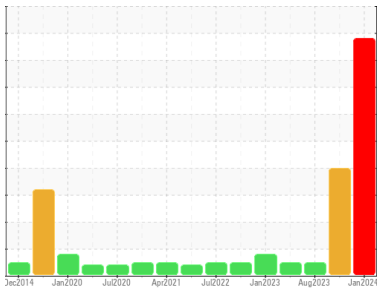
PROBLEM SUMMARY

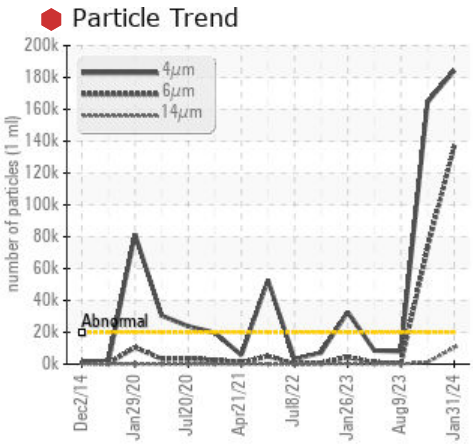
Sample Rating Trend

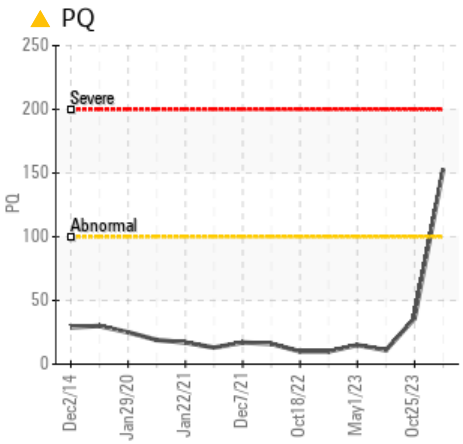


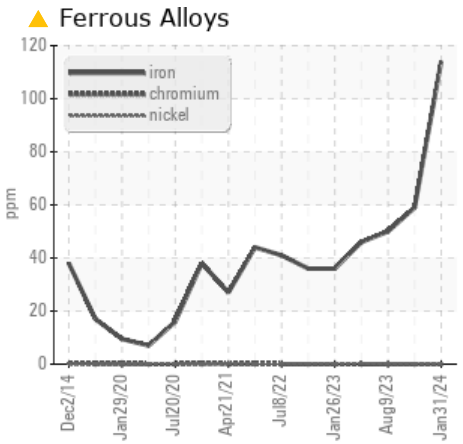
WEAR

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	NORMAL
PQ		ASTM D8184		▲ **153**	36	11
Iron	ppm	ASTM D5185m	>200	▲ **114**	59	50
Particles >4µm		ASTM D7647	>20000	⬢ **184263**	⬢ 164595	8042
Particles >6µm		ASTM D7647	>5000	⬢ **136492**	⬢ 72877	757
Particles >14µm		ASTM D7647	>640	⬢ **10385**	▲ 1139	25
Particles >21µm		ASTM D7647	>160	▲ **381**	60	7
Oil Cleanliness		ISO 4406 (c)	>21/19/16	⬢ **25/24/21**	⬢ 25/23/17	20/17/12

Customer Id: MOMBAY
Sample No.: PLS0000809
Lab Number: 06077615
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

25 Oct 2023 Diag: Mike Johnson

ISO

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

09 Aug 2023 Diag: Mike Johnson

NORMAL

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

01 May 2023 Diag: Mike Johnson

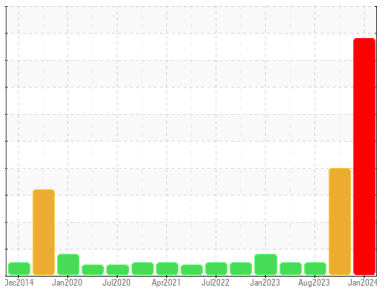
NORMAL

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



WEAR

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		**PLS0000809**	PLS0000780	PLS0000564
Sample Date		Client Info		**31 Jan 2024**	25 Oct 2023	09 Aug 2023
Machine Age	mths	Client Info		**3**	0	0
Oil Age	mths	Client Info		**0**	1	0
Oil Changed		Client Info		**N/A**	Changed	N/A
Sample Status				**SEVERE**	SEVERE	NORMAL

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		▲ **153**	36	11
Iron	ppm	ASTM D5185m	>200	▲ **114**	59	50
Chromium	ppm	ASTM D5185m	>15	**0**	0	0
Nickel	ppm	ASTM D5185m	>15	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**0**	0	0
Lead	ppm	ASTM D5185m	>100	**0**	0	<1
Copper	ppm	ASTM D5185m	>200	**0**	0	<1
Tin	ppm	ASTM D5185m	>25	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

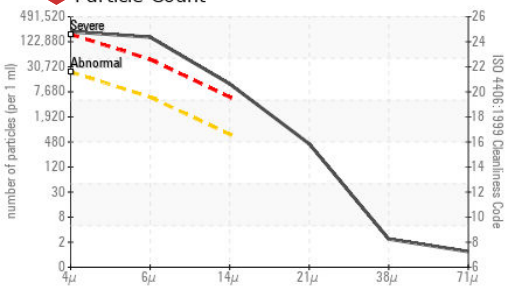
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6.2	**0**	<1	1
Barium	ppm	ASTM D5185m	0.0	**<1**	0	<1
Molybdenum	ppm	ASTM D5185m	0	**0**	0	<1
Manganese	ppm	ASTM D5185m		**1**	<1	<1
Magnesium	ppm	ASTM D5185m	0	**2**	0	2
Calcium	ppm	ASTM D5185m	0.0	**5**	0	3
Phosphorus	ppm	ASTM D5185m	290	**302**	193	279
Zinc	ppm	ASTM D5185m	3.8	**15**	0	18
Sulfur	ppm	ASTM D5185m	8167	**9699**	8473	10595

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

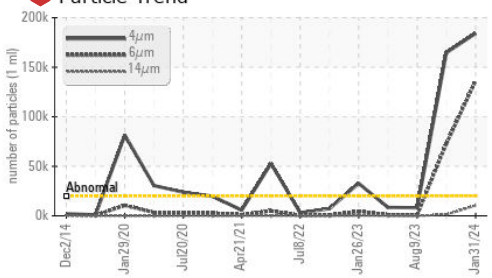
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0	0
Nitration	Abs/cm	*ASTM D7624		**3.0**	3.0	2.9
Sulfation	Abs/.1mm	*ASTM D7415		**12.2**	12.4	12.1

OIL ANALYSIS REPORT

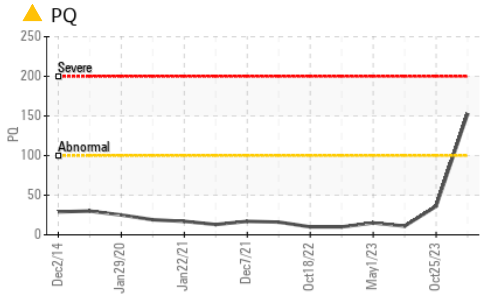
Particle Count



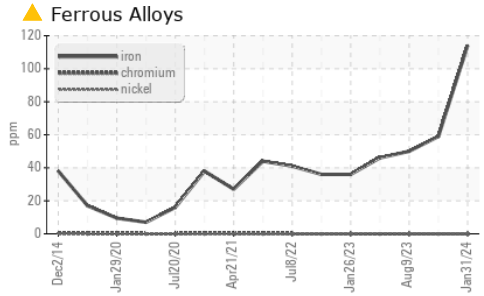
Particle Trend



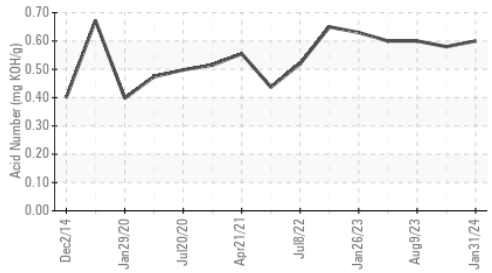
PQ



Ferrous Alloys



Acid Number

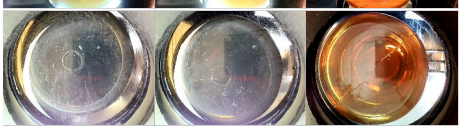


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**184263**	164595	8042
Particles >6µm		ASTM D7647	>5000	**136492**	72877	757
Particles >14µm		ASTM D7647	>640	**10385**	1139	25
Particles >21µm		ASTM D7647	>160	**381**	60	7
Particles >38µm		ASTM D7647	>40	**2**	0	1
Particles >71µm		ASTM D7647	>10	**1**	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**25/24/21**	25/23/17	20/17/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		**2.9**	3.3	3.0
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.60**	0.58	0.60

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	**213**	211	212

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PLS0000809 **Received** : 01 Feb 2024
Lab Number : 06077615 **Tested** : 02 Feb 2024
Unique Number : 10859706 **Diagnosed** : 09 Feb 2024 - Mike Johnson
Test Package : IND 2 (Additional Tests: FT-IR, PQ, PrtCount)

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: