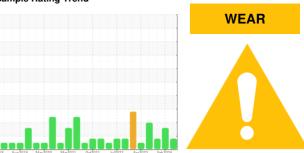


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

GARDNER DENVER AC-3 (S/N S432863)

Air Compressor

USPI AIR 46 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

The copper level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

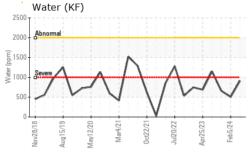
Fluid Condition

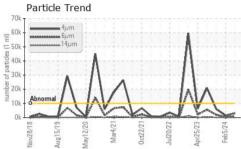
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

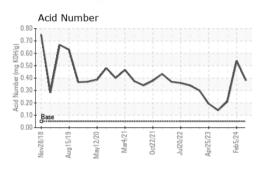
Sample Number Client Info USPM36326 USPM30929 USPM311 Sample Date Client Info 30 May 2024 05 Feb 2024 30 Oct 20: Machine Age hrs Client Info 7285 5288 3489 Oil Changed Client Info N/A N/A N/A N/A N/A ABNORMAL ABNORM			ov2018 Aug2	2019 May2020 Mar2021	Oct2021 Jul2022 Apr2023	Feb 2024	
Sample Date Client Info 30 May 2024 05 Feb 2024 30 Oct 20. Machine Age hrs Client Info 66468 64471 62672 Oil Age hrs Client Info 7285 5288 3489 Oil Changed Client Info N/A N/A N/A N/A WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 ♣ 28 0 Chromium ppm ASTM D5185m >50 0 ♠ 28 0 Chromium ppm ASTM D5185m >4 0 0 0 Nickel ppm ASTM D5185m >4 0 0 0 Alluminum ppm ASTM D5185m >10 0 0 0 Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >20 0 1 1	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 66468 64471 62672 Oil Age hrs Client Info 7285 5288 3489 Oil Changed Client Info N/A N/A N/A ABNORMAL ABNORMAL ABNORMAL ABNORMAL WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 Δ28 0 Chromium ppm ASTM D5185m >4 0 0 0 Nickel ppm ASTM D5185m >4 0 0 0 Silver ppm ASTM D5185m >0 0 0 0 Silver ppm ASTM D5185m >0 0 0 0 Silver ppm ASTM D5185m >20 0 <1	Sample Number		Client Info		USPM36326	USPM30929	USPM31161
Oil Changed Nrs	Sample Date		Client Info		30 May 2024	05 Feb 2024	30 Oct 2023
Oil Changed Status	Machine Age	hrs	Client Info		66468	64471	62672
Sample Status method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 28 0 Chromium ppm ASTM D5185m >4 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >10 0 0 0 Lead ppm ASTM D5185m >20 0 <1	Oil Age	hrs	Client Info		7285	5288	3489
WEAR METALS method limit/base current history1 histor Iron ppm ASTM D5185m >50 0 ≥8 0 Chromium ppm ASTM D5185m >4 0 0 0 Nickel ppm ASTM D5185m >4 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >20 0 -1	Oil Changed		Client Info		N/A	N/A	N/A
Irron	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Chromium ppm ASTM D5185m >4 0 0 0 Nickel ppm ASTM D5185m >4 0 0 0 Tittanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >10 0 0 0 Aluminum ppm ASTM D5185m >10 0 0 0 Lead ppm ASTM D5185m >20 0 <1 <1 Copper ppm ASTM D5185m >20 0 <1 <1 Vanadium ppm ASTM D5185m >5 0 <1 <1 <1 Vanadium ppm ASTM D5185m 0 <t< th=""><th>WEAR METALS</th><th></th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>50	0	▲ 28	0
Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >10 0 0 0 Lead ppm ASTM D5185m >20 0 <1 <1 Copper ppm ASTM D5185m >20 0 <1 <1 Tin ppm ASTM D5185m >0 0 <1 <1 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 0 ADDITI	Chromium	ppm	ASTM D5185m	>4	0	0	0
Silver	Nickel	ppm	ASTM D5185m	>4	0	0	0
Aluminum ppm ASTM D5185m >10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Titanium	ppm	ASTM D5185m		0	0	0
Lead ppm ASTM D5185m >20 0 <1 <1 Copper ppm ASTM D5185m >40 ▲ 104 ▲ 154 ▲ 249 Tin ppm ASTM D5185m >5 0 <1 <1 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 histor Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Manganesium ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 0 0 0	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >40 ▲ 104 ▲ 154 ▲ 249 Tin ppm ASTM D5185m >5 0 <1	Aluminum	ppm	ASTM D5185m	>10	0	0	0
Tin	Lead	ppm	ASTM D5185m	>20	0	<1	<1
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 histor Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 0 0 0 0 Sulfur ppm ASTM D5185m 0 52 150 23 Sulfur ppm ASTM D5185m 0 9 0 0 CONTAMIN	Copper	ppm	ASTM D5185m	>40	<u> </u>	<u>▲</u> 154	<u>4</u> 249
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 histor Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 0 52 150 23 Sulfur ppm ASTM D5185m 0 9 0 40 CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m 0 0 0 0	Tin	ppm	ASTM D5185m	>5	0	<1	<1
ADDITIVES method limit/base current history1 histor Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 0 0 0 0 Sulfur ppm ASTM D5185m 0 9 0 40 CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m 0 0 0 0 Sodium ppm ASTM D5185m 0 0 0	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 0 52 150 23 Zinc ppm ASTM D5185m 0 52 150 23 Sulfur ppm ASTM D5185m 0 9 0 40 CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m >20 0 0 <th< td=""><td>Cadmium</td><td>ppm</td><td>ASTM D5185m</td><td></td><th>0</th><td>0</td><td>0</td></th<>	Cadmium	ppm	ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 0 52 150 23 Zinc ppm ASTM D5185m 0 52 150 23 Sulfur ppm ASTM D5185m 0 9 0 40 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m >25 0 0 0 Potassium ppm ASTM D5185m >20 0 0 0 Water % ASTM D5185m >20 0 0	Boron	ppm	ASTM D5185m	0	0	0	0
Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 0 52 150 23 Zinc ppm ASTM D5185m 0 52 150 23 Sulfur ppm ASTM D5185m 0 9 0 40 CONTAMINANTS method limit/base current history1 history1 history1 history1 Silicon ppm ASTM D5185m >25 0 0 0 0 0 Sodium ppm ASTM D5185m >20 <td< td=""><td>Barium</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><th>0</th><td>0</td><td>0</td></td<>	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 1 0 0 3 Zinc ppm ASTM D5185m 0 52 150 23 Sulfur ppm ASTM D5185m 0 9 0 40 CONTAMINANTS method limit/base current history1 history1 history1 Silicon ppm ASTM D5185m 25 0 0 0 Sodium ppm ASTM D5185m >25 0 0 0 Potassium ppm ASTM D5185m >20 0 0 0 Potassium ppm ASTM D5185m >20 0 0 0 Water % ASTM D5185m >20 0 0 0 Particles >4µm ASTM D6304 >0.2 0.091 <td< td=""><td>Molybdenum</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><th>0</th><td>0</td><td>0</td></td<>	Molybdenum	ppm	ASTM D5185m	0	0	0	0
Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 1 0 0 3 Zinc ppm ASTM D5185m 0 52 150 23 Sulfur ppm ASTM D5185m 0 9 0 40 CONTAMINANTS method limit/base current history1 history CONTAMINANTS method limit/base current history1 history1							

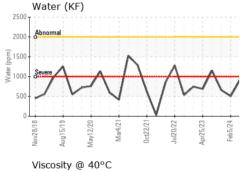


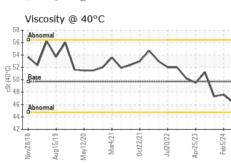
OIL ANALYSIS REPORT











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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2

_					
SAMPLE IMAGES	method	limit/base	current	history1	history2

46.4

ASTM D445 49.7

Color

Visc @ 40°C

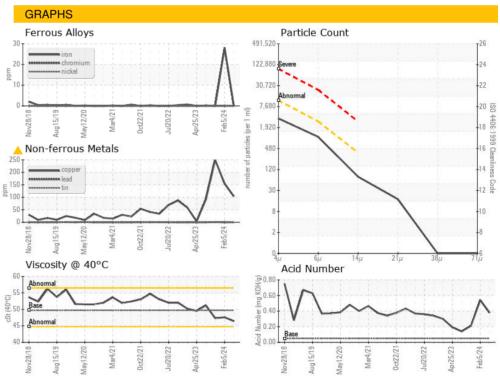


cSt



47.6

47.3







Certificate 12367

Laboratory Sample No.

Lab Number : 06197652 Unique Number : 11059775 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : USPM36326 Received : 03 Jun 2024

Tested

: 04 Jun 2024 Diagnosed : 05 Jun 2024 - Doug Bogart

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)

T:

CROMWELL, KY

US 42333

F:

489 CROMWELL RD

Contact: Service Manager

PERDUE FOODS - CROMWELL