



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
19981
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 30 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0871934	WC0847787	WC0847812
Sample Date		Client Info		02 Jan 2024	14 Oct 2023	06 Sep 2023
Machine Age	mls	Client Info		71531	36160	47368
Oil Age	mls	Client Info		15371	8792	47244
Filter Age	mls	Client Info		15371	8792	47244
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	10	5	12
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	4	11
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	<1	6
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

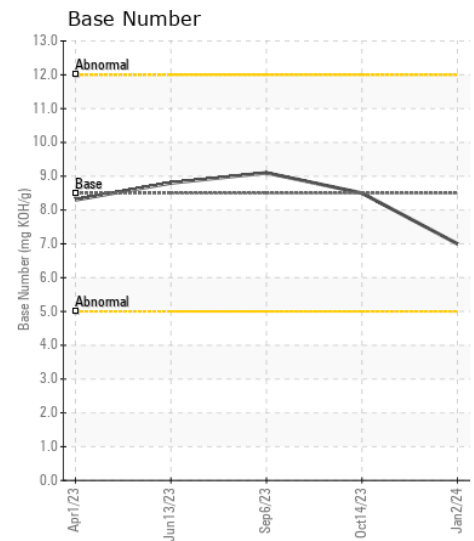
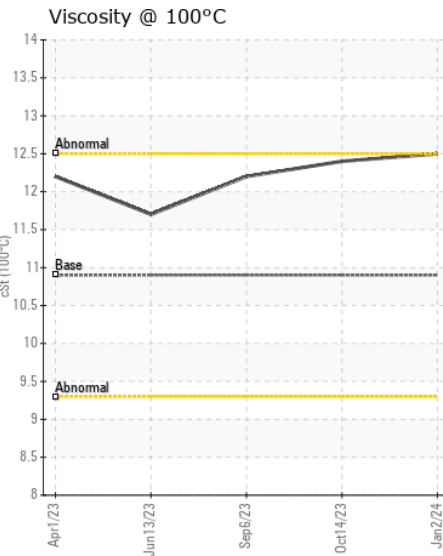
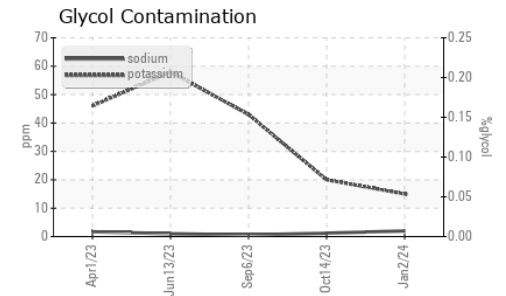
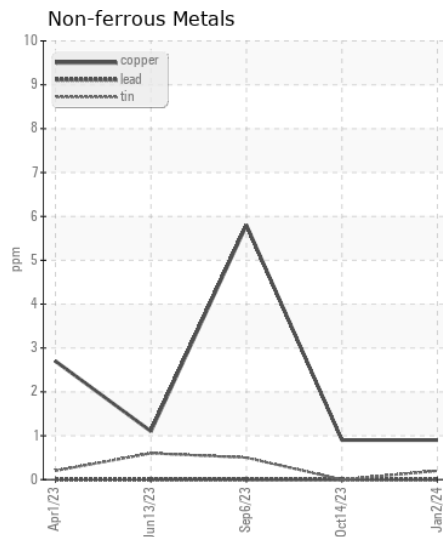
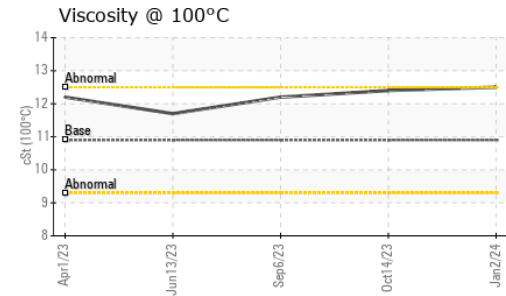
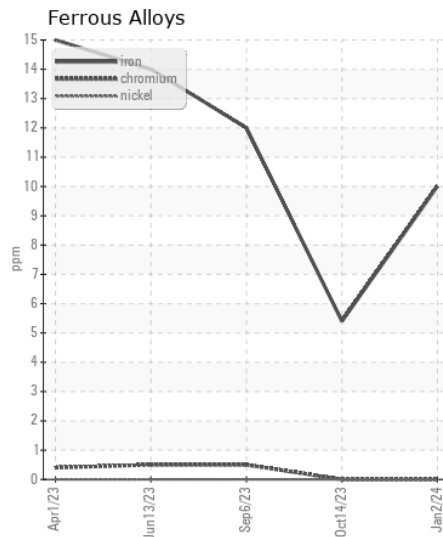
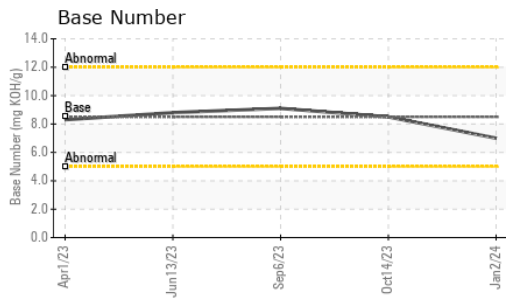
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	3	4
Potassium	ppm	ASTM D5185m	>20	15	20	43
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.5	6.6	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	18.1	19.9
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 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	>75	2	1	<1
Boron	ppm	ASTM D5185m	250	300	7	3
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	82	66	66
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	457	970	853
Calcium	ppm	ASTM D5185m	3000	1312	1195	1119
Phosphorus	ppm	ASTM D5185m	1150	1089	1029	1005
Zinc	ppm	ASTM D5185m	1350	1278	1310	1213
Sulfur	ppm	ASTM D5185m	4250	3281	3351	3467
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	14.0	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.0	8.5	9.1
Visc @ 100°C	cSt	ASTM D445	10.9	12.5	12.4	12.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0871934 **Received** : 18 Jan 2024
Lab Number : 06064873 **Diagnosed** : 21 Jan 2024
Unique Number : 10836255 **Diagnostician** : Don Baldrige
Test Package : FLEET (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)