



144 West Terrace Cres.
Cochrane, AB. T4C-1R3

M-Squared Instruments

Ph. 403-932-3448
email: m-squared@canada.com

Thermistor Cable Data Sheet

Customer: Nanisivik Mine, Div. CanZinco Ltd., PO Box 56

Bathurst NB, E2A 3Z1

Contact: Rachel Morrison 5065461999x2243 F.5481100

Project: Nanisivik Mine, NU. Via Andlauer 800 568 7497

Date Ordered: 13-May-03

Purchase Order No.: D-000004516

Serial No.: 255-008 30-1

Total Length: 34

Lead Length: 4 m.

Termination: MS3106A 20-29P

Thermistor Type: YSI 44007

No. of Thermistors: 8

Shielded Flex Conduit

Molded: Yes

Number of Cables in Order: 12

T. No.	Colour Code	Depth	Pin No.	kOhms @ 0 deg. C.
1	WH	2.00	A	16.36
	BK		T	
2	BN	5.00	B	16.36
	RD		T	
3	OR	7.50	C	16.37
	YW		T	
4	GN	10.00	D	16.39
	BK		T	
5	BN	12.50	E	16.38
	RD		T	
6	OR	15.00	F	16.33
	YW		T	
7	GN	20.00	G	16.37
	BU		T	
8	PU	25.00	H	16.39
	GY		T	
9	WH	30.00	J	16.39
	BK		T	



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Customer: Nanisivik Mine, Div. CanZinco Ltd., PO Box 56

Bathurst NB, E2A 3Z1

Contact: Rachel Morrison 5065461999x2243 F.5481100

Project: Nanisivik Mine, NU. Via Andlauer 800 568 7497

Date Ordered: 5/13/2003 (Design revised: May 16, 2003)

Purchase Order No.: D-000004516

Serial No.: 255-008 30-2

Total Length: 34

Lead Length: 4 m.

Termination: MS3106A 20-29P

Thermistor Type: YSI 44007

No. of Thermistors: 10

Shielded Flex Conduit

Molded: Yes

Number of Cables in Order: 12

T. No.	Colour Code	Depth	Pin No.	kOhms @ 0 deg. C.
1	WH	1.00	A	16.36
	SH,BKWH,TN,BU			T
2	RD	2.00	B	16.36
	SH,BKWH,TN,BU			T
3	GN	5.00	C	16.33
	SH,BKWH,TN,BU			T
4	BK	7.50	D	16.34
	SH,BKWH,TN,BU			T
5	GY	10.00	E	16.31
	SH,BKWH,TN,BU			T
6	BN	12.50	F	16.39
	SH,BKWH,TN,BU			T
7	PK	15.00	G	16.35
	SH,BKWH,TN,BU			T
8	OR	20.00	H	16.37
	SH,BKWH,TN,BU			T
9	PU	25.00	J	16.34
	SH,BKWH,TN,BU			T
10	YW	30.00	K	16.36
	SH,BKWH,TN,BU			T



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Customer: Nanisivik Mine, Div. CanZinco Ltd., PO Box 56

Bathurst NB, E2A 3Z1

Contact: Rachel Morrison 5065461999x2243 F.5481100

Project: Nanisivik Mine, NU. Via Andlauer 800 568 7497

Date Ordered: Sept. 11, 2003

Purchase Order No.: 0255-008-04

Serial No.: Test Cover

Total Length: 9 m.

Lead Length: 7 m.

Termination: MS3106A 20-29P

Thermistor Type: YSI 44007

No. of Thermistors: 10

Shielded No

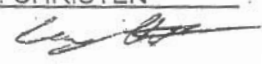
Molded: No

Number of Cables in Order: 1

T. No.	Colour Code	Depth	Pin No.	kOhms @ 0 deg. C.
1	WH	0.25	A	16.3
	PK			
2	TN	0.50	B	16.3
	CL			
3	BK	0.75	C	16.25
	BN			
4	RD	1.00	D	16.34
	OR			
5	YW	1.25	E	16.3
	GN			
6	BU	1.50	F	16.28
	PU			
7	GY	2.00	G	16.31
	EBK			
8	GN	3.00	H	16.28
	GY			
9	WH	5.00	J	16.28
	BN			
10	PU	7.00	K	16.26
	CL			



VW2102 CALIBRATION DATA SHEET

Customer: BGC ENGINEERINGJob No. 018082Calibration Date: 27-Aug-03Calibration Recall: 27-AUG-04Serial Number: 1264Technician: C. CHRISTEN


VW2102 Position "A" (period μ s)

Applied frequency	VW2102 Reading	Frequency Counter	*Percent of Reading Error ($\pm 0.1\%$)
800.0 Hz	1250.7	1250.000	0.056
1.5 KHz	667.0	666.666	0.050
3.0 KHz	333.5	333.333	0.050

Hewlett Packard Model #34401A SN: US36053118 Calibration recall date: 11-April-2004

This certifies the above named instrument has been calibrated by comparison with standards traceable to the National Institute of Standards and Technology (NIST) in compliance with ANSI/NC SL Z540-1.

$$* \text{ Percent of Reading Error} = 1 - \left(\frac{\text{Lower of the Two Readings}}{\text{Higher of the Two Readings}} \right) \times 100 (\%)$$





Vibrating Wire Pressure Transducer Calibration

Customer: BGC ENGINEERING
 Model: VW2100-0.35
 Serial Number: VW0446
 Mfg Number: 03-25503
 Range: 350.0 kPa
 Date of Calibration: 1-Aug-03
 Temperature: 22.6 °C
 Barometric Pressure: 1002.7 millibars
 W.O. Number: 18082
 Cable Length: 20 meters
 Cable Colour Code: red / black (coil) green / white (thermistor)
 Cable Insulation: PE Polyethylene
 Thermistor type: 3 Kohms

