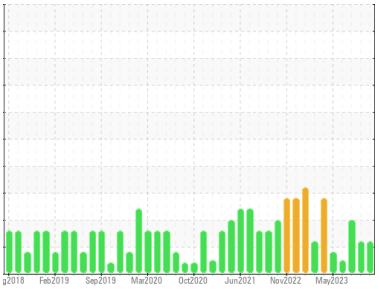
PROBLEM SUMMARY

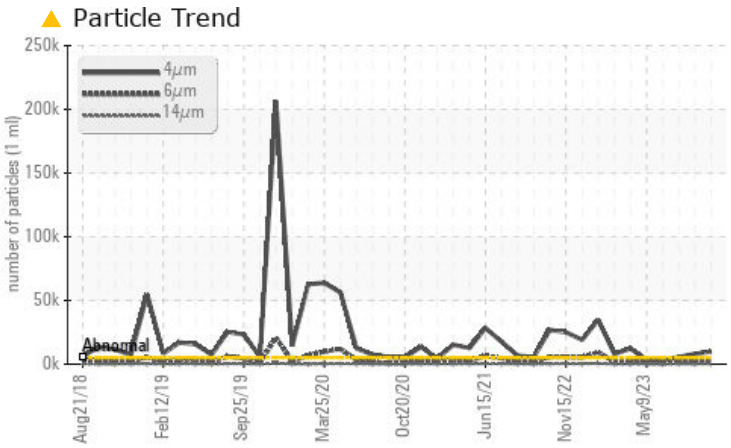
Sample Rating Trend



ISO

Machine Id
CATERPILLAR D10T 15105050 (S/N CATOD10TCRJG01497)
Component
Hydraulic System
Fluid
ROYAL PURPLE SYNDRAULIC 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	ATTENTION	ATTENTION
Particles >4µm		ASTM D7647	>5000	▲ **9865**	▲ 8011	▲ 5574
Particles >6µm		ASTM D7647	>1300	▲ **2216**	▲ 1641	▲ 2057
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/18/14**	▲ 20/18/14	▲ 20/18/15

Customer Id: NRGJEW
Sample No.: RP0033739
Lab Number: 05963587
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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 Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

25 Aug 2023 Diag: Doug Bogart

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 acceptable for the time in service.

view report

13 Jul 2023 Diag: Angela Borella

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 particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

14 Jun 2023 Diag: Doug Bogart

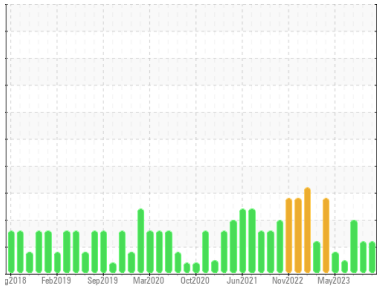
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are 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



ISO

Machine Id
CATERPILLAR D10T 15105050 (S/N CATOD10TCRJG01497)
Component
Hydraulic System
Fluid
ROYAL PURPLE SYNDRAULIC 46 (--- GAL)

DIAGNOSIS

Recommendation
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.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0033739**	RP0033744	RP0033699
Sample Date		Client Info		**21 Sep 2023**	25 Aug 2023	13 Jul 2023
Machine Age	hrs	Client Info		**75411**	75191	74726
Oil Age	hrs	Client Info		**998**	773	313
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**ATTENTION**	ATTENTION	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**2**	2	1
Chromium	ppm	ASTM D5185m	>10	**0**	0	0
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>10	**<1**	0	0
Lead	ppm	ASTM D5185m	>10	**0**	<1	0
Copper	ppm	ASTM D5185m	>75	**70**	69	39
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	2	<1
Molybdenum	ppm	ASTM D5185m		**<1**	<1	0
Manganese	ppm	ASTM D5185m		**<1**	0	0
Magnesium	ppm	ASTM D5185m		**0**	<1	0
Calcium	ppm	ASTM D5185m	150	**38**	40	36
Phosphorus	ppm	ASTM D5185m	670	**350**	334	322
Zinc	ppm	ASTM D5185m	800	**351**	361	370

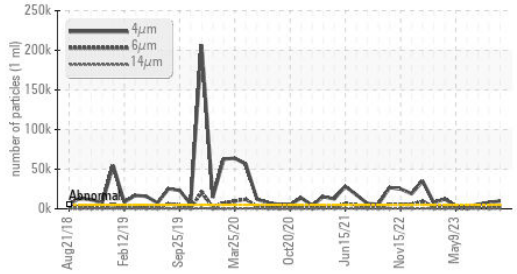
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**2**	<1	1
Sodium	ppm	ASTM D5185m		**5**	0	0
Potassium	ppm	ASTM D5185m	>20	**0**	1	1
Water	%	ASTM D6304	>0.1	**0.008**	0.007	0.007
ppm Water	ppm	ASTM D6304	>1000	**82.2**	78.6	71.7

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ **9865**	▲ 8011	▲ 5574
Particles >6µm	ASTM D7647	>1300	▲ **2216**	▲ 1641	▲ 2057
Particles >14µm	ASTM D7647	>160	**160**	108	▲ 288
Particles >21µm	ASTM D7647	>40	**39**	29	▲ 82
Particles >38µm	ASTM D7647	>10	**3**	1	2
Particles >71µm	ASTM D7647	>3	**0**	1	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ **20/18/14**	▲ 20/18/14	▲ 20/18/15

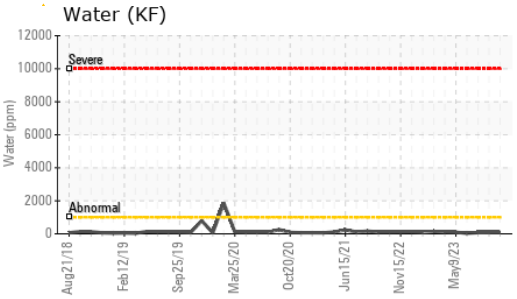
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.30**	0.36	0.36

OIL ANALYSIS REPORT

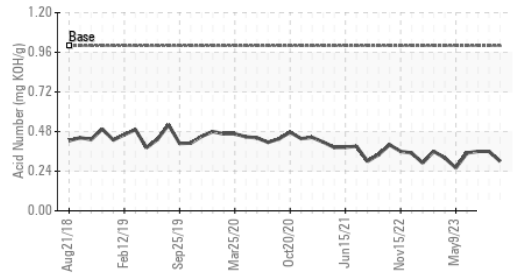
Particle Trend



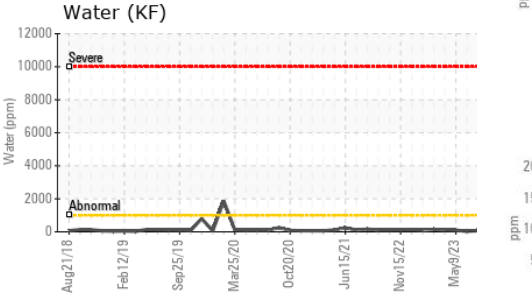
Water (KF)



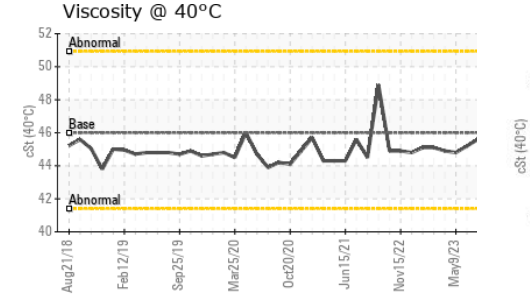
Acid Number



Water (KF)



Viscosity @ 40°C



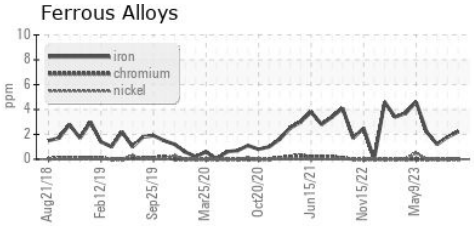
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.0	**45.4**	45.4	45.6

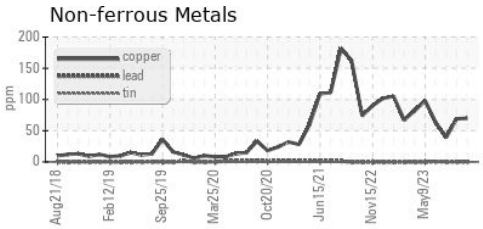
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

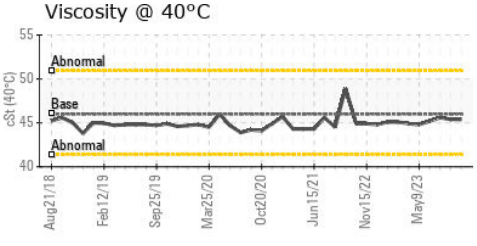
Ferrous Alloys



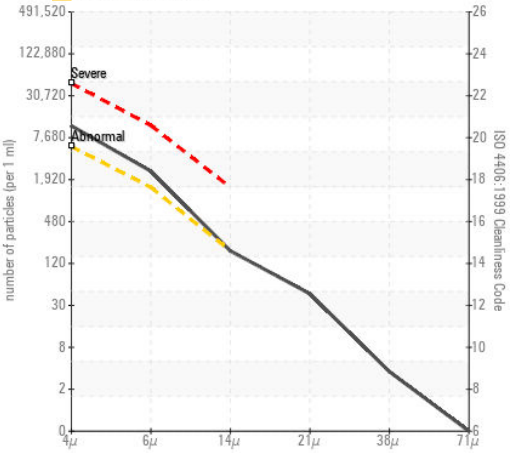
Non-ferrous Metals



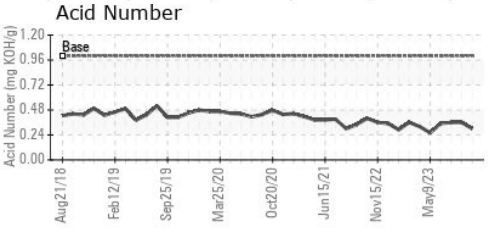
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0033739
Lab Number : 05963587
Unique Number : 10670138
Test Package : IND 2

Received : 28 Sep 2023
Diagnosed : 29 Sep 2023
Diagnostician : Don Baldridge

Certificate L2367

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