

Machine Id
4501
Component
Front Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (42 LTR)

RECOMMENDATION

Check for low coolant level. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0118925	GFL0094383	GFL0094396
Sample Date		Client Info		05 Jun 2024	15 Dec 2023	20 Oct 2023
Machine Age	hrs	Client Info		21308	20364	17366
Oil Age	hrs	Client Info		21308	20364	17366
Filter Age	hrs	Client Info		21308	20364	17366
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	18	15	11
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>9	1	3	3
Lead	ppm	ASTM D5185(m)	>30	13	5	4
Copper	ppm	ASTM D5185(m)	>35	4	2	1
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	---	NONE

CONTAMINATION

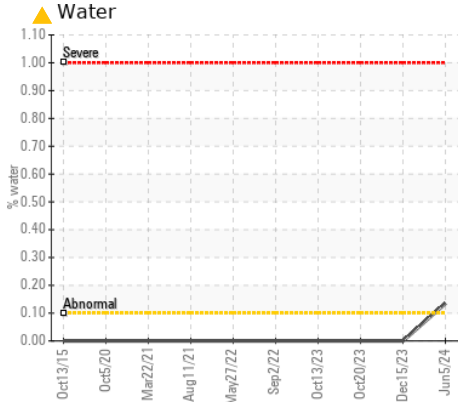
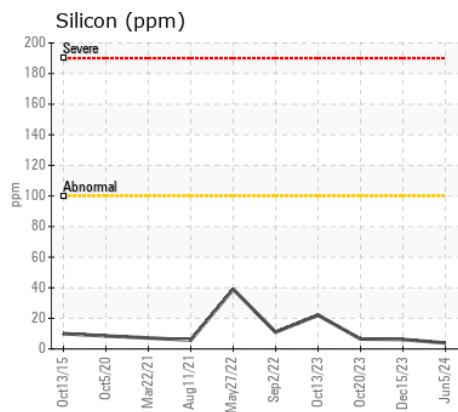
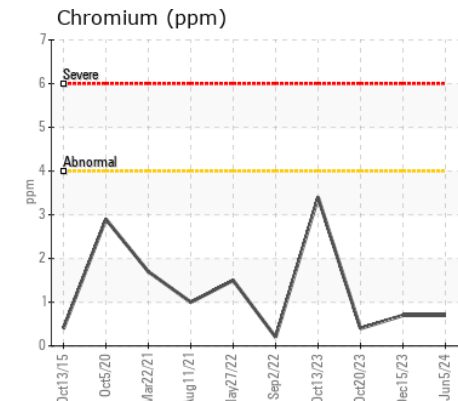
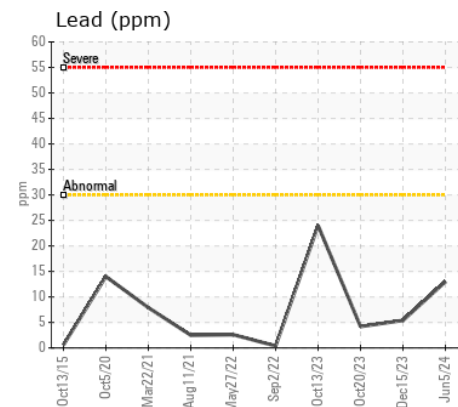
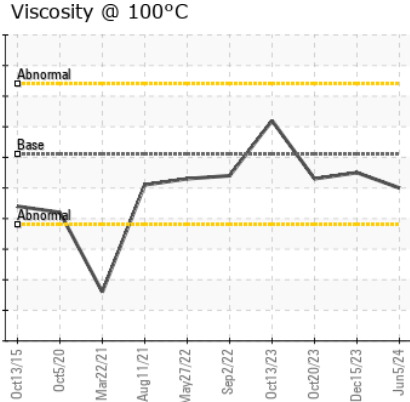
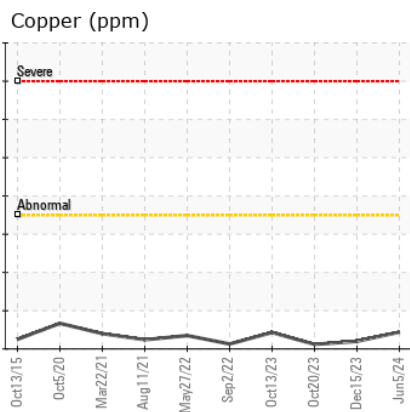
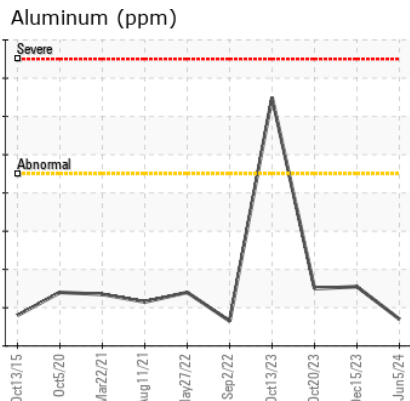
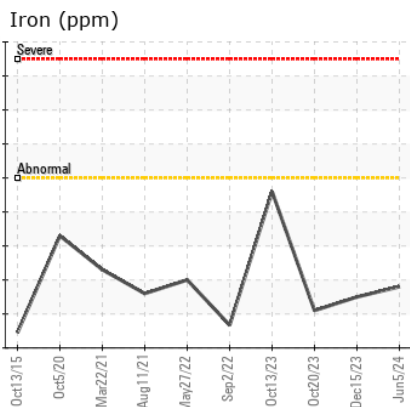
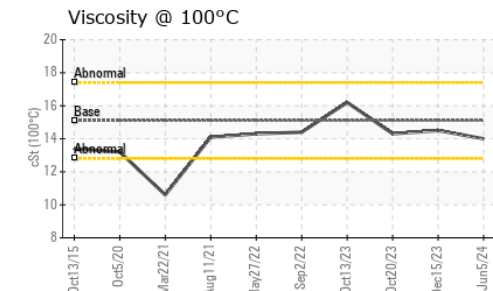
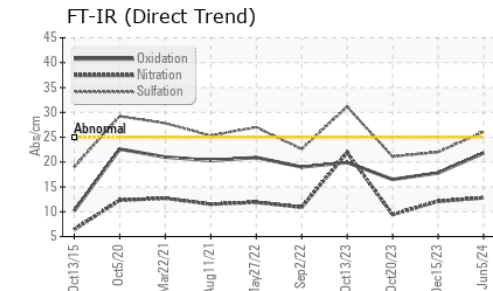
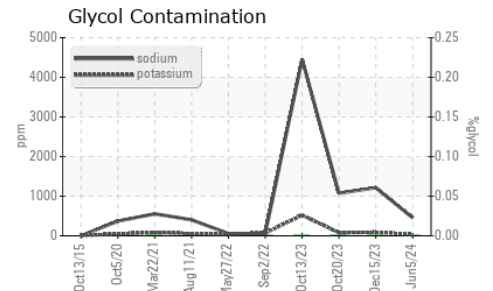
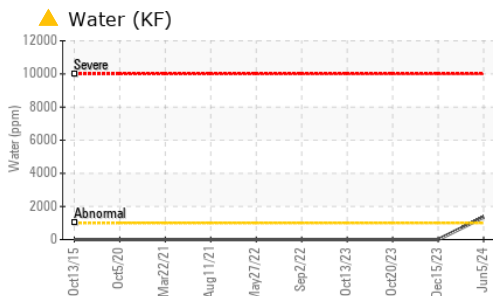
Water treatment chemicals present, indicating slow coolant leak. There is a moderate concentration of water present in the oil. Test for glycol is negative.