Applied Pressure (kPa)	First Reading (B units)	Applied Pressure (kPa)	Second Reading (B units)	Average Pressure (kPa)	Average Readings (B units)	Calculated Pressure (kPa)	Linearity F.S. Error (%)	Polynomial Fit (% FS)
0.0	8805	0.0	8805	0.00	8805	0.39	0.11	0.03
70.0	8189	70.0	8190	70	8190	69.87	-0.04	-0.02
140.0	7572	140.0	7573	140	7573	139.52	-0.14	-0.07
210.0	6948	210.0	6948	210	6948	210.01	0.00	0.07
280.0	6328	280.0	6328	280	6328	280.00	0.00	0.02
350.0	5706	350.0	5706	350	5706	350.21	0.06	-0.02
Max. Error (%):							0.14	0.07

Linear Calibration Factor: C.F. = 0.112882 kPa/B unit
 Regression Zero: At Calibration Bi = 8808.5 B unit
 Temperature Correction Factor: Tk = -0.14750 kPa/°C rise

Polynomial Gage Factors (kPa) A: -2.3326E-07 B: -0.10950 C: 982.3

Pressure is calculated with the following equations:

Linear: $P(kPa) = C.F. \times (Li - Lc) - [Tk (Ti - Tc)] + [0.10 (Bi - Bc)]$

Polynomial: $P(kPa) = A(Lc)^2 + B(Lc) + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	DATE	VW2104	TEMP °C	BARO
	(mm/dd/yr)	Pos. B (Li)	(Ti)	(Bi)
FACTORY ZERO READINGS:	8/5/03	<u>8804</u>	<u>23.6</u>	<u>993.4</u>
SHIPPED ZERO READINGS:	8/27/03	<u>8795</u>	<u>23.1</u>	<u>1017.7</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: [Signature]

Date: 8/27/03

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





Vibrating Wire Pressure Transducer Calibration

Customer: BGC ENGINEERING
 Model: VW2100-0.35
 Serial Number: VW0447
 Mfg Number: 03-25504
 Range: 350.0 kPa
 Date of Calibration: 1-Aug-03
 Temperature: 22.6 °C
 Barometric Pressure: 1002.7 millibars
 W.O. Number: 18082
 Cable Length: 20 meters
 Cable Colour Code: red / black (coil) green / white (thermistor)
 Cable Insulation: PE Polyethylene
 Thermistor type: 3 Kohms

Applied Pressure (kPa)	First Reading (B units)	Applied Pressure (kPa)	Second Reading (B units)	Average Pressure (kPa)	Average Readings (B units)	Calculated Pressure (kPa)	Linearity F.S. Error (%)	Polynomial Fit (% FS)
0.0	8909	0.0	8910	0.00	8910	0.17	0.05	0.01
70.0	8309	70.0	8311	70	8310	69.99	0.00	0.01
140.0	7710	140.0	7711	140	7711	139.80	-0.06	-0.02
210.0	7109	210.0	7110	210	7110	209.79	-0.06	-0.02
280.0	6505	280.0	6505	280	6505	280.19	0.05	0.06
350.0	5905	350.0	5905	350	5905	350.06	0.02	-0.03
Max. Error (%):							0.06	0.06

Linear Calibration Factor: C.F. = 0.116453 kPa/B unit
 Regression Zero: At Calibration Bi = 8911.0 B unit
 Temperature Correction Factor: Tk = -0.14010 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.2969E-07 B: -0.11453 C: 1030.7

Pressure is calculated with the following equations:

Linear, $P(\text{kPa}) = C.F. \times (Li - Lc) - [Tk (Ti - Tc)] + [0.10 (Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	DATE	VW2104	TEMP °C	BARO
	(mm/dd/yr)	Pos. B (Li)	(Ti)	(Bi)
FACTORY ZERO READINGS:	8/5/03	<u>8908</u>	<u>23.6</u>	<u>993.4</u>
SHIPPED ZERO READINGS:	8/27/03	<u>8897</u>	<u>23</u>	<u>1017.7</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: Joe P. Sykes

Date: 8/27/03

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1



Vibrating Wire Pressure Transducer Calibration

Customer: BGC ENGINEERING
 Model: VW2100-0.35
 Serial Number: VW0448
 Mfg Number: 03-25505
 Range: 350.0 kPa
 Date of Calibration: 1-Aug-03
 Temperature: 22.6 °C
 Barometric Pressure: 1002.7 millibars
 W.O. Number: 18082
 Cable Length: 20 meters
 Cable Colour Code: red / black (coil) green / white (thermistor)
 Cable Insulation: PE Polyethylene
 Thermistor type: 3 Kohms

Applied Pressure (kPa)	First Reading (B units)	Applied Pressure (kPa)	Second Reading (B units)	Average Pressure (kPa)	Average Readings (B units)	Calculated Pressure (kPa)	Linearity F.S. Error (%)	Polynomial Fit (% FS)
0.0	9025	0.0	9026	0.00	9026	0.24	0.07	0.01
70.0	8435	70.0	8435	70	8435	69.93	-0.02	-0.01
140.0	7843	140.0	7843	140	7843	139.79	-0.06	-0.01
210.0	7250	210.0	7250	210	7250	209.77	-0.06	-0.02
280.0	6653	280.0	6654	280	6654	280.17	0.05	0.06
350.0	6061	350.0	6061	350	6061	350.09	0.03	-0.03
Max. Error (%):							0.07	0.06

