



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**PRO**  
Machine Id  
Component  
**PRO**  
Starboard Main Engine  
Fluid  
**CHEVRON DELO 710 LS (300 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0060849</b>	MW0060847	MW0060846
Sample Date		Client Info		<b>09 Jun 2024</b>	20 Feb 2024	31 Dec 2023
Machine Age	hrs	Client Info		<b>5827</b>	3413	2268
Oil Age	hrs	Client Info		<b>5827</b>	3413	2268
Filter Age	hrs	Client Info		<b>1200</b>	1127	1128
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>13</b>	11	12
Chromium	ppm	ASTM D5185m	>8	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>18	<b>3</b>	4	4
Copper	ppm	ASTM D5185m	>80	<b>13</b>	10	12
Tin	ppm	ASTM D5185m	>14	<b>3</b>	3	4
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

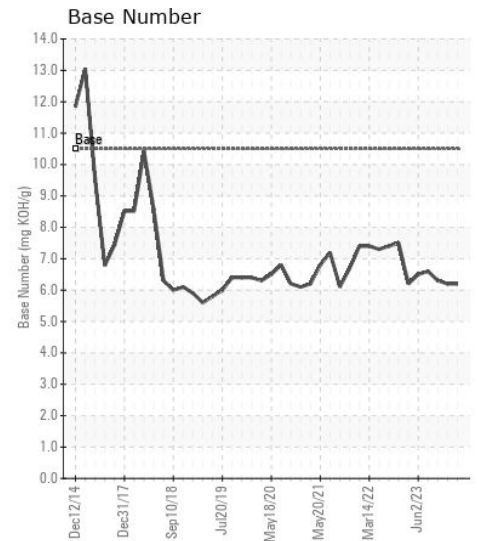
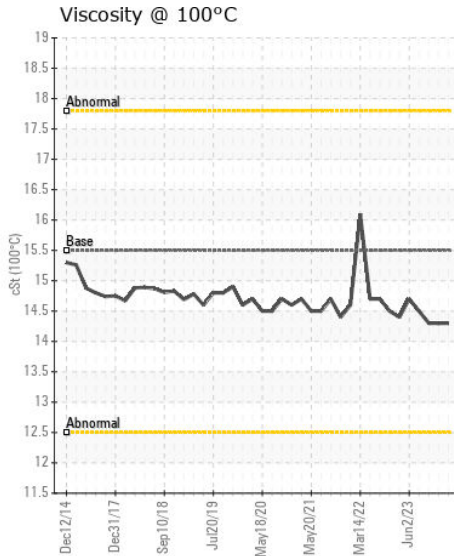
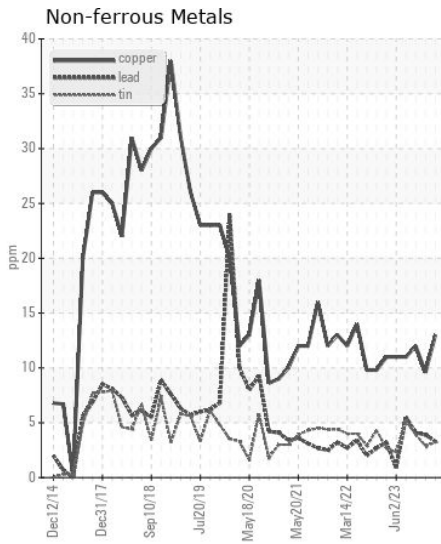
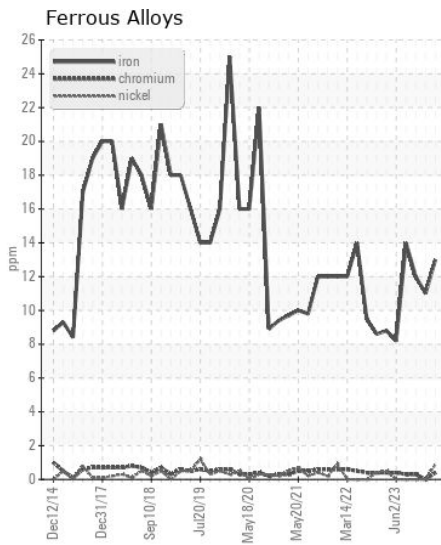
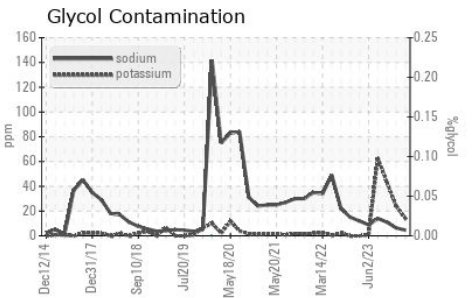
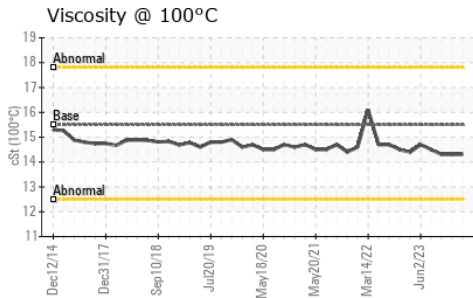
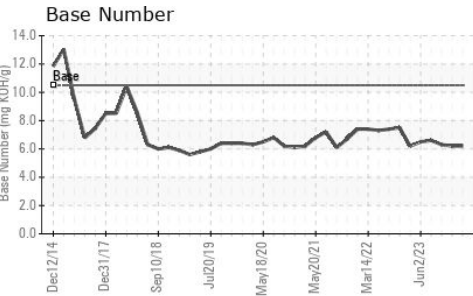
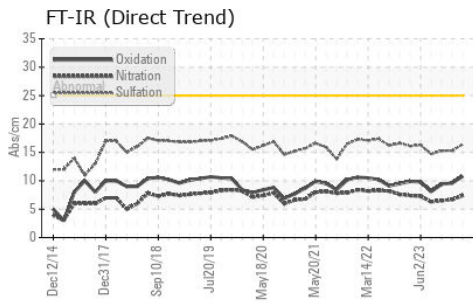
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>14</b>	24	43
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	6.7	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.4</b>	15.3	15.3
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**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.

Sodium	ppm	ASTM D5185m	>75	<b>5</b>	6	11
Boron	ppm	ASTM D5185m		<b>40</b>	38	40
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>44</b>	43	47
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>11</b>	8	8
Calcium	ppm	ASTM D5185m		<b>3436</b>	3324	2944
Phosphorus	ppm	ASTM D5185m		<b>&lt;1</b>	0	40
Zinc	ppm	ASTM D5185m		<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m		<b>2608</b>	2493	1909
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>10.8</b>	9.6	9.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>6.2</b>	6.2	6.3
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.3</b>	14.3	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0060849  
**Lab Number** : 06219398  
**Unique Number** : 11097595  
**Test Package** : MAR 2 ( Additional Tests: Glycol )

**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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