



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**DFA28087**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0925933</b>	WC0925938	WC0820964
Sample Date		Client Info		<b>11 Apr 2024</b>	05 Apr 2024	28 Jul 2023
Machine Age	mls	Client Info		<b>199872</b>	0	0
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>10</b>	5	7
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>2</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	4	2
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>21</b>	10	12
Tin	ppm	ASTM D5185m	>15	<b>3</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

There is no indication of any contamination in the oil.

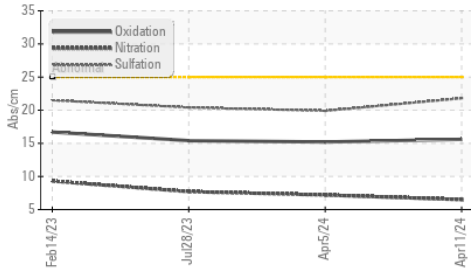
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	5	5
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.5</b>	7.2	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.8</b>	19.9	20.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

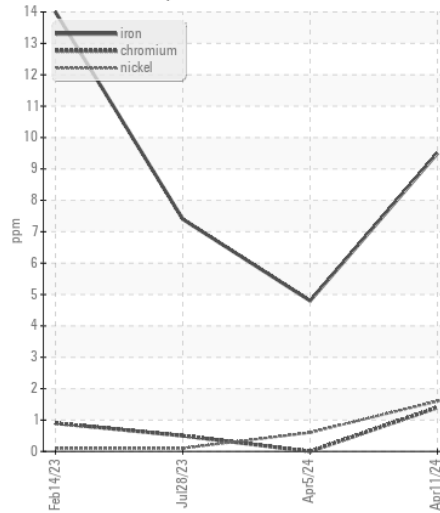
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>3</b>	1	1
Boron	ppm	ASTM D5185m	250	<b>560</b>	<1	0
Barium	ppm	ASTM D5185m	10	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>119</b>	60	61
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>676</b>	996	1003
Calcium	ppm	ASTM D5185m	3000	<b>1964</b>	1108	1124
Phosphorus	ppm	ASTM D5185m	1150	<b>1706</b>	1100	1043
Zinc	ppm	ASTM D5185m	1350	<b>1883</b>	1326	1290
Sulfur	ppm	ASTM D5185m	4250	<b>5720</b>	3769	3655
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.6</b>	15.2	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.7</b>	9.4	9.4
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.9</b>	13.8	14.0

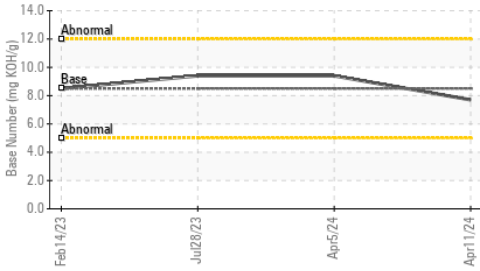
FT-IR (Direct Trend)



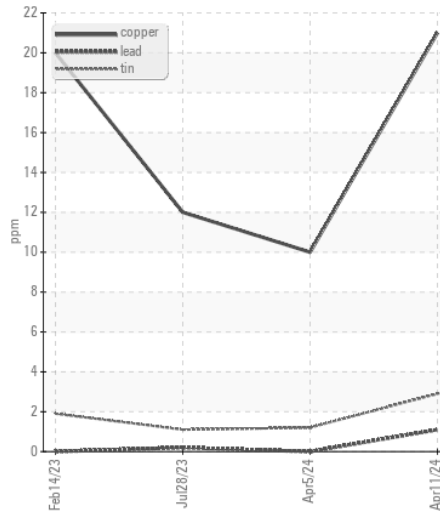
Ferrous Alloys



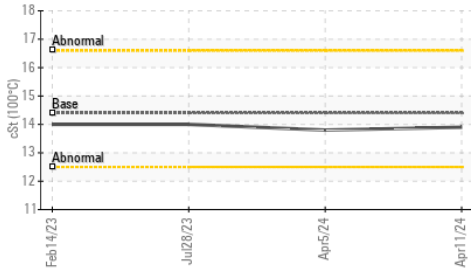
Base Number



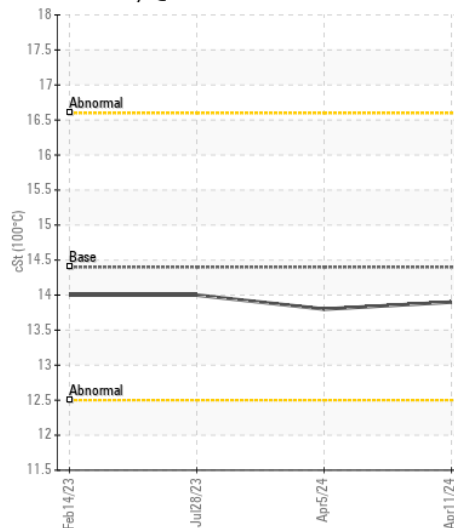
Non-ferrous Metals



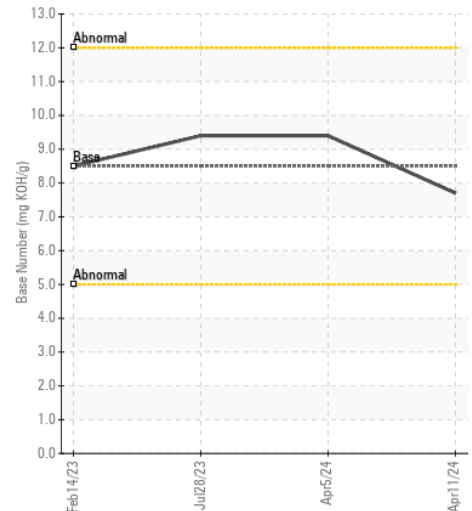
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0925933

Lab Number : 06152542

Unique Number : 10982620

Test Package : FLEET

Received : 17 Apr 2024

Tested : 18 Apr 2024

Diagnosed : 22 Apr 2024 - Don Baldrige

SALEM NATIONALEASE CORPORATION

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WINSTON SALEM, NC

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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)