Linear Calibration Factor: C.F. = 0.118015 kPa/B unit
 Regression Zero: At Calibration Bi = 9027.5 B unit
 Temperature Correction Factor: Tk = -0.15430 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.6791E-07 B: -0.11548 C: 1056.0

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \times (Li - Lc) - [Tk (Ti - Tc)] + [0.10 (Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	DATE (mm/dd/yr)	VW2104 Pos. B (Li)	TEMP °C (Ti)	BARO (Bi)
FACTORY ZERO READINGS:	8/5/03	9025	23.6	993.4
SHIPPED ZERO READINGS:	8/27/03	9013	23.4	1017.7

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: John P. Sayer

Date: 8/27/03

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





Vibrating Wire Pressure Transducer Calibration

Customer: BGC ENGINEERING
 Model: VW2100-0.35
 Serial Number: VW0449
 Mfg Number: 03-25506
 Range: 350.0 kPa
 Date of Calibration: 1-Aug-03
 Temperature: 22.6 °C
 Barometric Pressure: 1002.7 millibars
 W.O. Number: 18082
 Cable Length: 20 meters
 Cable Colour Code: red / black (coil) green / white (thermistor)
 Cable Insulation: PE Polyethylene
 Thermistor type: 3 Kohms

Applied Pressure (kPa)	First Reading (B units)	Applied Pressure (kPa)	Second Reading (B units)	Average Pressure (kPa)	Average Readings (B units)	Calculated Pressure (kPa)	Linearity F.S. Error (%)	Polynomial Fit (% FS)
0.0	8879	0.0	8879	0.00	8879	0.05	0.01	0.01
70.0	8279	70.0	8279	70	8279	69.93	-0.02	-0.02
140.0	7677	140.0	7677	140	7677	140.03	0.01	0.01
210.0	7076	210.0	7077	210	7077	209.97	-0.01	0.00
280.0	6475	280.0	6475	280	6475	280.02	0.00	0.01
350.0	5874	350.0	5874	350	5874	350.01	0.00	0.00
Max. Error (%):							0.02	0.02

Linear Calibration Factor: C.F. = 0.116459 kPa/B unit
 Regression Zero: At Calibration Bi = 8879.4 B unit
 Temperature Correction Factor: Tk = -0.11640 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.7248E-08 B: -0.11620 C: 1033.2

Pressure is calculated with the following equations:

Linear, $P(\text{kPa}) = C.F. \times (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	DATE	VW2104	TEMP °C	BARO
	(mm/dd/yr)	Pos. B (Li)	(Ti)	(Bi)
FACTORY ZERO READINGS:	8/5/03	8877	23.5	993.4
SHIPPED ZERO READINGS:	8/27/03	8866	23	1017.7

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: *Jim Boyer*

Date: 8/27/03

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1



RST INSTRUMENTS LTD.

200 - 2050 Hartley Avenue, Coquitlam, British Columbia, Canada V3K 8W5



Vibrating Wire Pressure Transducer Calibration

Customer: BGC ENGINEERING INC.
 Model: VW2100-0.35
 Serial Number: VW0501
 Mfg Number: 03-25568
 Range: 350.0 kPa
 Date of Calibration: 5-Aug-03
 Temperature: 23.4 °C
 Barometric Pressure: 992.4 millibars
 W.O. Number: 18211
 Cable Length: 25 meters
 Cable Colour Code: red / black (coil) green / white (thermistor)
 Cable Insulation: PE Polyethylene
 Thermistor type: 3 Kohms

Applied Pressure (kPa)	First Reading (B units)	Applied Pressure (kPa)	Second Reading (B units)	Average Pressure (kPa)	Average Readings (B units)	Calculated Pressure (kPa)	Linearity F.S. Error (%)	Polynomial Fit (% FS)
0.0	8741	0.0	8742	0.00	8742	-0.14	-0.04	0.01
70.0	8185	70.0	8185	70	8185	70.04	0.01	0.00
140.0	7591	140.0	7591	140	7591	139.93	-0.02	-0.06
210.0	7012	210.0	7013	210	7013	210.36	0.10	0.06
280.0	6441	280.0	6439	280	6440	280.06	0.02	0.01
350.0	5867	350.0	5868	350	5868	349.76	-0.07	-0.02
Max. Error (%):							0.10	0.06

Linear Calibration Factor: C.F. = 0.121748 kPa/B unit
 Regression Zero: At Calibration BI = 8740.3 B unit
 Temperature Correction Factor: Tk = -0.13000 kPa/°C rise

Polynomial Gage Factors (kPa) A: 1.7089E-07 B: -0.12425 C: 1073.1

Pressure is calculated with the following equations:

Linear: $P(kPa) = C.F. \times (Li - Lc) - [Tk(Ti - Tc)] + [0.10(BI - Bc)]$

Polynomial: $P(kPa) = A(Lc)^2 + B(Lc) + C + Tk(Tc - Ti) - [0.10(Bc - BI)]$

	DATE	VW2104	TEMP °C	BARO
	(mm/dd/yr)	Pos. B (LI)	(TI)	(BI)
FACTORY ZERO READINGS:	8/25/03	8745	24.7	993.1
SHIPPED ZERO READINGS:	9/12/03	8732	22.6	1027.3

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

BI, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician:

