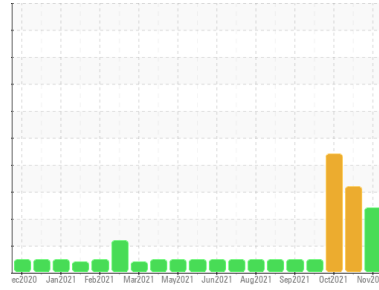


OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
3480
 Component
Gearbox
 Fluid
SHELL OMALA S4 GX 220 (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

▲ Wear

Gear wear is indicated.

▲ Contamination

There is a light concentration of water present in the oil.

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		PCA0036293	PCA0036309	PCA0036301
Sample Date	Client Info		18 Nov 2021	03 Nov 2021	27 Oct 2021
Machine Age	hrs	Client Info	6573	6363	6205
Oil Age	hrs	Client Info	0	3110	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 D5185m >200	▲ 283	67	20
Chromium	ppm	ASTM D5185m >10	4	1	<1
Nickel	ppm	ASTM D5185m	<1	<1	1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	1	<1	0
Aluminum	ppm	ASTM D5185m >25	3	<1	<1
Lead	ppm	ASTM D5185m >50	<1	<1	0
Copper	ppm	ASTM D5185m >200	4	1	<1
Tin	ppm	ASTM D5185m >10	0	0	<1
Antimony	ppm	ASTM D5185m	0	0	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	<1	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	24	16	7
Barium	ppm	ASTM D5185m	0	0	<1
Molybdenum	ppm	ASTM D5185m	2	<1	<1
Manganese	ppm	ASTM D5185m	2	<1	<1
Magnesium	ppm	ASTM D5185m	1	<1	0
Calcium	ppm	ASTM D5185m	30	12	0
Phosphorus	ppm	ASTM D5185m	429	429	401
Zinc	ppm	ASTM D5185m	8	0	0
Sulfur	ppm	ASTM D5185m	5223	5072	4647

CONTAMINANTS

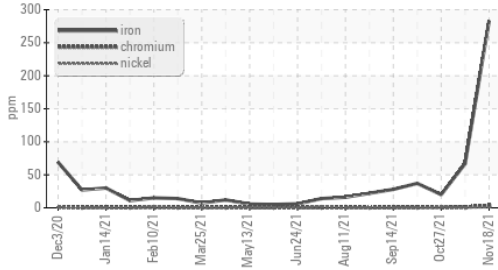
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	25	13	6
Sodium	ppm	ASTM D5185m	0	0	<1
Potassium	ppm	ASTM D5185m >20	0	<1	2
Water	%	ASTM D6304 >0.2	▲ 0.324	▲ 0.339	▲ 0.216
ppm Water	ppm	ASTM D6304 >2000	▲ 3240	▲ 3390	▲ 2160

FLUID DEGRADATION

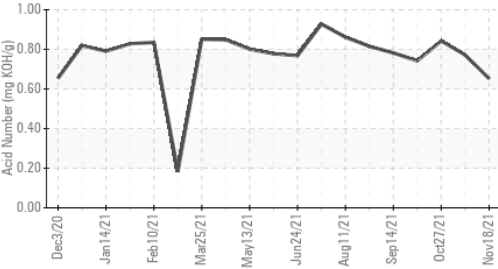
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.652	0.772	0.842

OIL ANALYSIS REPORT

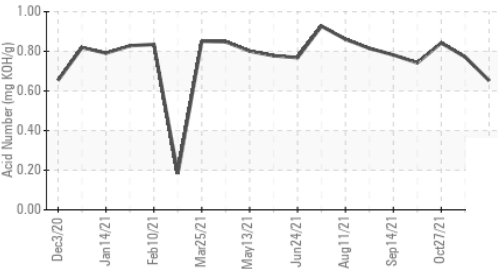
▲ Ferrous Alloys



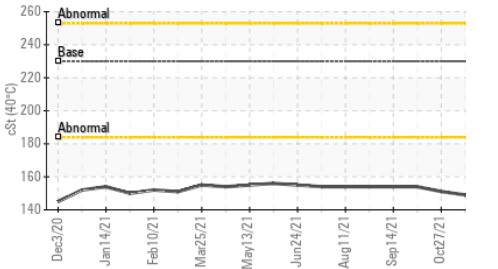
Acid Number



Acid Number



Viscosity @ 40°C

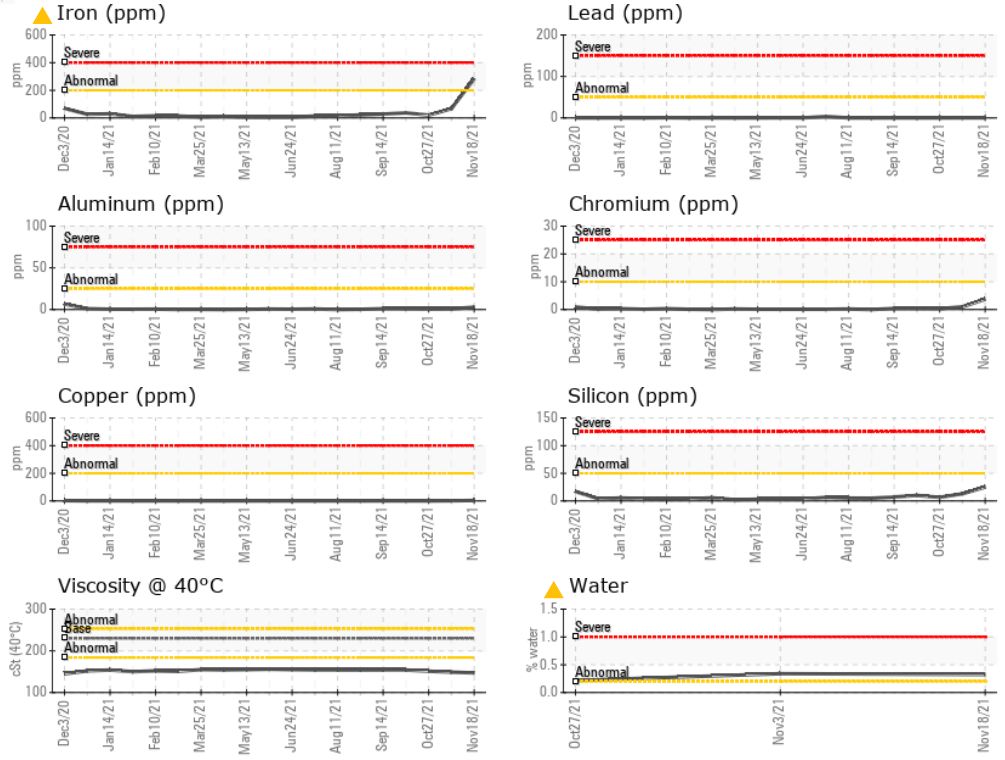


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	VLITE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	MODER
Debris	scalar	*Visual	NONE	VLITE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	▲ HAZY
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	0.2%
Free Water	scalar	*Visual		▲ NEG	▲ 1.0

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	230	147	149

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0036293 **Received** : 23 Nov 2021
Lab Number : 05407579 **Diagnosed** : 25 Nov 2021
Unique Number : 9751742 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: KF)

BAUER FOUNDATION
 3001 EVERCANE RD
 CLEWISTON, FL
 US 33440
 Contact: Dirk Schafer
 dirk.schafer@bauerfoundations.com
 T: (562)204-4302
 F:

Certificate L2367
 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)