

Alistair MacDonald

From: David Swisher [dswisher@centurymining.com]
Sent: June 7, 2007 10:09 AM
To: Alistair MacDonald
Cc: Rick Hoos
Subject: FW: CA10698-MAY07 for Project CALR-11633-001

Completed report attached.

David Swisher

Tamerlane Ventures Inc.
Vice President/Senior Project Manager
441 Peace Portal Drive
Blaine, WA 98230
Ph: 360.332.4653
Fax: 360.332.4652
Cell: 360.927.6103
dswisher@tamerlaneventures.com

From: Godfrey McDonald [mailto:gsmcdonald@sympatico.ca]
Sent: Thursday, June 07, 2007 8:58 AM
To: David Swisher
Subject: Fw: CA10698-MAY07 for Project CALR-11633-001

Hi David!

The final information from Robert on the water analysis of the water only leach testwork. I will ask Robert for a formal Certificate of Analysis and then I'll forward it to you.

Have a good day!
Godfrey

----- Original Message -----

From: [Caldwell, Robert \(Lakefield\)](#)
To: [Godfrey McDonald](#)
Cc: [Bulatovic, Srdjan \(Lakefield\)](#)
Sent: Thursday, June 07, 2007 10:39 AM
Subject: RE: CA10698-MAY07 for Project CALR-11633-001

Godfrey,
The missing analyses have been added to the attached spreadsheet. Did you want any additional interpretation or the formal Certificate of Analysis for your reporting? Let me know if you need anything further.

Srdj, The information is stored in an Enviro subdirectory of your project file.

Regards, Rob

Robert J. Caldwell
Group Leader, Environmental Testing

07/06/2007

Alistair MacDonald

From: Rick Hoos [rhoos@eba.ca]
Sent: June 6, 2007 12:52 PM
To: David Swisher
Cc: Alistair MacDonald
Subject: RE: CA10698-MAY07 for Project CALR-11633-001

David:

This updated information is much better. I suspected that they had not used the proper filter, the previous data really did not make a lot of sense. I suggest that once you receive the remainder of the analytical data (for mercury and boron) that this updated information be provided to the MVEIRB. Rick

From: David Swisher [mailto:dswisher@centurymining.com]
Sent: Wednesday, June 06, 2007 9:40 AM
To: Alistair MacDonald
Cc: Rick Hoos; 'David Swisher'
Subject: FW: CA10698-MAY07 for Project CALR-11633-001

Al,

Please see the below comments from Godfrey as well as the attached data which supports response to IR0607-002-19.

If you have any questions, please let me know.

Thanks,

David Swisher

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Vice President/Senior Project Manager
441 Peace Portal Drive
Blaine, WA 98230
Ph: 360.332.4653
Fax: 360.332.4652
Cell: 360.927.6103
dswisher@tamerlaneventures.com

From: Godfrey McDonald [mailto:gsmcdonald@sympatico.ca]
Sent: Wednesday, June 06, 2007 9:23 AM
To: David Swisher
Subject: Fw: CA10698-MAY07 for Project CALR-11633-001

Hi David!

Answers to the Water only Leach testwork:

The water analysis "Corrected Data" in the attachment from SGS Lakefield analytical sheet, should be part of the Table 4.6-1 data in the May 15, 2007, EA 0607-002 environmental application of Tamerlane Ventures Inc's PPPP.

07/06/2007

If this new data is issued then the questions from the Mackenzie Valley Environmental Impact Review Board should be eliminated. However, they will ask why the change in analysis values?

1. The **Water Analysis** protocol specifies that the samples to be analyzed must be filtered on a filter membrane which has a pore size of 0.45 microns so only dissolved metals can be present. The laboratory (MSRDI) that did the original analysis, we find out, only filtered the water in leached samples on a standard laboratory filter paper that has a pore size of 30 to 40 microns (much large pore openings) so **fine solids** must have reported to the filtrate and were analyzed as dissolved metals. This was an error in procedures.

2. Water only Leach tests:

Test #1: Tap water only (600 ml).

Test #2: Tap water (600 ml) plus Ferrosilicone (100 g).

Test #3: Tap water (600 ml) plus Ferrosilicon (100g) plus ore (100g).

The final report from SGS Lakefield is awaiting two outstanding analyses - mercury and boron. This is their standard list of metal analysis for water samples.

If you need anything from me for the application please let me know.

Have a good day!
Godfrey

Sample ID	Temperature °C	ORE	FS	Tap	ORE Corrected	Notes
pH	7.27	7.27	9.15	8.01		The pH of the FS extraction will result in lower solubility for many contaminants as opposed to the ORE. pH of TAP water curiously high possibly due to use of a double junction pH probe).
Alkalinity mg/L as CaCO ₃	< 0.001	< 0.001	< 0.001	< 0.001		
Conductivity µS/cm	1310	72	71	75	1025	Net increase of conductivity due to FS is effectively zero due to adsorption from water and releases of additional contaminants. ORE conductivity high due to release of Ca, Mg and Sr among others as well as their corresponding anions (not measured).
Hg	mg/L	< 0.0001	< 0.0001	285	< 0.0001	
Aq	mg/L	< 0.00003	< 0.00003	< 0.00003	< 0.00003	
Al	mg/L	< 0.01	< 0.01	0.02	< 0.01	Al in tap water adsorbed onto solids
As	mg/L	0.0007	0.0006	< 0.0002	0.0001	Ba from tap water adsorbed onto the ore preferentially
Ba	mg/L	0.0555	0.13	0.126	-0.0745	
Be	mg/L	< 0.00004	< 0.00004	< 0.00004	< 0.00004	
B	mg/L	2.4	4.05	< 0.0002	< 0.0002	B released from FS adsorbed onto ORE
Bi	mg/L	219	29.4	34.8	189.6	
Cs	mg/L	< 0.00006	< 0.00006	< 0.00006	< 0.00006	
Cd	mg/L	0.000754	0.00134	0.00112	0.00062	
Co	mg/L	< 0.0003	< 0.0003	< 0.0003	< 0.0003	
Cr	mg/L	0.0005	0.0008	0.0682	-0.0003	Cu in water adsorbed onto both the FS and the Ore
Cu	mg/L	8.18	0.24	< 0.01	7.94	
Fe	mg/L	5.91	1.17	0.97	4.74	
K	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	
Mg	mg/L	38.9	8.05	3.16	30.85	
Mn	mg/L	0.537	0.0929	0.0123	0.5041	Mo primarily from FS
Mo	mg/L	0.087	0.0709	0.0206	0.0161	Majority of Na apparently available from tap water
Nb	mg/L	23.2	15.5	15.6	7.7	
Ni	mg/L	0.002	0.0012	0.0015	0.0008	
P	mg/L	1.43	1.62	< 0.01	-0.19	P from FS may have been partially adsorbed or may be due to sample variability
Pb	mg/L	0.0047	0.0028	0.0033	0.0019	Pb apparently from the tap water
Sb	mg/L	0.0137	0.0111	0.0005	0.0026	Sb mainly made available by the FS
Se	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	
Si	mg/L	9.75	3.25	1.36	6.5	Si available from all sinks
Sn	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002	
Sr	mg/L	20.7	0.155	0.117	20.545	
Tl	mg/L	0.1565	0.0014	0.0011	0.142	
U	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	
V	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002	Suggests FS adsorbs V
W	mg/L	0.00015	0.0016	0.00065	-0.0001	
X	mg/L	0.0037	0.0031	0.00045	0.00077	
Y	mg/L	0.00119	0.00005	0.00005	0.00114	
Zn	mg/L	0.0568	0.0079	0.0247	0.0564	Suggests that FS adsorbs Zn

Alistair MacDonald

From: David Swisher [dswisher@centurymining.com]
Sent: June 11, 2007 10:15 AM
To: Alistair MacDonald
Cc: Rick Hoos
Subject: FW: CA10698-MAY07 08Jun07 1347.pdf

FYI

David Swisher

Tamerlane Ventures Inc.
Vice President/Senior Project Manager
441 Peace Portal Drive
Blaine, WA 98230
Ph: 360.332.4653
Fax: 360.332.4652
Cell: 360.927.6103
dswisher@tamerlaneventures.com

From: Godfrey McDonald [mailto:gsmcdonald@sympatico.ca]
Sent: Monday, June 11, 2007 9:11 AM
To: David Swisher
Subject: Fw: CA10698-MAY07 08Jun07 1347.pdf

Hi David!

Attached is the CofA for the water leach test analyses.

Have a good day!
Godfrey

----- Original Message -----

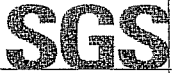
From: [Caldwell, Robert \(Lakefield\)](#)
To: [Godfrey McDonald](#)
Sent: Monday, June 11, 2007 11:15 AM
Subject: CA10698-MAY07 08Jun07 1347.pdf

Godfrey,
Please find attached the CofA for the shake flask analysis in pdf format. Let me know if you have any questions or concerns.

