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Report: Monthly Dust Deposition Monitoring
September 2026

Prepared for

RICHARDS BAY CLEAN AIR ASSOCIATION

TEST REPORT: AS1751 46.894

14 September 2026

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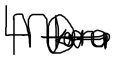
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Site:	Richards Bay Clean Air Association
Date of Sampling:	04 August – 03 September 2026
Date of Laboratory Analysis:	11 September 2026
Date of Report:	14 September 2026
Report Reference:	AS1751 46.894

Report Compiled By: Lefu Mokoena

Designation: Junior Reporting Specialist

Signature: 

Report Authorised By: Caylee Ellero

Designation: Technical Signatory

Signature: 

The Technical Signatory hereby declares that, to the best of his/her knowledge, the analytical data was checked for completeness, the results presented in this report are accurate and legible, and analysis was conducted in accordance with the methods in the approved protocol.

Disclaimer:

1. *Sampling was conducted by the SKYSIDE (South Africa) team under supervision of SKYSIDE Technical Signatories.*
2. *The results contained in this report relate only to the streams tested and to the conditions prevalent during such tests.*
3. *In certain instances, generally identified, SKYSIDE relied on information provided by third parties. It was not possible to verify all such information independently.*
4. *The report includes the most pertinent calibration evidence and field data, but further traceability and similar data not considered immediately relevant is available at SKYSIDE offices if required. Signed calibration certificates are available on request.*
5. *This test report may not be reproduced except in full.*
6. *SKYSIDE is accredited for compliance with ISO/IEC 17025:2017.*
7. *Results marked "Not SANAS Accredited" or otherwise marked with # in this report are not included in the SANAS Scope of Accreditation for SKYSIDE.*
8. *Opinions and interpretations expressed herein are outside the scope of SANAS accreditation.*
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1 INTRODUCTION

1.1 Scope of Work

SKYSIDE South Africa's understanding of the scope of work at Richards Bay Clean Air Association is as follows:

- SKYSIDE SA changes dust samples on a monthly basis.
- Gravimetric analysis of dust samples by SKYSIDE SA on a monthly basis.
- Reporting of results.

The dust deposition monitoring was based on the ASTM International standard method for collection and analysis of dustfall (ASTM D1739), with certain modifications.

The results presented in this report are compared to the South African National Dust Control Regulation, 2013.

1.2 Glossary / Abbreviations

Measurement Units	
L	Litres
m	Metres
mg/m^2/day	Milligrams per metre squared per day
ml	Millilitres
mm	Millimetres

Other	
ISO 17025	International Standard: General requirements for the competence of testing and calibration laboratories.
SANAS	South African National Accreditation System, established by Section 3 of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006.

2 METHODOLOGY

Dustfall monitoring at Richards Bay Clean Air Association began in September 2023. Windblown settleable dust fall-out is monitored based on the ASTM International standard method for collection and analysis of Dustfall (ASTM D1739), with certain modifications. This method employs a simple device consisting of a cylindrical 5 L container half-filled with deionised water exposed for one calendar month (30 ± 3 days). The water is treated with an inorganic algaecide to prevent algal growth in the buckets. The reagent used for this is a 5 % copper sulphate solution.



Figure 1: Single bucket monitoring unit, showing a sampling bucket with bird ring and security clamp.

The bucket stand comprises a ring that is raised above the rim of the bucket to prevent contamination from perching birds (Figure 1). The bucket holder is connected to a 2.1 m galvanised steel pole, which is either directly attached to a fence post or can be attached to a galvanised steel base plate, which is buried to a depth of 500 mm. This allows for a variety of placement options for the fallout samplers. Exposed buckets, when returned to the SKYSIDE SA laboratories, are rinsed with deionised water to remove residue from the sides of the bucket, and the bucket contents filtered through a 1 mm sieve to remove insects and other coarse organic detritus. The sample is then filtered through a pre-weighed paper filter to remove the insoluble fraction, or dust fallout. This residue and filter are dried and gravimetrically analysed to determine the insoluble fraction (dust fallout).

3 STANDARDS FOR DUST DEPOSITION

3.1 National Environmental Management: Air Quality Act, 2004; (Act No. 39 of 2004) National Dust Control Regulations

Table 3: Extract from the National Dust Control Regulations, No. 36974 Government Gazette, 1 November 2013

Restriction Areas	Dustfall rate (D) (mg/m^2/day, 30-days average)	Permitted frequency of exceeding dust fall rate
Residential area	D < 600	Two within a year, not sequential months
Non-residential area	600 < D < 1200	

The method to be used for measuring Dustfall rate and the guideline for locating sampling points shall be ASTM D1739, or equivalent method approved by any internationally recognized body.

3.2 Residential and non-residential areas

A residential area means any area classified for residential use in terms of local town planning scheme.

A non-residential area means any area not classified for residential use as per local town planning scheme.

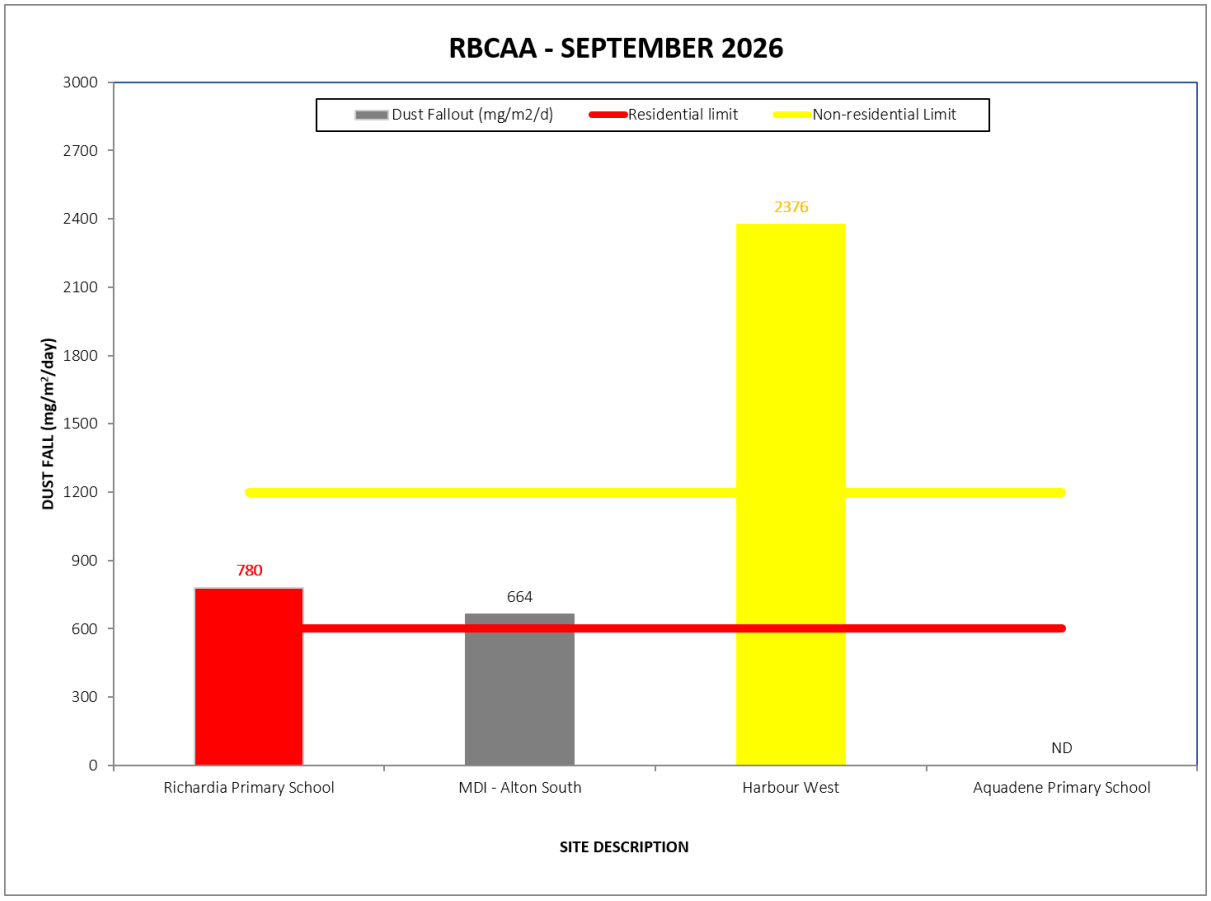
4 RESULTS

4.1 Operational Aspects

The sampling was 04 August – 03 September 2026. Samples were exposed for 30 days; this exposure period complies with the standard operating procedure of 30 ± 3 days. Site 4 (Aquadene Primary School) recorded no data for the period in review, due to the sample bucket being contaminated with organic matter. There were no additional operational problems encountered and a sample return of 75 % was achieved for the single buckets.

4.2 Single Bucket Results

Figure 2: Single bucket dustfall results for Richards Bay Clean Air Association during September 2026



BOLD RED – Residential Exceedance; **BOLD YELLOW** – Non-Residential Exceedance; ND- No Data, sample contaminated

- During the monitoring period in review, Site 03 (Harbour West) recorded the highest dustfall with a rate of **2376** mg/m^2/day.
- Site 02 (MDI – Alton South) recorded the lowest dustfall with a rate of 664 mg/m^2/day.

4.3 Exceedance Reporting

The table below provides information on exceedances from October 2025 to September 2026.

Table 4.3.1: Exceedances for October 2025 to September 2026

Period	Number of sites that have exceeded dust fall limits	Site Description
Current month	2	Site 01 (Richardia Primary School) Site 03 (Harbour West)
Previous 11 months	3	Site 01 (Richardia Primary School) (3) – March, May, and July 2026 Site 03 (Harbour West) (1) – August 2026 Site 04 (Aquadene Primary School) (3) – February, July, and August 2026
Consecutive months	2	Site 03 (Harbour West) (1) – August – September 2026 Site 04 (Aquadene Primary School) (1) – July – August 2026

Please note that compliance with respect to the National Dust Control Regulations is provisional as the site classifications in terms of these regulations will need to be confirmed by the client by considering the town planning of the area of operation.

4.4 Meteorological Data

SKYSIDE SA is not accredited for the acquisition and reporting of meteorological data. The data has been provided by Richards Bay Clean Air Association at the Arboretum Weather Station. SKYSIDE SA will not take responsibility for any errors that may occur in the acquisition and transmission of data.

Figure 3: Wind rose in Google Earth depicting the wind profile for the period 04 August – 03 September 2026

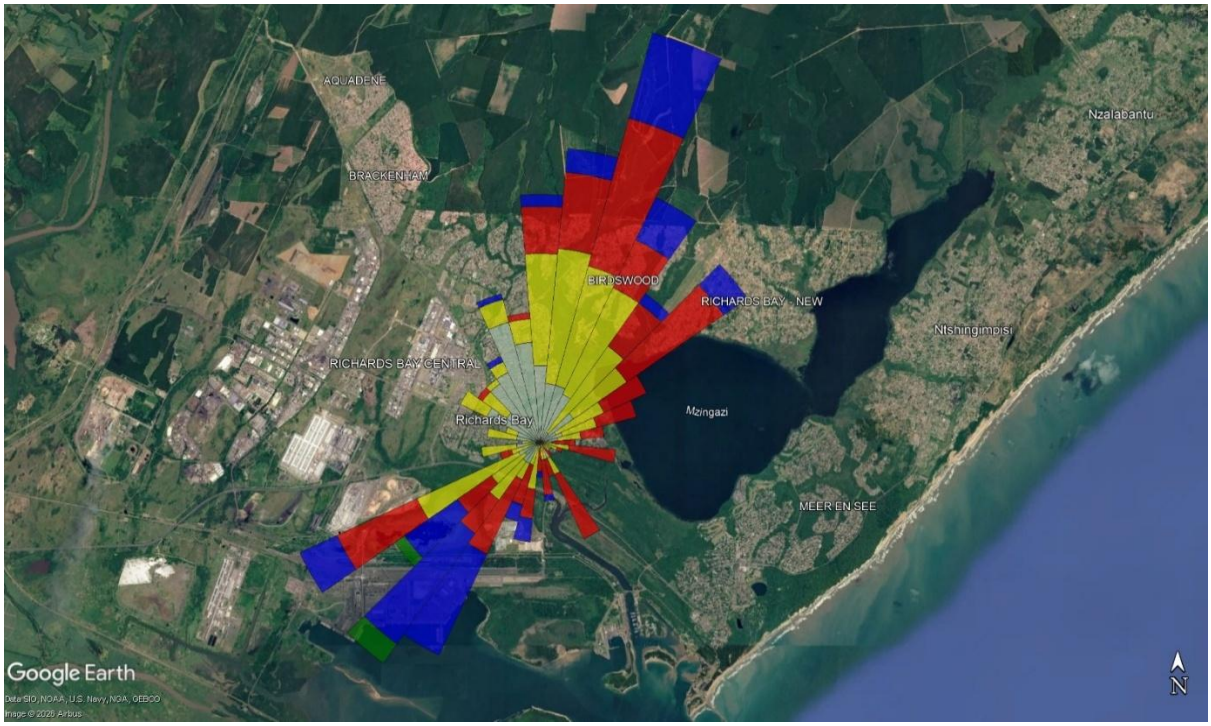
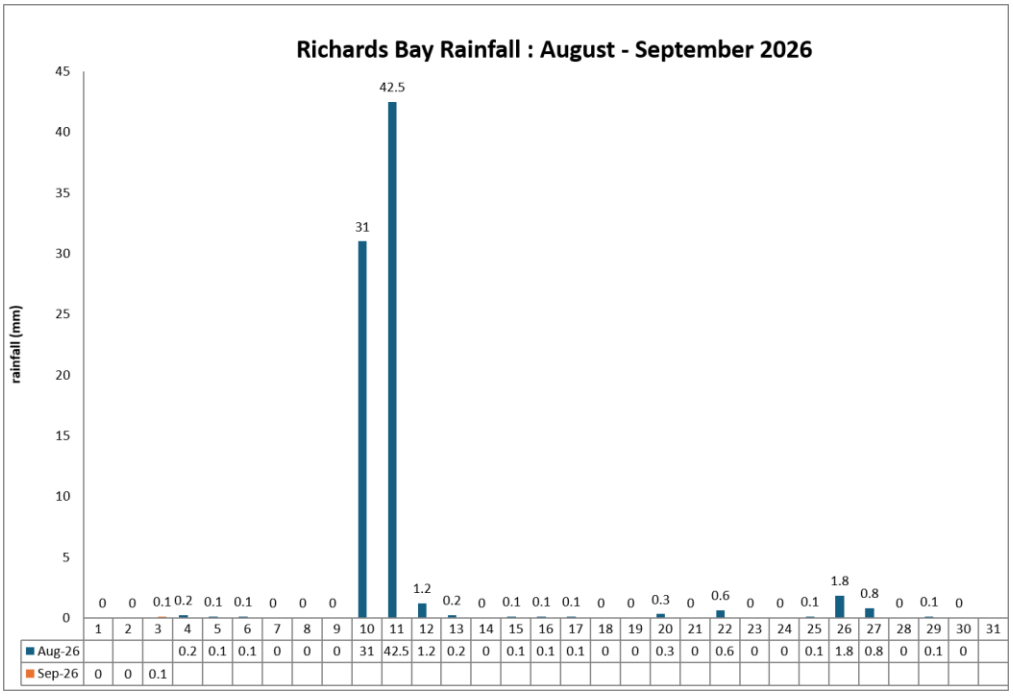


Figure 4: Rainfall for the Richards Bay area for the period 04 August – 03 September 2026



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Aug-26				0.2	0.1	0.1	0	0	0	31	42.5	1.2	0.2	0	0.1	0.1	0.1	0	0	0.3	0	0.6	0	0	0.1	1.8	0.8	0	0.1	0	
Sep-26	0	0	0.1																												

5 CONCLUSIONS

During the monitoring period in review, Site 03 (Harbour West) recorded dustfall rates exceeding the NON-RESIDENTIAL limit. The remaining NON-RESIDENTIAL site recorded dust fall rates within the NON-RESIDENTIAL threshold.

Site 4 (Aquadene Primary School) recorded no data for the period in review, due to the sample bucket being contaminated with organic matter. During the monitoring period in review, Site 01 (Richardia Primary School) recorded dustfall rates exceeding the RESIDENTIAL limit. The remaining RESIDENTIAL site recorded no data due to the sample bucket being contaminated with organic matter.

6 APPENDICES

6.1 Appendix 1: Results

RICHARDS BAY CLEAN AIR ASSOCIATION DUSTFALL MONITORING			Month: September 2026 Sampling period: 04 August – 03 September 2026		
SITE DESCRIPTION	**SITE CLASSIFICATION**	**FILTER No.**	**NETT MASS (mg)**	**No. DAYS**	**DUST FALLOUT (mg/m²/day)**
Richardia Primary School	RESIDENTIAL	DA096	531	30	**780**
MDI - Alton South	NON-RESIDENTIAL	DA087	452	30	664
Harbour West	NON-RESIDENTIAL	DA085	1618	30	**2376**
Aquadene Primary School	RESIDENTIAL	--	--	30	ND

BOLD RED – Residential Exceedance; **BOLD YELLOW** – Non-Residential Exceedance; ND- No Data, sample contaminated

Please note that compliance with respect to the National Dust Control Regulations is provisional as the site classifications in terms of these regulations will need to be confirmed by the client by considering the town planning of the area of operation.

