

OIL ANALYSIS REPORT

SAMPLE INFORMATION method

NORMAL



Supermarket - Tractor FREIGHTLINER 107A1894

Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

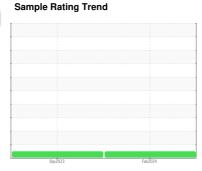
Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

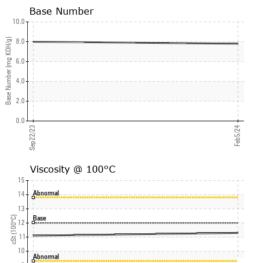
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



SAMPLE INFORM	VIATION	method	ilmit/base	current	nistory i	nistory2
Sample Number		Client Info		PCA0116492	PCA0104813	
Sample Date		Client Info		05 Feb 2024	22 Sep 2023	
Machine Age	mls	Client Info		55514	39515	
Oil Age	mls	Client Info		15999	13817	
Oil Changed	11110	Client Info		Changed	Changed	
		Oliciti iiilo		NORMAL	NORMAL	
Sample Status				NONWAL	NONIVIAL	
CONTAMINATI	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 METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	30	36	
Chromium		ASTM D5185m	>5	30	3	
Nickel	ppm			0	1	
	ppm	ASTM D5185m	>2	-	0	
Titanium	ppm	ASTM D5185m	0	<1		
Silver	ppm	ASTM D5185m	>3	<1	<1	
Aluminum	ppm	ASTM D5185m	>30	45	37	
Lead	ppm	ASTM D5185m	>30	<1	1	
Copper	ppm	ASTM D5185m	>150	103	155	
Tin	ppm	ASTM D5185m	>5	<1	3	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1	history2
	ppm				•	
Boron Barium	ppm	ASTM D5185m	2	8	8	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2	8 0 59	8 0 59	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	8 0 59 <1	8	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	8 0 59 <1 846	8 0 59 2 917	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	8 0 59 <1 846 1188	8 0 59 2 917 1280	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	8 0 59 <1 846 1188 949	8 0 59 2 917 1280 1022	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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	8 0 59 <1 846 1188 949	8 0 59 2 917 1280 1022 1288	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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	8 0 59 <1 846 1188 949 1134 2321	8 0 59 2 917 1280 1022 1288 2540	
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	8 0 59 <1 846 1188 949 1134 2321 current	8 0 59 2 917 1280 1022 1288 2540 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	8 0 59 <1 846 1188 949 1134 2321 current	8 0 59 2 917 1280 1022 1288 2540 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	8 0 59 <1 846 1188 949 1134 2321 current 4	8 0 59 2 917 1280 1022 1288 2540 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	8 0 59 <1 846 1188 949 1134 2321 current	8 0 59 2 917 1280 1022 1288 2540 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	8 0 59 <1 846 1188 949 1134 2321 current 4	8 0 59 2 917 1280 1022 1288 2540 history1 5 3	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20	8 0 59 <1 846 1188 949 1134 2321 current 4 4	8 0 59 2 917 1280 1022 1288 2540 history1 5 3	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	8 0 59 <1 846 1188 949 1134 2321 current 4 101 current 0.7	8 0 59 2 917 1280 1022 1288 2540 history1 5 3 92	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm 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 	8 0 59 <1 846 1188 949 1134 2321 current 4 101	8 0 59 2 917 1280 1022 1288 2540 history1 5 3 92 history1 0.7	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 ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base	8 0 59 <1 846 1188 949 1134 2321 current 4 101 current 0.7 8.3	8 0 59 2 917 1280 1022 1288 2540 history1 5 3 92 history1 0.7 8.7	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3 >20 >3 limit/base	8 0 59 <1 846 1188 949 1134 2321 current 4 4 101 current 0.7 8.3 20.6 current	8 0 59 2 917 1280 1022 1288 2540 history1 5 3 92 history1 0.7 8.7 21.2	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 ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3 >20 >30	8 0 59 <1 846 1188 949 1134 2321 current 4 101 current 0.7 8.3 20.6	8 0 59 2 917 1280 1022 1288 2540 history1 5 3 92 history1 0.7 8.7 21.2	history2 history2



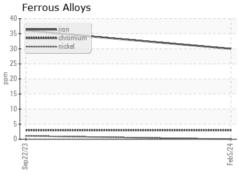
OIL ANALYSIS REPORT

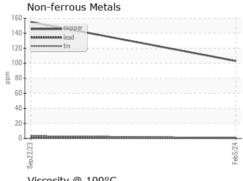


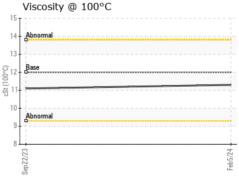
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance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

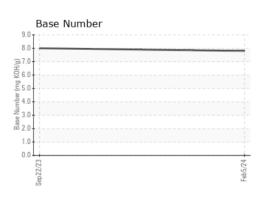
FLUID PROPE	ERITES	method	limit/base		history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.3	11.1	

GRAPHS











Certificate L2367

Laboratory Sample No. Lab Number : 06099586

: PCA0116492 Unique Number : 10897816 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 26 Feb 2024

: 27 Feb 2024 **Tested** Diagnosed : 27 Feb 2024 - Wes Davis

Transervice - Shop 1072 - Supermarket-Elizabeth

505 Division Street Elizabeth, NJ US 07207

Contact: Normand Brizak nbrizak@transervice.com T:

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

* - 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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