

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area (AY421B) Supermarket - Tractor Machine Id FREIGHTLINER 107A1878 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Fluid

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

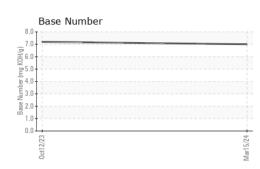
Fluid Condition

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

			0ct2023	Mar2024		
SAMPLE INFORM	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0116452	PCA0104803	
Sample Date		Client Info		15 Mar 2024	12 Oct 2023	
Machine Age	hrs	Client Info		91403	56425	
Oil Age	hrs	Client Info		34978	9292	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATI	ON	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	39	32	
Chromium	ppm	ASTM D5185m	>5	3	2	
Nickel	ppm	ASTM D5185m	>2	1	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	<1	<1	
Aluminum	ppm	ASTM D5185m	>30	12	21	
Lead	ppm	ASTM D5185m	>30	1	0	
Copper	ppm	ASTM D5185m	>150	58	65	
Tin	ppm	ASTM D5185m	>5	2	1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 4	history1 15	history2
	ppm ppm					
Boron		ASTM D5185m	2	4	15	
Boron Barium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0	4 1	15 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	4 1 63	15 0 50	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	4 1 63 2	15 0 50 2	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	4 1 63 2 928	15 0 50 2 744	
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	4 1 63 2 928 1204	15 0 50 2 744 1288	
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	2 0 50 0 950 1050 995	4 1 63 2 928 1204 978	15 0 50 2 744 1288 899	
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	4 1 63 2 928 1204 978 1252	15 0 50 2 744 1288 899 1120	
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	2 0 50 0 950 1050 995 1180 2600	4 1 63 2 928 1204 978 1252 2424	15 0 50 2 744 1288 899 1120 2224	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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	4 1 63 2 928 1204 978 1252 2424 current	15 0 50 2 744 1288 899 1120 2224 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 0 50 0 950 1050 995 1180 2600 limit/base >20	4 1 63 2 928 1204 978 1252 2424 current 7	15 0 50 2 744 1288 899 1120 2224 history1 5	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	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 >20	4 1 63 2 928 1204 978 1252 2424 current 7 0	15 0 50 2 744 1288 899 1120 2224 history1 5 4	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	4 1 63 2 928 1204 978 1252 2424 current 7 0 32	15 0 50 2 744 1288 899 1120 2224 history1 5 4 64	 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 ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >20 \$20	4 1 63 2 928 1204 978 1252 2424 current 7 0 32 current	15 0 50 2 744 1288 899 1120 2224 history1 5 4 64 64 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >20 \$20	4 1 63 2 928 1204 978 1252 2424 current 7 0 32 current 1.1	15 0 50 2 744 1288 899 1120 2224 history1 5 4 64 64 history1 0.8	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Solfur Solicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm t ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>imit/base</i> >20 <i>imit/base</i> >20	4 1 63 2 928 1204 978 1252 2424 current 7 0 32 current 1.1 9.7	15 0 50 2 744 1288 899 1120 2224 history1 5 4 64 64 64 0.8 9.4	 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 t ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30	4 1 63 2 928 1204 978 1252 2424 <i>current</i> 7 0 32 <i>current</i> 1.1 9.7 22.4	15 0 50 2 744 1288 899 1120 2224 history1 5 4 64 64 history1 0.8 9.4 22.4	 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 TS ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	2 0 0 50 0 950 1050 995 1180 2600 2600 20 20 20 20 20 3 20 20 20 3 3 20 20 20 20 20 20 20 20 20 20 20 20 20	4 1 63 2 928 1204 978 1252 2424 Current 7 0 32 Current 1.1 9.7 22.4 Current	15 0 50 2 744 1288 899 1120 2224 history1 5 4 64 64 64 0.8 9.4 22.4 history1	 history2 history2 history2 history2



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Viscosity @ 100°C