Specific Test Conditions	Samples stored at room temperature prior to analysis. Filters weighed at constant mass
Deviations from Method	None
Measurement Uncertainty	± 5%

Table 1. Dust fall recorded at Richard's Bay Clean Air Association's single bucket sites for the period October 2025 – September 2026

Site	SITE 01	SITE 02	SITE 03	SITE 04	SITE 05	SITE 06
Month	**Richardia Primary School**	**MDI - Alton South**	**Harbour West**	**Aquadene Primary School**	**Lizwi Secondary School**	**CBD**
OCT 25	ND	537	621	338	185	212
NOV 25	ND	455	517	168	166	159
DEC 25	ND	339	578	230	101	154
JAN 26	116	344	377	102	95	ND
FEB 26	311	406	538	**834**	219	109
MAR 26	**748**	405	537	488	D/C	D/C
APR 26	145	356	493	ND	D/C	D/C
MAY 26	**627**	443	614	ND	D/C	D/C
JUN 26	ND	463	652	ND	D/C	D/C
JUL 26	**1493**	417	647	**1215**	D/C	D/C
AUG 26	439	608	**1416**	**2729**	D/C	D/C
SEP 26	**780**	664	**2376**	ND	D/C	D/C

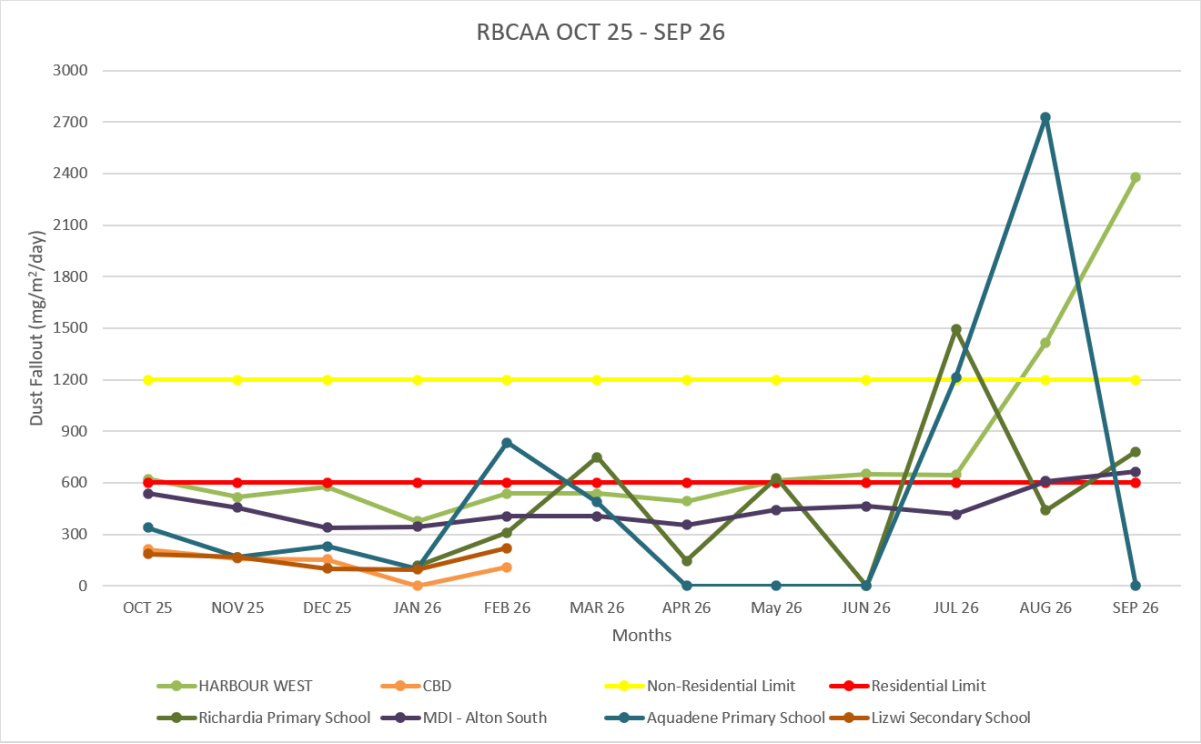
BOLD YELLOW – Non-Residential Exceedance

BOLD RED – Residential Exceedance

ND – No data due to the sample being contaminated with organic matter

D/C – Decommissioned

Figure 5. Dust fall recorded at Richard's Bay Clean Air Association's single bucket sites for the period OCT 2025 – SEP 2026



