sometimes reduced to rubble.</li> </ul>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-87

November 1996

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Logged by: F. Andersen

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
233.5	247	AR66	C <sub>1</sub> - 40cm interval of larger broken graphitic argillite pieces showing polished surfaces along graphite laminae; core becomes graphitic rubble with 1% white powdery clay causing fr. pale grey hue to core on fracture surfaces
247	249	AGM	P <sub>0</sub> 20% Py, Bz - tan/greenish brown to grey groundmass; - porphyritic, phenos adhered to white clay w/ irregular xtal boundaries - ~10% sub rounded quartz eyes, irregular shape-replacement texture. - 2% pt present as aggregate blebs (<10% replacement of mafics), and as discrete cubes disseminated thru core; content ↓ down hole - P <sub>0</sub> → P <sub>2</sub> (not limonite but biotite - Bz of old) - sericite micro coating along fracture surfaces partially rehealed.
249	263.9	AGM	P <sub>1</sub> (biotite remnant), tr py. - as above, no quartz eyes after 249m, very little to no pyrite, trace biotite? specks replaced by pyrite. (note specks very fine black reflective mineral - biotite? secondary - mafics destroyed). - fracturing increases down hole, clay alteration of groundmass ↑ - trace iron yellow clay along fracture 60° → C.A (shear) at 262.5m

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: D096-87

Nov 1/96

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Logged by: F. Androski

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
263.9	266.8	ARGG	dark grey to black blocky sub rounded clay coated argillite pieces + clay agglomerated rubble. - upper + lower contacts destroyed * Reduced to NS at 264.8m.
266.8	270.7	ASM	1% Py, Po, Sc still identical to 247-263.9, pyrite dominant in first 50cm, and up to 3% in last 30cm. groundmass has increased sericite alteration plus random hairline grey quartz veinlets; only minor fracturing, partially healed.
270.7	282.9	ARG	C3 platy dark greyish black argillite, limy bedding 20° to 0° → C.A; platy breaking, thinly laminated, occasional graphite laminae. - lower 30cm strongly graphitic rubble.
282.9	293.5	ASM	- white phenocrysts have very angular boundaries, possible fragmented coarse crystals. - thin yellow altered intervals at 45° → C.A. complete - mm sized white massive veinlets/fracture fillings, some yellow coloured (Fe-dolomitic?) - later stage fractures (partially healed by sericite) truncate + displace veinlets.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96 87

Logged by: F. Andersen

Nov. 1/96

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From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
293.5	294.5	ARG	sk. Si, br - brecciated stockworked argillite, matrix filled by weakly graphitic shale matrix. - upper + lower contacts destroyed.
294.5	295.5	AGM	tr py, Po pinkish tan groundmass, smaller porphyritic texture harder groundmass occasional broken quartz + pyrite veins - weak potassic alteration? ← No
296.5	297.2	FT	AGM; - fault zone - slickensides 300° → C.A. healed fractures subparallel C.A. causes broken core; groundmass moderate to complete clay altered; hematite brown staining/streaking along fracture subparallel C.A. - causes overlying units pink tinge?
297.2	309.9	AGM	tr py, Po greenish/tan-pink <sup>patchy</sup> hue groundmass, phenos being replaced by pale green sericite with pale off white rims; pink hue ends at 302m - 302 corresponds to increased fracturing, ↑ clay alteration, polished surfaces shallow → C.A. & 300° → C.A. also means greya groundmass; - pink hue patches return at 307m; - py blebs + 20% disseminated fine grains in last 30cm before lower contact; also get black shiny specks being replaced by quartz.

↑ possibly weird alteration of pyrite?

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: D096-87

Logged by: F. ANDERSEN

Nov. 1/96

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
309.9	315.8	ARGG	<p>sk, S<sub>1</sub>, C<sub>2</sub></p> <p>pervasive hairline fracture filling, mm to cm white veinlets as disrupted stockwork; platy, graphitic, many polished graphitic surfaces on chips:</p> <p>-note white veinlets highly reactive to HCL + composed of qz + cb</p> <p>-graphitic rubble from 314.3 to 315.5 m.</p>
315.8	318.7	ARG	<p>C<sub>3</sub></p> <p>-weakly calcareous silty matrix, pervasive deformed &amp; convoluted hairline wispy stockwork + fracture fillings; wavy (sub parallel bedding) to truncated &amp; displaced (shallow angles → C.A. cutting bedding) mm to cm sized very calcareous composed of carbonate minerals:</p> <p>-displacement caused by bedding slip. fracture fillings are related to slip along beds (extension/fracture cleavage).</p>
318.7	319.4	ARGG	<p>C<sub>3</sub></p> <p>-black blocky/platy breaking calcareous argill. to</p>
		EOT	<p>-polished surfaces marked by graphite laminae</p> <p>-bedding 60-70° → C.A.;</p>
			<p>End of hole.</p>

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE 87

HOLE-ID: DD 96-87

Logged by: LIZZY JOY

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From (m)	To (m)	Rec. (m)	RGD	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
0	3.05	No Core	-							
3.05	4.88	.92	-	1	0	/				
4.88	6.1	.5	-	1	0	/				
6.1	8.1	1.5	-	5	2	P <sub>2</sub>				
8.1	10.1	1.8	-	5	2	P <sub>2</sub>				
10.1	10.8	.62	-		2	P <sub>3</sub>				
10.8	13	1.02	-		2	P <sub>3</sub>				
13	15.02	1.9	-	1	Tr	P <sub>0</sub>				
15.02	16.02	.74	0.11	1	Tr	P <sub>0</sub>				
16.02	18.02	1.97	-	Tr	0	/				
18.02	21.02	1.75	0.22	Tr	0	/				
21.02	21.41	1.38	-	Tr	0	/				
21.41	23.47	1.83	-	Tr	0	/				
23.47	25	1.01	-	Tr	1	P <sub>0</sub>				
25	26.8	1.24	-	Tr	1	P <sub>0</sub>				
26.8	28.3	1.44	-	Tr	1	P <sub>0</sub>				
28.3	29.8	1.45	-	Tr	1	P <sub>0</sub>				
29.8	31.64	1.46	0.58	Tr	1	P <sub>0</sub>				
31.64	33.3	1.3	1.18	/	0	/				
33.3	35.3	2.1	-		0					
35.3	37.3	1.98	1.31		0					
37.3	39.3	1.78	1.11		0					
39.3	41.3	1.87	0.40		0					
41.3	43.4	2.1	1.38		0					
43.4	45.3	1.46	0.48		0					
45.3	47.24	1.16	0.22		0					S4

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE 87

HOLE-ID: DD96-87

Logged by LIZZY JOY

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From (m)	To (m)	Rec (m)	RGD █ █	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
47.24	49.26	1.17	-		0	/				S <sub>2</sub>
49.26	51.2	1.26	0.15		0					S <sub>2</sub>
51.2	53.1	1.35	0.3		0					S <sub>2</sub>
53.1	55.2	1.83	0.36		0					S <sub>2</sub>
55.2	57.19	1.97	0.49		0					S <sub>2</sub>
57.19	59.19	2.00	.62		0					S <sub>2</sub>
59.19	60.66	1.14	-		0	/				S <sub>2</sub>
60.66	62.7	2.12	.56		2	Po				/
62.7	64.57	1.46	.90		0	/				S <sub>2</sub>
64.57	65.58	.98	.23		Tr	Po				-
65.58	67.6	2.01	1.30		0	/				S <sub>2</sub>
67.6	69.6	2.09	1.18		0	/				S <sub>2</sub>
69.6	71.7	1.93	.84		0	/				S <sub>2</sub>
71.7	73.7	2.08	.94		2	Po				/
73.7	75.7	1.56	.66		2	Po				/
75.7	77.8	2.16	.59		2	Po	/			-
77.8	79.8	1.88	.59		3	Po	Tr			-
79.8	81.8	1.89	Q		5	Po	1			-
81.8	83.8	1.41	.11		5	Po	1		/	
83.8	85.8	1.70	.44		3	Po	0		C <sub>1</sub>	
85.8	87.8	1.93	.6		3	Po	/		C <sub>1</sub>	
87.8	89.8	1.87	.22		2	Po			C <sub>1</sub>	
89.8	91.8	2.01	1.05		1	Po			/	
91.8	93.8	2.00	.19		1	Po				
93.8	95.8	1.82	0.71		1	Po				
95.8	97.8	1.96	0.51		1	Po				

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE 81

HOLE-ID: DD96-87

Logged by LIZZY E JOY

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From (m)	To (m)	Rec (m)	RQD (%)	Ln (%)	Py (%)	Py Oxidation	Aspy (%)	Sh (%)	CaCO <sub>3</sub>	Silica Influx
97.8	99.8	1.67	0.4		1	Po				/
99.8	101.54	1.77	0.66		1	Po				/
101.54	103.3	1.81	0.48		2	Po				S <sub>1</sub>
103.3	105.3	1.92	.72		2	Po			/	S <sub>1</sub>
105.3	107.3	1.85	1.00		6	Po			C2	/
107.3	109.3	.96	.20		5	Po			C2	
109.3	111.3	.96	.0		3	Po			/	
111.3	113.3	2.04	.29		5	Po			C2	
113.3	115.3	2.02	.51		5	Po			C2	
115.3	117.3	.92	.80		5	↓			↓	
117.3	119.3	1.99	1.05		5	↓			↓	
119.3	121.3	2.02	1.13		5	↓			↓	
121.3	123.3	1.89	.24		5	Po			C2	/
123.3	125.3	1.96	.21		5	Po			/	S <sub>1</sub>
125.3	127.3	2.09	.11		5	Po				/
127.3	129.3	1.75	.0		5	Po				
129.3	131.3	2.09	.31		3	Po				
131.3	133.3	1.83	.12		3	Po				
133.3	135.3	1.80	.35		3	Po				
135.3	137.3	1.92	0		3	Po				
137.3	137.9	-			5	↓				
137.9	139.9	-			5	↓				
139.9	141.8	1.48	.11		5	↓				
141.76	143.7	1.44	-		TC	Po				
143.7	144.8	1.06	-		TC	Po				
144.8	145.8	1.17	-		TC	Po				

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE 87

HOLE-ID DD96-87

Logged by LIZZY JOY

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From (m)	To (m)	Rec (m)	R&D	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
145.87	147.8	1.75	0.66		2	P <sub>0</sub>				S <sub>1</sub>
147.8	149.5	1.5	0.71		2	P <sub>0</sub>				S <sub>1</sub>
149.5	151.5	1.93	-		-	-				-
151.5	153.5	1.49	-							
153.5	155.45	1.29	-							
155.45	157.28	1.63	19							
157.28	159.2	1.86								
159.2	161.2	1.9	-							
161.2	163.2	1.87	10							
163.2	164.57	1.27	-		-	-				-
164.57	166.3	1.64	-		3	P <sub>0</sub>				S <sub>1</sub>
166.3	166.9	.6	-		3	P <sub>0</sub>				S <sub>1</sub>
166.9	168.62	1.9	-		1	P <sub>0</sub>				//
168.62	170	1.38	-		1	P <sub>0</sub>				
170	171.6	1.88	0.65		2	P <sub>0</sub>				
171.6	172.9	1.19			0	-				-
172.9	173.14	0.21	0.15		7	P <sub>0</sub>				S <sub>4</sub>
173.14	174.21	1.08	0.67		5	P <sub>0</sub>		2		S <sub>2</sub>
174.21	176.21	.99	1.85		3	P <sub>0</sub>		0		S <sub>1</sub>
176.21	178.6	2.35	1.43		3	P <sub>00</sub>		0		S <sub>1</sub>
178.6	180.2	1.63	0.89		3	P <sub>0</sub>		0		S <sub>1</sub>
180.2	180.8	0.44	0.36		5	P <sub>0</sub>		2		S <sub>3</sub>
180.8	182.6	1.83	-		3	P <sub>1</sub>		-		-
182.6	184.6	1.94	-		2	P <sub>1</sub>		-		
184.6	185.86	0.98	-		4	P <sub>0</sub>		1		S <sub>2</sub>
185.86	187.86	2	1.18		2	P <sub>0</sub>		Tr		S <sub>2</sub>

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE 87

HOLE-ID. D56-87

Logged by LIZZY E. JOY

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From (m)	To (m)	Rec (m)	RQD	Lm (%)	Py (%)	Py Oxidation	Asps (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
187.86	189.83	1.9	-		2	B		Tr		
189.83	191.8	1.94	-		1	Po		/		
191.8	193.85	1.72	.85		1	Po	/			
193.85	195.5	1.87	.21		3	Po	Tr			
195.5	197.1	1.88	-		3	Po	Tr			/
197.1	199.1	1.99	.21		7		/			S <sub>1</sub>
199.1	201	2.1	.50		7					
201	203	2	.3		7					
203	205.05	2	.6		7					
205.05	206.04	1.01	-		7	↓				
206.04	207.1	.97	-		7	Po				↓
207.1	208.3	1.26	-		/	/		/		S <sub>1</sub>
208.3	209.9	1.42	-					C <sub>1</sub>		/
209.9	211	1.32	-					↓		-
211	212.95	1.95	-					↓		-
212.95	214.9	1.97	.3					C <sub>1</sub>		S <sub>1</sub>
214.9	216.9	1.46	.3					C <sub>2</sub>		
216.9	218.24	1.94	.2							
218.24	220.4	1.91	.1							
220.4	221.78	1.45	.3							
221.78	223.7	1.98	.1							
223.7	225.7	1.95	.2							
225.7	227.6	2	1.2							
227.6	229.6	1.96	.78							
229.6	231.6	1.8	.2					↓		↓
231.6	233.6	2	-		/	/		C <sub>2</sub>		S <sub>1</sub>

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE # 87

HOLE-ID: 0096-87

Logged by L. J. JOY

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From (m)	To (m)	Rec (m)	RQD (%)	Lm (%)	Py (%)	Px Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
233.6	234.1	.5	.2						C <sub>1</sub>	
234.1	236.1	1.0	-						↓	
236.1	238.1	1.84	-							
238.1	240.1	1.92	-							
240.1	242.1	1.85	-							
242.1	244.1	1.7	.2						↓	
244.1	245.6	1.74	.2							
245.6	246.9	1.87	-		/	/			C <sub>1</sub>	
246.9	247.9	1.09	.23		2	P <sub>0</sub>			-	
247.9	249.9	1.86	.17		1	P <sub>0</sub>				
249.9	251.76	1.85	.25		7r	P <sub>1</sub>				
251.76	253.7	1.72	.74							
253.7	255.7									
255.7	257.7	2.1	-							
257.7	259.9	2	.87							
259.9	261	1.34	.38							
261	262.8	1.87	.29		✓	✓				
262.8	263.9	1.06	.29		7r	P <sub>1</sub>				
263.9	265.48	.75	-		-	-				
265.48	266.8	1.39	-		-	-				
266.8	268.8	2	.91		1	P <sub>0</sub>				
268.8	270.7	2.83	1.21		1	P <sub>0</sub>			/	
270.7	272.64	1.5	-		/	/			C <sub>3</sub>	
272.64	274.32	1.67	-						C <sub>3</sub>	
274.32	275.72	1.59	-						C <sub>3</sub>	
275.72	277.06	0.84	-						C <sub>3</sub>	





# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DP 96-88

August 23 1996

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Logged by: F. Anderson

*Quick log*

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
183	9.15	LACM	5% LM, So pervasive yellowbrown stain to strongly clay altered intensive fault propylitic texture - dk red brown stockwork indicates 5% <sup>LM</sup> after pt.
9.45	19.15	SH/ARH	3% LM - pervasive fracture stockwork, broken by clay rich, crackle fracturing; LM <sup>clay</sup> coating fractures / infilling, fractures ~ 60°-70° CA - clay brown stain along fractures shallow to CA - brecciated <sup>dk</sup> grey, angular <del>clasts</del> <sup>clasts</sup> in a pale grey shaly matrix; Bold, wavy, no planar (convoluted)
19.15	24.2	ARH	1% LM weak stockwork, less intense than overlying interval.
24.2	29.6	AR66	Gr, TR LM clayey, black graphitic; pale yellow and white clay altered stockwork - discontinuous - trace LM along bedding planes / fractures; 15% black/ grey shale clasts in graphitic matrix;
29.6	34.8	AR66	TI LM - very little silty shaly subangular clasts - only few fractures have clay (white/yellow) + low angle shear - bedding is 60°-70° CA, core breaks across graphitic fish bedding.

100% ...  
 100% ...  
 100% ...



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD9688

Logged by: F. ANDERSEN

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
34.8	38.35	ARGG	TR LM - v. broken fractured clay development in last meter. - trace ironite along fractures - semi polished graphitic surfaces - areas of slip (thrust) compression? - ore breccias marked with a granular pale grey mat - intrusives?
38.35	42.27	BRG	- bedded ironite with graphitic shale laminae. - bedding 45° → CA
42.27	45.10	SHG	TR LM - more shaly containing graphitic shale <del>with</del> enclosing 50% grey clastic (coarse silt) fragments of various sizes - becomes oxidized (brown lined shale matrix) at 45.10m.
45.10	56.1	SHG	30% LM TR - 1% HM - broken crumbled ore from 48.10m to 50.75m - LM is the average major fracture cutting & shoring of matrix - LM content decreases with depth



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: 9688

August 23

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Logged by: F. ANDERSON

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
81.02	82.35	AR66	S4 Gr. sk, bx, tr pt - deformed, pervasive g2 stockwork, matrix filling; - pervasive <sup>white</sup> kaolinite, clay stockwork; strongly graphitic laminae. - v. hard matrix
82.35	82.75	SH6	S2, C1 platy, graphitic, w/ white clayey slt; - harder matrix than usual
82.75	89.85	SST	S9, Tr LM 65:35 AR66, C1 + C2 - Interbedded black stockwork grey Steel Fm + black graphitic cherty argillite; Bedding 65°-Z-A - Steel Fm <del>is</del> hard, tan grey weathering on fractures; - crackle fracturing healed by HM altering pale yellow mineral. - random white g2 veins with wallrock clasts at shallow angles to C-A
89.85	91.2	SH6	S4, C1 Bedding 45°-Z-A, planes well developed Indurated graphitic shale. - minor white stockwork in upper 1/2 metre, patchy through rest of interval.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD 96-88

August 24 1996

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Logged by: F. Andersen

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
91.2	105.65	AR6	60:40 SK, S2, S1 black, crackle fractured wavy bedded AR6 & wispy black laminated, grey siltstone. - S2 convoluted beds, encompass AR6 fine clasts/lenses & have pervasive <sup>all</sup> fine grey stockwork - hard matrix. - AR6 has silty, wavy interbeds. - matrix white stockworking pervasive & semi-pervasive after 102.41m.
105.65	107.75	SST	60:40 AR6, BX, SK, C2, S2 - large round clasts of arg in convoluted arg beds; stockworked SST hard matrix & large round clasts of SST in wavy laminated stockworked argillite; stockworking causes brecciation of clasts, disturbs/disrupts bedding.
107.75	119.4	SH6	C1 - black argillaceous shale, graphite laminar. - becomes more platy, shaley deeper down; - bedding changes steep to C.A. at depth; 70° → C.A. at 118.7m; 60° → C.A. at 109m. - crumbly, graphitic 11.4 to 11.65m. - two or three large, sub-rounded SST clasts and 3-5cm beds;  E.O.H. 119.4m.

