



OIL ANALYSIS REPORT

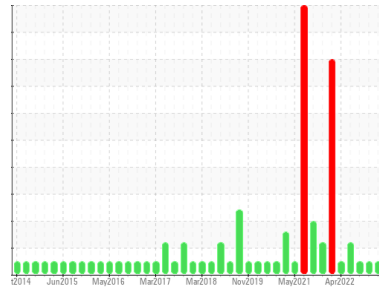
Area
(YA115775)

Machine Id
10367C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (30 GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0123402	GFL0082496	GFL0050773
Sample Date	Client Info			18 Jun 2024	28 Aug 2023	12 Apr 2023
Machine Age	hrs	Client Info		95501	13030	11803
Oil Age	hrs	Client Info		95501	1227	1156
Oil Changed	Client Info			N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	19	12	9
Chromium	ppm	ASTM D5185m	>4	2	2	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	2	2
Lead	ppm	ASTM D5185m	>30	17	4	0
Copper	ppm	ASTM D5185m	>35	3	2	<1
Tin	ppm	ASTM D5185m	>4	<1	2	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	8	6	13
Barium	ppm	ASTM D5185m	5	0	44	0
Molybdenum	ppm	ASTM D5185m	50	62	53	61
Manganese	ppm	ASTM D5185m	0	1	2	<1
Magnesium	ppm	ASTM D5185m	560	689	534	912
Calcium	ppm	ASTM D5185m	1510	2082	1532	1118
Phosphorus	ppm	ASTM D5185m	780	939	673	1022
Zinc	ppm	ASTM D5185m	870	1240	935	1229
Sulfur	ppm	ASTM D5185m	2040	3261	2636	3792

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	5	12	4
Sodium	ppm	ASTM D5185m		16	15	1
Potassium	ppm	ASTM D5185m	>20	8	7	1

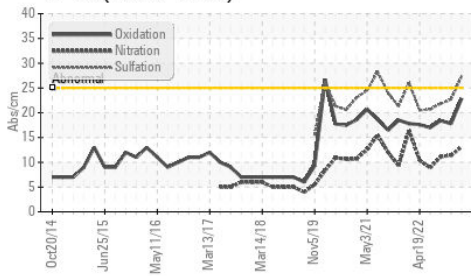
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	13.1	11.4	11.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.4	22.7	21.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.9	17.8	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	3.9	4.4	2.9

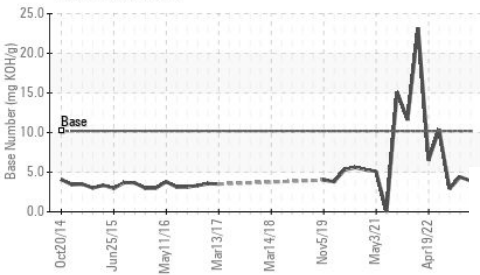


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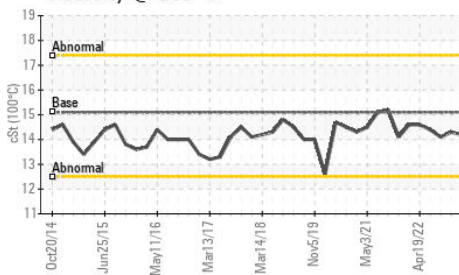
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

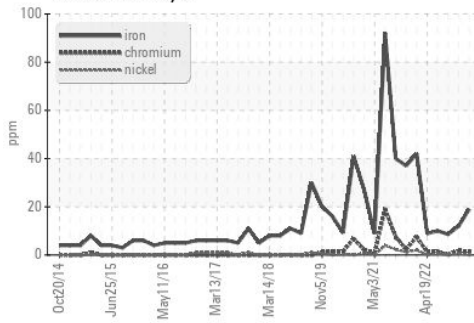


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

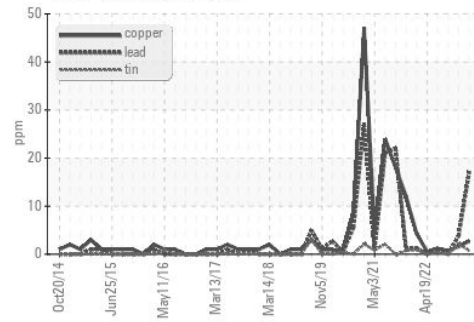
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.2	14.3

GRAPHS

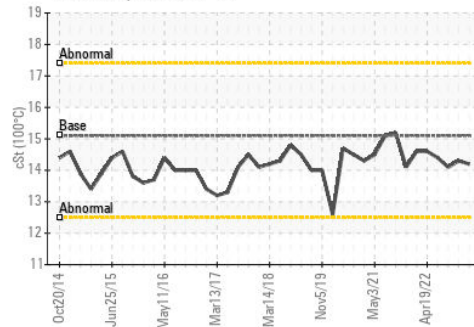
Ferrous Alloys



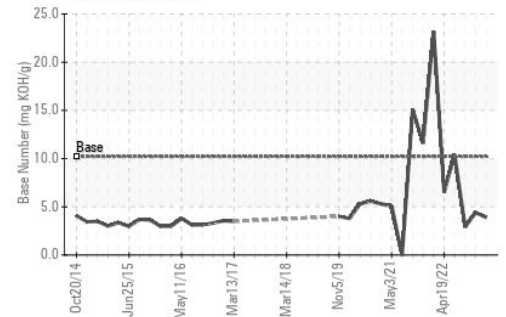
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0123402
 Lab Number : 06215686
 Unique Number : 11088550
 Test Package : FLEET

Received : 20 Jun 2024
 Tested : 21 Jun 2024
 Diagnosed : 22 Jun 2024 - Don Baldrige

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: (910)253-4179