

PROBLEM SUMMARY

Sample Rating Trend

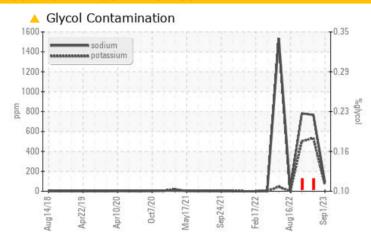
COOL CHEMICALS

Machine Id 3806C Component

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (10 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS								
Sample Status				ATTENTION	SEVERE	SEVERE		
Sodium	ppm	ASTM D5185m		4 94	<u>^</u> 767	<u>^</u> 782		
Potassium	ppm	ASTM D5185m	>20	63	<u></u> 534	<u></u> 502		

Customer Id: GFL031 Sample No.: GFL0050902 Lab Number: 05941762 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid			?	Oil and filter change at the time of sampling has been noted.
Change Filter			?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

11 Aug 2023 Diag: Jonathan Hester

GLYCOL



We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of glycol present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.



19 May 2023 Diag: Don Baldridge

GLYCOL



We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of glycol present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

16 Aug 2022 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 3806C Component

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels remain elevated. Test for glycol is negative.

▲ Fluid Condition

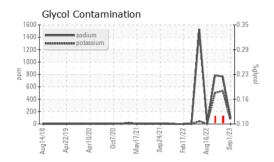
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

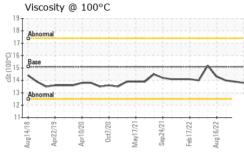
10 GAL)							
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		GFL0050902	GFL0050894	GFL0084249	
Sample Date		Client Info		01 Sep 2023	11 Aug 2023	19 May 2023	
Machine Age	hrs	Client Info		12126	12002	11544	
Oil Age	hrs	Client Info		124	12002	11544	
Oil Changed		Client Info		Changed	Changed	Changed	
Sample Status				ATTENTION	SEVERE	SEVERE	
WEAR METAL	_S	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	6	17	9	
Chromium	ppm	ASTM D5185m	>4	<1	2	1	
Nickel	ppm	ASTM D5185m	>2	0	1	<1	
Titanium	ppm	ASTM D5185m		<1	<1	<1	
Silver	ppm	ASTM D5185m	>3	0	0	0	
Aluminum	ppm	ASTM D5185m	>9	<1	3	0	
Lead	ppm	ASTM D5185m	>30	<1	8	5	
Copper	ppm	ASTM D5185m	>35	<1	3	2	
Tin	ppm	ASTM D5185m	>4	<1	<1	<1	
Vanadium	ppm	ASTM D5185m		<1	0	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	50	40	12	27	
Barium	ppm	ASTM D5185m	5	0	0	0	
Molybdenum	ppm	ASTM D5185m	50	67	144	148	
Manganese	ppm	ASTM D5185m	0	<1	<1	<1	
Magnesium	ppm	ASTM D5185m	560	624	543	613	
Calcium	ppm	ASTM D5185m	1510	1560	1448	1587	
Phosphorus	ppm	ASTM D5185m	780	823	679	833	
Zinc	ppm	ASTM D5185m	870	986	976	1022	
Sulfur	ppm	ASTM D5185m	2040	3036	2576	2956	
CONTAMINA	NTS	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+100	7	20	21	
Sodium	ppm	ASTM D5185m		<u>^</u> 94	<u>▲</u> 767	<u>▲</u> 782	
Potassium	ppm	ASTM D5185m	>20	△ 63	△ 534	▲ 502	
Glycol	%	*ASTM D2982			0.12	0.12	
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0	0.1	0.1	
Nitration	Abs/cm	*ASTM D7624	>20	7.2	11.1	8.4	
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.4	22.3	20.1	
FLUID DEGRA	DATION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	16.7	15.7	
Dana Manada an (DM)	1/011/	ACTM DODGC	100	7.0	0.5	44.4	

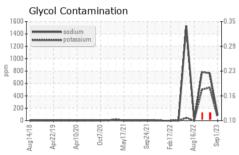
Base Number (BN) mg KOH/g ASTM D2896 10.2 7.9



OIL ANALYSIS REPORT



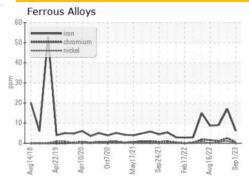


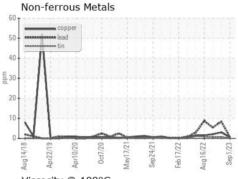


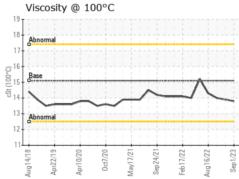
140 0 44 1					
White Metal sca	lar *Visual	NONE	NONE	NONE	NONE
Yellow Metal sca	lar *Visual	NONE	NONE	NONE	NONE
Precipitate sca	lar *Visual	NONE	NONE	NONE	NONE
Silt sca	lar *Visual	NONE	NONE	NONE	NONE
Debris sca	lar *Visual	NONE	NONE	NONE	NONE
Sand/Dirt sca	lar *Visual	NONE	NONE	NONE	NONE
Appearance sca	lar *Visual	NORML	NORML	NORML	NORML
Odor sca	lar *Visual	NORML	NORML	NORML	NORML
Emulsified Water sca	lar *Visual	>0.1	NEG	NEG	NEG
Free Water sca	lar *Visual		NEG	NEG	NEG

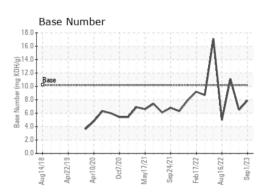
FLUID PROPE	ERIJE9	method	ilmit/base	current	nistory i	nistoryz
Visc @ 100°C	cSt	ASTM D445	15.1	13.8	13.9	14.0

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: GFL0050902

: 05941762 : 10632374 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 05 Sep 2023

: 07 Sep 2023 Diagnosed : Jonathan Hester Diagnostician

GFL Environmental - 031 - Greenville/Spartanburg

1635 Antioch Church Rd Piedmont, SC US 29673

Contact: TECHNICIAN ACCOUNT catherine.anastasio@wearcheck.com

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)

T:

F: