

Hope Bay Mining Ltd.
Suite 300
889 Harbourside Drive
North Vancouver, BC
V7P 3S1
T 604.985.2572
F 604.980.0731
www.newmont.com

May 11, 2010

Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1JO

Attn: Dionne Filiatrault, Executive Director

Type A Water Licence 2AM-DOH0713 – July 2010 Fuel Tank Construction and Road Widening

Dear Ms. Filiatrault;

The purpose of this letter is to provide the Nunavut Water Board (the "Board") with an update regarding the planned construction of the Fuel Storage and Containment Facility at the Doris North plant site. During July 2010, HBML plans to install 5-1.5 million litre fuel tanks in Quarry 4 (the "Doris North Plant Site Tanks") originally proposed in Miramar Hope Bay Ltd.'s April/2007 Type A Water Licence Application.

In accordance with the approved design criteria HBML needs to construct the Doris North Plant Site Tanks on a competent bedrock foundation. As discussed with Board technical staff, HBML will be installing the Doris North Plant Site Tanks on a suitable rock outcrop, as confirmed by our Engineer-of-Record, 50m north-west of the original proposed location. The original approved design criteria will remain in effect, and the amount of fuel stored in this location remains unchanged. This field adjustment will not result in any impacts on drainage and will not trigger any changes to existing monitoring and discharge points.

Engineering drawings providing further details will be forwarded to the Board shortly. The revision will be reflected in issued-for-construction and as-built drawings which will be provided to the Board, and HBML will update all plans filed under the Type A Water Licence (e.g. the Spill Contingency Plan) to reflect the as-built layout. Although the new tank farm location is within the approved Quarry 4 boundaries, HBML nonetheless carried out additional site specific geochemical testing to confirm suitability of this material. The enclosed memo entitled, *Geochemical Characterization and Recommendations for Doris North Fuel Tank Farm and Mill Pad, Doris North, Hope Bay Project, SRK Consulting Engineers and Scientists* confirms the revision would not increase any risks associated with ARD.

As well, HBML proposes to widen the jetty access road at Roberts Bay from the originally designed 6 m to 8 m. The change is required by the Nunavut Inspector of Mines (Prevention Services, the Workers' Safety and Compensation Commission) in order to comply with safety requirements under section 1.143 of the Mine Health and Safety Regulations.

If you have any questions about this letter or require further information, please do not hesitate to contact me directly.

Sincerely,

Chris Hanks Director, Environmental & Social Responsibility Hope Bay Mining Ltd.

cc. Phyllis Beaulieu, Nunavut Water Board
David Hohnstein, Nunavut Water Board
Stephanie Autut, Nunavut Impact Review Board
Kitikmeot Inuit Association



SRK Consulting (Canada) Inc. Suite 2200 – 1066 West Hastings Street Vancouver, B.C. V6E 3X2 Canada

vancouver@srk.com www.srk.com

Tel: 604.681.4196 Fax: 604.687.5532

Memo

To: Chris Hanks, Newmont **Date:** April 23, 2010

cc: Lea-Marie Bowes-Lyon, Newmont From: Lisa Barazzuol

Kelly Sexsmith

Subject: Geochemical Characterization and

Recommendations for Doris North Fuel Tank Farm and Mill Pad, Doris

North, Hope Bay Project

Project #: 1CH008.029.3600

1 Introduction

Hope Bay Mining Ltd. (HBML) is planning to build a tank farm, fuel transfer station and secondary containment facility (Pad R in Figure 1) and a pad for the mill, crusher and permanent power plant (Pad D in Figure 1). These infrastructure components are located within the limits of Quarry 4, which was approved and permitted in 2007 as part of the Doris North mine water license. Construction of these facilities would require blasting and removal of rock to create level working surfaces. The blasted rock would be used for other previously approved infrastructure development associated with the Doris North project.

SRK were asked to complete additional work to characterize the potential for metal leaching and/or acid rock drainage (ML/ARD) of the rock that will be exposed or removed from this area. Samples were obtained and characterized both geologically and geochemically. This memorandum presents results of the testing program and provides recommendations for management and monitoring of this material.

2 Data Set

The geochemical sample set for the fuel tank farm and mill pad areas is a compilation from various drill programs, including samples obtained in 2010 and three historic drill programs. All of the drill holes with geochemical data from these programs are shown in Figure 1. However, only data from the drillholes located within close proximity to the infrastructure areas, as defined by the yellow line in Figure 1, are relevant to this assessment. Within this area, 103 samples have been collected and characterized geologically, and 76 of these samples have geochemical data.

2.1 AMEC (2005) Program

One sample from each of drillholes SRK-30 and SRK-31B were analyzed as part of geochemical program for Quarry 4 (AMEC 2005). These data were submitted to the Nunavut Impact Review Board (NIRB) as part of the environmental impact statement for the Doris North mine. These data will not be discussed because their location is considered distal to the infrastructure areas under discussion.

SRK Consulting Page 2 of 13

2.2 SRK (2007) Program

Geochemical data for 25 samples from drillholes 06TDD610 and 06TDD612 (Figure 1) were submitted to the Nunavut Water Board (NWB) in support of Miramar Hope Bay Ltd.'s (MHBL) water license application (SRK 2007). Drillhole 06TDD610 is situated within an outcrop within the mill pad footprint and 06TDD612 is from the tank farm area. All samples were analyzed for Standard Sobek ABA and trace metals by aqua regia digestion.

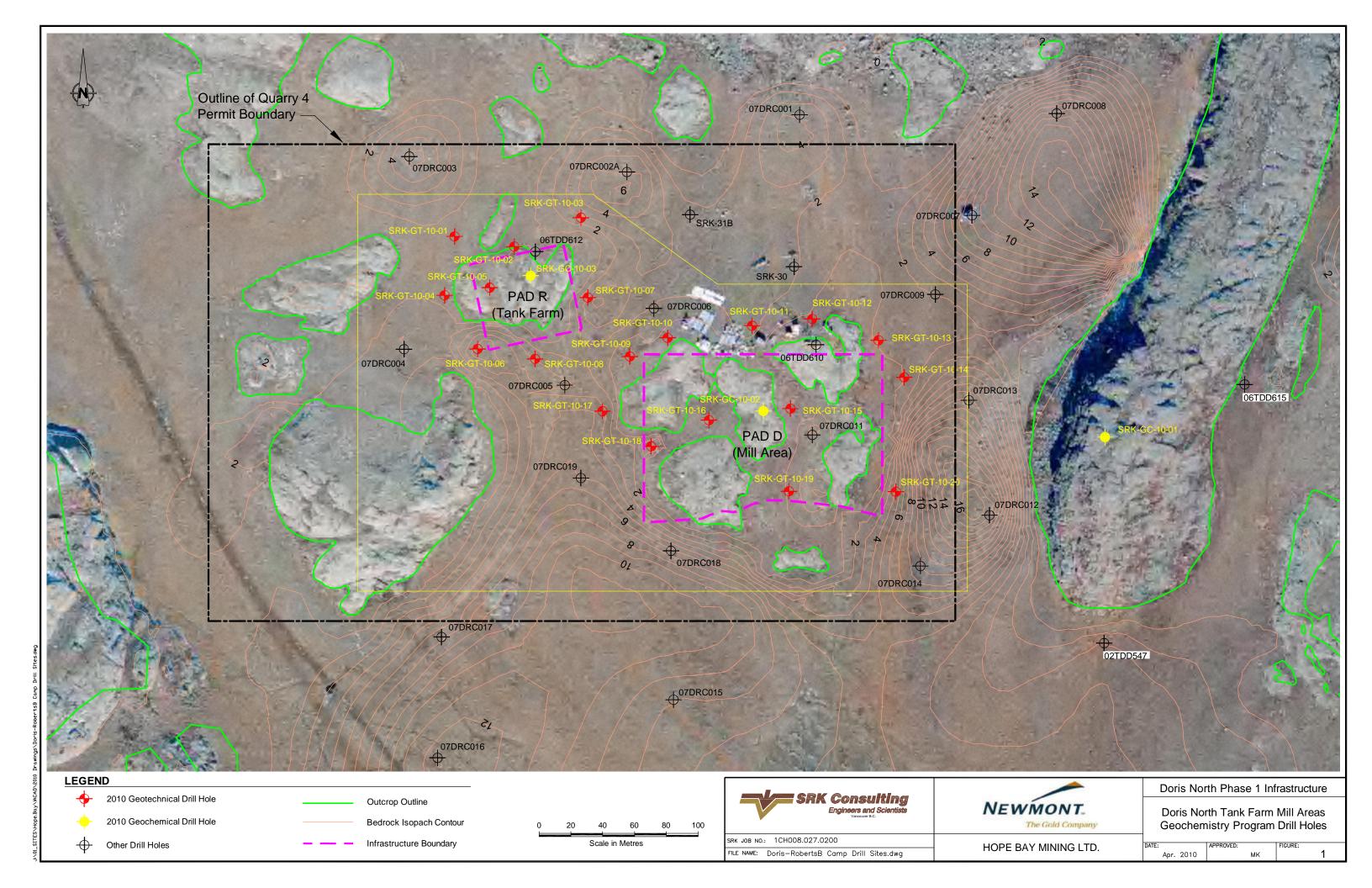
2.3 2007 Miramar Program

In 2007, Miramar geochemically characterized one sample per hole from a series of geotechnical drillholes (07DRC001 to 07DRC009 and 07DRC011 to 07DRC019). The data from this program were not reported previously. The samples were logged by a MHBL geologist and submitted to CANTEST Ltd. in Burnaby B.C. for analysis of paste pH, total sulphur, sulphate sulphur, and TIC. Five of the samples were also analyzed for Standard Sobek NP and three were analyzed for Modified Sobek NP and trace metals by aqua regia digestion followed by ICP finish. The geology logs and laboratory data are presented in Attachment 1. Data from eight of these samples are relevant to this program.

2.4 2010 Drill Program

Two geochemical and 20 geotechnical drillholes were drilled within the vicinity of the Doris North fuel tank farm and mill pad areas in February 2010 to confirm the sub-surface geology and depth of surficial materials in the development area. All holes were drilled using an Atlas Copco D9 ROC drill. The geochemical holes were drilled and sampled to the projected depth of development. Samples were also obtained from a series of geotechnical holes, which were terminated once 3 m of bedrock were intersected. Rock chip samples weighing approximately 2 kg each were collected by an SRK engineer. A total of 70 samples were collected, each sample representing approximately 1 m of drill core. The rock chips were logged by a Newmont geologist using standardized Newmont lithology codes (Attachments 2 and 3).

Samples were submitted to CANTEST for testing. A total of 43 samples were analyzed for total sulphur. Eleven of these samples were geochemically analyzed for trace metals analysis by aqua regia digestion and ICP-MS finish, and complete ABA analysis including: paste pH, total inorganic carbon (TIC), sulphate sulphur and Modified Sobek neutralization potential (NP) (Attachments 4 and 5). The samples selected for testing were intended to provide adequate spatial distribution and to represent the range of geological characteristics described in the geology logs. Upon review of the total sulphur data, seven additional samples were submitted for complete ABA on the basis of the total sulphur content (greater than 0.1%), however these data are not currently available and will be reported at a future date. QA/QC of the data set was performed by SRK.



SRK Consulting Page 4 of 13

3 Results & Discussion

3.1 Geology and Mineralogy

The majority (90/103) of the drillhole samples were logged as metavolcanic (1a or 1p), indicating that this is the dominant rock type in the tank farm and mill development areas. Table 1 outlines the lithologies for the remaining samples, including intermediate to felsic metavolcanic (3), late granitoid (9) and late gabbro (10a).

Quartz and/or calcite veining was noted in over half (65) of the samples. Sulphides occurred in all but two samples where veining was noted, with visual estimates ranging from trace to 5%. For sample without veining, sulphides occured in fewer samples (24 of 37) with visual estimates also ranging from trace to 5%. Pyrite was the primary sulphide mineral but minor amounts of chalcopyrite, and to a lesser degree sphalerite, were observed. Samples noted as having sericitic alteration contained somewhat higher levels of visual pyrite (typically 1%).

Table 1: Accessory Rock Types for Drillholes the Vicinity of the Doris North Tank Farm and Mill Pad Areas

Lithology	Area Located	Drillhole
Intermediate to Felsic Metavolcanic (3)	North of tank farm footprint.	SRK-GT-10-02
Late Granitoid (9)	North of tank farm and mill pad footprints; western extent of mill pad footprint.	SRK-GT-10-02 SRK-GT-10-11 SRK-GT-10-18
Late Gabbro (10a)	West of tank farm footprint.	07DRC004 SRK-GT-10-04 SRK-GT-10-06

3.2 ABA Data

The ABA data discussed in support of the Doris North fuel tank farm and mill pad areas are presented Attachment 6. Most (30) of the samples were analyzed using the (standard) Sobek NP method, with 14 samples analyzed using Modified Sobek NP. The discussion of data is grouped according to these methods.

3.2.1 Sobek NP Sample Set

This data set is comprised of all 25 SRK (2007) samples and five 2007 Miramar samples. All samples were mafic volcanic (1), except one, which was late gabbro (10a). Table 2 presents a summary of the ABA data.

Total sulphur concentrations were typically low, with median and maximum levels of 0.08% and 0.85%, respectively (Figure 2). NP levels were uniformly higher than TIC levels, indicating more appreciable amounts of non-carbonate buffering minerals. All samples were classified as not potentially acid generating (not-PAG) on the basis of NP/AP (total sulphur) and TIC/AP ratios greater than 3.

The five samples with total sulphur levels higher than 0.1% were all mafic volcanics. Three of the samples were from localized intervals of 06TDD610 and 06TDD612 that were logged as having quartz-calcite veinlets. The other sample was from drillhole 07DRC005.

SRK Consulting Page 5 of 13

Table 2: Summary of Standard Sobek ABA Sample S

Statistic	Total Sulphur	Sobek NP	TIC
	%	kgCaCC	3/tonne
Minimum	<0.02	51	15
Median	0.08	200	146
Maximum	0.85	288	219
Count	30	30	30

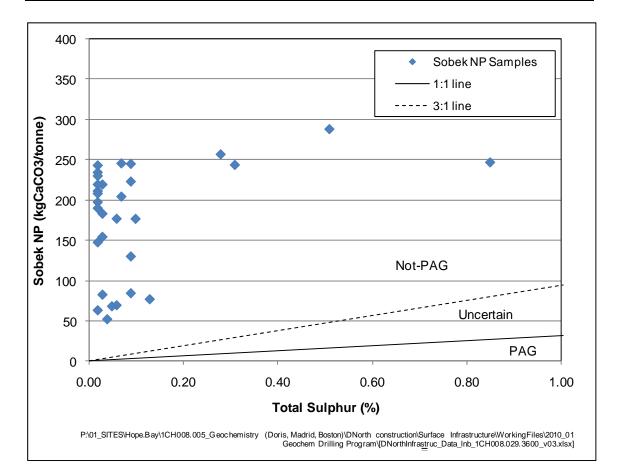


Figure 2: ARD Classifications according to Sobek NP and Total Sulphur

3.2.2 Modified NP Sample Set

This data set was comprised of 43 samples from the 2010 SRK sample set and three from the 2007 Miramar sample set. Table 3 presents a summary of the ABA data.

Total sulphur concentrations ranged from below the detection limit (0.02%) to 0.41% (Figure 3), which was comparable to previously reported data for Quarry 4 (SRK 2007 and AMEC 2005). Modified NP and TIC levels were lower as compared to the Standard ABA sample set, however, all samples were classified as non-PAG on the basis of NP/AP (total sulphur) and TIC/AP.

The 16 samples that had total sulphur levels greater than 0.1% were all mafic volcanic samples and consistently contained quartz and/or calcite veinlets. One sample was located within the mill pad footprint (drillhole SRK-GT-10-19) and one was in the tank farm area (06TDD612) whereas the other samples were distributed throughout the study area (drillholes 06TDD610, 07DRC005, 07DRC014, 07DRC018, SRK-GT-10-03, SRK-GT-10-10, SRK-GT-10-17 and SRK-GT-10-18).

SRK Consulting Page 6 of 13

Table 3: Summary of Modified Sobek ABA Sample Set

Statistic	Total Sulphur	Modified NP	TIC
	%	kgCaCO	₃/tonne
Minimum	<0.02	35.0	8.4
Median	0.09	95.4	79.9
Maximum	0.41	187.8	186.4
Count	46	14	14

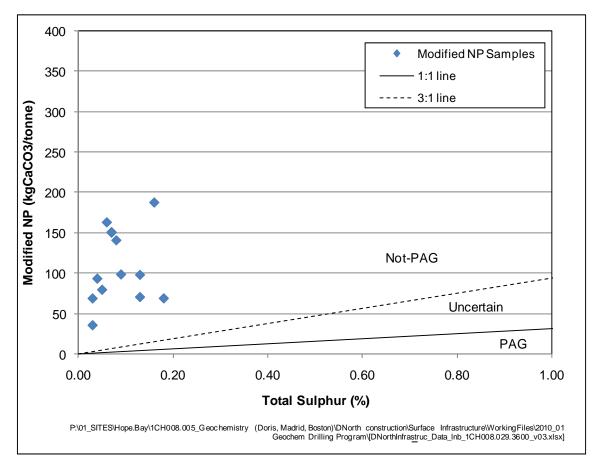


Figure 3: ARD Classifications according to Modified NP and Total Sulphur

3.3 Trace Metals

Of the 39 samples analyzed for trace metals, three samples had silver content greater than ten times the average crustal abundance for basaltic rocks (Price 1997). Three samples could not be assessed for mercury due to high detection limits. All other trace elements were less than ten times the average crustal abundance threshold, indicating there was no appreciable enrichment in these rocks.

SRK Consulting Page 7 of 13

4 Summary and Recommendations

The drillhole samples for the Doris North fuel tank farm and mill pad areas were primarily mafic volcanic, though approximately 13% of samples contained intermediate to felsic metavolcanic (3), late granitoid (9) or late gabbro (10a) rock types. All samples were classified as not-PAG on the basis of NP/AP and TIC/AP ratios, suggesting that within the study area, rock type is not an important factor for ARD classifications. A number of samples contained somewhat elevated levels of sulphur (maximum concentrations of 0.85%), which may be associated with a higher potential for metal leaching. These higher sulphur samples were characterized by the presence of quartz and/or calcite veining, however veining is also present in several samples with low total sulphur levels.

Results from the more recent characterization work were generally consistent with the results presented in the water licence application (SRK 2007).

Special management plans are not required to prevent acidic drainage from developing in this material. SRK recommends a monitoring program to verify the characteristics of these materials following construction. The program would include visual inspection and sampling of both solid materials and seepage flowing from infrastructure, as has already been conducted for the existing Doris North camp, airstrip and roads (SRK 2009).

5 References

- AMEC 2005. ARD and Metal Leaching Characterization Studies in 2003 2005, Doris North Project, Nunavut, Canada. Report prepared for Miramar Hope Bay Mining Ltd. by AMEC Earth & Environmental, October 2005.
- Price 1997. Guidelines and Recommended Methods for the Prediction of Metal Leaching and Acid Rock Drainage at Minesites in British Columbia, DRAFT. British Columbia Ministry of Employment and Investment, April 1997.
- SRK 2007. Geochemical Characterization of Quarry Materials, Doris North Project, Hope Bay, Nunavut, Canada (Revised March 2007). Report prepared for Miramar Hope Bay Ltd. by SRK Consulting, March 2007.
- SRK 2009. Hope Bay Project Quarry Monitoring. Report prepared for Hope Bay Mining Ltd. by SRK Consulting, November 2009.

HOLE ID	FROM	TO	LCODE	NOTES
	(m)	(m)		
07DRC001	4.27	5.49	1a	Top of fresh rock at approx. 4.27m depth. Bedrock. Appears to be basalt in the distal alteration halo. Fine grained, massive, green to green grey in colour, minor quartz-calcite veining with sulphides associated with the veins. Irregular fine grained pyrite blebs are present dispersed throughout the veins. Pyrite is also present along fractures as irregular blebs. Moderate chlorite alteration and weak calcite alteration. Non-magnetic.
07DRC002A	7.42	8.64	1a	Top of fresh rock at approx. 7.42m Bedrock composed of basalt. Fine grained, massive to weakly foliated, chloritic basalt. Dark green-grey in colour with locally present hematite present as fracture fill, associated with vein margins and locally as small seams. The basalt is also host to quartz eyes that are elongate, possibly stretched and boudinaged veins? Locally these are surrounded by hematite. The hematite has a similar appearance to sphalerite in these samples. Fine to medium grained, anhedral pyrite present. Locally associated with the veining and locally disseminated throughout the basalt. Moderate to strong chlorite and calcite alteration. Weak veining composed primarily of calcite. The veins are locally hosts to sulphide mineralization. Weak quartz composition as part of the veins.
07DRC003	5.64	6.65	1a	Top of fresh rock approx 5.64m depth. Basalt Possibly pillowed. There is a rock chip that was retrieved that appears to be a partial pillow rim. Basalt is fine grained, chloritic, massive to weakly foliated, very weak calcite presence. Appears to be present along fractures and locally as small patches of alteration. Basalt has a granular texture. Weak sulphide mineralization (tr to 1%). Weak veining. Veining is composed of fine grained granular calcite and minor quartz. Veins are white in colour and locally host minor sulphides.
07DRC004	2.24	3.25	10a	This unit appears to be either a gabbro or a coarse grained basalt. The unit is dark green, med to coarse grained, dark green spots that appear to be composed of actinolite and chlorite. Unit is also host to minor veining composed of quartz and calcite with minor blebs of pyrite hosted in the veins. There is a weak hematite staining on one of the rock fragments recovered from the hole. There is also trace amounts of dolomite alteration. There are small random patches of alteration. Very weak sulphide mineralization in the bedrock. Trace pyrite. Non-magnetic.

HOLE ID	FROM	ТО	LCODE	NOTES
07DRC005	(m) 3.04	(m) 4.06	1a	Basalt Flow? Fine to medium grained, granular texture, with locally present a mineral lineation. There are aligned actinolite crystals(euhedral) along the foliation planes. Foliation is moderate. There also appears to be minor shearing. There are quartz fragments/spots present locally that exhibit weak elongation. Weak to moderate calcite alteration. Weak to moderate veining that is composed of quartz and calcite. The veins are white in colour and are weakly granular to coarse grained. There are possibly multiple ages of calcite veining. The veins locally host minor pyrite mineralization. There is subhedral to euhedral pyrite crystals present locally. Pyrite mineralization is trace to weak. Tr to up to 1%. There is minor epidote alteration suggesting that this sample is from the distal alteration halo of the West Valley wall veins??
07DRC006	2.01	3.02	1a	Basalt flow with weak quartz-calcite veining Basalt is fine to medium grained, green-grey in colour, weak to moderate foliation with locally present very weak mineral lineation. Weak pyrite mineralization. Pyrite is associated with the quartz-calcite veins as small anhedral blebs and locally is disseminated in the basalt as medium grained sub-hedral to euhedral crystals. There is also trace chalcopyrite. Hematite and/or sphalerite is present as fine anhedral blebs along fractures and associated with veins. More likely that this is hematite. There is weak alteration surrounding some veins. Epidote alteration surrounding the extensional veins. Alteration is weak to locally moderate. Weak chlorite alteration and weak to locally moderate calcite alteration.
07DRC007	10.19	11.2	1a	Basalt flow Fine grained, massive to weakly foliated, rare weak mineral lineation, weak to moderate veining. Basalt is green-grey to dark green in colour,. There appears to be increased chlorite alteration in proximity to the veins. Veins are composed of quartz and calcite. The veins are fine to medium grained and have a granular texture. Locally the veins are pink in colour due to pink quartz and/or to hematite staining. Hematite is present along fractures, and associated with the veins as rims and staining. Pyrite mineralization is weak, but generally associated with the veins. Subhedral to euhedral crystals are disseminated along the foliation planes in proximity to the veins. Weak calcite and chlorite alteration of the basalt. Alteration also appears to be patchy. We appear to be in the distal alteration halo.
07DRC008	12.12	13.13	1a	Basalt Fine grained, weak foliation, green to green-grey in colour, weak chlorite alteration and weak to locally moderate calcite alteration. Locally there is a calcite coating along fractures and as fill. There are minor sulphides that are deformed and flattened along the foliation planes. Weak quartz-calcite veining. The veins are white in colour and locally host minor sulphide mineralization. Veins host pyrite and trace chalcopyrite. Weak sulphide mineralization. Disseminated.

HOLE ID	FROM	TO	LCODE	NOTES
07DRC009	(m) 7.8	(m) 9.17	1a	Basalt Fine grained, Green to dark green grey in colour, massive to very weakly foliated, chlorite and calcite altered. Weak veining. Veining is composed of quartz can calcite and locally hosts sulphide mineralization. Weak septa. Veins are granular in texture and white in colour. There is a weak alteration halo surrounding the veins. (carbonate and locally very weak epidote). Pyrite and trace chalcopyrite are disseminated, anhedral to locally euhedral crystals. These are generally in greater concentration in proximity to the veins.
07DRC011	2.36	3.38	1a	Bedrock Fine grained, massive to moderately foliated. Chlorite and calcite altered. Weak veining, weak sulphide mineralization. Dark green to dark green-grey in colour, calcite fracture fill and locally there is a slight alteration halo surrounding the veinlets. Sulphides are associated with the veins and locally disseminated in the bedrock. Similar to basalt encountered in other holes in the area.
07DRC012	16.99	19.02	1a	Bedrock. Fine grained, massive to weakly foliated, Dark green in colour, weak to locally moderate alteration. This basalt appears to be slightly cooked perhaps due to the proximity to the diabase. Weak veining. Veins are composed of quartz and calcite and are white to a light beige-white in colour. There is a weak epidote alteration associated with the veins. There are also fibrous crystals present that appear to be either calcite or possibly actinolite. These appear to be fracture filling. Weak sulphides. Generally associated with veins.
07DRC013	8.18	10.21	1a	Basalt Fine to medium grained, massive to weakly foliated, dark green to dark green-grey in colour, chlorite and calcite alteration, weak to moderate veining and weak sulphide mineralization. Locally epidote alteration present and is associated with the veining. Locally epidote alteration present and is associated with the veining. Fractures are filled with calcite +/- sulphide mineralization. Calcite alteration is patchy. Small spots of chlorite are present disseminated. There was 2m of bedrock that was drilled to be certain that this was bedrock. This areas appears to also host boulders that are locally derived. The 2nd m of bedrock was the one that was sampled to avoid contamination and to be certain that it was bedrock.
07DRC014	9.45	10.77	1a	Basalt Fine grained, weak to moderate foliation, dark green in colour, weak veining. Veins are composed of quartz+/- calcite. Veins are generally host to pyrite mineralization. Pyrite is euhedral and is fine to medium grained. Calcite is locally present as fracture fill. Weak patchy calcite alteration. Leucoxene present.

HOLE ID	FROM	ТО	LCODE	NOTES
07DRC015	(m) 8.23	(m) 9.25	1a	Basalt Fine grained, dark green in colour, weak to moderate veining, chlorite, calcite and epidote alteration. Epidote alteration associated with the veining. The alteration is only located within a few cm of the veins. There is also a strong chlorite presence within this alteration halo. The basalt elsewhere is dark green to green-grey in colour, and is fine grained, weak to moderate foliation. Calcite alteration is patchy. Calcite is also present as fracture fill and locally as veinlets. Weak pyrite mineralization (tr-0.1%). Non-magnetic.
07DRC016	13.34	14.35	1a	Basalt. Fine grained, granular in texture, massive, dull green-grey in colour, patchy calcite alteration, weak to moderate chlorite alteration, locally epidote alteration present. The epidote is locally associated with the veining. Mineralization is very weak. Pyrite is present as open space filling and locally along vein margins and within the veins as disseminated euhedral fine to medium grained crystals. Non-magnetic. Weak veining. ~1-3%. Veins are white in colour and composed of quartz +/- calcite.
07DRC017	8	9.07	1a	Basalt. Fine grained, weak foliation, weak veining, but locally where the veining is present the veins are white to dark grey in colour and are weakly opaque to transparent. The veins also host increased sulphide mineralization in proximity to the veins. Epidote is also present in association with the veins. In one of the rock chips a semi-massive pods of pyrrhotite was seen, and some of the dark black looking material surrounding the veins is very fine grained disseminated sulphides. The basalt is locally darker in colour in proximity to the veins. Weak sulphides in basalt but in proximity to the veins the pyrite mineralization is locally up to 3-4%. Weak alteration, calcite is present as fracture fill, weak patchy alteration.
07DRC018	8.23	9.27	1a	Basalt Fine to medium grained, massive to locally very weakly foliated. Light green-grey in colour, weak veining, weak to moderate alteration, locally patchy, calcite present as alteration, fracture fill and locally as part of the veins. Sulphide mineralization is weak, and generally associated with the veining. Epidote alteration is weak and associated with the veins and fractures. The epidote is apple green in colour.
07DRC019	5.69	6.71	1a	Bedrock fine grained, green-grey with a blueish hue. Massive to weakly foliated. Locally weakly granular in texture. Locally there appears to be a weak mineral lineation (chlorite). Patchy calcite alteration, weak epidote alteration that is present along fractures and associated with veining. Weak pyrite mineralization. Fine grained disseminated crystals are locally present. 1 speck of chalcopyrite seen. Very weak veining. Calcite veinlets. Calcite is also present as fracture fill.

Attachment 1: Standard ABA Data for 2007 Miramar Samples



CANTEST Ltd. 3650 Wesbrook Mall, Vancouver, BC Canada V6S 2L2 Tel: 604 224 4331 Fax: 604 224 0540 www.cantest.com

Miramar Mining Corp., Doris North, 3-Oct-07 Page 1 of 3

Table 1: ABA Test Results for 6+6 Doris North Mill Site Bedrock Drilling Samples - October 2007

S.No:	Sample ID	Paste	CO2	Total	Sulphate	Sulphide	Neutralization	Fizz
		рН		Sulphur	Sulphur	Sulphur*	Potential	
			(Wt.%)	(Wt.%)	(Wt.%)	(Wt.%)	(Kg CaCO3/Tonne)	
1	07 DRC 001	8.8	2.68	0.12	<0.01	0.12	92.7	Strong
2	07 DRC 002A	8.5	4.91	0.15	<0.01	0.15	175.4	Strong
3	07 DRC 003	8.6	1.63	0.05	<0.01	0.05	84.0	Strong
4	07 DRC 004	8.8	0.68	0.04	<0.01	0.04	51.4	Moderate
5	07 DRC 005	8.5	8.47	0.31	<0.01	0.31	243.1	Strong
6	07 DRC 006	8.9	5.27	0.10	<0.01	0.10	176.1	Strong
7	07 DRC 007	8.5	7.08	0.09	<0.01	0.09	221.8	Strong
8	07 DRC 008	8.5	6.85	0.08	<0.01	0.08	208.0	Strong
9	07 DRC 009	8.6	6.98	0.09	<0.01	0.09	222.4	Strong
10	07 DRC 011	8.5	9.26	0.09	0.01	0.08	244.4	Strong
11	07 DRC 012	8.8	2.63	0.09	<0.01	0.09	116.5	Strong
12	07 DRC 013	8.7	6.32	0.08	<0.01	0.08	201.1	Strong
Detection Limits		0.1	0.02	0.02	0.01			
CANTE	ST Method Number	7160	LECO	LECO	7410	Calculation	7110	7110

^{*}Based on difference between total sulphur and sulphate-sulphur

CO2 and Total Sulphur by LECO furnace

NP Method Used: Sobek NP Method (EPA 600 Method - described in Sobek et al. 1978)

^{**}Based on sulphide-sulphur

Attachment 1: Modified ABA Data for 2007 Miramar Samples



CANTEST Ltd. 3650 Wesbrook Mall, Vancouver, BC Canada V6S 2L2 Tel: 604 224 4331 Fax: 604 224 0540 www.cantest.com

Table 1: ABA Test Results for 144 Doris North Samples - November 2007

							Mod. ABA NP	
S. No	Sample ID	Paste CO2		Total	Sulphate	Sulphide	Neutralization	Fizz
		рН		Sulphur	Sulphur	Sulphur*	Potential	Rating
			(Wt.%)	(Wt.%)	(Wt.%)	(Wt.%)	(Kg CaCO3/Tonne)	
139	07 DRC 014	8.4	8.21	0.16	<0.01	0.16	187.8	Strong
140	07 DRC 015	8.4	6.53	0.05	0.01	0.04	148.2	Strong
141	07 DRC 016	8.4	4.18	0.06	0.01	0.05	95.9	Strong
142	07 DRC 017	8.5	5.50	0.10	0.01	0.09	122.0	Strong
143	07 DRC 018	8.5	4.40	0.13	0.01	0.12	97.7	Strong
144	07 DRC 019	8.4	6.34	80.0	0.01	0.07	140.7	Strong

^{*}Based on difference between total sulphur and sulphate-sulphur

CO2 and Total Sulphur by LECO furnace

Cantest Method Number 7150: Modified ABA Method (Lawrence et al., 1989)

Cantest Method Number 7110: Sobek NP Method (EPA 600 Method - described in Sobek et al. 1978)

Miramar Mining Corp., Doris North, 18-Oct-07 & 2-Nov-07 Page 1 of 5

^{**}Based on sulphide-sulphur

Attachment 1: Trace Metals Data for 2007 Miramar Samples



Miramar Mining Corp., Doris North, 18-Oct-07 & 2-Nov-07 Page 3 of 5

CANTEST Ltd. 3650 Wesbrook Mall, Vancouver, BC Canada V6S 2L2 Tel: 604 224 4331 Fax: 604 224 0540 www.cantest.com

Table 3: Ultra Trace Metals Using Aqua Regia Digestion with ICP-MS Finish for 144 Doris North Samples - November 2007

S. No:	Sample ID	Мо	Cu	Pb	Zn	Ag	Ni	Со	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	Р	La	Cr
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm
139	07 DRC 014	0.84	127.42	0.73	74.5	12	93.8	45.1	2464	10.07	0.4	0.1	8.5	1	25	0.05	0.02	0.03	180	7.92	0.02	3.5	158.7
140	07 DRC 015	0.86	112.96	1.2	71.2	30	61.1	31.6	1575	5.8	0.3	0.2	4.3	1.6	16.7	0.12	0.02	0.02	121	6.06	0.02	4.5	149
141	07 DRC 016	0.83	110.01	1.67	55.1	25	76.6	32.7	902	4.37	0.4	0.1	4.2	1	21.2	0.04	0.04	0.02	84	3.93	0.02	3.7	143.8
142	07 DRC 017	0.85	111.31	0.73	63.1	25	85.7	36	979	4.42	1.3	0.1	2.2	0.9	18.3	0.11	0.02	0.02	79	5.12	0.02	2.7	147.2
143	07 DRC 018	0.73	128.15	0.92	64.8	37	61.9	33.8	1121	4.91	0.4	0.1	16.1	1.4	15.5	0.09	0.02	0.02	101	4.05	0.02	3.6	146.8
144	07 DRC 019	1.14	131.76	1.16	96.7	52	61	36.6	1360	6.11	0.1	0.2	8.2	1.4	18.8	0.2	0.02	0.02	136	6	0.03	4.7	181.9
QA/QC	(Duplicates)																						
13	178713	1.70	83.8	1.14	49.0	57	95.3	43.0	1645	6.24	83.0	0.1	22	0.1	48.2	0.11	0.03	0.02	20	8.13	0.02	0.6	38.1
29	178729	3.87	135.7	2.27	23.4	277	31.2	33.2	2756	6.93	71.3	0.1	182	0.9	23.2	0.04	0.06	0.17	25	6.77	0.08	3.9	67.2
65	178765	1.31	37.6	1.73	53.5	82	1.2	25.7	1808	8.24	21.1	0.1	8	0.2	23.3	0.09	0.05	0.12	7	5.16	0.09	8.0	14.7
86	178786	1.28	42.9	1.33	165.9	25	1.7	33.1	2151	10.38	14.8	0.1	7	0.4	29.3	0.34	0.06	0.03	16	4.09	0.10	2.4	14.6
133	178833	1.22	28.5	0.92	79.6	15	1.0	30.4	2084	10.05	15.2	0.1	6	0.3	30.4	0.12	0.04	0.02	7	6.02	0.09	2.2	15.1
_	DARD DS7	20.68	108.7	68.50	399.1	865	57.5	10.1	612	2.39	52.1	5.8	70	5.2	73.4	7.45	5.00	5.44	87	1.00	0.08	13.9	193.2
-	DARD DS7	21.68	108.1	69.04	388.6	955	59.5	10.5	612	2.40	49.3	5.4	54	5.1	73.7	7.01	4.74	5.20	87	1.02	0.08	14.1	203.8
	DARD DS7	19.53	95.2	64.86	387.6	839	50.6	8.6	617	2.33	51.8	4.8	53	4.5	73.8	6.34	4.44	4.67	84	0.91	0.07	12.6	176.6
_	DARD DS7	21.52	104.0	73.89	413.8	897	54.4	9.6	686	2.49	54.1	5.3	56	4.8	80.7	6.91	4.62	4.93	88	1.03	0.09	14.7	193.6
	DARD DS7	20.38	104.0	67.44	373.8	812	56.7	9.8	577	2.26	48.4	5.3	48	4.8	67.0	6.72	4.77	5.03	83	0.95	0.08	12.6	186.4
	DARD DS7	22.02	109.7	70.52	411.5	920	60.1	10.3	629	2.54	51.8	6.1	61	5.4	76.9	7.40	4.11	5.44	93	1.02	0.08	15.1	205.2
	DARD DS7	20.49	93.0	57.21	367.7	832	56.7	9.0	591	2.23	52.2	4.3	56	3.6	61.7	5.62	4.06	3.63	79	0.88	0.07	10.1	158.8
	DARD DS7	19.13	113.4	73.06	397.1	809	56.0	9.1	584	2.38	44.5	5.1	60	4.7	77.3	6.09	3.60	4.64	83	0.92	0.08	13.2	175.9
_	DARD DS7	19.04	135.5	68.27	404.8	868	53.1	9.3	596	2.35	48.4	5.4	57	4.7	75.9	5.30	3.92	4.67	82	0.93	0.08	12.6	172.5
	DARD DS7	19.54	90.2	56.92	361.3	875	53.9	9.00	589	2.18	48.5	4.0	49	3.6	58.7	5.32	3.86	3.56	77	0.85	0.07	9.5	156.1
	DARD DS7	19.70	105.2	59.8	368.1	774	55.3	9.5	558	2.23	47.3	4.7	52	3.9	57.7	5.28	3.28	3.67	79	0.88	0.07	10.8	155.4
-	DARD DS7	20.91	107.4	58.29	375.6	797	53.3	8.8	558	2.23	46.0	4.3	70	4.0	58.7	6.16	4.99	3.75	76	0.87	0.07	10.9	152.9
-	alue STD DS7	20.92	109.0	70.6	411.0	890	56.0	9.7	627.0	2.39	48.2	4.9	70	4.4	68.7	6.38	5.86	4.51	86	0.93	0.08	12.7	163
	t Difference	-0.05	-1.5	-17.44	-8.61	-10	-4.82	-9.28	-11.00	-6.69	-4.56	-12.24	0.14	-9.1	-14.56	-3.45	-14.85	-16.85	-11.63	-6.45	-17.50	-14.2	-6.20
	on Limits	0.01	0.01	0.01	0.1	2	0.1	0.1	11	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	0.001	0.5	0.5
Method	d .	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS	1F-MS

