

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id **CATERPILLAR 745D 13396 (S/N 3T605704)** Component Brake

Fluid {not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

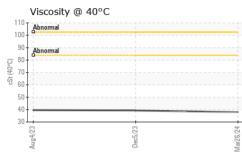
Fluid Condition

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		WC0913215	WC0879385	WC0837077
Sample Date		Client Info		26 Mar 2024	05 Dec 2023	04 Aug 2023
Machine Age	hrs	Client Info		2891	2140	1138
Oil Age	hrs	Client Info		751	1002	1138
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	I	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>350	8	6	8
Chromium	ppm	ASTM D5185m	>5	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>8	<1	0	<1
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>150	10	16	22
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		77	53	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Vanganese	ppm	ASTM D5185m		<1	<1	<1
0	ppm	ASTM D5185m		27	42	6
Magnesium		ASTM D5185m ASTM D5185m		27 2672	42 2619	6 2929
Magnesium Calcium	ppm ppm					
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m		2672	2619	2929
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm	ASTM D5185m ASTM D5185m		2672 1071	2619 1017	2929 1015
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	2672 1071 1192	2619 1017 1222	2929 1015 1206
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		2672 1071 1192 4322	2619 1017 1222 3511	2929 1015 1206 4514
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>400	2672 1071 1192 4322 current	2619 1017 1222 3511 history1	2929 1015 1206 4514 history2
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>400	2672 1071 1192 4322 current 49	2619 1017 1222 3511 history1 85	2929 1015 1206 4514 history2 147
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>400	2672 1071 1192 4322 current 49 2	2619 1017 1222 3511 history1 85 <1	2929 1015 1206 4514 history2 147 1
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	>400 >20	2672 1071 1192 4322 current 49 2 0	2619 1017 1222 3511 history1 85 <1 0	2929 1015 1206 4514 history2 147 1 1
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>400 >20 limit/base	2672 1071 1192 4322 current 49 2 0 0 current	2619 1017 1222 3511 history1 85 <1 0 history1	2929 1015 1206 4514 history2 147 1 1 1 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m XSTM D5185m	>400 >20 limit/base NONE	2672 1071 1192 4322 current 49 2 0 current NONE	2619 1017 1222 3511 history1 85 <1 0 history1 NONE	2929 1015 1206 4514 history2 147 1 1 1 history2 NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>400 >20 limit/base NONE NONE	2672 1071 1192 4322 current 49 2 0 current NONE NONE	2619 1017 1222 3511 history1 85 <1 0 history1 NONE NONE	2929 1015 1206 4514 147 147 1 1 1 history2 NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE	2672 1071 1192 4322 current 49 2 0 current NONE NONE NONE NONE	2619 1017 1222 3511 history1 85 <1 0 history1 NONE NONE NONE NONE	2929 1015 1206 4514 147 147 1 1 1 history2 NONE NONE NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE	2672 1071 1192 4322 current 49 2 0 current NONE NONE NONE NONE NONE	2619 1017 1222 3511 history1 85 <1 0 history1 NONE NONE NONE NONE NONE	2929 1015 1206 4514 history2 147 1 1 1 history2 NONE NONE NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE NONE	2672 1071 1192 4322 current 49 2 0 current NONE NONE NONE NONE NONE NONE	2619 1017 1222 3511 <u>history1</u> 85 <1 0 <u>history1</u> NONE NONE NONE NONE NONE NONE	2929 1015 1206 4514 147 147 1 1 1 history2 NONE NONE NONE NONE NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 Iimit/base NONE NONE NONE NONE NONE	2672 1071 1192 4322 current 49 2 0 current NONE NONE NONE NONE NONE NONE NONE	2619 1017 1222 3511 <u>history1</u> 85 <1 0 <u>history1</u> NONE NONE NONE NONE NONE NONE NONE	2929 1015 1206 4514 147 147 1 1 1 NONE NONE NONE NONE NONE NONE NON
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE	2672 1071 1192 4322 current 49 2 0 current NONE NONE NONE NONE NONE NONE NONE NON	2619 1017 1222 3511 <u>history1</u> 85 <1 0 <u>history1</u> NONE NONE NONE NONE NONE NONE NONE NON	2929 1015 1206 4514 147 147 1 1 1 NONE NONE NONE NONE NONE NONE NON
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Ddor	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 Imit/base NONE NONE NONE NONE NONE NONE NONE NON	2672 1071 1192 4322 current 49 2 0 current NONE NONE NONE NONE NONE NONE NONE NON	2619 1017 1222 3511 <u>history1</u> 85 <1 0 <u>history1</u> NONE NONE NONE NONE NONE NONE NONE NON	2929 1015 1206 4514 147 147 1 1 1 NONE NONE NONE NONE NONE NONE NON



OIL ANALYSIS REPORT



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Bottom no image no image no GRAPHS Ferrous Alloys Non-ferrous Metals Viscosity @ 40°C		SAMPLE IMAG	ES	method	limit/base	current	history1	history2
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Non-ferrous Metals		GRAPHS					1	
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: 06137763 Tested : 04 Apr 2024 NEW B	:	WC0913215 06137763	Rece Test	eived : 03 ed : 04	Apr 2024 Apr 2024		PO	RUCTION C DRAWER 15 IEW BERN, N US 285



Unique Number : 1096257 : 05 Apr 2024 - Sean Felton Diagnosed Test Package : CONST Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. mwyatt@traderconstruction.com * - 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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