

OIL ANALYSIS REPORT



2015 0-02016 May2010 - Ju2010 Ma2020 0-2020 - Say2021 - May2022 - Say2023 -

LCT-4 Component Rear Diesel Engine Fluid PHILLIPS 66 Fleet Supreme EC 15W40 (--- GAL)

DIAGNOSIS

Machine Id

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0926842	WC0908048	WC0865371
Sample Date		Client Info		10 May 2024	04 Mar 2024	23 Oct 2023
Machine Age	hrs	Client Info		2927	2902	2811
Oil Age	hrs	Client Info		25	100	13
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				NORMAL	MARGINAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	<u>\</u> 5	~10	0.5	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method	20.2	NEG	NEG	NEG
				NLG	NLG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	0	3	<1
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		1	10	8
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	2	1
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	0	<1	0
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		88	101	96
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		86	92	80
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		23	85	79
Calcium	ppm	ASTM D5185m		2226	2262	2080
Phosphorus	ppm	ASTM D5185m	1116	1106	1086	1036
Zinc	ppm	ASTM D5185m	1250	1216	1216	1203
Sulfur	ppm	ASTM D5185m		4374	4008	3832
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	4	5
Sodium	ppm	ASTM D5185m		2	1	2
Potassium	ppm	ASTM D5185m	>20	0	2	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.1	7.6	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.2	16.9	16.6
FLUID DEGRADA		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.1	12.9	12.3
Base Number (BN)	mg KOH/a	ASTM D2896	9.7	6.9	6.7	7.4
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	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
-m	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
122	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Aug30 Sep14	Odor		*Visual	NORMI	NORMI	NORMI	NORMI
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
MM			method	limit/base	ourrent	history1	history?
		nEO oSt		15 2	13 0		13 /
	GRAPHS	001	A3110 D443	15.2	13.0	12.4	15.4
	Iron (ppm)				Lead (ppm)		
3 5	250 Severe			100	Severe		
lug 30/2 Sep 14/2	_ 150				) + 0		
4	and the second s			<del>ط</del> 40	Abnormal		
	50			20	)		
			21	0 22		6 0	3 2
	ov19/1 0ct1/1 ay16/1	ar26/2 ec15/2	ep 16/2 ug 30/2	ch 14/2	ov19/1 Oct1/1 ay16/1	ul26/1 ar26/2 ec15/2	ep 16// 14/2
·····		Σ Ó	S AI	ñ	≥ ≊	~ ≥ ō	S, At
A	⁵⁰ T and the second se			50	Chromium (p	<b>, pm)</b> 	
~ v	40 - Severe			40	) - Severe		
	E 30-			⊑ ³⁰	)		
14/23	all 20 - Abnormal			² 20	Abnormal		
Auq	10-			10	• interiori interiori		
		20		3 0	19 12 12 19 19 12	719 20 20	22
	Nov19, Oct1, May16, Jul26,	Mar26, Dec15,	Sep16 Aug30,	Sep 14,	Nov19, Oct1, May16,	Jul26, Mar26, Dec15,	Sep 16 Aug 30, Sep 14,
	Copper (ppm)				Silicon (ppm)	)	
	400 Severe			80	Severe		
	300			60	)		
	튭 200			틆 40	)		
	100-			20	Abnormal		
						~~~~	
	3/15 -	5/20	6/21	57/	3/15	5/19 5/20	6/21-
	Nov19 Oct1 Jul26	Mar26 Dec15	Sep1	Sep 14	Nov19 Oct1 May16	Jul26 Mar26 Dec15	Sep1 Aug3(Sep14
	Viscosity @ 100°C				Base Numbe	r	
	²⁰		011010101000	10.0 ©	Base		
	18 - Abnormal			Ho 8.0)	I M IN TH IN TH AN A PRINT OF THE AND A	JA AN
	Base	102022300		E 6.0)		
	Abnomal	~		tuny 4.0			
				es 2.0	1		
	3/15 1/16 5/18	5/20 - 5/20 -	6/21	+ 0.0	3/15 1/16	5/29 - 5/20 -	6/21- 1/22 -
	Nov19 Oct1 Jul26	Mar2(Dec1	Sep1 Aug3(Sep 1	Nov15 Oct	Jul2(Mar2(Dec1!	Sep1 Sep1
			1020 7 55				
Laboratory	: WearCheck USA - 501	Madiso	n Ave., Carv	, NC 27513	AES	USA - NORTH	CHARLESTON
Sample No.	: WC0926842	Recei	ved : 31	May 2024	5400 IN	TERNATIONAL E	BLVD, BLDG 88-20
Lab Number	: 06196434	Teste	d : 03	3 Jun 2024	Deletistere	NORTH CH	ARLESTON, SC
unique Number	: 11058557	Diadr	1 05ea :03	Jun 2024 - Don	Palalidae		US 29418



Unique Number : 11058557 Diagnosed : 03 Jun 2024 - Don Baldridge Test Package : MOB 1 (Additional Tests: TBN) Certificate 12367 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)

Contact: Maxime Banctel maxime.banctel@aes-gse.com T: F: x:

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Contact/Location: Maxime Banctel - TLDNOR

Page 2 of 2