



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

Current
Machine Id
IC 26-22

Component
Forward Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 10W30 (19 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0849397	WC0693084	WC0602596
Sample Date		Client Info		14 Dec 2023	20 Jan 2023	11 Mar 2022
Machine Age	mls	Client Info		39341	24086	12007
Oil Age	mls	Client Info		15255	12079	12007
Filter Age	mls	Client Info		15255	12079	12007
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>90	60	52	71
Chromium	ppm	ASTM D5185m	>20	4	3	3
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	122	74	43
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	9	13	68
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

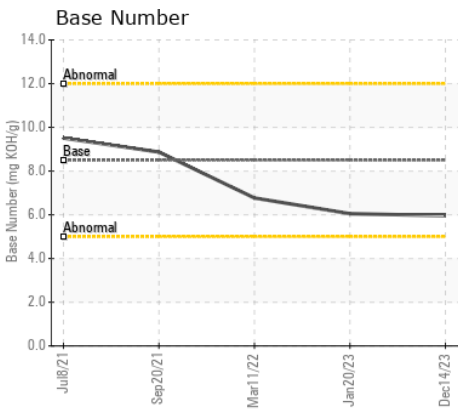
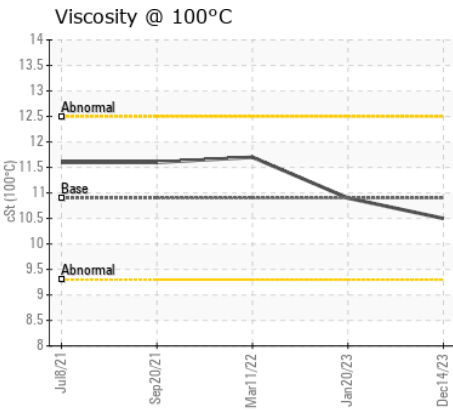
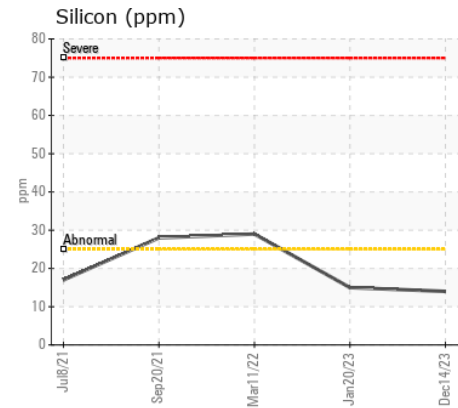
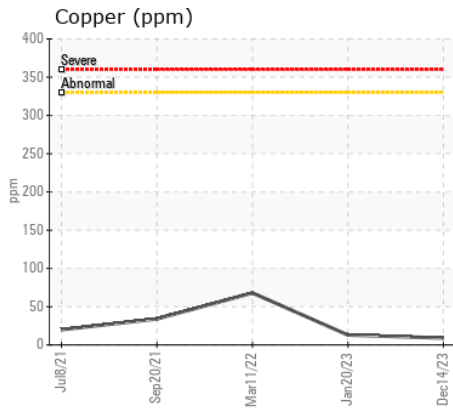
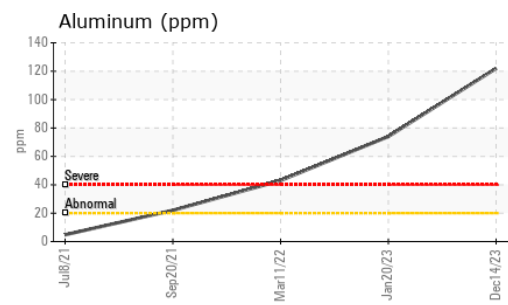
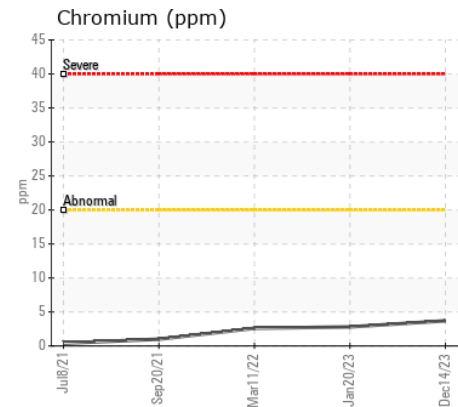
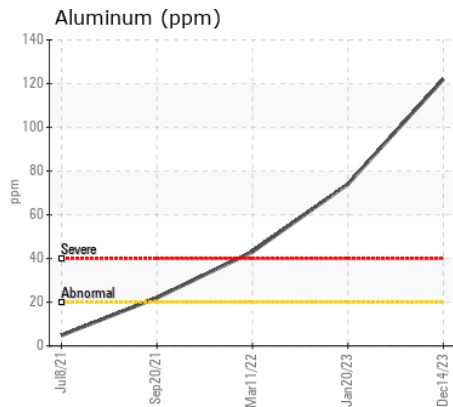
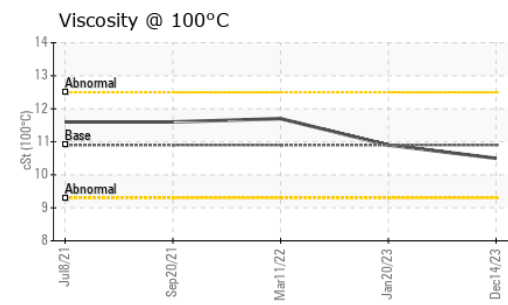
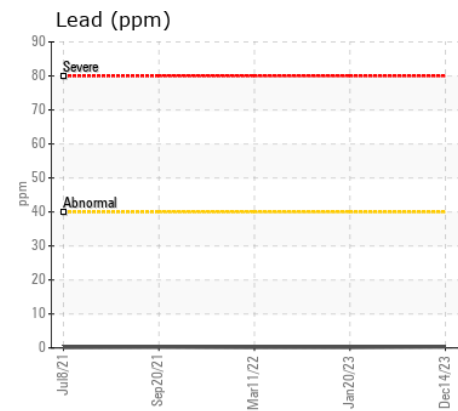
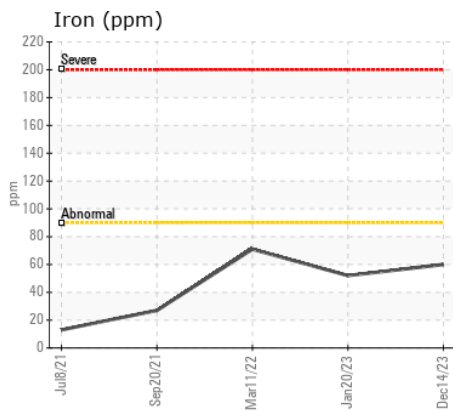
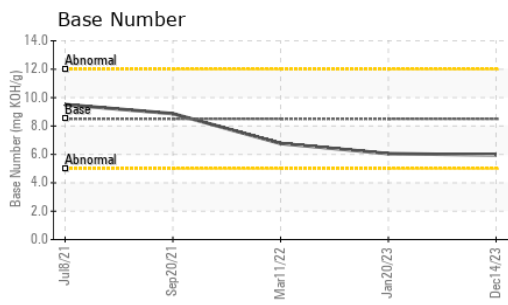
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	14	15	29
Potassium	ppm	ASTM D5185m	>20	252	177	164
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.7	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	9.0	9.9	14.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	22.6	25.8
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		<1	3	7
Boron	ppm	ASTM D5185m	250	4	15	27
Barium	ppm	ASTM D5185m	10	1	0	0
Molybdenum	ppm	ASTM D5185m	100	10	9	46
Manganese	ppm	ASTM D5185m		<1	1	6
Magnesium	ppm	ASTM D5185m	450	53	88	776
Calcium	ppm	ASTM D5185m	3000	2922	2303	1209
Phosphorus	ppm	ASTM D5185m	1150	1188	883	671
Zinc	ppm	ASTM D5185m	1350	1336	1093	902
Sulfur	ppm	ASTM D5185m	4250	4963	4041	1703
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	14.1	26.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.96	6.05	6.77
Visc @ 100°C	cSt	ASTM D445	10.9	10.5	10.9	11.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0849397 **Received** : 18 Jan 2024
Lab Number : 06065118 **Diagnosed** : 19 Jan 2024
Unique Number : 10836500 **Diagnostician** : Wes Davis
Test Package : MOB 2

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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)