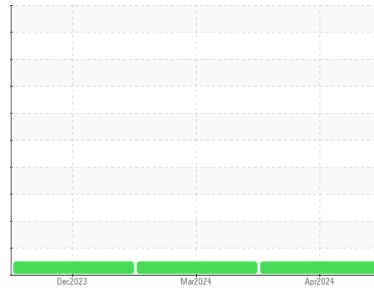




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
MCI 2059

Component
Diesel Engine

Fluid
PURUS SYNTHETIC BLEND 10W30 (--- GAL)

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			WC0859097	WC0859065	WC0859046
Sample Date	Client Info			19 Apr 2024	03 Mar 2024	21 Dec 2023
Machine Age	mls	Client Info		110000	92643	65454
Oil Age	mls	Client Info		19000	27000	30000
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	8	14	21
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	3
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	0	<1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		14	23	26
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		61	65	77
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		975	918	987
Calcium	ppm	ASTM D5185m		1211	1103	1121
Phosphorus	ppm	ASTM D5185m		1095	1017	1112
Zinc	ppm	ASTM D5185m		1352	1231	1249
Sulfur	ppm	ASTM D5185m		4026	3764	3327

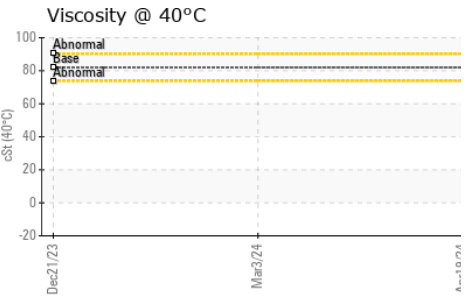
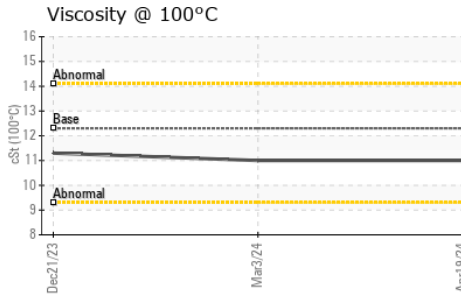
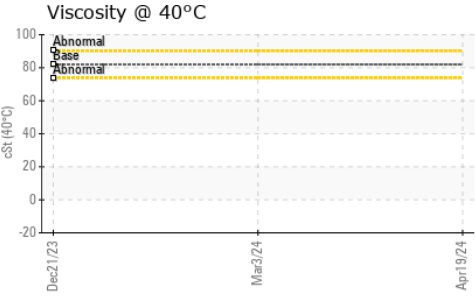
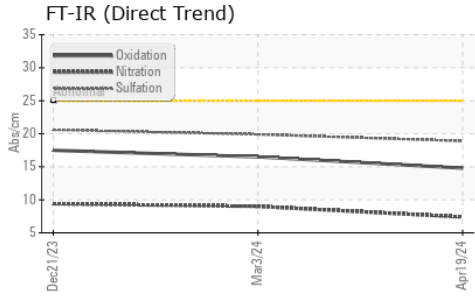
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	6	6	8
Sodium	ppm	ASTM D5185m		<1	3	1
Potassium	ppm	ASTM D5185m	>20	2	2	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.4	9.0	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9	19.9	20.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	16.5	17.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.6	7.4	7.8



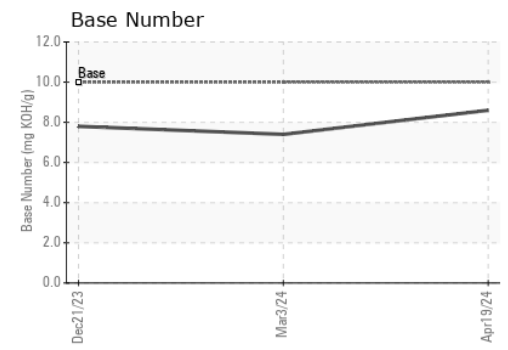
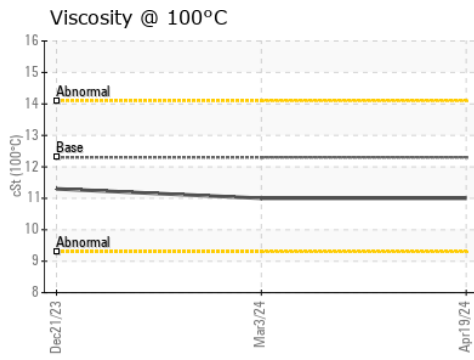
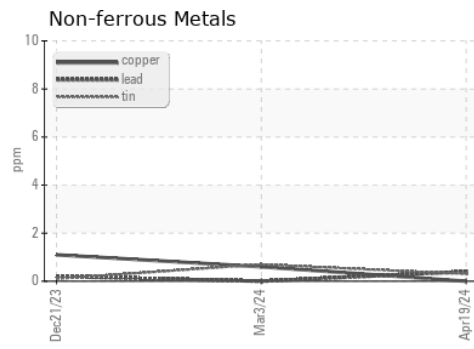
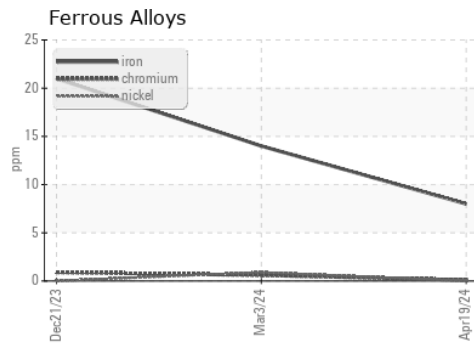
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.3	11.0	11.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0859097 **Received** : 12 Jun 2024
Lab Number : 06208304 **Tested** : 14 Jun 2024
Unique Number : 11075765 **Diagnosed** : 14 Jun 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: KV40)

JEFFERSON LINES
 1830 4TH AVE N
 BILLINGS, MT
 US 59101

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: BILLINGS SHOP
billingsshop@jeffersonlines.com

* - 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)

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