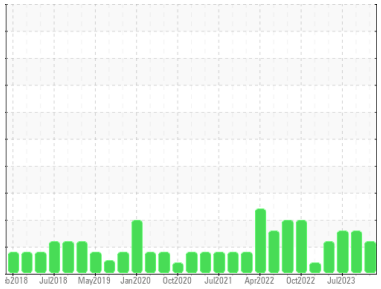
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
RX B
Machine Id
RXB AGITATOR R102AG (S/N 21309)
Component
Gearbox
Fluid
SCHAEFFER 209 MOLY UNIVERSAL GEARLUBE ISO 220 (24 GAL)

DIAGNOSIS

Recommendation
Filter oil if possible using B6=75 filter media or better. Confirm viscosity requirements of the gear. Consider a partial or full change to the correct oil viscosity. No other action required at this time.

Wear
Wear particles are low and steady.

Contamination
Particle contamination is slightly elevated. Filtration can assist in increasing machine longevity.

Fluid Condition
Viscosity is slightly below the ISO rating of the reference fluid. Other fluid indicators are acceptable.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PLS0000811**	PLS0000659	PLS0000649
Sample Date		Client Info		**05 Jan 2024**	09 Oct 2023	25 Jul 2023
Machine Age	yrs	Client Info		**5**	5	5
Oil Age	yrs	Client Info		**3**	3	2
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

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		**25**	17	16
Iron	ppm	ASTM D5185m	>200	**11**	10	10
Chromium	ppm	ASTM D5185m	>15	**0**	0	0
Nickel	ppm	ASTM D5185m	>15	**0**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**2**	1	0
Lead	ppm	ASTM D5185m	>100	**0**	0	2
Copper	ppm	ASTM D5185m	>200	**<1**	0	4
Tin	ppm	ASTM D5185m	>25	**0**	0	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

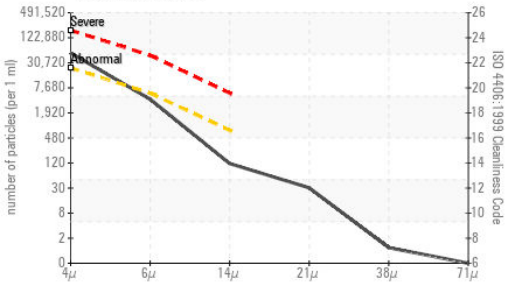
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	65	**29**	20	22
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m	325	**353**	394	407
Manganese	ppm	ASTM D5185m		**<1**	0	2
Magnesium	ppm	ASTM D5185m		**3**	4	2
Calcium	ppm	ASTM D5185m		**13**	78	12
Phosphorus	ppm	ASTM D5185m	875	**596**	576	626
Zinc	ppm	ASTM D5185m		**36**	56	24
Sulfur	ppm	ASTM D5185m	16000	**13932**	13411	17101

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**9**	9	11
Sodium	ppm	ASTM D5185m		**2**	4	9
Potassium	ppm	ASTM D5185m	>20	**2**	<1	3

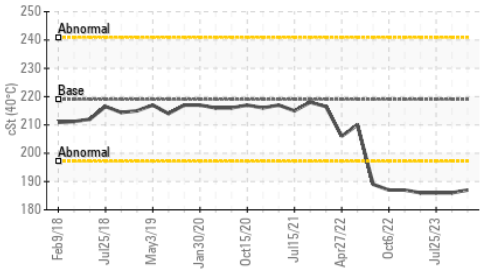
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0
Nitration	Abs/cm	*ASTM D7624		**3.8**	3.7	4.4
Sulfation	Abs/.1mm	*ASTM D7415		**12.8**	12.2	12.6

OIL ANALYSIS REPORT

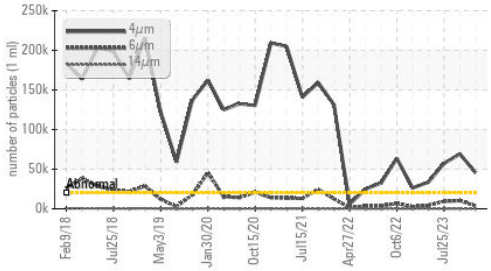
Particle Count



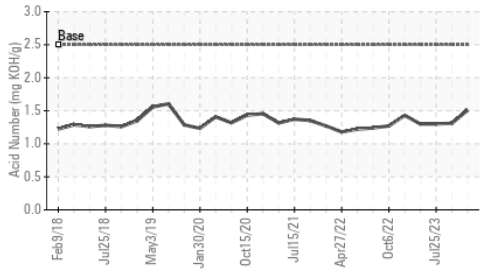
Viscosity @ 40°C



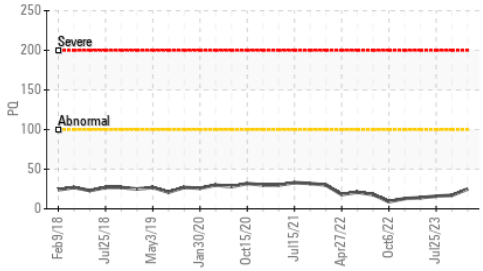
Particle Trend



Acid Number



PQ

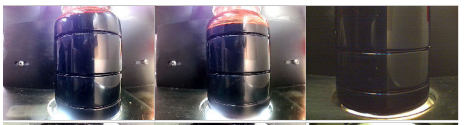


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **45562**	▲ 69281	▲ 57379
Particles >6µm		ASTM D7647	>5000	**3577**	▲ 10302	▲ 9542
Particles >14µm		ASTM D7647	>640	**103**	214	76
Particles >21µm		ASTM D7647	>160	**27**	58	10
Particles >38µm		ASTM D7647	>40	**1**	2	2
Particles >71µm		ASTM D7647	>10	**0**	1	2
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **23/19/14**	▲ 23/21/15	▲ 23/20/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		**3.5**	3.5	4.0
Acid Number (AN)	mg KOH/g	ASTM D8045	2.5	**1.51**	1.31	1.30

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	219	▲ **187**	▲ 186	▲ 186

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PLS0000811 **Received** : 11 Jan 2024
Lab Number : 06057971 **Tested** : 12 Jan 2024
Unique Number : 10829353 **Diagnosed** : 06 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 - DIBOLL PLANT
100 W BORDEN DR
DIBOLL, TX
US 75941
Contact: DENISE ROBERTSON
denise.robertson@hexion.com;mike.johnson@amrri.com
T: (936)829-8029
F: (936)829-8003