



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JHA
Component
Starboard Reduction Gear
Fluid
CHEVRON MEROPA 320 (225 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0060777	MW0054942	MW0039962
Sample Date		Client Info		10 Nov 2023	13 Aug 2023	03 May 2023
Machine Age	hrs	Client Info		17492	15524	13249
Oil Age	hrs	Client Info		17492	15524	13249
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	None	None
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	27	28	27
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	0	2
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>50	2	2	<1
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

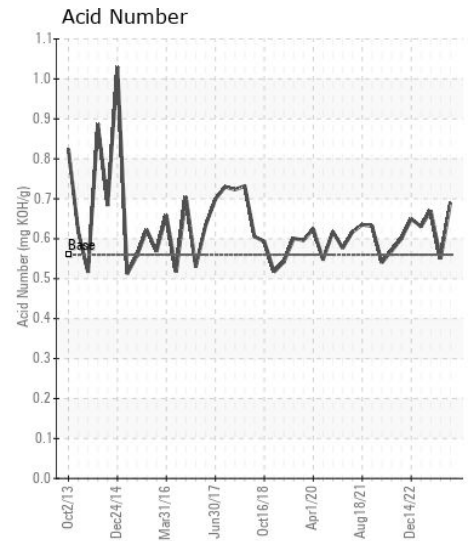
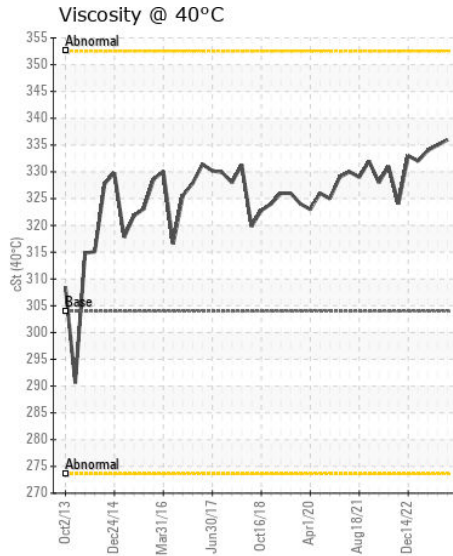
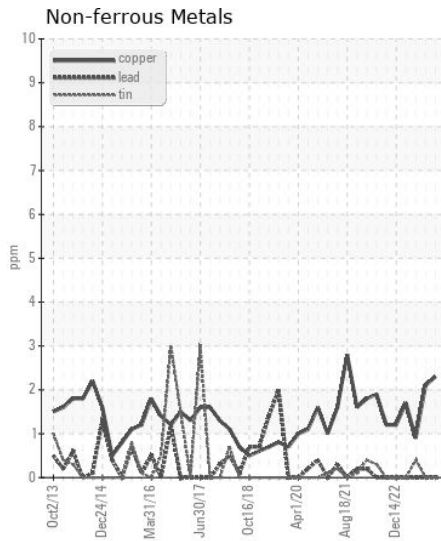
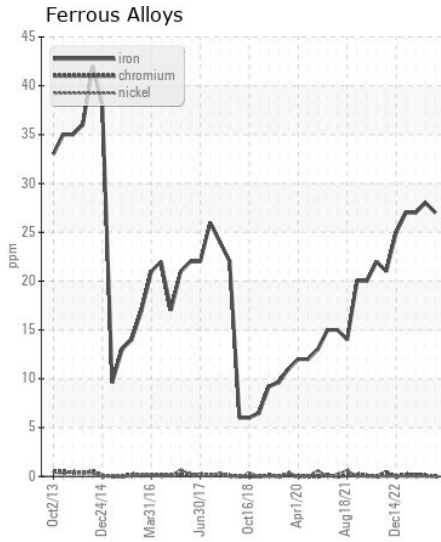
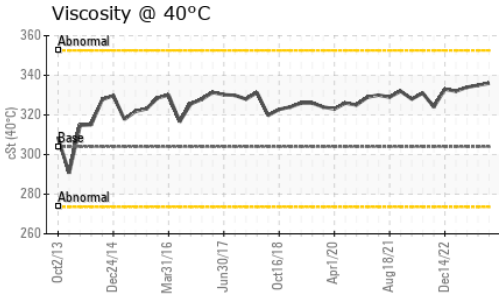
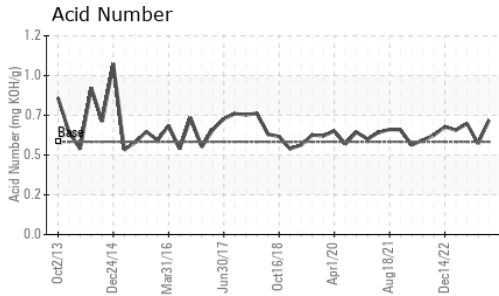
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	2	3	2
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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		3	<1	3
Boron	ppm	ASTM D5185m	20	2	<1	2
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m	0	1	2	2
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		<1	2	2
Calcium	ppm	ASTM D5185m	25	12	34	11
Phosphorus	ppm	ASTM D5185m	235	267	237	263
Zinc	ppm	ASTM D5185m		2	2	0
Sulfur	ppm	ASTM D5185m		5757	6135	7388
Acid Number (AN)	mg KOH/g	ASTM D8045	0.56	0.69	0.55	0.67
Visc @ 40°C	cSt	ASTM D445	304	336	335	334



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0060777 **Received** : 10 Jan 2024
Lab Number : 06056873 **Diagnosed** : 11 Jan 2024
Unique Number : 10822822 **Diagnostician** : Angela Borella
Test Package : MAR 2

AMERICAN RIVER TRANSPORTATION CO.
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US 63111
Contact: BRIAN GRIEWING
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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)