



Machine Id
7116
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)

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		GFL0117889	WC0875068	WC0875066
Sample Date		Client Info		25 Apr 2024	16 Nov 2023	10 Nov 2023
Machine Age	hrs	Client Info		15359	14419	216538
Oil Age	hrs	Client Info		600	25	0
Filter Age	hrs	Client Info		600	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	N/A
Sample Status				NORMAL	MARGINAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	30	5	25
Chromium	ppm	ASTM D5185(m)	>5	<1	0	1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	6	3	8
Lead	ppm	ASTM D5185(m)	>25	<1	0	<1
Copper	ppm	ASTM D5185(m)	>100	1	<1	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

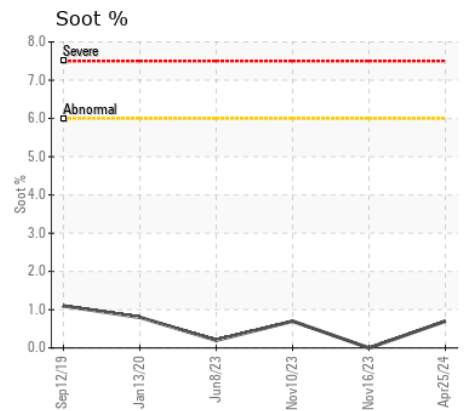
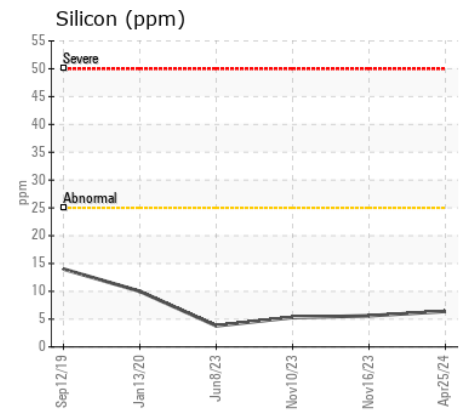
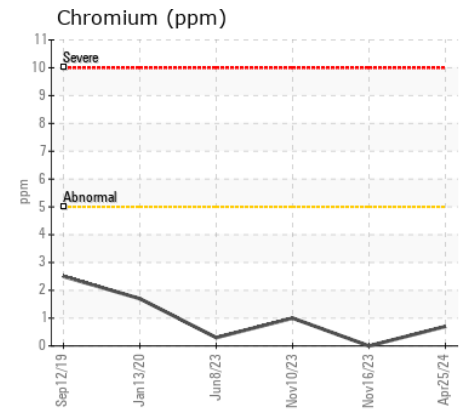
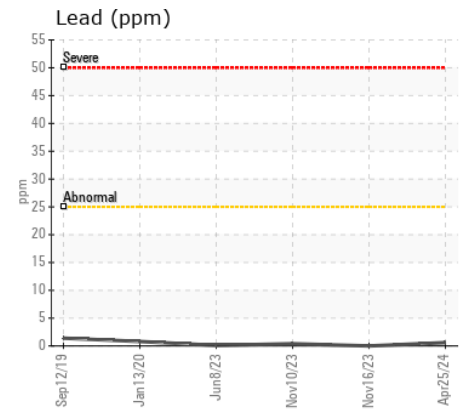
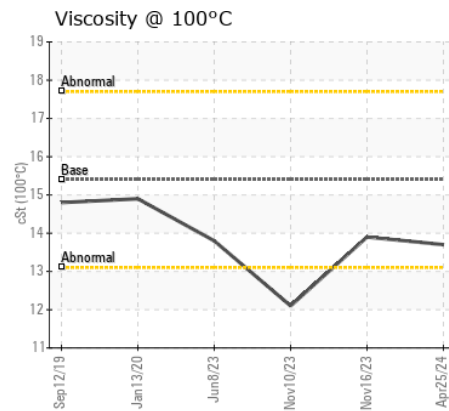
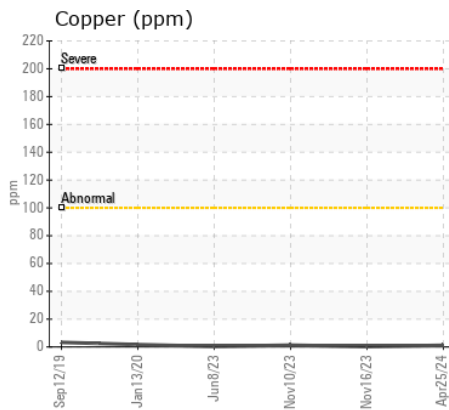
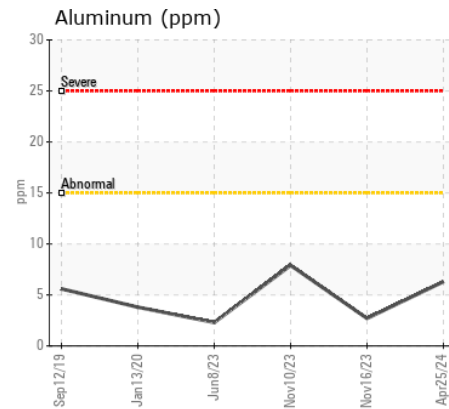
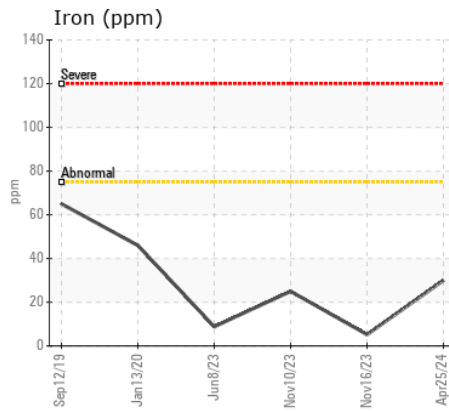
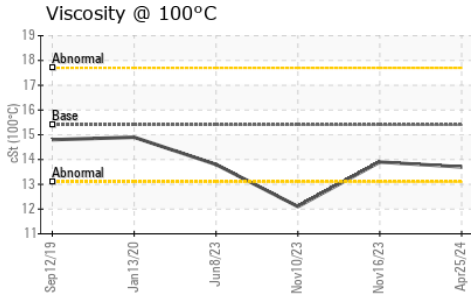
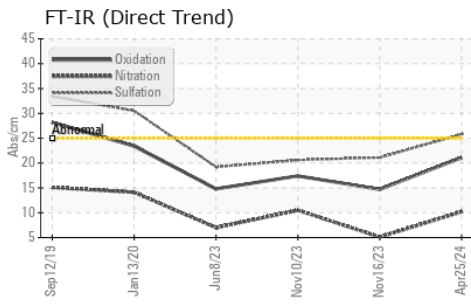
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	6	5
Potassium	ppm	ASTM D5185(m)	>20	4	<1	4
Fuel		WC Method	>3.0	<1.0	▲ 1.8	▲ 9.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.7	0	0.7
Nitration	Abs/cm	ASTM D7624*	>20	10.2	5.1	10.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.8	21.1	20.6
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		16	5	19
Boron	ppm	ASTM D5185(m)	0	110	367	5
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	60	83	81	59
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	571	415	916
Calcium	ppm	ASTM D5185(m)	1070	1362	1280	993
Phosphorus	ppm	ASTM D5185(m)	1150	1058	994	986
Zinc	ppm	ASTM D5185(m)	1270	1278	1164	1151
Sulfur	ppm	ASTM D5185(m)	2060	2497	2653	2327
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.1	14.7	17.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.7	13.9	▲ 12.1



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117889
Lab Number : 02632215
Unique Number : 5773368
Test Package : MOB 1 (Additional Tests: Visual)

Received : 30 Apr 2024
Tested : 30 Apr 2024
Diagnosed : 30 Apr 2024 - Wes Davis

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
 CA L4G 0K6
 Contact: Mike Havens
 MHavens@gflenv.com

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.

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