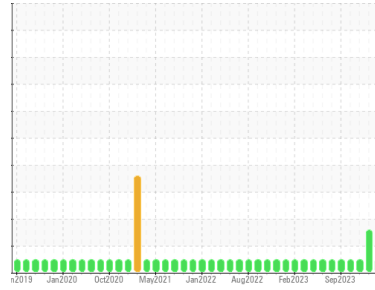




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
CRANE - T LANGE
 Machine Id
T LANGE

Component
Starboard Genset
 Fluid
CHEVRON DELO 400 LE 15W40 (5 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All 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			WC0892618	WC0785596	WC0785582
Sample Date	Client Info			24 Jan 2024	15 Dec 2023	15 Nov 2023
Machine Age	hrs	Client Info		51877	51306	250
Oil Age	hrs	Client Info		179	1005	250
Oil Changed	Client Info			Not Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	12	17
Chromium	ppm	ASTM D5185m	>4	0	2	2
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	4	3	4
Lead	ppm	ASTM D5185m	>17	0	1	<1
Copper	ppm	ASTM D5185m	>70	0	1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		383	285	273
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		116	120	137
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		661	675	760
Calcium	ppm	ASTM D5185m		1450	1574	1835
Phosphorus	ppm	ASTM D5185m	1200	687	710	781
Zinc	ppm	ASTM D5185m	1300	836	872	978
Sulfur	ppm	ASTM D5185m	3200	2490	2835	2705

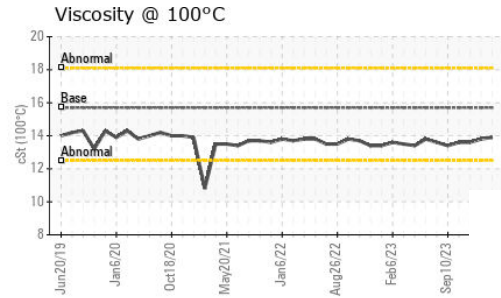
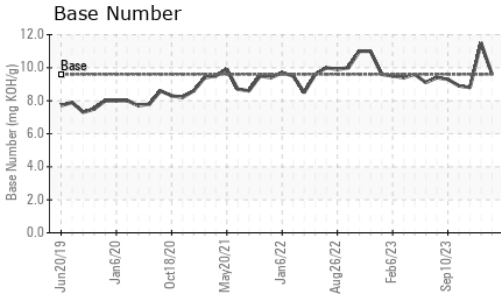
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	7	8
Sodium	ppm	ASTM D5185m		<1	27	<1
Potassium	ppm	ASTM D5185m	>20	3	1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	4.5	7.1	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	21.5	23.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	15.8	18.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	9.6	11.5	8.8



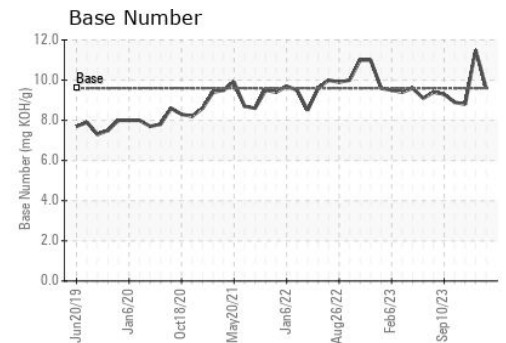
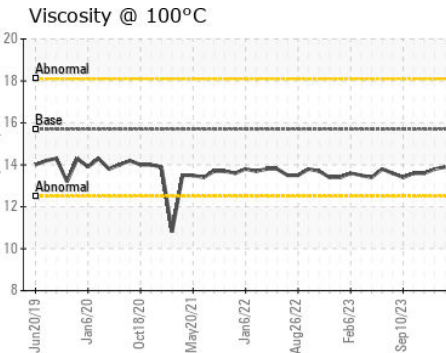
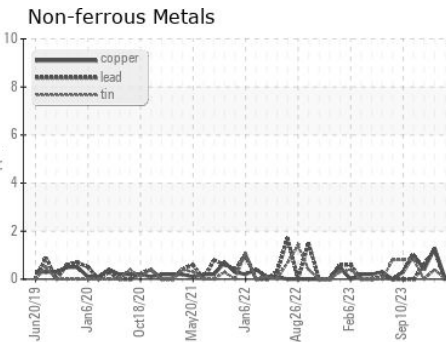
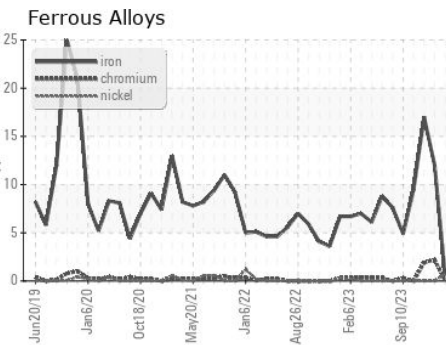
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
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	0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.7	13.9	13.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0892618
 Lab Number : **06074472**
 Unique Number : 10856563
 Test Package : FLEET

Received : 30 Jan 2024
 Diagnosed : 31 Jan 2024
 Diagnostician : Wes Davis

ASSOCIATED TERMINALS - CRANE

CONVENT, LA
 US 70723
 Contact: GREG JOSEY
 gjosey@associatedterminals.com

T:
 F: (225)562-3515

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)