Date: 9/12/03

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1



Document Number: ELL0130

Tel: (604) 540-1100

Facsimile: (604) 540-1005

Toll Free: 1-800-665-5599

e-mail: info@rstinstruments.com

www.rstinstruments.com



APPENDIX IV - SOIL AND ROCK LAB TEST DATA SHEETS

Table IV-1: Summary of 2002 Lab Test Data

Table IV-2: Summary of 2003 Lab Test Data

Table IV-3: Summary of 2003 Lab Test Data – Rock Samples

Grain Size Distribution Data Sheets

Water Content Data Sheets

Atterberg Limits Data Sheets

Point Load Strength Test Results

Table IV-1: Summary of 2002 Lab Test Data

Borehole	Depth Below Grade (m)	Soil Type	Nanisivik Mine Laboratory Testing				Almor Laboratory Testing				
			Frozen Bulk Density (kg/m ³)	Moisture Content (%)	% Sand and Gravel	% Silt and Clay	% Gravel	% Sand	% Silt	% Clay	Gs
BGC02-01	10.0	Tailings		19.6	39.0	61.0	0.0	9.3	90.7	0.0	4.02
BGC02-01	11.3	Tailings		20.1	44.5	55.5					
BGC02-01	15.2	Tailings		23.8	9.8	90.2					
BGC02-02	13.1	Tailings		17.8	78.7	21.3	0.0	13.5	86.5	0.0	4.02
BGC02-02	14.6	Tailings		16.1	29.3	70.7					
BGC02-02	15.2	Lake Bed Sediments		16.3	92.4	7.6					
BGC02-03	16.2	Tailings		22.0	28.3	71.7					
BGC02-06	3.8	Tailings	2675	24.7	14.6	85.4					
BGC02-06	4.0	Tailings	2525	20.8	48.2	51.8					
BGC02-06	14.6	Tailings	2542	19.5	8.0	92.0	0.0	4.3	95.7	0.0	4.10
BGC02-07	24.4	Lake Bed Sediments		20.7	93.0	7.0					
BGC02-08	1.5	Tailings	3366	18.5	34.2	65.8					
BGC02-08	3.0	Tailings	2748	31.3	18.6	81.4	0.0	5.3	92.7	2.0	4.14
BGC02-08	4.0	Tailings		17.1	15.9	84.1					
BGC02-08	4.6	Lake Bed Sediments		9.0	85.6	14.4					
BGC02-08	6.1	Lake Bed Sediments		9.9	84.7	15.3					
BGC02-09	7.0	Tailings	2988	15.0	93.9	6.1					
BGC02-09	8.8	Tailings	3062	14.9	95.9	4.1					
BGC02-09	10.1	Tailings	3192	15.6	95.6	4.4					
BGC02-09	13.7	Tailings	2141	15.4	68.2	31.8					
BGC02-09	14.3	Tailings	2128	17.2	16.7	83.3					
BGC02-09	29.9	Tailings		13.3	67.3	32.7					
BGC02-10	4.9	Tailings	3102	23.9	10.1	89.9					
BGC02-10	5.2	Tailings	3190	21.5	28.7	71.3					
BGC02-11	2.1	Tailings	2795	18.5	41.1	58.9					
BGC02-11	6.1	Tailings	2887	18.9	25.9	74.1	0.0	30.1	69.9	0.0	4.15
BGC02-11	7.9	Tailings	3224	16.0	83.3	16.7					
BGC02-11	9.4	Tailings	2861	19.6	13.4	86.6	0.0	6.6	90.4	3.0	3.99
BGC02-12	24.1	Lake Bed Sediments		23.8	87.7	12.3	0.0	64.8	28.1	7.1	2.69
BGC02-13	1.8	Tailings	3526	19.6	42.0	58.0					
BGC02-13	4.0	Tailings	3208	17.8	72.7	27.3	0.0	74.6	25.4	0.0	4.46
BGC02-13	6.4	Tailings	2673	17.5	65.8	34.2					
BGC02-13	26.0	Tailings		13.2	91.4	8.6					
TP02-01	0.7	Overburden		9.9	92.2	7.8					
TP02-01	1.4	Overburden		16.5	93.0	7.0					
TP02-02	1.6	Overburden		9.8	91.6	8.4					
TP02-04	1.1	Overburden		14.1	89.0	11.0					
TP02-05	1.4	Overburden		13.8	92.0	8.0					
TP02-06	1.3	Overburden		14	N/A	N/A					
BH10-S8	4.75	Tailings		N/A	30.3	69.7					
BH10-S9	14.4	Tailings		N/A	81.2	18.8					
BH10-S10	30.2	Lake Bed Sediments		N/A	96.4	3.6					

Table IV-2: Summary of 2003 Lab Test Data

Borehole	Material	Sample	Depth (m)	Water Content (%)	Frozen Bulk Density (kg/m ³)	Sieve Analysis Percent Finer Sieve No.					
						14	20	50	100	200	Pan
						1.43	0.85	0.3	0.15	0.075	
BGC03-01	Tailings	1	2.3	17.5							
BGC03-01	Tailings	2	6.9	17.2							
BGC03-01	Tailings	3	9.9	20.0							
BGC03-03	Tailings	4	1.1	16.7		99.7	98.7	90.4	68.5	26.8	0.1
BGC03-03	Tailings	5	2.3	17.0		99.9	99.6	95.2	71.4	22.8	0.3
BGC03-03	Tailings	6	4.1	17.1							
BGC03-03	Tailings	7	5.3	15.2							
BGC03-03	Tailings	8	5.9	20.9		99.4	97.1	93.9	91.0	79.0	0.2
BGC03-03	Tailings	9	6.6	17.9							
BGC03-03	Till	10	9.4	8.0							
BGC03-03	Till	11	9.9	7.2							
BGC03-03	Till	12	9.7	14.0		92.4	83.9	66.5	50.7	29.8	0.2
BGC03-03	Tailings	13	5.6	20.9							
BGC03-02	Tailings	14	0.8	13.7		99.6	96.1	82.0	40.1	8.1	0.0
BGC03-02	Tailings	15	1.1	12.4		99.6	98.2	91.0	57.2	15.9	0.4
BGC03-02	Tailings	16	3.8	14.4		99.8	99.0	91.3	64.5	22.4	0.5
BGC03-02	Tailings	17	5.0	16.4		100.0	99.7	91.1	68.1	23.7	0.1
BGC03-02	Tailings	18	5.3	13.4		100.0	99.7	93.4	72.9	15.1	0.6
BGC03-02	Tailings	19	8.4	13.3		100.0	100.0	97.8	83.0	31.7	0.7
BGC03-04	Till	20	0.8	5.2							
BGC03-04	Bedrock	21	1.4	12.0							
BGC03-04	Bedrock	22	2.6	0.4							
BGC03-04	Bedrock	23	3.8	0.2							
BGC03-04	Bedrock	24	4.7								
BGC03-05	Till	25	0.3	15.2		85.2	79.1	67.6	47.9	21.7	0.2
BGC03-05	Till	26	1.4	6.8							
BGC03-05	Till	27	1.9	10.4		82.2	77.0	67.3	53.4	29.2	0.9
BGC03-05	Till	28	2.3								
BGC03-05	Bedrock	29	4.3								
BGC03-05	Bedrock	30	5.5	0.4							
BGC03-05	Bedrock	31	6.6								

Table IV-2: Summary of 2003 Lab Test Data

Borehole	Material	Sample	Depth (m)	Water Content (%)	Frozen Bulk Density (kg/m ³)	Sieve Analysis Percent Finer Sieve No.					
						14	20	50	100	200	Pan
						1.43	0.85	0.3	0.15	0.075	
BGC03-05	Bedrock	32	7.4								
BGC03-06	Till	33	0.6	5.5							
BGC03-06	Till	34	2.3								
BGC03-06	Till	35	2.5	18.6		95.0	90.9	55.6	22.4	9.9	1.7
BGC03-07	Tailings	36	1.4	11.6		99.6	98.4	88.4	48.0	15.7	0.1
BGC03-07	Tailings	37	2.9	15.2		98.7	97.7	90.6	72.4	40.9	0.1
BGC03-07	Tailings	38	3.2	19.7		77.1	58.7	37.4	29.5	13.2	0.5
BGC03-07	Tailings	39	5.9	26.1	2558	95.1	90.7	81.3	74.8	64.5	0.0
BGC03-07	Tailings	40	9.0	38.7		99.4	92.1	68.9	11.8	3.4	0.2
BGC03-07	Tailings	41	11.7	32.7		99.5	94.2	78.6	71.4	38.4	0.5
BGC03-07	Tailings	42	13.3	20.2		99.9	99.4	96.7	76.7	24.3	1.1
BGC03-07	Tailings	43	16.4	21.1	2337	99.7	99.1	97.9	83.2	41.5	0.3
BGC03-07	Tailings	44	17.5	21.4	2724	98.1	94.4	89.1	80.7	66.7	0.7
BGC03-07	Lakebed	45	23.9								
BGC03-07	FSB	46	24.5	10.3							
BGC03-08	Tailings	47	1.3	14.2		99.5	98.3	89.0	44.2	20.2	0.2
BGC03-08	Tailings	48	2.9	16.5		99.0	94.8	76.5	51.1	21.8	0.6
BGC03-08	Tailings	49	3.6	18.2		99.8	99.4	96.9	87.1	50.2	0.0
BGC03-08	Tailings	50	5.6	15.6		99.9	99.3	93.2	71.1	18.1	0.5
BGC03-09	Tailings	51	1.4	14.0		99.4	96.3	84.5	46.9	13.4	0.5
BGC03-09	Tailings	52	2.3	15.8		99.5	99.1	97.4	77.1	22.7	0.1
BGC03-09	Tailings	53	4.4	18.3		99.9	99.8	95.9	73.0	18.8	0.0
BGC03-09	Tailings	54	5.9	17.4		99.9	99.7	97.5	91.9	69.7	0.3
BGC03-09	Tailings	55	8.1	19.8		95.4	90.5	83.8	77.5	66.3	1.3
BGC03-09	Tailings	56	10.5	19.2		93.7	86.5	75.2	63.1	54.3	0.0
BGC03-10	Tailings	57	1.7	13.4	2849	99.8	99.7	95.7	81.8	42.9	0.4
BGC03-10	Tailings	58	3.2	15.6	2581	99.5	98.7	97.1	94.1	67.8	0.7
BGC03-10	Tailings	59	4.4	14.8	3075	99.8	99.2	92.2	71.6	26.6	0.4
BGC03-10	Tailings	60	27.6	12.3		88.4	82.9	74.3	57.1	17.7	0.2
BGC03-10	Tailings	61	28.2	11.7		90.6	83.7	76.2	67.5	31.3	0.6
BGC03-11	Tailings	62	1.7	11.2		99.1	95.2	76.7	30.1	7.5	0.3

