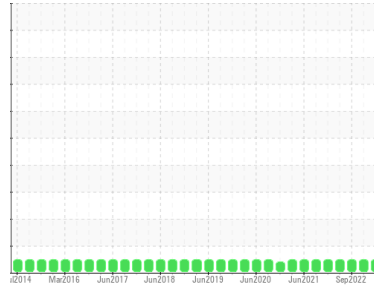




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
BOILER ROOM
 Machine Id
ELLIOTT UTL05016 (S/N BIEU2E297)
 Component
Compressor
 Fluid
FSE TURBO COOL (65 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 component. The amount and size of particulates present in the system is acceptable.

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	WC0847218	WC0741967	WC0738782	
Sample Date	Client Info	27 Sep 2023	28 Dec 2022	12 Sep 2022	
Machine Age	hrs	Client Info	74372	67943	65421
Oil Age	hrs	Client Info	17424	362	3965
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>50	0	0	0
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	0	0
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>50	0	0	0
Tin	ppm	ASTM D5185m	>15	0	0	0
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		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		385	378	379
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		97	142	162

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	4	3	6
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	<1	0	0

FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>10000	4008	---	3529
Particles >6µm	ASTM D7647	>2500	1000	---	646
Particles >14µm	ASTM D7647	>320	90	---	30
Particles >21µm	ASTM D7647	>80	25	---	11
Particles >38µm	ASTM D7647	>20	1	---	7
Particles >71µm	ASTM D7647	>4	0	---	7
Oil Cleanliness	ISO 4406 (c)	>20/18/15	19/17/14	---	19/17/12

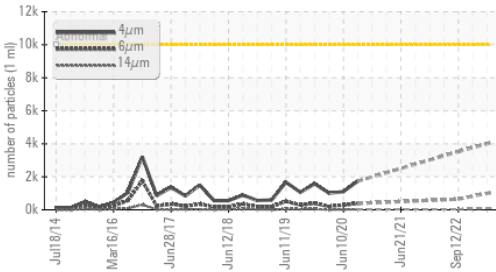
FLUID DEGRADATION

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

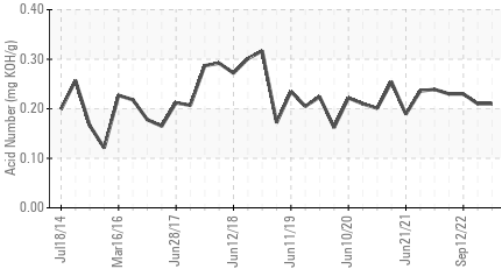


OIL ANALYSIS REPORT

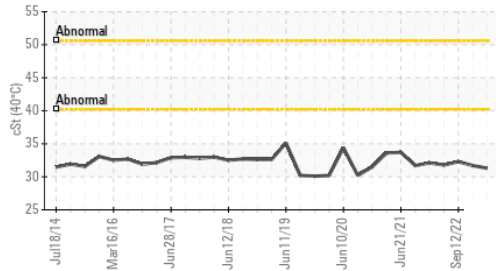
Particle Trend



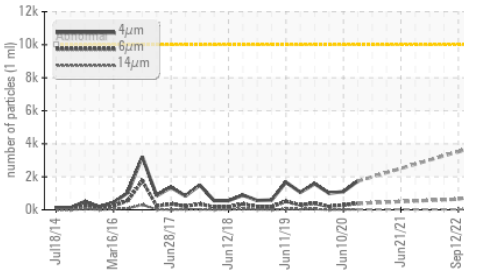
Acid Number



Viscosity @ 40°C



Particle Trend



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	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

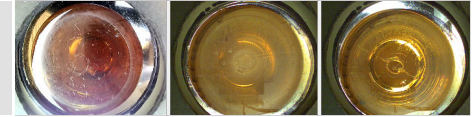
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	31.3	31.7	32.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

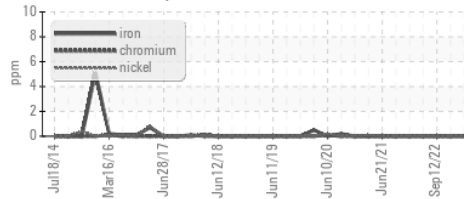


Bottom

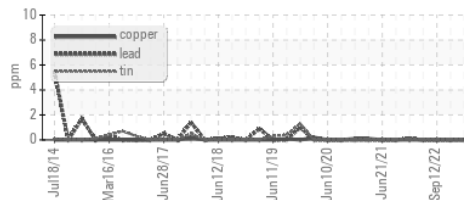


GRAPHS

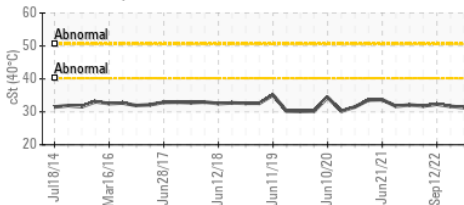
Ferrous Alloys



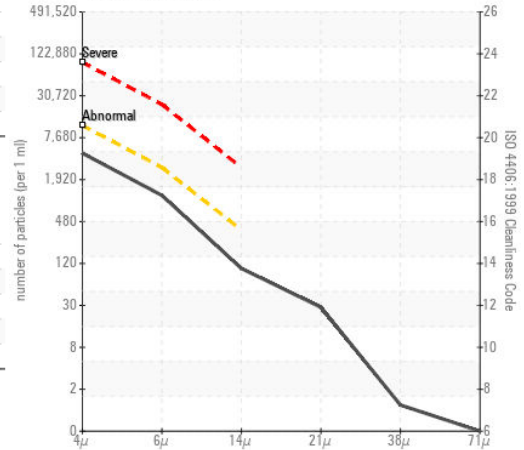
Non-ferrous Metals



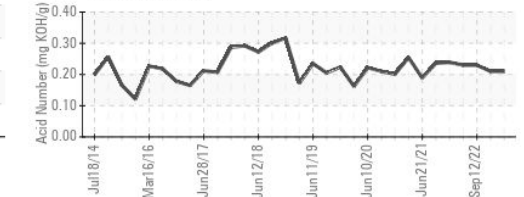
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0847218 Received : 02 Oct 2023
 Lab Number : 05966247 Diagnosed : 03 Oct 2023
 Unique Number : 10672798 Diagnostician : Don Baldrige
 Test Package : IND 2 (Additional Tests: PrtCount)

3M - BROOKINGS
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 BROOKINGS, SD
 US 57006
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 T: (605)696-1465
 F: (605)696-1679

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)