

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

529136-SW7908 FREIGHTLINER CASCADIA 125

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- 0

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

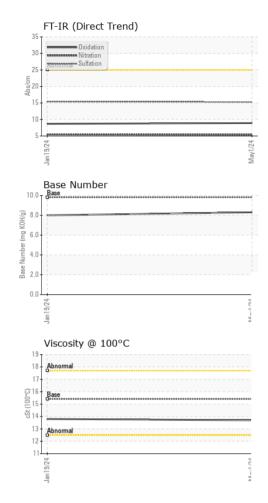
Fluid Condition

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

Machine Age hrs Client Info 0 3	iAL)			Jan 2024	May2024		
Client Info	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Date	Sample Number		Client Info		GFL0115321	GFL0066588	
Dil Age	Sample Date		Client Info		01 May 2024	19 Jan 2024	
Cilic Changed Cilic Changed NoRMAL N	Machine Age	hrs	Client Info		0	3	
CONTAMINATION method milibase current history1 history2	Oil Age	hrs	Client Info		0	0	
CONTAMINATION	Oil Changed		Client Info		N/A	N/A	
Fuel	Sample Status				NORMAL	NORMAL	
Water Glycol WC Method WC Method 0.2.2 NEG NEG NEG	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 0 <1	Water		WC Method	>0.2	NEG	NEG	
Chromium	Glycol		WC Method		NEG	NEG	
Chromium ppm ASTM D5185m >5 0 0	WEAR METAL	.S	method	limit/base	current	history1	history2
Strickel	ron	ppm	ASTM D5185m	>80	0	<1	
Titanium	Chromium	ppm	ASTM D5185m	>5	0	0	
Silver	Nickel	ppm	ASTM D5185m	>2	0	<1	
Aluminum	Titanium	ppm	ASTM D5185m		0	0	
Lead	Silver	ppm	ASTM D5185m	>3	0	<1	
Copper	Aluminum	ppm	ASTM D5185m	>30	<1	2	
Tin	_ead	ppm	ASTM D5185m	>30	<1	0	
Anadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 13 19 Barium ppm ASTM D5185m 0 0 <1 Molybdenum ppm ASTM D5185m 0 0 <1 Manganese ppm ASTM D5185m 0 0 <1 Manganesium ppm ASTM D5185m 1010 23 43 Calcicium ppm ASTM D5185m 1070 2241 2046 Phosphorus ppm ASTM D5185m 1270 1187 1128 Zinc ppm ASTM D5185m 2060 3616 2760 CONTAMINANTS method limit/base current history1	Copper	ppm	ASTM D5185m	>150	<1	<1	
ADDITIVES	Γin	ppm	ASTM D5185m	>5	0	<1	
ADDITIVES	/anadium	ppm	ASTM D5185m		0	0	
Soron ppm ASTM D5185m 0 13 19	Cadmium	ppm	ASTM D5185m		0	0	
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 43 52 Manganese ppm ASTM D5185m 0 0 <1	Boron	ppm	ASTM D5185m	0	13	19	
Manganese ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 1010 23 43 Calcium ppm ASTM D5185m 1070 2241 2046 Phosphorus ppm ASTM D5185m 1150 965 952 Zinc ppm ASTM D5185m 1270 1187 1128 Sulfur ppm ASTM D5185m 2060 3616 2760 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 6 Sodium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D5185m	Barium	ppm	ASTM D5185m	0	0	<1	
Magnesium ppm ASTM D5185m 1010 23 43 Calcium ppm ASTM D5185m 1070 2241 2046 Phosphorus ppm ASTM D5185m 1150 965 952 Zinc ppm ASTM D5185m 1270 1187 1128 Sulfur ppm ASTM D5185m 2060 3616 2760 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 6 Sodium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D5185m >20 0 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 5.4 5.5 Sulfation Abs/.1mm *ASTM D7414	Molybdenum	ppm	ASTM D5185m	60	43	52	
Calcium ppm ASTM D5185m 1 070 2241 2046 Phosphorus ppm ASTM D5185m 1 150 965 952 Zinc ppm ASTM D5185m 1270 1187 1 128 Sulfur ppm ASTM D5185m 2060 3616 2760 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 6 Godium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D5185m >20 0 0 2 Soot % % *ASTM D7844 >3 0.1 0.1 Nitration Abs/.1mm	Manganese	ppm	ASTM D5185m	0	0	<1	
Phosphorus ppm ASTM D5185m 1 150 965 952 Zinc ppm ASTM D5185m 1270 1187 1128 Sulfur ppm ASTM D5185m 2060 3616 2760 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 6 Sodium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D5185m >20 0 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 Nitration Abs/cm *ASTM D7415 >30 15.3 15.4 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414	Magnesium	ppm	ASTM D5185m	1010	23	43	
Tinc ppm ASTM D5185m 1270 1187 1128	Calcium	ppm	ASTM D5185m	1070	2241	2046	
Sulfur ppm ASTM D5185m 2060 3616 2760 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 6 Sodium ppm ASTM D5185m >20 0 2 Potassium ppm ASTM D5185m >20 0 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 5.4 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 15.3 15.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 8.9 8.7	Phosphorus	ppm	ASTM D5185m	1150	965	952	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 6 Sodium ppm ASTM D5185m 0 2 Potassium ppm ASTM D5185m >20 0 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 5.4 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 15.3 15.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 8.9 8.7	Zinc	ppm	ASTM D5185m	1270	1187	1128	
Solition ppm ASTM D5185m >20 6 6	Sulfur	ppm	ASTM D5185m	2060	3616	2760	
Sodium	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 5.4 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 15.3 15.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 8.9 8.7	Silicon	ppm	ASTM D5185m	>20	6	6	
INFRA-RED	Sodium	ppm	ASTM D5185m		0	2	
Soot % % *ASTM D7844 >3 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 5.4 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 15.3 15.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 8.9 8.7	Potassium	ppm	ASTM D5185m	>20	0	2	
Nitration Abs/cm *ASTM D7624 >20 5.4 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 15.3 15.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 8.9 8.7	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 15.3 15.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 8.9 8.7	Soot %	%	*ASTM D7844	>3	0.1	0.1	
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 8.9 8.7	Nitration	Abs/cm	*ASTM D7624	>20	5.4	5.5	
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	15.3	15.4	
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.8 8.3 8.0	Oxidation	Abs/.1mm	*ASTM D7414	>25	8.9	8.7	
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.3	8.0	

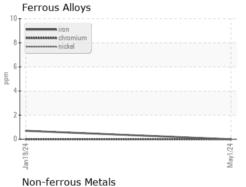


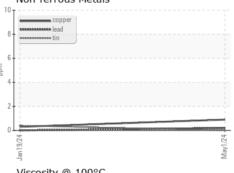
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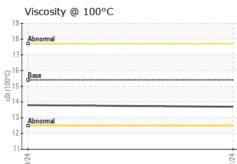


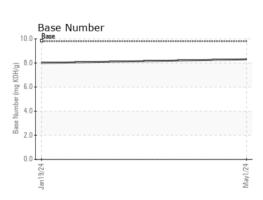
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID DDODE	DTIES					

FLUID PROPI	ERHES	method			history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.8	













Certificate 12367

Laboratory Sample No. Lab Number : 06178251

: GFL0115321 Unique Number : 11029577 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 13 May 2024

Tested : 14 May 2024 Diagnosed : 15 May 2024 - Sean Felton

GFL Environmental - 980 - Northside Hauling

1820 Candle Ridge Park Dr Houston, TX

US 77073

Contact: Edwin Collins ecollins@gflenv.com T:

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)

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