



# OIL ANALYSIS REPORT

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

Area  
**AAAB IRAQ**  
Machine Id  
**2000-4216**  
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		<b>WC0860783</b>	WC0860735	WC0860724
Sample Date		Client Info		<b>28 Mar 2024</b>	21 Mar 2024	17 Jan 2024
Machine Age	hrs	Client Info		<b>33109</b>	32859	0
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>7</b>	4	5
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>17	<b>1</b>	1	2
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
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.

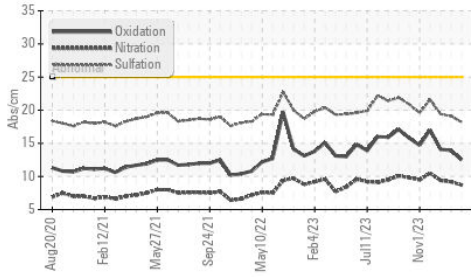
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	1
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	9.2	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.2</b>	19.1	19.4
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

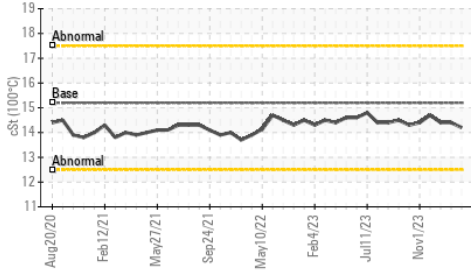
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	1	0
Boron	ppm	ASTM D5185m	2.9	<b>104</b>	72	75
Barium	ppm	ASTM D5185m	0.1	<b>&lt;1</b>	0	13
Molybdenum	ppm	ASTM D5185m	0.0	<b>53</b>	38	41
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	18	<b>25</b>	44	16
Calcium	ppm	ASTM D5185m	2936	<b>4942</b>	3651	3746
Phosphorus	ppm	ASTM D5185m	998	<b>1288</b>	941	976
Zinc	ppm	ASTM D5185m	1095	<b>1512</b>	1103	1092
Sulfur	ppm	ASTM D5185m	5469	<b>6515</b>	4543	4813
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.5</b>	13.9	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	<b>9.8</b>	9.3	9.5
Visc @ 40°C	cSt	ASTM D445	118	<b>111</b>	114	111
Visc @ 100°C	cSt	ASTM D445	15.2	<b>14.2</b>	14.4	14.4
Viscosity Index (VI)	Scale	ASTM D2270	134	<b>129</b>	128	132

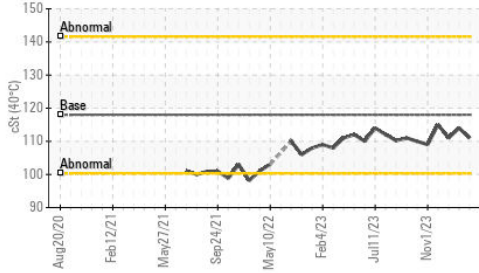
**FT-IR (Direct Trend)**



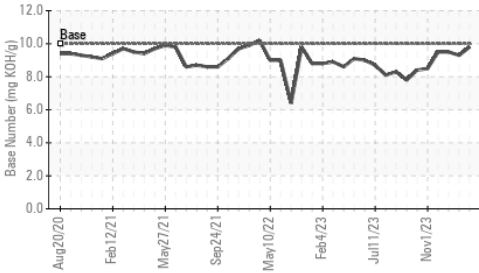
**Viscosity @ 100°C**



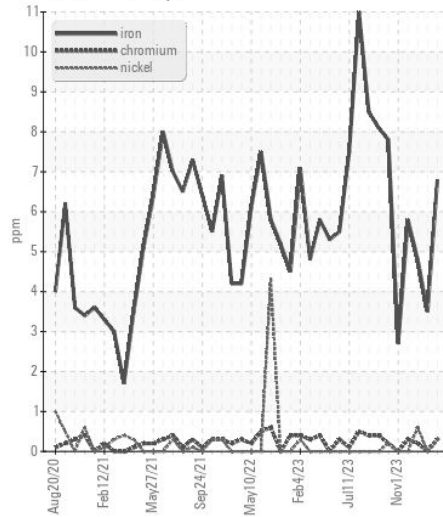
**Viscosity @ 40°C**



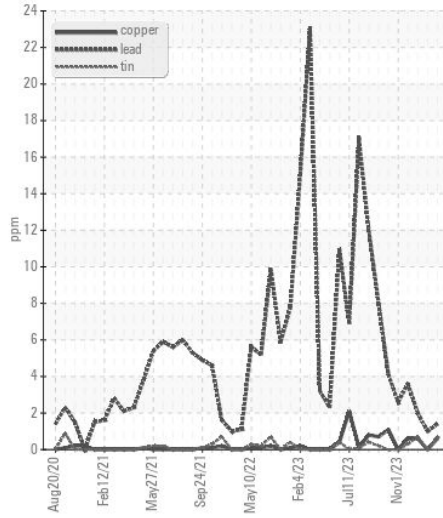
**Base Number**



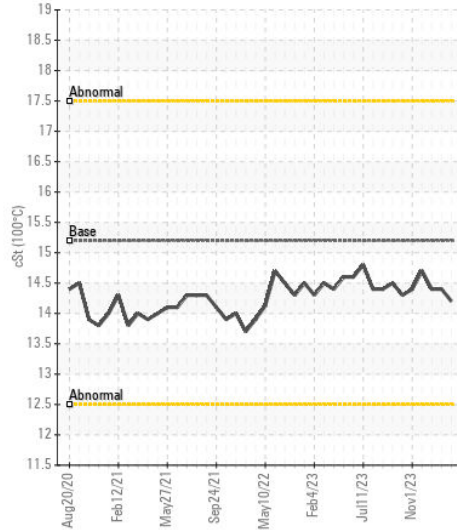
**Ferrous Alloys**



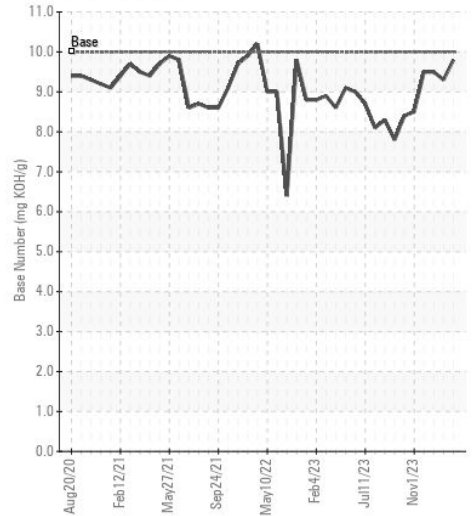
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0860783  
**Lab Number** : 06178115  
**Unique Number** : 11029441  
**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)