



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

Current

Machine Id

IC 29-15

Component

Front Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 10W30 (29 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0849394	WC0693071	WC0693052
Sample Date		Client Info		02 Jan 2024	02 Nov 2022	11 May 2022
Machine Age	mls	Client Info		108998	99318	93562
Oil Age	mls	Client Info		9680	12024	6268
Filter Age	mls	Client Info		9680	12024	6268
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Piston, ring and cylinder wear is indicated.

Iron	ppm	ASTM D5185m	>127	▲ 198	42	96
Chromium	ppm	ASTM D5185m	>3	▲ 4	1	2
Nickel	ppm	ASTM D5185m	>30	8	1	2
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>59	▲ 83	25	61
Lead	ppm	ASTM D5185m	>29	11	1	2
Copper	ppm	ASTM D5185m	>135	10	3	6
Tin	ppm	ASTM D5185m	>2	2	<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

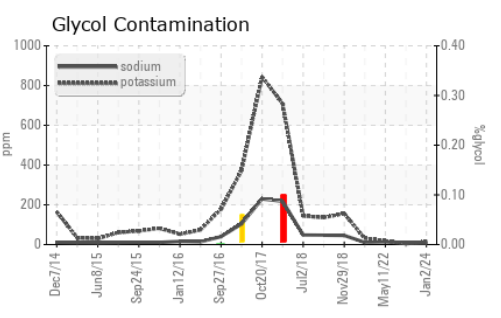
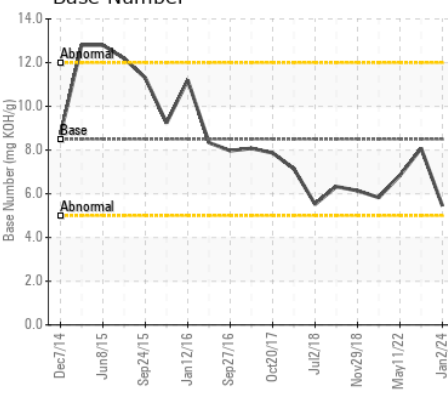
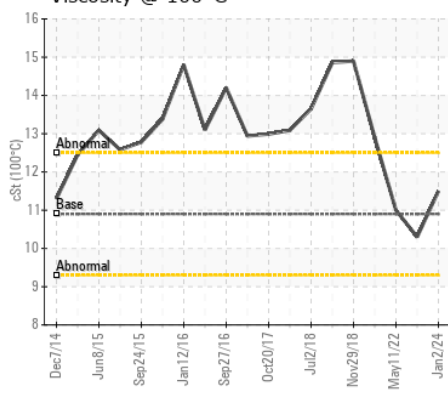
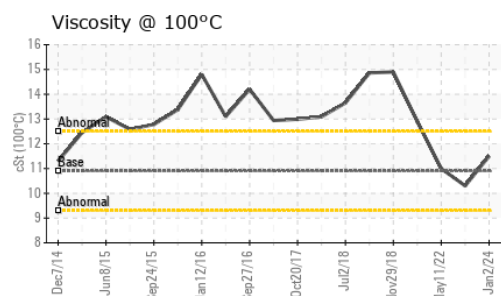
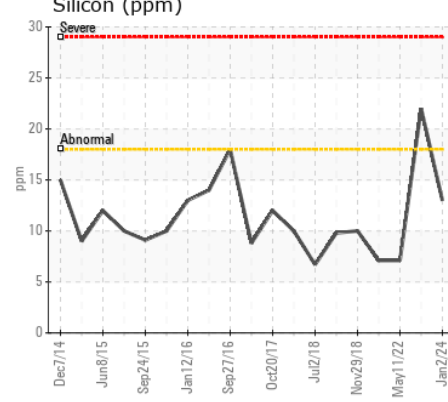
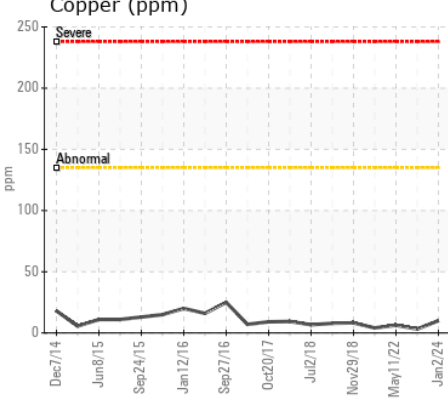
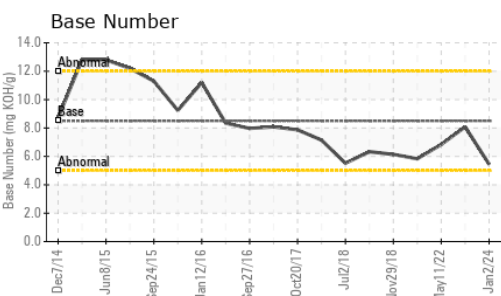
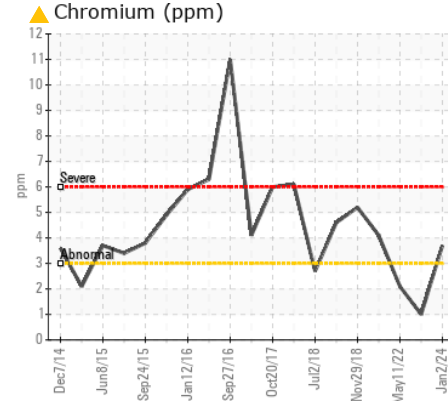
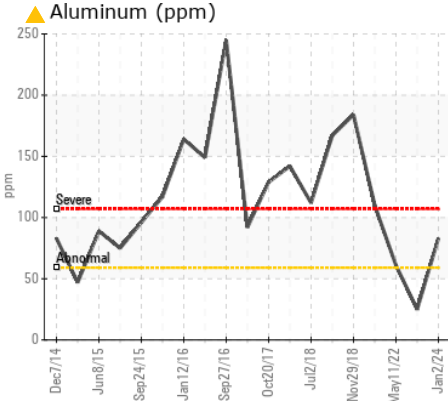
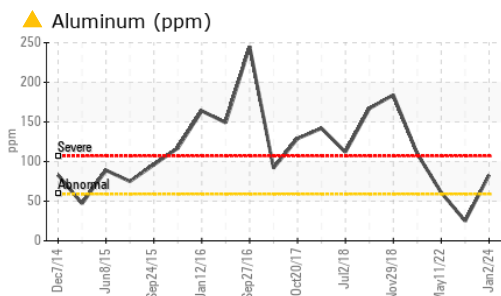
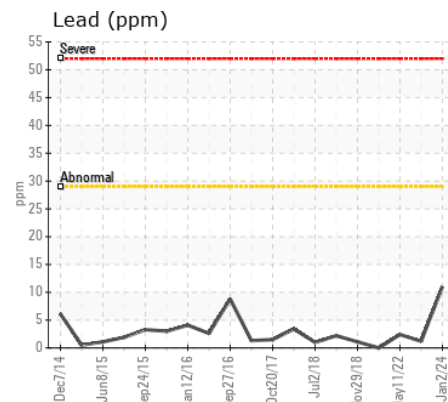
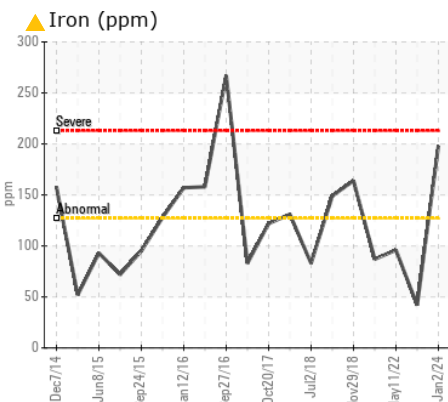
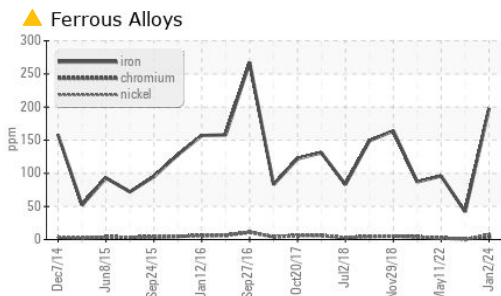
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>18	13	▲ 22	7
Potassium	ppm	ASTM D5185m	>20	14	4	19
Fuel		WC Method	>2.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	2.9	1.5	2.3
Nitration	Abs/cm	*ASTM D7624	>20	15.3	10.8	13.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	33.1	22.6	26.7
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		6	7	14
Boron	ppm	ASTM D5185m	250	6	1	18
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	26	6	18
Manganese	ppm	ASTM D5185m		3	<1	1
Magnesium	ppm	ASTM D5185m	450	45	16	35
Calcium	ppm	ASTM D5185m	3000	3373	2614	2598
Phosphorus	ppm	ASTM D5185m	1150	1139	950	1044
Zinc	ppm	ASTM D5185m	1350	1515	1031	1202
Sulfur	ppm	ASTM D5185m	4250	5037	4431	3147
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.9	12.9	16.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.45	8.08	6.84
Visc @ 100°C	cSt	ASTM D445	10.9	11.5	10.3	11.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0849394 **Received** : 08 Jan 2024
Lab Number : 06055044 **Diagnosed** : 10 Jan 2024
Unique Number : 10820993 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: Glycol)

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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)