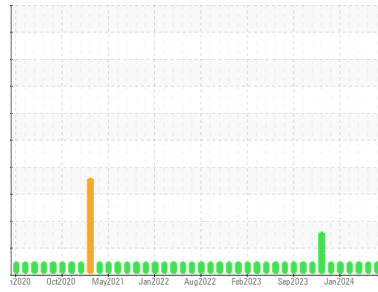




# OIL ANALYSIS REPORT

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			<b>WC0892631</b>	WC0892645	WC0892641
Sample Date	Client Info			<b>04 May 2024</b>	09 Apr 2024	09 Mar 2024
Machine Age	hrs	Client Info		<b>52559</b>	52407	36756
Oil Age	hrs	Client Info		<b>250</b>	250	250
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.1		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>6</b>	8	5
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>3</b>	4	4
Lead	ppm	ASTM D5185m	>17	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>440</b>	441	342
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>135</b>	135	130
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>716</b>	746	659
Calcium	ppm	ASTM D5185m		<b>1703</b>	1670	1582
Phosphorus	ppm	ASTM D5185m	1200	<b>783</b>	786	690
Zinc	ppm	ASTM D5185m	1300	<b>902</b>	910	877
Sulfur	ppm	ASTM D5185m	3200	<b>3036</b>	3100	2585

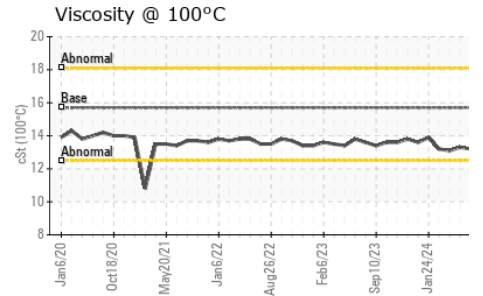
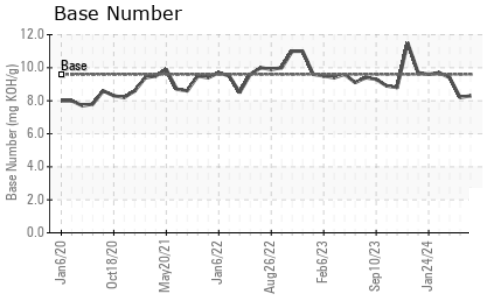
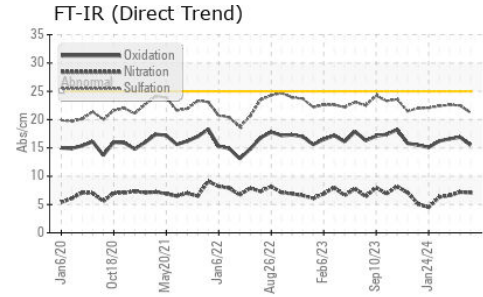
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	6	6
Sodium	ppm	ASTM D5185m		<b>1</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0.2</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.1</b>	7.2	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.2</b>	22.5	22.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.5</b>	16.9	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	<b>8.3</b>	8.2	9.4



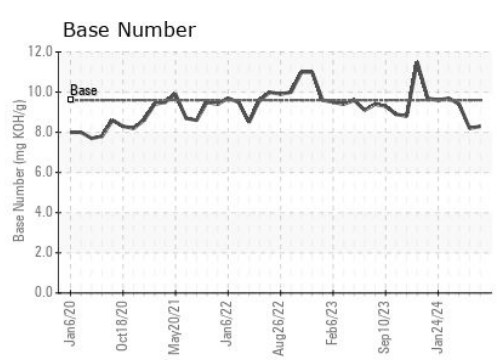
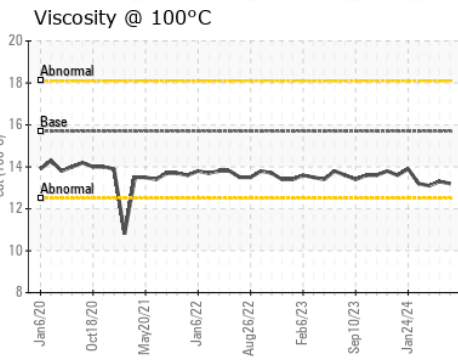
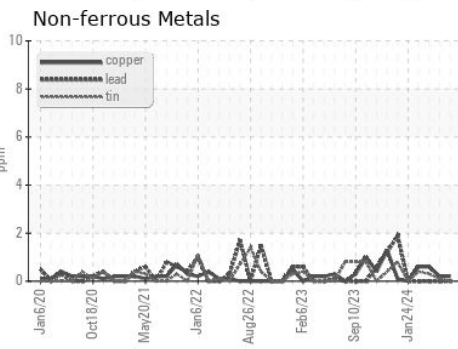
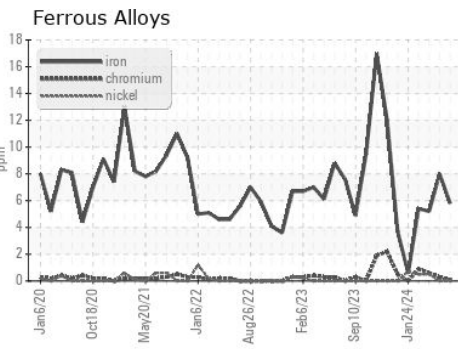
# OIL ANALYSIS REPORT



PARAMETER	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	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
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.7	13.2	13.3

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0892631      **Received** : 17 May 2024  
**Lab Number** : **06183710**      **Tested** : 21 May 2024  
**Unique Number** : 11035036      **Diagnosed** : 21 May 2024 - Wes Davis  
**Test Package** : FLEET

**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)