



# OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES

Area

**FORAGE FTE [02642441]**

Machine Id

**FORMOST DR/12 14-382 (S/N 1NKDL40X7DJ960413)**

Component

**Hydraulic System**

Fluid

**PANOLIN HLP SYNTH 32 (--- LTR)**

## 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.

### 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 (<5.0%) d'huile minérale présente dans le fluide. La teneur en eau est négligeable. La propreté du système est supérieure à la limite acceptable pour votre objectif de propreté ISO 4406.

### Fluid Condition

Le AN est acceptable pour ce fluide. 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	<b>WC0922655</b>	---	---
Sample Date	Client Info	<b>14 Jun 2024</b>	---	---
Machine Age	hrs Client Info	<b>0</b>	---	---
Oil Age	hrs Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185(m)	>20	<b>4</b>	---	---
Chromium ppm ASTM D5185(m)	>10	<b>0</b>	---	---
Nickel ppm ASTM D5185(m)	>10	<b>&lt;1</b>	---	---
Titanium ppm ASTM D5185(m)		<b>0</b>	---	---
Silver ppm ASTM D5185(m)		<b>0</b>	---	---
Aluminum ppm ASTM D5185(m)	>10	<b>&lt;1</b>	---	---
Lead ppm ASTM D5185(m)	>10	<b>0</b>	---	---
Copper ppm ASTM D5185(m)	>75	<b>&lt;1</b>	---	---
Tin ppm ASTM D5185(m)	>10	<b>0</b>	---	---
Antimony ppm ASTM D5185(m)		<b>0</b>	---	---
Vanadium ppm ASTM D5185(m)		<b>0</b>	---	---
Beryllium ppm ASTM D5185(m)		<b>0</b>	---	---
Cadmium ppm ASTM D5185(m)		<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185(m)	0	<b>&lt;1</b>	---	---
Barium ppm ASTM D5185(m)	0	<b>0</b>	---	---
Molybdenum ppm ASTM D5185(m)	0	<b>0</b>	---	---
Manganese ppm ASTM D5185(m)	0	<b>0</b>	---	---
Magnesium ppm ASTM D5185(m)	0	<b>3</b>	---	---
Calcium ppm ASTM D5185(m)	5	<b>17</b>	---	---
Phosphorus ppm ASTM D5185(m)	1500	<b>379</b>	---	---
Zinc ppm ASTM D5185(m)	0	<b>43</b>	---	---
Sulfur ppm ASTM D5185(m)	1450	<b>1799</b>	---	---
Lithium ppm ASTM D5185(m)		<b>&lt;1</b>	---	---

## CONTAMINANTS

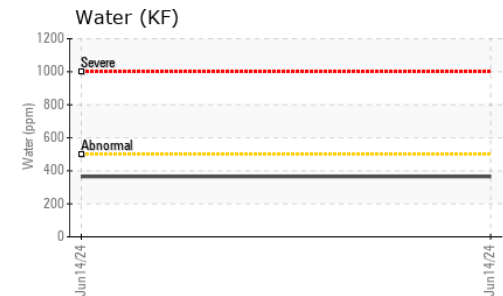
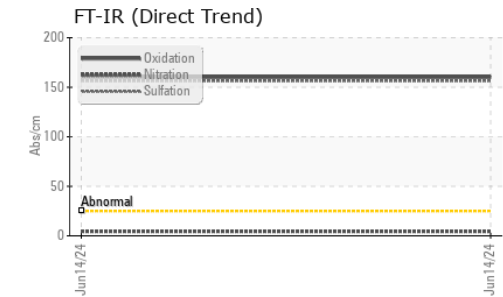
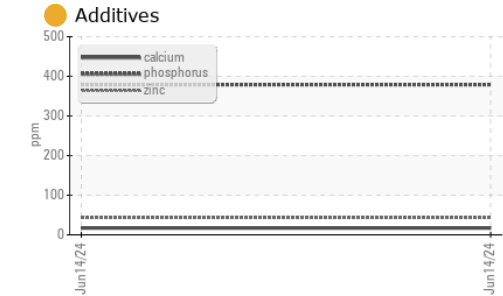
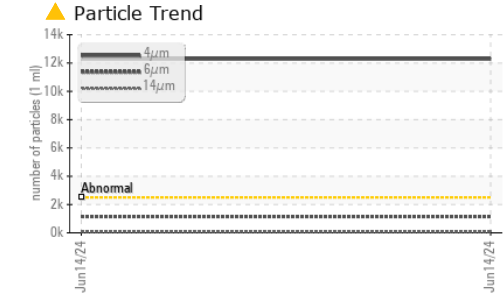
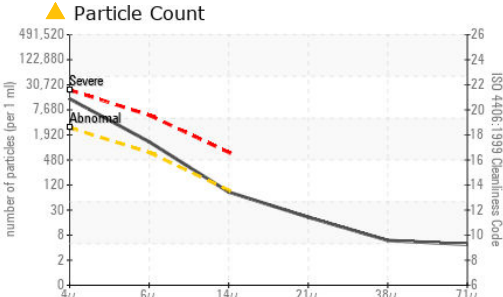
method	limit/base	current	history1	history2
Silicon ppm ASTM D5185(m)	>20	<b>2</b>	---	---
Sodium ppm ASTM D5185(m)		<b>&lt;1</b>	---	---
Potassium ppm ASTM D5185(m)	>20	<b>0</b>	---	---
Water % ASTM D6304*	>0.05	<b>0.036</b>	---	---
ppm Water ppm ASTM D6304*	>500	<b>365</b>	---	---

## INFRA-RED

method	limit/base	current	history1	history2
Soot % ASTM D7844*		<b>0</b>	---	---
Nitration Abs/cm ASTM D7624*		<b>4.5</b>	---	---
Sulfation Abs./1mm ASTM D7415*		<b>156.4</b>	---	---
Mineral Oil Content % ASTM D7418*	<5.0%	<b>&lt;5.0</b>	---	---



# OIL ANALYSIS REPORT





FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ <b>12285</b>	---	---
Particles >6µm	ASTM D7647	>640	● <b>1150</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>72</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>18</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>5</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>4</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ <b>21/17/13</b>	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	<b>160.2</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*	<b>0.33</b>	---	---

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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	30.6	<b>31.9</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	5.9	<b>6.8</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	140	<b>179</b>	---	---

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.** : WC0922655 **Received** : 17 Jun 2024  
**Lab Number** : **02642443** **Tested** : 19 Jun 2024  
**Unique Number** : 5799982 **Diagnosed** : 24 Jun 2024 - Bill Quesnel  
**Test Package** : MOB 2 ( Additional Tests: TAN Man )

**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

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



Area

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Machine Id

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Component

**Hydraulic System**

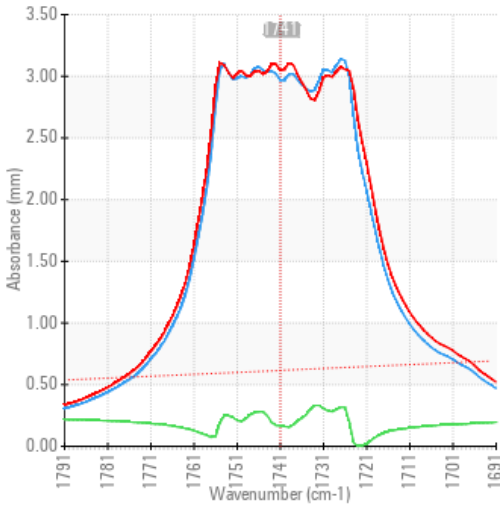
Fluid

**PANOLIN HLP SYNTH 32 (--- LTR)**

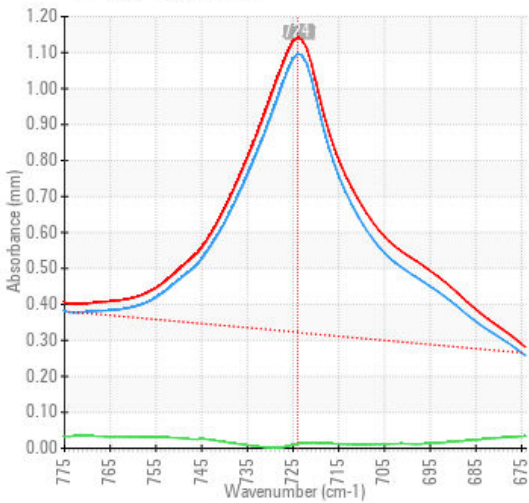
## SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	0	<span style="color: orange;">●</span> 43	---	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	<b>&lt;5.0</b>	---	---

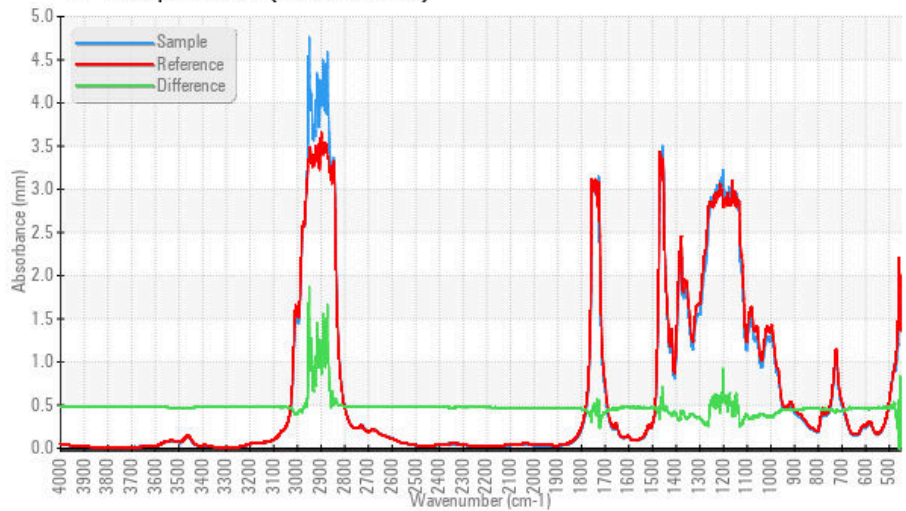
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



ISO 17025:2017  
Accredited  
Laboratory

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