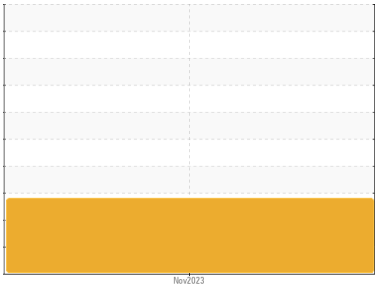
STAUFF
FILTRATION TECHNOLOGY

PROBLEM SUMMARY

Sample Rating Trend

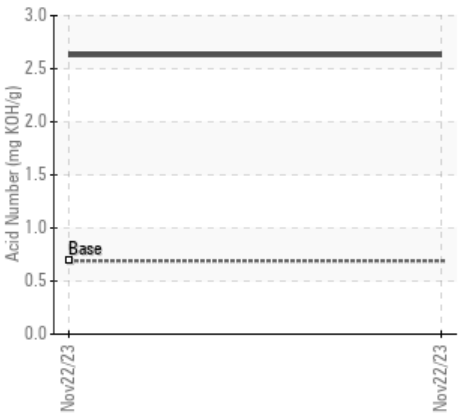


DEGRADATION

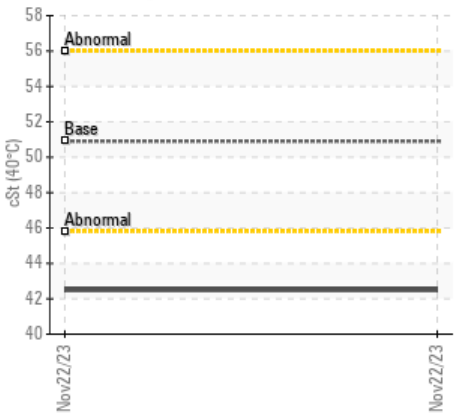
Machine Id
902336
Component
Hydraulic System
Fluid
IRVING BIO-HYDRAULIC 46 (--- GAL)

COMPONENT CONDITION SUMMARY

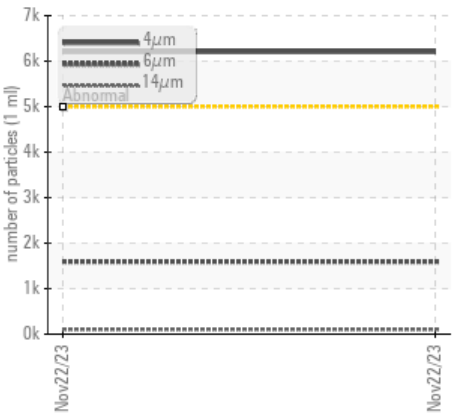
Acid Number



Viscosity @ 40°C



Particle Trend



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	---	---
Particles >4µm		ASTM D7647	>5000	▲ **6206**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **1593**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/18/14**	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*	0.69	▲ **2.63**	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	50.9	▲ **42.5**	---	---

Customer Id: UNISTE
Sample No.: ST43482
Lab Number: 02601239
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Bill Quesnel CLS,OMA II,MLA-III,LLA-I +1 (289)291-4641 x4641
Bill.Quesnel@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

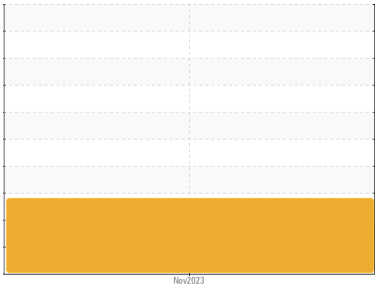
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Change Filter	---	---	?	We recommend you service the filters on this component.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

HISTORICAL DIAGNOSIS

STAUFF FILTRATION TECHNOLOGY

OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Machine Id
902336
Component
Hydraulic System
Fluid
IRVING BIO-HYDRAULIC 46 (--- GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

Fluid Condition

The AN level is above the recommended limit. The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. The oil is no longer serviceable.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**ST43482**	---	---
Sample Date		Client Info		**22 Nov 2023**	---	---
Machine Age	yrs	Client Info		**0**	---	---
Oil Age	yrs	Client Info		**3**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**ABNORMAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**2**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**0**	---	---
Nickel	ppm	ASTM D5185(m)	>20	**0**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)		**<1**	---	---
Aluminum	ppm	ASTM D5185(m)	>20	**0**	---	---
Lead	ppm	ASTM D5185(m)	>20	**<1**	---	---
Copper	ppm	ASTM D5185(m)	>20	**<1**	---	---
Tin	ppm	ASTM D5185(m)	>20	**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	**2**	---	---
Barium	ppm	ASTM D5185(m)	0	**<1**	---	---
Molybdenum	ppm	ASTM D5185(m)	0	**0**	---	---
Manganese	ppm	ASTM D5185(m)		**0**	---	---
Magnesium	ppm	ASTM D5185(m)	0	**20**	---	---
Calcium	ppm	ASTM D5185(m)		**80**	---	---
Phosphorus	ppm	ASTM D5185(m)		**188**	---	---
Zinc	ppm	ASTM D5185(m)	<50	**31**	---	---
Sulfur	ppm	ASTM D5185(m)	1500	**2977**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

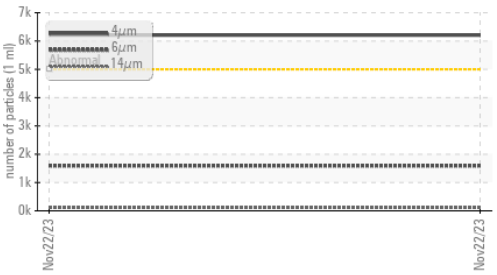
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**8**	---	---
Sodium	ppm	ASTM D5185(m)		**2**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**11**	---	---
Water	%	ASTM D6304*	>0.05	**0.034**	---	---
ppm Water	ppm	ASTM D6304*	>500	**346**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **6206**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **1593**	---	---
Particles >14µm		ASTM D7647	>160	**103**	---	---
Particles >21µm		ASTM D7647	>40	**26**	---	---
Particles >38µm		ASTM D7647	>10	**6**	---	---
Particles >71µm		ASTM D7647	>3	**3**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/18/14**	---	---

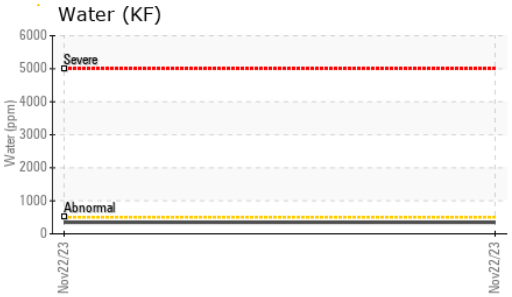
OIL ANALYSIS REPORT

STAUFF FILTRATION TECHNOLOGY

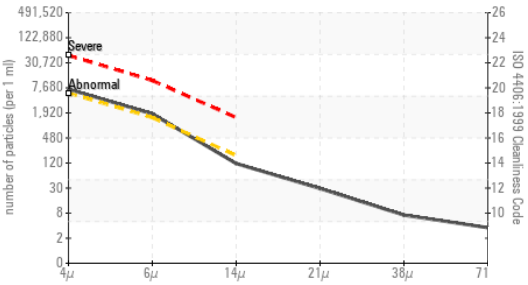
Particle Trend



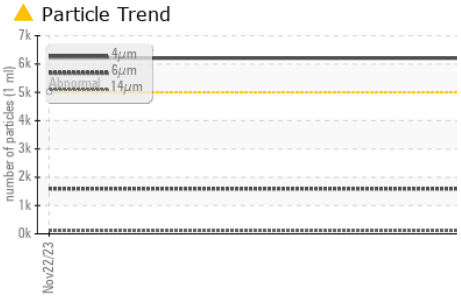
Water (KF)



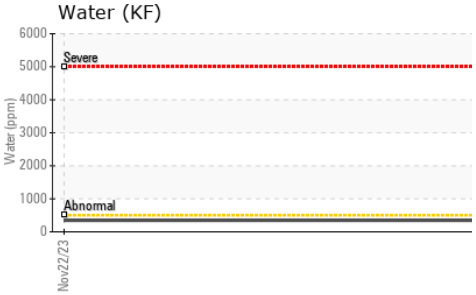
Particle Count



Particle Trend



Water (KF)



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.69	▲ **2.63**	---	---

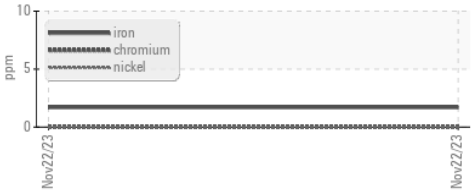
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	**NONE**	---	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	---	---
Appearance	scalar	Visual*	NORML	**NORML**	---	---
Odor	scalar	Visual*	NORML	**NORML**	---	---
Emulsified Water	scalar	Visual*	>0.05	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	50.9	▲ **42.5**	---	---

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

GRAPHS

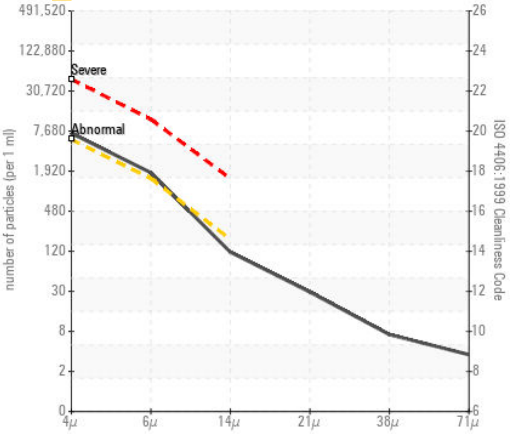
Ferrous Alloys



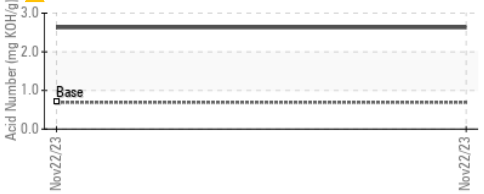
Non-ferrous Metals

Viscosity @ 40°C

Particle Count



Acid Number



CALA Testing Accreditation No. 1005078
ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : ST43482 **Received** : 06 Dec 2023
Lab Number : 02601239 **Diagnosed** : 07 Dec 2023
Unique Number : 5694324 **Diagnostician** : Bill Quesnel
Test Package : IND 2 (Additional Tests: KF, 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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