



Area
GFL207
Machine Id
800028
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (32 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		GFL0102709	GFL0094516	GFL0088977
Sample Date		Client Info		05 Jan 2024	25 Oct 2023	10 Aug 2023
Machine Age	hrs	Client Info		11580	10941	10373
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				SEVERE	SEVERE	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	27	23	20
Chromium	ppm	ASTM D5185(m)	>5	1	1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	3	2	2
Lead	ppm	ASTM D5185(m)	>25	<1	<1	0
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

CONTAMINATION

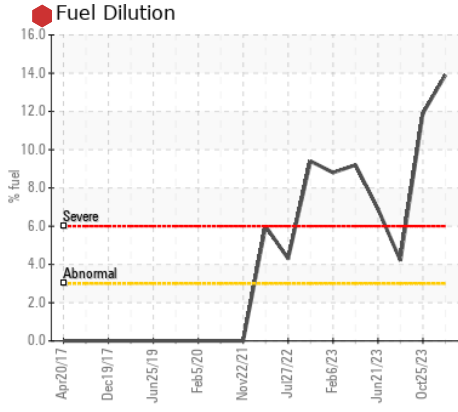
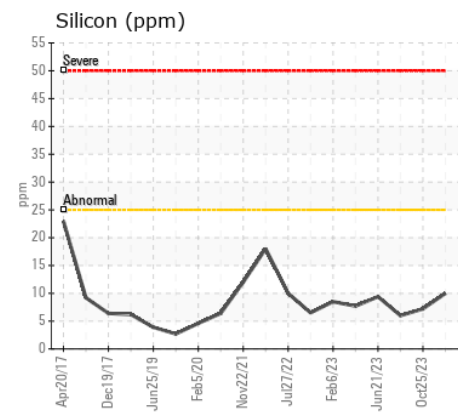
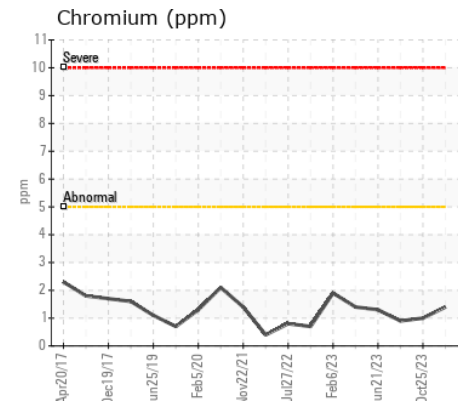
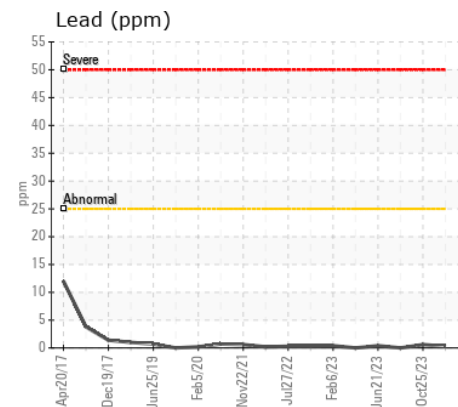
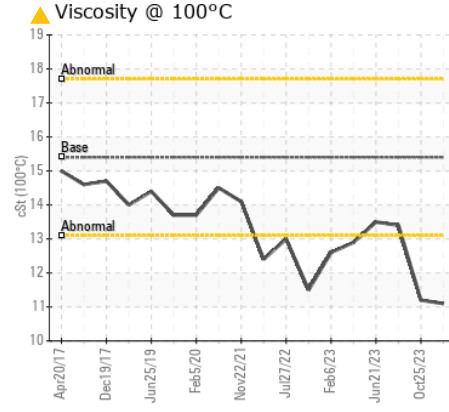
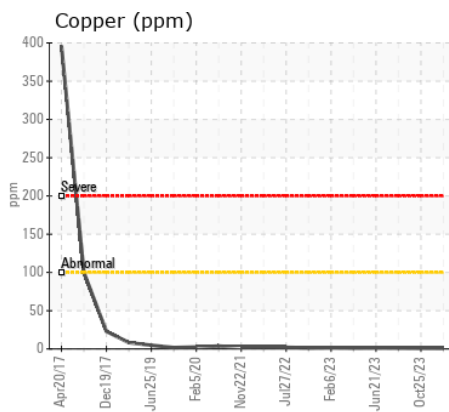
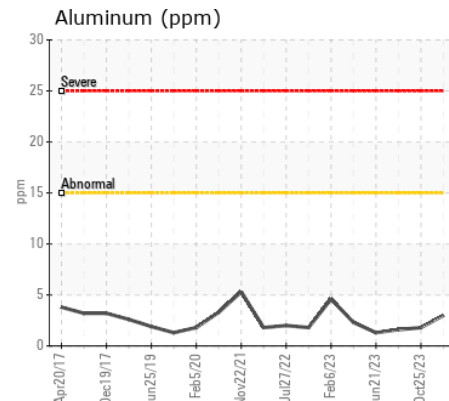
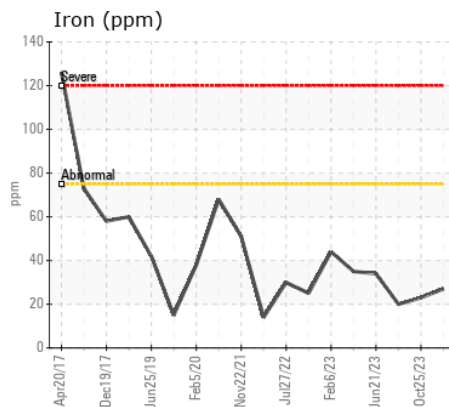
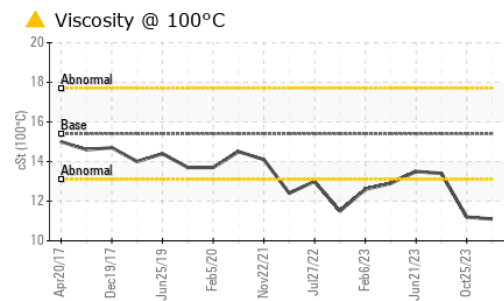
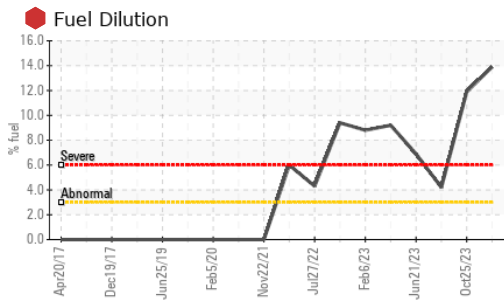
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	10	7	6
Potassium	ppm	ASTM D5185(m)	>20	4	2	<1
Fuel	%	ASTM D7593*	>3.0	13.9	11.9	4.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.5	0.4	0.3
Nitration	Abs/cm	ASTM D7624*	>20	15.0	13.1	11.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	27.5	28.1	25.4
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		6	8	8
Boron	ppm	ASTM D5185(m)	0	1	2	3
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	46	51	63
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	746	808	967
Calcium	ppm	ASTM D5185(m)	1070	841	905	1098
Phosphorus	ppm	ASTM D5185(m)	1150	792	821	1012
Zinc	ppm	ASTM D5185(m)	1270	939	996	1160
Sulfur	ppm	ASTM D5185(m)	2060	2037	2101	2304
Oxidation	Abs/.1mm	ASTM D7414*	>25	33.5	34.3	27.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	11.1	11.2	13.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 207 - Pickering SW**
Sample No. : GFL0102709 **Received** : 10 Jan 2024 **1034 TOY AVENUE, PICKERING YARD**
Lab Number : 02607670 **Diagnosed** : 02 Feb 2024 **PICKERING, ON**
Unique Number : 5708756 **Diagnostician** : Bill Quesnel **CA L1W 3P1**
Test Package : MOB 1 (Additional Tests: PercentFuel) **Contact: Ian Patton**
To discuss this sample report, contact Customer Service at 1-800-268-2131. **ipatton@gflenv.com**
Test denoted () outside scope of accreditation, (m) method modified, (e) tested at external lab.* **T: (905)831-6297**
Validity of results and interpretation are based on the sample and information as supplied. **F: (905)426-3577**