

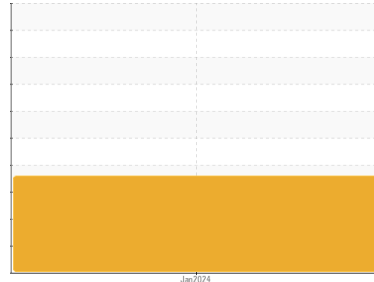


OIL ANALYSIS REPORT



Area
EXCAVATION PIEKOULAGAMI [02610488]
 Machine Id
CATERPILLAR 966K CAT0966KVTF501291
 Component
Hydraulic System
 Fluid
KLONDIKE ENVIRO AW 32 (317 LTR)

Sample Rating Trend



CONTAMINANT



DIAGNOSIS

Recommendation

Nous recommandons le remplacement des filtres de ce composant. Confirmez la source du lubrifiant utilisé pour l'appoint/remplissage.

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 concentration modérée (8.0%) d'huile minérale présente dans le fluide.

Fluid Condition

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC	---	---
Sample Date	Client Info	18 Jan 2024	---	---
Machine Age	hrs Client Info	14571	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	---	---

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)	0	---	---
Silver	ppm ASTM D5185(m)	0	---	---
Aluminum	ppm ASTM D5185(m) >10	<1	---	---
Lead	ppm ASTM D5185(m) >10	0	---	---
Copper	ppm ASTM D5185(m) >75	<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) 0	13	---	---
Barium	ppm ASTM D5185(m) 0	0	---	---
Molybdenum	ppm ASTM D5185(m) 0	0	---	---
Manganese	ppm ASTM D5185(m)	0	---	---
Magnesium	ppm ASTM D5185(m) 0	10	---	---
Calcium	ppm ASTM D5185(m) 10	▲ 169	---	---
Phosphorus	ppm ASTM D5185(m) 50	▲ 133	---	---
Zinc	ppm ASTM D5185(m) 5	▲ 72	---	---
Sulfur	ppm ASTM D5185(m) 250	560	---	---
Lithium	ppm ASTM D5185(m)	<1	---	---

CONTAMINANTS

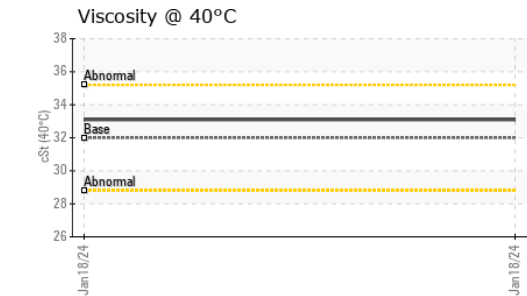
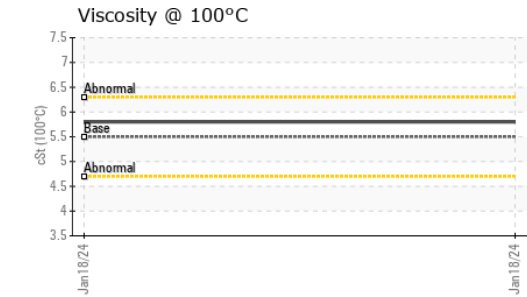
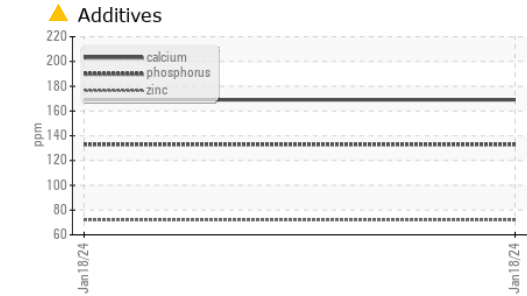
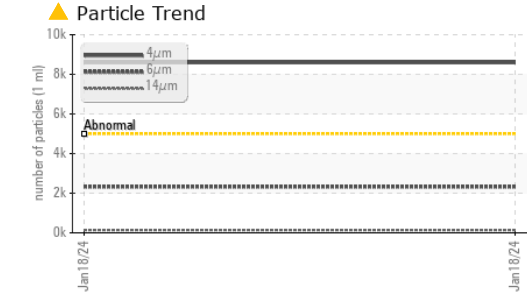
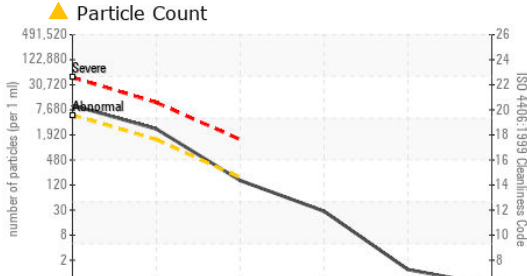
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	<1	---	---
Sodium	ppm ASTM D5185(m)	0	---	---
Potassium	ppm ASTM D5185(m) >20	<1	---	---

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	0	---	---
Nitration	Abs/cm ASTM D7624*	2.2	---	---
Sulfation	Abs/.1mm ASTM D7415*	10.9	---	---
Mineral Oil Content	% ASTM D7418* <5.0%	▲ 8.0	---	---



OIL ANALYSIS REPORT



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 8593	---	---
Particles >6µm	ASTM D7647	>1300	▲ 2329	---	---
Particles >14µm	ASTM D7647	>160	136	---	---
Particles >21µm	ASTM D7647	>40	25	---	---
Particles >38µm	ASTM D7647	>10	1	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 20/18/14	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	2.8	---	---

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*	>0.1	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	32.0	33.1	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	5.5	5.8	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	108	117	---	---

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. : WC
Lab Number : 02610489
Unique Number : 5711575
Test Package : MOB 2 (Additional Tests: FT-IR, KV100, Mineral Oil Content, VI)
Received : 22 Jan 2024
Diagnosed : 25 Jan 2024
Diagnostician : Bill Quesnel

Guydrolic Services Inc.
 595 Rue Saint-Cyrille
 Normandin, QC
 CA G8M 4H3
 Contact: Vital Turcotte
 vturcotte@guydrolic.com
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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

FAIL



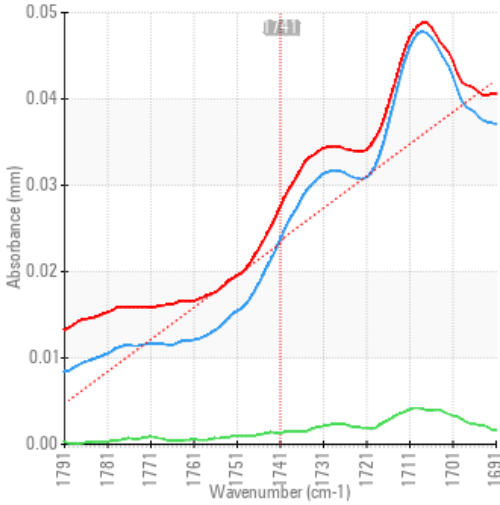
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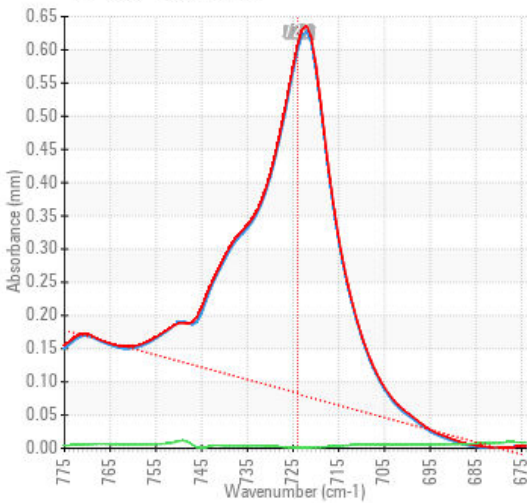
SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	5	▲ 72	---	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	▲ 8.0	---	---

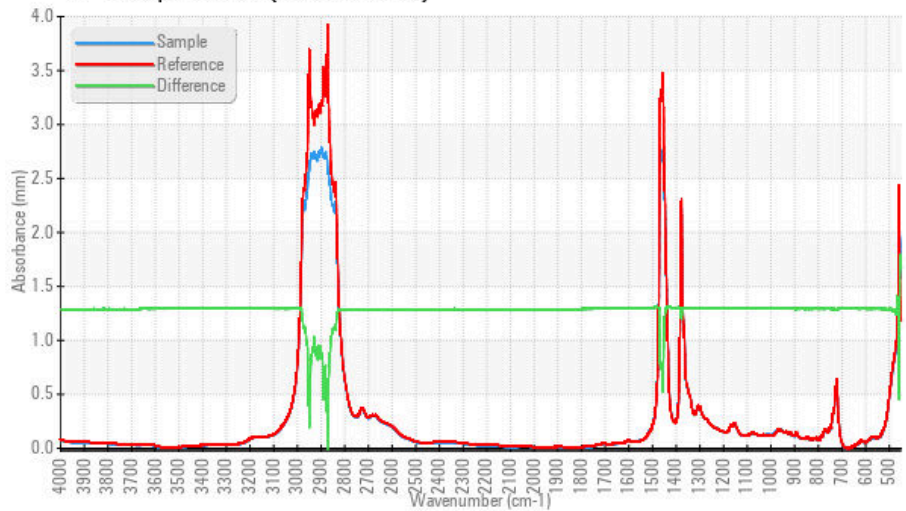
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



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