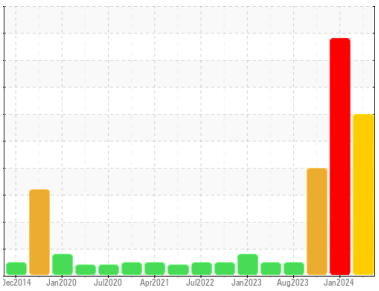
PROBLEM SUMMARY

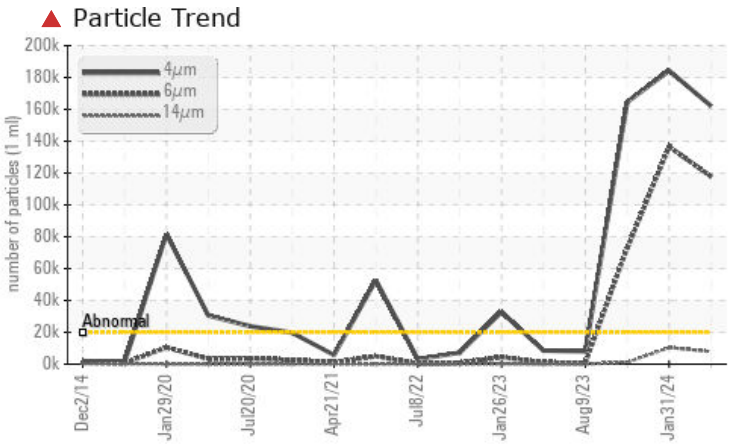
Sample Rating Trend



ISO

Machine Id
BT-FOR-A3 (S/N TANK FT3 AGITATOR)
Component
Gearbox
Fluid
SHELL OMALA S2 GX 220 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Filter oil if possible using B6=75 filter media or better. Investigate sample procedures and possible sources of contamination. If oil has been exposed due to broken seals or open breathers, consider changing oil. Resample at next normal interval.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Particles >4µm		ASTM D7647	>20000	▲ **162090**	▲ 184263	▲ 164595
Particles >6µm		ASTM D7647	>5000	▲ **117851**	▲ 136492	▲ 72877
Particles >14µm		ASTM D7647	>640	▲ **7921**	▲ 10385	● 1139
Particles >21µm		ASTM D7647	>160	▲ **287**	▲ 381	60
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **25/24/20**	▲ 25/24/21	▲ 25/23/17

Customer Id: MOMBAY
Sample No.: PLS0000870
Lab Number: 06154202
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Mike Johnson +1 (615)771-6030
mike.johnson@amrri.com

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

WEAR

31 Jan 2024 Diag: Mike Johnson
Filter oil if possible using B6=75 filter media or better. Investigate sample procedures and possible sources of contamination. If oil has been exposed due to broken seals or open breathers, consider changing oil. Resample at next normal interval.Iron wear particles are elevated from previous samples. This could indicate accelerated wear Particle contamination is elevated. Filtration can help extend machine life. Fluid health is acceptable for continued use provided that contamination is brought under control.

view report

ISO

25 Oct 2023 Diag: Mike Johnson
Filter oil if possible using B6=75 filter media or better. Investigate sample procedures and possible sources of contamination. If oil has been exposed due to broken seals or open breathers, consider changing oil. Resample at next normal interval.Wear particles are low and acceptable. Particle contamination is elevated. Filtration can help extend machine life. Fluid health is acceptable for continued use provided that contamination is brought under control.

view report

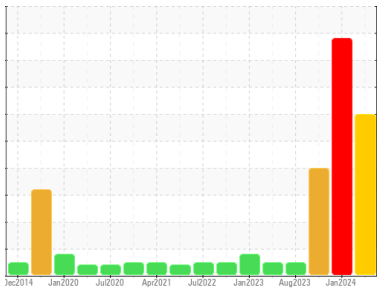
NORMAL

09 Aug 2023 Diag: Mike Johnson
No action required at this time. Resample at next normal interval.Wear particles are low and acceptable. Contamination is on par with new unfiltered oil. Filtration can help to extend machine life. Fluid health indicators are acceptable for continued use.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
BT-FOR-A3 (S/N TANK FT3 AGITATOR)
Component
Gearbox
Fluid
SHELL OMALA S2 GX 220 (--- GAL)

DIAGNOSIS

Recommendation
Filter oil if possible using B6=75 filter media or better. Investigate sample procedures and possible sources of contamination. If oil has been exposed due to broken seals or open breathers, consider changing oil. Resample at next normal interval.

Wear
Iron wear particles are elevated from previous samples. This could indicate accelerated wear

Contamination
Particle contamination is elevated. Filtration can help extend machine life.

Fluid Condition
Fluid health is acceptable for continued use provided that contamination is brought under control.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PLS0000870**	PLS0000809	PLS0000780
Sample Date		Client Info		**17 Apr 2024**	31 Jan 2024	25 Oct 2023
Machine Age	mths	Client Info		**3**	3	0
Oil Age	mths	Client Info		**0**	0	1
Oil Changed		Client Info		**N/A**	N/A	Changed
Sample Status				**SEVERE**	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**73**	▲ 153	36
Iron	ppm	ASTM D5185m	>200	**101**	▲ 114	59
Chromium	ppm	ASTM D5185m	>15	**0**	0	0
Nickel	ppm	ASTM D5185m	>15	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**0**	0	0
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>200	**<1**	0	0
Tin	ppm	ASTM D5185m	>25	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6.2	**0**	0	<1
Barium	ppm	ASTM D5185m	0.0	**0**	<1	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**1**	1	<1
Magnesium	ppm	ASTM D5185m	0	**4**	2	0
Calcium	ppm	ASTM D5185m	0.0	**4**	5	0
Phosphorus	ppm	ASTM D5185m	290	**306**	302	193
Zinc	ppm	ASTM D5185m	3.8	**2**	15	0
Sulfur	ppm	ASTM D5185m	8167	**12562**	9699	8473

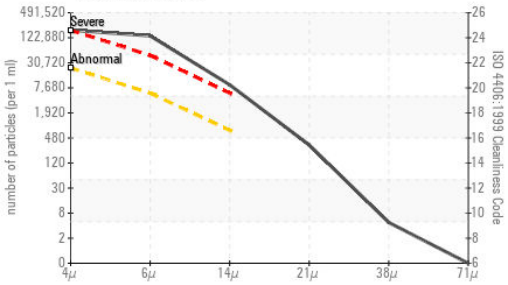
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**1**	2	<1
Sodium	ppm	ASTM D5185m		**2**	0	2
Potassium	ppm	ASTM D5185m	>20	**1**	0	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0.1	0
Nitration	Abs/cm	*ASTM D7624		**3.1**	3.0	3.0
Sulfation	Abs/.1mm	*ASTM D7415		**12.4**	12.2	12.4

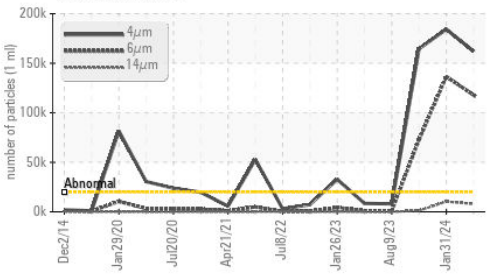
OIL ANALYSIS REPORT

FLUID FORENSICS
ADVANCED OIL ANALYSIS SERVICES

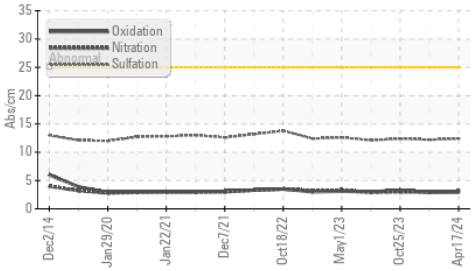
Particle Count



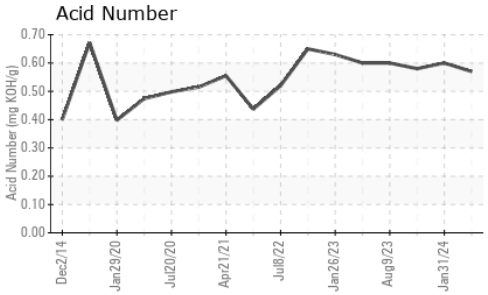
Particle Trend



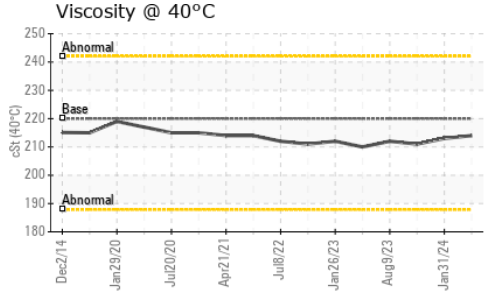
FT-IR (Direct Trend)



Acid Number



Viscosity @ 40°C



FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **162090**	▲ 184263	▲ 164595
Particles >6µm		ASTM D7647	>5000	▲ **117851**	▲ 136492	▲ 72877
Particles >14µm		ASTM D7647	>640	▲ **7921**	▲ 10385	● 1139
Particles >21µm		ASTM D7647	>160	▲ **287**	▲ 381	60
Particles >38µm		ASTM D7647	>40	**4**	2	0
Particles >71µm		ASTM D7647	>10	**0**	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **25/24/20**	▲ 25/24/21	▲ 25/23/17

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		**2.9**	2.9	3.3
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.57**	0.60	0.58

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
Visc @ 40°C	cSt	ASTM D445	220	**214**	213	211

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PLS0000870
Lab Number : 06154202
Unique Number : 10989625
Test Package : IND 2 (Additional Tests: FT-IR, PQ, PrtCount)

Received : 19 Apr 2024
Tested : 06 May 2024
Diagnosed : 07 May 2024 - Mike Johnson

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)

HEXION - BAYTOWN PLANT
8450 WEST BAY RD
BAYTOWN, TX
US 77520
Contact: BILL MINER
bill.miner@momentive.com
T:
F:

Report Id: MOMBAY [WUSCAR] 06154202 (Generated: 05/07/2024 11:16:02) Rev: 1
Contact/Location: BILL MINER - MOMBAY