

# Memo

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**To:** Julie Buron, Senior Enforcement Officer, Impact Assessment Agency of Canada (IAAC)  
Nicolas Courville, Senior Enforcement Officer, Impact Assessment Agency of Canada (IAAC)  
Terina Hancock, Fish and Fish Habitat Protection Biologist, Fisheries and Oceans Canada  
Marianne Lajoie, Enforcement Officer, Environment and Climate Change Canada

**Date:** April 4<sup>th</sup>, 2024

**From:** Genevieve Sulatycky, Environmental Superintendent (Côte Gold)

**CC:** Ben Stinson, Manager of Sustainability (Côte Gold)  
Jean-Michel Giroux, Environmental Coordinator (Côte Gold)  
Matas Remeikis, Environmental Coordinator (Côte Gold)  
Victoria Lee, Environmental Specialist (Côte Gold)

**Re:** **IAMGOLD Corporation – Côte Gold Mine  
Overburden Stockpile North Sedimentation Pond - Total Suspended Solids Release**

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IAMGOLD - Côte Gold has prepared this memorandum to provide an update regarding a total suspended solids release from the overburden stockpile north sedimentation pond (OSNSP) at the Côte Gold mine between March 5-March 7, 2024, approximately 100m upstream of Chester Lake.

This memorandum addresses three exceedances of the daily discharge limit for total suspended solids (TSS) of 30 mg/L as well as an exceedance of the monthly average of 15mg/L. The daily exceedances were reported to the Spills Action Centre (SAC) under one incident notification (SAC#1-4T40HF) on March 5<sup>th</sup>, 2024 and the monthly exceedance reported under incident notification (SAC#1-5BUB2F).

## 1.0 Summary of Incident

The cause of the exceedance was attributed to a sudden onset of warm temperatures and approximately 23mm of precipitation in the preceding 24 hours. This caused a significant amount of turbid water to enter the OSNSP.

On March 5<sup>th</sup>, 2024, during routine thrice weekly sampling of the OSNSP, a field turbidity measurement of 83.3 NTU was obtained. A sample was obtained and the in-house TSS lab provided a TSS value of 40 mg/L. Analytical results received on March 6<sup>th</sup>, 2024, confirmed that effluent with a TSS value of 39.3 mg/L was discharged from the compliance point (OSNSP) on March 5<sup>th</sup>, 2024.

Analytical results obtained on March 7<sup>th</sup> and 8<sup>th</sup> 2024, confirmed exceedances in subsequent compliance samples for March 6<sup>th</sup> (TSS of 52 mg/L and field NTU of 92.3) and March 7<sup>th</sup> (TSS of 37.3 mg/L and field NTU of 68.0). In-house TSS results for those days gave values of 39 mg/L, and 22 mg/L respectively.

Laboratory results and field readings for the exceedances at OSNSP on March 5<sup>th</sup>, March 6<sup>th</sup>, and March 7<sup>th</sup>, 2024, are presented in Table 1 below.

Table 1: Overburden Stockpile North Sedimentation Pond Discharge				
Sample Date	Location	TSS (mg/L)	In-House TSS (mg/L)	Turbidity (Field) (NTU)
05-03-2024 16:20:00	OSNSP	39.3	40.0	83.3
06-03-2024 10:30:00	OSNSP	52	39.0	92.3
07-03-2024 09:55:00	OSNSP	37.3	22.0	68.0

Downstream samples collected following the exceedances showed low TSS (between 3-5.3 mg/L) and field turbidity (1.57 to 4.36 NTU). Results are presented in Table 2 below.

Table 2: Overburden Stockpile North Sedimentation Downstream			
Sample Date	Location	TSS (mg/L)	Turbidity (Field) (NTU)
05-03-2024 16:50:00	OSNSP-D	5.3	4.36
06-03-2024 11:00:00	OSNSP-D	3	1.57
07-03-2024 10:20:00	OSNSP-D	4	4.20

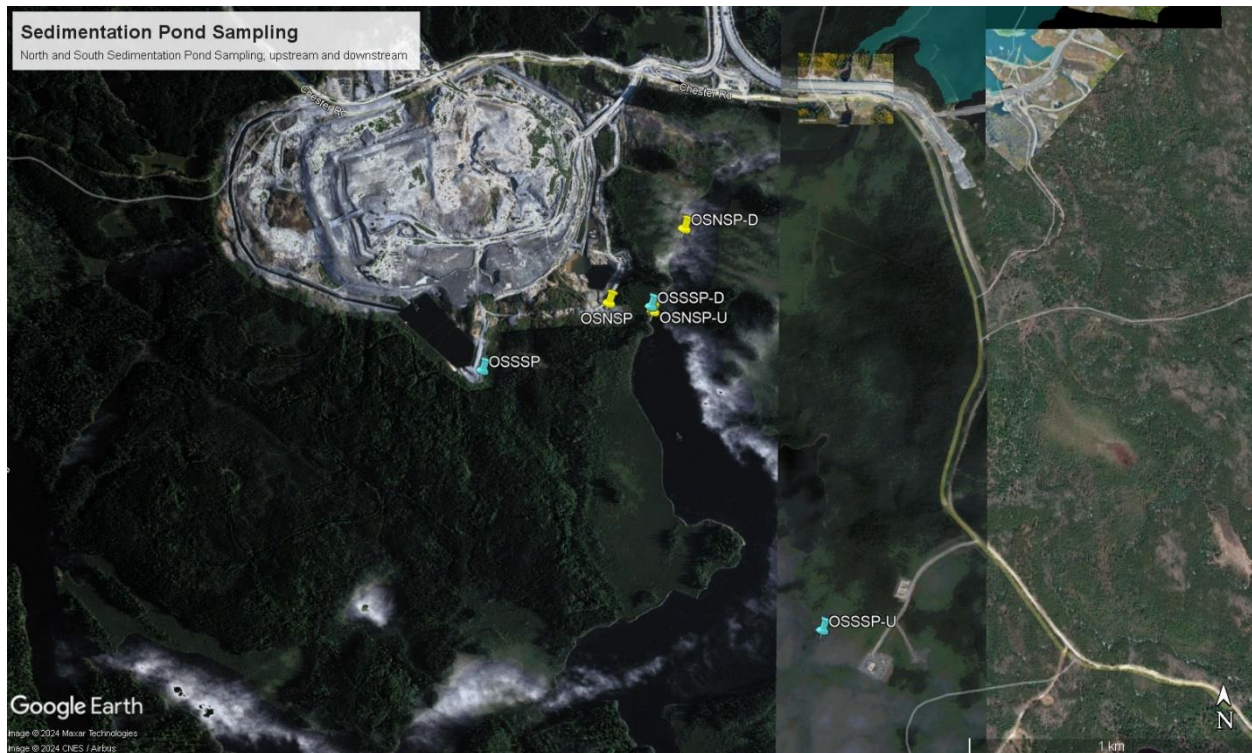
Upstream (OSNSP-U) results are presented in Table 3 below.

Table 3: Overburden Stockpile North Sedimentation Pond Upstream			
Sample Date	Location	TSS (mg/L)	Turbidity (Field) (NTU)
06-03-2024 10:40:00	OSNSP-U	3	2.45
07-03-2024 10:30:00	OSNSP-U	2.3	5.96

Based on discharge rates, approximately 13,748 m<sup>3</sup> of effluent was discharged through the weir and overland toward Chester Lake from March 5<sup>th</sup>-7<sup>th</sup> 2024. Samples taken after March 7<sup>th</sup> were below the daily limit for TSS.

Discharge and sample locations are shown in Figure 1 below.

**Figure 1 – Discharge and Sample Locations**



## 2.0 Mitigation of Adverse Environmental Effects

### 2.1 Immediate Impact Mitigation

Flocculation blocks were installed in the ditching system upstream of OSNSP. An additional closed loop recirculation pump with a flocculant addition system was installed.

An emergency discharge line to the open pit was constructed and flow was diverted to the open pit. Discharge from the OSNSP ceased on March 16<sup>th</sup>, 2024 at 22:00 as a result of the pumping.

Additional road grading took place at key drainage points on the roads within the overburden stockpile to reduce the amount of surficial drainage potentially short-circuiting the ditching system and reporting to the sedimentation pond.

### 2.2 Long Term Mitigation and Improvements

To mitigate the potential for additional releases at OSNSP, Côte Gold intends to continue to make improvements to the overburden stockpile to improve natural erosion and sediment control (ESC) in the area. The installation of the contingency discharge line to the open pit will help prevent further such occurrences.

### **3.0 Notification of Indigenous Communities & Federal and Provincial Authorities**

#### **3.1 Indigenous Communities**

Mattagami First Nation and Flying Post First Nation representatives (i.e., the Environmental Management Committee) were informed of the event on March 7, 2024 via email. An update was provided at a monthly Environmental Management Committee meeting on March 29, 2024. The Métis Nation of Ontario, represented by the Abitibi Inland Métis Community Impact Benefit Agreement Committee, were notified of the incident on March 7, 2024 via email.

No comments or feedback regarding this incident were received.

#### **3.2 Provincial and Federal Authorities**

The incident was reported to the Spills Action Centre on March 5, 2024 and on April 1, 2024 following the confirmation of exceedance of the monthly average. The Ministry of Environment, Conservation and Parks (MECP), Environment and Climate Change Canada, the Department of Fisheries and Oceans (DFO) and the Impact Assessment Agency of Canada (IAAC) were also notified and received regular updates. Details of the incident including site plans, sampling results and a description of the event were provided via memo, e-mails, and conference call.

