

## NORMAL WEAR NORMAL CONTAMINATION **FLUID CONDITION** NORMAL

Machine Id 413101 onen **Diesel Engine** 

PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0117339	GFL0112426	GFL0099531
	Sample Date		Client Info		08 May 2024	21 Feb 2024	17 Dec 2023
	Machine Age	hrs	Client Info		557	2493	2123
	Oil Age	hrs	Client Info		557	378	0
	Filter Age	hrs	Client Info		557	378	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185(m)	>80	20	15	21
	Chromium	ppm	ASTM D5185(m)		<1	<1	<1
Metal levels are typical for a new component breaking in.	Nickel	ppm	ASTM D5185(m)		<1	<1	<1
	Titanium	ppm	ASTM D5185(m)		0	0	0
	Silver	ppm	ASTM D5185(m)	>3	0	0	0
	Aluminum	ppm	ASTM D5185(m)	>30	3	3	3
	Lead	ppm	ASTM D5185(m)	>30	0	<1	0
	Copper	ppm	ASTM D5185(m)	>150	1	1	1
	Tin	ppm	ASTM D5185(m)	>5	0	0	0
	Vanadium	ppm	ASTM D5185(m)		0	0	0
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>20	5	2	3
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)		3	3	4
	Fuel	1-1-	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	ASTM D7844*	>3	0.7	0.5	0.7
	Nitration	Abs/cm	ASTM D7624*	>20	8.5	7.7	8.7
	Sulfation	Abs/.1mm	ASTM D7415*	>30	23.9	21.7	21.6
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		1	1	1
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185(m)	1	5	3	2
	Barium	ppm	ASTM D5185(m)	1	0	0	0
	Molybdenum	ppm	ASTM D5185(m)	60	56	55	58
	Manganese	ppm	ASTM D5185(m)	1	<1	0	0
	Magnesium	ppm	ASTM D5185(m)	1010	915	915	941
	Calcium	ppm	ASTM D5185(m)	1070	1060	1046	1116
	Phosphorus	ppm	ASTM D5185(m)	1150	966	894	1003
	Zinc	ppm	ASTM D5185(m)	1270	1073	1016	1189
	Sulfur	ppm	ASTM D5185(m)	2060	2091	2182	2621
	Oxidation	Abs/.1mm	ASTM D7414*	>25	19.8	17.0	17.2

Base Number (BN) mg KOH/g ASTM D2896\* 9.6

ASTM D7279(m) 15.5

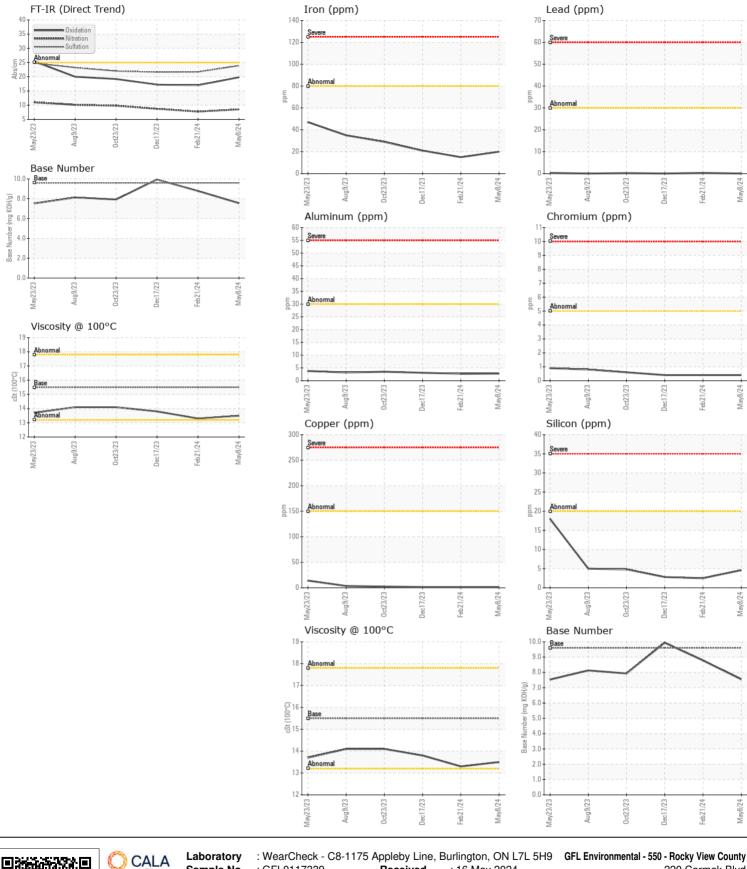
Visc @ 100°C cSt

13.5 13.3 13.8 Submitted By: GFL Calgary

8.78

7.55

9.94



Laboratory CALA Sample No. : GFL0117339 Received : 16 May 2024 Lab Number : 17 May 2024 : 02635986 Tested ISO 17025:2017 Accredited : 17 May 2024 - Wes Davis Unique Number : 5785148 Diagnosed Laboratory Test Package : MOB 2 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.

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Page 2 of 2

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Rocky View County, AB

May8/24 .

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