

OIL ANALYSIS REPORT

NORMAL

Machine Id

Component Hydraulic System Fluid CITGO CITGO GLYCOL FR-40 XD (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is acceptable. The amount and size of particulates present in the system are acceptable.

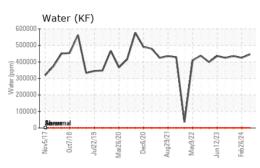
Fluid Condition

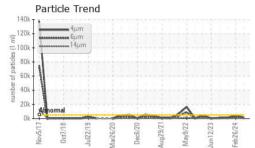
The pH level of this fluid is within the acceptable limits at 10.0. The condition of the oil is acceptable for the time in service.

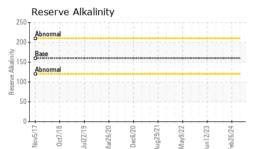
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0012747	USP0007363	USP0005176
Sample Date		Client Info		29 May 2024	26 Feb 2024	03 Jan 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	3	0	27
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>20	<1	0	2
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	11	0	5
Lead	ppm	ASTM D5185m	>20	<1	<1	<1
Copper	ppm	ASTM D5185m	>20	2	0	2
Tin	ppm	ASTM D5185m	>20	<1	0	2
Vanadium	ppm	ASTM D5185m		1	<1	<1
Cadmium	ppm	ASTM D5185m		1	<1	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		4	0	4
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	<1
Manganese	ppm	ASTM D5185m		1	<1	1
Magnesium	ppm	ASTM D5185m		2	0	3
Calcium	ppm	ASTM D5185m		11	0	26
Phosphorus	ppm	ASTM D5185m		35	0	64
Zinc	ppm	ASTM D5185m		93	7	51
Sulfur	ppm	ASTM D5185m		70	0	0
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	3	<1	4
Sodium	ppm	ASTM D5185m		51	0	16
Potassium	ppm	ASTM D5185m	>20	8	1	3
Chlorine	ppm	ASTM D5185m				
Water	%		>50	44.6	42.5	43.5
ppm Water	ppm	ASTM D6304		446000	425000	435000
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	1540	4463	1531
Particles >6µm		ASTM D7647	>1300	839	2431	834
Particles >14µm		ASTM D7647	>160	143	4 14	142
Particles >21µm		ASTM D7647	>40	48	1 39	48
Particles >38µm		ASTM D7647	>10	7	<u> </u>	7
Particles >71µm		ASTM D7647	>3	1	2	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/17/14	▲ 19/18/16	18/17/14

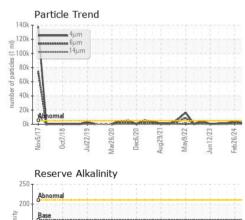


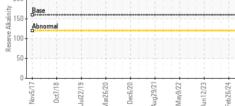
OIL ANALYSIS REPORT











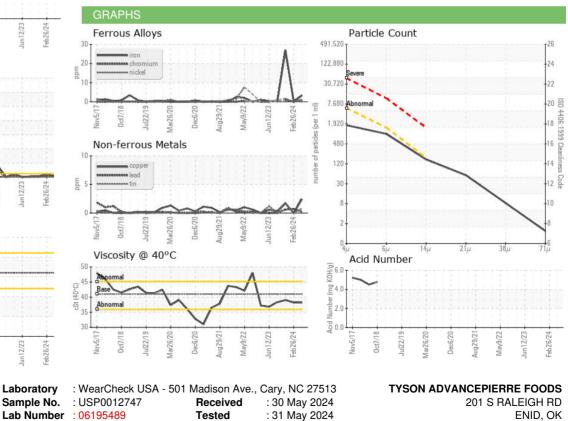


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>50	0.2%	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
рН	Scale 0-14	ASTM D1287		10.0	10.0	9.00
Visc @ 40°C	cSt	ASTM D445	41	38.2	38.2	39.0
SAMPLE IMAGES		method	limit/base	current	history1	history2



Bottom

Color



ENID, OK

Diagnosed : 31 May 2024 - Doug Bogart

- Test Package : IND 2 (Additional Tests: pH, ReserveAlk) 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)

Certificate 12367

Laboratory

Sample No.

Unique Number : 11057612

Contact/Location: Service Manager - TYSENIRAL

US 73701

T:

F:

Contact: Service Manager