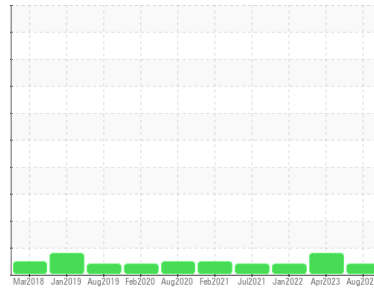


# PROBLEM SUMMARY

Sample Rating Trend



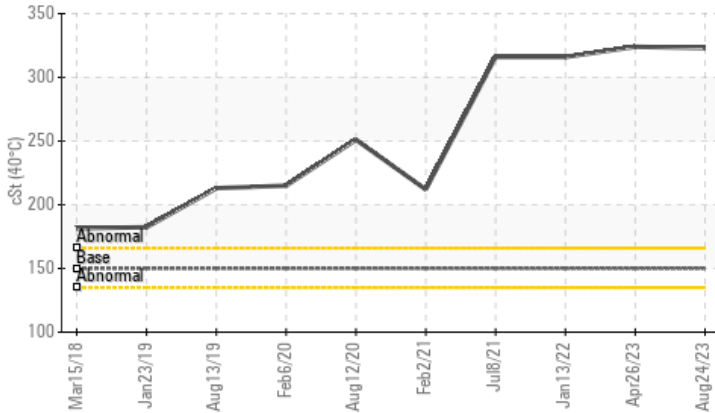
## VISCOSITY



Area  
**HAPL**  
 Machine Id  
**HAPL EXIT ACCUMLATOR WEST**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 150 (--- GAL)**

### COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



### RECOMMENDATION

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

### PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ABNORMAL	ATTENTION
Visc @ 40°C	cSt	ASTM D445	150	▲ 323	▲ 324	▲ 316

Customer Id: OUTCALAL  
 Sample No.: RP0035468  
 Lab Number: 05935542  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 26 Apr 2023 Diag: Don Baldrige

#### VISCOSITY



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. Viscosity of sample indicates oil is within ISO 320 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

view report



### 13 Jan 2022 Diag: Jonathan Hester

#### VISCOSITY



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 320 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

view report



### 08 Jul 2021 Diag: Don Baldrige

#### VISCOSITY



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 320 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

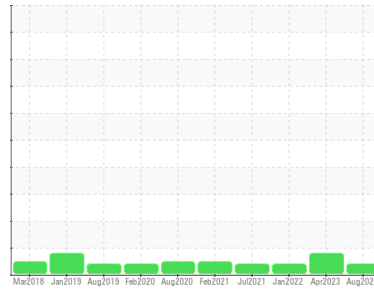
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Area  
**HAPL**  
 Machine Id  
**HAPL EXIT ACCUMLATOR WEST**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 150 (--- GAL)**

### DIAGNOSIS

#### ▲ 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 no indication of any contamination in the oil.

#### ▲ Fluid Condition

Viscosity of sample indicates oil is within ISO 320 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>RP0035468</b>	RP0029620	RP0022639
Sample Date	Client Info		<b>24 Aug 2023</b>	26 Apr 2023	13 Jan 2022
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ATTENTION</b>	ABNORMAL	ATTENTION

### WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		<b>81</b>	48	57
Iron	ppm	ASTM D5185m >200	<b>105</b>	82	100
Chromium	ppm	ASTM D5185m >15	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	1
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >25	<b>1</b>	0	2
Lead	ppm	ASTM D5185m >100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >200	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >25	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185m >5	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>0</b>	0	12
Barium	ppm	ASTM D5185m 15	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m 15	<b>6</b>	6	30
Manganese	ppm	ASTM D5185m	<b>2</b>	2	1
Magnesium	ppm	ASTM D5185m 50	<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185m 50	<b>28</b>	25	113
Phosphorus	ppm	ASTM D5185m 350	<b>110</b>	95	132
Zinc	ppm	ASTM D5185m 100	<b>8</b>	5	2

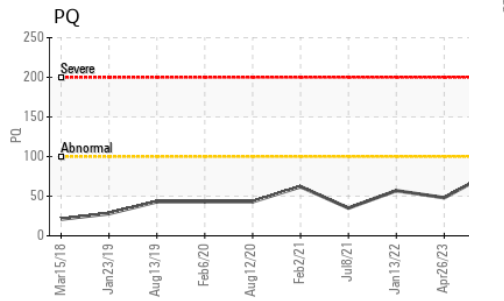
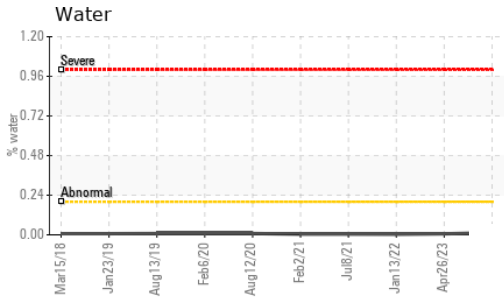
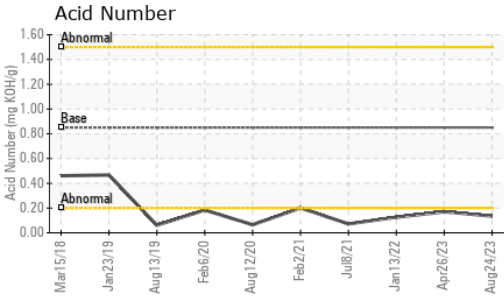
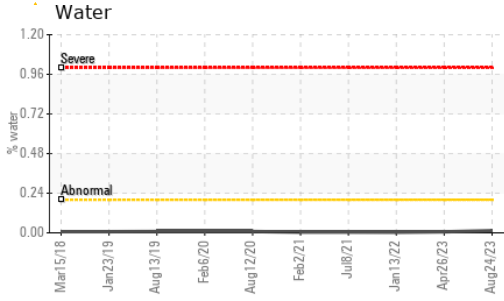
### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>4</b>	4	5
Sodium	ppm	ASTM D5185m	<b>0</b>	0	<1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	1	<1
Water	%	ASTM D6304 >0.2	<b>0.013</b>	0.006	0.003
ppm Water	ppm	ASTM D6304 >2000	<b>139.3</b>	60.5	32.7

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.85	<b>0.135</b>	0.17	0.126

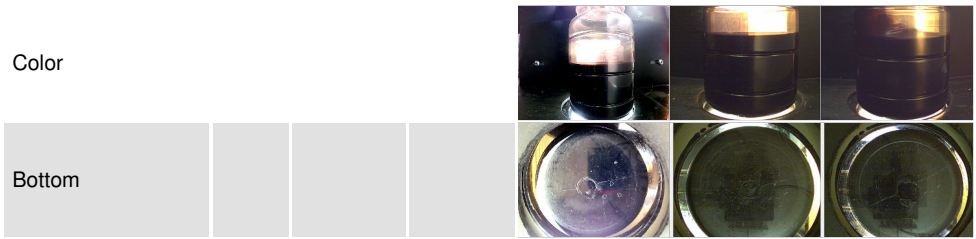
# OIL ANALYSIS REPORT



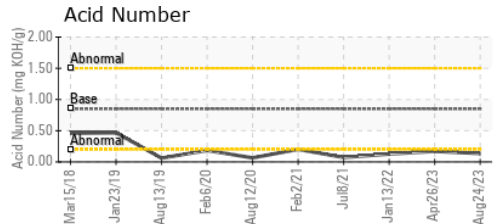
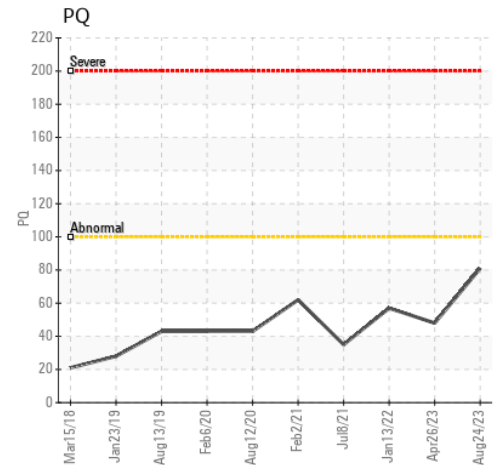
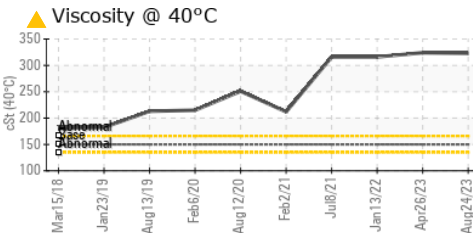
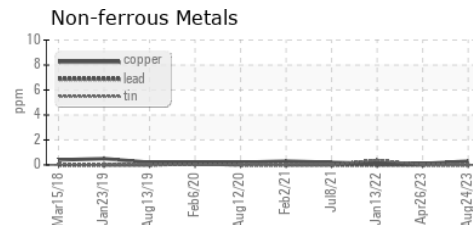
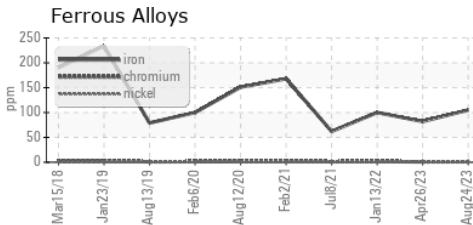
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	150	▲ 323	▲ 324

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate 12367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0035468 **Received** : 25 Aug 2023  
**Lab Number** : 05935542 **Diagnosed** : 28 Aug 2023  
**Unique Number** : 10620813 **Diagnostician** : Don Baldrige

**Test Package** : IND 2 ( Additional Tests: PQ )

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)

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