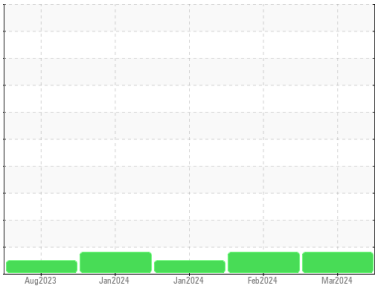
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
SEAWARD EXPLORER
Machine Id
Explorer
Component
Port Reduction Gear
Fluid
MOBIL DELVAC 1640 (--- GAL)

DIAGNOSIS

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

Wear
The copper level is abnormal. All other component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0886564**	WC0859379	WC0891230
Sample Date		Client Info		**23 Mar 2024**	07 Feb 2024	24 Jan 2024
Machine Age	hrs	Client Info		**17378**	16717	14487
Oil Age	hrs	Client Info		**665**	4	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	**15**	13	17
Chromium	ppm	ASTM D5185m	>10	**<1**	0	0
Nickel	ppm	ASTM D5185m	>10	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**2**	<1	1
Lead	ppm	ASTM D5185m	>100	**<1**	3	0
Copper	ppm	ASTM D5185m	>50	▲ **123**	▲ 107	7
Tin	ppm	ASTM D5185m	>10	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**1**	1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**1**	2	300
Barium	ppm	ASTM D5185m		**0**	0	<1
Molybdenum	ppm	ASTM D5185m		**3**	2	37
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**243**	295	36
Calcium	ppm	ASTM D5185m		**3434**	3869	3000
Phosphorus	ppm	ASTM D5185m		**862**	939	770
Zinc	ppm	ASTM D5185m		**932**	1096	818
Sulfur	ppm	ASTM D5185m		**4018**	4061	3796

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**13**	12	16
Sodium	ppm	ASTM D5185m		**23**	22	9
Potassium	ppm	ASTM D5185m	>20	**3**	<1	0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**2.18**	1.21	1.31

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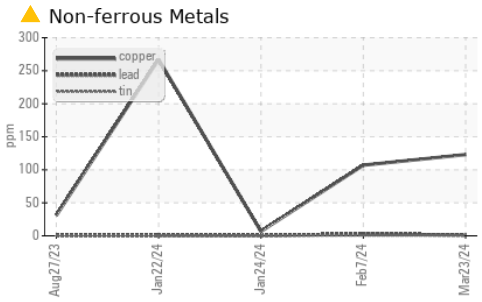
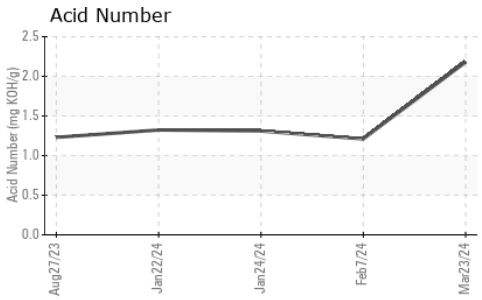
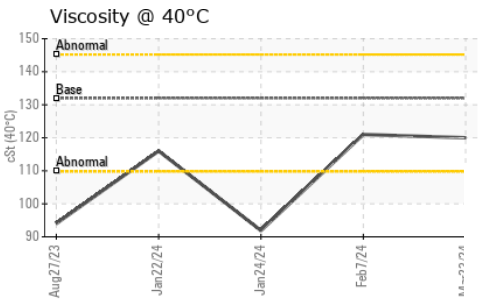




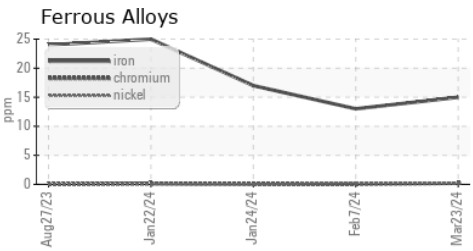


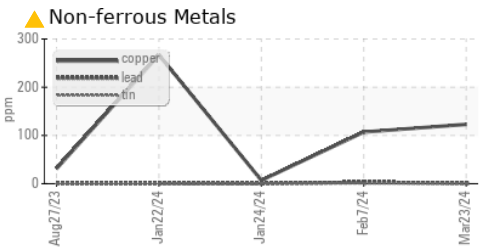
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

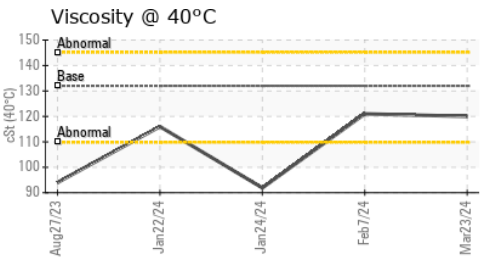
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	132	**120**	121	91.9

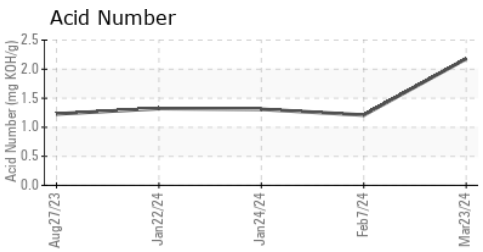
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*		*no image*
Bottom			*no image*		*no image*

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0886564
Lab Number : 06155226
Unique Number : 10990649
Test Package : MAR 2

Received : 19 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Don Baldridge

SEAWARD SERVICES
222 PEARL ST
NEW ALBANY, IN
US 47150
Contact: PETER CHARBONNET
PCHARBONNET@HMS-SEAWARD.COM
T:
F:

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)

Report Id: SEANEW [WUSCAR] 06155226 (Generated: 04/24/2024 10:13:25) Rev: 1

Submitted By: PETER CHARBONNET