

National Petroleum Refiners of South Africa (Pty) Ltd

Reg No 1967/012994/07
PO Box 234 Sasolburg 1947
Republic of South Africa
Jan Haak Road Sasolburg 1947
Telephone: +27 (0)16 940 9111
Fax: +27 (0)16 976 0330 (Financial and Administration)
+27 (0)16 940 2499 (Human Resources)



T0127


NATREF LABORATORY CERTIFICATE OF QUALITY
FUEL OIL 150 LOCAL
PRODUCT CODE: 12/51

Date Sampled : 27 MAR 2025
Date Received : 27 MAR 2025
Date Analysed : 27 MAR 2025
Tank No : F29313
Certificate No : 25/10/61
Batch No : 12/51/313/94

Property	Units	Limits	Results	Test method			Note
				ASTM / IP	Other	Method Used	
Energy Content (gross)	kJ/kg	41800 min	42486	D240		D240	
Kinematic Viscosity @ 50 degC	cSt	90 - 150	131.7	D445*		D445*	
Flash Point (closed P.M) at 101.325 kPa (Procedure B)	degC	55.0 min	91.0	D93*		D93*	
Pour Point 1 October - 31 March	degC	+9 max	-21	D5950/D97		D5950	
Total Sulphur	mass %	2.50 max	2.19	D1266/D5453*/IP336/D2622/D4294*/IP373/IP447		D4294*	
Water Content	vol %	0.5 max	0.05	D95		D95	
Ash	mass %	0.1 max	0.02	D482/IP4	ISO6245	D482	
Metals (Aluminium + Silicon)	mg/kg	Report	20	IP501/IP377/IP470		IP501	1,7
Density @ 20 degC	kg/l	Report	1.0057	D4052*	ISO 12185	D4052*	
Aluminium	mg/kg	Report	11	IP470/IP501/IP377		IP501	1,7
Silicon	mg/kg	Report	9	IP470/IP501/IP377		IP501	1,7
Vanadium	mg/kg	Report	16.64	D5185/IP285		D5185	1,7
Sediment by Extraction	mass %	0.2 max	0.04	D473		D473	
Total Sediment	mass %	0.2 max	0.04	IP390/IP375		IP390/IP375	5
Asphaltene content	mass %	Report	0.79		UOP_614	UOP_614	2,7
Copper Corrosion (3h @ 100 degC)		Report	3B	D130/IP154	ISO2160	D130	3,7
Carbon Hydrogen Nitrogen (CHN) Ratio				D5291			4,6,7
Carbon	mass %	Report	87.31	D5291		D5291	
Hydrogen	mass %	Report	10.50	D5291		D5291	
Nitrogen	mass %	Report	0.06	D5291		D5291	
Kinematic Viscosity @ 100 degC	cSt	Report	19.44	D445*		D445*	2,6,7

NOTES:

1. Analysis conducted once per week and reported on all results.
2. Analysis conducted once in 3 months and reported on all results.
3. Analysis conducted once in 6 months and reported on all results.
4. Analysis conducted once in 2 years and reported on all results.
5. Results only available after 24 hours and it is not a part of prelim certificate
6. Analysis subcontracted to a third party laboratory
7. The results are not from the same batch.

Measurement of uncertainty and decision rule of results is available at the customer's request.
The sampling of petroleum and petroleum product is done according to the method ASTM D4057.

Non-Accredited methods in this certificate are not marked with an asterisk (*) and are not included in the SANAS schedule of accreditation.

DISCLAIMER STATEMENT:

"I, the undersigned, hereby declares that all necessary checks as required by the quality system have been verified to be correct thus accepts the responsibility for the contents of this certificate of analysis."

"This report shall not be reproduced except in full without the approval of the laboratory."

Date Sampled : 27 MAR 2025
Date Received : 27 MAR 2025
Date Analysed : 27 MAR 2025
Tank No : F29313
Certificate No : 25/10/61
Batch No : 12/51/313/94

Signature :

Name :

Technical Signatory

Date: 31.03.2025

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NATREF LABORATORY CERTIFICATE OF QUALITY

FUEL OIL 150 LOCAL

PRODUCT CODE: 12/51

Date Sampled : 29 MAR 2025
Date Received : 29 MAR 2025
Date Analysed : 29 MAR 2025
Tank No : F29314
Certificate No : 25/10/62
Batch No : 12/51/314/95

Property	Units	Limits	Results	Test method			Note
				ASTM / IP	Other	Method Used	
Energy Content (gross)	kJ/kg	41800 min	42568	D240		D240	
Kinematic Viscosity @ 50 degC	cSt	90 - 150	141.7	D445*		D445*	
Flash Point (closed P.M) at 101.325 kPa (Procedure B)	degC	55.0 min	97.0	D93*		D93*	
Pour Point 1 October - 31 March	degC	+9 max	-21	D5950/D97		D5950	
Total Sulphur	mass %	2.50 max	2.24	D5453*/IP336/D2622/D4294*/IP373/IP447		D4294*	
Water Content	vol %	0.5 max	0.3	D95		D95	
Ash	mass %	0.1 max	0.02	D482/IP4	ISO6245	D482	
Metals (Aluminium + Silicon)	mg/kg	Report	13	IP501/IP377/IP470		IP501	1,7
Density @ 20 degC	kg/l	Report	0.9994	D4052*	ISO 12185	D4052*	
Aluminium	mg/kg	Report	5	IP470/IP501/IP377		IP501	1,7
Silicon	mg/kg	Report	8	IP470/IP501/IP377		IP501	1,7
Vanadium	mg/kg	Report	29.78	D5185/IP285		D5185	1,7
Sediment by Extraction	mass %	0.2 max	0.03	D473		D473	
Total Sediment	mass %	0.2 max	0.02	IP390/IP375		IP390/IP375	5
Asphaltene content	mass %	Report	0.79		UOP_614	UOP_614	2,7
Copper Corrosion (3h @ 100 degC)		Report	3B	D130/IP154	ISO2160	D130	3,7
Carbon Hydrogen Nitrogen (CHN) Ratio				D5291			4,6,7
Carbon	mass %	Report	87.31	D5291		D5291	
Hydrogen	mass %	Report	10.50	D5291		D5291	
Nitrogen	mass %	Report	0.06	D5291		D5291	
Kinematic Viscosity @ 100 degC	cSt	Report	19.44	D445*		D445*	2,6,7

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Date Sampled : 29 MAR 2025
Date Received : 29 MAR 2025
Date Analysed : 29 MAR 2025
Tank No : F29314
Certificate No : 25/10/62
Batch No : 42/51/314/95

Signature :

Name :

Technical Signatory

Date: 31.03.2025