

Machine Id
101016
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (43 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0047660	GFL0047674	GFL0047694
Sample Date		Client Info		06 Dec 2023	02 Dec 2022	18 Mar 2022
Machine Age	hrs	Client Info		20817	18500	16773
Oil Age	hrs	Client Info		492	600	657
Filter Age	hrs	Client Info		492	600	657
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>110	5	11	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)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	1	3	2
Lead	ppm	ASTM D5185(m)	>45	<1	2	2
Copper	ppm	ASTM D5185(m)	>85	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

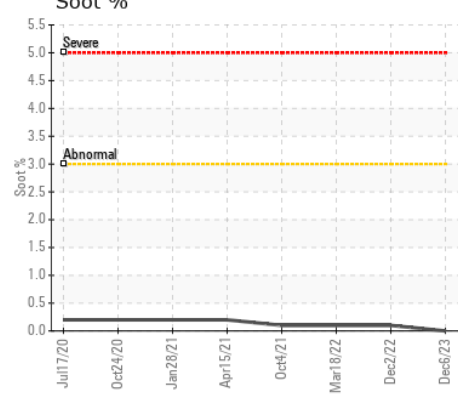
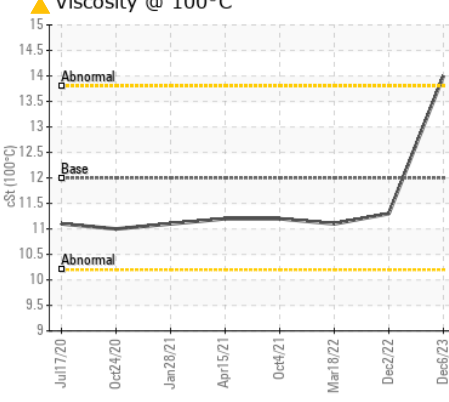
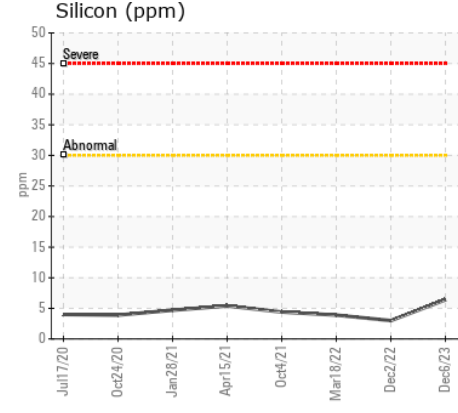
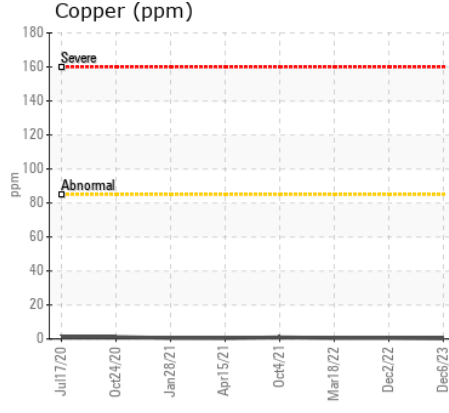
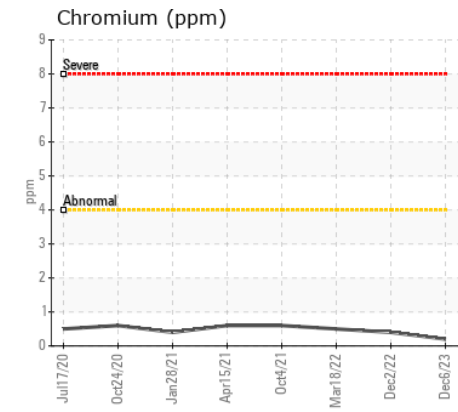
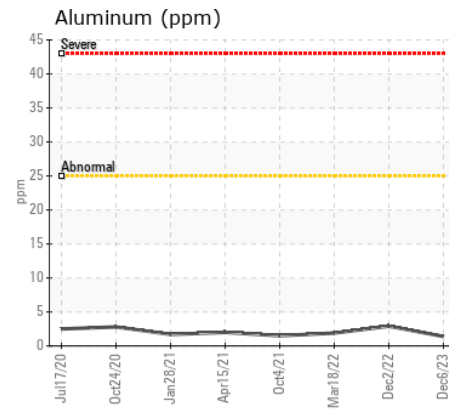
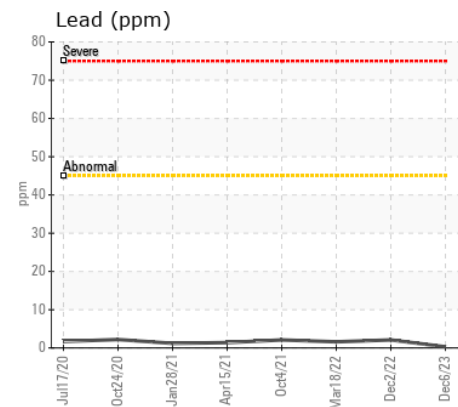
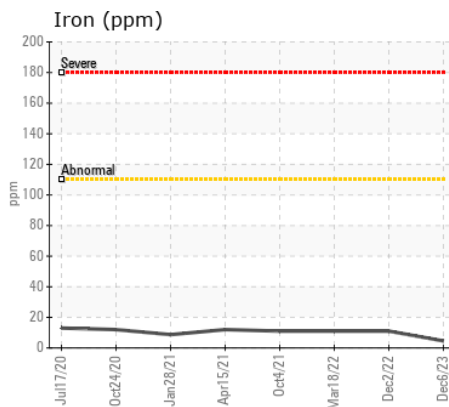
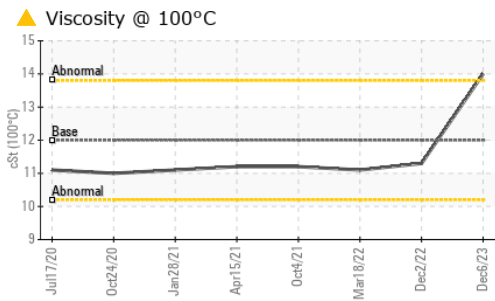
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	6	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	2	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	7.7	8.7	8.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.0	20.8	21.3
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		3	2	1
Boron	ppm	ASTM D5185(m)	2	34	1	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	51	61	61
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	855	1023	1049
Calcium	ppm	ASTM D5185(m)	1050	1194	1137	1093
Phosphorus	ppm	ASTM D5185(m)	995	785	1083	1091
Zinc	ppm	ASTM D5185(m)	1180	899	1264	1281
Sulfur	ppm	ASTM D5185(m)	2600	2192	2523	2616
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.8	16.5	15.9
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	▲ 14.0	11.3	11.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 355 - Saskatoon
Sample No. : GFL0047660 **Received** : 22 Jan 2024
Lab Number : 02610239 **Diagnosed** : 23 Jan 2024
Unique Number : 5711325 **Diagnostician** : Kevin Marson
Test Package : MOB 1

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.

100 Cory Road
 Saskatoon, SK
 CA S7K 3J7
 Contact: Ryan Polichuk
 rpolichuk@gflenv.com
 T: (306)244-9500
 F: