

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **CATERPILLAR 745D 13407 (S/N 3T606505)** Component Hydraulic System Fluid

TDH FLUID SAE 70W80 (--- GAL)

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) TDH FLUID SAE 70W80. Please confirm.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

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

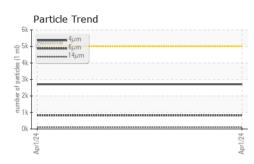
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0913159		
Sample Date		Client Info		01 Apr 2024		
Machine Age	hrs	Client Info		2290		
Oil Age	hrs	Client Info		2290		
Oil Changed	1115	Client Info		Not Changd		
Sample Status				NORMAL		
				NOTIMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	4		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	2		
Lead	ppm	ASTM D5185m	>10	<1		
Copper	ppm	ASTM D5185m	>75	<1		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	10	0		
Barium	ppm	ASTM D5185m	10	0		
Molybdenum	ppm	ASTM D5185m	10	0		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm	ASTM D5185m	100	11		
Calcium	ppm	ASTM D5185m	3500	3217		
Phosphorus	ppm	ASTM D5185m	1150	1141		
Zinc	ppm	ASTM D5185m	1150	1302		
Sulfur	ppm	ASTM D5185m	5000	4682		
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	7		
Sodium	ppm	ASTM D5185m		1		
Potassium	ppm	ASTM D5185m	>20	2		
FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	2705		
Particles >6µm		ASTM D7647	>1300	824		
Particles >14µm		ASTM D7647	>160	108		
Particles >21µm		ASTM D7647	>40	35		
Particles >38µm		ASTM D7647	>10	1		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/17/14		
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.25	1.70		

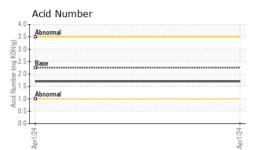
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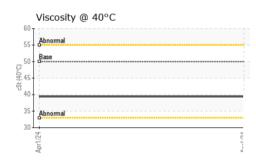
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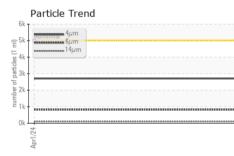


OIL ANALYSIS REPORT









VISUAL		method	limit/base	current	history1	history2
Vhite Metal	scalar	*Visual	NONE	NONE		
ellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Ddor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.1	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
/isc @ 40°C	cSt	ASTM D445	50	39.4		
SAMPLE IMAGES	;	method	limit/base	current	history1	history2
Color				a.	no image	no image
Bottom					no image	no image
GRAPHS						
Ferrous Alloys						
				Particle Count		
iron			491,520			T ²⁰
L'anna anna anna anna anna anna anna ann			491,520			
iron			122,880	Severe		+24
iron			122,880	Severe		-24 -22
iron nickel			122,880 30,720 7,680	Severe		+24
iron nickel			122,880 30,720 7,680	Severe 		-24 -22 -20
iron chromium nickel			122,880 30,720 7,680	Severe Abnormal		-24 -22 -20 -18
iron 			122,880 30,720 7,680	Severe Abnormal		-24 -22 -20 -18
Hon-ferrous Metals			122,880 30,720 7,680	Severe Abnormal	•	-24 -22 -20 -18 -16
Non-ferrous Metals			122,880 30,720 7,680 H2/Lab H2	Severe		-24 -22 -20 -18 -16 -14
Non-ferrous Metals			122,880 30,720 7,680	Severe		-24 -22
Non-ferrous Metals	5		122,880 30,720 7,680 47/144 1,920 99 99 90 90 90 90 90 90 90 90 90 90 90	Severe Abnormal		-24 -22 -20 -18 -16 -14 -12
Non-ferrous Metals	5		122.880 30.720 7,680 70/100 40 40 40 40 40 40 40 40 40 40 40 40 4	Abnormal		-24 -22 -20 -18 -16 -14
Non-ferrous Metals	5		122,880 30,720 7,680 120 400 400 400 400 400 400 400 400 400 4	Severe		-24 -22 -20 -18 -16 -14 -12 -10
HZUING	5		122,880 30,720 7,680 F2/Judy 480 Jo Ja Stapped Jo Ja	Severe	14μ 21μ	-24 -22 -20 -18 -16 -14 -12 -10
Non-ferrous Metals	5		122.880 30.720 7,680 701104 480 901909 480 90190 480 90190 480 90190 480 90190 900 90	Abnormal	•	-24 -22 -20 -18 -16 -14 -14 -12 -10 -8 -8
Non-ferrous Metals	5		122.880 30.720 7,680 701104 480 901909 480 90190 480 90190 480 90190 480 90190 900 90	Abnormal	•	-24 -22 -20 -18 -16 -14 -14 -12 -10 -8 -8
Non-ferrous Metals	5		122.880 30.720 7,680 701104 480 901909 480 90190 480 90190 480 90190 480 90190 900 90	Abnormal	•	-24 -22 -20 -18 -16 -14 -14 -12 -10 -8 -8
Non-ferrous Metals	5		122.880 30.720 7,680 701104 480 901909 480 90190 480 90190 480 90190 480 90190 900 90	Abnormal	•	-24 -22 -20 -18 -16 -14 -14 -12 -10 -8 -8
Non-ferrous Metals	5		122.880 30.720 7,680 701104 480 901909 480 90190 480 90190 480 90190 480 90190 900 90	Abnormal	•	-24 -22 -20 -18 -16 -14 -14 -12 -10 -8 -8
Non-ferrous Metals	5		122,880 30,720 7,680 100 480 480 480 480 480 480 480 480 480 4	Abnormal Abnormal Acid Number	•	-24 -22 -20 -18 -16 -14 -14 -12
Non-ferrous Metals	5		122.880 30.720 7,680 701104 480 901909 480 90190 480 90190 480 90190 480 90190 900 90	Abnormal	•	-24 -22 -20 -18 -16 -14 -14 -12 -10 -8 -8

Laboratory Sample No. Lab Number : 06137340 : 04 Apr 2024 NEW BERN, NC Tested Unique Number : 10956805 : 04 Apr 2024 - Wes Davis US 28563 Diagnosed Test Package : CONST Contact: MIKE WYATT Certificate 12367 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. T: (252)633-1399 F: (252)638-4871

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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