

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area (AU766S) Supermarket Machine Id FREIGHTLINER 107A8824 Component

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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.

			May2023	Sep2023		
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0104112	PCA0097063	
Sample Date		Client Info		02 Sep 2023	13 May 2023	
Machine Age	mls	Client Info		253658	240355	
Oil Age	mls	Client Info		13303	13849	
Oil Changed		Client Info		Changed	Not Changd	
Sample Status				NORMAL	NORMAL	
CONTAMINATIO	NC	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	19	10	
Chromium	ppm	ASTM D5185m	>5	2	1	
	ppm	ASTM D5185m	>2	<1	<1	
	ppm	ASTM D5185m		0	0	
	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>30	7	5	
Lead	ppm	ASTM D5185m	>30	0	<1	
Copper	ppm	ASTM D5185m	>150	6	2	
Tin	ppm	ASTM D5185m	>5	<1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES			11 1. 1			la tata muQ
ADDITIVE5		method	limit/base	current	history1	history2
_	ppm	ASTM D5185m	limit/base	current 7	history1 15	nistory2
Boron	ppm ppm					
Boron Barium		ASTM D5185m	2	7	15	
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m	2 0	7 0	15 0	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	7 0 66	15 0 66	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	7 0 66 1	15 0 66 <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	7 0 66 1 967	15 0 66 <1 970	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	7 0 66 1 967 1161	15 0 66 <1 970 1160	
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	2 0 50 0 950 1050 995	7 0 66 1 967 1161 1008	15 0 66 <1 970 1160 1066	
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	2 0 50 950 1050 995 1180	7 0 66 1 967 1161 1008 1311	15 0 66 <1 970 1160 1066 1337	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	ppm 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 1180 2600	7 0 66 1 967 1161 1008 1311 3367	15 0 66 <1 970 1160 1066 1337 3798	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	7 0 66 1 967 1161 1008 1311 3367 current	15 0 66 <1 970 1160 1066 1337 3798 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm S	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 0 50 950 1050 995 1180 2600	7 0 66 1 967 1161 1008 1311 3367 current 7	15 0 66 <1 970 1160 1066 1337 3798 history1 4	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm S ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	7 0 66 1 967 1161 1008 1311 3367 current 7 2	15 0 66 <1 970 1160 1066 1337 3798 history1 4 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm S ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	7 0 66 1 967 1161 1008 1311 3367 current 7 2 5	15 0 66 <1 970 1160 1066 1337 3798 history1 4 < 3	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >20 >20	7 0 66 1 967 1161 1008 1311 3367 current 7 2 5 5	15 0 66 <1 970 1160 1066 1337 3798 history1 4 <1 3 history1	 history2 history2
Boron Barium Aolybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >20 \$20	7 0 66 1 967 1161 1008 1311 3367 <i>current</i> 7 2 5 <i>current</i> 0.7	15 0 66 <1 970 1160 1066 1337 3798 history1 4 <1 3 history1 0.4	 history2 history2
Boron Barium Aolybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>imit/base</i> >20 <i>imit/base</i> >20	7 0 66 1 967 1161 1008 1311 3367 <i>current</i> 7 2 5 <i>current</i> 0.7 8.8	15 0 66 <1 970 1160 1066 1337 3798 history1 4 <1 3 history1 0.4 7.9	 history2 history2 history2
Boron Barium Anyanese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30	7 0 66 1 967 1161 1008 1311 3367 <i>current</i> 7 2 5 <i>current</i> 0.7 8.8 19.9	15 0 66 <1 970 1160 1066 1337 3798 history1 4 <1 3 history1 0.4 7.9 18.4	 history2 history2 history2
Boron Barium Any Anganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation Cxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	2 0 0 50 0 950 1050 995 1180 2600 2600 20 20 20 20 20 3 20 20 20 3 3 20 20 3 3 20 20 3 3 20 20 20 20 20 20 20 20 20 20 20 20 20	7 0 66 1 967 1161 1008 1311 3367 current 7 2 5 current 0.7 8.8 19.9 current	15 0 66 <1 970 1160 1066 1337 3798 history1 4 <1 3 history1 0.4 7.9 18.4 history1	 history2 history2 history2 history2



cSt (100°C) Ba

Abnorm

May13/23

OIL ANALYSIS REPORT

scalar

scalar

scalar

*Visual

*Visual

*Visual

scalar *Visual

NONE

NONE

NONE

NONE

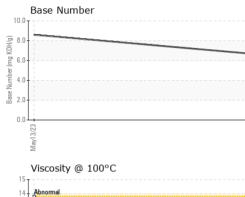
VISUAL

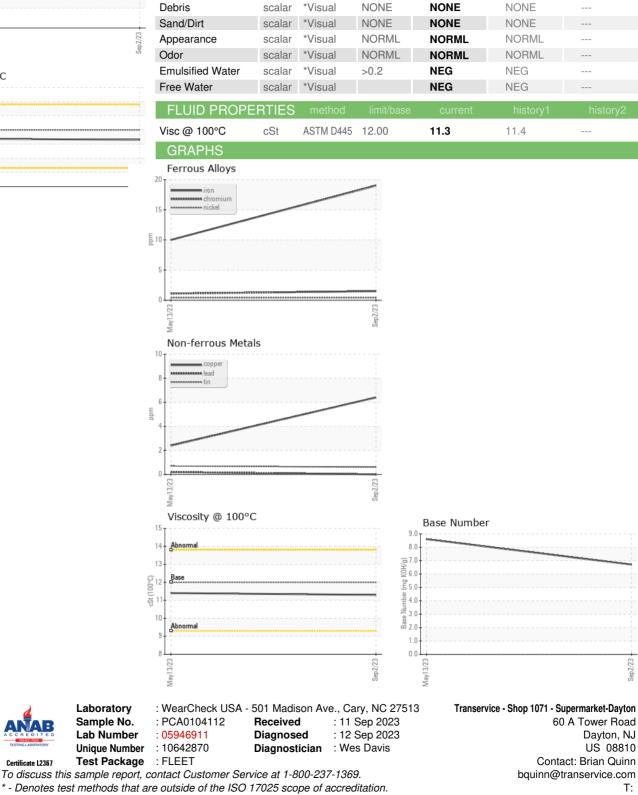
White Metal

Precipitate

Silt

Yellow Metal





NONE

NONE

NONE

NONE

NONE

NONE

NONE

NONE

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: