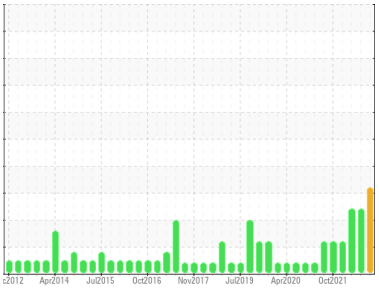
PROBLEM SUMMARY

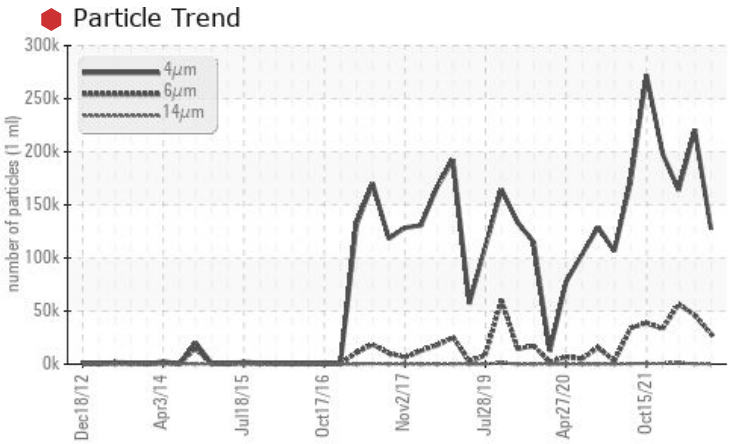
Sample Rating Trend



ISO

Area
MEV
Machine Id
MEV (S/N PORT STEERING)
Component
Hydraulic System
Fluid
CHEVRON RANDO HD 68 (200 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Particles >6µm		ASTM D7647	>1300	**28491**	46061	56505
Particles >14µm		ASTM D7647	>160	**188**	442	923
Oil Cleanliness		ISO 4406 (c)	>--/17/14	**24/22/15**	25/23/16	25/23/17

Customer Id: AMESAI
Sample No.: MW0016696
Lab Number: 05827563
Test Package: MAR 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	MISSED	Jun 19 2023	?	We recommend you service the filters on this component.
Resample	MISSED	Jun 19 2023	?	Resample in 30-45 days to monitor this situation.
Check Breathers	MISSED	Jun 19 2023	?	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 Seals	MISSED	Jun 19 2023	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

26 Jul 2022 Diag: Jonathan Hester

WEAR

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.The iron level is abnormal. All other component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

12 Jul 2022 Diag: Jonathan Hester

WEAR

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.The iron level is abnormal. All other component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

15 Jan 2022 Diag: Don Baldridge

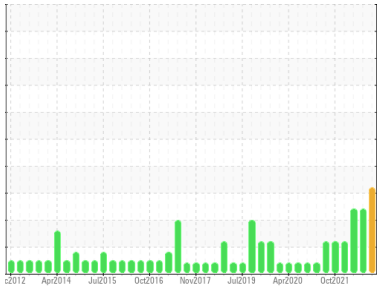
ISO

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 high amount of particulates 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



ISO

Area
MEV
Machine Id
MEV (S/N PORT STEERING)
Component
Hydraulic System
Fluid
CHEVRON RANDO HD 68 (200 GAL)

DIAGNOSIS

Recommendation

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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 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		**MW0016696**	MW0039916	MW0031701
Sample Date		Client Info		**12 Apr 2023**	26 Jul 2022	12 Jul 2022
Machine Age	hrs	Client Info		**2368**	33973	33637
Oil Age	hrs	Client Info		**2368**	33973	33637
Oil Changed		Client Info		**N/A**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**12**	▲ 50	▲ 51
Chromium	ppm	ASTM D5185m	>10	**0**	2	1
Nickel	ppm	ASTM D5185m	>10	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>10	**<1**	<1	0
Lead	ppm	ASTM D5185m	>20	**0**	<1	<1
Copper	ppm	ASTM D5185m	>20	**0**	6	5
Tin	ppm	ASTM D5185m	>10	**0**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

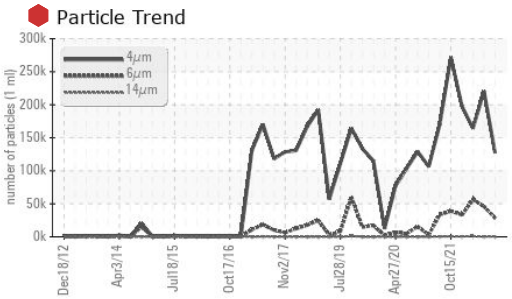
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	<1	3
Barium	ppm	ASTM D5185m		**0**	2	0
Molybdenum	ppm	ASTM D5185m		**0**	<1	<1
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**<1**	<1	<1
Calcium	ppm	ASTM D5185m		**35**	31	30
Phosphorus	ppm	ASTM D5185m		**311**	346	319
Zinc	ppm	ASTM D5185m		**382**	450	398
Sulfur	ppm	ASTM D5185m		**508**	925	985

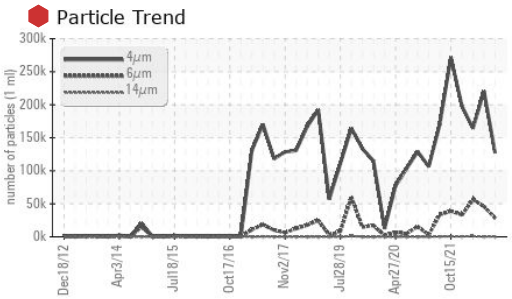
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	<1	<1
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**0**	<1	<1

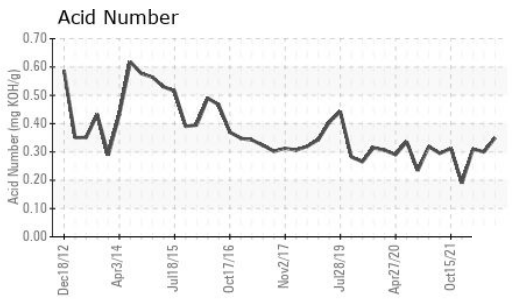
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**127364**	220595	164087
Particles >6µm		ASTM D7647	>1300	⬢ **28491**	▲ 46061	▲ 56505
Particles >14µm		ASTM D7647	>160	▲ **188**	▲ 442	▲ 923
Particles >21µm		ASTM D7647	>40	**21**	▲ 49	▲ 172
Particles >38µm		ASTM D7647	>10	**1**	2	3
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/14	⬢ **24/22/15**	▲ 25/23/16	▲ 25/23/17

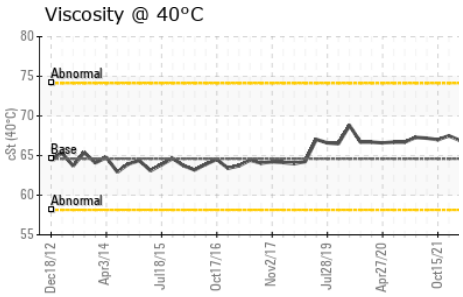
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.35**	0.30	0.31

OIL ANALYSIS REPORT



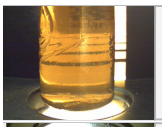
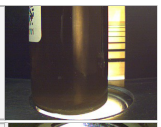




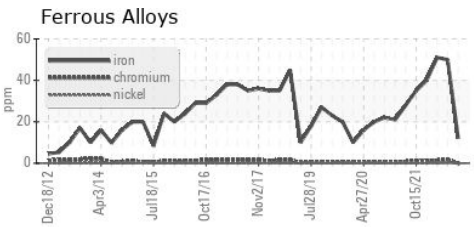


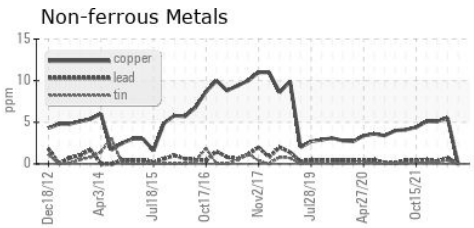
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

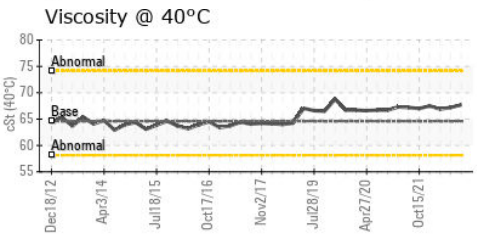
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	64.6	**67.7**	67.2	66.9

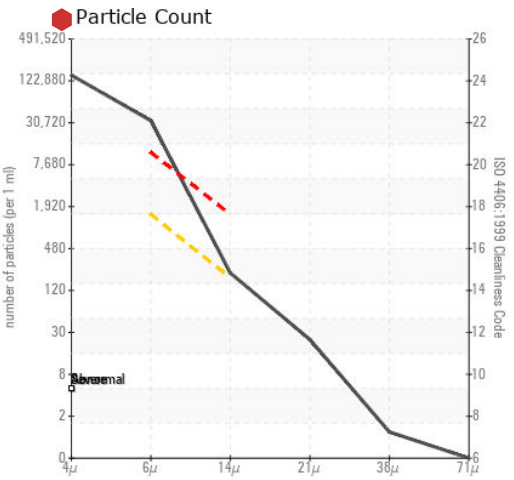
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	
Bottom				*no image*	

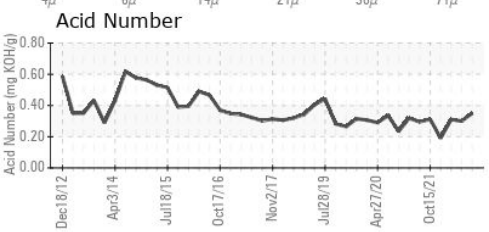
GRAPHS











Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0016696
Lab Number : 05827563
Unique Number : 10441056
Test Package : MAR 2

Received : 24 Apr 2023
Diagnosed : 25 Apr 2023
Diagnostician : Wes Davis

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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