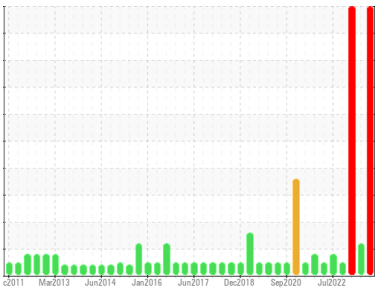
PROBLEM SUMMARY

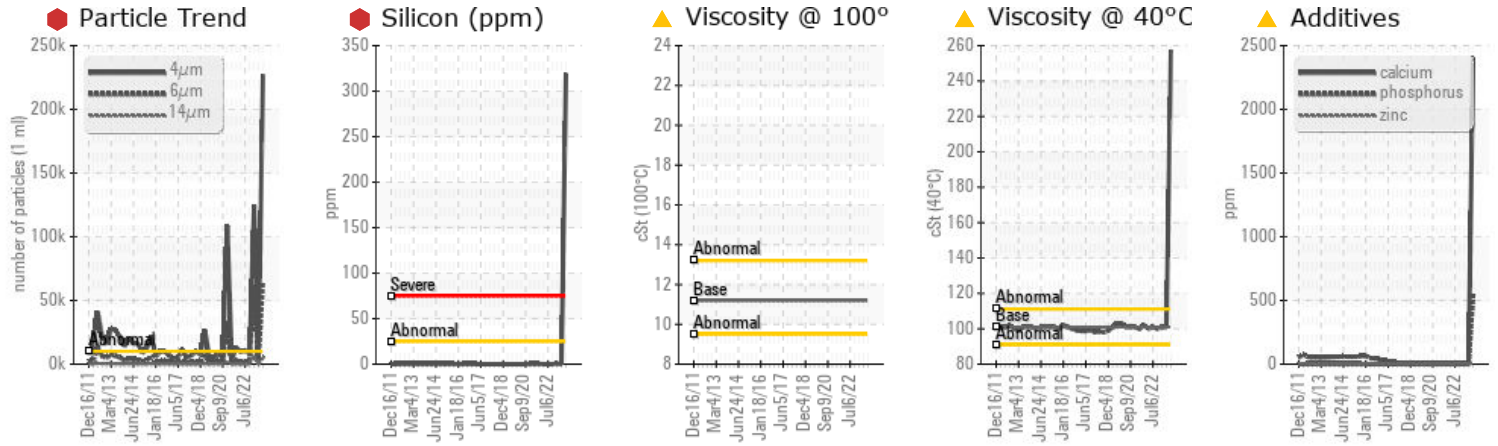
Sample Rating Trend



DIRT

Area
2 Phoenix/020 ISO Dewax/C Compressor/101A H2 Makeup Comp
Machine Id
N/A 20C101A (North)
Component
Reciprocating Compressor
Fluid
PETRO CANADA COMPRO COMPRESSOR FLUID 100 (254 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ATTENTION	SEVERE
Magnesium	ppm	ASTM D5185(m)	0	▲ **24**	0	0
Calcium	ppm	ASTM D5185(m)	0	▲ **2407**	0	0
Phosphorus	ppm	ASTM D5185(m)	50	▲ **535**	<1	1
Silicon	ppm	ASTM D5185(m)	>25	⬢ **319**	0	<1
Particles >4µm		ASTM D7647	>10000	⬢ **226837**	▲ 14019	⬢ 124050
Particles >6µm		ASTM D7647	>2500	⬢ **65414**	▲ 3662	⬢ 60832
Particles >14µm		ASTM D7647	>320	⬢ **4693**	161	⬢ 5592
Particles >21µm		ASTM D7647	>80	⬢ **899**	32	⬢ 1409
Oil Cleanliness		ISO 4406 (c)	>20/18/15	⬢ **25/23/19**	▲ 21/19/15	⬢ 24/23/20
Visc @ 40°C	cSt	ASTM D7279(m)	101.0	▲ **257**	101	101
Visc @ 100°C	cSt	ASTM D7279(m)	11.2	▲ **21.1**	---	---

Customer Id: PETMIS
Sample No.: PC
Lab Number: 02554169
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Bill Quesnel CLS,OMA II,MLA-III,LLA-I +1 (289)291-4641 x4641
Bill.Quesnel@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 advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
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.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

15 Mar 2023 Diag: Wes Davis

ISO

We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

15 Dec 2022 Diag: Kevin Marson

ISO

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. 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 advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample in 30-45 days to monitor this situation. DISCLAIMER: Interpretation of laboratory tests is based on sample, as received from client. Source of sample and sampling technique cannot be verified.All component wear rates are normal. Particles >14µm are severely high. Particles >21µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Oil Cleanliness are severely high. Oil Cleanliness are severely high.. Oil Cleanliness are severely high... Particles >38µm are abnormally high. Free water present. Light concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid.

view report

07 Sep 2022 Diag: Wes Davis

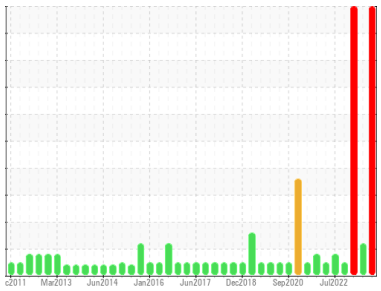
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
2 Phoenix/020 ISO Dewax/C Compressor/101A H2 Makeup Comp
Machine Id
N/A 20C101A (North)
Component
Reciprocating Compressor
Fluid
PETRO CANADA COMPRO COMPRESSOR FLUID 100 (254 LTR)

DIAGNOSIS

Recommendation

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. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil. The water content is negligible. High silicon level indicates possible contamination with silicone-based oil or silicone-based fitting compound/grease. Advise investigate any possible cross-contamination with silicone-based oil, or any points that are sealed/greased with silicone-based compound/grease.

Fluid Condition

Viscosity of sample indicates oil is within SAE 50 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. 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	history1	history2
Sample Number		Client Info		**PC**	WC0794245	WC0764720
Sample Date		Client Info		**27 Apr 2023**	15 Mar 2023	15 Dec 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**	ATTENTION	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	**5**	<1	1
Chromium	ppm	ASTM D5185(m)	>10	**0**	0	0
Nickel	ppm	ASTM D5185(m)		**<1**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>25	**2**	<1	0
Lead	ppm	ASTM D5185(m)	>25	**<1**	0	<1
Copper	ppm	ASTM D5185(m)	>50	**4**	<1	<1
Tin	ppm	ASTM D5185(m)	>15	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	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

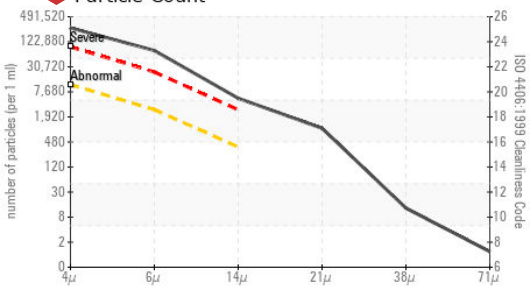
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**<1**	0	<1
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)		**<1**	0	0
Magnesium	ppm	ASTM D5185(m)	0	▲ **24**	0	0
Calcium	ppm	ASTM D5185(m)	0	▲ **2407**	0	0
Phosphorus	ppm	ASTM D5185(m)	50	▲ **535**	<1	1
Zinc	ppm	ASTM D5185(m)	0	**5**	<1	<1
Sulfur	ppm	ASTM D5185(m)	1500	**2752**	3074	3024
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	⬢ **319**	0	<1
Sodium	ppm	ASTM D5185(m)		**0**	0	<1
Potassium	ppm	ASTM D5185(m)	>20	**0**	0	<1
Water	%	ASTM D6304*	>0.1	**0.009**	0.001	0.006
ppm Water	ppm	ASTM D6304*	>1000	**91.1**	14.0	65.1

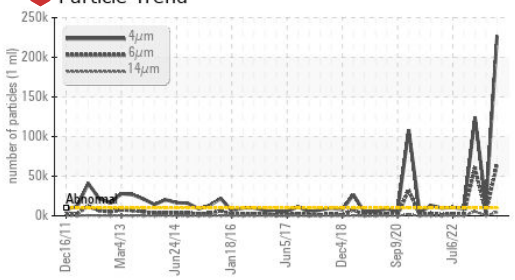
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	⬢ **226837**	▲ 14019	⬢ 124050
Particles >6µm		ASTM D7647	>2500	⬢ **65414**	▲ 3662	⬢ 60832
Particles >14µm		ASTM D7647	>320	⬢ **4693**	161	⬢ 5592
Particles >21µm		ASTM D7647	>80	⬢ **899**	32	⬢ 1409
Particles >38µm		ASTM D7647	>20	**11**	1	▲ 59
Particles >71µm		ASTM D7647	>4	**1**	0	2
Oil Cleanliness		ISO 4406 (c)	>20/18/15	⬢ **25/23/19**	▲ 21/19/15	⬢ 24/23/20

OIL ANALYSIS REPORT

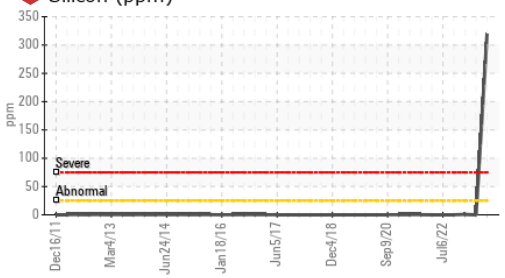
Particle Count



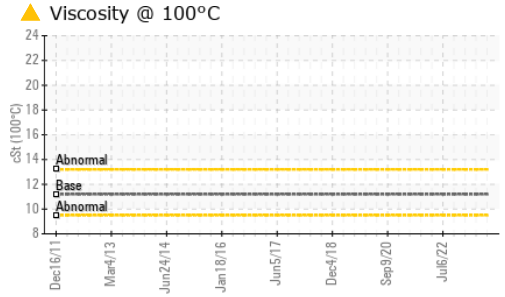
Particle Trend



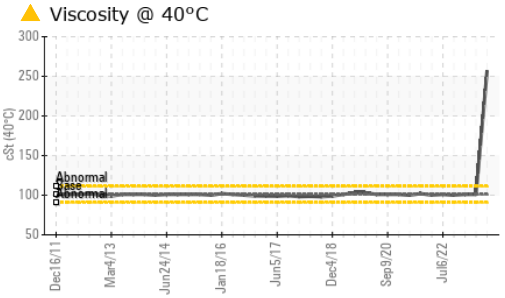
Silicon (ppm)



Viscosity @ 100°C



Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.3	**0.59**	0.07	0.10

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	▲ LIGHT
Sand/Dirt	scalar	Visual*	NONE	**NONE**	VLITE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	▲ WGOIL
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	**NEG**	NEG	.2%
Free Water	scalar	Visual*		**NEG**	NEG	▲ 1%

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	101.0	▲ **257**	101	101
Visc @ 100°C	cSt	ASTM D7279(m)	11.2	▲ **21.1**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	97	**97**	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02554169
Unique Number : 5567184
Test Package : IND 2 (Additional Tests: KF, KV100, TAN Man, VI)
Received : 28 Apr 2023
Diagnosed : 01 May 2023
Diagnostician : Bill Quesnel

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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