



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
8400

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112556	GFL0090625	GFL0072856
Sample Date		Client Info		13 Apr 2024	07 Aug 2023	18 Feb 2023
Machine Age	hrs	Client Info		15235	14213	13349
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ABNORMAL	NORMAL	MARGINAL

WEAR

Chromium ppm levels are abnormal. Ring wear is indicated.

Iron	ppm	ASTM D5185(m)	>50	30	20	32
Chromium	ppm	ASTM D5185(m)	>5	▲ 7	3	▲ 4
Nickel	ppm	ASTM D5185(m)	>4	1	<1	1
Titanium	ppm	ASTM D5185(m)	>5	0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	2	2	2
Lead	ppm	ASTM D5185(m)	>40	8	5	4
Copper	ppm	ASTM D5185(m)	>150	2	1	2
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

There is no indication of any contamination in the oil.

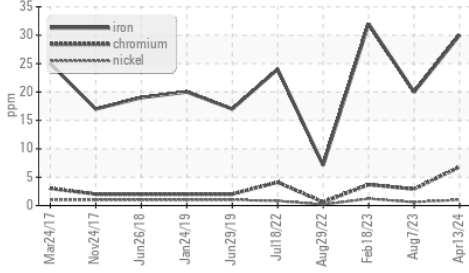
Silicon	ppm	ASTM D5185(m)	>25	6	4	6
Potassium	ppm	ASTM D5185(m)	>20	1	<1	1
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	13.5	11.5	6.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	27.0	25.8	19.4
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

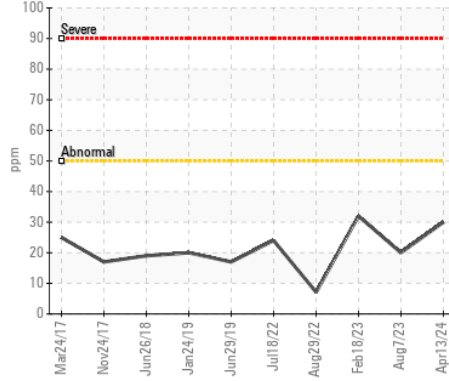
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		13	13	16
Boron	ppm	ASTM D5185(m)	50	7	6	6
Barium	ppm	ASTM D5185(m)	5	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	55	56	58
Manganese	ppm	ASTM D5185(m)	0	1	<1	1
Magnesium	ppm	ASTM D5185(m)	560	602	637	649
Calcium	ppm	ASTM D5185(m)	1510	1729	1683	1842
Phosphorus	ppm	ASTM D5185(m)	780	775	820	871
Zinc	ppm	ASTM D5185(m)	870	940	955	990
Sulfur	ppm	ASTM D5185(m)	2040	1966	2027	2109
Oxidation	Abs/.1mm	ASTM D7414*	>25	23.2	20.3	11.0
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.6	14.8	14.6

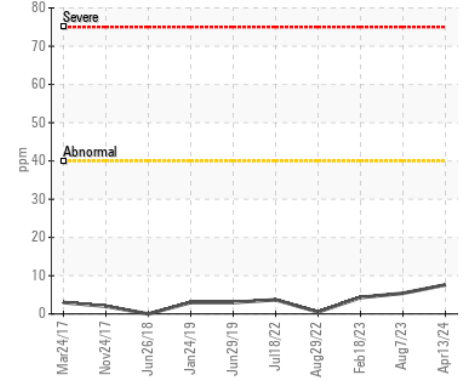
▲ Ferrous Alloys



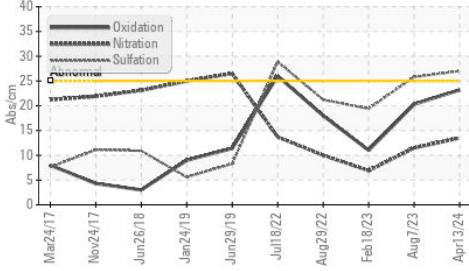
Iron (ppm)



