



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
352035
 Component
Gasoline Engine
 Fluid
PETRO CANADA DURON UHP 5W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0116033	GFL0092885	GFL0097479
Sample Date		Client Info		04 Apr 2024	25 Jan 2024	11 Dec 2023
Machine Age	mls	Client Info		201953	197637	195330
Oil Age	mls	Client Info		186430	186430	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	14	14	7
Chromium	ppm	ASTM D5185m	>20	0	1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	<1	3	1
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>155	3	<1	<1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	<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.

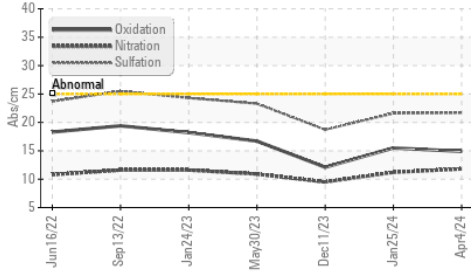
Silicon	ppm	ASTM D5185m	>30	6	10	8
Potassium	ppm	ASTM D5185m	>20	0	1	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0	0
Nitration	Abs/cm	*ASTM D7624	>20	11.8	11.2	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	21.6	18.7
Silt	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

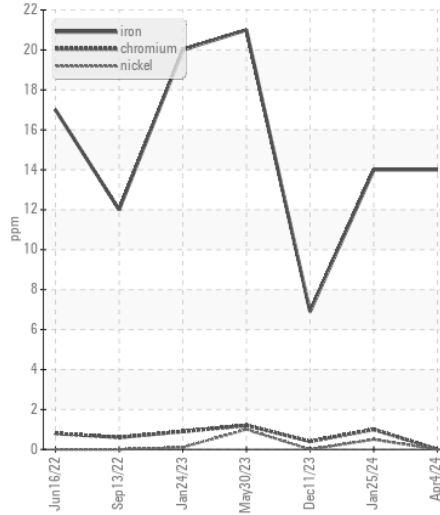
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>400	<1	2	0
Boron	ppm	ASTM D5185m	0	11	15	17
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	64	67	69	62
Manganese	ppm	ASTM D5185m	0	0	<1	0
Magnesium	ppm	ASTM D5185m	1160	499	435	379
Calcium	ppm	ASTM D5185m	820	1143	979	966
Phosphorus	ppm	ASTM D5185m	1160	709	662	582
Zinc	ppm	ASTM D5185m	1260	766	731	694
Sulfur	ppm	ASTM D5185m	3000	2631	2168	1507
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	15.5	12.1
Base Number (BN)	mg KOH/g	ASTM D2896	11.0	4.2	3.0	4.1
Visc @ 100°C	cSt	ASTM D445	11.9	10.5	10.0	10.0

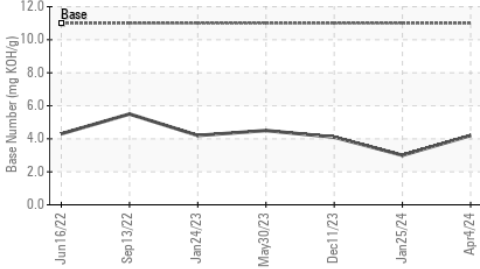
FT-IR (Direct Trend)



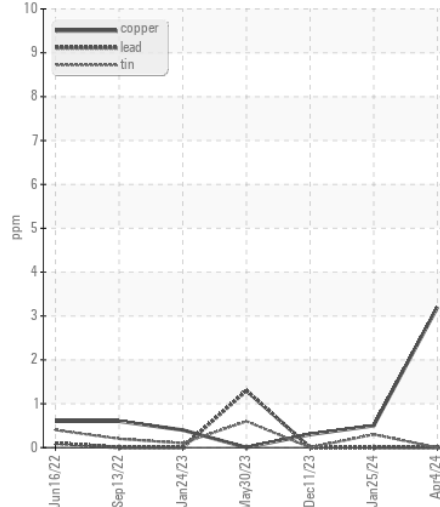
Ferrous Alloys



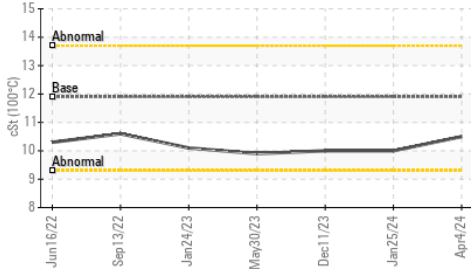
Base Number



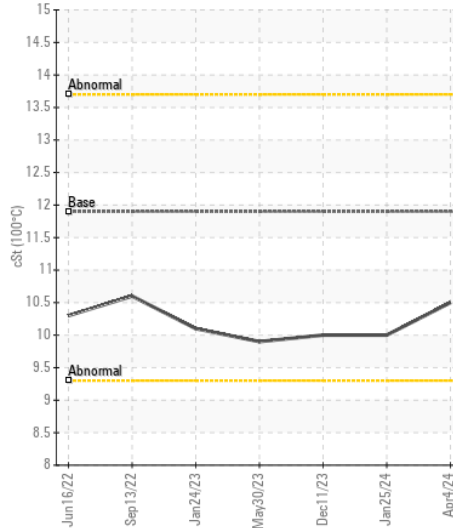
Non-ferrous Metals



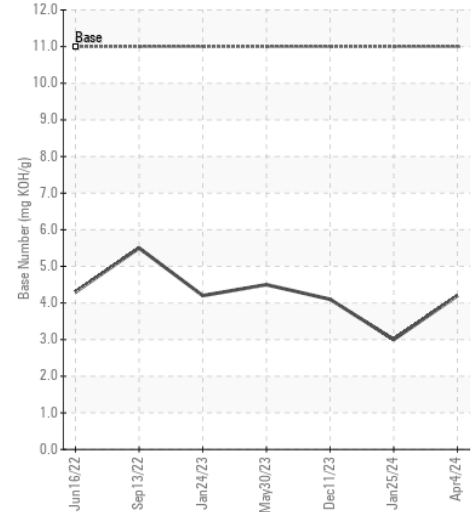
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116033
Lab Number : 06146956
Unique Number : 10977034
Test Package : FLEET
Received : 12 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 2024 - Sean Felton

GFL Environmental - 641 - Alpena
 1241 KING SETTLEMENT RD
 ALPENA, MI
 US 49707
 Contact: DYLAN TOLAN
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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)