



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		WC0860741	WC0860732	WC0860708
Sample Date		Client Info		19 Feb 2024	20 Jan 2024	13 Dec 2023
Machine Age	hrs	Client Info		30002	29752	29502
Oil Age	hrs	Client Info		250	250	314
Filter Age	hrs	Client Info		250	250	314
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	>50	4	4	4
Chromium	ppm	ASTM D5185m	>4	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	2	2	1
Lead	ppm	ASTM D5185m	>17	3	2	3
Copper	ppm	ASTM D5185m	>70	0	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	<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.

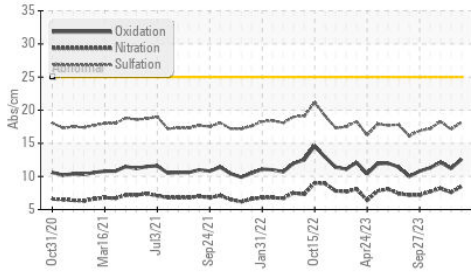
Silicon	ppm	ASTM D5185m	>25	6	5	5
Potassium	ppm	ASTM D5185m	>20	2	2	0
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.5	7.6	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2	17.1	18.3
Silt	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

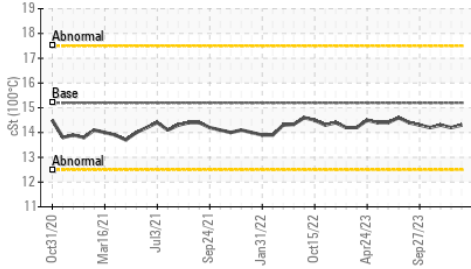
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	0	<1
Boron	ppm	ASTM D5185m	2.9	72	75	66
Barium	ppm	ASTM D5185m	0.1	0	13	0
Molybdenum	ppm	ASTM D5185m	0.0	37	39	37
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	18	20	15	0
Calcium	ppm	ASTM D5185m	2936	3569	3538	3447
Phosphorus	ppm	ASTM D5185m	998	943	956	894
Zinc	ppm	ASTM D5185m	1095	1073	1046	1048
Sulfur	ppm	ASTM D5185m	5469	4650	4677	3830
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.6	11.2	12.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	9.4	9.3	9.5
Visc @ 40°C	cSt	ASTM D445	118	113	110	110
Visc @ 100°C	cSt	ASTM D445	15.2	14.3	14.2	14.3
Viscosity Index (VI)	Scale	ASTM D2270	134	128	130	132

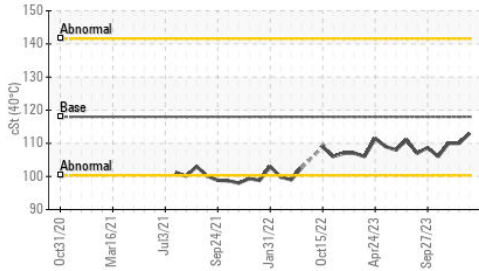
FT-IR (Direct Trend)



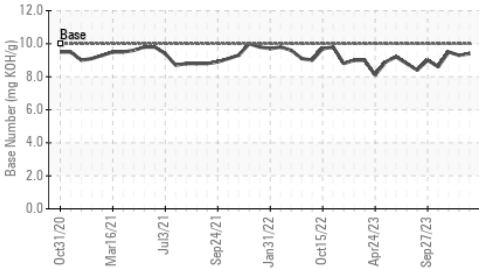
Viscosity @ 100°C



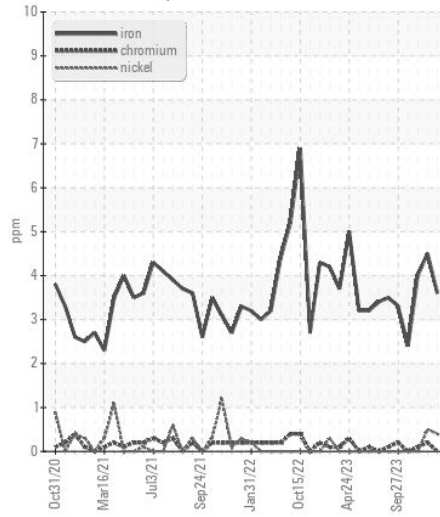
Viscosity @ 40°C



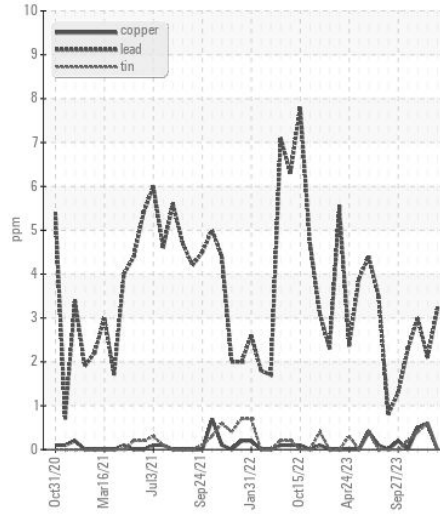
Base Number



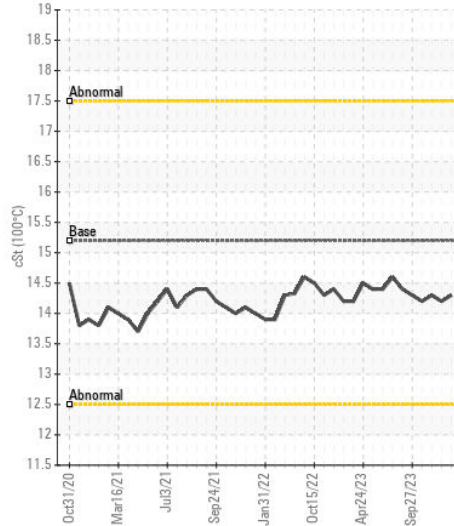
Ferrous Alloys



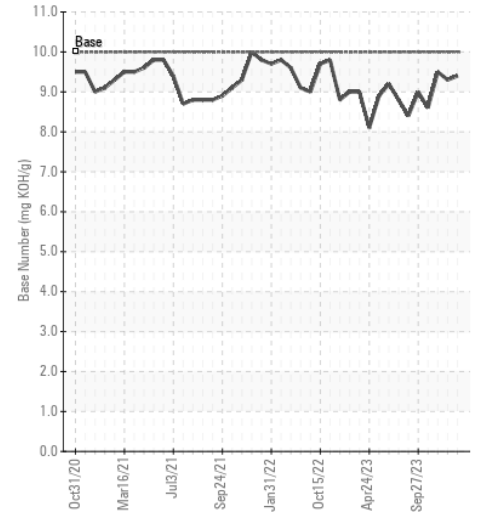
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0860741 **Received** : 10 Apr 2024
Lab Number : 06145231 **Tested** : 11 Apr 2024
Unique Number : 10970039 **Diagnosed** : 13 Apr 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: KV40, VI)

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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)