

OIL ANALYSIS REPORT

Area Co-Gen - Utilities 30-1030 HOG FUEL TRUCK DUMP

Hydraulic System

PENNZOIL DEXRON MERCON ATF FLUID (1200 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: Filtration started and run 1 week)

📥 Wear

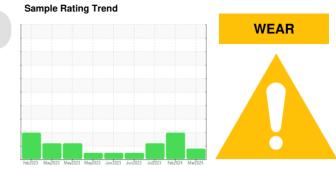
The copper level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



SAMPLE INFORMA	TION	method	limit/base	current	history1	history2
Sample Number		Client Info		PE0001550	PE0001534	PE0000988
Sample Date		Client Info		25 Mar 2024	06 Feb 2024	18 Jul 2023
Machine Age	nrs	Client Info		0	0	0
Oil Age	nrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		17	13	17
Iron p	opm	ASTM D5185m	>20	5	4	4
Chromium p	opm	ASTM D5185m	>20	1	1	<1
Nickel p	opm	ASTM D5185m	>20	0	0	0
Titanium p	opm	ASTM D5185m		<1	<1	<1
Silver	opm	ASTM D5185m		<1	0	0
Aluminum p	opm	ASTM D5185m	>20	2	0	0
Lead p	opm	ASTM D5185m	>20	4	3	4
Copper p	opm	ASTM D5185m	>20	<u> </u>	20	19
Tin p	opm	ASTM D5185m	>20	2	<1	<1
Vanadium p	opm	ASTM D5185m		<1	0	<1
Cadmium p	opm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron p	opm	ASTM D5185m		69	62	63
Barium p	opm	ASTM D5185m		<1	0	0
Molybdenum p	opm	ASTM D5185m		0	0	0
Manganese p	opm	ASTM D5185m		0	<1	<1
Magnesium p	opm	ASTM D5185m		1	0	<1
Calcium p	opm	ASTM D5185m		90	76	79
Phosphorus p	opm	ASTM D5185m		253	209	236
Zinc p	opm	ASTM D5185m		11	6	<1
Sulfur p	opm	ASTM D5185m		1019	926	1072
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon p	opm	ASTM D5185m	>15	8	2	2
	opm	ASTM D5185m		<1	3	2
Potassium p	opm	ASTM D5185m	>20	2	0	1
FLUID CLEANLINE	SS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	724	10207	▲ 10841
Particles >6µm		ASTM D7647	>1300	243	▲ 3539	🔺 3185
Particles >14µm		ASTM D7647	>320	27	496	256
Particles >21µm		ASTM D7647	>80	8	140	62

ASTM D7647 >20

ASTM D7647 >4

ISO 4406 (c) >19/17/15

0

0

17/15/12

Particles >38µm

Particles >71µm

Oil Cleanliness

2

0

▲ 21/19/15

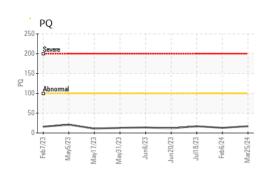
8

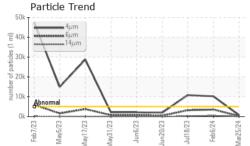
0

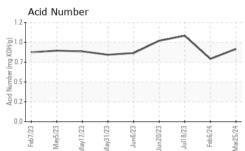
▲ 21/19/16

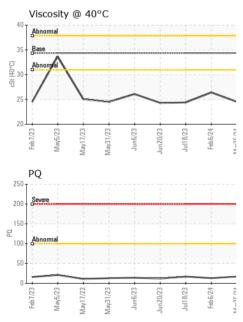


OIL ANALYSIS REPORT







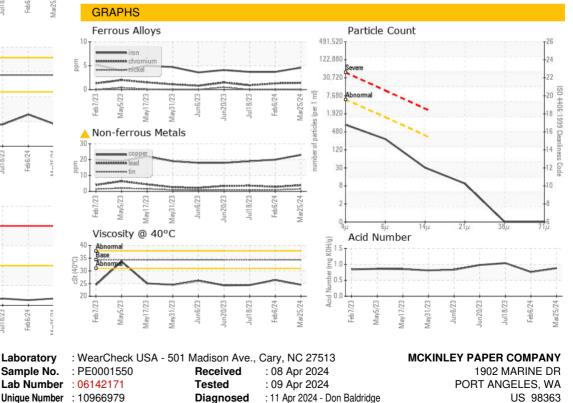


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.88	0.76	1.04
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	34.35	24.5	26.4	24.4
SAMPLE IMAGES	6	method	limit/base	current	history1	history2

Color



Bottom





Laboratory Sample No. Certificate 12367

Unique Number : 10966979 Test Package : PLANT (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)

: 11 Apr 2024 - Don Baldridge Diagnosed

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)

Report Id: MCKPOR [WUSCAR] 06142171 (Generated: 04/11/2024 23:41:18) Rev: 1

Submitted By: DUANE DENOTTA

Contact: CHAD GALLAUHER

chad.gallauher@biopappel.com

F:

T: (360)457-4474