Table IV-2: Summary of 2003 Lab Test Data

Borehole	Material	Sample	Depth (m)	Water Content (%)	Frozen Bulk Density (kg/m ³)	14	20	50	100	200	Pan
						1.43	0.85	0.3	0.15	0.075	
BGC03-11	Tailings	63	2.8	12.8		97.4	92.4	83.0	63.9	32.8	0.1
BGC03-11	Tailings	64	4.1	15.5		99.2	97.5	91.3	58.7	16.3	0.3
BGC03-11	Tailings	65	19.7	8.0		77.2	67.0	55.2	36.0	12.6	0.2
BGC03-11	Tailings	66	20.6	13.4		95.4	91.6	83.9	45.5	7.6	0.1
BGC03-11	Tailings	67	20.9	11.8		93.4	88.7	79.4	40.4	8.0	0.7
BGC03-11	Bedrock	68	24.4								
BGC03-12	Tailings	69	0.7	4.9		99.0	97.7	86.6	59.4	20.0	0.6
BGC03-12	Tailings	70	4.4	17.2	2743	98.4	97.2	92.5	67.7	28.0	0.9
BGC03-12	Tailings	71	5.0	15.7		99.9	99.5	96.6	85.1	43.0	1.1
BGC03-12	Tailings	72	5.9	17.3	2823	99.8	99.0	94.9	84.8	39.6	0.3
BGC03-12	Tailings	73	8.2	17.0		99.8	98.9	92.5	81.3	56.3	1.6
BGC03-12	Tailings	74	10.2	14.1	2809	99.7	99.2	95.6	72.5	24.6	1.0
BGC03-12	Tailings	75	12.0	15.8	2790	95.1	91.2	86.5	81.1	71.2	0.9
BGC03-13	Tailings	76	0.8	15.7	2462	99.7	98.2	89.8	69.8	23.7	0.3
BGC03-13	Tailings	77	2.9	11.4		99.4	95.3	64.7	39.6	10.8	0.2
BGC03-13	Tailings	78	3.5	16.3	1222	99.8	99.2	95.6	76.0	18.1	0.2
BGC03-13	Tailings	79	5.0	13.3		99.9	99.1	91.6	70.2	18.9	0.1
BGC03-13	Tailings	80	7.2	17.8							
BGC03-13	Tailings	81	16.1	23.0	2562	98.0	92.6	82.5	77.1	68.8	0.1
BGC03-13	LBS	82	16.3	10.9							
BGC03-13	Bedrock	83	16.4								
BGC03-13	Slough	84	16.5	11.4		73.7	60.4	36.2	22.1	14.8	0.6
BGC03-14	Tailings	85	13.0	18.6		99.1	95.4	75.6	59.5	13.6	0.3
BGC03-14	Lakebed	86	16.6								
BGC03-14	Tailings	87	1.1	13.8		92.3	86.7	79.1	74.0	58.1	0.6
BGC03-14	Tailings	88	2.9	15.1		99.8	98.9	91.7	62.6	16.5	0.0
BGC03-14	Tailings	89	4.7	14.7		99.9	99.3	84.0	53.8	8.8	0.1
BGC03-14	Tailings	90	8.1	15.7		99.9	99.3	90.0	71.5	24.1	0.2
BGC03-15	Tailings	91	2.3	14.6		99.9	99.3	90.7	51.1	14.7	0.2
BGC03-15	Tailings	92	2.9	14.5		98.0	92.8	76.6	47.3	11.5	0.4
BGC03-15	Tailings	93	10.6	16.3		99.6	99.5	97.2	68.8	15.4	0.1

Table IV-2: Summary of 2003 Lab Test Data

Borehole	Material	Sample	Depth (m)	Water Content (%)	Frozen Bulk Density (kg/m ³)	14	20	50	100	200	Pan
						1.43	0.85	0.3	0.15	0.075	
BGC03-15	Tailings	94	11.4	19.6	2744	90.4	85.1	77.6	64.6	55.8	0.4
BGC03-15	Tailings	95	14.3	19.0		98.7	96.4	88.4	79.0	47.0	0.0
BGC03-15	Tailings	96	16.3	18.8	2608	97.5	94.4	89.5	85.7	74.2	0.1
BGC03-15	Bedrock	97	16.5								
BGC03-16	Till	98	1.7			38.1	27.8	17.7	13.0	8.6	0.7
BGC03-16	Bedrock	99	4.1								
BGC03-16	Bedrock	100	5.0								
BGC03-17	Till	101	2.0	5.5							
BGC03-17	Till	102	4.1	18.9							
BGC03-17	Till	103	7.1			71.2	56.4	34.0	20.3	13.9	1.8
BGC03-17	Bedrock	104	7.5	18.0							
BGC03-18	Tailings	105	1.7	16.8		99.9	99.1	86.7	56.2	16.5	0.1
BGC03-18	Tailings	106	2.9	26.2		98.7	84.8	56.6	13.4	10.9	0.1
BGC03-18	Tailings	107	4.1	16.7		99.9	99.8	95.8	56.5	15.4	1.0
BGC03-18	Tailings	108	6.0	22.9		97.5	92.4	85.4	72.4	54.5	0.4
BGC03-18	Lakebed	109	6.9	31.6		81.5	65.0	40.7	28.3	18.9	0.6
BGC03-18	Bedrock	110	8.4								
BGC03-19	Tailings	111	1.4			100.0	99.8	98.3	95.0	70.2	0.8
BGC03-19	Tailings	112	2.7	17.1		99.9	98.8	90.2	63.2	19.0	0.1
BGC03-19	Tailings	113	3.5	19.2		98.4	96.3	90.3	45.2	16.8	0.2
BGC03-19	Tailings	114	4.2	23.4		99.1	87.8	27.1	3.8	1.1	0.3
BGC03-19	Tailings	115	5.1	24.2		99.8	98.6	91.7	81.9	69.2	0.0
BGC03-19	Tailings	116	5.9	16.5		98.9	96.5	85.1	48.8	15.8	0.1
BGC03-19	Tailings	117	7.5	15.8		100.0	99.6	95.1	66.1	19.1	0.1
BGC03-19	Tailings	118	9.3	16.3		99.8	99.7	98.8	93.0	52.4	0.2
BGC03-19	Lakebed	119	9.6	36.7							
BGC03-20	Tailings	120	1.8			99.9	99.2	79.1	57.0	19.6	0.0
BGC03-20	Tailings	121	2.1	17.9		100.0	99.8	95.4	82.3	42.5	0.4
BGC03-20	Tailings	122	4.5	21.2		99.9	98.4	95.0	91.6	68.1	0.3
BGC03-20	Tailings	123	5.3			99.9	99.5	93.9	86.7	63.7	0.3
BGC03-20	Tailings	124	5.6	14.0							

Table IV-2: Summary of 2003 Lab Test Data

Borehole	Material	Sample	Depth (m)	Water Content (%)	Frozen Bulk Density (kg/m ³)	Sieve Analysis Percent Finer Sieve No. Opening size (mm)						
						14	20	50	100	200	Pan	
						1.43	0.85	0.3	0.15	0.075		
BGC03-20	Tailings	125	8.7	24.3		99.7	98.3	91.6	87.2	84.0	1.4	
BGC03-20	Tailings	126	8.4	21.9		99.9	98.8	92.5	89.0	83.9	0.1	
BGC03-20	Tailings	127	10.6	15.7								
BGC03-20	Lakebed	128	19.7	21.1		97.6	95.5	87.1	32.0	7.2	0.1	
BGC03-20	Lakebed	129	20.0	19.0		95.8	92.4	80.3	42.7	16.3	0.2	
BGC03-21	Tailings	130	1.5			100.0	99.7	94.7	79.7	32.5	0.6	
BGC03-21	Tailings	131	1.7	69.9		98.7	97.6	95.0	91.2	82.9	1.4	
BGC03-21	Tailings	132	4.1	15.1		98.5	93.9	77.8	40.4	10.8	0.2	
BGC03-21	Tailings	133	5.0	17.4		99.5	98.6	92.0	73.6	30.9	0.8	
BGC03-21	Tailings	134	5.6	19.3		100.0	99.9	97.3	83.5	33.8	0.7	
BGC03-21	Tailings	135	8.8	30.4		99.9	98.4	91.6	86.6	69.9	0.5	
BGC03-21	Tailings	136	10.3	18.5								
BGC03-21	Tailings	137	14.5	12.0								
BGC03-22	Tailings	138	4.1	10.4		79.9	74.5	58.9	39.3	11.3	0.6	
BGC03-22	Tailings	139	4.4	5.2		43.6	36.5	25.0	17.1	7.0	0.0	
BGC03-22	Tailings	140	5.3	12.0		99.8	99.1	92.1	71.9	28.5	0.8	
BGC03-22	Tailings	141	7.0			99.1	96.3	87.9	52.9	16.7	0.4	
BGC03-22	Tailings	142	9.0	11.0		99.7	98.5	86.2	50.6	7.8	0.1	
BGC03-22	Tailings	143	11.7	11.0		99.8	98.5	91.9	55.7	15.4	0.3	
BGC03-22	Tailings	144	16.3									
BGC03-22	Tailings	145	17.8	14.5		99.9	99.8	98.4	87.2	34.6	1.0	
BGC03-22	Lakebed	146	27.4	50.8		97.2	82.3	52.2	87.6	22.7	0.3	
BGC03-23	Till	147	0.3	8.0		69.2	50.8	26.9	17.6	11.3	0.8	
BGC03-23	Bedrock	148	3.5									
BGC03-24	FSB	149	2.0	8.8		58.7	41.5	21.3	14.5	9.6	0.1	
BGC03-24	Till	150	2.8	7.7		64.0	55.4	44.4	36.5	32.6	1.4	
BGC03-24	Bedrock	151	4.3									
BGC03-25	Shale	152	1.2									
BGC03-25	Shale	153	2.6									
BGC03-25	Shale	154	1.7									
BGC03-26	Till	155	0.9									

Table IV-2: Summary of 2003 Lab Test Data

Borehole	Material	Sample	Depth (m)	Water Content (%)	Frozen Bulk Density (kg/m ³)	Sieve Analysis Percent Finer Sieve No.						
						14	20	50	100	200	Pan	Opening size (mm)
						1.43	0.85	0.3	0.15	0.075		
BGC03-26	Shale	156	2.4									
BGC03-26	Shale	157	5.9	9.0		48.6	35.9	20.3	13.0	8.2	0.6	
BGC03-27	Shale	158	1.8									
BGC03-27	Shale	159	2.7									
BGC03-27	Shale	160	5.5									
BGC03-28	Till	161	1.2	6.8		57.2	44.9	30.8	22.3	14.7	0.6	
BGC03-28	Till	162	2.3	25.2		72.5	57.4	35.7	25.7	19.3	0.7	
BGC03-28	Till	163	4.1	28.2		92.9	87.7	77.7	69.9	58.0	0.7	
BGC03-28	Shale	164	5.0									
BGC03-27	Shale	165	5.3									
BGC03-27	Shale	166	3.8									
BGC03-27	Shale	167	2.3									
ETL Quarry Over Burden				8.9		45.0	33.2	17.6	9.9	4.6	0.1	

Table IV-3: Summary of 2003 Lab Test Data - Rock Samples					
			Point Load Index		
			Diamteral		Axial
			Depth	$I_{s(50)}$	$I_{s(50)}$
Area	Borehole	Material	(m)	MPa	MPa
Surface Cell	BGC02-02	Dolostone	15.8	5.2	9.9
Surface Cell	BGC02-03	Dolostone	16.5	4.9	9.2
Surface Cell	BGC02-06	Dolostone	17.4	4.6	9.5
Surface Cell	BGC02-11	Dolostone	24.7	5.7	8.6
Surface Cell	BGC02-12	Dolostone	24.4	5.4	10.4



7505 - 40 Street SE
Calgary, Alberta T2C 2H5
Telephone: (403) 236-8880

Grain Size Distribution

Project Nanisivik Drilling Job # 0255-006-07
Client BGC Engineering Inc.
Job # 22-099-01-1 Description
Date Sampled Rec'd Oct. 23/ 02
Date Tested Oct. 25/ 02

Test Hole # BGC02-01
Depth 33ft.

Remarks

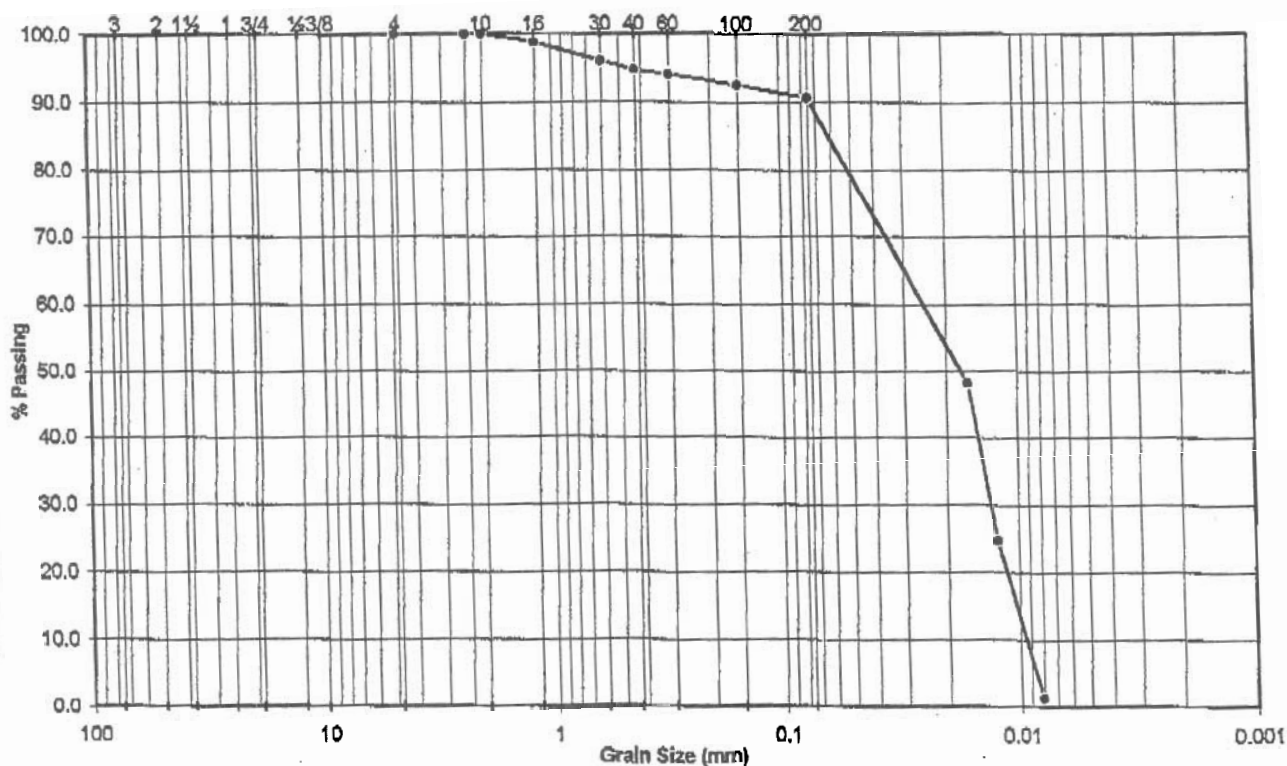
Sample # 1
K Values For Use In Computing
Diameter Of Grain Sizes Are
Estimated

Gravel 0.0%
Sand 9.3%
Silt 90.7%
Clay 0.0%

Natural Water Content
Liquid Limit
Plastic Limit
Plasticity Index
Specific Gravity

4.02

Gravel		Sand			Silt	Clay
Coarse	Fine	Coarse	Medium	Fine		





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Calgary, Alberta T2C 2H5
Telephone: (403) 236-8880

Grain Size Distribution

Project Nanisivik Drilling Job # 0255-006-07
Client BGC Engineering Inc.
Job # 22-099-11-1 Description
Date Sampled Rec'd Oct. 23/ 02
Date Tested Oct. 25/ 02

Test Hole # BGC02-02
Depth 43ft.

Remarks
Sample # 2
K Values For Use In Computing
Diameter Of Grain Sizes Are
Estimated.

Gravel 0.0%
Sand 13.5%
Silt 86.5%
Clay 0.0%

Natural Water Content
Liquid Limit
Plastic Limit
Plasticity Index
Specific Gravity 4.02

Gravel		Sand			Silt	Clay
Coarse	Fine	Coarse	Medium	Fine		

