

NORMAL WEAR CONTAMINATION NORMAL **FLUID CONDITION** NORMAL

Machine Id 8268 Componen **Front Diesel Engine** PETRO CANADA DURON HP 15W40 (22 LTR)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0117289	GFL0099552	GFL0084313
	Sample Date		Client Info		23 May 2024	15 Jan 2024	04 Aug 2023
	Machine Age	hrs	Client Info		15176	229000	13843
	Oil Age	hrs	Client Info		600	0	579
	Filter Age	hrs	Client Info		600	0	579
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR							
WEAN	Iron	ppm	ASTM D5185(m)		25	35	26
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)		<1		2
	Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
	Titanium	ppm	ASTM D5185(m)		0	0	<1
	Silver	ppm	ASTM D5185(m)	>2	0	0	<1
	Aluminum	ppm	ASTM D5185(m)		3	4	4
	Lead	ppm	ASTM D5185(m)	>25	0	1	<1
	Copper	ppm	ASTM D5185(m)		1	2	1
	Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
	Vanadium	ppm	ASTM D5185(m)		0	0	0
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	6	11	8
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	<1	1	2
	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	ASTM D7844*	>6	0.4	0.7	1.1
	Nitration	Abs/cm	ASTM D7624*	>20	8.8	10.0	10.0
	Sulfation	Abs/.1mm	ASTM D7415*	>30	21.2	22.8	22.8
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		8	7	7
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)	0	7	4	2
	Barium	ppm	ASTM D5185(m)	0	0	0	0
	Molybdenum	ppm	ASTM D5185(m)	60	57	58	59
	Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
	Magnesium	ppm	ASTM D5185(m)	1010	923	898	951
	Calcium	ppm	ASTM D5185(m)	1070	1139	1144	1045
	Guidian	PPIII		1070	1.05	1177	1040

Phosphorus

Zinc

Sulfur

Oxidation

Visc @ 100°C

ppm

ppm

ppm

cSt

Abs/.1mm Base Number (BN) mg KOH/g ASTM D2896* 9.8

ASTM D5185(m) 1150

ASTM D5185(m) 2060

ASTM D7414* >25

ASTM D7279(m) 15.6

ASTM D5185(m)

1270

957

1161

2252

18.2

9.15

13.9

941

1173

2444

20.8

7.17

13.9

1014

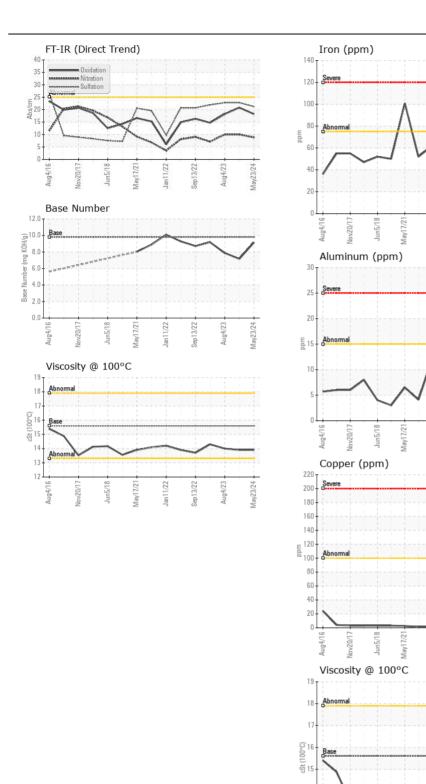
1172

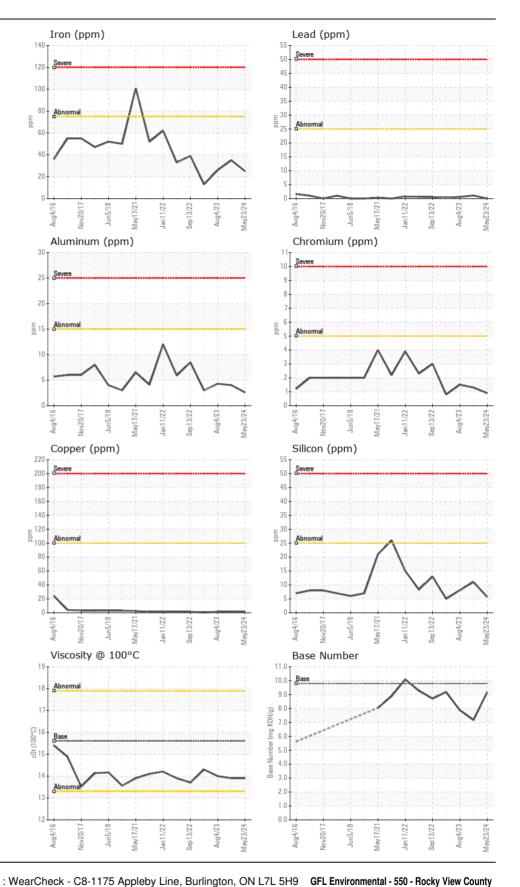
2387

18.2

7.88

14.0







CALA Sample No. : GFL0117289 Received : 28 May 2024 Lab Number : 29 May 2024 : 02637860 Tested ISO 17025:2017 Accredited : 29 May 2024 - Wes Davis Unique Number : 5787022 Diagnosed Laboratory Test Package : MOB 2 To discuss this sample report, contact Customer Service at 1-800-268-2131.

May17/21

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.

Nov20/17

Aug4/16

220 Carmek Blvd Rocky View County, AB CA T1X 1X1 Contact: GFL Calgary calgarymaintenance@gflenv.com T: F: (403)369-6163

Laboratory

Submitted By: GFL Calgary Page 2 of 2