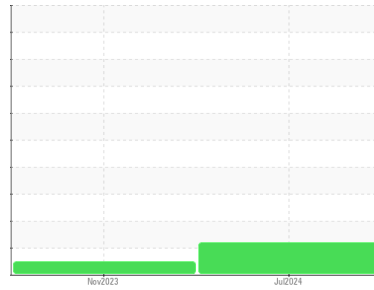




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

MEK
Machine Id

[MEK] MEK-TOTE 7

Component

New (Unused) Oil

Fluid

BELRAY Turbine Oil 150 (--- GAL)

DIAGNOSIS

▲ Recommendation

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

▲ Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			RP0042804	RP0038947	---
Sample Date	Client Info			12 Jul 2024	28 Nov 2023	---
Machine Age	mls	Client Info		0	0	---
Oil Age	mls	Client Info		0	0	---
Oil Changed	Client Info			Not Changed	Not Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>5	0	0	---
Chromium	ppm	ASTM D5185m	>5	0	<1	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>5	0	0	---
Aluminum	ppm	ASTM D5185m	>5	0	2	---
Lead	ppm	ASTM D5185m	>5	0	0	---
Copper	ppm	ASTM D5185m	>5	0	<1	---
Tin	ppm	ASTM D5185m	>5	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

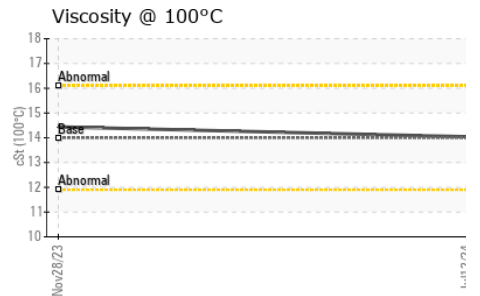
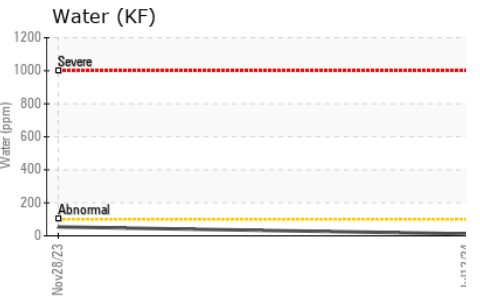
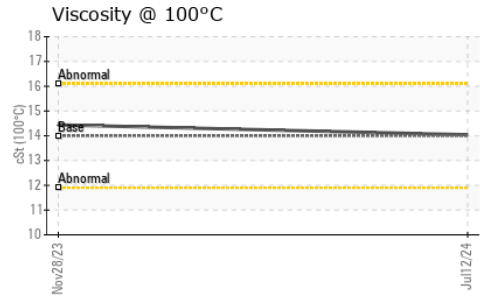
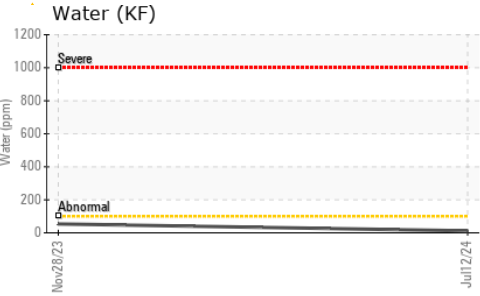
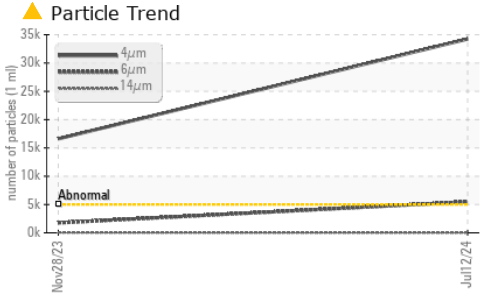
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		<1	2	---
Molybdenum	ppm	ASTM D5185m		<1	2	---
Manganese	ppm	ASTM D5185m		0	0	---
Magnesium	ppm	ASTM D5185m		3	5	---
Calcium	ppm	ASTM D5185m		11	13	---
Phosphorus	ppm	ASTM D5185m		35	40	---
Zinc	ppm	ASTM D5185m		12	3	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	0	---
Sodium	ppm	ASTM D5185m		2	0	---
Potassium	ppm	ASTM D5185m	>20	<1	<1	---
Water	%	ASTM D6304		0.001	0.005	---
ppm Water	ppm	ASTM D6304		12	54	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ 34250	16608	---
Particles >6µm		ASTM D7647	>1300	▲ 5471	1759	---
Particles >14µm		ASTM D7647	>160	35	55	---
Particles >21µm		ASTM D7647	>40	6	18	---
Particles >38µm		ASTM D7647	>10	0	2	---
Particles >71µm		ASTM D7647	>3	0	1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/20/12	21/18/13	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.088	0.093	---

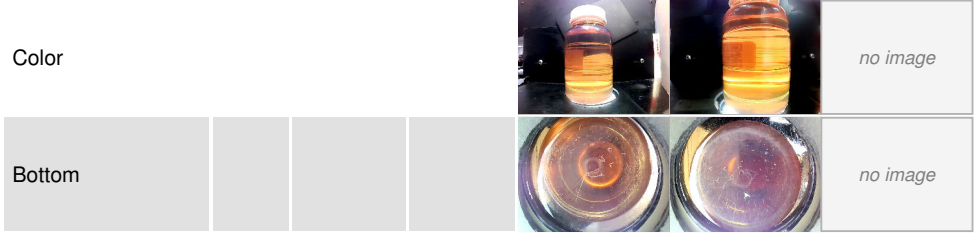
OIL ANALYSIS REPORT



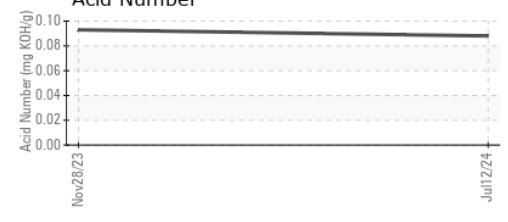
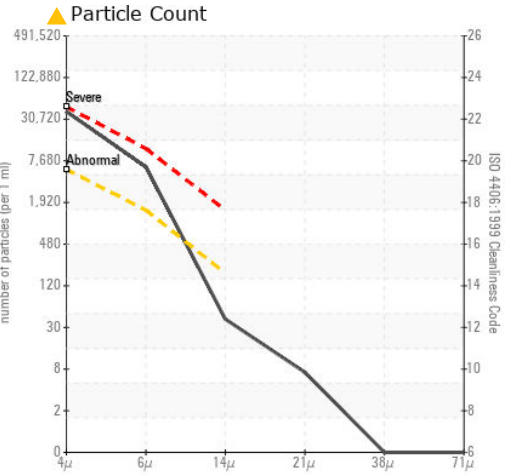
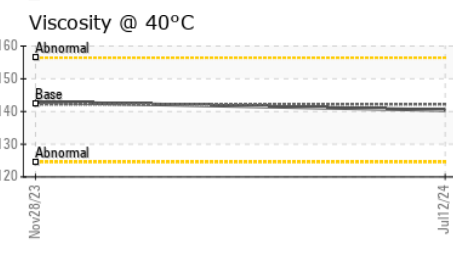
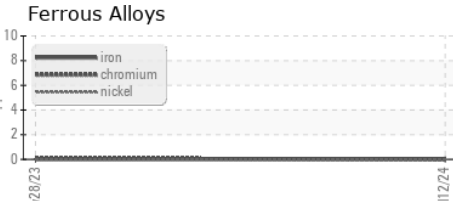
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	142.2	140.4	142.9
Visc @ 100°C	cSt	ASTM D445	14.0	14.04	14.44
Viscosity Index (VI)	Scale	ASTM D2270	99	96	99

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0042804 **Received** : 16 Jul 2024
Lab Number : 06238305 **Tested** : 19 Jul 2024
Unique Number : 11127139 **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)