

Machine Id
4791
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0117293	GFL0097602	GFL0072807
Sample Date		Client Info		25 Apr 2024	30 Oct 2023	04 Jun 2023
Machine Age	kms	Client Info		547360	16054	0
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>110	21	23	15
Chromium	ppm	ASTM D5185(m)	>4	2	1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	3	4	2
Lead	ppm	ASTM D5185(m)	>45	0	5	2
Copper	ppm	ASTM D5185(m)	>85	4	4	2
Tin	ppm	ASTM D5185(m)	>4	0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

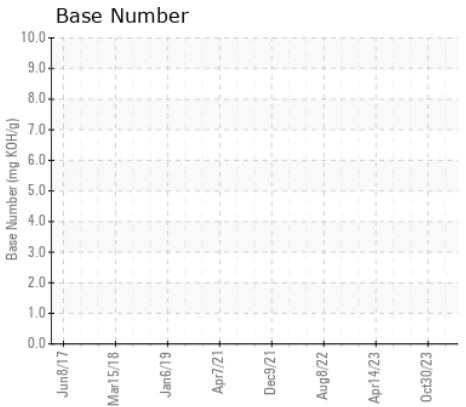
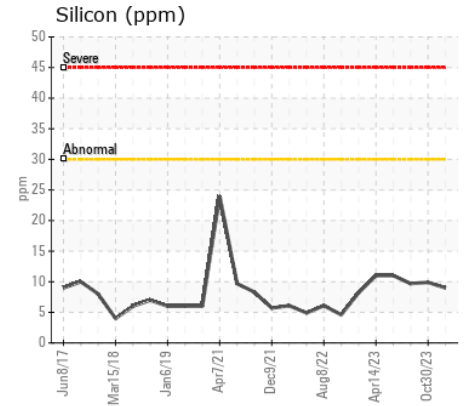
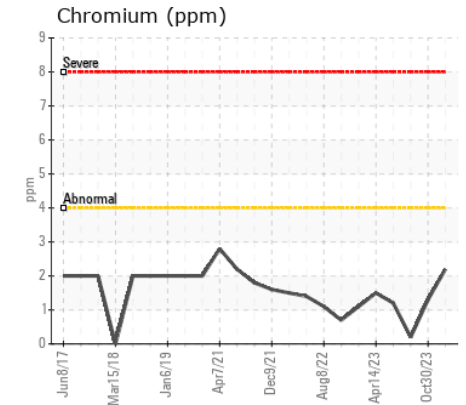
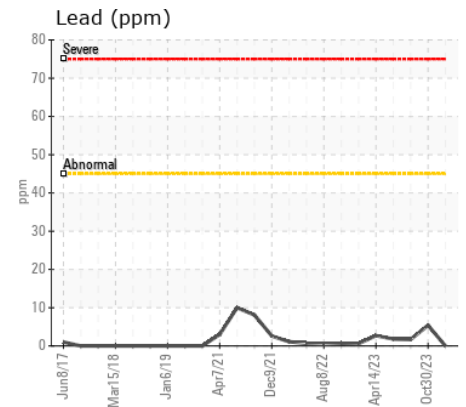
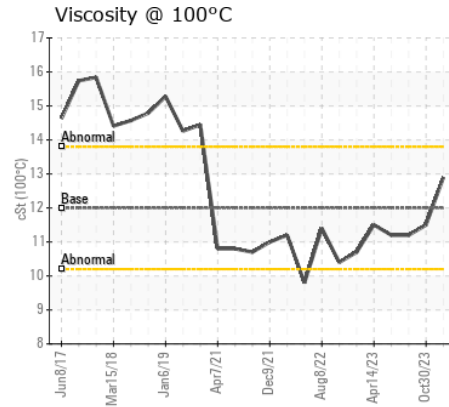
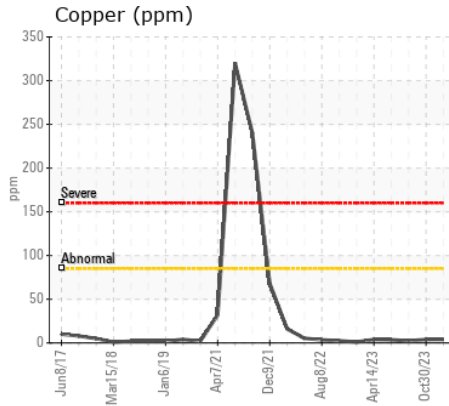
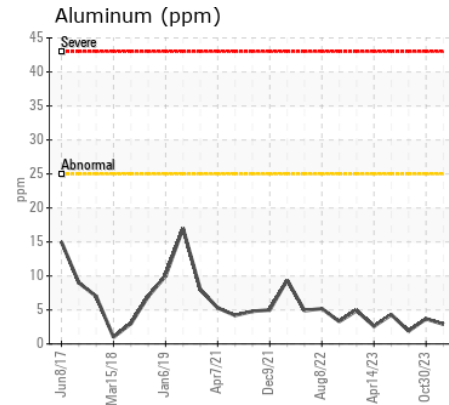
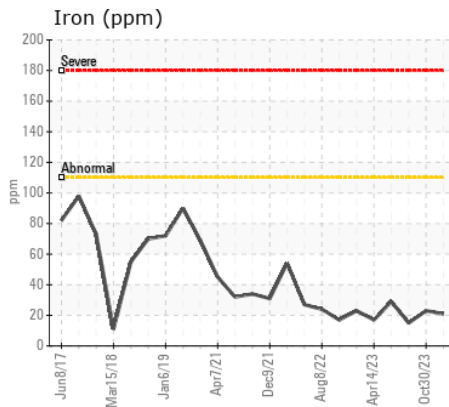
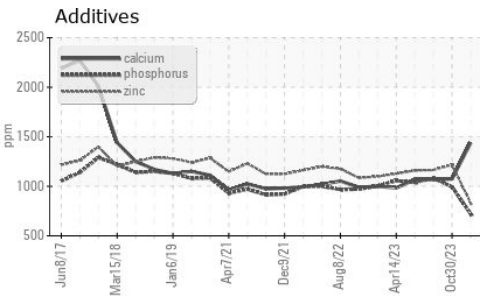
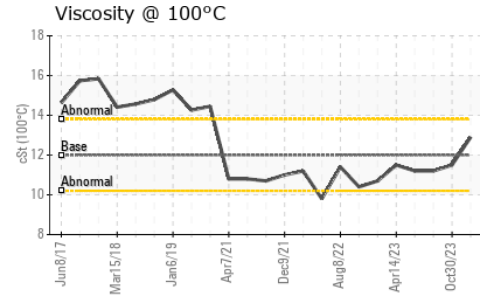
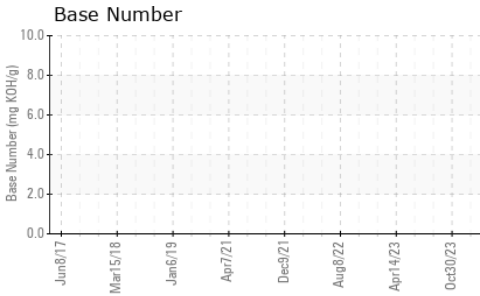
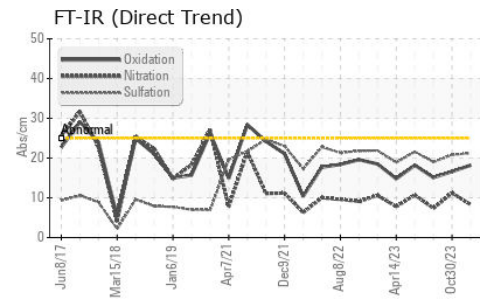
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	9	10	10
Potassium	ppm	ASTM D5185(m)	>20	1	17	▲ 129
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	▲ 0.024
Soot %	%	ASTM D7844*	>3	0.5	0.6	0.1
Nitration	Abs/cm	ASTM D7624*	>20	8.3	11.2	7.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.2	20.8	19.0
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		36	● 1151	● 270
Boron	ppm	ASTM D5185(m)	2	51	3	1
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	68	109	71
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	950	569	967	958
Calcium	ppm	ASTM D5185(m)	1050	1437	1074	1068
Phosphorus	ppm	ASTM D5185(m)	995	723	994	1082
Zinc	ppm	ASTM D5185(m)	1180	833	1217	1164
Sulfur	ppm	ASTM D5185(m)	2600	2207	2615	2635
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.2	16.6	15.1
Base Number (BN)	mg KOH/g	ASTM D2896*		9.61	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	12.9	11.5	11.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117293
Lab Number : 02632477
Unique Number : 5773630
Test Package : MOB 2

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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.