



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
MEV
Machine Id
Component
MEV
Starboard Reduction Gear
Fluid
CHEVRON MEROPA 320 (170 GAL)

RECOMMENDATION

We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0059023	MW0054882	MW0055100
Sample Date		Client Info		11 Jun 2024	12 Apr 2024	12 Jan 2024
Machine Age	hrs	Client Info		0	0	13117
Oil Age	hrs	Client Info		0	15239	13117
Filter Age	hrs	Client Info		0	15239	13117
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	None
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	3	44	39
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	1	1
Lead	ppm	ASTM D5185m	>100	0	<1	1
Copper	ppm	ASTM D5185m	>50	6	8	9
Tin	ppm	ASTM D5185m	>10	0	<1	<1
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.

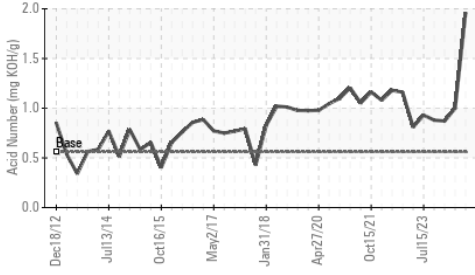
Silicon	ppm	ASTM D5185m	>50	2	<1	0
Potassium	ppm	ASTM D5185m	>20	3	2	3
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

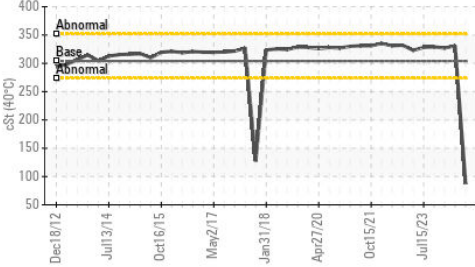
The oil viscosity is lower than normal. The AN level is above the recommended limit. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		2	2	0
Boron	ppm	ASTM D5185m	20	98	6	5
Barium	ppm	ASTM D5185m		0	9	8
Molybdenum	ppm	ASTM D5185m	0	0	0	<1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		300	0	1
Calcium	ppm	ASTM D5185m	25	1480	23	25
Phosphorus	ppm	ASTM D5185m	235	937	257	229
Zinc	ppm	ASTM D5185m		1024	1	6
Sulfur	ppm	ASTM D5185m		3487	5353	4971
Acid Number (AN)	mg KOH/g	ASTM D8045	0.56	1.96	1.00	0.87
Visc @ 40°C	cSt	ASTM D445	304	87.0	331	327

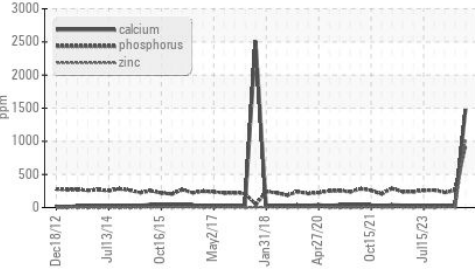
▲ Acid Number



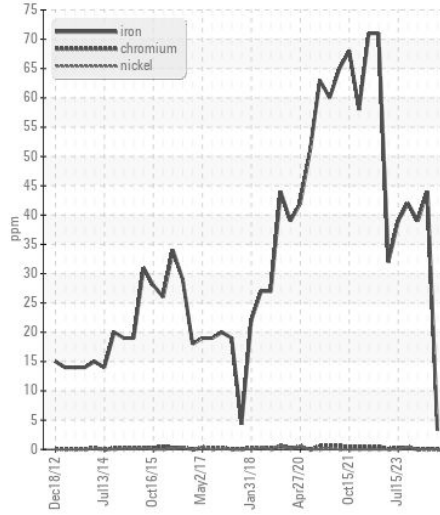
▲ Viscosity @ 40°C



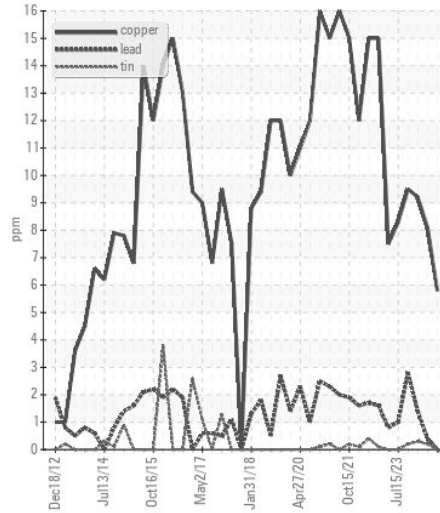
● Additives



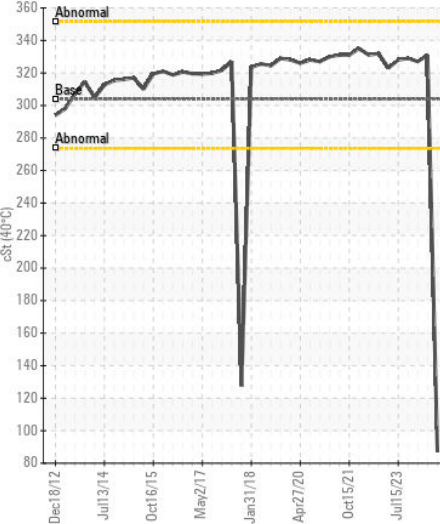
Ferrous Alloys



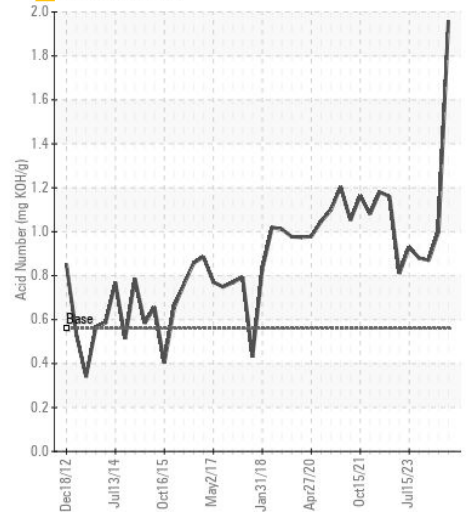
Non-ferrous Metals



▲ Viscosity @ 40°C



▲ Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0059023
Lab Number : 06210310
Unique Number : 11083174
Test Package : MAR 2

Received : 14 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Angela Borella

AMERICAN RIVER TRANSPORTATION CO.
 P.O. BOX 2889
 ST. LOUIS, MO
 US 63111
 Contact: BRIAN GRIEWING
 brian.griewing@adm.com

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)

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