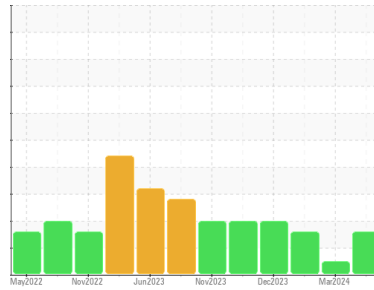




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

HOTLINE/120 MILL

Machine Id

120 SCREWDOWN LUBE RESV 1415-014-0160

Component

Gearbox

Fluid

CITGO COMPOUND EP 320 (3000 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present 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	KFS0004566	KFS0002558	KFS0004631
Sample Date	Client Info	21 Jun 2024	22 Mar 2024	16 Feb 2024
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	ABNORMAL

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	0	8	9
Chromium	ppm	ASTM D5185m >15	0	<1	0
Nickel	ppm	ASTM D5185m >15	0	<1	<1
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	1	5	5
Lead	ppm	ASTM D5185m >100	0	2	<1
Copper	ppm	ASTM D5185m >200	2	3	0
Tin	ppm	ASTM D5185m >25	0	1	0
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	4	6	8
Barium	ppm	ASTM D5185m	0	<1	1
Molybdenum	ppm	ASTM D5185m	0	<1	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m	0	2	4
Calcium	ppm	ASTM D5185m	234	199	237
Phosphorus	ppm	ASTM D5185m	122	130	111
Zinc	ppm	ASTM D5185m	0	4	10
Sulfur	ppm	ASTM D5185m	6031	4557	4313

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	<1	3	0
Sodium	ppm	ASTM D5185m	0	2	0
Potassium	ppm	ASTM D5185m >20	1	2	0

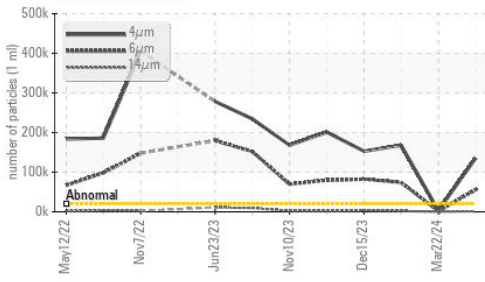
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	▲ 135111	3080	▲ 168069
Particles >6µm	ASTM D7647 >5000	▲ 55191	1678	▲ 74120
Particles >14µm	ASTM D7647 >640	▲ 1235	286	▲ 1763
Particles >21µm	ASTM D7647 >160	115	96	144
Particles >38µm	ASTM D7647 >40	4	15	1
Particles >71µm	ASTM D7647 >10	1	2	0
Oil Cleanliness	ISO 4406 (c) >21/19/16	▲ 24/23/17	19/18/15	▲ 25/23/18

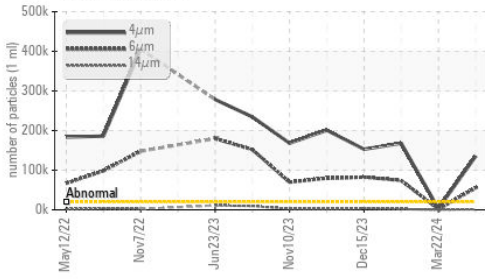
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.25	0.23	0.21

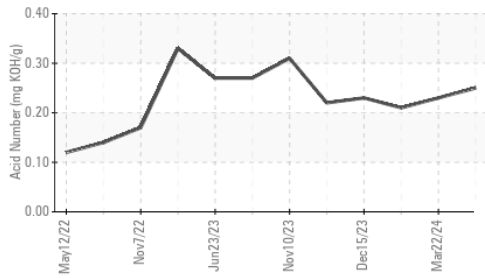
Particle Trend



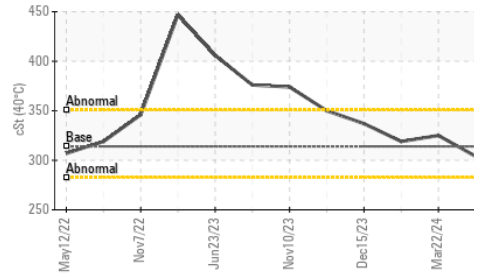
Particle Trend



Acid Number



Viscosity @ 40°C



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	314	325	319

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

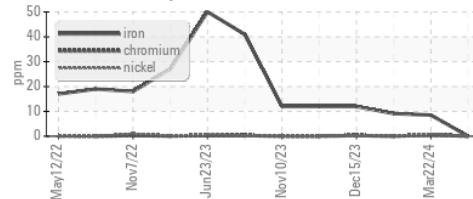


Bottom

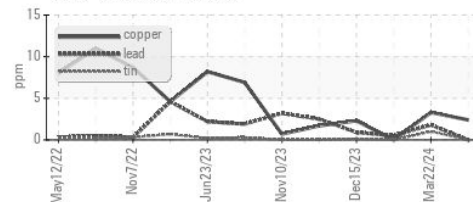


GRAPHS

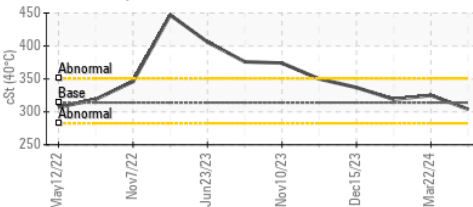
Ferrous Alloys



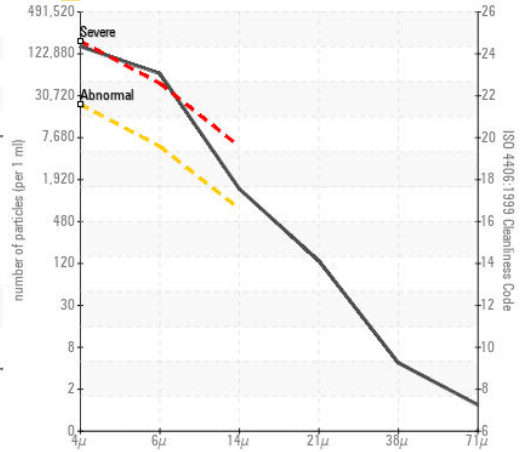
Non-ferrous Metals



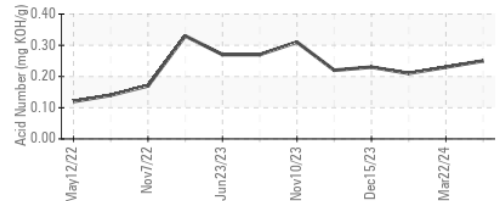
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : KFS0004566

Lab Number : 06219643

Unique Number : 11097840

Test Package : IND 2 (Additional Tests: PrtCount)

Received : 25 Jun 2024

Tested : 26 Jun 2024

Diagnosed : 26 Jun 2024 - Don Baldrige

CONSTELLIUM

4805 SECOND STREET

MUSCLE SHOALS, AL

US 35661

Contact: Joel Even

joel.even@constellium.com

T: (256)740-7490

F:

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)