



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
AAAB IRAQ
Machine Id
2000-4181
Component
Genset
Fluid
VALVOLINE PREMIUM BLUE (380 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0860691	WC0860677	WC0860668
Sample Date		Client Info		24 Jun 2024	07 Jun 2024	17 May 2024
Machine Age	hrs	Client Info		31137	30886	30680
Oil Age	hrs	Client Info		250	206	428
Filter Age	hrs	Client Info		250	206	428
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	6	0	6
Chromium	ppm	ASTM D5185m	>4	0	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	2	<1	4
Lead	ppm	ASTM D5185m	>17	5	0	▲ 17
Copper	ppm	ASTM D5185m	>70	<1	0	1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	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.

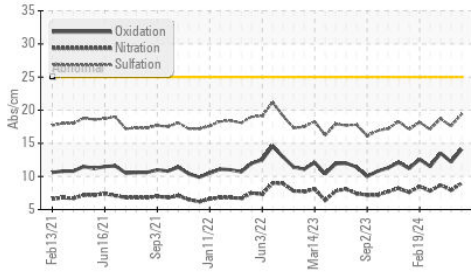
Silicon	ppm	ASTM D5185m	>25	10	6	6
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.0	7.9	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	17.6	18.7
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

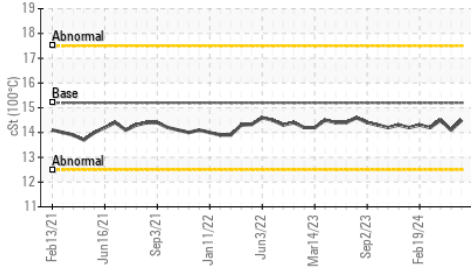
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	0	0
Boron	ppm	ASTM D5185m	2.9	67	65	77
Barium	ppm	ASTM D5185m	0.1	0	0	1
Molybdenum	ppm	ASTM D5185m	0.0	37	34	42
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	18	20	20	20
Calcium	ppm	ASTM D5185m	2936	3676	3808	3950
Phosphorus	ppm	ASTM D5185m	998	944	989	962
Zinc	ppm	ASTM D5185m	1095	1079	1184	1163
Sulfur	ppm	ASTM D5185m	5469	4359	5008	4461
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	12.2	13.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	9.1	8.7	9.4
Visc @ 40°C	cSt	ASTM D445	118	114	109	115
Visc @ 100°C	cSt	ASTM D445	15.2	14.5	14.1	14.5
Viscosity Index (VI)	Scale	ASTM D2270	134	129	130	128

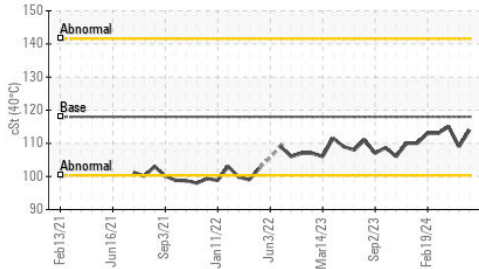
FT-IR (Direct Trend)



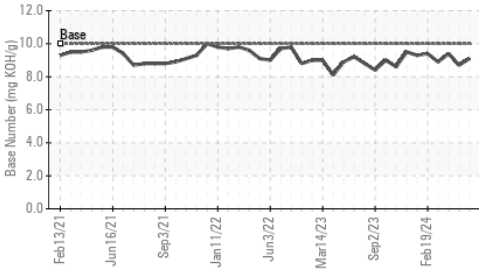
Viscosity @ 100°C



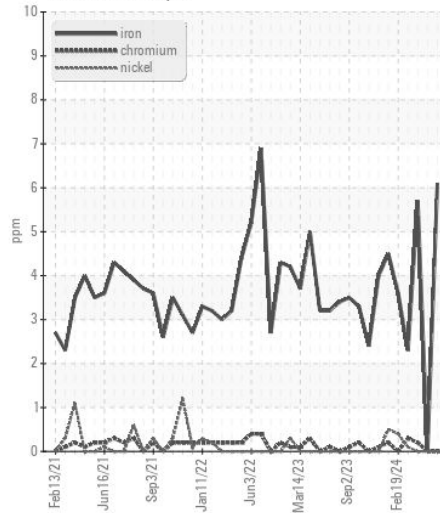
Viscosity @ 40°C



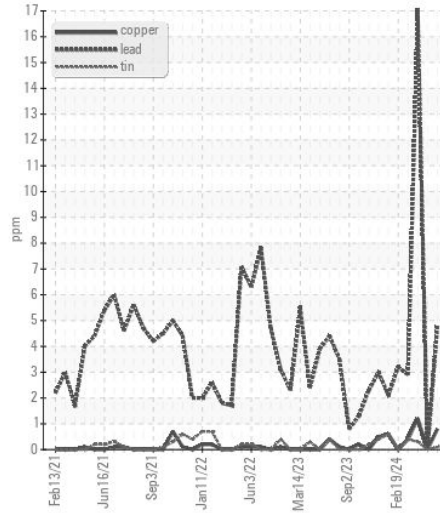
Base Number



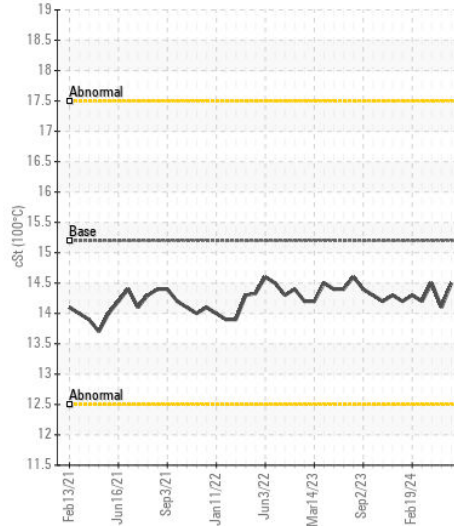
Ferrous Alloys



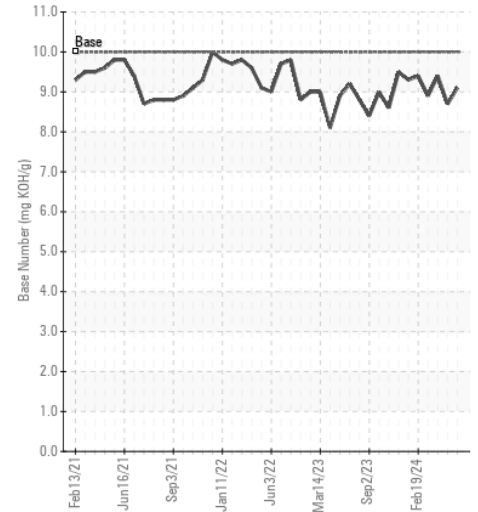
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0860691 **Received** : 15 Jul 2024
Lab Number : 06235330 **Tested** : 15 Jul 2024
Unique Number : 11124164 **Diagnosed** : 15 Jul 2024 - Sean Felton
Test Package : FLEET (Additional Tests: KV40, VI)

CUMMINS - PRIME POWER & IPP STRATEGIC ACCOUNTS

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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)