West Bio-Chemical
WATER ANALYTICAL LABORATORY

TRANSNET

February 2025

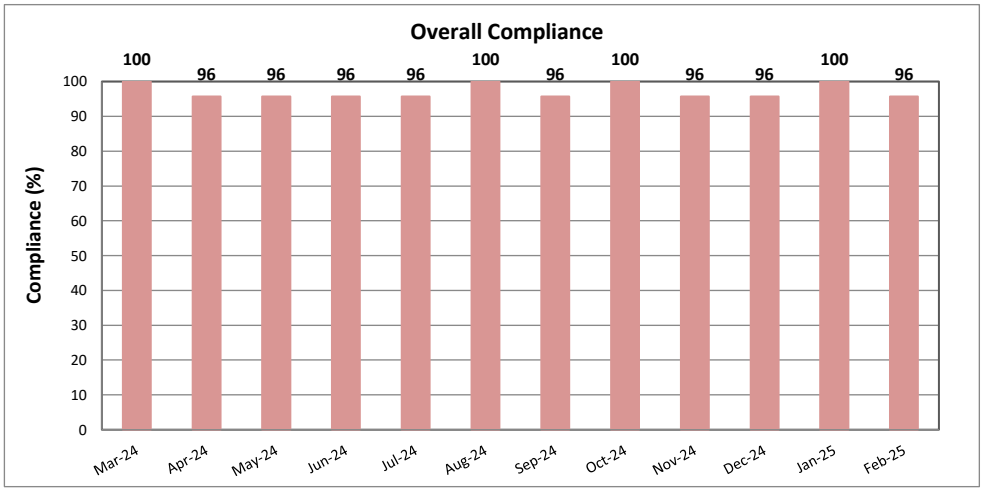
Bellville Locomotives Depot

Saltriver

Site Information

Date of Sampling	04/02/2025
Sampling Point Identification	33°54,970'S 18°37,263'E
Depot	Bellville Locomotives Depot
Region	Saltriver
Treatment Technology	Ultra-Spin
Design Information	Not available/Unknown
Design/Current Capacity	Not available/Unknown
Flow Meter	None
Responsible Authority	City of Cape Town Metropolitan Municipality
Discharge Point	Municipal sewer

Compliance History



Findings

Overall Compliance	96%		
Non-compliant Parameters	Boron		
Plant Operational	Yes	No	n/a
Maintenance	Yes	Partial	None
Site Neatness	Yes	No	Spillage
Access	Easy	Difficult	Risk

Recommendation(s)

Site Visit Photo

Compliance Summary

February 2025

Parameter	Temperature		pH Value		EC		COD		TSS		Chloride		Sulphate		Oil & Grease		Phosphate		Ammonia	
Month	40°C		5.5.0 - 12.0		250 mS/m		5000 mg/l		1000 mg/l		1500 mg/l		1500 mg/l		400 mg/l		25 mg/l		200 mg/l	
March 2024	27.1	C	7.1	C	60	C	353	C	74	C	129	C	41	C	0	C	1	C	6	C
April 2024	20.2	C	7.6	C	60	C	150	C	41	C	113	C	74	C	3	C	0	C	7	C
May 2024	13.6	C	8.1	C	169	C	200	C	18	C	123	C	307	C	0	C	0	C	2	C
June 2024	14.4	C	7.2	C	119	C	1112	C	140	C	108	C	0	C	1	C	0	C	6	C
July 2024	14.2	C	7.4	C	98	C	1828	C	253	C	158	C	0	C	1	C	0	C	3	C
August 2024	18.9	C	6.9	C	42	C	148	C	12	C	48	C	56	C	24	C	0	C	0	C
September 2024	22.0	C	6.9	C	61	C	421	C	23	C	64	C	17	C	1	C	0	C	0	C
October 2024	26.7	C	7.1	C	74	C	635	C	41	C	114	C	15	C	7	C	0	C	1	C
November 2024	27.7	C	7.4	C	128	C	463	C	36	C	171	C	50	C	0	C	0	C	5	C
December 2024	30.4	C	6.7	C	166	C	4211	C	601	C	356	C	0	C	0	C	0	C	13	C
January 2025	27.6	C	7.4	C	27	C	15	C	7	C	26	C	20	C	0	C	0	C	0	C
February 2025	22.3	C	7.2	C	112	C	804	C	170	C	115	C	13	C	1	C	0	C	5	C

Parameter	Arsenic		Boron		Cadmium		Chromium		Cobalt		Copper		Iron		Lead		Manganese		Mercury	
Month	5 mg/l		5 mg/l		5 mg/l		10 mg/l		mg/l		20 mg/l		50 mg/l		5 mg/l		mg/l		5 mg/l	
March 2024	0.0	C	0.0	C	0.0	C	0.0	C	0.0		0.0	C	0.0	C	0.0	C	0.0		0.0	C
April 2024	0.0	C	15.0	N	0.0	C	0.0	C	0.0		0.0	C	10.0	C	0.0	C	0.5		0.0	C
May 2024	0.0	C	24.0	N	0.0	C	0.0	C	0.0		0.0	C	7.1	C	0.0	C	0.3		0.0	C
June 2024	0.0	C	19.0	N	0.0	C	0.0	C	0.0		0.1	C	19.0	C	0.1	C	0.8		0.0	C
July 2024	0.0	C	5.8	N	0.0	C	0.0	C	0.0		0.1	C	21.0	C	0.1	C	0.6		0.0	C
August 2024	0.0	C	3.7	C	0.0	C	0.0	C	0.0		0.0	C	7.0	C	0.0	C	0.2		0.0	C
September 2024	0.0	C	5.1	N	0.0	C	0.0	C	0.0		0.1	C	13.0	C	0.0	C	0.5		0.0	C
October 2024	0.0	C	1.8	C	0.0	C	0.0	C	0.0		0.1	C	17.0	C	0.0	C	0.5		0.0	C
November 2024	0.0	C	13.0	N	0.0	C	0.0	C	0.0		0.0	C	6.8	C	0.0	C	0.5		0.0	C
December 2024	0.0	C	16.0	N	0.0	C	0.0	C	0.0		0.0	C	41.0	C	0.0	C	1.6		0.0	C
January 2025	0.0	C	0.3	C	0.0	C	0.0	C	0.0		0.5	C	1.5	C	0.1	C	0.0		0.0	C
February 2025	0.0	C	12.0	N	0.0	C	0.0	C	0.0		0.0	C	31.0	C	0.0	C	0.8		0.0	C

C = Compliant N = Non-compliant NS = No Sample Received NA = Unable to Analyse

Compliance Summary

February 2025

Parameter	Molybdenum		Nickel		Selenium		Silver		Sodium		Titanium		Zinc	
Month	mg/l		5 mg/l		5 mg/l		mg/l		1000 mg/l		5 mg/l		30 mg/l	
March 2024	0.0		0.0	C	0.0	C	0.0		174	C	0.0	C	0.0	C
April 2024	0.0		0.0	C	0.0	C	0.0		201	C	0.0	C	0.3	C
May 2024	0.0		0.0	C	0.0	C	0.0		276	C	0.0	C	0.8	C
June 2024	0.0		0.0	C	0.0	C	0.0		195	C	0.0	C	1.3	C
July 2024	0.0		0.0	C	0.0	C	0.0		136	C	0.0	C	0.8	C
August 2024	0.0		0.0	C	0.0	C	0.0		45.0	C	0.0	C	0.4	C
September 2024	0.0		0.0	C	0.0	C	0.0		588	C	0.0	C	0.6	C
October 2024	0.0		0.0	C	0.0	C	0.0		79.0	C	0.0	C	0.6	C
November 2024	0.0		0.0	C	0.0	C	0.0		166	C	0.0	C	0.1	C
December 2024	0.0		0.0	C	0.0	C	0.0		240	C	0.0	C	0.1	C
January 2025	0.0		0.0	C	0.0	C	0.0		36.0	C	0.0	C	1.0	C
February 2025	0.0		0.0	C	0.0	C	0.0		203	C	0.0	C	0.8	C

