

OIL ANALYSIS REPORT

Sample Rating Trend

Area (AU672W) Supermarket - Tractor **FREIGHTLINER 107A1818**

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.

SAMPLE INFORM	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0116457	PCA0111544	PCA0100411
Sample Date		Client Info		04 Apr 2024	21 Nov 2023	09 Aug 2023
Machine Age	mls	Client Info		294511	275941	254812
Oil Age	mls	Client Info		18570	21129	8670
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	20	18	19
Chromium	ppm	ASTM D5185m	>5	2	<1	1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	8	4	7
Lead	ppm	ASTM D5185m	>30	<1	0	<1
Copper	ppm	ASTM D5185m	>150	4	4	5
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	2	4	2
Barium	ppm	ASTM D5185m	0	0	2	0
	ppin	AOTIVI DOTODITI	0	•	<i>L</i>	0
Molybdenum	ppm	ASTM D5185m	50	65	63	66
				-		
Molybdenum	ppm	ASTM D5185m	50	65	63	66
Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m	50 0	65 <1	63 0	66 <1
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950	65 <1 1004	63 0 871	66 <1 1030
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050	65 <1 1004 1118	63 0 871 1123	66 <1 1030 1260
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995	65 <1 1004 1118 991	63 0 871 1123 921	66 <1 1030 1260 1091
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180	65 <1 1004 1118 991 1214	63 0 871 1123 921 1157	66 <1 1030 1260 1091 1384
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600	65 <1 1004 1118 991 1214 2863	63 0 871 1123 921 1157 3690	66 <1 1030 1260 1091 1384 3930
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 Limit/base	65 <1 1004 1118 991 1214 2863 current	63 0 871 1123 921 1157 3690 history1	66 <1 1030 1260 1091 1384 3930 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 Limit/base	65 <1 1004 1118 991 1214 2863 current 6	63 0 871 1123 921 1157 3690 history1 3	66 <1 1030 1260 1091 1384 3930 history2 4
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	50 0 950 1050 995 1180 2600 Limit/base >20	65 <1 1004 1118 991 1214 2863 current 6 3	63 0 871 1123 921 1157 3690 history1 3 0	66 <1 1030 1260 1091 1384 3930 history2 4 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >20	65 <1 1004 1118 991 1214 2863 current 6 3 3	63 0 871 1123 921 1157 3690 history1 3 0 3	66 <1 1030 1260 1091 1384 3930 history2 4 2 3
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 imit/base >20	65 <1 1004 1118 991 1214 2863 current 6 3 3 3	63 0 871 1123 921 1157 3690 history1 3 0 3 history1	66 <1 1030 1260 1091 1384 3930 history2 4 2 3 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3	65 <1 1004 1118 991 1214 2863 current 6 3 3 current 0.6	63 0 871 1123 921 1157 3690 history1 3 0 3 1 0 3 history1 0.7	66 <1 1030 1260 1091 1384 3930 history2 4 2 3 3 history2 0.7
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm rS ppm ppm ppm ppm ppm spm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >20 limit/base >3 >20	65 <1 1004 1118 991 1214 2863 current 6 3 3 3 current 0.6 7.8	63 0 871 1123 921 1157 3690 history1 3 0 3 0 3 <i>history1</i> 0.7 7.5	66 <1 1030 1260 1091 1384 3930 history2 4 2 3 history2 0.7 7.6
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm rS ppm ppm ppm ppm ppm spm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	50 0 950 1050 995 1180 2600 limit/base >20 limit/base >3 >20 >30	65 <1 1004 1118 991 1214 2863 current 6 3 3 3 current 0.6 7.8 19.0	63 0 871 1123 921 1157 3690 history1 3 0 3 history1 0.7 7.5 19.2	66 <1 1030 1260 1091 1384 3930 history2 4 2 3 history2 0.7 7.6 19.0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415	50 0 950 1050 995 1180 2600 imit/base >20 20 imit/base >3 >20 30 imit/base	65 <1 1004 1118 991 1214 2863 current 6 3 3 3 current 0.6 7.8 19.0 current	63 0 871 1123 921 1157 3690 history1 3 0 3 0 3 history1 0.7 7.5 19.2 history1	66 <1 1030 1260 1091 1384 3930 history2 4 2 3 history2 0.7 7.6 19.0 history2

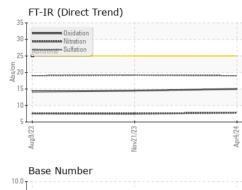


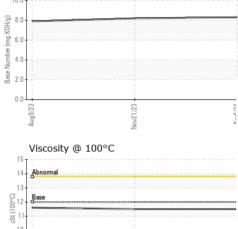


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OIL ANALYSIS REPORT



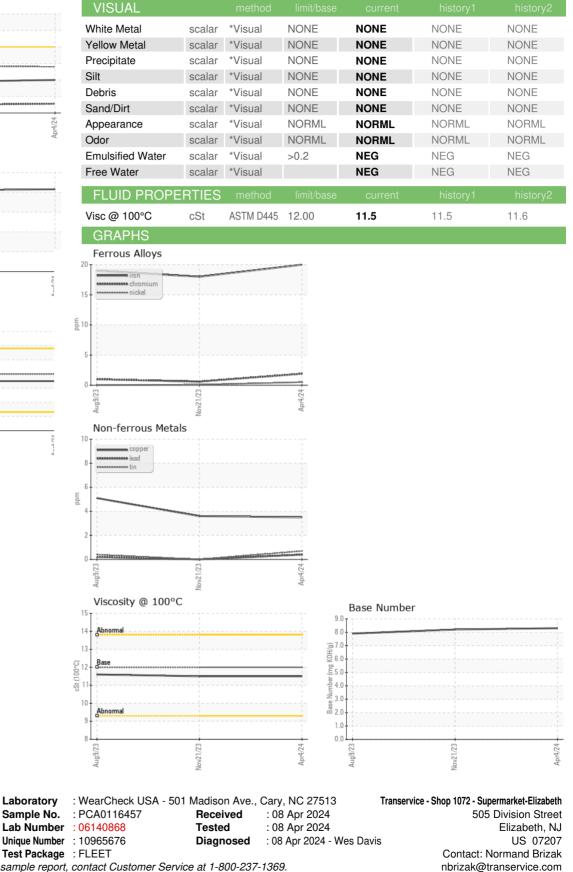


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To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)

Certificate 12367

Submitted By: Normand Brizak

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