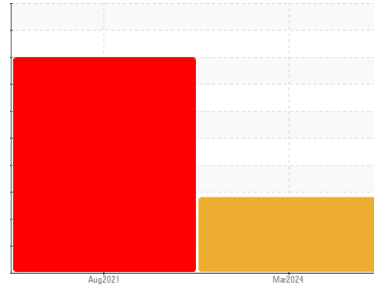




OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES



Area
[02622897]
 Machine Id
KOMATSU 59506
 Component
Hydraulic System
 Fluid
SINTO MULTIGRADE BIO (--- GAL)

DIAGNOSIS

▲ Recommendation

Nous vous recommandons de remplacer le filtre et d'utiliser un système de filtrage hors-ligne afin d'améliorer la propreté du fluide. Confirmez la source du lubrifiant utilisé pour l'appoint/remplissage. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

Wear

Les taux d'usure de tous les composants sont normaux.

▲ Contamination

Il y a une quantité modérée de matières particulaires (2 à 100 µm de taille) présente dans l'huile. Il y a une faible concentration (3.4%) d'huile minérale présente dans le fluide.

● Fluid Condition

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile. l'huile peut encore servir si la contamination peut être réduite à un niveau acceptable.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PP	PP	---
Sample Date	Client Info	11 Mar 2024	04 Aug 2021	---
Machine Age	hrs Client Info	3537	8	---
Oil Age	hrs Client Info	3537	1	---
Oil Changed	Client Info	N/A	N/A	---
Sample Status		ABNORMAL	SEVERE	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.05	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >20	10	<1	---
Chromium	ppm ASTM D5185(m) >20	<1	0	---
Nickel	ppm ASTM D5185(m) >20	<1	<1	---
Titanium	ppm ASTM D5185(m)	0	<1	---
Silver	ppm ASTM D5185(m)	0	<1	---
Aluminum	ppm ASTM D5185(m) >20	2	<1	---
Lead	ppm ASTM D5185(m) >20	8	0	---
Copper	ppm ASTM D5185(m) >20	12	<1	---
Tin	ppm ASTM D5185(m) >20	0	0	---
Antimony	ppm ASTM D5185(m)	0	0	---
Vanadium	ppm ASTM D5185(m)	0	0	---
Beryllium	ppm ASTM D5185(m)	0	0	---
Cadmium	ppm ASTM D5185(m)	0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 1	<1	<1	---
Barium	ppm ASTM D5185(m) 0	0	<1	---
Molybdenum	ppm ASTM D5185(m) 0	0	<1	---
Manganese	ppm ASTM D5185(m) 0	2	0	---
Magnesium	ppm ASTM D5185(m) 0	2	2	---
Calcium	ppm ASTM D5185(m) 8	249	417	---
Phosphorus	ppm ASTM D5185(m) 1325	1215	1350	---
Zinc	ppm ASTM D5185(m) 6	102	101	---
Sulfur	ppm ASTM D5185(m) 2400	2624	2510	---
Lithium	ppm ASTM D5185(m)	<1	<1	---

CONTAMINANTS

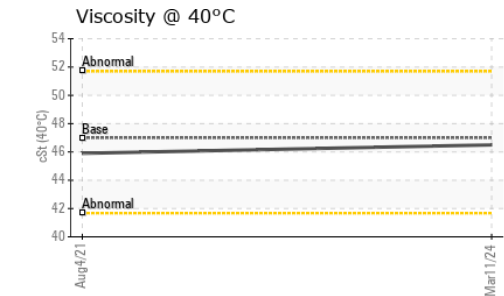
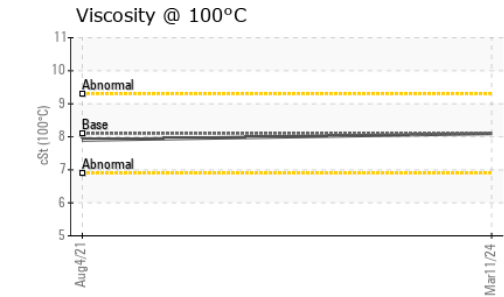
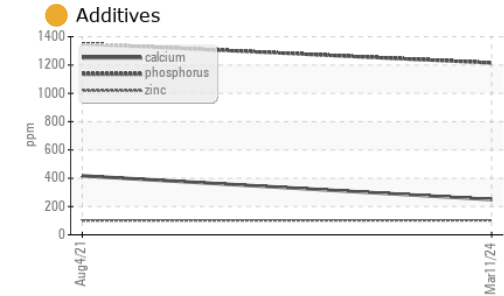
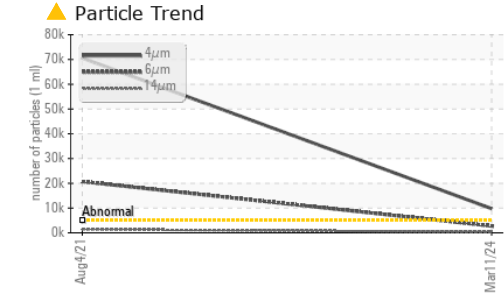
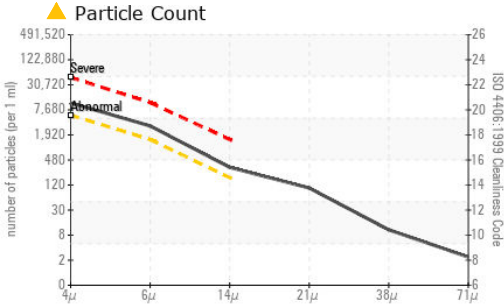
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	6	5	---
Sodium	ppm ASTM D5185(m)	5	<1	---
Potassium	ppm ASTM D5185(m) >20	7	<1	---

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	0	---	---
Nitration	Abs/cm ASTM D7624*	4.3	---	---
Sulfation	Abs/.1mm ASTM D7415*	153.6	---	---
Mineral Oil Content	% ASTM D7418* <5.0%	3.4	4.1	---



OIL ANALYSIS REPORT



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	● 9758	▲ 70596	---
Particles >6µm	ASTM D7647	>1300	▲ 2756	▲ 20690	---
Particles >14µm	ASTM D7647	>160	● 281	▲ 1405	---
Particles >21µm	ASTM D7647	>40	▲ 90	▲ 327	---
Particles >38µm	ASTM D7647	>10	9	▲ 25	---
Particles >71µm	ASTM D7647	>3	2	3	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 20/19/15	▲ 23/22/18	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*		151.1	---	---

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*	>0.05	NEG	NEG	---
Free Water	scalar Visual*		NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	47.0	46.5	45.9	---
Visc @ 100°C	cSt ASTM D7279(m)	8.1	8.1	7.9	---
Viscosity Index (VI)	Scale ASTM D2270*	145	147	143	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					no image
Bottom					no image



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : PP
 Lab Number : 02622898
 Unique Number : 5748017
 Test Package : MOB 2 (Additional Tests: FT-IR, KV100, Mineral Oil Content, VI)

SINTO INC
 3750, 14 AVE WEST
 SAINT-GEORGES DE BEAUCES, QC
 CA G5Y 8E3
 Contact: Jimmie Roy
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.



MINERAL OIL CONTENT REPORT

PASS

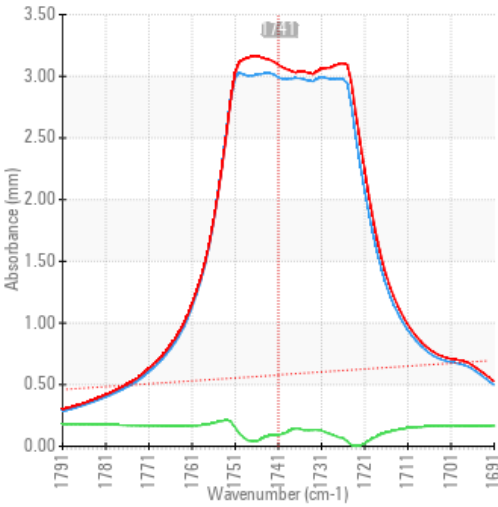


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 Machine Id
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 Component
Hydraulic System
 Fluid
SINTO MULTIGRADE BIO (--- GAL)

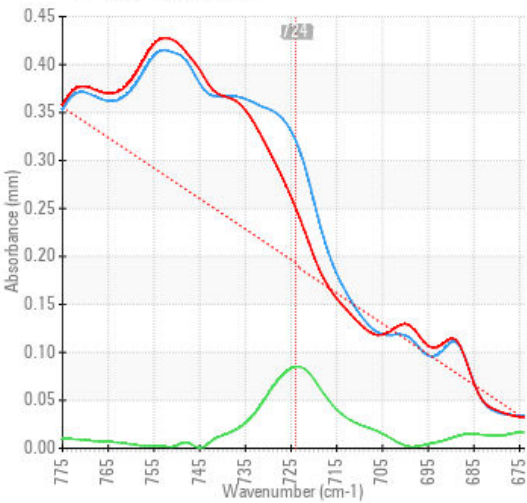
SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	6	● 102	● 101	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	3.4	4.1	---

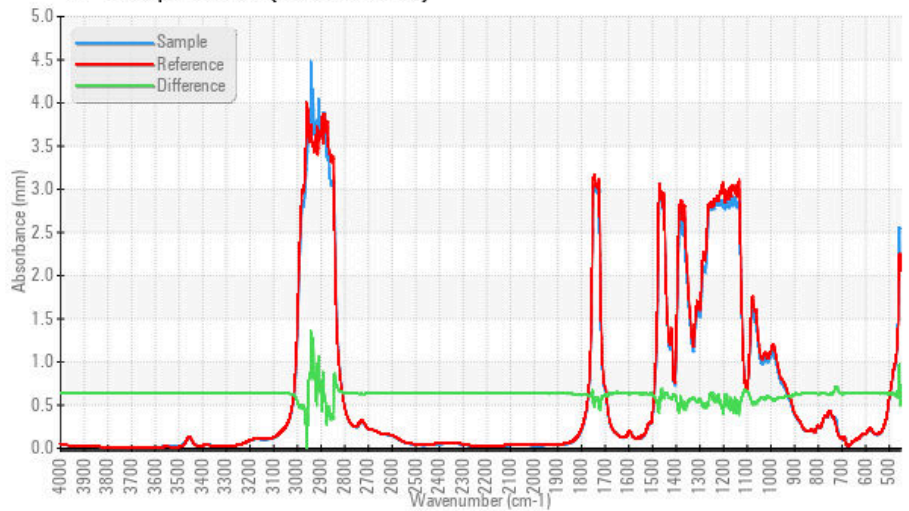
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PP **Received** : 18 Mar 2024
Lab Number : 02622898 **Tested** : 19 Mar 2024
Unique Number : 5748017 **Diagnosed** : 19 Mar 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: FT-IR, KV100, Mineral Oil Content, VI)

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