



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CRT EXPRESS PORT (S/N 12310)
 Component
Port Main Engine
 Fluid
SIRIUS 15W40 (200 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0955564	WC0722077	WC0722089
Sample Date		Client Info		28 Jun 2024	23 Jul 2023	22 Apr 2023
Machine Age	hrs	Client Info		43261	0	41570
Oil Age	hrs	Client Info		0	0	860
Filter Age	hrs	Client Info		0	0	860
Oil Changed		Client Info		Not Chngd	N/A	N/A
Filter Changed		Client Info		Not Chngd	N/A	N/A
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	10	3	7
Chromium	ppm	ASTM D5185(m)	>8	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)	>3	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	1	1	1
Lead	ppm	ASTM D5185(m)	>18	5	2	3
Copper	ppm	ASTM D5185(m)	>80	52	18	74
Tin	ppm	ASTM D5185(m)	>14	<1	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

There is no indication of any contamination in the oil.

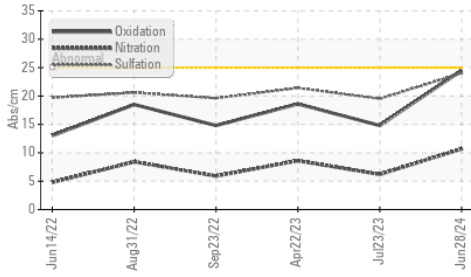
Silicon	ppm	ASTM D5185(m)	>20	3	3	5
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	10.7	6.2	8.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.0	19.5	21.4
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

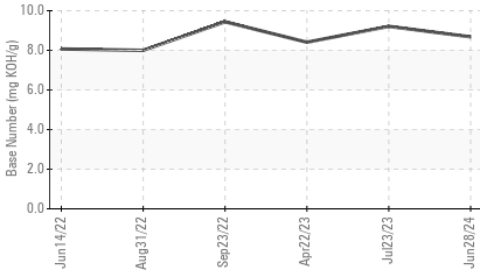
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)	>75	3	2	3
Boron	ppm	ASTM D5185(m)		18	20	24
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		67	60	63
Manganese	ppm	ASTM D5185(m)		<1	0	<1
Magnesium	ppm	ASTM D5185(m)		989	897	845
Calcium	ppm	ASTM D5185(m)		1371	1236	1405
Phosphorus	ppm	ASTM D5185(m)		1021	1063	1113
Zinc	ppm	ASTM D5185(m)		1321	1199	1232
Sulfur	ppm	ASTM D5185(m)		2505	2802	2765
Oxidation	Abs/.1mm	ASTM D7414*	>25	24.5	14.8	18.6
Base Number (BN)	mg KOH/g	ASTM D2896*		8.68	9.21	8.41
Visc @ 100°C	cSt	ASTM D7279(m)		13.9	13.5	12.8

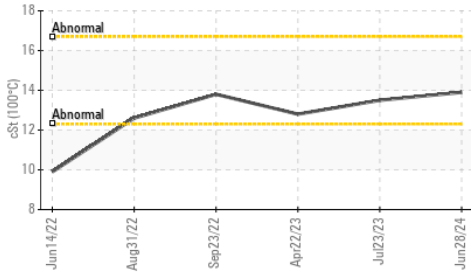
FT-IR (Direct Trend)



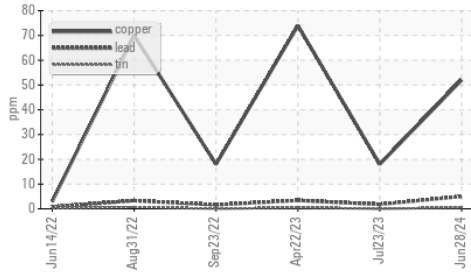
Base Number



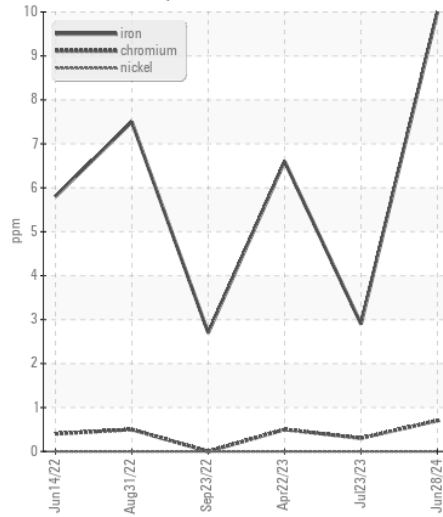
Viscosity @ 100°C



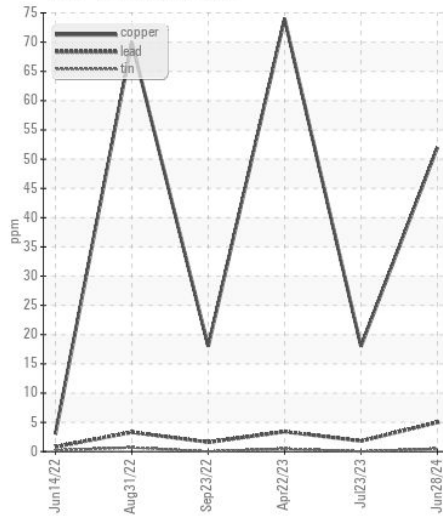
Non-ferrous Metals



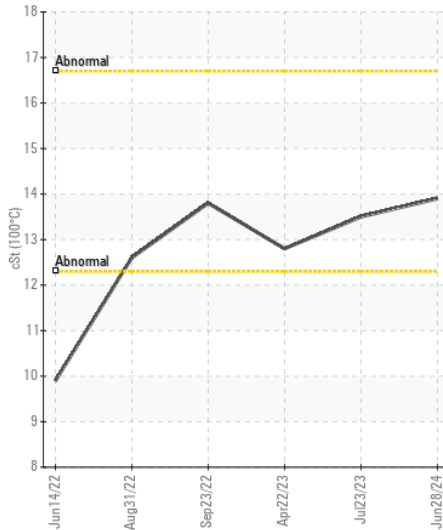
Ferrous Alloys



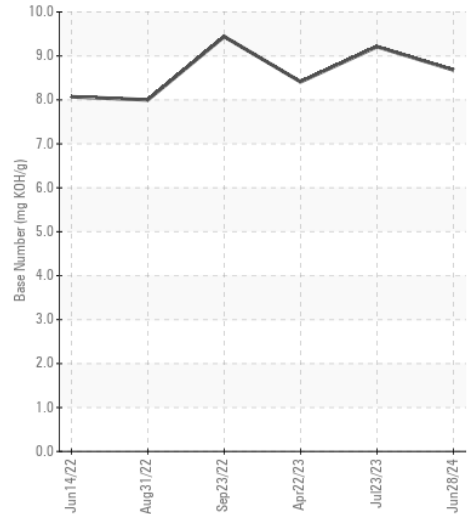
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0955564
Lab Number : 02645372
Unique Number : 5802911
Test Package : MAR 2 (Additional Tests: Visual)

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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.