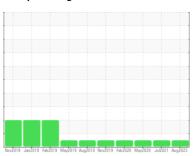


OIL ANALYSIS REPORT

Sample Rating Trend







FREIGHTLINER 791153

Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (40 QTS)

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 acceptable for the time in service.

Cample Number Client Info PCA0099658 PCA0050853 PCA002112	(TS)		Nov2018 Jan2	019 Feb2019 May2019 Aug2	019 Nov2019 Feb2020 May2020 Jul2	021 Aug2023	
Cample Date Client Info 07 Aug 2023 19 Jul 2021 04 May 202	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 10000 23483 36127	Sample Number		Client Info		PCA0099658	PCA0050853	PCA0021129
Dil Age	Sample Date		Client Info		07 Aug 2023	19 Jul 2021	04 May 2020
Contamper Cont	Machine Age	mls	Client Info		0	431283	262491
NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 history2 Nater WC Method >0.2 NEG NEG	Oil Age	mls	Client Info		10000	23483	36127
CONTAMINATION method limit/base current history1 history2	Oil Changed		Client Info		Changed	Not Changd	Changed
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water WC Method Solvention NEG	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
WEAR METALS method limit/base current history1 history2 fron ppm ASTM D5185m >200 6 39 16 Chromium ppm ASTM D5185m >20 <1	Water		WC Method	>0.2	NEG	NEG	NEG
Chromium	Glycol		WC Method		NEG	NEG	NEG
Chromium	WEAR METAL	.S	method	limit/base	current	history1	history2
ASTM D5185m >2	ron	ppm	ASTM D5185m	>200	6	39	16
Silver	Chromium	ppm	ASTM D5185m	>20	<1	2	2
Silver	Nickel	ppm	ASTM D5185m	>2	1	<1	1
Aluminum	Γitanium	ppm	ASTM D5185m	>2	<1	<1	1
December December	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper	Aluminum	ppm	ASTM D5185m	>30	2	5	6
Antimony	_ead	ppm	ASTM D5185m	>30	<1	0	0
Antimony ppm ASTM D5185m	Copper	ppm	ASTM D5185m	>30	2	8	7
Anadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 33 9 4 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 45 71 64 Manganese ppm ASTM D5185m 0 <1 <1 <1 <1 Magnesium ppm ASTM D5185m 950 524 1028 1059 Calcium ppm ASTM D5185m 995 1023 1162 1075 Phosphorus ppm ASTM D5185m 995 1023 1162 1075 Zinc ppm ASTM D5185m 2600 3834 2544 2284 CONTAMINANTS method limit/base current his	Γin	ppm	ASTM D5185m	>15	<1	<1	0
Deciding	Antimony	ppm	ASTM D5185m			0	2
ADDITIVES	√anadium	ppm	ASTM D5185m		0	0	0
Soron ppm ASTM D5185m 2 33 9 4	Cadmium	ppm	ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 45 71 64 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 950 524 1028 1059 Calcium ppm ASTM D5185m 1050 1766 1330 1227 Phosphorus ppm ASTM D5185m 995 1023 1162 1075 Zinc ppm ASTM D5185m 995 1023 1162 1075 Zinc ppm ASTM D5185m 2600 3834 2544 2284 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 5 5 5 Sodium ppm ASTM D5185m 0 4 2 Potassium ppm ASTM D5185m >20 1 5 <1 INFRA-RED method limit/base current	Boron	ppm	ASTM D5185m	2	33	9	4
Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 950 524 1028 1059 Calcium ppm ASTM D5185m 1050 1766 1330 1227 Phosphorus ppm ASTM D5185m 995 1023 1162 1075 Zinc ppm ASTM D5185m 995 1023 1162 1075 Zinc ppm ASTM D5185m 2600 3834 2544 2284 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 5 5 5 Godium ppm ASTM D5185m >30 4 2 Potassium ppm ASTM D5185m >20 1 5 <1	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 950 524 1028 1059 Calcium ppm ASTM D5185m 1050 1766 1330 1227 Phosphorus ppm ASTM D5185m 995 1023 1162 1075 Zinc ppm ASTM D5185m 1180 1191 1286 1256 Sulfur ppm ASTM D5185m 2600 3834 2544 2284 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 5 5 5 Sodium ppm ASTM D5185m >20 1 5 <1	Molybdenum	ppm	ASTM D5185m	50	45	71	64
