



# OIL ANALYSIS REPORT

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

Area  
**AAAB IRAQ**

Machine Id  
**2000-4011**

Component  
**Genset**

Fluid  
**VALVOLINE PREMIUM BLUE (--- LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0860782</b>	WC0860604	WC0860727
Sample Date		Client Info		<b>16 Apr 2024</b>	16 Mar 2024	07 Feb 2024
Machine Age	hrs	Client Info		<b>11037</b>	10787	10537
Oil Age	hrs	Client Info		<b>250</b>	250	250
Filter Age	hrs	Client Info		<b>250</b>	250	250
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	>50	<b>2</b>	1	0
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>17	<b>2</b>	2	1
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
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.

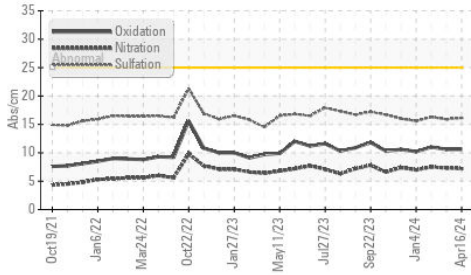
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	2
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.2</b>	7.3	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.1</b>	15.9	16.3
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	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

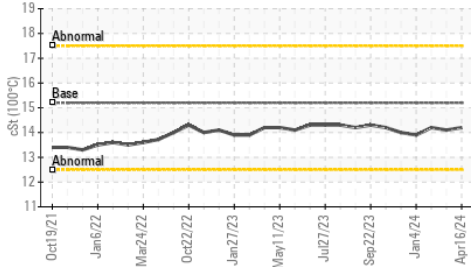
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	<1
Boron	ppm	ASTM D5185m	2.9	<b>71</b>	71	75
Barium	ppm	ASTM D5185m	0.1	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>36</b>	36	36
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	18	<b>23</b>	17	19
Calcium	ppm	ASTM D5185m	2936	<b>3313</b>	3468	3523
Phosphorus	ppm	ASTM D5185m	998	<b>857</b>	948	929
Zinc	ppm	ASTM D5185m	1095	<b>1000</b>	1036	1052
Sulfur	ppm	ASTM D5185m	5469	<b>4362</b>	4391	4610
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>10.6</b>	10.6	11.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	<b>9.4</b>	8.9	9.2
Visc @ 40°C	cSt	ASTM D445	118	<b>111</b>	110	108
Visc @ 100°C	cSt	ASTM D445	15.2	<b>14.2</b>	14.1	14.2
Viscosity Index (VI)	Scale	ASTM D2270	134	<b>129</b>	129	133

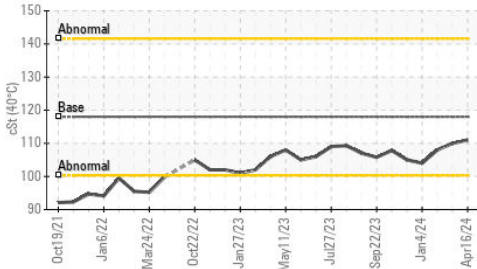
**FT-IR (Direct Trend)**



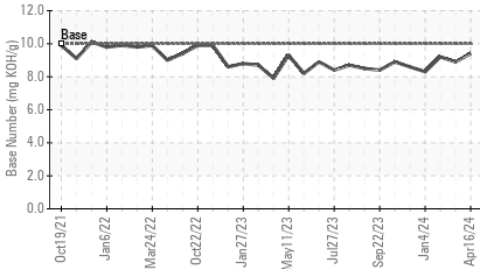
**Viscosity @ 100°C**



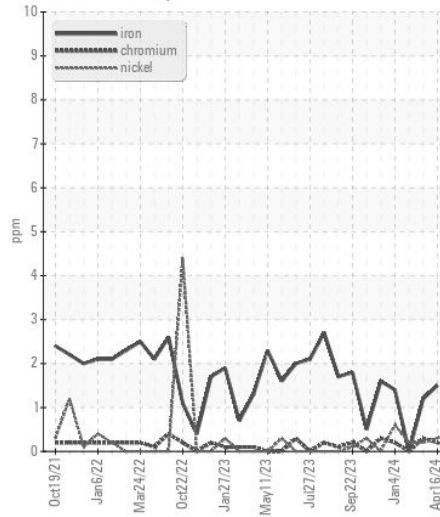
**Viscosity @ 40°C**



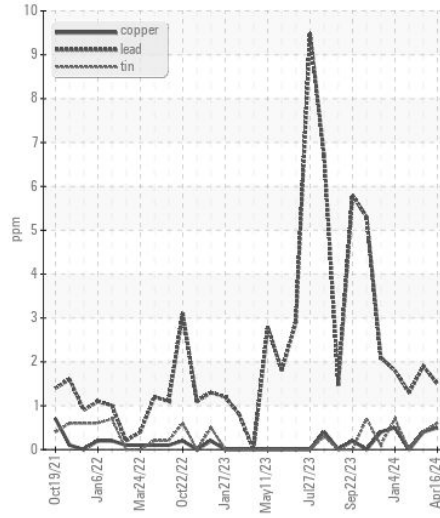
**Base Number**



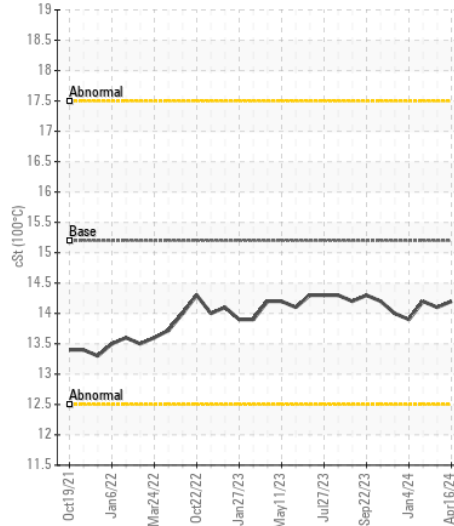
**Ferrous Alloys**



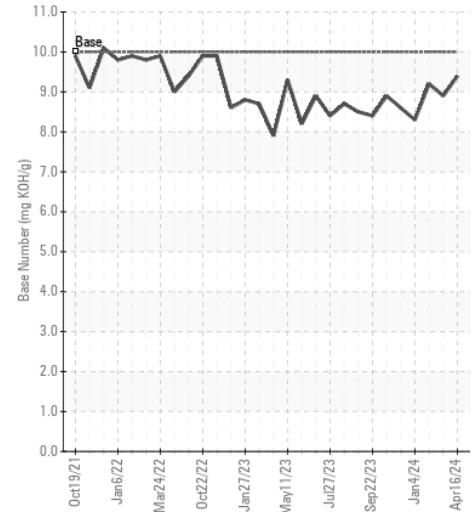
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0860782  
**Lab Number** : 06178114  
**Unique Number** : 11029440  
**Test Package** : FLEET ( Additional Tests: KV40, VI )

**CUMMINS - PRIME POWER & IPP STRATEGIC ACCOUNTS**  
 3850 N VICTORIA ST  
 SHOREVIEW, MN  
 US 55126  
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 T: (964)780-7579134  
 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)