

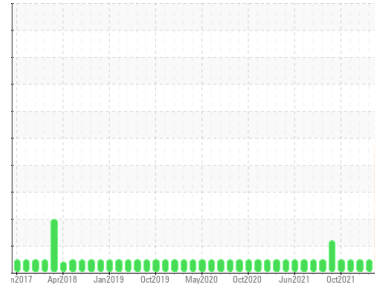
PROBLEM SUMMARY

Sample Rating Trend

ISO

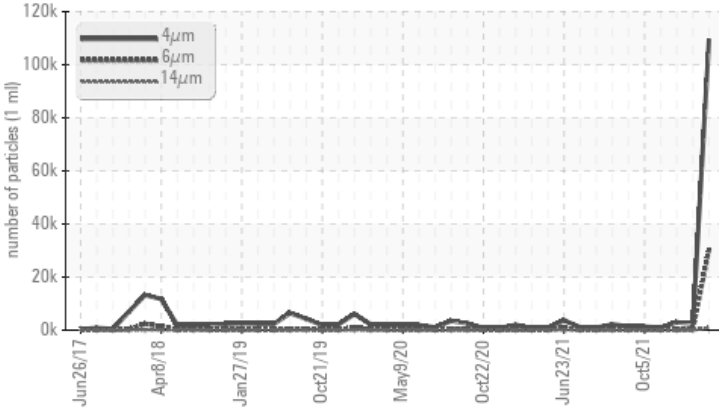


Area
Cranes [450185704]
Machine Id
Crane - Fwd Hydraulic Hoisting (S/N Sample Tag MA-04003-S3)
Component
Hydraulic System
Fluid
PETRO CANADA ATF DEXRON III/MERCON (800 LTR)



COMPONENT CONDITION SUMMARY

Particle Trend



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you check for visible metal particles in the oil. 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.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	NORMAL	NORMAL
Particles >6µm	ASTM D7647	>1300	30308	226	191
Particles >14µm	ASTM D7647	>160	925	12	16
Particles >21µm	ASTM D7647	>40	170	4	4
Oil Cleanliness	ISO 4406 (c)	>--/17/14	24/22/17	18/15/11	19/15/11
White Metal	scalar	Visual*	LIGHT	NONE	NONE
PrtFilter				no image	no image

Customer Id: TERHAM
Sample No.: PC
Lab Number: 02582168
Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
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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 For Visual Metal	---	---	?	We advise that you check for visible metal particles in the oil.
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

02 May 2023 Diag: Kevin Marson

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 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



29 Nov 2021 Diag: Kevin Marson

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 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



27 Nov 2021 Diag: Kevin Marson

NORMAL

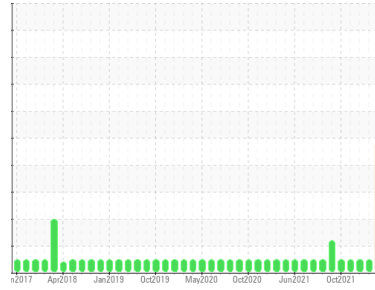


Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area
Cranes [450185704]
Machine Id
Crane - Fwd Hydraulic Hoisting (S/N Sample Tag MA-04003-S3)
Component
Hydraulic System
Fluid
PETRO CANADA ATF DEXRON III/MERCON (800 LTR)



DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you check for visible metal particles in the oil. 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.

Wear

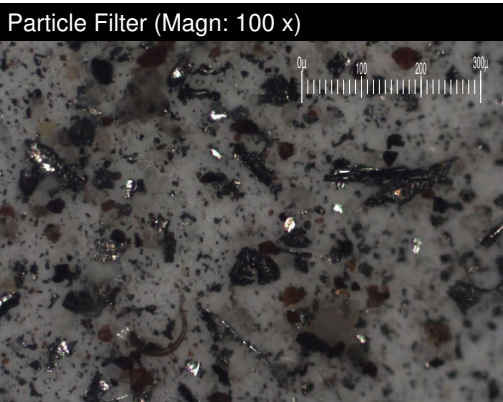
Moderate concentration of visible metal present. Cylinder wear is indicated.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code.

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	history1	history2
Sample Number	Client Info	PC	PC0053013	PC0040130
Sample Date	Client Info	13 Aug 2023	02 May 2023	29 Nov 2021
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		SEVERE	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	0
Iron	ppm	4	2	2
Chromium	ppm	<1	0	0
Nickel	ppm	<1	<1	<1
Titanium	ppm	0	0	0
Silver	ppm	0	0	<1
Aluminum	ppm	<1	<1	<1
Lead	ppm	4	4	5
Copper	ppm	6	5	5
Tin	ppm	<1	<1	<1
Antimony	ppm	0	<1	<1
Vanadium	ppm	0	0	0
Beryllium	ppm	0	0	0
Cadmium	ppm	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	75	73	82
Barium	ppm	<1	<1	<1
Molybdenum	ppm	0	0	<1
Manganese	ppm	0	0	0
Magnesium	ppm	1	<1	<1
Calcium	ppm	60	59	48
Phosphorus	ppm	284	275	272
Zinc	ppm	130	90	101
Sulfur	ppm	820	798	779
Lithium	ppm	<1	<1	<1

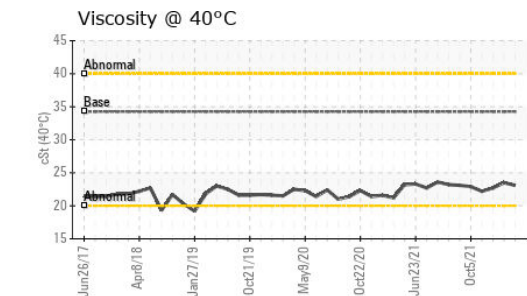
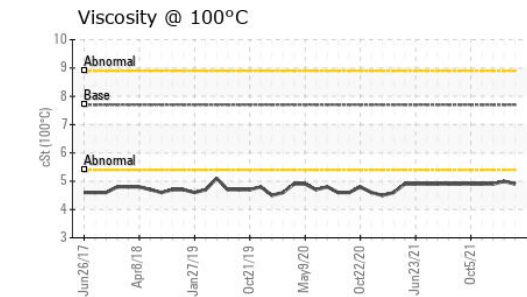
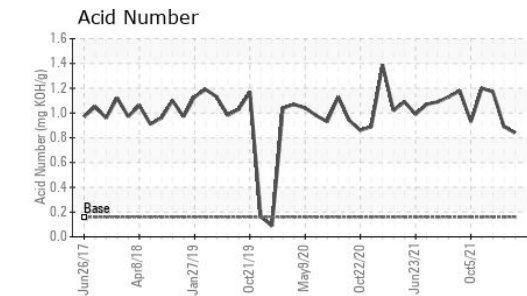
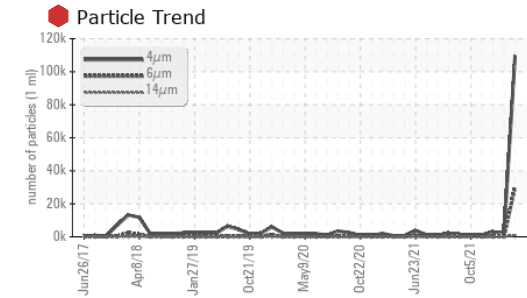
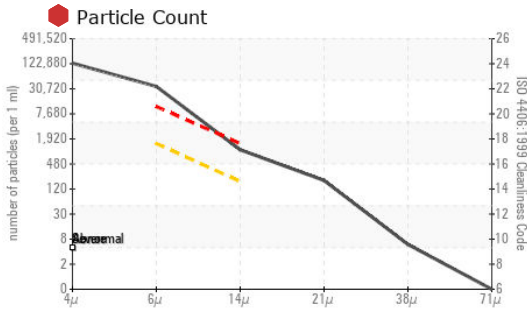
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	4	4	2
Sodium	ppm	3	2	2
Potassium	ppm	2	1	1

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	109564	2354	2972
Particles >6µm	ASTM D7647	30308	226	191
Particles >14µm	ASTM D7647	925	12	16
Particles >21µm	ASTM D7647	170	4	4
Particles >38µm	ASTM D7647	5	0	0
Particles >71µm	ASTM D7647	0	0	0
Oil Cleanliness	ISO 4406 (c)	24/22/17	18/15/11	19/15/11

OIL ANALYSIS REPORT

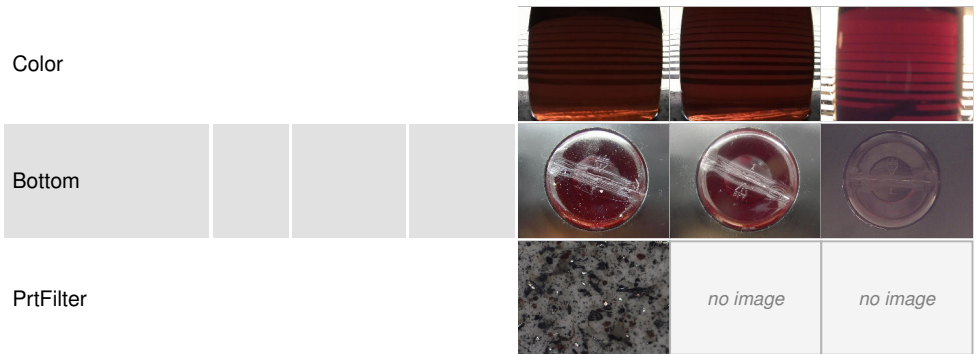


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.16	0.84	0.89	1.17

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ LIGHT	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	VLITE	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*	>0.05	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)	34.26	23.1	23.5	22.7
Visc @ 100°C	cSt	ASTM D7279(m)	7.7	4.9	5	4.9
Viscosity Index (VI)	Scale	ASTM D2270*	210	140	144	145

SAMPLE IMAGES



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02582168
Unique Number : 5643233
Test Package : MAR 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, KV100, PQ, PrtFilter, VI)

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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.