

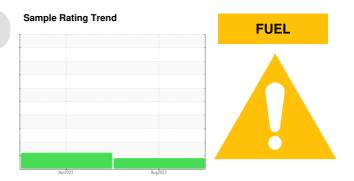
# **PROBLEM SUMMARY**



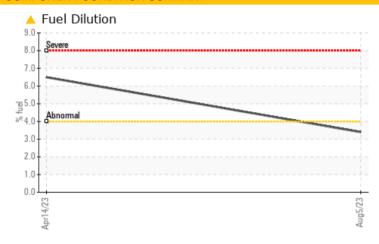
# Emergency Generator Machine Id Emergency Generator

Front Left Auxiliary Engine

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



## **COMPONENT CONDITION SUMMARY**



#### RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS							
Sample Status				MARGINAL	ABNORMAL		
Fuel	%	ASTM D7593*	>4.0	<b>△</b> 3.4	<u>△</u> 6.5		

Customer Id: VMASSEY Sample No.: WC0810852 Lab Number: 02575875 Test Package: MAR 1

To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

## **RECOMMENDED ACTIONS**

Action	Status	Date	Done By	Description
Information Required			?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

## HISTORICAL DIAGNOSIS

14 Apr 2023 Diag: Wes Davis



We recommend that you change the oil at the next available stoppage or outage. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.



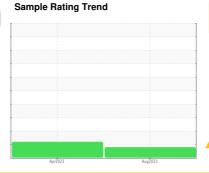


# **OIL ANALYSIS REPORT**



Front Left Auxiliary Engine

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





#### DIAGNOSIS

#### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### Wear

All component wear rates are normal.

#### Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

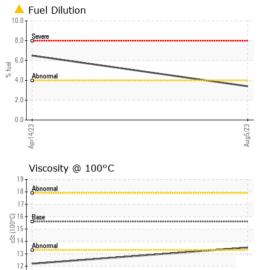
#### **Fluid Condition**

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

ON HP 15W40 (	· GAL)		Apr2023	Aug2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0810852	WC0810862	
Sample Date		Client Info		05 Aug 2023	14 Apr 2023	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	N/A	
Sample Status				MARGINAL	ABNORMAL	
CONTAMINATION	١	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>35	1	2	
Chromium	ppm	ASTM D5185(m)	>4	0	0	
Nickel	ppm	ASTM D5185(m)	>2	0	<1	
Titanium	ppm	ASTM D5185(m)	>2	0	<1	
Silver	ppm	ASTM D5185(m)	>2	0	0	
Aluminum	ppm	ASTM D5185(m)	>25	<1	1	
Lead	ppm	ASTM D5185(m)	>7	<1	2	
Copper	ppm	ASTM D5185(m)	>65	2	8	
Tin	ppm	ASTM D5185(m)	>4	0	<1	
Antimony	ppm	ASTM D5185(m)		0	<1	
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)	0	7	32	
Barium	ppm	ASTM D5185(m)	0	0	0	
Molybdenum	ppm	ASTM D5185(m)	60	55	51	
Manganese	ppm	ASTM D5185(m)		0	<1	
Magnesium	ppm	ASTM D5185(m)	1010	921	791	
Calcium	ppm	ASTM D5185(m)	1070	1036	1167	
Phosphorus	ppm	ASTM D5185(m)	1150	1006	997	
Zinc	ppm	ASTM D5185(m)	1270	1112	1068	
Sulfur	ppm	ASTM D5185(m)	2060	2558	2668	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	3	3	
Sodium	ppm	ASTM D5185(m)		1	2	
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	
Fuel	%	ASTM D7593*	>4.0	<b>△</b> 3.4	<b>△</b> 6.5	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	
Nitration	Abs/cm	ASTM D7624*	>20	4.6	4.6	
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.1	16.6	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	12.5	11.8	

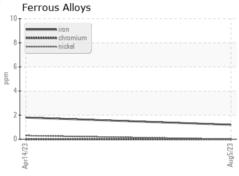


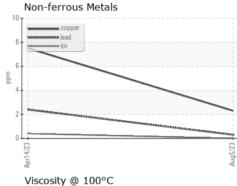
# **OIL ANALYSIS REPORT**

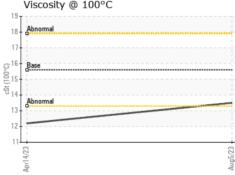


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	VLITE	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Precipitate	scalar	Visual*	NONE	NONE	NONE	
Silt	scalar	Visual*	NONE	NONE	NONE	
Debris	scalar	Visual*	NONE	NONE	NONE	
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
<b>Emulsified Water</b>	scalar	Visual*	>0.1	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
	ام مالم مما	line it /le e e e		la la barra est	la i a ta un c	
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.5	<u> </u>	

#### **GRAPHS**









CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5628935

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

: WC0810852 : 02575875

Received Diagnosed

: 15 Aug 2023 : 16 Aug 2023

Diagnostician : Wes Davis Test Package : MAR 1 ( Additional Tests: PercentFuel )

**Canadian Coast Guard** CCGS Vincent Massey, 101 Boul. Champlain Quebec, QC

**CA G1K 7Y7** Contact: Vincent Massey vincentmasseyse@ccgs-ngcc.gc.ca T: (418)573-7423

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.