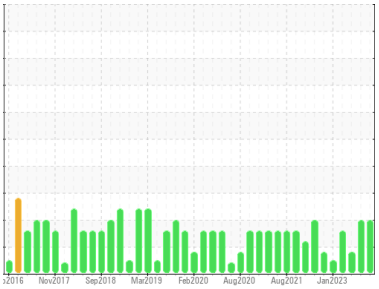
PROBLEM SUMMARY

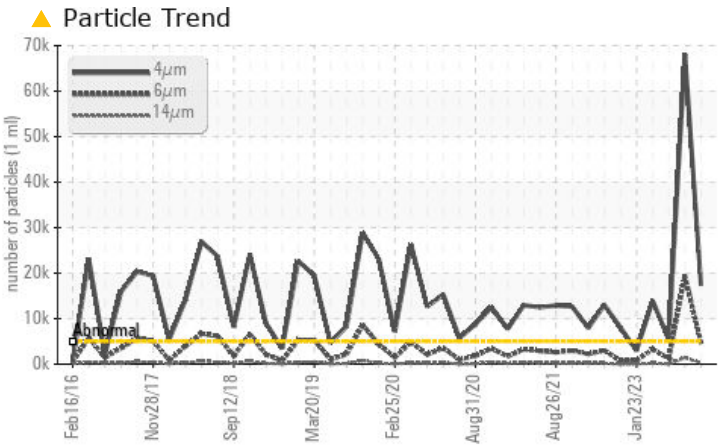
Machine Id
CATERPILLAR D10T 15105048 (S/N CCAT0D10THRJG01478)
Component
Hydraulic System
Fluid
ROYAL PURPLE SYNDRAULIC (--- GAL)

Sample Rating Trend



ISO

COMPONENT CONDITION SUMMARY



RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION
Particles >4µm		ASTM D7647	>5000	▲ **17387**	▲ 68098	▲ 5485
Particles >6µm		ASTM D7647	>1300	▲ **4698**	▲ 19486	1241
Particles >14µm		ASTM D7647	>160	▲ **290**	▲ 1423	68
Particles >21µm		ASTM D7647	>40	▲ **73**	▲ 373	18
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/19/15**	▲ 23/21/18	▲ 20/17/13

Customer Id: NRGJEW
Sample No.: RP0033694
Lab Number: 05905461
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

08 Jun 2023 Diag: Doug Bogart

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

01 May 2023 Diag: Don Baldridge

ISO

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

06 Apr 2023 Diag: Don Baldridge

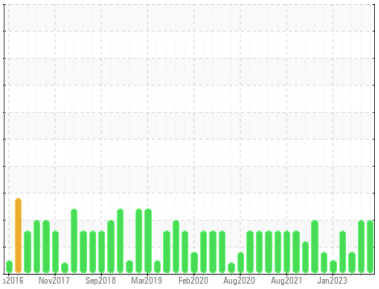
ISO

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. 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

Machine Id
CATERPILLAR D10T 15105048 (S/N CCAT0D10THRJG01478)
Component
Hydraulic System
Fluid
ROYAL PURPLE SYNDRAULIC (--- GAL)

DIAGNOSIS

Recommendation
The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a high amount of particulates present in the oil.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0033694**	RP0032884	RP0032894
Sample Date		Client Info		**12 Jul 2023**	08 Jun 2023	01 May 2023
Machine Age	hrs	Client Info		**68943**	68609	68172
Oil Age	hrs	Client Info		**334**	821	384
Oil Changed		Client Info		**Not Changd**	Changed	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**<1**	3	<1
Chromium	ppm	ASTM D5185m	>10	**0**	0	0
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>10	**0**	<1	<1
Lead	ppm	ASTM D5185m	>10	**<1**	<1	0
Copper	ppm	ASTM D5185m	>75	**7**	12	7
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**0**	<1	0
Calcium	ppm	ASTM D5185m	150	**44**	37	29
Phosphorus	ppm	ASTM D5185m	670	**365**	314	334
Zinc	ppm	ASTM D5185m	800	**459**	358	387

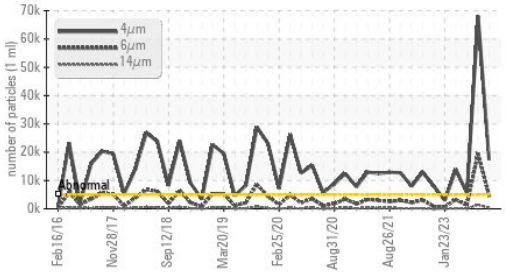
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**4**	3	2
Sodium	ppm	ASTM D5185m		**0**	5	2
Potassium	ppm	ASTM D5185m	>20	**1**	0	0
Water	%	ASTM D6304	>0.1	**0.005**	0.007	0.004
ppm Water	ppm	ASTM D6304	>1000	**52.6**	78.4	44.8

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **17387**	▲ 68098	▲ 5485
Particles >6µm		ASTM D7647	>1300	▲ **4698**	▲ 19486	1241
Particles >14µm		ASTM D7647	>160	▲ **290**	▲ 1423	68
Particles >21µm		ASTM D7647	>40	▲ **73**	▲ 373	18
Particles >38µm		ASTM D7647	>10	**3**	8	1
Particles >71µm		ASTM D7647	>3	**1**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/19/15**	▲ 23/21/18	▲ 20/17/13

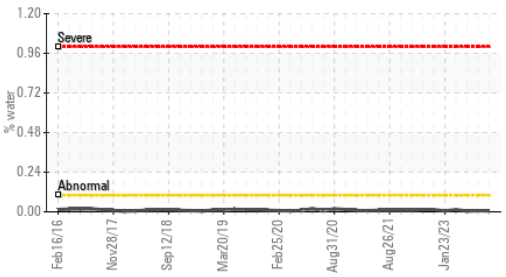
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.41**	0.40	0.39

OIL ANALYSIS REPORT

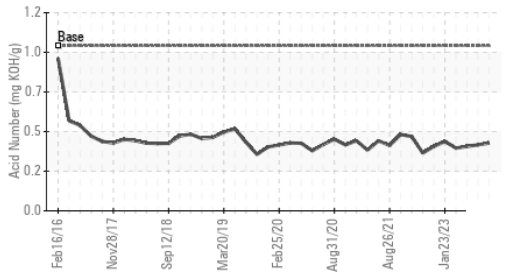
Particle Trend



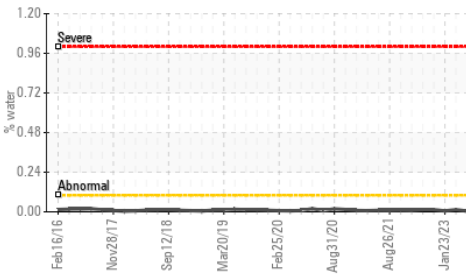
Water



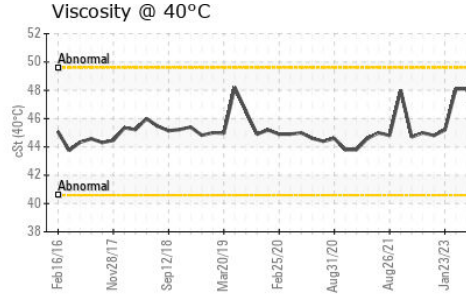
Acid Number



Water



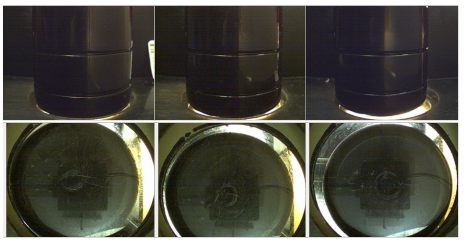
Viscosity @ 40°C



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**	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

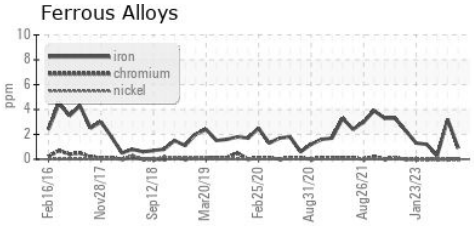
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**45.1**	45.1	48.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

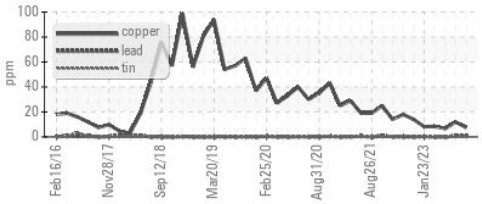


GRAPHS

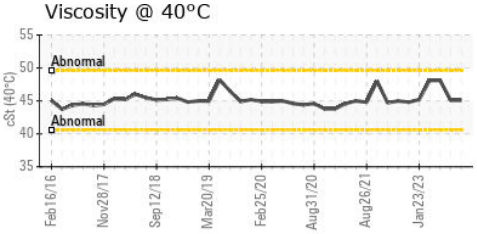
Ferrous Alloys



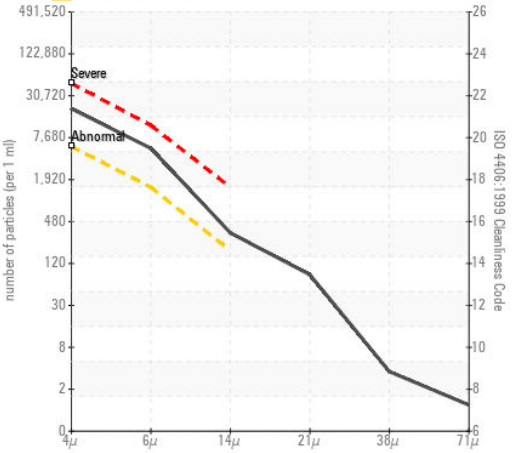
Non-ferrous Metals



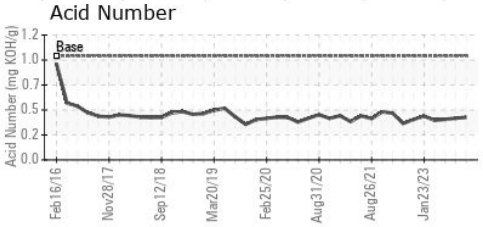
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0033694
Lab Number : 05905461
Unique Number : 10566817
Test Package : IND 2

Received : 24 Jul 2023
Diagnosed : 25 Jul 2023
Diagnostician : Angela Borella

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)

NRG TEXAS LLC
3784 FM 39 SOUTH
JEWETT, TX
US 75846
Contact: JURGEN THOMPSON
JThompson@ecomaterial.com
T: (903)626-9528
F: (903)626-9772