



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(KN5211)
Machine Id
210018
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		GFL0123406	GFL0082412	GFL0082500
Sample Date		Client Info		18 Jun 2024	26 Oct 2023	09 Aug 2023
Machine Age	hrs	Client Info		5096	5096	5096
Oil Age	hrs	Client Info		5096	5096	600
Filter Age	hrs	Client Info		0	5096	600
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	12	7	21
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	5
Lead	ppm	ASTM D5185m	>40	2	<1	2
Copper	ppm	ASTM D5185m	>330	4	2	6
Tin	ppm	ASTM D5185m	>15	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

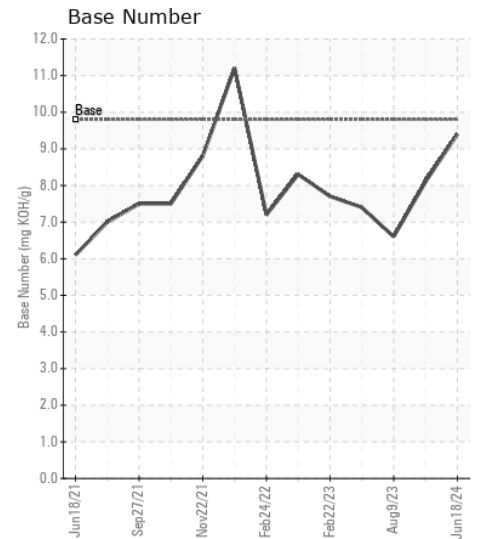
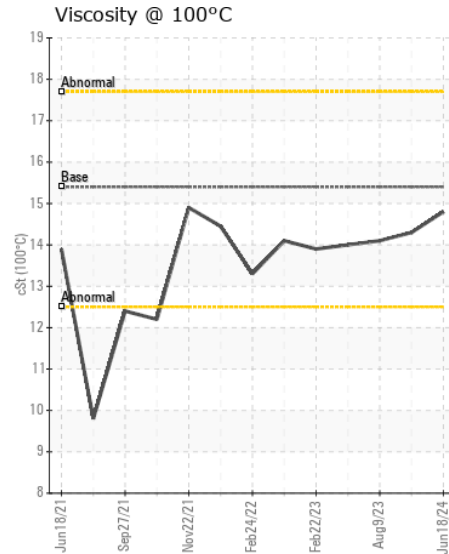
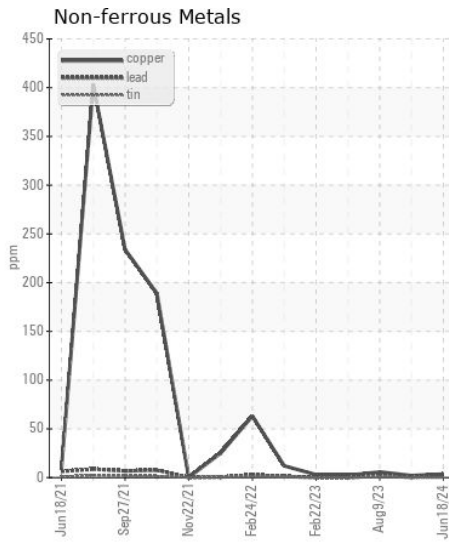
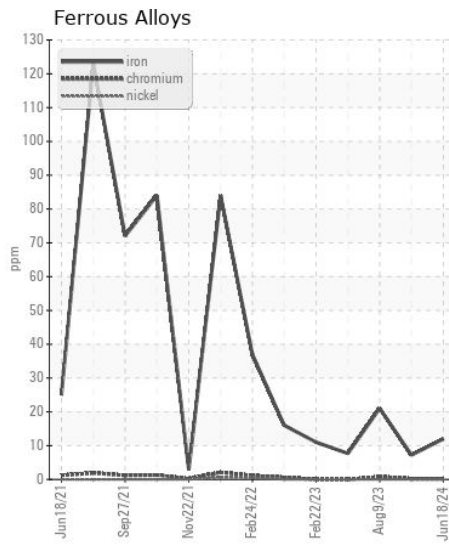
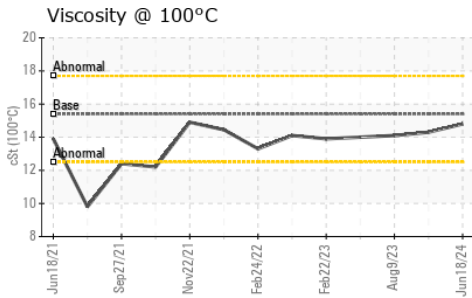
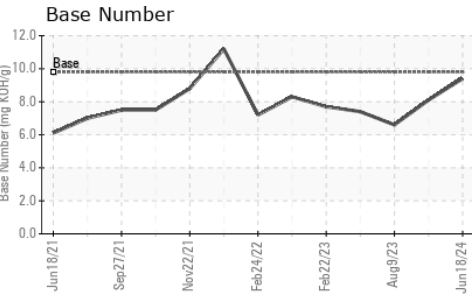
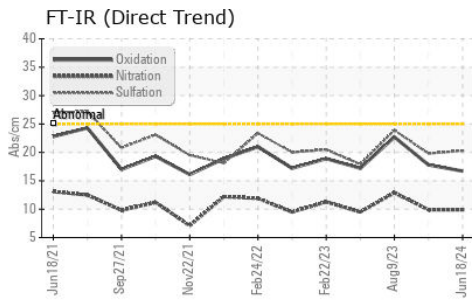
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	3	5
Potassium	ppm	ASTM D5185m	>20	3	4	7
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.2	0.7	1.2
Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.9	12.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	19.8	23.9
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		2	6	2
Boron	ppm	ASTM D5185m	0	0	0	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	63	60	65
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1086	954	1043
Calcium	ppm	ASTM D5185m	1070	1268	1057	1198
Phosphorus	ppm	ASTM D5185m	1150	1192	1100	971
Zinc	ppm	ASTM D5185m	1270	1499	1213	1338
Sulfur	ppm	ASTM D5185m	2060	3979	2970	3554
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	17.8	22.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.4	8.1	6.6
Visc @ 100°C	cSt	ASTM D445	15.4	14.8	14.3	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0123406
 Lab Number : 06215685
 Unique Number : 11088549
 Test Package : FLEET

Received : 20 Jun 2024
 Tested : 21 Jun 2024
 Diagnosed : 21 Jun 2024 - Wes Davis

GFL Environmental - 007 - Brunswick
 2809 Galloway Road
 Bolivia, NC
 US 28422
 Contact: DONALD CRAVEN
 dcraven@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)

T:
 F: (910)253-4179