



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
1661
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0905764	WC0821345	WC0761245
Sample Date		Client Info		20 Mar 2024	21 Jul 2023	30 Nov 2022
Machine Age	mls	Client Info		189610	184194	169470
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	75	9	10
Chromium	ppm	ASTM D5185m	>20	8	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	12	3	3
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	3	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

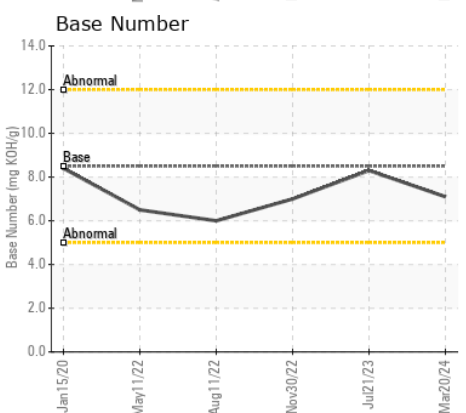
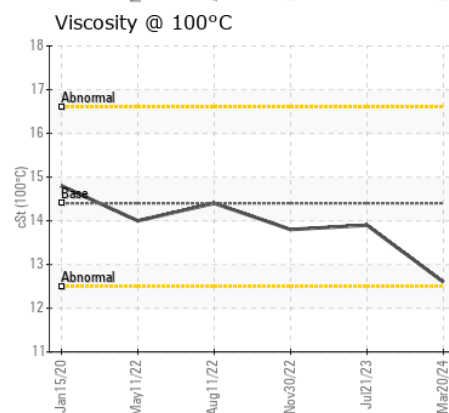
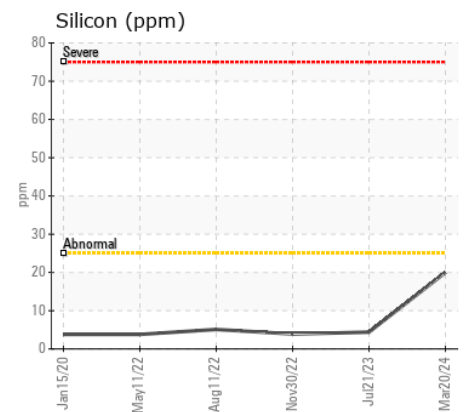
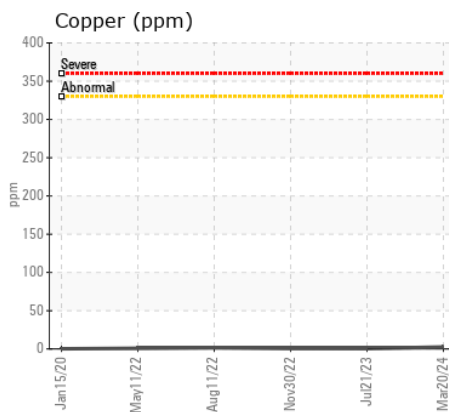
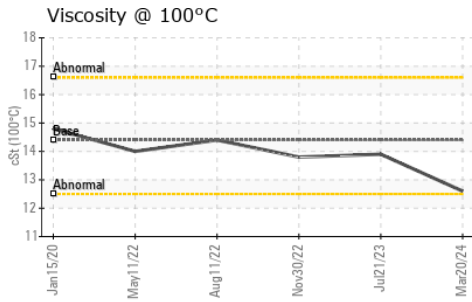
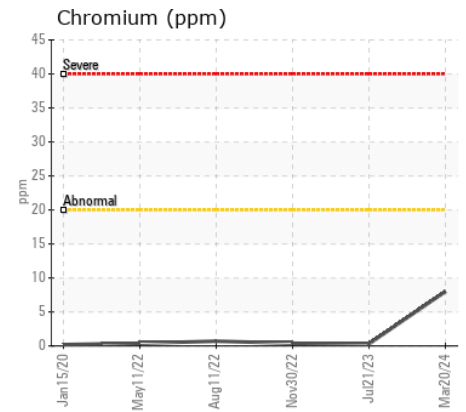
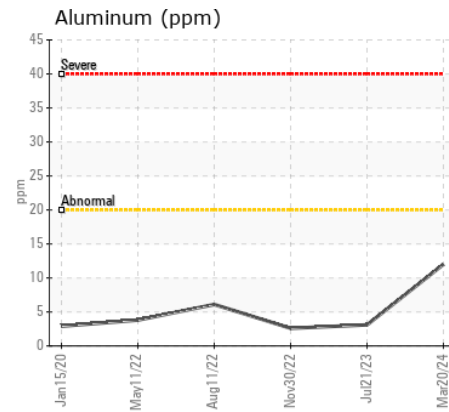
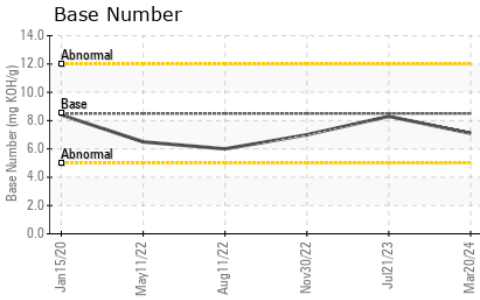
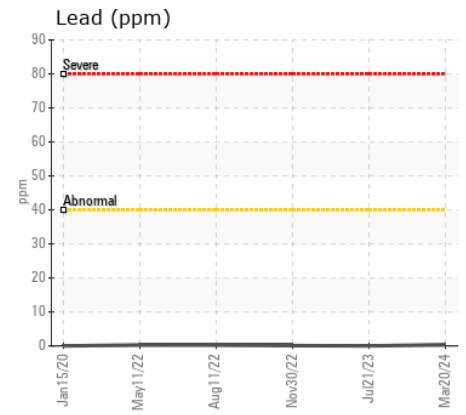
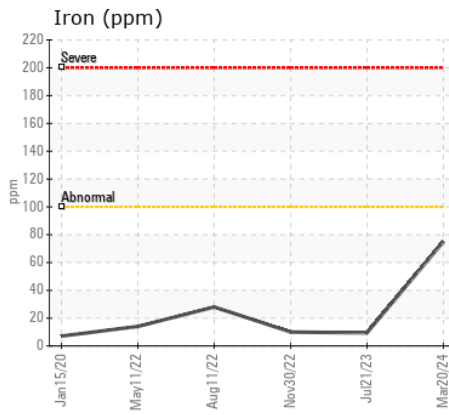
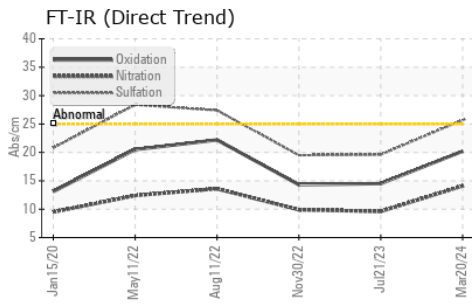
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	20	4	4
Potassium	ppm	ASTM D5185m	>20	7	5	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	2.4	1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	14.1	9.6	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.7	19.6	19.5
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	>158	3	0	2
Boron	ppm	ASTM D5185m	250	17	33	39
Barium	ppm	ASTM D5185m	10	0	6	0
Molybdenum	ppm	ASTM D5185m	100	76	81	78
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	120	123	37
Calcium	ppm	ASTM D5185m	3000	1909	2010	2021
Phosphorus	ppm	ASTM D5185m	1150	943	995	940
Zinc	ppm	ASTM D5185m	1350	1146	1145	1153
Sulfur	ppm	ASTM D5185m	4250	3498	3588	3688
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	14.5	14.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.1	8.3	7.0
Visc @ 100°C	cSt	ASTM D445	14.4	12.6	13.9	13.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0905764 **Received** : 23 May 2024
Lab Number : 06189008 **Tested** : 24 May 2024
Unique Number : 11045760 **Diagnosed** : 24 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

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 1551 ROCK QUARRY ROAD
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 US 27610
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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)