

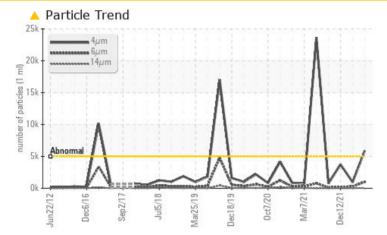
PROBLEM SUMMARY

Area SAF CONDITIONING Machine Id HPS YELLOW POLISHER LOAD/UNLOAD (S/N 07042-YLU) Component

Main Hydraulic System

ECOSAFE FR-46 (125 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status			ATTENTION	NORMAL	NORMAL		
Particles >4µm	ASTM D7647	>5000	<u> </u>	951	3732		
Oil Cleanliness	ISO 4406 (c)	>19/17/14	A 20/17/13	17/15/12	19/15/10		

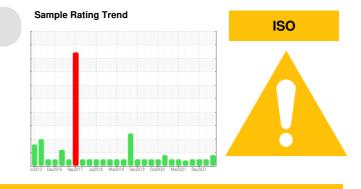
Customer Id: ALLMONSAF Sample No.: WC0730035 Lab Number: 05625183 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Don Baldridge +1 don.b505@comcast.net

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

09 Mar 2022 Diag: Don Baldridge



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



12 Dec 2021 Diag: Don Baldridge



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The

AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





21 Sep 2021 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Area SAF CONDITIONING Machine Id HPS YELLOW POLISHER LOAD/UNLOAD (S/N 07042-YLU)

Main Hydraulic System Fluid ECOSAFE FR-46 (125 GAL)

DIAGNOSIS

A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

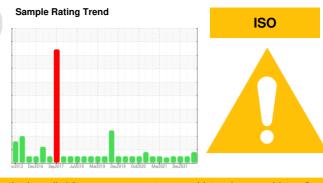
All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

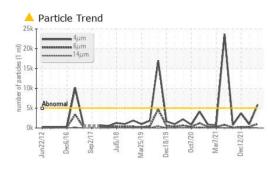
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

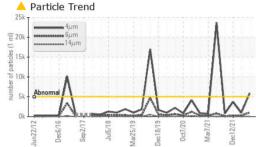


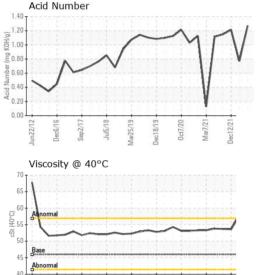
Sample NumberClient InfoWC0730035WC0633974WC0422105Sample DateClient Info22 Aug 20200 Mar 202012 Dec 2011Machine AgehrsClient Info000Oll AgeTrsClient InfoN/AN/AN/ASample StatusImageClient InfoN/AN/AN/ASample StatusImageClient InfoN/ANORMALNORMALWEAR METALSmethodImutesATTENTONNORMAL1ChromiumppmASTM 05185>20<1<1<1ChromiumppmASTM 05185>200<1<1NickelppmASTM 05185>200<1<1SilverppmASTM 05185>200<1<1LeadppmASTM 05185>200<1<1LeadppmASTM 05185>200<1<1AntimonyppmASTM 05185>200<1<1MadauimppmASTM 05185>200<10ASTM 05185>200<10<10ASTM 05185>200<10<10CopperppmASTM 05185>200<10ASTM 05185>200<100<10ASTM 05185>200<10000ASTM 05185>200<1	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 0 Oil Changed rrs Client Info N/A N/A N/A Sample Status Client Info N/A N/A N/A N/A WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 <1 <1 Chromium ppm ASTM D5185m >20 0 <1 0 Nickel ppm ASTM D5185m >20 0 <1 0 Silver ppm ASTM D5185m >20 0 <1 1 Lead ppm ASTM D5185m >20 0 <1 1 Lead ppm ASTM D5185m >20 0 <1 <1 Copper ppm ASTM D5185m >20 0 <1 0 Cadmium ppm ASTM D5185m >20 0 <1 0	Sample Number		Client Info		WC0730035	WC0633974	WC0422105
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Oil Changed Client Info N/A N/A N/A N/A Sample Status Image Image Current NoRMAL NoRMAL WEAR METALS method Iimi/base current history1 history2 Iron ppm ASTM D5185m >20 <1	Machine Age	hrs	Client Info		0	0	0
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WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 <1 0 Nickel ppm ASTM D5185m >20 3 <1 <1 Titanium ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m 20 0 <1 0 Aluminum ppm ASTM D5185m >20 0 <1 0 Aluminum ppm ASTM D5185m >20 0 <1 <1 1 Lead ppm ASTM D5185m >20 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 1 <1 <t< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>N/A</th><th>N/A</th><th>N/A</th></t<>	Oil Changed		Client Info		N/A	N/A	N/A
Iron ppm ASTM D5185m >20 <1	Sample Status				ATTENTION	NORMAL	NORMAL
Chromium ppm ASTM D5185m >20 0 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >20 3 <1 <1 Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m 0 <1	Iron	ppm	ASTM D5185m	>20	<1	<1	<1
Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m 0 <1	Chromium	ppm	ASTM D5185m	>20	0	<1	0
Silver ppm ASTM D5185m 0 <1 0 Aluminum ppm ASTM D5185m<>20 0 <1	Nickel	ppm	ASTM D5185m	>20	3	<1	<1
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Copper ppm ASTM D5185m >20 <1 <1 <1 Tin ppm ASTM D5185m >20 0 <1	Aluminum	ppm	ASTM D5185m	>20	0	<1	1
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Antimony ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 <1			ASTM D5185m	>20	0	<1	<1
Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m 0 <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 4 2 2 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Magnese ppm ASTM D5185m 0 1 0 Magnesium ppm ASTM D5185m 0 <1 0 Calcium ppm ASTM D5185m 0 <1 3 Phosphorus ppm ASTM D5185m 6455 608 6177 Zinc ppm ASTM D5185m 0 8 0 Sulfur ppm ASTM D5185m 22 2193 2690 CONTAMINANTS method limit/base current history1 history2	Antimony		ASTM D5185m				0
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Boron ppm ASTM D5185m 4 2 2 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 -1 0 Magnesium ppm ASTM D5185m 0 -1 0 Calcium ppm ASTM D5185m 0 -1 0 Calcium ppm ASTM D5185m 0 -1 0 Sulfur ppm ASTM D5185m 645 608 617 Zinc ppm ASTM D5185m 526 2193 2690 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 <1	ADDITIVES		method	limit/base	current	historv1	historv2
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Calcium ppm ASTM D5185m 0 <1	-						
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Particles >21µm ASTM D7647 >40 12 5 3 Particles >38µm ASTM D7647 >10 1 1 0 Particles >38µm ASTM D7647 >3 0 0 0 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >19/17/14 20/17/13 17/15/12 19/15/10 FLUID DEGRADATION method limit/base current history1 history2	Particles >6µm		ASTM D7647	>1300	1002	268	198
Particles >38μm ASTM D7647 >10 1 1 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >19/17/14 20/17/13 17/15/12 19/15/10 FLUID DEGRADATION method limit/base current history1 history2	Particles >14µm		ASTM D7647	>160	61	27	9
Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >19/17/14 20/17/13 17/15/12 19/15/10 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>40	12	5	3
Oil Cleanliness ISO 4406 (c) >19/17/14 20/17/13 17/15/12 19/15/10 FLUID DEGRADATION method limit/base current history1 history2	Particles >38µm		ASTM D7647	>10	1	1	0
FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm		ASTM D7647	>3	0	0	0
	Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/17/13	17/15/12	19/15/10
Acid Number (AN) mg KOH/g ASTM D8045 1.27 0.77 1.213	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045		1.27	0.77	1.213



OIL ANALYSIS REPORT

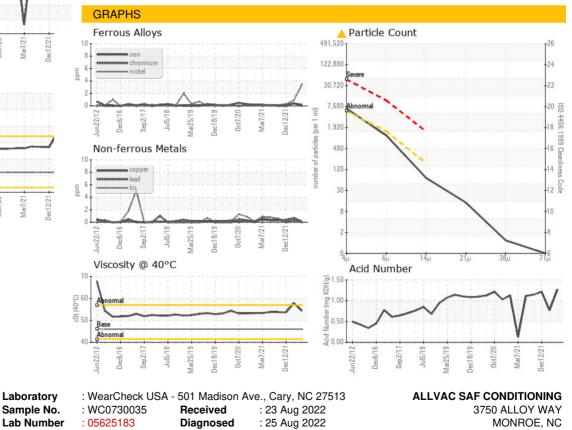






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	54.3	57.8	53.6
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color						

Bottom



Diagnostician : Don Baldridge



Dec6/16

ul5/18 Aar25/19

> Test Package : IND 2 Certificate L2367 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)

: 10104690

0ct7/20 -Mar7/21. Dec12/21.

Laboratory

Unique Number

Jec18/19

US 28110

F:

T: (704)289-4511

Contact: BRIAN THORNTON

brian.thornton@atimetals.com