Calcium ppm ASTM D5185m 1050 1766 1330 1227 Phosphorus ppm ASTM D5185m 995 1023 1162 1075 Zinc ppm ASTM D5185m 1180 1191 1286 1256 Sulfur ppm ASTM D5185m 2600 3834 2544 2284 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 5 5 5 Sodium ppm ASTM D5185m >20 1 5 <1	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Phosphorus ppm ASTM D5185m 995 1023 1162 1075 Zinc ppm ASTM D5185m 1180 1191 1286 1256 Sulfur ppm ASTM D5185m 2600 3834 2544 2284 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 5 5 5 Sodium ppm ASTM D5185m 0 4 2 Potassium ppm ASTM D5185m >20 1 5 <1	Magnesium	ppm	ASTM D5185m	950	524	1028	1059
Zinc ppm ASTM D5185m 1180 1191 1286 1256 Sulfur ppm ASTM D5185m 2600 3834 2544 2284 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 5 5 5 Sodium ppm ASTM D5185m 0 4 2 Potassium ppm ASTM D5185m >20 1 5 <1	Calcium	ppm	ASTM D5185m	1050	1766	1330	1227
Sulfur ppm ASTM D5185m 2600 3834 2544 2284 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 5 5 5 Sodium ppm ASTM D5185m 0 4 2 Potassium ppm ASTM D5185m >20 1 5 <1	Phosphorus	ppm	ASTM D5185m	995	1023	1162	1075
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 5 5 5 Sodium ppm ASTM D5185m 0 4 2 Potassium ppm ASTM D5185m >20 1 5 <1	Zinc	ppm	ASTM D5185m	1180	1191	1286	1256
Solition ppm ASTM D5185m >30 5 5 5 5 5 5 5 5 5	Sulfur	ppm	ASTM D5185m	2600	3834	2544	2284
Sodium ppm ASTM D5185m 0 4 2 Potassium ppm ASTM D5185m >20 1 5 <1	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 1 5 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.6 1.3 0.7 Nitration Abs/cm *ASTM D7624 >20 10.7 14.2 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 26.4 27.2 22.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.8 27.1 18.6	Silicon	ppm	ASTM D5185m	>30	5	5	5
INFRA-RED	Sodium	ppm	ASTM D5185m		0	4	2
Soot % % *ASTM D7844 >3 1.6 1.3 0.7 Nitration Abs/cm *ASTM D7624 >20 10.7 14.2 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 26.4 27.2 22.5 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 19.8 27.1 18.6	Potassium	ppm	ASTM D5185m	>20	1	5	<1
Nitration Abs/cm *ASTM D7624 >20 10.7 14.2 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 26.4 27.2 22.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.8 27.1 18.6	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 26.4 27.2 22.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.8 27.1 18.6	Soot %	%	*ASTM D7844	>3	1.6	1.3	0.7
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.8 27.1 18.6	Vitration	Abs/cm	*ASTM D7624	>20	10.7	14.2	10.3
Oxidation Abs/.1mm *ASTM D7414 >25 19.8 27.1 18.6	Sulfation	Abs/.1mm	*ASTM D7415	>30	26.4	27.2	22.5
	FLUID DEGRAI	OATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 12.0	Oxidation	Abs/.1mm	*ASTM D7414	>25	19.8	27.1	18.6
	Base Number (BN)	mg KOH/g	ASTM D2896		12.0		



OIL ANALYSIS REPORT







Certificate L2367

Laboratory

Sample No. Lab Number **Unique Number**

:St (100°C)

Abnorma

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 07 Dec 2023 : PCA0099658 : 06027350 : 08 Dec 2023

Diagnosed : 10777141 Diagnostician : Don Baldridge

Test Package : MOB 1 (Additional Tests: TBN) To discuss this sample report, contact Customer Service at 1-800-237-1369.

Viscosity @ 100°C

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

MILLER TRUCK LEASING #121

107 HOW LANE NEW BRUNSWICK, NJ US 08901

Contact: Anthony Cursi acursi@millertransgroup.com T: (732)358-4027

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

F: (732)400-8475 Contact/Location: Anthony Cursi - MILNEW

Base Number

12.0 (mg KOH/g)

6.0 Base Number 4.0

0.0

Aug7/23