### **4.0 Residual Adverse Environmental Effects**

Effluent sampling completed for the discharge shows results for potential contaminants of concern below MDMER effluent limits and sublethal toxicity sampling completed shows that effluent released was not acutely lethal. Sampling results as compared to MDMER and CCME Guidelines for the Protection of Aquatic Life are presented in Table 4.

Table 4: Effluent Sampling Results

Sample Point	Sample Date	Sub Tox - Daphnia Dubia (%)	Sub Tox - RBT (%)	Arsenic (Total) (mg/L)	Copper (Total) (mg/L)	Cyanide (Total) (mg/L)	Lead (Total) (mg/L)	Mercury (Total) (mg/L)	Molybdenum (Total) (mg/L)	Nickel (Total) (mg/L)	Selenium (Total) (mg/L)	Total Phosphorus (as P) (mg/L)	Un-Ionized Ammonia (mg/L)	Uranium (Total) (mg/L)	Zinc (Total) (mg/L)
OSNSP	03/03/2024 08:40:00		0	<0.001	0.002	<0.002	<0.0001	<0.0001	0.004	0.004	<0.0002	<0.002	<0.002	0.003	0.002
OSNSP	05/03/2024 16:20:00	0	0	0.001	0.014	<0.002	0.0008	<0.0001	0.001	0.004	<0.0002	0.026	<0.002	0.003	0.013
OSNSP	10/03/2024 08:45:00			0.001	0.014	<0.002	0.0005	<0.0001	0.002	0.005	0.0008	0.432	<0.002	0.003	0.004
MDMER Effluent Limits			<50.0	<0.2	<0.2	<1.0	<0.16			<0.5					<0.8
CCME Guideline for the Protection of Aquatic Life				<0.005				<0.000026	<0.073		<0.001			<0.015	<0.8

Based on receiver sampling results and effluent sampling results as compared to MDMER effluent limits and CCME guidelines (where available), no impacts were observed at the downstream receiver (Chester Lake) as a result of this exceedance.

## **5.0 Implementation of Emergency Response Plan**

In response to the incident, Côté Gold implemented emergency response procedures in accordance with its emergency response plan and spills response procedures. Notifications were provided to relevant authorities and Indigenous communities and prevention and response procedures implemented.

## **6.0 Changes Made to Avoid a Subsequent Occurrence and Implementation of Additional Measures to Mitigate Residual Adverse Environmental Effects**

Following the receipt of sample results above the 30 mg/L daily effluent discharge limit, the following measures were implemented to mitigate residual adverse environmental impacts:

- Flocculent blocks were installed in upstream ditching to help reduce TSS inputs to the sedimentation pond.
- An additional closed loop recirculation pump with a flocculant addition system was installed.
- An emergency discharge line to the open pit was constructed and flow was diverted to the open pit.
- Additional road grading took place at key drainage points on the roads within the overburden stockpile to reduce the amount of surficial drainage potentially short-circuiting the ditching system and reporting to the sedimentation pond.

To avoid a subsequent recurrence of this event, the following measures are being implemented:

- Continuation of improvements to the overburden stockpile and surrounding area to improve the natural erosion and sediment controls (ESC).
- The installation of the contingency discharge line to the open pit will help prevent further such occurrences.

## **7.0 Closure**

Please do not hesitate to contact me for further information.

Regards,

Genevieve Sulatycky  
Environmental Superintendent  
Côté Gold

# Appendix A

## Laboratory Results



**TESTMARK Laboratories Ltd.**

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## CERTIFICATE OF ANALYSIS

Client:	Jean-Michel Giroux	Work Order Number:	527940
Company:	IAMGOLD - Cote Project	PO #:	9405
Address:	9-2140 Regent St	Regulation:	Cote - Daily, North and South Sedimentation Ponds
	Sudbury, ON, P3E 5S8	Project #:	Sed Pond Monthly Water Sampling
Phone:	(705) 266-5193	DWS #:	
Email:	jean-michel_giroux@iamgold.com	Sampled By:	JR SF JFD
Date Order Received:	3/6/2024	Analysis Started:	3/6/2024
Arrival Temperature:	8 C	Analysis Completed:	3/12/2024

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
OSNSP	1981592	Surface Water	Grab	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/5/2024	4:20 PM
OSNSP-D	1981593	Surface Water	Grab		3/5/2024	4:50 PM

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Acidity (A24.0)	Garson	Determination of Acidity by Titration	Modified from APHA-2310B
Alkalinity (A1.0)	Garson	Determination of Alkalinity by Titration	Modified from APHA-2320B
Ammonia Water (A42)	Garson	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
Anions Water (mg/L by IC) (A5)	Garson	Determination of Anions in Water by Ion Chromatography	Modified from SW846-9056A
BOD (A3)	Garson	Determination of Biochemical Oxygen Demand (BOD) 5-Day	Modified from SM-5210 B
COD (R4)	Garson	Determination of Chemical Oxygen Demand (COD)	Modified from APHA-5220D
Colour, Apparent (A26)	Garson	Determination of Colour by Spectrophotometry	Modified from SM 2120 C
Colour, True (A26)	Garson	Determination of Colour by Spectrophotometry	Modified from SM 2120 C
Conductivity of Water (A12)	Garson	Determination of Conductivity in Water at 25°C	Modified from SM 2510 B
DOC Water FF (A55.1)	Garson	Determination of Dissolved Organic Carbon in Water	Modified from SM-5310 C



## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 527940

Method	Lab	Description	Reference
Field pH (R112)	Garson	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Garson	Client Supplied Field Determination of Temperature of Water	Field Test
Free CN Water (A43)	Kirkland Lake	Determination of Free Cyanide in Water by Flow Injection Analysis	Modified from ASTM D7237
ICPMS Dis. Water FF (A13)	Garson	Determination of Dissolved Metals in Water by ICP/MS -> Field-Filtered	Modified from SW846-6020A
ICPMS Reg. Water (A13)	Garson	Determination of Metals in Water by ICP/MS	Modified from SW846-6020A
ICPMS Tot. Water (A13.2)	Garson	Determination of Total Metals in Water by ICP/MS with Digestion	Modified from SW846-6020A
Mercury CV Water (S8)	Timmins	Determination of Inorganic Mercury in Water by Cold Vapour	Modified from EPA 245.7
Mercury Dis. Water CV FF (S8)	Timmins	Determination of Dissolved Inorganic Mercury by Cold Vapour AA	Modified from EPA 245.7
pH of Water (A2.0)	Garson	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Ra226 (A129)	Garson	Determination of Radium-226 in Water	In-House
Reg. Hardness (A13)	Garson	Determination of Total Hardness	Modified from APHA-2340B
Single Conc DM (A63)	Garson	Acute Lethality (100% Effluent) of Toxicants to Daphnia magna - 48 Hour Test	Modified from EPS 1/RM/14
Single Conc RBT (A62)	Garson	Acute Lethality (100% Effluent) of Toxicants to Rainbow Trout - 96 Hour Test	Modified from EPS 1/RM/13
TDS (A27)	Garson	Determination of Total Dissolved Solids in water by gravimetry	Modified from SM-2540
TOC Water (A55.2)	Garson	Determination of Total Organic Carbon in Water	Modified from SM-5310 C
Total CN Water (A43)	Kirkland Lake	Determination of Total Cyanide in Water by Flow Injection Analysis	Modified from ASTM D7511
TP Water (A23.2)	Garson	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Garson	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Turbidity (A21)	Garson	Determination of Turbidity by Nephelometry	Modified from APHA-2130B
Un-Ionized NH3 (A42.4)	Garson	Calculation of Un-Ionized Ammonia, based on Client Field pH and Temperature	Modified from APHA-4500

This report has been approved by:

Brad Halvorson, B.Sc.  
Laboratory Director



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

Work Order Number: 527940

**WORK ORDER RESULTS**

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Anions	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Chloride	3.5	0.2	0.3	0.2	mg/L	~
Fluoride	<0.05	0.05	<0.05	0.05	mg/L	~
Nitrate (as N)	0.07	0.05	0.09	0.05	mg/L	~
Nitrite (as N)	<0.05	0.05	<0.05	0.05	mg/L	~
Sulphate	17.6	0.5	0.5	0.5	mg/L	~

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Colour	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Apparent Colour	334.0	1.5	17.7 [15.5]	1.5	TCU	~
True Colour	9.9	1.5	11.0 [12.0]	1.5	TCU	~



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Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Field Parameters	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Field pH	7.04	N/A	7.9	N/A	pH	~
Field Temp	4.3	N/A	2.8	N/A	°C	~

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
General Chemistry	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Acidity	24	5	11	5	mg/L as CaCO3	~
Ammonia (as N)	0.56	0.01	0.24 [0.24]	0.01	mg/L	~
Conductivity	471	1	12	1	µS/cm	~
Dissolved Organic Carbon	15.8 [16.0]	0.4	7.2	0.4	mg/L	~
Free Cyanide	<0.001	0.001	<0.001	0.001	mg/L	~
M-Alkalinity (pH 4.5)	240	2	5	2	mg/L as CaCO3	~
pH	7.36	N/A	6.3	N/A	pH	~
Total Cyanide	<0.002	0.002	<0.002	0.002	mg/L	1
Total Hardness (as CaCO3) (Calc.)	255.0	0.1	5.4	0.1	mg/L	~
Total Organic Carbon	15.5 [15.4]	0.4	6.7	0.4	mg/L	~



