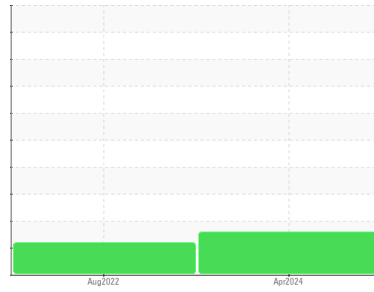




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Area

**NORASCON [02548846]**

Machine Id

**KOMATSU PC360CC1-11 A38498**

Component

**Hydraulic System**

Fluid

**PANOLIN HLP SYNTH 46 (365 LTR)**

### DIAGNOSIS

#### Recommendation

Nous recommandons le remplacement des filtres de ce composant. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

#### Wear

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

#### Contamination

Il y a une légère quantité de limon (particules de 4 à 14 microns) dans l'huile. Il y a une faible concentration (<5.0%) d'huile minérale présente dans le fluide.

#### Fluid Condition

Le AN est acceptable pour ce fluide. L'état de l'huile permet d'en prolonger l'utilisation.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0893594</b>	WC	---
Sample Date	Client Info		<b>11 Apr 2024</b>	18 Aug 2022	---
Machine Age	hrs	Client Info	<b>3841</b>	2176	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ATTENTION</b>	ATTENTION	---

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	<b>3</b>	<1	---
Chromium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>10	<b>0</b>	0	---
Lead	ppm	ASTM D5185(m)	>10	<b>13</b>	<1	---
Copper	ppm	ASTM D5185(m)	>75	<b>2</b>	<1	---
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	2	---
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	---
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	---
Magnesium	ppm	ASTM D5185(m)	0	<b>1</b>	<1	---
Calcium	ppm	ASTM D5185(m)	0	<b>21</b>	15	---
Phosphorus	ppm	ASTM D5185(m)	1700	<b>1441</b>	1599	---
Zinc	ppm	ASTM D5185(m)	0	<b>42</b>	17	---
Sulfur	ppm	ASTM D5185(m)	1350	<b>1619</b>	1632	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

### CONTAMINANTS

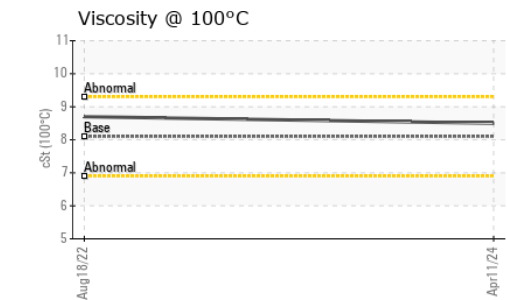
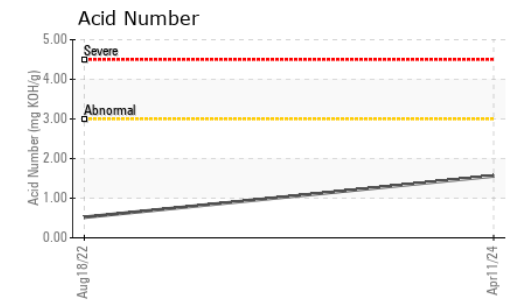
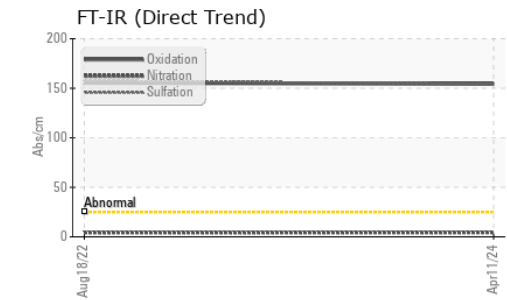
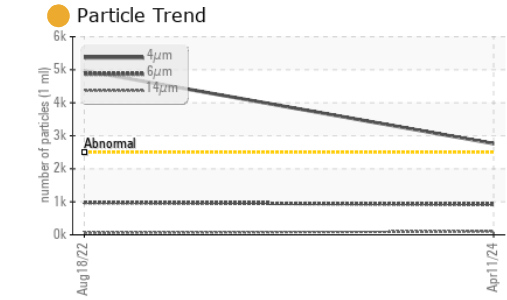
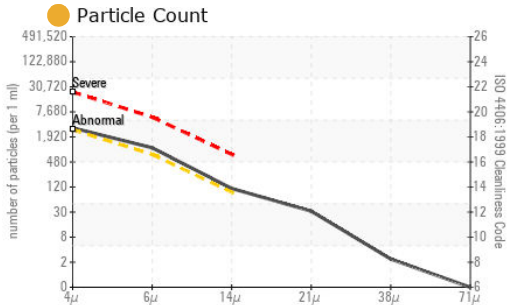
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	---
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Water	%	ASTM D6304*	>0.05	<b>0.053</b>	0.041	---
ppm Water	ppm	ASTM D6304*	>500	<b>530</b>	410.5	---

### INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	---
Nitration	Abs/cm	ASTM D7624*		<b>4.3</b>	4.2	---
Sulfation	Abs/.1mm	ASTM D7415*		<b>154.2</b>	157.5	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	<b>&lt;5.0</b>	<5.0	---



# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0893594 **Received** : 12 Apr 2024  
**Lab Number** : 02628616 **Tested** : 15 Apr 2024  
**Unique Number** : 5761748 **Diagnosed** : 15 Apr 2024 - Bill Quesnel  
**Test Package** : MOB 2 ( Additional Tests: TAN Man )

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.

**Envirolin Canada**  
 520 rue Adanac  
 Quebec, QC  
 CA G1C 7B7  
 Contact: Patrick Levesque  
 patrick.levesque@envirolin.com  
 T: (418)623-1216  
 F: (418)660-8889

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	● 2763	● 4969	---
Particles >6µm	ASTM D7647	>640	● 923	● 978	---
Particles >14µm	ASTM D7647	>80	● 98	60	---
Particles >21µm	ASTM D7647	>20	28	10	---
Particles >38µm	ASTM D7647	>4	2	1	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	● 19/17/14	● 19/17/13	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	154.2	155.2	---
Acid Number (AN)	mg KOH/g	ASTM D974*	1.56	0.52	---

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 D2729(m)	47.0	46.5	---
Visc @ 100°C	cSt	ASTM D2729(m)	8.1	8.7	---
Viscosity Index (VI)	Scale	ASTM D2270*	146	168	---

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



# MINERAL OIL CONTENT REPORT

PASS

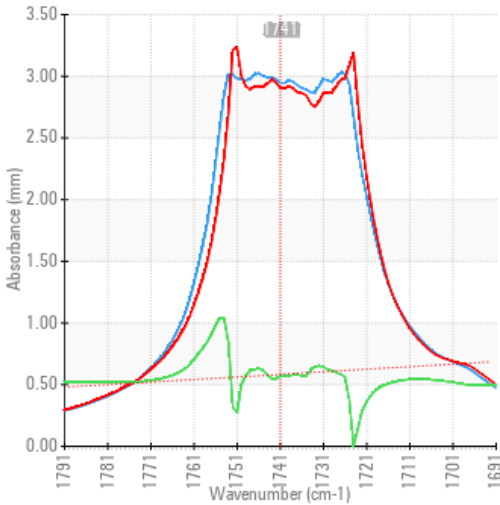


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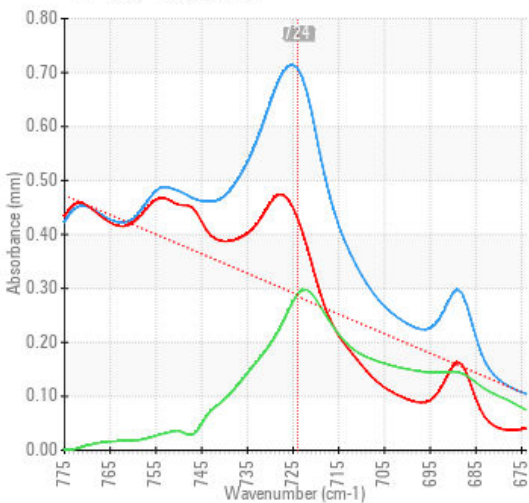
## SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	0	<b>42</b>	17	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	<b>&lt;5.0</b>	<5.0	---

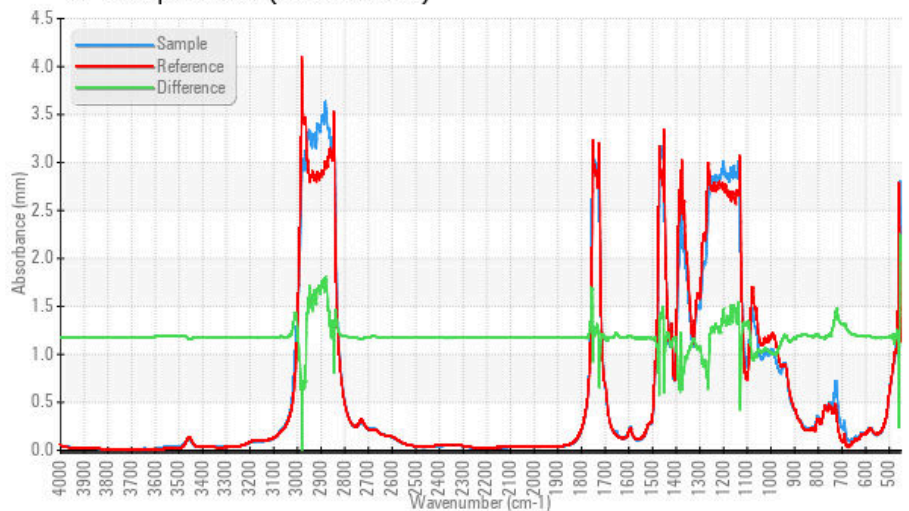
### FT-IR - Esters I



### FT-IR - Esters II



### FT-IR Spectrum (Absorbance)



ISO 17025:2017  
 Accredited  
 Laboratory

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