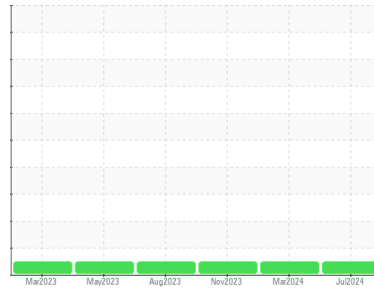




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
MEK
 Machine Id
[MEK] TOTE 11 - TURBINE 32
 Component
New (Unused) Oil
 Fluid
TURBINE OIL ISO 32 (1250 GAL)

DIAGNOSIS

Recommendation
 This is a baseline read-out on the submitted sample.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		RP0042842	RP0042820	RP0038948
Sample Date	Client Info		12 Jul 2024	08 Mar 2024	28 Nov 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
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 >5	0	0	<1
Chromium	ppm	ASTM D5185m >5	0	0	<1
Nickel	ppm	ASTM D5185m >5	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >5	0	0	0
Aluminum	ppm	ASTM D5185m >5	0	0	2
Lead	ppm	ASTM D5185m >5	0	0	0
Copper	ppm	ASTM D5185m >5	<1	<1	1
Tin	ppm	ASTM D5185m >5	0	<1	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 5	0	0	0
Barium	ppm	ASTM D5185m 5	<1	0	2
Molybdenum	ppm	ASTM D5185m 5	<1	<1	1
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 5	5	0	4
Calcium	ppm	ASTM D5185m 10	39	22	33
Phosphorus	ppm	ASTM D5185m 275	41	25	46
Zinc	ppm	ASTM D5185m 7	25	<1	14

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	1	2	<1
Sodium	ppm	ASTM D5185m	3	<1	0
Potassium	ppm	ASTM D5185m >20	0	0	0
Water	%	ASTM D6304	0.001	0.002	0.003
ppm Water	ppm	ASTM D6304	8	17	33

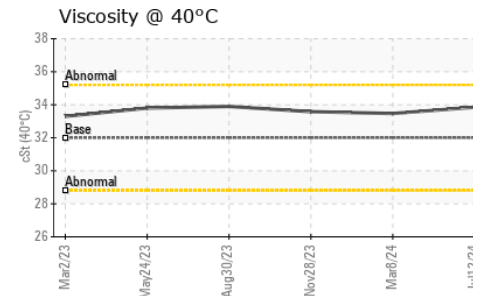
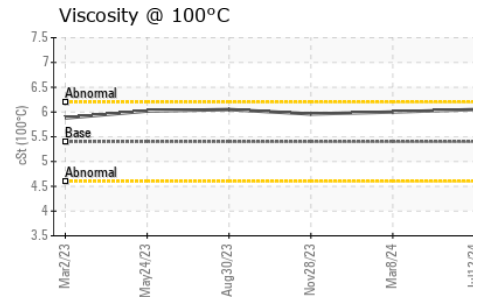
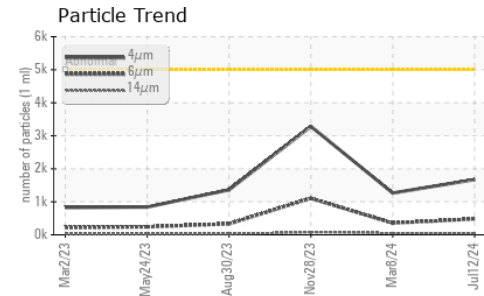
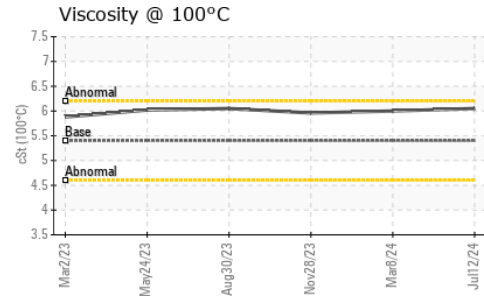
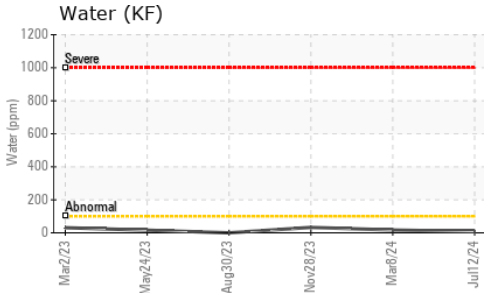
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	1674	1265	3284
Particles >6µm	ASTM D7647	>1300	479	354	1106
Particles >14µm	ASTM D7647	>160	39	48	80
Particles >21µm	ASTM D7647	>40	10	16	15
Particles >38µm	ASTM D7647	>10	0	1	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	18/16/12	17/16/13	19/17/13

