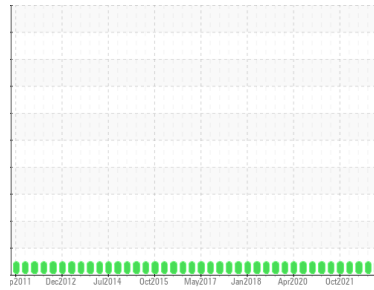




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
MEV
 Machine Id
MEV
 Component
Starboard Reduction Gear
 Fluid
CHEVRON MEROPA 320 (170 GAL)

DIAGNOSIS

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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			MW0016699	MW0031700	MW0022984
Sample Date	Client Info			12 Apr 2023	08 Jul 2022	03 May 2022
Machine Age	hrs	Client Info		6570	0	0
Oil Age	hrs	Client Info		6570	28363	22842
Oil Changed	Client Info			Not Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	32	71	71
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	0	10	6
Lead	ppm	ASTM D5185m	>100	<1	2	2
Copper	ppm	ASTM D5185m	>50	8	15	15
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Antimony	ppm	ASTM D5185m	>5	---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	20	2	7	8
Barium	ppm	ASTM D5185m		0	18	20
Molybdenum	ppm	ASTM D5185m	0	<1	<1	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		<1	<1	<1
Calcium	ppm	ASTM D5185m	25	22	35	40
Phosphorus	ppm	ASTM D5185m	235	240	240	288
Zinc	ppm	ASTM D5185m		2	5	3
Sulfur	ppm	ASTM D5185m		4799	4474	3964

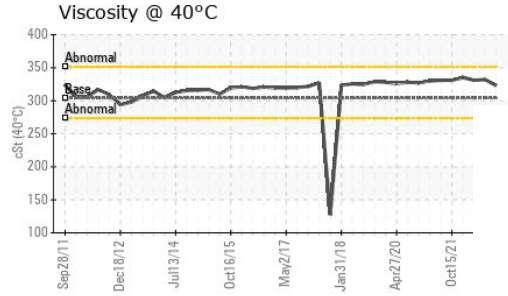
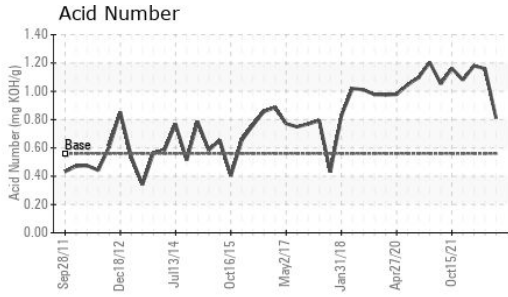
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<1	<1	<1
Sodium	ppm	ASTM D5185m		2	5	6
Potassium	ppm	ASTM D5185m	>20	2	2	4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.56	0.81	1.16	1.18

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG	NEG



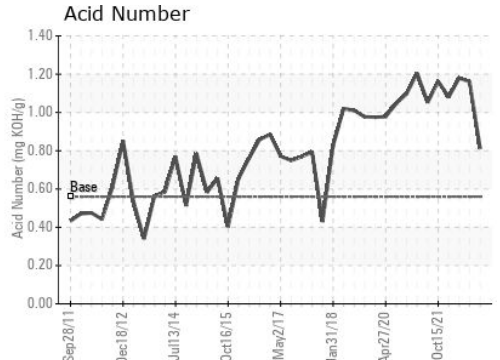
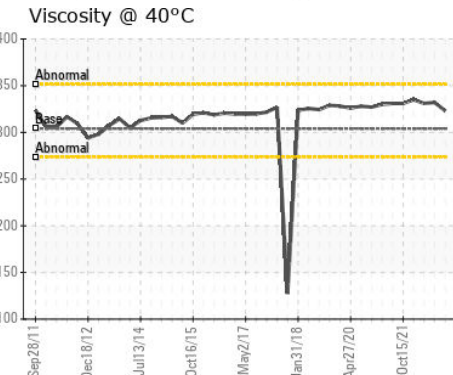
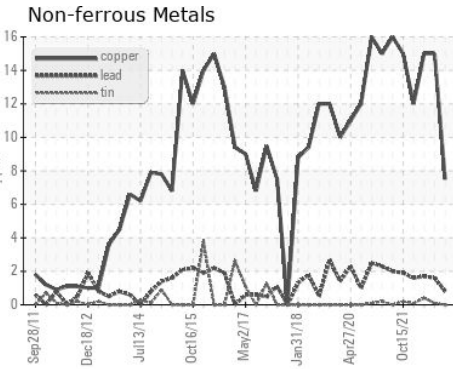
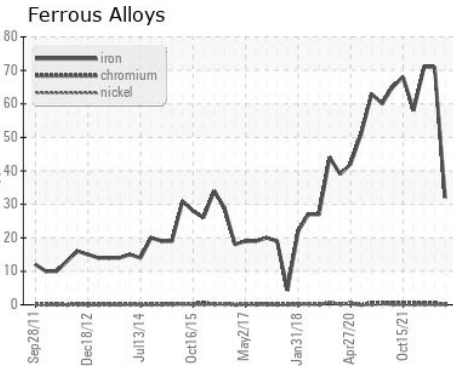
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	304	323	332	331

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0016699 **Received** : 24 Apr 2023
Lab Number : 05827819 **Diagnosed** : 26 Apr 2023
Unique Number : 10441312 **Diagnostician** : Wes Davis
Test Package : MAR 2

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)