



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
283065
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0875929	WC0903197	WC0875683
Sample Date		Client Info		07 Jun 2024	18 Mar 2024	24 Nov 2023
Machine Age	mls	Client Info		176930	163196	144456
Oil Age	mls	Client Info		60000	0	0
Filter Age	mls	Client Info		60000	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	8	11	7
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	2
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	4	8	6
Tin	ppm	ASTM D5185m	>15	<1	<1	<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.

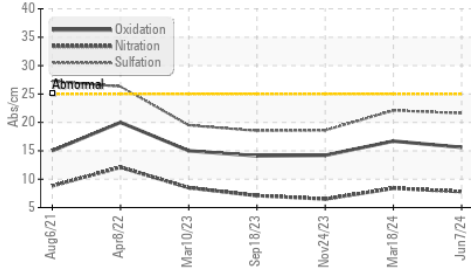
Silicon	ppm	ASTM D5185m	>25	6	5	4
Potassium	ppm	ASTM D5185m	>20	3	1	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.8	8.4	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	22.1	18.6
Silt	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

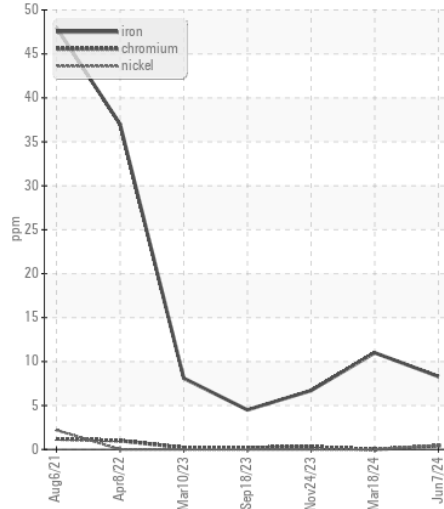
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<1	2	2
Boron	ppm	ASTM D5185m	250	250	206	4
Barium	ppm	ASTM D5185m	10	<1	0	6
Molybdenum	ppm	ASTM D5185m	100	83	91	80
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	450	433	510	922
Calcium	ppm	ASTM D5185m	3000	1331	1388	1095
Phosphorus	ppm	ASTM D5185m	1150	1072	1077	1015
Zinc	ppm	ASTM D5185m	1350	1187	1276	1190
Sulfur	ppm	ASTM D5185m	4250	3486	3743	3640
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	16.7	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.7	6.5	9.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.1	13.1	12.7

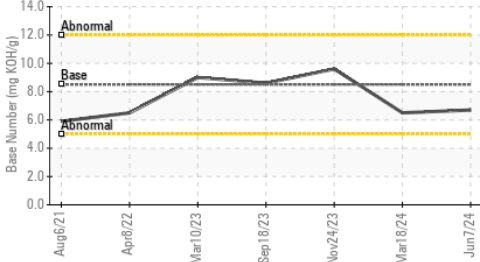
FT-IR (Direct Trend)



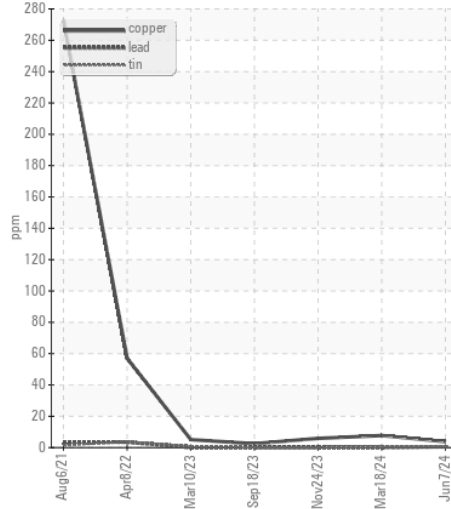
Ferrous Alloys



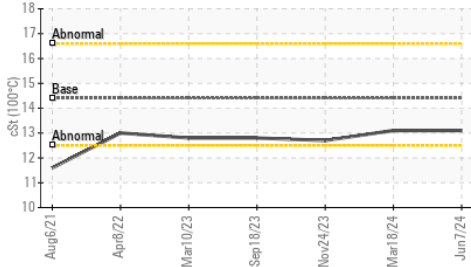
Base Number



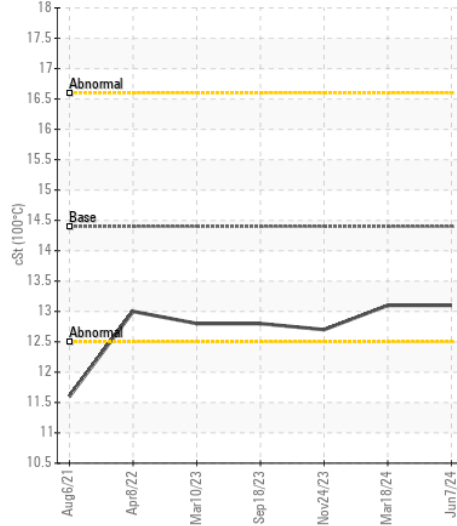
Non-ferrous Metals



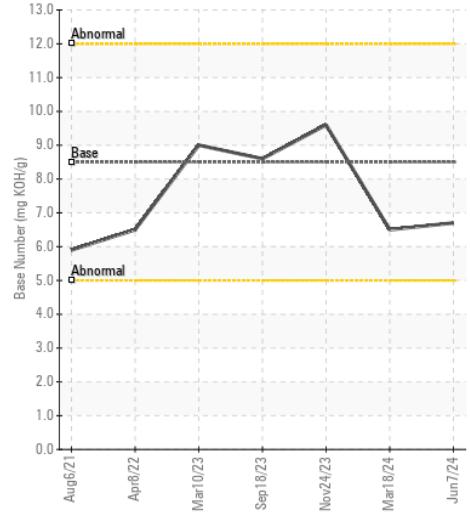
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0875929
Lab Number : 06213025
Unique Number : 11085889
Test Package : FLEET

Received : 17 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Wes Davis

SALEM NATIONALEASE CORPORATION
 198 PARK PLAZA DRIVE
 WINSTON SALEM, NC
 US 27105

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F: x:

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)