



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR D6K2 LGP 001883 (S/N CAT00D6KER5T00696)
 Component
Diesel Engine
 Fluid
CASTROL VECTON 15W40 CK4 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0856167	WC0800547	WC0724678
Sample Date		Client Info		20 Jun 2024	27 Nov 2023	03 May 2023
Machine Age	hrs	Client Info		12150	11813	11079
Oil Age	hrs	Client Info		337	734	487
Filter Age	hrs	Client Info		337	734	487
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	19	28	13
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	4	5	3
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	1	3	7
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	<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.

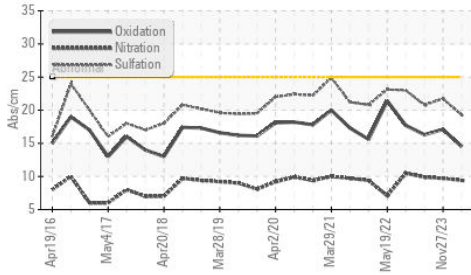
Silicon	ppm	ASTM D5185m	>25	9	10	6
Potassium	ppm	ASTM D5185m	>20	<1	0	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.7	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.3	21.7	20.8
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

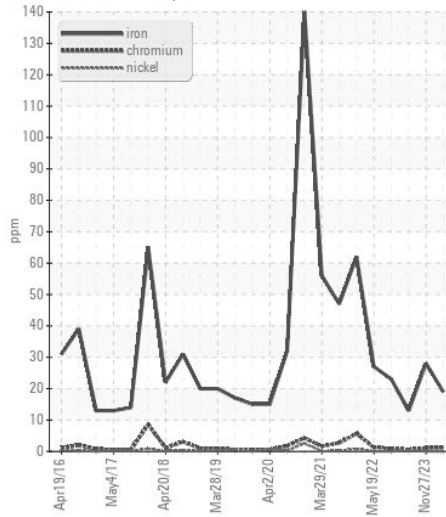
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	4	4
Boron	ppm	ASTM D5185m		26	17	30
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		82	83	84
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		90	102	90
Calcium	ppm	ASTM D5185m		2275	2136	2054
Phosphorus	ppm	ASTM D5185m		1009	965	960
Zinc	ppm	ASTM D5185m		1189	1167	1204
Sulfur	ppm	ASTM D5185m		4050	3395	4116
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	17.1	16.3
Base Number (BN)	mg KOH/g	ASTM D2896	10	5.5	4.9	5.8
Visc @ 100°C	cSt	ASTM D445	15.5	13.5	13.3	13.8

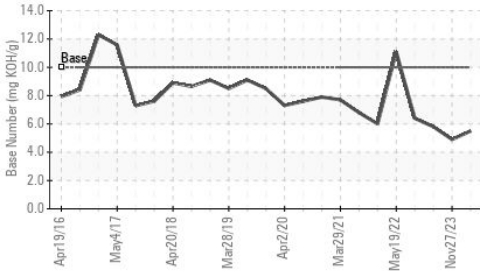
FT-IR (Direct Trend)



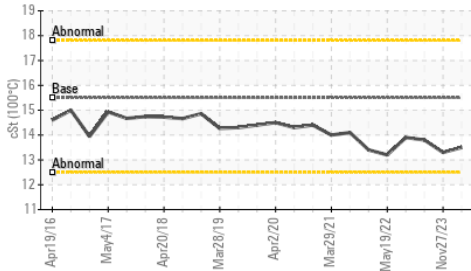
Ferrous Alloys



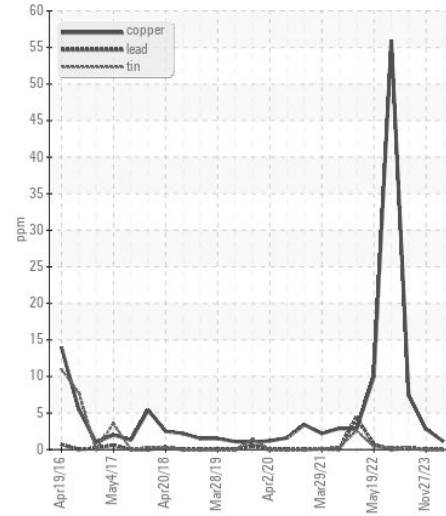
Base Number



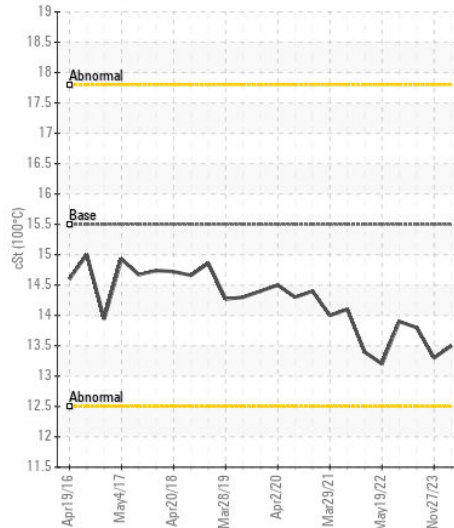
Viscosity @ 100°C



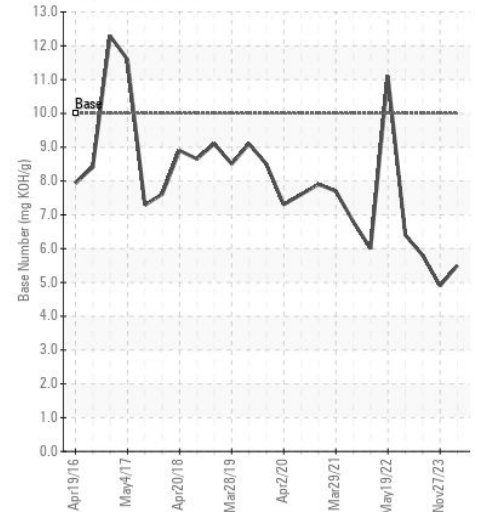
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : WC0856167

Lab Number : 06231340

Unique Number : 11114833

Test Package : CONST (Additional Tests: TBN)

Received : 09 Jul 2024

Tested : 10 Jul 2024

Diagnosed : 10 Jul 2024 - Wes Davis

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)

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