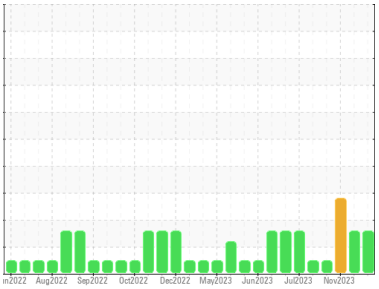
PROBLEM SUMMARY

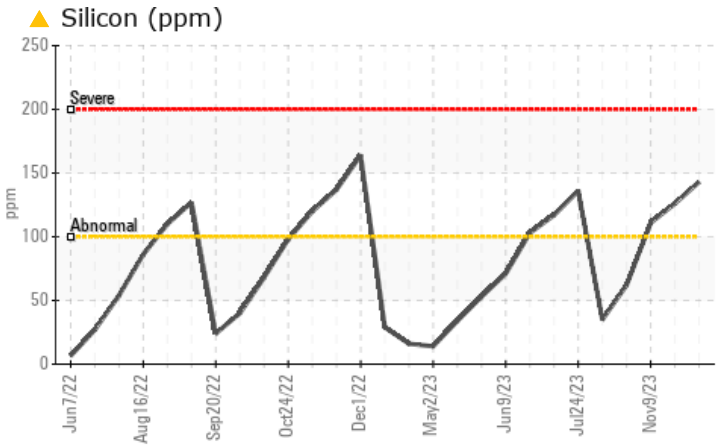
Sample Rating Trend



DIRT

Machine Id
JENBACHER X237 (S/N 1351125)
Component
Circulating Natural Gas Engine
Fluid
PETRO CANADA SENTRON CG 40 (600 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the efficiency of the lube oil purifier. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Silicon	ppm	ASTM D5185(m)	>100	▲ **143**	▲ 126	▲ 111

Customer Id: CHAALL
Sample No.: PC0077248
Lab Number: 02600972
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.
Check	---	---	?	We advise that you check the efficiency of the lube oil purifier.

HISTORICAL DIAGNOSIS

17 Nov 2023 Diag: Kevin Marson

DIRT

We advise that you check the efficiency of the lube oil purifier. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate concentration of dirt present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

view report

09 Nov 2023 Diag: Kevin Marson

DIRT

We advise that you check the efficiency of the lube oil purifier. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate concentration of dirt present in the oil. The i-pH level is abnormally low. The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable.

view report

03 Oct 2023 Diag: Kevin Marson

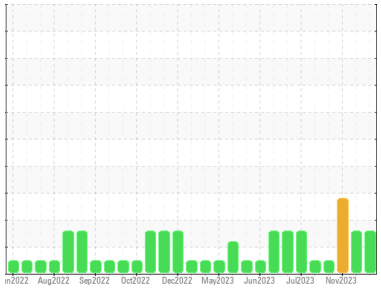
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
JENBACHER X237 (S/N 1351125)
Component
Circulating Natural Gas Engine
Fluid
PETRO CANADA SENTRON CG 40 (600 LTR)

DIAGNOSIS

Recommendation

We advise that you check the efficiency of the lube oil purifier. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate concentration of dirt present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0077248**	PC0077249	PC0077250
Sample Date		Client Info		**30 Nov 2023**	17 Nov 2023	09 Nov 2023
Machine Age	hrs	Client Info		**35505**	35197	35004
Oil Age	hrs	Client Info		**1785**	1477	1284
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**3**	3	3
Chromium	ppm	ASTM D5185(m)	>5	**<1**	0	<1
Nickel	ppm	ASTM D5185(m)	>2	**0**	0	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**<1**	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	**5**	5	4
Lead	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Copper	ppm	ASTM D5185(m)	>15	**1**	<1	<1
Tin	ppm	ASTM D5185(m)	>5	**3**	2	2
Antimony	ppm	ASTM D5185(m)		**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

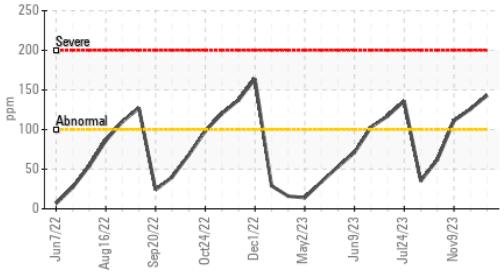
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**3**	4	4
Barium	ppm	ASTM D5185(m)	1	**<1**	<1	<1
Molybdenum	ppm	ASTM D5185(m)	2	**1**	1	1
Manganese	ppm	ASTM D5185(m)	1	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	9	**20**	21	20
Calcium	ppm	ASTM D5185(m)	2712	**2884**	2957	2956
Phosphorus	ppm	ASTM D5185(m)	292	**279**	279	286
Zinc	ppm	ASTM D5185(m)	342	**346**	351	343
Sulfur	ppm	ASTM D5185(m)	2575	**2598**	2609	3048
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>100	▲ **143**	▲ 126	▲ 111
Sodium	ppm	ASTM D5185(m)	>20	**2**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**4**	0	0

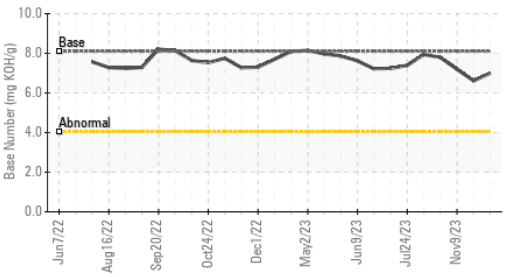
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.98	**1.99**	1.85	1.38
Base Number (BN)	mg KOH/g	ASTM D2896*	8.1	**7.00**	6.61	7.20
i-pH	Scale 0-14	ASTM D7946*	<4.5	**4.68**	4.70	▲ 4.10

OIL ANALYSIS REPORT

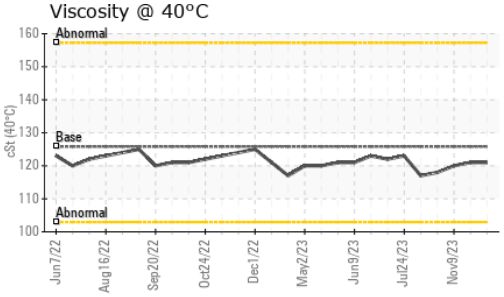
Silicon (ppm)



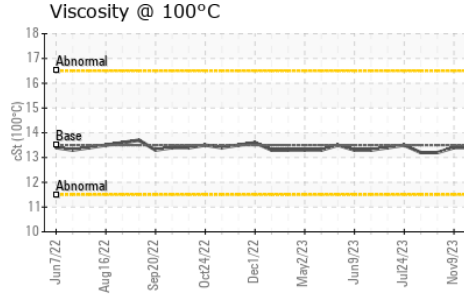
Base Number



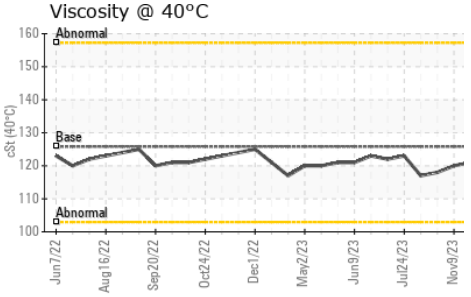
Viscosity @ 40°C



Viscosity @ 100°C



Viscosity @ 40°C

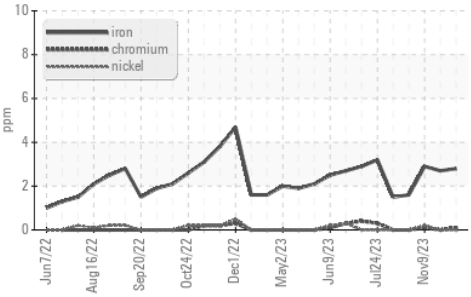


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	VLITE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

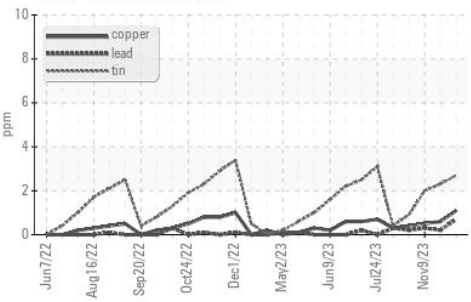
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	125.8	**121**	121	120
Visc @ 100°C	cSt	ASTM D7279(m)	13.5	**13.4**	13.4	13.4
Viscosity Index (VI)	Scale	ASTM D2270*	105	**106**	106	107

GRAPHS

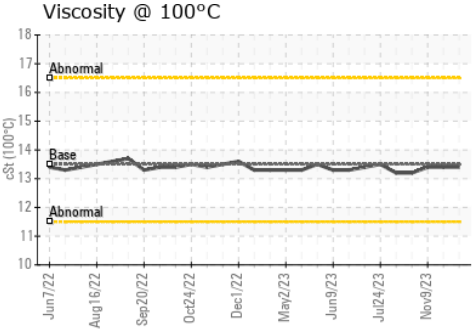
Ferrous Alloys



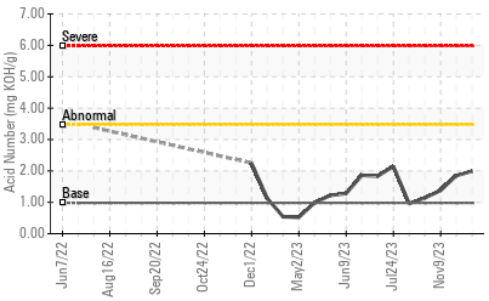
Non-ferrous Metals



Viscosity @ 100°C



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **CHALEUR REGIONAL SERVICE COMMISSION**
Sample No. : PC0077248 **Received** : 05 Dec 2023 1300 RTE 360
Lab Number : 02600972 **Diagnosed** : 07 Dec 2023 ALLARDVILLE, NB
Unique Number : 5694057 **Diagnostician** : Kevin Marson CA E8L 1H5
Test Package : IND 2 (Additional Tests: i-pH, KV40, TAN Man, VI) Contact: Yvon Richard

To discuss this sample report, contact Customer Service at 1-800-268-2131. yvon.richard@csrchaleurrsc.ca
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (506)725-2402
Validity of results and interpretation are based on the sample and information as supplied. F: