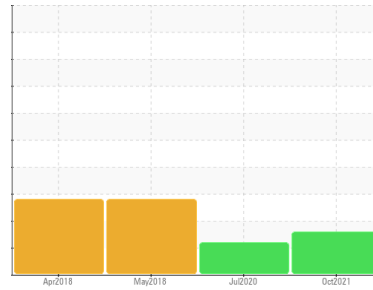




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
BETON PROVINCIAL [02431593]
 Machine Id
2018 VAN AALST BULKHANDLING 1614-51
 Component
Hydraulic System
 Fluid
PANOLIN HLP SYNTH 32 (1000 LTR)

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. 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 38 microns) dans l'huile. Il n'y a pas d'huile minérale présente dans le fluide. 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'état de l'huile permet d'en prolonger l'utilisation.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC	WC	WC
Sample Date	Client Info	20 Oct 2021	16 Jul 2020	15 May 2018
Machine Age	hrs	4000	2000	50
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >20	3	4	<1
Chromium	ppm	ASTM D5185(m) >10	<1	<1	0
Nickel	ppm	ASTM D5185(m)	<1	0	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	<1	0	0
Aluminum	ppm	ASTM D5185(m) >10	<1	<1	0
Lead	ppm	ASTM D5185(m) >10	<1	<1	<1
Copper	ppm	ASTM D5185(m) >75	<1	<1	<1
Tin	ppm	ASTM D5185(m) >10	<1	<1	2
Antimony	ppm	ASTM D5185(m)	<1	<1	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	4	4	9
Barium	ppm	ASTM D5185(m)	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0
Manganese	ppm	ASTM D5185(m)	<1	<1	0
Magnesium	ppm	ASTM D5185(m)	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	6	6	13
Phosphorus	ppm	ASTM D5185(m)	1060	▲ 846	▲ 854
Zinc	ppm	ASTM D5185(m)	39	▲ 33	▲ 25
Sulfur	ppm	ASTM D5185(m)	1258	1167	▲ 994
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >20	3	4	5
Sodium	ppm	ASTM D5185(m)	0	<1	0
Potassium	ppm	ASTM D5185(m) >20	<1	<1	<1

INFRA-RED

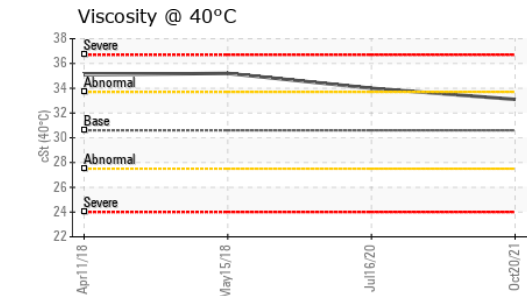
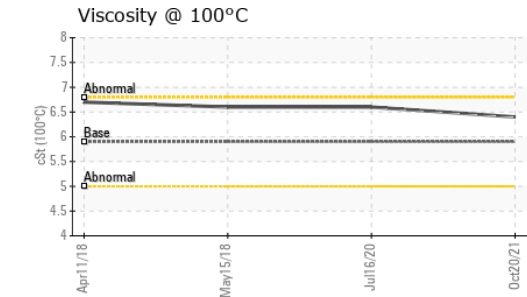
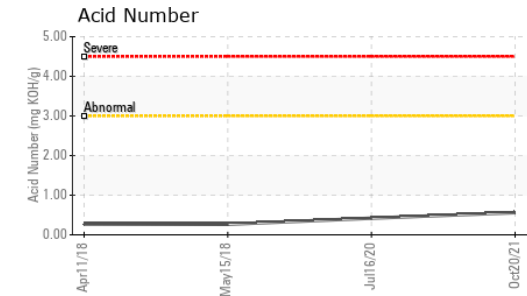
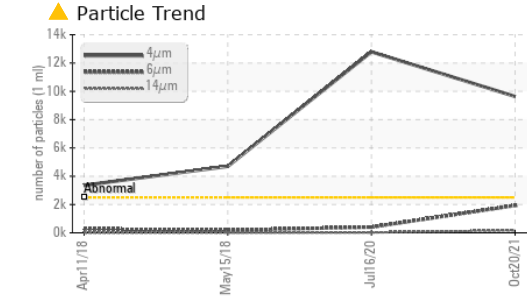
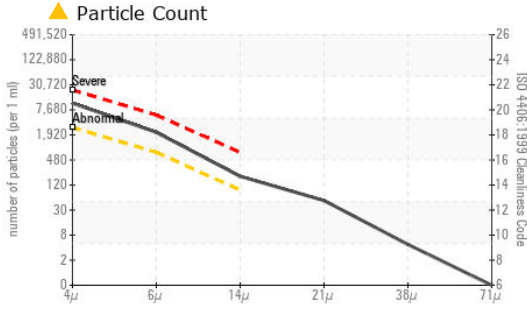
method	limit/base	current	history1	history2	
Mineral Oil Content	%	ASTM D7418* <5.0%	0.0	0.0	▲ 5.82

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >2500	▲ 9637	▲ 12791	▲ 4698
Particles >6µm	ASTM D7647 >640	▲ 1933	404	182
Particles >14µm	ASTM D7647 >80	▲ 171	22	11
Particles >21µm	ASTM D7647 >20	▲ 45	9	3
Particles >38µm	ASTM D7647 >4	4	2	0
Particles >71µm	ASTM D7647 >3	0	2	0
Oil Cleanliness	ISO 4406 (c) >18/16/13	▲ 20/18/15	▲ 21/16/12	▲ 19/15/11



OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.56	0.42	0.266
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	30.6	33.1	34.0	35.2
Visc @ 100°C	cSt	ASTM D7279(m)	5.9	6.4	6.6	6.6
Viscosity Index (VI)	Scale	ASTM D2270*	140	148	153	145

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : **02451802**
Unique Number : 5303340
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



MINERAL OIL CONTENT REPORT

PASS

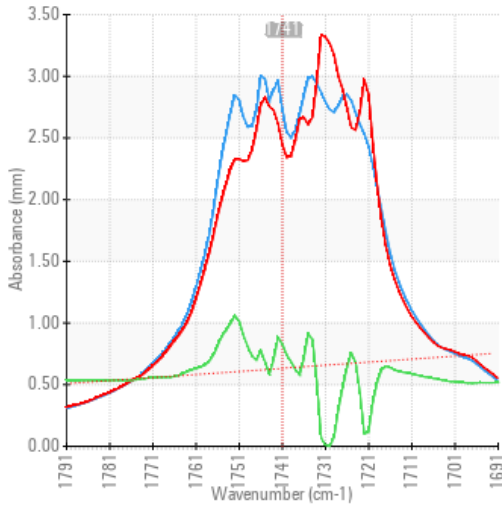


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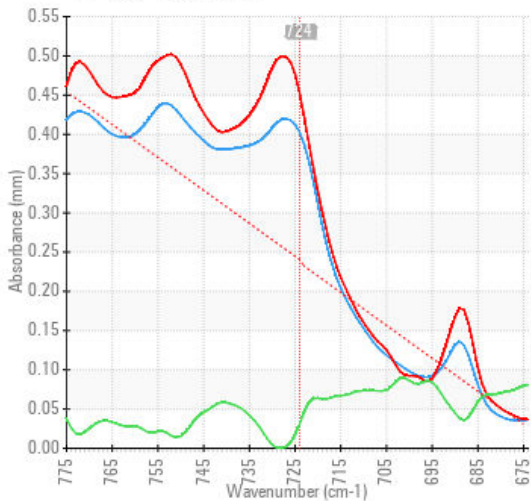
SPECTRAL ANALYSIS

	method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	39	▲ 33	▲ 25
Mineral Oil Content	%	ASTM D7418*	0.0	0.0	▲ 5.82

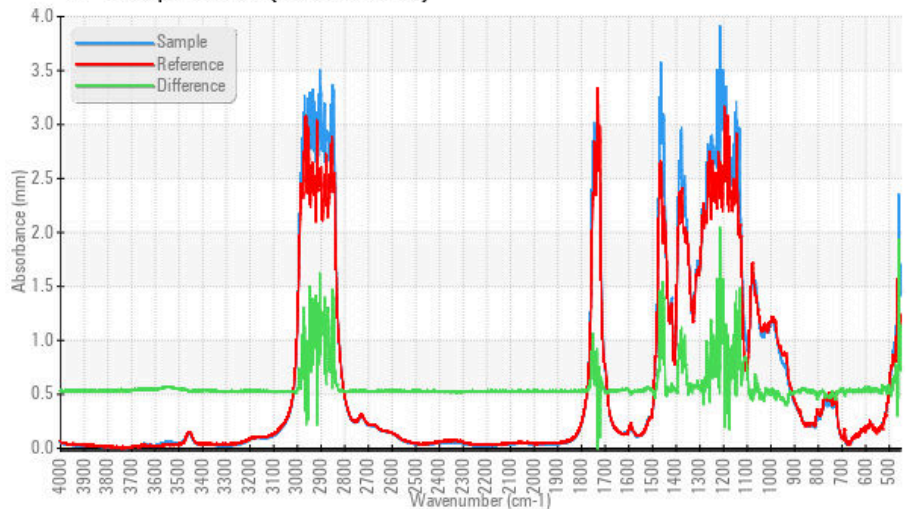
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02451802
Unique Number : 5303340
Test Package : MOB 2 (Additional Tests: TAN Man)

Received : 22 Oct 2021
Diagnosed : 28 Oct 2021
Diagnostician : Bill Quesnel

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