Attachment 1: Trace Metals Data for 2007 Miramar Samples

CANTEST Ltd. 3650 Wesbrook Mall, \

Table 3: Ultra Trace Meta

S. No:	Sample ID	Mg	Ва	Ti	В	Al	Na	K	W	Sc	TI	Hg	Se	Te	Ga	Hg
		%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ug/g
139	07 DRC 014	2.22	9.7	0.147	20	4.9	0.04	0.05	0.1	18.1	0.02	5	0.3	0.02	11.6	< 0.001
140	07 DRC 015	2.12	13.4	0.232	20	3.23	0.10	0.08	0.5	5.2	0.02	5	0.2	0.02	6.9	< 0.001
141	07 DRC 016	2.16	8.3	0.207	20	2.86	0.06	0.05	0.6	4.8	0.03	6	0.3	0.02	4.6	< 0.001
142	07 DRC 017	1.9	8.3	0.176	20	2.63	0.06	0.04	0.6	4.1	0.05	5	0.5	0.02	4.3	< 0.001
143	07 DRC 018	2.02	9.8	0.233	20	2.92	0.08	0.05	0.5	4.2	0.05	5	0.6	0.02	5	< 0.001
144	07 DRC 019	2.57	12.6	0.249	20	3.54	0.09	0.07	0.5	6.1	0.02	5	0.4	0.05	7.3	< 0.001
QA/QC	(Duplicates)															
13	178713	2.75	4.9	0.001	20	0.29	0.05	0.05	0.1	12.2	0.02	5	0.1	0.06	0.7	-
29	178729	2.99	14.7	0.001	32	1.43	0.04	0.11	0.1	11.7	0.02	5	0.4	0.18	3.7	-
65	178765	1.35	6.4	0.001	20	0.2	0.04	0.06	0.1	7.3	0.02	5	0.6	0.04	0.6	-
86	178786	1.54	5.2	0.001	20	0.46	0.05	0.04	0.1	10.4	0.02	5	0.2	0.02	2.1	-
133	178833	1.46	5.2	0.001	20	0.21	0.04	0.04	0.1	10.7	0.02	5	0.3	0.02	8.0	-
STANE	DARD DS7	1.08	403.7	0.115	67	1.02	0.09	0.43	3.6	2.8	4.42	218	3.7	1.06	4.8	-
STANE	DARD DS7	1.08	373.6	0.122	39	1.06	0.09	0.43	3.6	2.8	4.29	194	3.7	1.13	4.8	-
STANE	DARD DS7	1.02	376.2	0.112	33	0.95	0.09	0.44	4.0	2.7	4.22	199	4.0	1.03	4.7	-
STANE	DARD DS7	1.13	415.7	0.123	41	1.10	0.11	0.48	4.0	2.9	4.58	209	4.0	1.15	5.1	-
STANE	DARD DS7	1.02	369.4	0.112	32	1.01	0.09	0.41	3.3	2.6	4.03	199	3.4	0.93	4.6	-
STANE	DARD DS7	1.11	404.6	0.123	37	1.08	0.09	0.45	3.5	3.0	4.49	207	3.9	1.14	4.9	-
STANE	DARD DS7	0.98	365.7	0.102	67	0.92	0.08	0.42	3.9	2.3	4.26	197	3.6	1.07	4.6	-
STANE	DARD DS7	1.06	354.9	0.114	67	0.99	0.09	0.43	3.5	2.6	4.17	229	3.4	0.99	4.6	-
STANE	DARD DS7	1.04	376.8	0.115	69	0.99	0.09	0.43	3.5	2.6	4.02	189	3.6	1.12	4.6	-
STANE	DARD DS7	0.97	294.9	0.098	36	0.89	0.08	0.41	3.8	2.3	4.22	200	3.6	1.03	4.4	-
STANE	DARD DS7	0.97	295.6	0.102	69	0.92	0.08	0.41	3.7	2.4	3.97	189	3.5	1.12	4.3	-
STANE	DARD DS7	0.97	366.6	0.121	40	0.93	0.08	0.42	3.7	2.4	3.86	187	3.2	0.98	3.9	-
	alue STD DS7	1.05	370.3	0.124	38.6	0.96	0.07	0.44	3.8	2.5	4.19	200	3.5	1.08	4.6	-
Percen	nt Difference	-7.62	-1.00	-2.42	3.63	-3.02	9.59	-4.55	-2.6	-4.00	-7.88	-7	-8.57	-9.26	-15.22	-
Detecti	ion Limits	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	5	0.1	0.02	0.1	0.001
Method	b	1F-MS	CVAF													

Attachment 2: Geology Logs for 2010 Doris North Fuel Tank Farm Drill Holes

Hole	From (m)	To (m)	Sample ID	Lithology Code	Sulphides	C-type or A-type?	Geological Description
SRK-GC-10-03	0.0	1.0	14251	1a	0.5% pyrite		Light apple green, extremely fine grained basalt with 0.5% ultra fine pyrite blebs & hairline calcite hematite veinlets. Moderate Fizz.
SRK-GC-10-03	1.0	2.0	14252	1a	0.5% pyrite		Light apple green, extremely fine grained basalt with 0.5% ultra fine pyrite blebs & hairline calcite-hematite veinlets. Moderate Fizz
SRK-GC-10-03	2.0	3.0	14253	1a	2% pyrite		Mix: 75% Light apple green, extremely fine grained basalt with 2% fine pyrite; 25% white calcite vein chips. Moderate Fizz
SRK-GC-10-03	3.0	4.0	14254	1a	1% pyrite		Light apple green, extremely fine grained basalt with 1% pyrite blebs & hairline calcite hematite veinlets. Moderate to weak Fizz.
SRK-GC-10-03	4.0	5.0	14255	1a	1-2% pyrite		Light apple green, extremely fine grained basalt, 1-2% pyrite, 20% calcite Veinlet chips.
SRK-GT-10-01	1.2	2.2	12901	1a	1% pyrite		Medium grained bright green (Mg-Chl) dolerite, 1% anhedral
SRK-GT-10-01	2.2	3.2	12902	1a	trace pyrite		pyrite. Very coarse basalt or very fine gabbro, leucocratic, abundant bright green chl; hairline hematite cracks; trace py.
SRK-GT-10-01	3.2	4.2	12903	1a	0		Medium grained leucocratic dolorite, minor hematite stained cracks, no py.
SRK-GT-10-05	1.5	2.5	12910	1a	1% pyrite		Fine grained pale green basalt, 1% anhedral py.
SRK-GT-10-05	2.5	3.5	12911	1a	1% pyrite		Fine grained pale green basalt, 1% anhedral py, particularly on
SRK-GT-10-05	3.5	4.5	12912	1a	0.5% pyrite		joints/cracks faces. Fine grained light green basalt, 0.5% anhedral py.
SRK-GT-10-02	2.4	3.4	12904	3b/9/9			Mixed - 25% light green massive coarse crystal tuff, 50% pink syenogranite, 25% orangey-grey, high-quartz granite.
SRK-GT-10-02	3.4	4.4	12905	3b			Light green quartz-bearing crystal tuff, minor chlorite.
SRK-GT-10-02	4.4	5.4	12906	3b	0.5% pyrite		Light green quartz bearing tuff, minor quartz veinlets, 0.5% py.
SRK-GT-10-03	3.0	4.0	12907	1a	trace pyrite		Fine grained basalt, trace py.
SRK-GT-10-03	4.0	5.0	12908	1a	trace pyrite		Medium grained unstrained basalt, trace py.
SRK-GT-10-03	5.0	6.0	12909	1a	0.5% pyrite		Medium grained unstrained basalt, 0.5% py.
SRK-GT-10-04	7.9	8.9	12913	10a			Black, med-coarse grained unfoliated rock with well formed caplagioclase abundant: dolerite/melanogabbro.
SRK-GT-10-04	8.9	9.9	12914	1a/10a			Mix - 25% fine light green basalt, 75% ca-plag melano
SRK-GT-10-04	9.9	10.9	12915	10a			gabbro/dolorite. Medium grained black intrusive with ca-plagioclases and possible olivine + ilmenite gabbro.
SRK-GT-10-06	7.4	8.4	12916	10a			Medium grained black intrusive with dark plagioclase and probable olivine gabbro.
SRK-GT-10-06	8.4	9.4	12917	10a			Medium grained black intrusive with dark plagioclase and probable olivine gabbro.
SRK-GT-10-06	9.4	10.4	12918	10a			Medium grained black intrusive with dark plagioclase and probable olivine gabbro.
SRK-GT-10-07	4.9	5.9	12919	1a	0.5% pyrite	C-type	Fine light green basalt C-type, about 0.5% vfine py, minor qtz-cc veinlets.
SRK-GT-10-07	5.9	6.9	12920	1a	0.1% pyrite	C-type	Fine light green basalt C-type, about 0.1% fine anhedral py, minor qtz-cc veinlets.
SRK-GT-10-07	6.9	7.9	12921	1a	trace pyrite	C-type	Fine light green basalt C-type, trace fine py, very weak foliation + weak mineral lineation.
SRK-GT-10-08	5.0	6.0	12922	1a		A-type?	Fine to medium grained, dark green basalt (A-type?) with minor hematite stains along fractures faces, unfoliated, minor qz veinlets.
SRK-GT-10-08	6.0	7.0	12923	1a			Medium to coarse grained dark green basalt with abundant mm scale hematite stained quartz veinlets.
SRK-GT-10-08	7.0	8.0	12924	1a	0.5% pyrite		Medium to coarse grained dark green basalt with abundant mm scale hematite stained quartz veinlets + mm scale py-bearing epidote vlets, overall 0.5% py, weakly strained.

Attachment 3: Geology Logs for 2010 Doris North Mill Pad Drill Holes

Hole	From (m)	To (m)	Sample ID	Lithology Code	Sulphides	C-type or A-type?	Geological Description
SRK-GC-10-02	0.0	1.0	14262	1a	trace pyrite		Mix: 30% white calcite veinlet chips; 70% fine/very fine, calcite
SRK-GC-10-02	1.0	2.0	14263	1a	trace pyrite		altered basalt. Trace pyrite. Strong fizz. Mix: 50% white calcite veinlet chips; 50% fine/very fine, calcite- altered basalt. Trace pyrite. Strong fizz.
SRK-GC-10-02	2.0	3.0	14264	1a	trace pyrite		Fine to medium grain, weakly calcite altered greenish-grey basalt.
SRK-GC-10-02	3.0	4.0	14265	1a	trace pyrite		Trace very fine pyrite. Weak fizz. Medium grained greyish-green basalt, no calcite. No fizz; trace fine pyrite.
SRK-GC-10-02	4.0	5.0	14266	1a	0.5% pyrite		Medium grained greyish-green basalt, no calcite. 0.5% fine anhedral pyrite blebs; Very Weak fizz.
SRK-GT-10-09	1.2	2.2	12931	1a	trace? Pyrite		Fine grained dark green basalt with minor qz+ep+em veinlets, very fine anhedral py.
SRK-GT-10-09	2.2	3.2	12932	1a	trace? Pyrite		Fine grained dark green basalt with minor qz+ep+em veinlets, very fine anhedral py.
SRK-GT-10-09	3.2	4.2	12933	1a	trace? Pyrite	B-type?	Fine grained dark green basalt with minor qz+ep+em veinlets, very fine anhedral py, with small phenocrysts of plagioclase being altered to chlorite (probable B-type?).
SRK-GT-10-10	2.1	3.1	12934	1a	trace pyrite		Mix - 80% fine grained medium green basalt with qz+hem+/- ep
SRK-GT-10-10	3.1	4.1	12935	1a	minor pyrite		veinlets, bearing anhedral py in traces, 20% light green fine to medium grained schist (prob. Altered basalt). Very fine pale-yellow phyllosilicate schist with 1-3mm qz vlets
SRK-GT-10-10	4.1	5.1	12936	1a	minor pyrite		bearing minor very fine py, protolith likely basalt. Very fine pale-yellow phyllosilicate schist with 1-3mm qz vlets
							bearing minor very fine py, weakly sericitized basalt.
SRK-GT-10-11	3.2	4.2	12937	9/1a	trace pyrite		Mix - 30% biotite + amph bearing granite and 70% fine to medium grained basalt with trace py and accessory hematite.
SRK-GT-10-11	4.2	5.2	12938	1a	trace pyrite		Medium grained dark green basalt with moderate fabric, trace vfine py, one hairline orange vlet, unidentified.
SRK-GT-10-11	5.2	6.2	12939	1a	trace pyrite		Medium grained dark green basalt, moderate fabric, trace vfine py., no vlts, unidentified.
SRK-GT-10-12	1.2	2.2	12941	1a	2% pyrite		Fine grained basalt with minor qz vlets containing accessory ep+cc, 2% anhedral/subeuhedral py, minor hematite staining
SRK-GT-10-12	2.2	3.2	12942	1a	trace pyrite		along fractures. Fine grained basalt, trace py, minor hematite staining along fractures.
SRK-GT-10-12	3.2	4.2	12943	1a	1% pyrite		Fine green basalt abundant qz-ep vleting, 1% sub-euhedral py.
SRK-GT-10-13	2.0	3.0	12944	1a		C-type	Fine light green basalt: C-type
SRK-GT-10-13	3.0	4.0	12945	1a		C-type	Fine light green basalt: C-type
SRK-GT-10-13	4.0	5.0	12946	1a	1% pyrite	C-type	Fine light green basalt with 1% anhedral pyrite, minor quartz veinlets, C-type
SRK-GT-10-14	1.8	2.8	12950	1a	1% pyrite		Fine light green basalt, 1% pyrite, minor epidote-quartz veinlets
SRK-GT-10-14	2.8	3.8	12948	1a	1% pyrite		Fine light green basalt, 1% pyrite, minor epidote-quartz veinlets
SRK-GT-10-14	3.8	4.8	12949	1a	1% pyrite		Fine light green basalt, 1% pyrite, minor epidote-quartz veinlets
SRK-GT-10-15	1.2	2.2	540401	1a	0.5% pyrite	C-type	Fine to very fine grained C-type basalt with 0.5% fine anhedral py;
SRK-GT-10-15	2.2	3.2	540402	1a	0.5% pyrite	C-type	10% white quartz chips. Fine to very fine grained C-type basalt with 0.5% fine anhedral py; 10% white quartz chips with accessory epidote.
SRK-GT-10-15	3.2	4.2	540403	1a	3-5% pyrite	C-type	Very fine grained light C-type basalt with 3 - 5% anhedral py; 10% quartz-epidote veining chips.
SRK-GT-10-16	1.5	2.5	14256	1a	2% pyrite		Fine light green basalt with 2% anhedral pyrite
SRK-GT-10-16	2.5	3.5	14257	1a	1% pyrite		Fine light green basalt with 1% anhedral pyrite
SRK-GT-10-16	3.5	4.5	14258	1a	2% pyrite		Fine light green basalt with 1% anhedral pyrite, quartz + epidote + haematite

Attachment 3: Geology Logs for 2010 Doris North Mill Pad Drill Holes

Hole From To		Sample	Lithology	Sulphides	C-type or	Geological Description	
	(m)	(m)	ID	Code		A-type?	
SRK-GT-10-17	4.3	5.3	12925	1a	2% pyrite		Fine light yellowish green, sericite-altered, 10 -15% veinlets, 2% subhedral pyrite
SRK-GT-10-17	5.3	6.3	12926	1a	<1% pyrite		Fine light yellowish green, sericite-altered, 10 -15% veinlets, <1% subhedral pyrite
SRK-GT-10-17	6.3	7.3	12927	1a	5% pyrite		Mix of 90% sericite schist (basalt), 15% quartz, 5% med-fine grained subhedral py, 10% light green chlorite-altered basalt chips
SRK-GT-10-18	4.9	5.9	12928	1a/9		C-type	Med to fine grained basalt (C-type) + 5% syenogranite
SRK-GT-10-18	5.9	6.9	12929	1a/9/1a		C-type	Mix of 75% light green basalt (C-type) + 15% syenogranite + 10% med grained leucoxene-bearing basalt
SRK-GT-10-18	6.9	7.9	12930	1a	1-2% pyrite		Light green basalt with quartz veinlets and 1-2% strained py on veinlet margins.
SRK-GT-10-19	1.5	2.5	540404	1a	1-2% pyrite		Light green, possibly slightly altered, fine grained basalt with 10% white quartz veinlet material + 1-2% pyrite nearer to veinlets.
SRK-GT-10-19	2.5	3.5	540405	1a	1% pyrite		Fine grained, medium grained basalt with 1% extremely fine grained pyrite.
SRK-GT-10-19	3.5	4.5	540406	1a	1% pyrite		Fine grained, medium grained basalt with 1% extremely fine grained pyrite + white quartz veinlets.
SRK-GT-10-20	4.1	5.1	540407	1a	5% pyrite		Mix of 50% sericitic, fine grained basalt, 50% fine to medium grained chlorite altered basalt, haematite staining + 5% py
SRK-GT-10-20	5.1	6.6	540408	1a	1% pyrite		Mix of 50% sericitic, fine grained basalt, 50% fine to medium grained chlorite altered basalt, haematite staining + 1% coarse py
SRK-GT-10-20	6.6	7.6	540409	1a	2% pyrite/no pyrite	A-type?	Mix of 50% weak to moderate sericitic basalt with 2% medium grained subhedral pyrite, 50% medium to dark green, fine to medium grained basalt, no pyrite, chlorites are Fe-rich = A-type?

