

# **PROBLEM SUMMARY**

Sample Rating Trend



Machine Id **525028-971** 

Component **Diesel Engine** 

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

# **COMPONENT CONDITION SUMMARY**



# RECOMMENDATION

We advise that you check for possible coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition. ( Customer Sample Comment: Sampled oil )

PROBLEMATION	PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	NORMAL	NORMAL			
Sodium	ppm	ASTM D5185m		<b>163</b>	33	19			

Customer Id: GFL622 Sample No.: GFL0078732 Lab Number: 05800574 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
Resample			?	We recommend an early resample to monitor this condition.
Check Glycol Access			?	We advise that you check for the source of the coolant leak.

# HISTORICAL DIAGNOSIS

#### 22 Nov 2022 Diag: Wes Davis

#### NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. 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.



## 07 Jun 2022 Diag: Wes Davis

#### NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. 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.

# view report

#### 26 Aug 2021 Diag: Wes Davis

#### NORMAL



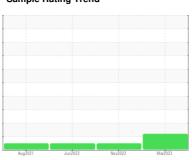
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





# **OIL ANALYSIS REPORT**

Sample Rating Trend



GLYCOL



525028-971

Component

**Diesel Engine** 

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

# DIAGNOSIS

#### Recommendation

We advise that you check for possible coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition. ( Customer Sample Comment: Sampled oil )

#### Wear

All component wear rates are normal.

## Contamination

Sodium and/or potassium levels are high.

#### Fluid Condition

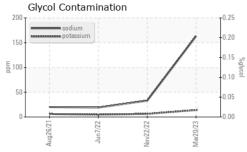
The BN result indicates that there is suitable alkalinity remaining in the oil.

GAL)		Aug <sup>2</sup> 02	1 Jun2022	Nov2022 M	ar2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0078732	GFL0062995	GFL0052812
Sample Date		Client Info		20 Mar 2023	22 Nov 2022	07 Jun 2022
Machine Age	hrs	Client Info		17264	17049	16662
Oil Age	hrs	Client Info		215	384	359
Oil Changed		Client Info		Not Changd	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
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	21	32	29
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	3
Lead	ppm	ASTM D5185m	>40	1	2	3
Copper	ppm	ASTM D5185m	>330	<1	1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m				
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	0	8	15	13
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	76	79	72
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1014	1023	1021
Calcium	ppm	ASTM D5185m	1070	1234	1365	1295
Phosphorus	ppm	ASTM D5185m	1150	1080	1103	1141
Zinc	ppm	ASTM D5185m	1270	1313	1385	1357
Sulfur	ppm	ASTM D5185m	2060	3236	3580	3182
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	6	6	5
Sodium	ppm	ASTM D5185m		<b>163</b>	33	19
Potassium	ppm	ASTM D5185m	>20	14	6	5
Glycol	%	*ASTM D2982		NEG	NEG	NEG
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.7	0.7
Nitration	Abs/cm	*ASTM D7624	>20	12.0	13.2	13.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	27.0	25.5
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.5	21.6	22.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.7	8.9	7.1
(DIV)	mg nong		3.0	0.7	0.0	

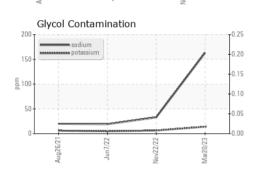


13

# **OIL ANALYSIS REPORT**



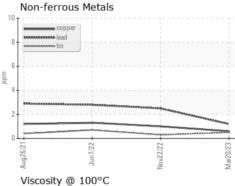
0	Management	~	2		0.00
	Aug26/21	/Z/Lun//2	Nov22/22	Mar20/2:	
	A	_	2	Σ	
Visc	osity (	ര 100°C			
Viso	cosity (	@ 100°C			
Viso	cosity (	@ 100°C		1	
19	cosity (	@ 100°C			

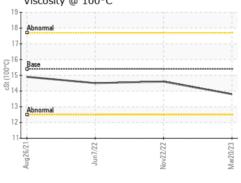


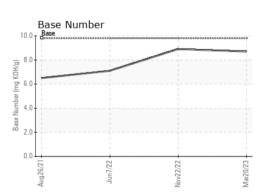
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

FLUID PROPI		method	iiiiii/base	current	riistory i	riistoryz
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	14.6	14.5

# **GRAPHS** Ferrous Alloys











Laboratory Sample No. Lab Number Unique Number : 10390258

: GFL0078732 : 05800574

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 24 Mar 2023

Diagnosed : 27 Mar 2023 Diagnostician : Jonathan Hester

Test Package : FLEET ( Additional Tests: Glycol )

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)

GFL Environmental - 622 - Traverse City Hauling

160 Hughes Dr Traverse City, MI US 49686

Contact: GARY BREWER

T:

F: