



WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
NORMAL
NORMAL

Area

KILO CHARLIE

Machine Id

MAN KILO CHARLIE (S/N NOT GIVEN)

Component

Port Diesel Engine

Fluid

SHELL 15W40 (10 GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

Bearing and/or bushing wear is indicated. Cylinder, crank, or cam shaft wear is indicated.

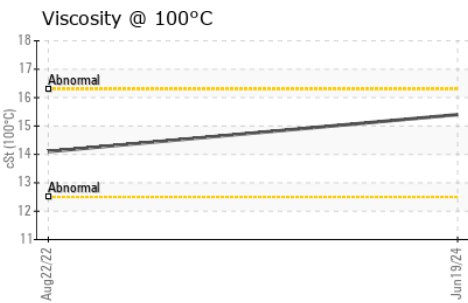
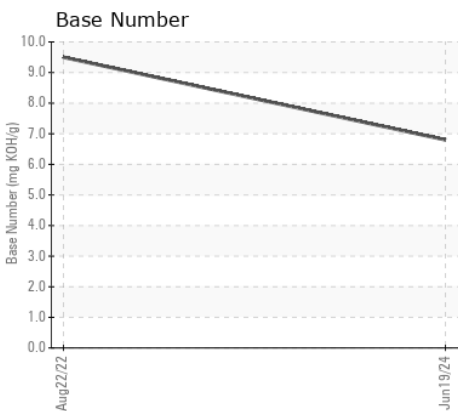
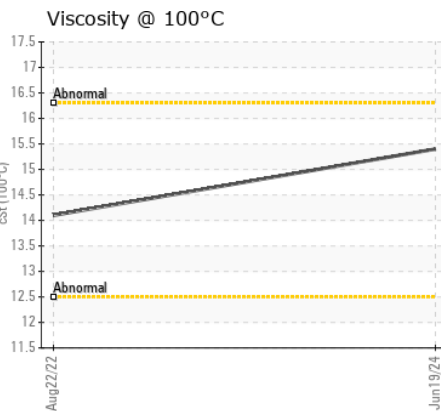
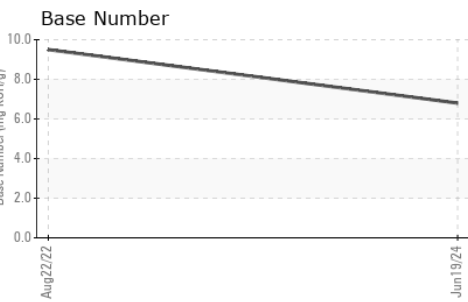
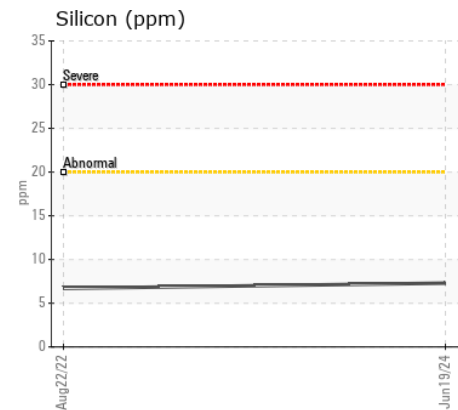
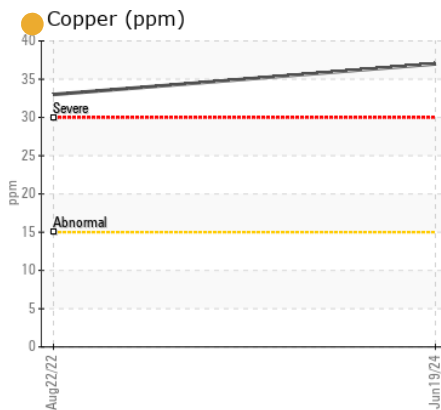
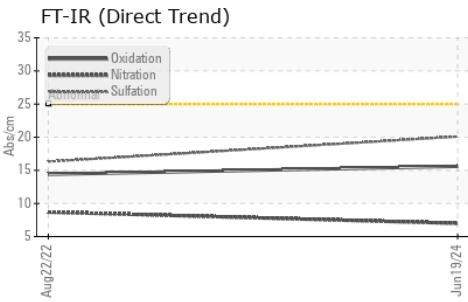
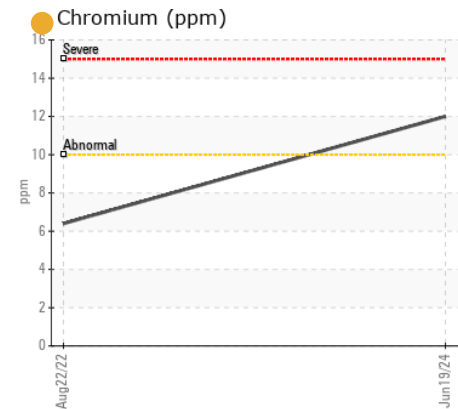
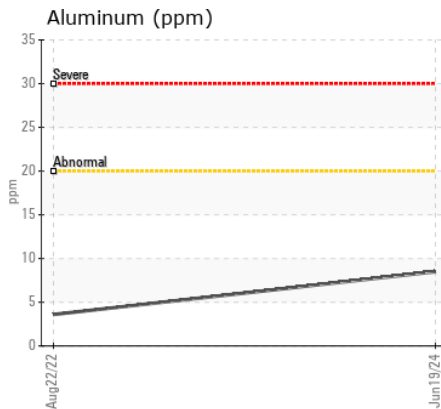
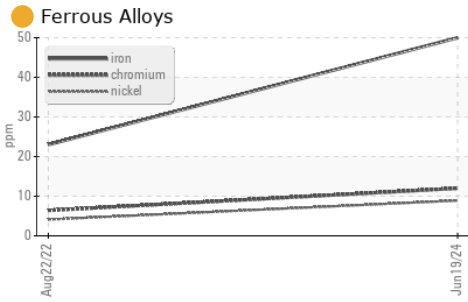
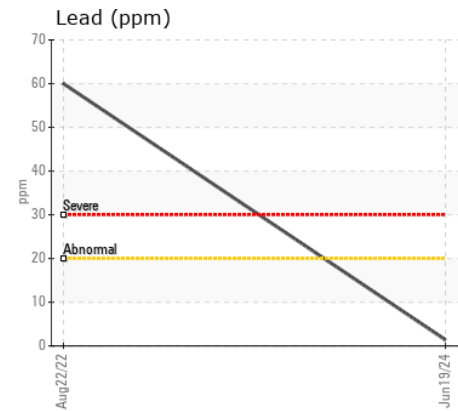
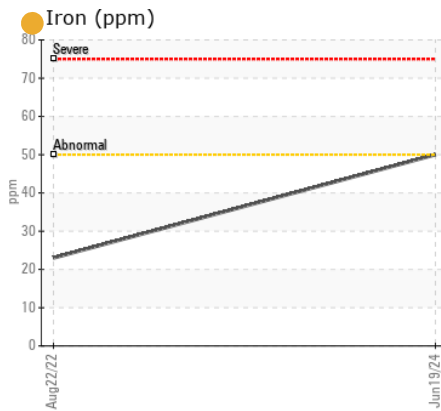
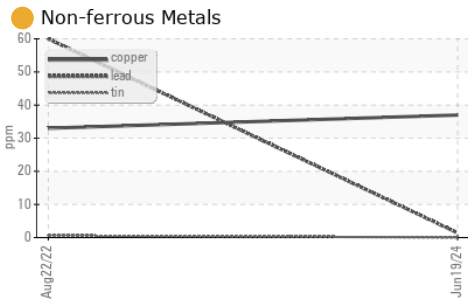
CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the 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		VPA059744	VPA043156	---
Sample Date		Client Info		19 Jun 2024	22 Aug 2022	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	200	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				ATTENTION	ATTENTION	---
Iron	ppm	ASTM D5185m	>50	50	23	---
Chromium	ppm	ASTM D5185m	>10	12	6	---
Nickel	ppm	ASTM D5185m	>5	9	4	---
Titanium	ppm	ASTM D5185m	>2	1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	8	4	---
Lead	ppm	ASTM D5185m	>20	1	60	---
Copper	ppm	ASTM D5185m	>15	37	33	---
Tin	ppm	ASTM D5185m	>10	0	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>20	7	7	---
Potassium	ppm	ASTM D5185m	>20	4	<1	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol	%	*ASTM D2982		NEG	0.0	---
Soot %	%	*ASTM D7844	>1.5	0.2	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	7.0	8.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	16.3	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---
Sodium	ppm	ASTM D5185m	>150	5	3	---
Boron	ppm	ASTM D5185m		120	65	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		1	7	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		99	697	---
Calcium	ppm	ASTM D5185m		2341	1344	---
Phosphorus	ppm	ASTM D5185m		1048	948	---
Zinc	ppm	ASTM D5185m		1275	1189	---
Sulfur	ppm	ASTM D5185m		4091	2832	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	14.4	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.8	9.5	---
Visc @ 100°C	cSt	ASTM D445		15.4	14.1	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA059744 **Received** : 20 Jun 2024
Lab Number : 06215601 **Tested** : 22 Jun 2024
Unique Number : 11088465 **Diagnosed** : 22 Jun 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: Glycol, TBN)

Edward's Marine and Sons
 12741 Sunset Ave
 OCEAN CITY, MD
 US 21842
 Contact: Edward Bartholme
 edwardsmarine@comcast.net; canastasio@wearcheckusa.com

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)

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F: