



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
LOUISIANA BELLE
Machine Id
LBE
Component
Starboard Reduction Gear
Fluid
CHEVRON DELO 400 LE 15W40 (30 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0065111	MWM694895	MWM12350
Sample Date		Client Info		13 Feb 2024	16 Sep 2022	11 Jun 2020
Machine Age	hrs	Client Info		4948	29925	18986
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	5	6	3
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	3	<1
Aluminum	ppm	ASTM D5185m	>25	3	<1	<1
Lead	ppm	ASTM D5185m	>100	1	2	0
Copper	ppm	ASTM D5185m	>50	15	67	8
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

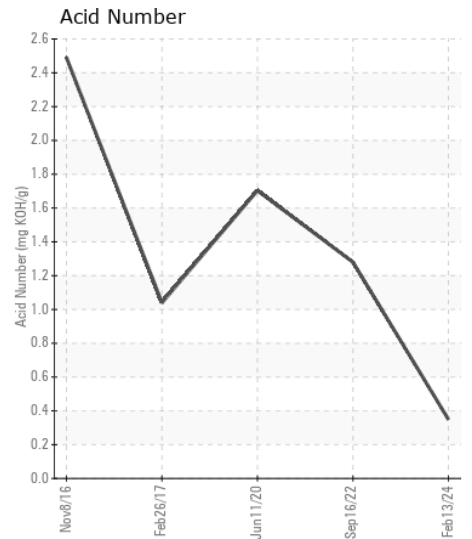
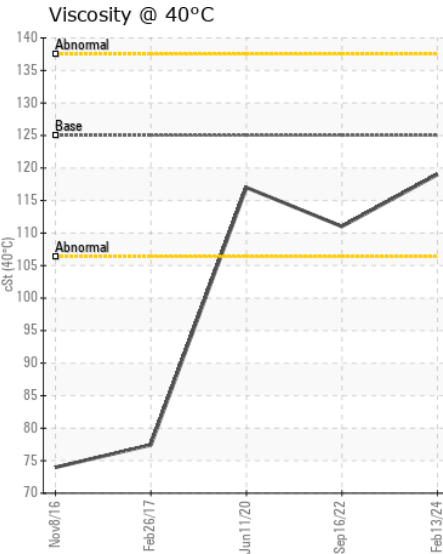
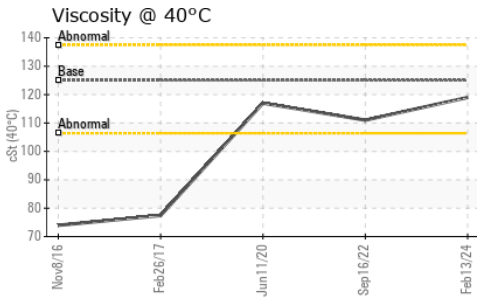
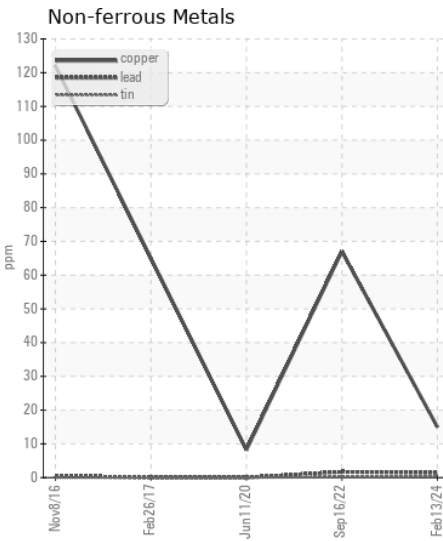
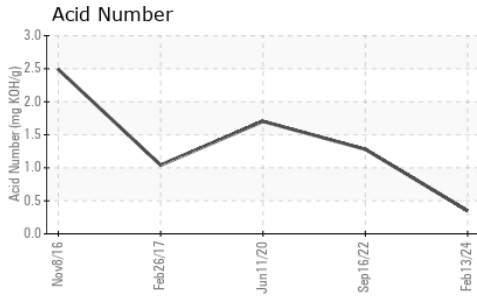
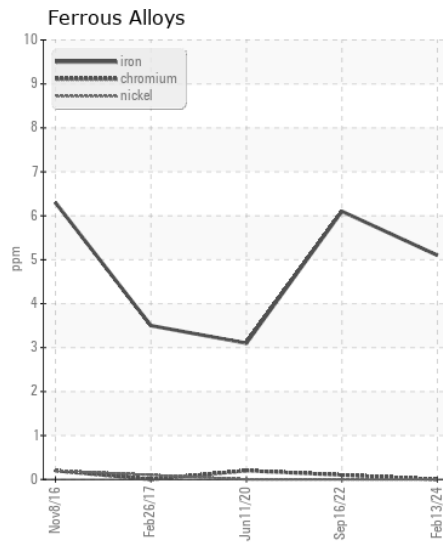
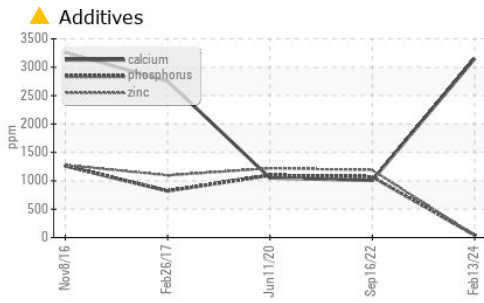
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	4	3	3
Potassium	ppm	ASTM D5185m	>20	<1	0	5
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	1
Boron	ppm	ASTM D5185m		▲ 27	4	14
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		▲ 25	4	3
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		▲ 43	835	928
Calcium	ppm	ASTM D5185m		▲ 3148	1007	1050
Phosphorus	ppm	ASTM D5185m	1200	▲ 43	1069	1096
Zinc	ppm	ASTM D5185m	1300	▲ 42	1188	1219
Sulfur	ppm	ASTM D5185m	3200	3259	3327	2712
Acid Number (AN)	mg KOH/g	ASTM D8045		0.35	1.28	1.703
Visc @ 40°C	cSt	ASTM D445	125	119	111	117



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0065111
Lab Number : 06100246
Unique Number : 10898476
Test Package : MAR 2

Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 28 Feb 2024 - Jonathan Hester

AMERICAN RIVER TRANSPORTATION CO.
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 ST. LOUIS, MO
 US 63111
 Contact: BRIAN GRIEWING
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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)