



Area
RTA
Machine Id
RTA
Component
Port Main Engine
Fluid
CHEVRON DELO 710 LS (350 GAL)

RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0061105	MW0054918	MW0054920
Sample Date		Client Info		06 Apr 2024	26 Jan 2024	02 Dec 2023
Machine Age	hrs	Client Info		374025	373190	371995
Oil Age	hrs	Client Info		30523	29688	38982
Filter Age	hrs	Client Info		826	1215	1186
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>75	24	18	15
Chromium	ppm	ASTM D5185m	>8	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m	>3	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	1	2
Lead	ppm	ASTM D5185m	>18	▲ 20	12	8
Copper	ppm	ASTM D5185m	>80	▲ 29	28	24
Tin	ppm	ASTM D5185m	>14	7	6	5
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Sodium and/or potassium levels are high. Test for glycol is negative.

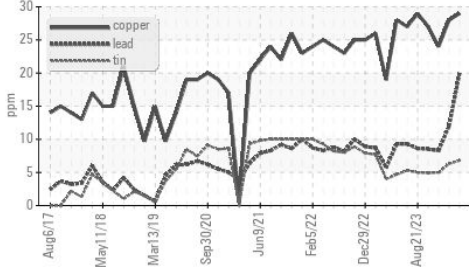
Silicon	ppm	ASTM D5185m	>20	3	2	3
Potassium	ppm	ASTM D5185m	>20	● 18	0	1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.9	1
Nitration	Abs/cm	*ASTM D7624	>20	9.8	9.3	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	19.4	18.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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

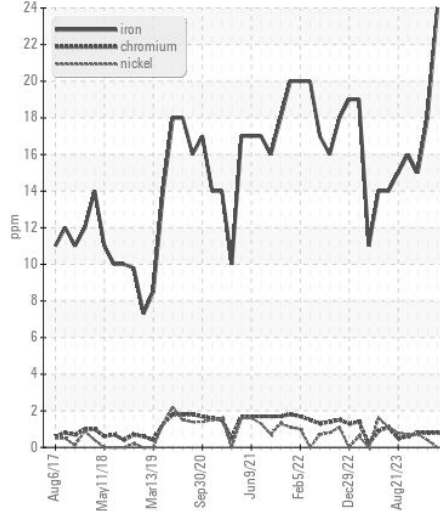
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	● 61	29	3
Boron	ppm	ASTM D5185m		40	37	37
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		48	44	44
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		14	10	13
Calcium	ppm	ASTM D5185m		3259	3054	3468
Phosphorus	ppm	ASTM D5185m		3	<1	3
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		2432	1956	2194
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.6	11.5	11.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	6.4	5.6	6.1
Visc @ 100°C	cSt	ASTM D445	15.5	14.4	14.4	14.6

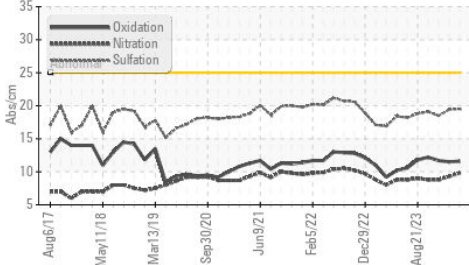
▲ Non-ferrous Metals



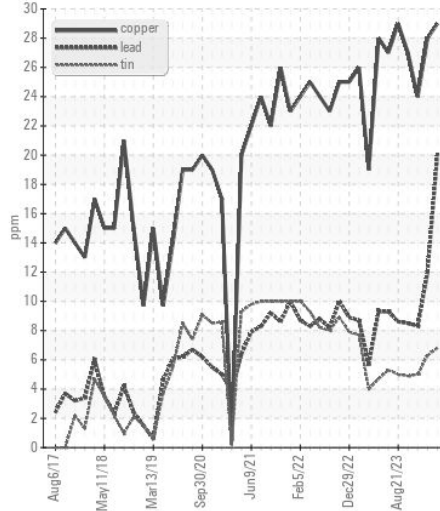
Ferrous Alloys



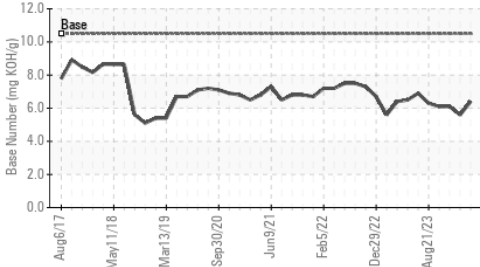
FT-IR (Direct Trend)



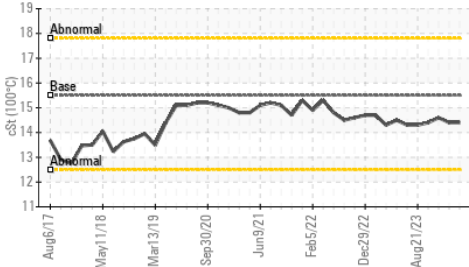
▲ Non-ferrous Metals



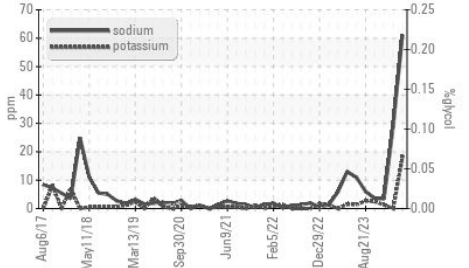
Base Number



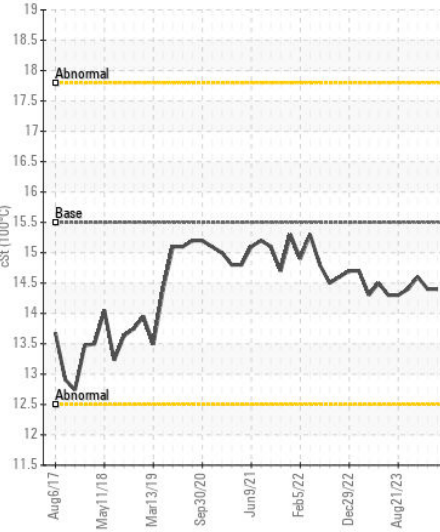
Viscosity @ 100°C



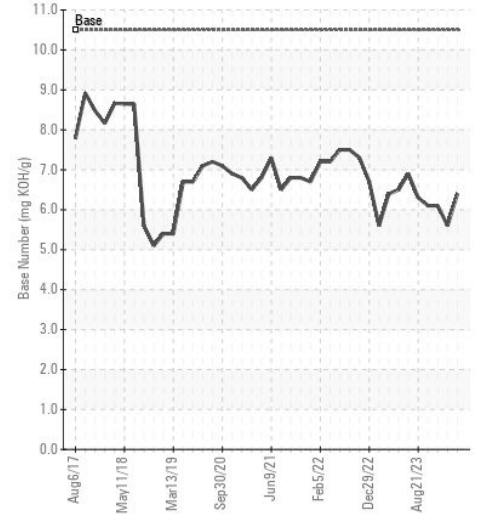
Glycol Contamination



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0061105 **Received** : 19 Apr 2024
Lab Number : 06153945 **Tested** : 23 Apr 2024
Unique Number : 10989368 **Diagnosed** : 23 Apr 2024 - Jonathan Hester
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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