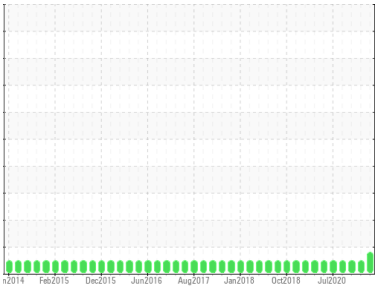
PROBLEM SUMMARY

Sample Rating Trend

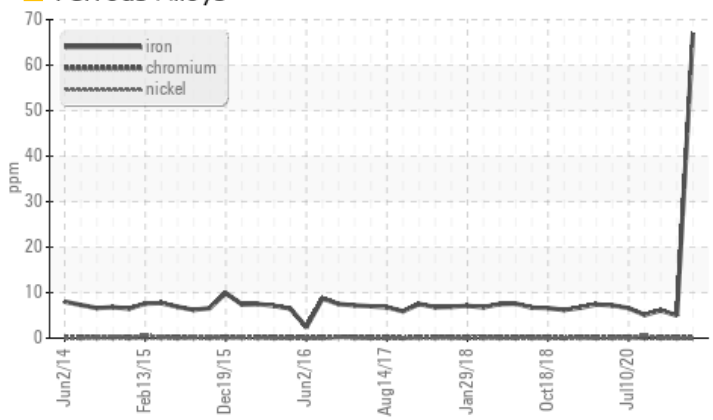


WEAR

Area
BILL BERRY
Machine Id
[BILL BERRY] 008 644959-8
Component
Starboard Genset
Fluid
CHEVRON DELO 400 LE 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	▲ **67**	5	6

Customer Id: INGPAD
Sample No.: MW0051498
Lab Number: 05960417
Test Package: MAR 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

11 May 2021 Diag: Jonathan Hester

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

06 Dec 2020 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

19 Sep 2020 Diag: Don Baldridge

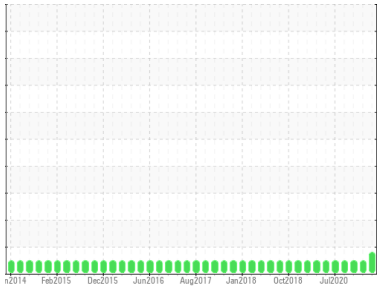
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
BILL BERRY
Machine Id
[BILL BERRY] 008 644959-8
Component
Starboard Genset
Fluid
CHEVRON DELO 400 LE 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

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 suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**MW0051498**	MW0020658	MW0005320
Sample Date		Client Info		**10 Sep 2023**	11 May 2021	06 Dec 2020
Machine Age	hrs	Client Info		**38874**	36330	86026
Oil Age	hrs	Client Info		**387**	340	398
Oil Changed		Client Info		**Not Changd**	Not Changd	N/A
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	**<1.0**	<1.0	<1.0
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	▲ **67**	5	6
Chromium	ppm	ASTM D5185m	>4	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>5	**0**	0	0
Aluminum	ppm	ASTM D5185m	>12	**<1**	0	0
Lead	ppm	ASTM D5185m	>17	**0**	<1	<1
Copper	ppm	ASTM D5185m	>70	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>15	**0**	<1	0
Antimony	ppm	ASTM D5185m		**---**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**54**	235	217
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**10**	40	40
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**558**	166	174
Calcium	ppm	ASTM D5185m		**1156**	2302	2341
Phosphorus	ppm	ASTM D5185m	1200	**585**	980	995
Zinc	ppm	ASTM D5185m	1300	**612**	1156	1141
Sulfur	ppm	ASTM D5185m	3200	**2561**	3140	3218

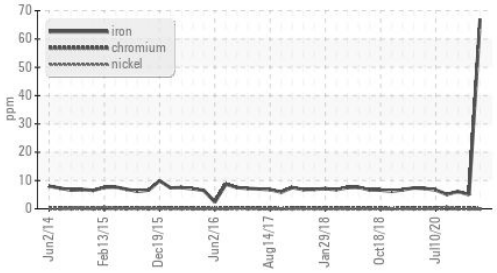
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**8**	3	2
Sodium	ppm	ASTM D5185m		**0**	1	0
Potassium	ppm	ASTM D5185m	>20	**0**	1	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**7.7**	4.2	8
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.4**	15.8	20.4

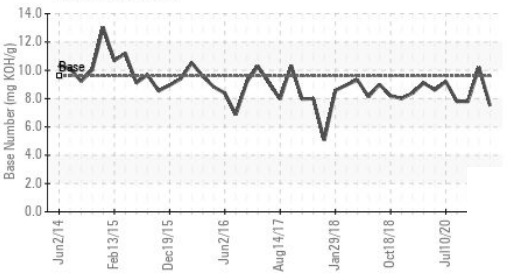
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**15.2**	10.4	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	**7.5**	10.2	7.8

OIL ANALYSIS REPORT

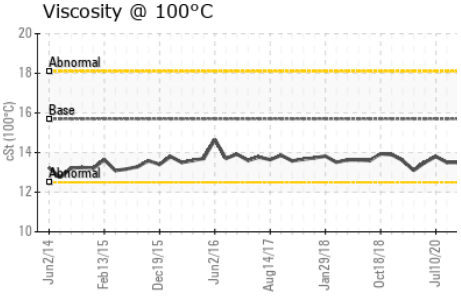
Ferrous Alloys



Base Number



Viscosity @ 100°C

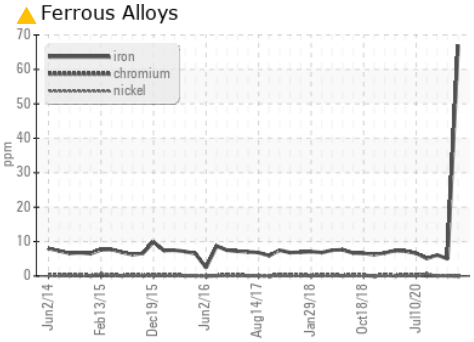


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

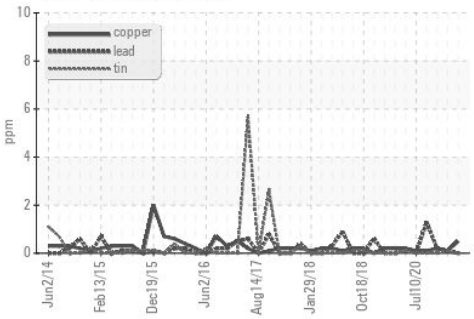
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.7	**13.6**	13.3	13.5

GRAPHS

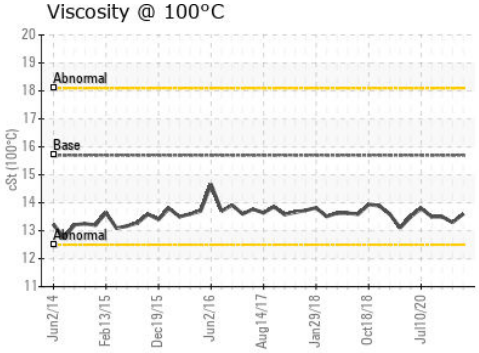
Ferrous Alloys



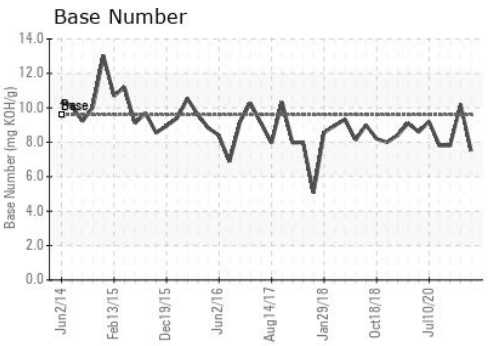
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0051498
Lab Number : 05960417
Unique Number : 10661630
Test Package : MAR 2

Received : 25 Sep 2023
Diagnosed : 27 Sep 2023
Diagnostician : Don Baldridge

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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