

## **OIL ANALYSIS REPORT**

Sample Number





#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

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

### Fluid Condition

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

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#### ...... Dec2017 Jun2019 Sep2020 Dec2021 Mar2023 SAMPLE INFORMATION method Client Info ST46187 ST43747 ST43876

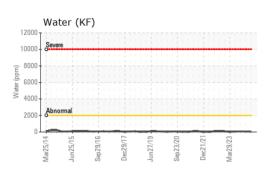
Sample Date		Client Info		28 Mar 2024	21 Dec 2023	28 Sep 2023
	nrs	Client Info		0	0	0
•	nrs	Client Info		0	0	0
Oil Changed	110	Client Info		N/A	0 N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
				NOTIMAL		
WEAR METALS		method	limit/base	current	history1	history2
	opm	ASTM D5185m	>200	6	4	9
Chromium p	opm	ASTM D5185m	>15	<1	0	0
Nickel p	opm	ASTM D5185m	>15	0	0	0
	opm	ASTM D5185m		0	0	0
Silver p	opm	ASTM D5185m		0	0	0
Aluminum p	opm	ASTM D5185m	>25	2	0	0
Lead p	opm	ASTM D5185m	>100	0	0	0
Copper p	opm	ASTM D5185m	>200	0	0	0
Tin p	opm	ASTM D5185m	>25	0	0	0
Vanadium p	opm	ASTM D5185m		0	0	0
Cadmium p	opm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron p	opm	ASTM D5185m		<1	3	2
Barium p	opm	ASTM D5185m		0	0	0
Molybdenum p	opm	ASTM D5185m		0	0	<1
Manganese p	opm	ASTM D5185m		0	0	<1
Magnesium p	opm	ASTM D5185m		<1	0	<1
Calcium p	opm	ASTM D5185m		10	5	6
Phosphorus p	opm	ASTM D5185m		300	288	260
Zinc p	opm	ASTM D5185m		6	0	5
Sulfur p	opm	ASTM D5185m		9216	8390	8818
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon p	opm	ASTM D5185m	>50	<1	<1	1
Sodium p	opm	ASTM D5185m		0	<1	0
Potassium p	opm	ASTM D5185m	>20	1	0	1
Water %	%	ASTM D6304	>0.2	0.003	0.005	0.006
ppm Water p	opm	ASTM D6304	>2000	31	56	67.7
FLUID CLEANLINE	SS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>40000	17174	24071	9480
Particles >6µm		ASTM D7647	>5000	2438	4406	837
Particles >14µm		ASTM D7647	>640	135	333	12
Particles >21µm		ASTM D7647	>160	34	86	2
Particles >38µm		ASTM D7647	>40	2	3	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>22/19/16	21/18/14	22/19/16	20/17/11
FLUID DEGRADATI	ION	method	limit/base	current	history1	history2
Acid Number (AN)	ng KOH/g	ASTM D8045		0.75	0.44	0.44

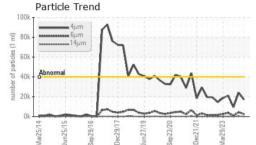
Report Id: ZAPDAR [WUSCAR] 06137433 (Generated: 04/05/2024 18:06:02) Rev: 1

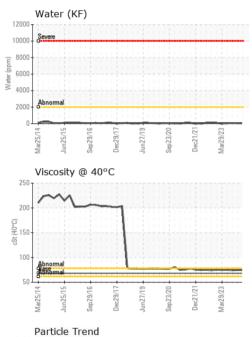
Contact/Location: Greg Walton - ZAPDAR Page 1 of 2

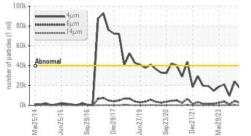


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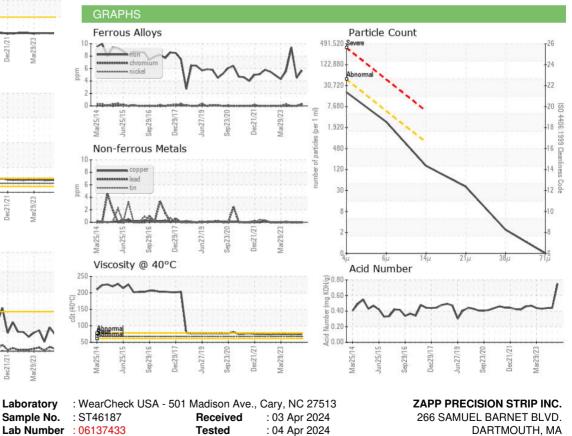








VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68.0	74.5	74.6	74.2
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color				•		
Bottom						



: 05 Apr 2024 - Don Baldridge

Unique Number : 10956898 Test Package : IND 2 (Additional Tests: KF, PrtCount) Certificate 12367

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.

F: (508)998-6310 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Diagnosed

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Contact/Location: Greg Walton - ZAPDAR Page 2 of 2

US 02745

T:

Contact: Greg Walton

greg.walton@zapp.com