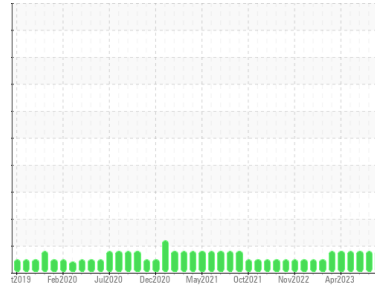




PROBLEM SUMMARY

Sample Rating Trend



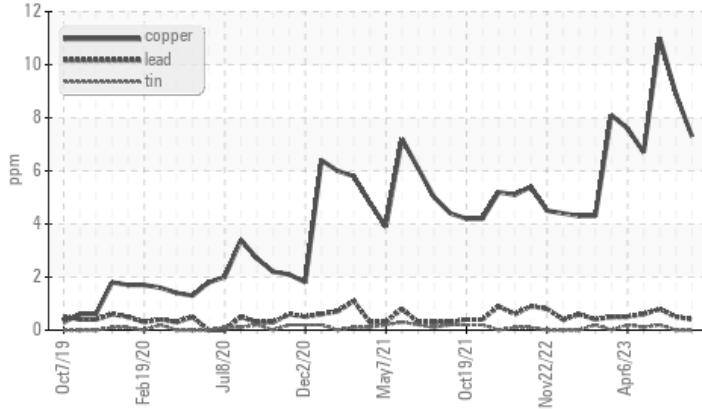
WEAR



Machine Id
CO-GEN #1 (S/N KB5)
Component
Turbine
Fluid
MOBIL JET OIL II (130 GAL)

COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	ABNORMAL	ABNORMAL	
Copper	ppm	ASTM D5185(m) >5	▲ 7	▲ 9	▲ 11

Customer Id: AVETOR
Sample No.: WC0781349
Lab Number: 02575917
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Contact Required	---	---	?	Please contact your representative for information regarding the proper sampling kits for your service.
Alert	---	---	?	NOTE: We recommend using IND 3 test kits,

HISTORICAL DIAGNOSIS

10 Jul 2023 Diag: Kevin Marson



We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. Copper ppm levels are abnormal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



07 Jun 2023 Diag: Kevin Marson



We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. Copper ppm levels are abnormal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



09 May 2023 Diag: Kevin Marson



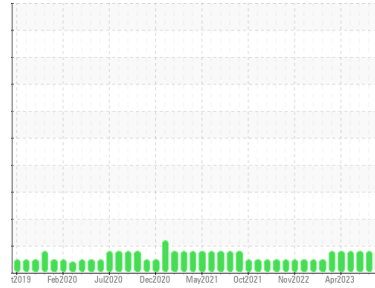
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OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
CO-GEN #1 (S/N KB5)
 Component
Turbine
 Fluid
MOBIL JET OIL II (130 GAL)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear

Copper ppm levels are abnormal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0781349	WC0781350	WC0781352
Sample Date	Client Info		11 Aug 2023	10 Jul 2023	07 Jun 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>15	<1	1	1
Chromium	ppm	ASTM D5185(m)	>4	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>10	<1	0	<1
Lead	ppm	ASTM D5185(m)		<1	<1	<1
Copper	ppm	ASTM D5185(m)	>5	▲ 7	▲ 9	▲ 11
Tin	ppm	ASTM D5185(m)	>5	0	0	<1
Antimony	ppm	ASTM D5185(m)		<1	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