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Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
General Chemistry	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Total Phosphorus (as P)	0.026	0.002	0.005 [0.005]	0.002	mg/L	~
Turbidity	75.90	0.06	0.72 [0.71]	0.06	NTU	~
Un-Ionized Ammonia (Calc.)	<0.002	0.002	<0.002	0.002	mg/L	1

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Mercury by CV	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Mercury	<0.00001 [<0.00001]	0.00001	<0.00001	0.00001	mg/L	~

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Mercury by CV (Dissolved)	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Dissolved Mercury	<0.00001	0.00001	<0.00001	0.00001	mg/L	~



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Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Metals (Dissolved)	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Dissolved Aluminum	0.016	0.001	0.021 [0.020]	0.001	mg/L	~
Dissolved Antimony	<0.0005	0.0005	<0.0005 [<0.0005]	0.0005	mg/L	~
Dissolved Arsenic	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Barium	0.023	0.001	0.002 [0.002]	0.001	mg/L	~
Dissolved Beryllium	<0.0005	0.0005	<0.0005 [<0.0005]	0.0005	mg/L	~
Dissolved Bismuth	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Boron	<0.002	0.002	<0.002 [<0.002]	0.002	mg/L	~
Dissolved Cadmium	<0.0001	0.0001	<0.0001 [<0.0001]	0.0001	mg/L	~
Dissolved Calcium	79.7	0.5*	1.96 [1.93]	0.05	mg/L	~
Dissolved Cerium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Cesium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Chromium	0.004	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Cobalt	0.0028	0.0001	<0.0001 [<0.0001]	0.0001	mg/L	~
Dissolved Copper	0.003	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Europium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Gallium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~



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Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Metals (Dissolved)	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Dissolved Iron	0.12	0.02	0.04 [0.03]	0.02	mg/L	~
Dissolved Lanthanum	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Lead	<0.0001	0.0001	0.0001 [0.0001]	0.0001	mg/L	~
Dissolved Lithium	<0.005	0.005	<0.005 [<0.005]	0.005	mg/L	~
Dissolved Magnesium	11.400	0.004	0.319 [0.316]	0.004	mg/L	~
Dissolved Manganese	2.41	0.01*	0.010 [0.010]	0.001	mg/L	~
Dissolved Mercury	0.0001	0.0001	<0.0001 [<0.0001]	0.0001	mg/L	~
Dissolved Molybdenum	0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Nickel	0.002	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Niobium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Phosphorus	<0.05	0.05	<0.05 [<0.05]	0.05	mg/L	~
Dissolved Potassium	3.3	0.1	0.3 [0.3]	0.1	mg/L	~
Dissolved Rubidium	0.005	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Scandium	0.003	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Selenium	0.0003	0.0002	<0.0002 [<0.0002]	0.0002	mg/L	~
Dissolved Silicon	4.5	0.6	<0.6 [<0.6]	0.6	mg/L	~



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Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Metals (Dissolved)	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Dissolved Silver	<0.0001	0.0001	<0.0001 [<0.0001]	0.0001	mg/L	~
Dissolved Sodium	4.5	0.1	0.4 [0.4]	0.1	mg/L	~
Dissolved Strontium	0.137	0.001	0.004 [0.004]	0.001	mg/L	~
Dissolved Sulfur	11.4	0.8	3.1 [2.8]	0.8	mg/L	~
Dissolved Tellurium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Thallium	<0.0001	0.0001	<0.0001 [<0.0001]	0.0001	mg/L	~
Dissolved Thorium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Tin	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Titanium	0.002	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Tungsten	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Uranium	0.002	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Vanadium	0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Yttrium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Dissolved Zinc	0.009	0.001	0.007 [0.007]	0.001	mg/L	~
Dissolved Zirconium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

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Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Metals (Total)	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Total Aluminum	2.00	0.01*	0.039 [0.036]	0.001	mg/L	~
Total Antimony	<0.0005	0.0005	<0.0005 [<0.0005]	0.0005	mg/L	~
Total Arsenic	0.001	0.001	<0.001 [<0.001]	0.001	mg/L	0.2
Total Barium	0.031	0.001	0.002 [0.001]	0.001	mg/L	~
Total Beryllium	<0.0005	0.0005	<0.0005 [<0.0005]	0.0005	mg/L	~
Total Bismuth	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Boron	<0.002	0.002	<0.002 [<0.002]	0.002	mg/L	~
Total Cadmium	0.00006	0.00002	<0.00002 [<0.00002]	0.00002	mg/L	~
Total Calcium	91.2	0.5*	1.55 [1.50]	0.05	mg/L	~
Total Cerium	0.006	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Cesium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Chromium	0.006	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Cobalt	0.0033	0.0001	<0.0001 [<0.0001]	0.0001	mg/L	~
Total Copper	0.014	0.001	0.001 [0.001]	0.001	mg/L	0.2
Total Europium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Gallium	0.002	0.001	<0.001 [<0.001]	0.001	mg/L	~



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

Work Order Number: 527940

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Metals (Total)	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Total Iron	4.0	0.2*	0.12 [0.11]	0.02	mg/L	~
Total Lanthanum	0.003	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Lead	0.0008	0.0001	0.0001 [0.0001]	0.0001	mg/L	0.16
Total Lithium	<0.005	0.005	<0.005 [<0.005]	0.005	mg/L	~
Total Magnesium	11.600	0.004	0.294 [0.290]	0.004	mg/L	~
Total Manganese	2.82	0.01*	0.010 [0.009]	0.001	mg/L	~
Total Mercury	<0.0001	0.0001	<0.0001 [<0.0001]	0.0001	mg/L	~
Total Molybdenum	0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Nickel	0.004	0.001	<0.001 [<0.001]	0.001	mg/L	0.5
Total Niobium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Phosphorus	<0.05	0.05	<0.05 [<0.05]	0.05	mg/L	~
Total Potassium	3.4	0.1	0.3 [0.3]	0.1	mg/L	~
Total Rubidium	0.006	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Scandium	0.003	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Selenium	<0.0002	0.0002	<0.0002 [<0.0002]	0.0002	mg/L	~
Total Silicon	4.6	0.6	<0.6 [<0.6]	0.6	mg/L	~



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

Work Order Number: 527940

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Metals (Total)	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Total Silver	<0.0001	0.0001	<0.0001 [<0.0001]	0.0001	mg/L	~
Total Sodium	4.2	0.1	0.4 [0.3]	0.1	mg/L	~
Total Strontium	0.125	0.001	0.004 [0.003]	0.001	mg/L	~
Total Sulphur	11.3	0.8	4.2 [3.7]	0.8	mg/L	~
Total Tellurium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Thallium	<0.0001	0.0001	<0.0001 [<0.0001]	0.0001	mg/L	~
Total Thorium	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Tin	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Titanium	0.053	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Tungsten	<0.001	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Uranium	0.003	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Vanadium	0.003	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Yttrium	0.002	0.001	<0.001 [<0.001]	0.001	mg/L	~
Total Zinc	0.013	0.001	0.004 [0.004]	0.001	mg/L	0.8
Total Zirconium	0.003	0.001	<0.001 [<0.001]	0.001	mg/L	~



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IAMGOLD - Cote Project

Work Order Number: 527940

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Oxygen Demand	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
BOD (5 day)	3.3	0.5	2.0	0.5	mg/L	~
Chemical Oxygen Demand	38	5	<5	5	mg/L	~

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Radionuclides	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Radium-226	<0.005	0.005	<0.005	0.005	Bq/L	1.11

Sample Description	OSNSP		OSNSP - D			
Sample Date	3/5/2024 4:20 PM		3/5/2024 4:50 PM			
Lab ID	1981592		1981593			
Solids	Result	MDL	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
Total Dissolved Solids	230	20	<20 [<20]	20	mg/L	~
Total Suspended Solids	39.3	1.3	5.3 [6.0]	1.3	mg/L	30



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## CERTIFICATE OF ANALYSIS

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Sample Description	OSNSP			
Sample Date	3/5/2024 4:20 PM			
Lab ID	1981592			
Toxicology - Single Concentration Daphnia magna	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
% Mortality at 100% Effluent (Calc.)	0	N/A	%	~

Sample Description	OSNSP			
Sample Date	3/5/2024 4:20 PM			
Lab ID	1981592			
Toxicology - Single Concentration RBT	Result	MDL	Units	Criteria: Cote - Daily, North and South Sedimentation Ponds
% Mortality at 100% Effluent (Calc.)	0	N/A	%	~



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## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 527940

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

[rr]: After a parameter name indicates a re-run of that parameter. If multiple re-runs exist they are suffixed by a number. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

[ ]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

~: In a criteria column indicates the criteria is not applicable for the parameter row.

Organic Soil Analysis: Data reported for organic analysis in soils samples are corrected for moisture content.

Quality Control: All associated Quality Control data is available on request.

LCL: Lower Control Limit.

UCL: Upper Control Limit.

QAQCID: This is a unique reference to the quality control data set used to generate the reported value. Contact our lab for this information, as it is traceable through our LIMS.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.

Reproduction of Report: Report shall not be reproduced, except in full, without the approval of Testmark Laboratories Ltd.

ICPMS Dustfall Insoluble: The ICPMS Dustfall Insoluble Portion method analyzes only the particulate matter from the Dustfall Sampler which is retained on the analysis filter during the Dustfall method.

Regulation Comparisons: Disclaimer: Please note that regulation criteria are provided for comparative purposes, however the onus on ensuring the validity of this comparison rests with the client.

\*Dilution: In the MDL column an asterisk (\*) indicates a sample dilution was performed.



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

Work Order Number: 527940

**QUALITY CONTROL DATA**

THIS SECTION REPORTS QC RESULTS ASSOCIATED WITH THE TEST BATCH; THESE ARE NOT YOUR SAMPLE RESULTS. QAQC details include only values where sufficient sample data allowed measurement.

<b>Anions</b>							
<b>Blank: LRB-6 (Blank) (6)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Chloride	0.2	mg/L	0	<0.2	0.6	20240308.A5D	
Fluoride	0.05	mg/L	0	<0.05	0.15	20240308.A5D	
Nitrate (as N)	0.05	mg/L	0	<0.05	0.15	20240308.A5D	
Nitrite (as N)	0.05	mg/L	0	<0.05	0.15	20240308.A5D	
Sulphate	0.5	mg/L	0	<0.5	1.5	20240308.A5D	
<b>Positive Control: LFB-5 (20/10/1 mg/L) (5)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Chloride	N/A	% Rec	80	88.4	120	20240308.A5D	
Fluoride	N/A	% Rec	80	83.3	120	20240308.A5D	
Nitrate (as N)	N/A	% Rec	80	95.6	120	20240308.A5D	
Nitrite (as N)	N/A	% Rec	80	116	120	20240308.A5D	
Sulphate	N/A	% Rec	80	90	120	20240308.A5D	
<b>Positive Control: LFB-7 (100/50 mg/L) (7)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Chloride	N/A	% Rec	80	97.2	120	20240308.A5D	
Fluoride	N/A	% Rec	80	98.5	120	20240308.A5D	
Nitrate (as N)	N/A	% Rec	80	97.1	120	20240308.A5D	
Nitrite (as N)	N/A	% Rec	80	92.7	120	20240308.A5D	
Sulphate	N/A	% Rec	80	95.8	120	20240308.A5D	
<b>Sample Replicate: % RPD (8)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Chloride	N/A	%	0	2.5	20	20240308.A5D	
Nitrate (as N)	N/A	%	0	3.2	20	20240308.A5D	



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Sulphate	N/A	%	0	5.4	20	20240308.A5D
<b>Sample Spike: LFS-R (Spiked Sample) (9)</b>						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Chloride	N/A	% Rec	75	89.4	125	20240308.A5D
Fluoride	N/A	% Rec	75	99.5	125	20240308.A5D
Nitrate (as N)	N/A	% Rec	75	99.1	125	20240308.A5D
Nitrite (as N)	N/A	% Rec	75	91.2	125	20240308.A5D
Sulphate	N/A	% Rec	75	90.5	125	20240308.A5D

**Colour**

**Method Blank: LRB-6 (Blank) (6)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Apparent Colour	1.5	TCU	0	<1.5	4.5	20240306.A26D
True Colour	2	TCU	0	<2	4.5	20240306.A26E

**Positive Control: LFB-7 (70 TCU) (7)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Apparent Colour	1.5	TCU	63	67.2	77	20240306.A26D
True Colour	1.5	TCU	63	67.6	77	20240306.A26E

**Sample Replicate: % RPD (8)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Apparent Colour	N/A	%	0	13.3	20	20240306.A26D

**General Chemistry**

**Blank: LRB-6 (6)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Ammonia (as N)	0.01	mg/L	0	<0.01	0.03	20240306.A42F

**Method Blank: LRB-6 (Blank) (6)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Acidity	5	mg/L as CaCO3	0	<5	15	20240306.A24.0K
Conductivity	1	µS/cm	0	1.2	5	20240306.A12K



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Dissolved Organic Carbon	0.4	mg/L	0	<0.4	1.2	20240307.A55.1B
Free Cyanide	0.001	mg/L	0	<0.001	0.003	20240307.TM-KL.A43F1
M-Alkalinity (pH 4.5)	2	mg/L as CaCO3	0	2.03	6	20240306.A1.0K
Total Cyanide	0.002	mg/L	0	<0.002	0.006	20240307.TM-KL.A43T2
Total Organic Carbon	0.4	mg/L	0	<0.4	1.2	20240307.A55.2B
Turbidity	0.1	NTU	0	0.18	0.3	20240306.TM-G.A21C

**Method Blank: Method Blank (6)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Phosphorus (as P)	0.002	mg/L	0	<0.002	0.006	20240306.A23.2E

**Positive Control: Gel-0to10 (5)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Turbidity	0.1	NTU	4.75	5.05	5.24	20240306.TM-G.A21C

**Positive Control: Gel-0to100 (7)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Turbidity	0.1	NTU	50.8	53.5	56.2	20240306.TM-G.A21C

**Positive Control: Gel-0to1000 (7)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Turbidity	0.1	NTU	431	456	477	20240306.TM-G.A21C

**Positive Control: Lab Control Sample .05 (7)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Phosphorus (as P)	0.002	mg/L	0.04	0.0482	0.06	20240306.A23.2E

**Positive Control: Lab Control Sample .2 (7)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Phosphorus (as P)	0.002	mg/L	0.18	0.198	0.22	20240306.A23.2E

**Positive Control: LFB-3 (100 mg/L CaCO3) (3)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Acidity	5	mg/L as CaCO3	80	107	120	20240306.A24.0K



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Work Order Number: 527940

<b>Positive Control: LFB-4 (100 mg/L CaCO3) (4)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
M-Alkalinity (pH 4.5)	2	mg/L as CaCO3	80	103	120	20240306.A1.0K	
<b>Positive Control: LFB-5 (500 µS/cm) (5)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Conductivity	1	µS/cm	475	499	525	20240306.A12K	
<b>Positive Control: LFB-7 (0.25 mg/L) (7)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Ammonia (as N)	0.01	mg/L	0.2	0.216	0.3	20240306.A42F	
<b>Positive Control: LFB-7 (15 mg/L) (7)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Organic Carbon	0.4	mg/L	12.5	15.4	17.5	20240307.A55.1B	
Total Organic Carbon	0.4	mg/L	12.5	15.6	17.5	20240307.A55.2B	
<b>Positive Control: LFRB-5 (0.250 mg/L) (5)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Free Cyanide	0.001	mg/L	0.213	0.242	0.288	20240307.TM-KL.A43F1	
Total Cyanide	0.002	mg/L	0.213	0.288	0.288	20240307.TM-KL.A43T2	
<b>Positive Control: LFRB-7 (0.100 mg/L) (7)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Free Cyanide	0.001	mg/L	0.085	0.099	0.115	20240307.TM-KL.A43F1	
Total Cyanide	0.002	mg/L	0.085	0.111	0.115	20240307.TM-KL.A43T2	
<b>Positive Control: pH 8.0 (8)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
pH	N/A	pH	7.8	8.08	8.2	20240306.A2.0K	
<b>Sample Replicate: % RPD (8)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Organic Carbon	N/A	%	0	1.2	15	20240307.A55.1B	
Total Organic Carbon	N/A	%	0	0.6	15	20240307.A55.2B	
Turbidity	N/A	%	0	1.4	20	20240306.TM-G.A21C	



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<b>Sample Replicate: % RPD (9)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Conductivity	N/A	%	0	0	20	20240306.A12K	
M-Alkalinity (pH 4.5)	N/A	%	0	3.2	20	20240306.A1.0K	
pH	N/A	% Rec	0	0.06	0.2	20240306.A2.0K	
<b>Sample Replicate: %RPD (8)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Ammonia (as N)	N/A	%	0	0.1	20	20240306.A42F	
<b>Sample Spike: LFMS-9 (10 mg/L) (9)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Organic Carbon	N/A	% Rec	80	101	120	20240307.A55.1B	
<b>Sample Spike: LFS-9 (Sample Spike) (9)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Ammonia (as N)	N/A	% Rec	80	106	120	20240306.A42F	
<b>Sample Spike: LFSM-9 (0.100 mg/L) (9)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Free Cyanide	N/A	% Rec	80	113	120	20240307.TM-KL.A43F1	
<b>Sample Spike: LFSM-9 (0.100 mg/L) (98)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Total Cyanide	N/A	% Rec	80	109	120	20240307.TM-KL.A43T2	
<b>Sample Spike: LFSM-9 (10 mg/L) (9)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Total Organic Carbon	N/A	% Rec	80	99.8	120	20240307.A55.2B	
<b>Sample Spike: Matrix Spike (UCL 125, LCL 75, New) (9)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Total Phosphorus (as P)	N/A	% Rec	75	104	125	20240306.A23.2E	



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Work Order Number: 527940

**Mercury by CV**

**Calibration Check: CCV (4)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Mercury	1e-005	mg/L	2.25E-05	2.48e-005	2.75E-05	20240308.TM-T.A8C

**Calibration Check: ICV (3)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Mercury	9e-006	mg/L	9E-06	9.38e-006	1.1E-05	20240312.TM-T.A8B
Mercury	9e-006	mg/L	9E-06	1.09e-005	1.1E-05	20240308.TM-T.A8C

**Method Blank: LRB-6 (Blank) (6)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Mercury	1e-005	mg/L	0	<1e-005	1E-05	20240308.TM-T.A8C
Mercury	1e-005	mg/L	0	<1e-005	1E-05	20240312.TM-T.A8B

**Positive Control: LFB-7 (0.05 µg/L) (7)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Mercury	0.01	%	85	88.7	115	20240312.TM-T.A8B
Mercury	0.01	%	85	94.4	115	20240308.TM-T.A8C

**Positive Control: Low Level Control 5 ng/L (5)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Mercury	2e-006	mg/L	3E-06	4.98e-006	7E-06	20240312.TM-T.A8B
Mercury	2e-006	mg/L	3E-06	5.54e-006	7E-06	20240308.TM-T.A8C

**Mercury by CV (Dissolved)**

**Calibration Check: CCV (4)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Dissolved Mercury	9e-006	mg/L	2.25E-05	2.48e-005	2.75E-05	20240308.TM-T.A8B

**Calibration Check: ICV (3)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Dissolved Mercury	9e-006	mg/L	9E-06	1.09e-005	1.1E-05	20240308.TM-T.A8B



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<b>Method Blank: LRB-6 (Blank) (6)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Mercury	1e-005	mg/L	0	<1e-005	1E-05	20240308.TM-T.A8B	
<b>Positive Control: LFB-7 (0.05 µg/L) (7)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Mercury	N/A	%	85	101	115	20240308.TM-T.A8B	
<b>Positive Control: Low Level Control 5 ng/L (5)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Mercury	2e-006	mg/L	3E-06	6.29e-006	7E-06	20240308.TM-T.A8B	

**Metals (Dissolved)**

<b>Blank: LRB-6 (Blank) (6)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Aluminum	0.001	mg/L	0	0.00104	0.001	20240306.A13.3H	
Dissolved Antimony	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Arsenic	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Barium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Beryllium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Bismuth	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Boron	0.002	mg/L	0	<0.002	0.005	20240306.A13.3H	
Dissolved Cadmium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Calcium	0.05	mg/L	0	<0.05	0.05	20240306.A13.3H	
Dissolved Cerium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Cesium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Chromium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Cobalt	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Copper	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Europium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Gallium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H	
Dissolved Iron	0.02	mg/L	0	<0.02	0.02	20240306.A13.3H	



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## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 527940

Dissolved Lanthanum	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Lead	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Lithium	0.005	mg/L	0	<0.005	0.005	20240306.A13.3H
Dissolved Magnesium	0.004	mg/L	0	<0.004	0.004	20240306.A13.3H
Dissolved Manganese	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Mercury	0.0001	mg/L	0	<0.0001	0.0001	20240306.A13.3H
Dissolved Molybdenum	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Nickel	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Niobium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Phosphorus	0.05	mg/L	0	<0.05	0.05	20240306.A13.3H
Dissolved Potassium	0.1	mg/L	0	<0.1	0.1	20240306.A13.3H
Dissolved Rubidium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Scandium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Selenium	0.0002	mg/L	0	<0.0002	0.001	20240306.A13.3H
Dissolved Silicon	0.6	mg/L	0	<0.6	0.6	20240306.A13.3H
Dissolved Silver	0.0001	mg/L	0	<0.0001	0.0001	20240306.A13.3H
Dissolved Sodium	0.1	mg/L	0	<0.1	0.3	20240306.A13.3H
Dissolved Strontium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Sulfur	0.8	mg/L	0	1.94	0.8	20240306.A13.3H
Dissolved Tellurium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Thallium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Thorium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Tin	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Titanium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Tungsten	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Uranium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Vanadium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Yttrium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Zinc	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H
Dissolved Zirconium	0.001	mg/L	0	<0.001	0.001	20240306.A13.3H



## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 527940

Positive Control: LFB-7 (N 100 µg/L) (7)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Aluminum	N/A	%	80	113	120	20240306.A13.3H	
Dissolved Antimony	N/A	%	80	117	120	20240306.A13.3H	
Dissolved Arsenic	N/A	%	80	107	120	20240306.A13.3H	
Dissolved Barium	N/A	%	80	105	120	20240306.A13.3H	
Dissolved Beryllium	N/A	%	80	111	120	20240306.A13.3H	
Dissolved Boron	N/A	%	80	118	120	20240306.A13.3H	
Dissolved Cadmium	N/A	%	80	108	120	20240306.A13.3H	
Dissolved Calcium	N/A	%	80	98.5	120	20240306.A13.3H	
Dissolved Chromium	N/A	%	80	106	120	20240306.A13.3H	
Dissolved Cobalt	N/A	%	80	103	120	20240306.A13.3H	
Dissolved Copper	N/A	%	80	101	120	20240306.A13.3H	
Dissolved Iron	N/A	%	80	104	120	20240306.A13.3H	
Dissolved Lead	N/A	%	80	99.6	120	20240306.A13.3H	
Dissolved Magnesium	N/A	%	80	98.5	120	20240306.A13.3H	
Dissolved Manganese	N/A	%	80	108	120	20240306.A13.3H	
Dissolved Mercury	N/A	%	80	95.6	120	20240306.A13.3H	
Dissolved Molybdenum	N/A	%	80	99.3	120	20240306.A13.3H	
Dissolved Nickel	N/A	%	80	102	120	20240306.A13.3H	
Dissolved Phosphorus	N/A	%	80	104	120	20240306.A13.3H	
Dissolved Potassium	N/A	%	80	99.3	120	20240306.A13.3H	
Dissolved Selenium	N/A	%	80	106	120	20240306.A13.3H	
Dissolved Silicon	N/A	%	80	98.4	120	20240306.A13.3H	
Dissolved Sodium	N/A	%	80	99.5	120	20240306.A13.3H	
Dissolved Sulfur	N/A	%	80	115	120	20240306.A13.3H	
Dissolved Thallium	N/A	%	80	95.4	120	20240306.A13.3H	
Dissolved Uranium	N/A	%	80	95.1	120	20240306.A13.3H	
Dissolved Vanadium	N/A	%	80	106	120	20240306.A13.3H	
Dissolved Zinc	N/A	%	80	106	120	20240306.A13.3H	



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

Work Order Number: 527940

Reference Sample: CRM-12 EP-L-3 (µg/L) (12)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Aluminum	0.001	mg/L	0.0792	0.117	0.1192	20240306.A13.3H	
Dissolved Antimony	0.0005	mg/L	0.0078	0.0133	0.0152	20240306.A13.3H	
Dissolved Arsenic	0.001	mg/L	0.0075	0.0104	0.0124	20240306.A13.3H	
Dissolved Barium	0.001	mg/L	0.0064	0.0081	0.0097	20240306.A13.3H	
Dissolved Beryllium	0.0005	mg/L	0.001	0.0022	0.0029	20240306.A13.3H	
Dissolved Boron	0.002	mg/L	0.076	0.106	0.113	20240306.A13.3H	
Dissolved Cadmium	0.0001	mg/L	0.0015	0.00214	0.0024	20240306.A13.3H	
Dissolved Calcium	0.05	mg/L	0.273	0.549	0.664	20240306.A13.3H	
Dissolved Chromium	0.001	mg/L	0.0094	0.0137	0.0166	20240306.A13.3H	
Dissolved Cobalt	0.0001	mg/L	0.008	0.0117	0.0122	20240306.A13.3H	
Dissolved Copper	0.001	mg/L	0.0123	0.0163	0.02	20240306.A13.3H	
Dissolved Lead	0.0001	mg/L	0.00258	0.00408	0.00538	20240306.A13.3H	
Dissolved Magnesium	0.004	mg/L	0.041	0.0565	0.071	20240306.A13.3H	
Dissolved Manganese	0.001	mg/L	0.0047	0.0065	0.0073	20240306.A13.3H	
Dissolved Molybdenum	0.001	mg/L	0.01746	0.021	0.02644	20240306.A13.3H	
Dissolved Nickel	0.001	mg/L	0.0154	0.0203	0.0241	20240306.A13.3H	
Dissolved Potassium	0.1	mg/L	0.323	0.389	0.497	20240306.A13.3H	
Dissolved Selenium	0.001	mg/L	0.0461	0.0623	0.0708	20240306.A13.3H	
Dissolved Sodium	0.1	mg/L	0.145	0.235	0.345	20240306.A13.3H	
Dissolved Strontium	0.001	mg/L	0.106	0.136	0.17	20240306.A13.3H	
Dissolved Thallium	0.0001	mg/L	0.004678	0.00616	0.007122	20240306.A13.3H	
Dissolved Uranium	0.001	mg/L	0.0036	0.00466	0.00687	20240306.A13.3H	
Dissolved Vanadium	0.001	mg/L	0.01096	0.0151	0.01644	20240306.A13.3H	
Dissolved Zinc	0.001	mg/L	0.0341	0.0464	0.0515	20240306.A13.3H	
Sample Replicate: % RPD (8)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Dissolved Aluminum	N/A	%	0	4.9	20	20240306.A13.3H	
Dissolved Calcium	N/A	%	0	1.5	20	20240306.A13.3H	
Dissolved Magnesium	N/A	%	0	0.9	20	20240306.A13.3H	



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

Work Order Number: 527940

Dissolved Manganese	N/A	%	0	0	20	20240306.A13.3H
<b>Sample Spike: LFSM-9 (N 100 µg/L) (9)</b>						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Dissolved Aluminum	N/A	% Rec	70	100	130	20240306.A13.3H
Dissolved Antimony	N/A	% Rec	70	100	130	20240306.A13.3H
Dissolved Arsenic	N/A	% Rec	70	105	130	20240306.A13.3H
Dissolved Barium	N/A	% Rec	70	101	130	20240306.A13.3H
Dissolved Beryllium	N/A	% Rec	70	108	130	20240306.A13.3H
Dissolved Cadmium	N/A	% Rec	70	109	130	20240306.A13.3H
Dissolved Chromium	N/A	% Rec	70	105	130	20240306.A13.3H
Dissolved Cobalt	N/A	% Rec	70	105	130	20240306.A13.3H
Dissolved Copper	N/A	% Rec	70	103	130	20240306.A13.3H
Dissolved Iron	N/A	% Rec	70	91.6	130	20240306.A13.3H
Dissolved Lead	N/A	% Rec	70	101	130	20240306.A13.3H
Dissolved Manganese	N/A	% Rec	70	104	130	20240306.A13.3H
Dissolved Molybdenum	N/A	% Rec	70	79	130	20240306.A13.3H
Dissolved Nickel	N/A	% Rec	70	99.1	130	20240306.A13.3H
Dissolved Selenium	N/A	% Rec	70	113	130	20240306.A13.3H
Dissolved Thallium	N/A	% Rec	70	105	130	20240306.A13.3H
Dissolved Vanadium	N/A	% Rec	70	103	130	20240306.A13.3H
Dissolved Zinc	N/A	% Rec	70	114	130	20240306.A13.3H

**Metals (Total)**

**Blank: LRB-6 (Blank) (6)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Aluminum	0.001	mg/L	0	0.00466	0.001	20240306.A13.2K
Total Antimony	0.0005	mg/L	0	<0.0005	0.001	20240306.A13.2K
Total Arsenic	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Barium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Beryllium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Bismuth	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K



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## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 527940

Total Boron	0.002	mg/L	0	<0.002	0.005	20240306.A13.2K
Total Cadmium	0.0001	mg/L	0	<0.0001	0.0003	20240306.A13.2K
Total Calcium	0.05	mg/L	0	<0.05	0.05	20240306.A13.2K
Total Cerium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Cesium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Chromium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Cobalt	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Copper	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Europium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Gallium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Iron	0.02	mg/L	0	<0.02	0.06	20240306.A13.2K
Total Lanthanum	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Lead	0.0005	mg/L	0	<0.0005	0.001	20240306.A13.2K
Total Lithium	0.005	mg/L	0	<0.005	0.005	20240306.A13.2K
Total Magnesium	0.004	mg/L	0	<0.004	0.012	20240306.A13.2K
Total Manganese	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Mercury	0.0001	mg/L	0	<0.0001	0.0001	20240306.A13.2K
Total Molybdenum	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Nickel	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Niobium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Phosphorus	0.05	mg/L	0	<0.05	0.05	20240306.A13.2K
Total Potassium	0.1	mg/L	0	<0.1	0.1	20240306.A13.2K
Total Rubidium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Scandium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Selenium	0.0002	mg/L	0	<0.0002	0.001	20240306.A13.2K
Total Silicon	0.6	mg/L	0	<0.6	0.6	20240306.A13.2K
Total Silver	0.0001	mg/L	0	<0.0001	0.0003	20240306.A13.2K
Total Sodium	0.1	mg/L	0	<0.1	0.3	20240306.A13.2K
Total Strontium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Sulphur	0.8	mg/L	0	<0.8	0.8	20240306.A13.2K
Total Tellurium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K



**CERTIFICATE OF ANALYSIS**

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Total Thallium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Thorium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Tin	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Titanium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Tungsten	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Uranium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Vanadium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Yttrium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Zinc	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K
Total Zirconium	0.001	mg/L	0	<0.001	0.001	20240306.A13.2K

**Positive Control: EP-L-3 (12)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Aluminum	0.001	mg/L	0.077	0.12	0.137	20240306.A13.2K
Total Antimony	0.0005	mg/L	0.0078	0.0124	0.0152	20240306.A13.2K
Total Arsenic	0.001	mg/L	0.0075	0.00941	0.0124	20240306.A13.2K
Total Barium	0.001	mg/L	0.0064	0.00788	0.0097	20240306.A13.2K
Total Beryllium	0.0005	mg/L	0.001	0.00183	0.0029	20240306.A13.2K
Total Boron	0.002	mg/L	0.076	0.088	0.113	20240306.A13.2K
Total Cadmium	0.0001	mg/L	0.0015	0.00185	0.0024	20240306.A13.2K
Total Calcium	0.05	mg/L	0.273	0.504	0.664	20240306.A13.2K
Total Chromium	0.001	mg/L	0.0094	0.0127	0.0166	20240306.A13.2K
Total Cobalt	0.0001	mg/L	0.008	0.0106	0.0122	20240306.A13.2K
Total Copper	0.001	mg/L	0.0123	0.0154	0.02	20240306.A13.2K
Total Lead	0.0005	mg/L	0.00258	0.00407	0.00538	20240306.A13.2K
Total Magnesium	0.004	mg/L	0.041	0.0631	0.071	20240306.A13.2K
Total Manganese	0.001	mg/L	0.0047	0.00663	0.0073	20240306.A13.2K
Total Molybdenum	0.001	mg/L	0.01746	0.0221	0.02644	20240306.A13.2K
Total Nickel	0.001	mg/L	0.0154	0.019	0.0241	20240306.A13.2K
Total Potassium	0.1	mg/L	0.323	0.353	0.497	20240306.A13.2K
Total Selenium	0.0005	mg/L	0.0461	0.0524	0.0708	20240306.A13.2K
Total Sodium	0.1	mg/L	0.145	0.221	0.345	20240306.A13.2K



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

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Total Strontium	0.001	mg/L	0.106	0.156	0.17	20240306.A13.2K
Total Thallium	0.0001	mg/L	0.004678	0.00603	0.007122	20240306.A13.2K
Total Uranium	0.001	mg/L	0.0036	0.00532	0.00687	20240306.A13.2K
Total Vanadium	0.001	mg/L	0.01096	0.0139	0.01644	20240306.A13.2K
Total Zinc	0.001	mg/L	0.0341	0.0395	0.0515	20240306.A13.2K

Positive Control: LFB-7 (N 100 ug/L) (7)						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Aluminum	N/A	%	80	103	120	20240306.A13.2K
Total Antimony	N/A	%	80	109	120	20240306.A13.2K
Total Arsenic	N/A	%	80	103	120	20240306.A13.2K
Total Barium	N/A	%	80	109	120	20240306.A13.2K
Total Beryllium	N/A	%	80	99.1	120	20240306.A13.2K
Total Boron	N/A	%	80	100	120	20240306.A13.2K
Total Cadmium	N/A	%	80	100	120	20240306.A13.2K
Total Calcium	N/A	%	80	95.8	120	20240306.A13.2K
Total Chromium	N/A	%	80	105	120	20240306.A13.2K
Total Cobalt	N/A	%	80	102	120	20240306.A13.2K
Total Copper	N/A	%	80	100	120	20240306.A13.2K
Total Iron	N/A	%	80	119	120	20240306.A13.2K
Total Lead	N/A	%	80	103	120	20240306.A13.2K
Total Magnesium	N/A	%	80	95.5	120	20240306.A13.2K
Total Manganese	N/A	%	80	119	120	20240306.A13.2K
Total Mercury	N/A	%	80	94.9	120	20240306.A13.2K
Total Molybdenum	N/A	%	80	105	120	20240306.A13.2K
Total Nickel	N/A	%	80	102	120	20240306.A13.2K
Total Phosphorus	N/A	%	80	94.8	120	20240306.A13.2K
Total Potassium	N/A	%	80	97.1	120	20240306.A13.2K
Total Selenium	N/A	%	80	98.5	120	20240306.A13.2K
Total Silicon	N/A	%	80	87.7	120	20240306.A13.2K
Total Sodium	N/A	%	80	93.4	120	20240306.A13.2K
Total Sulphur	N/A	%	80	131	120	20240306.A13.2K



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

Work Order Number: 527940

Total Thallium	N/A	%	80	102	120	20240306.A13.2K
Total Uranium	N/A	%	80	114	120	20240306.A13.2K
Total Vanadium	N/A	%	80	107	120	20240306.A13.2K
Total Zinc	N/A	%	80	98.3	120	20240306.A13.2K

**Sample Replicate: % RPD (8)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Aluminum	N/A	%	0	8	20	20240306.A13.2K
Total Calcium	N/A	%	0	3.3	20	20240306.A13.2K
Total Magnesium	N/A	%	0	1.4	20	20240306.A13.2K

**Sample Spike: LFSM-9 (N 100 ug/L) (9)**

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Aluminum	N/A	% Rec	70	98.6	130	20240306.A13.2K
Total Antimony	N/A	% Rec	70	108	130	20240306.A13.2K
Total Arsenic	N/A	% Rec	70	98.9	130	20240306.A13.2K
Total Barium	N/A	% Rec	70	103	130	20240306.A13.2K
Total Beryllium	N/A	% Rec	70	94.8	130	20240306.A13.2K
Total Cadmium	N/A	% Rec	70	101	130	20240306.A13.2K
Total Chromium	N/A	% Rec	70	101	130	20240306.A13.2K
Total Cobalt	N/A	% Rec	70	104	130	20240306.A13.2K
Total Copper	N/A	% Rec	70	102	130	20240306.A13.2K
Total Iron	N/A	% Rec	70	103	130	20240306.A13.2K
Total Lead	N/A	% Rec	70	107	130	20240306.A13.2K
Total Manganese	N/A	% Rec	70	112	130	20240306.A13.2K
Total Molybdenum	N/A	% Rec	70	103	130	20240306.A13.2K
Total Nickel	N/A	% Rec	70	101	130	20240306.A13.2K
Total Selenium	N/A	% Rec	70	96.5	130	20240306.A13.2K
Total Thallium	N/A	% Rec	70	107	130	20240306.A13.2K
Total Vanadium	N/A	% Rec	70	103	130	20240306.A13.2K
Total Zinc	N/A	% Rec	70	101	130	20240306.A13.2K



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

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**Oxygen Demand**

Blank: Blank (6)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Chemical Oxygen Demand	5	mg/L	0	<5	15	20240307.TM-G.R4B	

Blank: BOD Method Blank (6)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
BOD (5 day)	0.5	mg/L	0	<0.5	0.5	20240312.A3B	

Positive Control: Lab Control Sample (7)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
BOD (5 day)	100	mg/L	167.5	184	228.5	20240312.A3B	

Positive Control: Lab Control Sample 100 (7)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Chemical Oxygen Demand	N/A	mg/L	85	93.3	115	20240307.TM-G.R4B	

Sample Replicate: % RPD (8)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
BOD (5 day)	N/A	%	0	0	30	20240312.A3B	

Sample Spike: Matrix Spike (9)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Chemical Oxygen Demand	N/A	% Rec	70	93.1	130	20240307.TM-G.R4B	

**Radionuclides**

Blank: LMB (6)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Radium-226	0.005	Bq/L	0	<0.005	0.005	20240311.TM-G.A129C	

Positive Control: LFMB-1 (0.05) (71)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Radium-226	0.005	Bq/L	0.04	0.0525	0.06	20240311.TM-G.A129C	



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

Work Order Number: 527940

Positive Control: LFMB-2 (0.05) (72)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Radium-226	0.005	Bq/L	0.04	0.0554	0.06	20240311.TM-G.A129C	
Sample Replicate: % RPD (4)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Radium-226	N/A	%	0	5.38	20	20240311.TM-G.A129C	
Sample Spike: LFSM (5)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Radium-226	N/A	% Rec	75	67.7	125	20240311.TM-G.A129C	

**Solids**

Blank: LRB-6 (Blank) (6)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Total Suspended Solids	0.67	mg/L	0	<0.67	10	20240306.TM-G.A27B	
Method Blank: LRB-6 (Blank) (6)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Total Dissolved Solids	20	mg/L	0	<20	50	20240306.TM-G.A27C	
Positive Control: LFB-7 (250 mg/L) (7)							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Total Dissolved Solids	20	mg/L	225	260	275	20240306.TM-G.A27C	
Total Suspended Solids	2	mg/L	212.5	220	287.5	20240306.TM-G.A27B	

THIS INDEX SHOWS HOW YOUR SAMPLES ARE ASSOCIATED TO THE CONTROLS INCLUDED IN THE IDENTIFIED BATCHES.

Sample Description	Lab ID	Method	QAQCID	Prep QAQCID
OSNSP	1981592	Acidity (A24.0)	20240306.A24.0K	
OSNSP	1981592	Alkalinity (A1.0)	20240306.A1.0K	
OSNSP	1981592	Ammonia Water (A42)	20240306.A42F	
OSNSP	1981592	Anions Water (mg/L by IC) (A5)	20240308.A5D	
OSNSP	1981592	BOD (A3)	20240312.A3B	
OSNSP	1981592	COD (R4)	20240307.TM-G.R4B	



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## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 527940

OSNSP	1981592	Colour, Apparent (A26)	20240306.A26D	
OSNSP	1981592	Colour, True (A26)	20240306.A26E	
OSNSP	1981592	Conductivity of Water (A12)	20240306.A12K	
OSNSP	1981592	DOC Water (A55.1)	20240307.A55.1B	
OSNSP	1981592	Field pH (R112)	20240306.R112X	
OSNSP	1981592	Field Temp (R113)	20240306.R113X	
OSNSP	1981592	Free CN Water (A43)	20240307.TM-KL.A43F1	
OSNSP	1981592	ICPMS Dis. Water (A13)	20240306.A13.3H	20240306.A52T
OSNSP	1981592	ICPMS Tot. Water (A13.2)	20240306.A13.2K	20240306.A52R
OSNSP	1981592	Mercury CV Water (S8)	20240312.TM-T.A8B	
OSNSP	1981592	Mercury Dis. Water CV (S8)	20240308.TM-T.A8B	
OSNSP	1981592	pH of Water (A2.0)	20240306.A2.0K	
OSNSP	1981592	Ra226 (A129)	20240311.TM-G.A129C	
OSNSP	1981592	Reg. Hardness (A13)	20240306.TM-G.A13.1D	
OSNSP	1981592	Single Conc DM (A63)	20240307.TM-G.A63B	
OSNSP	1981592	Single Conc RBT (A62)	20240306.TM-G.A62C	
OSNSP	1981592	TDS (A27)	20240306.TM-G.A27C	
OSNSP	1981592	TOC Water (A55.2)	20240307.A55.2B	
OSNSP	1981592	Total CN Water (A43)	20240307.TM-KL.A43T2	
OSNSP	1981592	TP Water (A23.2)	20240306.A23.2E	
OSNSP	1981592	TSS (A27)	20240306.TM-G.A27B	
OSNSP	1981592	Turbidity (A21)	20240306.TM-G.A21C	
OSNSP	1981592	Un-Ionized NH3 (A42.4)	20240306.TM-G.A42.4C	
OSNSP	1981592r	DOC Water (A55.1)	20240307.A55.1B	
OSNSP	1981592r	Mercury CV Water (S8)	20240312.TM-T.A8B	
OSNSP	1981592r	TOC Water (A55.2)	20240307.A55.2B	
OSNSP - D	1981593	Acidity (A24.0)	20240306.A24.0K	
OSNSP - D	1981593	Alkalinity (A1.0)	20240306.A1.0K	
OSNSP - D	1981593	Ammonia Water (A42)	20240306.A42F	
OSNSP - D	1981593	Anions Water (mg/L by IC) (A5)	20240308.A5D	
OSNSP - D	1981593	BOD (A3)	20240312.A3B	



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## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

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OSNSP - D	1981593	COD (R4)	20240307.TM-G.R4B	
OSNSP - D	1981593	Colour, Apparent (A26)	20240306.A26D	
OSNSP - D	1981593	Colour, True (A26)	20240306.A26E	
OSNSP - D	1981593	Conductivity of Water (A12)	20240306.A12K	
OSNSP - D	1981593	DOC Water (A55.1)	20240307.A55.1B	
OSNSP - D	1981593	Field pH (R112)	20240306.R112X	
OSNSP - D	1981593	Field Temp (R113)	20240306.R113X	
OSNSP - D	1981593	Free CN Water (A43)	20240307.TM-KL.A43F1	
OSNSP - D	1981593	ICPMS Dis. Water (A13)	20240306.A13.3H	20240306.A52T
OSNSP - D	1981593	ICPMS Tot. Water (A13.2)	20240306.A13.2K	20240306.A52R
OSNSP - D	1981593	Mercury CV Water (S8)	20240308.TM-T.A8C	
OSNSP - D	1981593	Mercury Dis. Water CV (S8)	20240308.TM-T.A8B	
OSNSP - D	1981593	pH of Water (A2.0)	20240306.A2.0K	
OSNSP - D	1981593	Ra226 (A129)	20240311.TM-G.A129C	
OSNSP - D	1981593	Reg. Hardness (A13)	20240306.TM-G.A13.1D	
OSNSP - D	1981593	TDS (A27)	20240306.TM-G.A27C	
OSNSP - D	1981593	TOC Water (A55.2)	20240307.A55.2B	
OSNSP - D	1981593	Total CN Water (A43)	20240307.TM-KL.A43T2	
OSNSP - D	1981593	TP Water (A23.2)	20240306.A23.2E	
OSNSP - D	1981593	TSS (A27)	20240306.TM-G.A27B	
OSNSP - D	1981593	Turbidity (A21)	20240306.TM-G.A21C	
OSNSP - D	1981593	Un-Ionized NH3 (A42.4)	20240306.TM-G.A42.4C	
OSNSP - D	1981593r	Ammonia Water (A42)	20240306.A42F	
OSNSP - D	1981593r	Colour, Apparent (A26)	20240306.A26D	
OSNSP - D	1981593r	Colour, True (A26)	20240306.A26E	
OSNSP - D	1981593r	ICPMS Dis. Water (A13)	20240306.A13.3H	20240306.A52T
OSNSP - D	1981593r	ICPMS Tot. Water (A13.2)	20240306.A13.2K	20240306.A52R
OSNSP - D	1981593r	TDS (A27)	20240306.TM-G.A27C	
OSNSP - D	1981593r	TP Water (A23.2)	20240306.A23.2E	
OSNSP - D	1981593r	TSS (A27)	20240306.TM-G.A27B	
OSNSP - D	1981593r	Turbidity (A21)	20240306.TM-G.A21C	



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## CERTIFICATE OF ANALYSIS

Client:	Jean-Michel Giroux	Work Order Number:	528183
Company:	IAMGOLD - Cote Project	PO #:	9405
Address:	9-2140 Regent St Sudbury, ON, P3E 5S8	Regulation:	Other
		Project #:	Compliance Thrice Weekly Water Sampling Various Sites
Phone:	(705) 266-5193	DWS #:	
Email:	jean-michel_giroux@iamgold.com	Sampled By:	NM JC HN
Date Order Received:	3/8/2024	Analysis Started:	3/8/2024
Arrival Temperature:	4 C	Analysis Completed:	3/8/2024

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
OSNSP	1982433	Surface Water	None		3/6/2024	10:30 AM
OSNSP-U	1982434	Surface Water	None		3/6/2024	10:40 AM
OSNSP-D	1982435	Surface Water	None		3/6/2024	11:00 AM
OSNSP	1982436	Surface Water	None		3/7/2024	9:55 AM
OSNSP-D	1982437	Surface Water	None		3/7/2024	10:20 AM

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Field pH (R112)	Garson	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Garson	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Garson	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
TSS (A27)	Garson	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Turbidity (A21)	Garson	Determination of Turbidity by Nephelometry	Modified from APHA-2130B



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### CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 528183

### REPORT COMMENTS

Regulation Cote-Daily Compliance

This report has been approved by:

Brad Halvorson, B.Sc.

Laboratory Director

### WORK ORDER RESULTS

Sample Description	OSNSP		OSNSP - U		OSNSP - D		OSNSP		
Sample Date	3/6/2024 10:30 AM		3/6/2024 10:40 AM		3/6/2024 11:00 AM		3/7/2024 9:55 AM		
Lab ID	1982433		1982434		1982435		1982436		
Field Parameters	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Field pH	6.75	N/A	6.78	N/A	6.54	N/A	6.63	N/A	pH
Field Temp	2.9	N/A	3.5	N/A	2.9	N/A	1.9	N/A	°C

Sample Description	OSNSP - D		
Sample Date	3/7/2024 10:20 AM		
Lab ID	1982437		
Field Parameters	Result	MDL	Units
Field pH	7.04	N/A	pH
Field Temp	0.5	N/A	°C



### CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

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Sample Description	OSNSP		OSNSP - U		OSNSP - D		OSNSP		
Sample Date	3/6/2024 10:30 AM		3/6/2024 10:40 AM		3/6/2024 11:00 AM		3/7/2024 9:55 AM		
Lab ID	1982433		1982434		1982435		1982436		
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
pH	6.96	N/A	6.56	N/A	6.27	N/A	6.96	N/A	pH
Turbidity	76.20	0.06	1.53	0.06	1.58	0.06	53.50	0.06	NTU

Sample Description	OSNSP - D		
Sample Date	3/7/2024 10:20 AM		
Lab ID	1982437		
General Chemistry	Result	MDL	Units
pH	6.39	N/A	pH
Turbidity	1.77 [1.90]	0.06	NTU

Sample Description	OSNSP		OSNSP - U		OSNSP - D		OSNSP		
Sample Date	3/6/2024 10:30 AM		3/6/2024 10:40 AM		3/6/2024 11:00 AM		3/7/2024 9:55 AM		
Lab ID	1982433		1982434		1982435		1982436		
Solids	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Total Suspended Solids	52.0	1.3	3.00	0.67	3.00	0.67	37.3	1.3	mg/L

Sample Description	OSNSP - D		
Sample Date	3/7/2024 10:20 AM		
Lab ID	1982437		
Solids	Result	MDL	Units
Total Suspended Solids	4.0 [4.0]	1.3	mg/L



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## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 528183

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

MDL: Method detection limit or minimum reporting limit.

[ ]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

Organic Soil Analysis: Data reported for organic analysis in soils samples are corrected for moisture content.

Quality Control: All associated Quality Control data is available on request.

LCL: Lower Control Limit.

UCL: Upper Control Limit.

QAQCID: This is a unique reference to the quality control data set used to generate the reported value. Contact our lab for this information, as it is traceable through our LIMS.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.

Reproduction of Report: Report shall not be reproduced, except in full, without the approval of Testmark Laboratories Ltd.

ICPMS Dustfall Insoluble: The ICPMS Dustfall Insoluble Portion method analyzes only the particulate matter from the Dustfall Sampler which is retained on the analysis filter during the Dustfall method.

Regulation Comparisons: Disclaimer: Please note that regulation criteria are provided for comparative purposes, however the onus on ensuring the validity of this comparison rests with the client.



**CERTIFICATE OF ANALYSIS**

IAMGOLD - Cote Project

Work Order Number: 528183

**QUALITY CONTROL DATA**

THIS SECTION REPORTS QC RESULTS ASSOCIATED WITH THE TEST BATCH; THESE ARE NOT YOUR SAMPLE RESULTS. QAQC details include only values where sufficient sample data allowed measurement.

General Chemistry							
<b>Method Blank: LRB-6 (Blank) (6)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Turbidity	0.1	NTU	0	0.14	0.3	20240308.TM-G.A21B	
<b>Positive Control: Gel-0to10 (5)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Turbidity	0.1	NTU	4.75	5.07	5.24	20240308.TM-G.A21B	
<b>Positive Control: Gel-0to100 (7)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Turbidity	0.1	NTU	50.8	53.5	56.2	20240308.TM-G.A21B	
<b>Positive Control: Gel-0to1000 (7)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Turbidity	0.1	NTU	431	455	477	20240308.TM-G.A21B	
<b>Positive Control: pH 8.0 (8)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
pH	N/A	pH	7.8	8.09	8.2	20240308.A2.0B	
<b>Sample Replicate: % RPD (8)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
Turbidity	N/A	%	0	7.1	20	20240308.TM-G.A21B	
<b>Sample Replicate: % RPD (9)</b>							
Parameter	MDL	Units	LCL	Result	UCL	QAQCID	
pH	N/A	% Rec	0	0	0.2	20240308.A2.0B	



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## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 528183

### Solids

#### Blank: LRB-6 (Blank) (6)

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Suspended Solids	0.67	mg/L	0	<0.67	10	20240308.TM-G.A27B

#### Positive Control: LFB-7 (250 mg/L) (7)

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Total Suspended Solids	2	mg/L	212.5	213	287.5	20240308.TM-G.A27B



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## CERTIFICATE OF ANALYSIS

IAMGOLD - Cote Project

Work Order Number: 528183

THIS INDEX SHOWS HOW YOUR SAMPLES ARE ASSOCIATED TO THE CONTROLS INCLUDED IN THE IDENTIFIED BATCHES.

Sample Description	Lab ID	Method	QAQCID	Prep QAQCID
OSNSP	1982433	Field pH (R112)	20240308.R112B	
OSNSP	1982433	Field Temp (R113)	20240308.R113B	
OSNSP	1982433	pH of Water (A2.0)	20240308.A2.0B	
OSNSP	1982433	TSS (A27)	20240308.TM-G.A27B	
OSNSP	1982433	Turbidity (A21)	20240308.TM-G.A21B	
OSNSP	1982436	Field pH (R112)	20240308.R112B	
OSNSP	1982436	Field Temp (R113)	20240308.R113B	
OSNSP	1982436	pH of Water (A2.0)	20240308.A2.0B	
OSNSP	1982436	TSS (A27)	20240308.TM-G.A27B	
OSNSP	1982436	Turbidity (A21)	20240308.TM-G.A21B	
OSNSP - D	1982435	Field pH (R112)	20240308.R112B	
OSNSP - D	1982435	Field Temp (R113)	20240308.R113B	
OSNSP - D	1982435	pH of Water (A2.0)	20240308.A2.0B	
OSNSP - D	1982435	TSS (A27)	20240308.TM-G.A27B	
OSNSP - D	1982435	Turbidity (A21)	20240308.TM-G.A21B	
OSNSP - D	1982437	Field pH (R112)	20240308.R112B	
OSNSP - D	1982437	Field Temp (R113)	20240308.R113B	
OSNSP - D	1982437	pH of Water (A2.0)	20240308.A2.0B	
OSNSP - D	1982437	TSS (A27)	20240308.TM-G.A27B	
OSNSP - D	1982437	Turbidity (A21)	20240308.TM-G.A21B	
OSNSP - D	1982437r	TSS (A27)	20240308.TM-G.A27B	
OSNSP - D	1982437r	Turbidity (A21)	20240308.TM-G.A21B	
OSNSP - U	1982434	Field pH (R112)	20240308.R112B	
OSNSP - U	1982434	Field Temp (R113)	20240308.R113B	
OSNSP - U	1982434	pH of Water (A2.0)	20240308.A2.0B	
OSNSP - U	1982434	TSS (A27)	20240308.TM-G.A27B	
OSNSP - U	1982434	Turbidity (A21)	20240308.TM-G.A21B	