Attachment 4: Total Sulphur and ABA Data for Doris North Fuel Tank Farm and Mill Pad Samples



SRK Consulting Inc. - Hopebay, 3-Mar-10

CANTEST Ltd. 4606 Canada Way, Burnaby, BC Canada V5G 1K5 Tel: 604 734 7276 Fax: 604 731 2386 www.cantest.com

Table 1: ABA Test Results for 41 and Total Sulphur Results for 126 (of 172) SRK-Hopebay (Doris Camp samples) Pulp Samples - March 2010

		Paste pH		t)_Leco		Sulphate			Modified NP	Fizz_1	
			Acme		Acme				Mod. ABA NP		
S. No.	Sample ID	Paste pH	CO2 (Wt.%)	CaCO3 Equiv.* (Kg CaCO3/Tonne)	Total Sulphur (Wt.%)	Sulphate Sulphur (Wt.%)	Sulphide Sulphur** (Wt.%)	Maximum Potential Acidity*** (Kg CaCO3/Tonne)	Neutralization Potential (Kg CaCO3/Tonne)	Net Neutralization Potential**** (Kg CaCO3/Tonne)	Fizz Rating
23	14262	8.7	6.97	158.4	0.06	<0.01	0.06	1.9	163.1	161.3	Strong
24	14263				0.05						
25	14265				0.09						
26	14266	8.9	6.45	146.6	0.07	< 0.01	0.07	2.2	151.0	148.8	Strong
27	14251	9.2	2.87	65.2	0.18	<0.01	0.18	5.6	68.5	62.9	Strong
28	14252				0.10						
29	14253				0.12						
30	14254				0.08						
31	14255	9.2	2.94	66.8	0.13	<0.01	0.13	4.1	70.1	66.1	Strong
73	12901	9.0	2.43	55.2	0.05	<0.01	0.05	1.6	79.1	77.6	Strong
74	12902				0.02						
75	12903				< 0.02						
76	12911				0.09						
77	12905	9.0	2.86	65.0	0.03	<0.01	0.03	0.9	68.4	67.4	Strong
78	12906	9.1	3.26	74.1	0.04	< 0.01	0.04	1.3	93.0	91.8	Strong
79	12908				0.09						
80	12913				0.07						
81	12915				0.05						
82	12917	9.2	0.37	8.4	0.03	<0.01	0.03	0.9	35.0	34.1	Slight
83	12920				0.09						-
84	12922	8.7	2.58	58.6	< 0.02	<0.01	<0.02	<0.6	83.0	83.0	Moderate
85	12924				0.06						
86	12932				0.09						
87	12933	8.9	3.78	85.9	0.09	<0.01	0.09	2.8	98.3	95.4	Strong
88	12934				0.08			-			3
89	12935				0.11						
90	12938				0.07						
91	12941				0.10						
92	12943				0.08						
93	12946				0.09						
94	12948				0.10						
95	540401				0.03						
96	540403				0.07						
97	14256				0.09						
98	14257				0.09						
99	12925				0.18						
100	12926				0.14						
101	12927				0.41						
102	12928	8.8	6.49	147.5	0.07	<0.01	0.07	2.2	150.3	148.1	Strong
103	12930	0.0	0.40	177.0	0.17	\0.01	0.01	2.2	100.0	170.1	O. O. Ig
104	540404				0.17						
105	540407				0.08						
	540409				0.06						

Notes:

Total sulphur and carbonate carbon (CO2; HCl direct method) by Leco done at Acme Labs.

CO2 Analysis: 0.2g of pulp sample is digested with 6 ml of 1.8N HCl in a hot water bath of 70°C for 30 minutes. The CO2 that evolves is trapped in a gas chamber that is controlled with a stopcock, once the stopcock is opened the CO2 gas is swept into the Leco analyser with an oxygen carrier gas. Leco then determines the CO2 as total-carbon which is calculated to total CO2.

Calculations:

*CaCO3 equivalents is based on carbonate carbon.

Reference for Mod ABA NP method (SOP No. 7150): MEND Acid Rock Drainage Prediction Manual, MEND Project 1.16.1b (pages 6.2-11 to 17), March 1991.

^{**}Sulphide sulphur is based on difference between total sulphur and sulphate sulphur.
***MPA (Maximum Potential Acidity) is based on sulphide sulphur.

^{****} NNP (Net Neutralization Potential) is based on difference between Neutralization Potential (NP) and MPA.

Attachment 5: Trace Metal Data for Doris North Fuel Tank Farm and Mill Pad Samples

CAVIEST

O O O

SRK Consulting Inc. - Hopebay, 3-Mar-10

CANTEST Ltd. 4606 Canada Way, Burnaby, BC Canada V5G 1K5 Tel: 604 734 7276 Fax: 604 731 2386 www.cantest.com

Table 3: Trace Metals Using Aqua Regia Digestion with ICP-MS Finish for 41 (of 172) SRK-Hopebay (Doris Camp samples) Pulp Samples - March 2010

S. No.	Sample	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	٧	Ca	Р	La	Cr	Mg	Ва	Ti	В	Al	Na	K	W	Hg	Sc	TI	S	Ga	Se	Te
	ID.	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
23	14262	0.3	283.4	1	62	<0.1	58.2	32.5	1141	5.31	30.6	<0.1	1.1	0.1	18	0.1	<0.1	<0.1	177	6	0.018	1	165	2.34	5	0.2	<20	3.29	0.02	0.03	1.2	<0.01	18.9	<0.1	< 0.05	9	0.8	<0.2
24	14263																																-					
	14265																																-					
26	14266	0.5	151.5	4.1	69	<0.1	71.2	39.1	1279	6.22	12.6	<0.1	2.9	0.2	27	<0.1	<0.1	<0.1	198	5.7	0.022	2	199	3.24	3	0.291	<20	4.07	0.026	<0.01	0.2	<0.01	18.8	<0.1	0.05	10	0.6	<0.2
27	14251	0.1	125.5	3.9	52	<0.1	68.7	27.5	764	3.43	1.2	<0.1	0.8	0.2	11	0.2	<0.1	<0.1	77	2.85	0.015	<1	139	1.33	3	0.309	<20	1.94	0.075	0.01	0.2	<0.01	3.7	<0.1	0.11	4	0.6	<0.2
28	14252																																					
29	14253																																					
30	14254																																					
31	14255	0.1	114.4	2.9	44	<0.1	74.3	28.6	810	3.8	2.4	<0.1	2.9	<0.1	15	<0.1	<0.1	<0.1	88	2.98	0.015	<1	161	1.62	2	0.323	<20	2.24	0.061	<0.01	0.1	<0.01	4.7	<0.1	0.12	4	0.7	<0.2
	12901	0.1	109.3	1.1	57	0.1	89.7	34.5	912	4.76	12.8	0.1	6	0.7	24	<0.1	<0.1	<0.1	119	2.55	0.013	3	175	2.99	12	0.264	<20	3.49	0.044	0.08	<0.1	<0.01	8	<0.1	0.06	7	0.7	<0.2
74	12901		109.3					34.3		4.70	12.0							V 0.1		2.33	0.023			2.33	12	0.204		J.43	0.044				0					
75	12902																																					
76	12903																												1									
			102.1		 E1	1	72.4	 20 6		4.12					10	1	1			2.04	0.019		150	1.04		0.274		2.66	0.029		 -0.1		17		 -0.05			
77 78	12905 12906	0.3	102.1 109.1	0.6 5.3	51 52	<0.1	72.4 79.8	28.6 30.8	914	4.12 4.18	2.6	<0.1	2.3	0.3	18	<0.1	<0.1 <0.1	<0.1	83	3.04	0.018	1	150	1.94 1.93	6	0.274 0.306	63 36	2.66	0.028	0.02	<0.1	<0.01	4.7 4.7	<0.1	<0.05	4	0.9	<0.2
		0.2							947		1.6	<0.1	1.9	0.2	18	<0.1	<0.1	<0.1	86		0.016	<1	154		5				0.038	0.02	<0.1	<0.01	4.7	<0.1	0.06	4	<0.5	
79	12908																																					
80	12913																																-					
	12915																																					
	12917	0.6	129.9	8.5	45	<0.1	53.3	18.7	328	3.56	0.8	0.3	4.1	2	88	0.1	<0.1	<0.1	180	2.93	0.035	8	33	1.16	23	0.275	<20	4.44	0.685	0.12	<0.1	<0.01	3.1	<0.1	<0.05	10	8.0	<0.2
83	12920																																					
84	12922	0.3	60.6	13.1	67	<0.1	78.1	36.9	1059	5.38	5.4	<0.1	1.2	0.5	36	<0.1	<0.1	<0.1	123	2.98	0.024	2	208	2.77	10	0.321	<20	3.52	0.053	0.06	0.2	<0.01	7.4	<0.1	<0.05	7	<0.5	<0.2
85	12924																																					
86	12932																																					
	12933	<0.1	136.7	6.4	73	<0.1	69	41.6	1360	5.97	1.1	<0.1	0.8	<0.1	27	<0.1	<0.1	<0.1	149	3.71	0.022	<1	183	3.22	7	0.322	<20	3.65	0.026	0.01	<0.1	<0.01	7	<0.1	0.06	7	<0.5	<0.2
88	12934																																					
89	12935																																					
90	12938																																-					
91	12941																																-					
92	12943																																					
93	12946																																					
94	12948																																					
	540401																																					
96	540403																																					
97	14256																																-					
98	14257																																					
99	12925																																					
100	12926	-																-																				
101	12927																																					
102	12928	0.2	132.9	0.7	66	<0.1	75.4	42.8	1510	6.32	0.7	<0.1	2.5	0.2	21	<0.1	<0.1	<0.1	198	5.34	0.022	2	193	3.48	4	0.275	<20	4.19	0.024	0.01	<0.1	<0.01	20.9	<0.1	0.06	9	0.6	<0.2
103	12930	-																																				
104	540404																																					
	540407																																					
	540409																																					
.00	0.0100																																					

Note:

Analysis done at Acme Labs.

Appendix 6: ABA Data for Doris North Fuel Tank Farm and Mill Pad Geochemical Investigation

Lab ID_1	Lab ID_2	Drillhole ID	From	om To Rock Type Paste pH Total Sulphur Sulphate		Sulphide	AP (Tot S)	TIC	Sobek NP	Modified NP	NNP	NP/AP	TIC/AP			
	[Lub 15_2		m	m	Nock Type	r uste pri	%	%	%	Ai (1003)			gCaCO3/t	14141	III //AI	110/74
HB-203308	203308	06TDD610	6	7	1p	8.46	0.51	0.03	0.481	15.9	188.9	287.5		271.6	18.0	11.9
HB-203309	203309	06TDD610	7	8	1p	8.49	0.28	0.01	0.265	8.8	218.6	256.3		247.5	29.3	
HB-203307	203307	06TDD610	5.61	6	1p	8.64	0.85	0.01	0.835	26.6	190.7	246.3		219.7	9.3	
HB-203303	203303	06TDD610	2	3	1p	8.52	0.07	0.01	0.058	2.2	194.8	245.0		242.8	112.0	
HB-203306	203306	06TDD610	5	5.61	1p	8.78	0.02	0.02	0	0.6	186.4	242.5		241.9	388.0	
HB-203314	203314	06TDD610	12	12.22	1p	8.62	0.02	0.01	0.012	0.6	188.9	233.8	<u></u>	233.1	374.0	302.2
HB-203304	203304	06TDD610	3	4	1p	8.62	0.02	0.003	0.017	0.6	148.2	229.4	<u></u>	228.8	367.0	237.2
HB-203312	203312	06TDD610	10	11	1p	8.52	0.03	0.03	0.005	0.9	145.5	218.8		217.8	233.3	155.2
HB-203313	203313	06TDD610	11	12	1p	8.55	0.02	0.01	0.011	0.6	170.3	218.8		218.1	350.0	
HB-203305	203305	06TDD610	4	5	1p	8.8	0.02	0.02	0.001	0.6	128.7	210.6		210.0	337.0	
HB-203302	203302	06TDD610	1	2	1p	8.49	0.07	0.01	0.06	2.2	140.5	203.8		201.6	93.1	64.2
HB-203310	203310	06TDD610	's	a	1p	8.48	0.02	0.01	0.007	0.6	155.0	189.4		188.8	303.0	248.1
HB-203311	203310	06TDD610		10	1p	8.7	0.03	0.01	0.007	0.9	145.5	182.5		181.6	194.7	155.2
HB-203301	203311	06TDD610	9	10	1p	8.24	0.09	0.01	0.017	2.8	98.1	129.4		126.6	46.0	34.9
HB-203322	203301	06TDD612	7.67	Q Q	1p	8.62	0.09	<0.01	0.077	0.6	150.7	207.5		206.9	332.0	241.2
HB-203323	203322	06TDD612	8	8.21	1p	8.59	0.02	0.01	0.02	0.6	158.2	196.9		196.3	315.0	
HB-203323	203323	06TDD612		3	· ·					1.9	136.2	176.3		174.4	94.0	
HB-203325	203316	06TDD612		-	1p	8.66 8.77	0.06	0.01	0.049		77.9			152.8		
		06TDD612	9	10 7.67	1p		0.03	0.03	ŭ	0.9		153.8			164.0	
HB-203321	203321			7.07	1p	8.46	0.02	0.01	0.005	0.6	94.7	146.9		146.3	235.0	
HB-203319	203319	06TDD612	5	0	1p	8.64	0.09	0.02	0.074	2.8	46.8	83.8		80.9	29.8	
HB-203320	203320	06TDD612	6	/	1p	8.71	0.03	0.01	0.019	0.9	37.2	81.9		80.9	87.3	
HB-203315	203315	06TDD612	1.3	2	1p	8.61	0.13	0.02	0.114	4.1	52.2	76.2		72.2	18.8	
HB-203317	203317	06TDD612	3	4	1p	8.74	0.06	0.01	0.047	1.9	40.2	68.8		66.9	36.7	21.4
HB-203318	203318	06TDD612	4	5	1p	8.72	0.05	0.02	0.031	1.6	43.8	67.5		65.9	43.2	
HB-203324	203324	06TDD612	8.21	9	1p	8.64	0.02	0.01	0.008	0.6	20.2	62.5		61.9	100.0	
07DRC004	181004	07DRC004	2.24	3.25	10a	8.8	0.04	<0.01	0.04	1.3	15.4	51.4		50.1	41.1	12.3
07DRC005	181005	07DRC005	3.05	4.06	1a	8.52	0.31	<0.01	0.31	9.7	192.3	243.1		233.4	25.1	19.8
07DRC006	181007	07DRC006	2.01	3.02	1a	8.93	0.1	<0.01	0.1	3.1	119.6	176.1		172.9	56.3	
07DRC009	181010	07DRC009	8.15	9.17	1a	8.55	0.09	<0.01	0.09	2.8	158.4	222.4		219.6	79.1	56.3
07DRC011	181012	07DRC011	2.36	3.38	1a	8.53	0.09	0.01	0.08	2.8	210.2	244.4		241.5	86.9	
07DRC014		07DRC014	9.75	10.77	1a	8.41	0.16	<0.01	0.16	5.0	186.4		187.8	182.8	37.6	
07DRC018		07DRC018	8.25	9.27	1a	8.47	0.13	0.01	0.12	4.1	99.9		97.7		24.1	24.6
07DRC019		07DRC019	5.69	6.71	1a	8.39	0.08	0.01	0.07	2.5	143.9		140.7			
14266		SRK-GC-10-02	4.00	5.00	1 a	8.87	0.07	<0.01	0.07	2.2	146.4		151.0		69.0	
14262		SRK-GC-10-02	0.00	1.00	1 a	8.71	0.06	<0.01	0.06	1.9	158.2		163.1	161.3	87.0	84.4
14263		SRK-GC-10-02	1.00	2.00	1 a		0.05			1.6						1
14265		SRK-GC-10-02	3.00	4.00	1 a		0.09			2.8						
14251		SRK-GC-10-03	0.00	1.00	1 a	9.23	0.18	<0.01	0.18	5.6	65.1		68.5		12.2	
14255		SRK-GC-10-03	4.00	5.00	1 a	9.24	0.13	<0.01	0.13	4.1	66.7		70.1	66.1	17.3	16.4
14252		SRK-GC-10-03	1.00	2.00	1 a		0.10			3.1						
14253		SRK-GC-10-03	2.00	3.00	1a		0.12			3.8						
14254		SRK-GC-10-03	3.00	4.00	1a		0.08			2.5						
12901		SRK-GT-10-01	1.20	2.20	1 a	8.97	0.05	<0.01	0.05	1.6	55.2		79.1	77.6	50.6	35.3
12902		SRK-GT-10-01	2.20	3.20	1 a		0.02			0.6						
12903		SRK-GT-10-01	3.20	4.20	1 a		-0.02			0.6						
12905		SRK-GT-10-02	3.40	4.40	3b	9.02	0.03	<0.01	0.03	0.9	64.9		68.4	67.4	72.9	69.3

Appendix 6: ABA Data for Doris North Fuel Tank Farm and Mill Pad Geochemical Investigation

Lab ID_1	Lab ID_2	Drillhole ID	From	То	Rock Type	Paste pH	Total Sulphur	Sulphate	Sulphide	AP (Tot S)	TIC	Sobek NP	Modified NP	NNP	NP/AP	TIC/AP
			m	m			%	%	%			k	gCaCO3/t			
12906		SRK-GT-10-02	4.40	5.40	3b	9.08	0.04	<0.01	0.04	1.3	74.0		93.0	91.8	74.4	59.2
12908		SRK-GT-10-03	4.00	5.00	1 a		0.09			2.8						
12913		SRK-GT-10-04	7.90	8.90	10a		0.07			2.2						
12915		SRK-GT-10-04	9.90	10.90	10a		0.05			1.6						
12911		SRK-GT-10-05	2.50	3.50	1 a		0.09			2.8						
12917		SRK-GT-10-06	8.40	9.40	10a	9.18	0.03	<0.01	0.03	0.9	8.4		35.0	34.1	37.3	9.0
12920		SRK-GT-10-07	5.90	6.90	1 a		0.09			2.8						
12922		SRK-GT-10-08	5.00	6.00	1 a	8.72	-0.02	<0.01	0.02	0.6	58.6		83.0	82.4	132.8	93.7
12924		SRK-GT-10-08	7.00	8.00	1 a		0.06			1.9						
12933		SRK-GT-10-09	3.20	4.20	1 a	8.91	0.09	<0.01	0.09	2.8	85.8		98.3	95.4	34.9	30.5
12932		SRK-GT-10-09	2.20	3.20	1 a		0.09			2.8						
12934		SRK-GT-10-10	2.10	3.10	1 a		0.08			2.5						
12935		SRK-GT-10-10	3.10	4.10	1 a		0.11			3.4						
12938		SRK-GT-10-11	4.20	5.20	1 a		0.07			2.2						
12941		SRK-GT-10-12	1.20	2.20	1 a		0.10			3.1						
12943		SRK-GT-10-12	3.20	4.20	1 a		0.08			2.5						
12946		SRK-GT-10-13	4.00	5.00	1 a		0.09			2.8						
12948		SRK-GT-10-14	2.80	3.80	1 a		0.10			3.1						
540401		SRK-GT-10-15	1.20	2.20	1 a		0.03			0.9						
540403		SRK-GT-10-15	3.20	4.20	1 a		0.07			2.2						
14256		SRK-GT-10-16	1.50	2.50	1 a		0.09			2.8						
14257		SRK-GT-10-16	2.50	3.50	1 a		0.09			2.8						
12925		SRK-GT-10-17	4.30	5.30	1 a		0.18			5.6						
12926		SRK-GT-10-17	5.30	6.30	1 a		0.14			4.4						
12927		SRK-GT-10-17	6.30	7.30	1 a		0.41			12.8						
12928		SRK-GT-10-18	4.90	5.90	1a/9	8.84	0.07	<0.01	0.07	2.2	147.3		150.3	148.1	68.7	67.3
12930		SRK-GT-10-18	6.90	7.90	1a		0.17			5.3						
540404		SRK-GT-10-19	1.50	2.50	1a		0.11			3.4						
540407		SRK-GT-10-20	4.10	5.10	1a		0.08			2.5						
540409		SRK-GT-10-20	6.60	7.60	1a		0.06			1.9						