



FINAL REPORT

AMBIENT AIR QUALITY ASSESSMENT CONDUCTED FOR THE ANVIL RANGE MINE

**CONSULTING ENGINEERS
& SCIENTISTS**

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**PREPARED FOR DELOITTE AND TOUCHE INC. ON BEHALF
OF THE FARO MINE CLOSURE PLANNING OFFICE**

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1. INTRODUCTION

The Faro, Yukon area hosts several lead/zinc deposits some of which were mined in various stages from 1969 to 1998. The Anvil Range Mining Corporation complex (which is located in this area and includes both the Faro and Vangorda Plateau mine sites), is being decommissioned and is currently managed in a maintenance state while a Final Closure and Reclamation Plan is being developed.

RWDI AIR Inc. (RWDI) was retained by Gartner Lee Limited to conduct an ambient air quality monitoring program to determine ambient air contaminant concentrations in the vicinity of the complex; these concentration measurements are required for the follow-up human health and risk assessments.

There were two components of the ambient air quality monitoring program; an intensive monitoring program and a consolidated monitoring program, which were conducted from September 9 to 21, 2005 and September 25 to November 6, 2005, respectively.

- **Intensive Program:** The purpose of the intensive program was to measure fugitive dust and elemental concentrations adjacent to fugitive dust sources over continuous 24-hour periods for two weeks. These data were to be applied to develop emission rates and a dispersion modelling approach to estimate ambient concentrations over a full range of meteorological conditions and locations. Bulk dust samples from the various sources were also to be collected for analysis of silt content, moisture levels and particle size fractionation to support the emission rate estimates.
- **Consolidated Program:** The consolidated monitoring program was designed to collect ambient air quality samples based on a National Air Pollution Surveillance (NAPS) cycle (i.e., a 24 hour sample once every 6 days) to measure fugitive dust and metal concentrations and provide an indication of ambient contaminant concentrations. These data were to assist with the calibration of the dispersion model.

The focus of both programs was to measure ambient concentrations of particulate matter with aerodynamic dimensions less than 10 μm (i.e. PM_{10}) and ambient metal concentrations.

The weather conditions during the monitoring period were extremely wet and as a result, there were no visible fugitive emissions. Therefore, RWDI, in consultation with Deloitte & Touche, Gartner Lee, and the Faro Mine Closure Planning Office revised the frequency of sampling during the intensive monitoring program. Specifically, instead of monitoring over continuous 24-hour periods, the frequency of the intensive monitoring program was reduced to the NAPS cycle. Similarly, due to the wet weather conditions, the bulk sampling program was not conducted.

2. AMBIENT AIR QUALITY OBJECTIVES

Regulatory agencies have identified ambient air quality criteria specifying maximum contaminant concentration levels in the atmosphere. These criteria are typically based on a lowest-observable-level-of-effect and incorporate a safety factor.

Although the Yukon applies the air quality criteria set forth in the Canada Wide Standards (CWS) and the National Ambient Air Quality Objectives (NAAQO), these standards do not include the contaminants monitored in this assessment. For this reason, Ontario's Ambient Air Quality Criteria (AAQC) were used to provide acceptable thresholds for the majority of the contaminants in this assessment. Air quality criteria for aluminium, bismuth and thallium have not been established either within Canada, the U.S. Environmental Protection Agency (EPA) or by the World Health Organization (WHO).

Table 2.1 summarizes the ambient air quality criteria for the contaminants being evaluated in this assessment.

Table 2.1 Ontario AAQC for Assessed Contaminants.

Contaminant	Ontario AAQC 24-h¹ (µg/m³)
PM ₁₀	50 ¹ .
Iron (Fe)	4
Aluminum (Al)	n/a
Antimony (Sb)	25
Arsenic (As)	0.3
Barium (Ba)	10
Beryllium (Be)	0.01
Bismuth (Bi)	n/a ² .
Cadmium (Cd)	2
Chromium (Cr)	1.5
Cobalt (Co)	0.1
Copper (Cu)	50
Lead (Pb)	2
Manganese (Mn)	2.5
Mercury (Hg)	2
Molybdenum (Mo)	120
Nickel (Ni)	2
Selenium (Se)	10
Silver (Ag)	1
Thallium (Tl)	n/a ² .
Tin (Sn)	10
Titanium (Ti)	120
Vanadium (V)	2
Zinc (Zn)	120

Notes:

1. PM₁₀ is an Interim Ontario AAQC (Ontario, Ministry of the Environment, September 2001).
2. n/a indicates an AAQC has not been set

3. METHODOLOGY

3.1 Sampling Method

Both the intensive and consolidated sampling programs focused on the measurement of inhalable particulate matter (PM₁₀). The PM₁₀ filters were analyzed for the following metals:

- | | | |
|-------------|--------------|------------|
| • aluminum | • chromium | • selenium |
| • antimony | • copper | • silver |
| • arsenic | • iron | • tin |
| • barium | • lead | • titanium |
| • beryllium | • mercury | • thallium |
| • bismuth | • molybdenum | • vanadium |
| • cadmium | • manganese | • zinc |
| • cobalt | • nickel | |

Sampling for PM₁₀ was based on the U.S. EPA Compendium Method IO-2.3 “Sampling of Ambient Air for Total Suspended Particulate Matter and PM₁₀ Using a Low-Volume Sampler”.

Battery powered Airmetrics “Minivol” samplers were used to collect PM₁₀ data as 110 VAC power was not available. They were also more practical for shipping and deployment. While these samplers do not have accreditation as U.S. EPA equivalent method devices, they have been widely accepted by regulatory agencies in a number of jurisdictions.

All samples were collected on filters at a flow rate of approximately 5 liters/min for a duration of 24 hours. A digital photograph was taken at each sample site when each filter was installed and basic meteorological conditions (wind speed, wind direction, temperature, cloud cover, barometric pressure) were recorded.

3.2 Sampling Locations and Periods

3.2.1 Intensive Monitoring Program

Figure 3.1 shows the locations of the intensive monitors relative to the mine site. Table 3.1 lists their respective UTM coordinates.

Three sets of ambient measurements were collected (September 9, September 13 and September 21, 2005) at each of the eight monitor locations. The MiniVol samplers were then moved to the consolidated sampling locations.

Table 3.1 Intensive Monitor Locations (UTM Zone 8U, NAD83)

Monitor (Unit ID)	NAD83 UTM Easting (m)	NAD83 UTM Northing (m)	Area Represented by the Monitoring Location
I1 (3851)	580848	6913772	Tailings and polishing pond
I2 (0018)	582068	6913323	Second and intermediate tailings ponds
I3 (0527)	582474	6913233	Original and second tailings ponds
I4 (0501)	583260	6913155	Original tailings pond, road to faro mine site.
I5 (0542)	582911	6914000	Emergency tailings pond area
I6 (0528)	583013	6914587	Heavy haul road, mill and waste rock area
I7 (0511)	584261	6914640	Faro mine pit, road to pit bottom, waste rock area
I8 (3756)	584020	6913922	Main waste rock dump area

3.2.2 Consolidated Monitoring Program

Figure 3.2 shows these locations relative to the mine site. Table 3.2 lists the respective UTM coordinates of these sites.

Ambient measurements were collected at each of these locations on the following dates:

- September 25, 2005
- October 1, 2005
- October 7, 2005
- October 13, 2005
- October 19, 2005
- October 25, 2005
- October 31, 2005
- November 6, 2005

Table 3.2 Consolidated Monitor Locations (UTM Zone 8U, NAD83)

Monitor (Unit ID)	NAD83 UTM Easting (m)	NAD83 UTM Northing (m)	Area the Monitor Site Represents
C1 (3851)	579360	6915085	Tailings impoundments
C2 (0018)	580526	6914579	Tailings impoundments
C3 (0542)	583515	6915488	Rock dumps and pit
C4 (0528)	583013	6914587	Heavy haul road, mill and waste rock area
C5 (0527)	584910	6915455	Rock dumps and pit
C6 (0501)	587100	6902735	Faro town site
C7 (3756)	594328	6905177	Harvesting/hunting areas
C8 (0511)	594818	6903549	Reference area for background concentrations

Figure 3.1 Intensive Monitor Locations for the Anvil Range Mine Complex



- Roads (Updated Road Network)
- Intensive monitors

DATA SOURCES AND DISCLAIMERS:

National Topographic Data Base (NTDB) contours compiled by Government of Canada, Natural Resources Canada (NRCan), at 1:50 000 scale.

Updated road network compiled by Government of Canada, Natural Resources Canada (NRCan) at 5m accuracy.

Sample site locations determined by field Global Positioning System (GPS) locations recorded in UTM Zone 8, NAD83. All sample locations recorded by Gartner Lee Ltd. and C.E. Jones and Associates Ltd.

Fused LandSat7 True Colour Image with 30 metre shaded relief prepared by Government of Yukon, Geomatics Yukon, 2003.

Orthophotos flown August 2003.

Created By: EG
Reviewed By: SS
Date Issued: December 2005
Project Number: 50712
File Name: intensive_monitors.mxd
Revision: 1
Projection: UTM Zone 8 NAD83

0 0.5 1 2 3 4 Kilometers
Scale 1:125 000
Contour Interval: 100 Feet

Deloitte.

Project: Anvil Range Project 17a Terrestrial Effects
Location: Faro Mine Site, Yukon
Client: Deloitte & Touche Inc.

Intensive Monitors locations
for the Anvil Range Mine Complex

Figure 3.2 Consolidated Monitor Locations for the Anvil Range Mine Complex



- Roads (Updated Road Network)
- consolidated_monitors

DATA SOURCES AND DISCLAIMERS:

National Topographic Data Base (NTDB) contours compiled by Government of Canada, Natural Resources Canada (NRCan), at 1:50 000 scale.

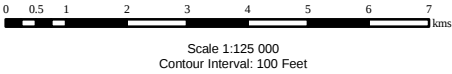
Updated road network compiled by Government of Canada, Natural Resources Canada (NRCan) at 5m accuracy.

Sample site locations determined by field Global Positioning System (GPS) locations recorded in UTM Zone 8, NAD83. All sample locations recorded by Gartner Lee Ltd. and C.E. Jones and Associates Ltd.

Fused Landsat7 True Colour Image with 30 metre shaded relief prepared by Government of Yukon, Geomatics Yukon, 2003.

Orthophotos flown August 2003.

Created By: EG
Reviewed By: SS
Date Issued: December 2005
Project Number: 50712
File Name: consolidated_monitors.mxd
Revision: 1
Projection: UTM Zone 8 NAD83



Deloitte.

Project: Anvil Range Project 17a Terrestrial Effects
Location: Faro Mine Site, Yukon
Client: Deloitte & Touche Inc.

**Consolidated Monitor locations
for the Anvil Range Mine Complex**

3.3 Sampling Results, Calibrations and Calculations

Maxxam Analytics Inc. of Edmonton, Alberta analyzed the samples on a mass/filter basis. This was done both gravimetrically (to determine the mass of PM₁₀) and using Inductively Coupled Plasma-Mass Spectrometry (to determine the mass of the various metals).

Calibration sheets for each MiniVol sampler were provided by the supplier, which related air-flow at standard conditions to actual conditions [Airmetrics, June 2001]. These equations were applied along with meteorological observations to calculate the actual 24 hour air-flow through the sampler and the resulting contaminant concentration (µg/m³). The specific calibration data for each Airmetrics MiniVol sampler are summarized in Table 3.1.

Table 3.3 Calibration Data for the Airmetrics MiniVol Samplers

Unit ID	Calibration Data					
	m _{vol}	b _{vol}	r ²	T _{std} (K)	P _{std} (mm Hg)	Q _{ind} (lpm)
C1/I1 (3851)	0.9286	0.1279	0.9998	298	760	5
C2/I2 (0018)	0.9179	0.2240	0.9997	298	760	5
C3/I5 (0542)	1.0422	-0.2976	0.9996	298	760	5
C4/I6 (0528)	0.9597	-0.0030	0.9998	298	760	5
C5/I3 (0527)	1.0067	-0.1051	0.9998	298	760	5
C6/I4 (0501)	1.0028	0.1646	0.9999	298	760	5
C7/I8 (3756)	0.9335	0.1373	0.9998	298	760	5
C8/I7 (0511)	0.9110	0.2538	0.9996	298	760	5

The following equation was used to calculate air flow through each sampler (Airmetrics, June 2001):

$$Q_{act} = (m_{vol}Q_{ind} + b_{vol}) \times \sqrt{\frac{P_{std}}{P_{act}} \times \frac{T_{act}}{T_{std}}}$$

Where: Q_{act} = actual flow rate (liters/minute)
 m_{vol} = calibration multiplier constant
 Q_{ind} = MiniVol indicated flow rate (liters/minute)
 b_{vol} = calibration constant
 P_{std} = standard atmospheric pressure (760 mm Hg)
 P_{act} = actual ambient pressure (mm Hg)
 T_{std} = standard temperature (298 K)
 T_{act} = actual ambient temperature (K)

In many cases, contaminant concentration measurements were less than the lowest detectable limit (LDL). As a conservatism in such cases, the contaminant levels were assumed to be at the LDL. See tables 4.1 through 4.27 for the LDLs.

There were a few instances when the MiniVol samplers froze or were blown over by the wind. In these cases, the data were not used and the results were reported as 'not valid' in the tables that follow.

3.4 Quality Assurance Measures

A number of quality assurance measures were implemented during the sampling program to ensure the integrity of the results. These measures included detailed documentation of all field activities, analyses of a number of unexposed samples (blanks) and a number of laboratory related measures including sample handling procedures and instrument calibrations.

All of the samplers were bench-tested prior to field deployment. The samplers were flow calibrated periodically during the program using a dry calibration unit.

Chain of custody forms were completed and submitted along with the samples to the laboratory

4. RESULTS: AMBIENT PM₁₀ AND METAL CONCENTRATIONS

Tables 4.1 through 4.3 show the ambient PM₁₀ and metal concentrations at each intensive monitoring location for the September 9, 2005 to September 21, 2005 time period. Tables 4.2 through 4.25 show the ambient PM₁₀ and metal concentrations at each consolidated monitoring location for the September 25, 2005 to November 6, 2005 time period.

Ambient PM₁₀ concentrations at all monitoring locations for all samples are well below the 24-hour Ontario Interim AAQC of 50 µg/m³. Ambient metal concentrations at all monitoring locations for all sample periods are well below their respective 24-hour Ontario AAQCs. There are no ambient air quality criteria for aluminium, bismuth and thallium.

The ambient PM₁₀ and metal concentrations do not change as a function of proximity to the sources of fugitive dust. This would indicate that due to the wet weather, fugitive dust emissions were likely negligible during both the intensive and consolidated monitoring programs. The ambient measurements are therefore likely reflective of pristine conditions.

Table 4.1 PM₁₀ and Metal Concentrations (µg/m³) at Intensive Monitors

Monitor Location - Sample Period		PM ₁₀	Iron (Fe)	Aluminum (Al)	Antimony (Sb)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Bismuth (Bi)
Ontario 24-h AAQC		50	4	n/a	25	0.3	10	0.01	n/a
Lowest Detectable Limit			0.028-0.030	0.004-0.005	0.001	0.003	0.001	0.001	0.004-0.005
I1-001	September 9	3.3	0.030	0.011	0.002	0.003	0.001	0.001	0.005
I1-002	September 13	2.7	0.030	0.014	0.001	0.003	0.001	0.001	0.005
I1-003	September 21	2.7	0.030	0.017	0.001	0.003	0.001	0.001	0.005
I2-001	September 9	2.7	0.030	0.009	0.001	0.003	0.001	0.001	0.004
I2-002	September 13	2.5	0.074	0.012	0.001	0.003	0.003	0.001	0.004
I2-003	September 21	4.5	0.060	0.017	0.001	0.003	0.002	0.001	0.005
I3-001	September 9	2.8	0.058	0.012	0.001	0.003	0.001	0.001	0.004
I3-002	September 13	2.8	0.029	0.010	0.001	0.003	0.002	0.001	0.004
I3-003	September 21	1.6	0.029	0.013	0.001	0.003	0.001	0.001	0.004
I4-001	September 9	3.5	0.028	0.007	0.001	0.003	0.001	0.001	0.004
I4-002	September 13	2.8	0.028	0.011	0.001	0.003	0.001	0.001	0.004
I4-003	September 21	2.8	0.028	0.011	0.001	0.003	0.001	0.001	0.004
I5-001	September 9	3.8	0.029	0.146	0.001	0.003	0.001	0.001	0.004
I5-002	September 13	3.5	0.102	0.018	0.001	0.003	0.001	0.001	0.004
I5-003	September 21	3.5	0.029	0.007	0.002	0.003	0.001	0.001	0.004
I6-001	September 9	3.7	0.030	0.058	0.001	0.003	0.001	0.001	0.004
I6-002	September 13	2.1	0.030	0.013	0.001	0.003	0.001	0.001	0.004
I6-003	September 21	14.6	0.030	0.008	0.001	0.003	0.001	0.001	0.005
I7-001	September 9	2.8	0.090	0.010	0.001	0.003	0.001	0.001	0.004
I7-002	September 13	3.6	0.030	0.012	0.001	0.003	0.001	0.001	0.004
I7-003	September 21	2.1	0.060	0.011	0.001	0.003	0.001	0.001	0.005
I8-001	September 9	2.5	0.030	0.007	0.001	0.003	0.001	0.001	0.004
I8-002	September 13	2.4	0.030	0.012	0.001	0.003	0.001	0.001	0.004
I8-003	September 21	2.0	0.030	0.011	0.001	0.003	0.001	0.001	0.005

Notes: Bold text indicates measurement is below LDL

Table 4.2 PM₁₀ and Metal Concentrations (µg/m³) at Intensive Monitors

Monitor Location - Sample Period		Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Molybdenum (Mo)
Ontario 24-h AAQC		2	1.5	0.1	50	2	2.5	2	120
Lowest Detectable Limit		0.001	0.003	0.001	0.001	0.001	0.003	0.000	0.001
I1-001	September 9	0.001	0.008	0.001	0.001	0.001	0.003	0.000	0.001
I1-002	September 13	0.001	0.006	0.001	0.004	0.001	0.003	0.000	0.001
I1-003	September 21	0.001	0.006	0.001	0.001	0.006	0.003	0.000	0.001
I2-001	September 9	0.001	0.007	0.001	0.003	0.001	0.003	0.000	0.001
I2-002	September 13	0.001	0.006	0.001	0.001	0.002	0.003	0.000	0.001
I2-003	September 21	0.001	0.006	0.001	0.001	0.001	0.003	0.000	0.001
I3-001	September 9	0.001	0.004	0.001	0.001	0.001	0.003	0.000	0.001
I3-002	September 13	0.001	0.004	0.001	0.001	0.002	0.003	0.000	0.001
I3-003	September 21	0.001	0.006	0.001	0.001	0.001	0.003	0.000	0.001
I4-001	September 9	0.001	0.006	0.001	0.001	0.001	0.003	0.000	0.001
I4-002	September 13	0.001	0.004	0.001	0.001	0.002	0.003	0.000	0.001
I4-003	September 21	0.001	0.008	0.001	0.001	0.002	0.003	0.000	0.001
I5-001	September 9	0.001	0.009	0.001	0.001	0.002	0.003	0.000	0.001
I5-002	September 13	0.001	0.004	0.001	0.001	0.002	0.003	0.000	0.001
I5-003	September 21	0.001	0.007	0.001	0.001	0.001	0.003	0.000	0.001
I6-001	September 9	0.001	0.004	0.001	0.003	0.001	0.003	0.000	0.001
I6-002	September 13	0.001	0.006	0.001	0.001	0.001	0.003	0.000	0.001
I6-003	September 21	0.001	0.005	0.001	0.001	0.001	0.003	0.000	0.001
I7-001	September 9	0.001	0.004	0.001	0.001	0.001	0.003	0.000	0.001
I7-002	September 13	0.001	0.007	0.001	0.001	0.001	0.003	0.000	0.001
I7-003	September 21	0.001	0.005	0.001	0.001	0.001	0.003	0.000	0.001
I8-001	September 9	0.001	0.003	0.001	0.001	0.001	0.003	0.000	0.001
I8-002	September 13	0.001	0.009	0.001	0.001	0.001	0.003	0.000	0.001
I8-003	September 21	0.001	0.008	0.001	0.001	0.003	0.003	0.000	0.001

Notes: Bold text indicates measurement is below LDL

Table 4.3 PM₁₀ and Metal Concentrations (µg/m³) at Intensive Monitors

Monitor Location - Sample Period		Nickel (Ni)	Selenium (Se)	Silver (Ag)	Thallium (Tl)	Tin (Sn)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Ontario 24-h AAQC		2	10	1	n/a	10	120	2	120
Lowest Detectable Limit		0.001-0.002	0.003	0.000	0.001	0.003	0.003	0.004-0.005	0.001-0.002
I1-001	September 9	0.002	0.005	0.001	0.001	0.005	0.003	0.005	0.005
I1-002	September 13	0.002	0.006	0.000	0.001	0.003	0.003	0.005	0.005
I1-003	September 21	0.002	0.006	0.001	0.001	0.003	0.003	0.005	0.005
I2-001	September 9	0.001	0.009	0.000	0.001	0.003	0.003	0.004	0.003
I2-002	September 13	0.001	0.003	0.001	0.001	0.003	0.003	0.004	0.003
I2-003	September 21	0.002	0.003	0.001	0.001	0.003	0.003	0.005	0.021
I3-001	September 9	0.001	0.004	0.002	0.001	0.003	0.003	0.004	0.003
I3-002	September 13	0.001	0.007	0.001	0.001	0.003	0.003	0.004	0.003
I3-003	September 21	0.001	0.007	0.001	0.001	0.003	0.003	0.004	0.003
I4-001	September 9	0.001	0.004	0.000	0.001	0.003	0.003	0.004	0.001
I4-002	September 13	0.001	0.006	0.000	0.001	0.003	0.003	0.004	0.004
I4-003	September 21	0.001	0.007	0.001	0.001	0.003	0.003	0.004	0.007
I5-001	September 9	0.001	0.003	0.000	0.001	0.003	0.003	0.004	0.010
I5-002	September 13	0.001	0.004	0.001	0.001	0.003	0.003	0.004	0.006
I5-003	September 21	0.001	0.003	0.000	0.001	0.006	0.003	0.004	0.006
I6-001	September 9	0.001	0.003	0.001	0.001	0.003	0.003	0.004	0.007
I6-002	September 13	0.001	0.009	0.001	0.001	0.003	0.003	0.004	0.003
I6-003	September 21	0.002	0.003	0.000	0.001	0.003	0.003	0.005	0.008
I7-001	September 9	0.001	0.004	0.001	0.001	0.003	0.003	0.004	0.003
I7-002	September 13	0.001	0.004	0.000	0.001	0.003	0.003	0.004	0.003
I7-003	September 21	0.002	0.006	0.001	0.001	0.003	0.003	0.005	0.003
I8-001	September 9	0.001	0.004	0.000	0.001	0.003	0.003	0.004	0.001
I8-002	September 13	0.001	0.004	0.001	0.001	0.003	0.003	0.004	0.001
I8-003	September 21	0.002	0.003	0.001	0.001	0.003	0.003	0.005	0.002

Notes: Bold text indicates measurement is below LDL

Table 4.4 PM₁₀ Concentrations (µg/m³) at Consolidated Monitors

Sample Date (2005)	PM ₁₀ (µg/m ³)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	1.8	2.8	not valid	not valid	2.5	1.2	not valid	not valid
October 1	1.4	1.4	3.8	2.1	1.0	3.3	2.0	not valid
October 7	0.2	0.2	2.0	1.6	1.8	2.1	1.6	1.5
October 13	2.4	3.4	1.8	2.0	2.2	2.1	2.7	2.4
October 19	3.4	11.5	7.0	2.4	not valid	2.8	2.9	not valid
October 25	not valid	4.0	4.9	not valid	2.0	2.6	41.7	not valid
October 31	2.5	2.0	9.4	2.1	not valid	19.6	1.4	not valid
November 6	3.3	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = 50 µg/m³

Table 4.5 Iron (Fe) Concentrations (µg/m³) at Consolidated Monitors

Sample Date (2005)	Iron (Fe) Concentrations (µg/m ³)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.197	0.045	not valid	not valid	0.044	0.056	not valid	not valid
October 1	0.091	0.060	0.029	0.030	0.044	0.028	0.060	not valid
October 7	0.030	0.075	0.029	0.029	0.029	0.028	0.105	0.165
October 13	0.045	0.030	0.029	0.045	0.073	0.028	0.030	0.030
October 19	0.076	0.514	0.044	0.046	not valid	0.028	0.212	not valid
October 25	not valid	0.105	0.029	not valid	0.088	0.098	0.105	not valid
October 31	0.031	0.031	0.030	0.031	not valid	0.128	0.138	not valid
November 6	0.050	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = 4 µg/m³, Bold text indicates measurement is below LDL

Lowest Detectable Limit = 0.028 – 0.05 µg/m³

Table 4.6 Aluminum (Al) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Aluminum (Al) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.006	0.007	not valid	not valid	0.010	0.008	not valid	not valid
October 1	0.008	0.006	0.006	0.011	0.006	0.008	0.008	not valid
October 7	0.009	0.007	0.010	0.008	0.012	0.007	0.120	0.088
October 13	0.006	0.008	0.010	0.011	0.006	0.014	0.006	0.009
October 19	0.018	0.027	0.015	0.014	not valid	0.011	0.018	not valid
October 25	not valid	0.023	0.006	not valid	0.007	0.008	0.011	not valid
October 31	0.009	0.008	0.004	0.017	not valid	0.010	0.009	not valid
November 6	0.013	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = n/a $\mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = 0.004 – 0.008 $\mu\text{g}/\text{m}^3$

Table 4.7 Antimony (Sb) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Antimony (Sb) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.001	not valid	not valid	0.001	0.001	not valid	not valid
October 1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	not valid
October 7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 19	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
October 25	not valid	0.001	0.001	not valid	0.001	0.001	0.001	not valid
October 31	0.004	0.001	0.001	0.001	not valid	0.001	0.001	not valid
November 6	0.001	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = 25 $\mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = 0.001 $\mu\text{g}/\text{m}^3$

Table 4.8 Arsenic (As) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Arsenic (As) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.003	0.003	not valid	not valid	0.003	0.003	not valid	not valid
October 1	0.003	0.003	0.003	0.003	0.003	0.003	0.003	not valid
October 7	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003
October 13	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
October 19	0.003	0.003	0.003	0.003	not valid	0.003	0.003	not valid
October 25	not valid	0.003	0.003	not valid	0.003	0.003	0.003	not valid
October 31	0.003	0.003	0.003	0.003	not valid	0.003	0.003	not valid
November 6	0.005	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $0.3 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.003 - 0.008 \mu\text{g}/\text{m}^3$

Table 4.9 Barium (Ba) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Barium (Ba) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.001	not valid	not valid	0.001	0.001	not valid	not valid
October 1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	not valid
October 7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 19	0.002	0.076	0.001	0.001	not valid	0.001	0.001	not valid
October 25	not valid	0.007	0.001	not valid	0.001	0.001	0.001	not valid
October 31	0.006	0.001	0.001	0.001	not valid	0.001	0.001	not valid
November 6	0.002	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $10 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 \mu\text{g}/\text{m}^3$

Table 4.10 Beryllium (Be) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Beryllium (Be) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.001	not valid	not valid	0.001	0.001	not valid	not valid
October 1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	not valid
October 7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 13	0.001	0.001	0.002	0.001	0.003	0.001	0.004	0.003
October 19	0.003	0.004	0.005	0.001	not valid	0.001	0.001	not valid
October 25	not valid	0.002	0.002	not valid	0.001	0.001	0.003	not valid
October 31	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
November 6	0.008	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $0.01 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 \mu\text{g}/\text{m}^3$

Table 4.11 Bismuth (Bi) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Bismuth (Bi) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.005	0.004	not valid	not valid	0.004	0.004	not valid	not valid
October 1	0.005	0.004	0.004	0.005	0.004	0.004	0.005	not valid
October 7	0.005	0.004	0.004	0.005	0.004	0.004	0.004	0.004
October 13	0.005	0.005	0.004	0.005	0.004	0.004	0.005	0.005
October 19	0.005	0.005	0.004	0.005	not valid	0.004	0.005	not valid
October 25	not valid	0.005	0.004	not valid	0.004	0.004	0.005	not valid
October 31	0.005	0.005	0.004	0.005	not valid	0.004	0.005	not valid
November 6	0.008	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = n/a $\mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.004 - 0.008 \mu\text{g}/\text{m}^3$

Table 4.12 Cadmium (Cd) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Cadmium (Cd) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.001	not valid	not valid	0.003	0.001	not valid	not valid
October 1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	not valid
October 7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 19	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
October 25	not valid	0.001	0.001	not valid	0.001	0.001	0.001	not valid
October 31	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
November 6	0.001	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $2 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 \mu\text{g}/\text{m}^3$

Table 4.13 Chromium (Cr) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Chromium (Cr) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.009	0.003	not valid	not valid	0.010	0.007	not valid	not valid
October 1	0.008	0.010	0.009	0.014	0.007	0.010	0.005	not valid
October 7	0.008	0.007	0.006	0.009	0.006	0.006	0.007	0.013
October 13	0.006	0.008	0.006	0.005	0.004	0.006	0.006	0.003
October 19	0.006	0.006	0.003	0.008	not valid	0.006	0.006	not valid
October 25	not valid	0.006	0.007	not valid	0.007	0.010	0.003	not valid
October 31	0.003	0.003	0.003	0.005	not valid	0.004	0.006	not valid
November 6	0.005	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $1.5 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.003 - 0.005 \mu\text{g}/\text{m}^3$

Table 4.14 Cobalt (Co) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Cobalt (Co) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.001	not valid	not valid	0.001	0.001	not valid	not valid
October 1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	not valid
October 7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 19	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
October 25	not valid	0.001	0.001	not valid	0.001	0.001	0.001	not valid
October 31	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
November 6	0.002	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes Ontario 24-h AAQC = $0.1 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 - 0.002 \mu\text{g}/\text{m}^3$

Table 4.15 Copper (Cu) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Copper (Cu) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.008	not valid	not valid	0.002	0.001	not valid	not valid
October 1	0.001	0.001	0.004	0.003	0.004	0.002	0.213	not valid
October 7	0.004	0.002	0.001	0.001	0.002	0.003	0.001	0.003
October 13	0.013	0.003	0.003	0.003	0.002	0.003	0.003	0.002
October 19	0.004	0.006	0.001	0.002	not valid	0.002	0.003	not valid
October 25	not valid	0.002	0.007	not valid	0.003	0.001	0.002	not valid
October 31	0.003	0.005	0.001	0.001	not valid	0.001	0.001	not valid
November 6	0.005	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $50 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 \mu\text{g}/\text{m}^3$

Table 4.16 Lead (Pb) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Lead (Pb) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.001	not valid	not valid	0.001	0.001	not valid	not valid
October 1	0.008	0.007	0.005	0.043	0.004	0.006	0.002	not valid
October 7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 13	0.001	0.001	0.001	0.004	0.002	0.001	0.001	0.001
October 19	0.005	0.062	0.002	0.003	not valid	0.001	0.001	not valid
October 25	not valid	0.009	0.002	not valid	0.001	0.001	0.001	not valid
October 31	0.006	0.001	0.001	0.003	not valid	0.001	0.001	not valid
November 6	0.001	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $2 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 \mu\text{g}/\text{m}^3$

Table 4.17 Manganese (Mn) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Manganese (Mn) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.003	0.003	not valid	not valid	0.003	0.003	not valid	not valid
October 1	0.003	0.003	0.003	0.003	0.003	0.003	0.003	not valid
October 7	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
October 13	0.006	0.005	0.004	0.005	0.004	0.004	0.005	0.006
October 19	0.006	0.012	0.006	0.006	not valid	0.004	0.008	not valid
October 25	not valid	0.008	0.006	not valid	0.006	0.006	0.006	not valid
October 31	0.003	0.003	0.003	0.003	not valid	0.003	0.003	not valid
November 6	0.010	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $2.5 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.003 - 0.005 \mu\text{g}/\text{m}^3$

Table 4.18 Mercury (Hg) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Mercury (Hg) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.000	0.000	not valid	not valid	0.000	0.000	not valid	not valid
October 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	not valid
October 7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
October 13	0.001	0.000	0.000	0.001	0.001	0.001	0.000	0.000
October 19	0.001	0.001	0.001	0.001	not valid	0.000	0.001	not valid
October 25	not valid	0.001	0.001	not valid	0.001	0.000	0.000	not valid
October 31	0.001	0.001	0.001	0.000	not valid	0.001	0.001	not valid
November 6	0.001	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $2 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.000 \mu\text{g}/\text{m}^3$

Table 4.19 Molybdenum (Mo) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Molybdenum (Mo) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.001	not valid	not valid	0.001	0.001	not valid	not valid
October 1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	not valid
October 7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 19	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
October 25	not valid	0.001	0.001	not valid	0.001	0.001	0.001	not valid
October 31	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
November 6	0.001	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $120 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 \mu\text{g}/\text{m}^3$

Table 4.20 Nickel (Ni) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Nickel (Ni) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.003	0.001	not valid	not valid	0.001	0.001	not valid	not valid
October 1	0.002	0.001	0.001	0.002	0.001	0.001	0.002	not valid
October 7	0.002	0.001	0.001	0.002	0.001	0.001	0.001	0.001
October 13	0.002	0.002	0.001	0.002	0.001	0.001	0.002	0.002
October 19	0.002	0.002	0.001	0.002	not valid	0.001	0.002	not valid
October 25	not valid	0.002	0.001	not valid	0.001	0.001	0.002	not valid
October 31	0.003	0.003	0.001	0.002	not valid	0.001	0.003	not valid
November 6	0.003	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $2 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 - 0.003 \mu\text{g}/\text{m}^3$

Table 4.21 Selenium (Se) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Selenium (Se) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.006	0.004	not valid	not valid	0.003	0.003	not valid	not valid
October 1	0.009	0.003	0.003	0.005	0.006	0.007	0.003	not valid
October 7	0.003	0.004	0.009	0.008	0.006	0.006	0.007	0.004
October 13	0.005	0.003	0.007	0.003	0.003	0.006	0.011	0.003
October 19	0.005	0.003	0.004	0.003	not valid	0.003	0.003	not valid
October 25	not valid	0.005	0.003	not valid	0.004	0.004	0.003	not valid
October 31	0.008	0.012	0.016	0.018	not valid	0.006	0.005	not valid
November 6	0.005	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $10 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.003 - 0.005 \mu\text{g}/\text{m}^3$

Table 4.22 Silver (Ag) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Silver (Ag) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.002	not valid	not valid	0.002	0.001	not valid	not valid
October 1	0.000	0.000	0.000	0.001	0.000	0.001	0.001	not valid
October 7	0.000	0.001	0.000	0.002	0.001	0.001	0.001	0.000
October 13	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000
October 19	0.000	0.000	0.000	0.000	not valid	0.001	0.001	not valid
October 25	not valid	0.000	0.000	not valid	0.000	0.002	0.000	not valid
October 31	0.000	0.000	0.001	0.003	not valid	0.001	0.001	not valid
November 6	0.002	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $1 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.000 \mu\text{g}/\text{m}^3$

Table 4.23 Thallium (Tl) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Thallium (Tl) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.001	0.001	not valid	not valid	0.001	0.001	not valid	not valid
October 1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	not valid
October 7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 13	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
October 19	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
October 25	not valid	0.001	0.001	not valid	0.001	0.001	0.001	not valid
October 31	0.001	0.001	0.001	0.001	not valid	0.001	0.001	not valid
November 6	0.001	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = n/a $\mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 \mu\text{g}/\text{m}^3$

Table 4.24 Tin (Sn) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Tin (Sn) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.003	0.003	not valid	not valid	0.003	0.003	not valid	not valid
October 1	0.003	0.003	0.003	0.003	0.004	0.003	0.003	not valid
October 7	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
October 13	0.008	0.008	0.004	0.005	0.003	0.004	0.005	0.005
October 19	0.003	0.003	0.003	0.003	not valid	0.004	0.005	not valid
October 25	not valid	0.003	0.004	not valid	0.003	0.003	0.003	not valid
October 31	0.011	0.006	0.003	0.003	not valid	0.004	0.005	not valid
November 6	0.005	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $10 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.003 - 0.005 \mu\text{g}/\text{m}^3$

Table 4.25 Titanium (Ti) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Titanium (Ti) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.003	0.003	not valid	not valid	0.003	0.003	not valid	not valid
October 1	0.003	0.003	0.003	0.003	0.003	0.003	0.003	not valid
October 7	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
October 13	0.006	0.003	0.003	0.003	0.003	0.003	0.003	0.003
October 19	0.003	0.003	0.003	0.003	not valid	0.003	0.003	not valid
October 25	not valid	0.003	0.003	not valid	0.003	0.003	0.003	not valid
October 31	0.003	0.003	0.004	0.003	not valid	0.003	0.003	not valid
November 6	0.005	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $120 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.003 - 0.005 \mu\text{g}/\text{m}^3$

Table 4.26 Vanadium (V) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Vanadium (V) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.005	0.004	not valid	not valid	0.004	0.004	not valid	not valid
October 1	0.005	0.004	0.004	0.005	0.004	0.004	0.005	not valid
October 7	0.005	0.004	0.004	0.005	0.004	0.004	0.004	0.004
October 13	0.005	0.005	0.004	0.005	0.004	0.004	0.005	0.005
October 19	0.005	0.005	0.004	0.005	not valid	0.004	0.005	not valid
October 25	not valid	0.005	0.004	not valid	0.004	0.004	0.005	not valid
October 31	0.005	0.005	0.004	0.005	not valid	0.004	0.005	not valid
November 6	0.008	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $2 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.004 - 0.008 \mu\text{g}/\text{m}^3$

Table 4.27 Zinc (Zn) Concentrations ($\mu\text{g}/\text{m}^3$) at Consolidated Monitors

Sample Date (2005)	Zinc (Zn) Concentrations ($\mu\text{g}/\text{m}^3$)							
	C1	C2	C3	C4	C5	C6	C7	C8
September 25	0.003	0.007	not valid	not valid	0.003	0.003	not valid	not valid
October 1	0.021	0.018	0.021	0.060	0.019	0.064	0.120	not valid
October 7	0.018	0.016	0.019	0.005	0.006	0.003	0.016	0.031
October 13	0.058	0.041	0.052	0.051	0.040	0.119	0.051	0.042
October 19	0.038	0.109	0.044	0.043	not valid	0.038	0.050	not valid
October 25	not valid	0.074	0.025	not valid	0.053	0.036	0.051	not valid
October 31	0.039	0.041	0.037	0.041	not valid	0.040	0.035	not valid
November 6	0.071	not valid	not valid	not valid	not valid	not valid	not valid	not valid

Notes: Ontario 24-h AAQC = $120 \mu\text{g}/\text{m}^3$, Bold text indicates measurement is below LDL

Lowest Detectable Limit = $0.001 - 0.003 \mu\text{g}/\text{m}^3$

5. SUMMARY OF RESULTS

Table 5.1 provides a summary the intensive monitoring results. Table 5.2 provides a summary of the consolidated monitoring results.

Table 5.1 Summary of Intensive Monitoring Results

Contaminant	Ontario 24-h	Minimum	Maximum	Average	Comment
	AAQC	(µg/m ³)	(µg/m ³)	(µg/m ³)	
PM10	50.0	1.613	14.616	3.391	
Iron (Fe)	4.0	0.028	0.102	0.041	
Aluminum (Al)	120.0	0.007	0.146	0.019	
Antimony (Sb)	25.0	0.001	0.002	0.001	Majority of results were below LDL
Arsenic (As)	0.3	0.003	0.003	0.003	Majority of results were below LDL
Barium (Ba)	10.0	0.001	0.003	0.001	Majority of results were below LDL
Beryllium (Be)	0.0	0.001	0.001	0.001	Majority of results were below LDL
Bismuth (Bi)	n/a	0.004	0.005	0.004	Majority of results were below LDL
Cadmium (Cd)	2.0	0.001	0.001	0.001	Majority of results were below LDL
Chromium (Cr)	1.5	0.003	0.009	0.006	
Cobalt (Co)	0.1	0.001	0.001	0.001	Majority of results were below LDL
Copper (Cu)	50.0	0.001	0.004	0.001	
Lead (Pb)	2.0	0.001	0.006	0.002	
Manganese (Mn)	2.5	0.003	0.003	0.003	Majority of results were below LDL
Mercury (Hg)	2.0	0.000	0.000	0.000	Majority of results were below LDL
Molybdenum (Mo)	120.0	0.001	0.001	0.001	Majority of results were below LDL
Nickel (Ni)	2.0	0.001	0.002	0.001	Majority of results were below LDL
Selenium (Se)	10.0	0.003	0.009	0.005	
Silver (Ag)	1.0	0.000	0.002	0.001	
Thallium (Tl)	n/a	0.001	0.001	0.001	Majority of results were below LDL
Tin (Sn)	10.0	0.003	0.006	0.003	Majority of results were below LDL
Titanium (Ti)	120.0	0.003	0.003	0.003	Majority of results were below LDL
Vanadium (V)	2.0	0.004	0.005	0.004	Majority of results were below LDL
Zinc (Zn)	120.0	0.001	0.021	0.005	

Table 5.2 Summary of Consolidated Monitoring Results

Contaminant	Ontario 24-h	Minimum	Maximum	Average	Comment
	AAQC	(µg/m³)	(µg/m³)	(µg/m³)	
PM10	50.0	0.151	41.695	3.976	
Iron (Fe)	4.0	0.028	0.514	0.073	
Aluminum (Al)	120.0	0.004	0.120	0.014	
Antimony (Sb)	25.0	0.001	0.004	0.001	Majority of results were below LDL
Arsenic (As)	0.3	0.003	0.005	0.003	Majority of results were below LDL
Barium (Ba)	10.0	0.001	0.076	0.003	Majority of results were below LDL
Beryllium (Be)	0.0	0.001	0.008	0.001	
Bismuth (Bi)	n/a	0.004	0.008	0.005	Majority of results were below LDL
Cadmium (Cd)	2.0	0.001	0.003	0.001	Majority of results were below LDL
Chromium (Cr)	1.5	0.003	0.014	0.007	
Cobalt (Co)	0.1	0.001	0.002	0.001	Majority of results were below LDL
Copper (Cu)	50.0	0.001	0.213	0.008	
Lead (Pb)	2.0	0.001	0.062	0.004	
Manganese (Mn)	2.5	0.003	0.012	0.004	
Mercury (Hg)	2.0	0.000	0.001	0.000	
Molybdenum (Mo)	120.0	0.001	0.001	0.001	Majority of results were below LDL
Nickel (Ni)	2.0	0.001	0.003	0.002	Majority of results were below LDL
Selenium (Se)	10.0	0.003	0.018	0.006	
Silver (Ag)	1.0	0.000	0.003	0.001	
Thallium (Tl)	n/a	0.001	0.001	0.001	Majority of results were below LDL
Tin (Sn)	10.0	0.003	0.011	0.004	
Titanium (Ti)	120.0	0.003	0.006	0.003	Majority of results were below LDL
Vanadium (V)	2.0	0.004	0.008	0.005	Majority of results were below LDL
Zinc (Zn)	120.0	0.003	0.120	0.039	

6. CONCLUSIONS AND RECOMMENDATIONS

The data for the September 9 to September 21, 2005 timeframe (Intensive Monitoring Program) and for the September 25 to November 6, 2005 timeframe (Consolidated Monitoring Program) indicate that ambient 24-hour PM₁₀ and metal concentrations are below Ontario Ambient Air Quality Criteria (Interim Ontario AAQC in the case of PM₁₀).

Due to the wet weather, fugitive dust emissions were likely negligible during both the intensive and consolidated monitoring programs. The ambient measurements are likely more reflective of pristine conditions than of worst-case conditions that could be experienced at the mine site during dry, windy events. The ambient measurements collected can not be applied to develop emission rates and a dispersion modelling approach. Therefore, it is recommended that the program be re-implemented during early Summer of 2006.

7. REFERENCES

Ontario, Ministry of the Environment, September 2001. Summary of Impingement Standards, Point of Impingement Guidelines and Ambient Air Quality Criteria (AAQC). Available at www.ene.gov.on.ca/envision/air/airquality/standards.htm.

Airmetrics, June 2001. MiniVol Portable Air Sampler, Operation Manual Version 4.2C.

APPENDIX A

Lab data

Attention: SHARON SCHAJNOHARWDI AIR INC.
SUITE 1000
736 - 8TH AVENUE S.W.
CALGARY, AB
CANADA T2P 1H4**Report Date: 2005/12/06****CERTIFICATE OF ANALYSIS****MAXXAM JOB #: A545769****Received: 2005/10/26, 16:14**Sample Matrix: Filter
Samples Received: 25

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mercury in filters @	25	N/A	2005/11/16	CAL SOP# 0125	CVAA
ICP Scan (Filter) @	24	2005/11/14	2005/11/15		
ICP Scan (Filter) @	1	2005/11/24	2005/11/24		
ICPMS Scan (Filter) @	24	N/A	2005/11/17	CAL SOP# 0069	ICP-MS
ICPMS Scan (Filter) @	1	N/A	2005/11/24	CAL SOP# 0069	ICP-MS
Mass Determination(ug/filter)	25	N/A	2005/11/04		

(1) This test was performed by Maxxam Calgary

MAXXAM Analytics Inc.LINDA LIN
Supervisor, Centre for Passive Sampling TechnologyLL/ds5
encl.

Total cover pages: 1

Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780) 468-3500 FAX(780) 466-3332
Page 1 of 16

This document is in electronic format, hard copy is available on request.

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		974026	974038	974039	974040		
Sampling Date		2005/09/09	2005/09/09	2005/09/09	2005/09/09		
	Units	SITE I1 - AMRI1-001/54432	SITE I2 - AMRI2-001/36942	SITE I3 - AMRI3-001/53121	SITE I4 - AMRI4-001/55849	RDL	QC Batch

PM2.5/10							
Particulate Matter	ug/filter	22	18	19	25	1	967816
RDL = Reportable Detection Limit							

Maxxam ID		974041	974042	974043	974044		
Sampling Date		2005/09/09	2005/09/09	2005/09/09	2005/09/09		
	Units	SITE I5 - AMRI5-001/41098	SITE I6 - AMRI6-001/54595	SITE I7 - AMRI7-001/44276	SITE I8 - AMRI8-001/25881	RDL	QC Batch

PM2.5/10							
Particulate Matter	ug/filter	26	25	19	17	1	967816
RDL = Reportable Detection Limit							

Maxxam ID		974045	974046	974047	974048		
Sampling Date		2005/09/13	2005/09/13	2005/09/13	2005/09/13		
	Units	SITE I1 - AMRI1-002/46117	SITE I2 - AMRI2-002/46604	SITE I3 - AMRI3-002/55068	SITE I4 - AMRI4-002/36943	RDL	QC Batch

PM2.5/10							
Particulate Matter	ug/filter	18	17	19	20	1	967816
RDL = Reportable Detection Limit							

Maxxam ID		974049	974050	974051	974052		
Sampling Date		2005/09/13	2005/09/13	2005/09/13	2005/09/13		
	Units	SITE I5 - AMRI5-002/45009	SITE I6 - AMRI6-002/46621	SITE I7 - AMRI7-002/27820	SITE I8 - AMRI8-002/46094	RDL	QC Batch

PM2.5/10							
Particulate Matter	ug/filter	24	14	24	16	1	967816
RDL = Reportable Detection Limit							

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		974053	974054	974055	974056		
Sampling Date		2005/09/21	2005/09/21	2005/09/21	2005/09/21		
	Units	SITE I1 - AMRI1-003/70438	SITE I2 - AMRI2-003/71563	SITE I3 - AMRI3-003/25640	SITE I4 - AMRI4-003/89970	RDL	QC Batch

PM2.5/10							
Particulate Matter	ug/filter	18	30	11	20	1	967816
RDL = Reportable Detection Limit							

Maxxam ID		974057	974058	974059	974060		
Sampling Date		2005/09/21	2005/09/21	2005/09/21	2005/09/21		
	Units	SITE I5 - AMRI5-003/89938	SITE I6 - AMRI6-003/89986	SITE I7 - AMRI7-003/89948	SITE I8 - AMRI8-003/89962	RDL	QC Batch

PM2.5/10							
Particulate Matter	ug/filter	24	97	14	13	1	967816
RDL = Reportable Detection Limit							

Maxxam ID		982337		
Sampling Date				
	Units	BLANK	RDL	QC Batch

PM2.5/10				
Particulate Matter	ug/filter	<1	1	967816
RDL = Reportable Detection Limit				

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974026	974038	974039		
Sampling Date		2005/09/09	2005/09/09	2005/09/09		
	Units	SITE I1 - AMRI1-001/54432	SITE I2 - AMRI2-001/36942	SITE I3 - AMRI3-001/53121	RDL	QC Batch

Elements						
Total Iron (Fe)	ug	<0.2	<0.2	0.4	0.2	960288
Elements by Extraction						
Total Aluminum (Al)	ug	0.07	0.06	0.08	0.03	959095
Total Antimony (Sb)	ug	0.012	<0.004	<0.004	0.004	959095
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Barium (Ba)	ug	<0.005	<0.005	0.005	0.005	959095
Total Beryllium (Be)	ug	<0.005	0.005	<0.005	0.005	959095
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Chromium (Cr)	ug	0.05	0.05	0.03	0.02	959095
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959095
Total Copper (Cu)	ug	0.006	0.017	<0.005	0.005	959095
Total Lead (Pb)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959095
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	0.001	0.001	960722
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959095
Total Selenium (Se)	ug	0.03	0.06	0.03	0.02	959095
Total Silver (Ag)	ug	0.007	<0.003	0.011	0.003	959095
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Tin (Sn)	ug	0.03	0.02	0.02	0.02	959095
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Zinc (Zn)	ug	0.03	0.02	0.02	0.01	959095

RDL = Reportable Detection Limit

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974040	974041	974042		
Sampling Date		2005/09/09	2005/09/09	2005/09/09		
	Units	SITE I4 - AMRI4-001/55849	SITE I5 - AMRI5-001/41098	SITE I6 - AMRI6-001/54595	RDL	QC Batch

Elements						
Total Iron (Fe)	ug	<0.2	0.2	<0.2	0.2	960288
Elements by Extraction						
Total Aluminum (Al)	ug	0.05	1.00	0.39	0.03	959095
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959095
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Barium (Ba)	ug	<0.005	0.009	<0.005	0.005	959095
Total Beryllium (Be)	ug	0.005	<0.005	<0.005	0.005	959095
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Chromium (Cr)	ug	0.04	0.06	0.03	0.02	959095
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959095
Total Copper (Cu)	ug	<0.005	0.007	0.021	0.005	959095
Total Lead (Pb)	ug	0.006	0.013	0.009	0.005	959095
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959095
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960722
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959095
Total Selenium (Se)	ug	0.03	0.02	<0.02	0.02	959095
Total Silver (Ag)	ug	0.003	<0.003	0.008	0.003	959095
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Tin (Sn)	ug	<0.02	0.02	<0.02	0.02	959095
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Zinc (Zn)	ug	0.01	0.07	0.05	0.01	959095

RDL = Reportable Detection Limit

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974043	974044	974045		
Sampling Date		2005/09/09	2005/09/09	2005/09/13		
	Units	SITE I7 - AMRI7-001/44276	SITE I8 - AMRI8-001/25881	SITE I1 - AMRI1-002/46117	RDL	QC Batch

Elements						
Total Iron (Fe)	ug	0.6	<0.2	<0.2	0.2	960288
Elements by Extraction						
Total Aluminum (Al)	ug	0.07	0.05	0.09	0.03	959095
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959095
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Barium (Ba)	ug	<0.005	<0.005	0.008	0.005	959095
Total Beryllium (Be)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Chromium (Cr)	ug	0.03	<0.02	0.04	0.02	959095
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959095
Total Copper (Cu)	ug	<0.005	<0.005	0.024	0.005	959095
Total Lead (Pb)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Manganese (Mn)	ug	0.02	<0.02	<0.02	0.02	959095
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960722
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959095
Total Selenium (Se)	ug	0.03	0.03	0.04	0.02	959095
Total Silver (Ag)	ug	0.004	<0.003	<0.003	0.003	959095
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Tin (Sn)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Zinc (Zn)	ug	0.02	0.01	0.03	0.01	959095

RDL = Reportable Detection Limit

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974046	974047	974048		
Sampling Date		2005/09/13	2005/09/13	2005/09/13		
	Units	SITE I2 - AMRI2-002/46604	SITE I3 - AMRI3-002/55068	SITE I4 - AMRI4-002/36943	RDL	QC Batch

Elements						
Total Iron (Fe)	ug	0.5	<0.2	<0.2	0.2	960288
Elements by Extraction						
Total Aluminum (Al)	ug	0.08	0.07	0.08	0.03	959095
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959095
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Barium (Ba)	ug	0.022	0.012	0.006	0.005	959095
Total Beryllium (Be)	ug	0.006	0.007	<0.005	0.005	959095
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Chromium (Cr)	ug	0.04	0.03	0.03	0.02	959095
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959095
Total Copper (Cu)	ug	0.006	<0.005	<0.005	0.005	959095
Total Lead (Pb)	ug	0.013	0.011	0.018	0.005	959095
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959095
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960722
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959095
Total Selenium (Se)	ug	0.02	0.05	0.04	0.02	959095
Total Silver (Ag)	ug	0.006	0.004	<0.003	0.003	959095
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Tin (Sn)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Zinc (Zn)	ug	0.02	0.02	0.03	0.01	959095

RDL = Reportable Detection Limit

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974049	974050	974051		
Sampling Date		2005/09/13	2005/09/13	2005/09/13		
	Units	SITE I5 - AMRI5-002/45009	SITE I6 - AMRI6-002/46621	SITE I7 - AMRI7-002/27820	RDL	QC Batch

Elements						
Total Iron (Fe)	ug	0.7	0.2	<0.2	0.2	960288
Elements by Extraction						
Total Aluminum (Al)	ug	0.12	0.09	0.08	0.03	959095
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959095
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Barium (Ba)	ug	<0.005	0.010	<0.005	0.005	959095
Total Beryllium (Be)	ug	0.008	<0.005	0.005	0.005	959095
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Chromium (Cr)	ug	0.03	0.04	0.05	0.02	959095
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959095
Total Copper (Cu)	ug	0.008	0.007	<0.005	0.005	959095
Total Lead (Pb)	ug	0.015	0.010	0.008	0.005	959095
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959095
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960722
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959095
Total Selenium (Se)	ug	0.03	0.06	0.03	0.02	959095
Total Silver (Ag)	ug	0.008	0.005	<0.003	0.003	959095
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Tin (Sn)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Zinc (Zn)	ug	0.04	0.02	0.02	0.01	959095

RDL = Reportable Detection Limit

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974052	974053	974054		
Sampling Date		2005/09/13	2005/09/21	2005/09/21		
	Units	SITE I8 - AMRI8-002/46094	SITE I1 - AMRI1-003/70438	SITE I2 - AMRI2-003/71563	RDL	QC Batch

Elements						
Total Iron (Fe)	ug	<0.2	0.2	0.4	0.2	960288
Elements by Extraction						
Total Aluminum (Al)	ug	0.08	0.11	0.11	0.03	959095
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959095
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Barium (Ba)	ug	<0.005	<0.005	0.014	0.005	959095
Total Beryllium (Be)	ug	<0.005	<0.005	0.005	0.005	959095
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Chromium (Cr)	ug	0.06	0.04	0.04	0.02	959095
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959095
Total Copper (Cu)	ug	<0.005	<0.005	0.006	0.005	959095
Total Lead (Pb)	ug	<0.005	0.040	<0.005	0.005	959095
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959095
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960722
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959095
Total Selenium (Se)	ug	0.03	0.04	0.02	0.02	959095
Total Silver (Ag)	ug	0.004	0.006	0.007	0.003	959095
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959095
Total Tin (Sn)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959095
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959095
Total Zinc (Zn)	ug	0.01	0.03	0.14	0.01	959095

RDL = Reportable Detection Limit

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974055		974056		
Sampling Date		2005/09/21		2005/09/21		
	Units	SITE I3 - AMRI3-003/25640	QC Batch	SITE I4 - AMRI4-003/89970	RDL	QC Batch

Elements						
Total Iron (Fe)	ug	<0.2	960288	0.2	0.2	960288
Elements by Extraction						
Total Aluminum (Al)	ug	0.09	959095	0.08	0.03	959095
Total Antimony (Sb)	ug	<0.004	959095	<0.004	0.004	959095
Total Arsenic (As)	ug	<0.02	959095	<0.02	0.02	959095
Total Barium (Ba)	ug	<0.005	959095	<0.005	0.005	959095
Total Beryllium (Be)	ug	<0.005	959095	0.006	0.005	959095
Total Bismuth (Bi)	ug	<0.03	959095	<0.03	0.03	959095
Total Cadmium (Cd)	ug	<0.005	959095	<0.005	0.005	959095
Total Chromium (Cr)	ug	0.04	959095	0.06	0.02	959095
Total Cobalt (Co)	ug	<0.007	959095	<0.007	0.007	959095
Total Copper (Cu)	ug	0.005	959095	0.006	0.005	959095
Total Lead (Pb)	ug	0.008	959095	0.015	0.005	959095
Total Manganese (Mn)	ug	<0.02	959095	<0.02	0.02	959095
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	960722	<0.001	0.001	960729
Total Molybdenum (Mo)	ug	<0.005	959095	<0.005	0.005	959095
Total Nickel (Ni)	ug	<0.01	959095	<0.01	0.01	959095
Total Selenium (Se)	ug	0.05	959095	0.05	0.02	959095
Total Silver (Ag)	ug	0.004	959095	0.004	0.003	959095
Total Thallium (Tl)	ug	<0.005	959095	<0.005	0.005	959095
Total Tin (Sn)	ug	<0.02	959095	<0.02	0.02	959095
Total Titanium (Ti)	ug	<0.02	959095	<0.02	0.02	959095
Total Vanadium (V)	ug	<0.03	959095	<0.03	0.03	959095
Total Zinc (Zn)	ug	0.02	959095	0.05	0.01	959095

RDL = Reportable Detection Limit

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974057	974058	974059		
Sampling Date		2005/09/21	2005/09/21	2005/09/21		
	Units	SITE I5 - AMRI5-003/89938	SITE I6 - AMRI6-003/89986	SITE I7 - AMRI7-003/89948	RDL	QC Batch

Elements						
Total Iron (Fe)	ug	0.2	0.2	0.4	0.2	960290
Elements by Extraction						
Total Aluminum (Al)	ug	0.05	0.05	0.07	0.03	959096
Total Antimony (Sb)	ug	0.012	<0.004	<0.004	0.004	959096
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Barium (Ba)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Beryllium (Be)	ug	0.008	<0.005	<0.005	0.005	959096
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Chromium (Cr)	ug	0.05	0.03	0.03	0.02	959096
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959096
Total Copper (Cu)	ug	<0.005	<0.005	0.007	0.005	959096
Total Lead (Pb)	ug	0.007	0.009	<0.005	0.005	959096
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959096
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960729
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959096
Total Selenium (Se)	ug	0.02	<0.02	0.04	0.02	959096
Total Silver (Ag)	ug	<0.003	<0.003	0.006	0.003	959096
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Tin (Sn)	ug	0.04	0.02	<0.02	0.02	959096
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Zinc (Zn)	ug	0.04	0.05	0.02	0.01	959096

RDL = Reportable Detection Limit

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974060		982337		
Sampling Date		2005/09/21				
	Units	SITE I8 - AMRI8-003/89962	QC Batch	BLANK	RDL	QC Batch

Elements						
Total Iron (Fe)	ug	<0.2	960290	<0.2	0.2	970748
Elements by Extraction						
Total Aluminum (Al)	ug	0.07	959096	0.11	0.03	970104
Total Antimony (Sb)	ug	<0.004	959096	0.007	0.004	970104
Total Arsenic (As)	ug	<0.02	959096	<0.02	0.02	970104
Total Barium (Ba)	ug	<0.005	959096	0.036	0.005	970104
Total Beryllium (Be)	ug	<0.005	959096	0.013	0.005	970104
Total Bismuth (Bi)	ug	<0.03	959096	<0.03	0.03	970104
Total Cadmium (Cd)	ug	<0.005	959096	<0.005	0.005	970104
Total Chromium (Cr)	ug	0.05	959096	0.06	0.02	970104
Total Cobalt (Co)	ug	<0.007	959096	<0.007	0.007	970104
Total Copper (Cu)	ug	0.005	959096	0.170	0.005	970104
Total Lead (Pb)	ug	0.019	959096	<0.005	0.005	970104
Total Manganese (Mn)	ug	<0.02	959096	<0.02	0.02	970104
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	960729	<0.001	0.001	960757
Total Molybdenum (Mo)	ug	<0.005	959096	<0.005	0.005	970104
Total Nickel (Ni)	ug	<0.01	959096	0.04	0.01	970104
Total Selenium (Se)	ug	<0.02	959096	<0.02	0.02	970104
Total Silver (Ag)	ug	0.004	959096	<0.003	0.003	970104
Total Thallium (Tl)	ug	<0.005	959096	<0.005	0.005	970104
Total Tin (Sn)	ug	<0.02	959096	0.03	0.02	970104
Total Titanium (Ti)	ug	<0.02	959096	<0.02	0.02	970104
Total Vanadium (V)	ug	<0.03	959096	<0.03	0.03	970104
Total Zinc (Zn)	ug	0.01	959096	0.17	0.01	970104

RDL = Reportable Detection Limit



Maxxam Job #: A545769
Report Date: 2005/12/06

RWDI AIR INC.
Client Project #: PARTICULATE SAMPLES
Site Reference: ANVIL MINE PROJECT SITE I1 - 8
Sampler Initials: MB

General Comments

Results relate only to the items tested.

Quality Assurance Report

Maxxam Job Number: PA545769

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
959095 SB1	Calibration Check	Total Aluminum (Al)	2005/11/17		108	%	85 - 113
		Total Antimony (Sb)	2005/11/17		96	%	74 - 117
		Total Arsenic (As)	2005/11/17		100	%	77 - 113
		Total Barium (Ba)	2005/11/17		101	%	85 - 109
		Total Beryllium (Be)	2005/11/17		102	%	78 - 116
		Total Bismuth (Bi)	2005/11/17		101	%	N/A
		Total Cadmium (Cd)	2005/11/17		100	%	84 - 110
		Total Chromium (Cr)	2005/11/17		101	%	83 - 108
		Total Cobalt (Co)	2005/11/17		99	%	83 - 110
		Total Copper (Cu)	2005/11/17		98	%	83 - 113
		Total Lead (Pb)	2005/11/17		97	%	82 - 107
		Total Manganese (Mn)	2005/11/17		101	%	83 - 108
		Total Molybdenum (Mo)	2005/11/17		99	%	85 - 109
		Total Nickel (Ni)	2005/11/17		100	%	81 - 111
		Total Selenium (Se)	2005/11/17		101	%	74 - 119
		Total Silver (Ag)	2005/11/17		97	%	85 - 109
		Total Thallium (Tl)	2005/11/17		98	%	78 - 108
		Total Tin (Sn)	2005/11/17		81	%	79 - 110
		Total Titanium (Ti)	2005/11/17		103	%	84 - 114
		Total Vanadium (V)	2005/11/17		102	%	85 - 111
		Total Zinc (Zn)	2005/11/17		98	%	80 - 117
	BLANK	Total Aluminum (Al)	2005/11/17	<0.03		ug	
		Total Antimony (Sb)	2005/11/17	<0.004		ug	
		Total Arsenic (As)	2005/11/17	<0.02		ug	
		Total Barium (Ba)	2005/11/17	<0.005		ug	
		Total Beryllium (Be)	2005/11/17	<0.005		ug	
		Total Bismuth (Bi)	2005/11/17	<0.03		ug	
		Total Cadmium (Cd)	2005/11/17	<0.005		ug	
		Total Chromium (Cr)	2005/11/17	<0.02		ug	
		Total Cobalt (Co)	2005/11/17	<0.007		ug	
		Total Copper (Cu)	2005/11/17	<0.005		ug	
		Total Lead (Pb)	2005/11/17	<0.005		ug	
		Total Manganese (Mn)	2005/11/17	<0.02		ug	
		Total Molybdenum (Mo)	2005/11/17	<0.005		ug	
		Total Nickel (Ni)	2005/11/17	<0.01		ug	
		Total Selenium (Se)	2005/11/17	<0.02		ug	
		Total Silver (Ag)	2005/11/17	<0.003		ug	
		Total Thallium (Tl)	2005/11/17	<0.005		ug	
		Total Tin (Sn)	2005/11/17	<0.02		ug	
		Total Titanium (Ti)	2005/11/17	<0.02		ug	
		Total Vanadium (V)	2005/11/17	<0.03		ug	
		Total Zinc (Zn)	2005/11/17	<0.01		ug	
959096 SB1	Calibration Check	Total Aluminum (Al)	2005/11/17		109	%	85 - 113
		Total Antimony (Sb)	2005/11/17		96	%	74 - 117
		Total Arsenic (As)	2005/11/17		102	%	77 - 113
		Total Barium (Ba)	2005/11/17		97	%	85 - 109
		Total Beryllium (Be)	2005/11/17		104	%	78 - 116
		Total Bismuth (Bi)	2005/11/17		101	%	N/A
		Total Cadmium (Cd)	2005/11/17		101	%	84 - 110
		Total Chromium (Cr)	2005/11/17		102	%	83 - 108
		Total Cobalt (Co)	2005/11/17		100	%	83 - 110
		Total Copper (Cu)	2005/11/17		101	%	83 - 113
		Total Lead (Pb)	2005/11/17		98	%	82 - 107
		Total Manganese (Mn)	2005/11/17		101	%	83 - 108
		Total Molybdenum (Mo)	2005/11/17		98	%	85 - 109
		Total Nickel (Ni)	2005/11/17		100	%	81 - 111

Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780) 468-3500 FAX(780) 466-3332

Quality Assurance Report (Continued)

Maxxam Job Number: PA545769

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
959096 SB1	Calibration Check	Total Selenium (Se)	2005/11/17		99	%	74 - 119
		Total Silver (Ag)	2005/11/17		97	%	85 - 109
		Total Thallium (Tl)	2005/11/17		98	%	78 - 108
		Total Tin (Sn)	2005/11/17		80	%	79 - 110
		Total Titanium (Ti)	2005/11/17		103	%	84 - 114
		Total Vanadium (V)	2005/11/17		103	%	85 - 111
	BLANK	Total Zinc (Zn)	2005/11/17		100	%	80 - 117
		Total Aluminum (Al)	2005/11/17	<0.03		ug	
		Total Antimony (Sb)	2005/11/17	<0.004		ug	
		Total Arsenic (As)	2005/11/17	<0.02		ug	
		Total Barium (Ba)	2005/11/17	<0.005		ug	
		Total Beryllium (Be)	2005/11/17	<0.005		ug	
		Total Bismuth (Bi)	2005/11/17	<0.03		ug	
		Total Cadmium (Cd)	2005/11/17	<0.005		ug	
		Total Chromium (Cr)	2005/11/17	<0.02		ug	
		Total Cobalt (Co)	2005/11/17	<0.007		ug	
		Total Copper (Cu)	2005/11/17	<0.005		ug	
		Total Lead (Pb)	2005/11/17	<0.005		ug	
		Total Manganese (Mn)	2005/11/17	<0.02		ug	
		Total Molybdenum (Mo)	2005/11/17	<0.005		ug	
		Total Nickel (Ni)	2005/11/17	<0.01		ug	
		Total Selenium (Se)	2005/11/17	<0.02		ug	
		Total Silver (Ag)	2005/11/17	<0.003		ug	
		Total Thallium (Tl)	2005/11/17	<0.005		ug	
		Total Tin (Sn)	2005/11/17	<0.02		ug	
		Total Titanium (Ti)	2005/11/17	<0.02		ug	
		Total Vanadium (V)	2005/11/17	<0.03		ug	
		Total Zinc (Zn)	2005/11/17	<0.01		ug	
960288 SW	Calibration Check	Total Iron (Fe)	2005/11/15		98	%	87 - 113
960290 SW	BLANK	Total Iron (Fe)	2005/11/15	<0.2		ug	
	Calibration Check	Total Iron (Fe)	2005/11/15		102	%	87 - 113
960722 RS2	BLANK	Total Iron (Fe)	2005/11/15	<0.2		ug	
	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/11/16		101	%	69 - 132
960729 RS2	BLANK	Acid Extr. (Closed) Mercury (Hg)	2005/11/16	<0.001		ug	
	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/11/16		93	%	69 - 132
960757 RS2	BLANK	Acid Extr. (Closed) Mercury (Hg)	2005/11/16	<0.001		ug	
	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/11/16		79	%	69 - 132
970104 LT	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/11/16	<0.001		ug	
		Total Aluminum (Al)	2005/11/24		103	%	85 - 113
		Total Antimony (Sb)	2005/11/24		92	%	74 - 117
		Total Arsenic (As)	2005/11/24		106	%	77 - 113
		Total Barium (Ba)	2005/11/24		103	%	85 - 109
		Total Beryllium (Be)	2005/11/24		101	%	78 - 116
		Total Bismuth (Bi)	2005/11/24		108	%	N/A
		Total Cadmium (Cd)	2005/11/24		100	%	84 - 110
		Total Chromium (Cr)	2005/11/24		101	%	83 - 108
		Total Cobalt (Co)	2005/11/24		99	%	83 - 110
		Total Copper (Cu)	2005/11/24		100	%	83 - 113
		Total Lead (Pb)	2005/11/24		101	%	82 - 107
		Total Manganese (Mn)	2005/11/24		100	%	83 - 108
		Total Molybdenum (Mo)	2005/11/24		102	%	85 - 109
		Total Nickel (Ni)	2005/11/24		102	%	81 - 111
		Total Selenium (Se)	2005/11/24		98	%	74 - 119
		Total Silver (Ag)	2005/11/24		97	%	85 - 109
		Total Thallium (Tl)	2005/11/24		101	%	78 - 108
		Total Tin (Sn)	2005/11/24		98	%	79 - 110

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Quality Assurance Report (Continued)

Maxxam Job Number: PA545769

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
970104 LT	Calibration Check	Total Titanium (Ti)	2005/11/24		94	%	84 - 114
		Total Vanadium (V)	2005/11/24		100	%	85 - 111
		Total Zinc (Zn)	2005/11/24		107	%	80 - 117
	BLANK	Total Aluminum (Al)	2005/11/24	<0.03		ug	
		Total Antimony (Sb)	2005/11/24	<0.004		ug	
		Total Arsenic (As)	2005/11/24	<0.02		ug	
		Total Barium (Ba)	2005/11/24	<0.005		ug	
		Total Beryllium (Be)	2005/11/24	<0.005		ug	
		Total Bismuth (Bi)	2005/11/24	<0.03		ug	
		Total Cadmium (Cd)	2005/11/24	<0.005		ug	
		Total Chromium (Cr)	2005/11/24	<0.02		ug	
		Total Cobalt (Co)	2005/11/24	<0.007		ug	
		Total Copper (Cu)	2005/11/24	<0.005		ug	
		Total Lead (Pb)	2005/11/24	<0.005		ug	
		Total Manganese (Mn)	2005/11/24	<0.02		ug	
		Total Molybdenum (Mo)	2005/11/24	<0.005		ug	
		Total Nickel (Ni)	2005/11/24	<0.01		ug	
		Total Selenium (Se)	2005/11/24	<0.02		ug	
		Total Silver (Ag)	2005/11/24	<0.003		ug	
		Total Thallium (Tl)	2005/11/24	<0.005		ug	
		Total Tin (Sn)	2005/11/24	<0.02		ug	
		Total Titanium (Ti)	2005/11/24	<0.02		ug	
		Total Vanadium (V)	2005/11/24	<0.03		ug	
		Total Zinc (Zn)	2005/11/24	<0.01		ug	
970748 ED	Calibration Check	Total Iron (Fe)	2005/11/24		97	%	87 - 113
	BLANK	Total Iron (Fe)	2005/11/24	<0.2		ug	

N/A = Not Applicable

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Attention: SHARON SCHAJNOHARWDI AIR INC.
SUITE 1000
736 - 8TH AVENUE S.W.
CALGARY, AB
CANADA T2P 1H4**Report Date: 2005/12/06****CERTIFICATE OF ANALYSIS****MAXXAM JOB #: A545782****Received: 2005/10/26, 17:13**Sample Matrix: Filter
Samples Received: 25

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mercury in filters @	25	N/A	2005/11/16	CAL SOP# 0125	CVAA
ICP Scan (Filter) @	24	2005/11/14	2005/11/15		
ICP Scan (Filter) @	1	2005/11/24	2005/11/24		
ICPMS Scan (Filter) @	24	N/A	2005/11/17	CAL SOP# 0069	ICP-MS
ICPMS Scan (Filter) @	1	N/A	2005/11/24	CAL SOP# 0069	ICP-MS
Mass Determination(ug/filter)	25	N/A	2005/11/04		

(1) This test was performed by Maxxam Calgary

MAXXAM Analytics Inc.LINDA LIN
Supervisor, Centre for Passive Sampling TechnologyLL/ds5
encl.

Total cover pages: 1

Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780) 468-3500 FAX(780) 466-3332
Page 1 of 16

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RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		974149	974150	974151		
Sampling Date		2005/09/25	2005/09/25	2005/09/25		
	Units	SITE C1 - AMRC1-001/89981	SITE C2 - AMRC2-001/89941	SITE C3 - AMRC3-001/89975	RDL	QC Batch

Particulate Matter	ug/filter	12	19	15	1	967785
RDL = Reportable Detection Limit						

Maxxam ID		974152	974153	974154		
Sampling Date		2005/09/25	2005/09/25	2005/09/25		
	Units	SITE C4 - AMRC4-001/89951	SITE C5 - AMRC5-001/89937	SITE C6 - AMRC6-001/89963	RDL	QC Batch

Particulate Matter	ug/filter	66	17	9	1	967785
RDL = Reportable Detection Limit						

Maxxam ID		974155	974156	974157		
Sampling Date		2005/09/25	2005/09/25	2005/10/01		
	Units	SITE C7 - AMRC7-001/89957	SITE C8 - AMRC8-001/89949	SITE C1 - AMRC1-002/89964	RDL	QC Batch

Particulate Matter	ug/filter	6	7	9	1	967785
RDL = Reportable Detection Limit						

Maxxam ID		974158	974159	974160		
Sampling Date		2005/10/01	2005/10/01	2005/10/01		
	Units	SITE C2 - AMRC2-002/89967	SITE C3 - AMRC3-002/89985	SITE C4 - AMRC4-002/89956	RDL	QC Batch

Particulate Matter	ug/filter	13	26	14	1	967785
RDL = Reportable Detection Limit						

Maxxam ID		974161	974162	974163		
Sampling Date		2005/10/01	2005/10/01	2005/10/01		
	Units	SITE C5 - AMRC5-002/89976	SITE C6 - AMRC6-002/89971	SITE C7 - AMRC7-002/89939	RDL	QC Batch

Particulate Matter	ug/filter	7	24	13	1	967785
RDL = Reportable Detection Limit						

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		974164	974165	974166		
Sampling Date		2005/10/01	2005/10/07	2005/10/07		
	Units	SITE C8 - AMRC8-002/89942	SITE C1 - AMRC1-003/85915	SITE C2 - AMRC2-003/89973	RDL	QC Batch

Particulate Matter	ug/filter	6	<1	13	1	967785
RDL = Reportable Detection Limit						

Maxxam ID		974167	974168	974169		
Sampling Date		2005/10/07	2005/10/07	2005/10/07		
	Units	SITE C3 - AMRC3-003/26268	SITE C4 - AMRC4-003/89961	SITE C5 - AMRC5-003/38950	RDL	QC Batch

Particulate Matter	ug/filter	14	11	12	1	967785
RDL = Reportable Detection Limit						

Maxxam ID		974170	974171	974172	982339		
Sampling Date		2005/10/07	2005/10/07	2005/10/07			
	Units	SITE C6 - AMRC6-003/89946	SITE C7 - AMRC7-003/82053	SITE C8 - AMRC8-003/G307	BLANK	RDL	QC Batch

Particulate Matter	ug/filter	15	11	10	<1	1	967785
RDL = Reportable Detection Limit							

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974149	974150	974151		
Sampling Date		2005/09/25	2005/09/25	2005/09/25		
	Units	SITE C1 - AMRC1-001/89981	SITE C2 - AMRC2-001/89941	SITE C3 - AMRC3-001/89975	RDL	QC Batch
Total Iron (Fe)	ug	1.3	0.3	<0.2	0.2	960290
Total Aluminum (Al)	ug	0.04	0.05	0.06	0.03	959096
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959096
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Barium (Ba)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Beryllium (Be)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Chromium (Cr)	ug	0.06	<0.02	0.07	0.02	959096
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959096
Total Copper (Cu)	ug	0.008	0.054	0.009	0.005	959096
Total Lead (Pb)	ug	<0.005	0.008	<0.005	0.005	959096
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959096
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960729
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Nickel (Ni)	ug	0.02	<0.01	<0.01	0.01	959096
Total Selenium (Se)	ug	0.04	0.03	0.05	0.02	959096
Total Silver (Ag)	ug	0.004	0.012	0.010	0.003	959096
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Tin (Sn)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Zinc (Zn)	ug	0.02	0.05	0.11	0.01	959096
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974152	974153	974154		
Sampling Date		2005/09/25	2005/09/25	2005/09/25		
	Units	SITE C4 - AMRC4-001/89951	SITE C5 - AMRC5-001/89937	SITE C6 - AMRC6-001/89963	RDL	QC Batch
Total Iron (Fe)	ug	<0.2	0.3	0.4	0.2	960290
Total Aluminum (Al)	ug	0.08	0.07	0.06	0.03	959096
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959096
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Barium (Ba)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Beryllium (Be)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Cadmium (Cd)	ug	<0.005	0.020	<0.005	0.005	959096
Total Chromium (Cr)	ug	0.04	0.07	0.05	0.02	959096
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959096
Total Copper (Cu)	ug	0.008	0.013	0.007	0.005	959096
Total Lead (Pb)	ug	<0.005	0.009	<0.005	0.005	959096
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959096
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960729
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959096
Total Selenium (Se)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Silver (Ag)	ug	0.014	0.015	0.008	0.003	959096
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Tin (Sn)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Zinc (Zn)	ug	0.08	0.02	0.02	0.01	959096
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974155	974156	974157		
Sampling Date		2005/09/25	2005/09/25	2005/10/01		
	Units	SITE C7 - AMRC7-001/89957	SITE C8 - AMRC8-001/89949	SITE C1 - AMRC1-002/89964	RDL	QC Batch
Total Iron (Fe)	ug	<0.2	<0.2	0.6	0.2	960290
Total Aluminum (Al)	ug	0.17	<0.03	0.05	0.03	959096
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959096
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Barium (Ba)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Beryllium (Be)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Chromium (Cr)	ug	0.05	0.05	0.05	0.02	959096
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959096
Total Copper (Cu)	ug	0.006	0.021	<0.005	0.005	959096
Total Lead (Pb)	ug	<0.005	<0.005	0.056	0.005	959096
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959096
Acid Extr. (Closed) Mercury (Hg)	ug	0.001	<0.001	<0.001	0.001	960729
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959096
Total Selenium (Se)	ug	0.04	0.03	0.06	0.02	959096
Total Silver (Ag)	ug	0.014	<0.003	<0.003	0.003	959096
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Tin (Sn)	ug	<0.02	0.02	<0.02	0.02	959096
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Zinc (Zn)	ug	0.11	0.01	0.14	0.01	959096
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974158	974159	974160		
Sampling Date		2005/10/01	2005/10/01	2005/10/01		
	Units	SITE C2 - AMRC2-002/89967	SITE C3 - AMRC3-002/89985	SITE C4 - AMRC4-002/89956	RDL	QC Batch
Total Iron (Fe)	ug	0.4	<0.2	0.2	0.2	960290
Total Aluminum (Al)	ug	0.04	0.04	0.07	0.03	959096
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959096
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Barium (Ba)	ug	<0.005	0.006	<0.005	0.005	959096
Total Beryllium (Be)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Chromium (Cr)	ug	0.07	0.06	0.09	0.02	959096
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959096
Total Copper (Cu)	ug	0.007	0.028	0.022	0.005	959096
Total Lead (Pb)	ug	0.049	0.036	0.288	0.005	959096
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959096
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960729
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959096
Total Selenium (Se)	ug	0.02	<0.02	0.03	0.02	959096
Total Silver (Ag)	ug	<0.003	<0.003	0.006	0.003	959096
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Tin (Sn)	ug	<0.02	<0.02	0.02	0.02	959096
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Zinc (Zn)	ug	0.12	0.14	0.40	0.01	959096
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974161	974162	974163		
Sampling Date		2005/10/01	2005/10/01	2005/10/01		
	Units	SITE C5 - AMRC5-002/89976	SITE C6 - AMRC6-002/89971	SITE C7 - AMRC7-002/89939	RDL	QC Batch
Total Iron (Fe)	ug	0.3	<0.2	0.4	0.2	960290
Total Aluminum (Al)	ug	0.04	0.06	0.05	0.03	959096
Total Antimony (Sb)	ug	<0.004	0.009	<0.004	0.004	959096
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Barium (Ba)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Beryllium (Be)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Chromium (Cr)	ug	0.05	0.07	0.03	0.02	959096
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959096
Total Copper (Cu)	ug	0.028	0.015	1.42	0.005	959096
Total Lead (Pb)	ug	0.029	0.044	0.010	0.005	959096
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	959096
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	0.001	0.001	960729
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959096
Total Selenium (Se)	ug	0.04	0.05	0.02	0.02	959096
Total Silver (Ag)	ug	<0.003	0.004	0.006	0.003	959096
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959096
Total Tin (Sn)	ug	0.03	<0.02	<0.02	0.02	959096
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959096
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959096
Total Zinc (Zn)	ug	0.13	0.46	0.80	0.01	959096
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974164		974165		
Sampling Date		2005/10/01		2005/10/07		
	Units	SITE C8 - AMRC8-002/89942	QC Batch	SITE C1 - AMRC1-003/85915	RDL	QC Batch
Total Iron (Fe)	ug	0.3	960290	0.2	0.2	960292
Total Aluminum (Al)	ug	0.06	959097	0.06	0.03	959097
Total Antimony (Sb)	ug	0.013	959097	<0.004	0.004	959097
Total Arsenic (As)	ug	<0.02	959097	<0.02	0.02	959097
Total Barium (Ba)	ug	<0.005	959097	<0.005	0.005	959097
Total Beryllium (Be)	ug	<0.005	959097	<0.005	0.005	959097
Total Bismuth (Bi)	ug	<0.03	959097	<0.03	0.03	959097
Total Cadmium (Cd)	ug	<0.005	959097	<0.005	0.005	959097
Total Chromium (Cr)	ug	0.06	959097	0.05	0.02	959097
Total Cobalt (Co)	ug	<0.007	959097	<0.007	0.007	959097
Total Copper (Cu)	ug	0.268	959097	0.026	0.005	959097
Total Lead (Pb)	ug	0.025	959097	<0.005	0.005	959097
Total Manganese (Mn)	ug	0.02	959097	<0.02	0.02	959097
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	960757	<0.001	0.001	960757
Total Molybdenum (Mo)	ug	<0.005	959097	<0.005	0.005	959097
Total Nickel (Ni)	ug	<0.01	959097	<0.01	0.01	959097
Total Selenium (Se)	ug	0.05	959097	<0.02	0.02	959097
Total Silver (Ag)	ug	0.004	959097	<0.003	0.003	959097
Total Thallium (Tl)	ug	<0.005	959097	<0.005	0.005	959097
Total Tin (Sn)	ug	0.04	959097	0.02	0.02	959097
Total Titanium (Ti)	ug	<0.02	959097	<0.02	0.02	959097
Total Vanadium (V)	ug	<0.03	959097	<0.03	0.03	959097
Total Zinc (Zn)	ug	0.10	959097	0.12	0.01	959097
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974166	974167	974168		
Sampling Date		2005/10/07	2005/10/07	2005/10/07		
	Units	SITE C2 - AMRC2-003/89973	SITE C3 - AMRC3-003/26268	SITE C4 - AMRC4-003/89961	RDL	QC Batch
Total Iron (Fe)	ug	0.5	0.2	<0.2	0.2	960292
Total Aluminum (Al)	ug	0.05	0.07	0.05	0.03	959097
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959097
Total Arsenic (As)	ug	<0.02	0.03	<0.02	0.02	959097
Total Barium (Ba)	ug	<0.005	<0.005	<0.005	0.005	959097
Total Beryllium (Be)	ug	0.006	0.005	<0.005	0.005	959097
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959097
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959097
Total Chromium (Cr)	ug	0.05	0.04	0.06	0.02	959097
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959097
Total Copper (Cu)	ug	0.016	0.009	0.007	0.005	959097
Total Lead (Pb)	ug	0.007	<0.005	<0.005	0.005	959097
Total Manganese (Mn)	ug	0.02	<0.02	<0.02	0.02	959097
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960757
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959097
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959097
Total Selenium (Se)	ug	0.03	0.06	0.05	0.02	959097
Total Silver (Ag)	ug	0.005	0.003	0.010	0.003	959097
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959097
Total Tin (Sn)	ug	<0.02	<0.02	<0.02	0.02	959097
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959097
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959097
Total Zinc (Zn)	ug	0.11	0.13	0.03	0.01	959097
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974169	974170	974171		
Sampling Date		2005/10/07	2005/10/07	2005/10/07		
	Units	SITE C5 - AMRC5-003/38950	SITE C6 - AMRC6-003/89946	SITE C7 - AMRC7-003/82053	RDL	QC Batch
Total Iron (Fe)	ug	0.2	<0.2	0.7	0.2	960292
Total Aluminum (Al)	ug	0.08	0.05	0.80	0.03	959097
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	959097
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	959097
Total Barium (Ba)	ug	<0.005	<0.005	<0.005	0.005	959097
Total Beryllium (Be)	ug	0.006	0.006	<0.005	0.005	959097
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	959097
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	959097
Total Chromium (Cr)	ug	0.04	0.04	0.05	0.02	959097
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	959097
Total Copper (Cu)	ug	0.016	0.020	0.010	0.005	959097
Total Lead (Pb)	ug	<0.005	<0.005	<0.005	0.005	959097
Total Manganese (Mn)	ug	<0.02	<0.02	0.02	0.02	959097
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	<0.001	<0.001	0.001	960757
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	959097
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	959097
Total Selenium (Se)	ug	0.04	0.04	0.05	0.02	959097
Total Silver (Ag)	ug	0.010	0.004	0.004	0.003	959097
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	959097
Total Tin (Sn)	ug	<0.02	<0.02	0.02	0.02	959097
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	959097
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	959097
Total Zinc (Zn)	ug	0.04	0.02	0.11	0.01	959097
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		974172		982339		
Sampling Date		2005/10/07				
	Units	SITE C8 - AMRC8-003/G307	QC Batch	BLANK	RDL	QC Batch
Total Iron (Fe)	ug	1.1	960292	<0.2	0.2	970748
Total Aluminum (Al)	ug	0.59	959097	0.12	0.03	970104
Total Antimony (Sb)	ug	<0.004	959097	<0.004	0.004	970104
Total Arsenic (As)	ug	<0.02	959097	<0.02	0.02	970104
Total Barium (Ba)	ug	<0.005	959097	0.035	0.005	970104
Total Beryllium (Be)	ug	0.008	959097	0.013	0.005	970104
Total Bismuth (Bi)	ug	<0.03	959097	<0.03	0.03	970104
Total Cadmium (Cd)	ug	<0.005	959097	<0.005	0.005	970104
Total Chromium (Cr)	ug	0.09	959097	0.04	0.02	970104
Total Cobalt (Co)	ug	<0.007	959097	<0.007	0.007	970104
Total Copper (Cu)	ug	0.019	959097	0.157	0.005	970104
Total Lead (Pb)	ug	<0.005	959097	<0.005	0.005	970104
Total Manganese (Mn)	ug	0.02	959097	<0.02	0.02	970104
Acid Extr. (Closed) Mercury (Hg)	ug	<0.001	960757	<0.001	0.001	960757
Total Molybdenum (Mo)	ug	<0.005	959097	<0.005	0.005	970104
Total Nickel (Ni)	ug	<0.01	959097	0.05	0.01	970104
Total Selenium (Se)	ug	0.03	959097	0.05	0.02	970104
Total Silver (Ag)	ug	0.003	959097	<0.003	0.003	970104
Total Thallium (Tl)	ug	<0.005	959097	<0.005	0.005	970104
Total Tin (Sn)	ug	<0.02	959097	0.02	0.02	970104
Total Titanium (Ti)	ug	<0.02	959097	<0.02	0.02	970104
Total Vanadium (V)	ug	<0.03	959097	<0.03	0.03	970104
Total Zinc (Zn)	ug	0.21	959097	0.14	0.01	970104
RDL = Reportable Detection Limit						



Maxxam Job #: A545782
Report Date: 2005/12/06

RWDI AIR INC.
Client Project #: PARTICULATE SAMPLES
Site Reference: ANVIL MINE PROJECT SITE C1 - 8
Sampler Initials: MB

General Comments

Results relate only to the items tested.

Quality Assurance Report

Maxxam Job Number: PA545782

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
959096 SB1	Calibration Check	Total Aluminum (Al)	2005/11/17		109	%	85 - 113
		Total Antimony (Sb)	2005/11/17		96	%	74 - 117
		Total Arsenic (As)	2005/11/17		102	%	77 - 113
		Total Barium (Ba)	2005/11/17		97	%	85 - 109
		Total Beryllium (Be)	2005/11/17		104	%	78 - 116
		Total Bismuth (Bi)	2005/11/17		101	%	N/A
		Total Cadmium (Cd)	2005/11/17		101	%	84 - 110
		Total Chromium (Cr)	2005/11/17		102	%	83 - 108
		Total Cobalt (Co)	2005/11/17		100	%	83 - 110
		Total Copper (Cu)	2005/11/17		101	%	83 - 113
		Total Lead (Pb)	2005/11/17		98	%	82 - 107
		Total Manganese (Mn)	2005/11/17		101	%	83 - 108
		Total Molybdenum (Mo)	2005/11/17		98	%	85 - 109
		Total Nickel (Ni)	2005/11/17		100	%	81 - 111
		Total Selenium (Se)	2005/11/17		99	%	74 - 119
		Total Silver (Ag)	2005/11/17		97	%	85 - 109
		Total Thallium (Tl)	2005/11/17		98	%	78 - 108
		Total Tin (Sn)	2005/11/17		80	%	79 - 110
		Total Titanium (Ti)	2005/11/17		103	%	84 - 114
		Total Vanadium (V)	2005/11/17		103	%	85 - 111
		Total Zinc (Zn)	2005/11/17		100	%	80 - 117
	BLANK	Total Aluminum (Al)	2005/11/17	<0.03		ug	
		Total Antimony (Sb)	2005/11/17	<0.004		ug	
		Total Arsenic (As)	2005/11/17	<0.02		ug	
		Total Barium (Ba)	2005/11/17	<0.005		ug	
		Total Beryllium (Be)	2005/11/17	<0.005		ug	
		Total Bismuth (Bi)	2005/11/17	<0.03		ug	
		Total Cadmium (Cd)	2005/11/17	<0.005		ug	
		Total Chromium (Cr)	2005/11/17	<0.02		ug	
		Total Cobalt (Co)	2005/11/17	<0.007		ug	
		Total Copper (Cu)	2005/11/17	<0.005		ug	
		Total Lead (Pb)	2005/11/17	<0.005		ug	
		Total Manganese (Mn)	2005/11/17	<0.02		ug	
		Total Molybdenum (Mo)	2005/11/17	<0.005		ug	
		Total Nickel (Ni)	2005/11/17	<0.01		ug	
		Total Selenium (Se)	2005/11/17	<0.02		ug	
		Total Silver (Ag)	2005/11/17	<0.003		ug	
		Total Thallium (Tl)	2005/11/17	<0.005		ug	
		Total Tin (Sn)	2005/11/17	<0.02		ug	
		Total Titanium (Ti)	2005/11/17	<0.02		ug	
		Total Vanadium (V)	2005/11/17	<0.03		ug	
		Total Zinc (Zn)	2005/11/17	<0.01		ug	
959097 SB1	Calibration Check	Total Aluminum (Al)	2005/11/17		111	%	85 - 113
		Total Antimony (Sb)	2005/11/17		97	%	74 - 117
		Total Arsenic (As)	2005/11/17		102	%	77 - 113
		Total Barium (Ba)	2005/11/17		100	%	85 - 109
		Total Beryllium (Be)	2005/11/17		106	%	78 - 116
		Total Bismuth (Bi)	2005/11/17		103	%	N/A
		Total Cadmium (Cd)	2005/11/17		101	%	84 - 110
		Total Chromium (Cr)	2005/11/17		104	%	83 - 108
		Total Cobalt (Co)	2005/11/17		99	%	83 - 110
		Total Copper (Cu)	2005/11/17		100	%	83 - 113
		Total Lead (Pb)	2005/11/17		96	%	82 - 107
		Total Manganese (Mn)	2005/11/17		100	%	83 - 108
		Total Molybdenum (Mo)	2005/11/17		98	%	85 - 109
		Total Nickel (Ni)	2005/11/17		100	%	81 - 111

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Quality Assurance Report (Continued)

Maxxam Job Number: PA545782

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
959097 SB1	Calibration Check	Total Selenium (Se)	2005/11/17		99	%	74 - 119
		Total Silver (Ag)	2005/11/17		98	%	85 - 109
		Total Thallium (Tl)	2005/11/17		96	%	78 - 108
		Total Tin (Sn)	2005/11/17		81	%	79 - 110
		Total Titanium (Ti)	2005/11/17		104	%	84 - 114
	BLANK	Total Vanadium (V)	2005/11/17		103	%	85 - 111
		Total Zinc (Zn)	2005/11/17		98	%	80 - 117
		Total Aluminum (Al)	2005/11/17	<0.03		ug	
		Total Antimony (Sb)	2005/11/17	<0.004		ug	
		Total Arsenic (As)	2005/11/17	<0.02		ug	
		Total Barium (Ba)	2005/11/17	<0.005		ug	
		Total Beryllium (Be)	2005/11/17	<0.005		ug	
		Total Bismuth (Bi)	2005/11/17	<0.03		ug	
		Total Cadmium (Cd)	2005/11/17	<0.005		ug	
		Total Chromium (Cr)	2005/11/17	<0.02		ug	
		Total Cobalt (Co)	2005/11/17	<0.007		ug	
		Total Copper (Cu)	2005/11/17	<0.005		ug	
		Total Lead (Pb)	2005/11/17	<0.005		ug	
		Total Manganese (Mn)	2005/11/17	<0.02		ug	
		Total Molybdenum (Mo)	2005/11/17	<0.005		ug	
		Total Nickel (Ni)	2005/11/17	<0.01		ug	
		Total Selenium (Se)	2005/11/17	<0.02		ug	
		Total Silver (Ag)	2005/11/17	<0.003		ug	
		Total Thallium (Tl)	2005/11/17	<0.005		ug	
		Total Tin (Sn)	2005/11/17	<0.02		ug	
		Total Titanium (Ti)	2005/11/17	<0.02		ug	
		Total Vanadium (V)	2005/11/17	<0.03		ug	
		Total Zinc (Zn)	2005/11/17	<0.01		ug	
960290 SW	Calibration Check	Total Iron (Fe)	2005/11/15		102	%	87 - 113
960292 SW	BLANK	Total Iron (Fe)	2005/11/15	<0.2		ug	
	Calibration Check	Total Iron (Fe)	2005/11/15		100	%	87 - 113
960729 RS2	BLANK	Total Iron (Fe)	2005/11/15	<0.2		ug	
	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/11/16		93	%	69 - 132
960757 RS2	BLANK	Acid Extr. (Closed) Mercury (Hg)	2005/11/16	<0.001		ug	
	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/11/16		79	%	69 - 132
970104 LT	BLANK	Acid Extr. (Closed) Mercury (Hg)	2005/11/16	<0.001		ug	
	Calibration Check	Total Aluminum (Al)	2005/11/24		103	%	85 - 113
		Total Antimony (Sb)	2005/11/24		92	%	74 - 117
		Total Arsenic (As)	2005/11/24		106	%	77 - 113
		Total Barium (Ba)	2005/11/24		103	%	85 - 109
		Total Beryllium (Be)	2005/11/24		101	%	78 - 116
		Total Bismuth (Bi)	2005/11/24		108	%	N/A
		Total Cadmium (Cd)	2005/11/24		100	%	84 - 110
		Total Chromium (Cr)	2005/11/24		101	%	83 - 108
		Total Cobalt (Co)	2005/11/24		99	%	83 - 110
		Total Copper (Cu)	2005/11/24		100	%	83 - 113
		Total Lead (Pb)	2005/11/24		101	%	82 - 107
		Total Manganese (Mn)	2005/11/24		100	%	83 - 108
		Total Molybdenum (Mo)	2005/11/24		102	%	85 - 109
		Total Nickel (Ni)	2005/11/24		102	%	81 - 111
		Total Selenium (Se)	2005/11/24		98	%	74 - 119
		Total Silver (Ag)	2005/11/24		97	%	85 - 109
		Total Thallium (Tl)	2005/11/24		101	%	78 - 108
		Total Tin (Sn)	2005/11/24		98	%	79 - 110
		Total Titanium (Ti)	2005/11/24		94	%	84 - 114
		Total Vanadium (V)	2005/11/24		100	%	85 - 111

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Quality Assurance Report (Continued)

Maxxam Job Number: PA545782

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
970104 LT	Calibration Check	Total Zinc (Zn)	2005/11/24		107	%	80 - 117
	BLANK	Total Aluminum (Al)	2005/11/24	<0.03		ug	
		Total Antimony (Sb)	2005/11/24	<0.004		ug	
		Total Arsenic (As)	2005/11/24	<0.02		ug	
		Total Barium (Ba)	2005/11/24	<0.005		ug	
		Total Beryllium (Be)	2005/11/24	<0.005		ug	
		Total Bismuth (Bi)	2005/11/24	<0.03		ug	
		Total Cadmium (Cd)	2005/11/24	<0.005		ug	
		Total Chromium (Cr)	2005/11/24	<0.02		ug	
		Total Cobalt (Co)	2005/11/24	<0.007		ug	
		Total Copper (Cu)	2005/11/24	<0.005		ug	
		Total Lead (Pb)	2005/11/24	<0.005		ug	
		Total Manganese (Mn)	2005/11/24	<0.02		ug	
		Total Molybdenum (Mo)	2005/11/24	<0.005		ug	
		Total Nickel (Ni)	2005/11/24	<0.01		ug	
		Total Selenium (Se)	2005/11/24	<0.02		ug	
		Total Silver (Ag)	2005/11/24	<0.003		ug	
		Total Thallium (Tl)	2005/11/24	<0.005		ug	
		Total Tin (Sn)	2005/11/24	<0.02		ug	
		Total Titanium (Ti)	2005/11/24	<0.02		ug	
		Total Vanadium (V)	2005/11/24	<0.03		ug	
			Total Zinc (Zn)	2005/11/24	<0.01		ug
970748 ED	Calibration Check	Total Iron (Fe)	2005/11/24		97	%	87 - 113
	BLANK	Total Iron (Fe)	2005/11/24	<0.2		ug	
N/A = Not Applicable							

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Attention: SHARON SCHAJNOHA

RWDI AIR INC.
SUITE 1000
736 - 8TH AVENUE S.W.
CALGARY, AB
CANADA T2P 1H4

Report Date: 2005/12/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A551997

Received: 2005/12/05, 15:03

Sample Matrix: Filter
Samples Received: 41

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mercury in filters @	32	N/A	2005/12/19	CAL SOP# 0125	CVAA
Mercury in filters @	9	N/A	2005/12/20	CAL SOP# 0125	CVAA
ICP Scan (Filter) @	32	2005/12/19	2005/12/19		
ICP Scan (Filter) @	9	2005/12/19	2005/12/20		
ICPMS Scan (Filter) @	32	N/A	2005/12/19	CAL SOP# 0069	ICP-MS
ICPMS Scan (Filter) @	9	N/A	2005/12/20	CAL SOP# 0069	ICP-MS
Mass Determination(ug/filter)	41	N/A	2005/12/20		

(1) This test was performed by Maxxam Calgary

MAXXAM Analytics Inc.

LINDA LIN
Supervisor, Centre for Passive Sampling Technology

LL/ab4
encl.

Validated by :


RON VENZI

Total cover pages: 1

Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780) 468-3500 FAX(780) 466-3332
Page 1 of 23

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RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		A10631	A10633	A10634		
Sampling Date		2005/10/13	2005/10/13	2005/10/13		
	Units	AMRC1-004/89945	AMRC2-004/89950	AMRC3-004/82054	RDL	QC Batch

Particulate Matter	ug/filter	16	23	12	1	995862
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RDL = Reportable Detection Limit

Maxxam ID		A10635	A10636	A10637		
Sampling Date		2005/10/13	2005/10/13	2005/10/13		
	Units	AMRC4-004/89980	AMRC5-004/89969	AMRC6-004/82058	RDL	QC Batch

Particulate Matter	ug/filter	13	15	15	1	995862
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RDL = Reportable Detection Limit

Maxxam ID		A10638	A10640	A10641		
Sampling Date		2005/10/13	2005/10/13	2005/10/19		
	Units	AMRC7-004/89960	AMRC8-004/85918	AMRC1-005/89979	RDL	QC Batch

Particulate Matter	ug/filter	18	16	22	1	995862
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RDL = Reportable Detection Limit

Maxxam ID		A10642	A10643	A10644		
Sampling Date		2005/10/19	2005/10/19	2005/10/19		
	Units	AMRC2-005/89955	AMRC3-005/89977	AMRC4-005/89972	RDL	QC Batch

Particulate Matter	ug/filter	76	47	16	1	995862
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RDL = Reportable Detection Limit

Maxxam ID		A10645	A10646	A10647		
Sampling Date		2005/10/19	2005/10/19	2005/10/19		
	Units	AMRC5-005/85908	AMRC6-005/89978	AMRC7-005/89974	RDL	QC Batch

Particulate Matter	ug/filter	12	20	19	1	995862
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RDL = Reportable Detection Limit

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		A10648	A10650	A10655		
Sampling Date		2005/10/19	2005/10/25	2005/10/25		
	Units	AMRC8-005/85964	AMRC1-006/89958	AMRC2-006/89984	RDL	QC Batch

Particulate Matter	ug/filter	7	11	27	1	995862
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RDL = Reportable Detection Limit

Maxxam ID		A10666	A10672		A10673		
Sampling Date		2005/10/25	2005/10/25		2005/10/25		
	Units	AMRC3-006/89952	AMRC4-006/87506	QC Batch	AMRC5-006/89940	RDL	QC Batch

Particulate Matter	ug/filter	33	17	995862	14	1	996064
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RDL = Reportable Detection Limit

Maxxam ID		A10674	A10675	A10676		
Sampling Date		2005/10/25	2005/10/25	2005/10/25		
	Units	AMRC6-006/90577	AMRC7-006/89968	AMRC8-006/89966	RDL	QC Batch

Particulate Matter	ug/filter	19	277	9	1	996064
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RDL = Reportable Detection Limit

Maxxam ID		A10677		A10706	A10707		
Sampling Date				2005/10/31	2005/10/31		
	Units	BLANK	RDL	AMRC1-007/85962	AMRC2-007/90571	RDL	QC Batch

Particulate Matter	ug/filter	-4	-7	16	13	1	996064
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RDL = Reportable Detection Limit

Maxxam ID		A10708	A10709	A10710		
Sampling Date		2005/10/31	2005/10/31	2005/10/31		
	Units	AMRC3-007/90581	AMRC4-007/89982	AMRC5-007/89965	RDL	QC Batch

Particulate Matter	ug/filter	63	14	5	1	996064
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RDL = Reportable Detection Limit

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		A10711	A10712	A10713		
Sampling Date		2005/10/31	2005/10/31	2005/10/31		
	Units	AMRC6-007/89953	AMRC7-007/89959	AMRC8-007/89947	RDL	QC Batch

Particulate Matter	ug/filter	138	9	4	1	996064
RDL = Reportable Detection Limit						

Maxxam ID		A10714	A10715	A10716		
Sampling Date		2005/11/06	2005/11/06	2005/11/06		
	Units	AMRC1-008/85917	AMRC2-008/85959	AMRC3-008/85941	RDL	QC Batch

Particulate Matter	ug/filter	13	23	9	1	996064
RDL = Reportable Detection Limit						

Maxxam ID		A10717	A10718	A10719		
Sampling Date		2005/11/06	2005/11/06	2005/11/06		
	Units	AMRC4-008/85912	AMRC5-008/85910	AMRC6-008/85953	RDL	QC Batch

Particulate Matter	ug/filter	7	11	27	1	996064
RDL = Reportable Detection Limit						

Maxxam ID		A10720	A10721		
Sampling Date		2005/11/06	2005/11/06		
	Units	AMRC7-008/82056	AMRC8-008/82055	RDL	QC Batch

Particulate Matter	ug/filter	9	11	1	996064
RDL = Reportable Detection Limit					

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10631	A10633	A10634		
Sampling Date		2005/10/13	2005/10/13	2005/10/13		
	Units	AMRC1-004/89945	AMRC2-004/89950	AMRC3-004/82054	RDL	QC Batch
Total Iron (Fe)	ug	0.3	<0.2	<0.2	0.2	994786
Total Aluminum (Al)	ug	0.04	0.05	0.07	0.03	994359
Total Antimony (Sb)	ug	0.007	<0.004	<0.004	0.004	994359
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Barium (Ba)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Beryllium (Be)	ug	0.007	0.007	0.012	0.005	994359
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Chromium (Cr)	ug	0.04	0.05	0.04	0.02	994359
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	994359
Total Copper (Cu)	ug	0.083	0.017	0.019	0.005	994359
Total Lead (Pb)	ug	<0.005	<0.005	0.006	0.005	994359
Total Manganese (Mn)	ug	0.04	0.03	0.03	0.02	994359
Acid Extr. (Closed) Mercury (Hg)	ug	0.005	0.002	0.003	0.001	994351
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	994359
Total Selenium (Se)	ug	0.03	<0.02	0.05	0.02	994359
Total Silver (Ag)	ug	<0.003	<0.003	0.008	0.003	994359
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Tin (Sn)	ug	0.05	0.05	0.03	0.02	994359
Total Titanium (Ti)	ug	0.04	<0.02	<0.02	0.02	994359
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Zinc (Zn)	ug	0.38	0.27	0.35	0.01	994359
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10635	A10636	A10637		
Sampling Date		2005/10/13	2005/10/13	2005/10/13		
	Units	AMRC4-004/89980	AMRC5-004/89969	AMRC6-004/82058	RDL	QC Batch
Total Iron (Fe)	ug	0.3	0.5	<0.2	0.2	994786
Total Aluminum (Al)	ug	0.07	0.04	0.10	0.03	994359
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	994359
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Barium (Ba)	ug	0.007	<0.005	<0.005	0.005	994359
Total Beryllium (Be)	ug	0.009	0.018	<0.005	0.005	994359
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Chromium (Cr)	ug	0.03	0.03	0.04	0.02	994359
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	994359
Total Copper (Cu)	ug	0.020	0.013	0.025	0.005	994359
Total Lead (Pb)	ug	0.028	0.011	<0.005	0.005	994359
Total Manganese (Mn)	ug	0.03	0.03	0.03	0.02	994359
Acid Extr. (Closed) Mercury (Hg)	ug	0.004	0.004	0.004	0.001	994351
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	994359
Total Selenium (Se)	ug	<0.02	<0.02	0.04	0.02	994359
Total Silver (Ag)	ug	<0.003	<0.003	0.007	0.003	994359
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Tin (Sn)	ug	0.03	0.02	0.03	0.02	994359
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Zinc (Zn)	ug	0.34	0.27	0.85	0.01	994359
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10638	A10640	A10641		
Sampling Date		2005/10/13	2005/10/13	2005/10/19		
	Units	AMRC7-004/89960	AMRC8-004/85918	AMRC1-005/89979	RDL	QC Batch
Total Iron (Fe)	ug	0.2	0.2	0.5	0.2	994786
Total Aluminum (Al)	ug	0.04	0.06	0.12	0.03	994359
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	994359
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Barium (Ba)	ug	<0.005	<0.005	0.014	0.005	994359
Total Beryllium (Be)	ug	0.025	0.017	0.017	0.005	994359
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Chromium (Cr)	ug	0.04	0.02	0.04	0.02	994359
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	994359
Total Copper (Cu)	ug	0.023	0.013	0.026	0.005	994359
Total Lead (Pb)	ug	<0.005	<0.005	0.030	0.005	994359
Total Manganese (Mn)	ug	0.03	0.04	0.04	0.02	994359
Acid Extr. (Closed) Mercury (Hg)	ug	0.003	0.002	0.004	0.001	994351
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	994359
Total Selenium (Se)	ug	0.07	<0.02	0.03	0.02	994359
Total Silver (Ag)	ug	<0.003	<0.003	<0.003	0.003	994359
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Tin (Sn)	ug	0.03	0.03	0.02	0.02	994359
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Zinc (Zn)	ug	0.34	0.28	0.25	0.01	994359
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10642	A10643	A10644		
Sampling Date		2005/10/19	2005/10/19	2005/10/19		
	Units	AMRC2-005/89955	AMRC3-005/89977	AMRC4-005/89972	RDL	QC Batch
Total Iron (Fe)	ug	3.4	0.3	0.3	0.2	994786
Total Aluminum (Al)	ug	0.18	0.10	0.09	0.03	994359
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	994359
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Barium (Ba)	ug	0.502	0.009	0.009	0.005	994359
Total Beryllium (Be)	ug	0.025	0.035	<0.005	0.005	994359
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Chromium (Cr)	ug	0.04	0.02	0.05	0.02	994359
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	994359
Total Copper (Cu)	ug	0.041	0.009	0.016	0.005	994359
Total Lead (Pb)	ug	0.410	0.013	0.022	0.005	994359
Total Manganese (Mn)	ug	0.08	0.04	0.04	0.02	994359
Acid Extr. (Closed) Mercury (Hg)	ug	0.005	0.004	0.004	0.001	994351
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	994359
Total Selenium (Se)	ug	<0.02	0.03	<0.02	0.02	994359
Total Silver (Ag)	ug	<0.003	<0.003	<0.003	0.003	994359
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Tin (Sn)	ug	<0.02	0.02	0.02	0.02	994359
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Zinc (Zn)	ug	0.72	0.30	0.28	0.01	994359
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10645	A10646	A10647		
Sampling Date		2005/10/19	2005/10/19	2005/10/19		
	Units	AMRC5-005/85908	AMRC6-005/89978	AMRC7-005/89974	RDL	QC Batch
Total Iron (Fe)	ug	<0.2	<0.2	1.4	0.2	994786
Total Aluminum (Al)	ug	0.03	0.08	0.12	0.03	994359
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	994359
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Barium (Ba)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Beryllium (Be)	ug	<0.005	0.006	0.008	0.005	994359
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Chromium (Cr)	ug	0.03	0.04	0.04	0.02	994359
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	994359
Total Copper (Cu)	ug	0.042	0.013	0.019	0.005	994359
Total Lead (Pb)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Manganese (Mn)	ug	0.03	0.03	0.05	0.02	994359
Acid Extr. (Closed) Mercury (Hg)	ug	0.002	0.003	0.004	0.001	994351
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	994359
Total Selenium (Se)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Silver (Ag)	ug	<0.003	0.010	0.007	0.003	994359
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Tin (Sn)	ug	0.02	0.03	0.03	0.02	994359
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Zinc (Zn)	ug	0.27	0.27	0.33	0.01	994359
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10648	A10650	A10655		
Sampling Date		2005/10/19	2005/10/25	2005/10/25		
	Units	AMRC8-005/85964	AMRC1-006/89958	AMRC2-006/89984	RDL	QC Batch
Total Iron (Fe)	ug	<0.2	0.6	0.7	0.2	994786
Total Aluminum (Al)	ug	0.05	0.06	0.15	0.03	994359
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	994359
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Barium (Ba)	ug	<0.005	<0.005	0.046	0.005	994359
Total Beryllium (Be)	ug	0.010	<0.005	0.016	0.005	994359
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Chromium (Cr)	ug	0.05	0.04	0.04	0.02	994359
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	994359
Total Copper (Cu)	ug	0.014	0.011	0.011	0.005	994359
Total Lead (Pb)	ug	<0.005	<0.005	0.061	0.005	994359
Total Manganese (Mn)	ug	0.03	0.04	0.05	0.02	994359
Acid Extr. (Closed) Mercury (Hg)	ug	0.002	0.004	0.005	0.001	994351
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	994359
Total Selenium (Se)	ug	0.03	<0.02	0.03	0.02	994359
Total Silver (Ag)	ug	0.006	0.003	<0.003	0.003	994359
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	994359
Total Tin (Sn)	ug	0.03	0.02	<0.02	0.02	994359
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	994359
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	994359
Total Zinc (Zn)	ug	0.29	0.32	0.49	0.01	994359
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10666	A10672		
Sampling Date		2005/10/25	2005/10/25		
	Units	AMRC3-006/89952	AMRC4-006/87506	RDL	QC Batch
Total Iron (Fe)	ug	0.2	2.1	0.2	994786
Total Aluminum (Al)	ug	0.04	0.05	0.03	994359
Total Antimony (Sb)	ug	<0.004	<0.004	0.004	994359
Total Arsenic (As)	ug	<0.02	<0.02	0.02	994359
Total Barium (Ba)	ug	<0.005	<0.005	0.005	994359
Total Beryllium (Be)	ug	0.015	<0.005	0.005	994359
Total Bismuth (Bi)	ug	<0.03	<0.03	0.03	994359
Total Cadmium (Cd)	ug	<0.005	<0.005	0.005	994359
Total Chromium (Cr)	ug	0.05	0.04	0.02	994359
Total Cobalt (Co)	ug	<0.007	<0.007	0.007	994359
Total Copper (Cu)	ug	0.045	0.016	0.005	994359
Total Lead (Pb)	ug	0.011	<0.005	0.005	994359
Total Manganese (Mn)	ug	0.04	0.05	0.02	994359
Acid Extr. (Closed) Mercury (Hg)	ug	0.004	0.004	0.001	994351
Total Molybdenum (Mo)	ug	<0.005	<0.005	0.005	994359
Total Nickel (Ni)	ug	<0.01	<0.01	0.01	994359
Total Selenium (Se)	ug	0.02	<0.02	0.02	994359
Total Silver (Ag)	ug	<0.003	0.004	0.003	994359
Total Thallium (Tl)	ug	<0.005	<0.005	0.005	994359
Total Tin (Sn)	ug	0.03	0.02	0.02	994359
Total Titanium (Ti)	ug	<0.02	0.02	0.02	994359
Total Vanadium (V)	ug	<0.03	<0.03	0.03	994359
Total Zinc (Zn)	ug	0.17	0.38	0.01	994359
RDL = Reportable Detection Limit					

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10673	A10674	A10675		
Sampling Date		2005/10/25	2005/10/25	2005/10/25		
	Units	AMRC5-006/89940	AMRC6-006/90577	AMRC7-006/89968	RDL	QC Batch
Total Iron (Fe)	ug	0.6	0.7	0.7	0.2	994823
Total Aluminum (Al)	ug	0.05	0.06	0.07	0.03	994383
Total Antimony (Sb)	ug	0.007	<0.004	<0.004	0.004	994383
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	994383
Total Barium (Ba)	ug	<0.005	<0.005	0.008	0.005	994383
Total Beryllium (Be)	ug	<0.005	<0.005	0.023	0.005	994383
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	994383
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	994383
Total Chromium (Cr)	ug	0.05	0.07	0.02	0.02	994383
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	994383
Total Copper (Cu)	ug	0.019	0.010	0.014	0.005	994383
Total Lead (Pb)	ug	0.007	<0.005	<0.005	0.005	994383
Total Manganese (Mn)	ug	0.04	0.04	0.04	0.02	994383
Acid Extr. (Closed) Mercury (Hg)	ug	0.004	0.003	0.002	0.001	994353
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	994383
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	994383
Total Selenium (Se)	ug	0.03	0.03	<0.02	0.02	994383
Total Silver (Ag)	ug	0.003	0.014	0.003	0.003	994383
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	994383
Total Tin (Sn)	ug	0.02	0.02	<0.02	0.02	994383
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	994383
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	994383
Total Zinc (Zn)	ug	0.36	0.26	0.34	0.01	994383
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10676	A10677		
Sampling Date		2005/10/25			
	Units	AMRC8-006/89966	BLANK	RDL	QC Batch
Total Iron (Fe)	ug	0.3	<0.2	0.2	994823
Total Aluminum (Al)	ug	<0.03	0.03	0.03	994383
Total Antimony (Sb)	ug	<0.004	<0.004	0.004	994383
Total Arsenic (As)	ug	<0.02	<0.02	0.02	994383
Total Barium (Ba)	ug	<0.005	<0.005	0.005	994383
Total Beryllium (Be)	ug	<0.005	0.016	0.005	994383
Total Bismuth (Bi)	ug	<0.03	<0.03	0.03	994383
Total Cadmium (Cd)	ug	<0.005	<0.005	0.005	994383
Total Chromium (Cr)	ug	0.04	<0.02	0.02	994383
Total Cobalt (Co)	ug	<0.007	<0.007	0.007	994383
Total Copper (Cu)	ug	0.017	0.006	0.005	994383
Total Lead (Pb)	ug	<0.005	<0.005	0.005	994383
Total Manganese (Mn)	ug	0.04	0.03	0.02	994383
Acid Extr. (Closed) Mercury (Hg)	ug	0.003	0.004	0.001	994353
Total Molybdenum (Mo)	ug	<0.005	<0.005	0.005	994383
Total Nickel (Ni)	ug	<0.01	<0.01	0.01	994383
Total Selenium (Se)	ug	0.03	<0.02	0.02	994383
Total Silver (Ag)	ug	<0.003	0.013	0.003	994383
Total Thallium (Tl)	ug	<0.005	<0.005	0.005	994383
Total Tin (Sn)	ug	0.02	<0.02	0.02	994383
Total Titanium (Ti)	ug	<0.02	<0.02	0.02	994383
Total Vanadium (V)	ug	<0.03	<0.03	0.03	994383
Total Zinc (Zn)	ug	0.40	0.25	0.01	994383
RDL = Reportable Detection Limit					

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10706	A10707	A10708		
Sampling Date		2005/10/31	2005/10/31	2005/10/31		
	Units	AMRC1-007/85962	AMRC2-007/90571	AMRC3-007/90581	RDL	QC Batch
Total Iron (Fe)	ug	<0.2	<0.2	<0.2	0.2	995007
Total Aluminum (Al)	ug	0.06	0.05	<0.03	0.03	995763
Total Antimony (Sb)	ug	0.026	0.008	<0.004	0.004	995763
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	995763
Total Barium (Ba)	ug	0.040	0.008	<0.005	0.005	995763
Total Beryllium (Be)	ug	<0.005	<0.005	<0.005	0.005	995763
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	995763
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	995763
Total Chromium (Cr)	ug	<0.02	<0.02	<0.02	0.02	995763
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	995763
Total Copper (Cu)	ug	0.020	0.032	<0.005	0.005	995763
Total Lead (Pb)	ug	0.037	0.009	0.007	0.005	995763
Total Manganese (Mn)	ug	<0.02	<0.02	<0.02	0.02	995763
Acid Extr. (Closed) Mercury (Hg)	ug	0.005	0.005	0.005	0.001	995210
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	995763
Total Nickel (Ni)	ug	0.02	0.02	<0.01	0.01	995763
Total Selenium (Se)	ug	0.05	0.08	0.11	0.02	995763
Total Silver (Ag)	ug	<0.003	<0.003	0.005	0.003	995763
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	995763
Total Tin (Sn)	ug	0.07	0.04	<0.02	0.02	995763
Total Titanium (Ti)	ug	<0.02	<0.02	0.03	0.02	995763
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	995763
Total Zinc (Zn)	ug	0.25	0.27	0.25	0.01	995763
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10709	A10710	A10711		
Sampling Date		2005/10/31	2005/10/31	2005/10/31		
	Units	AMRC4-007/89982	AMRC5-007/89965	AMRC6-007/89953	RDL	QC Batch
Total Iron (Fe)	ug	<0.2	<0.2	0.9	0.2	995007
Total Aluminum (Al)	ug	0.11	<0.03	0.07	0.03	995763
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	995763
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	995763
Total Barium (Ba)	ug	0.007	<0.005	<0.005	0.005	995763
Total Beryllium (Be)	ug	<0.005	<0.005	<0.005	0.005	995763
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	995763
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	995763
Total Chromium (Cr)	ug	0.03	<0.02	0.03	0.02	995763
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	995763
Total Copper (Cu)	ug	0.006	0.014	0.010	0.005	995763
Total Lead (Pb)	ug	0.021	<0.005	<0.005	0.005	995763
Total Manganese (Mn)	ug	0.02	<0.02	<0.02	0.02	995763
Acid Extr. (Closed) Mercury (Hg)	ug	0.003	0.003	0.004	0.001	995210
Total Molybdenum (Mo)	ug	<0.005	<0.005	<0.005	0.005	995763
Total Nickel (Ni)	ug	0.01	<0.01	0.01	0.01	995763
Total Selenium (Se)	ug	0.12	0.04	0.04	0.02	995763
Total Silver (Ag)	ug	0.018	<0.003	0.005	0.003	995763
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	995763
Total Tin (Sn)	ug	<0.02	<0.02	0.03	0.02	995763
Total Titanium (Ti)	ug	0.02	<0.02	<0.02	0.02	995763
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	995763
Total Zinc (Zn)	ug	0.27	0.26	0.28	0.01	995763
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10712	A10713		
Sampling Date		2005/10/31	2005/10/31		
	Units	AMRC7-007/89959	AMRC8-007/89947	RDL	QC Batch
Total Iron (Fe)	ug	0.9	<0.2	0.2	995007
Total Aluminum (Al)	ug	0.06	0.09	0.03	995763
Total Antimony (Sb)	ug	<0.004	<0.004	0.004	995763
Total Arsenic (As)	ug	<0.02	<0.02	0.02	995763
Total Barium (Ba)	ug	<0.005	<0.005	0.005	995763
Total Beryllium (Be)	ug	<0.005	<0.005	0.005	995763
Total Bismuth (Bi)	ug	<0.03	<0.03	0.03	995763
Total Cadmium (Cd)	ug	<0.005	<0.005	0.005	995763
Total Chromium (Cr)	ug	0.04	<0.02	0.02	995763
Total Cobalt (Co)	ug	<0.007	<0.007	0.007	995763
Total Copper (Cu)	ug	0.008	0.019	0.005	995763
Total Lead (Pb)	ug	<0.005	<0.005	0.005	995763
Total Manganese (Mn)	ug	<0.02	<0.02	0.02	995763
Acid Extr. (Closed) Mercury (Hg)	ug	0.005	0.005	0.001	995210
Total Molybdenum (Mo)	ug	<0.005	<0.005	0.005	995763
Total Nickel (Ni)	ug	0.02	0.02	0.01	995763
Total Selenium (Se)	ug	0.03	0.10	0.02	995763
Total Silver (Ag)	ug	0.009	0.011	0.003	995763
Total Thallium (Tl)	ug	<0.005	<0.005	0.005	995763
Total Tin (Sn)	ug	0.03	<0.02	0.02	995763
Total Titanium (Ti)	ug	<0.02	<0.02	0.02	995763
Total Vanadium (V)	ug	<0.03	<0.03	0.03	995763
Total Zinc (Zn)	ug	0.23	0.21	0.01	995763
RDL = Reportable Detection Limit					

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10714	A10715	A10716		
Sampling Date		2005/11/06	2005/11/06	2005/11/06		
	Units	AMRC1-008/85917	AMRC2-008/85959	AMRC3-008/85941	RDL	QC Batch
Total Iron (Fe)	ug	0.2	<0.2	<0.2	0.2	994823
Total Aluminum (Al)	ug	0.05	0.05	<0.03	0.03	994383
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	994383
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	994383
Total Barium (Ba)	ug	0.008	0.015	<0.005	0.005	994383
Total Beryllium (Be)	ug	0.032	0.015	0.045	0.005	994383
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	994383
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	994383
Total Chromium (Cr)	ug	<0.02	0.06	<0.02	0.02	994383
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	994383
Total Copper (Cu)	ug	0.018	0.027	0.010	0.005	994383
Total Lead (Pb)	ug	<0.005	0.016	<0.005	0.005	994383
Total Manganese (Mn)	ug	0.04	0.04	0.03	0.02	994383
Acid Extr. (Closed) Mercury (Hg)	ug	0.005	0.004	0.002	0.001	994353
Total Molybdenum (Mo)	ug	<0.005	<0.005	0.006	0.005	994383
Total Nickel (Ni)	ug	<0.01	<0.01	<0.01	0.01	994383
Total Selenium (Se)	ug	<0.02	0.05	0.03	0.02	994383
Total Silver (Ag)	ug	0.006	<0.003	<0.003	0.003	994383
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	994383
Total Tin (Sn)	ug	<0.02	0.03	0.04	0.02	994383
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	994383
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	994383
Total Zinc (Zn)	ug	0.28	0.16	0.14	0.01	994383
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10717	A10718	A10719		
Sampling Date		2005/11/06	2005/11/06	2005/11/06		
	Units	AMRC4-008/85912	AMRC5-008/85910	AMRC6-008/85953	RDL	QC Batch
Total Iron (Fe)	ug	<0.2	0.5	0.3	0.2	994823
Total Aluminum (Al)	ug	<0.03	<0.03	<0.03	0.03	994383
Total Antimony (Sb)	ug	<0.004	<0.004	<0.004	0.004	994383
Total Arsenic (As)	ug	<0.02	<0.02	<0.02	0.02	994383
Total Barium (Ba)	ug	0.005	<0.005	0.025	0.005	994383
Total Beryllium (Be)	ug	0.012	0.036	0.013	0.005	994383
Total Bismuth (Bi)	ug	<0.03	<0.03	<0.03	0.03	994383
Total Cadmium (Cd)	ug	<0.005	<0.005	<0.005	0.005	994383
Total Chromium (Cr)	ug	0.04	0.03	0.04	0.02	994383
Total Cobalt (Co)	ug	<0.007	<0.007	<0.007	0.007	994383
Total Copper (Cu)	ug	0.011	0.033	0.027	0.005	994383
Total Lead (Pb)	ug	0.005	0.007	0.006	0.005	994383
Total Manganese (Mn)	ug	0.04	0.06	0.04	0.02	994383
Acid Extr. (Closed) Mercury (Hg)	ug	0.002	0.004	0.003	0.001	994353
Total Molybdenum (Mo)	ug	0.006	0.008	0.006	0.005	994383
Total Nickel (Ni)	ug	<0.01	<0.01	0.01	0.01	994383
Total Selenium (Se)	ug	0.03	0.02	0.03	0.02	994383
Total Silver (Ag)	ug	<0.003	<0.003	<0.003	0.003	994383
Total Thallium (Tl)	ug	<0.005	<0.005	<0.005	0.005	994383
Total Tin (Sn)	ug	0.04	0.05	0.06	0.02	994383
Total Titanium (Ti)	ug	<0.02	<0.02	<0.02	0.02	994383
Total Vanadium (V)	ug	<0.03	<0.03	<0.03	0.03	994383
Total Zinc (Zn)	ug	0.15	0.81	0.32	0.01	994383
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (FILTER)

Maxxam ID		A10720		A10721		
Sampling Date		2005/11/06		2005/11/06		
	Units	AMRC7-008/82056	QC Batch	AMRC8-008/82055	RDL	QC Batch
Total Iron (Fe)	ug	<0.2	995007	0.5	0.2	994823
Total Aluminum (Al)	ug	0.10	995763	<0.03	0.03	994383
Total Antimony (Sb)	ug	<0.004	995763	<0.004	0.004	994383
Total Arsenic (As)	ug	<0.02	995763	<0.02	0.02	994383
Total Barium (Ba)	ug	<0.005	995763	<0.005	0.005	994383
Total Beryllium (Be)	ug	<0.005	995763	0.018	0.005	994383
Total Bismuth (Bi)	ug	<0.03	995763	<0.03	0.03	994383
Total Cadmium (Cd)	ug	<0.005	995763	<0.005	0.005	994383
Total Chromium (Cr)	ug	<0.02	995763	0.02	0.02	994383
Total Cobalt (Co)	ug	<0.007	995763	<0.007	0.007	994383
Total Copper (Cu)	ug	<0.005	995763	0.008	0.005	994383
Total Lead (Pb)	ug	<0.005	995763	0.009	0.005	994383
Total Manganese (Mn)	ug	0.02	995763	0.04	0.02	994383
Acid Extr. (Closed) Mercury (Hg)	ug	0.005	995210	0.004	0.001	994356
Total Molybdenum (Mo)	ug	<0.005	995763	0.007	0.005	994383
Total Nickel (Ni)	ug	0.01	995763	<0.01	0.01	994383
Total Selenium (Se)	ug	0.09	995763	0.05	0.02	994383
Total Silver (Ag)	ug	<0.003	995763	0.005	0.003	994383
Total Thallium (Tl)	ug	<0.005	995763	<0.005	0.005	994383
Total Tin (Sn)	ug	<0.02	995763	0.05	0.02	994383
Total Titanium (Ti)	ug	0.02	995763	<0.02	0.02	994383
Total Vanadium (V)	ug	<0.03	995763	<0.03	0.03	994383
Total Zinc (Zn)	ug	0.21	995763	0.36	0.01	994383
RDL = Reportable Detection Limit						



Maxxam Job #: A551997
Report Date: 2005/12/21

RWDI AIR INC.
Client Project #: PARTICULATE SAMPLES
Site Reference: ANVIL MINE PROJECT SITE C1 - 8
Sampler Initials: MB

General Comments

Results relate only to the items tested.

Quality Assurance Report

Maxxam Job Number: PA551997

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
994351 JL2	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/12/19		90	%	69 - 132
	BLANK	Acid Extr. (Closed) Mercury (Hg)	2005/12/19	<0.001		ug	
	RPD [A10631-01]	Acid Extr. (Closed) Mercury (Hg)	2005/12/19	NC		%	N/A
994353 JL2	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/12/19		97	%	69 - 132
	BLANK	Acid Extr. (Closed) Mercury (Hg)	2005/12/19	<0.001		ug	
	RPD [A10673-01]	Acid Extr. (Closed) Mercury (Hg)	2005/12/19	NC		%	N/A
994356 JL2	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/12/19		88	%	69 - 132
	BLANK	Acid Extr. (Closed) Mercury (Hg)	2005/12/19	<0.001		ug	
	RPD [A10721-01]	Acid Extr. (Closed) Mercury (Hg)	2005/12/19	NC		%	N/A
994359 NR	Calibration Check	Total Aluminum (Al)	2005/12/19		96	%	85 - 113
		Total Antimony (Sb)	2005/12/19		92	%	74 - 117
		Total Arsenic (As)	2005/12/19		104	%	77 - 113
		Total Barium (Ba)	2005/12/19		96	%	85 - 109
		Total Beryllium (Be)	2005/12/19		100	%	78 - 116
		Total Bismuth (Bi)	2005/12/19		105	%	N/A
		Total Cadmium (Cd)	2005/12/19		103	%	84 - 110
		Total Chromium (Cr)	2005/12/19		100	%	83 - 108
		Total Cobalt (Co)	2005/12/19		99	%	83 - 110
		Total Copper (Cu)	2005/12/19		100	%	83 - 113
		Total Lead (Pb)	2005/12/19		97	%	82 - 107
		Total Manganese (Mn)	2005/12/19		103	%	83 - 108
		Total Molybdenum (Mo)	2005/12/19		100	%	85 - 109
		Total Nickel (Ni)	2005/12/19		101	%	81 - 111
		Total Selenium (Se)	2005/12/19		96	%	74 - 119
		Total Silver (Ag)	2005/12/19		97	%	85 - 109
		Total Thallium (Tl)	2005/12/19		99	%	78 - 108
		Total Tin (Sn)	2005/12/19		101	%	79 - 110
		Total Titanium (Ti)	2005/12/19		102	%	84 - 114
		Total Vanadium (V)	2005/12/19		100	%	85 - 111
		Total Zinc (Zn)	2005/12/19		107	%	80 - 117
	BLANK	Total Aluminum (Al)	2005/12/19	<0.03		ug	
		Total Antimony (Sb)	2005/12/19	<0.004		ug	
		Total Arsenic (As)	2005/12/19	<0.02		ug	
		Total Barium (Ba)	2005/12/19	<0.005		ug	
		Total Beryllium (Be)	2005/12/19	<0.005		ug	
		Total Bismuth (Bi)	2005/12/19	<0.03		ug	
		Total Cadmium (Cd)	2005/12/19	<0.005		ug	
		Total Chromium (Cr)	2005/12/19	<0.02		ug	
		Total Cobalt (Co)	2005/12/19	<0.007		ug	
		Total Copper (Cu)	2005/12/19	<0.005		ug	
		Total Lead (Pb)	2005/12/19	<0.005		ug	
		Total Manganese (Mn)	2005/12/19	<0.02		ug	
		Total Molybdenum (Mo)	2005/12/19	<0.005		ug	
		Total Nickel (Ni)	2005/12/19	<0.01		ug	
		Total Selenium (Se)	2005/12/19	<0.02		ug	
		Total Silver (Ag)	2005/12/19	<0.003		ug	
		Total Thallium (Tl)	2005/12/19	<0.005		ug	
		Total Tin (Sn)	2005/12/19	<0.02		ug	
		Total Titanium (Ti)	2005/12/19	<0.02		ug	
		Total Vanadium (V)	2005/12/19	<0.03		ug	
		Total Zinc (Zn)	2005/12/19	<0.01		ug	
994383 NR	Calibration Check	Total Aluminum (Al)	2005/12/19		93	%	85 - 113
		Total Antimony (Sb)	2005/12/19		89	%	74 - 117
		Total Arsenic (As)	2005/12/19		98	%	77 - 113
		Total Barium (Ba)	2005/12/19		92	%	85 - 109
		Total Beryllium (Be)	2005/12/19		87	%	78 - 116

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Quality Assurance Report (Continued)

Maxxam Job Number: PA551997

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
994383 NR	Calibration Check	Total Bismuth (Bi)	2005/12/19		101	%	N/A
		Total Cadmium (Cd)	2005/12/19		108	%	84 - 110
		Total Chromium (Cr)	2005/12/19		103	%	83 - 108
		Total Cobalt (Co)	2005/12/19		104	%	83 - 110
		Total Copper (Cu)	2005/12/19		107	%	83 - 113
		Total Lead (Pb)	2005/12/19		93	%	82 - 107
		Total Manganese (Mn)	2005/12/19		107	%	83 - 108
		Total Molybdenum (Mo)	2005/12/19		104	%	85 - 109
		Total Nickel (Ni)	2005/12/19		104	%	81 - 111
		Total Selenium (Se)	2005/12/19		89	%	74 - 119
		Total Silver (Ag)	2005/12/19		102	%	85 - 109
		Total Thallium (Tl)	2005/12/19		96	%	78 - 108
		Total Tin (Sn)	2005/12/19		95	%	79 - 110
		Total Titanium (Ti)	2005/12/19		103	%	84 - 114
		Total Vanadium (V)	2005/12/19		103	%	85 - 111
		Total Zinc (Zn)	2005/12/19		116	%	80 - 117
	BLANK	Total Aluminum (Al)	2005/12/19	<0.03		ug	
		Total Antimony (Sb)	2005/12/19	<0.004		ug	
		Total Arsenic (As)	2005/12/19	<0.02		ug	
		Total Barium (Ba)	2005/12/19	<0.005		ug	
		Total Beryllium (Be)	2005/12/19	<0.005		ug	
		Total Bismuth (Bi)	2005/12/19	<0.03		ug	
		Total Cadmium (Cd)	2005/12/19	<0.005		ug	
		Total Chromium (Cr)	2005/12/19	<0.02		ug	
		Total Cobalt (Co)	2005/12/19	<0.007		ug	
		Total Copper (Cu)	2005/12/19	<0.005		ug	
		Total Lead (Pb)	2005/12/19	<0.005		ug	
		Total Manganese (Mn)	2005/12/19	<0.02		ug	
		Total Molybdenum (Mo)	2005/12/19	<0.005		ug	
		Total Nickel (Ni)	2005/12/19	<0.01		ug	
		Total Selenium (Se)	2005/12/19	<0.02		ug	
		Total Silver (Ag)	2005/12/19	<0.003		ug	
		Total Thallium (Tl)	2005/12/19	<0.005		ug	
		Total Tin (Sn)	2005/12/19	<0.02		ug	
		Total Titanium (Ti)	2005/12/19	<0.02		ug	
		Total Vanadium (V)	2005/12/19	<0.03		ug	
		Total Zinc (Zn)	2005/12/19	<0.01		ug	
994786 SW	Calibration Check	Total Iron (Fe)	2005/12/19		97	%	87 - 113
	BLANK	Total Iron (Fe)	2005/12/19	<0.2		ug	
994823 SW	Calibration Check	Total Iron (Fe)	2005/12/19		109	%	87 - 113
	BLANK	Total Iron (Fe)	2005/12/19	<0.2		ug	
995007 SW	Calibration Check	Total Iron (Fe)	2005/12/20		95	%	87 - 113
	BLANK	Total Iron (Fe)	2005/12/20	<0.2		ug	
995210 JL2	Calibration Check	Acid Extr. (Closed) Mercury (Hg)	2005/12/20		96	%	69 - 132
	BLANK	Acid Extr. (Closed) Mercury (Hg)	2005/12/20	0.001, DL=0.001		ug	
	RPD [A10706-01]	Acid Extr. (Closed) Mercury (Hg)	2005/12/20	18.2		%	N/A
995763 NR	Calibration Check	Total Aluminum (Al)	2005/12/20		88	%	85 - 113
		Total Antimony (Sb)	2005/12/20		87	%	74 - 117
		Total Arsenic (As)	2005/12/20		109	%	77 - 113
		Total Barium (Ba)	2005/12/20		95	%	85 - 109
		Total Beryllium (Be)	2005/12/20		82	%	78 - 116
		Total Bismuth (Bi)	2005/12/20		100	%	N/A
		Total Cadmium (Cd)	2005/12/20		98	%	84 - 110
		Total Chromium (Cr)	2005/12/20		96	%	83 - 108
		Total Cobalt (Co)	2005/12/20		97	%	83 - 110
		Total Copper (Cu)	2005/12/20		99	%	83 - 113

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Quality Assurance Report (Continued)

Maxxam Job Number: PA551997

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
995763 NR	Calibration Check	Total Lead (Pb)	2005/12/20		94	%	82 - 107
		Total Manganese (Mn)	2005/12/20		99	%	83 - 108
		Total Molybdenum (Mo)	2005/12/20		94	%	85 - 109
		Total Nickel (Ni)	2005/12/20		100	%	81 - 111
		Total Selenium (Se)	2005/12/20		109	%	74 - 119
		Total Silver (Ag)	2005/12/20		93	%	85 - 109
		Total Thallium (Tl)	2005/12/20		96	%	78 - 108
		Total Tin (Sn)	2005/12/20		100	%	79 - 110
		Total Titanium (Ti)	2005/12/20		92	%	84 - 114
		Total Vanadium (V)	2005/12/20		98	%	85 - 111
		Total Zinc (Zn)	2005/12/20		108	%	80 - 117
	BLANK	Total Aluminum (Al)	2005/12/20	<0.03		ug	
		Total Antimony (Sb)	2005/12/20	<0.004		ug	
		Total Arsenic (As)	2005/12/20	<0.02		ug	
		Total Barium (Ba)	2005/12/20	<0.005		ug	
		Total Beryllium (Be)	2005/12/20	<0.005		ug	
		Total Bismuth (Bi)	2005/12/20	<0.03		ug	
		Total Cadmium (Cd)	2005/12/20	<0.005		ug	
		Total Chromium (Cr)	2005/12/20	<0.02		ug	
		Total Cobalt (Co)	2005/12/20	<0.007		ug	
		Total Copper (Cu)	2005/12/20	<0.005		ug	
		Total Lead (Pb)	2005/12/20	<0.005		ug	
		Total Manganese (Mn)	2005/12/20	<0.02		ug	
		Total Molybdenum (Mo)	2005/12/20	<0.005		ug	
		Total Nickel (Ni)	2005/12/20	<0.01		ug	
		Total Selenium (Se)	2005/12/20	<0.02		ug	
		Total Silver (Ag)	2005/12/20	<0.003		ug	
		Total Thallium (Tl)	2005/12/20	<0.005		ug	
		Total Tin (Sn)	2005/12/20	<0.02		ug	
		Total Titanium (Ti)	2005/12/20	<0.02		ug	
		Total Vanadium (V)	2005/12/20	<0.03		ug	
		Total Zinc (Zn)	2005/12/20	<0.01		ug	
N/A = Not Applicable NC = Non-calculable RPD = Relative Percent Difference							

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