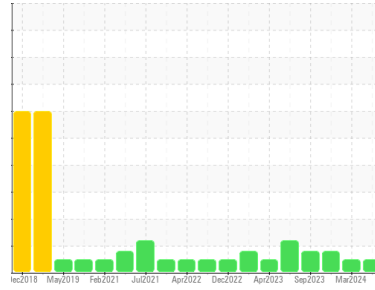




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
CGER (ATELIER DE SAINT-JEROME)
 Machine Id
801115
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0117257	GFL0112457	GFL0099527
Sample Date	Client Info		12 Jun 2024	25 Mar 2024	14 Dec 2023
Machine Age	hrs	Client Info	554	14414	183000
Oil Age	hrs	Client Info	554	600	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	MARGINAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	▲ 2
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)	>100	21	25	24
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	4	3
Lead	ppm	ASTM D5185(m)	>40	0	0	0
Copper	ppm	ASTM D5185(m)	>330	<1	1	1
Tin	ppm	ASTM D5185(m)	>15	0	0	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	7	3	2
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	59	58	57
Manganese	ppm	ASTM D5185(m)	1	<1	<1	0
Magnesium	ppm	ASTM D5185(m)	1010	935	927	919
Calcium	ppm	ASTM D5185(m)	1070	1093	1057	1029
Phosphorus	ppm	ASTM D5185(m)	1150	963	969	956
Zinc	ppm	ASTM D5185(m)	1270	1195	1190	1157
Sulfur	ppm	ASTM D5185(m)	2060	2419	2285	2430
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	8	4	6
Sodium	ppm	ASTM D5185(m)		8	8	8
Potassium	ppm	ASTM D5185(m)	>20	<1	1	1

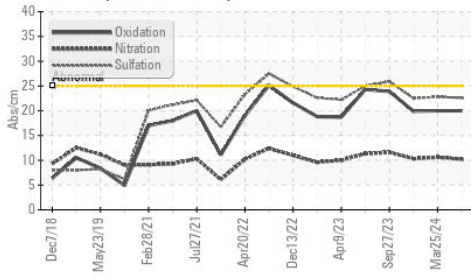
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.6	0.8	0.8
Nitration	Abs/cm	ASTM D7624*	>20	10.2	10.6	10.3
Sulfation	Abs.1mm	ASTM D7415*	>30	22.6	22.8	22.5

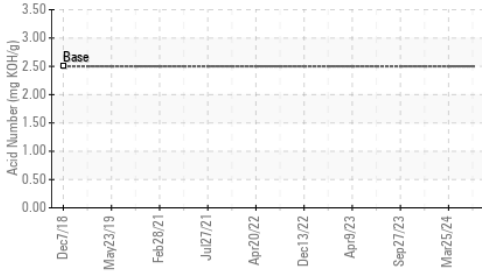


OIL ANALYSIS REPORT

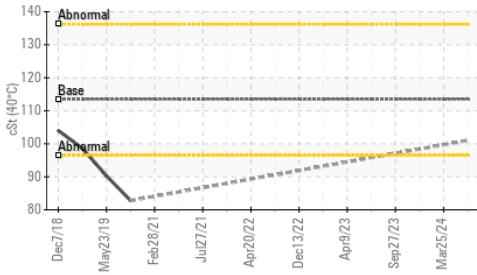
FT-IR (Direct Trend)



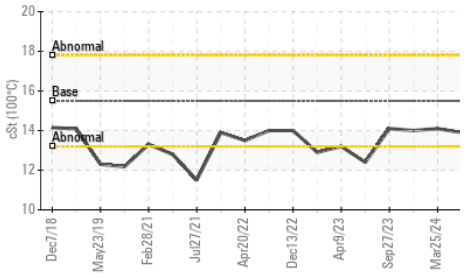
Acid Number



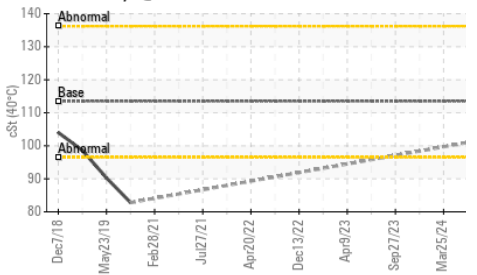
Viscosity @ 40°C



Viscosity @ 100°C



Viscosity @ 40°C

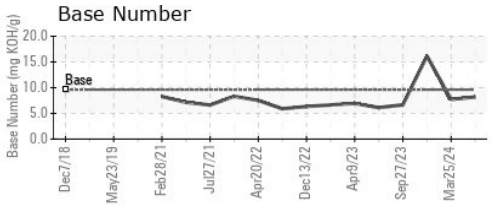
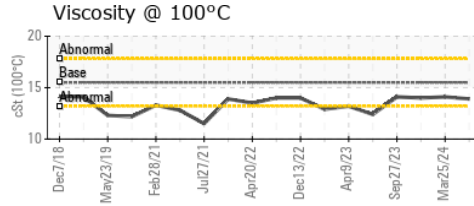
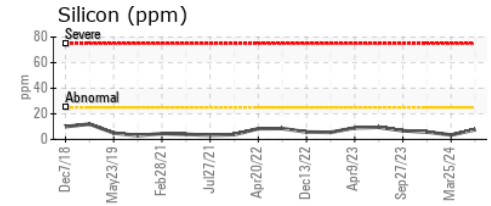
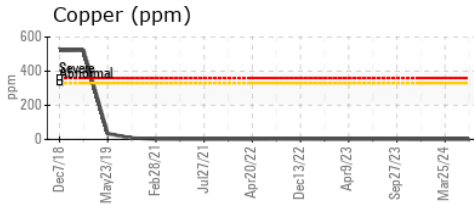
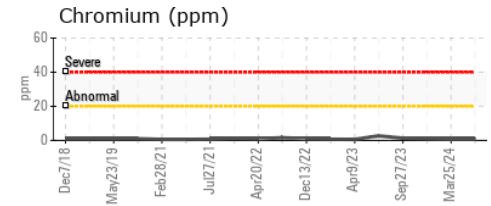
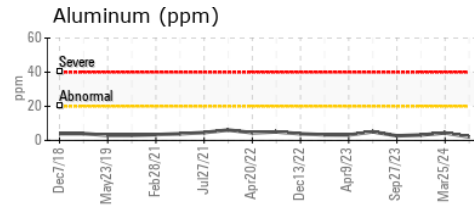
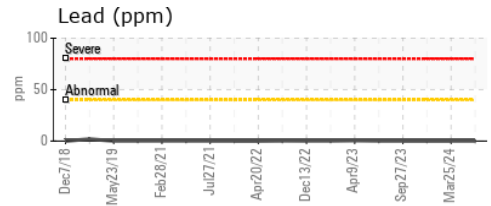
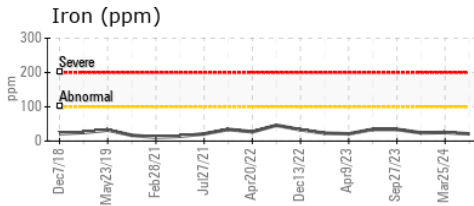


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	20.0	20.0	19.9
Acid Number (AN)	mg KOH/g	ASTM D974*	2.5	3.12	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	8.19	7.71	16.14

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	VLITE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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 @ 40°C	cSt	ASTM D7279(m)	113.5	101	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	13.9	14.1	14.0
Viscosity Index (VI)	Scale	ASTM D2270*	144	139	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117257
Lab Number : 02642290
Unique Number : 5799829
Test Package : MOB 2 (Additional Tests: KV40, TAN Auto, TAN Man, VI, Visual)

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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