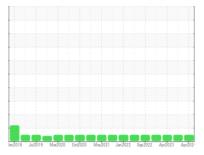


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id

FREIGHTLINER 484393

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

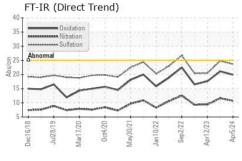
Fluid Condition

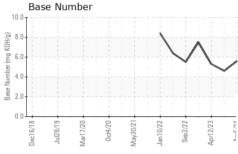
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

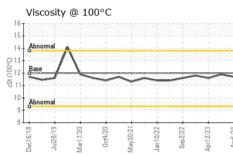
SAMPLE INFORMATION method imitibase current history1 history2	aal)		78CZU10 JUIZI	019 Mar2020 Oct2020	mayzuzi Janzuzz Sepzuzz Aprz	ruza Aprzuzi	
Sample Date	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 413500 376352 340289 Oil Age mls Client Info 0 0 0 0 Oil Changed Client Info N/A Changed NoTAMAL NORMAL NORMAL Sample Status Image: Control of the Control o	Sample Number		Client Info		PCA0123984	PCA0103079	PCA0095947
Oil Age mls Client Info N/A Changed Not Changed Sample Status Client Info N/A Changed Not Changed CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Sample Date		Client Info		05 Apr 2024	10 Aug 2023	12 Apr 2023
Oil Changed Sample Status Client Info N/A Changed NORMAL Not Changed NORMAL Not Changed NORMAL Not Changed NORMAL	Machine Age	mls	Client Info		-	_	
NORMAL NORMAL NORMAL	Oil Age	mls	Client Info		0	0	0
Fuel	Oil Changed		Client Info		N/A	Changed	Not Changd
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water Glycol WC Method >0.2 NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 31 38 26 Chromium ppm ASTM D5185m >5 2 2 1 0 0 Nickel ppm ASTM D5185m >2 <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >5 2 2 1 Nickel ppm ASTM D5185m >2 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	31	38	26
Titanium	Chromium	ppm	ASTM D5185m	>5	2	2	1
Silver	Nickel	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	Titanium	ppm	ASTM D5185m		<1	0	0
Lead	Silver	ppm	ASTM D5185m	>3	<1	0	0
Copper ppm ASTM D5185m >150 5 5 4 Tin ppm ASTM D5185m >5 1 1 0 Vanadium ppm ASTM D5185m <1 <1 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 5 2 4 Barium ppm ASTM D5185m 0 0 0 1 Molybdenum ppm ASTM D5185m 50 67 64 63 Manganese ppm ASTM D5185m 950 845 983 911 Calcium ppm ASTM D5185m 905 922 1011 966 Zinc ppm ASTM D5185m 180 1201 1317 1226 Sulfur ppm ASTM D5185m 2600 2791 3069 2887	Aluminum	ppm	ASTM D5185m	>30	13	15	12
Tin ppm ASTM D5185m >5 1 1 0 Vanadium ppm ASTM D5185m <1 <1 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 5 2 4 Barium ppm ASTM D5185m 0 0 0 1 1 Molybdenum ppm ASTM D5185m 50 67 64 63 Manganese ppm ASTM D5185m 950 845 983 911 Calcium ppm ASTM D5185m 995 845 983 911 Calcium ppm ASTM D5185m 1050 1170 1205 1101 Phosphorus ppm ASTM D5185m 995 922 1011 966 Zinc ppm ASTM D5185m 2600 2791 3069 </td <td>Lead</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>30</td> <th><1</th> <td><1</td> <td>0</td>	Lead	ppm	ASTM D5185m	>30	<1	<1	0
Vanadium ppm ASTM D5185m <1 <1 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 5 2 4 Barium ppm ASTM D5185m 0 0 0 1 Molybdenum ppm ASTM D5185m 50 67 64 63 Manganese ppm ASTM D5185m 0 1 <1 <1 <1 Magnesium ppm ASTM D5185m 950 845 983 911 Calcium ppm ASTM D5185m 995 922 1011 966 Zinc ppm ASTM D5185m 180 1201 1317 1226 Sulfur ppm ASTM D5185m 2600 2791 3069 2887 CONTAMINANTS method limit/base current history1<	Copper	ppm	ASTM D5185m	>150	5	5	4
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 5 2 4 Barium ppm ASTM D5185m 0 0 0 1 Molybdenum ppm ASTM D5185m 50 67 64 63 Manganese ppm ASTM D5185m 50 67 64 63 Magnesium ppm ASTM D5185m 950 845 983 911 Calcium ppm ASTM D5185m 995 922 1011 966 Zinc ppm ASTM D5185m 1180 1201 1317 1226 Sulfur ppm ASTM D5185m 2600 2791 3069 2887 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m <td>Tin</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>5</td> <th>1</th> <td>1</td> <td>0</td>	Tin	ppm	ASTM D5185m	>5	1	1	0
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	<1	0
Boron	Cadmium	ppm	ASTM D5185m		<1	0	0
Barium ppm ASTM D5185m 0 0 0 1 Molybdenum ppm ASTM D5185m 50 67 64 63 Manganese ppm ASTM D5185m 0 1 <1 <1 Magnesium ppm ASTM D5185m 950 845 983 911 Calcium ppm ASTM D5185m 1050 1170 1205 1101 Phosphorus ppm ASTM D5185m 1050 1170 1205 1101 Phosphorus ppm ASTM D5185m 995 922 1011 966 Zinc ppm ASTM D5185m 1180 1201 1317 1226 Sulfur ppm ASTM D5185m 2600 2791 3069 2887 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 4 Sodium ppm<	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 67 64 63 Manganese ppm ASTM D5185m 0 1 <1	Boron	ppm	ASTM D5185m	2	5	2	4
Manganese ppm ASTM D5185m 0 1 <1	Barium	ppm	ASTM D5185m	0	0	0	1
Magnesium ppm ASTM D5185m 950 845 983 911 Calcium ppm ASTM D5185m 1050 1170 1205 1101 Phosphorus ppm ASTM D5185m 995 922 1011 966 Zinc ppm ASTM D5185m 1180 1201 1317 1226 Sulfur ppm ASTM D5185m 2600 2791 3069 2887 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 4 Sodium ppm ASTM D5185m >20 10 15 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7414	Molybdenum	ppm			67	64	63
Calcium ppm ASTM D5185m 1050 1170 1205 1101 Phosphorus ppm ASTM D5185m 995 922 1011 966 Zinc ppm ASTM D5185m 1180 1201 1317 1226 Sulfur ppm ASTM D5185m 2600 2791 3069 2887 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 4 Sodium ppm ASTM D5185m >20 10 15 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/:nm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/:nm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION <	Manganese	ppm	ASTM D5185m	0	1	<1	<1
Phosphorus ppm ASTM D5185m 995 922 1011 966 Zinc ppm ASTM D5185m 1180 1201 1317 1226 Sulfur ppm ASTM D5185m 2600 2791 3069 2887 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 4 Sodium ppm ASTM D5185m >20 10 15 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm	Magnesium	ppm	ASTM D5185m	950	845	983	911
Zinc ppm ASTM D5185m 1180 1201 1317 1226 Sulfur ppm ASTM D5185m 2600 2791 3069 2887 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 4 Sodium ppm ASTM D5185m >20 10 15 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	Calcium	ppm	ASTM D5185m		1170	1205	
Sulfur ppm ASTM D5185m 2600 2791 3069 2887 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 4 Sodium ppm ASTM D5185m >20 10 15 9 Potassium ppm ASTM D5185m >20 10 15 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6		ppm		995			
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 4 Sodium ppm ASTM D5185m 0 3 2 Potassium ppm ASTM D5185m >20 10 15 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6		ppm		1180	1201	1317	1226
Silicon ppm ASTM D5185m >20 6 5 4 Sodium ppm ASTM D5185m 0 3 2 Potassium ppm ASTM D5185m >20 10 15 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	Sulfur	ppm	ASTM D5185m	2600	2791	3069	2887
Sodium ppm ASTM D5185m 0 3 2 Potassium ppm ASTM D5185m >20 10 15 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 10 15 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	Silicon	ppm	ASTM D5185m	>20	6	5	4
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	Sodium	ppm	ASTM D5185m		0	3	2
Soot % % *ASTM D7844 >3 1.2 1.5 1 Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	Potassium	ppm	ASTM D5185m	>20	10	15	9
Nitration Abs/cm *ASTM D7624 >20 10.7 11.6 9.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 23.7 24.8 20.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	Soot %	%	*ASTM D7844	>3	1.2	1.5	1
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	Nitration	Abs/cm	*ASTM D7624	>20	10.7	11.6	9.4
Oxidation Abs/.1mm *ASTM D7414 >25 19.9 21.1 17.6	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.7	24.8	20.5
	FLUID DEGRA	OATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	19.9	21.1	17.6
	Base Number (BN)	mg KOH/g			5.6	4.6	5.3



OIL ANALYSIS REPORT



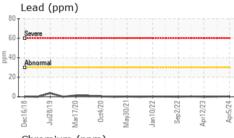


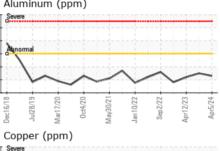


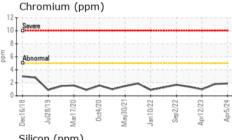
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
	oou.u.	1.000.		-1		

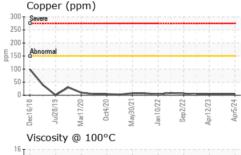
FLUID PROP	ERHES	method			history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.7	11.9	11.6

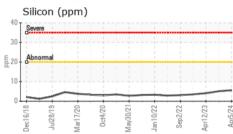
Severe							
Abnom	nal		++	-		-	-
0					^		-
0	6	-		2	2		-
Dec16/18	Jul28/19	Oct4/20	May30/2	Jan 10/22	Sep2/22	Apr12/23	Anr5/24
	inum (ppm)					
O Severe							

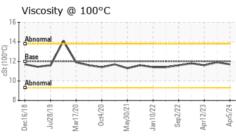


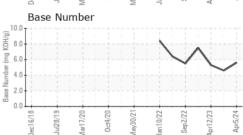
















Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06157229 Unique Number : 10992652

: PCA0123984

Received : 23 Apr 2024 **Tested** Diagnosed

: 24 Apr 2024 : 24 Apr 2024 - Wes Davis

HASBROUCK HEIGHTS, NJ US 07604

Contact: MIKE LONGETTE mlongette@millertransgroup.com

MILLER TRUCK LEASING #119

39 INDUSTRIAL AVE

Test Package : MOB 1 (Additional Tests: TBN) Certificate 12367 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)

F: (201)528-7053 Contact/Location: MIKE LONGETTE - MILRUT

T: