

Machine Id
801069
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- LTR)

RECOMMENDATION

We advise that you check the fuel injection system. 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		GFL0102666	GFL0077955	GFL0064073
Sample Date		Client Info		29 Feb 2024	16 Apr 2023	05 Dec 2022
Machine Age	hrs	Client Info		12743	11649	11089
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	80	22	25
Chromium	ppm	ASTM D5185(m)	>20	4	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	12	2	4
Lead	ppm	ASTM D5185(m)	>40	9	<1	2
Copper	ppm	ASTM D5185(m)	>330	65	4	4
Tin	ppm	ASTM D5185(m)	>15	2	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

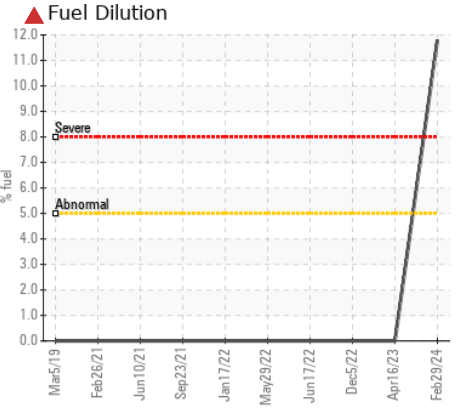
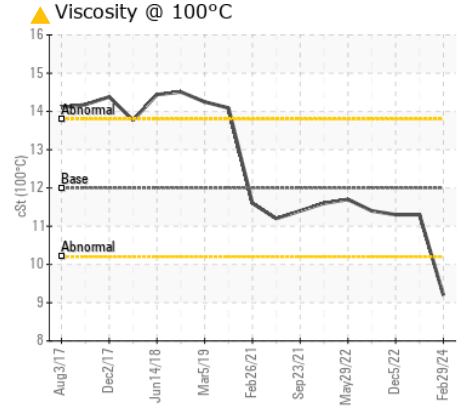
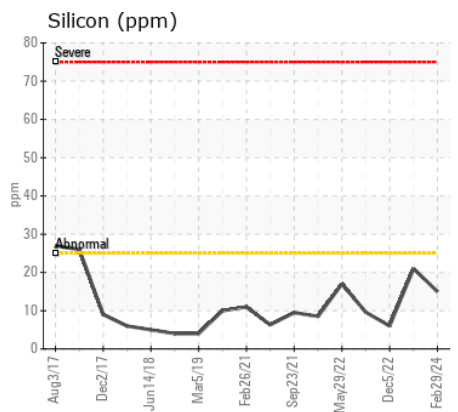
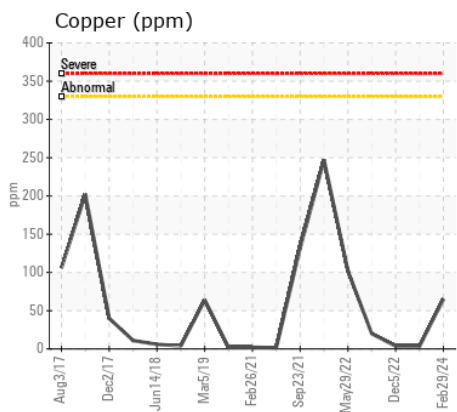
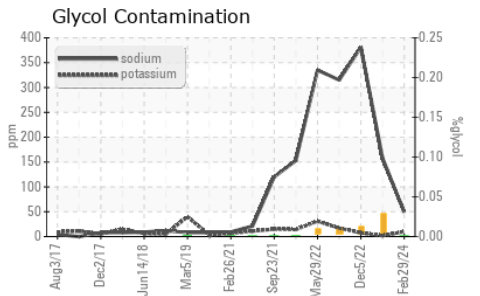
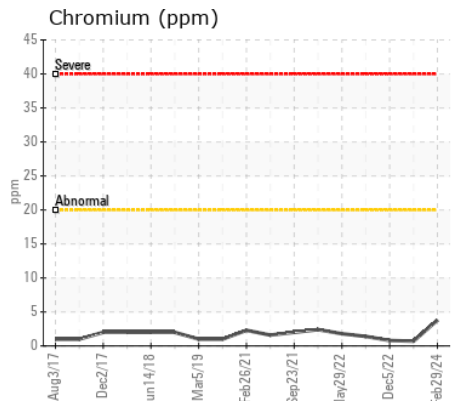
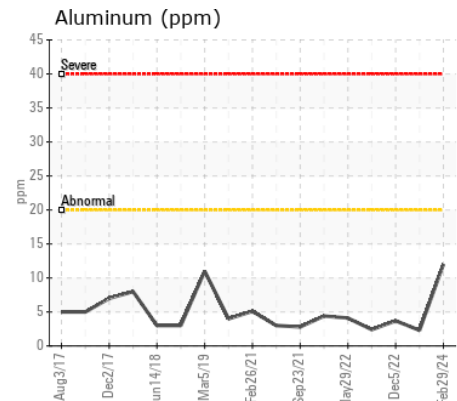
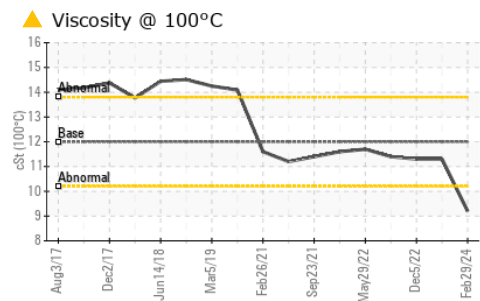
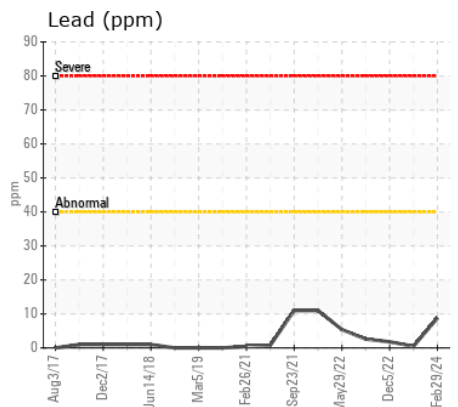
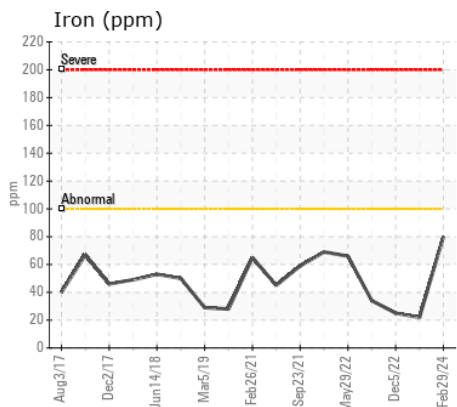
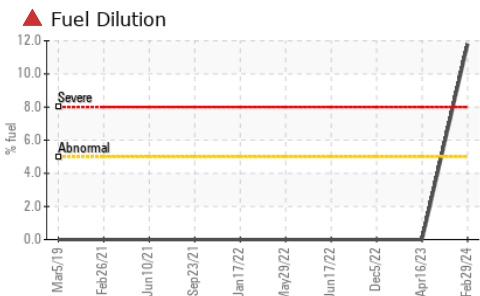
There is a high amount of fuel present in the oil. Test for glycol is negative. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	15	21	6
Potassium	ppm	ASTM D5185(m)	>20	10	2	▲ 8
Fuel	%	ASTM D7593*	>5	▲ 11.8	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	▲ 0.028	▲ 0.013
Soot %	%	ASTM D7844*	>3	0.6	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	12.0	5.1	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.7	18.2	20.3
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)		49	● 158	● 381
Boron	ppm	ASTM D5185(m)	2	2	2	2
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	54	62	75
Manganese	ppm	ASTM D5185(m)	0	2	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	826	952	951
Calcium	ppm	ASTM D5185(m)	1050	952	1079	1109
Phosphorus	ppm	ASTM D5185(m)	995	812	1070	1051
Zinc	ppm	ASTM D5185(m)	1180	999	1155	1176
Sulfur	ppm	ASTM D5185(m)	2600	2104	2697	2632
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.8	13.1	15.7
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	▲ 9.2	11.3	11.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0102666 **Received** : 06 Mar 2024
Lab Number : 02620089 **Tested** : 07 Mar 2024
Unique Number : 5737199 **Diagnosed** : 07 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel)

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 Edmonton, AB
 CA T6P 0B8
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 T: (780)231-0521
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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.