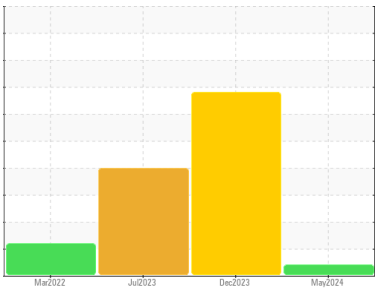
KIMBRO FLUID SOLUTIONS

OIL ANALYSIS REPORT

Area
CAST HOUSE/CRANES
Machine Id
88 MAIN HOIST GEARBOX 1015-U88-4000
Component
Gearbox
Fluid
CITGO COMPOUND EP 320 (25 GAL)

Sample Rating Trend



VIS DEBRIS

DIAGNOSIS

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.

Wear
All component wear rates are normal.

Contamination
Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KFS0004648**	KFS0005166	KFS0003098
Sample Date		Client Info		**17 May 2024**	19 Dec 2023	03 Jul 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

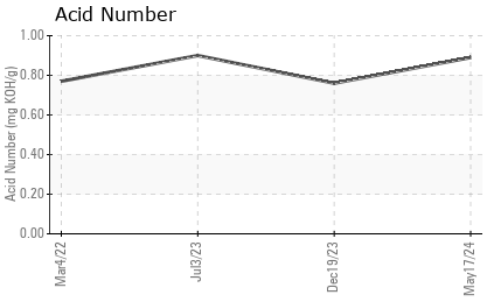
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**94**	▲ 325	42
Chromium	ppm	ASTM D5185m	>15	**<1**	2	0
Nickel	ppm	ASTM D5185m	>15	**0**	1	0
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**23**	10	10
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>200	**<1**	4	<1
Tin	ppm	ASTM D5185m	>25	**0**	0	0
Antimony	ppm	ASTM D5185m	>5	**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

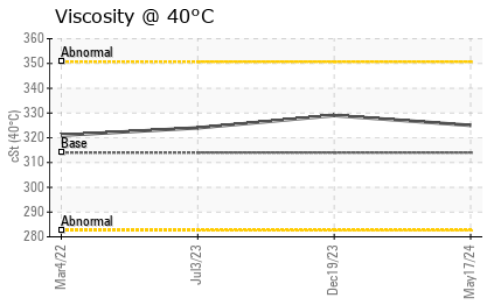
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**6**	2	3
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	<1
Manganese	ppm	ASTM D5185m		**2**	2	1
Magnesium	ppm	ASTM D5185m		**14**	7	6
Calcium	ppm	ASTM D5185m		**8**	6	9
Phosphorus	ppm	ASTM D5185m		**323**	362	354
Zinc	ppm	ASTM D5185m		**87**	11	74
Sulfur	ppm	ASTM D5185m		**11686**	11045	15330

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**7**	9	1
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**2**	2	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**---**	▲ 281954	▲ 186593
Particles >6µm		ASTM D7647	>5000	**---**	▲ 211761	▲ 61972
Particles >14µm		ASTM D7647	>640	**---**	▲ 13846	● 1026
Particles >21µm		ASTM D7647	>160	**---**	▲ 808	196
Particles >38µm		ASTM D7647	>40	**---**	9	5
Particles >71µm		ASTM D7647	>10	**---**	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**---**	▲ 25/25/21	▲ 25/23/17

OIL ANALYSIS REPORT





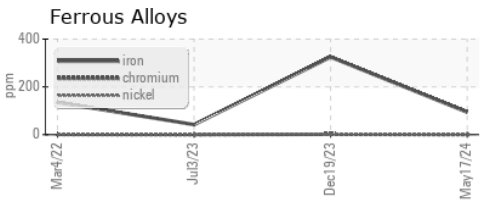
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.89**	0.76	0.90

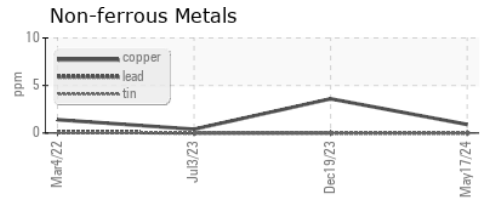
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

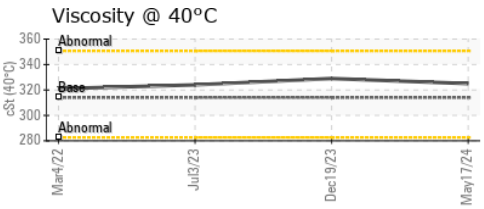
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	314	**325**	329	324

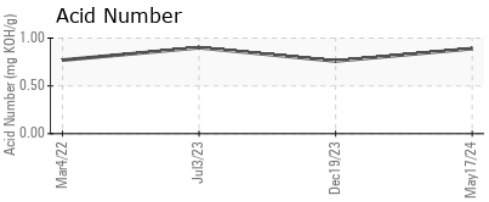
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0004648
Lab Number : 06214638
Unique Number : 11087502
Test Package : IND 2 (Additional Tests: PrtCount)

Received : 19 Jun 2024
Tested : 21 Jun 2024
Diagnosed : 21 Jun 2024 - Don Baldridge

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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