Regards, Rob

Robert J. Caldwell
Group Leader, Environmental Testing
SGS Minerals Services

14/06/2007



SGS Lakefield Research Limited
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - K0L 2H0
Phone: 705-652-2000 FAX: 705-652-6365

Shake Flask

Project : CALR-11633-001

Environmental Met
Attn : Barb Bowman Project Manager

Friday, June 08, 2007

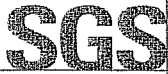
Date Rec. : 30 May 2007
LR Report: CA10698-MAY07
Reference: CofC:001

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: ORE	6: FS	7: Tap
Sample Date & Time			Date:NA	Date:NA	Date:NA
Temperature Upon Receipt [°C]	---	---	16.0	16.0	16.0
pH [no unit]	06-Jun-07	13:35	7.27	9.15	8.01
Acidity [mg/L as CaCO3]	06-Jun-07	13:35	< 2	< 2	< 2
Alkalinity [mg/L as CaCO3]	06-Jun-07	13:35	72	71	75
Conductivity [uS/cm]	06-Jun-07	13:35	1310	285	277
Mercury [mg/L]	07-Jun-07	07:48	< 0.0001	< 0.0001	< 0.0001
Silver [mg/L]	05-Jun-07	15:30	< 0.00003	< 0.00003	< 0.00003
Aluminum [mg/L]	05-Jun-07	15:16	< 0.01	< 0.01	0.02
Arsenic [mg/L]	05-Jun-07	15:30	0.0007	0.0006	< 0.0002
Barium [mg/L]	05-Jun-07	15:30	0.0555	0.130	0.126
Beryllium [mg/L]	05-Jun-07	15:30	< 0.00004	< 0.00004	< 0.00004
Boron [mg/L]	07-Jun-07	07:50	2.40	4.05	0.063
Bismuth [mg/L]	05-Jun-07	15:30	< 0.00002	< 0.00002	< 0.00002
Calcium [mg/L]	05-Jun-07	15:16	219	29.4	34.8
Cadmium [mg/L]	05-Jun-07	15:30	< 0.00006	< 0.00006	< 0.00006
Cobalt [mg/L]	05-Jun-07	15:30	0.000754	0.000134	0.000112
Chromium [mg/L]	05-Jun-07	15:30	< 0.0003	< 0.0003	< 0.0003
Copper [mg/L]	05-Jun-07	15:30	0.0005	0.0008	0.0682
Iron [mg/L]	05-Jun-07	15:16	8.18	0.24	< 0.01
Potassium [mg/L]	05-Jun-07	15:16	5.91	1.17	0.97
Lithium [mg/L]	05-Jun-07	15:16	< 0.002	< 0.002	< 0.002
Magnesium [mg/L]	05-Jun-07	15:16	38.9	8.05	3.16
Manganese [mg/L]	05-Jun-07	15:30	0.537	0.0329	0.00123
Molybdenum [mg/L]	05-Jun-07	15:30	0.0870	0.0709	0.00206
Sodium [mg/L]	05-Jun-07	15:16	23.2	15.5	15.6
Nickel [mg/L]	05-Jun-07	15:30	0.0020	0.0012	0.0015
Phosphorus [mg/L]	05-Jun-07	15:16	1.43	1.62	< 0.01
Lead [mg/L]	05-Jun-07	15:30	0.00047	0.00028	0.00033
Antimony [mg/L]	05-Jun-07	15:30	0.0137	0.0111	0.0005



SGS Lakefield Research Limited
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2H0
Phone: 705-652-2000 FAX: 705-652-6365

Shake Flask

Project : CALR-11633-001

LR Report : CA10698-MAY07

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: ORE	6: FS	7: Tap
Selenium [mg/L]	05-Jun-07	15:30	< 0.001	< 0.001	< 0.001
Silica [mg/L]	05-Jun-07	15:16	9.75	3.25	1.36
Tin [mg/L]	05-Jun-07	15:30	< 0.0003	< 0.0003	< 0.0003
Strontium [mg/L]	05-Jun-07	15:16	20.7	0.155	0.117
Titanium [mg/L]	05-Jun-07	15:30	0.0156	0.0014	0.0011
Thallium [mg/L]	05-Jun-07	15:30	< 0.0001	< 0.0001	< 0.0001
Uranium [mg/L]	05-Jun-07	15:30	< 0.00002	< 0.00002	< 0.00002
Vanadium [mg/L]	05-Jun-07	15:30	0.00015	0.00016	0.00086
Tungsten [mg/L]	05-Jun-07	15:30	0.00387	0.00310	0.00045
Yttrium [mg/L]	05-Jun-07	15:30	0.000119	0.000005	0.000005
Zinc [mg/L]	05-Jun-07	15:30	0.0663	0.0079	0.0247



Brian Graham B.Sc.
Project Specialist
Environmental Services, Analytical