



PERFORMANCE
UNDER
PRESSURE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Area
TM 7
Machine Id
TM 7 BROKE CHEST AGITATOR
Component
Gearbox
Fluid
GEAR OIL ISO 220 (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RP0030324	RP0034389	RP0034359
Sample Date		Client Info		11 Jan 2024	01 Nov 2023	28 Aug 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

All component wear rates are normal.

PQ		ASTM D8184		42	44	---
Iron	ppm	ASTM D5185m	>200	70	62	1693
Chromium	ppm	ASTM D5185m	>15	<1	<1	11
Nickel	ppm	ASTM D5185m	>15	0	0	10
Titanium	ppm	ASTM D5185m		<1	<1	55
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	<1	<1	63
Lead	ppm	ASTM D5185m	>100	0	0	19
Copper	ppm	ASTM D5185m	>200	<1	2	3961
Tin	ppm	ASTM D5185m	>25	<1	<1	14
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	MODER

CONTAMINATION

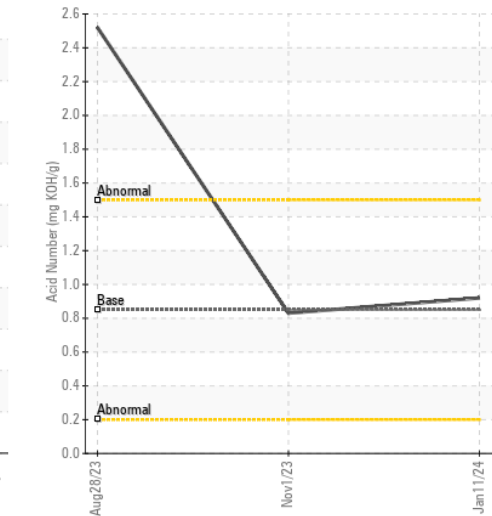
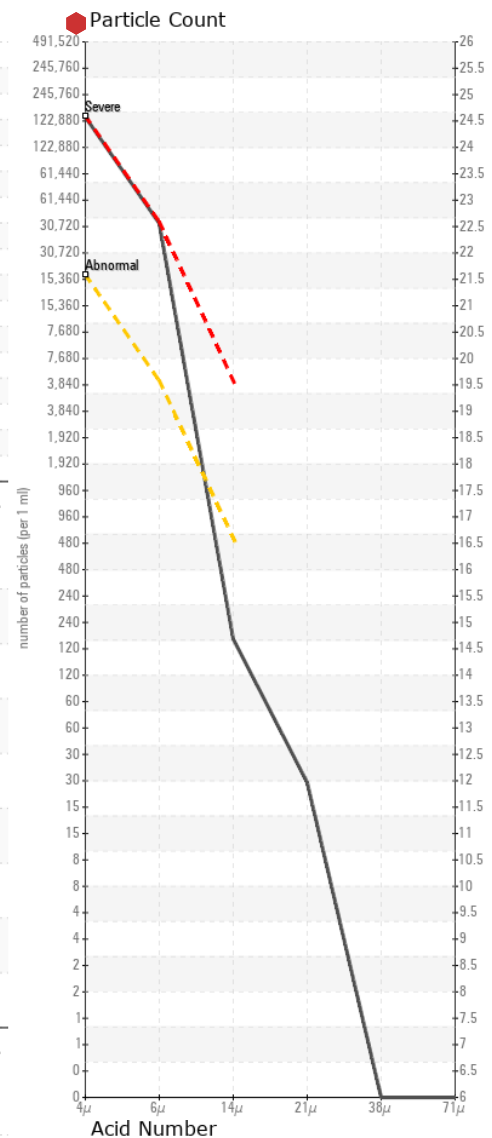
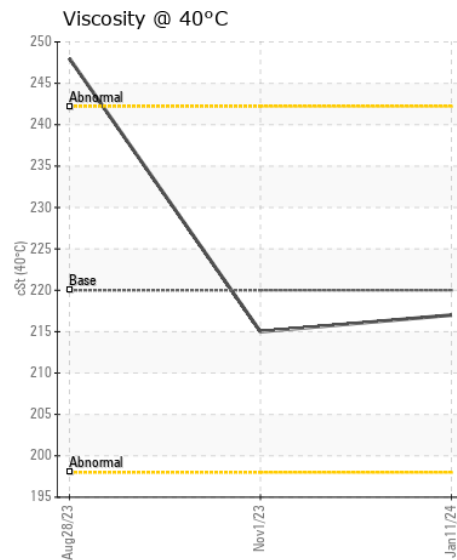
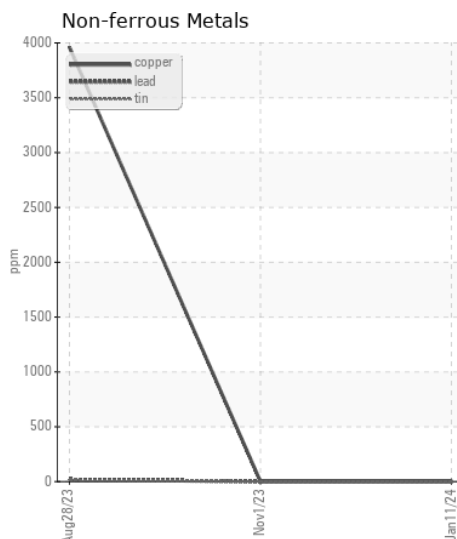
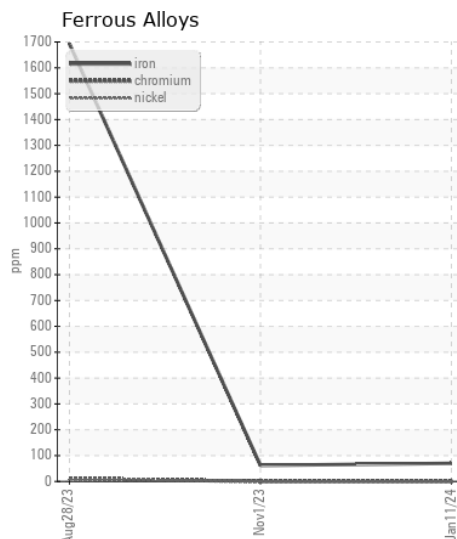
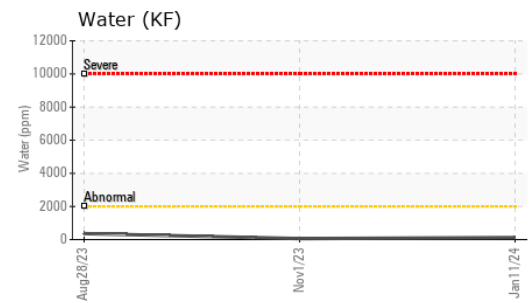
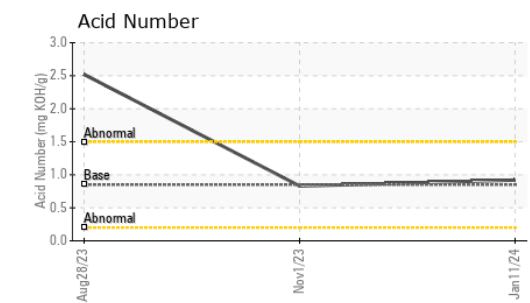
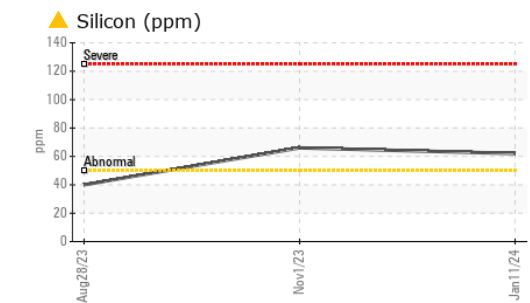
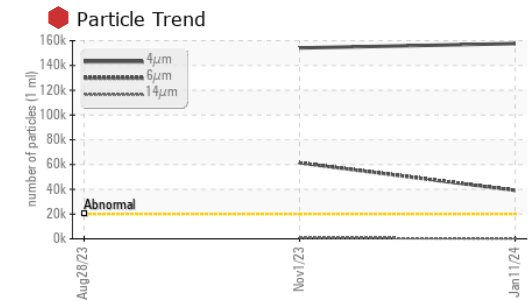
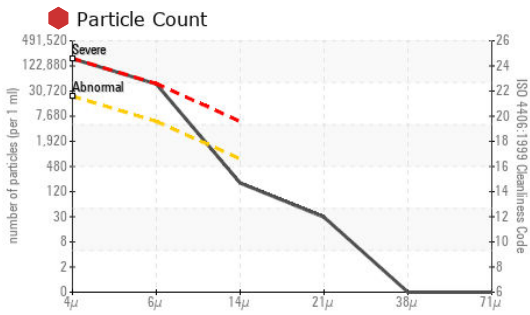
There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>50	62	66	40
Potassium	ppm	ASTM D5185m	>20	1	2	1
