



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HARBOUR GENERATOR (S/N 1119998)
 Component
Auxiliary Genset
 Fluid
CASTROL VECTON 15W40 CK4 (--- LTR)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as CASTROL VECTON 15W40 CK4, however, a fluid match indicates that this fluid is SAE 40 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

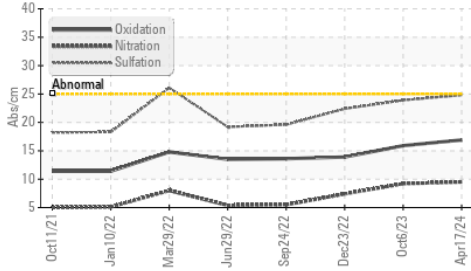
There is no indication of any contamination in the oil.

FLUID CONDITION

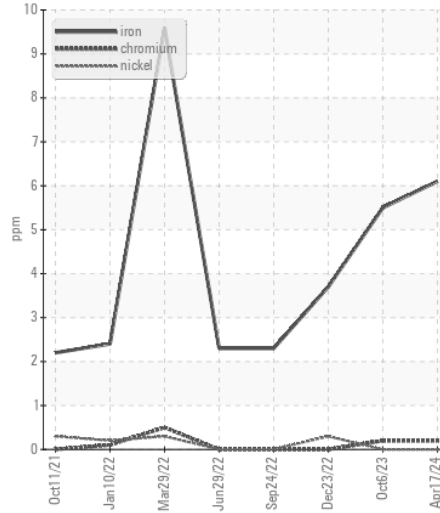
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0872132	WC0773447	WC0713677
Sample Date		Client Info		17 Apr 2024	06 Oct 2023	23 Dec 2022
Machine Age	hrs	Client Info		5956	5929	5896
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Not Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>50	6	6	4
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>12	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>17	2	3	2
Copper	ppm	ASTM D5185(m)	>70	6	3	2
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>25	2	4	2
Potassium	ppm	ASTM D5185(m)	>20	0	0	<1
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
Nitration	Abs/cm	ASTM D7624*	>20	9.5	9.2	7.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.8	23.9	22.4
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
Sodium	ppm	ASTM D5185(m)		1	2	1
Boron	ppm	ASTM D5185(m)		4	4	4
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		37	37	36
Manganese	ppm	ASTM D5185(m)		<1	0	<1
Magnesium	ppm	ASTM D5185(m)		596	592	600
Calcium	ppm	ASTM D5185(m)		1902	1867	1920
Phosphorus	ppm	ASTM D5185(m)		965	996	1074
Zinc	ppm	ASTM D5185(m)		1132	1161	1166
Sulfur	ppm	ASTM D5185(m)		3143	3248	3309
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	15.9	13.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	13.2	13.0	13.6

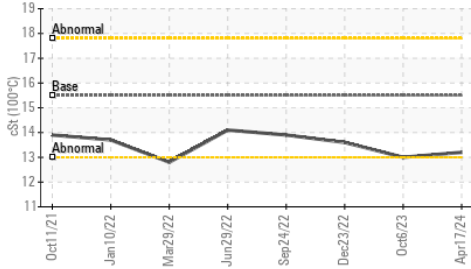
FT-IR (Direct Trend)



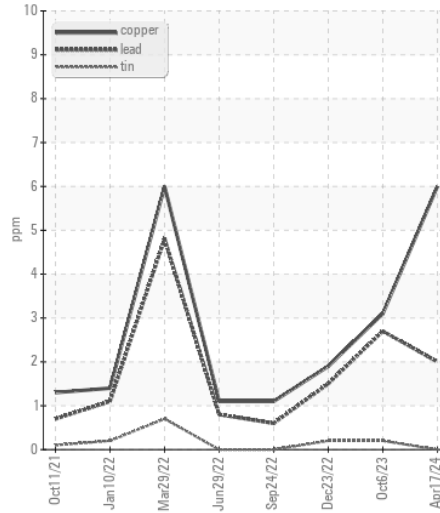
Ferrous Alloys



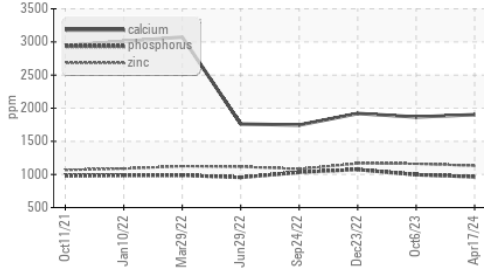
Viscosity @ 100°C



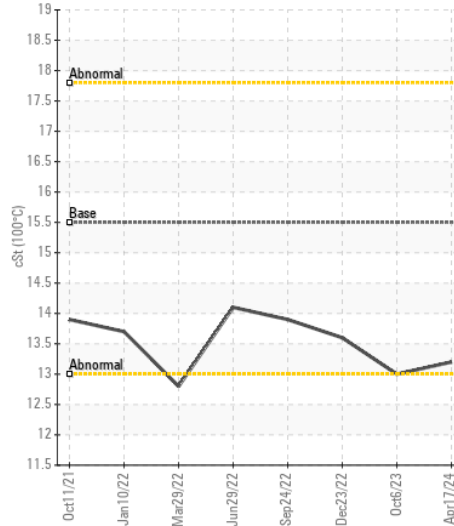
Non-ferrous Metals



Additives



Viscosity @ 100°C



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0872132
Lab Number : 02630856
Unique Number : 5772009
Test Package : MAR 1

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.