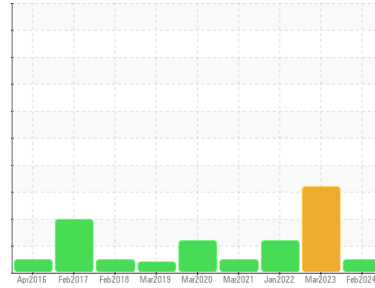




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
MASKIMO CONSTRUCTION INC [02623868]
 Machine Id
2013 KOMATSU PC210LC10 3163 (S/N 450257)
 Component
Hydraulic System
 Fluid
PANOLIN HLP SYNTH 46 (234 LTR)

DIAGNOSIS

Recommendation

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 faible concentration (<5.0%) d'huile minérale présente dans le fluide. La propreté du système est acceptable pour votre objectif de propreté ISO 4406. La teneur en eau est négligeable. La propreté du système et du fluide est acceptable.

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	22 Feb 2024	21 Mar 2023	18 Jan 2022
Machine Age	hrs	11500	10886	9600
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >20	5	10	6
Chromium	ppm	ASTM D5185(m) >10	4	7	3
Nickel	ppm	ASTM D5185(m) >10	0	<1	<1
Titanium	ppm	ASTM D5185(m)	0	<1	0
Silver	ppm	ASTM D5185(m)	0	0	<1
Aluminum	ppm	ASTM D5185(m) >10	<1	<1	<1
Lead	ppm	ASTM D5185(m) >10	0	<1	<1
Copper	ppm	ASTM D5185(m) >75	<1	<1	<1
Tin	ppm	ASTM D5185(m) >10	0	0	<1
Antimony	ppm	ASTM D5185(m)	0	0	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) 0	0	<1	1
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m) 0	0	<1	0
Magnesium	ppm	ASTM D5185(m) 0	<1	<1	0
Calcium	ppm	ASTM D5185(m) 0	7	4	3
Phosphorus	ppm	ASTM D5185(m) 1700	1433	1451	1384
Zinc	ppm	ASTM D5185(m) 0	18	21	18
Sulfur	ppm	ASTM D5185(m) 1350	1335	1370	1331
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

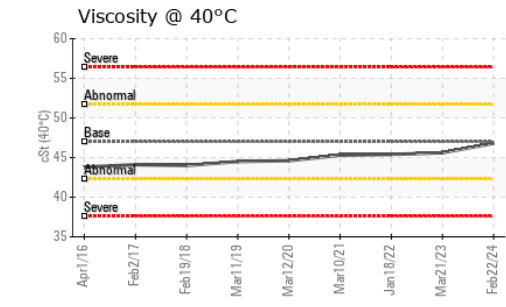
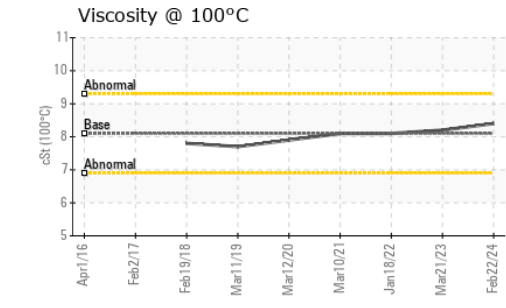
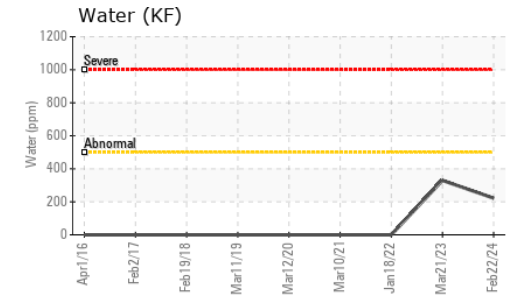
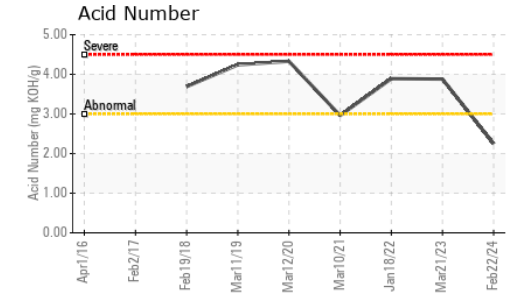
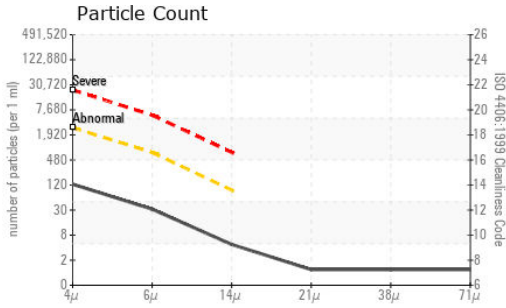
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >20	0	1	1
Sodium	ppm	ASTM D5185(m)	3	4	4
Potassium	ppm	ASTM D5185(m) >20	2	<1	<1
Water	%	ASTM D6304* >0.05	0.022	0.032	---
ppm Water	ppm	ASTM D6304* >500	222	329.7	---

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	0	0	---
Nitration	Abs/cm	ASTM D7624*	4.2	4.7	---
Sulfation	Abs/.1mm	ASTM D7415*	154.1	180.5	---
Mineral Oil Content	%	ASTM D7418* <5.0%	<5.0	<5.0	0.8



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02624053
Unique Number : 5749172
Test Package : MOB 2 (Additional Tests: TAN Man)
Received : 22 Mar 2024
Tested : 25 Mar 2024
Diagnosed : 25 Mar 2024 - Bill Quesnel

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.

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	111	3218	448
Particles >6µm	ASTM D7647	>640	28	960	61
Particles >14µm	ASTM D7647	>80	4	100	8
Particles >21µm	ASTM D7647	>20	1	32	4
Particles >38µm	ASTM D7647	>4	1	1	0
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	14/12/9	19/17/14	16/13/10

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	158.9	167.3	---
Acid Number (AN)	mg KOH/g	ASTM D974*	2.25	3.88	3.89

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	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)	46.8	45.6	45.4
Visc @ 100°C	cSt	ASTM D7279(m)	8.4	8.2	8.1
Viscosity Index (VI)	Scale	ASTM D2270*	156	155	152

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



MINERAL OIL CONTENT REPORT

PASS

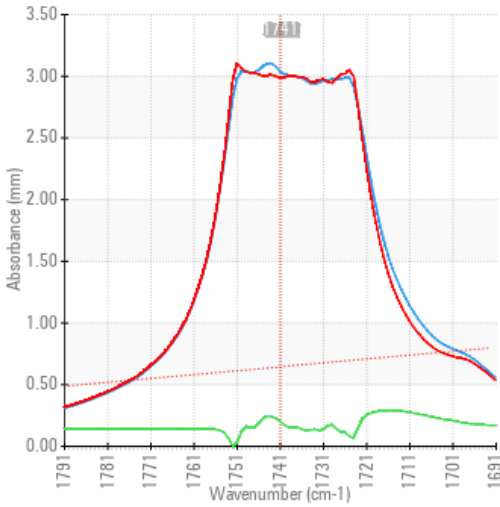


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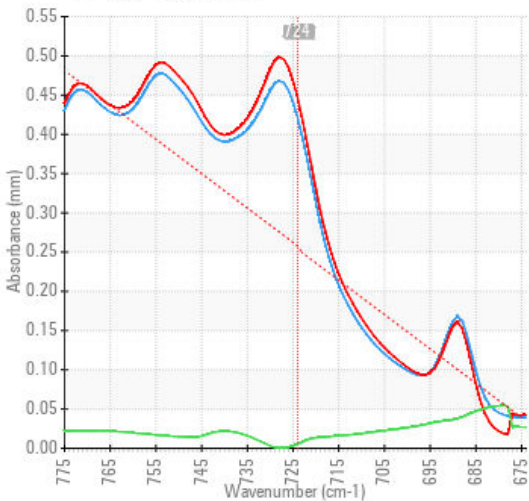
SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	0	18	21	18
Mineral Oil Content	%	ASTM D7418*	<5.0%	<5.0	<5.0	0.8

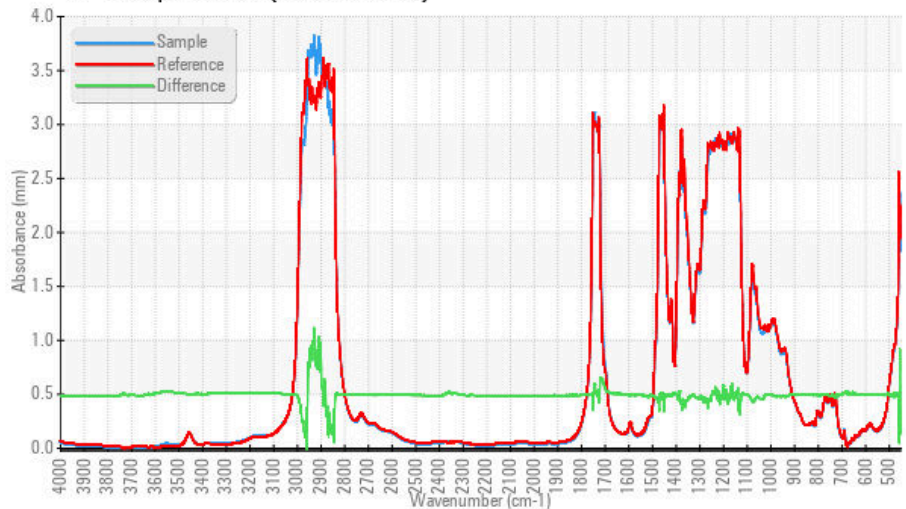
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



ISO 17025:2017
 Accredited
 Laboratory

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