Water	%	ASTM D6304	>0.2	0.012	0.005	0.036
ppm Water	ppm	ASTM D6304	>2000	121	59.4	361.1
Particles >4µm		ASTM D7647	>20000	157692	154154	---
Particles >6µm		ASTM D7647	>5000	39164	61286	---
Particles >14µm		ASTM D7647	>640	170	712	---
Particles >21µm		ASTM D7647	>160	26	152	---
Particles >38µm		ASTM D7647	>40	0	4	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	24/22/15	24/23/17	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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	0.2%

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		12	5	2
Boron	ppm	ASTM D5185m	50	13	9	24
Barium	ppm	ASTM D5185m	15	14	15	29
Molybdenum	ppm	ASTM D5185m	15	0	0	0
Manganese	ppm	ASTM D5185m		2	<1	86
Magnesium	ppm	ASTM D5185m	50	0	<1	16
Calcium	ppm	ASTM D5185m	50	23	24	19
Phosphorus	ppm	ASTM D5185m	350	409	345	416
Zinc	ppm	ASTM D5185m	100	38	37	2898
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	0.92	0.83	2.52
Visc @ 40°C	cSt	ASTM D445	220	217	215	248



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0030324 **Received** : 12 Jan 2024
Lab Number : 06060325 **Diagnosed** : 17 Jan 2024
Unique Number : 10831707 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: PQ, PrtCount)

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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)