



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**SEAWARD EXPLORER**  
Machine Id  
**Explorer**  
Component  
**2 Genset**  
Fluid  
**MOBIL DELVAC 1330 (--- GAL)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0859376</b>	WC0818100	WC0818087
Sample Date		Client Info		<b>07 Feb 2024</b>	01 Sep 2023	25 Jul 2023
Machine Age	hrs	Client Info		<b>11697</b>	0	11445
Oil Age	hrs	Client Info		<b>162</b>	0	11275
Filter Age	hrs	Client Info		<b>162</b>	0	11275
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>7</b>	8	10
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185m	>17	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

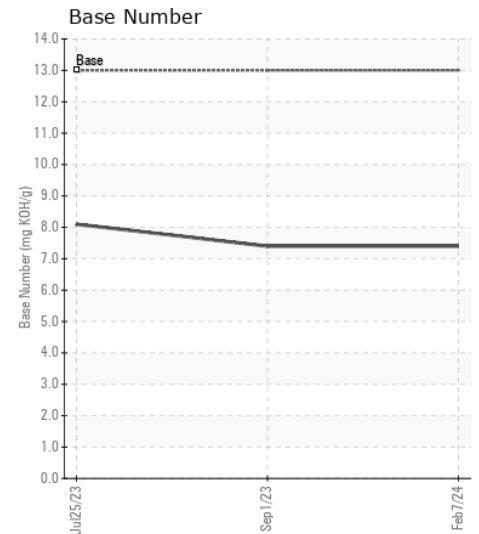
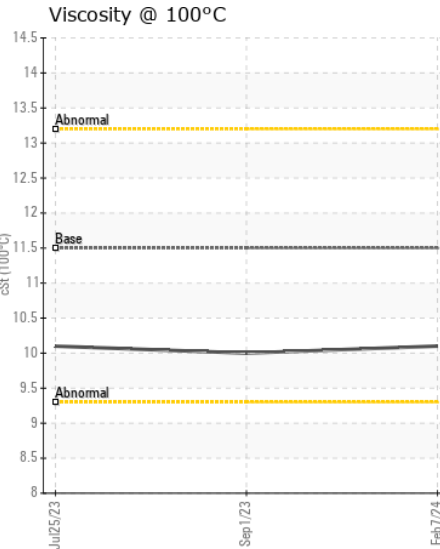
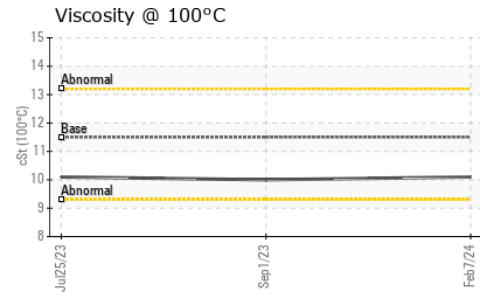
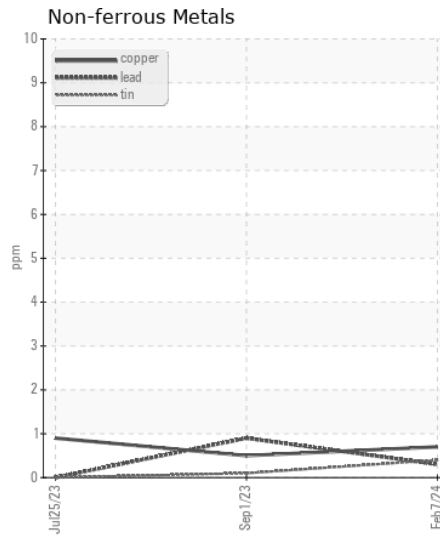
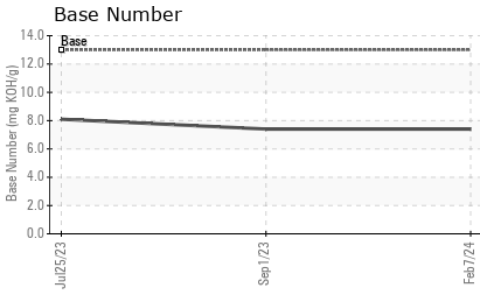
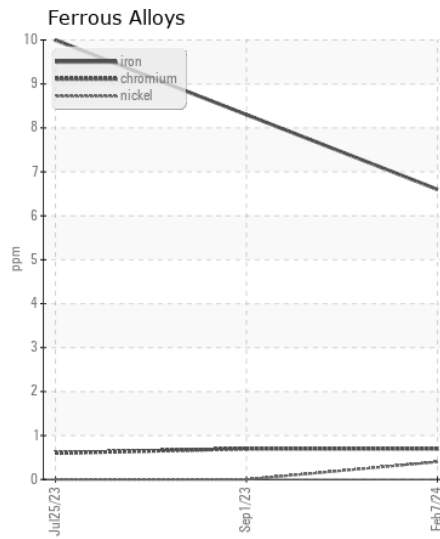
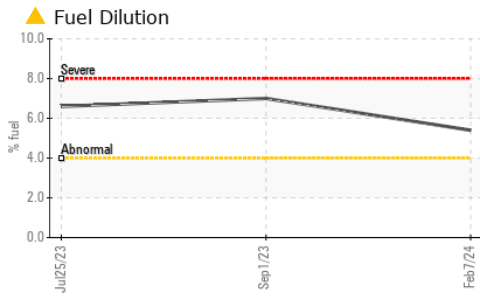
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Fuel	%	ASTM D3524	>4.0	<b>▲ 5.4</b>	<b>▲ 7.0</b>	<b>▲ 6.6</b>
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.8</b>	6.1	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>13.4</b>	14.6	15.0
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<b>1</b>	2	2
Boron	ppm	ASTM D5185m		<b>1</b>	2	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>5</b>	58	67
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1312</b>	746	823
Calcium	ppm	ASTM D5185m		<b>874</b>	1576	1804
Phosphorus	ppm	ASTM D5185m		<b>691</b>	846	928
Zinc	ppm	ASTM D5185m		<b>829</b>	1011	1079
Sulfur	ppm	ASTM D5185m		<b>2322</b>	3639	4549
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>7.1</b>	7.9	8.0
Base Number (BN)	mg KOH/g	ASTM D2896	13	<b>7.4</b>	7.4	8.1
Visc @ 100°C	cSt	ASTM D445	11.5	<b>10.1</b>	10.0	<b>▲ 10.1</b>



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0859376

**Lab Number** : 06104057

**Unique Number** : 10902287

**Test Package** : MAR 2 ( Additional Tests: PercentFuel )

**Received** : 29 Feb 2024

**Tested** : 04 Mar 2024

**Diagnosed** : 04 Mar 2024 - Wes Davis

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)

**SEAWARD SERVICES**

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