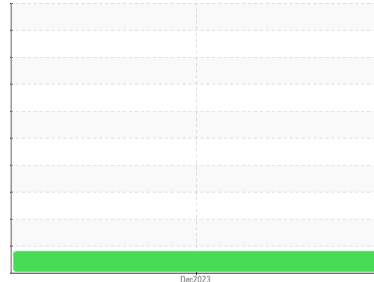




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
[02602069]

Machine Id
TOTE

Component
Hydraulic System

Fluid
PANOLIN HLP SYNTH 46 (--- GAL)

DIAGNOSIS

▲ Recommendation

Il s'agit du relevé de base de l'échantillon soumis. Le fluide n'était pas spécifié, toutefois, une comparaison avec d'autres fluides indique que ce fluide est du PANOLIN HLP SYNTH 46. Veuillez confirmer.

Wear

{sans objet}

▲ Contamination

Il y a une quantité modérée de particules (de 4 microns) dans l'huile.

Fluid Condition

{sans objet}

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC	---	---
Sample Date	Client Info		07 Dec 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ATTENTION	---	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	0	---
Chromium	ppm	ASTM D5185(m)	>10	0	---
Nickel	ppm	ASTM D5185(m)	>10	0	---
Titanium	ppm	ASTM D5185(m)		0	---
Silver	ppm	ASTM D5185(m)		<1	---
Aluminum	ppm	ASTM D5185(m)	>10	<1	---
Lead	ppm	ASTM D5185(m)	>10	<1	---
Copper	ppm	ASTM D5185(m)	>75	1	---
Tin	ppm	ASTM D5185(m)	>10	<1	---
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)	0	2	---
Barium	ppm	ASTM D5185(m)	0	<1	---
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)	0	3	---
Phosphorus	ppm	ASTM D5185(m)	1700	1188	---
Zinc	ppm	ASTM D5185(m)	0	14	---
Sulfur	ppm	ASTM D5185(m)	1350	1194	---
Lithium	ppm	ASTM D5185(m)		<1	---

CONTAMINANTS

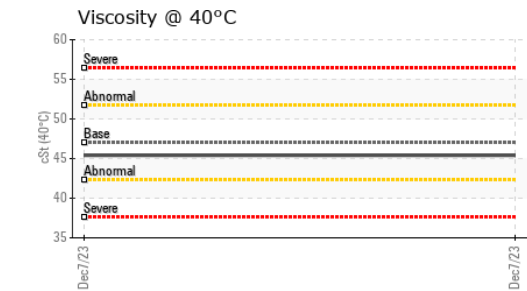
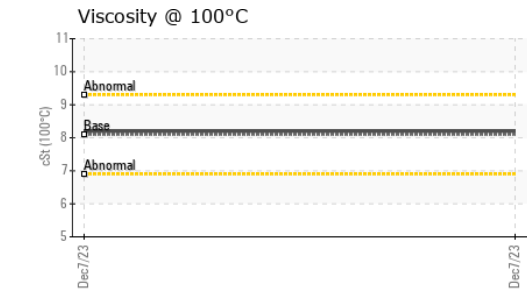
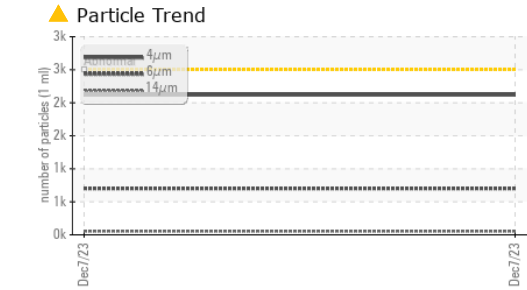
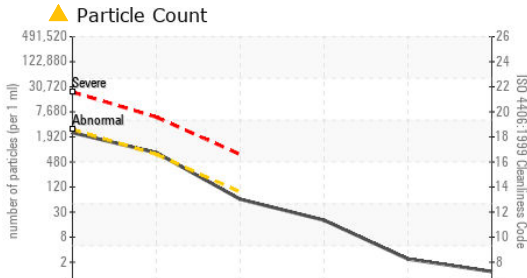
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<1	---
Sodium	ppm	ASTM D5185(m)		1	---
Potassium	ppm	ASTM D5185(m)	>20	0	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	---
Nitration	Abs/cm	ASTM D7624*		4.0	---
Sulfation	Abs./1mm	ASTM D7415*		154.7	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	<5.0	---



OIL ANALYSIS REPORT



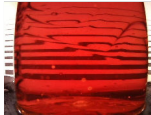

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	2119	---	---
Particles >6µm	ASTM D7647	>640	▲ 702	---	---
Particles >14µm	ASTM D7647	>80	54	---	---
Particles >21µm	ASTM D7647	>20	17	---	---
Particles >38µm	ASTM D7647	>4	2	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 18/17/13	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	151.5	---	---

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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	47.0	45.4	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	8.1	8.2	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	146	156	---	---

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



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : **02602075**
Unique Number : 5695160
Test Package : TEST (Additional Tests: FT-IR, ICP, KV100, KV40, Mineral Oil Content, PRTCOUNT, VI, Visual)

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
[02602069]

Machine Id
TOTE

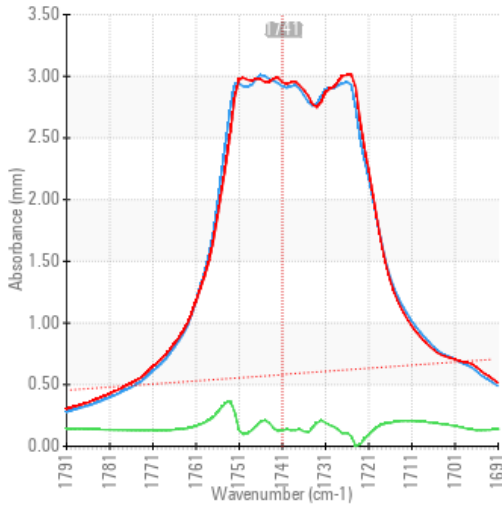
Component
Hydraulic System

Fluid
PANOLIN HLP SYNTH 46 (--- GAL)

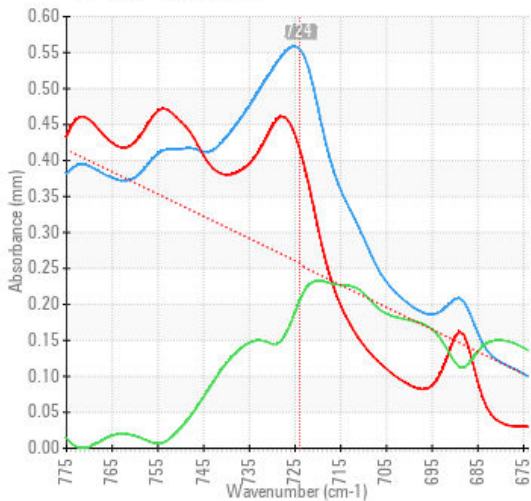
SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	0	14	---	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	<5.0	---	---

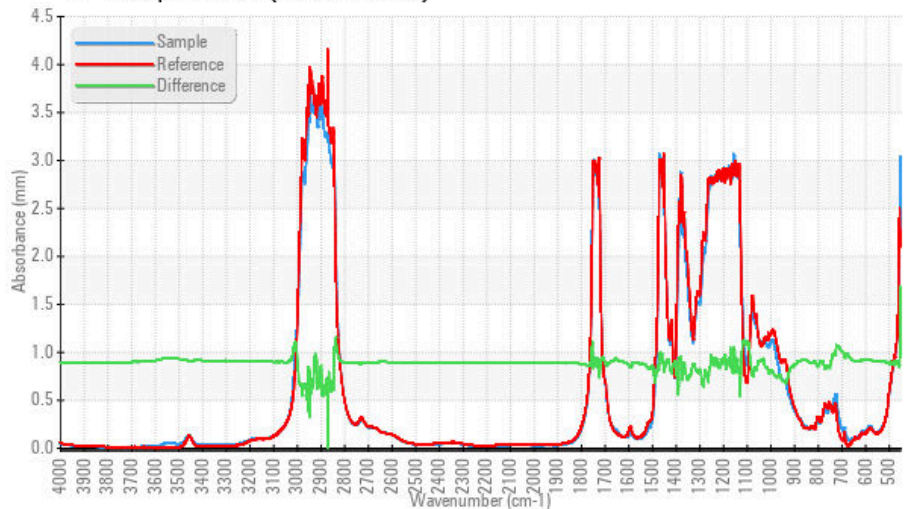
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02602075
Unique Number : 5695160
Test Package : TEST (Additional Tests: FT-IR, ICP, KV100, KV40, Mineral Oil Content, PRTCOUNT, VI, Visual)

Received : 08 Dec 2023
Diagnosed : 13 Dec 2023
Diagnostician : Bill Quesnel

Envirolin Canada
 520 rue Adanac
 Quebec, QC
 CA G1C 7B7

Contact: Patrick Levesque
 patrick.levesque@envirolin.com

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