C = Compliant N = Non-compliant NS = No Sample Received NA = Unable to Analyse

CERTIFICATE OF ANALYSES

CONFIDENTIAL

Identification	SLR Bellville Diesel Loco	Report/Lab number	0252/25
Customer	Transnet Engineering	Date Sampled	04/02/2025
Contact Person	Mmalaka Phejane	Date Received	07/02/2025
Contact number	012 391 1320	Date Started-Completed In-house	07-21/02/2025
Email Address	Mmalaka.Phejane@transnet.net	Sub Completed	21/02/2025
Physical Address	160 Lynette Street, Kilner Park, Pretoria	Date of Report	24/02/2025

ANS	Determinants	Unit	Method	Sample ID
				0252-01
N	Temperature	°C	-	22.3
A	pH Value at 25°C	-	LA001	7.2
A	Conductivity	mS/m	LA003	112
A	Chemical Oxygen Demand	mg/l	LA013	804
N	Total Suspended Solids	mg/l	LA006	170
A	Chloride - Cl	mg/l	LA029	115
A	Sulphate - SO_4	mg/l	LA030	13
S	Oil & Grease	mg/l	-	0.60
A	Ortho-Phosphate - P	mg/l	LA028	<1.0
A	Ammonia - NH_3 as N	mg/l	LA033	5.1
S	Arsenic - As	mg/l	-	<0.001
S	Boron - B	mg/l	-	12
S	Cadmium - Cd	mg/l	-	0.001
S	Chromium - Cr	mg/l	-	0.029
S	Cobalt - Co	mg/l	-	<0.025
S	Copper - Cu	mg/l	-	<0.010
S	Iron - Fe	mg/l	-	31
S	Lead - Pb	mg/l	-	0.032
S	Manganese - Mn	mg/l	-	0.832
S	Mercury - Hg	mg/l	-	<0.001
S	Molybdenum - Mo	mg/l	-	<0.001
S	Nickel - Ni	mg/l	-	<0.025
S	Selenium - Se	mg/l	-	0.001

NA - No Analysis done due to incompatible sample matrix; **A** – SANAS Accredited Method, **N** – Method Not Accredited – Results marked "N" in this report are not included in the SANAS Schedule of Accreditation for this laboratory; **S** – indicates Subcontracted Test - Results marked "Subcontracted Test" in this report are not included in the SANAS Schedule of Accreditation for this laboratory. Results only apply to the samples as received and tested.

Uncertainty of Measurement data (for methods included in the SANAS Schedule of Accreditation) is available on request, as are dates of analysis for each parameter tested. The report shall not be reproduced except in full without approval of the laboratory. Sampling dates and sample identification are given from information provided by the customer.

R Lax
Technical Signatory

CERTIFICATE OF ANALYSES

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ANS	Determinants	Unit	Method	Sample ID
				0252-01
S	Silver - Ag	mg/l	-	<0.025
S	Sodium - Na	mg/l	-	203
S	Titanium - Ti	mg/l	-	<0.03
S	Zinc - Zn	mg/l	-	0.780
End of Certficate				

Comments (sample damages/leakages, also state if this report replaces any other report (ammended) :

NA - No Analysis done due to incompatible sample matrix; **A** – SANAS Accredited Method, **N** – Method Not Accredited – Results marked "N" in this report are not included in the SANAS Schedule of Accreditation for this laboratory; **S** – indicates Subcontracted Test - Results marked "Subcontracted Test" in this report are not included in the SANAS Schedule of Accreditation for this laboratory. Results only apply to the samples as received and tested.

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