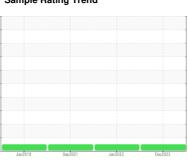


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL





CATERPILLAR 315 THUMB 315 (S/N 6YM01425) Component

Diesel Engine

PETRO CANADA DURON HP 15W40 (15 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

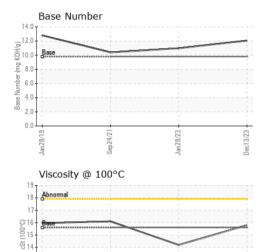
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

<u> </u>		Jan201	9 Sep2021	Jan 2023 De	c2023	
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0109618	PCA0090569	WC0594571
Sample Date		Client Info		13 Dec 2023	28 Jan 2023	24 Sep 2021
Machine Age	hrs	Client Info		9962	9743	9333
Oil Age	hrs	Client Info		219	410	482
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ΓΙΟΝ	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	_S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	29	41	76
Chromium	ppm	ASTM D5185m		5	6	11
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver		ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m		5	4	9
	ppm					
Lead	ppm	ASTM D5185m	>40	4	4	9
Copper	ppm	ASTM D5185m		4	5	12
Tin	ppm	ASTM D5185m	>15	<1	1	2
Antimony	ppm	ASTM D5185m				<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		11	8	15
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		71	66	78
Manganese	ppm	ASTM D5185m		1	2	1
Magnesium	ppm	ASTM D5185m		1101	1098	1218
Calcium	ppm	ASTM D5185m		1207	1223	1391
Phosphorus	ppm	ASTM D5185m		1130	1097	1192
Zinc	ppm	ASTM D5185m		1380	1427	1579
Sulfur	ppm	ASTM D5185m		3047	3523	2730
CONTAMINAN	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	6	7	10
Sodium	ppm	ASTM D5185m		2	2	3
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1.5	0.9	1.7
Nitration	Abs/cm	*ASTM D7624	>20	9.3	11.0	13.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	20.8	26.8
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	18.0	23.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	12.07	10.98	10.4
200 : (DIV)	99				. 3.00	



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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2

FLUID PROF	PERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	15.8	14.2	16.1
GRAPHS						
Iron (ppm)				Lead (ppm)		
200 Severe				Severe		
150 - Abnormal			5.	Abnormal		
100 Abnormal		 		40 Abnormal		
0				0		
Jan28/19		Jan 28/23	Dec13/23	Jan28/19	Sep24/21	Dec 13/73
Aluminum (ppm	1)	2	Ď	⊸ Chromium (p		Š
50 Severe	.,			Severe	P,	
40 + 0				40 + 0		
Abnormal 20			E G	Abnormal		
10				10-		
0 1/8		3/23	3/23	0 40	4/21	3/23
Jan28/19		Jan28/23 -	Dec13/23	Jan28/19	Sep24/21	Dec13/23
Copper (ppm)				Silicon (ppm)		
300				60		
200			mdd			
100				Abnormal 20		
0				0		
Jan28/19		Jan 28/23	Dec13/23	Jan 28/19	Sep24/21	Jac 13/23
ے Viscosity @ 100	l°C	J.	ă	್ರ Base Number		Š
20 Abnormal			15	0		
10 + 0			Number (mg KOH/g)	.0 - Base		
16 Base 14 Abnormal			mper (n			
Abnormal			3 5	.0		





Certificate L2367

Laboratory Sample No.

: PCA0109618 Lab Number : 06084987 Unique Number : 10872432 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 09 Feb 2024 **Tested** : 12 Feb 2024

Diagnosed : 12 Feb 2024 - Wes Davis

Dec13/23 -

J F PRICE 611 PLEASANT ST E WEYMOUTH, MA US 02189 Contact: JOHN LANG gnalj1970@comcast.net

T: (617)435-7199

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)

F: (781)337-4150