



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL



Machine Id
OR962
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0087373	GFL0092246	GFL0056455
Sample Date		Client Info		19 Jan 2024	15 Nov 2023	25 Apr 2023
Machine Age	hrs	Client Info		13733	13076	11728
Oil Age	hrs	Client Info		700	1000	796
Filter Age	hrs	Client Info		700	500	796
Oil Changed		Client Info		Changed	Not Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	22	23	16
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	13	13	17
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	<1	1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

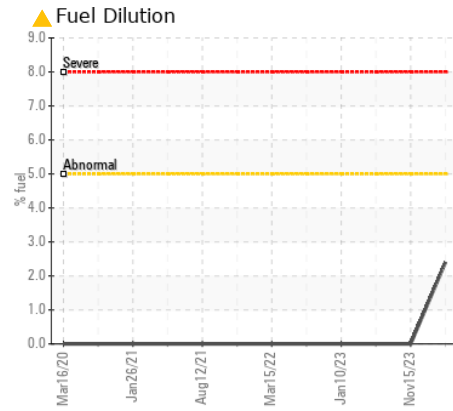
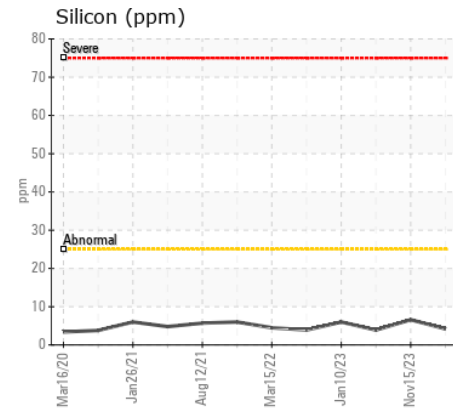
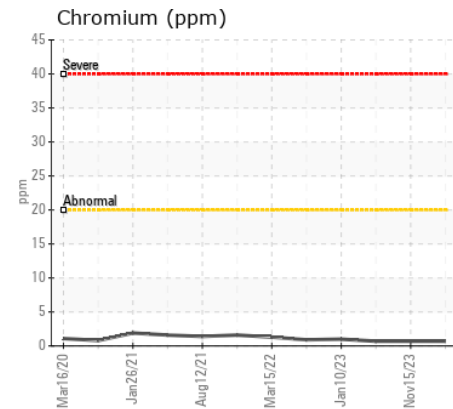
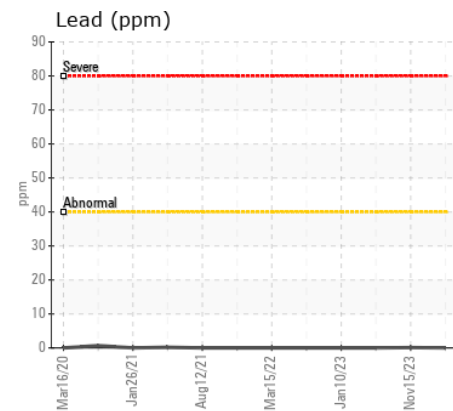
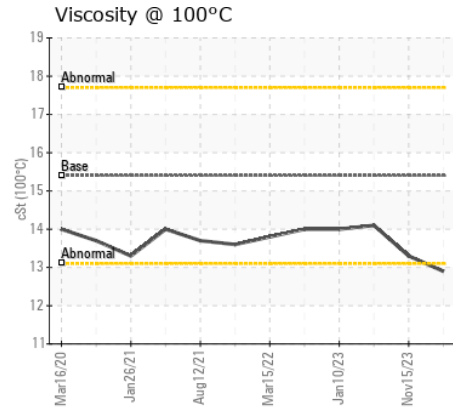
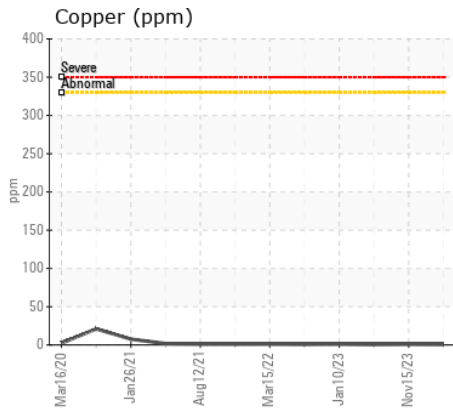
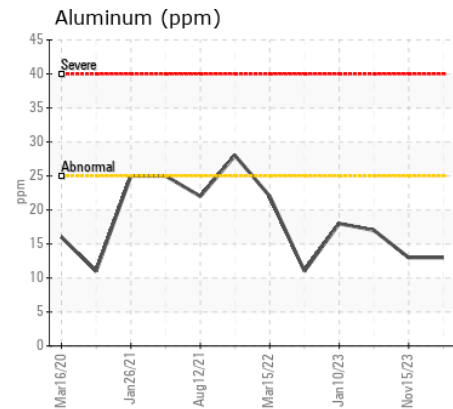
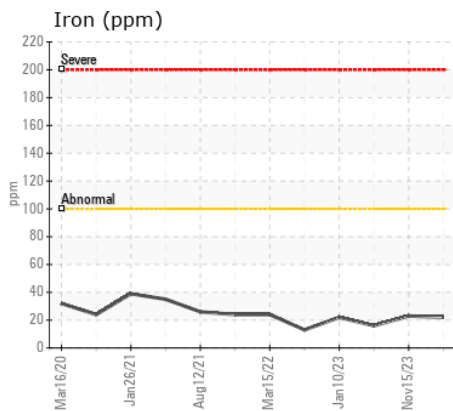
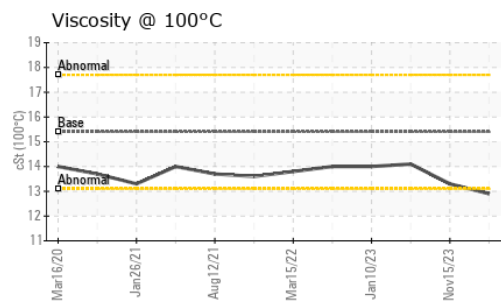
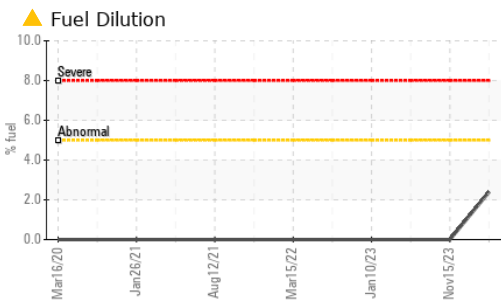
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	7	4
Potassium	ppm	ASTM D5185(m)	>20	2	2	4
Fuel	%	ASTM D7593*	>5	▲ 2.4	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.1	0.3	0.1
Nitration	Abs/cm	ASTM D7624*	>20	8.5	9.9	8.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.0	21.9	18.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)	0	6	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	53	59	58
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	858	947	961
Calcium	ppm	ASTM D5185(m)	1070	1228	1106	1093
Phosphorus	ppm	ASTM D5185(m)	1150	1000	984	1076
Zinc	ppm	ASTM D5185(m)	1270	1155	1195	1204
Sulfur	ppm	ASTM D5185(m)	2060	2653	2437	2599
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.3	18.6	15.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	12.9	13.3	14.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 720 - Lafleche - Landfill
Sample No. : GFL0087373 **Received** : 24 Jan 2024 17125 Lafleche Road,
Lab Number : 02610846 **Diagnosed** : 25 Jan 2024 Moose Creek, ON
Unique Number : 5719941 **Diagnostician** : Wes Davis CA K0C 1W0
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)
 Contact: Charles Bergeron
 cbergeron@gflenv.com
 T: (613)538-4853
 F:

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.