Silicon	ppm	ASTM D5185(m)	>+100	4	6	6
Potassium	ppm	ASTM D5185(m)	>20	32	89	80
Water	%	ASTM D6304*	>0.1	▲ 0.135	---	---
ppm Water	ppm	ASTM D6304*	>1000	▲ 1357	---	---
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.8	12.1	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.1	22.0	21.1
Silt	scalar	Visual*	NONE	NONE	---	NONE
Debris	scalar	Visual*	NONE	NONE	---	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	---	NONE
Appearance	scalar	Visual*	NORML	NORML	---	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	▲ .2%	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service (see recommendation). The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		● 453	● 1214	● 1075
Boron	ppm	ASTM D5185(m)	50	8	16	37
Barium	ppm	ASTM D5185(m)	5	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	50	56	63	60
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	560	560	524	535
Calcium	ppm	ASTM D5185(m)	1510	1525	1494	1458
Phosphorus	ppm	ASTM D5185(m)	780	628	675	727
Zinc	ppm	ASTM D5185(m)	870	887	873	851
Sulfur	ppm	ASTM D5185(m)	2040	2080	2121	2045
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.8	17.8	16.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.0	14.5	14.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118925 **Received** : 06 Jun 2024
Lab Number : 02640208 **Tested** : 10 Jun 2024
Unique Number : 5789370 **Diagnosed** : 10 Jun 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol, KF, Visual)

GFL Environmental - 222 - Sandhill
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 ORANGEVILLE, ON
 CA L9W 3X5
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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.