



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	SEVERE

Machine Id
4783
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- LTR)

RECOMMENDATION

We advise that you check the fuel injection system. 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		GFL0118965	GFL0085928	GFL0077972
Sample Date		Client Info		30 May 2024	14 Aug 2023	05 May 2023
Machine Age	hrs	Client Info		4851	4281	4207
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	69	10	8
Chromium	ppm	ASTM D5185(m)	>20	11	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	<1	1
Lead	ppm	ASTM D5185(m)	>40	5	<1	<1
Copper	ppm	ASTM D5185(m)	>330	2	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<1	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

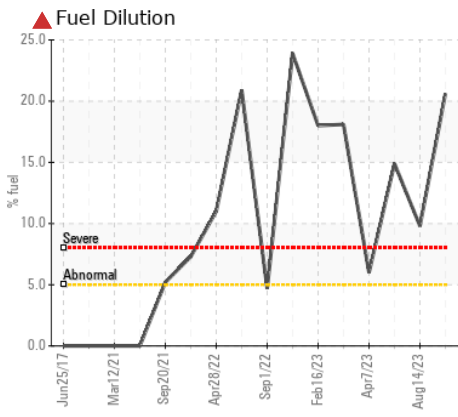
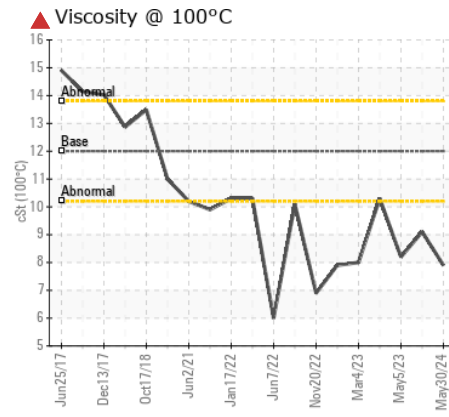
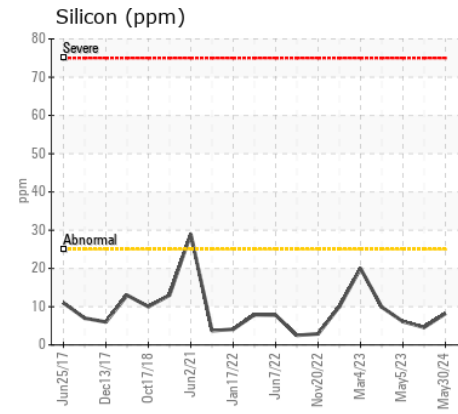
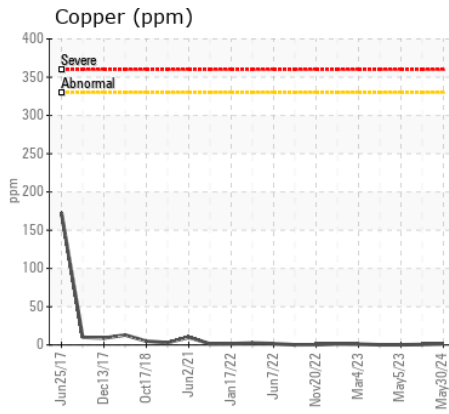
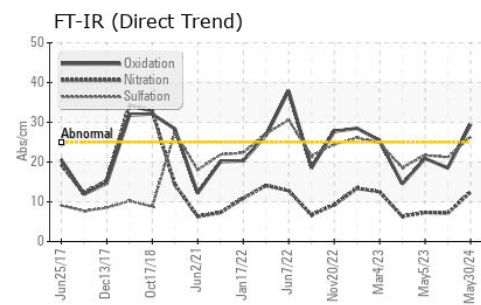
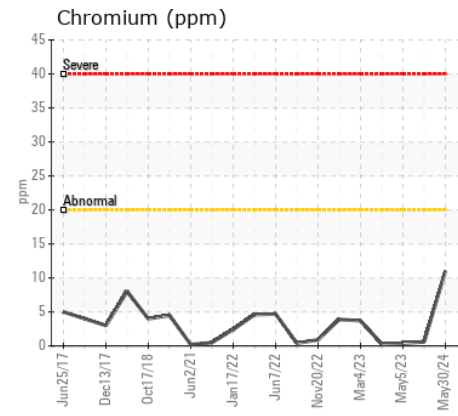
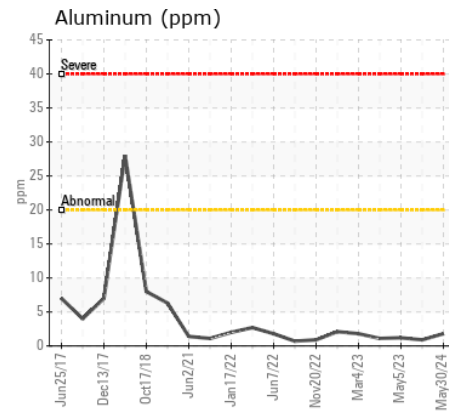
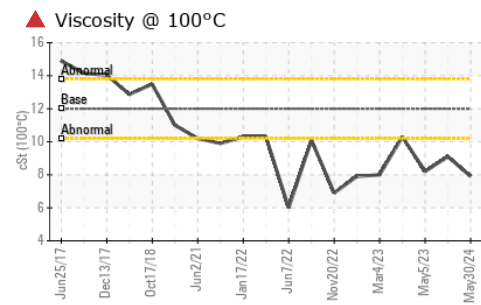
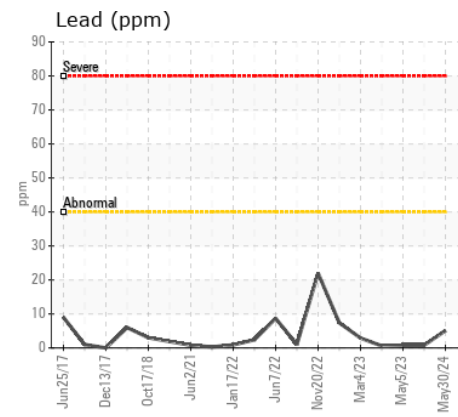
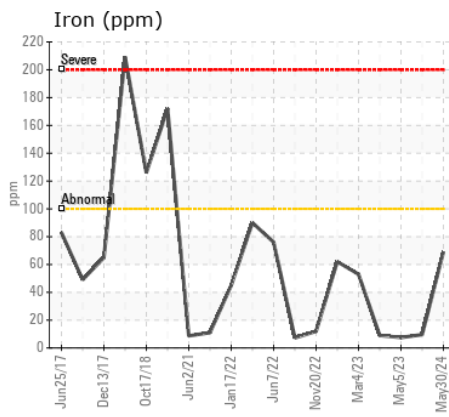
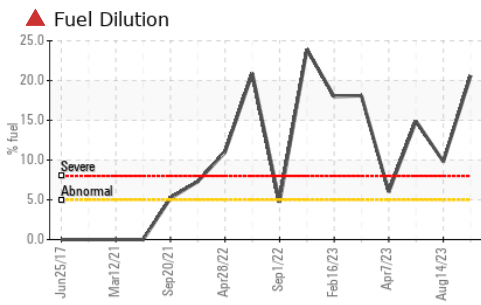
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	8	5	6
Potassium	ppm	ASTM D5185(m)	>20	4	1	0
Fuel	%	ASTM D7593*	>5	▲ 20.6	▲ 9.8	▲ 14.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	1.2	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	12.5	7.1	7.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.3	21.2	21.7
Silt	scalar	Visual*	NONE	VLITE	---	---
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

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		50	23	6
Boron	ppm	ASTM D5185(m)	2	2	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	47	51	47
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	709	830	755
Calcium	ppm	ASTM D5185(m)	1050	780	894	879
Phosphorus	ppm	ASTM D5185(m)	995	755	920	860
Zinc	ppm	ASTM D5185(m)	1180	869	1016	926
Sulfur	ppm	ASTM D5185(m)	2600	1747	2253	2147
Oxidation	Abs/.1mm	ASTM D7414*	>25	29.5	18.5	20.9
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	▲ 7.9	▲ 9.1	▲ 8.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118965
Lab Number : 02639777
Unique Number : 5788939
Test Package : MOB 1 (Additional Tests: PercentFuel, Visual)

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 Edmonton, AB
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 Contact: Tim Greig
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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.