



Machine Id
MARK KNOY - US5555859-006
Component
Starboard Reduction Gear
Fluid
CHEVRON MEROPA 220 (270 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0069381	MW0069390	MW0050470
Sample Date		Client Info		06 Jul 2024	17 Jun 2024	28 Apr 2023
Machine Age	hrs	Client Info		10430	10022	4346
Oil Age	hrs	Client Info		10430	10022	4346
Filter Age	hrs	Client Info		0	0	4346
Oil Changed		Client Info		N/A	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	37	38	33
Chromium	ppm	ASTM D5185m	>10	3	2	3
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	2	<1
Lead	ppm	ASTM D5185m	>100	<1	0	0
Copper	ppm	ASTM D5185m	>50	7	7	10
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

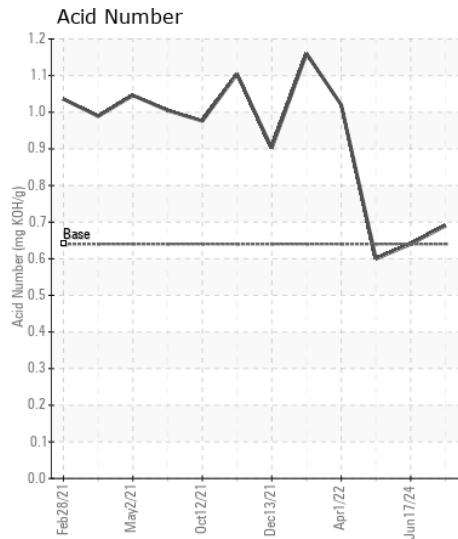
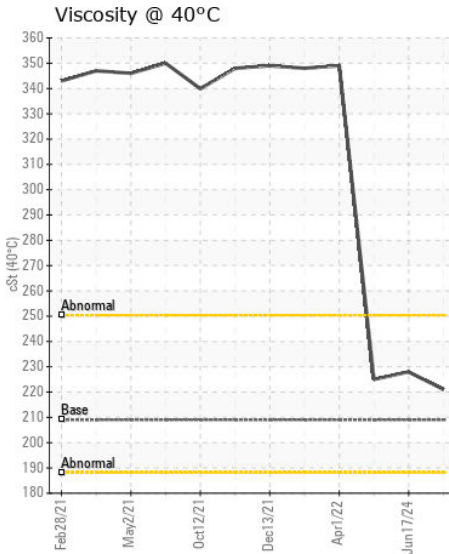
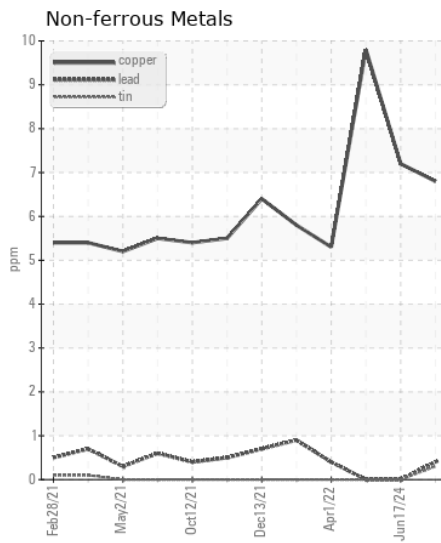
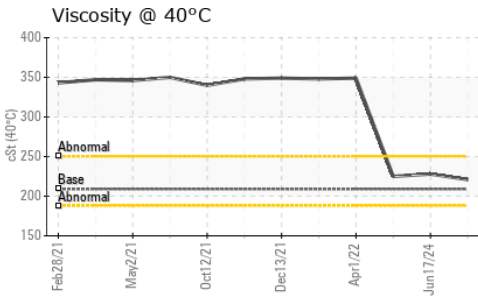
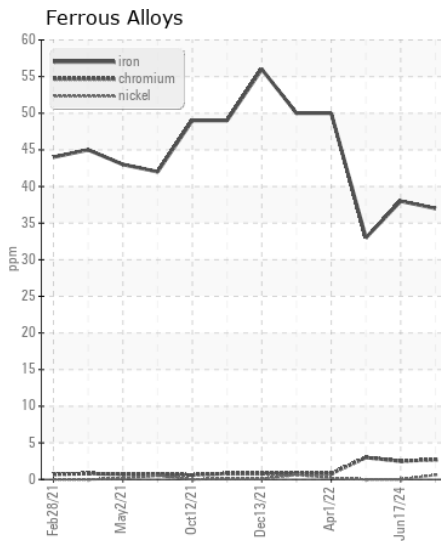
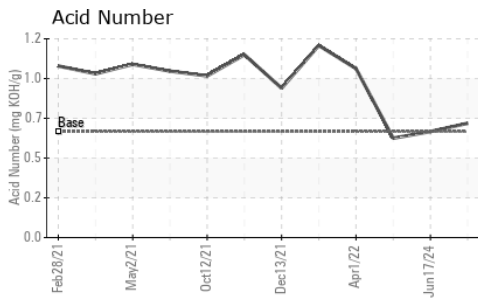
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	2	2	2
Potassium	ppm	ASTM D5185m	>20	2	2	0
Water		WC Method	>0.1	NEG	NEG	NEG
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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	<1	2
Boron	ppm	ASTM D5185m	40	2	11	2
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		1	3	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		1	18	0
Calcium	ppm	ASTM D5185m		0	21	0
Phosphorus	ppm	ASTM D5185m	270	200	223	239
Zinc	ppm	ASTM D5185m		8	34	6
Sulfur	ppm	ASTM D5185m	8600	5084	4758	6140
Acid Number (AN)	mg KOH/g	ASTM D8045	0.64	0.69	0.64	0.60
Visc @ 40°C	cSt	ASTM D445	209	221	228	225



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0069381 **Received** : 17 Jul 2024
Lab Number : 06239299 **Tested** : 18 Jul 2024
Unique Number : 11128133 **Diagnosed** : 18 Jul 2024 - Wes Davis
Test Package : MAR 2

AMERICAN COMMERCIAL LINES
 PO BOX 610, 1701 E. MARKET STREET
 JEFFERSONVILLE, IN
 US 47130
 Contact: RONALD SCHNEIDER
 ronald.schneider@bargeacbl.com
 T:
 F: (812)288-1644

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)