



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CUMMINS 10804
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0116819	GFL0109054	GFL0109075
Sample Date		Client Info		17 May 2024	21 Feb 2024	08 Feb 2024
Machine Age	hrs	Client Info		16492	16387	16346
Oil Age	hrs	Client Info		1638	1533	16346
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	5	12	18
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	4	3	11
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	<1	8	<1
Tin	ppm	ASTM D5185m	>15	<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.

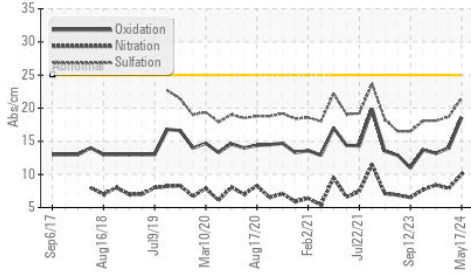
Silicon	ppm	ASTM D5185m	>25	3	4	3
Potassium	ppm	ASTM D5185m	>20	7	4	2
Fuel		WC Method	>5	<1.0	<1.0	0.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.5	0.7
Nitration	Abs/cm	*ASTM D7624	>20	10.0	7.9	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	18.7	18.1
Silt	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

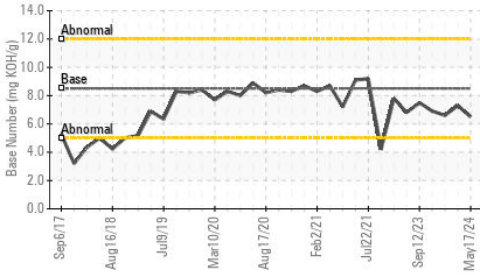
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	2	4	0
Boron	ppm	ASTM D5185m	250	8	13	12
Barium	ppm	ASTM D5185m	10	0	0	8
Molybdenum	ppm	ASTM D5185m	100	59	57	65
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	450	813	739	728
Calcium	ppm	ASTM D5185m	3000	1091	1014	1004
Phosphorus	ppm	ASTM D5185m	1150	900	922	808
Zinc	ppm	ASTM D5185m	1350	1138	1065	1045
Sulfur	ppm	ASTM D5185m	4250	2962	2633	2697
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.6	14.0	13.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.5	7.3	6.6
Visc @ 100°C	cSt	ASTM D445	14.4	12.8	12.2	11.9

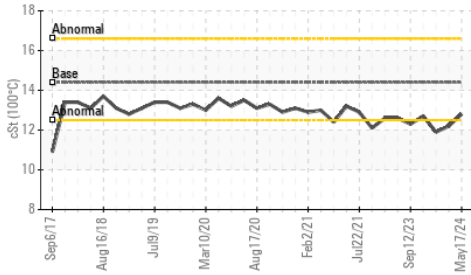
FT-IR (Direct Trend)



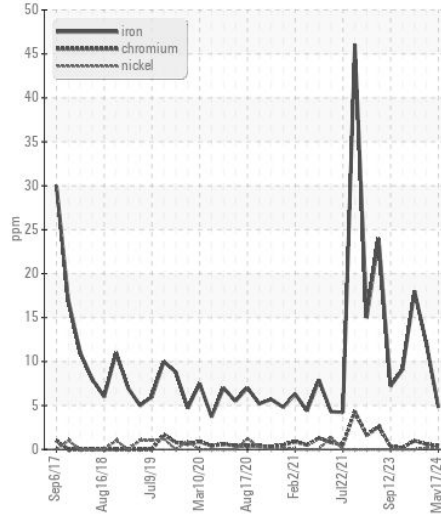
Base Number



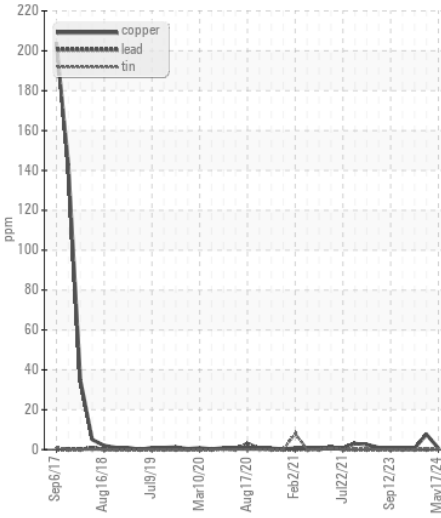
Viscosity @ 100°C



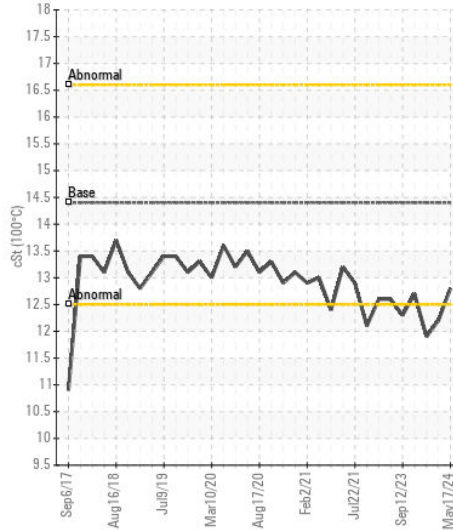
Ferrous Alloys



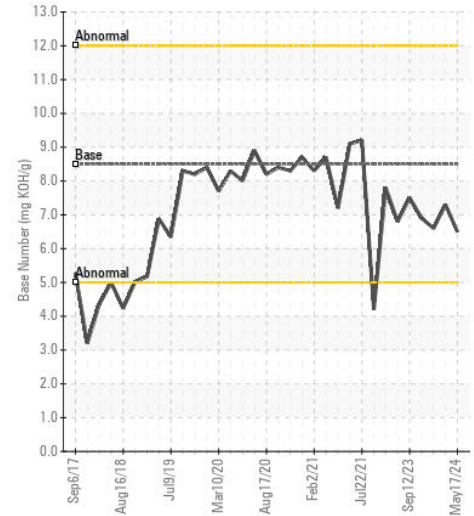
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116819
Lab Number : 06188729
Unique Number : 11045481
Test Package : FLEET

Received : 23 May 2024
Tested : 24 May 2024
Diagnosed : 24 May 2024 - Wes Davis

GFL Environmental - 009 - Fairburn
 6905 Roosevelt Hwy
 Fairburn, GA
 US 30213
 Contact: Eric Jones
 erjones@gflenv.com
 T: (678)630-9927
 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)