



PERFORMANCE
UNDER
PRESSURE

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
TM 11
Machine Id
TM 11 MAIN LUBE TANK
Component
Lube System
Fluid
SHELL OMALA 220 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RP0038095	RP0034368	RP0023576
Sample Date		Client Info		29 Jan 2024	08 Aug 2023	05 May 2023
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		0	0	0
Filter Age	mths	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Moderate concentration of visible metal present. All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	1	<1	<1
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	<1	<1
Lead	ppm	ASTM D5185m	>20	<1	0	0
Copper	ppm	ASTM D5185m	>20	1	<1	0
Tin	ppm	ASTM D5185m	>20	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

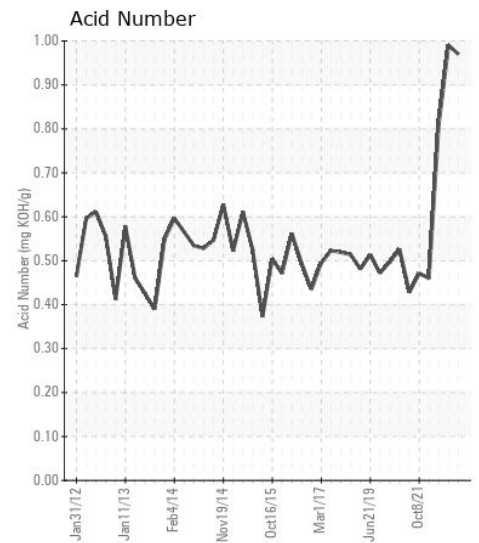
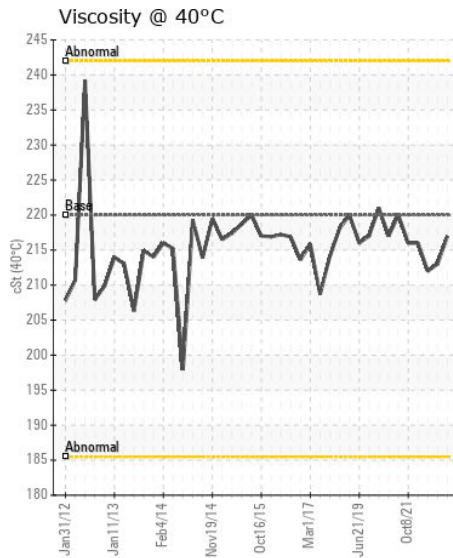
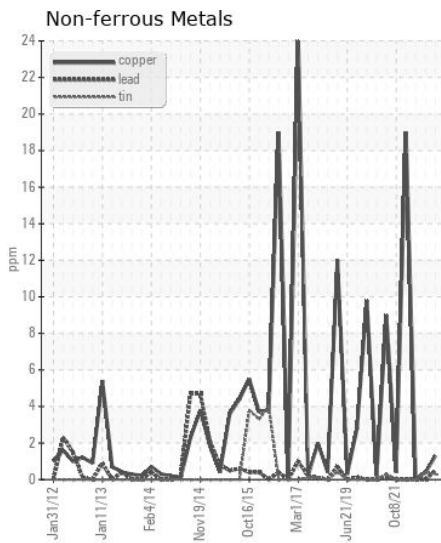
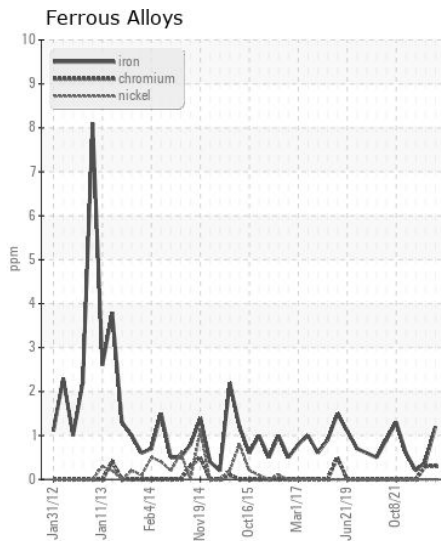
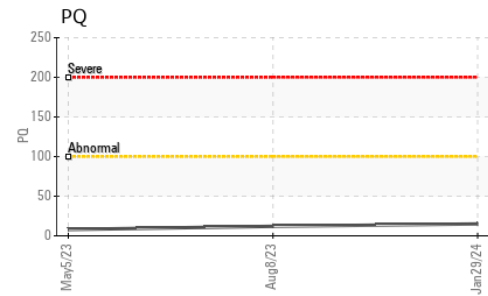
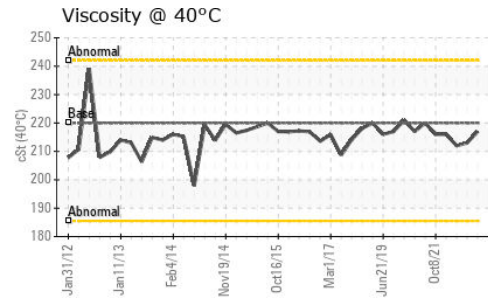
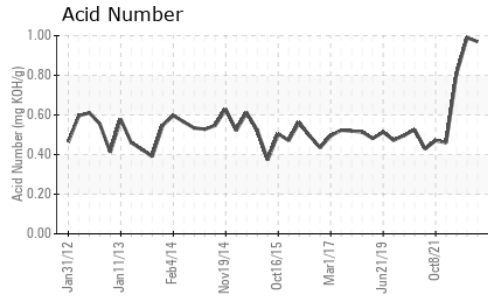
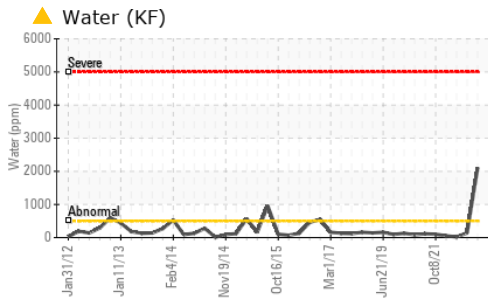
There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>15	3	4	2
Potassium	ppm	ASTM D5185m	>20	2	0	0
Water	%	ASTM D6304	>0.05	▲ 0.210	0.014	0.002
ppm Water	ppm	ASTM D6304	>500	▲ 2107	142.3	18.5
