



# OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area

Inter Projet [02579838]

Machine Id

YANMAR YANMAR Vi055 2023 #282 (S/N YMRVIO55TPAJAL211)

Component

Hydraulic System

Fluid

SINTO MULTIGRADE BIO (--- GAL)



## DIAGNOSIS

### Recommendation

Nous recommandons le remplacement des filtres de ce composant. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation. ( Customer Sample Comment: Test mineral content )

### Wear

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

### Contamination

Il y a une quantité modérée de particules (de 4 à 14 microns) dans l'huile. Il y a une faible concentration (1.1%) d'huile minérale présente dans le fluide.

### Fluid Condition

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	---	---
Sample Date	Client Info		30 Aug 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ABNORMAL	---	---

## WEAR METALS

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

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	<1	---
Barium	ppm	ASTM D5185(m)	0	0	---
Molybdenum	ppm	ASTM D5185(m)	0	0	---
Manganese	ppm	ASTM D5185(m)	0	0	---
Magnesium	ppm	ASTM D5185(m)	0	<1	---
Calcium	ppm	ASTM D5185(m)	8	1	---
Phosphorus	ppm	ASTM D5185(m)	1325	1163	---
Zinc	ppm	ASTM D5185(m)	6	9	---
Sulfur	ppm	ASTM D5185(m)	2400	2087	---
Lithium	ppm	ASTM D5185(m)		<1	---

## CONTAMINANTS

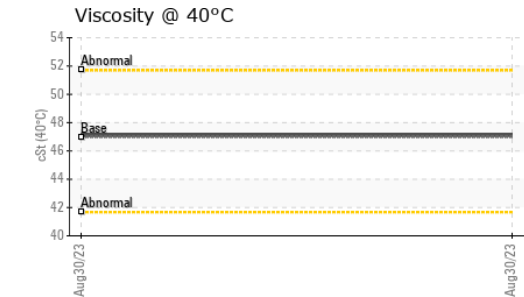
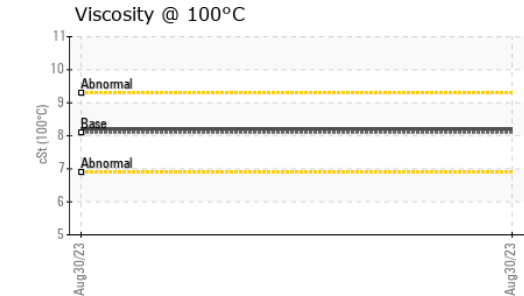
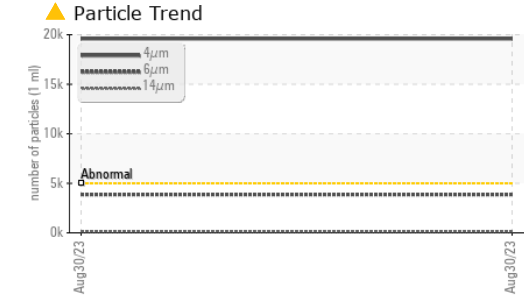
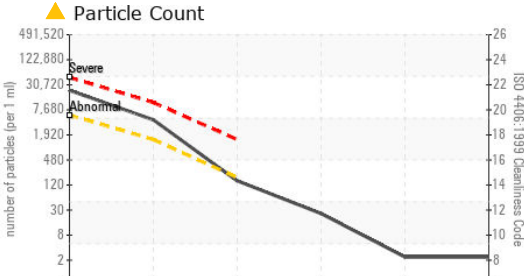
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	3	---
Sodium	ppm	ASTM D5185(m)		<1	---
Potassium	ppm	ASTM D5185(m)	>20	0	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	---
Nitration	Abs/cm	ASTM D7624*		3.9	---
Sulfation	Abs/.1mm	ASTM D7415*		151.7	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	1.1	---



# OIL ANALYSIS REPORT



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 19591	---	---
Particles >6µm	ASTM D7647	>1300	▲ 3864	---	---
Particles >14µm	ASTM D7647	>160	134	---	---
Particles >21µm	ASTM D7647	>40	22	---	---
Particles >38µm	ASTM D7647	>10	2	---	---
Particles >71µm	ASTM D7647	>3	2	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/19/14	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	142.0	---	---

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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	47.0	47.1	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	8.1	8.2	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	145	148	---	---

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



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PP  
**Lab Number** : 02579839  
**Unique Number** : 5632899  
**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  
 j.roy@sinto.ca  
 T: (418)227-6442  
 F: (418)228-5592

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

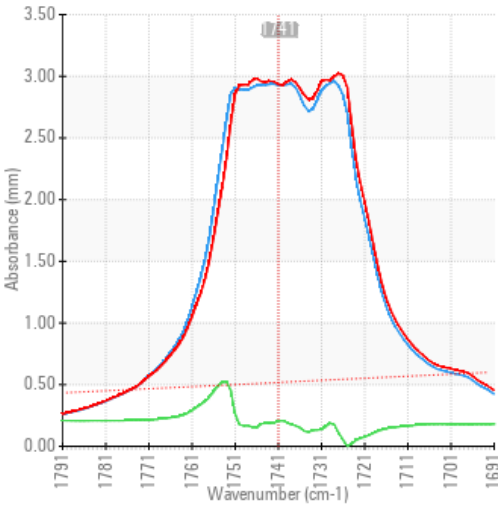


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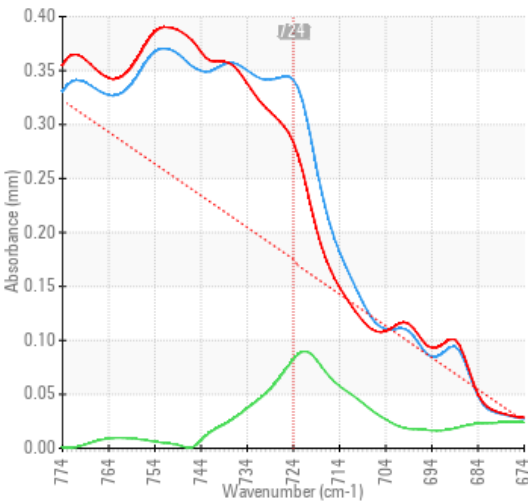
## SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	6	<b>9</b>	---	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	<b>1.1</b>	---	---

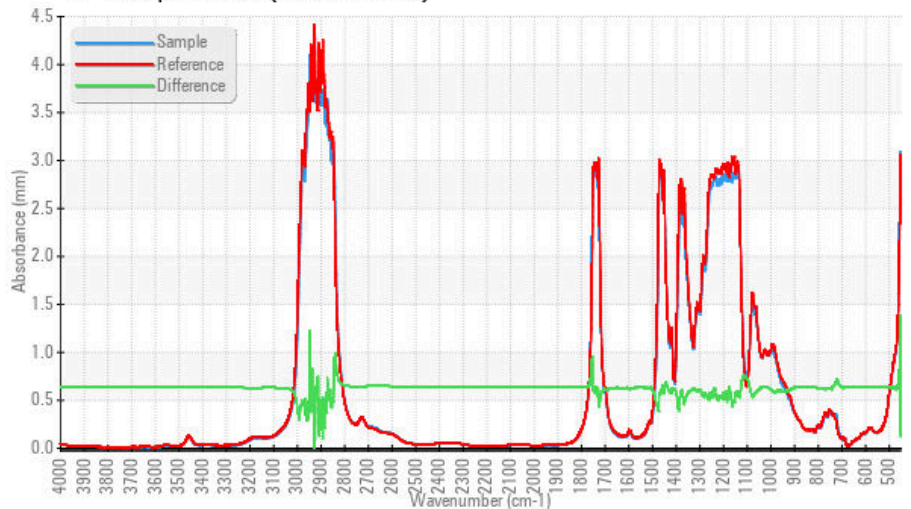
### FT-IR - Esters I



### FT-IR - Esters II



### FT-IR Spectrum (Absorbance)



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