MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KAREN MICHELLE
Component
Port Main Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (35 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

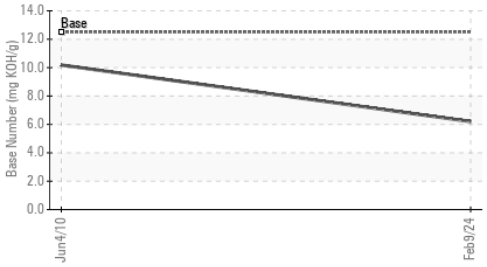
There is no indication of any contamination in the oil.

FLUID CONDITION

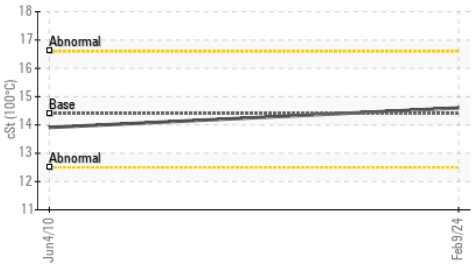
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0059503	MWM07596	---
Sample Date		Client Info		09 Feb 2024	04 Jun 2010	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	400	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				NORMAL	NORMAL	---
Iron	ppm	ASTM D5185m	>75	18	18	---
Chromium	ppm	ASTM D5185m	>8	2	1	---
Nickel	ppm	ASTM D5185m	>2	0	<1	---
Titanium	ppm	ASTM D5185m	>3	3	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>15	1	2	---
Lead	ppm	ASTM D5185m	>18	1	10	---
Copper	ppm	ASTM D5185m	>80	2	8	---
Tin	ppm	ASTM D5185m	>14	<1	4	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>20	6	3	---
Potassium	ppm	ASTM D5185m	>20	0	0	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		2.4	0	---
Nitration	Abs/cm	*ASTM D7624	>20	10.3	6.	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.1	14.	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---
Sodium	ppm	ASTM D5185m	>75	3	5	---
Boron	ppm	ASTM D5185m	151	23	<1	---
Barium	ppm	ASTM D5185m	0.4	0	<1	---
Molybdenum	ppm	ASTM D5185m	250	10	43	---
Manganese	ppm	ASTM D5185m		2	<1	---
Magnesium	ppm	ASTM D5185m	0	714	23	---
Calcium	ppm	ASTM D5185m	2046	1618	3367	---
Phosphorus	ppm	ASTM D5185m	1043	1150	55	---
Zinc	ppm	ASTM D5185m	943	1303	22	---
Sulfur	ppm	ASTM D5185m	5012	4185	3807	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	8.	---
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	6.2	10.18	---
Visc @ 100°C	cSt	ASTM D445	14.4	14.6	13.91	---

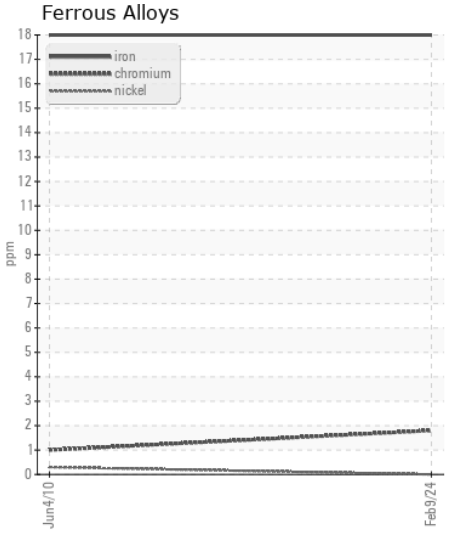
Base Number



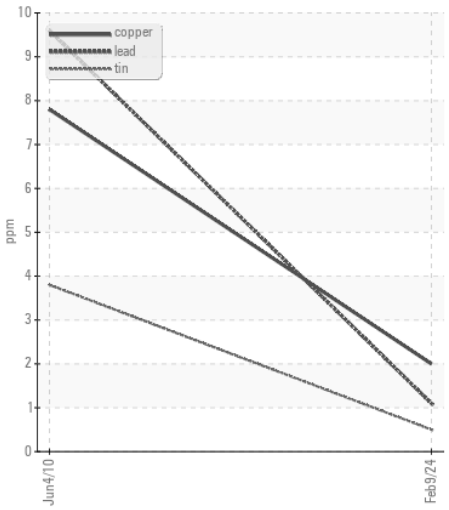
Viscosity @ 100°C



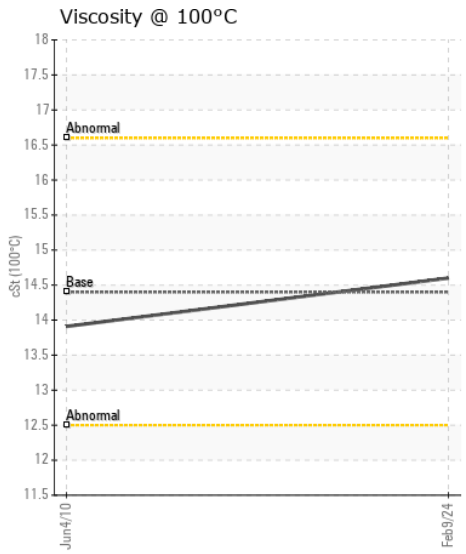
Ferrous Alloys



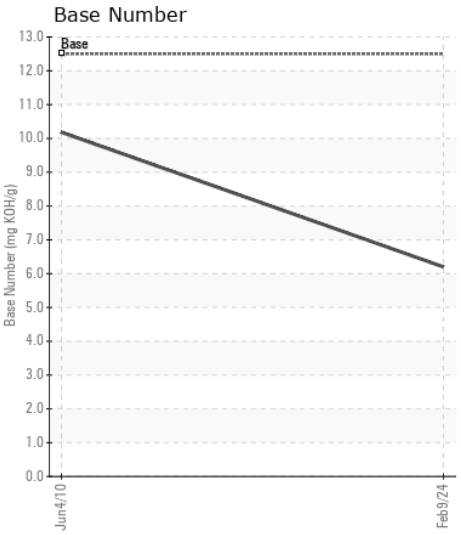
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: MW0059503	**Received**	: 13 Feb 2024
Lab Number	: 06086944	**Tested**	: 13 Feb 2024
Unique Number	: 10874389	**Diagnosed**	: 14 Feb 2024 - Jonathan Hester
Test Package	: MAR 2		

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)

AMERICAN RIVER TRANSPORTATION CO.
P.O. BOX 2889
ST. LOUIS, MO
US 63111
Contact: JASON PORTER
j_porter@admworld.com
T:
F: (314)481-5278