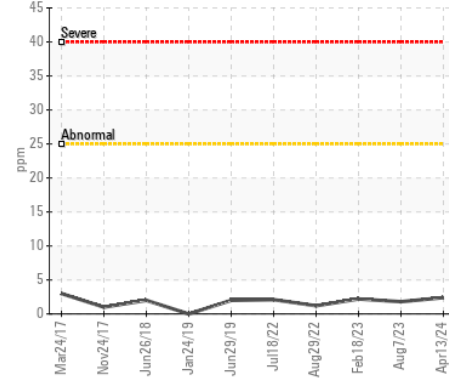
Lead (ppm)



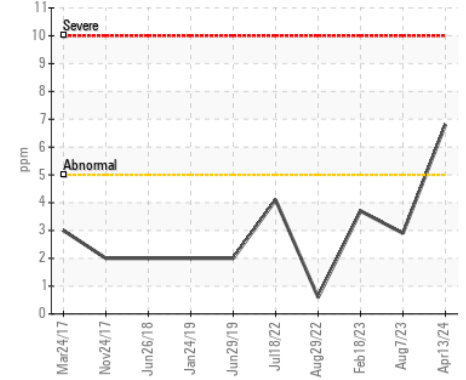
FT-IR (Direct Trend)



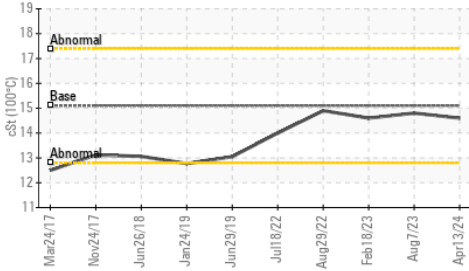
Aluminum (ppm)



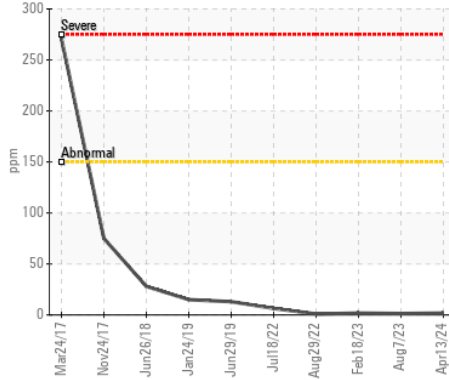
▲ Chromium (ppm)



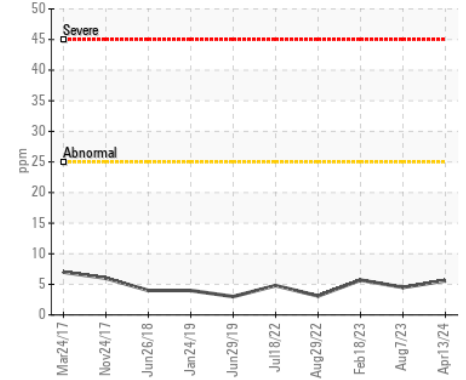
Viscosity @ 100°C



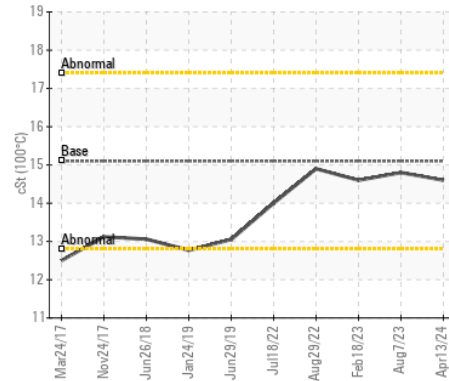
Copper (ppm)



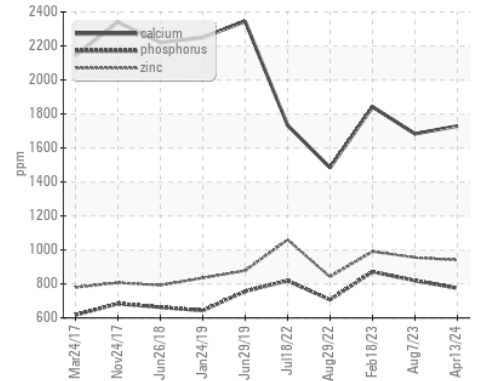
Silicon (ppm)



Viscosity @ 100°C



Additives



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112556
Lab Number : 02631563
Unique Number : 5772716
Test Package : MOB 1 (Additional Tests: Visual)

GFL Environmental - 554 - Edmonton SW
 8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com
 T: (780)231-0521
 F:

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.