



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL



Machine Id
577M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (5 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: Resampled)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115139	GFL0115111	GFL0115191
Sample Date		Client Info		05 Apr 2024	26 Mar 2024	11 Mar 2024
Machine Age	hrs	Client Info		4952	4950	4945
Oil Age	hrs	Client Info		23	5	16
Filter Age	hrs	Client Info		23	5	16
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				SEVERE	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	34	▲ 84	13
Chromium	ppm	ASTM D5185m	>20	1	4	<1
Nickel	ppm	ASTM D5185m	>2	0	2	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	9	4
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	0	3	0
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

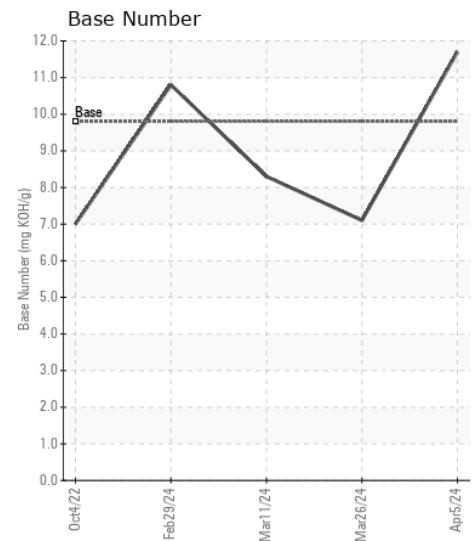
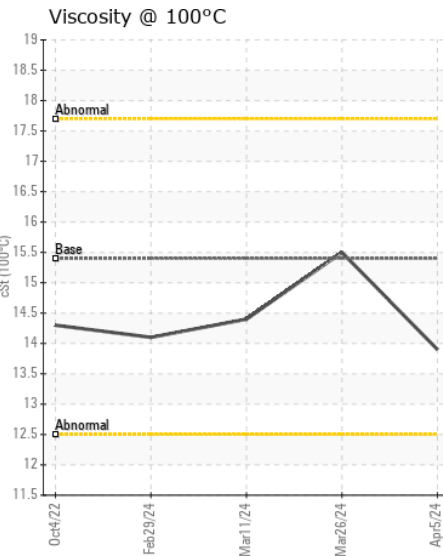
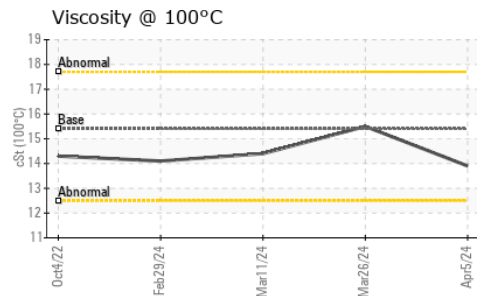
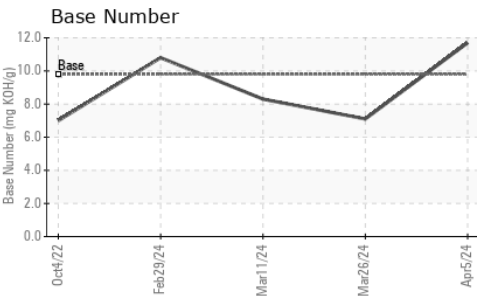
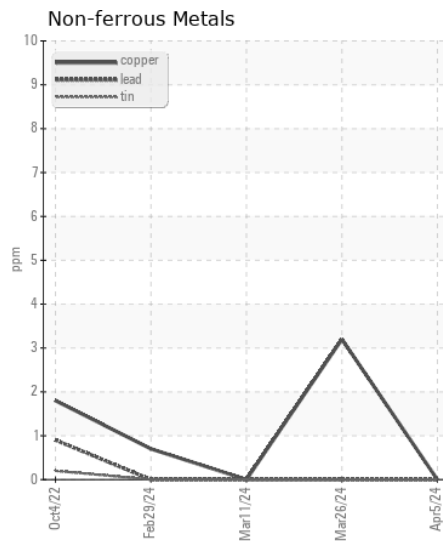
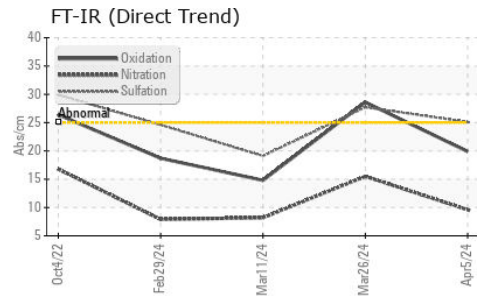
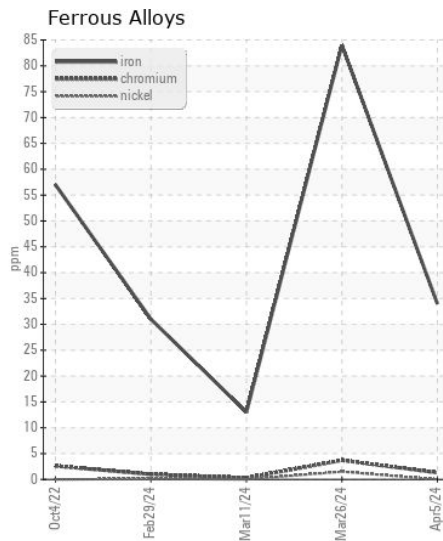
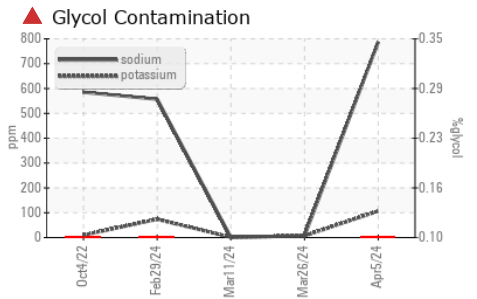
Sodium and/or potassium levels are high. Test for glycol is positive.

Silicon	ppm	ASTM D5185m	>25	21	15	6
Potassium	ppm	ASTM D5185m	>20	▲ 107	7	1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.10	NEG	NEG
Soot %	%	*ASTM D7844	>6	1.6	1.9	0.7
Nitration	Abs/cm	*ASTM D7624	>20	9.6	15.5	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.1	27.7	19.1
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.

Sodium	ppm	ASTM D5185m		▲ 787	7	1
Boron	ppm	ASTM D5185m	0	68	1	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	84	63	60
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	691	1071	948
Calcium	ppm	ASTM D5185m	1070	1553	1216	1056
Phosphorus	ppm	ASTM D5185m	1150	927	1126	1052
Zinc	ppm	ASTM D5185m	1270	1081	1372	1271
Sulfur	ppm	ASTM D5185m	2060	3357	3508	3445
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.9	28.6	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	11.7	7.1	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	15.5	14.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115139 **Received** : 16 Apr 2024
Lab Number : 06150106 **Tested** : 17 Apr 2024
Unique Number : 10980184 **Diagnosed** : 18 Apr 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 405 - Arbor Hills
 7811 Chubb Rd
 NORTHVILLE, MI
 US 48168
 Contact: Anthony Hopkins
 ahopkins@gflenv.com

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)