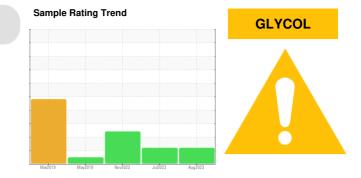
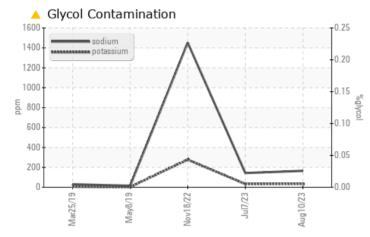
PROBLEM SUMMARY



Machine Id 924022-260240 Component Diesel Engine

Fluid PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status			ATTENTION	ATTENTION	ABNORMAL		
Sodium	ppm	ASTM D5185m	<u> </u>	1 43	1 452		

Customer Id: GFL820 Sample No.: GFL0088173 Lab Number: 05930205 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 <u>customerservice@wearcheck.com</u>

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

07 Jul 2023 Diag: Jonathan Hester



No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Sodium and/or potassium levels remain elevated. Test for glycol is negative. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



18 Nov 2022 Diag: Jonathan Hester

08 May 2019 Diag: Wes Davis



We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.





Resample at the next service interval to monitor. No other corrective action is recommended at this time.All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.





OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL

Machine Id 924022-260240

Component Diesel Engine

Fluid PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

A Recommendation

No corrective action is recommended at this time. 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 suitable for further service.

SAMPLE INFORI		method	limit/base	current	history1	history2
		Client Info		GFL0088173	GFL0067731	GFL0054063
Sample Number		Client Info			07 Jul 2023	
Sample Date	bro	Client Info		10 Aug 2023		18 Nov 2022 11489
Machine Age Oil Age	hrs	Client Info		0	0	0
•	hrs	Client Info		U N/A	N/A	÷
Oil Changed		Client Inio		ATTENTION	ATTENTION	Not Changd ABNORMAL
Sample Status						
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	19	15	54
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	4	14
Lead	ppm	ASTM D5185m	>40	0	<1	5
Copper	ppm	ASTM D5185m	>330	1	<1	3
Tin	ppm	ASTM D5185m	>15	0	0	<1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	<1	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	70	66	198
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	928	916	808
Calcium	ppm	ASTM D5185m	1070	1032	1035	1203
Phosphorus	ppm	ASTM D5185m	1150	938	976	945
Zinc	ppm	ASTM D5185m	1270	1179	1195	1232
Sulfur	ppm	ASTM D5185m	2060	3314	3584	3577
Lithium	ppm	ASTM D5185m				
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	4	21
Sodium	ppm	ASTM D5185m		🔺 165	1 43	<u> </u>
Potassium	ppm	ASTM D5185m	>20	34	33	2 77
Glycol	%	*ASTM D2982		NEG	NEG	NEG
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.7
Nitration	Abs/cm	*ASTM D7624	>20	7.4	6.4	13.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	18.6	23.4
FLUID DEGRA		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	13.7	17.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.5	9.7	12.2
- (-)	0					

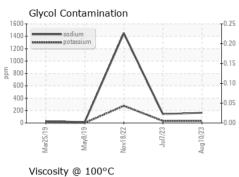
Contact/Location: James Jarrett - GFL820

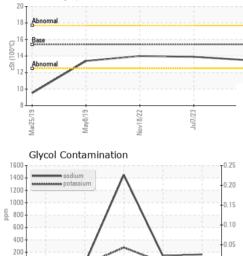


n

Mar25/19

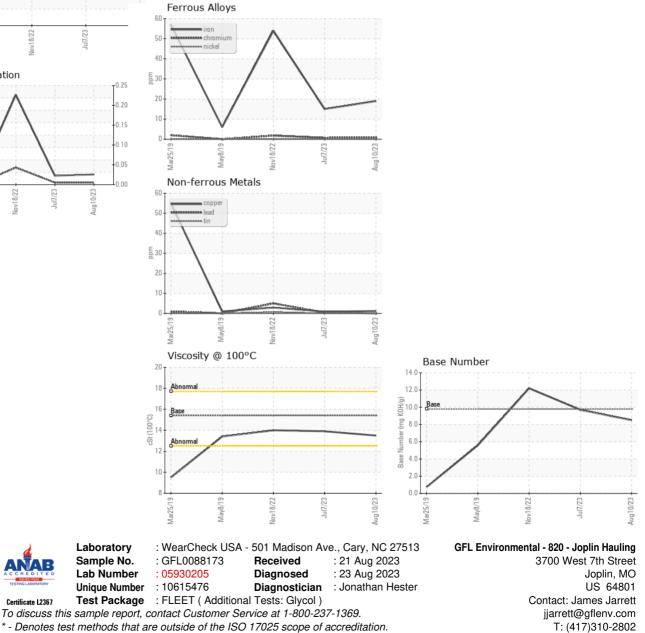
OIL ANALYSIS REPORT





Nov18/22

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
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	13.9	14.0
GRAPHS						



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

F: