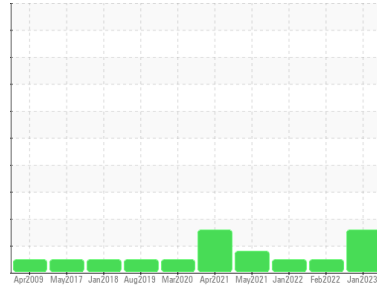




PROBLEM SUMMARY

Area
Utilities/Cogen
 Machine Id
#5 TURBO GENERATOR LUBE SYSTEM (UTL128) (S/N 1000001755)
 Component
Bearing Lube
 Fluid
SHELL TURBO T ISO 32 (--- LTR)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

No relevant graphs to display


RECOMMENDATION

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	NORMAL	NORMAL
Free Water	scalar Visual*	▲ 1%	NEG	NEG

Customer Id: ALGSSM
Sample No.: WC0583210
Lab Number: 02537109
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
Water Drain-off	---	---	?	We advise that you follow the water drain-off procedure for this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Water Access	---	---	?	We advise that you check for the source of water entry.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

10 Feb 2022 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



30 Jan 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



13 May 2021 Diag: Wes Davis

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

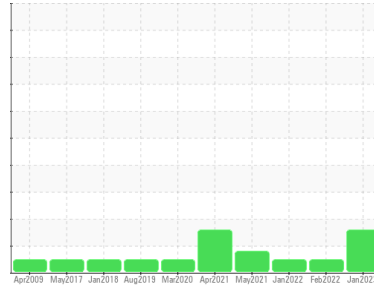
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area
Utilities/Cogen
 Machine Id
#5 TURBO GENERATOR LUBE SYSTEM (UTL128) (S/N 1000001755)
 Component
Bearing Lube
 Fluid
SHELL TURBO T ISO 32 (--- LTR)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate concentration of water present in the oil. Free water present. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. NOTE: An increase in the particle count is noted.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		WC0583210	WC0583013	WC0583114
Sample Date	Client Info		25 Jan 2023	10 Feb 2022	30 Jan 2022
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
PQ	ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m) >120	<1	0	0
Chromium	ppm	ASTM D5185(m) >5	0	0	0
Nickel	ppm	ASTM D5185(m) >20	0	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >4	<1	0	<1
Lead	ppm	ASTM D5185(m) >30	0	<1	<1
Copper	ppm	ASTM D5185(m) >17	0	<1	<1
Tin	ppm	ASTM D5185(m) >10	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	<1	0	0
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	history 1	history 2
Boron	ppm	ASTM D5185(m)	0	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	0	0
Calcium	ppm	ASTM D5185(m)	0	<1	<1
Phosphorus	ppm	ASTM D5185(m)	55	51	50
Zinc	ppm	ASTM D5185(m)	<1	<1	<1
Sulfur	ppm	ASTM D5185(m)	77	25	35
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

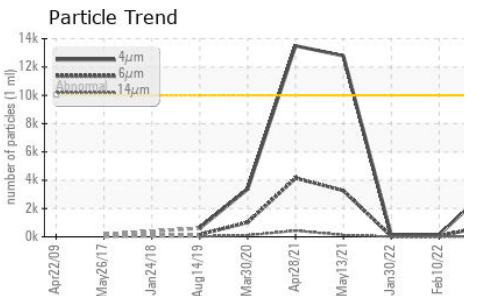
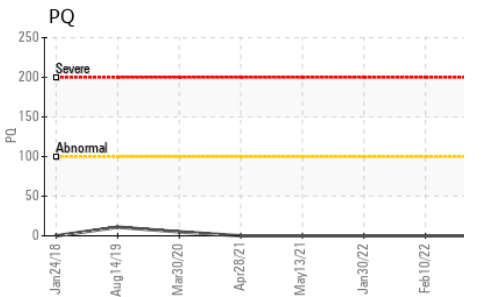
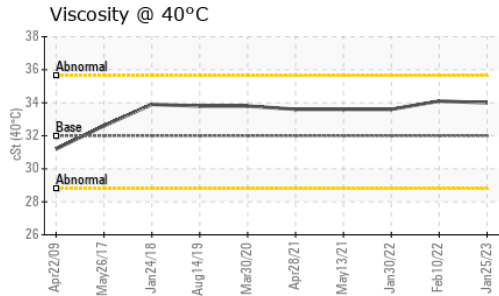
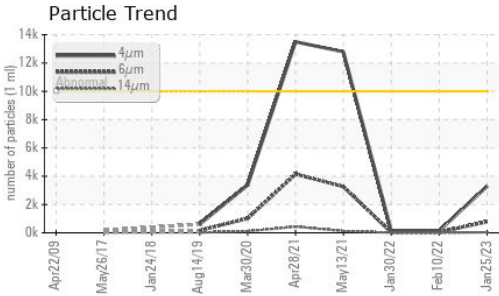
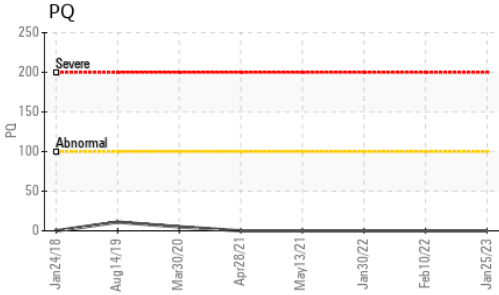
CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m) >25	0	0	0
Sodium	ppm	ASTM D5185(m)	0	0	0
Potassium	ppm	ASTM D5185(m) >20	0	<1	8

FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647	>10000	3291	146	141
Particles >6µm	ASTM D7647	>2500	793	37	33
Particles >14µm	ASTM D7647	>160	35	5	4
Particles >21µm	ASTM D7647	>40	10	1	1
Particles >38µm	ASTM D7647	>10	0	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/14	19/17/12	14/12/10	14/12/9

OIL ANALYSIS REPORT

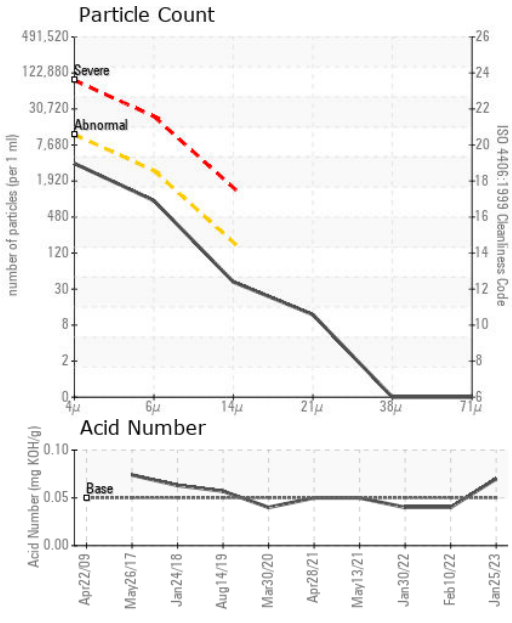
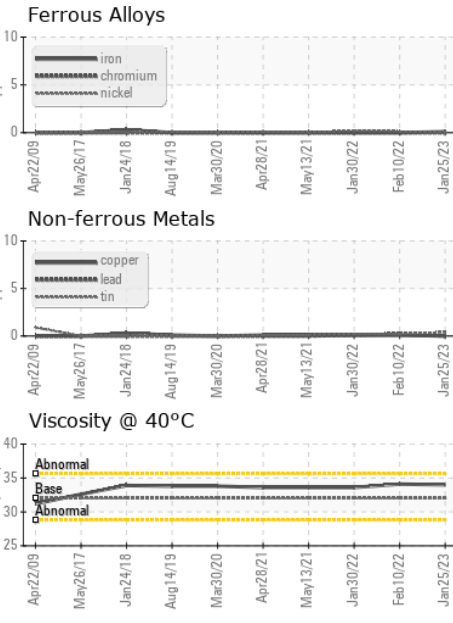


FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D974*	.05	0.07	0.04	0.04
VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	VLITE	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*	>2	.2%	NEG	NEG
Free Water	scalar	Visual*		▲ 1%	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D7279(m)	32	34.0	34.1	33.6

SAMPLE IMAGES		method	limit/base	current	history 1	history 2
Color						
Bottom						

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**
Sample No. : WC0583210 **Received** : 02 Feb 2023 **301 WALLACE TERRACE**
Lab Number : 02537109 **Diagnosed** : 06 Feb 2023 **SAULT STE MARIE, ON**
Unique Number : 5526109 **Diagnostician** : Kevin Marson **CA P6C 1K8**
Test Package : IND 2 (Additional Tests: PrtCount, TAN Man) **Contact: Algoma Reliability**
To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted () outside scope of accreditation, (m) method modified, (e) tested at external lab.*
Validity of results and interpretation are based on the sample and information as supplied.