Particles >4µm		ASTM D7647	>5000	---	1763	495
Particles >6µm		ASTM D7647	>1300	---	445	74
Particles >14µm		ASTM D7647	>160	---	38	5
Particles >21µm		ASTM D7647	>40	---	12	1
Particles >38µm		ASTM D7647	>10	---	0	0
Particles >71µm		ASTM D7647	>3	---	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	---	18/16/12	16/13/10
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	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	>0.05	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	3	<1
Boron	ppm	ASTM D5185m	4.4	0	0	0
Barium	ppm	ASTM D5185m	0.0	0	20	0
Molybdenum	ppm	ASTM D5185m	0	<1	<1	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	0	1	<1	0
Calcium	ppm	ASTM D5185m	0	85	84	96
Phosphorus	ppm	ASTM D5185m	215	852	824	785
Zinc	ppm	ASTM D5185m	0	1137	1038	1075
Acid Number (AN)	mg KOH/g	ASTM D8045		0.97	0.99	0.81
Visc @ 40°C	cSt	ASTM D445	220	217	213	212



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0038095
Lab Number : 06074733
Unique Number : 10856824
Test Package : IND 2 (Additional Tests: PQ, PrtCount)

Kimberly-Clark - Mobile - TM 11
 200 BAYBRIDGE RD
 MOBILE, AL
 US 36610
 Contact: LARRY WEAVER
 Larry.D.Weaver@kcc.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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