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

August 24/96

HOLE-ID: DD96 88

Logged by: Liz r Joy

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From (m)	To (m)	Rec. (m)	Major <del>Unit</del> <sup>ROD</sup>	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
1.83	3.9	0.61	0.9		5	P <sub>4</sub>				
3.9	5.9	1.45	0		5	P <sub>4</sub>				
5.9	7.9	2.15	0.26		5	P <sub>4</sub>				
7.9	9.45	.25	0	/	5	P <sub>4</sub>				
9.45	11.45	.84	0.23	3	0	/				
11.45	13.45	.79	0	3	0					
13.45	15.45	1.37	0.25	3	0					
15.45	17.45	1.67	0.88	3	0					
17.45	19.15	1.11	1.02	3	0					
19.15	21.15	1.60	0.62	1	0					
21.15	23.15	1.99	0.40	1	0					
23.15	24.2	.93	0.34	1	0					
24.2	26.2	1.85	0.55	Tr	0					
26.2	28.2	1.60	.20	Tr	0					
28.2	29.6	1.05	0.41	Tr	0					
29.6	31.6	2.00	0.71	Tr	0					
31.6	32.8	1.28	0.51	Tr	0					
32.8	34.8	1.51	0.13	Tr	0					
34.8	36.8	1.45	0.25	Tr	0					
36.8	38.35	0.30	.16	Tr	0					
38.35	40.35	1.73	.39	/	0					
40.35	42.27	1.64	.25	/	0					
42.27	44.27	1.44	.43	Tr	0					
44.27	46.27	1.41	.26	1	0					
46.27	48.27	1.44	.23	3	0					
48.27	52.27	1.05	.12	3	0					

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: 2096-88

Logged by: Liz + Joy

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From (m)	To (m)	Rec. (m)	Major <del>Unit</del> Unit	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
50.27	52.27	1.73	0.73	3	0					
52.27	54.27	1.47	0.64	3	0					
54.27	56.1	1.54	0.45	3	0					
56.1	58.1	1.47	0.44	Tr	0					
58.1	60.1	1.95	0.10	Tr	0					
60.1	62.1	1.25	0.16	Tr	0					
62.1	63.05	70	-	Tr	0	/			/	
63.05	65.05	1.92	0.20	Tr	Tr	P <sub>2</sub>			C <sub>2</sub>	
65.05	67.05	1.66	0.10	Tr	Tr	P <sub>2</sub>			C <sub>2</sub>	
67.05	69.05	2.12	-	Tr	Tr	P <sub>2</sub>			C <sub>2</sub>	
69.05	71.05	1.37	0.34	Tr	Tr	P <sub>2</sub>			C <sub>1</sub>	
71.05	73.4	1.97	0.46	Tr	Tr	P <sub>2</sub>			C <sub>1</sub>	
73.4	75.4	1.71	-	/	0	/			C <sub>2</sub>	
75.4	76.92	1.42	.38	/	0				C <sub>2</sub>	
76.92	78.02	2.69	-	/	0				C <sub>2</sub>	
78.02	80.02	87	0.45	/	0				C <sub>2</sub>	
80.02	81.02	1.13	-	/	0	/			C <sub>2</sub>	/
81.02	82.35	1.09	-	/	Tr	P <sub>0</sub>			C <sub>1</sub>	S <sub>4</sub>
82.35	84.35	1.83	0.64	/	0	/			C <sub>1</sub>	S <sub>2</sub>
84.35	85.75	1.07	-	/	0				C <sub>1</sub>	S <sub>2</sub>
85.75	87.55	1.60	0.11	Tr	0				C <sub>1</sub>	S <sub>3</sub>
87.55	89.85	2.05	.95	Tr	0				C <sub>1</sub>	S <sub>3</sub>
89.85	91.85	1.43	.10	0	0				C <sub>1</sub>	S <sub>1</sub>
91.85	93.85	2.40		0	0				C <sub>1</sub>	S <sub>1</sub>
93.85	95.85	1.90	.43	0	0				C <sub>1</sub>	S <sub>1</sub>
95.85	97.85	1.85		0	0				C <sub>1</sub>	S <sub>1</sub>



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 76-89

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Logged by: L. Lande Feld - adapted by C. Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.8	Casim	Casim
1.8	17.0	SST	<p>41% Py, P<sub>2</sub>/P<sub>4</sub>, S<sub>2</sub>; SK</p> <p>light-medium grained siliceous unit (about?) locally strongly fractured; moderate fracture controlled by pervasive silicification + mod-stony (5-20%) silica veinlets (stockwork?)</p> <p>Silicified version of dolomitized SST of DD 76-91. Fractured throughout</p> <p>7.2-9.4m: 10% laminar, buff colored beds with 10-20% matrix supported. coarse quartz grains, siliceous matrix</p> <p>9.5-9.8m - Boxwork (brecciated?)</p> <p>10.5m - Boxwork (brecciated?)</p> <p>11.5-12.6m - Silicified sand grains visible, argillically altered</p> <p>12.6m - ? - oxidized, fracture controlled pyrite</p> <p>14.5-15.8m - P<sub>2</sub> grains in argillically altered matrix</p> <p>16.5-17.0m - 50:50 SH? Fault contact of SST + SH - fractured.</p> <p>3.8m: <del>SH</del> bedding at 80° to core axis</p> <p>4.0m: Cleavage (with displacement?) at 60° to core axis</p>
17.0	21.0	ARG	<p>3% Py, P<sub>2</sub>-3</p> <p>Black shales dominant, fractured-brecciated, from 20.0-21.0m, faulted with brittle, angular fragments. 3% very fine grained - mod-stony, oxidized, fracture controlled pyrite.</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: 004 97-89

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Logged by: L. Langefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
21.0	28.2	SST	<p>Py, S<sub>2</sub>, partial SK, 3% lim.</p> <p>21.0-22.4m: Fault zone: Grey siliceous rock, black from 22.0-22.4m. Brecciated, limonitic, clay altered, indurated from 22.0m.</p> <p>22.4-28.2m: light-medium grey, bedded, partly silicified, fractured to brecciated - dolomitized? from 24.8-28.2m</p> <p>24.8-28.2m: 5% Qz veinlets, 2% fracture controlled + disseminated pyrite</p> <p>22.4m: Bedding at 30° to core axis, offset by fault cleavage at 60°</p>
28.2	30.0	ARG	<p>Light grey, bleached argillite, extensively fractured</p>
30.0	39.1	CH	<p>S<sub>1</sub>, SK, 1% lim, P<sub>1</sub></p> <p>Black chert (silicified and formerly calcareous unit?) Strongly fractured, not brecciated</p> <p>36.8-37.5m: Intact</p> <p>37.5-39.1m: Fractured</p> <p>37.5m weakly oxidized pyrite</p>
39.1	42.3	SST?	<p>S<sub>2-3</sub></p> <p>Light-medium grey, some clay altered brecciated matrix, angular - round fragments</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-89

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
42.3	43.0	CH	S <sub>1</sub> Black chert or silicified unit, same as unit from 30.0-39.1m
43.0	45.7	SS	Light to dark grey, siliceous sandstone, very fine to medium grained, disrupted bedding 44.0m: bedding at 45° to core axis 45.0m: Boudinaged bedding at 40° to core axis 45.1-45.7m: Brecciated zone
45.7	60.9	SST	60:40 ARC, P <sub>4</sub> /P <sub>01</sub> , 3% Lim Primarily sedimentary, variably bleached, 80-100% bleached from 45.7-47.8m; 20-30% fracture controlled bleaching from 47.8-52.5m. Strongly - completely oxidized pyrite along fractures, + fracture stock- work; unoxidized to weakly oxidized pyrite disseminated throughout rock 52.5-53.5m "Freshest" interval. Unoxidized to weakly oxidized fracture controlled + disseminated pyrite in argillite and siltstone. 55.0m: bleached along limonitic + pyritic fractures 55.2m: 5% weakly oxidized pyrite, very fine grained, fractures sheeted? at 50° to core axis. 60.3-60.9m: Fault zone, dark red-brown limonite, argillite alteration in gouge, 7-10% strongly oxidized pyrite

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-89

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
60.9	63.9	SST	50:50 ARG, P <sub>1</sub> Dark grey, locally bleached + weathered, no obvious bedding. Strongly bleached + clay rich (argillitic alt?) From 60.9-62.0m, moderately oxidized + bleached From 62.0-63.9m: 63.4-65.6m: thinly bedded barite with clay + chert beds 63.6-63.9m: black chert, fault breccia.
63.9	66.5	SST	60:20:20 ARG, SS, P <sub>2</sub> Dark grey, bedding almost obscured, bleached organic matter, partially oxidized pyrite - Dominant fracture direction = 60° to core axis.
66.5	68.5	SST?	3% Lim Fault zone: Ochre colored, crumbly rock - fault gouge with sandstone, Steele Formation siltstone (listed as SST) fragments - Limonitic
68.5	76.7	SST	60:30 ARG, P <sub>3</sub> , 3% Lim Mixed SST + ARG, + 10% sandstone, crumbly, oxidized. Strongly oxidized pyrite from 71.2-72.9m. Limonitic, clay altered fault zone from 71.9-72.3m. Ochre from 72.3-72.9m. 74.4-75.7m: less oxidized zone 75.7-76.7m: bleached, argillitic, limonitic altered zone
76.7	84.4	SS	70:30 SST, S <sub>1</sub> , 5% Lim Medium - very fine grained sandstone, crumbly near contact

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-89

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			77.4 - 78.0m - partly silicified
			78.6 - 79.0m - limonitic, clay rich fault zone, silicified rounded fragments.
			80.6m - brittle faults, little oxidation
			81.1 - 83.6m - broken, fractured, strong limonite along fractures. Some sulphate development below 79.5m.
			83.6 - 84.3 - Partly bleached fine-very fine grained sandstone
84.4	86.2	SS	4% Lim
			Brittle, intact to friable gouge in sandstone clay, limonitic, ochre coloured.
			84.4 : Fault at 20° to core axis
			8°
86.2	98.2	SS	S1-S2, SK, 3% Lim
			Brecciated sandstone, broken rock (fault zone?) with limonitic + argillic alteration from 86.6 - 87.6m. Fractures re-cemented with quartz, moderately silicified with quartz stockwork From 90.4 - 98.2 - argillic alteration from 96.5 - 98.2m. Fracture controlled limonite below 96.0m
			90.4 : Bedding at 70° to core axis
			93.3 : " " 50° " " "
			96.8 " " 60° " " "
98.2	98.9	SST	
			Black-dark grey siltstone, fractured, brecciated

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-89

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
98.9	99.5	SS	S <sub>1</sub> Light-dark grey, partly silicified sandstone Fractured above lower contact
99.5	104.9	LAQM	P <sub>1-2</sub> , 4° Py, 3° Lim, S <sub>2</sub> SK Limonitic altered quartz monzonite; feldspar altered to white clay, & stockwork of fine quartz veins, limonitic. Contact limonite, probably intrusive rather than fault controlled. 3-5° weakly-moderately oxidized pyrite, fracture controlled? Local cherty xenoliths
104.9	105.9	AQM	5° Py, P <sub>0-1</sub> , S <sub>1</sub> SK Phyllic alteration of feldspar, qz veins to 3 mm at 75°-60° to core axis + thin clay seams. 3-7° fine grained unoxidized to weakly oxidized pyrite, oxidation in "matrix", minor pyrite in qz veins. - strongest pyrite oxida- tion fracture to vein controlled. 105.0-105.9m - 2-5 cm wide siderite veins
105.9	113.0	LAQM	5° Py, P <sub>1</sub> , 2° Lim, Variable intensity of alteration, local 3-10cm unaltered zones. 105.9-107.5m - Siderite veins parallel to core axis, slickensides normal to core axis. S <sub>3</sub> Pyrite, weakly oxidized (unseen if across entire interval).

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-89

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
113.0	120.0	CH	<p>80:20 SS, S<sub>1-2</sub>, S<sub>K</sub></p> <p>Light-med grey chert, upper contact faulted, fractured, healed with limonitic clay. 10° strongly altered pyrite "clots", brecciated, sheared argillite at 113.5, 113.7m. 20° light grey silty beds</p> <p>113.0m: Bedding at 55° to core axis.</p> <p>115.8m: Grey siliceous unit: chert?</p> <p>114.3-118.0m: 1-2% very fine grained disseminated</p> <p>119-120m: very fine crackle stockwork of qz stringers + clay alteration, weak very fine vein associated pyrite + disseminated pyrite.</p> <p>117.0: Bedding at 85° to core axis.</p> <p>- Bedding dismembered (throughout?)</p> <p>- very fine grained disseminated pyrite more abundant in SS.</p>
120.0	127.5	CH	<p>60:40 SS, S<sub>2</sub>, S<sub>K</sub>, 3° Limonites, P<sub>4</sub></p> <p>Mixed chert + sandstone. Consistently fractured + brecciated, interstitial clay alteration + chert fragments, frequently limonitic. Moderate to strongly limonitic, particularly from 122.2-125.5m. Bedding commonly disrupted.</p> <p>122.4-124.4m: Breccia, limonitic clay matrix</p> <p>124.4-124.8m: Limonitic rich clay, block rock.</p> <p>125.3-127.5m: Fractured chert, quartz veinlets with black (C-rich?) specks + pyrite</p> <p>Quartz stockwork, &lt;1% unoxidized</p>



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-90

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Logged by: L. Landefeld, adapted by C. Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.8	Casing	
1.8	4.2	QM	<p><math>C_2, S_0, \text{tr Py}, P_1, 3\% \text{ Lim}, B_1</math></p> <p>Fresh, medium grained, 15% altered plagioclase, 10% euhedral biotite, moderate carbonate alteration</p> <p>Flaw alignment of plagioclase + biotite. Trace weakly oxidized pyrite.</p>
4.2	10.4	LQM	<p><math>C_2, S_1, 2\% P_2, P_3, 5\% \text{ Lim}, B_{1-2}</math></p> <p>Limonitic qz-monzonite, weak quartz stockwork, moderate carbonate alteration, trace<sup>2?</sup> strongly altered pyrite, strongly</p> <p>5.5-6.4 m: Brittle Fault zone with clay gouge</p> <p>6.4-6.8 m: LAQM: AQM 60:40</p> <p>6.8-10.4 m: broken LQM; small intervals of transitional AQM, moderately altered biotite along + between fractures.</p> <p>2-3% disseminated pyrite, up to 4% along fractures, strongly oxidized</p>
10.4	13.3	LAQM	<p>90:10 AQM: <math>C_2, S_1, 1\% \text{ Py}, P_3, 2\% \text{ Lim}, B_3</math></p> <p>Mixture of weakly limonitic altered quartz monzonite and similar, nonlimonitic qz monzonite</p> <p>Strong phyllic alteration, biotite strongly altered</p> <p>Moderate carbonate alteration, weak fine quartz stockwork with minor pyrite. 1% strongly oxidized, euhedral, fine grained pyrite, weakly oxidized in AQM.</p> <p>12.3-12.5 m: Minor sedimentary (SLT, ARK) gouge unit.</p>
13.3	13.7	ARK	<p><math>C_0, S_1, SK, 2\% \text{ Lim}, 1\% \text{ Py}, P_3</math></p>

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## LITHOLOGY LOG

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Faulted, deformed argillite, weak folded quartz stockwork, 1% strongly oxidized pyrite.
13.7	15.6	LAQM	C <sub>2</sub> , S <sub>1</sub> , 1% Py, P <sub>3</sub> , 5% Limerite, Sk, B <sub>3</sub> - Strongly limeritic LAQM, moderate carbonate, strong biotite alteration, weak fracture controlled quartz stockwork. < 1% disseminated pyrite, strongly oxidized, <del>disse</del> concentrated along fractures.
15.6	16.1	SS	C <sub>0</sub> , S <sub>1</sub> , 2% Py, P <sub>3</sub> , 2% limerite sandstone-siltstone, fault breccia, 3% quartz inlets. Weak stockwork, weakly limeritic, 2% strongly oxidized pyrite
16.1	19.8	LQM	C <sub>2</sub> , S <sub>0</sub> , 0.5% Py, P <sub>4</sub> , 5% Lim, B <sub>1-2</sub> argillite + Moderately limeritic quartz-monzonite & sericitic alteration of feldspar, minor alteration along rims of biotite, weak quartz stockwork, local limeritic inlets, 0.5% disseminated + fracture controlled nearly totally oxidized pyrite.
19.8	22.0	QM	C <sub>2</sub> , S <sub>0</sub> , 0.5% Py, P <sub>2</sub> , 1% Lim Weakly limeritic quartz monzonite, moderate carbonate content, trace quartz stringers, 0.5% med. oxidized disseminated + fracture controlled pyrite. Limerite fracture controlled

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## LITHOLOGY LOG

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
22.0	23.2	LAQM	<p>50:30:20, AQM, QM; C<sub>2</sub>, So, tr Py, P<sub>2</sub>, 2° Lim                      Mixed weakly limonitic altered qz-monzonite,                      non-limonitic AQM, and unaltered QM.                      10% 3mm oval chert blebs. Trace pyrite                      after biotite, possible stibnite (0.5%), difficult                      to distinguish. Moderate carbonate alteration.</p>
23.2	26.2	QM	<p>C<sub>2</sub>, So, tr Py, P<sub>2</sub>, 1° Lim                      Dark grey qz monzonite, 40% weathered                      (limonitic?). Trace moderately oxidized pyrite</p>
26.2	30.1	LQM	<p>70:30 LAQM: C<sub>2</sub>, So, 0.5% Py, P<sub>2</sub>, 2° Lim                      Mixed LAQM + LQM: moderately-strongly                      fractured, broken core, 2° qz stockwork                      0.5% disseminated + fractured coarse pyrite,                      almost totally oxidized. Weak but pervasive                      limonite. Moderate carbonate presence</p>
30.1	31.8	QM	<p>C<sub>2</sub>, So, tr Py, P<sub>2</sub>, 2° limonite, B<sub>1</sub>                      Similar QM to unit from 23.2-26.2m, 40% limonite                      stained. Moderate carbonate presence; 10% white                      chert blebs, sericite (phyllitic) alteration of                      feldspar, biotite fresh. Trace moderately                      oxidized pyrite</p>
31.8	32.6	LQM	<p>C<sub>2</sub>, So, tr Py, P<sub>2</sub>, 2° Lim                      Broken, fractured weakly, pervasively limonitic                      qz-monzonite, lower contact faulted. Moderate</p>

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## LITHOLOGY LOG

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			carbonate presence, trace strongly oxidized pyrite. Minor quartz veinlets (?)
32.6	36.8	QM	<p><math>C_2, S_0, \text{tr } P_1, P_2, 1\% \text{ Lim}, B_1</math></p> <p>Similar qz-monzonite to unit from 23.2-26.2m, weak limonite staining, moderate carbonate presence. Trace moderately oxidized pyrite</p> <p>34.8m: stronger alteration, 3mm blebs of pyrite + limonite along "chert veinlets"</p>
36.8	38.2	LQM	<p><math>C_2, S_1, \text{tr } P_1, P_2, 2\% \text{ Lim}</math></p> <p>Weakly limonitic qz-monzonite, weak quartz stockwork, trace nearly totally oxidized pyrite, moderate carbonate</p> <p>36.8-37.4m: Faulted zone - broken core</p> <p>37.5m: Qz-chert unit at 85° to core axis</p>
38.2	47.0	QM	<p><math>C_2, S_0, \text{tr } 1\% P_1, P_2, 1\% \text{ Lim}, B_1</math></p> <p>Quartz monzonite, weakly, variably limonitic. Moderate carbonate presence, trace - 1% moderately oxidized pyrite, increasing slightly with depth</p> <p>Biotite usually fresh, moderately altered from 39-40m; feldspar moderately phyllically altered</p> <p>43.0-44.0m: Thin chert units, ~5° across interval, at 50°, 10° to core axis, minor alteration in country rock.</p> <p>42.5-42.7m: fault.</p>

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## LITHOLOGY LOG

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
47.0	48.1	LQM	<p><math>C_2, S_0, tr P_3, P_4, 2^\circ Lim</math></p> <p>Weakly limonitic qz-monzonite, faulted, with gouge. Tr-1% almost totally oxidized pyrite</p>
48.1	55.5	QM	<p><math>C_2, S_0, tr P_3, P_3, 1^\circ Lim</math></p> <p>Similar qz-monzonite to unit from 23.2-26.2m, moderate carbonate presence, trace strongly oxidized pyrite, weakly limonitic</p> <p>52.7-52.9m: Small AQM unit, 3% <math>P_2</math>.</p>
55.5	57.8	LQM	<p><math>C_2, S_0, tr P_3, P_3, 2^\circ Lim</math></p> <p>Similar LQM to unit from 47.0-48.1m; trace strongly oxidized pyrite, weakly limonitic, moderate carbonate presence.</p> <p>56.4-56.9m: Qz-monzonite, similar to 48.1-55.5 int.</p>
57.8	64.4	LAQM	<p>80:20 AQM <math>C_1, S_0, 2^\circ P_3, P_3, 2^\circ Lim</math></p> <p>Mixed weakly limonitic altered qz-monzonite and unaltered qz-monzonite. Colour caused by pyrite oxidation. 2% fracture controlled strongly oxidized pyrite. Weak carbonate presence.</p>
64.4	66.6	ARLE	<p><math>C_0, S_1, 2^\circ P_3, P_3, 3^\circ Lim</math></p> <p>Argillite, fractured, deformed, no visible bedding</p> <p>2% fracture controlled pyrite, strongly oxidized unit moderately limonitic. Faulted upper contact, irregular deformed milky quartz stockwork, decreasing intensity with depth.</p>

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			1-2% disseminated pyrite away from fractures
			64.4 - 64.6 - Very strongly fractured fault zone
			strong quartz stockwork: 80° to core axis
66.6	67.2	AQM	C <sub>2</sub> , S <sub>0</sub> , 7% Py, P <sub>1</sub> , 1% Lim Altered qz-monzonite, weakly limonitic, mod. carbonate presence, weakly spars porphyritic. 7% fracture controlled + disseminated pyrite; weakly oxidized along fractures, concentrated along fractures.
67.2	68.7	ARGF	C <sub>0</sub> , S <sub>0</sub> , 4% P <sub>2</sub> , P <sub>1</sub> , 2% Lim Argillite, similar to unit from 64.4 - 66.6m, but less deformed, more fracture strongly fractured. 3-5% weakly oxidized fracture controlled pyrite, weakly limonitic
68.7	69.3	LQM	C <sub>1</sub> , S <sub>0</sub> , 2% P <sub>2</sub> , P <sub>1</sub> , 1% Lim Weakly limonitic qz-monzonite, 2% strongly oxidized pyrite, weak carbonate presence
69.3	69.8	AQM	C <sub>2</sub> , S <sub>0</sub> , 5% Py, P <sub>2</sub> , 1% Lim, B <sub>2</sub> Weakly limonitic altered qz-monzonite, moderate phyllic + biotite alteration, moderate carbonate alteration. 5% fracture controlled, strongly oxidized pyrite

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
69.8	71.6	LQM	80:20 QM: C <sub>2</sub> , S <sub>0</sub> , 1% P <sub>1</sub> , P <sub>3</sub> , 2% Lim, B <sub>1-2</sub> Mixed limonitic + non-limonitic qz-monzonite, mixed unaltered + partially altered monzonite, 1% strongly oxidized pyrite
71.6	76.7	QM	C <sub>2</sub> , S <sub>0</sub> , tr Py, P <sub>2</sub> , 2% Lim, B <sub>1-2</sub> Locally limonitic qz-monzonite, moderate carbonate presence. Trace moderately oxidized pyrite 75.3-76.1m: AQM + mixed AQM+QM, moder. carbonate alteration, 1-2% strongly oxidized pyrite.
76.7	84.6	LAQM	80:20 AQM: C <sub>2</sub> , S <sub>0</sub> , 1% P <sub>1</sub> , P <sub>3</sub> , 2% Lim Mixed LAQM + AQM, weakly limonitic LAQM, Moderate carbonate presence, 1-2% strongly oxid- ized pyrite. Minor qz-monzonite. Beige-green to grey-green.
84.6	88.2	AQM	70:30 LAQM, C <sub>1</sub> , S <sub>0</sub> , 1% P <sub>1</sub> , P <sub>3</sub> , 1% Lim Mixed AQM + LAQM, latter weakly limonitic, weak carbonate alteration, 1-2% moderately oxidized pyrite, limonite fracture controlled - bottom of oxidized zone.
88.2	90.2	QM	C <sub>2</sub> , S <sub>0</sub> , tr Py, P <sub>3</sub> , 1-2% limonite, B <sub>1</sub> Weakly limonitic qz-monzonite, little fspug biotite alteration. Trace strongly oxidized

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			pyrite.
90.2	96.9	ARLF	C <sub>20</sub> S <sub>1</sub> 5% P <sub>py</sub> + Lim, P <sub>o-1</sub> , SK Black graphitic argillite. Upper contact faulted at 50° to core axis. Moderate carbonate alteration to 92.1m, quartz cemented microbreccia, brecciated zones 1-3 cm wide(?) 5-7% fine grained disseminated euhedral unoxidized to weakly oxidized, latter fracture controlled with minor limonites. Siliceous, likely an alteration.
96.9	120.6	LST	C <sub>3</sub> S <sub>0</sub> 4-5% P <sub>py</sub> , P <sub>o</sub> Variably fractured, fissile + intact black limestone, 30-40% fine chert, in stockwork, disseminated (silicification??). Carbonate primary, fairly constant, 5% P <sub>py</sub> , unoxidized and fine grained, from 96.9-99.8m: 3% very fine, from 99.8-108.3m - disseminated; and SB laminae controlled + disseminated to 120.6m. Pyritic oval nodules from 108.3-110.5m. Likely diagenetic across interval. 96.9-98.8 - broken, fissile, fractured 98.8-100.1 - weakly fractured 100.1-100.5 - fractured, fissile 100.5-101.8 - weakly fractured 102.4-102.9 - solid, stockwork (10% chert) 102.9-106.2 - fractured, fissile

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			106.2-108.6; fewer fracture zones
			108.6-110.5: Fractured, at 60° to core axis
			110.5-111.3: Pyritic beds: 65° to C.Axis at 110.8m
			111.3-113.5: Chert "ribbons", bedding? (Silicification?), at 60°+80° to C.Ax.
			120.5 - Cleavage at 55° to core axis
120.6	121.2	AQM	C <sub>3</sub> , S <sub>0</sub> , 5% P <sub>2</sub> , Po, tr Sb Altered quartz monzonite, strong carbonate presence of <sup>alter?</sup> sericititic alteration of Fs, par, bitite, 5% very fine grained pyrite, fracture controlled (?) + disseminated, trace stibnite, arsenopyrite? Minor late argillic alteration.
121.2	124.3	ARIG	C <sub>3</sub> , S <sub>0</sub> , 2% P <sub>2</sub> , Po Argillite, brecciated fault contacts, weak clay stockworks (?) along lower contact, at 20° to core axis. Locally brecciated, chert (silica?) matrix 2% very fine grained euhedral pyrite
124.3	125.8	AQM	C <sub>3</sub> , S <sub>10</sub> , 4% P <sub>2</sub> , Po, tr 1% Sb, B <sub>3</sub> , SK Altered qz-monzonite, brecciated, beige. 15% stockwork of quartz-sulphide + baelinite, 4% very fine grained unoxidized euhedral to anhedral pyrite, disseminated + fracture controlled, with clay. Up to 1% stibnite, & veinlet controlled, possible arseno- pyrite. Strong carbonate alteration

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
125.8	128.1	SST	<p><math>C_1, S_2, 3\% Py, Po, SK</math></p> <p>Black-grey Steale Formation siltstone, brecciated, angular to rounded fragments, silicified (<sup>str. 19</sup>moderately?), moderate quartz stockwork. Upper fault contact at <math>50^\circ</math> to core axis, 3-4% very fine grained unoxidized pyrite, some along fine fracture controlled quartz veins. Silicification after bedding? at <math>50^\circ</math> to core axis.</p>
128.1	140.0	SST	<p><math>Co, S_1, 2-4\% Py, Po</math></p> <p>sandstone (argillite?): black, siliceous, compact, not cherty. Weak pervasive silicification, very minor white quartz stockwork. 4%-5% disseminated + laminae controlled pyrite from 128.1-132.0m, 2% very fine grained pyrite from 132.0-140.0m; all pyrite unoxidized.</p> <p>128.1-130.0m: Fractured                      130.0-132.3m: Fissile                      132.3-139.1m: graphitic along cleavage; bedding parallel to cleavage(?) at <math>65^\circ</math> to core axis at 132.7m                      139.1-140.0m: Fault, gouged in black matrix, siliceous fragments</p>
140.0	149.8	AR66	<p><math>Co, S_1, 2\% Py, Po</math></p> <p>Park grey to black, siliceous (silicified?)</p>

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			argillite, minor sandstone, weak irregular quartz stockwork, moderately fractured From 140.0-142.0m, with 3° fine grained fracture controlled pyrite. 2° very fine grained pyrite elsewhere, unoxidized. Moderate carbonate presence from 148.0-149.8m, none noted elsewhere. 142.6m: bedding at 25° to core axis 146.1-149.8m: Black, siliceous, quartz stockwork, strongest from 147-149.8m.
149.8	157.9	LST	C <sub>3</sub> , S <sub>0</sub> , 2° Py, P <sub>0</sub> -P <sub>1</sub> Limestone, minor SST(?), up to 40° disseminated calcareous chert(??) in matrix 2-3° nodular unoxidized pyrite, from 2-10mm. Graphite along foliation (or bedding) 151.5m: Bedding at 60° to C.A; fractures at 25° 157.3m: Pyritic graphitic slickensides at 50° to core axis
157.9	160.6	LST	C <sub>3</sub> , S <sub>0</sub> , 3° Py, P <sub>1</sub> /P <sub>3</sub> , 1° Limonitic Mixed limestone + sandstone (no ratios given) in fault breccia, healed with chert + clay (silicified, argillically altered matrix). Partially weakly limonitic 2-3° disseminated, anhedral weakly oxidized pyrite, strongly oxidized from 158.6-160.6m 158.6-160.0: More limonitic-oxidized -+ crumbly

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			Carbonate along fine fractures below 160.0m
160.6	163.1	SST	C <sub>2</sub> , S <sub>1</sub> , 1% Py, P <sub>0</sub> , 0.5% Lim Stale formation siltstone - dark - light grey bedding at 35° to core axis at 161.1m; Faulted brecciated locally. Orange chert matrix + grey clay matrix. 1% very fine grained unoxidized pyrite.
163.1	164.8	LQM	S <sub>3</sub> , S <sub>0</sub> /S <sub>2</sub> , 0.5% Lim, B <sub>1-2</sub> Strongly argillically altered - 80% clay + chert(?) biotite recognizable, strong carbonate alteration weak limonite staining.
164.8	165.3	AQM	C <sub>3</sub> , S <sub>2</sub> , tr Py, P <sub>0</sub> , 1% Lim Strong carbonate alteration in strongly altered qtz-monzonite - "weathered", silicified, with very fine quartz stockworks. Trace unoxidized pyrite, weakly limonitic.
165.3	171.7	SST	C <sub>3</sub> , S <sub>1</sub> , 0.5% Py, P <sub>3</sub> /P <sub>1</sub> , tr Lim Light-dark grey, locally greenish (chlorite alt) beds, at 60° to core axis at 165.3m Quartz stockworks crosscut by chert (silica?) stockworks, weak-moderate 165.5-166.4m Chlorite + disseminated chert trace unoxidized pyrite - strong silicific. 166.4-170.2m: Mixed carbonate + silica alt;

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			0.5% euhedral strongly oxidized beds in alkali cherty beds, locally unoxidized silicified beds
			170.2-170.5 m: Carbonate postdates silica alt.
			167.3 m: Bedding at 45° to core axis
171.7	173.6	QM	C <sub>1</sub> , S <sub>0</sub> , tr Py, P <sub>2</sub> , 1% Lim, B <sub>1</sub> Qz-monzonite, 15% biotite, sericitic alteration of feldspar. Weak carbonate alteration along carbonate veinlets. "Pyrite" may be weathered feldspar
173.6	175.2	SST	C <sub>1</sub> , S <sub>4</sub> , tr Py, P <sub>4</sub> , 0.5% Lim, SK Grey to beige-grey beds, very weakly limonitic 173.6-174.3: >80% silicified 5% chert-quartz veinlets. Upper contact (intrusive) at 70° to core axis.
			174.3-175.2 m: 40% silicified, similar stockwork Trace strongly oxidized Py throughout.
175.2	177.7	SS	60:20:20: SM, SLT; C <sub>1</sub> , S <sub>2</sub> , tr Py, P <sub>2</sub> , 0.5% Lim Mixed sandstone, siltstone, shale. Sandy beds preferentially silicified + more carbonate cement. Bedding at 35° to core axis at 177.0 m. Greenish colour due to chlorite, altered to beige-cream colour near fine quartz veinlets. Trace strongly oxidized pyrite, altered rock weakly limonitic. 176.5-177.7 m. 75-80% silicified.

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
177.7	182.6	QM	<p>C<sub>1</sub>, S<sub>0</sub>, tr-P<sub>2</sub>, P<sub>3</sub>, 0.5% Lim, B<sub>1-2</sub></p> <p>Q<sub>2</sub> porzonite, weakly carbonate altered, biotite partly altered. Upper contact faulted at 15° to core axis. Fine carbonate veinlets. Trace strongly oxidized pyrite, weak fracture controlled limonite, slightly stronger below 181.6m</p>
182.6	196.1	SST	<p>C<sub>2</sub>, S<sub>2</sub> tr-P<sub>2</sub>, P<sub>3-4</sub>, 1% Lim, SK</p> <p>SST (Steel formation?), green-beige, minor carbonate rich beds, variably limonitic (tr-25). Weak chert stockwork, trace strongly-completely oxidized pyrite, bedding subparallel to core axis, strongly variable</p> <p>186.6-187.0 }                      189.2-190.6 } Fracture zones, broken rock                      191.7-192.8 }</p> <p>- Weak pervasive silicification, except:                      186.6-189.2m }                      190.6-191.7 } Strongly silicified                      195.2-196.1 }                      191.7-193.5 - Moderately silicified</p>
196.1	199.7	LAQM	<p>C<sub>3</sub>, S<sub>0</sub>, 1% P<sub>2</sub>, P<sub>4</sub>, 3% Lim, SK</p> <p>Mixed LAQM + LQM (no <sup>ratios</sup> percentages given), some SST xenoliths, altered intrusive red-orange - mod-strongly limonitic, strong carbonate alteration. Local ARAC + SST clots from, 198.2-198.6m, 1% almost completely</p>

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From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			oxidized.
			198.7-199.6m: Limestone rich fault gouge
199.67	203.2	SST	C <sub>3</sub> , S <sub>2</sub> , 0.5% Py, P <sub>3</sub> , tr Lim., SK Steele formation, strong carbonate presence, moderate-strong pervasive silicification, weaks chert stockwork, Trace-1% strongly oxidized pyrite
			200.5m: Bedding at 10° to core axis
			203.2m: Fault gouge at 20° to core axis
			199.6-201.1m: 40% silicification, 50% carbonate cement
			201.1-203.2m: >80% silicification - grey beds chloritic beds strongly calcareous
203.2	204.6	LAQM	C <sub>3</sub> , S <sub>2</sub> , 0.5% Py, P <sub>4</sub> , 3% Lim, SK Strongly carbonate altered, fractured, med-fine grained. 10% chert veinlets. Moderate pervasive limonite, 0.5-1% nearly completely oxidized pyrite.
204.6	209.0	SST	C <sub>3</sub> , S <sub>2</sub> , tr P <sub>3</sub> , P <sub>3</sub> , 1% Lim, SK Weakly pervasively limonitic Steele formation?, grey with greenish chloritic beds, thin bedded, 40-50% chert (silica) matrix. Moderate fracture controlled silica alteration, strong similar carbonate (possible dolomitization). Chert leached fine stockwork. Trace strongly



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-91

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Logged by: L. Landefeld - adapted by C. Schulte

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	3.7	Casing	
3.7	4.9	Rubble	Rubble - poor recovery
4.9	12.5	SHG	Co, So, 1 <sup>st</sup> Py, Py, 1 <sup>st</sup> Lim Graphitic black shale, local grey weathering, fissile, crumbly, largely fractured 7.1-8.5m. Localized qz veinlets, cleavage (parallel to bedding?) at 75° to core axis at 8.0m. - 1-2 <sup>nd</sup> fracture controlled strongly oxidized pyrite, assoc. with weak limonitic staining
12.5	20.5	ARG	Co, So, 1 <sup>st</sup> Py, Py, 1 <sup>st</sup> Lim Argillite, gradational upper contact, fissile + fractured to 16.6m, more competent from 16.6 - 20.1m. Weak fracture + cleavage plane controlled limonite after fracture controlled almost completely oxidized pyrite 14.5m: Cleavage (parallel to bedding?) at 45° to core axis. 20.1-20.5: Silicified, brecciated, silica stockwork
20.5	22.6	LARM	C <sub>1</sub> , S <sub>1</sub> , 2 <sup>nd</sup> Py, P <sub>3</sub> , 2 <sup>nd</sup> Lim, SK Mixed limonitic + non-limonitic altered quartz monzonite + minor unaltered qz-monzonite Argillitic <sup>ly</sup> altered matrix. Brecciated, fine quartz-chert stockwork (post-mineralization?) 50-80% undergone limonite alteration, variable amounts (0-3%) of strongly oxidized very

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-91

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			finely grained pyrite.
22.6	24.0	ARGG	C <sub>1</sub> , S <sub>1</sub> , 1% Py, P <sub>2</sub> , 2% Lim, Sk Brecciated, faulted argillite, silicified argillite + sandstone fragments. At 23.2 m, fault change at 65° to core axis, 1% fine grained strongly oxidized pyrite.
24.0	27.1	LAQM	C <sub>1</sub> , S <sub>2</sub> , 4% Py, P <sub>1</sub> , 1% Lim, B <sub>3</sub> , 1% Arpy, 1% Sb. Weakly limonitic, orange LAQM, minor sed- imentary xenoliths. Moderate fine quartz stockwork, weak carbonate alteration of groundmass, 2-7% pyrite (increasing concen- tration with depth), disseminated + fracture controlled, weakly oxidized, fine grained. 1% arsenopyrite (?), 1% stibnite, vein controlled. 26.3-26.6m: Brecciated argillite.
27.1	51.8	AQM	C <sub>1</sub> , S <sub>2</sub> , 3% Py, P <sub>1</sub> , 1-5% Sb, 1% Lim, B <sub>3</sub> , Sk Altered quartz monzonite, localized fracture controlled limonite, often with plagioclase megacrysts, localized quartz eyes (?). Phyllic alteration of feldspar (to sericite), biotite strongly altered to rutile + carbonate. Moderate, variable quartz + carbonate stockwork, 1-7% Py, variable concentration, weakly oxidized, fracture controlled, lesser amounts disseminated. Variable vein controlled.

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH-96-91

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			stibnite, from 0.5 - 10% (27.1m - 48.7m, 10% from 37.5 - 38.6m in increased stockwork zone overlying clay altered zone), then 5% to 51.8m. Increased pyrite concentration with depth, stibnite associated with clay (argillitic alteration).
51.8	52.0	ARGF	C <sub>1</sub> , S <sub>2</sub> Fault controlled, brecciated argillite, moderate quartz stockwork, weak carbonate alter
52.0	61.1	AQM	C <sub>1</sub> , S <sub>1</sub> , 2-6% Py, P <sub>1</sub> , 1% Aspy, 4% Sb, 1% Lim, SK Beige-green AQM (same unit as 27.1-51.8m), locally fractured, introduced argillitic alteration. Moderate <sup>variable</sup> qz-stibnite stockwork with clay alteration, 1-7% stibnite, strongest from 57.6 - 59.4m. 2-6% Pyrite, variable concentration, unoxidized when disseminated, strongly oxidized along fractures. 0.5-2.0% arsenopyrite assoc. with strongest stibnite concentration, from 56.2 - 61.1m.
61.1	62.0	ARGF	C <sub>1</sub> , S <sub>1</sub> , 4% Py, P <sub>0</sub> , 0.5% Aspy, 0.5% Lim, SK Fractured argillite, silicified with quartz veinlets. Fault contact at 65° to core axis at 60.8m. 4% unoxidized fracture cleavage controlled pyrite, weak limonite staining

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH-96-91

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Logged by: L. Lundefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
62.0	62.4	AQM	<p><math>C_1, Si, 2-3\% Py</math></p> <p>- Fault contact at <math>70^\circ</math> to core axis at 62.4m, weak carbonate alteration, quartz stockwork, 2-3% pyrite.</p>
62.4	63.4	ARGF	<p><math>C_1, Si, 2\% Py, Po, Sb</math></p> <p>Fractured graphitic argillite, with silicification + deformed quartz veinlets, 2% very fine grained disseminated unoxidized pyrite.</p>
63.4	101.5	LST	<p><math>C_2, So, 2\% Py, Po</math></p> <p>Limestone, black, carbonaceous, thin bedded, very weakly fissile, bedding usually not visible, 2-4% unoxidized pyrite to 67.7m, then consistently 2% very fine grained pyrite to 101.5m.</p> <p>64.0m: 1 cm thick beds with 10% Pyrite + bedding, cleavage (?) at <math>50^\circ</math> to core axis.</p> <p>63.4-66.0m: Variably fractured, irregular qz veinlets from 65.5-67.7m</p> <p>68.4-69.0m: 1cm wide chert "veins" <math>55^\circ</math> to core axis.</p> <p>78.0m: Bedding, cleavage at <math>75^\circ</math> to core axis</p> <p>83.0m: Bedding at <math>50^\circ</math> to core axis</p> <p>84.1-85.5m: Marcasite "dollars"</p> <p>97.6-7m Fault zone, black gouge</p> <p>101.5m: Lower intrusive contact at <math>70^\circ</math> to C.A.</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH-95-91

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
101.5	104.7	QM	<p>C<sub>2</sub>, S<sub>0</sub>, 1% Py, P<sub>0</sub>, B<sub>1-2</sub></p> <p>Qz monzonite, minor altered qz-monzonite, argillic + phyllic alteration of feldspar, 15% biotite, weakly altered, feldspar porphyritic, 1% very fine grained unoxidized feldspar, Dark green, moderate carbonate alteration.</p>
104.7	105.6	AQM	<p>C<sub>2</sub>, S<sub>0</sub>, 3% Py, P<sub>0</sub>, 2% Asp, 1% Sb?</p> <p>Beige-medium green altered quartz monzonite, strong feldspar, biotite alteration, 2-3% unoxidized disseminated fine grained pyrite, also fracture controlled, with 2-3% arsenopyrite + stibnite, also minor disseminated arsenopyrite. Moderate carbonate alteration.</p>
105.6	107.7	QM	<p>C<sub>2</sub>, S<sub>0</sub>, 2% Py, P<sub>0</sub>, B<sub>1-2</sub>, tr Asp.</p> <p>80% partially altered qz-monzonite, 20% with unaltered biotite. Minor chert, feldspar altered to dark grey-white (clay minerals). 105.6-106.0m: Traces vein associated, arsenopyrite, 0.5-1.0% pyrite, moderate carbonate alteration.</p>
107.7	108.9	AQM	<p>C<sub>2</sub>, S<sub>0</sub>, 2% Py, P<sub>0</sub>, B<sub>2-3</sub></p> <p>Partly altered quartz monzonite, dark green, feldspar megacrysts. Moderate carbonate alteration, 1-2% disseminated + fracture controlled unoxidized pyrite, chlorite along fractures.</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH-96-91

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
108.9	110.0	QM	<p>C<sub>2</sub>, So, 1° Py, Pl, to Asp?, B<sub>2</sub></p> <p>Dark green moderately altered qz-monzonite. Moderate carbonate alteration, 1° disseminated + fracture controlled weakly oxidized pyrite clay + chlorite along fractures.</p>
110.0	116.8	AQM	<p>C<sub>2</sub>, So, 3° Py, Po, B<sub>2</sub>, to Asp</p> <p>Partly altered quartz monzonite, medium green, beige specks, moderate carbonate alteration, 2-3° fracture controlled + disseminated pyrite, unoxidized, locally pyrite + arsenopyrite crosscut carbonate veinlets, Upper fault contact at 35° to core axis, 114.6-115.6m: Fracture zone, clay along fractures</p>
116.8	119.6	QM	<p>C<sub>2</sub>, So, 0.5° Py, Po, B<sub>1</sub></p> <p>Weakly, partially altered qz-monzonite, fresh biotite, Horizontal(?) slickensides along fractures, 0.5° unoxidized fracture controlled pyrite. Argillic alteration of feldspar in fractured QM to 118.6m, massive, few fractures from 118.6-119.6m.</p>
119.6	123.5	AQM	<p>C<sub>1</sub>, So, 1° Py, Po, to Sb, B<sub>2</sub>, SK</p> <p>Mixed AQM + QMC (no ratios given), Phyllic feldspar alteration, argillic near veins, weak quartz stockwork + sheeted chert + veins. 1-2° vein controlled unoxidized pyrite, trace pyrite</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: -96-91

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			along chert, trace stibnite
123.5	127.0	AQM	90:10 Q.M.; C <sub>2</sub> , S <sub>0</sub> , 1% Py, Po, B <sub>2-3</sub> Mixed AQM + QM, feldspar, biotite altered to sericite + chert respectively. Moderate carbonate alteration, 0.5-1% unoxidized pyrite.
127.0	128.9	QM	C <sub>2</sub> , S <sub>1</sub> , 1% Py, Po, B <sub>1-2</sub> , SK Moderately altered quartz monzonite near veinlets (clay alteration), 1% disseminated pyrite, some from altered pyrite biotite. Moderate carbonate alteration.
128.9	139.4	QM	80:20 AQM: C <sub>1</sub> , S <sub>0</sub> , 0.5% Py, Po, B <sub>1</sub> Mixed QM + AQM, dark grey, locally pale green. Thin chert veinlets, 0.5% very fine grained disseminated unoxidized pyrite.
139.4	144.1	AQM	C <sub>2</sub> , S <sub>0</sub> , 1% Py, Po, B <sub>2-3</sub> , to Aspy "Transitional" zone 30-80% of biotite altered, 10% disseminated chert(?), 1% very fine grained disseminated pyrite, trace arsenopyrite. Moderate carbonate alteration. 142.5-144.1: Propylitic alteration overprinted by carbonate, phyllic alteration.
144.1	145.7	ARGG	C <sub>0</sub> , S <sub>1</sub> , 5% Py, Po, SK Upper contact intrusive at 55° to core axis. (Thrust?). Fractured, hard (siliceous?).

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-91

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Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			S <sup>2</sup> , variable concentrations, of unoxidized fracture controlled pyrite
145.7	159.9	AQM	C <sub>2</sub> , S <sub>1</sub> , 1-2% Asp <sub>py</sub> , 6% Py, Po, Bz Altered qz-monzonite, moderate carbonate alteration, 10% quartz eyes, cm-scale feldspar phenocrysts, Moderate clay alteration of feldspar, clay along faults + fractures, biotite strongly altered, 6% mostly vein controlled pyrite, unoxidized; 1-2% arsenopyrite, also vein controlled, 10% from 148.0 - 148.6m. Weak carbonate veining, silicification (?). 148.5m: Faults at 65° + 75° to core axis.
159.9	162.1	ARGG	Co <sub>2</sub> , S <sub>1</sub> , 2% Py, Po Argillite, decalcified, tectonized (healed fractures along fault breccia), graphitic, siliceous (silicified?). Faults along upper contact oppose each other at 75° + 70° to core axis. 2 thin AQM units (95m, 0.3m) included in this interval.
162.1	164.9	LST	C <sub>3</sub> , S <sub>1</sub> , 2% Py, Po Black, minor dark grey limestone, fractured to broken core. 1-2% very fine grained disseminated pyrite. Becoming dolomitic from 163.7 - 164.9m 163.7m: Bedding at 70° to core axis, variable "S <sub>1</sub> " listed, no description of silicification



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-92

Elev: 353'  
(256')

Logged by: F. Anderson

Exp 11 96 3:30pm

Log # AGM 82-111 m

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in DD92 for sampling

FROM R.D.  
VII  
D.V

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			- hole 92 is not correlated to 7624m; Geology interpreted from Quicklog & remaining core
0	1.83	CASING	
1.8	12.5	SH	1% LM strong clay weathering of fine grained shale fine grained weathering LM on fractures & bedding planes
12.5	14.1	SHG	Gr - dk brown to black sticky clay gouge zones through interval remaining core strongly clay weathered - interval already sampled - taken from quicklog by FA
14.1	20.7	SH	Tc LM fine weathering clay alteration less intense; trace limonite along fractures & bedding planes
20.7	23.3	SHG	Gr very broken, clay weathered core, tan weathering
23.3	29.2	SH	Tc LM very broken, clay weathered core; trace LM on fractures & bedding planes to CA.
29.2	52	SHG	Gr black to dk greyish brown, clay weathered bedding 50"-2CA
52	63.4	SHG	Tc py. fr - along core interval goes to low zone with a pink breaking clay weathered core, trace py. disseminated through core

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-92

Sept 4/96

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Logged by: F. ANDERSEN

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
63.4	64.7	ABM	<p>Pp, 1% py</p> <p>silt - pale grey; granular; siliceous clay altered                      biotite ⇒ pale beige clay; py replacing clay                      - 1/2% large graphitic clay/shale with 1-2%                      magnetite py.</p>
64.7	65.5	ABM	<p>graphitic, clay altered shale? breaks across                      bedding, blocky surfaces; Upper Contact 50°-70°N                      Lower Contact 40°-70°N</p>
65.5	75.2	ABM	<p>70% <sup>Sx</sup> Pp</p> <p>top 10cm clay + gritty minerals                      - porphyritic; pale grey; green granular                      - 3-5% py, replaced biotite; pervasive                      - silty clay / Sx<sup>20</sup> mineral - cement biotite                      - Sx becomes less granular decreases with depth.</p>
75.2	77.7	ABM	<p>sk, 30% Pp, Sx</p> <p>py carrying hard fine black impure minerals; clay                      healed fractures; pervasive                      pervasive brown to white mica                      mica along quartz block from weathering to fine                      mica; pervasive                      - biotite completely gone with yellow clay                      with py replacing                      greener than grey granular - decrease in py.                      - silty intervals grade in and out of grey/green                      granular - related to block structure.</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: D196 92

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
87.2	88.5	AGM	1% p.i. P. fine grained, ~10% p.i.; porphyritic texture indistinct; pale brown clay after biotite; py as grains in groundmass; better groundmass enriched green sericite replacement of 1mm fs minerals.
88.5	92.0	AGM	2% p.i. P. porphyritic, white clay altered phos to 1cm size 2-3% p.i. replace; brown clay (brihte) cone is fractured & partially healed; clay supported matrix; clay matrix filled breccia zone 90.7-90.6 contact 20° → C.A.; pervasive coarse scale yellow clay veins - Note after 90.6 groundmass is paler, SX decreased. py as fine grains in groundmass black after py blebs
92.0	92.00	AGM	BX contact 40° → C.A.; clay filled matrix hosting rounded to angular fractured fragments; 92.5-90.8 clay matrix with fragments to 1.5cm size shear zone;
93	96.8	AGM	4% p.i. P. sericite alteration of groundmass, pale green minerals 222 pale green sections; partially clay healed fractures pervasive; open spaces/cavities in dk grey fine grey quartz veins brecciated by pervasive white clay stockwork ← 93.6-95m 4% p.i. disseminated through groundmass; + calcite? - no indications of brihte post is present. - many quartz veins (some with inclusions) support sericite - pervasive coarse scale yellow clay veins (some with - some with calcite) - some with calcite - some with calcite



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-92

Sept. 4/96 7:00pm

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
103.7	106.8	AGM	<p>8% py, 10% aspy. Potassic altered, sk, S<sub>1</sub></p> <ul style="list-style-type: none"> <li>- fine grained as at 98.7-100m; clay altered biotite replaced by blebbly py + ~1% aspy.</li> <li>- pale pink hue to groundmass - weak potassic alteration; pervasive 3cm halo along mm quartz veinlets 10° → C.A.</li> <li>- qz veinlets rimmed by mm pale yellow clay</li> <li>- fine grained texture disappears at 106.75m, becomes porphyritic with dk grey (sx) wispy stockwork zones; grey chalcidonic veinlets at 106.2m.</li> </ul>
106.8	112.5	AGM	<p>5% py, 3% as, P<sub>1</sub>, S<sub>2</sub>, sk</p> <ul style="list-style-type: none"> <li>- white altered phenos, tan groundmass;</li> <li>- grey qz replacing 2% phenos (chalcidonic)</li> <li>- 1% py disseminated through groundmass,</li> <li>- 4% py associated with qz/sx wispy halos</li> <li>- 3% aspy as 1-6mm massive bands 90° → C.A.</li> <li>- pale grey, clay rimmed qz veinlets + clay healed fractures, horsetail at shallow angles → C.A.</li> <li>- clay altered, crackle fractured 109-110m, 10° → C.A.</li> <li>- py content proportional to amount of fracturing, as is clay alteration of groundmass</li> </ul>
112.5		AHFG	<p>End of mineralized zone 117.1</p> <ul style="list-style-type: none"> <li>- broken upper contact 50° → C.A.; white qz + cb stockwork continues from AGM into the argillite.</li> </ul>



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-92

Nov. 9 1996

Logged by: F. ANDERSEN

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Continuation of hole from Sept. 4/96.

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
116.8	120.4	ASM	<p>10% Pb, 1% As, Po</p> <p>pale yellowish grey groundmass with clay altering phenos;</p> <p>7% py replacement of matrix</p> <p>4% py + arsenopyrite as discrete specks</p> <p>- grey mottling of core from sulfide (py) content;</p> <p>- pervasive crackle fracturing, pale yellow infilling clay replaced by grey g2 + py down interval; ~15% sulfide at lower contact</p>
120.4	121.9	ARG	<p>26% Pb, Po, Sk, S4</p> <p>dk greyish black; colour caused by pervasive white g2 fracture/gash filling - broken, disrupted stockwork;</p> <p>2% py within matrix, feel of Pb associated in the sk.</p>
121.9	124	ARGG	<p>C2</p> <p>broken, dark greyish black, platy laminated, argillite breaking argillite; bedding wavy, ~70°-76° A.</p> <p>- minor white gash filling; strongly graphitic laminae;</p> <p>- calcareous matrix, gradual reaction to HCl</p>
124	126.65	ARG	<p>C3 S2, 1% Py, Po</p> <p>concrete cl&gt;g2 mm sized stockwork;</p> <p>contact with overlying ARGG is ~90°-76° A;</p> <p>greyish black highly calcareous (limey?) matrix;</p> <p>- trace py disseminated in matrix;</p>
126.65	130.1	ARGG	<p>SK, C1, G1</p> <p>broken, platy laminated graphitic argillite; becomes rubblely down hole;</p> <p>- minor white stockwork fragments; carb to clay + minor g2</p> <p>- occasional silty/limey interbed / clast;</p> <p>- lower contact broken contact looks shallow (~90°)-76° A;</p> <p>at base - replaced by dark silty argillite</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-92

Nov. 9/96.

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Logged by: F. ANDERSEN

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
130.1	132	AGM	<p>10% Py, Po</p> <p>tan green colour; groundmass fine grained; indistinguishable                      stal boundaries. ~ 5% pale brown/tan clay replacement of                      1mm lath-shaped mineral; silvery sericite alteration of biotite;                      - micro-phyritic texture caused by 10% fine grained pyrite                      cubic + irregular shaped blebs;                      - upper 40cm is broken highly fractured; remaining                      internal spiral, partially clay lined fracture common but                      not pervasive;</p>
132	135	ARGG	<p>Tr Py, Po</p> <p>dk greyish black argillite with graphitic lamina; clay                      stockwork pervasive in top 20cm, common downwards;                      trace pyrite blebs in stockwork poor argillite; 10 sulfide                      is stockworked core;                      - 133.0-133.45 core has texture identical to                      following interval;</p>
135	137.2	ARG	<p>20-30cm, Sth, sk 7% Py, Po, Cz</p> <p>phyloclast-gz intrusor (AGM) clasts encompassed by                      quartz/cb stockworked weakly gz loaded graphitic                      argillite, in places AGM hosts arg clasts;                      - 7% pyrite as massive grey clay altering lenses;                      - where Agat content high is pervasive clay/cb filled                      fracture and breccia matrix filling;</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD26-92

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Logged by: F. ANDERSEN

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
137.2	143.7	AOM	2% Py, P <sub>1</sub> greyish green/tan colour; porphyritic, alternating zones of pale greenish yellow + dull dark green phenocrysts; in places green (sericite) forms mm rims with pale yellow cores; - groundmass distinct brown/tan replacement of talcs, silvery sericite alteration of micas - 8% blebby, tarnished pyrite replacing matrix in top 40 cm + lower 2 m; - intervals of coarse breccia with partially <sup>pale yellow-white</sup> clay healed mm size fractures;
143.7	146.9	ARG6	1% Py, S <sub>2</sub> , P <sub>0</sub> black, competent graphitic argillite; white qz/miner cb stockwork only pervasive in top 20 cm, occasional through rest of interval; bedding 20°-70° A; 1% Py as wispy to lens massive veinlets;
146.9	149	ARG	30% Py, S <sub>3</sub> , 30% qz, P <sub>0</sub> , C <sub>1</sub> angular fragmented, silicified black graphitic argillite and greyish black silty argillite; - pervasive hairline carbonate fracture fillings; pervasive mm-cm white qz with cb core veinlets causing heavy stockworking; - argillite fragment floating in a pale greyish white matrix. v. sp. + hard to id. - 30% pyrite blebs + cubes disseminated through core, well mineral in black fragments;
			after 149 m } quartz flooded from 149 to 150.5 m; fuzzy banded texture 10°-70° A. looks like chert with banding;

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-92

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Logged by: F. ANDERSEN

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
149	154.5	AAG	50:50 Qz, 20% Py, Po, sh, S4, C2 - greyish black stockwork argillite, pervasive grey chalcidonic flooring of argillite matrix; lengths of core are angular silica replaced argillite clasts in a cherty looking matrix supported breccia; core is calcareous except for chert brecciated intervals - pyrite present as wavy stringers in brecciated intervals, blebs & specks in argillite -
154.5	159.9	OM	C2 - grey indistinct, plagioclase looking groundmass 10% - 15% mm sized zircon (blebs) → silvery sericite; sil laths → biotite → going to silvery sericite; - porphyritic texture distinct where core is broken along clay altered fractures - phenos are strongly clay altered; - strongly calcareous - mineral replacement by sericite & carbonate;
159.9	164.5	AQM	10% Py, P1, C1 beige tan, pale greenish colour, porphyritic; phenos → green sericite, matrix depleted - crystal shape remnant now tan clays; - 10% black tarnished py blebs - replacement of minerals in groundmass; - tan/pale yellow clay brecciated fractures pervasive; - weakly calcareous groundmass;



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-92

Nov 18/96

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Logged by: F. Anderson

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
175.7	183.6	AGM	<p>3% Py, Pi</p> <p>light green colour, non porphyritic; fs grains pale cream coloured, give a false porphyritic appearance;</p> <ul style="list-style-type: none"> <li>- groundmass strongly altered to sericite, easy to scratch</li> <li>- 3% pyrite, tarnished, irregular blobs; trace pyrite as thin black dendritic fractures - not through going</li> <li>- occasional hairline to mm pale cream <sup>clay</sup> healed fractures occur at ~ 90° and ~ 150° to C.A.</li> <li>- thin lengths of crackle fractured, healed AGM;</li> </ul>
183.6	185.5	ARG	<p>sk, S4, C1, 30% Qtz, 1% Py, Po</p> <ul style="list-style-type: none"> <li>- upper contact 65°-70° C.A.; lower contact broken &amp; sampled</li> <li>- pervasive mm white quartz stockwork, qtz-ench gash filling hairline carbonate veins,</li> <li>- 1% pyrite, disseminated cubes, with a stockwork of argillite matrix</li> <li>- AGM green clasts common to 184.2m;</li> </ul>
185.5	193.2	AGM	<p>5% Py, Po</p> <p>light green colour, become yellowish green down hole;</p> <ul style="list-style-type: none"> <li>- porphyritic phenos altered to green sericite or pale yellow clay</li> <li>- 5% brassy pyrite, discrete grains &amp; irregular blebs</li> <li>- throughgoing fractures, ~ 70°-70° C.A. cause a grey discoloration - hairline sulfidic veins;</li> <li>- pale yellow healed fracturing common, pervasive pores cause broken core from 189.6 to 190.6 and 192 to 193.2 m.</li> </ul>



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-9Z

No. 10/96

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Logged by: F. ANDERSEN

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
201.1	202.1	ARGG	<p>2% Py, Po</p> <p>- upper margin of turbidite / interlayered silt / mud sequence; convoluted layering; 4 cm pyrite patch at 201.6 m, py disseminated in matrix as small blebs;</p>
202.1	204.5	SST	<p>3% py, Po, Cl</p> <p>- 1 cm to 20 cm interbedded, grey sericitic altered siltstone &amp; black muddy siltstone (wispy laminations); varying contents of mud cause various shades of black;</p> <p>- 3% brassy py as blebs and cubes disseminated through unit, 2 cm py rich lense at 204.1 m;</p> <p>- hairline carbonate fracturing; 1 cm vuggy qz-cb veinlet at 203.5 m, shallow → C-A;</p>
204.5	206.5	ARGG	<p>S<sub>1</sub>, SK, 3% Py, Po</p> <p>- graphitic silty argillite; qz stockwork pervasive; core highly broken, in places rubble; prominent fracture / veinlet direction 50° → C-A; stockwork brecciated argillite for short distances</p> <p>3% py disseminated through matrix</p>
206.5	209.6	SST	<p>3% Py, Po, Cl</p> <p>- same unit as 202-204.5, very broken from pervasive rock fracturing;</p> <p>- py very fine grained; some blebs seen on rock ch. ps.</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DD96-92

Nov 10/96.

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Logged by: F. ANDERSEN

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
209.6	213.7	SST	10% py, Po dk greyish black, mud rich beds predominate: wispy grey silty lenses + thin beds; 10% py as disseminated pervasive grains in matrix, mm-cm sized blebs + lenses; -mm white cb-gz core gash fillings:
213.7	224.6	SST	5% Py, Po, sk, Si -thicker sequences of grey siltstone and dk greyish black muddy siltstone -white qz + cb. veining / gash filling - hairline veinlets, gashes to 4mm thickness, white qz path, broken sheeted cm qz veinlets, 20°-70°; stockworking gradually decreases downhole; -5% py disseminated through unit as lenses + blebs. -stick slides seen at 216m + 224 m.
224.6	228.5	SST	50% py, Pb -predominantly grey siltstone; short sequences of muddy, dark beds; -pyrite v.l.g. through matrix + as gash fillings + blebs; hairline white clay; healed fractures not common; -start seeing hairline black sulfide veinlets at 227.4 m; 4mm veinlet with 2mm qz core at 228m, 70°-70° A
228.5	230.4	SST	sk, Ci, 50% Py, Pb -grey pervasive fractured, unbedded siltstone -white cb + qz irregular veinlets to 2cm size, encompassing small siltstone fragments. 20% v.l. grained py disseminated through matrix and as blebs in muddy layers:

F. O. H.

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DD96-92

Logged by B. Beck / F. ANDERSEN Sept 1-2, 1996

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From (m)	To (m)	Rec. (m)	RQD	Lm (%)	Py (%)	Py Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
1.83	3.8	0.57	0							
3.83	5.8	0.96		1						
5.8	7.8	1.72		1						
7.8	9.8	1.10		1						
9.8	11.8	1.42		1						
11.8	13.8	2.0		Tr						
13.8	15.8	2.0		Tr						
15.8	17.8	2.0		Tr						
17.8	19.8	2.0		Tr						
19.8	21.8	2.0		Tr						
21.8	23.8	2.0		Tr						
23.8	25.8	2.0		Tr						
25.8	27.8	1.8		Tr						
27.8	29.8	2.0		Tr						
29.8	31.8	2.0		-						
31.8	33.8	2.0								
33.8	35.8	2.0								
35.8	37.8	2.0								
37.8	39.8	2.0								
39.8	41.8	2.0								
41.8	43.8	2.0								
43.8	45.8	2.0								
45.8	47.8	2.0								
47.8	49.8	2.0	∇							
49.8	51.8	2.0	0.18							
51.8	53.8	2.0	0.43	Tr	Py					

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DD96-92

Logged by B. Bark / E. Andersen Sept 1 & 2 1990

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From (m)	To (m)	Rec. (m)	RQD	Lm (%)	P <sub>2</sub> (%)	P <sub>2</sub> (Oxidation)	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
53.8	55.8	2.0	0		Tr	P <sub>1</sub>				
55.8	57.8	2.0	0		Tr	P <sub>1</sub>				
57.8	60	2.2	0		Tr	P <sub>1</sub>				
60.	61.8	1.56	0		Tr	P <sub>1</sub>				
61.8	62.8	1.05	0		Tr	P <sub>1</sub>				
62.8	64.7	1.67	0		1	P <sub>1</sub>				
64.7	65.5	0.88	0		/					
65.5	67.5	1.91	0.67		7	P <sub>1</sub>	Tr*			
67.5	69.5	2.01	0.75		7	P <sub>1</sub>	Tr*			
69.5	71.5	1.98	0.57		7	P <sub>1</sub>	Tr*			
71.5	73.5	1.97	0.37		7	P <sub>1</sub>	Tr*			
73.5	74.5	1.03	0.69		7	P <sub>1</sub>	Tr*			
74.5	75.8	1.29	0.14		7	P <sub>1</sub>	Tr*			
75.8	77.8	1.97	0		3	P <sub>0</sub>				S <sub>1</sub>
77.8	78.8	1.02	0		3	P <sub>0</sub>				S <sub>1</sub>
78.8	80	1.35	0.29		3	P <sub>0</sub>				S <sub>1</sub>
80	82	1.94	0.14		3	P <sub>0</sub>				S <sub>1</sub>
82	83.9	1.98	0.61		3	P <sub>0</sub>				S <sub>1</sub>
83.9	84.9	1.06	0.65		3	P <sub>0</sub>				S <sub>1</sub>
84.9	86.9	1.99	0.62		3	P <sub>0</sub>				S <sub>1</sub>
86.9	88.9	1.96	1.28		2	P <sub>1</sub>				S <sub>1</sub>
88.9	90.9	1.99	0.46		2	P <sub>1</sub>				
90.9	92.7	1.93	0.42		2	P <sub>1</sub>				
92.7	94.7	1.96	0.18		4	P <sub>1</sub>				
94.7	96.8	1.95	0.22		4	P <sub>1</sub>	Tr*			
96.8	98.2	1.44	0		0					S <sub>1</sub>

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DD46-9Z

Logged by \_\_\_\_\_

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From (m)	To (m)	Rec (m)	RQD	Lm (%)	P <sub>1</sub> (%)	P <sub>2</sub> (Oxidation)	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
98.2	100.2	1.94	0.43		1	P <sub>1</sub>			C <sub>1</sub>	S <sub>1</sub>
100.2	102.2	2.01	1.01		1	P <sub>1</sub>			C <sub>1</sub>	S <sub>1</sub>
102.2	104.2	1.96	0.47		6	P <sub>1</sub>			C <sub>1</sub>	S <sub>1</sub>
104.2	106.2	1.97	0.26		8	P <sub>1</sub>	1		—	S <sub>1</sub>
106.2	108.2	2.0	0.96		5	P <sub>1</sub>	3			S <sub>2</sub>
108.2	109.2	1.0	∅		5	P <sub>1</sub>	3			S <sub>2</sub>
109.2	110.4	1.21	0.29		5	P <sub>1</sub>	3			S <sub>2</sub>
110.4	112.5	2.0	0.58		5	P <sub>1</sub>	3			S <sub>2</sub>
112.5	114.5	1.21	∅		5	P <sub>0</sub>	—			—
114.5	115.5	0.94	∅		5	P <sub>0</sub>	—			—
115.5	116.8	1.33	0.54		15	P <sub>0</sub>	—			S <sub>1</sub>
116.8	118.8	1.91	0.72		7	P <sub>0</sub>	Tr			—
118.8	120.4	1.68	1.3		13	P <sub>0</sub>	2			—
120.4	121.9	1.47	0.25		2	P <sub>0</sub>	—			S <sub>4</sub>
121.9	123.4	1.44	∅		Tr	P <sub>0</sub>	—		C <sub>2</sub>	—
123.4	125.4	1.95	0.76		Tr	P <sub>0</sub>	—		C <sub>3</sub>	S <sub>3</sub>
125.4	126.6	1.25	0.34		Tr	P <sub>0</sub>	—		C <sub>3</sub>	S <sub>2</sub>
126.6	128.6	1.77	∅		Tr	P <sub>0</sub>	—		C <sub>1</sub>	—
128.6	130.1	1.25	0.11		—	—	—		C <sub>1</sub>	—
130.1	132	1.93	0.35		10	P <sub>0</sub>	—		—	—
132	134	1.97	0.27		Tr	P <sub>0</sub>	—		—	—
134	136	2.0	0.93		5	P <sub>0</sub>	—		C <sub>2</sub>	S <sub>4</sub>
136	137.2	1.19	0.12		7	P <sub>0</sub>	—		C <sub>2</sub>	S <sub>1</sub>
137.2	139.2	1.93	0.14		1	P <sub>1</sub>	—		—	—
139.2	141.1	2.0	0.45		2	P <sub>1</sub>	—		—	—
141.1	142.1	1.02	∅		3	P <sub>1</sub>	—		—	—

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DD96-92

Logged by B. Bark / F. Andersen

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From (m)	To (m)	Rec. (m)	RQD █ █	L.m (%)	P <sub>1</sub> (%)	P <sub>2</sub> Oxidation	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
142.1	143.7	1.77	0.25		3	P <sub>1</sub>			-	-
143.7	145.1	1.49	0		1	P <sub>0</sub>			-	-
145.1	146.9	1.66	0		1	P <sub>0</sub>			-	S <sub>2</sub>
146.9	148.5	1.58	0.32		3	P <sub>0</sub>			C <sub>1</sub>	S <sub>3</sub>
148.5	150.5	2.12	0		2	P <sub>0</sub>			C <sub>2</sub>	S <sub>4</sub>
150.5	152.5	2.0	0.42		2	P <sub>0</sub>			C <sub>1</sub>	S <sub>4</sub>
152.5	154.5	2.0	1.62		2	P <sub>0</sub>			C <sub>2</sub>	S <sub>4</sub>
154.5	156.5	2.0	0.22		-	-			C <sub>2</sub>	-
156.5	158.5	2.0	1.27		-	-			C <sub>2</sub>	-
158.5	159.9	1.4	0.82		-	-			C <sub>2</sub>	-
159.9	160.7	0.74	0.42		2	P <sub>1</sub>			C <sub>1</sub>	-
160.7	162.7	2.0	0.85		2	P <sub>1</sub>			C <sub>1</sub>	-
162.7	164.7	2.0	0.57		2	P <sub>1</sub>			C <sub>1</sub>	-
164.7	166.7	2.0	0.11		-	-			C <sub>1</sub>	-
166.7	168.7	2.0	0.25		-	-			C <sub>1</sub>	-
168.7	170.2	1.48	0.19		2	P <sub>1</sub>	T <sub>1</sub>		C <sub>1</sub>	-
170.2	171.3	1.06	0.19		1	P <sub>1</sub>	10%		C <sub>1</sub>	-
171.3	172.4	1.23	0.15		2	P <sub>1</sub>	T <sub>1</sub>		C <sub>1</sub>	-
172.4	173.7	1.28	0.47		3	P <sub>0</sub>	-		C <sub>2</sub>	S <sub>2</sub>
173.7	175.7	2.0	0		3	P <sub>0</sub>	-		C <sub>2</sub>	S <sub>2</sub>
175.7	177.7	1.97	0.16		3	P <sub>1</sub>	-		-	-
177.7	179.7	2.0	1.11		3	P <sub>1</sub>	-		-	-
179.7	181.7	2.0	0.5		3	P <sub>1</sub>	-		-	-
181.7	183.6	1.81	0.42		3	P <sub>1</sub>	-		-	-
183.6	184.5	0.97	? <small>MISSING CORE 411</small>		1	P <sub>0</sub>	-		C <sub>1</sub>	S <sub>4</sub>
184.5	189.5	1.30	?		1	P <sub>0</sub>	T		C <sub>1</sub>	S <sub>4</sub>

# LOKI GOLD CORPORATION

## DIAMOND DRILL SAMPLE LOG

HOLE-ID: DD16-92

Logged by F. Andersen

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From (m)	To (m)	Rec. (m)	RQD	Lm (%)	P <sub>1</sub> (%)	P <sub>2</sub> (Oxidation)	Aspy (%)	Sb (%)	CaCO <sub>3</sub>	Silica Influx
185.5	187.5	1.91	Ø		5	Po			-	-
187.5	189.6	2.0	0.68		5	Po			-	-
189.5	191.5	2.0	0		5	Pi			-	-
191.5	193.2	1.93	0.21		5	Po			-	-
193.2	194.2	0.94	0.11		2	Po			C <sub>1</sub>	S <sub>3</sub>
194.2	195.9	1.61	0.96		2	Po			C <sub>1</sub>	S <sub>4</sub>
195.9	197.9	1.96	0		Tr	Po			C <sub>1</sub>	S <sub>2</sub>
197.9	199.9	1.89	Ø		Tr	Po			C <sub>1</sub>	S <sub>2</sub>
199.9	201.1	0.94	0		Tr	Po			C <sub>1</sub>	S <sub>2</sub>
201.1	202.1	1.0	0		2	Po			-	-
202.1	203.6	1.42	0.73		3	Po			C <sub>1</sub>	-
203.6	205.6	2.0	0.2		3	Po			-	S <sub>1</sub>
205.6	207.0	1.86	0		3	Po			-	S <sub>1</sub>
207.6	209.6	1.95	0		3	Po			C <sub>1</sub>	-
209.6	211.2	1.61	0.59		10	Po			-	-
211.2	212.2	1.0	0.8		10	Po			-	-
212.2	213.9	1.71	0.43		10	Po			-	-
213.9	215	1.19	0		5	Po			C <sub>1</sub>	-
215	217	2.0	0.45		5	Po			C <sub>1</sub>	S <sub>2</sub>
217	219	2.0	0.27		5	Po			C <sub>1</sub>	S <sub>2</sub>
219	221	2.0	0.45		5	Po			C <sub>1</sub>	S <sub>1</sub>
221	223	1.96	0.33		7	Po			-	S <sub>1</sub>
223	225	1.94	0.15		7	Po			-	S <sub>1</sub>
225	227	1.95	0.58		5	Po			-	-
227	229	1.78	Ø		5	Po			C <sub>1</sub>	-
229	230.4	1.45	0.59		5	Po			C <sub>1</sub>	-

PROJECT: Benny Creek

CO. / PROVINCE:

HOLE NO.: DDH 96-92

PAGE 2 OF 3

DATE STARTED:

DATE COMPLETED:

BEARING:

INCLINATION:

DESIGNED BY:

SCALE:

COORDINATES:

N/S

E/W TO

ELEVATION:

UTM

CLAIM NAME, NO.:

UTM

NTS

UTM

DEPTH (m)	ROCK UNIT	FRONT-SIDE PROPERTY	ALTERATION	MINERALIZATION	MINERAL ESTIMATE			ASSAYS - Oxidation		REMARKS
					Py	As	Sb			
155					Py	As	Sb			
160	159.9 AQM (check to confirm - may just be B2)		159.9 bit altered (sauss.) 1646 bit not alt.							
170	164.7 AQM (~ 52 QU?) 172.4 AQM		168.7 bit altered (sauss.) 171.3 KSP unit?							
180	175.3-175.7 AQM 177.6 AQM		175.3-175.7 bit altered (sauss.) 177.6 bit not alt. - main contact fltd	where's alt. show back up?						
190	183.6 AQM									
200	193.2 AQM			- siliceous - silic. + little CO <sub>2</sub>						
210	203.6 AQM		check to see if this is dolomite (put a piece on the heater, let it get hot then try HCl)	203.6 u.c.g. diss Py in SST 203.6						
220	217.1 AQM			CO <sub>2</sub> in 1-10 mm streak						

PROJECT: Brewery Creek  
 CONTRACTOR:  
 DATE STARTED:  
 SUPERVISOR: LESKIE

CO. / PROVINCE:  
 DATE COMPLETED:  
 SCALE: 1:500

HOLE NO.: DDH-96-92  
 BEARING:  
 COORDINATES:  
 ELEVATIONS:  
 CLAIM NAME, NO.:

PAGE 2 OF 3  
 INCLINATION: TO 290.3  
 E/W UTM:  
 NTS: UTM:

DEPTH (m)	ROCK UNIT	FEEL OF CORE	ALTERATION	MINERALIZATION	MINERAL ESTIMATE	ASSAYS	REMARKS
75							
80							
90							
100							
110							
120							
130							
140							
150							

col  
 10/1/09

(lt grey + dk grey  
 thin-bedded)

lt dk grey thin bedded. Shert or similar  
 may be a shock product  
 of a volcanic eruption.

☆ silica. streaked  
 by-ed by streak (SA)  
 by 10 0° to 4A

Vertical line with arrow pointing up  
 10/1/09

PROJECT: Bronary Creek - Deep  
 CONTRACTOR:  
 DATE SAMPLED:  
 LABELED BY:

CO. / PROVINCE: QVK  
 DATE COMPLETED: Log  
 SCALE: 1:500

HOLE NO.: DDH-96-92  
 BEARING:  
 COORDINATES:  
 ELEVATION: 140-230  
 CLAIM NAME, NO.:

PAGE 1 OF 3  
 INCLINATION: 55° TO 230.3m (75°)  
 N/S  
 E/W  
 UTM:  
 UTM:  
 NTS:

DEPTH (m)	ROCK UNIT	FRAC. SIZE (cm)	ALTERATION	MINERALIZATION	MINERAL ESTIMATE			ANALYSIS Oxidation			REMARKS
					% Py	% As	% Sb				
0											
10	S&S Sulfides CA										
20											
30											
40											
50											
60											
70											
75											

Log - 96-92

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH-96-93

Page 1 of 5

Logged by: L. Brundefeld, adapted by C. Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
0	1.5	Casing	
1.5	11.9	SHG	<p><math>C_1, S_1, 0.5\% Py, Py, 3\% Lim</math></p> <p>Graphitic shale, light-dark green fissile. mod. limonitic, pervasive. Minor deformed diagenetic or metamorphic (?) quartz veins 0.5% strongly to completely oxidized pyrite 6.2m: Linear feature (?) at 45° to core axis 9.5-10.6: black-grey clay 10.6-11.9: Shale, less graphitic</p>
11.9	14.0	LAQM	<p><math>C_1, S_1, 0.5\% Py, Py, 2\% Lim</math></p> <p>Weakly limonitic altered quartz monzonite, pervasively altered, tan-orange. Weak carbonate alteration. 0.5% almost completely oxidized pyrite. Weak carbonate alteration</p>
14.0	22.8	ARL	<p><math>C_1, S_1, 0.5\% Py, Py, 1\% Lim, SK</math></p> <p>Black argillite, weathered, no siltstone component. Weak diagenetic and fracture controlled cleat, quartz and/or dolomite veins. Moderately oxidized + limonitic to 18.6m, fractures locally oxidized below this. Minor siliceous beds from 21.0-22.8m. 0.5% fully oxidized very fine pyrite, somewhat coarser in oxidized beds. Weak carbonate presence 15.4-16.5m: Strong clay altered, brecciated 19.5-21.8m: Fracture zone, partially broken. 19.8m: Cleavage (?) at 45° to core axis</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH 96-93

Page 2 of 5

Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
22.8	25.8	ARGF	<p><math>C_1, S_1, 1^{\circ}Py, P_2?, 1^{\circ}Lim.</math></p> <p>Black graphitic argillite, dark grey-black silty interbeds, locally irregularly folded</p> <p>Grey layers limonitic to dolomitic, locally 5-10% chert, 1% moderately oxidized pyrite, weakly limonitic, fracture controlled.</p>
25.8	29.6	AQM	<p><math>C_1, S_2, 2^{\circ}Py, P_1, 1^{\circ}Aspy, 2^{\circ}Lim, B_3</math></p> <p>Beige to cream colored altered quartz monzonite, weak fracture controlled limonite, weak carbonate alteration, biotite strongly altered.</p> <p>2-3% disseminated pyrite + arsenic pyrite, weakly oxidized, fine grained; also in fine fracture system with carbonate - kaolinite veinlets. Lower contact faulted, at 55° to core axis.</p>
29.6	35.7	ARGF	<p><math>C_1, S_1, 3^{\circ}Py, P_0, SK</math></p> <p>Black, graphitic, fractured, locally gorged, deformed, bedding destroyed. Grey beds dolomitized. Sheeted quartz + dolomite (?) veins - diagenetic, + weak chert stockwork of veinlets. Weak carbonate presence, silicification (stockwork + pervasive?). 1-5% fine grained to nodular unoxidized pyrite.</p> <p>32.0m: Slip plane at 55° to core axis</p> <p>34.4-35.7m: Intensely deformed, fractured, particularly along lower intrusive contact.</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: RL-96-93

Page 3 of 5

Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
35.7	47.2	AQM	<p><math>C_1, S_{1-2}, 2-7\% Py, Po, tr Lim, B_3</math></p> <p>Strongly altered quartz monzonite, grey-green. Fspar argillically + phyllitically altered, biotite altered to sericite, rutile, carbonate. Weak-moderate carbonate alteration. Fracture controlled carbonate stringers cut by quartz-pyrite veins.</p> <p>35.7-37.4m: 7-10% fine grained, disseminated pyrite, unoxidized, + lesser fracture controlled weakly oxidized pyrite. 1% arsenopyrite</p> <p>37.4-39.7m: Pyrite-quartz veinlets</p> <p>39.7-43.8m 1-2% unoxidized pyrite</p> <p>43.8-44.2m Healed fault breccia, 1% pyrite</p> <p>44.2-44.9m carbonate veinlets arsenopyrite + sphalerite</p> <p>44.9-45.6 m: 10% pyrite, kaolinite unit</p> <p>45.6-47.2m: 3% pyrite</p>
47.2	47.9m	Aarb	<p><math>C_1, S_1, tr Py, B_3, tr Lim</math></p> <p>Black graphitic argillite, grey AQM + sand fragments.</p>
47.9	57.2m	AQM	<p><math>C_1, S_0, 1-4\% Py, Po, tr Lim, B_3</math></p> <p>Strongly altered quartz monzonite, feldspar; biotite strongly altered. Weak carbonate alteration. Variable concentrations (1-3%) of fracture controlled + lesser disseminated pyrite, unoxidized</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH-96-97

Page 4 of 5

Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			51.7-52.7: Broken, fractured, injection of carbonate veinlets
			55.9-57.2: 4% disseminated pyrite, unoxidized, phenocrysts more distinct.
57.2	60.8	ARU	C <sub>1</sub> , S <sub>1</sub> , 5% Py, Po Graphitic argillite, dolomitic layers, "vectorized". Minor AQM fragments weakly silicified, areas carbonate presence, dolomite veinlets, 5% disseminated + fracture controlled unoxidized pyrite, present in black silty to sandy dolomite. Up to 50% in sedimentary fragments. Upper intrusive contact at 80° to core axis 58.1m: "Slip" planes at 70° to core axis
60.8	77.6	AQM	60.8-66.8m: C <sub>1</sub> , S <sub>1</sub> , 5% Py, Po, tr Arpy, tr Sb 66.8-77.6m: C <sub>1</sub> , S <sub>1</sub> , 1.5% Py, P <sub>1</sub> , 0.5% Arpy, 1% Sb Intensely altered quartz monzonite, weak carbonate alteration of feldspar. 3-10% variable concentrations, of unoxidized fracture controlled + disseminated pyrite. 1% arsenopyrite to 64.5m, trace to 77.6m, except 1% from 71.5-72.8m. Trace stibnite, except 2-3% veinlet controlled, with clay. 3 stockwork episodes: 1: Carbonate veins, 2: Pyrite veins (+quartz?), 3: clay-stibnite veins 61.6-62.8m: Broken core, clay + sulphide veinlets



# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH-96-94

Page 1 of 3

Logged by: L. Landefeld, adapted by C. Schulze

From (m)	To (m)	Major Unit	Geological Description (Include modifiers on first line of descriptions)
0	1.8	CASING	
1.8	18.6	ARG	<p><math>C_0, S_0-1, 3\%Py, P_4, 3\%Lim</math></p> <p>Argillite, black-grey, regular fabric, bedding parallel to foliation. Bedding more compact below 13.0m, grading into graphitic argillite. Bedding offset by fractures - normal movement. Deformation, folding, fracturing more intense from 9.0-11.0m. Metamorphic quartz veins. 3-5% almost totally oxidized pyrite, diagenetic, bedding controlled.</p> <p>Bedding at 40-45° to core axis at 6.0m</p> <p style="padding-left: 40px;">" " 50° " " 8.2m</p> <p style="padding-left: 40px;">" " 30° " " 16.3m</p>
18.6	23.1	ARLW	<p><math>C_0, S_1, 3\%Py, P_3, 3\%Lim, B_3</math></p> <p>Deformed, bedding, foliation parallel to core axis. 3% strongly-moderately oxidized pyrite, almost completely oxidized along contacts.</p>
23.1	26.6	LAQM	<p><math>C_1, S_1, 3\%Py, P_3, 3\%Lim, B_3</math></p> <p>Strongly altered, moderately limonitic quartz monzonite, carbonate + sericitic alteration of feldspar, biotite altered to rutile(?) + sericite. Sedimentary xenoliths common. Clay, fracture controlled veinlets crosscut by qz-pyrite veinlets. 3% disseminated + fracture controlled strongly oxidized pyrite to 24.5m, 1% from 24.5-26.6m.</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH-98-94

Page 2 of 3

Logged by: L. Landefeld, adapted by C. Scholze

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
26.6	65.0	AQM	<p>26.6-41.4m: C<sub>1</sub>, S<sub>1-2</sub>, 4% Py, P<sub>1</sub>, 1% Aspy, 1% Sb, 1% Lim, SK</p> <p>41.4-65.0m: C<sub>0</sub>, S<sub>1-2</sub>, 6% Py, P<sub>0</sub>, 1% Aspy, tr Sb, 0.5% Lim, SK</p> <p>Altered qz-monzonite, locally fractured, clay (argillic alteration) along fracture planes, weak-moderate silicification, probably as quartz stockwork, weak carbonate alteration. Variable pyrite concentration to 41.4m, 2-7% averaging 4%, vein controlled with quartz, stibnite, arsenopyrite, + clay minerals. weakly-oxidized pyrite along fractures, unoxidized otherwise. Most pyritic from 29.4-30.9m, 33.7-35.3m, and 37.4-38.2m.</p> <p>29.0-29.3m: Argillite, faulted?, at 70° to core axis</p> <p>37.3m: Argillite along shear, at 70° to core axis</p> <p>- From 41.4-65.0m, little carbonate alteration, weak-moderate quartz-carbonate stockwork with pyrite, stibnite (minor) and arsenopyrite. More even, <sup>unoxidized</sup> pyrite concentration, vein controlled with lesser disseminated material, averaging 6%, with 1% arsenopyrite and trace stibnite. Strongest pyrite concentration from 47.7-49.0m, 53.0-55.0, and 57.6-58.9m.</p>
65.0	68.7	LST	<p>C<sub>1</sub>, S<sub>1</sub>, 4% Py, P<sub>0</sub>, SK</p> <p>Limestone, black-dark grey, 70% dolomitized, weak quartz, weak-moderate chert(?) stockwork (silica), + 10% dolomite veins, 3-5% very fine grained disseminated + lesser fracture controlled unoxidized</p>

# LOKI GOLD CORPORATION

## LITHOLOGY LOG

HOLE-ID: DDH-96-94

Page 3 of 3

Logged by: L. Landefeld

From (m)	To (m)	Major Unit	Geological Description (include modifiers on first line of descriptions)
			pyrite. Upper and lower intrusive contacts both at 45°
			65.6-66.7m: Fractured, broken + silicified zone
68.7	71.5	AQM	C <sub>1</sub> S <sub>1</sub> , 8% Py, Po, SK Similar to AQM from 26.6-65.0m. Weak carbonate, silica stockwork, rather pyritic and superimposes, but roughly parallels carbonate veinlets. 5-8% unoxidized fracture vein controlled pyrite. From 69.2-71.5m, 15% from 68.7-69.2m: Lower intrusive contact at 45° to core axis.
71.5	84.1	CH	Co, S <sub>1</sub> , 1% Py, Po Chert, black, massive to deformed, possibly silicified, locally limy, dolomitic, silty. Bedding locally strongly fractured, quartz infilling. 77.5-79.2m: Broken core - fracture zone 81.5-81.9m - Fracture zone 81.9-84.1m - increased deformation 72.5m Slip planes, graphitic, at 45° to core axis. 76.1m Bedding at 45° to core axis 81.0m Silty bedding at 45° to core axis.
84.1		EOH	END OF HOLE

HOLE NO: DD96-102

SECTION:

GRID:MINE

PROJECT CODE : BREWERY CREEK  
 TENEMENT :  
 PROSPECT :  
 GRID : MINE  
 MAP REFERENCE :  
 LOCATION : PACIFIC  
 HOLE TYPE : DD

## \*\*\* DRILLING SUMMARY \*\*\*

Material left in hole:  
 Base of complete oxidation  
 Top of fresh rock:  
 Water first encountered:  
 Water inflow estimate:

## \*\*\* COLLAR COORDINATES AND RL \*\*\*

NOMINAL	0.00mN	0.00mE	0.00RL
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Pre-collar depth: 96                      Final depth:                      96.00

Purpose of hole:                      EXPLORATION

Hole status:

Comments:

## \*\*\* SIGNIFICANT ASSAYS \*\*\*

From	To	Width

## \*\*\* SURVEY DATA \*\*\*

Survey Method: DIP TEST

Depth	Azimuth	Inclination
0.00	0.00	-65.00

## \*\*\* SUMMARY LOG \*\*\*

0.00	1.80	COLLUVIUM
1.80	4.40	SANDSTONE
4.40	8.50	CHERT PEBBLE CONGLOMERATE
8.50	12.10	SANDSTONE
12.10	24.60	CHERT PEBBLE CONGLOMERATE
24.60	27.60	SANDSTONE
27.60	30.60	CHERT PEBBLE CONGLOMERATE
30.60	33.60	SANDSTONE
33.60	37.60	CHERT PEBBLE CONGLOMERATE
37.60	40.60	SANDSTONE
40.60	65.30	SANDSTONE
65.30	71.00	SANDSTONE
71.00	73.60	CHERT PEBBLE CONGLOMERATE
73.60	75.10	GREYWACKE
75.10	76.90	CHERT PEBBLE CONGLOMERATE
76.90	78.10	ALTERED QUARTZ MONZONITE
78.10	79.00	CHERT PEBBLE CONGLOMERATE
79.00	80.10	GREYWACKE
80.10	80.80	FAULT
80.80	83.10	ALTERED QUARTZ MONZONITE
83.10	83.80	GRAPHITIC ARGILLITE

Checked and signed: \_\_\_\_\_

Date: \_\_\_\_\_

HOLE NO. DD96-102

SECTION:

GRID: MINE

83.80	89.50	ALTERED QUARTZ MONZONITE
89.50	96.00	GRAPHITIC ARGILLITE
96.00		END OF HOLE

Checked and signed: _____	Date: _____
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From	To	Geological Log
0.00	1.80	Colluvium CASING
1.80	4.40	Sandstone C0,S0,P4,tr. Lm Medium to dark Grey very fine sandstone. 20% black sand grains. 20-50% weathering. ~2-3 quartz stockworking veins per 10cm.
4.40	8.50	Chert Pebble Conglomerate C0,S1 Dominantly grey, black and white clast-supported conglomerate. 10% black chert, 10% pale green meta-tuff? and 5-10% rounded white pebbles; rest grey. <5cm pieces. 1mm quartzite unit that cuts clasts.
8.50	12.10	Sandstone C0,S1,P2-P3 Dominantly grey, black, white clast-supported conglomerate. 10% black chert, 10% pale green metatuff?, 5-10% rounded white white pebbles; rest = grey. >80% weathered crumbs, <5cm pieces. 1mm quartzite unit; unit cuts clasts.
12.10	24.60	Chert Pebble Conglomerate C0,S1,P0,tr py CPC:contact looks like a channel cut; variably graded locally reverse (debris flow). Chert Pebble Conglomerate grades downward into Greywacke. No alteration seen, sporadic quartz veinlets.
24.60	27.60	Sandstone C0,S1,P0,0.5%py Dark grey Sandstone, thinly bedded, fines downwards, cross-beds concave upwards 5cm thick. Pyrite in quartz veinlets.
27.60	30.60	Chert Pebble Conglomerate C0,S1,P0,0.5%py Clast supported Chert Pebble Conglomerate that grades downwards to greywacke. 2-10mm clasts. 2-4 quartz stockwork veinlets per 10cm.
30.60	33.60	Sandstone C0,S0 Dark-medium. Grey. Very fine Sandstone units that is massive to thinly bedded. Good scours grading tops down.
33.60	37.60	Chert Pebble Conglomerate C0,S1,1%Sb Clast-supported Chert Pebble Conglomerate. 0.5cm clasts. Grades into very coarse Sandstone. Up to 2% Sb 36.3-37.2m.
37.60	40.60	Sandstone Dark grey, massive, coarse Sandstone. Fault tectonite 10cm thick 39.7m. Trace Sb 39-40m.
40.60	65.30	Sandstone 50:30:20SLT;ARG-C1,P0,4%py Very fine grained to fine grained Sandstone. Thinly bedded, mostly 1-5mm wome mssv bedding 1-5cm thick. 20cm very coarse sand at 43.7. Very fine grained pyrite. No weathering to EOH.
65.30	71.00	Sandstone 50:30:20SLT;ARG-C0,S3,P0,4%Py1%Sb Same as 40.6-65.3. Zone of hydraulic faulting with rounded to angular frags; some x-cut beds. ~50% grey silica matrix at 68.7-71.0.
71.00	73.60	Chert Pebble Conglomerate C0,S1,P0,tr Py Chert Pebble Conglomerate grades into Greywacke.
73.60	75.10	Greywacke C1,S2,P0,tr Py Greywacke. Some carbonate alteration in matrix (dolomitic?) Local silicification
75.10	76.90	Chert Pebble Conglomerate C0,S2,P0,tr Py Chert Pebble Conglomerate. Slip plane contact at 75.1m. Silicified 10-30%, especially where grey. A little weathering but no limonite
76.90	78.10	Altered Quartz Monzonite C2,S0,P0,3% Py,tr As Mustard beige color, grey with sulphide and pink with hematite. Feldspar=mustard yellow sericite. Fine grained euhedral, disseminated mineralization.

From	To	Geological Log
78.10	79.00	Chert Pebble Conglomerate C0,S1,P0,0.5%Py Chert Pebble Conglomerate grades in dark grey Greywacke. SS; weak dolomitic alt'n.
79.00	80.10	Greywacke C0,S2,P0,0.5%Py Dark grey GW; silicified weakly and altered weakly.
80.10	80.80	Fault C0,S0,P0,0.5% Py Fault Breccia: Chert Pebble Conglomerate,Greywacke,Sandstone in Graphitic Argillite matrix.
80.80	83.10	Altered Quartz Monzonite C2,S0,P0,4% Py Altered Quartz Monzonite as above. 10cm Graphitic Argillite in fault contact at 82.6m. Locally more pink from hematite. Late dry clay or sericitic veinlets cross-cut all at 15 degrees.
83.10	83.80	Graphitic Argillite C0,S0,P0,3% Py Graphitic Argillite, tectonite (fault breccia)
83.80	89.50	Altered Quartz Monzonite C2,S1,P0,2% Py Altered Quartz Monzonite as above. Cohesive Graphitic Argillite fault tectonite at 88.3-88.5m. Feldspars are yellow ser. Or clay. Localize hematite alteration.
89.50	96.00	Graphitic Argillite C1,S1,P0,0.5% Py Graphitic Argillite tectonite remnants of folds, as defined by folded units (slip planes=60) Micro units within axial plane.

\*\*\* END OF HOLE \*\*\* 96.00

HOLE NO: DD96-103

SECTION:

GRID:MINE

PROJECT CODE : BREWERY CREEK  
 TENEMENT :  
 PROSPECT :  
 GRID : MINE  
 MAP REFERENCE :  
 LOCATION : SOUTH CANADIAN  
 HOLE TYPE : DD

## \*\*\* DRILLING SUMMARY \*\*\*

Material left in hole:  
 Base of complete oxidation  
 Top of fresh rock:  
 Water first encountered:  
 Water inflow estimate:

## \*\*\* COLLAR COORDINATES AND RL \*\*\*

NOMINAL	0.00mN	0.00mE	0.00RL
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Pre-collar depth: 30.8      Final depth:      30.80

Purpose of hole:      EXPLORATION

Hole status:

Comments:

## \*\*\* SIGNIFICANT ASSAYS \*\*\*

From	To	Width

## \*\*\* SURVEY DATA \*\*\*

Survey Method: DIP TEST

Depth	Azimuth	Inclination
0.00	0.00	-60.00

## \*\*\* SUMMARY LOG \*\*\*

0.00	1.80	COLLUVIUM
1.80	30.80	SANDSTONE
30.80		END OF HOLE

Checked and signed: \_\_\_\_\_ Date: \_\_\_\_\_

From	To	Geological Log
0.00	1.80	Colluvium CASING
1.80	30.80	Sandstone 50:30:20SLT;SS-C0,S0,P2-4,tr.Py,tr.Lm Mostly dark grey very fine Sandstone interbedded with silt and clay (locally black). Beds are mostly Sandstone-SLT/SH, couplets [SS base, are mostly Siltstone (Earn Group) and/or Shale top]; most couplets are 3-10mm thick; locally there are beds of coarse to very coarse sand, or massive (unlaminated) beds of very fine to fine sand, 5-10cm thick. No folds seen. Tops of beds mostly appear to be uphole, but not much confidence in the way some core laid in the box.

\*\*\* END OF HOLE \*\*\* 30.80

HOLE NO: DD96-104

SECTION:

GRID: MINE

PROJECT CODE : BREWERY CREEK  
 TENEMENT :  
 PROSPECT :  
 GRID : MINE  
 MAP REFERENCE :  
 LOCATION : BLUE  
 HOLE TYPE : DD

## \*\*\* DRILLING SUMMARY \*\*\*

Material left in hole:  
 Base of complete oxidation  
 Top of fresh rock:  
 Water first encountered:  
 Water inflow estimate:

## \*\*\* COLLAR COORDINATES AND RL \*\*\*

NOMINAL	0.00mN	0.00mE	0.00RL
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Pre-collar depth: 86.5      Final depth:      86.50

Purpose of hole:      EXPLORATION

Hole status:

Comments:

## \*\*\* SIGNIFICANT ASSAYS \*\*\*

From	To	Width

## \*\*\* SURVEY DATA \*\*\*

Survey Method: DIP TEST

Depth	Azimuth	Inclination
0.00	0.00	-65.00

## \*\*\* SUMMARY LOG \*\*\*

0.00	1.50	COLLUVIUM
1.50	7.90	CHERT PEBBLE CONGLOMERATE
7.90	18.50	ARGILLITE
18.50	27.60	SILTSTONE (EARN GROUP)
27.60	28.60	SANDSTONE
28.60	39.50	SILTSTONE (EARN GROUP)
39.50	45.70	SANDSTONE
45.70	47.60	SILTSTONE (EARN GROUP)
47.60	55.00	SANDSTONE
55.00	58.00	SILTSTONE (EARN GROUP)
58.00	60.40	GRAPHITIC ARGILLITE
60.40	69.40	ALTERED QUARTZ MONZONITE
69.40	72.90	GRAPHITIC ARGILLITE
72.90	78.10	SILTSTONE (EARN GROUP)
78.10	79.10	ALTERED QUARTZ MONZONITE
79.10	86.50	SILTSTONE (EARN GROUP)
86.50		END OF HOLE

Checked and signed: \_\_\_\_\_

Date: \_\_\_\_\_

From	To	Geological Log
0.00	1.50	Colluvium Casing
1.50	7.90	Chert Pebble Conglomerate C0,S1,P3-P4 CPC: mottled, mostly medium to light grey; clast supported conglomerate; interbedded with greywacke, coarse SS; 1 clast >7cm. Greywacke matrix 10cm brown clay-filled Fault. About 50% weathering throughout interval.
7.90	18.50	Argillite C1,S0,P4,0.5% Py, 1% Lm ARG: Black and grey in 2-10cm beds; grey may be silty but has no grit. Orange/brown and grey clay after Argillite and local limonite. Weathered black with dark brown clay and rock not intact at 12.5m-17.3m. Can't tell bedding tops 17.3-18.5m. Pyrite in Argillite is mostly in bedding planes and fx's. 100% weathering throughout interval.
18.50	27.60	Siltstone (Earn Group) 50:50 Sandstone, C1,S0,P4, tr. Py, 2% Lm Siltstone (Earn Group) with approx. 50% very fine grained sand, 0.5-5cm beds; fines downhole. Most core broken from 23.2-27.6m, most pieces <1-2cm.
27.60	28.60	Sandstone C1,S0 Grey massive sandstone with no bedding 50-80% weathering throughout interval.
28.60	39.50	Siltstone (Earn Group) 50:30:20ARG;SS-C1,S0,P4,tr. Lm Mostly thinly bedded Siltstone (Earn Group), Argillite, and very fine grained Sandstone with 10-20cm massive medium to fine Sandstone. Mostly broken from 29.8-39.5m. 50-80% weathering throughout interval.
39.50	45.70	Sandstone 50:30:20SLT;ARG-C1,S0 Sandstone dominated, massive, dark-moderate grey, 5-10cm of cm beds with no apparent fining; interbedded with silt, clay beds (~30%, more thinly bedded). Sandstone becomes more thinly bedded towards end of interval. More calcite veining & stockwork & hydraulic breccia ( up to 10% of the rock) confined to Sandstone beds at 40.2-45.7m. Mostly weathered on fracture controlled. 41.5m bottom of all oxidation.
45.70	47.60	Siltstone (Earn Group) 60:30:10ARG;SS-C1,S0 Dark grey to black Siltstone (Earn Group), Argillite > Sandstone. Calcite and quartz decreases towards end of interval. Calcite is cream-orange colored but no rusty weathering.
47.60	55.00	Sandstone 80:10:10SLT;ARG-C1,S1,P0,0.5% Py Argillite is rich black clay broken but not faulted. 49.1-50.3m redrilled core. Increased deformation at 52m; Graphitic Argillite on 70 degree slip zone. Pyrite is very fine grained and disseminated. Quartz and calcite veinlets increase throughout the interval.
55.00	58.00	Siltstone (Earn Group) 40:30:30SS;ARG-C1,S0,P0,0.5% Py Siltstone (Earn Group) thinly bedded, black to dark grey; beds=couplets 2-10mm thick; bedding transposed commonly, subparallel to So. Increased deformation 56.9-58m.
58.00	60.40	Graphitic Argillite C1,S1,P0,0.5% Py, tr Sphal. Graphitic Argillite-Qz veining-Calcite tectonite; veins folded, dismembered; sphalerite in quartz vein frags.
60.40	69.40	Altered Quartz Monzonite C2,S1,P0,1% Py AQM: Beige with white feldspar with grey. Very fine grained disseminated pyrite, especially concentrated in halos of quartz microveinlets; very fine grained hematite dusts. Green micas in center of feldspars. Large feldspar gone to sericite and white clay and sericite. Pyrite is after biotite in veinlets. Sed Xenos 0.5-3cm and 3% of rock.
69.40	72.90	Graphitic Argillite C0,S0,P0,tr Py Faulted contact at 69.4 between Altered Quartz Monzonite and Graphitic Argillite. ARGG: matrix tectonite with frags of Sandstone similar to but not as deformed as 58-60.4m; dominant slip=70 and 50 degrees. At 72m 20cm of Chert Pebble Conglomerate with stylolitic cleavage at 55 degrees.

From	To	Geological Log
72.90	78.10	Siltstone (Earn Group) 40:40:20SS;ARG-C1,S1,P0,tr. Py Similar to succession above. Beds 1mm-1cm. Sandstone beds more massive 20-30cm. Faulted contact at 78.1m. Very fine grained pyrite which increases to 1% at end of interval in the tectonite at 77.4-77.7m
78.10	79.10	Altered Quartz Monzonite C2,S0,P0,2% Py Beige to pink as above. Flow orientation of biotite and sed xenos 90-85 degrees. Very fine grained euhedral and anhedral 1mm clots pyrite in halos of micro calcite veinlets.
79.10	86.50	Siltstone (Earn Group) 40:40:20SS;ARG-C1,S0,P0,tr. Py Beds <math>\leq</math> 1cm. No mineralization to note. Below 82.3, axial traces are rotated relative to each other. Graphitic Argillite matrix tectonite at 82.8m. Folds are visible in Sandstone dominated beds; smeared out and transposed in Graphitic Argillite, Siltstone (Earn Group).

\*\*\* END OF HOLE \*\*\* 86.50

HOLE NO: DD96-105

SECTION:

GRID:MINE

PROJECT CODE : BREWERY CREEK  
 TENEMENT :  
 PROSPECT :  
 GRID : MINE  
 MAP REFERENCE:  
 LOCATION : WEST BIG ROCK  
 HOLE TYPE : DDH

## \*\*\* DRILLING SUMMARY \*\*\*

Material left in hole:  
 Base of complete oxidation:  
 Top of fresh rock:  
 Water first encountered:  
 Water inflow estimate:

## \*\*\* COLLAR COORDINATES AND RL \*\*\*

NOMINAL	0.00mN	0.00mE	0.00RL
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## \*\*\* SIGNIFICANT ASSAYS \*\*\*

From	To	Width

Pre-collar depth: 141.1      Final depth: 141.10

Purpose of hole: EXPLORATION

Hole status:

Comments:

## \*\*\* SURVEY DATA \*\*\*

Survey Method:

Depth	Azimuth	Inclination
0.00	0.00	-60.00

## \*\*\* SUMMARY LOG \*\*\*

0.00	1.50	COLLUVIUM
1.50	3.50	ARGILLITE
3.50	4.70	LIMONITIC ALTERED QUARTZ MONZONITE
4.70	5.40	ARGILLITE
5.40	14.00	LIMONITIC ALTERED QUARTZ MONZONITE
14.00	17.10	ARGILLITE
17.10	20.10	COLLUVIUM
20.10	27.90	ARGILLITE
27.90	28.30	LIMONITIC ALTERED QUARTZ MONZONITE
28.30	28.90	QUARTZ MONZONITE
28.90	29.40	LIMONITIC ALTERED QUARTZ MONZONITE
29.40	33.00	ARGILLITE
33.00	42.40	SILTSTONE (EARN GROUP)
42.40	43.90	LIMONITIC ALTERED QUARTZ MONZONITE
43.90	44.80	LIMONITIC QUARTZ MONZONITE
44.80	48.20	SILTSTONE (EARN GROUP)
48.20	53.40	LIMONITIC QUARTZ MONZONITE
53.40	55.30	SILTSTONE (EARN GROUP)
55.30	57.60	LIMONITIC ALTERED QUARTZ MONZONITE

Checked and signed: \_\_\_\_\_ Date: \_\_\_\_\_

HOLE NO: DD96-105

SECTION:

GRID:MINE

57.60	64.90	ARGILLITE
64.90	75.50	LIMONITIC ALTERED QUARTZ MONZONITE
75.50	77.00	GRAPHITIC ARGILLITE
77.00	79.00	LIMESTONE
79.00	80.60	GRAPHITIC ARGILLITE
80.60	82.00	LIMONITIC QUARTZ MONZONITE
82.00	83.60	LIMONITIC ALTERED QUARTZ MONZONITE
83.60	85.40	QUARTZ MONZONITE
85.40	96.60	LIMONITIC ALTERED QUARTZ MONZONITE
96.60	100.60	LIMONITIC ALTERED QUARTZ MONZONITE
100.60	103.80	GRAPHITIC ARGILLITE
103.80	105.50	LIMONITIC ALTERED QUARTZ MONZONITE
105.50	113.40	ALTERED QUARTZ MONZONITE
113.40	121.90	ALTERED QUARTZ MONZONITE
121.90	123.70	ALTERED QUARTZ MONZONITE
123.70	128.60	ALTERED QUARTZ MONZONITE
128.60	134.40	ALTERED QUARTZ MONZONITE
134.40	141.10	GRAPHITIC ARGILLITE
141.10		END OF HOLE

Checked and signed: \_\_\_\_\_ Date: \_\_\_\_\_

From	To	Geological Log
0.00	1.50	Colluvium
1.50	3.50	Argillite C0,S0,P4,tr. Lm Black and limonite rich clay, regolith after Argillite tectonite; crumbs. Faulted lower contact.
3.50	4.70	Limonitic Altered Quartz Monzonite C2,S0,P4,0.5% Lm Limonitic Altered Quartz Monzonite with frags of Argillite tectonite.
4.70	5.40	Argillite C0,S0,P4,tr. Lm Tectonite at 5.0m. Faulted lower and upper contact. Lower contact has frags of intrusive contact in tectonite.
5.40	14.00	Limonitic Altered Quartz Monzonite C2,S0,P3,0.5% Py,0.5% Lm LAQM: appears to be typical seric.-Carbonate (Fe,Ca,Na) altered Quartz Monzonite. Fault at 10.5m Feldspar completely altered; C03 weathers out of phenocrysts to 10.5m, and after 10.5m more orange-rusty Lx. Most pyrite occurs in 0.5mm veinlets or disseminated.
14.00	17.10	Argillite C0,S0 Light and dark grey clay. Brown and black silty Argillite, mostly crumbly. 15.8-16.3m grey clay saprolite.
17.10	20.10	Colluvium NO SAMPLE TAKEN,STUCK IN ROD.
20.10	27.90	Argillite C0,S1,P4 Brown and black weathered ARG; mixed tectonite and argillite tectonite. Locally grey clay saprolite st 24.2m and 25.8m. Local 10cm siliceous black rock.
27.90	28.30	Limonitic Altered Quartz Monzonite C2,S0,P4,tr. Lm LAQM: upper intrusive contact. Slip plane at lower contact.
28.30	28.90	Quartz Monzonite 60:40ARG, tr. Py, tr. Lm Quartz Monzonite
28.90	29.40	Limonitic Altered Quartz Monzonite C2,S0,P4,tr.Lm LAQM: lower intrusive contact.80% weathered.
29.40	33.00	Argillite C0,S1,P4,tr. Lm ARG: siliceous or hornfelsed. Grey saprolitic at 31.5m. Bed folded within hornfelsed Argillite. 31.5-33m mostly crumbs (Graphitic Argillite tectonite). Metamorphic quartz and dolomite veinlets to 31.5m.
33.00	42.40	Siltstone (Eam Group) 70:30ARG-C1,S0,P4,tr. Lm Black (weathered to dark brown) Siltstone (Eam Group). 10% grey clay beds 3-10mm thick. 35.4 to bottom of interval has more silt; 50:50 grey clay and black silt 35.4-36m. 38.4-40.1m deformed weakly.
42.40	43.90	Limonitic Altered Quartz Monzonite C2,S0,P4,tr. Lm Limonitic Altered Quartz Monzonite as above. Upper contact not intact.
43.90	44.80	Limonitic Quartz Monzonite 70:30LAQM-C1,S0,P4, tr. Lm. Limonitic Quartz Monzonite mixed with Limonitic Altered Quartz Monzonite. Lower contact faulted.

From	To	Geological Log
44.80	48.20	Siltstone (Eam Group) 50:50ARG-C1,S0,P4,tr.Lm Deformed, broken Argillite or grey Shale (clay; precursor of grey saprolite). Mostly broken Mostly broken grey claystone and brown-black claystone, most frags <1cm from 46.0-48.2m.
48.20	53.40	Limonitic Quartz Monzonite C0,S0,P4,tr. Lm LQM: weathers more brown; broken in 10cm pieces from 48.2-49.1m. Sed. Xenos ~5-10cm at 50.5,51 and 51.6m. Biotite and feldspars fresh just weathered. 100% weathered throughout interval.
53.40	55.30	Siltstone (Eam Group) 50:50SH-C0,S0,P4,tr. Lm SLT: dark grey to black; fissile to compact. Intrusive upper contact. Top 5cm of interval is hornfelsed.
55.30	57.60	Limonitic Altered Quartz Monzonite C0,S0,P4,0.5% Py,0.5% Lm LAQM: intrusive upper and lower contacts. Appears to be typical but not 100% alteration C)3-seric.; feldspar and biotite altered. Micro-veinlets with normal offset; pyrite is mostly in fx's 0-15 degrees to core axis. 100% weathered.
57.60	64.90	Argillite C0,S0,P4,0.5% Py,0.5% Lm ARG: 57.6-58m Graphitic Argillite. Argillite with some silt; bedding rare; cleavage 75 and 45 degrees to CA. Pyrite mostly on fx's. Weathered quartz and calcite veinlets.
64.90	75.50	Limonitic Altered Quartz Monzonite C1,S0,P3,0.5% Py,0.5% Lm LAQM: Sed xenos (0.5-5cm); flow fabric 64.9-66.0m 100% altered, but calcite rather than (Fe,Ca,Mg) C)3. Feldspar and biotite altered to calcite; and white clay in veinlets, late (offset Fe,Ca,Mg, CARBONATE ALTERATION veinlets). Pyrite mostly fine grained disseminated. 73.5-73.7m Graphitic Argillite tectonite.
75.50	77.00	Graphitic Argillite C0,S0,P3,tr. Py., 0.5% Lm ARGG: black, tectonite. Slip planes at 60 degrees.
77.00	79.00	Limestone 60:40ARG-C0,S0,P3,0.5% Py,0.5% Lm Grey limestone with clay and black Argillite. 76.9-77m quartz veins deformed. Argillite has 1-2% disseminated pyrite, also in clots. About 20% weathered.
79.00	80.60	Graphitic Argillite C0,S0,P3,tr. Py, 0.5% Lm Graphitic Argillite tectonite with ~40-50% quartz veins, folded.
80.60	82.00	Limonitic Quartz Monzonite C2,S0,P0,tr. Py Faulted upper contact; looks mylonitic. Feldspar altered to calcite; biotite relatively fresh. 60% weathered. Calcite veinlets at 70 degrees and cut by rare FeCaMgC)3 veinlets.
82.00	83.60	Limonitic Altered Quartz Monzonite C2,S0,P0,1% Py LAQM: 80% altered with pockets of Quartz Monzonite. High sericite; most of biotite altered to calcite and sericite. Calcite veinlets with pyrite halos at 80 degrees. 70% weathered.
83.60	85.40	Quartz Monzonite C2,S0,P0,tr. Py Quartz Monzonite as above. 25-30% calcite including grains in groundmass.
85.40	96.60	Limonitic Altered Quartz Monzonite C2,S1,P2,1% Py, 0.5% Lm Limonitic Altered Quartz Monzonite 100% altered. At 85.6, fault with Graphitic Argillite tectonite. Feldspar and biotite altered to sericite and FeCaMgCo3. 3% quartz eyes 85.6-86.7m. 86.7m: 1 cm megacrysts of zoned euhedral plagioclase. Calcite and pyrite veinlets parallel to CA. Very fine grained disseminated pyrite and in micro-veinlets.

From	To	Geological Log
96.60	100.60	Limonitic Altered Quartz Monzonite 60:40QM-C2,S0,0.5% Py,tr. Lm Limonitic Altered Quartz Monzonite with 30-80% Quartz Monzonite. Alteration as above. 98.5-100.6m has calcite alteration, sparse veinlets of pyrite and 10cm and partially digested sed xenos.
100.60	103.80	Graphitic Argillite C1,S0,P3,tr. Py,tr. Lm Graphitic Argillite tectonite (mylonitic in places). Calcite veinlets and metamorphic quartz veinlets. Veinlets deformed, boudinaged locally.
103.80	105.50	Limonitic Altered Quartz Monzonite C2,S1,P3,0.5% Py,tr. Lm LAQM/AQM: Broken mostly 2-10cm pieces fx's parallel to CA. Carbonate and sericite alteration; 100% altered quartz and pyrite locally.
105.50	113.40	Altered Quartz Monzonite C2,S0,P2,1% Py,tr. Lm AQM: Broken mostly 2-10cm pieces fx's parallel to CA. Carbonate and sericite alteration; 100% altered quartz and pyrite locally.
113.40	121.90	Altered Quartz Monzonite C2,S1,P0,2% Py AQM: start of Altered Quartz Monzonite with plagioclase megacrysts. Sericite-cabonate-pyrite and quartz alteration. Qtz microveinlets with pyrite halos. Mostly very fine grained disseminated pyrite. Faulted at 117.7-117.9m.
121.90	123.70	Altered Quartz Monzonite C2,S3,P0,1% Sb,2% Py Altered Quartz Monzonite . 10cm pockets of less altered Quartz Monzonite. Qtz-C03-sericite and pyrite alteration. Stibnite in quartz and calcite veinlets. Quartz microveinlets with calcite rims and pyrite.
123.70	128.60	Altered Quartz Monzonite 60:40QM-C2,S0,P0,tr. Py. AQM: less altered a 124.5m and some feldspars altered to chlorite; increased calcite after 124.5m. Weathered along fractures only.
128.60	134.40	Altered Quartz Monzonite C2,S1,P0,0.5% Py AQM: brittle fault at 129.3m with 20-35 degree rounded Altered Quartz Monzonite frags and hematite matrix. 0.5% limonite-filled veinlets cut C03 veinlets. Very fine grained disseminated euhedral pyrite.
134.40	141.10	Graphitic Argillite C1,S0,P0,tr. Py Graphitic Argillite tectonite (friable appears to be mylonite not indurated); mostly fractured and friable. Local C3 (black and grey limestone). Metamorphic quartz veinlets, lesser calcite veinlets.

\*\*\* END OF HOLE \*\*\* 141.10

HOLE NO: DD96-106

SECTION:

GRID:MINE

PROJECT CODE : BREWERY CREEK  
 TENEMENT  
 PROSPECT  
 GRID : MINE  
 MAP REFERENCE:  
 LOCATION  
 HOLE TYPE DDH

## \*\*\* DRILLING SUMMARY \*\*\*

Material left in hole:  
 Base of complete oxidation  
 Top of fresh rock:  
 Water first encountered:  
 Water inflow estimate:

## \*\*\* COLLAR COORDINATES AND RL \*\*\*

NOMINAL	0.00mN	0.00mE	0.00RL
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Pre-collar depth: 137.8      Final depth: 137.80

Purpose of hole: EXPLORATION

Hole status:

Comments:

## \*\*\* SIGNIFICANT ASSAYS \*\*\*

From	To	Width

## \*\*\* SURVEY DATA \*\*\*

Survey Method: DIP TEST

Depth	Azimuth	Inclination
0.00	0.00	-90.00

## \*\*\* SUMMARY LOG \*\*\*

0.00	20.00	COLLUVIUM
20.00	35.50	ARGILLITE
35.50	38.20	GRAPHITIC ARGILLITE
38.20	41.40	ARGILLITE
41.40	43.80	GRAPHITIC ARGILLITE
43.80	50.70	GRAPHITIC ARGILLITE
50.70	57.50	GRAPHITIC ARGILLITE
57.50	70.60	ALTERED QUARTZ MONZONITE
70.60	71.70	FAULT
71.70	75.00	GRAPHITIC ARGILLITE
75.00	78.00	ALTERED QUARTZ MONZONITE
78.00	79.00	GRAPHITIC ARGILLITE
79.00	80.90	ALTERED QUARTZ MONZONITE
80.90	82.40	GRAPHITIC ARGILLITE
82.40	91.20	ALTERED QUARTZ MONZONITE
91.20	92.50	ALTERED QUARTZ MONZONITE
92.50	96.20	ALTERED QUARTZ MONZONITE
96.20	98.40	GRAPHITIC ARGILLITE
98.40	104.70	ALTERED QUARTZ MONZONITE
104.70	106.90	ALTERED QUARTZ MONZONITE
106.90	107.30	ALTERED QUARTZ MONZONITE

Checked and signed: \_\_\_\_\_

Date \_\_\_\_\_

HOLE NO: DD96-106

SECTION:

GRID:MINE

107.30	113.60	ALTERED QUARTZ MONZONITE
113.60	114.90	ALTERED QUARTZ MONZONITE
114.90	116.20	GRAPHITIC ARGILLITE
116.20	117.70	GRAPHITIC ARGILLITE
117.70	120.50	ALTERED QUARTZ MONZONITE
120.50	122.90	ALTERED QUARTZ MONZONITE
122.90	129.30	ALTERED QUARTZ MONZONITE
129.30	131.20	QUARTZ MONZONITE
131.20	135.20	ALTERED QUARTZ MONZONITE
135.20	135.90	ALTERED QUARTZ MONZONITE
135.90	137.50	ALTERED QUARTZ MONZONITE
137.50	137.80	ALTERED QUARTZ MONZONITE
137.80		END OF HOLE

Checked and signed: \_\_\_\_\_

Date: \_\_\_\_\_

From	To	Geological Log
0.00	20.00	Colluvium Casing
20.00	35.50	Argillite P2, 1% Py, 3% Lm Changes downholes from brown/green brown; limonite stained rubbly clay to dark grey silty/shaly broken rock. ~1% disseminated sulfides - pyrite - in matrix.
35.50	38.20	Graphitic Argillite Black, clayey rubble; rare pieces > 3cm length of whole core; predominantly sticky graphitic clay.
38.20	41.40	Argillite P0, tr. Py Dark grey, fine grained matrix with < 1% disseminated pyrite into layered with black graphitic clay zones 5 to 25 cm in length.
41.40	43.80	Graphitic Argillite Black graphitic clay; short lengths of dark grey argillite; broken core; bedding at 90 degrees to Core Axis.
43.80	50.70	Graphitic Argillite P0, tr. Py Black graphitic competent core, planar bedding/lamination 50-60 degrees to core axis; black graphitic clay zones 5cm to 40cm lengths. Trace hairline to mm white fracture/gash fillings. Short intervals of brecciated argillite frags cemented by graphitic clay. Trace disseminated fine grained pyrite in matrix.
50.70	57.50	Graphitic Argillite S1, P0, tr. Py, tr. Sb Pervasive (5%) white powdery clay and quartz convoluted/disrupted veinlets/laminations/gash fillings. Core textures imply ductile/brittle deformation with later healing of bedding plane fractures by graphitic clay and white stockworking. Lensy black graphitic shale, argillite and silty shale (greyer); argillite has black clay zones throughout. Trace disseminated pyrite in silty beds; occasional blebs to 2mm size; occasional pyrite rich silty lenses; increase in pyrite nearing lower contact, <1%. Lower contact 15 degrees to core axis, marked by shiny semi-polished graphitic surface; small Altered Quartz Monzonite clasts (<1cm) in Argillite high wall. ~1% Sb associated with Altered Quartz Monzonite sill/pluton, invading lowest 2 cm of Graphitic Argillite.
57.50	70.60	Altered Quartz Monzonite P1, 10% Py, 4% Sb Textures: fine grained non-porphyrific and white clay altered porphyritic, pale grey quartz monzonite; 5-7% pyrite dominantly replacement of biotite in porpy. Zones. 7-10% pyrite, cubes fresh and tarnished, very fine grained in non-porph zones. Mineralization: Massive stibnite veins - stibnite core with quartz margins and occasional off white clay selvages - through core; sizes from hairline to 1 cm, angles ~ 40 degrees to C.A.; no preferential texture - randomly distributed, pervasive; veinlets seen filling fractures; and replacing existing white veinlets. No massive Sb past 67.5m.
70.60	71.70	Fault BRECCIA ZONE: 30% Altered Quartz Monzonite clasts, 70% matrix filling or replacement by fine grained leucocratic orthoclase, quartz and sulfide and carbonate.
71.70	75.00	Graphitic Argillite SK, SZ Lensy silty grey argillite and black clay rich graphitic argillite encompasses 5% silty argillite clasts and 5% broken Altered Quartz Monzonite clasts. Altered Quartz Monzonite content causes increased hardness of interval. Silty argillite pervasively QTZ gash-filled/stockworked.
75.00	78.00	Altered Quartz Monzonite 60:40 Graphitic Argillite, P0, 2% Py Grey bleached Altered Quartz Monzonite, porphyritic texture, weak but present. Graphitic Argillite frags and clasts to 15cm and alternate with Altered Quartz Monzonite to form breccia textures associated with a broken brecciated Graphitic Argillite lens at 75.8m. Pyrite disseminated throughout Graphitic Argillite and concentrated along margins with Altered Quartz Monzonite clast rich zones.
78.00	79.00	Graphitic Argillite P0, 1% Py Graphite dominated argillite; clayey, rubble and platy black argillite; bedding 50 degrees to C.A. 1% disseminated pyrite throughout clayey matrix.

From	To	Geological Log
79.00	80.90	Altered Quartz Monzonite P0, 3% Py Fine grained non-porph. Texture top and lower 40cm. 30cm quartz stockworked Graphitic Argillite lens, upper contact 60 degrees to C.A. Slickenside at 80m (70 degree to CA) uphole for slickensides; associated with a grey qtz+ser+py+black specks matrix supported breccia zone - grey mottling. Groundmass has a pale green hue, sericite alteration which highlights the various sized minerals and obscures the porph. Texture. 3% pyrite, replacement of mafics. Powdery white carbonate. Clay filled fractures.
80.90	82.40	Graphitic Argillite S3,P0, 2% Py, Sk Graphitic black laminated argillite disrupted by pervasive quartz fs flooding. Overall orientation of banding (bedding or structure?) is 65 degrees to C.A. Upper and lower contacts broken and destroyed.
82.40	91.20	Altered Quartz Monzonite P0,2% Py Pale greenish grey mega porphyritic Altered Quartz Monzonite. White clay altered phenos varying sizes & shapes, up to 1-5cm in size. Hairline white clay and cb filled fractures, shallow to CA; at least two episodes - forms stockwork where both meet in concentration 2% py disseminated through Altered Quartz Monzonite, 1% fine grained silvery sx in top 70cm associated with sx-sericite patches noted in mineralized zone 57.5-70.6m Polished surfaces at 88.8 and 89.9m, 14 degrees to CA; slicks; 10 degree lineation to CA. Note polished surfaces cause 5 cm chilled halo on HW side.
91.20	92.50	Altered Quartz Monzonite P1, tr. Py Very fine grained, non-porphyritic Altered Quartz Monzonite - bounded by 14 degree to CA polished surfaces; trace pyrite, tarnished in fine groundmass; and as silvery grey disrupted veinlets near bounding fault surfaces.
92.50	96.20	Altered Quartz Monzonite P0, 2% Py Same unit as 82.4m mega porphyritic. Fracture surfaces have fine grained silvery pyrite.
96.20	98.40	Graphitic Argillite S3,P0,tr. Py, Sk Pervasive stockworked graphitic argillite, same textures as 80.9-82.4, increased quartz content to 40%. Trace pyrite disseminated through clayey graphitic argillite. Upper and lower contacts planar, 50 degrees to CA.
98.40	104.70	Altered Quartz Monzonite P1, 3% Py, tr. Sb Porphyritic pale brownish grey Altered Quartz Monzonite, upper 60cm darker grey, higher py concentration. Brecciated Graphitic Argillite lens at 98.8m. Hairline clay altered veinlets throughout core and where concentrated form a crackled fracture texture; Qtz+fs 1cm wide veinlets at 7 degrees to CA at 100m. Overall 3% pyrite dominantly replacement of mafics. Faint hematite staining of groundmass 100-100.8m. Foot-wall alteration of qtz+fs vein. 101.5-104.7m hairline qtz+sx+ser patchy veinlets cause grey banding of core - appear to replace white altered veinlets down hole at 104m. Sulfides are py plus stibnite?
104.70	106.90	Altered Quartz Monzonite P1,1% Py, tr. Sx Porphyritic, same rock, less fracturing, less white veinlets, rare dark grey sx-quartz-ser veinlets and zones. Pale red hue to groundmass in places due to red staining of certain minerals, most noticeably at 105.3-105.8m.
106.90	107.30	Altered Quartz Monzonite Tr Py Finer grained porphyritic texture. Zone of sericite-sx-quartz patchy leaching; bounded by white clay fractures, opposing dips. Lower boundary semi-polished 14 degrees to CA. HW chilling of fault plane at 107.3m as seen before in hole.
107.30	113.60	Altered Quartz Monzonite P0,2% py Pale greenish grey to tan porphyritic Altered Quartz Monzonite with varying shades of grey associated with sericite-sx-quartz patchy veinlets; patchy grey zones contain 5% fine grained disseminated pyrite. Pink coloring to minerals at 112.5m. Porphyritic texture fainter, core weak bleached from 107.3-108.5m. 108.5-108.7m: 20cm sample isolated hairline to mm black veinlet of py+sericite 5mm bleaching envelope either side. No sulphide in Altered Quartz Monzonite.

From	To	Geological Log
113.60	114.90	Altered Quartz Monzonite C1,P0,1% Py Weak potassic alteration. Brown/salmon pink replacement/alteration of fs rich groundmass to pink-POTASSIUM ALTERATION-spar; strong fracturing through interval core breaks easily along clay altered fractures - surfaces are calcareous. Brown staining patchy until 114.6m then pervasive. Pyrite restricted to grey patchy veinlets.
114.90	116.20	Graphitic Argillite S2,Sk Broken, brecciated graphite rich, moderately quartz stockworked argillite. Upper contact stepped 50 degrees to CA. Start getting pyrite Altered Quartz Monzonite clasts in last 30cm.
116.20	117.70	Graphitic Argillite 70:30AQM-S1,P0,3% Py,Sk Brecciated black graphitic weakly stockworked argillite encompassing Altered Quartz Monzonite clasts - strongly brecciated lower contact from intrusive sill - pulled out for assay. Lowest contact with sill/stock is undulating 37 degrees to CA.
117.70	120.50	Altered Quartz Monzonite P0,7% Py,Sk Tan/brownish coloured groundmass, grey mottling from qz-sericite-sulfide patchy fracture filling. Crackle fractured rehealed texture - healing by minerals above. 5% pyrite in brown Altered Quartz Monzonite, replacement of mafics. 10% pyrite in sx patchy fillings. Dark grey quartz stockworking common with associated sericite-sx envelopes. Heavy stockworking results in grey matrix filled Altered Quartz Monzonite clast supported breccia from 119.25-119.65m
120.50	122.90	Altered Quartz Monzonite P1,2% Py,Sk 5cm graphite clay lens at 35 degrees to CA. Porphyritic-mega porphyritic greenish grey Altered Quartz Monzonite. Grey quartz+sx veinlets with thin clay selvages, FW selvages to 4mm thick, upper always <2mm; resulting grey mottling from sericite envelope. 1% pyrite disseminated through groundmass. 5% within and around sx-quartz-sericite patches.
122.90	129.30	Altered Quartz Monzonite P1, tr. Py Rare grey mottling; related to lack of grey mottling is more distinctive porphyritic texture; groundmass minerals replaced by green sericite; mega-phenos angular, cores being replaced by sericite; fs clay rims. Trace pyrite, replacement of mafics. Weak porphyllitization
129.30	131.20	Quartz Monzonite P1, 1% Py Dark greyish green; less distinctive igneous textures with no mega-phenos; phenos replaced by chlorite/sericite with pyrite cores. Hairline white carbonate veinlets, shallow angle to core axis. Remnant ragged biotite and hornblende laths. Grey mottling from veinlets/fracture fillings returns; starts and ends abruptly.
131.20	135.20	Altered Quartz Monzonite C1,P0,1% Py Pale greenish tan groundmass; porphyritic texture distinct; mafics destroyed, remnant shape ghosted by sericite and other clay minerals. Grey quartz-py veinlets and associated sericite patches are regular to 133.1m; 45 degrees to CA. White calcareous powdery veinlets shallow to CA common after 133.1m.
135.20	135.90	Altered Quartz Monzonite P0,2% Py 135.25-135.4m: graphitic argillite lens, 14cm true width 50 degrees to CA causes upper 5cm of sample to have a banded fabric; banding only 1cm width at FW (135.4m) - 12cm of pervasive dark grey qtz/py/ser stockworking at 135.6m. Trace pyrite in Altered Quartz Monzonite groundmass, 10% at stockwork zone, 2% in contact with the Graphitic Argillite lens.
135.90	137.50	Altered Quartz Monzonite C1,P0,1% Py Greenish, buff groundmass. Porphyritic textured, mafics completely gone; trace-1% py in groundmass; at 136.3m start getting sx clay & calcareous clay veinlets, hairline sized; 136.37m sx patch 4mm width, clay altered.
137.50	137.80	Altered Quartz Monzonite P0,5% Py,1% As, Sk Greyer groundmass; pervasive quartz-sx stockworking; 3-5% py, trace As (<1%)?

\*\*\* END OF HOLE \*\*\* 137.80

HOLE NO: DD96-107

SECTION:

GRID:MINE

PROJECT CODE : BREWERY CREEK  
 TENEMENT :  
 PROSPECT :  
 GRID : MINE  
 MAP REFERENCE :  
 LOCATION :  
 HOLE TYPE : DDH

## \*\*\* DRILLING SUMMARY \*\*\*

Material left in hole:  
 Base of complete oxidation  
 Top of fresh rock:  
 Water first encountered:  
 Water inflow estimate:

## \*\*\* COLLAR COORDINATES AND RL \*\*\*

NOMINAL	0.00mN	0.00mE	0.00RL
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Pre-collar depth: 156.6      Final depth: 156.60

Purpose of hole:

Hole status:

Comments:

## \*\*\* SIGNIFICANT ASSAYS \*\*\*

From	To	Width

## \*\*\* SURVEY DATA \*\*\*

Survey Method: DIP TEST

Depth	Azimuth	Inclination
0.00	0.00	-90.00

## \*\*\* SUMMARY LOG \*\*\*

0.00	21.00	COLLUVIUM
21.00	53.70	GRAPHITIC ARGILLITE
53.70	55.70	GRAPHITIC ARGILLITE
55.70	63.70	GRAPHITIC ARGILLITE
63.70	67.00	GRAPHITIC ARGILLITE
67.00	67.70	ALTERED QUARTZ MONZONITE
67.70	71.90	GRAPHITIC ARGILLITE
71.90	87.50	GRAPHITIC ARGILLITE
87.50	93.30	GRAPHITIC ARGILLITE
93.30	93.70	FAULT
93.70	99.40	GRAPHITIC ARGILLITE
99.40	108.50	GRAPHITIC ARGILLITE
108.50	111.80	GRAPHITIC ARGILLITE
111.80	113.70	GRAPHITIC ARGILLITE
113.70	115.00	ALTERED QUARTZ MONZONITE
115.00	117.40	ALTERED QUARTZ MONZONITE
117.40	118.30	ALTERED QUARTZ MONZONITE
118.30	121.10	GRAPHITIC ARGILLITE
121.10	122.60	ALTERED QUARTZ MONZONITE
122.60	125.40	GRAPHITIC ARGILLITE
125.40	128.60	GRAPHITIC ARGILLITE
128.60	132.60	GRAPHITIC ARGILLITE
132.60	135.90	GRAPHITIC ARGILLITE
135.90	137.10	GRAPHITIC ARGILLITE
137.10	138.20	GRAPHITIC ARGILLITE
138.20	141.20	GRAPHITIC ARGILLITE

Checked and signed: \_\_\_\_\_

Date \_\_\_\_\_

HOLE NO: DD96-107

SECTION:

GRID:MINE

141.20	149.10	SILTSTONE (STEEL FORMATION)
149.10	153.50	ARGILLITE
153.50	154.70	GRAPHITIC ARGILLITE
154.70	155.30	ALTERED QUARTZ MONZONITE
155.30	156.60	GRAPHITIC ARGILLITE
156.60		END OF HOLE

Checked and signed: \_\_\_\_\_

Date: \_\_\_\_\_

From	To	Geological Log
0.00	21.00	Colluvium CASING
21.00	53.70	G raphitic Argillite Gr Rubbly, blocky, graphitic clay and graphitic platey argillite discs and fragments. Abundant wood fragments to 44.5m; possibly thick colluvium blanket. White quartz frags at 38.7m; becomes harder and competent by 41.5m; still numerous clay zones; 47.5m core breaks along graphitic beds 25 degrees to CA. Starts getting quartz frags/lenses regularly after 45m.
53.70	55.70	G raphitic Argillite  Greyish black graphitic argillite, less graphitic than 21-53.7m; harder, more solid rock; pale grey colour caused by hairline pale tan clay lamina. Bedding at 55 degrees to CA, dominant breakage direction. Core also breaks across beds along stepped fractures at shallow angles to the CA.
55.70	63.70	G raphitic Argillite Sk Black graphitic soft argillite, breaks when removing pieces from box; moderate clay content in matrix; occasional white quartz lenses-disrupted veinlets, 1-8mm size; common from 58.5-59.5m
63.70	67.00	Graphitic Argillite S1,P0,1% Py,Sk Pervasive broken quartz stockwork to 64.2m; 3% pyrite blebs/grains. Strong clay graphite component to 66.2m; no stockwork. Alternating soft Graphitic Argillite and siliceous Argillite - siliceous from white quartz frags and broken, disrupted Altered Quartz Monzonite clasts. 1% py associated with Altered Quartz Monzonite component to 67m.
67.00	67.70	Altered Quartz Monzonite P1,1% py Pale greenish-grey faint porphyritic texture; 1% pyrite-replacement of mafics- mafics destroyed; hairline to mm fs clay +minor carbonate veinlets shallow to CA.
67.70	71.90	Graphitic Argillite P0,1% Py 67.7-68.15:comminuted Altered Quartz Monzonite and quartz clasts. Sulfide rich matrix or just graphitic argillite? extreme clay altered. Clayey argillite, brecciated, deformed, highly graphitic. Bedding/breakage among competent pieces in 45 degrees to CA. Clay/gouge zone 69-69.2m. Core is less clay altered past 69.2m, partially clay healed fracturing is pervasive.
71.90	87.50	Graphitic Argillite S1,P0,1% py,Sk White qtz+fs healing of pervasive fracturing. Less clay altered matrix; bedding/layering distinct 45 degrees to CA. 75.6-76.6m intense fracturing/shear. Stockwork/healing decreases downhole. Clay content increases downhole. White quartz veinlets increased in size downhole, 7cm patch at 79.9m Pyrite present as blebs and with quartz stockwork.
87.50	93.30	Graphitic Argillite 1% Py Increased clay content to matrix, rare fracture healing, occasionally by white quartz; diagenetic pyrite. Polished graphitic surfaces. Core becomes squeezed clay/argillite chips at 92.2m
93.30	93.70	Fault GOUGE Graphitic Argillite - 1.3m of sand/oozey clay; blocks indicate only 40cm sample length.
93.70	99.40	Graphitic Argillite 1% Py,Sk Same broken/pervasive fractured black argillite with occasional quartz veining, pyrite/qtz lenses, py blebs.
99.40	108.50	Graphitic Argillite 1% Py None to very little stockwork; pervasive fracturing; bedding/prominent fracturing 25 degrees to CA. 20cm stockworked interval 104.3m. NOTE: quartz stockworking seen above is broken, brecciated and displcd by later fracturing.
108.50	111.80	Graphitic Argillite Gr,tr. Py Very black very graphitic, strongly fractured argillite. Polished graphitic fault planes ~10 degrees to CA. Trace pyrite as discrete blebs and within minor quartz veining. Zone ends at a 5cm clay shear at 50 degrees to CA.

From	To	Geological Log
111.80	113.70	Graphitic Argillite P0,1% Py, Sk Black graphitic clay healed fractures enclosing dark greyish black hard argillite frags. Fractures prominently 25 degrees to CA. Last 20cm has 15% broken quartz frags. Pyrite is present as blebs and disrupted lenses with qtz; 10% through the last 15cm related to contact with AQM; no silvery/grey sulfide as found in the Altered Quartz Monzonite. Lower contact with Altered Quartz Monzonite is 35 degrees to CA.
113.70	115.00	Altered Quartz Monzonite P0,10% Py,10% Sb, Sz Non-porphyritic, weakly siliceous grey AQM; pervasively soft, metallic dark grey sulfide patches, veinlets and fracture fillings; fractures originally healed by white fs clays; core breaks along polished planes at 40 degrees to CA. 10% dark grey mineral - stibnite as veinlets and fracture fillings; 10% pyrite, disseminated cubes throughout groundmass.
115.00	117.40	Altered Quartz Monzonite P0,7% Py,tr. Sb Lack of massive Sb veinlets, increased clay altered groundmass; broken core from pervasive white clay healed fractures. Those fractures were replaced by sulfide from 113.7-115m. Pyrite disseminated through groundmass, trace blebs of silvery mineral.
117.40	118.30	Altered Quartz Monzonite 5% Py,2% Sb Return of fracture filling replacement by quartz and Sb, veinlets to 4mm width; softer groundmass than 113.7-115m, but still competent core. 5% fine grained disseminated pyrite, 2% stibnite veinlets; stibnite surfaces sometimes have a dull red-brown (hematite like) tarnish; Mirror polished surface (slicks) 30 degrees to CA at 118m; slight increase in pyrite nearing contact with Graphitic Argillite in footwall of slick mentioned above.
118.30	121.10	Graphitic Argillite Gr,1% Py Upper contact 33 degrees to CA. Soft very black, strongly graphitic clay, can be deformed with fingers, breaks very easily. Matrix becomes less graphitic, less clay altered downhole. After 120.3m core is solid with pervasive pyrite nodules to 2 cm size. Bedding predominant cleavage 50 degrees to CA. Lower contact 65 degrees to CA.
121.10	122.60	Altered Quartz Monzonite 7% Py,2% Sb,tr. As Very fine grained, grey Altered Quartz Monzonite. Solid to 121.9m, broken pervasive clay healed fractures 121.9-122.6m. Stibnite veinlets, fracture filling replacement throughout core; pyrite disseminated throughout groundmass. Trace white silvery blebs in pervasively fractured, clay altered core.
122.60	125.40	G raphitic Argillite Gr Black, powdery, clayey graphitic argillite, semi polished graphitic surfaces seen; cannot remove core from box without crumbling. Upper contact is 60 degrees to CA, broken, very clay altered.
125.40	128.60	Graphitic Argillite C1,S3,tr. Py,Sk Pervasive white gash/cleavage/fracture-filling qtz+fs+cb stockworking. 126-126.9m: black graphitic clay rubble rich interval. Breaks across/along bedding planes 70 degrees to CA. 127.5-128.9m black graphitic rubble/fragment interval.
128.60	132.60	Graphitic Argillite Sk,Sz Black, solid, graphitic argillite; last 1-2m broken; pervasive fracturing, thin intervals of quartz-cb infilling. Short lengths of qtz/fs stockworking. Polished surfaces, parallel bedding, slickensides at 45 degrees to CA. Black, clay/silt and paler black silty beds 1cm to 10cm thickness 45 degrees to CA.
132.60	135.90	G raphitic Argillite Gr Strongly graphitic argillite - clay and rubbly intervals dominant, whole core pieces are friable.
135.90	137.10	Graphitic Argillite S3,Sk Graphitic, black argillite; pervasive qtz+white feldspar stockwork; stockwork is broken, disrupted and wavy; matrix is graphitic but stockwork has caused hardening of matrix.

From	To	Geological Log
137.10	138.20	G raphitic Argillite S4 Textural change to 30% comminuted qtz/fs frags and broken bands; Strong shear direction along bedding 45 degrees to CA. No visible sulfides. Second shear direction dips opposite to bedding, 25 degrees to CA. Slickensides indicating slip orthogonal to core axis.
138.20	141.20	Graphitic Argillite Graphitic Argillite TECTONIC BRECCIA;S3,5% Py Brecciated, rehealed, pervasive crackle fracture rehealed; pervasive white qtz/fs clots, wisps and gash fillings. Massive bronze py nodules and lenses and patches; 140-140.9m unit is a matrix supported argillite breccia with 3% pyrite disseminated in matrix. Slickensides 45 degrees to CA. 3cm pyrite bed at 138.9m, 10cm patch at 140.1m. Abrupt contact at 141.2m, 55 degrees to CA.
141.20	149.10	Siltstone (Steel Formation) 70:30ARG, P0,1% Py,Sk Grey clay altering matrix with black wispy laminations and thin argillite beds. Hairline to mm white veinlets common as stockworking; decreases in amount and regularity downhole. Minor brecciated (soft sediment) textures, core is prominently wispy layered (silt & mud) at 45 degrees to CA. Occasional lenticular bronze py blebs; disseminated through core, forming clusters from 148.3-148.6m; core breaks across bedding.
149.10	153.50	Argillite 80:20SST-P0,tr. Py Non-graphitic argillite with siltstone beds; thinly laminated at 40 degrees to CA. Rare white veinlets broken. Pyrite as blebs as above.
153.50	154.70	Graphitic Argillite C1,Sk,Sz Black, clayey/rubby graphitic argillite, pervasive broken white stockwork. Bedding 50 degrees to CA.
154.70	155.30	Altered Quartz Monzonite P1,tr. Py Borderline Altered Quartz Monzonite. Pale, green hued, fine grained groundmass - fs to sericite and other clays; mafic depleted - 2%; no sulfide to trace replacing mafics. 2% tarnished, irregular shaped, shiny black blebs - biotite being replaced by pyrite.
155.30	156.60	Graphitic Argillite C1,S3,Sk Greyish black, hard argillite (stockwork/qtz frags) and black, strongly graphitic clayey argillite; same unit as 153.5-154.7m; increased stockwork. Bedding from 50 to 30 degrees to CA. NOTE:cave at 94m, sand in hole & cannot get down after bit change.

\*\*\* END OF HOLE \*\*\* 156.60