



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
(DQZ235)
Machine Id
10587
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (32 QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0068854	GFL0097239	GFL0069181
Sample Date		Client Info		05 Apr 2024	16 Nov 2023	13 Jul 2023
Machine Age	hrs	Client Info		2607	2028	1639
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	26	21	20
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	3	2
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	7	1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

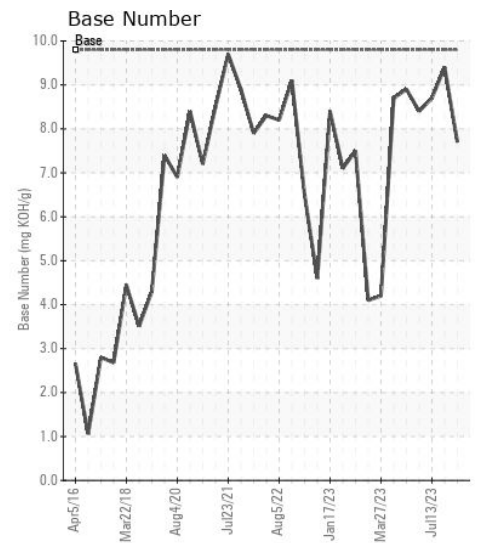
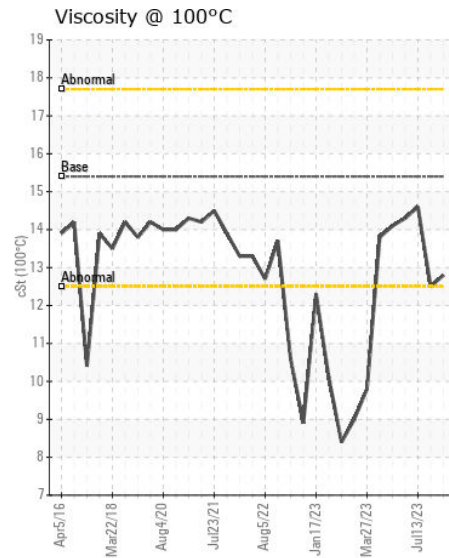
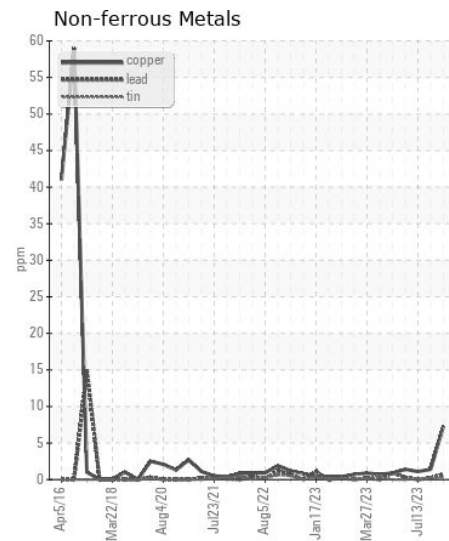
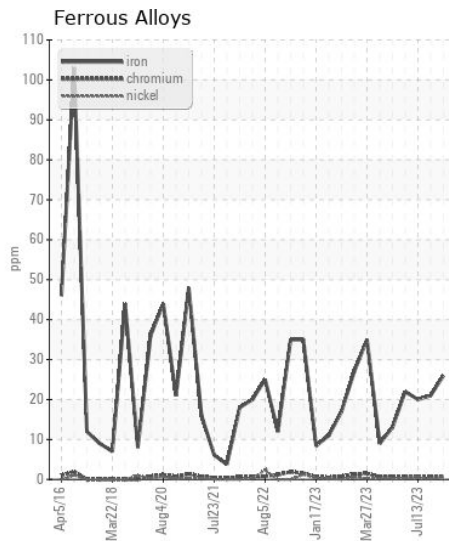
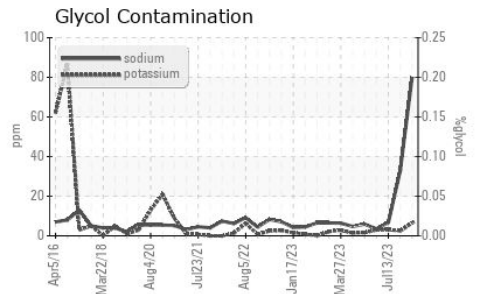
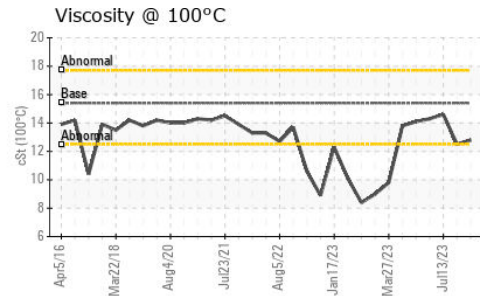
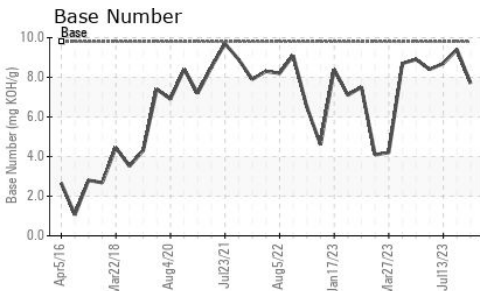
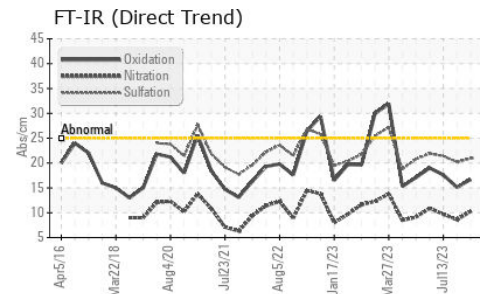
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	7	10	7
Potassium	ppm	ASTM D5185m	>20	6	2	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1	1	1
Nitration	Abs/cm	*ASTM D7624	>20	10.3	8.6	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	20.2	21.4
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. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		80	33	7
Boron	ppm	ASTM D5185m	0	4	<1	7
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	62	64	61
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1039	925	868
Calcium	ppm	ASTM D5185m	1070	1122	1116	1053
Phosphorus	ppm	ASTM D5185m	1150	1042	1056	969
Zinc	ppm	ASTM D5185m	1270	1342	1248	1159
Sulfur	ppm	ASTM D5185m	2060	3500	2593	2866
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	15.1	17.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.7	9.4	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	12.5	14.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0068854
Lab Number : 06145716
Unique Number : 10970524
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 073 - Warner Robins - Transwaste
 155 Story Road
 Warner Robins, GA
 US 31093
 Contact: Mike Taft

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)

T:
F: