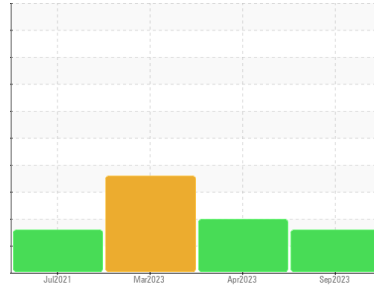


PROBLEM SUMMARY

Sample Rating Trend



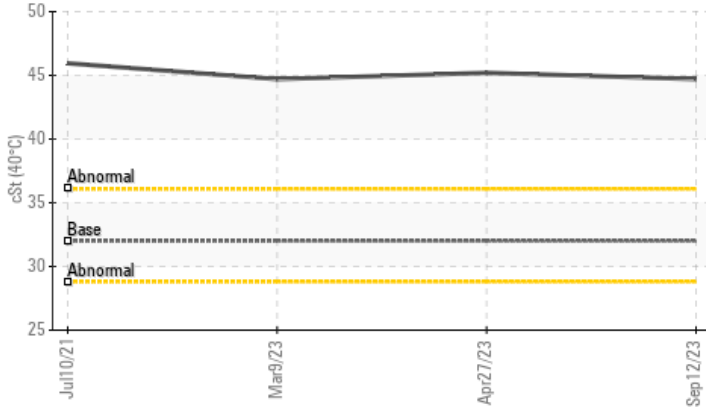
VISUAL METAL



Area
FORMALDEHYDE PLANT
Machine Id
B1 Blower East End
Component
Outboard Blower
Fluid
ROYAL PURPLE SYNFILM 32 (2 GAL)

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



RECOMMENDATION

Confirm that oil in machine is either a 32 weight oil or a 46 weight oil and confirm reference fluid on file. No other action required at this time. Resample at next normal interval.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
White Metal	scalar	*Visual	NONE	▲ LIGHT	NONE	▲ LIGHT
Visc @ 40°C	cSt	ASTM D445	32	▲ 44.7	▲ 45.2	▲ 44.7

Customer Id: HEXHOPAR
Sample No.: PLS0000744
Lab Number: 05962835
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Mike Johnson +1 (615)771-6030
mike.johnson@amrri.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

27 Apr 2023 Diag: Mike Johnson

VISCOSITY



Filter oil if possible using B6=75 filter media or better. No other action required at this time. Resample at next normal interval. Wear particles are low and acceptable. Particle contamination is elevated. Filtration can help to extend machine life. Fluid viscosity is indicating an 46 oil in use. If oil in use is an ISO 46 weight oil and you would like to change the reference on file, contact Mike.Johnson@amrri.com.

view report



09 Mar 2023 Diag: Mike Johnson

VISUAL METAL



Filter oil if possible using B6=75 filter media or better. Confirm that oil in machine is either a 32 weight oil or a 46 weight oil and confirm reference fluid on file. No other action required at this time. Resample at next normal interval. Wear particles are low and steady. Contamination is elevated and there is some visible particulate in the sample. Confirm sample port is optimally placed. Filtration can extend machine life. Fluid Viscosity is in line with an ISO 46 weight oil. The reference oil on file is an ISO 32 weight oil. Other oil health indicators are acceptable.

view report



10 Jul 2021 Diag: Mike Johnson

VISCOSITY



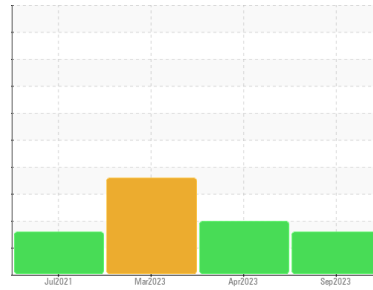
Please verify that the designated product is the proper designation for this machine. Sample appears to be ISO 46. No other corrective actions at this time. Continue to sample on the routine schedule. The wear rate is low and steady. Particulate concentration is typical for new oil. Filter if possible through B6=75 quality media or better. The viscosity appears to be an ISO 46. ISO 46 would be appropriate for a blower. There are no other lubricant issues to be concerned about. Please verify that the identified viscosity is accurate.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Area
FORMALDEHYDE PLANT
Machine Id
B1 Blower East End
Component
Outboard Blower
Fluid
ROYAL PURPLE SYNFILM 32 (2 GAL)

DIAGNOSIS

Recommendation

Confirm that oil in machine is either a 32 weight oil or a 46 weight oil and confirm reference fluid on file. No other action required at this time. Resample at next normal interval.

Wear

Wear particles are low and steady.

Contamination

There is some visible particulate in the sample. Confirm sample port is optimally placed.

Fluid Condition

Fluid Viscosity is in line with an ISO 46 weight oil. The reference oil on file is an ISO 32 weight oil. Other oil health indicators are acceptable.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	PLS0000744	PLS0000610	PLS0000597	
Sample Date	Client Info	12 Sep 2023	27 Apr 2023	09 Mar 2023	
Machine Age	mths	Client Info	18	13	1
Oil Age	mths	Client Info	18	13	0
Oil Changed	Client Info	N/A	N/A	N/A	
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL	

WEAR METALS

method	limit/base	current	history1	history2	
PQ	ASTM D8184	14	14	7	
Iron	ppm	ASTM D5185m >20	0	1	1
Chromium	ppm	ASTM D5185m >20	0	0	0
Nickel	ppm	ASTM D5185m >20	0	<1	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	0	0	<1
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	<1	<1	0
Tin	ppm	ASTM D5185m >20	0	0	0
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	0
Magnesium	ppm	ASTM D5185m 90	13	65	69
Calcium	ppm	ASTM D5185m	0	2	0
Phosphorus	ppm	ASTM D5185m	1	2	0
Zinc	ppm	ASTM D5185m	0	3	0
Sulfur	ppm	ASTM D5185m	17428	17545	19533

CONTAMINANTS

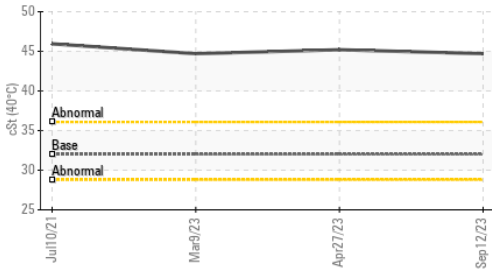
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	0	0	1
Sodium	ppm	ASTM D5185m	1	2	2
Potassium	ppm	ASTM D5185m >20	0	1	0

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	0	0	0.1
Nitration	Abs/cm	*ASTM D7624	2.3	2.5	2.8
Sulfation	Abs/.1mm	*ASTM D7415	22.3	21.4	23.8

OIL ANALYSIS REPORT

▲ Viscosity @ 40°C



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	1350	▲ 13066	▲ 14600
Particles >6µm	ASTM D7647	>640	296	▲ 2653	▲ 1758
Particles >14µm	ASTM D7647	>80	22	▲ 87	▲ 100
Particles >21µm	ASTM D7647	>20	7	12	▲ 25
Particles >38µm	ASTM D7647	>4	2	0	1
Particles >71µm	ASTM D7647	>3	2	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	18/15/12	▲ 21/19/14	▲ 21/18/14

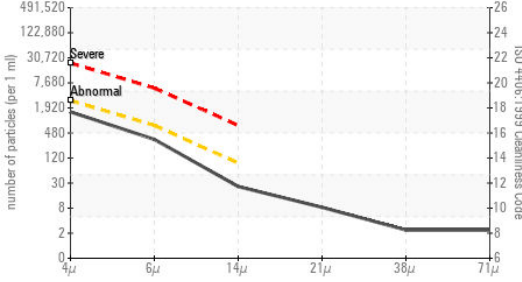
FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414		22.8	22.5	23.9
Acid Number (AN)	mg KOH/g ASTM D8045		0.24	0.29	0.40

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	▲ LIGHT	NONE	▲ LIGHT
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		NEG	NEG	NEG
Free Water	scalar *Visual		NEG	NEG	NEG

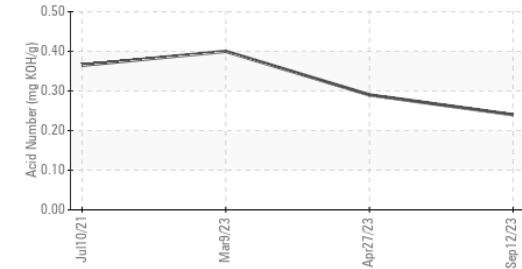
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	32	▲ 44.7	▲ 45.2	▲ 44.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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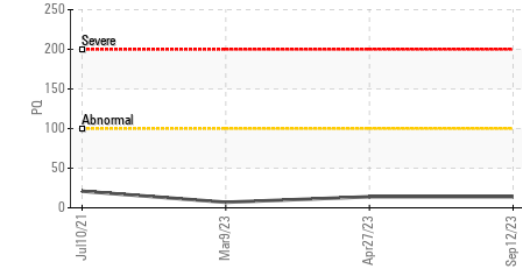
Particle Count



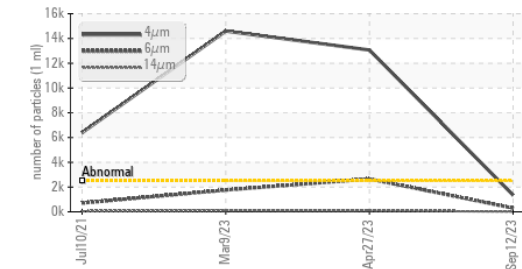
Acid Number



PQ

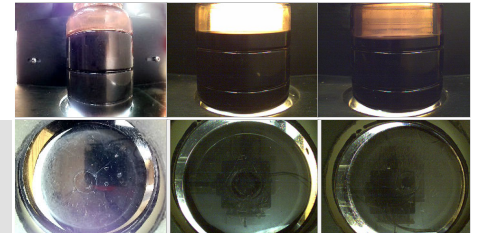


Particle Trend



Color

Bottom



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PLS0000744 **Received** : 27 Sep 2023
Lab Number : 05962835 **Diagnosed** : 02 Oct 2023
Unique Number : 10669386 **Diagnostician** : Mike Johnson
Test Package : IND 2 (Additional Tests: FT-IR, PQ, PrtCount)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

HEXION - HOPE PLANT
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 HOPE, AR
 US 71801

Contact: JOSEPH MURPHY
 joseph.murphy@hexion.com;mike.johnson@amrri.com

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