



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

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

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0050794</b>	MW0065615	MW0010188
Sample Date		Client Info		<b>08 May 2024</b>	29 Mar 2024	01 Jul 2022
Machine Age	hrs	Client Info		<b>2965</b>	2007	28144
Oil Age	hrs	Client Info		<b>2469</b>	2007	9352
Filter Age	hrs	Client Info		<b>943</b>	1006	1186
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ATTENTION

**WEAR**

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>46</b>	47	25
Chromium	ppm	ASTM D5185m	>8	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	1
Titanium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	1	3
Lead	ppm	ASTM D5185m	>18	<b>▲ 29</b>	17	8
Copper	ppm	ASTM D5185m	>80	<b>35</b>	38	26
Tin	ppm	ASTM D5185m	>14	<b>10</b>	9	6
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

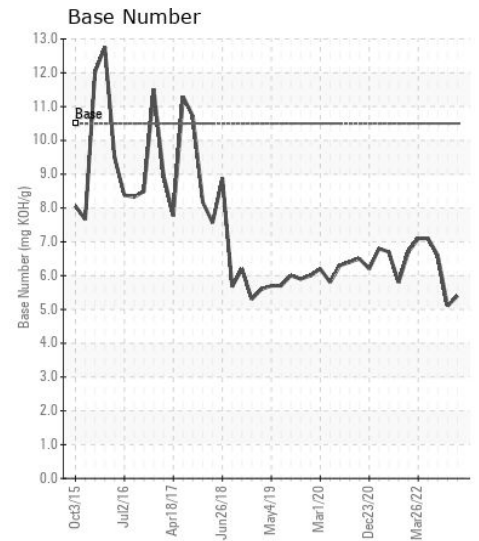
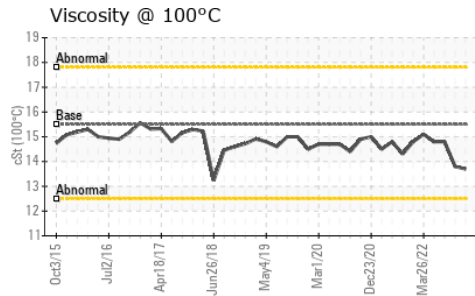
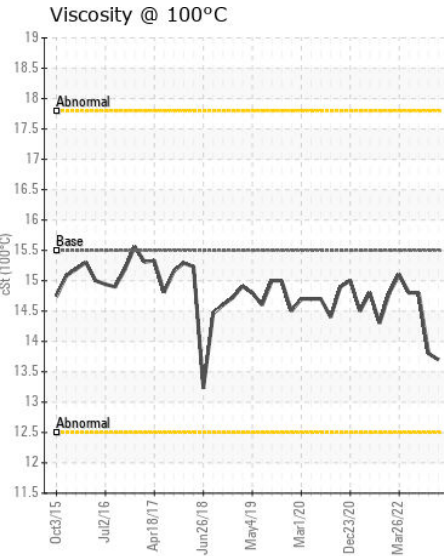
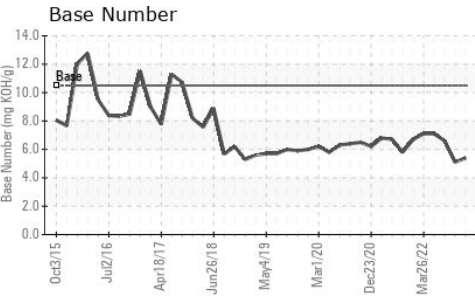
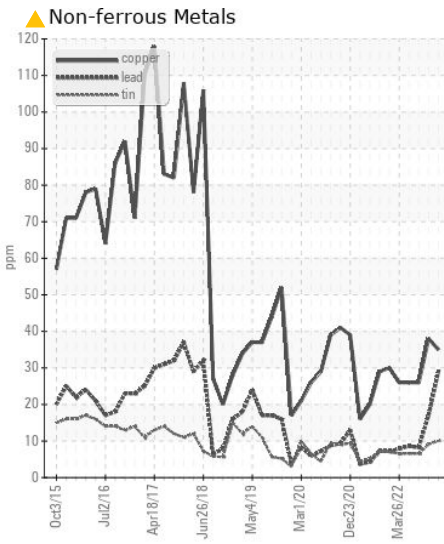
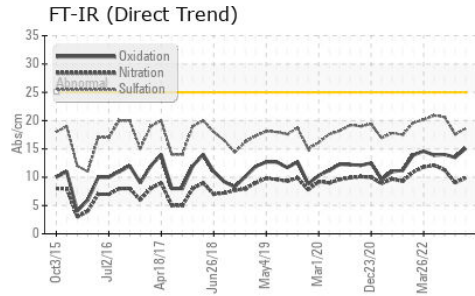
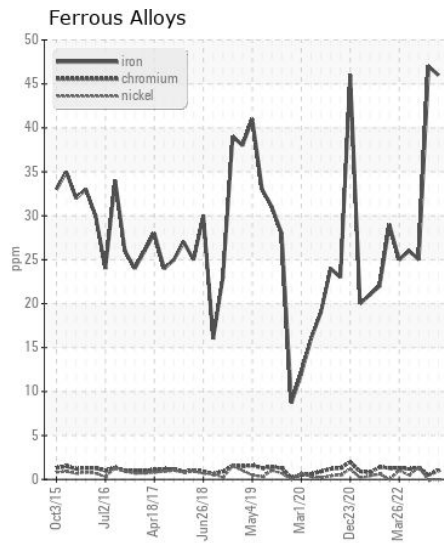
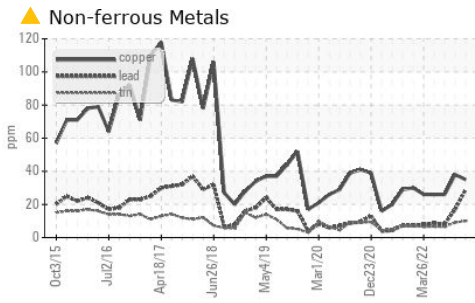
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>5</b>	6	18
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
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		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.9</b>	9.0	11.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.6</b>	17.6	20.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	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>2</b>	3	● 72
Boron	ppm	ASTM D5185m		<b>33</b>	39	45
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	2	0
Molybdenum	ppm	ASTM D5185m		<b>44</b>	45	47
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	<1
Magnesium	ppm	ASTM D5185m		<b>10</b>	13	21
Calcium	ppm	ASTM D5185m		<b>3228</b>	3315	3698
Phosphorus	ppm	ASTM D5185m		<b>5</b>	1	9
Zinc	ppm	ASTM D5185m		<b>4</b>	6	3
Sulfur	ppm	ASTM D5185m		<b>2237</b>	2304	2509
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	13.5	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>5.4</b>	5.1	6.6
Visc @ 100°C	cSt	ASTM D445	15.5	<b>13.7</b>	13.8	14.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0050794  
**Lab Number** : 06194800  
**Unique Number** : 11056923  
**Test Package** : MAR 2

**Received** : 29 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 31 May 2024 - Sean Felton

**AMERICAN RIVER TRANSPORTATION CO.**  
 P.O. BOX 2889  
 ST. LOUIS, MO  
 US 63111  
 Contact: BRIAN GRIEWING  
 brian.griewing@adm.com  
 T:  
 F: (314)481-5278

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)