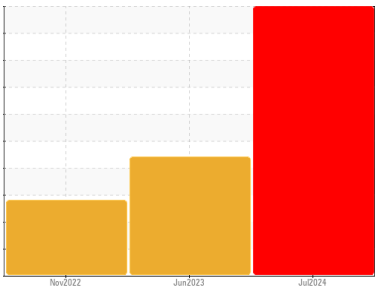
PROBLEM SUMMARY

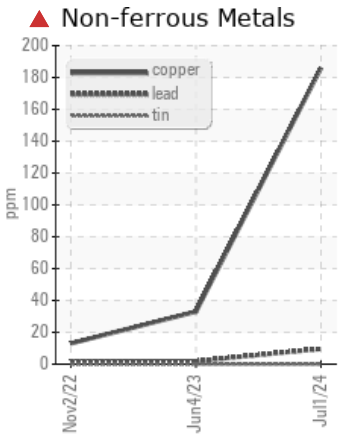
Sample Rating Trend

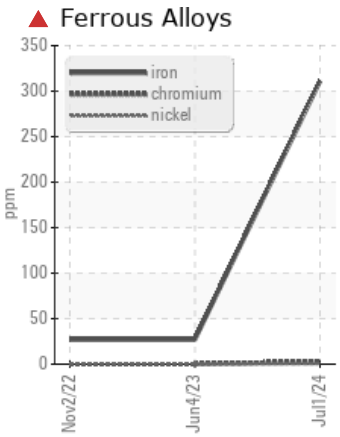


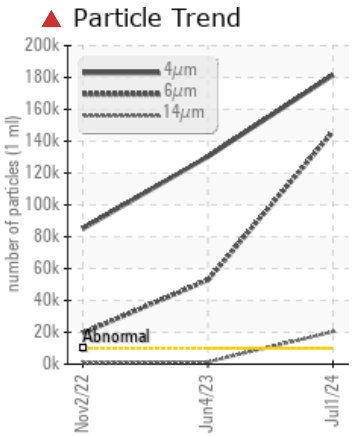
WEAR

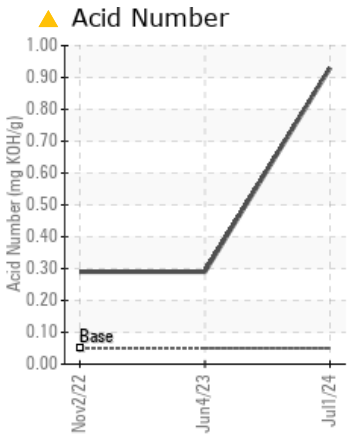
Machine Id
COILER COMPRESSOR (PLS082)
Component
Reciprocating Compressor
Fluid
SHELL TURBO T ISO 68 (--- GAL)

COMPONENT CONDITION SUMMARY









RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We recommend that you drain the oil from the component if this has not already been done. 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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Iron	ppm	ASTM D5185(m)	>50	▲ **311**	27	27
Copper	ppm	ASTM D5185(m)	>50	▲ **186**	33	13
Particles >4µm		ASTM D7647	>10000	▲ **181478**	▲ 130276	▲ 85033
Particles >6µm		ASTM D7647	>2500	▲ **145921**	▲ 52790	▲ 19475
Particles >14µm		ASTM D7647	>320	▲ **20314**	▲ 1380	▲ 851
Particles >21µm		ASTM D7647	>80	▲ **1723**	▲ 325	▲ 183
Particles >38µm		ASTM D7647	>20	▲ **49**	16	4
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ **25/24/22**	▲ 24/23/18	▲ 24/21/17
Acid Number (AN)	mg KOH/g	ASTM D974*	.05	▲ **0.93**	0.29	0.29

Customer Id: ALGSSM
Sample No.: WC0813589
Lab Number: 02645483
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 Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
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 Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.

HISTORICAL DIAGNOSIS

ISO

04 Jun 2023 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation.All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

ISO

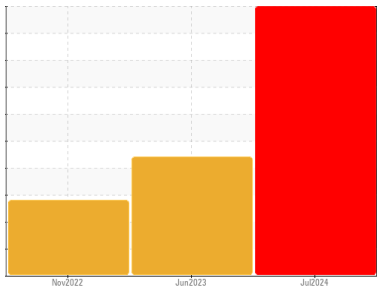
02 Nov 2022 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. Oil Cleanliness are severely high. Particles >4µm are severely high. Particles >6µm are abnormally high. Particles >14µm are abnormally high. Particles >21µm are abnormally high. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
COILER COMPRESSOR (PLS082)
Component
Reciprocating Compressor
Fluid
SHELL TURBO T ISO 68 (--- GAL)

DIAGNOSIS

▲ Recommendation
We advise that you check all areas where contaminants can enter the system. We recommend that you drain the oil from the component if this has not already been done. 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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

▲ Wear
Copper and iron ppm levels are severe.

▲ Contamination
There is a high amount of particulates (2 to 100 microns in size) present in the oil. The water content is negligible.

▲ Fluid Condition
The AN level is above the recommended limit. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0813589**	WC0714520	WC0714618
Sample Date		Client Info		**01 Jul 2024**	04 Jun 2023	02 Nov 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				**SEVERE**	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	---	---
Iron	ppm	ASTM D5185(m)	>50	▲ **311**	27	27
Chromium	ppm	ASTM D5185(m)	>10	**3**	0	0
Nickel	ppm	ASTM D5185(m)		**<1**	0	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>25	**2**	<1	<1
Lead	ppm	ASTM D5185(m)	>25	**10**	2	2
Copper	ppm	ASTM D5185(m)	>50	▲ **186**	33	13
Tin	ppm	ASTM D5185(m)	>15	**0**	0	0
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

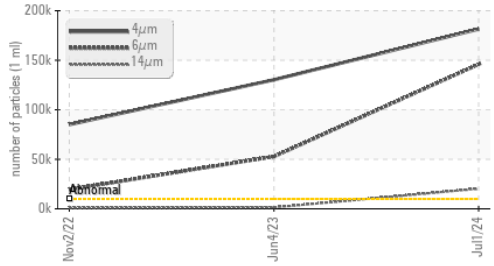
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	<1
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**2**	<1	0
Magnesium	ppm	ASTM D5185(m)		**<1**	0	0
Calcium	ppm	ASTM D5185(m)		**2**	0	0
Phosphorus	ppm	ASTM D5185(m)		**11**	5	8
Zinc	ppm	ASTM D5185(m)		**12**	2	<1
Sulfur	ppm	ASTM D5185(m)		**161**	166	243
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**6**	<1	<1
Sodium	ppm	ASTM D5185(m)		**6**	<1	0
Potassium	ppm	ASTM D5185(m)	>20	**8**	2	<1
Water	%	ASTM D6304*	>0.1	**0.009**	0.002	0.002
ppm Water	ppm	ASTM D6304*	>1000	**100**	23.3	22.2

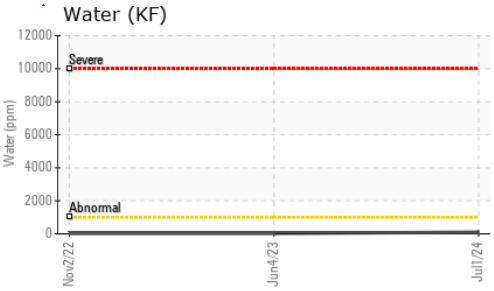
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **181478**	▲ 130276	▲ 85033
Particles >6µm		ASTM D7647	>2500	▲ **145921**	▲ 52790	▲ 19475
Particles >14µm		ASTM D7647	>320	▲ **20314**	▲ 1380	▲ 851
Particles >21µm		ASTM D7647	>80	▲ **1723**	▲ 325	▲ 183
Particles >38µm		ASTM D7647	>20	▲ **49**	16	4
Particles >71µm		ASTM D7647	>4	**4**	1	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ **25/24/22**	▲ 24/23/18	▲ 24/21/17

OIL ANALYSIS REPORT

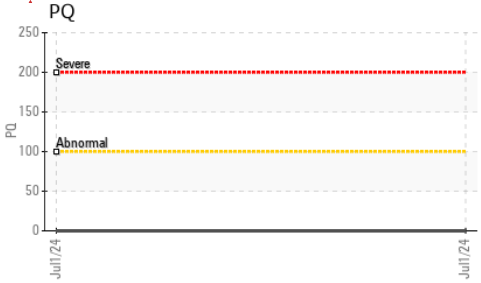
Particle Trend



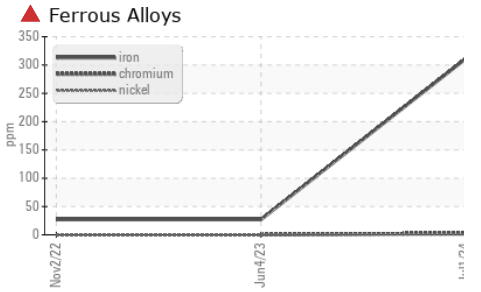
Water (KF)



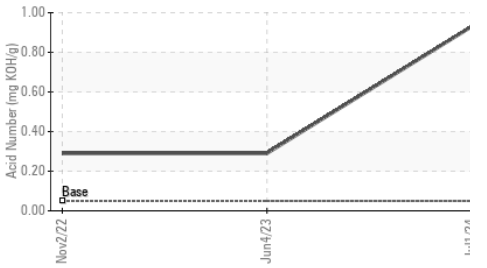
PQ



Ferrous Alloys



Acid Number

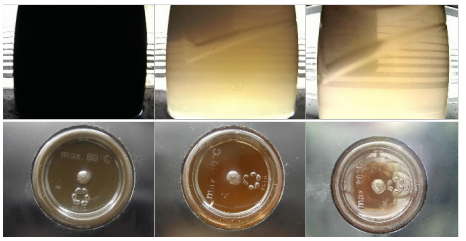


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	.05	▲ **0.93**	0.29	0.29

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**LIGHT**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

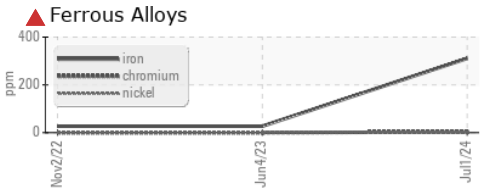
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68	**66.3**	63.5	62.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

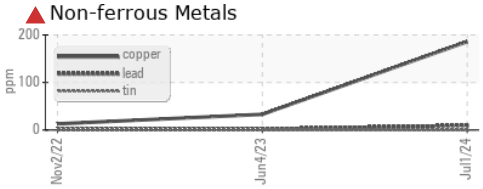


GRAPHS

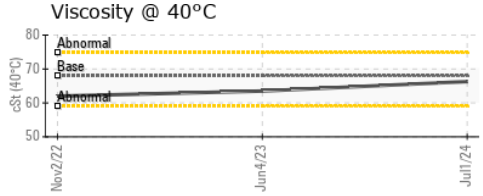
Ferrous Alloys



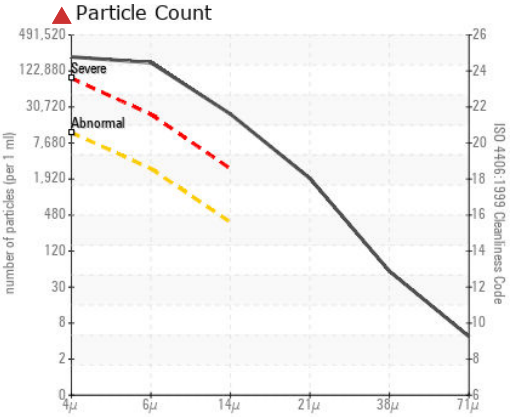
Non-ferrous Metals



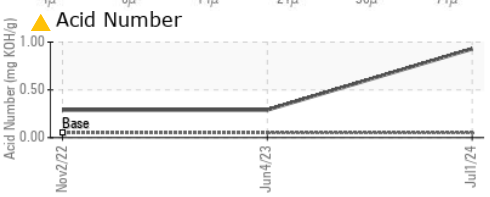
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0813589
Lab Number : 02645483
Unique Number : 5803022
Test Package : IND 2 (Additional Tests: KF, PQ, PrtCount, TAN Man)

Received : 04 Jul 2024
Tested : 05 Jul 2024
Diagnosed : 05 Jul 2024 - Kevin Marson

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.

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