



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
CUMMINS 846-5180
 Component
1 Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0021904	RPL0019446	RPL0016834
Sample Date		Client Info		28 Jun 2024	07 Mar 2024	09 Dec 2023
Machine Age	mls	Client Info		0	13853	9119
Oil Age	mls	Client Info		0	13853	9119
Filter Age	mls	Client Info		0	13853	9119
Oil Changed		Client Info		Not Changd	Not Changd	Filtered
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ATTENTION	ABNORMAL	ABNORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>90	53	36	24
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	16	12	7
Lead	ppm	ASTM D5185m	>40	5	2	2
Copper	ppm	ASTM D5185m	>330	21	21	20
Tin	ppm	ASTM D5185m	>15	4	3	2
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

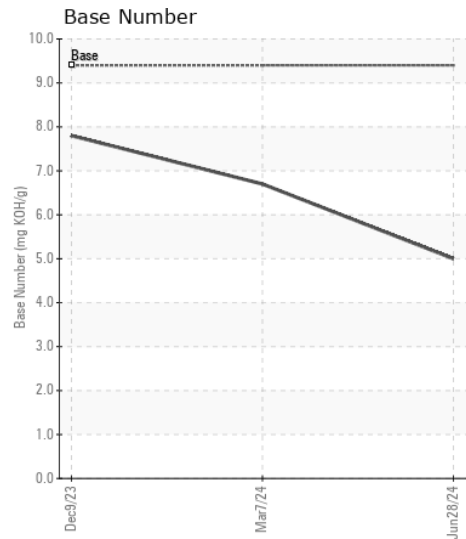
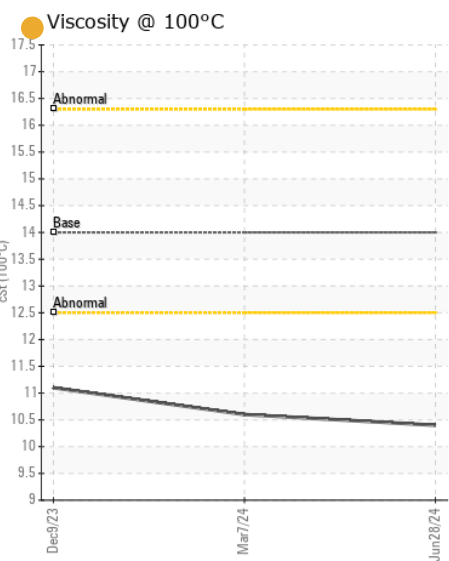
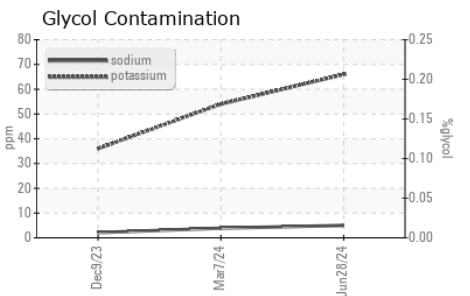
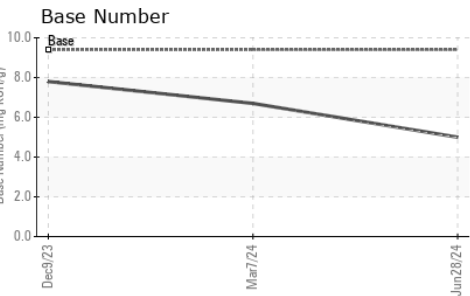
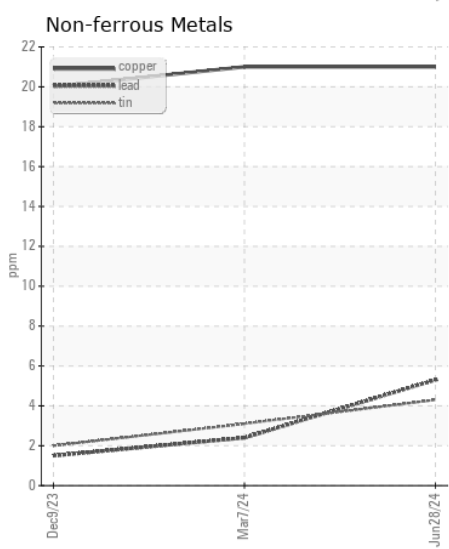
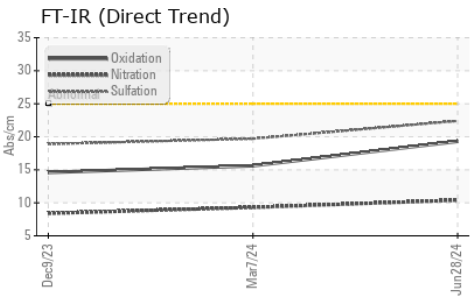
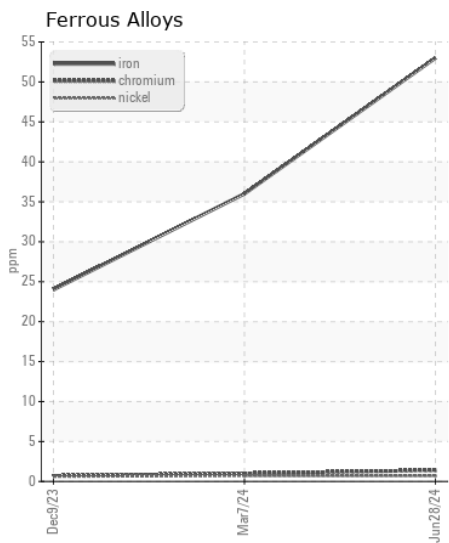
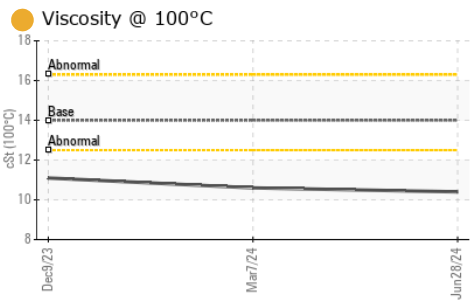
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	43	40	40
Potassium	ppm	ASTM D5185m	>20	66	▲ 54	36
Fuel		WC Method	>3.0	<1.0	<1.0	▲ 1.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.3	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.4	9.3	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	19.7	18.9
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		5	4	2
Boron	ppm	ASTM D5185m	0	33	51	79
Barium	ppm	ASTM D5185m	0	0	3	0
Molybdenum	ppm	ASTM D5185m	0	15	13	13
Manganese	ppm	ASTM D5185m		6	5	5
Magnesium	ppm	ASTM D5185m	0	733	710	710
Calcium	ppm	ASTM D5185m		1316	1243	1242
Phosphorus	ppm	ASTM D5185m		749	708	663
Zinc	ppm	ASTM D5185m		908	859	826
Sulfur	ppm	ASTM D5185m		3347	2916	3239
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.3	15.6	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	5.0	6.7	7.8
Visc @ 100°C	cSt	ASTM D445	14	● 10.4	● 10.6	▲ 11.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0021904 **Received** : 12 Jul 2024
Lab Number : 06234491 **Tested** : 16 Jul 2024
Unique Number : 11123325 **Diagnosed** : 16 Jul 2024 - Sean Felton
Test Package : FLEET (Additional Tests: Glycol)

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Certificate L2367
 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)