

# **PROBLEM SUMMARY**



GLYCOL



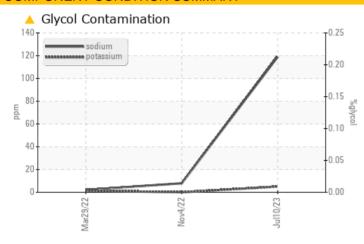


Machine Id 4554M Component

Diesel Engine

PETRO CANADA DURON HP 15W40 (36 QTS)

### **COMPONENT CONDITION SUMMARY**



### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATION	C TEST	RESULT	S			
Sample Status				ABNORMAL	NORMAL	NORMAL
Sodium	ppm	ASTM D5185m		<u> </u>	8	2

Customer Id: GFL410 Sample No.: GFL0084883 Lab Number: 05897179 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.
Resample			?	We recommend an early resample to monitor this condition.

### HISTORICAL DIAGNOSIS

04 Nov 2022 Diag: Wes Davis





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.



29 Mar 2022 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**



Machine Id 4554M Component **Diesel Engine** 

PETRO CANADA DURON HP 15W40 (36 QTS)

### **DIAGNOSIS**

### Recommendation

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.

### Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

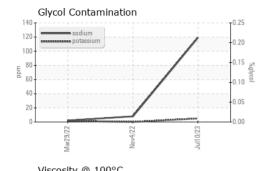
### Fluid Condition

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.

)N HE 15W40 (30	0 (13)	Ma	Mar2022 N		ov2022 Jul2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		GFL0084883	GFL0059209	GFL0018498	
Sample Date		Client Info		10 Jul 2023	04 Nov 2022	29 Mar 2022	
Machine Age	hrs	Client Info		21346	19720	8295	
Oil Age	hrs	Client Info		1626	19720	0	
Oil Changed		Client Info		Changed	Changed	N/A	
Sample Status				ABNORMAL	NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2	
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0	
WEAR METAL	S	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>75	8	10	19	
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1	
Nickel	ppm	ASTM D5185m	>4	0	0	0	
Titanium	ppm	ASTM D5185m	>2	<1	0	0	
Silver	ppm	ASTM D5185m	>2	0	<1	0	
Aluminum	ppm	ASTM D5185m	>15	2	1	1	
Lead	ppm	ASTM D5185m	>25	1	<1	0	
Copper	ppm	ASTM D5185m	>100	8	<1	<1	
Tin	ppm	ASTM D5185m	>4	0	<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		4	6	6	
Barium	ppm	ASTM D5185m		0	0	0	
Molybdenum	ppm	ASTM D5185m		61	56	59	
Manganese	ppm	ASTM D5185m		<1	<1	<1	
Magnesium	ppm	ASTM D5185m		895	889	961	
Calcium	ppm	ASTM D5185m		1056	1026	1120	
Phosphorus	ppm	ASTM D5185m		969	972	1094	
Zinc	ppm	ASTM D5185m		1188	1193	1322	
Sulfur	ppm	ASTM D5185m		3638	3423	2665	
CONTAMINAN	ITS	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	4	2	3	
Sodium	ppm	ASTM D5185m		<u> </u>	8	2	
Potassium	ppm	ASTM D5185m	>20	5	0	2	
Glycol	%	*ASTM D2982		NEG	NEG	NEG	
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>6	0.2	0.5	0.5	
Nitration	Abs/cm	*ASTM D7624	>20	5.9	8.7	7.9	
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	21.4	20.6	
FLUID DEGRA	DATION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.3	16.5	15.8	
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.5	9.7	9.5	
_ a 30 1 (a 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	mg nong		5.0	0.0	0.7	0.0	



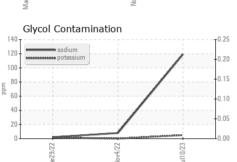
### **OIL ANALYSIS REPORT**



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

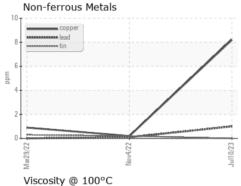
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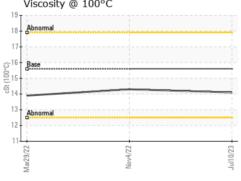


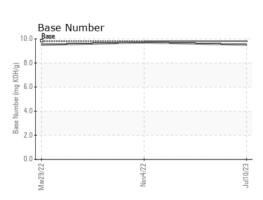


# Ferrous Alloys

**GRAPHS** 











Laboratory Sample No. Lab Number Unique Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0084883 : 05897179

Received : 10552989

Diagnosed

: 13 Jul 2023 : 17 Jul 2023

Diagnostician : Jonathan Hester

Test Package : FLEET ( Additional Tests: Glycol ) Certificate L2367 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 - 410 - Michigan West

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