



Machine Id
725056-310015
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

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		GFL0118244	GFL0118184	GFL0109137
Sample Date		Client Info		22 May 2024	25 Apr 2024	13 Mar 2024
Machine Age	hrs	Client Info		23635	23465	23320
Oil Age	hrs	Client Info		170	600	600
Filter Age	hrs	Client Info		0	0	600
Oil Changed		Client Info		N/A	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				SEVERE	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	14	13	8
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	1	3	4
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>150	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

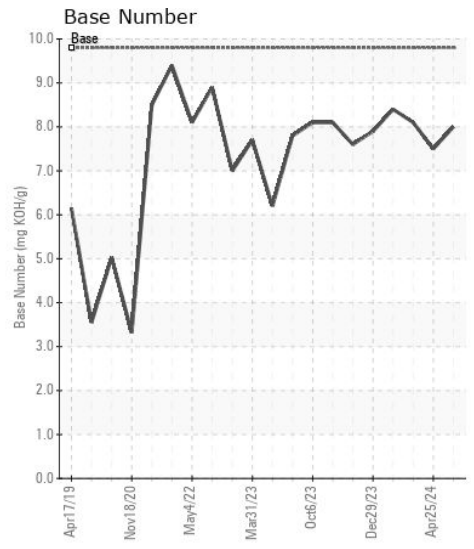
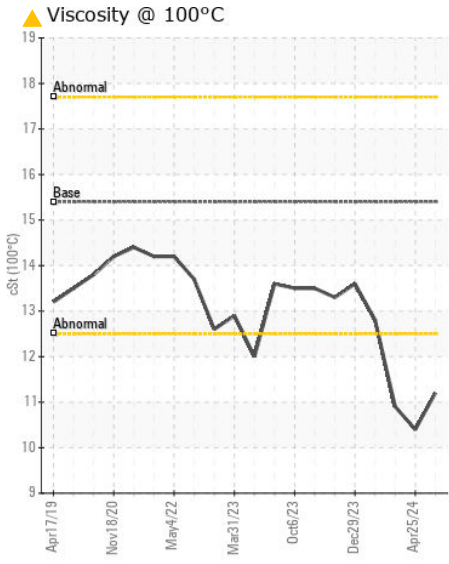
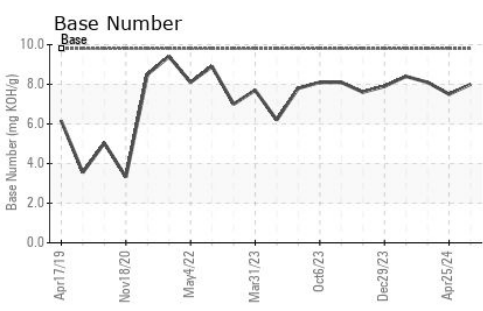
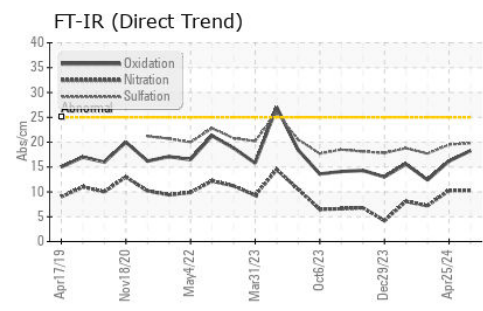
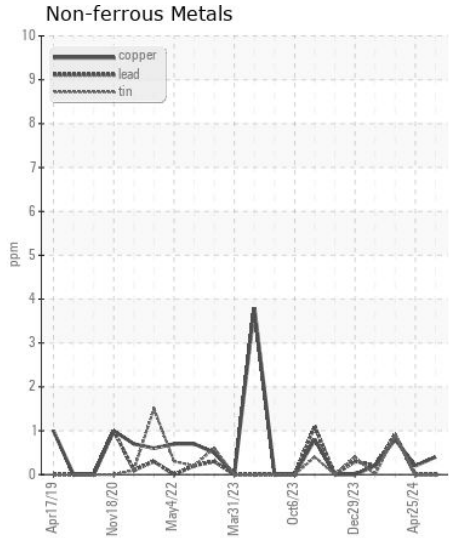
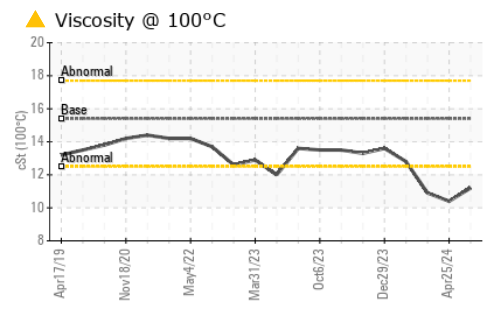
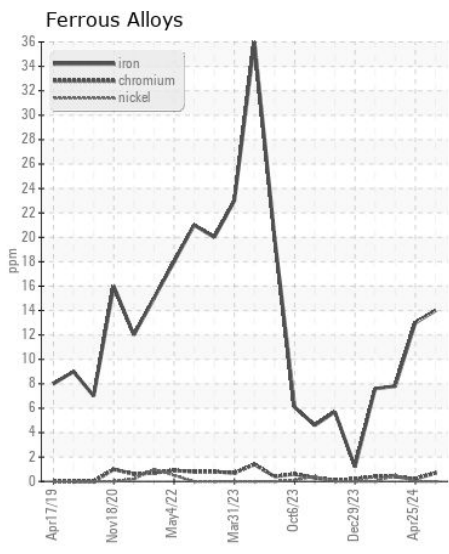
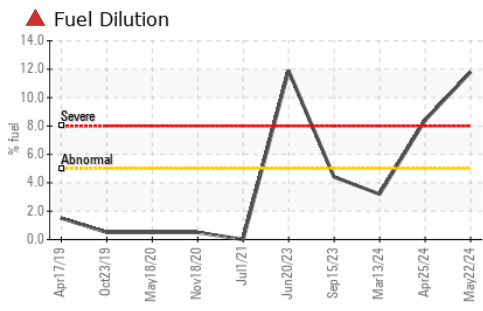
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>20	8	▲ 24	18
Potassium	ppm	ASTM D5185m	>20	<1	3	4
Fuel	%	ASTM D3524	>5	▲ 11.8	▲ 8.4	▲ 3.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.6	0.1
Nitration	Abs/cm	*ASTM D7624	>20	10.3	10.3	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	19.5	17.7
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		5	2	<1
Boron	ppm	ASTM D5185m	0	2	47	● 97
Barium	ppm	ASTM D5185m	0	0	0	1
Molybdenum	ppm	ASTM D5185m	60	44	16	● 11
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	807	711	698
Calcium	ppm	ASTM D5185m	1070	1005	1080	1279
Phosphorus	ppm	ASTM D5185m	1150	889	697	● 739
Zinc	ppm	ASTM D5185m	1270	1049	815	● 835
Sulfur	ppm	ASTM D5185m	2060	3016	2890	3121
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.3	16.2	12.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.0	7.5	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.2	▲ 10.4	▲ 10.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0118244 **Received** : 29 May 2024
Lab Number : 06193512 **Tested** : 30 May 2024
Unique Number : 11050264 **Diagnosed** : 30 May 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 822 - Springfield Hauling
 2120 West Bennett Street
 Springfield, MO
 US 65807
 Contact: Dennis Moore
 dennis.moore@gflenv.com
 T: (417)403-3641
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)