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.13	0.054	0.07	0.09

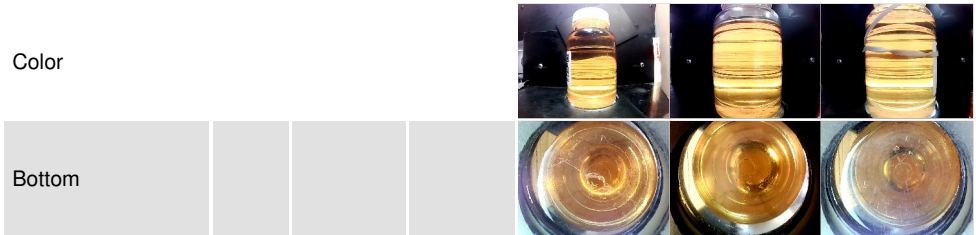
OIL ANALYSIS REPORT



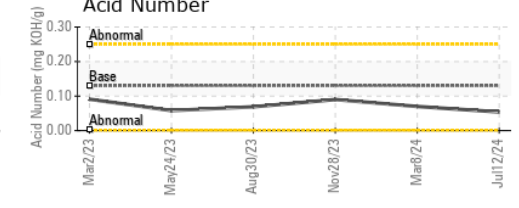
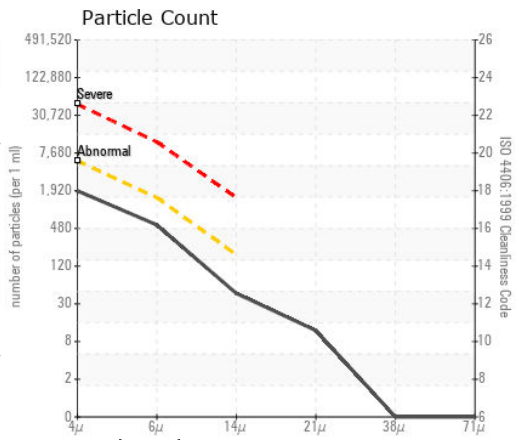
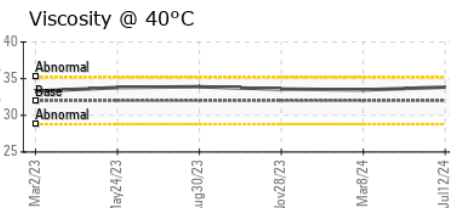
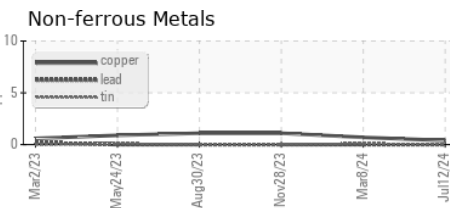
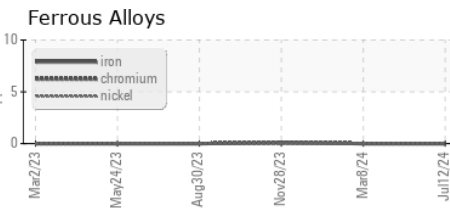
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	33.85	33.47
Visc @ 100°C	cSt	ASTM D445	5.4	6.05	6.00
Viscosity Index (VI)	Scale	ASTM D2270	102	126	125

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0042842 **Received** : 16 Jul 2024
Lab Number : 06238322 **Tested** : 19 Jul 2024
Unique Number : 11127156 **Diagnosed** : 19 Jul 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: FT-IR, KV100, PrtCount, VI)

CALUMET
 3333 MIDWAY AVENUE
 SHREVEPORT, LA
 US 71109
 Contact: NICHOLAS LESAGE
 nicholas.lesage@clmt.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)

T:
F: