



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[Z20281]
Machine Id
DAF ROCK 47
Component
Diesel Engine
Fluid
{not provided} (38 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. 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		WC06223290	WC06114766	WC05977551
Sample Date		Client Info		14 Jun 2024	16 Feb 2024	22 Sep 2023
Machine Age	kms	Client Info		658960	615893	570810
Oil Age	kms	Client Info		0	128602	0
Filter Age	kms	Client Info		0	128602	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	16	15	18
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	2	2
Lead	ppm	ASTM D5185m	>40	1	<1	<1
Copper	ppm	ASTM D5185m	>330	1	1	2
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
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.

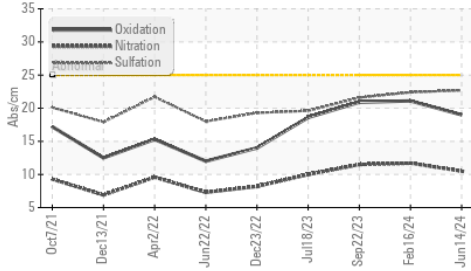
Silicon	ppm	ASTM D5185m	>25	10	10	13
Potassium	ppm	ASTM D5185m	>20	2	2	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1	1.1	0.9
Nitration	Abs/cm	*ASTM D7624	>20	10.5	11.7	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	22.4	21.6
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

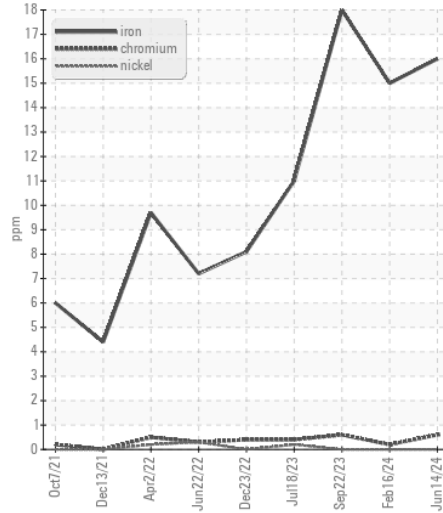
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	1	22
Boron	ppm	ASTM D5185m		106	49	49
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		210	48	55
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		682	726	849
Calcium	ppm	ASTM D5185m		1924	1323	1451
Phosphorus	ppm	ASTM D5185m		892	627	641
Zinc	ppm	ASTM D5185m		1126	817	889
Sulfur	ppm	ASTM D5185m		3987	2697	2416
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	21.1	20.9
Base Number (BN)	mg KOH/g	ASTM D2896		5.3	6.6	6.1
Visc @ 100°C	cSt	ASTM D445		13.4	12.8	13.8

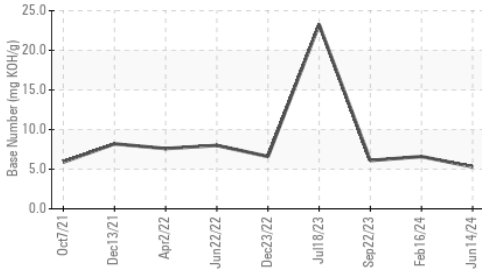
FT-IR (Direct Trend)



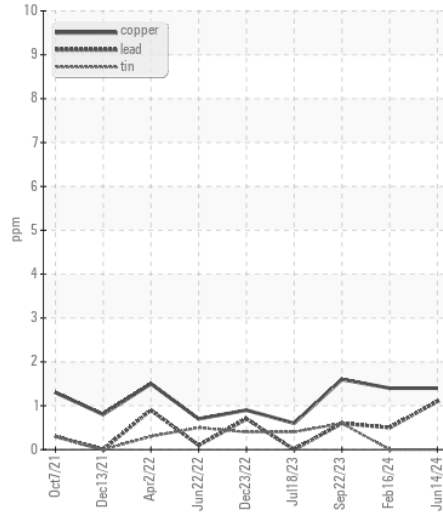
Ferrous Alloys



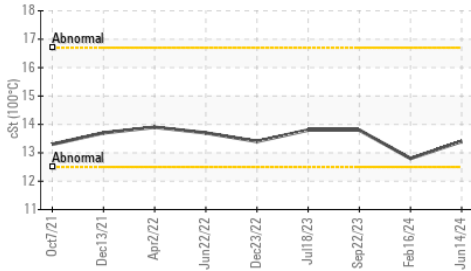
Base Number



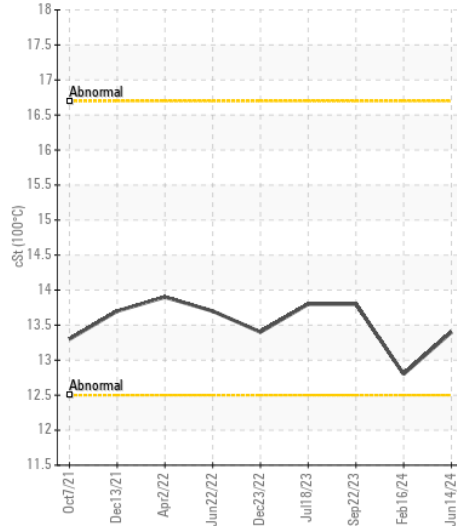
Non-ferrous Metals



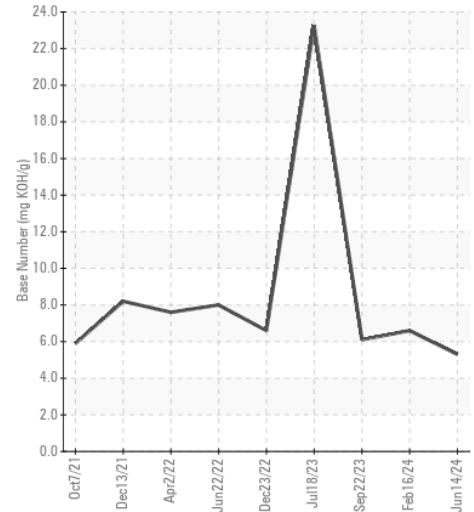
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : WC06223290

Lab Number : 06223290

Unique Number : 11101487

Test Package : FLEET

Received : 28 Jun 2024

Tested : 01 Jul 2024

Diagnosed : 01 Jul 2024 - Wes Davis

TR GROUP

781 GREAT SOUTH RD

PENROSE AUCKLAND, ZZ

NZ 1061

Contact: DAVE TENNANT

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T:

F:

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)