

# **OIL ANALYSIS REPORT**

## **NORMAL**



# Supermarket - Tractor FREIGHTLINER 107A1815

Component

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 GAL)

# DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the

### **Fluid Condition**

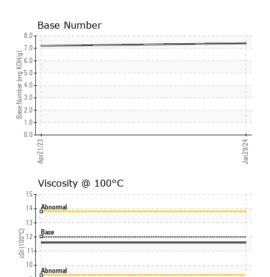
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



SAMPLE INFOR	VIATION	method	iimit/base	current	nistory i	nistory2
Sample Number		Client Info		PCA0116479	PCA0104814	
Sample Date		Client Info		29 Jan 2024	21 Apr 2023	
Machine Age	mls	Client Info		57586	44041	
Oil Age	mls	Client Info		13545	16864	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
•						
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	18	8	
Chromium	ppm	ASTM D5185m	>5	<1	<1	
Nickel	ppm	ASTM D5185m	>2	0	<1	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm	ASTM D5185m	>30	4	7	
Lead	ppm	ASTM D5185m	>30	0	1	
Copper	ppm	ASTM D5185m	>150	20	24	
Tin	ppm	ASTM D5185m	>5	0	1	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	mag		limit/base		history1	history2
Boron	ppm	ASTM D5185m	2	10	•	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2		17 0	
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2	10 5	17	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	10 5 48 0	17 0 16	
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	10 5 48	17 0 16 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	10 5 48 0 660	17 0 16 <1 175	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	10 5 48 0 660 1435	17 0 16 <1 175 2205	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	10 5 48 0 660 1435 1004	17 0 16 <1 175 2205 978	  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	10 5 48 0 660 1435 1004 1165	17 0 16 <1 175 2205 978 1163	  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	10 5 48 0 660 1435 1004 1165 3209	17 0 16 <1 175 2205 978 1163 3686	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	10 5 48 0 660 1435 1004 1165 3209	17 0 16 <1 175 2205 978 1163 3686 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	10 5 48 0 660 1435 1004 1165 3209 current	17 0 16 <1 175 2205 978 1163 3686 history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	10 5 48 0 660 1435 1004 1165 3209 current 3	17 0 16 <1 175 2205 978 1163 3686 history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20	10 5 48 0 660 1435 1004 1165 3209 current 3 0 15	17 0 16 <1 175 2205 978 1163 3686 history1 5 1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20	10 5 48 0 660 1435 1004 1165 3209 current 3 0 15	17 0 16 <1 175 2205 978 1163 3686 history1 5 1 18	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m  method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20 	10 5 48 0 660 1435 1004 1165 3209 current 3 0 15 current 0.6	17 0 16 <1 175 2205 978 1163 3686 history1 5 1 18 history1 0.3	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method  ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base	10 5 48 0 660 1435 1004 1165 3209 current 3 0 15 current 0.6 8.0	17 0 16 <1 175 2205 978 1163 3686 history1 5 1 18 history1 0.3 6.8	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm	ASTM D5185m  Method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method  *ASTM D7844 *ASTM D7624 *ASTM D7415  Method	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3 >20 >3 limit/base	10 5 48 0 660 1435 1004 1165 3209 current 3 0 15 current 0.6 8.0 19.6 current	17 0 16 <1 175 2205 978 1163 3686 history1 5 1 18 history1 0.3 6.8 16.9	history2 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method  *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3 >20 >3	10 5 48 0 660 1435 1004 1165 3209 current 3 0 15 current 0.6 8.0 19.6	17 0 16 <1 175 2205 978 1163 3686 history1 5 1 18 history1 0.3 6.8 16.9	history2 history2



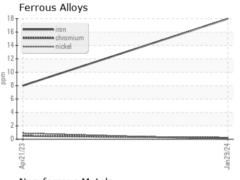
# **OIL ANALYSIS REPORT**

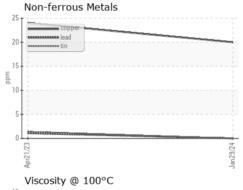


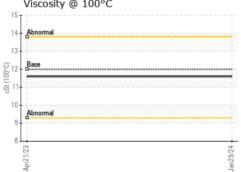
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	

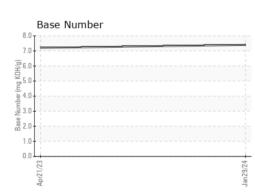
L LOID PROPE	ERITES	method			History i	History2
Visc @ 100°C	cSt	ASTM D445	12.00	11.6	11.6	

### **GRAPHS**













Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10862691 Test Package : FLEET

: PCA0116479 : 06080600

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 05 Feb 2024 Recieved Diagnosed : 06 Feb 2024 Diagnostician : Wes Davis

Transervice - Shop 1072 - Supermarket-Elizabeth 505 Division Street

Elizabeth, NJ US 07207 Contact: Normand Brizak

nbrizak@transervice.com T:

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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