



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(D582HW)
Machine Id
10681
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0098988	GFL0098920	GFL0098900
Sample Date		Client Info		18 Jun 2024	30 May 2024	06 May 2024
Machine Age	hrs	Client Info		19999	19845	17242
Oil Age	hrs	Client Info		19999	16955	19664
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	29	34	19
Chromium	ppm	ASTM D5185m	>5	2	<1	0
Nickel	ppm	ASTM D5185m	>4	1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	3	4	0
Lead	ppm	ASTM D5185m	>25	<1	0	0
Copper	ppm	ASTM D5185m	>100	1	1	0
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

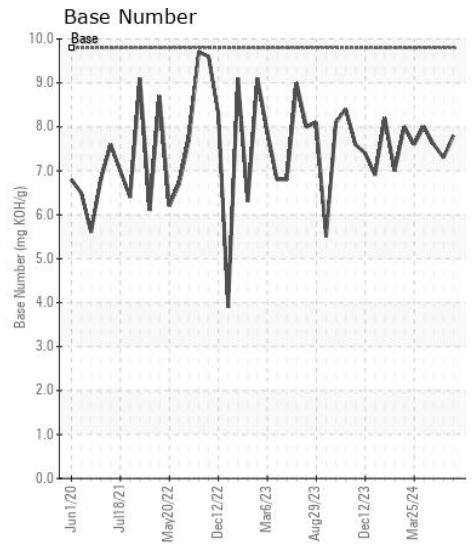
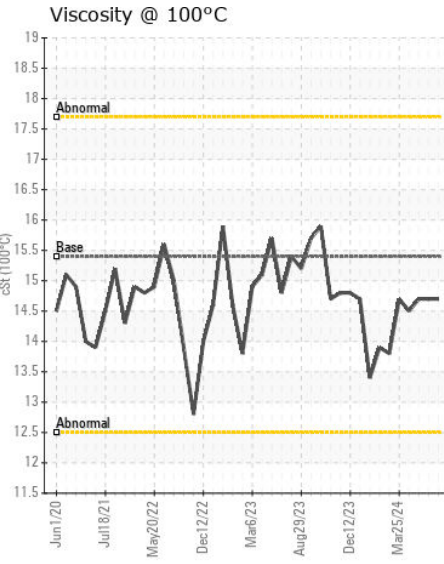
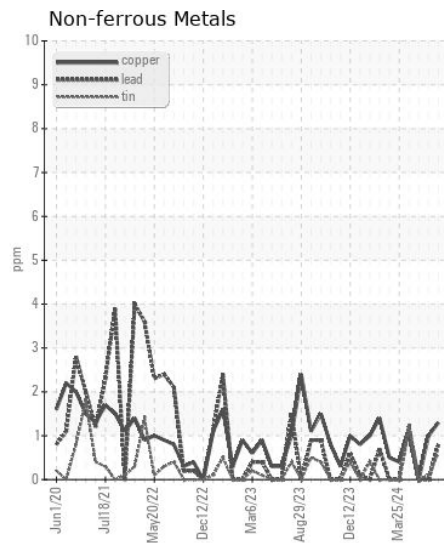
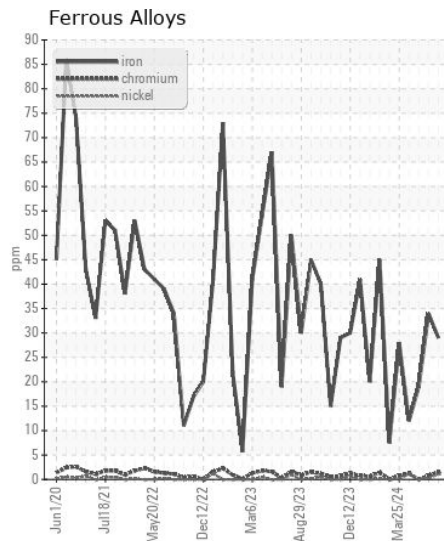
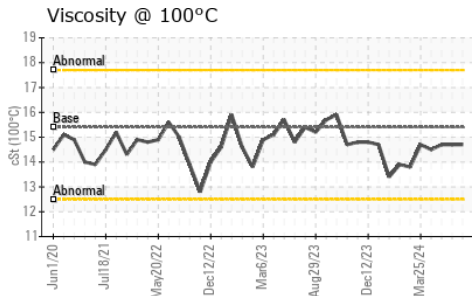
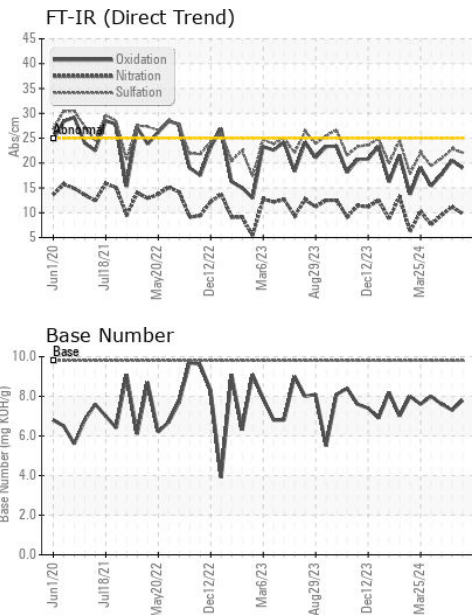
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	8	5
Potassium	ppm	ASTM D5185m	>20	11	16	8
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.7	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	9.8	11.2	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	22.8	20.9
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 suitable for further service.

Sodium	ppm	ASTM D5185m		17	24	18
Boron	ppm	ASTM D5185m	0	1	3	0
Barium	ppm	ASTM D5185m	0	1	0	0
Molybdenum	ppm	ASTM D5185m	60	62	60	60
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	979	963	968
Calcium	ppm	ASTM D5185m	1070	1105	1134	1154
Phosphorus	ppm	ASTM D5185m	1150	1054	1089	1053
Zinc	ppm	ASTM D5185m	1270	1285	1291	1280
Sulfur	ppm	ASTM D5185m	2060	3074	3389	3313
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	20.5	17.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.8	7.3	7.6
Visc @ 100°C	cSt	ASTM D445	15.4	14.7	14.7	14.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0098988
Lab Number : 06223116
Unique Number : 11101313
Test Package : FLEET

GFL Environmental - 084 - Clarksville
 699 Jack Miller Boulevard
 Clarksville, TN
 US 37042

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)

Contact: ROBERT THIBAUT
 robert.thibault@gflenv.com
 T: (931)552-7276
 F: (931)572-9674