

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 2321

Component 1 Diesel Engine

Fluid CHEVRON DELO 400 SDE SAE 15W40 (48 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

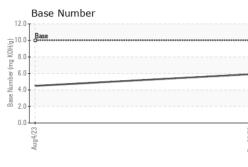
Fluid Condition

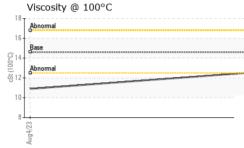
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

QTS)			Aug2023	Dec2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0829026	WC0828965	
Sample Date		Client Info		20 Dec 2023	04 Aug 2023	
Machine Age	mls	Client Info		40166	19922	
Oil Age	mls	Client Info		40166	19922	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	ABNORMAL	
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	2 .8	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	36	73	
Chromium	ppm	ASTM D5185m	>20	2	3	
Nickel	ppm	ASTM D5185m	>2	<1	<1	
Titanium	ppm	ASTM D5185m	>2	<1	<1	
Silver	ppm	ASTM D5185m	>2	0	<1	
Aluminum	ppm	ASTM D5185m	>20	17	23	
Lead	ppm	ASTM D5185m	>40	4	6	
Copper	ppm	ASTM D5185m	>330	10	36	
Tin	ppm	ASTM D5185m	>15	2	4	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		110	1 29	
Barium	ppm	ASTM D5185m		0	0	
Molybdenum	ppm	ASTM D5185m		106	1 1	
Manganese	ppm	ASTM D5185m		2	7	
Magnesium	ppm	ASTM D5185m		606	A 773	
Calcium	ppm	ASTM D5185m		1359	1387	
Phosphorus	ppm	ASTM D5185m	760	691	677	
Zinc	ppm	ASTM D5185m	800	776	858	
Sulfur	ppm	ASTM D5185m	3000	2464	3170	
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	13	44	
Sodium	ppm	ASTM D5185m		0	5	
Potassium	ppm	ASTM D5185m	>20	56	72	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.4	0.3	
Nitration	Abs/cm	*ASTM D7624	>20	10.7	11.1	
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.7	24.1	
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.6	22.8	
Base Number (BN)	mg KOH/g	ASTM D2896	10	5.9	4.5	



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	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Dec20/23 -	Appearance	scalar	*Visual	NORML	NORML	NORML	
Dec2	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPER	ΓIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	14.6	12.5	▲ 10.9	
	GRAPHS						
	Ferrous Alloys						
	iron						
	60 - nickel						
	50-						
	§ 40 -						
	30 -						
	20						
	10-						
	0 23			23			
	Aug4/23			Dec20/23			
	Non-ferrous Meta	ls					
	35 - copper lead						
	30						
E	25						
2	20						
	10						
	5	Amazana (1997)					
	0						
	Aug4/23			ec20/23			
				Dec			
	Viscosity @ 100°C			12.	Base Numbe	r	
	17 Abnormal				Page		
	16-			10. Sf		*********	************
Į.	15 Base			9 8. B	0		
	14 13 - Abnormal			(B)HOX Bull HOX HOX Bull HOX HOX HOX HOX HOX HOX HOX HOX HOX HOX	0-		
Ϋ́ς	12				0		
	11-			2.	0		
	10				i.		
				.0 +			/23
	Aug4/23			Dec20/23	Aug4/23		Dec20/23
Laboratory Sample No. Lab Number Unique Number	: 06058661	501 Madi Recieved Diagnos Diagnos	d :11 ed :12	ary, NC 2751: Jan 2024 Jan 2024 Is Davis	3	Ergon Trucking 256	Inc NEW604 7 Congo Arroyo Newell, WV US 26050
Test Package	: FLEET		Contact: JASON JULIAN				

Unique Numb Test Package : FLEET Certificate L2367 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)