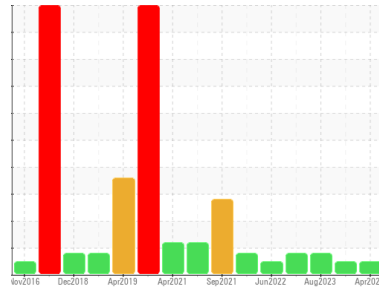




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

8266

Component

Front Diesel Engine

Fluid

PETRO CANADA DURON XL SYN BLEND 15W40 (22 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0117310	GFL0091598	GFL0084308
Sample Date	Client Info		18 Apr 2024	09 Nov 2023	03 Aug 2023
Machine Age	hrs	Client Info	16055	261823	14264
Oil Age	hrs	Client Info	514	0	403
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	MARGINAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	▲ 2.4
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>75	30	45	27
Chromium	ppm	ASTM D5185(m)	>5	<1	2	1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	4	6	6
Lead	ppm	ASTM D5185(m)	>25	0	<1	0
Copper	ppm	ASTM D5185(m)	>100	2	2	1
Tin	ppm	ASTM D5185(m)	>4	0	<1	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	1	4	2	5
Barium	ppm	ASTM D5185(m)	1	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	58	57	55
Manganese	ppm	ASTM D5185(m)	1	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	938	912	883
Calcium	ppm	ASTM D5185(m)	1070	1060	1089	1113
Phosphorus	ppm	ASTM D5185(m)	1150	953	941	987
Zinc	ppm	ASTM D5185(m)	1270	1157	1145	1136
Sulfur	ppm	ASTM D5185(m)	2060	2277	2251	2368
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	5	13	8
Sodium	ppm	ASTM D5185(m)		9	7	7
Potassium	ppm	ASTM D5185(m)	>20	2	<1	3

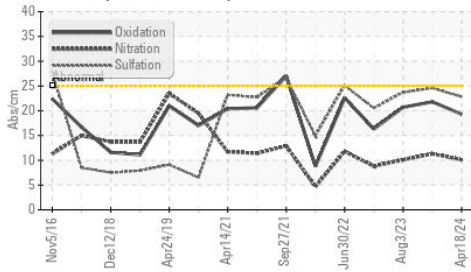
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	1	1.3	1
Nitration	Abs/cm	ASTM D7624*	>20	10.1	11.3	10.1
Sulfation	Abs.1mm	ASTM D7415*	>30	22.8	24.6	23.7

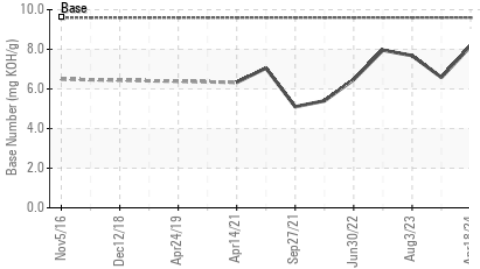


OIL ANALYSIS REPORT

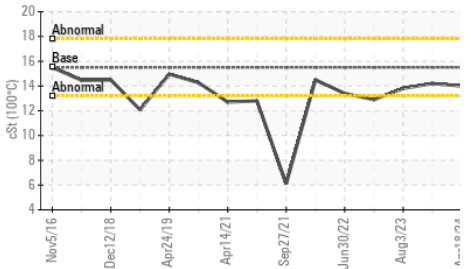
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



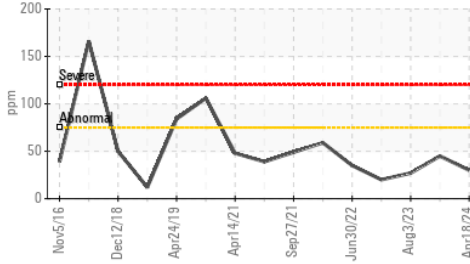
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.3	21.8	20.7
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	8.16	6.58	7.68

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

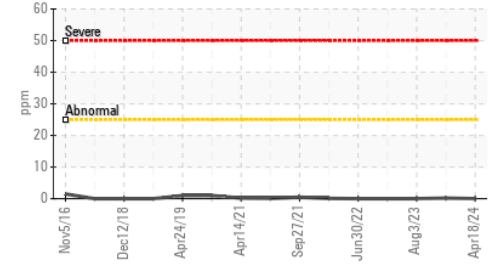
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	14.0	14.2	13.8

GRAPHS

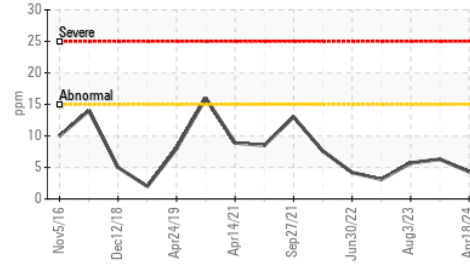
Iron (ppm)



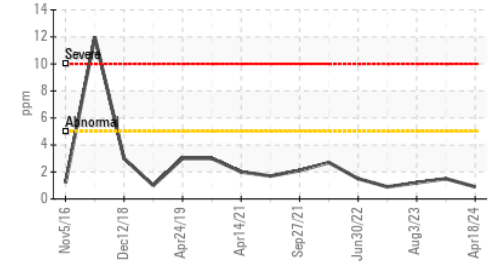
Lead (ppm)



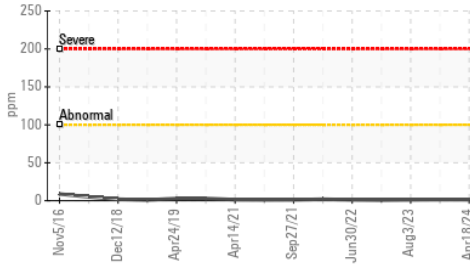
Aluminum (ppm)



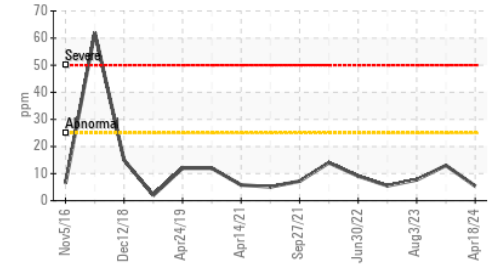
Chromium (ppm)



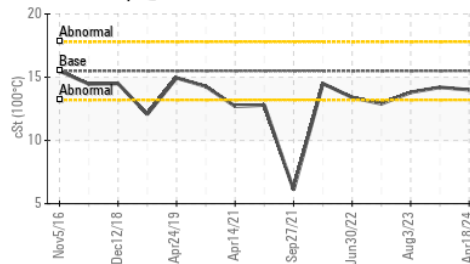
Copper (ppm)



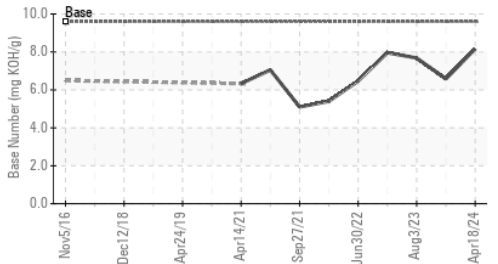
Silicon (ppm)



Viscosity @ 100°C



Base Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117310
Lab Number : 02630887
Unique Number : 5772040
Test Package : MOB 2
Received : 23 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Kevin Marson

GFL Environmental - 550 - Rocky View County
 220 Carmek Blvd
 Rocky View County, AB
 CA T1X 1X1
 Contact: GFL Calgary
 calgarymaintenance@gflenv.com

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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