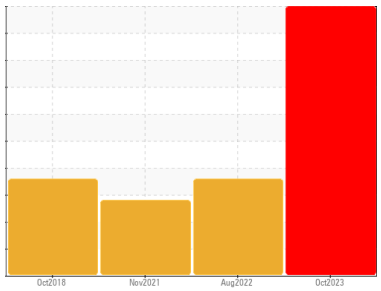
OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Area
LES EXCAVATIONS LEON CHOUINARD ET FILS [02592501]
Machine Id
JOHN DEERE 230C 05-65 (S/N FF230CX604052)
Component
Hydraulic System
Fluid
PANOLIN HLP SYNTH 46 (250 LTR)

DIAGNOSIS

Recommendation

Nous vous recommandons de vérifier tous les endroits par lesquels des contaminants peuvent pénétrer dans le système. Nous vous recommandons de remplacer le filtre et d`utiliser un système de filtrage hors-ligne afin d`améliorer la propreté du fluide. Le reniflard d`air doit être réparé. S`il n`est pas classé, nous vous recommandons de le remplacer par un reniflard à air adapté au micron et / ou au dessicant. Si évalué, nous vous recommandons de réparer / remplacer le reniflard. Échantillonner de nouveau dans 30 à 45 jours afin de contrôler la situation. L'indice d'acidité (AN) indique que votre fluide a atteint la fin de sa vie utile, veuillez procéder à un changement d'huile complet.

Wear

Le bas indice ferreux (PQ) indique que l'usure ferreuse est due à de la corrosion.

Contamination

Il y a une quantité élevée de matières particulaires (2 à 100 µm de taille) présente dans l`huile. Il y a une faible concentration (<5.0%) d'huile minérale présente dans le fluide. Concentration élevée d`eau dans l`huile. Le code de propreté du système est beaucoup plus haut que la limite acceptable pour votre objectif de propreté ISO 4406.

Fluid Condition

Le niveau de AN est beaucoup plus élevé que la limite recommandée. l`huile ne peut plus être utilisée.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC**	WC	WC
Sample Date		Client Info		**23 Oct 2023**	24 Aug 2022	03 Nov 2021
Machine Age	hrs	Client Info		**21212**	20565	20045
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*	>50	**0**	---	---
Iron	ppm	ASTM D5185(m)	>32	▲ **38**	7	6
Chromium	ppm	ASTM D5185(m)	>9	**2**	2	1
Nickel	ppm	ASTM D5185(m)	>5	**0**	0	0
Titanium	ppm	ASTM D5185(m)		**0**	<1	0
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>9	**1**	<1	<1
Lead	ppm	ASTM D5185(m)	>28	**<1**	<1	<1
Copper	ppm	ASTM D5185(m)	>50	**8**	6	7
Tin	ppm	ASTM D5185(m)	>5	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	<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

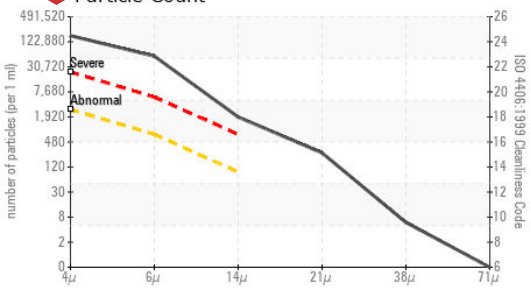
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**5**	2	2
Barium	ppm	ASTM D5185(m)	0	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)	0	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**2**	2	3
Calcium	ppm	ASTM D5185(m)	0	**12**	4	6
Phosphorus	ppm	ASTM D5185(m)	1700	**1270**	1434	1465
Zinc	ppm	ASTM D5185(m)	0	▲ **85**	56	58
Sulfur	ppm	ASTM D5185(m)	1350	**1334**	1350	1365
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>11	**4**	2	1
Sodium	ppm	ASTM D5185(m)	>21	**4**	1	<1
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	<1
Water	%	ASTM D6304*	>0.05	● **0.143**	▲ 0.059	---
ppm Water	ppm	ASTM D6304*	>500	● **1433.4**	▲ 595.0	---

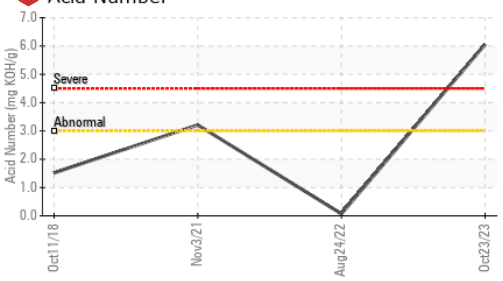
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	---
Nitration	Abs/cm	ASTM D7624*		**5.4**	4.8	---
Sulfation	Abs/.1mm	ASTM D7415*		**157.1**	155.5	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	**<5.0**	<5.0	0.0

OIL ANALYSIS REPORT

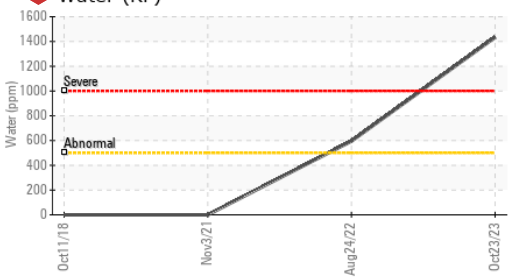
Particle Count



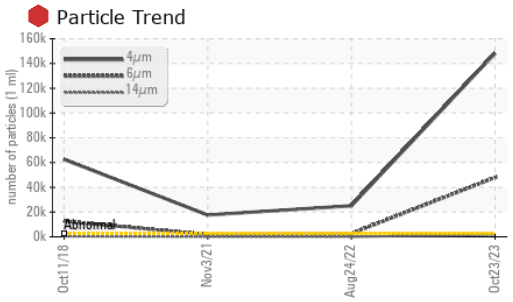
Acid Number



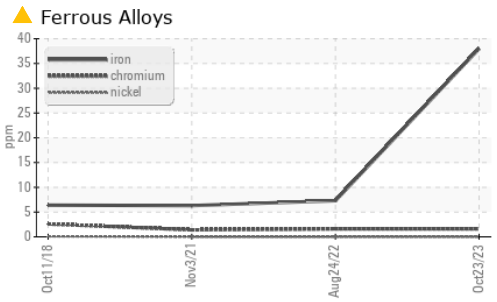
Water (KF)



Particle Trend



Ferrous Alloys

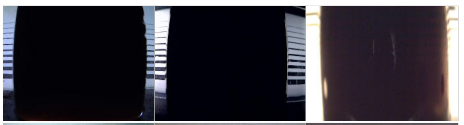


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	**148162**	25081	17597
Particles >6µm	ASTM D7647	>640	**47897**	2656	1786
Particles >14µm	ASTM D7647	>80	**1674**	29	99
Particles >21µm	ASTM D7647	>20	**231**	4	29
Particles >38µm	ASTM D7647	>4	**5**	1	2
Particles >71µm	ASTM D7647	>3	**0**	1	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	**24/23/18**	22/19/12	21/18/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		**161.1**	147.3	---
Acid Number (AN)	mg KOH/g	ASTM D974*		**6.06**	0.07	3.21

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)	47.0	**43.3**	45.6	45.9
Visc @ 100°C	cSt	ASTM D7279(m)	8.1	**7.7**	7.9	7.9
Viscosity Index (VI)	Scale	ASTM D2270*	146	**147**	144	143

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
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ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC **Received** : 27 Oct 2023
Lab Number : 02592502 **Diagnosed** : 30 Oct 2023
Unique Number : 5669581 **Diagnostician** : Bill Quesnel
Test Package : MOB 2 (Additional Tests: PQ, 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.

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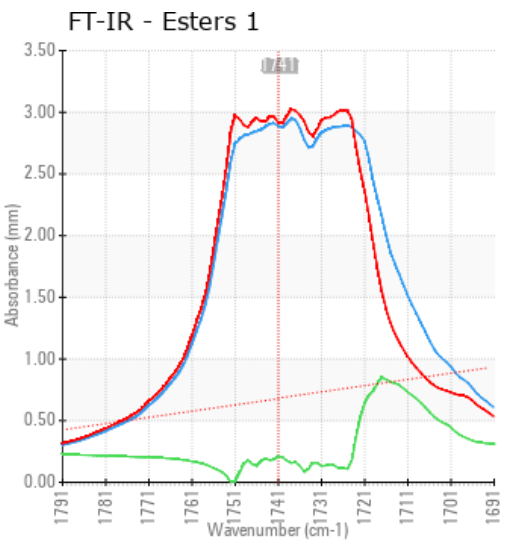
MINERAL OIL CONTENT REPORT

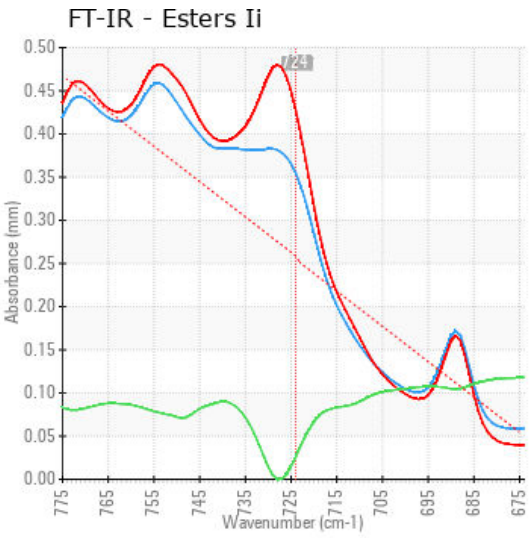
PASS

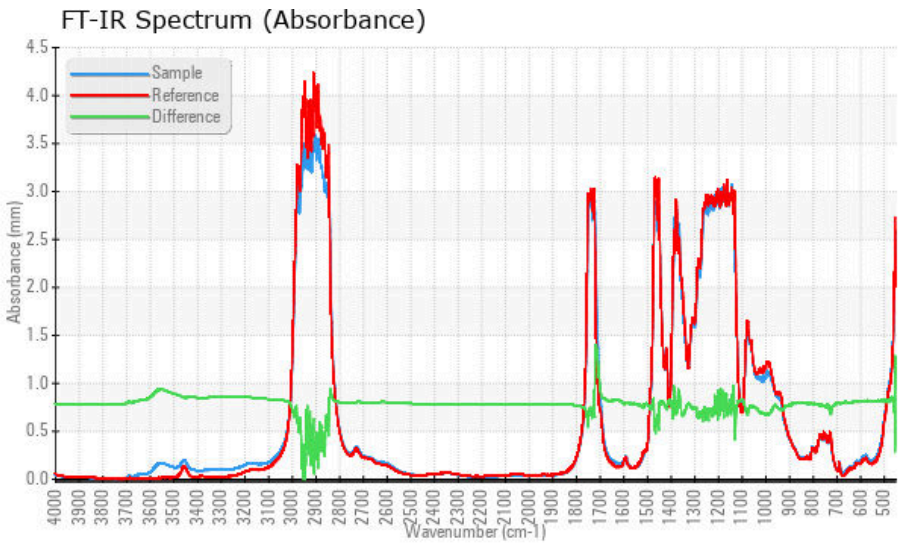
Area
LES EXCAVATIONS LEON CHOUINARD ET FILS [02592501]
Machine Id
JOHN DEERE 230C 05-65 (S/N FF230CX604052)
Component
Hydraulic System
Fluid
PANOLIN HLP SYNTH 46 (250 LTR)

SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	0	▲ **85**	56	58
Mineral Oil Content	%	ASTM D7418*	<5.0%	**<5.0**	<5.0	0.0







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