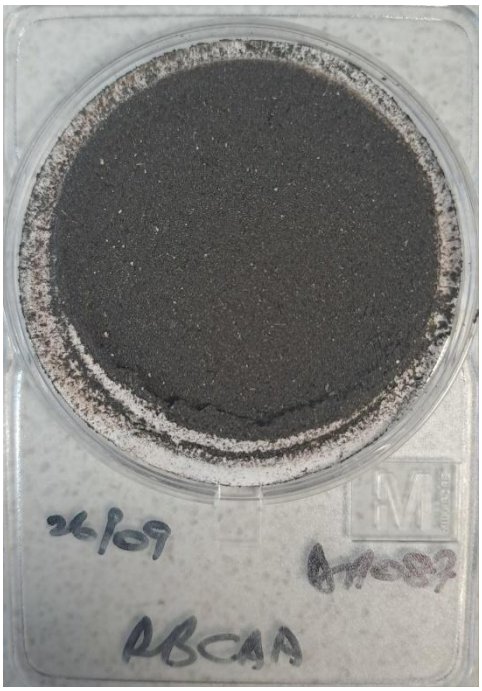
6.2 Appendix 2: Sampling Locations



SITE DESCRIPTION	LATITUDE	LONGITUDE
Richardia Primary School	28° 45’ 46.5”S	32° 03’ 58.1” E
MDI - Alton South	28° 45’ 41.2”S	32° 00’ 26.2” E
Harbour West	28°47'14"S	32° 1'37"E
Aquadene Primary School	28° 42’ 45.9”S	32° 02’ 04.6” E
Lizwi Secondary School*	28° 44’ 32.2”S	32° 05’ 56.2” E
CBD*	28°44'41"S	32°3'17"E

* Decommissioned

6.3 Appendix 3: Non-Exceedance Filters



SITE 02 – MDI – Alton South – 664 mg/m^2/day

6.4 Appendix 4: Exceedance Filters

	
SITE 01 – Richardia Primary School – **780** mg/m^2/day	SITE 04 – Harbour West – **2376** mg/m^2/day

6.5 Appendix 5: Bucket Images



SITE 01 – Richardia Primary School



SITE 02 – MDI – Alton South



SITE 03 – Harbour West

6.6 Appendix 6: Contaminated Bucket Image



SITE 04 – Aquadene Primary School

6.7 Appendix 7: Logsheet

skYSIDE	SHEQ MANAGEMENT SYSTEM SINGLE BUCKET LOGSHEET (LONG TERM PROJECT)	Doc. Number:	AQS-QLT-FOR-039
		Revision:	00
		Date Issued:	23 March 2026
		Effective From:	01 April 2026

Date: 03/09/2026
Month: September
Operator 1: Nwenama
Operator 2: Thabo

Project Name: RBCAA
Project Code: AS 1751

Site Description	Site Code	Time of Sample Change	Buckets Removed	Bucket Replaced	Remarks
RICHARDIA PRIMARY	SITE01	07:48	DA 096	DA 092	Water.
M.D.I ALTON SOUTH	SITE02	0706:13	DA 087	DA 086	Water.
HARBOUR WEST	SITE03	08:00	DA 085	DA 094	Wate
AQUADENE SECONDARY SCHOOL	SITE04	07:31	~~DA 090~~	DA 091	Water / Cake residue

Field Officer
Total Buckets to Site: 4
Total Buckets from Site: 4
No. of Extra Buckets to Site: 0
0

Received By: Nwenama
Collected By: Thabo
Date: 03/09/26
Date: 03/09/26

No. of Extra Buckets from Site

Any samples Abnormalities?Yes/No *(If Yes Describe the Abnormalities and alert Reporter immediately)*
Site 04 - the Sample had brown water and Some white Flakes.

Acknowledgement of Reporter(Name): Caylee | Signature | Date: 03/09/26

skYSIDE
SHEQ MANAGEMENT SYSTEM
SINGLE BUCKET LOGSHEET (LONG TERM PROJECT)
Doc. Number: AQS-QLT-FOR-039
Revision: 00
Date Issued: 23 March 2026
Effective From: 01 April 2026

Laboratory (Filtration, weighing,etc.)

Total Buckets to Lab: 3 | Received By | Date: 11/9/26

Total Buckets / Samples Processed (Filtration & Weighing): 3 | Received By | Date: 11/9/26

Any samples Abnormalities?Yes/No *(If Yes Describe the Abnormalities and alert Reporter immediately)*

Acknowledgement of Reporter(Name): Caylee | Signature | Date: 11/9/26

Comments: *(Any description or even that can affect the quality of results)*