



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
927080-260332
 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		GFL0118279	GFL0109121	GFL0109143
Sample Date		Client Info		13 May 2024	28 Mar 2024	19 Mar 2024
Machine Age	hrs	Client Info		17072	16785	0
Oil Age	hrs	Client Info		700	600	0
Filter Age	hrs	Client Info		700	600	0
Oil Changed		Client Info		Not Changd	Changed	N/A
Filter Changed		Client Info		Not Changd	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	19	32	26
Chromium	ppm	ASTM D5185m	>20	2	2	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	1	0	0
Aluminum	ppm	ASTM D5185m	>20	4	4	3
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	3	8	7
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	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.

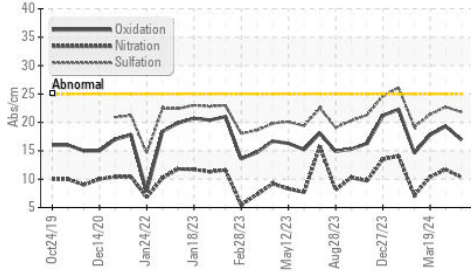
Silicon	ppm	ASTM D5185m	>25	5	4	4
Potassium	ppm	ASTM D5185m	>20	3	1	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.3	1.3	1
Nitration	Abs/cm	*ASTM D7624	>20	10.3	11.7	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	22.7	21.4
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

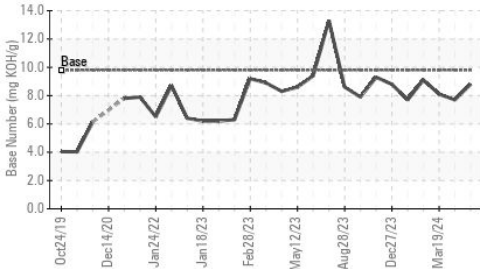
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		6	8	6
Boron	ppm	ASTM D5185m	0	<1	0	0
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	60	58	61	60
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	905	971	1024
Calcium	ppm	ASTM D5185m	1070	1021	1097	1140
Phosphorus	ppm	ASTM D5185m	1150	949	1016	1100
Zinc	ppm	ASTM D5185m	1270	1154	1262	1353
Sulfur	ppm	ASTM D5185m	2060	2867	3388	3594
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	19.3	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.8	7.7	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	13.2	13.1

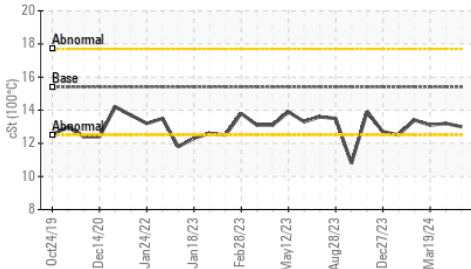
FT-IR (Direct Trend)



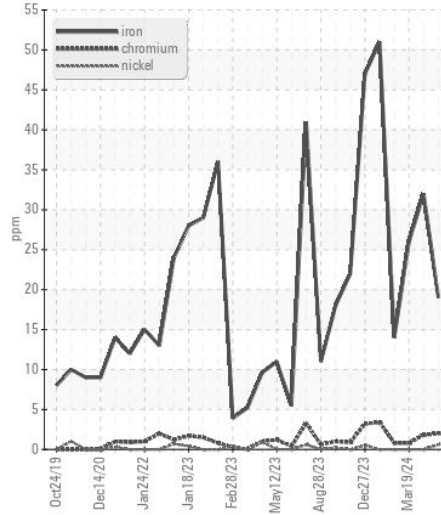
Base Number



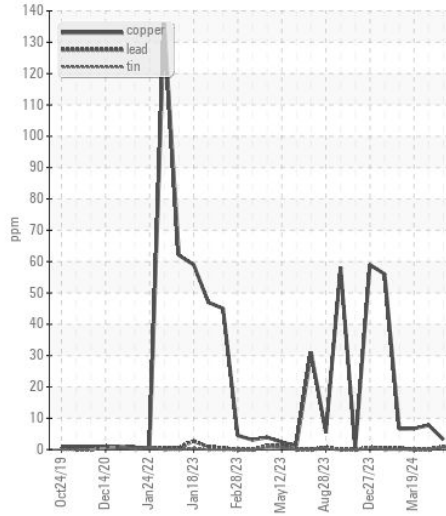
Viscosity @ 100°C



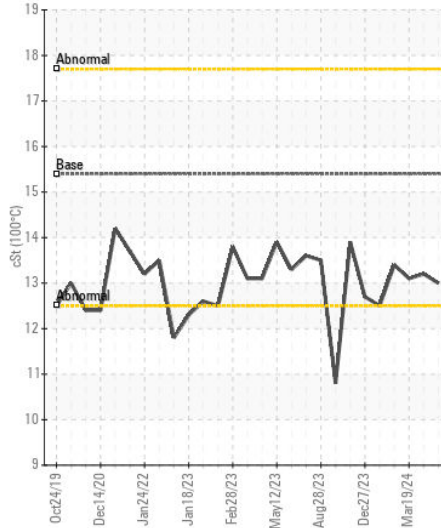
Ferrous Alloys



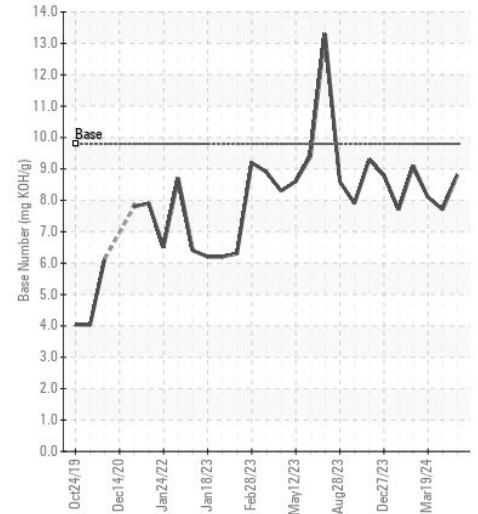
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0118279
Lab Number : 06191896
Unique Number : 11048648
Test Package : FLEET

Received : 28 May 2024
Tested : 29 May 2024
Diagnosed : 30 May 2024 - Sean Felton

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)