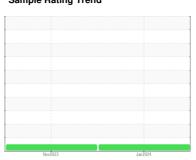


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **4518** Component

Diesel Engine

PETRO CANADA DURON SAE 10W30 (--- G

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

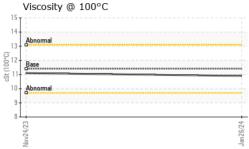
Fluid Condition

The condition of the oil is acceptable for the time in service.

GAL)			Nov2023	Jan2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0102625	GFL0101732	
Sample Date		Client Info		26 Jan 2024	24 Nov 2023	
Machine Age	hrs	Client Info		32098	31766	
		Client Info		332	0	
Oil Age	hrs	Client Info				
Oil Changed		Cilent Inio		Changed NORMAL	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	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 METAL	_S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	9	20	
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)	>3	0	0	
Aluminum	ppm	ASTM D5185(m)	>20	2	2	
Lead	ppm	ASTM D5185(m)	>40	2	4	
Copper	ppm	ASTM D5185(m)	>330	<1	1	
Tin	ppm	ASTM D5185(m)	>15	<1	<1	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	2	2	
Barium	ppm	ASTM D5185(m)	1	0	0	
Molybdenum	ppm	ASTM D5185(m)	1	57	60	
Manganese	ppm	ASTM D5185(m)	1	0	0	
Magnesium	ppm	ASTM D5185(m)	10	921	964	
Calcium	ppm	ASTM D5185(m)	2942	1033	1044	
Phosphorus	ppm	ASTM D5185(m)	1102	973	980	
Zinc	ppm	ASTM D5185(m)	1351	1123	1167	
Sulfur	ppm	ASTM D5185(m)	3903	2647	2474	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINAN	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	2	2	
Sodium	ppm	ASTM D5185(m)		<1	2	
Potassium	ppm	ASTM D5185(m)	>20	2	1	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.3	0.7	
Nitration	Abs/cm	ASTM D7624*	>20	6.4	7.6	
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.4	21.2	
		-		- •		



OIL ANALYSIS REPORT



FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.6	16.9	
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	10.9	11.1	
GRAPHS						

Jan Z	/isc @ 100°C	cSt	ASTM D7279(m)	11.4	10.9	11.1	
	GRAPHS						
250	Iron (ppm)				Lead (ppm)		
250	Severe				Severe		
200					1		
150 E	Ab				Abnormal		
100	Abnormal			-	40 - Abnormal		
50					20		
0	23			24	23-0		24
	Nov24/23			Jan26/24	Nov24/23		Jan26/24
50	Aluminum (ppm)				Chromium ((ppm)	
40	Severe				Severe		
_ 30					30+		
mdd	Abnormal				Abnormal		
20							
10					10		
0	4/23			Jan 26/24	4/23		Jan26/24
	Nov24/23			Jan2	Nov24/23		Jan2
400	Copper (ppm)				Silicon (ppm	n)	
350	Severe Abnormal				70 Severe		
300 250	<u> </u>				50		
틆 200	-				E 40		
150 100					Abnormal		
50					10		
0	Nov24/23			Jan26/24	Nov24/23		Jan26/24
				Jan2	Nov2		Jan2
15	Viscosity @ 100°C	; 			Soot %		
14					5.0 Severe		
13	Abnormal				4.0		
CSt (100°C)	Base				53.0 - Abnormal		
10	Abnormal				2.0		
9	-				1.0		
8	Nov24/23			Jan 26/24	-4/23 -4/23		Jan26/24 +
	Nov2			Jan2	Nov24/23		Jan2



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5722818 Test Package : MOB 1

: GFL0102625

: 02613723

Recieved Diagnosed

: 06 Feb 2024

: 06 Feb 2024 Diagnostician : Wes Davis

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW 8409 -15th Street NW Edmonton, AB

CA T6P 0B8 Contact: Tim Greig tgreig@gflenv.com T: (780)231-0521

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.