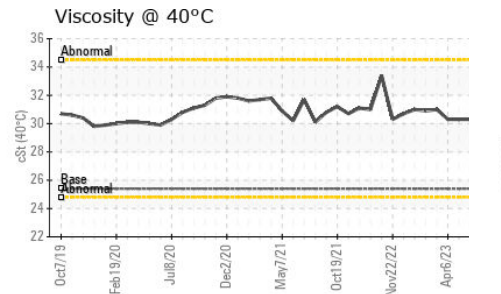
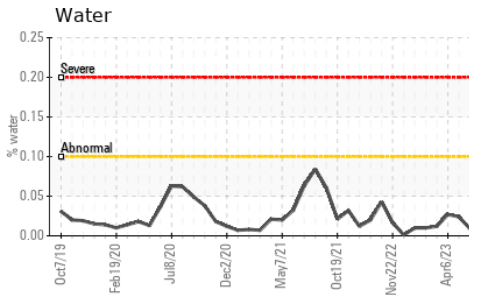
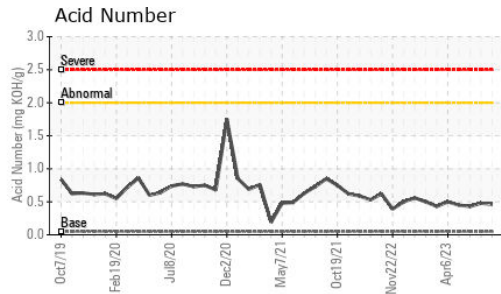
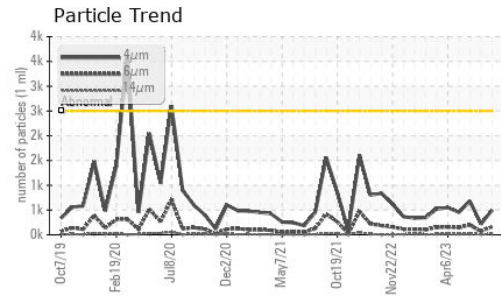
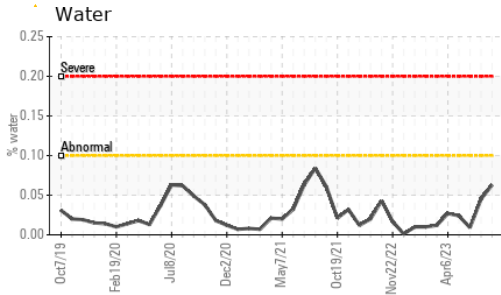
	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0.5	<1	<1	
Barium	ppm	ASTM D5185(m)	0.0	0	0	
Molybdenum	ppm	ASTM D5185(m)	0.0	0	0	
Manganese	ppm	ASTM D5185(m)	0.0	0	<1	
Magnesium	ppm	ASTM D5185(m)	0.0	<1	0	
Calcium	ppm	ASTM D5185(m)	0.0	<1	0	
Phosphorus	ppm	ASTM D5185(m)	3039	1871	1844	1902
Zinc	ppm	ASTM D5185(m)	0.3	1	1	<1
Sulfur	ppm	ASTM D5185(m)	38	4	4	7
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	0	<1	<1
Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water	%	ASTM D6304*	>.1	0.063	0.045	0.009
ppm Water	ppm	ASTM D6304*	>1000	633.5	451.9	99.8

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	498	218	679
Particles >6µm	ASTM D7647	>640	162	67	201
Particles >14µm	ASTM D7647	>80	14	9	18
Particles >21µm	ASTM D7647	>20	5	2	5
Particles >38µm	ASTM D7647	>4	0	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	16/15/11	15/13/10	17/15/11



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.05	0.46	0.48	0.43

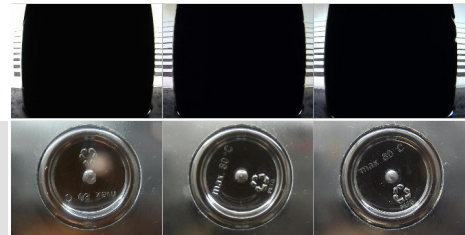
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	25.4	29.7	30.1	30.3

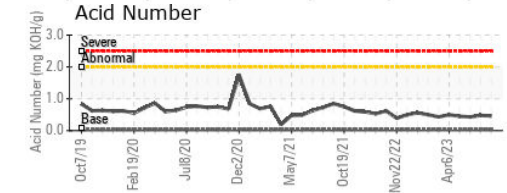
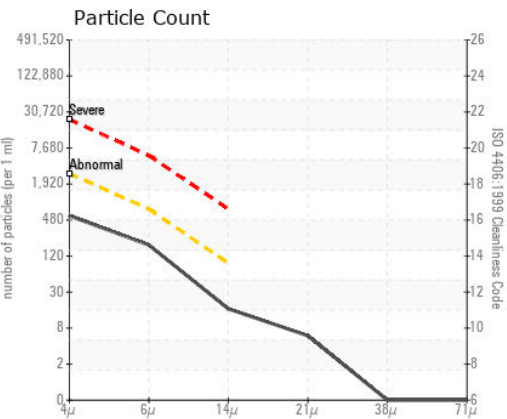
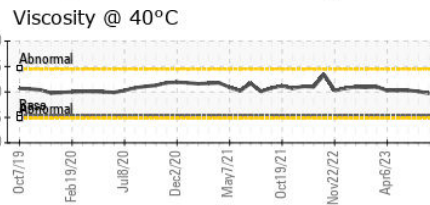
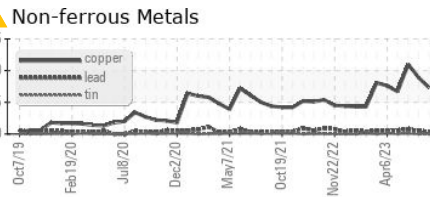
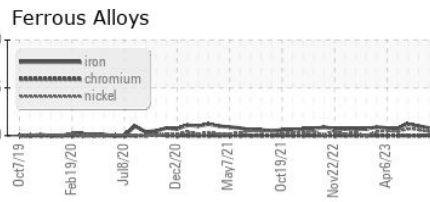
SAMPLE IMAGES		method	limit/base	current	history1	history2
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Color

Bottom



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0781349
Lab Number : 02575917
Unique Number : 5628977
Test Package : IND 2

Received : 15 Aug 2023
Diagnosed : 16 Aug 2023
Diagnostician : Kevin Marson

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 TORONTO, ON
 CA M2R 3T4
 Contact: Steven Joki
 steven.joki@sanofi.com
 T: (416)667-2701
 F: (416)667-2720

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.